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# OFFICIAL GAZETTE

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12-3-12

OF THE

# UNITED STATES PATENT OFFICE.

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VOLUME CLXXXII.

SEPTEMBER,

1912.

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WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1912.

# ERRATA.

**88,149,** (Trade-Mark,) in heading, residence of registrant, after "N. J." insert a comma and the words *and Worcester, Mass.*

Vol. 122.

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Patents Nos. 1,037,187 to 1,037,842.

# THE OFFICIAL GAZETTE

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### TO CITIZENS OF THE UNITED STATES.

| States. | Patents and Designs. | Trade-Marks, Labels, and Prints. | States. | Patents and Designs. | Trade-Marks, Labels, and Prints. |
|---|---|---|---|---|---|
| Alabama | 4 | ..... | New York | 101 | 23 |
| Arizona | 3 | ..... | North Carolina | 5 | ..... |
| Arkansas | ..... | ..... | North Dakota | 4 | ..... |
| California | 26 | 2 | Ohio | 51 | 7 |
| Colorado | 9 | ..... | [illegible] | 4 | ..... |
| Connecticut | 26 | 3 | [illegible] | 3 | ..... |
| Delaware | 3 | ..... | [illegible] | 68 | 5 |
| Florida | 3 | 1 | [illegible] | 2 | 1 |
| Georgia | 10 | ..... | [illegible] | 2 | ..... |
| Idaho | 3 | 1 | South Dakota | 3 | ..... |
| Illinois | 12 | 1 | Tennessee | 5 | 4 |
| Indiana | 13 | 3 | Texas | 5 | ..... |
| Iowa | 11 | ..... | Utah | 2 | ..... |
| Kansas | 6 | ..... | Vermont | ..... | ..... |
| Kentucky | 6 | ..... | Virginia | 6 | ..... |
| Louisiana | 4 | 1 | Washington | 10 | ..... |
| Maine | 3 | 3 | West Virginia | 8 | ..... |
| Maryland | 6 | 1 | Wisconsin | 22 | 2 |
| [illegible] | 23 | 4 | Wyoming | 2 | ..... |
| [illegible] | 6 | 2 | | | |
| [illegible] | ..... | ..... | Canal Zone | 1 | ..... |
| [illegible] | 15 | 1 | District of Columbia | 4 | 1 |
| [illegible] | ..... | ..... | Hawaii Territory | ..... | 2 |
| [illegible] | 7 | 1 | Philippine Islands | 1 | ..... |
| [illegible] | ..... | ..... | U. S. Army | ..... | ..... |
| [illegible] | ..... | ..... | U. S. Navy | ..... | ..... |
| [illegible] | 3 | ..... | | | |
| [illegible] | 1 | 15 | Total to citizens of the United States | 469 | 89 |

### TO CITIZENS OF FOREIGN COUNTRIES.

| Countries. | Patents and Designs. | Trade-Marks. | Countries. | Patents and Designs. | Trade-Marks. |
|---|---|---|---|---|---|
| Argentina | ..... | ..... | Malaysia | ..... | 1 |
| Austria-Hungary | 6 | ..... | Mexico | 1 | ..... |
| Belgium | ..... | ..... | Netherlands | ..... | ..... |
| Bermuda | ..... | ..... | Newfoundland | ..... | ..... |
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| Cuba | ..... | 1 | Sweden | 2 | ..... |
| Denmark | 1 | ..... | Switzerland | ..... | ..... |
| Ecuador | ..... | ..... | Tasmania | ..... | ..... |
| Egypt | ..... | ..... | Transvaal, South Africa | ..... | ..... |
| England | 14 | 1 | Victoria | ..... | ..... |
| France | 8 | 1 | Western Australia | 1 | ..... |
| Germany | 17 | 8 | | | |
| Guadeloupe | ..... | ..... | | | |
| Italy | 1 | ..... | Total to citizens of foreign countries | 80 | 7 |
| Japan | 1 | ..... | | | |

## Disclaimer.

936,718.—*William Griggs*, Pittsburgh, Pa. Method of Plating Metals. Patent dated October 12, 1909. Disclaimer filed August 26, 1912, by the executor, *William Johns*.

Enters the following disclaimer:

"In the claims, any process or method of plating or coating metals which does not employ a metallic salt for the application of the first coating of metal or alloy of a lower fusing point than the metal to be coated, and which does not apply the molten metal at an ordinary coating temperature as distinguished from a molten coating metal in a supermolten condition of temperature."

## Amendments.

Rule 73. In every amendment the exact word or words to be stricken out or inserted in the application must be specified and the precise point indicated where the erasure or insertion is to be made. All such amendments must be on sheets of paper separate from the papers previously filed, and written on but one side of the paper. Erasures, additions, insertions, or mutilations of the papers and records must not be made by the applicant.

Amendments and papers requiring the signature of the applicant must also, in case of assignment of an undivided part of the invention, be signed by the assignee. (Rules 8, 107.)

## Communications to the Patent Office.

Rule 8. A separate letter should be used when matter is written in relation to each distinct subject. Letters and papers relating to applications, to the granting of patents, or to any other business before the Office must be sent to the Office in separate letters.

## APPLICATIONS UNDER EXAMINATION.

*Condition at Close of Business August 31, 1912.*

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. | | No. of applications awaiting action. |
|---|---|---|---|---|
| | | New. | Amended | |
| 313 | 1. Fences; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers. | June 26 | June 27 | 665 |
| 126 | 2. Bee Culture; Dairy; Label Pasting and Paper Hanging; Paper Tubes and Blanks; Pneumatic Despatch; Presses. | June 12 | July 8 | 481 |
| 176 | 3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Shaping Fluid Metal. | Aug. 1 | Aug. 20 | 173 |
| 222 | 4. Bridges; Conveyers; Cranes and Derricks; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures. | June 26 | June 17 | 572 |
| 167 | 5. Bookbinding; Harvesters; Jewelry; Music. | June 4 | June 21 | 574 |
| 318 | 6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Medicines; Preserving; Sugar and Salt. | July 11 | July 22 | 286 |
| 312 | 7. Educational Appliances; Cutlery; Games and Toys; Mechanical Movements; Nut and Bolt Locks; Optics; Vehicles. | Feb. 26 | May 13 | 1012 |
| 121 | 8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports. | June 12 | July 15 | 707 |
| 142 | 9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Pumps; Wind-Wheels. | May 21 | July 2 | 467 |
| 295 | 10. Carriages and Wagons | May 20 | June 20 | 537 |
| 154 | 11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus. | June 6 | July 3 | 413 |
| 223 | 12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements. | June 26 | June 14 | 783 |
| 230 | 13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Cocks, Stopple, and Hermetics Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Turning. | May 27 | June 22 | 462 |
| 207 | 14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working. | June 18 | July 19 | 379 |
| 246 | 15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Liquid Coating Compositions; Paper-Making and Fiber Liberation; Plastic Blank and Receptacle Apparatus; Plastic Compositions; Plastics. | May 17 | July 11 | 1002 |
| 189 | 16. Typography; Typewriting | June 7 | June 6 | 443 |
| 282 | 17. Match-Making; Paper Manufactures; Printing; Type-Bar Making. | July 24 | July 20 | 336 |
| 287 | 18. Injectors and Ejectors; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Boilers; Steam-Engines; Steam-Engine Valves. | June 22 | June 26 | 280 |
| 236 | 19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces. | June 25 | July 3 | 621 |
| 179 | 20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Leather; Sales; Undertaking. | June 20 | June 20 | 323 |
| 122 | 21. Brakes and Gear; Clothing; Cloth-Finishing; Curbing; Fur and Fur Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling. | May 3 | June 1 | 474 |

*Applications Under Examination—Continued.*

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. | | No. of applications awaiting action. |
|---|---|---|---|---|
| | | New. | Amended | |
| 249 | 22. Ammunition; Air-Guns, Catapults, and Torpedo; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships. | June 5 | June 22 | 339 |
| 379 | 23. Acoustics; Coin-Handling; Horology; Recorders; Registering; Time-Controlling Mechanism. | June 20 | July 1 | 551 |
| 144 | 24. Apparel; Apparel Apparatus; Sewing-Machines. | June 13 | June 19 | 540 |
| 315 | 25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers. | July 31 | Aug. 6 | 196 |
| 108 | 26. Electricity, Generation; Motive Power. | Mar. 4 | Mar. 27 | 826 |
| 372 | 27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus. | July 16 | July 16 | 375 |
| 65 | 28. Internal-Combustion Engines. | May 11 | May 28 | 1011 |
| 147 | 29. Coopering; Fire-Escapes; Ladders; Roads; Wheelwright Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools. | May 20 | July 12 | 620 |
| 152 | 30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines. | June 6 | July 22 | 466 |
| 172 | 31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue. | June 17 | July 6 | 286 |
| 278 | 32. Carbonating Beverages; Curtains, Shades, and Screens; Dispensing Beverages; Dispensing Gum; Ornamentation; Packaging Liquids; Refrigeration. | July 1 | July 20 | 311 |
| 71 | 33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes. | May 21 | July 13 | 537 |
| 204 | 34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fastenings. | June 17 | July 3 | 658 |
| 244 | 35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet. | July 3 | July 12 | 346 |
| 264 | 36. Drafting; Driers; Engraving; Measuring Instruments; Photography. | July 5 | July 6 | 686 |
| 107 | 37. Electric Lighting; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications. | June 17 | July 8 | 375 |
| 378 | 38. Animal Husbandry; Artesian and Oil Wells; Fishing and Trapping; Stationery; Stone-Working. | May 17 | June 17 | 697 |
| 221 | 39. Water Distribution | May 2 | May 31 | 618 |
| 220 | 40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles. | July 31 | July 31 | 409 |
| 125 | 41. Railway Draft Appliances; Resilient Tires and Wheels. | June 24 | July 12 | 580 |
| 279 | 42. Electric Railways; Electric Signaling; Railway Signaling; Signals. | June 20 | July 1 | 481 |
| 262 | 43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification. | July 12 | July 12 | 346 |

Oldest new case, Feb. 26; oldest amended, Mar. 27.

Total number of applications awaiting action ..... 28,020

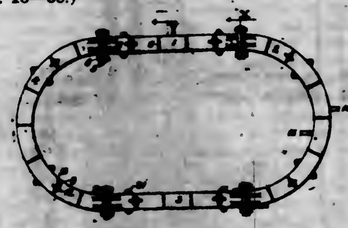
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|---|---|---|---|---|
| 161 | TRADE-MARKS, DESIGNS, LABELS AND PRINTS: | | | |
| | Trade-Marks | May 28 | June 22 | 1146 |
| | Designs | July 1 | July 20 | 212 |
| | Labels and Prints | Aug. 20 | Aug. 14 | 61 |



# PATENTS

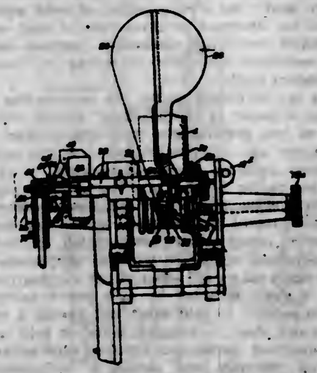
## GRANTED SEPTEMBER 3, 1912.

1,037,187. VULCANIZING-MOLD. ALEXANDER ADAMSON, Akron, Ohio. Filed Oct. 9, 1911. Serial No. 653,668. (Cl. 18—38.)



A vulcanizer comprising upper and lower portions each composed of a plurality of separable connected portions, said upper portion movable bodily from said lower portion, the opposing faces of said portions provided with continuous uninterrupted registering grooves arranged in a series of horizontal spirally formed convolutions forming a continuous mold cavity, the terminal of said cavity arranged on opposite sides of said convolutions and being open, the grooves lying in a horizontal plane throughout and in the same plane as the open terminal.

1,037,188. MOVING-PICTURE APPARATUS. EDWARD L. AIKEN, East Orange, N. J., assignor, by mesne assignments, to Thomas A. Edison, Incorporated, West Orange, N. J., a Corporation of New Jersey. Filed Nov. 8, 1905. Serial No. 286,424. (Cl. 88—17.)



1. In a moving picture apparatus, a shutter comprising a pair of pivoted plates, an operating rod connected to both of said plates at points which occupy relatively opposite positions with respect to the pivots of said plates, and means controlled by the film-driving mechanism for operating said rod, thereby turning said plates on their pivots in opposite directions, substantially as set forth.

2. In a moving picture apparatus, a shutter comprising a pair of pivoted plates, an operating rod connected to both of said plates at points which occupy relatively opposite positions with respect to the pivots of said plates, means controlled by the film-driving mechanism for operating said rod, thereby turning said plates on their pivots in opposite directions, and a counterweight for returning said plates to their closed position, substantially as set forth.

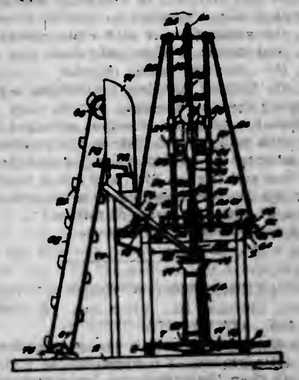
3. In a moving picture apparatus, the combination of film driving mechanism, a shutter comprising a pair of plates pivoted at different points, extending substantially vertically with respect to their pivots and adapted to move toward and away from each other, rotary means controlled by the film driving mechanism, a member movable thereby, connections between said plates and to said member therefrom for moving said plates on their pivots away from each other, and a weighted lever connected to one of said plates at the pivot of said plate for causing said plates to move toward each other, substantially as set forth.

4. In a moving picture apparatus, the combination of film driving mechanism, a shutter comprising a pair of plates pivoted at different points, extending substantially vertically with respect to their pivots and adapted to move toward and away from each other, the pivot of one plate being above that of the other plate, said first named plate having an extension below its pivot, a connection from said extension to the second plate above the pivot of the latter, connections from the film driving mechanism for moving said plates pivotally away from each other, and a counterbalance eccentrically secured to said second plate at the pivot thereof for causing said plates to move toward each other, substantially as set forth.

5. In a moving picture apparatus, the combination with a frame or support carrying a shutter, a shaft and centrifugal weights for operating said shutter, of an auxiliary frame pivoted to the shutter-carrying frame and carrying at its free end a sprocket adapted to engage the traveling film, and a driving connection between the sprocket shaft and shutter operating shaft, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,037,189. CEMENT-TILE MACHINE. GUY LEROY ALLEN, Boulder, Colo. Filed July 19, 1911. Serial No. 639,303. (Cl. 25—37.)



1. In a tamping arrangement for tile forming machines, the combination with a movable frame, vertical guide bars mounted thereon and bracing means for said guide bars;

of a tamping frame slidably arranged on said guide bars and provided with a horizontally extending bearing, a shaft rotatably mounted in said bearing and provided at one end thereof with a crank, means to rotate said shaft, an additional bearing carried on the front face of said bearing and extending vertically thereof, a tamping head slidably arranged in the last referred to bearing, connecting means between said head and crank, a sleeve mounted in the lower end of said head, a tamping rod having the end thereof reduced in diameter and slidably disposed through said sleeve, a coil spring encircling the reduced portion of said rod and contacting with the lower end of the sleeve portion to normally force said rod outwardly, and means to limit the movement of said rod with respect to the sleeve.

2. In a tamping arrangement for the forming machines, the combination with a pair of vertical guide bars; of a tamping frame slidably arranged thereon and provided with a horizontally arranged bearing, a shaft rotatably mounted in said bearing and provided at one end thereof with a crank, means to rotate said shaft, an additional bearing carried on said frame and disposed vertically thereof, a tamping head slidably disposed through the latter bearing and having operative connection with said crank, a sleeve disposed in the lower end of said head, said sleeve being provided at its lower end with an annular flange, means to secure said sleeve in position in the head, a tamping rod having the upper end thereof reduced in diameter and extended through said sleeve, the extreme upper end of said rod being provided with a head to limit the outward movement of said rod from the sleeve, and a coil spring encircling the reduced portion of said rod between the shoulders thereon and the flange on said sleeve to normally force said rod in its outward position.

3. In a tile forming machine, the combination with a frame, a pair of vertical guide bars carried thereon, a tamping frame slidably arranged on said guide bars and provided with a horizontally arranged bearing, a shaft extending through said bearing having a crank formed at one end thereof, a tamping rod having connection with said crank, and a gear mounted on the opposite end of said shaft; of a vertical shaft rotatably mounted in the rear of said guide bars, said shaft being provided with a gear thereon adapted to mesh with the aforesaid gear, an additional horizontal shaft rotatably mounted on said frame, means to rotate said latter shaft, friction cones, respectively, carried by said vertical and last referred to horizontal shafts to rotate the one shaft upon the rotation of the other, and a lever pivotally carried on the frame adapted to raise one of said cones out of engagement with the other.

4. In a tile forming machine, a platform, a table revolubly mounted thereon, a plurality of rollers mounted on said platform and arranged in a circular alinement thereon, said rollers being adapted to receive in engagement therewith, the under face of said table, means to rotate said table, and means to raise said table out of engagement with the operating means therefor.

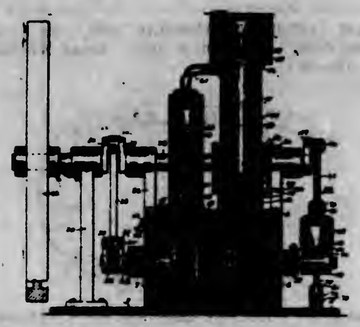
5. In a tile forming machine, a platform, a shaft revolubly mounted thereon having a friction disk carried at one end thereof, a plurality of rollers arranged in circular alinement with said friction disk on the platform, a table revolubly mounted on said platform and adapted to rest on said rollers and friction disk, and a foot lever pivotally carried on the platform adapted to raise said table from its engagement with the disk and rollers.

[Claim 6 not printed in the Gazette.]

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1,037,190. CARBON-DIOXID ENGINE. CHARLES A. ANDERSON, Chicago, Ill. Filed Jan. 19, 1911. Serial No. 603,425. (Cl. 60—17.)

1. In a carbon dioxid engine, the combination of a displacement cylinder having a displacement piston therein of less length than the cylinder to leave compartments at the ends of the cylinder upon reciprocation of the piston, means for heating one end of the cylinder, means for cooling the other end of the cylinder whereby gas within the cylinder is alternately heated and cooled and its pressure increased and decreased upon reciprocation of the piston, a power cylinder connected with the displacement cylinder for interflow of gas, a power piston within said power cylinder, a main crank shaft connected with said power piston to be driven thereby, a second crank shaft connected with said displacement piston to control the reciprocation thereof, and a longitudinally elastic connecting rod mechanism connecting said main shaft with said second crank shaft for controlling the operation of said second crank shaft.



2. In a carbon dioxid engine, the combination of a displacement cylinder, a displacement piston within said cylinder of less axial length than said cylinder whereby compartments are alternately formed at the ends of the displacement cylinder upon reciprocation of the piston therein, means for heating one end of the cylinder and means for cooling the other end thereof whereby gas within the cylinder is alternately heated and cooled and its pressure varied upon reciprocation of the piston, power mechanism connected with the displacement cylinder to be operated by the effect of the varying pressure of the gas, a shaft revolved by said power mechanism, a crank arm secured to said shaft and having a crank pin, a secondary shaft, connecting mechanism between said secondary shaft and displacement cylinder for controlling the reciprocation of said piston upon rotation of said secondary shaft, the stroke length of said piston being less than the diameter of revolution of said crank pin, and yieldable connecting mechanism between said crank pin and secondary shaft for controlling the operation of said secondary shaft.

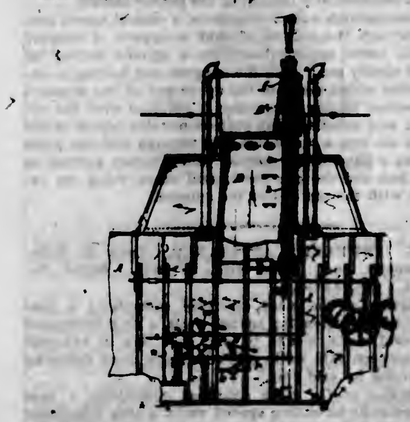
3. In a carbon dioxid engine, the combination of a displacement cylinder, a displacement piston within said cylinder of less axial length than said cylinder whereby compartments are alternately formed at the ends of the displacement cylinder upon reciprocation of the piston therein, means for heating one end of the cylinder and means for cooling the other end thereof whereby gas within the cylinder is alternately heated and cooled and its pressure varied upon reciprocation of the piston, power mechanism connected with the displacement cylinder to be operated by the effect of the varying pressure of the gas, a shaft revolved by said power mechanism, a crank arm secured to said shaft and having a crank pin, an oscillatory shaft, a walking beam on said oscillatory shaft, connecting mechanism between said walking beam and piston whereby said piston is reciprocated upon oscillation of said oscillatory shaft, a crank arm extending from said oscillatory shaft and having a crank pin, the chord of oscillation of said oscillatory crank pin being less than the diameter of revolution of the first mentioned crank pin, and yieldable connecting rod mechanism connecting said pins.

4. In a carbon dioxid engine, the combination of a displacement cylinder, a displacement piston within said cylinder of less axial length than said cylinder whereby compartments are alternately formed at the ends of the displacement cylinder upon reciprocation of the piston therein, means for heating one end of the cylinder and means for cooling the other end thereof whereby gas within the cylinder is alternately heated and cooled and its pressure varied upon reciprocation of the piston, power mechanism connected with the displacement cylinder to be operated by the effect of the varying pressure of the gas, a shaft revolved by said power mechanism, a crank arm secured to said shaft and having a crank pin, an oscillatory shaft, a walking beam on said oscillatory shaft, connecting mechanism between said walking beam and piston whereby said piston is reciprocated upon oscillation of said oscillatory shaft, a crank arm extending from said oscillatory shaft and having a crank pin, the chord of oscillation of said oscillatory crank pin being less than the diameter of revolution of the first mentioned crank pin, a connecting rod pivoted at one end to the shaft crank pin and terminating at its other end in a piston, and a cylinder pivoted to swing oscillating crank pin and receiving said piston, said connecting rod, piston, and cylinder forming yieldable connecting rod mechanism between said pins.

[Claims 6 to 12 not printed in the Gazette.]

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1,037,191. CONNING MECHANISM FOR SUBMARINE BOATS. THEODOSUS S. BAILEY, Quincy, Mass., assignor to Electric Boat Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 28, 1908. Serial No. 417,955. (Cl. 88—1.)



1. In conning mechanism for submarine boats, the combination with a periscope tube carrying at its upper end an object lens and at its lower end an eye-piece, of a piston connected to said tube between the object-lens and eye-piece, a casing in which said piston moves, and means for supplying motive fluid to said piston at will to raise the periscope tube bodily; substantially as described.

2. In conning mechanism for submarine boats, the combination with a periscope tube carrying at its upper end an object lens and at its lower end an eye-piece, of a casing surrounding said tube between the object-lens and eye-piece, a piston on the tube within the casing, and means for supplying motive fluid to the casing at either side of the piston at will to raise or lower the periscope tube bodily; substantially as described.

3. In conning mechanism for submarine boats, a periscope tube carrying at its upper end an object lens and at its lower end an eye-piece, a casing surrounding said tube between the object-lens and eye-piece, a piston on the tube within the casing, said casing projecting outside of the boat so that it is exposed to the sea water during submergence, and having at its exposed end a closure containing a stuffing box through which the tube projects from within the boat to the outside thereof, in combination with a source of oil supply, connections between the two ends of the casing and the said source, and means for withdrawing the oil from one side of the piston and supplying it to the other side to raise or lower the periscope tube bodily, substantially as described.

4. In conning mechanism for submarine boats, the combination with a periscope tube carrying at its upper end an object lens and at its lower end an eye-piece, a casing surrounding said tube between the object lens and eye-piece, a piston on the tube within the casing, and means for supplying motive fluid to the casing at will to raise the periscope tube bodily, of gearing for rotating the tube on its vertical axis and a clutch between the gearing and tube, whereby the gearing may be released from the tube when the tube is to be raised or lowered; substantially as described.

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1,037,192. METHOD OF MAKING PHOTOGRAPHS. FLETCHER W. BATCHELLER, Albany, N. Y. Filed Oct. 28, 1908. Serial No. 534,103. (Cl. 95—5.)



1. The method which comprises exposing and scrolling with separated convolutions a roll of film in a camera and developing said roll of film before unwinding it after leaving the camera.

2. The method which comprises rolling together upon a spool a strip of film and means to separate the convolutions of the film, exposing the film and rewinding the film and separating means in a camera and developing said roll of film before unwinding it after leaving the camera.

3. The method which comprises rolling together upon a spool a strip of film and means to separate the convolutions of the film, but to exclude light, exposing the film and rewinding the film and separating means in a camera, removing said roll from the camera and developing said roll of film in actinic light before unwinding it after leaving the camera.

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1,037,193. FRICTION-CLUTCH FOR LOOSE PULLEYS. HAWLEY T. BREDIN, Toledo, Ohio. Filed Apr. 17, 1911. Serial No. 622,008. (Cl. 192—6.)

1. A friction clutch for loose pulleys, comprising an elongated sleeve adapted to be fixedly connected to a shaft,

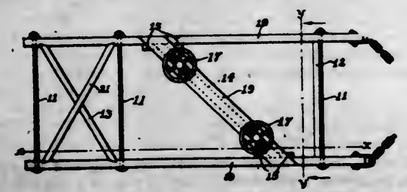
said sleeve having a disk flange at one end, a second sleeve of reduced length journaled on the first sleeve, said second sleeve having a disk flange at one end adjacent to and adapted to frictionally engage the disk flange of the first sleeve, a pulley fixedly mounted on the second sleeve as a hub and abutting its flange, an annular friction disk slidably mounted on the first sleeve and means to slide the friction disk and the second sleeve on the first sleeve and frictionally clamp the second sleeve between the disk flange of the first sleeve and the friction disk.



2. In a friction clutch for loose pulleys, the combination with the shaft, an elongated sleeve fixedly mounted on the shaft and provided with a friction flange at one end, a sleeve hub of reduced length journaled on the fixed sleeve, said sleeve hub having a flange at one end adapted to frictionally engage the flange of the fixed sleeve, a pulley fixedly mounted on the sleeve hub, and an annular friction disk slidably mounted on the fixed sleeve and adapted to shoulder against the other end of the sleeve hub, of a collar adapted to be adjustably clamped on the fixed sleeve adjacent to the friction disk, a plurality of levers fulcrumed on the collar, each lever having a short cam arm adapted to wedge between the fulcrum and the friction disk, and a long cam arm, and a shift cam collar slidably mounted on the shaft and adapted to be shifted into and out of wedging engagement with the long arms of the levers, and conjointly operate the short arms to frictionally clamp the sleeve hub between the flange of the fixed sleeve and the friction disk.

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1,037,194. ROAD-SCRAPER. JOHANN F. THEODORE BENDER, Mount Clemens, Mich. Filed Apr. 15, 1912. Serial No. 690,693. (Cl. 37—42.)



1. In a device of the character described, the combination of runners spaced apart and forming side walls to prevent the escape of material laterally from between said runners, a scraper blade extending diagonally across between said runners and provided with an opening near its rearmost end adjacent to one of the runners to permit material to pass therethrough and a leveling member extending across between said runners rearwardly of said blade and in a diagonal direction opposite to that of the blade.

2. In a device of the character described, the combination of runners spaced apart and forming side walls to prevent the lateral escape of material from between said runners, a scraper blade extending diagonally across between said runners and having a portion cut away from its lower edge adjacent to its rearmost end forming an opening adjacent to one of the runners for the passage of material therethrough, means for adjusting the blade vertically, and a leveling member extending between said runners in a diagonal direction opposite to that of the blade with its lower edge in the plane of the lower edges of the runners, said leveling member being located rearwardly of said blade with its forward end adjacent to the end of the blade having the opening therein.

3. In a device of the character described, the combination of runners having lower edges to engage the surface of a road, and forming side walls to prevent the lateral escape of dirt from between said runners, braces for spacing the runners apart, guides on the inner sides of said runners, a blade engaging said guides at its ends and extending diagonally across between the runners, said blade being cut away at its rearmost end adjacent to one runner to form an opening to permit dirt to pass the blade, means for raising and lowering said blade in its guides, and a leveling member extending between said runners in a diagonal direction opposite to that of the blade rearwardly of said blade with its lower edge in the plane of the lower edges of the runners and its foremost end adjacent to the rearmost end of the blade.

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1,037,195. GOLD SAVING AND AMALGAMATING MACHINE. ROBERT BEYELS, Los Angeles, Cal. Filed July 29, 1911. Serial No. 641,390. (Cl. 83—67.)



1. In an amalgamating machine in combination with a receptacle, an upper riffle member rotatably mounted in said receptacle and a pulley connected to said member for rotating same, said pulley being of dish-shape so as to receive material that is to be fed to the receptacle and a downwardly inclined pipe extending up through the pulley bottom and extending down into the receptacle to feed the material from the pulley to the upper riffle member at a point substantially central of the radius thereof.

2. In combination with a receptacle, a central sleeve projecting through the bottom of said receptacle, a support within the sleeve spaced therefrom, a spindle having its lower end rigidly secured to the support and having a central shoulder which seats on the upper end of the support, a riffle member having a hub that is received over the upper end of said spindle, a cap plate removably bolted to the top end of the hub, a screw threaded through said cap plate and having a hand wheel thereon, and a pulley secured to both the hub and the cap plate, said screw being for engagement with the top end of the spindle.

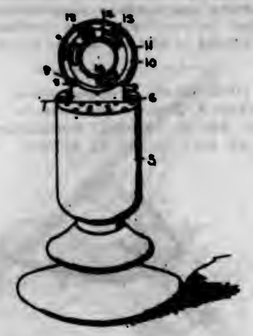
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1,037,196. JEWELER'S APPLIANCE. LEON E. BING, Indianapolis, Ind. Filed Sept. 1, 1911. Serial No. 647,218. (Cl. 81—4.)

1. A device of the class described comprising a base having upwardly extending spaced walls, a ring interposed between said walls, means to hold said ring in adjusted position between said walls, and adjustable work clamping means carried by said ring.

2. A device of the class described comprising a base having upwardly extending spaced walls, a ring interposed between said walls, said ring having a groove around one side, means extending inwardly from one wall and into said groove adapted to guide and support said ring, and means carried by the other of said walls adapted to clamp said ring in adjusted position.

3. A device of the class described comprising a base having upwardly extending spaced walls, a ring interposed between said walls, said ring having a circular groove around one side, a plurality of pins extending inwardly from one wall into said groove for guiding and supporting said ring, means extending through the other of said walls for clamping said ring in adjusted position between said walls, and adjustable work clamping means carried by said ring.



4. A device of the character described comprising a base, said base having spaced vertical walls, the upper edges of said walls being curved, guiding and supporting means carried by said walls, a ring carried by said guiding and supporting means, and means carried by said ring for holding work.

5. A device of the character described comprising a base, a ring rotatably mounted in said base, said ring being provided with regularly spaced transverse elongated openings, a plurality of arcuate clamps within said ring, guiding and supporting means carried by said clamps and engaging said ring, and means in said elongated openings for adjusting said clamps.

[Claim 6 not printed in the Gazette.]

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1,037,197. INSULATED RAIL-JOINT. JOHN A. BODKIN, New York, N. Y. Filed Apr. 28, 1911. Serial No. 628,825. (Cl. 238—5.)



1. An insulated bolt for rail joints having a reduced neck between the ends thereof and a bushing of insulating material seated upon said neck.

2. An insulated bolt for rail joints having a reduced portion and insulating material surrounding said reduced portion, the size of the reduced portion with its insulation being such as to permit the same to pass through the usual bolt holes in the webs of rails.

3. An insulated bolt having a reduced neck between its ends, a bushing of insulating material seated upon said neck, and a protective sleeve of metal surrounding said bushing.

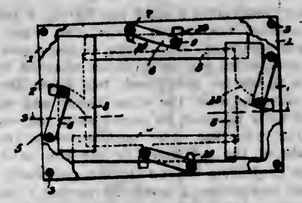
4. An insulated bolt for rail joints having a reduced neck between its ends, a bushing seated upon said neck, the bushing being split longitudinally to permit it to be sprung in place.

5. An insulated bolt for rail joints having a reduced neck between its ends, a bushing seated upon said neck, the bushing being split longitudinally to permit it to be sprung in place, and a metal sleeve fitting closely above said bushing.

[Claims 6 to 10 not printed in the Gazette.]

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1,037,198. PRINTING DEVICE. ROBERT L. BOYD, Plainfield, N. J. Filed Dec. 7, 1911. Serial No. 664,460. (Cl. 95—79.)



1. A printing frame having a plurality of flat, rigid strips forming movable screens, arranged to lie against the inner side of the film or plate, and movable members having pivot connections with said movable strips, enabling said strips to move laterally inwardly within said frame.

2. A printing frame having side rails and having a plurality of pivotally mounted arms arranged to lie against the inner face of the film or plate, and a plurality of elongated strips disposed adjacent to certain of said side rails and substantially parallel thereto, said strips being pivotally attached to said arms so as to move laterally inwardly and outwardly in said frame, and cooperating to form an adjustable mask.

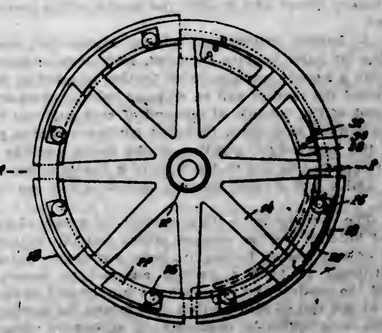
3. A printing device comprising a substantially rectangular member with a printing opening therein, a plurality of elongated flat strips lying against the inner side of the film or plate, having their longitudinal axes extending longitudinally with the side edges of said member, and pivoted arms connecting said strips with said rectangular member and enabling a sidewise bodily movement of said strips into said printing opening.

4. A printing frame having side rails, a plurality of elongated screens having longitudinal axes extending longitudinally with the side rails of said frame, said screens being disposed wholly within the space surrounded by said rails and arranged to lie against the inner face of the film or plate, and pivoted arms attached to said screens and enabling said screens to be adjusted laterally inwardly and outwardly within said frame.

5. A printing frame having side rails and having a plurality of elongated screens having longitudinal axes extending longitudinally with said side rails, arms having fixed pivots, said screens being attached solely to said arms by pivot connections therewith, said screens being bodily movable out into the opening of said frame.

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1,037,199. WHEEL. EDWARD NICKLAS BREITUNG, Marquette, Mich. Filed Feb. 14, 1912. Serial No. 677,521. (Cl. 21—69.)



1. A wheel comprising a solid rim with the opposite sides thereof in parallel planes, a plurality of removable rim sections each comprising two side members adjacent

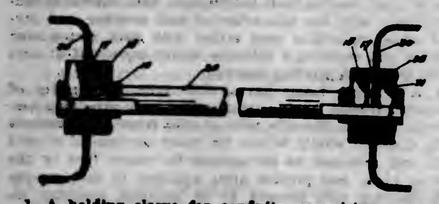
said rim sides, one of said members being adapted to serve as a portion of a flange for the wheel, and means for independently affixing said sections to the rim in two definite positions.

2. A wheel comprising a solid rim having a plain outer periphery adapted for use on roads, and sides at right angles to said periphery, a plurality of removable rim sections each comprising an outer flange adapted to form a portion of a flange for the wheel, two inner flanges, and connecting webs between the outer flange and said inner flanges, and bolts adapted to secure said rim sections to the wheel rim with the outer peripheries of their outer flanges inside of the periphery of the rim or with said outer flanges projecting beyond the rim periphery.

3. A wheel comprising a solid rim having a plain outer periphery adapted for use on roads and sides at right angles to said periphery, a hub, and integral spokes between said rim and hub, a plurality of removable rim sections each comprising an outer flange adapted to form a portion of a flange for the wheel, two inner flanges, and connecting webs between the outer flange and said inner flanges, constructed to lie on both sides of one of said spokes, and bolts adapted to secure said rim sections to the wheel rim with the outer peripheries of their outer flanges inside of the periphery of the rim or with said outer flanges projecting beyond the rim periphery.

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1,037,200. HOLDING-SLEEVE FOR CONDUITS. FRANK M. BRINCKERHOFF, New York, N. Y., assignor to The Ellcon Company, New York, N. Y., a Corporation of New York. Filed Feb. 17, 1911. Serial No. 609,146. (Cl. 247—1.)



1. A holding sleeve for conduits comprising a smooth portion adapted to surround the conduit, a holding abutment for the end of the conduit at one end of said portion, and means for moving the position of said sleeve relatively to a stationary object and for affixing said sleeve to the stationary object.

2. A hollow cylindrical holding sleeve for conduits having its outer surface threaded, said sleeve constructed to form a smooth inner portion adapted to surround the conduit and a holding abutment for the end of the conduit at one end of said portion; a pair of nuts upon the outer threaded portion arranged to adjust the longitudinal position of the sleeve and the abutment therein relative to a stationary object and to affix the sleeve to the stationary object.

3. A hollow cylindrical holding sleeve for conduits having its outer surface threaded, said sleeve constructed to form a smooth annular inner portion adapted to loosely surround the conduit and an annular holding abutment for the end of the conduit at one end of said portion; a pair of nuts upon said outer threaded portion arranged to adjust the longitudinal position of the sleeve and the abutment therein relative to the wall of a junction box or the like, and a lock washer between said wall and one of said nuts.

4. The combination with a conduit, of a pair of smooth bored holding sleeves, one on either end of the conduit, each of said sleeves having its outer surface threaded and constructed to form a portion adapted to loosely surround the conduit and an abutment for the end of the conduit at one end of said portion, and means for moving said sleeves longitudinally relatively to stationary objects to adjust the positions of said abutments.

5. The combination with a conduit, of a pair of hollow smooth bored cylindrical holding sleeves, one on either end of the conduit, each of said sleeves having its outer surface threaded and comprising a portion adapted to loosely surround the conduit and an annular abutment for the end of the conduit at one end of said portion, a pair of junction boxes, a pair of nuts on each sleeve arranged to move said sleeves longitudinally relatively to the junction boxes to adjust the positions of said abutments, said nuts being also arranged to affix the sleeves to said boxes.

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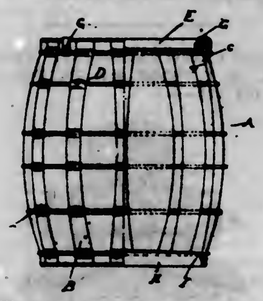
1,037,201. OVERSHOE. JOSEPH HENRY BROWN and DANIEL ARTHUR BERRY, Northampton, England, assignors to Rosilia Limited, Northampton, England. Filed May 15, 1911. Serial No. 627,093. (Cl. 36—5.)



An overshoe comprising an insole, a three-quarter upper having its lower edges secured to the lower side of the insole, an outer sole attached to the insole and to the inturned edges of the upper, a two piece strap adapted to embrace the instep, and a two-piece strap extending rearwardly from the upper and each strap having one end of each piece secured between the insole and outer sole.

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1,037,202. METALLIC VESSEL. LOUIS O. BROWN, Toledo, Ohio, assignor to The Metallic Barrel Company, Chicago, Ill., a Corporation of Maine. Filed Oct. 9, 1908. Serial No. 456,993. (Cl. 220—2.)



1. A metallic barrel body crimped lengthwise to form a series of longitudinal box-plait folds positioned exteriorly of the body and extending uninterruptedly from end to end thereof, each fold at intervals along its length being spaced from the body to form hollow transverse ribs, the hoops for the body extending through the ribs and held thereby against displacement.

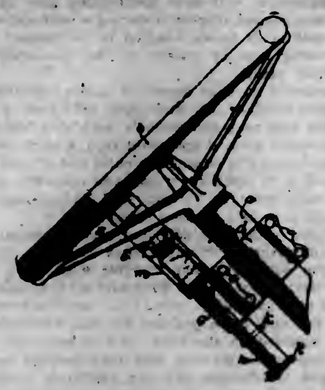
2. A metallic barrel body crimped lengthwise to form a series of longitudinal box-plait folds positioned exteriorly of the body and extending uninterruptedly from end to end thereof, each fold at intervals along its length being spaced from the body to form hollow transverse ribs, the hoops for the body extending through the ribs and held thereby against displacement, and bead retaining clips anchored upon portions of the end hoops of the body intermediate adjacent folds.

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1,037,203. LOCKING DEVICE FOR AUTOMOBILES. JOHN BRENNAN, Chicago, Ill., assignor to John Howard McElroy, Chicago, Ill. Filed Dec. 28, 1911. Serial No. 668,286. (Cl. 70—99.)

1. In a locking device for automobiles, the combination with a steering wheel, of a yoke, supporting means for the yoke whereby it can be moved from a normal unlocked position beneath the wheel up into the plane of the wheel to embrace the latter to prevent its rotation, a locking member carried by the top of the yoke and adapted to move to close the yoke to lock the wheel or to open it to permit it to move down out of engagement with the wheel.





2. In a locking device for automobiles, the combination with a steering wheel, of a yoke, supporting means for the yoke whereby it can be moved from a normal unlocked position beneath the wheel up into the plane of the wheel to embrace the latter to prevent its rotation, a locking member carried by the top of the yoke and adapted to move to close the yoke to lock the wheel or to open it to permit it to move down out of engagement with the wheel, and a lock in said locking member adapted to be operated from above to open the yoke.

3. In a locking device for automobiles, the combination with a steering wheel, of a stationary support for the same, a yoke attached to engage the wheel so as to prevent its rotation, a spring lock closing the top of the yoke to prevent its unauthorized removal from the wheel, and a support attached to the stationary support and the yoke, and movable to carry the latter into and out of engaging position.

4. In locking device for automobiles, the combination with a member adapted to be clamped on the sleeve of the steering wheel shaft of an automobile, a supporting sleeve carried by the said member, a rod free to slide in said sleeve, but not capable of removal therefrom, a yoke carried by the upper end of said sleeve, and a locking bar pivoted on the top of the yoke and adapted to clamp the same to the spoke of a steering wheel.

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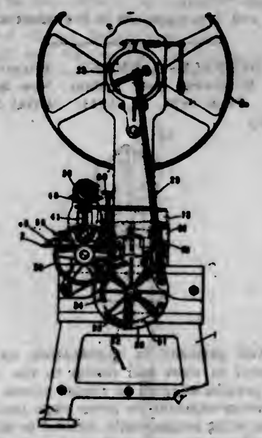
1,037,204. SLITTING-MACHINE. MORRIS ELMORE CLARK, Plainville, Conn. Filed Dec. 28, 1907. Serial No. 408,397. (Cl. 164—8.5.)

1. In a slitting mechanism two rows of lower cutters, two separate upper holders, a row of upper cutters mounted in one holder in rear of the back row of lower cutters, and another row of upper cutters mounted in the other holder in front of the front row of lower cutters, the back and front rows being in staggered relation.

2. In a slitting mechanism, two independently mounted upper holders and a row of cutters carried by each holder independently of the other holder, the cutters of one holder being staggered relative to the others.

3. In a slitting mechanism, a grooved holder, rows of cutters held therein, two separate opposite holders and a row of cutters held by each separate holder, one row being in rear and the other row in front of the first set of cutters and means for feeding a sheet transversely to said cutters.

4. In a slitting mechanism, two sets of cutters one set being divided into two rows to receive the other set between the two rows, a stripper between said rows and a stripper on each side thereof and means for feeding a sheet transversely of said rows.

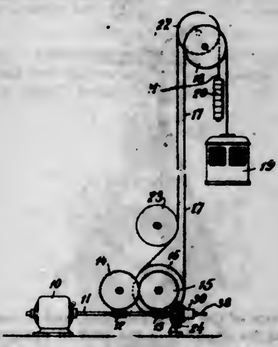


5. In a slitting machine, two lower rows of relatively staggered cutters, a row of upper cutters in back of the back row of lower cutters, and a row of upper cutters in front of the front row of lower cutters.

[Claims 6 to 41 not printed in the Gazette.]

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1,037,205. SHOCK-ABSORBER FOR GEARING. WILLIAM T. CLARK, Yonkers, N. Y. Filed Apr. 8, 1912. Serial No. 688,209. (Cl. 74—36.)



1. In an elevator hoisting apparatus, tandem gearing comprising a shaft having oppositely pitched worms thereon, and means for applying a longitudinal resilient pressure to one end of said shaft.

2. In an elevator hoisting apparatus, a shaft having right and left hand worms, gears meshing with said worms and connected with each other, and means for applying a resilient end pressure to one end of said shaft.

3. In an elevator hoisting apparatus, a shaft having right and left hand worms, gears meshing with said worms and with each other, and means for applying a resilient end pressure to one end of said shaft.

4. In an elevator hoisting apparatus, a shaft having right and left hand worms, gears meshing with said worms and connected with each other, and a shock absorber comprising a compression spring arranged to apply a resilient pressure to one end of said shaft.

5. In an elevator hoisting apparatus, a shaft having right and left hand worms, gears meshing with said worms and connected with each other, a shock absorber comprising

ing a compression spring arranged to apply a resilient pressure to one end of the shaft, and means for adjusting the amount of said pressure.

[Claims 6 and 7 not printed in the Gazette.]

1,037,206. OVERALL-GARMENT. WILLIAM THOMAS CLIFFORD, Randwick, near Sydney, New South Wales, Australia. Filed Sept. 22, 1911. Serial No. 650,777. (Cl. 2—54.)



In an overall garment, in combination, an upper body portion adapted to meet and fasten in the front, and a lower apron portion adapted to extend across the front of said body portion adjacent its lower edge, one side of said apron portion being permanently secured to said body portion at one side of the center thereof, and means for detachably fastening the other side of said apron to said body portion at the other side of the center thereof.

1,037,207. MUSIC-RACK AND LEAF-TURNER. CHARLES S. CLIZBE, Amsterdam, N. Y. Filed Dec. 27, 1909. Serial No. 535,030. (Cl. 84—17.)



1. In a device of the class described, and in combination, a post, means for supporting the post in upright position, a tubular slide movably mounted upon the lower end of said post, a foot rest fixed on said slide, resilient means surrounding said post between the slide and in contact therewith for normally holding said slide in raised position, a rock shaft mounted within said post and having a spiral groove at its lower end, a projection on said slide engaging said spiral groove to rotate said rock shaft, a bracket secured upon the upper end of the post, a leaf-turning arm rotatively mounted upon said bracket, and means on said rock shaft adapted to engage with and operate said leaf-turning arm.

2. In a device of the class described, and in combination, a post, means for supporting said post in upright position, a vertically movable tubular slide mounted upon the lower end of said post, said slide being enlarged at its lower end to provide a socket, an abutment at the juncture of said socket with said slide, a foot-rest fixed on said slide, resilient means surrounding said post, and projecting into said socket and engaging said abutment whereby to movably hold said slide in a normally raised position, a rock shaft mounted within said post, a spiral-groove-and-pin-connection between said rock shaft and said slide for rotating said rock shaft when the slide is moved, a supporting rack mounted upon the upper end of said post, a leaf-turning arm rotatively mounted on said rack eccentrically to said rock shaft, a rocker arm on the upper end of said rock shaft, and a latch device carried by said rocker arm automatically engageable with said leaf-turning arm and remaining in engagement therewith during a part only of its movement, said latch device adapted to be released from said leaf-turning arm by reason of the eccentricity of their respective paths.

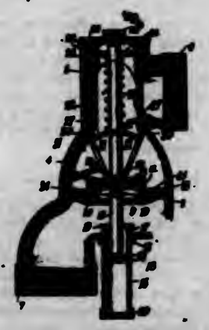
3. In a device of the class described, and in combination, a post, a rack pivotally mounted upon said post, a stud mounted upon said rack and movable with it, a leaf-turning arm removably pivoted upon said stud, a latch carried by said rack, adapted to engage the outer end of said stud when the rack is in position for use, and operative means carried by said post for moving said leaf-turning arm when the rack is in said position for use.

4. In a device of the class described, and in combination, a post, a rack pivotally mounted upon said post, a stud mounted upon said rack and movable with it, a leaf-turning arm removably pivoted upon said stud, a latch carried by said rack adapted to engage the outer end of said stud when the rack is in position for use, foot-operated mechanism mounted on the lower end of said post, and operating connections between said foot-operated mechanism and said leaf-turning arm for rotatively operating said arm when the rack is in said position for use.

5. In a device of the class described, and in combination, a post, a book-supporting rack pivotally mounted on said post; a removable leaf-turning arm pivoted on said rack, a rock shaft mounted within said post, a slide surrounding said post, means carried by said slide for operating said rock shaft, engaging means on the upper end of said rock shaft operating said leaf-turning arm, and a leaf-engaging finger pivotally mounted upon each side of said rack to coöperate with the same and clamp therebetween the leaves of a book below those to be engaged by the leaf-turning mechanism.

[Claims 6 to 8 not printed in the Gazette.]

1,037,208. SAFETY GAS-VALVE. HOWARD RAYMOND COX and WILLIAM SCHMIDT, New York, N. Y. Filed Aug. 31, 1911. Serial No. 646,984. (Cl. 137—92.)



1. A safety gas valve comprising a casing, a pair of levers disposed within said casing and journaled to swing relatively to each other, a valve stem mounted within said casing, a pair of arms carried by said valve stem and engaging said levers for the purpose of pushing one end of the latter apart when the arms are moved in one direction, a valve member engaged by said levers at the ends thereof which are adapted to be pushed apart, and a valve seat mounted within said casing and adapted to be engaged by said valve member.

2. A device of the character described comprising a casing provided with a cylindrical portion, a member disposed within said cylindrical portion comprising a spider and a pair of arms rigidly connected with said spider, a pair of levers mounted upon said arms, a valve stem, mechanism mounted thereupon and engaging said levers for causing portions thereof to swing apart, a spring on said valve stem exerting pressure on said mechanism, a valve member carried by said stem and slidably engaging said levers and actuated thereby, and a valve seat disposed within the path of travel of said valve member.

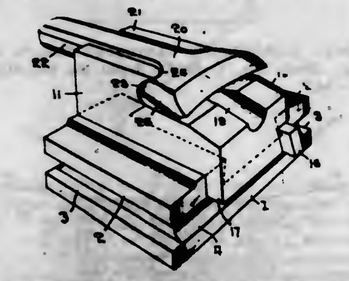
3. A device of the character described comprising a casing, a valve seat mounted therein, a valve member located within said casing and movable relatively to said valve seat, said valve member being provided with rails, levers provided with forks engaging said rails, supporting members to which said levers are journaled, a valve stem connected with said valve member and disposed between said levers, a spring on said valve stem, arms carried by said valve stem and slidably engaging said levers, said spring exerting pressure on said arms and means for normally engaging said valve stem and supporting said valve member off of said seat.

4. The combination with the valve and its seat, of fusible means normally sustaining the valve unseated, and a locking member movable to a position approximately perpendicular to the valve when the said fusible means is fused.

5. The combination with the valve and valve seat, of fusible means normally sustaining the valve unseated, a locking member movable to a position approximately perpendicular to the valve when the fusible means fuses, and a spring acting to move the locking member to its locking position.



1,037,209. INTERLOCKING ANVIL AND SWAGE BLOCK. JAMES WESLEY COYLE, Carterville, and DANIEL EMMETT LYNCH, Webb City, Mo., assignors of one-half to W. A. Cristy, Joplin, Mo. Filed Dec. 12, 1911. Serial No. 665,358. (Cl. 76—95.)



1. A device of the class described comprising an anvil block having an interrupted dovetail groove in its upper face extending from one edge of said block to the opposite edge thereof, said groove being interrupted at one end by a stop member positioned in said groove, a swage block having a dovetailed rib upon its under face, said rib stopping short at one end of the swage block, the rib being adapted for engagement with the interrupted groove of the anvil block, the end of the rib being adapted for engagement against the stop member, and a key for locking the rib in the groove.

2. The combination with an anvil block having a groove across its upper face and a stop member positioned in one side of the groove and at one end thereof; of a swage block having a rib upon its under face for engagement within the groove and against the stop member, and locking means for engagement in the groove to one side of the rib and the stop member and against the same for locking the parts together.

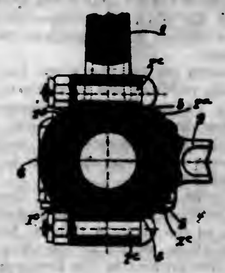
1,037,210. DEVICE FOR TESTING THE TEMPERATURE OF TOBACCO. JOHN M. CURPHEY and JOHN W. POUNCE, Dayton, Ohio. Filed May 31, 1910. Serial No. 564,044. (Cl. 73—82.)

1. A device for testing the temperature of tobacco, comprising a rod made up of detachable sections; a handle mounted on one end of said rod; a testing-tube having an opened front and a tapered and pointed end, detachably connected to the opposite end of said rod; slotted ports adapted to receive hot air formed in said tapered and pointed end of the testing-tube; and a thermometer located within said tube so that the degrees marked thereon will come in alinement with said opened front of the testing-tube.



2. In a device for testing the temperature of tobacco, the combination of a solid detachable extension body provided at one end with a handle; a testing-tube having an opened front, and an end tapering to a point which is provided with a plurality of slotted air inlets coming below said opened front, the opposite end of said tube forming a connection with the end of said extension-body; a thermometer within said tube; and stops within said tube for holding said thermometer in position.

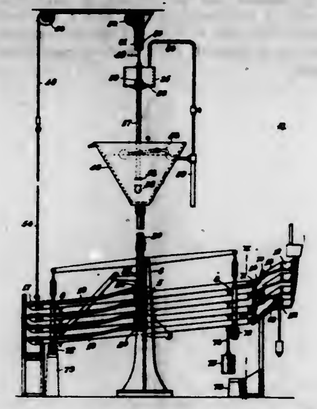
1,037,211. CONNECTING-ROD COUPLING. ALBERT DE DION and GEORGES BOUTON, Puteaux, France. Filed Oct. 6, 1909. Serial No. 521,828. (Cl. 74—17.)



1. The combination with a longitudinally-split sleeve and a split ring embracing the same, of a connecting rod having a forked, transversely-split head, between the sections of which said ring is clamped, a sleeve surrounding said ring and bearing at its edges against the inner faces of the forked head, and a second connecting rod having a split head embracing and bearing on said last named sleeve.

2. The combination of a longitudinally-split sleeve, a split ring embracing the same, a connecting rod having a forked transversely-split head, oppositely-located bolts which clamp the sections of said head on said ring, a sleeve surrounding said ring and having lateral flanges bearing against the inner faces of the forked head, a second connecting rod having a transversely-split head embracing and bearing on said last named sleeve, and oppositely-located bolts securing together the sections of said last named head, one of said bolts being located in the crotch of the forked head, as described.

1,037,212. SLIME-CONCENTRATOR. WILLIAM F. DEIERMAN, Fort Wayne, Ind. Filed Apr. 20, 1912. Serial No. 694,289. (Cl. 83—89.)



1. In an apparatus for treating slime, the combination of a pivotally mounted table normally inclined in the direction of flow of the slime and having a bias when shifted to return to normal position, and means adapted to offer a resistance sufficient to substantially retard the return movement.

2. In an apparatus for treating slime, the combination of a table pivotally mounted, and normally inclined in the direction of flow of the slime and having a bias after being shifted to return to normal position, and means operative as the table approaches normal position to offer a resistance sufficient to substantially retard the return movement.

3. In an apparatus for treating slime, the combination of a table pivotally mounted and normally inclined in the direction of flow of the slime and having a bias when shifted to return to normal position, a weight, a support for the weight, and a flexible connection from the weight to the feed end of the table, such connection being longer than the distance between the weight and the table when in washing position.

4. In an apparatus for treating slime, the combination of a table pivotally mounted and normally inclined in the direction of flow of the slime, incrementally varying means for shifting the table from normal position, an automatically acting lock preventing the operation of the table shifting means and means operating to release said lock at the desired intervals.

5. In an apparatus for treating slime, the combination of a pivotally mounted table normally inclined in the direction of flow of the slime, a counter balancing tank connected to the table, means for directing water into said tank, a lock for preventing the downward movement of that tank, and a float arranged in said tank for releasing the lock.

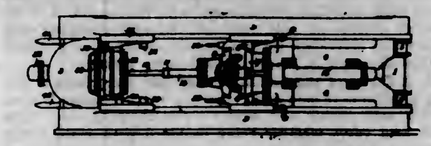
[Claims 6 to 15 not printed in the Gazette.]

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1,037,213. EXTRUSION-PRESS. LOUIS GEORGES DEBAIN, Boulogne-sur-Seine, near Paris, France. Filed Feb. 14, 1911. Serial No. 608,542. (Cl. 207—3.)

1. In an extrusion press for the manufacture of tubes, bars, rods and the like, a die divided into parts, in combination with a container, said container and die being relatively movable, whereby they may be brought together and apart, and means for moving the members of the die apart after the separation of the die and container, whereby the extruded article can be released.

2. In an extrusion press for the manufacture of tubes, bars, rods and the like, a die divided into parts, in combination with a container, means for moving the container toward and away from the die and means for moving the members of the die apart after retraction of the container, whereby the extruded article can be released.



3. In an extrusion press for the manufacture of tubes, bars, rods and the like, a die divided longitudinally into parts, in combination with a container adapted to grip and bind the die when moved toward the same, means for moving the container toward and away from the die, and means for moving the members of the die together for the extrusion operation and for moving them apart after the retraction of the container, substantially as described.

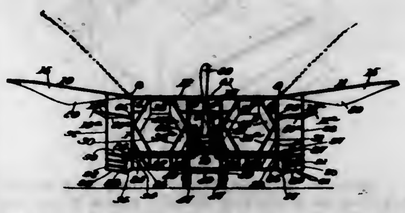
4. In an extrusion press for the manufacture of tubes, bars, rods and the like, a die divided into parts, members connected to said parts respectively, and means for operating said members to move the die parts together and apart, substantially as and for the purpose described.

5. In an extrusion press for the manufacture of tubes, bars, rods and the like, a die divided into parts, die-operating members connected to said die parts respectively and adapted to move the same together and apart, a sliding container, means for moving said container toward and away from the die and means for imparting the motion of the container to said die operating members, whereby the die parts are brought together in the motion of the container toward the same and are moved apart in the reverse motion of the container.

[Claims 6 to 26 not printed in the Gazette.]

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1,037,214. MONOPLANE. ANTHELME DEBAYE, Clifton, N. J. Filed Nov. 1, 1911. Serial No. 657,910. (Cl. 244—14.)



1. A flying machine of the monoplane type comprising a body, a sustaining plane, propelling means, elevating and steering means, and stabilizing and descending devices comprising hexagonal tubular elements open at their ends and at their lower sides, located at the respective sides of the body and extending longitudinally thereof.

2. A flying machine of the monoplane type comprising a body, a sustaining plane consisting of an intermediate stationary section and a side section pivoted to each side of said intermediate section, a tubular element located at each side of the longitudinal center of the machine and extending longitudinally thereof, a horizontally pivoted rudder located rearwardly of each of said tubular elements in alinement therewith, operating means respectively for the right and for the left rudder, and operating means respectively for the right and for the left side section of the sustaining plane.

3. A flying machine comprising a body, a sustaining plane consisting of an intermediate stationary section and a side section pivoted to each side of said intermediate section, a tubular element located at each side of the longitudinal center of the machine and extending longitudinally thereof, said tubular elements being open at their ends and at their under sides, a rudder located in the rear of each of said elements, operating means respectively for the right and for the left rudder and operating means for the right and for the left side sections respectively of the sustaining plane.

4. A flying machine comprising a body, a sustaining plane consisting of an intermediate stationary section and a side section pivoted to each side of said intermediate section, a tubular element located at each side of the longitudinal center of the machine and extending longitudinally thereof, a rudder located in the rear of each of said tubular elements, operating means respectively for the right and for the left rudder, and operating means respectively for the right and for the left side section of the sustaining plane.

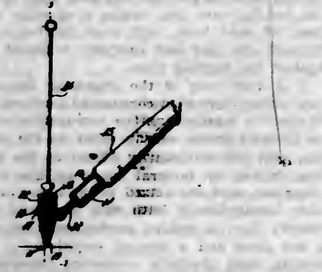
5. A flying machine comprising a body, a sustaining plane consisting of an intermediate stationary section and a side section pivoted to each side of said intermediate section, a tubular element located at each side of the longitudinal center of the machine and extending longitudinally thereof, a horizontal rudder pivoted at the upper rear edge of each of said tubular elements, operating means respectively for the right and for the left rudder and operating means respectively for the right and for the left side section of the sustaining plane.

[Claim 6 not printed in the Gazette.]



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1,037,215. PEN. RALPH P. DE VAULT, Battle Creek, Mich. Filed May 11, 1911. Serial No. 626,495. (Cl. 120—44.)



1. A pen formed of a tubular member, one end of which constitutes a writing point and an ink carrying core removably mounted in said member, said core comprising an integral head having a transverse opening therethrough for receiving and holding ink, and further provided with longitudinal grooves on its side face communicating with said transverse opening through the end of the core adjacent the writing point.

2. A pen formed of a tubular member, one end of which constitutes a writing point and an ink carrying core removably mounted in said member, said core comprising an integral head having a transverse opening therethrough for receiving and holding ink, and further having flat side portions at the terminals of said openings, and means for conveying ink from the opening to the writing point.

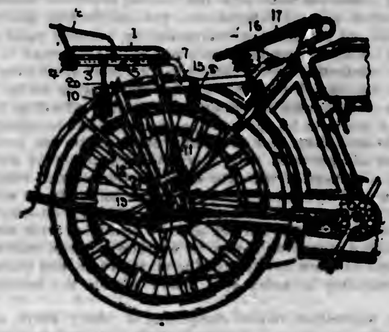
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1,037,216. SUPPLEMENTARY SEAT FOR TWO-WHEEL VEHICLES. TRUNIS DE YOUNG, Jr., South Holland, Ill. Filed Dec. 30, 1911. Serial No. 668,945. (Cl. 208—24.)

1. A device of the class described comprising a seat, means for supporting the seat and allowing resilient movement thereof, said seat being removably secured to the supporting means, means for removably securing said seat in various positions upon the supporting means, means for guiding the seat in its resilient movement, and means for securing the supporting means to a vehicle side.

2. A device of the class described comprising a seat, a movable ring for supporting the seat, said seat being removably secured upon the ring and adapted to be placed in various positions thereupon, supporting means for the ring, and guiding means for the ring.

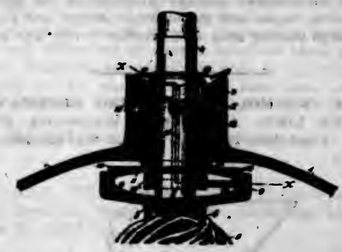
3. The combination with a vehicle, of a supporting frame for a supplementary seat, a ring to receive the supplementary seat, a supplementary seat removably secured upon the ring, resilient connections between the ring and the



supporting frame, guiding means connected with the ring and the supporting frame, foot rests carried by the guiding means, and means for removably securing the seat in adjusted position upon the ring.

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1,037,217. LUBRICATING DEVICE. FREDERICK DIEHL, Elizabeth, N. J., assignor to Diehl Manufacturing Company, a Corporation of New Jersey. Filed June 12, 1906. Serial No. 488,027. (Cl. 64—32.)



1. A lubricating device comprising a rotary shaft carrying an annular oil-reservoir having overhanging walls, and a fixed bearing for said shaft having independent longitudinal oil-supply and return ducts, the former having a connection with the outer portion of said reservoir, an external overflow cavity connected with the oil-return duct, an oil-distributing groove or recess connected with the supply-duct, and a longitudinal delivery groove in the inner bearing surface connected with said oil-distributing groove or recess.

2. A lubricating device comprising a rotary shaft carrying an annular oil-reservoir having overhanging walls, a bearing boss having an annular depression affording an overflow cavity in its upper end, and a bearing sleeve internally fitted to said shaft and externally fitted within the bearing boss and provided with a longitudinal oil-supply duct having a connection with the outer portion of said reservoir, an oil-distributing groove or recess in the inner surface of said sleeve having a connection with said oil-supply duct, longitudinal oil-delivery grooves connected with said distributing groove or recess, and an overflow passage leading from said overflow cavity intermediate said boss and said sleeve into the oil-reservoir.

3. A lubricating device comprising a rotary shaft carrying an annular oil-reservoir having overhanging walls, a bearing boss having an annular depression affording an overflow cavity in its upper end and an externally tapering annular flange depending from its lower end, and a bearing sleeve internally fitted to said shaft and externally

fitted within the bearing boss and provided with a longitudinal oil-supply duct having a connection with the outer portion of said reservoir, an oil-distributing groove or recess in the inner surface of said sleeve having a connection with said oil-supply duct, longitudinal oil-delivery grooves connected with said distributing groove or recess, an overflow passage intermediate the distributing groove or recess and the overflow cavity, and an overflow passage leading from said overflow cavity into the oil-reservoir.

4. A lubricating device comprising a rotary shaft carrying an annular oil-reservoir having overhanging walls, a bearing boss having an annular depression affording an overflow cavity in its upper end, a bearing sleeve internally fitted to said shaft and externally fitted within the bearing boss and provided with a longitudinal oil-supply duct having a connection with the outer portion of said reservoir, an oil-distributing groove or recess in the inner surface of said sleeve having a connection with said oil-supply duct, longitudinal oil-delivery grooves connected with said distributing groove or recess, an overflow passage leading from said overflow cavity into the oil-reservoir, and means for detachably securing said sleeve within the bearing boss.

5. A lubricating device comprising a rotary shaft, an annular reservoir carried by said shaft and provided with an axial opening and an undercut annular rib surrounding the same upon said upper side, a bearing boss having an annular depression in its upper end affording an overflow cavity, and a bearing sleeve internally fitted to said shaft and externally fitted within the bearing boss and provided with a longitudinal oil-supply duct having a connection with the outer portion of said reservoir, an oil-distributing groove or recess in the inner surface of said sleeve having a connection with said oil-supply duct, longitudinal oil-delivery grooves connected with said distributing groove or recess, an overflow passage intermediate the distributing groove or recess and the overflow cavity, and an overflow passage leading from said overflow cavity into the oil-reservoir.

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1,037,218. METHOD OF WRAPPING MERCHANDISE OR THE LIKE. CLARENCE H. DIENSBERGER, Buffalo, N. Y. Filed May 20, 1911. Serial No. 628,362. (Cl. 99—8.)



1. The method of wrapping and hermetically sealing an article which consists in completely wrapping the article within a portion of a sheet of paper to provide a protecting wrapper-portion, in next wrapping the partly wrapped article in the remaining portion of the sheet to provide a sealing wrapper-portion, and finally in sealing the wrapper-portion at its outer end and at its sides where folded over the ends of the article.

2. The method of wrapping and hermetically sealing an article in at least a partly wax-coated sheet of paper, which consists in wrapping a portion of the sheet of paper around the article and folding said portion over the ends of the article to completely inclose the latter, then wrapping the remaining portion of the sheet around the partly wrapped article and folding the ends of said remaining portion over the folds of the first-mentioned portion, and then applying heat to the exposed end of the sheet and to the outer folds of the same to cause the wax to melt and seal said sheet.

3. The method of wrapping and hermetically sealing an article which consists in wrapping a portion of a wax-coated sheet of paper around the article to completely inclose the same, then wrapping the remaining portion of the sheet of paper around the partly wrapped package and folding the opposite marginal regions of the last-mentioned portion of the paper over the ends of the article inclosed within the first-mentioned portion of the sheet, and heating the sheet at its exposed end and at the outer folds to cause the wax to melt and completely seal the article in an air-tight manner.

4. The method of wrapping and hermetically sealing an article within a sheet of paper or the like which consists in wrapping a portion thereof around the article to form a protecting wrapper-portion and in wrapping the partly wrapped article in the remaining portion of the sheet and sealing said remaining portion around the protecting wrapper-portion, substantially as set forth.

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1,037,219. SASH-LOCK. DANIEL DOWD, Portland, Oreg. Filed Sept. 7, 1911. Serial No. 648,284. (Cl. 16—118.)



1. A sash lock of the character described comprising two locking bars, one stationarily affixed to the head of the window frame, the other affixed to the upper sash and made to slide longitudinally with said sash and against the stationary bar; a locking mechanism affixed to the bottom sash comprising integrally a bed plate, and a bracket containing a binding post, a locking hook pivotally connected between the bed plate and bracket, a slot in said hook, a pin through said slot, the hook engaging the locking bars and having a circular motion to swing clear of said bars, said hook having a lateral motion through the slot and carrying a thumb screw actuated against the binding post.

2. A sash lock of the character described comprising two locking bars with corrugated surfaces, the corrugation of one bar interlocking the corrugation of the other bar; an integral flange and an offset on the upper end of one bar, said bar stationarily affixed to the head of the window frame; an integral flange on the lower end of the other bar, said bar affixed to the upper sash and made to slide longitudinally with said sash and against the stationary bar; a locking mechanism comprising integrally a bed plate and a bracket containing a binding post, a locking hook pivotally connected between the bed plate and the bracket and engaging said locking bars; a slot in said hook, a pin through said slot, the hook having a lateral motion and carrying a thumb screw actuated against the binding post.

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1,037,220. TABLE-OPERATING DEVICE FOR PAPER-FEEDING MECHANISM. JAMES W. DUFFY, Chicago, Ill., assignor to The Fuller Manufacturing Company, New Haven, Conn., a Corporation of Connecticut. Filed Jan. 26, 1909. Serial No. 474,246. (Cl. 101—36.)

1. In a paper feeding mechanism, the combination with a suitable frame, of sheet feeding devices, a table support fixed with relation to the frame, a piling guide mounted on the frame, a plurality of tables, an elevating mechanism constructed to move a table from the support to the feeding devices and to move back in the same path, and means for detachably connecting each of the tables when on the support and after it is loaded to the elevating mechanism.

2. In a paper feeding mechanism, the combination with a suitable frame, of sheet feeding devices, a table support fixed with relation to the frame, a piling guide mounted on the frame, a plurality of tables, an elevating mechanism constructed to move a table from the support to the feeding devices and to move back in the same path, and means for automatically and detachably connecting each of the tables when on the support and after it is loaded to the elevating mechanism.

3. In a paper feeding mechanism, the combination with a suitable frame, a piling guide mounted thereon, a carriage comprising a pair of side pieces, means including threaded rods for moving the side pieces in both directions, a plurality of tables, a table support located between the paths of travel of the side pieces and fixed with relation to the frame, and means for detachably connecting each side piece to a table.





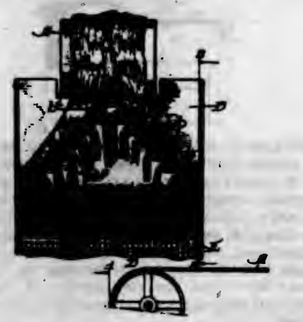
4. In a paper feeding mechanism, the combination with a suitable frame, a piling guide mounted thereon, a carriage comprising a pair of side pieces, means including threaded rods for moving the side pieces in both directions, a plurality of tables, a table support located between the paths of travel of the side pieces and fixed with relation to the frame, and means for automatically connecting each side piece to a table.

5. In a paper feeding mechanism, the combination with sheet feeding devices, of a carriage, a plurality of tables, a table support, means for causing the carriage to move between the table support and the sheet feeding devices and back again in the same path, connectors on the carriage, and devices on each table with which said connectors may be engaged when a table is on the support.

[Claims 6 to 11 not printed in the Gazette.]

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1,037,221. DISTRIBUTER FOR SCREENING APPARATUS. RAYMOND W. DULL, Aurora, Ill. Filed Oct. 6, 1909. Serial No. 521,248. (Cl. 83—56.)



1. A stationary screen and means for distributing material thereon, comprising a series of plates arranged in stepped relation to each other, to provide a series of distributing openings between them, with a clear space below, which openings are of the same, or substantially the same, size or capacity, and a stationary or motionless support for said plate, said openings being disposed at different heights, each plate adapted to hold an accumulation of the material, to prevent wearing away of the plates, said plates being so disposed relative to each other that said openings are not closed by accumulation of material thereon.

2. A stationary screen and means for distributing material thereon, comprising two series of plates, each series sloping downward away from the other, the plates being arranged in stepped relation to each other, thus providing two upwardly converging series of distributing openings between them, with a clear space below, which openings are of the same, or substantially the same, size or capacity, said openings being disposed at different heights, each plate adapted to hold an accumulation of the material, to prevent wearing away of the plates, said plates being so disposed relative to each other that said openings are not closed by accumulation of material thereon.

3. A stationary screen and means for distributing material thereon, comprising a series of shelves arranged in stepped relation to each other, to provide a series of distributing openings between them, each shelf being stationary and adapted to hold a quantity of the material thereon, and means for varying the supporting area of said shelves, to change the size of said openings, by varying the height of the material on the shelves, each shelf having an inner discharge edge and an outer edge for feeding the material to the next lower shelf.

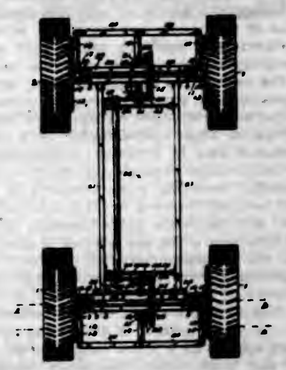
4. A stationary screen and a distributer therefor, comprising a series of stepped plates of equal size for distributing material evenly across the top of said screen, by forming streams of material, which streams are deflections of equal volume from the same constantly decreasing main stream flowing from plate to plate, and means for regulating the flow by changing the size of said streams, whereby the last deflection is always the final portion of the main stream.

5. A stationary screen and a distributer therefor, comprising stationary means for forming a main flow of material by gravity, to produce an inclined stream, having provisions for producing separate deflections of equal volume from the bottom of the main flow, at regular intervals along the length thereof, disposed in position to deliver said deflections at regular intervals along a given area, and means for regulating the flow, by adjusting said provisions to vary the size of said deflections, whereby the last deflection is always the final portion of the main flow.

[Claims 6 to 21 not printed in the Gazette.]

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1,037,222. TRACTION-ENGINE. WILLIAM DURRAN, Percy township, Ontario, Canada. Filed Aug. 14, 1911. Serial No. 643,959. (Cl. 21—114.)

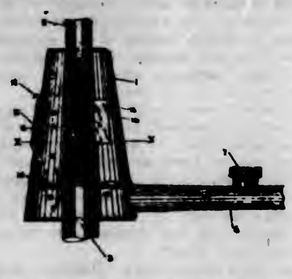


In a traction engine, a front axle structure; a frame secured thereto, a segment rail slidably arranged in said frame, a rear axle structure, beams connecting said rear axle structure and said segment rail, main shaft frames carrying bearings for the main shaft and auxiliary shafts, cross shafts journaled in said axle structures, vertical shafts journaled at each side of said structures, wheels having axles fixedly mounted on said vertical shafts, a gear mounted on each of said cross shafts, auxiliary shafts journaled in said auxiliary bearings, gears mounted on

said auxiliary shafts having double faces and coacting with said gears of said cross shafts, a main shaft journaled in said main shaft frames having gears fixedly mounted thereon coacting with the other face of said gears on the auxiliary shafts, bevel pinions mounted at the ends of said cross shafts, bevel pinions mounted on said vertical shafts, and bevel gear wheels fixedly mounted on the inside of the wheels and coacting with said bevel gears of said vertical shafts, and suitable steering means supported by said axle structures.

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1,037,223. COTTON ELEVATOR AND DISTRIBUTER. JOSEPH N. ELLENBURG and ALEXANDER NELSON, McKinney, Tex.; said Nelson assignor to George F. Thompson, McKinney, Tex. Filed Apr. 6, 1912. Serial No. 688,876. (Cl. 13—19.)



1. In a device of the character described, the combination with a casing, of a horizontal partition mounted in the lower portion of the casing, dividing it into an upper and a lower compartment, vertically alined inlet and outlet pipes respectively communicating with the top and the bottom of the casing, the latter projecting through the lower compartment, a screened inclosure centrally mounted within the casing and spaced from the walls thereof, the upper and lower ends of said inclosure respectively communicating with inlet and outlet pipes, a plurality of vertical partitions dividing said upper compartment into a plurality of sub-compartments, each of which has communication with the lower compartment through a plurality of apertures in the horizontal portion, and an air exhaust pipe communicating with said lower compartment.

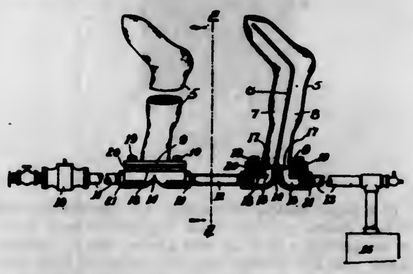
2. In a device of the character described, the combination with a casing, of a horizontal partition mounted in the lower portion of the casing, dividing it into an upper and a lower compartment, vertically alined inlet and outlet pipes respectively communicating with the top and the bottom of the casing, the latter projecting through the lower compartment, a screened inclosure communicating with the outlet and inlet pipes, a plurality of vertical partitions dividing the upper compartment into a plurality of sub-compartments, each of which has communication with said lower compartment through a plurality of apertures in the horizontal partition, guide members in each sub-compartment securely fastened to the horizontal partition, a slide-valve, received by the guide members, containing a plurality of apertures which are adapted to aline with like apertures in the horizontal partition, and an air exhaust pipe communicating with said lower compartment.

3. In a device of the character described, the combination with a frusto-conical casing, of a horizontal partition mounted in the lower portion of the casing dividing the same into an upper and a lower compartment, vertically alined inlet and outlet pipes respectively communicating with the top and bottom of the casing, the latter projecting through the lower compartment, and the inlet pipe being smaller in diameter than the outlet pipe, a screened inclosure of frusto-conical shape making communication between the inlet and outlet pipes, and an air exhaust pipe communicating with said lower compartment.

4. In a device of the character described, the combination with a casing, of a horizontal partition mounted in the lower portion of the casing, dividing the same into an upper and lower compartment, vertically alined inlet and outlet pipes respectively communicating with the top and the bottom of the casing, the outlet pipe projecting through the lower compartment, a plurality of vertical partitions dividing the upper compartment into a plurality of sub-compartments, access being had to each sub-compartment through an aperture in the casing, wall, guide members rigidly fastened to the exterior surface of the casing at each side of each aperture, a sliding door received by the guide members, and an air exhaust pipe communicating with said lower compartment.

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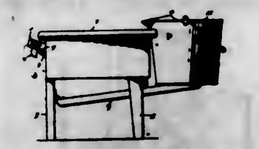
1,037,224. DRYING MECHANISM FOR HOSIERY. WILLIAM H. EMMENTROUT, Reading, Pa. Filed Apr. 22, 1912. Serial No. 692,494. (Cl. 34—16.)



A drying mechanism for hosiery and like tubular fabrics, comprising horizontally alined steam-pipe sections; connecting fittings for said sections, each provided with opposite-end horizontal passage-ways having screw-threaded engagement with adjacent alined sections and spaced-apart vertical exits through the upper wall of the fitting; and hollow vertically-partitioned formers each removably secured to one of said fittings and forming a communicating passage-way between said spaced-apart exits; each former and fitting being jointly adjustable upon the connected pipe sections substantially as set forth.

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1,037,225. MILKING-STOOL. SAMUEL EVENSEN, Capron, Ill. Filed Oct. 12, 1911. Serial No. 654,371. (Cl. 31—13.)



A milking stool, comprising a seat member having a rear leg and spaced front legs, a pail support pivoted to the rear leg in spaced relation to and below the seat member and projecting between the front legs and beyond the seat member, and a link pivoted to the pail support in rear of its projecting end, said link being located between the pail support and seat member and having an adjustable rack engagement with the rear leg for holding the said support at different elevations, the rear portion of the link projecting beyond the rear leg and forming operating means for the link.

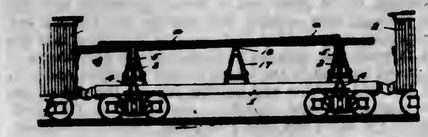
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1,037,226. RAIL-LOADER. MARTIN FEENEY, St. Paul, Minn. Filed May 30, 1912. Serial No. 698,592. (Cl. 214—1.)

1. A rail loader comprising trestles mounted on a platform car coupled to box cars, skids connected to said trestles, roller supports connected to said trestles, said roller supports being provided with vertically adjustable rollers, and a central trestle provided with an adjustable roller.

2. In a rail loader the combination of trestles provided with skids, roller supports connected to the trestles, rollers adjustable on said supports, and brackets connected to openings in the cars, said brackets being provided with rollers.





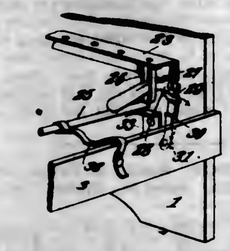
3. In a rail loader the combination of trestles provided with skids, roller supports or trestles having adjustable rollers thereon, said trestles and supports being mounted on a platform car and coupled to box cars at opposite ends, said box cars having openings in the ends thereof and brackets provided with openings, said rollers on said brackets being below the horizontal plane of the rollers on the trestles.

4. A car loader comprising trestles mounted on a platform car, roller supports connected to said trestles, adjustable rollers mounted on said roller supports whereby one of said rollers may be adjustable vertically to incline the rails supported thereon to aid in moving the same over the rollers, a centrally disposed roller support, box cars provided with end openings and brackets provided with rollers, said brackets being supported upon the lower edge of the opening in the box car.

5. A rail loader comprising trestles adapted to be mounted on a platform car, skids connected to said trestles, a central roller support, a roller mounted on said central support, roller supports connected to the trestles, adjustable rollers on said supports, box cars in which the rails are to be loaded, said box cars having end openings, brackets provided with hooks or lugs at their upper ends adapted to engage the lower edge of the door opening and rollers mounted on the brackets.

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1,037,227. COMBINED COUCH AND FOLDING BED. EDWARD C. FISHER, Lincoln, Ill. Filed Apr. 21, 1911. Serial No. 622,524. (Cl. 5—51.)



1. A device of the class described including a pivotally supported one part seat invertible to constitute a bed section, a rear section hinged thereto and shiftable thereby into or out of position for use, means for securing said rear section adjustably in position for use, the first mentioned section constituting means for releasing the rear section from its securing means, and flexible and adjustable means for limiting the downward movement of the rear section when released.

2. A device of the class described including a supporting structure, a combined seat and mattress supporting section pivoted to the supporting structure, a rear mattress supporting section hinged to the seat section and shiftable thereby into or out of position for use, toothed members connected to the supporting structure, and means carried by the rear section for engaging said members to support said section in position for use, the seat section constituting means for shifting the rear section rearwardly out of engagement with the supporting members.

3. A device of the class described including a supporting structure, toothed members connected to said structure, a combined couch seat and mattress supporting section pivoted to the supporting structure, a rear section hinged to the seat section and shiftable thereby into engagement with the toothed members and into position for use, said seat section constituting means for moving the rear section out of engagement with the toothed members, and flexible means for limiting the downward movement of the rear member when released.

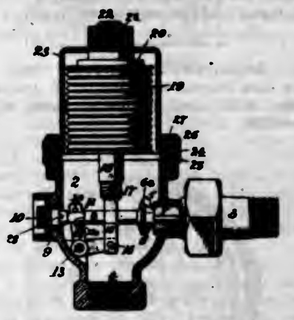
4. A device of the class described including a supporting structure, a combined couch seat and mattress supporting section pivoted to said structure, a rear section hinged thereto and movable thereby into or out of position for use, a toothed member connected to the supporting structure, means carried by the rear section for engaging said toothed member when the rear section is raised to position for use, said seat section constituting means for shifting the rear section backwardly out of engagement with the toothed member.

5. A device of the class described including a supporting structure, a combined couch seat and mattress supporting section pivoted to said structure, a rear section hinged to said section, said sections being foldable together, the seat section constituting means for shifting the rear section into or out of position for use, a toothed member connected to the supporting structure, means carried thereby for engaging the toothed member during its movement into position for use, said seat section constituting means for shifting the rear section out of engagement with the toothed member during the first portion of the folding movement of the seat section.

[Claims 6 to 13 not printed in the Gazette.]

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1,037,228. STEAM TRAP OR VALVE. JAMES LOGAN FITTS, Merchantville, N. J., assignor to Warren Webster and Company, a Corporation of New Jersey. Filed May 14, 1910. Serial No. 561,278. (Cl. 236—10.)



1. In a device of the character described, the combination of the body having inlet and outlet ports and valve seat in connection with one of said ports, a valve for the valve seat supported so as to be freely rotatable and have means for rotating it, a bell crank pivoted within the body and having one arm operatively connected with the valve between the valve piece and the means for rotating it to move it to or from the valve seat while permitting rotation, a thermostatic member arranged within the body and consisting of an expansible chamber containing a highly expansible substance, and an extension from the thermostatic member connected with the other arm of the bell crank.

2. In a device of the character described, the combination of the body having inlet and outlet ports and valve seat in connection with one of said ports and also having an opening through which to insert a tool to rotate the valve, a plug for normally closing said opening, a valve for the valve seat, having the end of its stem formed for receiving a tool for rotating it and in line with the removable plug in the body, a bell crank pivoted within the body and having one arm operatively connected with the valve to move it to or from the valve seat, a thermostatic member arranged within the body and consisting of an expansible

substance, and an extension from the thermostatic member connected with the other arm of the bell crank.

3. In a device of the character described, the combination of the body having inlet and outlet ports and valve seat in connection with one of said ports, a valve for the valve seat guided in the inlet port and having horizontal stem, a bell crank pivoted within the body and having one arm operatively connected by a journal bearing with the valve stem to support the valve and to move it to or from the valve seat and also permit free rotation of the valve, a thermostatic member arranged within the body and consisting of an expansible chamber containing a highly expansible substance, and a yoke shaped extension from the thermostatic member extending over the valve stem connected with the other arm of the bell crank.

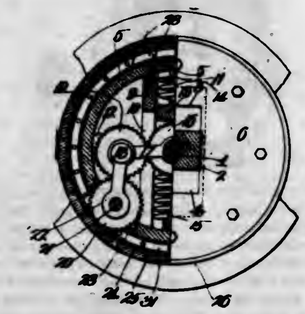
4. In a device of the character described, the combination of the body having a horizontal inlet formed with a valve seat and also having an outlet from the bottom and at a lower level than the inlet, a horizontally operating valve for the valve seat having a baffle for directing the vapor passing through the inlet in an upward direction within the body, a thermostatic member within the body at a higher elevation than the inlet and valve adapted to receive the vapor directed upward by the baffle, and means connecting the said thermostatic member with the valve for operating it.

5. In a device of the character described, the combination of a body having a port terminating in a valve seat and a second port at right angles to the first mentioned port, a bellows fold thermostatic member secured with the body substantially opposite to the last mentioned port therein, a valve movable to and from the valve seat and located between the last mentioned port and thermostatic member and having a baffle for directing the vapor and water respectively toward the thermostatic member and the last mentioned port, and means connecting the thermostatic member with the valve for operating it.

[Claims 6 and 7 not printed in the Gazette.]

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1,037,229. RESILIENT MOUNTING FOR WHEELS. WILLIAM LEE FOSTER and GEORGE H. FOSTER, Kansas City, Mo. Filed Jan. 18, 1911. Serial No. 603,770. (Cl. 21—187.)



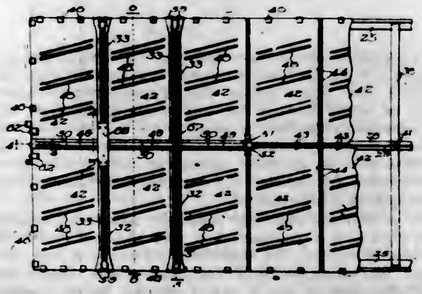
1. In a device of the character described, a skein, a sleeve projecting into the skein and adapted for vertical but not rotatable movement, a shaft or axle projecting into the skein and journaled in said sleeve, means within the skein engaging the same and said sleeve and yieldingly supporting the latter and the shaft or axle in such position that it shall be possible for said parts to play in a vertical plane above and below the axis of the skein, a hub spaced from and concentrically surrounding the skein and provided with internal gear teeth, anti-friction bearing devices interposed between the skein and hub, a gear wheel journaled on the skein and engaging the said internal gear teeth and projecting into the skein, a gear pinion secured on the shaft or axle, an intermediate gear wheel meshing with the gear pinion and the first-named gear wheel, and means for maintaining said gear wheels and gear pinion in engagement irrespective of changes in position between the shaft or axle and the skein.

2. In a device of the character described, a skein having an opening in its inner end, a sleeve projecting into the skein through said opening and adapted for vertical but not rotatable movement, a shaft or axle projecting into the skein through said opening and journaled in said sleeve, a dust guard secured to the sleeve within the skein and covering the said opening and bearing against the end of the skein containing said opening, means within the skein engaging the same and said sleeve and yieldingly supporting the sleeve and the shaft or axle in such position that it shall be possible for said parts to have play in a vertical plane above and below the axis of the skein, a hub spaced from and concentrically surrounding the skein and provided centrally with internal gear teeth, a gear wheel journaled on the skein and engaging the gear teeth of the hub and projecting into the skein, a gear pinion secured on the shaft or axle, an intermediate gear wheel meshing with the gear pinion and the first-named gear wheel, and links pivotally connecting said gear wheels and gear pinion to maintain them in operative relation and permit them to accommodate up and down movement of the shaft or axle.

3. In a device of the character described, a skein having an opening in its inner end, and an opening in its circumferential portion, a sleeve projecting into the skein through said first-named opening, and adapted for vertical but not rotatable movement, said sleeve centrally within the skein having an arched portion, a shaft or axle projecting into the skein through said end opening, and journaled in said sleeve, a dust guard secured to the sleeve within the skein and covering said end opening and bearing against the end of the skein containing said opening, means within the skein engaging the same and said sleeve and yieldingly supporting the sleeve and shaft or axle in such position that it shall be possible for said parts to have play in a vertical plane above and below the axis of the skein, a hub journaled on the skein and provided with internal gear teeth, a pinion secured on the shaft or axle under the arched portion of said sleeve, a gear wheel arranged in the circumferential opening of the skein and journaled upon the latter and engaging the internal teeth of the hub, an intermediate gear wheel meshing with the gear pinion and with the gear wheel engaging the teeth of the hub, links pivoted to the shaft or axle and forming a journal for the said intermediate gear wheel, and links pivotally connecting the axle of the said intermediate gear wheel and the gear wheel engaging the teeth of the said hub.

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1,037,230. CAR-ROOF. ROBERT E. FRAME, Chicago, Ill. Filed Aug. 7, 1911. Serial No. 642,645. (Cl. 108—5.)



1. A metal roof for cars comprising imperforate, inverted, U-section carlines, a plurality of roof sheets arranged below the carlines with their respectively adjacent edges lying under and capped by said carlines, and means located within and below the carlines, sustained therefrom and extending along under said edges of the roof sheets for binding said edges to the under sides of said carlines.



2. A metal roof for cars comprising imperforate, inverted, U-section carlines formed with outwardly projecting flanges at their lower edges, a plurality of roof sheets arranged below the carlines with their respectively adjacent edges lying under and capped by said carlines, and means located within and below the carlines suspended therefrom and extending along under said edges of the roof sheets for binding said edges to the under sides of the flanges of said carlines.

3. A metal roof for cars comprising imperforate, inverted, U-section carlines, a plurality of roof sheets formed with flanges at their respectively adjacent edges which extend up into the channels of the carlines, and means located within and below the carlines, suspended therefrom and extending along under said edges of the roof sheets for binding said edges to the under sides of said carlines but so as to allow the roof sheets to shift when the car weaves.

4. A metal roof for cars comprising channeled carlines, roof sheets arranged below and between the carlines, roof sheet supports, bolts for suspending the supports from the carlines, and seats for the heads of said bolts formed within the channels of the carlines.

5. A metal roof for cars comprising channeled carlines, roof sheets arranged below and between the carlines, roof sheet supports, and bolts for sustaining the supports from the carlines; the carlines being formed with projections within the channels providing seats for the heads of the bolts.

[Claims 6 to 24 not printed in the Gazette.]

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1,037,231. VISE. STEPHEN E. FRENCH and DEBORAH T. BATES, Orange, Mass., assignors to Athol Machine Company, Athol, Mass., a Corporation of Massachusetts. Filed Oct. 28, 1911. Serial No. 657,360. (Cl. 81—41.)



1. In a vise, a base, a pair of relatively movable jaw members pivotally mounted on said base, said base having an annular slot concentric with said pivot, a locking piece disposed in said slot, a shank on said locking piece operatively engaging the jaw portion of said vise, a wall overhanging said slot, the face of said overhanging wall and the adjacent portion of said locking piece having corresponding corrugations, and means for moving said shank vertically to bring the corrugations of said locking piece into engagement with the corrugated wall of said slot.

2. In a vise, a base, a fixed jaw member, a jaw member movable relative thereto, said fixed jam member being pivotally mounted on said base, said base having an annular slot concentric with said pivot, and with a vertical overhanging wall, a bolt having its head disposed in said slot and its shank passing through said fixed jaw member, the face of said overhanging wall and the adjacent portion of said head having corresponding corrugations and a threaded block engaging said bolt to bring said corrugations vertically into engagement.

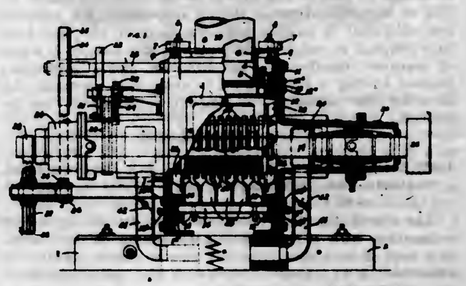
3. In a vise, a base, a pair of relatively movable jaw-members pivotally mounted on said base, said base having an annular slot concentric with the point of pivot and having one of its side walls inwardly inclined, a bolt having a correspondingly beveled head disposed in said slot and its shank operatively engaging the jaw portion of the vise, the inclined wall of said slot and the beveled portion of the head of said bolt having corresponding corrugations, and means for moving said bolt vertically in said slot to bring said corrugations into engagement.

4. In a vise, a base, a pair of relatively movable jaw-members pivotally mounted on said base, said base having an annular slot concentric with the point of pivot and having one of its walls inwardly inclined, a bolt having a correspondingly beveled head disposed in said slot and its shank operatively engaging the jaw portion of the vise, the inclined wall of said slot adjacent to its upper edge and the adjacent portion of the head of said bolt having corresponding corrugations, and means for moving said bolt vertically to bring said corrugations into engagement.

5. In a vise, a base, a pair of relatively movable jaw-members pivotally mounted on said base, said base having an annular slot concentric with the point of pivot and having one of its walls inwardly inclined, a vertical bolt having a correspondingly beveled head disposed in said slot and its shank operatively engaging the jaw portion of the vise, the inclined wall of said slot adjacent to its upper edge and the adjacent portion of the head of said bolt having corresponding corrugations, and a threaded block for drawing said bolt up to bring said corrugations into engagement.

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1,037,232. PULVERIZER. HOWARD H. FRICKEY, St. Louis, Mo., assignor to Williams Patent Crusher and Pulverizer Company, St. Louis, Mo., a Corporation of Missouri. Filed June 9, 1910. Serial No. 565,949. (Cl. 83—11.)



1. In a pulverizer, the combination of a casing, a grinding surface arranged therein comprising sections, means for supporting each section comprising a member engaging the top of said section, means for adjusting said member, an independent member engaging the bottom of said section, and means for adjusting said last mentioned member, said adjusting means being adapted to adjust the section toward and from the center of the casing and to clamp said section in adjusted position.

2. In a pulverizer, the combination of a casing, a grinding surface arranged therein, comprising sections, means for supporting each section comprising a member having a beveled side engaging the top of the section, means for adjusting said member, an independent member having a beveled side engaging the bottom of the section, and means for adjusting said member, said adjusting means being adapted to adjust the section toward and from the center of the casing and to clamp said section in adjusted position.

3. In a pulverizer, the combination of a casing, a grinding surface arranged therein comprising sections, means for supporting each section comprising coöperating beveled members arranged on opposite sides of said section, said beveled members engaging the top and bottom respectively of the section to clamp it in position.

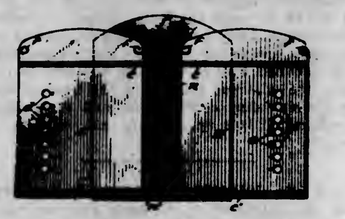
4. In a pulverizer, the combination of a casing, a grinding surface arranged therein comprising sections, means for supporting each section comprising coöperating beveled members arranged on opposite sides of said section, said beveled members engaging the top and bottom respectively of the section to clamp it in position, and means for independently adjusting each of said beveled members.

5. In a pulverizer, the combination of a casing, a grinding surface arranged therein having sections, means for supporting each section comprising a beveled member engaging the section on the top thereof at both sides, means for adjusting said members toward and from each other,

additional beveled members engaging the section on both sides of the bottom thereof, and means for adjusting said latter members toward and from each other.

[Claims 6 to 23 not printed in the Gazette.]

1,037,223. ADJUSTABLE MUSIC-DESK FOR PIANO-FORTES. GRACE O. FUERBOW, Hood River, Oreg. Filed Nov. 17, 1911. Serial No. 660,917. (Cl. 45—57.)

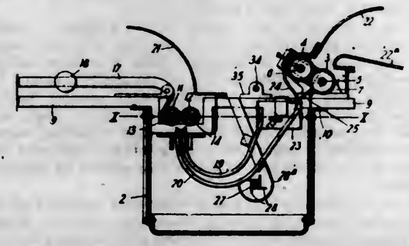


An adjustable music holder comprising central and side panels, the latter being adjustable on the central panel by means of tongue and groove connections, a vertical series of key hole openings in the side panels, an adjuster semi-elliptical in outline with flat portion provided with lugs adapted to enter the openings in side panels, a series of marginal openings in the adjuster, and a supporting bracket having a lug adapted to enter said openings and securing the holder to a support substantially as described.

1,037,224. BRAZING COMPOUND. JAY DELL GH BOTT, Onalaska, Tex. Filed Nov. 6, 1911. Serial No. 658,774. (Cl. 75—187.)

The herein described composition of matter for use in connection with brazing metals consisting of pure muriatic acid, 8 oz.; zinc 4 oz.; pure rain water 1 pint; sal ammoniac 3 oz.; powdered rosin, 3 oz.; and cochineal 1 oz.; substantially as described.

1,037,235. APPARATUS FOR COATING METAL. WILLIAM GIBSON, Sr., Vandergrift, Pa., assignor to American Sheet & Tin Plate Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed May 20, 1911. Serial No. 628,550. (Cl. 91—12.6.)



1. In apparatus for coating metal the combination with a pot for molten coating metal and means for passing metal to be coated into and out of said pot, of mechanism for agitating the molten contents of the pot, and and mechanism for actuating said means.

2. In apparatus for coating metal the combination with a pot for molten coating metal and means for passing metal to be coated into and out of said pot, of means for creating a current in the molten contents of said pot and mechanism, for actuating said means.

3. In apparatus for coating metal the combination with a pot for molten coating metal and means for passing metal to be coated into and out of said pot, of means for creating currents in the molten contents of said pot, and means for controlling the direction of flow of the currents created in the contents of the pot.

4. In apparatus for coating metal the combination with a pot for molten coating metal and means for passing metal to be coated into and out of said pot, of means for creating currents in the molten contents of said pot, and means for directing the so-formed currents upwardly toward the surface of the coating material in said pot.

5. Apparatus for galvanizing metal sheets or plates comprising a galvanizing pot containing molten spelter, means for delivering the sheets or plates into said pot, means for guiding the plates through the molten spelter, means for delivering the sheets or plates out of said pot and mechanism in the pot for stirring the molten spelter when the galvanizing apparatus is in operation.

[Claims 6 and 7 not printed in the Gazette.]

1,037,236. STORE-SERVICE APPARATUS. EMANUEL C. GIPE, Toronto, Ontario, Canada. Filed Nov. 13, 1909. Serial No. 527,662. (Cl. 186—13.)



1. In a store service apparatus of the class described, the combination of a way, comprising separable upper and lower carrier wires and a car having opposing wheels for engaging said wires, corresponding levers, one at each end of the way, each lever being pivoted between its ends to a stationary support, the inner end of each lever being connected with said upper wire, said wire being drawn taut to normally hold said levers in substantial alinement with said wire, complementary bars, one of which has its outer end jointedly attached to the outer end of one of said levers while the other bar is connected in like manner to the opposite lever, the inner ends of said bars being connected to said lower wire to normally hold said bars substantially parallel with said levers and means for applying power to the inner end of either of said bars to separate said wires behind the car while increasing the tension of the upper wire.

2. In a store service apparatus of the class described, the combination of a way comprising separable upper and lower carrier wires and a car having opposing wheels for engaging said wires, corresponding levers, one at each end of the way, each lever being pivoted between its middle and forward end to a stationary support, the inner end of each lever being connected with said upper wire, said wire being under the necessary tension to normally hold said levers in substantial alinement with said upper wire, complementary bars, one of which has its outer end jointedly attached to the outer end of one of said levers while the other bar is similarly connected to the outer end of the opposite lever, the inner ends of said bars being connected to said lower wire to normally hold said bars in substantial parallelism with said levers, said lower wire being under lesser tension than that of the upper ones.

3. In a spread wire system, the combination of upper and lower opposing wires, a carrier mounted thereon having opposing wheels, the upper one of said wires being connected to the short ends of corresponding levers pivoted to stationary supports, the tension of said wire being such as to normally hold said levers in substantial alinement with each other and with said wire, said lower wire having its ends attached to the free ends of bars the outer ends of which are jointedly connected to the ends of the long arms of said levers, said lower wire being under a lesser tension than that of the upper one, said bars being normally substantially parallel with said levers, and means for applying force to the forward end of either of said bars to separate it from the lever.



4. In a store service apparatus of the class described, the combination of a way comprising upper and lower carrier wires and a car having upper and lower wheels for engaging said wires, corresponding levers, one at each end of the way, each lever being pivoted between its ends to a stationary support, the inner end of each lever being connected with said upper wire which is drawn taut to normally hold said levers in substantial alinement therewith, the pivotal point of each of said levers being below a line drawn between the pivotal points at its ends, complementary bars, one of which has its outer end jointly attached to the outer end of one of said levers while the other bar is connected in like manner to the outer end of the opposite lever, the inner ends of said bars being connected to said lower wire, the tension of which is less than that of its fellow and means for applying power to the inner end of either of said bars.

5. In a store service apparatus of the class described, the combination of a way comprising upper and lower carrier wires, a car having upper and lower wheels for engaging said wires, corresponding levers, one at each end of the way, each lever being pivoted between its ends to a stationary support, the inner end of each lever being connected with said upper wire which is drawn taut to normally hold said levers in substantial alinement therewith, complementary bars, one of which has its outer end jointedly attached to the outer end of one of said levers while the other bar is connected in like manner to the outer end of the opposite lever, said lower wire being entwined or passed loosely over the upper one and its ends connected to the inner ends of said bars to hold them in substantial parallelism with said levers and means for applying a downward force to the inner end of either of said bars.

[Claims 6 to 18 not printed in the Gazette.]

1,037,237. COMBINED CIGARETTE AND MATCH BOX. WILLIAM LORENSO GLEASON, Newport News, Va. Filed Feb. 28, 1912. Serial No. 680,580. (Cl. 206—48.)



In a device of the character described, the combination with a casing, a container slidably mounted therein, having upper and lower flaps, said lower flap being folded upon itself to form inner and outer sections, and its extreme end disposed adjacent the lower end of the casing, of a plurality of matches having their stems arranged between the upper ends of said sections and secured thereto, and the headed ends of said matches being disposed adjacent the end of the container and covered by the extreme end of the flap.

1,037,238. PIPE-COUPLING. FREDERICK J. GLOVER, Silvis, Ill. Filed Dec. 14, 1910. Serial No. 597,366. (Cl. 137—28.)



In a pipe coupling, the combination of a male member provided with a locking lug, an annular shoulder, a reduced neck adjoining the shoulder and a terminal centering head, a gasket surrounding the neck between the shoulder and head, a female member provided at one end with an annular flange, an enlarged bore to receive the shoulder and gasket, and having a reduced bore to receive the terminal head, the said female member being provided with a longitudinal slot to receive the locking lug and with a circumferential recess extending through its side, one wall of which recess is formed by the said annular flange, and into which recess said locking nut is adapted to be turned, and a stop lug in the recess between the longitudinal slot and the end of the recess, with which stop lug the locking lug is adapted to be interlocked between it and the end of the recess and in forcible engagement with the flange.

1,037,239. LUBRICATOR FOR EXPLOSION-ENGINES. EARLE W. GOODNOW, Lansing, Mich., assignor to The "New-Way" Motor Company, Lansing, Mich. Filed Dec. 6, 1911. Serial No. 664,168. (Cl. 121—115.)



1. In a lubricating means for internal combustion engines having a plurality of oppositely disposed cylinders, the combination with the crank shaft thereof; of a crank casing into which said cylinders open provided with a lubricant reservoir on the side of the crank arm whose downstroke is away from its corresponding cylinder the bottom of the other side of the casing being adapted to drain into the reservoir; a splash finger for such crank arm; and a shield for the other cylinder projecting from the wall of the crank casing toward which said crank arm moves on its down-stroke, said shield being disposed at the inner side of the reservoir.

2. In a lubricating means for internal combustion engines having a plurality of oppositely disposed cylinders, the combination with the crank shaft thereof; of a crank casing into which said cylinders open provided with a lubricant reservoir on the side of the crank arm whose downstroke is away from its corresponding cylinder the bottom of the other side of the casing being adapted to drain into the reservoir; and a splash finger for such crank arm.

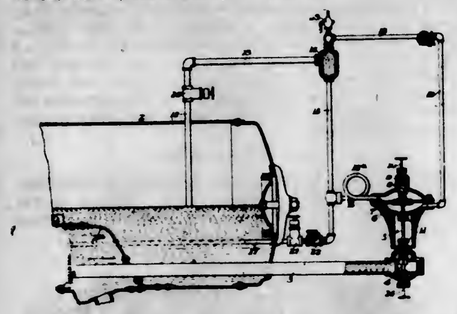
3. In a lubricating means for internal combustion engines having a plurality of cylinders, the combination with the crank-shaft thereof, of a crank casing provided with a lubricant reservoir on the side of the crank arm whose downstroke is away from the cylinder in alinement therewith, such crank arm being adapted to splash the lubricant, the other side of the casing being adapted to drain; and a shield for the other cylinder projecting from the wall of the crank casing toward which said crank arm moves on its downstroke, said shield being disposed at the inner side of the reservoir.

4. In a lubricating means for internal combustion engines having a plurality of cylinders, the combination with the crank shaft thereof, of a crank casing provided with a lubricant reservoir on the side of the crank arm whose downstroke is away from the cylinder in alinement therewith, such crank arm being adapted to splash the lubricant, the other side of the casing being adapted to drain.

1,037,240. BOILER FEED-WATER REGULATOR. HAROLD K. GOWDY, Pittsburgh, Pa. Filed Mar. 28, 1910. Serial No. 551,936. (Cl. 137—101.)

1. In a boiler feed regulator, a feed valve, a diaphragm to which the valve is connected, a chamber containing the diaphragm, water legs of substantially equal height communicating with said chamber at opposite sides of the diaphragm, one of said legs having a constant height of water therein to act upon the diaphragm to hold the valve

open, and the other leg being normally empty, a passage connecting the other of said legs with the water space of the boiler and arranged to be sealed by the rise of water in the boiler, and auxiliary means connected to the valve and tending to close it, and a return or discharge connection between the normally empty leg and the water space of the boiler; substantially as described.

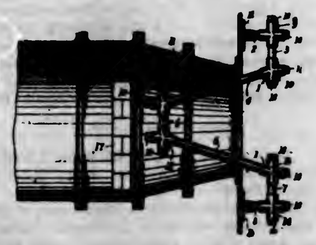


2. In a boiler feed regulator, a feed valve, a diaphragm to which the valve is connected, a chamber containing the diaphragm, water legs of substantially equal height communicating with said chamber at opposite sides of the diaphragm, one of said legs having a constant height of water therein to act upon the diaphragm to hold the valve open, and the other leg being normally empty, a passage connecting the other of said legs with the water space of the boiler and arranged to be sealed by the rise of water in the boiler, and auxiliary means connected to the valve and tending to close it, and a return or discharge connection between the normally empty leg and the water space of the boiler, together with an equalizing connection between the upper portions of the two water legs; substantially as described.

3. In a boiler feed regulator, a feed valve, a diaphragm to which the valve is connected, a chamber containing the diaphragm, water legs of substantially equal height communicating with said chamber at opposite sides of the diaphragm, one of said legs having a constant height of water therein to act upon the diaphragm to hold the valve open, and the other leg being normally empty, a passage connecting the other of said legs with the water space of the boiler and arranged to be sealed by the rise of water in the boiler, and auxiliary means connected to the valve and tending to close it, and a return or discharge connection between the normally empty leg and the water space of the boiler, together with a check valve in such return or discharge connection; substantially as described.

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1,037,241. BOILER-INSERT. WALLACE MCGUFFIN GREAVES, Manchester, England, assignor to Cosmo Contracting Syndicate Limited, London, England. Filed Mar. 31, 1911, Serial No. 618,174. Renewed May 31, 1912. Serial No. 700,774. (Cl. 122—412.)



1. The combination with a steam generator of the Lancashire, the Cornish, the marine or other type, of an insert for insertion of the flue of the generator, consisting of one or more substantially V-shaped devices comprising straight water tubes and situated in a vertical plane with the vertex projecting into the flue, the upper and lower ends being connected with the downtake end of the boiler above and below the flue respectively.

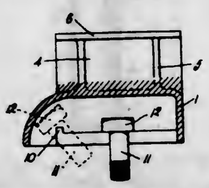
2. The combination with a steam generator of the Lancashire, the Cornish, the marine or other type, of an insert for insertion in the flue of the generator, consisting of one or more substantially V-shaped devices comprising straight water tubes and cross T's interconnecting said tubes and provided with radially movable members on those branches not interconnecting said tubes, said V-shaped devices being situated in a vertical plane with the vertex projecting into the flue, the upper and lower ends being connected with the downtake end of the boiler above and below the flue respectively.

3. The combination with a steam generator of the Lancashire, the Cornish, the marine or other type, of an insert for insertion in the flue of the generator, consisting of one or more substantially V-shaped devices comprising straight water tubes and situated in a vertical plane with the vertex projecting into the flue, the upper and lower ends being connected with the downtake end of the boiler above and below the flue respectively, and of a deflector consisting of two lateral walls of fire-brick situated inside the flue at a short distance in front of the vertex of the insert.

4. The combination with a steam generator of the Lancashire, the Cornish, the marine or other type, of an insert for insertion in the flue of the generator, consisting of one or more substantially V-shaped devices comprising straight water tubes and situated in a vertical plane with the vertex projecting into the flue, the upper and lower ends being connected with the downtake end of the boiler above and below the flue respectively, and of a deflector consisting of two lateral walls of fire-brick situated inside the flue at a short distance in front of the vertex of the insert, and of a cross-slab of fire-brick interconnecting said walls.

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1,037,242. INSERT-SUPPORT. RUSSELL GRINNELL, Providence, R. I., assignor to General Fire Extinguisher Company, New York, N. Y., a Corporation of New York. Filed May 26, 1910. Serial No. 563,615. (Cl. 72—62.)



1. A device of the character described embodying a body portion provided with an elongated slot open at one end and an enlarged opening adjacent the open end of said slot, and with a stop located near the open end of said slot.

2. A device of the character described embodying a supporting portion and a body portion, said body portion being provided with an elongated slot open at one end, and an enlarged opening adjacent the open end of said slot, and with a stop located near the open end of said slot.

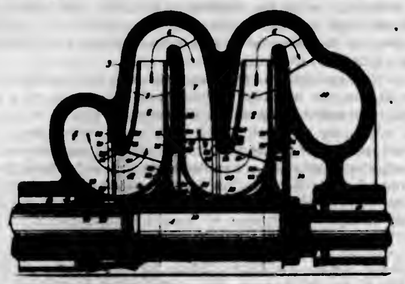
3. A device of the character described, embodying a supporting portion and a body portion, said body portion being provided with inwardly extending flanges forming an elongated slot open at one end, and an enlarged opening adjacent the open end of said slot, each of said flanges being provided with a stop located near the open end of said slot.

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1,037,243. CENTRIFUGAL PUMP. ALBERT E. GUY, Trenton, N. J. Filed Mar. 11, 1912. Serial No. 682,967. (Cl. 103—43.)

1. A centrifugal pump comprising in combination a casing formed with an intake chamber and an impeller chamber, a shaft rotatable in said casing and carrying an impeller located in said impeller chamber, said impeller being formed on either side with an annular extension, a plurality of separately renewable annular flanges removably mounted on each extension and rotating with said impeller, and a plurality of separately renewable annular flanges removably and non-rotatably mounted in the bore of each wall of the impeller chamber, said rotating flanges, adjoining lateral faces of said stationary and of said rotating flanges forming walls of restricted passages for intercepting egress of liquid from the impeller chamber.





2. A centrifugal pump comprising in combination a casing formed with an intake chamber and an impeller chamber, a shaft rotatable in said casing and carrying an impeller located in said impeller chamber, said impeller being formed on either side with an annular extension and plurality of radially extending, separately renewable, spaced annular flanges removably mounted on each extension and rotating with said impeller, and a plurality of radially arranged, separately renewable spaced annular flanges removable but non-rotatably mounted in the bore of each wall of the impeller chamber and arranged to coöperate with said impeller flanges, adjoining radially extending faces of said stationary and of said rotating flanges forming walls of restricted passages for intercepting egress of liquid from the impeller chamber.

3. A centrifugal pump comprising in combination a casing formed with an intake chamber and an impeller chamber, a shaft rotatable in said casing and carrying an impeller located in said impeller chamber, and a stationary but removable conoidal guide shell extending from said intake chamber to a point close to the web of said impeller and serving as a wall of a duct or inlet chamber, leading the incoming liquid smoothly and protecting said liquid from contact with the surface of the rotating parts until said liquid reaches the vane inlet.

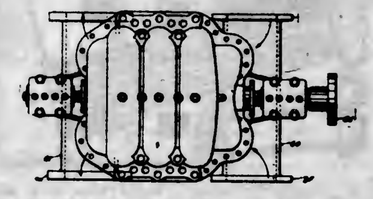
4. A centrifugal pump comprising in combination a casing formed with an intake chamber and an impeller chamber, a shaft rotatable in said casing and carrying an impeller located in said impeller chamber, and a stationary but removable conoidal guide shell extending from said intake chamber to a point close to the web of said impeller and serving as a wall of a duct or inlet chamber, leading the incoming liquid smoothly and protecting said liquid from contact with the surface of the rotating parts until said liquid reaches the vane inlet, said conoidal guide shell being formed with a groove at one end, and an annular flange on the casing fitting into the groove of said conoidal guide shell.

5. A centrifugal pump comprising in combination a casing formed with an intake chamber and an impeller chamber, a shaft rotatable in said casing and carrying an impeller located in said impeller chamber, said casing being formed with a balancing chamber on the rear side of said impeller, and a stationary conoidal guide shell removably attached at one end of the wall of said intake chamber and extending from said intake chamber to a point close to the web of said impeller, and serving as the wall of a duct or inlet chamber, leading the incoming liquid smoothly and protecting said liquid from contact with the surface of the rotating parts until said liquid reaches the vane inlet, said conoidal guide shell forming with the web of said impeller, the walls of a passage for guiding the liquid issuing from the balancing chamber, through web holes in said impeller, in a direction substantially tangential with that of and into the liquid current reaching the vane inlet of said impeller.

[Claims 6 to 9 not printed in the Gazette.]

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1,037,244. CENTRIFUGAL PUMP. ALBERT E. GUY, Trenton, N. J. Filed Mar. 11, 1912. Serial No. 682,968. (Cl. 103—43.)



1. A centrifugal pump having a body and a driving shaft rotatable therein, said body being formed of a casing and a cover joined on a plane passing through the axis of the shaft and being also formed with an inlet chamber, an impeller chamber and a discharge chamber, an impeller carried by said shaft and rotating in said impeller chamber, said casing being also formed at one end with an intake passage for said inlet chamber and at the other end with a discharge passage for said discharge chamber, one of said passages extending in a direction transverse to said shaft and arranged at each end for connection to the conduits of a system and for securement to a support.

2. A centrifugal pump having a body and a driving shaft rotatable therein, said body being formed of a casing and a cover joined on a plane passing through the axis of the shaft and being also formed with an inlet chamber, an impeller chamber and a discharge chamber, an impeller carried by said shaft and rotating in said impeller chamber, said casing being also formed at one end with an intake passage for said inlet chamber and at the other end with a discharge passage for said discharge chamber, each of said passages extending in a direction transverse to said shaft, and each being arranged at each end for connection to the conduits of a system and for securment to a support.

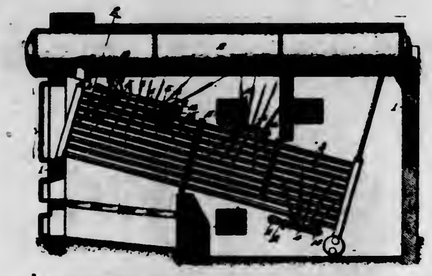
3. A centrifugal pump having a body and a shaft rotatable therein, said body being formed with an inlet chamber, an impeller chamber, a discharge chamber and a discharge passage, an impeller carried by said shaft and rotating in said impeller chamber, said body being formed with an inturned wall between said impeller chamber and discharge passage leading the liquid smoothly into the discharge chamber and discharge passage.

4. A centrifugal pump having a body formed with an inlet chamber, an impeller chamber and a discharge chamber, a shaft rotatable in said body and carrying an impeller in said impeller chamber, said body being also arranged at one end with a transverse duct forming an intake passage for said inlet chamber and at the other end with a duct forming a discharge passage for said discharge chamber, said transverse duct forming a transverse beam for supporting said body at the intake end and being provided with supporting means adapted for connection to a support, and means for supporting said casing at the discharge end.

5. A centrifugal pump having a body formed with an inlet chamber, an impeller chamber and a discharge chamber, a shaft rotatable in said body and carrying an impeller in said chamber, said body being also arranged at one end with a transverse duct forming a discharge passage for said discharge chamber and at the other end with a duct forming an intake passage for said inlet chamber, said transverse duct forming a transverse beam for supporting said body at the discharge end and being provided with supporting means adapted for connection to a support, and means for supporting said casing at the intake end.

[Claims 6 to 9 not printed in the Gazette.]

1,037,245. BOILER-TUBE CLEANER. RICHARD W. HAMANN, St. Louis, Mo., assignor to Eugene J. Feiner, St. Louis, Mo. Filed Feb. 13, 1911. Serial No. 608,305. (Cl. 122—391.)



1. In combination with a water tube of a boiler, a cleaning nozzle disposed lengthwise of said tube, and means for securing the nozzle to and parallel with the tube.

2. In combination with a water tube of a boiler, a cleaning nozzle disposed lengthwise of said tube, detachable means for securing the nozzle to the tube, and means for rocking the nozzle.

3. In a tube cleaner of the class described, the combination with a rotatable nozzle connected with a source of fluid under pressure, of bearings for the nozzle, and detachable means for securing the bearings to the tubes of the boiler so that the nozzle will be substantially parallel with the tubes.

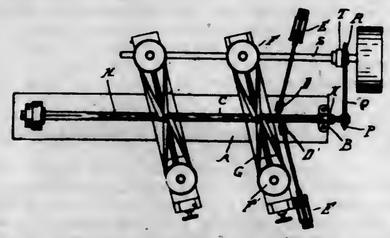
4. In a device of the class described, the combination with a nozzle, a supply pipe for a fluid under pressure and a swivel connection between the nozzle and said pipe, of bearings arranged to be detachably secured to one of the water tubes of a boiler to support said nozzle parallel with said tube, and means for rotating the nozzle in said bearings.

5. In a device of the class described, the combination with a nozzle, a supply pipe for a fluid under pressure and a swivel connection between the nozzle and said pipe, of bearings arranged to be detachably secured to one of the water tubes of a boiler to support said nozzle parallel with said tube, means for rotating the nozzle in said bearings, and means for admitting air to the nozzle at times when said fluid under pressure is cut off.

[Claim 6 not printed in the Gazette.]

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1,037,246. TUBE-FORMING MACHINE. JERVIS R. HARBECK and BEN K. FORD, Detroit, Mich., assignors, by mesne assignments, to Detroit Can Company, Detroit, Mich., a Corporation of New Jersey. Filed Feb. 19, 1910. Serial No. 544,887. (Cl. 93—80.)




1. In a machine for forming tubes, the combination with means for spirally winding a flexible strip, of a stationary cylindrical mandrel upon which said strip is wound, a revoluble reforming mandrel forming an alined extension of said stationary mandrel and receiving the "green" tube therefrom, and means for drying said tube while in engagement with said reforming mandrel.

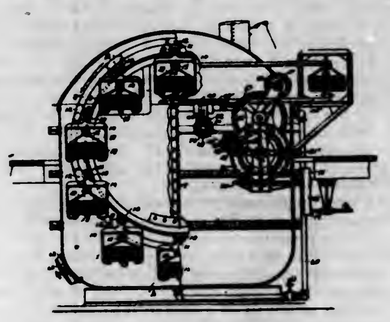
2. In a machine for forming tubes, the combination with means for spirally winding a paper strip, of a stationary mandrel upon which the strip is wound; a reforming mandrel constituting an alined extension of said stationary mandrel and over which the "green" tube is fed, and a revoluble heated sleeve surrounding said reforming mandrel through which the tube is fed.

3. In a machine for forming tubes, the combination with mechanism for spirally winding a flexible strip, of a stationary mandrel upon which said strip is wound, a revoluble reforming mandrel of different cross sections than and in alinement with the stationary mandrel, and means for driving said reforming mandrel permitting the rotation thereof at the speed of said winding means, and relieving the wound tube from stress.

4. In a machine for forming tubes, the combination with mechanism for spirally winding a flexible strip, of a stationary mandrel upon which said strip is wound, a revoluble reforming mandrel of different cross section than and in alinement with the stationary mandrel, and means for driving said reforming mandrel including a friction clutch permitting the rotation of the reforming mandrel at the speed of said winding means and relieving the wound tube from stress.

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1,037,247. STERILIZING APPARATUS. JOSEPH HAUK, Jr., Milwaukee, Wis., assignor to Twentieth Century Machinery Company, Incorporated, Milwaukee, Wis. Filed Feb. 15, 1909, Serial No. 477,885. Renewed June 24, 1912. Serial No. 705,643. (Cl. 126—272.)



1. In an apparatus of the described class, the combination of a sterilising tank, a pair of annular stationary crate supporting collars mounted in said tank, a pair of annular revoluble collars each provided with a plurality of roller bearings surrounding and supported from said stationary collars, a plurality of sets of crate carrying hangers pivotally suspended from said revoluble collars, means for conveying bottle crates from the exterior of said tank into position to be carried by said hangers, means for communicating an intermittent movement to said revoluble collars, and means for moving the crates from the hangers of said tank after they have completed their annular course therein.

2. In an apparatus of the described class, the combination of a sterilising tank divided by transverse partitions into a plurality of compartments, a pair of annular stationary crate supporting collars mounted in each of said compartments, a pair of annular revoluble collars provided with a plurality of rollers bearings surrounding and supported from said stationary collars, a plurality of sets of crate carrying hangers pivotally suspended from said revoluble collars, means for conveying bottle crates from the exterior of said tank into position to be carried by said hangers, means for communicating an intermittent movement to said revoluble collars, means for moving the crates from the hangers in one compartment after they have completed their annular course therein to the hangers of the next compartment, and means for moving the crates from the last compartment.



3. In an apparatus of the described class, the combination of a sterilising tank divided by transverse partitions into a plurality of compartments, a pair of annular stationary crate supporting collars mounted in each of said compartments, a pair of annular revoluble collars provided with a plurality of roller bearings surrounding and supported from said stationary collars, a plurality of sets of crate carrying hangers pivotally suspended from said revoluble collars, a movable track section for each set of crate carrying hangers located within and carried by said annular revoluble collars, a stationary track section supported above the longitudinal center of the tank in alinement with said movable track sections between and upon each side of the several compartments, means for communicating an intermittent movement to said revoluble collar and track sections carried thereby, and means for moving said crate carrying hangers from said stationary to said movable track sections, when the latter are at rest.

4. In an apparatus of the described class, the combination of a sterilising tank divided by transverse partitions into a plurality of compartments, a pair of annular stationary crate supporting collars mounted in each of said compartments, a pair of annular revoluble collars provided with a plurality of roller bearings surrounding and supported from said stationary collars, a plurality of sets of crate carrying hangers pivotally suspended from said revoluble collars, a movable track section for each set of crate carrying hangers located within and carried by said annular revoluble collars, a stationary track section supported above the longitudinal center of the tank in alinement with said movable track sections between and upon each side of the several compartments, means for communicating an intermittent movement to said revoluble collar and track sections carried thereby, a bottle crate carried by each of said hangers, an endless conveyer chain extending longitudinally from one end to the other through the several compartments and from thence to the starting point, returning upon the exterior of said compartments, means for communicating an intermittent movement to said endless chain, and from said endless chain to said bottle crates.

5. In an apparatus of the described class, the combination of a sterilising tank divided by transverse partitions into a plurality of compartments, a pair of annular stationary crate supporting collars mounted in each of said compartments, a pair of annular revoluble collars provided with a plurality of roller bearings surrounding and supported from said stationary collars, a plurality of sets of crate carrying hangers pivotally suspended from said revoluble collars, a movable track section for each set of crate carrying hangers located within and carried by said annular revoluble collars, a stationary track section supported above the longitudinal center of the tank in alinement with said movable track sections upon each side of the several compartments, means for communicating an intermittent movement to said revoluble collar and track sections carried thereby, a bottle crate carried by each of said hangers, an endless chain extending longitudinally from one end to the other through the several compartments and from thence to the starting point, returning upon the exterior of said compartments, means for communicating an intermittent movement to said endless chain, and means for alternately connecting said chain to and releasing it from said crates as the latter are moved with said hangers from one of said track sections to the other through said compartments.

[Claims 6 and 7 not printed in the Gazette.]

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1,037,248. GRAIN-SEPARATOR. PAUL HEINE, Janesville, Wis. Filed Aug. 4, 1911. Serial No. 642,305. (Cl. 130—24.)

1. A grain separator, comprising a frame, a shaft mounted on the frame and provided with a plurality of cranked portions out of alinement transversely with relation to each other and the shaft one of which cranked portions is of greater throw than the other, a straw rake movably connected to the frame and to one of the cranked portions, and a grain bottom member movably connected to the frame and to the other cranked portion.



2. A grain separator, comprising a frame, a shaft mounted on the frame and provided with a plurality of cranked portions out of alinement transversely with relation to each other and the shaft, a straw rake pivotally connected to the frame and to one of the cranked portions, a grain bottom member pivotally connected to the frame and to the other cranked portion of the shaft, and chaffer bars pivotally connected to the frame and to the end of the grain bottom member which is connected to the frame.

3. A grain separator, comprising a frame, a shaft extending transversely across the frame and provided with a plurality of cranked portions out of alinement transversely with relation to each other and the shaft, an auxiliary straw rake movably connected to the frame, a straw rack connected to the auxiliary rack and to one of the cranked portions of the frame, and a grain bottom member movably connected to the frame and to the other cranked portions of the shaft.

4. A grain separator, comprising a frame, a shaft extending transversely across the frame and provided with a plurality of cranked portions out of alinement transversely with relation to each other and the shaft, bails extending across the frame, an auxiliary straw rack supported by the bails, a straw rake pivotally connected to the auxiliary rack and to one of the cranked portions, another bail extending across the frame, and a grain bottom member supported at one end by the last mentioned bail and connected at its other end to the other cranked portion of the shaft.

5. A grain separator, comprising a frame, a shaft extending transversely across the frame and provided with a plurality of cranked portions out of alinement transversely with relation to each other and the shaft, bails extending across the frame, an auxiliary rack supported by the bails, a straw rack pivotally connected to the auxiliary rack at one end and having its other end connected to one of the cranked portions, another bail member extending across the frame, a grain bottom member supported from the last mentioned bail at one end and having its other end connected to the other cranked portion of the shaft, and chaffer bars movably connected to the frame and to the grain bottom member.

[Claim 6 not printed in the Gazette.]

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1,037,249. AUTOMATIC GRAIN-WEIGHER. WILLIAM F. HILFIKER, Jay county, Ind. Filed Feb. 19, 1912. Serial No. 678,627. (Cl. 73—169.)

1. An automatic grain weigher comprising a frame, a pair of buckets mounted to slide up and down in said frame, a sprocket chain connecting the buckets, a shaft located central of and above said buckets, a sprocket-wheel mounted on said shaft with said chain disposed thereover, a scale-bar secured to and extending upward from said shaft, a weight adjustably secured on said bar, guides for holding the weight in its extremes of movement, a hopper, a cut-off for distributing the grain from the hopper to first one and then the other of said buckets, means for automatically operating said cut-off by the operation of said shaft, and means for retaining the grain in the buckets until the buckets have been lowered.

2. An automatic grain weigher comprising in combination a pair of counter-balanced buckets adapted to be

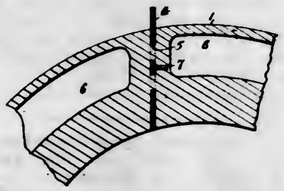
moved up and down alternately, a rotatable shaft supporting both of said buckets, a sprocket wheel secured on said shaft, a sprocket chain operative over said wheel with its ends secured each to one of said buckets, a frame work supporting all of said parts, guides controlling the vertical movements of said buckets, a hopper disposed above the buckets and having chutes leading therefrom to each of said buckets, a cut-off adapted to deflect the grain from the hopper into one of said buckets, automatic means for operating said cut-off, means whereby the outlet



from each of the buckets is closed at all times except when the buckets are near their lowest positions, a block 17 secured on the forward end portion of said shaft, a scale-bar 23 extending upwardly from said block, a weight 24 slidably mounted on said scale-bar, means for securing said weight at various points along said scale-bar, cushions carried by the sides of said weight, and upwardly flaring guides against which said cushions are adapted to contact, all substantially as shown and described.

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1,037,250. PROCESS FOR MAKING CORES FOR MANUFACTURING TIRE-SHOES. ROBERT M. HINMAN, Akron, Ohio, assignor of one-half to Frank Nolte, Akron, Ohio. Original application filed Dec. 1, 1909, Serial No. 530,876. Divided and this application filed Oct. 30, 1911. Serial No. 657,520. (Cl. 22—115.)

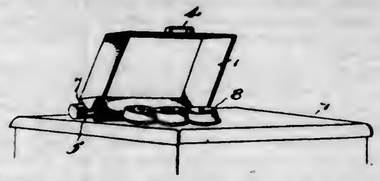


1. A method of manufacturing cores for forming the outer shoes of double-tube pneumatic tires, consisting in inserting in an annular mold-cavity a dividing medium provided with means for permitting a small portion of the metal in one portion of the cavity to unite with the metal in a coadjacent cavity, thereby providing a frangible-joint between coadjacent segments of a finished core, causing said dividing medium to adhere to the end of one of said segments, and subsequently breaking said sections apart to provide a collapsible core capable of being reassembled into an annular body.

2. That improvement in methods for manufacturing cores for forming the outer shoes of double-tube pneumatic tires, which consists in incorporating in an annular mold-cavity a plurality of apertured dividing mediums each provided with means for permitting a small connecting portion of the metal in coadjacent portions of the mold-cavity to unite through said dividing medium thereby providing a frangible joint between said coadjacent portions of the finished core, securing said dividing mediums to the ends of said core portions and subsequently breaking said sections apart at said frangible joints and along one face of each of said dividing mediums to permit the reassembling of said core-forming portions into an annular body.

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1,037,251. SAD-IRON HEATER. ALBERT B. HOLLEY, Virginia, Minn. Filed Mar. 23, 1912. Serial No. 685,746. (Cl. 126—227.)



1. An inverted receptacle having an arm projecting therefrom and a counterbalancing weight on the arm, the edge of the receptacle adjacent said weight acting as a pivot and the weight forming a stop to limit opening movement of the receptacle, and whereby the receptacle is held in tilted position.

2. A cover having a handle attached at its front and arms projecting from its rear each having a counterbalancing weight thereon, whereby the front of the receptacle may be tilted back on its rear edge as a pivot, said weights acting as a stop to limit the opening movement of the receptacle.

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1,037,252. FOOT-SCRAPER. GLENN E. HOLMES, Chicago, Ill. Filed Jan. 31, 1912. Serial No. 674,602. (Cl. 15—2.)



1. As a new article of manufacture, a foot scraper arranged to be attached to the step of an automobile and project above the same, comprising in a single piece a substantially rectangular frame, the bottom of which serves as an attaching member for securing the scraper in position, and a deflector extending upwardly and rearwardly from the attaching member and having sides extending to the said members of the frame, the top of the frame being arranged to act as a scraper bar.

2. As a new article of manufacture, a foot scraper for automobiles arranged to be attached to the edge of the step and project upwardly therefrom, comprising in a single piece a deflector plate extending upwardly and forwardly from the edge of the step, having a substantially vertically extending attaching flange at its bottom to be secured to the edge of the step, side pieces for said plate, and a scraper bar extending across the front and top of said side pieces.

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1,037,253. CLOTHES-HANGING ATTACHMENT FOR BEDSTEADS. CHARLES HONNET, New York, N. Y. Filed May 20, 1910. Serial No. 562,382. (Cl. 45—13.)

1. A clothes-hanging attachment for bedsteads comprising a clamp adapted to clamp a bed rail and having a downward extension, a link swiveled to the lower end of the downward extension, a standard pivoted to said link, and means engaging the standard and the clamp for locking the standard in upright position.



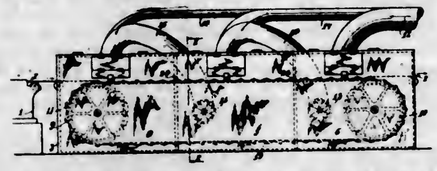
2. A clothes-hanging attachment for bedsteads comprising a clamp formed of two members hinged together at their inner ends, one of said members being provided with a downward extension, a clamping bolt for causing



said members to clamp the bed rail, a link swiveled to the lower end of the extension, a standard pivoted to said link, and a device engaging said clamp for locking said standard in upright position, said standard being adapted to be folded transversely of the bed.

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1,037,254. DRYING APPARATUS. HENRY S. HOPKINS, Brooklyn, N. Y. Filed Dec. 16, 1911. Serial No. 666,126. (Cl. 34—12.)



1. In drying apparatus, a casing, a conveyer passing through the casing and adapted to convey the material to be dried, and a screen mounted upon the conveyer, said screen having a wavy or corrugated outline in the direction of its length.

2. In apparatus for drying sheets and fabrics, a conveyer adapted to carry the material to be dried, said conveyer having a wavy outline in the direction of its length and adapted to cause the material to lie thereon in a series of waves, while said material is being dried.

3. In drying apparatus for drying sheets and fabrics, a conveyer adapted to carry the material to be dried, said conveyer having a wavy outline in the direction of its length, and adapted to cause the material to lie thereon in a series of waves, and means for causing a blast of air to pass over the surface of the material to dry the same.

4. In drying apparatus, a casing divided into a plurality of compartments, a conveyer passing through the compartments and adapted to carry the material to be dried, and means for adjusting to the contour of the conveyer the openings in the walls of the compartments as the conveyer passes through them.

5. In drying apparatus, a casing divided into a plurality of compartments, a conveyer passing through the compartments and adapted to carry the material to be dried, and hinged gates provided for the walls of the compartments through which the conveyer passes, and adapted to automatically adjust to the contour of the conveyer the opening formed in said walls.

[Claims 6 to 10 not printed in the Gazette.]

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1,037,255. CURRENT-MOTOR. WINFRED C. HOWLAND, Watertown, Wis. Filed Feb. 1, 1912. Serial No. 674,677. (Cl. 138—12.)

1. In a current motor, a drive shaft, radially disposed blades connected to said drive shaft to rotate the same, and means for moving said blades in gradually varying vertically inclined planes as they are impelled through the water by the current.

2. In a current motor, a drive shaft, radially disposed blades connected to said drive shaft to rotate the same, and means for moving said blades vertically during a portion of each revolution of said shaft, and simultaneously disposing the blades in vertically inclined planes with relation to the current.



3. In a current motor, a drive shaft, radially disposed blades connected to said drive shaft to rotate the same, and means for successively disposing said blades in longitudinally and vertically inclined planes during the intermediate portion of their movement through the water.

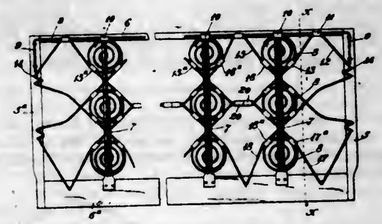
4. In a current motor, a drive shaft, radially disposed blades connected to said shaft for universal movement, means rigidly fixed on the shaft and connected to the blades whereby the shaft is rotated, means for successively lowering and raising the blades during a portion of each revolution of the shaft and simultaneously moving the blades to dispose the same in longitudinal and transverse inclined planes with relation to said shaft and automatically reversing the transverse inclination thereof as the blades are lowered and raised respectively.

5. In a current motor, a drive shaft, radially disposed blade carrying arms connected to said shaft for universal movement, a supporting track for the arms whereon said arms are normally disposed upwardly at an inclination to the shaft supporting trucks for said arms movable on the track, said track having oppositely inclined portions to lower and raise the blade carrying arms and also dispose the same in transverse inclined planes, the movement of the trucks from one of the inclined portions of the track onto the other inclined portion automatically reversing such transverse inclination of the blades.

[Claims 6 to 16 not printed in the Gazette.]

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1,037,256. UPHOLSTERING SPRINGWORK. EDWIN M. HULSE, Columbus, Ohio. Filed May 15, 1912. Serial No. 697,467. (Cl. 5—20.)



1. In a sofa or davenport seat, in combination, a suitable frame having upholstering springs supported therein, a vertically yielding front wire, a rear member parallel to the front wire, a trussed frame for said front wire composed of a plurality of zigzag wires secured to the front wire and to the rear member and to each other between the upper ends of the springs, substantially as described.

2. In a sofa or davenport seat, in combination, a suitable frame having upholstering springs supported therein, a vertically yielding front wire, a rear member parallel to the front wire, a trussed frame for said front wire composed of a plurality of zigzag wires secured to the front wire and to the rear member and to each other at points between the upper ends of the springs and also to said upholstering springs, substantially as described.

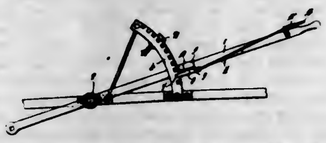
3. In a sofa or davenport seat, in combination, a suitable frame having upholstering springs supported therein, a front wire, a rear member parallel to the front wire, a trussed frame for said front wire composed of two pairs of zig-zag wires, diagonal portions of said wires of each

pair crossing each other, the angular portions at one side of one pair secured to the front wire and the angular portions of one side of the other pair secured to the rear member, and the remaining angular portions of the two pairs secured together between the springs, substantially as shown and described.

4. In a sofa or davenport seat, in combination, a suitable frame having upholstering springs supported therein, a vertically yielding front or edge wire, a parallel rear member, and a truss or bracing frame between the front or edge wire and the parallel rear member including a zigzag wire secured at several points to the front or edge wire and to the frame and upper ends of the springs.

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1,037,257. AUTOMATIC NOTCH-FINDER. GEORGE WILLIAM HUTCHINSON, Walton, Waikato, Auckland, New Zealand. Filed Apr. 30, 1912. Serial No. 694,251. (Cl. 74—39.)



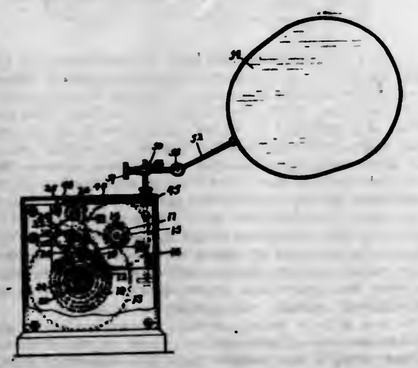
1. In combination, a quadrant rack, a slide piece, means for adjusting same relatively to the quadrant a spring acting upon the slide piece, a lever, a pawl bracket slidable thereon, a projection from the pawl bracket adapted to engage the slide piece, substantially as and for the purpose herein specified and illustrated in the drawing.

2. In combination, a quadrant rack, a quadrant bracket, co-axial therewith and corresponding thereto, a lever, a pawl bracket slidable thereon, a projecting pawl, a slide piece, means for adjusting same relatively to the quadrant bracket, a spring, a projection from the slide piece and a projection from said pawl bracket adapted to engage the projection from the slide piece, substantially as and for the purpose herein specified and illustrated in the drawing.

3. In apparatus of the nature indicated, a quadrant rack, a slide piece sliding radially therewith and adjustable relatively to the notches in the quadrant rack, a spring acting upon the slide piece, a projection from the slide piece having an inclined under face, a lever, a pawl slidable thereon and adapted to engage the notches in the quadrant and a projection from the pawl adapted to engage the projection from the slide piece, substantially as and for the purpose herein specified and illustrated in the drawing.

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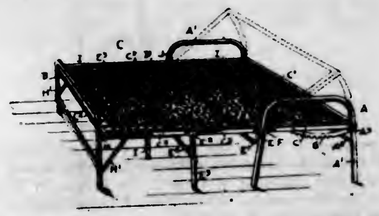
1,037,258. MECHANICALLY-OPERATED FAN. GEORGE A. JACKSON, Newton, Mass., assignor to Myles McCabe, Boston, Mass. Filed Aug. 7, 1911. Serial No. 642,831. (Cl. 230—1.)



The combination with a motor, of an oscillating-shaft, a fan carried by said shaft, and means including a crank-motion to connect said oscillating-shaft with a shaft continuously driven by the motor, the fan being thus oscillated by the motor and at the same time controlling its movement and a governor loosely connected with one of the shafts of the motor, whereby the fan is caused to stop and start suddenly at the ends of its stroke substantially noiselessly, substantially as described.

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1,037,259. FOLDING BED. LEWIS B. JEFFCOTT, New York, N. Y. Filed Nov. 23, 1910. Serial No. 593,823. (Cl. 5—47.)



1. A folding bed, comprising a mattress frame formed of U-shaped head and foot sections and intermediate side bars, links pivotally connecting the intermediate side bars with the head and foot sections, the links connecting the side bars and head section being connected together and the links connecting the said side bars and foot sections being provided with legs, a head formed of two U-shaped side members connected together and between which the head mattress section extends and rests on the connection between said members, the side members of the head being pivoted to the links connecting the side bars and head mattress section, and a foot pivotally connected with the foot mattress section.

2. A folding bed, comprising a mattress frame formed of U-shaped head and foot sections and intermediate side bars, links pivotally connecting the intermediate bars with the head and foot sections, the links connecting the side bars and head section being connected together and the liks connecting the said side bars and foot section being provided with legs, a head formed of two connected U-shaped side members between which extends the head mattress section, the side members of the head being provided with buttons and pivoted to the links connecting the side bars and head section, a foot pivotally connected with the foot mattress section, and hooks on the foot mattress section for engaging the buttons on the side members of the head, when the foot mattress section and the intermediate bars are folded to form a back.

3. A folding bed, comprising a mattress frame formed of three pivotally connected sections, the head and intermediate sections being connected together by links connected with each other by a cross bar, a head formed of two U-shaped side members connected together by a cross bar and between which extends the head section with its outer end resting upon said cross bar, the side members of the head being provided with buttons and pivoted to the links connecting the head and intermediate mattress sections, a foot pivotally connected with the foot mattress section, and hooks carried by the foot mattress section and adapted to engage the said buttons when the foot and intermediate and foot mattress sections are folded to form a back.

4. In a folding bed, a mattress frame formed of U-shaped head and foot sections and intermediate side bars pivotally connected with the foot section, links connected with each other and pivotally connecting the side bars with the head mattress section, and a head formed of two U-shaped side members connected by cross bars and between which the head mattress section extends with its outer end resting upon the upper cross bar, the said side members of the head being pivoted to the said links.

5. In a folding bed, a mattress frame formed of U-shaped head and foot sections and intermediate side bars pivotally connected with the head section, links connected with each other and pivotally connecting the side bars

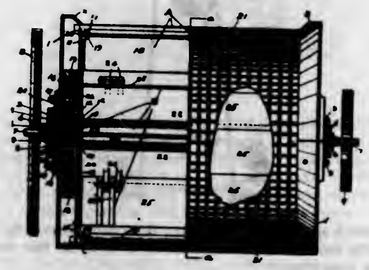


with the foot mattress section, and a head formed of U-shaped connected side members between which the head mattress section is confined and supported.

[Claim 6 not printed in the Gazette.]

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1,037,260. POWER-WHEEL. HARRY B. JOHNSTON, Salt Lake City, Utah, assignor to Model Manufacturing Company, a Corporation. Filed Aug. 5, 1911. Serial No. 642,461. (Cl. 138—12.)



1. In a device of the class described the combination of a horizontally placed driving shaft, an undershot wheel secured thereon, a drum screen carried on said shaft concentric with said undershot wheel, hinged blades therein, and intermeshing gears adapted to impart the motion of the said wheel and screen to said shaft, as and for the purpose described.

2. In a device of the class described the combination of a horizontally placed driving shaft, an undershot wheel secured thereon, a drum screen having radially hinged blades therein carried on said shaft concentric with said wheel, and intermeshing beveled gears adapted to coact in imparting motion to said shaft, as and for the purpose described.

3. In a device of the class described the combination of a horizontally placed driving shaft, an undershot wheel having feathering blades secured on said shaft, a drum screen having radially hinged blades therein carried on said shaft concentric with said wheel, and intermeshing beveled gears adapted to coact in imparting motion to said shaft, as and for the purpose described.

4. In a device of the class described the combination of a casing, a horizontal driving shaft mounted therein, an undershot wheel having feathering blades secured on said shaft, a drum screen having radially hinged blades therein carried on said shaft concentric with said wheel, and intermeshing beveled gears adapted to coact in imparting motion to said shaft, as and for the purpose described.

5. In a device of the class described the combination of a horizontally placed driving shaft, an undershot wheel having radially disposed V-shaped cups thereon, blades hinged thereto said blades adapted to fold at times as a cover for said cups, a drum screen having radially hinged blades therein carried on said shaft concentric with said wheel, and intermeshing beveled gears adapted to coact in imparting motion to said shaft, as and for the purpose described.

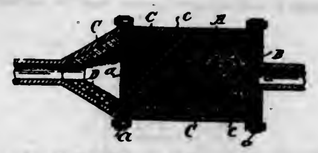
[Claims 6 and 7 not printed in the Gazette.]

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1,037,261. ART OF OXIDIZING AMMONIA. LOUIS C. JONES, DARWIN A. MORTON, and GEORGE N. TRASIBY, Syracuse, N. Y., assignors to Semet-Solvay Company, Syracuse, N. Y., a Corporation of Pennsylvania. Filed Aug. 5, 1911. Serial No. 642,573. (Cl. 23—1.)

1. The hereinbefore described process of producing nitrogen oxids which consists in passing ammonia gas with an excess of oxygen in contact with a catalytic agent consisting of a plumbate at a temperature below that at which the oxids of nitrogen formed begin to decompose.

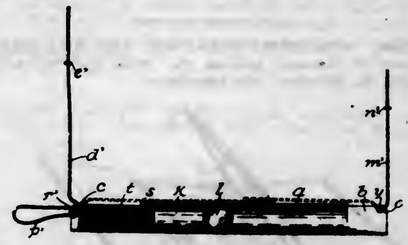
2. The hereinbefore described process of producing nitrogen oxids which consists in passing ammonia gas with an excess of oxygen in contact with a catalytic agent consisting of a plumbate at a temperature of from 700° C. to 750° C.



3. The hereinbefore described process of producing nitrogen oxids which consists in passing ammonia gas with an excess of oxygen in contact with a catalytic agent consisting of a plumbate formed from the oxids of lead and of a metal the oxid of which, at a temperature of 750° C. is infusible and has no tendency to revert to its hydroxid or carbonate in the presence of water vapor or $CO_2$.

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1,037,262. MARBLE-GUN. GEORGE COLVIN KENNEDY, Waterloo, Iowa. Filed Nov. 16, 1911. Serial No. 660,630. (Cl. 124—12.)



1. In a marble-gun, in combination, a conduit, an erect sighting-device on said conduit, and propelling-means located at one end of said conduit, said conduit having catches adapted to engage with said sighting-device to detachably secure it in either an erect or a recumbent position.

2. In a marble-gun, in combination, a conduit, an erect sighting-device on each end thereof, and propelling-means located at one end of said conduit, said sighting-devices being adapted to swing in one direction only to move toward each other, said conduit and said sighting-devices having co-acting catches adapted to detachably coöperate for detachably securing said devices to said conduit when the former are prostrated thereupon.

3. In a marble-gun, in combination, a conduit, and sighting-standards pivoted on its ends in the medial line thereof, said conduit having catches thereon for detachably securing said standards thereto when swung over thereupon.

4. In a marble-gun, in combination, a conduit cylindrical in its middle portion and having squared ends with open tops, sighting-standards pivoted to the walls of said open ends, said standards engaging said conduit to prevent movement from the vertical in one direction, but each being adapted to swing toward each other to lie upon the conduit.

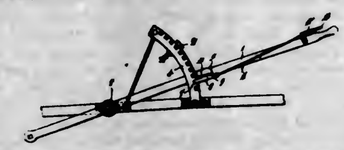
5. In a marble-gun, in combination, a cylindrical conduit having its ends squared and open at the top, sighting-standards pivoted to the walls of said squared ends and engaging same to prevent movement away from said conduit outwardly, said standards being adapted to fold upon each other and upon the conduit, a driving-head movably seated in said conduit, a spring connected to said driving-head, a rod connected to said driving-head and adapted to be shifted to place said spring under tension, said rod and the rearmost of said standards being adapted to be engaged with each other and then released from each other to secure said spring under tension and then discharge it therefrom.

pair crossing each other, the angular portions at one side of one pair secured to the front wire and the angular portions of one side of the other pair secured to the rear member, and the remaining angular portions of the two pairs secured together between the springs, substantially as shown and described.

4. In a sofa or davenport seat, in combination, a suitable frame having upholstering springs supported therein, a vertically yielding front or edge wire, a parallel rear member, and a truss or bracing frame between the front or edge wire and the parallel rear member including a zig-zag wire secured at several points to the front or edge wire and to the frame and upper ends of the springs.

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1,037,257. AUTOMATIC NOTCH-FINDER. GEORGE WILLIAM HUTCHINSON, Walton, Waikato, Auckland, New Zealand. Filed Apr. 30, 1912. Serial No. 694,251. (Cl. 74—39.)



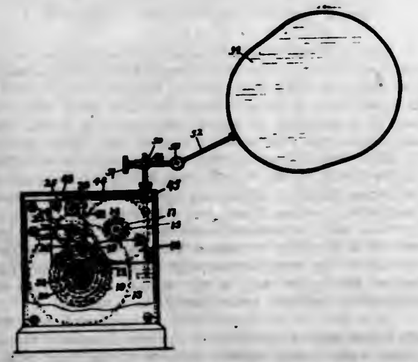
1. In combination, a quadrant rack, a slide piece, means for adjusting same relatively to the quadrant a spring acting upon the slide piece, a lever, a pawl bracket slidable thereon, a projection from the pawl bracket adapted to engage the slide piece, substantially as and for the purpose herein specified and illustrated in the drawing.

2. In combination, a quadrant rack, a quadrant bracket, co-axial therewith and corresponding thereto, a lever, a pawl bracket slidable thereon, a projecting pawl, a slide piece, means for adjusting same relatively to the quadrant bracket, a spring, a projection from the slide piece and a projection from said pawl bracket adapted to engage the projection from the slide piece, substantially as and for the purpose herein specified and illustrated in the drawing.

3. In apparatus of the nature indicated, a quadrant rack, a slide piece sliding radially therewith and adjustable relatively to the notches in the quadrant rack, a spring acting upon the slide piece, a projection from the slide piece having an inclined under face, a lever, a pawl slidable thereon and adapted to engage the notches in the quadrant and a projection from the pawl adapted to engage the projection from the slide piece, substantially as and for the purpose herein specified and illustrated in the drawing.

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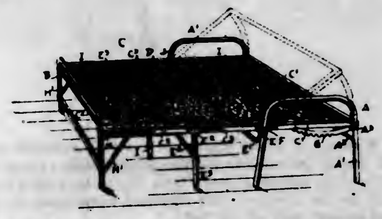
1,037,258. MECHANICALLY-OPERATED FAN. GEORGE A. JACKSON, Newton, Mass., assignor to Myles McCabe, Boston, Mass. Filed Aug. 7, 1911. Serial No. 642,831. (Cl. 230—1.)



The combination with a motor, of an oscillating-shaft, a fan carried by said shaft, and means including a crank-motion to connect said oscillating-shaft with a shaft continuously driven by the motor, the fan being thus oscillated by the motor and at the same time controlling its movement and a governor loosely connected with one of the shafts of the motor, whereby the fan is caused to stop and start suddenly at the ends of its stroke substantially noiselessly, substantially as described.

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1,037,259. FOLDING BED. LEWIS B. JEFFCOTT, New York, N. Y. Filed Nov. 23, 1910. Serial No. 593,823. (Cl. 5—47.)



1. A folding bed, comprising a mattress frame formed of U-shaped head and foot sections and intermediate side bars, links pivotally connecting the intermediate side bars with the head and foot sections, the links connecting the side bars and head section being connected together and the links connecting the said side bars and foot sections being provided with legs, a head formed of two U-shaped side members connected together and between which the head mattress section extends and rests on the connection between said members, the side members of the head being pivoted to the links connecting the side bars and head mattress section, and a foot pivotally connected with the foot mattress section.

2. A folding bed, comprising a mattress frame formed of U-shaped head and foot sections and intermediate side bars, links pivotally connecting the intermediate bars with the head and foot sections, the links connecting the side bars and head section being connected together and the liks connecting the said side bars and foot section being provided with legs, a head formed of two connected U-shaped side members between which extends the head mattress section, the side members of the head being provided with buttons and pivoted to the links connecting the side bars and head section, a foot pivotally connected with the foot mattress section, and hooks on the foot mattress section for engaging the buttons on the side members of the head, when the foot mattress section and the intermediate bars are folded to form a back.

3. A folding bed, comprising a mattress frame formed of three pivotally connected sections, the head and intermediate sections being connected together by links connected with each other by a cross bar, a head formed of two U-shaped side members connected together by a cross bar and between which extends the head section with its outer end resting upon said cross bar, the side members of the head being provided with buttons and pivoted to the links connecting the head and intermediate mattress sections, a foot pivotally connected with the foot mattress section, and hooks carried by the foot mattress section and adapted to engage the said buttons when the foot and intermediate and foot mattress sections are folded to form a back.

4. In a folding bed, a mattress frame formed of U-shaped head and foot sections and intermediate side bars pivotally connected with the foot section, links connected with each other and pivotally connecting the side bars with the head mattress section, and a head formed of two U-shaped side members connected by cross bars and between which the head mattress section extends with its outer end resting upon the upper cross bar, the said side members of the head being pivoted to the said links.

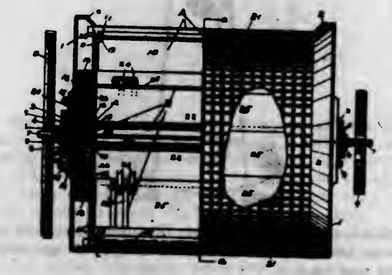
5. In a folding bed, a mattress frame formed of U-shaped head and foot sections and intermediate side bars pivotally connected with the head section, links connected with each other and pivotally connecting the side bars with the foot mattress section, and a head formed of U-shaped connected side members between which the head mattress section is confined and supported.

[Claim 6 not printed in the Gazette.]

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1,037,260. POWER-WHEEL. HARRY B. JOHNSTON, Salt Lake City, Utah, assignor to Model Manufacturing Company, a Corporation. Filed Aug. 5, 1911. Serial No. 642,461. (Cl. 138—12.)



1. In a device of the class described the combination of a horizontally placed driving shaft, an undershot wheel secured thereon, a drum screen carried on said shaft concentric with said undershot wheel, hinged blades therein, and intermeshing gears adapted to impart the motion of the said wheel and screen to said shaft, as and for the purpose described.

2. In a device of the class described the combination of a horizontally placed driving shaft, an undershot wheel secured thereon, a drum screen having radially hinged blades therein carried on said shaft concentric with said wheel, and intermeshing beveled gears adapted to coact in imparting motion to said shaft, as and for the purpose described.

3. In a device of the class described the combination of a horizontally placed driving shaft, an undershot wheel having feathering blades secured on said shaft, a drum screen having radially hinged blades therein carried on said shaft concentric with said wheel, and intermeshing beveled gears adapted to coact in imparting motion to said shaft, as and for the purpose described.

4. In a device of the class described the combination of a casing, a horizontal driving shaft mounted therein, an undershot wheel having feathering blades secured on said shaft, a drum screen having radially hinged blades therein carried on said shaft concentric with said wheel, and intermeshing beveled gears adapted to coact in imparting motion to said shaft, as and for the purpose described.

5. In a device of the class described the combination of a horizontally placed driving shaft, an undershot wheel having radially disposed V-shaped cups thereon, blades hinged thereto said blades adapted to fold at times as a cover for said cups, a drum screen having radially hinged blades therein carried on said shaft concentric with said wheel, and intermeshing beveled gears adapted to coact in imparting motion to said shaft, as and for the purpose described.

[Claims 6 and 7 not printed in the Gazette.]

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1,037,261. ART OF OXIDIZING AMMONIA. LOUIS C. JONES, DARWIN A. MORTON, and GEORGE N. TERRELL, Syracuse, N. Y., assignors to Semet-Solvay Company, Syracuse, N. Y., a Corporation of Pennsylvania. Filed Aug. 5, 1911. Serial No. 642,573. (Cl. 23—1.)

1. The hereinbefore described process of producing nitrogen oxids which consists in passing ammonia gas with an excess of oxygen in contact with a catalytic agent consisting of a plumbate at a temperature below that at which the oxids of nitrogen formed begin to decompose.

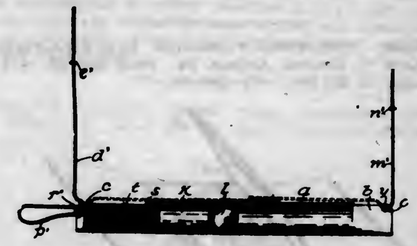
2. The hereinbefore described process of producing nitrogen oxids which consists in passing ammonia gas with an excess of oxygen in contact with a catalytic agent consisting of a plumbate at a temperature of from 700° C. to 750° C.



3. The hereinbefore described process of producing nitrogen oxids which consists in passing ammonia gas with an excess of oxygen in contact with a catalytic agent consisting of a plumbate formed from the oxids of lead and of a metal the oxid of which, at a temperature of 750° C. is infusible and has no tendency to revert to its hydroxid or carbonate in the presence of water vapor or $CO_2$.

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1,037,262. MARBLE-GUN. GEORGE COLVIN KENNEDY, Waterloo, Iowa. Filed Nov. 16, 1911. Serial No. 660,630. (Cl. 124—12.)



1. In a marble-gun, in combination, a conduit, an erect sighting-device on said conduit, and propelling-means located at one end of said conduit, said conduit having catches adapted to engage with said sighting-device to detachably secure it in either an erect or a recumbent position.

2. In a marble-gun, in combination, a conduit, an erect sighting-device on each end thereof, and propelling-means located at one end of said conduit, said sighting-devices being adapted to swing in one direction only to move toward each other, said conduit and said sighting-devices having co-acting catches adapted to detachably coöperate for detachably securing said devices to said conduit when the former are prostrated thereupon.

3. In a marble-gun, in combination, a conduit, and sighting-standards pivoted on its ends in the medial line thereof, said conduit having catches thereon for detachably securing said standards thereto when swung over thereupon.

4. In a marble-gun, in combination, a conduit cylindrical in its middle portion and having squared ends with open tops, sighting-standards pivoted to the walls of said open ends, said standards engaging said conduit to prevent movement from the vertical in one direction, but each being adapted to swing toward each other to lie upon the conduit.

5. In a marble-gun, in combination, a cylindrical conduit having its ends squared and open at the top, sighting-standards pivoted to the walls of said squared ends and engaging same to prevent movement away from said conduit outwardly, said standards being adapted to fold upon each other and upon the conduit, a driving-head movably seated in said conduit, a spring connected to said driving-head, a rod connected to said driving-head and adapted to be shifted to place said spring under tension, said rod and the rearmost of said standards being adapted to be engaged with each other and then released from each other to secure said spring under tension and then discharge it therefrom.

1,037,263. SNAP-FASTENER CAP. HERMAN KRENGOOD, Baltimore, Md., assignor to Alma Manufacturing Company of Baltimore City, Baltimore, Md., a Corporation of Maryland. Filed Jan. 12, 1911. Serial No. 602,338. (Cl. 41—24.)

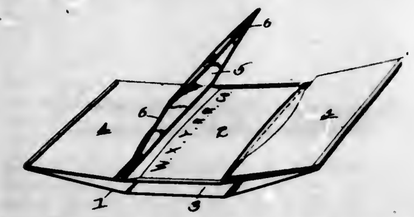


1. An ornamental face for snap fastener caps, having an inner metal shell and an outer cover of impressionable material placed over the shell and fixed to it, the two parts containing a design impressed in the cover and shell and registering throughout, whereby the cover design is backed up and reinforced against wear and tear by the same design in the shell.

2. An ornamental face for snap fastener caps, having an outer cover of paper-backed celluloid and an inner metal shell suitably united and provided with a design impressed in the cover and shell and registering throughout, whereby the design in the cover is supported from beneath by the corresponding design in the shell.

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1,037,264. COMBINED PASS-BOOK AND BILL-FILE. FRANK W. KIMMEL, Altoona, Pa. Filed Apr. 29, 1912. Serial No. 693,907. (Cl. 150—35.)



The combination with a flexible pocket consisting of a flexible cover and lining attached thereto, of end flaps carried by the side lining and adapted to fold over one upon the other upon the central portion of the device, and an envelop secured to said lining along one side and opening along the other side, said envelop being secured adjacent and parallel to the open edge of one of the end flaps, and consisting of a comparatively rigid frame and a transparent body portion, as and for the purpose set forth.

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1,037,265. BAG-HOLDER. ORVILLE C. KIRKPATRICK, Dallas City, Ill. Filed Feb. 26, 1912. Serial No. 679,891. (Cl. 83—26.)

1. A bag holding and supporting device comprising a band, means to secure the mouth of a bag to said band, a plurality of supporting rods the upper ends of which are detachably secured to the band, and a base ring detachably secured to the lower ends of said rods, said ring being composed of a plurality of curved sections the ends of which are provided with hooks for interlocking engagement, the lower ends of said rods being detachably connected to the band at the connected ends of the sections.

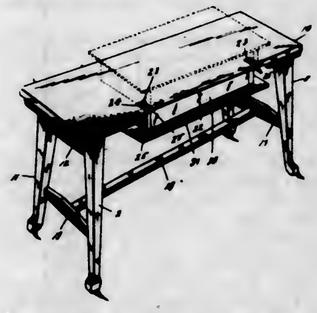
2. In a bag holder, a support, a holding band having on its upper edge an upwardly projecting radial flange, a plurality of supporting rods having reduced threaded upper ends adapted to be inserted in the apertures in the flange of said band, said threaded ends of the rods having shoulders thereon forming stops which engage the under side of said flange, clamping nuts adapted to be screwed onto the upper ends of the rods, said rods also having right angularly disposed lower portions having threaded ends, a base ring formed of a plurality of detachably connected sections having therein pairs of apertures, one of each pair being adapted to receive the threaded angularly bent lower side of a rod, clamping hooks engaged with the rods and inserted in the other apertures in the base ring, and clamping nuts adapted to be screwed onto the ends of



the hooks, and on the projecting threaded ends of the rods, whereby said parts are detachably secured to the sections of the base ring.

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1,037,266. PIANO-BENCH. WILLIAM A. KIRKPATRICK, JOHN E. ROBBINS, and CLIFFORD P. KIRKPATRICK, Greensburg, Ind. Filed May 1, 1911. Serial No. 624,376. (Cl. 155—37.)



1. A piano bench comprising a main continuous seat board, a "player" seat, a pair of cross head pins carried by said "player" seat at one edge and each provided with a cross head, guideways carried by the under face of the main seat board extending to one edge of said seat board and formed to receive the cross heads of the cross head pins for pivotal and sliding engagement, guide strips carried by the under face of the main seat board and spaced therefrom, and guide strips carried by the "player" seat and adapted to vertically and slidingly interlock with said last mentioned guide strips.

2. A piano bench comprising a main continuous seat board, a pair of guide ways formed across the under surface of said seat board and brought to the forward edge thereof, a "player" seat, and a pair of vertically projecting pivot members carried by the under face of said "player" seat and projected into said guide ways in such manner that the player seat may occupy a position upon and above the continuous seat board or may be swung upwardly and forwardly and thence slid backwardly beneath the said continuous seat board.

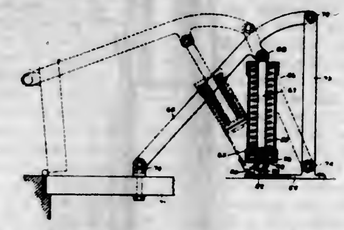
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1,037,267. DOOR OPENING AND CLOSING MECHANISM. FRANK KNIGHT, New Haven, Conn. Filed July 18, 1911. Serial No. 639,150. (Cl. 29—95.)

1. The combination with a movable element, of a fluid pressure operating device therefor, and a valve for said



operating device, the latter being provided with a pivot member encircling said valve, said valve and operating device being provided with means that cause the fluid pressure to be trapped when the movable element reaches the limit of its movement.



2. The combination with a movable element, of a fluid pressure operating device therefor, and a valve for said operating device, said operating device being supported upon and inclosing said valve, said valve and operating device being adapted to trap the fluid pressure when the movable element reaches the limit of its movement.

3. The combination with a movable element, of a fluid pressure operating device therefor, and a valve for said operating device, the latter being provided with a pivot member encircling said valve, said valve and operating device having coöperating parts arranged to be out of register, so that the pressure is trapped in the operating device when the movable element reaches the limit of its movement.

4. The combination with a door, of a fluid pressure operating device for said door, a stationary valve for said device having inlet and exhaust ports communicating with said device, and a check valve between said ports.

5. A door operating device comprising a fluid pressure motor including a stationary valve and a cylinder pivotally mounted thereon, the cylinder and valve being provided with coöperating inlet and exhaust ports, means carried by the valve and actuated by the fluid pressure therein for controlling said ports, a spring pressed piston in the cylinder, and door swinging means actuated by the piston.

[Claims 6 to 11 not printed in the Gazette.]

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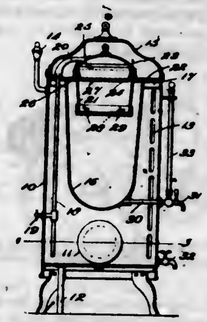
1,037,268. PROCESS OF MANUFACTURING INCANDESCENCE BODIES. HANS KUŽEL, Baden, near Vienna, Austria-Hungary, assignor to General Electric Company, a Corporation of New York. Filed Apr. 10, 1906. Serial No. 311,014. (Cl. 176—132.)

The process of making metallic filaments which consists first in producing a plastic mass by mixing finely divided refractory material with a collodial oxygen compound of metal melting at a very high temperature, then bringing such mass into filamentary shape, and then reducing said compound to metal and consolidating the body into a coherent filament by heating to a white heat in a suitable reducing atmosphere.

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1,037,269. COFFEE-URN. FRANK L. LANDERGREN, New York, N. Y. Filed Mar. 11, 1911. Serial No. 613,902. (Cl. 53—3.)

In a coffee urn, the combination of an outer vessel 10; pipe 12 connecting with the bottom of said vessel for delivering water within the vessel; a tank 16 located wholly within the vessel and spaced from the bottom and sides thereof; said tank constructed with an annular flange at the upper edge thereof securing the same to the vessel; a vertically disposed pipe 18 rigidly secured to the wall of the outer vessel, and passing through and projecting slightly above the annular flange 17 of the tank; a percolator consisting of a vessel 21 having an annular supporting flange 22 resting upon the annular flange 17 of the tank, and having an upwardly projecting annular flange 24, a removable screen bottom 29 for the percolator, a percolator cover 23 closely and removably fitted on said upwardly projecting flange 24, a second screen 27 removably mounted on said cover, a pipe section 20 secured to said cover and opening through the upper portion of said cover, and having a flaring lower



end fitting over the projecting end of said vertical pipe 18 and adapted to receive therefrom heated water from said vessel and deliver the same within said percolator; and a removable cover 15 for said outer vessel, substantially as described.

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1,037,270. LADY'S DRESS. ISAAC LEFKOWITZ, New York, N. Y. Filed Feb. 19, 1912. Serial No. 678,711. (Cl. 2—145.)



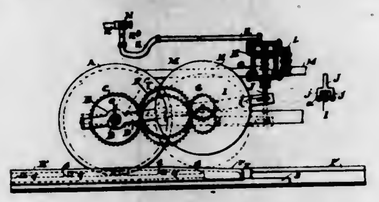
As an article of manufacture, a complete dress donnable and self-adjustable to various sizes of both bust- and waist-measure and comprising a blouse and a skirt; a closed back panel extending from neck to skirt-hem, comprising a waist-portion and a skirt-portion; a front section for the skirt joined to the skirt-portion of said back panel and completing the skirt, said skirt having a placket forming an overlying flap for said front-section; tie-strings adapted to extend about the waist of the wearer for holding said placket closed; separate lapping front sections joined one to each side of the waist-portion of said back panel; and each said waist-front-section being continued to form extensions for covering and concealing the parting edges of the skirt and waist front sections.

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1,037,271. ACTUATING DEVICE. ISRAEL B. LEIBSON, New York, N. Y. Filed Jan. 31, 1911. Serial No. 605,765. (Cl. 104—24.)

1. A device for transmitting motion from a moving railway car or locomotive to mechanism on or along the track, consisting of a rail connected with said mechanism on the track and capable of sliding or moving freely back and

forth in the direction of the track, and a wheel attached to the car or locomotive, revolving in the same direction as and at a peripheral velocity greater than that of the car wheels, and capable of being brought in contact with the sliding rail at the will of the engineer or motorman with sufficient weight or pressure for the friction between it and the sliding rail to overcome the resistance of the sliding rail and the attached mechanism to the motion of the said wheel, substantially as set forth.



2. A device for transmitting motion from a moving railway car or locomotive to mechanism on or along the track, consisting of a rail connected with said mechanism on the track and capable of sliding or moving freely back and forth in the direction of the track, a wheel attached to the car or locomotive, and means for revolving said wheel with sufficient power, and in the same direction as and at a peripheral velocity greater than that of the car wheels, so that when brought in contact with the sliding rail with sufficient weight or pressure, the relative motion of the said wheel will be transmitted to the said rail, substantially as set forth.

3. A device for transmitting motion from a moving railway car or locomotive to mechanism on or along the track, consisting of a rail connected with said mechanism on the track and capable of sliding or moving freely back and forth in the direction of the track, a wheel attached to the car or locomotive, revolving in the same direction as and at a peripheral velocity greater than that of the car wheels, and a means for bringing said wheel in contact with said movable rail with sufficient pressure or weight to cause the friction between them to overcome the resistance of the sliding rail and attached mechanism to the motion of the said wheel, substantially as set forth.

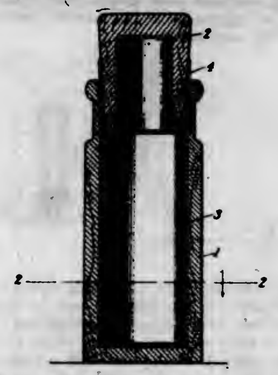
4. In a device of the nature described, a movable rail consisting of a lower member rigidly attached to the track, ball bearings, and an upper member; said lower member having a base, web and head in its central portion, and a base and part of the web at its ends, the upper side of the head being convex, with a slight concave at the top, and the under side of the head turning up obliquely to meet the web, and spaced apart lugs on said head; the upper member sloping at its ends, and having an outer surface flat at the top, then extending out and under the head of the lower member, and an inner surface curving out and under the head of the lower member, for the purposes set forth.

5. In a device of the nature described, a car axle, a frame mounted on said axle and capable of swinging vertically, a wheel set in said frame, and a system of gears connecting said wheel to said axle, so that it will revolve with said axle with a peripheral velocity greater than that of the car wheels, for the purposes specified.

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1,037,272. BOTTLE. WILLIAM GODSON LINDSAY, New York, N. Y. Filed Nov. 16, 1907. Serial No. 402,376. (Cl. 217—3.)

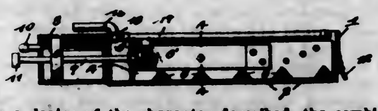
A bottle for containing and transporting liquids, consisting of an outer supporting receptacle 1, an inner flimsy-walled liquid-tight receptacle 3 located within the outer receptacle but independent of it, the mouth-end of the inner receptacle extending up into the mouth-end of the outer receptacle and being supported thereby, a stopper 2, and a liquid-proof flimsy-walled covering 4, located on the entering end of the stopper, but independent thereof, said stopper when in closing position in the mouth of the bottle having its said covering 4 entered into the



mouth of the inner receptacle 3 in concentric side-contact with the walls of said mouth.

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1,037,273. ASH-PAN. DAVID T. LIPSCOMB and GILBERT F. LIPSCOMB, Junior, W. Va.; said Gilbert F. Lipscomb assignor to said David T. Lipscomb. Filed Apr. 12, 1912. Serial No. 690,420. (Cl. 110—169.)



In a device of the character described, the combination with an ash pan having transverse openings formed in the bottom thereof, of a sliding discharge member arranged in said pan, triangular shaped closure plates carried by the discharge member to normally close said transverse openings, a U shaped brace member having its ends secured to the sides of the discharge member and its intermediate portion secured to one end of the discharge member, a cylinder, a piston rod reciprocating within the cylinder, a head formed on said piston rod and arranged within the cylinder, said piston rod being suitably connected to one end of the discharge member, an inlet pipe at one end of the cylinder, whereby steam or compressed air is introduced therein for moving the discharge member in one direction to discharge ashes through the openings in the discharge pan, said piston rod having an enlarged head formed on the outer end thereof to limit the inward movement of said rod, said ash pan having guide slots formed in each side thereof, eye bolts carried by the discharge member and disposed within said slots, eye bolts secured to one end of the ash pan, and coil springs connecting the eye bolts of the discharge member with the eye bolts on the ash pan whereby the discharge member will be returned to its normal position when the pressure of steam or compressed air is released.

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1,037,274. SPRING-LINK FOR BRACELETS OR EXTENSIBLE CHAINS. EDMOND LOISEAU and GEORGES LOISEAU, Paris, France. Filed July 18, 1911. Serial No. 639,184. (Cl. 63—5.)



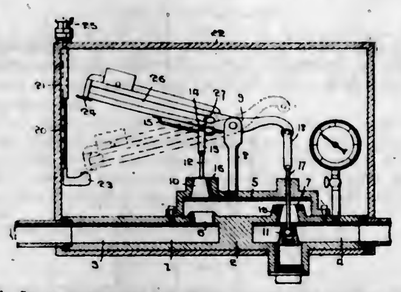
1. Spring links for bracelets and extensible chains each comprising a tubular member having its two ends respectively convex and concave, the convex part being open and the concave part being closed by a seating or abutment, a spring inclosed in the tube and bearing with one end against the closed end of the tube, a strip mounted to slide in the tube between the spring and tube and forming an abutment for the other end of the spring, the ends of the sliding strip belonging to one link being guided in openings in the abutment of the adjacent link and being connected by a pin to the convex end of the said link.



2. Spring links for bracelets and extensible chains each comprising a tubular member having its two ends respectively convex and concave, the convex part being open and the concave part being closed by a seating or abutment, a spring adapted to act by compression inclosed in the tube and bearing with one end against the closed end of the tube, a strip mounted to slide in the tube between the spring and tube and forming an abutment for the other end of the spring, the ends of the sliding strip belonging to one link being guided in openings in the abutment of the adjacent link and being connected by a pin to the convex end of the said link.

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1,037,275. AUTOMATIC CUT-OFF FOR GAS. ERIC G. MARIN, Syracuse, N. Y. Filed Aug. 4, 1911. Serial No. 642,270. (Cl. 67—115.)



1. In an automatic cut-off for gas the combination with a casing, of a pipe having a partition therein and having a port at one side of the partition and a nozzle at the other side and having a passage connecting the port and nozzle, a rocking beam pivotally mounted in the casing, a pair of valves connected to the rocking beam on opposite sides of its pivot, one of said valves adapted to close the nozzle, the other valve being adapted to close said port, and a rod having a lateral arm on its lower end and a knob on its upper end, said rod extending down through the top of the casing and having its arm under an end of the rocking beam and adapted to contact with and raise said end through manipulation of said knob.

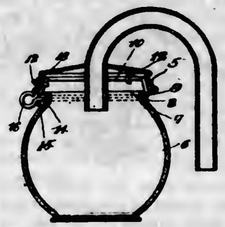
2. In an automatic cut-off for gas the combination with a body containing a gas inlet and a gas outlet and means embodying a pivoted beam for interrupting the flow of gas through the inlet and outlet, of a casing united with said body, and a vertically slidable rod having a lateral arm on its lower end for engaging with said beam and raising an end thereof when the rod is raised, and a knob on the top end of said rod for limiting its downward movement and constituting means by which the rod may be raised.

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1,037,276. GLOBE-HOLDER. CLARENCE O. MARRIS, Akron, Ohio. Filed Jan. 2, 1912. Serial No. 668,846. (Cl. 240—115.)

1. A globe holder of the character described formed from a single length of resilient wire, means to secure said wire to a burner, the ends of said wire being oppositely bowed to provide clamping arms for engagement with the globe, and an elongated loop formed in the intermediate portions of the wire to provide a guide for the free ends of the wire.

2. A globe holder of the character described comprising a single length of resilient wire bent to provide upper and lower oppositely bowed parallel portions, the upper opposed bowed portions of the wire being adapted for attachment to a burner, the lower opposed bowed portions of the wire being relatively movable and adapted for resilient clamping engagement with the globe, and a guide formed in the wire intermediate of its ends to receive the free ends of the latter bowed portions thereof.



3. A globe holder of the character described comprising a single length of resilient wire having its end portions bent to provide oppositely bowed resilient arms adapted for clamping engagement upon the globe, the intermediate portion of said wire being adapted for attachment to a burner, said wire having a central loop formed therein through which the ends of the bowed portions of the wire are projected to provide a guide therefor.

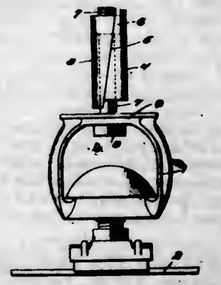
4. The combination with a burner, of a globe holder formed from a single length of wire and having parallel oppositely bowed portions, means to rigidly and removably secure one of the bowed portions of said wire to the burner, the free opposed bowed portions of the wire being resiliently movable for clamping engagement with the globe, and a guide loop for the ends of said movable portions of the wire.

5. The combination with a burner, of a globe holder formed from a single length of resilient wire bent to provide parallel oppositely bowed portions, means to clamp one of the parallel bowed portions of the wire to the burner wall, said wire being provided with a horisontal elongated loop centrally formed therein, the other parallel bowed portions of the wire being resiliently movable for clamping engagement with the globe and having their other ends projected at right angles and disposed through said loop, the ends of the wire being provided with eyes forming finger-pieces whereby they may be forced apart to release the globe.

[Claim 6 not printed in the Gazette.]

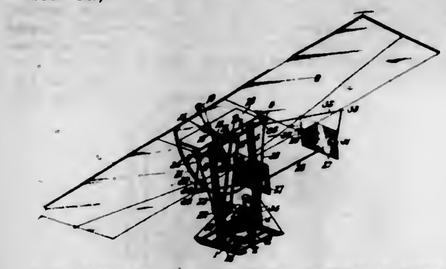
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1,037,277. HANGER-SUPPORT. ANDREW MARTIN, Moosic, Pa. Filed Aug. 21, 1911. Serial No. 645,160. (Cl. 85—4.)



A hanger support comprising two members, both having inclined contacting faces throughout their length, and both members curved transversely, an enlargement on the inner larger end of one member projecting into the curved smaller end of the other member, and said enlargement having a screw-threaded bolt receiving opening therein, substantially as described.

1,037,278. AEROPLANE. JOHN R. MARTIN, St. Louis, Mo. Filed Nov. 25, 1910. Serial No. 594,027. (Cl. 244—14.)

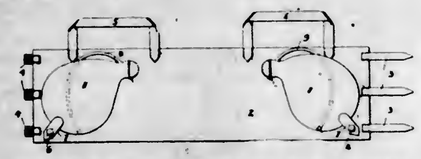


1. In a heavier than air flying machine, a plane, a segmental rack carried by the plane, a car suspended from said plane, a gear, carried by the car, in mesh with said rack whereby the plane may be shifted from a vertical to a flying position, a propeller carried by the plane, a motor for operating the propeller, a steering device carried by the plane, and means for operating said steering device, whereby a single propeller may be employed to lift the entire machine from the ground in a vertical course to a flying position then propel the machine in flight.

2. In a heavier than air flying machine, a passenger and motor carrying frame, a plane pivotally mounted upon said frame, a propeller carried by said plane, a rack carried by the plane, a gear carried by the frame for varying the angle of the plane from a vertical to a flying or approximately horizontal position, a motor for the propeller, and a gear connection from the motor to the propeller whereby the angle of the plane and propeller may be changed without stopping the motor.

3. In a heavier than air flying machine, a plane, alining bearings secured to the underneath face of the plane at its approximate longitudinal center, hangers pivotally secured to said bearings, a car carried by said hangers, a propeller mounted in fixed bearings upon the plane, a segmental rack carried by the plane, and a gear carried by the car for engagement with the rack for shifting the plane from a horizontal to a vertical position and vice-versa, whereby the same propeller may be employed to lift the car bodily in a vertical course to a flying position, then after the plane is shifted propel the car as in flight.

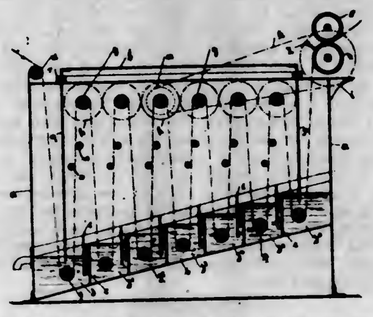
1,037,279. LIFE-PRESERVER. NATALE MARTINO, New York, N. Y. Filed May 15, 1912. Serial No. 697,390. (Cl. 9—17.)



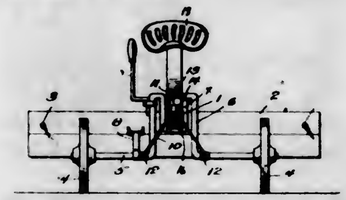
In a device of the class described, a belt provided with suitable straps for securing the same about the waist of a wearer, shoulder straps on the upper edge of said belt, air bags secured at one end near the said shoulder straps, tabs on said air bags, buttons adapted to be engaged by said tabs and air pipes for inflating said bags.

1,037,280. APPARATUS FOR REMOVING LYE FROM FABRICS. JULIUS MATTER, Laacken, near Barmen, Germany. Filed Oct. 26, 1908. Serial No. 459,591. (Cl. 8—18.)

An apparatus for lixiviating textile materials impregnated with lye comprising an air tight chamber, a number of guiding rolls located in the top of the apparatus, means to revolve said rolls, a corresponding number of rolls arranged on the bottom, both sets of rolls traveling the textile material in zigzag way, a steaming appliance situated on one side of each lap of the material and a stripping off appliance on the other side and delivery rolls placed outside the apparatus, a number of compartments on the bottom of the apparatus arranged in a slanted direction each compartment receiving a guiding roll, and partitions dipping in the compartments as described and for the purpose set forth.



1,037,281. ROAD-GRADING MACHINE. CHRISTIAN MAVES, Davenport, Iowa. Filed Nov. 6, 1911. Serial No. 658,900. (Cl. 37—7.)



1. In a road grading machine, the combination with a scraper blade of a pole rigidly connected to said blade, crank axles pivoted to said pole and adjustable laterally therewith, wheels journaled on said crank axles, means for adjusting said axles in one fixed position, a brace slidably disposed on the pole and means for locking the brace to hold the wheels in their rearward adjustment and for supporting the scraper from contact with the ground.

2. In a road grading machine, a scraper blade, a beam rigidly connected to the upper central edge of said scraper, a bracket rigidly secured to the extremities of said blade and to the pole, an axle upbent to form an approximately M shaped seat for the pole, the upward projections of which tend to support the axle on the pole against vertical or lateral displacement, wheels journaled on the extremities of the axle and means for revolving the axle on said M shaped seat to bring the wheels in contact with the ground for the purpose of raising the scraper when not in use.

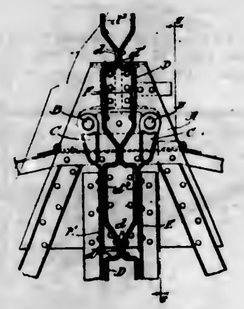
1,037,282. GUIDE FOR ELEVATOR CARS OR CAGES. ORA D. MCCLURE, Ishpeming, Mich. Filed Jan. 12, 1911. Serial No. 602,215. (Cl. 187—95.)

1. An elevator guide formed of parallel metal plates united together in offset relation and forming shoe engaging surfaces at opposite sides of the guide, one at least of said plates being bent to form depressions and shoulders at intervals in the shoe engaging surface of the guide, said depressions and shoulders being arranged to receive an emergency dog.

2. An elevator guide comprising parallel metal plates bent at intervals to form a series of oppositely disposed, transverse depressed portions and shoulders adapted to receive emergency dogs, said plates being secured together back to back.



3. An elevator guide comprising connected sections each formed of parallel metal plates united together in offset relation and forming shoe engaging surfaces at opposite sides of the guide, one at least of said plates having depressed portions $d$, shoulders $d'$ and intermediate plain portions $d^2$, said depressed portions and shoulders being arranged to receive an emergency dog and said plain portions forming the shoe engaging surface of the guide.



4. A guide for elevators comprising metal sections arranged end to end, metal plates located within said sections and whereby said sections are connected, the sides of said sections being bent to form shoulders to engage emergency dogs.

5. A guide for elevators comprising metal sections united together end to end and expansion joints connecting certain of said sections, said joints having parts within said sections and a bolt or bar extending between said parts and forming a slip joint with one at least of said parts.

[Claims 6 to 8 not printed in the Gazette.]

1,037,283. EXTENSIBLE BED. ALEXANDER MCKNIGHT, Brooklyn, N. Y. Filed Apr. 4, 1910. Serial No. 553,375. (Cl. 5—46.)



1. In an extensible bed, the combination of relatively movable bed frames, superposed bed fabrics carried thereby and relatively slidable in a substantially horizontal direction into and out of an extended position, interlocking devices comprising depending members pivotally connected to the upper fabric, and coöperating members connected to the lower fabric and adapted to automatically interlock with said depending members as the fabrics are moved to said extended position.

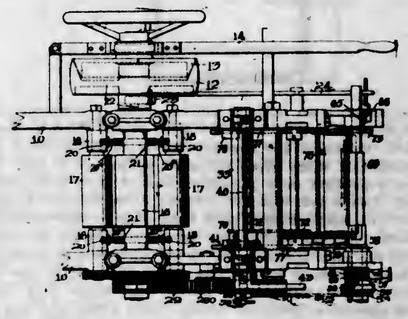
2. In combination, telescoping bed frames, bed fabrics carried thereby and relatively movable substantially horizontally into and out of an extended position, and hooks and pivoted eyes carried by the fabrics and automatically engaged to connect the adjacent edges of the fabrics when the latter are extended.

3. In an extensible bed, the combination of bed frames, bed fabrics carried thereby and one of which is movable relatively to the other horizontally from a position in which the fabrics are superposed to a non-superposed position, hooks carried by one fabric, and pivoted depending eyes carried by the other fabric in position to be automatically engaged by the hooks when the fabrics are moved to said non-superposed position.

4. In an extensible bed or couch, the combination with frames, of fabrics carried by the frames, said frames being movable into and out of a position in which the fabrics are in substantially the same horizontal plane and with their inner edges adjacent each other, and springs carried by one of the frames in position to extend beneath both fabrics and form a support therefor.

5. In an extensible bed or couch, the combination with telescoping frames, of fabrics secured to the frames and located one over the other when the frames are telescoped, a manually operable device comprising a link and lever for sliding one of the frames outward from the telescoped position, cams for lifting the inner edge of said sliding frame to bring the adjacent edges of the fabrics to the same lever when the bed is extended, and hooks and eyes carried by the fabrics in positions to automatically engage each other and connect said adjacent edges of the fabrics when the bed is extended.

1,037,284. MACHINE FOR MAKING TOILET-PAPER ROLLS. FRANCIS MEISEL, Boston, Mass., assignor to Meisel Press & Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed Mar. 30, 1911. Serial No. 617,798. (Cl. 164—65.)



1. In a perforating machine, the combination with a perforating mechanism comprising a cylinder, of pressure rolls for engaging opposite sides of said cylinder, and a yielding device for instantly throwing both pressure rolls away from said cylinder and yieldingly holding them in that position, whereby the web can be quickly introduced and adjusted.

2. In a perforating machine, the combination with a pair of cross-wise perforating cylinders, over one of which the web is adapted to pass, of a pressure roll for engaging the same, positive means for holding the pressure roll against the perforating cylinder, said means being constructed and adapted to be readily moved to inoperative position to permit the pressure roll to move away from the perforating cylinder, and yielding means for moving the pressure roll away from the cylinder.

3. In a perforating machine, the combination with perforating mechanism comprising a cylinder, of a pair of pressure rolls for engaging said cylinder and holding the web thereon, two sets of pivoted arms for supporting said pressure rolls, and cams adapted to be turned to two positions in one of which they move said levers to hold the rolls in contact with the cylinder, and in the other of which they permit the rolls to move away from the cylinder.

4. In a perforating machine, the combination with a perforating cylinder, of a pressure roll for holding the paper thereon, a pair of levers on which said pressure roll is mounted, a cam for operating each lever, and adjustable means on each lever for engaging the cam.

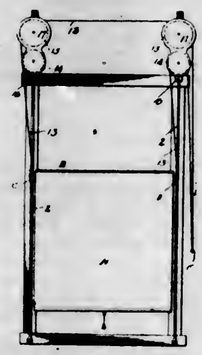
5. In a perforating machine, the combination with a perforating cylinder, of a pressure roll for holding the paper thereon, a pair of levers on which said pressure roll is mounted, a cam for operating each lever, adjustable means on each lever for engaging the cam, and a spring

connected with each lever and operating in opposition to the cam for forcing the pressure roll away from the cylinder.

[Claims 6 to 22 not printed in the Gazette.]

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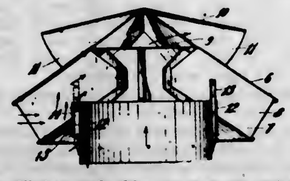
1,037,285. VERTICALLY-ADJUSTABLE WINDOW-SHADE FIXTURE. SIMON MENUSKIN, Chattanooga, Tenn. Filed Oct. 26, 1909. Serial No. 524,673. (Cl. 156—27.)



The combination with a window shade, its supporting roller, a pair of guides at the sides of the window, and brackets in which the shade roller is supported free to independently slide upon the said guides, of a pair of rollers supported near the upper end of each guide, the rollers of each pair being of different diameters, the larger ones above, and arranged with their axes in substantially the same vertical plane, and independent cords for sustaining the window shade, one connected with each bracket, and an attachment for the free ends of the cords, one of the cords passing from the bracket with which it is connected upward around the smaller roller above and downward to the said attachment and the other cord passing upward from the bracket with which it is connected over the larger roller above across to the larger roller at the opposite side of the window frame and thence downward to the said attachment, substantially as described.

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1,037,286. VENTILATOR AND CHIMNEY-CAP. ROBERT T. MERRILL, Milwaukee, Wis. Filed Nov. 24, 1911. Serial No. 662,205. (Cl. 98—4.)

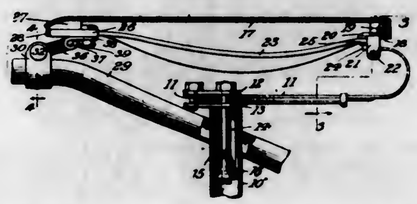


1. A ventilator and chimney cap, comprising a draft tube, vertical spacing strips angular in cross section having one face secured to the outside wall of the draft tube, a collar surrounding the draft tube, vertical radial ribs or partitions secured to the other faces of the spacing strips and secured to the collar, a conical deflector beneath the radial ribs or partitions and surrounding the collar, a second conical deflector thereabove secured to the radial ribs or partitions and provided with a central opening, and a cap on the second conical deflector above the opening thereof.

2. A ventilator and chimney cap, comprising a draft tube, vertical angular spacing strips secured to the outside of the draft tube, a short collar surrounding the draft tube and spaced therefrom by the spacing strips, vertical radial ribs or partitions secured to the spacing strips and having flaps cut therefrom secured to the collar, a conical deflector mounted on the radial ribs or partitions and surrounding the collar, a second conical deflector thereabove secured to the radial ribs or partitions and provided with a central opening, and a cap mounted on the second conical deflector above the opening thereof.

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1,037,287. SADDLE FOR MOTOR-CYCLES. HENRY MESINGER, New York, N. Y. Filed Feb. 12, 1912. Serial No. 677,036. (Cl. 208—15.)



1. A saddle provided with a cradle spring which is U-shaped in plan with coiled ends, a saddle post, means for securing the spring at its center to said post, a saddle top, and means for securing the spring at its coiled ends to said top.

2. A saddle provided with a saddle top, a cantle secured thereto, a pair of yokes connected to the cantle, a pin hung in the yokes, and a U-shaped cradle spring having upwardly coiled ends that are received within the yokes and are connected to the pin.

3. A saddle provided with a saddle top, a cantle secured thereto, apertured yokes riveted to the cantle, bolts projecting into the yokes, a pin hung in the yokes, a U-shaped cradle spring having upwardly coiled ends that are received within the yokes and are connected to the pin, and a pair of stay springs engaging the bolts.

4. A saddle provided with a stay spring, a plate to which the forward end of said spring is attached, a fixed support, and a link connection that pivotally connects said plate to said support.

5. A saddle provided with a stay spring, a plate to which the forward end of said spring is attached, a fixed support, a sleeve engaging the same, a pair of links that pivotally connect said plate to said sleeve, and means for clamping the sleeve to said support.

[Claims 6 to 9 not printed in the Gazette.]

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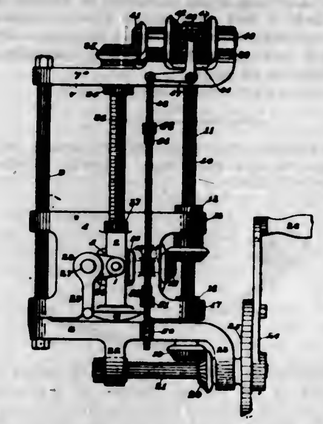
1,037,288. MORTISING-MACHINE. JOHN A. MILLER and FREDERICK W. MILLER, Carrick, Pa. Filed Apr. 18, 1911. Serial No. 621,899. (Cl. 144—69.)

1. In a portable mortising machine, the combination with a frame, means carried thereby for securing the same to the work, a carriage mounted in the plane of the frame for reciprocatory movement thereon, a rotatable tool mounted on said carriage, coöperating gearing for reciprocating said carriage and rotating said tool, an operating shaft mounted in said frame independently of the carriage and in the plane of the frame and carriage, and means on said carriage for imparting axial movement to said tool.

2. In a portable mortising machine, the combination with a frame, means carried thereby for securing the same to the work, a carriage mounted in the plane of the frame for reciprocatory movement thereon, a rotatable tool mounted on said carriage, coöperating gearing for reciprocating said carriage and rotating said tool, an operating shaft mounted in said frame independently of the carriage and in the plane of the frame and carriage, means on said carriage for imparting axial movement to said tool, and means on said frame and connected to said carriage for reversing the movement of the carriage at any desired limit in either direction.



3. In a portable mortising machine, the combination of a frame comprising members spaced apart, a rod and a shaft connecting said members, said shaft being rotatable therein, a carriage supported by and movable along said rod and shaft, a rotatable tool on said carriage, gearing connecting said shaft and tool, means on said frame for reciprocating said carriage, said means being connected to said shaft, and means for rotating said shaft.



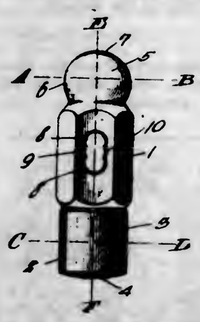
4. In a portable mortising machine, the combination of a frame having means for fixing it to the work, a flat carriage movable on the frame, a tool rotatably mounted on said carriage, interconnected shafts and gearing for rotating said tool, said shafts and gearing being mounted in the plane of the carriage and frame, and connections between one of said shafts and said carriage for reciprocating the carriage on the frame.

5. In a portable mortising machine, the combination of a frame, comprising a plurality of connected members in the same plane, means on said frame for fixing the same to the work, a driving shaft rotatably mounted on said frame with its axis in the plane thereof and a carriage slidably mounted on the frame, a rotatable tool on said carriage, shafts and gears connecting said driving shaft and said tool for rotating the same, and means for feeding said tool axially.

[Claims 6 and 7 not printed in the Gazette.]

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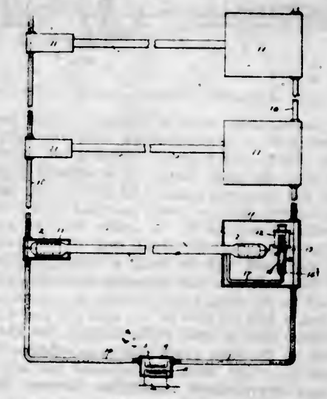
1,037,289. HAMMER. JOHN W. MILLER, Bernhartz, Pa. Filed Sept. 30, 1911. Serial No. 652,045. (Cl. 145—79.)



A tool head having an eye, the end portions of which are conical, said end portions being connected by a central, cylindrical portion, that extremity of the cylindrical portion which is adjacent the wider extremities of the end portions, being enlarged abruptly in diameter to form a seat into which the handle is expanded by the wedge, with positive locking engagement, the end and central portions at their lines of intersection defining inwardly projecting edges which converge toward the wider extremities of the end portions.

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1,037,290. VACUUM-TUBE LIGHTING. DANIEL MCFARLAN MOORE, Newark, N. J., assignor to General Electric Company, a Corporation of New York. Filed Apr. 7, 1906. Serial No. 310,410. (Cl. 176—124.)



1. In a system of vacuum tube lighting, the combination of a vacuum tube, a protective inclosure in which one end of said tube is located, a second inclosure in which the opposite end of said tube is located, a conduit to which the said boxes are secured, means for supplying high potential energy to said tube connected as to one of its poles with the electrode of one end of the tube and an insulated wire or connection running from the opposite pole through said conduit to the other box and therein connected to the electrode for the opposite end of the tube.

2. In a system of vacuum tube lighting, the combination substantially as described, of a protective conduit having two branches separated from one another and carrying respectively high-potential energy supplying conductors, protective boxes or inclosures inserted at intervals in said branches and vacuum tubes extending from a box inserted in one branch to a box inserted in the other and having their energy transferring electrodes connected in opposite boxes to the supply wires running respectively through the two insulating branches, as and for the purpose described.

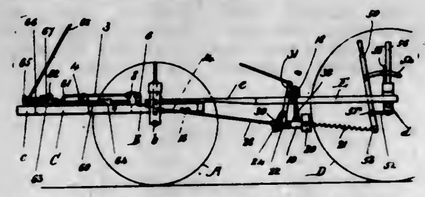
3. In a system of vacuum tube lighting, the combination substantially as described, of an insulating or protective box or inclosure, a transformer therein, a protective conduit extending in opposite directions from said inclosure and carrying respectively wires or conductors connected to opposite poles of the transformer secondary, protective cases or inclosures inserted at intervals in said conduit, vacuum tubes having their ends located in boxes belonging respectively to the portions of the conduit containing the conductors for said opposite poles and connections within said boxes between the energy transferring electrodes of the tube and said conductors.

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1,037,291. VEHICLE-BRAKE. THOMAS NOWELL MOORE, Coleman, Okla. Filed Apr. 4, 1912. Serial No. 688,400. (Cl. 21—9.)

1. The combination, with a wheeled vehicle provided with a draft pole, a spring-pressed brake normally bearing on the wheels, and a brake releasing rod operatively connected with the said brake; of a slidable guide bar and a slide bar secured together and arranged parallel to each other and provided with two steps on their respective front end portions, guide brackets for the guide bar to slide in secured to the said draft pole, a bail for

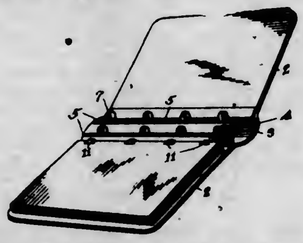
locking the said slide bar, said bail being pivotally supported by the draft pole and arranged between the said stops, intermediate connections between the slide bar and the brake releasing rod, and a whiffle-tree pivoted between the slide bar and the guide bar.



2. The combination, with a wheeled vehicle provided with a draft pole, a spring-pressed brake normally bearing on the wheels, and a brake releasing rod operatively connected with the said brake; of a slidable guide bar and a slide bar arranged parallel to each other, the front end portion of the slide bar being provided with a cranked portion which is secured to the guide bar and provided with a rear stop, and the front end of the guide bar being provided with a front stop, a front guide bracket secured to the draft pole and engaging with the guide bar, a pin carried by the front guide bracket and engaging with the rear stop, a bail pivoted on the said pin and engaging with the front stop, a rear guide bracket, for the guide bar, secured to the said draft pole, a whiffletree pivoted to the said bars and arranged between the said guide brackets, and intermediate connections between the said slide bar and the brake releasing rod.

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1,037,292. LOOSE-LEAF BINDER. LUCENA M. MORDEN, Waterbury, Conn. Filed Mar. 31, 1911. Serial No. 618,058. (Cl. 129—1.)



1. A loose leaf binder comprising a flexible member having a plurality of longitudinally extending guides each constructed to hold its rings against rotation and transverse movement relatively to such guide, and a plurality of integral non-rotatable rings each split at its underside to directly grip its guide, whereby said rings are permanently held by such guide against rotatable and transverse movement.

2. A loose leaf binder comprising a flexible member having a plurality of longitudinally extending guides and a plurality of integral rings carried by each of said guides and each split at its underside to grip its guide and shiftable along said guide.

3. A loose leaf binder comprising a flexible member having a plurality of longitudinally extending guides each constructed to hold its rings against rotation and transverse movement relatively to such guide, and a plurality of integral non-rotatable rings each split at its underside to directly grip its guide with a spring action and adapted for the reception of slotted leaves without the opening of said rings and each having a wide bearing surface upon its guide whereby sidewise swinging movement of the ring is prevented and such ring permanently maintained upright on its guide.

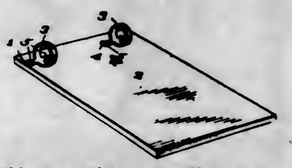
4. A loose leaf binder comprising a flexible member having a plurality of longitudinally extending guides each carrying a plurality of integral rings each split at its underside directly to engage its guide with a spring action and shiftable along its guide, and leaves slotted for insertion onto said rings without the opening of said rings.

5. A loose leaf binder comprising a flexible member having a longitudinally extending guide constructed to hold its rings against rotation and transverse movement relatively to such guide, and a plurality of integral non-rotatable rings each split at its underside to directly engage its guide, each of said rings having a wide bearing surface upon its guide whereby sidewise swinging movement of the ring is prevented and such ring permanently maintained upright on its guide.

[Claims 6 to 14 not printed in the Gazette.]

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1,037,293. LOOSE-LEAF BINDER. LUCENA M. MORDEN, Waterbury, Conn. Filed Apr. 7, 1911. Serial No. 619,459. (Cl. 129—1.)



1. In combination with a plurality of leaves having slots opening at the margin thereof, of a plurality of integral rings each separate from the other for the reception of such slotted leaves without the opening of such rings, each of said rings having at its underside a laterally extending projection or projections extending transversely of the plane of the ring and centrally at the underside of such ring to prevent the tipping of said ring and by means of which the ring may be secured to a support.

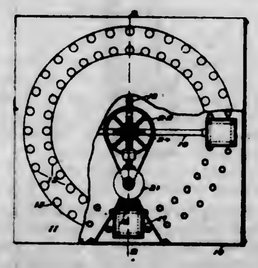
2. A loose leaf binder comprising a support having a plurality of integral rings secured thereto one independent of the other, each of said rings having at its underside a pair of oppositely extending projections extending transversely of the plane of the ring and centrally at the underside of such ring and forming attaching means for attaching the ring to the support.

3. A loose leaf binder comprising a support and a plurality of integral rings secured thereto, each having a laterally extending bent part bent upon itself to form attaching means for securing the ring to the support.

4. A loose leaf binder comprising a support having a plurality of integral rings secured thereto one independent of the other, each having at its underside a pair of oppositely extending projections extending transversely of the plane of the ring and centrally thereof at its underside and each bent upon itself to form attaching means for securing the ring to the support.

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1,037,294. ILLUMINATED SIGN. HUGH MULHOLLAND, Cincinnati, Ohio. Filed Sept. 1, 1911. Serial No. 647,201. (Cl. 240—49.)



1. An illuminated sign having a wall provided with a circular row of apertures arranged to form display matter,



bulbs projecting outwardly from said apertures, and simulating electric light bulbs, a series of illuminating means in the rear of said wall and mounted to rotate about an axis substantially coincident with the center of said row and past said apertures and a color screen between said wall and said illuminating means, and movable with the latter.

2. An illuminated sign having a casing including a wall having a series of perforations arranged in a curved row and a box adjacent to the rear side of said wall and movable along said row, said box containing an electric light and having opaque side walls.

3. A casing having an apertured front wall the apertures being arranged to form display matter, a wheel within said casing and having a series of boxes or compartments each having opaque side and back walls, a colored screen extending across the side of each box or compartment toward said front wall, an electric light within each box or compartment and means for rotating said wheel.

4. A casing having an apertured front wall, the apertures being arranged to form display matter, and including rows, a series of electric lights movable along said rows in succession and a separate colored screen between each light and said wall and movable with its respective light.

5. A casing having a front wall provided with a row of apertures forming a circle, hollow bulbs secured at said apertures and simulating electric light bulbs, a wheel rotatably mounted within said casing and having a series of boxes or compartments in the rear of said circle of apertures, each box or compartment facing toward said wall and a separate electric light in each box or compartment for illuminating said bulbs in succession along the circle as said wheel rotates, whereby the circle of bulbs is caused to appear to rotate.

[Claims 6 to 8 not printed in the Gazette.]

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1,037,295. YARN-CONE. MICHAEL TIMOTHY MURPHY, Grand Rapids, Mich. Filed Oct. 18, 1911. Serial No. 655,393. (Cl. 242—122.)

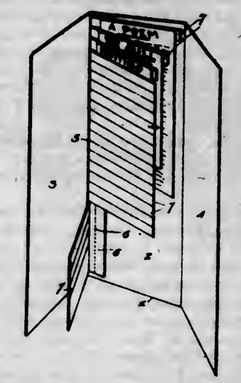


A yarn holder consisting of a stiff paper truncated cone whose upper annular edge is curved inwardly and downwardly, the extremity of the edge hanging down within the cone, whereby this depending edge is disposed in such manner that it need not be finished, the annular convex upper end formed by thus bending in the upper edge of the cone being smoothed and hardened, for the purpose set forth.

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1,037,296. CLIPPING-FILE. JOHN H. NEUHAUSER, Shelby, Ohio. Filed Nov. 6, 1911. Serial No. 658,748. (Cl. 129—20.)

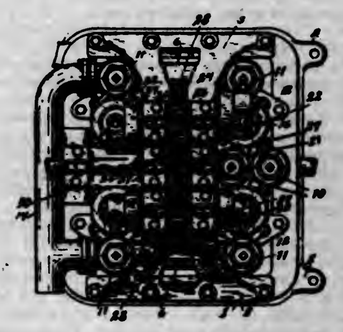
A clipping file comprising a cover adapted to be folded to form a back member and two protecting cover members foldable upon one another, a clipping attaching sheet secured to the back member adjacent to the fold of the cover, said clipping sheet having a continuous securing edge, tabs forming a continuation of said securing edge and folded upon the latter and against the same, whereby spaces are formed between the tabs and back of the cover, the folded portion of the strip being disconnected from the adjacent fold of the cover thus permitting the tabs to yield a slight distance horizontally when the cover is being folded, said tabs being gummed on their surfaces adjacent to the back of the cover to fasten the clippings one



below and in front of the other, whereby when the file is closed the clippings are compactly confined therein.

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1,037,297. MULTIPLE-CYLINDER PUMP. WILLIAM H. NEWBROUGH, Lansing, Mich., assignor to The "New Way" Motor Company, Lansing, Mich. Filed Jan. 29, 1912. Serial No. 673,990. (Cl. 103—77.)



1. In a pump, the combination of the base, a bifurcated yoke-like bearing pedestal mounted thereon, vertically disposed open-ended pump cylinders arranged in pairs with a cylinder of each pair at each side of said bearing pedestal, a pump body provided with a chamber for each cylinder, an inlet conduit, a pair of discharge conduits, the inlet conduit being disposed between the pairs of cylinders, the discharge conduits being disposed on the outer sides thereof, inlet and discharge valve casings connecting each cylinder chamber with said inlet and with one of the discharge conduits and supporting feet resting on said base, said cylinder chambers, conduits, valve casings and feet being formed integrally, said cylinders being mounted on said body to open into said cylinder chambers, inlet and discharge valves arranged in said valve casings, pistons, piston rods therefor, crank shafts having cranks at the sides of the pedestal, a driving shaft arranged between said crank shafts, connecting gears for said driving and crank shafts arranged between the members of the pedestal, and bearings for said shafts mounted on the members of the pedestal.

2. In a pump, the combination of the base, a bifurcated yoke-like bearing pedestal mounted thereon, vertically disposed open-ended pump cylinders arranged in pairs with a cylinder of each pair at each side of said bearing pedestal, a pump body provided with a chamber for each cylin-

der, an inlet conduit, a pair of discharge conduits, the inlet conduit being disposed between the pairs of cylinders, the discharge conduits being disposed on the outer sides thereof, inlet and discharge valve casings connecting each cylinder chamber with said inlet and with one of the discharge conduits, said cylinders being mounted on said body to open into said cylinder chambers, inlet and discharge valves arranged in said valve casings, pistons, piston rods therefor, crank shafts having cranks at the sides of the pedestal, a driving shaft arranged between said crank shafts, connecting gears for said driving and crank shafts arranged between the members of the pedestal, and bearings for said shafts mounted on members of the pedestal.

3. In a pump, the combination of the base, a bearing pedestal mounted thereon, vertically disposed open-ended pump cylinders arranged in pairs with a cylinder of each pair at each side of said bearing pedestal, a pump body provided with a chamber for each cylinder, an inlet conduit, a pair of discharge conduits, the inlet conduit being disposed between the pairs of cylinders, the discharge conduits being disposed on the outer sides thereof, inlet and discharge valve casings connecting each cylinder chamber with said inlet and with one of the discharge conduits, said cylinder chambers, conduits and valve casings being formed integrally, said cylinders being mounted on said body to open into said cylinder chambers, inlet and discharge valves arranged in said valve casings, pistons, piston rods therefor, crank shafts having cranks at the sides of the pedestal, and bearings for said shafts mounted on the pedestal.

4. In a pump, the combination of the base, a bifurcated yoke-like bearing pedestal mounted thereon, vertically disposed open-ended pump cylinders arranged in pairs with a cylinder of each pair at each side of said bearing pedestal, a pump body provided with a chamber for each cylinder, said cylinders being mounted on said body to open into said cylinder chambers, inlet and discharge conduits, inlet and discharge valves connecting each cylinder chamber with the inlet and discharge conduits, pistons, piston rods therefor, crank shafts at the sides of the pedestal, a driving shaft arranged between said crank shafts, connecting gears for said driving and crank shafts arranged between the members of the pedestal, and bearings for said shafts mounted on the members of the pedestal.

5. In a pump, the combination of the base, a yoke-like bearing pedestal mounted thereon, vertically disposed open-ended pump cylinders arranged in pairs with a cylinder of each pair at each side of said bearing pedestal, a pump body arranged under said pedestal and provided with a chamber for each cyliner, said cylinders being mounted on said body to open into said cylinder chambers, inlet and discharge conduits, inlet and discharge valves connecting each cylinder chamber with the inlet and discharge conduits, pistons, piston rods therefor, crank shafts having cranks at the sides of the pedestal, and bearings for said shafts mounted on the pedestal.

[Claim 6 not printed in the Gazette.]

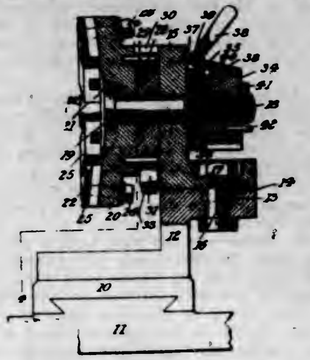
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1,037,298. TURRET ATTACHMENT FOR ENGINE-LATHES. HERMANN NEWMANN, New York, N. Y. Filed Nov. 10, 1911. Serial No. 659,475. (Cl. 29—48.)

1. A turret for lathes comprising a bracket adapted to be secured to a slide-rest, a bolt rotatably mounted in said bracket, a tool-holder non-rotatably secured to one end of the bolt, a grooved clamping nut carried by the other end of the bolt and adapted to frictionally engage the bracket, a ring encompassing the nut, and a lever pivoted to said ring and adapted to engage the nut-grooves.

2. A turret for lathes comprising a bracket adapted to be secured to a slide rest, a screw bolt rotatably mounted in said bracket, a tool holder carried by said bolt, a grooved nut engaging the bolt, a ring turnable on said nut, and a tightening lever pivoted to said ring and adapted to engage the nut-grooves.

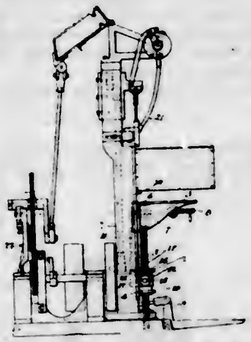
3. A turret for lathes comprising a bracket adapted to be secured to a slide rest, a headed screw bolt rotatably mounted in said bracket, a tool holder non-rotatably secured to the headed end of the bolt, a radial pin carried by said bolt, a clamping nut engaging the bolt and having



a pin that is adapted to be engaged by the first named pin, and means for tightening said nut.

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1,037,299. BOX-NAILING MACHINE. ELMER C. NORTHRUP, San Francisco, Cal. Filed June 7, 1911. Serial No. 631,860. (Cl. 1—15.)



1. In a box nailing machine, a main frame, a regular table vertically movable thereon, a vertical screw for regulating the height of the regular table, a block slidable over said screw, legs pivoted to said block, a second table supported by said legs above the first table.

2. In a box nailing machine, a main frame, a regular table vertically movable thereon, a vertical screw for regulating the height of the regular table, a block slidable over said screw, legs pivoted to said block, a second table supported by said legs above the first table, a spring between said block and a leg for yieldingly holding the second table in nailing position.

3. In a box nailing machine, a main frame, a regular table vertically movable thereon, a vertical screw for regulating the height of the regular table, a block slidable over said screw, legs pivoted to said block, a second table supported by said legs above the first table, a nut on said screw below said block for adjusting the height of said block to vary the position of the second table.

4. In a box nailing machine, a main frame, a regular table vertically movable thereon, a vertical screw for regulating the height of the regular table, a block slidable over said screw, legs pivoted to said block, a second table supported by said legs above the first table, a nut on said screw below said block for adjusting the height of said block to vary the position of the second table, said screw being journaled at its upper end in the regular table, a pinion on said screw, and a hand gear below the regular table, meshing with said pinion.



1,037,300. EXPLOSIVE. JAMES F. O'BRIEN, Chicago, Ill. Filed Jan. 11, 1912. Serial No. 670,645. (Cl. 52—1.)

1. An explosive, comprising potassium chlorate, starch, molasses, and a silico-aluminous substance.

2. An explosive, consisting of approximately a chlorate seventy five pounds, a solid carbo-hydrate twelve and one half pounds, a carbo-hydrate in solution twenty five pounds, and a silico-aluminous substance less than forty pounds.

3. An explosive, consisting of a chlorate, a solid carbo-hydrate, a carbo-hydrate in solution, and Portland cement.

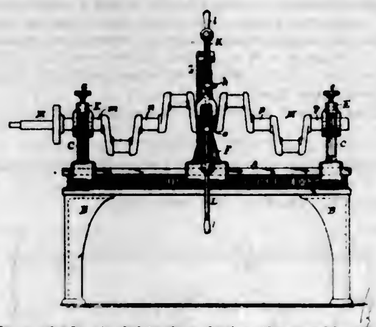
4. An explosive, consisting of approximately a chlorate seventy five pounds, a solid carbo-hydrate twelve and one half pounds, a carbo-hydrate in solution twenty five pounds, and Portland cement less than forty pounds.

5. An explosive, comprising starch, molasses, a chlorate of an alkali metal, and a silico-aluminous material.

[Claims 6 to 9 not printed in the Gazette.]

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1,037,301. SHAFT-STRAIGHTENING MACHINE. TIMOTHY J. PAINE, deceased, Watertown, Mass., by Julia A. Paine, administratrix, Watertown, Mass. Filed Apr. 16, 1912. Serial No. 691,211. (Cl. 153—52.)

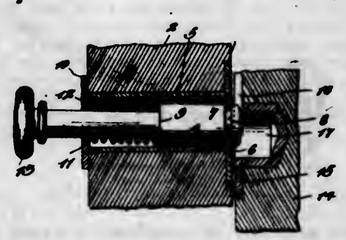


1. In a shaft straightening device the combination of two supporting blocks having V-shaped grooves in their top surfaces, and means for clamping cylindrical shafts laid in said grooves, said supporting blocks being adapted to slide upon a supporting bed; a straightening head adapted to slide upon a supporting bed and consisting essentially of two or more radially sliding pressure blocks, pressure screws for forcing said blocks toward the center of said head, a base adapted to receive two of said pressure blocks and screws, a segment one end of which is pivoted to said base and means for clamping the opposite end to said base, said segment being adapted to receive one or more pressure blocks and screws; with a bed adapted to receive and support said supporting blocks and straightening head, substantially as described and for the purposes specified.

2. In a shaft straightening device, a straightening head consisting essentially of a base and a pivoted segment adapted to be clamped to said base, three or more radially sliding blocks screws for operating said blocks, shaft supporting blocks having V-shaped grooves on their top surfaces and means for clamping cylindrical shafts therein, in combination with a bed adapted to receive and support said straightening head and supporting blocks and permitting them to slide freely thereon, as and for the purposes described.

3. In a shaft straightening device, the combination of shaft supporting blocks having V-shaped grooves on their top surface, means for clamping a cylindrical shaft in said grooves; a straightening head having a plurality of radially disposed pressure blocks and actuating screws, with a bed adapted to support said shaft supporting blocks and straightening head and adapted to permit them to slide freely thereon, substantially as and for the purposes specified.

1,037,302. SASH-FASTENER. JULES F. PARENT, Plainfield, N. J. Filed Mar. 9, 1912. Serial No. 682,638. (Cl. 16—145.)

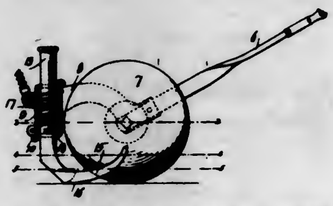


1. In a sash fastener, the combination with a plate adapted to be applied to the meeting rail of one sash, a tubular portion formed on said plate and adapted to extend through said meeting rail, the opening formed in said plate at the termination of said tubular portion therein having a portion thereof projected beyond the inner periphery of said tubular portion to form a locking flange, an additional plate adapted to be secured to the opposite face of the meeting rail of said sash, a bolt slidably disposed through said plates and tubular portion, spring means encircling said bolt to normally dispose the same in its extended position, said bolt being provided adjacent its outer end with an annular groove, means to retract said bolt to permit the groove therein to engage the referred to locking flange; of means carried on the meeting rail of the opposed sash to release said bolt from its retracted position in engagement with said locking flange and engage the same in its extended position.

2. In a sash lock, the combination with a plate adapted to be secured to one face of the meeting rail of a sash, a tubular portion formed on said plate to extend through said meeting rail, the opening in said plate which communicates with said tubular portion having a portion of the periphery thereof extended beyond the inner periphery of said tubular portion to form a locking flange, an additional plate adapted to be secured to the opposed face of said meeting rail, a bolt disposed through the opening in said first mentioned plate and tubular portion, and loosely disposed through an opening in the last mentioned plate, the outer portion of said bolt being provided with an annular groove adjacent the extreme outer end thereof, spring means to normally dispose said bolt to its extended position, and means to retract said bolt to position the groove therein in engagement with said locking flange; of an additional plate adapted to be secured to the meeting rail of the opposed sash, said plate being provided with a vertical slot extending from the upper edge thereof, and a tubular socket portion formed on said last mentioned plate communicating with the alot therein.

3. In a sash lock, the combination with a plate adapted to be counter-sunk in the outer face of the meeting rail of the lower sash, a tubular portion formed on said plate to extend through said meeting rail, the opening in said plate communicating with the tubular portion and having the periphery thereof extended slightly beyond the inner periphery of said tubular portion to form a locking flange thereon, an additional plate adapted to be secured to the inner face of said meeting rail, a bolt loosely disposed through said plates and tubular member, said bolt being provided with an annular groove adjacent the extreme outer end thereof adapted to receive therein the aforesaid locking flange, spring means to normally dispose said bolt to its extended position, and means to retract said bolt; of an additional plate adapted to be secured to the inner face of the meeting rail of an upper sash, said plate being provided with a slot extending from the upper edge thereof, and a tubular socket formed on said plate, the lower wall of said slot forming the lower wall of said socket and also forming a shoulder to contact with the outer end of said bolt to automatically release the same from its retracted position upon the disposition of the sashes to their closed positions.

1,037,303. GRAIN-DRILL. CLARENCE A. PATTISON and LUTHER E. ROBY, Peoria, Ill. Filed Aug. 20, 1909. Serial No. 513,885. (Cl. 111—18.)



1. In a grain drill, in combination, a support, a disk journaled on said support and having its cutting edge disposed diagonally to the line of draft, an arm connected to the disk support and extending to a point rearwardly of the disk and offset laterally, a barrel connected with the offset portion of said arm, a shank extending through said barrel, a combined shoe and scraper attached to the lower end of the shank and having a portion of its lower edge disposed in the line of draft, and a compression and torsion spring connected with said shank and said arm.

2. In a grain drill, in combination, a disk and disk support, an arm carried rearwardly from said support, a barrel suitably connected with the rear end of said arm, a shank carried in said barrel, a combined shoe and scraper connected with the lower end of said shank, and a compression and torsion spring, coiled about said shank and disposed within said barrel and connected with said shank and said barrel.

3. In a grain drill, in combination, a disk and disk support, a shank associated with said disk, said shank provided with a combined shoe and scraper, means for supporting the shank in the rear of the disk, and yielding means for normally holding the shank depressed and the scraping portion of the shoe in contact with the disk.

4. In a grain drill, in combination, a disk and disk support, an arm attached to and extending rearwardly from said support, a shank supported in working position by said arm, in such a manner that the shank may have vertical movement independent of the arm and be oscillated, a combined shoe and scraper attached to said shank, and a compression and torsion spring connected with said shank and with said arm.

5. In a grain drill, in combination, a disk and disk support, an arm attached to and extending rearwardly from said arm, a semi-circular barrel section connected with the rear end of said arm a similar semi-circular barrel section adapted to be secured to said first mentioned section, a shank adapted to be inclosed by said barrel section, a combined shoe and scraper attached to the lower end of said shank, and a compression and torsion spring coiled about said shank and within said barrel sections, and having one end connected to the shank and the other end to the barrel.

[Claims 6 to 24 not printed in the Gazette.]

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1,037,304. SOCKET-SWITCH. WILBUR G. PEET, Bridgeport, Conn., assignor of one-half to The Kilpatrick & Hotz Company, Bridgeport, Conn., a Corporation of Connecticut. Filed June 25, 1912. Serial No. 705,761. (Cl. 173—354.)



1. A switch of the character described, comprising an oscillating blade, a contact and a retainer each provided with means for holding the blade, a spring acting to swing the blade into engagement with either contact or retainer and an operating member acting on the spring to cause it to accumulate power and acting to disengage the blade from either contact or retainer, leaving the spring free to act.

2. A switch of the character described, comprising an oscillating blade having grooves, a contact and a retainer, each having a rib adapted to engage one of the grooves for the purpose set forth, a spring acting to throw the blade in either direction and an operating member acting to accumulate power in the spring and to disengage the blade from either contact or retainer.

3. A switch of the character described, comprising an oscillating blade having a pin, a contact and a retainer each provided with means for holding the blade, an oscillating operating member having shoulders adapted to engage the pin and disengage the blade and a spring acting to throw the blade into engagement with the contact when disengaged from the retainer and vice versa.

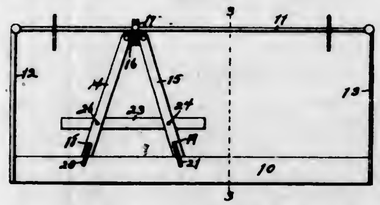
4. A switch of the character described, comprising an oscillating blade, a contact and a retainer each provided with means for holding the blade, an oscillating operating member adapted to disengage the blade from either contact or retainer and a spring acting to throw the blade into engagement with either contact or retainer when disengaged from the other.

5. A switch of the character described, comprising an oscillating blade, a contact and a retainer each provided with means for holding the blade, an oscillating operating member adapted to disengage the blade from either contact or retainer and a spring carried by the operating member and engaging the blade, substantially as described for the purpose specified.

[Claims 6 to 9 not printed in the Gazette.]

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1,037,305. BED OR BERTH ATTACHMENT. HERBERT E. PERKINS, Des Moines, Iowa. Filed Feb. 17, 1911. Serial No. 609,834. (Cl. 105—90.)



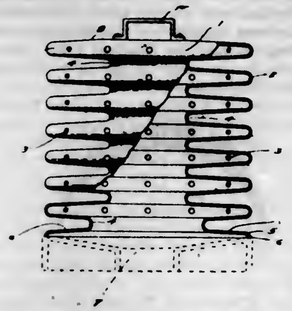
1. In combination with a sleeping berth having a rail and a supporting rod, a plate, a spring fork detachably connecting said plate to said supporting rod, standards pivoted at one end each to said plate, clamps on said standards adapted to engage said rail, and a lateral brace pivotally secured to one standard and detachably engaging the other standard.

2. In combination with a sleeping berth having a rail and a supporting rod, a plate, means secured to said plate for detachably connecting it to said supporting rod, standards independently pivoted to said plate and adapted to swing away from one another, said standards being provided with means to detachably engage said rail, a lateral brace pivotally secured to one standard and adapted to detachably engage the other standard, said standards and lateral brace when in engagement with one another constituting a rigid triangular frame.

3. In combination with a sleeping berth having a rail and a supporting rod, a guard comprising a plate, a spring fork secured to said plate and adapted to detachably engage said rod, standards independently pivoted to said plate and adapted to swing away from one another, angular brackets secured to the free ends of said standards and adapted to engage the rail aforesaid, set screws engaging said brackets and adapted to frictionally engage the rail aforesaid, a lateral brace pivotally secured to one standard and having a lateral slot therein, a pin on the other standard and adapted to engage the slot in the lateral brace.



1,037,306. HEATING-DRUM. CHARLES F. PETERSON, New York, N. Y. Filed Nov. 14, 1910. Serial No. 592,256. (Cl. 126—188.)



1. A heating drum consisting of a sheet metal cylinder having walls of sinuous vertical sections forming an inner cylindrical chamber and laterally extending annular chambers in communication therewith.

2. A heating drum consisting of a sheet metal cylinder having walls of sinuous vertical sections forming an inner cylindrical chamber and laterally extending annular chambers in communication therewith, said annular chambers being provided with gas outlet holes.

3. A heating drum consisting of a sheet metal cylinder having walls of sinuous vertical sections forming an inner cylindrical chamber and laterally extending annular chambers in communication therewith, said annular chambers being provided with gas outlet holes on their outer peripheries.

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1,037,307. SPARK-PLUG. ANTHONY S. PIBEREL, Washington, La. Filed Aug. 10, 1911. Serial No. 643,426. (Cl. 123—169.)



1. In a spark plug, a body having one end formed with an inclined face, an insulating sleeve disposed within the body, and a longitudinally disposed rod rotatably mounted in said sleeve for rotary movement and having one end laterally bent and disposed beyond said inclined face to form in one position a spark gap between the rod and the inclined face of the body and in another position to space the lateral end of the rod from said inclined face of the body a sufficient distance to prevent a spark gap being formed.

2. In a spark plug, a body having one end formed with an inclined face, an insulating sleeve disposed within said body and formed with a longitudinal bore and a counterbore, the latter communicating with the inclined face, a rod disposed within said bore and counterbore and projecting at either end beyond the body and adapted for both longitudinal and rotary movements, a ring secured to said rod and disposed within the counterbore, a packing disposed around the rod above the ring, the end of the rod contiguous to the inclined face being bent laterally, a finger-piece mounted on the other end of the rod for rotating the same, and a coil spring disposed around the rod between the body and the finger-piece for yieldingly holding said rod in its normal position, said lateral end of the rod being adapted to form in one position a spark gap between the rod and the inclined face of the body and in another position to space the lateral end of the rod from the inclined face of the body a sufficient distance to prevent a spark gap being formed.

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1,037,308. COMBINED REGISTERING AND FEEDING MAGAZINE FOR GUNS. WILLIAM P. PINKSTON, St. Louis, Mo. Filed May 20, 1912. Serial No. 698,574. (Cl. 42—17.)



1. In combination with a gun provided with an action slide and frame, a magazine tube adapted to deliver cartridges to the frame, and means operating through the walls of the tube for locking the action slide against movement upon exhaustion of the contents of the tube.

2. In combination with a gun provided with an action slide and frame, a magazine tube adapted to deliver the loads to the frame and supporting said slide, means within the tube for automatically feeding the loads to the frame, and devices carried by said means and operating through the walls of the tube for locking the action slide against movement upon the exhaustion of the loads from the tube.

3. In combination with a gun provided with an action slide and frame, a magazine tube adapted to deliver the loads to the frame and supporting said slide, a spring-controlled plunger within the tube for automatically feeding the loads to the frame, said tube being provided with a charging opening for the loads, a spring-actuated latch carried by the plunger, the walls of the tube being provided with an opening through which the latch operates for arresting movement of the action slide upon exhaustion of the loads from the magazine tube.

4. In combination with a magazine tube, an action slide therefor, a spring-actuated plunger, a spring-controlled latch on the plunger, the walls of the tube being provided with an opening to allow for the passage therethrough of the latch and limit the movement of the slide in one direction.

5. In combination with a gun provided with an action slide and frame, a magazine tube provided with a peripheral charging opening for the loads and discharging into the frame, a ferrule slidably mounted about the tube, the latter being provided with a longitudinal slot, a plunger on the inside of the tube, a rib connecting the plunger to the ferrule, a spring for forcing the plunger toward the discharge end of the tube, the wall of the latter being provided with a slot between the frame and the action-slide, a spring-controlled latch on the plunger adapted to be forced through the last named slot to arrest the movement of the action slide upon exhaustion of the contents of the tube.

[Claims 6 and 7 not printed in the Gazette.]

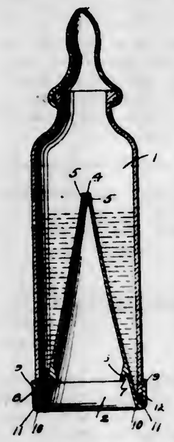
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1,037,309. NURSING-BOTTLE. JOHN C. POORE, Chicago, Ill. Filed Apr. 18, 1911. Serial No. 621,880. (Cl. 215—117.)

1. A nursing bottle having a separable bottom said bottom being conical in form and having an opening in the apex thereof, means on said bottom for preventing foreign substances from entering said opening said means consisting of an inclined flange, forming a channel around the inner surface of said bottom.

2. A nursing bottle having its bottom end entirely open,

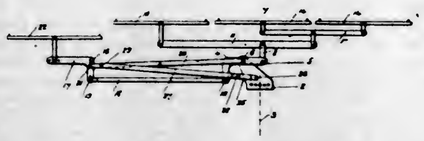
a screw cap for said bottom, a conical tube projecting inwardly from said cap, means whereby foreign substance



will be prevented from entering through said tube, said means consisting of a flange on said tube.

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1,037,310. FOUR-HORSE EQUALIZER. JOHN H. POST, Flanagan, Ill. Filed May 17, 1912. Serial No. 697,995. (Cl. 21—76.)



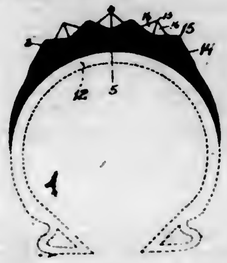
1. A four horse equalizer, comprising a draft plate for attachment to a plow beam, a bell-crank lever having the middle part of its longer arm pivoted to the draft plate, a three horse equalizer connected to the free-end portion of the said arm, an outer bell-crank lever having its longer arm projecting in the opposite direction from the longer arm of the first said bell-crank lever, a front coupling-rod and a rear coupling-rod pivotally connecting the two bell-crank levers, a whiffletree connected to the longer arm of the outer bell-crank lever, and two jointed links arranged diagonally of the coupling-rods and pivoted to the outer end portion of the front coupling-rod at one end and to the said draft plate at the other end.

2. A four horse equalizer, comprising a draft plate for attachment to a plow beam, a bell-crank lever having the middle part of its longer arm pivoted to the draft plate, a three horse equalizer connected to the free end portion of the said arm, an outer bell-crank lever having its longer arm projecting in the opposite direction from the longer arm of the first said bell-crank lever, a front coupling-rod and a rear coupling-rod pivotally connecting the two bell-crank levers, a whiffletree connected to the longer arm of the outer bell-crank lever, a long link pivoted at one end to the outer end portion of the front coupling-rod and extending diagonally across the shorter arm of the first said bell-crank lever, and a short offset link pivoted to the long link and to the said draft plate and normally arranged in line with the long link.

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1,037,311. ELASTIC TIRE. PHILIP W. PRATT, Boston, Mass. Filed June 11, 1910. Serial No. 566,331. (Cl. 152—16.)

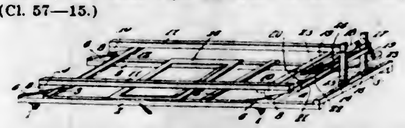
1. A tire tread curved longitudinally and laterally to form the tread surface of a pneumatic tire and composed of wear-and-slip-resisting facing of frictional textile fabric, and a backing of rubber vulcanized to the said facing, the facing and backing being molded to form elongated staggered external corrugations having angular apexes and arranged longitudinally of the tread, the apexes of the backing projections being above the depressions in the corrugated facing, so that the backing holds the depressed portions of the facing after the apexes of the facing corrugations have been worn away.



2. A tire tread curved longitudinally and laterally to form the tread surface of a pneumatic tire, and composed of a wear-and-slip-resisting facing of frictional textile fabric or plated to form a series of stretches extending edgewise to the tread face, and a backing of rubber vulcanized to the said facing, the facing and backing being molded to form elongated staggered external corrugations having angular apexes and arranged longitudinally of the tread, the apexes of the backing projections being above the depressions in the corrugated facing, so that the backing holds the depressed portions of the facing after the apexes of the facing corrugations have been worn away, the removal of said apexes by wear causing the exposure of a multiplicity of thread ends which form non-skidding tread portions alternating with exposed fabric-holding portions of the rubber backing.

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1,037,312. AUTOMOBILE-TRUCK. JOHN Q. PRIMM, Lincoln, Ill. Filed Sept. 28, 1911. Serial No. 651,880. (Cl. 57—15.)



1. A truck of the character described having a lower portable frame, another frame disposed thereabove and movable longitudinally of the lower frame, a plurality of pairs of blocks disposed in co-active relation between the respective frames, the opposed faces of said blocks being so constructed as to cause the movable frame to be moved to and from the lower frame during the longitudinal movement of the upper frame, the opposed faces of each pair of said blocks being provided with alining grooves and a ball disposed in the respective grooves in each pair of blocks for forming an antifrictional bearing therebetween.

2. A truck of the character described having a lower portable frame, another frame disposed thereabove and movable longitudinally of the lower frame, a plurality of pairs of blocks disposed in co-active relation between the respective frames, the opposed faces of said blocks being so constructed as to cause the movable frame to be moved to and from the lower frame during the longitudinal movement of the upper frame, the opposed faces of each pair of said blocks being provided with alining grooves and a ball disposed in the respective grooves in each pair of blocks for forming an antifrictional bearing therebetween, said balls and grooves co-acting to prevent transverse movement of the movable frame with relation to the lower frame.

3. A truck of the character described having a lower portable frame, another frame disposed thereabove and

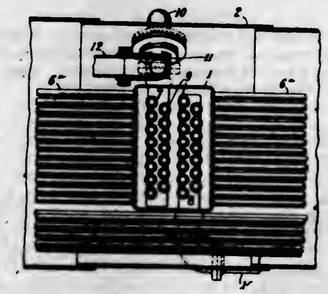


movable longitudinally of the lower frame, a plurality of pairs of blocks disposed in co-active relation between the respective frames, the opposed faces of said blocks being so constructed as to cause the movable frame to be moved to and from the lower frame during the longitudinal movement of the upper frame, the opposed faces of each pair of said blocks being provided with alining grooves and a ball disposed in the respective grooves in each pair of blocks for forming an antifrictional bearing therebetween, and a windlass disposed at one end of the lower frame and operably connected to the movable frame for imparting the longitudinal movement to the movable frame.

4. A truck of the character described having a lower portable frame, another frame disposed thereabove and movable longitudinally of the lower frame, a plurality of pairs of blocks disposed in co-active relation between the respective frames, the opposed faces of said blocks being so constructed as to cause the movable frame to be moved to and from the lower frame during the longitudinal movement of the upper frame, the opposed faces of each pair of said blocks being provided with alining grooves and a ball disposed in the respective grooves in each pair of blocks for forming an antifrictional bearing therebetween, said balls and grooves co-acting to prevent transverse movement of the movable frame with relation to the lower frame, and a windlass disposed at one end of the lower frame and operably connected to the movable frame for imparting the longitudinal movement to the movable frame.

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1,037,313. STEAM-SUPERHEATING APPARATUS FOR LOCOMOTIVES. JOHN PRIMROSE, New York, N. Y. Filed May 27, 1907. Serial No. 375,784. (Cl. 122—463.)



1. The combination with a boiler having fire-tubes; of a superheating chamber extending across a plurality of fire-tubes and connected thereto; a superheater in the chamber, spaced from the open ends of the said connected fire-tubes to permit the introduction of a nozzle for projecting a blast into the tubes to clean the same; the super-heating chamber having opposite ends projecting through openings in the side walls of the boiler, a heating tube in the chamber, and headers secured to the projecting ends and communicating with said tube, as set forth.

2. The combination with a boiler having fire-tubes; of a superheating chamber extending transversely through the boiler; connected with a plurality of fire-tubes and having its ends extending outside the boiler; and a superheater in the chamber, comprising inlet and outlet headers at the ends of the chamber exterior to the boiler shell, and superheating tubes connecting the same; as set forth.

3. The combination with a boiler having a fire-box and fire-tubes leading therefrom, said boiler having oppositely disposed openings in its side walls, of a superheating element extending transversely of the boiler and connected with said fire-tubes, the ends of the chamber projecting through the openings in the boiler, headers located in the ends of said chamber, steam pipes connecting the headers, and closures for said openings.

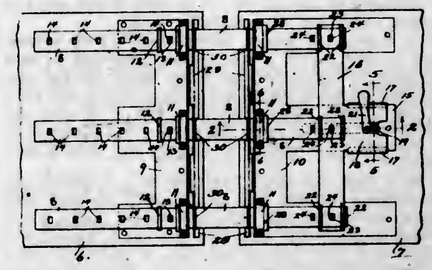
4. In a steam boiler, the combination with discontinuous fire-tubes, of a superheating chamber located between the sections of said tubes, the superheating chamber comprising a substantially rectangular body portion projecting at its opposite ends through opposite sides of the boiler shell.

5. In a steam boiler, the combination with discontinuous fire-tubes, of a superheating chamber located between the sections of said tubes the superheating chamber comprising a substantially rectangular body portion projecting at its opposite ends through opposite sides of the boiler shell, and superheating tubes within the chamber.

[Claims 6 to 11 not printed in the Gazette.]

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1,037,314. LOOSE-LEAF BINDER. WILLIAM S. PROUDFIT, Jr., Chicago, Ill. Filed Jan. 17, 1906. Serial No. 296,549. (Cl. 129—41.)



1. In a book binding, a leaf holding strip comprising a plurality of laterally resilient members arranged to flex in unison.

2. A leaf holding strip consisting of a plurality of laterally resilient flat springs laid together so that they may be flexed in unison.

3. In a binder, a cover and leaf holding strips each comprising a plurality of laterally resilient members arranged to flex in unison having their ends secured to said cover.

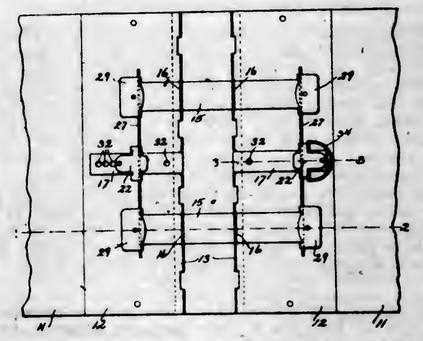
4. In a binder, a cover and leaf holding strips each comprising a plurality of laterally resilient members arranged to flex in unison having their ends detachably secured to said cover.

5. In a binder, a cover and leaf holding strips each comprising a plurality of laterally resilient members arranged to flex in unison adjustably secured to said cover.

[Claims 6 to 37 not printed in the Gazette.]

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1,037,315. LOOSE-LEAF BINDER. WILLIAM S. PROUDFIT, Jr., Chicago, Ill. Filed Nov. 24, 1906. Serial No. 344,956. (Cl. 129—41.)



1. In a loose leaf binder, covers, a guide strip secured to each of said covers, a spring rod slidably connected to each of said guide strips by a clip having laterally extending eyes, through which said rod extends, a leaf holding strip movably connected to said covers at or near their

binding edges, with an intermediate portion lying between said covers, said leaf holding strip having its ends connected to said spring rods by clips having lugs extending through perforations provided in the ends of said leaf holding strip and eyes through which said spring rod extends.

2. In a loose leaf binder, covers, a guide strip secured to one of said covers, a rod slidably connected to said guide strip to permit of its being moved toward and away from the binding edge of said cover and a leaf holding strip having one end secured to said rod, and the other end to the other of said covers.

3. In a loose leaf binder, covers, a guide strip secured to one of said covers, a spring rod slidably connected to said guide strip to permit of its being moved toward and away from the binding edge of said cover, and a leaf holding strip having one end secured to said rod, and the other end to the other of said covers.

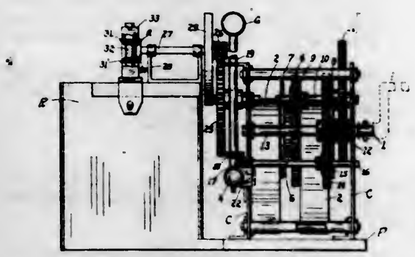
4. In a loose leaf binder, covers, a guide strip secured to one of said covers, a rod slidably connected to said guide strip to permit of its being moved toward and away from the binding edge of said cover, and a leaf holding strip passing loosely through a slot at or near the binding edge of said cover, having one end attached to said rod, and the other end attached to the other of said covers.

5. In a loose leaf binder, two covers, a longitudinally non-extensible resilient leaf holding strip provided with perforations bridging the space between the covers, a clip provided with laterally extending eyes and a laterally extending lug to enter said perforations in said strip and a rod passing through said eyes whereby said lug is held in one of said perforations, another portion of said rod being connected to one cover.

[Claims 6 to 10 not printed in the Gazette.]

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1,037,316. SPRING-MOTOR. JOHN RECKTENWALD, Nashville, Ill., assignor of one-half to Edward H. Struckmeyer, Nashville, Ill. Filed May 17, 1912. Serial No. 698,037. (Cl. 185—37.)



In combination with a casing, a winding shaft or arbor, a driving spring disposed on each side of the center thereof and having one end secured to anchor and the other to the shaft, a gear-wheel mounted loosely on the shaft between the springs, and provided with a spring-controlled driving pawl on one face thereof, a ratchet on the shaft engaged by said pawl, a disk separating the ratchet from the adjacent spring, a spacing disk interposed between the casing wall and the second spring, a vertical governor shaft mounted on the outside of the casing, a train of gear mechanism interposed between said governor shaft and the gear on the winding arbor, a friction brake for the governor shaft, and means for connecting the gearing to suitable operating mechanism located outside the casing.

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1,037,317. LAMP-LOCK. HARRY W. RECTOR, Washington, D. C. Filed Jan. 6, 1912. Serial No. 669,829. (Cl. 248—26.)

1. In a lamp lock, a support; jaws applied to opposite faces of the support, and provided at their free ends with interengaging elements; the jaws and the support having alined openings, adapted to receive a locking device.

2. In a lamp lock, a support; oppositely disposed jaws, between which the support is located, the jaws being provided at their outer ends with interengaging elements; and a locking device engaged with the support and with both jaws.



3. In a lamp lock, a support; jaws applied to opposite sides of the support; a locking device extended through both jaws and through the support; and a manually operable clamping device extended through both jaws and through the support.

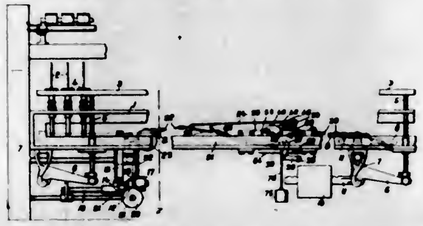
4. In a lamp lock, a support; jaws applied to opposite sides of the support, the jaws being provided at their outer ends with interlocking elements; a clamping device extended through both jaws and through the support; and a locking device extended through both jaws and through the support.

5. In a lamp lock, coöperating, lamp-supporting elements; a support held between said elements and removable from said elements in a longitudinal direction only, the support having adjacent one end, a projection preventing a withdrawal of the support in one direction; jaws applied to the support and preventing a withdrawal of the support in an opposite direction; and a locking device engaging the jaws and the support.

[Claims 6 to 9 not printed in the Gazette.]

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1,037,318. YARN-SPINNING APPARATUS. ALONZO E. RHOADES, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Feb. 19, 1912. Serial No. 678,687. (Cl. 118—1.)



1. In apparatus of the class described, a reciprocating ring-rail, two separate means operating concurrently to control its reciprocation to effect a primary winding of yarn upon a yarn-receiver with an initially short but gradually increasing traverse, one of said means effecting an increase of the traverse on the upward stroke, and the other means effecting an increase on the downward stroke, of the ring-rail, whereby the traverse is gradually increased in length during the primary winding, the first-named means thereafter acting, during the formation of a secondary winding with a long and uniform traverse, to effect the gain of the long, uniform traverse, and an instrumentality acting automatically to render the second-named means inoperative when the gradually increasing traverse has attained its maximum length.

2. In apparatus of the class described, a reciprocating ring-rail, a builder-motion provided with a winding mechanism, intervening connections between it and the ring-rail, means coöperating with said connections during the formation of a primary winding of yarn upon a yarn-receiver to lay the yarn with an initially short traverse and to increase the length of the traverse gradually on one stroke of the ring-rail, said winding mechanism effecting a substantially equal increase in the length of the traverse on the opposite stroke, whereby the total length of each traverse is gradually increased during the primary winding, and an instrumentality to render said means inoperative when the traverse has reached a predetermined length, the builder-motion thereafter effecting reciprocation of the ring-rail with a uniform traverse of maximum length while the winding mechanism continues in action and effects the gain of the uniform traverse.

3. In apparatus of the class described, a builder-motion, a reciprocating ring-rail, connections between it and the builder-motion to effect reciprocation of the ring-rail and lay a primary winding of yarn upon a yarn-receiver, separate means co-acting at such time with said connections to effect, respectively, a gradual increase in the traverse at opposite ends of the stroke of the ring-rail until the traverse has attained a predetermined length, whereby the primary winding is increased in length at each end and tapered uniformly toward each of its ends, an instrumentality to render inoperative one of such means when the predetermined length of transverse is attained, whereby the winding is continued and completed with a uniform traverse of such length, the other of said means acting during the continued winding to effect the gain of the uniform traverse, and means to vary the time at which said instrumentality is brought into action.

4. In apparatus of the class described, a builder-motion, a reciprocating ring-rail, a connection between it and the builder-motion, including a rocking and bodily movable member, said member being rocked by the builder-motion to effect a short traverse of the ring-rail, a fulcrum about which said member rocks, means to shift said fulcrum intermittingly to thereby increase gradually the traverse on the down stroke of the ring-rail, other means acting through said member to increase gradually the traverse on the up stroke, whereby such increases combine to effect a gradual increase in the total length of each successive traverse up to a perdetermined length, an instrumentality to govern the shifting of the fulcrum and stop it when the traverse has increased to a predetermined length, and means governed by shifting movement of the fulcrum to cause bodily movement of said rocking member independently of the fulcrum when the predetermined length of traverse has been reached, to continue the reciprocation of the ring-rail with such traverse.

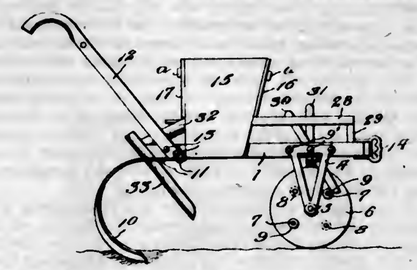
5. In apparatus of the class described, a builder-motion, a ring-rail operatively connected therewith and reciprocated thereby, and different means operating in alternation to gradually increase by substantially equal increments the length of the traverse at opposite ends of the stroke of the ring-rail, thereby to effect the formation of a primary winding of yarn upon a yarn-receiver with a traverse gradually increasing in length, tapering said winding toward each end and increasing the length thereof by additions at both ends, combined with an instrumentality actuated step by step during such increase of traverse to render one of said means inoperative when the traverse has attained a predetermined length, the other of said means continuing to act during the remainder of the winding to impart the requisite gain to the uniform traverse effected by continued operation of the builder-motion.

[Claims 6 to 12 not printed in the Gazette.]

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1,037,319. GRAIN-DROPPER. ENOCH TILLMAN RILEY, Ozark, Ala. Filed Oct. 12, 1911. Serial No. 654,301. (Cl. 111—32.)

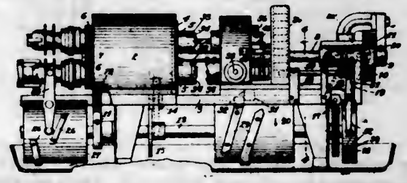
1. A grain dropper having in combination, a beam, two push bars pivotally held to said beam, a hopper divided into two compartments having its rear and forward ends opened, a gate closing each open end of said hoppers, a brush at the lower end of each rear gate, means to adjustably hold said gates, a feed plate slidably held upon the bottom of each hopper compartment and extending through the forward and rear ends thereof each feed plate having a seed opening at its rear end, a spring secured to each feed plate each plate being held in spring pressed engagement with a push bar, a spout extending from the rear end of said hopper said seed openings being arranged to empty into said spout, brackets secured to the forward end of said beam, a wheel journaled in said brackets and positioned between said push bars, studs carried upon opposite sides of said wheel to alternately engage said push bars, and two curved divergently held covering blades secured at opposite sides to the rear ends of said beam.



2. A grain dropper having in combination, a beam, two push bars pivotally held to said beam, a hopper divided into two compartments having its rear and forward ends opened, a gate closing each open end of said hoppers, a brush at the lower end of each rear gate, means to adjustably hold said gates, a feed plate slidably held upon the bottom of each hopper compartment and extending through the forward and rear ends thereof each feed plate having a seed opening at its rear end, a spring secured to each feed plate each plate being held in spring pressed engagement with a push bar, a spout extending from the rear end of said hopper said seed openings being arranged to empty into said spout, brackets secured to the forward end of said beam, a wheel journaled to said brackets and positioned between said push bars, studs carried upon opposite sides of said wheel to alternately engage said push bars, and guiding handles secured to the rear end of said beam.

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1,037,320. MECHANISM FOR FEEDING ANGULAR-FORMED BLANKS. BENJAMIN F. RINDFLEISCH, Cleveland, Ohio, assignor to The National-Acme Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Sept. 9, 1911. Serial No. 648,492. (Cl. 29—60.)



1. In a metal working machine, the combination of a normally rotating spindle and means for feeding blanks thereto without stopping the rotation of such spindle and comprising a normally stationary spindle carrying simultaneously a series of blanks, means for alining the two spindles during the transfer of such blanks from one spindle to the other, and means for successively transferring the blanks from said blank carrying spindle to the normally rotating spindle.

2. In a metal working machine, the combination of a normally rotating spindle and means for feeding an angular-formed blank thereto without stopping the rotation of such spindle and including a normally stationary spindle movable toward and from the normally rotating spindle and carrying a series of blanks simultaneously, means for alining the two spindles during the transfer of such blanks, and means operative through companion blanks to transfer a blank from the blank carrying spindle to the normally rotating spindle.

3. In a metal working machine, the combination of a normally rotating spindle and means for feeding an angular-formed blank thereto without stopping the rotation of such spindle and including a normally stationary hollow spindle movable toward and from the normally rotating

spindle and carrying simultaneously a series of blanks, said spindles having alining means whereby when they are engaged they will rotate together, and means for transferring a blank from the hollow spindle to the rotary spindle.

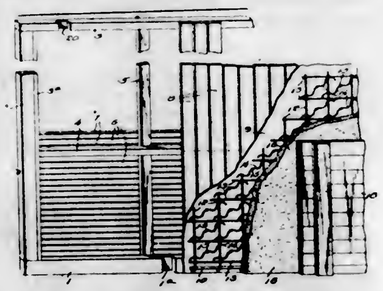
4. In a metal working machine, the combination of a normally rotating spindle and means for feeding an angular-formed blank thereto without stopping the rotation of such spindle and including a normally stationary hollow spindle movable toward and from the normally rotating spindle, said spindles having clutch faces whereby when they are engaged they will rotate together, means for pushing blanks from the normally stationary hollow spindle to the normally rotating spindle and comprising a rod, and means for operating said rod.

5. In a metal working machine, the combination of a normally rotating spindle and means for feeding an angular-formed blank thereto without stopping the rotation of such spindle and including a normally stationary spindle movable toward and from the normally rotating spindle, said spindles having clutch faces whereby when they are engaged they will rotate together, and means for pushing blanks from the normally stationary spindle to the normally rotating spindle and comprising a rod and a magazine having its lower end formed to correspond with the bore of the normally stationary spindle.

[Claims 6 to 30 not printed in the Gazette.]

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1,037,321. BUILDING CONSTRUCTION. JAMES D. RIVES, Atlanta, Ga., assignor of one-fourth to J. W. Blosser, Atlanta, Ga. Filed Feb. 16, 1912. Serial No. 678,099. (Cl. 72—17.)



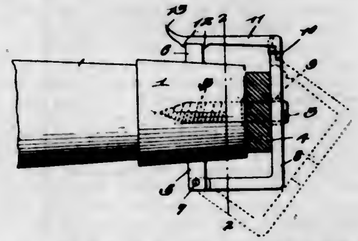
1. In a building construction, a hollow wall comprising an upstanding wooden main frame, sheathing boards secured upon the outer face of the main frame in close relation to each other, an open wire fabric having its edges securely attached to the sheathing boards, a plastic wall engaging the outer surface of the sheathing boards and having the open wire fabric embedded therein, anchor-wires bent in serpentine form and corresponding approximately in number to the mesh openings of the wire fabric, the free end portions of the anchor-wires being embedded transversely in the plastic wall, and elements attaching the anchor wires between their ends with the sheathing boards, whereby the plastic wall is connected with the sheathing boards uniformly throughout its entire area.

2. The combination with a supporting structure, of a plastic wall, a reinforcing open metallic fabric embedded axially in the plastic wall and attached to the supporting structure, and anchor-wires attached between their ends to the supporting structure and having their end portions bent in serpentine forms to extend in divers directions in the plastic wall, the anchor-wires co-acting with the open metal fabric to reinforce the plastic wall in all directions.

3. The combination with an upstanding supporting structure, of a plastic wall disposed adjacent one side thereof, a reinforcing open metal fabric embedded in the plastic wall to extend longitudinally thereof, and anchor-wires securely attached to the supporting structure and having their free end portions bent in serpentine form to extend in divers transverse directions in the wall, to co-operate with the open metal fabric for reinforcing the plastic wall in all directions.

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1,037,322. WHIFFLETREE-HOOK. GEORGE H. ROBERTS, Thomas, Okla. Filed Apr. 17, 1912. Serial No. 691,353. (Cl. 21—79.)

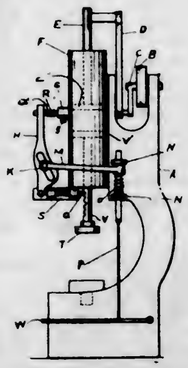


1. In a device of the character described, the combination with a swingletree, of a ferrule rigidly secured to the end thereof, lugs formed in the ferrule at diametrically opposite points, an angular bar pivotally secured to one of said lugs and having one of its ends disposed across the end of the swingle tree, a spring plate rigidly secured to the free end of said bar, spaced ribs formed on the outer end of the plate and adapted to engage with one of said lugs to hold the bar in an operative position, and means projecting from the end of the swingletree to retain the trace in position between said bar and the swingletree.

2. In a device of the character described, the combination with a swingletree, of a ferrule, a screw centrally arranged therein, having its threaded end screwed into the end of the swingletree and the other end extending beyond the closed end of the ferrule, lugs formed on the ferrule at diametrically opposite points, an angular bar pivotally secured to one of said lugs, said bar having an opening formed therein to receive the outer end of the screw and means carried by the free end of said bar and adapted to engage the other lug to hold the bar in an operative position.

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1,037,323. PNEUMATIC HAMMER. GRIFFITH D. ROBERTS, Columbus, Wis. Filed July 25, 1911. Serial No. 640,506. (Cl. 78—39.)



In a pneumatic hammer, a supporting frame, a cylinder supported by said frame, upper and lower pistons in said cylinder, the lower cylinder having a hammer rod, said hammer rod having a series of rounded corrugations and a series of ratchet teeth at its lower end, a reciprocating valve and stem, a pair of spring pressed pawls, one of said pawls normally engaging said rounded corrugations and



the other engaging said ratchet teeth, a slide having oppositely beveled ends, engaging said valve stem at its upper end and engaging at its lower end the pawl which engages said ratchet teeth, a lever engaging at its upper end with said valve stem and at its lower end being connected to the pawl engaging said rounded corrugations, a lever having a slanting slot, an arm having one end loosely mounted in said slot, a second arm pivoted to said slide, and means for reciprocating said arms.

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1,037,324. SPINDLE. WILLIAM LAFAYETTE ROBINSON and WILLIAM EDWARD GRAHAM ROBINSON, Concord, N. C. Filed June 24, 1911. Serial No. 635,057. (Cl. 118—25.)



1. In a spindle support, a tapered bolster arranged to receive the tapered pintle of the spindle, said pintle extending beyond said bolster, a sleeve arranged on the end of said pintle, said sleeve being formed with an extension, the face of which is concaved, a base member, said base member being provided with an extension, the end portion of which is concaved and a ball arranged between said extensions.

2. In a spindle support, a tapered bolster fixedly mounted in the bolster case and arranged to receive the tapered pintle of the spindle, said pintle extending beyond said bolster, a sleeve receiving the end of said pintle, said end being tapered, the sleeve being formed with a seat to receive said tapered end, said sleeve and bolster being coterminous, said sleeve being formed with an extension the face of which is concaved, a base member, said base member being provided with an extension the end portion of which is concaved, and a ball arranged between said extensions.

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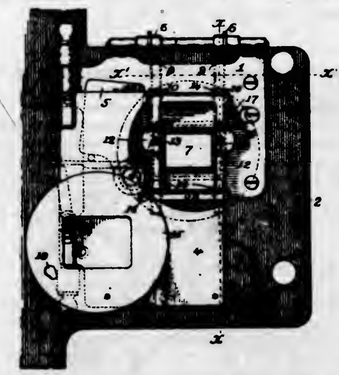
1,037,325. KINETOSCOPE. ALVAH C. ROEBUCK, Chicago, Ill., assignor to The Enterprise Optical Mfg. Company, Chicago, Ill., a Corporation of Illinois. Filed May 25, 1910. Serial No. 563,438. (Cl. 88—18.)

1. The combination of a kinetoscope frame having a light aperture and guide ribs at the side of said aperture, a film gate formed with a light aperture, a pair of counterpart bearing shoes arranged at the sides of the light aperture of said gate and movably attached to the gate, and vertical spring members secured to the gate at the sides of the light opening of the same and connected together at top and bottom by horizontal connecting members which are common to and have engagement with the upper and lower portions of the shoes, substantially as set forth.

2. The combination of a kinetoscope frame having a light aperture and guide ribs at the side of said aperture, a film gate formed with a light aperture, a pair of counterpart bearing shoes arranged at the sides of the light aperture of said gate and movably attached to the gate, and a spring member of a rectangular open form, common to both shoes and having engagement with the upper and lower portions of the shoes, substantially as set forth.



3. The combination of a kinetoscope frame having a light aperture and guide ribs at the side of said aperture, a film gate formed with a light aperture, a pair of counterpart bearing shoes arranged at the sides of the light aperture of said gate and formed with upper and lower guide ears which move in orifices in the film gate, and a spring member common to both shoes and having engagement with the guide ears aforesaid, substantially as set forth.

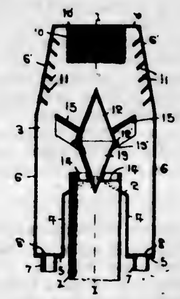


4. The combination of a kinetoscope frame having a light aperture and guide ribs at the side of said aperture, a film gate formed with a light aperture, a pair of counterpart bearing shoes arranged at the sides of the light aperture of said gate and formed with upper and lower guide ears which move in orifices in the film gate and are formed with notches, and a single spring member common to both shoes and having engagement with the aforesaid notches of the guide ears, substantially as set forth.

5. The combination of a kinetoscope frame having a light aperture and guide ribs at the side of said aperture, a film gate formed with a light aperture, a pair of counterpart bearing shoes arranged at the sides of the light aperture of said gate and formed with upper and lower guide ears which move in orifices in the film gate and formed with notches, and a single spring member of a rectangular open center form and having V shaped projections at its respective ends for engagement in the aforesaid notches of the guide ears, substantially as set forth.

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1,037,326. SPARK-ARRESTER. NICKOLAS J. ROETHER, Mineral Point, Wis. Filed Nov. 17, 1911. Serial No. 660,809. (Cl. 110—133.)

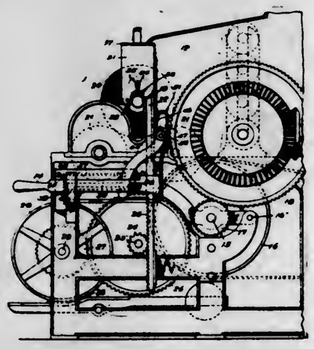


A spark arrester comprising the combination with a smoke stack, oppositely disposed cone members having their bases secured together and disposed in a horizontal plane, and baffle plates secured to the upper of said cones

and disposed upwardly and outwardly therefrom; of a casing secured over the upper end of the smoke stack, said casing having a screened opening in the upper portion thereof and deflecting plates near its upper end, said casing depending below the upper end of the smoke stack and upon opposite sides of the latter, an inverted V-shaped bottom disposed between said depending portions and provided with a circular opening for receiving said smoke stack, pipes projecting from said depending portions, valve plates within said depending portions to cover the open upper ends of the pipes.

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1,037,327. LAPPING-MACHINE. BENJAMIN M. ROGERS, Albemarle, N. C. Filed May 1, 1911. Serial No. 624,438. (Cl. 19—8.)



1. In a lapping machine, the combination with a lap-roll, of means for applying pressure to the lap wound on said lap-roll, and means for indicating the amount of said pressure.

2. In a lapping machine, the combination with a lap-roll, of means for applying pressure to the lap wound on said roll, and means for indicating the rise of said pressure above a predetermined amount.

3. In a lapping machine, the combination with a lap-roll and tension mechanism, of a bar connected with said tension mechanism, a roller movably mounted on said bar and engaging said lap-roll, a spring connecting said roller and bar, and an indicator operated by said roller.

4. In a lapping machine, the combination with a lap-roll and tension mechanism, of a bar connected with said tension mechanism, a roller movably mounted on said bar and engaging said lap-roll, a spring connecting said roller and bar, a rack movable with said roller, a shaft journaled in said bar and provided with a pinion meshing with said rack, a pointer on said shaft, and a dial on said bar over which said pointer moves.

5. In a lapping machine, the combination with a lap-roll of means for applying pressure to the lap wound on said roll, an electric circuit, and means for indicating the amount of said pressure and for closing said circuit when said pressure exceeds a predetermined amount.

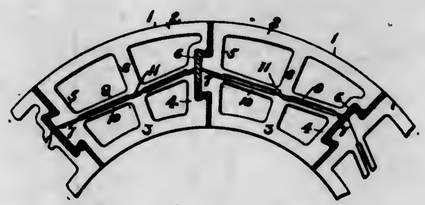
[Claims 6 to 18 not printed in the Gazette.]

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1,037,328. SEWER-PIPE SECTION FOR SEWER-BUILDING. WILLIAM H. ROOK, Jr., Akron, Ohio. Filed Oct. 29, 1910. Serial No. 589,794. (Cl. 72—52.)

1. A hollow tile having its inner wall cut-away at one end and its outer wall cut-away at the other end to form shoulders reversely arranged at opposite ends, the shoulders when two tiles abut overlapping and out of contact to form a transverse mortar groove, a longitudinal wall terminating near the transverse groove at each end whereby a communicating chamber opening into the mortar groove is formed to provide a mortar clench.

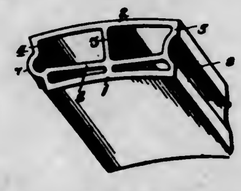
2. A hollow tile having its inner wall cut-away at one end and its outer wall cut-away at the other end to form shoulders reversely arranged at opposite ends, the shoulders when two tiles abut overlapping and out of contact to form a transverse mortar groove, spaced longitudinally-extending walls terminating near the transverse groove at



each end to provide an opening communicating with said grooves to constitute a space for a mortar clench.

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1,037,329. SEWER-PIPE SECTION FOR SEWER-BUILDING. WILLIAM H. ROOK, Jr., Akron, Ohio. Filed June 7, 1912. Serial No. 702,266. (Cl. 72—53.)



1. A sewer pipe section for the purposes described comprising a body member of burned earthenware and comprising inner and outer parallel curved walls united at their ends by lateral radial walls, one of said lateral walls provided with a longitudinally-extending and laterally-projecting rib, the lateral face of said rib formed in the arc of a circle in cross section, the opposite lateral wall provided with a longitudinally-extending groove, the face of said groove being formed in the arc of a circle in cross section, the radius of the arc described by said rib being less than the radius of the arc described by said groove, whereby when two sections are laterally juxtapositioned with the rib of one section seated within the groove of another section each of said sections is adjustable radially with respect to the other section.

2. A sewer pipe section comprising a hollow body member of vitreous material and comprising inner and outer parallel curved walls united at their ends by lateral radial walls, one of said lateral walls provided with a longitudinally-extending and laterally-projecting rib, the opposite lateral wall provided with a longitudinally-extending recess larger in cross section than said rib, whereby when two sections are laterally juxtapositioned with the rib of one section received within the recess of a coadjacent section, each section is adjustable radially with respect to the other section.

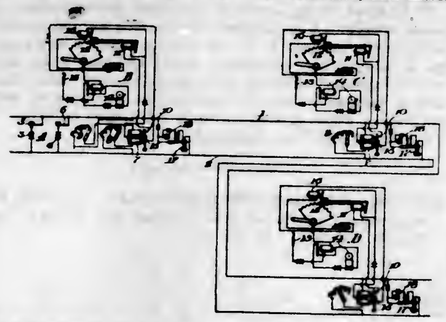
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1,037,330. SIGNALING SYSTEM. HARRY O. RUGH, Sandwich, Ill., assignor to Sandwich Electric Company, Sandwich, Ill., a Corporation of Illinois. Filed May 4, 1909. Serial No. 493,942. (Cl. 177—343.)

A step-by-step signaling system having metallic line conductors for uniting a central station and substations, a step-by-step selector at each substation, a relay bridged across the line conductors at each selector for operating said selector, electrical resistances in series with each relay, to evenly distribute the relay operating current, one



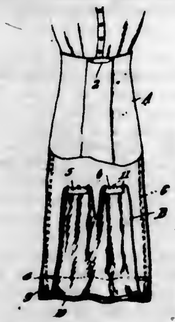
of said resistances being included between each terminal of the relay and its associated line conductor, and means



at the central station for supplying said relay operating current.

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1,037,331. SKIRT. LILLIAN M. SAVAGE, Baltimore, Md. Filed Apr. 12, 1912. Serial No. 690,261. (Cl. 2—42.)



1. A device of the character described comprising a skirt having a waist band, and means for adjusting the length of the waist band, a pair of bloomers attached in an inverted position to the inside of the bottom of the skirt, knee bands at the extremities of the legs of the bloomers, means for adjusting the length of the knee bands and means for securing the knee bands of the bloomers to the undergarments of the wearer.

2. A device of the character described comprising a skirt and a pair of bloomers removably and adjustably connected to the inner side of the skirt near the bottom thereof.

3. A combined garment of the character described comprising two members to wit; a skirt and a pair of bloomers, a series of horizontal rows of one of the members of a fastening device attached to one of the members of the combined garment, and a single horizontal row of the other member of the fastening device attached to the other member of the combined garment and adapted to engage any one of the first named series of fastening device members.

4. A combined garment of the character described comprising a skirt provided near its bottom with a plurality of horizontal rows of members of fastening devices, and bloomers provided with a single horizontal row of fastening devices adapted to engage with any one of the rows of fastening devices of the skirt.

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1,037,332. LUBRICATING DEVICE FOR STEAM-HAMMERS. MAX SCHALSCHA, Summit, N. J. Filed Nov. 18, 1911. Serial No. 661,033. (Cl. 121—115.)

1. In a steam hammer of the character set forth, a casting comprising in a single integral element an oil reservoir, a steam passage, an inclined passage from the bottom of said reservoir to the steam passage, and a lateral extension of said steam passage for communication with the steam inlet channel of the body of a hammer to which said casting is attached.

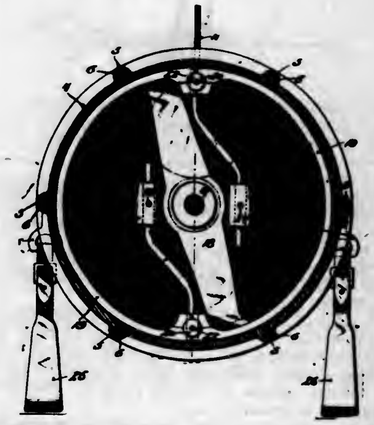


2. In a steam hammer of the character set forth, a casting comprising in a single integral element an oil reservoir, a steam passage, an inclined passage at its bottom affording communication between said oil reservoir and the steam passage, and a lateral extension of the said steam passage for communication with the steam inlet channel of the body of a hammer, said reservoir having a filling opening permitting the insertion of means for forming said inclined passage.

3. In a steam hammer of the character set forth, a body portion having a steam channel therein, a casting secured to said body on the face thereof and having a steam passage in its lower portion leading to said channel from an inlet on the under face of said casting, and an oil chamber in the upper portion of said casting, and an oil passage leading from said chamber to said steam passage and communicating with the latter at a point intermediate its ends at an inclination in the direction of the current of steam flowing through said steam passage whereby the volume of steam passing through said steam passage serves by suction to withdraw the oil from the oil chamber through said inclined oil passage.

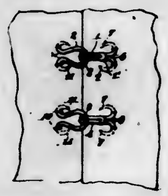
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1,037,333. FIRE-ESCAPE APPARATUS. JOSEPH F. SCHEUER, Two Creeks, Wis. Filed May 29, 1911. Serial No. 630,045. (Cl. 227—34.)



The combination in a fire-escape apparatus of a circular casing, a spindle for which the casing is provided with bearings, a cable-wound drum loose on the spindle and back-geared thereto, a two part friction-ring in said casing having its sections in opposition to the casing-wall, the opposing ends of these ring sections being provided with cross-notches, a cross-piece fast on said spindle and connecting the friction-ring sections, diametrically opposite cylindrical blocks and rods seated in said cross-notches, the rods being fastened in the blocks and extended inward past the center of the cross-piece, and weights fast on said rods adjacent to the inner ends of the same.

1,037,334. HOOK AND EYE. ANNA MARGARETHA SCHNEIDER, Los Angeles, Cal. Filed Oct. 21, 1910. Serial No. 588,255. (Cl. 24—88.)



In a hook and eye fastener, a fastening member formed of a single piece of wire, and attaching means formed by curving the ends of the wire outwardly forming ultimate engaged points and then forwardly and inwardly in circular form, terminating in sharp points, the distance between the points between substantially the same as the distance between the ultimate engaging points and slightly less than the distance between each point and the opposite ultimate engaging point so that the points may be successively engaged with the fabric without appreciably stretching the same, substantially as described.

1,037,335. PAPER TOY. ISAAK SCHÖNHERZ, Vienna, Austria-Hungary, assignor to Geo. Borgfeldt & Co., a Corporation of New Jersey. Filed Mar. 1, 1912. Serial No. 680,844. (Cl. 46—37.)



1. In a toy of the character described, in combination, a tore comprising a wheel member and a flexible body attached to opposite sides thereof and adapted, when said wheel member rotates, to revolve about its circular core substantially as a vortex ring; and means for drawing said toy along a plane surface to cause the rotation of said wheel member.

2. In a top of the character described, in combination, a tore comprising a wheel member capable of being rolled along a plane surface and a flexible body attached to opposite sides thereof, said tore being adapted, when said wheel member rotates, to revolve about its circular core substantially as a vortex ring.

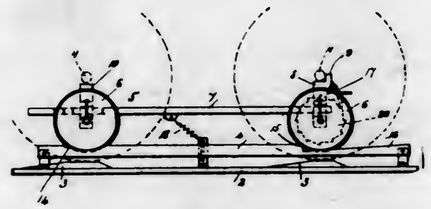
3. In a toy of the character described, in combination, a wheel member capable of being rolled along a plane surface; a collapsible body having an end thereof secured to a side of said member and capable of longitudinal extension; and means adapted, when said body is extended, to secure the free end thereof to the other side of said wheel member.

4. In a toy of the character described, in combination, a wheel member capable of being rolled along a plane surface; a collapsible body having an end thereof permanently secured to a side of said member and capable of longitudinal extension; and means adapted to secure the free end of said body to said wheel member alternatively upon either side thereof.

5. In a toy of the character described, in combination, a wheel member; a collapsible body having an end thereof permanently secured to a side of said member and capable of longitudinal extension; means adapted, when said body is extended, to secure the free end thereof to the other side of said wheel member; and means for drawing said toy along a plane surface to rotate said wheel member.

[Claims 6 and 7 not printed in the Gazette.]

1,037,336. SUPPORT FOR MOTOR-CARS. CHARLES W. SCHUBERT, Cottonwood, Iowa. Filed Nov. 4, 1911. Serial No. 658,608. (Cl. 57—15.)



1. The combination, with a supporting floor provided with inclined planes spaced so as to engage with the wheels of a motor car, of guide rails arranged parallel with the inclined planes and having shoulders and upwardly and forwardly inclined parts at their front end portions, a truck provided with means for supporting the motor car and having rear wheels which run on the rear portions of the said rails and front wheels which run on their inclined portions and which normally rest against the said shoulders.

2. The combination, with a supporting floor provided with inclined planes spaced so as to engage with the wheels of a motor car, of a truck arranged to run longitudinally of the inclined planes and provided with means for supporting the motor car, and check mechanism attached to the truck and normally permitting it to run in one direction only.

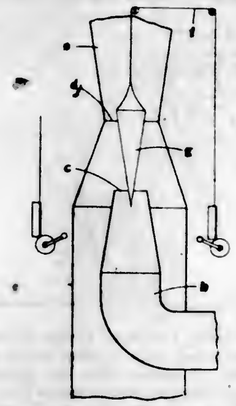
3. The combination, with a supporting floor provided with inclined planes spaced so as to engage with the wheels of a motor car, of a truck arranged to run longitudinally of the inclined planes and provided with means for supporting the motor car, and a spring connection between the said truck and the floor for retarding the movements of the truck as it approaches the ends of its longitudinal path.

4. The combination, with a supporting floor provided with inclined planes spaced so as to engage with the wheels of a motor car, of guide rails arranged longitudinally between the inclined planes and provided with depressions, a truck provided with means for supporting the motor car and having wheels which run on the said rails and which normally engage with its depressions, said truck having a projection whereby it is moved forwardly from its normal position by the said car, and check mechanism attached to the said truck and normally preventing it from moving backwardly after it has been moved forwardly by the car.

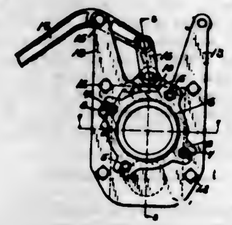
1,037,337. REGULATING DEVICE FOR GAS-SUPPLY PLANTS. GEORG SCHWABACH, Charlottenburg, Germany. Filed July 1, 1909. Serial No. 506,428. (Cl. 230—13.)

In gas supply plants the combination of a gas inlet pipe, an inlet pipe for the driving gas located within the gas inlet pipe, a mixing chamber in which the inlet pipes terminate, a common outlet pipe for the gas mixture and means for simultaneously controlling the area of the inlet pipe for the driving gas and that of the outlet pipe, consisting of a tapered body disposed within the mixing chamber and projecting into the inlet pipe for the driving gas and the outlet pipe.





1,037,338. GATE-VALVE. WILLIAM H. SCOTT, Kalamazoo, Mich. Filed Feb. 13, 1912. Serial No. 677,297. (Cl. 137—5.)



1. In a gate valve, the combination of the casing comprising a pair of plate-like casing members having port openings therein and attaching flanges surrounding said port openings, said attaching flanges being slotted to receive bolt heads presented sidewise thereto, each of said casing members being provided with a flange on its inner face, said flanges being disposed diagonally opposite and parallel to provide a slide-way open at the top and bottom, said casing members being provided with pairs of projecting lever supporting arms at one end; clamping bolts for said casing members; a plate-like valve arranged in said slide-way and having a port therein adapted to be brought into and out of register with said port openings of said casing members; a lever pivotally mounted on one pair of arms on said casing members; a link connecting said lever to said valve; pipe coupling members having slots therein; and attaching bolts for said coupling members adapted to be engaged in said bolt slots of said casing member attaching flanges.

2. In a gate valve, the combination of the casing comprising a pair of plate-like casing members having port openings therein and attaching flanges surrounding said port openings, said attaching flanges being slotted to receive bolt heads presented sidewise thereto, each of said casing members being provided with a flange on its inner face, said flanges being disposed diagonally opposite and parallel to provide a slide-way open at the top and bottom; clamping bolts for said casing members; a plate-like valve arranged in said slide-way and having a port therein adapted to be brought into and out of register with said port openings of said casing members; a lever pivotally mounted on one pair of arms on said casing members; a link connecting said lever to said valve; pipe coupling members having slots therein; and attaching bolts for said coupling members adapted to be engaged in said bolt slots of said casing member attaching flanges.

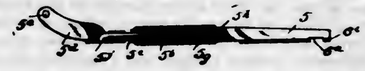
3. In a gate valve, the combination of the casing comprising a pair of plate-like casing members having port openings therein and attaching flanges surrounding said port openings, said attaching flanges being slotted to receive bolt heads presented sidewise thereto, said casing members being provided with pairs of projecting lever supporting arms at one end; clamping bolts for said casing members; a plate-like valve; a lever pivotally mounted on one pair of arms on said casing members; a link connecting said lever to said valve; pipe coupling members having slots therein; and attaching bolts for said coupling members adapted to be engaged in said bolt slots of said casing member attaching flanges.

4. In a gate valve, the combination of the casing comprising a pair of plate-like casing members having port openings therein and attaching flanges surrounding said port openings, said attaching flanges being slotted to receive bolt heads presented sidewise thereto; clamping bolts for said casing members; a plate-like valve; pipe coupling members having slots therein; and attaching bolts for said coupling members adapted to be engaged in said bolt slots of said casing member attaching flanges.

5. In a gate valve, the combination of the casing comprising a pair of plate-like casing members having port openings therein, each of said casing members being provided with a flange on its inner face, said flanges being disposed diagonally opposite and parallel to provide a slide-way open at the top and bottom, said casing members being provided with pairs of projecting lever supporting arms at one end; clamping bolts for said casing members; a plate-like valve arranged in said slide-way and having a port therein adapted to be brought into and out of register with said port openings of said casing members; a lever pivotally mounted on one pair of arms on said casing members; and a link connecting said lever to said valve.

[Claim 6 not printed in the Gazette.]

1,037,339. TYPE-BAR KEY-ACTION. JEROME B. SECOR, Derby, Conn. Filed Oct. 25, 1911. Serial No. 656,590. (Cl. 197—32.)



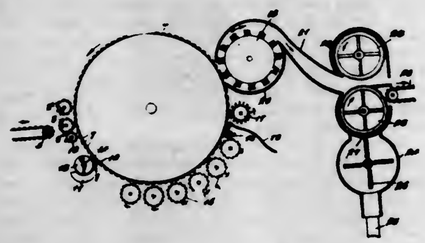
1. In a type bar action for writing machines, a link comprising a type bar operating yoke provided with an aperture, a member provided with a housing with an aperture in the end thereof, an adjustment screw provided with a hook engaging the aperture in said yoke and extending through the aperture in said housing, an adjustment nut slidably mounted in said housing and threaded to said screw, and resilient means interposed between said nut and the end wall of said housing.

2. In a type bar action for writing machines, a link comprising a type bar operating yoke provided with an aperture, a key operated member provided with a housing, an adjusting screw extending through the aperture in said yoke and into said housing, a nut carried by said screw within said housing, and a spring mounted on said screw between said nut and the end wall of said housing.

1,037,340. APPARATUS FOR RECLAIMING WASTE COTTON. JOHN W. SHAUGHNESSY, Charlotte, N. C. Filed Aug. 12, 1911. Serial No. 643,730. (Cl. 19—0.)

1. An apparatus for the purpose set forth comprising in combination, a toothed cylinder, means for feeding the stock to the teeth of said cylinder, and means acting upon the stock to cut out large particles of foreign matter therefrom and convey the same to a suitable discharge point, said latter means including a trough having one of its edges disposed in close proximity to the teeth of the cylinder, and a movable member co-acting with the edge of said trough.

2. An apparatus for the purpose set forth comprising in combination, a toothed stock carrying cylinder, means for feeding the stock thereto, a rotatable spiral blade arranged adjacent to said cylinder, and means co-acting with said blade to cut out and remove particles of foreign matter from the stock.



3. An apparatus for the purpose set forth comprising in combination, a toothed cylinder, means for feeding the stock to the teeth of said cylinder, a trough having one edge disposed closely adjacent to the cylinder teeth, and a spiral blade mounted in said trough and co-acting with the edge thereof to remove particles of foreign matter from the stock in the rotation of said cylinder.

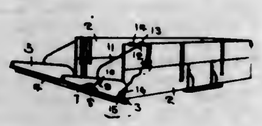
4. An apparatus of the character described comprising in combination, a toothed cylinder, means for feeding the stock to the cylinder, a trough having a removable edge plate disposed closely adjacent to the teeth of the cylinder and extending the entire length of said cylinder, and a spiral blade rotatably mounted in said trough and co-acting with said edge plate to remove particles of foreign matter from the stock in the rotation of said cylinder.

5. An apparatus for the purpose set forth comprising in combination, a toothed rotary cylinder, means for feeding the stock to the teeth of said cylinder, means arranged adjacent to the cylinder including a rotatable blade, a trough having a cutting edge with which said blade co-acts upon the stock in the rotation of the cylinder to remove particles of foreign matter therefrom, a series of stock opening rolls arranged beneath said toothed cylinder and in concentric relation thereto, and a cleaning cylinder arranged adjacent said toothed cylinder and adapted to act upon the stock after its passage over said opening rolls to remove other particles of foreign matter therefrom.

[Claims 6 to 8 not printed in the Gazette.]

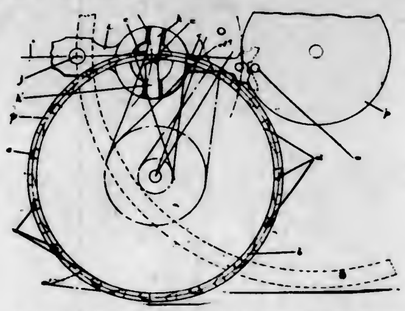
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1,037,841. END-GATE. DANIEL W. SHAW, Fostoria, Kans. Filed Aug. 17, 1911. Serial No. 644,545. (Cl. 21—21.)



The combination with a wagon end, of an end gate having side arms, straps secured to the side arms near the upper ends thereof, a cradle bar having looped ends movably positioned about the gate and side arms and under said straps, latch bars having one end looped and the opposite end hooked, a portion of said latch bars adjacent the looped ends being curved and disposed at right angles to the remainder thereof, the looped ends of said cradle bar and latch bars being connected, eyelets carried by said wagon end for receiving said latch bars, and adjustable lever connections between the lower ends of said end gate and said wagon body.

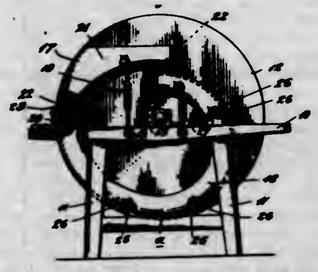
1,037,842. LEVER-ESCAPEMENT. WILLIAM J. SHORTILL, Markdale, Ontario, Canada. Filed Dec. 22, 1910. Serial No. 598,866. (Cl. 58—121.)



In lever escapement, a balance having an impulse pin, a pallet lever oscillating from a pallet center and having at one end a fork to engage with the impulse pin, an escape wheel comprising two sets of escape teeth projecting perpendicularly from the side faces of the escape wheel, each escape tooth having a locking face and a lifting face, the locking faces of the escape teeth on one side of the escape wheel passing to one side of the escape center and the locking faces of the escape teeth on the other side of the escape wheel passing to the opposite side of the escape center with the angular lines of the lifting faces of the two sets of escape teeth passing to opposite sides of a tangential line drawn from the pallet center to the primitive circle of the escape wheel, and two pallets attached to the pallet lever between the pallet center and the fork, said pallets being arranged in two different horizontal planes with sufficient clearance between them for the free revolution of the escape wheel, each of the pallets being provided with lifting and locking faces, the angles of which correspond with those of the lifting and locking faces of the escape teeth.

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1,037,843. DOUGH-ROUNDING MACHINE. JOSEPH J. SHUPE, Detroit, Mich., assignor of one-half to Charles E. Putman, Detroit, Mich. Filed Oct. 9, 1911. Serial No. 653,481. (Cl. 107—9.)



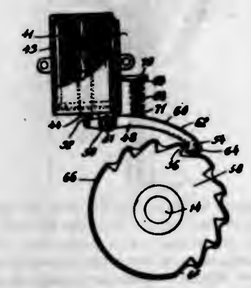
1. In a machine of the character described, the combination with a vertically disposed rotatable disk and means for rotating said disk, of a dough rolling trough having an open side closed by the said disk and arranged spirally around the axis of said disk with its inlet end midway between the periphery and the center of the disk, its intermediate portion adjacent to the periphery of the disk and its discharge end between the inlet end and the center of the disk, and means for supporting and holding the trough against the face of the disk.

2. In a machine of the character described, the combination of a vertically disposed rotatable disk, means for rotating said disk, a dough rolling trough having an open side closed by said disk and comprising a receiving portion arranged with its receiving end adjacent to the center of the disk, and a rolling portion forming a continuation of the receiving portion and extending adjacent to the periphery of the disk and spirally around the axis thereof with its discharge end adjacent to said axis, and bolts adjustably supporting the trough and adapted to move the same into contact with the face of said disk.



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1,037,844. CONTROLLING DEVICE FOR ELECTRIC MOTORS. JOHN J. SINCLAIR, Upper Montclair, N. J. Filed Dec. 7, 1911. Serial No. 664,480. (Cl. 172—179.)



1. An electric motor, a circuit therefor, a controller for the motor, locking mechanism for said controller, cam controlled means for controlling the normal movement of said locking mechanism, and an electromagnet arranged to move the locking mechanism into locking position.

2. A locking mechanism for a controller comprising a ratchet wheel, a locking dog arranged to engage the teeth of said ratchet wheel to prevent the rotation of the controller in one direction, an electro-magnet for moving said dog into locking position, and cam controlled means for controlling the movements of said dog when released from locking position.

3. A locking mechanism for a controller comprising a ratchet wheel, a locking dog arranged to engage the teeth of said ratchet wheel to prevent the rotation of the controller in one direction, said dog being arranged to change the angularity of its engaging face preparatory to releasing said ratchet.

4. In combination, a controller, a ratchet wheel and a cam wheel on said controller, a locking device arranged to engage the teeth on said ratchet wheel to prevent rotation of the controller in one direction, means controlled by said cam wheel for controlling the movements of said locking device when disengaged from said ratchet wheel and electro-magnetic means for bringing said locking device into engagement with said teeth.

5. In combination, a controller, a ratchet wheel and a cam wheel on said controller, a locking pawl arranged to be brought into engagement with the teeth on said ratchet, means tending normally to keep said pawl out of engagement with said teeth, cam controlled means for controlling the outward movement of said pawl, and electromagnetic means for bringing said pawl into engagement with said teeth.

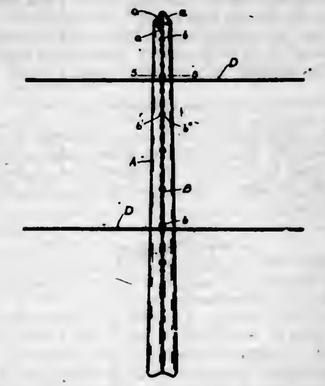
[Claims 6 to 10 not printed in the Gazette.]

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1,037,845. FENCE-POST. LAWRENCE K. SLABACK, Silverton, and GEORGE G. MCGLAUGHLIN, Cincinnati, Ohio. Filed Sept. 27, 1911. Serial No. 651,544. (Cl. 39—12.)

1. A fence post consisting of a metal tube having a series of tongues struck therefrom, said tongues having enlarged heads, and the metal of the tube being removed adjacent to the heads, whereby the heads will register with the enlarged portion of the hole in the tube after the tongue has been bent for the reception of the wire.

2. A fence post consisting of a metal tube having a longitudinal groove, a series of tongues struck from the tube and located in the groove, said tongues having enlarged heads, and the metal of the tube being removed adjacent to the heads, so that the head will register with the hole in the tube after the tongue has been bent for the reception of the wire.



3. A post consisting of a metal tube having a series of three longitudinal grooves formed therein, giving the post a section which is trifoliate in outline, and a series of tongues struck from the tube and located in one of the grooves.

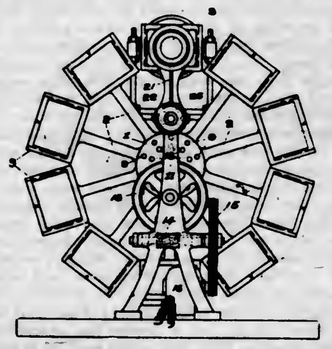
4. A fence post consisting of a tapering metal tube having a series of three longitudinal grooves formed therein, which give to the post a cross-section which is trifoliate in outline, and a series of tongues struck from the post and located in one of the grooves.

5. A fence post consisting of a metallic tube having a longitudinally extending groove, and metal tongues having enlarged heads struck from the metal of the tube and located in the groove.

[Claims 6 and 7 not printed in the Gazette.]

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1,037,846. STEREOPTICON. ALFRED M. SMILEY, Franklin, Pa. Filed May 20, 1911. Serial No. 628,359. (Cl. 88—27.)

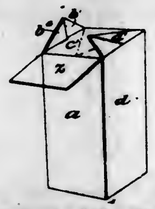


In a stereopticon of the class specified, the combination of a continuously illuminated projecting device consisting of a continuously illuminated lamp, a horizontally and vertically adjustable condenser, and a lens adjustable in the direction of said condenser, with movable transparency-holders arranged to contain transparencies and to position the same in projective register in said projecting device, said transparency-holder consisting of a wheel composed of a hub and a plurality of radial arms attached to said hub, each carrying a transparency-holder at its outer end, a shaft in said hub for revolubly mounting said wheel, pins, corresponding in number to the number of said arms and holders, projecting horizontally from said hub, a

revoluble shaft arranged with its axis in alinement with the axis of said first-mentioned shaft, means for continuously revolving said shaft, an arm upon said shaft arranged to engage one of said pins at each revolution, for the purpose of moving said wheel a portion of a revolution, bringing the succeeding one of said transparencies into focal register in said projecting device, and spring-actuated means tending to hold said wheel in said registry position.

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1,037,347. LOCK SCOOP-BOX. ABRAHAM L. SMITH, New York, N. Y., assignor to Scoop Folding Box Company, New York, N. Y., a Corporation of New York. Filed Nov. 8, 1909. Serial No. 526,758. (Cl. 229—38.)



1. In a paper box, an end closure, consisting of two end panels forming respectively continuations of two opposite sides of the box, and flaps connecting the edges of the two intermediate sides of the box with the side edges of one of said end panels and foldable inwardly on top of the end panel to which they are connected to form therewith a folding spout, said flaps being free to swing outwardly beyond the plane of the sides to which they are connected and being disconnected from the edges of the other end panel which serves as a sealing flap for the folded spout; substantially as described.

2. A rectangular box formed from a single blank and having a delivery end closure adapted to open out in scoop like form, said closure comprising a rectangular lid with flexible webs or walls connecting said lid and box, said webs flexing outwardly and, in the closing of the lid assuming an upright position, as wings; and auxiliary flaps extending forwardly from the outer portion of said flexed webs, to fold over against the inner portion thereof, covering the entrance to the space therebetween, said flaps, as folded, pressing at their lower edges against the lid, to hold the latter closed, and means locking said flaps.

3. In a paper box, a delivery end closure comprising a lid extending from one wall of the box, webs connecting said lid with the box walls on either side thereof and foldable upon themselves and on top of the lid when the latter is closed, auxiliary flaps connected with said webs and folded to overlie the inner surface of the folded webs and close the space between the portions or sections thereof, and a closing flap to fold down over said webs and the lid.

4. In a paper box, a delivery end closure comprising a lid extending from one wall of the box, webs connecting said lid with the box walls on either side theerof and foldable on themselves to form upright wings alongside the closed lid, auxiliary flaps extending from said webs and foldable over the folded webs, when the latter are upright, into a position wherein said auxiliary flaps abut against and hold down the lid, and a closing flap extending from the box wall opposite that from which said lid is extended, and adapted to fold down on the webs when the latter are in turn folded down on the lid, said closing flap having both side edges free from the webs.

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1,037,348. MAIL-CHUTE. ARTHUR K. SMITH and EMIL A. KUMMING, St. Louis, Mo., assignors to Cutler Mail Chute Company, Rochester, N. Y., a Corporation of New York. Filed Mar. 12, 1910. Serial No. 548,896. (Cl. 232—45.)

1. A receptacle having a front wall having an opening therein, a closure pivoted to one edge of said opening having front and top plates, arms projecting from the front wall of the receptacle, a cross bar thereon, and means on the front plate of the closure for engaging the bar to retain the closure in open position.



2. A receptacle having a front wall having an opening therein, a closure pivoted to one edge of said opening having front and top plates, arms projecting from the front wall of the receptacle, a cross bar thereon, and means on the front plate of the closure for engaging the bar to retain the closure in open and closed position.

3. A receptacle having a front wall with an opening therein, a closure pivoted to one edge of said opening having a front and top plate, arms projecting from the front wall of the receptacle, a cross bar thereon, a locking bar mounted on the front plate of the closure adapted to engage on either side of the cross bar.

4. A receptacle having a front wall with an opening therein, a closure pivoted to one edge of said opening having a front and top plate, a plate projecting from the end of the top plate adapted to engage the front wall of the receptacle when the closure is in open position, arms projecting from the front wall of the receptacle, a cross bar thereon, a locking bar mounted on the front plate of the closure adapted to engage on either side of the cross bar.

5. A receptacle having a front wall with an opening therein a closure pivoted to one edge of said opening having a front and top plate, arms projecting from the front wall of the receptacle, a cross bar thereon, and a key operated locking bar mounted on the front plate of the closure, adapted to engage on either side of the cross bar.

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1,037,349. ELECTRIC PIANO. IRVING B. SMITH, Philadelphia, Pa., assignor, by mesne assignments, to Electrelle Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 19, 1906. Serial No. 301,909. (Cl. 84—228.)

1. In a device of the class described, a musical string, a hammer in operative relation thereto, a magnet armature directly connected, through a lost-motion device with said hammer, and an electromagnet associated with the armature.

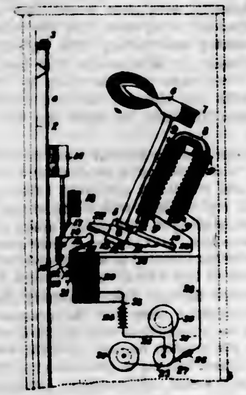
2. In a device of the class described, a musical string, a hammer adjacent thereto, an electromagnet, and an armature associated therewith, connected with the hammer, for operation thereof by direct magnetic pull, and movable between certain limits independent of such hammer.

3. In a device of the class described, a musical string, a hammer adjacent thereto, an electromagnet, an armature therefor, combined with the hammer, and means connecting said armature and hammer, during the latter part only of the movement of the former.

4. In a device of the class described, a musical string, a hammer disposed in operative relation thereto, and provided with abutments, an electromagnet, and an armature under the influence of the magnet for moving the hammer, the said armature being capable of movements relative to the hammer which are limited by said abutments.



5. In a device of the class described, a musical string, a hammer pivoted adjacent thereto, an electromagnet for operating the hammer, an armature under the influence

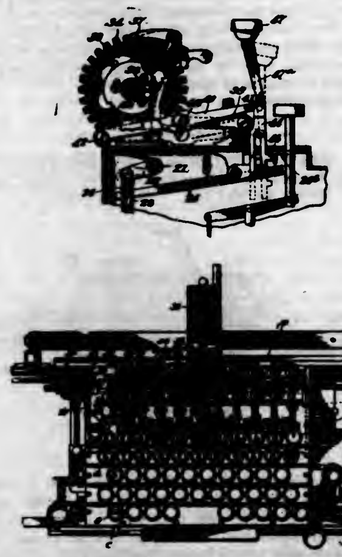


thereof, an oscillatory lever carrying the armature, and abutments on the hammer between which the said lever oscillates.

[Claims 6 to 21 not printed in the Gazette.]

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1,037,350. COMBINED TYPE-WRITING, ADDING, AND SUBTRACTING MACHINE. JOHN A. SMITH, Harrisburg, Pa., assignor to Elliott-Fisher Company, New York, N. Y., a Corporation of Delaware. Filed May 18, 1908. Serial No. 433,493. (Cl. 235—59.)



1. In a recording and adding machine, the combination with a register, of printing mechanism arranged to print a number or the complement thereof, means for operating the printing mechanism to print a number and accumulate the value thereof in the register and also to print a number and accumulate the complement thereof in the register, and a key operative independently of the printing mechanism to accumulate a value in the register.

2. In a recoeding and adding machine, the combination with a register, of printing mechanism arranged to print a number or the complement thereof, means for operating the printing mechanism to print a number and accumulate the value thereof in the register and also to print a number and accumulate the complement thereof in the register, and a plurality of supplemental keys operative independently of the printing mechanism to accumulate different values in the register.

3. In a recording and adding machine, the combination with a register, of printing mechanism arranged to print a number or the complement thereof, means for operating the printing mechanism to print a number and accumulate the value thereof in the register and also to print a number and accumulate the complement thereof in the register, and a supplemental 1-key operative independently of the printing mechanism to accumulate in the register a unit of any desired denominational value.

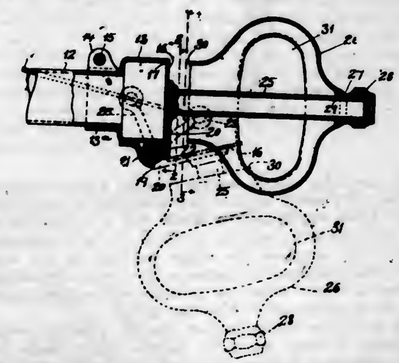
4. In a recording and adding machine, the combination with a register, of printing mechanism arranged to print a number or the complement thereof, means for operating the printing mechanism to print a number and accumulate the value thereof in the register and also to print a number and accumulate the complement thereof in the register, and a supplemental 9-key operative independently of the printing mechanism to accumulate in the register nine units of any desired denominational value.

5. In a recording and adding machine, the combination with a register, of printing mechanism arranged to print a number or the complement thereof, means for operating the printing mechanism to print a number and accumulate the value thereof in the register and also to print a number and accumulate the complement thereof in the register, a supplemental 1-key operative independently of the printing mechanism to accumulate in the register a single unit of any denominational value, and a supplemental 9-key operative independently of the printing mechanism to accumulate in the register nine units of any desired denominational value.

[Claims 6 to 26 not printed in the Gazette.]

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1,037,351. ALARM FOR AUTOMOBILES, &c. ANTHONY SON, Boston, Mass., assignor, by direct and mesne assignments, to Payne Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed Feb. 17, 1911. Serial No. 609,185. (Cl. 116—59.)



1. An alarm comprising a conduit for gaseous fluid having a circular mouth, a circular disk adapted to pass within said mouth, an annular space being formed between the edge of the disk and the wall of said mouth when the disk is within the latter, means connected to one edge of the disk for pivotally supporting the same, an adjustable whistle body carried by said disk and having its edge opposite the periphery of the latter, and means for swinging said disk on its pivot.

2. An alarm comprising a conduit for gaseous fluid having a circular mouth, a circular disk adapted to pass with-

in said mouth, an annular space being formed between the edge of the disk and the wall of said mouth when the disk is within the latter, a pivot ear connected with one edge of said disk, a pivot pin secured to said ear, pivot ears supported by said conduit and in which said pin is loosely mounted, means for rocking said pin, and a whistle body carried by said disk and having its edge opposite the periphery of the latter, and means for adjusting said whistle body relative to said disk.

3. An alarm comprising a conduit for gaseous fuel having a circular mouth, a circular baffle plate adapted to enter said mouth, an annular space being formed between the edge of said disk and the wall of the mouth when the disk is within the latter, said disk being constructed to force fluid passing through said conduit to pass around the edge of the disk, means connected with one edge of the disk for pivotally supporting the same, a stem carried by said disk, a whistle carried by said stem and having its vibrating edge opposite the opening surrounding said disk when the latter is within said mouth, and means for swinging said disk on its pivot.

4. An alarm comprising a conduit for a gaseous fluid, having a circular mouth and fixed ears at one side of said mouth, a circular baffle plate formed to enter said mouth and form therewith an annular outlet for said fluid, said plate having an ear located between the ears on the conduit, and a hinge pintle rigidly attached to the said ear and journaled in the ears on the conduit, said pintle having an extension, a lever attached to said extension, a stem affixed to the baffle plate, and a whistle composed of a resonant cup having a hub portion attached to the outer end of the stem and a circular mouth which faces and is separated from the baffle plate, and is so formed that an annular stream of fluid issuing from said outlet impinges upon it, the said ears and pintle constituting a hinge which permits the baffle plate and whistle to be moved into and out of the path of the fluid issuing from the conduit.

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1,037,352. APPARATUS FOR MAKING LEATHER TIRES. EMIL SPIEGEL, Warnsdorf, Austria-Hungary. Filed Dec. 19, 1910. Serial No. 598,202. (Cl. 69—1.)



1. A device for making leather tires for wheels of strips comprising a grooved wheel, a fixed abutment in the groove against which the strips are forced and a movable pressure piece adapted to move in the wheel groove toward said abutment to compress the strips inserted in the said groove, said abutment and pressure piece being detachably mounted to permit under the pressure of the compressed strips their replacement by leather strips.

2. A device for making leather tires for wheels of strips comprising a wheel having a grooved rim, means for rigidly holding said wheel, an abutment suitably fixed in the groove of said rim against which the strips are forced, a movable pressure piece in said groove and a supporting arm therefor to move it in said groove toward said abutment to compress the strips inserted in said groove, said arm pivoted in the center of the wheel.

3. A device for making leather tires for wheels of strips comprising a wheel having a grooved rim, means for rigidly holding said wheel, an abutment suitably fixed in the groove of said rim against which the strips are forced, a movable pressure piece in said groove and a supporting arm therefor to move it in said groove toward said abutment to compress the strips inserted in said groove, said arm pivoted in the center of the wheel and having a lever pivoted to its end which carries a pawl on either side of said pivot, a circular ratchet bar fixed adjacent to said lever concentrically with said wheel and having one of said pawls adjacent to its inner and the other adjacent to its outer periphery and having both peripheries provided with ratchet teeth for said pawls, said pawls serving alternately as a fulcrum for said lever by their alternate engagement with the teeth of the bar when the lever is rocked in either direction to move the arm toward said abutment.

4. A device for making leather tires for wheels of strips comprising a wheel having a grooved rim, means for rigidly holding said wheel, an abutment suitably fixed in the groove of said rim against which the strips are forced, a movable pressure piece in said groove and a supporting arm therefor to move it in said groove toward said abutment to compress the strips inserted in said groove, said arm pivoted in the center of the wheel and having a lever pivoted to its end which carries a pawl on either side of said pivot, a circular ratchet bar fixed adjacent to said lever concentrically with said wheel and having one of said pawls adjacent to its inner and the other adjacent to its outer periphery and having both peripheries provided with ratchet teeth for said pawls, said pawls serving alternately as a fulcrum for said lever by their alternate engagement with the teeth of the bar when the lever is rocked in either direction to move the arm toward said abutment.

5. A device for making leather tires for wheels of strips comprising a wheel having a grooved rim, means for rigidly holding said wheel, an abutment suitably fixed in the groove of said rim against which the strips are forced, a movable pressure piece in said groove and a supporting arm therefor to move it in said groove toward said abutment to compress the strips inserted in said groove, said arm pivoted in the center of the wheel, said pressure piece being detachably mounted on said arm to permit the insertion of a replacement leather strip for the pressure piece when the whole rim or a section thereof is filled with strips, said arm having a lever pivoted to its end which carries a pawl on either side of said pivot, a circular ratchet bar fixed adjacent to said lever concentrically with said wheel and having one of said pawls adjacent to its inner and the other adjacent to its outer periphery and having both peripheries provided with ratchet teeth for said pawls, said pawls serving alternately as a fulcrum for said lever by their alternate engagement with the teeth of the bar when the lever is rocked in either direction to move the arm toward said abutment.

[Claim 6 not printed in the Gazette.]

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1,037,353. HEAVIER-THAN-AIR FLYING-MACHINE. ABRAM B. SPRINGSTEAD, Kalamazoo, Mich. Filed Sept. 5, 1911. Serial No. 647,755. (Cl. 244—14.)



1. In a flying machine, the combination of a suitable keel; a suitable motor and propeller; a box-like body structure disposed above the keel with suitable canvas sides; diagonal horisontal transverse braces across the same; planes on said braces beyond the said body; collapsible wings hinged to the said planes on diagonal lines at each side converging toward the rear; a collapsible box-like balancing structure above the said main body; wings hinged at each side of said collapsible balancing structure with stops disposed to permit said wings to project outwardly and upwardly; suitable masts for guiding and supporting said collapsible structure; means for manipulating and adjusting said collapsible structure; forwardly-extending braces connected to the upwardly deflected front end of said keel to form a stem structure; a rudder with a horisontal plane and a longitudinal vertical plane connected by a universal joint to the said stem structure; a pilot seat; a handle to the said rudder extending rearwardly to the pilot seat; a back lever disposed back of the said pilot seat; connections therefrom to the lateral wings of the main planes; carrying wheels on suitable standards beneath the said machine; and a horisontal rudder hinged to the rear of the machine with suitable cable connections for manipulating and adjusting the same, all coacting substantially as described and for the purpose specified.

2. In a flying machine, the combination of a suitable keel; a suitable motor and propeller; a box-like body structure disposed above the keel with suitable canvas sides; diagonal horisontal transverse braces across the same; planes on said braces beyond the said body; collapsible wings hinged to the said planes on diagonal lines at each side converging toward the rear; forwardly-extending braces connected to the upwardly deflected front end of said keel to form a stem structure; a rudder with a horisontal plane and a longitudinal vertical plane connected by a universal joint to the said stem structure; a pilot seat; a handle to the said rudder extending rearwardly to the pilot seat; a back lever disposed back of the said pilot seat; connections therefrom to the lateral wings of the main planes; pivoted carrying wheels on suitable standards beneath the said machine; connections therefrom to the rudder whereby the said wheels will be deflected in the manipulation of the rudder to facilitate steering the machine in starting and alighting; and a horisontal rudder hinged to the rear of the machine with suitable cable connections for manipulating and adjusting the same, all coacting substantially as described and for the purpose specified.

3. In a flying machine, the combination of a suitable keel; a suitable motor and propeller; a box-like body structure disposed above the keel with suitable canvas sides; diagonal horisontal transverse braces across the same; planes on said braces beyond the said body; collapsible wings hinged to the said planes on diagonal lines at each side converging toward the rear; forwardly-extending braces connected to the upwardly deflected front end of said keel to form a stem structure; a rudder with a horisontal plane and a longitudinal vertical plane connected by a universal joint to the said stem structure; a pilot seat; a handle to the said rudder extending rearwardly to the pilot seat; a back lever disposed back of the said pilot seat; connections therefrom to the lateral wings of the main planes; pivoted carrying wheels on suitable standards beneath the said machine; connections therefrom to the rudder whereby the said wheels will be deflected in the manipulation of the rudder to facilitate steering the machine in starting and alighting; and a horisontal rudder hinged to the rear of the machine with suitable cable connections for manipulating and adjusting the same, all coacting substantially as described and for the purpose specified.

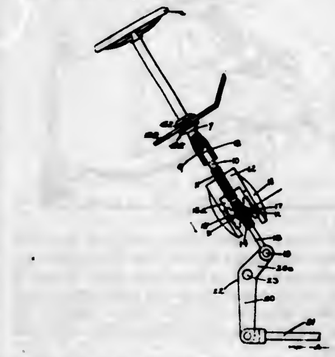
4. In a flying machine, the combination of a suitable keel; a suitable motor and propeller; a box-like body structure disposed above the keel with suitable canvas sides; diagonal horisontal transverse braces across the same; planes on said braces beyond the said body; forwardly extending braces connected to the upwardly deflected front end of said keel to form a stem structure; a rudder with a horisontal plane and a longitudinal vertical plane connected by a universal joint to the said stem structure; a pilot seat; a handle to the said rudder extending rearwardly to the pilot seat; carrying wheels on suitable standards beneath the said machine; and a horisontal rudder hinged to the rear of the machine with suitable cable connections for manipulating and adjusting the same, all coacting substantially as described and for the purpose specified.

5. In a flying machine, the combination of a suitable keel; a suitable motor and propeller; a box-like body structure disposed above the keel with suitable canvas sides; diagonal horisontal transverse braces across the same; planes on said braces beyond the said body; collapsible wings hinged to the said planes on diagonal lines at each side converging toward the rear; forwardly-extending braces connected to the upwardly deflected front end of said keel to form a stem structure; a rudder with a horisontal plane and a longitudinal vertical plane connected by a universal joint to the said stem structure; a pilot seat; a handle to the said rudder extending rearwardly to the pilot seat; a back lever disposed back of the said pilot seat; connections therefrom to the lateral wings of the main planes; and carrying wheels on suitable standards beneath the said machine, all coacting substantially as described and for the purpose specified.

[Claims 6 to 13 not printed in the Gazette.]

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1,037,354. STEERING-WHEEL DEVICE. ARNOLD M. SQUIER, Cleveland, Ohio. Filed Aug. 29, 1911. Serial No. 646,691. (Cl. 74—79.)

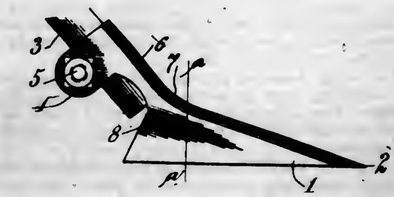


1. In a steering device, the combination of a relatively fixed block, a steering post having a non-circular socket in the lower end, a screw rod working through the block having a noncircular shank slidable in the socket, and transmitting devices operatively connected to the screw and adapted for connection to the steering wheels, the steering post being supported independently of the screw rod, whereby shocks of the latter are not transmitted to the former.

2. In a steering device, the combination of a relatively fixed block having guides, a steering post supported independently of the block, a screw having right and left threads one of which works through the block, a crosshead slidable on the guides and mounted on the other thread for movement by turning the screw, the steering post having a telescoping non-rotatable connection to the screw, a lever adapted for connection to the wheels, and a link connecting the block and the lever.

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1,037,355. CULTIVATOR-SHOVEL. JOHN P. STANIA, Eaton, Ohio. Filed Oct. 14, 1911. Serial No. 654,583. (Cl. 97—26.)

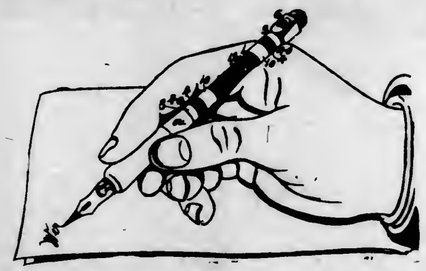



A cultivator shovel or blade formed from a substantially triangular blank of sheet metal, the transverse rearward portion of the blade and the axial length thereof being approximately equal, the said blade being bent on its longitudinal axis and tapered therefrom on each side and ter-

minating in a hollow shank for the attachment of the cultivator standard, the rearward portion of the blade being concaved on each side of the longitudinal axis adjacent to the shank, and the rear corners of the blade lying rearwardly of the junction between the blade and the shank and joining the axis of the blade by inclined edges, whereby the soil divided by the shank is caused to fall back into the cut, substantially as described.

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1,037,356. CALENDAR-PEN. LAZAR STEFANOWITCH, Chicago, Ill., assignor of one-half to Charles Kavacewich, Chicago, Ill. Filed Apr. 11, 1911. Serial No. 620,399. (Cl. 40—108.)



1. A holder, a keeper removably interlocked with the said holder, a barrel removably mounted at one end on the said keeper, a calendar held within the said barrel, a second keeper removably mounted on the other end of the said barrel, a closure plug in the said second keeper, the said closure plug being removably interlocked with the said second keeper.

2. A holder having locking grooves, a keeper removably mounted on one end of the holder, the said keeper including gripper members and an adjustable device for forcing the gripper members into an interlocked engagement with the grooves in the holder, a barrel having sight openings removably mounted at one end on the keeper, a sign carrying member held within the barrel and a closure device for the other end of the barrel.

3. A holder, a keeper on the end of the holder, a barrel removably mounted on one end of the keeper, the said barrel having a longitudinal recess, an adjustable calendar endwise slidable into the barrel, the said calendar including a finger portion movable into and projectable beyond the longitudinal recess in the barrel.

4. A calendar for pen or pencil holders that comprises a barrel having means at one end for removably attaching it to the holder and having sight openings, a frame endwise movable into the barrel and the frame having cooperating portions whereby to lock the frame from lateral movement with respect to the barrel, a reversely adjustable calendar mounted on the frame to extend beneath the sight openings in the said barrel and a closure member connectible with the other end of the said barrel.

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1,037,357. PROCESS OF PRODUCING STOCK FOOD. JOSEPH STEHLIN, New York, N. Y. Filed Mar. 29, 1911. Serial No. 617,563. (Cl. 99—11.)

1. The herein described process of producing live stock food, comprising first extracting excess moisture from spent hops, thereupon drying the same until about eight per cent. moisture remains, and then reducing the product to powder form.

2. The herein described process of producing stock food, comprising extracting excess moisture from spent hops, drying the same, removing the stems from the hops, and triturating the resultant product.

3. The herein described process of producing live stock food, comprising extracting excess moisture from spent hops, partially cooking and drying the same, and reducing the mass to powder form.

4. The herein described process of producing stock-food, comprising extracting moisture from spent hops, and partially cooking and drying the same.

5. The herein described process of producing stock food, consisting in first extracting excess moisture from moist spent hops, thereupon drying the same until about eight per cent. moisture remains, partially cooking and drying the same, and reducing the product to powder form.

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1,037,358. LOOM-TEMPLE. EDWARD S. STIMPSON, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Mar. 23, 1912. Serial No. 685,659. (Cl. 139—36.)



1. In a loom temple, a shank, a sectional roll over which the cloth travels and comprising non-rotatable sections rigidly attached to the shank, one of the said sections having a bearing therein at an angle to the axis of the roll, a tubular, frusto-conical section revolubly mounted on said bearing and having perforated walls of uniform thickness, and a plurality of rows of teeth of equal length fixedly held in the perforations, said teeth traveling in planes intersecting the axis of the roll at an angle thereto.

2. As an article of manufacture, a revoluble section for sectional temple rolls, consisting of a frusto-conical ring having walls of uniform thickness provided with a plurality of rows of radial perforations lying in parallel planes normal to the axis of the ring, and pin-like teeth of equal length inserted and held in said perforations and having their pointed ends projecting beyond the external surface of the ring.

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1,037,359. BOTTLE-SEALING MACHINE. WILLIAM F. STONE, Woodbury, N. J., assignor to Star Seal Company, a Corporation of New York. Filed Mar. 4, 1911. Serial No. 612,363. (Cl. 113—4.)



1. A machine for applying flanged seals to interior grooved bottles, comprising a tool, for conforming the seal flange to the groove, having a working face adapted to engage the edge of the flange to confine its circumference, an end below said face having a face for supporting the flange from the inner side thereof, and means for pressing the flange and said first face together to form the joint within the groove.



2. A machine for applying flanged seals to interior grooved bottles, comprising a tool, for conforming the seal flange to the groove, having a working face adapted to engage the edge of the flange to confine its circumference, an end below said face having a face for supporting the flange from the inner side thereof, means for holding the seal on said lower end, and means for pressing the flange and said first face together to form the joint within the groove.

3. A machine for applying flanged seals to interior grooved bottles, comprising a tool, for conforming the seal flange to the groove, having a working face adapted to engage the edge of the seal flange, a flange on said face for confining the circumference of the seal flange, an end below said face having a face for supporting the seal flange from the inner side thereof, and means for pressing the seal flange and said first face together to form the joint within the groove.

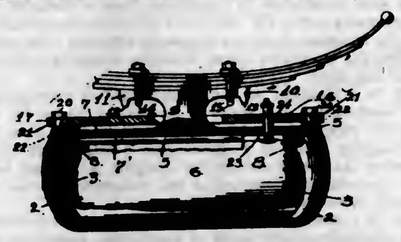
4. A machine for applying flanged seals to interior grooved bottles, comprising a tool, for conforming the seal flange to the groove, having a working face adapted to engage the edge of the flange to confine its circumference, an end below said face having a face for supporting the flange from the inner side thereof, a split ring engaged by said lower end to hold the seal thereon, and means for pressing the flange and said first face together to form the joint within the groove.

5. A machine for applying flanged seals to interior grooved bottles, comprising a tool, for conforming the seal flange to the groove, having a working face adapted to engage the edge of the flange to confine its circumference, an end below said face having a face for supporting the flange from the inner side thereof, a split ring engaged by said lower end to hold the seal thereon, a receptacle for holding the tool, and means for reciprocating said receptacle and for pressing the flange and said first face together to form the joint within the groove.

[Claims 6 to 11 not printed in the Gazette.]

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1,037,360. PNEUMATIC SUPPORT FOR VEHICLES. CHARLES J. STOVEL, San Francisco, Cal. Filed Jan. 22, 1912. Serial No. 672,617. (Cl. 21—50.)



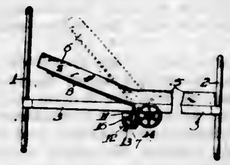
1. In a pneumatic support for vehicles, in combination with a vehicle axle and a vehicle body, of a receptacle formed in said vehicle axle, an inflatable tube located in said receptacle, an outer casing for said tube, said casing being provided with an opening through which said tube is inserted, and a plunger mounted to reciprocate in said receptacle, said plunger being connected to and closing the opening in said outer casing and interposed between the vehicle body and said casing.

2. In a pneumatic support for vehicles, in combination with a vehicle axle and a vehicle body, of a receptacle formed in said vehicle axle, an inflatable pneumatic tube located in said receptacle, an outer casing surrounding said tube and provided with an opening through which said tube is inserted, a cloncher bead on the upper peripheral edge of said opening, a plunger interposed between the vehicle body and said outer casing and provided on its under surface with a flange adapted to receive the cloncher bead on said casing, close the opening therein and unite the two together, and a cover plate for said receptacle.

3. In a pneumatic support for vehicles, in combination with a vehicle axle and a vehicle spring, of a receptacle formed in said vehicle axle, an inflatable pneumatic tube located in said receptacle, an outer casing surrounding said tube and provided with an opening through which said tube is inserted, an outwardly projecting cloncher bead on the upper peripheral edge of said opening, a plunger provided on its under face with an inwardly projecting flange adapted to engage the cloncher bead on said outer casing, close the opening therein and unite the two together, a shank extending upwardly from said plunger and provided at its top with oppositely extended arms which provide a seat for said spring, and a cover plate for said receptacle, said cover plate being provided with an opening through which said shank extends.

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1,037,361. ADJUSTABLE MATTRESS REST OR SUPPORT. FRANK P. STROBOT, Chicago, Ill. Filed Mar. 7, 1912. Serial No. 682,207. (Cl. 5—43.)



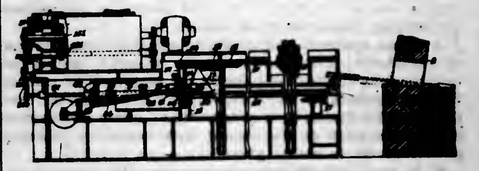
1. A back rest for a bedstead adapted for supporting the back section of a mattress, said back rest comprising side members and downwardly extending arms at the inner ends of said side members, and a shaft to which said downwardly extending arms are secured so as to be adjustable endwise thereon, substantially as described.

2. A back rest for a bedstead adapted for supporting the back section of a mattress, said back rest comprising side members and downwardly extending arms at the inner ends of said side members, a shaft, heads secured to rotate with said shaft provided with holes to which the downwardly extending arms on the side members of said back rest are fitted so as to be adjustable endwise therein, and means for securing said arms in adjusted positions in said heads, substantially as described.

3. A back rest for bedsteads adapted for supporting the back section of a mattress, and means for adjusting said rest pivotally, said means comprising transverse shafts rotatably mounted in bearings on the side rails of the bedstead one of which sustains the weight of said back rest and the other being the operating shaft, and gearing connecting said shafts, comprising a worm shaft, a worm thereon, a worm gear on one of said transverse shafts which intermeshes with said worm and intermeshing beveled gears on said worm shaft and the transverse shaft other than that to which said worm gear is secured, said operating shaft projecting beyond the side rail of the bedstead, and a hand wheel or the like secured to said shaft outside of said side rail, whereby said operating shaft may be turned to raise or lower said back rest by an occupant of the bed when said bed is made up, substantially as described.

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1,037,362. PROCESS AND APPARATUS FOR WITHDRAWING GLASS FROM A CONTAINER. CHARLES C. STUTZ, Norwood, Ohio. Filed Oct. 17, 1911. Serial No. 655,241. (Cl. 49—82.)



1. As an improvement in the art of withdrawing glass from a furnace the method herein described, which consists in gathering a quantity of glass by a suitable tool,

raising such tool above the surface of the glass in the furnace, drawing the strand extending from the gather over a suitable edge on the tool, and moving such edge to and fro thereby severing the strand at that point while the tool is within the furnace.

2. As an improvement in the art of withdrawing glass from a furnace, the method herein described, which consists in scooping up a quantity of glass with a container, and imparting a to and fro rocking movement to the container while within the furnace and thereby separating any strands or threads extending from the glass in the container.

3. As an improvement in the art of withdrawing glass from a furnace the method herein described, which consists in gathering a quantity from the furnace charge by a receptacle having a surface to which the glass will not adhere and severing the strand connecting the gather to the glass in the furnace charge at such point that the severed portions will gravitate toward and become incorporated respectively with the gather and the furnace charge.

4. As an improvement in the art of withdrawing glass from a furnace, the method herein described, which consists in scooping up from the furnace charge a suitable quantity of glass by means of a container to which the glass will not adhere, and imparting a rocking movement to the container whereby the strand of glass extending over the edge of the container will be severed thereat and the portion connected to the gather will automatically become incorporated therewith.

5. In an apparatus for withdrawing glass from a furnace, the combination of a gathering tool, means for operating the tool to collect a suitable quantity of glass, and means for applying an intermittent transverse strain to the strand extending from the glass carried by the tool while the latter is within the furnace.

[Claims 6 and 7 not printed in the Gazette.]

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1,037,363. MACHINE FOR GATHERING GLASS. CHARLES C. STUTZ, Norwood, Ohio. Filed Dec. 22, 1911. Serial No. 667,406. (Cl. 49—62.)



1. In an apparatus for gathering glass, the combination of a gathering tool, means for shifting such tool to and from position over a glass supply and means for automatically varying the forward movement of the tool relative to such glass supply.

2. In an apparatus for gathering glass, the combination of a gathering tool, means for shifting such tool to and from position over a glass supply, means for automatically varying the forward movement of the tool relative to such glass supply and means for moving the tool to effect the gathering of a portion of the glass.

3. In an apparatus for gathering glass, the combination of a gathering tool, means for moving the tool to and from position over a glass supply, means for automatically varying the forward movement of the tool relative to the supply, means for moving the tool vertically and means for varying such vertical movement.

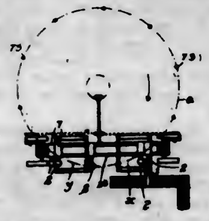
4. In an apparatus for gathering glass, the combination of a gathering receptacle, a carrier therefor, means for reciprocating the carrier to bring the receptacle to gathering and discharging positions, means for shifting the carrier laterally during such reciprocation, means for varying the reciprocation of the carrier, and means for rotating the receptacle to gather glass.

5. In an apparatus for gathering glass, the combination of a gathering tool, a tool carrier, means for reciprocating the carrier to bring the receptacle to gathering and discharging positions, means for varying the reciprocation of the carrier, means for shifting the carrier laterally during such reciprocation and means for moving the tool vertically.

[Claims 6 to 11 not printed in the Gazette.]

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1,037,364. MANUFACTURE OF GLASS ARTICLES. CHARLES C. STUTZ, Norwood, Ohio. Filed Feb. 8, 1912. Serial No. 676,465. (Cl. 49—5.)



1. In a machine for the manufacture of glass articles, the combination of means for delivering a constant stream of glass, a series of independently movable receptacles, a series of glass shaping devices, means for moving the receptacles independently and in succession from position to receive glass from said stream to a discharge point, means for moving the shaping devices in succession to such point of discharge, and means for causing an upward movement of the glass from the receptacle into the shaping devices.

2. In a machine for the manufacture of glass articles, the combination of a series of receptacles, means for moving such receptacles in succession from a charging point to a discharging point, a series of glass shaping devices, means for moving such devices, portions of the paths of movement of the receptacles, and the shaping devices being coincident, and means for effecting the charging of the shaping devices while moving along such coincident paths.

3. In a machine for the manufacture of glass articles, the combination of a series of receptacles, means for moving such receptacles in succession from a charging to a discharging point, and means for returning the receptacles to the charging point but in planes different from that in which the receptacle moves from the charging to the discharging point.

4. In a machine for the manufacture of glass articles, the combination of a series of receptacles, means for moving the receptacles independently and in succession from a charging point to a discharging point, means for returning the receptacles to the charging point, and means for reversing the position of the receptacles during such return movement.

5. In a machine for the manufacture of glass articles, the combination of a series of receptacles, means for moving said receptacles in succession from a charging to a discharging point, a series of glass shaping devices, means for moving such devices in succession in a direction intersecting the path of movement of the receptacle, means for causing the movements of the receptacle and shaping devices to coincide, and means for charging the shaping devices while coincident with the receptacles.

[Claims 6 to 14 not printed in the Gazette.]

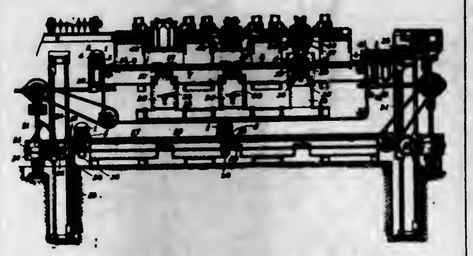
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1,037,365. MANUFACTURE OF GLASS ARTICLES. CHARLES C. STUTZ, Norwood, Ohio. Filed Mar. 8, 1912. Serial No. 682,875. (Cl. 49—5.)

1. In a mechanism for shaping glass articles, the combination of a plurality of stationary molds, a plurality of receptacles, means for shifting said receptacles in succession from a point of supply to operative relation to the successive molds.

2. In a mechanism for shaping glass articles, the combination of a plurality of molds arranged in tandem, a plurality of receptacles, means for shifting the receptacles in succession from a point of supply to operative relation to the successive molds.

3. In a mechanism for shaping glass articles, the combination of a plurality of molds arranged in tandem, a plurality of receptacles, constantly operating means for engaging said receptacles and shifting them from a point of supply, means for releasing the receptacles when in position relative to the molds from engagement with the moving means, and means for moving them from the molds after the latter are charged.

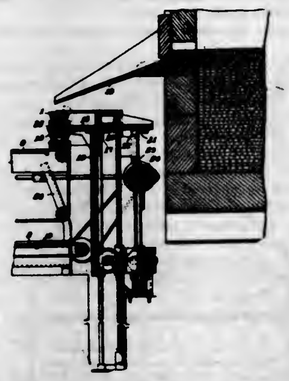


4. In a mechanism for shaping glass articles, the combination of a plurality of molds arranged in tandem, a plurality of receptacles, constantly operating means for engaging said receptacles and shifting them from a point of supply, means for releasing the receptacles when in position relative to the molds from engagement with the removing means, means for moving the receptacles to position for flow of glass into the molds, and means for moving them from the molds after the latter are charged.

5. In a mechanism for shaping glass articles, the combination of a series of molds arranged in tandem, a plurality of receptacles, an endless constantly operating chain extending from a point of supply along the line of molds and provided with hooks for engagement with the receptacles, means adjacent to each mold for freeing the respective receptacles from engagement with the chain, and hooks in the chains for engaging the receptacles and shifting them away from the molds.

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1,037,366. APPARATUS FOR THE MANUFACTURE OF GLASS ARTICLES. CHARLES C. STUTZ, Norwood, Ohio. Filed Apr. 8, 1912. Serial No. 689,159. (Cl. 49—62.)



1. In an apparatus for the manufacture of glass articles, the combination of means for maintaining a constant stream of glass, series of two or more ladles or receptacles, means for shifting the ladles or receptacles when charged from the line of flow of the glass, and means for moving another receptacle into such line of flow prior to the shifting of the charged ladle.



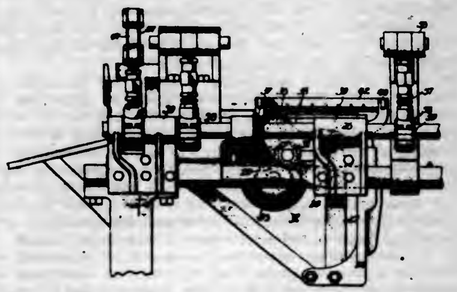
2. In an apparatus for the manufacture of glass articles, the combination of means for maintaining a constant stream of glass, a series of two or more ladles or receptacles, means for shifting the ladles or receptacles when charged from the line of flow of the glass, means for moving a second ladle into the line of flow of glass in a plane intermediate the source of the stream and the charged ladle.

3. In an apparatus for the manufacture of glass articles, the combination of means for maintaining a constant stream of glass, a series of two or more ladles or receptacles, means for shifting the ladles when charged from the line of flow of glass, means for moving a second ladle horisontally in a plane intermediate the source of supply and the charged ladle, and means for rotating the ladle during such horizontal movement.

4. In an apparatus for the manufacture of glass articles, the combination of means for maintaining a constant stream of glass, a series of molds, a series of ladles or receptacles, a frame extending from the stream of glass under the series of molds, means for shifting the ladles when charged along said frame to operative relations to the molds, means for raising an empty ladle to a plane intermediate the source of the stream of glass and the ladle being charged, means for shifting the empty ladle to intercept the flow of glass, and means for lowering the second ladle to the level of the frame.

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1,037,367. TAG-MACHINE. ARTHUR H. SWETT and WILLIAM D. LA BATT, Chicago, Ill., assignors to American Tag Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 10, 1910. Serial No. 591,634. (Cl. 93—87.)



1. In a machine of the character described, the combination of rotary means for continuously advancing and surface-characterising the web and further characterising the web at regular intervals in registry with the surface characterisations for subsequent intermittent advance; means for so advancing the web; and means for further treating it between such intermittent advances.

2. In a machine of the character described, the combination of means for continuously advancing the web and characterising it at regular intervals for subsequent engagement by intermittent means; means for intermittently advancing the web so characterised by positive engagement therewith; and means of a reciprocatory character for treating the web between intermittent advances thereof.

3. In a machine of the character described, the combination of rotary die and surface characterising means for characterising the surface of the web at intervals in registry with feed formations produced by the die means at intervals; means for intermittently advancing the web so treated by engagement with said feed formations; and means of a reciprocatory character for further treating the web between intermittent advances thereof.

4. In a machine of the character described, the combination of a rotary die-couple for producing feed formations; a rotary couple for surface-characterising the web; gearing connecting the couples for synchronous continuous

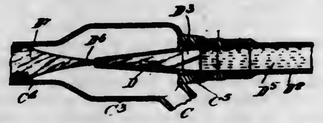
movement; means for intermittently advancing the web by engagement with the formations produced by the die-couple; and means of a reciprocatory character for treating the web between intermittent advances thereof.

5. In a machine of the character described the combination of rotary means for continuously advancing and surface-characterizing the web and forming incisions in the web at regular intervals in registry with the surface characterizations, means for intermittently advancing the web by engagement with the incisions therein; and means for further treating the web between intermittent advances thereof.

[Claims 6 to 19 not printed in the Gazette.]

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1,037,368. VACUUM-CLEANER. EDGAR B. SYMONS, Milwaukee, Wis. Filed Dec. 10, 1910. Serial No. 596,597. (Cl. 230—13.)



1. An aspirator comprising a closed air chamber, a conical nozzle discharging therein along an axial line, a contracted discharge pipe leading from the end of said chamber removed from the nozzle and concentric with the nozzle, an air intake port leading to said air chamber at a point removed from said discharge pipe, means for discharging a whirling, conical, outwardly extending column of water from said nozzle through said chamber and into said discharge pipe, said means comprising a water supply pipe leading to the nozzle, and a plug located at the base of the nozzle and between it and the supply pipe having a plurality of spiral grooves therein.

2. An aspirator comprising a closed air chamber, a conical nozzle discharging therein along an axial line, a contracted discharge pipe leading from the end of said chamber removed from the nozzle and concentric with the nozzle, an air intake port leading to said air chamber at a point removed from said discharge pipe, means for discharging a conical, diffused, gradually expanding stream of water which expands into and completely fills the discharge pipe but is of smaller cross-sectional area than the discharge pipe at the point where it leaves the chamber.

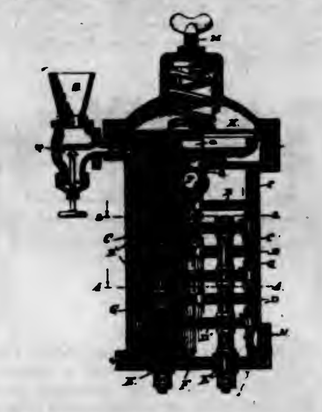
3. An aspirator comprising a closed air chamber, a conical nozzle discharging therein along an axial line, a contracted discharge pipe leading from the end of said chamber removed from the nozzle and concentric with the nozzle, an air intake port leading to said air chamber at a point removed from said discharge pipe, means for discharging a conical, diffused, gradually expanding stream of water which expands into and completely fills the discharge pipe but is of smaller cross-sectional area than the discharge pipe at the point where it leaves the chamber, said means comprising a water supply pipe leading to the nozzle, and a plug located at the base of the nozzle and between it and the supply pipe having a plurality of spiral grooves therein.

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1,037,369. ELECTRICALLY-HEATED STEAM-RADIATOR. JOSEPH SEXTON THOMPSON, Mill Valley, Cal. Filed Mar. 12, 1912. Serial No. 683,215. (Cl. 219—40.)

1. In an electric water heater, the combination of a vessel adapted to contain water, supplied through an aperture in its bottom, a plurality of electrodes arranged in the vessel, a ball valve above the electrodes, and a diaphragm operating said ball valve, which ball valve and diaphragm regulate the amount of water submerging the electrodes.

2. In an electric heater, the combination of a vessel having an insulating lining and a lower and upper aperture, adapted to contain water to be heated by electrodes insulated from the vessel and so arranged that the water can flow around and between them, provided with a ball valve, and a diaphragm operating to control the submerging of the electrodes by throttling the upper aperture, all substantially as described.



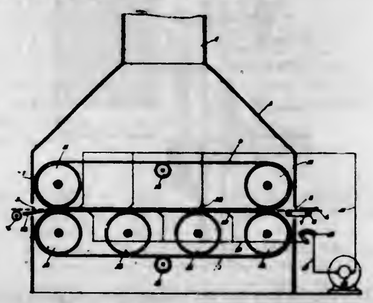
3. In an electric water heating apparatus, in combination with a boiler or chamber, a plurality of electrodes inclosed therein, and insulated from the boiler or chamber, a ball valve set above said electrodes, a diaphragm operating said ball valve, a spiral spring tending to counteract the diaphragm and holding the ball valve open, and a thumb screw operating to adjust the compression of said spring.

4. In an electric water heating apparatus, in combination with a boiler or chamber having insulated walls and a plurality of carbon electrodes, means for conducting electric current to said electrodes, and a diaphragm operated ball valve regulating the supply of water submerging the electrodes.

5. In an electric water heating apparatus, the combination of a chamber, having insulated walls, a diaphragm operated ball valve in the upper portion of said chamber, a plurality of carbon electrodes in the lower portion of said chamber, means for electrically energizing the carbon electrodes, an aperture at the bottom of the chamber for supplying water to be heated, and an outlet aperture at the top of the chamber, controlled by the diaphragm operated ball valve.

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1,037,370. PROCESS OF DRYING AND BLEACHING. JOHN D. TOMPKINS, Valatie, N. Y. Filed Dec. 20, 1910. Serial No. 598,312. (Cl. 204—59.)



1. The process of drying paper, comprising passing an electric current through a wet body of paper.

2. The process of drying paper, comprising passing an electric current through a wet web of paper.

3. The process of drying paper, comprising passing an electric current through a traveling wet web of paper.



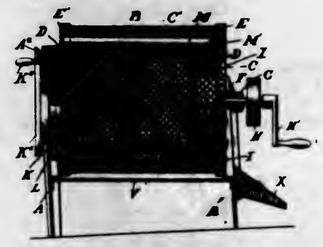
4. The process of drying paper, comprising passing an electric current through a traveling wet web of paper containing an electrolyte.

5. The process of drying and bleaching, comprising passing an electric current through a body of wet material, thereby liberating a quantity of oxygen and bleaching said material.

[Claims 6 and 7 not printed in the Gazette.]

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1,037,371. SAND-SIFTER. HENRY TSCHERNING, Freeport, Ill., assignor to Arcade Manufacturing Company, Freeport, Ill., a Corporation of Illinois. Filed Apr. 3, 1911. Serial No. 618,730. (Cl. 83—56.)



1. In a sand sifter, the combination with a supporting frame, of an inclined screen drum revolubly mounted in the frame and including concentric unattached screen cylinders held in position between rigidly and detachably connected parallel end plates each provided with concentric annular ribs fitting and forming the ends of said cylinders, respectively, the upper end plate being provided with a receiving opening registering with the inner cylinder and the lower end plate being provided with discharge openings just within the ribs, respectively.

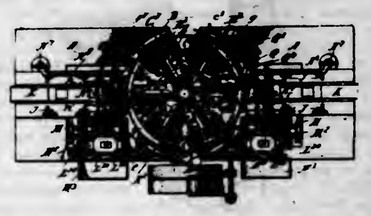
2. A rotary screen drum comprising an upper end plate having an external central tubular neck and internal spaced ribs concentric with the neck, a lower end plate provided with annular ribs corresponding with those of the upper plate and discharge openings within the ribs, respectively, and further having concentric removable screen cylinders extending from the upper plate to the lower plate and held in form by said ribs, and means for detachably locking the plates at a fixed distance apart, whereby different screen cylinders of like diameters may be readily interchanged.

3. In a sand sifter, the combination with a supporting frame, of an inclined rotary screen mounted in the frame and consisting of a peripherally perforated lower end plate provided with an axial external stub-shaft mounted in bearings permitting lateral swinging of the shaft and with annular screen-receiving ribs on its inner face, an annular upper end plate having a projecting neck around its inner margin supported in a bearing permitting it to rise and fall within short limits and further having upon its inner face ribs corresponding respectively to the ribs upon the companion plate, removable cylindrical screening members formed and held by said sets of ribs, respectively, rods between the concentric screens detachably fixing the end plates with respect to each other, a handle for rotating the shaft, and a handle at the other end of the frame for rotating the neck.

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1,037,372. PAPER-BOX MACHINE. CHARLES T. UPTON and GEORGE S. GRAHAM, Lowell, Mass., assignors to Percy H. Glass, Winchester, Mass. Filed Jan. 14, 1911. Serial No. 602,557. (Cl. 93—51.)

1. In a paper box machine, in combination, a revoluble frame comprising regularly spaced box molds in circular arrangement, the number of which is an even number and multiple of three, plungers individual to the box molds reciprocatingly mounted on the revoluble frame, means at opposite ends of the machine for feeding blanks simultaneously over oppositely located box molds, means for intermittently revolubly moving the frame in extents equal to the distance between alternated pairs of the box molds, and means for intermittently reciprocating the plungers.



2. In a paper box machine, in combination, a revoluble frame comprising a series of regularly spaced box molds thereabout and plungers respectively appurtenant to the box molds reciprocatingly mounted on the revoluble frame, levers pivotally mounted on the revoluble frame and operatively connected with the plungers, cams mounted on a support at opposite sides of the machine above and independent of the revoluble frame with which certain of the revolubly carried plunger operating levers are successively brought to coaction, and blank feeders located at opposite sides of the machine operative to simultaneously supply box blanks successively onto opposite pairs of the molds which are brought to predicate relations thereto.

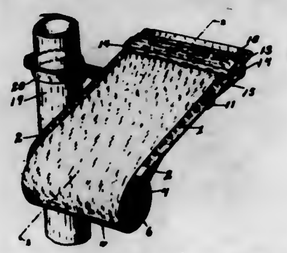
3. In a paper box machine in combination, a revoluble frame carrying a box mold and also carrying a blank folding plunger for coaction with the mold, together with a lever pivotally mounted on the revoluble frame and operatively connected with the plunger and having portions thereof extending outwardly beyond the latter, a cam bar having an upward inclination supported above and independently of the revoluble frame, and another cam member having a downward inclination and further along in the path of revolution of the extremity of the lever, said cams relatively positioned to receive coaction successively of the extremity of the lever the first elevating and then downwardly moving the plunger.

4. In a paper box machine, in combination, a revoluble frame comprising a series of regularly spaced box molds thereabout, plungers respectively appurtenant to the box molds and reciprocatingly mounted on the revoluble frame, blank feeders oppositely located at the right and left hand sides of the revoluble frame, means for intermittently moving the frame so that every opposite pair of the box molds thereof will be successively positioned relatively to the opposite blank feeders, means for causing the plungers appurtenant to the temporarily located right and left hand box molds to be elevated upon coming in proximity respectively to the right and left hand feeders, which means is non-effective for elevating the plungers appurtenant to the box molds of the series next to the rear of, and revolubly following the feet given oppositely located pair of the molds.

5. In a paper box machine, in combination, a revoluble frame carrying a series of box molds in regularly spaced arrangement thereabout, and also carrying blank folding plungers respectively appurtenant to the several molds, together with a series of levers pivotally mounted on the revoluble frame operatively connected respectively with the plungers and having portions thereof extending outwardly beyond the plungers, cam bars at opposite sides of the machine, each having upward inclinations, and movably mounted above and independently of the revoluble frame, and positioned to receive coaction therewith of the extremities of the levers, and means for displacing each of said cam bars from its normal effective position, on the arrival in proximity thereto of every second one of the said series of levers.

[Claims 6 to 18 not printed in the Gazette.]

1,037,373. CONTINUOUS TABLET. THOMAS MARION VAUGHAN, Lawton, Mich., assignor, by direct and mesne assignments, to Michigan Metal Products Company, Battle Creek, Mich. Filed Nov. 9, 1911. Serial No. 659,412. (Cl. 11—22.)



1. In a continuous tablet, the combination of a sheet metal bed; a U-shaped wire roll holder arranged on the under side of the bed with its arms parallel with the sides and its loop end adjacent to one end of the bed, the ends of the arms projecting at the other end of the bed and being bent downwardly and terminating in inwardly-projecting pintles, the side edges of the bed being beaded over the arms of said holder; a supporting bar arranged transversely under said bed and secured thereto by rivets arranged through the holder engaging beads of said bed, said rivets being provided with spacing members; a clamping bar arranged transversely of said bed and having a downwardly-projecting ear at each end; and a U-shaped tension spring arranged between said supporting bar and said bed with the ends of its arms pivotally engaging said ears on said clamping bar, its loop end being adapted to engage a roll carried by said holder, the arms of said spring being offset to engage said spacing members on said supporting bar securing rivets.

2. In a continuous tablet, the combination of a sheet metal bed; a U-shaped wire roll holder arranged on the under side of the bed with its arms parallel with the sides and its loop end adjacent to one end of the bed, the ends of the arms projecting at the other end of the bed and being bent downwardly and terminating in inwardly-projecting pintles, the side edges of the bed being beaded over the arms of said holder; a supporting bar arranged transversely under said bed and secured in a spaced relation thereto; a clamping bar arranged transversely of said bed and having a downwardly-projecting ear at each end; and a U-shaped tension spring arranged between said supporting bar and said bed with the ends of its arms pivotally engaging said ears on said clamping bar, its loop end being adapted to engage a roll carried by said holder.

3. In a continuous tablet, the combination of a sheet metal bed; a U-shaped wire roll holder arranged on the under side of the bed, the side edges of the bed being beaded over the arms of the holder, the ends of the arms being bent transversely and terminating in inwardly-projecting pintles; a supporting bar arranged transversely under said bed; a clamping bar arranged transversely of said bed and having a downwardly-projecting ear at each end; and a U-shaped tension spring arranged between said supporting bar and said bed with the ends of its arms pivotally engaging said ears of said clamping bar, its loop end being adapted to engage a roll carried by said holder.

4. In a continuous tablet, the combination of a bed; a roll holder; a supporting bar arranged transversely under said bed and secured thereto by rivets; a clamping bar arranged transversely of said bed and having a downwardly-projecting ear at each end; and a U-shaped tension spring arranged between said supporting bar and said bed with the ends of its arms pivotally engaging said ears on said clamping bar, its loop end being adapted to engage a roll carried by said holder, the arms of said spring being arranged to engage said supporting bar securing rivets.

5. In a continuous tablet, the combination of a sheet metal bed; a U-shaped wire roll holder arranged on the under side of said bed with its arms parallel with the sides, and its loop end adjacent to one end of the bed, the end of the arms projecting at the other end of the bed and being bent downwardly and terminating in inwardly-projecting pintles, the side edges of the bed being beaded over the arms of said roll holder whereby the bed is reinforced by said holder and said holder is attached to the bed; and a supporting bar arranged transversely under said bed and secured thereto by rivets arranged through the holder engaging beads.

[Claims 6 to 8 not printed in the Gazette.]

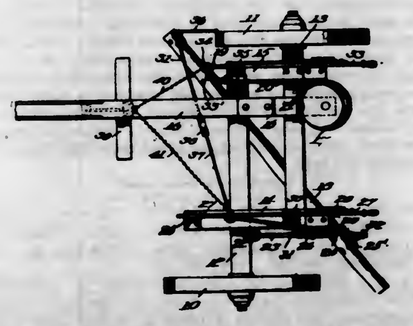
1,037,374. HORSE-COLLAR CLAMP. TRAUGOTT VOIGT, Milwaukee, Wis. Filed Dec. 16, 1911. Serial No. 666,246. (Cl. 69—19.)



1. A clamp having jaws thereof at different elevations and integral with pivotally connected shanks designed for support upon the jaws of an ordinary vise, the gripping edges of the clamp-jaws being curved to approximate the contours of grooves in opposite sides of the throat-end of a horse-collar.

2. A clamp having an inner jaw integral with a shank that is provided with an angular shoulder designed to rest upon a jaw of an ordinary vise and with an outwardly extending recessed foot, an outer jaw that has a greater elevation than the one aforesaid and is integral with an upwardly bowed shank having an inwardly extending ear engaging the recess of said foot, and a pivot-pin by which said ear is secured in connection with the aforesaid foot, the bow of said outer jaw-shank being for horse-collar clearance and to form a shoulder designed to rest upon the other jaw of said vise with which the clamp is engageable to effect shearing-grip of its jaws in grooves in opposite sides of the throat-end of a horse-collar.

1,037,375. ROAD-SCRAPER. WILLIAM VOLAND, Garnet, Wis. Filed Feb. 8, 1912. Serial No. 676,462. (Cl. 37—7.)

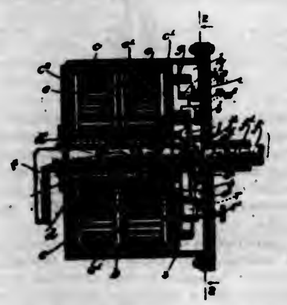


1. In a road-scraper, a pair of axles located one in front of the other, a wheel mounted on the outer end of each axle, longitudinal side beams carried by the axles, an oblique scraper-blade, suspension means for the front end of the scraper-blade extending rearward therefrom and connected to the rear axle, suspension means for the rear end of the scraper-blade extending forward and connected to the front axle, hand levers mounted on the side beams, and connections between said hand-levers and the respective ends of the scraper-blade for raising and lowering the same.

2. In a road-scraper, a wheeled frame having a pair of axles located one in front of the other, and a wheel mounted on the outer end of each axle, an oblique scraper-blade carried by the frame, a draft tongue connected to the frame off the longitudinal center thereof toward the forward end of the scraper blade, an evener-bar, and connections between the evener-bar and the front axle and forward end of the scraper-blade.



1,037,376. STARTER FOR INTERNAL-COMBUSTION ENGINES. BERNHARD VOLKMAR, New York, N. Y., assignor to Volkmar Auto Starter Company, a Corporation of New York. Filed June 17, 1910. Serial No. 567,388. (Cl. 123—187.)



1. A starter for internal combustion engines embodying therein a spring actuated driving member, a driven member, an automatically actuated clutch operating solely by friction carried by one of said members and engaging the other when said driving member is operative, said clutch being inoperative when said driving member is locked, whereby said driven member will be rotated with said driving member and may rotate independently thereof, means normally locking said driving member, means whereby said locking means may be released, and a re-winding mechanism operative from said driven member.

2. A starter for internal combustion engines embodying therein a spring actuated driving member, a driven member, an automatically actuated clutch operating solely by friction carried by one of said members and engaging the other when said driving member is operative, said clutch being inoperative when said driving member is locked, whereby said driven member will be rotated with said driving member and may rotate independently thereof, means normally locking said driving member, means whereby said locking means may be released, a rewinding mechanism operative from said driven member, and automatically operating means for making said rewinding mechanism inoperative when the spring has been rewound.

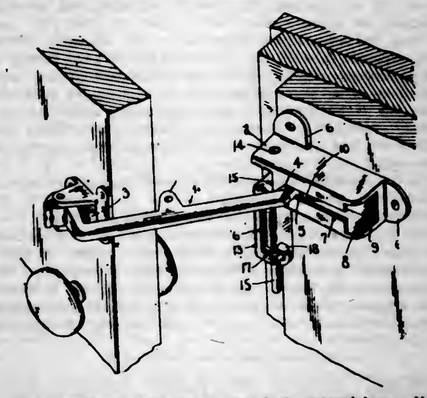
3. A starter for internal combustion engines embodying therein a spring actuated driving member, a driven member, an automatically actuated clutch operating solely by friction carried by one of said members and engaging the other when said driving member is operative, said clutch being inoperative when said driving member is locked, whereby said driven member will be rotated with said driving member and may rotate independently thereof, means normally locking said driving member, means whereby said locking means may be released, a rewinging mechanism operative from said driven member, automatically operating means for making said rewinding mechanism inoperative when the spring has been rewound, and means whereby the operative movement of said last mentioned means may be varied to vary the tension of the spring.

4. A starter for internal combustion engines embodying therein a spring actuated driving member, a driven member, an automatically actuated clutch operating solely by friction carried by one of said members and engaging the other when said driving member is inoperative, said clutch being inoperative when said driving member is locked, whereby said driven member will be rotated with said driving member and may rotate independently thereof, means normally locking said driving member, means whereby said locking means may be released, a rewinding mechanism operative from said driven member, automatically operating means for making said rewinding mechanism inoperative when the spring has been rewound, means actuated by said driving member whereby said last mentioned means may be made inoperative to start the rewinding operation and means actuated by said rewinding mechanism whereby said last mentioned means will be restored to normal to limit the winding operation.

5. A starter for internal combustion engines embodying therein a spring actuated driving member, a driven member, a friction clutch carried by one of said members and engaging the other when said driving member is inoperative, said clutch being inoperative when said driving member is locked, whereby said driven member will be rotated with said driving member and may rotate independently thereof, means normally locking said driving member, means whereby said locking means may be released, a rewinding mechanism operative from said driven member, automatically operating means for making said rewinding mechanism inoperative when the spring has been rewound, means actuated by said driving member whereby said last mentioned means may be made inoperative to start the rewinding operation, means actuated by said rewinding mechanism whereby said last mentioned means will be restored to normal to limit the winding operation, means temporarily holding said locking means in the released position and means automatically releasing said locking means to permit its restoration to its locked position when the spring energy is exhausted.

[Claims 6 to 16 not printed in the Gazette.]

1,037,377. COMBINED DOOR CHECK AND LOCK. EDWARD VON GUNTEN, Akron, Ohio. Filed May 16, 1912. Serial No. 697,729. (Cl. 16—81.)



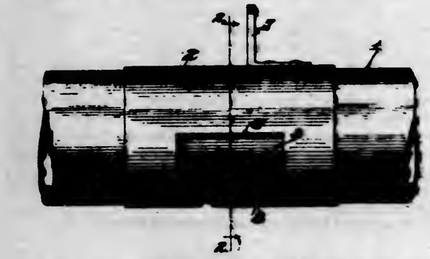
1. A combined door check and lock comprising a link adapted to be pivotally attached at one end to a door and having a keeper engaging finger, a keeper adapted to be secured to the door frame in position to be engaged by said link, said keeper comprising a hollow casing with a transversely arranged partition therein, said casing being open at its top at the rear of said partition and the side walls thereof provided with registering apertures, an apertured lug depending from said link in position to fit

hole the open end of said casing with the aperture thereof in alinement with the aperture in the casing, and a spring pressed bolt mounted in said casing and lug to lock said link normally in connection with said keeper.

2. A combined door check and lock comprising a link adapted to be pivotally attached at one end to a door and having a keeper engaging finger, a keeper adapted to be secured to the door frame in position to be engaged by said link, said keeper comprising a hollow casing with a transversely arranged partition therein, said casing being open at its top at the rear of said partition and the side walls thereof provided with registering apertures, an apertured lug depending from said link in position to fit into the open end of said casing with the apertures thereof in alinement with the apertures in the casing, a bolt casing extending at right angles from the rear end of said keeper casing and communicating therewith, a spring pressed bolt slidably mounted in said bolt casing and adapted to pass through the aperture in said keeper casing, a stud extending laterally from said bolt, said bolt casing having a longitudinal slot in its upper face through which said stud projects, and a recess at the outer end of said slot communicating therewith and adapted to receive said stud to hold the bolt in retracted position.

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1,037,378. CUT-OUT FOR MUFFLERS. GEORGE C. WARD, St. Louis, Mo. Filed Apr. 25, 1910. Serial No. 557,391. (Cl. 137—7.)



1. The combination with the exhaust pipe of an internal combustion motor, said pipe having an opening in its wall intermediate the motor and muffler, of a sleeve rotatably fitted on the circumference of said pipe and adapted to close the opening therein, said sleeve having an opening adapted to register with the opening in said pipe and having its longitudinal edges sharpened so as to shave the adjacent face of the pipe, said sleeve also having a transversely extending slot, a stud secured to said pipe and projecting through the slot in said sleeve so as to hold the latter against endwise movement and limit the rotary movement thereof, and means for turning the sleeve on the pipe to cover and uncover the opening in the latter.

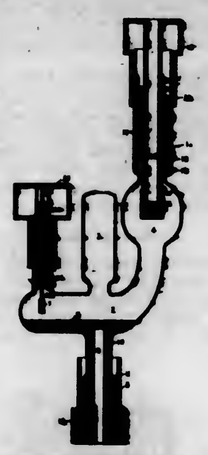
2. The combination with the exhaust pipe of an internal combustion motor, said pipe having an opening in its wall intermediate the motor and muffler, of a sleeve rotatably fitted on the circumference of said pipe and adapted to close the opening therein, said sleeve having an opening adapted to register with the opening in said pipe, the edge of the opening in the sleeve being adapted to shave the adjacent face of the pipe, and means for turning the sleeve on the pipe to cover and uncover the opening in the latter.

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1,037,379. VACUUM APPARATUS. EZECHIEL WEINTRAUB, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Dec. 13, 1910. Serial No. 597,011. (Cl. 176—50.)

1. An evacuated container having a portion thereof closed by a seal comprising communicating columns of liquid of low vapor tension, and a mechanical closure for that portion of the seal which is external to the container, whereby the atmospheric pressure upon the liquid seal is reduced to negligible amount.

2. An evacuated container having a closure therefor formed of balanced columns of mercury, and an outerpart vessel closing the mercury column seal from exposure to atmospheric pressure, said external vessel being likewise more or less evacuated.

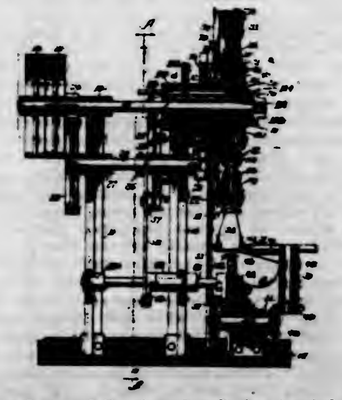


3. A quartz receptacle provided at one part with an annular trough, fluid in the trough, and a closure for the receptacle forming a ground joint with the quartz receptacle and dipping into the fluid in said trough, said closure being evacuated whereby the fluid columns separating the quartz receptacle and the closure are of approximately equal heights.

4. The combination of an evacuated container, a hollow, evacuated, mechanically fitted closure therefor, a body of mercury sealing the space in said container from the space in said closure and a partition separating said mercury seal into two columns, communicating respectively with the container and the closure whereby gas pressure in the closure due to leakage is compensated by a change of mercury level, and is prevented from entering the space in the main container.

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1,037,380. BOTTLE-CLEANING MACHINE. CHARLES WEBER, Chicago, Ill., assignor of one-third to John Howard McIlroy, Chicago, Ill. Filed Sept. 23, 1904, Serial No. 225,587. Renewed Jan. 27, 1912. Serial No. 673,919. (Cl. 141—7.)



1. In a device of the class described, a brush having a stem and adapted to rotate in a bottle, said stem being provided with passages therein through which a liquid may be supplied to the bottle and simultaneously withdrawn therefrom.

2. In a device of the class described, the combination with a bottle holder, of a brush having a stem and adapted to rotate in a bottle, said stem being provided with passages therein through which a liquid may be supplied to the bottle and simultaneously withdrawn therefrom, means for supplying liquid to said stem, and means for rotating the brush.

3. In a device of the class described, the combination with a rotating support having a plurality of bottle holders thereon, a plurality of brushes having stems and adapted to rotate in the bottles, said stems being provided with passages therein through which a liquid may be supplied to the bottles and simultaneously withdrawn therefrom, means for supplying liquid to said stems, and means for rotating the brushes.

4. In a device of the class described, the combination with a support having bottle holders arranged thereon, of means for advancing the support step by step, brushes having stems and adapted to rotate in bottles in said holders, said stems being provided with passages therein through which a liquid may be supplied to the bottles and simultaneously withdrawn therefrom, means for continuously rotating the brushes, and means for supplying liquid to the stems of the brushes.

5. In a device of the class described, the combination with a support having the bottle holders arranged thereon, of the brushes located concentrically with the holders, means for advancing the support step by step, means for supplying liquid to the bottles while in the holders, means for rotating the brushes, and mechanism for automatically inserting the bottles at one position of the holder, and mechanism for discharging them at another.

[Claims 6 to 26 not printed in the Gazette.]

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1,037,381. STRAP-RETAINING ATTACHMENT. AUGUST WENNERSTROM, Ashtabula, Ohio. Filed May 6, 1911. Serial No. 625,569. (Cl. 224—5.)

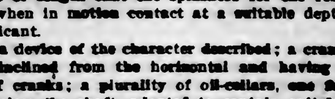


An attachment for the shoulder portions of garments for positively but detachably securing a shoulder strap, the same comprising an integral device consisting of a longitudinally curved plate having one edge thereof bent vertically to engage the outer edge of a strap to prevent outward displacement of the latter, said edge portion being thence bent horizontally to extend nearly across the body of the plate in spaced relation thereto to prevent upward displacement of a strap, the other edge portion of said plate being also bent vertically to form a flange interrupted between its ends and spaced from the horizontal portion aforesaid to form a removal opening for a strap part, and the body of the plate having a tongue projecting laterally therefrom at said interrupted portion of the last mentioned flange, said tongue being bent downwardly at its outermost extremity to form a hook.

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1,037,382. METHOD OF CURING AND PRESERVING SEED-CORN. WILLIAM W. WENTWORTH, Preston, Iowa. Filed May 5, 1911. Serial No. 625,295. (Cl. 99—5.)

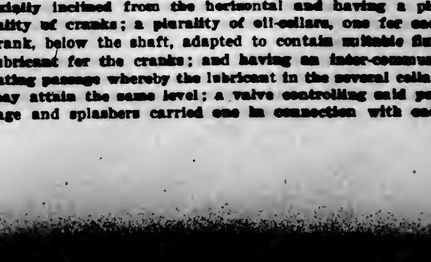
The method of uniformly curing and preserving seed corn on cobs of varying sizes, which consists in drilling bores of a taper corresponding to the taper of the cobs axially through the cobs from the butt ends inward until the bores increase to a size as to give a predetermined thickness to the remaining shells of the cobs without injuring or disturbing the skins of the kernels, and then



permitting air to circulate through the bores to draw the moisture from the shells and kernels with approximate uniformity.

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1,037,383. LUBRICATING DEVICE. OTTO H. L. WERNICKE, Grand Rapids, Mich. Filed Feb. 12, 1912. Serial No. 677,067. (Cl. 184—13.)



1. In a device of the character described; a crank-shaft axially inclined from the horizontal and having a plurality of cranks; an oil-cellar below said crank shaft adapted to contain suitable fluid lubricant for the cranks; and splashers carried one in connection with each crank and being so graduated as to length that the splashers for the respective cranks when in motion contact at a suitable depth with the lubricant.

2. In a device of the character described; a crank-shaft axially inclined from the horizontal and having a plurality of cranks; a plurality of oil-cellars below said crank shaft adapted to contain suitable fluid lubricant for the cranks; and splashers carried one in connection with each crank and being so graduated as to length that the splashers for the respective cranks when in motion contact at a suitable depth with the lubricant.

3. In a device of the character described; a crank-shaft axially inclined from the horizontal and having a plurality of cranks; a plurality of oil-cellars, one for each crank, below the shaft, adapted to contain suitable fluid lubricant for the cranks, and having a contracted intercommunicating passage whereby the lubricant in the several cellars may attain the same level; and splashers carried one in connection with each crank and being so graduated as to length that the splashers for the respective cranks when in motion contact at a suitable depth with the lubricant.

4. In a device of the character described; a crank-shaft axially inclined from the horizontal and having a plurality of cranks; a plurality of oil-cellars, one for each crank, below the shaft, adapted to contain suitable fluid lubricant for the cranks; and having an inter-communicating passage whereby the lubricant in the several cellars may attain the same level; a gravity-operated valve controlling said passage and splashers carried one in connection with each crank and being so graduated as to length that the splashers for the respective cranks when in motion contact at a suitable depth with the lubricant.

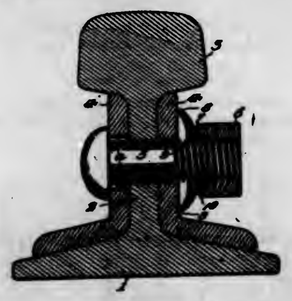
5. In a device of the character described, a crank-shaft axially inclined from the horizontal and having a plurality of cranks; a plurality of oil-cellars, one for each crank, below the shaft, adapted to contain suitable fluid lubricant for the cranks; and having an inter-communicating passage whereby the lubricant in the several cellars may attain the same level; a valve controlling said passage and splashers carried one in connection with each

crank and being so graduated as to length that the splashers for the respective cranks when in motion contact at a suitable depth with the lubricant.

[Claims 6 and 7 not printed in the Gazette.]

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1,037,384. NUT-LOCK. ARTHUR H. WHITE, New Kensington, Pa. Filed Dec. 26, 1911. Serial No. 667,608. (Cl. 151—38.)

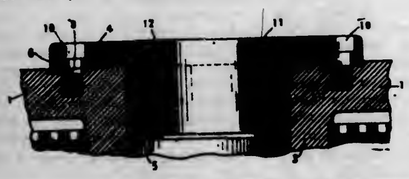


1. A nut locking washer comprising a flat rectangular plate of resilient material having a centrally positioned bolt aperture surrounded upon one side by an annular flat faced flange the plate having two opposite ends beyond said flange curved in a direction away from said annular flange, a flat centrally positioned rib extending from each curved end toward said flange and gradually increasing in thickness toward said flange, said ribs being of a width less than the diameter of said annular flange and of a thickness less than said flange at the point of union therewith.

2. A nut locking washer comprising a plate of resilient material having a bolt aperture said plate upon one side having a flat faced annular flange surrounding said aperture, two ribs extending from said flange in opposite directions, the ends of said plate being curved said ribs extending over the curved ends and gradually decreasing in thickness toward their outer ends.

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1,037,385. CHUCK. LUCIUS E. WHITON, New London, Conn. Filed Sept. 28, 1907. Serial No. 394,957. (Cl. 29—107.)



1. A chuck construction, comprising a body having an opening and adjustable jaws carried by the body and a special member secured to the face of said body and provided with a rigid non-distortable bushing bearing fitting in said opening.

2. A chuck construction, comprising a body having a central hub, jaws adjustable in said body and a reinforcing plate secured between said jaws and having a central hub for a bushing, located in the body hub.

3. A chuck construction comprising a body having a central opening and a surface recess in combination with a reinforcing plate having a hub fitting in said opening and a flange seated in said recess and screws passing through the plate and flange for holding said plate and hub to said body.

4. A chuck construction, comprising a body having a central opening and a surface recess in combination with a plate secured to said body and having a flange in said recess and a hub in said opening.

5. In a chuck construction, a body having a central opening and jaw guiding ways leading therefrom, an inflexible bushing secured in said opening and a tapered centering bushing frictionally fitted in said inflexible bushing.

[Claims 6 to 14 not printed in the Gazette.]

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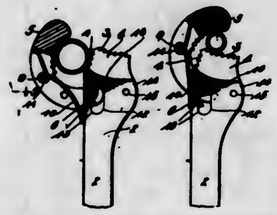
1,037,386. ILLUMINATED LICENSE-NUMBER AND SIGNAL FOR VEHICLES. HOLLAND R. WILDMAN, York, Nebr. Filed Apr. 1, 1912. Serial No. 687,927. (Cl. 40—133.)



In an apparatus of the class set forth, the combination of a box having an open front, the top and bottom front edges of the box being provided with longitudinal channels, a frame plate slidable into and out of said channels and provided with longitudinal way-forming flanges along its top and bottom edges, said frame plate being provided with a series of openings, plates supported on said frame plate lying against the inner face of said frame plate and covering said openings, said plates being removable and being provided with sign characters, and a suitable glass supported in the ways on said frame-plate behind the sign character plates and adapted to hold the said plates in position.

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1,037,387. PIPE-WRENCH. WILLIAM S. WILKINSON, Aurora, S. D. Filed Apr. 27, 1911. Serial No. 623,661. (Cl. 81—99.)

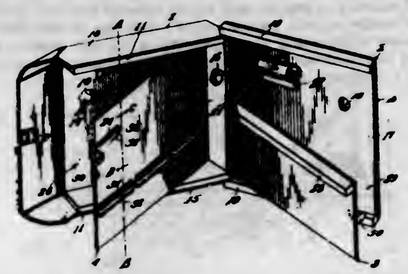


1. A wrench comprising a fixed jaw and a movable jaw, a pin for pivotally connecting said movable jaw to said fixed jaw having an open slot in one end thereof, and a substantially U-shaped spring mounted in said slot and having the cross bar thereof fixed to the end wall of the slot, the legs of said spring being bowed outwardly to normally project through the slot on opposite sides of the pin for yieldably holding said pin in operative position.

2. A wrench comprising a fixed jaw having a concave, toothed gripping face at one end inclined slightly outward toward the edge of the jaw, and another gripping face on its rear edge extending from the rear outer end of said first mentioned face and inclined downwardly and outwardly therefrom, said fixed jaw also having a longitudinal slot near said gripping face with spaced bearings therein arranged near the opposite side edge, and a circular bearing hole transversely spaced from said slot, and an adjustable arc-shaped movable jaw having one end slotted to embrace the fixed jaw and having its working face concave, a shiftable pivot connecting its inner portion with any one of said bearings at will; a pin mounted across said slot of the movable jaw; and a spring, fulcrumed between its ends on said pin, and having one end bearing against the outer end wall of the slot, and the other end bearing against the rear face of the fixed jaw.



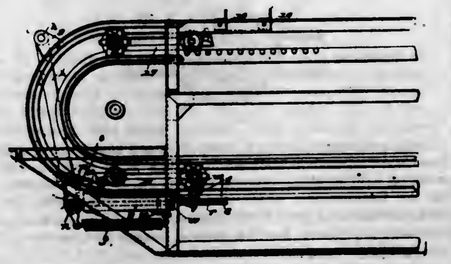
1,037,388. LETTER-CARRIER'S PORTFOLIO. FREDERICK W. WILSON, Upper Marlboro, Md. Filed Feb. 7, 1911. Serial No. 607,121. (Cl. 190—16.)



A portfolio for letter carriers comprising a box-like body open at one side and provided with a side wall and with one end wall only; a primary leaf adapted to fit closely in the body and to lie against the side wall of the body; a secondary leaf; a lid; the secondary leaf being narrower than the primary leaf and being adapted to lie against the lid; upper and lower article-holders upon the primary leaf above and below the upper edge of the secondary leaf, the secondary leaf constituting a protection for the articles in the lower holder and permitting the removal of articles from the upper holder when the leaves are parallel and within the body; the primary leaf upon the one hand, and the lid and the secondary leaf upon the other hand being hinged to opposite edges of the end wall and constituting the sole leaves within the body, thereby permitting an accumulation in the lower holders, between the primary and secondary leaves.

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1,037,389. DEFIBRATING-MACHINE. ROY A. WILSON, Cavite, Philippine Islands, assignor to Philippine Hemp Machine Company, Manila, Philippine Islands, a Corporation. Filed Feb. 11, 1909. Serial No. 477,445. (Cl. 13—18.)



1. In a defibrating machine, the combination of a traveling carriage having gripping means thereon, a frame provided with a trip, opening said gripping means, feeding devices arranged to deliver material deposited therein between the parts of the gripping means as they are opened, and devices whereby said feeding devices are moved away from said frame by the carriage in its movement, and then toward the carriage after it has passed said feeding devices, substantially as described.

2. In a defibrating machine, the combination of a traveling carriage having gripping means thereon, a frame provided with a trip, opening said gripping means, and a feeder adapted to be moved by the travel of the carriage toward and away from said train and to deliver material deposited therein between the parts of said gripping means as they are opened, substantially as described.

3. In a defibrating machine, the combination of a suitable frame provided with trips and a carriage adapted to travel along said frame and provided with gripping means thereon, said gripping means being opened by said trips as the carriage travels along, and a movable feeder adapted to be moved away from the machine by the carriage and to be swung back to deliver the material to be treated between the parts of said gripping means as they are opened, substantially as described.

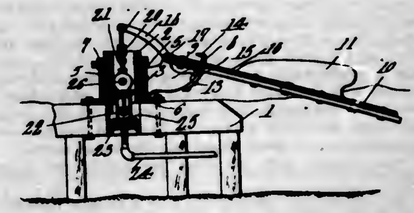
4. In a defibrating machine, the combination of a suitable frame provided with trips thereon, a carriage adapted to travel along said frame, said carriage being provided with gripping means adapted to be opened by said trips as the carriage passes along, a movable feeder adapted to feed stalks of material between the parts of said gripping means as they are opened, a lever connected to said feeder, and a spring for returning said lever toward said carriage just as the parts of said gripping means are opened, substantially as described.

5. In a defibrating machine, the combination of a frame provided with trips, a carriage adapted to travel along said frame, said carriage being provided with gripping means adapted to be opened as the carriage moves along, an automatic feeder arranged to slide in guides on said frame, a trip on said frame adapted to engage with said feeder when the latter is swung away from the frame, a lever against which said carriage is adapted to strike, said lever being pivotally connected to said feeder, and a spring connecting said lever with the frame of the machine, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

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1,037,390. WAVE-MOTOR. REUBEN D. WIRT, Haines City, Fla. Filed May 11, 1912. Serial No. 696,784. (Cl. 61—50.)



1. Apparatus of the class described including a float mounted to travel about a substantially vertical axis, and wind operated means for maintaining the float in a predetermined position relative to the course of the wind.

2. Apparatus of the class described including a float adapted to oscillate upwardly and downwardly and to move about a substantially vertical pivot, and means upon the float and actuated by the wind for maintaining the float in a predetermined position relative to the course of the wind.

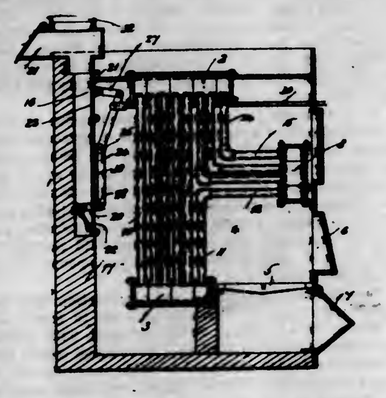
3. Apparatus of the class described including an upstanding bearing, a normally inclined float mounted for vertical oscillation and mounted to travel in a circle about the bearing, and a fin upstanding from the float.

4. Apparatus of the class described including an upstanding bearing, a normally inclined float mounted for vertical oscillation and adapted to move in a circle about said bearing, means for limiting the vertical oscillation of the float, and a fin supported by the float and maintained thereby above the surface of the water on which the float is mounted.

5. Apparatus of the class described including an upstanding bearing, a normally inclined float mounted for vertical oscillation and adapted to travel in a circle about the bearing, a pump, and a swivel connection between the pump and the float.

[Claims 6 to 9 not printed in the Gazette.]

1,037,291. BOILER. EDWARD W. WISS, Centralia, Wash. Filed Mar. 28, 1912. Serial No. 686,891. (Cl. 122—284.)



1. In a boiler, the combination, with a furnace chamber, of an upper header, a lower header and a front header, all arranged in the said chamber, a series of water tubes extending between the upper and lower headers, a series of angle-shaped water tubes extending between the upper header and the front header, a series of angle-shaped water tubes extending between the lower header and the front header, and a fire-grate arranged under the front header and the longitudinal portions of the water tubes connected to it and wholly in front of all the vertical tubes connected to the lower header .

2. In a boiler, the combination, with a furnace chamber, and a grate arranged therein; of a lower header arranged behind the said grate, an upper header arranged over the lower header, a front header arranged over the front end portion of the said grate below the level of the upper header, straight water tubes connecting the rear and middle portions of the upper and lower headers, angle-shaped water tubes connecting the front portion of the lower header with the lower portion of the front header, and angle-shaped water tubes connecting the upper portion of the front header with the front portion of the upper header.

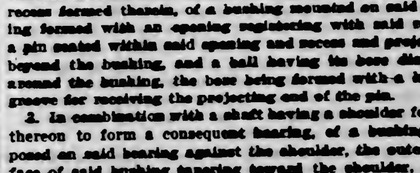
3. In a boiler, the combination, with a furnace chamber, of an upper header, a lower header and a front header, all arranged in the said chamber, a series of water tubes extending between the upper and lower headers, a series of angle-shaped water tubes extending between the upper header and the front header, a series of angle-shaped water tubes extending between the lower header and the front header, a fire-grate arranged under the front header and the longitudinal portions of the tubes connected to it, substantially on a level with the lower header and wholly in front of all the vertical tubes connected to the lower header, and a draft outlet or flue arranged above the level of the grate and on the opposite side of the lower header from the grate.

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1,037,392. HOSPITAL-BED APPLIANCE. LOUISE WYNN, San Leandro, Cal. Filed May 7, 1912. Serial No. 695,879. (Cl. 5—12.)

1. A device of the character described comprising the combination with a bed having a mattress provided with a hole, of a disk secured to the frame of the bed, a member turnably mounted on said disk, a pair of arms carried by said turnable member, one of said arms being provided with a normal closure for said hole, the other of said arms carrying a commode, and means mounted on said turnable member, and adapted to operate said turnable member and said arms to move said closure out of said hole and said commode into said hole and vice versa, as described.

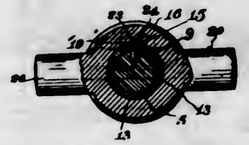
2. A device of the character described comprising the combination with a bed having a mattress provided with a hole, a member turnably mounted on said bed, a pair of spring pressed arms mounted on said turnable member and adapted to engage said spring pressed arm, an operating handle on said second named arms, one of said spring pressed arms being provided with a normal closure for said hole, and the other of said spring pressed arms carrying a commode, as described.



3. A device of the character described comprising the combination with a bed having a mattress provided with a hole, a disk mounted on said bed and provided with a recess in its edge, a projecting vertical member on said disk, a cross member on said last named member, said cross member being provided with a horizontal slot and a recess at each end communicating with said horizontal slot, a turnable member on said disk, two pairs of spring pressed arms on said turnable member, each pair of said arms being provided with a projecting finger member adapted to impinge against the outer periphery of said disk, one pair of said spring pressed arms carrying a normal closure for said hole, the other of said spring pressed arms carrying a commode, a handle member projecting through the slot on said cross member, a pair of arms on said handle member pivoted to said turnable member, each of said last named arms being adapted to engage one of said spring pressed arms, as described.

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1,037,393. DRIVING CONNECTION. ELTIS A. WOLFE and HOWARD W. GILBERT, Mannerth, Pa. Filed Nov. 7, 1911. Serial No. 658,982. (Cl. 74—6.)



1. In combination with a shaft having a shoulder formed thereon to form a consequent bearing, of a bushing disposed on said bearing against the shoulder, a pin connecting the bushing and shaft and projecting outwardly beyond said bushing, and a ball disposed around said bushing and having its bore formed with a helical groove for receiving the projecting end of said pin.

2. In combination with a shaft having a shoulder formed thereon to form a consequent bearing, said shaft having a recess formed therein, of a bushing mounted on said bearing formed with an opening registering with said recess, a pin seated within said opening and recess and projecting beyond the bushing, and a ball having its bore disposed around the bushing, the bore being formed with a helical groove for receiving the projecting end of the pin.

3. In combination with a shaft having a shoulder formed thereon to form a consequent bearing, of a bushing disposed on said bearing against the shoulder, the outer surface of said bushing tapering toward the shoulder, a pin connecting the bushing and shaft and projecting outwardly beyond said bushing, and a ball disposed around said bushing and having its bore correspondingly tapered to fit the bushing, said bore being formed with a helical groove for receiving the projecting end of the pin.



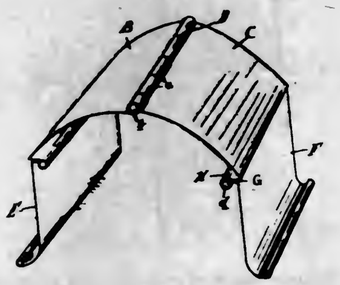
1,037,394. HOOD FOR AUTOMOBILES. CLARENCE S. WOOD, Detroit, Mich., assignor to Briscoe Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed June 4, 1909. Serial No. 500,195. (Cl. 21—90.)



In a hood, a top and sides hinged thereto, said top comprising adjacent sections having their meeting edges terminating in reverse bent hooks and a piano-hinge section having rebent portions engaging said hooks.

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1,037,395. AUTOMOBILE-HOOD. CLARENCE S. WOOD, Detroit, Mich., assignor to Briscoe Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed Oct. 16, 1909. Serial No. 522,085. (Cl. 21—90.)



1. In a hood, the combination with a top composed of complementary sections connected by a hinge extending longitudinally of the hood, of sides, the outer side edge of each complementary section and the upper end of the corresponding side being provided with inwardly extending portions hinged together, said inwardly extending portions abutting in the operative relation of the hood parts to prevent outward or spreading movement of the sides beyond their normal position.

2. In a hood, the combination with a top composed of complementary sections connected by a hinge extending longitudinally of the hood, of sides, the outer side edges of the complementary sections and the upper edges of the sides having inwardly extending parallel flanges arranged at substantially right angles to the planes of the sides, said flanges having their extremities shaped to form eyes, and pintles engaging said eyes, said parallel flanges coöperating in the operative relation of the hood parts to prevent outward or spreading movement of the sides beyond their normal position.

3. In a vehicle hood, the combination with a top composed of sections hinged together, the opposite side edges of the hood having inwardly extending lateral extensions forming transverse abutments, of complementary sides having their upper edges adapted to contact with the top abutments in the operative position of the hood, and hinges uniting the sides to the top formed by integral inter-engaging tubular members upon the abutment, pintles engaging said members.

1,037,396. AUTOMATIC CANAL SYSTEM. MONTRAVILLE M. WOOD, Berwyn, Ill., assignor to Louis H. Myers, Chicago, Ill. Filed July 17, 1911. Serial No. 638,968. (Cl. 61—4.)



1. A canal having different levels therein, a lock between adjacent levels, means for connecting the lock with either of the adjacent levels, and a controlling device for the said means in position to be actuated by a boat.

2. A canal having different levels therein, a lock between adjacent levels, a connection including a valve between the lock and one of the adjacent levels, and controlling means for the valve in position to be actuated by a boat.

3. A canal having different levels therein, a lock between adjacent levels, a connection having a valve arranged between the higher level and the lock, and valve operating means arranged in position to be actuated by a boat passing from the lock to the lower level.

4. A canal having different levels therein, a lock between adjacent levels, a connection having a valve arranged between the lower level and the lock, and valve-operating means arranged in position to be actuated by a boat passing into the lock from the lower level.

5. A canal having different levels therein, a lock between adjacent levels, a connection including a valve between the lock and the higher level, means controlled by a boat entering the lock for causing the water to recede to the lower level, and actuating means for said valve arranged in position to be operated by a boat moving in the lock at the lower level.

[Claims 6 to 25 not printed in the Gazette.]

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1,037,397. INCLOSED FUSE. GILBERT WRIGHT, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Aug. 26, 1909. Serial No. 514,683. (Cl. 175—273.)



1. In an electric fuse, a fusible element comprising a plurality of parallel trough-shaped strips.

2. In an electric fuse, the combination with suitable supporting heads, of a plurality of trough-shaped strips attached at their ends to said head.

3. In an electric fuse, the combination with heads having slots in their peripheries, of a plurality of fusible strips received in said slots.

4. In an electric fuse, the combination with suitable supporting heads having slots in their peripheries, of a plurality of trough-shaped strips of fusible metal received in said slots.

5. In an electric fuse, the combination with supporting heads having slots in their peripheries and tips on the arms between said slots, of trough-shaped strips received in said slots and having turned-over edges overlapped by said tips.

1,037,396. GAS-BURNER. THOMAS B. WYLIE, Osborne, Pa. Filed Dec. 16, 1906, Serial No. 467,785. Renewed July 25, 1912. Serial No. 711,572. (Cl. 158—109.)

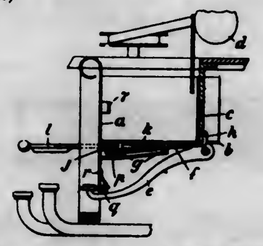


1. In a gas burner, a mixer comprising a cylinder constructed of a plurality of tangentially set blades, the spaces or passages between the blades opening to the atmosphere at the outer side and to a central space at the inner side, and means for supplying gas to said central space, and a movable cover device telescoping over one end of the cylinder; substantially as described.

2. In a gas burner, a mixer comprising a cylinder composed of end rings and a plurality of separated tangentially set-blades, the spaces or passages between the blades opening to the atmosphere at the outer side and to a central space at the inner side, a valve casing secured to one of the end rings and having connection with a source of gas supply and also having a port communicating with the central space of the mixer, a valve controlling said port, and a burner nozzle connected to the opposite end of the mixer; substantially as described.

3. In a gas burner, a mixer comprising a cylinder composed of end rings and a plurality of separated tangentially set-blades, the spaces or passages between the blades opening to the atmosphere at the outer side and to a central space at the inner side, a valve casing secured to one of the end rings and having connection with a source of gas supply and also having a port communicating with the central space of the mixer, a valve controlling said port, and a burner nozzle connected to the opposite end of the mixer, together with means for closing in any desired portion of the mixer cylinder to regulate the amount of air entering the spaces or passages; substantially as described.

1,037,399. LOCKING DEVICE FOR TYPE-WRITING MACHINES. HENRY HERBERT YELF, Southsea, England. Filed Sept. 22, 1911. Serial No. 650,760. (Cl. 197—193.)



1. A locking device for a typewriting machine comprising an object applicable to said machine in such a position as to render the type bars thereof inoperative, a lock on said object adapted to be engaged with a suitable part of such machine and to fasten said object in said position, and a cushioning shoe carried by the object for engaging the type bars.

2. A locking device for a typewriting machine comprising an object adapted to be inserted into a cavity or space in said machine within range of the type bars, a housing carried by the object, and a lock in said housing adapted to be engaged with a suitable part of said machine and to fasten said object in said cavity.

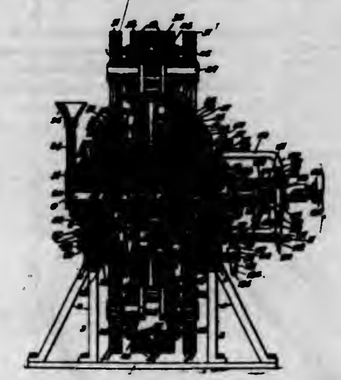
3. A locking device for a typewriting machine comprising an object conforming somewhat with and insertible into a space or cavity in said machine, said space being bounded on one side by the type bars, a base housing carried by the object, and a lock in said housing adapted to be engaged with a suitable part of said machine and to fasten said object in said space or cavity.

4. A locking device for a typewriting machine comprising a receptacle insertible into a space or cavity in said machine, supporting flanges on said receptacle adapted to engage said machine, and a lock on said receptacle adapted to be engaged with a suitable part of said machine and to fasten said receptacle in said space or cavity.

5. A locking device for a typewriting machine comprising an object applicable to said machine in such position as to render the type bars thereof inoperative, a housing carried by the object, a lock in said housing adapted to be engaged with a suitable part of such machine and to fasten said object in said position, means in said housing constantly tending to render said lock operative, and a key adapted when inserted to hold said lock inoperative.

[Claims 6 to 9 not printed in the Gazette.]

1,037,400. INTERNAL-COMBUSTION ENGINE. ALBERT E. YOUNGREN, Kewanee, Ill. Filed Apr. 11, 1911. Serial No. 620,423. (Cl. 123—44.)



1. An explosion engine of the rotary type provided with a circular series of power cylinders, a support common to all of the cylinders and provided with intake and exhaust passages for each cylinder and leading to opposite ends of the common support, and separate port controlling means at the intake and exhaust ends of the common support, the port controlling means on the intake side being common to all the intake passages and the port controlling means on the exhaust side being common to all the exhaust passages, the port controlling means being brought into coincidence with the respective passages in succession by the rotative movement of the rotor of the engine.

2. An explosive engine of the rotary type comprising a rotatable circular series of power cylinders, a supporting member for the cylinders common to all the cylinders and provided with passages individual to the cylinders and in constant communication therewith and leading to opposite ends of the supporting member, and separate means controlling the opposite ends of the respective passages leading to each cylinder for supplying fuel and permitting the escape of burned gases, said means being in relatively fixed relation to the cylinder support, and the latter being movable by the rotative movement of the series of cylinders to bring said cylinders in succession into communication with the intake and exhaust means.

3. An explosion engine of the rotatable type provided with a plurality of power cylinders, a rotatable port member participating in the rotatable movement of the cylinders and provided with ports individual to the cylinders and opening at opposite ends of the rotatable port member, and relatively fixed separate port members constituting respectively intake and exhaust port members, each cylinder having its port members movable by the rotative movement of the cylinder into four cycle relation to the intake and exhaust port members.

4. An explosion engine comprising a rotatable series of radially disposed power cylinders, a supporting port block for the cylinders participating in the rotative movement of the cylinders and provided with passages leading to opposite ends of the supporting port block and constituting intake and exhaust ports individual to each cylinder, and separate intake and exhaust port means at the respective opposite ends of the supporting port block relatively fixed with respect to the rotatable port block, the ports in said rotatable port block being movable by the rotation of said port block into communication with the ports of the relatively fixed port members in four cycle order.

5. An explosion engine comprising a rotatable series of radially disposed power cylinders, a supporting port block for the cylinders participating in the rotative movement of the cylinders and provided with passages leading to opposite ends of the supporting block and constituting intake and exhaust ports individual to each cylinder, intake and exhaust port means at the respective opposite ends of the supporting block and relatively fixed with respect to the rotatable port block, the ports in said rotatable port block being movable by the rotation of said port block into communication with the ports of the relatively fixed port members in four cycle order, igniting means for each cylinder, and means for rendering the igniting means active by the movement of the cylinder to a predetermined portion of the rotative movement of the respective cylinder.

[Claims 6 to 30 not printed in the Gazette.]



1,037,401. TIMER FOR EXPLOSION-ENGINES. ALBERT E. YOUNGREN, Kewanee, Ill. Filed Apr. 11, 1911. Serial No. 620,424. (Cl. 123—165.)



1. A timer for explosion engines movable into different operative positions and having thereon spaced contact members separated by a distance less than the range of movement of the timer, and means for moving one contact member into operative position with respect to a corresponding end of the explosion zone and the other contact member into operative position with respect to the other end of the explosion zone in accordance with whether the engine is to move in one direction or the other, said means for moving the contact members also including means for moving the timer to retard or advance the time of firing the charge.

2. In an explosion engine provided with a plurality of power cylinders rotatable about a common axis, an igniter for each cylinder, a contact movable with the cylinder and individual to the igniter carried by the cylinder, a timer member mounted for limited rotative movement and having thereon spaced electrical contacts in the path of the contacts individual to the cylinders, and means for moving the timer member about the axis of rotation of the cylinder contacts to carry the spaced electrical contacts on the timer member into individual operative relation to respective ends of the explosion zone and to retard or advance the time relation between the activity of the igniter and the compression stroke of the piston in the cylinder containing the charge to be ignited.

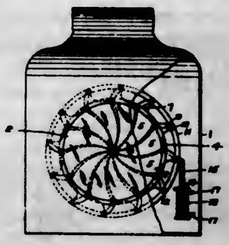
3. A multi-cylinder four cycle rotary engine having an explosion zone common to all the cylinders, an igniting means individual to each cylinder and including an electric contact, and two other electric contacts having limited movement within the range of the explosion zone in the path of the cylinder contacts to bring one or the other of said movable contacts individually into operative relation to a respective end of the explosion zone, and means for causing the movement of the second named contacts both for positioning them with relation to the explosion zone and to retard or advance the time of ignition of the charge with relation to the compression stroke of the piston of each cylinder in order.

4. A multi-cylinder rotary explosion engine having an explosion zone common to all the cylinders, igniting means individual to each cylinder and including an electric contact, and a timing means comprising a rotatable member having two spaced contacts thereon of which but one is active at a time, said contacts being in the path of the cylinder contacts, and means for shifting the time determining contacts with relation to the explosion zone to bring one or the other of said contacts individually into operative relation to a respective end of the explosion zone and to advance or retard the spark irrespective of the direction of rotation of the engine.

5. An explosion engine having a rotatable series of power cylinders with pistons therein, an igniter means individual to each power cylinder and including an electric contact movable with the power cylinder, a rotatable ring mounted on a fixed portion of the engine concentric with the axis of rotation of the cylinders, means for limiting the rotative movement of the ring, an electric contact carried by the ring in the path of the cylinder contacts, a gear segment carried by the ring, and a pinion and actuating shaft therefor in mesh with the gear segment on the ring for imparting rotative movement of the ring within the limits of its travel for advancing and retarding the time of ignition.

[Claims 6 to 11 not printed in the Gazette.]

1,037,402. HEADLIGHT BLIND OR SHUTTER. AUGUST J. ZEHRENDNER, Huntington, Ind. Filed Dec. 4, 1911. Serial No. 663,728. (Cl. 240—47.)



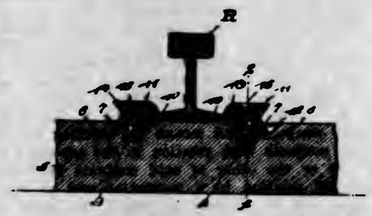
1. The combination with a case having a transparency in its front side, of a fixed frame within the case which does not project into the field of the transparency, a revoluble frame encircling the fixed frame and in the vertical plane thereof, a plurality of pointed blades overlapping each other, each blade being pivoted to the fixed frame and adapted to oscillate in a vertical plane on said pivot to cause the pivoted ends of the blades to meet in the transverse axis of the transparency, and an outwardly projecting integral extension on each blade having a slot in the outer end thereof for pivotally connecting the extension to the revoluble frame.

2. The combination with a casing having a circular transparency in one of its sides, of a fixed ring within the casing and adjacent the transparency, a revoluble

ring concentric with the fixed ring and in the vertical plane thereof, a plurality of blades pivotally mounted on the fixed ring and adapted to oscillate in a vertical plane to cause the pointed ends of the blades to meet in the axis of both said rings, said blades having their longitudinal edges overlapping in the closed position, a reinforced outwardly projecting extension on each blade having a slot in its outer end, a pin in the revolvable ring engaged in said slot, and means to rotate the revolvable ring to cause the blades to rock on their fixed frame pivots to open or close the same.

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1,037,403. STEEL TIE AND RAIL-FASTENER. FRED ELLAM, Benton, Wash. Filed May 22, 1912. Serial No. 699,685. (Cl. 238—4.)

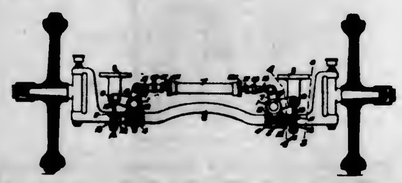


1. The combination with a tie having transverse channels in its upper surface, of fastening members adapted to be received in said channels, and provided with flanges to engage with a rail base, said members being also provided with vertical openings, the bases of said channels having recesses therein, and spring pressed studs arranged in said recesses to be received in the lower ends of said openings.

2. The combination with a tie having spaced transverse channels in its upper surface, of fastening members adapted to be arranged in said channels and provided with flanges for engagement with a rail base, said fastening members being also provided with central vertical openings, the bases of the channels in said tie having longitudinal recesses therein, spring plates arranged in said recesses and fixed to the tie at one of their ends, studs on the other ends of said spring plates to be received in the lower ends of the openings in said fastening members, and screws adapted to be threaded in the upper ends of said openings to close the same.

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1,037,404. SHOCK-ABSORBER. ARSENE ZEPPELIN, Brookline, Mass. Filed Nov. 17, 1911. Serial No. 660,879. (Cl. 21—50)



1. Shock absorbing means for vehicles comprising lever supports adapted to be secured to the axle, vehicle carrying levers mounted on said supports, upright spring members on said supports and connected to said levers, said spring members acting to cushion the movement of one arm of each of said levers in a direction substantially upright relative to the axle, and opposed spring members connecting, and acting to cushion the movement of, one arm of each of said levers in a lateral direction.

2. Shock absorbing means for vehicles comprising a plurality of lever supports adapted to be secured to the axle, bell crank levers mounted on said supports, a spring seat on each of said supports, a spring carrying link depending from the longer lateral arm of each lever, a spring on said link seated against said spring seat, a vehicle carrying seat carried by each lever, links connected to the shorter of said lever arms, oppositely disposed spring seats carried by said links, springs seated thereon in substantial relative alinement, a spring barrel for said springs constituting seats for the springs, a reinforcing spring interposed between said first-named springs, whereby downward movement of the vehicle causes lateral movement of said springs, and lateral movement of said shorter lever arms to a less degree than the movement of said first-named lever arms.

3. Shock absorbing means for vehicles comprising axle clips, bell crank levers pivotally mounted on said clips, spring members connected with said levers to control the upward movement thereof, and a plurality of resilient members oppositely connected and positioned end-wise relatively to each other and substantially parallel to the axle to control the lateral motion of said levers.

4. Shock absorbing means for vehicles, comprising an axle, clips thereon, levers mounted in said clips, vehicle spring seats on said levers and springs arranged to yield at substantially right angles to each other to control the movements of said spring seats.

5. Shock absorbing means for vehicles comprising clips, levers mounted thereon, springs adapted to regulate the movement of said levers in one direction and oppositely acting springs mounted in a spring case suspended between and connecting said levers and adapted to regulate the movement of said levers in a direction angular to said first named direction.

[Claims 6 and 7 not printed in the Gazette.]

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1,037,405. COIN COUNTING AND PACKAGING DEVICE. AUGUSTUS ABBOTT, New York, N. Y., assignor to Abbott Coin Counter Company, New York, N. Y., a Corporation of Delaware. Filed Sept. 15, 1911. Serial No. 649,427. (Cl. 133—8.)



1. A coin counting device of the class described, comprising a board having a transverse groove, and a counter comprising a trough and a head and adapted to be connected with said board so that the trough will fit in said groove and the top surface thereof be flush with the top surface of the board, said head being provided with a coin passage way which communicates with said trough, and with a coin counting mechanism operated by the coins as they are passed therethrough, whereby coins placed on said board may be swept into said trough and moved forwardly therethrough and through said head and counted by a transverse and forward movement of the hand over said board and trough.

2. In a coin counting device of the class described, a board provided with a transverse groove, and a counter comprising a trough and head, said trough being fitted in said groove with the top surface thereof flush with the top surface of the board, and said head being provided with a coin passage way which communicates with said trough and with a coin counting mechanism operated by the coins as they pass through said head, and a coin stacker pivotally supported beneath the front portion of said head and adapted to receive the coins as they pass therethrough, said stacker being adapted to swing in a plane parallel with the front edge of said board.

3. In a coin counting device of the class described, a trough provided with a head having a transverse groove or passage which communicates with said trough, said head being provided with a coin counting mechanism operated by coins as they pass therethrough, and a coin stacker pivoted beneath said head and adapted to receive coins as they pass therethrough, said stacker being adapted to swing in a plane at right angles to said trough.

4. A coin counting device having a head or casing provided with a coin passage therethrough through which coins are adapted to be passed and a coin counting mechanism operated by the coins as they pass therethrough, and a coin stacker pivotally supported beneath said head or casing and adapted to receive the coins after their passage therethrough, said stacker being closed at one end and open at the other and being normally held by gravity with its open end directed upwardly and being adapted to be turned on its pivotal support so as to dump the coins therein into a package.

5. In a coin counting device a coin trough having a head provided with a transverse passage which communicates therewith, one side of said head being provided with an adjustable device to regulate the transverse dimensions of said passage and the opposite side being provided with a star-wheel, the teeth of which operate in said passage, hand operated means for turning said star-wheel, an indicating disk geared in connection with said star-wheel and a registering device operated by said indicating disk, said indicating disk being provided with diametrically arranged recesses on the opposite sides of the center thereof and the radial dimensions of one of which is greater than the radial dimensions of the other, and the cover of said head being provided with a block having radially arranged holes adapted to register with the larger of said recesses and one of which is adapted to register with the other of said recesses, and a pin adapted to be passed through said holes and to rest on said disk and enter said recesses.

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1,037,406. SEALING DEVICE FOR FOOT-BALL BLADDERS AND THE LIKE. JOHANN WILHELM ALBERS, Harburg, Germany. Filed Sept. 26, 1912. Serial No. 722,257. (Cl. 46—4.)



1. The combination with a foot-ball bladder or the like having an inflation tube, of a member of pliable material conforming to said tube and adapted to be firmly connected therewith by bending both said member and tube together so as to form an air-tight closure for said tube.

2. The combination with a foot-ball bladder or the like having an inflation tube, of a strip of flexible sheet metal conforming to said tube and adapted to be firmly connected member and tube together so as to form an air-tight closure for said tube.

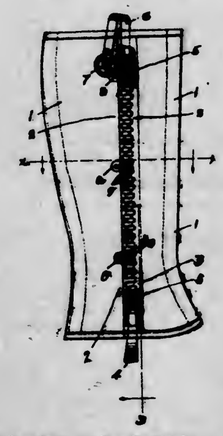
3. The combination with a foot-ball bladder or the like having an inflation tube, of a member made of flexible sheet metal of a cross-section to conform to said tube and adapted to be firmly connected therewith by bending both said member and tube together so as to form an airtight closure for said tube.

4. The combination with a foot-ball bladder or the like having an inflation tube, of a member made of pliable material conforming to said tube and adapted to be firmly connected therewith by bending both said member and tube together so as to form an airtight closure for said tube, and a piece of fabric for keeping said member in firm contact with said tube.

5. The combination with a foot-ball bladder or the like having an inflation tube, of a flexible metal tube adapted to be passed over said inflation tube and to be firmly connected therewith by bending both said inflation tube and said metal tube together, so as to form an airtight closure for said inflation tube.

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1,037,407. LEGGING. DE ROY AUSTIN, Omaha, Nebr. Filed Jan. 14, 1911. Serial No. 602,729. (Cl. 36—2.)



1. In a legging, a legging-body, a foot-strap, a stay slidably disposed in one side of the body and connected with one end of the foot-strap, and means for connecting the stay and body in various adjusted positions.

2. In an article of the class described, a legging-body, means forming a vertical passage at one side of the legging-body, a stay slidably disposed in the passage, a foot-strap having one end connected with the stay and the other end fixedly connected with the legging-body, and means for securing the stay at adjusted positions with relation to the legging-body.

3. In an article of the class described, a legging-body having overlapping side-flaps, buckles secured upon one of said flaps and having tongues adapted to be passed through openings in the other flap to secure the flaps together, a stay slidably disposed in the latter flap and having eyes through which the buckle tongues may be passed, and a foot-strap having one end fixedly secured to the legging-body and the other end connected with the slidable stay.

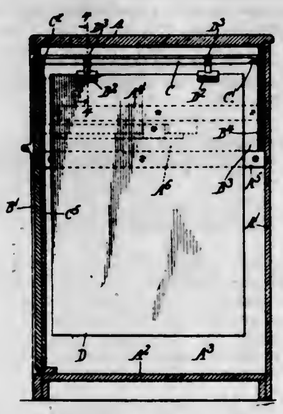
4. In an article of the class described, a legging-body, means forming a vertical passage at one side of the legging-body, a stay slidably disposed in said passage, a foot-strap having one end connected with the stay, and means intersecting the vertical passage and stay to secure the stay against longitudinal movement relative to the legging-body.

5. In an article of the class described, a legging-body, means forming a vertical passage at one side of the legging-

body, an element connected with the legging-body at the side thereof opposite said vertical passage and extending therefrom below the lower margin of the body, the said element entering the lower end of the vertical passage, traversing the same and passing out at the upper end thereof, means for preventing the withdrawal of the element from the passage, and means for detachably connecting said element and the legging-body at a point remote from the lower margin of the body.

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1,037,408. RACK FOR TRACINGS. FRANK S. BAKER, Chicago, Ill. Filed Nov. 20, 1911. Serial No. 661,359. (Cl. 45—2.)



1. A cabinet comprising a drawer, a horizontally disposed fixed supporting rod adjacent the back of the drawer at the top, a horizontally disposed removable rod adjacent the front of the drawer at the top, a ledge located beneath said removable rod, holding strips slotted at one end and perforate at the other, mounted upon said rods.

2. A cabinet comprising a drawer, a horizontally disposed fixed supporting rod adjacent the back of the drawer at the top, a horizontally disposed removable rod adjacent the front of the drawer at the top, a ledge located beneath said removable rod, holding strips slotted at one end and perforate at the other, mounted upon said rods, the perforate end being engaged by the removable rod.

3. The combination with a drawer and horizontally disposed supporting strips therein, of rigid supporting means at either end of said strips, perforations through one end of said strips and a removable rod located above said supporting means and passing through said perforations to hold said strips in position.

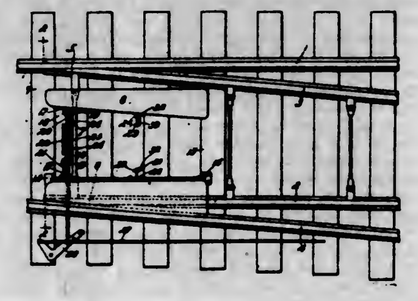
4. The combination with a frame and horizontally disposed supporting strips therein of supporting means upon which said strips rest, and removable holding means located above said supporting means.

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1,037,409. RAILROAD-SWITCH. WILLIAM D. BALDWIN, Hummelstown, Pa. Filed Mar. 2, 1912. Serial No. 681,123. (Cl. 104—12.)

1. The combination with a rail and switch point, of a substantially flat shield normally located away from the switch point and below the tread of the rail, and means for moving said shield over the space between the switch point and rail when the switch is in open position, said shield when in either position having the body portion thereof in a substantially horizontal plane.

2. The combination with a rail and switch point, of a substantially flat guard normally located away from the switch point, automatic means for moving said guard over the space between the switch point and the rail when the switch is open, and means for maintaining the guard with the body thereof in a substantially horizontal plane when in either extreme position.



3. The combination with a rail and switch point, of a substantially flat shield normally located away from and below the tread of the switch point and rail, means for moving said shield above the space between the switch point when the switch is open, and means for insuring the positioning of the body of the shield in a horizontal plane when said shield is in either extreme position.

4. The combination with a switch point and rail, means for operating said switch point, a shield for the space between the switch point and rail and movable to and from the rail, a rock shaft operably connected to said shield and also to the switch point operating mechanism, and means connected to said shield for retaining the body thereof in a horizontal plane when the shield is in either extreme position.

5. The combination with main and siding rails, and a pair of switch points connected with each other, a frame carried by one of the connections of the switch point, a rod slidably mounted through said frame and projecting beyond the respective ends thereof, two sleeves slidably mounted upon the rod within the frame, a spring interposed upon the rod between said sleeves, a pair of shields operably connected to said rod upon each side of the frame, one of said shields being normally in open position and the other being normally in closed position, the shield in closed position being arranged to close the space between the open switch point and the rail while the other shield is between the rails and below the tread thereof.

[Claims 6 to 9 not printed in the Gazette.]

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1,037,410. ANTHRACENE DYE AND PROCESS OF MAKING SAME. OSCAR BALLY, Mannheim, Germany, assignor to Badische Anlin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Sept. 20, 1910. Serial No. 582,917. (Cl. 8—1.)

1. The process of producing coloring matters of the anthracene series by treating a halogenated diphenylmethane compound of a constitution corresponding to the formula Hl—R—$CX_2$—R—Hl, where R represents a benzene nucleus and X represents a neutral substituent containing hydrogen, with an amino compound of the anthraquinone series.

2. The process for producing coloring matter of the anthracene series by condensing 4.4'-dichlor-diphenylmethane with 1-amino-anthraquinone.

3. As new articles of manufacture the coloring matters of the anthracene series which probably possesses a constitution corresponding to the formula

A—NH—R—$CX_2$—R—R—NH—A,

where A is an anthraquinone nucleus, R is a benzene nucleus and X is a neutral substituent containing hydrogen, which coloring matters can be employed in the unsulfonated form as vat coloring matters and in the sulfonated form can be used for dyeing wool.



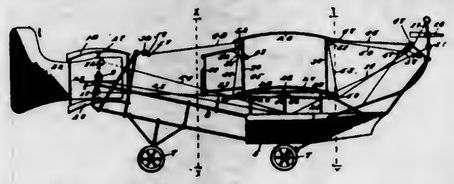
4. As a new article of manufacture the coloring matter which probably possesses a constitution corresponding to the formula

(1) (4) (4) (1)
$C_{14}H_7O_2$—NH—$C_6H_4$—$CH_2$—$C_6H_4$—NH—$C_{14}H_7O_2$

which coloring matter consists when dry of a reddish brown powder which yields a red solution in hot nitrobenzene, an olive solution in concentrated sulfuric acid, and a green solution in fuming sulfuric acid of twenty-three per cent, free $SO_3$, and which when unsulfonated dyes cotton from the vat Bordeaux red, while in the sulfonated form it dyes wool brilliant red shades.

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1,037,411. AEROPLANE. JAMES H. S. BARTHOLOMEW, Occidental, and EUGENE F. HEATH, Santa Rosa, Cal. Filed Aug. 8, 1911. Serial No. 643,061. (Cl. 244—29.)



1. The combination with a main plane of a car pendulously hung from said main plane and a yielding, supporting and stop member carried by the car structure extending longitudinally of the main plane and bearing against the under side thereof upon opposite sides of the point of attachment of the car to the main plane.

2. In a device of the character described, the combination with a body portion, of a pair of main planes supported above said body portion and mounted to tilt with relation thereto, a pair of pivotally mounted wings located at each side of the main planes and extending rearwardly therefrom, connections between said wings and the body portion for automatically tilting said wings to counteract tipping of the main planes, one of the wings of each pair being capable of independent movement with relation to the other wings of the pair.

3. In a device of the character described, the combination with a pair of main planes, a body portion, a fixed member carried by the body portion and upon which said main planes are tiltingly mounted, a pair of wings located at the rear of the main planes upon each side theerof, a link connection between the wings of each pair, said link connection positively connecting said wings for movement in one direction but permitting movement of said wings with relation to each other in the opposite direction.

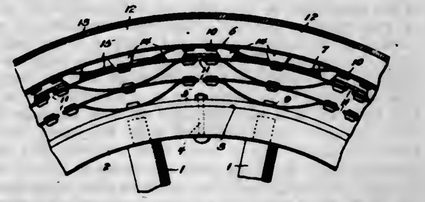
4. The combination with a main plane of a car pendulously hung from said main plane and a yielding, supporting and stop member carried by the car structure extending longitudinally of the main plane and bearing against the under side thereof upon opposite sides of the point of attachment of the car to the main plane, supplemental tilting planes carried by the main plane and means for tilting said supplemental planes in opposite direction when the main plane tilts with relation to the car.

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1,037,412. TIRE. HARRY O. BARTLETT, Caldwell, Ohio. Filed Oct. 16, 1911. Serial No. 654,893. (Cl. 152—8.)

1. In a resilient tire, inner and outer bands, and a series of circumferentially arranged spring units interposed between said bands and comprising an inner spring secured at its center to the inner band and an outer spring rigidly connected at its ends to the inner spring and curved to form a circle of separated segments concentric with the inner band and having their ends alined adjacent each other and adapted to move longitudinally into contact to form a supporting ring.

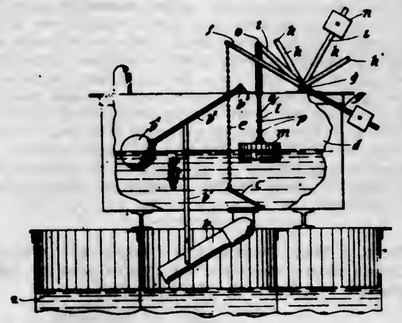
2. In a resilient tire, inner and outer bands, a series of circumferentially arranged spring units interposed between said bands and comprising an inner spring secured at its center to the inner band and an outer spring rigidly connected at its ends to the inner spring and curved to form a circle of separated segments concentric with the inner band and having their ends alined adjacent each other and adapted to move longitudinally into contact to form a supporting ring, and a curved spring connected at its ends to the outer band and intermediate thereof to the outer spring member.



3. In a resilient tire, inner and outer bands, a continuous series of spring members interposed between said bands and comprising an inner spring secured at its center to the inner band and an outer spring rigidly connected at its ends to the inner spring and curved to form a circle of separated segments concentric with the inner band having their ends adapted to move longitudinally into contact under extreme compression to form a supporting ring, and a series of curved springs having their ends in contact and secured to the outer band and intermediate thereof to the outer spring.

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1,037,413. LIQUID-MEASURING APPARATUS. KENT W. BARTLETT, Madison, Wis., assignor to Northern Water Softener Company, a Corporation of Maine. Filed Nov. 20, 1908. Serial No. 463,729. (Cl. 137—68.)



1. Apparatus of the class described including a fluid-receiving tank, a supply tank therefor, means for governing flow to the receiving tank, a shaft serving by its rotation to govern said means, an arm fixed between its ends upon said shaft, a weighted arm rotatably mounted between its ends, a float supported by the liquid in the supply tank and changed in position upon changes in the liquid level and serving to move the weighted arm so as to cause the same to fall in one direction when the float has been raised and in the alternative direction when the float has been lowered, said weighted arm being adapted for engagement with the other arm upon one side or the other of the connection of the other arm with said shaft, whereby said shaft is rotated in different directions to effect control of the means that govern the flow to the receiving tank, a swinging discharge pipe for conveying fluid from the supply tank, and means for swinging said pipe governed by float mechanism within the supply tank to maintain the head upon the liquid flowing through the pipe substantially constant.

2. Apparatus of the class described including a fluid-receiving tank, a supply tank therefor, means for govern-

ing flow to the receiving tank, a shaft serving by its rotation to govern said means, an arm fixed between its ends upon said shaft, a weighted arm rotatably mounted between its ends, a float supported by the liquid in the supply tank and changed in position upon changes in the liquid level and serving to move the weighted arm so as to cause the same to fall in one direction when the float has been raised and in the alternative direction when the float has been lowered, said weighted arm being adapted for engagement with the other arm upon one side or the other of the connection of the other arm with said shaft, whereby said shaft is rotated in different directions to effect control of the means that govern the flow to the receiving tank, the connection of the float with the weighted arm affording lost motion between the float and the weighted arm, whereby the weighted arm is not shifted to the position from which it may fall until the float has been either fully raised or fully depressed upon the liquid reaching either its upper level or lower level, whereby flow to the receiving tank is either fully permitted or is cut off, a swinging discharge pipe for conveying fluid from the supply tank, and means for swinging said pipe governed by float mechanism within the supply tank to maintain the head upon the liquid flowing through the pipe substantially constant.

3. Apparatus of the class described including a fluid-receiving tank, a supply tank therefor, means for governing flow to the receiving tank, a float supported by the liquid in the supply tank, mechanism governing said means and caused to operate by the float when the liquid that supports it reaches either its upper or lower level, whereby the flow to the receiving tank is either fully permitted or is cut off, a swinging discharge pipe for conveying fluid from the supply tank, and means for swinging said pipe governed by float mechanism within the supply tank to maintain the head upon the liquid flowing through the pipe substantially constant.

4. Apparatus of the class described including a fluid-receiving tank, a supply tank therefor, means for governing flow to the receiving tank, a float supported by the liquid in the supply tank, mechanism governing said means and having lost motion connection with said float, and caused to operate by the float when the liquid that supports it reaches either its upper or lower level, whereby the flow to the receiving tank is either fully permitted or is cut off, a swinging discharge pipe for conveying fluid from the supply tank, and means for swinging said pipe governed by float mechanism within the supply tank to maintain the head upon the liquid flowing through the pipe substantially constant.

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1,037,414. TIRE-FASTENING DEVICE. WILLIAM LEOPOLD BAUER, Covington, Ky. Filed June 12, 1911. Serial No. 632,606. (Cl. 152—6.)



1. A tire fastening device comprising a flat band adapted to encircle the base portion of a tire, an inwardly projecting lug adjacent each end of said band, a lock plate adapted to rest on said base portion of the tire and provided with apertures to receive said lugs when said band is tightened about said base portion, said lugs being substantially the same length as the thickness of said plate, and means for maintaining said lugs within said apertures, substantially as described.

2. In a device of the class described, a securing band adapted to encircle the base portion of a tire, a pair of inwardly extending lugs on the ends of said band, a lock plate adapted to rest on the base portion of said tire and provided with apertures to receive said lugs when said band is tightened about said base portion and a T-bolt provided with a flat head for clamping the ends of said band between the same and said lock plate to maintain said lugs within said apertures, substantially as described.

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1,037,415. FENCE-POST. HARVEY H. BELL, Rochester, Minn. Filed Dec. 7, 1911. Serial No. 664,490. (Cl. 20—11a.)



1. A post embodying a shell having transverse corrugations, and alining tubular members secured in the corrugations.

2. A post embodying a shell having transverse corrugations, alining tubular members secured in the corrugations, a solidified filling in the shell, and a keeper rod insertible through the tubular members.

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1,037,416. CONCRETE CONSTRUCTION. CHARLES W. BEVERSTOCK, Los Angeles, Cal. Filed Sept. 7, 1910. Serial No. 580,353. (Cl. 72—15.)



1. A building construction consisting of reinforced concrete columns and beams, said columns having embedded therein and free of the reinforcement, angle steels severally provided with transversely disposed steel bearing members embedded in said columns and plates secured to said embedded angle steels and projecting beyond the sides of the said columns, and said beams being provided with steel plates to which are secured the reinforcements of the beams, said plates projecting beyond the ends of said beams, and having horizontally disposed steel bearing members, and means to connect the projecting plates of the columns and beams.

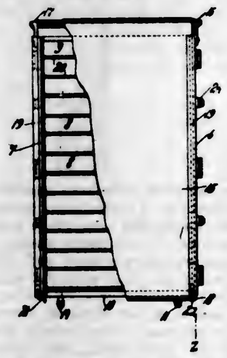
2. A building construction consisting of preformed concrete columns and beams, said columns being reinforced by a plurality of angle irons disposed near the outside of the columns and having riveted thereto vertical L-shaped steel members, between which is riveted a steel plate slightly projecting beyond the sides of the columns, and said beams being reinforced by metallic rods which converge at the terminus of said beams, and having embedded in the ends thereof a plate which projects for a small distance beyond the ends thereof, said metallic reinforcing members being anchored in said plate, and the projecting plates of both said columns and beams being riveted together and grouted in.

3. A building construction consisting of superimposed columns and beams, said columns having vertical reinforcing angle irons, vertical L-shaped steel members embedded in said columns and riveted to two of said reinforcing angle irons and extending to near the center of one side of said columns whereby to leave a space between said angle irons, steel plates inserted between and riveted to said L-shaped steel members, the plates of two superimposed columns projecting slightly beyond the sides thereof and in alinement with each other, and said beams having extensions at the termini thereof of greater height than the said projecting plates of the said columns, plates embedded in said extensions and projecting beyond the ends of said extensions, and being of a height equal to the height to both projecting plates of said superimposed columns, said beams having horizontal reinforcing members converging toward the terminus of said beams and being fastened to said plates in the ends thereof, the plates of both of said columns and beams being riveted together and grouted in, substantially as described.



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1,037,417. BREAD-PROVING CLOSET. EDWARD BIGGS, New York, N. Y., assignor to John Jaburg & Hugo Jaburg, New York, N. Y., a Firm. Filed Mar. 25, 1911. Serial No. 616,986. (Cl. 45—16.)



1. In a proving closet, the combination with the walls of an open front closet, of a curtain adapted to extend across that open front, and entirely close it and to project over the edges of the top, bottom and sides, which edges are adapted to permit said curtain to be smoothly stretched over them, narrow holding strips secured to and pivotally mounted on the sides of the closet, and adapted to shut over and bear upon and clamp the side edges of the curtain to the closet and means for holding the said narrow strips in position, all substantially as set forth.

2. In a proving closet, the combination with the walls of an open front closet, of a curtain roller mounted at one end of the closet and slightly to the rear of the front edge of the closet, a curtain mounted on said roller and adapted to extend across that open front, narrow holding strips secured to and pivotally mounted on the closet and adapted to shut over and clamp the side edges of the curtain to the closet and means for holding the said narrow strips in position, all substantially as set forth.

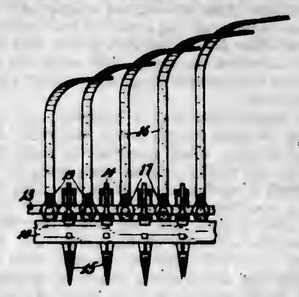
3. In a proving closet, the combination with the walls of an open front closet, of a curtain adapted to extend across that open front, narrow holding strips mounted on the closet and adapted to shut over and clamp the sides of the curtain, a toe piece carried by the holding strip and adapted as described, to fold the curtain underneath the closet, and means for holding the said narrow strip in position all substantially as set forth.

4. In a proving closet, the combination with the walls of an open front closet, of a curtain adapted to extend across that open front, and provided with a curtain stick at its free end, narrow holding strips mounted on the closet and adapted to shut over and clamp the sides of the curtain, toe pieces carried by the holding strips and adapted, as described, to impinge against the curtain stick and fold the curtain around the edge of the closet and hold it against said edge, and means for holding the said narrow strips in position, all substantially as set forth.



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1,037,418. WINDROWER. FRANK BLOCKI and FRANK A. BLOCKI, Sheboygan, Wis. Filed May 25, 1910. Serial No. 563,277. (Cl. 56—128.)



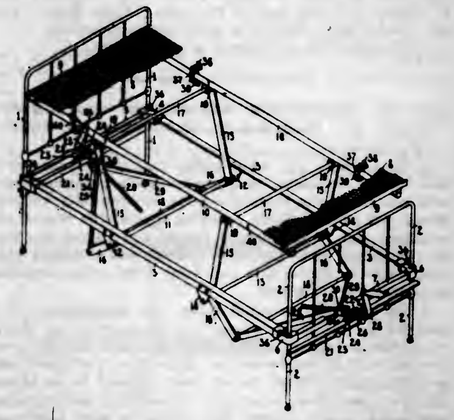
1. A windrower, comprising flat rods, arched clips with openings at one end fitting over the ends of the rods, bolts passing through the rods and the other ends of the clips, and a cross bar clamped between the clips and the rods, said rods being bent upwardly and laterally at successively greater distances from the cross bar to collectively produce an oblique deflector for cut material.

2. A windrower, comprising parallel flat rods, arched clips having openings at their ends receiving the ends of the rods, bolts passing through the rods and the other ends of the clips, a cross bar clamped by the bolts between the clips and the rods, said rods having their rear ends bent upwardly and laterally without twisting whereby they collectively form a deflector for cut material oblique with relation to the cross bar and present a single edge for engagement with the cut material to lead it to one side.

3. A windrower, comprising flat windrower rods, and a cross bar to which the rods are connected, said rods being bent upwardly and inclined laterally at successively greater distances from the cross bar without being twisted, the inclination of each rod being sufficient to carry it above the next rod whereby they collectively produce a deflector for material oblique with relation to the cross bar and each presents a single inclined edge for the engagement with the material with its flat face turned directly toward the cross bar.

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1,037,419. BED. WILLIAM J. BOSANKO, New York, N. Y., assignor of one-half to Eleanor L. Stock, Brooklyn, N. Y. Filed Mar. 13, 1912. Serial No. 683,529. (Cl. 5—44.)



1. The combination with a bedstead and bed-spring of a pair of angularly movable arms operative to raise and support one end of the spring; means comprising a device

movable by hand to operate these arms, the arms and said device being connected to and supported by the bedstead, and the arms carrying devices that lie under and fit against the side-rails of the spring and that travel along those rails when the arms are operated; and a fixed stop at the other end of the spring, this stop affording an abutment on which the spring acts when the devices carried by said arms travel along the rails of the spring toward said stop.

2. The combination with a bedstead, and a bed-spring comprising a frame having round side-rails, of a pair of angularly movable arms operative to raise and support one end of the spring; means comprising a device movable by hand to operate these arms, the arms and said device being connected to and supported by the bedstead, and the arms carrying grooved rollers that lie under and fit against the side-rails of the spring and that roll on these rails when the arms are operated; and a fixed stop at the other end of the spring, this stop affording an abutment on which the spring acts when the rollers travel along the rails of the spring toward said stop.

3. The combination with a bedstead, and a bed-spring comphising a frame having round side-rails, the bedstead having posts at each end that extend above the spring, of a pair of angularly movable arms operative to raise and support one end of the spring; means comprising a device movable by hand to operate these arms, the arms and said device being connected to and supported by the bedstead, and the arms carrying grooved rollers that lie under and fit against the side-rails of the spring and that roll on these rails when the arms are operated; and a stop on which the spring acts as the rollers travel along the side-rails thereof from its raised end, the stop being arranged and adapted to prevent the lower end of the spring from sliding against the adjacent bed-posts when the raised end is supported by the arms and rollers.

4. The combination with a bedstead and bed-spring of two angularly movable pairs of arms operative to raise and support the spring, means comprising devices movable by hand to operate these arms, and adjustable stops connected to the side-rails of the spring, the arms and said devices being connected to and supported by the bedstead, and each pair of arms carrying devices that lie under and fit against the side-rails of the spring, these devices and the adjustable stops being adapted to coact on the spring.

5. The combination with a bedstead and bed-spring of two angularly movable pairs of arms operative to raise and support the spring, means comprising devices movable by hand to operate these arms, and clamps mounted on the side rails of the spring, the arms and said devices being connected to and supported by the bedstead, and each pair of arms carrying devices that lie under and fit against the side rails of the spring, these devices and the clamps being adapted to coöperate as described.

[Claims 6 to 14 not printed in the Gazette.]

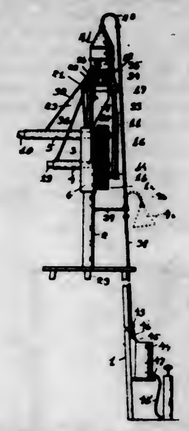
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1,037,420. OILER FOR WINDMILLS. PETER BOVEY, Oregon, Ill. Filed May 20, 1911. Serial No. 628,458. (Cl. 184—4.)

1. In an oiler for wind mills, the combination of a distributing container, distributing means connected with said container, the container being substantially entirely closed and having an oil receiving nipple, the top of the container being substantially conical and having the nipple projecting from the apex thereof, and a supply pipe adapted to be moved into and away from communicating relation with the nipple.

2. In an oiler for wind mills, the combination of a distributing container, means for distributing oil therefrom, the container having a substantially conical cover formed with a communicating opening at its upper end, a substantially funnel shaped hood adapted to be moved into and away from a position surrounding and inclosing said cover, and a supply pipe connected with said hood and adapted when the hood surrounds the cover to be disposed in communication with the opening of the container.

3. In an oiler for wind mills, the combination of a distributing container, means for distributing oil therefrom, a pipe adapted to detachably communicate with the container for supplying oil thereto under pressure, and a hood connected with said pipe and adapted to engage the container for preventing escape of pressure during the communication of the pipe with the container.



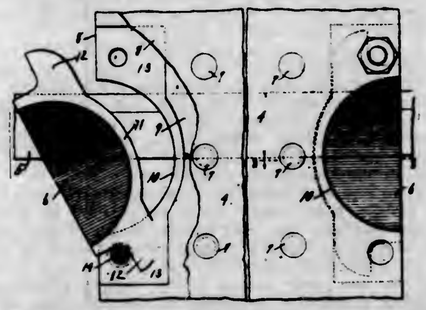
4. In an oiler for wind mills, the combination with a distributing container, distributing means connected therewith, an oil supply pipe adapted to detachably communicate with and deliver oil under pressure to the container, a hood connected to the pipe, and adapted, during the communication of the pipe with the container, to inclose a portion of the container surrounding the point of communication, and a gasket disposed between the hood and container for effecting a non-leaking connection.

5. In an oiler for wind mills, the combination of a distributing container, distributing means therefor, the container having a cover of substantially conical form, a nipple extending through the upper end of the cover, an oil supply pipe adapted to communicate with the nipple, a hood fixed to surround and extend below the end of the oil supply pipe in position for surrounding and engaging the conical cover of the container, the supply pipe being shiftable to and from a position in engagement with the nipple.

[Claims 6 to 8 not printed in the Gazette.]

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1,037,421. PROTECTING DEVICE FOR ELECTRIC-RAILWAY PLOWS. WARREN LANIUS BOYER, Kingston, N. Y. Filed May 1, 1912. Serial No. 694,532. (Cl. 191—82.)



1. In a plow for electric railways, a support adapted to extend through the slot of a conduit, and having a transversely extending recess formed in one of its ends, and a second recess communicating with said first mentioned recess and located between the side faces of said support; a detachable wear resisting member located within said first mentioned recess and adapted to contact with the slot rails, and having a part extending into said second mentioned recess; and means for holding said wear resisting member in place.

2. In a plow for electric railways, a support adapted to extend through the slot of a conduit and comprising two plates spaced apart from one another; a detachable wear resisting member a portion of which lies between said plates and which member projects beyond the outer surfaces of said plates and is adapted to contact with the slot rails; and means engaging the portion of said member lying between said plates for securing said member to said support.

3. In a plow for electric railways, a support adapted to extend through the slot of a conduit and comprising two plates spaced apart from one another and having each a recess; a detachable wear resisting member within said recess and adapted to contact with the slot rails, said member having a portion which lies between said plates; and a securing member extending through said plates and engaging the portion of said wear resisting member lying between said plates, as aforesaid, to thereby hold said member in place.

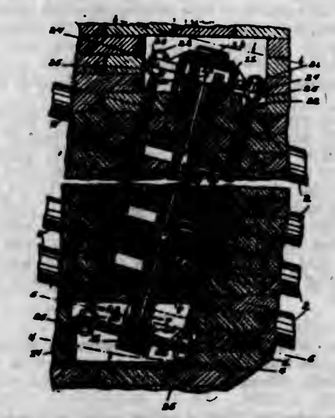
4. In a plow for electric railways, a support adapted to extend through the slot of a conduit and comprising two plates spaced apart from one another and having each a recess; a detachable wear resisting member within said recess and adapted to contact with the slot rails, said member having two lugs lying between said plates; and two securing members extending through said plates and with which said lugs engage to thereby hold said wear resisting member in place.

5. In a plow for electric railways, a support adapted to extend through the slot of a conduit and having a recess formed in one of its ends and located between its side faces; a detachable wear resisting member adapted to contact with the slot rails, and having a centrally located projecting portion extending into said recess; and a securing member in engagement with said projecting portion to thereby hold said wear resisting member in place.

[Claim 6 not printed in the Gazette.]

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1,037,422. SOOT-CLEANER FOR STEAM-BOILERS. WILLIAM J. BRADLEY, Troy, N. Y., assignor to Monarch Steam Blower Company, Troy, N. Y., a Corporation. Filed Sept. 28, 1911. Serial No. 651,752. (Cl. 122—392.)



1. In a device of the class described, and in combination, a box provided with a bottom-opening; means for supplying to said box fluid under pressure; a pipe rotatively mounted in said opening, said pipe and box having coöperating ball-and-socket bearing-members whereby said pipe is suspended from said box through the bottom opening therein; means for rotating said pipe; and nozzles carried by said pipe.

2. In a device of the class described, and in combination, a box provided with a bottom-opening; means for supplying to said box fluid under pressure; a pipe rotatively mounted in said opening, said pipe and box having coöperating ball-and-socket bearing-members whereby said pipe is suspended from said box through the bottom opening therein; means for rotating said pipe; nozzles carried by said pipe; and a bearing rotatively supporting the lower end of said pipe, said bearing affording a free space for maximum expansion of said pipe.

3. In a device of the class described, and in combination, a pipe rotatively supported at one end; means for supplying to said pipe fluid under pressure; a bearing-box provided with a cylindrical opening; a gear-member rotatively mounted adjacent to the outer end of the opening in said bearing-box; and a gear and hub fixed upon the other end of said pipe, said hub being adapted to occupy the cylindrical opening in said bearing-box, and the teeth of said gear being confined within the cylindrical dimensions of said hub, and when said pipe is fully contracted being located partly within said cylindrical opening, said teeth being longitudinally extended to properly engage said gear-member when said pipe is under maximum expansion.

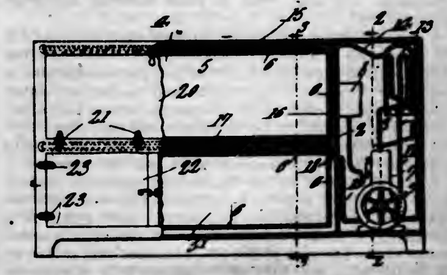
4. In a device of the class described, and in combination, a box provided with a bottom-opening; means for supplying to said box fluid under pressure; a pipe rotatively mounted in said opening, said pipe and box having coöperating ball-and-socket bearing-members whereby said pipe is suspended from said box through the bottom-opening therein; means for rotating said pipe; nozzles carried by said pipe; a bearing-box provided with a cylindrical opening; a gear-member rotatively mounted adjacent to the outer end of the opening in said bearing-box; and a gear and hub fixed upon the lower end of said pipe, said hub being adapted to occupy the cylindrical opening in said bearing-box, and the teeth of said gear being confined within the cylindrical dimensions of said hub, and when said pipe is fully contracted being located partly within said cylindrical opening, said teeth being longitudinally extended to properly engage said gear-member when said pipe is under maximum expansion.

5. In a device of the class described, and in combination, a steam-boiler and boiler-setting; a rotatory pipe mounted in the boiler-setting; nozzles carried by said pipe, the boiler-setting being provided opposite the respective nozzles with suitable apertures communicating with the draft-space of the boiler, a bearing-box for one end of said pipe; a steam-box forming a bearing for the other end of said pipe; and supporting-members embedded in the boiler-setting and connected at their opposite ends, respectively, with said bearing-box and said steam-box.

[Claim 6 not printed in the Gazette.]

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1,037,423. PORTABLE REFRIGERATING APPARATUS. WILLIAM C. BRADY, Akron, Ohio. Filed Sept. 16, 1911. Serial No. 649,781. (Cl. 62—6.)

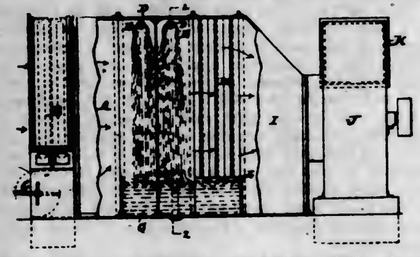


A portable refrigerating apparatus, having a main casing, a vertical partition dividing the same into a machi-

nism holding compartment and a refrigerating compartment, two superposed receptacles mounted in the refrigerating compartment and spaced from the bottom, top, rear and end walls of said compartment, said receptacles also being separated horizontally, hinged doors for said receptacles, and refrigerating coils occupying the spaces above and between the receptacles and substantially the full width and length of the receptacles.

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1,037,424. APPARATUS FOR PURIFYING AIR. WILLIAM G. R. BRAHMER, Buffalo, N. Y., assignor to Warren Webster & Company, a Corporation of New Jersey. Filed Jan. 7, 1908. Serial No. 409,638. (Cl. 98—43.)



1. In an air purifier, the combination of the chamber through which the air is passed, means to control the temperature of the incoming air, means for treating the air to a spray of water, and an eliminator composed of a series of rows of independent vertical bars each consisting of front and rear surfaces arranged obliquely in opposite directions and having their junction formed with a vertical groove to the rear of the plane of the front oblique surface so as to permit the water from the oblique surface to enter the groove but cause the air to pass without excessive obstruction.

2. In an air purifier, the combination of the chamber through which the air is passed, means to control the temperature of the incoming air, means for treating the air to a spray of water, and an eliminator composed of a series of rows of independent vertical bars, the bars of each row being staggered relatively to the bars of the next adjacent row and each consisting of front and rear surfaces arranged obliquely in opposite directions and having their junction formed with a vertical groove and also having the rear free edge of the rear oblique surface terminating in a vertical grooved portion, said grooved portions being adapted to arrest the water driven rearward over the oblique plates and convey it out of the air current.

3. In an air purifier, the combination of the chamber through which the air is passed, means to control the temperature of the incoming air, means for treating the air to a spray of water, and an eliminator composed of a series of vertical bars each consisting of front and rear plates having surfaces arranged obliquely in opposite directions and having their junction formed with a vertical groove by a rearwardly extending part of the front plate being connected with the rear plate a short distance back of its forward edge and said forward edge being in substantial alinement with a plane through the front oblique plate.

4. An eliminator for an air purifier apparatus consisting of a series of rows of independent bars arranged vertically each bar consisting of oblique plates arranged in essentially V shape cross section and having a vertical groove at the junction of the oblique plates and also a vertical groove adjacent to the front face and rear edge of the rearmost oblique plate and the bars of each row being staggered relatively to the bars of the adjacent rows.

5. An eliminator for an air purifier apparatus consisting of a series of rows of independent bars arranged vertically each bar consisting of oblique plates arranged in essentially V shape cross section and having a vertical groove at the junction of the oblique plates, said groove being in the main part back of the plane of the oblique surface of the front plate and the bars of each row being staggered relatively to the bars of the next adjacent rows.

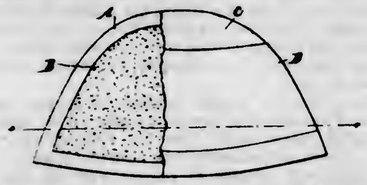
1,037,425. HAIR-TONIC AND METHOD OF COMPOUNDING SAME. JOSEPH L. BROOKS, New York, N. Y. Filed Oct. 5, 1911. Serial No. 652,962. (Cl. 167—5.)

1. The method of compounding hair tonics which consists in, first, separating from bone marrow the constituents having melting points substantially between 48 and 72 degrees centigrade, second, mixing the same with petrolatum and, third, scenting said mixture with odoriferous material.

2. A composition for treating hair, consisting of the constituents of bone marrow having melting points substantially between 48 and 72 degrees centigrade, petrolatum and odoriferous material.

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1,037,426. BOX-TOE FOR BOOTS AND SHOES. JAMES DE S. BROWN and WILLIAM A. STUBBS, New York, N. Y., assignors to said Stubbs. Filed Aug. 3, 1911. Serial No. 642,210. (Cl. 36—77.)



1. The toe-box described, comprising two pieces of fabric with a filling between them consisting of comminuted material and a binder of gum adapted to soften when heated to permit it to be shaped as required in the lasting operation, and to stiffen when cooled to retain such shape.

2. The toe-box described, comprising two pieces of fabric with a filling between them consisting of comminuted leather and a binder of gum adapted to soften when heated to permit it to be shaped as required in the lasting operation and to stiffen when cooled to retain such shape.

3. The toe-box described, comprising two pieces of fabric with a filling between them consisting of comminuted material and a binder of gum adapted to soften when heated to permit it to be shaped as required in the lasting operation and to stiffen when cooled to retain such shape, and an exterior coating of material rendered adhesive by such heating.

4. The toe-box described, comprising two pieces of fabric with a filling between them consisting of comminuted leather with a binder of gum adapted to soften when heated to permit it to be shaped as required in the lasting operation and to stiffen when cooled to retain such shape, and a coating of material applied in the form of a stripe on the exterior of such box and rendered adhesive by such heating.

5. As a new article of manufacture, the toe-box described, in flat form, consisting of two pieces of fabric and a filling between them consisting of comminuted leather and a binder of gum adapted to soften when heated to permit the box to be shaped as required in the lasting operation, and to stiffen when cooled to retain such shape, and an exterior coating of adhesive material adapted to soften when heated and to adhere and stiffen when cooled, whereby said box is complete in itself and conditioned when heated for incorporation in a shoe without further treatment.

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1,037,427. UNIVERSAL JOINT. GEORGE H. BRUSH, Chicago Heights, Ill., assignor of one-third to Wesley G. Nichols, Chicago Heights, Ill. Filed Apr. 18, 1911. Serial No. 621,926. (Cl. 74—19.)

1. In a universal joint, a hollow socket member formed in two parts; a pin extending across said socket member and the ends of which lie in recesses formed in the inner surface of said socket member and terminating short of the exterior surface thereof; and a hollow ball member located within said socket member and having slots within which said pin lies when said parts are assembled; said hollow ball and socket members forming an internal oil containing cavity.



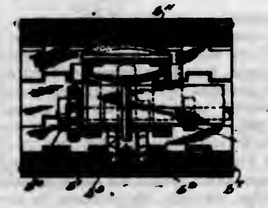


2. In a universal joint, a hollow socket member provided with a detachable portion; a pin, the length of which is less than the diameter of said socket member, extending across said socket member, and the ends of which are held in place between said socket member and the detachable portion thereof; and a ball within said socket member, and having a slot, within which said pin lies when the parts are assembled.

3. In a universal joint, a hollow socket member provided with a detachable portion in threaded engagement therewith and with two oppositely located internal recesses; a pin extending across said socket member and the ends of which lie within said recesses and are engaged and held in place by said detachable portion; and a ball member located within said socket member and having a slot within which said pin lies when the parts are assembled.

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1,037,428. WHEEL-SUPPORT. MORTON G. BUNNELL, Chicago, Ill., assignor to Frederick C. Austin, Chicago, Ill. Filed Sept. 14, 1908. Serial No. 452,876. (Cl. 21—64.)



1. In a vehicle or traveling body, an endless link belt for supporting the same on the ground, and means including tandem wheels having relatively fixed axes for deflecting said belt horizontally to either side, to change the direction of travel thereof, said belt adapted to careen over to either side, relative to said means.

2. In a vehicle or traveling body, an endless traveling supporting belt, wheels adapted to travel only at the center of said belt, and means for changing the direction of travel thereof, means for supporting the upper portion and permitting the said belt to careen over to either side, relative to said wheels.

3. In a vehicle or traveling body, an endless link belt for supporting the same on the ground, wheels adapted to travel only at the center of said belt, a truck frame for said wheels, and means within the belt for changing the direction of travel thereof, mounted on the ends of said truck, said belt adapted to careen over to either side, relative to said wheels.

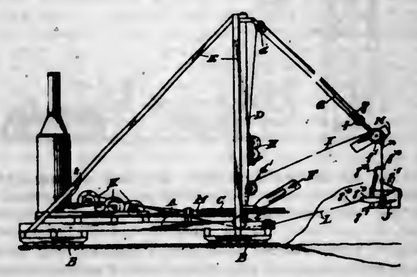
4. In a vehicle or traveling body, an endless link belt for supporting the same on the ground, wheels adapted to travel only at the center of said belt, and said belt being free to careen over to either side while the wheels remain in vertical position.

5. In a wheeled vehicle or traveling body, an endless link belt for supporting the same on the ground, and means for deflecting said belt to either side to change the direction of travel thereof, said belt having the inner surface thereof provided with lugs forming a center groove or track for the wheels of the vehicle, whereby the narrow tread of each wheel rests and travels on the broad belt at a point between the said lugs, permitting the belt to tilt sidewise, said wheels having relatively fixed axes.

[Claims 6 to 31 not printed in the Gazette.]

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1,037,429. EXCAVATOR. MORTON G. BUNNELL, Chicago, Ill., assignor to Frederick C. Austin, Chicago, Ill. Filed Sept. 28, 1908. Serial No. 455,022. (Cl. 37—16.)



1. An excavator comprising a drag-line bucket provided with a drag line operated by a drum, a hoist-line, the bucket being left free to tilt while rising, and means operated by the final upward movement of said hoist-line, carried on the bucket, for depressing the mouth of the bucket to dump the load therefrom.

2. An excavator comprising a drag-line bucket provided with a hoist-line, an element pivoted on the front of the bucket and serving, by the final upward movement of the hoist-line, to depress the mouth of the same to dump the load therefrom.

3. An excavator comprising a drag-line bucket provided with a hoist-line, an element pivoted on the front of said bucket and engaging said line, a stop for engaging the upper end of said element to depress the mouth of the bucket, and means for operating said line to hoist the bucket and cause the said element to engage said stop.

4. An excavator comprising a drag-line bucket provided with a hoist-line, a yielding or spring bucket stop at a point in the length of the line, and means on the bucket for engaging said stop to tilt the bucket and dump the load therefrom.

5. An excavator comprising a drag-line bucket provided with a drag line operated by a drum, a hoist-line having a straight connection thereto, the bucket being left free to tilt while rising, and means operated by the final upward movement of the hoist-line, carried on the bucket, for depressing the mouth of the bucket to dump the load therefrom.

[Claims 6 to 16 not printed in the Gazette.]

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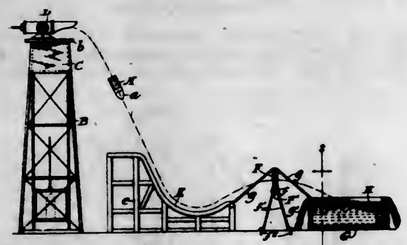
1,037,430. SPECTACULAR ILLUSION APPARATUS. WILLIAM J. BURKE, New York, N. Y. Filed Dec. 18, 1911. Serial No. 666,505. (Cl. 46—70.)

1. In an illusion apparatus, a closed car adapted to contain a performer, in combination with a terminal receiving tank provided with a chamber wherein a performer may be concealed, means whereby the car is projected along a predetermined path, a checking and guiding chute intermediate the projecting means and the terminal receiving tank, and a target intermediate the chute and the tank.

2. In an illusion apparatus, a closed car within which a performer may be temporarily concealed, in combination with a terminal receiving tank provided with a chamber wherein a performer may be concealed, means whereby the car is projected along a predetermined path, and a checking and guiding chute intermediate the projecting means and the terminal receiving tank.

3. In an illusion apparatus, a closed car adapted to contain a performer, in combination with a terminal receiving

tank provided with a chamber wherein a performer may be concealed, mechanical means for projecting the car along a predetermined path, a checking and guiding chute intermediate the projecting means and the terminal receiving tank, and a target spaced with relation to the chute and the tank.



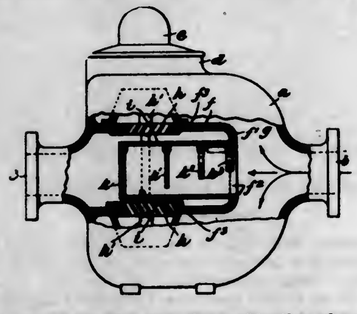
4. In an illusion apparatus, a closed car adapted to contain a performer, in combination with a terminal receiving tank provided with a chamber wherein a performer may be concealed, means whereby the car is projected along a predetermined path, and a checking and guiding chute bridging a part only of the path of said car between the projecting means and the terminal tank.

5. In an illusion apparatus, a closed car adapted to contain a performer, in combination with a terminal receiving tank provided with a chamber wherein a performer may be concealed, means whereby the car is projected along a predetermined path, a checking and guiding chute intermediate the projecting means and the terminal tank, said chute being comparatively short and positioned so as to leave a free path between the projecting means and the chute and between the chute and the terminal tank, and a target located in the path of the carriage and positioned intermediate the chute and the terminal tank.

[Claims 6 to 8 not printed in the Gazette.]

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1,037,431. WATER-METER. JAMES M. BURTON, Long Island City, N. Y., assignor to Neptune Meter Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 6, 1912. Serial No. 688,900. (Cl. 73—68.)



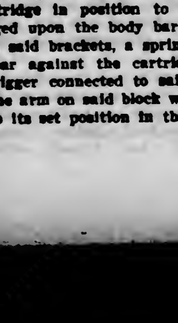
1. In a proportional meter, the combination of a meter shell having an inlet at one end and an outlet at the other end, a wall between the inlet and the outlet having a main flow aperture of substantially the same area as the inlet and the outlet and having also a measuring aperture, a free passage from the inlet to the measuring aperture being provided within the shell, a measuring wheel located in the measuring aperture, a sleeve extended from the main flow aperture toward the outlet, and a plurality of resistance valves hung in said sleeve.

2. In a proportional meter, the combination of a meter shell having an inlet at one end and an outlet at the other end, a wall between the inlet and the outlet having a main flow aperture of substantially the same area as the inlet and the outlet and having also a measuring aperture being provided within the shell, a measuring wheel located in the measuring aperture, a sleeve extended from the main flow aperture toward the outlet, and a plurality of resistance valves hung in said sleeve, said resistance valves being of different areas.

3. In a proportional meter, the combination of a meter shell having an inlet at one end and an outlet at the other end, a wall provided within the shell between the inlet and the outlet having a main flow aperture of substantially the same area as the inlet and the outlet and having also a measuring aperture, a measuring wheel located in the measuring aperture, a sleeve extended from the main flow aperture toward the outlet, and a plurality of resistance valves hung in said sleeve, said resistance valves being of different areas and of substantially equal weights.

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1,037,432. ALARM DEVICE. VINCENT BUTLER, Washington, D. C. Filed Aug. 9, 1911. Serial No. 643,118. (Cl. 116—42.)



1. A burglar alarm comprising a body bar having an enlarged bifurcated head formed on one end, a trigger block pivotally mounted in said head and having an arm formed thereon, said body being provided with a lug at its other end provided with a cartridge receiving chamber, means mounted upon the body for positioning the cartridge in said chamber and removing the same therefrom, a sliding hammer mounted on the body to engage said cartridge and explode the same, and a trigger connected to said hammer and adapted for engagement with the arm on said block whereby the hammer is moved to its set position in the pivotal movement of the block.

2. A burglar alarm comprising a body bar bifurcated at one end and having spurs formed upon its other end, a block pivotally mounted in the bifurcated end of the bar and having an arm formed thereon, said body bar being provided with a cartridge chamber, a cartridge carrying block slidably mounted upon the bar whereby the cartridge may be inserted and removed from the chamber, means normally holding said block against movement and yieldingly retaining the cartridge in position to be exploded, a spring pressed sliding hammer bar, and a trigger bar connected to said hammer bar and engaging the arm on said pivoted block.

3. A burglar alarm comprising a body bar having spurs formed on one end, a block pivotally mounted in the other end of said bar and provided with a spur, said block having an arm integrally formed therewith, a lug formed on the body bar provided with a cartridge chamber, a sliding cartridge carrying block, guides for said block secured to the body bar, a spring yieldingly holding said block against sliding movement and normally acting to retain the cartridge in position to be exploded, guide brackets arranged upon the body bar, a sliding hammer bar mounted in said brackets, a spring acting to project said hammer bar against the cartridge to explode the same, and a trigger connected to said hammer bar and engaged with the arm on said block whereby the hammer bar is moved to its set position in the pivotal movement of the block.

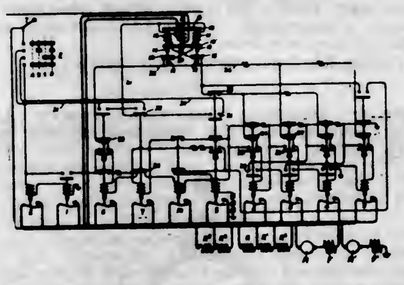


4. A burglar alarm comprising a body bar, a block pivotally mounted in one end of said bar having an arm formed thereon, a chambered lug formed upon the body bar, a cartridge carrying block slidably mounted on the bar and normally engaged with said lug to dispose the cartridge carried thereby within the chamber, a spring yieldingly holding said block against sliding movement, a spring pressed hammer mounted upon the bar and adapted to engage the cartridge to explode the same, a trigger pivotally connected to said hammer and engaged with the arm on said block, a guide for said trigger mounted on the body bar, and means for supporting said trigger in an inoperative position.

5. A burglar alarm comprising a body bar, a block pivotally mounted in one end of said bar having an arm formed thereon, a chambered lug formed on the body bar, a cartridge carrier mounted on the bar to position the cartridge in the chamber or remove the same therefrom, a sliding spring pressed hammer mounted upon the body bar to engage the cartridge and explode the same, a right-angular trigger bar pivotally connected to the hammer bar at one end and engaged at its other end with the arm on said block whereby said hammer bar is moved to its set position in the pivotal movement of the block, an arm mounted on the body bar to guide said trigger, a plate arranged upon said arm and extending over the trigger to limit its outward pivotal movement, and a pin adapted to be disposed beneath said trigger to hold the same in an inoperative position.

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1,037,433. MOTOR-CONTROL SYSTEM. EUGENE B. CARICHOFF, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Feb. 19, 1912. Serial No. 678,551. (Cl. 172—179.)



1. In a series parallel system of motor control, a pair of motors and sections of resistance therefor, a plurality of contactors, a master controller arranged to energize certain of said contactors to connect the motors and resistances in series, a relay mechanism for controlling the energization of certain of said contactors to produce a time interval between the successive energizations, and connections whereby said contactors successively close under the control of said mechanism in delayed progression to first cut out the resistance in series position then after the proper interval to establish parallel connections and finally after another interval to cause the resistance contactors to again operate to cut out the resistance in the parallel position.

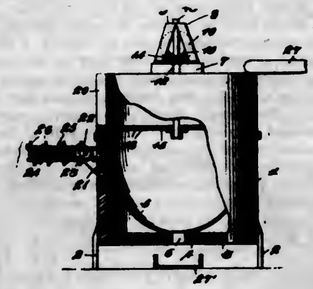
2. In a series parallel system of motor control, a pair of motors and sections of resistance therefor, a plurality of contactors, a master controller arranged to energize certain of said contactors to connect the motors and resistances in series, a combined time and current limit relay mechanism for controlling the energization of certain of said contactors to produce a time interval between the successive energizations thereof, and connections whereby said contactors successively close under the control of said mechanism in delayed progression to first cut out the resistance in series position and close the full series contactor, interlocking connections whereby the resistance contactors are opened when the full series contactor closes, and connections whereby parallel connections are established after the proper interval following the closing of the full series contactor and finally after the proper interval causing the resistance contactors to again operate to cut out the resistance in the parallel position.

3. In a series parallel system of motor control, a pair of motors and resistances therefor, a plurality of contactors, a master controller arranged to energize certain of said contactors in the first position to connect the motors and resistances in series, a two wire notching relay energized by the master controller in the second position to progressively actuate and give a time interval between certain other of said contactors including a full series contactor to cut out said resistance and establish full series there being only one contactor for each section of resistance cut out, interlocking connections whereby the resistance contactors open when the full series contactor closes, and connections through the relay in the third position of the master controller whereby certain other contactors are closed to establish parallel connections of the motors through all but the last section of resistance and open the full series contactor and in the fourth position to again energize the resistance contactors progressively through the relay to cut out the resistance connected in parallel.

4. In a series parallel system of motor control, a pair of motors and sections of resistance therefor, a number of contactors equal to twice the number of resistance sections, a master controller arranged to energize certain of said contactors in the first position to connect the motors and resistances in series, a relay mechanism energized by the master controller in the second position to progressively actuate and give a time interval between certain of said contactors including a full series contactor to cut out said resistance, interlocking connections whereby the resistance contactors are opened when the full series contactor closes and connections through the relay in the third position of the master controller whereby certain contactors are closed to establish parallel connections of the motor and open the series contactor and in the fourth position to again energize the resistance contactors progressively through the relay to cut out the resistance connected in parallel.

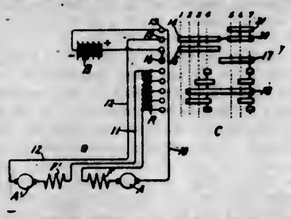
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1,037,434. GOLD-WASHING MACHINE. JAMES M. CARTER, Pendleton, Oreg. Filed Oct. 2, 1911. Serial No. 652,418. (Cl. 83—56.)



An ore grading machine, including a tub, the bottom of which has formed therein a central opening, a conical receptacle mounted in the tub and having its lower end formed with a neck adapted to pass through said opening, the said tub formed with an opening on one side near the top thereof a horizontally disposed perforated disk disposed in said tub at the lower edge of said opening at the side thereof, said disk being flush with the upper edge of the said conical receptacle, means for rotating said disk, and conveyers disposed on the opposite sides of said tub.

1,037,435. MOTOR-CONTROL SYSTEM. FRANK E. CASS, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Dec. 4, 1911. Serial No. 663,733. (Cl. 172—179.)



1. In a series parallel system of motor control, in combination, a storage battery, a pair of motors having their fields connected between the armatures and a resistance connected between the fields, a permanent connection from one side of the battery to one of said armatures, and means for connecting the opposite side of the battery either to the other armature or the resistance.

2. In a series parallel system of motor control, in combination, a storage battery, a pair of motors, a starting resistance for said motors, a permanent connection from one side of the battery to one of the motor armatures and thence in series through the field of said motor, the starting resistance, the field and armature of the second motor successively, and means for connecting the opposite side of the battery either to the armature of the second motor or to an intermediate point of the resistance.

3. In a series parallel system of motor control, in combination, a storage battery, a pair of motors, a permanent connection from one side of the battery to one of the motor armatures and thence in series through the field of said motor and the field and armature of the second motor successively, and means for connecting the opposite side of the battery either to the armature of the second motor or to a point between the fields of the motors.

4. In a series parallel system of motor control, in combination, a storage battery, a pair of motors, a permanent connection from one side of the battery to one of the motor armatures and thence in series through the field of said motor and the field and armature of the second motor successively, and a controller arranged to connect the opposite side of the battery with the armature of the second motor for starting and to then connect it to a point between the motor fields and establish a direct connection between the motor armatures for parallel running.

5. In a series parallel system of motor control, in combination, a storage battery, a pair of motors, a resistance, a permanent connection from one side of the battery to one of the motor armatures and thence in series through the field of said motor, the resistance, and the field and armature of the second motor successively, and a controller arranged to connect the opposite side of the battery with the armature of the second motor and gradually cut out the resistance for starting, and then connect the last mentioned side of the battery to an intermediate point on the resistance and establish a circuit connection between the motor armatures for parallel running.

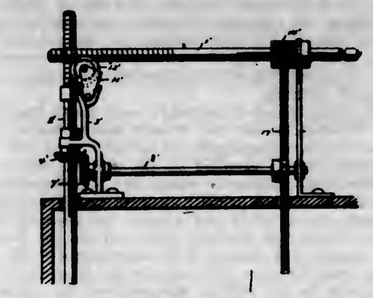
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1,037,436. MECHANICAL MOVEMENT. PLINY CATUCCI, Newark, N. J., assignor to A. F. Meisselbach & Brother, a Corporation of New Jersey. Filed Dec. 2, 1911. Serial No. 663,571. (Cl. 74—40.)

1. In a mechanical movement the combination of a pair of shafts, gear connections between said shafts for producing simultaneous rotation thereof, and a motion of translation in the direction of the axis of one of said shafts.

2. In a mechanical movement, the combination of a pair of shafts, a gear connection between and for simultaneously rotating said shafts, a second gear connection between said shafts for producing a motion of translation in one of said shafts in the direction of its axis.

3. In a mechanical movement, the combination of a shaft having a worm thread thereon, a worm wheel meshing with said worm thread, a second worm threaded shaft meshing with said worm wheel and change gear connection between said shafts for producing rotation therein, and in conjunction with said worm wheel a longitudinal movement in one of said shafts.



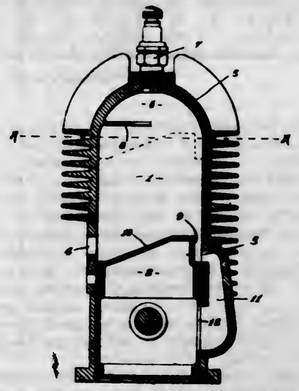
4. In a mechanical movement, the combination of a pair of angularly disposed screw threaded shafts, a worm wheel engaging the screw threads of said shafts, intermeshing change gears mounted upon and connecting said shafts respectively, whereby the rotation of one of said shafts will produce a rotation and longitudinal translation of the other shaft.

5. In a mechanical movement, the combination of a pair of angularly disposed screw threaded shafts, a worm wheel meshing with the screw threads of each of said shafts, a gear wheel splined to one of said shafts, intermeshing change gears connecting said first named gear with the other shaft, whereby the rotation of said latter shaft will produce a simultaneous rotation and longitudinal translation of the other shaft.

[Claims 6 to 9 not printed in the Gazette.]

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1,037,437. INTERNAL-COMBUSTION ENGINE. AURIN M. CHASE, Syracuse, N. Y. Filed Sept. 29, 1910. Serial No. 584,398. (Cl. 123—73.)

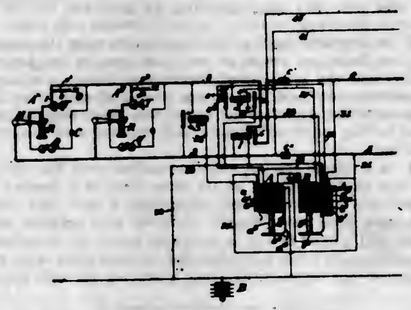


1. In a two cycle internal combustion engine, a cylinder, and a piston moveble in the cylinder, the cylinder having inlet and exhaust ports located in front of the position occupied by the piston head when the piston is at the limit of its out stroke, and the cylinder also having a diaphragm in its compression chamber extending part way across such chamber, the diaphragm projecting from the opposite side of the cylinder from that on which the inlet port is located, and a spark plug having its electrodes exposed within the main part of the chamber of the cylinder above the diaphragm near a line extending parallel to the direction of movement of the piston and between the edge of the diaphragm and the opposite wall of the cylinder, substantially as and for the purpose described.

2. In a two cycle internal combustion engine, a cylinder, and a pistou movable in the cylinder, the cylinder having inlet and exhaust ports located in front of the position occupied by the piston head when the piston is at the limit of its ont stroke, and the cylinder also having a diaphragm in its compression chamber extending part way across such chamber forming a pocket for the gas, the pocket being arranged on the opposite side of the cylinder to that on which the inlet port is located, the wall of the compression chamber being curved to deflect the incoming charge into said pocket, and a spark plug supported by the cylinder and having its electrodes located near such pocket above the diaphragm, substantially as and for the purpose described.

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1,037,438. TELEPHONE-EXCHANGE SYSTEM. EDWARD E. CLEMENT, Washington, D. C. Filed Mar. 20. 1908. Serial No. 422,314. (Cl. 179—17.)



1. In a telephone exchange system, a plurality of subscribers' lines, means for automatically connecting said lines, means for testing a busy line, including a test relay, and other means for shunting said test relay when the line calling is also the line called, thereby preventing the establishment of a false test circuit.

2. In a telephone exchange system, a plurality of normally open subscribers' line circuits, means for closing said line circuits when a line is calling, automatic switches for connecting said line circuits, means for testing a busy line including a test relay, other means operating simultaneously for shunting said test relay and rendering it inoperative thereby preventing a false busy test when a calling line is the same as the called line, and impulse sending devices at the subscribers' stations for actuating said automatic switches.

3. In a telephone exchange system, a plurality of normally open subscribers' lines, means for closing said lines when a station is calling, automatic switches for connecting said lines, a test relay adapted ordinarily to establish a test circuit on a busy line and a second relay operating simultaneously and arranged to short-circuit the test relay when the calling and the called line are the same, thereby preventing the establishment of a false test-circuit.

4. In a telephone exchange system, a plurality of normally open subscribers' lines, means actuated by a calling subscriber for automatically closing his line, automatic switches for connecting said lines, a test relay adapted under ordinary conditions to effect the disconnection of the interconnected lines when the called line is busy, a second relay arranged to short circuit said test relay when the calling and the called lines are the same, thereby preventing the breaking of the completed connection, and a third relay arranged to actuate said test and short circuiting relays simultaneously.



5. In a telephone exchange system, a plurality of normally open subscribers' lines, means actuated by a calling subscriber for automatically closing his line, automatic switches for connecting said lines, a test relay adapted under ordinary conditions to effect the disconnection of the interconnected lines when the called line is busy, a second relay arranged to disable said test relay when the calling and the called lines are the same, thereby preventing the breaking of the completed connection, and a third relay arranged to actuate said test and disabling relays simultaneously.

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1,037,439. DOOR-STOP. ANTOINETTE A. COFFIN, Cleveland, Ohio. Filed Jan. 24, 1912. Serial No. 673,105. (Cl. 16—79.)



1. A safety stop for a door comprising a one piece plate adapted to lie loosely and removably on the floor beneath the door and having a stop projecting upward from the top of the plate and adapted to engage the rear side of the door and having a lug projecting downward from the bottom of the plate and adapted to releasably engage a socket in the floor, the said plate being movable laterally over the surface of the floor around the said lug as an axis.

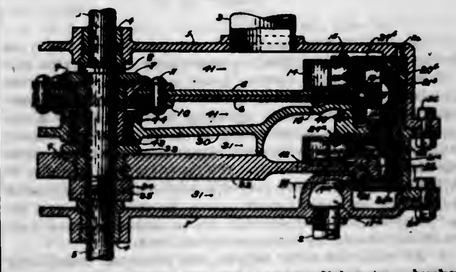
2. A safety stop for a door comprising a metal plate adapted to lie removably on the floor beneath the door and having a stop projecting upward from the top of the plate and adapted to engage the rear side of the door, and having a pin circular in cross section projecting downward from the bottom of the plate and adapted to releasably engage a socket in the floor, the said plate being freely removable vertically from the floor.

3. A safety stop for a door comprising a metal plate adapted to lie removably on the floor beneath the door and having a stop projecting upward from the top of the plate and adapted to engage the rear side of the door, and having a pin circular in cross section projecting downward from the bottom of the plate and adapted to releasably engage a socket in the floor, the said plate being freely removable from the floor and a wood strip removably secured to the top of the plate.

4. A safety stop for a door comprising a plate adapted to lie beneath the bottom edge of the door; an upwardly projecting stop carried by the plate and adapted to engage the rear face of the door; and a vertically movable bolt carried by the plate and adapted to engage a socket in the floor beneath the door.

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1,037,440. TURBINE. DWIGHT S. COLE, Grand Rapids, Mich. Filed Mar. 21, 1910, Serial No. 550,629. Renewed Jan. 2, 1912. Serial No. 669,125. (Cl. 121—58.)



1. A turbine engine, comprising two disk rotors, buckets on opposite sides of each of the said rotors, a case inclosing the rotors and having a partition between the rotors, a nozzle in the case to admit steam radially to the first rotor, a nozzle in the partition to admit steam to the second rotor, and return guide vanes opposite the periphery of each

rotor to radially return the steam escaping from one side of each rotor to the other side of the same.

2. A turbine engine, comprising a case having a partition therein dividing the same into two separate compartments, a disk rotor in each compartment, buckets on each side of each rotor, nozzles in the case and partition to discharge steam radially outward into the buckets on one side of each rotor and guide vanes opposite the periphery of each rotor to return steam radially inward to the other side of each rotor.

3. A turbine engine, comprising a case having a partition dividing the same into separate compartments, a disk rotor in each compartment each having a single series of buckets on one side face and two concentric series of buckets on the other side face spaced apart, a nozzle in the case and a nozzle in the partition each adapted to discharge steam radially outward into the first series of buckets of the respective rotor, guide vanes in the case opposite the periphery of each rotor to return steam to the outer series of buckets on the other side of the respective rotor, and guide vanes between the concentric series of buckets of each rotor.

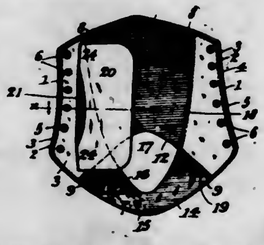
4. A turbine engine, comprising a disk rotor, a single series of buckets on one side of the rotor, a nozzle to discharge steam outward through said buckets, return guide vanes opposite the periphery of the rotor, a series of buckets on the opposite side of the rotor and opposite the first named series of buckets to receive steam from the said guide vanes, a third series of buckets on the rotor and spaced apart from the second series, and guide vanes between the second and third series of buckets.

5. A turbine engine, comprising a disk rotor, a casing inclosing the same, a series of buckets on one side of the rotor, a nozzle supported by the case near one side of the rotor and adapted to discharge steam outward through said buckets, return guide vanes opposite the periphery of the rotor, two concentric series of buckets on the other side of the rotor and spaced apart, a series of guide vanes between the said two series of buckets, and an annular plate supporting the guide vanes and secured to the case.

[Claims 6 to 13 not printed in the Gazette.]

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1,037,441. ANKLE SUPPORT AND PROTECTOR. HENRY JAMES COLLIS, Taunton, Mass. Filed May 4, 1909. Serial No. 493,869. (Cl. 128—52.)



1. An improved ankle support and protector of the class described, comprising flexible non-elastic front strips embodying a face strip and an inner strip secured together and constituting retaining members, said retaining members being provided with fastening means at their front edge, a body portion consisting of strips wholly of elastic fabric or webbing and having their ends connected with the edges of said front strips, the inner strip of one of said retaining members being provided with a slit, and a tongue flap having an extension at one of its side edges and inserted in said slit and secured only to said inner strip, substantially as and for the purpose set forth.

2. An improved ankle support and protector, comprising flexible non-elastic members embodying a face strip and an inner strip at the front, said members being secured together and provided with fastening means at their front edge, a body portion in connection with said members and comprising parts adapted to surround the ankle and pass under the instep, the inner strip of one of said front members being provided with a slit, and a tongue flap having an extension at one of its side edges and inserted in said slit and secured only to said inner strip, substantially as and for the purpose set forth.

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1,037,442. BRACKET FOR RELEASE-RIGGING. SAMUEL H. CONWELL, Tarentum, Pa., assignor to Walter P. Murphy, Chicago, Ill. Filed Sept. 11, 1911. Serial No. 648,727. (Cl. 213—59.)



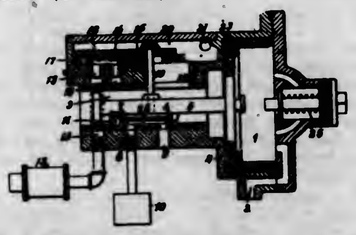
1. In a release rigging, the combination with the operating rod having a crank at its inner end, of brackets in which said rod is mounted, comprising a base, two arms projecting from said base, and a band fitting around said arms, the inner edge of said band having concaved seats for said rod, said band providing an unbroken surface to prevent the crank becoming jammed between said arms.

2. In a release rigging, the combination with the operating rod having a crank at its inner end, of brackets in which said rod is mounted, comprising a base, two arms projecting from said base, a lug on one of said arms and a band fitting around said arms, the inner edge of said band having concaved seats for said rod, and a slot to clear said lug.

3. In a release rigging, the combination with the operating rod having a crank at its inner end, of a bracket in which said rod is mounted, comprising a base, two arms extending from said base, a concaved seat between said arms, and a band fitting around said arms, the inner edge of said band having concaved seats constituting with the concaved seat between the arms, a bearing for said rod.

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1,037,443. AUTOMATIC VALVE DEVICE FOR AIR-BRAKES. MURRAY CORRINGTON, New York, N. Y., assignor, by mesne assignments, to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 13, 1911. Serial No. 620,890. (Cl. 188—15.)



1. In a fluid pressure brake, the combination with a train pipe, auxiliary pressure chamber, expansion chamber, and a valve and abutment subject to the opposing pressure of the train pipe and pressure chamber for supplying fluid from the pressure chamber to the expansion chamber, of an additional source of supply, a brake cylinder and another valve operated by said abutment for supplying fluid for the additional source to the brake cylinder.

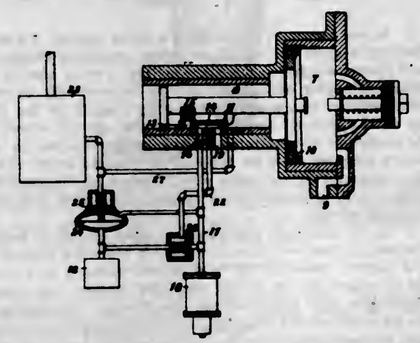
2. In a fluid pressure brake, the combination with a train pipe, auxiliary pressure chamber, and expansion chamber, of a brake cylinder, and additional source of pressure supply, and a valve device comprising an abutment operating in response to variations in train pipe pressure, and main and auxiliary valves actuated by said abutment for controlling the supply of fluid from the pressure chamber to the expansion chamber and the release from said chamber to the atmosphere, and another valve also actuated by said abutment for controlling the supply of fluid from the additional source to the brake cylinder.

3. In a fluid pressure brake, the combination with a train pipe, auxiliary pressure chamber, and expansion chamber, of a brake cylinder, an additional source of pressure supply, and a valve device comprising a movable abutment subject to the opposing pressures of the train pipe and pressure chamber, and two sets of main and auxiliary valves actuated by said abutment for simultaneously controlling the supply of fluid to the expansion chamber and to the brake cylinder.

4. In a fluid pressure brake, the combination with a train pipe, auxiliary pressure chamber, and expansion chamber, of a brake cylinder, an additional source of pressure supply, and a valve device comprising a movable abutment subject to the opposing pressures of the train pipe and pressure chamber, and main and auxiliary valves actuated by said abutment for simultaneously controlling the supply of fluid from the pressure chamber to the expansion chamber and from the additional source to the brake cylinder, and for controlling the release from the expansion chamber and from the brake cylinder to the atmosphere.

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1,037,444. MAINTAINING DEVICE FOR AIR-BRAKES. MURRAY CORRINGTON, New York, N. Y., assignor, by mesne assignments, to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 13, 1911. Serial No. 620,892. (Cl. 188—1.)



1. In a fluid pressure brake, the combination with a train pipe, auxiliary reservoir, and brake cylinder, of a maintaining chamber, an automatic valve device operating in response to variations in train pipe pressure for opening and closing communication between the brake cylinder and maintaining chamber, and means governed by the pressure in the maintaining chamber for controlling a supply of fluid to the brake cylinder to compensate for leakage.

2. In a fluid pressure brake, the combination with a train pipe, auxiliary reservoir, and brake cylinder, of a maintaining chamber, a triple valve device having means for opening communication between the brake cylinder and maintaining chamber in service application position, and closing same in lap position, and means governed by the pressure in the maintaining chamber for controlling a supply of fluid to the brake cylinder to compensate for leakage.

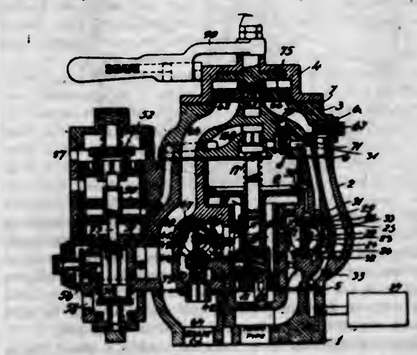
3. In a fluid pressure brake, the combination with a train pipe, auxiliary reservoir, and brake cylinder, of a maintaining chamber, a triple valve device for supplying fluid from the auxiliary reservoir to the brake cylinder and to the maintaining chamber in service position, and having means for cutting off communication between the brake cylinder and the maintaining chamber in lap position, and a maintaining valve device governed by the opposing pressures of the maintaining chamber and the brake cylinder for controlling a supply of fluid to the brake cylinder to compensate for leakage.

4. In a fluid pressure brake, the combination with a train pipe, auxiliary reservoir, and brake cylinder, of a maintaining chamber, a triple valve device having means for supplying fluid from the auxiliary reservoir to the brake cylinder and to the maintaining chamber in service application position, for cutting off communication between the brake cylinder and the maintaining chamber in lap position, and for releasing fluid from the brake cylinder and maintaining chamber in release position, of a maintaining valve device governed by the pressure in the maintaining chamber for controlling a supply of fluid to the brake cylinder.

5. In a fluid pressure brake, the combination with a train pipe, auxiliary reservoir, and brake cylinder, of a maintaining chamber, a supplemental reservoir, a triple valve device having means for opening and closing communication between the brake cylinder and the maintaining chamber, and a maintaining valve device governed by the pressure in the maintaining chamber for controlling a supply of fluid from the supplemental reservoir to the brake cylinder when the triple valve is in lap position.

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1,037,445. FLUID-PRESSURE-BRAKE APPARATUS. MURRAY CORRINGTON, New York, N. Y., assignor, by mesne assignments, to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 13, 1911. Serial No. 620,893. (Cl. 188—7.)



1. In a fluid pressure brake apparatus, the combination of an engineer's brake valve, a train pipe, a reservoir, a piston operating a main valve and a graduating valve, and means for converting said reservoir from an equalising to an auxiliary reservoir, and vice versa, and for converting said piston and valves from an equalising discharge apparatus to a triple valve apparatus, and vice versa.

2. In a fluid pressure brake apparatus, the combination of a piston in a chamber, a train pipe communicating with one side of said piston, a reservoir communicating with the other side thereof, means for alternating the two pressures from the train pipe and from said reservoir so that each pressure shall be alternately on either side of said piston, and means for varying the pressure on said piston for operating the same so that said piston may at one time serve the purpose of an equalising discharge piston for venting the train pipe to the atmosphere and at another time serve the purpose of a triple valve piston for causing application of brakes on an engine.

3. In a fluid pressure brake apparatus, the combination of a piston in a chamber having train pipe pressure on one side and pressure from a reservoir on the other side, means under control of the engineer for varying the pressure on said piston to operate the same, and means for reversing the pressures on said piston so that the pressure from the train pipe shall be on that side formerly having the pressure from said reservoir, and vice versa.

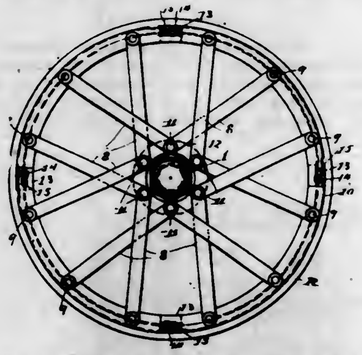
4. In a fluid pressure brake apparatus, the combination with a main reservoir, train pipe and brake cylinder, of an equalizing piston and discharge valve for controlling the train pipe discharge in service applications, and means controlled by the movement of said piston under a sudden reduction in train pipe pressure for supplying fluid from the main reservoir to the brake cylinder.

5. In a fluid pressure brake apparatus, the combination with a main reservoir, train pipe and brake cylinder, of a piston subject on one side to train pipe pressure, means operated through the movement of the piston in one direction for controlling the train pipe discharge in service applications, and means operated through the movement of the piston in the opposite direction for supplying fluid from the main reservoir to the brake cylinder.

[Claims 6 and 7 not printed in the Gazette.]

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1,037,446. METALLIC RESILIENT WHEEL. THOMAS H. COULTER, Cleveland, Ohio, assignor of one-half to John T. Schleifenheimer. Filed Aug. 7, 1911. Serial No. 642,686. (Cl. 152—30.)



1. In a resilient metal wheel, the combination with an axial member, of flanged overlapping hub sections longitudinally movable on said axial member, a retractile coiled spring connecting said flanged hub sections and adapted to tend to draw them together, a wheel rim, and crossed spokes secured to said flanged hub sections, and to said rim, said rim divided between some of said spokes.

2. The combination in a metallic resilient wheel for a vehicle of a sectional rim, the sections thereof slidable on each other, a hub formed in overlapping sections slidable on each other, each hub provided with a flange on its outer end, a contractile spring over the hub, adapted to tend to draw the sections together, yielding spokes arranged to cross each other at an angle, and secured to the rim sections at their outer ends and to the said flanges at their inner ends, the said spokes adapted to spread outwardly at their inner ends to separate said hub sections and at their outer ends to separate said rim sections when the weight of the vehicle comes upon them.

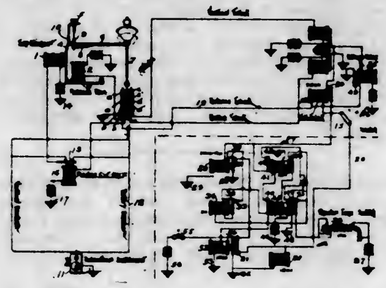
3. The combination with a sectional rim, the said sections overlapping and slidingly movable upon each other, of a hub comprising two sections overlapping and slidingly movable upon each other, a device tending to draw said sections together, and resilient spokes, pivoted to said hub sections, said spokes arranged in pairs, and crossing each other and the outer ends of two pairs of spokes pivoted in adjoining rim sections.

4. The combination in a metallic resilient wheel for a vehicle of a sectional rim, the sections thereof having overlapping ends slidable on each other, an axle, a hub formed in overlapping sections, each section provided with a flange, the said sections shouldered at adjacent ends to form an air chamber about said axle, the outer hub section perforated for air admission, a series of crossed spokes pivoted to said flanges, and the spokes of two pairs pivoted to adjoining rim sections, means for securing said hub sections elastically together, and means for securing said rim sections slidably together.

5. The combination in a metallic resilient wheel for a vehicle, of an axle, hub sections slidingly movable on said axle and one section sleeved over the other section and forming an air chamber therebetween, the outer section perforated for communication between said air chamber and the outer air, resilient means tending to draw said sections together, resilient spokes secured to the outer edges of said hub sections, and a metallic rim to which the outer ends of the spokes are sleeved.

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1,037,447. ELECTRICAL APPARATUS. THOMAS F. CROCKER, Dayton, Ohio. Filed Sept. 18, 1911. Serial No. 649,922. (Cl. 179—18.)



1. In an electrical apparatus, a main circuit, a switch adapted to close the circuit, a switch restoring magnet in said circuit adapted to open the switch, a relay also in the circuit affording such resistance as to normally prevent the operation of the switch restoring magnet at the closing of the circuit, and a supplemental circuit closed by the operation of said relay a slow acting member in said circuit adapted after an interval of time to short circuit the resistance in the main circuit whereby the restoring magnet will be permitted to restore the switch and open the main circuit.

2. In an electrical apparatus, a main circuit, a switch adapted to close said circuit, a switch restoring magnet in said circuit, resistance in said circuit adapted to prevent the operation of the switch restoring magnet, and means including a slow acting switch energized by the closing of the main circuit for removing said resistance from the circuit, to permit the operation of the switch restoring magnet after the elapse of an interval of time from the closing of the main circuit.

3. In an electrical apparatus, a main circuit, a switch adapted to close the circuit, a switch restoring magnet in said circuit, a relay energized by the closing of said circuit by the switch, but normally preventing the operation of the restoring magnet, a supplemental circuit closed by the operation of said relay, a thermostatic switch in said circuit adapted by its operation to cause the relay of the main circuit to be short circuited, thereby permitting the operation of the switch restoring magnet.

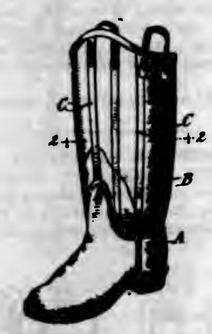
4. In an electrical apparatus, a main circuit, a switch adapted to close the circuit, a switch restoring magnet in said circuit, a second circuit closed by the operation of the relay of the main circuit, a magnet in said second circuit adapted upon operation to close the main circuit in such way as to energize the restoring magnet, a relay also in said second circuit affording such resistance as to prevent the operation of the circuit closing magnet, a third circuit closed by the relay of the second circuit, a relay in said third circuit, and the heat coil of a thermostatic switch also in said circuit and affording such resistance that the relay will not operate until the heat coil is removed from the circuit, the said thermostatic switch being adapted to short circuit the heat coil after an interval of time from the closing of the circuit, thereby permitting the operation of the third circuit relay, which closes a succeeding circuit, a slow acting relay in the succeeding circuit which after the elapse of an interval of time acts to exclude the resistance from the second circuit mentioned permitting the second circuit magnet to operate to exclude the resistance from the main circuit enabling the restoring magnet to retract the switch.

5. In an electrical apparatus, a main circuit, a switch adapted to close said circuit, a switch restoring magnet in said circuit, resistance in said circuit normally preventing the operation of the restoring magnet, and means including a slow acting electrically controlled member for automatically removing the resistance from the circuit after the elapse of an interval of time from the closing of the circuit whereby the restoring magnet will be enabled to retract the switch substantially as specified.

[Claims 6 to 10 not printed in the Gazette.]

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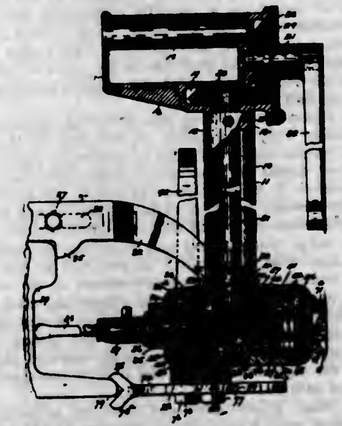
1,037,448. RUBBER BOOT. JOHN T. CROWLEY, Beacon Falls, Conn., assignor to The Beacon Falls Rubber Shoe Company, Beacon Falls, Conn., a Corporation of Connecticut. Filed Apr. 1, 1912. Serial No. 687,738. (Cl. 36—4.)



A rubber boot having a plurality of outside ribs upon the leg extending substantially from the top of the leg to the upper and molded in the rubber and each rib having a width substantially exceeding its thickness.

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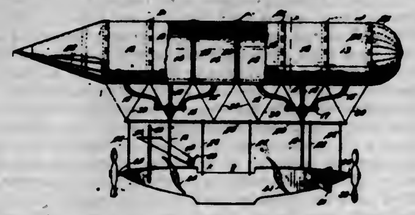
1,037,449. DRILL. ROBERT B. CRUMP and WALTER M. ROBERTSON, New York, N. Y. Filed June 16, 1911. Serial No. 633,515. (Cl. 77—9.)



1. In a drill, a vertically disposed jacket, a head provided upon the upper end of the jacket and having a chamber therein, a base held to the lower end of the jacket and having a chamber therein, said base having a bearing in one part thereof, a vertically disposed shaft rotatable in the vertical jacket, a bevel gear held upon the upper end of the shaft within the chamber of the head, a second bevel gear arranged within said chamber and meshing with the first bevel gear, a crank adapted to revolve the second bevel gear, three bevel gears provided upon the lower end of the vertical shaft, a longitudinally disposed shaft journaled in the bearing of the base, said shaft having a threaded portion interiorly of the chamber of the base, a chuck provided upon one end of the longitudinal shaft and adapted to carry a bit, a bevel gear held upon the longitudinal shaft and meshing with one of the bevel gears upon the lower end of the vertical shaft, an interiorly threaded sleeve provided upon the threaded portion of the longitudinal shaft, two bevel gears loosely keyed upon the sleeve and meshing with the second and third bevel gears upon the vertical shaft, a toothed annular flange provided upon the smaller face of each of the bevel gears upon said sleeve, two toothed annular bands, slidably held upon the sleeve and rotatable with said sleeve, each of said bands being adapted to engage the teeth of one of the annular flanges of the bevel gears, and each of said bands having a groove formed in the exterior surface thereof, two levers, each having a pin in one of its ends which is disposed in the groove of one of the annular bands, a rod disposed through an opening in the wall of the base and having one of its ends pivotally held to the opposite end of each of the levers, a spring provided upon the rod and normally serving to force said rod outwardly of the chamber of said base, a foot bar pivotally held upon the base and adapted when moved to move the rod for forcing the toothed annular bands into engagement with the toothed flanges of the bevel gears upon said sleeve.

2. In a drill, a vertically disposed jacket, a head provided upon the upper end of the jacket and having a chamber therein, a base held to the lower end of the jacket and having a chamber therein and an opening through one part of its wall, said base having a bearing opposite to said opening, a boss formed upon the underside of the base, a projecting part provided upon the base within the chamber thereof and having an opening therethrough, a vertically disposed shaft rotatable in the vertical jacket, a bevel gear held upon the upper end of the shaft within the chamber of the head, a second bevel gear arranged within the chamber and meshing with the first bevel gear, a crank adapted to revolve the second bevel gear, three bevel gears provided upon the lower end of the vertical shaft, a longitudinally disposed shaft journaled in the bearing of the base, said shaft having a threaded portion interiorly of the base, a chuck provided upon one end of the longitudinal shaft exteriorly of the base and adapted to carry a bit, a bevel gear held upon the longitudinal shaft and meshing with one of the bevel gears upon the lower end of the vertical shaft, an interiorly threaded sleeve provided upon the threaded portion of the longitudinal shaft, two bevel gears loosely keyed upon the sleeve and meshing with the second and third bevel gears upon the vertical shaft, a toothed annular flange provided upon the smaller face of each of the bevel gears upon said sleeve, two toothed annular bands slidably held upon the sleeve and rotatable with said sleeve, each of said bands being adapted to engage the teeth of one of the annular flanges of the bevel gears, and each of said bands having a groove formed in the exterior surface thereof, two levers, each having a pin in one of its ends which is disposed in the groove of one of the annular bands, two rods guided through openings in the projecting part in the chamber of the base and through the opening in the wall of said base, each of said rods having one of its ends pivotally held to the opposite end of each of the levers, a spring provided upon both of the rods and normally serving to force said rods outwardly of the chamber of the base, two foot-bars pivotally held upon the base and each having a heel adapted to engage the end of one of the rods for forcing the toothed annular bands into engagement with the toothed flanges of the bevel gears, a ratchet provided upon both of the foot-bars, and two pawls, each pivotally held upon the base and adapted to engage one of the ratchets of the foot-bars.

1,037,450. AIRSHIP. JOHANN J. DANIELS, New Rochelle, N. Y. Filed July 5, 1910. Serial No. 570,281. (Cl. 244—6.)



1. An air-ship, a horisontally elongated balloon connected with the same comprising a plurality of transverse inflatable gas-bags and a canvas retaining covering therefor which is open at its lower side to permit the admission thereto and withdrawal therefrom of said bags when they are in a deflated condition, a frame for keeping the lower side of said covering permanetnly open and having a width which is less than the main horisontal transverse diameter of said bags and covering when the same are in inflated condition, whereby said covering and frame may effectually retain the gas bags when they are inflated and said covering serve as an effectual parachute in case of necessity, and means on the ship for variably inflating and deflating said bags; substantially as set forth.

2. An air-ship, a horisontally elongated balloon connected with the same comprising a series of inflatable gas-bags and a canvas retaining covering therefor which is open at its lower side to permit the admission thereto and withdrawal therefrom of said bags, means for keeping the lower side of said covering permanently open so that said covering may serve as a parachute in case of necessity, and means on the ship for inflating and deflating said bags, said covering being in sections detachably connected together at their vertical edges, with each section inclosing a gas-bag, combined with independent gas-compressor on said ship and means connecting the same with independent gas-bags, so as to inflate or deflate to a variable extent the front and rear bags; substantially as set forth.

3. An air-ship, an elongated horisontal frame 12 comprising side and cross-bars supporting the ship, and a horisontally elongated balloon connected with said frame, said balloon comprising a series of inflatable gas-bags and a retaining covering therefor which is open at its lower side and at its lower side edges secured to said frame, whereby said covering may serve as a parachute in case of necessity, combined with independent gas-compressors on said ship and means connecting the same with independent gas-bags, so as to inflate or deflate to a variable extent the front and rear bags, said frame 12 having a width which is less than the main horisontal diameter of said bags and covering when the same are in inflated condition; substantially as set forth.

4. An air-ship, an elongated horisontal frame 12 comprising side and cross-bars supporting the ship, and a horisontally elongated balloon connected with said frame comprising a series of inflatable gas-bags and a retaining covering therefor which is open at its lower side and composed of sections 13 secured at their lower side edges to said frame and at their vertical edges to one another, with each section inclosing a gas-bag and having at one end a diaphragm to separate adjacent gas-bags, said frame 12 having a width which is less than the main horisontal diameter of said bags and covering when the same are in inflated condition, combined with means on the ship for inflating and deflating said bags; substantially as set forth.

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1,037,451. GUN-SIGHT. EMRY DAVIS, New York, N. Y. Filed Aug. 2, 1910. Serial No. 575,061. (Cl. 42—60.)

1. In a device of the character described, in combination, a support, a rear sight, a front sight mounted on said support having a horisontal top with under-cut sides, and a vertically disposed opening adapted to form with the top imaginary cross hair lines to be focused on the point aimed at, said undercut sides adapted to form light spots at each side of said vertically disposed opening.



2. A front sight having an upwardly projecting portion at each side of the center thereof forming an opening therebetween, said upwardly projecting portions having undercut sides.

3. A front sight having an upwardly projecting portion at each side of the center thereof forming an opening therebetween, said upwardly projecting portions having lateral projections extending therefrom.

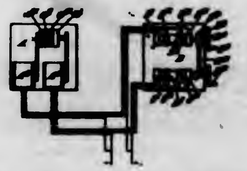
4. A front sight having an upwardly projecting portion at each side of the center thereof forming an opening therebetween, said upwardly projecting portions having parallel lateral projections extending therefrom.

5. A front sight having an upwardly projecting portion at each side of the center thereof forming an opening therebetween, said upwardly projecting portions having under-cut sides and lateral parallel projections extending therefrom.

[Claims 6 to 31 not printed in the Gazette.]

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1,037,452. ELECTRICAL APPARATUS FOR TRANSMITTING AND RECEIVING SIGNALS. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, England. Filed May 4, 1912. Serial No. 695,044. (Cl. 177—338.)



1. In signal transmitting and receiving apparatus, the combination with a plurality of switches at the transmitting station and a plurality of motors at the receiving station, of means for electrically connecting each of the said switches to its corresponding motor, means for positively inter-connecting said switches, and means for enabling any one of the switches to be operated independently of the other or others at any relative position in the setting of said switches.

2. In signal transmitting and receiving apparatus, the combination with a plurality of switches at the transmitting station and a plurality of motors at the receiving station, of means for electrically connecting each of the said switches to its corresponding motor, means for positively interconnecting said switches, and means for temporarily disconnecting said switches when desired.

3. In range transmitting and receiving apparatus, the combination with a plurality of switches at the transmitting station and a plurality of motors at the receiving station, of means for electrically connecting each of the said switches to its corresponding motor, means for positively interconnecting said switches and means for enabling any one of the switches to be operated independently of the other or others at any relative positions in the setting of said switches.

4. In range transmitting and receiving apparatus, the combination with a plurality of switches at the transmitting station and a plurality of motors at the receiving station, of means for electrically connecting each of the said switches to its corresponding motor, means for positively interconnecting said switches, and means for temporarily disconnecting said switches when desired.

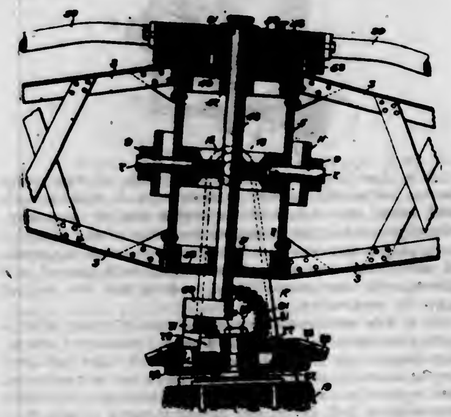
5. In range transmitting and receiving apparatus the combination with a plurality of switches at the transmitting station, a plurality of step by step motors at the receiving station and a counting device operated by said step by step motors, of means for electrically connecting each of said switches to its corresponding step by step motor, worm gearing for interconnecting said switches, and means for temporarily disconnecting one of said switches at will.

[Claims 6 to 9 not printed in the Gazette.]



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1,037,453. ROUNDABOUT. JOHN A. DE VITO, Boston, Mass. Filed May 19, 1910. Serial No. 562,176. (Cl. 46—27.)



1. An apparatus of the class described comprising, in combination, a universally fulcrumed support; means to impart undulatory movement to said support; and means for automatically alternately increasing and decreasing the extents of the undulations.

2. An apparatus of the class described comprising, in combination, a universally fulcrumed support; and automatic means having provision for causing the support alternately to undulate and dwell.

3. An apparatus of the class described comprising, in combination, a universally fulcrumed support; and means to cause the same alternately to dwell and undulate, said means having provision for automatically varying the amplitude of the undulations.

4. An apparatus of the class described comprising, in combination, a support; a track thereon; cars on said track; means to propel said cars; and automatic means to cause said support alternately to dwell and undulate.

5. An apparatus of the class described comprising, in combination, a support; a track; cars on the latter; means to propel said cars on said track; and automatic means to cause said support to dwell for a period in a horisontal position and then undulate with an increasing amplitude of movement subsequently diminishing to a second period of dwell.

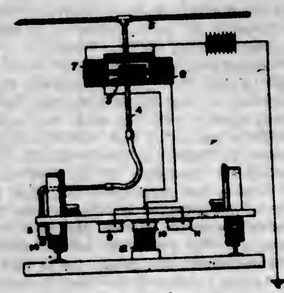
[Claims 6 to 29 not printed in the Gazette.]

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1,037,454. AUTOMATIC CUT-OUT FOR TRIP-VALVES. EDWARD H. DAWSON, New York, N. Y., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 6, 1911. Serial No. 619,341. (Cl. 246—59.)

1. The combination with a train brake pipe and a trip valve mechanism for venting air therefrom to cause an application of brakes, of track contacts and an automatic controlling device, governed by said contacts for cutting said trip valve mechanism out of operation.

2. The combination with a train brake pipe and a trip valve mechanism for venting air therefrom to cause an application of brakes, of an automatic controlling device for cutting the trip valve mechanism into or out of operation, and track contacts for governing said controlling device.



3. The combination with a train brake pipe and a trip valve mechanism for venting air therefrom to apply brakes, of a controlling valve for cutting out said trip valve mechanism, track contacts, and means governed by said track contacts for operating said controlling valve.

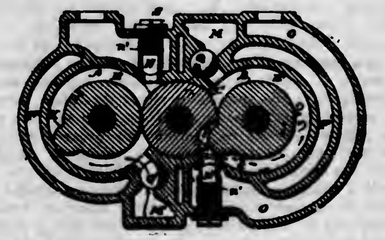
4. The combination with a train brake pipe and a trip valve mechinasm for venting air therefrom to apply brakes, of a controlling valve for cutting out said trip valve mechanism, electrical means for shifting said controlling valve, and track contacts for governing the electrical means.

5. The combination with a train brake pipe and a trip valve mechanism for venting air therefrom to apply brakes, of a controlling valve for cutting out said trip valve mechanism, a solenoid for shifting said controlling valve, track contacts, and circuits governed by said contacts for energising said solenoid.

[Claim 6 not printed in the Gazette.]

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1,037,455. AIR-COMPRESSOR. VICTOR J. DIEFFENDERFER, Allentown, Pa., assignor of one-half to Charles E. Lehr, Bethlehem, Pa. Filed Oct. 9, 1911. Serial No. 653,490. (Cl. 230—30.)



1. An air compressor, comprising two rotors each carrying a single piston, annular compression chambers in which the pistons operate, an intermediate or abutment rotor in rolling contact with the other two and having a recess to receive a piston at each half revolution of the abutment, inlet and discharge valves for the compression chambers, means for operating the admission valves to admit a compressible fluid to the compressing chambers, and means for relieving the pressure on the advance side of the piston in one chamber as the pressure on the advance side of the piston in the other chamber increases, and means for at this time holding the discharge valve and the inlet valve of one of the chambers closed.

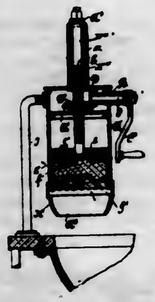
2. An air compressor, comprising a piston-carrying rotor, an annular compressing chamber in which the piston operates, an abutment rotor having a recess to receive the piston at each revolution, an inlet valve for the com-

pression chamber, a discharge valve therefor, means for opening the inlet valve to admit a compressible fluid behind the piston as it passes and for closing it when the piston is passing the discharge valve whereby the compressed fluid between the piston and the abutment may pass back behind the piston and enter the compression chamber while the inlet valve is closed, and means for at this time closing the discharge valve to thus supply fluid under pressure to the compression chamber in advance of the piston on its working stroke.

3. An air compressor, comprising two rotors, each carrying a single piston, annular compression chambers in which the pistons rotate, an intermediate or abutment rotor in rolling contact with the other two and having a recess to receive a piston at each half revolution of the abutment, inlet and discharge valves for the compression chambers, means for operating the inlet valves to admit compressible fluid to the compression chambers behind the pistons on their compression strokes, means for closing the discharge valves as the pistons approach the ends of their compression stokes and while said pistons are passing the discharge outlets, and means for at this time closing the inlet valves whereby fluid under pressure is made to enter and be confined in the compression chambers to be further compressed as the pistons proceed and perform their compression strokes.

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1,037,456. SOAP-SUPPLIER. CHARLES H. J. DILG and JONATHAN O. FOWLER, Jr., New York, N. Y., assignors to Granulator Soap Company, a Corporation of New York. Filed May 15, 1905. Serial No. 260,436. (Cl. 146—9.)



1. In a machine of the class described, the combination of a casing, a spindle within the casing, a crank arm to operatively turn the spindle in either direction, intermediate beveled gears between the crank arm and the spindle, a yieldable device to continuously press toward the cutter the body to be disintegrated, retaining means to prevent the body being cut from rotating with the cutter, and a rotatable cutter connected with he spindle and adapted to operatively work in either direction whereby the body may be pushed toward the cutter with a yielding feed and the cutter may operatively engage the body when turned in either direction solely by the manipulation of the crank arm.

2 In a machine of the class described, a casing, a rotatable cutter to cut operatively when turned in either direction, retaining means to prevent the rotation of a body contained within the casing but to allow the same to move downwardly, a manually actuated means to operatively rotate the cutter in either direction, and a self-acting nonrotatable but longitudinally movable yieldable device to continuously press the body toward the cutter, whereby, upon the sole operation of the cutter, it will operatively engage the descending body when turned in either direction.

3. In a machine of the class described, a casing, retaining means to prevent the rotation of a body contained within the casing but to allow the same to move downwardly, a cutter having some teeth inclined so as to cut when the cutter is rotated in one direction, and to support the soap when rotated in the other direction to prevent too deep a cut, and having other teeth inclined so as to cut, when the cutter is rotated in the last-named direction, and to support the soap when rotated in the opposite direction, a manually actuated means to rotate the cutter in either direction, and a longitudinally movable follower to press the body toward the cutter, whereby upon the sole operation of the cutter, it will operatively engage the descending body, when turned in either direction.

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1,037,457. DOOR-SECURING DEVICE. IRVIN G. DODGE, San Francisco, Cal. Filed Oct. 16, 1911. Serial No. 654,888. (Cl. 16—8.)

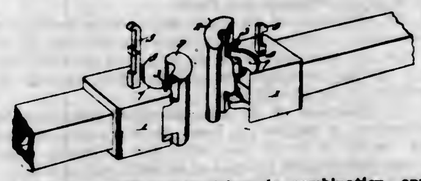


1. A door securing device, consisting of two plates having outwardly turned extensions, and slidable upon each other, one of said plates having notches upon opposite edges, and a link extending crosswise of and inclosing both plates and leaving a length greater than the width of said plates and movable in unison with one of said plates, said link being adapted to drop into the notched plate by gravitation.

2. A door securing device, consisting of plates slidable with relation to each other, and having oppositely extending tongues at one end adapted to enter the bolt and keeper openings respectively, notches in one of the plates, and a loose link carried by the other plate and extending crosswise of both plates and having a length greater than the width of said plates, and adapted to drop into the notch of the first plate when the tongues are separated to engage opposite sides of the bolt and keeper openings.

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1,037,458. RAILWAY-CAR COUPLING. JAMES F. DURBIN and VOTAW S. DURBIN, Fort Scott, Kans. Filed Jan. 11, 1910. Serial No. 537,570. (Cl. 213—13.)



1. A car coupling comprising, in combination, opposing heads having seats formed therein, knuckles pivotally mounted on said heads and arranged to have limited vertical movement on their pivots, means for locking said knuckles in coupled position, and means to interlock said knuckles and said heads to limit their relative vertical movement, said latter means comprising a projecting lip beveled on its inner side formed continuously around a horizontal edge of each knuckle on its outer convex surface and adapted to rest in the corresponding seat formed in each head, said lips having an outer convex edge.

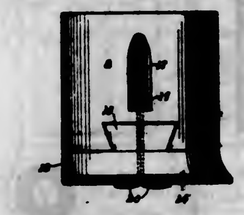
2. A car coupling, comprising, in combination, a pair of heads having corresponding beveled horizontal edges on an exterior surface of each, knuckles pivotally mounted on said heads and adapted to have a limited vertical movement on their pivots, and a horizontal outwardly projecting lip formed continuously around a horizontal edge of each knuckle on its outer convex side and beveled toward the body of the latter, and adapted to seat on the beveled horizontal edge of the opposing head.



3. In a car coupling, a knuckle having a convex outer face and an outwardly projecting communic lip formed on one end of said knuckle and extending entirely around its outwardly convex surface, said lip being continuous on one side with the flat adjacent end of the knuckle and inwardly beveled on the opposite side from the projecting edge of the lip toward the body of the knuckle.

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1,037,459. CAR-COUPLING. JAMES F. DURBIN, Denver, Colo., and VOTAW S. DURBIN, St. Louis, Mo. Filed May 19, 1911. Serial No. 628,180. (Cl. 213—13.)

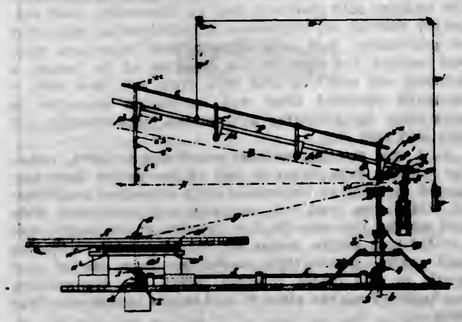


1. A knuckle for a car coupler having its front face provided with a groove and its lower end with a dove-tailed recess, a removable member affording a projecting lip and having a tongue adapted to seat in said recess, said knuckle having an aperture extending from the bottom of the recess in the front face into said dove-tailed recess, and the removable portion having a corresponding aperture extending vertically through the same and through said tongue, and a pin for insertion in said openings.

2. A knuckle for a car coupler having one end provided with a dove-tailed recess having rearwardly converging side walls and a back wall, a removable portion, conforming in contour to the knuckle and having a tongue formed with converging sides adapted to fit snugly in said recess, and with a rear side adapted to engage the back wall thereof, said removable portion providing a projecting lip on its forward side, and means for securing said tongue in position in the recess of the knuckle.

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1,037,460. PANTOGRAPHIC APPARATUS FOR USE OF SCULPTORS. JOHN ETTL, Leonia, N. J. Filed Nov. 17, 1911. Serial No. 660,766. (Cl. 73—66.)



1. In apparatus of the character designated, the combination of a model turn-table, and a work turn-table, connecting means adapted to cause them to rotate synchronously, a pantographic beam mounted above said turn-tables, a ball and socket joint supporting one extremity of said pantographic beam, a counterweighted suspender supporting the other extremity of said pantographic beam, indicators pivotally mounted on said pantographic beam, and a connecting rod pivotally attached to said indicators, for the purpose and substantially in the manner set forth.

2. In apparatus of the character designated, the combination of a model turn-table, means for adjusting the same vertically, a work turn-table, connecting means adapted to cause said turn-tables to rotate synchronously, a pantographic beam mounted above said turn-tables, a ball and socket joint supporting one extremity of said pantographic beam, a counterweighted suspender supporting the other extremity of said pantographic beam, indicators pivotally mounted on said pantographic beam, and a connecting rod pivotally attached to said indicators, for the purpose and substantially in the manner set forth.

3. In apparatus of the character designated, the combination of a model turn-table, a work turn-table, a transmitting shaft and gearing connecting said turn-tables and adapted to cause them to rotate synchronously, a pantographic beam mounted above said turn-tables, a ball and socket joint supporting one extremity of said pantographic beam, a counterweighted suspender supporting the other extremity of said pantographic beam, indicators pivotally mounted on said pantographic beam, and a connecting rod pivotally attached to said indicators, for the purpose and substantially in the manner set forth.

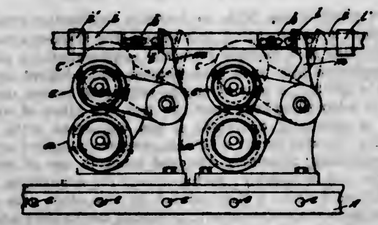
4. In apparatus of the characters designated, the combination of a model turn-table, and a work turn-table, connecting means adapted to cause said tables to rotate synchronously, a pantographic beam mounted above said turn-tables, a ball and socket joint supporting one extremity of said pantographic beam, a counterweighted suspender supporting the other extremity of said pantographic beam, adjustable bracket arms on said pantographic beam, indicators pivotally mounted on said bracket arms, and a connecting rod pivotally attached to said indicators, for the purpose and substantially in the manner described.

5. In apparatus of the character designated, the combination of a model turn-table and a work turn-table, connecting means adapted to cause said tables to rotate synchronously, a pantographic beam mounted above said turn-tables, said beam being of angular cross section, a ball and socket joint supporting one extremity of said pantographic beam, a counterweighted suspender supporting the other extremity of said beam, bracket arms on said beam formed with clamps for securing the bracket arms adjustably on said beam, indicators pivotally mounted on said bracket arms, and a connecting rod pivotally attached to said indicator, for the purpose and substantially in the manner described.

[Claims 6 and 7 not printed in the Gazette.]

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1,037,461. APPARATUS FOR CLEANSING, WASHING, OR DYEING WOOLEN, COTTON, AND OTHER YARNS. PAOLINO FINCATO, Milan, Italy. Filed June 24, 1911. Serial No. 635,064. (Cl. 8—19.)



1. An apparatus for cleansing, washing or dyeing woolens, comprising a frame, a row of sets of double rollers supported thereby, means for simultaneously varying the distance between the rollers of each of said sets, and perforated pipes operatively associated with said sets of rollers to convey fluid to the material supported by said rollers.

2. An apparatus for cleansing, washing or dyeing woolens, comprising a frame, a row of sets of double rollers supported thereby, ball-cranks supporting one of the rollers of each of said sets, a rod operatively connected to said ball-cranks and adapted to actuate the same, means for adjusting the position of said rod, and perforated pipes opera-

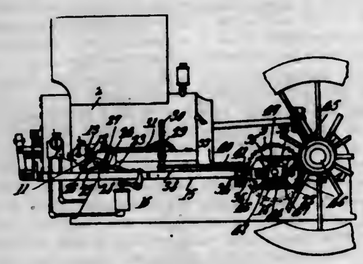
tively associated with said sets of rollers to convey fluid to the material supported by said rollers.

3. An apparatus for cleansing, washing or dyeing woolens, comprising a frame, a row of sets of double rollers supported thereby, means for simultaneously varying the distance between the rollers of each of said sets, perforated pipes operatively associated with said sets of rollers to convey fluid to the material supported by said rollers, and means for varying the direction of rotation of said rollers.

4. An apparatus for cleansing, washing or dyeing woolens, comprising a frame, a row of sets of double rollers supported thereby, means for simultaneously varying the distance between the rollers of each of said sets, perforated pipes operatively associated with said sets of rollers to convey fluid to the material supported by said rollers, and means for automatically varying the direction of rotation of said rollers.

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1,037,462. GOVERNOR-CONTROLLED IGNITER. JOSEPH FLEISCHMANN and PHILIP WOLF, Marshfield, Wis. Filed Apr. 28, 1911. Serial No. 623,818. (Cl. 123—111.)

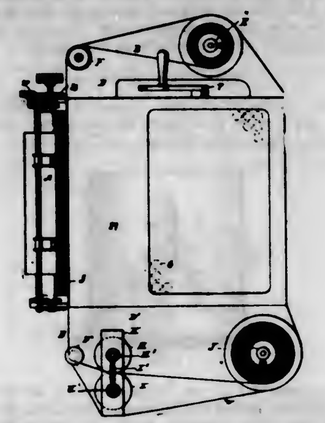


1. In combination with an internal combustion engine, an igniter; a reciprocating, valve-operating member; means for operating said member from the engine shaft; a yieldably supported arm upon said member and adapted to operate the igniter; a pair of engine-supported levers, one of which is adapted to bear upon the arm, the other of which is manually operable; a connection between the levers; an element slidable upon the engine shaft; means operable by said element to engage the valve-operating member and to hold the same out of operative relation with respect to the igniter; a governor adapted to operate said element to cause the same to actuate said means; and a spring structure connecting said element with the manually operable lever.

2. In combination with an internal combustion engine, an igniter; a reciprocating, valve-operating member; means for operating said member from the engine shaft; a yieldably supported arm upon said member and adapted to operate the igniter; a pair of engine-supported levers, one of which is adapted to bear upon the arm, the other of which levers is manually operable; a rod connected with the manually operable lever; a tiltable, engine-supported structure comprising angularly disposed arms, in one of which arms the rod is slidable; spring means for connecting the rod with said arm; a ring carried by the other arm and slidable upon the engine shaft; governor mechanism adapted to engage the ring; and means engageable by the ring to hold the valve-operating member out of operative relation with respect to the igniter.

3. In an internal combustion engine, a slidably mounted valve-operating member; an igniter; an arched spring secured adjacent one end to the valve-operating member, and at the other end slidable upon the valve-operating member, the last named end of the spring being provided with an element adapted to operate the igniter; and movable means engaging the spring to flatten the same, and to cause the last named end of the spring to move upon the valve-operating member, thereby to change the position of the said element with respect to the igniter.

1,037,463. COUPON-STRIP TYPE-WRITING MACHINE. WILLIAM B. FREEMAN and CHARLES C. WORTH, New York, N. Y. Filed Apr. 8, 1911. Serial No. 619,680. (Cl. 197—132.)



1. A type printing machine comprising a platen, means for rotating said platen to feed an impression sheet supported thereon, an impression strip extending lengthwise of said platen and means for feeding said impression strip in the direction of its length.

2. A type printing machine comprising a platen, means for rotating said platen to feed an impression sheet supported thereon, an impression strip extending lengthwise of said platen, feed rolls engaging said impression strip and moving the same in the direction of its length, and means for simultaneously actuating said platen and said feed rolls.

3. A type printing machine comprising a platen, means for rotating said platen to feed an impression sheet supported thereon, an impression strip extending lengthwise of said platen, feed rolls engaging said impression strip and moving the same in the direction of its length, a manually operated lever, and mechanism connected to said lever for actuating said platen and said feed rolls.

4. A type printing machine comprising a platen, means for rotating said platen to feed an impression sheet supported thereon, an impression strip extending lengthwise of said platen, feed rolls engaging said impression strip and moving the same in the direction of its length, a winding roll receiving said strip from said feed rolls, a manually operated lever, and mechanism connected to said lever for actuating said platen, said winding roll and said feed roll.

5. A type printing machine comprising a platen, means for rotating said platen to feed an impression sheet supported thereon, an impression strip extending lengthwise of said platen, feed rolls engaging said impression strip and moving the same in the direction of its length, two parallel rock shafts, means for simultaneously oscillating said shafts, transmitting mechanism from one of said shafts to said platen rotating means, and transmitting mechanism from the other of said shafts to said strip feed rolls.

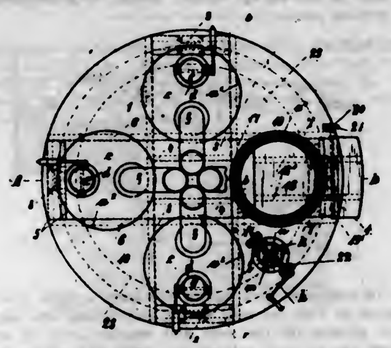
[Claims 6 to 8 not printed in the Gazette.]

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1,037,464. SUPERPHOSPHATE-CHAMBER. HEINRICH PETER CHRISTOPH FREUDENTHAL, Hamburg, Germany. Filed Jan. 9, 1911. Serial No. 601,554. (Cl. 214—1.)

1. In superphosphate chambers, the combination of several superphosphate chambers, a turntable carrying said chambers, means for rotating said turntable, means for charging and discharging said chambers, means for placing each of said chambers into alinement with the charging and discharging means, respectively, and slides for opening said chambers at their bottoms.





2. In superphosphate chambers, the combination of several superphosphate chambers, a turntable carrying said chambers, means for rotating said turntable, means for charging and discharging said chambers, means for placing each of said chambers in alinement with the charging and discharging means, respectively, slides for opening said chambers at their bottoms, and a cutting device in connection with the discharging means, said cutting device adapted to be rotated and to be raised into the chamber which is in alinement with the discharging means.

3. In superphosphate chambers, the combination of several superphosphate chambers, a turntable carrying the chambers, means for rotating said turntable, means for charging and discharging said chambers, and means for placing each of said chambers into alinement with the charging and discharging means, respectively, said chambers having outlet pipes for vapor, the ends of which are arranged in a circle near the axis of the turntable, and a common exhaust pipe into which said ends open.

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1,037,465. REEL FOR VENDING ELASTIC WEBBING. FRANK H. FRISBELL, Middletown, Conn., assignor to The Russell Manufacturing Co., Middletown, Conn., a Corporation. Filed June 3, 1912. Serial No. 701,369. (Cl. 242—138.)



1. In a vending reel for webbing, ribbon, braid, etc., the combination with a box, of a cover therefor provided with an opening, a core located within the said box and provided with a handle, a centering-disk secured to the said core and centering the same in the box, and formed with one or more sight-openings, and a sheet of transparent material applied to the said disk for protecting the contents of the reel and excluding the dust therefrom.

2. In a vending reel for webbing, ribbon, braid, etc., the combination with a box, of a cover therefor provided with a sight-opening, a core located within the said box, a centering-disk secured to the said core and centering the same within the box and formed with one or more sight-openings, a sheet of transparent material extending over the said sight opening or openings to exclude dust from the box, and a handle entering the box through the said opening in the cover and providing for rotating the core.

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1,037,466. STARTER FOR EXPLOSION-ENGINES AND SELF-PROPELLED VEHICLES. DELAMATER B. GARDNER, Chicago, Ill. Filed Dec. 4, 1900. Serial No. 581,298. (Cl. 185—41.)

1. In a spring-operated motor-starter, a central hub and a spring having a ratchet connection therewith through the medium of mutually engaging hooks on the hub and spring, the hooks being arranged so as to engage approximately in the plane of the first turn of the spring about the hub, whereby the breaking-leverage is shortened and engagement is maintained when the spring is wound by the second turn of the spring pressing against the first.

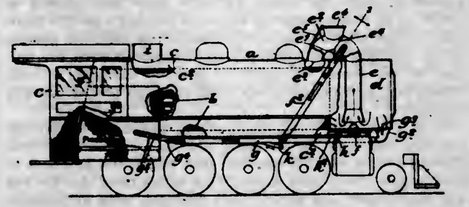


2. In a spring-operated motor-starter, a central hub and a spring having a ratchet connection therewith through the medium of mutually engaging hooks on the hub and spring, the hooks being arranged so as to engage approximately in the plane of the first turn of the spring about the hub and being produced by forming a properly shaped depression in the otherwise cylindrical hub, whereby the first turn of the spring occupies a substantially circular form when wound, the breaking-leverage is shortened and engagement is maintained between the spring and hub by pressure of the second turn of the spring on the first turn, when wound.

3. In a motor-starter, the combination with a driving and a driven shaft arranged in line, a spring-carrying case on one shaft, a spring therein adapted to engage with the other shafts, a clutch to connect the shaft and release the same and a clutch-operating lever adapted to bear for fulcruming purposes against the spring-carrying case whereby a unitary device is produced which does not require the addition of pivoting brackets to the machine.

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1,037,467. STEAM-ENGINE. PAUL GEALI, New York, N. Y. Filed Jan. 20, 1912. Serial No. 672,829. (Cl. 110—50.)



1. A boiler provided at one end with a fire box and at the opposite end with a vacuum chamber adapted to receive the products of combustion as they pass through said boiler from the fire box, said chamber being provided with a flue which extends through the top thereof and the bottom of which is open and the top of which is provided with a curved extension having a transverse screen, a pipe placed beneath the boiler and the rear end portion of which is in communication with the opposite sides of the fire box and the front end portion of which is in communication with the exhaust of the engine and with the bottom of said vacuum chamber, and pipes connected with the bottom portion of the curved extension of the flue and below the screen therein and in communication with the pipe placed beneath the boiler.

2. A locomotive engine comprising the usual cab, boiler and fire box; said boiler being provided at the front end thereof with a vacuum chamber into which products of combustion which pass through the boiler from the fire box are discharged and said boiler being also provided with an annular casing forming an undivided annular chamber which incloses the boiler except at the ends thereof and which is provided at its rear end with an escape flue, said vacuum chamber being also provided with a flue which extends through the top thereof and which is provided with a loop-shaped extension in communication with said

annular chamber and at the top of which is an outlet said loop-shaped extension of said flue being also provided between said outlet and said vacuum chamber with a transverse screen, a pipe placed beneath the boiler and the rear end portion of which is in communication with the fire box and the front end portion of which is in communication with the bottom of the vacuum chamber and pipes connected with the bottom of the curved extension of the flue inwardly of said screen and in communication with the pipe placed beneath the boiler.

3. A boiler provided at one end with a fire box and at the opposite end with a vacuum chamber adapted to receive the products of combustion as they pass through said boiler from the fire box, said chamber being provided with a flue which extends through the top thereof and the bottom of which is open and over the exhaust of the engine and the top of which is provided with a curved extension having a transverse screen, a pipe placed beneath the boiler and the rear end portion of which is in communication with the fire box and the front end portion of which is in communication with the bottom of the vacuum chamber, and pipes connected with the curved extension of the flue inwardly of the screen therein and in communication with the pipe placed beneath the boiler.

4. A locomotive engine comprising the usual boiler, cab and fire box; said boiler being provided at the front end thereof with a vacuum chamber into which the products of combustion which pass through the boiler from the fire box are discharged, said boiler being provided with an annular casing forming an undivided annular chamber which incloses the boiler except at the ends thereof and which is provided at its rear end with an escape flue, said vacuum chamber being also provided with a flue which extends through the top thereof and which is provided with a curved extension in communication with said annular chamber and at the top of which is an outlet, said extension of the flue being also provided between said outlet and the vacuum chamber with a transverse screen, a pipe placed beneath the boiler and the rear end portion of which is in communication with the fire box and the front end portion of which is in communication with the bottom of the vacuum chamber and pipes connected with the bottom of the curved extension of the flue inwardly of the screen therein and in communication with the pipe placed beneath the boiler.

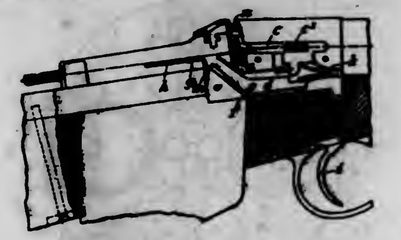
5. A locomotive engine comprising the usual boiler, cab and fire box; said boiler being provided at the front end thereof with a vacuum chamber into which the products of combustion which pass through the boiler from the fire box are discharged, said boiler being provided with an annular casing forming an undivided annular chamber which incloses the boiler except at the ends thereof and which is provided at its rear end with an escape flue, said vacuum chamber being also provided with a flue which extends through the top thereof and which is provided with a curved extension in communication with said annular chamber and at the top of which is an outlet, said extension of said flue being provided between said outlet and the vacuum chamber with a transverse screen, a pipe placed beneath the boiler and the rear end portion of which is in communication with the fire box and the front end portion of which is in communication with the bottom of the vacuum chamber and with said annular chamber and pipes connected with the bottom of the curved extension of the flue inwardly of the screen therein and in communication with the pipe placed beneath the boiler.

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1,037,469. RIFLE. PHILIP THOMAS GOSNAY, Flintshire, near Whitchurch, England. Filed Sept. 9, 1911. Serial No. 648,482. (Cl. 42—70.)

1. In a rifle of the kind specified, the combination with a bolt sliding in a track, a sear and a lever movable with said bolt rotatable on the bolt, of a lock for both lever and sear, said lock consisting of a sliding bar with a sear locking extension thereon, substantially as described.

2. In a rifle of the kind specified, a cocking piece, a sear and sear spring located on the outside of the breech body, the sear having an end turned inward into the track of the cocking piece.



3. In combination, a sear, a bolt-lever, a lever lock constructed to lock the sear and a sear spring one part of which presses on the sear and another part of which presses against and retains the lever lock safely in its open and closed positions.

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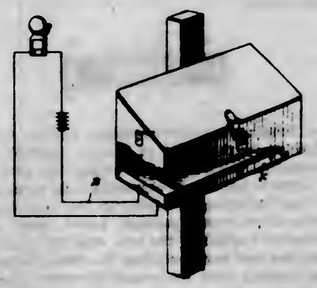
1,037,468. PROCESS OF METALLIZING ELECTROTYPE-MOLDS. HERMAN ELI GOLDSMITH, Chicago, Ill. Filed Aug. 2, 1911. Serial No. 642,038. (Cl. 91—68.1.)

1. The herein described process of producing an electrically conductive layer upon the surface of a non-conductive material which consists in first applying to the surface a colloidal solution of a conductive solid in a volatile solvent and then permitting the said solvent to evaporate.

2. The herein described process of producing an electrically conductive layer upon a surface, such as a mold, which consists in first applying to the mold surface a colloidal solution of a metal in a volatile solvent and then permitting the said solvent to evaporate.

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1,037,470. MAIL-BOX ALARM. MONROE WOODARD GALBRAITH, Santa Rosa, Cal. Filed Feb. 18, 1911. Serial No. 608,284. (Cl. 177—318.)



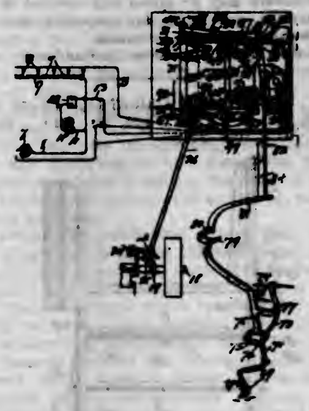
An alarm of the class described comprising a rectangular box like supporting frame adapted to fit in the bottom of a mail box, a tilting platform pivotally mounted in and between the side pieces of the frame, an inwardly projecting flange at one end of the frame forming a stop to limit the upward swinging movement of one end of the tilting platform, a transversely disposed receptacle on the bottom of the opposite end of the tilting platform adapted to be filled with shot or other material to cause both ends of the platform to evenly balance each other, an alarm, and means for completing the circuit to sound the alarm when the first mentioned end of the tilting platform is swung downward by means of a letter or other mail being deposited in the box, the opposite end of the tilting platform



which consists in first applying to the mold surface a through which the sheet or other material is passed into the receptacle.

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1,037,471. SAFETY MECHANISM FOR EMBROIDERING-MACHINES. JOSEPH A. GROSSELL, New York, N. Y., assignor, by mesne assignments, to Alphonse E. Barschdorf, New York, N. Y. Filed Apr. 22, 1911. Serial No. 622,251. (Cl. 112—2.)



1. An embroidering machine embodying means for stitching a fabric, means for testing the sewing thread, stop mechanism for stopping the embroidering machine adapted to be operated by said testing mechanism only when the latter is made operative by a defect or defects existing for a plurality of stitching operations of the embroidering machine.

2. An embroidering machine embodying means for stitching a fabric, means for periodically testing the sewing threads for the purpose of detecting the condition thereof, stop mechanism for stopping the embroidering machine, adapted to be operated by said detecting mechanism only when the latter is made operative by a defect or defects existing in the sewing threads for a plurality of consecutive stitching operations of the embroidering machine.

3. An embroidering machine embodying means for stitching a fabric, means for testing the sewing threads to detect a defective condition thereof, a signaling device for indicating the existence of a defect in the sewing thread and adapted to be operated by the said testing mechanism, a stop mechanism for the embroidering machine and means whereby said stop mechanism will be operated only when the signaling device is made operative for a plurality of operations of the embroidering machine.

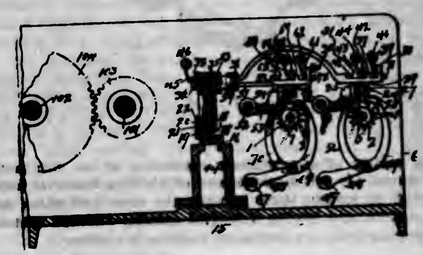
4. An embroidering machine embodying means for stitching a fabric, means for testing the sewing threads to detect a defective condition thereof, a primary signaling device adapted to be operated by said thread testing device, a second signaling device adapted to be operated after a plurality of operations of said first signaling device, stop mechanism for the embroidering machine, and means whereby said stop mechanism will be made operative after said second signaling device has been made operative for a plurality of consecutive stitching operations of the embroidering machine.

5. An embroidering machine embodying means for stitching a fabric, means for testing the sewing threads to detect a defective condition thereof, a visible signaling device adapted to be operated by said thread testing device and adapted to indicate the approximate location of the defective thread, an audible signaling device adapted to be operated after a plurality of operations of said visible signaling device, stop mechanism for the embroidering machine, and means whereby said stop mechanism will be made operative after said second signaling device has been made operative for a plurality of stitching operations of the embroidering machine.

[Claims 6 to 26 not printed in the Gazette.]

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1,037,472. JACQUARD-CARD-PUNCHING MACHINE. JOSEPH A. GROSSELL, New York, N. Y. Filed July 11, 1911. Serial No. 638,009. (Cl. 164—114.)



1. In a punching machine, measuring mechanism, adapted to measure distances on a pattern, perforating mechanism for perforating a card, a plurality of selecting devices adapted to control the perforating elements to determine the location of the perforations, said selecting devices being adapted to operate alternately upon the same perforating elements, and intermediate mechanism adapted to transfer the motion of the measuring mechanism alternately to the different selecting devices upon different operations of the machine.

2. In a jacquard card punching machine measuring mechanism adapted to measure distances on a pattern, perforating mechanism, a plurality of selecting mechanisms, controlling the perforating mechanism, intermediate mechanism adapted to transfer the movement of the measuring mechanism alternately to the different selecting mechanisms upon different operations of the machine, whereby the selecting mechanisms will select the perforating elements corresponding to the movement of the measuring mechanism upon different operations of the machine.

3. In a punching machine, a plurality of measuring mechanisms, adapted to measure distances in two different directions on a pattern, a plurality of selecting mechanisms for each of the measuring mechanisms, perforating mechanism controlled by said selecting mechanisms and intervening mechanisms between the measuring mechanisms and their selecting mechanisms, adapted to cause each measuring mechanism to operate alternately their respective selecting mechanisms upon different operations of the machine.

4. In a jacquard card punching machine, perforating mechanism, a plurality of sets of selecting devices for determining the location of the perforations, by controlling the operation of the perforating elements, each set of selecting devices being adapted to affect the same perforating elements, stitch determining mechanism for actuating said selecting devices, and means for causing the different sets of selecting devices to be operated upon different operations of the punching machine.

5. In a jacquard card punching machine, embodying means for positioning a jacquard card, a plurality of series of devices adapted to select the perforating elements to determine the locations of the perforations in the jacquard card, said series of selecting devices being adapted to perform the same functions, means for operating said selecting devices and means for causing said separate series of selecting devices to operate in alternate relation.

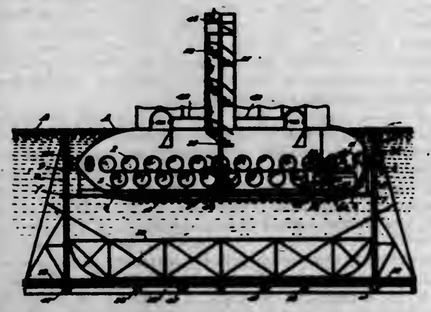
[Claims 6 to 20 not printed in the Gazette.]

1,037,473. TOY EYE-MASK. HERMANN GRUENBERGER, New York, N. Y. Filed July 9, 1909. Serial No. 506,854. (Cl. 46—37.)



An article of manufacture consisting of an elliptical cup-shaped toy eye mask formed of yielding material and adapted to sustain itself between the brow and cheek of the wearer, and having a central opening through which the pupil of the eye concealed thereby is visible.

1,037,474. AMUSEMENT APPARATUS. JACOB GUNSENDORFER, San Francisco, Cal. Filed July 20, 1911. Serial No. 639,621. (Cl. 46—72.)



1. In an aquatic amusement device, the combination of a submerged carriage, tracks on which the carriage travels, a submergible passenger conveyance connected with the carriage, a propeller means for driving the carriage and conveyance through the water in simulation of a submarine, and rack and pinion mechanism on the carriage and conveyance for raising and lowering the conveyance independently of the carriage.

2. In an aquatic amusement device, the combination of a submerged carriage, tracks on which the carriage travels, a submergible passenger conveyance connected with the carriage, a propeller means for driving the carriage and conveyance through the water in simulation of a submarine, and means for raising and lowering the conveyance independently of the carriage, said conveyance having a conning tower through which ingress and egress is had, the entrance to said conning tower always being above the water level.

3. The combination with a water containing receptacle, a submerged track therein, a carriage adapted to run on said track, a submergible vessel connected with the carriage and having means of ingress and egress, a central submerged water tight chamber concentric with the track and having a water tight tunnel or passage extending outside the receptacle for giving ingress and egress to the chamber, and connections between the chamber and the carriage.

4. The combination with a water-containing receptacle, of a submerged continuous track therein, a carriage running on the track, said carriage having fore and aft vertically disposed guides, a conveyance for passengers contained between the guides and submergible and adapted to convey passengers underneath the water, and means acting on the water to propel the carriage.

5. An amusement apparatus comprising a submerged carriage, a floating structure attached to said carriage, means including vertical guide racks on the carriage and driven pinions on the floating structure by which said floating structure may be raised and lowered in relation to said carriage, and means for propelling said carriage and said floating structure in unison.

[Claims 6 to 12 not printed in the Gazette.]

1,037,475. ADJUSTABLE CAR-STEP. FRANK J. HAAS, Rocklake, N. D. Filed June 28, 1911. Serial No. 635,731. (Cl. 105—37.)

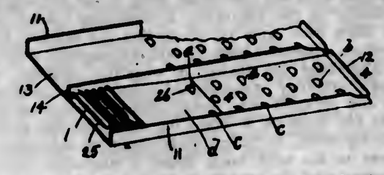


1. The combination with a railroad car having a floor, an end, a flight of steps, and a trap hinged to the end, of a supplementary bottom step member located at the lower end of the steps, side members connected with the supplementary step member and extending over the sides of the flight of steps, connections between the side members and the flight of steps for sliding movement of the side members, flexible cables connected with the side members, pulleys carried by the car and the steps to receive the cables and a trap hinged to the car, said cables being connected with the trap to raise the supplementary step member when the trap is lowered.

2. The combination with a railroad car having a floor, an end, a flight of steps, and a trap hinged to the end, of a supplementary bottom step member located at the lower end of the steps, side members connected with the supplementary step member and extending over the sides of the flight of steps, connections between the side members and the flight or steps for sliding movement of the side members, a pulley in the end of the car, a cable secured to the trap and engaged with said pulley, said cable extending down through the floor of the car and being connected to one side member of the supplemental step, a second cable secured to the first cable below the floor of the car, pulleys in the sides of the steps directly below the top step member, a suspending pulley carried by the top step member, said second cable being engaged with the said pulleys and being secured to the other side member of the supplemental step, whereby the side members and supplemental step are raised when the trap is lowered.

1,037,476. ACCOUNT-FILE. WHITFIELD J. HAINER, Providence, R. I., assignor to Hainer Bookkeeping Machine Company, Providence, R. I., a Corporation of Rhode Island. Filed Dec. 18, 1911. Serial No. 666,417. (Cl. 129—15.)

1. An account file comprising a base plate having gripping lips, and a series of partitions having corresponding apertures through which said lips pass for securing one edge of said partitions to said plates.



2. An account file comprising a base plate having integral gripping lips raised from its inner face, and a series of partitions having corresponding apertures through which said lips pass for securing one edge of said partitions to said plate.

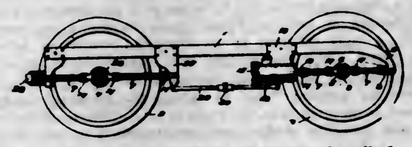
3. An account file comprising a base plate having integral gripping lips, and a series of partitions having corresponding apertures through which said lips pass for fastening said partitions to said plates, the fixed edge of one partition abutting against the back of the next adjacent partition to prevent the accidental withdrawal of said first partition.

4. An account file comprising a base plate having a series of integral gripping lips punched inward from the face thereof, and a series of partitions comprising thin flexible plates having corresponding apertures adjacent one edge thereof through which aperture said lips pass for binding one edge of said partition to said plates.

5. An account file comprising a base plate having a series of integral gripping lips punched inward from the face thereof, and a series of partitions comprising thin flexible plates having corresponding apertures adjacent one edge thereof through which apertures said lips pass for fastening said partition to said plates, the fixed edge of one partition abutting against the back of the next adjacent partition to prevent the accidental withdrawal of said first partition.

[Claims 6 to 8 not printed in the Gazette.]

1,037,477. MOTOR-VEHICLE SPRING. ALLEN E. HALL, Merion, Pa. Filed June 28, 1911. Serial No. 635,708. (Cl. 21—50.)



1. A spring mounting of the character described, comprising a frame having a downwardly projecting portion, and a cylinder in line with said downwardly projecting portion, of a collar adapted to be positioned on an axle, a link pivotally connecting said collar with said downwardly projecting portion, a spring-pressed plunger in said casing, a rod secured to said plunger, a link connecting said collar with said rod, said cylinder having fluid therein, a normally closed check valve controlling a relatively large opening through said plunger in one direction, and relatively small openings in said plunger permitting the flow of fluid in the opposite direction, substantially as described.

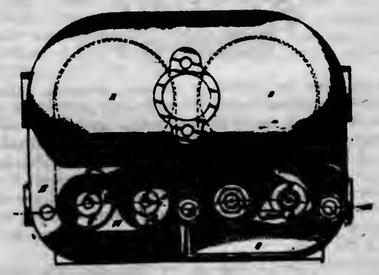
2. A spring mounting of the character described, comprising a frame having a downwardly projecting portion, and a cylinder in line with said downwardly projecting portion, of a collar adapted to be positioned on an axle, a link pivotally connecting said collar with said downwardly projecting portion, a spring-pressed plunger in said casing, a rod secured to said plunger, a link connecting said collar with said rod, said plunger rod where it projects through said plunger having a relatively large fluid duct, a spring-pressed ball valve normally closing said duct, and said plunger constructed to permit a relatively slow flow of the fluid in a direction opposite to the direction of flow through said duct, substantially as described.

3. A spring mounting of the character described, comprising a frame having a downwardly projecting portion, and a cylinder in line with said downwardly projecting portion, of a collar adapted to be positioned on an axle, a link pivotally connecting said collar with said downwardly projecting portion, a spring-pressed plunger in said casing, a rod secured to said plunger, a link connecting said collar with said rod, an integral guide sleeve in said cylinder snugly fitting the plunger rod, the inner end of said rod screw-threaded, and a nut screwed onto said rod against the plunger, substantially as described.

4. A spring mounting of the character described, comprising a frame having a downwardly projecting portion, and a cylinder in line with said downwardly projecting portion, of a collar adapted to be positioned on an axle, a link pivotally connecting said collar with said downwardly projecting portion, a spring-pressed plunger in said casing, a rod secured to said plunger, a link connecting said collar with said rod, said cylinder having fluid therein, a normally closed check valve controlling a relatively large opening through said plunger in one direction, and relatively small openings in said plunger permitting the flow of fluid in the opposite direction, an integral guide sleeve in said cylinder snugly fitting the plunger rod, the inner end of said rod screw-threaded, and a nut screwed onto said rod against the plunger, substantially as described.

5. A spring mounting of the character described, comprising a frame having a downwardly projecting portion, and a cylinder in line with said downwardly projecting portion, of a collar adapted to be positioned on an axle, a link pivotally connecting said collar with said downwardly projecting portion, a spring-pressed plunger in said casing, a rod secured to said plunger, a link connecting said collar with said rod, said plunger rod where it projects through said plunger having a relatively large fluid duct, a spring-pressed ball valve normally closing said duct, said plunger constructed to permit a relatively slow flow of the fluid in a direction opposite to the direction of flow through said duct, an integral guide sleeve in said cylinder snugly fitting the plunger rod, the inner end of said rod screw-threaded, and a nut screwed onto said rod against the plunger, substantially as described.

1,037,478. INTERNAL-COMBUSTION ENGINE. EDGAR O. HAYNS, Milwaukee, Wis. Filed Sept. 30, 1910. Serial No. 584,609. (Cl. 123—59.)



1. In an engine of the described class, a plurality of integrally formed cylinders, cylinder heads and firing chambers provided with ducts for the passage of combustible fluid between said chambers and cylinders, said firing chambers having openings in the upper portion thereof all located in a common plane, in combination with a single removable cap common to all the firing chambers, and means for securing said cap in place to close said chambers.

2. In an engine of the described class, a plurality of cylinders, cylinder heads, water jackets surrounding said cylinders and cylinder heads, and open topped firing

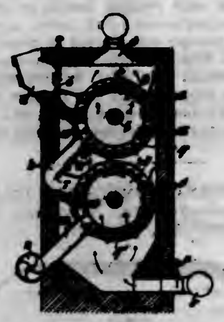
chambers cast integrally, said cylinders and firing chambers being provided with open ducts for the passage of combustible fluid, in combination with a single removable cap common to all of said chambers, and means for securing said cap in place above said chambers and in a position closing the openings in the top thereof.

3. In an engine of the described class, a plurality of cylinders, cylinder heads, water jackets surrounding said cylinders and cylinder heads, and open topped firing chambers cast integrally, said cylinders and firing chambers being provided with open ducts for the passage of combustible fluid, in combination with a single removable cap common to all said chambers, provided with a spark plug aperture for each of said firing chambers, and means for securing said cap in place above said chambers and in a position closing the openings in the tops thereof.

4. In an engine of the described class, a plurality of cylinders, cylinder heads, water jackets surrounding said cylinders and cylinder heads, and open topped firing chambers cast integrally, said cylinders and firing chambers being provided with open ducts for the passage of combustible fluid and valved admission ducts for the delivery of combustible fluid thereto, in combination with a single removable cap common to all of said chambers, and means for securing said cap in place above said chambers in a position closing the openings in the tops thereof, said firing chambers being located substantially upon the same plane with the upper end of said cylinders, whereby, when said cap is removed, a suitable tool may be inserted for the purpose of cleaning the piston heads and the walls of said cylinders.

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1,037,470. APPARATUS FOR COKING BRIQUETS. PAUL HEIN, Ehren-Ruettenscheid, Germany, assignor to Dinnendt Bellett-Werke G. M. B. H., Berlin, Germany. Filed July 21, 1911. Serial No. 639,301. (Cl. 202—9.)



1. Apparatus for coking or roasting briquets, comprising a plurality of superposed drums having perforated walls and provided with radial compartments adapted to receive the briquets, a chute for delivering the briquets to the top drum, an intermediate chute for conveying the briquets to the next lower drum, a discharge chute in connection with the lowermost drum, a conduit at the bottom of the apparatus for supplying the drying and heating medium, and a perforated guide below each drum for supporting the briquets in the drum.

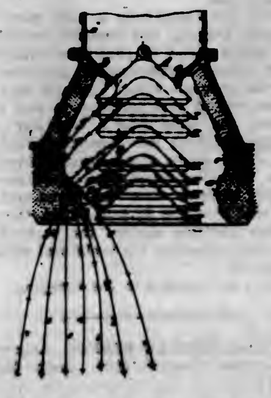
2. Apparatus for coking or roasting briquets, comprising a plurality of superposed drums having perforated walls and provided with radial compartments adapted to receive the briquets, a chute for delivering the briquets to the topmost drum, an intermediate chute for conveying the briquets to the next lower drum, a discharge chute in connection with the lowermost drum, a hot air supply at the bottom of the apparatus, and an adjustable slide in said intermediate chute.

3. Apparatus for coking or roasting briquets, comprising a plurality of superposed drums having perforated walls and provided with radial compartments adapted to receive the briquets, a chute for delivering the briquets to the topmost drum, an intermediate chute for conveying the briquets to the next lower drum, a discharge chute in connection with the lowermost drum, a hot air supply at the bottom of the apparatus, a perforated curved guide plate below each drum for supporting the briquets therein, and an adjustable slide in said intermediate chute.

4. Apparatus for coking or roasting briquets, comprising a plurality of superposed drums having perforated walls and provided with radial compartments adapted to receive the briquets, a chute for delivering the briquets to the top drum, an intermediate chute for conveying the briquets to the next lower drum, a discharge chute in connection with the lowermost drum, a conduit at the bottom of the apparatus for supplying the drying and heating medium, and a perforated guide below each drum for supporting the briquets in the drum, and a conveyer in connection with said discharge chute.

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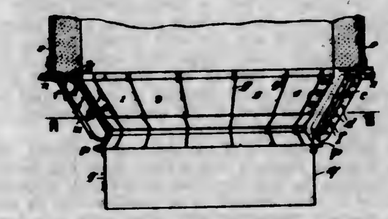
1,037,480. CHARGING DEVICE FOR FURNACES OR GAS-GENERATORS. WILHELM HOELLER, Cologne-Ehrenfeld, Germany. Filed Dec. 12, 1911. Serial No. 665,542. (Cl. 35—118.)



In a charging device for furnaces and gas generators, in combination, a vertical filling trunk having a narrowed outlet, a cone adapted to be displaced vertically below such outlet, and a distributing ring located below the outlet and having an internal periphery curved vertically to present an annular ridge by which the material falling thereon is directed into the furnace in a different direction for each position of the cone, substantially as set forth.

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1,037,481. GAS-GENERATOR. WILHELM HOELLER, Cologne-Ehrenfeld, Germany. Filed Dec. 12, 1911. Serial No. 665,544. (Cl. 48—87.)



1. In a gas generator a hollow ring located in the fire zone and composed of a number of segment cases constructed to be interchanged from without, the joints of such cases being remote from the inner wall, which is subjected to high temperatures, and the said joints being continuously sealed, so that loosening, due to the heat, is prevented, substantially as and for the purpose set forth.

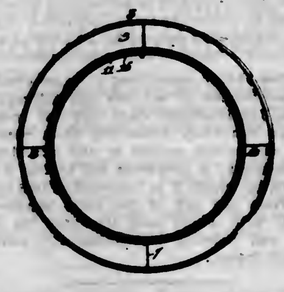


2. In a gas generator a hollow ring located in the fire zone and composed of a number of segment cases constructed to be interchanged from without, the individual walls of these cases having slots to neutralize tensions in the said ring, substantially as set forth.

3. In a gas generator a hollow ring located in the fire zone and composed of a number of segment cases constructed to be interchanged from without, the individual walls of these cases having recesses, and elastic plates covering such recesses, in order to neutralize tensions in the said ring, substantially as set forth.

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1,037,482. TIRE-CASE. CHARLES F. HERSCHELL, Newton, Mass. Filed June 21, 1912. Serial No. 704,947. (Cl. 150—54.)

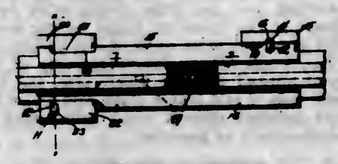


1. An annular tire case presenting overlapping longitudinal flaps, complemental fastener members secured at intervals to said flaps, each pair of fastener members having an engagement in fixed position transversely of and in variable position longitudinally of said flaps, whereby the edges of the tire case are retained in fixed position transversely and allowed to adjust themselves longitudinally into proper position.

2. An annular tire case composed of straight and segmental strips secured together and presenting overlapping longitudinal flaps, one flap presenting a hem or pocket longitudinally thereof, a resilient stiffener member located in said hem or pocket, a plurality of hooks secured to the opposite flap and adapted when the case is in position on the tire to engage said stiffener member, whereby the edges of the tire case are secured in fixed position transversely and allowed to adjust themselves longitudinally into proper position.

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1,037,483. RAILROAD CHAIR AND PLATE. JOHN TARELL, Washington, Mo. Filed Nov. 21, 1911. Serial No. 661,560. (Cl. 238—9.)



1. A device of the kind described comprising parallel plates adapted to fit opposite sides of a rail, chains carried by opposite ends of said plates, one of said chains being removably connected to its plate, each of said chains receiving one of the rails and the free end of one of the plates and means for locking said chains to the free ends of the plates.

2. In a device of the kind described, a plate adapted to overlap the meeting ends of a rail, said plate having an integral chair carried thereby and adapted to extend under and receive a rail, a second plate having one end portion cut out, a detachable chair provided with a flange adapted to enter said cut-out portion, said last mentioned chair receiving the other rail and the first mentioned plate and the first mentioned chair receiving the last mentioned plate, as and for the purpose set forth.

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1,037,484. CULTIVATOR. JOSEPH W. JENNINGS, Quinton, Okla. Filed Oct. 2, 1911. Serial No. 652,269. (Cl. 97—37.)



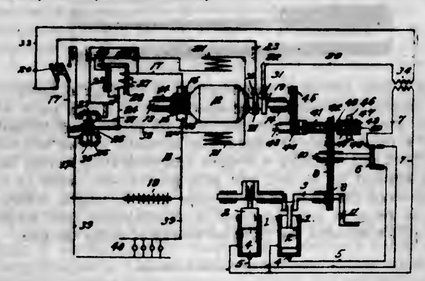
1. A cultivator implement including disk-shovels, a carrying beam having a downwardly extended plow-foot attaching end, a U-shaped attaching yoke between said disk-shovels and said plow-foot attaching end, said yoke having a slot extending through its curved or arcuate portion, and means for effecting connection between said yoke and said plow-foot attaching end, said means of connection extending through the slot of said yoke.

2. A cultivating implement, including a plow-foot carrying beam having a downwardly extending terminal provided with a slot, disk-shovels, a U-shaped attaching yoke having a slot extending through its arcuate or curved portion, said disk-shovels being carried by said yoke, at its ends and a screwing nut-equipped bolt insertible through the slot of said plow-foot carrying beam and the slot of said yoke.

3. A cultivating implement, including a carrying beam having a downwardly and inwardly curved plow-foot attaching end and said end having a slot therein, a U-shaped yoke having its thread in an upward and forward direction and provided with a slot in its central arcuate portion, means effecting connection between the slotted end of said carrying beam and the slotted arcuate portion of said yoke, disk-plows, and stub-axles carrying said disk-plows and themselves carried by said U-shaped yoke, at its ends.

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1,037,485. ELECTRICAL APPLIANCE FOR GAS-ENGINES. JOHN W. JAMESON, Depew, N. Y., assignor, by mesne assignments, to Gould Coupler Company, a Corporation of New York. Filed Mar. 29, 1910. Serial No. 552,191. (Cl. 171—315.)



1. The combination with a gas engine and an ignition circuit therefor, of a dynamo-electric machine, automatically operating clutch driving connections between the engine and the shaft of the dynamo-electric machine, said clutch connections being controlled by the speed of the engine, a commutator and collector rings connected to the armature windings of the dynamo-electric machine, means for supplying direct current to the commutator and con-

nections between said collector rings and the ignition circuit of the engine.

2. The combination with a gas engine and an ignition circuit therefor, of a dynamo-electric machine of the rotary converter type, of interchangeable driving connections between said engine and the shaft of the dynamo-electric machine, whereby said shaft may be connected to drive the engine or to be driven thereby, means dependent upon the speed of the engine for effecting such interchange, connection between the alternating current side of the dynamo-electric machine and the ignition circuit of the engine and a source of direct current connected to the direct current side of said dynamo-electric machine.

3. The combination with a gas engine and an ignition circuit therefor, of a dynamo-electric machine of the rotary converter type, automatic clutch driving connections dependent upon the speed of the engine between the shaft of said machine and the engine operating to drive said shaft and to cause said shaft to be driven by the engine when the latter is at operating speed, a storage battery connected to the direct current side of said machine, connection between the alternating current side of said machine and the ignition circuit of the engine, an automatic field regulator for said machine and an automatic circuit closer between the battery and the direct current terminals of said machine.

4. The combination with a gas engine and the ignition circuit therefor, of a dynamo-electric machine of the rotary converter type, automatic clutch driving connection dependent upon the speed of the engine between the shaft of said dynamo machine and the engine, connection between the alternating current terminals of said machine and the ignition circuit of the engine, a storage battery and a lamp circuit connected in parallel with the direct current terminals of said machine, an automatic field regulator for said machine, and an automatic circuit closer between the battery and lamp circuit and said direct current terminals.

5. The combination with a gas engine, of direct and alternating current circuits, a dynamo electric machine having its armature connected to both said circuits, spark terminals for the engine in the alternating current circuit, a storage battery connected to the direct current terminals and driving connections between the engine shaft and the armature of the dynamo.

[Claims 6 to 12 not printed in the Gazette.]

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1,037,486. WOODEN FORE-ARM FOR AUTOMATIC FIREARMS. THOMAS C. JOHNSON, New Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed May 31, 1911, Serial No. 630,542. Renewed Feb. 13, 1912. Serial No. 677,886. (Cl. 42—71.)

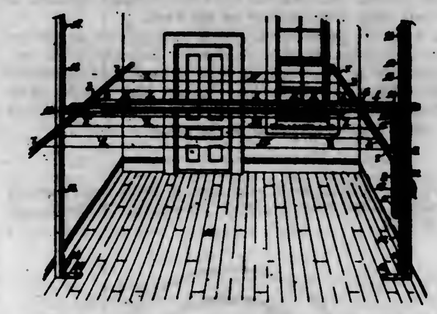


As a new article of manufacture, a chambered forearm for automatic firearms, fashioned from a single piece of wood with the grain running with its length and formed with a transversely arranged wide dovetail groove located within it and receiving a wooden reinforce strip having its ends beveled to fit into the said groove and made of a tough wood the grain of which runs with its length, whereby the forearm may be made with relatively thin walls and still withstand the repeated shocks of firing the gun.

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1,037,487. CLOTHES-HANGER. DAVID D. JONES, San Francisco, Cal. Filed May 9, 1912. Serial No. 696,144. (Cl. 68—3.)

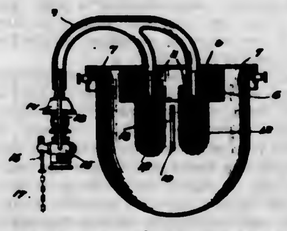
1. A clothes-hanger comprising a frame consisting of a main member and cross members secured to the ends of the main member; a clothes-line carried by and extending between the cross members; a steadying leg secured to and depending from the end of the main member; a fixed vertical rail with which said steadying leg is slidably connected; and hoisting mechanism for elevating and lowering said frame.



2. A clothes-hanger comprising a frame consisting of a main member formed of sections and stirrups in which said sections longitudinally slide, and end cross members with stirrups removably connecting them with the main member; a clothes-line carried by and extending between the cross members; a steadying leg having a stirrup at its upper end by which it is removably fitted upon and is dependent from one end of the main member; a fixed vertical rail with which said steadying leg is slidably connected; and hoisting mechanism for elevating and lowering said frame.

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1,037,488. INVERTED-MANTLE LAMP. GEORGE G. JONES, Philadelphia, Pa. Filed July 18, 1911. Serial No. 639,173. (Cl. 67—94.)



In an inverted mantle lamp, the combination of a fixture comprising a top plate formed from a single piece of metal, a depending flange at the outer edge of the top plate, a globe, screws in said flange adapted to engage the globe, said top plate having relatively large openings therein near its outer edge, a depending circular flange on the top plate adapted to direct the air entering the openings, downward, said top plate having other openings therein inside of the depending flange for the escape of hot air and gases, the inner edges of said openings forming a bridge, a gas supply pipe, a plurality of branch pipes formed integral with the supply-pipe, and burners on the lower ends of said branch pipes, said bridge having independent openings through which said branch pipes project, substantially as described.

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1,037,489. PROCESS OF PRODUCING PATTERNS FOR CASTINGS, &c. MARK KELSEY, Los Angeles, Cal. Filed Sept. 1, 1910. Serial No. 580,131. (Cl. 22—196.)

1. The process of forming a pattern which consists in inserting into a cavity or recess which is to be filled by a casting a rigid combustible skeleton of smaller dimensions than said cavity, and forming the pattern by building upon said skeleton a plastic filler which is combustible or fusible.

2. The process of forming a pattern which consists in placing in position a rigid skeleton composed of a material removable by heating; and forming the pattern by building upon said skeleton a plastic addition which is combustible or fusible.





3. The process of forming a pattern which consists in inserting into a cavity or recess which is to be filled by a casting a skeleton of smaller dimensions than said cavity; and building upon said skeleton a plastic filler to form the pattern.

4. The process of forming a pattern which consists in building a plastic addition externally upon and supporting the same by a celluloid backing member to form the pattern.

5. The process of forming a pattern, which consists in applying to the exterior of a fusible skeleton, a plastic addition of fusible material, and introducing the two into a cavity, to cause the plastic addition to take the form of said cavity, and thus produce the pattern.

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1,037,490. CAR-COUPLING. JOSEPH KELSO, Pittsburgh, Pa., assignor to The McConway & Torley Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 3, 1912. Serial No. 669,147. (Cl. 213—10.)



1. In a car coupler, the combination with a coupler head, of a knuckle pivotally mounted thereon, a lock for said knuckle, a knuckle-opener lever movably mounted on said coupler head, a spring operatively interposed between said lock and said knuckle-opener lever, and coacting means upon said lock and said knuckle-opener lever that are movable into engagement to limit the extent of movement of the lock in a locking direction when the knuckle is rotated to open position.

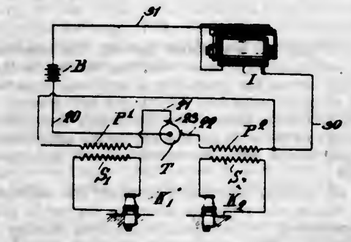
2. In a car coupler, the combination with a coupler head, of a knuckle pivotally mounted thereon, a horizontally slidable lock for said knuckle, a horizontally rotatable knuckle-opener lever pivotally mounted on the coupler head, said lock being slotted to receive said knuckle-opener, a spring interposed between said lock and knuckle-opener, and a lug on said knuckle-opener which is adapted to move into engagement with the lock to limit the movement of the latter toward locked position when the knuckle is rotated to open position.

3. In a car coupler, the combination with a coupler head, of a knuckle pivotally mounted thereon, a horizontally slidable lock for said knuckle, said lock having an inclined face, a knuckle-opener lever pivotally mounted on the coupler head, and a spring interposed between said lock and knuckle-opener, and a lug on said knuckle opener lever which is adapted to move into engagement with the inclined face of said lock to thereby limit the movement of the latter toward locked position when the knuckle is rotated to open position.

4. In a car coupler, the combination with a coupler head, of a knuckle pivotally mounted thereon, a lock for said knuckle slidably mounted on the coupler head, a knuckle-opener lever, a pivot pin on which said knuckle-opener is rotatably mounted, a spring interposed between said lock and knuckle-opener, said lock being slotted to receive a portion of the knuckle-opener and being recessed to receive the inner end of the tail of the knuckle, and said knuckle-opener being slotted to receive a pivot pin, and a lug on said knuckle opener lever which is adapted to extend into the path of movement of and to engage the lock to thereby limit the movement of the latter toward locked position when the knuckle is rotate to open position.

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1,037,491. IGNITION APPARATUS FOR EXPLOSION-MOTORS. CHARLES F. KETTERING, Dayton, Ohio, assignor to The Dayton Engineering Laboratories Co., a Corporation of Ohio. Filed Sept. 15, 1909. Serial No. 517,788. (Cl. 123—148.)



1. A spark controlling apparatus for explosion engines comprising in combination, a source of current, an induction coil and spark device, a circuit-breaker in circuit with the primary of the induction coil, an auxiliary high resistance energizing circuit for said circuit-breaker, and means operated by the initial movement of said circuit breaker for controlling said auxiliary energizing circuit, as set forth.

2. A spark controlling apparatus for explosion engines comprising in combination, a source of current, an induction coil for the spark plug of the engine, an interruption magnet, two windings of different resistance thereon and forming separate paths in the circuit for the primary of the induction coil, and an armature having connections to close one of said paths on breaking the other, as set forth.

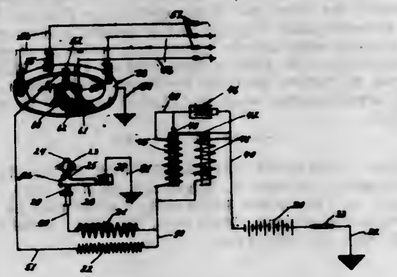
3. A spark controlling apparatus for explosion engines comprising in combination a source of current, an induction coil for the spark plug of the engine, an interruption magnet in a low resistance circuit forming part of the circuit of the primary of the induction coil, an auxiliary high resistance winding on said magnet, and an armature having connections to complete the circuit of said auxiliary winding when attracted by the magnet to break the low resistance circuit, as set forth.

4. In a spark controlling apparatus for explosion engines, a circuit breaker comprising a magnet; a low resistance winding and an auxiliary high resistance winding thereon; contact strips connected to said low and said high resistance windings respectively; an intermediate contact strip located between said former mentioned contact strips and connected with the main circuit; and an armature operated by said magnet and having connections operating upon said intermediate contact strip to retract the same from the contact strip of the low resistance winding and thereupon carry said intermediate strip into contact with the strip of the high resistance winding.

5. In an ignition system comprising a source of current, an induction coil and a spark device; the combination with a plurality of circuits of different conductance; of an electrically actuated means operable by the current passing through one of said circuits to break said circuit and establish the other of said circuits.

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1,037,482. IGNITION SYSTEM. CHARLES F. KETTERING, Dayton, Ohio, assignor to The Dayton Engineering Laboratories Co., a Corporation of Ohio. Filed Nov. 2, 1910. Serial No. 590,496. (Cl. 123—148.)



1. In an ignition distributer system, the combination with the engine and cylinders, sparking devices in the cylinders, and means for producing a sparking impulse; of normally grounded sparking circuits for said several cylinders; and means for successively insulating each grounded sparking circuit from its ground and at the same time connecting said circuit with the circuit for said spark producing means.

2. In an ignition distributer system, the combination with the engine and cylinders, sparking devices in the cylinders, and means for producing a sparking impulse; of a permanently grounded member; sparking circuits for several cylinders having terminals normally contacting with said grounded member; a rotary distributer electrically connected with said spark producing means; comprising means for successively connecting each of said spark circuit terminals with the spark producing means; and means for insulating said terminals from the grounded member concomitantly with the connecting of each terminal with the sparking circuit.

3. In an ignition distributer system, the combination with the engine and cylinders, sparking devices in the cylinders, and means for producing a sparking impulse; of a permanently grounded contact plate; sparking circuits for the various cylinders having contact terminals normally spring-pressed into engagement with said grounded plate; a rotary distributer electrically connected with the spark producing means comprising a contact arm located to engage said terminals in turn to connect the same with the sparking circuit; and an insulating plate intervening between the grounded plate and said contact arm to insulate the live terminal from the grounded plate when said terminal is engaged by the contact plate to connect up the sparking circuit for that terminal.

4. In an ignition distributer system, the combination with the engine and cylinders, and means for producing sparking impulses therein; of normally suspended spark circuits for said several cylinders; and means for successively breaking each grounded spark circuit and concomitantly connecting that circuit thus broken with the circuit for said spark producing means.

5. In an ignition system, the combination with an engine and cylinders, and means for producing sparking impulses therein; of a distributer for making the successive sparking circuits, said distributer including an arm of insulating material having embedded therein a conductor plate connected with the sparking circuit.

[Claims 6 to 8 not printed in the Gazette.]

1,037,488. TOBACCO-PIPE. GEORGE HAWKES, Chicago, Ill., assignor of one-half to Charles F. Clark, Chicago, Ill. Filed Apr. 21, 1910, Serial No. 556,885. Renewed July 29, 1912. Serial No. 712,180. (Cl. 131—12.)



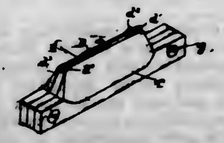
1. A pipe comprising a bowl, a stem connected with the bowl and provided with a mouth-piece, a removable and replaceable rod in the bore of said stem containing longitudinally-extending grooves, with the portion of the rod separating said grooves perforated, said grooves forming with the wall of said bore longitudinally-extending conduits therein, one end of said rod containing a passage connecting with the interior of the bowl and with one of said conduits, and the opposite end of said rod containing a passage connecting with the other of said conduits and with said mouth-piece, for the purpose set forth.

2. A pipe comprising a bowl, a stem connected with the bowl and provided with a mouth-piece, a removable and replaceable rod in the bore of said stem containing longitudinally-extending grooves in its top and bottom, with the portion of the rod separating said grooves perforated, said grooves forming with the wall of said bore longitudinally-extending conduits therein, one end of said rod containing a passage communicating with the interior of the bowl and with one of said conduits, and the opposite end of said rod containing a passage communicating with the other of said conduits and with said mouth-piece, for the purpose set forth.

3. In a device for the purpose set forth, the combination of a stem containing a longitudinally-extending bore, and a removable and replaceable rod in said bore provided with longitudinally-extending grooves separated by a perforated partition, said grooves forming with the wall of said bore longitudinally-extending conduits therein, one end of said rod containing a passage communicating with one of said conduits and with the inlet-end of said stem and the other end of said rod containing a passage communicating with the other of said conduits and with the outlet-end of said stem.

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1,037,494. KNIFE FOR CUTTING TOOTHPICKS. WILLIAM C. KING, Phillips, Me., assignor to International Manufacturing Company, Phillips, Me., a Corporation of Maine. Filed Dec. 26, 1911. Serial No. 667,939. (Cl. 144—190.)



1. A knife for cutting toothpicks from veneer strips including three straight splitting blades arranged side by side to cut the bodies of two complete toothpicks, and end cutting blades interposed between the central and the outside splitting blades at their ends, the spaces between the outer and central blades expanding downwardly to permit the toothpick to be forced downwardly between the blades.

2. A knife for cutting toothpicks from veneer strips including three straight splitting blades arranged side by side to cut the bodies of two complete toothpicks and end cutting blades interposed between the central and the outside splitting blades at their ends and formed integral with the central blade, the spaces between the outer and central blades expanding downwardly to permit the toothpicks to be forced downwardly between the blades.



1,038,495. LIFE-PRESERVER. FRANCIS C. W. KNUDSEN, Manistee, Mich., assignor of one-half to Louis Meyer, Manistee, Mich. Filed Jan 26, 1912. Serial No. 673,528. (Cl. 9—13.)



1. In a gas producer adapted for use in connection with an inflatable life preserver, two coöperating elements, one a housing and the other a casing said parts being collapsibly united and adapted to form an air tight chamber for holding carbid when collapsed and to form a gas tight chamber when extended and being so united as to form a passage for water therewith when in median position, a latch acting against tension to lock said parts together when collapsed and a soluble trigger holding said latch locked.

2. In a gas producer adapted for use in connection with an inflatable life preserver, two coöperating elements, one a housing and the other a casing collapsibly secured in said housing and forming therewith a sealed carbid chamber when in either extreme position and freely connected to form a passage for water therewith when in median position, means for releasably holding said parts in collapsed position and soluble means sustaining said holding means in engaging position.

3. In a gas producer adapted for use in connection with an inflatable life preserver, two coöperating elements, one a housing and the other a casing expansively secured to said housing under spring pressure and forming therewith a sealed carbid chamber when collapsed or extended and freely connected to form a passage for water thereinto when in intermediate position, a latch releasably holding said parts in collapsed position and automatically movable out of engaging position and soluble means for sustaining said latch in engaging position.

4. In a gas producer adapted for use in connection with an inflatable device, two coöperating elements one a housing and the other a casing, said elements being expansively joined together and forming an air tight chamber when closed and a gas tight chamber when expanded and freely connected to form a passage for water therewith when expanding, an expansible spring interposed between said elements, a latch carried by said casing and adapted to engage said housing to hold said elements closed, a spring tending to disengage said latch from said housing, and a soluble element interposed in the path of said latch and holding it normally engaged with said housing.

5. In a gas producer adapted for use in connection with an inflatable device, two coöperating elements one a housing and the other a casing, said elements being expansively joined together and being seated to form an air tight chamber when closed and also seated to form a gas tight chamber when extended, a passage connection leading to said inflatable device, a basket adapted to hold a charge of carbid in said chamber, a spring interposed between said basket and housing serving to expand said elements and hold said basket impinged against said casing, a latch pivoted upon said casing and adapted to engage said housing to hold said elements locked closed, a spring bearing against said latch and tending to disengage it and a soluble element sustaining said latch in locked position and adapted when dissolved to release said latch and cause said elements to expand, said elements being freely joined to form a passage leading into said chamber when said elements are in median position whereby water is drawn into said chamber when said device is immersed and said elements expand.

[Claim 6 not printed in the Gazette.]

1,037,491. BOTTLE-CAP. GEORGE KOCH, New York, N. Y. Filed Mar. 5, 1910, Serial No. 547,425. Renewed Jan. 8, 1912. Serial No. 669,738. (Cl. 215—10.)

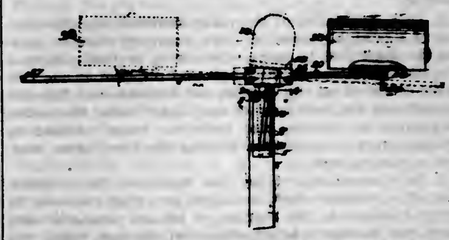


1. A bottle cap, comprising a cupped body portion having a vertical cylindrical wall and hollow outwardly-convex extensions of said wall arranged vertically and opposite each other one on either side of said body whereby the body is rendered elastic, the lower part of said wall between the extensions being extended downwardly lower than the extensions, and the said wall between the extensions being provided with indentations beginning at the sides of said extensions and extending toward each other whereby the portions of the vertical wall midway between the said extensions are bulged outwardly from their original positions.

2. A bottle cap, comprising a cupped body portion having a vertical cylindrical wall, the said wall having modified portions constructed and arranged opposite each other whereby the body is rendered elastic, and the said wall between said modified portions being provided with indentations for holding the cap upon a bottle, the said indentations beginning at the sides of the said modified portions of the wall and extending toward each other whereby the portions of the vertical wall midway between the said modified portions of the wall are bulged outwardly from their original positions.

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1,037,497. MAIL RECEIVING AND DELIVERING APPARATUS. JAMES SIDNEY LAWSON, West Point, Ga., assignor, by mesne assignments, to International Mail Equipment Co., a Corporation of New York. Filed Aug. 13, 1906. Serial No. 330,202. (Cl. 209—40.)



1. In a mail receiving and delivering apparatus, the combination of a pivotally mounted casing disposed at an incline to the horizontal, a bar slidingly engaging said casing and retained by its engagement in a correspondingly inclined position, and a container carried by the bar.

2. In a mechanism of the class described, the combination with a support, of a slotted bracket carried thereby, a shaft movably extending through the slot of said bracket, a second bracket spaced beneath the first bracket, a cone bearing extending upwardly from the second bracket, the said shaft being formed with a recess in its lower end inclosing the upper end of said cone bearing, the shaft resting upon said bearing, and a container support sustained by said shaft.

3. In mail receiving and delivering apparatus, the combination of a pivotally mounted, swinging shaft, a casing secured thereto at an angle other than a right angle, and a container support slidingly engaging said casing.

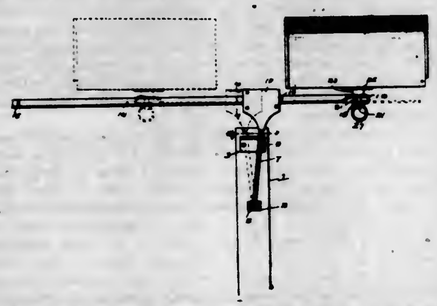
4. In mail receiving and delivering apparatus, the combination of a substantially vertical, pivotally mounted shaft, a casing carried by the shaft and extending in inclined planes transversely of the shaft at an angle to the shaft other than a right angle, and a container supporting bar slidingly extending through the casing.

5. In mail receiving and delivering apparatus, the combination of an upstanding bearing, a shaft stepped thereon and free to swing laterally, means for limiting the lateral swing of the shaft, and container supporting means carried by the shaft.

[Claims 6 to 8 not printed in the Gazette.]

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1,037,498. MAIL RECEIVING AND DELIVERING APPARATUS. JAMES SMITH LANIER, West Point, Ga., assignor, by mesne assignments, to International Mail Equipment Co., a Corporation of New York. Filed Aug. 12, 1907, Serial No. 388,228. Renewed Oct. 23, 1908. Serial No. 459,210. (Cl. 232—40.)



1. In a mechanism of the class described, the combination with a rotatably mounted support, a bar slidingly carried thereby, a container movably sustained by said bar, and gravity controlled means for returning the said support to a given position upon being released in any position other than the said given position, the bar being disposed for increasing such tendency to return proportionately to the extent the bar is slid from the normal at rest position.

2. In a mechanism of the class described, the combination of a rotatably mounted shaft, a support therefor, leaving the shaft free to swing laterally in vertical planes, a container sustained by said shaft and disposed at one side of the center of gravity thereof, and detent means disposed for limiting the movement of said shaft under the action of gravity for causing the container when released to always return to a position bearing the same given relation to the support.

3. In a mechanism of the class described, the combination of a stepped shaft arranged to swing laterally in vertical planes in its bearing, a bracket engaging said shaft and having a longitudinal slot through which the said shaft extends, the slot being formed in its ends with shoulders, means on the shaft adapted to engage the said shoulders for limiting rotation of the shaft, and a container sustained by the shaft.

4. In a mechanism of the class described, the combination of a supporting shaft mounted to rotate and swing freely laterally from a position in the line of gravitation to one side thereof, and a container support slidingly engaging said shaft.

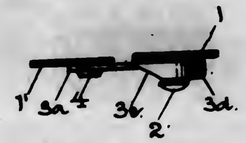
5. In a mechanism of the class described, the combination of a supporting shaft mounted to rotate and to swing freely laterally from the line of gravitation to either side thereof, and a container support slidingly engaging said shaft.

[Claims 6 to 20 not printed in the Gazette.]

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1,037,499. FRONT STEELS ON CORSETS. AUGUSTE JEAN LECOUTRE, Worcester, Mass., assignor to Royal Worcester Corset Company, a Corporation of Massachusetts. Filed Feb. 28, 1910. Serial No. 546,313. (Cl. 24—204.)

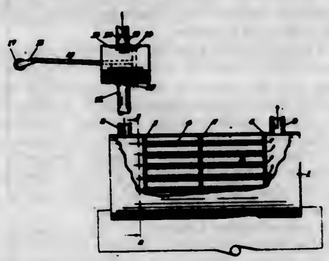
A corset steel provided with a series of clasps secured thereto, each of which consists of a single ply or thickness of metal having an opening which is formed with a larger portion at one end, to receive the head of a stud, and a smaller portion at the other end to fit the shank or neck of the stud, the end of said clasp having the smaller portion of the opening being hollow and of greater thickness than the part of said clasp having the larger opening, the outer face of said clasp having inclines lo-




cated at the sides of said opening and leading from the thinner to the thicker parts of said clasp; the outer surface of said clasp surrounding the smaller portion of said opening being flat and smooth from the edges of said smaller portion outward and then terminating in a rounded wall, and the inner face of said thickened portion being substantially on a line with the inner face of the thin part of the clasp.

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1,037,500. OZONIZER. ROSS M. LEGGETT, Ann Arbor, Mich., assignor of one-fourth to Michael John Fritz, one-fourth to Frank I. Cornwell, and one-fourth to Titus F. Hutzel, Ann Arbor, Mich. Filed Nov. 23, 1911. Serial No. 661,933. (Cl. 204—32.)



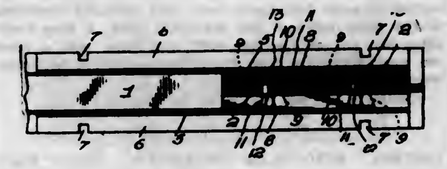
1. An ozoniser, having in combination, a dielectric, electrodes thereabout adapted to furnish a silent electric discharge, means for conveying air through the silent electric discharge, a tank inclosing said electrodes and dielectric and a dam in said tank, the said tank and dam being adapted to hold air as a cooling agent about the electrodes and dielectric and means for furnishing and supplying the air to the tank, substantially as described.

2. An ozoniser, having in combination, a dielectric tube, an electrode about said tube, an electrode in said tube, the electrodes being arranged with respect to the tube so that there is a passage way through the silent electric discharge, a tank inclosing the said electrodes and tube, a dam across the tank and means for supplying air to said tank, whereby cooling of the electrodes and dielectric is effected by the air accumulating in said tank, substantially as described.

3. An ozoniser, having in combination, an air tight tank, a plurality of open-end dielectric tubes supported therein so that air may circulate about and through them, an electrode on the outside of each dielectric tube, an open-end electric on the inside of each dielectric tube and supported in spaced relation with respect to the dielectric so that air is free to travel between the inner electrode and dielectric and also through the inner electrode, a dam across said air tight tank dividing the tank into two compartments having communication only through the dielectric tubes and means for supplying air under pressure to one of the compartments of the tank, substantially as described.



1,037,501. RAIL-JOINT. HENRY LIPPERT, Clairton, Pa. Filed Mar. 13, 1912. Serial No. 683,472. (Cl. 238—9.)

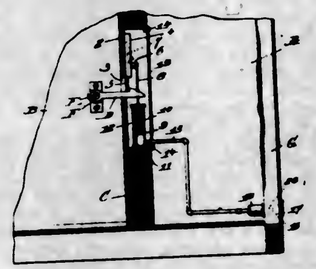


1. In a rail joint, the combination with rails having the webs thereof provided with openings, of splice bars bracing the sides of said rails, said bars having the inner sides thereof provided with longitudinal dove-tail grooves, and the lower edges thereof provided with vertical dove-tail grooves in communication with said longitudinal dove-tail grooves, dove-tail locking bars movably mounted in the longitudinal grooves of said splice bars and having dove-tail slots formed therein adapted to register with the vertical dove-tail grooves of said splice bars, pins located in the openings of the webs of said rails, and dove-tail heads carried by the ends of said pins and engaging in the slots of said locking bars between the walls of the longitudinal dove-tail grooves of said splice bars, said slots with the heads of the pins therein being positioned out of vertical alinement with the vertical grooves of the splice bars.

2. In a rail joint, the combination with rails having the webs thereof provided with openings, of splice bars engaging the sides of said webs, said bars having the inner sides thereof provided with longitudinal dove-tail grooves, pins arranged in the openings of said rails, dove-tail heads carried by both ends of said pins, and locking bars movably mounted in the grooves of the splice bars and provided with dove-tailed slots for the reception of the heads of said pins, said locking bars preventing longitudinal shifting of said pins and the webs of the rails preventing transverse shifting of the pins.

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1,037,502. APPARATUS FOR LOCKING CAR-DOORS. JOSEPH B. LOWELL, Everett, Mass. Filed June 28, 1912. Serial No. 706,409. (Cl. 70—102.)



1. The combination with a car and its sliding door, and a pneumatically released door-locking mechanism inaccessible from without the car when the door is locked, of a conduit communicating with and to supply releasing air to said mechanism and having an accessible inlet end, a normally closed valve in the conduit, and a detachable coupling key having means to open the valve when said key is applied to the inlet end of the conduit, thereby to establish communication with the locking mechanism, said key being adapted for temporary connection with a source of air under pressure to couple the locking mechanism therewith when the conduit valve is opened by the key.

2. The combination with a car and its sliding door, and a pneumatically released door-locking mechanism inaccessible from without the car when the door is locked, of a conduit communicating with and to supply releasing air to said mechanism and having an accessible inlet end, a normally closed valve in the conduit, a detachable, tubular coupling key applicable temporarily to the inlet end of the conduit and adapted for temporary connection at such time with a source of air under pressure, and means rendered operative by the application of said key to the conduit to open the valve therein and maintain it open while the key and conduit are connected.

3. The combination with a car and its sliding door, and an automatically locking mechanism to retain the door closed, of a permanently attached conduit to supply releasing air to said mechanism, a normally closed valve in the conduit, having an exposed spindle, a detachable, tubular coupling member adapted for temporary attachment to the conduit and to a source of air under pressure, said member having means for threaded engagement with the conduit, and means within the coupling member to engage the valve spindle and unseat the valve when said member is caused to have engagement with the conduit.

4. The combination with a car and its sliding door, and an automatically locking mechanism to retain the door closed, of a permanently attached conduit to supply releasing air to said mechanism, the outer end of the conduit having a valve-seat therein and a tubular extension beyond the seat, provided with an inlet port, a spring-controlled valve normally held on the seat, to close the conduit, a tubular coupling member adapted for detachable threaded engagement with the conduit beyond the inlet port, and means within said member to coöperate with and unseat the valve when the said member is in engagement with the conduit, whereby air from a source of supply connected with the outer end of the coupling member may pass through the latter to the conduit through the port and the open valve seat.

5. The combination with a car and its sliding door, and a pneumatically releasing door-locking mechanism inaccessible from without the car when the door is locked, of a conduit communicating with and to supply releasing air to said mechanism and having an accessible inlet end, said conduit having a valve seat therein, a tubular extension beyond the valve seat, provided with an inlet port, and a spring-seated valve having a threaded spindle longitudinally movable in the extension, a tubular coupling member adapted for temporary connection at its outer end with a source of air under pressure and threaded at its inner end for connection with the conduit beyond the inlet port, and a yieldingly-sustained and apertured nut in said coupling member and rotatable therewith, to engage the valve spindle and unseat the valve when the coupling member is screwed onto the conduit, whereby air from the source of supply can pass from the coupling member to the conduit through the inlet port only when said coupling member is operatively connected with the conduit.

[Claims 6 and 7 not printed in the Gazette.]

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1,037,503. STILT. ALBERT H. MANN, Sundance, Wyo. Filed Dec. 21, 1911. Serial No. 667,058. (Cl. 46—33.)

1. A stilt of the character described, comprising an upright, an open bracket having its end portions provided with notches to receive said upright, eye-bolts surrounding the upright and connected with said bracket, and a foot-rest pivotally connected with one of said eye-bolts.

2. A stilt of the character described, comprising a substantially cylindrical upright, a foot detachably connected with the lower end of the upright, an open bracket having its end portions provided with notches for receiving the upright, eye-bolts receiving the upright and passing through upper and lower portions of the open bracket, nuts carried by said eye-bolts outwardly of the bracket,

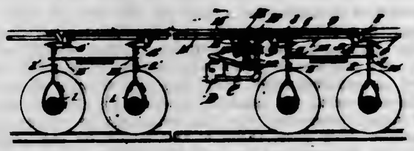
and a foot-rest pivotally connected with the lower eye-bolt to swing in a substantial vertical plane, said foot-



rest comprising heel and sole supports connected by a shoulder.

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1,037,504. AUTOMATIC TRAIN-STOP. James W. McKelvey, Lawrenceville, Ga. Filed July 13, 1911. Serial No. 638,355. (Cl. 188—2.)



1. The combination with the air-brake system, of means for automatically operating the same due to derailment or the like, said means comprising a relief valve, a lever, a double-bell crank lever operably connected to said lever, a bell crank lever to each axle operably connected to said double bell-crank lever, and a series of rods encircling means, one to each bell-crank lever disposed to encircle an axle and be operated by any downward displacement of its axle.

2. The combination with an air-brake system having an auxiliary reservoir, and a relief-valve connected thereto, of a double-bell crank lever having one arm operably connected to said relief-valve, a bell-crank lever disposed above each axle and operably connected to one of the remaining arms of the double bell-crank lever, a loop encircling each axle and normally below and out of contact therefrom, and a rench rod attached to each loop and the proper bell-crank lever for operating the lever when pulled upon and to be disengaged therefrom when pushed too far upon.

3. The combination with an air-brake system having an auxiliary reservoir, and relief-valve connected thereto, of a series of levers and links disposed in operable relation thereto and the respective axles at each end of a car, a loop encircling but out of contact with its respective axle, and a rod connecting each loop to a lever, whereby the relief-valve is operated when the loop is pulled upon and is released therefrom when the loop is pushed upon to too great an extent.

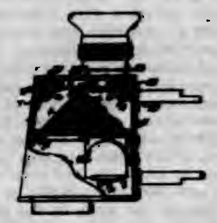
4. The combination with an air-brake system having a relief-valve, of a lever connected to said valve, a three-arm lever having one arm operably connected to said lever, bell-crank levers, one above each axle, links connecting said bell crank levers to the remaining arms of the three-arm lever, and connections between the axles and the respective bell-crank levers for actuating the respective levers and the relief-valve upon the lowering of the axle.

5. The combination with an air-brake system having a relief-valve, of a lever connected to said valve, a three-arm lever having one arm operably connected to said lever, bell-crank levers, one above each axle, links connected to each bell crank lever and operably connected to the other arms of the three-arm lever, a loop encircling but out of contact with each axle, and a reach rod suspending its loop from the respective bell-crank lever.

[Claims 6 to 9 not printed in the Gazette.]

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1,037,505. BINOCULAR TELESCOPE. Georg Merckbach, Schöneberg, near Berlin, Germany. Filed Jan. 12, 1912. Serial No. 670,737. (Cl. 88—33.)



1. In a telescope of the class described, the combination with the casing and a prism mounted therein; of a prism-shifting device for moving the prism transversely of the optical axis of the telescope, said device being provided with a prism-holder adjustable therealong for giving the prism its rough adjustment; and mechanism for reciprocating said shifting device and its prism-holder to give the prism its fine adjustment.

2. In a telescope of the class described, the combination with the casing and a prism mounted therein; of a prism-shifting device which extends transversely of the optical axis of the telescope and engages the prism; mechanism mounted within the casing and accessible from outside the same for reciprocating said device; and clamping means for fastening the latter in its adjusted position.

3. In a telescope of the class described, the combination with the casing and a prism mounted therein; of means accessible from the outside of the casing for imparting fine adjustment to the prism; said means being provided with a device which engages the prism and is displaceable for giving rough adjustment thereto.

4. In a telescope of the class described, the combination with the casing, having a lid transverse to the optical axis of the telescope, and a prism adjustable transversely of the optical axis of the telescope, of a bridge device operatively connected with said prism and adapted to impart adjusting movement thereto, and a cam for reciprocating said bridge device, said cam being accessible through the lid of the casing.

5. In a telescope of the class described, the combination with the casing having a lid transverse to the optical axis of the telescope, and a prism adjustable transversely of the optical axis of the telescope, of a bridge member connected to the corner of the prism which is opposite to its hypotenuse, and a cam engaging said bridge member, and adapted to impart adjusting movement thereto, said cam being accessible through the lid of the casing.

[Claims 6 and 7 not printed in the Gazette.]

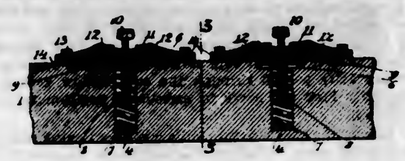
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1,037,506. RAILWAY-TIE. Franklin C. Mikkelsen, Avon, Pa. Filed June 29, 1912. Serial No. 706,500. (Cl. 238—5.)

1. A railway-tie whose body or major portion is approximately I-shaped having laterally extending flanges at its upper and lower edges and on both sides thereof, and vertical pockets or chambers having rainbosses on both sides thereof, springs in said pockets, opposite housing-plates for each rail, and clamping-plates for securing the rails to the tie.



2. A railway-tie having pockets in the body thereof, recesses in the upper ends of said pockets, springs in the pockets, a rail bearing-plate engaging said recesses in each pocket and having a rod or pin extending into the spring, and clamping-plates engaging the web of the rail.



3. A railway-tie whose body or major portion is approximately I-shaped, provided with vertical pockets on both sides of the longitudinal center of the tie, helically coiled springs in said pockets, separate bearing-plates for each rail resting on said springs, separate clamping-plates on each side the rails, and liners of yielding material interposed between the tie and the clamping-plates to minimize the jar.

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1,037,507. LUBRICATING-TROLLEY. George H. Merwin, Milford, Conn. Filed May 18, 1911. Serial No. 628,057. (Cl. 64—27.)



1. A holder comprising arms having oil reservoirs, one of said reservoirs having a closed outer wall and a threaded hole in its inner wall and the other having an unthreaded hole in its inner wall and a threaded hole in its outer wall and a hollow bearing having a head bearing against the inner wall of one reservoir, said bearing engaging the threaded hole in the other reservoir and removable through the hole in the outer wall.

2. A holder comprising arms having oil reservoirs, one of said reservoirs having a closed outer wall and a threaded hole in its inner wall and the other having an unthreaded hole in its inner wall and a hole in its outer wall, a hollow bearing having oil holes, a head bearing against the inner wall of one reservoir and a threaded end engaging the hole in the other reservoir and a wick in the bearing extending into both reservoirs.

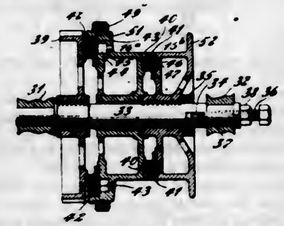
3. A holder comprising arms having oil reservoirs, one of said reservoirs having a closed outer wall and a threaded hole in its inner wall and the other having an unthreaded hole in its inner wall and a hole in its outer wall, a hollow bearing extending between the reservoirs and having oil holes and a wick in the hollow bearing and extending into both reservoirs and having strands pulled into the oil holes, for the purpose set forth.

4. A holder comprising arms having oil reservoirs in their free ends, a bearing sleeve extending between the reservoirs and having a threaded connection at one end with the inner wall of one of said reservoirs, the other end of said sleeve being provided with a head bearing against the inner wall of the other reservoir, said sleeve being also provided with a side opening, a wick extending through said sleeve and having its ends extending into the reservoirs and having a side portion projecting through the side opening of the sleeve, and a wheel mounted on the sleeve.

5. A holder comprising arms having oil reservoirs in their free ends, a perforated bearing sleeve extending between said reservoirs and having a threaded connection at one end with the inner wall of one of said reservoirs, the other end of said sleeve being provided with a head bearing against the inner wall of the other reservoir, a wick extended through said bearing sleeve, and means engaging the periphery of said head to prevent movement of the sleeve.

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1,037,508. ROPE-ENGINE FOR MARINE TRANSFERS. Thomas Spencer Miller, South Orange, N. J. Original application filed Mar. 5, 1909, Serial No. 481,450. Divided and this application filed Jan. 12, 1910. Serial No. 537,656. (Cl. 57—83.)



1. In a rope drum, in combination, a shaft, a driving member fixed thereto, two drums one revoluble thereon and the other splined directly thereto to thereby revolve with the shaft in both directions, friction surfaces between said drums and also between one of said drums and said driving member and means whereby the pressure between said friction surfaces may be adjusted.

2. In a rope drum, in combination, the shaft, the spur wheel fixed thereon, the drum revoluble thereon next said spur wheel, friction surfaces interposed between said spur wheel and revolvable drum, a drum splined directly to said shaft next said revoluble drum and revoluble in both directions with the shaft, friction surfaces between said drums and means whereby the pressure between said friction surfaces may be adjusted.

3. In a rope drum, in combination, a shaft, a two-part drum, one part being splined directly to said shaft to rotate in both directions therewith and the other revoluble on said shaft, a driving member fixed to said shaft, friction surfaces between said driving member and one of said drums, friction surfaces between said drums and mechanism whereby the pressure between said friction surfaces is adjusted.

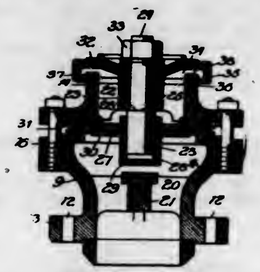
4. In a rope drum, in combination, a drum shaft, a driving member fixed to the shaft, a two-part drum on the shaft, one part being fixed to the shaft to rotate therewith in both directions, and the other part being arranged between the splined part and the driving member, and freely revoluble relative to the shaft, both of said parts being movable longitudinally of the shaft, clutch means for connecting the freely revoluble drum part and the driving member, and thrust means acting on the splined drum part to move both said parts longitudinally of the shaft to connect said clutch means to couple the freely revoluble drum part and the driving member.

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1,037,509. RELIEF-VALVE. William O. Moody, Chicago, Ill. Filed Apr. 15, 1912. Serial No. 690,909. (Cl. 121—117.)

1. In a valve device of the character set forth, the combination with its casing containing a valve seat and a valve cooperating therewith, of a removable and invertible cap on the casing for the casing outlet, said cap when in one position permitting communication of the interior of the casing with the atmosphere and when in inverted condition serving as a closure for the casing outlet.

2. In a valve device of the character set forth, the combination with its casing containing a valve seat and a valve coöperating therewith, of a removable and invertible cap for the casing outlet secured to said casing and forming a shield for the casing outlet when in one position and when inverted thereon serving as a closure for said outlet.



3. In a valve device of the character set forth, the combination with its casing containing a valve seat and a valve coöperating therewith, of a removable and invertible cap for the casing outlet secured to said casing and forming a shield for the casing outlet when in one position and when inverted thereon coöperating with the wall surrounding said outlet to afford a closure therefor.

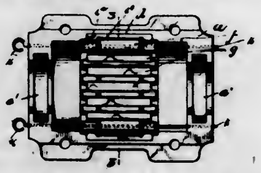
4. In a valve device of the character set forth, the combination with its casing containing a valve seat and a valve coöperating therewith, of a removable and invertible cap for the casing outlet having grooves on one surface thereof and an annular seating surface on its opposite side, said cap when seated at its grooved surface on said casing affording shielded communication between the interior of said casing and the atmosphere, and when seated in inverted position operating to close said outlet.

5. In a valve device of the character set forth, the combination of a casing containing a valve seat, a spindle supported on the casing, a valve reciprocable on said spindle and coöperating with said seat, and a removable and invertible cap for the casing outlet secured to said spindle, said cap when in one position permitting communication of the interior of the casing with the atmosphere and when in inverted condition serving as a closure for the casing outlet.

[Claim 6 not printed in the Gazette.]

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1,037,510. SPLIT ROLLER-BEARING. JOHN NEWMANN, Brooklyn, N. Y. Filed Sept. 11, 1911. Serial No. 648,767. (Cl. 64—61.)



1. In a split roller bearing, a sectional outer shell or box, hollow rollers therein, individual loose blocks interposed between said rollers and members adapted to be passed through the said hollow rollers to temporarily lock the parts in assembled position in each box section.

2. In a split roller bearing, a sectional box, a sectional hardened shell fixed in said box and having on its inner circumference an annular groove the surface of which is ground and forms an outer raceway, hollow rollers having reduced ends and bearing with their middle portion on the ground surface of the annular groove in the said shell, loose blocks interposed between said rollers and serving as spacers and means adapted to be temporarily passed through the said hollow rollers to temporarily lock the parts in assembled position in each box section.

3. In a split roller bearing, a sectional box, a sectional hardened shell fixed in said box and having on its inner circumference an annular groove the surface of which is ground and forms an outer raceway, hollow rollers having reduced ends and bearing with their middle portion on the ground surface of the annular groove in the said shell, loose perforated blocks interposed between said rollers, balls borne in said perforations and projecting laterally outward to bear against said rollers and means adapted to be temporarily passed through the said hollow rollers to temporarily lock the parts in assembled position in each box section.

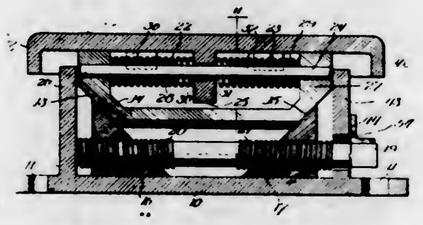
4. In a split roller bearing, hollow rollers having reduced and grooved ends, loose perforated blocks interposed between the said reduced ends of the said rollers and balls contained in said perforated blocks and projecting laterally outward to bear in the grooves of said rollers.

5. In a split roller bearing, a box divided into two sections each having holes in its end faces, hollow rollers in said box, loose blocks interposed between said rollers and wires adapted to be temporarily passed through the said holes of the box sections and the hollow rollers to temporarily lock the parts in assembled position in each box section.

[Claims 6 and 7 not printed in the Gazette.]

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1,037,511. SIDE BEARING FOR CARS. PER ERIK MARTIN NORELL, Chicago, Ill. Filed Feb. 15, 1911. Serial No. 608,829. (Cl. 105—115.)



1. A side bearing comprising, in combination, a base, a bearing member, and wedge means for simultaneously moving both ends of the bearing member vertically only relatively to the base.

2. A side bearing comprising, in combination, a base, a bearing member, coöperating inclined planes carried by said bearing member and said base, and means for varying the relation of said inclined planes whereby said bearing member may be moved vertically only relatively to said base.

3. A side bearing comprising, in combination, a base, a bearing member, coöperating inclined planes carried by said bearing member and said base, means for varying the relation of said inclined planes whereby said bearing member may be moved vertically only relatively to said base, and means for locking said varying means in predetermined position.

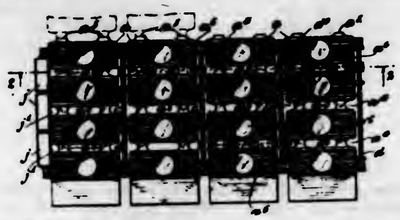
4. A side bearing comprising, in combination, a base, a bearing member, a plurality of sets of inclined planes one vertically and the other horizontally movable relatively to said base, and means for varying the relation of said sets of inclined planes whereby said bearing member may be moved relatively to said base.

5. A side bearing comprising, in combination, a base, a bearing member supported from said base and provided with a plurality of inclined planes, interposed means between said base and bearing members provided with a plurality of inclined planes, the planes of one member being relatively movable, and threaded means engaging the movable planes and adapted to move them toward and from each other whereby the bearing member may be moved vertically relatively to the base.

[Claims 6 to 40 not printed in the Gazette.]



1,037,512. MATTING. CLIFFORD H. OAKLEY, Trenton, N. J. Filed Jan. 12, 1911. Serial No. 602,153. (Cl. 15—62.)



1. A matting having a plurality of tread pieces provided with projections, and means to fasten said tread pieces together, the fastening means separating the tread pieces along two opposite sides and the projections separating said pieces along the other two sides.

2. A matting having a plurality of tread pieces provided with projections and arranged in columns and rows, and fastening means consisting of eyes and rods passing through the eyes, the eyes being secured to the tread pieces so as to lie in the spaces between the columns, and the projections lying in the spaces between the rows and separating and spacing the tread pieces apart.

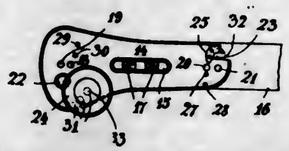
3. A matting having a plurality of tread pieces, projections on the tread pieces arranged to separate and space the same apart on two opposite sides, fastening means including rods along the other two sides, and a supplemental tread piece bent around at least one projection between two adjacent tread pieces the ends of which supplemental tread piece embrace the respective rods on each side.

4. A matting having a plurality of tread pieces arranged in columns and each adjacent pair of which in the same column has two projections separating and spacing them apart, rods in the spaces between the columns to unite the pieces together, and supplemental tread strips each of which is disposed between two adjacent tread pieces, such strip being bent around the two projections separating said pieces so as to form a part of the surface of each side of the matting and the ends of such piece embracing the respective rods on each side of the column in which it lies.

5. A matting having a plurality of end pieces tapered at both sides, eyes projecting from the end of the matting, and a rod passing through the eyes and upon which the end pieces are disposed one such piece between each two adjacent eyes, the said pieces having flat backs which are held against the matting-end by the rods.

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1,037,513. SEWING-MACHINE FOR LEATHER. CARL JULIUS OBERG, Christiania, Norway. Filed Jan. 26, 1911. Serial No. 604,879. (Cl. 112—28.)



1. In a machine for sewing leather, a supporting arm, a longitudinal work plate mounted on the free end of said arm and movable in its own plane, said plate being provided at both ends with a plurality of needle holes of different size at various distances from the edge of the plate, and means for locking said plate in different positions with the holes in either end placed in the path of the needle.

2. In a machine for sewing leather, a work plate provided at both ends with a plurality of needle holes and a central longitudinal slot, two or more of said holes at each end of the work plate being arranged in arcs having their centers at the ends of said slot.

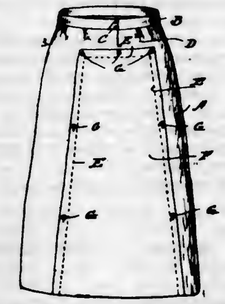
3. In a machine for sewing leather, a supporting arm, a work plate mounted thereon, provided at both ends with a plurality of holes and movable in its own plane, and a spring actuated locking pin mounted in the arm and adapter to snap into holes corresponding to the plurality of the needle holes.

4. In a machine for sewing leather, a supporting arm, a longitudinal work plate mounted on the free end of said arm and provided with a hole open toward the edge of said plate, a crescent shaped work guide pivotally mounted on the latter on one side of said hole, and means to secure said guide in different positions relatively to said hole, whereby the inner part of the latter may be covered by said guide when the outer part of the hole is situated in the path of the needle.

5. In a machine for sewing leather, a work plate provided at both ends with a plurality of holes of different size for the machine needle and movable in its own plane, means for locking the plate in different positions according to the hole which is to be placed in the path of the needle, the end of said plate being provided with an upwardly directed projection situated laterally to a longitudinal slot formed in the plate, said slot being open at the edge of the latter.

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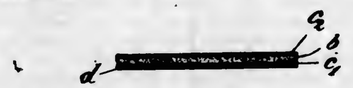
1,037,514. SANITARY PROTECTING-SKIRT. JENNIE M. O'CONNOR, Chicago, Ill., and INEZ G. WIER, Pittsburgh, Pa. Filed Sept. 27, 1911. Serial No. 651,645. (Cl. 2—42.)



An improved sanitary protecting skirt composed of two pieces only, one of said pieces being substantially rhomboidal as described, and adapted to be removed without the removal of the skirt from the wearer.

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1,037,515. BRONZE FOIL. ERNST OESER, Berlin, Germany. Filed May 1, 1911. Serial No. 624,385. (Cl. 154—43.)



A bronze foil protected against oxidization as a substitute for leaf metal, consisting of a foundation of coloring matter and a binding material as a backing, a layer of bronze on said coloring matter, a resinous covering beneath the backing of the coloring matter and a coat of varnish on said bronze.

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1,037,516. METHOD OF CONSTRUCTING A RETORT-SETTING. GEORGE W. PARKER, St. Louis, Mo. Filed Dec. 11, 1911. Serial No. 665,129. (Cl. 48—113.)

1. A method of constructing the retort setting of a retort furnace which consists in arranging a retort in position, and then molding refractory material around a section of said retort so as to form a wall through which the retort passes.

2. A method of constructing the retort setting of a retort furnace which consists in arranging a retort in position and thereafter molding refractory material around a portion or section of said retort so as to form a partition wall provided with expansion joints.



3. A method of constructing the retort setting of a retort furnace characterized by molding vertically disposed partition walls around the retorts from refractory material that is in a plastic or semi-plastic condition.

4. A method of constructing the retort setting of a retort furnace characterized by molding vertically disposed partition walls around the retorts from refractory material that is in a plastic or semi-plastic condition, and finally subjecting said material to a high degree of heat so as to burn or fire it.

5. A method of building the retort setting of a retort furnace which consists in arranging a number of retorts in operative position, arranging a wall form transversely of said retorts in such a manner that the retorts pass through same, and thereafter introducing a plastic or semi-plastic refractory material into said form so as to form a vertically disposed partition wall that is arranged transversely of the retorts.

[Claims 6 to 9 not printed in the Gazette.]

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1,037,517. APPARATUS FOR IMPREGNATING LIQUIDS WITH GASES. MAX PASCHKA, Vienna, Austria-Hungary. Filed June 4, 1910. Serial No. 565,019. (Cl. 209—14.)



A device for use in impregnating liquids with gases, comprising a casing, a porous mass contained within the casing, the casing being provided at one end with a water inlet opening and between said opening and the porous mass with a gas inlet opening and a gas inlet pipe extending into the casing through the second named opening and provided within the casing with a rose, the rear conical wall of which faces the water inlet opening and extends nearly to the wall of the casing, the perforated face of the rose lying next to the porous mass, whereby the water which flows into the casing through the water inlet opening will be caused to spread around the rose and flow as a film around the gas issuing from the rose, the gas and water flowing in the same direction.

1,037,518. SKIRT-WEIGHT. SAMUEL PAULL, New York, N. Y. Filed Mar. 11, 1912. Serial No. 682,954. (Cl. 2—124.)



The herein described garment weight, said weight consisting of flat oblong blocks of soft metal and the ends thereof being beveled on one side, and said side being also provided with a longitudinal groove.

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1,037,519. SUBMARINE OR SUBMERGIBLE BOAT. EDWARD LASIUS PEACOCK, Bridgeport, Conn., assignor to The Lake Torpedo Boat Company, Bridgeport, Conn., a Corporation of New Jersey. Filed July 17, 1911. Serial No. 638,884. (Cl. 114—238.)



1. The combination with a submarine or submergible boat having torpedo expulsion tubes, of a rotatable sleeve mounted on and surrounding a portion of said hull and providing a fairwater for the outer ends of said tubes and having an exit for the torpedoes, and means for rotating said sleeve to expose the outboard ends of said tubes for the discharge of the torpedoes.

2. The combination with a submarine or submergible torpedo boat having torpedo expulsion tubes extending through the hull thereof, of a sleeve rotatably mounted on the hull between the ends of the boat providing a fairwater for the outboard ends of said tubes and having an exit that is adapted for alinement with said tubes, and means for rotating said sleeve, for the purpose specified.

3. The combination with a submarine or submergible boat having a torpedo expulsion tube or tubes and caps for closing the outboard end or ends of said tube or tubes, of a sleeve rotatably mounted on the hull of the boat providing a fairwater for the outboard end or ends of said tube or tubes and its or their cap or caps, said sleeve having an exit that is adapted to be alined with said tube or tubes, and means for rotating said sleeve.

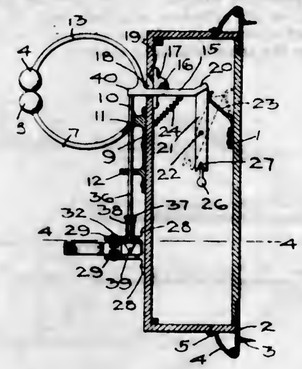
4. The combination with a submarine or submergible boat, of torpedo expulsion tubes extending through the hull of the boat, caps for closing the outboard ends of said tubes, means operable from within the hull for opening and closing said caps, a rotatable sleeve mounted on said hull providing a fairwater shield for said outboard ends of said tubes and said caps and having an exit for the torpedoes, and means for rotating said sleeve to expose said outboard ends of said tubes for the discharge of the torpedoes.

5. The combination with a submarine or submergible boat having torpedo tubes extending through the hull thereof, caps for closing the outboard ends of said tubes, and mechanism operable from within the boat for opening and closing the said caps, of a sleeve rotatably mounted on and surrounding a portion of said hull providing a fairwater for the outboard ends of said tubes and their caps, said sleeve having a longitudinally arranged torpedo exit, and means operable from within the boat for rotating said sleeve to move said exit into alinement with said tubes.

[Claims 6 to 30 not printed in the Gazette.]



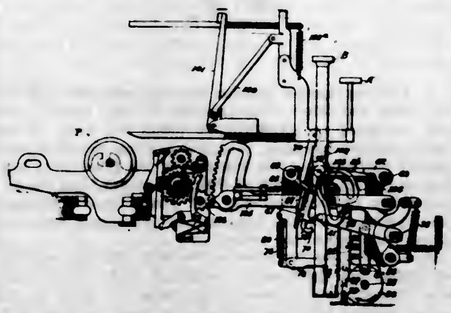
1,037,520. SAFETY-RACK. EDGAR J. PERLEY, Emerson, Iowa. Filed Jan. 25, 1911. Serial No. 604,511. (Cl. 45—18.)



A locking garment rack comprising a housing having an outwardly flaring opening in the upper portion of the front wall thereof, a bracket secured to the outer portion of the walls below the opening, said bracket carrying a clamping jaw, a vertically perforated extension on the bracket, a spring-pressed plunger vertically slidable through the opening in the extension, the said jaw having a vertical opening to receive said plunger, a bracket mounted on the front wall within the box, adjacent the opening, a jaw pivotally mounted in the bracket and adapted for coöperation with the first-named jaw, an arm on the last-named jaw extending within the housing, the inner end of said arm being upwardly inclined and having a roughened lower face, a vertically arranged pivoted detent, a spring for holding the detent normally in the vertical position in engagement with the roughened face of the said arm, a bifurcated lower end on the detent for engagement by a key for moving said detent, an outwardly extending lug on the pivoted jaw engaging with the upper end of said plunger, and a spring for raising the pivoted jaw when the detent is moved out of engagement therewith.

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1,037,521. COMBINED TYPE-WRITING AND ADDING MACHINE. WILLIAM H. PIKE, Jr., Orange, N. J., assignor to New York Adding Typewriter Company, Orange, N. J., a Corporation of Missouri. Filed Dec. 8, 1904. Serial No. 235,980. (Cl. 235—62.)



1. The combination with recording mechanism, numbered and lettered hand-actuated keys for operating the recording mechanism, and an adding mechanism, of a driving shaft, means for continuously rotating said shaft, connections whereby said shaft may actuate both the recording and adding mechanisms, means normally preventing actuation of said connecting means, and a series of numbered starters each adapted to control the actuation of said connecting means by the driving shaft.

2. In a combined typewriting and adding machine, the combination with adding mechanism, suitable recording mechanism, hand actuated lettered and numbered keys for operating said recording mechanism, a working shaft adapted to operate both the adding and recording mechanisms, a continuously rotating driving shaft, a frictional driving connection between the shafts, means for automatically arresting the working shaft after each recording and adding operation, and means for releasing said shaft at will.

3. In a typewriting and adding machine, a series of numbered shifters, recording devices, and a working shaft from which said devices are operated, combined with a continuously operating driving shaft adapted to actuate the working shaft, means normally checking rotation of the working shaft, means controlled by depressing any one of the shifters prior to each operation in adding for releasing the working shaft, and automatic means for arresting the working shaft after each operation.

4. In a typewriting and adding machine, a series of numbered adjustable devices, recording means and a working shaft from which said devices and means are operated combined with a continuously operating driving shaft, and means for arresting the working shaft after each recording operation, said arresting means operable to release the working shaft on the adjustment of any one of said numbered devices.

5. In a combined typewriting and adding machine having typewriting and adding mechanisms, a working shaft from which said mechanisms are operated, a continuously rotating driving shaft, means adapted to arrest rotation of the working shaft, means operable at will for enabling the driving shaft to actuate the working shaft, and automatic means for rendering operative the means for arresting the working shaft after the completion of each operation, in adding or recording, substantially as set forth.

[Claims 6 to 15 not printed in the Gazette.]

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1,037,522. ELECTRIC CABLE. VICTOR PINDTER VON PINDTERSHOFEN, Wiener-Neustadt, Austria-Hungary. Filed Jan. 27, 1909. Serial No. 474,631. (Cl. 173—265.)



1. High tension cable, characterised by the individual conductors being arranged in insulating tubes with a concentric intermediate air space and being mounted in common with an exterior insulating closed protecting tube at a distance from the inner wall of the same, whereby a combined air and material insulation is obtained and high capacity of the cable is avoided.

2. In electric cables, the combination with individual conductors, insulating tubes concentrically arranged relatively to the respective conductors, and supports separating the conductors from the tubes, whereby an intermediate air space is formed between the conductor and tube; of a common exterior protecting tube and supports for spacing the exterior tube from the insulating tubes, the said last-named supports being displaced longitudinally with regard to the supports separating the conductors from the insulating tubes, whereby an elongated path is obtained for any current leakage.

3. In electric cables, the combination with individual conductors, insulating tubes concentrically arranged relatively to said conductors, and supports separating the conductors from the tubes, whereby an intermediate air space is formed between the conductor and tube, of a common exterior protecting tube and supports for spacing the exterior tube from the insulating tubes, the said last named supports being displaced longitudinally with regard to the supports separating the conductors from the

insulating tubes, whereby an elongated path is obtained for any current leakage.

4. In electric cables, the combination with individual conductors, an insulating tube concentrically arranged around each conductor, means holding apart the tube from the conductor and forming a concentric air-space between conductor and tube, this insulating tube consisting of two tightly telescoped tubes made of sections, the joints of which are longitudinally displaced with regard to each other.

5. In electric cables, the combination with individual conductors, an insulating tube concentrically arranged around each conductor, means holding apart the tube from the conductor and forming a concentric air-space between conductor and tube, another insulating tube concentrically around the latter, means holding this tube concentrically with regard to the first one and forming an insulating air-space, whereby the insulating tubes consist of two tightly telescoped tubes; said tubes being made of sections, the joints of which are longitudinally displaced with regard to one another.

[Claims 6 to 10 not printed in the Gazette.]

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1,037,523. CONCRETE REINFORCEMENT. ETHELBERHT D. PITT, Niagara Falls, Ontario, Canada. Filed Jan. 19, 1909. Serial No. 473,036. (Cl. 72—112.)



1. A concrete reinforcement comprising a tensile reinforcing bar, supporting members engaging the bottom and sides of said bar and projecting downwardly some distance therefrom for engaging the form and supporting the bar some distance above such form, shearing members having their central portions interlocked with said bar and its supporting member and its opposite sides twisted upon each other close to and across the top of the bar and projecting upwardly and horizontally therefrom.

2. A concrete reinforcement comprising a tensile reinforcing bar, a supporting clip and a shearing rod engaging opposite sides of the bar and interlocked with each other at the sides and top of the bar said shearing rod having upwardly extending portions spaced apart and its ends disposed parallel with said bar.

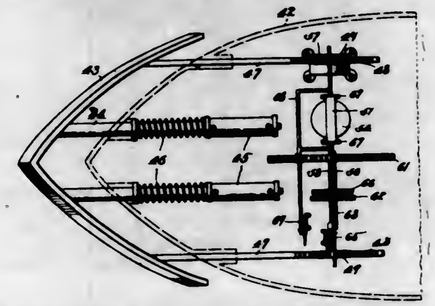
3. A concrete reinforcement comprising a tensile reinforcing bar, an inverted U-shaped chair for the bar having its central portion disposed and engaged with the bottom and sides of said bar, and a shearing rod having its intermediate portion resting upon the top of the bar and its opposite arms interlocked with the opposite arms of the chair and extending upwardly above the bar some distance apart and parallel with said bar.

4. A concrete reinforcement comprising a tensile reinforcing bar, a clip having its central portion depressed and forming a seat for the bar and its ends projecting downwardly some distance below said bar, and a shearing rod having its intermediate portion resting on the top of the bar and its opposite arms looped around the under side of the arms of the U-shaped clip and extended upwardly above the bar, the arms of said shearing rod being twisted close to the upper face of the bar and their remaining portions spaced apart and parallel with the bar.

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1,037,524. SHOCK-ABSORBER. GEORGE J. PLATO, San Francisco, Cal. Filed June 14, 1910. Serial No. 566,743. (Cl. 114—219.)

1. In a shock absorber, the combination of a propelled member formed with a pointed end, a shock absorbing element formed with diverging sides adapted to fit closely against the pointed end of the propelled member, a pair of parallel piston rods connected to the respective sides of the shock absorbing element, pistons upon the piston rods, and a pair of air cylinders mounted upon the propelled member and receiving the pistons so as to provide an air cushion for the shock absorbing element.

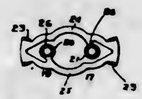


2. In a shock absorber, the combination of a propelled member formed with a pointed end, a shock absorbing element formed with diverging sides adapted to fit closely against the pointed end when retracted into an inoperative position, a pair of parallel piston rods projecting from the respective sides of the shock absorbing element, pistons upon the piston rods, a pair of air cylinders receiving the pistons and coöperating therewith to provide an air cushion for the shock absorbing element, and means for positively moving the shock absorbing element into and out of operative position.

3. In a shock absorber, the combination of an air cylinder adapted to be applied to the propelled member, a piston operating within the air cylinder, a piston rod connected to the piston and projecting in front of the propelled member, a shock absorbing member applied to the piston rod, gearing for positively moving the shock absorbing member in either direction, and means for throwing the gearing into and out of operative position.

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1,037,525. ROTARY CONTACT FOR SNAP-SWITCHES. CLARENCE D. PLATT, Bridgeport, Conn. Filed Apr. 24, 1912. Serial No. 692,991. (Cl. 175—290.)

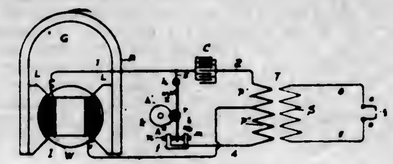


1. A rotary contact member for snap switches comprising upper and lower arms crossing at right angles, each arm consisting of corresponding plates cut away at the center leaving branches, said plates being provided with contact portions and the branches of the lower arm with eyes on the opposite sides of their mid-length from the corresponding contact portions, and rivets passing through the mid-length of the branches of the upper arm and through the eyes of the lower arm.

2. A rotary contact member for snap switches comprising upper and lower arms crossing at right angles, each arm consisting of corresponding plates cut away at the center leaving branches, said plates being provided with contact portions and the branches of the lower arm with eyes on the opposite sides of their mid-length from the corresponding contact portions, and the branches of the upper arm with rivet holes at their mid-length, insulating bushings in the rivet holes and eyes, insulating washers on opposite sides of the arms, spacing collars between the arms and rivets by which the parts are secured together.



1,037,526. EXPLOSIVE-ENGINE. HENRY J. PODLESAK, Chicago, Ill. Filed Dec. 7, 1910. Serial No. 596,062. (Cl. 123—148.)



1. In an ignition system, the combination of a primary winding, a condenser in series relation to said winding, means including a circuit connecting a source of current to one terminal of the winding and to a point in said winding intermediate the terminals for producing an impulse through a part of said winding to charge the condenser, means for causing the condenser to discharge through all of the primary winding, and a secondary winding inductively related to the primary winding.

2. In an ignition system, the combination of a primary winding, a secondary winding inductively related thereto, a condenser in series relation to the primary winding, means for charging the condenser through only a part of the primary winding and means for discharging the condenser through the whole of the primary winding.

3. In an ignition system, the combination of a primary winding, a secondary winding inductively related thereto, a sparking device connected with the latter winding, a condenser in series relation to the primary winding, means for charging the condenser through only a part of the primary winding to create a magnetic flux, and means for discharging the condenser through the whole of the primary winding and in such a direction as to create a flux in opposition to the first flux.

4. In an ignition system, the combination of a primary winding, a secondary winding in inductive relation to the primary winding, a current supply circuit possessing inductance and connected with the primary winding at one of its terminals and at a point intermediate its terminals, means for closing and opening said circuit, and a condenser arranged to receive the inductive discharge from said circuit, when the same is opened by the said means, through a part of the primary winding other than that included in the said circuit.

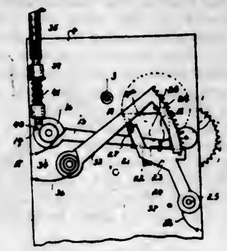
5. In an ignition system, the combination of a primary winding, a current supply circuit possessing inductance and connected with the primary winding at one terminal at a point intermediate its terminals, means for closing and opening said circuit, a condenser arranged to receive the inductive discharge from said circuit through a part of the primary winding other than that included in the said circuit when the latter is opened by the said means, a spark gap device, and a secondary winding connected with the said device and inductively related to the primary winding.

[Claims 6 to 9 not printed in the Gazette.]

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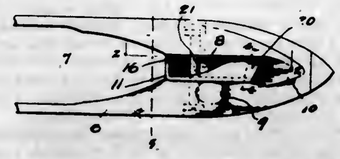
1,037,527. CLOCK. WILSON E. PORTER, New Haven, Conn., assignor to New Haven Clock Co., New Haven, Conn., a Corporation. Filed June 10, 1912. Serial No. 702,750. (Cl. 58—9.)

In a clock striking once in twenty-four hours, the combination with a twenty-four hour wheel, of a twenty-four hour cam carried thereby, means for rotating the said wheel and cam once in twenty-four hours, a lifting lever engaging with the said cam, a warn-lever mounted with the said lifting-lever and operated thereby, and provided with a warn-finger and a lifting finger, a stop-pin wheel carrying a stop-pin co-acting with the warn-finger of the warn-lever, a pivotal stop-lever provided with a stop-finger co-acting with the said stop-pin, with a rack-retaining pin and adapted to be operated by the lifting-finger of the warn-lever, a rack the teeth of which co-act with the said rack-retaining pin, a gathering hub, a gathering-pin co-acting with the rack, and a rack-stop pin located in position to arrest the falling of the rack when a predetermined number of rack teeth have been presented to the action of the gathering-pin.



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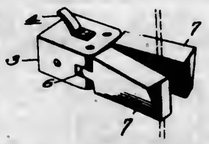
1,037,528. LOOM-SHUTTLE. WILLIAM H. PORTNER and DANIEL H. BEAIRD, Gadsden, Ala. Filed Nov. 23, 1911. Serial No. 662,075. (Cl. 139—46.)



In a loom shuttle, a shuttle body having a bobbin chamber and a passageway that extends from one end of the chamber and opens through one side of the body, a thread guide located in the passageway and comprising angularly disposed leaves provided with thread-receiving eyes, one of said leaves extending across the passageway and the other longitudinally therein, a guard lip located at the upper and outer end of the latter leaf, the shuttle body having a longitudinally disposed slot opening into the bottom of the passageway and receiving the lower margin of the longitudinally disposed leaf, and a fastening device passing across the passageway and through the longitudinally disposed leaf.

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1,037,529. WIRE-STRETCHER. HOMER B. POWELL, Palmer, W. Va. Filed Dec. 15, 1911. Serial No. 665,999. (Cl. 39—54.)



1. The combination with a handle having a bifurcated end portion, a block rotatably mounted in said bifurcation, jaws pivotally carried by said block, said jaws being wedge-shaped in cross section, and the sides of the bifurcation in advance of the block being wedge-shaped in cross section, a spring adapted to throw said jaws into open position, and means for normally holding said block in normal position.

2. The combination with a handle bifurcated at its forward end, a block pivoted in said bifurcation, the sides of the bifurcation being wedge-shaped in cross section in advance of the block, jaws pivoted in said block and adapted to swing in a plane at right angles to the rocking movement of the block, said jaws being wedge-shaped in cross section, a spring for throwing said jaws in open position, a handle carried by the block, and a spring adapted to hold said block in normal position.

3. In a device of the kind described, a jaw frame having wedge-shaped sides, a block pivotally mounted in said frame and to the rear of the wedge-shaped portion, jaws pivotally connected to the block, the jaws being also wedge-shaped, said jaws opening in a plane at right angles to the plane in which the block swings, means for normally holding said block and jaws parallel with the sides of the frame and means for opening said jaws automatically when said block is rocked upon its pivotal point.

4. In a device of the kind described, a pivoted block, pivoted wedge-shaped jaws carried by the block, a frame having side members wedge-shaped in cross section and adapted to normally receive and close said jaws, means for rocking the block and lifting said jaws out of said frame, and means for opening the jaws automatically when so lifted.

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1,037,530. PHONOPHOTOSCOPE. WYNANT J. WILLIAMS, Albany, and HARALD HENRI RASMUSSEN, Troy, N. Y. Filed July 15, 1911. Serial No. 638,781. (Cl. 88—1.)



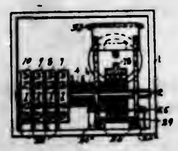
1. In a toy, a vibrating member secured between two supports, a reflector mounted upon said vibrating member, means for vibrating said member carrying said reflector transversely as a string fastened at each end and at the same time means for vibrating said reflector in a rotary direction as a torsion pendulum.

2. A toy consisting of a vibrating member supported at each end, a mirror attached to said vibrating member, means for giving said mirror a rotary vibration upon one axis produced by transverse vibration like that of a vibrating string and means at the same time for giving said mirror a rotary vibration around another axis produced by a rotary vibration like that of a torsion pendulum.

3. A toy consisting of a vibrating member supported at each end, a mirror mounted upon said vibrating member, means for giving said mirror a rotary vibration upon one axis produced by transverse vibration like that of a vibrating string and means at the same time for giving said mirror a rotary vibration around another axis produced by a rotary vibration like that of a torsion pendulum, and means for changing the period, amplitude and phase of the rotary vibration of said mirror produced by a transverse vibration of said member with respect to the period, amplitude and phase of the rotary vibration of said mirror produced by the rotary vibration of the member when said mirror is executing both vibrations simultaneously.

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1,037,531. LOCK. WILLIAM A. RATCLIFF, Seattle, Wash. Filed Sept. 21, 1910. Serial No. 583,132. (Cl. 70—6.)



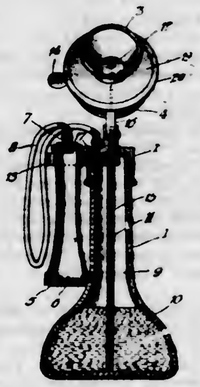
1. In a lock, the combination with locking mechanism and a plurality of symbol bearing keys each of which has a different arrangement of teeth from any of the other keys, but each constructed to operate said locking mechanism, of a ratchet wheel having teeth adapted to engage the teeth upon one of said keys when the latter is being withdrawn from the lock, retaining means for said ratchet wheel, a registering wheel, connections between said registering wheel and said ratchet wheel whereby the latter is actuated to register the symbol or symbols corresponding to the symbol or symbols upon the key, and means for restoring said registering means to normal position.

2. In a lock the combination with locking mechanism and a plurality of symbol bearing keys each of which has a different arrangement of teeth from any of the other keys, but each constructed to operate said mechanism, of a ratchet wheel having its teeth adapted to engage certain teeth only of the teeth upon a key when the latter is inverted in the lock, retaining pawls for said ratchet wheel, a registering wheel and means for securing the same to said ratchet wheel and means operable by the entrance of a key into the lock whereby said registering wheel is disengaged from said retaining pawls, and means for returning the said ratchet wheel to its normal position.

3. In a lock the combination with locking mechanism and a plurality of symbol bearing keys each constructed to operate said locking mechanism and having teeth arranged substantially in parallel rows of different lengths, a ratchet wheel for each of said rows of teeth and adapted to be engaged thereby, retaining pawls for said ratchet wheels, tubular hubs for said ratchet wheels sleeving one over the other, a registering wheel secured to the end of each of said hubs and means operable by the entrance of a key into the lock whereby said ratchet wheels are disengaged from their retaining pawls, and means for returning said ratchet wheels to their normal positions.

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1,037,532. TOY TELEPHONE. ALEXANDER E. REDLICH, Chicago, Ill. Filed Apr. 1, 1912. Serial No. 687,935. (Cl. 46—70.)



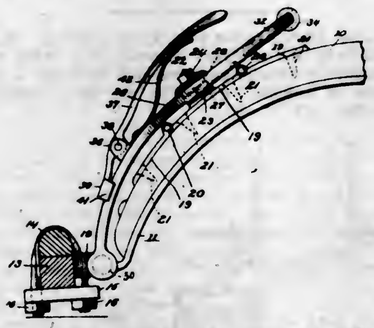
1 A combined toy telephone and receptacle, comprising a hollow base having an opening at the top; a closure having secured thereto an upwardly extending arm having a channel therethrough; a tube passing into said receptacle and communicating with said channel; an imitation telephone transmitter supported on said arm and having an aperture through its base communicating with said channel; said closure having a second channel therethrough; a flexible tube communicating with said second channel; and a collapsible hollow imitation telephone receiver secured to and communicating with said tube, said closure having an arm projecting outwardly therefrom and adapted to support said imitation receiver.

2. A combined toy telephone and receptacle, comprising a hollow base having an opening at the top; a closure for said opening, said closure having secured thereto an upwardly extending arm; an imitation telephone transmitter supported on and extending forwardly of said arm; a bell supported on and extending rearwardly of said arm; said imitation transmitter having an aperture through its back wall or base; said arm having a channel communicating with said aperture and extending through said closure; a tubular extension on said closure extending into said receptacle and communicating with said channel; said closure having a second channel extending therethrough; a flexible tube communicating with said second channel; a collapsible, hollow imitation telephone receiver secured to and communicating with said flexible tube, said closure having a second arm extending laterally therefrom and adapted to support said imitation receiver.

3. The combination of a receptacle having an opening at the top, a closure for said opening, said closure having secured thereto an upwardly extending arm; an imitation telephone transmitter supported on and extending forwardly of said arm and having an aperture through its back wall or base; a bell supported on and extending rearwardly of said arm, said arm having a channel communicating with said aperture and extending through said closure; a tube supported by said closure, communicating with said channel and extending into said receptacle; said closure having a second channel extending into said receptacle; a flexible tube secured to said closure and communicating with said second channel; and an air tight flexible bulb secured to and communicating with said tube.

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1,037,533. THILL-COUPLING. HARRY REID, Clinton, Ind. Filed Mar. 6, 1912. Serial No. 682,039. (Cl. 21—57.)



1. The combination with a thill coupling including an axle clip having spaced perforated ears, of a thill and shackle member including a perforated head engaging between the ears, coacting arms swinging upon said thill and having studs adapted to engage through the ears and shackle head from opposite sides, and means for locking said arms in closed relations.

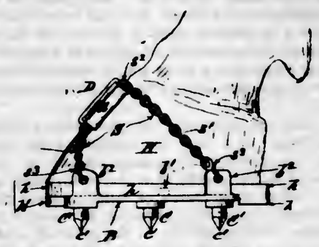
2. A device of the class described comprising a base formed of a plurality of sections hingedly united and with a pin extending from one of the sections, said hingedly united sections being adapted to be connected to a thill, coacting arms pivoted to said pin and having inwardly directed studs adapted to engage through the ears of a thill clip and into the head of a thill shackle, and means for locking said arms in closed relations.

3. A device of the class described, comprising a base having a pin extending therefrom and adapted to be connected to a thill, coacting arms pivoted to said pin and having inwardly directed studs adapted to engage through the ears of a thill clip and into the head of a thill shackle, and a lock lever pivoted to one of said arms and provided with lugs engaging over said arms and locking the same in closed position.

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1,037,534. OVERSHOE FOR HORSES. LOUIS REINACH, New York, N. Y., assignor of one-third to John Curry, New York, N. Y. Filed Mar. 4, 1912. Serial No. 681,421. (Cl. 168—1.)

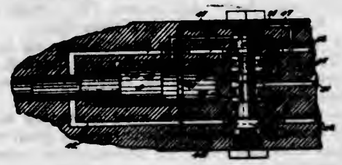
In an overshoe of the character designated, the combination of the calk plate B, formed with the inner guard flanges $b$, $b$, $b'$, $b'$, and loops $b^2$, $b^2$, and with the threaded calk sockets $b^3$, $b^3$, screw-threaded calks engaging said threaded calk sockets, the suspenders S, each consisting of an elongated strap link $s^2$ (shaped to permit the coupling strap $d$, to be passed either around or through it) of a short flexible toe ligament $s$, and of a longer flexible heel ligament $s'$, said flexible ligaments being formed with hooks $s^3$, $s^3$, for engagement with the loops $b^2$, $b^2$, on the calk plate B, and said coupling strap $d$,



and its buckle $d'$, for connecting the elongated strap links $s^2$, $s^2$, on the suspenders S, S, as and for the purpose set forth.

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1,037,535. FLUID-OPERATING TOOL. CHARLES B. RICHARDS, Cleveland, Ohio, assignor, by mesne assignments, to The Cleveland Rock Drill Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 22, 1909. Serial No. 534,412. (Cl. 121—20.)



1. In a fluid operated tool; the combination with a cylinder and piston; of a valve for controlling the admission of fluid to the cylinder having pressure receiving surfaces to move it in opposite directions; means for intermittently supplying fluid to one of the surfaces from the cylinder; means for intermittently supplying fluid to the other of the surfaces; and means for automatically stopping the movement of the valve comprising an exhaust port leading to the outer air and uncovered by the piston when a position in advance of its normal forward position is reached, whereby the pressure in the cylinder is reduced and rendered insufficient to operate the valve.

2. In a fluid operated tool; the combination with a cylinder and piston; of a valve for controlling the admission of fluid to the cylinder having pressure receiving surfaces to move it in opposite directions; means for intermittently supplying fluid at different pressures to both of the surfaces from the cylinder whereby the valve is moved in one direction; means for intermittently supplying fluid to one of the surfaces only for moving the valve in the other direction; and means for automatically stopping the movement of the valve comprising an exhaust port leading to the outer air and uncovered by the piston when a position in advance of its normal forward position is reached, whereby the pressure in the cylinder at such time is rendered insufficient to move the valve.

3. In a fluid operated tool; the combination with a cylinder and piston; of a valve for controlling the admission of fluid to the cylinder having pressure receiving surfaces to move it in opposite directions; means for intermittently supplying fluid to one of the surfaces from the cylinder to move it in one direction; means for intermittently supplying fluid to the other of the surfaces to move it in the other direction; exhaust means from the front side of the piston leading to the outer air and controlled by the valve; and a port thereto normally covered by the piston and adapted to permit a reduction of pressure in the cylinder sufficient to render such pressure ineffective to move the valve when the piston reaches a point in advance of its normal position and uncovers such port.

4. In a fluid operated tool; the combination with a cyl-

inder and piston; of a valve for controlling the admission of fluid to the cylinder; means whereby the valve is shifted by means of fluid pressure from the cylinder behind the piston; and automatic stop means comprising an exhaust passage leading to the outer air and uncovered by the piston when it reaches a point in advance of its forward normal extreme of movement, whereby the pressure behind the piston is reduced to a point which renders it ineffective to shift the valve and secure a backward movement of the piston.

5. In a fluid operated tool; the combination with a cylinder and piston; of a valve for controlling the admission of fluid to the cylinder; a passage leading to the valve and uncovered by the piston as it moves forward, whereby the valve is shifted by means of fluid pressure from the cylinder behind the piston; automatic stop means comprising an exhaust passage leading to the outer air and uncovered by the piston when it reaches a point in advance of its forward normal position whereby the pressure behind the piston is reduced to a point which renders it ineffective to shift the valve and secure a backward movement of the piston; and means against which the piston impinges for normally preventing the uncovering of the said port when the tool is in operation.

[Claims 6 to 9 not printed in the Gazette.]

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1,037,536. TREATMENT OF MOLTEN STEEL. JOSEPH W. RICHARDS, South Bethlehem, Pa. Filed Dec. 8, 1910. Serial No. 596,236. (Cl. 204—64.)

1. The treatment of molten steel consisting in transferring it into an electric furnace when finished, molten and otherwise ready for casting, there maintaining it in the molten state, and thereafter casting.

2. The treatment of molten steel consisting in transferring it into an induction electric furnace when finished, molten and otherwise ready for casting, there maintaining it in the molten state, and thereafter casting.

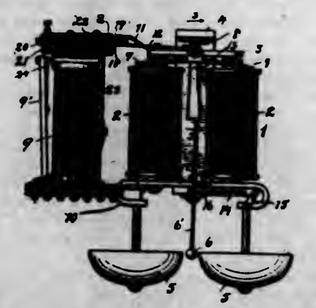
3. The treatment of molten steel consisting in transferring it into an acid-lined electric furnace when finished, molten and otherwise ready for casting, there maintaining it in the molten state, and thereafter casting.

4. The treatment of molten steel consisting in transferring it into an acid-lined induction electric furnace when finished, molten and otherwise ready for casting, there maintaining it in the molten state, and thereafter casting.

5. The treatment of molten steel consisting in transferring it into an electric furnace when finished, molten and otherwise ready for casting, there maintaining it in the molten state, converting it into a special alloy steel by adding alloying metal, and thereafter casting.

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1,037,537. RINGER FOR TELEPHONES, &c. HOMER J. ROBERTS, Evanston, Ill., assignor, by mesne assignments, to Homer Roberts Telephone Co., a Corporation of West Virginia. Original application filed May 1, 1905, Serial No. 258,192. Divided and this application filed May 27, 1907. Serial No. 375,842. (Cl. 177—7.)



1. In telephone or analogous mechanism, a polarised magnet, a gong and a striker, and one-way operative connections between the armature of the magnet and striker, whereby the striker is actuated when the armature moves in one direction and remains inoperative when the armature is actuated by current of opposite polarity.

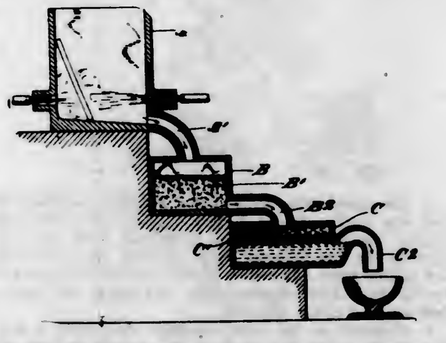
2. A polarised ringer, comprising an electromagnet, a permanent magnet, an armature associated with said magnets, a striker, a gong, and one-way-operative-one-way-idle connections between said armature and said striker.

3. A polarised ringer, comprising an electromagnet having its two poles spaced apart and an armature pivotally mounted and arranged to extend from pole to pole, a permanent magnet having one of its poles arranged to form in conjunction with the two poles of said electromagnet a triangular disposition of said poles, a striker, a gong, and one-way-operative-one-way-idle connections between said armature and said striker.

4. A polarised ringer, comprising an electromagnet having its two poles spaced apart and an armature pivotally mounted and arranged to extend from pole to pole, a permanent magnet associated with said magnets, a striker, a gong, a one-way-operative-one-way-idle connections between said armature and said striker, a stop against which said striker rests in its normal inoperative position, and means yieldably holding said striker against said stop.

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1,037,538. PROCESS OF REFINING COPPER. WALTER S. ROCKEY and HILLIARY ELDRIDGE, New York, N. Y., assignors to Metallurgical Research Company, a Corporation of Arizona. Filed Feb. 23, 1911. Serial No. 610,224. (Cl. 75—62.)



1. The process of refining copper which comprises exposing the same to the heat of a furnace and its gases until reduced to a molten condition, then removing the copper from exposure to said gases and into intimate contact with carbon to purify said copper.

2. The process of refining copper consisting in exposing the same to the heat of a furnace and its gases until reduced to a molten condition, then removing the copper from exposure to said gases and into intimate contact with carbon to purify said copper, and then passing said copper through and under a protective flux.

3. The process of refining copper consisting in exposing the same to the heat of a furnace and its gases until reduced to a molten condition, then removing the copper from exposure to said gases and into intimate contact with carbon to purify said copper, and then passing said copper through and under a flux containing anhydrous boron trioxid.

4. The process of refining copper consisting in exposing the same to the heat of a furnace and its gases until reduced to a molten condition, then removing the copper from exposure to said gases and into intimate contact with carbon to purify said copper, and then passing said copper through and under a flux of anhydrous boron trioxid containing carbon.

5. The process of treating copper which comprises exposing the same to the heat of a furnace and its gases until reduced to a molten condition, then removing the copper



from exposure to said gases and into intimate contact with carbon to purify said copper, and then flowing said copper to the ladle or mold out of contact with said furnace gases.

[Claims 6 to 22 not printed in the Gazette.]

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1,037,539. WIRE BASKET. RICHARD PINKNEY RODGERS, Spartanburg, S. C. Filed Nov. 24, 1909. Serial No. 529,831. (Cl. 220—136.)



1. A basket of the class described comprising, in combination, a wire frame composed of a series of spaced vertical wires, and a series of spaced horisontal wires located at the top and bottom of the vertical wires and intermediate thereof, the wires joined together at their intersection to form a rigid structure, hoops arranged internally and externally of the frame at the upper margin thereof immediately beneath the uppermost horisontal wire, a binding wire wrapped spirally around and connecting the two hoops to the upper horisontal wire of the frame, a bottom disposed within the lower margin of the frame, and straps underlying the bottom with their termini engaging a horisontal wire in the lower part of the frame.

2. A basket of the class described comprising, in combination, a wire frame composed of a series of spaced vertical wires, and a series of spaced horisontal wires located at the top and bottom of the vertical wires and intermediate thereof, the wires joined together at their intersection to form a rigid structure, hoops arranged internally and externally of the frame at the upper margin thereof immediately beneath the uppermost horisontal wire, a binding wire wrapped spirally around and connecting the two hoops to the upper horisontal wire of the frame, a bottom disposed within the lower margin of the frame and straps underlying the bottom with their termini engaging a horisontal wire in the lower part of the frame, and an upstanding handle having its terminal portions extending downwardly between the hoops into engagement with a horisontal wire on opposite sides of the frame.

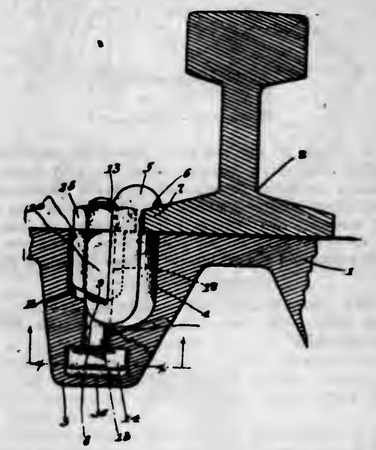
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1,037,540. RAIL-SUPPORT. GEORGE W. ROEMER, Chicago, Ill., assignor of one-third to Charles Priester, Chicago, Ill. Filed Sept. 7, 1911. Serial No. 648,139. (Cl. 238—4.)

1. The combination with a rail tie having a recess therein, of a pair of elongated fasteners, the upper ends of which engage over the rail base and the bodies thereof project downwardly into said recess; a yoke engaging said fasteners and adapted to draw them into said recess; and a bolt anchored in said recess below said yoke and engaging said yoke, substantially as described.

2. In a rail support, a substantially Z-shaped fastener the body of which is vertically disposed and the upper end thereof adapted to engage over the rail base, there being a recess in the rail tie for the reception of the lower end of said fastener, a removable yoke having a face arranged contiguous to said body and a lower edge adapted to engage over the lower end of said fastener, and a removable bolt for securing said yoke in position, substantially as described.

3. In a rail support, an elongated substantially Z-shaped fastener, one of the projecting ends of which is adapted to engage over the edge of the rail base, there being a recess in the rail tie for the reception of the other projecting end of said fastener, a yoke having a lateral face engaging the central portion of said fastener for holding the same in engagement with the rail base, and a removable bolt for retaining said yoke in position, there being a beveled lower edge on said yoke for engaging the lower projecting end of said fastener, substantially as described.



4. In a rail support, a pair of elongated substantially Z-shaped fasteners the central portions of which are vertically disposed, the upper ends of said fasteners engaging over the edge of the rail base, there being a pair of recesses in the rail tie for the reception of said fasteners, a yoke adapted to engage over the lower projecting ends of said fasteners, and a removable bolt secured in the rail tie and adapted to lock said yoke in position, substantially as described.

5. In a rail support, a pair of elongated substantially Z-shaped fasteners the upper projecting ends of which are adapted to engage over the edge of the rail base and the lower projecting ends to extend downwardly therefrom, there being a pair of recesses in the rail tie for the reception of said lower projecting ends, a yoke the ends of which are adapted to engage over said lower projecting ends of said fasteners, there being a recess formed in the tie for the reception of said yoke, the latter having a central aperture, a vertically disposed bolt removably secured in the tie and adapted to pass through said aperture of said yoke, and a bolt nut adapted to impinge against and draw said yoke downwardly, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

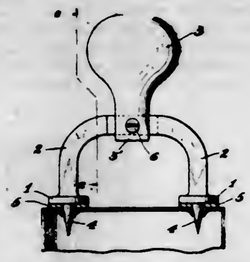
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1,037,541. CAN-CLOSING APPLIANCE. PAUL A. ROOK, Seattle, Wash., assignor of one-half to Benjamin J. Rook, Seattle, Wash. Filed Dec. 24, 1910. Serial No. 599,205. (Cl. 220—67.)

1. A can closing appliance comprising a hand part provided with an eye extension, angular stems each having one end portion slidably engaged in the eye of said extension of the hand part, means adjustably holding the said last named end portions of said stems, and vent entering members of relatively small diameter depending from the other end portions of said stems.

2. A device of the character described comprising a hand part, angular stems having depending portions provided on their free ends with enlarged base parts, vent entering members of relatively small diameter fixed to and depending from the base parts of said stems, said stems

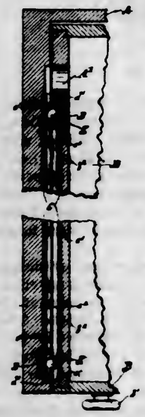
being adjustably mounted on said hand part for adjustment of said vent entering members toward and from one another, and means for adjustably securing said stems to said hand part.



3. A device of the character described comprising a knob-like hand part, angular stems on said hand part projecting therefrom in relatively opposite directions and having depending free portions, the free ends of said stems being enlarged, and vent entering members of relatively small diameter fixed to the under faces of the free ends of said stems and spaced inwardly from the edges thereof.

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1,037,542. DRAWER-SLIDE. JOHN J. ROONEY, Cleveland, Ohio. Filed Apr. 18, 1911. Serial No. 621,856. (Cl. 45—77.)

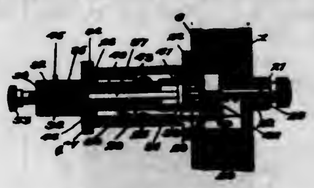


The combination with a support and a drawer mounted to slide therein, of a channeled rail secured to the wall of the support, a channeled rail secured to the side of the drawer, the channels of the two rails being in opposition, a ball-retainer arranged at the forward end of the rail upon the support, a ball confined by the retainer, a ball-retainer arranged at the rear end of the rail upon the drawer, and a ball confined by the last mentioned retainer, the last mentioned retainer being removable through the side of the drawer whereby to release the ball confined thereby, and the said side of the drawer being formed with an opening arranged to register with the ball retainer at the forward end of the rail upon the support, subsequent to removal of the retainer upon the rail upon the drawer, when the drawer is slid forwardly, whereby to permit of the removal of the ball from the retainer upon the rail upon the support.

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1,037,543. COMBINED LOCK AND LATCH. DUNCAN MALCOLM RUSSELL, Pieteo, Colo. Filed May 13, 1912. Serial No. 697,051. (Cl. 70—29.)

1. A lock of the character described, including a casing, a latch bolt mounted therein, a roll back engageable with the latch bolt to move the latter, a key engageable with said roll back to turn the same, the roll back being movable into an operative relation to the latch bolt, a catch adapted to engage and hold the roll back in its inoperative position, and means for disengaging the catch from the roll back by and upon the withdrawing movement of the key.



2. A lock of the character described, including a casing, a latch bolt mounted therein, a roll back engageable with the latch bolt to move the latter, a key engageable with said roll back to turn the latter, the roll back being movable transversely of the movement of the latch bolt, whereby it may be moved to one side of the latch bolt into inoperative relation therewith, and a catch adapted to engage and hold the roll back in its inoperative position, the key being formed with a projection designed to disengage the catch from the roll back in the withdrawing movement of the key.

3. A lock of the character described, including a casing, a latch bolt movable therein, a roll back engageable with the latch bolt and movable transversely of the movement of the latch bolt, the roll back being formed with a spindle extending transversely of the casing, the casing being formed with a bearing for said spindle, a spring encircling said spindle and bearing against the roll back in a direction to move the same automatically into operative relation with the latch bolt, and a catch engageable with the roll back to hold it to one side of the latch bolt upon the movement of the roll back in a direction against the tension of the spring.

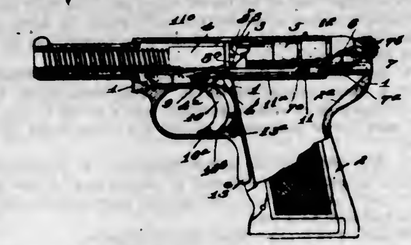
4. A lock of the character described, including a casing, a latch bolt movable therein, a roll back engageable with said latch bolt, a sleeve secured to said casing in registry with the roll back, the sleeve being provided with a dial and with longitudinally disposed interior grooves leading toward the roll back, the roll back being movable in a direction transverse to the movement of the latch bolt, means within the casing engaging the roll back and tending to move it into operative relation to the latch bolt and toward the sleeve, a key adapted for insertion in said sleeve into engagement with the roll back, the key being formed with a projection slidable through the grooves of the sleeve, and a catch mounted in the casing and adapted to engage the roll back to hold it against the tension of the spring to one side of the latch bolt, said catch being engageable with the projection of the key, for the purpose of releasing the catch from the roll back.

5. A lock of the character described, including a casing, a latch bolt movable therein, a roll back engageable with the latch bolt to retract the latter, the roll back being movable in a plane transverse to the movement of the latch bolt, means tending to move the roll back outwardly in the casing into operative relation with the latch bolt, a sleeve secured to the casing in registry with the roll back, said sleeve being formed at its inner ends with interior screw threads, a key insertible in the sleeve and formed with threads for engagement with the screw threads of the sleeve and with means for engagement with the roll back to turn the latter, a catch member in the casing and adapted to engage the roll back to hold it out of line with the latch bolt, said catch being secured to the sleeve and formed with an intermediate cam portion and the key being formed with a projection engageable with the cam portion, whereby to release the catch from the roll back.

[Claim 6 not printed in the Gazette.]



1,037,544. SAFETY ATTACHMENT FOR FIREARMS. FREDERICK T. RUSSELL, Philadelphia, Pa. Filed Aug. 21, 1911. Serial No. 645,130. (Cl. 42—8.)



1. In a firearm, a striker, independent primary and secondary sears, each positioned to arrest the striker in cocked position and a finger trigger having releasing connection with both of said sears and adapted to fire the arm when either of said sears is in effect; the secondary sear comprising a sliding member having connection with the finger trigger and adapted to slide into and out of a position in the path of the part connected with the striker.

2. In a firearm, a striker, a sear for normally arresting the striker in cocked position and a secondary sliding sear in the path of a part moving with and controlling the striker; said secondary sear having a connection through which it is moved by the normal act of firing the arm.

3. In a firearm, a striker, a sear for normally arresting the striker in cocked position, a secondary sliding sear in the path of a part moving with and controlling the firing movement of the striker and located to arrest the striker near its cocked position and with sufficient remaining throw in the striker to fire the charge, and a releasing connection for said secondary sear through which it is removed from the path of the part with which it engages by the act of firing the pistol.

4. In a firearm, a striker, a sear for normally arresting the striker in cocked position, a secondary sliding sear adapted to arrest the striker near its cocked position, after being released by the sear, a trigger for releasing the sear and a connection through which said trigger also releases the secondary sear.

5. In a firearm, a striker, a sear for normally arresting the striker in cocked position, a secondary sliding sear adapted to arrest the striker near its cocked position, after being released by the sear, a trigger for releasing the sear and a connection through which said trigger also releases the secondary sear; said trigger also preventing movement of the secondary sear independently of the trigger.

[Claims 6 to 8 not printed in the Gazette.]

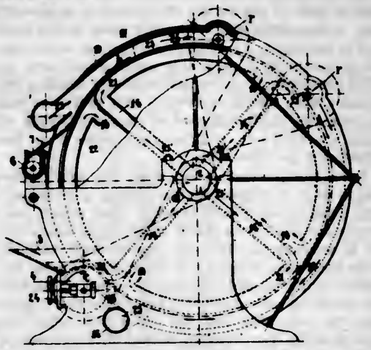
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1,037,545. APPARATUS FOR TREATING PASTY MATERIALS, SUCH AS CHOCOLATE. EMILE LOUIS ALFRED SAVY, Paris, France. Filed Dec. 14, 1910. Serial No. 597,316. (Cl. 99—5.)

1. Apparatus for bringing pasty materials to a predetermined temperature, comprising conveying means, means to direct a fluid at the same temperature as that required for the pasty material over the outer surface of said conveying means, means to direct a flow of fluid at the same temperature over the inner surface of said conveying means, and means to feed material to said conveying means.

2. Apparatus for bringing pasty materials to a predetermined temperature, comprising a rotating drum, means to rotate said drum, means to direct a fluid at the same temperature as that required for the pasty material over the outer surface of said drum, means to direct a flow of fluid at the same temperature over the inner surface of said drum, and means to feed material to said drum.

3. Apparatus for bringing pasty materials to a predetermined temperature, comprising conveying means, means to direct a fluid at the same temperature as that required for the pasty material over the outer surface of said conveying means, means to direct a flow of fluid at the same temperature over the inner surface of said conveying means, a hopper, and means to feed material from the hopper to said conveying means without moving said material relative to the conveying means after it has been deposited thereon.



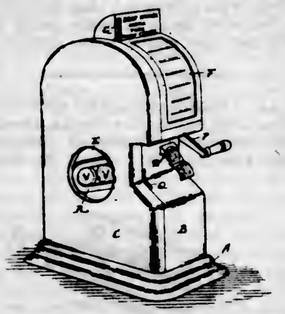
4. Apparatus for bringing pasty materials to a predetermined temperature, comprising a rotating drum, means to rotate said drum, means to direct a fluid at the same temperature as that required for the pasty material over the outer surface of said drum, means to direct a flow of fluid at the same temperature over the inner surface of said drum, a hopper, and means to feed material from the hopper to said conveying means without moving said material relative to the conveying means after it has been deposited thereon.

5. Apparatus for bringing pasty materials to a predetermined temperature, comprising conveying means, means to direct flows of fluid in the same direction at the same temperature as that required for the pasty material on both the inner and outer sides of said conveying means, and means to feed material to said conveying means.

[Claims 6 to 18 not printed in the Gazette.]

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1,037,546. STAMP-HANDLING MACHINE. JOSEPH JOHN SCHERMACK, Detroit, Mich. Filed Jan. 21, 1911. Serial No. 603,839. (Cl. 211—33.)



1. In a stamp vending machine, the combination of a casing, a shelf through which a strip is fed, a pressure plate arranged above said strip, a pair of rollers, one projecting through the shelf and the other through the pressure plate for feeding said strip, means for automatically removing one of said rollers from said strip when the same has been fed a predetermined distance, and means by which said strip may be torn off when the strip has been fed the predetermined distance, substantially as described.

2. In a stamp vending machine, the combination of a casing, a shelf through which a strip of stamps is fed, a pressure plate provided with a plurality of fingers or

guards, means for projecting a given number of stamps out of the casing, and a plurality of fingers adapted to clamp down through the guards of the pressure plate and perforations between the stamps to be severed when said strip has been moved a predetermined distance, substantially as described.

3. In a stamp vending machine, the combination of a casing, a pair of rollers for projecting a strip out of the casing, a manually rotatable shaft upon which one of the rollers is mounted, a swinging shaft upon which the other roller is mounted, a rock arm upon which said swinging shaft is journaled, a spring for normally keeping the roller in contact with the strip, and a cam tooth on said manually rotatable shaft, adapted to engage the rock arm and through the rock arm withdraw the roller from the strip, substantially as described.

4. In a stamp vending machine, the combination of a casing, a pair of rollers for projecting a strip out of the casing, a manually rotatable shaft upon which one of the rollers is mounted, a swinging shaft upon which the other roller is mounted, a rock arm upon which said swinging shaft is journaled, a spring for normally keeping the roller in contact with the strip, a spring controlled tiltable lever, a cam tooth on said manually rotatable shaft, adapted to engage the rock arm and withdraw the roller from the strip, a hoisting bar attached to said tiltable lever, a finger adapted to be dropped down upon the said strip by said hoisting bar when the cam has been turned to project the strip a predetermined distance and a cam on said manually rotatable shaft, adapted to engage the tiltable lever and depress the hoisting bar, thereby resting the finger on the strip, substantially as described.

5. In a stamp vending machine, the combination of a casing, a pair of rollers for projecting a strip out of the casing, a manually rotatable shaft upon which one of the rollers is mounted, a swinging shaft upon which the other roller is mounted, a rock arm upon which said swinging shaft is journaled, a spring for normally keeping the roller in contact with the strip, a spring controlled tiltable lever, a cam tooth on said rotatable shaft, adapted to engage the rock arm and withdraw the roller from the strip, a hoisting bar attached to said tiltable lever, a plurality of fingers adapted to engage through the perforations of the stamps in the strip and adapted to be dropped down by said hoisting bar when the manually rotatable shaft has been turned to project the strip of stamps a predetermined distance and a cam on said manually rotatable shaft, adapted to engage the tiltable lever and depress the hoisting bar, thereby allowing the fingers to rest upon the strip of the stamps and pass through the perforations when the strip advances, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

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1,037,547. HINGE-HOLDING DEVICE. CARL H. SCHMIDGALL and ORA A. BARNEWOLT, Peoria, Ill.; said Barnewolt assignor to Fredrick G. Lindeburg, Peoria, Ill. Filed June 24, 1911. Serial No. 635,181. (Cl. 16—107.)



1. In a device of the nature described, the combination with a hinge-leaf provided with screw holes of a member to receive said leaf, and also provided with holes to register with those of said leaf, and a part provided with projections adapted to enter both series of holes.

2. In a device of the nature described, the combination with a door and its hinge, the latter having a leaf provided with perforations, of a device to receive said leaf, and an elastically held part pivotally carried by the device and provided with an extension to engage the perforation of the said projecting part of the hinge.

3. In a device of the nature described, the combination with a hinge, one of its leaves being provided with screw holes, of a device to receive the leaf having the holes, and a movable part having an extension to engage one of the said screw holes.

4. In a device of the nature described, the combination with a hinge, one of its leaves, having screw-holes, of a device adapted to receive the leaf, and a series of lugs on the said device adapted to engage the screw holes of the leaf.

5. In a device of the nature described, the combination with a hinge-leaf, of a device to receive and inclose said leaf, and a pivotally mounted member having means to engage and hold said leaf.

[Claims 6 to 8 not printed in the Gazette.]

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1,037,548. APPARATUS FOR DRYING HAIR. IDA SCHOLZ, Altona, Germany. Filed Apr. 26, 1911. Serial No. 623,435. (Cl. 34—26.)

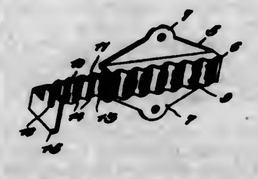


1. Apparatus for drying hair comprising in combination a hot water vessel for drying the hair from below and a second hollow vessel adjacent to said hot water vessel, means for driving a current of air through said second vessel, and means for directing the thereby heated current of air on the hair on said water vessel, substantially as set forth.

2. Apparatus for drying hair comprising in combination a hot water vessel having its upper side trough-like shaped for receiving the hair, a second hollow vessel of semi-cylindrical shape attached to said hot water vessel, means for driving a current of air through said second vessel, and means for directing the thereby heated current of air on the hair on said hot water vessel, substantially as set forth.

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1,037,549. WINDOW-SHADE FIXTURE. FRANK J. SCHU, Wayland, N. Y. Filed Apr. 10, 1912. Serial No. 689,785. (Cl. 156—24.)



1. A window shade fixture comprising a casing adapted to be secured to a window frame, the outer wall of said casing being provided with a longitudinal series of corrugations, and an adjustable bracket member arranged within said casing provided with a bowed portion to bear against the window frame, the end of said bracket member engaging the corrugated wall of the casing.

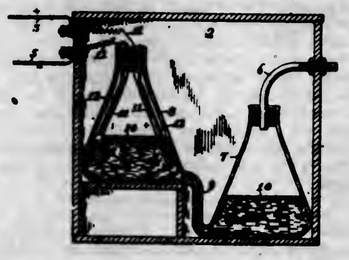


2. A window shade fixture comprising a casing open upon one side and adapted to be secured to a window frame, the side wall of said casing being provided with a longitudinal series of corrugations and a bracket member consisting of a corrugated metal strip to engage the corrugated wall of the casing, said strip being provided with a bowed portion adjacent to one end to frictionally bear against said frame and maintain said bracket in its adjusted position in relation to the casing.

3. A window shade fixture comprising a casing adapted to be secured to a window frame, said casing being open on one side, the outer wall of the casing being corrugated, a bracket member consisting of a resilient metallic strip corrugated for engagement with the corrugated wall of the casing, said strip being provided in one edge with spaced notches, a lug on one end of said casing to engage in the notches and hold the bracket in its adjusted position with relation to the casing, said resilient strip having a bowed portion to engage with the window frame and normally act to hold the notched edge of said strip in engagement with said lug.

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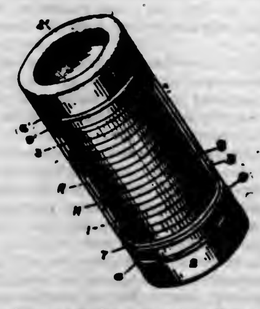
1,037,550. PRESSURE-INDICATOR. WILLIAM SEYMOUR, Grand Rapids, Mich. Filed Oct. 26, 1909. Serial No. 524,722. (Cl. 73—31.)



In a pressure indicator, an electric circuit including a volt-meter calibrated to indicate pressures, a conical vessel, diverging wires within the said vessel forming terminals to the said circuit and spaced apart, insulated supports for said wires, a second vessel, a channel of communication between the lower end of said vessels, and a pipe communicating with the upper end of the last named vessel and with the member which contains the fluid under the pressure to be indicated.

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1,037,551. COIN-RECEPTACLE. ISAAC M. SHARP, San Francisco, Cal. Filed June 29, 1911. Serial No. 636,058. (Cl. 133—9.)

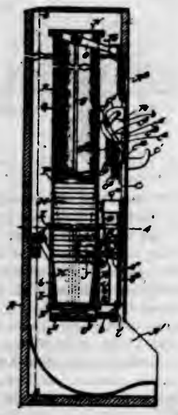


1. In a coin receptacle, a peripherally apertured hollow cylinder, end members each having an annular groove into which the respective ends of the cylinder are seated, and an apertured sleeve rotatable upon the cylinder between the end members all substantially as shown, for the purpose specified.

2. In a coin receptacle, a hollow tube having a peripheral aperture therein, a sleeve rotatably seated on the tube and having a peripheral aperture adapted to be brought into and out of registration with the first said aperture, and annular end members each having a groove for receiving the respective ends of the tube, each end member having an outer shoulder for retaining the sleeve on the tube, and each end member having an inner shoulder for preventing exit of the coins from the end of the tube.

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1,037,552. COIN-CONTROLLED VENDING-MACHINE. JOHN J. SHEA, Beverly, Mass. Filed June 11, 1910. Serial No. 566,317. (Cl. 211—8.)



1. In a machine of the class described, a container having a delivery opening, said container adapted to hold the articles to be sold, a feeder comprising a star wheel adapted to present said articles one by one at said delivery opening, a spring pawl normally holding said star wheel against rotation, an actuator, means carried by said actuator adapted to pass idly by said star wheel and pawl when said actuator is depressed and to rotate said star wheel when said actuator returns to normal position, and means to eject the articles thus presented from the container.

2. In a machine of the class described, a container having a delivery opening, said container adapted to hold the articles to be sold, a feeder to present said articles one by one at said delivery opening, an actuator, a yoke secured to said actuator and having oppositely arranged means secured thereto adapted to eject the articles thus presented from the container when said actuator is operated.

3. In a machine of the class described, a container having a delivery opening, said container adapted to hold the articles to be sold, a feeder to present said articles one by one at said delivery opening, an actuator, a yoke secured to said actuator provided with spring fingers at its opposite ends adapted to eject the articles thus presented from the container when said actuator is operated.

4. In a machine of the class described, a container having a delivery opening, said container adapted to hold the articles to be sold, a feeder comprising a star wheel adapted to present said articles one by one at said delivery opening, a spring pawl normally holding said star wheel against rotation, an actuator, means carried by said actuator adapted to pass idly by said star wheel and pawl when said actuator is depressed and to rotate said star wheel when said actuator returns to normal position, a yoke secured to said actuator and having oppositely arranged means secured thereto adapted to eject the articles thus presented from the container when said actuator is operated.

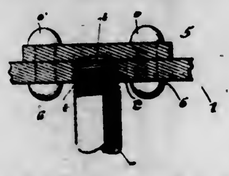
5. In a machine of the class described, a container having a delivery opening, said container adapted to hold the articles to be sold, a feeder comprising a star wheel adapted to present said articles one by one at said delivery opening, a spring pawl normally holding said star wheel against

rotation, an actuator, means carried by said actuator adapted to pass idly by said star wheel and pawl when said actuator is depressed and to rotate said star wheel when said actuator returns to normal position, a yoke secured to said actuator provided with spring fingers at its opposite ends adapted to eject the articles thus presented from the container when said actuator is operated.

[Claims 6 to 13 not printed in the Gazette.]

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1,037,553. BOILER-STUD CONNECTION. JAMES SHELTON, Knoxville, Tenn., assignor of one-third to James J. Clark, Nashville, Tenn. Filed July 3, 1911. Serial No. 636,652. (Cl. 220—120.)



1. In a device of the class described, the combination with a boiler sheet having a threaded aperture therein, of a stud threaded at one end and screwed into said aperture so as to project from one side of said sheet, and a plate secured to the other side of said sheet remote from and closing said aperture, substantially as described.

2. The combination with a boiler or tank sheet, of a threaded aperture formed in said sheet, a stud threaded at one end and adapted to be screwed into said aperture so that the threaded end thereof shall be flush with one side of said sheet, and a plate covering said threaded end riveted to said sheet at points remote from said aperture, substantially as described.

3. In a device of the character described, the combination with a sheet, of a threaded aperture formed in said sheet, a stud threaded at one end and screwed into said sheet, the end of said stud opposite the threaded portion thereof projecting from one side of said sheet, and a plate secured to the other side of said sheet with steam and water tight connection and covering the threaded end of said stud, there being a space formed between the end of said stud and the adjacent surface of said plate, substantially as described.

4. In a device of the character described, the combination with a sheet, of a threaded aperture formed in said sheet, a stud threaded at one end and screwed into said sheet, the end of said stud opposite the threaded portion thereof projecting from one side of said sheet, and a plate rigidly and intimately secured to the other side of said sheet, adapted to prevent leakage of steam and water under pressure between said plate and sheet and covering the threaded end of said stud, there being a space formed between said stud and the adjacent surface of said plate, substantially as described.

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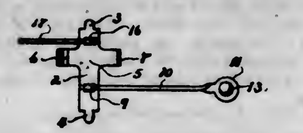
1,037,554. SECTIONAL TANK. WILLIAM E. SHOEMAKER, Canton, Ohio. Filed Apr. 8, 1912. Serial No. 689,206. (Cl. 220—126.)



A sheet metal tank including a plurality of tubular sections, a cylindric ring secured around the end of one section and extending beyond the rim thereof and the rim of the same section being bent or swaged inward to form a groove between said rim and the cylindric ring, a packing ring in the groove, the adjoining end of the adjacent section being telescoped inside the extending portion of the cylindric ring so that its rim will impinge the packing, with means for drawing and clamping the sections together and means for securing the telescoped end of said adjacent section to the cylindric ring.

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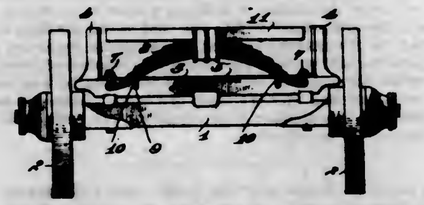
1,037,555. LOCK-WORK FOR CLOCK-MOVEMENTS. CHARLES B. SIMMONS, Bristol, Conn., assignor to The E. Ingraham Co., Bristol, Conn., a Corporation. Filed Mar. 4, 1912. Serial No. 681,489. (Cl. 58—16.)



In lock-work for clock-movements, the combination with a flat sheet-metal verge-arbor formed with integral trunnions located at its ends and with an integral verge consisting of two arms arranged in line with each other, and pierced to form two assembling-openings respectively located upon opposite sides of the said integral verge; of a sheet-metal hammer-arm provided at its inner end with an assembling-lug for entrance into one of the said openings for the attachment of the hammer-arm to the flat sheet-metal verge-arbor, and a sheet-metal stop-arm provided at its inner end with an assembling-lug for entrance into the other of the said openings for the attachment of the said stop-arm to the said verge-arbor whereby the use of wire is avoided.

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1,037,556. SPRING UNIT. JOSEPH H. SMITH, Decoto, Cal. Filed Nov. 11, 1911. Serial No. 659,810. (Cl. 21—102.)



1. A spring unit comprising a spacing member constructed to be detachably secured to a bolster, springs mounted on said spacing member and stops secured to said spacing member in fixed relation to and between the ends of the springs.

2. A spring unit including a spacing member adapted to be detachably connected to a bolster, spring shackles pivotally mounted on said spacing member and spring stops fixed on said spacing member in fixed relation to and between the spring shackles.

3. In a detachable spring unit for vehicles, the combination with a spacing member having notched ends adapted to engage the body standards of a vehicle, shackles pivotally mounted on said member near its ends, springs secured to said shackles, stops for said springs secured to said spacing member in fixed relation to and between the spring shackles, and a body bolster mounted on said springs.

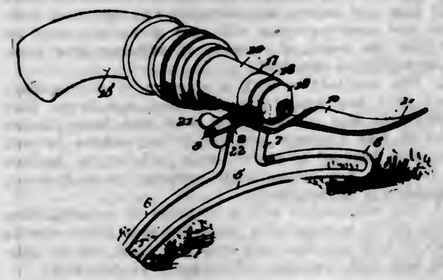
4. In a detachable spring unit for vehicles, the combination with a spacing member having notched ends adapted to engage body standards of a vehicle, spring shackles secured to said member at each end thereof, and spring stops secured to the spacing member and positioned between the spring shackles and springs secured at their ends to said shackles said stops being constructed to engage the springs at points intermediate their ends.



5. In a detachable spring unit for vehicles, the combination with a spacing member constructed to engage body standards of a vehicle, spring shackles secured to the ends of the spacing member, stop shackles secured to the spacing member between the spring shackles and in fixed relation to the spring shackles, springs secured at their ends to said spring shackles; said stop shackles being positioned in the path of the springs as they move under compression and constitute a supplemental bearing for the springs after they have been loaded to a predetermined degree.

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1,037,557. AUTOMATIC HOSE-REGULATING LAWN-SPRINKLER AND ADJUSTABLE SUPPORT. PATRICK P. STACK, Salt Lake City, Utah. Filed Apr. 28, 1911. Serial No. 623,982. (Cl. 137—57.)



1. A device of the class described including a support, a spraying plate pivotally mounted for vertical tilting movement on the support, a bearing ring pivotally mounted on the plate, a nozzle journaled in the bearing ring, and means for securing the spraying plate in different positions of adjustment.

2. A device of the class described including a support, a spraying plate having one end thereof pivotally mounted on the support and its other end deflected upwardly and adjustable vertically of the support, a bearing ring pivotally mounted on the spraying plate, a nozzle journaled in the bearing ring, and a clamping device carried by the support for holding the spraying plate in different positions of adjustment.

3. A device of the class described including a support, a spraying plate pivotally mounted for vertical tilting movement on the support, a nozzle having a reduced cylindrical portion dadning a shoulder and provided with a threaded terminal, a bearing ring pivotally mounted on the spraying plate and embracing the cylindrical portion of the nozzle at said shoulder, and a clamping nut engaging the threaded end of the nozzle for preventing accidental displacement thereof.

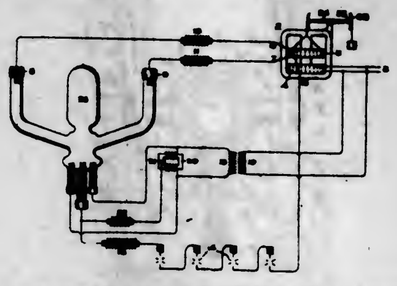
4. A device of the class described comprising a support having spaced arms, one of which is provided with an eye and the other with a transverse bar extending through said eye and having its terminal threaded, a spraying plate pivotally mounted on the transverse bar of the support, a bearing ring swiveled on the spraying plate, a nozzle journaled in the bearing ring, and a clamping nut engaging the threaded end of the transverse bar for clamping the spraying plate in adjusted position.

5. A device of the class described including a support having spaced arms, one of which is provided with an eye, the free end of the other arm being extended through said eye to form a transverse bar having terminal threads, a spraying plate having one end thereof provided with a loop embracing the transverse bar between said arms and its other end deflected upwardly, a bearing ring swiveled on the spraying plate, a nozzle journaled in the bearing ring, and a clamping device engaging the threads on the bar and bearing against the eye for holding the spraying plate in different positions of adjustment with respect to the support.

[Claims 6 to 10 not printed in the Gazette.]



1,037,558. ALTERNATING-CURRENT RECTIFIER. CHARLES P. STEINMETZ, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Original application filed May 23, 1905, Serial No. 261,868. Divided and this application filed Nov. 21, 1910. Serial No. 593,304. (Cl. 176—42.)



1. The combination with a source of electrical potential which periodically and regularly reverses in sign, of a said source, said apparatus having electrodes functionating said source, said apparatus having electrodes functionating as anodes, and also having a cathode consisting of an amalgam of a refractory metal.

2. The combination with a source of alternating potential, of a vapor electric apparatus comprising an evacuated chamber, anodes and a cathode consisting of an amalgam of a metal having a negligible vapor tension at the operating temperature of said apparatus, and conductors for connecting said anode and cathode to said source of potential.

3. The combination of a source of alternating electromotive force, a vapor electric apparatus comprising an evacuated chamber inclosing a plurality of electrodes, at least one of which consists of silver-amalgam, a condensing chamber in proximity to said amalgam electrode, and means for connecting said source to said electrodes.

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1,037,559. RAILWAY-TIE. MINOTT A. O. STILSON, Waterbury, Conn. Filed Feb. 21, 1912. Serial No. 679,039. (Cl. 238—8.)

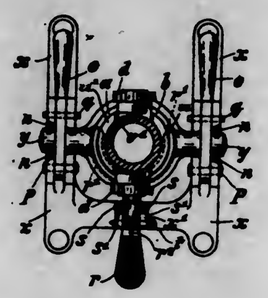


1. A tie comprising wooden blocks having tapered sides, said blocks located in a concrete body which body between its ends is formed with projections on opposite sides of but below said blocks beyond the ends of which they project, a main reinforce strip extending longitudinally of the tie and formed with bends below the blocks, and auxiliary reinforces surrounding the sides and bottoms of the said blocks.

2. A tie comprising wooden blocks having tapered sides, said blocks located in a concrete body which body between its ends is formed with projections on opposite sides of but below said blocks beyond the ends of which they project, a main reinforce strip extending longitudinally of the tie and formed with bends below the blocks, auxiliary reinforces surrounding the sides and bottoms of the said blocks, and spikes extending diagonally through the auxiliary reinforce and into the said blocks.

3. A tie comprising wooden blocks having tapered sides, said blocks located in a concrete body formed with projections on opposite sides of but below said blocks beyond the ends of which they project, a main reinforcing strip extending longitudinally of the tie and formed with bends below the blocks, an auxiliary reinforce surrounding the sides and bottoms of said blocks, said auxiliary and main reinforces laced together below the said blocks.

**1,037,560. DOUBLE-JAW FRICTION-GRIP CLAMP.** FREDERICK THOMAS, Tooting, London, England. Filed Mar. 14, 1910. Serial No. 549,244. (Cl. 166—7.)



1. A clamp comprising two separate jaws of curved formation each jaw having an upper internal face and a lower internal face arranged at an angle to one another the upper internal faces of both jaws constituting vertically parallel gripping surfaces when in contact with the object to be held and means for removably jointing the jaws together comprising pins projecting from the jaws and hooks on the jaws for engagement with the pins, the hooks having their openings at the upper sides thereof so that the jaws may be caused to grip or release the object to be held without danger of becoming accidentally detached.

2. A clamp comprising two separate jaws of curved formation each jaw having an upper internal face and a lower internal face arranged at an angle to one another the upper internal faces of both jaws constituting vertically parallel gripping surfaces when in contact with the object to be held and means for removably jointing the jaws together comprising a pair of pins projecting from one of the jaws and a pair of hooks on the other jaw for engagement with the pins, the hooks having their openings at the upper sides thereof so that the jaws may be caused to grip or release the object to be held without danger of becoming accidentally detached.

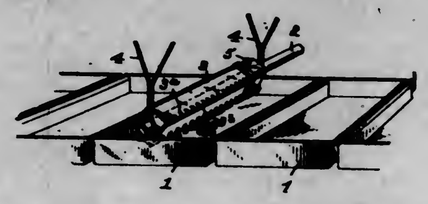
3. A clamp comprising two separate jaws of curved formation each jaw having an upper internal face and a lower internal face arranged at an angle to one another the upper internal faces of both jaws constituting vertically parallel gripping surfaces when in contact with the object to be held, removable liners for the jaws, and means for removably jointing the jaws together comprising pins projecting from the jaws and hooks on the jaws for engagement with the pins, the hooks having their openings at the upper sides thereof so that the jaws may be caused to grip or release the object to be held without danger of becoming accidentally detached.

4. A clamp comprising two separate jaws of curved formation each jaw having an upper internal face and a lower internal face arranged at an angle to one another the upper internal faces of both jaws constituting vertically parallel gripping surfaces when in contact with the object to be held, journals on the jaws, a framework, swivel bearings in the framework for said journals, and means for removably jointing the jaws together comprising pins projecting from the jaws and hooks on the jaws for engagement with the pins, the hooks having their openings at the upper sides thereof so that the jaws may be caused to grip or release the object to be held without danger of becoming accidentally detached.

5. A clamp comprising two separate jaws removably jointed together each jaw having an angled internal surface, journals on the jaws, a frame-work, swivel bearings in the frame-work, means for holding the journals in the frame-work and means for retaining the jaws in the open position when so desired.

[Claim 6 not printed in the Gazette.]

**1,037,561. FILTER.** BRUCE W. TRAYLOR, New York, N. Y. Filed May 20, 1911. Serial No. 628,522. (Cl. 75—36.)

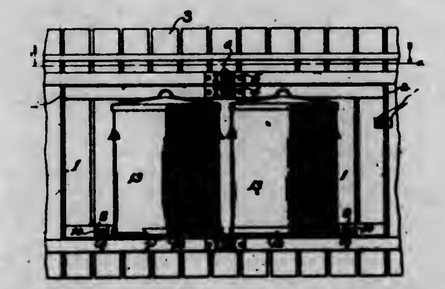


1. The combination with a plurality of connected moving filter pans, of a rotary feed member suspended above said pans and having longitudinally arranged feed openings, and means whereby said feed device is rotated on reaching the point of junction of adjacent filter pans, substantially as described.

2. The combination with a plurality of moving filter pans, of a feed supply pipe, a rotary feed device with which said pipe communicates, said feed device having rows of feed openings, and projections carried by said feed pipe designed to contact with parts at the junction of the pans for automatically rotating the feed device, substantially as described.

3. The combination with a plurality of traveling filter pans, of an automatically rotatable feed device having rows of feed openings, and drip preventing devices adjacent said feed openings, substantially as described.

**1,037,562. GARBAGE-RECEPTACLE AND THE LIKE.** OTTO A. TROST, Chicago, Ill. Filed Feb. 17, 1912. Serial No. 678,378. (Cl. 220—119.)



1. The combination of a fence having a door opening therein; pivoted sockets secured to said fence centrally above and below said opening and in axial alinement with each other; a door fitting said opening; a pivot socket secured to the top of said door to register with the corresponding socket on the fence; a headed pivot pin dropped through said registering sockets; a supporting shelf hinged to the lower portion of said door to fold upwardly thereagainst; and a pivot pin secured to the bottom of said shelf and engaging in the corresponding socket on the fence, substantially as described.

2. The combination of a fence having a door opening therein; pivoted sockets secured to said fence centrally above and below said opening and in axial alinement with each other; a door fitting said opening; a pivot socket secured to the top of said door to register with the corresponding socket on the fence; a headed pivot pin dropped through said registering sockets; a supporting shelf hinged to the lower portion of said door to fold upwardly thereagainst; a pivot pin secured to the bottom of said shelf and engaging in the corresponding socket on the fence; and two can seats on said shelf, substantially as described.



**1,037,563. MAGNETIC SEPARATOR.** GEORG ULLRICH, Broken Hill, New South Wales, Australia. Filed Dec. 13, 1906. Serial No. 347,597. (Cl. 82—71.)



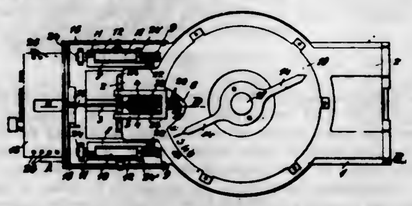
1. In a magnetic separator, the combination with a magnet, of a member of magnetic material revolubly mounted over the pole piece of the magnet and magnetised by induction from the latter, a conveyer moving between the pole piece and member, said pole piece extending across the width of the conveyer.

2. In a magnetic separator, the combination of radially supported magnets having segmental pole pieces, of a rotating ring, of magnetic material over the pole pieces and magnetised by induction from the latter, conveyers each passing between the pole pieces and ring, the segmental pole pieces extending across the width of the conveyers.

3. In a magnetic separator, a series of electro-magnets having pole pieces in combination with a separating ring having a plurality of circularly arranged series of concentric rings for condensing the lines of force within the magnetic field, and conveyer means for passing the material to be separated between the pole pieces and the separating ring.

4. In a magnetic separator, a separating continuous ring, a circularly arranged series of concentric rings of magnetic material projecting beyond the underface of the ring, which, in conjunction with the ring, cause the lines of force passing through the pole pieces, substantially upon parallel lines, to be suddenly and strongly condensed and concentrically converged from the surface of the pole pieces and means for feeding material between the ring and the pole pieces.

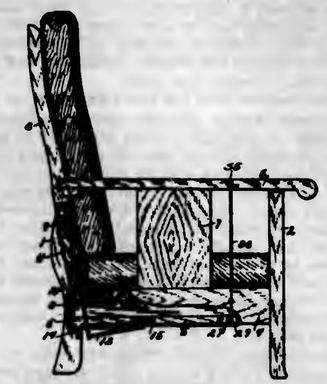
**1,037,564. POCKET TYPE-WRITER.** HENRI VIRY, Ramberville, France. Filed May 23, 1912. Serial No. 699,104. (Cl. 197—47.)



1. A pocket typewriter comprising a support, a plate hinged thereto, a wheel rotatably secured to said plate at the lower side thereof, said wheel being provided with a plurality of radially extending fingers, types on the lower faces of said fingers, a slotted lever fulcrumed to the support, and a pin on the plate that engages the lever-slot, whereby a depression of the plate effects an engagement between the lever and the underlying finger to print the type carried by said last named finger.

2. A pocket typewriter comprising a type wheel which can be raised and depressed; types that are attached to radially extending arms of the type wheel; an adjusting device and an adjusting disk (6) connected with the type wheel, the adjusting disk being provided with pointed teeth which effect the arrest and accurate adjustment of the type wheel; and a lever, which is connected with the bed-plate, is provided with a guide-slot, and the end of which is adapted, upon the depression of the type wheel to bear against the type adjusted to printing position and thus to cause an impression to be produced on the paper, whereupon the lever pushes forward a slide provided with a pointed termination adapted to pass between the teeth of the said adjusting disk (6).

**1,037,565. ADJUSTABLE CHAIR.** JEREOLD F. WALTON and WILLIAM T. FAVORITE, Sturgis, Mich.; said Favorite assignor to said Walton. Filed Feb. 26, 1912. Serial No. 679,915. (Cl. 155—27.)



1. The combination with the frame and back, of a link connected to said back, said link being formed of pieces arringed side by side with their forward ends separated and turned laterally; springs connected to the laterally-turned ends of said link pieces and to said frame; a plate-like clutch member having V-shaped teeth on one edge thereof and a pivot ear on its under side arranged between the link pieces and pivoted thereto; a coacting clutch member having V-shaped teeth thereon and an inclined surface at its lower end; a bracket having transversely-disposed ways in which said clutch members are slidably arranged, and bar and frame attaching ears, said bracket being formed integrally of sheet metal; a pair of spaced bars secured to said frame at their outer ends and to said bar attaching ears of said brackets at their inner ends; a lever having an inclined surface at its inner end adapted to engage the inclined surface of said clutch member, pivoted between said bars; a rod spring arranged between said bars, its outer end being secured to said lever; a cross piece on said bars under which the inner end of said spring is arranged, said cross piece and bracket being adapted to limit the movement of said lever; and a button on said frame having a stem adapted to engage the outer end of said lever.

2. The combination with the frame and back, of a link connected to said back; a plate-like clutch member having V-shaped teeth on one edge thereof and a pivot ear for said link on its under side; a coacting clutch member having V-shaped teeth thereon and an inclined surface at its outer end; a bracket having transversely-disposed ways in which said clutch members are slidably arranged, and bar and frame attaching ears, said bracket being formed integrally of sheet metal; a pair of spaced bars secured to said frame at their outer ends and to said bar attaching ears of said brackets at their inner ends; a lever having an inclined surface at its inner end adapted to engage the inclined surface of said clutch member, pivoted between said bars; a rod spring arranged between said bars, its outer ends being secured to said levers; a cross piece on said bars under which the inner end of said spring is arranged, said cross piece and bracket being adapted to limit the movement of said lever; and a button on said frame having a stem adapted to engage the outer end of said lever.

3. The combination with the frame and back, of a link connected to said back, said link being formed of pieces arranged side by side with their forward ends separated and turned laterally; springs connected to the laterally-turned ends of said link pieces and to said frame; a plate-like clutch member having V-shaped teeth on one edge thereof and a pivot ear on its under side arranged between the link pieces and pivoted thereto; a coacting clutch

member having V-shaped teeth thereon and an inclined surface at its outer end; a bracket having transversely-disposed ways in which said clutch members are slidably arranged, and bar and frame attaching ears, said bracket being formed integrally of sheet metal; a pair of spaced bars secured to said frame at their outer ends and to said bar attaching ears of said brackets at their inner ends; and a lever having an inclined surface at its inner end adapted to engage the inclined surface of said clutch member, pivoted between said bars.

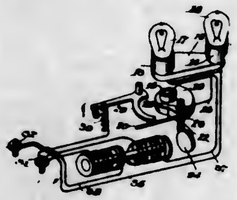
4. The combination with the frame and back, of a link connected to said back; a plate-like clutch member having V-shaped teeth on one edge thereof and a pivot ear for said link on its under side; a coacting clutch member having V-shaped teeth thereon and an inclined surface at its outer end; a bracket having transversely-disposed ways in which said clutch members are slidably arranged, and bar and frame attaching ears; said bracket being formed integrally of sheet metal; a pair of spaced bars secured to said frame at their outer ends and to said bar attaching ears of said brackets at their inner ends; and a lever having an inclined surface at its inner end adapted to engage the inclined surface of said clutch member, pivoted between said bars.

5. The combination with the frame and back, of a link connected to said back; a sliding clutch member provided with V-shaped teeth connected to said link; a coacting clutch member provided at its inner end with engaging teeth and having an inclined surface at its outer end; means for slidably supporting said clutch members; a pivoted lever having an inclined surface at its inner end adapted to engage the inclined surface of said clutch member; a spring for actuating said lever; and a finger piece for operating said lever to release said clutch.

[Claim 6 not printed in the Gazette.]

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1,037,566. ELECTRIC SIGNAL-LAMP. WALTER J. WARNER, Jr., Chicago, Ill., assignor to The Adams & Westlake Company, a Corporation of Illinois. Filed Nov. 6, 1911. Serial No. 658,791. (Cl. 175—279.)



In an electric signaling device in combination an oscillatable plate, a spring urging the plate in one direction, a detent for holding the plate in opposition to the spring, an electric circuit, two incandescent bulbs mounted on the plate and connected with the circuit in multiple, an electro-magnet in independent shunt from the circuit for releasing the detent, a counter coil on the electro-magnet in series with one of the bulbs, and a switch in the line of the other bulb arranged to be closed by the movement of the plate by the spring.

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1,037,567. OIL-CUP. BENTON L. WELD, Cleveland, N. D. Filed Jan. 5, 1912. Serial No. 669,703. (Cl. 184—92.)

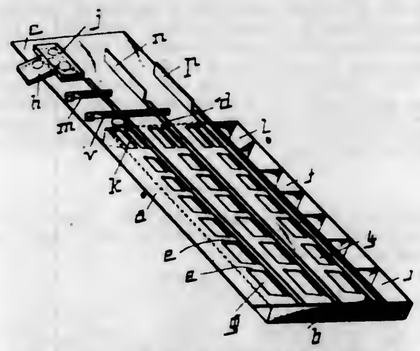
In combination, a hard oil cup casing having an integral top provided with an elongated opening having a series of teeth upon one of its walls and provided with a smaller elongated opening directly opposite the first opening, a disk pivoted to the top upon its under surface and in the casing and provided with an opening corresponding to the second opening and adapted to register therewith when the disk is rotated, a bifurcated pin having a restricted portion extending through the disk and provided with a shoulder which contacts with the disk, the restricted portions being riveted, the upper portion of the bifurcated pin being located in the first elongated opening, a latch member pivoted in the bifurcation of the pin and comprising a finger piece at one end for manipulating the latch member so that the disk may be adjusted,



and a tail end tooth adapted to engage any one of the series of teeth, whereby the disk may be held in adjusted positions, so as to hold the second and third openings fully or partly in registration or out of registration.

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1,037,568. SORTING APPARATUS FOR COINS. AXEL ULRIK WESTVELT, Stockholm, Sweden. Filed July 8, 1910. Serial No. 571,042. (Cl. 133—8.)



A sorting apparatus for coins comprising a plate having longitudinal and transverse inclination, a plurality of raised runways formed with the plate and lying parallel to the longitudinal axis of said plate, means for introducing coins to the runways in a direction obliquely to the longitudinal inclination of the plate, a series of coin apertures spaced apart, adjacent to said runways increasing in their respective sizes toward the lowest point of said runways and having oblique transverse edges, a receiving hopper on said plate, openings through said plate between the hopper and graduated openings to deflect from the runways disordered coins, spring obstructing members disposed at right angles to the upper ends of the runways between the hopper and said openings to guide the coins selectively into runways appropriate to their sizes, the bearing surfaces of the two upper runways being narrower than the thickness of the thinnest coin, to permit an overlying coin to slide over the underlying coin and pass to the next slot, shoulders forming a continuation of the runways to receive coins deflected by the spring obstructing members.

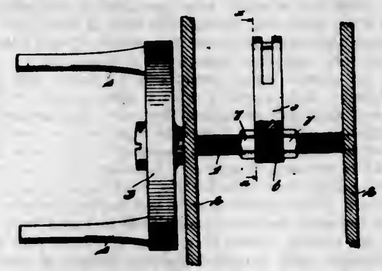
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1,037,569. HARP-ACTION. LEWIS WOLF, McNabb, Ill. Filed May 17, 1912. Serial No. 697,875. (Cl. 84—14.)

1. In a sharping device for harps, a rotatable spindle; a sharping-fork carried by said spindle; an operating arm threaded on said spindle; and nuts threaded on said spindle for adjustably locking said operating arm to said spindle, substantially as described.



2. In a sharping device for harps, a rotatable spindle; a sharping-fork carried by said spindle; an operating arm threaded on said spindle; and means adjustably secured to said spindle and abutting opposite sides of said arm for adjustably locking the latter to said spindle, substantially as described.



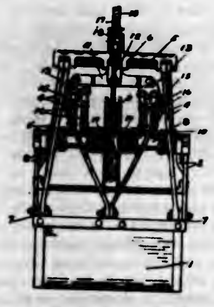
3. In a sharping device for harps, a rotatable spindle; a sharping-fork carried by said spindle; an operating arm threaded on said spindle, the portion of said spindle engaged by said operating arm being of a diameter larger than that of the remainder of said spindle; and nuts threaded on said spindle for locking said operating arm to said spindle, substantially as described.

4. In a sharping-device for harps, a rotatable spindle; a sharping-fork carried by said spindle, said spindle intermediate its ends being formed with a portion of a diameter greater than that of the remainder of said spindle; an operating arm threaded on said enlarged portion of said spindle; and nuts threaded on said spindle abutting opposite sides of said operating arm for adjustably locking the latter to said spindle, substantially as described.

5. In a sharping device for harps, a rotatable spindle; a sharping-fork carried by said spindle, said spindle intermediate its ends being formed with a portion of a diameter greater than that of the remainder of said spindle; an operating arm threaded on said enlarged portion of said spindle; and nuts threaded on said spindle abutting opposite sides of said operating arm for adjustably locking the latter to said spindle, said enlarged portion of said spindle being threaded oppositely to the remainder of said spindle, substantially as described.

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1,037,570. CLAM-SHELL BUCKET. CARL J. YOUNG, Seattle, Wash. Filed Sept. 16, 1911. Serial No. 649,619. (Cl. 37—30.)

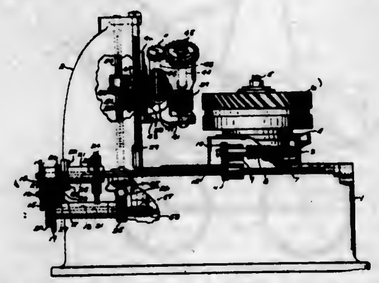


1. In a clam-shell bucket, closing devices for the bucket scoops consisting of a cross-head, a yoke pivotally secured centrally of its length to the cross head, equalisers pivotally secured to each of the extremities of said yoke, and a pair of chains secured at one end to each of said equalisers and at their other ends to the bar connecting the forward ends of the bucket scoops and formed to wind spirally about said bar.

2. A clam-shell bucket having bucket-scoops with pivotal connections with a bar at their forward ends, a cross-head, and braces pivotally connecting said cross-head and the rear end of said scoops, closing devices for said scoops consisting in a sleeve rotatably mounted on said bar, a sheave fixedly secured to said sleeve, a pair of chains upon each side of said sheave formed to wind in opposite spiral directions upon said sleeve and each fixedly secured at one end to said sleeve and at the other end to said cross-head, devices to equalise the strains between each pair of chains and between the pairs of chains.

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1,037,571. PROCESS FOR CUTTING HELICAL GEAR-WHEELS. WILLIAM F. ZIMMERMANN, Newark, N. J., assignor to Gould & Eberhardt, Newark, N. J., a Corporation of New Jersey. Filed Dec. 29, 1911. Serial No. 668,439. (Cl. 90—4.)



1. The process for cutting the teeth of helical gear wheels, that have a directrix coinciding with the gear blank axis, consisting of rotating a helical cutter, and imparting rotary motion to a gear blank relative to said cutter through a single continuous unvarying motion from a driver to said cutter and gear blank, respectively, the relative rotations of the cutter and gear blank being dependent upon the number of teeth to be cut in the gear blank, and a constant derived as described, and of feeding said cutter relative to the rotations and parallel with the axis of said gear blank in a ratio dependent upon the linear pitch of the gear blank and said constant.

2. The process for cutting the teeth of helical gear wheels that have a directrix coinciding with the gear blank axis, consisting of imparting a single continuous and unvarying rotary motion between a helical cutter and gear blank from a driver to said cutter and gear blank, respectively, in a ratio dependent upon the number of teeth to be cut and a fixed constant, and of feeding said cutter and blank relative to each other, parallel to the axis of said blank and relative to the rotations of said single continuous and unvarying rotary motion in a ratio dependent upon the linear pitch of the gear blank and said fixed constant.

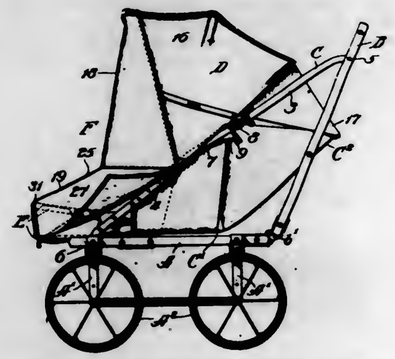
3. The process for cutting the teeth of helical gear wheels that have a directrix coinciding with the gear blank axis, consisting of imparting a single continuous and unvarying rotary motion between a helical cutter and gear blank from a driver to said cutter and gear blank, respectively, in a ratio dependent upon the number of teeth to be cut in the blank, minus the reciprocal of a fixed constant, and of feeding said cutter relative to said single continuous and unvarying rotary motion in a ratio dependent upon the linear pitch of the gear blank divided by said fixed constant.

4. The process for cutting the teeth of helical gear wheels that have a directrix coinciding with the gear blank axis, consisting of rotating a helical cutter, and imparting rotary motion to a gear blank relative to said cutter through a single continuous unvarying motion from a driver to said blank and cutter, respectively, said relative rotations being dependent upon the ratio of the intermediate gearing multiplied by a fixed constant and the product divided by the product of the number of teeth to be cut by said constant, minus one, and of feeding said cutter relative to the rotations and parallel to the axis of said

gear blank in a ratio dependent upon the ratio of the intermediate gearing multiplied by the normal circular pitch of the gear, and the product divided by said fixed constant multiplied by the sine of the angle of the helical teeth to be produced.

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1,037,572. BABY-CARRIAGE OR GO-CART. ARTHUR J. ADAMS, Chicago, Ill., assignor to Fulton Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed June 25, 1909. Serial No. 504,398. (Cl. 21—83.)



A storm-front for top-equipped go-carts, comprising a hood having a rearwardly turned top-flap and at its lateral edges rearwardly turned side-flaps joined at their upper ends to the ends of said first-named flap; a forwardly extending boot connected with the lower portion of said hood, comprising a central strip connected with the front-piece of the hood and having at its front end a downturned flap, and side-flaps for said boot, joined to the lateral edges of said central strip and the downturned flap thereof and continued rearwardly and joined to the lower edges of said first-named side-flaps; and fastening means carried by the side-flaps.

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1,037,573. ELECTRIC HEATER. CHARLES H. ALLEN, Chicago, Ill., assignor to Troy Laundry Machinery Company, Limited, Chicago, Ill., a Corporation of New York. Filed May 26, 1911. Serial No. 629,550. (Cl. 219—37.)



1. An electric heater comprising a tubular core, a body of insulating material arranged on said core, connecting plugs detachably mounted in the opposite ends of said body, a heating coil arranged around said body, a lead wire connected to one of said plugs, a return wire connected to the other of said plugs, said wires passing through the tubular core, and means for securing said plugs in position within said body.

2. An electric heater having a central tubular core provided with an insulated inner face, said core having slots formed therein, a body of insulating material arranged over said core having slots registering with the slots of said core and provided with plug sockets in communication with said slots, said body having a spiral groove in its periphery, detachable connecting plugs arranged in said sockets, a heating coil arranged in said spiral groove having its ends connected to said plugs, and a lead wire and a return wire extending into said core from one end thereof and connected respectively to said connecting plugs.

3. An electric heater comprising a tubular core having an insulated inner face and provided with longitudinal slots and threaded portions, an annular body arranged on said core having a spiral groove in its periphery, said body being provided with plug sockets, connecting plugs arranged within said sockets, a lead wire connected to one of said plugs and a return wire connected to the other plug, said wires extending through the slots of said core, and a heating coil arranged within the groove of said body having its ends connected respectively to the plugs.

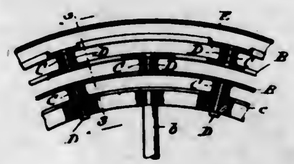
4. An electric heater comprising a tubular core having an annular body provided with a spiral groove in its periphery, said body being provided with plug sockets communicating with slots formed in said body, a heating coil seated in said groove, plugs mounted in said sockets connected to the ends of said coil, lead and return wires connected respectively to said plugs, keys engaging said plugs, and head plates carried by said core having insulated inner faces engaging the ends of said body and said keys.

5. An electric heater comprising a tubular core having an annular body arranged thereon formed of insulating material, a heating coil arranged on said body, connecting plugs mounted in the ends of said body connected to said coil, said connecting plugs being connected respectively to a lead and a return wire, keys engaging said plugs, said core having threaded portions, and head plates arranged on the ends of said body and secured in position thereon by nuts mounted on the threaded portions of said core.

[Claims 6 and 7 not printed in the Gazette.]

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1,037,574. SPRING-WHEEL. DORR AMERMAN, near Longmont, Colo. Filed Sept. 3, 1910. Serial No. 580,289. (Cl. 152—32.)



The herein described wheel, comprising a hub, a felly, spokes interposed between the hub and the felly and connected thereto, a resilient metallic band, of larger diameter than the felly, surrounding and spaced from the felly, supporting blocks arranged at intervals between the felly and the band; said blocks at their ends bearing directly against the felly and the band, radially disposed bolts one to each block, extending through the felly, the blocks and the band and having enlargements at their ends; the enlargements in the band being flush with the outer side thereof, a second resilient metal band, of larger diameter than the first-named band, surrounding and spaced from the latter, supporting blocks arranged at intervals between the bands and bearing directly at their ends against the bands, radially disposed bolts one to each block, extending through the bands and the blocks and having enlargements at their ends disposed in and arranged flush with the bands; the blocks of the set between the bands being arranged in radial alinement with the spokes, and the blocks of the set between the felly and the inner band being arranged opposite the middles of the spaces between the blocks of the set between the bands, a channeled band resilient and of metal surrounding and spaced from the second-named band, supporting blocks arranged at intervals between the two outer bands and bearing directly at their ends against said bands, radially disposed bolts one to each block, extending through the outer bands and the blocks and having enlargements at their ends disposed in and arranged flush with said bands; the blocks of the set between the outer bands being disposed in radial alinement with the blocks between the felly and inner band, and a tread of resilient material carried in the channel of the outer band.



1,037,575. FLEXIBLE CHAIN FOR LIGHTING-FIXTURES. LAURITS W. ANDERSEN, Waterbury, Conn., assignor to The Plume and Atwood Manufacturing Company, Waterbury, Conn., a Corporation of Connecticut. Filed Feb. 26, 1912. Serial No. 679,916. (Cl. 59—80.)



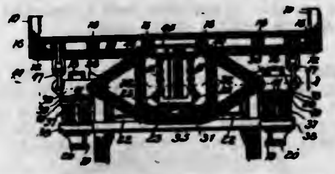
1. A chain comprising a plurality of shells provided with end apertures, tubular spacers intervening between such shells, and tubular coupling members by which such shells are flexibly united.

2. A chain comprising a plurality of shells composed of two parts each provided with an end opening, means for connecting such parts together, tubular spacers intervening between such shells, and tubular coupling members by which such shells are flexibly united.

3. A chain comprising a plurality of shells composed of two parts each provided with an end opening, means upon the meeting ends of the shells by which such parts are capable of connection, tubular interiorly screw-threaded spacers intervening between such shells, tubular coupling members provided with heads within said shells and having an exteriorly screw-threaded part extending outside such shells and adapted to screw into the screw-threaded spacers and by which the shells are flexibly united.

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1,037,576. CENTER-BEARING FOR RAILWAY-CARS. OLOF ANDERSON, Chicago, Ill. Filed May 2, 1912. Serial No. 694,701. (Cl. 105—243.)



1. The combination with a car-body underframe and a truck having a yieldingly supported truck-bolster, of a center-bearing and alined, upper and lower, pivotally engaging, pin and socket connections between said underframe and bolster.

2. In combination, the center-sills of a car-body underframe, a truck-bolster surrounding said center-sills, and a center-bearing for said center-sills in the truck-bolster.

3. In combination, the center-sills of a car-body underframe, a truck-bolster surrounding said center-sills, a center-bearing for said sills in said bolster, and alined pivotally engaging, pin and socket connections between said sills, at their upper and lower sides, and said bolster.

4. In combination, the center-sills of a car-body underframe, a truck-bolster surrounding said center-sills, a center-bearing, for the car-body in the truck-bolster, formed with a block, mounted between said center-sills, having alined, pivotally engaging, pin and socket connections, at its upper and under sides, with said bolster.

5. In combination, the center-sills of a car-body underframe, a truck-bolster comprising a frame, having an opening through which said sills extend, and a cap for said opening removably secured to said frame, a center-bearing support for the car-body in said frame, a pivotal, pin and socket connection between said sills, at their undersides, and said frame, and a pivotal pin and socket connection between said sills, at their upper sides, and said cap.

[Claim 6 not printed in the Gazette.]

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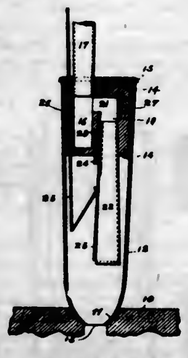
1,037,577. MEANS FOR FASTENING THE MOVEMENTS OF WATCHES IN THE CASES. ALLEN J. BAKER, Stewartstown, Pa. Filed Dec. 30, 1911. Serial No. 668,647. (Cl. 58—88.)



A device for fastening a watch movement in its case, consisting of the combination of a watch-case having the usual rim-flange at its inner side; a watch-movement having a rear plate; a lock-screw whose head rim is provided with notches, said lock-screw being entered through the rear plate and the notched head overlapping and engaging the watch-case rim-flange, and a second screw also on the rear plate and having an eccentric head adjacent to the said notched head—the round part of said eccentric head capable of engaging either one of the notches on the lock-screw and disengaging therefrom when the eccentric head has been partly turned.

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1,037,578. DUST-PROOF REED-PIPE. CHARLES E. BARKSTROM, Chicago, Ill. Filed Nov. 22, 1911. Serial No. 661,735. (Cl. 84—22.)



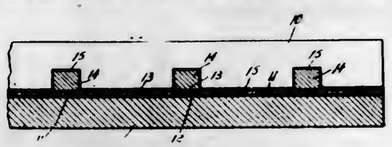
1. In a dust proof reed pipe, the combination with a boot, of a block located on the upper end thereof and provided with a passageway extended therethrough and having its terminals located at opposite ends of the block, the said passageway having a pocket located between its terminals and below the upper portion of the part thereof which leads from the lower end of the block, a reed fitted in the lower end of said passageway and a body communicating with the upper end of said passageway.

2. In a dust proof reed pipe, the combination with a boot, of a block located in the upper portion thereof and having oppositely disposed channels leading inwardly from each of its ends, the lower channel having communication with the upper one at a point some distance above the lower end of the upper channel, a reed communicating with the lower channel and a body with the upper channel.

3. In a dust proof reed pipe, the combination with a boot, of a block located in the upper portion thereof and having oppositely disposed channels leading inwardly from each of its ends and also having a transversely located channel extended through the wall of said block and closed at its outer end and uniting the first named channels the lower one with the upper one at a point some distance above the lower end of the upper channel, a reed communicating with the lower channel and a body with the upper channel.

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1,037,579. PROTECTIVE COVERING FOR CONCENTRATOR-TABLES AND METHOD OF APPLYING THE SAME. EVERETT A. BAYLIS, Madera, Mexico. Filed Aug. 15, 1910. Serial No. 577,131. (Cl. 83—89.)

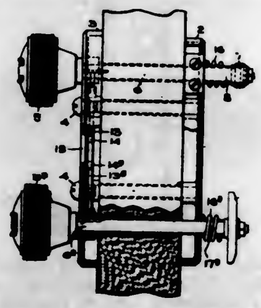


1. The combination with a concentrator table; of a cover therefor comprising canvas painted on one side with "P. & B." paint and stretched over and secured to said table, the painted side being undermost, a second coat of said paint covering the upper side of said canvas, riffles secured to said table on top of said cover, and a third coat of said paint covering said riffles and cover.

2. The process of preparing a concentrator table which consists in coating a canvas cover with a paint capable of resisting the actions of potassium cyanid and alkaline solutions, applying the canvas to the table with the painted side down, stretching and securing the canvas to the table, applying a second coat of the same paint to the stretched canvas, securing riffles on top of said cover, and finally applying a third coat of the same paint.

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1,037,580. CIRCUIT - CONTROLLING MECHANISM. FERDINAND BECHOFF, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Original application filed Dec. 16, 1908, Serial No. 467,881. Divided and this application filed Jan. 24, 1910. Serial No. 539,640. (Cl. 177—10.)



1. The combination with coöperating contacts mounted to rotate in sliding engagement and to move one toward the other, of means whereby one of said contacts is yieldingly pressed upon the other with a pressure dependent upon the extent of their relative rotation when in engagement.

2. The combination with coöperating contacts mounted to rotate in engagement and to move one toward the other, of a resilient member arranged to force one of said contacts toward the other when strained, and means whereby rotation of one of said contacts strains said resilient member to an extent dependent upon the extent of movement of one of said contacts over the other.

3. The combination with a fixed contact and a coöperating movable contact mounted to rotate in sliding engagement with and to move toward said fixed contact, of a resilient helical member mounted with one end in fixed relation to said fixed contact and arranged to coöperate with said movable contact to cause said movable contact to move in a spiral path toward the fixed contact as said movable contact is rotated.

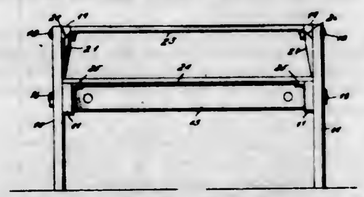
4. The combination with a fixed contact and a coöperating movable contact mounted to rotate in sliding engagement with and to move toward said fixed contact, of a helical spring fixed at one end relatively to said fixed contact and concentric with the axis of rotation of said movable contact, and connections between said movable contact and said spring whereby the rotation of said movable contact causes said contact to be moved by said spring toward said fixed contact.

5. The combination with relatively movable coöperating contacts, of a rotatable actuator mounted to move axially and thereby bring said contacts into engagement, and a resilient member having an inclined surface engaged by said actuator to move said actuator axially and thereby bring said contacts into yielding engagement when said actuator is rotated.

[Claims 6 to 10 not printed in the Gazette.]

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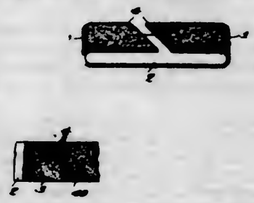
1,037,581. PORTABLE POULTRY-PERCH. JULIUS M. BEECHER, Sr., Belleville, Kans. Filed May 1, 1912. Serial No. 694,399. (Cl. 119—22.)



A poultry perch, comprising supporting members, rails connecting pairs of supporting members, spacing rails extending from one pair of supporting members to another pair, said supporting members being provided with bolt openings, said spacing rails having bolts secured thereto for reception in the openings of the supporting members together, a strip pivotally mounted on the upper end of two of the supporting members, the free ends of the pivoted perch being beveled, cleats on the upper end of the supporting members adjacent the free ends of the perch, said cleats having beveled recesses for the reception of the ends of the perch, and a removable dropping board slidably mounted on the rails.

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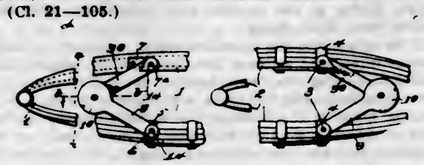
1,037,582. JOINING ABRASIVE SHEETS. EMILE J. BEIN, Newark, N. J. Original application filed Apr. 11, 1907, Serial No. 367,542. Divided and this application filed June 3, 1907, Serial No. 376,962. Renewed Feb. 12, 1912. Serial No. 677,136. (Cl. 51—1.)



As a new article of manufacture, a jointed abrasive sheet, having a surface of abrasive particles, the adjoining parts being secured by an adhesive having at the region of said joint an artificial graining from which the individual abrasive particles protrude to present a surface of high abrasive quality substantially as described.



1,037,583. SHOCK-ABSORBER. JOSEPH BENNY, Newark, N. J. Filed June 25, 1912. Serial No. 705,780. (Cl. 21—105.)



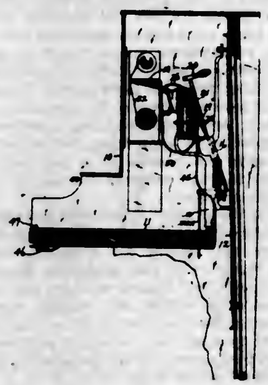
1. A shock absorber for vehicles comprising a pair of levers having the same fulcrum mounting and each provided with a flanged head, a pair of coil springs each having one end anchored in one of the heads, a casing having a central web separating the springs, a pair of hubs on the web and having the other ends of said springs anchored therein, an arm projecting from the casing and fulcrumed independent of the said levers, and means for pivotally securing the heads and casing together.

2. The combination with a vehicle spring, a pair of levers fulcrumed to the bottom of said spring and each having a circular head, and a coil spring contained in each head and each spring having one end thereof anchored in one of the heads, of a casing having an arm fulcrumed to the top of the vehicle spring, a casing web having a hub on each side thereof in which the other ends of the coil springs are anchored, and means for pivotally securing the heads and the casing together.

3. In a shock absorber, the combination of a casing having a fulcrumed-arm projecting therefrom, a web central of the casing, a slotted hub on each side of the web, a pair of fulcrum levers each having a flanged head fitting the casing, a coil spring on each side of the web and each spring outwardly projecting end anchored in one of the heads and having an inwardly projecting end fitting the hub-slots, and means for pivotally connecting the heads and the casing with the latter between the heads.

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1,037,584. HAMMER-RAIL CONSTRUCTION FOR PNEUMATIC PIANOS. WILLIAM G. BETZ, Chicago Heights, Ill., assignor to Steger & Sons Piano Manufacturing Company, Chicago, Ill., a Corporation. Filed June 12, 1911. Serial No. 632,585. (Cl. 84—160.)



1. In a piano, the combination with hammers and a main hammer rest rail engaging said hammers, of a secondary hammer rest rail, a power pneumatic on the main hammer rest rail for actuating said secondary hammer rest rail independently of the main hammer rest rail, and a valve mechanism for controlling said power pneumatic.

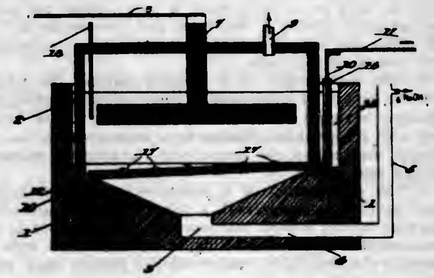
2. In a piano, hammers a main hammer rest rail engaging said hammers provided with an exhaust air passageway, a valve mechanism secured to said hammer rest rail in communication with said exhaust air passageway, a power pneumatic secured to said valve mechanism and controlled thereby, and a secondary hammer rest rail actuated by said power pneumatic.

3. In a piano, hammers a main hammer rest rail engaging said hammers provided with an exhaust air passageway, a valve mechanism secured to said hammer rest rail in communication with said exhaust air passageway, a power pneumatic secured to said valve mechanism and controlled thereby, a secondary hammer rest rail actuated by said power pneumatic, a tube extending from the main hammer rest rail and in communication with the valve mechanism, and means for controlling the admission of air to said tube.

4. In a piano, the combination with hammers and a main hammer rest rail engaging said hammers, of a secondary hammer rest rail arranged in sections, a power pneumatic for actuating each section of said hammer rest rail, and a valve mechanism for controlling said power pneumatic, said power pneumatic and valve mechanism being secured to the main hammer rest rail.

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1,037,585. ELECTROLYSIS OF LIQUIDS. JEAN BILLITER, Vienna, Austria-Hungary. Filed July 8, 1910. Serial No. 571,008. (Cl. 204—58.)



1. An apparatus for electrolyzing liquids having cathodes arranged in horizontal strips; conduits carrying away gas and arranged to cover said cathodes, and said conduits being closed to prevent the free circulation of electrolyte.

2. An apparatus for electrolyzing liquids having cathodes arranged in horizontal strips; conduits carrying away gas and permeable to current, said conduits being provided with membranes completely surrounding the cathode, whereby the cathode product escapes only by filtration.

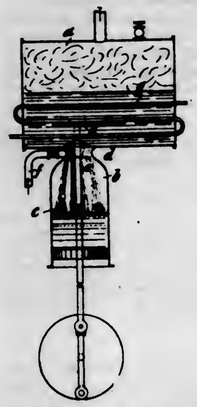
3. An apparatus for electrolyzing liquids having cathodes arranged in horizontal strips, conduits covering said cathodes and comprising a membrane permeable to current stretched over the electrodes, and a suitably arranged auxiliary means adapted to prevent the formation of gas spaces.

4. An apparatus for electrolyzing liquids having cathodes arranged in horizontal strips; tubular conduits covering said cathodes and adapted to carry away gas and permeable to current; said cathodes being suitably spaced to guide the electrolyte in a uniform current between them from the top downward and transversely to the cathode surfaces, and suitable openings in the bottom of the cell below the cathode through which the electrolyte may be discharged.

5. An apparatus for the electrolysis of alkali solutions comprising a vessel, an anode, a cathode disposed horizontally of the vessel, a fabric casing for the cathode providing a gas discharging means, said fabric permitting of passage of the current therethrough, and having means to prevent movement along the cathode of the flowing electrolyte, for the purpose specified.

[Claims 6 to 8 not printed in the Gazette.]

1,037,586. APPARATUS FOR COMPRESSING AIR AND OTHER FLUIDS. ERNST BIRAWER, Berlin, Germany. Filed July 14, 1909. Serial No. 507,630. (Cl. 230—16.)



1. The combination of a pressure-chamber for liquid and the fluid to be compressed, a pump below the pressure-chamber having a fluid-inlet and communicating at its upper end with the pressure-chamber by a contracted but always open passage.

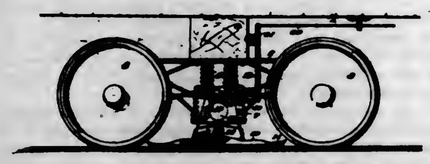
2. The combination of a pressure-chamber for liquid and the fluid to be compressed, a pump below the pressure-chamber having a fluid-inlet communicating at its upper end with the pressure-chamber by a contracted portion or throat, and means for periodically contracting without closing said throat.

3. The combination of a pressure-chamber for liquid and the fluid to compressed, a pump below the pressure-chamber having conical inlet-openings for the fluid to be compressed and communicating at its upper end with a pressure-chamber by a contracted but always open passage.

4. The combination of a pressure-chamber for liquid and the fluid to be compressed, a pump below the pressure-chamber, the cylinder of which is provided with fluid inlet-openings and communicating at its upper end with the pressure-chamber by a contracted but always open passage, and a liquid supply-pipe connected with said cylinder.

5. The combination of a pressure-chamber, for liquid and the fluid to be compressed, a pump below the pressure-chamber, the cylinder of which is provided with inlet-openings for the fluid to be compressed and with a contracted upper end or throat communicating with the pressure-chamber, and a valved liquid supply-pipe-connected with the contracted upper end or throat of the pump-cylinder.

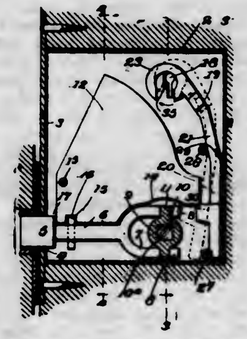
1,037,587. CAR-BRAKE. WILLIE E. BOWERS, Tuscaloosa, Ala. Filed Apr. 27, 1911. Serial No. 623,645. (Cl. 88—47.)



1. In a brake of the class described, a housing having anticlinal walls, a brake shoe having a wedge-shaped head slidably fitted in the housing and formed with an opening, a shaft journaled in the housing, an eccentric fixed upon the shaft fitting in the opening in the head, and means operable to rock the shaft to move the head to position snugly fitting in the housing and to slide the head outwardly from the housing.

2. In a brake of the class described, a support, a beam, springs interposed between the beam and the support and yieldably holding the beam against upward movement, a housing supported by the beam, a brake shoe having a head slidably fitted in the housing, the said head being formed with an opening, a shaft journaled in the housing, an eccentric fixed upon the shaft and fitting in the opening in the head and means operable to rock the shaft.

1,037,588. SPRINGLESS DOOR-LOCK. CLAUDE BROWN, Attica, Ind. Filed Aug. 15, 1911. Serial No. 644,217. (Cl. 70—51.)



1. A lock of the character described including a longitudinally shiftable bolt, a weight pivotally mounted above the bolt and having its free end engaging the bolt to urge it to its projected position, an abutment behind the bolt, and a key actuated tumbler shiftable to position between the weight and the bolt, said tumbler having a portion projecting beneath and engaged with the weight when in its bolt engaging position, the weight thereby impeding the shifting of the tumbler.

2. A lock of the character described, including a longitudinally shiftable bolt, a weight pivotally mounted above the bolt and having its free end engaging with the bolt, said weight being cut away on its lower side adjacent to its rear end, an abutment behind the bolt, means for retracting the bolt against the force of said weight, and a rocking vertically shiftable key-actuated tumbler movable into or out of position between the abutment and the rear end of the bolt, said tumbler having a projecting portion engaging beneath and supporting the projecting end of the weight when the tumbler is in position between the abutment and the bolt whereby the weight impedes the shifting of the tumbler.

3. A lock of the character described including a casing, a longitudinally shiftable bolt therein, means for yieldingly projecting the bolt, means for manually retracting the bolt against the force of said projecting means, an abutment, and an angularly shaped tumbler, key actuated and having a vertically sliding and rocking engagement between its fulcrum and the rear of the casing, said tumbler being movable by a key into or out of position behind the abutment and into or out of position between the abutment and the rear end of the bolt.

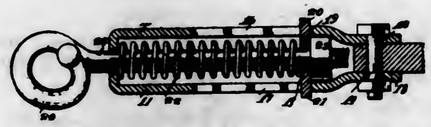
4. A lock of the character described including a casing, a longitudinally shiftable bolt therein, an abutment spaced from the rear end of the casing and disposed behind the bolt, means for yieldingly projecting the bolt, means for retracting the bolt against the force of said projecting means, and a tumbler, shaped angularly to provide a fulcrum and having a sliding and rocking engagement with the rear wall of the casing, said tumbler having a key engaging terminal upper end whereby upon a rotation of the key the tumbler will be rocked against the rear end of the casing and withdrawn from behind the abutment and projected into position between the abutment and the rear end of the bolt.

5. A lock including a casing, a longitudinally shiftable bolt located in the lower portion of the casing, a weight urging the bolt to its projected position, means for manually retracting the bolt, an abutment disposed behind the bolt and spaced from the rear wall of the casing, and a tumbler, shaped angularly to provide a fulcrum on its rear face having sliding and rocking engagement with the rear wall of the casing, the lower end of the said tumbler being adapted to engage behind the abutment or between the abutment and the rear end of the bolt, said tumbler at its upper end being formed with a key engaging terminal whereby the tumbler may be lifted and rocked upon a rotation of the key to withdraw the tumbler from its position behind the abutment and to project the tumbler to a position between the abutment and the rear end of the bolt.

[Claim 6 not printed in the Gazette.]

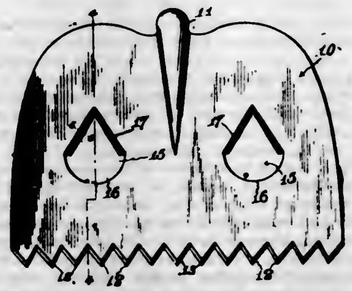


1,037,589. CLEVIS. GEORGE P. BROWNING, Flint Hill, Va. Filed Jan. 5, 1911. Serial No. 600,863. (Cl. 74—74.)



A clevis including a U-shaped frame having the terminals of the sides bent inwardly and equipped with attaching means, said sides being formed with longitudinal slots, a follow plate slidably fitted between the sides and having extensions projecting through said slots and limited in movement by contact with the end walls of said slots, a helical spring disposed between the bight of the frame and the follow plate, a draw bar extending through the bight of the frame, through said spring, and through an orifice in said follow plate, and a nut on said draw bar bearing against said follow plate and adapted to contact with the inwardly-bent terminals of said sides when said spring expands to inactive position after actuation whereby to lessen shock on said extensions as the latter contact with the ends of said slots nearest to said inwardly bent ends.

1,037,590. HOE. JUSTUS W. BUSH, Indian Wells, Ariz. Filed Apr. 27, 1912. Serial No. 693,646. (Cl. 55—98.)



1. A hoe blade having a serrated ground engaging edge, each tooth of which is beveled on both edges and on both sides of the hoe blade, the said blade having openings above the serrated edge, the upper walls of each of said openings being beveled and bent rearwardly from the face of the blade.

2. A hoe blade having a double beveled serrated ground engaging edge, and openings above the serrated edge, each of said openings having the upwardly converging walls and the lower semi-circular wall, the said converging walls being beveled and bent outwardly from the rear face of the hoe blade.

1,037,591. PROCESS OF MAKING ALUMINUM SULFATE. PERCY HUTCHINS CARTER, HARRY HORACE SHACKELTON, and THOMAS EDWARD GRAFTON, Rome, Ga. Filed Sept. 7, 1911. Serial No. 648,219. (Cl. 23—13.)

1. The herein described method of treating halloysite which consists in treating the raw ore with dilute sulfuric acid to dissolve the aluminum content.

2. The herein described method which consists in treating raw halloysite in the presence of moisture, with sulfuric acid to dissolve the aluminum content.

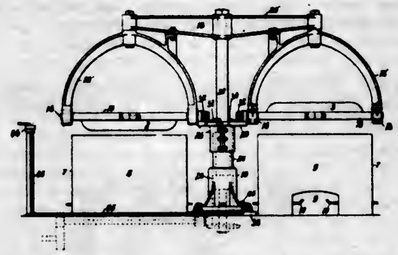
3. The method which consists in treating raw halloysite in the presence of water with dilute sulfuric acid of sufficient strength to render the alumina soluble in the form of sulfate and leaving behind the manganese cobalt and nickel and other non-aluminum ingredients of the ore as a residue, and separating the dissolved aluminum content from the residue.

4. The method which consists in treating pulverized uncalcined halloysite in the presence of water with sulfuric acid of sufficient strength with relation to the temperature to render only the aluminum soluble and retain the same in solution, and leaving the non-aluminum constituents undissolved.

5. The method of producing aluminum sulfate which consists in pulverizing raw halloysite, then treating the same in the presence of water with sulfuric acid of sufficient strength with relation to temperature to dissolve substantially all the aluminum content without affecting the other ingredients.

[Claim 6 not printed in the Gazette.]

1,037,592. GLASS-HANDLING APPARATUS. JAMES A. CHAMBERS, Allegheny, Pa. Filed Feb. 23, 1911. Serial No. 610,428. (Cl. 49—17.)



1. In glass handling apparatus, a furnace, a pot, a horisontally shiftable support for the pot, means for horisontally shifting the support whereby the pot may be presented to the furnace, and means for effecting disengagement of the support from the pot after operating to bring the pot into position.

2. In glass handling apparatus, a furnace, a pot, a horisontally and vertically shiftable support for the pot, means for horisontally shifting the support whereby the pot may be brought into and out of position with the furnace, means for effecting vertical shifting of the support, for operating, presenting to and removing the pot from the furnace, and means whereby the support may be disconnected from the pot after the latter has been presented to the furnace.

3. In glass handling apparatus, a plurality of furnaces, a pot, a support for the pot, mounted to be horisontally shiftable, for bringing the pot from one furnace to another, and means whereby disengagement of the support from the pot may be effected after said pot has been presented to a furnace.

4. In glass handling apparatus, a plurality of furnaces, a pot, a horisontally shiftable support for the pot for

bringing the pot from one furnace to another, means for shifting the support, and means whereby disengagement of the support from the pot may be effected after said pot has been presented to a furnace.

5. In glass handling apparatus, a plurality of furnaces, a pot, a horizontally and vertically shiftable support for the pot, means for horizontally shifting the support to bring the pot from one furnace to another, means for vertically shifting the support to effect operative presentation of the pot to the furnace, and means whereby the support may be disconnected from the pot, after operating, to present the pot to a furnace.

[Claim 6 not printed in the Gazette.]

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1,037,593. ANTIRATTLER FOR AUTOMOBILE-DOORS, &c. FRANKLIN COLE, Pontiac, Mich. Filed Dec. 7, 1911. Serial No. 664,332. (Cl. 16—77.)

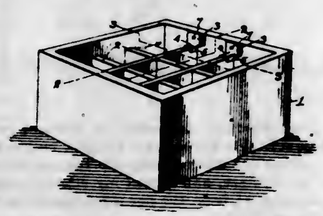


1. An anti-rattler comprising a metallic casing formed from a sheet metal blank having an aperture in one side thereof, a cushion of solid resilient material inclosed within said casing, and a metallic member bearing against said cushion said member having a portion projecting outward through the aperture in the case.

2. An anti-rattler comprising a casing formed from a sheet metal blank having an aperture intermediate the ends thereof, one of the end portions of the blank being bent to form with the intermediate portion an angle plate, and the other end being bent to form with a portion of the angle plate a rectangular case, a cushion member inclosed within said case, and a metallic member bearing against said cushion member and having a portion projecting outward through the aperture.

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1,037,594. HOLDER FOR BOX-PARTITIONS. JOHN A. COOK, Marinette, Wis. Filed Apr. 29, 1911. Serial No. 624,030. (Cl. 217—65.)



An article of manufacture comprising a flat plate adapted for attachment to the side of a box, said plate having an integral tongue projecting at right angles from one margin thereof, and said tongue having integral parallel flanges extending from its longitudinal margins beyond the plane of the edge of said plate from which said tongue projects.

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1,037,595. RAIL-JOINT. JOHN M. COOPER, Lewiston, W. Va. Filed Feb. 21, 1912. Serial No. 679,076. (Cl. 238—6.)

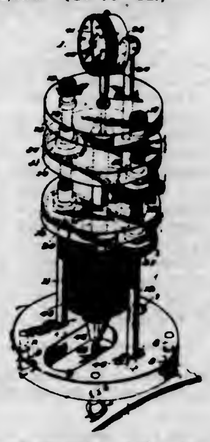
1. In a rail joint, a rail supporting chair having a sustaining block formed integral with one end thereof, an additional sustaining block, a plate underlying said chair, removable securing plates connecting said underlying plate and the additional sustaining block, said plates retaining said additional block, in sliding engagement with the upper face of the chair, and means to lock said additional sustaining block in its effective position on the chair.



2. In a rail joint, an elongated plate having a sustaining block formed integral with one end thereof, said plate being reduced in width adjacent the sustaining block to provide shoulders on the side edges of the plate, an additional sustaining block, a plate underlying the aforesaid plate and of a width substantially equal to the reduced width of the latter, side plates adapted to connect the additional sustaining block and said underlying plate, means to removably secure said side plates to the aforesaid underlying plate and additional block, to retain the latter in sliding engagement with the upper face of the elongated plate, the one edge of said side plates being adapted to contact with the shoulders on the side edges of the elongated plate to limit the sliding movement of said additional block, and means to lock said additional block in its effective position.

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1,037,596. TESTING INSTRUMENT. BENJAMIN DENVER COFFAGE, Wilmington, Del. Filed Aug. 4, 1911. Serial No. 642,856. (Cl. 73—51.)



1. In a testing instrument of the character set forth, the combination of a stem, a contactor carried by the stem, a support for the stem, means for imparting movement to said support and through it to the stem to adjust the position of the contactor with relation to the material to be tested, and a weight the gravitating force of which is adapted to be applied to said contactor to force the same into the material being tested.

2. In a testing instrument of the character set forth, the combination of a stem, a contactor carried by the stem, a support for said stem, means for imparting movement to said support and through it to the stem to adjust the position of the contactor with relation to the material to be tested, a weight the gravitating force of which is adapted to be applied to said contactor and stem to force the contactor into the material being tested and to correspondingly move the stem, and an indicator actuated by said movement of the contactor and stem to indicate the distance of movement of the contactor into the material under test.

3. In a testing instrument of the character set forth, the combination of a stem having a contactor thereon, a support for the stem, an indicator through the intermediary of which the stem is suspended from said support, and a weight the gravitating force of which is adapted to be applied to the stem to force the contactor into the material being tested.

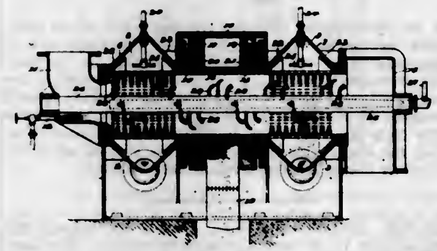
4. In a testing instrument of the character set forth, the combination of a contactor, a weight, and weight supporting means movable from a supporting to a non-supporting position to thereby deliver and apply the gravitating force of the weight to the contactor to force the same into the material being tested.

5. In a testing instrument of the character set forth, the combination of a stem, a contactor carried by the stem, means for imparting movement to the stem to adjust the position of the contactor with relation to the material to be tested, a weight, and weight-supporting means movable from a supporting to a non-supporting position to thereby deliver and apply the gravitating force of the weight to the contactor to force the same into the material being tested.

[Claims 6 to 11 not printed in the Gazette.]

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1,037,597. SCREENING-MACHINE FOR PAPER-PULP. BENJAMIN DENVER COFFAGE, Wilmington, Del. Filed Nov. 9, 1911. Serial No. 659,310. (Cl. 92—35.)



1. In a screening device, the combination of a rotatable perforated cylinder, a plurality of nozzles or jets arranged longitudinally of said cylinder each of said nozzles or jets being bent forward in the direction of travel of the material acted on, and a source of liquid supply connected thereto whereby fine particles of the material acted on pass transversely through the perforations and coarse particles are carried by the water longitudinally through said cylinder.

2. In a screening device, the combination of a rotatable perforated cylinder, a plurality of spirally arranged nozzles or jets inclined in the direction of travel of the material acted upon, and a source of liquid supply connected thereto whereby fine particles of the material acted on pass transversely through the perforations and coarse particles are carried by the water longitudinally through said cylinder.

3. In a screening device, the combination of a rotatable perforated cylinder, a plurality of nozzles or jets arranged longitudinally and spirally of said cylinder inclined in the direction of travel of the material acted upon, and a source of liquid supply connected thereto whereby fine particles of the material acted on pass transversely through the perforations and coarse particles are carried by the water longitudinally through said cylinder.

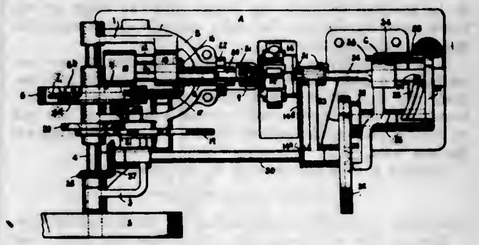
4. In a screening device, the combination of a rotatable perforated cylinder, a plurality of stationary nozzles or jets arranged longitudinally and spirally of said cylinder, and a source of liquid supply connected thereto whereby fine particles of the material acted on pass transversely through the perforations and coarse particles are carried by the water longitudinally through said cylinder.

5. In a screening device, the combination of a rotatable perforated cylinder, a plurality of nozzles or jets arranged longitudinally and spirally of said cylinder, each of said nozzles or jets being bent forward in the direction of travel of the material acted on, and a source of liquid supply connected thereto whereby fine particles of the material acted on pass transversely through the perforations and coarse particles are carried by the water longitudinally through said cylinder.

[Claims 6 and 7 not printed in the Gazette.]

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1,037,598. NUT-CRACKING MACHINE. HENRY D. CRAWFORD and WILLIAM B. KNIGHT, St. Louis, Mo., assignors to R. E. Funsten Dried Fruit & Nut Company, St. Louis, Mo., a Corporation. Filed June 19, 1911. Serial No. 634,091. (Cl. 146—8.)



1. In a nut cracking machine, a jaw rod, and a rotatable gravity member for moving said jaw rod, the said gravity member being provided with a jaw rod engaging member extending obliquely relative to its axis.

2. In a nut cracking machine, a jaw rod, and a rotatable gravity member for moving said jaw rod, the said gravity member being provided with a fin extending diagonally relative to its axis, and the jaw rod being provided with a notch in which said fin is operable.

3. In a nut cracking machine, a jaw rod, a gravity member provided with a fin operable in said jaw rod and extending diagonally relative to the axis of the gravity member, and means for relievating said cam after it has descended by gravity.

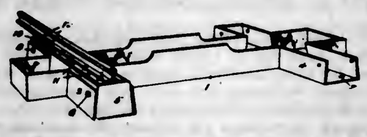
4. In a nut cracking machine, a jaw rod, a gravity member provided with a fin operable in said jaw rod and extending diagonally relative to the axis of the gravity member, means for relievating said gravity member after it has descended by gravity; said elevating means comprising a cam wheel, and means connected with said gravity member coöperable with said cam wheel for imparting rotative movement to said gravity member.

5. In a nut cracking machine, a jaw rod, a gravity member provided with a fin operable in said jaw rod and extending diagonally relative to the axis of the gravity member, means for relievating said gravity member after it has descended; said last named means comprising a shaft by which said gravity member is carried, a toothed wheel on said shaft, a rack bar in engagement with said toothed wheel, and a cam wheel for operating said rack bar.

[Claims 6 to 8 not printed in the Gazette.]

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1,037,599. RAILWAY CROSS-TIE. GEORGE W. CURTISS, Gallitzin, Pa. Filed May 6, 1912. Serial No. 695,419. (Cl. 238—5.)



1. A railway cross tie comprising an integral metal frame consisting of main portion and cross arm portions intermediate the ends of said main portion, wooden blocks adapted to be inserted in said cross arm portions, and means for securing the rails upon said blocks.

2. A railway cross tie comprising an integral metal frame of double cross shape adapted to rest upon the road bed, wooden blocks adapted to be inserted in longitudinally

disposed portions of the frame with relation to the road bed and intermediate the ends of the main portion of said frame, and means for securing the rails upon said blocks.

3. A railway cross tie comprising an integral metal frame of double cross shape adapted to rest upon the road bed, wooden blocks adapted to be inserted in a portion of the frame and extend above the sides of the same whereby the rail is insulated, and means for securing the rails upon said blocks.

4. A railway cross tie comprising an integral metal frame of double cross shape, wooden blocks adapted to be inserted in a portion of the frame, gage plates adapted to be inserted between the blocks and the sides of the block receiving portions, whereby the said blocks and rails may be adjusted laterally.

5. A railway cross tie comprising an integral frame consisting of a main portion and cross arm portions intermediate the ends of said main portion, the cross arm portions being dovetailed in cross section and open at one end to receive and retain suitable blocks which form supports for the rails.

[Claims 6 to 9 not printed in the Gazette.]

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1,037,600. COMBINATION TIE AND RAIL-FASTENER. EDWARD DAVIS, Urbana, Ill. Filed Nov. 25, 1911. Serial No. 662,423. (Cl. 238—3.)



In combination, a pair of cement body-sections, a bed plate on the top of the body-sections, a bowed spring member embedded in the sections for holding them together, the bed plate having slots, a pair of sheet metal members hinged together where the sections meet and partly embedded in the body-sections and extending through the slots of the bed plate, the sheet metal members having slots through which the bowed spring spring member extends, the sheet metal members terminating in horisontally arranged plate extensions having downwardly extending flanges penetrating the bed plate and into the cement of the body-sections, the flanges having openings, plates resting upon the plate extensions of the sheet metal members and provided with lugs struck down therefrom to engage the openings of the flanges, the plates that rest upon the extensions having lugs struck up therefrom adapted to engage rails, and devices for locking the last mentioned plates in position.

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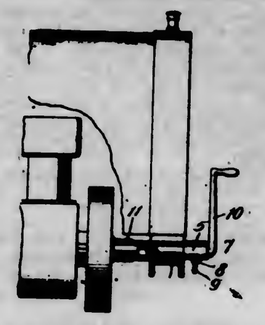
1,037,601. MEANS FOR LOCKING AUTOMOBILE STARTING-CRANKS. WILLIAM J. N. DAVIS, Chicago, Ill. Filed Oct. 14, 1910. Serial No. 587,007. (Cl. 123—98.)

1. A locking device of the class described, comprising a sleeve designed to be removably fitted to a cranking-shaft and to extend between the crank thereon and the support through which the shaft is mounted and constituting an abutment for preventing longitudinal movement of the shaft.

2. A locking device of the class described, comprising an abutment consisting of hinged sections, the device being adapted for application to a cranking shaft with the sections thereof embracing the shaft and extending between the crank thereon and the support through which the shaft is mounted, and means for holding the sections of the sleeve assembled about the shaft.

3. In a locking device of the class described, a two-part sleeve adapted to be removably fitted upon a cranking-shaft and to extend between the crank of the shaft and the support through which the shaft is mounted and to serve as an abutment for holding the shaft against longitudinal movement, and means holding the parts of the sleeve assembled.

4. A device of the class described, comprising a sleeve consisting of hinged sections provided with apertured ears at their free edges, the sleeve being adapted for disposal about a cranking-shaft and to extend between the crank thereon and the support through which the shaft is mounted and to constitute means for preventing longitudinal movement of the shaft, and a lock having a hasp engaged through the apertures in the said ears.

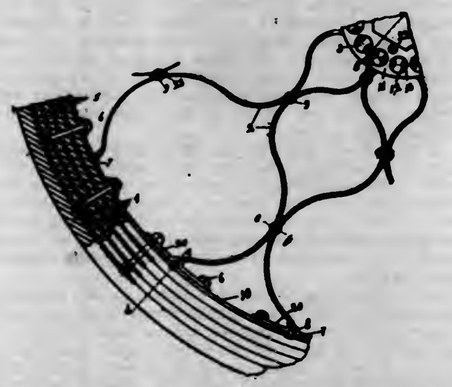



5. In combination with the starting-crank of an automobile, having its stem normally held yieldingly out of engagement with the starting-shaft, a stop on the normally-protruding portion of the crank-stem between the crank-handle and stem-receiving socket, to obstruct inward movement of the stem, the stop being readily removable bodily from the crank-stem, and a lock for temporarily securing the stop against removal, for the purpose set forth.

[Claims 6 and 7 not printed in the Gazette.]

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1,037,602. SPRING-WHEEL. PROCOR DE BOGORY and ALEXANDER DE BOGORY, Cocoanut Grove, Fla. Filed Jan. 26, 1911. Serial No. 604,898. (Cl. 152—29.)



1. A spring wheel comprising a resilient rim, a hub and a series of oppositely curved resilient spokes pivotally connected to said rim and hub, each of said resilient spokes formed from a flat strip of spring metal, and said flat strips of spring metal having edges thicker than the middle portion of said flat strips of spring metal, each spoke forms curves extending alternately in opposite directions, and said curves being of such a shape, that every said spoke, in the assembled wheel, touches adjacent spokes in three places, in said three places said spokes being fastened together.

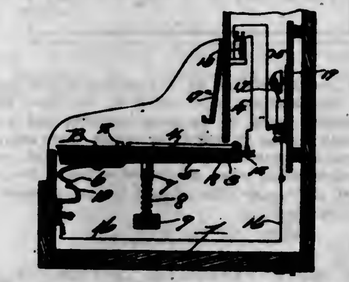
2. A wheel of the character described comprising a resilient rim, a hub and a series of resilient spokes, said spokes having their edges thicker than the middle portion; said spokes, have pivotal connection to said hub and rim by means of pins, said pins being welded to each end of said spokes, and on the inner end of said spokes, said pins provided with shoulders projecting on each side of said spokes.

3. A wheel of the character described comprising a resilient rim, a two flanged hub, and series of resilient, oppositely curved spokes, said spokes being pivotally connected to said hub by means of pins, and said two flanges of said hub having a series of holes to receive said pins of said spokes; half of said holes being of the same diameter as diameter of said pins to be engaged, the diameter of the other half of said holes being larger than the diameter of said pins, and in said holes with a larger diameter being provided bushings, said bushings having outside diameter to fit said large holes of said flange and said bushings have inside diameter to fit said pin of said spokes.



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1,037,603. ELECTRICAL MUSICAL INSTRUMENT. HALLIE B. DICKS, Grey Eagle, Minn. Filed Jan. 20, 1912. Serial No. 672,388. (Cl. 84—81.)



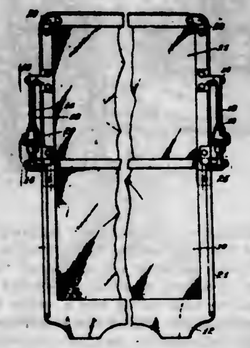
1. In a musical instrument, a horisontally disposed shaft, a plurality of keys pivoted upon the shaft and provided upon their under surfaces with metallic plates, said plates terminating at their forward ends in downwardly curved spring contact portions, and at their rearward ends in terminals, said plates intermediate their ends having a lug and spring connection between a stationary portion of the frame of the instrument for restoring the keys to their normal position, a plurality of contact members secured to the frame of the instrument to be coöperated with by the downwardly curved portions of the plate, a battery electrically connected to the rear terminal of each key, a bell electrically connected to each battery, each bell having electrical connections with each contact member of the frame of the instrument, whereby as one or the other of the keys is depressed, its respective bell will be sounded.

2. In a musical instrument, a horisontally disposed shaft, a plurality of keys pivoted upon the shaft and provided upon their under surfaces with metallic plates, said plates terminating at their forward ends in downwardly curved spring contact portions, and at their rearward ends in terminals, said plates intermediate their ends having a lug and spring connection between a stationary portion of the frame of the instrument for restoring the keys to their normal position, a plurality of contact members secured to the frame of the instrument to be coöperated with by the downwardly curved portions of the plate, a battery electrically connected to the rear terminal of each key, a bell electrically connected to each battery, each bell having electrical connections with each contact member of the frame of the instrument, whereby as one or the other of the keys is depressed, its respective bell will be sounded, said shaft having means formed as a part thereof constituting means to coöperate with the keys for limiting the upward movement of the keys.

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1,037,604. WIND-SHIELD. HARRY A. DOUGLAS, Chicago, Ill., assignor to The Adams & Westlake Company, a Corporation of Illinois. Filed Nov. 22, 1909. Serial No. 529,318. (Cl. 21—81.)

1. A wind shield for vehicles comprising, in combination, a fixed section and a movable section, brackets extending forwardly from the upper corners of the fixed section, extensible arms pivotally attached to the brackets and to the movable shield section, and a detent on the movable section engageable with the bracket for holding the movable section against backward movement when such section is vertical, and means for forcibly extending the arms to urge the movable section backwardly.



2. In a wind shield for vehicles, in combination, a fixed section and a movable section, brackets extending forwardly from the top of the fixed section and having upstanding recessed shoulders at their inner ends, extensible arms pivotally attached to the brackets and to the movable section, means for forcibly extending the arms, and studs mounted upon the movable section and engageable with the recesses of the bracket shoulders.

3. In a wind shield for vehicles, in combination, a fixed section and a movable section, brackets extending forwardly from the top of the fixed section and having upstanding recessed shoulders at their inner ends, extensible arms pivotally attached to the brackets and to the movable section, means for forcibly extending the arms, studs mounted upon the movable section and engageable with the recesses of the bracket shoulders, and plates extending backwardly from the side edges of the fixed shield section and being channeled to receive the studs.

4. In a wind shield for vehicles, in combination, a fixed section and a movable section, brackets extending forwardly from the fixed section adjacent its upper end and having at their inner ends upstanding recessed shoulders, channeled plates extending backwardly from the side edges of the fixed section, studs secured to the movable section at the tops and bottoms of the sides thereof and being engageable with the channels of the plates, the lower pair of such studs being engageable with the recesses of the brackets, extensible arms pivotally attached to the brackets and to the movable section, and means for forcibly extending the arms.

5. In a wind shield for vehicles, in combination, a fixed section and a movable section, brackets extending forwardly from the fixed section, interlocking means for engaging the lower edge of the movable section with the upper edge of the fixed section, and arms pivotally attached to the brackets and to the movable section, each of such arms comprising two sections united by a turn-buckle.

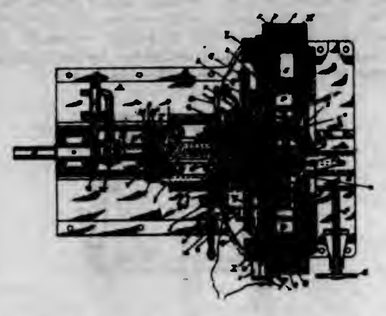
[Claims 6 to 9 not printed in the Gazette.]

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1,037,605. INTERNAL-COMBUSTION ENGINE. JOHN H. EATON, Rochester, N. Y., assignor of one-third to James F. Eaton, Rochester, N. Y. Filed Apr. 29, 1906. Serial No. 429,835. (Cl. 123—44.)

1. The combination with a rotary support, of a plurality of cylinders carried thereby and forming two sets, pistons working in the cylinders, a member to which the pistons are connected arranged eccentrically to the axis of the rotary support, valves for said cylinders, a pair of cams for operating the valves, one for each set of cylinders, and

means for shifting the cams alternately into and out of operating position.



2. The combination with a rotary support, a set of cylinders carried thereby, pistons for operation in the cylinders, and a thrust member for operating the pistons, of valves for the cylinders, a slidably mounted cam for successively operating said valves, and a rotary cam for effecting the movement of the sliding cam toward and from operative position.

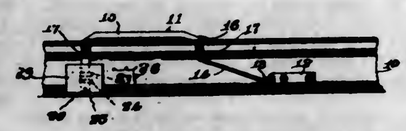
3. The combination with a rotary support, of a plurality of cylinders carried thereby and forming two sets, pistons working in the cylinders, valves for said cylinders, a pair of slides, cams carried by the slides, one for operating the valves of each set, and a rotary cam member adapted to shift the slides alternately into operative relation with the valves.

4. The combination with a driven shaft, of a support carried thereby, to rotate therewith, a plurality of cylinders forming two sets, carried by the support and having pistons working therein, valves for said cylinders, arms extending from the valves, the arms from the valves of the two sets of cylinders operating in different planes parallel with the plane of rotation of the support, a pair of slides, cams carried by the slides, and a cam member on the shaft operating the slides to shift the cams alternately each into the path of its respective coöperating arms.

5. The combination with a hollow shaft, of a rotary support secured to the shaft and having a hub provided with exhaust passages, a plurality of cylinders carried by the rotary support and communicating with the exhaust passages, and a member in which said hub turns, having an exhaust chamber communicating with the exhaust passages in the hub and a water chamber surrounding the exhaust chamber and communicating with the hollow shaft.

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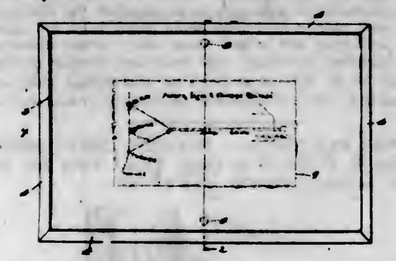
1,037,606. ELECTRICAL CONTACT FOR RAILWAY-CROSSING BELLS. ERNEST D. EVERY, Mason, Mich. Filed Nov. 13, 1911. Serial No. 660,045. (Cl. 246—35.)



An electrical contact for railway crossing alarms comprising a depressible member formed of a single section of resilient metal and adapted to be rigidly secured to the web of a rail at one end, said section being then twisted and extended diagonally upward beneath the ball of the rail and formed with a horizontal bulged portion disposed above the ball of the rail for engagement by a car wheel, the portions of the section at the ends of the bulged portion extending under the ball to form shoulders limiting the upward movement thereof and having its free extremity formed with a laterally extended resilient arm, a resilient arm supported adjacent to and beneath said first named arm in an offset position and an electrical circuit including a suitable source of energy and an alarm device connected to the arms to be closed by contact of the latter, said depressible member forming the ground end of the circuit.

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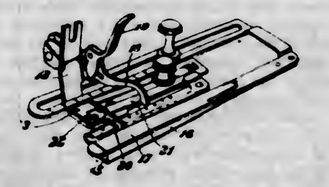
1,037,607. DESK-PAD. MATTHEW W. FLOTO, Chicago, Ill. Filed Mar. 8, 1911. Serial No. 613,121. (Cl. 40—1.)



A desk pad comprising an unattached bottom member having a comparatively deep recess in its upper surface and a shallow recess in its lower surface; and a glass plate loosely resting in said upper recess, there being two finger openings provided in said bottom member, one of said finger openings being positioned adjacent the center of each of the longer sides of said bottom member, substantially as described.

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1,037,608. TUCK-CREASER OR TUCKER FOR SEWING-MACHINES. LOUIS M. FOAD, New Haven, Conn., assignor to The Geist Manufacturing Company, a Corporation of Connecticut. Filed Oct. 18, 1911. Serial No. 655,409. (Cl. 112—27.)



1. In a sewing machine tuck creaser or tucker, the combination with creasing members and an edge guide, of a presser foot consisting of a relatively wide main rigid portion and a relatively narrow yielding portion which is a permanent part of said presser-foot and which is arranged on the left hand side of the said rigid portion and is adapted to yield upwardly to compensate for different thicknesses of material passing beneath said presser-foot.

2. In a sewing machine tuck creaser or tucker, the combination with creasing members and an edge guide, of a presser-foot consisting of a relatively wide main rigid portion and a relatively narrow yielding portion on the left side of said main portion, and a plate-spring to which said yielding portion is attached and which spring is permanently secured to and overlies said main portion of said presser-foot.

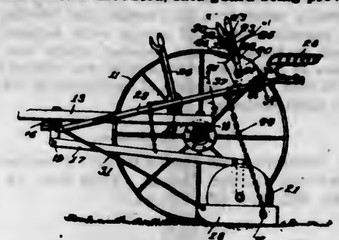
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1,037,609. FENDER-ADJUSTER FOR CULTIVATORS. WALTER H. FOX, Lathrop, Mo. Filed Feb. 7, 1911. Serial No. 607,079. (Cl. 74—39.)

A lever mechanism comprising plates having inturned ends, bolts passing transversely through the plates and spaced from the inturned end portions thereof, a plate mounted upon one of the first mentioned plates and having an edge portion which projects beyond the edge of the same, a lever fulcrumed upon the last mentioned plate and



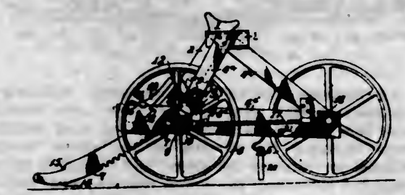
located beyond the edges of the first mentioned plates, a guard having a band which surrounds the lever, said guard extending along the edge portion of the plate upon which the lever is mounted, said guard being provided with



a socket, and a spring pressed pawl carried by the lever and slidably received within the socket of the guard and adapted to engage the edge of the plate upon which the lever is mounted.

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1,037,610. AUTOMATIC VEHICLE-JACK. CLYDE N. FRIZ, Baltimore, Md. Filed Mar. 18, 1912. Serial No. 683,561. (Cl. 57—102.)



1. In a vehicle jack, a lifting member constructed to engage with a part of a vehicle to be elevated and mounted to be capable of elevating movement, a driving means for imparting such elevating movement to the lifting member, and a traction wheel having connections through which it actuates said driving means.

2. A lifting jack having ground wheels through which it is adapted to travel with the vehicle, a lifting member constructed to engage with a part of a vehicle to be lifted and mounted on said jack, a driving member adapted to impart elevating movement to said lifting member, and actuating connection between a ground wheel and said driving member.

3. A vehicle jack comprising a rack bar constructed to engage with a part of a vehicle to be lifted and adapted to impart elevating movement thereto, a driving pinion engaging said rack bar, and a traction wheel having actuating connection with said pinion.

4. A vehicle jack comprising a rack bar adapted to impart elevating movement, a driving pinion engaging said rack bar, a traction wheel having actuating connection with said pinion, and a releasable rod for holding said rack in driven relation to the pinion.

5. A vehicle jack comprising a rack bar adapted to impart elevating movement, a driving pinion engaging said rack bar, a traction wheel having actuating connection with said pinion, and a releasable rest for holding said rack in driven relation to the pinion; said rest and rack bar being provided the one with a shoulder and the other with an offset adapted to inter-engage and prevent retrograde movement of the rack bar at the end of its elevating movement.

[Claims 6 to 10 not printed in the Gazette.]

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1,037,611. NON-REFILLABLE BOTTLE. JOHN E. GAVIN, Buffalo, N. Y. Filed July 12, 1912. Serial No. 708,970. (Cl. 215—68.)

1. In a non-refillable bottle, the combination with the neck of the bottle, of a stopper therefor having a discharge passage-way extending through the same, a valve arranged in said passage-way intermediate of its ends, opposed valve seats for said valve which are arranged to be engaged by said valve for closing said passage-way when the bottle is in its upright and inverted positions respectively, a second valve arranged in the inner end of said stopper and adapted to close said passage-way when the bottle is in its upright position, said second valve having a weighted portion which extends beyond the inner end of said stopper and is adapted to cause said valve to open and close as the bottle is moved to and from its upright and inclined positions, and means for securing said stopper in the neck of the bottle, substantially as set forth.

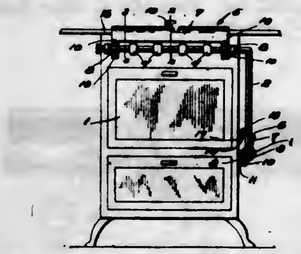


2. In a non-refillable bottle, the combination with the neck of the bottle, of a stopper therefor having a passage-way which extends through the same and is provided intermediate of its ends with a valve chamber having opposed valve seats, and at its inner end with a contracted opening, a valve arranged in said valve chamber and adapted to engage said opposed valve seats for closing said passage-way when the bottle is in its upright and inverted positions respectively, a second valve arranged in the inner end of said stopper for closing said contracted opening and having a weighted portion which extends through said opening into the bottle, and means for securing said stopper in the neck of the bottle, substantially as set forth.

3. In a non-refillable bottle, the combination with the neck of the bottle, of a stopper therefor having a discharge passage-way extending through the same, a valve arranged in said passage-way intermediate of its ends, opposed valve seats for said valve which are arranged to be engaged by said valve for closing said passage-way when the bottle is in its upright and inverted positions respectively, a valve seat arranged in said passage-way adjacent to the inner end of said stopper, a valve adapted to engage said seat for closing said passage-way, said valve having a weighted portion which operates to hold said valve on said seat when the bottle is in its upright position and to move said valve from said seat when the bottle is in an inclined position, and means for securing said stopper in the neck of the bottle, substantially as set forth.

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1,037,612. SHIELD OR PROTECTOR FOR STOP-COCKS. FREDERICK J. GEMUNDER, Philadelphia, Pa. Filed Apr. 30, 1912. Serial No. 694,167. (Cl. 126—42.)



1. A device of the character described, comprising a plate bent forming two members at an angle to each other, extensions on one member having half bearings between their ends, straps secured to said extensions and having half bearings therein adapted to secure the device upon a

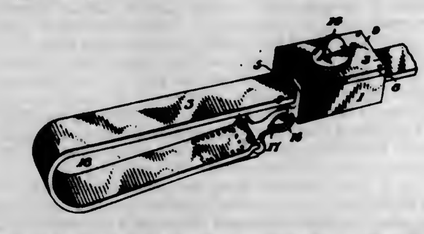
gas supply pipe, and a locking device on said shield adjacent the free end thereof adapted to secure the same with one of its members against the handles of the gas supply cocks, substantially as described.

2. A device of the character described, comprising a plate bent forming two members at an angle to each other less than a right angle, extensions on one member, straps secured to said extensions, said extensions and straps bent forming bearings to receive a gas pipe, a fixed part of the stove having an opening therein, and a turn-button supported by the other member and adapted to be projected through the opening and secure the device in closed position, substantially as described.

3. In combination with a gas range having an opening in its top, a gas supply pipe, a series of gas supply cocks in said pipe, and handles on said cocks, of a shield comprising a plate bent at an angle forming two members, extensions on one member mounted to turn on the gas pipe, and a rotary locking device on the other member adapted to be projected through the opening in the range top and secure the device against movement with one of its members positioned against the sides of the cock handles, substantially as described.

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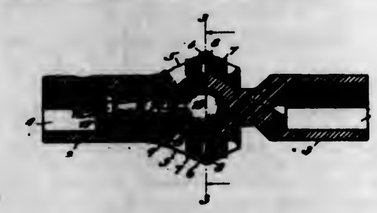
1,037,613. HITCHING-STRAP. BENJAMIN GIZZI, Delmont, Pa. Filed Mar. 1, 1912. Serial No. 680,941. (Cl. 54—34.)



A hitching device for straps comprising a casing provided with a longitudinal groove for the reception of hitching strap, said groove having the longitudinal walls thereof recessed, a clamping plate mounted in said groove and provided with enlargements extending into the recesses of said walls, a closure plate mounted upon said casing and provided with an opening and a boss, the wall of the opening forming a continuation of the inner face of the boss, said opening in the inner face of the boss threaded, a vertically disposed threaded stud projecting through the opening and boss and carried by said plate, an annular interiorally and exteriorally threaded member engaging said stem and threads, a head carried by said member and overlapping the boss and an aperture keeper carried by said casing.

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1,037,614. UNIVERSAL JOINT. STANLEY WALLACE GRAHAM, Hemet, Cal. Filed Dec. 6, 1909. Serial No. 531,680. (Cl. 74—19.)



A universal joint consisting of one shaft-section terminating at one extremity in an enlarged shell provided with oppositely-located parallel longitudinal slots, with a conical aperture receding from said shell and terminating in an enlarged opening 10, a ball supporting member disposed within said conical aperture, a ball made integral with the last named member and adjusting means at the other end of said member; a second shaft-section having a socket formed in one extremity to receive said ball, a clamping ring removably secured in said socket and bearing upon said ball, oppositely-disposed prongs made integral with said second shaft-section and disposed within the longitudinal slots of the other shaft-section and sliding blocks arranged on said prongs capable of oscillation in the plane of the said shaft sections.

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1,037,615. STRETCHING IMPLEMENT. CYPRIEN GRENIER, Coaticook, Quebec, Canada. Filed Mar. 12, 1912. Serial No. 683,237. (Cl. 57—44.)



1. An implement of the class described including a rotary sleeve having right and left hand screw threads, slidable rods provided with right and left hand threaded portions engaging the threads of the sleeve, ratchet mechanism for rotating the sleeve, and a support having bearings for the rotary sleeve and provided with guiding means having a slidable connection with the rods for holding the same against rotary movement.

2. An implement of the class described including a support provided with bearings and having terminal longitudinal guides, a rotary sleeve mounted in the bearings of the support and having right and left hand screw threads, rods provided with right and left hand threads engaging the threads of the sleeve, means for slidably connecting the rods with the longitudinal guides, and means for rotating the sleeve.

3. An implement of the class described including a support provided with bearings and having terminal longitudinal guides, a rotary sleeve mounted in the bearings of the support and having right and left hand screw threads, rods provided with right and left hand threads engaging the threads of the sleeve, collars secured to the rods and provided with openings through which the longitudinal guides pass for holding the rods against rotary movement, and means for rotating the longitudinal sleeve.

4. An implement of the class described including a rotary sleeve having right and left hand screw threads, a support for the sleeve extending longitudinally thereof and provided at spaced points with bearings located intermediate of the ends of the support and receiving the rotary sleeve, said support being also provided with straight outer guiding portions, rods having right and left hand threads engaging those of the sleeve, slides secured to the rods and receiving the guides and movable along the same and adapted to hold the rods against rotary movement, and means for rotating the sleeve.

5. An implement of the class described including a rotary longitudinal sleeve having right and left hand screw threads, a support extending longitudinally of the sleeve and provided with spaced bearings for the same and having straight guiding portions located beyond the bearings, rods having right and left hand threaded portions to engage the threads of the sleeve, means carried by the rods and slidable along the guides for holding the rods against rotary movement, and a loop mounted on and projecting from the support and adapted to receive a bar for preventing the support from turning.

[Claim 6 not printed in the Gazette.]



1,037,616. AUGER. LOUIS WILEY GRIMSOM, Durham, N. C. Filed Aug. 16, 1911. Serial No. 644,257. (Cl. 145—122.)



1. In a device of the class described, an operating member and a holder, one of which is provided with a groove, the other of which is provided with a collar to register in the groove, the operating member being journaled in the holder; a stem mounted in the operating member; a securing element entering the side of the operating member and engaging the stem, the holder surrounding the operating member closely to prevent a displacement of the securing element; shafts journaled for rotation in the holder, transversely of the operating member; angularly disposed, rotatable cutting elements carried by the outer ends of the shafts; and intermeshing beveled pinions upon the shafts and upon the stem; the holder consisting of transversely separable parts; and means for securing the parts of the holder together, to maintain the collar engaged in the groove and to maintain the holder engaged with the securing element.

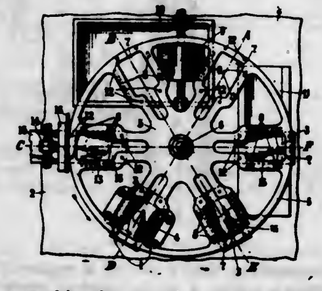
2. In a device of the class described, an operating member and a holder, one of which is provided with a groove, the other of which is provided with a collar to register in the groove, the operating member being journaled in the holder; a stem mounted in the operating member; a securing element entering the side of the operating member and engaging the stem, the holder surrounding the operating member closely to prevent a displacement of the securing element; shafts journaled for rotation in the holder, transversely of the operating member; angularly disposed, rotatable cutting elements carried by the outer ends of the shafts; and intermeshing beveled pinions upon the shafts and upon the stem; the holder consisting of transversely separable parts; a member securing the parts of the holder together to maintain the collar engaged in the groove and to maintain the holder engaged with the securing element; and a casing in which the holder is mounted to slide, the casing engaging the last specified member to prevent a separation of the parts of the holder.

3. In a device of the class described, an operating member; a stem removably carried by the operating member; a holder receiving the operating member for rotation, and comprising laterally separable parts; shafts journaled in said parts; cutting members carried by the outer ends of the shafts and disposed parallel to the operating member, and intermeshing beveled pinions upon the shafts and upon the stem, the separation of the parts of the holder permitting the removal of the stem from the operating member, and permitting the pinions upon the shafts and upon the stem, respectively, to be moved out of mesh.

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1,037,617. WRAPPING-MACHINE. FREDERICK GROVER, Leeds, England, assignor to The Forgrove Machinery Company Limited, Leeds, England. Filed Dec. 27, 1911. Serial No. 668,052. (Cl. 93—2.)

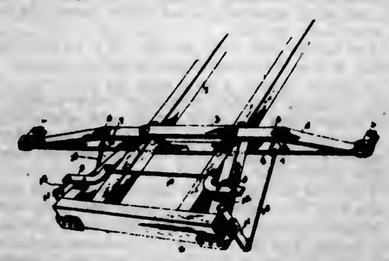
1. In a machine for wrapping up confectionery tablets in one or more inner wrappers and an outer label, the combination with a horisontal disk provided with depending lugs, means for intermittently rotating said disk the same amount and for depressing it during the period of rest at the conclusion of each rotation, a roller for applying an adhesive to said lugs, and a label-containing box from which the lugs of the disk pick up a single label at each period of rest and subsequently carry it around to a position to receive a tablet, of fixed pins depending from the under-side of the disk, a stationary table beneath said disk in front of the label box, holes formed in the table for admitting the points of the pins on the depression of the disk, and means for intermittently feeding a single wrapper, or wrappers, on to the table, said pins being adapted at each depression of the disk to pierce the fed wrapper by a direct thrust and pick it up prior to the disk lugs picking up the label, so that the wrapper and label together are carried by the disk to the tablet-receiving position.



2. In a machine for wrapping up confectionery tablets in one or more inner wrappers and an outer label, the combination with a horisontal disk provided with depending lugs, means for intermittently rotating said disk the same amount and for depressing it during the period of rest at the conclusion of each rotation, a roller for applying an adhesive to said lugs, and a label-containing box from which the lugs of the disk pick up a single label at each period of rest and subsequently carry it around to a position to receive a tablet, of fixed pins depending from the underside of the disk and being situated outside the label-carrying lugs, a stationary table beneath said disk in front of the label box, holes formed in the table for admitting the points of the pins on the depression of the disk, and means for intermittently feeding a single wrapper, or wrappers on to the table, said pins being adapted at each depression of the disk to pierce the fed wrapper by a direct thrust and pick it up prior to the disk lugs picking up the label, so that the wrapper and label together are carried by the disk to the tablet-receiving position.

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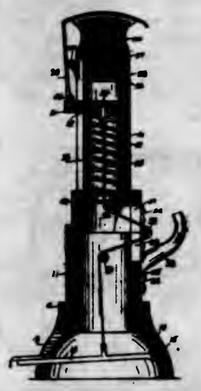
1,037,618. DRAFT-EQUALIZER. FRANK HAMM, Wichita, Kans. Filed Aug. 24, 1911. Serial No. 645,788. (Cl. 21—76.)



In combination a tongue structure bars pivotally connected at their inner ends with the tongue structure, bell crank levers pivotally mounted at the rear portion of the tongue structure, a link connecting the inner ends

of the bell crank levers together, rockers pivotally mounted at the rear portion of the tongue structure, links connecting the upper ends of the rockers with the outer ends of the bell crank levers, and links connecting the lower ends of the rockers with said bars.

1,037,619. SHOE-JACK. GEORGE W. HARRISON, Indianapolis, Ind., assignor of one-half to Frederick Warner, Indianapolis, Ind. Filed Dec. 28, 1911. Serial No. 668,335. (Cl. 12—123.)



1. The combination with a last, of a support therefor, a shoe-clamping means, a spring support operably connected thereto, means for depressing the same for clamping the shoe on the last, and means for causing the disengagement of said shoe-clamping means from the shoe when said clamping means is released and actuated by said spring support.

2. The combination with a last, of a support therefor, a plate vertically movable below said support, a hooked arm pivoted at its lower end to said plate with its upper end adapted to be projected over the last, a spring for supporting said plate in an elevated position, means for depressing said plate for holding said hooked arm on the last, inclined lugs on said support and said hooked arm adapted to engage each other as the hooked arm rises after said plate is released and force the hooked arm away from the last.

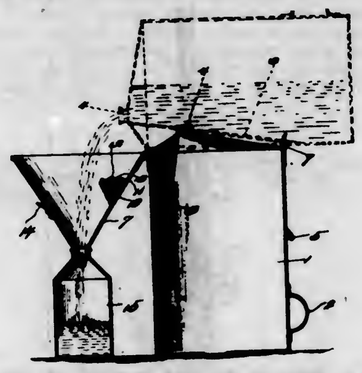
3. The combination with a last, of a tubular support slotted vertically at one side, a plate vertically movable in said support with a projection extending out through said slot, a hooked arm pivoted to said projection with the upper end adapted to extend over the last, a spring in said tubular support for forcing said plate upward, means for depressing said plate, a band around the upper end of said support with a beveled lug thereon near the hooked arm, and a lug on the lower end of said arm adapted to engage said first-mentioned lug when the spring acts to force said plate upwardly and thereby throw the hooked arm away from the last.

4. The combination with the last, of a tubular support therefor, a shoe-clamping means, a spring support operably connected thereto, a lever near the lower end of said tubular support, a cable extending down through said spring support and the lower end of said tubular support and connected with said lever between its ends, whereby said shoe-clamping means may be depressed for clamping the shoe on the last.

5. The combination with a last, of a support therefor consisting of two members one above the other and the two hinged together at their adjacent ends so that the upper member and last can be tilted, shoe-clamping means movable in the upper last-holding member a spring for forcing said shoe-clamping member upward, and means operable through said last-supporting members for depressing said shoe-clamping member.

[Claim 6 not printed in the Gazette.]

1,037,620. CAN. WILLIAM F. HELLBERG, McGregor, Iowa. Filed Jan. 20, 1912. Serial No. 672,409. (Cl. 221—11.)



1. In combination, a can having an outlet mouth arranged to one side of the center, the can having on its interior a member arranged on an incline from the mouth to the side of the can, in order to permit the entire contents thereof to empty, without entirely inverting the can, a funnel hinged to the top of the can and provided with an offset on the interior thereof, and a rubber cap secured to the offset adapted to fit the outlet end of the can, when the funnel is inverted on the top of the can.

2. In combination, a can having an outlet mouth arranged to one side of the center, the can having its interior member arranged on an incline from the mouth to the side of the can, in order to permit the entire contents thereof to empty, without entirely inverting the can, a funnel hinged to the top of the can and provided with an offset on the interior thereof, and a rubber cap secured to the offset adapted to fit the outlet end of the can, when the funnel is inverted on the top of the can, and a catch on the can to hold the funnel inverted, the catch having a broad resilient lip to engage the peripheral edge of the funnel for some distance on each side, to prevent lateral movement of the funnel.

3. In combination, a can having an outlet mouth disposed to one side of the center, a funnel hinged to the top of the can and provided with an offset on the interior of the side of the can, a rubber cap riveted to the offset adapted to engage the outlet mouth when the funnel is inverted on the top of the can, and a plate arranged between the rivet and the cap to prevent disfiguring of the same.

4. In combination, a can having an outlet mouth disposed to one side of the center, a funnel hinged to the top of the can and provided with an offset on the interior of the side of the can, a rubber cap riveted to the offset adapted to engage the outlet mouth when the funnel is inverted on the top of the can, and a plate arranged between the rivet and the cap to prevent disfiguring of the same, and a catch to hold the funnel inverted, the catch having a broad resilient lip to engage the peripheral edge of the funnel for some distance on each side, to prevent lateral movement of the funnel, thereby completely closing the outlet mouth.

1,037,621. ADJUSTABLE BEARING FOR BOAT-SHAFTS. MATHEW HEMMER, Syracuse, N. Y. Filed June 14, 1912. Serial No. 703,729. (Cl. 115—36.)

1. In combination with a shaft receiving log and propeller shaft of a boat, said log having a shaft opening of greater diameter than that of the shaft, shaft bearings adjustable across the ends of the log, and clamping members having bearings adjustably secured to the sides of the log.

2. In combination with the log and propeller shaft of a boat, the log having a shaft opening therethrough of

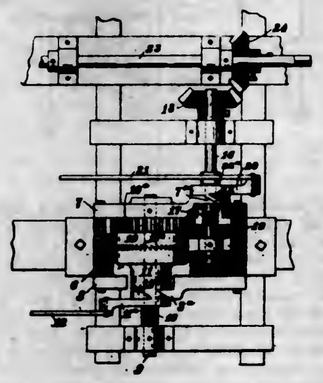


greater width than the diameter of the shaft, a shaft bearing having laterally projecting ears bearing against the end of the log and adjustable transversely thereof, said ears being provided with bolt openings, clamping bolts



passing through said openings and provided with clamping plates having radially elongated bolt openings, and bolts passed through said openings and through the log for adjustably securing said plates to said log.

1,037,622. STARTING DEVICE FOR GAS-ENGINES. RICHARD C. HILLER and DAVID W. WADE, Cleveland, Ohio. Filed Dec. 21, 1910. Serial No. 598,571. (Cl. 123—185.)

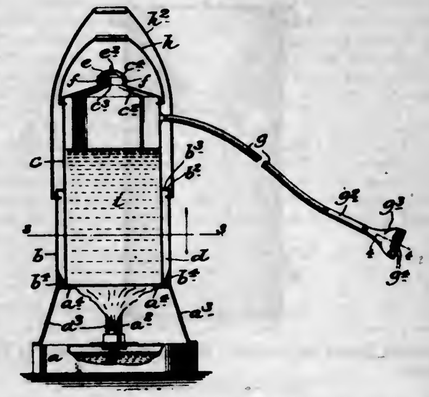


1. In a starting device for gas engines, the combination with the engine shaft, of a longitudinally shiftable shaft, gears between said shafts, a spring pressing the shiftable shaft to position with the gears disengaged, manually operated means to shift the shaft against the pressure of the spring to engage the gears, and manually operated means to turn the shiftable shaft, including a clutch and devices for automatically disengaging the clutch during reverse movement.

2. In a starting device for gas engines, the combination, with the engine shaft, of a connected clutch member and gear wheel, a manually operated member engageable with said clutch member to turn the same and the gear in one direction, means operating on said manually operated member to disengage the same and open the clutch on reverse movement, and transmission mechanism between said gear and the engine shaft, including a longitudinally shiftable shaft, a spring tending to shift said shaft and disengage the transmission mechanism when the shaft is turned in one direction, and a cam acting on the shaft to shift the same and engage the transmission mechanism when the shaft is turned in the opposite direction.

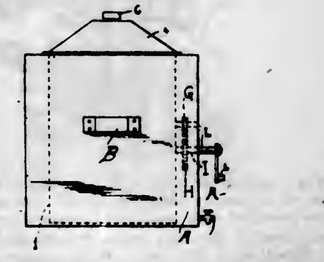
1,037,623. INSECT-DESTROYER. FRANK A. HINSEY, Hoboken, N. J. Filed Aug. 10, 1911. Serial No. 643,433. (Cl. 122—234.)

A device of the class described, comprising a tank or can for holding liquid to be vaporized, a casing within which said can or tank is placed to be heated, said casing having at its upper end an inwardly extending flange having separated perforations therein, and at the bottom inwardly extending triangular lugs, said flange and lugs engaging the exterior of the can to form an annular chamber open at the bottom around said can, a burner



and supports extending upwardly and secured to the said burner and casing said supports at their upper ends extending inwardly to engage and support said tank or can.

1,037,624. CHURN. LOUIS HOFER, Pittsburgh, Pa. Filed July 8, 1910. Serial No. 571,028. (Cl. 31—39.)

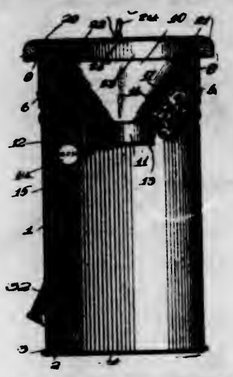


A device of the character described comprising an open-top casing, a churn body seated therein and secured to the bottom of the casing in a position to space it from the side walls of the casing, said churn body having a removable cover, a dasher structure within the churn body and rotative on a horizontal axis, means projecting through the casing for rotating the dasher structure, said means including gear mechanism located between the opposing walls of the casing and the churn body, and partitions between said opposing walls for segregating the gear mechanism from the remaining annular space surrounding the churn body.

1,037,625. SANITARY RECEPTACLE. LOUIS HOFER, Pittsburgh, Pa. Filed Sept. 30, 1910. Serial No. 584,666. (Cl. 220—115.)

A sanitary receptacle comprising a shell having a closed bottom and an open top, a collar surrounding the upper portion of the shell and further projecting above the top edge of the shell, a funnel extending over the top edge of and depending into the shell, means for connecting the top edge of the funnel to the top edge of the collar, an annular member having a groove in its lower face for the reception of the top of the collar and funnel, means carried by said member and detachably engaging with the collar for maintaining the rim in position, a flanged cover mounted upon the top and engaging the inner face of said

member, a vertically disposed cylindrical sleeve inclosing and connected to the lower portion of the funnel, and



valvular means for normally closing the inner end of the sleeve.

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1,037,626. VISE. MARTIN HOGLE, Fitzgerald, Ga. Filed Jan. 13, 1911. Serial No. 602,441. (Cl. 81—41.)



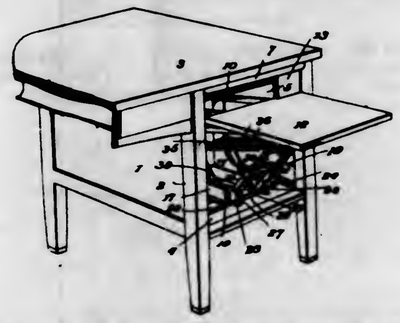
The combination with a vise including a jaw carrying base, of a support including a body having opposed sections provided with registering recesses forming a socket, one corner of the body being rounded to form a surface concentric with the center of the socket, there being a slot within said rounded surface and opening into the socket, said slot extending through 90°, said body having flat faces in planes tangential to the rounded surface, a stem projecting from the base of the vise and adapted to bear against either end wall of the slot, a spherical head on the stem, said stem being adapted to swing and rotate in the slot to adjust the base angularly about the pivotal center and the axis of rotation respectively of the stem, and means for binding the body sections upon the head to hold the stem and base against movement.

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1,037,627. TYPE-WRITER DESK. JAMES S. HUNTER, Boston, Mass. Filed July 11, 1910. Serial No. 571,533. (Cl. 45—52.)

1. The combination with a desk having a compartment open at one end, of a sliding member slidably mounted in the compartment for movement toward or from the open end of the compartment, a pair of parallel levers pivoted at their lower ends to the sliding member for movement in a vertical plane and normally projecting upward and forward beyond the sliding member, spring engaging with said levers and acting to hold them in their upwardly extended position but permitting them to be turned to a horizontal position, means for locking the levers in their raised or their lowered positions, a shelf with which the upper end of the levers have sliding engagement, and oppositely disposed links connecting the rear end of the shelf with the said sliding member.

2. The combination with a desk having a compartment open at one end, of a sliding member mounted in the compartment for movement toward or from the open end thereof, a vertically movable shelf, links connecting the rear end of the shelf with said sliding member and movable in vertical planes to permit the shelf to be raised or lowered, a pair of levers pivoted near their lower ends to the forward end of the sliding member, the free ends of said levers normally extending upward and outward, the extremities of the levers having sliding engagement with the under face of the shelf, a contractile spring carried by the sliding member and engaging said levers to hold them in their raised position but permitting the levers to be turned into a vertical position and the shelf depressed, said spring extending approximately parallel to the shelf, and means for locking the levers in a horizontal position against the force of said spring.



3. The combination with a desk having a compartment open at one end, of a sliding member mounted in said compartment and sliding therein toward and from the open end thereof, a vertically movable shelf, a shelf-supporting lever pivoted to the forward end of the slide and normally extending upward and forward beneath and in engagement with the under face of the shelf, a lever also pivoted to the slide rearward of the pivot of the first named lever and normally extending upward and rearward in said compartment, connections between the lower end of the first named lever and the lower end of the second named lever whereby they shall move simultaneously but in opposite directions, and a spring connecting the upper ends of both levers acting to draw said levers into an angular relation and to hold said levers in their depressed or their raised positions.

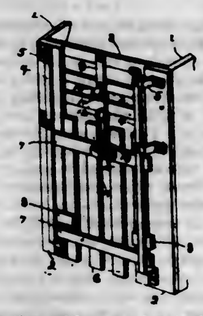
4. A desk having a compartment open at one end, a slide in said compartment, a straight lever pivoted intermediate its ends on the slide and having a roller at its free outer end, a lever pivoted intermediate its ends to the slide and having a pivotal sliding connection with the lower end of the first named lever, said connection permitting the levers to be turned into alinement with each other, a vertically movable shelf beneath which the first named lever projects and by which it is supported, and a member connecting the free ends of the first and second named levers and resisting the movement of the levers in alinement with each other.

5. A desk having a compartment open at one end, a slide in said compartment, a straight lever pivoted intermediate its ends on the forward ends of the slide, a lever pivoted intermediate its ends to the slide and having a pivotal sliding connection with the lower end of the first named lever, permitting the levers to be turned into a position of angularity with relation to each other or into alinement with each other, a vertically movable shelf beneath which the first named lever projects and by which it is supported, a contractile spring connecting the free ends of the first and second named levers and resisting the movement of the levers into alinement with each other, and links connecting the rear end of the shelf with the rear end of the sliding member.

[Claims 6 to 17 not printed in the Gazette.]



1,037,628. WAGON END-GATE. CHARLES I. JOHNSON, Leshara, Nebr. Filed May 9, 1912. Serial No. 696,138. (Cl. 21—21.)



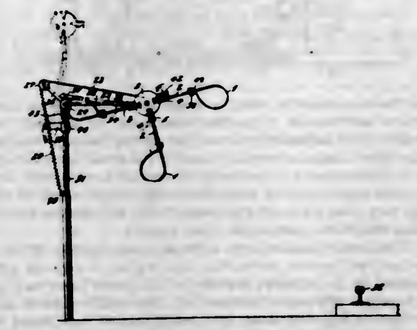
1. The combination with an end gate for a wagon and guide ways for said gate, of a latch pivoted above said gate and comprising a single piece of wire coiled intermediate its ends and offset between said coil and one of its ends to form a stop constructed to engage the gate and lock it in its raised and lowered positions.

2. A latch for an end gate of a wagon comprising a single piece of wire bent at right angles at one end, coiled intermediate its ends in the same general plane of the said right angle end and thence bent at a right angle to the coil and thence extending in a plane parallel with the vertical plane of the coil.

3. In an end gate for a wagon body, the combination with the sides, of cleats secured to the rear ends of said sides, guide ways formed on said cleats, cross bars secured to said cleats and extending across the wagon body, and a gate slidably mounted in said guide ways, of a latch composed of a single piece of wire pivoted at one end on said cross bars and coiled intermediate its ends to form a spring and bent at right angles to and below the coil and thence extended in a plane parallel to the general plane of the coil and serving as an operating handle, and a catch on said gate to engage said handle, said right angle portion being constructed to engage the gate and lock it in its open or closed position.

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1,037,629. DELIVERING APPARATUS. JOHN N. JOHNSON, Albuquerque, N. Mex. Filed Jan. 23, 1912. Serial No. 672,963. (Cl. 105—231.)



1. A delivering apparatus comprising a hoop having a stem, a hoop holder having parts adapted to receive and to resiliently engage at least one side of said stem, means independent of said parts for engaging the end of said stem which is remote from the hoop, said independent means adapted to hold the stem against axial rotation.

2. A delivering apparatus comprising an article carrier having a stem, a holder for said article carrier having parts adapted to receive and to resiliently engage at least one side of said stem, means independent of said parts for engaging the end of said stem which is remote from the article carrier, said independent means adapted to hold the stem against axial rotation.

3. A delivering apparatus comprising an article carrier having a stem the free extremity of which has a beveled side, a holder for said carrier having parts adapted to receive and to resiliently engage at least one side of said stem, and independent means for engaging said beveled side, said independent means adapted to hold the stem against axial rotation.

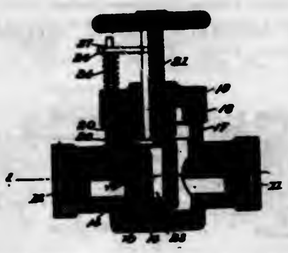
4. A delivering apparatus comprising an article carrier, a support for said article carrier, means for rotarily displacing said support about one axis and for rotarily displacing said support about a second axis, and means for holding said support against movement about said second axis, until it has been rotated a determined distance about said first axis.

5. A delivering apparatus comprising an article carrier, a support for said article carrier, unitary means for rotarily displacing said support about one axis and for rotarily displacing said support about a second axis, and means for holding said support against movement about said second axis until it has been rotated a determined distance about said first axis.

[Claims 6 to 19 not printed in the Gazette.]

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1,037,630. THROTTLE-VALVE. EMERY C. JONES, Rock Mart, Ga., assignor of one-half to J. C. Ezell, Rock Mart, Ga. Filed Nov. 17, 1910. Serial No. 592,910. Renewed Feb. 14, 1912. Serial No. 677,465. (Cl. 137—7.)



A valve body having a chamber and with oppositely directed passages communicating with the chamber, one of said passages having a valve seat at its juncture with the chamber and the chamber having a step at one end, a valve within said chamber and engaging said seat and bearing upon said step and provided with a slot extending entirely therethrough and communicating with said step, and a stem extending through one wall of said chamber and having a projection extending into the slot of said valve.

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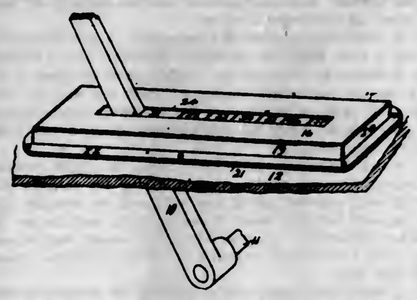
1,037,631. SLOT-CLOSING DEVICE. JOHN B. JONES, Conneaut, Ohio, assignor of one-fourth to Eli A. Miller and one-fourth to Albert W. Johnston, Cleveland, Ohio. Filed Oct. 26, 1910. Serial No. 589,129. (Cl. 74—89.)

1. The combination of a plurality of surmounting movable shields, each of which has an opening and portions beyond the two ends of the opening, the openings in the successive shields being successively longer, and a movable member which extends through such openings.

2. The combination, with a casing having a slot through it, of a plurality of adjacent plates movably mounted within the casing, and each provided with a slot, the slots in the different plates being successively longer and the plates themselves being successively longer and extending beyond the slot at each end.

3. The combination of a slotted support, a series of movable plates adjacent thereto, each plate having a slot adapted to aline with the slot of the support, the various plates being successively longer and the slots in the cor-

responding plates being successively longer, and a lever extending through the slots of the support and plates.



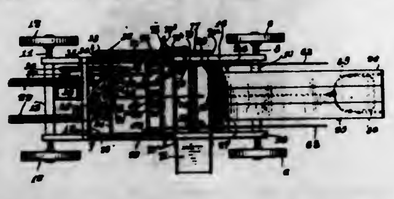
4. The combination, with a cover having an opening and continuous portions at the two ends of the opening, a series of slotted plates, each plate being longer than the preceding plate of the series and having a longer slot, the unslotted portions of the plate beyond the ends of the slot being adapted to be accumulated under the continuous portion of the cover.

5. The combination of a casing having a slotted top and bottom, a series of movable plates within the casing successively overlapping each other, and provided with slots successively overlapping each other, a movable arm projecting through the slots of the various plates and the slots of the top and bottom of the casing.

[Claims 6 to 13 not printed in the Gazette.]

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1,037,632. AUTOMATIC LOADER. ALEXANDER M. JORDAN, Ogden, Kans. Filed Dec. 7, 1911. Serial No. 664,340. (Cl. 214—10.)



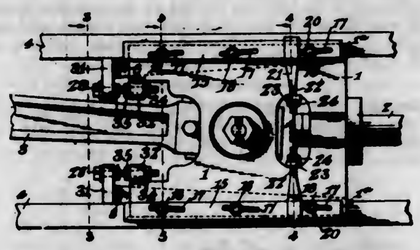
1. In a loading machine, the combination with a frame, of a skid supported at one end thereof, a chute disposed below the frame in rear of the skid, a drive shaft supported by the frame, a winding drum loosely mounted on the shaft, a clutch mechanism for securing the drum to the shaft, a scraper, a cable trained around the drum and connected at one end to the scraper for elevating the latter along the skid and over the chute, releasing means for the clutch mechanism adapted to be operated by the scraper when the latter assumes its dumping position over the chute, and means for locking the drum against backward rotation when the clutch mechanism is released.

2. In a loading mechanism, the combination with a frame, of a skid supported at one end thereof, a chute disposed below the frame in rear of the skid, a drive shaft supported by the frame, a winding drum loosely mounted on the shaft, a clutch mechanism for securing the drum to the shaft consisting of a clutch element secured to the drum to rotate therewith, a sleeve slidably mounted on the shaft, a hub fixedly mounted upon the shaft between the sleeve and the clutch element, opposed arms extending from the hub, clutch levers respectively fulcrumed intermediate their ends upon said arms, one end of each lever being adapted for engaging with the clutch element, links respectively connecting the sleeve and the other ends of said clutch levers, a scraper, a cable trained around the drum and connected at one end to the scraper for elevating the latter along the skid and over the chute, releasing means for the clutch mechanism connected to the sleeve and including a striker arm disposed in the path of movement of the scraper adapted to be actuated by said scraper when the latter assumes its dumping position over the chute.

3. In a loading machine, the combination with a frame, of a skid supported at one end thereof, a chute disposed below the frame in rear of the skid, a drive shaft supported by the frame, a winding drum loosely mounted on the shaft, a clutch mechanism for securing the drum to the shaft consisting of a clutch element secured to the drum to rotate therewith, a sleeve slidably mounted upon the shaft, a hub fixedly mounted upon the shaft between the sleeve and the clutch element, opposed arms extending from the hub, clutch levers respectively fulcrumed intermediate their ends upon said arms, one end of each lever being adapted for engagement with the clutch element, links respectively connecting the sleeve and the other ends of said clutch levers, a rock shaft secured to the frame intermediate the drive shaft and the chute, a striker arm normally extending upwardly therefrom, a rocker arm extending from said rock shaft, a shipper lever engageable with the sleeve and pivotally connected at one end to the frame, a bracket supported by the frame intermediate the shipper lever and the rocker arm, a lever fulcrumed intermediate its ends upon the bracket, a pitman pivotally connected at one end to the lever adjacent one end thereof and at its other end to said rocker arm, a short arm extending rearwardly from the lever and pivotally connected to the free end of the shipper lever, a scraper including a ball, a cable trained around the drum and connected at one end to the scraper for elevating the latter along the skid and over the chute, releasing means for the clutch mechanism connected to the sleeve and including a striker arm disposed in the path of movement of the scraper and adapted to be actuated by said scraper when the latter assumes its position over the chute.

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1,037,633. CROSS-HEAD. MILES D. JOYNER, Savannah, Ga. Filed June 17, 1911. Serial No. 633,855. (Cl. 121—106.)



1. The combination with a cross head, having at each side top and bottom projecting side walls, of tapered longitudinal gibs adjustably arranged at the top and bottom of the cross head and fitting against the same between the side walls thereof and provided at opposite sides with longitudinal caps fitted on the outer longitudinal edges of the projecting side walls of the cross head, and means for securing the said caps to the cross head.

2. The combination with a cross head having at each side top and bottom projecting side walls, of tapered gibs arranged at the top and bottom of the cross head and fitting against the same between the side walls thereof and provided at opposite sides with longitudinal caps fitted on the walls of the cross head and composed of inner and outer walls and connecting portions, the inner walls being imperforate, and fastening means piercing the outer walls of the caps and securing the gibs to the cross head.

3. The combination with a cross head having at each side top and bottom projecting side walls, of tapered gibs arranged at the top and bottom of the cross head and fitting against the same between the side walls thereof and provided at opposite sides with longitudinal caps fitted on the walls of the cross head and composed of inner and outer walls and connecting portions, the inner walls being imperforate, and the outer walls being provided with inclined slots, and clamping screws operating in the slots and securing the gibs to the cross head.

4. The combination with a cross head having projecting side walls, of tapered longitudinal gibs adjustably arranged at the top and bottom of the cross head and provided at opposite sides with longitudinal caps fitted on the outer longitudinal edges of the projecting side walls of the cross head, and clamps for securing the gibs in the cross head, said clamps comprising approximately L-shaped straps engaging the caps of the gibs and having inner threaded ends, a transverse plate extending across the cross head and having perforations receiving the threaded ends of the straps, and nuts arranged on the threaded ends of the straps and engaging the transverse plate.

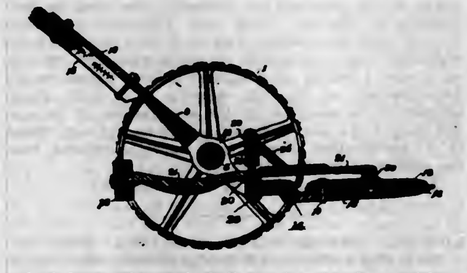
5. The combination with a cross head having at each side spaced top and bottom projecting side walls and provided with lugs having smooth openings, tapered longitudinal gibs adjustably arranged at the top and bottom of the cross head and fitting against the same between the side walls thereof and provided at opposite sides with longitudinal caps fitted on the outer longitudinal edges of the projecting side walls of the cross head, said gibs being also provided with projecting lugs arranged opposite the lugs of the cross head and having smooth openings, adjusting screws extending through the openings of the lugs, and nuts arranged on the adjusting screws and engaging the lugs.

[Claims 6 to 8 not printed in the Gazette.]



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1,037,634. LAWN-TRIMMER. OTTO KARCHER, Canton, Ohio. Filed Jan. 2, 1912. Serial No. 668,953. (Cl. 56—19.)



1. A lawn trimmer including a traction drum with an axle therein and having a circumferential cam slot, a frame in the drum journaled on the axle and having shanks extending rearward and forward through the cam slot, a handle on the rearward shank and a blade fixed on the forward shank external to the drum, an oscillating blade pivoted on the upper side of the fixed blade, an operating arm loosely pivoted on the frame and having its forward end extended through the cam slot and engaged with the pivoted blade with a roller on the rear end of the arm in the cam slot for oscillating the pivoted blade, and a fulcrum connected with the frame abutting the operating arm whereby the pivoted blade is pressed flatwise against the fixed blade when the drum is rotated in forward direction.

2. A lawn trimmer including a traction drum with an axle therein and having a circumferential cam slot between its edges, a frame in the drum journaled on the axle and having shanks extending rearward and forward through the cam slot, a handle on the rearward shank and a blade fixed on the forward shank external to the drum, an oscillating blade secured on the upper side of the fixed blade, an operating arm loosely pivoted on the frame and having the forward end extended through the cam slot and engaged with the upper blade with a roller on the rear end of the arm in the cam slot for oscillating the upper blade, and a fulcrum connected with the frame abutting the operating arm whereby the oscillating blade is pressed flatwise against the fixed blade when the drum is rotated in forward direction.

3. A lawn trimmer including a traction drum with an axle therein and having a circumferential cam slot, a frame journaled on the axle and having a blade fixed thereon in front of the drum, an oscillating blade pivoted on the upper side of the fixed blade, an operating arm loosely pivoted on the frame and having its forward end engaged with the pivoted blade with a roller on its rear end in the cam slot at the rear of the drum for oscillating the pivoted blade, whereby the pivoted blade is pressed flatwise against the fixed blade when the drum is rotated in forward direction.

4. A lawn trimmer including a traction drum with an axle therein and having a circumferential cam slot, a frame journaled on the axle and having a blade fixed thereon in front of the drum, as oscillating blade secured on the upper side of the fixed blade, an operating arm loosely pivoted on the frame and having its forward end engaged with the upper blade with a roller on its rear end in the cam slot at the rear of the drum for oscillating the upper blade, whereby the oscillating blade is pressed flatwise against the fixed blade when the drum is rotated in forward direction.

5. A lawn trimmer including a traction drum with an axle therein and having a circumferential cam slot, a frame journaled on the axle and having a blade fixed thereto in front of the drum, an oscillating blade pivoted on the upper side of the fixed blade, an upright pivot post on the frame, an operating arm loosely journaled on the post, and having its forward end engaged with the pivoted blade, there being a roller on the rear end of the arm in the cam slot at the rear of the drum for oscillating the pivoted blade, and an adjustable arm on the pivot post forming a fulcrum for the operating arm, whereby the pivoted blade is pressed flat-wise against the fixed blade when the drum is rotated in forward direction.

[Claim 6 not printed in the Gazette.]

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1,037,635. PACKAGE-ELEVATOR. JOHN KEERS, Brooklyn, N. Y. Filed July 28, 1910. Serial No. 574,251. (Cl. 193—8.)



1. A package elevator, embodying a package-carrier having fixed and movable package supporting and discharging holders the former of which is inclined downward toward the horizontal and the latter of which is supported on the former and mounted to drop from its normal package-retaining position to a package-releasing position, and means separate from said movable package-holder and releasable therefrom but normally in engagement therewith for supporting the movable package-holder.

2. A package elevator, embodying a package-carrier having fixed and movable package supporting and discharging holders the former of which is inclined downward

toward the horizontal and the latter of which is supported on the former and mounted to drop from its normal package-retaining position in which it projects above said incline to a package-releasing position in which it lies wholly below said incline, and means separate from said movable package-holder and releasable therefrom but normally in engagement therewith for supporting the movable package-holder.

3. A package elevator, embodying a package-carrier having as its only relatively movable support for a package package-holding means mounted to drop from its normal package-retaining position to a package-releasing position, an actuator for normally shifting said package-holding means to its package-retaining position, and means separate from said package-holding means and releasable therefrom but normally in engagement therewith for supporting the same.

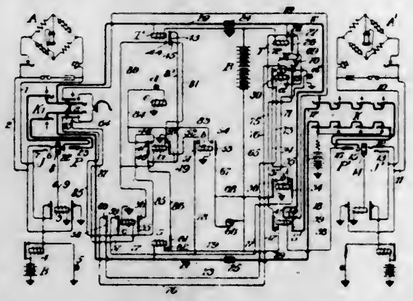
4. A package elevator, embodying a package-carrier having fixed and movable package-supporting holders the former of which is inclined downward toward the horizontal and has a greater slope at its sides than at its center and the latter of which is supported on the former and mounted to drop from its normal package-retaining position to a package-releasing position, and means separate from said movable package holder and releasable therefrom but normally in engagement therewith for supporting the movable package-holder.

5. An endless package elevator, embodying a package-carrier movable in a circuit and having up and down fixed package-holders and up and down movable package-holders each mounted on and coöperative with a corresponding up or down fixed package-holder to retain the package in position and each adapted to drop from its normal package-retaining position to a package-releasing position, and each fixed package-holder being in contact with, and extending under a considerable portion of, the down side of a package positioned by it, and means separate from said movable package-holders and releasable therefrom but normally in engagement therewith for supporting them in their operative positions.

[Claims 6 to 14 not printed in the Gazette.]

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1,037,636. **TELEPHONE SYSTEM.** JAMES KENNEDY, St. Louis, Mo., assignor to The Dean Electric Company, Elyria, Ohio, a Corporation of Ohio. Filed July 20, 1908. Serial No. 444,416. (Cl. 179—73.)



1. In a telephone system, a plurality of telephone lines extending by their limbs from substations to an exchange, means including an electric switch at the exchange for connecting the lines for conversation as desired, a lamp signal associated with one of such connecting means and adapted to indicate the talking and disconnect conditions of a calling substation connected by such connecting means, such disconnect indication serving also as a re-call indication, said signal being rendered independent of said switch after its first operation.

2. In a telephone system, a plurality of telephone lines extending by their limbs from substations to an exchange, means including an electric switch at the exchange for connecting the lines for conversation as desired, and a lamp signal associated with one of such connecting means and adapted to indicate the talking and disconnect conditions of a calling substation connected by such connecting means, such disconnect indication consisting in a flashing of the lamp signal constituting also a re-call signal, said signal being rendered independent of said switch after its first operation.

3. In a telephone system, a plurality of telephone lines extending by their limbs from substations to an exchange, means including an electric switch at the exchange for connecting the lines for conversation as desired, and a lamp signal associated with one of such connecting means and adapted to indicate the talking and disconnect conditions of a calling substation connected by such connecting means, such disconnect indication consisting in a flashing of the lamp signal constituting also a re-call signal, the setting of the disconnect signal serving to remove the control of the signal from the calling substation, whereby a re-call condition of the apparatus at such substation produces no effect upon such disconnect signal, said signal being rendered independent of said switch after its first operation.

4. In a telephone system, a plurality of telephone lines extending by their limbs from substations to an exchange, means at the exchange for connecting the lines for conversation as desired, a first relay associated with each of such connecting means, such first relay adapted to be controlled from a substation connected with such connecting means, a second relay adapted to be energized by the deënergization of the first relay, and a supervisory signal under the control of the second relay, the energization of the second relay serving to lock it in operative condition whereby said signal is removed from the control of the first relay.

5. In a telephone system, a plurality of telephone lines extending by their limbs from substations to an exchange, means at the exchange for connecting the lines for conversation as desired, a first relay associated with each of such connecting means, such first relay adapted to be controlled from a substation connected with such connecting means, a second relay adapted to be energized by the deënergization of the first relay, a supervisory signal adapted to be energized by the energization of the second relay, and a locking circuit for the second relay closed by its energization whereby such signal is removed from the control of the first relay.

[Claims 6 to 12 not printed in the Gazette.]

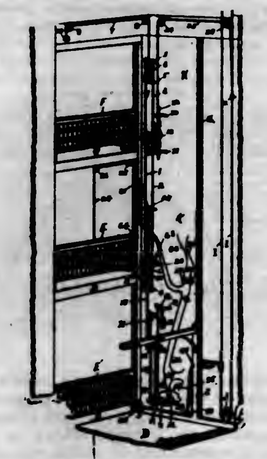
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1,037,637. **ELECTRICALLY-OPERABLE OPEN-AT-WILL ELEVATOR-GATE MECHANISM.** WILLIAM H. KIENKER, Richmond, Ind. Filed Aug. 2, 1911. Serial No. 641,888. (Cl. 187—52.)

1. In an electrically operable open at will elevator-gate mechanism comprising in combination an intermediate gate adapted to close the entrance to an elevator-shaft and a car movable up and down in said shaft, an electric motor, a pair of rods having flexible connection with the motor and extending up beyond the upper floor of the building, means for normally retaining said rods at their highest point, a latching device for each intermediate floor and slidable on said rods, a cam carried by the car for moving the said latches into position to be engaged by said rods, means for flexibly connecting a gate to each latching device whereby the downward movement of the rods will raise the gate opposite to the car, means for holding the gate raised until the car moves from that floor, and means carried by the car for completing the electric circuit to start the motor, all substantially as shown and described and for the purposes set forth.

2. An electrically operable open at will elevator-gate mechanism comprising, in combination with the elevator gates adapted to close the entrances to an elevator shaft and a car adapted to be moved up and down in said shaft, a pair of vertically disposed rods adapted to slide up and down, means for normally retaining said rods at their highest point of elevation, a latching device for each intermediate floor of the building all being slidable up and down on said rods, a cam carried by the car which presses against each of said latches successively as the car passes up and down, an electric motor adapted to operate only when the car is opposite one of the floors of the building, means carried on the car for completing the electric circuit to start the motor, and means for connecting a gate to each of said latches whereby when said rods are lowered the gate opposite the car will be raised, and means for holding the gate open until the car leaves that floor, substantially as set forth.



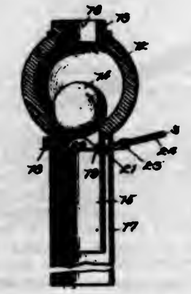


3. In combination with an elevator-car adapted to operate up and down in a shaft and a gate for each intermediate floor which the car passes, an electrically operable open at will elevator-gate mechanism comprising the vertically disposed rods extending from near the bottom to near the top of the building and adapted to slide up and down in suitable brackets therefor, the rods being spaced apart and rigidly connected together, a weight having flexible connection with the upper portions of said rods and adapted to normally retain said rods upward to their limits, a latch mechanism for each intermediate floor of the building each of said latch mechanisms being slidably mounted on said rods, each of said latches comprising in combination a yoke, a stem integral with the yoke, a plate having a downwardly extending stem which is pivoted to the first named stem in such manner that the plate may swing out a limited distance, said plate being provided with two slots adapted to stride said rods when the plate is moved in, a roller mounted on said plate, a cam secured on the car and adapted to engage said roller causing said slots to stride said rods, nuts secured on said rods and adapted to engage said plate when the said cam is engaging said roller and the said rods are being moved downward, and a motor for moving said rods downward, a flexible connection between each of said latches and its gate whereby when said latch is carried down with said rods the gate will be raised, a system of electric wiring adapted to form a circuit for starting the motor, means located on the car for completing the circuit, means whereby the gate when raised to a certain point will break the circuit, and means for retaining the gate elevated until the car starts to leave that floor, all substantially as set forth.

4. In combination with an elevator-car adapted to operate up and down in a shaft connecting the various floors of a building, an electrically operable open at will elevator-gate mechanism comprising a gate for each intermediate floor of the building, a pair of rods or the like extending from near the upper to near the lower floor of the building, means for normally retaining said rods or the like at their highest point, a latching device located near each intermediate floor and all slidable on said rods, a rope connecting each intermediate gate with one of said latching devices whereby when one of said latching devices is lowered the gate attached thereto will be raised, means carried by the car for placing successively each of said latching devices in position to be engaged by said rods, an electric motor adapted to lower said rods when the electric current is completed, means carried by the car for enabling the operator to complete the electric circuit, means for retaining the gate at its highest point after the electric circuit has been broken, the last named means comprising a rack carried by the upper ends of the rods, a dog adapted to engage said rack when the elevator is stationary, and means whereby the dog is released from the rack as soon as the elevator is started, and means for breaking the electric circuit upon the gate reaching a certain height, all substantially as shown and described and for the purposes set forth.

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1,037,688. **BALL-COCK.** EDWARD J. KIVELL, Newton, Mass. Filed Sept. 27, 1911. Serial No. 651,570. (Cl. 137—104.)



1. The combination with a flush tank, of an inlet pipe coöperating therewith, of a valve casing secured to said inlet pipe, a dependent outlet pipe secured to said valve casing, a ball valve operating within said valve casing, an arm pivoted to said outlet pipe adjacent to said valve casing, a semi-circular bearing projection formed on said arm adapted to engage said ball valve, a semi-circular actuating member secured to said arm, a float secured to said actuating member, an auxiliary pipe mounted for reciprocation on said outlet pipe and having slots therein for the reception of the pivot of said arm and means for retaining said auxiliary pipe in a fixed position.

2. The combination with a flush tank, of an inlet pipe coöperating therewith, a valve casing connected thereto, a gravity ball valve mounted in said valve casing, a dependent outlet pipe connected to said casing, a shaft mounted in said outlet pipe, an arm rigidly mounted on said shaft provided with a semi-circular projection at its inner terminal to provide a bearing surface for said ball valve, a semi-circular actuating member keyed to said shaft, a rod secured to said actuating member, a float carried by the outer end of said rod, a muffler pipe mounted for reciprocation upon said outlet pipe, having slots formed therein for the reception of the terminals of said shaft, and a set screw adapted to retain said muffler pipe in a fixed position.

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1,037,689. **GRAINING-TOOL.** WILLIAM J. KNAPP, Newburg, Ohio, assignor to The Ohio Varnish Company, Cleveland, Ohio, a Corporation of Ohio. Filed June 19, 1906. Serial No. 439,292. (Cl. 101—28.)

1. In a graining device, the combination, with a rigid body portion, comprising a section of a solid cylindrical body, an operating surface thereon formed by the curved surface of the cylinder section, flexible material on said operating surface extending substantially to the edge where the curved surface is interrupted, and a handle projecting from the non-operating surface of said section at an inclination with a plane through the four corners of said curved operating surface, substantially as specified.

2. In a graining device, the combination of a rigid body portion, comprising substantially a section of a solid cylindrical body, with an operating curved surface formed by the surface of the cylinder section, flexible material on said operating surface extending substantially to the edge where the curved surface is interrupted, whereby edge portions are formed by the intersections of the non-operating portion with the curved operating surface of said section, and a handle projecting away from said edge portions at an inclination with a plane drawn through the four corners of the said curved operating surface substantially as specified.



3. In a graining device, the combination with a rigid body portion comprising a section of a solid cylindrical body, an operating surface thereon formed by the curved surface of the cylinder having a portion inclined to the curved operating surface, flexible material on said operating surface extending substantially to the edge where the curved surface is interrupted; whereby edge portions are formed by the intersections of the non-operating portion with the curved operating surface of said section, and a handle projecting away from said edge portions at an inclination with a plane drawn through the four corners of the said curved operating surface, substantially as specified.

4. In a graining tool, the combination of a head comprising a solid segment of a cylinder, an elastic pad secured to said head and coming to an edge at the edge of the arcual surface of the head, and a single handle secured to the head and lying in a circumferential plane and having its axis out of the radial planes through the cylinder axis.

5. In a graining tool, the combination with a semi-cylindrical head, a handle socketed in the diametric face of said head, and making an angle other than right angle to the diametric face, and an elastic graining pad secured about the semi-cylindrical surface of the head and coming to an edge where the semi-cylindrical surface joins the diametric surface.

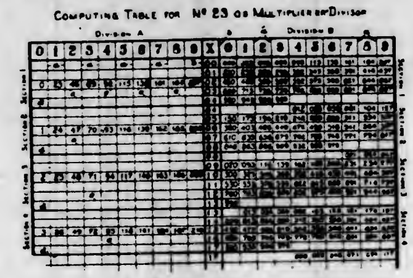
[Claim 6 not printed in the Gazette.]

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1,037,640. COMPUTING-TABLE. JOHN KNAUSE, Locust Corner, Ohio, assignor of one-half to Charles O. Hays, Locust Corner, Ohio. Filed Dec. 1, 1911. Serial No. 663,407. (Cl. 235—89.)

1. A computing table including a middle column containing a series of numbers severally representing the intermediate figures of a multiplicand, a lateral division containing a series of columns having therein a series of multiples of a particular multiplier severally representing the right-hand figures of a product of a multiplicand by the multiplier, and another lateral division containing a series of columns having therein a series of numbers severally representing the left-hand figures of said product.

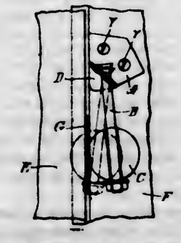
2. A computing table including a middle column containing a series of numbers severally representing the intermediate figures of a multiplicand, a lateral division having ten columns headed by numerals in series severally representing the unit figure of the multiplicand, and another lateral division having ten columns headed by numerals in series severally representing a left-hand figure of the multiplicand; there being multiples of a particular multiplier entered in series and transverse rows in the columns of one division, ciphers being prefixed or the left-hand figure omitted when necessary to make a given-figure number, and the first multiple from which each several left-hand figure is omitted being entered in a row below the last preceding multiple to form separate transverse sections, the last number in the middle column in each section being repeated as the first number in the next section when a row of multiples is broken; and there being a series of numbers in the first section of the other division like the first row of multiples in the one division, and a similar series of numbers each increased by one unit in each succeeding section of said other division.




3. A computing table composed of a middle column containing a series of numbers severally representing the two intermediate figures of a four-figure multiplicand, a lateral division containing ten columns headed by numerals in series severally representing the unit figure of the multiplicand, and another lateral division having ten columns headed by numerals in series severally representing the thousand figure of the multiplicand; there being a series of multiples of a particular multiplier entered in series and transverse rows in the columns of one division, ciphers being prefixed or the left-hand figure omitted when necessary to make a three-figure number, and the first multiple from which each several left-hand figure is omitted being entered in a row below the last preceding multiple to form separate transverse sections, the last number in the middle column in each section being repeated as the first number in the next section when a row of multiples is broken; and there being a series of numbers in the first section of the other division like the first row of multiples in the one division, and a similar series of numbers each increased by one unit in each succeeding section of said other division.

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1,037,641. DOOR-CHECK. JOHN KOCH, Jr., Brookline, Mass. Filed Jan. 13, 1912. Serial No. 671,047. (Cl. 16—77.)



1. In a door check, the combination of a bracket, a pin rotatably supported and free to swing therein, a stop secured to said pin, and a detent adapted to limit the lateral movement of said pin.

2. In a door check the combination of a support, a stop, means for suspending the stop from said support, and a spring formed independently of said means for suspending the stop and adapted to limit the lateral movement thereof.



3. In a door check the combination of a supporting member, a pin hung therein, a stop suspended upon said pin, and a spring formed independently of said pin and adapted to limit lateral movements of said pin.

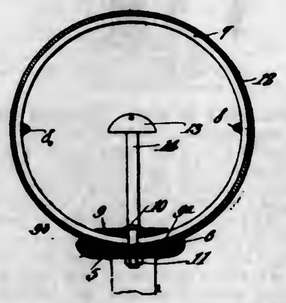
4. In a door check the combination of a supporting member, a pin resting loosely therein, a resilient body suspended upon said pin, and a spring resting in contact with said pin and adapted to restrict its lateral movement.

5. In a door check, the combination of a bracket, a pin loosely supported therein and free to revolve and swing laterally therein, a stop secured to said pin and free to revolve axially on said pin and a spring adapted to limit the lateral movement of said stop.

[Claims 6 to 10 not printed in the Gazette.]

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1,037,642. RESILIENT TIRE. CHARLES JOHN KOOPMAN, Middletown, Cal. Filed Mar. 9, 1909. Serial No. 482,294. (Cl. 152—8.)



A device of the class described comprising a channeled rim; a cover having its edges engaged with the rim; an annular band seated in the channel of the rim and having its outer face concaved upon the same radius as the inner face of the cover, the lateral edges of the concaved face being in close and intimate contact with the cover, whereby the cover and the band will define a continuous surface, the outer surface of the band being provided with transverse grooves extended unbroken across the median plane of the wheel; rings disposed radially about the rim and seated in the grooves, the peripheries of the rings being continuously engaged throughout their entire extent by the inner surface of the cover and by the concaved face of said annular band; a second annular band located within the rings, and bearing against those portions of the rings which are engaged in the grooves, the outer face of the last mentioned band being parallel with the outer face of the rim; and securing elements extended through both bands and through the rim, the securing elements having parallel terminal elements engaging the outer face of the last specified band, and the under face of the rim.

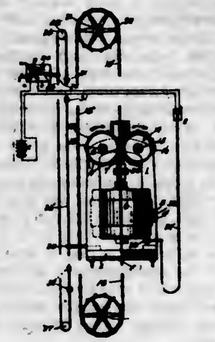
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1,037,643. DRIVING MECHANISM FOR CLOCKS. JOSEPH KUHN, Seattle, Wash., assignor to Joseph Mayer & Bros., Seattle, Wash., a Corporation of Washington. Filed Jan. 11, 1912. Serial No. 670,610. (Cl. 58—46.)

1. In driving apparatus for clocks, a chain operatively engaged with a driving shaft, and a weight including a motor suspended from said chain, and means engageable with said chain and operable by said motor capable of raising the weight relative to the chain.

2. Driving apparatus for clocks, consisting in combination with a sprocket chain operatively engaged with a driving shaft, of a weight suspended from said chain comprising a frame, a motor in said frame, a pair of oppositely rotatable toothed wheels enmeshed in said chain, power connections between said motor and wheels, and means to energize said motor at a point in the travel of the weight.

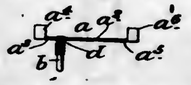
3. Driving apparatus for clocks, consisting in combination with a sprocket chain operatively engaged with a driving shaft, of a weight suspended from said chain, said weight including a motor, a pair of toothed wheels locked against reverse rotation engaged with said chain, and power connections between said motor and wheels, and means interposed in the travel of said weight to actuate said motor.



4. Driving apparatus for clocks, consisting in combination with a pair of sprocket chains operatively engaged with a driving shaft, of a weight suspended from said chains comprising a frame, an electric motor in said frame, a pair of oppositely rotatable toothed wheels locked against reverse rotation enmeshed in each said chain, power connections between said motor and wheels, an electric circuit including said motor, and a switch interposed in said circuit opened or closed by movement of said weight.

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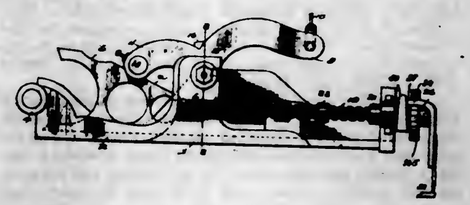
1,037,644. EGG-MARKING ATTACHMENT FOR HENS. AUGUST KUHAS, Brooklyn, N. Y. Filed Mar. 14, 1912. Serial No. 683,896. (Cl. 119—22.)



An egg marking device adapted to be connected with the tail feathers of a hen, and comprising a triangular flexible plate provided at its corners with flexible clips adapted to be secured to the tail feathers, said plate being provided centrally of one side portion thereof with a spring operated marker loosely connected therewith and adapted to be maintained in the line of the movement of an egg as it leaves the hen.

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1,037,645. BUILDER FOR RING-SPINNING FRAMES. MICHAEL J. LEAHY, Waterville, Me. Filed July 28, 1910. Serial No. 574,237. (Cl. 118—1.)



1. A builder for ring spinning frames, comprising in combination, a carriage having a longitudinal bearing formed therein, a cam plate movable in said carriage, a plurality of cam faces formed on the upper edge of said cam plate, means in operative engagement with said cam surfaces for communicating the movement of said plate to a ring rail, a screw threaded in said cam plate and having a fixed bearing in said carriage, means for intermittently actuating said screw, and an exchangeable step of vary-

ing length on said screw to select its path of movement with relation to said cam faces.

2. A builder for ring spinning frames, comprising in combination, a carriage having front and back walls, a cam plate slidable in said walls, a screw threaded in said cam plate and having a fixed bearing in said carriage, means for intermittently actuating said screw to move said plate, a variable and exchangeable sleeve on said screw between the cam plate and its fixed bearing, and means carried by said carriage adapted to communicate the movement of said cam plate to a ring rail.

3. A builder for ring spinning frames, comprising, in combination, a carriage having a longitudinal bearing therein, a vertically disposed cam plate slidable in said carriage, a plurality of cam surfaces formed on the upper edge of said cam plate, a centrally pivoted rock lever carried by said carriage and having one arm in operative engagement with one of said cam faces, a connection between the other arm and the ring rail, a screw threaded in the said cam plate and having a fixed bearing in said carriage, means for intermittently actuating said screw, and a thimble adjustably threaded on said screw, between the cam plate and fixed bearing for limiting the movement of the screw and placing either of said cam surfaces in operative position.

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1,037,646. PENCIL-HOLDER. RUDOLPH LEWIS and JOHN STRAKA, Kansas City, Mo. Filed Jan. 28, 1911. Serial No. 606,259. (Cl. 24—11.)



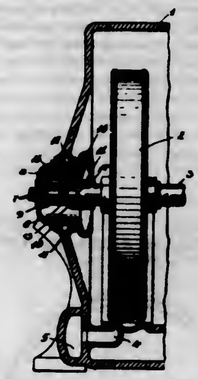
A pencil holder comprising a body member, spring pencil clamping arms formed thereon, a spring bar riveted to the body member and extending in both directions therefrom with one end diverging therefrom, said spring bar having a pair of apertures therein, a hook member on the body member passing through one of the apertures and being bent downwardly to limit the movement of the bar, and an inwardly extending prong on the hook member adapted to enter the other aperture in the spring bar to clamp the fabric of a support therein.

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1,037,647. STEAM-TURBINE PACKING-GLAND. WILLIAM J. A. LONDON, Hartford, Conn., assignor to The Terry Steam Turbine Company, Hartford, Conn., a Corporation of Connecticut. Filed Nov. 10, 1911. Serial No. 659,479. (Cl. 121—109.)

1. A packing gland for shafts comprising in combination with a shaft having an annular shoulder thereon, an annular member slidably mounted on said shaft, a packing interposed between said shoulder and said member, a casing, a flexible member secured to said casing and supporting said annular member, said parts being so constructed and arranged that variations of pressure upon either side of said flexible member will cause pressure of said annular member on said packing.

2. A packing gland for shafts comprising in combination with a shaft having an annular shoulder, an annular member capable of longitudinal movement relative to said shaft, packing material interposed between said shoulder and said annular member, a casing for said annular member, a flexible member inclosing one end of said casing and supporting said annular member, and means for varying the pressure within said casing and against said flexible member to vary the pressure of said annular member on said packing material.



3. A packing gland for shafts comprising the combination with a shaft having an annular shoulder, a sleeve on said shaft having a shoulder opposite the shaft shoulder, packing material between said shoulders, a casing inclosing said sleeve, a flexible diaphragm inclosing one end of said casing and supporting said sleeve, said parts being so constructed and arranged that reduction of pressure upon the outer side of said diaphragm and increase of pressure upon the inner side of said diaphragm will increase the pressure of said sleeve shoulder on said packing material.

4. A packing gland comprising the combination with an engine shaft having an annular shoulder, of an annular member capable of slidable movement on said shaft, packing material between said annular member and said shaft shoulder, a casing inclosing said annular member, a flexible diaphragm inclosing one end of said casing and supporting said annular member, and means to admit fluid under pressure within said casing and against said diaphragm to vary the pressure of said annular member on said packing material.

5. A packing gland comprising the combination with a shaft having a plurality of annular shoulders thereon, of an annular pressure member adjacent each shoulder and capable of longitudinal movement relatively to said shaft, packing material between each shoulder and its adjacent annular member, a casing surrounding said members, a flexible diaphragm inclosing each end of said casing, each diaphragm supporting one of said annular pressure members, said parts being so constructed and arranged that reduction of pressure upon the outer side of either diaphragm will increase the pressure of the pressure member carried thereby on the adjacent packing material, and means for admitting fluid under pressure within said casing whereby increase of pressure within said casing will likewise cause increase of pressure of the annular pressure members upon the adjacent packing material.

[Claims 6 and 7 not printed in the Gazette.]

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1,037,648. KNIFE. FRANK MARZAK, College Point, N. Y. Filed Apr. 6, 1912. Serial No. 688,891. (Cl. 30—9.)

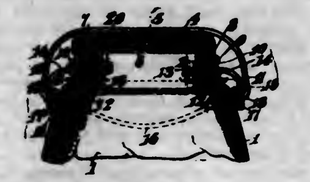


The combination in a knife, of a hollow handle, a knife blade having a tang, said tang extending through one end of the handle and rigidly attached thereto, said knife blade being thereby held in line with said handle, a retractile spring in the handle, having one end attached to the tang of said blade, a scale frame slidably positioned in the handle and connected to the opposite end of said spring.

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1,037,649. FRUIT-JAR ATTACHMENT. FRANCIS H. MATTES, Newton Falls, Ohio. Filed Nov. 22, 1911. Serial No. 661,742. (Cl. 215—90.)



1. An attachment for fruit jars having necks with external screw threads, comprising a screw ring, and clamping members carried thereby adapted to engage and hold a cap or cover to the neck of the jar, the screw ring being of less axial length than the length of the neck of the jar where screw threaded.

2. An attachment for fruit jars provided with externally threaded necks, comprising a screw threaded ring having a marginal flange and adapted to the threaded neck of the jar and also provided with diametrically opposite perforations, the ring being of less axial length than that of the neck of the jar where threaded, a manipulating cam member having legs at an angle to its body portion and journaled in the perforations in the ring, the legs of the cam member being joined to the body thereof by loops, and a clamp member having inturned portions engaging in the loops of the cam member, the said clamp member engaging a jar cap or closure to clamp it against the end of the neck of the jar when the cam member is moved toward the body of the jar.

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1,037,650. WAIST-FORM AND SKIRT-FRAME. ETTA MCMULLEN, Oskaloosa, Iowa. Filed Nov. 29, 1911. Serial No. 663,104. (Cl. 223—18.)



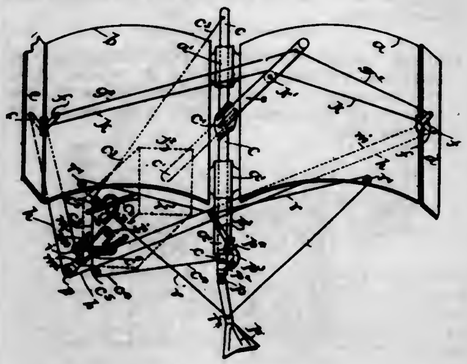
1. In an apparatus for the purpose described, the combination of a waist form having a lateral protuberance, a sleeve form having in its upper portion a chamber shaped to receive and surround the said protuberance, and fastening devices arranged at intervals around the said protuberance and interposed between the same and the opposed wall of the chamber in the sleeve form; each of said fastening devices comprising a male fastener member and a complementary female fastener member, and said members being attached to the protuberance and the sleeve form, respectively, and serving to detachably connect the sleeve form to the waist form.

2. In an apparatus for the purpose described, the combination of a waist form having a short lateral protuberance at the shoulder point, a sleeve form having in its upper end portion a chamber shaped to receive and surround the said protuberance and also having its upper end shaped in conformity to the waist form, whereby it is adapted to snugly fit against the same, and means on the side of the protuberance and the opposed side wall of the chamber, whereby the sleeve form is detachably connected to the waist form.

3. A dress form simulating the human form and comprising a base board, an inner layer of soft material, plastic material applied to the outer side of the inner layer, and a covering of heavy paper arranged on and secured by adhesive to the plastic material and having its lower portion lapped over and permanently attached to the underside of the base board.

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1,037,651. AUTOMATIC-BALANCING AEROPLANE. ROBERT MCMULLEN, Fremantle, Western Australia, Australia. Filed Sept. 13, 1910. Serial No. 581,876. (Cl. 244—12.)



1. In an aeroplane, a backbone running longitudinally of the same and having rising and falling wings mounted thereon, a transverse axis upon which said parts are pivoted to permit the aeroplane to be tilted fore and aft, a control lever for tilting the aeroplane, the wings having outer hinged blades one of said blades being raised when the other is depressed upon the rise or fall of the wings to prevent side slide, each of said blades having lever arms, a swinging spring cushion frame having a runner mounted thereon, flexible devices connecting said levers, for operating the said hinged blades, the connecting flexible device passing over the runner of the cushion frame.

2. In an aeroplane, a backbone running longitudinally of the same and having wings mounted to axially move on the said backbone to rise and fall, a transverse axis upon which said aeroplane is pivoted to permit it to be tilted fore and aft, a control lever for operating the backbone, and operating connecting ropes for the said backbone and wings.

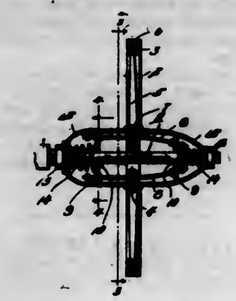
3. In an aeroplane, a backbone running longitudinally of the same and having wings axially movable thereon, a transverse axis on which said aeroplane is pivoted to permit tilting movement of the latter both fore and aft, a fulcrum operatively associated with said wings, a pivoted rudder provided with a tiller, and means for connecting the rudder and the wings and actuated by said fulcrum.

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1,037,652. WHEEL. ORA MOBBERLY, Corbin, Ky., assignor of one-third to John Mobberly, Corbin, Ky. Filed May 5, 1911. Serial No. 625,272. (Cl. 152—44.)

The combination with a vehicle axle, of a wheel having a central ring, spokes connecting said ring with the rim of the wheel, a hollow hub consisting of a cap on each side of said ring, a head slidable on the axle within said caps on each side of said ring, flexible rods extending

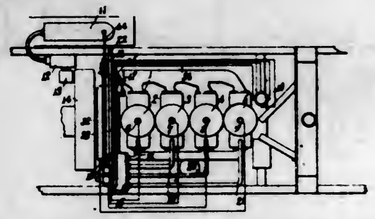
through said ring and having their ends slidably mounted in said heads, and springs mounted on the axle and en-



gaging the end of each of said caps and the slidable head adjacent thereto.

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1,037,653. STARTING DEVICE FOR INTERNAL-COMBUSTION ENGINES. RAYMOND H. MUNTZ, Greenville, Pa., assignor to Geissler Starting Device Co., New York, N. Y. Filed Sept. 13, 1910. Serial No. 581,855. (Cl. 123—180.)



1. The combination with an engine having a plurality of cylinders, of means for starting said engine comprising a selector for controlling the flow of explosive charges to the cylinders of said engine, an ignition means for exploding the charges in said cylinders, a timer for controlling said ignition means, electrical means for operating said selector, a source of electricity, a switch for alternately throwing said source of electricity and said timer into operative connection with said ignition means and said selector, a charge former for supplying the explosive charge to the selector, and a valve for controlling the operation of said charge former, connected to said switch and adapted to be operated thereby.

2. The combination with an engine having a plurality of cylinders, of means for starting said engine, comprising a selector for controlling the flow of explosive charges to the cylinders of said engine, an ignition means for exploding the charges in said cylinders, a timer for controlling said ignition means, electrical means for operating said selector, a source of electricity, a switch for alternately throwing said source of electricity and said timer into operative connection with said ignition means and said selector, a charge former for supplying the explosive charge to the selector, a valve for controlling the operation of said charge former, and connections between said valve and said switch, whereby said valve and said switch may be operated simultaneously.

3. The combination with an engine having a plurality of cylinders, of means for starting said engine, comprising a selector for controlling the flow of explosive charges to the cylinders of said engine, an ignition means for exploding the charges in said cylinders, a timer for controlling said ignition means, electrical means for operating said selector, a source of electricity, a switch for alternately throwing said source of electricity and said timer into operative connection with said ignition means and said selector, a charge former for supplying an explosive charge to said selector, a tank for supplying a compressed fluid to said charge former, and a valve for controlling the supply of fluid from said tank to said charge former.

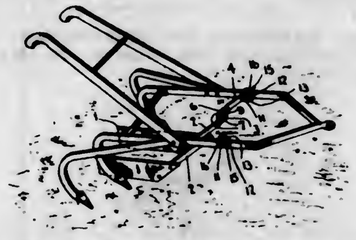
4. The combination with an engine having a plurality of cylinders, of means for starting said engine comprising a selector for controlling the flow of explosive charges to the cylinders of said engine, an ignition means for exploding the charges in said cylinders, a timer for controlling said ignition means, electrical means for operating said selector, a source of electricity, a switch for alternately throwing said source of electricity and said timer into operative connection with said ignition means and said selector, a charge former for supplying an explosive charge to said selector, a tank for supplying a compressed fluid to said charge former, a valve for controlling the supply of fluid from said tank to said charge former, and connections between said switch and said valve, whereby said switch and said valve are adapted to be operated simultaneously.

5. The combination with an engine having a plurality of cylinders, of means for starting said engine comprising a selector for controlling the flow of explosive charges to the cylinders of said engine, an ignition means for exploding the charges in said cylinders, a timer for controlling said ignition means, electrical means for operating said selector, a source of electricity, a switch for alternately throwing said source of electricity and said timer into operative connection with said ignition means and said selector, a charge former for supplying an explosive charge to said selector, a tank for supplying a compressed fluid to said charge former, a valve for controlling the supply of fluid from said tank to said charge former, and a pump driven by said engine for supplying the compressed fluid to said tank.

[Claims 6 and 7 not printed in the Gazette.]

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1,037,654. CULTIVATOR-FENDER. DANIEL J. ORTON, Sac City, Iowa. Filed Apr. 15, 1912. Serial No. 690,829. (Cl. 97—13.)



1. A fender for cultivators comprising a pair of blades, attaching shanks secured at their lower ends to said blades and having in their upper ends attaching notches, fender attaching plates arranged on the cultivator beam, a bolt arranged through said beam and plates whereby the latter are secured together and to the beam, said plates being spaced apart to receive the notched upper end of the shank whereby said end is adapted to be detachably engaged with said bolt, and means to hold said attaching plates in position for supporting the fenders.

2. A fender for cultivators comprising a pair of fender blades, attaching shanks formed in upper and lower adjustably connected sections, said lower sections having their lower ends secured to the fender blades and said upper sections having in their upper ends attaching notches, said sections having their inner ends slotted and bent at right angles, means to secure the slotted right angularly bent inner ends of said shank sections together whereby the fender blades may be shifted laterally toward and from the shovel of the cultivator and attaching devices secured to the beam of the cultivator and adapted to receive the notched upper ends of said fenders whereby the latter and the fender blades are detachably secured to the cultivator beam.

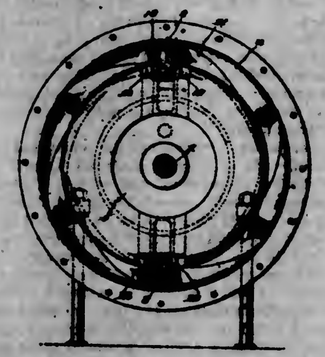


3. A fender for cultivators comprising a pair of fender blades, attaching shanks formed in upper and lower adjustably connected sections, said lower sections having their lower ends secured to the fender blades and said upper sections having in their upper ends attaching notches, said sections having their inner ends slotted and bent at right angles, a guide plate having flanges adapted to engage the edges of the slotted right angular inner ends of the shank sections, a clamping bolt arranged through said plate and through said slotted ends of the sections whereby they are adjustably connected and held in alinement to permit the fender blades to be adjusted toward or from the shovel of the cultivator, attaching devices secured to the cultivator beam, and means whereby the fender shanks are detachably connected with said attaching devices.

4. A fender for cultivators comprising a pair of blades, attaching shanks secured thereto and having in their upper ends attaching notches, pairs of fender attaching plates one of which has its lower side recessed to form between said plates a clutch receiving space, a bolt arranged through said plates and through the beam of the cultivator whereby the plates are secured together and to the beam, upper and lower plate holding members having on their upper edges fender engaging flanges, and on their lower edges bolt engaging lugs adapted to engage the plate fastening bolt, said lower members having on their lower edges flanges adapted to engage the lower edges of the fender attaching plates and having in their lower edges rectangular notches adapted to receive the lugs on the lower edges of the upper members whereby said members have an interlocking engagement and thereby hold the fender attaching plates against turning on their attaching bolt.

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1,037,655. ROTARY ENGINE. CORNELIUS T. PERSELL, Greenville, S. C. Filed Jan. 8, 1912. Serial No. 670,275. (Cl. 121—51.)



1. In a motor, the combination of a casing, a piston rotatably mounted therein, slotted disks rotatably carried by said piston in engagement with said casing, said piston being provided with inlet and exhaust ports leading to opposite sides of said several disks, and spiral abutments extending from said casing through such slots into engagement with said piston.

2. In a motor, the combination of a casing, a piston rotatably mounted therein and provided on its respective sides with annular supply and exhaust chambers, slotted disks rotatably carried by said piston in engagement with said casing, said piston being provided with inlet and exhaust ports leading from said annular supply and exhaust chambers to the opposite sides of said several disks, and spiral abutments extending from said casing through such slots into engagement with said piston.

3. In a motor, the combination of a casing, a piston rotatably mounted therein, rotatably mounted disks spaced apart on said piston in engagement with said casing, said piston being provided with inlet and exhaust ports leading to opposite sides of said several disks, spiral abutments

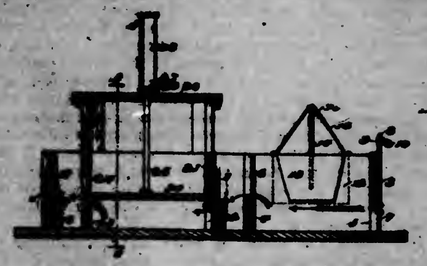


extending from said casing into engagement with said piston the providing a plurality of independent chambers about the latter.

4. In a motor, the combination of a casing, a piston rotatably mounted therein, disks rotatably carried by said piston in engagement with said casing and provided with radially-extending, axially-inclined slots, spiral abutments extending from said casing through such slots into engagement with said piston, packing members extending within such slots and overlapping on the peripheries of said disks, and means for admitting and exhausting steam at opposite sides of said several disks.

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1,037,656. PRORATING-WEIR. JAMES C. PENFIELD and JOHN N. PENFIELD, Grand Junction, Colo., assignors of two-sixths to Thomas F. Loughran, three-sixths to William W. Richards, and one-sixth to Linda M. Olsen, Grand Junction, Colo. Filed Nov. 28, 1911. Serial No. 662,559. (Cl. 61—46.)



1. In a prorating weir having an inlet and an outlet for the water, means for controlling the inlet, means for rendering such inlet constant, means actuated by the water passing through the weir, and means actuated by the last mentioned means for indicating the maximum and minimum of the quantity of the passing water.

2. A prorating weir having a water inlet, means for controlling the inlet, means for rendering such inlet constant, a plurality of independent outlets, means operated by the water passing through the weir, and means actuated by the last mentioned means for indicating the maximum and minimum quantity of the passing water in any of the outlets.

3. A prorating weir having an inlet, means for controlling such inlet, means for rendering such inlet constant, an end outlet, a lateral outlet, means controlling such lateral outlet, means for fixedly holding the last mentioned means, means actuated by the water passing through the weir, and means operated by the last mentioned means for indicating any variation through either outlet.

4. A prorating weir comprising a housing having an inlet and outlet for water, a valve for regulating the inlet, means for locking such valve, a float actuated by the water passing through the housing, an indicating device comprising oppositely movable members designed to be actuated by either the rise or fall of the float, and means for fixedly holding such members in their altered position.

5. The combination with a weir, of an indicating device comprising a vertically movable member, means actuated by the water passing through the weir for changing the position of such member, indicating elements designed to be moved by said member, and means for fixedly holding said elements when so moved.

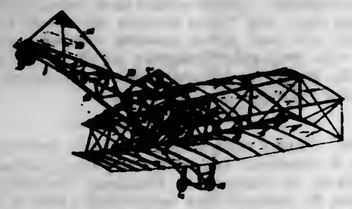
[Claims 6 to 10 not printed in the Gazette.]

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1,037,657. AEROPLANE. ALBERT M. PESTOCCI, New York, N. Y. Filed June 3, 1911. Serial No. 631,597. (Cl. 244—15.)

1. An aeroplane having in combination a plurality of superposed transversely elongated carrying planes, the upper of said planes being downwardly bowed to the lateral extremes and having centrally located a chamber opening for the delivery of air trapped thereinafter, the lower of

said planes being upwardly bowed to the lateral extremes thereof, said planes forming a horizontal passage therebetween enlarged in line with the longitudinal center of the aeroplane; and an aero-propelling mechanism for said aeroplane having two propellers one of which is disposed between said planes and the other in said circular opening.

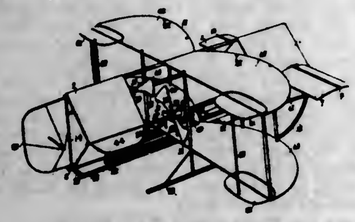


2. An aeroplane having in combination a plurality of superposed transversely elongated carrying planes, the upper of said planes being downwardly bowed to the lateral extremes and having centrally located a circular opening for the delivery of air trapped thereunder, the lower of said planes being upwardly bowed to the lateral extremes thereof, said planes forming a passage therebetween, said passage being enlarged in line with the longitudinal axis of the aeroplane; and an aero-propelling mechanism for said aeroplane disposed between said planes, said mechanism having a plurality of propellers one of which is disposed to rotate in a horizontal plane and concentric with the opening in the upper of said carrying planes and the other to rotate in a vertical plane and concentric with the axis of the machine.

3. An aeroplane having in combination a plurality of superposed transversely elongated carrying planes, the upper of said planes being downwardly bowed to the lateral extremes and having centrally located a circular opening for the delivery of air trapped thereunder, the lower of said planes being upwardly bowed to the lateral extremes thereof, said planes forming a passage in line with the longitudinal axis of the aeroplane; an aero-propelling mechanism for said aeroplane disposed between said planes, said mechanism having a plurality of propellers one of which is disposed to rotate in a plane perpendicular to said axis and having a driving shaft disposed parallel to the said axis, the other of said planes being disposed to rotate in a horizontal plane and having a shaft concentric with the said opening in the upper carrying plane; a motor unit for said shafts; and means operable by the aviator for selectively connecting said prime mover and said shafts.

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1,037,658. AEROPLANE. JAMES ALOYSIUS RABBITT, Yokohama, Japan. Filed Aug. 25, 1910. Serial No. 578,820. (Cl. 244—14.)



1. An aeroplane, comprising an elongated skeleton frame; a plurality of tubular chambers extended in line with and fixedly mounted on said frame; levitating planes pivotally mounted upon the one of said tubular chambers and horizontally extended therefrom; a vertically disposed flat vane extended in the longitudinal center of said frame and mounted on the said chamber supporting said levitating planes; a rudder vertically pivoted on the rearmost of said chambers; horizontally extended vanes fixedly mounted on said rearmost chamber; a carrying plane laterally extended from and fixedly mounted on said frame; means for propelling the aeroplane in flight; and means for varying the path of the flight vertically and horizontally.

2. An aeroplane, comprising an elongated skeleton frame; a plurality of tubular chambers extended in line with and fixedly mounted on said frame; a carrying plane laterally extended from and fixedly mounted on said frame; levitating planes pivotally mounted upon the one of said tubular chambers and horizontally extended therefrom; a plurality of balancing planes pivotally mounted upon said carrying plane and at the opposite extremes thereof; manually operated means for controlling the said levitating and balancing planes in unison; means for propelling the aeroplane in flight; and means for varying the path of the flight vertically and horizontally.

3. An aeroplane, comprising an elongated skeleton frame; a plurality of tubular chambers extended in line with and fixedly mounted on said frame; a carrying plane laterally extended from and fixedly mounted on said frame; levitating planes pivotally mounted upon the one of said tubular chambers and horizontally extended therefrom; a plurality of balancing planes pivotally mounted upon said carrying plane and at the opposite extremes thereof; a plurality of universally pivoted levers mounted upon said frame; a plurality of devices connecting each of said levers with one of said levitating and balancing planes on each side of the longitudinal center of the aeroplane, to operate in harmony and independently of the said levitating and balancing planes disposed on the opposite side of the aeroplane; means for propelling the aeroplane in flight; and means for varying the path of the flight vertically and horizontally.

4. An aeroplane, comprising an elongated skeleton frame; a plurality of tubular chambers extended in line with and fixedly mounted on said frame; a plurality of carrying planes laterally extended from and fixedly mounted on said frame, said planes having a smooth upper surface and an open cellular under surface; levitating planes pivotally mounted upon the one of said tubular chambers and horizontally extended therefrom; a plurality of balancing planes pivotally mounted upon said carrying plane and at the opposite extremes thereof; manually operated means for controlling the said levitating and balancing planes in unison; means for propelling the aeroplane in flight; and means for varying the path of the flight vertically and horizontally.

5. An aeroplane, comprising an elongated skeleton frame; a plurality of tubular chambers extended in line with and fixedly mounted on said frame; a plurality of carrying planes laterally extended from and fixedly mounted on said frame, said planes being constructed of an open mesh woven material and a smooth upper covering therefor to form cells in the under surface downwardly opening; levitating planes pivotally mounted upon the one of said tubular chambers and horizontally extended therefrom; a plurality of balancing planes pivotally mounted upon said carrying plane and at the opposite extremes thereof; a plurality of universally pivoted levers mounted upon said frame; a plurality of devices connecting each of said levers with one of said levitating and balancing planes on each side of the longitudinal center of the aeroplane, to operate in harmony and independently of the said levitating and balancing planes disposed on the opposite side of the aeroplane; means for propelling the aeroplane in flight; and means for varying the path of the flight vertically and horizontally.

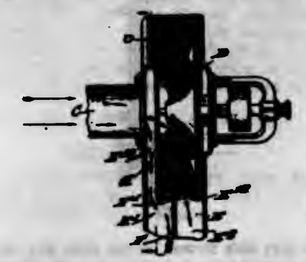
[Claims 6 to 9 not printed in the Gazette.]

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1,037,659. EXHAUST-FAN. SAMUEL REMBERT, Memphis, Tenn. Filed Feb. 14, 1912. Serial No. 677,442. (Cl. 230—11.)

1. An exhaust fan, substantially as herein described, comprising a fan case having an inlet and an outlet, a fan within the fan case and having on its side next the inlet a perforated or foraminous guard held to and revolving with the fan and spaced from the side of the fan case whereby to provide a passage space within the case and extending from the inlet to the outlet and a partition plate approximately parallel with the plane of perforated guard and arranged within the outlet and operating to separate the material discharged from the passage space from the dust laden air, etc., discharged from the fan, the partition plate having a rearward extension underlying and conforming to and resting in close proximity to the fan, substantially as set forth.





2. An exhaust fan having a fan case provided with an inlet and an outlet, a fan within the case, a perforated guard forming with the fan case a space for material drawn inward by said fan and means dividing the outlet into separate channels laterally side by side for the discharge from said space and directly from the fan, substantially as set forth.

3. An exhaust fan comprising a fan case having an inlet and outlet, a fan in the case, a perforated or foraminous guard plate secured to and revolving with the fan and forming with the fan case a passage space leading from the inlet to the outlet and a partition plate in the outlet and conforming edgewise to the fan and dividing the outlet into separate channels laterally side by side, substantially as set forth.

4. An exhaust fan having at one side a perforated or foraminous guard held to and revolving with the fan and a casing inclosing said fan and having an inlet on its side next to the said guard, the casing being also provided with an outlet and with a partition plate within the outlet and approximately parallel with the plane of the perforated guard, the said partition forming the outlet into separate channels one of which is adapted to receive the material checked by the perforated plate and the other the air discharged directly from the fan, all substantially as and for the purpose set forth.

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1,037,660. FOUNTAIN-PEN. FELIX EISENBERG, New York, N. Y. Filed Jan. 10, 1912. Serial No. 670,424. (Cl. 120—46.)



1. A fountain pen having an ink receptacle provided with a valve chamber at its upper end opening into said receptacle and an ink passage at its lower end, a valve in said valve chamber controlling the passage from the valve chamber to said receptacle, and an air passageway leading from said valve chamber above said valve and discharging through the lower end of said receptacle.

2. In a fountain pen, the combination of an ink feed terminating at its upper end in a valve chamber, and having a feed passage at its lower end, a check valve in said chamber, and an air tube terminating in said chamber at one end and at the lower end of the feed at its other end, and of such relatively small cross-section that the skin friction therein will substantially prevent the rising of fluid therein.

3. A fountain pen, comprising two tubes, one of relatively much smaller cross sectional area than the other communicating with each other at both ends and having in the connection at the upper end a check valve.

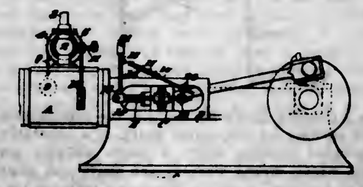
4. A fountain pen having an ink receptacle provided with a valve chamber at its upper end opening into said receptacle and an ink passage at its lower end, a valve in said valve chamber controlling the passage from the valve chamber to said receptacle, and an air passageway connecting said valve chamber above said valve with said ink passage independently of said receptacle.

5. In a fountain pen, the combination of an ink feed having a separate air passage extending substantially from one end to the other thereof, and a connection from said feed to said air passage at their upper ends, a valve closing the upper end of the feed and controlling the connection between the point and the air passage, and a collapsible bulb connected to the upper end of the feed.

[Claims 6 to 8 not printed in the Gazette.]

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1,037,661. AUTOMATIC ENGINE CONTROL. JOHN J. RIPPER and JOHN BORNANDER, Fellows, Cal. Filed Apr. 27, 1912. Serial No. 693,723. (Cl. 121—111.)



1. The combination with a cut-off valve, of a reciprocating engine, means for normally holding the valve in its closed position, and means operated by a reciprocating part of the engine for releasing said valve opening means to close the valve, said last-named means comprising an impulse arm carried by a reciprocating part of the engine, a pivotally mounted trip having an arm disposed in the path of said reciprocating part, a pivotally mounted lever and means connecting the same with another arm of said trip, and a notched member fixed to the valve and adapted to be engaged by an arm of said lever to thereby hold the valve in its open position in opposition to the closing means.

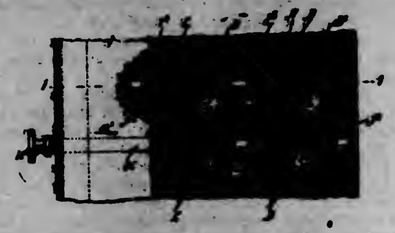
2. The combination with a cut-off valve, of a reciprocating engine, means for normally holding the valve in its closed position, means operated by a reciprocating part of the engine for releasing said valve opening means to close the valve, consisting of an impulse arm carried by the engine cross-head, a trip disposed to be actuated by said arm, and connections between the trip and the valve opening means, said connections comprising a bell-crank lever having one arm connected to an arm of the trip, said valve having a notched member into engagement with which the other arm of the bell-crank lever is moved to hold the valve in its open position in opposition to the closing means.

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1,037,662. WINDOW-LOCK. GEORGE B. ROGERS, New York, and MARK T. FLANAGAN, North Tarrytown, N. Y. Filed Oct. 23, 1911. Serial No. 656,282. (Cl. 16—110.)

The combination with a window casing and upper and lower window sashes mounted to slide vertically in said casing and provided with side portions having keepers on their opposite faces of which the keepers on the outer faces of the sashes are adapted to aline when these on the inner faces of the sashes are alined, of a push bar mounted to slide transversely in the casing and provided with

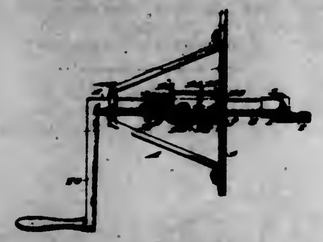
holts adapted to engage in the keepers upon the outer faces of the cushes, a second bar mounted to slide transversely in the casing and having bolts adapted to engage



the keepers on the inner faces of the cushes, and a lever fulcrumed in the casing and connecting the bars with each other.

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1,037,663. STARTING DEVICE FOR ENGINES. James D. Rogers and John W. Myers, Granger, Tex. Filed Aug. 21, 1911. Serial No. 645,140. (Cl. 123—185.)



1. In a starting device for engines, the combination with a clutch member on the engine shaft, of a rotatable, endwise movable starting shaft, a sleeve slidably mounted upon the shaft, means whereby the shaft and sleeve are connected together, a spring interposed between the shaft and sleeve for holding the sleeve normally out of rotatable engagement with the shaft, a clutch carried by the sleeve adapted to engage the clutch on the engine shaft, a pair of shaft separating members mounted on said starting shaft and provided with coöperating cam surfaces whereby they are separated by relative turning movement between them, one of said shaft separating members being carried by said shaft, and the other being loosely mounted on the shaft, and means for preventing the rotation of said last-named member in one direction.

2. In a starting mechanism for engines, the combination with a frame and a clutch member of an engine shaft, of a rotatable, endwise movable starting shaft mounted on the frame, a sleeve slidably mounted on the starting shaft, means for locking the sleeve to the shaft, a spring interposed between the starting shaft and sleeve for normally disengaging the sleeve from rotation with the starting shaft, a clutch carried by the sleeve engaging the clutch of the engine shaft, a pair of shaft separating members mounted on said starting shaft, and provided with coöperating cam surfaces, whereby they are separated by relative turning movement between them, one of said shaft separating members being secured against rotary movement on said starting shaft, and the other being rotatably mounted on said starting shaft, and a clutch adapted to engage said last-named member for preventing its rotation in one direction.

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1,037,664. DISTRIBUTING-VALVE FOR BATH-TUBS. Zimmerick C. Rockwell, Hamilton, Ill. Filed Oct. 15, 1910. Serial No. 587,684. (Cl. 137—7.)

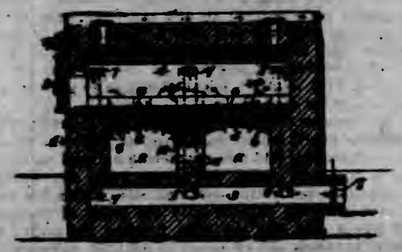
A water distributing attachment for bath tubs, comprising a two-part casing forming a water chamber, a water conducting pipe having the upper of said casing parts formed thereon with a pair of induction ports in the pipe above the casing, a plurality of ejection pipes leading from the chamber and having the lower of said casing parts formed thereon, an operating stem extending through said pipe and through both parts of the chamber



casing, a port disk formed on the stem and seated on the eduction pipes within the chamber, and means contained within the chamber for controlling the movement of the disk, substantially as and for the purpose set forth.

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1,037,665. FURNACE FOR ANNEALING, &c. Wesson S. Rockwell, New York, N. Y. Filed Sept. 26, 1908. Serial No. 454,661. (Cl. 148—17.)



1. A furnace comprising a plurality of combustion chambers, and a heating chamber over the combustion chambers, the said combustion chambers extending at right angles to the length of the heating chamber, each combustion chamber having a top arched on its underside and flat on top, the said flat tops of the arches being continuous and forming the flat floor of the heating chamber, and having openings for the passage of radiant heat and products of combustion into the heating chamber.

2. A furnace comprising a plurality of combustion chambers and a heating chamber over the combustion chambers and extending at right angles to the direction of the lengths of the combustion chambers, the partition between the heating chamber and the combustion chambers being arched on its underside over each combustion chamber and flat throughout its entire top, and having radially disposed openings through same for the passage of heat and products of combustion into the heating chamber.

3. A furnace comprising a plurality of combustion chambers and a heating chamber over the combustion chambers and extending at right angles to the direction of the lengths of the combustion chambers, the partition between the heating chamber and the combustion chambers being arched on its underside over each combustion chamber and flat throughout its entire top, and having openings for the passage of heat and products of combustion into the heating chamber, and floor rails supported on the flat top of said arches or partition and projecting above the same to form seats or supports for the material being treated.

4. A furnace comprising a plurality of communicating combustion chambers and a heating chamber over said combustion chambers, each combustion chamber having a top arched on the underside and flat on top, the said flat



tops of the arches being continuous and forming the floor of the heating chamber, and the said floor having openings for the free and unrestricted passage of heat and products of combustion into the heating chamber, from the several combustion chambers.

5. A furnace comprising a combustion chamber, a heating chamber above the combustion chamber, the partition seperating the two chambers having uniformly spaced openings therein, a draft flue below the combustion chamber and extending throughout the length of the furnace, and series of flues leading from the sides of the heating chamber down around the combustion chamber to the draft flue.

[Claims 6 to 10 not printed in the Gazette.]

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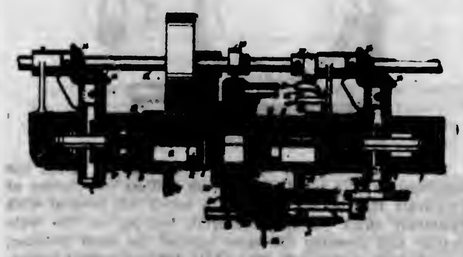
1,037,666. SHIELD ATTACHMENT FOR SLEEVES. Mildred M. Rogers, Katrine, Va. Filed Aug. 9, 1910. Serial No. 576,870. (Cl. 24—259.)



An attachment device for dress shields comprising a bowed spring steel member, integral elongated clamping jaws extending in opposite directions from each end of the spring member and disposed at right angles thereto, said jaws being of a width equal to the width of the spring member, and roughened throughout their entire length to firmly clasp the same upon a sleeve seam, the said spring member being provided at each side of its center at each end with sew holes, and said jaws also being provided with sew holes extended into the oppositely extending portions of said jaws.

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1,037,667. EXPLOSIVE-ENGINE. William Alexander Schaffer, Waco, Tex., assignor of one-fourth to John L. Orand, Waco, Tex. Filed Sept. 27, 1910. Serial No. 584,027. (Cl. 123—51.)



1. In an engine of the character described, an explosion chamber having cylindrical extensions at each side thereof provided with exhaust ports, working pistons mounted in the cylindrical extensions, the exhaust ports being arranged to be uncovered by the pistons when the latter substantially complete their working strokes, a valve controlled exhaust port leading from the periphery of the explosion chamber, between the cylinders, means for engaging and actuating the said exhaust valve to open the same and hold it open during the period the said cylinder exhaust ports are uncovered and until the pistons have completed a substantial part of their return stroke to complete the expulsion of the burnt gases, a valve controlled inlet port arranged in the peripheral wall of the explosion chamber opposite the exhaust port, and means for forcing the charge into the explosion chamber through said inlet valve during the return stroke of the pistons.

2. In an engine of the character described, an explosion chamber having cylindrical extensions at each side thereof provided with exhaust ports, working pistons mounted in the cylindrical extensions and adapted to uncover said exhaust ports when the pistons have substantially completed their working stroke, a valve controlled inlet port, and a valve controlled exhaust port for the explosion chamber arranged opposite each other in the peripheral wall of said chamber, means for engaging and actuating the exhaust valve of the explosion chamber, to open the same and hold it open during the period the cylinder exhaust ports are uncovered and until the pistons have completed a substantial part of the return stroke to complete the expulsion of the burnt gases, and a charge compression pump having a piston driven from the engine in advance of the cylinder pistons, and adapted to draw in the charge during the working stroke of the pistons, and to force the said charge into the explosion chamber through said inlet valve during the return stroke of the pistons.

3. In an engine of the character described, the combination of two cylinders disposed end to end and having between them a common explosion chamber provided with an exhaust port located in its periphery, a valve for opening and closing said exhaust port, a working piston in each cylinder, the pistons being operatively connected to move toward and from each other synchronously, each cylinder having an exhaust port so located as to be uncovered by said piston when the latter substantially completes its working stroke, a shaft provided with a cam for actuating the valve to open and close the exhaust port of the explosion chamber, driving shafts connected with the pistons, gearing connecting said cam shaft with the driving shafts, said gearing being so proportioned that said valve controlling said exhaust port remains open until said pistons have completed a substantial part of their return stroke, and means for forcing an explosive mixture into the explosion chamber, when said exhaust valve of the explosion chamber is closed and before the pistons have fully completed their return stroke.

4. In an engine of the character described, piston cylinders having a common explosion chamber provided in its periphery with an inlet port for the explosive mixture, and an outlet port for the burnt gases, the said ports being arranged opposite to each other, pistons mounted within the cylinders, at each side of the explosion chamber, the cylinders being provided with exhaust ports controlled by said pistons, a crank case at the outer end of each cylinder, driving shafts journaled in pairs in each crank case, the shafts of each pair being in axial alinement with each other and provided with a crank, connecting rods engaging the pistons and also engaging said cranks, a driven shaft provided with a cam, a valve for controlling the exhaust port of the explosion chamber and engaged and actuated by said cam, gearing connecting one of the driving shafts of each pair with the said driven shaft, a pump communicating with the inlet port of the explosion chamber for forcing the explosive mixture into said chamber, and means for actuating said pump from one of the driving shafts.

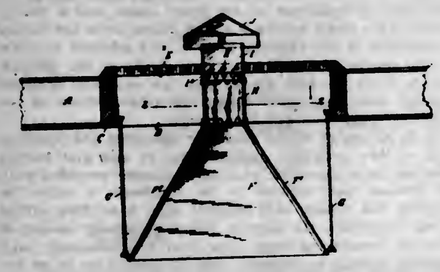
5. In an engine of the character described, the combination of two cylinders arranged in line with each other and having working pistons, the cylinders being provided with a common explosion chamber located between the inner ends of the cylinders, each cylinder having an exhaust port adapted to be uncovered by its piston when the latter substantially completes its working stroke, a driving shaft operatively connected with each piston, a driven shaft operatively connected with the driving shafts,

a cam on said driven shaft, the said explosion chamber having a valve controlled inlet port for the explosive mixture, and a valve controlled exhaust port arranged opposite said inlet port, the stem of the last mentioned valve extending into the path of the said cam, the cam being adapted to open said valve about the time the exhaust ports of the cylinders are uncovered and to hold said valve open until the pistons have completed a substantial part of the return stroke to complete the expulsion of the burnt gases, and a charge compression pump having a piston driven from one of the driving shafts in advance of the cylinder pistons and adapted to force the charge into the explosion chamber through the inlet valve, the exhaust port valve of the explosion chamber closing before the inlet port is opened by the charge pressure.

[Claim 6 not printed in the Gazette.]

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1,037,668. BUILDING LIGHT AND VENTILATOR. PHILIP SCHWICKART, New York, N. Y. Filed Feb. 6, 1911. Serial No. 606,749. (Cl. 98—39.)



1. An illuminating device for buildings, comprising a building light having a series of lenses, and a reflector pyramidal in shape and arranged centrally below the said building light and open at the top, the reflector having an exterior reflecting surface receiving some of the refracted light of the said lenses, to deflect the light laterally, some of the refracted light of the said lenses passing through the open reflector to the space below the same.

2. An illuminating device for buildings, comprising a casing in the roof or ceiling of a building, the top of the casing being provided with lenses and the bottom being open, and a reflector pyramidal in shape and suspended centrally from the said casing and having its sides provided with exterior reflecting surfaces, the top and bottom of the reflector being open.

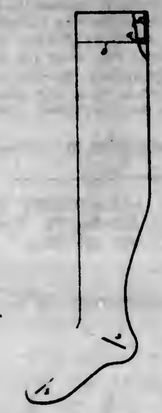
3. An illuminating device for buildings, comprising a casing rising from the roof or ceiling of the building and open at the bottom, the top of the casing being provided with lenses, and a reflector in the form of a hollow body suspended centrally from the said casing and having reflecting sides inclined upwardly and inwardly from the sides of the open base of the reflector to the sides of the open top of the reflector.

4. A lighting and ventilating device for buildings, comprising a casing rising from the roof or ceiling of the building and open at the bottom, the top of the casing being in the form of a building light having lenses, a reflector suspended centrally below the said casing and having reflecting sides inclined upwardly and inwardly from the sides of the open base of the reflector to the sides of the open top of the reflector, and a ventilating passage extended upward from the said reflector top through the said building light.

5. A building light and ventilator for buildings, comprising a building light, a reflector below the said building light and having exterior reflecting surfaces, and a ventilating passage extending from the top of the said reflector through the said building light.

[Claims 6 to 8 not printed in the Gazette.]

1,037,669. HOSIERY. ROSSER W. SCOTT, Leeds Point, N. J., assignor, by direct and mesne assignments, to Scott & Williams, Incorporated, Camden, N. J., a Corporation of New Jersey. Filed Mar. 29, 1910. Serial No. 552,221. (Cl. 66—4.)

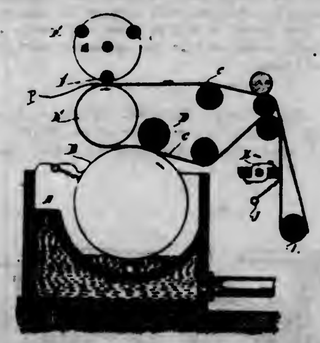


1. A stocking having, at the top of a plain web leg, a turned welt integrally united to the leg of the stocking and having, beyond said point of union, a projecting strip of plain web to prevent release of the uniting stitches.

2. A stocking having, at the top of a plain web leg, a turned welt integrally united to the leg of the stocking and having, beyond said point of union, a projecting strip of plain web to prevent release of the uniting stitches, the edge portion of said strip having confining stitches to prevent raveling.

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1,037,670. PULP-TUBE MACHINE. WILLIAM R. SMIGLS, Nashua, N. H., assignor to H. W. Johns-Manville Company, New York, N. Y., a Corporation of New York. Filed Jan. 4, 1911. Serial No. 600,795. (Cl. 92—42.)



1. In a machine for forming wound paper tubes, the combination of a mold cylinder, an endless web-carrier of relatively thin porous material, a couch roll covered with relatively thick yielding material, bearing on the web-carrier and pressing the same against the mold cylinder, a segmental suction roll over which the web-carrier passes, and a tube mandrel, bearing on the web-carrier and supported therethrough by the segmental suction roll, the suction devices of the segmental suction roll being arranged to maintain vacuum within the web-carrier up to a point near to but short of the line of bearing of the mandrel on said web-carrier.

2. In a machine for forming wound paper tubes, the combination of a mold cylinder, an endless web-carrier



of relatively thin porous material, a couch roll covered with relatively thick yielding material, bearing on the web-carrier and pressing the same against the mold cylinder, a support for the web-carrier, a tube mandrel bearing on the web-carrier and supported therethrough by said support, and water-abstracting means, operative on the web upon the carrier up to a point near to but short of the line of bearing of the mandrel on said web-carrier.

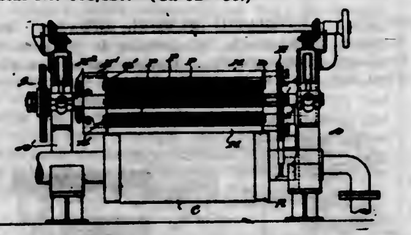
3. In a machine for forming wound paper tubes, the combination of a mold cylinder, an endless web-carrier of relatively thin felt, a heavily felted couch roll backing the web-carrier and holding it against the mold cylinder, a segmental suction roll over which the web-carrier passes, and a tube mandrel, bearing on the web-carrier and supported therethrough by the segmental suction roll, the suction devices of the suction roll being arranged to maintain a vacuum within the web-carrier up to a point near to but short of the line of bearing of the mandrel on the web-carrier.

4. In a machine for forming wound paper tubes, the combination of a mold cylinder, a couch roll to couch a paper-web from the mold-cylinder, a hard-surfaced roll, a tube mandrel bearing against the resistance of the hard-surfaced roll, and a web-carrier movable between the couch roll and the mold cylinder and between the hard-surfaced roll and the mandrel, said carrier being so thin as to partake of the physical characteristics of the couch roll and hard-surfaced roll, and means to abstract water from the web on its carrier in its transit from the couch roll to the tube winding mandrel.

5. In a machine for forming wound paper tubes, the combination of a mold cylinder, a couch roll to couch a paper-web from the mold cylinder, a hard-surfaced segmental suction-roll, a tube mandrel bearing against the resistance of the hard-surfaced segmental suction roll, and an endless web-carrier passing between the mold cylinder and couch roll and the segmental suction roll and mandrel, said carrier being so thin as to partake of the physical characteristics of the couch roll and sectional suction roll, the suction devices of the suction roll being arranged to maintain suction on the web-carrier up to a point near to but short of the line of bearing of the mandrel on the web-carrier.

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1,037,671. MACHINE FOR WINDING PULP TUBES. WILLIAM R. SMIGLS, Nashua, N. H. Filed Dec. 29, 1911. Serial No. 668,417. (Cl. 92—66.)



1. In a tube winding machine of the character described, the combination of a rotary mandrel frame, mandrels in bearings on said frame, and presser rolls mounted in the frame to bear on the mandrels as they take position for tube winding.

2. In a tube winding machine of the character described, the combination of a rotary mandrel frame, mandrels in bearings on said frame, the frame provided with radially disposed slot bearings for presser rolls, presser rolls with trunnions working in said slots, to bear on the mandrels as they take position for tube winding.

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1,037,672. SCRAPER FOR CONDENSERS. HENRY P. SMLICK, Steubenville, Ohio. Filed Jan. 20, 1912. Serial No. 672,258. (Cl. 122—279.)

1. An apparatus for scraping the tubes of boilers and condensers comprising a reciprocatory truck, means for shifting the truck scraping holders positioned at each end of said truck, resilient supported scrapers arranged in said holders and capable of engaging with the periphery of the tube for scraping the same when the truck is reciprocated.



2. An apparatus for scraping the tubes of boilers and condensers comprising a reciprocatory truck, sets of vertically disposed scraper holders carried by said truck and oppositely disposed sets of scrapers carried by each holder and capable of engaging the periphery of the tubes by scraping the same when the truck is reciprocated.

3. An apparatus for scraping the tubes of boilers and condensers comprising a reciprocatory truck, a vertically disposed scraper holder carried at each end of said truck, and two sets of scrapers arranged in each of said holders, the holders of one set projecting toward the holders of the other set and capable of engaging with the periphery of the tubes for scraping the same when the truck is reciprocated.

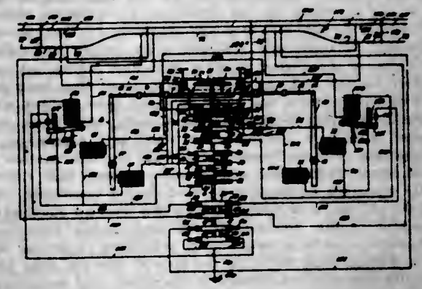
4. An apparatus for scraping the tubes of boilers and condensers comprising a reciprocatory truck, a vertically disposed scraper holder carried thereby, and two sets of scrapers supported by said holder, the scrapers of one set extending toward the scrapers of the other set and said scrapers capable of cleaning the periphery of the tubes when a truck is shifted.

5. An apparatus for scraping the tubes of boilers and condensers comprising a reciprocatory truck, means for shifting the truck, a vertically disposed scraper holder carried by the truck, two sets of scrapers arranged in said holder, the scrapers of one set extending toward the scrapers of the other set and said scrapers capable of cleaning the tubes when the truck is shifted and means for resiliently connecting the truck to said holder.

[Claims 6 and 7 not printed in the Gazette.]

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1,037,673. AUTOMATIC TRAIN-CONTROLLING SYSTEM. FRANK DILLEY SHINDEL, Huntingdon, Pa. Filed Feb. 16, 1911. Serial No. 608,949. (Cl. 246—34.)



1. The combination of a movable car, a train pipe carried thereby, a valve of small capacity connected with the train pipe and adapted to open automatically for the purpose of slowly venting said train pipe, an electro-magnet connected with said valve and adapted when fully energized, to maintain said valve closed, a block controller disposed adjacent to the path of travel of said car and provided with contact mechanism, said contact mechanism being controllable by movements of said block controller and being normally open, mechanism including an electro-

magnet for actuating said controller so as to close said contact mechanism, a circuit connected with said electro-magnets and energized by a current too weak to render active said electro-magnets, a car controller connected with said circuit and controllable from said car for diminishing the resistance of said circuit so as to render the said second named electro-magnet active, and connections from said contact mechanism of said block controller around said controller-actuating electro-magnet for supplying current directly from said block controller to the electro-magnet carried by the car, so as to fully energize the same when the said controller is actuated by the said second named electro-magnet.

2. The combination of a movable car, a train pipe carried thereby, a valve of small capacity connected with said train pipe and adapted to open automatically for the purpose of slowly venting said train pipe, an electro-magnet connected with said valve and adapted, when fully energized, to maintain said valve closed, a block controller disposed adjacent to the path of travel of said car and provided with contact mechanism, said contact mechanism being controllable by movements of said block controller and being normally open, mechanism including an electro-magnet for actuating said controller so as to close said contact mechanism, a circuit connected with said electro-magnets, means controllable from said car for increasing the flow of current through said circuit, in order to energize the second-named electro-magnet, and connections from said contact mechanism around said controller actuating magnet for still further increasing the flow of current through said circuit, so as to fully energize the first named electro-magnet.

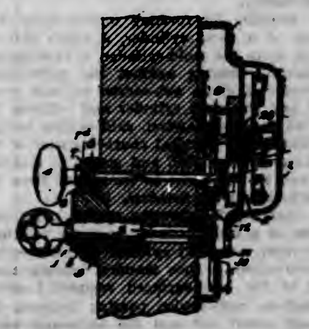
3. The combination of a source of current having a ground return, a conductor section for supplying current to a car traveling in one direction, a conductor section for supplying current to a car traveling in the opposite direction, a controller provided with circuit controlling contacts, a connection between said first mentioned conductor section and the ground, said connection including one of said contacts and being normally open thereat, electrically operated mechanism for turning said block controller into such position as to close said connection, a connection from said source of current through another of said circuit controlling contacts and through said electrically operated mechanism to said second mentioned conductor section, and a movable car provided with an electrically operated motor and connections for establishing temporary communication from said second mentioned conductor section through said motor to the ground whereby said electrically operated mechanism is energized.

4. The combination of a source of current having a ground return, a conductor section for supplying current to a car traveling in one direction, a conductor section for supplying current to a car traveling in the opposite direction, a controller provided with circuit controlling contacts, a connection between said first mentioned conductor section and the ground, said connection including one of said contacts and being normally open thereat, electrically operated mechanism for turning said block controller into such position as to close said connection, a connection from said source of current through another of said circuit controlling contacts and through said electrically operated mechanism to said second mentioned conductor section, a movable car provided with an electrically operated motor, connections for establishing temporary communication from said second mentioned conductor section through said motor to the ground whereby said electrically operated mechanism is energized, and electrically operated locking mechanism, controllable partly by the condition of said block controller and partly by movements of said car for locking and unlocking said block controller.

5. The combination of a source of current having a ground return, a conductor section for supplying current to a car traveling in one direction, a conductor section for supplying current to a car traveling in the opposite direction, a controller provided with circuit controlling contacts, a connection between said first mentioned conductor section and the ground, said connection including one of said contacts and being normally open thereat, electrically operated mechanism for turning said block controller into such position as to close said connection, a connection from said source of current through another of said circuit controlling contacts and through said electrically operated mechanism to said second mentioned conductor section, a movable car provided with an electrically operated motor, connections for establishing temporary communication from said second mentioned conductor section through said motor to the ground whereby said electrically operated mechanism is energized, a magnet included in said connections, a valve controllable by said magnet, and a train pipe mounted upon said car and operated by said valve.

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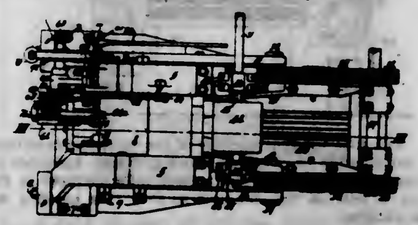
1,037,674. DOOR LOCK AND SIGNAL. NATHAN SILVERSON, New York, N. Y. Filed Oct. 31, 1908. Serial No. 460,433. (Cl. 116—61.)



In a lock and signal device, the combination with the lock case having a bolt, an axle, cliappers mounted upon said axle and a pinion for rotating said axle, of a sliding bolt having a single tooth designed to engage and rotate said pinion in its sliding movements, hap controlled mechanism for extending and retracting said bolt, a shaft engaging said pinion and a knob carried by said shaft, whereby said bolt may be wounded independently of said hap controlled mechanism.

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1,037,675. AUTOMATIC FLYING SHEARS. JAMES SIMPSON, McKeesport, Pa. assignor to National Tube Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Apr. 8, 1911. Serial No. 620,982. (Cl. 164—49.)



1. In a flying shear a pair of opposed relatively movable shear knives, a movable shear knife support upon which said knives are mounted having mechanism to cause a relative approach of the knives during forward movements of said support, means for positively moving the support, and means whereby relative approach of the shear knives during forward movements of said support is prevented.

2. In a flying shear a pair of opposed relatively movable shear knives, a reciprocating support upon which said shear knives are mounted, means for reciprocating said support to cause relative approach of the knives thereon, and means coacting with said support to prevent relative movement of the shear knives during at least part of the reciprocating movements of said support.

3. In a flying shear a pair of shear knives relatively movable vertically, a horizontally movable shear knife support upon which said knives are mounted, means for moving the support to actuate the knives, and means coöperating with said support to permit horizontal movement of the support without relative vertical movement of said shear knives.

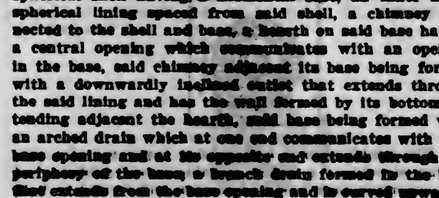
4. In a flying shear, a pair of opposed relatively movable shear knives, a reciprocating support therefor, means for reciprocating the support without relative movement of the shear knives mounted thereon and mechanism for causing a relative approach of the shear knives to sever materials between the knives at intervals in the reciprocatory movements of said shear knife support.

5. Shearing mechanism comprising opposed relatively movable shear knives, a reciprocating support therefor, means for causing relative approach of said knives on the knife support in severing materials located between the knives and means for timing the intervals between the severing movements of said knives.

[Claims 6 to 24 not printed in the Gazette.]

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2,037,676. GARBAGE-INCINERATING FURNACE. EDWARD SEUFF, Huntington, Ind. Filed Apr. 28, 1912. Serial No. 693,667. (Cl. 201—3.)



An incinerating furnace consisting of an outer hemispherical shell having a horizontal base, an inner hemispherical lining spaced from said shell, a chimney connected to the shell and base, a hearth on said base having a central opening which communicates with an opening in the base, said chimney adjacent its base being formed with a downwardly inclined outlet that extends through the said lining and has the wall formed by its bottom extending adjacent the hearth, said base being formed with an arched drain which at one end communicates with said base opening and at its opposite end extends through the periphery of the base, a branch drain formed in the base that extends from the base opening and is curved upwardly to extend into the outlet at the end thereof adjacent the hearth, and a flue box at one side of the hearth.

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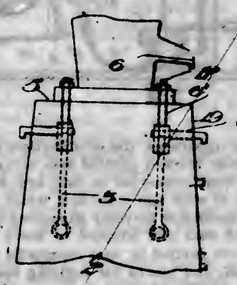
2,037,677. TIRE-ARMOR. JOHN ROBERT SMITH, Flagstaff, Ariz. Filed Dec. 7, 1911. Serial No. 664,854. (Cl. 152—22.)



A tire armor comprising a pair of detachable semi-circular, transversely curved armor sections, said sections having correspondingly shaped, inwardly depressed ends extending to the edge of the sections, connecting plates located within the depressed ends of said sections, one end of said plates being rigidly secured to the depressed ends of one section, screws for detachably securing the opposite ends of the plate to the depressed ends of the other section, the inner curved surface of the depressed ends of the sections being adapted to be drawn firmly in contact with the tread of a pneumatic tire and embedded therein whereby the armor is prevented from slipping upon the same, and rows of anti-skidding studs arranged in said sections of the armor and corresponding in shape to the heads of the rivets and screws.

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1,037,678. ANCHOR-BOLT. FRED J. SNYDER, Tucson, Ariz. Filed Jan. 18, 1912. Serial No. 671,836. (Cl. 72—106.)



1. An anchor-bolt comprising alined sections one of which is adapted to be permanently mounted in a foundation structure and is provided with a threaded portion at its upper end; an internally threaded socket member attachable to said embedded section, said socket member having a diametrical slot and a central chamber intercommunicating, the uppermost of the bolt-sections having its lower end adapted to be inserted into the socket, and having a diametric chamber capable of registering with the slot in the socket and a key adapted to project into the alined slots and uppermost of the bolt-sections, said key having an undercut or recess at its lower edge, into which a contiguous wall of the chamber in the uppermost bolt-section may be drawn.

2. The combination of a masonry or concrete foundation having a bolt-hole and a key-chamber formed therein, a bolt section permanently embedded in said foundation, a socket formed upon the upper end of said bolt-section, said socket having a diametric slot in line with the key-chamber formed in the foundation, a detachable bolt section alined with the first-named section and insertible into the bolt-hole in said foundation, and into the socket, and having a diametric chamber alinable with the slot in the socket, and a key insertible through the key-chamber in the foundation and adapted to lock the socket and the second-named bolt section.

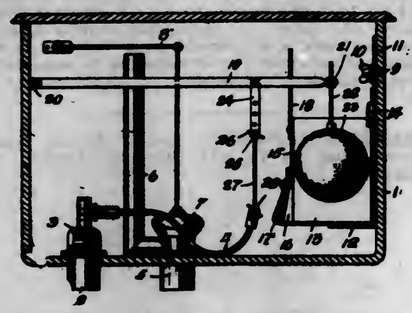
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1,037,679. FLUSHING APPARATUS. PETER F. SNYDER, Duquesne, Pa. Filed Mar. 8, 1912. Serial No. 682,440. (Cl. 137—104.)

1. In a flushing apparatus, the combination with a tank, a water inlet valve located within said tank, and a pivoted arm located within said tank for operating said water inlet valve, of a bracket adjustably mounted within said tank, a hollow float having an opening therein and movably supported by said bracket and having a flap valve at the bottom thereof, and a float inclosed by said hollow float and connected to said arm and adapted to move said arm after a movement of said hollow float.

2. In a flushing apparatus, the combination with a tank, a water inlet valve located within said tank, and a pivoted arm located within said tank for operating said water inlet valve, of a bracket adjustably mounted within said tank, a hollow float having an opening therein and

movably supported by said bracket and having a flap valve at the bottom thereof, a float inclosed by said hollow float and connected to said arm and adapted to move said arm after a movement of said hollow float, and a retaining member carried by said bracket for limiting the movement of said hollow float.



3. In a flushing apparatus, the combination with a tank having a water inlet valve, a pivoted arm arranged within said tank, and a float connected to said arm and adapted to move said arm to open and close said water inlet valve, of a rectangular receptacle movably supported in said tank and inclosing said float and adapted to move in advance thereof, a flap valve carried by said receptacle adjacent to the bottom thereof, and means for limiting the movement of said receptacle within said tank.

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1,037,680. SIPHON-HEAD. PHILIP SPITZENBERG, New York, N. Y. Filed Feb. 26, 1910. Serial No. 546,075. (Cl. 215—115.)



1. A siphon head embodying therein a head casting having a valve seat chamber, and a spring chamber above same, said spring chamber being open at the top and having a recess in the inner wall thereof and a diametrically opposite slot, a reciprocatory spring controlled valve stem having movement in said spring chamber, an enlarged head for said stem having a sliding fit in, and adapted to close, said spring chamber, said head having a slot extending diametrically therethrough and a fulcrum bar extending across the bottom of said slot, a lever handle adapted to project through the slot in the wall of said spring chamber and through the slot in said valve stem head, the end of said lever being adapted to seat in said recess and an intermediate point thereof being notched so as to be adapted to bear upon said fulcrum bar, and means carried by said head above the said fulcrum bar, and adapted to engage said lever handle, whereby said lever handle is held in engagement with said fulcrum bar.

2. A siphon head embodying therein a head casting having a valve seat chamber, and a spring chamber above same, said spring chamber being open at the top and having a recess in the inner wall thereof and a diametrically opposite slot, a reciprocatory spring controlled valve stem having movement in said spring chamber, an enlarged head for said stem having a sliding fit in, and adapted to close, said spring chamber, said head having a slot extending diametrically therethrough and a fulcrum bar extending across the bottom of said slot, means forming a part of said head whereby the downward movement of said valve stem is limited, a lever handle adapted to project through the slot in the wall of said spring chamber and through the slot in said valve stem head, the end of said lever being adapted to seat in said recess and an intermediate point thereof being notched so as to be adapted to bear upon said fulcrum bar, and means carried by said head above the said fulcrum bar, and adapted to engage said lever handle, whereby said lever handle is held in engagement with said fulcrum bar.

3. A siphon head embodying therein a head casting having a valve seat chamber, and a spring chamber above same, said spring chamber being open at the top and having a recess in the inner wall thereof and a diametrically opposite slot, a reciprocatory spring controlled valve stem having movement in said spring chamber, an enlarged head for said stem having a sliding fit in, and adapted to close, said spring chamber, said head having a slot extending diametrically therethrough and a fulcrum bar extending across the bottom of said slot, a lever handle adapted to project through the slot in the wall of said spring chamber and through the slot in said valve stem head, the end of said lever being adapted to seat in said recess and an intermediate point thereof being notched so as to be adapted to bear upon said fulcrum bar, and a screw carried by said head above said fulcrum bar, and adapted to engage said lever handle, whereby said lever handle is held in engagement with said fulcrum bar.

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1,037,681. DISPENSING APPARATUS. GEORGE A. SPRATT, Coatesville, Pa., assignor of one-half to Benjamin F. Young, Coatesville, Pa. Filed July 11, 1911. Serial No. 637,899. (Cl. 211—8.)



1. The combination in a dispensing apparatus of a supporting structure; a bodily movable spiral guideway of fixed convolute form mounted thereon and formed to hold a number of layers of articles to be dispensed; means tending to turn said guideway; and means for delivering articles from the guideway.

2. The combination in a dispensing apparatus of a supporting structure; a bodily movable spiral guideway of fixed convolute form mounted thereon and formed to hold a number of layers of articles to be dispensed; a spring acting to maintain the endmost of said articles in a predetermined position; and means for delivering a succession of said articles from such a position.

3. The combination in a dispensing apparatus of a supporting structure; a spiral guideway of stiff material for articles to be dispensed, bodily movable on said structure; a fixed abutment on the structure; means tending to move the guideway to press the articles and said abutment together; and means for delivering such articles successively from the guideway while they are under pressure.

4. The combination in a dispensing apparatus of a supporting structure; a continuous spiral guideway of stiff material for articles to be dispensed; means for bodily moving said guideway on the structure; an abutment for articles in the guideway; and means for successively delivering such articles from the guideway.

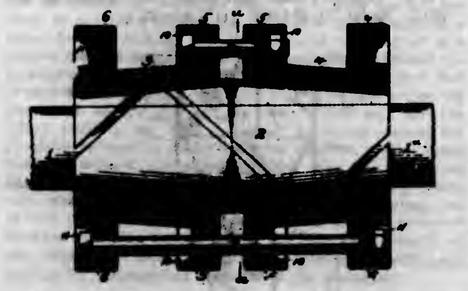


5. The combination in a dispensing apparatus of a supporting structure; a guideway of relatively stiff material for articles to be dispensed; means for bodily moving said guideway on the structure; an abutment for articles in the guideway; and means for successively delivering such articles from the guideway; with a second abutment free to move under the action of the guideway for pressing the articles toward the first abutment.

[Claims 6 to 11 not printed in the Gazette.]

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1,037,682. COMPRESSION-COUPLING FOR SHAFTS. CHARLES W. STRESEN, Manheim, Pa., assignor to Bond Foundry & Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 10, 1909. Serial No. 512,182. (Cl. 64—13.)



The combination, in a compression coupling for shaft sections, of a reversely tapered and longitudinally slotted compression sleeve, compression rings applied to the tapered portions of the sleeve and each having, at each end, a projecting flange, bolts connecting the inner flanges of the rings to resist separation of the rings, and other bolts connecting the outer flanges of said rings to compress said tapered compression sleeve at the outer ends thereof.

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1,037,683. CURRENT-REGULATING DEVICE OR RESISTANCE APPLICABLE FOR ELECTRIC LIGHTING OR HEATING. WILLIAM SUMNER, Liverpool, England. Filed Jan. 5, 1912. Serial No. 669,667. (Cl. 219—50.)

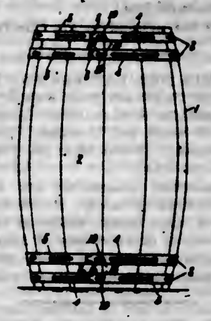


The process of producing a resistance medium which consists in impregnating fibrous material with an intimate mixture of carbon and finely divided insulating material, spinning the impregnated fibrous material into a yarn, coiling the yarn to form a pad, heating the pad to a high temperature, and finally cooling the heated pad.

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1,037,684. COLLAPSIBLE BARREL. JOHN W. SUTHERLAND, Sydney, Nova Scotia, Canada. Filed Dec. 8, 1911. Serial No. 664,552. (Cl. 217—44.)

1. A collapsible barrel comprising a plurality of staves arranged side by side, said staves being wider at the middle than at the ends, a plurality of hoops or bands arranged transversely of said staves adjacent the ends thereof, said hoops or bands having longitudinal slots therein, said slots being of increasing length from the center of the row of staves toward the ends thereof, fastening devices passing through said slots and into said staves to secure the hoops or bands adjustably thereto, said fastening devices being located adjacent the opposite ends of said slots on opposite sides of the center of the row of staves, and means for fastening the ends of said hoops to draw the ends of the staves toward a common center to form the body of the barrel.



2. A hoop for a collapsible barrel, comprising an elongated band having a head or button projecting from the side thereof adjacent one end, the opposite end having an opening therethrough to permit the passage of said button and a longitudinal slot communicating with said opening, and means carried by said other end engaging the said head to cause the same to move through said longitudinal slot to draw the ends of said barrel hoop together and tighten the same when the barrel hoop is in position.

3. A hoop for a collapsible barrel, comprising an elongated band having a head projecting from one end, the other end having an opening therethrough to give passage to said head and a longitudinal slot communicating with said opening, and means carried by said other end to engage said head when the ends of said barrel hoop are brought together, to cause said head to move along said slot, to tighten said hoop, said means also serving to lock the said head against return movement when it has reached the limit of its movement in said slot.

4. A hoop for a collapsible barrel, comprising an elongated band having a head projecting from its lateral surface adjacent one end, the other end having an opening to give passage to said head, a second opening spaced longitudinally from the first opening and connected by a longitudinal slot therewith, and a disk arranged on the inner surface of said barrel hoop and having a projection passing through said second-named opening, said projection being shaped to permit it to be engaged by a tool and turn said disk, said disk also having an opening therethrough to give passage to said head, and having a spiral slot therein communicating at one end with said opening and terminating at its other end at the center of said disk, said projection also having a recess communicating with the inner end of said spiral slot, whereby, when the head projecting from the lateral surface of said hoop adjacent one end is passed through the opening in the disk and the first-named opening in the other end of the barrel hoop, and the projection turned, the head will move along said longitudinal slot to tighten said hoop, and into the recess in the projection, and be locked against return movement by the portion of the projection forming the inner wall of said recess coming between said head and the end of the longitudinal slot, when the head is at the limit of its movement.

5. A hoop for a collapsible barrel, comprising a band having a lateral projection at one end, the other end having a longitudinal slot receiving said projection, and a disk pivotally connected to the other end of the hoop and having a projection shaped to be engaged by a tool to turn the disk, said disk having a spiral slot therein receiving said lateral projection, one end of said spiral slot terminating at the center of the disk, said projection on said disk also having a recess communicating with said spiral slot, whereby when the disk is turned the ends of the hoop will be drawn together through the engagement of the projection on one end of the hoop and the spiral slot, the projection carried by the end of the hoop entering the recess in the projection carried by the disk, to be locked against

spinon movement by the portion of the projection on the disk forming the inner wall of the recess coming between the projection on the end of the hoop and the opposite end of the longitudinal slot.

[Claims 6 to 9 not printed in the Gazette.]

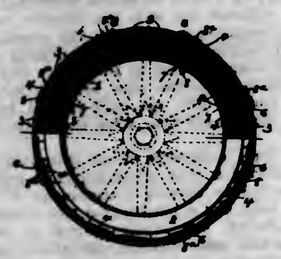
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1,037,685. CASEIN DERIVATIVES AND PROCESS FOR THE MANUFACTURE OF THE SAME. RUDOLF TAMBACH, Ludwigshafen-on-the-Rhine, Germany, assignor to The Firm of Knoll and Company, Ludwigshafen-on-the-Rhine, Germany. Filed Mar. 20, 1908. Serial No. 422,241. (Cl. 23—24.)

The herein described process for the manufacture of chlorinated derivatives of casein, which consists in causing chlorin to act upon casein dissolved in a solution of alkali, in the presence of an excess of alkali, and precipitating the chlorinated oxidation products thus obtained by treating the reaction liquid with an acid.

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1,037,686. TIRE. THOMAS TOOMEY, Scranton, Pa. Filed Mar. 28, 1911. Serial No. 617,395. (Cl. 152—9.)



A tire construction, comprising a channel rim of metal, two sets of wooden blocks disposed in said channel rim and constituting the body of the tire, said blocks projecting beyond the side flanges of said channel rim, the outer ends of the blocks of one set forming portions of the tread of the tire and the outer ends of the blocks of the other set provided with dovetail heads, and metal shoes mounted on said dovetail heads and abutting at their ends against adjacent blocks of the first-mentioned set constituting portions of the tread of the tire, each metal shoe having a plurality of projections on its tread portion.

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1,037,687. FENCE-POST. WELLINGTON A. TORNEY, Seattle, Wash. Filed July 27, 1911. Serial No. 640,914. (Cl. 59—76.)

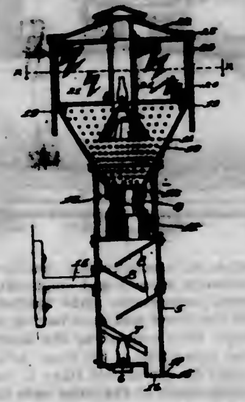


1. The combination in a fence post of a head, a collar around the lower end of said post, nut and bolt means for drawing said collar tightly around the post, an inwardly springy strip pivoted upon said bolt, wire receiving notches in said strip, a spring bearing collar upon said strip adapted to spring around said post and means for securing the upper end of said strip to said head.

2. The combination in a fence post of a wire fastening device comprising a collar around the lower end of the post, nut and bolt means for drawing said collar tightly around the post, an inwardly springy strip pivoted upon said bolt, a longitudinal channel in said post, a rib upon said strip adapted to enter said channel and crimp the wires and means for fastening the upper end of said strip to said post.

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1,037,688. INSECT TRAPPING AND CREMATING DEVICE. LORADO TROTH, San Diego, Cal. Filed Apr. 30, 1912. Serial No. 694,060. (Cl. 43—22.)



1. In a device of the character described, the combination with a light producing element, of a plurality of transparent panes supported thereabound, a hopper located therebeneath, a cremator body supported beneath said hopper, a perforated screen in said cremator body, and a heat producing element beneath said screen.

2. In a device of the character described, the combination with a light producing element, of a plurality of transparent panes supported thereabound, a hopper located therebeneath, a cremator body supported beneath said hopper, a perforated screen in said cremator body, a heat producing element beneath said screen, and a trap door upon which said screen discharges.

3. In a device of the character described, the combination with a light producing element, of a plurality of transparent panes supported therearound, a hopper located therebeneath, a cremator body supported beneath said hopper, a perforated screen in said cremator body, a heat producing element beneath said screen, and a counter-balanced trap door upon which said screen discharges.

4. In a device of the character described, the combination with a cremator body comprising an open top, a plurality of alternating oppositely inclined deflectors, a perforated screen upon which the lowermost of said deflectors discharge, a heat producing element beneath said screen, a light producing element, and vertical, radially disposed, transparent panes disposed about said light producing element.

5. In a device of the character described, the combination with a light producing element, of an outwardly and downwardly flaring deflector, an outwardly and upwardly flaring hopper in which said deflector is located, a plurality of transparent panes radially disposed about the light producing element, a cover for excluding rain disposed above said panes and said light producing element, and a cremator body having an upper neck extension, which enters, but is spaced from, the lower end of the hopper.



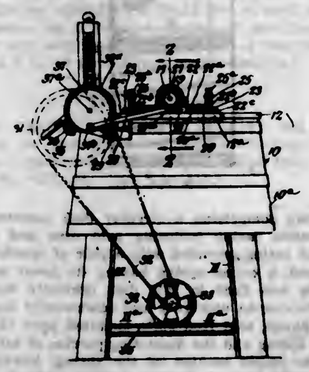
1,037,689. FOLDABLE RULE. CHARLES WAGNER-ANDER, Pittsburgh, Pa., assignor of one-half to Edward Wagner-Ander, Pittsburgh, Pa. Filed Aug. 26, 1911. Serial No. 645,128. (Cl. 73—49.)



A rule comprising a plurality of foldable sections, a pair of plates secured to each of the opposing ends of said sections, a hinge member interposed between and secured to one of said pair of plates and consisting of a body portion and an extension, the outer end of said body portion cut away to provide a pocket, the inner side of said extension being flat and forming a continuation of one wall of said pocket, the flat inner side of said extension positioned approximately centrally of said body portion, the outer side of said extension being flat, a circular extension projecting from each of the other plates of said pair and between which projects the first mentioned extension, means for pivotally connecting said extensions together, a filler block mounted between the plates provided with the extensions and formed with a rectangular opening constituting a continuation of said pocket, a pair of pins arranged at one end of said pocket, and a flat spring having one end anchored between said pins and extending the substantial length of the pocket, said spring engaging the extension of said body portion for maintaining the latter from movement.

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1,037,690. GEARING. ADOLPH WAHLS, Davenport, Iowa, assignor to Davenport Washing Machine Company, Davenport, Iowa, a Corporation of Iowa. Filed June 3, 1912. Serial No. 701,440. (Cl. 74—50.)



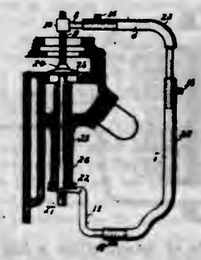
1. In combination with a support, a continuously rotative shaft carried thereby, a member hinged to said support, an operating shaft carried by said hinged member extending parallel to said continuously rotative shaft, a rack-plate carried by said support below the plane of said operating shaft and adapted for longitudinal reciprocation at right angles to said operating shaft, said rack-plate having upright teeth, a gear fixed to said operating shaft and in mesh with said rack-teeth and means for converting the continuous rotative movement of the first-named shaft into the longitudinal reciprocatory movement of said rack-plate.

2. In combination with a support, a continuously rotative shaft carried thereby, a member hinged to said support, an operating shaft carried by said hinged member extending parallel to said continuously rotative shaft, a rack-plate carried by said support below the plane of said operating shaft and adapted for longitudinal reciprocation at right angles to said operating shaft, said rack-plate having upright rack-teeth adjacent its margin near said hinged member, a gear fixed to said operating shaft in mesh with said upright rack-teeth, means for hinging said hinged member to said support with the axis of the hinge located above and back of the vertical plane of said rack-teeth, and means for converting the continuous rotative movement of the first-named shaft into a reciprocatory movement of said operating shaft.

3. In combination with a support, a continuously rotative shaft carried thereby, a member hinged to said support, an operating shaft carried by said hinged member extending parallel to said continuously rotative shaft, a rack-plate carried by said support below the plane of said operating shaft, and adapted for longitudinal reciprocation at right angles to said operating shaft, upper and lower bearing plates carried by said support between which said rack-plate has sliding bearing, the lower plate having an upright flange adapted for engagement with the inner edge of said rack-plate and the upper bearing plate having a depending longitudinal rib engaged within a longitudinal groove in the upper surface of the rack-plate.

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1,037,691. DEVICE FOR FACILITATING THE REMOVAL OF VALVES. BETH WANAMAKER, Ramsey, N. J. Filed Oct. 27, 1911. Serial No. 657,163. (Cl. 29—57.1.)



1. A device for facilitating the removal of valves comprising a frame having a vertical portion and upper and lower laterally extending arms; a slidable member adjustably secured to the upper of said arms and having a vertically extending threaded rod at its free end, the lower end of which rod is adapted to engage a valve to be removed; and a second slidable member adjustably secured to the lower of said arms and the free end of which is bifurcated to fit about the lower end of the stem of the valve.

2. A device for facilitating the removal of valves comprising a frame having a vertical portion and upper and lower laterally extending arms; a slidable member adjustably secured to the upper of said arms and having a vertically extending threaded rod at its free end, the lower end of which rod is adapted to engage a valve to be removed; and a second slidable member adjustably secured to the lower of said arms and the free end of which is offset so as to occupy a position above or below the ends of said lower arm, and bifurcated to fit about the lower end of the stem of the valve.

3. A device for facilitating the removal of valves comprising a frame having a vertical portion made adjustable so as to vary the length thereof, and upper and lower laterally extending arms; a slidable member adjustably secured to the upper of said arms and having a vertically extending threaded rod at its free end, the lower end of which rod is adapted to engage a valve to be removed; and a second slidable member adjustably secured to the lower of said arms and the free end of which is bifurcated to fit about the lower end of the stem of the valve.

4. A device for facilitating the removal of valves comprising a tubular frame having a vertical portion and upper and lower laterally extending arms; a slidable member in telescopic engagement with the upper of said arms and having a vertically extending threaded rod at its

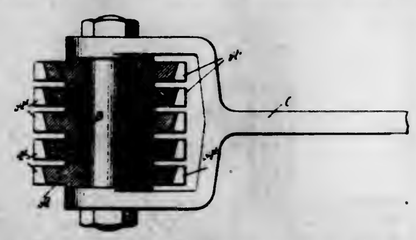
free end, the lower end of which rod is adapted to engage a valve to be removed; and a second slidable member in telescopic engagement with the lower of said arms and the free end of which is bifurcated to fit about the lower end of the stem of the valve.

5. A device for facilitating the removal of valves comprising a tubular frame having a vertical portion and upper and lower laterally extending arms; a slidable member in telescopic engagement with the upper of said arms and having a vertically extending threaded rod at its free end, the lower end of which rod is adapted to engage a valve to be removed, said slidable member having a longitudinally extending groove and said upper arm having a set screw the end of which lies within said groove; and a second slidable member in telescopic engagement with the lower of said arms and the free end is bifurcated to fit about the lower end of the stem of the valve; said second slidable member having a longitudinally extending groove and said lower arm having a set screw the end of which lies within said groove.

[Claim 6 not printed in the Gazette.]

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1,037,692. BUR FOR DRESSING GRINDING-STONES. THOMAS EDWIN WARREN, Ticonderoga, N. Y., assignor to Ticonderoga Machine Works, Ticonderoga, N. Y. Filed Jan. 22, 1912. Serial No. 672,670. (Cl. 125—19.)



1. As an article of manufacture, a bur for burring or dressing the peripheral faces of grinding stones, consisting of a wheel having a peripheral portion of reduced width, provided with spaced teeth forming between them clearances, the bottom of each clearance being inclined for the ready escape of the particles cut off from the peripheral face of the grinding stone.

2. As an article of manufacture, a bur for burring or dressing the peripheral faces of grinding stones, consisting of a wheel having a peripheral portion of reduced width, provided with spaced teeth of a greater depth at one side of the wheel than on the other side to form clearances between adjacent teeth, each clearance having an inclined bottom extending from one face of the wheel to the other face thereof to permit the escape of the particles removed by the teeth of the wheel from the peripheral face of the grinding stone.

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1,037,693. VETERINARIAN'S CASTRATING-KNIFE. EDWARD L. WATSON, Dallas, S. D. Filed Mar. 3, 1911. Serial No. 612,170. (Cl. 128—27.)

1. A veterinary surgical instrument comprising a hook-shaped handle and a concavo-convex knife blade formed integrally therewith and so positioned upon the handle that the heel of the blade projects in front of the handle at an angle of about 45 degrees and the point of the blade extends back of the handle at an angle of about 225 degrees, with the handle positioned under approximately the center of the blade and so disposed that the hook portion of the handle provides a brace for the little finger and coacts with the concave back of the knife blade as a brace for the thumb, whereby the knife may be grasped and rotatively operated in the manner hereinbefore specified.

2. A veterinary surgical instrument comprising a handle, a knife blade having a sharpened convex edge and a dulled concave back, the said knife blade being positioned upon the handle angularly so that heel of the blade projects in front of and the point of the blade extends back of the handle with the handle under approximately the center of the blade, and a loop on the handle, so



disposed as to provide a brace for the little finger and to coact with the concave back of the knife blade as a brace for the thumb, whereby the knife may be securely and conveniently grasped, substantially as described for the purposes specified.

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1,037,694. FEED-BAG. STANISLAW WAWRZENIECKI, Elizabeth, Pa. Filed Apr. 20, 1911. Serial No. 622,224. (Cl. 119—65.)



A feed bag comprising a circular disk constituting a base, a flexible casing inclosing said disk and secured thereto, said casing provided with a pair of openings near its upper end, a coiled spring having its lower end bent at an angle and fixed in said disk centrally thereof, a feed plate having an upwardly and downwardly depending peripheral flange, said feed plate mounted upon the upper end of said spring and the depending portion of said flange inclosing the upper portion of the spring, inwardly extending conical shaped flexible nozzles secured to said casing and communicating with said openings, and compressible springs mounted in said nozzles and yieldingly maintaining them extended.

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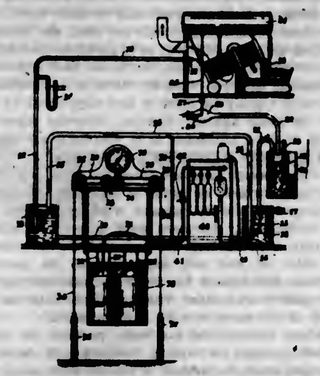
1,037,695. MEANS FOR COLLECTING AVERAGE SAMPLES OF GAS. HENRY J. WHITCOMB, New York, N. Y. Filed Sept. 18, 1911. Serial No. 649,203. (Cl. 23—3.)

1. Means for obtaining an average sample of gas from a furnace comprising in combination an automatic collector, an introductory container connected with the furnace and with said collector, and means for producing a dominant pressure-difference in said introductory container, substantially as described.

2. Means for obtaining an average sample of gases from a furnace comprising in combination an automatic collector, an introductory container connected with the furnace and with said collector, and means for creating a



string current of gases from the furnace through said container, substantially as described.



3. Means for obtaining an average sample of gases from a furnace comprising in combination an automatic collector, an introductory container connected at a point between its ends with said collector, a connection between the furnace and one end of said container, and a steam ejector connected with the opposite end of said container, substantially as described.

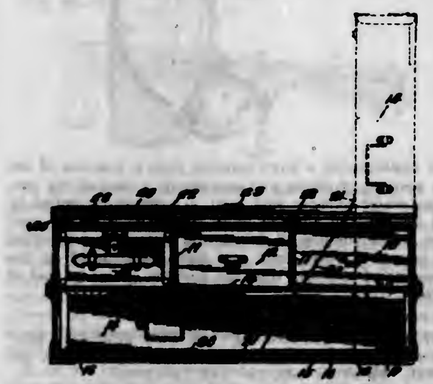
4. In means for obtaining an average sample of gases and in combination with a furnace, an automatic collector, an introductory container connected with said furnace and said collector, means for creating a dominant pressure-difference within said container and a gas analyzing apparatus connected with said collector, substantially as described.

5. In means for obtaining an average sample of gases, an introductory container, a liquid seal at each end thereof and means for drawing a current of gas through said container and said seals, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

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1,037,696. TRUNK. GEORGE H. WEBBER, Racine, Wis., assignor to The Hartmann Trunk Company, Racine, Wis., a Corporation of Wisconsin. Filed Oct. 27, 1911. Serial No. 657,165. (Cl. 190—13.)



1. In a wardrobe trunk, the combination of the trunk body having a longitudinal space therein, a front door or lid hinged at its lower edge to the trunk body and opening downwardly, a wardrobe section within the longitudinal space of the trunk, and having a hinged and slidable connection with the front lid of the trunk, said wardrobe section, when the front lid is turned downwardly, adapted to be pulled outwardly horizontally through the front opening of the trunk to clear the interior of the trunk, and onto the down-turned front lid, and to be swung upwardly on the hinged connection to a vertical position adjacent to the front side of the trunk, with its end resting upon and supported by the front lid.

2. In a wardrobe trunk, the combination of the trunk body having a longitudinal space therein, a front door or lid hinged at its lower edge to the trunk body and opening downwardly, a wardrobe section within the longitudinal space of the trunk, and a hinged slidable connection between the bottom of the wardrobe section and the inner side of the hinged lid or cover, the parts being so arranged and constructed that when the hinged lid or cover is turned downwardly, said wardrobe section can be pulled outwardly horizontally through the front opening of the trunk to clear the interior of the trunk, and onto the down-turned front lid, and to be swung upwardly on the hinged connection to a vertical position adjacent to the front side of the trunk, with its end resting upon and supported by the front lid.

3. In a wardrobe trunk, the combination of the trunk body having a longitudinal space therein, a front door or lid hinged at its lower edge to the trunk body and opening downwardly, and a wardrobe section within the longitudinal space of the trunk, and having a releasable hinged and slidable connection with the front lid of the trunk, the parts being so arranged and constructed that when the hinged lid or cover is turned downwardly, said wardrobe section can be pulled outwardly horizontally through the front opening of the trunk and onto the down-turned front lid of the trunk and to be swung upwardly on the hinged connection to a vertical position adjacent to the front side of said trunk, with its end resting upon and supported by the front lid.

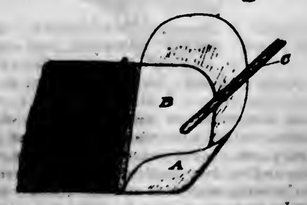
4. In a wardrobe trunk, the combination of the trunk body having a longitudinal space therein, a front door or lid hinged at its lower edge to the trunk body and opening downwardly, said lid provided on its inner face with a loop, and a wardrobe section within the longitudinal space of the trunk, and provided on its under side with a hook adapted to engage the loop of the trunk lid, said wardrobe section, when the front lid is turned downwardly, adapted to be pulled outwardly to clear the interior of the trunk, and to be swung upwardly to a vertical position on the hinged connection formed by the coöperation of the hook and loop.

5. In a wardrobe trunk, the combination of the trunk body having a longitudinal space therein, a front door or lid hinged at its lower edge to the trunk body and opening downwardly, an open top wardrobe section within the longitudinal space of the trunk and adapted, when the trunk lid is turned downwardly, to be pulled outwardly on said trunk lid, and to be turned to a vertical position thereon, with its open top facing in a direction away from the trunk, and a brace strap hinged at one end to the inner side of the hinged lid or cover, and having its free end adapted to engage a catch on the back side of the wardrobe section.

[Claims 6 to 9 not printed in the Gazette.]

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1,037,697. BRUSH. JOSEPH P. WHEELEY, Everett, Wash. Filed Oct. 30, 1911. Serial No. 657,485. (Cl. 15—36.)



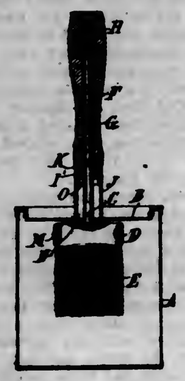
1. In a brush for applying liquids to surfaces, the combination with the bristle part, of a carrying reservoir of a

scoop-like character having the head of the brush for its bottom, and side walls firmly secured to said head.

2. A brush having a wall extending upwardly from the side and back edges of its head to constitute a liquid container and carrier.

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1,037,698. PAINT-BRUSH. HARRY B. WILLIAMS, Saranac Lake, N. Y. Filed May 27, 1911. Serial No. 629,873. (Cl. 91—67.2.)



1. A brush adapted for use with a can cover, comprising a handle, a head, and an intermediate section, said handle and head having connecting means for uniting them, said parts adapted to admit such cover between either said head or handle and said intermediate section, whereby the brush may be connected to the can cover at a plurality of levels.

2. A brush adapted for use with a can cover, comprising a handle, a head, and an intermediate sleeve, said parts adapted to receive such can cover between the head and sleeve or the sleeve and handle, and a rod for connecting said handle, sleeve and head together.

3. A brush adapted for use with a can cover having a hole punched through it, said brush comprising a handle, a head and an intermediate sleeve, said parts adapted to receive such can cover between the head and sleeve or the sleeve and handle, one of said parts having a recess adapted to receive a bur upon such can cover where such hole is made, and a rod for connecting said handle, sleeve and head together.

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1,037,699. WHEEL. JOHN F. WILMOT, Detroit, Mich. Filed Feb. 4, 1909. Serial No. 475,986. (Cl. 152—39.)



1. A wheel comprising an inner portion, an outer portion, and coiled springs with their turns normally in contact with each other rigidly secured at one end to said inner portion and at their opposite ends to the outer portion, said coils being supported at their annular end faces by said portions.

2. A wheel comprising inner and outer portions having overlapping parts provided with opposed faces forming spring seats, coiled springs extending horizontally between said overlapping parts and having their end coils seated upon said seats, and means for rigidly securing the ends of the springs to hold the end coils to their seats.

3. A wheel comprising a hub portion, an outer portion surrounding the hub portion, said portions having opposed parallel vertically extending surfaces, and spillcut members extending between said surfaces in a horizontal position and each rigidly secured to and supported by said surfaces at its ends against flexure, whereby upon relative movement of said portions, said members are given a reverse curve flexure intermediate their ends.

4. A wheel comprising an inner portion, an outer portion, springs formed of coils of uniform diameter, said coils arranged to lie in contact with each other and extending horizontally between said wheel portions, means for securing said springs at one end to the inner wheel portion with the end coil supported at its periphery by said portion, and means for securing said springs at their opposite ends to the outer wheel portion with the end coil supported at its periphery by said portion.

5. A wheel comprising an inner portion, an outer portion coiled springs extending horizontally between said portions and each formed of a coiled wire with the ends of the wire extended laterally from and outside of the end turns of the coil and bent into a loop, and means engaging said loops to rigidly secure the same against the portions.

[Claims 6 to 10 not printed in the Gazette.]

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1,037,709. SANITARY CUSPIDOR AND THE LIKE. BURTON "J" WILSON and WILLIAM B. COUSON, Santa Cruz, Cal. Filed May 7, 1912. Serial No. 696,615. (Cl. 4—60.)



In combination, a bowl movable from a position of use to a position of disuse and conversely, a conduit for conveying water to wash said bowl, a receptacle supplied by said conduit and adapted to be connected with the bowl when in the position of disuse, and means for permitting the escape of water from said conduit, actuated by the movement of the bowl from the position of use to that of disuse.

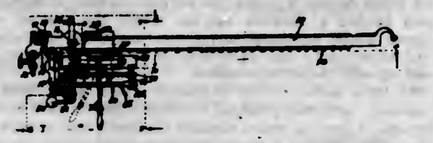
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1,037,701. RECORDING DEVICE FOR SCALES. MARLOW E. WINSLOW, Terre Haute, Ind. Filed Feb. 20, 1911. Serial No. 609,772. (Cl. 73—100.)

1. A weighing scale including a main scale beam, a poise for said scale beam adapted to hold a recording card provided with suitable graduations, a marker movable toward and away from said card and also in a plane parallel with said card for indicating the weight on the card, and means secured to the main scale beam for moving said marker in a plane parallel with said card as the poise is moved along the scale beam.



2. A weighing scale including a main scale beam, a poise for said scale beam adapted to hold a recording card provided with suitable graduations adapted to be placed in said poise, a plate movable toward and from said card and provided with a slot, a marker operable through said slot for indicating the weight on the card, and means secured to the main scale beam for moving said marker along the slot in said plate as the poise is moved along the scale beam.



3. A weighing scale including a main scale beam, a poise for said scale beam adapted to hold a recording card provided with suitable graduations, a marker for indicating the weight on the card, and a guide secured on the underside of the main scale beam and at an angle therewith for causing the movement of the marker with reference to the card.

4. A weighing scale including a main scale beam, a poise slidable thereon and adapted to hold a card provided with graduations, a marker movable toward and away from said card and also in a plane parallel with said card, a block for causing the movement of the marker, a pair of rollers on said block, and a guide bar secured on the underside of the main scale beam and extending between said rollers so as to move the block and marker as the poise is moved along the scale beam.

5. A weighing scale including a main scale beam, a poise slidable thereon adapted to hold a card provided with suitable graduations, a plate movable toward and away from said card and provided with a slot, a marker projecting through said slot, a block movable on said plate and to which said marker is attached, a pair of rollers on said block, and a guide bar secured to the underside of the main scale beam and extending between said rollers so as to move the block and marker as the poise is moved along the scale beam.

[Claims 6 to 9 not printed in the Gazette.]

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1,037,702. DRAWER-SUPPORT. STEPHEN M. WIRTH, Detroit, Mich. Filed Dec. 1, 1911. Serial No. 663,271. (Cl. 45—77.)



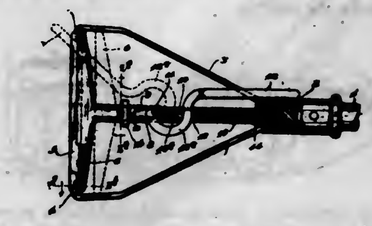
1. In an article of furniture, the combination of two oppositely disposed side rails, each having two parallel L-shaped grooves therein, with a supporting bar comprising a flat body portion disposed between said side rails, and having at one end on one side two L-shaped projections located in the grooves in one side rail, and at the other end and on the other side similar projections located in the grooves in the other side rail, said projections extending along the edges of the flat body portion to points near the middle of the bar, substantially as described.

2. In an article of furniture, the combination of two oppositely disposed side rails, each having two parallel L-shaped grooves therein, with a supporting bar comprising a flat body portion disposed between said side rails, and having at one end on one side two L-shaped projections located in the grooves in one side rail, and at the other end and on the other side similar projections located in the grooves in the other side rail, said projections extending along the edges of the flat body portion to points near the middle of the bar, and stops on said side rails adapted to engage the ends of two of said projections for the purpose of limiting the outward movement of the bar, substantially as described.



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1,037,703. MOP-HOLDER. FERDINAND R. WOLFER, Minneapolis, Minn. Filed Sept. 27, 1911. Serial No. 651,479. (Cl. 15—56.)



1. A mop-head comprising a member having diverging prongs, a clamping bar having detachable engagement with the said prongs, a relatively movable clamping bar, and means for pressing the latter toward the said detachable clamping bar.

2. A mop-head comprising a member having projecting prongs, a clamping bar detachably engageable with the offset ends of said prongs, a relatively movable clamping bar, and means for pressing the latter toward the said detachable clamping bar.

3. In a mop-head, the combination with a member having diverging prongs and a central guide tube, of a pair of cooperating clamping bars, one removably connected to said prongs and the other slidably mounted on said guide tube, a cam lever slidably pivoted to said guide tube and operative on one of the said clamping bars, and a yielding abutment against which the said cam lever is arranged to act, substantially as described.

4. In a mop-head, the combination with a member having diverging prongs and a central guide tube projecting therefrom, said tube having diametrically opposite longitudinal slots, of a clamping bar detachably engaged with the ends of said prongs, a cooperating movable clamping bar having a stem working in said guide tube, and a lever having a head slidably pivoted in said guide tube and bearing against the stem of said movable clamping bar, and the said lever having a cam portion working through the slots of said guide tube and operative on said yielding abutment.

5. In a mop, the combination with a member having diverging prongs and a central guide tube projecting therefrom, said prongs having inwardly bent hook-like ends, and said guide tube having diametrically opposite longitudinally extended slots, of a channel-shaped clamping bar engageable at its ends with inwardly turned ends of said prongs, a relatively movable clamping bar having a stem working in said guide tube and having ribs working in the slots thereof, and a spring-pressed cam lever working in the slots of said guide tube and operative on the stem of said relatively movable clamping bar, substantially as described.

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1,037,704. AEROPLANE. SAMUEL S. YARRINGTON, Wilmington, Del. Filed Nov. 4, 1911. Serial No. 656,495. (Cl. 244—29.)

1. In an aeroplane, a main sustaining plane, an elevating plane, a pair of rudders, a pair of ailerons, a pair of hydroplanes, a pair of main levers, each lever having an auxiliary lever pivotally secured thereto, means connected with one of said main levers for operating the elevating plane, means connected with one of said auxiliary levers for raising and lowering said hydroplanes, means connected with the other of said main levers for operating the ailerons, and means connected with the other auxiliary lever for operating the rudders.

2. In an aeroplane, a main sustaining plane, an elevating plane, a pair of rudders, a pair of ailerons, a pair of hydroplanes, a pair of main levers, each lever having an auxiliary lever pivotally secured thereto, means connected with one of said main levers for operating the elevating plane, means connected with one of said auxiliary levers for raising and lowering said hydroplanes and for locking the hydroplanes in their shifted position, means connected with the other of said main levers for operating the ailerons, and means connected with the other auxiliary lever for operating the rudders.



3. In an aeroplane, a main sustaining plane, an elevating plane, a pair of rudders, a pair of ailerons, a pair of hydroplanes, a pair of main levers, each lever having an auxiliary lever pivotally secured thereto, means connected with one of said main levers for operating the elevating plane, means connected with one of said auxiliary levers for raising and lowering said hydroplanes and for locking the hydroplanes in their shifted position, means connected with the other of said main levers for operating the ailerons simultaneously in opposite directions and to the same extent, and means connected with the other auxiliary lever for operating the rudders.

4. In an aeroplane, a main sustaining plane, an elevating plane, a pair of rudders, a pair of ailerons, a pair of hydroplanes, a pair of main levers, each lever having an auxiliary lever pivotally secured thereto, means connected with one of said main levers for operating the elevating plane, means connected with one of said auxiliary levers for raising and lowering said hydroplanes and for locking the hydroplanes in their shifted position, means connected with the other of said main levers for operating the ailerons simultaneously in opposite directions and to the same extent, and means connected with the other auxiliary lever for operating the rudders simultaneously in the same direction to the same extent.

5. In an aeroplane, a frame, an elevating plane pivotally secured to said frame, an aileron pivotally secured to said frame at each end of said elevating plane, said ailerons extending rearwardly past said elevating plane, and means for simultaneously moving the rear ends of the ailerons in opposite directions and to the same extent.

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1,037,705. CLOCK. ABRAHAM M. YEAKEL, Perkasie, Pa., assignor of one-half to Wilson L. Yeakel, Perkasie, Pa. Filed Mar. 23, 1912. Serial No. 685,705. (Cl. 58—53.)



1. In a clock mechanism, the combination of a main drive gear, a sleeve carrying said gear and having a slot therein, a main spring suitably connected with said sleeve, an arbor, means carried by said arbor for seating in said slot, and auxiliary means for connecting said sleeve and arbor.

2. In a clock mechanism, the combination of a main drive gear, a sleeve carrying said gear and having a slot therein, a main spring suitably connected with said sleeve, an arbor having a projection adapted to seat in said slot, auxiliary means for connecting said sleeve and arbor, and a recess in said arbor for receiving the end of said connecting means.

3. In a clock mechanism, a main drive gear, a sleeve carrying said gear and having a slot therein, a main spring suitably connected with said sleeve, an arbor having a projection adapted to seat in said slot, a shoulder on said arbor against which the end of said sleeve abuts, and auxiliary means for connecting said sleeve and arbor.

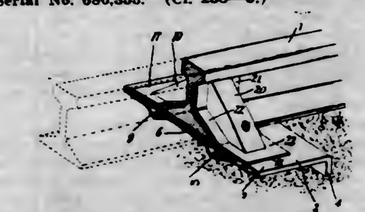
4. In a clock mechanism, the combination of a main drive gear, a sleeve carrying said gear and having a slot therein, a main spring suitably connected with said sleeve, an arbor having a projection adapted to seat in said slot and having a shoulder against which the end of said sleeve abuts, auxiliary means for connecting said sleeve and arbor, and a seat in said arbor adapted to receive the end of said connecting means.

5. In a device of the character stated, a plurality of rotatably mounted spindles, a driven wheel carried by one spindle, a driving wheel meshing therewith and carried by the other spindle, a sleeve fixedly secured to one of said wheels and movably mounted on said wheel spindle, an interlocking connection between said sleeve and spindle and auxiliary means to secure said sleeve in adjusted position.

[Claim 6 not printed in the Gazette.]

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1,037,706. COMBINED RAIL FASTENER AND TIE. EUGENE YOUNG, Princeton, Ky. Filed Mar. 26, 1912. Serial No. 686,353. (Cl. 238—5.)



1. In a device of the character described, a tie structure formed with a central upper portion, a depending pair of side webs adapted to extend into the road bed, and a plate arranged near each end between said webs formed with depending portions having apertures therein, a bracing member arranged on each side of a rail positioned on said tie, and bolts projecting through apertures in said depending member and through said bracing members for clamping the bracing members against said rail.

2. In a device of the character described, a tie formed with a pair of spaced apertures near each end, said tie being adapted to receive a rail between said apertures, a pair of bracing blocks formed with an inclined surface designed to press against the upper surface of the base of the rail and with a bracing nose adapted to press against the under surface of the ball of the rail, said bracing blocks being arranged in the same transverse plane, a retaining clamping member extending substantially at right angles to the general direction of the bracing blocks for clamping the same in place whereby the same are caused to press against the upper surface of the base of the rail and the under surface of the ball of the rail, and an independent retaining plate secured to said tie, said independent retaining plate being formed with depressed portions having one surface arranged at substantially a right angle to the general direction of said clamping means, said clamping means passing through said last mentioned inclined portions.

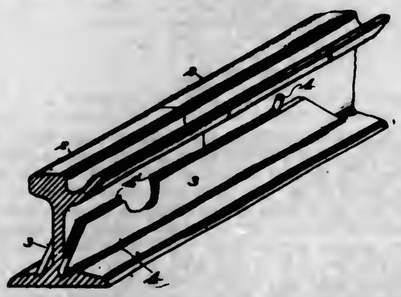
3. In a device of the character described, the combination with rail fastening means including a pair of retaining bolts, of a tie structure substantially U-shaped in cross section, having apertures at each end, and a plate at each end rigidly secured in position, each of said plates being formed with a transversely arranged head having an aperture therein for accommodating said retaining bolts.

4. In a device of the character described, the combination with a tie structure, of rail securing means, said rail securing means comprising a pair of plates, each of said plates being formed with an upstanding member adapted to press against the web of said rail, an inclined member adapted to press against the upper surface of the base of said rail, and a horizontal portion adapted to rest on said tie structure, a pair of bracing blocks adapted to fit said plates for pressing the same against said tie structure and said rail, each of said blocks being formed with an extending upper bearing portion resting against the under surface of the ball of said rail, and securing means extending through said bracing blocks, said plates and said tie structure for clamping all of said members together.



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1,037,707. WELDED RAIL-BOND AND FISH-PLATE. JESSE MORTON YOUNT, San Francisco, Cal. Filed Feb. 15, 1912. Serial No. 677,845. (Cl. 239—4.)



1. A rail joint comprising adjacent substantially alined rail-ends, and a splicing plate overlapping the adjacent rail-ends on one side of the rails, said plate being of less height than the web of the rail and having its ends inclined upwardly and inwardly so that the upper and longitudinal edge of the plate is shorter than the lower longitudinal edge, said plate being connected to the rail-ends by a continuous weld, capable of sustaining all of the load imposed upon the rails.

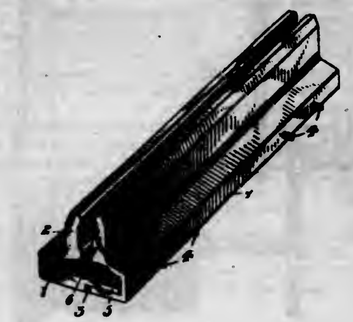
2. A rail joint comprising adjacent substantially alined rail-ends, and a splicing plate overlapping the adjacent rail-ends on one side of the rails, said plate being of less height than the web of the rail and having its ends inclined upwardly and inwardly so that the upper and longitudinal edge of the plate is shorter than the lower longitudinal edge, said plate being connected to the rail-ends by a continuous weld, capable of sustaining all of the load imposed upon the rails, the angle of the ends being sufficient to retain the molten material while the joint is being welded.

3. A rail joint including the contiguous ends of substantially alined rails, a splicing plate overlapping the ends and bearing upon the webs of the rails, said plate being provided with inclined end edges and the plate being of less height than the web of the rails, and a weld extending continuously along the bottom of the plate adjacent its contact with the base of the rail, thence upwardly over each inclined end of the plate and thence along the upper edge of the plate adjacent the contact between the shorter upper edge of the plate and the sides of the webs of the rails.

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1,037,708. RAIL-CHAIR. LUDWIK ZABAWA, Baltimore, Md. Filed Feb. 23, 1912. Serial No. 679,233. (Cl. 239—6.)

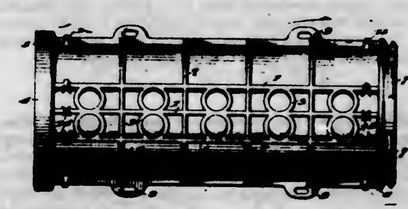
A rail chair for a pair of rails comprising the combination of a base plate of greater width than the width of the bases of the rails, positioned against the lower faces of the bases of the rails and having the outer longitudinal edge thereof provided with an integral splice bar abutting against the heads and webs of said rails, said base plate having the inner longitudinal portion thereof reduced in thickness with respect to the outer longitudinal portion thereof, two sets of spaced screws projecting laterally from the inner longitudinal edge of said base plate adjacent to the ends thereof, a splice bar engaging the heads and webs of said rails, further overlapping the bases of the rails and engaging the inner longitudinal edge of said base plate and formed with a lateral flange extending under and abutting against the lower face of the reduced portion of said base plate, said splice bar formed with openings for the passage



of said screws, the lower face of said flange in alinement with the lower face of the outer longitudinal portion of the base plate, nuts mounted upon the screws for clamping the splice bar in position, and washers interposed between said nuts and said flange.

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1,037,709. CULVERT-PIPE. FRANK B. ZIEG, Fredericktown, Ohio, assignor to The F. B. Zieg Manufacturing Company, Fredericktown, Ohio, a Corporation of Ohio. Filed Apr. 13, 1912. Serial No. 690,673. (Cl. 61—9.)



1. A culvert pipe having raised annular ribs arranged in pairs on the outer surface adapted to strengthen the pipe and protect its main surface, and longitudinally raised ribs merging into and tangential to said annular ribs.

2. A culvert pipe having raised annular ribs arranged in pairs on the outer surface adapted to strengthen the pipe and protect its main surface, longitudinally raised ribs merging into and tangential to said annular ribs, and transverse ribs intersecting the longitudinal ribs at points between the annular ribs.

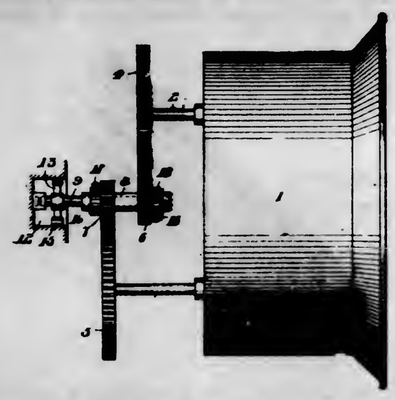
3. A culvert pipe made in sections, the contacting edges of which are in the form of a double flange, and means for securing said sections together, the outer portions of said double flanges having ribs and grooves with inclining surfaces adapted to bring the sections together to a true circle when rigidly secured to each other.

4. The combination with a pipe having a bell at one end and circumferential rib at the other, and lugs slightly removed therefrom, of sectional or split bulk heads constructed and adapted to fit the space between the bell or rib and be secured together around the pipe.

5. A culvert pipe made in longitudinal half-sections, said sections capable of being molded in the same mold and having at their ends uniformly-located lugs extending inwardly and outwardly at opposite ends with spaces therebetween approximately corresponding to the length of the lugs, whereby the end of one pair of sections is adapted to interlock with and by an axial turn be secured to the next adjacent section of culvert.

[Claim 6 not printed in the Gazette.]

**1,037,710. CLOCK-CONTROLLED SWITCH.** THOMAS A. ZIMMERMAN, Swissvale, Pa. Filed May 25, 1912. Serial No. 699,737. (Cl. 161—27.)



1. In a clock controlled switch, the combination with a switch arbor, of ratchet wheels carried thereby, a sleeve loosely mounted upon said switch arbor, gear wheels carried by said sleeve, pawls carried by said gear wheels and engaging said ratchet wheels, and gear wheels actuated by a clock mechanism for ultimately imparting movement to the first mentioned gear wheel and said switch arbor.

2. In a clock controlled switch, the combination with a switch arbor, of ratchet wheels mounted thereon, gear wheels loosely supported by said switch arbor, reversely arranged pawls carried by said gear wheels and engaging said ratchet wheels, and means including a clock mechanism for imparting movement to said gear wheel whereby said ratchet wheels will be ultimately revolved.

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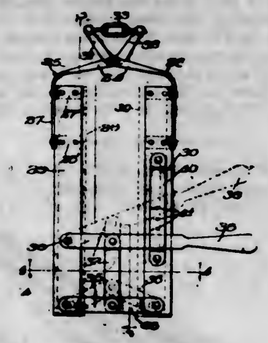
**1,037,711. SAW-SET.** ALFRED AHLDEN, Northport, Wash. Filed Apr. 1, 1912. Serial No. 687,066. (Cl. 76—73.)



1. In a saw set, a main frame comprising a pair of jaws, an anvil mounted in the lower jaw, means for maintaining the anvil in position on said jaw, the upper jaw being provided with an opening above said anvil, a bearing plate disposed above the anvil and freely movable in said opening, a cam lever pivotally mounted in the upper jaw and adapted to engage said bearing plate in said opening to force the plate downwardly toward said anvil, and a swaging hammer pivotally mounted on said frame in such a position as to engage the teeth of a saw when in the proper position.

2. In a saw set, a main frame comprising a pair of jaws, an anvil mounted on the lower jaw and provided with means whereby different degrees of angular inclination may be imparted to a saw lying thereagainst, means for maintaining the anvil in position on said jaw, the upper jaw being provided with an opening above said anvil, a loosely arranged bearing plate disposed above the anvil and freely movable in said opening, means to force the bearing plate downwardly toward said anvil and to clamp a saw in position against said anvil, and a swaging hammer pivotally mounted on said frame in such a position as to engage the teeth of the saw when in the proper position.

**1,037,712. GRAPPLE.** FREDERICK ALBIN ALVERSEN, Birch Lake, Wis. Filed May 27, 1910. Serial No. 563,797. (Cl. 37—8.)



A gripping device comprising a pair of tongs, links connecting the handles of the levers of said tongs, a pair of substantially parallel jaws upon said levers, each of said levers being in the form of a frame having teeth on its lower side, said levers having divergent branches secured to said jaws whereby the latter are supported in approximately parallel arrangement, toggle links connecting the lower and free ends of said jaws, a lever connected with said toggle links, said lever fulcrumed on one of said jaws, and a strap supporting said lever on the other of said jaws for angular movement only.

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**1,037,713. METHOD OF MAKING SILICON ARTICLES.** THOMAS B. ALLEN, Niagara Falls, N. Y., assignor to The Carborundum Company, Niagara Falls, N. Y., a Corporation of Pennsylvania. Filed June 26, 1911. Serial No. 635,500. (Cl. 204—64.)

1. The method of making silicon articles, which consists in adding to molten silicon an element which has a higher formation heat than silicon with the impurities existing in the molten silicon, removing the impurities, and pouring the molten silicon into the desired form, substantially as described.

2. The method of removing impurities from silicon, which consists in adding thereto an element having a combining heat with said impurities higher than the combining heat of silicon, substantially as described.

3. The method of making silicon castings, which consists in adding an element whose oxids has a higher heat of formation than the oxids of silicon and whose nitrid has a higher heat of formation than the nitrid of silicon, removing the reaction products, and pouring the molten silicon into the desired form, substantially as described.

4. The method of making silicon articles, which consists in adding to molten silicon an element whose affinity for oxygen and nitrogen is greater than that of silicon, removing the reaction products, and pouring the molten silicon into the desired form, substantially as described.

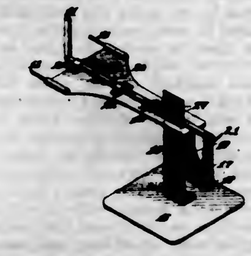
5. The method of making silicon articles, which consists in adding to silicon an element whose oxid has a higher formation heat than oxid of silicon, and an element whose nitrid has a higher formation heat than nitrid of silicon, removing the reaction products, and casting the molten silicon into the desired form, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

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**1,037,714. DEVICE FOR DENOTING EXPANSION OF DOUGH.** GEORGE I. ANDERSON, San Francisco, Cal. Filed Feb. 15, 1911. Serial No. 608,661. (Cl. 116—15.)

1. In a means for denoting the expansion of dough, a dough receptacle, an adjustable bracket extending over the dough in the receptacle, a graduated support for said bracket, a bell crank lever fulcrumed on said bracket, a contact member dependent therefrom, a trip bar attached to said lever, and a pin adapted to be dropped by the operation of said bar and lever when the latter is rocked by the expansion of the dough.



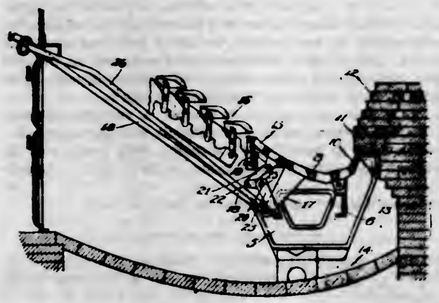
2. In a means for denoting the expansion of dough, a dough receptacle, an adjustable bracket extending over the dough in the receptacle, a graduated support for said bracket, a bell crank lever fulcrumed on said bracket, a contact member dependent therefrom, a trip bar attached to said lever, a pin adapted to be dropped by the operation of said bar and lever when the latter is rocked by the expansion of the dough, and means by which the dropping of said pin will sound an alarm.

3. In a signal device, the combination of a bracket member having a sliding trigger thereon, a bell crank having a fulcrum support on the bracket with one arm pivoted to the trigger, and a presser plate connected with the other arm of the bell crank, said presser plate having a vertical extension guided in the bracket.

4. In a signal device, the combination of a support having one or more rows of vertically arranged perforations, a bracket adapted to be attached to said support in said perforations, a sliding trigger member on the bracket, a presser plate movable toward and from, the bracket, said presser plate having a vertical extension guided in the bracket, and lever connections between the presser plate and trigger whereby the trigger is reciprocated on the rise and fall of the presser plate.

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**1,037,715. FURNACE.** FRANK C. ARMSTEAD, Pittsburgh, Pa., assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 17, 1909. Serial No. 496,659. (Cl. 110—39.)

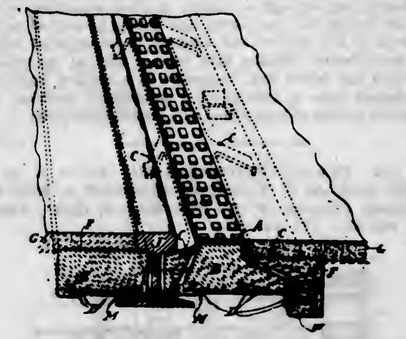


1. A furnace having a bridge wall with an overhanging portion, a series of grate bars forming an inclined grate and terminating in front of the overhanging portion, a dumping grate at the foot of the inclined grate and having a rearwardly extending lip terminating at the angle of intersection of the inner and horizontal faces of the overhanging portion, said dumping grate being pivoted between its front and rear ends whereby the lip on the grate in rear of its pivoted portion will swing above and away from the intersection of the inner and horizontal faces to free the front face of the bridge wall of clinkers and permit them to drop down between the dumping grate and the overhanging portion.

2. A furnace having a bridge wall with an overhanging portion, a series of grate bars forming an inclined grate terminating in front of the overhanging portion, a dumping grate at the foot of the inclined grate and having a rearwardly extending upwardly curved lip terminating at the angle of intersection of the inner and horizontal faces of the overhanging portion, said dumping grate being pivoted between its front and rear ends whereby the lip on the grate in rear of its pivoted portion will swing above and away from the intersection of the inner and horizontal faces to free the front face of the bridge wall of clinkers and permit them to drop down between the dumping grate and the overhanging portion.

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**1,037,716. CURBING FOR RAILROAD-TRACKS RUNNING ALONG OR ACROSS STREETS OR ROADS.** TAGGART ASTON, San Francisco, Cal. Filed Jan. 12, 1911. Serial No. 602,340. (Cl. 104—14.)



1. The combination with a railway, of metal curbings located parallel with and at a distance from the inner sides of the rails to allow the passage of the wheels, said curbing having their side edges provided with downwardly diverging metal projections or arms embedded in the surface between the rails.

2. A street car track including parallel rails, a surface of concrete and asphalt between said rails, narrow metallic curbings fixed parallel to and at a distance inside of the rail heads, sufficient to allow free passage of wheel flanges, and arms projecting from opposite sides of said curbings and adapted to be embedded in the material between the tracks to resist longitudinal and lateral creeping.

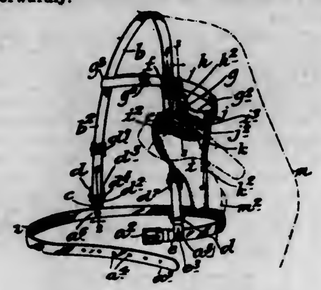
3. A railway track consisting of a concrete bed having projections H at intervals, parallel rails having their flanges supported beneath the concrete bed, narrow metal curbings extending parallel with and separated from inside of the rails and having roughened upper surfaces, arms formed with and projecting downwardly from said curbs into the concrete material in which they are embedded, and a superposed finished coating of asphalt extending between the curbings.

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**1,037,717. PISTOL-HOLSTER CARRIER.** FRANCIS H. AUDLEY, New York, N. Y. Filed July 5, 1910, Serial No. 570,211. Renewed Apr. 18, 1912. Serial No. 690,696. (Cl. 224—3.)

1. In a pistol holster carrier, a suspending strap adapted to be passed over a shoulder of the user and secured at the waist, a tab device detachably connected with said strap at the front and provided with a supplemental transverse strip which is connected therewith and with the suspending strap at the back, and a holster, said tab device and said holdster being provided with devices whereby said holster may be connected with said tab device and suspended in a vertical position and turned into a substantially

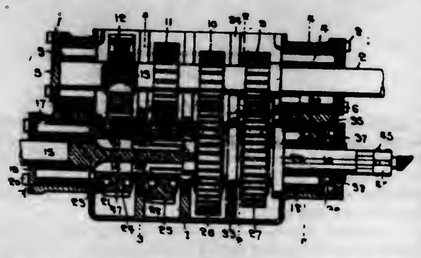
horisontal position in which the handle of the pistol will extend forwardly.



2. In a pistol holster carrier, a suspending strap adapted to be passed over a shoulder of the user and be secured at the waist, a tab device detachably connected with said strap and when the carrier is in use occupying a position just below one arm-pit, a holster, a hook connected with said tab device and an oblong link device connected with the back of the holster and adapted to be engaged with said hook device whereby said holster may be connected with said tab device and suspended in a vertical position and turned into a substantially horisontal position in which the handle of said pistol will extend forwardly.

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1,037,718. TRANSMISSION-GEARING. FRANK A. BABCOCK, Syracuse, N. Y., assignor of one-half to John E. Maloney, Syracuse, N. Y. Filed Sept. 9, 1911. Serial No. 648,450. (Cl. 74—59.)



1. Transmission gearing comprising a shaft, rigid gears on said shaft, a second shaft having a longitudinal groove and positioned parallel with the first shaft, gears loosely mounted upon the second shaft, stationary cones between the gears on the second shaft for spacing said gears in relation to one another, bearing balls carried in channels in opposite edges of the gears and engaged upon the cones, means for adjusting the spacing cones, an intermediary gear in mesh with a gear on the first shaft and the opposite gear on the second shaft, a key movable within the groove of the second shaft for temporarily locking one of the loose gears of the second shaft to the latter, a casing for said parts, bearings within said casing for the loose gears, and bearing rollers around the opposite ends of the shafts.

2. Transmission gearing comprising a shaft, rigid gears of different diameters on said shaft, a second shaft parallel with the first shaft and provided with longitudinal key receiving grooves, bearing rollers positioned around the ends of each shaft and working against sleeves positioned in the casing, gears loosely mounted upon the second shaft, cones for spacing the gears in relation to one another upon the second shaft, means for adjusting the spacing cones longitudinally of the said second shaft, an intermediary gear in mesh with a gear on the first shaft and the opposite gear on the second shaft, movable keys within said key receiving grooves of the second shaft for temporarily locking one of the loose gears to the second shaft, a casing for said parts, said movable keys being connected outwardly of the end of the second shaft and the casing, bearings within said casing for the movable parts, and integral partitions in said casing for supporting said spacing cones.

3. Transmission gearing comprising a shaft, gears spaced from one another and permanently keyed to said shaft, a second shaft parallel with the first shaft, bearing sleeves and rollers carried by the casing and positioned around the ends of the shafts to form bearing means therefor, gears loosely mounted upon the second shaft and in mesh with the gears of the first shaft, said gears being properly spaced from one another, spacing cones between said loosely mounted gears, means bearing on said spacing cones and carried by said loosely mounted gears for reducing friction, said shafts being extended through the casing, the gears upon said shafts being within the casing, the casing having partitions between the gears, said partitions being provided with openings to snugly receive the spacing cones, said spacing cones being snugly received within the openings in said partitions and thus held from contacting with the second shaft around which they are positioned, said second shaft being provided with opposite key ways extending longitudinally thereof, keys within said key ways and movable therein longitudinally of the shaft, means for connecting the outer ends of said keys outwardly of the casing and at the end of the second shaft, said loose keys being provided with locking key ways, said gears being adapted to be engaged at times in the key ways of the loose gears to temporarily lock the latter with the second shaft, and means for moving the keys within the key ways of the second shaft.

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1,037,719. VARNISH. LEO H. BAEKELAND, Yonkers, N. Y., assignor to General Bakelite Company, New York, N. Y., a Corporation of New York. Filed Mar. 14, 1911. Serial No. 614,430. (Cl. 134—26.)

1. As a new composition of matter, a varnish comprising a condensation product of phenols and formaldehyde, transformable by heat into an infusible body and a solvent therefor, said solvent containing a liquid oxygen-compound of the aliphatic series, and a hydrocarbon.

2. As a new composition of matter, a varnish comprising a condensation product of phenols and formaldehyde, transformable by heat into an infusible body and a solvent therefor, said solvent containing a liquid oxygen-compound of the aliphatic series, and a cyclic hydrocarbon.

3. As a new composition of matter, a varnish comprising a condensation product of phenols and formaldehyde, transformable by heat into an infusible body and a solvent therefor, said solvent containing a liquid oxygen-compound of the aliphatic series, and a hydrocarbon of the benzol series.

4. As a new composition of mater, a varnish comprising a condensation product of phenols and formaldehyde, transformable by heat into an infusible body and a solvent therefor containing a liquid oxygen-compound of the aliphatic series and a hydrocarbon, and another organic body soluble in said solvent or miscible therewith.

5. As a new composition of matter, a varnish comprising a condensation product of phenols and formaldehyde, transformable by heat into an infusible body and a solvent therefor, said solvent containing acetone and a hydrocarbon.

[Claims 6 and 7 not printed in the Gazette.]

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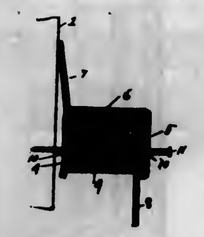
1,037,720. WEATHER-STRIP. JOSEPH BAUMRUK, Chicago, Ill. Filed Nov. 22, 1911. Serial No. 661,800. (Cl. 20—69.)

1. A weather strip holder comprising in one piece two flanges adapted in use to bear against a side of a door or the like, and meeting edge to edge, the holder comprising also a channel alongside one of said flanges, the top and outer side of such channel being of double thickness and continuous at the outer extremity of said side, and each thickness being at its inner edge connected to the meeting edge of a different one of said flanges.

2. A weather-strip comprising in one piece a holder having two flanges standing edge to edge in approximately



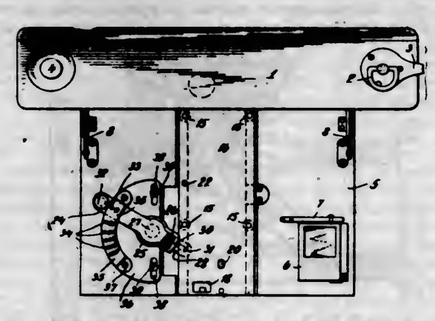
the same plane, the holder comprising also a channel alongside one of said flanges, an elastic strip in said channel at its outer side, and a spacing and bracing strip in the channel between the flange side and the outer side whereby the outer side of the channel is protected against



bending by accidental kicks by users of the door, or in transportation, and whereby the elastic strip when the device is applied to a door is held a distance outside of the outer surface of the door equal to the width of said channel.

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1,037,721. PHOTOGRAPHIC CAMERA. CARL BORNMANN and GEORGE W. TOPLIFF, Binghamton, N. Y., assignors to Ansco Company, Binghamton, N. Y. Filed Dec. 14, 1911. Serial No. 665,761. (Cl. 95—45.)



1. A photographic camera having a movable plate adapted to support and guide the lens frame, a pivoted lever adapted to engage with and when swung upon its pivot to move the movable plate, and an index to determine the degree of movement of the lever.

2. A photographic camera having a movable plate adapted to support and guide the lens frame, a pivoted lever adapted to engage with and when swung upon its pivot to move the movable plate, and an index provided with means whereby the lever may be locked to it at predetermined points.

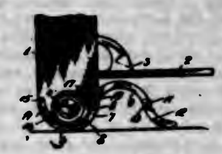
3. A photographic camera having a movable plate adapted to support and guide the lens frame, a pivoted lever adapted to swing in a plane parallel to that of the plate, means on the plate adapted to interlock with means on the lever when the plate is partly projected, and an index to determine the degree of movement of the lever.

4. A photographic camera having a movable plate adapted to support and guide the lens frame, a pivoted lever adapted to swing in a plane parallel to that of the plate, means on the plate adapted to interlock with means on the lever when the plate is partly projected, an index to determine the degree of movement of the lever, and means whereby the lever may be locked to the index.

5. An automatic focusing device for cameras embodying a movable lens supporting and guiding part, a pivoted lever adapted to swing in a plane parallel to that of the plate, means on the lens supporting part adapted to interlock with one end of the lever and an index to determine the position of the lever.

[Claims 6 to 12 not printed in the Gazette.]

1,037,722. PHOTOGRAPHIC CAMERA. CARL BORNMANN, Binghamton, N. Y., assignor to Ansco Company, Binghamton, N. Y. Filed Jan. 12, 1912. Serial No. 670,909. (Cl. 95—86.)



1. In a folding camera, a folding support made to conform to the shape of the edge of the camera and pivoted to the camera body at one edge thereof.

2. In a folding camera, a support formed of a plurality of pieces pivoted together and so shaped as to conform to the shape of the edge of the camera and one of them pivoted to the body of the camera at one edge thereof.

3. In a folding camera, a support pivoted to the body of the camera and so shaped and located that when folded it shall act as a metallic reinforce or edging therefor.

4. In a folding camera, an extendible folding support formed of a plurality of parts pivoted together, one of them being pivoted to the camera body, said parts being so shaped and located that when folded, they shall act as a metallic edging for the lower end of the camera, stops to limit the extension of the said pivoted parts, and means to hold the parts when folded, against the body of the camera

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1,037,723. MUSIC-TURNER FOR PIANOS. JOHN G. BOUTTE, Raceland, La. Filed Aug. 28, 1911. Serial No. 646,332. (Cl. 84—17.)



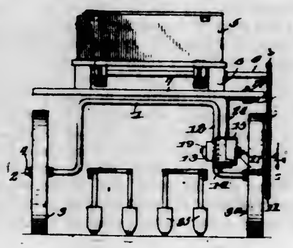
In a music sheet turner, the combination of a main frame provided with flanges, and adapted to hold sheet music in open position, a vertically disposed crank rod rotatably mounted in said flanges centrally of said frame, a plurality of rectangular music sheet receiving frames mounted to rotate on said crank rod between said flanges, a laterally disposed bar secured to rotate with said crank rod above said main frame, a spring finger rigidly fastened intermediate its ends to said bar in proximity to the outer end thereof, the portion of said finger projecting below said bar having its end outwardly curved whereby it may positively engage with and turn said rectangular frames upon the rotation of said crank rod, said spring finger adapted to slip past and engage with said rectangular frames in succession on the return movement thereof, a second spring finger pivotally connected at its upper end to the first-named finger so as to have a vertical revolution, said second finger adapted to coöperate with the first finger to hold one of said rectangular frames for swinging the same to either side of said crank rod, and means for turning said crank rod, substantially as described.

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1,037,724. PLANTER ATTACHMENT FOR CULTIVATORS. JOSEPH P. BRADFORD, Jasper, Mo. Filed Nov. 1, 1911. Serial No. 657,957. (Cl. 111—18.)

1. In combination with the axle and the seed box of a cultivator, of a plate for supporting the box, blocks be-

tween the plate and the box, an operating shaft for the box journaled in the blocks, a driving connection for connecting the said shaft to a wheel on the axle, an angle plate having one arm vertical and the other horizontal, said plate having a longitudinal slot at one end, a bolt passing through the horizontal arm and the slot of the plate, and an adjustable clamping device for the other arm of the angle plate, said device comprising blocks for engaging the opposite sides of the axle, said blocks being grooved on their inner faces, the grooves registering, and means for clamping the blocks together, said means comprising a stirrup consisting of a body and arms, the arms being threaded, nuts engaging the arms, one of said blocks having a vertical threaded opening in its upper end, the adjacent arm of the angle plate being threaded for engaging the opening.



2. In a cultivator, the combination with the seed box and the plate for supporting the same, of an angle plate, an adjustable sliding connection between one arm of the angle plate and one end of the supporting plate, and a clamping device for connecting the other arm of the angle plate to the cultivator, said device comprising blocks for engaging the opposite sides of the cultivator axle, said blocks being grooved on their inner faces and the grooves registering, and means for clamping the blocks together, said means comprising a stirrup consisting of a body and arms, the arms being threaded and nuts engaging the arms.

3. In a cultivator, the combination with the seed box and the plate for supporting the same, of an angle plate, an adjustable sliding connection between one arm of the angle plate and one end of the supporting plate, and a clamping device for connecting the other arm of the angle plate to the cultivator, said device comprising blocks for engaging the opposite sides of the cultivator axle, said blocks being grooved on their inner faces and the grooves registering, and means for clamping the blocks together.

4. In a cultivator, the combination with the seed box and the plate for supporting the same, of an angle plate, an adjustable sliding connection between one arm of the angle plate and one end of the supporting plate, and a clamping device for connecting the other arm of the angle plate to the cultivator, said device comprising blocks for engaging the opposite sides of the cultivator axle, said blocks being grooved on their inner faces and the grooves registering, and means for clamping the blocks together, said means comprising a stirrup consisting of a body and arms, the arms being threaded and nuts engaging the arms, one of said blocks having a vertical threaded opening in its upper end, the adjacent arm of the angle plate being threaded for engaging the opening.

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1,037,725. TANK-HEATER. WARREN H. BRIGHT, Minneapolis, Minn. Filed Feb. 27, 1911. Serial No. 611,035. (Cl. 122—18.)

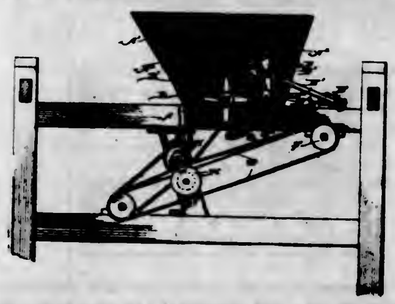
The combination with a water tank, of a boiler located below the same, a tube extending from said boiler upward into the said tank and provided with an oblique longitudinal partition dividing the said tube into cold water return and hot water delivery channels, both connecting the said boiler and the said tank for the circulation of the water of the tank therethrough, the said channels be-



ing increased in cross-section and conducting capacity in the direction of the flow of the water therethrough.

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1,037,726. CIDER-MILL. ROBERT W. BROOKS, Louisville, Ky., assignor to Rhoda A. Wendling, Maros, Ill. Filed Feb. 5, 1907. Serial No. 355,893. (Cl. 146—9.)



1. A device of the kind described comprising a hopper divided into upper and lower compartments, a grinding cylinder arranged in the lower compartment and receiving material upon one side only from the upper compartment, a fixed toothed concave inclosing a portion of the said side of the cylinder, concaved feed blocks rocking on the upper edge of the fixed concave, and means for rocking said block in opposite directions with respect to each other.

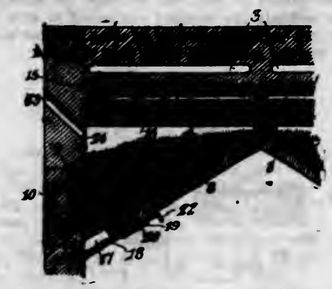
2. The combination with a grinding cylinder, a fixed concave inclosing the lower portion of one side of said cylinder, the upper edge of the concave being flanged, a pivot pin parallel to said flange, feed blocks mounted to rock on said pins, and beveled to form a knife edge resting on the flange, and means for rocking said feed blocks.

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1,037,727. TRAP ATTACHMENT FOR FLY-SCREENS. SAWYER D. CLARK, Boulder, Colo. Filed Mar. 25, 1911. Serial No. 616,930. (Cl. 43—22.)

1. A fly trap comprising a screen composed of a screen frame and screen material covering the space inclosed by the frame, said screen frame being provided at the top beyond the said screen material with a transverse entrance slot, a trap frame including top and side bars secured to the top and sides of the screen frame and inclosing the transverse slot, and bottom bars extending across the space between the sides of the screen frame and secured to the same and fitting against the said screen material, which constitutes the front or outer wall of the trap, screen material secured to the trap frame and covering the space inclosed by the same and the upper portion of the screen frame and constituting the rear or inner wall of the trap.



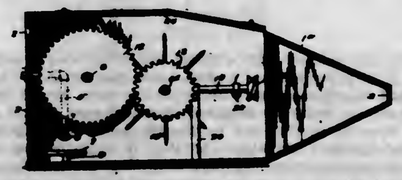


2. A fly trap comprising a screen composed of a screen frame and screen material covering the space inclosed by the frame, said screen frame being provided at the top beyond the said screen material with spaced horizontal entrance slots, a trap frame including top and side bars secured to the top and sides of the screen frame and inclosing the horisontal slots, and oppositely inclined bottom bars extending across the space between the sides of the screen frame and fitting against the said screen material, the upper ends of the bottom bars forming an apex and the lower ends being secured to the sides of the screen frame, said bottom bars coöperating with the sides of the screen frame to form opposite downwardly tapered pockets and having outlets at the bottom portions of the pockets.

3. A fly trap comprising a screen composed of a screen frame and screen material covering the space inclosed by the frame, said screen frame being provided at the top beyond the said screen material with spaced horizontal entrance slots, a trap frame including top and side bars secured to the top and sides of the screen frame and inclosing the horisontal slots, oppositely inclined bottom bars extending across the space between the sides of the screen frame and fitting against the said screen material, the upper ends of the bottom bars forming an apex and the lower ends being secured to the sides of the screen frame, said bottom bars coöperating with the sides of the screen frame to form opposite downwardly tapered pockets, and a central vertical division piece extending from the upper ends of the inclined bottom bars to the top bars of the screen frame and the trap frame and dividing the trap into two separate compartments, guard flanges located at opposite sides of the division piece and depending from the top bar of the screen frame, and guards located below and spaced from the guard flanges and extending from the division piece to the side bars of the said frame.

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1,037,728. COLD-AIR MACHINE. JOSEPH CLONTZ and ALFRED BRETZ, Youngstown, Ohio. Filed Apr. 30, 1912. Serial No. 694,162. (Cl. 98—40.)



1. A machine of the class described comprising a casing having an air inlet at one end and a discharging opening at its opposite end for the moistened and cooled air, a water-spray producing device arranged within the casing, rotary beaters arranged within the casing in advance of the said water-spray producing device, a circulation-producing fan arranged beyond the beaters, and common driving means for the beaters and the said fan.

2. A cold air machine including a casing through which air is adapted to pass, water spraying means at the rear end of the casing, a transverse drive shaft extending across the casing and having one end thereof projecting through the casing, a drive wheel upon the projecting end of the shaft; a second transverse shaft extending across the casing and geared to the drive shaft, a pair of rotary beaters upon opposite ends of the second shaft, a longitudinal shaft arranged in the casing and geared to the second shaft, and a circulation producing fan upon the longitudinal shaft.

3. A cold air machine including a casing through which air is adapted to pass, an inverted water spraying nozzle arranged within the rear end of the casing, a stationary plate under the water spraying nozzle for breaking up the sprayed water into a mist, a transverse drive shaft extending across the casing, means for turning the drive shaft, a second transverse shaft extending across the casing and geared to the drive shaft, a pair of rotary beaters on opposite ends of the second transverse shaft, a longitudinal shaft having one end thereof geared to the second transverse shaft between the rotary beaters, and a circulation producing fan upon the longitudinal shaft.

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1,037,729. SPRING. ROBERT J. COLLINS, Sioux City, Iowa. Filed Aug. 26, 1911. Serial No. 646,200. (Cl. 74—68.)



A spring comprising four resilient members having a plurality of horisontally-arranged loops, two of said members being arranged in parallel planes and having their loops arranged in staggered relation, the other two members being arranged in parallel planes and having their loops in staggered relation and interwoven in opposite directions with and at right angles to the plane of, the two first-mentioned members.

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1,037,730. ROAD-VEHICLE SUSPENSION ARRANGEMENT. LEONARD EUGENE COWEY, Kew Gardens, England. Filed Feb. 6, 1909. Serial No. 476,551. (Cl. 21—50.)



1. In a vehicle fluid pressure suspension arrangement, a pressure cylinder, a load supporting piston within the cylinder, valves controlling the pressure fluid, a liquid dash pot member adapted to operate the said valves and a spring connection between the dash pot member and the piston, adapted to transmit movements of the piston to the dash pot.

2. In a vehicle fluid pressure suspension arrangement, a pressure cylinder, a load supporting piston within the cylinder, an inlet and an outlet valve for the pressure fluid, a liquid dash pot member, connections from the dash pot member to each valve, adapted to operate them by contrary movements of the said member, and a spring connection between the dash pot member and the piston.

3. In a road vehicle suspension arrangement, the combination with load supporting pistons and cylinders, of

pressure chambers arranged in open communication with the cylinders, a main storage chamber, means for supplying the same with fluid under pressure, inertia devices arranged in yielding connection with the load supporting pistons, inlet and outlet valves actuated by movement of the inertia devices, and passages connecting the said valves with the main storage chamber.

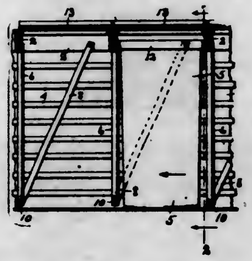
4. In a road vehicle suspension arrangement of the piston and cylinder type, the combination with a load supporting piston and cylinder, of a pressure chamber arranged in open communication with the latter, a dash pot member resiliently connected to the load supporting piston, an inlet valve actuated by movement of the dash pot member in one direction, and an outlet valve actuated by movement of the dash pot member in the other direction.

5. In a vehicle suspension apparatus employing combined liquid and elastic fluid pressure, a pressure cylinder, a chamber inclosing the upper end of the cylinder and adapted to provide a liquid overflow from the cylinder, a load supporting piston, an inlet valve at the upper end of the said cylinder, an outlet valve at the bottom of the overflow chamber adapted to discharge overflow liquid and gaseous fluid, and an inertia device resiliently connected to the piston and adapted to operate both the said valves by opposite movements.

[Claims 6 and 7 not printed in the Gazette.]

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1,037,731. CAN GUIDE AND SUPPORT FOR ICE-TANKS. ANTHONY F. CRAMER, Detroit, Mich. Filed Aug. 29, 1910. Serial No. 579,529. (Cl. 62—6.)



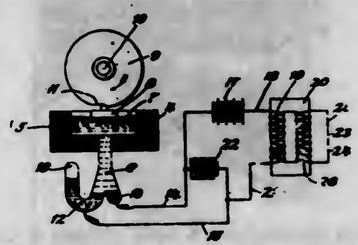
1. In apparatus for making artificial ice, a congealing tank adapted to contain a circulating liquid, a frame-work at the top of said tank forming a compartment for a can, bars connected at their upper ends to said frame-work and depending into said tank, said bars being connected at their lower ends to form a guide and support for said can.

2. Apparatus for making artificial ice, comprising a congealing tank adapted to contain a circulating liquid, refrigerating pipes passing through said liquid arranged in horisontally extending superimposed coils, said tank being provided with a compartment to receive a can disposed between said rows of pipes, a can adapted to be introduced into said compartment, inclined guides interposed between the sides of the can and said pipes, said guides having smooth bearing faces throughout their entire length and means for supporting the can against displacement by the flow of said circulating liquid through the tank.

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1,037,732. NON-VIBRATOR IGNITION APPARATUS FOR INTERNAL-COMBUSTION ENGINES. MARK B. CRIST, Pittsburgh, and MERRITT R. WELLS, Wilkinsburg, Pa., assignors, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Feb. 15, 1906. Serial No. 301,225. (Cl. 123—166.)

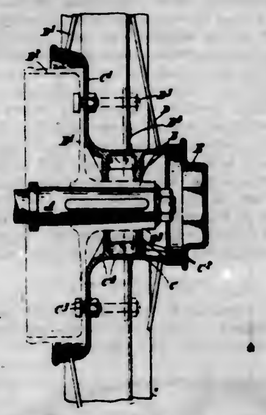
1. In an electric circuit, a circuit breaker comprising a closed chamber containing a fluid nonconductor, a dielectric tube communicating therewith and provided with communicating arms joined to the tube at a common point, a body of mercury contained in each arm and each forming a terminal in said circuit, a body of air between one body of mercury and the end of the arm in which it is contained and adapted to exert pressure on the mercury, a flexible wall for said chamber and means for imparting movement to said wall to cause the fluid nonconductor to oscillate the mercury contained in said tube to cause the two bodies of mercury to come together and separate and thereby make and break said circuit.



2. In an electric circuit, a circuit breaker comprising a closed chamber containing a fluid nonconductor, a tube communicating with said chamber and provided with communicating arms joined to the tube at a common point, a body of mercury maintained in each arm, a body of air between one body of mercury and the end of the arm in which it is contained and adapted to exert pressure upon the mercury, a flexible wall for the chamber whereby the mercury contained in one arm is capable of fluctuating in response to variations of pressure created in said chamber to move into and out of contact to the body of mercury in the other arm to make and break said circuit and means for actuating said flexible walls.

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1,037,733. HUB FOR WIRE WHEELS. SYDNEY ALLEN CURRIN, Bristol, England. Filed Apr. 14, 1911. Serial No. 621,145. (Cl. 21—81.)



The combination with a wheel hub comprising a sleeve and a disk portion, of a detachable hub fitted on said wheel hub and comprising an annular portion spaced from said sleeve, inwardly disposed radial flanges formed on said annular portion and having the inner edges thereof fitting against said sleeve portion; a radially disposed flange portion fitting against said disk portion formed integral with said annular portion and having an annular flange on the periphery thereof; said annular flange and the annular hub portion adapted to have the wheel spokes secured thereto; and means for securing the disk of the detachable hub to the disk of the wheel hub, substantially as described.



1,037,734. AUXILIARY SPADE-HANDLE. THOMAS H. DU HAVEN, Bellingham, Wash. Filed Apr. 15, 1912. Serial No. 690,914. (Cl. 55—116.)



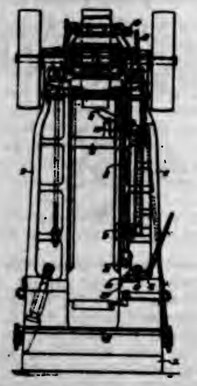
1. An auxiliary shovel operating handle comprising a handle member provided at one end with laterally spaced plates projecting beyond said handle member and provided with means for attaching them to a shovel handle, said plates projecting laterally beyond one side of said handle member and connected at their free end, said free end being adapted to engage the shovel handle when in operative position.

2. A shovel operating device comprising a handle member, plates secured to opposite sides of said handle member and projecting beyond one end thereof, means for connecting said plates at a point beyond said handle end to form an opening for receiving the shovel handle, said plates extending laterally beyond one side of said handle member and connected at their outer ends to form shovel handle engaging means.

3. A shovel operating attachment comprising laterally spaced triangular members connected along one edge and having a handle member inserted between the oppositely disposed edges and secured rigidly thereto, the outer ends of said triangular members projecting beyond the outer end of the handle and having registering apertures therein, a bolt removably secured in said apertures, and means at the outer connected edge of said attachment for engaging the shovel handle.

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1,037,735. SAFETY-LATCH FOR BOARD DROP-HAMMERS. HENRY B. DEMBSWIRE, Chambersburg, Pa., assignor to Chambersburg Engineering Company, Chambersburg, Pa., a Corporation of Pennsylvania. Filed Nov. 1, 1911. Serial No. 657,937. (Cl. 78—29.)



1. The combination in a drop hammer of the hammer, lifting rolls, a bar for controlling the lifting rolls; with a hand operated safety latch mounted to positively retain said bar in its raised position.

2. The combination in a drop hammer of the hammer; lifting rolls; a bar for controlling the lifting rolls; a device for positively retaining said bar in its raised position; and a hand actuated member for operating said device.

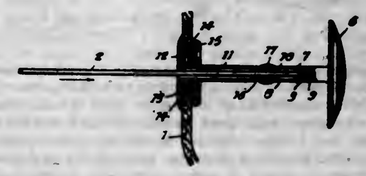
3. The combination in a drop hammer of the hammer; lifting rolls; a bar for controlling the lifting rolls; a latch for retaining said bar in its elevated position; and a lever for operating said latch.

4. The combination in a drop hammer of a frame, a hammer; lifting rolls, a roll controlling bar; a lever pivoted to the frame of the hammer; and a member pivoted to the lever in position to coöperate with said frame to positively hold the bar in its elevated position or to permit movement of said bar.

5. The combination in a drop hammer of a frame having a ledge, hammer lifting rolls; a roll controlling bar; a lever pivoted to said frame and having an abutment on one of its arms; with a latch piece pivoted to said lever arm adjacent said abutment in position to be moved between the roll controlling bar and the ledge on the frame.

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1,037,736. HAT-FASTENER. HENRY DIPPEL, San Francisco, Cal. Filed June 14, 1911. Serial No. 633,001. (Cl. 132—25.)



1. In combination a fastener for a hat, comprising a pin provided at one end with a point, and with an enlargement adjacent to the point, and provided at the other end with a threaded portion, a head having a shank provided at its outer end with a resilient split socket, and with a threaded recess at the bottom of the socket for engagement by the threaded portion of the pin, and a holder for each end of the pin having means for engaging the hat, each holder comprising a sleeve adapted to be passed through the side of the hat and having an annular lateral flange for engaging one face of the hat, the flange having lateral spurs for entering the material of the hat, said sleeve having an enlarged threaded portion adjacent to the flange, a washer threaded onto the said portion for engaging the opposite face of the side of the hat, said sleeve being reduced annularly near its other end, said reduction forming a head on one sleeve for engagement by the socket, and an internal neck on the other for engagement by the enlargement near the point of the pin.

2. In combination a fastener for a hat, comprising a pin provided at one end with a point, and with an enlargement adjacent to the point and provided at the other end with a threaded portion, a head having a shank provided at its outer end with a resilient split socket, and with a threaded recess at the bottom of the socket for engagement by the threaded portion of the pin, and a holder for each end of the pin having means for engaging the hat, each holder comprising a sleeve adapted to be passed through the side of the hat and having means at one end for securing it to the hat, one sleeve being reduced near the opposite end to form a head for engaging the socket, and the other sleeve being reduced near the opposite end to form a neck for engaging the enlargement near the point.

3. A hat fastener, comprising a holder or fastener for each side of the hat, each holder comprising a sleeve adapted to be passed through the side of the hat, and having means at one end for securing the holder to the hat, each sleeve having a head at the other end and a neck separating the head from the sleeve, and a pin for engaging the sleeves, said pin having a stop near one end for engaging the neck of one sleeve, and a head having a socket for engaging the head of the other fastener, and having means for detachably engaging the pin.

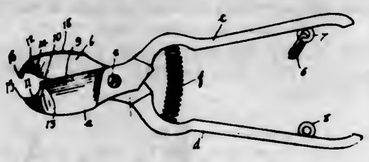
4. A hat fastener, comprising a sleeve for each side of the hat, each sleeve having means for securing it to the hat, a pin adapted to be passed through the sleeves, each sleeve having a head at one end separated from the sleeve by a reduced neck, said pin having a stop for engaging the neck of one sleeve, and a head having means for detachably engaging the opposite end of the pin and the head of the other sleeve.

5. A hat fastener, comprising a sleeve for each side of the hat, each sleeve having means for securing it to the

hat, a pin adapted to be passed through the sleeves, said pin having means at one end for engaging one of the sleeves to prevent movement of the pin toward the other sleeve, and a head engaging the pin outside the other sleeve to prevent movement of the pin in the opposite direction.

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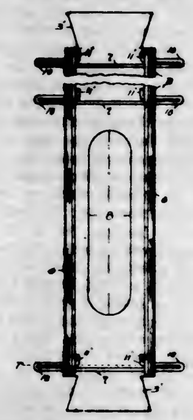
1,037,737. FRUIT-CLIPPERS. FELIX JOHN DOLAN, Riverside, Cal. Filed Mar. 21, 1911. Serial No. 615,966. (Cl. 30—24.)



Improved clippers of the character described, comprising two pivoted members provided with jaws, one of said jaws being provided at one side with an up-standing guard or flange, both jaws having straight cutting edges and one jaw having likewise a curved cutting edge and being provided with a shoulder between the straight and curved cutting edges co-acting with said guard or flange to limit relative movement of the jaws in one direction.

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1,037,738. STUD FOR USE IN BUILDING CONSTRUCTION. DANIEL DOWD, Los Angeles, Cal. Filed Feb. 7, 1911. Serial No. 607,217. (Cl. 72—115.)



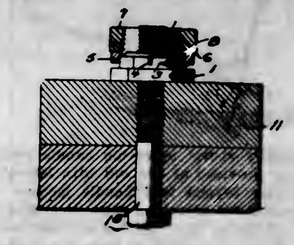
The combination with a metal stud having a straight body and inwardly curved and rounded sides provided with opposite openings, and a lath fastener consisting of a wire having its ends doubled upon itself, said ends projecting through the said openings and the terminals of the wire being bent laterally to form stops on the inner sides of the rounded portions which prevent accidental detachment of the fastener, as shown and described.

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1,037,739. NUT-LOCK. OSCAR DRIGGS, Huntsville, Ala. Filed Aug. 22, 1911. Serial No. 645,336. (Cl. 151—19.)

1. A nut lock embodying a main nut having a clamping portion adapted to engage a bolt, a secondary nut threaded on said portion and provided with teeth on its inner face, and a non-rotatable washer slidably mounted between the nuts and provided with teeth adapted to engage the teeth of the secondary nut and prevent independent rotation of the nuts.

2. A nut lock embodying a main nut provided with a tapered exteriorly threaded split extension adapted to engage a bolt, a secondary nut having undercut teeth on its inner face and mounted on the extension of the main nut, and a non-rotatable washer slidably mounted upon the main nut adjacent to the secondary nut and provided with undercut teeth adapted to engage the teeth of the latter.



3. A nut lock embodying a main nut having a tapered and threaded longitudinally split extension, an internally tapered secondary nut adapted to screw on the extension, and a washer interposed between the two nuts and provided with means co-acting with the main nut to prevent rotation thereof, said washer and the secondary nut being provided with interengaging undercut teeth on their adjacent faces.

4. A nut lock embodying a main nut having a portion adapted to clamp about a bolt, a secondary nut threaded on said portion and provided with undercut teeth, a washer slidably mounted between the nuts and provided with undercut teeth adapted to engage the teeth of the secondary nut, and means provided on the main nut to prevent the independent rotation of the washer thereon.

5. A nut locking device embodying a nut comprising a member for wrench engagement, an angular shoulder abutting against said member, and a tapered externally threaded extension from said shoulder provided with longitudinal slots, a washer provided with ratchet teeth on one side thereof, formed with an opening corresponding in shape to the aforementioned shoulder and designed to fit thereon, being capable of longitudinal movement, and a second nut mounted upon the threaded taper of the first nut and provided with ratchet teeth for engagement with the teeth of the washer.

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1,037,740. CENTER WHEEL FOR WATCHES. WILLIAM W. DUDLEY, Lancaster, Pa., assignor to Hamilton Watch Company, Lancaster, Pa. Filed Apr. 19, 1911. Serial No. 622,070. (Cl. 58—137.)

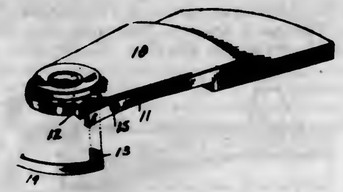


As an improvement in time pieces, the combination of a center wheel having a round central opening with a notch extending outward from the opening and a center arbor passing through said opening having a collar larger than the wheel opening provided with an outwardly extending tooth or lug that enters said notch, the arbor having adjacent said collar a portion fitting the round center opening in the wheel, a pinion on the side of the wheel opposite said collar, and a threaded connection between said pinion and said arbor.

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1,037,741. BALANCE-COCK. WILLIAM W. DUDLEY, Lancaster, Pa., assignor to Hamilton Watch Company, Lancaster, Pa. Filed Apr. 19, 1911. Serial No. 622,071. (Cl. 58—107.)

A balance cock for time keeping instruments having a clamping finger at the side of the balance cock integral with the balance cock at the inner end, and thence outward being separate from the balance cock and hardened contiguous to its point of connection with the balance cock and forming a spring that at the free end of the finger



tends normally away from the balance cock, and a screw to draw the free end of said finger inward to perform its clamping function.

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1,037,742. HAIR-SPRING-STUD-HOLDING MEANS. WILLIAM W. DUDLEY, Lancaster, Pa., assignor to Hamilton Watch Company, Lancaster, Pa. Filed Apr. 19, 1911. Serial No. 622,072. (Cl. 58—115.)



1. In a device of the class described, the combination of a balance cock, a hair spring stud, a cap overlying the hair spring stud, a pivotal connection between the cap and the balance cock on which the cap swings in a plane parallel with the axis of the balance wheel staff, and a screw passing through a laterally elongated opening or slot in the cap and into the side of the balance cock.

2. In a device of the class described, the combination of a balance cock, a hair spring stud and a cap overlying the hair spring stud, the cock having a stud-receiving notch in one side, the cap extending across the open side of the notch, the cap and stud having surfaces in contact that lie in the same plane, and screws passing through said cap into the side of the balance cock on opposite sides of the notch, the cap being provided with holes for the passage of said screws, one of said screws and its hole forming a pivotal connection between the cap and the balance cock on which the cap may swing in a direction parallel with the balance staff, and one of said holes being extended to one side of the cap and opening thereat.

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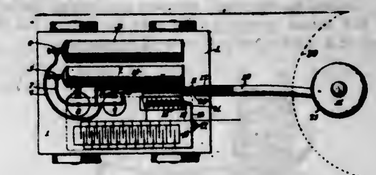
1,037,743. METHOD OF COVERING OR RE-COVERING SURFACES. GEORGE DUNNAGER, Guttenberg, N. J. Filed Oct. 3, 1911. Serial No. 652,573. (Cl. 91—8.)

1. A method of covering surfaces, which consists of applying to the surface a size composed of definite parts of stand oil and amber varnish and certain quantities of other oils and driers, so compounded as to perform the double functions of an adhesive and preservative, and impinging thereon certain fibrous material.

2. The method herein described of producing a soft and fibrous covering for surfaces, which consists of applying to the surface to be covered a water-proof adhesive compound of four parts of stand oil, 2 parts of amber varnish, 1 part boiled linseed oil, and 1 part Japan driers and blowing upon said adhesive properly tinted fibrous material allowing the whole to dry without further manipulation.



1,037,744. APPARATUS FOR A PROCESS OF FUMIGATION. FRANCIS M. DUNCAN, Los Angeles, and WILLIAM S. HENDRIXSON, Alhambra, Cal.; said Duncan assignor of one-fourth of the whole right to Eugene H. Peddick, Los Angeles, Cal. Filed June 25, 1910. Serial No. 568,892. (Cl. 204—21.)



An apparatus for a process of fumigation comprising main tanks having valves and containing nitrogen and acetylene respectively, auxiliary tanks for measuring the respective gases, provided with pressure gages, pipes connecting the main tanks with the auxiliary tanks respectively, valved pipes leading from the auxiliary tanks, a discharge circuit and means for generating high tension discharge therein, a combining device consisting of a case, with which the pipes connect, and through which the discharge circuit passes, said case being provided with an outlet, and electrodes within the case in the discharge circuit.

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1,037,745. CORN HARVESTER AND SHOCKER. ALBERT EVERETT EBBERT, Greencastle, Pa. Filed Mar. 25, 1912. Serial No. 686,036. (Cl. 56—104.)



1. A corn harvesting and shocking apparatus, comprising a platform, cutting knives set at inclinations to each other upon the latter, a beam, a ring section suspended from said beam, a V-shaped bar having angled ends which are pivoted to the platform near its rear end, the apex of the bar being pivoted to said beam, bars pivoted to said beam and each having a downwardly projecting arm, each angle bar having a laterally extending portion journaled upon the platform and a handle extension, and connections between each handle extension and arm, as set forth.

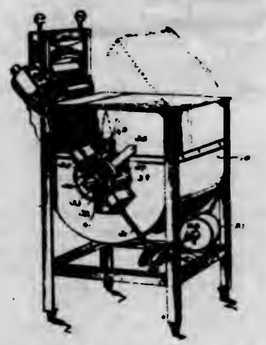
2. A corn harvesting and shocking apparatus, comprising a platform, cutting knives set at inclinations to each other upon the latter, a beam, a ring section suspended from said beam, a V-shaped bar having angled ends which are pivoted to the platform near its rear end, the apex of the bar being pivoted to said beam, bars pivoted to said beam and each having a downwardly projecting arm terminating in an eye, each angle bar having a laterally extending portion journaled upon the platform and a handle extension, connections between each handle extension and arm, each of said connections comprising a bar having eyes at its ends, one of which is adapted to receive one of said arms and the other mounted upon the handle extension, the eye upon said arm receiving said bar with eyes at its ends, as set forth.

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1,037,746. GEARING. HAROLD W. EDEN, Hinsdale, Ill., assignor to Brokaw-Eden Mfg. Co., Chicago, Ill., a Corporation of Missouri. Filed Jan. 2, 1912. Serial No. 668,880. (Cl. 74—50.)

1. The combination with a rotatable member, of a driven shaft extending at right angles to the axis of rotation of

the rotatable member, a gear rigidly connected with the rotatable member, pinions carried by the shaft spaced to engage opposite sides of the gear, a clutch splined upon the shaft adapted to engage selectively either of the pinions, a lever positioned to actuate the clutch, spring arms carried by and extending upon opposite sides of the lever, a pin carried by the gear adapted to engage the spring arms, and means carried by the gear for lifting the pin at the end of a predetermined cycle of revolution.



2. The combination with a rotatable member, of a gear having its axis coincident with the axis of rotation of the rotatable member, a driver shaft extending diametrically of the gear, pinions loosely mounted upon the shaft and positioned to engage opposite sides of the gear, a clutch splined upon the shaft and adapted to selectively engage either of said gears, a lever positioned to manipulate the clutch, spring arms extending upon opposite sides of the lever, a pin carried by the gear adapted to engage said spring arms, a cam wheel journaled upon the gear, means to rotate the cam wheel with a step by step movement, and means carried by the cam wheel for raising the pin into the path of movement of the spring arms.

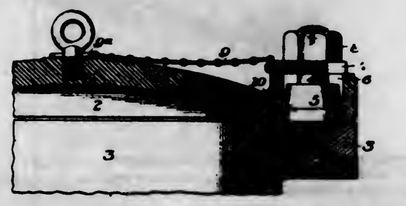
3. The combination with a rotatable member, of a gear rigidly connected with said rotatable member and coinciding with its axis of rotation, of a driven shaft extending diametrically across the gear, pinions loosely mounted upon the shaft and spaced to engage the opposite sides of the gear, a clutch splined upon the shaft and adapted to selectively engage either of said gears, a lever adapted to actuate the clutch, a pin extending through the gear and positioned to move the lever, a cam wheel carried upon the rear of the gear, a rigid member adapted to engage the cam wheel and rotate said cam wheel with a step by step movement, and a cam carried by the cam wheel adapted to raise the pin into position to engage with the lever.

4. The combination with a rotatable member, of a gear having its axis coinciding with the axis of the rotatable member, a driven shaft extending diametrically across the gear, pinions carried by the shaft engaging opposite sides of the gear, a clutch splined upon the shaft adapted to selectively engage either of said pinions, a lever adapted to actuate the clutch, a pin extending through the gear and normally out of position to engage the lever, a cam wheel upon the rear of the gear, an abutment positioned to engage the cam wheel and rotate said cam wheel with a step by step movement, and a cam carried by the cam wheel adapted to lift the pin into position to engage the lever.

5. The combination with a rotatable member, of a gear having is axis coinciding with the axis of the rotatable member, a driven shaft extending diametrically across the gear, pinions splined upon the shaft and positioned to engage opposite sides of the gear, a clutch splined upon the shaft and adapted to move in opposite directions to engage alternately the pinions, a lever extending beyond the periphery of the gear and adapted to actuate the clutch, a pin extending through the gear and normally out of the path of movement of the lever, a cam wheel carried upon the rear of the gear and having a plurality of indentations positioned to be engaged by the pin to hold such cam wheel yieldingly against movement, means to move the cam wheel with a step by step movement, and a cam carried by said cam wheel adapted to raise the pin into position to engage the lever.

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1,037,747. FASTENING DEVICE FOR DOORS, COVERS, &c. WILLIAM S. ELLIOTT, Pittsburgh, Pa. Filed May 21, 1912. Serial No. 698,722. (Cl. 70—3.)



1. A fastening device for doors, covers, etc., comprising a bolt projecting rigidly from one of the members to be connected, and having a clamping member at its outer end, the other member to be connected having an opening therein sufficiently large to be passed over the bolt and its clamping member, means for centering the bolt with respect to the said opening, and a locking member arranged to engage the bolt adjacent to its clamping member; substantially as described.

2. A fastening device for doors, covers, etc., comprising a double ended bolt having an enlarged central portion, a part of which is tapered or beveled to form a guide member, and a slotted member adapted to engage one end portion of the bolt; substantially as described.

3. In a fastening device for doors, covers, and the like, the combination with the part to be fastened, of a bolt projecting rigidly from one of said parts and having a clamping member at its outer end, the other part having an opening of sufficient diameter to pass over the bolt and its clamping member, a slotted locking device arranged to engage the bolt adjacent to the clamping member, and means for causing the bolt to be substantially concentric within the said opening when the parts are fastened; substantially as described.

4. In a fastening device of the character described, the combination with a seating member having a double ended bolt secured therein, of a removable member having an opening adapted to fit over a portion of the bolt, and a slotted locking member adapted to seat across the said opening and to engage the bolt, together with a nut on the bolt to act as a clamp for the locking member; substantially as described.

5. In a fastening device, the combination with a seating member, a double ended bolt secured in said member and projecting therefrom, said bolt having an enlarged central portion, a removable member having an opening adapted to inclose the enlarged portion of the bolt, a slotted locking member arranged to engage the outer end portion of the bolt, and clamping means for the locking member; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

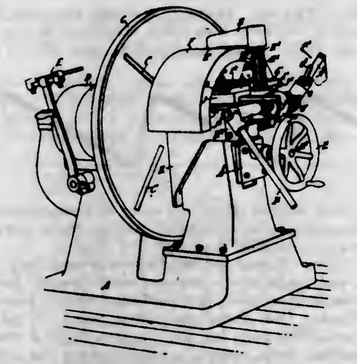
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1,037,748. WHEEL-RIM-JOINTING MACHINE. GEORGE A. EMMONS, Defiance, Ohio, assignor to Defiance Machine Works, Defiance, Ohio. Filed Apr. 6, 1912. Serial No. 688,581. (Cl. 144—118.)

1. In a wheel rim truing machine for truing one side of the rim stock relative to the inner face thereof, the combination with a revoluble cutter head having cutting edges extending in the same plane, of a rim stock support having movement toward and from the said cutter head and provided with spaced supporting means at a right angle to the face of the said cutter head and adapted to support the rim stock at the inner surface and at opposite sides thereof, and a pressure device adapted to engage the rim stock exteriorly at the middle thereof.



2. In a wheel rim truing machine for truing one side of the rim stock relative to the inner face thereof, the combination with a revoluble cutter head having its cutting edges extending in the same plane, of a saddle provided with spaced parallel supports at a right angle to the said plane and adapted to support the rim stock at the inner surface and at points between the ends thereof, a clamping device adapted to engage the top of the rim stock at a point approximately half way between the supported points, the said clamping device being adjustably mounted on the said saddle, means for raising and lowering the said clamping device on the said saddle, and means for moving the said supports toward and from the said cutter head.



3. In a wheel rim truing machine for truing one side of the rim stock relative to the inner face thereof, the combination with a revoluble cutter head having its cutting edges extending in the same plane, of a saddle provided with spaced parallel supports at a right angle to the said plane and adapted to support the rim stock at the inner surface and at points between the ends thereof, a clamping device adapted to engage the top of the rim stock at a point approximately half way between the supported points, the said clamping device being adjustably mounted on the said saddle, means for raising and lowering the said clamping device on the said saddle, means for moving the said supports toward and from the said cutter head, and means for raising and lowering the said saddle independent of the said means for raising and lowering the said clamping device.

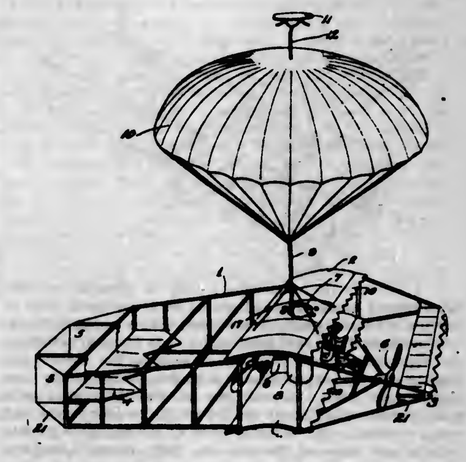
4. In a wheel rim truing machine for truing one end of the rim stock relative to the inner face thereof, the combination with a cutter head provided on its face with a cutter, the edges of which extend approximately in the same vertical plane, of a saddle in front of the face of the cutter head, means for raising and lowering the said saddle, spaced supporting plates on the said saddle and standing at a right angle to the face of the said cutter head, the said supporting plates being adapted to support the rim stock at the inner face and adjacent the ends thereof a clamping arm mounted on the saddle and adapted to engage the rim stock exteriorly and at the top thereof at a point approximately midway between the points of support of the rim stock, means for moving the said clamping arm up and down independent of the up and down movement given to the said saddle, and means for moving the said supporting plates on the saddle toward and from the face of the said cutter head.

5. In a wheel truing machine for truing one side of the rim stock relative to the inner face thereof, the combination with a revoluble cutter head provided at its face with cutters having their cutting edges extending approximately in the same vertical plane, of a saddle in front of the said cutter head, means for raising and lowering the said saddle, a slide mounted to slide on the said saddle, means for moving the said slide toward or from the face of the said cutter head, supporting plates held on the sides of the said slide and adapted to support the rim stock at the inner face thereof, a presser arm adapted to engage the top of the rim stock and provided with a vertical post mounted to slide up and down on the said slide, and manually-controlled means engaging the said post for moving the latter up and down independent of the said means for raising and lowering the saddle.

[Claims 6 to 10 not printed in the Gazette.]

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1,037,749. AEROPLANE. ALEXY FEALL, Los Angeles, Cal. Filed Sept. 16, 1911. Serial No. 649,620. (Cl. 244—21.)



1. In a machine for aerial navigation, an aeroplane body comprising superposed planes, one of said planes having an opening therein, a casing interposed between said planes adjacent to the opening in said plane, an auxiliary supporting body secured in said casing, a closure member for the opening in said plane, means for securing the closure member over the opening, and means for projecting the aforesaid closure member from the opening and said auxiliary body to an operative position.

2. In a machine for aerial navigation, an aeroplane body comprising superposed planes, one of said planes having an opening therein, a casing interposed between said planes adjacent to the opening in said plane, an auxiliary supporting body secured in said casing, a closure member carried by said auxiliary body for the opening in said plane, means for securing the closure member over the opening, and means for projecting the aforesaid closure member from the opening and said auxiliary body to an operative position.

3. In a machine for aerial navigation, an aeroplane, a casing, an auxiliary supporting body mounted in said casing, a closure for said casing, adapted to form a portion of the aeroplane aforesaid when said closure is in an operative position, spring actuated means to retain the closure in an operative position, spring means disposed on the side of the casing for moving the closure to an inoperative position and said auxiliary supporting body to an operative position, and means for releasing said closure.

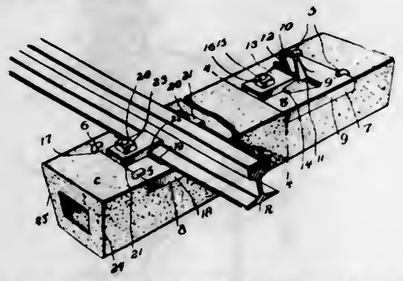
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1,037,750. RAILROAD-TIE. SIGMUND FRIEDMAN, Gorgona, Canal Zone. Filed June 27, 1911. Serial No. 635,526. (Cl. 238—3.)

1. A railway tie comprising an inner body and an outer body, said inner body being formed of a resilient member formed with holes, flanged rail chairs resting upon the said inner body, tie rods having curved inner ends and inturned portions engaging with the rail chair, and said outer body being formed of plastic material within which the resilient inner body is embedded.

2. A railway tie comprising a body of concrete or similar material, a reinforcing body of pervious metal bent to

provide a substantially rectangular body embedded therein, the edges of the said reinforcing body being arranged at the top thereof and being bent downwardly within the body to provide longitudinally extending substantially vertical spaced walls, the said top of the reinforcing body being positioned adjacent the top of the concrete body and being provided with flanged edges which engage with the longitudinal sides of the concrete body, and means embedded within the concrete body and arranged between the sides and the townturned walls of the reinforcing body and engaging with the chairs for sustaining the said chairs upon the tie.



3. A railway tie comprising a body of concrete or similar material, a reinforcing body of pervious metal bent to provide a substantially rectangular body embedded therein, the edges of the said reinforcing body being arranged at the top thereof and being bent downwardly within the body to provide longitudinally extending substantially vertical spaced walls, the said top of the reinforcing body being positioned adjacent the top of the concrete body and being provided with flanged edges which engage with the longitudinal sides of the concrete body, means embedded within the concrete body and arranged between the sides and the downturned walls of the reinforcing body and engaging with the chairs for sustaining the said chairs upon the tie, rail clamps upon the rail chairs, and both members passing through both of the bodies of the tie and between the downturned ends of the reinforcing body for retaining the clamps upon the chair.

4. A railroad tie comprising a body of concrete and a body of wire mesh which is bent into tubular form and which is embedded within the concrete body, the edges of the reinforcing member being extended downwardly within the concrete body adjacent the top thereof, a rail chair resting upon the reinforcing body and having its edges provided with flanges which engage with the concrete body, tie rods within the concrete body having curved ends formed with inturned portions which pass through the bodies of the tie and which engage with the edges of the rail chair, headed bolts embedded within the concrete and passing through the chair between the downturned portions of the reinforcing body, rail clamps adapted to co-act with the bolts and nuts for retaining the rail clamps upon the chair and upon the bolts.

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1,037,751. BOTTLE. ALEXANDER BLAIR GARDNER, Memphis, Tenn. Filed Apr. 20, 1912. Serial No. 692,087. (Cl. 215—53.)



1. A bottle having a longitudinal slot in its neck portion, the end walls of said slot being outwardly and downwardly inclined from the inner to the outer surfaces of the neck wall at an angle of substantially forty-five degrees to permit of the angular disposition of a cork extracting instrument through said slot, the upper edge of the lower inclined wall of the slot serving as a fulcrum upon which the extracting instrument is adapted to be oscillated.

2. A bottle having a longitudinal slot in its neck portion to receive a cork removing instrument, the opposite end walls of said slot being downwardly and outwardly inclined in parallel relation, said cork removing instrument being capable of longitudinal movement in the slot and adapted for engagement with the upper inclined wall thereof.

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1,037,752. WEAVE. JAMES C. GAYNOR, Paterson, N. J., assignor to Helvetia Silk Mills, Paterson, N. J. Filed Mar. 23, 1912. Serial No. 685,679. (Cl. 139—9.)



1. A fabric formed with a plurality of sections arranged with diagonally juxtapositioned parallel edges connected by the warp threads of the fabric.

2. A fabric formed of longitudinally arranged warp threads, and transversely arranged weft threads, the weft threads being looped at the outer edges of the fabric and at a diagonal line across the fabric, some of the weft threads extending from one edge to said diagonal line and the remaining weft threads extending from the opposite edge to said diagonal line whereby the fabric may be cut diagonally without presenting a raveling edge.

3. A fabric formed of warp and weft threads arranged with a selvage edge on each side, a tightly woven portion arranged diagonally at spaced intervals, and abutting selvage edges arranged diagonally of said fabric and extending substantially at a right angle to said tightly woven edges, whereby at one end the same contact with one end of said tightly woven portion and the opposite edge engages the next succeeding woven portion at the opposite side of the fabric, whereby when the fabric is cut along said tightly woven portion and said diagonally arranged selvage edge, a triangular shaped piece of fabric is presented having selvages on both sides.

4. A piece of fabric formed triangular in shape and with a closely woven end portion extending at an angle to the direction of the weft threads, and a pair of selvage edges extending from said end to a point, one of said edges being arranged at substantially right angles to the direction of weft threads and the other of said edges being arranged at substantially a right angle to said closely woven end portion.

5. A fabric comprising a strip of material having a selvage edge on each side, a closely woven diagonally arranged portion, and a diagonally arranged portion having abutting selvage edges, said abutting edges being connected by the warp threads of said fabric.

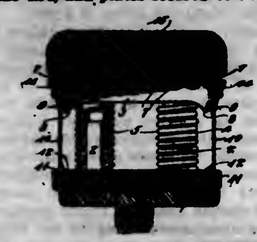
[Claim 6 not printed in the Gazette.]

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1,037,753. VEHICLE WHEEL-TIRE. JOHN A. GERHART, Marietta, Ohio. Filed Oct. 12, 1911. Serial No. 654,882. (Cl. 152—8.)

A vehicle tire comprising a rim having peripheral grooves in its outer face near its opposite edges, ring saddles resiliently mounted on said rim transversely of the tire and inclined downwardly and inwardly and having grooves at their lower edges, a plurality of rings mounted on said saddles, means for holding said rings on said saddles, a tread element engaged with said rings, flexible dust guards arranged at opposite sides of said tire and having securing rings at their opposite edges for engagement with the grooves in said saddles and rim, the outer guard securing ring having offsets to fit around the ends of the saddles and provide for the close fitting of the guard at the sides of the tire, and plates secured to the ends of the

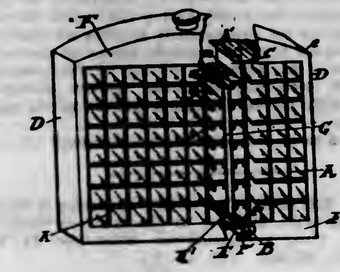




saddle with their inner edges overlapping the outer rings of said guard.

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1,037,754. COOLER. RALEIGH C. GILDERSLEEVE, New York, N. Y., assignor to El Arco Radiator Company, New York, N. Y., a Corporation of New York. Filed Mar. 27, 1909. Serial No. 486,065. (Cl. 62—28.)



1. A cooler composed of sections, each section comprising two plates suitably spaced by means of ribs on one of the plates, a series of transverse spacing offsets on the other of said plates, each offset being provided with a crimp whereby the projection of the other plate on the adjacent section is accommodated.

2. A cooler composed of sections each comprising two plates suitably spaced and with joined edges along two sides, a series of transverse ribs formed by offsetting the material of one of said plates, a crimp along the edge of each rib extending the full length with the exception of the two ends.

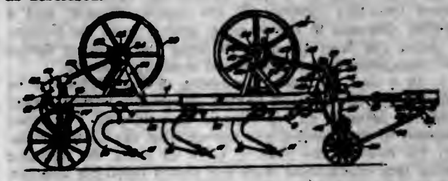
3. A section of a cooler comprising two plates, depressions on one of said plates, a closed joint at two opposite edges of said plates, transverse projections extending from edge to edge of one of said plates, a bent over portion of said lateral projection extending from close to one end to close to the other end substantially as and for the purpose described.

4. Sections for radiators or coolers, comprising a portion of a longitudinal ribbed sheet metal strip as one wall, and having for the other wall a sheet metal strip with transverse off-sets, each of said offsets being bent back upon itself, and a portion of each of said offsets being bent parallel to the main body portion of said sheet to form a rigid truss.

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1,037,755. SCARIFIER. WALTER A. GILLETTE, Los Angeles, Cal., assignor to Petrolithic Pavement Company, Los Angeles, Cal. Filed May 1, 1911. Serial No. 634,498. (Cl. 37—50.)

1. In a scarifier, the combination of a frame, scarifying spikes depending from the frame, means for adjustably supporting the rear end of the frame, a front axle, wheels mounted on the axle, a trunnion projecting from the axle, a block for the trunnion, uprights secured to the block, a toothed sector rotatably mounted at the forward end of the frame, means pivotally connecting the sector to the uprights, a link connecting each upright to the frame, and means for rotating the sector, substantially as described.



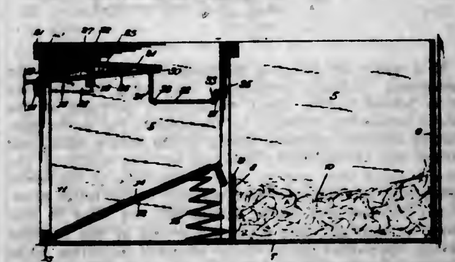
2. In a scarifier, the combination of a frame, scarifying spikes depending from the frame, means for adjustably supporting the rear end of the frame, a front axle, wheels mounted on the axle, a trunnion projecting from the axle, a block for the trunnion, uprights secured to the block, a toothed sector rotatably mounted at the forward end of the frame, means pivotally connecting the sector to the uprights, a link connecting each upright to the frame, a worm in mesh with the sector, a shaft fixed to the worm, a box supported from the frame and surrounding the worm, a gear wheel on the shaft, a bracket projecting from the frame, a second shaft supported by the bracket, a pinion rotatably mounted on the second shaft and engaging the gear wheel, a hand-wheel secured to the pinion, and a plate attached to the second shaft, the upper end of the first shaft being journaled in said plate, substantially as described.

3. In a scarifier, the combination of a frame, scarifying spikes depending from the frame, means for adjustably supporting the rear end of the frame, a front axle, wheels mounted on the axle, a trunnion projecting from the axle, a block for the trunnion, means pivotally connecting the block to the forward end of the frame, means for adjusting the forward end of the frame with relation to the block and holding it in locked position, a tongue projecting from the forward end of the frame, and means for bracing the tongue from said axle, substantially as described.

4. In a scarifier, the combination of a frame, scarifying spikes depending from the frame, means for adjustably supporting the rear end of the frame, a front axle, wheels mounted on the axle, a trunnion projecting from the axle, a block for the trunnion, means pivotally connecting the block to the forward end of the frame, means for adjusting the forward end of the frame with relation to the block and holding it in locked position, a tongue pivoted to the forward end of the frame and capable of lateral movement, a bar fixed to the tongue, and bracing members pivotally connected to said axle and slidably connected to the bar, substantially as described.

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1,037,756. HEN'S NEST. CHARLES S. GREENE and LIONEL W. NORTON, New York, N. Y. Filed Mar. 28, 1911. Serial No. 617,554. (Cl. 119—45.)



1. A nest having an inclined bottom board for supporting a record receiving means for coöperating with a marking device carried by a fowl, and a member spaced from the bottom board to cause the fowl to squat and bring the marking device into engagement with the record receiving means.

2. In a nest for fowls a marking device adapted to be carried by a fowl, a nest having an opening with a record receiving member on the bottom thereof, and a member disposed in the opening, spaced from the bottom, to cause the fowl to move to bring the marking device into engagement with the record receiving member.

3. In a nest for fowls a marking device adapted to be carried by a fowl, a nest having an opening with a record receiving member on the bottom thereof, and a member disposed in the opening and spaced from the bottom member, for causing the fowl to move to bring the marking device into engagement with the record receiving member, and means for holding the said member yieldingly downwardly.

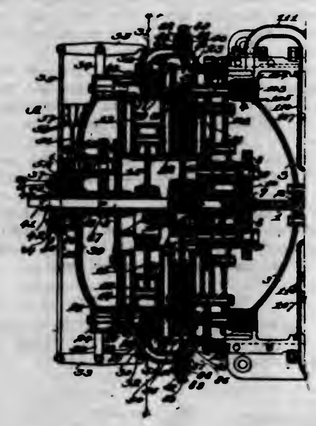
4. In a nest for fowls a marking device adapted to be carried by a fowl, a nest having an opening, an inclined bottom board in the opening, having a record receiving member, a member disposed in the opening, spaced from the inclined bottom board to cause a fowl to squat to bring the marking device into engagement with the record receiving member.

5. A nest having an opening, a bottom board in the opening having a record receiving means, resilient means for holding the bottom board yieldingly upward, a member disposed in the opening and spaced from the bottom board for causing a fowl passing in through the opening to squat, and a marking device adapted to be carried by the fowl for coöperating with the record receiving means.

[Claims 6 to 20 not printed in the Gazette.]

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1,037,757. THERMODYNAMIC MOTOR. LEWIS A. HAINES, Mount Vernon, Ohio, assignor to Haines Thermo Dynamic Motor Company, Pittsburgh, Pa., a Corporation of West Virginia. Filed Aug. 3, 1908. Serial No. 446,640. (Cl. 123—9.)



1. A motor of the class described having rotary power generating turbines, mechanism controlling the delivery of a heated motive agent to different portions of the power generating turbines in alternation, the power generating turbines becoming heated by the motive agent, and means for automatically shutting off and applying the motive agent from and to different portions of the power generating turbines to render portions of the latter alternately inactive and active and permit the same to cool down at intervals, the inactive portions of the turbines having the motive agent wholly excluded therefrom while the active portion thereof is supplied with said agent.

2. A motor having rotary power generating turbines embodying separate groups of active elements, mechanism controlling the delivery of a heated motive agent to the groups, the groups of elements becoming heated by the motive agent, and means for completely shutting off the motive agent at intervals from the groups in alternation without fluctuating the operation of the motor as a whole to permit the group relieved of the motive agent to cool down while the remaining group is active.

3. In a motor, power generating turbines having separated groups of revolubly active elements, and means having an automatic operation for alternately applying and shuting off a heated motive agent to and from the groups of active elements in alternation to render one group inactive as a drive means at intervals but revoluble with the active group to permit the inactive group to cool down while the active group is driving.

4. A thermodynamic motor having separate groups of coacting rotary driving elements, each group embodying a plurality of similar elements, means controlling the supply of motive agent successively to the elements of the separate groups in alternation, the elements becoming heated from the motive agent, and means for automatically and successively shutting off the supply of motive agent from the separate groups of elements at intervals to permit said elements to cool.

5. A thermodynamic motor having driving elements arranged in separate groups, means for supplying a motive agent to the groups of elements in alternation including combustion means having electrically controlled ignition devices, and means having electrically controlled ignition devices for automatically shutting off the supply of motive agent from the separate groups of elements at intervals and simultaneously cutting off the combustion means and electrically controlled ignition devices coöperating with the said elements relieved of the motive agent.

[Claims 6 to 41 not printed in the Gazette.]

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1,037,758. EXTENSIBLE TABLE. CLARENCE H. HARRIS, Cheyenne, Wyo., assignor to Harris-Brown Table Co., Rawlins, Wyo., a Corporation. Filed Dec. 14, 1911. Serial No. 665,642. (Cl. 45—9.)



1. In an extensible table, the combination of a main body comprising end sections; slidable connections between said sections; a carriage located intermediate said sections; a plurality of supplemental table leaves; hinges pivotally connected to said carriage and said leaves and adapted to hold said leaves in raised position; dogs adapted to frictionally engage with and raise said leaves; a pivot and slot connection between each of said dogs and the carriage; and arms provided with heads on said end sections adapted to engage with said dogs to lift the table leaves when the table is extended, substantially as described.

2. In an extensible table the combination of relatively movable end sections having side pieces provided with longitudinal grooves; a central section comprising a frame having a plurality of spaced strips, a plurality of supplemental table leaves, hinges pivotally mounted between adjacent pairs of strips and connected with said leaves, dogs adapted to frictionally engage with and lift said leaves, said dogs having each a projecting portion with an inclined face; a pivot and slot connection between each of said dogs and a pair of said strips; and a pair of bars secured to each of said end sections, said bars having each a head adapted to engage with and turn said dogs to lift the leaves when the table is opened, and to freely pass said dogs when the table is closed, and said leaves adapted to slide within said grooves in the side pieces when the table is closed, substantially as described.

3. In an extensible table the combination of end sections; runners connecting said sections and permitting of relative movement therebetween; a central section comprising a frame having a plurality of pivotally mounted supplemental leaves; dogs adapted to engage with and lift said leaves, said dogs having elongated slots; and pins on the central section on which said dogs are loosely mounted by said slots; and a pair of bars secured to each of said end sections, said bars having end members adapted to engage with and turn said dogs to lift the leaves when the table is opened and to freely pass said dogs when the table is closed, substantially as described.



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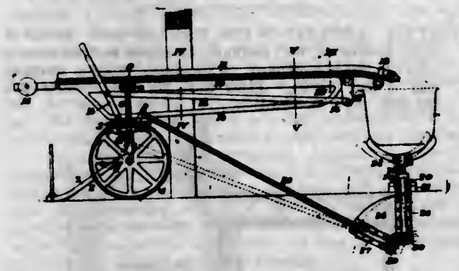
1,037,759. TOOL-HANDLE. MILO J. HASKINS, Springfield, Mass. Filed Feb. 18, 1911. Serial No. 609,823. (Cl. 145—107.)



A tool handle comprising a body centrally channeled, a ferrule secured upon one end of said body, a socket integrally formed with said ferrule and extending into the body channel, said socket member provided with a tapered tool receiving socket, a spiral member positioned within said socket member and extending longitudinally therewith, opposite side portions of said spiral member being embedded in the side walls of the tool socket and the remaining portions being free within the socket so as to resiliently engage the shank of a tool inserted within the socket and securely retain the same therein, and means carried by the channel of said body for removably securing the ferrule and the integrally formed socket member in position.

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1,037,760. SAND-BLASTING APPARATUS. HARVEY B. HEASLET, New Brighton, Pa. Filed Feb. 5, 1912. Serial No. 675,405. (Cl. 51—12.)



1. Apparatus of the character described, comprising a wheeled support, a yoke carried thereby, and pivoted to move about a vertical axis, a horizontal shaft journaled in bearings in said yoke, a longitudinally extending frame carried by the shaft, and a flexible hose mounted on said frame and terminating in a blast nozzle; substantially as described.

2. Apparatus of the character described, comprising a wheeled support, a yoke carried thereby, and pivoted to move about a vertical axis, a horizontal shaft journaled in bearings in said yoke, a longitudinally extending frame carried by the shaft, and a flexible hose mounted on said frame and terminating in a blast nozzle, the frame having a vertically movable member for carrying the nozzle; substantially as described.

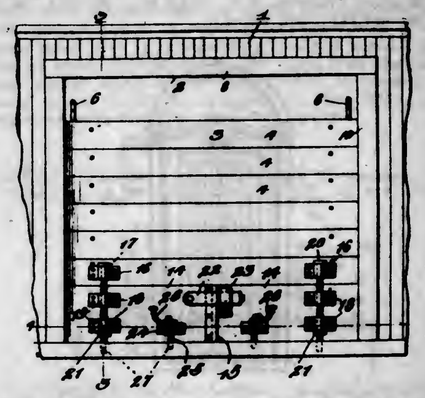
3. In apparatus of the character described, a frame, supporting means whereby said frame can be moved in a longitudinal horizontal direction, an angular horizontal direction, and also oscillated in a vertical plane, and a blast pipe and nozzle supported on said frame, together with a hand lever and connections operated by said lever whereby said nozzle may be moved in a vertical plane independently of the movements of the frame; substantially as described.

4. In apparatus of the character described, a frame, supporting means whereby said frame can be moved in a longitudinal horizontal direction, an angular horizontal direction, and also oscillated in a vertical plane, and a flexible blast pipe and nozzle supported on said frame, together with means whereby the nozzle may be flexed in a vertical direction independent of the frame; substantially as described.

5. Apparatus of the character described, comprising a wheeled support, a yoke carried thereby, and pivoted to move about a vertical axis, a horizontal shaft journaled in bearings in said yoke, a longitudinally extending frame carried by the shaft, a flexible hose mounted on said frame and terminating in a blast nozzle, together with an independently movable support for said nozzle, and actuating connections for said support extending back to the wheeled support; substantially as described.

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1,037,761. GRAIN-DOOR FOR CARS. WILL A. HEIDEN, Guthrie, Okla. Filed Sept. 11, 1911. Serial No. 648,603. (Cl. 20—39.)



1. The combination, with a door frame having an opening and with a series of vertical sockets formed in the floor and in a plane parallel to the opening, of a vertically movable door, a gate forming a continuation of the lower edge thereof, a pivot bolt mounting the gate on the door to swing horizontally, the bolt projecting beyond the lower edge of the gate and adapted to engage a certain one of the sockets in the lowered position of the door, and a vertically sliding locking pin mounted on the gate to engage a certain other one of the sockets.

2. The combination, with a door frame having an opening and with a series of vertical sockets formed in the floor, in a plane parallel to the opening, of a vertically movable door, a pair of gates forming a continuation of the lower edge of the door, a pivot bolt mounting each of the gates on the door to swing horizontally, the bolt projecting on the lower edge of the gate and adapted to engage certain one of the sockets in the lowered position of the door, and a vertically sliding locking pin mounted in each gate between its pivotal mounting and the adjacent edge of the other gate and arranged to engage a certain other one of the sockets when the two gates are in alinement, and a latch and keeper mounted on the adjacent edges of the two gates.

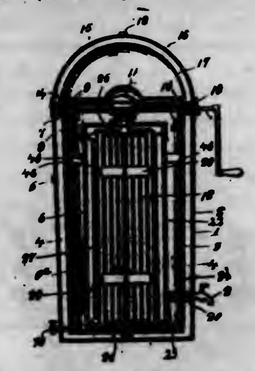
3. The combination, with a door frame having an opening and with a series of vertical sockets formed in the floor in substantially the vertical plane of the opening, of a vertically movable door comprising an upper integral portion and a lower sectional portion divided along a central vertical line, a pair of vertical pivot bolts extending downwardly from the integral door portion across each of the sectional door members and into engagement with certain of the sockets and journaled intermediate their length in the sectional door members near the outer ends of the latter, vertical reciprocatory locking pins mounted in the sectional door members and arranged to

engage certain other of the sockets, and a latch and keeper mounted upon the adjacent edges of the sectional door member.

4. The combination with the door opening of a car, of a door for partially closing the opening, a plurality of sockets formed in the bottom of the car in a common vertical plane, a pair of gates having a pair of vertically spaced bearings secured near their outer ends, a pair of bearings secured to the lower edge of the door, pivot bolts passing through said bearings and having their lower ends supported in certain of the sockets, whereby said gates are pivotally connected to said bolts, pins slidably mounted upon each gate and adapted to seat in certain other of said sockets, a latch pivotally connected to one of the gates, a catch secured to the other gate, said latch being adapted to engage the catch to hold the gates in their closed position.

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1,037,762. ICE-CREAM FREEZER. BEULAH L. HENRY, Charlotte, N. C., assignor of one-half to William Thomas Woodley, Charlotte, N. C. Filed Sept. 28, 1911. Serial No. 651,721. (Cl. 62—4.)



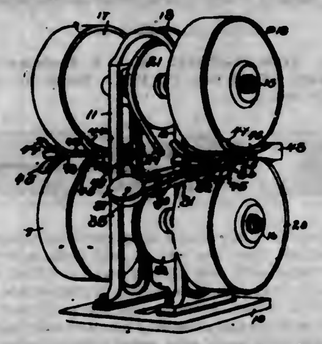
1. In an ice cream freezer, an insulated vessel, an insulated cover therefor, inner and outer gaskets disposed in different planes upon the upper end of the vessel, a freezing can removably mounted in the vessel and including a dasher, a member hinged to the vessel and adapted to close against the inner gasket, dasher operating means on said member, and an insulated cover hingedly mounted on the vessel and adapted to be closed against said outer gasket.

2. An insulated vessel, an insulated cover therefor, a can removably mounted in said vessel and provided adjacent to its upper end with an exteriorly disposed annular beveled surface, the inner wall of the vessel being provided with an annular beveled surface disposed immediately opposite the first beveled surface, a cover for the vessel, and an annular plug removably fitting between the vessel and the can and provided with internal and external beveled surfaces adapted for frictional contact with the first and second named beveled surfaces to effect an air tight connection between the can and the vessel when the cover of the vessel is open.

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1,037,763. MACHINE FOR SHARPENING BLADES OF SAFETY-RAZORS. ALBERT E. HILL, Atlanta, Ga., assignor, by direct and mesne assignments, to A. E. Hill Manufacturing Company, a Corporation of Georgia. Filed Apr. 25, 1911. Serial No. 623,266. (Cl. 51—16.)

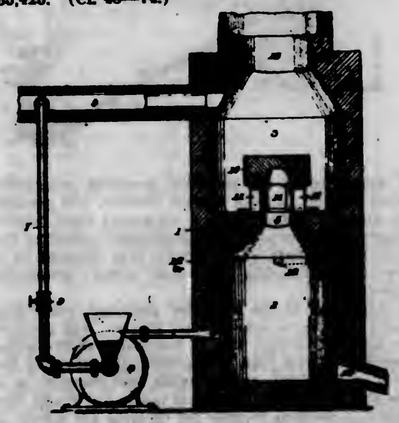
1. In a machine of the class described, a frame, a plurality of axles mounted therein, a buffing wheel carried by each of the axles, the wheels being in approximate contact at one place, a second frame carried by the frame first mentioned and between the buffing wheels, the second frame comprising a plurality of arms and a central portion connecting the arms, the connecting portion being on one side of the line of approximate contact of the wheels, and the arms extending across the line, and socket members on the ends of the arms, in position to receive a blade-holding device between the wheels, portions of the latter rotating between the blade-holding device, the arms, and the portion connecting the arms.



2. In a machine of the class described, a frame, a plurality of buffing wheels mounted thereon, the wheels being in approximate contact at one place, a second frame carried by the frame first mentioned and comprising a plurality of arms and a portion connecting the arms, the connecting portion being on one side of the line of approximate contact of the wheels, and the arms extending across the line, and resilient devices forming, with the ends of the arms, socket members, said resilient devices being secured to opposite sides of the arms and in position to receive a blade-holding device and to support the latter between the adjacent portions of the buffing wheels.

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1,037,764. APPARATUS FOR MAKING GAS. JULES H. HIRT, Sewickley, Pa., assignor, by mesne assignments, to Allis-Chalmers Company, Milwaukee, Wis., a Corporation of New Jersey. Filed Nov. 30, 1908. Serial No. 465,425. (Cl. 48—74.)



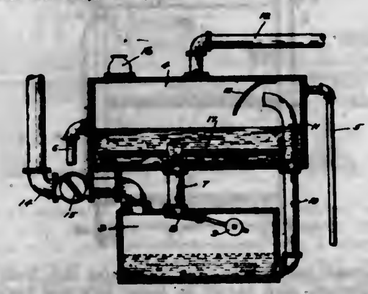
1. In a device for making gas, the combination of two communicating chambers one above the other, an orifice tangent to the walls and directed into the lower chamber to admit gas forming material, means to admit moisture to said lower chamber at a point near the top thereof, a cap located at the opening between said chambers having passages therein, a gas off-take from said upper chamber, means to convey a part of said gas to the gas forming material, and means to force said admixture into the lower chamber.

2. In a device for making gas, the combination of two chambers separated from each other by a partition, an opening in said partition from one of said chambers to the other, a cap located directly in line with said opening, means for supply of gas forming material to one of said chambers, a gas off-take from the other of said chambers, and means for conveying a portion of said gas to said means for supply of gas forming material.



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1,037,765. REGENERATOR. FRANCIS HODGKINSON, Edgewood Park, Pa., assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 11, 1909. Serial No. 527,802. (Cl. 121—95.)



1. In a regenerator, a receiving chamber, a delivery chamber, a steam delivery port communicating with the receiving and delivery chambers, a steam discharge port communicating with said delivery chamber, a water circulatory system between said chambers and a pressure responsive valve for controlling the flow of water from one chamber to another.

2. In a regenerator, a receiving chamber and a delivery chamber, a steam delivery pipe communicating with said receiving chamber, water supply pipe and a steam discharge pipe communicating with said delivery chamber, a passage communicating with the lower part of said receiving chamber and the upper part of said delivery chamber for discharging steam and water from said receiving to said delivery chamber and a pressure actuated valve for controlling the delivery of water to said receiving chamber.

3. In a regenerator, a receiving chamber, a delivery chamber, a connection between them, a delivery pipe communicating with said receiving chamber, and a discharge pipe communicating with said delivery chamber and a pressure actuated valve responsive to pressure within said receiving chamber for controlling the flow of water from said delivery to said receiving chamber.

4. In a regenerator, a receiving and a delivering chamber connected together, a fluid delivery pipe communicating with said receiving chamber and a fluid discharge pipe communicating with said delivery chamber, a water circulatory system between said chambers and a pressure actuated valve responsive to pressure within said receiving chamber for controlling the flow of water to said system.

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1,037,766. MAPLE-FLAVORED SUGAR AND PROCESS OF MAKING SAME. THOMAS G. HOGAN, Hinton, W. Va., assignor of one-half to Thomas B. Charlton and one-half to C. C. Coalter, Hinton, W. Va. Filed Mar. 14, 1912. Serial No. 683,776. (Cl. 127—17.)

1. A maple flavored saccharine article of commerce composed of sugar combined with an extract obtained from the outside lifeless bark of the rock or sugar maple.

2. A maple flavored saccharine article of commerce composed of commercial sugar combined with an extract obtained from the outside lifeless bark of the trunk of an aged rock or sugar maple tree.

3. A process of making a saccharine product having a maple sugar flavor which consists in boiling the outside lifeless bark taken from the trunk of the rock or sugar maple tree in water until an extract of the desired strength is obtained, then straining the liquid and adding commercial sugar thereto, and again boiling it until the desired strength is obtained.



4. A process of making a saccharine product having a maple flavor which consists in boiling approximately one and one-half pounds of the outside lifeless bark of the sugar maple tree in approximately one and one-half gallons of water, then separating the liquid from the bark, then adding approximately eight pound of commercial sugar to the extract so obtained, and then boiling the sugar and extract until of the desired strength.

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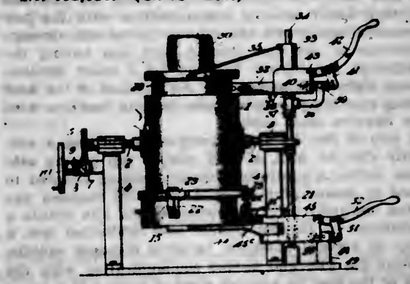
1,037,767. ALARM. SOLOMON HOOK, Waynesburg, Pa. Filed June 20, 1911. Serial No. 634,243. (Cl. 177—311.)



In an alarm of the class described, the combination with an electric circuit and a metallic bracket arm connected in said circuit, of vertically disposed spaced U-shaped contact arms bodily adjustable on said bracket arm, nuts screwed onto the arms so as to bind on opposite sides of the brackets, a pivoted circuit closer connected in said circuit and extending through the space between said arms and a fluid actuated member connected to said circuit closer for the purpose described.

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1,037,768. MELTING-FURNACE. WILLIAM JOSEPH HOLZAPFEL, Eddystone, Pa. Filed June 6, 1911. Serial No. 631,653. (Cl. 75—186.)



1. In a furnace of the character described, the combination of an upright tiltable furnace body, members fitting against opposite ends of the furnace body when the furnace is in operation, and means for moving the said members vertically away from the furnace body and then laterally to one side thereof.

2. In a furnace of the character described, the combination of an upright tiltable furnace body, a top removably applied thereto, mechanical means for lifting the top away from the furnace body and swinging it laterally to one side thereof, a base detachably engaging the furnace body, and mechanical means for lowering the base away from the furnace body and swinging it laterally to one side thereof.

3. In a furnace of the character described, the combination of a tiltable furnace body, an air feeding base detachably applied to the furnace body and adapted to tilt therewith, and means for moving the air feeding base away from the furnace body to admit of the latter being tilted independently thereof.

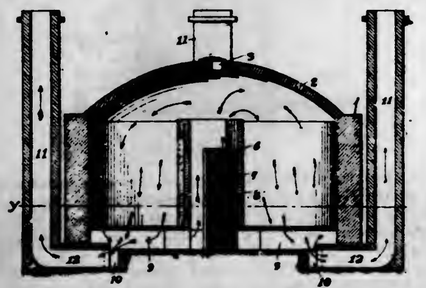
4. In a furnace of the character described, the combination of a tiltable furnace body, a base member detachably applied to the furnace body, a post, a slide mounted upon the post, and means carried by the slide for engaging the base member to admit of the same being moved into and out of engagement with the furnace body.

5. In a furnace of the character described, the combination of a tiltable furnace body, a base member detachably applied to the furnace body, a post, a slide mounted upon the post, an arm projecting from the slide for engaging the base member, and a lever for moving the slide to bring the base member into and out of engagement with the furnace body.

[Claims 6 to 12 not printed in the Gazette.]

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1,037,769. KILN. CURNBALUS HOOK, Vigo, Ohio. Filed Oct. 25, 1911. Serial No. 656,627. (Cl. 25—145.)

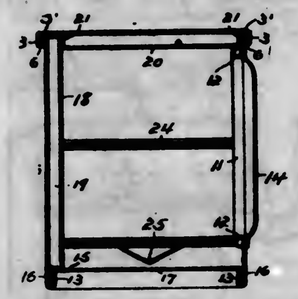


1. A kiln of the character described having a centrally disposed flue subdivided into a plurality of vertical passages, furnaces disposed equidistant about the kiln and having communication with the passages of the said flue, the kiln having passages below the floor in communication with the interior of the kiln through the openings formed in the said floor, and stacks grouped about the kiln and having their lower ends in communication with the passage communicating with the interior of the kiln through the openings in the floor thereof, said kiln having the floor adjacent the central flue and for a short distance therefrom made solid and having the portions of the floor extending over the passages connecting the furnaces with the flue likewise made solid.

2. A kiln of the character described comprising a substantially circular wall, a dome shaped top closing said wall and having a centrally disposed opening adapted to be closed by means of a cover, a centrally disposed flue extending upwardly from the bottom of the kiln within a short distance of the top thereof and subdivided into a plurality of vertical passages, furnaces disposed equidistant about the kiln and having communication with the passage of the flue, an annular passage located in a lower plane than the passages connecting the furnaces with the vertical flue, passages arranged between the furnaces and having connection with the said annular passage, the floor of the kiln being solid over the passages connecting the furnaces with the flue and adjacent the flue and for a short distance therefrom, and having openings establishing communication between the interior of the kiln and the passage in communication with the annular passage, and stacks arranged about the kiln and having their lower ends in communication with the said annular passage.

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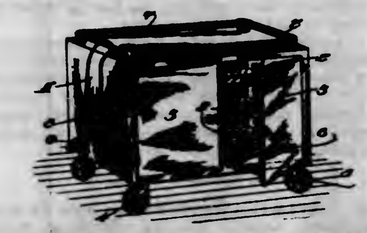
1,037,770. PORTABLE KNOCKDOWN OVEN. WALTER E. HUENEFELD, Cincinnati, Ohio, assignor to The E. H. Huenefeld Co., Cincinnati, Ohio. Filed Feb. 5, 1910. Serial No. 542,355. (Cl. 126—275.)



A portable knock down oven comprising end, front and back members, each having an inside upturned flange at its lower edge forming a groove, the front and back members having detachable interlocking connection with the end members, a bottom member provided at its four edges with depending flanges resting in the grooves at the lower edges of the end and front and back members, a top member having detachable interlocking connection with the front and back members, a top lining sheet having upturned flanges, the free edges of all of which engage the underside of the top member but have no connection with the end and back members, a back lining sheet extending from the bottom member to the top member with its upper edge behind the rear edge of the top lining sheet, and end lining sheets extending from the bottom member to the top lining sheet and from the back lining sheet to the front member.

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1,037,771. FOOD-CARRIER. JOSEPH HUGHES, San Francisco, Cal., assignor of one-half to Butte Engineering & Electric Co., San Francisco, Cal., a Copartnership. Filed Apr. 10, 1912. Serial No. 689,835. (Cl. 219—35.)



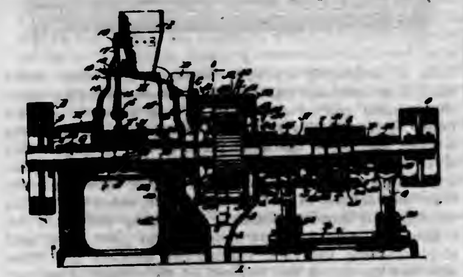
A food carrier, including a case having non-conducting walls, wheels upon which it may be transferred and steered, an electrical heating unit located within the case having circuit wires connected therewith, means for connecting said wires with an exterior circuit, posts, and a support carried thereon above the top of the heater to support articles not to be heated, and provide a circulation of air between the support and the heater.

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1,037,772. DISK PULVERISER. FRANKLIN M. ILES, Denver, Colo. Filed Dec. 3, 1910. Serial No. 595,516. (Cl. 83—6.)

1. In an apparatus of the character described, the combination with oppositely disposed annular rotary disks, each disk being provided with a flanged ring, a series of pulveriser blocks mounted radially inside said ring, and a series of grinding blocks mounted inside of said pulverising blocks, with chambered spacing blocks separating said grinding blocks, the whole forming a centrally chambered disk, with means for holding the faces of said disks in juxtaposition, and means for driving said disks, substantially as described.





2. In an apparatus of the character described, the combination with oppositely disposed annular rotary disks, each disk being provided with a flanged ring, a series of pulveriser blocks of alternately hard and soft metal mounted radially inside said ring, and a series of grinding blocks mounted inside of said pulverizing blocks, with chambered spacing blocks separating said grinding blocks, the whole forming a centrally chambered disk, with means for holding the faces of said disks in juxtaposition, and means for driving said disks, in the same direction and at varying speeds, substantially as described.

3. In an apparatus of the character described, the combination with oppositely disposed annular rotary disks, each disk being provided with a flanged ring, a series of pulveriser blocks mounted radially inside of said ring, and a series of grinding blocks mounted inside of said pulverising blocks, said grinding blocks being of unequal radial length, with chambered spacing blocks separating said grinding blocks, the whole forming a centrally chambered disk, means for holding the faces of said disks in juxtaposition, and means for driving said disks, substantially as described.

4. In an apparatus of the character described, the combination with oppositely disposed annular rotary disks, each disk being provided with a flanged ring, a series of pulveriser blocks of alternately hard and soft metal mounted radially inside said ring, and a series of grinding blocks mounted inside radially of said pulverising blocks, said grinding blocks being of unequal radial length, with chambered spacing blocks separating said grinding blocks, the whole forming a centrally chambered disk, means for holding the faces of said disks in juxtaposition, and means for driving said disks in the same direction and at unequal speeds, substantially as described.

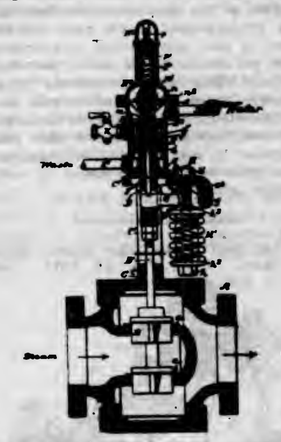
5. In an apparatus of the character described, the combination with oppositely disposed annular rotary disks, each disk being provided with a flanged ring, a series of pulveriser blocks of alternately hard and soft metal mounted radially inside said ring, and a series of grinding blocks of unequal radial length mounted inside of said pulverizing blocks with wedge-shaped spacing blocks having end lugs and grooves separating said grinding blocks the whole forming a centrally chambered disk, with means for holding the faces of said disks in juxtaposition, and means for driving said disks in the same direction and at different speeds, substantially as described.

[Claims 6 to 18 not printed in the Gazette.]

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1,037,773. PUMP-GOVERNOR. FREDERICK L. JAHN, Philadelphia, Pa., assignor to Watson & McDaniel Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 17, 1911. Serial No. 633,768. (Cl. 103—68.)

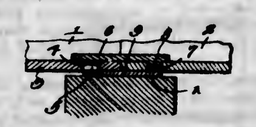
1. The combination in a pump governor, of a steam supply valve casing, a valve therein, a cylinder, a plunger mounted within the cylinder and connected to the steam valve, a spring tending to raise the valve off its seat, a leakage port at the upper end of the cylinder, a pet cock controlling the flow of water through said leakage port, a drip pipe communicating with the lower end of the cylinder, a ring on the plunger located between the drip passage and the leakage port, a hydraulic valve casing, a diaphragm within the casing, a valve carried thereby, a spring pressing against the valve, a nipple within the valve casing and having a passage communicating with one end of the cylinder, said valve closing against the nipple, with a pipe communicating with the valve casing and leading from the water end of the pump.



2. The combination in a pump governor, of a steam valve casing, a valve therein, a rod connected to the valve, a cylinder mounted above the steam valve, a plunger therein having a ring fitting the cylinder, a lever bearing upon the plunger, a spring tending to raise the lever and the plunger so as to move the steam valve to the open position, said cylinder having a leakage port at its upper end, a valve controlling the flow of water from said leakage port, a drip pipe at the lower end of the cylinder, a hydraulic valve mounted above the cylinder, having a diaphragm, a hydraulic valve casing, a valve carried by the diaphragm, a nipple against which the valve seats, said nipple having an opening communicating with the upper end of the cylinder, a spring tending to force the hydraulic valve to its seat, means for adjusting the tension of said spring, with a pipe leading from the water side of the pump to the space between the diaphragm and the cylinder, so that, when the pressure of the water is increased, the valve will be raised and water will flow from the hydraulic valve casing into the cylinder, causing the plunger to move the valve to a closed position.

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1,037,774. RAIL-JOINT. DAVID WESLEY JAMES, Desmet, Idaho. Filed Mar. 20, 1912. Serial No. 685,015. (Cl. 239—6.)



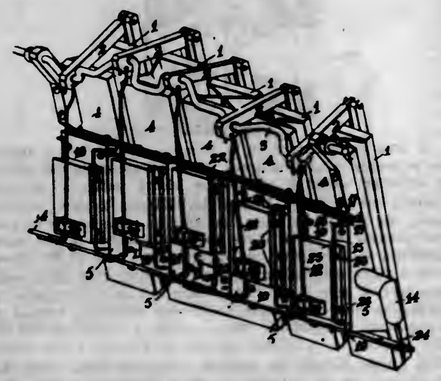
1. In a device of the character described, the combination of the meeting ends of the rails, the flanges on said rails having openings formed in their ends, locking plates, projections formed on said plates at each end thereof and adapted to engage in said openings to lock the ends of the rails together, and a clamping member having flanges formed thereon to engage over the locking plates to hold the same in an effective position, and means for securing said clamping member to the ties.

2. In a device of the character described, the combination of the meeting ends of the rails, the flanges on the end of one of said rails having transverse openings formed therein, the flanges on the end of the other of said rails having longitudinal openings formed therein, locking plates, hooks formed on one end of said plates, said hooks being disposed in said transverse openings and arranged thereacross, lugs formed on the other end of said plates and disposed in said longitudinal openings to lock the ends of the rails together, a clamping member having flanges formed thereon to engage over the locking plates to hold the same in an effective position, and means for securing said clamping member to the ties.

3. In a device of the character described, the combination of the meeting ends of the rails, the flanges on the end of one of said rails having transverse openings formed therein, the flanges on the end of the other of said rails having longitudinal openings formed therein, locking plates, hooks formed on one end of said plates, said hooks being disposed in said transverse openings and arranged thereacross, lugs formed on the other end of said plates and disposed in said longitudinal openings to lock the ends of the rails together, and means for holding said plates in effective position.

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1,037,775. PNEUMATIC MOTOR. VICTOR J. JOHNSON, Worcester, Mass. Filed Feb. 17, 1911. Serial No. 609,235. (Cl. 230—36.)



1. In a pneumatic motor, a bellows, a block having an air channel communicating with said bellows and provided with a valve seat, a slidable valve on said valve seat having longitudinal grooves in its sides, and a pair of metal guide ways for said valve consisting of a pair of wires engaging said grooves and bent at their ends to form offset legs held in said valve seat.

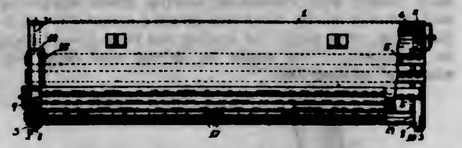
2. In a pneumatic motor, an assemblage of separable units, each comprising a motor bellows and a detachable channel block, and detachable pipes communicating with the channels of adjacent channel blocks.

3. In a pneumatic motor, an assemblage of separable units, each comprising a motor bellows and a channel block, detachable air pipes between the channels of adjacent blocks, and connecting bars attached to said channel blocks.

4. In a pneumatic motor, a valve seat, a valve slidable thereon, and metal ways for said valve, each consisting of a single piece of wire with a straight central section forming longitudinal guideways and having near their ends two right angled bends forming legs offset from the plane of the guideway and adapted to be held in said valve seat.

5. In a pneumatic motor, a valve seat and a guideway for a slidable valve thereon, consisting of a single piece of wire having a straight central section, with two right angled bends parallel with the plane of the valve seat and two right angled bends at right angles to the plane of the valve seat and having its ends held in the valve seat.

1,037,776. STEAM-BOILER. MICHAEL F. KENNEY, Newport, Ky. Filed Sept. 22, 1911. Serial No. 650,552. (Cl. 122—102.)



In a horizontal fire tube boiler, a cylindrical boiler shell, a downwardly and laterally spread depending water leg at each end of said shell having an inner arcuate flange of length greater than a semi-circle and extending at each side above the axial plane of and riveted to said shell, and an arcuate series of water tubes connecting the water legs, said series having a lateral spread greater than the diameter of said shell, and said water legs having upward and inward extending converging end walls engaging and riveted to the upper lateral portions of said shell, whereby the rivet connections between the water legs and the boiler are relieved of the strain of support of the water legs and of the series of water tubes.

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1,037,777. PISTON-VALVE. JAMES B. KINGAN and HUGO F. RIPKEN, Minneapolis, Minn. Filed June 3, 1912. Serial No. 701,401. (Cl. 136—5.)



1. A piston slide valve for engines, etc., comprising a casing, bushings mounted therein and provided each with a series of ports adapted to communicate with the cylinder in the engine, an auxiliary series of ports communicating with a steam chamber, concentrically mounted piston cylinders with longitudinal ducts intermediate the same, a stem fixed to said piston cylinders, bull rings mounted upon said cylinders and provided with circumferential ports, flanged packing rings mounted upon each bull ring, the edges of said packing rings forming parts of the walls of said ports, the space about the outer cylinder forming a direct passageway for the steam and the space between the cylinders an auxiliary passageway for the steam, as set forth.

2. A piston slide valve for engines, etc., comprising a casing, bushings mounted therein and provided each with a series of ports adapted to communicate with the cylinder in the engine, an auxiliary series of ports communicating with a steam chamber, concentrically mounted piston cylinders spaced apart and provided with flaring ends, forming an auxiliary passageway for the fluid pressure intermediate the cylinders, a bull ring supported about the flaring end of the inner cylinder and supporting the outer cylinder, bearing rings about said bull rings, portions of the bearing rings forming the marginal edges of the ports leading through the bull ring, and a stem fastened to the cylinder, as set forth.

3. A piston slide valve for engines, etc., comprising a casing, bushings mounted therein and provided each with a series of ports adapted to communicate with the cylinder in the engine, an auxiliary series of ports communicating with a steam chamber, concentrically mounted piston cylinders spaced apart and provided with flaring ends, forming an auxiliary passageway for the fluid pressure intermediate the cylinders, a bull ring supported about the flaring end of the inner cylinder and supporting the outer cylinder, bearing rings about said bull ring, portions of the bearing rings forming the marginal edges of the ports leading through the bull ring, followers for supporting the inner cylinder, and a stem fastened to the followers, as set forth.

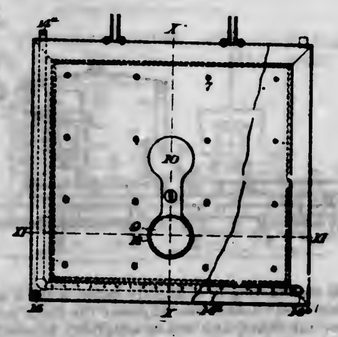
4. A piston slide valve for engines, etc., comprising a casing, bushings mounted therein and provided each with a series of ports adapted to communicate with the cylinder in the engine, an auxiliary series of ports communicating with a steam chamber, concentrically mounted piston cylinders spaced apart and provided with flaring ends, forming an auxiliary passageway for the fluid pressure intermediate the cylinders, a bull ring supported about the flaring end of the inner cylinder and supporting the outer cylinder, bearing rings about said bull ring, portions of the bearing rings forming the marginal edges of the ports leading through the bull ring, followers for supporting the inner cylinder, a bull ring surrounding each follower and bearing against the end of the inner cylinder, and a stem fastened to said followers, as set forth.

5. A piston slide valve for engines, etc., comprising a casing, bushings mounted therein and provided each with a series of ports adapted to communicate with the cylinder in the engine, an auxiliary series of ports communicating with a steam chamber, concentrically mounted piston cylinders spaced apart and provided with flaring ends, forming an auxiliary passageway for the fluid pressure intermediate the cylinders, a bull ring supported about the flaring end of the inner cylinder and supporting the outer cylinder, bearing rings about said bull ring, portions of the bearing rings forming the marginal edges of the ports leading through the bull ring, followers for supporting the inner cylinders, a bull ring surrounding each follower and bearing against the end of the inner cylinder, and a bearing ring surrounding the outer end of each follower and a portion of the adjacent bull ring, as set forth.

[Claim 6 not printed in the Gazette.]

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1,037,778. FURNACE-DOOR. LUTHER L. KNOX, Avalon, Pa., assignor to The Knox Pressed & Welded Steel Company, Niles, Ohio, a Corporation of Ohio. Filed May 12, 1910, Serial No. 560,855. Renewed July 25, 1912. Serial No. 711,574. (Cl. 75—182.)



1. A furnace door having a cooling chamber therein, and a water supply pipe extending downwardly into said chamber, and having an arm which extends transversely across the lower portion of the chamber and which has a plurality of discharge openings; substantially as described.

2. A furnace door comprising a hollow structure formed of shaped plates or sheets of metal having substantially parallel body portions and edge portions at an angle to the body portions, said edge portions being shaped, and united at the edges thereof to form hollow side, top, and bottom, portions which project inwardly from the body portion, and open into the hollow body portion; substantially as described.

3. A furnace door, formed from two generally rectangular metal plates or sheets, having flat body portions separated from each other to form a hollow door body, and all four of their edges bent inwardly at an angle, and shaped and united to form inwardly-projecting hollow side, bottom, and top, portions communicating with the space between the body portions of the sheets and inclosing a liquid receiving pocket; substantially as described.

4. A sheet metal furnace door comprising a hollow body portion and hollow side, top and bottom portions, the chambers of said side, top, and bottom, portions all forming extensions of the chamber of the body, and providing a continuous space for a cooling fluid; substantially as described.

5. A furnace door having a cooling chamber therein, and a pipe extending into said chamber and having a plurality of discharge openings, said pipe having its discharge end extending outwardly through the wall of the door and provided with a detachable closure; substantially as described.

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1,037,779. MEANS FOR HOLDING GLOBES. ANTON KUSERAUCH, Pittsburgh, Pa., assignor to Nernst Lamp Company, a Corporation of Pennsylvania. Filed Dec. 23, 1909. Serial No. 534,679. (Cl. 240—114.)



1. Means for attaching a lamp globe to its base, said means comprising a split ring, means for confining said split ring about the lamp globe, and means for attaching the confining means to the base.

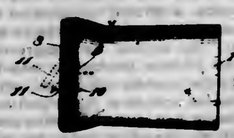
2. The combination with a globe and its base, said globe having protuberances, of a ring having cut-out portions for engaging said protuberances, and means for connecting the ring to the base.

3. The combination with a lamp globe and its base, said globe having protuberances, of a notched ring engaging said protuberances, a ring connected to said notched ring, and means on said second ring for engaging the base.

4. The combination with a lamp globe and its base, said base having notches, of a ring secured to said globe, and flexible fingers on said ring for engaging the notches in the base.

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1,037,780. REMOVABLE MOUTHPIECE FOR SMOKING-PIPES. FREDERICK R. LINDLEY, Corsicana, Tex. Filed Aug. 30, 1911. Serial No. 646,608. (Cl. 131—12.)



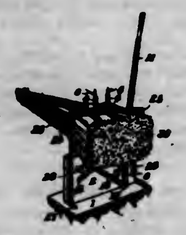
1. A mouth piece, comprising an elastic body having an open end and a thickened opposite closed end, the said thickened end being formed with a central aperture extending from the inner side to a point only partially through the same, and a flat tongue cut from the thickened end in the outer side thereof, and adapted to open and close the opening in said thickened end.

2. A mouth piece of the class described, comprising an elastic body having an open end and provided with a thick-

end end wall at the opposite end, and a flexible tongue cut from the said thickened end wall to provide a valve thereon and a counter seat therein for receiving the same, the said thickened wall being provided with an aperture opening through the inner side thereof and into the counter seat.

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1,037,781. BROOM-BUNDLING MACHINE. ALEXANDER P. LONGDON, Pittsburgh, Pa., assignor of one-fourth to Alida A. Sloane and one-fourth to Mary E. Longdon, Allegheny county, Pa. Filed Dec. 18, 1911. Serial No. 666,442. (Cl. 100—31.)



1. A broom bundling machine comprising a base plate, a vertical support carried thereby, needles carried by the upper edges of said support and adapted to receive brooms, a compression lever carried by said support for compressing said brooms to permit the bundling thereof, and means carried by said support for stripping said brooms from said needles.

2. A broom bundling machine comprising a support, needles carried thereby and adapted to receive brooms, a compression arm adapted to compress the brooms upon said needles, means adjacent to said support for holding said compression arm in a closed position whereby said brooms can be bundled, and means carried by said support for stripping said bundled brooms from said needles.

3. A broom bundling machine comprising a base plate, a support carried thereby, needles carried by the upper edges of said support and adapted to receive brooms, a compression arm supported by said support and adapted to be swung into engagement with said brooms for compressing said brooms, and means including a platform and an operating lever for stripping said needles of said bundled brooms.

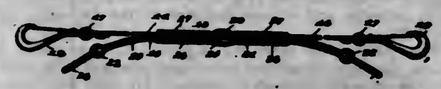
4. A broom bundling machine comprising a base plate, a support carried thereby, needles carried by the upper edges of said support and adapted to receive brooms, an upright carried by said support, a compression arm pivotally supported by said upright and adapted to be swung into engagement with said brooms for compressing said brooms upon said needles to permit of the bundling of the brooms, means carried by said base plate for holding said compression arm in a closed position, and means carried by said support for stripping said needles of said brooms after said compression arm has been released.

5. A broom bundling machine comprising a base plate, a support carried thereby, vertical parallel needles having the lower ends thereof mounted in said support and adapted to retain brooms, a pivoted compression arm arranged at one end of said support and adapted to be swung into engagement with the brooms for compressing the same upon said needles whereby the brooms may be bundled, a keeper carried by the opposite end of said support for holding said compression arm in a closed position during the tying of said brooms, and means including platform levers, a platform and an operating lever for stripping said needles of said brooms.

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1,037,782. HITCHING-STRAP. PAUL W. LUECKE, Rosslle, Ill. Filed Oct. 2, 1911. Serial No. 653,294. (Cl. 54—34.)

A hitching strap comprising a short section and a long section, snap hooks attached to the ends of the long section, the short section being bent upon itself and secured together producing loops at its opposite ends, rings engaged within the said loops, a filling strip interposed between the sides of the said short section, straps interposed be-



tween said sides of the short section and producing loops surrounding the long section, a knob attached to the short section between said straps and engaging the long section, substantially as and for the purposes set forth.

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1,037,783. MELLOWING COMPOUND FOR LIQUORS. FREDERICK A. LUTTERS, New York, N. Y. Filed Dec. 28, 1911. Serial No. 668,217. (Cl. 99—11.)

1. A compound for mellowing liquors, consisting of St. Johns bread, fruit, alcohol and syrup.

2. A compound for mellowing liquors, consisting of St. Johns bread, figs, raisins, alcohol and syrup.

3. A compound for mellowing liquors, consisting of St. Johns bread, fruit, alcohol and rock candy syrup.

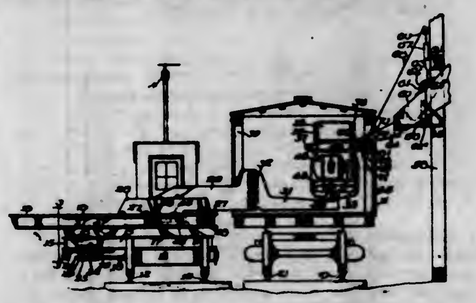
4. A compound for mellowing liquors, consisting of 100 lbs. of St. Johns bread, 50 lbs. of figs, 50 lbs. of raisins, 25 gallons of high proof alcohol, 12 gallons of pure rock candy syrup and 18 gallons of distilled water.

5. The process of making a compound for mellowing liquors, consisting in grinding and mixing St. Johns bread, figs and raisins, placing the same in a receptacle and adding a quantity of high proof alcohol, allowing the mixture to stand for some time, then adding rock candy syrup, stirring at intervals while allowing to stand for some time, drawing off the liquid from the top and pressing the fruit pulp to obtain the liquid therefrom, and mixing all of the liquid so obtained.

[Claim 6 not printed in the Gazette.]

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1,037,784. LOADING-MACHINE. GEORGE MANIERRE, Milwaukee, Wis., assignor to Ticknor-Manierre Company, Milwaukee, Wis., a Corporation. Filed Oct. 6, 1911. Serial No. 653,161. (Cl. 198—19.)



1. The combination of a delivery chute, a track adjacent said chute, a car loader also adjacent the track and separate from the chute, and means adaptably connecting the delivery end of the chute with the distributing hopper of the car loader.

2. The combination of a delivery chute, a track adjacent said chute, a car loader also adjacent the track and on the side thereof opposite to that on which the chute is located, and means adaptably connecting the delivery end of the chute with the distributing hopper of the car loader.

3. The combination of a delivery chute, a track adjacent the chute, a car loader also adjacent the track and separate from the chute, said car loader being supported for universal movement, and means securing the delivery end of the chute to the car loader.



4. The combination of a delivery chute, a track adjacent the chute, a car loader also adjacent the track and separate from the chute, and a universal connection between the delivery end of the chute and the car loader.

5. The combination of a delivery chute, a track adjacent the chute, a car loader also adjacent the track and separate from the chute, said loader being supported for universal movement, and a universal connection for securing the delivery end of the chute to the car loader.

[Claims 6 to 38 not printed in the Gazette.]

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1,037,785. SPRAYER FOR FIRE-HOSE AND THE LIKE. JOHN B. MARSHALL, San Francisco, Cal. Filed Jan. 23, 1912. Serial No. 672,056. (Cl. 137—86.)

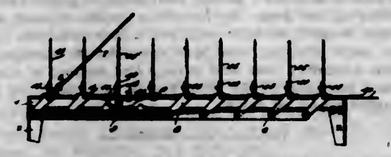


1. In combination with an internally threaded cylinder having an end formed with a central aperture, an externally threaded tube passing through said aperture and having, within the cylinder, an externally threaded flange screwed into said cylinder, the inner end of the tube being formed with a valve seat, a tangentially apertured disk within the cylinder, movable therewith, and formed with a central valve adapted to close against said valve seat when the cylinder is screwed in the proper direction upon said flange, and a tapering nozzle on the side of said disk remote from said valve seat and movable with the cylinder.

2. In combination with an internally threaded cylinder having an end formed with a central aperture, the part of the wall of said cylinder remote from said aperture being reduced in thickness on the inside forming a shoulder, an externally threaded tube passing through said aperture and having within the cylinder an externally threaded flange screwed into said cylinder, the inner end of said tube being formed with a valve seat, a tangentially apertured disk resting on said shoulder and formed with a central valve adapted to close against said valve seat, and a conical nozzle screwed into said reduced part of said wall and clamping said disk against said shoulder.

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1,037,786. TUFTING-MACHINE. CHARLES H. MARTIN, Hammond, Ind. Filed Nov. 27, 1911. Serial No. 662,726. (Cl. 112—24.)



1. In a tufting machine, the combination with a frame, a series of parallel rock bars having stub shafts journaled in said frame, the bodies of the bars being of angular cross section and their leaves having longitudinal slots, a plurality of series of angular clamps, each having one arm connected by adjustable means with one of said slots and its other arm outstanding radially from the bar, and a needle carried by the last-named arm; of means connected with the stub shafts of the various bars for turning the latter in unison.

2. In a tufting machine, the combination with a frame, a series of parallel rock bars having stub shafts journaled in said frame, the bodies of the bars having a plurality of series of longitudinal slots, a plurality of angular clamps, each having one arm connected by adjustable means with one of said slots and its other arm outstanding radially from the bar, and a needle carried by the last-named arm; of levers carried by the stub shafts of the various bars, a link pivotally connecting all the levers, and means for moving the link to turn the bars in unison.

3. In a tufting machine, the combination with a frame, a series of bars having stub shafts journaled in said frame, the bodies of the bars being of right-angular cross section, two series of right-angular clamps whereof the inner arms of those in one series are attached to one leaf of said bars and the similar arms of those in the other series are attached to the other leaf thereof, and needles carried by the last-named arms; of means for turning the bars in unison through a one-quarter revolution.

4. In a tufting machine, the combination with a series of rock bars each having two of its leaves disposed at right angles to each other and slotted longitudinally of the bar, and means for turning all the bars in unison through a one-quarter revolution; of two series of right-angular clamps all having needle-holders on their outwardly projecting arms and their inner arms formed into feet adapted to lie across said slot and toes at the extremities of the feet adapted to hook over the edges of the rock-bars, the feet of the clamps in one series being disposed on one leaf of the bars and those of the clamps in the other series on the other leaf thereof, and bolts passing through all the feet and adjustably holding the clamps in said slot.

5. In a tufting machine, the combination with a series of rock bars, and means for turning them all in unison through a one-quarter revolution; of two series of clamps attached to each bar and all having needle-holding fingers projecting radially outward therefrom, and two series of needles held in said fingers, those in one series standing at right angles to those in the other.

[Claim 6 not printed in the Gazette.]

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1,037,787. NECKTIE-HOLDER. AMOS A. MATHEWS, Bowling Green, Mo. Filed Sept. 27, 1907. Serial No. 394,799. (Cl. 2—84.)



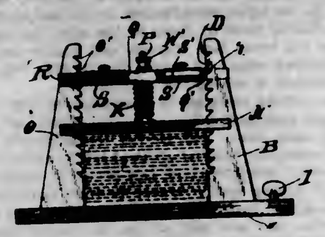
1. A necktie holder comprising, a rigid member having one arm extending upwardly and outwardly and then downwardly and having a second arm extending outwardly nearly horizontally and then downwardly; the bend in one of said arms being higher than the bend in the other of said arms, so that a line connecting the lower ends of said arms is at an angle relative to a line connecting said bends, so that when the first mentioned line is horizontal, the other line is inclined upwardly to an extent corresponding to the upper edge of an ordinary four-in-hand tie when hanging vertically; hooks extending upwardly from the ends of the arms; and a spring connected to the arms and adapted to press downwardly upon a collar button.

2. A necktie holder comprising, a rigid member having one arm extending upwardly and outwardly and then downwardly and having a second arm extending outwardly nearly horizontally and then downwardly; the bend in one of said arms being higher than the bend in the other of said arms, so that a line connecting the lower ends of said arms is at an angle relative to a line connecting said bends, so that when the first mentioned line is horizontal the other line is inclined upwardly to an extent corresponding to the upper edge of an ordinary four-in-hand tie when hanging vertically; hooks extending upwardly from the ends of the arms; a pin carried by the rigid member;

and a spring carried by the rigid member and adapted to press downwardly upon a collar button, said hooks being adapted to press upwardly on a collar.

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1,037,788. RURAL-CARRIER'S ROUTING DEVICE. JAMES WATSON MAUPIN, Stuarts Draft, Va. Filed May 7, 1912. Serial No. 695,789. (Cl. 129—28.)



1. A routing device for rural mail carriers, comprising a plate, a fixed and an adjustable standard mounted thereon and each provided with serrations upon their adjacent edges, a follower with slotted ends adapted to engage said standards, a block, a spring interposed between the same and the follower, and dogs carried by the block and adapted to engage said teeth, as set forth.

2. A routing device for rural mail carriers, comprising a plate, a fixed and an adjustable standard mounted thereon and each provided with serrations upon their adjacent edges, a follower with slotted ends adapted to engage said standards, a pin projecting from the follower, a block through which said pin projects, a spring interposed between the block and follower, and dogs mounted upon the block and adapted to engage said teeth, as set forth.

3. A routing device for rural mail carriers, comprising a plate, a fixed and an adjustable standard mounted thereon and each provided with serrations upon their adjacent edges, a follower with slotted ends adapted to engage said standards, a pin projecting from the follower, a block through which said pin projects, a spring interposed between the block and follower, and dogs adjustably held upon said block and adapted to engage said teeth, as set forth.

4. A routing device for rural mail carriers, comprising a plate, a fixed and an adjustable standard mounted thereon and each provided with serrations upon their adjacent edges, a follower with slotted ends adapted to engage said standards, a pin projecting from the follower, a block through which said pin projects, a spring interposed between the block and follower, spring-pressed dogs, casings in which the same are mounted, and projections upon said casing movable in slots upon said block, as set forth.

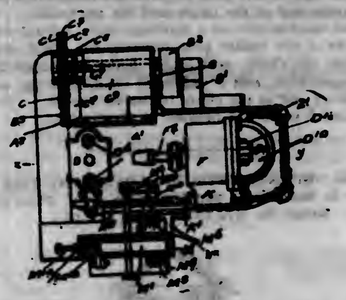
5. A routing device for rural mail carriers, comprising a plate, a fixed and an adjustable standard mounted thereon and each provided with serrations upon their adjacent edges, a follower with slotted ends adapted to engage said standards, a pin projecting from the follower, a block having an aperture therein for the reception of said pin, a spring interposed between the block and follower, a knob upon the pin, said block having slots therein, a casing movable in each slot, and a spring-pressed dog in each casing, as set forth.

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1,037,789. FLUE-EXPANDER. JOHN THOS. MCGRATH, Battle Creek, Mich. Filed Aug. 15, 1910. Serial No. 577,165. (Cl. 153—80.5.)

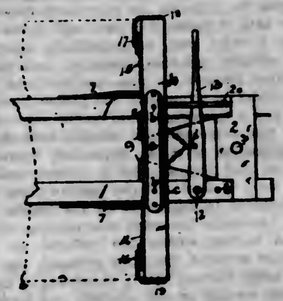
1. A machine for expanding flues comprising a clamp, an expander, means for operating the clamp and expander by compressed fluid and a lever for controlling the flow of fluid to said means so as to first operate the clamp and then the expander.

2. A machine for expanding flues comprising a clamp, a power operated piston connected therewith, an expander, a power operated piston for the same and a lever for controlling the operation of the pistons, substantially as described.



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1,037,790. CAR-COUPLING. JOHN C. MESSINESS, Wolsey, S. D. Filed Aug. 11, 1906. Serial No. 330,263. (Cl. 213—88.)

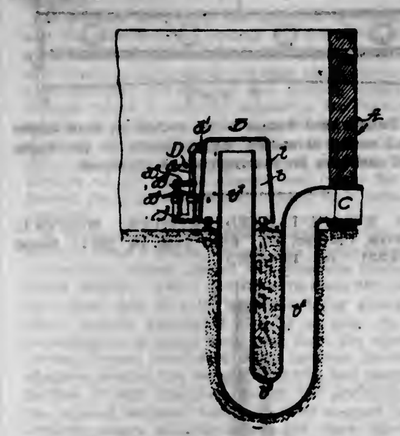


The combination with two parallel sills, of a head block, having a pin opening and securing said sills at their ends, two draft bars secured below said sills, a head block, having a pin opening and securing said draft bars at their ends, an end sill secured transversely to said parallel sills, a grooved pulley secured to each end of said transverse sill, a horizontally disposed operating lever secured at one end to one of said parallel sills and extending over the other adjacent sill, two jaws pivotally held between said sills and draft bars, said jaws having their inner opposite faces extending at an angle to present a wedge shaped space, springs secured between said draft bars and sills having their ends pressing said jaws toward one another, and chains extending over said pulleys and secured at one end to said jaws and at the other end to said operating lever, all arranged as set forth.

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1,037,791. ADJUSTABLE VENT FOR SIPHONS. SAMUEL F. MILLER, South Orange, N. J., assignor to Pacific Flush Tank Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 28, 1909. Serial No. 514,717. (Cl. 183—8.)

1. In a siphon, in combination with the longer and the shorter leg thereof, of a vent adapted for determining both the sealing level and low head of the siphon embracing a U-shaped pipe having substantially upright legs, one of which is longer than the other, means connecting the longer leg of the vent with the interior of the siphon, the upper end of the shorter leg of the vent being located substantially at the sealing level of the siphon, and means for adjusting the level of the bend of said U-shaped pipe with reference to the substantially fixed level of the said shorter leg of the vent, said means being adapted for varying the low head of the siphon, determined by the height of the bend of the vent, to different levels below said sealing level of the siphon.



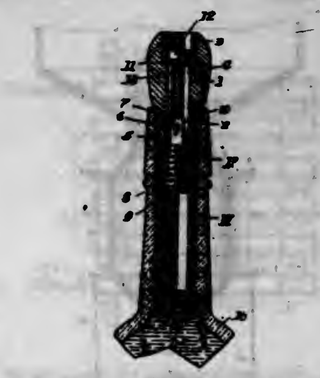
2. In a siphon of the class described including a vertical pipe forming the longer leg of the siphon and an inverted bell located over the upper end of said pipe and forming the shorter leg of the siphon, a vent adapted for determining both the sealing level and the low head of the siphon, said vent being located without the bell and embracing a U-shaped pipe having substantially upright legs, one of said legs being longer than the other, means connecting the longer leg of the vent with the interior of the bell, the upper end of the shorter leg of said vent being located substantially at the sealing level of the siphon, and means for adjusting the level of the bend of the U-shaped vent with reference to the substantially fixed level of the upper end of said shorter leg of said vent.

3. In a siphon of the class described including a vertical pipe forming the longer leg of the siphon and an inverted bell located over the upper end of said pipe and forming the shorter leg of the siphon, a vent adapted to determine both the sealing level and low head of the siphon, located without the bell and comprising two substantially upright pipes, one of said pipes being longer than the other, means connecting the longer pipe of the vent with the interior of the bell, means for supporting the shorter pipe of the vent with its upper end substantially at the sealing level of the siphon and a U-shaped pipe connecting the lower ends of said upright pipes of the vent, the legs of the U-shaped pipe having telescoping connection with said upright pipes.

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1,037,792. BOTTLE CLOSURE OR STOPPER. MICHAL MOSAWINSKI, Pittsburgh, Pa. Filed Mar. 14, 1912. Serial No. 683,783. (Cl. 215—19.)

A bottle stopper comprising a body having the lower end reduced and adapted to extend into the neck of a bottle, the enlarged portion of said body seated upon the top edge of the neck of the bottle, said body provided with a longitudinal bore terminating at its upper end in a socket at the top of said body, an apertured disk mounted upon the bottom of the socket and constituting an abutment, a bushing provided with a rectangular opening mounted in said bore at the lower end thereof, a pin having a rectangular lower portion extending through said opening and carrying a head at its lower end, the upper portion of said pin being threaded and extending through said disk, resilient gripping members mounted upon said pin and supported at said head and adapted to engage the lower end of said body and adapted to grip the inner face of the neck of a bottle, and a nut operated nut mounted upon the threaded portion of the pin for shifting the latter to elevate the lower said member and engaging said disk for maintaining the pin in an adjustable position.



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1,037,793. GRAIN-LOADER. PATRICK J. MULLOY, Grand Forks, N. D., assignor of one-half to Philip S. Houghton, Grand Forks, N. D. Original application filed Sept. 4, 1906, Serial No. 333,106. Divided and this application filed Aug. 18, 1910. Serial No. 577,797. (Cl. 56—61.)



1. In a loader for grain, a receptacle for the grain, a conveyer leading to said receptacle, and a shock overturning means extending forwardly beyond the front of the conveyer, said overturning means being non-rotatably mounted on the loader for participation in the forward movement of the loader so as to overturn the shocks by contacting therewith.

2. In a grain loader, a conveyer for the grain, and an overturning means for the shocks mounted on the loader and extended forwardly beyond the front of the loader for engaging and acting on the shocks to overturn them in a direction away from and in line with the receiving end of the conveyer.

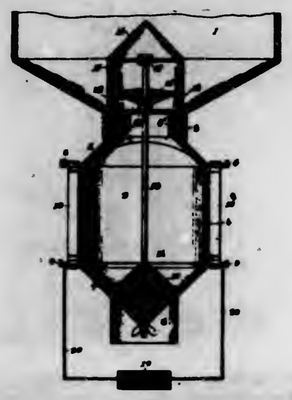
3. In a grain loader, an overturning means for the shocks mounted on the loader and extended beyond the front thereof in the line of travel and in operation approximately horizontal, said overturning means engaging the shocks to overturn them in a direction away from and in the line of travel of the front end of the loader.

4. In a grain loader, a conveyer, and an overturning means for the shocks mounted on the loader in substantially fixed relation thereto in front of the conveyer and having the shock contacting portions of greater lateral extent than the conveyer and shaped to direct the shocks on being overturned into the path of the receiving end of said conveyer.

5. In a grain loader, a shock overturning means provided with sustaining means therefor mounted on the loader and provided with means whereby the sustaining means are adapted to be supported by the draft animals used to propel the machine.

[Claims 6 to 15 not printed in the Gazette.]

1,037,794. MEASURING VESSEL. WALLACE NEWTON, Huron, S. D. Filed Sept. 6, 1911. Serial No. 647,866. (Cl. 73—133.)



1. A measuring vessel comprising telescoping members having an upper inlet and a lower outlet, upper and lower cut-offs for the inlet and the outlet, means adjustably connecting the lower cut-off to the upper cut-off to vary the capacity of the vessel, and means for moving one of the members of the vessel to effect the discharge of the contents thereof, the inlet closing in advance of the opening of the outlet and the latter closing in advance of the opening of the inlet when sliding the members together.

2. A measuring vessel comprising upper and lower telescoping shells, yieldable connecting means between the two shells, the upper shell having an inlet and the lower shell an outlet, a cut-off for the inlet embodying a follower having a limited movement, a cut-off for the outlet, connecting means between the cut-offs having a limited movement with reference to the said follower and having adjustable connection with the lower cut-off, and means for moving the lower shell upon the upper shell in opposition to the yieldable connection.

3. In combination a hopper, a shell having a portion extending into the hopper and provided with an opening to admit of the contents of the hopper discharging into the shell, a lower shell telescoping with the upper shell and having a discharge opening, a yieldable connection between the two shells, upper and lower cut-offs for the entrance and the discharge openings of the measuring vessel, the upper cut-off embodying a follower and connecting means between the two cut-offs having a limited movement with reference to the said follower and adjustable connection with the lower cut-off.

4. In combination a hopper, an upper shell having an extension projecting into the hopper and formed with an inlet opening, a lower shell telescoping with the upper shell and having a discharge opening, a yieldable connection between the two shells an upper cut-off embodying a follower having a limited movement, a lower cut-off, a connection between the cut-offs having a limited movement with the said follower and adjustable connection with the lower cut-off, and means for moving the lower shell against the tension of the yieldable connection.

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1,037,795. SPLICE-BAR. FRANK POWELL, Los Angeles, Cal. Filed May 5, 1911. Serial No. 625,194. (Cl. 238—6.)

1. A railway splice comprising a plate bent to provide an upwardly arched base and inset upwardly extending parallel flanges, said flanges being arched on their upper edges and projecting ribs arranged in spaced parallel relation to each other and rising from the inner face of said base.

2. A railway splice comprising a plate bent to provide an upwardly arched base and inset upwardly extending



parallel flanges, said flanges being arched on their upper edges and means extending longitudinally of the upper surface of said base for spacing the rail therefrom.

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1,037,796. BIT AND TAP AND DIE CHUCK. WILLIAM L. PROCUNIER, Chicago, Ill. Filed June 16, 1911. Serial No. 633,531. (Cl. 10—135.)



1. A chuck comprising two elements, one being a driving and the other a driven element, the driven element having tool-holding means; a third element for frictional transmission of rotary movement from the driving to the driven element, one of said first-mentioned two elements having a chambered terminal which centrally receives a terminal of the other, one of said terminals being slow-tapered, said third element being radially expansible and contractible and interposed in said chamber between the wall thereof and the other terminal therein, the tapered terminal being positively engaged for rotation without rotary slipping with said radially expansible and contractible third element, and means for forcing said tapered terminal in axial direction with respect to said third element.

2. A chuck comprising two elements, one being a driving and the other a driven element, the driven element having tool-holding means; a third element for frictional transmission of rotary movement from the driving to the driven element of different material from the other two elements; one of said first-mentioned tool elements having a chambered terminal which centrally receives a terminal of the other, one of said terminals being slow-tapered, said third element being radially expansible and contractible and interposed in said chamber between the wall thereof and the other terminal therein, the tapered terminal being positively engaged for rotation without rotary slipping with said radially expansible and contractible third element, and means for forcing said tapered terminal in axial direction with respect to said third element.

3. A chuck comprising two elements, one being a driving and the other a driven element, the driving element having a slow-tapered terminal and the driven element having tool holding means; a third element for frictional transmission of rotary movement from the driving to the driven element, the driven element having a cylindrical or non-tapered chamber into which the tapered terminal of the driving element extends, said third element being pinral-membered and having its members interposed in the chamber at opposite sides of the tapered terminal, and means for positively forcing said tapered terminal into said chamber.

4. A chuck comprising two elements, one being a driving and the other a driven element, the driving element having a slow-tapered terminal and the driven element having a cylindrical or non-tapered chamber which centrally receives said terminal and having tool holding means; a third element which is radially expansible for frictional transmission of rotary movement from the driving to the driven element, interposed in the annular interval in said cylindrical chamber around the tapered terminal therein and stopped on the bottom thereof, and means for positively forcing the tapered terminal inward with respect to said chamber.

5. A chuck comprising two elements, one being a driving and the other a driven element, the driven element having tool-holding means, one of said elements having a chambered terminal which centrally receives the terminal of the other, one of said terminals being slow-tapered; a third radially expansible element of fiber for frictional transmission of rotary movement from the driving to the driven element interposed in the annular interval in said chamber around the terminal therein, and stopped on the bottom of said chamber; means for positively engaging the tapered terminal with said third element for rotation without rotary slipping of the one upon the other, and means for positively forcing such tapered terminal inward with respect to said chamber.

[Claims 6 to 8 not printed in the Gazette.]

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1,037,797. DOUGH-ROUNDING MACHINE. HENRY MALLARD RUFFIN, Memphis, Tenn. Filed May 29, 1911. Serial No. 630,244. (Cl. 107—9.)

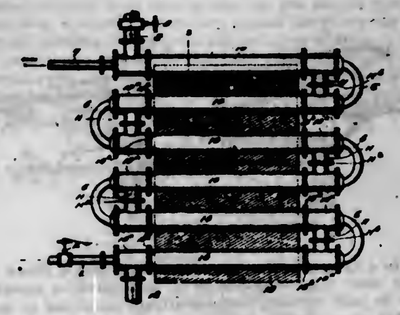


1. In a dough rounding machine, the combination with a wing of a bracket on which the wing is pivotally mounted, a rod pivotally mounted to the upper edge of said wing and provided with an elongated slot, a pin on said bracket adapted to enter said slot and means to clamp the wing on its pivot in an adjusted position, a slotted guide for the lower end of said bracket and a power shaft and an arm connecting said bracket to said shaft whereby the wing may be reciprocated laterally.

2. In a dough rounding machine, the combination with a shuttle bar having a roughened face, of a wing on each side of said bar having a roughened concaved working face, a bracket for each wing to which the wings are respectively pivoted, a rod pivotally connected to the upper edge of each wing and provided with an elongated slot, a pin on each bracket adapted to enter said slot, means to clamp the wings in an adjusted position, a power shaft, an arm connecting said shaft to said bracket whereby the wings are reciprocated laterally, a bevel gear mounted on said shaft, a bevel pinion meshing with said gear, a disk carried by said pinion, a wrist pin on said disk and a link secured to said wrist pin and to said shuttle bar whereby the shuttle bar is reciprocated longitudinally.



1,037,798. SYSTEM OF CLARIFICATION. CHARLES RUMPF, Napoleonville, La. Filed Nov. 3, 1911. Serial No. 658,201. (Cl. 127—7.)

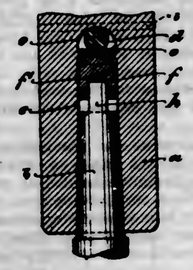


1. An apparatus for clarifying cane juice, comprising a series of drums with staggered connections between said drums, diaphragms closing the ends of said drums, tubes for the cane juice opening through the diaphragms at each end of the drum, a curved end connection connecting the tubes of one drum with the tubes of the next, a steam pipe opening into the shell of the first drum, and means for delivering the water of condensation from the shell of the last drum, with steam connections between the several drums, substantially as described.

2. An apparatus for clarifying cane juice, comprising a series of drums with staggered connections between said drums, diaphragms closing the ends of said drums, tubes for the cane juice opening through the diaphragm at each end of the drum, a curved end connection connecting the tubes of one drum with the tubes of the next, each of said end connections having a funnel-shaped mouth at each end and a curved central portion connected thereto, a steam pipe opening into the shell of the first drum, and means for delivering the water of condensation from the shell of the last drum, substantially as described.

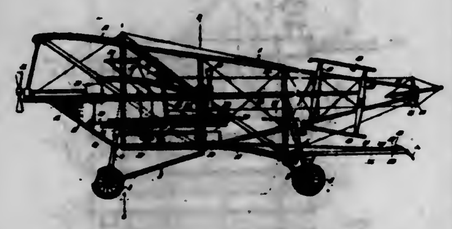
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1,037,799. RELEASING MECHANISM FOR BORING-TOOLS. WILHELM SCHÄFER, Cologne, Germany. Filed Dec. 17, 1909. Serial No. 533,660. (Cl. 29—141.)



A device for releasing a boring tool from the spindle or holder comprising in combination a transverse revolvable shaft, means for retaining said shaft from transverse movement in the spindle, a transverse cap axially guided in said spindle and recessed to engage the tang of the bore tool, collars on said cap engaging with said transverse shaft to prevent transverse movement of the cap, and cams on said transverse shaft engaging with said cap and adapted to force it axially outward when said cam shaft is rotated, for the purpose of releasing the bore tool from the spindle.

**1,037,899. FLYING-MACHINE.** FRED LOUIS SCHAUFLER, Mattoon, Ill., assignor to National Aerial Navigation & Equipment Co., Cullman, Ala., a Corporation. Filed Feb. 2, 1911. Serial No. 606,114. (Cl. 244—14.)



1. In a flying machine, the combination with a frame, of one or more supporting planes on said frame, a movable plane on said frame, a rod operatively connected to said movable plane, said rod having a considerable length, whereby it can be operated from a plurality of points, and automatic locking means for automatically securing said rod and said movable plane in any adjusted position.

2. In a flying machine, the combination with a frame, of one or more supporting planes on said frame, a movable plane on said frame, a rotatable and slidingly-mounted rod operatively connected to said movable plane so as to operate the same, said rod having a considerable length, whereby it may be operated from a plurality of points, and an automatic lock adapted to be operated by the rotation of said rod, and adapted to automatically lock said rod in any position of adjustment.

3. In a flying machine, the combination with a frame, of one or more supporting planes on said frame, a movable plane on said frame, a rotatable and slidingly-mounted rod operatively connected to said movable plane so as to operate the same, said rod having a considerable length, whereby it may be operated from a plurality of points, said rod having a groove extending longitudinally thereof, with recesses extending into said groove to form teeth therebetween, and a pawl adapted to automatically engage said recesses to lock said rod in any position of adjustment, and adapted to be moved out of said recesses by the rotation of said rod.

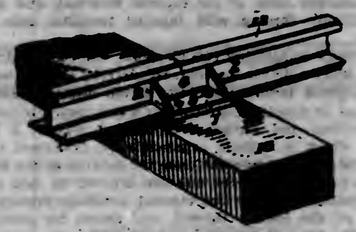
4. In a flying machine, the combination with a frame, of one or more supporting planes on said frame, a balancer mounted adjacent the rear of said frame and comprising a plurality of parallel planes connected to arms in parallel spaced relation, said arms being pivotally connected with said frame, an elevator, comprising a plane pivotally connected to said frame, equilibrium planes mounted on said frame and adapted to control the transverse equilibrium of said flying machine, a cabin mounted on said frame, and means for controlling said equilibrium planes, said balancer and said elevator from any point in said cabin.

5. In a flying machine, the combination with a frame, of one or more supporting planes on said frame, a pair of equilibrium planes pivotally mounted on each side of said frame, said equilibrium planes being operatively connected in pairs so as to act in unison, the uppermost of said equilibrium planes being longitudinally offset relative to the lowermost, and means for operating said equilibrium planes.

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**1,037,901. RAIL-JOINT.** NICHOLAS SMIAR, Braddock, Pa. Filed June 8, 1912. Serial No. 702,540. (Cl. 239—6.)

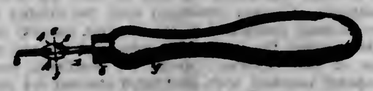
In a rail joint, the combination with a tie and the abutting ends of rails, of a rail chair arranged upon said tie and adapted to support said rails, said rail chair being formed of a rectangular malleable blank having the longitudinal edges thereof at the ends provided with triangular shaped extensions, said blank having a plurality of spike openings formed therein, said blank being bent to provide lateral flanges and splice-bars adapted to engage the sides of said rails, said extensions being bent to provide triangular braces for said splice-bars, and spikes extending



through the openings of said chair and the base flanges of said rails for retaining said chair upon said tie.

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**1,037,902. LANCET.** ALFRED C. SMITH, Malden, Nebr. Filed Sept. 15, 1909. Serial No. 517,833. (Cl. 128—27.)



The herein described construction of lancets, comprising a shank which is rounded in cross section, and which is flared toward its outer reduced and rounded end, cutting elements integrally formed upon the shank and arranged directly opposite each other upon the opposite sides of the shank and at a distance from the rounded end of the shank, the said cutting elements being substantially elliptical and terminating in cutting edges central of the major axis thereof, the said cutting elements having their cutting edges curved upwardly and gradually from their juncture with the shank and adjacent the rounded end thereof, the rear portions of the edges of the said cutting elements being rounded abruptly to their juncture with the shank, and each of the said cutting elements providing a body which is substantially elliptical at its longitudinal juncture with the shank.

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**1,037,903. AUTOMATIC LOCKING DEVICE.** BURDSEY W. SMITH, Oroville, Cal. Filed Apr. 11, 1911. Serial No. 620,814. (Cl. 16—66.)



1. In a lock, a hooper, and a bolt slidably mounted for movement into and out of engagement with the hooper, said bolt being also pivotally mounted for movement into and out of engagement with the hooper independently of the sliding movement.

2. In a locking device, a hooper, an elongated bolt supported slidably with reference to and for engagement with the hooper, and pivotal supporting means whereby said bolt is supported intermediate the ends thereof to permit said bolt to be moved into and out of engagement with the hooper by a rotary movement about the pivotal axis independently of the sliding movement of said bolt.

3. In a locking device, a hooper, a bolt supported slidably with reference to the hooper for engagement therewith, pivotal supporting means for the bolt to enable the latter to be moved out of the path of the hooper independently of the sliding movement of the bolt.



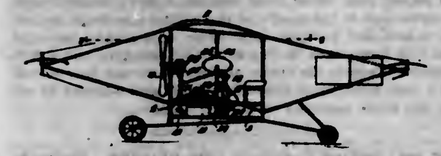
4. In a locking device, a hooper, a bolt slidably supported for engagement therewith and a pivot member engaging the bolt, the axis of said pivot member being positioned substantially at right angles to the direction of movement of the bolt to enable the latter to move into and out of engagement with the hooper independently of the sliding movement of said bolt.

5. In a locking device, a slidably supported elongated bolt member having a longitudinal slot, a pivot member extending through the longitudinal slot and supporting the bolt member, springs interposed between the pivot member and the ends of the slot, means for turning the bolt member about the pivot member to the extent of one-quarter revolution at suitable intervals, and means for obstructing the reverse rotation of the bolt member.

[Claim 6 not printed in the Gazette.]

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**1,037,904. FLYING-MACHINE.** THAUCOTTE A. TANNER, Flint, Mich., assignor of one-half to Benjamin Franklin Miller, Jr., Flint, Mich. Filed Dec. 21, 1910. Serial No. 598,511. (Cl. 244—29.)



1. In a flying machine, the combination of a gliding structure, a channeled ring mounted to tilt in a fore and aft direction upon the frame of the gliding structure, a second ring mounted to turn in a transverse direction in said channeled ring, a shaft journaled in said second ring, a gyroscope wheel carried by said shaft, a propeller shaft, a driving motor in gear therewith, a flexible shaft in gear at one end with said propeller shaft, a clutch device for connecting the opposite end of said flexible shaft with the gyroscope shaft, means mounted upon the said second ring for throwing said clutch device into and out of action, and balancing devices controlled by the turning movement of the second ring.

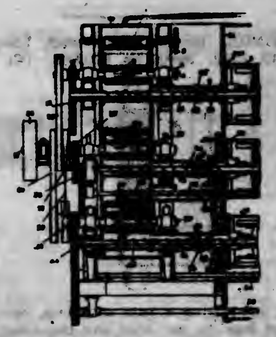
2. In a flying machine, the combination of a gliding structure, a channeled ring mounted to tilt in a fore and aft direction upon the gliding structure, a second ring mounted to turn in a transverse direction in said channeled ring, a gyroscope wheel mounted upon said shaft to rotate within the second ring, a two-part casing secured to the channeled ring and inclosing the gyroscope wheel and the major portion of the shaft, a bracket supported by the second ring and carrying a toothed rack, a propeller shaft, a driving motor in gear therewith, a flexible shaft in gear at one end with said propeller shaft, a clutch device for connecting the opposite end of said propeller shaft with the gyroscope shaft, a lever mounted upon the bracket for throwing said clutch device into and out of operation, said lever being provided with a dog to engage said rack, and balancing devices coupled to and controlled by the turning movements of the said second ring.

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**1,037,905. APPARATUS FOR MAKING FLOUR AND MEAL.** ALFRED ELLSWORTH TATTERSALL, London, England. Filed Sept. 26, 1909. Serial No. 519,594. (Cl. 83—12.)

1. In a self-contained flour mill, the combination of a casing, a plurality of pairs of break-rolls, a plurality of reduction rolls in the casing below the break-rolls, a scalping sieve below the first pair of break-rolls, means for guiding tailings from said scalper to the second pair of break-rolls, a centrifugal dresser, means for delivering the material passing through the scalper sieve thereto, a second centrifugal dresser for the stock from the second pair of break-rolls, provided at its finishing end with a scalper, and means for delivering the product of the second pair of break-rolls to said second centrifugal dresser.

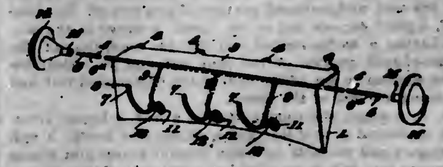
2. In a self-contained flour mill, the combination of a casing, a plurality of pairs of break-rolls, a plurality of reduction rolls in the casing below the break-rolls, a scalping sieve below the first pair of break-rolls, means for guiding tailings from said scalper to the second pair of break-rolls, a centrifugal dresser, means for delivering the material passing through the scalper sieve thereto, a second centrifugal dresser for the stock from the second pair of break-rolls, provided at its finishing end with a scalper, and means for delivering the product of the second pair of



break rolls to said second centrifugal dresser, means for delivering the tailings of the first centrifugal dresser and the material passing through the scalper at the finishing end of the second centrifugal dresser to the first pair of reduction rolls, another centrifugal dresser provided with a cut-off, for dressing the product of the first reduction rolls, means for delivering the stock passing through the cut-off portion of said last-mentioned centrifugal dresser to the second reduction rolls, and a centrifugal dresser for the product of second reduction rolls.

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**1,037,906. HANDBAG AND HAT FASTENER.** CORNELIUS E. THORNTON and MARIE THORNTON, Los Angeles, Cal. Filed July 6, 1911. Serial No. 637,045. (Cl. 183—25.)



1. A device of the character specified, comprising a shield plate provided at each end with a bearing, a rod journaled in the bearings and movable longitudinally, said rod having spaced laterally extending teeth, each tooth comprising a straight shank and a point curved on an arc whose center is the rod, the shield plate having an opening for each tooth to permit the passage of the tooth when the rod is rotated, each opening having a lateral extension out of register with the tooth for preventing the passage of the tooth, the tooth having an off-set portion for engaging the edge of the extension when the rod is moved longitudinally in one direction to lock the tooth in extended position, said plate having means whereby it may be connected to a bat.

2. A device of the character specified, comprising a plate, a rod journaled longitudinally of the plate on one side thereof, and slidable longitudinally, said rod having a plurality of laterally extending teeth, and the plate having openings for permitting the passage of the teeth when the rod is rotated, each opening having a lateral extension out of register with the end of tooth for preventing the passage of the teeth, each tooth having an offset portion for engaging the edge of the extension when the rod is moved

longitudinally in one direction to lock the teeth in extended position.

3. A device of the character specified, comprising a plate for attachment to a hat, a rod journaled alongside the plate, and slidable longitudinally thereof, said rod having a plurality of laterally extending teeth, and the plate having openings for permitting the passage of the teeth when the rod is rotated, and means in connection with the rod and the plate for locking the teeth in extended or in retracted position when the said rod is moved longitudinally in one direction.

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1,037,807. HINGE. GEORGE B. THURMM, Lincoln, Nebr. Filed Jan. 12, 1912. Serial No. 670,868. (Cl. 16—112.)



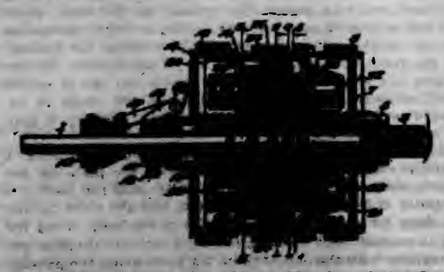
1. A hinge comprising a pair of leaves, one having a pair of spaced lugs on one edge and the other having a web on the corresponding edge, said web having a wedge-shaped portion, a barrel disposed and movable between the lugs of the first-mentioned leaf and having a slot receiving the wedge-shaped portion of the web of the other leaf, a pivot for one end of the barrel, a sleeve in the barrel having a wedge-shaped slot for the reception of the wedge-shaped portion of the said leaf and an adjustable pivot element in one of the lugs of the first-named leaf and engaging one end of the sleeve.

2. A hinge comprising a pair of leaves, one having a pair of spaced lugs on one edge and the other having a web on the corresponding edge, said web extending laterally from the leaf and terminating in a wedge-shaped portion disposed at right angles to the general plane of the leaf, a barrel disposed and movable vertically between the lugs of the first-mentioned leaf and having a slot receiving the said wedge-shaped portion of the web of the other leaf, a pivot for one end of the barrel, a sleeve in the barrel having a wedge-shaped slot for the reception of the wedge-shaped portion of the said leaf and an adjustable pivot element in one of the lugs of the first-named leaf and engaging one end of the sleeve.

3. In a hinge, the combination of a leaf, a barrel pivotally connected to said leaf and a second leaf having a web to engage and movable laterally in said barrel and means to secure said web in an adjusted position in said barrel.

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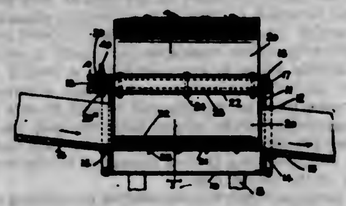
1,037,806. PLANETARY GEARING. KENNETH TROWBRIDGE, Atlanta, Ga. Filed Aug. 5, 1910. Serial No. 575,661. (Cl. 74—84.)



In variable speed gearing, the combination of aimed engine and driving shafts, a gear wheel secured to the engine shaft, a second gear wheel loose upon the engine shaft and having a sleeve which is threaded at its outer end, a third gear wheel rotatable with the driving shaft, a fourth gear wheel loose upon the driving shaft and having a sleeve, a drum mounted loosely upon the sleeves of the beforementioned second and fourth gear wheels and having an end portion beveled to form a clutch member, a plurality of gear wheels, of different diameters, meshing with the before mentioned gear wheels mounted upon the respective engine and driving shafts and mounted within the drum and rotatable as a unit about a common axis, or with the drum, a brake member secured to the sleeve of the aforesaid fourth gear wheel exterior to the drum, a brake member adapted to engage the last mentioned brake member to hold the fourth gear wheel against rotation, a brake member adapted to engage the drum to hold it against rotation, a clutch member splined to the sleeve of the before mentioned second gear wheel and adapted to engage the clutch member of the drum formed by the beveled end thereof, a spring interposed between the drum and clutch member to normally hold the latter out of action, a brake for engaging the last mentioned clutch member to hold it and the aforesaid second gear wheel from turning, a hub threaded upon the outer end of the sleeve of the before mentioned second gear wheel and having radial arms, ball cranks mounted upon said arms, each having a member engaging the clutch member splined to the sleeve of the said second gear wheel, and a cone loose upon the engine shaft and adapted to engage the other members of the ball cranks.

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1,037,899. STONE-CATCHER FOR FLUMES. HENRY R. VAN EYCK, Holland, Mich. Filed May 21, 1912. Serial No. 698,674. (Cl. 61—5.)



1. A flume, having a section provided with conduits at an angle to each other, the section being movable relatively to the flume to bring either of said conduits into line with the flume.

2. A flume having a section comprising a pocket, and conduits mounted above the pocket, the said section being movable relatively to the flume to bring either conduit into line with the flume.

3. A flume section having a plurality of conduits, and means for rockably mounting said section.

4. A rockable flume section having conduits disposed approximately at diametrically opposite points on said section.

5. A flume section having a conduit, a flume-cleaning member, and means for movably mounting said section in a flume.

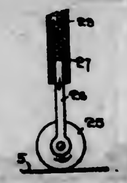
[Claims 6 to 15 not printed in the Gazette.]

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1,037,810. MIXING-MACHINE. OSCAR VAN DER MERWECK, Richmond, Va. Filed Nov. 21, 1911. Serial No. 661,554. (Cl. 82—73.)

1. In a mixing device the combination with a rotating bowl and mixing devices associated with said bowl; of means to remove material from said bowl comprising a frame, a conveyor vertically movable in said frame and normally inoperative, means to raise or lower said conveyor, and means carried by said bowl and said conveyor adapted to operate said conveyor when in its lowest position.

2. In a mixing device the combination with a rotating mixing bowl, a shaft secured thereto and extending upwardly therefrom, and a gear secured to said shaft; of means to remove material from said mixing bowl comprising a frame, a conveyor movably mounted in said frame and normally inoperative, means to raise or lower said conveyor, and a gear carried by said conveyor adapted to mesh with the aforementioned gear when said conveyor is in its lowest position whereby said conveyor will be operated.



3. The combination with a rotating mixing bowl, a shaft extending vertically thereof, and a gear secured to said shaft; of means to remove material from said bowl comprising a stationary frame, a conveyer frame movably mounted in said stationary frame, a horizontally extending shaft rotatably mounted in said conveyer frame, a gear carried thereon, an endless conveyer adapted to be operated on said shaft, and means to raise or lower said conveyer frame, said gears adapted to mesh when said conveyer frame is in its lowest position whereby said conveyer will be operated.

4. In a mixing device the combination with a rotating mixing bowl, a shaft secured thereto and extending vertically therefrom, and a gear secured to the upper end of said shaft; of means for removing material from said bowl comprising a frame extending thereover, vertical ways in said frame, a conveyer frame movably mounted in said ways, an operating shaft rotatably mounted in said conveyer frame and extending horizontally therefrom, a gear thereon adapted to mesh with the aforementioned gear when the conveyer frame is in its lowest position, a conveyer mounted on said operating shaft, and means to raise and lower said conveyer frame.

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1,037,811. AUTOMATICALLY-OPERATING KEY FOR SETTING THE TIMING-RINGS OF FUSES FOR SHELLS OR THE LIKE. KARL VÖLLER, Dusseldorf, Germany. Filed May 3, 1910. Serial No. 559,162. (Cl. 86—22.)



1. In an automatically operating key for setting time fuses on shells or the like, the combination of two relatively movable parts, one of which is designed to engage a movable member of the fuse, a handle carried by one of the parts, a bolt, carried by the same part, a rack, carried by the other part, and means for holding the bolt in engagement with the rack.

2. In an automatically operating key for setting time fuses on shells or the like, the combination of two relatively movable parts, one of which is designed to engage a movable member of the fuse, a handle, carried by one of the parts, a bolt, carried by the same part, a rack, carried by the other part, with which the bolt engages, and means for normally holding the bolt in engagement with the rack, a part of the bolt extending over the handle.

3. In an automatically operating key for setting time fuses on shells or the like, the combination of two relatively movable parts, one of which is designed to engage a movable member of the fuse, a bolt on one of the contiguous faces of one of the relatively movable parts, a rack on the other relatively movable part, and means for holding the bolt in engagement with the rack.

4. In an automatically operating key for setting time fuses on shells or the like, the combination of two relatively movable parts, one of which is designed to engage a movable member of the fuse, a handle on one of such parts, a rack on the other of said parts, such rack surrounding the part having the handle, a radially movable bolt within the latter part, and means for holding the bolt in engagement with the rack.

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1,037,812. WHEEL. KARL VÖLLER, Dusseldorf, Germany. Filed Dec. 29, 1910. Serial No. 599,297. (Cl. 21—69.)



1. A sheet metal wheel composed of spaced apart side plates each having cut-outs extending from near the hub connecting portion to the rim connecting portion thereof to form inner and outer continuous circular bands and flat spaced-apart spoke members connecting said bands, said plates along the margins of said cut-outs having flanges, transverse flat plates arranged perpendicularly to the plane of the wheel extending continuously around said cut-outs and united to said flanges of the side plates to form spokes in connection with said spoke members of the side plates, a tire rim surrounding and connected to the outer circular bands of said side plates, and a hub to which the inner circular bands of said plates are connected.

2. A sheet metal wheel composed of spaced apart side plates each having cut-outs extending from near the hub connecting portion to the rim connecting portion thereof to form inner and outer continuous circular bands and spoke members connecting said bands, said plates along the margins of said cut-outs having flanges, the flanges of one plate being directed inwardly and the flanges of the other plate directed outwardly, transverse plates arranged perpendicularly to the plane of the wheel extending continuously around said cut-outs and united to said flanges of the side plates to form spokes in connection with said spoke members of the side plates, a tire rim surrounding and connected to the outer circular bands of said side plates, and a hub to which the inner circular bands of said plates are connected.

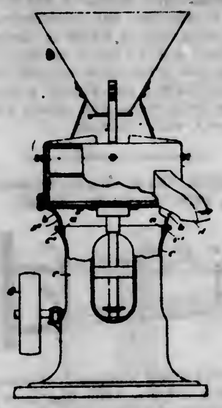
3. A sheet metal wheel composed of spaced apart side plates each having cut-outs extending from near the hub connection portion to the rim connecting portion thereof to form inner and outer continuous circular bands and flat spaced-apart spoke members connecting said bands, said spoke members along the margins of said cut-outs having flanges, flat transverse plates arranged perpendicularly to the plane of the wheel and united to said flanges of the spoke members, a tire rim surrounding and secured to said outer circular bands, and a hub to which the inner circular bands of said plates are connected.

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1,037,813. FRAME FOR SETS OF MILLSTONES, MILLS, AND THE LIKE. KARL WEGMANN, Dingelstädt, Germany. Filed Sept. 13, 1911. Serial No. 649,899. (Cl. 83—7.)

The combination with the grinding stones and the driving gear, of a crushing mill, of a frame comprising two companion superposed parts, the lower one of which incloses the driving gear and has an upper annular and which furnishes support for the upper part, the latter inclosing the crushing stones and being provided with a delivery spout, a base above which the said annular and said delivery spout are arranged, a depending hammer disposed below the base, the said hammer resting upon the upper

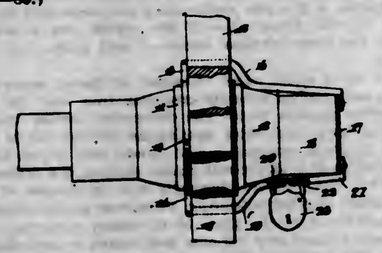
annular end of the lower part and having interfitting relation with said end, said companion parts being adjustable with relation to one another by a turning move-



ment about the axial center of said extension, and devices for holding the parts normally against turning movement with relation to one another.

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1,037,814. HUB-CAP. FRANCIS WHITNEY, Hopkinton, N. Y. Filed Mar. 29, 1911. Serial No. 617,720. (Cl. 21—89.)



1. In a hub cap the combination with a ring, of a plurality of bifurcated bearing lugs extending diametrically outward from the said ring, a retaining bar mounted to swing on one of the said lugs, the cap secured to the free end of the said bar, a locking bar mounted to swing on the other bearing lug and terminating at the free end thereof in a loop, a second locking bar secured to the said cap and terminating at the free end thereof in a loop, and a lock for connection with the said loops to retain the said locking bars in locked relation.

2. In a hub cap the combination with a ring, of a retaining bar mounted to swing thereon, a cap secured to the free end of the said retaining bar, a locking bar mounted to swing on the said ring, a second locking bar secured to the said cap and means for engagement with the said locking bars to retain the same in locked relation.

3. In a hub cap the combination with a ring, of a retaining bar mounted to swing thereon, a cap secured to the free end of the said retaining bar, a locking bar mounted to swing on the said ring, a second locking bar secured to the said cap and a lock for connection with the said locking bars for retaining the same in locked relation.

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1,037,815. HOMOGENIZER. JOSEPH WELLMANN, Derby, Conn. Filed Oct. 12, 1910. Serial No. 587,261. (Cl. 99—2.)

1. A homogenizer embodying a suitable casing having an inlet passage for conducting liquid thereto at a homogenizing pressure, and homogenizing elements contained in the casing and having plane surfaces arranged in opposed relation and in alinement with said inlet passage, said elements being capable of relative adjustment to vary the distance between the opposed plane surfaces, one of said elements having an internal bore for conducting the homogenized product from the space between such elements, and means for positively maintaining said surfaces a fixed distance apart.



2. A homogenizing device embodying a casing having a bore, and means for conducting a liquid at homogenizing pressure thereto, a pair of homogenizing elements removably mounted in said bore and having opposed smooth surfaces for the passage of the liquid to be homogenized between them, one of said elements embodying a hollow bushing removably fitted in said casing to receive the homogenized liquid from the space between such elements, the bushing having its smooth surface formed on the inner extremity thereof and projecting into said bore of the casing, and a rigidly mounted screw coöperative with one of said elements to permit the distance between the opposed plane surfaces to be adjusted and to positively limit the relative separation of said surfaces.

3. A homogenizer embodying a casing having a bore and a passage communicating therewith for the flow of the liquid, a hollow bushing removably inserted in the casing and provided with a smooth surface arranged on one extremity thereof and located toward one end of said bore, a plug arranged in said bore and having a smooth surface coöperative with said smooth surface on the bushing, and means for maintaining said smooth surfaces in coöperative relation to homogenize a liquid forced between them.

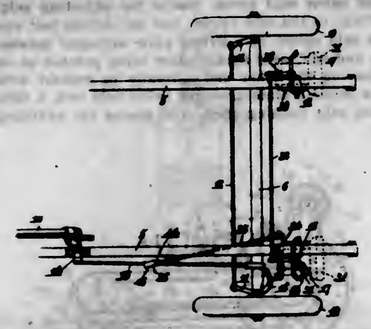
4. A homogenizer embodying a casing having a bore and an inlet passage for the liquid leading into one side of said bore, a homogenizing element comprising a hollow bushing formed separately from and removably inserted in said casing, said bushing having a smooth surface on its inner extremity located toward one end of said bore, a homogenizing element comprising a plug contained in said bore and having a smooth surface coöperative with said smooth surface on the bushing, a passage being provided by one of said homogenizing elements for conducting the liquid to be homogenized to the peripheral edges of said smooth surfaces, and means for maintaining said smooth surfaces in coöperative relation.

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1,037,816. PILOT-LAMP-OPERATING MECHANISM. WILFORD B. ANDERSON, Emmett, Idaho. Filed Oct. 21, 1911. Serial No. 656,080. (Cl. 240—62.)

1. The combination with steering mechanism of an automobile, of tubular housings adapted to be mounted upon the frame of an automobile, turning posts journaled in said housings, means for synchronously operating said posts, lamp supporting brackets fixed to said turning posts, lamps carried by said brackets, a turning crank having a collar loosely engaged with one of said turning posts, a clamping ring resting upon said collar, connections between said steering mechanism and said crank, and means carried by said clamping ring for alternately locking the post to the housing receiving the same and to the turning crank.

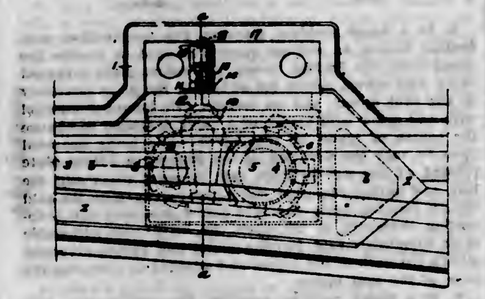
2. The combination with the steering mechanism of an automobile, of housings adapted to be mounted upon the frame of an automobile, posts journaled in said housings, a turning crank having a collar loosely engaged with one of said posts, a clamping ring resting upon said collar, connections between said steering mechanism and said



crank, and means carried by said clamping ring for alternately locking the post to the housing receiving the same and to the turning crank.

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1,037,817. SWITCH STRUCTURE. VICTOR ANGERER, Ridley Park, Pa., assignor to William Wharton, Jr., & Company, Incorporated, Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 15, 1912. Serial No. 697,586. (Cl. 104—115.)



1. The combination in a switch structure, of a base; a switch tongue having a pivot; a bearing therefor; and a spring wedge for retaining the bearing in contact with the pivot.

2. The combination in a switch structure, of a tongue having a pivot; a fixed bearing and an adjustable bearing for the pivot; with a spring wedge bearing against the adjustable bearing; and means for adjusting the wedge.

3. The combination in a switch structure, of a base; a tongue having a pivot; a fixed bearing at the rear of the pivot; an adjustable bearing at the front of the pivot; a bifurcated wedge made of spring metal and holding the adjustable bearing against the pivot.

4. The combination in a switch structure, of a body portion; a bearing therein; a tongue having a pivot resting against the bearing; an adjustable bearing block resting against the pivot; a segmental bearing block in front of the adjustable bearing block; with a spring wedge mounted between the adjustable bearing block and the segmental bearing block.

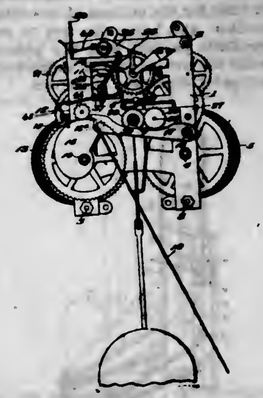
5. The combination in a switch structure, of a body portion; a bearing therein; a tongue having a pivot resting against the bearing; an adjustable bearing block resting against the pivot; a segmental bearing block in front of the adjustable bearing block; a spring wedge mounted between the adjustable bearing block and the segmental block; with means for adjusting the spring wedge transversely.

(Claim 6 not printed in the Gazette.)



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1,037,818. ELECTRIC TIME-SWITCH. WILLIAM S. BROWN, Boulder, Colo. Filed Oct. 6, 1906. Serial No. 338,072. (Cl. 161—37.)



1. In an electric time switch, the combination with a chronometer, an arm sleeve intergeared with the hour arbor of said chronometer, arms upon said sleeve, a striking train including a striking cam and a notched striking wheel, a striking lever operating in connection with said notched wheel, to control the striking train, means operated by the arms for intermittently releasing the striking lever from the notched wheel, and means operated by the notched wheel for controlling a circuit.

2. In an electric time switch, the combination with a chronometer, an arm sleeve intergeared with the hour arbor of said chronometer, arms upon said sleeve, a striking train including a striking cam and a notched striking wheel, a striking lever operating in connection with said notched wheel to control the striking train, means operated by the arms for intermittently releasing the striking lever from the notched wheel, a cam connected to said notched wheel, and means operated by the cam for controlling an electric circuit.

3. In an electric time switch, the combination with a chronometer, an arm sleeve intergeared with the hour arbor of said chronometer, hands upon said sleeve, a striking train including a striking cam and a notched striking wheel, a striking lever operating in connection with said toothed wheel to control the striking train, means operated by the arms for intermittently releasing the striking lever from the notched wheel, a cam connected to said toothed wheel, a lever pivoted to the chronometer frame and adapted to be actuated by said cam, and means operated by the lever for controlling an electric circuit.

4. The combination with an electric switch, of a chronometer comprising a hand operating train, and a striking train, a striking cam included in said striking train, a toothed wheel included in said striking train, a striking lever coacting with the striking cam and toothed wheel to control the operation of the striking train, a tripping lever connected to the striking lever, means controlled through the hand operating train to operate said tripping lever at predetermined intervals, a cam carried by the toothed wheel, a lever carried by the chronometer frame, and a link connecting the lever and the switch blade and adapted to be operated by the cam, together with means to normally hold the lever down upon the cam and switch blade in engagement with its contact.

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1,037,819. UNIVERSAL CLUTCH. JAMES CARR, New York, N. Y. Filed Aug. 30, 1911. Serial No. 646,242. (Cl. 24—249.)

1. The combination of a body member provided with holes, a pair of balls journaled in said holes and adapt-

ed to swing relatively to each other, one of said balls being slidable relatively to the other, and a third ball mounted to swing upon said body member, said third ball being adapted to swing into proximate engagement with said first-mentioned balls for the purpose of co-acting therewith as a clutch member, said being also free to swing into a position substantially parallel with the general plane of said body member for the purpose of supporting said body member and all parts dependent therefrom.



2. The combination of a body member provided with holes, a plurality of balls provided with end portions turned inwardly and mating each other, said end portions extending into said holes so that said balls are free to swing relatively to said body member, two of said balls slidably engaging each other and adapted to grip opposite sides of an article to be supported, another of said balls adapted to co-act with said two balls for supporting said article at one time and at another time being adapted to swing into a plane coinciding substantially with the general direction of the extent of said body member, and means for locking said last-mentioned ball in said last-mentioned position.

3. The combination of a body member, balls journaled thereupon and provided with co-acting surfaces for gripping an article to be supported, another ball journaled upon said body member and adapted to swing into proximate gripping engagement with said first-mentioned balls and also to swing into a plane independent of the planes of said first-mentioned balls, and an eye journaled upon said body member and free to turn relatively thereto, said eye when turned into one position serving as a locking button for holding said last-mentioned ball in a supporting position, said eye further serving, when turned into a different position, as a means for supporting said body member and parts dependent thereupon.

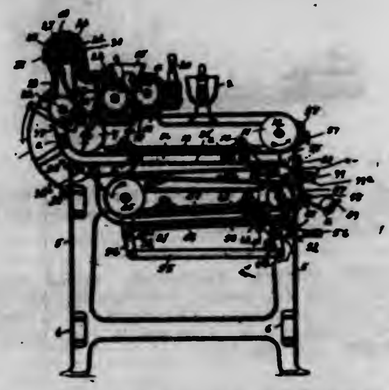
4. A device of the character described comprising a body member, clutch members journaled thereupon and adapted to swing, said clutch members being movable relatively to each other and provided with gripping surfaces for supporting an article when aided by the weight of said article, another clutch member provided with a surface for gripping an article, said last-mentioned clutch member being mounted upon said body member and being free to co-act with said first-mentioned clutch members for the purpose of gripping the same article to be supported, and means controllable at will for temporarily rendering said last-mentioned clutch member inactive.

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1,037,820. LONG-LOAF-MOLDING MACHINE. PHILIP F. CARROLL, Joliet, Ill. Filed Dec. 1, 1910. Serial No. 596,040. (Cl. 107—9.)

1. In a dough molding machine, including dough feeding, flattening and coiling means, the combination of molding means consisting of an endless conveyer, an adjustable pivoted pressure member spaced from said conveyer and adapted to form a receiving chute and a discharge trough at its respective ends.

2. In a dough molding machine, the combination with dough feeding means, an endless horizontal apron arranged to receive the dough from the feeding means, a plate arranged below said apron, means for adjusting said plate relatively to the said apron, and an endless belt arranged below said apron, of a lifting plate arranged between said plate and belt, said lifting plate being pivoted at one end and having the other end normally in contact with said belt, a forming plate arranged below said belt, a table supporting said forming plate, and means for adjusting said table.



3. In a dough molding machine, the combination with feeding means, an endless apron arranged to receive the dough from the feeding means, a pressure plate arranged below said apron, means for adjusting the plate relatively to the said apron, and an endless belt mounted parallel with and below said apron, of a valve arranged to change the course of travel of the loaves while being operated upon to vary the duration of the process, a lifting plate pivoted at one end between said pressure plate and the belt, and having the other end normally engaging the said belt, a forming plate arranged below said belt and coöperating therewith to act upon the loaves, an adjustable table supporting said forming plate, and means arranged within the path of the loaves and adapted to compress the ends of the said loaves.

4. In a dough molding machine, the combination with dough feeding means, an endless apron, arranged below the feeding means, an adjustable pressure plate arranged below said apron, and an endless belt mounted below and parallel with said plate, of a valve arranged to change the course of travel of the loaves after passing over said plate, a lifting plate pivoted at one end and having the other normally resting upon said belt, a forming plate arranged below said belt, an adjustable table supporting said forming plate, and means for pointing the loaves, said pointing means consisting of wedge-shaped members adjustably mounted on said forming plate.

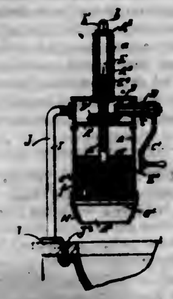
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1,037,821. SOAP-DISPENSING MACHINE. CHARLES H. J. DITE and JONATHAN O. FOWLER, New York, N. Y., assignors to Granulator Soap Company, a Corporation of New York. Original application filed May 15, 1905, Serial No. 260,435. Divided and this application filed May 28, 1909. Serial No. 498,806. (Cl. 146—9.)

1. A soap dispenser comprising a receptacle, a follower provided with a shank located in the receptacle, a hollow spindle embracing said shank and having a longitudinal slot, a pin carried by the shank for movement in the said slot and a non-rotatable cutter in the receptacle.

2. A soap dispenser comprising a receptacle, a tubular extension located at the top thereof to form a chamber communicating with the receptacle and having an opening at its upper part, a slotted tube closed at one end and having the other extremity located adjacent to the top of the receptacle, a gravity device to work within the said tube, and a pin carried by the said gravity device for movement in the slot of the slotted tube.





3. In a dispensing machine, a receptacle, a tubular extension located at the top thereof to form a chamber communicating with the receptacle and having at the top thereof an opening, a slotted tube within the tubular extension to contain a gravity device, one extremity being located adjacent to the top of the receptacle, and a gravity device to work in the said tube.

4. In a dispensing machine, a receptacle, a tubular extension located at the top thereof, a tube within the tubular extension to contain a gravity device, one end being located adjacent to the top of the receptacle, and a gravity device to work in the said tube.

5. In a dispensing machine, a receptacle to contain a body or mass of material, a supporting means therefor, an opening at the lower end of the casing, an abrading means located adjacent to said opening, a bearing for a shaft located above the said opening, a manually actuated shaft located at an angle to the longitudinal axis of the casing, means intermediate the shaft and the said body to rotate the latter, and self-acting yieldable means connected with the rotating means to continuously force the material downward with a positive impelling movement to cause the material and the abrading means to become continuously engaged with a yielding action to produce a steady and uniform abrading action on materials of different resistances until the same become practically entirely ground away by the use of the manually actuated shaft solely.

[Claims 6 and 7 not printed in the Gazette.]

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1,037,822. VERTICAL RETORT FOR THE CARBONIZATION OF COAL OR THE LIKE. ARTHUR McDOUGALL DUCKHAM, Surrey county, England. Filed Dec. 4, 1911. Serial No. 663,832. (Cl. 48—123.)

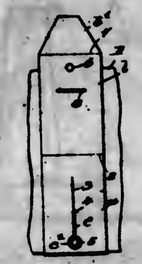


1. In a vertical retort for the carbonization of coal, the combination of a plate depending from the top of the retort forming a partition across the retort, a second depending plate movably mounted on the first said plate, and means for adjusting the level of the lower end of one plate relatively to the lower end of the other, substantially as and for the purpose set forth.

2. In a vertical retort for the carbonization of coal the combination of a plate depending from the top of the retort forming a partition across the retort, a second depending plate movably mounted on the first said plate, and means for sliding the second plate lengthwise on the first plate whereby the extent to which the second plate depends into the retort is adjusted, substantially as and for the purpose set forth.

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1,037,823. MARKING-TICKET. JOHN C. HOWARTH, Brookline, Mass., assignor to A. Kimball Company, New York, N. Y., a Corporation of New York. Filed Jan. 5, 1910. Serial No. 536,538. (Cl. 40—25.)



1. A marking ticket having a fastener-carrying portion, a fastener to attach the ticket to the fabric to be marked, a fastener-protecting portion, and means normally adapted to hold said fastener-protecting portion in fastener protecting position and engaging and holding the fastener to prevent withdrawal of the fastener from the fabric, said means serving to cause rupture of the ticket when the fastener-protecting portion is moved from fastener protecting position.

2. The combination with a fabric to be marked, of a ticket attached thereto and having a pin-carrying flap and a pin-protecting flap, a pin penetrating the fabric and having its point covered by said protecting flap, and means permanently connecting said flaps in overlapped position with the pin between them and coöperating directly with the interposed pin to prevent withdrawal of said pin from the fabric, such means adapted to cause tell-tale rupture of the flaps when the ticket is detached from the fabric.

3. A marking ticket having a fastener-carrying portion, a fastener to attach the ticket to the fabric to be marked, a fastener-protecting portion, means coöperating with said fastener to lock it and the fastener-carrying and protecting portions together, and a concealing device for said means.

4. A marking ticket having connected pin-carrying and protecting flaps, a pin to penetrate the fabric and attach thereto the first-named flap, means to connect permanently said flaps and the pin therebetween after attachment of the ticket to the fabric, and a concealing extension for said means, carried by one of said flaps.

5. A marking ticket comprising a pin-carrying portion and a connected pin-protecting portion, a pin to penetrate the fabric and attach said pin-carrying portion thereto, said pin having an annular head interposed between said portions and means to permanently connect said carrying and protecting portions and the interposed head of the pin, to prevent detachment of the ticket from the fabric without defacement.

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1,037,824. APPARATUS FOR FILLING BAGS WITH CEMENT, &c. JOHAN SIGISMUND FASTING, Frederiksberg, near Copenhagen, Denmark, assignor to F. L. Smidth & Co., New York, N. Y., a Corporation of New Jersey. Filed July 14, 1909. Serial No. 507,846. (Cl. 73—177.)

1. An apparatus for filling bags etc., comprising a chamber adapted to have the receptacle to be filled suspended therein, means to produce a vacuum in said chamber, a pipe to conduct the material from the supply to said receptacle, and means operated by the weight of the bag when filled to admit atmospheric pressure to the chamber.

2. An apparatus for filling bags etc., comprising a chamber adapted to have the receptacle to be filled suspended therein, means to produce a vacuum in said chamber, a

pipe to conduct the material from the supply to said receptacle, means operated by the weight of the bag when filled to admit atmospheric pressure to the chamber, and means operated by the weight of the bag when filled to close the connection to the vacuum producing means.



3. An apparatus for filling bags etc., comprising a chamber, a scale beam from which the receptacle to be filled is suspended within the chamber, means to produce a vacuum in said chamber, a pipe to conduct the material from the supply to said receptacle and means connected with said scale-beam adapted to admit atmospheric pressure to said chamber when the material in the receptacle attains a predetermined weight.

4. An apparatus for filling bags etc., comprising a chamber, a scale beam from which the receptacle to be filled is suspended within the chamber, means to produce a vacuum in said chamber, a pipe to conduct the material from the supply to said receptacle, and a valve controlling the admission of atmospheric pressure to the chamber and operated by the scale beam.

5. An apparatus for filling bags etc., comprising a chamber, a scale beam mounted upon said chamber, a rod suspended from the scale beam and passing into the chamber and adapted to support the receptacle to be filled, means to produce a vacuum in said chamber, and a pipe to conduct the material from the supply to said receptacle and means connected with said scale-beam adapted to admit atmospheric pressure to said chamber when the material in the receptacle attains a predetermined weight.

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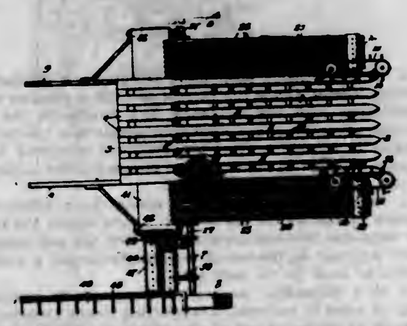
1,037,825. TROLLEY-WHEEL RETAINER. STEPHEN A. FINDURA, McKeesport, Pa. Filed Mar. 4, 1912. Serial No. 681,468. (Cl. 191—87.)



A trolley wheel retainer comprising a spring-pressed pole and shell in which the latter is mounted, said pole having its upper end forked with lateral projections extending at right angles thereto and in alinement with each other, electro-magnets upon said forked end, retaining levers pivotally mounted one upon each of said projections, the lower portion of each retaining lever being bent at a right angle and positioned adjacent to one of said electro-magnets, a coiled spring connecting the outer end of each of said projections and the angled portion of the retaining member, a portion of each retaining member at its upper end having lateral projections adapted to contact with each other over a trolley wire, as set forth.

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1,037,826. HARVESTING AND HUSKING MACHINE. CLARENCE G. FLEMING, Phillips, Nebr. Filed June 21, 1911. Serial No. 634,418. (Cl. 56—111.)



1. In a machine of the character described, a gathering device comprising a plurality of gathering arms each consisting of a triangular frame having a downwardly and forwardly inclined top bar, said frames being supported in spaced relation with the inclined top bars combining to form two planes which intersect at the central bar and incline downwardly and outwardly.

2. In a device of the character described, a gathering device comprising a plurality of arms each consisting of a triangular frame having a downwardly and forwardly inclined top bar, said frames being supported in spaced relation and with the inclined top bars combining to form two planes which intersect at the central bar and incline downwardly and outwardly, said frames being provided with side plates constituting housings and with endless movable members supported within said housings and having stalk and ear engaging flaps extending therethrough.

3. In a device of the character described, a gathering device comprising a plurality of arms each consisting of a triangular frame having a downwardly and forwardly inclined top bar, said arms being supported in spaced relation and with the inclined top bars combining to form two planes which intersect at the central bar and incline downwardly and outwardly, and said arms being provided with side plates constituting housings, endless movable members within said housings, flaps hingedly associated with the endless movable members, extending through one side of the housing and adapted to be supported in their upward course upon the next adjoining frame or arm, and means to guide said flaps within the housing at the upper limit of the movement and to project from the housing at the lower limit of the movement.

4. In a device of the character described, a gathering device comprising a plurality of arms each consisting of a triangular frame, having a downwardly and forwardly inclined top bar, said frames being supported in spaced relation and with the inclined top bars combining to form two planes which intersect at the central bar and incline downwardly and outwardly, and said frames being provided with side plates constituting housings, an axle extending through the side plates and having supporting wheels, a counter shaft extending through the side plates, endless chains supported within the several housings adjacent to the top members thereof, intermeshing gears upon the axle and the counter shaft, means for transmitting motion from the counter shaft to the endless chains, flaps hingedly associated with the chains and projecting through the sides of the housings to engage the top bar of an adjacent frame, and cam-shaped guides to engage said flaps at the upper and lower limits of their movements.

5. In a device of the character described, stalk engaging and ear gathering means comprising a plurality of arms consisting of triangular frames each having a downwardly and forwardly inclined top bar, said frames being supported in spaced relation and with the inclined top bars combining to form two planes which intersect at the central bar and incline downwardly and outwardly, endless stalk engaging and ear detaching means associated with said frames, ear carrying devices supported adjacent to the two sides of the inverted V-shaped series of gathering members, a transverse carrier supported adjacent to the discharge ends of the ear carrying devices, husking means supported adjacent to the discharge end of the transverse carrier, and a conveyer trough to receive the ears discharged over the husking means, said conveyer trough being equipped with a shelled corn screen and discharge spout.

[Claim 6 not printed in the Gazette.]



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1,037,827. SHEARS. LLEWELLYN HENRY FLORY, Ashley, Pa. Filed Sept. 15, 1911. Serial No. 649,502. (Cl. 30—13.)



1. A tool including a pivot element; and coöperating parts comprising a primary blade rotatable and transversely slidable upon the pivot element, and a head upon the pivot element overhanging the outer face of the primary blade; one of which coöperating parts is provided with a race, the base of which is inclined with respect to the adjacent face of the other coöperating part; a rotatable, anti-friction member movable in the race and adapted to engage the base of the race and the adjacent face of said other coöperating part; and a secondary blade fulcrumed upon the pivot element, the primary blade being located between the head and the secondary blade.

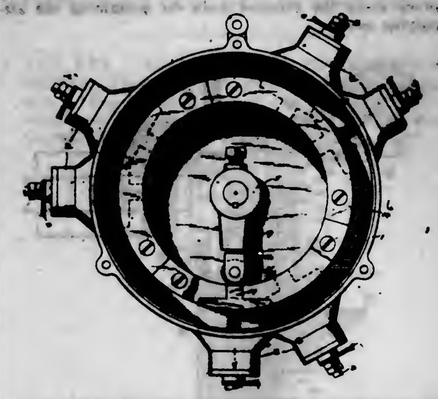
2. A tool including a pivot element; and coöperating parts comprising a primary blade rotatable and transversely slidable upon the pivot element, and a head upon the pivot element overhanging the outer face of the primary blade; one of which coöperating parts is provided with a race, the base of which is inclined with respect to the adjacent face of the other coöperating part; a rotatable, anti-friction member movable in the race and adapted to engage the base of the race and the adjacent face of said other coöperating part; and a secondary blade fulcrumed upon the pivot element, the primary blade being located between the head and the secondary blade; and a secondary anti-friction device held for rotation between the blades.

3. A tool comprising crossed blades; a pivot element connecting the blades at their point of crossing, and provided with a head overhanging the outer face of one blade, there being a race in the under surface of the head, the base of the race being inclined with respect to the adjacent, outer face of the said blade; and a rotatable, anti-friction element in the race, and adapted to engage the base of the race and the adjacent face of said member.

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1,037,828. SPARK-TIMING DEVICE. LELAND F. GOODRUM, Wilkinsburg, Pa. Filed Mar. 2, 1909. Serial No. 481,731. (Cl. 123—147.)

1. In a spark timing device, the combination of a stationary casing carrying electric contacts, a disk rotatably mounted on the casing, a plurality of insulation rings mounted on said disk and extending within the casing, conducting sections carried by said rings and located in different planes taken at right angles to the axis of the rotatable disk, a shaft extending through and bearing in said disk, and a plurality of contact devices carried by said shaft and engaging the inner periphery of the insulation rings and the conducting sections.



2. A spark timing device comprising a casing, a rotatable member mounted in said casing, guide devices carried by said casing and adapted to extend into a groove in said member, conducting sections mounted in said rotatable member, stationary contacts for engaging said conducting sections on one side and a rotatable contact member adapted to engage said conducting sections on the opposite side.

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1,037,829. TIRE FOR VEHICLE-WHEELS. CLARENCE B. HOWE, Utica, N. Y., assignor of one-half to James H. Goodier, Utica, N. Y. Filed July 5, 1910. Serial No. 570,288. (Cl. 152—8.)



A vehicle wheel comprising an outer shoe, a rim to which said shoe is connected, a protective pad within said shoe, an inner rim within said shoe, a spiral coil with alternately-arranged different-sized convolutions interposed between the pad and said inner rim, equally-spaced apart rows of oppositely graduated lugs upon said inner rim, a coiled convolution positioned between each of said rows, tie pieces interlaced with the convolutions of the spring and secured to said pad, a buffer carried by the inner rim and interposed between the lugs and opposite to the convolutions of lesser diameter, and adapted for combining said smaller convolutions, and hold-fast devices positioned through the two rims.

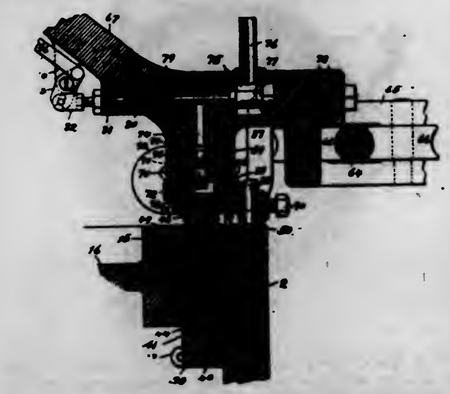
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1,037,830. MACHINE FOR CEMENTING BRUSH-BENCH-TILES. HUGH P. MCMILLAN, Baltimore, Md., assignor to William A. Tottle and Merton P. Tottle, Baltimore, Md., composing the firm of Wm. A. Tottle & Co. Filed Apr. 20, 1912. Serial No. 692,210. (Cl. 15—7.)

1. In a cementing apparatus the combination with means to clamp the work, of means for forming a seal about that

part of the work where the cement is to be applied and traveling means movable along the clamped work for supplying air under pressure to the sealed portion of the work.

2. In a cementing apparatus the combination with clamping means, of means for forming a seal about that portion of the work where the cement is to be applied; means for applying air under pressure to the sealed portion of the work and means movable from one point to another along the clamped work for sustaining the air-supplying means.



3. In a cementing apparatus the combination with work-clamping means, of means movable from one point to another along the work while the latter is clamped and carrying a sealing means for forming a seal about the clamped work, and means also carried by said movable means for applying air under pressure to the sealed portion of the clamped work.

4. In a cementing apparatus the combination with means to clamp the work, of means for forming a seal about that part of the work where the cement is to be applied; traveling means movable from point to point along the work while the latter is clamped for applying air under pressure to the sealed portion of the work and means movable with said traveling means for controlling the passage of air to the sealed work.

5. In a cementing apparatus the combination with a clamp to hold the work with those portions that are to be cemented in a uniform line or relation, of a traveling seal; means for guiding the seal during its movement from point to point along the clamped work in a line parallel with the arrangement of the work, and means movable with the seal from point to point along the work for applying air under pressure to the sealed portion of the work.

[Claims 6 to 18 not printed in the Gazette.]

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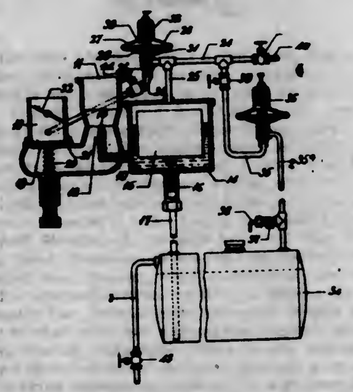
1,037,831. PRESERVED WOOD. HAROLD MELVILLE NEWTON, St. Louis, Mo., assignor, by mesne assignments, to The Kettle River Company, a Corporation of Minnesota. Filed Oct. 30, 1909. Serial No. 525,561. (Cl. 90—12.)

1. As a new article of manufacture, wood impregnated with the herein described residuum hydrocarbon oil obtained in the manufacture of oil and water gas, by use of petroleum oil having an asphaltum base, said hydrocarbon oil having a specific gravity of about 1.13 at 15° C., beginning to distil at about 150° C., being fluid at normal temperature and substantially non-volatile, practically free of matter in suspension and antiseptic to the organisms which attack wood.

2. As a new article of manufacture, wood substantially wholly impregnated with the herein described residuum hydrocarbon oil obtained in the manufacture of oil and water gas, by use of petroleum oil having an asphaltum base, said hydrocarbon oil having a specific gravity of about 1.13 at 15° C., beginning to distil at about 150° C., being fluid at normal temperature and substantially non-volatile, practically free of matter in suspension and antiseptic to the organisms which attack wood.

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1,037,832. AUTOMATIC REGULATION FOR CARBURETERS. EDWARD P. NORRIS, Winchester, Mass. Filed Oct. 12, 1911. Serial No. 654,229. (Cl. 48—155.1.)



1. In a suction carbureter, the combination of a carbureting-chamber having a restricted air-inlet, a main air vestibule thereto having a throttling device at its entrance, a liquid-fuel reservoir having a fuel outlet to said carbureting-chamber, a vacuum duct connecting said vestibule with the upper space of said reservoir and having an inlet from the atmosphere, and an automatic regulator in said duct including a valve differentially controlled by the pressures anterior and posterior to itself.

2. In a suction carbureter, the combination of a carbureting-chamber having a restricted air-inlet, a main air vestibule thereto having a throttling device at its entrance, a liquid-fuel reservoir having a fuel outlet to said carbureting-chamber, a vacuum duct connecting said vestibule with the upper space of said reservoir and having an inlet from the atmosphere, and an automatic regulator located in said duct between said reservoir and vestibule and differentially controlled by the respective pressures therein for maintaining the reservoir pressure a substantially constant amount higher than the vestibule pressure.



3. In a carbureting and fuel-feeding system, the combination of a suction carbureter having an air-passage including a carbureting-chamber, a liquid-fuel reservoir having a fuel outlet to said carbureting-chamber, a fuel-supply tank located below the level of said reservoir, a vacuum-duct connection between said passage and the air spaces of the reservoir and tank, and means in said connection for controlling the relation between the air pressures in the tank and reservoir.

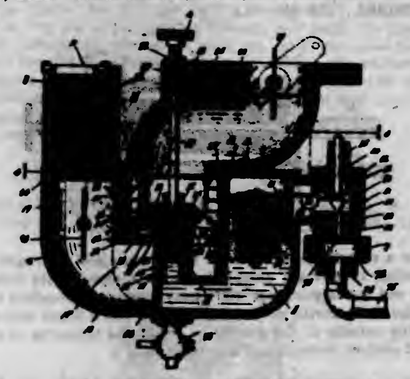
4. In a carbureting and fuel-feeding system, the combination of a suction carbureter having a liquid-fuel reservoir, a fuel-supply tank connected with said reservoir, and means controlled by the respective air-pressures in said tank and reservoir for maintaining said pressures in a predetermined relation.

5. In a carbureting and fuel-feeding system, the combination of a suction carbureter having a liquid-fuel reservoir, a tank located below the level of said reservoir for supplying fuel to the latter, a duct connecting the air spaces of said reservoir and tank and adapted to have a flow of air induced through it by the vacuum in the carbureter, and an automatic pressure regulator including a valve located in said duct and differentially controlled by the pressures in said tank and reservoir.

[Claims 6 to 10 not printed in the Gazette.]

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1,037,834. CARBURETER. JOHN W. RAYMOND, Dayton, Ohio, assignor to The Air Friction Carbureter Company, Dayton, Ohio, a Corporation of Ohio. Filed Oct. 9, 1911. Serial No. 653,695. (Cl. 48—155.1.)



1. An air-flow controlling unit for carbureters comprising a container shell having an inwardly projecting flange at one end, an axially reciprocable tubular shell mounted in the container and formed at one end with an outwardly and downwardly flaring portion terminated by a downwardly extending portion substantially parallel to the main upward portion, a retaining ring arranged at the open end of the container and surrounding the upper end of the tubular shell, and a coiled spring arranged within the container between said retaining ring and the tubular shell.

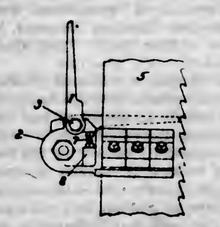
2. An air-flow controlling unit for carbureters comprising a container shell having an inwardly projecting flange at one end, an axially reciprocable tubular shell mounted in the container and formed at one end with an outwardly and downwardly flaring portion terminated by a downwardly extending portion substantially parallel to the main upward portion, and a retaining ring arranged at the open end of the container and surrounding the upper end of the tubular shell.

3. An air-flow controlling unit for carbureters comprising a container shell having an inwardly projecting flange at one end, an axially reciprocable tubular shell mounted in the container and formed at one end with an outwardly and downwardly flaring portion, a retaining ring arranged at the open end of the container and surrounding the upper end of the shell, and a coiled spring arranged within the container between said retaining ring and the tubular shell.

4. An air-flow controlling unit for carbureters comprising a container shell having an inwardly projecting flange at one end, an axially reciprocable tubular shell mounted in the container and formed at one end with an outwardly and downwardly flaring portion, and a retaining ring arranged at the open end of the container and surrounding the upper end of the tubular shell.

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1,037,835. BOARD-SUPPORT FOR SAWING-MACHINES. JERRY M. REED, Fort Thomas, Ky., assignor to J. A. Fay & Egan Company, Cincinnati, Ohio, a Corporation of West Virginia. Filed Apr. 20, 1912. Serial No. 692,070. (Cl. 143—167.)



1. A board support consisting of a supporting plate pivotally supported at its rear end, and having a slot for a saw blade, said slot extending lengthwise of said supporting plate and increasing in width from the front toward the rear end thereof.

2. A board support consisting of a supporting plate pivotally supported at its rear end, and having a slot for a saw blade, said slot extending lengthwise of said supporting plate and increasing in width from the front toward the rear end thereof, and from the top or bearing surface of the plate to the under-side.

3. A board support consisting of a supporting plate pivotally supported at its rear end, and having a slot for a band saw blade extending lengthwise of said supporting plate, and said slot increasing in width from the front toward the rear end thereof, and from the top or bearing surface of the plate toward the under-side, with means for permitting the movement of the supporting plate away from the saw blade.

4. A board support consisting of supporting plates pivotally supported at their rear ends, and forming a slot for a saw blade, said slot extending lengthwise of said supporting plates and increasing in width from the front toward the rear end thereof, and from the top of said plates toward the under-side, with means for permitting the independent movement of each plate away from the saw blade.

5. In a sawing machine, the combination of a saw blade and a saw guide therefor, of a board support consisting of one or more supporting plates for supporting a board on either side of the saw blade, said board support being pivotally supported at the rear end thereof, and forming a slot for the saw blade, said slot extending lengthwise of said board support and increasing in width from the front toward the rear end thereof, and from the top of said board support to the under-side, with means for permitting the movement of said supporting plate or plates away from the saw blade, substantially as described.

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1,037,836. CEMENT COMPOUND AND PROCESS FOR MAKING THE SAME. ELI ROY, Lewiston, Me. Filed June 2, 1910. Serial No. 564,873. (Cl. 106—10.)

1. A cement consisting of the resultant product of the mixture of blue clay, sand, soda ash and alum.

2. A cement consisting of the resultant product of a mixture of substantially three parts clay, nine parts fine sharp sand and a small percentage of soda ash and alum.

3. The process of manufacturing cement consisting in subjecting blue clay with a solution of soda ash to heat, next adding a quantity of fine sharp sand and a small percentage of alum, thoroughly mixing the mass, next drying, and finally comminuting.

4. The process of making cement consisting in boiling clay with soda ash in water, then adding the necessary quantity of sand and alum, thoroughly mixing the mass, then drying, and finally comminuting.

5. The process of making cement consisting of boiling clay with soda ash in water to thoroughly saturate the clay with the soda ash, independent of other material to be subsequently added, and after such boiling operation adding sand, mixing the mass and comminuting.

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1,037,827. PROCESS OF MAKING TRI-ALKALI PHOSPHATE. EMERSON H. STRICKLER, New York, N. Y., assignor to General Chemical Company, New York, N. Y., a Corporation of New York. Filed Mar. 16, 1911. Serial No. 614,842. (Cl. 23—12.)

1. Process of making a tri-alkali phosphate which consists in mixing phosphoric acid substantially free from sulfates with the sulfate of an alkali and carbonaceous material and furnacing the result until a tri-alkali phosphate is produced, substantially as and for the purpose described.

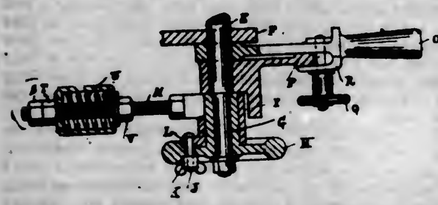
2. Process of making tri-sodium phosphate which consists in mixing phosphoric acid substantially free from sulfates with sulfate of sodium and carbonaceous material and furnacing the result until tri-sodium phosphate is produced, substantially as and for the purpose described.

3. The process of making a tri-alkali phosphate which consists in treating phosphate rock with sulfuric acid, removing the calcium sulfate, and furnacing the resulting product with an alkali sulfate and carbonaceous material until a tri-alkali phosphate is produced, substantially as and for the purpose described.

4. The process of making tri-sodium phosphate which consists in treating phosphate rock with sulfuric acid, removing the calcium sulfate and furnacing the so resulting product with sodium sulfate and carbonaceous material until tri-sodium phosphate is produced, substantially as and for the purpose described.

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1,037,833. ROLL-ADJUSTING DEVICE FOR ROLLER GRINDING-MILLS. ALFRED R. TATTERSALL, London, England. Original application filed Sept. 25, 1909, Serial No. 519,504. Divided and this application filed Aug. 4, 1910. Serial No. 575,514. (Cl. 83—12.)



1. In a roll adjusting device, the combination with a fixed roll, and a movable roll, of hinged levers arranged at the opposite ends of the movable roll and adapted to rotatably support the same, a shaft disposed in parallelism with and in spaced relation to the rolls and having eccentric spindles upon its ends, hubs mounted upon the spindles for rotation thereon, sleeves revolubly disposed upon the hubs, clamping means arranged between the hubs and the sleeves to interlock the same, rods adjustably and pivotably connecting the levers at the ends of the adjustable roll to the sleeves, and a hand lever carried upon the shaft for turning the same.

2. In combination with a fixed roll and a movable roll, hinged levers arranged at the opposite ends of the movable roll and adapted to rotatably support the same, a shaft disposed in parallelism with and in spaced relation to the rolls and having eccentric spindles upon its ends, rods carried upon the outer ends of said levers adapted to swing the same, and adjustably connecting means associated with said eccentric spindle to adjustably connect said rods with said shaft.

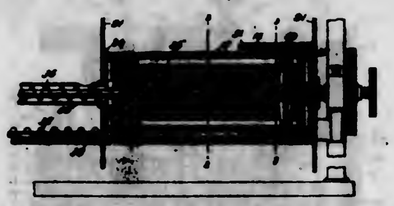
3. In combination with a fixed roll and a movable roll, hinged levers at the ends of the rolls engaging the movable roll to support the same, rods extending outwardly from the levers adapted to swing the same, a shaft having eccentric portions registering with the rods, and adjusting means on said eccentric portions connecting said rods to the same whereby the relative movement of the rods with respect to the shaft may be adjusted.

4. In combination with a fixed roll and a movable roll, hinged levers connected to said movable roll for adjustably and rotatably supporting the same, a shaft associated with said rolls, and rods connecting said levers to said shaft, said rods having adjustable and eccentric connection with said shaft.

5. In combination with a fixed roll and a movable roll, hinged levers arranged at the ends of the movable roll for adjustably supporting the same, a shaft associated with the rolls, and rods coupling said levers to said shaft, said rods having eccentric and independently adjustable connection with said shaft whereby the ends of said movable roll may be independently adjusted.

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1,037,839. CENTRIFUGAL DRESSER. ALFRED RIDGWORTH TATTERSALL, London, England. Original application filed Sept. 25, 1909, Serial No. 519,504. Divided and this application filed May 31, 1912. Serial No. 700,751. (Cl. 83—39.)



In a centrifugal dresser for a self-contained flour mill, a rotating centrifugal dresser having a scalper at its finishing end, an imperforate stationary casing surrounding the scalper and having a discharge mouth, and a brush secured to the outside of the scalper to sweep the throughs of the said scalper through the discharge mouth.

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1,037,840. RECIPROCATING ENGINE. RUDOLF WINTMAN, Milwaukee, Wis., assignor to Power and Mining Machinery Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 28, 1906. Serial No. 331,796. (Cl. 121—48.)



1. In a reciprocating engine, the combination of a frame, a cylinder rigidly secured to said frame, a head for the cylinder removable therefrom without relative movement of the cylinder and frame, a piston in the cylinder, a rod therefor extending through the said removable head, a crank shaft, a connecting rod, a cross head secured to the connecting rod and detachably secured to the piston rod, and a cross head guide detachably mounted on the engine frame adjacent said removable cylinder head, said cross head guide being removable bodily with the cross head from its normal position without separating the connecting rod either from the cross head or the crank shaft, substantially as set forth.

2. In a horizontally reciprocating engine, the combination of a frame, a cylinder rigidly secured to the frame, a head for the cylinder removable therefrom without relative movement of the cylinder and frame, a piston in the cylinder, a rod therefor extending through said removable head, a crank shaft, a connecting rod, a cross head uniting the connecting rod and piston rod and detachably secured to the latter, and a cross head guide detachably mounted on the engine frame beneath the cross head and adjacent the said removable cylinder head, said cross-head guide being removable bodily with the cross head from its normal position without separating the connecting rod either from the cross head or the crank shaft, substantially as set forth.

3. In a reciprocating engine, the combination of the engine frame, the connecting rod, the piston rod, the cross-head detachably secured to the piston rod, the cross-head guide detachably secured to the engine frame, and means adapted to secure the connecting rod and the cross-head guide together when said guide is detached from the frame, substantially as set forth.

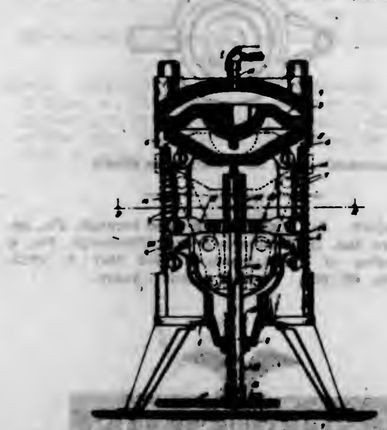
4. In a reciprocating engine, the combination of the engine frame, the connecting rod, the piston rod, the cross-head detachably secured to the piston rod, the cross-head guide detachably secured to the engine frame, and means adapted to secure the cross-head guide against longitudinal movement relative to the cross-head when said guide is detached from the frame, substantially as set forth.

5. In a reciprocating engine, the combination of the engine frame, the cylinder having a detachable head, the piston, the piston rod passing through said head, the cross-head detachably secured to said rod, and the cross-head guide detachably secured to the engine frame, the engaging surfaces of the guide and frame being cylindrical and concentric with the piston rod, substantially as and for the purpose set forth.

[Claim 6 not printed in the Gazette.]

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1,037,841. PRESS. MARI A. CUMING, New York, N. Y. Filed Apr. 20, 1912. Serial No. 692,110. (Cl. 138—10.)



1. In a press, the combination with the movable die carrying member, of a cylinder motor, a member guided by the reciprocating part of said cylinder motor and capable of telescoping with the stationary part thereof and systems of toggle joints connecting said mold to said member.

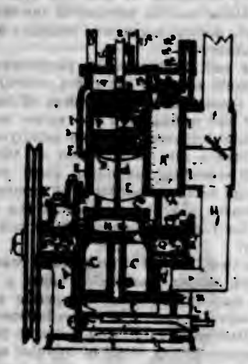
2. In a hat press, a mold for holding a die, a hydraulic motor arranged below the same, a member carried by the piston and capable of telescoping with the cylinder of the motor and toggle joints connecting said member to said mold.

3. In a hat press, a frame, a mold movably supported thereon, a hydraulic motor comprising a vertical cylinder fixed to said stand, and a piston, a member carried by the said piston and capable of telescoping with said cylinder and toggle joints connecting said mold to said member.

4. In a hat press, a frame, vertical guides secured thereto, a spring actuated mold movably engaged by said guides, a hydraulic motor comprising a vertical central cylinder fixed to said stand, and a piston, a member carried by said piston and capable of telescoping with said cylinder and toggle joints connecting said mold to said member.

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1,037,842. MOTOR. ROBERT CREUSBAUR, New York, N. Y.; Helen M. Creusbaur and Carrie Creusbaur, Brooklyn, N. Y., and Grace C. Nichols, New York, N. Y., executors of said Robert Creusbaur, deceased. Filed July 7, 1888. Serial No. 279,345. (Cl. 60—17.)



1. In a non-exhaust motor, a displacer adapted to rotate in the fluid-heating and cooling chamber of corresponding shape, whereby the displacer acts as a fly-wheel and gives centrifugal force to the fluid, causing it to strike the heating and cooling surfaces with impact, thereby increasing the efficiency and speed of the motor.

2. In a non-exhaust motor, a displacer having a depression or pocket in its periphery, and adapted to rotate in the corresponding fluid-chamber, substantially as described.

3. In a non-exhaust motor, a displacer adapted to rotate, a fluid-chamber formed of a relatively hot part, and a relatively cold part, and an intervening construction obstructing the passage of heat from the hot to the cold part.

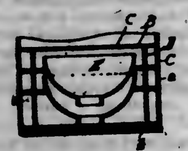
4. In a non-exhaust motor, a rotary displacer, a heating and cooling fluid chamber of corresponding shape so that the rotary displacer can utilize centrifugal force to throw the vapor or air contained therein against the walls of the chamber for heating and through an opening in the cylinder for doing work, a working cylinder opening directly into said fluid chamber, without intervening fluid channel, and a power piston in said cylinder adapted to work close to said fluid chamber.

5. In a non-exhaust motor, a rotary displacer, a corresponding heating and cooling chamber wherein the displacer is adapted to rotate, a working cylinder opening at one end directly into such chamber, a power-piston adapted to reciprocate in such cylinder, a crank-pin upon said displacer, and a rod connecting such crank-pin to the power-piston.

[Claims 6 to 80 not printed in the Gazette.]

# REISSUES.

12,465. PACKING-CASE. LAWRENCE D. MORTON, Sandusky, Ohio, assignor to The Hinde & Dauch Paper Company, Sandusky, Ohio, a Corporation of Ohio. Filed May 2, 1910. Serial No. 559,041. Original No. 905,449, dated Dec. 1, 1908, Serial No. 379,148. (Cl. 206—66.)



1. A packing case, comprising an inclosing casing, a series of separated transverse members arranged in parallel alinement independent of and extending longitudinally within the casing, each member being apertured to form a retaining seat for the article and the apertures registering, and a corresponding series of open-ended tubular spacing members also independent of the casing arranged intermediate of the apertured members, the cylinder openings respectively exceeding in area the apertures in the transverse members, the end member of the series forming a support for the several transverse members and the articles carried thereby.

2. A packing and shipping case, comprising an inclosing casing, a single series of separated centrally-apertured plate members therein, each independent of and extending transversely of the casing, and the series longitudinally thereof in parallel alinement, and an axially-alined series of spacing cylinders also independent of the casing arranged each intermediate adjoining plate members, the cylinder openings being respectively of greater area than the plate apertures, the end member of the series forming a support for the transverse members and the articles carried thereby.

3. A packing case, formed of pulp board consisting of an elongated casing proper, comprising sides, a closed reinforced bottom and flaps closing the casing top, a single series of flat centrally-apertured plates independent of and extending longitudinally within the casing in parallel alinement, and a corresponding series of annular spacing members for the plates also independent of the casing arranged intermediate of the latter and in axial alinement with the plate apertures.

4. A packing case, comprising an inclosing casing, a single series of centrally apertured plate members therein, each independent of and extending transversely of the casing, and the series longitudinally thereof in parallel alinement, and an alining series of spacing cylinders also independent of the casing formed each of a single strip of material bent into circular form, and the ends detachably connected, the cylinders being arranged each intermediate adjoining plate members, for the purpose described.

5. A packing case formed of pulp board, consisting of an elongated casing comprising sides, a closed reinforced bottom and flaps closing the casing top, a series of separated transverse members arranged in parallel alinement independent of and extending longitudinally within the casing, each member being apertured to form a retaining seat for the article and the apertures registering, and a corresponding series of open-ended tubular spacing members also independent of the casing arranged intermediate of the apertured members, the cylinder openings respectively exceeding in area the apertures in the transverse members.

6. A packing case, consisting of an elongated casing proper comprising sides, a closed reinforced bottom and flaps closing the casing top, a single series of centrally apertured plate members within the casing, each being independent and extending transversely of the casing and the series longitudinally thereof in parallel alinement, and an alining series of spacing cylinders also independent of the casing formed each of a single strip of material bent into circular form and the ends detachably connected, the cylinders being arranged each intermediate adjoining plate members.

7. The combination with a case for the reception of a nested series of articles, of means within said case for supporting said articles in their nested relation and in all positions out of stress-transmitting connection with each other.

8. The combination with a case for the reception of a nested series of articles, of a series of individual supports for said articles in their nested relation within said case adapted in all positions to hold the adjacent articles from stress-transmitting contact.

9. The combination with a case for the reception of a nested series of articles, of a series of transversely extending members fitting within said case and apertured to form seats for the respective articles of the series while in their nested relation, and means for spacing said transverse members to hold the adjacent articles of the series in all positions out of stress-transmitting contact.

# DESIGNS.

42,957. TEAPOT. CHARLES L. CASEY, Cambridge, Ohio. Filed June 28, 1912. Serial No. 706,499. Term of patent 14 years.



The ornamental design for a tea-pot, as shown.

42,958. SIGN. JAY CHAPIN, Edgewood borough, Pa., assignor to Jas. H. Matthews & Co., Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 8, 1912. Serial No. 696,000. Term of patent 7 years.



The ornamental design for a sign, as shown.



42,959. LIQUID COOLER AND DISPENSER. HENRY G. CONKLEY, Glen Ridge, N. J. Filed Nov. 3, 1911. Serial No. 658,451. Term of patent 14 years.



The ornamental design for a liquid cooler and dispenser, as shown.

42,960. SAW-HANDLE. HENRY DISSTON, Philadelphia, Pa., assignor to Henry Disston & Sons, Incorporated, Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 19, 1911. Serial No. 628,251. Term of patent 14 years.



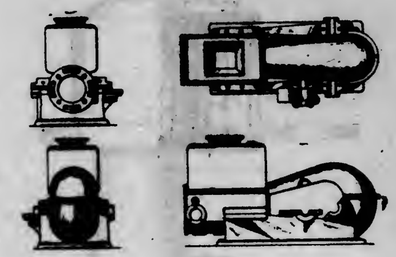
The ornamental design for a saw handle, as shown.

42,961. REFLECTOR AND ATTACHMENT. HENRY D'OLIER, Jr., Philadelphia, Pa., assignor, by mesne assignments, to General Electric Company, a Corporation of New York. Filed May 25, 1910. Serial No. 563,443. Term of patent 14 years.



The ornamental design for reflector and attachment, as shown and described.

42,962. GAS-ENGINE CASING. HENRY M. HANSEN, New Holstein, Wis., assignor to The John Lauson Manufacturing Company, New Holstein, Wis. Filed June 28, 1912. Serial No. 706,498. Term of patent 14 years.



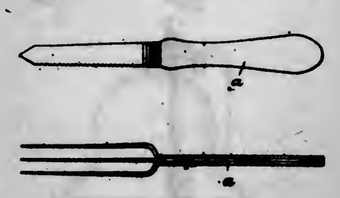
The ornamental design for a gas engine casing as shown.

42,963. SHELL FOR GAS OR ELECTRIC-LIGHT FIXTURES. FREDERICK W. GEISLER, West Collingswood, N. J., assignor to The Horn and Brannen Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 14, 1912. Serial No. 703,750. Term of patent 7 years.



The ornamental design for a shell for a gas or electric light fixture, as shown.

42,964. COMB-CLEANER. MERVIN A. GEISLER, York, Pa. Filed May 8, 1912. Serial No. 695,969. Term of patent 7 years.



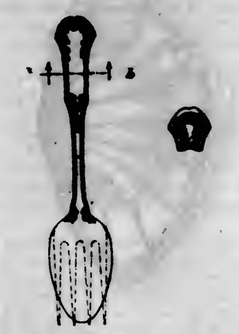
The ornamental design for a comb cleaner as shown and described.

42,965. LOCK-JAR. AMBROSE J. GUIDRY, New Orleans, La., assignor to Finley, Dicks & Co. Ltd., New Orleans, La. Filed July 1, 1912. Serial No. 707,110. Term of patent 14 years.



The ornamental design for a lock jar, as shown.

42,966. SPOON, FORK, OR SIMILAR ARTICLE. HENRIK HILLBOM, Wallingford, Conn., assignor to R. Wallace & Sons Mfg. Co., Wallingford, Conn., a Corporation. Filed May 13, 1912. Serial No. 697,043. Term of patent 7 years.



The ornamental design for a spoon, fork or similar article, as shown.

42,967. LAMP-POST. JOSEPH C. HOHRECHT, Sacramento, Cal. Filed Mar. 6, 1912. Serial No. 682,062. Term of patent 14 years.



The ornamental design for a lamp post, as shown.

42,968. SPOON, FORK, OR SIMILAR ARTICLE. ALFRED G. KERR, Wallingford, Conn., assignor to International Silver Company, Meriden, Conn., a Corporation of New Jersey. Filed May 23, 1912. Serial No. 698,382. Term of patent 7 years.



The ornamental design for a spoon, fork or similar article as shown.

42,969. SPOON, FORK, OR SIMILAR ARTICLE. ROBERT R. KIRTZ, Meriden, Conn., assignor to International Silver Co., Meriden, Conn., a Corporation of New Jersey. Filed May 27, 1912. Serial No. 700,120. Term of patent 7 years.



The ornamental design for a spoon, fork or similar article, as shown.



42,970. PICTURE-HOOK OR SIMILAR ARTICLE. IVAR ARVOVE MAURITZ LARSSON, Stockholm, Sweden. Filed Feb. 6, 1911. Serial No. 607,468. Term of patent 14 years.



The ornamental design for a picture hook or similar article as shown.

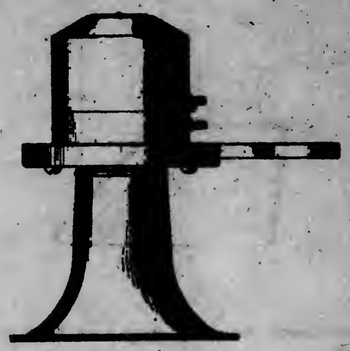
42,971. AUTOMOBILE-HORN. RAY H. MANSON, Elyria, Ohio, assignor to The Dean Electric Company, Elyria, Ohio, a Corporation of Ohio. Filed Mar. 2, 1912. Serial No. 681,378. Term of patent 7 years.





The ornamental design for an automobile horn as shown.

42,972. AUTOMOBILE-HORN. RAY H. MANSON, Elyria, Ohio, assignor to The Dean Electric Company, Elyria, Ohio, a Corporation of Ohio. Filed Apr. 22, 1912. Serial No. 692,804. Term of patent 7 years.





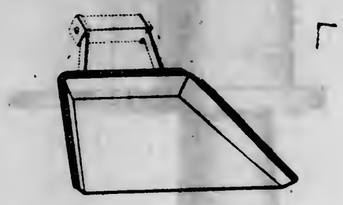
The ornamental design for an automobile horn as shown.

42,973. ELECTRIC-VACUUM-CLEANER CASING OR SIMILAR ARTICLE. RICHARD H. MONROW and JAMES MONROW, Waukegan, Ill. Filed May 2, 1912. Serial No. 694,738. Term of patent 7 years.



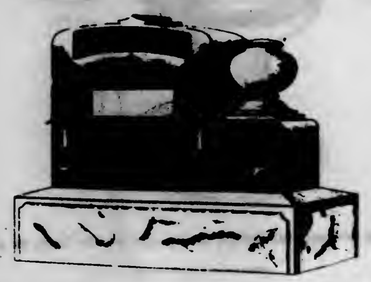
The ornamental design for an electric vacuum cleaner casing or similar article, as shown.

42,974. CRUMB-TRAY. CHARLES HELLER, New York, N. Y., assignor to S. Sternau & Co., Brooklyn, N. Y., a Copartnership. Filed May 28, 1909. Serial No. 499,060. Term of patent 14 years.



The ornamental design for crumb tray, as shown and described.

42,975. MONUMENT. HARRY MORGAN REAM, Mansfield, Ohio, assignor to Ream-McBee Company, Mansfield, Ohio, a Firm. Filed July 2, 1912. Serial No. 707,357. Term of patent 7 years.



The ornamental design for a monument, as shown.

42,976. NOSE-GUARD. ELWOOD RIGGS, Omaha, Nebr. Filed Jan. 31, 1912. Serial No. 674,619. Term of patent 14 years.



The ornamental design for a nose guard, as shown.

42,977. SPOON, FORK, OR SIMILAR ARTICLE. RICHARD SCHWARZ, Wallingford, Conn., assignor to International Silver Co., Meriden, Conn., a Corporation of New Jersey. Filed June 19, 1912. Serial No. 702,980. Term of patent 7 years.



The ornamental design for a spoon, fork or similar article, as shown.

42,978. SEWING-THIMBLE. LORENTZ M. SEYBOLD, New York, N. Y., assignor to Ketcham & McDougall, New York, N. Y., a Firm. Filed June 21, 1912. Serial No. 705,130. Term of patent 14 years.



The ornamental design for a sewing thimble, as illustrated.

42,979. SEWING-THIMBLE. LORENTZ M. SEYBOLD, New York, N. Y., assignor to Ketcham & McDougall, New York, N. Y., a Firm. Filed June 21, 1912. Serial No. 705,131. Term of patent 14 years.



The ornamental design for a sewing thimble, as illustrated.

42,980. SEWING-THIMBLE. LORENTZ M. SEYBOLD, New York, N. Y., assignor to Ketcham & McDougall, New York, N. Y., a Firm. Filed July 1, 1912. Serial No. 707,107. Term of patent 14 years.



The ornamental design for a sewing thimble, as illustrated.

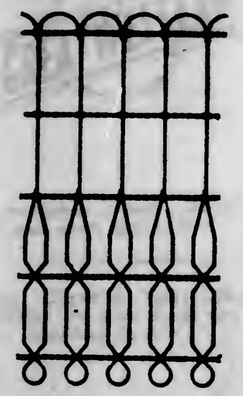


42,981. STAY OR PICKET FOR FENCES OR GATES. WILLIAM H. SOMMER, Peoria, Ill. Filed May 20, 1912. Serial No. 698,636. Term of patent 14 years.



The ornamental design for a stay or picket for fences or gates, as shown.

42,982. FENCE. WILLIAM H. SOMMER, Peoria, Ill. Filed May 27, 1912. Serial No. 700,098. Term of patent 14 years.



The ornamental design for a fence, as shown.

42,983. RING-HEAD FOR ALARM-CLOCKS. ELMER E. STOCKTON, Bristol, Conn., assignor to The E. Ingraham Co., Bristol, Conn., a Corporation. Filed Apr. 6, 1912. Serial No. 689,694. Term of patent 7 years.



The ornamental design for a ring-head for alarm clocks as shown.

42,984. MUSICAL-INSTRUMENT CASE. FRANK THEISS, Irvington, N. J., assignor to Frank Theiss Co., Newark, N. J., a Firm. Filed June 21, 1912. Serial No. 705,182. Term of patent 14 years.



The ornamental design for a musical instrument case, as shown.

42,985. WATER-CLOSET SEAT AND COVER. BERT O. TILDEN, New York, N. Y., assignor to American Sanitary Works, New York, N. Y., a Corporation of New Jersey. Filed Jan. 27, 1910. Serial No. 540,462. Term of patent 14 years.



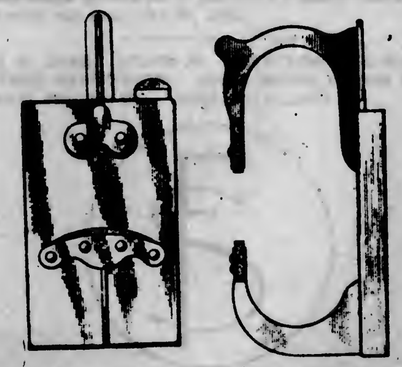
The ornamental design for a water closet seat and cover, as shown and described.

42,986. BADGE. ALBERT H. VAN DEUSEN, Washington, D. C. Filed June 22, 1912. Serial No. 705,338. Term of patent 14 years.



The ornamental design for a badge, as shown.

42,987. LOCK-HOOK. LOUIS WILLIAMS, Denver, Colo. Filed Feb. 6, 1912. Serial No. 675,878. Term of patent 14 years.



The ornamental design for a lock hook as shown.

# TRADE-MARKS

## PUBLISHED SEPTEMBER 3, 1912.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 38,261. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LAUDENBACH-BAHNEN CO., Philipsburg, Pa. Filed Aug. 18, 1908.

GREAT WESTERN

*Particular description of goods.*—Butter.
*Claims use since about Mar. 1, 1903.*

Ser. No. 50,626. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) PACKARD MOTOR CAR COMPANY, Detroit, Mich. Filed June 28, 1910.

*Particular description of goods.*—Motor-Vehicles Propelled by Internal-Combustion Motors.
*Claims use since June 6, 1910.*

Ser. No. 50,838. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE GRAND JUNCTION FRUIT GROWERS' ASSOCIATION, Grand Junction, Colo. Filed July 14, 1910.

*Particular description of goods.*—Fresh and Green Fruits.
*Claims use since Apr. 23, 1910.*

Ser. No. 51,507. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) COLLINS MCCARTHY CANDY CO., San Francisco, Cal. Filed Aug. 23, 1910.

ZEE-NUT

*Particular description of goods.*—A Popcorn Product.
*Claims use since May 27, 1910.*

Ser. No. 55,895. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) STONE MOTION PICTURE COMPANY, Sapulpa, Okla. Filed Apr. 21, 1911.

*Particular description of goods.*—Moving-Picture Films.
*Claims use since Apr. 5, 1911.*

Ser. No. 56,465. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) AMERICAN ABRASIVE METALS CO., New York, N. Y. Filed May 19, 1911.

FERALUN

*Particular description of goods.*—Cast Metal Having a Surface Coated by Granular Mineral Elements and Used as Surfaces for Pumps, Pipes, Lining-Plates, Grates for Coal-Chuting Jigs, Stair-Treads, Tread-Surfaces, and Surfaces Which are Highly Resistant to Any Abrading Action and Which Have Antislipping Properties.
*Claims use* since Apr. 24, 1911.

Ser. No. 56,485. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE AMERICAN COTTON OIL COMPANY, West New York, N. J., and New York, N. Y. Filed June 14, 1911.



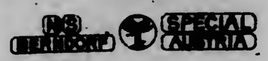
The Hebrew characters appearing on the flag shown in the drawing and which translated into English is "Kosher Oil" are not claimed.
*Particular description of goods.*—Cotton-Seed Oil.
*Claims use* since Dec. 1, 1906.

Ser. No. 56,579. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PETER PIPLICK, Dixuba, Cal. Filed May 25, 1911.




The picture shown being mine and the signature being a facsimile of my signature. All rights to the words "Gallium Oil" are disclaimed.
*Particular description of goods.*—A Liniment.
*Claims use* since May 4, 1911.

Ser. No. 56,640. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) BERNDORF METAL WORKS ARTHUR KRUPP, Berndorf, Austria. Filed May 27, 1911.




The words "Special Berndorf Austria" being disclaimed.
*Particular description of goods.*—Electroplated and Rolled Nickel-Silver Articles—viz., Absinthe-Cups, Absinthe-Spoons, Tea-Trays, Almond-Dishes, Ash-Trays, Asparagus-Dishes, Asparagus Forks or Holders, Asparagus-Racks, Asparagus-Servers, Cutlet-Spreaders, Sugar-Basins, Soup-Basins, Fruit and Flower Baskets, Bread-Baskets, Cake-Baskets, Beer-Mugs, Beer-Mug Stands, Beer-Tankards, Beer-Warmers, Biscuit-Boxes, Bitters-Bottles, Bonbon-Dishes, Bottle-Stands, Bouillon Glasses and Holders, Bowls for Absinthe Set, Flower and Punch Bowls, Brandy-Warmers, Butter and Cheese Dishes, Breakfast-Trays, Butter-Boats, Butter-Coolers, Butter-Dishes, Butter-Knives, Café-au-Lait Pots, Café-au-Lait Sets, Café-Noir Cafetières, Cake-Baskets, Cake-Knives, Cake-Stands, Candelabra, Candle-Shade Holders, Candlesticks, Candle-Rings, Carving-Tables, Caviar-Dishes, Celery-Stands, Centerpieces, Chafing-Dish Stands, Champagne-Jugs, Cheese-Dishes, Cheese-Scoops, Cheese-Stands, Chianti-Bottle Stands, Chutney-Spoons, Cigar-Ash Trays, Cigarette-Boxes, Claret-Jugs, Coffee-Pots, Coffee-Pot Warmers, Corks, Dish-Covers, Covers for Glasses, Plate-Covers, Cream Ewers or Jugs, Cream-Ladles, Breakfast-Cruets, Dinner-Cruets, Crumb-Brushes, Crumb-Scoops, Crumb-Trays, Cutlery Electroplated Handles, Cutlery Ivory Handles, Forks, Dessert-Plates, Dinner-Plates, Dish-Rims, Dish-Warmers, Chop-Dishes, Fish-Dishes, Meat-Dishes, Potato-Dishes, Ragout-Dishes, Shallow Dishes for Vegetables, Soufflet-Dishes, Divisions and Linings for Dishes, Egg-Cups, Egg-Stands, Egg-Steamers, Egg-Warmers, Entrée Dishes, Escalop-Shells, Etna, Extinguishers, Finger-Bowls, Fish-Carvers, Fish-Forks, Flower-Vases, Fruit-Dishes, Fruit-Spoons, Fruit-Stands, Glass-Holders, Glass-Stands, Goblets, Grape-Scissors, Grape-Stands, Grating for Bottle-Stands, Grids for Warmers, Hair-Brushes, Hand-Basins, Hand-Mirrors, Honey-Pots, Hors-d'Œuvres Dishes, Hot-Water Jugs, Ice-Caddy, Ice-Cream Dishes, Ice-Cream Knives, Ice-Cream Plates, Ice-Cream Services, Ice-Cream Spades, Ice-Cream Spoons, Ice-Dishes, Ice-Hammers, Ice-Pails, Ice-Scoops, Ice-Tongs, Lemonade-Jugs, Ice-Water Jugs, Jam-Spoons, Jam-Stands, Joint-Holders, Knife-Rests, Knife-Trays, Dessert-Knives, Fish-Knives, Table-Knives with Electroplated Handles, Table-Knives with Ivory Handles, Lemon-Extracters, Lemon-Forks, Lemon-Squash Spoons, Lemon-Squeezers, Liquer-Coolers, Lobster-Picks, Luncheon-Cruets, Maggi-Stands, Marmalade-Spades, Marmalade-Stands, Marrow-Scoops, Match-Stands, Meat-Plates, Meat-Servers, Menu-Holders, Milk-Jugs, Table-Mirrors, Cocktail-Mixers, Mocha-Spoons, Muffineers, Mustard-Spoons, Nutcrackers, Nut-Dishes, Nut-Picks, Oil and Vinegar Frames, Olive-Dishes, Omelette-Dishes, Oyster-Forks, Oyster-Stands, Pastry-Stands, Pepper and Salt Stands, Pepper-Mills, Pepper-Pots, Piano-Candlesticks, Pickle-Forks, Pickle-Frames, Soup-Plates, Punch-Bowls, Ramekin-Pans, Reversible Dish-Warmers, Ragout-Rims, Napkin-Rings, Salad-Bowls, Salad-Servers, Salt-Cellars, Salt-Spoons, Salvers, Sandwich-Servers, Sardine-Boxes, Sauce-Boats, Sauce-Frames, Sauce-Tureens, Shank-Holders, Skewers, Soap-Boxes, Soda-Water Stands, Soufflet-Linings, Soup-Plates, Soup-Tureens, Specimen-Vases, Spice-Stands, Spirit-Frames, Sponge-Basins, Spoons and Forks, Stands for Rhine Wine, Stew-Dishes, Strainers for American Bar, Tea-Strainers, Sugar and Cream Stands, Sugar-Basins, Sugar-Bowls, Sugar-Casters, Sugar-Crushes, Sugar-Tongs, Sugar-Trays, Table-Bells, Table-Candlesticks, Table-Cutlery, Table Decorations, Tankards, Tantalus Frames, Tart-Servers, Tea and Coffee Sets, Tea Glasses and Holders, Tea-Infusers, Tea-Kettles, Teapots, Tea-Trays, Toast-Racks, Toilet Sets, Toothpick-Stands, Breakfast-Trays, Knife-Trays, Tumblers and Holders,





Turkish Coffee-Pots, Vases for Spoons, Street-Holders, Vegetable-Dishes, Venison-Dishes, Waiters, Water-Jugs, Wine-Corks, Wine-Frames, Wine-Jugs, and Wine-Labels.
*Claims use* since May 25, 1903.

Ser. No. 56,807. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) W. SCHNEIDER WHOLESALE WINE & LIQUOR CO., St. Louis, Mo. Filed June 3, 1911.

905

*Particular description of goods.*—Rye Whisky, Bourbon Whisky, Steinhäger, Kümmel, Brandy, and Blackberry-Brandy.
*Claims use* since Jan. 1, 1896.

Ser. No. 58,132. (CLASS 39. CLOTHING.) K. SOLOMON & CO., Pittsburgh, Pa. Filed Aug. 10, 1911.

"Five Point"

*Particular description of goods.*—Hosiery.
*Claims use* for the past eighteen months.

Ser. No. 58,222. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RUST-PARKER-MARTIN COMPANY, Duluth, Minn. Filed Aug. 16, 1911.

RUSTPARK

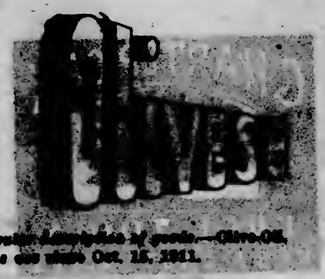
*Particular description of goods.*—Apple-Butter; Bird-Seed; Buckwheat-Grits; Baked Beans; Catsup; Canned Fruits; Canned Vegetables; Canned Fish; Canned Soups; Chocolate; Chili Sauce; Cheese; Cocoa; Coffee; Corn-Starch; Condensed Milk; Clam-Juice; Clam-Chowder; Celery-Salt; Cocoanut; Codfish; Evaporated Fruits; Extract of Beef; Flavoring Extracts; Farina; Groats; Gelatin; Honey; Hominy; Horse-Radish; Jams; Jelly; Mince-Meat; Marmalade; Macaroni; Noodles; Olives; Olive-Oil; Oysters; Potato-Flour; Prepared Mustard; Peanut-Butter; Pickles; Popcorn; Preserves; Pepper Sauce; Prepared Table Sauce; Rolled Oats; Soup-Stock; Salad-Dressing; Sago; Spices; Spaghetti; Tapioca; Tea; Vinegar; Vermicelli; Wheat-Flour; Canned Sauer-Kraut; Clams; Lobsters, and Yeast.
*Claims use* since about Nov. 1, 1910.

Ser. No. 59,218. (CLASS 48. MALT EXTRACTS AND LIQUORS.) DES MOINES BREWING COMPANY, Des Moines, Iowa. Filed Oct. 18, 1911.

Old Tavern

*Particular description of goods.*—Beer.
*Claims use* since Nov. 1, 1906.

Ser. No. 59,339. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ALEXANDER L. CAPRIS, Pittsburgh, Pa. Filed Nov. 4, 1911.



*Particular description of goods.*—Olive-Oil.
*Claims use* since Oct. 15, 1911.

Ser. No. 59,637. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE KILBOURNE & JACOBS MFG. CO., Columbus, Ohio. Filed Nov. 9, 1911.




*Particular description of goods.*—Dump Cars and Carts, Wheelbarrows of All Kinds, Ore and Mine Cars, Railroad and Warehouse Trucks, Baggage-Barrows, Sugar-Cane Cars, Plantation-Cars, Narrow-Gage-Railroad Cars.
*Claims use* since the 17th day of October, 1910.

Ser. No. 59,657. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) MARY E. GRIEVES, Louis, Mich. Filed Nov. 13, 1911.




No claim being made to the words "Delevan Music Method."
*Particular description of goods.*—Games.
*Claims use* since Sept. 30, 1911.

Ser. No. 59,703. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE NOVELTY CUTLERY COMPANY, Canton, Ohio. Filed Nov. 17, 1911. Under ten-year proviso.

NOVELTY

*Particular description of goods.*—Pocket-Knives, Desk-Knives, Putty-Knives, Steel Table-Knives, Hunting-Knives, Letter-Openers, Spatulas, Erasers, and Disks.
*Claims use* since the year 1906.

Ser. No. 59,992. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE COLLINS COMPANY, Collinsville, Conn. Filed Nov. 25, 1911.



No claim is made for the words "Edge Tools Manufactured from Best Cast Steel."

*Particular description of goods.*—Axes, Hatchets, Adzes, Bush-Hooks, Machetes, Saws, Chisels, Knives, Swords, Sickles, Mattocks, Pickaxes, Crowbars, Picks, Hoes, Mill-Picks, Sledges, Hammers, Wedges, Wrenches, Augers, Boring-Bits, Earth and Rock Drills, Cavadores, Barrotones, Tarpains, Palms, Tarcades, Jimcolas, Barras, Lanzas, Lancitas, Arpones, Cleavers, and Bayonets.

*Claims use* since 1872.

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Ser. No. 60,002. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) CHARLES RALEIGH, Paris, France. Filed Nov. 29, 1911.

BIOCOLOR

*Particular description of goods.*—Films, Kinematographic Films, Kinematographic Cameras and Projectors, and Printing-Machines for Making Kinematographic Positive Films.

*Claims use* since May, 1911.

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Ser. No. 60,112. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE SHREDDED WHEAT COMPANY, Niagara Falls, N. Y. Filed Dec. 7, 1911.

THE HOME OF SHREDDED WHEAT



No claim is made herein to the words "The Home of Shredded Wheat."

*Particular description of goods.*—Shredded Wheat.

*Claims use* since Mar. 1, 1910.

Ser. No. 60,321. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE GRAY RUBBER CO., Akron, Ohio. Filed Dec. 18, 1911.



*Particular description of goods.*—Camera Bulb Outfits.

*Claims use* since 1906.

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Ser. No. 60,697. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) MASCHINEN-CARTONNAGEN- & PAPPENFABRIK WACHENBUCH, FRIED. CHRISTIAN, Wächtersbach, Germany. Filed Jan. 9, 1912.

Subifex

*Particular description of goods.*—Fire-Extinguishers.

*Claims use* since Sept. 11, 1911.

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Ser. No. 60,919. (CLASS 2. RECEPTACLES.) M. W. CARR & Co., Somerville, Mass. Filed Jan. 19, 1912.




*Particular description of goods.*—Pin-Trays, Powder-Boxes, Loose-Hair-Retainer Boxes, Jewel-Cases, and Boxes for Toilet Articles. These Articles are Made Principally of Celluloid.

*Claims use* since Sept. 12, 1911.

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Ser. No. 61,181. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE STANDARD CHEMICAL COMPANY, Kansas City, Mo. Filed Feb. 1, 1912.




No claim being made to the words "Resilient Compound Substitute for Air."

*Particular description of goods.*—A Tire-Filling Compound.

*Claims use* since Jan. 20, 1912.





Ser. No. 61,382. (CLASS 40. DISTILLED ALCOHOLIC LIQUORS.) THE NECTAR COMPANY, New York, N. Y. Filed Feb. 8, 1912.



The signature "Enrico Schenone" appearing thereon is the signature of Enrico Schenone, whose consent is filed herewith.

*Particular description of goods.*—Distilled Anisette Cordial.

*Claims use* since Jan. 1, 1900.

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Ser. No. 61,669. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FARBWERKE VORM. MEISTER LUCIUS & BRÜNING, Höchst-on-the-Main, Germany. Filed Feb. 24, 1912.

HEXOPHAN

*Particular description of goods.*—Antiarthriticum for Treating and Preventing Arthritis and Predisposition to Lithæmia.

*Claims use* since Jan. 3, 1912.

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Ser. No. 61,700. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FARBWERKE VORM. MEISTER LUCIUS & BRÜNING, Höchst-on-the-Main, Germany. Filed Feb. 24, 1912.

HYPOPHYSIN

*Particular description of goods.*—An Efficacious Tonic for Heart and Uterus.

*Claims use* since Jan. 3, 1912.

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Ser. No. 61,724. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE LIVERPOOL CHINA & INDIA TEA COMPANY LIMITED, Liverpool, England. Filed Feb. 26, 1912.

KARDOMAH

*Particular description of goods.*—Coffee, a Compound of Coffee and Chicory, Cocoa, and Chocolate.

*Claims use* since about Sept. 28, 1893.

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Ser. No. 61,803. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE COLLINS COMPANY, Collinsville, Conn. Filed Feb. 29, 1912.



*Particular description of goods.*—Plows.

*Claims use* since February, 1894.

Ser. No. 61,886. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) BRADLEY ART COMPANY, INC., New York, N. Y. Filed Mar. 2, 1912.




No claim being made to the words "Art Co."

*Particular description of goods.*—Electric Lamps Made of Brass, Copper, Silver, or Nickel.

*Claims use* since Feb. 5, 1912.

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Ser. No. 61,974. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LEO ZANDER, Pittsfield, Mass. Filed Mar. 6, 1912.

ISCO

*Particular description of goods.*—Canned Vegetables, Tomato Catsup, Prepared Mustard, Olive-Oil, Coffee, Refined-Sugar and Maple Syrup, Tea, Flavoring Extracts, and Olives, Worcestershire Sauce, Codfish, Cocoa, Mince-Meat.

*Claims use* since August, 1906.

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Ser. No. 62,153. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CONTINENTAL LATCH NEEDLE COMPANY, New York, N. Y. Filed Mar. 14, 1912.




The words "Trade Mark," inserted in four languages on said drawing, are hereby specifically disclaimed as part of the trade-mark herein.

*Particular description of goods.*—Knitting-Machine Needles.

*Claims use* since Mar. 1, 1911.

Ser. No. 62,373. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN H. GOSSER, Hazleton, Pa. Filed Mar. 23, 1912.

ANTHRACITE

*Particular description of goods.*—Canned Vegetables.
*Claims use* since Jan. 1, 1912.

Ser. No. 62,398. (CLASS 2. RECEPTACLES.) PAUL C. MCBRIDE, Chicago, Ill. Filed Mar. 25, 1912.




*Particular description of goods.*—A Container for a Tooth-Brush, a Tooth-Polishing Stick, a Can of Tooth-Cleansing Powder, and a Tube of Tooth-Polishing Paste.
*Claims use* since Mar. 8, 1912.

Ser. No. 62,432. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) MANN EDGE TOOL COMPANY, Lewiston, Pa. Filed Mar. 26, 1912.



No claim being made to the words "Mann Edge Tool Co." and "Warranted" as forming a part of said trade-mark.
*Particular description of goods.*—Axes.
*Claims use* since Oct. 1, 1911.

Ser. No. 62,472. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HOMER A. WOODS, Woodruff Place, Ind. Filed Mar. 28, 1912.

PONY

*Particular description of goods.*—Bread and Oats Prepared and Packed as Cereal Breakfast Food.
*Claims use* since Mar. 12, 1912.

Ser. No. 62,552. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DULUTH-SUPERIOR MILLING COMPANY, Duluth, Minn. Filed Mar. 29, 1912.

PRIMA DONNA

*Particular description of goods.*—Wheat-Flour.
*Claims use* since Feb. 13, 1883.

Ser. No. 62,591. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE CARBO-SOL CO., St. Louis, Mo. Filed Apr. 1, 1912.

CARBO-SOL

*Particular description of goods.*—A Preparation for Cleaning Internal-Combustion Engines and Similar Motors.
*Claims use* since Mar. 1, 1912.

Ser. No. 62,656. (CLASS 5. ADHESIVES.) ROBERT H. FORRDERER, Incorporated, Philadelphia, Pa. Filed Apr. 4, 1912.



Consists of the representation of a horseshoe inclosed within a rectangular figure of broken lines situated on a figure which is pink in color.
*Particular description of goods.*—Glue.
*Claims use* since about March, 1906.

Ser. No. 62,693. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) C. D. WARNER CO., Coldwater, Mich. Filed Apr. 6, 1912.



*Particular description of goods.*—A Liniment and a Remedy for Coughs, Colds, and All Diseases of the Throat and Lungs.
*Claims use* since about Jan. 1, 1862.





Ser. No. 62,809. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHNSON & JOHNSON, New Brunswick, N. J. Filed Apr. 10, 1912.



*Particular description of goods.*—Medicinal Plasters.
*Claims use* since Feb. 15, 1912.

Ser. No. 62,819. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) KENTUCKY WAGON MFG. CO., Louisville, Ky. Filed Apr. 10, 1912.

URBAN

*Particular description of goods.*—Electrically-Propelled Road-Vehicles.
*Claims use* since Mar. 12, 1912.

Ser. No. 62,860. (CLASS 18. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE EICHENBERG BRASS COMPANY, Cleveland, Ohio. Filed Apr. 12, 1912.



*Particular description of goods.*—Faucets, Drain-Cocks, Waste-Cocks, Bib-Cocks, Basin-Cocks, Sink-Cocks, and Bath-Tub Faucets.
*Claims use* since June, 1911.

Ser. No. 62,862. (CLASS 15. OILS AND GREASES.) RUSSIA CEMENT COMPANY, Gloucester, Mass. Filed Apr. 12, 1912.

RUSOL

Consisting of the word "Rusol."
*Particular description of goods.*—Fish-Oils.
*Claims use* since Mar. 1, 1912.

Ser. No. 62,971. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EMPIRE STATE DAIRY COMPANY, Brooklyn, N. Y. Filed Apr. 18, 1912.

Sano-Lac

*Particular description of goods.*—Fermented Milk.
*Claims use* since Apr. 1, 1912.

Ser. No. 63,020. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) RIVERSIDE & DAN RIVER COTTON MILLS, Incorporated, Danville, Va. Filed Apr. 20, 1912.

FOXCROFT

*Particular description of goods.*—Cotton Sheetings.
*Claims use* since about the 1st of October, 1905.

Ser. No. 63,057. (CLASS 42. THREAD AND YARN.) PH. VRAU & CIE., Lille, France. Filed Apr. 22, 1912. Under ten-year proviso.



Consists of a piece of golden thread attached to a part of a ball of linen thread, no claim being made to the representation of a part of the ball of thread.
*Particular description of goods.*—Linen Thread.
*Claims use* since the year 1859.

Ser. No. 63,113. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EMPIRE STATE FLOUR MILLS, Syracuse, N. Y. Filed Apr. 25, 1912.




The picture of the child being fanciful.
*Particular description of goods.*—Wheat-Flour.
*Claims use* since March, 1868.

Ser. No. 63,134. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DAVID S. VAN HORNE, Monroe, Ga. Filed Apr. 25, 1912.

PLEMAR

*Particular description of goods.*—A Remedy for Corns, Warts, and Calluses; a Remedy for Inflammation of

Kidneys or Bladder, Backache, Gravel, Catarrh of Bladder, Dropsical Swellings, Irritation of Urethra, Incontinence of Urine, Painful and Scanty Urination, and General Kidney and Bladder Complaints; a Remedy for Eczema, Blind, Bleeding, and Itching Piles, Scald-Head, Ringworm, Poison-Oak Poisoning, Scalds, Old Ulcers, and Irritating Skin Humors, and for a Liver and Kidney Tea.

*Claims use* since Feb. 28, 1912.

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Ser. No. 63,172. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BEAUDRY & COMPANY, INC., Boston, Mass. Filed Apr. 27, 1912. Under ten-year proviso.

BEAUDRY

*Particular description of goods.*—Power-Hammers and Trip-Hammers.

*Claims use* since 1894.

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Ser. No. 63,192. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HARTWIG & VOGEL AKTIENGESELLSCHAFT, Dresden, Germany. Filed Apr. 29, 1912.



*Particular description of goods.*—Cocoa, Chocolate, Candy.

*Claims use* since Apr. 30, 1906.

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Ser. No. 63,275. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ABRAM LYLE & SONS, LIMITED, London, England. Filed May 3, 1912.




No claim being made to the exclusive right to use the words "Lyle's Golden Syrup," "Abram Lyle & Sons, Limited," and "Sugar Refiners."

*Particular description of goods.*—Table-Syrup.

*Claims use* since October, 1884.

Ser. No. 63,285. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHUCKANUT MILL CO., Seattle and Spokane, Wash. Filed May 3, 1912.




*Particular description of goods.*—Wheat-Flour.

*Claims use* since 1905.

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Ser. No. 63,298. (CLASS 10. FERTILIZERS.) BEN H. HARVIN, Hagvin, S. C. Filed May 4, 1912.

GROMO.

*Particular description of goods.*—Fertilizers.

*Claims use* since Mar. 1, 1912.

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Ser. No. 63,306. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE COCOANUT GROVE CITRUS GROWERS' ASSOCIATION, Cocoanut Grove, Fla. Filed May 4, 1912.

COCOANUT

*Particular description of goods.*—Oranges, Lemons, Grape-Fruit, Tangerines, and Limes.

*Claims use* since Nov. 1, 1911.

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Ser. No. 63,330. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN BLAUL'S SONS CO., Burlington, Iowa. Filed May 4, 1912.

Linar

*Particular description of goods.*—Canned Vegetables, Canned Fruits, Canned Salmon, Canned Oysters, Canned Mackerel, Canned Codfish, Canned Shrimps, Canned Lobster, Canned Sardines, Dried Beef, Vienna-Style Sausage, Dried Fruits, Figs, Dates, Seeded Raisins, Glazed Cherries, Fruit Jelly, Fruit Jams, Lemon Extract, Vanilla Extract, Blended Coffee, Tea, Olives, Pickles, Olive-Oil, Tapioca, Dried Currants, Shredded Cocoanut, Rice, Vinegar, Canned Mushrooms, Mustard, Tomato Catsup, Canned Mince-Meat, Powdered Sugar, Sorghum, Cane and Maple Syrup, Evaporated Milk, Bird-Seed, Celery-Salt, Apple-





Butter, Peanut-Butter, Pepper Sauce, Horse-Radish, Cinnamon, Wheat-Hearts, Pancake-Flour, Rolled Oats, Buckwheat-Flour, Canned Hominy, Canned Pork and Beans, Canned Sauer-Kraut, Fancy Mixed Candy, Gu-Tail Soup, Tomato Soup, Cinnamon, Chocolate Creams, and Black Pepper.

*Claims use* since Feb. 15, 1912.

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Ser. No. 63,331. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EVELINE LOUDENSLAGER, Tiffin, Ohio, administratrix of the estate of Joseph Loudenslager, deceased. Filed May 4, 1912.

WHITE BROCADE

*Particular description of goods.*—Wheat-Flour.

*Claims use* since February, 1912.

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Ser. No. 63,342. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MICHAEL JOHN MARSTERS, Fort Wayne, Ind. Filed May 4, 1912.

MARLIX

*Particular description of goods.*—A Remedy for Indigestion, Heartburn, Dizziness, and Sick Headache.

*Claims use* since Apr. 6, 1912.

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Ser. No. 63,362. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) GREAT WESTERN SMELTING & REFINING CO., Chicago, Ill. Filed May 6, 1912.

XXXX NICKEL

No claim being made to the word "Nickel."

*Particular description of goods.*—Babbitt and Anti-friction Metals.

*Claims use* since the 1st of March, 1892.

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Ser. No. 63,394. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) IMO CHEMICAL COMPANY, New York, N. Y. Filed May 7, 1912.

ARXDOL

*Particular description of goods.*—A Mouth-Wash and Remedy for Diseased Mucous Membranes of the Mouth, Throat, and Nose.

*Claims use* since Apr. 1, 1912.

Ser. No. 63,396. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOSEPH G. MASTAN, Ranchfield, Wash. Filed May 7, 1912.



*Particular description of goods.*—Canned Salmon.

*Claims use* since the year 1878.

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Ser. No. 63,422. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN T. LOVETT, Little Silver, N. J. Filed May 9, 1912.

BOROWAX

*Particular description of goods.*—An Insecticide.

*Claims use* since May, 1911.

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Ser. No. 63,461. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE KILBOURNE & JACOBS MANUFACTURING COMPANY, Columbus, Ohio. Filed May 9, 1912.




*Particular description of goods.*—Wheel-Scrapers, Drag-Scrapers, and Grading-Plows.

*Claims use* since Oct. 17, 1910.

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Ser. No. 63,440. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KALLE & CO., AKTIENGESELLSCHAFT, Biebrich-on-the-Rhine, Germany. Filed May 9, 1912.

Azodolen

*Particular description of goods.*—A Preparation for the Treatment of Wounds.

*Claims use* since Apr. 1, 1902.

Ser. No. 63,468. (CLASS 32. FURNITURE AND UPHOLSTERY.) JOHANN LUND, Irvington-on-Hudson, N. Y. Filed May 10, 1912.

REX

*Particular description of goods.*—Portable Shelving.
*Claims use* since July 1, 1911.

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Ser. No. 63,471. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE J. M. SHOCK ABSORBER CO., Philadelphia, Pa. Filed May 10, 1912.




The words "Shock Absorber" and the representation of a shock-absorber being disclaimed.
*Particular description of goods.*—Shock-Absorbers for Vehicles.
*Claims use* since Apr. 1, 1912.

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Ser. No. 63,476. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE SENEX COMPANY, Fort Wayne, Ind. Filed May 11, 1912.

SENEX

*Particular description of goods.*—A Remedy for Constipation.
*Claims use* since Apr. 4, 1912.

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Ser. No. 63,506. (CLASS 5. ADHESIVES.) ERNECKE & SALMSTEIN COMPANY, Chicago, Ill. Filed May 15, 1912.

ESCO.

*Particular description of goods.*—Label-Pastes.
*Claims use* since Apr. 27, 1912.

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Ser. No. 63,622. (CLASS 12. CONSTRUCTION MATERIALS.) DURATO ASBESTOS FLOORING CO., LTD., Westminster, London, England. Filed May 18, 1912.

DURATO

*Particular description of goods.*—Jointless Flooring.
*Claims use* since May, 1905.

Ser. No. 63,662. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PENSACOLA TAR & TURPENTINE CO., Gulf Point, Fla. Filed May 16, 1912.

AKROL

*Particular description of goods.*—An Antiseptic, Disinfectant, or Deodorant Pine-Oil.
*Claims use* since August, 1909.

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Ser. No. 63,725. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) REMAL MOTOR CAR COMPANY, Indianapolis, Ind. Filed May 23, 1912.




No claim being made to the word "Stutz."
*Particular description of goods.*—Automobiles, Trucks, and Similar Vehicles.
*Claims use* since Apr. 2, 1911.

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Ser. No. 63,739. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ANN B. GIBSON, Hoxie, Ark. Filed May 23, 1912.

Boansan

*Particular description of goods.*—A Salve.
*Claims use* since May 15, 1912.

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Ser. No. 63,783. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE MOSSUL COMPANY, Milwaukee, Wis., assignor to Delight-O! Products Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed May 24, 1912.




The words "Trade Mark, Makes Varnished Floors and Woodwork Clean and Bright, A Great Labor Saver for Home and Office, The Mossul Company, Makers, Milwaukee, U. S. A.," being disclaimed.
*Particular description of goods.*—A Floor-Dressing.
*Claims use* since Nov. 15, 1911.





Ser. No. 63,795. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM H. BROWN & BRO. CO., Baltimore, Md. Filed May 25, 1912.

JESS

*Particular description of goods.*—Talcum Powder, Sachet-Powders, Cold-Creams, and Perfumes.
*Claims use* since January, 1906.

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Ser. No. 63,821. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) OTTILIA MEHRINGER, Yonkers, N. Y. Filed May 27, 1912.




*Particular description of goods.*—Face-Cream and Hair-Pomade.
*Claims use* since May 1, 1912.

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Ser. No. 63,829. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE PINKETT BROTHERS COMMISSION COMPANY, Denver, Colo. Filed May 27, 1912.

PRINCESS

*Particular description of goods.*—Eggs.
*Claims use* since September, 1907.

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Ser. No. 63,884. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) KESSIN BROTHERS, Chicago, Ill. Filed May 31, 1912.




*Particular description of goods.*—Gold-Leaf.
*Claims use* since Mar. 20, 1912.

Ser. No. 63,912. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOOSE-WILES BISCUIT COMPANY, Boston, Mass. Filed May 31, 1912.

"PAKITIN"

*Particular description of goods.*—Biscuits, Cakes, and Cookies.
*Claims use* since May 22, 1912.

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Ser. No. 63,980. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FONTANA & CO., New York, N. Y. Filed June 1, 1912.

IMPERATOR

*Particular description of goods.*—Evaporated Apples.
*Claims use* since May 21, 1912.

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Ser. No. 64,034. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CLAYTON CHEMICAL CO., New York, N. Y. Filed June 7, 1912.

CLAYPHEN

*Particular description of goods.*—Medicinal Pills.
*Claims use* since about June 1, 1912.

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Ser. No. 64,076. (CLASS 2. RECEPTACLES.) THE ROOS MANUFACTURING CO., Chicago, Ill. Filed June 8, 1912.




*Particular description of goods.*—Red-Cedar Chests and Household Wooden Receptacles Known as "Utility-Boxes."
*Claims use* since July, 1907.

Ser. No. 64,077. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE ROOST MANUFACTURING CO., Chicago, Ill. Filed June 8, 1912.




*Particular description of goods.*—Wooden Curtain-Poles, Wooden Rods, Wooden Curtain-Pole Trimmings, Including Brackets and Ornaments for the Ends Thereof, and Folding Draft-Screens.
*Claims use* since July, 1907.

Ser. No. 64,096. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ECONOMIC MACHINERY COMPANY, Worcester, Mass. Filed June 10, 1912.

**Junior**

The trade-mark consists of the word "Junior."
*Particular description of goods.*—Labeling-Machines and Parts Thereof.
*Claims use* since about Mar. 31, 1910.

Ser. No. 64,105. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SPOKANE VALLEY ORCHARD & LAND CO., Spokane Bridge, Wash. Filed June 10, 1912.

**MARTHA WASHINGTON**

*Particular description of goods.*—Fresh Apples.
*Claims use* since May 25, 1912.

Ser. No. 64,108. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) UNITED DRUG COMPANY, Boston, Mass. Filed June 10, 1912.

**Orderlies**

*Particular description of goods.*—A Remedy and Corrective for Ailments and Disorders of the Digestive Organs.
*Claims use* since Mar. 1, 1906.

Ser. No. 64,129. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GUANO & RAGGIO, Philadelphia, Pa. Filed June 11, 1912.

**PRINCESS**

*Particular description of goods.*—Macaroni and Similar Pasta.
*Claims use* since Jan. 1, 1908.

Ser. No. 64,190. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) UNITED STATES COMPOUND COMPANY, Buffalo, N. Y. Filed June 11, 1912.

**APEX**

*Particular description of goods.*—A Liquid Compound for Cleaning Automobile-Radiators.
*Claims use* since Jan. 1, 1912.

Ser. No. 64,213. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN J. SCHIMMEL, Port Chester, N. Y. Filed June 15, 1912.

**RAY GENE**

*Particular description of goods.*—Hair-Tonics.
*Claims use* since about July 1, 1911.

Ser. No. 64,230. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM H. O'NEILL, Pawtucket, R. I. Filed June 20, 1912.

**TABALMETS**

*Particular description of goods.*—A Condensed Base for Embalming Fluid.
*Claims use* since Jan. 29, 1912.

Ser. No. 64,311. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MORRIS HERRMANN & Co., New York, N. Y. Filed June 21, 1912.

**CALITE**

*Particular description of goods.*—Insecticides.
*Claims use* since June 18, 1912.

Ser. No. 64,414. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JACOB S. BERNHEIMER & BRO., New York, N. Y. Filed June 26, 1912.

**MUI HOUSE MILLS**

*Particular description of goods.*—Cotton Piece Goods.
*Claims use* since May, 1884.





Ser. No. 64,611. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) NATIONAL CARBON COMPANY, Cleveland, Ohio. Filed July 8, 1912.

**QUAKER IGNITOR**



*Particular description of goods.*—Dry Cells.
*Claims use* since June 10, 1912.

Ser. No. 64,635. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHARLES E. BROWN & Co., Springfield, Mass. Filed July 9, 1912.

**KADOR**

*Particular description of goods.*—Coffee.
*Claims use* since Mar. 1, 1912.

Ser. No. 64,769. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ROYAL VALLEY COFFEE CO., Detroit, Mich. Filed July 16, 1912.

**MARIGOLD**

*Particular description of goods.*—Coffees.
*Claims use* since about May 1, 1908.

Ser. No. 64,953. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE PHILADELPHIA LAWN MOWER CO., Philadelphia, Pa. Filed July 27, 1912. Under ten-year proviso.

**PHILADELPHIA**

*Particular description of goods.*—Lawn-Mowers, Lawn-Sweepers, Lawn-Trimmers, and Grass-Collectors.
*Claims use* since Feb. 28, 1860.

Ser. No. 64,954. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE PHILADELPHIA LAWN MOWER CO., Philadelphia, Pa. Filed July 27, 1912. Under ten-year proviso.

**STYLE A ALL STEEL**

*Particular description of goods.*—Lawn-Mowers.
*Claims use* since Oct. 5, 1893.

Ser. No. 64,956. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE PHILADELPHIA LAWN MOWER CO., Philadelphia, Pa. Filed July 27, 1912. Under ten-year proviso.

**STYLE E**

*Particular description of goods.*—Lawn-Mowers.
*Claims use* since Dec. 31, 1894.

Ser. No. 64,957. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE PHILADELPHIA LAWN MOWER CO., Philadelphia, Pa. Filed July 27, 1912. Under ten-year proviso.

**STYLE K**

*Particular description of goods.*—Lawn-Mowers.
*Claims use* since Sept. 25, 1894.

Ser. No. 64,972. (CLASS 2. RECEPTACLES.) THE PHILADELPHIA VACUUM SPECIALTY CO., Philadelphia, Pa. Filed July 27, 1912.




*Particular description of goods.*—Vacuum Bottles and Jars.
*Claims use* since Sept. 1, 1911.

Ser. No. 64,984. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) DINSMORE MANUFACTURING COMPANY, Salem, Mass. Filed July 29, 1912. Under ten-year proviso.

**DMCO**

*Particular description of goods.*—Loopers for Sewing-Machines.
*Claims use* since 1882.

# TRADE-MARKS

## REGISTERED SEPTEMBER 3, 1912.

63,146. COFFEE COMPOUND. Abel & Ashbe Co., Shreveport, La.
Filed May 7, 1912. Serial No. 63,387. PUBLISHED JUNE 25, 1912.

63,147. CIGARETTES. M. J. Ahrens and Co., New York, N. Y.
Filed May 13, 1912. Serial No. 63,515. PUBLISHED JUNE 25, 1912.

63,148. FRESH OYSTERS. The American Fish & Oyster Company, (a Corporation,) Stockton, Cal.
Filed February 5, 1912. Serial No. 61,260. PUBLISHED JUNE 25, 1912.

63,149. RUBBER-COVERED WIRE FOR ELECTRICAL PURPOSES. The American Steel & Wire Company of New Jersey, Hoboken, N. J.
Filed May 15, 1912. Serial No. 63,567. PUBLISHED JULY 2, 1912.

63,150. OLEOMARGARIN. Ammon & Person, Jersey City, N. J.
Filed January 2, 1912. Serial No. 60,546. PUBLISHED JUNE 25, 1912.

63,151. OLEOMARGARIN. Ammon & Person, Jersey City, N. J.
Filed January 2, 1912. Serial No. 60,547. PUBLISHED JUNE 25, 1912.

63,152. OLEOMARGARIN. Ammon & Person, Jersey City, N. J.
Filed January 2, 1912. Serial No. 60,548. PUBLISHED JUNE 25, 1912.

63,153. NON-ALCOHOLIC TONIC BEVERAGE AND SODA-WATER. Thomas Armstrong, Washington, D. C.
Filed August 31, 1911. Serial No. 58,490. PUBLISHED JULY 2, 1912.

63,154. [WITHDRAWN.]

63,155. SOAP. B. T. Babbitt, Jersey City, N. J., and New York, N. Y.
Filed May 14, 1910. Serial No. 49,725. PUBLISHED DECEMBER 19, 1911.

63,156. REMEDY AGAINST BILIARY AND RENAL CALCULUS. Ludwig Bauer, Niederlössnitz, near Dresden, Germany.
Filed February 17, 1912. Serial No. 61,590. PUBLISHED JULY 2, 1912.

63,157. DISINFECTANTS, INSECTICIDES, AND PHARMACEUTICAL PREPARATIONS. The James A. Blanchard Company, New York, N. Y., and St. Joseph, Mich.
Filed December 23, 1911. Serial No. 60,418. PUBLISHED JULY 2, 1912.

63,158. SYRUPS FOR BEVERAGES. John Blaufuss, Riverside, N. J.
Filed March 23, 1912. Serial No. 62,361. PUBLISHED JULY 2, 1912.

63,159. CARBONATED BEVERAGE. Bluff City Manufacturing Co., Memphis, Tenn.
Filed May 9, 1912. Serial No. 63,441. PUBLISHED JULY 2, 1912.

63,160. JUNCTION-BOXES FOR ELECTRICAL PURPOSES. The Bonnell Manufacturing Company, Cleveland, Ohio.
Filed February 2, 1912. Serial No. 61,207. PUBLISHED JULY 2, 1912.

63,161. DOLLS. Geo. Borgfeldt & Co., New York, N. Y.
Filed February 27, 1912. Serial No. 61,767. PUBLISHED JULY 2, 1912.

63,162. CODFISH-BALLS. Boston Food Products Company, East Boston, Mass.
Filed February 1, 1912. Serial No. 61,188. PUBLISHED JUNE 25, 1912.

63,163. PHOTOGRAPHIC PAPERS, PHOTOGRAPHIC CAMERAS AND PARTS THEREOF. Hugh J. Brady, Orange, N. J.
Filed February 15, 1910. Serial No. 47,828. PUBLISHED JULY 2, 1912.

63,164. CERTAIN NAMED CUTLERY AND TOOLS. The Collins Company, Collinsville, Conn.
Filed November 25, 1911. Serial No. 59,933. PUBLISHED JULY 2, 1912.

63,165. CIGARS. Joseph P. Coyne, Grangeville, Idaho.
Filed May 21, 1912. Serial No. 63,688. PUBLISHED JUNE 25, 1912.

63,166. WRENCHES. Crescent Forgings Company, Oakmont, Pa.
Filed May 14, 1912. Serial No. 63,536. PUBLISHED JULY 2, 1912.

63,167. CIGARS. Lawrence M. Crump, Indianapolis, Ind.
Filed May 20, 1912. Serial No. 63,643. PUBLISHED JUNE 25, 1912.

63,168. ELECTRIC RELAYS. The Dean Electric Company, Elyria, Ohio.
Filed February 19, 1912. Serial No. 61,615. PUBLISHED JULY 2, 1912.

63,169. CIGARS. Bernardo Moreda y Deben, Habana, Cuba.
Filed July 22, 1910. Serial No. 50,966. PUBLISHED SEPTEMBER 12, 1911.

63,170. RAZORS AND RAZOR-BLADES AND HOLDERS. Durham Duplex Razor Company, New York, N. Y.
Filed January 26, 1912. Serial No. 61,136. PUBLISHED JULY 2, 1912.

63,171. MOVING-PICTURE FILMS. Eclair Film Company, Fort Lee, N. J.
Filed March 16, 1912. Serial No. 62,212. PUBLISHED JULY 2, 1912.

63,172. BRAKE-LINERS. Empire Tire Company, Trenton and Newark, N. J.; Philadelphia, Pa.; Chicago, Ill.; Detroit, Mich.; Indianapolis, Ind.; Kansas City, Mo.; New York, N. Y., and Atlanta, Ga.
Filed May 15, 1912. Serial No. 63,561. PUBLISHED JULY 2, 1912.

63,173. BRAKE-LINERS. Empire Tire Company, Trenton and Newark, N. J.; Philadelphia, Pa.; Chicago, Ill.; Detroit, Mich.; Indianapolis, Ind.; Kansas City, Mo.; New York, N. Y.; and Atlanta, Ga.
Filed May 15, 1912. Serial No. 63,562. PUBLISHED JULY 2, 1912.

63,174. GAMES, TOYS, FISHING-LINES, AND FISHING TACKLE. Louis J. Effinger, Detroit, Mich.
Filed March 18, 1912. Serial No. 62,228. PUBLISHED JULY 2, 1912.

63,175. CORDUROY AND VELVET PIECE GOODS. N. Erlanger, Blumgart & Co., New York, N. Y.
Filed May 6, 1912. Serial No. 63,380. PUBLISHED JULY 2, 1912.

88,176. HAND-MADE EMBROIDERIES. JOAO D'O. FARIA, Funchal, Maderia.
Filed August 30, 1911. Serial No. 58,444. PUBLISHED JULY 2, 1912.

88,177. WINDMILL AND OTHER TOWERS AND PARTS THEREOF. FLINT AND WALKING MANUFACTURING CO., Kendallville, Ind.
Filed March 20, 1912. Serial No. 62,284. PUBLISHED JULY 2, 1912.

88,178. PLAIN AND PRINTED COTTON FABRICS IN THE PIECE. GARNER PRINT WORKS & BLEACHERY, West Haverstraw, Wappingers Falls, and New York, N. Y.
Filed April 6, 1912. Serial No. 62,707. PUBLISHED JULY 2, 1912.

88,179. SERGE. HAMILTON WOOLEN COMPANY, Boston, Mass.
Filed May 17, 1912. Serial No. 63,606. PUBLISHED JULY 2, 1912.

88,180. POPCORN. HART & HOWELL, Brooklyn, Mich.
Filed November 2, 1911. Serial No. 59,513. PUBLISHED JUNE 25, 1912.

88,181. LAGER-BEER. HASTINGS BREWING CO., Hastings, Nebr.
Filed March 8, 1912. Serial No. 62,028. PUBLISHED JULY 2, 1912.

88,182. CASABAS. HEMPHILL & CHRISTENSEN, Fullerton, Cal.
Filed March 2, 1912. Serial No. 61,854. PUBLISHED JUNE 25, 1912.

88,183. PERFUMES, TOILET WATERS, AND SACHETS. RICHARD HUDNUT, New York, N. Y.
Filed February 15, 1912. Serial No. 61,497. PUBLISHED JULY 2, 1912.

88,184. WHISTLE-CALLS. JOSEPH HUDSON, Birmingham, England.
Filed April 9, 1912. Serial No. 62,773. PUBLISHED JULY 2, 1912.

88,185. ORANGES. LIMONA CITRUS GROWERS' ASSOCIATION, Limona, Fla.
Filed May 4, 1912. Serial No. 63,341. PUBLISHED JUNE 25, 1912.

88,186. TOOTH-BRUSHES. LINGUAL SURFACE TOOTH BRUSH COMPANY, Memphis, Tenn.
Filed January 20, 1912. Serial No. 60,942. PUBLISHED JULY 2, 1912.

88,187. WHEAT-FLOUR. LEITMAN MILL COMPANY, La Crosse, Wis.
Filed March 21, 1912. Serial No. 62,325. PUBLISHED JUNE 25, 1912.

88,188. COTTON GOODS IN THE PIECE. LOSTEX COMPANY, New York, N. Y., and Pawtucket, R. I.
Filed May 4, 1912. Serial No. 63,339. PUBLISHED JULY 2, 1912.

88,189. CERTAIN INTERNAL AND EXTERNAL REMEDIES. MERCHANTS SYNDICATE, St. Louis, Mo.
Filed March 31, 1911. Serial No. 55,480. PUBLISHED JULY 2, 1912.

88,190. CIGARS. JNO. J. MOECKEL, Lebanon, Pa.
Filed April 3, 1912. Serial No. 62,612. PUBLISHED JUNE 25, 1912.

88,191. ROLLED OATS. MORROW-LAWTON COMPANY, New York, N. Y., and Milwaukee, Wis.
Filed May 4, 1912. Serial No. 63,335. PUBLISHED JUNE 25, 1912.

88,192. GAMES. MILTON B. MOSS, Hartford, Conn.
Filed May 15, 1912. Serial No. 63,551. PUBLISHED JULY 2, 1912.

88,193. CERTAIN NAMED CUTLERY, MACHINERY, AND TOOLS. C. M. MCCLUNG & CO., Knoxville, Tenn.
Filed November 4, 1911. Serial No. 59,547. PUBLISHED JULY 2, 1912.

88,194. DRY CELLS. NATIONAL CARBON COMPANY, Cleveland, Ohio.
Filed May 4, 1912. Serial No. 63,333. PUBLISHED JULY 2, 1912.

88,195. DRY CELLS. NATIONAL CARBON COMPANY, Cleveland, Ohio.
Filed May 4, 1912. Serial No. 63,334. PUBLISHED JULY 2, 1912.

88,196. PULLEYS. NEW YORK STAMPING COMPANY, Brooklyn, N. Y.
Filed May 10, 1912. Serial No. 63,451. PUBLISHED JULY 2, 1912.

88,197. ELECTRIC LAMPS, MOTORS, SWITCH-BOARDS, OUTLET-BOXES, AND SWITCHES. WILLIAM H. OCHILTREE, Pittsburgh, Pa.
Filed March 25, 1911. Serial No. 55,308. PUBLISHED JULY 2, 1912.

88,198. CIGARS. S. S. PIERCE COMPANY, Boston, Mass.
Filed July 22, 1911. Serial No. 57,778. PUBLISHED JUNE 18, 1912.

88,199. WHEAT-FLOUR. CHAS. LACEY PLUMB, New York, N. Y.
Filed April 6, 1912. Serial No. 62,720. PUBLISHED JUNE 25, 1912.

88,200. WHEAT-FLOUR. CHAS. LACEY PLUMB, New York, N. Y.
Filed April 6, 1912. Serial No. 62,721. PUBLISHED JUNE 25, 1912.

88,201. DYNAMITE. THE POTTS POWDER COMPANY, Reynolds, Pa., and New York, N. Y.
Filed March 4, 1912. Serial No. 61,900. PUBLISHED JULY 2, 1912.

88,202. CIDER. EDWARD A. RANSING, Lancaster, Pa.
Filed January 19, 1912. Serial No. 60,918. PUBLISHED JULY 2, 1912.

88,203. CANE-SUGAR. JACOB REDELHEIM, New York, N. Y.
Filed May 1, 1912. Serial No. 63,249. PUBLISHED JUNE 25, 1912.

88,204. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS. J. D. RIEDEL, AKTIENGESELLSCHAFT, Berlin, Germany.
Filed March 7, 1911. Serial No. 54,914. PUBLISHED JULY 2, 1912.

88,205. CIGARS, CIGARETTES, SMOKING-TOBACCO, AND CHEWING-TOBACCO. RODS & BRAND, INC., New York, N. Y.
Filed May 16, 1912. Serial No. 63,582. PUBLISHED JUNE 25, 1912.

88,206. STENCIL-PRINTING MACHINES. THE ROTOSPEED COMPANY, New York, N. Y.
Filed June 5, 1911. Serial No. 56,828. PUBLISHED JULY 2, 1912.

88,207. TAPS, DRILLS, DRILLING AND TAPPING MACHINES, AND WRENCHES. THE ROWE CALK COMPANY, Hartford, Conn.
Filed May 24, 1912. Serial No. 63,781. PUBLISHED JULY 2, 1912.

88,208. TOYS. SAMSTAG & HILDER BROS., New York, N. Y.
Filed May 6, 1912. Serial No. 63,370. PUBLISHED JULY 2, 1912.

88,209. SARDINES. SEACOAST CANNING CO., Eastport, Me.
Filed May 4, 1912. Serial No. 63,322. PUBLISHED JUNE 25, 1912.

88,210. SARDINES. SEACOAST CANNING CO., Eastport, Me.
Filed May 4, 1912. Serial No. 63,326. PUBLISHED JUNE 25, 1912.

88,211. SARDINES. SEACOAST CANNING CO., Eastport, Me.
Filed May 4, 1912. Serial No. 63,327. PUBLISHED JUNE 25, 1912.



88,212. CERTAIN ACIDS AND PHARMACEUTICAL PREPARATIONS. SOCIÉTÉ CHIMIQUE DES USINES DU RHÔNE, ANCT. GILLIARD, P. MONNET & CARTIER, Paris, France.
Filed December 29, 1911. Serial No. 60,506. PUBLISHED JULY 2, 1912.

88,213. SMOKING AND CHEWING TOBACCOS, CIGARETTES, AND CIGARS. SOSSIDI FRÈRES DE CONSTANTINOPLE, Hamburg, Germany.
Filed March 18, 1912. Serial No. 62,252. PUBLISHED JUNE 18, 1912.

88,214. ELECTRIC FANS. SPRAGUE ELECTRIC COMPANY, Bloomfield, N. J., and New York, N. Y.
Filed July 5, 1910. Serial No. 50,706. PUBLISHED JULY 2, 1912.

88,215. CERTAIN MEASURING AND SCIENTIFIC APPLIANCES. THE L. S. STARRETT CO., Athol, Mass.
Filed November 10, 1911. Serial No. 59,640. PUBLISHED JULY 2, 1912.

88,216. CANDIES. THE STERLING CHOCOLATE COMPANY, Cincinnati, Ohio.
Filed April 19, 1912. Serial No. 62,996. PUBLISHED JUNE 25, 1912.

88,217. CANDIES. THE STERLING CHOCOLATE COMPANY, Cincinnati, Ohio.
Filed April 19, 1912. Serial No. 62,997. PUBLISHED JUNE 25, 1912.

88,218. AUTOMOBILES. THE STUDEBAKER CORPORATION, South Bend, Ind.
Filed December 18, 1911. Serial No. 60,286. PUBLISHED APRIL 16, 1912.

88,219. CIGARETTES. THE TRUST CIGARETTE CO., New York, N. Y.
Filed May 10, 1912. Serial No. 63,469. PUBLISHED JUNE 25, 1912.

88,220. MEAT-SLICING MACHINES AND MEAT-SLICERS. U. S. SLICING MACHINE COMPANY, Chicago, Ill.
Filed December 30, 1911. Serial No. 60,527. PUBLISHED JULY 2, 1912.

88,221. CERTAIN MEASURING AND DRAFTSMEN'S INSTRUMENTS. TOWER MANUFACTURING & NOVELTY CO., New York, N. Y.
Filed February 6, 1912. Serial No. 61,290. PUBLISHED JULY 2, 1912.

88,222. CHESTS AND CABINETS FOR PRECIOUS METAL WARE. TOWLE MANUFACTURING COMPANY, Newburyport, Mass.
Filed March 9, 1912. Serial No. 62,073. PUBLISHED APRIL 23, 1912.

88,223. INSULATED WIRE. WATERBURY COMPANY, New York, N. Y.
Filed May 10, 1912. Serial No. 63,465. PUBLISHED JULY 2, 1912.

# LABELS

## REGISTERED SEPTEMBER 8, 1912.

16,554.—*Title:* "DOMINICK SPECIAL RYE." (For Whisky.) D. Canale & Co., Memphis, Tenn. Filed June 11, 1912.

16,555.—*Title:* "DE MARCO'S PIANO POLISH—DE MARCO'S FURNITURE POLISH." (For Piano and Furniture Polish.) John B. De Marco, Brooklyn, N. Y. Filed April 23, 1912.

16,556.—*Title:* "H. H. BRAND." (For Canned Salmon.) H. Hackfeld & Co., Ltd., Honolulu, Territory of Hawaii. Filed July 6, 1912.

16,557.—*Title:* "H. H. BRAND." (For Canned Salmon.) H. Hackfeld & Co. Ltd., Honolulu, Territory of Hawaii. Filed July 6, 1912.

16,558.—*Title:* "PIED PIPER PASTE, RAT AND ROACH EXTERMINATOR, EFFECTIVE CHEMICAL CO. 'WE DO THE WORK.'" (For a Preparation for the Destruction of Rats and Roaches.) Rowland B. Mahany, Buffalo, N. Y. Filed July 17, 1912.

16,559.—*Title:* "PERRY'S BEAU-A-MI-DERM TOILET CREAM." (For Toilet Cream.) Belle A. Perry, Oshkosh, Wis. Filed July 17, 1912.

16,560.—*Title:* "CONTENTAR." (For Cigars.) Ruy Lopez Ca., New York, N. Y. Filed August 14, 1912.

# PRINTS

## REGISTERED SEPTEMBER 8, 1912.

3,090.—*Title:* "BEEHLER UMBRELLAS FOLD AND FIT THE SUIT-CASE." (For Umbrellas and Parasols.) William H. Beehler, Baltimore, Md. Filed August 15, 1912.

3,091.—*Title:* "STAR SAFETY RAZOR." (For Star Safety-Razors.) Kampfe Brothers, New York, N. Y. Filed July 23, 1912.

3,092.—*Title:* "O C O TASTELESS CASTOR OIL." (For Castor-Oil.) The Guy G. Major Company, Toledo, Ohio. Filed July 11, 1912.

3,093.—*Title:* "CORRECT POSTURE SUIT." (For Boys' Clothing.) Samuel W. Peck & Co., New York, N. Y. Filed July 16, 1912.

3,094.—*Title:* "HEBE BATH POWDER." (For Hebe Bath-Powder.) Philo Hay Specialties Co., Newark, N. J. Filed August 16, 1912.



# DECISIONS

OF THE

# COMMISSIONER OF PATENTS

AND OF

# UNITED STATES COURTS IN PATENT CASES.

## COMMISSIONER'S DECISIONS.

Blanke Tea & Coffee Company v. Hirsh.

*Decided July 31, 1912.*

Trade-Marks — Interference — Declaration — Discretion of the Examiner—Appeal.

The declaration of an interference between two trade-marks is a matter within the discretion of the Examiner of Trade-Marks; and his decision refusing to declare an interference will not be reviewed on appeal, except where it appears that such discretion has been abused.

Appeal on motion.

Trade-mark for coffee.

*Mr. James L. Hopkins* for Blanke Tea & Coffee Company.

*Mr. Ernest W. Marshall* for Hirsh.

Moore, *Commissioner:*

This is an appeal by the C. F. Blanke Tea & Coffee Company from the decision of the Examiner of Trade-Marks denying its motion to include its two registrations Nos. 27,939 and 57,581 in the interference.

Appellant contends that the mark of Hirsh, included in the present interference, so closely resembles its above registrations as to interfere therewith. The Examiner of Trade-Marks states in his decision that this matter was considered prior to the declaration of the interference in connection with the question of whether said registrations were a bar to the application of Hirsh, and at that time it was concluded that they were not such a bar. In his decision on the motion he adhered to his former ruling.

In the case of *Yonkers Brewery* v. *Iler and Burgweger* (143 O. G., 258) it was held:

> As to the first contention, the Examiner of Trade-Marks, as stated above, has held that there is no interference, and it is well settled that this is a matter within his discretion, and his action in refusing to declare an interference will not be reviewed in the absence of an abuse of that discretion. No such case is shown to exist here.

Said ruling is applicable in the present case, and there appears to have been no abuse of discretion on the part of the Examiner of Trade-Marks calling for a review of his decision.

The Examiner of Trade-Marks in denying the motion pointed out that his refusal to include said registrations in the interference does not preclude appellant from introducing them in evidence and obtaining the benefit of them at final hearing.

The contention of appellant that the registrations should be included in the interference, so as to shift the burden of proof to Hirsh, is not well taken. If appellant is willing to rely upon them at final hearing, he need not introduce additional testimony, and the burden imposed upon him in taking his testimony first will not be great.

The decision of the Examiner of Trade-Marks is affirmed.

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Ex parte J. C. Blair Company.

*Decided July 5, 1912.*

Trade-Marks—Similarity.

The mark "Tika" *Held* unregistrable because of its similarity to the registered mark "Swastika."

On appeal.

Trade-mark for writing-paper, etc.

*Messrs. Arthur C. Fraser & Usina* and *Messrs. Fraser, Turk & Myers* for the applicant.

Billings, *First Assistant Commissioner:*

This is an appeal from the decision of the Examiner of Trade-Marks refusing to register the word "Tika" as a trade-mark for various kinds of writing and printing paper and blank books.

Registration was refused in view of the mark "Swastika," registered June 30, 1908, to George B. Hurd & Co., certificate No. 69,668, for writing-paper and envelops.

The labels filed with the application show that the word "Tika" is printed thereon above the representation of a swastika and the word "Swastika."

It is urged that under the ruling of *The Standard Underground Cable Co.* (123 O. G., 656; 27 App. D. C., 320) the applicant and not the Office is entitled to designate the features which constitute his trade-mark, and that therefore no consideration whatever should be given to the parts of the specimens which show a representation of a swastika and the word.

The only point for consideration is whether the mark which applicant seeks to register bears such a resemblance to the registered mark "Swastika" as is likely to cause confusion in the trade when applied to goods of the same descriptive properties. As is stated by the Examiner, if the two words have a similar significance their resemblance is objectionable, although they may appear different when

printed and have a different sound when pronounced. As examples of such words he cites "auto" and "automobile," "phone" and "telephone," "photo" and "photograph," in all of which cases the contraction unquestionably carries the same significance as the word itself, and one would be unregistrable if the other were in use as a trademark. The word "Swastika" and the symbol have been much used recently for trade-marks and similar purposes and have thereby become quite familiar to the public. There might be some doubt as to whether the contraction "Tika" would carry the same significance as the word "Swastika" in the absence of the evidence furnished by applicant's specimens. The application states that the mark has been used since February, 1908, and the specimens indicate both by the illustration and the legend that it has used it in such a way as to bear home to the mind of the purchaser in every instance that the word "Tika" is a contraction of the word "Swastika" and is intended to have the same significance. Under these circumstances it must be held that the two marks bear such a resemblance as would be likely to cause confusion as to the origin of the goods if both were used simultaneously upon similar goods.

The decision of the Examiner of Trade-Marks is affirmed.

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KEYES AND KRAUS *v.* YUNCK.

*Decided August 22, 1912.*

1. INTERFERENCE—MOTION TO DISSOLVE—TRANSMISSION OF—WHERE INDEFINITE.

Where the motion to dissolve is based upon the ground that the claim is not patentable to the adverse party, but contains no such clear statement of the reasons why the claim is not patentable as is required by the rules and practice of the Office, *Held* that the Examiner of Interferences properly refused to transmit the motion, for the reason that the same is indefinite.

2. SAME—SAME—SAME—RIGHT TO MAKE THE CLAIM—AFFIDAVITS.

"The decision of the Examiner of Interferences in so far as transmission is refused upon the ground that the motion is based upon affidavits is also right, since it is obvious from the reading of the motion papers that the allegation of inoperativeness is mainly based upon the facts set forth in the affidavits referred to, and it is well settled that such affidavits should not be transmitted for consideration upon a motion for dissolution, for reasons fully set forth in the case of *Horton* v. *Leonard*, (155 O. G., 305.)"

APPEAL on motion.

HERMETICAL SEAL.

*Messrs. Roberts, Roberts & Cushman* and *Messrs. Meyers, Cushman & Rae* for Keyes and Kraus.

*Mr. Albert G. Davis* for Yunck.

TENNANT, *Assistant Commissioner:*

This is an appeal by Keyes and Kraus from a decision of the Examiner of Interferences refusing to transmit a motion to dissolve.

The motion to dissolve is based upon two grounds—first, that the claim is not patentable to the applicant Yunck, and, second, that the party Yunck has no right to make the claim. Transmission as to the first ground was denied for the reason that the same is indefinite. Transmission of the second ground of the motion was denied because, in the opinion of the Examiner, the allegation that Yunck has no right to make the claim is based upon affidavits asserting the inoperativeness of Yunck's device.

As to the first ground of the motion, it is alleged that Yunck has failed to comply with the provisions of section 4888 of the Revised Statutes and that his specification is insufficient to point out the particular manner and process of making, constructing, compounding, and using the invention, especially in the absence of the statement of the particular alkaline base to be used in practising the alleged invention. It is asserted in the motion that—

unless the applicant by his specification enables any one skilled in the art to practise his alleged invention, he is not entitled to a patent. Yunck does not furnish adequate specifications, and the claim is therefore not patentable to him, and he has no right to make the claim.

In support of this conclusion reference is made to the coefficients of expansion of the various characters of the materials which are to be united, and it is asserted that by reason of the different coefficients of expansion and also of the different melting-points of these materials certain of the parts cannot be made to adhere. In support of this allegation affidavits are presented accompanied by a request to be incorporated into the record. It is finally alleged that if Yunck's device is to be considered operative—

it can only entitle Yunck at the most to his specific claim, such as claim 5, since if Yunck's alleged contribution to the art entitled him to the interference claim, he finds himself anticipated by Steinmetz, Patents Nos. 910,960 and 910,736, dated January 26, 1909; applied for Nov. 17, 1902.

It is contended in behalf of the appellant that the question of patentability of the claim to Yunck is sufficiently set forth in the motion papers to enable the Examiner to pass upon the same in view of his knowledge of the art and in the light of the patents and publications within his knowledge. It is further urged that the affidavits should be accepted as an aid in directing the Examiner's mind to the definite things which are his to decide, even if the same are not accepted with the full force of affidavits.

In my opinion the decision of the Examiner of Interferences refusing to transmit this motion was right. There is no such clear statement of the reasons why the claim is not patentable to Yunck as is required by the rules and practice of the Office. As stated by the Examiner of Interferences:

It is not clear from this statement [which has been above quoted] whether Keyes and Kraus intend to urge the count if construed to read on the disclosure of both parties is unpatentable to either in view of the prior art, or whether as read on Yunck would have such different meaning from that as read upon their application as to render the count unpatentable to Yunck while patentable to themselves.

The decision of the Examiner of Interferences in so far as transmission is refused upon the ground that the motion is based upon affidavits is also right, since it is obvious from the reading of the motion papers that the allegation of inoperativeness is mainly based upon the facts set forth in the affidavits referred to, and it is well settled that such affidavits should not be transmitted for consideration upon a motion for dissolution, for reasons fully set forth in the case of *Horton* v. *Leonard*, (155 O. G., 305.)





It is to be noted that the motion filed by Keyes and Kraus was in response to an order stating that judgment would be rendered against them unless good and sufficient cause be shown within thirty days from date thereof why such action should not be taken, for the reason that the date of conception alleged in their preliminary statement is subsequent to the filing date of Yunck, the senior party. The parties Keyes and Kraus may, upon proper showing, present the question of inoperativeness of their opponent's device at the final hearing of the case and may, if the circumstances justify the same, be permitted to present testimony upon the question of inoperativeness in accordance with the practice set forth in the cases of *Lowry and Cowley* v. *Spoon*, (122 O. G., 2687, and 124 O. G., 1845;) *Browne* v. *Stroud*, (122 O. G., 2688;) *Clement* v. *Browne* v. *Stroud*, (125 O. G., 892, and 126 O. G., 2569;) *Weinstraub* v. *Hewitt and Rogers*, (126 O. G., 2689.)

The decision of the Examiner of Interferences is affirmed.

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## DECISIONS OF THE U. S. COURTS.

### Court of Appeals of the District of Columbia.

POFFENBARGER *v.* OLSON.

*Decided April 1, 1912.*

INTERFERENCE—PRIORITY.

Evidence reviewed and *Held* that O. had not sustained the burden of proof on him as junior party and that he derived his knowledge of the invention from P., to whom priority should be awarded.

*Mr. J. L. Hopkins* for the appellant.

*Mr. William Small* for the appellee.

ROSS, *J.:*

This is an interference proceeding in which the Examiner of Interferences awarded priority of invention as to two of the three counts to Olson, and as to the third count to Poffenbarger. The Examiners-in-Chief awarded priority as to all three counts to Poffenbarger, while the Commissioner reversed that decision as to the first and second counts and awarded priority as to those counts to Olson.

The invention relates to a paper bottle or liquid-container and differs from the prior art in that the walls of the receptacle are secured by stitching prior to the application of paraffin, and in the further detail that the top is folded upon itself to form a closure.

Count 3 differs from the other counts in that it calls for two or more parallel and vertical lines of stitching at the meeting edges of the body-sheet of the paper, while the other counts are silent as to the number of rows of stitching. Count 3 also calls for a sealing means extended through the folded closure. It is difficult to perceive wherein there is any patentable distinction between this count and the other two. We have reproduced counts 1 and 3:

1. As a new article of manufacture, a paper bottle whose side walls are formed of a single blank cut to form a transmitted seam, the meeting edges of said blank being overlapped and stitched together, said bottle having a circular bottom member fitted in the larger end of the bottle and provided with a downturned flexible marginal flange which is secured to said side walls by stitching, the bottle so constructed being treated to make the paper impervious to moisture and the seams water-tight.

3. In a paper container, the combination of a sectional body formed from a single sheet of paper whose meeting edges are secured by two or more parallel and vertical lines of stitching; a bottom member secured in place at the lower end of the body member by means of one or more lines of stitching; the mouth of the body member being folded over upon itself to form a flat closure and sealing devices extending through said closure, substantially as described.

Poffenbarger is the senior party, having filed his application on October 5, 1908. He alleged reduction to practice about January of the same year. The Olson application was filed April 12, 1909. In his preliminary statement he alleged conception and disclosure January 7, 1908, drawings January 20th, and reduction to practice March 17th of the same year.

At the time the invention was made Poffenbarger was president of the Sanitary Paper Milk Bottle Company, located at St. Louis, Mo., the stock of which Olson was then endeavoring to sell. Prior to Poffenbarger's connection with the company he had been connected with a wood-finishing company and also with a varnish company, and had become interested in various types of liquid-containers. He testifies that some time in November or December of 1907 he conceived the invention, and that on the 29th of December of that year he made a model, which he has introduced as his Exhibit No. 1. This exhibit is hand-sewed and responds to the issue except that it has not been paraffined and contains but one row of stitches. As it was then well understood that such paper receptacles must be paraffined to render them impervious to liquid, the model discloses all that was new. We attach no importance to the lack of more than one vertical row of stitching. Given the idea of stitching, the double row became a mere mechanical development. This model Poffenbarger says he exhibited to his wife and stepson, Charles C. Aldrich, both of whom testify that they saw it. He also says that on New Year's Eve of 1907 he took the model to the Jal Alai Skating Rink for the purpose of showing it to a Mr. Dingelstedt, who was president of the corporation operating the rink and who subsequently became interested in the Pyraform Bottle Mfg. Co. of St. Louis, organized to exploit the invention. It was for the purpose of interesting him in the invention that Poffenbarger interviewed him. Mr. Dingelstedt is enabled to fix the date when this model was shown him by reason of the fact that he was in a hurry to leave the rink to go down town to see the old year out and the new year in. He fixes the time of the interview as some time between 8.30 and 11 o'clock in the evening. He positively identifies the model as the one shown him at the time. His testimony is reasonable and not easily explained away. Some attempt has been made by Olson to show that Poffenbarger reached the home of a Mrs. Marsh in St. Louis about 8.30 of the same evening and hence, it is argued, he could not have been at the rink at the precise time indicated in Dingelstedt's testimony. Poffenbarger, in his cross-examination, Dingelstedt already having testified, was asked whether the interview occurred between

8.30 and 11 o'clock, and replied: "Yes, sir; *in the early part of the evening.*" Olson's rebuttal testimony falls short of establishing with any degree of definiteness just when the Poffenbargers did reach Mrs. Marsh's house and, in our view, the testimony concerning the interview at the rink is not at all discredited. The party which Mrs. Marsh was giving was a "watch party," the refreshments not being served until twelve o'clock. There was no especial reason, therefore, why the guests should arrive at an early hour, and no reason whatever for remembering—two years after the event—just when they did arrive.

Poffenbarger further testifies that on the first Sunday in January, 1908, he showed this same model, Exhibit No. 1, to his attorney, Mr. Hopkins, and that it was to this invention that Mr. Hopkins referred in a letter written from Washington February 14th, which letter is in evidence. This particular testimony is attacked on the ground that Mr. Hopkins should have testified, the contention being that his failure in this regard indicates that his testimony would have been unfavorable had he been called as a witness. The testimony of Dingelstedt stood uncontradicted, and hence the testimony of Mr. Hopkins would have been cumulative. While this reason alone would not have been sufficient to excuse the failure to call him as a witness, the additional fact that he was representing Poffenbarger in the taking of testimony does. It may be suggested that counsel who would knowingly elicit false testimony would not be likely to hesitate to add his own testimony to that of his witness. Poffenbarger having introduced evidence tending to show priority of conception, it was open to counsel for Olson to call Mr. Hopkins in contradiction of Poffenbarger, if they so desired.

Poffenbarger also insists that early in January of 1908 he showed his model bottle to Olson. Without further reviewing Poffenbarger's evidence, we will now turn briefly to that of Olson. In reviewing that evidence it must be remembered that Olson is the junior party. The opinion of the Commissioner fails to give due weight to this fact. Olson states that he first thought of the invention about January 7, 1908; that he mentioned his idea to a Mr. Murphy, an official of the Sanitary Company, who, according to Olson, expressed the opinion that he was crazy. Evidently not desiring this opinion to become general Olson, as he says, decided to keep quiet and work out the idea by himself. Later on he changed his mind, however, and disclosed the idea to a Mr. Fissell, who made a sketch which is in evidence. Some time in 1909 Fissell dated the sketch as of "Jan., '08." Mr. Fissell in his testimony, which was entirely from memory, fixed the date of this drawing as some time in January. Olson further testifies that about the 22rd or the 24th of February he met a Mr. McKee of the Singer Sewing Machine Co. who asked the witness how they, the Sanitary Company, were doing; that witness informed him that Mr. Murphy was in Abington, Ill., trying to make a machine that would glue the paper cones for a style of bottle then being exploited. Witness further says that McKee then asked "why we did not sew the bottle," and that witness told him he had thought of that some time ago and had told Mr. Murphy about it, but did not have the proper machinery to do it with. Whereupon Mr. McKee suggested that if he, the witness, would get the paper he, Mr. McKee, would sew a bottle so that it could be tested; that as the result of this talk Mr. McKee did sew a bottle which, after being paraffined, was found to be impervious to liquid; that as a result Poffenbarger telephoned Murphy to return and informed Murphy, in effect, that Olson had devised a sewed bottle which was a great success. Murphy, who when he testified had become very hostile to Poffenbarger and whose testimony is so evidently biased as to render it of little value, corroborates Olson. A Mr. Emig, whose interests are antagonistic to Poffenbarger but who is evidently fair in his testimony, remembers overhearing a telephonic conversation between Poffenbarger and Murphy in which Murphy was informed that "Mr. Olson has found a way to sew the bottle *with a sewing-machine.*" That is probably what Poffenbarger did say over the telephone, and is not inconsistent with his claim to being the originator of the idea of sewing the bottle. While he evidently did not know that already there were sewing-machines which could do such stitching, he probably did know that the invention amounted to nothing unless it could be practised by the use of a machine.

The testimony of Mr. McKee, although he was called by Olson, is in many material respects contradictory of and inconsistent with the statements of Olson. It will be remembered that Olson testified that about March 17th he saw Mr. McKee and, in the course of the conversation that ensued, informed him that he, Olson, had previously thought of stitching the bottles. Mr. McKee testified that Olson showed him one of the glued bottles about February, 1908, and that the first conversation he had with Olson concerning the stitching process was about April 1st. The witness further testified that he then suggested to Olson "that it would be a good idea to sew the bottle on a sewing-machine;" that this suggestion did not make a very favorable impression upon Olson; that previous to this occasion no reference had been made to sewing bottles. The witness further testified that upon his suggestion Olson brought him some paper suitable for making a bottle and he, McKee, found a sewing-machine that would make the two rows of stitching, one at a time. A two-needle machine of the cylinder type was subsequently obtained from the factory by Mr. McKee for the work. Witness continued:

> After the bottle was finished, it was taken down to the office of the Sanitary Bottle Mfg. Co. by myself and given to Mr. Poffenbarger, whom I had previously met, understanding that he was the prime mover in the business.

Mr. McKee further testified that subsequently two machines for experimental purposes were installed for the Sanitary Company, and that this was done as the result of an interview with Poffenbarger and Olson. Olson had testified that the machines were set up for him personally. It is in evidence that Poffenbarger subsequently suggested to





Mr. McKee that he apply for the patent. This suggestion, however, may have been the result of a conception on the part of Poffenbarger that the real novelty of the discovery resided in the utilization of machinery.

We are far from convinced that Olson has sustained the burden of proof in this case. The testimony in behalf of Poffenbarger, while not as clear and convincing as it might have been, leaves little room for doubt that whatever knowledge Olson had of the invention prior to McKee's suggestion as to the use of sewing-machines in practising it he gained from Poffenbarger.

The decision must be reversed.

Reversed.

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## Court of Appeals of the District of Columbia.

### IN RE HOPKINSON.

*Decided May 20, 1912.*

1. PATENTABILITY — ARTICLE — SUPERIORITY OF PROCESS IMMATERIAL.

   In considering the question of the patentability of an article "made by whatever process one may choose to employ" the superiority of the process by which it is actually made is immaterial.

2. SAME—CONDUIT FOR ELECTRIC WIRES.

   Claims for an iron or steel conduit-pipe having an outer coating composed of an inner layer of copper applied directly to the surface of the pipe and an outer layer of zinc held unpatentable in view of the prior art.

*Mr. C. F. Byrnes* for the appellant.

*Mr. R. F. Whitehead* for the Commissioner of Patents.

VAN ORSDEL, *J.:*

This is an appeal from the decision of the Commissioner of Patents (180 O. G., 608) rejecting certain claims of appellant's application for an improvement in conduits for electric wires. The rejected claims are as follows:

> 1. An iron or steel conduit pipe, capable of being bent or flared and having on the surface a coating composed of two different metals, the inner coating being of a metal which will adhere closely to the iron or metal of the pipe, and which has a greater affinity for the outer coating than the iron or steel of the pipe has.
>
> 2. An iron or steel conduit pipe, capable of being flared or bent, and having an outer coating composed of copper and zinc, the copper being applied directly to the iron or steel surface, and the zinc being over the copper.
>
> 3. An iron or steel conduit pipe, capable of being flared or bent, and having an outer coating composed of copper and zinc, the copper being applied directly to the iron or steel surface, and the zinc being over the copper, and the inner surface of the pipe having a similar coating.
>
> 4. As a new article of manufacture, an iron or steel conduit pipe having an outer coating composed of an inner layer of copper applied directly to the surface of the pipe, and an outer layer of zinc which is of substantially uniform density and thickness, the compound coating being capable of being flared or bent with the pipe.
>
> 5. As a new article of manufacture, an iron or steel conduit pipe having an outer coating composed of an inner layer of copper applied directly to the surface of the pipe, and an outer layer of zinc which is of substantially uniform density, purity and thickness, the compound coating being capable of being flared or bent with the pipe.

The object of the invention sought to be covered by a patent is to provide an article of manufacture consisting of a conduit for electric wires with a protective coating which will not crack or flake off when the pipe is bent. It is composed of an iron or steel conduit-pipe, on the exterior surface of which is an inner coating of copper and an outer coating of zinc.

These claims were rejected by the Primary Examiner as defining nothing new over certain patents in the prior art. Patent to one Murphy discloses the application of an internal enamel coating directly to the pipe. Patent to one Wahl shows the exterior coating formed of an inner layer of copper and an outer layer of zinc.

Appellant seeks to differentiate his improvement by pointing out that in the Wahl patent the zinc coating is applied by means of the "hot galvanizing" method, whereas he uses what is known as "electrodeposition." By the use of this latter process he claims that a much superior article is produced. It must be remembered that this is not an application for a patent for an improved process, but for an article of manufacture, made by whatever process one may choose to employ. Hence, if the claims fail to define an article of manufacture patentable over the prior art, the superiority of the process by which it is produced avails appellant nothing.

Claims 1 and 2 call for nothing more than a pipe with an outer coating composed of an inner layer of copper and an outer layer of zinc, which is fully disclosed in the Wahl patent. Claim 3 adds to this the flexible coating of enamel applied to the inner surface of the pipe, as shown in the Murphy patent. These claims are, therefore, clearly anticipated.

Great stress is laid by counsel for appellant upon the limitations in claims 4 and 5 that the outer layer of zinc is of substantially uniform density, purity and thickness, and that the compound coating of copper and zinc is capable of being flared and bent. The same advantages are described as being present in the conduit of the Wahl patent. As the two articles differ, if at all, but in a matter of degree, apparently slight, we do not feel justified in overturning the rulings of the experts of the Patent Office upon this technical question. It may be that appellant has a novel process for which he is entitled to a patent, but upon this point we express no opinion.

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

Affirmed.

---

## Court of Appeals of the District of Columbia.

### IN RE INDEPENDENT BREWERIES COMPANY.

*Decided May 20, 1912.*

1. TRADE-MARKS—GOODS OF SAME DESCRIPTIVE PROPERTIES—"BEER" AND "BREWED BEVERAGE CONTAINING LESS THAN ONE-HALF OF ONE PER CENT. OF ALCOHOL."

   A beverage composed of malt and containing less than one-half of one per cent. of alcohol *Held* to constitute goods of the same descriptive properties as beer.

2. SAME—SIMILARITY—"AMBER BRAND" AND "AMBER."

   The mark "Amber Brand" *Held* properly refused registration in view of the prior registration of "Amber" as a trade-mark for goods of the same descriptive properties.

*Mr. J. A. Carr* and *Mr. A. M. Holcombe* for the appellant.

*Mr. W. S. Buchman* for the Commissioner of Patents.

Rose, *J.*:

By this appeal the Independent Breweries Company seeks a reversal of the decision of the Commissioner of Patents refusing registration of the words "Amber Bead" as a trade-mark for—

a beverage composed in part from malt and containing less than one-half of one per cent. alcohol.

The ground of the Commissioner's action was the prior registration, by the George Weidmann Brewing Company, of the word "Amber" as a trade-mark for beer. That the two marks are deceptively similar is plain. (*In re Herbst Brewing Co.*, 30 App. D. C., 297; *Schoenhofer Brewing Co.* v. *Maltine Co.*, 30 App. D. C., 346.)

But, it is insisted, the marks are not applied to goods of the same descriptive properties. This contention must fail. The general and essential characteristics of the goods to which the two marks are applied are the same, and this is sufficient. (*Walter Baker & Co.* v. *Harrison*, 32 App. D. C., 272; *Phoenix Paint & Varnish Co.* v. *Lewis*, 32 App. D. C., 285.) In the first of those cases it was ruled that coffee and cocoa are goods of the same descriptive properties within the meaning of the trade-mark statute, and in the second that paste paints and ready-mixed paints are of the same descriptive properties. In the present case the only real difference between the goods of the two parties is that there is less alcohol in one than in the other.

For the reasons set forth in the two cases to which we have referred, the decision of the Commissioner is affirmed.

Affirmed.

## ADJUDICATED PATENTS.

(U. S. D. C.) The Taylor patent, No. 601,622, for a shoe-last, *Held* not anticipated, valid, and infringed. *Fraser* v. *Duffey*, 196 Fed. Rep., 900.

## Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., August 31, 1912.*

*James W. Popham & Co., its assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of The American Ink Company, 2163 Arapahoe street, Denver, Colo., for registration of a trade-mark and trade-mark No. 15,937, registered October 8, 1888, to James W. Popham & Co., of Elizabethtown, Ky., and a notice of such declaration sent by registered mail to said James W. Popham & Co. at the address of record having been returned by the post-office authorities unclaimed, notice is hereby given that unless said James W. Popham & Co. or their assigns or legal representatives, shall within thirty days from the date of first publication of this order enter an appearance therein the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., August 31, 1912.*

*James Hancock, his assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Pimpernel & Bender, of 230 River street, Troy, N. Y., for registration of a trade-mark and trade-mark No. 6,313, registered November 11, 1902, to James Hancock, of Lynchburg, Va., and a notice of such declaration sent by registered mail to James Hancock at the address of record having been returned by the post-office authorities unclaimed, notice is hereby given that unless said James Hancock or their assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., August 31, 1912.*

*Edwin R. W. Thomas, his assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Pimpernel & Bender, 230 River street, Troy, N. Y., for registration of a trade-mark and trade-mark No. 6,313, registered November 11, 1902, to James Hancock, of Lynchburg, Va., and a notice of such declaration sent by registered mail to said Edwin R. W. Thomas at the address of record having been returned by the post-office authorities unclaimed, notice is hereby given that unless said Edwin R. W. Thomas, his assigns or legal representatives, shall within thirty days from the date of first publication of this order enter an appearance therein the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., August 31, 1912.*

*Curtiss Wallace Company, its assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of [illegible] for registration of a trade-mark and trade-mark No. [illegible], registered [illegible], to [illegible], and a notice of such declaration sent by registered mail to said [illegible] at the address of record having been returned by the post-office authorities unclaimed, notice is hereby given that unless said [illegible] or their assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*





THE
# OFFICIAL GAZETTE
OF THE
# United States Patent Office.

Vol. 188—No. 2. TUESDAY, SEPTEMBER 10, 1912. Price—25 per year.

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Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

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## ISSUE OF SEPTEMBER 10, 1912.

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|---|---|---|---|
| Patents | 662 | No. 1,027,843 to No. 1,038,518, inclusive. | |
| Designs | 27 | No. 45,553 to No. 45,579, inclusive. | |
| Trade-Marks | 171 | No. 93,261 to No. 93,431, inclusive. | |
| Labels | 1 | No. 16,281 to No. 16,281, inclusive. | |
| Prints | 1 | No. 3,605 to No. 3,605, inclusive. | |
| Reissues | None. | | |
| Total | 862 | | |

## TO CITIZENS OF THE UNITED STATES.

| States. | Patents and Designs. | Trade-Marks, Labels, and Prints. | States. | Patents and Designs. | Trade-Marks, Labels, and Prints. |
|---|---|---|---|---|---|
| Alabama | | 1 | North Carolina | 1 | 2 |
| Arizona | 1 | | North Dakota | | |
| Arkansas | 4 | | Ohio | 28 | 10 |
| California | 25 | 7 | Oklahoma | 2 | |
| Colorado | 8 | 1 | Oregon | 7 | 2 |
| Connecticut | 9 | 6 | Pennsylvania | 44 | 11 |
| Delaware | 1 | | Rhode Island | 6 | 1 |
| Florida | 2 | 1 | South Carolina | | 1 |
| Georgia | 2 | 1 | South Dakota | 1 | |
| Idaho | 2 | | Tennessee | 4 | 2 |
| Illinois | 53 | 11 | Texas | 15 | 1 |
| Indiana | 6 | 1 | Utah | 1 | |
| Iowa | 7 | | Vermont | 1 | |
| Kansas | 12 | | Virginia | 6 | 4 |
| Kentucky | 4 | | Washington | 9 | 9 |
| Louisiana | 4 | | West Virginia | 4 | |
| Maine | 4 | 2 | Wisconsin | 15 | 2 |
| Maryland | 6 | 2 | Wyoming | | |
| Massachusetts | 24 | 6 | Alaska, District of | 1 | |
| Michigan | 20 | 5 | Canal Zone | | |
| Minnesota | 14 | 3 | District of Columbia | 2 | |
| Mississippi | | | Hawaii, Territory | | |
| Missouri | 24 | 4 | Porto Rico, Island | | |
| Montana | 4 | 1 | U. S. Army | | |
| Nebraska | 3 | | U. S. Navy | | |
| Nevada | | | Total to citizens of the United States | 441 | 126 |
| New Hampshire | 1 | 1 | | | |
| New Jersey | 25 | 15 | | | |
| New Mexico | 2 | | | | |
| New York | 106 | 29 | | | |

## TO CITIZENS OF FOREIGN COUNTRIES.

| Country. | Patents and Designs. | Trade-Marks, Labels, and Prints. | Country. | Patents and Designs. | Trade-Marks, Labels, and Prints. |
|---|---|---|---|---|---|
| Argentina | | | [illegible] | | |
| Austria-Hungary | 6 | 1 | [illegible] | | |
| Belgium | | | [illegible] | 1 | |
| Brazil | | | [illegible] | 1 | |
| Canada | 11 | | [illegible] | 3 | |
| Chile | | | [illegible] | | |
| Colombia | | | [illegible] | | 3 |
| Cuba | 2 | | [illegible] | | |
| Denmark | | | [illegible] | | |
| England | 33 | 11 | [illegible] | 2 | |
| France | 6 | 11 | [illegible] | 1 | 3 |
| Germany | 34 | 3 | [illegible] | | |
| Guatemala | | | [illegible] | | |
| Ireland | | | [illegible] | 3 | |
| Italy | 1 | | [illegible] | | |
| Japan | 1 | 1 | Total to citizens of foreign countries | 84 | 32 |
| Mexico | 1 | | | | |

## Drawings.

RULE 32.

32. When there are drawings, the description will refer to the different views by figures and to the different parts by letters or numerals. (preferably the latter.)

RULE 32—Revised.

(c) The different views should be consecutively numbered. Letters and figures of reference should be carefully formed. They should, if possible, measure at least one-eighth of an inch in height, so that they may bear reduction to one twenty-fourth of an inch; and should be made larger when there is sufficient room. They should be so placed in the close and suitable parts of the figure as not to interfere with a thorough understanding of the figure, and therefore should rarely cross or obscure lines of the figure. When separate views appear on a sheet they should be placed at a right distance, where there is available space, and separated by clear spaces, lines with the parts to which they refer. Where views are drawn upon shaded surfaces, and where it is necessary to avoid this, a blank space may be left in the shading where the latter occurs, so that it will appear as a distinct and separate figure. Where the same figure is used in different views, the same letter or numeral must be used to designate different parts.

It is suggested that numerals or letters be used without exponents.

## Classification of German Patents.

Printed copies of a translation of the Manual of Classification of the German Patent Office may be had upon application to the Commissioner of Patents. Price, $5.

The plan of this classification and the arrangement of the German patents, classified according to it, are radically different from our own. It will be possible to make complete searches in the German patents.

## APPLICATIONS UNDER EXAMINATION.

*Condition at Close of Business September 7, 1912.*

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. | | No. of applications awaiting action. |
|---|---|---|---|---|
| | | New. | Amended | |
| 313 | 1. Fences; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers. | July 3 | July 3 | 683 |
| 128 | 2. Bee Culture; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco. | July 14 | July 10 | 469 |
| 175 | 3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Shaping Fluid Metal. | Aug. 8 | Aug. 20 | 175 |
| 222 | 4. Bridges; Conveyors; Cranes and Derricks; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures. | June 26 | July 1 | 577 |
| 167 | 5. Bookbinding; Harvesters; Jewelry; Music. | June 10 | July 1 | 563 |
| 318 | 6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Medicines; Preserving; Sugar and Salt. | July 3 | July 22 | 321 |
| 312 | 7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Nut and Bolt Locks; Optics; Velocipedes. | Mar. 2 | June 13 | 1083 |
| 131 | 8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports. | June 13 | July 23 | 732 |
| 149 | 9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Pumps; Wind-Wheels. | May 21 | July 13 | 492 |
| 285 | 10. Carriages and Wagons..... | May 28 | June 25 | 324 |
| 154 | 11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus. | June 6 | July 3 | 268 |
| 232 | 12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements. | June 26 | June 15 | 804 |
| 220 | 13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Turning. | May 28 | July 8 | 489 |
| 267 | 14. Compound Tools; Cutting and Punching Sheets and Bars; Forgery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working. | July 20 | July 26 | 261 |
| 203 | 15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Liquid Coating Compositions; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastic Compositions; Plastics. | May 17 | July 15 | 965 |
| 109 | 16. Telegraphy; Telephony..... | June 15 | June 6 | 445 |
| 208 | 17. Match-Making; Paper Manufacture; Printing; Type-Bar Making. | July 27 | Aug. 3 | 238 |
| 237 | 18. Injectors and Ejectors; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Boilers; Steam-Engines; Steam-Engine Valves. | June 25 | June 25 | 240 |
| 206 | 19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces. | June 28 | July 5 | 547 |
| 179 | 20. Artificial Limbs; Bunters' Hardware; Dentistry; Locks and Latches; Sales; Undertaking. | July 15 | July 20 | 349 |
| 112 | 21. Brakes and Gear; Calking; Cloth-Finishing; Cording; Fish and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling. | May 8 | June 2 | 516 |

*Applications Under Examination—Continued.*

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. | | No. of applications awaiting action. |
|---|---|---|---|---|
| | | New. | Amended | |
| 249 | 22. Agronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms, Marine Propulsion; Ordnance; Sights. | June 6 | July 10 | 363 |
| 279 | 23. Aqueducts; Coin-Handling; Horology; Recorders; Registers; Time-Observing Mechanisms. | June 20 | July 8 | 557 |
| 144 | 24. Apparel; Apparel Apparatus; Sewing Machines. | June 13 | June 24 | 527 |
| 215 | 25. Bookbinding; Mills; Threshing; Vegetable Cutters and Crushers. | Aug. 1 | Aug. 13 | 186 |
| 166 | 26. Electricity, Generation; Motive Power. | Mar. 3 | Apr. 5 | 802 |
| 272 | 27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus. | July 16 | July 16 | 426 |
| 65 | 28. Internal-Combustion Engines.. | May 5 | June 5 | 1041 |
| 147 | 29. Coopering; Fire-Escapes; Ladders; Rods; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools. | May 20 | July 12 | 609 |
| 182 | 30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines. | June 6 | July 22 | 426 |
| 172 | 31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Gum. | June 27 | July 13 | 291 |
| 278 | 32. Carbonating Beverages; Curtains, Shades, and Screens; Dispensing Beverages; Dispensing Cans; Ornamentation; Packaging Liquids; Refrigeration. | July 6 | Aug. 2 | 293 |
| 71 | 33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tanks, Canopies, Umbrellas, and Canes. | May 31 | July 15 | 468 |
| 304 | 34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fastenings. | June 17 | June 29 | 641 |
| 344 | 35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet. | July 20 | July 29 | 516 |
| 264 | 36. Drafting; Driers; Engraving; Measuring Instruments; Photography. | July 13 | July 6 | 673 |
| 107 | 37. Electric Lighting; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications. | June 17 | July 8 | 341 |
| 276 | 38. Animal Husbandry; Artesian and Oil Wells; Fishing and Trapping; Stationery; Stone-Working. | June 1 | June 26 | 717 |
| 221 | 39. Water Distribution..... | May 13 | June 11 | 602 |
| 220 | 40. Bagging; Bottles and Jars; Chemical-Distilled Apparatus; Cloth; Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Packages and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles. | Aug. 8 | Aug. 7 | 446 |
| 126 | 41. Railway Draft Appliances; Resilient Tires and Wheels. | June 24 | July 12 | 483 |
| 270 | 42. Electric Railways; Electric Signaling; Railway Signaling; Signals. | July 1 | July 8 | 461 |
| 262 | 43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification. | July 13 | July 13 | 378 |

Oldest new case, Mar. 2; oldest amended, Apr. 5.

Total number of applications awaiting action..... 23,983

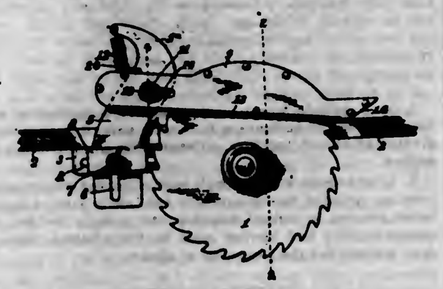
| | | | | |
|---|---|---|---|---|
| 161 | TRADE-MARKS, DESIGNS, LABELS AND PRINTS: | | | |
| | Trade-Marks..... | May 28 | June 29 | 1251 |
| | Designs..... | July 1 | July 29 | 247 |
| | Labels and Prints..... | Aug. 29 | Aug. 14 | 44 |



# PATENTS

## GRANTED SEPTEMBER 10, 1912.

1,037,843. SAW-GUARD. DAVID S. ACKLEY, Grand Rapids, Mich. Filed Oct. 20, 1911. Serial No. 657,475. (Cl. 143—159.)



1. A saw guard, comprising side plates spaced apart to embrace a saw and adapted to extend rearward of the saw, an arm embraced by said plates, a sleeve rotative in an opening in the arm, and a bolt extending through the sleeve and plates and clamping the plates against the opposite ends of the sleeve.

2. A saw guard, comprising side plates spaced apart to embrace a saw, and also adapted to extend oppositely at the front and rear of the saw, spacing members between the plates and above the saw, an adjustable arm embraced by the plates, said plates being slotted opposite the arm, a sleeve rotative in the arm, and a bolt extending through the sleeve and plates and adjustable in the slots to adjustably clamp the plates against the opposite ends of the sleeve.

3. A saw guard, comprising a hood having parallel side plates extending in front of the saw and having an inclined front and said plates also extended rearward of the saw, an arm embraced by the rear extensions of the plates, a sleeve rotative in the arm, a bolt extending through the sleeve and through slots in the plates and clamping the plates against the ends of the sleeve and spacing washers on the sleeve between the plates and arm.

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1,037,844. MACHINE FOR FORMING SHEET-METAL ARTICLES. BENJAMIN ADRIANCE and AMOS CALLESON, Brooklyn, N. Y.; said Calleson assignor to said Adriance. Filed Oct. 2, 1906. Serial No. 455,842. (Cl. 113—42.)



1. The combination of the frame, means adapted to operate on the material, and mechanism for controlling said means including an advancing member and an advanced member one having a clutch-surface extending in the direction of advance and the other a clutch-device normally in advance-transmitting engagement with said surface, said clutch-surface including primary and secondary portions respectively disposed normally within and beyond the normal advance-transmitting reach of the clutch-device, and said clutch device and secondary surface portion being movable one into advance-transmitting engagement with the other upon their assuming coincidence in the advancing operation, substantially as described.

2. The combination of the frame, means adapted to operate on the material, and mechanism for actuating said means including an advancing member and an advanced member one having a clutch-surface extending in the direction of advance and the other a clutch-device normally in advance-transmitting engagement with said surface, said clutch-surface including primary and secondary portions respectively disposed normally within and beyond the normal advance-transmitting reach of the clutch-device, and said clutch device and secondary surface portion being movable one into advance-transmitting engagement with the other upon their assuming coincidence in the advancing operation, substantially as described.

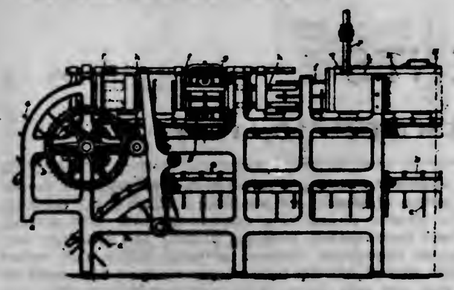
3. The combination of the frame, means adapted to operate on the material, and mechanism for controlling said means including an advancing member and an advanced member one having a clutch-surface extending in the direction of advance and the other a clutch-device normally in advance-transmitting engagement with said surface, said clutch-surface including primary and secondary portions respectively disposed normally within and beyond the normal advance-transmitting reach of the clutch-device, and means for establishing the clutch-device and secondary surface portion within advance-transmitting reach of each other upon their assuming coincidence in the advancing operation, substantially as described.

4. The combination of the frame, means adapted to operate on the material, and mechanism for actuating said means including an advancing member and an advanced member one having a clutch-surface extending in the direction of advance and the other a clutch-device normally in advance-transmitting engagement with said surface, said clutch-surface including primary and secondary portions respectively disposed normally within and beyond the normal advance-transmitting reach of the clutch-device, and means for establishing the clutch-device and secondary surface portion within advance-transmitting reach of each other upon their assuming coincidence in the advancing operation, substantially as described.

5. The combination of the frame, means adapted to operate on the material, and mechanism for controlling said means including an advancing member and an advanced member one having a clutch-surface extending in the direction of advance and the other a clutch-device normally in advance-transmitting engagement with said surface, said clutch-surface including primary and secondary portions respectively disposed normally within and beyond the normal advance-transmitting reach of the clutch-device, said clutch-device being movable into advance-transmitting engagement with said secondary surface portion and means for moving the clutch-device into advance-transmitting engagement with the secondary surface portion upon their assuming coincidence in the advancing operation, substantially as described.

[Claims 6 to 28 not printed in the Gazette.]

1,037,845. CARTON-SEALING MACHINE. ASA N. ALDEN, Niagara Falls, N. Y., assignor to The Shredded Wheat Company, Niagara Falls, N. Y. Filed Dec. 13, 1910. Serial No. 597,178. (Cl. 93—7.)



1. A machine for holding and sealing cartons, having an endless carton carrier, devices for opening and closing the flaps of the cartons, means for applying adhesive substance to said flaps, devices for applying sealing strips to said flaps, parallel drying chambers and pressure belts for said strips, and parallel drier boxes between the means for applying adhesive substance to the carton flaps and the devices for applying sealing strips to said flaps, whereby the flaps are dried after closure, and before the sealing strips are applied thereto.

2. A machine for holding and sealing cartons, having an endless carton carrier, lateral devices for opening and closing the flaps of the cartons, means for applying adhesive substance to said flaps, devices for applying sealing strips to said flaps, lateral parallel drier boxes between the means for applying adhesive substance to the carton flaps and the devices for applying sealing strips to said flaps, and longitudinal bearing ribs on the inside of said drier boxes.

3. A machine for holding and sealing cartons, having an endless carton carrier, lateral devices for opening and closing the flaps of the cartons, means for applying adhesive substance to said flaps, devices for applying sealing strips to said flaps, lateral parallel drier boxes between the means for applying adhesive substance to the carton flaps and the devices for applying sealing strips to said flaps, longitudinal bearing ribs on the inside of said drier boxes, and a removable cover closing the carton passage between said drier boxes.

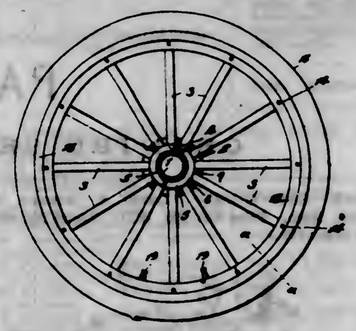
1,037,846. CURTAIN-POLE. HENRY A. ANDERSON, Missoula, Mont. Filed Aug. 25, 1911. Serial No. 646,690. (Cl. 186—19.)



1. In a curtain pole a central tubular section and a pair of end tubular sections telescoping thereinto, means at the inner ends of each of the end sections for locking said sections against relative movement, means at the outer ends of said end sections for operating said locking means and means carried by the lock operating means for engaging pole supports and clamping the same against a window or door frame, substantially as described.

2. In a curtain pole, a central tubular section, a pair of end sections telescoping thereinto, the inner ends of said end sections being longitudinally split, frusto-conical members projecting into said split ends, a rod fixed to each of said members and extending through the respective end sections, said rods projecting beyond the ends of the sections and threaded, members threaded upon the projecting ends of said rods, the outer ends of the last said members being exteriorly threaded and support engaging members threaded upon said ends, substantially as described.

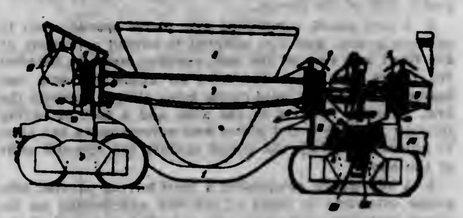
1,037,847. VEHICLE-WHEEL. WILLIAM ARNOLD, New York, N. Y. Filed Mar. 8, 1910. Serial No. 547,936. (Cl. 21—69.)



1. In a vehicle wheel, spokes having semicircular portions adapted to embrace a hub, each pair of spokes being pivoted or hinged together, substantially as shown and described.

2. In a vehicle wheel, a hub, spokes having semicircular portions adapted to embrace the hub, each pair of spokes being pivoted or hinged together and a fully divided circumferentially and having slots in the meeting faces of each portion for the reception of spokes.

1,037,848. DUMPING-CAR. CARL P. ANDSON, East Orange, N. J., assignor to M. H. Treadwell Company, a Corporation of New York. Filed Jan. 9, 1911. Serial No. 601,508. (Cl. 105—190.)



1. The combination with a plurality of separately supported tilting and bodily movable dumping car bodies, of an actuating motor coupled to the supporting means of one of said car bodies, and power transmitting couplings connecting the supports of said car bodies whereby to effect simultaneous operation by one motor.

2. The combination with a plurality of separately supported tilting and bodily movable dumping car bodies, of actuating means connected to the support of one of said car bodies, and a universal driving coupling between the adjacent supports of said car bodies.

3. The combination with a plurality of separately supported tilting car bodies, of an actuating motor connected to one end of the tilting support of one of said car bodies, and a mechanical actuating coupling between the other end of said tilting support and one of the tilting supports of an adjacent car body.

4. The combination with a plurality of separately supported dumping car bodies, of an actuating motor connected to one of said bodies, and a universal coupling between said body and another body.

5. The combination with a plurality of separately mounted dumping car bodies, of an actuating motor connected directly to one of said car bodies, trunnions supporting said car bodies, and a universal coupling connecting said trunnions.

(Claims 6 to 9 not printed in the Gazette.)



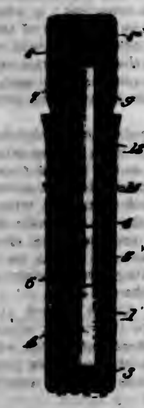
1,037,849. EYEGLASS-MOUNTING. GUSTAV A. BAUER, Rochester, N. Y. Filed Jan. 17, 1912. Serial No. 671,328. (Cl. 88—50.)



1. An eyeglass-mounting having, in combination, with a nose-clamp and a pivotally-movable lever connected therewith, a coiled spring connected, at one end, with said lever, and a post upon which the coiled portion of the spring is mounted, the post being slotted to receive the other end of the spring and having inward projections at the upper end of the slot, adapted to retain the spring on the post when its end assumes an angular position in the slot in consequence of the tensional action of the spring.

2. An eyeglass-mounting having, in combination, a nose-clamp, a lever upon which the nose-clamp is mounted, a flat bearing-member engaging one side of the lever, a stud, projecting from said bearing-member, upon which said lever is pivoted, the stud having a flange engaging said lever on the opposite side from the bearing-member and being slotted longitudinally from its end, and a coiled spring mounted on the stud beyond said flange and removable over the end thereof, one end of the spring being connected with said lever and the other end being seated in said slot.

1,037,850. PACKER FOR OIL OR ARTESIAN WELLS. REUBEN C. BAKER, Coalinga, Cal. Filed May 6, 1912. Serial No. 695,982. (Cl. 166—8.)



1. In a device of the class described, a sleeve; a plunger detachably threaded into the sleeve for abrupt dropping movement; a combined coupling and abutment removably carried by the plunger; a wedge ring surrounding the plunger and engageable by the abutment; and a packing surrounding the plunger and abutting against the sleeve, the ring being removable to provide for the mounting of the packing, the ring being initially advanced into the packing upon rotatory movement between the sleeve and the plunger and being finally advanced thereinto by the dropping action of the plunger.

2. In a device of the class described, a sleeve; a plunger detachably threaded into the sleeve for abrupt dropping movement; a combined coupling and abutment carried by the plunger; a wedge ring surrounding the plunger and engageable by the abutment; and a packing surrounding the plunger and abutting against the sleeve, the ring being initially advanced into the packing upon rotatory movement between the sleeve and the plunger and being finally advanced thereinto by the dropping action of the plunger; there being a tapered shoulder upon the plunger, forming a continuation of the wedge face of the ring and constituting a deflector for the packing, to prevent an engagement between the thinned edge of the ring and the packing.

3. In a device of the class described, a sleeve; a plunger detachably threaded into the sleeve for abrupt dropping movement; a packing surrounding the plunger and abutting against the sleeve; wedge means actuable by the dropping movement of the plunger to expand the packing, the plunger being provided with a tapered shoulder forming a continuation of the wedge and adapted to expand the packing prior to the engagement between the packing and the wedge.

1,037,851. POLISHING-MACHINE. CHARLES W. BEAM, Rochester, Pa., assignor to H. C. Fry Glass Company, Rochester, Pa., a Corporation of Pennsylvania. Filed Oct. 9, 1911. Serial No. 653,665. (Cl. 51—3.)



1. In a polishing machine, the combination of a slurry receptacle, means for securing a blank to be polished within said receptacle, a buffer movable upon the surface to be polished, and means carried by said buffer for transferring the slurry from the receptacle to the surfaces of the blank to be polished, substantially as described.

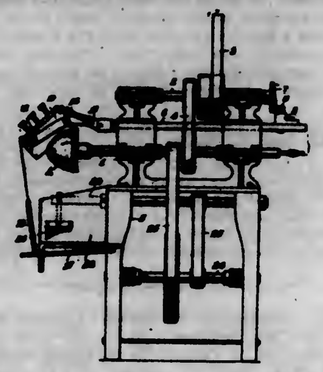
2. In a polishing machine, the combination of a receptacle, means for securing a blank to be polished within said receptacle, the surface of the blank which is to be polished extending in a general horizontal position and extending at a level above a surrounding trough-like space wherein slurry may be held, a buffer movable upon the surface to be polished, a wick depending from the edge of said buffer, and means for moving said buffer upon the surface of a blank when in position, substantially as described.

1,037,852. POLISHING-MACHINE. CHARLES W. BEAM, Rochester, Pa., assignor to H. C. Fry Glass Company, Rochester, Pa., a Corporation of Pennsylvania. Filed Oct. 9, 1911. Serial No. 653,666. (Cl. 51—3.)

1. In a polishing-machine, the combination of a rotatable member holding a blank of material in operative polishing position, a polishing block mounted adjacent to said rotatable member and held yieldingly against a blank when in position on said rotatable member, means for rotating said rotatable member, and means for oscillating said polishing block, substantially as described.

2. In a polishing-machine, the combination of a rotatable shaft provided with a seat for a blank to be polished,

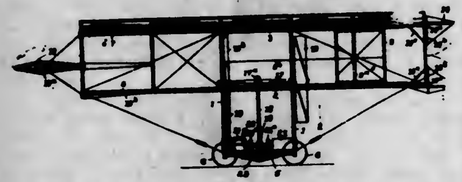
an oscillatory carrier provided with a bifurcated head, a polishing block pivoted in the head of said carrier and spring-controlled in its pivotal movement, suitable means



for rotating said shaft, and means for causing said carrier to oscillate non-synchronously with the rotation of said shaft, substantially as described.

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1,037,853. AEROPLANE. ERASTUS S. BENNETT, New York, N. Y. Filed Jan. 28, 1911, Serial No. 606,265. Renewed Feb. 8, 1912. Serial No. 675,339. (Cl. 244—14.)



1. An aeroplane comprising a longitudinally disposed rectangular imperforate supporting plane of concavo-convex form in cross section with the concave side uppermost and wholly exposed, a car of materially less width and length than said plane and supported centrally therefrom at a material distance below the plane, an engine carried by the car, and a propeller below but in proximity to the plane, and means for driving the same from the engine.

2. An aeroplane comprising a longitudinally disposed rectangular imperforate supporting plane of general concavo-convex form in cross section with the concave side uppermost said plane having a plurality of longitudinally disposed concavities in its under surface extending the entire length and width of the plane, a car of materially less length and width than the plane suspended centrally below the same, an engine carried by the car, and a propeller below the plane but in proximity thereto and driven from the engine.

3. An aeroplane having a longitudinally disposed upper plane of concavo-convex form in cross section, a lower longitudinal plane connected thereto of less width than the upper plane and substantially straight in cross section, a propeller having its axis located substantially on a line with said lower plane, a car suspended below the lower plane, and an engine carried by said car and having driving connections to said propeller.

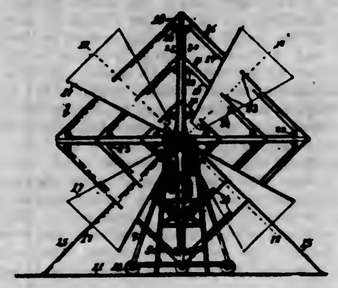
4. An aeroplane having a longitudinally disposed main supporting frame of substantially concavo-convex form in cross section with its convex side downward, a covering material secured to said frame on longitudinally parallel lines with a fullness between said lines, a second straight longitudinal frame below and of less width than said main frame, a covering material secured thereto on longitudinally parallel lines and having fullness between such lines, a propeller having its axis substantially coincident with said lower plane, a car suspended beneath the lower frame, and a motor carried by the car and having driving connections to said propeller.

5. An aeroplane comprising a main supporting plane and suspended car, and an air brake device coöperating with said plane and comprising a pair of hinged vanes located one above the other adapted to be brought into a position substantially at right angles to said plane to obstruct the passage of air longitudinally beneath said plane, and means for operating said vanes singly for vertical steering.

[Claims 6 to 10 not printed in the Gazette.]

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1,037,864. WIND-WHEEL. JUDSON A. BENNETT, Clovis, N. Mex. Filed Sept. 20, 1911. Serial No. 650,403. (Cl. 170—2.)



1. In a wind wheel, a shaft journaled in bearings and arms fixed radially to the shaft; a set of rods fixed to the said arms as chords of circular arcs, one circle within another; blades hung radially, each upon fixed rods of different circles; a set of blade operating rods hung for linear motion parallel with the fixed rods, one set of rods being located forward of the other set; a weight hung from a pulley that is mounted on a bearing of the shaft; a pinion journaled to the shaft near to the said radial arms; connections running along the radial arms and communicating between the operating rods and the said pinion, and connections along the shaft between the pinion and the said weight.

2. In a wind wheel, rods fixed as chords of circles of different diameters on the face of the wheel; blades hung upon the said rods to swing to and from radial, longitudinal planes; operating rods located substantially parallel with the fixed rods and connected with the blades, the point of connection being at a greater distance from the adjacent hanging rod on the large circle than on the smaller ones; and means for giving an equal amount of motion to all the operating rods, whereby a twisting action upon the blades is produced.

3. In a wind wheel, blades hinged at different points in their radial length to the wheel; operating mechanism connected in lines of chords of circles with each blade at distances from the line of the hinges proportional to the distance of the connections from the axis of the wheel.

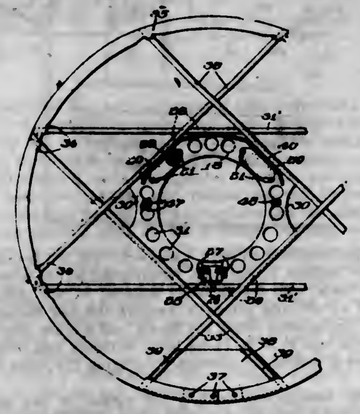
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1,037,855. ADVERTISING DEVICE. JAY PIERRE BRIGGSON, Tiskilwa, Ill. Filed Mar. 4, 1910 Serial No. 547,901. (Cl. 40—129.)

1. The combination with a vehicle wheel, of an advertising device comprising a support on the wheel provided with a track, a bearing member having rollers engaging said track to suspend said member on said support, retaining means on said member engaging said support, and a card supporting frame on said bearing member comprising a plurality of intersecting ribbed bars angularly disposed with respect to each other and arranged in interlocking relation.

2. The combination with a vehicle wheel, of an advertising device comprising a support on the wheel, said support being provided with a track, a bearing member having rollers engaging said track to suspend said member on said support, a card supporting frame on said bearing member comprising a plurality of bars, and an outer member surrounding said bars and provided with integral means engaging the bars to hold the latter fixed relatively to the outer members.





3. The combination with a vehicle wheel, of an advertising device comprising a support on the wheel, said support being provided with a track, a bearing member having rollers engaging said track to suspend said member on said support, a card supporting frame on said bearing member comprising a plurality of bars, and an annular member of channeled cross-section surrounding and embracing said bars and having inturned portions in locking engagement with said bars.

4. The combination with a vehicle wheel, of an advertising device comprising a support on the wheel, a bearing member rotatively mounted on said support, a card supporting frame on said member, an annular strip of channel iron surrounding said frame, a weight disposed at the ends of said channel iron, and means extending through said weight and channel iron for securing the ends of the latter.

5. The combination with a vehicle wheel, of an advertising device comprising a support on the wheel, a bearing member rotatively mounted on the support, a card supporting frame on said bearing member comprising a plurality of bars, and an outer member of channel cross-section embracing the ends of said bars and having inturned portions engaging the same, and means connecting the ends of said outer member and contracting the same to prevent the parts from rattling.

[Claims 6 to 8 not printed in the Gazette.]

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1,037,856. VALVE-STEM HOUSING. WILLIAM B. BLAIR, Buffalo, N. Y., assignor to Buffalo Gasolene Motor Company, Buffalo, N. Y., a Corporation of New York. Filed Feb. 12, 1912. Serial No. 677,206. (Cl. 121—97.)

1. The combination of a valve chamber having a port, an upper valve stem guide and an annular recess around the outer end of said upper guide, a lower valve stem guide, a valve stem sliding in said guides and provided at its upper end with a valve which is adapted to open and close said port, a cam engaging the lower end of said stem for opening the valve, a spring surrounding the stem between said guides and operating to close said valve, a tubular housing inclosing said spring and divided lengthwise to form longitudinal sections, said housing sections being engaged at their upper ends with the recess of the upper guide and their lower ends engaging with the outer side of said lower guide, and a longitudinally movable locking sleeve engaging with the outer side of said housing sections at the lower ends thereof.

2. The combination of a valve chamber having a port, an upper valve stem guide and an annular recess around the outer end of said upper guide, a lower valve stem guide provided with an external annular shoulder which faces upwardly, a valve stem sliding in said guides and provided at its upper end with a valve which is adapted to open and close said port, a cam engaging the lower end of said stem for opening the valve, a spring surrounding the stem between said guides and operating to close said valve, a tubular housing inclosing said spring and divided lengthwise to form longitudinal sections, said housing sections being engaged at their upper ends with the recess of the upper guide and their lower ends engaging with the shoulder on the outer side of said lower guide, a longitudinally movable locking sleeve engaging with the outer side of said housing sections at the lower ends thereof, and a spring operating to hold said sleeve yieldingly in its elevated position in engagement with said housing sections.



3. The combination of a valve chamber having a port, an upper valve stem guide and an annular recess around the outer end of said upper guide, a lower valve stem guide provided with an external annular shoulder which faces upwardly, a valve stem sliding in said guides and provided at its upper end with a valve which is adapted to open and close said port, a cam engaging the lower end of said stem for opening the valve, a spring surrounding the stem between said guides and operating to close said valve, a tubular housing inclosing said spring and divided lengthwise to form longitudinal sections, said housing sections being engaged at their upper ends with the recess of the upper guide and their lower ends engaging with the shoulder on the outer side of said lower guide, a longitudinally movable locking sleeve engaging with the outer side of said housing sections at the lower ends thereof, a spring operating to hold said sleeve yieldingly in its elevated position in engagement with said housing sections, and means for holding said locking sleeve yieldingly in its lowered inoperative position.

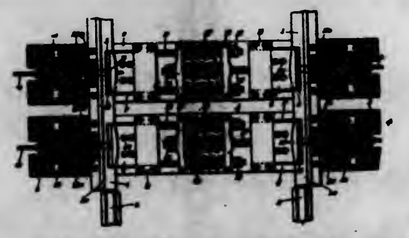
4. The combination of a valve chamber having a port, an upper valve stem guide and an annular recess around the outer end of said upper guide, a lower valve stem guide provided with an external annular shoulder which faces upwardly, a valve stem sliding in said guides and provided at its upper end with a valve which is adapted to open and close said port, a cam engaging the lower end of said stem for opening the valve, a spring surrounding the stem between said guides and operating to close said valve, a tubular housing inclosing said spring and divided lengthwise to form longitudinal sections, said housing sections being engaged at their upper ends with the recess of the upper guide and their lower ends engaging with the shoulder on the outer side of said lower guide, a longitudinally movable locking sleeve engaging with the outer side of said housing sections at the lower ends thereof, a spring operating to hold said sleeve yieldingly in its elevated position in engagement with said housing sections, and means for holding said locking sleeve yieldingly in its lowered inoperative position.

5. The combination of a valve chamber having a port, an upper valve stem guide and an annular recess around the

outer end of said upper guide, a lower valve stem guide provided with an external annular shoulder which faces upwardly, a valve stem sliding in said guides and provided at its upper end with a valve which is adapted to open and close said port, a cam engaging the lower end of said stem for opening the valve, a spring surrounding the stem between said guides and operating to close said valve, a tubular housing inclosing said spring and divided lengthwise to form longitudinal sections, said housing sections being engaged at their upper ends with the recess of the upper guide and their lower ends engaging with the shoulder on the outer side of said lower guide, a longitudinally movable locking sleeve engaging with the outer side of said housing sections at the lower ends thereof, a spring operating to hold said sleeve yieldingly in its elevated position in engagement with said housing sections, and means for holding said locking sleeve yieldingly in its lowered inoperative position comprising a retaining key adapted to engage with a transverse slot in the exterior of said lower guide and with the upper edge of said locking sleeve.

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1,037,857. FLANGE-TESTER. CHARLES BROWNING, Jr., Sacramento, Cal. Filed Dec. 20, 1909. Serial No. 534,014. (Cl. 73—51.)



1. A flange tester comprising a combination with the rails of a railway, of independent rail members set in alinement with the rails of said railway, said independent rail members having recesses cut in their inner edges, spring pressed blocks movable in said recesses, the flanges of wheels running over said rails being adapted to strike said blocks, and guard flanges on the outer edges of said independent rail members adapted to hold such wheels in proper position as they ride over said independent rail members as described.

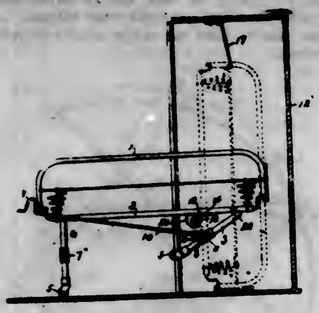
2. A device of the character described comprising a railway, independent rail members disposed in direct alinement with the rails of said railway and provided with transverse slots, spring pressed blocks movable in said recesses, rods on said blocks projecting through said independent rail members, collars on the outer ends of said rods, rods projecting into said collars and removably keyed thereto, and a fluid pressure means connected with the last named rods as described.

3. A device of the character described comprising a railway, rails disposed in direct alinement with the rails of said railway, such last named rails being wider than the rails of the railway and provided with transverse slots, upwardly projecting guard flanges on the outer edges of said last named rails, sliding spring pressed blocks, flanges on said blocks, said flanges and said blocks being movable in said slots, rods on said blocks projecting through said last named rails and having collars on their outer ends, rods projecting into said collars and removably keyed thereto, and a fluid pressure means connected with said last named rods as described.

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1,037,858. DISAPPEARING BED. CHARLES R. BRUCE, Kansas City, Mo. Filed Dec. 18, 1911. Serial No. 666,429. (Cl. 5—37.)

1. The combination with a support, of a bed frame having two inclined tracks, each terminating at its lower end with a hook, said tracks being adapted to run upon said support to lift and pivotally support the bed frame, two sets of legs pivoted to the bed frame, and a brace pivoted to one set of legs and having means for releasably engaging the other set of legs.



2. The combination with a support, of a bed frame having two inclined tracks each terminating at its lower end with a hook, said tracks being adapted to run upon said support to lift and pivotally support the bed frame, two sets of legs pivoted to the bed frame, and a brace pivoted to one set of legs so as to swing both vertically and laterally, and having means for releasably engaging the other set of legs.

3. The combination with a bed frame, of two sets of legs pivoted thereto so as to swing inwardly from a vertical position, and a brace secured to one set of legs and having means for releasably engaging the other set of legs for holding the legs in the vertical position.

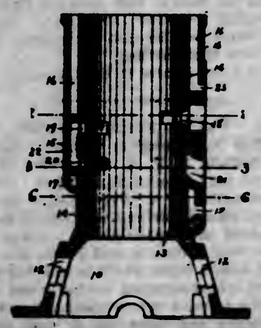
4. The combination with a bed frame, of two sets of legs pivoted thereto so as to swing inwardly from a vertical position, and a brace pivoted to one set of legs and having a hook for releasably engaging the other set of legs for holding the legs in a vertical position.

5. The combination with a bed frame having two inclined tracks terminating at their lower ends in hooks, of two sets of legs pivoted to the bed frame, and a brace secured to one set of legs and having means for releasably engaging the other set of legs for holding the legs in the vertical position.

[Claims 6 to 8 not printed in the Gazette.]

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1,037,859. CYLINDER-CORE. FREDERICK E. BURK, Bay City, Mich., assignor to Edward C. Ewen, Saginaw, Mich. Filed Jan. 27, 1910. Serial No. 540,297. (Cl. 22—167.)



A core for combined chambrum and cast iron cylinders, comprising a cylindrical shell of cast-iron of substantially even thickness throughout and having shallow grooves, and a body of baked friable material extending through the shell and projecting from the ends thereof for supporting the same, and auxiliary cores for forming passages in the wall of the cylinder.



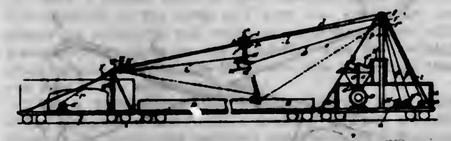
1,037,860. HORSE-RELEASER. JAMES B. BUNKLEY, McGregor, Tex. Filed June 26, 1912. Serial No. 706,186. (Cl. 24—75.)



The combination with a swingle tree comprising two pivotally connected sections having trace retaining means carried by the outer ends thereof, said sections being provided at their inner ends with enlarged portions, one of which is provided with an angular opening, an angular locking plate having one end rigidly secured to one of said sections and having its intermediate portion disposed across the meeting ends of the sections, the free end of said plate being engaged over the enlarged portion on the other of said sections, a retaining member comprising a rod having one end bent angularly out of the plane of the body portion and arranged within the opening in one of the enlarged portions, said rod being pivotally secured to said enlarged portion and having its angularly bent end normally disposed in an opening in the free end of the locking plate, a releasing member formed integral with the body of the rod and extending at right angles thereto, said releasing member being normally disposed beneath the free end of the locking plate and means secured to the outer end of said rod for actuating the same and releasing the locking plate.

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1,037,861. CONCRETE-MAKING AND AGGREGATE-HANDLING DEVICE. HENRY G. BUTLER, Wellington, Kans. Filed Mar. 18, 1911. Serial No. 615,898. (Cl. 214—13.)



1. The combination of a railway car, a concrete mixer carried thereon, hoppers carried on said car and arranged to deposit their contents as desired in said concrete mixer, hoisting drums on said car, cableway supporting mechanism on said car, a plurality of sheaves near the top of said supporting mechanism, a second railway car, cableway supporting mechanism on said car, a winch drum on said car, a sheave on said supporting mechanism, a track cable fastened to a winch drum on the first mentioned car, passed over one of the sheaves on said car, thence over the above mentioned sheave on the second car to the winch on said car, a sheave carried on said track cable and fastened to said cableway supporting mechanism on said second railway car, a carrier having a plurality of sheaves therein a part of said sheaves resting on said track cable to support said carrier and the remaining sheaves below said track cable, a drag line bucket having an open end and a sheave fastened to the top of said bucket, a second cable wound around one of said hoisting drums, then over a second of the plurality of sheaves on said supporting mechanism, then over one of the sheaves in said carriage and under the sheave on said bucket and up over a second sheave in said carriage thereby forming a loop in said cable between said bucket sheave and said carriage sheave, said cable being then passed over the sheave near said supporting mechanism on said second car and thence returned and fastened near said sheave on said bucket, a third cable wound around a second of said hoisting drums, thence over a third of the sheaves on the cableway supporting mechanism on said first mentioned railway car and fastened to the front of said drag line bucket and a plurality of material cars spacing apart said first and second cars, substantially as described.

2. In an aggregate handling device, two railway cars, power driven winding drums on said cars, supporting frames on said cars, a plurality of sheaves on said frames, a cableway supported on said sheaves and attached to said winding drums.

3. In an aggregate handling device, two railway cars, two power driven winding drums on one of said cars, frames on said cars, a plurality of sheaves on said frames, a cableway supported on said sheaves, said cableway consisting of a track cable, a carriage on said cable, sheaves in said carriage, a bucket with a sheave thereon, said bucket carried on a second cable fastened at one end to one of said drums, passed over two of said sheaves on said frames, looped over two of said sheaves in said carriage, through said sheaves on said bucket and attached at its other end as shown and described, a third or pull cable attached to said bucket passed over one of said sheaves in said frames and its other end attached to the second of said winding drums.

4. In an aggregate handling device, two railway cars, two power driven winding drums on one of said cars, frames on said cars, a plurality of sheaves on said frames, a cableway supported on said sheaves said cableway consisting of a track cable, a carriage on said cable, sheaves in said carriage, a bucket with a sheave thereon, said bucket carried on a second cable fastened at one end to one of said drums, passed over one of said sheaves on said frames, looped over two of said sheaves in said carriage, through said sheave on said bucket and attached at its other end as shown and described, a third or pull cable attached to said bucket, passed over one of said sheaves in said frames and its other end attached to the second of said winding drums and a plurality of aggregate containing cars spacing said railway cars apart.

5. In an aggregate handling device, two railway cars, two power driven winding drums on one of said cars, frames on said cars, a plurality of sheaves on said frames, a cableway supported on said sheaves said cableway consisting of a track cable supported on two of said sheaves, a carriage on said cable, sheaves in said carriage, a bucket with a sheave thereon, said bucket carried on a second cable fastened at one end to one of said drums, passed over one of said sheaves in said frames, looped over two of said sheaves in said carriage through said sheave on said bucket and attached at its other end as shown and described, a third or pull cable attached to said bucket, passed over one of said sheaves in said frames, and its other end attached to the second of said winding drums, a plurality of aggregate containing cars, spacing said railway cars apart, a concrete mixer on one of said railway cars, a hopper supported above said concrete mixer and means for operating said mixer.

[Claims 6 to 8 not printed in the Gazette.]

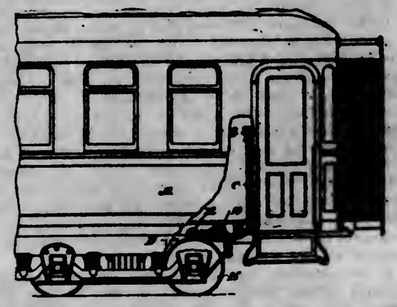
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1,037,862. SPEED-INDICATING EQUIPMENT FOR RAILWAY-CARS. ADDI BENJAMIN CADMAN, Beloit, Wis., assignor to Warner Instrument Company, Beloit, Wis., a Corporation of Wisconsin. Filed Oct. 28, 1907. Serial No. 399,606. (Cl. 238—66.)

1. The combination with a railway car, and its truck frame and wheels, of a supporting block mounted on the truck frame, a casting or bracket carried by said block, and having transversely arranged chambers, a shaft journaled in each chamber, a counter-shaft geared to both of said shafts, one of said first mentioned shafts having a drive wheel, means for pressing said drive wheel into contact with a truck wheel, means whereby the other of said shafts is driven in continuous direction whatever may be the direction of rotation of the drive wheel, and a speed indicating device mounted on the car and actuated by said last mentioned shaft.

2. In an apparatus of the class described, a car and its truck, a supporting casting mounted on the truck, a frame pivotally mounted on said casting, a drive shaft and a driven shaft journaled in said frame, intermediate driving connections between said shafts, means driven by a

truck wheel for operating said drive shaft, a speed indicating device mounted on the car, and operated from said driven shaft, and means whereby said driven shaft is operated in continuous direction whatever may be the direction of operation of the drive shaft.



3. In an apparatus of the class described, a supporting casting, a frame pivotally mounted thereon, a drive shaft and a driven shaft journaled in said frame, a countershaft geared to the drive shaft and carrying a bevel gear, oppositely arranged bevel gears loosely mounted on the driven shaft and respectively meshing with the bevel gear on the countershaft, means whereby one or the other of said loosely mounted gears is clutched to said driven shaft according to the direction of rotation of said countershaft, whereby said driven shaft is driven in continuous direction, an operating member carried by said drive shaft, a rotating member therefor, and means for yieldingly and frictionally holding said operating and rotating members in engagement with each other.

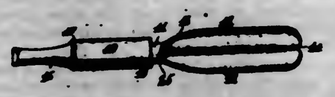
4. In an apparatus of the class described, a casting carrying a supporting pin, a frame pivotally mounted on said pin, a driven shaft journaled in said frame and carrying an operating member, oppositely presented gears loosely sleeved on said shaft, a counter-shaft geared to both of said gears, a drive shaft for driving said countershaft, means for clutching one or the other of said loosely sleeved gears to the driven shaft, according to the direction of rotation of the drive and countershafts, a rotating member, and means for yieldingly rocking said frame to frictionally hold said operating member in engagement with said rotating member

5. In an apparatus of the class described, a casting, a frame pivotally mounted thereon, a driven shaft journaled in said frame and carrying an operating member, sleeves mounted on said shaft to rotate therewith but capable of endwise movement thereon, oppositely presented gears loosely sleeved upon said shaft, clutch teeth respectively connecting said gears and sleeves, said clutch teeth being oppositely arranged, a drive gear interposed between said loosely sleeved gears and meshing therewith, a countershaft carrying said drive gear, a drive shaft and reduction gearing connecting said countershaft and drive shaft, a rotating member, and means for yieldingly rocking said frame to frictionally hold said operating and rotating members in frictional engagement.

[Claims 6 to 10 not printed in the Gazette.]

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1,037,863. CIGARETTE-FORM RETAINER AND HOLDER. CORNELIUS M. CALLAHAN, Buffalo, N. Y. Filed Jan. 31, 1912. Serial No. 674,504. (Cl. 131—22.)



1. A device of the character described comprising two separated parts forming a trough-like body on which a cigarette is to be supported and between which the marginal portions of the paper forming part of the cigarette is adapted to be placed, a mouth-piece connected with said separated parts, and means for clamping said parts together with the paper clamped between them.

2. A device of the character described comprising a trough-like body-portion on which a cigarette is to be placed and a mouth-piece, said body portion being slitted to receive the marginal portions of the paper forming part of the cigarette.

3. A device of the character described comprising a trough-like body-portion on which a cigarette is to be placed, said body-portion having a barrel at one end into which one end of the cigarette is to be forced, and a mouth-piece applied to said barrel and having a tip adapted to be entered into the inner end of the cigarette.

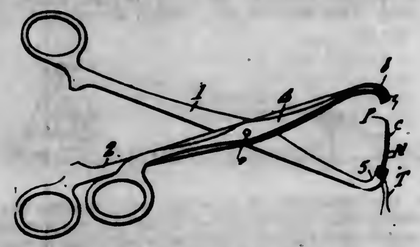
4. A device of the character described comprising a body-portion having a trough-like member slit throughout its length to form two separated parts and a barrel at the inner end of said trough-like member, means for clamping the separated parts of said trough-like member together, and a mouth-piece entered into said barrel.

5. A device of the character described comprising a body-portion having a barrel at one end slit lengthwise and having two wing members extending forwardly from said barrel and separated in line with the slit of said barrel, a mouth-piece applied to said barrel, and a substantially U-shaped clamp adapted to straddle said wing members to force the same toward each other, substantially as set forth.

[Claims 6 to 12 not printed in the Gazette.]

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1,037,864. SURGICAL-NEEDLE HOLDER. JOHN C. CARLSON and OLIVER G. SAXTON, Eaton, Colo. Filed Apr. 20, 1911. Serial No. 622,317. (Cl. 128—44.)



1. A surgical needle holder of the scissors type comprising a pair of handle members crossed and pivoted to each other where they cross and having their front ends bent into jaws directed toward each other, one jaw having a transverse slot for the passage of the suture, a supplemental handle movably attached to the other main handle, and a latch carried by the supplemental handle and adapted to engage the needle near its point when the latter is introduced into this jaw.

2. The combination with a needle having a cavity near its point and an eye near its opposite end, and a suture passing through said eye; of a needle holder of the scissors type whereof the pivoted members have jaws in their extremities directed toward each other, one jaw being slotted for the passage of said suture, and a third handle member mounted on the pivot which connects the other two and having a latch at its front end projected into one side of that jaw which receives the tip of the needle.

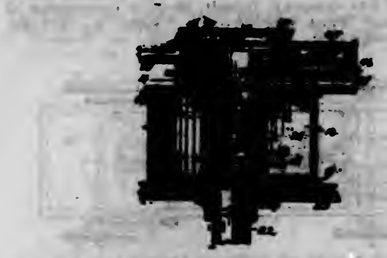
3. A surgical needle holder comprising pivotally connected primary levers, one of which is provided with needle-receiving means; and a secondary lever pivoted upon the other primary lever and adapted to engage directly with the needle, to hold the needle during the withdrawal of the same from the needle-receiving means, the secondary lever constituting the sole movable element upon that primary lever to which the secondary lever is pivoted.

4. A surgical needle holder comprising primary levers, one of which is provided with needle-receiving means; a secondary lever adapted to engage directly with the needle, to hold the needle during the withdrawal of the same from the needle-receiving means; and a single pivot connecting all of the levers.



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1,037,865. HYDRAULIC MOTOR. HENRY C. CHAMBERS, Cincinnati, Ohio. Filed Oct. 28, 1911. Serial No. 657,364. (Cl. 128—1.)



1. In a hydraulic motor, the combination of an inclosure which forms a working chamber and consists of a cylindrical side and of upper and lower heads, the latter head forming a supporting base which serves to connect the motor in position, a wing in the inclosure fitted against the inner sides of the same, a hollow stem open at its upper end of which this wing forms a rigidly connected part, bearings in which this stem is mounted for oscillation, one in each of the heads from which they extend outwardly, said stem being provided with an inlet-opening in the upper part of its side which is located above the upper head of the inclosure, and with two ports below this head, so as to be in open communication with the working-chamber, one port on each side of the wing on the stem, an inlet duct for live water in open communication with said inlet-opening in the stem, a waste-duct above the upper head, a hollow valve in open communication with the inlet-opening in the stem and with the waste-duct and means for actuating this valve so as to alternately shift communication between the inlet-duct and the working-chamber and between this latter and the waste-duct from one port in the stem to the other.

2. In a hydraulic motor, the combination of a cylindrical inclosure which forms a working-chamber, a hollow stem at its upper end mounted concentric with the axis of the inclosure for oscillation therein, a wing carried by this stem and fitted against the inner sides of said inclosure, said stem being provided with an inlet-opening in the upper part of its side and located so as to be outside of the working-chamber, and with two ports below this inlet-opening and within the working-chamber, so as to be in open communication with the same, an inlet-duct for live water in open communication with the inlet-opening in the stem, a hollow, cylindrical valve fitted into this stem and in open communication with the inlet-duct and having two ports adapted to register with the ports in the stem, means causing said valve to move with the stem but permitting it also to move independent thereof, a waste duct in open communication with the hollow valve, a disk-shaped cam at the upper end of the valve of which it forms a rigidly connected part which projects over the edge of the stem, the edge of the cam being shaped in part concentric and in part eccentric with the axis of the valve, a plunger radially arranged opposite the edge of this cam, a housing in which it is supported and a bypass whereby this housing is in open communication with the inlet duct back of the plunger, so that this latter is held at all times in contact with the edge of the cam whereby, when the eccentric portion of the cam is opposite the plunger, the valve is actuated within the stem so as to alternately shift communication, through its ports and through the ports in the stem, between the inlet-duct and the working-chamber and between this latter and the waste-duct.

3. In a hydraulic motor, the combination of an inclosure which forms a working-chamber, an inlet-duct whereby water is supplied to the motor, a hollow stem open at one end and supported for rotation between opposite sides of said inclosure, it being provided with a wing fitted against the inner sides of the inclosure and having in its sides an opening always in open communication with the inlet-duct and two ports one on each side of said wing in open communication with the chamber, a stationary partition dividing the chamber between said stem and the inclosure of the chamber, a hollow valve open at its upper end fitted into the stem and provided with two outlet-ports and a non-communicating inlet conduit, means whereby this valve is caused to move to a certain extent with the stem and is also left free to move independently thereof, a cam rigidly connected to the valve, a plunger, a housing in which it is contained, and a bypass whereby this housing communicates with the aforesaid inlet duct and whereby water is admitted to it, to cause the plunger therein to actuate the valve by means of the cam and to move it independently of the stem so that its inlet conduit registers alternately with either one of the ports in the stem and one of its outlet ports alternately with the other port in the stem.

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1,037,866. CASTER-WHEEL. ALBERT B. CLARK, Hamburg, N. Y. Filed June 12, 1911. Serial No. 632,647. (Cl. 16—75.)



A wheel having a plurality of fibrous disks arranged side by side and provided with coinciding central openings, a bushing arranged in said openings and having its opposite ends projecting beyond the outer side of the outermost disks, two heads engaging with the outer side of the outermost disks and provided with central openings and with enlargements or rabbets at the inner ends of their openings which enlargements receive the ends of the bushing, and tie members connecting said disks and heads.

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1,037,867. AUTOMATIC MACHINE FOR CUTTING AND FORMING BELT-FASTENERS. CHARLES R. COE, St. Louis, Mo., assignor to William F. Morrison, St. Louis, Mo. Filed Feb. 20, 1911. Serial No. 609,663. (Cl. 153—21.)



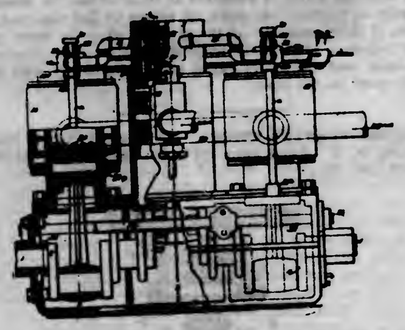
1. In a machine of the class described, the combination with guides and means for advancing a strip of metallic material to be operated upon, of means arranged diagonally relative the trend of said guides for forming oppositely extended V-shaped incisions in said material, diagonally disposed means for severing said strip into sections, and means arranged diagonally relative the trend of said guides for shaping the material of said strip bounded by said incisions, substantially as shown.

2. In a machine of the class described, the combination with guides for a strip of material to be operated upon,

a pair of perforating dies, automatic means for engagement in perforations formed by said dies for the advancement of the material, oppositely arranged V-shaped cutting dies diagonally disposed relative said guides, diagonally disposed forming dies for shaping the material bounded by the incisions made by said cutting dies, diagonally disposed cutting dies for severing the strip into rhomboidal sections, and spring-pressed fingers arranged diagonally of the trend of said guides, for the purposes stated.

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1,037,868. INTERNAL-COMBUSTION ENGINE. ROBERT W. COFFEN, Richmond, Va., assignor to Lewis M. Keiser, Baltimore, Md. Filed July 13, 1907. Serial No. 383,667. (Cl. 123—59.)



1. An internal combustion engine, comprising in combination, a plurality of working cylinders, a plurality of independent reservoirs, one for each working cylinder and each having a valved communication with its respective cylinder, a single compressor for simultaneously charging all the reservoirs and automatic means for actuating the valves for feeding the charges from the reservoirs to the cylinders.

2. In an internal combustion engine, the combination with a plurality of explosion cylinders and their pistons, said cylinders each having a valve closed intake in the explosion end thereof, a single compressor, a plurality of independent reservoirs communicating with the compressor to simultaneously receive and contain the gaseous fuel therefrom, a discharge from each reservoir to the valved intake in one explosion cylinder, a multiple crank shaft for operatively connecting the working pistons and compressor piston and mechanism actuated from the crank shaft for successively opening the valves to the working cylinders during the return or recharging stroke of the compressor.

3. In an internal combustion engine, the combination with a plurality of explosion cylinders and their pistons, said cylinders each having a valve controlled intake in the explosion end thereof, of a single compressor, a plurality of independent reservoirs communicating with the compressor to simultaneously receive and contain the gaseous fuel therefrom, a discharge from each reservoir to the valved intake in one explosion cylinder, a multiple crank shaft for operatively connecting the working pistons and compressor piston and mechanism actuated from the crank shaft for successively opening the valves to the working cylinders.

4. In an internal combustion engine having a plurality of working cylinders, a separate reservoir for each cylinder, a valved communication between each reservoir and the corresponding cylinder, and a single compressor for simultaneously charging all the reservoirs.

5. In an internal combustion engine having a plurality of working cylinders, a plurality of reservoirs, a pump, a passage leading from the pump to each reservoir, and means for opening and closing each such passage whereby the reservoirs may be charged simultaneously, a supply passage connecting each reservoir to a corresponding cylinder, and means for controlling each passage whereby each cylinder is charged after the ignition thereof.

[Claims 6 to 12 not printed in the Gazette.]

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1,037,898. TRANSMISSION MECHANISM. JOHN G. COLEMBOUR, Detroit, Mich., assignor to Coleridge Commercial Car Company, Detroit, Mich., a Corporation of Michigan. Filed Mar. 20, 1911. Serial No. 617,898. (Cl. 74—26.)



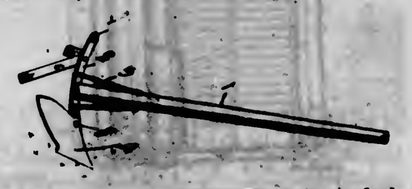
1. In a transmission mechanism, the combination of a power shaft, a pair of clutch members, fixed to rotate therewith, a driven shaft axially in alinement with said power shaft, a clutch member carried by said driven shaft in position to be engaged by one of the clutch members on the power shaft, a pair of driven shafts in parallel relation to said power shaft, a power-transmitting member rotatably carried on said power shaft and operatively connected with said pair of driven shafts, a friction wheel carried on said first mentioned driven shaft, friction disks adapted to be thrown into operative engagement with said friction wheel and deriving their actuation from said pair of driven shafts, and means for throwing one of said clutch members on the power shaft into engagement with said power-transmitting member contemporaneously with the release of the other clutch member on the power shaft from engagement with the clutch member carried on that driven shaft which is axially in alinement with the power shaft substantially as described.

2. In a transmission mechanism, in combination with a power shaft, a pair of driven shafts, one in axial alinement therewith and the other in parallel relation thereto, a power-transmitting member rotatably carried on said power shaft, means operatively connecting said power-transmitting member with the second one of said driven shafts, a friction disk deriving its actuation from said second driven shaft, a friction wheel carried by the first of said driven shafts, against which said friction disk is adapted to be operatively forced, a clutch member carried by said first named driven shaft adjacent the end of the power shaft, a pair of clutch members carried on said power shaft and rotatable therewith, and means for forcing one of said clutch members on the power shaft into operative engagement with the power-transmitting member thereon contemporaneously with the ending of the operative engagement between the other clutch member on the power shaft and the clutch member on the first driven shaft and vice versa, substantially as described.

3. In a transmission mechanism, in combination with a power shaft, a driven shaft axially in alinement therewith, a pair of driven shafts in parallel relation therewith, a friction-wheel keyed to rotate with the driven shaft, a thrust bearing in which said first named driven shaft is journaled, adapted to relieve the strain on the power shaft when the two shafts are out of operative connection, a clutch member carried on said first named driven shaft adjacent the end of the power shaft, a pair of clutch members keyed to rotate with said power shaft, one being adapted to engage the clutch member on said first named driven shaft, a power-transmitting member having an operative connection with said driven shafts which are in parallel relation to said power shaft, rotatably mounted on said power shaft, means for throwing that one of the clutch members which is adapted to engage the clutch member on the first named driven shaft into engagement therewith contemporaneously with the termination of the operative engagement between the other of the clutch members on the power shaft and said power-transmitting member, friction disks adapted to receive their actuation from said second named driven shafts, and means for forcing said disks into operative engagement with the periphery of said friction wheel substantially as described.

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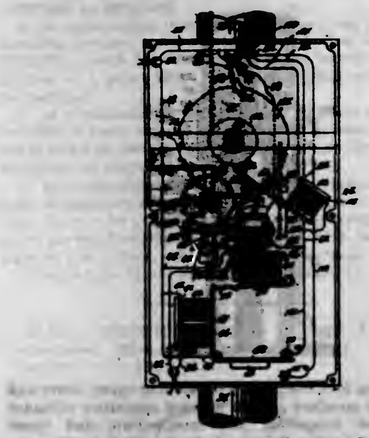
1,037,870. GARDEN IMPLEMENT. LEWIS W. COXE, Crosland, Ga. Filed Jan. 2, 1912. Serial No. 669,140. (Cl. 97—42.)



A garden implement including an arcuate standard, a handle fixedly connected to an intermediate portion of the standard, and rearwardly diverging soil engaging arms secured to the standard adjacent one end thereof.

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1,037,871. RAILWAY SIGNALING MECHANISM. WILLIAM J. COOK, Denver, Colo., assignor to The Cook Railway Signal Company, Denver, Colo., a Corporation of Colorado. Filed Mar. 25, 1911. Serial No. 616,976. (Cl. 246—22.)



1. The combination with a signal arm weighted to fall, of an electric motor for raising the said arm, a circuit in which the motor is located, a normally energized electro-magnet whose armature is arranged to close the motor circuit when in engagement with the magnet, track make-and-break devices adapted to be operated by the train for momentarily breaking the circuit through the magnet, whereby the armature moves away from the latter and breaks the motor circuit, and a normally deënergized electro-magnet whose armature is arranged to engage and lock the armature of the normally energized magnet when the armature of the last named magnet moves away from the latter when deënergized.

2. The combination with a signal arm weighted to fall, of an electric motor for raising the said arm, a circuit in which the motor is located, a normally energized electro-magnet whose armature is arranged to close the motor circuit when in engagement with the magnet, track make-and-break devices adapted to be operated by the train for momentarily breaking the circuit through the magnet, whereby the armature moves away from the latter and breaks the motor circuit, and a normally deënergized electro-magnet whose armature is arranged to engage and lock the armature of the normally energized magnet when the armature of the last named magnet moves away from the latter when deënergized, and distinct track make-and-break devices arranged to be operated by the train for momentarily closing the circuit through the normally deënergized magnet, whereby the armature of the normally energized magnet is released and allowed to move into position to close the motor circuit.

3. The combination with a signal arm weighted to fall, of an electric motor for raising the said arm, a circuit in which the motor is located, a normally energized electro-magnet whose armature is arranged to close the motor circuit when in engagement with the magnet, track make-and-break devices adapted to be operated by the train for momentarily breaking the circuit through the said magnet, whereby the armature moves away from the latter and breaks the motor circuit, a normally deënergized electro-magnet whose armature is arranged to engage and lock the armature of the normally energized magnet when it moves away from the latter, a gearing connection between the motor and the signal arm, and an electro-magnet for making and breaking said connection, the said magnet being in shunt with the motor circuit and arranged to close said connection when the magnet is energized and break the same when the magnet is deënergized.

4. The combination with a signal arm weighted to fall, of an electric motor for raising the said arm, a circuit in which the motor is located, a normally energized electro-magnet whose armature is arranged to close the motor circuit when in engagement with the magnet, track make-and-break devices adapted to be operated by the train for momentarily breaking the circuit through the said magnet, whereby the armature moves away from the latter and breaks the motor circuit, a normally deënergized electro-magnet whose armature is arranged to engage and lock the armature of the normally energized magnet when it moves away from the latter, a gearing connection between the motor and the signal arm, an electro-magnet for making and breaking said connection, the said magnet being in shunt with the motor circuit and arranged to close said connection when the magnet is energized, and break the same when the magnet is deënergized, means independent of the gearing connection for locking the signal arm in the raised position, electro-magnetic means for releasing said locking device, said electro-magnetic means deënergized by the movement of the armature away from the normally energized magnet when the latter is momentarily deënergized, the said means when deënergized serving to release the said locking device.

5. The combination with a pivotally mounted signal arm, of an electric motor for raising the said arm, a circuit in which the motor is located, an electro-magnet whose armature is arranged to close the motor circuit when in engagement with the magnet, track make and break devices adapted to be operated by a train for breaking the circuit through the magnet, whereby the armature moves away from the latter and breaks the motor circuit, and a second electro-magnet whose armature is arranged to engage and lock the armature of the first named magnet, when the armature of the first named magnet moves away from the latter when deënergized.

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1,037,872. PIPE-WRENCH. ALFRED J. COOPER, Duryea, Pa. Filed June 7, 1911. Serial No. 631,769. (Cl. 81—107.)

1. A pipe wrench embodying a head portion having two separate sockets therein, one extending longitudinally through the head portion, the other extending to a point midway the length of the head portion, a worm aperture in line with one of said sockets having an opening at one side into the other socket and extending transversely through said head portion from side to side, an outer jaw pivotally mounted in one of said sockets on an axis lying

in the plane of the end face of the other socket, a spring for holding the pivoted jaw advanced, located within the socket and seated in the bottom of the pivoted jaw, an inner jaw longitudinally movable in the other socket and having teeth on one edge, a worm journaled in the transverse aperture, whereby it is accessible from both sides of the head portion, and coöperating with said teeth, and a handle extending in alinement with the shank of the inner jaw.



2. A pipe wrench embodying a head having two separate jaw sockets therein, one extending through the head longitudinally and the other being closed at the bottom and a transverse adjusting worm aperture through the head located in line with the closed bottom socket and opening at one side into the socket, an outer jaw having a straight shank at substantially right angles to the jaw face, said shank being pivotally mounted in the closed bottom on an axis substantially in the plane of the end face of the other socket, a spring for holding the pivoted jaw advanced, a longitudinally movable jaw shank slidably mounted in said other socket, said shank being extended to form a handle and having longitudinal concavities in its opposite side faces and teeth on one of its edge faces, a jaw mounted on the end of the shank and having side lugs extending down into said concavities, a transverse pin connecting the lugs and shank, and an adjusting worm journaled in the transverse opening in the head and coöperating with said teeth to adjust the longitudinally movable shank and jaw.

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1,037,873. MACHINE FOR TRANSPARENTIZING SHEETS OF PAPER OR OTHER MATERIAL. CHARLES L. CRABB, Millington, N. J., assignor to Topping Brothers, New York, N. Y., a Corporation of New York. Filed Nov. 24, 1911. Serial No. 662,141. (Cl. 91—51—55.)

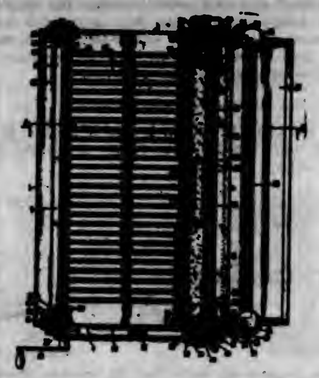
1. In a machine of the character described, a liquid bath, a set of drying rolls, a sheet carrier for conveying the sheets from the bath to the drying rolls and means for heating the liquid bath.

2. In a machine of the character described, a liquid bath, a set of drying rolls, a sheet carrier for conveying the sheets from the bath to the drying rolls and means for heating the liquid bath and drying rolls.

3. In a machine of the character described, a liquid bath, a set of feeding rolls, a set of drying rolls, a sheet carrier for conveying the sheets from the feeding rolls to the drying rolls, and means for heating the liquid bath.

4. In a machine of the character described, a liquid bath, a set of feeding rolls, a set of drying rolls, a sheet carrier for conveying the sheets from the feeding rolls to the drying rolls and means for heating the liquid bath and the drying rolls.

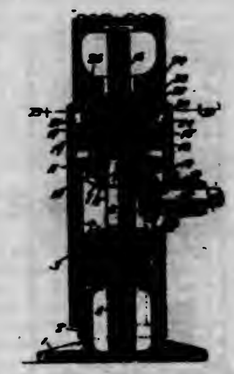
5. In a machine of the character described, a liquid bath, a set of drying rolls, and an endless tape carrier having its receiving end immersed in the bath and its delivery end in proximity to the drying rolls for conveying the sheets from the bath to the drying rolls.



[Claims 6 to 23 not printed in the Gazette.]

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1,037,874. LIFTING-JACK. CHARLES L. CRABB, Peapack, N. J., assignor to Topping Brothers, New York, N. Y., a Corporation of New York. Filed June 6, 1910. Serial No. 565,172. Renewed Feb. 2, 1912. Serial No. 675,048. (Cl. 57—44.)



1. A lifting jack comprising telescoping upper, lower and intermediate members and an inclosed oppositely threaded double screw supporting the intermediate and upper members and having its oppositely threaded portions engaged with the upper and lower members respectively.

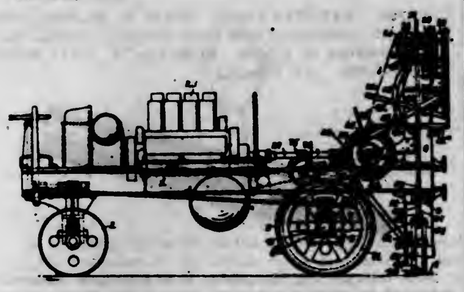
2. A lifting jack comprising telescoping upper, lower and intermediate members, an inclosed oppositely threaded double screw supporting the intermediate and upper members and having its oppositely threaded portions engaged with the upper and lower members respectively and means carried by the intermediate member for turning the screw.

3. A lifting jack comprising telescoping upper, lower and intermediate members, an inclosed oppositely threaded double screw supporting the intermediate and upper members and having its oppositely threaded portions engaged with the upper and lower members respectively and means for turning the screw comprising an operating shaft carried by the intermediate member and a bevel gear connection between the shaft and double screw.

4. A lifting jack comprising telescoping upper, lower and intermediate members, a traveling nut interlocked with the upper member and an oppositely threaded double screw supporting the intermediate and upper members and having one of its threaded portions engaged with the lower member and its other threaded portion engaged with said traveling nut.

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1,037,875. ROAD-CUTTER AND THE LIKE. LEE D. CRAIG, San Francisco, Cal., assignor to National Trenching Machine Company, Washington, D. C., a Corporation of Delaware. Filed Dec. 14, 1909. Serial No. 533,063. Renewed Feb. 3, 1912. Serial No. 675,240. (Cl. 37—50.)



1. In combination in apparatus of the class described, a penetrating tool and a breaking tool with means for operating the same, substantially as described.

2. In combination in apparatus of the class described, a tool to penetrate the material and a breaking tool, said tools working in unison and adjacent each other, substantially as described.

3. In combination in apparatus of the class described, a breaking hammer and a cutting tool attached thereto, and projecting below the same, said hammer having a breaking surface at a point above the cutting point, substantially as described.

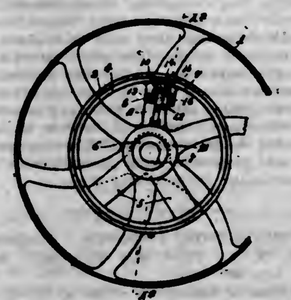
4. In combination in apparatus of the class described, a hammer, a knife attached thereto, said hammer projecting lower down on one side of the knife than on the other, substantially as described.

5. In combination in apparatus of the class described, a pair of hammers arranged on opposite sides of the line of the trench to be cut, and knives carried thereby, said hammers having bumping portions located only on the inner sides of the cutters, substantially as described.

[Claims 6 to 41 not printed in the Gazette.]

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1,037,876. FRICTION-CLUTCH. REUBEN B. DISSMOW, Owatonna, Minn. Filed Nov. 25, 1911. Serial No. 662,410. (Cl. 192—13.)



1. A clutch ring expanding member made up of main and supplemental sections connected and provided with wedge surfaces for varying the thickness of the said expanding member when one of the said sections is adjusted in respect to the other.

2. A clutch ring expanding lever made up of main and supplemental sections pivotally connected and provided with wedge surfaces for varying the thickness of the lever when one of the said members is adjusted in respect to the other.

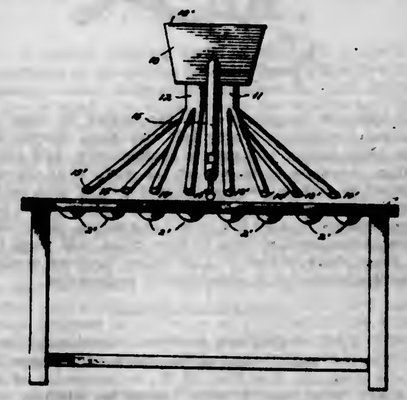
3. A clutch ring expanding lever made up of main and supplemental sections having engaging wedge surfaces for varying the thickness of the said lever, one of the said members having a segmental slot, and a bolt coöperating with the said slot to secure the said members in different adjustments in respect to each other.

4. In a friction clutch, the combination with an expansible clutch ring, of a ring expanding lever pivotally connected between the ends of the said ring and having wedge surfaces engaging the same, and which lever is made up of main and supplemental sections having engaging wedge surfaces for expanding the operative portion of the said lever, and means for securing the said main and supplemental lever sections in different adjustments.

5. In a friction clutch, the combination with an expansible clutch ring having a recess and a boss, of a ring expanding lever pivotally connected between the ends of the said ring and having wedge surfaces engaging the same, and which lever is made up of main and supplemental sections having engaging wedge surfaces for expanding the operative portion of said lever and means for securing the said main and supplemental lever sections in different adjustments, and the said lever having on one side a projecting boss and on the other side a recess engageable, respectively, with the recess and boss formed on the ends of the said ring.

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1,037,877. GAME. WILLIAM G. DOERR, Secane, Pa. Filed Dec. 12, 1911. Serial No. 665,296. (Cl. 46—61.)



1. A device of the character described, comprising a standard having a flat top, a plurality of alining openings disposed near one edge of said top, a depending pocket for each opening, a plurality of ball discharging tubes discharging into said openings, means for holding said tubes at a slant, a ball impelling tube, a deflecting casing connected to said ball impelling and ball directing tubes, and means carried by said ball impelling tube for directing the ball into said casing.

2. A device of the character described comprising a standard having a flat top, a plurality of ball receiving members mounted on said standard, a plurality of angularly disposed ball directing tubes, a casing elevated above said standard and having openings in number less than the number of tubes and communicating with the latter, and means mounted on said standard for impelling a ball into said casing.

3. A game device comprising a table having a flat top, said top formed near one edge with a plurality of ball receiving openings, pockets for said openings, a casing elevated above said top, a ball impelling tube connected to

said casing, a piston in said tube, a spring coiled around the piston rod in said tube, a push button on said piston rod arranged to compress said spring, said tube formed with a ball receiving opening, and said casing formed with discharge openings, and means carried by said casing for directing the balls through said openings into one of a series of ball discharging tubes and into a pocket.

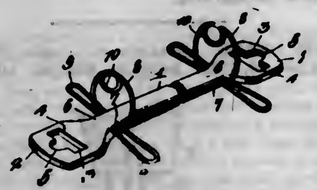
4. A device of the character described comprising a standard having a flat top, a plurality of ball receiving pockets mounted on said top, a casing elevated upon said top, a plurality of depending tubes connected to said casing and having each a plurality of discharge pipes disposed at an angle over said pockets, and means for impelling a ball into said casing.

5. A game device comprising a table, a plurality of ball receiving pockets disposed in alinement upon said table, a plurality of ball directing tubes having their outlet ends spaced above said openings, and arranged to empty thereinto, means for holding said tubes at an angle over the table, a plurality of inlet tubes connected to said first named tubes and being of a lesser number, means for impelling a ball into said last named tubes, and an angularly disposed plunger for actuating said means.

[Claims 6 to 10 not printed in the Gazette.]

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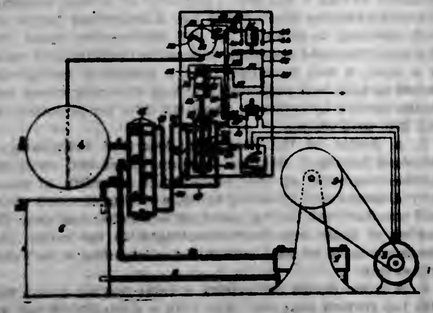
1,037,878. BRIDLE-BIT. THOMAS F. DOLAN, Cando, N. D. Filed Oct. 28, 1911. Serial No. 657,245. (Cl. 54—7.)



A bridle-bit comprising a bit-bar having its outer end portions flattened and provided with slots therein, said slots being arranged to receive guiding reins, said bit-bar having transverse holes through the portions of the same adjacent to said flattened portions, a pair of wire holders disposed in said holes having portions bent so as to form loops arranged to keep the bit-bar in position, said holders having other portions bent to form rings, said rings having inner rings formed in their upper portions arranged to receive bridle-straps, substantially as described.

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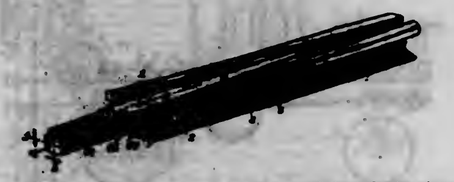
1,037,879. PUMPING SYSTEM. EDWARD L. DUNN, Worcester, Mass., assignor to Standard Plunger Elevator Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 3, 1909. Serial No. 516,100. (Cl. 103—99.)



The combination in a pumping system, with a pressure tank and a low pressure supply, of a continuously operating pump connected between the supply and the pressure tank, a piston operated direction valve connected to permit the pump to discharge into the low pressure supply or to close such discharge, and means for controlling said direction valve comprising a pilot valve having passages for motor fluid connected to the respective sides of said direction valve for moving it in opposite directions, means for moving said pilot valve in one direction by tank pressure, a solenoid for moving it in the other direction, and a pressure operated switch for controlling said solenoid.

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1,037,880. RAILWAY-FROG. HENRY G. ELDRIDGE, Chicago, Ill., assignor to Ajax Forge Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 21, 1911. Serial No. 623,496. (Cl. 104—5.)



1. A railway frog comprising in one integral structure a floor plate having a point and wing flanges formed thereon, side walls depending from said floor plate, said side walls and the part of the floor plate between said side walls extending outwardly beyond the remainder of the structure to form a rail joint projection, and a substantially horizontal web joining said side walls and extending longitudinally from a point outside of the base of said projection to a point inside thereof.

2. A railway frog comprising in one integral structure a floor plate having a point and wing flanges formed thereon, side walls depending from said floor plate, said side walls and the part of the floor plate between said side walls extending outwardly beyond the remainder of the structure to form a rail joint projection, rails secured to said rail joint projection, and a substantially horizontal web integral with said joining said side walls and extending longitudinally across the extreme ends of said rails.

3. A railway frog comprising in one integral structure a floor plate having a point and wing flanges formed thereon, side walls depending from said floor plate, base flanges projecting outward from said side walls, the part of said side walls above the base flanges and the part of the floor plate between the side walls extending outwardly beyond the remainder of the structure to form a projection for connection with the point rails, and a substantially horizontal web joining said side walls and extending longitudinally across the junction between the main body of said side walls and the projecting part thereof.

4. A railway frog comprising in one integral structure a floor plate having a point and wing flanges formed thereon, side walls depending from said floor plate, said side walls and the part of the floor plate between said side walls extending outwardly beyond the remainder of the structure to form a rail joint projection, a substantially horizontal web joining said side walls and extending longitudinally from a point outside of the base of said projection to a point inside thereof, and fillets connecting said side walls, said projection being provided with transverse bolt holes extending through said fillets.

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1,037,881. EDIBLE OIL PRODUCT. CARLETON ELLIS, Montclair, N. J. Filed May 26, 1912. Serial No. 700,294. (Cl. 99—13.)

1. The process of making an edible oil which comprises hydrogenating cotton seed oil and cocoanut oil, and in emulsifying cream.

3. The process of making an edible oil which comprises hydrogenating cotton seed oil, adding cocoanut oil and agitating to introduce a volume of air at least 5% of the volume of the oil composition.



5. An edible oil composition comprising hydrogenated cotton seed oil and cocoanut oil containing entrained air.

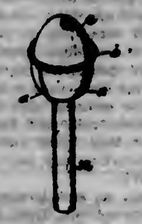
4. An edible oil composition comprising edible hydrogenated vegetable oil containing entrained air.

5. An edible oil composition comprising hydrogenated cotton-seed oil containing entrained air.

[Claims 6 to 24 not printed in the Gazette.]

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1,037,882. HOLDING DEVICE. HOWARD HANCHOW, Beverly, Mass. Filed Dec. 18, 1911. Serial No. 666,366. (Cl. 65—52.)



In a holding device of the character described, a basket for the reception of the article to be held having a rim member composed of a spiral spring, resilient arms to which said spring is secured substantially at the center of the bottom of the basket, and a handle to which said arms are secured, substantially as described.

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1,037,883. WATERPROOF CABLE. HENRY W. FISHER, Pittsburgh, Pa., assignor to Standard Underground Cable Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 30, 1912. Serial No. 674,052. (Cl. 173—264.)



1. An electrical cable, consisting of a conductor surrounded successively by a body of non-absorbent insulating material, a layer of asphaltum, and a covering of non-absorbent material, substantially as described.

2. An electrical cable, consisting of a conductor surrounded successively by a body of insulating material, a wrapping of varnish cloth, a layer of asphaltum, and a wrapping of varnished cloth, substantially as described.

3. In an electrical cable, the combination with a conductor, of a layer of asphaltum incased between wrappings of varnished cloth and surrounding said conductor, substantially as described.

4. An electrical cable, consisting of a conductor surrounded successively by a body of insulation having a non-absorbent exterior surface, a layer of asphaltum, and a wrapping of varnished cloth, substantially as described.

5. In a cable construction, the combination of an electrical conductor, a body of non-absorbent insulation adequate in and of itself to protect a current flowing in said conductor, a layer of asphaltum and a wrapping of varnished cloth, substantially as described.

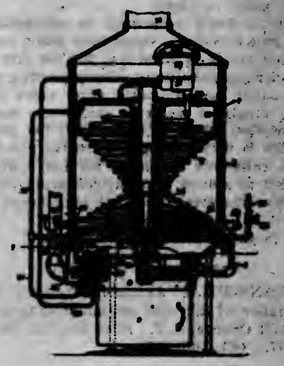
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1,037,884. STEAM-BOILER. LOUIS W. G. FLINT, Rochester, N. Y., assignor to Domestic Appliances Company, a Corporation of New York. Filed Nov. 4, 1910. Serial No. 590,702. (Cl. 122—448.)

1. A vacuum creating steam-generator for domestic use comprising an air-suction passage, a continuous flow boiler having a water inlet and a permanently open discharge orifice of fixed size, a gas burner for heating said boiler adapted to be connected with the gas service-pipe of the building in which the generator is installed, a valve for the supply of gas to the burner, in combination with an automatic water valve adapted to produce normally a continuous flow of substantially fixed quantity to said boiler inlet from a water service-pipe of said building, and an automatic actuator for said gas-supply valve, which is subject to the opposed pressures of the water in the water service-pipe and of the steam in the boiler, being moved to open said valve by the pressure of the water in the water service-pipe, and to hold said valve open against steam pressure in the boiler at a predetermined pressure less than the water pressure, and being moved to close said valve when the steam pressure approaches the water pressure.

2. A vacuum creating steam-generator for domestic use comprising an air-suction passage, a continuous flow boiler having a water inlet and a permanently open discharge orifice of fixed size, a gas burner for heating said boiler adapted to be connected with the gas service-pipe of the building in which the generator is installed, and a valve for the supply of gas to the burner, in combination with an automatic water valve adapted to produce normally a continuous flow of substantially fixed quantity to said boiler inlet from a water service-pipe of said building, and an automatic actuator for said gas-supply valve, which is subject to the opposed pressures of the water in the water service-pipe and of the steam in the boiler, being moved to open said valve by the pressure of the water in the water service-pipe, and to hold said valve open against steam pressure in the boiler at a predetermined pressure less than the water pressure, and being moved to close said valve when the steam pressure approaches the water pressure.

3. A steam-generator for domestic use comprising a continuous flow boiler having a water inlet and a permanently open discharge orifice of fixed size for the free discharge of steam under all conditions, a gas burner for heating said boiler adapted to be connected with the gas service-pipe of the building in which the generator is installed, a valve for the supply of gas to the burner, in combination with an automatic water valve adapted to produce normally a continuous flow of substantially fixed quantity to said boiler inlet from a water service-pipe of said building, and an automatic actuator for said gas-supply valve which is subject to the opposed pressures of the water in the water service-pipe and of the steam in the boiler, being moved to open said valve by the pressure of the water in the water service-pipe and to hold said valve open against steam pressure in the boiler at a predetermined pressure that is less than the water pressure, and being moved to close said valve when the steam pressure approaches the water pressure.



4. A steam-generator comprising, in combination, a continuous flow boiler having a water inlet and a permanently open discharge orifice of fixed size for the free

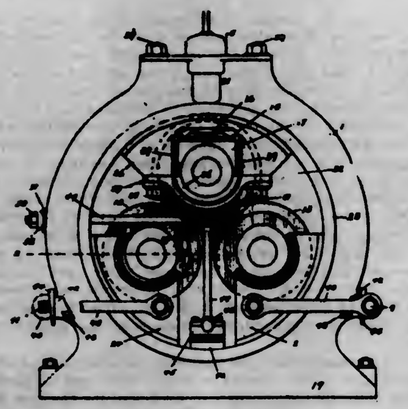
charge of steam under all conditions, a gas burner for heating the boiler adapted to be connected with the gas service-pipe of the building in which the generator is installed, a valve for the supply of gas to the burner, a water valve adapted to control the admission of feed-water and adapted to produce normally a continuous flow of substantially fixed quantity to said boiler inlet from a water service-pipe, which is open when the generator is idle and which is normally open when the generator is in use, and an automatic actuator for said gas supply valve which is subject to the opposed pressures of the water in the water service-pipe and of the steam in the boiler, being moved to open said valve by the pressure of the water in the water service-pipe and to hold said valve open against steam pressure in the boiler at a predetermined pressure that is less than the water pressure, and being moved to close said valve when the steam pressure approaches the water pressure.

5. A steam-generator comprising, in combination, a continuous flow boiler having a water inlet and a permanently open discharge orifice of fixed size for the free discharge of steam under all conditions, heat-producing means for heating the boiler, an automatic water valve adapted to regulate the supply of water to said boiler inlet from a water service-pipe, which is open when the generator is idle and which is normally open when the generator is in use, and an automatic regulator for the heat-producing means adapted to reduce the heat-producing effect of the latter whenever the steam pressure approaches the water pressure.

[Claims 6 to 18 not printed in the Gazette.]

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1,037,885. CANE-MILL. JAMES H. FOGARTY, New York, N. Y., assignor of fifty-one one-hundredths to Emile J. Méténié, East Orange, N. J. Filed Dec. 15, 1910. Serial No. 597,507. (Cl. 100—47.)



1. In a roller-mill, an end housing having a large circular opening (22) therein whose edge wall affords a uniform, bearing surface, bearings set within said opening and against said wall, and rolls mounted in said bearings, said bearings and wall having interengaging surface formations to aid in placing the said bearings and resisting lateral displacement of the same, and said opening permitting the insertion and removal therethrough of the said rolls and their bearings; substantially as set forth.

2. In a roller-mill, an end housing having therein a large opening (22) whose internally opposite lower edge walls are on the line of a half-circle, means supporting the top-roll, oppositely disposed bearings having their outer edges fitted to said edge-walls, lower rolls mounted in said bearings and means independently securing and permitting the adjustment of said bearings and their rolls, said opening enabling the sliding downwardly of said lower rolls and their bearings to free the top roll and permit the removal of any or all of the rolls and their bearings through the said opening; substantially as set forth.

3. In a three-roll cane-mill, an end housing having therein a large circular opening, a bearing support for the top roll secured against the upper edge wall of said opening, oppositely disposed bearings mounted on the opposite lower edge walls of said opening and slidable toward and from each other, lower rolls mounted in said bearings and means independently securing and permitting the adjustment of said bearings and their rolls, said opening enabling the sliding downwardly of said lower rolls and their bearings to free the top roll and permit the removal of any or all of the rolls and their bearings through the said opening; substantially as set forth.

4. In a three-roll cane-mill, an integral one-piece end housing having a commodious opening therein, bearings mounted within said opening for the rolls, and rods pivoted to the bearings for the lower rolls and extending outwardly from the housing for securing and adjusting the relative positions of said lower rolls and their bearings, all said rolls and their bearings being removable through said opening without disturbing any part of the housing; substantially as set forth.

5. In a roller-mill, an end housing having therein an end opening, a bearing-block fitted to the upper edge of said opening and having an open central portion and bearings therein for the upper roll, bolts detachably securing said block in position, bearing-supports slidably mounted in opposite sides of the lower portion of said opening for the front and rear lower rolls, and means for securing said supports, the top bearing for the upper roll being vertically movable in said bearing-block and said block taking the weight of said roll; substantially as set forth.

[Claims 6 to 9 not printed in the Gazette.]

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1,037,888. REINFORCED CURTAIN-ROLLER. WILLIAM H. FORSYTH, Chicago, Ill., assignor to The Curtain Supply Company, Newark, N. J., a Corporation of New Jersey. Filed June 12, 1911. Serial No. 632,660. (Cl. 156—29.)



1. In a curtain roller, the combination of an outer tube comprising a plurality of sections, and an inner reinforcing tube extending through one of said sections and into each of the adjacent sections, substantially as described.

2. In a vestibule curtain roller, the combination of an outer tube comprising a plurality of sections having an inwardly projecting rib, and a reinforcing tube extending through one of the sections and into adjacent sections of said outer tube, said inner tube having a groove for the accommodation of the rib of said outer tube, substantially as described.

3. In a vestibule curtain roller, the combination of an outer tube, and a reinforcing tube within said outer tube and extending through its central portion, whereby the outer tube is prevented from bending when tension is applied to said central portion, said tubes having an interlocking engagement one with the other, substantially as described.

4. In a vestibule curtain roller, the combination of an outer tube comprising a plurality of sections, and a reinforcing tube extending through one or more of the central sections of said outer tube into the adjacent sections, whereby said roller is prevented from bending when subjected to tension at its central portion, said tubes having interengaging indentations charged with solder, substantially as described.

5. In a vestibule curtain roller, the combination of a metallic tube having an inwardly projecting rib and comprising a plurality of sections, and a reinforcing inner metallic tube having a groove for the accommodation of said inwardly projecting rib and located within one of the central sections of said outer tube, the ends of said inner tube engaging sections adjacent to said central section, whereby the central portion of said roller is adapted to resist tension applied substantially at right angles to its longitudinal axis, substantially as described.

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1,037,887. PROCESS OF PLATING METALS. MILTON W. FRANKLIN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Aug. 4, 1911. Serial No. 642,267. (Cl. 204—3.)

1. The process of preparing non-conducting surfaces to receive an electrolytic deposit which consists in covering said surface with a film of adhesive material permeable with respect to the electrolyte in which the object is to be plated, incorporating conductive material into the adhesive film and electro-plating a metallic coating thereon.

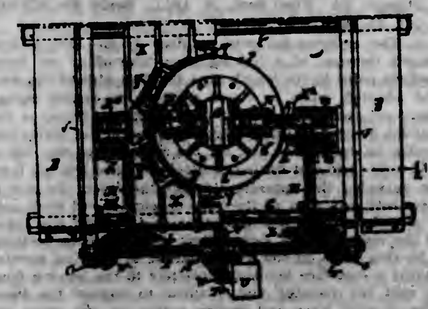
2. The process of preparing a non-conductive surface to receive an electrolytic deposit which consists in covering said surface with a thin layer of adhesive material permeable and soluble in the solution which will subsequently form the plating bath, working a conductive powder into said adhesive and electro-plating a metallic coating thereon.

3. The process of preparing vitreous surfaces to receive an adherent electrolytic deposit of metal which consists in applying a thin coating of water soluble gum upon said surface, and incorporating into said coating a finely powdered conducting material.

4. The process which consists in coating a non-conducting surface with a soluble gum, incorporating a finely powdered conducting metal into said gum, and utilizing the resulting conductive layer as cathode in a plating bath.

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1,037,889. MACHINE FOR MAKING PIPES. JOHN FRASER, Hackensack, N. J. Filed Nov. 8, 1909. Serial No. 526,854. (Cl. 78—13.)

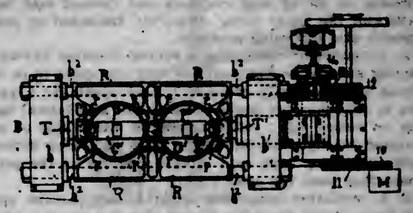


1. An apparatus for closing longitudinal lock-bar pipe joints, comprising a vertical standard with rolls for the inner faces of the lock-bars, in combination with a horizontal frame, adjustable cross-heads on the latter carrying rolls for the outer faces of the lock-bars, and means for driving said outer rolls.

2. Apparatus for closing longitudinal lock-bar pipe joints, comprising a vertical standard with inner rolls, and a horizontal frame with coöperating outer rolls, the rolls being in successive pairs differently spaced to complete the rolling down of the lock-bars on the edges of the plates by successive operations, as and for the purpose described.

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1,037,890. PRESS FOR MAKING PIPES. JOHN FRASER, Hackensack, N. J. Filed Nov. 20, 1909. Serial No. 529,114. (Cl. 78—13.)



1. In an apparatus for closing longitudinal lock-bar pipe joints, a horizontal frame and guides for two pipes, said guides movable horizontally on the frame in combination with a series of squeezing tools in line with each other, comprising a fixed tool on the frame, another tool reciprocating in the frame, and intermediate tools, upright rods for supporting said intermediate tools and means for actuating the reciprocating tool.

2. In an apparatus for closing longitudinal lock-bar pipe joints, the combination of guides for two pipes with a series of squeezing tools in line with each other, comprising a fixed and reciprocating tool and intermediate tools, one within each pipe and one between adjacent pipes, substantially as described.

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1,037,890. VENTILATOR. THOMAS H. GARLAND, Chicago, Ill. Filed May 22, 1911. Serial No. 628,755. (Cl. 98—22.)



1. A ventilator comprising substantially parallel upper and lower plates, the latter having a central opening adapted to communicate with the space to be ventilated; walls extending between said plates and forming a central chamber over said opening and having lateral openings in opposite sides; and walls extending between said plates at opposite sides of said chamber and forming with the adjacent walls of said chamber two channels passing respectively before said openings; said upper and lower plates overhanging said chamber and channel walls both at the sides and ends of the ventilator.

2. A ventilator comprising substantially parallel upper and lower plates, the latter having a central opening adapted to communicate with the space to be ventilated; walls extending between said plates and forming a central chamber over said opening and having lateral openings in opposite sides; and walls extending between said plates at opposite sides of said chamber and forming with the adjacent walls of said chamber two channels passing respectively before said openings; said upper and lower plates overhanging the said chamber and channel walls at the ends of the said two channels passing before the lateral openings.

5. A ventilator comprising substantially parallel upper and lower plates, the latter having a central opening adapted to communicate with the space to be ventilated; walls extending between said plates and forming a central chamber over said opening and having lateral openings in its opposite sides; a partition in said chamber positioned with said lateral openings on either side; and walls extending between said plates at opposite sides of said chamber and forming with the adjacent walls of said chamber two channels passing respectively before said lateral openings, said chamber walls having deflected portions for deflecting the currents of air in said channels and toward said outer walls and the latter being outwardly distended at points opposite said deflecting portions.

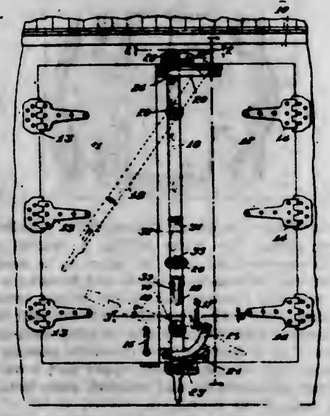
4. A ventilator comprising a central chamber having an opening adapted to communicate with the space to be ventilated and oppositely disposed lateral openings; a partition in said chamber positioned with the said lateral openings on either side; and channels on either side of said chamber passing said lateral openings and being diverted outwardly away from said lateral openings at the points where they pass the same.

5. A ventilator comprising substantially parallel upper and lower plates, the latter having a central opening adapted to communicate with the space to be ventilated; walls extending between said plates and forming a central chamber over said opening and having lateral openings in its opposite sides; walls extending between said plates at opposite sides of said chamber and forming with the adjacent walls of said chamber two channels passing respectively before said lateral openings, said chamber walls having deflecting portions for deflecting the currents of air in said channels toward said outer walls and the latter being outwardly deflected at points opposite said deflecting portions; and intermediate walls located in the ends of said channels and having deflecting portions to deflect the air toward said outer walls.

[Claims 6 to 8 not printed in the Gazette.]

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**1,037,891. CLOSING DEVICE FOR REFRIGERATOR-CAR DOORS.** THOMAS H. GARLAND, Chicago, Ill. Filed July 10, 1911. Serial No. 637,814. (Cl. 16—61.)



1. The combination with a door frame and a door hinged thereon, of vertically disposed locking levers pivoted to the upper and lower portions of the door respectively so as to move in planes substantially parallel to the plane of said door, means for holding the inner ends of the levers in locking position, and means coöperating with the outer ends of said levers and the adjacent portions of said door and frame to close the door tightly against said frame upon the movement of said levers to locking position.

2. The combination with a door frame and a door hinged thereon, of vertically disposed locking levers pivoted to the upper and lower portions of the door respectively so as to move in planes substantially parallel to the plane of said door, means for holding the inner ends of the levers in locking position, cam-bearing faces at the upper and lower edges of the door for engaging the inner sides of said levers as they are moved into locking position, and similar overhanging cam-bearing faces on the adjacent portions of said frame for engaging the outer sides of said levers as they are moved into locking position.

3. The combination with a door frame and a door hinged thereon, of vertically disposed locking levers pivoted to the upper and lower portions of the door respectively so as to move in planes substantially parallel to the plane of said door, means for holding the inner ends of the levers in locking position, cam-bearing faces at the upper and lower edges of the door for engaging the inner sides of said levers as they are moved into locking position, similar overhanging cam-bearing faces on the adjacent portions of said frame for engaging the outer sides of said levers as they are moved into locking position, and guides upon said door for engaging the outer ends of said levers.

4. The combination with a door frame and a door hinged thereon, of vertically disposed locking levers pivoted to the upper and lower portions of the door respectively so as to move in planes substantially parallel to the plane of said door and having jointed inner ends adapted to overlap when said levers are in locking position, means coöperating with the outer ends of said levers and the adjacent portions of said door and frame to close the door tightly against said frame upon the movement of said levers to locking position, and a staple secured to said door and adapted to extend through openings in the overlapping jointed ends of said levers whereby the latter may be locked or sealed.

5. The combination with a door frame and a door hinged thereon, of vertically disposed locking levers pivoted to the upper and lower portions of the door respectively so as to move in planes substantially parallel to the plane of said door, means for holding the inner ends of the levers in locking position, means coöperating with the outer ends of said levers and the adjacent portions of said door and frame to close the door tightly against said frame upon the movement of said levers to locking position, a hand-hold at the lower end of said lower lever extending below the door when said lever is in locking position, and means for stopping the opening movement of said lower lever when said hand-hold has moved above the lowermost edge of said door.

[Claims 6 to 9 not printed in the Gazette.]

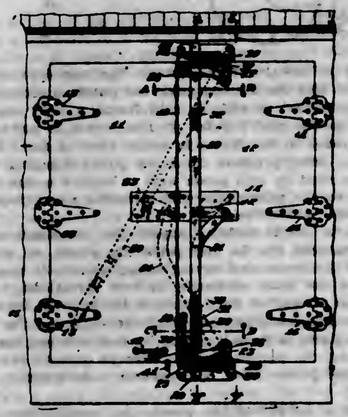
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**1,037,892. CLOSING AND OPENING DEVICE FOR REFRIGERATOR-CAR DOORS.** THOMAS H. GARLAND, Chicago, Ill. Filed Sept. 20, 1911. Serial No. 650,448. (Cl. 16—61.)

1. The combination with a door frame and a door hinged thereon, of a locking lever pivoted at an intermediate point in its length near the free edge of the door and adapted, when in closed position, to extend beyond the door over the adjacent portion of the frame, a lug member secured to said adjacent portion of the frame and having an open-ended slot for the reception of one end of said lever, said slot having similarly inclined bearing faces for engaging the opposite sides of the lever, the one to force said door shut as the lever is being moved from open to closed position, and the other to force the door open as the lever is being moved from closed to open position, a bearing plate on the door adjacent to said lug member having a cam face inclined oppositely to the bearing faces of said lug member and adapted to engage the inner side of said lever and means acting on the other end of said lever to hold it in locking position.

2. The combination with a door frame and a door hinged thereon, of a locking lever pivoted at an intermediate point in its length near the free edge of the door and adapted, when in closed position, to extend beyond the door over the adjacent portion of the frame, a lug member secured to said adjacent portion of the frame and having an open-ended slot for the reception of one end of said lever, said slot having similarly inclined bearing faces for engaging the opposite sides of the lever, the one to force said door shut as the lever is being moved from open to closed position, and the other to force the door open as the lever is being moved from closed to open position, a bearing plate on the door adjacent to said lug member having a cam face inclined oppositely to the bearing faces of said lug member and adapted to engage the inner side of said lever, a guide upon the door adjacent to said cam face operating to take the strain from said lever in case it is improperly forced into engagement with said lug member by the closing of the door with the lever in the wrong position and means acting on the other end of said lever to hold it in locking position.





3. The combination with a door frame and a door hinged thereon, of a locking lever pivoted near the free edge of the door and adapted, when in closed position, to extend beyond the door over the adjacent portion of the frame, a wedge block on the outer end of said lever, and a lug member secured to said adjacent portion of the frame and having an open-ended slot for the reception of said wedge member and the portion of the lever to which it is attached, said slot having similarly inclined bearing faces, the one to engage said bearing block to force said door shut as the lever is being moved from open to closed position, and the other to engage the inner side of the outer end of said lever to force the door open as the lever is being moved from closed to open position, the inclination of the outer face of the wedge block being the same as that of the inclined faces of the lug member when the parts are in closed position, whereby a good bearing is maintained between the said lever and lug member when the door is closed.

4. The combination with a door frame and a door hinged thereon, of locking levers pivoted to the upper and lower portions of the door respectively, means coöperating with the outer ends of said levers to force the door shut upon the closing movement of said levers, a handle at the lower end of said upper lever, and a link connecting the upper end of said lower lever to said upper lever at a point below the latter's pivotal connection to the door.

5. The combination with a door frame and a door hinged thereon, of locking levers pivoted to the upper and lower portions of the door respectively, means coöperating with the outer ends of said levers to force the door shut upon the closing movement of said levers, said levers overlapping each other when in closed position and the upper lever having a jointed end, a staple on the lower lever adapted to pass through an opening in said jointed end to enable the levers to be locked together, a handle at the lower end of said upper lever, and a link connecting the upper end of said lower lever to said upper lever at a point below the latter's pivotal connection to the door.

[Claims 6 to 10 not printed in the Gazette.]

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**1,037,893. DOOR OPERATOR AND LOCK.** THOMAS H. GARLAND, Chicago, Ill. Filed Apr. 3, 1912. Serial No. 688,275. (Cl. 70—162.)



1. The combination with a sliding door and a coöperating jamb, of a lever pivoted to said jamb, a detachable connection between said door and lever, including a member movable independently of said door and lever, whereby, in response to the operation of said lever in one direction, said door may be closed tight against said jamb, and means responsive to the operation of said lever in the other direction to force said door from said jamb.

2. The combination with a sliding door and a coöperating jamb, of a lever pivoted to said jamb and having open and closed positions corresponding to the open and closed positions of said door, and means, including a member movable independently of said door and lever, for connecting the open lever to the open door and closing said door tight against said jamb in response to the closing movement of said lever.

3. The combination with a sliding door and a coöperating jamb, of a lever pivoted to said jamb and having open and closed positions corresponding to the open and closed positions of said door, and means, including a projection extending between said jamb and door, responsive to the opening movement of said lever to force said door from said jamb.

4. The combination with a sliding door and a coöperating jamb, of a lever pivoted to said jamb and having open and closed positions corresponding to the open and closed positions of said door, means, including a member movable independently of said door and lever, for connecting the open lever to the open door and closing said door tight against said jamb in response to the closing movement of said lever, and means independent of said member for forcibly opening said door from said jamb in response to the opening movement of said lever.

5. The combination with a sliding door and a coöperating jamb, of a lever pivoted to said jamb and having open and closed positions corresponding to the open and closed positions of said door, and a hook and hasp for connecting the open lever to the open door and closing said door tight against said jamb in response to the closing movement of said lever, said hasp having a movement independent of said door and lever.

[Claims 8 to 11 not printed in the Gazette.]

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**1,037,894. HOT-AIR HEATER.** JOHN H. GARDEN, Kingwood, W. Va. Filed Aug. 5, 1911. Serial No. 642,818. (Cl. 126—60.)

1. In a heater, a lower air supplying chamber, the wall of which consists of a stationary ring and an annu-

latory nested ring, both of which rings are apertured to provide air admitting ports to the chamber, means to oscillate one of the rings to regulate the admission of air to the chamber, a casing disposed above the air supplying chamber, a series of vertically disposed tubes having their lower ends in communication with the chamber, and their body portions within the casing, a dome having a concentric smoke outlet mounted above the casing and having the upper ends of the tubes disposed therein to cause communication therewith and the chamber, each of said tubes being shouldered upon their inner face near their upper ends, a ring mounted upon said shoulders, a damper mounted to control the opening in said ring, and a fire-box disposed within the lower end of the casing and also within the tubes.



2. In a heater, a lower air supplying chamber, the wall of which consists of a stationary ring and an oscillatory nested ring, both of which rings are apertured to provide air admitting ports to the chamber, means to oscillate one of the rings to regulate the admission of air to the chamber, a casing disposed above the air supplying chamber, a series of vertically disposed tubes having their lower ends in communication with the chamber, and their body portions within the casing, a dome having a concentric smoke outlet mounted above the casing and having the upper ends of the tubes disposed therein to cause communication therewith and the chamber, each of said tubes being shouldered upon their inner face near their upper ends, a ring mounted upon said shoulders, a damper mounted to control the opening in said ring, and a fire-box disposed within the lower end of the casing and also within the tubes, and a mineral wool packing at the ends of the tubes, casing, and between the walls of the casing.

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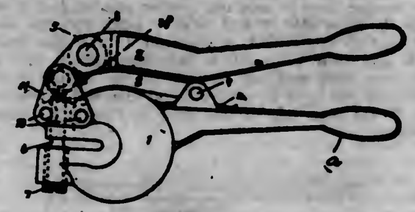
1,037,895. SWINGLETREE. JEPTHA CASS GARRIGUS, Banks, Oreg. Filed June 16, 1910. Serial No. 567,326. (Cl. 21—78.)



A whiffle-tree having about at its center a fixed metallic sleeve, said fixed metallic sleeve being provided with a loop arranged thereon and extending therefrom, said loop being located on said metallic sleeve to one side of the longitudinal center or axis of the whiffle-tree, a ring loosely encompassing said whiffle-tree, said ring being held in position around the said metallic sleeve by means of said loop, a vehicle attaching ring connected with the first mentioned ring by means of which vehicle attaching ring the whiffle-tree is connected to the vehicle, and a swivel at each end of said whiffle-tree for connection with the usual traces, said swivel being arranged and provided to relieve any twisting of the usual traces upon rotation of the whiffle tree within its encompassing ring, substantially as described and for the purposes set forth.

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1,037,899. METAL-WORKING PUNCH. ARTHUR L. GOSMAN, Rockford, Ill. Filed Sept. 16, 1909. Serial No. 517,044. (Cl. 164—120.)



1. In a metal-working punch the combination of a frame to hold the die and guide the punch, a reciprocating punch mounted to slide in said frame, a lever connected to the punch and pivoted to the frame, a power lever also pivoted to the frame to swing about a fixed fulcrum so as to bring pressure upon the punch-engaging arm, a roller carried by said power arm to engage a cam surface formed on the punch arm with a rolling engagement, substantially as described.

2. In a metal-working punch the combination of a frame to hold the die and guide the punch, an arm pivoted to the frame and having engagement with the punch to move the same vertically in both directions, a power arm also pivoted on fixed bearings in the main frame, and a roller interposed between the power arm and the punch-engaging arm to form a rolling contact between the power lever and the punch arm in order to operate the punch when the power lever is depressed, substantially as described.

3. In a metal-working punch the combination of the frame constructed to hold the die and guide the punch, an arm pivoted thereto and having engagement with the punch to move it to and fro, a power arm fulcrumed in the vertical plane coinciding with the movement of the punch, an antifriction roller interposed between the power lever and the punch arm journaled upon the power lever and having a rolling engagement with an eccentric portion of the punch arm in order to depress the punch, substantially as described.

4. A metal-working punch embracing in its construction the frame for holding the die and guiding the punch, a swinging arm pivoted to said frame and having engagement with said punch to raise and to depress the same, a power lever fulcrumed to said frame and provided adjacent to its fulcrum with forked arms, a roller pivotally mounted between said forked arms to have engagement with the top of the punch arm, the forked arms being provided with projections adjacent to the fulcrum adapted to engage projections arranged on the outside faces of the punch arm in order to lift said punch arm and punch when the power lever is swung in the reverse direction, substantially as described.

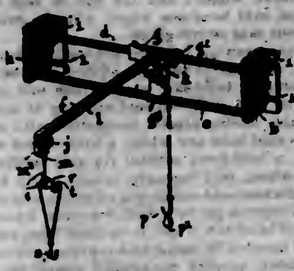
5. In a metal-working punch the combination of a main frame for holding the die and guiding the punch, a punch-engaging arm pivoted thereon to move the punch to and fro, yielding means for limiting the movement of the punch arm away from the frame, and a power lever fulcrumed to said frame so as to engage the punch arm and operate the punch thereby, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

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1,037,897. THAT-CUP SUPPORT TO FACILITATE MILKING. ROBERT STANISLAUS GOLDSTRAW, Camperdown, Victoria, Australia. Filed Mar. 11, 1912. Serial No. 682,969. (Cl. 21—76.)

1. In a device of the character described, the combination with a support, of a cord carried thereby, hooks at the inner and outer ends of said cord, a weight at the inner end of the cord, and a claw adapted to be engaged by the hooks as described.



2. In a device of the character described, the combination with a support, of a member having a slidable connection with said support, pulleys carried by said slidable member, a cord passing over said pulleys, hooks at the inner and outer ends of the cord, a weight carried by the hook at the inner end of the cord, a stop on the outer portion of the cord, a claw adapted to be engaged by the hooks, and means for taking up slackness of the said outer portion of the cord when the hooks are set in supporting position.

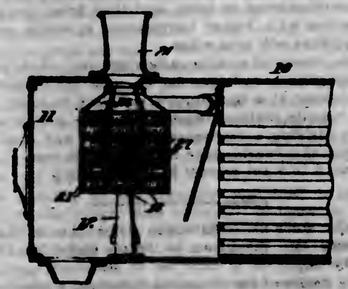
3. In a device of the character described, the combination with a supporting rail, of a member slidably mounted on the rail and projecting outwardly therefrom, pulleys carried by said slidable member, a cord passing over said pulleys, hooks at the inner and outer ends of the cord, a weight carried by the hook at the inner end of the cord, a stop on the outer portion of the cord, a claw adapted to be engaged by the hooks, and means for taking up slackness of the said outer portion of the cord when the hooks are set in supporting position.

4. In a device of the character described, the combination with a cord, an adjustable carrier therefor, hooks at the ends of the cord, and means for taking up slackness of the cord.

5. In a device of the character described, the combination with a cord, an adjustable carrier therefor, hooks at the ends of the cord and means for taking up slackness of the cord comprising a cord grip having eyes at one end through which the cord passes and an eye at the other end to which the cord end is fastened.

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1,037,898. SPARK-ARRESTER. ANDREW WALTER GRAHAM, Bradford, Pa., assignor of twenty-four and three-fourths one-hundredths to Ransom G. Landon and twenty-four and three-fourths one-hundredths to John C. McCrea, Bradford, Pa. Filed Apr. 11, 1911. Serial No. 620,447. (Cl. 110—122.)



1. A spark arrester comprising a nozzle, a plurality of spaced panels surrounding the nozzle, and baffle plates connecting adjacent panels and provided with a plurality of openings that are surrounded by spark disintegrating teeth.

2. A spark arrester comprising an exhaust nozzle, a plurality of panels surrounding the said nozzle and arranged radially, and baffle plates connecting adjacent panels and provided with openings that are surrounded by spark disintegrating means.

3. A spark arrester comprising an exhaust nozzle, a support mounted on the nozzle, a plurality of radiating panels carried by the support, a plurality of baffle plates connecting adjacent panels, and additional baffle plates connecting the inner edges of adjacent panel plates.

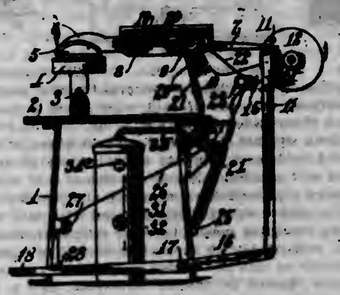
4. A spark arrester comprising an exhaust nozzle, panels arranged in radial spaced relation and surrounding the nozzle, and baffle plates connecting adjacent panels and provided with cinder disintegrating means.

5. A spark arrester comprising an exhaust nozzle, a series of spaced vertically disposed radial panels surrounding the nozzle, a plurality of baffle plates connecting adjacent panels and provided with spark disintegrating means.

[Claims 6 to 14 not printed in the Gazette.]

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1,037,899. CLOTHES-PRESSING MACHINE. DAVID C. HALL, Jr., Cincinnati, Ohio. Filed Aug. 16, 1911. Serial No. 644,490. (Cl. 68—8.)



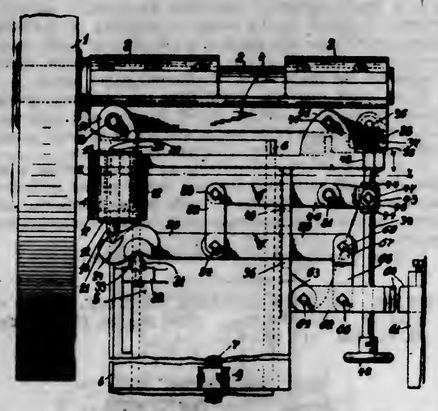
1. In a device of the type specified, a pressing buck, a vertically and horizontally movable pressing head mounted above said buck, a sliding lever upon which said head is mounted, a gear adapted to move said lever horizontally, a chain adapted to rotate said gear, a resilient member to which said chain is connected, a foot lever connected to said chain, disks mounted on either side of said first named lever and adapted to actuate the same, and connections between said foot lever and said disks.

2. In a device of the type specified, a pressing buck, a vertically and horizontally movable pressing head mounted above said buck, a slotted lever upon which said head is mounted, a shaft received by the slot in said lever, a rack mounted on said lever, a gear in mesh with said rack and mounted on said shaft, a sprocket mounted on said shaft, a chain in engagement with said sprocket, a spring and a foot lever controlling said chain, and means to oscillate said lever on said shaft.

3. In a device of the type specified, a pressing buck, a vertically and horizontally movable pressing head mounted above said buck, a slotted lever upon which said head is mounted, a shaft received by the slot in said lever, a rack mounted on said lever, a gear in mesh with said rack and mounted on said shaft, a sprocket mounted on said shaft, a chain in engagement with said sprocket, a spring and a foot lever controlling said chain, disks mounted on each side of said first named lever and adapted to act as guides and to oscillate said first named lever on said shaft, and a connection between said foot lever and said disks.

4. In a device of the type specified, the combination with pressing members having means for supplying compressed air to one of said members, of a slotted lever upon which one of said pressing members is mounted, a shaft engaging said slotted lever, a rack connected with said slotted lever, a gear on said shaft engaging said rack, a sprocket on said shaft, a driving chain engaging said sprocket, a spring and foot lever controlling said chain, and means for oscillating said slotted lever, substantially as specified.

1,037,900. BAND SAWING-MACHINE. LOUIS J. HARNHART, Cincinnati, Ohio, assignor to J. A. Fay & Egan Company, Cincinnati, Ohio, a Corporation of West Virginia. Filed Nov. 1, 1909. Serial No. 525,707. (Cl. 143—27.)



1. In a band-sawing machine, the combination of an overhung band-saw wheel, a mandrel therefor having support solely at one side of said wheel, said support comprising a sharp-ended support adjacent to said wheel and a hold-down support distanced from said wheel, said sharp-ended and hold-down supports normally located under the center of said mandrel solely to one side of said wheel, said sharp-ended and hold-down supports and mandrel moving in vertical planes substantially parallel with said mandrel, equalizing straining means between said sharp-ended support and said hold-down support connected to equalize reverse strains on said last-named supports for causing equal movements thereof in similar directions, and a vertical guide for said mandrel at said sharp-ended support between said band-saw wheel and hold-down support.

2. In a band sawing machine, the combination of an overhung band-saw wheel, a mandrel therefor having support solely at one side of said wheel, said support comprising a support adjacent to said wheel and a hold-down support distanced from said wheel and arranged for transmitting the stress of the weight of said wheel to said respective last-named supports in opposite directions, a vertical guide for said mandrel adjacent to said wheel, and equalizing straining means acting between said last-named supports in opposite directions on both said last-named supports whereby movement of said band-saw wheel in vertical lines and parallelism of said mandrel in its various positions are maintained.

3. In a band sawing machine, the combination of an overhung band-saw wheel, a mandrel therefor having support solely at one side of said wheel, said support comprising a sharp-ended support adjacent to said wheel and a hold-down support distanced from said wheel and arranged for transmitting the stress of the weight of said wheel to said respective last-named supports in opposite directions, a vertical guide for said mandrel adjacent to said wheel, and equalizing straining means acting between said last-named supports in opposite directions on both said last-named supports whereby movement of said band-saw wheel in vertical lines and parallelism of said mandrel in its various positions are maintained.

4. In a band sawing machine, the combination of an overhung band-saw wheel, a mandrel therefor, a saddle in which said mandrel is journaled solely at one side of said wheel, a support for said saddle adjacent to said wheel and a hold-down support for said saddle distanced from said wheel and arranged for transmitting the stress of the weight of said wheel to said respective supports in opposite directions, a vertical swivel-guide for said saddle solely adjacent to said wheel and equalizing straining means acting in opposite directions on both said supports, whereby movement of said band-saw wheel in vertical lines and parallelism of said mandrel in its various positions are maintained, and lateral shifting means between said hold-down support and the end of said saddle distanced from said band-saw wheel, whereby said saddle is shifted about said swivel-guide.

5. In a band sawing machine, the combination of a band-saw wheel, a saddle at one side of said band-saw wheel, a mandrel for said band-saw wheel whose sole journal-connection is on said saddle to said one side of said wheel, a vertical guide having pivotal connection with said saddle adjacent to said band-saw wheel, a sharp-ended support for said guide, a hold-down support for said saddle distanced from said wheel, said supports located solely at said one side of said wheel, and equalizing straining means acting in opposite directions on both said supports, whereby movement of said band-saw wheel in vertical lines and parallelism of said mandrel in its various positions are maintained, said hold-down support comprising means for adjusting the end of said saddle distanced from said wheel up and down.

[Claims 6 to 10 not printed in the Gazette.]

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1,037,901. CARBON ARTICLE. CHARLES A. HANSEN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Nov. 16, 1909. Serial No. 528,424. (Cl. 171—210.)



1. The process which consists in molding a carbonaceous article, baking said article at a temperature sufficient to drive off part of the volatile matter, impregnating said article with organic matter, and then firing to a higher temperature.

2. The process which consists in firing a previously formed carbonaceous article at a temperature sufficiently high to drive off a large part of the volatile matter, but insufficient to shrink said carbonaceous article to its final density, impregnating said article with carbonaceous material and then firing at a higher temperature.

3. The process which consists in subjecting a previously formed green carbon article to a heat treatment at a temperature sufficient to remove most of the volatile matter contained therein without materially shrinking said article, impregnating said article with carbonaceous material and then firing at a temperature in excess of 1200° C.

4. The process which consists in baking a green carbon article at a temperature below 800° C. until most of the volatile matter has been expelled, impregnating said article with a carbonaceous material, and then firing the impregnated article at a higher temperature at which considerable shrinkage will take place.

5. The process of making carbon articles, which consists in compacting powdered carbon and a carbonaceous binder, baking at a temperature sufficient to expel a part of the volatile matter, impregnating the article with a material yielding a carbonaceous residue and then firing the article at a considerably higher temperature.

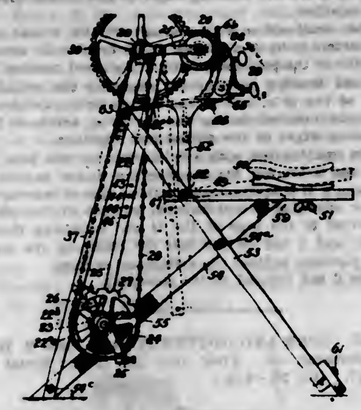
[Claims 6 to 9 not printed in the Gazette.]

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1,037,902. SICKLE-GRINDER. WILLIAM S. HARMAN, Riverside, Ill. Filed Aug. 18, 1910. Serial No. 577,740. (Cl. 51—8.)

1. In a device of the character described, a rotary grinding element, said element being also adapted to have a vibratory movement, a drive shaft mounted in the machine frame below the head portion of said machine, means actuated by said drive shaft for giving a rotary movement to said grinding element, and an independent means directly actuated by said shaft for giving a vibratory movement to said grinding element.





2. In a device of the character described, a rotary grinding element, a vibratory element in which said grinding element is rotatively mounted, a frame comprising upright bars to which adjacent their upper ends said vibratory element is pivotally attached, a gear wheel rotatively supported by said bars adjacent their upper ends, a gear wheel fixedly attached to said grinding element and meshing with said first named gear wheel, a drive shaft mounted adjacent the lower ends of said upright bars, means by which rotary motion may be transmitted from said drive shaft to said first named gear wheel, means by which the rotary motion of said drive shaft may be converted into vibratory motion and said vibratory motion imparted to said vibratory element.

3. In a device of the character described, a rotary grinding element, a vibratory arm carrying said element, an upright bar to which said arm is pivotally attached adjacent its upper end, an inclined bar fixed to said upright bar adjacent its upper end and extending to the floor in the rear of said upright bar, a cross bar fixed to said upright bar adjacent its lower end and to said inclined bar adjacent the middle of its length and extending beyond said incline bar, a seat supporting member pivotally attached to said inclined bar and resting upon said cross bar, and a seat fixed to said seat member.

4. In a device of the character described, a rotary grinding element, a vibratory arm carrying said element, an upright bar to which said arm is pivotally attached adjacent its upper end, an inclined bar fixed to said upright bar adjacent its upper end and extending to the floor in the rear of said upright bar, a cross bar fixed to said upright bar adjacent its lower end and to said inclined bar adjacent the middle of its length and extending beyond said cross bar, a seat supporting member pivotally attached to said inclined bar and resting upon said cross bar, a seat fixed to said seat member, a pedal shaft having bearings carried by said cross bar, and means by which rotary and vibratory movements are independently transmitted from said pedal shaft to said grinding element.

5. In a device of the character described, a grinding element having rotary and vibratory movements, a pair of upright bars to which said element is attached, a pair of bars fixed to said upright bars adjacent their upper ends and sloping therefrom to the floor at an angle with said upright bars, a pair of bars fixed to said upright bars adjacent their lower ends and sloping upwardly therefrom and crossing said second named bars, and a seat member pivotally attached to said second named bars and supported by said third named bars.

[Claims 6 to 15 not printed in the Gazette.]

1,037,903. REVERSIBLE STRUT FOR BRAKE-BEAMS. PHILIP B. HARRISON, Chicago, Ill., assignor to Chicago Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 16, 1911. Serial No. 660,741. (Cl. 188—22.)



1. A strut having walls which embrace the compression member and clamp the same in position, and a removable wedge key for holding the said walls in their clamped position.

2. A strut having a wall divided circumferentially and transversely so as to provide over-lapping portions and forming a seat for the compression member, said wall completely embracing said compression member and means for drawing the divided over-lapping portions of said wall together so as to clamp the compression member in position therein.

3. A strut having a split wall forming a seat for the compression member, one portion of said wall having a perforated tongue and the other portion of said wall having aliining perforations, and a wedge key operating in said perforations.

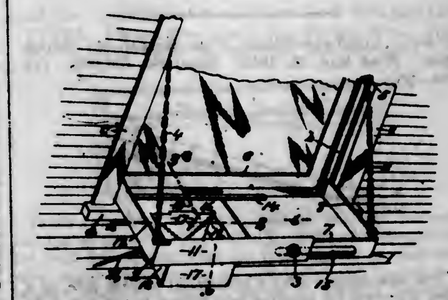
4. A strut having seats for the compression and tension members at each end thereof, walls for embracing the compression member, and means for drawing said walls together to clamp the compression member to its seat.

5. A strut having seats for compression and tension members at each end thereof, walls embracing the compression member said walls having overlapping portions provided with registering openings and keys fitting in said openings for clamping the compression member to its seat.

[Claims 6 to 11 not printed in the Gazette.]

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1,037,904. WINDOW-SHELF. CHARLES B. HAWES, Syracuse, N. Y. Filed Jan. 7, 1910. Serial No. 536,837. (Cl. 45—104.)



1. A sheet metal window shelf composed of two sections adjustably positioned lengthwise of each other, one of said sections having a relatively broad down-turned front flange and a relatively narrow inturned rear flange and said flanges adapted to engage the other of said sections, the said flanged one of said sections being provided with an opening in the bottom thereof, folding members hinged thereto at the opposite sides and ends of said opening, folding bottom members hinged to the lower edges of two of the first-named members, inwardly-projecting grooved flanges upon the others of said members and said bottom members adapted for seating upon said last-named flanges.

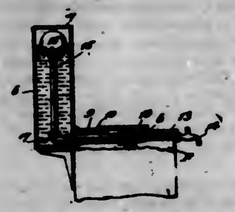
2. A sheet metal window shelf comprising a bottom provided with an opening therein, folding members hinged to said bottom at the opposite sides and ends of the opening therein, folding bottom members hinged to the lower edges of the folding members positioned at the ends of the open-

ing, terminal angularly-projecting flanges upon the others of said folding members and having longitudinal grooves formed therein and said grooves adapted for engagement with ends of the first-named folding members, and supporting chains positioned between said bottom members and the folding members to which said bottom members are hinged.

3. A window shelf provided with downwardly-projecting sides and ends arranged to form a well, inwardly-projecting grooved flanges upon said sides, the bottom members hinged to said ends and adapted for resting upon said flanges engaging with said grooves, and chains positioned between said bottom members and the said ends.

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1,037,905. PORTABLE HOT-WATER SYSTEM. FAY C. HAYES, Altamont, N. Y. Filed Apr. 19, 1911. Serial No. 622,079. (Cl. 126—53.)



A portable water heater comprising a hot water tank adapted to be removably supported by a stove, and in which the level of the water may vary, a water circulating pipe projecting laterally from the base of the tank and having both ends in communication with the said tank, said pipe having its outer portion formed in a coil that is disposed so that the burner of the stove will heat the coil, a discharge pipe having one end projecting into the base portion of the tank, a movable inlet pipe within the tank, means for pivotally connecting one end of said inlet pipe to the discharge pipe, a controlling valve for said discharge pipe, and means for retaining the free end of the inlet pipe adjacent the level of the water in the tank.

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1,037,906. CURTAIN-POLE. CARL HELLMICH, Detroit, Mich. Filed Mar. 29, 1912. Serial No. 687,093. (Cl. 156—20.)



1. The combination with a cylindrical curtain pole, of a sheave, a bracket for securing said sheave to the pole, having spaced wide bearing portions for engaging the cylindrical surface of the pole adapted to prevent turning of the bracket, a bolt secured to said bracket extending through said pole and having a portion projecting thereboyond, and a nut on said projection for securing the bracket to the pole.

2. The combination with a cylindrical curtain pole, of a sheave, a bracket for securing the sheave to the pole, comprising a U-shaped member having spaced bearing portions engaging the cylindrical surface of the pole for preventing turning of the bracket, a bolt secured to the base of the U and extending through the pole, and a nut on the bolt for detachably securing said U-shaped member to the pole.

3. The combination with a split tube or pole, of a sheave, a bracket for securing the sheave to the pole comprising a member attached to the tube and having spaced bearing portions arranged upon opposite sides of the slit in the tube, and adjustable means for clamping said bearing portions against said tube whereby when the bracket is secured in place the meeting edges of the slitted tube are forced together.

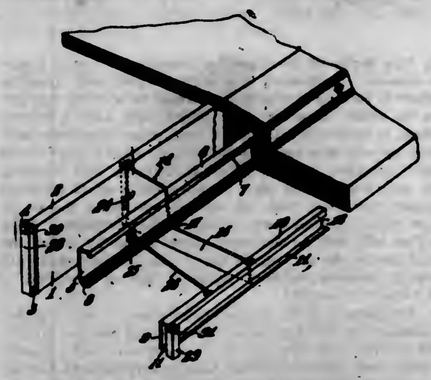
4. The combination with a longitudinally slitted cylindrical curtain pole, of a sheave, and a bracket for securing the sheave to the pole comprising a U-shaped member having spaced bearing portions for engaging the cylindrical surface of the pole, and means for clamping the bracket to the pole, adapted during the clamping action to force the meeting edges of the slitted pole together.

5. The combination with a cylindrical curtain pole, of a sheave, and a bracket for securing the sheave to the pole comprising a U-shaped member having spaced bearing portions for engaging the cylindrical surface of the pole, a bolt secured to the base of the U and extending through the pole, and a nut on the bolt for clamping the spaced bearing portions against the cylindrical surface.

[Claim 6 not printed in the Gazette.]

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1,037,907. CURB AND GUTTER FORM. JOHN N. HELTZEL, Streator, Ill. Filed July 20, 1911. Serial No. 639,617. (Cl. 25—118.)



1. A device of the class described comprising a back plate; a front plate; a division plate terminally connected, removably, with the front plate and the back plate, the division plate consisting of an arm, and a body upstanding from the arm, adjacent the back plate; an intermediate plate resting upon the upper edge of the division plate and abutting against the body portion of the division plate; and means for removably securing the intermediate plate to the front plate.

2. A device of the class described comprising a plate having along its upper and lower edges, angularly disposed flanges, one of said flanges being provided with a depending lip; a stake having a notch in its upper edge, adapted to receive the lip, the other flange being adapted to rest against the outer face of the stake.

3. A device of the class described comprising a plate having along its upper and lower edges, angularly disposed flanges, the upper of said flanges being wider than the lower flange, and being provided with a depending lip; a stake having a notch in its upper edge, adapted to receive the lip, the lower flange being adapted to rest against the outer face of the stake; the difference in the widths of the upper and lower flanges permitting the stake to be vertically driven, and likewise permitting the plate to stand vertically, when assembled with the stake.

4. A device of the class described comprising a plate provided along its upper edge with an angularly disposed flange having a recess therein, the recess being communicating with a slot extended transversely of the flange, and through the flange, said slot being carried downwardly into the body of the plate, and extended through the plate; the division plate having a finger adapted to register in the reduced slot; there being a projection upon the division plate adapted to enter the recess; and spaced lugs upon the first named plate, between which fingt the division plate is adapted to register.

5. A device of the class described comprising a back plate; a front plate of less height than the back plate; a transverse division plate terminally connected, removably, with the front plate and with the back plate, the division plate consisting of a body, upstanding adjacent the back plate, and an arm projecting forwardly from the body, toward the front plate; an intermediate plate resting upon the upper edge of the division plate and abutting against the edge of the body of the division plate; a bar pivoted adjacent one end to the intermediate plate, and having at its forward end, a depending finger adapted to register in an opening in the upper edge of the front plate.



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1,037,908. ATTACHMENT FOR VEHICLES. CHARLES H. HERMAN, Medford, Oreg. Filed Mar. 20, 1912. Serial No. 684,943. (Cl. 21—105.)



1. In a device of the class described, the combination with a vehicle frame, springs therefor and an axle to which said springs are secured; of a member formed of a pair of sections, one of said sections having engagement with said axle, means arranged in sliding engagement with the opposite section and having secure engagement with said frame, means to limit the sliding movement of the one section with respect to the other, and additional means to normally retain the one member in contracted position with respect to the other.

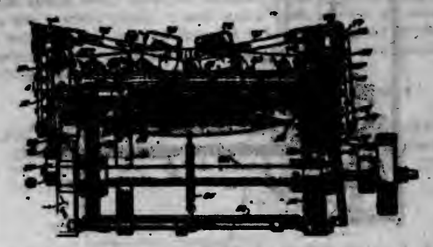
2. In a device of the class described, the combination with a vehicle frame, springs therefor, and an axle to which said springs are secured; of a pair of members arranged in sliding engagement with one another, means to securely mount one of said members on the axle, additional means having sliding engagement with the other member and securely engaged with said frame, means to limit the sliding movement of said last mentioned member with respect to the former, and a spring encircling said members and having the ends thereof respectively engaged with the same.

3. In a device of the class described, the combination with a vehicle frame, springs therefor, and an axle to which said springs are secured; of a pair of members slidably engaged with one another, means to mount one of said members on the axle, a connecting member having one end thereof secured to the frame and the other disposed in sliding engagement with the other of said pair of members, means to limit the sliding movement of said connecting member on the last mentioned member, additional means to limit the sliding movement of said first mentioned member with respect to one another, and a coil spring encircling said members and having the ends thereof respectively engaged with the same.

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1,037,909. MACHINE FOR CREASING AND CUTTING BOX-BLANKS. KARL I. HEISMAN, Chicago, Ill. Filed July 22, 1909. Serial No. 508,906. (Cl. 93—58.)

1. In a box blank creasing and cutting machine, a bed, a widened creaser beam reciprocably mounted relatively to said bed, said beam having a recess formed therein and extending to the rear edge thereof, a die carried by said bed, a creaser blade carried by said beam and located above said die, a knife carried by said beam, and an adjustable gage for determining the position of the blank relatively to the creaser blade.



2. In a box blank creasing and cutting machine, a bed, a die carried by said bed, an adjustable gage for determining the position of the blank relatively to the die, a chase, a knife carried by said chase, a widened beam having a recess formed in its lower face above said gage and having a platen for receiving said chase, and a creaser blade carried by said beam and located above said die.

3. In a box blank creasing and cutting machine, a creaser beam, a creaser blade carried thereby, a chase having one of its edges beveled located against said blade, and a bolt passing through said beam and having a beveled head for engaging over the beveled edge of said chase and holding the chase against the lower surface of said beam.

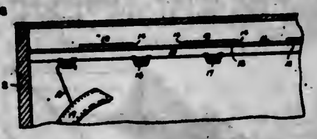
4. In a box blank creasing and cutting machine, a bed, guide posts carried by said bed, slides mounted in said guide posts, a creaser beam mounted between said slides, levers pivoted between their ends to said posts and pivoted at their outer ends to said slides, and counterweights carried by the inner ends of said levers.

5. In a box blank creasing and cutting machine, a chase having one side reduced in thickness, and a knife carried by said chase and projecting over said reduced side.

[Claims 6 to 9 not printed in the Gazette.]

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1,037,910. REMOVABLE CEILING FOR ENAMELING-OVENS. GEORGE WILLIAM HIRAM, Detroit, Mich. Filed Oct. 2, 1911. Serial No. 652,338. (Cl. 25—132.)



In an enameling oven, the combination with the sides and top of the oven, of a series of beams extending across the oven and spaced from the top, a series of removable sheet metal plates resting on said beams and having overlapping edges and ends, a series of stirrups depending from said beams, and a series of removable bars carried by said stirrups, said bars adapted to receive the supporting hooks of the metal articles being enameled.

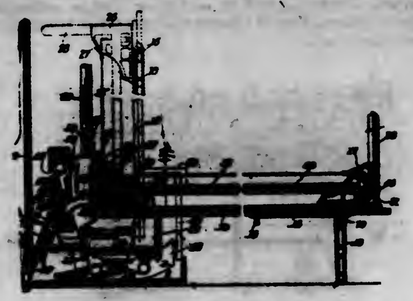
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1,037,911. WALL-BED. MILLAN H. HOLMES and WILLIAM A. MATHESON, Chicago, Ill. Filed Oct. 7, 1911. Serial No. 653,369. (Cl. 5—37.)

1. In a folding bed, a pivotally mounted counter-balanced frame, and a single device for checking the movement of the frame as it approaches its open and its closed positions, said device being inactive in both of the extreme positions of the bed frame, substantially as described.

2. In a folding bed, a pivotally mounted counter-balanced frame, and a single fluid controlled device for checking the movement of the frame as it approaches its open and its closed positions, said device being inactive in both

of the extreme positions of the bed frame, substantially as described.



3. In a wall bed, the combination of a pivotally mounted frame, counter-balancing means for said frame, pivoted checking means attached to said frame, said checking means being provided with a slot, and means on said frame for engaging said slot whereby the checking operation is performed only as said frame approaches the end of its opening and closing movements, substantially as described.

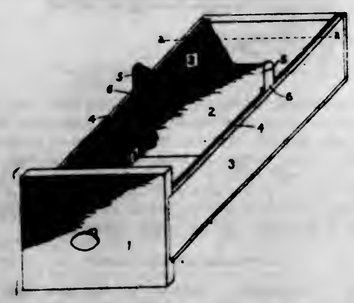
4. In a wall bed, the combination of a frame, a pair of supporting members, means for pivotally mounting said frame on said supporting members, counter-balancing means attached to said frame and tending to move the latter into an upright position, and checking means having slotted connection with said frame, said checking means comprising a relatively movable cylinder and a piston therein which have free movement in one direction and a restricted movement in the opposite direction, said slotted connection rendering said checking means operative only when said frame approaches the end of its movement while being raised or lowered into position, substantially as described.

5. In a wall bed, the combination of a bed frame, means for pivotally supporting said frame, an adjustable weight bracket mounted on said frame, and a counter-balancing weight carried by said weight bracket, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

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1,037,912. FILING DEVICE. FREDERICK HOWARD, Dayton, Ohio. Filed May 17, 1912. Serial No. 698,013. (Cl. 129—26.)

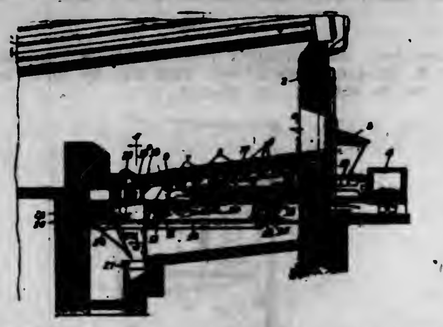


1. In combination, a filing receptacle, a follower longitudinally movable therein, longitudinal grooves being provided in the top portions of the side members of said receptacle, arms carried by said follower engaging in said grooves, and means carried by the lower portion of said follower, adapted to press against the side members of the receptacle to firmly brace the follower in its different positions therein, substantially as described.

2. In combination, a filing receptacle, a follower longitudinally movable therein, longitudinal grooves being provided in the top portions of the side members of said receptacle, outwardly-extending and downwardly-projecting arms carried by said follower engaging in said grooves, and flap portions carried by the lower sides of said follower, said flap portions extending at right angles to the follower and adapted to press against the side members of the receptacle to firmly brace the follower in its different positions therein, substantially as described.

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1,037,913. AUTOMATIC STOKER. SYLVESTER S. HOWELL, Chicago, Ill., assignor to The Underfeed Stoker Company of America, Chicago, Ill., a Corporation of New Jersey. Filed Nov. 14, 1908. Serial No. 462,570. (Cl. 110—47.)



1. In combination, a support for fuel to be consumed, means associated with said support for moving the clinkers and ashes which are formed during combustion of the fuel toward a predetermined point, there being guides located adjacent to said point and extending transversely of the path of movement of the clinkers and ashes, a reciprocable device slidably mounted in said guides for removing said clinkers and ashes when they reach said predetermined point, and means for reciprocating said device, said device having a shearing edge arranged obliquely to the upper surface of said support.

2. In combination, a support for fuel to be consumed, said support having a shearing edge at one end, means associated with said support for moving the clinkers and ashes which are formed during the combustion of fuel toward said edge, there being guides arranged adjacent to said edge and extending transversely thereof, a device slidably mounted in said guides and having a shearing edge adapted to cooperate with the shearing edge on said support for removing the clinkers and ashes, and means for moving said device along said guides.

3. In combination, a support for fuel to be consumed, said support having a shearing edge at one end, means associated with said support for moving the clinkers and ashes which are formed during the combustion of fuel toward said edge, there being guides arranged adjacent to said edge and extending transversely thereof, a device slidably mounted in said guides and having a shearing edge adapted to cooperate with the shearing edge on said support for removing the clinkers and ashes, and means for moving said device along said guides the shearing edges on said support and on said device being arranged obliquely with respect to each other.

4. In combination, a retort for receiving fuel to be consumed, a shearing edge at the rear end of said retort, there being guides arranged adjacent to and extending transversely of said shearing edge, a device slidably mounted in said guides and having a shearing edge adapted to cooperate with the aforesaid shearing edge, and means for moving said device along said guide.

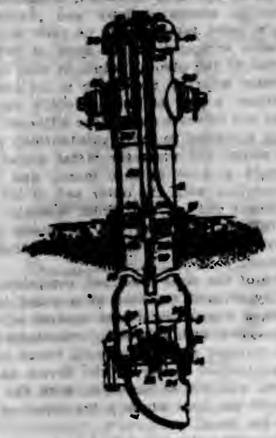
5. In combination, a support for fuel to be consumed, there being guides arranged adjacent to and extending transversely of one edge of said support, a device slidably mounted in said guides and having a portion arranged at an acute angle to said guides and extending toward said edge, means for moving said device along said guides, and means for moving the clinkers and ashes which are formed during the combustion of the fuel toward said edge.

[Claims 6 to 8 not printed in the Gazette.]

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1,037,914. STREET FIRE-HYDRANT. CLARUS L. HOWES, Boston, Mass. Filed Feb. 7, 1906, Serial No. 300,730. Renewed Jan. 18, 1911. Serial No. 603,402. (Cl. 137—13.)



1. In a street fire hydrant, a barrel consisting of an upper exposed section and a lower concealed section, suitably connected at their meeting ends, said lower section having offset slots, a valve seat in the lower section, a valve movable in the lower section, a valve spindle, a spider as an abutment for the spindle and having arms removably arranged in said slots, and keys constructed to enter said slots for locking said arms therein.

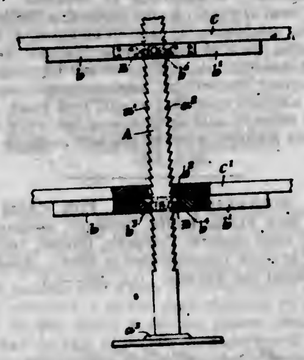
2. In a street fire hydrant, a barrel consisting of an upper exposed section and a lower concealed section, suitably connected at their meeting ends, said lower section having slots, a valve seat in the lower section, a valve movable in the lower section, a valve spindle, a spider having arms arranged in said slots and cooperating with said spindle as an abutment therefor, locking members arranged in said slots for confining the arms of the spider, and means on the arms for confining the locking members.

3. In a street fire hydrant, a barrel consisting of an upper exposed section, and a lower concealed section, suitably connected at their meeting ends, a valve arranged in the lower section, a valve seat therefor in the lower section below the valve, said lower section having substantially radial interior surfaces extending downwardly from its upper end, and seats facing upwardly at the lower ends of said surfaces, a removable abutment having extremities adapted to rest upon said seats, said lower section having pockets into which said extremities may be moved rotatively about the axis of the barrel, and shoulders for engaging the upper side of said extremities for preventing upward movement in said pockets, removable members adapted to rest upon said seats between said extremities and radial surfaces to keep said extremities in said pockets, and a valve spindle for operating said valve, said spindle engaging an under face of said abutment whereby it is adapted to hold the valve positively against its seat.

4. In a street hydrant, a barrel consisting of an upper exposed section, and a lower concealed section, suitably connected at their meeting ends, said lower section having a main valve seat and a waste passage, a main valve in said lower section above said seat, a spindle for said main valve, a waste valve, a holder for the waste valve, said holder having screw-threaded connection with the lower section, means operated by the main valve for opening said closing the waste valve, and a detachable spider having interlocking connection with the lower section above the main valve, said spider being an abutment engaging said main valve spindle to hold the main valve upon its seat, said spider being arranged to leave an unobstructed space in the vertical plane of said waste valve holder, whereby a suitable tool may be inserted between the arms of the spider for inserting and removing the waste valve holder without disturbing the main valve and the spider.

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1,037,915. ADJUSTABLE BRACKET FOR SUPPORTING SHELVING. BENJAMIN T. BABBITT HYDE, New York, N. Y. Filed May 23, 1912. Serial No. 699,150. (Cl. 45—54.)

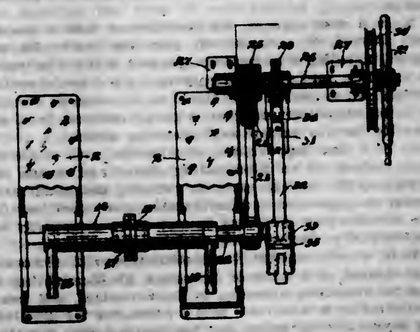


1. The combination with a standard having ratcheted surfaces, of a detachable hinged bracket having a central opening, the walls on two sides formed inclining to provide pawls to engage said ratcheted surfaces.

2. The combination with a standard having ratcheted surfaces, of a hinged two part bracket with centrally arranged pawls to engage the said ratcheted surfaces and a removable shelf supported by the bracket in operative position in engagement with said standard.

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1,037,916. SAW-TENSION DEVICE FOR BAND-SAW MILLS. ADAM HENRY IRVING, Spokane, Wash. Filed Mar. 6, 1911. Serial No. 612,550. (Cl. 143—27.)



1. In a band saw mill, means for supporting the upper and lower band wheels, comprising a pair of plungers, a foreshortened sleeve having arms supporting said plungers, and a screw shaft extended into said sleeve and connected therein for oscillatory movements therewith, substantially as described.

2. In a band saw mill, means supporting the upper band saw wheel, comprising a pair of plungers, a foreshortened

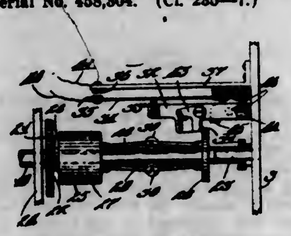
sleeve having parallel arms supporting said plungers, a rock shaft extended into said sleeve and interlocked to the central portion thereof for oscillatory movements therewith, and a weight operating on said rock shaft, substantially as described.

3. In a band saw mill, means for supporting the upper band saw wheel, comprising a pair of plungers, a two-part sleeve, the sections of which are rigidly but detachably secured at their abutting ends, said sleeve sections being mounted on suitable fulcrums and having projecting parallel arms engaging and supporting the lower ends of said plungers, a rock shaft having an angular head seated in the abutting ends of the said sleeve sections, an arm secured to the outer end of said rock shaft and provided with a gear, a countershaft provided with a pinion meshing with said gear, and weighted devices operative on said countershaft, substantially as described.

4. In a band saw mill, means supporting the upper band saw wheel, comprising a pair of plungers, a fulcrumed sleeve having parallel arms supporting said plungers, a rock shaft extended into said sleeve and interlocked to the central portion thereof for oscillatory movement therewith, and a weight operating on said rock shaft, the upper and lower edges of said arms having seats for the lower ends of said plungers whereby the said sleeve is made reversible.

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1,037,917. SIGNALING DEVICE FOR CASH-REGISTERS. MAX JACOB, Berlin, Germany, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed Oct. 17, 1908. Serial No. 458,304. (Cl. 235—7.)



1. In a cash register, the combination with a movable part thereof, of a signal, and means for operating said signal, constructed to maintain said signal in operation for a predetermined period, and to permit said signal to return abruptly to a non-signaling condition, with connections from said movable part to actuate said operating means.

2. In a cash register, the combination with a movable part thereof, of a signal, an operating means for said signal, including a momentum operated device constructed to maintain said signal in operation for a predetermined period, and to permit said signal to be returned abruptly to a non-signaling condition, with connections from said movable part to actuate said operating means.

3. In a cash register, the combination with a movable part thereof, of an illuminating device and means controlled by the movable part for bringing the illuminating device into operation and maintaining such operation after the movable part has come to rest and subsequently and automatically discontinuing such operation.

4. In a cash register, the combination with a movable part thereof, of a series of indicators, an illuminating device for attracting attention to the indicators, and means controlled by said movable part for bringing the illuminating device into operation and maintaining such operation after the movable part has come to rest and subsequently and automatically discontinuing such operation.

5. In a cash register, the combination with a movable part thereof, of a series of indicators, an illuminating device for attracting the attention to the indicators, and a centrifugal device controlled by the movable part for operating the illuminating device.

[Claims 6 to 14 not printed in the Gazette.]

1,037,918. RIVETER. HENRY W. JACOBS, Topeka, Kans. Filed Oct. 11, 1911. Serial No. 654,976. (Cl. 78—42.)



1. A device of the class described, comprising a pair of members having elongated jaws and pivotally secured together at a point intermediate of their ends, a double acting cylinder arranged at the ends of said members, means secured at the pivotal points of said members and to the cylinder whereby the latter is maintained in its relative position, a pair of links pivotally secured to the piston rod of the cylinder and to the adjacent ends of the members and arranged to move substantially at right angles to the piston rod when the latter moves outwardly, and guide-ways secured to said means and having slot and pin connection with the outer end of the piston rod and the adjacent ends of said links, whereby the pivotal connection between the links and the piston rod will be made to move substantially along the longitudinal center of the device.

2. A device of the class described, comprising a pair of jaws pivotally secured together at a point intermediate of their ends, a supporting frame secured at the pivotal point of the jaws and extending substantially parallel therewith, a cylinder mounted on said frame in alinement with the longitudinal center of the device and provided with a piston, and means connected with the rod of the piston and with the jaws whereby the thrust of the piston will actuate the jaws.

3. A device of the class described, comprising a pair of jaws, pivotally secured together at a point intermediate of their ends, a double acting cylinder provided with a piston, means secured at the pivotal connection of the jaws whereby said cylinder will be held in alinement with the longitudinal center of the device, means pivotally secured to the piston-rod of the piston and to the adjacent ends of the jaws whereby the jaws are actuated as the piston rod reciprocates, and means with which the outer end of the piston-rod has sliding engagement whereby the outer end of the piston-rod will be guided in its movements.

4. A device of the class described, comprising a pair of elongated jaws, pivotally secured together at a point intermediate of their ends, supporting means secured at the pivotal point of the jaws, extending parallel with and beyond the long arms of said jaws, a double acting cylinder, provided with a piston presented toward the pivotal connection between the jaws, rigidly secured to the outer end of said means beyond the ends of said jaws and substantially in alinement with the longitudinal center of the device, a toggle joint connection between the piston rod of the cylinder and the adjacent end of the jaws, and valve mechanism secured to the device and in communication with opposite ends of the cylinder whereby the flow of the driving medium to the cylinder is controlled.

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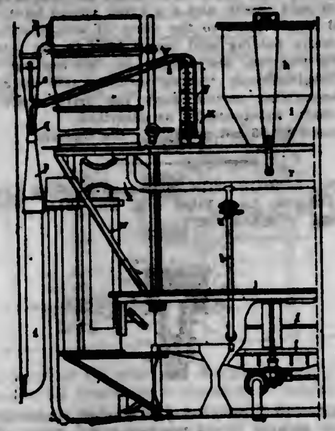
1,037,919. PROCESS OF MANUFACTURING HYDROGEN. GEORGES FRANÇOIS JAUBERT, Paris, France. Filed July 19, 1911. Serial No. 639,266. (Cl. 48—196.)

1. The process for manufacturing hydrogen, which consists in causing a solution of caustic alkali of high specific heat (that is, of high boiling point) to act upon an alloy of silicon in such a manner as to retain in the solution the heat liberated by the reaction and thereby render unnecessary the application of external heat.

2. The process for manufacturing hydrogen, which consists in causing a solution of caustic alkali of high specific heat (that is, of high boiling point) and in an agitated state to act upon an alloy of silicon in such a manner as to retain in the solution the heat liberated by the reaction and thereby render unnecessary the application of external heat.

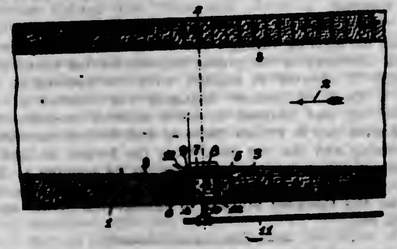


3. The process for manufacturing hydrogen, which consists in causing a solution of caustic alkali of high specific heat (that is, of high boiling point) to act upon an alloy of silicon, then washing and cooling the hydrogen with water, and utilizing the heated water in dissolving the caustic alkali to form a solution thereof.



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1,037,920. CONDUIT FOR GAS FUEL. EBENEZER A. W. JENNINGS, Worcester, Mass., assignor to Morgan Construction Company, Worcester, Mass., a Corporation of Massachusetts. Filed Mar. 7, 1910. Serial No. 547,709. (Cl. 48—87.)



1. The combination with a conduit for gas fuel, of a shell held in the wall of the conduit, having one of its sides at an angle with the axis of the conduit exposed and provided with a narrow slit opening into the conduit in the plane of the inner surface of the wall of the conduit, and means for supplying air under pressure to said shell.

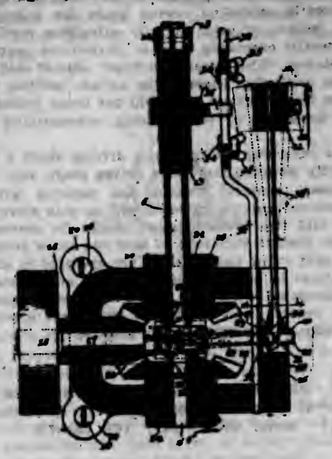
2. The combination with a conduit for gas fuel, of a shell, for compressed air in the wall of the conduit and having overlapping inner walls with an intervening space in the plane of the inner surface of the conduit and communicating with the interior of the shell, and means for supplying compressed air to said shell.

3. A conduit for gas fuel, comprising a pipe having a refractory lining, a metallic shell inclosing a chamber for compressed air contained within said lining and having overlapping inner walls provided with recesses between them, forming air passages from said air chamber to the interior of the conduit parallel with the inside of said lining.

4. The combination with a conduit for gas fuel having a refractory wall, of a metallic shell held within said wall and inclosing a compressed air chamber, said shell having overlapping sides near the interior of said conduit, with recesses between them leading from said chamber to the interior of said conduit to allow the escape of the compressed air in said chamber into said conduit in a thin sheet adjacent to its inner surface.

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1,037,921. GEARING. JANE PETER JENSEN, Chicago, Ill. Filed Aug. 26, 1911. Serial No. 645,965. (Cl. 74—89.)



1. In a reversing mechanism, a vertically disposed driving shaft, a threaded sleeve secured to said driving shaft and arranged in axial alinement therewith, an internally threaded block adapted to be moved vertically on said sleeve, a housing into which the lower end of said driving shaft is journaled, a power shaft disposed at right angles to said driving shaft, a driving pinion secured to said power shaft, a pair of driven gears arranged in constant mesh with said driving pinion and loosely mounted on said driving shaft, a grooved clutch collar arranged intermediate said driven gears and splined to said driving shaft, said collar being vertically movable and adapted to clutch either one of said driven gears for reversing the movement of said driving shaft, an oscillatory arm the free end of which is connected with the groove of said grooved collar, a bolt secured in said housing on which said arm is pivoted, the latter being disposed approximately horizontally, a vertically disposed bar extending from said arm to said block and provided with a slot adjacent its upper end in which said block moves, adjustable means provided at each end of said slot for regulating the vertical movement of said bar, the latter being provided with a toothed projection arranged adjacent said arm, an inverted pendulum pivoted to said bolt and having laterally extending hooks for engaging the sides of said toothed projection, and stops provided on said pendulum at either side thereof for engaging the upper edge of said arm, whereby the oscillation of the latter is synchronized with that of said pendulum, substantially as described.

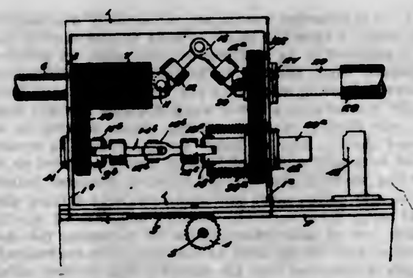
2. In an operating and reversing mechanism, a driving shaft, a threaded sleeve secured thereto and adapted to rotate therewith, a vertically movable internally threaded block mounted on said sleeve, a housing into which the lower end of said driving shaft is journaled, a power shaft projecting into said housing, a bevel driving pinion at the inner extremity of said power shaft, a pair of driven bevel gears journaled in said housing around said driving shaft and arranged in constant mesh with said power shaft, said driven gears being loosely mounted on said driving shaft, a grooved clutch collar interposed between said driven gears and splined to said driving shaft, the construction being such that said clutch collar is normally out of engagement with said driven gears, a substantially horizontally disposed arm having connection with said grooved collar, a stationary bolt provided in said housing forming a pivot on which said arm is adapted to have a limited oscillation, a substantially vertically disposed bar provided with a slot at its upper end for the reception of said block, adjustable members provided at the ends of said slot for varying the operative length thereof, a laterally extending tooth provided on said bar

and disposed in the same horizontal plane as said bolt, and an inverted pendulum pivoted to said bolt and provided with laterally extending curved hooks for engaging the top and bottom of said laterally extending tooth, there being laterally extending steps or projections provided on said pendulum which engage the upper edge of said arm to effect the oscillation thereof, the normal position of said pendulum being vertical, and said bar being guided in its vertical movement by said housing, substantially as described.

3. In a reversing mechanism, a driving shaft a beveled gear rigidly mounted thereon, a driven shaft, two beveled gears loosely mounted thereon and meshing with said first mentioned gear; a collar splined on said driven shaft between said two beveled gears; means for moving said collar into contact with each of said two gears alternately whereby said collar and its shaft are operated in alternating directions by said driving shaft, and an inverted pendulum associated with said means adapted to hold said collar in contact with each said two gears alternately, substantially as described.

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1,037,922. **REVERSIBLE DRIVING MECHANISM.** ROBERT HENRY JOHNSON, Washington, D. C. Filed Dec. 21, 1911. Serial No. 667,243. (Cl. 74—7.)



1. Mechanism for transmitting rotary motion, comprising a drive shaft and a driven shaft, a toggle joint, a pivoted swivel joint revolubly connecting said toggle joint to one of said shafts, and a pivoted swivel joint connecting said toggle joint to the other of said shafts, and means for moving one of said shafts longitudinally thereby bending said toggle joint, and transmitting motion from the drive shaft to the driven shaft, substantially as described.

2. Mechanism for transmitting rotary motion, comprising a drive shaft, and a driven shaft, a toggle joint, a pivoted swivel joint with antifriction bearings revolubly connecting said toggle joint to one of said shafts, and a pivoted swivel joint connecting said toggle joint to the other of said shafts, and means for moving one of said shafts longitudinally thereby bending said toggle joint, and transmitting motion from the drive shaft to the driven shaft, substantially as described.

3. Mechanism for transmitting rotary motion, comprising a drive shaft and a driven shaft, a toggle joint, a pivoted swivel joint revolubly connecting said toggle joint to one of said shafts, and a pivoted swivel joint connecting said toggle joint to the other of said shafts, and means for moving said driven shaft longitudinally thereby bending said toggle joint, and transmitting motion from the drive shaft to the driven shaft, substantially as described.

4. Mechanism for transmitting rotary motion, comprising a drive shaft and a driven shaft, a toggle joint, a pivoted swivel joint revolubly connecting said toggle joint to one of said shafts, and a pivoted swivel joint connecting said toggle joint to the other of said shafts, and means for moving said driven shaft longitudinally thereby bending said toggle joint, and transmitting motion from the drive shaft to the driven shaft, substantially as described.

5. Mechanism for transmitting rotary motion, comprising a drive shaft and a driven shaft, a toggle joint, a pivoted swivel joint revolubly connecting said toggle joint to one of said shafts, and a pivoted swivel joint connecting said toggle joint to the other of said shafts, means for normally holding said toggle joint in the straight or distended position, and means for moving one of said shafts longitudinally thereby bending said toggle joint, and transmitting motion from the drive shaft to the driven shaft, substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

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1,037,923. **LUBRICATOR.** CHARLES EDMUND KELLS, Jr., New Orleans, La. Filed Aug. 28, 1911. Serial No. 646,403. (Cl. 184—92.)

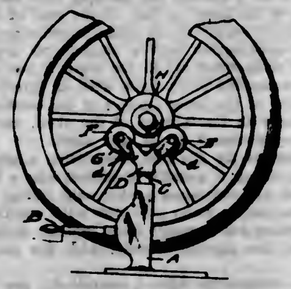


1. A lubricator, comprising a plunger constituting the stationary member of the lubricator, a cylindrical grease cup having an opening in its end and an opening in its side constituting one of the movable members of the lubricator, a cylindrical casing constituting the other movable member surrounding the grease cup and having an opening in its end adapted to register with the opening in the end of the cup and an opening in its side adapted to register with the opening in the side of the cup when the opening in the end of the cup is closed by the casing, the opening at the end of one of the movable members being in a different vertical plane from the opening in the side of said member.

2. The lubricator, comprising a cylindrical grease cup having an opening through one of its walls, a cylindrical casing surrounding the grease cup and having an opening through it adapted to register with the opening in the cup, a threaded plunger engaging the interior of the grease cup and adapted to move endwise therein when the grease cup is turned thereon, and devices connecting the casing and the cup permitting the former to turn to a limited extent on the cup to cause its opening to register with the opening in the cup and to then turn the cup on the threaded plunger to enlarge the grease space in the cup.

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1,037,924. **AUTOMOBILE-JACK.** CHARLES EDMUND KELLS, Jr., New Orleans, La. Filed Oct. 28, 1911. Serial No. 656,102. (Cl. 57—118.)



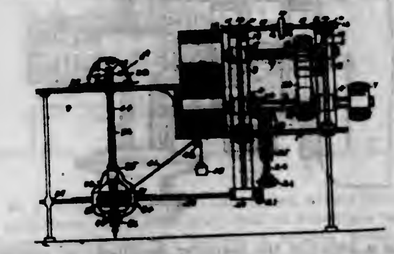
1. A jack for automobile wheels, comprising a vertically adjustable lifting member, a frame carried by said member, a roller mounted to turn on the frame, and an endless belt adapted to engage the wheel hub which is supported by the roller and is adapted to turn therewith.

2. A jack for automobile wheels, comprising a vertically adjustable lifting member, a frame carried by said member, a pair of rollers mounted on said member and adjustable vertically therewith, and an endless wheel supporting belt adapted to engage the wheel hub which is supported by said rollers and which turns therewith.



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1,037,925. **HAT-POUNCING MACHINE.** RUDOLPH KILPER, Houston, Tex. Filed Mar. 2, 1912. Serial No. 681,218. (Cl. 223—30.)



1. A device of the character described including a suitable supporting frame and a plurality of rotatable abrading members carried thereby, a rotatable hat support also carried by the frame and positioned so that the rim of the hat carried by said support will project between the said abrading members, a means for rotating said abrading members and a means for rotating said hat support, and a means tending to hold the hat support yieldably against said abrading members.

2. A device of the character described including a suitable supporting frame and two rotatable abrading members carried thereby and alined one above the other and spaced apart, means for adjusting said abrading members toward and from each other, a rotatable hat support adjustable toward and from said abrading members and positioned so that the rim of the hat carried thereby will be alined with the space between said abrading members, a mechanism for holding the hat support yieldably against the abrading members, a driving means for rotating the abrading members and a driving mechanism operatively connected with said driving means and with said hat support and transmitting rotation from the former to the latter.

3. A device of the character described including a suitable supporting frame and rotatable abrading members alined one above the other thereon, an adjusting mechanism connected with one of said abrading members whereby it may be adjusted toward and from the other of said abrading members, a rotatable hat support adjustable toward and from said abrading members and so positioned that the rim of the hat carried thereby will extend between said members, a means holding said hat support yieldably against the abrading members, a mechanism for driving said abrading members and a means operatively connected with said mechanism and also with said hat support and transmitting rotation from the former to the latter.

4. A device of the character described, including a suitable supporting frame and a plurality of rotatable abrading members adapted to rotate the same direction carried thereby, a rotatable hat support also carried by the said frame and so positioned that the rim of the hat carried by said support will project between the said abrading members, a means for rotating said abrading members and a means for rotating said hat support and a means tending to yieldably hold said hat support against said abrading members.

5. A device of the character described, including a suitable supporting frame and two rotatable abrading members carried thereby and alined one above the other, means for adjusting said abrading members toward and from each other, a rotatable yieldable hat support adjustable toward and from said abrading members, means for rotating said abrading members in the same direction and means for rotating said rotatable hat support.

[Claims 6 to 8 not printed in the Gazette.]



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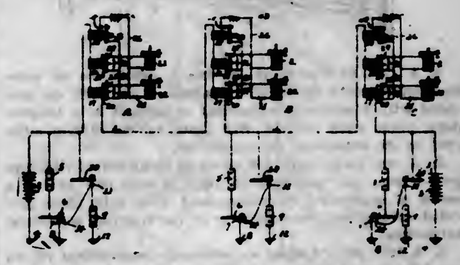
1,037,926. **CLEVIS FOR COUPLINGS.** EDMUND P. KIENE, Alliance, Ohio, assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Nov. 13, 1911. Serial No. 660,047. (Cl. 213—65.)



A device of the class described comprising, in combination, a coupler having a top wall provided with an opening therethrough, a lifter having a portion projecting through said opening and a clevis attached to said lifter above said wall, the attaching portions of said clevis being substantially hemispherical in form and adapted, when associated with said lifter, to substantially entirely close said opening, substantially as described.

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1,037,927. **TELEGRAPHY.** ISIDOR KITSEE, Philadelphia, Pa., assignor of one-half to William J. Latta, Philadelphia, Pa. Filed Apr. 15, 1907, Serial No. 368,327. Renewed Feb. 1, 1912. Serial No. 674,331. (Cl. 178—51.)



1. A telegraphic system comprising for each terminal a set of batteries, both batteries connected in opposition as to each other, a series of stations for the line of transmission, each station equipped with means to send simultaneously two messages to a second station, said means comprising two transmitting means connected with the interposition of resistances to the ground, one of said means provided with means to shunt the resistance of the second of said transmitting means, each station also equipped with receiving means, said receiving means comprising a series of electro-magnets connected in the line of transmission, resistances for part of said electro-magnets and means to shunt one or the other of said resistances through the movement of the movable part of one or the other of said electro-magnets.

2. In a system of telegraphy wherein each station is equipped with two transmitting keys, three electro-magnets inserted in the line, a local circuit common to the armatures of all of said electro-magnets, a resistance for the armature and forward stop of two of said electro-magnets, two local sounders and means to operate one local sounder through the arrival of an impulse of one strength and means to operate a second local sounder through the arrival of an impulse of a different strength.

3. A telegraphic system comprising for each terminal a set of batteries, both sets in opposition as to each other, and comprising a series of stations, each station equipped with two sending keys connected each, with the interposition of a resistance, to the ground; means for one key to

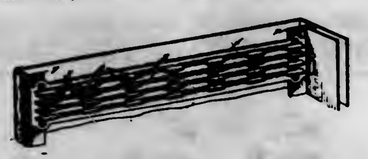
shunt the resistance of the other key when depressed and means for the second key to shunt its own and the other resistance when both of said keys are depressed, in combination with receiving means comprising three electro-magnets connected in the line and comprising two localised electro-magnets operatively related to said three electro-magnets in a manner, so as to operate one of said localised electro-magnets through the operation of one of the line magnets and to operate the second localised electro-magnet through the operation of the other line magnet.

4. In a system of telegraphy, means to transmit or receive simultaneously two messages, said means comprising two sets of batteries connected in opposition as to each other and in series as to the line, two transmitting keys for each station, three line magnets for each station, two localised magnets for each station, the localised magnets in operative relation to the line magnets and adapted each to respond to the movement of a different line magnet.

5. In combination with a line of transmission, a series of stations distributed along said line, each station equipped with two transmitting keys and means to receive simultaneously two messages and translate each message separately into sound; the line also provided at each terminal with a source of current; both of said sources in opposition as to each other.

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1,037,928. RACK-SUPPORT. FRANK V. KNAUSS, Portsmouth, Ohio. Filed Oct. 3, 1911. Serial No. 652,675. (Cl. 126—39.)



1. A cast rack support, having a plate, one or more longitudinal ribs projected therefrom, with each rib provided with a series of segmental extensions in a longitudinal plane with the rib, said plate having orifices adjacent to the segmental rib extensions.

2. A cast plate, having a series of longitudinal ribs projected from one face thereof, each of said ribs having a series of segmental extensions and with said plate provided with orifices intermediate of the ribs and segmental extensions.

3. A cast plate having a continuous longitudinal rib on one face thereof, segments radiating from said rib in a longitudinal plane therewith, and a perforation through the plate adjacent each segment.

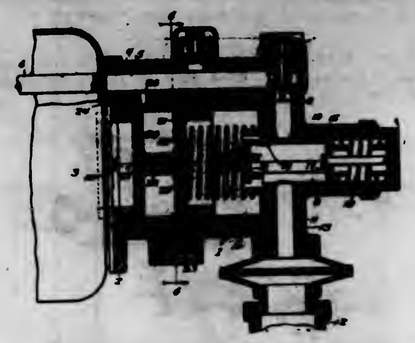
4. A cast plate having a series of longitudinal parallel rib extensions radially terminating in segments in the longitudinal plane of each rib and in relative serial alinement with perforations formed through the plate between each parallel series of segments.

5. A thin cast iron plate having a series of longitudinal ribs of small area in cross section with each rib developing radially into segments, with a perforation formed through the plate adjacent each segment to maintain the plane of the plate, rib and segments during the casting thereof.

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1,037,929. AIR-BRAKE VALVE. JACOB B. KNUDSEN, Chicago, Ill. Filed Oct. 4, 1911. Serial No. 652,749. (Cl. 188—15.)

1. In a device of the character described, the combination with a valve casing having a chamber formed therein communicating at one end with an auxiliary reservoir and at the other end with a train pipe, said chamber having ports leading therefrom to the brake cylinder and exhaust ports, a double-headed piston operating in said chamber and when the valve is in release position arranged to close the ports leading to the brake cylinder against communication with the auxiliary reservoir, a by-pass communicating with said chamber on each side of said piston and arranged to be closed when said piston is moved to service position and independent normally closed connection between the train pipe and brake cylinder pipe.



2. In a device of the character described, the combination with a valve casing having a chamber formed therein, a piston operating in said chamber and comprising a pair of piston heads connected together by a restricted member, said chamber being arranged to be connected with the auxiliary reservoir, ports connecting said chamber with the brake cylinder and ports leading from said chamber to the atmosphere, said ports being so arranged that when the piston is in release position the brake cylinder port is opened to that portion of the chamber having the exhaust ports formed therein and when the piston is moved to service position the brake cylinder ports are opened to that portion of the cylinder communicating with the auxiliary reservoir and an independent normally closed connection between the train pipe and brake cylinder pipe.

3. In a device of the character described, the combination with a valve casing having a chamber formed therein, of a double-headed piston operating in said chamber and dividing the chamber into three sections, the train pipe connected section, the auxiliary reservoir section and the intermediate section, ports in said chamber communicating with the brake cylinder and a second set of ports communicating with the atmosphere, one of the heads of the piston being so arranged that when the piston is in release position the brake cylinder ports communicate with the intermediate portion of the chamber and when the piston is in service or lap position the brake cylinder ports are closed to the intermediate portion of the chamber and are opened to the auxiliary reservoir section and an independent normally closed by-pass extending between the train pipe and the brake cylinder pipe.

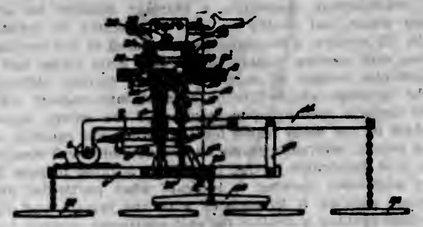
4. In a device of the character described, the combination with a valve casing having a chamber formed therein, a connection between said chamber and the train pipe, a direct connection between the train pipe and the brake cylinder, a port formed in said casing and connecting the brake cylinder with said chamber, a double-headed piston operating in said chamber and dividing the same into three sections—the train pipe section, the intermediate section and the auxiliary reservoir section, exhaust ports formed in said chamber in the intermediate section, said direct connection between the train pipe and the brake cylinder being normally closed by a valve arranged to be opened by direct engagement of the piston.

5. In a device of the character described, the combination with a valve casing having a chamber formed therein, of a double-headed valve piston operating in said chamber and dividing the chamber into three sections—the train pipe section, the intermediate section and the auxiliary reservoir section, a port for said chamber leading to the brake cylinder and arranged to communicate with either the auxiliary reservoir section or the intermediate section, depending upon the position of the piston, an exhaust port communicating with said intermediate section and an independent normally closed by-pass extending between the train pipe and brake cylinder pipe.

[Claims 6 to 9 not printed in the Gazette.]



1,037,930. DRAFT-EQUALIZER. NILS B. KRAMPNESS, Porter, Minn., assignor of one-half to Oscar Miller, Porter, Minn. Filed Oct. 27, 1909. Serial No. 524,787. (Cl. 21—76.)



1. In a draft equalizer, the combination, with a bracket, of a main lever and a rear lever, both of which are intermediately pivoted to said bracket, a bearing wheel secured to one end of said rear lever and acting on said main lever, a lever extension pivotally connected to the other end of said rear lever, links connecting said main lever and said lever extension, intermediate connections between said main and rear levers, and draft devices applied to said main lever and to said lever extension, substantially as described.

2. A connection for draft equalizers comprising an anchor bracket, a pair of laterally spaced clevis plates connected to said anchor bracket for vertical adjustments, a transversely horizontally extended bar connected to said clevis plates for vertical adjustment, a bifurcated bearing, the prongs of which are slidably mounted on said bar, means for holding said bifurcated bearing in different lateral adjustments with respect to said bar, and a draft device pivotally secured to said bifurcated bearing.

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1,037,931. VEHICLE-WHEEL. WILLIS W. KRUTSCH, Coffeyville, Kans., assignor of one-fourth to Caleb O. Ross and one-fourth to Michael B. Shuffiin, Coffeyville, Kans. Filed Apr. 25, 1912. Serial No. 693,212. (Cl. 21—69.)



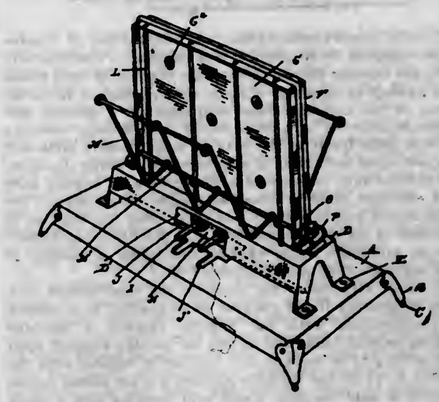
1. In a vehicle-wheel, a rim, spokes operably and removably connected at their outer ends to said rim and threaded at their inner ends, a centrally-disposed hub having a peripheral flange provided with a beveled periphery, an annulus removably-mounted upon said hub and spaced a short distance from the flange, said annulus having a beveled periphery, and sleeves adjustably-engaging the threaded inner ends of the spokes, said sleeves having shoulders engaging the beveled peripheries of the flange and the annulus, substantially as described.

2. In a vehicle wheel, a rim, spokes operably and removably connected at their outer ends to said rim and threaded at their inner ends, a centrally-disposed hub having a peripheral flange provided with a beveled periphery, an annulus removably-mounted upon said hub and spaced a short distance from the flange, said annulus having a beveled periphery, sleeves adjustably-engaging the threaded inner ends of the spokes, said sleeves having split outer ends and shoulders engaging the beveled peripheries of the flange and the annulus, and cap-nuts engaging the split ends of said sleeves to force them into frictional contact with the spokes.

3. In a vehicle wheel, a rim, spokes operably and removably connected at their outer ends to said rim and threaded at their inner ends, a centrally-disposed hub having a peripheral flange provided with a beveled periphery, an annulus removably-mounted upon said hub and spaced a short distance from the flange, said annulus having a beveled periphery, sleeves adjustably-engaging the threaded inner ends of the spokes, said sleeves having split outer ends and shoulders engaging the beveled peripheries of the flange and the annulus, cap-nuts engaging the split ends of said sleeves to force them into frictional contact with the spokes, and packing interposed between said cap-nuts and the split ends of the sleeves.

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1,037,932. ELECTRIC HEATER. FRANK KUHN and FRANK E. SHAILOR, Detroit, Mich., assignors to American Electrical Heater Company, Detroit, Mich., a Corporation of Michigan. Filed Oct. 16, 1909. Serial No. 523,017. (Cl. 219—19.)



1. An electrical heater comprising a vertically-arranged open frame, a slotted base for supporting said frame, and a flat heating unit insertible through the slot in said base into engagement with said frame.

2. An electrical heater comprising an open double grid vertically-arranged frame, a slotted base for supporting said frame, and a flat heating unit insertible through the slot in said base between the grids of said frame.

3. An electrical heater comprising a slotted base, a superbase mounted thereon having a slot alined with the slot in the base, an open frame mounted on said superbase, and a flat heating unit insertible through the slots in said base and superbase into engagement with said frame.

4. An electrical heater, comprising an open double grid vertically-arranged frame, a slotted base for supporting said frame, and a heating unit comprising a single unitary structure insertible through the slot in said base between the grids of said frame.

5. An electrical heater, comprising a vertically-arranged frame, including a rock shaft having one end projecting therebeyond, a supporting rack carried by the rock shaft, and means engaging the projecting end of said shaft for holding the same in different positions of adjustment.

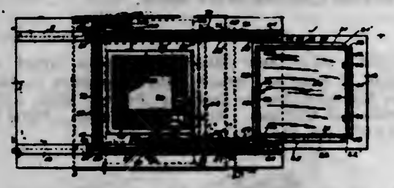
[Claims 6 to 12 not printed in the Gazette.]

1,037,963. ANIMAL-SHEARS. LEANDER H. LA CHANCE, Chicago, Ill., assignor to Chicago Flexible Shaft Company, Chicago, Ill., a Corporation of Illinois. Filed May 6, 1911. Serial No. 625,587. (Cl. 30—1.)



A cutter for animal shears having a cutting blade or tooth comprising a pair of oppositely disposed cutting edges, said tooth having a recess between its cutting edges, and having a relief aperture leading out from such recess through the top wall of the tooth.

1,037,964. ATTACHMENT FOR CAMERAS. CHARLES CALVERT LAMB, Joliet, Ill., assignor of forty-nine one-hundredths to Willard M. McEwen, Chicago, Ill. Filed Dec. 20, 1910. Serial No. 598,372. (Cl. 95—36.)



1. In a camera attachment, the combination of a main frame adapted to be applied to a camera to communicate with the interior thereof, a carriage slidable on said frame and having an opening, a plate holder adapted to be secured to the carriage about said opening, a shutter and exposure slide for said plate holder, and detents mounted on said main frame in the path of said exposure slide and adapted upon movement of said carriage to bring the opening therein into register with the camera to engage with said exposure slide to draw said slide outwardly of the plate holder and to restore said slide when the carriage is returned to its normal position, said detents being adjustable on said main frame whereby the degree of opening of said exposure slide can be adjusted for.

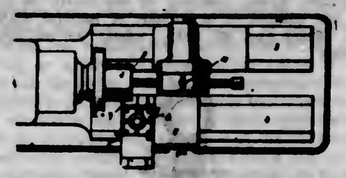
2. In an attachment for cameras, the combination of a main supporting frame adapted to be applied to a camera to communicate with the interior thereof, a carriage slidable on said frame and having an opening adapted upon such sliding to be brought into and out of register with the camera to which the frame is applied, a plate holder frame secured to said carriage about said opening and a plate holder in said frame, an exposure slide for said plate holder, channel guide bars secured to the main frame adjacent the opposite edges of said carriage, a rack bar slidable in the channel bar, a detent secured to each rack bar and adapted to coöperate with the exposure slide upon movement of the carriage to carry the plate holder toward or away from the camera, a gear engaging with each rack bar, and a common shaft for said gears, rotation of said shaft causing simultaneous movement of said rack bars and adjustment of said detents with reference to the exposure slide whereby the degree of opening of said exposure slide may be determined.

3. In an attachment for cameras, the combination of a main supporting frame adapted to be secured to a camera and having an opening communicating with the interior of the camera, a carriage slidable on said main frame and having an opening for coöperating with said main frame opening, plate holder mechanism on said carriage and about the opening therein, rollers mounted within said main frame adjacent the opening therein, a diaphragm adapted to be wound about said rollers and having various sized openings adapted to be carried past the main frame opening upon rotation of the rollers, and gear mechanism mounted on the main frame for operating said rollers, said main frame having an additional small opening and said diaphragm having designating characters adapted to pass by the said additional opening to indicate at said additional opening the particular diaphragm opening exposed to the camera.

4. In an attachment for cameras, the combination of a main supporting frame adapted to be applied to a camera to communicate therewith, a carriage slidable on said main frame and having an opening adapted to register with the camera, a focusing frame secured to the carriage about said opening, rollers within said main frame and a diaphragm wound on said rollers and having different sized openings adapted to be brought into register with said carriage opening upon rotation of the rollers, means carried by the main frame for controlling the rotation of said rollers, said main frame having an additional opening and said diaphragm having characters adapted to pass by said additional opening to indicate what particular diaphragm opening is in register with the camera and the carriage opening, a shutter for said additional opening, and an arm extending from the carriage for engaging with said shutter to open the shutter when the carriage is moved to bring the focusing mechanism opening into register with the camera and to engage with said shutter to close said additional opening when the carriage is moved to carry the focusing mechanism out of registration with the camera.

5. In an attachment for cameras, the combination of a main supporting frame adapted to be applied to a camera and having an opening to register with the interior of the camera, a carriage slidable on said main frame and having an opening, plate holder mechanism mounted on said carriage over the opening therein, rollers pivoted to said main frame adjacent the opening therein and engaging against said carriage for preventing the entrance of light to the camera when said carriage has been moved to bring the plate holder mechanism into register with the main frame opening.

1,037,965. TURRET-LATHE. HANS LAUP and MORITZ KLEBER, Magdeburg, Germany; said Kleber assignor to said Laup. Filed June 8, 1910. Serial No. 565,876. (Cl. 29—36.)



1. An improved turret-lathe with two simultaneously operating heads comprising in combination with the main spindle, a bed guide, a turret head in said bed guide revoluble around a horizontal axis which stands perpendicular to the longitudinal axis of the main spindle, a second bed guide parallel with the first bed guide and a head mounted in said second bed guide so that it can revolve around a vertical axis.

2. An improved turret-lathe with two simultaneously operating heads comprising in combination with the main spindle, a bed guide, a turret head in said bed guide revoluble around a horizontal axis which stands perpendicular to the longitudinal axis of the main spindle, a second bed guide parallel with the first bed guide and a head mounted in said second bed guide so that it can revolve around a vertical axis, said second revolving head being adjusted with regard to the longitudinal axis of the main spindle, substantially as described and shown and for the purpose set forth.

1,037,986. CURTAIN-SUPPORT. CHRISTIAN F. LAUN, Waterville, Conn., assignor to Berbecker & Rowland Manufacturing Company, Waterville, Conn., a Corporation of Connecticut. Filed Apr. 24, 1912. Serial No. 693,920. (Cl. 156—21.)

1. A curtain support comprising two members movably connected with one another and having an attaching element at its upper end through which it may be secured to a curtain whereby the upper end of the curtain carried by the support will conceal the curtain pole.



2. A curtain support comprising two members movably connected with one another and having attaching elements at its upper and lower ends through which it may be secured to a curtain, whereby the upper end of the curtain carried by the support will conceal the curtain pole.

3. A curtain support comprising a member having an attaching element at its upper and lower ends through which a curtain may be secured thereto; a block carried by said member intermediate its ends; a second member movably connected with said block, and means for connecting said members.

4. A curtain support comprising a member having an attaching element at its upper and lower ends through which a curtain may be secured thereto; a block secured to said element intermediate its ends and having a bearing; and a second member supported in said bearing and having a hook adapted to engage said first mentioned member.

5. A curtain support comprising a member having an attaching element at its upper and lower ends through which a curtain may be secured thereto; a block secured to said element intermediate its ends and having a bearing extending parallel with the plane of the support; and a second member extending beyond the same, and bent to provide a hook adapted to engage said first mentioned member.

[Claims 6 and 7 not printed in the Gazette.]

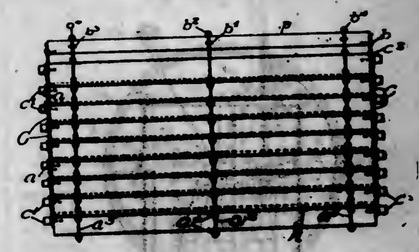
1,037,987. REGULATING DEVICE FOR AUTOMOBILES. CHRISTIAN LEBHERZ, Oberstenfeld, Germany. Filed Jan. 19, 1912. Serial No. 672,459. (Cl. 21—90.)



1. In combination with a regulator shaft for automobiles, of a manually operable sleeve keyed against independent rotation with respect to said shaft but longitudinally movable thereon, a gear rotatable on said shaft, said gear and sleeve having coacting coupling portions, a spring engaging said shaft to normally couple said sleeve and gear, a lever carried by said sleeve and engaging said shaft to uncouple the gear, and a pendulum having a tooth portion connecting with said gear, substantially as described.

2. In combination with a regulator shaft for automobiles, a manually operable member non-rotatably but longitudinally movable with respect to said shaft, a rotatable but longitudinally fixed element adapted for coupling engagement with said member, a spring tending to maintaining said member and element in coupling engagement, means carried by said member for throwing the same out of coupling engagement with said element, and a pendulum operatively connected with said element, substantially as described.

1,037,988. FOLDING BLIND. JOHN F. LEBEAU, St. Joseph, Mich. Filed Aug. 24, 1911. Serial No. 645,669. (Cl. 156—17.)



1. In a Venetian blind, a series of slats having their ends provided with pivots, slotted links engaging said pivots to connect the said slats, means for tilting the slats about their pivots, and means for drawing the slats close together, said links being arranged to overlap.

2. In a Venetian blind, a series of slats having their ends provided with pivots, slotted links engaging said pivots to connect the said slats, means for tilting the slats about their pivots, and means for drawing the slats close together, said links being arranged to overlap, and one or more of said links being provided with guides, each guide adapted to receive the upper ends of a plurality of said links when the slats are drawn together.

3. In a Venetian blind, a series of slats having their ends provided with pivots, slotted links engaging said pivots to connect the said slats, means for tilting the slats about their pivots, means for drawing these slats close together, said links being arranged to overlap, said the said pivots being nearer the upper edges of said slats than the lower edges thereof, whereby said slats rotate by gravity on the lower ends of the links, to close the spaces between the slats.

4. In a Venetian blind, a series of slats having their ends provided with pivots, slotted links engaging said pivots to connect the said slats, means for tilting the slats about their pivots, means for drawing the slats close together, said links being arranged to overlap, said the slots of said links being of such length that the links overlap more than two deep when the slats are drawn together.

5. In a Venetian blind, a series of slats having their ends provided with pivots, slotted links engaging said pivots to connect the said slats, means for tilting the slats about their pivots, means for drawing the slats close together, said links being arranged to overlap, said each link being provided with means for holding the links in alinement when the slats are drawn together.

[Claims 6 to 19 not printed in the Gazette.]

1,037,990. MORTISING-MACHINE. JACOB LEICHLITER, Columbus, Ohio. Filed Apr. 26, 1911. Serial No. 623,679. (Cl. 144—70.)

1. An automatic mortising machine comprising a base, standards thereon, a frame movable upon said standards, a shaft journaled in said frame, a gear wheel fixed to said

shaft, a swinging member mounted upon the latter, a bit carrying shaft rotatably journaled in said member, means for imparting a longitudinal movement to the same as it is rotated, gear mechanism intermediate said shafts, means actuated by the gear wheel for causing the bit carrying member to swing upon its pivot, a rotatable feed screw, an adjustable plate carried by the frame and engaging said screw, a yoke fixed to the latter, a spring upon the feed screw having one end fixed to the yoke and its other end bearing against the frame, a ratchet wheel fixed to the feed screw and mounted within said yoke, a ratchet collar fixed to the screw, a pawl secured to the frame and engaging said ratchet collar, and a spring-pressed pawl carried by the yoke and engaging the ratchet wheel within the latter, a pivotal angle lever, a cam rotatable with the gear mechanism for rocking said angle lever, one end of the latter adapted to strike against a projection of an end of the yoke, and means for arresting the feeding movement of the screw.



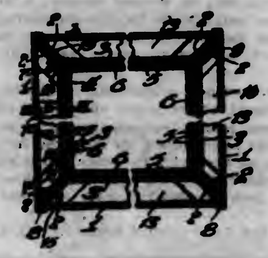
2. An automatic mortising machine comprising a base, standards thereon, a frame movable upon said standards, a shaft journaled in said frame, a gear wheel fixed to said shaft, a swinging member mounted upon the latter, a bit carrying shaft rotatably journaled in said member, means for imparting a longitudinal movement to the same as it is rotated, gear mechanism intermediate said shafts, means actuated by the gear wheel for causing the bit carrying member to swing upon its pivot, a rotatable feed screw, an adjustable plate carried by the frame and engaging said screw, a yoke fixed to the latter, a spring upon the feed screw having one end fixed to the yoke and its other end bearing against the frame, a ratchet wheel fixed to the feed screw and mounted within said yoke, a ratchet collar fixed to the screw, a pawl secured to the frame and engaging said ratchet collar, a spring-pressed pawl carried by the yoke and engaging the ratchet wheel within the latter, a pivotal angle lever, a cam rotatable with the gear mechanism for rocking said angle lever, one end of the latter adapted to strike against a projection of an end of the yoke, an adjustable stop adapted to be positioned in the path of the projecting end of the pawl within said yoke and designed to stop the feeding movement of the screw.

3. An automatic mortising machine comprising a base, standards thereon, a frame movable upon said standards, a shaft journaled in said frame, a gear wheel fixed to said shaft, a swinging member mounted upon the latter, a bit carrying shaft rotatably journaled in said member, means for imparting a longitudinal movement to the same as it is rotated, gear mechanism intermediate said shafts, means actuated by the gear wheel for causing the bit carrying member to swing upon its pivot, a rotatable feed screw, an adjustable plate carried by the frame and engaging said screw, a yoke fixed to the latter, a spring upon the feed screw having one end fixed to the yoke and its other end bearing against the frame, a ratchet wheel fixed to the feed screw and mounted within said yoke, a ratchet collar fixed to the screw, a pawl secured to the frame and engaging said ratchet collar, a spring-pressed pawl carried by the yoke and engaging the ratchet wheel within the latter, a pivotal angle lever, a cam rotatable with the gear mechanism for rocking said angle lever, one end of the latter adapted to strike against a projection of an end of the yoke, a bar rising from said base, an adjustable collar upon said bar and provided with a projection adapted to be positioned in the path of the projecting end of the pawl within said yoke.

4. A mortising apparatus comprising a base, standards rising therefrom, a frame movably mounted upon said standards, a shaft mounted in the frame, a gear wheel fixed to said shaft, a swinging hollow member mounted upon said shaft, means for oscillating said member, a slot in the frame in which said member is guided as it swings, arms upon said frame, a rotatable bit shaft journaled in said member, a member in which the upper end of said bit carrying shaft is swiveled, links pivotally connecting said member in which the shaft is swiveled to said arms, a pinion fixed to the bit carrying shaft and in mesh with said gear wheel, a feed screw, a spring-pressed yoke fixed thereto, a pawl mounted upon said yoke, a ratchet wheel fixed to the feed screw within the yoke and engaged by said pawl, a ratchet collar upon the feed screw, a pawl fixed to the frame and engaging said collar, and an adjustable stop adapted to be positioned in the path of the projecting end of said pawl carried by the yoke and designed to stop the feed of the screw.

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1,037,940. SAFE. GEORGE T. LEWIS, St. Louis, Mo. Filed Sept. 5, 1911. Serial No. 647,629. (Cl. 109—2.)



1. A safe constructed in separably connected top, bottom and lateral sections, each of said sections comprising a hollow frusto-pyramidal shell open across its inner base, one of the slant faces of said shell having a portion cut away along its inner edge, and a partition intermediate in size between the areas of the inner and outer bases, said partition being slidable edgewise through the opening left by said cut-away portion and provided with a deflected flange for replacing said cut-away portion.

2. A safe constructed in separably connected top, bottom and lateral sections, each of said sections comprising a hollow frusto-pyramidal shell open across its inner base, one of the slant faces of said shell having a portion cut away along its inner edge, and a partition intermediate in size between the areas of the inner and outer bases, said partition being slidable edgewise through the opening left by said cut-away portion and provided with a deflected flange for replacing said cut-away portion, the sections forming the sides of said safe being disposed with said cut-away slant faces uppermost to permit said partitions to be withdrawn when the top section of the safe is removed.

3. A safe constructed in separably connected top, bottom and lateral sections, each of said sections comprising a hollow frusto-pyramidal shell open across its inner base, one of the slant faces of said shell having a portion cut away along its inner edge, a partition intermediate in size between the areas of the inner and outer bases, said partition being slidable edgewise through the opening left by said cut away portion and provided with a deflected flange for replacing said cut away portion, and a mass of self-hardening material secured to the inner face of said partition and substantially filling the dovetailed space formed between the inclined faces of said shell across the inner face of said partition.



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1,037,941. APPARATUS FOR CURING MEAT. JOHN C. LINCOLN, East Cleveland, Ohio, assignor to The Electric Meat Curing Company, Cleveland, Ohio, a Corporation of Maine. Filed Nov. 27, 1906. Serial No. 464,767. (Cl. 175—311.)



1. In a preserving apparatus, the combination of a vessel adapted to contain the articles to be preserved and a fluid electrolyte, electrodes in the vessel, means for supplying an electric current thereto which passes through the articles and electrolyte, and means for forcing cold air through the fluid to perform the triple result of agitating it about the articles being preserved and cooling it and causing it to flow at the electrodes away from such articles.

2. In an apparatus for preserving, the combination of a vessel, electrodes therein, partitions between the electrodes and the intermediate portion of the vessel, there being openings across the partitions adjacent to their lower ends, and means for forcing air into the bottom of the vessel.

3. In an apparatus for preserving, the combination, of a vessel adapted to contain the articles to be preserved and a fluid preservative medium, electrodes in said medium, means for supplying an air blast to the fluid adjacent to the electrodes to cause said fluid to flow at such points away from the articles being preserved.

4. In an apparatus for preserving, the combination, of a vessel adapted to contain the articles to be preserved and a fluid preservative medium, electrodes in said medium, means for supplying an air blast to the fluid adjacent to the electrodes to cause said fluid to flow at such points away from the articles being preserved, and means for properly maintaining the level of the liquid in the tank by adding preservative medium thereto.

5. In an apparatus for preserving, the combination of a vessel, trays or racks within the vessel, electrodes in the vessel at the opposite ends of such trays or racks, partitions between the electrodes and the racks, and means for causing the fluid between the partitions and the ends of the vessel to flow outwardly.

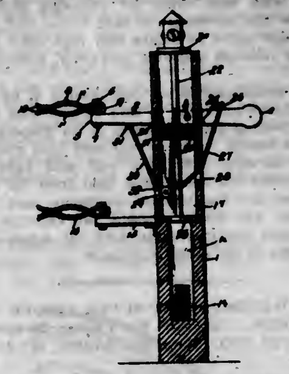
[Claims 6 to 10 not printed in the Gazette.]

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1,037,942. MAIL-BAG DELIVERER. CLINTON A. LOTSPEICH, West Point, Ark. Filed July 27, 1911. Serial No. 640,295. (Cl. 246—37.)

1. A mail bag delivering mechanism, comprising a supporting post having a longitudinal bore, a rod slidably mounted in said bore, a signal carried by the upper end of said rod, a counterweighted crane arm pivotally secured to said post, mail bag supporting means carried by said crane, and means co-acting with said crane to raise and lower the rod and its signal.

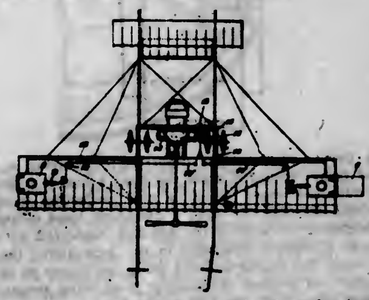
2. A mail bag delivering mechanism, comprising a supporting post having a longitudinal bore, a rod slidably mounted in said bore, and carrying a signal at its upper end, a counterweighted crane arm pivoted to said post, mail bag supporting means carried by said crane, a cable connecting the weighted end of the crane with the lower end of the rod, a pulley secured within the post, and a second cable connecting the bag supporting end of the crane with the rod intermediate the length of the latter, said second cable being passed under said pulley.



3. A mail bag delivering mechanism, comprising a supporting post provided with a longitudinal bore, a signal movable in and out of said post, a crane pivotally secured to said post, means co-acting with said crane to actuate said signal, and means carried by said crane to support a mail bag.

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1,037,943. AERO SAFETY DEVICE. WADE H. LOWRY, Jacksonville, Fla. Filed Mar. 28, 1911. Serial No. 616,521. (Cl. 244—21.)



1. In an aerial vehicle, the combination of a tank containing fluid under pressure, a parachute anchored to said vehicle and provided with an inflatable tube around its edge, a conduit closed to the atmosphere and leading from said tube to said tank, a valve controlling the admission of pressure fluid, from said tank to said tube, means for detachably holding said parachute against displacement, and means for releasing said parachute and simultaneously opening said valve, substantially as described.

2. The combination of an aerial vehicle, a tank thereon for containing fluid under pressure, a parachute provided with an annular inflatable tube around its edge, a conduit between said annular tubing and said tank, a valve controlling the fluid under pressure in said tank, latching means for detachably holding said parachute against displacement, and a cable connected at one end to said valve and at its other end connected to said latching means, and means for operating said valve for releasing said latching means and inflating said annular tubing, substantially as described.

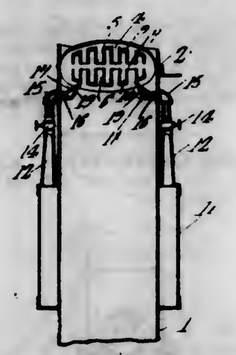
3. The combination of an aerial vehicle, a tank carried thereby for containing fluid under pressure, a movable platform carried by said vehicle, a parachute adapted to be folded upon said platform, said parachute being pro-

vided with an annular inflatable tube forming its base, latching means for holding said parachute and platform against displacement, means tending to force said platform and parachute upwardly against said latching means, a conduit between said inflatable tube and said tank, a valve interposed between said tank and conduit, means connected with said valve for releasing said latching means upon the movement of said valve, and means for operating said valve to inflate said tube upon said parachute being released and shot upwardly, substantially as described.

4. In an aerial vehicle the combination of an inflatable safety appliance anchored to said vehicle, and means for releasably holding said appliance in an inoperative position on said vehicle, with a compressed fluid tank, a valve connection between said tank and said inflatable appliance, whereby the compressed fluid from the tank may be discharged into the inflatable appliance, and the latter thus inflated, and means whereby the valve of the fluid tank is opened simultaneously with the releasing of the holding means of the safety appliance.

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1,037,944. WATER-JACKET SPARK FINDER AND EXTINGUISHER. GEORGE W. LUCAS, Newport, Ark. Filed June 26, 1911. Serial No. 635,406. (Cl. 110—142.)



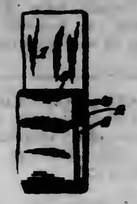
1. A device of the class described comprising a flue; a water jacket mounted upon the flue; a nozzle communicating with the water jacket; a pipe projecting from the nozzle and entering the flue; a discharge head located at right angles to the axis of the flue and connected with the pipe; and a damper rotatable in the pipe above the discharge head, the discharge head being positioned to engage the damper, to prevent the damper from being swung into a common plane with the axis of the flue.

2. A device of the class described comprising a flue; a water jacket surrounding the flue; oppositely disposed nozzles located upon the outside of the flue, approximately parallel thereto, the lower ends of the nozzles opening into the top of the water jacket; pipes entering the flue at right angles thereto; discharge heads carried by the pipes within the flue; elbows connecting the pipes with the nozzles; and cut-off valves in the nozzles; the valve in each nozzle being separably manipulable to direct all of the fluid pressure through the other nozzle, and each nozzle being tapered toward the respective elbow, whereby to increase the speed of the discharge of the entire fluid pressure within the water jacket into one elbow, to effect a cleaning of the same.

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1,037,945. MANUFACTURE OF CLOTHING. HENRY MCP. LYLES and BENJAMIN KRAFTSHOW, St. Louis, Mo. Filed Sept. 7, 1911. Serial No. 648,220. (Cl. 2—122.)

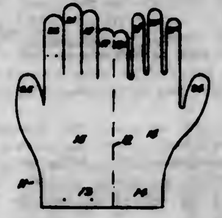
1. A device of the character described, comprising a wide fold arranged at the bottom of a garment, and a comparatively narrow strip of stiff and resilient fabric secured to the inner surface of said fold, the portion of said fold carrying said strip being rebent and secured to the inner surface of the body of the garment along a line substantially coincident with the lower edge of said strip.



2. A device of the character described, comprising a wide fold arranged at the bottom of a garment, and a plurality of comparatively narrow strips of stiff and resilient fabric secured to the inner surface of said fold, a portion of said fold being rebent, together with the strip thereunder, and secured to the inner surface of the body of the garment along a line substantially coincident with the lower edge of said strip.

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1,037,946. GLOVE. HILAIRE MAHIEU, New York, N. Y. Filed July 17, 1911. Serial No. 638,893. (Cl. 2—9.)



A glove made of a single blank including thumb and finger pieces composed each of two parts of different widths and lengths adapted for superimposition one upon another by folding the blank on a substantially central line passing through the little finger, the parts composing the thumb piece lying outwardly, all the inner parts being narrower than the outer ones and having their edges spaced from one another, said edges being sewn to the corresponding edges of the outer parts by a continuous seam, the line of fold dividing the wrist into two unequal portions, the wider portion being approximately on line with the continued outer edge of the forefinger on the back of the glove and the narrower portion being approximately on line with the continued outer edge of the middle finger on the palm of the glove, the central line of the inside part of each finger-piece coinciding with the central line of the thereto appertaining outside part, and the outer edges of the parts composing the thumb being brought together, the arrangement being such that as each inside part is superimposed upon its corresponding outside part, the former will draw in the edges of the latter and cause the said seam to lie within the hand entirely.

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1,037,947. DETACHABLE HORSESHOE. VINCENZO MANCINI, Schenectady, N. Y. Filed Jan. 9, 1912. Serial No. 670,185. (Cl. 168—22.)

1. A detachable horseshoe comprising in combination the shoe-body; a pair of bail-members formed of resilient sheet-metal, each having a heel-portion pivotally mounted upon the heel of the shoe-body upon a vertical axis, and having a lug on said heel-portion, said bail-members being adapted to embrace the hoof to which the shoe is attached; a stop-block in the path of said lugs on the heel-portions of the bail-members whereby their rotative movement is limited; and means for securing together the front ends of said bail-members.



2. A detachable horseshoe comprising in combination the shoe-body; a pair of bail-members formed of resilient sheet-metal, each having a heel-portion pivotally mounted upon the heel of the shoe-body upon a vertical axis, and having a lug on said heel-portion, said bail-members being adapted to embrace the hoof to which the shoe is attached; a polygonal stop-block; a pin adjustably mounted in the heel-portion of the shoe-body, upon which pin said stop-block is eccentrically mounted in the path of said lugs upon the bail-members whereby their rotative movement is limited; and means for securing together the front ends of said bail-members.



3. In a detachable horseshoe, and in combination, a shoe-body, having a toe-clip; a pair of bail-members formed of resilient sheet-metal, each having a heel-portion pivotally mounted upon the heel of the shoe-body upon a vertical axis, and having a lug on said heel-portion, and each bent to curved form and having a twist whereby its front end is inclined to conform to the hoof to which the shoe is attached; means for drawing together the front ends of said bail-members; and a stop-block in the path of said lugs on the bail-members whereby their rotative movement is limited.

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1,037,948. MINER'S LAMP. EDWARD C. MANGIN, Colorado Springs, Colo. Filed Mar. 28, 1912. Serial No. 686,924. (Cl. 67—55.)

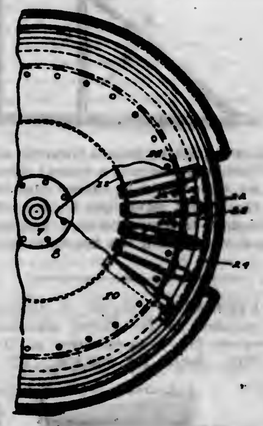


1. In a device of the character described, the combination of a tubular body member, having an open end provided with internal screw threads, an externally threaded plug adapted to be screwed into the open end of the body member, a tapering portion formed on said plug, having a reduced threaded end, said plug being provided with a centrally arranged opening, a wick tube disposed within said opening, a regulating sleeve threaded on the reduced end of the tapering portion and adapted for adjustment to regulate the size of the flame, a tubular member disposed within said sleeve and arranged in spaced relation with the walls thereof, said tubular member being secured to the sleeve at the outer end thereof whereby the space between the tubular member and the sleeve will be closed to prevent any leakage of the illuminating material at this point.

2. In a device of the character described, the combination of a tubular body member, having an open end provided with internal screw threads, an externally threaded plug adapted to be screwed into the open end of the body, a tapering portion formed on the outer end of said plug, having a reduced threaded end, said plug being provided with a centrally arranged opening, a wick tube disposed in said opening and adapted to frictionally engage the wall thereof to hold said tube in position, a wick arranged within said tube, a regulating sleeve provided with internal screw threads and adapted to be screwed on to said threaded reduced portion, said sleeve being adapted for adjustment to regulate the size of the flame, a tubular member disposed within said sleeve and arranged in spaced relation with the walls thereof, said tubular member being secured to the sleeve at the outer end thereof whereby the space between the tubular member and the sleeve will be closed to prevent any leakage of the illuminating material at this point.

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1,037,949. RESILIENT WHEEL. MARIUS MATHIESEN, San Antonio, Tex. Filed Oct. 4, 1911. Serial No. 652,865. (Cl. 152—48.)



1. A wheel of the character described, comprising a hub portion, a pair of metallic disks carried by said hub portion, an inner ring and an outer ring disposed between said disks, sleeves carried by said rings, tubular push rods slidably engaged in said sleeves, rollers carried by the outer ends of said push rods, springs disposed within said push rods for resisting the movement of the push rods into said sleeve, and a rim, comprising a channel member in which said rollers engage.

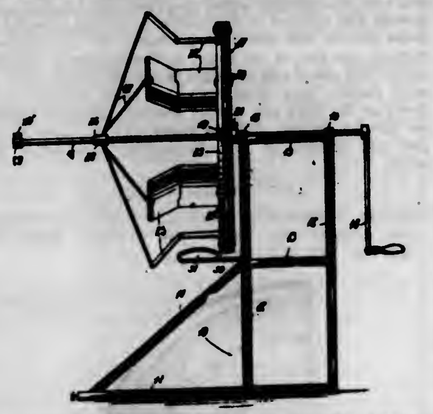
2. In a wheel of the character described, the combination with a hub and a rim, the interior face of said rim being continuously channeled, of a pair of metallic disks fixed to the hub and of such diameter as to extend to and lie upon each side of the rim, the outer portions of said disks sliding over the outer faces of said rim, a pair of concentric rings located between said disks, one of said rings having a plurality of transverse lugs formed thereon which pass through openings in the disks, a plurality of spokes comprising sleeves which pass through the outer ring and bear upon the inner ring, adjustable plugs threaded into the inner ends of said sleeves, the ends of said plugs passing through the inner ring, tubular push rods slidably mounted in the sleeves, springs bearing between said tubular push rods and said plugs, and rollers carried by the outer ends of said spokes and traveling in the channel of the rim.

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1,037,950. REEL. MARION D. MAXWELL, Henderson, Iowa. Filed Nov. 13, 1911. Serial No. 660,654. (Cl. 242—111.)

A device of the character described, comprising a supporting frame, a shaft journaled in said frame, and a reel

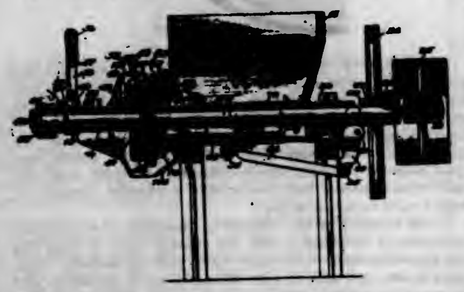
detachably secured on said shaft, said reel comprising a hub, radially extending spokes, a rim secured to said spokes, laterally directed arms carried by said spokes and hinged intermediate their length to form retaining fingers, a runner slidably mounted on said shaft, connecting rods operatively connecting said runner and the outer ends of the hinged portions of said arms, said runner being mov-



able to swing the retaining fingers inwardly with respect to the shaft to form with the rods a conical centering member for positioning the wire, said runner also being movable away from the hub to swing the fingers outwardly with respect to the shaft to retain the wire, and means for locking the runner to maintain the fingers in said latter position.

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1,037,951. FEED-MILL. HARRY G. MCCULLOCH, Freeport, Ill., assignor to The Stover Manufacturing Company, Freeport, Ill., a Corporation of Illinois. Filed May 23, 1910. Serial No. 562,856. (Cl. 83—8.)



1. In a feed mill, the combination of a rotatable longitudinally adjustable bur-shaft, bearings therefor, a stationary cam formed on the end of one of said shaft bearings, a cam loosely mounted on said shaft and adapted to coöperate with said stationary cam, a thrust bearing mounted on the shaft and movable therewith against which said movable cam acts, means for adjusting said movable cam about the shaft, and means for locking the cam in adjusted position.

2. In a feed mill, the combination of a rotatable longitudinally adjustable bur-shaft, bearings therefor, means for yieldingly urging said shaft in one direction, a stationary cam formed on one end of one of said bearings, a cam loosely mounted on said shaft coöperating with said stationary cam and adapted to move said shaft in the other direction, a thrust bearing fixed on said shaft against which the said movable cam acts, means for adjusting said movable cam about the shaft, and means for locking said cam in adjusted position.

3. In a feed mill, the combination of a longitudinally movable shaft, a thrust collar mounted thereon, a pivoted lever adapted to engage with said collar, a second lever pivoted on the main frame, a link connecting said levers, an expansion spring adapted to actuate said second lever, means for regulating the tension of said spring, and adjustable means for limiting the movement of said shaft under the influence of the spring whereby the position of the shaft is controlled during operation.

4. In a feed mill, the combination of a bur case provided with inwardly projecting studs, a pivot plate adapted to be positioned over said studs whereby said plate is held against rotary movement, said bur case being provided with oppositely disposed bearing lugs upon which said pivot plate is adapted to oscillate, a rear bur plate adapted to rest against said pivot plate and to oscillate in a plane at right angles to the oscillation of said pivot plate, said bur plate being provided with a radial stud for preventing rotation of said plate, a plurality of shoulders disposed on the forward face of said bur plate, and a grinding bur fixedly secured to said plate over said shoulders.

5. In a feed mill, the combination of a revolving bur plate, a bur secured thereon, a bur case, a pivoted bur plate mounted to rock in said case, a rocking bur plate mounted to rock on said pivot plate, a stationary bur fixedly secured to the rocking plate, said pivot and rocking plates permitting the bur to rock in a plurality of planes whereby to maintain the grinding face thereof substantially parallel to the grinding face of the revolving bur.

[Claims 6 and 7 not printed in the Gazette.]

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1,037,952. SPEED INDICATING AND RECORDING DEVICE. WALTER K. MENNS, Malden, Mass., assignor to Chelsea Clock Company, Boston, Mass., a Corporation of Massachusetts. Filed Feb. 23, 1912. Serial No. 679,277. (Cl. 234—1.)



1. In a device of the character described, the combination of a time-controlled feed regulating mechanism adapted to regulate the feeding of a web of paper, an independent take-up for taking up the web as it is fed by the feed regulating mechanism, a closure for covering said feeding mechanism and take-up, and means for automatically locking said take-up against operation when the closure is opened, said take-up being automatically freed when said closure is closed.

2. In a device of the character described, the combination of a feed-regulating roll adapted to regulate the feeding of a web of paper, a clock mechanism, a spring-actuated take-up roll driven independently of the clock mechanism for taking up the web as it is fed by the feed-regulating roll, a magazine located between said rolls adapted to hold a rolled web of paper, said magazine being provided with a slot through which the paper is adapted to pass to the feed-regulating roll, and connections between said clock mechanism and said feed-regulating roll whereby the take-up roll is prevented from affecting the time-keeping qualities of the clock mechanism.

3. In a device of the character described, the combination with a clock mechanism, of a feed regulating roll adapted to regulate the feeding of a web of paper, a take-up for taking up the web as it is fed by the feed regulating roll, and connections between the clock mechanism and the feed regulating roll whereby the take up mechanism is prevented from accelerating the clock mechanism.

4. In a device of the character described, the combination of a time-controlled worm, a worm wheel engaging said worm, a feed-regulating roll operatively connected to said worm wheel arranged to regulate the feeding of a web of paper, and a take-up roll driven by a source of



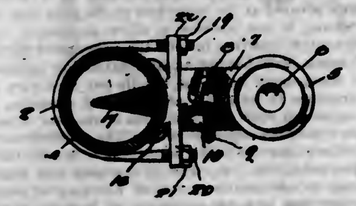
power other than the time mechanism adapted to take up the paper as it is fed by the feed-regulating roll.

5. In a device of the character described, the combination of a time-controlled feed regulating roll adapted to regulate the feeding of a web of paper, a take-up roll for automatically taking up the paper as it is fed by the feed roll, a casing for said rolls having a closure, and means for automatically locking said take-up roll when said closure is opened, said take-up being automatically released from said locking means when the closure is moved into closed position.

[Claims 6 to 8 not printed in the Gazette.]

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1,037,953. INTERNAL-COMBUSTION ENGINE. EUGENE S. MICHENER, New Castle, Pa. Filed Jan. 27, 1912. Serial No. 673,714. (Cl. 123—119.)



1. The combination with the perforated intake pipe of a gasolene engine, of a sleeve opening into said perforated pipe, a screen closing the sleeve end and located within said pipe, a valve in the sleeve, and an open cup integral with said sleeve, means for securing the sleeve to said pipe, and means for controlling said valve.

2. The combination with the perforated intake pipe of a gasolene engine, of a sleeve having a reduced threaded extension opening into said pipe, a saddle perforated and threaded to receive said extension and formed with perforated ears, a clip having its ends secured in said ears for attaching the saddle to the pipe, a conical screen on the extension located inside the pipe, and a valve and actuating means therefor in said sleeve.

3. The combination with the perforated intake pipe of a gasolene engine, of a sleeve having a reduced threaded extension, a perforated saddle attached to a pipe to receive said extension, a conical screen on the extension in the pipe, a valve in said sleeve, a valve stem, a notched disk on said stem, and a spring detent engaging said disk.

4. The combination with the perforated intake pipe of a gasolene engine, of a sleeve with a threaded extension, a perforated saddle attached to the pipe to receive said extension, a conical screen on the extension in the pipe, a valve in said sleeve, a valve stem, a notched disk on said stem, a spring detent engaging said disk, and an integral cup forming part of said sleeve.

5. The combination in a device as described of a sleeve, a valve and valve stem to control the opening therethrough, a notched disk on said stem, a spring detent engaging said disk, a cup integral with the sleeve and having a reduced opening, a threaded attaching extension on said sleeve, and a conical gauze screen closing the opening of said extension.

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1,037,954. TIRE-PUNCTURE FINDER. FRANCIS MILLER, Bellevue, Ky. Filed Jan. 23, 1912. Serial No. 672,979. (Cl. 73—51.)

1. A leak detector and finder for pneumatic tubes, comprising a ring adapted to encircle the tire, and formed with an interior annular air chamber therein, a bubble blower on the ring communicating with said chamber, and a concave seat on the outer end of the blower for segmentally engaging the tube circumferentially.

2. A leak detector and finder for pneumatic tubes, comprising a ring adapted to encircle the tire, and formed with an interior annular air chamber therein, a bubble blower detachably secured on the ring, communicating with said chamber, and a concave seat on the outer end of the blower for segmentally engaging the tube circumferentially.



3. A leak detector and finder for pneumatic tubes comprising, a ring adapted to be clamped around the tube to encircle the same, and formed with an internal annular air chamber therein, and a bubble detector having a nipple screw threaded into the ring and communicating with said air chamber, the nipple threads being adapted to engage into the air valve of the tube.

4. A leak detector and finder for pneumatic tubes, comprising a ring having hinged components enabling the ring to encircle the tube, said ring being formed with an interior annular air chamber, means for securing together the meeting ends of said hinged components, and a bubble blower on one of said components communicating with said air chamber.

5. A leak detector and finder for pneumatic tubes, comprising a ring adapted to encircle the tube and formed with an interior annular air chamber, a bubble blower having a nipple adapted to be screwed into said ring to communicate with said air chamber, the mouth of said bubble blower having a concave surface adapted to engage the tire periphery, whereby when the leak area is discovered, the blower may be removed and its mouth placed against the tire and the bubble blown from the nipple end when the position of the leak is detected.

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1,037,955. TIRE-PUNCTURE FINDER. FRANCIS MILLER, Bellevue, Ky. Filed Apr. 1, 1912. Serial No. 687,640. (Cl. 73—51.)



1. A leak detector comprising a ring adapted to encircle a pneumatic tube, said ring being interiorly formed with two annular air chambers, a dividing rib, said ring being formed with an air outlet through said rib communicating with both air chambers, an indicator actuated by an air current and a conduit for said indicator having communication with said outlet.

2. A leak detector comprising a ring adapted to encircle a pneumatic tube, said ring being interiorly formed with two annular air chambers and a dividing rib, said ring being formed with an air outlet through said rib communicating with both of said air chambers, an indicator actuated by an air current, and a tube member having a flexible conduit connection with said indicator, the said tube member being adapted to be attached to the ring, so as to communicate with said air outlet orifice.

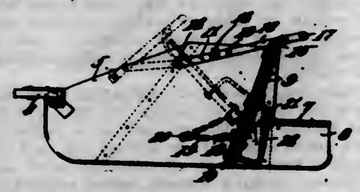
3. A leak detector comprising a ring adapted to encircle a pneumatic tube, said ring being interiorly formed with two annular air chambers and a dividing rib, said

ring being formed with an air outlet through said rib communicating with both of said air chambers, an indicator actuated by an air current, and a tube member having a flexible conduit connection with said indicator, the said tube member being adapted to be attached to the ring, so as to communicate with said air outlet orifice, the inner end of said tube being adapted to be projected through said outlet orifice and brought into contact with the encircled tube.

4. A leak detector comprising a ring adapted to encircle a pneumatic tube, said ring being interiorly formed with two annular air chambers and a dividing rib, a sleeve radially projected outwardly from the ring, said rib being formed with an orifice affording communication between said annular air chambers and said sleeve, an indicator actuated by an air current, and a tube member having a flexible conduit connection with said indicator, said tube member being adapted to telescopically engage the said sleeve, to contact the tube or to be bodily removed from the sleeve.

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1,037,956. ICE-SCRAPER. GEORGE B. MILLER, Eau Claire, Wis., assignor of one-half to George Laut, Eau Claire, Wis. Filed Oct. 7, 1911. Serial No. 653,346. (Cl. 37—42.)



1. In a scraper, sides, a blade carrying board disposed between the sides, jointed arms connected to and bracing the upper end of the board, a rod extending transversely between the sides, a bail carried by the board and supported upon the rod, and flexible means connected to each side and to the board and holding the board for movement of the bail upon the rod.

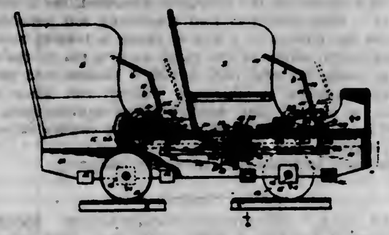
2. In a scraper, sides, a blade-carrying board disposed between the sides, jointed arms connected to and bracing the upper ends of the board, a rod extending transversely between the sides, a bail secured upon the board and hung upon the rod, a staple at each side of the board, and flexible means connected to each side and slidably with each staple and holding the board in position for movement of its bail upon the rod.

3. In a scraper, sides; a blade-carrying member pivotally held between the sides and vertically movable with respect to the sides; an arm comprising a primary section fulcrumed intermediate its ends upon the blade-carrying member and protruding to the rear of the blade-carrying member, and a secondary section pivoted at its rear end to the primary section, the forward end of the secondary section being pivotally connected to one side; and means for holding the sections in alinement, to brace the blade-carrying member; the protruding end of the primary section being manually depressible, to effect a folding of the sections, out of bracing relation with respect to the blade-carrying member, thereby permitting an elevation of the blade-carrying member and a forward tilting of the upper edge of the blade-carrying member, under the impulse of the accumulated material.

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1,037,957. HANDLE-BAR MECHANISM FOR PLEASURE-RAILWAYS. JOHN A. MILLER, Homewood, Ill. Filed Nov. 6, 1911. Serial No. 658,639. (Cl. 104—111.)

1. In a pleasure railway car, the combination with the car body and a seat thereon, of a handle bar structure pivoted to the car body and adapted to swing to one position to allow entrance of passengers to the seat and to another position to lock the passengers in the seat, and a detent for engaging the under side of said handle bar structure when in its latter position to lock such structure in such position.



2. In a pleasure railway vehicle, the combination with the vehicle body and a seat thereon, of a handle bar structure pivoted at its lower end to the body and adapted to be swung in one position to allow passengers to enter, and in another position to lock the passengers in the seat, a bell crank lever having an arm extending upwardly for detent engagement with the handle bar structure to lock said structure in its latter position, and actuating mechanism connected with the other arm of the bell crank lever.

3. In a pleasure railway vehicle, the combination of the vehicle body and the seat thereon, of a handle bar structure pivoted at its lower end to the body and adapted to be swung to one position to allow entrance of passengers to the seat and to another position to lock the passengers in the seat, a bell crank lever having one arm adapted for detent engagement with the handle bar structure to lock said structure in its latter position and the other arm of said bell crank lever extending downwardly, an actuating bar pivoted to said downwardly extending arm, a rock shaft, an actuating arm extending from said rock shaft and having actuating engagement with said bar, and means for rocking said shaft.

4. In a pleasure vehicle, the combination of the vehicle body and a seat, a handle bar structure pivoted at its lower end to said body and adapted to assume one position to allow entrance of passengers to the seat and another position to lock the passengers in the seat, a detent lever pivoted to the body and adapted to engage with the handle bar structure to lock said structure in its latter position, a bar pivoted to said lever and having abutments, a rock shaft, an arm extending from said rock shaft for engagement with said abutments, and an actuating lever extending from said shaft for causing rocking thereof and engagement of the actuating arm with said abutments to cause movement of said bar and said detent lever to cause movement of said detent lever into locking and unlocking positions with reference to said handle bar structure.

5. In a pleasure vehicle, the combination of the vehicle body and a seat, a handle bar structure pivoted at its lower end to said body and adapted to assume one position to allow entrance of passengers to the seat and another position to lock the passengers in the seat, a detent lever pivoted to the body and adapted to engage with the handle bar structure to lock said structure in its latter position, a bar pivoted to said lever and having abutments, a rock shaft, an arm extending from said rock shaft for engagement with said abutments, an actuating lever extending from said shaft for causing rocking thereof and engagement of the actuating arm with said abutments to cause movement of said bar and said detent lever to cause movement of said detent lever into locking and unlocking positions with reference to said handle bar structure, and detent mechanism controlled by the movement of said rock shaft to positively lock said bar and thereby said detent lever in locked position.

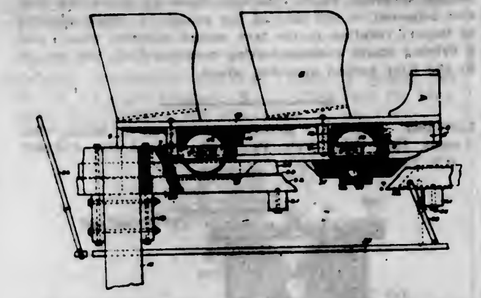
[Claims 6 to 14 not printed in the Gazette.]

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1,037,958. PLEASURE-RAILWAY. JOHN A. MILLER, Homewood, Ill. Filed Jan. 19, 1912. Serial No. 672,171. (Cl. 189—47.)

1. In a pleasure railway system, the combination of a track structure for supporting cars, each car carrying a brake member, a brake member supported from the track structure, and means for causing engagement of said brake members during running of a car over the track structure, one of said brake members having a wedge-shaped end and the other brake member having a longitudinal slot for intimately receiving said wedge-shaped end.





2. In a pleasure railway system, the combination of a track structure over which cars may run, a car having a brake shoe depending therefrom, a brake beam on the track structure pivoted thereto to be raised into the path of the brake shoe of the traveling car, and means for raising such brake beams to frictionally receive the brake shoe, the lower and upper ends respectively of the brake shoe and brake beam being formed to enter into wedging engagement with each other when said brake beam is raised.

3. In a pleasure railway system, the combination of a track structure for supporting cars, a brake shoe depending from each car, a brake beam on the track structure in the path of the brake shoe of a traveling car, bars pivoted at their lower ends to the track structure and extending upwardly therefrom and pivoted to said brake beam, said bars being inclined toward the direction from which a car is approaching whereby upon frictional engagement of the brake shoe with the brake beam the beam will be automatically raised into firm frictional engagement with the brake shoe to retard and to stop the car, said brake shoe and brake beam being formed to enter into wedging engagement with each other when brought together.

4. In a pleasure railway system, the combination of a supporting track for cars, each car having a brake shoe depending therefrom, a brake beam mounted on the track structure parallel with and below the direction of travel of the brake shoes on the cars, and gravity controlled mechanism tending to raise and to hold said brake beam in position to frictionally receive the brake shoe of a car attempting to pass thereover.

5. In a pleasure railway system, the combination of a track structure for supporting cars, each car having a brake shoe depending therefrom toward the track structure, a brake beam on the track structure parallel with the path of travel of the brake shoe on an approaching car, levers pivoted to the track structure below said brake beam and pivoted at their upper ends to said brake beam whereby said brake beam may be raised and lowered upon swing of the levers, and gravity controlled means tending to swing said levers toward vertical position to hold the brake beam upwardly to frictionally receive the brake shoe of the approaching car.

[Claims 6 to 10 not printed in the Gazette.]

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1,037,959. PARACHUTE DEVICE. LEE MILLER, Chicago, Ill. Filed Dec. 7, 1911. Serial No. 664,413. (Cl. 244—21.)

1. In a device of the class described, the combination with a foldable parachute having suspension cords, and a harness arranged to be attached to the body of the aviator and to the suspension cords, of an inflater comprising an air duct having expansible walls and discharging within the folds of the parachute, a case enveloping the collapsed inflater, and detachable means securing the case in position.



2. In a device of the class described, the combination with a foldable parachute having an attaching ring for suspension cords, of a harness arranged to be attached to the aviator's body and to the ring and supporting the folded parachute above the head, and an inflater carried by the harness and comprising an upwardly tapering duct having expansible walls and terminating within the folds of the parachute, a case enveloping the parachute and inflater, and releasable means connecting the case to the harness.

3. In a device of the class described, the combination with a foldable parachute having suspension cords, and a harness arranged for attachment to the body of the wearer, said harness comprising a belt passing beneath the arms, flexible members extending from the belt on each side and above the head to a connection with the suspension cords, and rigid members supported upon the shoulders and extending above the head beneath the folded parachute, of an inflater comprising an air duct having expansible walls and discharging within the folds of the parachute, a case enveloping the collapsed inflater, and detachable means securing the case in position.

4. In a device of the class described, the combination with a foldable parachute having a central upper vent, suspension cords, and an attaching ring, a harness arranged to be attached to the body of the aviator and comprising a belt, straps connected to said belt and extending from each side thereof above the head to a connection with the ring, pads to overlie the shoulders, a rigid yoke bearing upon the pads and extending above the head beneath the ring as a support for the folded parachute, a hood enveloping the head and extending downwardly over the shoulders, of an inflater mounted in substantial vertical position upon the rear depending portion of the hood and extending from the lower portion thereof to a point above the crown and within the folds of the parachute, said inflater having extensible normally collapsed walls, a case enveloping the parachute and inflater, and a releasable connection between the case and the hood.

5. In a device of the class described, the combination with a foldable parachute having a central upper vent, suspension cords, and an attaching ring, a harness arranged to be attached to the body of the aviator and comprising a belt, straps connected to said belt and extending from each side thereof above the head to a connection with the ring, pads to overlie the shoulders, a rigid yoke bearing upon the pads and extending above the head beneath the ring as a support for the folded parachute, a hood enveloping the head and extending downwardly over the shoulders, of an inflater mounted upon the rear of the harness and comprising an air duct extending in a substantially vertical direction and discharging within the folds of the parachute, said duct having normally collapsed extensible walls and provided in its lower portion with a longitudinally extending membrane divid-

ing said duct into two channels, one having a downwardly opened flared mouth and the other having an upwardly turned flared mouth, a case enveloping the hood and inflater, and a releasable connection between the case and the harness.

[Claims 6 to 9 not printed in the Gazette.]

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1,037,960. CAR-MOVER SHOE. Richard Miller, Appleton, Wis. Filed Mar. 11, 1912. Serial No. 683,045. (Cl. 105—70.)



1. A car mover shoe comprising a body portion, having its under surface notched to receive rail gripping members and provided with a channel extending angularly and upwardly into the body portion at one side of the notches and also having an open shallow recess on the other side of said notches, in combination with a retaining plate adapted to fit said open shallow recess and having lips adapted to enter said channel, said plate being removably connected with the body portion in a position partially covering the rail gripping members and provided with slots through which said rail gripping members may project.

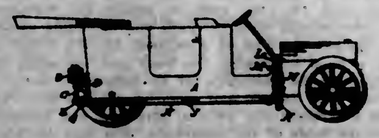
2. A car mover shoe comprising a body portion, having transversely extending V-shaped channels in its under surface adapted to receive rail gripping members, in combination with a retaining plate adapted to partially cover said rail gripping members and provided with slots through which projecting corners of said members may extend, said shoe body being recessed at one side and angularly channeled at the other side of said V-shaped channels, and also provided with marginal recesses at the ends of said V-shaped channels, and said retaining plate being provided with members adapted to fit said channels and recess.

3. A car mover shoe provided with transverse channels to receive rail gripping members, in combination with a retaining plate interlocked at one end with the shoe body and secured at the other end to the shoe body, said plate being adapted to partially cover a set of rail gripping members and being provided with slots through which said rail gripping members may project, rail gripping members seated in the body channels and having angular corners projecting through slots in said plate.

4. A car mover shoe provided with transverse channels to receive rail gripping members, in combination with a retaining plate interlocked at one end with the shoe body and secured at the other end to the shoe body, said plate being adapted to partially cover a set of rail gripping members and being provided with slots through which said rail gripping members may project, rail gripping members seated in the body channels and having angular corners projecting through slots in said plate, said plate being also arranged to interlock with the body at the respective ends of the rail gripping members to prevent lateral shifting movements.

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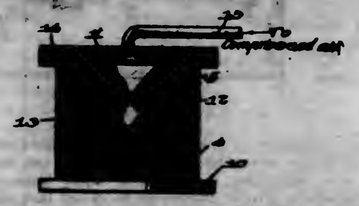
1,037,961. REVERSIBLE AUTOMOBILE-LAMP. George F. Mimminger, Blooming Grove, Tex. Filed Mar. 21, 1911. Serial No. 615,955. (Cl. 240—24.)



In a device of the character described, the combination with an automobile, of a four sided tail-light, a vertical spindle upon which the tail light is centrally mounted, a bracket attached to the rear end of the vehicle body and rotatably supporting said spindle, a shaft rotatably mounted longitudinally beneath the body, a bevel gear on the lower extremity of the spindle meshing with a bevel gear on the rear extremity of said shaft, a sprocket wheel carried by the forward extremity of said shaft, a second sprocket wheel rotatably mounted above the first and adjacent to the seat of the vehicle, a crank adapted to impart rotation to the last named sprocket wheel, and a driving chain communicating rotation from the second to the first named sprocket wheel.

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1,037,962. DENTAL MOLD. Bernhard C. Moll, Chicago, Ill. Filed Feb. 19, 1908. Serial No. 416,666. (Cl. 22—93.)



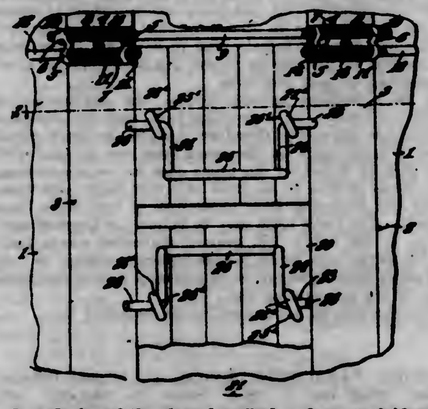
1. In a device of the class described, the combination with a flask having a sprue channel therewithin, a cover for said flask, and means for passing air or gas under pressure through said cover and channel, and means for diffusing said air or gas before it enters said channel.

2. In a device of the class described, the combination with a flask, a cover for said flask, a funnel-shaped opening in said cover, means for passing air or gas under pressure through said cover, and a perforated plate in the lower part of said opening to diffuse said air or gas.

3. In a casting machine, an investment flask, a cap for said flask having an enlarged opening in the lower portion thereof, a tube passing through the upper part of said cap and terminating in an enlarged head in the opening of said cap, and means for passing air or gas through said tube or cap.

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1,037,963. DOOR FOR SILOS. Joseph Merritt Moore, Unadilla, N. Y. Filed June 6, 1911. Serial No. 631,514. (Cl. 20—1.4.)



In a device of the class described, a door; a rigid, one-piece bail comprising arms, fingers outstanding in opposite directions from the arms, and an intermediate portion connecting the arms and spaced from the plane of the arms, the fingers projecting terminally beyond opposite



edges of the door; and a pair of parallel bearings extended across the fingers, the bearings being mounted in the door and being disposed at acute angles to the fingers, all portions of the bearings engaging the fingers upon that outside of the arms, whereby the arms may bear directly against the door; the bearings engaging the arms, when the intermediate portion of the bail is lifted, to move both fingers in a common direction, and to retract one finger only, within the contour of the door.

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1,037,964. ELECTRIC SWITCH. Harry J. Morey and Fay A. Brosseau, Syracuse, N. Y. Filed June 27, 1911. Serial No. 635,654. (Cl. 173—352.)



1. In a socket, a switch mechanism comprising suitable contacts suitably supported, a rotatable circuit-closer, a cam, engaging means connecting the cam and the circuit-closer, means to rotate the cam in either direction and a resilient member engaging with the cam to snap the latter as turned and to force the latter against the circuit-closer.

2. A socket switch mechanism comprising a suitable insulating base, contacts thereon, a rotatable circuit-closer, a tapering cam of angular cross section, engaging means between the cam and the circuit-closer, means to rotate the cam, and a resilient member exerting pressure on the cam to snap the cam as rotated and to press the cam and circuit-closer toward the contacts.

3. An electric switch comprising suitable contacts, a rotatable circuit-closer to coöperate with the contacts, a rotatable cam, engaging means between the cam and the circuit-closer to communicate rotation of one to the other, hand operated means to rotate one of said rotatable parts, and a resilient member engaging with the cam to snap the latter as turned and to force the cam and the circuit-closer toward the contacts.

4. An electric switch mechanism comprising suitable contacts suitably supported, a rotatable circuit-closer to coöperate with the contacts, a tapering cam having projections on its sides, engaging means between the cam and the circuit-closer, hand operated means to rotate the cam, and a resilient element exerting pressure on the side of the cam to snap the same as it is rotated and to force the same toward the circuit-closer.

5. In a socket the combination with a suitable insulating base, of contacts thereon, a hand rotated spindle journaled in the base, a circuit-closer strung on the spindle adjacent to the contacts and rotatable independently of the spindle, a tapering cam strung on the spindle, said cam having side projections, engaging means connecting the cam and the spindle, engaging means connecting the cam and the circuit-closer and a spring in engagement with the side of the cam.

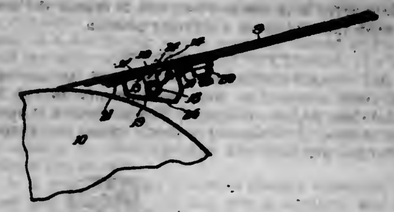
[Claims 6 to 11 not printed in the Gazette.]

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1,037,965. METHOD AND MEANS FOR TREATING PAPER ON A PRINTING-PRESS. Charles H. Montmer, Chicago, Ill., assignor of one-half to Charles P. Sould, Chicago, Ill. Filed Jan. 27, 1911. Serial No. 604,944. (Cl. 175—294.)

1. The herein-described method which consists in applying heat to one face of the sheet to be printed and before the printing operation to eliminate electricity from the sheet and to shrink the sheet before it is printed, and subsequently applying heat to the opposite face of the sheet after the printing operation to prevent off-setting.

2. The herein-described method which consists in preserving the character of the work and speed of the press and preparing the sheet for proper registration in successive printing operations by applying heat to one face of the sheet while on the feed-board of a printing press to eliminate electricity from and to shrink the sheet before it is printed, and also applying heat to the opposite face of the sheet after it is printed and while still remaining on the impression cylinder to prevent offsetting.



3. The combination of the impression cylinder of a printing press, a feed board provided with perforations adjacent its delivery end, and heating means located in the angle between said cylinder and feed board beneath said perforations in the board whereby heat may be delivered from said means to the sheet on the board before the printing operation and to the sheet on the cylinder after the printing operation.

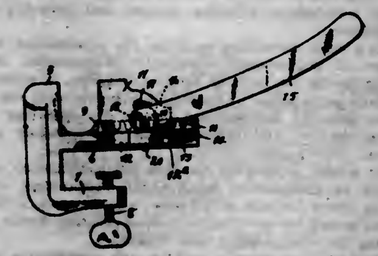
4. The combination of the impression cylinder of a printing press, a feed board provided with perforations adjacent the cylinder end, and means located beneath the feed board and adjacent the cylinder for applying heat to one face of the sheet before the printing operation and to the opposite face after the printing operation.

5. The combination of a feed board for a printing press having a transverse opening therein, a perforated cover plate over said opening and forming a part of the feed-board, a heating device located below the cover plate and having sockets in its ends, plugs loosely arranged in said sockets, and supports engaged with said plugs and the feed board to suspend the heating device from the board and permit expansion and contraction of said device, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

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1,037,966. NUTCRACKER. Frank W. Moser, Chicago, Ill., assignor to Woldert Grocery Company, Tyler, Tex., a Corporation of Texas. Filed Dec. 21, 1910. Serial No. 598,582. (Cl. 146—3.)



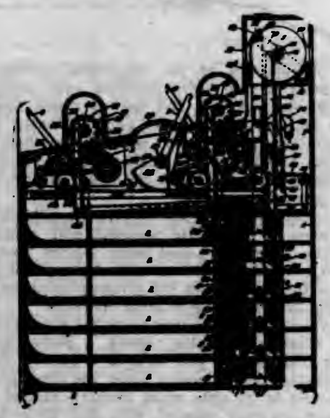
1. In a nut cracker, the combination with a fixed jaw, an arm on said jaw, a rack on said arm, and a jaw slidably mounted on said arm and rack, of a lever having a cylindrical member attached thereto, said member rotatably mounted in said jaw, a pin projecting from said member and eccentric thereto and adapted to be thrown into and out of engagement with said rack by the operation of said lever.

2. In a nut cracker, the combination with a fixed jaw, an arm extending laterally from said jaw, a rack on said arm, and a jaw slidably mounted on said arm and having a recess in one side, of a lever having a head journaled in said recess, a pin projecting laterally from said head and adapted to engage said rack and jaw.

3. In a device of the character set forth, a fixed jaw, a toothed bar extending at right angles to said jaw, a jaw slidably mounted on said bar and having a shouldered recess therein above the plane of the teeth on said bar, and means for operating said jaw comprising a lever having a head journaled in the recess in the jaw, and a pin projecting from said head and adapted to engage said recess when the lever is in one position, and to engage the teeth only when the lever is in a different position.

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1,037,967. CASH-REGISTER. WILLIAM H. MUZZY, Dayton, Ohio, assignor, by mesne assignments, to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed Oct. 1, 1904. Serial No. 226,805. (Cl. 235—4.)



1. In a cash accounting machine, the combination with a series of autographic mechanisms, of a series of corresponding cash receptacles, a printing device for each of the different autographic mechanisms, and means for operating a particular autographic mechanism and its printing device, and releasing its corresponding cash receptacle.

2. In a cash accounting machine, the combination with a series of independent autographic mechanisms, of a series of independent cash drawers, a printing device for each autographic mechanism, setting means common to all of the printing devices, and means for operating the autographic mechanisms, printing devices, and releasing the cash drawers.

3. In a cash accounting machine, the combination with a series of independent autographic mechanisms, of a printing device for each of said mechanisms, a series of cash drawers, a series of indicators movable with the respective printing devices, and means for operating the printing devices, and releasing the corresponding cash drawers.

4. In a cash accounting machine, the combination with a series of independent autographic mechanisms, of a printing device for each of the same, a series of cash drawers, and means for operating a desired printing device and releasing its corresponding cash drawer.

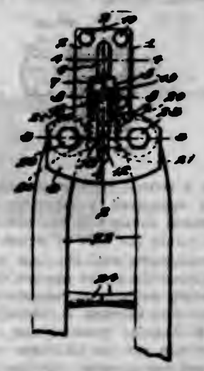
5. In a cash accounting machine, the combination with a series of autographic mechanisms, a printing device for each of the same, indicators movable with the printing devices, a series of cash drawers, and means for taking an impression from the printing devices and releasing the cash drawers.

[Claims 6 to 22 not printed in the Gazette.]

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1,037,968. NUT-SPLITTER. PHILIP NELSON, Watrous, N. Mex. Filed May 11, 1912. Serial No. 696,693. (Cl. 81—305.)

1. In a device of the character described, the combination of a base plate having at one end a transversely extending enlarged portion, said plate being provided with a longitudinal recess having a central enlarged portion, a cutting member arranged in the lower end of the recess, flanges formed upon the longitudinal edges of said cutting member and resting upon the base plate, a guide plate provided with a longitudinal recess to receive said flanges, a rack bar having an outward extending lug slidably mounted in the upper end of the slot, said rack bar having a longitudinal recess extending inward from one end, a stud arranged in the recess, a cutting member having flanges formed upon its longitudinal edges and disposed in said recess, said cutting blade having an opening to receive said stud, and manually operating means adapted to engage the rack bar to reciprocate the second cutting member.



2. In a device of the character described, the combination of a base plate, said base plate being provided with a longitudinal opening having a central enlargement, a cutting member arranged in one end of the slot and extending outwardly beyond the face of the base plate, flanges formed upon the longitudinal edges of the cutting member and engaging the inner face of the base plate, a guide plate having a longitudinal recess to receive said flanges, a rack bar, an outward extending lug formed on said rack bar and slidably mounted in the upper end of the slot, said rack bar having a longitudinal recess extending inward from one end thereof, a stud arranged in said recess at the inner end thereof, a second cutting member, having flanges formed upon its longitudinal edges and arranged within said recess, said cutting member having an opening formed therein to receive the stud in the recess, said cutting member being slidably mounted in the slot and extending outwardly beyond the outer face of the base plate, cutting edges formed upon the opposed ends of the cutting members, and manually operating means engaging with the rack bar to reciprocate the second cutting member.

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1,037,969. TROLLEY-GUARD. FRANK J. NOLAN, Buffalo, N. Y., assignor, by direct and mesne assignments, to Shur-On Trolley Guard Company, Buffalo, N. Y., a Corporation of New York. Filed Oct. 1, 1910. Serial No. 584,862. (Cl. 191—11.)



1. The combination with a trolley wire, of a trolley guard comprising two groups of wires arranged on opposite sides of the trolley wire, each group consisting of a plurality of wires which are arranged lengthwise of the trolley wire and the members of which are spaced apart from each other and from the trolley wire a distance less than the width of the trolley wheel which is adapted to run on the underside of the same, the space between said wires being practically unobstructed, and transverse yokes connecting said wires on their upper sides.



2. The combination with a trolley wire, of a trolley guard comprising two groups of wires arranged on opposite sides of the trolley wire, each group consisting of a plurality of wires which are arranged lengthwise of the trolley wire and the members of which are spaced apart from each other and from the trolley wire a distance less than the width of the trolley wheel which is adapted to run on the underside of the same, the space between said wires being practically unobstructed, and transverse yokes connecting said wires on their upper sides, the wires in each group being progressively lower from the innermost to the outermost of the group.

3. A trolley guard comprising a plurality of guard wires arranged in two groups lengthwise on opposite sides of the trolley wire, and the guard wires of each group being united at common points at opposite ends and adapted to be secured to stay wires, yokes for supporting said guard wires between the ends thereof and a spreader which holds each group of wires apart between the united ends thereof and the adjacent yoke.

4. A trolley guard comprising a plurality of guard wires arranged in two groups lengthwise on opposite sides of the trolley wire, and the guard wires of each group being united at common points at opposite ends and adapted to be secured to stay wires, yokes for supporting said guard wires between the ends thereof and a spreader which holds each group of wires apart between the united ends thereof and the adjacent yoke and which consists of a cross bar having openings in which the guard wires are arranged.

5. A trolley guard comprising a plurality of guard wires which are arranged lengthwise on opposite sides of the trolley wire and which have their opposite ends turned upwardly and united at common points.

[Claim 6 not printed in the Gazette.]

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1,037,970. LOCK. ANDREW NEESMAN, Bowbells, N. D. Filed Apr. 12, 1912. Serial No. 690,411. (Cl. 70—108.)



1. In a lock, the combination, with a case, a shackle secured thereto and provided with a shoulder, a lever having a nose adapted to engage the shoulder, and a second lever serving in the locked position as an abutment for the first lever to hold the same in engagement with the shoulder and provided with a recess to receive the first lever in the unlocked position to permit said lever to release the shoulder, of a key having wards normally housed therein and pivotally mounted to project angularly therefrom, and means within the lock to spread the wards angularly to engage with the levers to operate the same in proper sequence to release the shackle.

2. In a lock, the combination, with a case, a shackle pivoted thereto at one end and provided at the pivoted end with a shoulder and at the free end with a hook, a lever having a nose adapted to engage the shoulder, and a second lever serving in the locked position as an abutment for the first lever to hold the same in engagement with the shoulder and provided with a recess to receive the first lever in the unlocked position to permit said lever to release the shoulder, and a third lever having a nose to engage the hook, each of the levers having a cam face, of a key having wards normally housed therein and pivotally mounted to project angularly therefrom, and spreaders mounted in the lock and adapted to spread the wards into engagement with the faces of the levers to operate the same in a predetermined sequence to release the shackle.

3. In a lock, the combination, with a case, a shackle pivoted thereto at one end and provided at the pivoted end with a shoulder and at the free end with a hook, a lever having a nose adapted to engage the shoulder, a second lever serving in the locked position as an abutment for the first lever to hold the nose in engagement with the shoulder and provided with a recess to receive the first lever to permit the same to release the shoulder, a third lever having a nose to engage the hook, yielding means to hold the levers in the locked position, the second, first and third levers arranged to release the shackle only when operated in the order named, each of the levers provided with a cam face, of a key having wards normally housed in its shank and pivotally mounted to swing to a position at an angle thereto, and spreaders mounted within the case and adapted to spread the wards into engagement with the cam faces of the second and third levers and the end of the key adapted to engage the cam face of the first lever whereby to operate the three levers in a predetermined sequence to release the shackle.

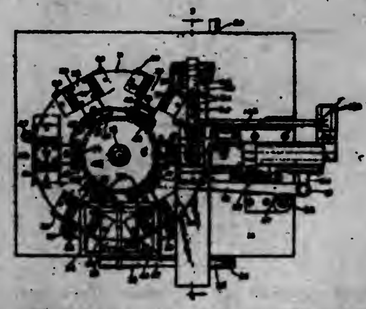
4. A lock, including a case, a shackle connected to the case and formed at one end with a shoulder and at the other end with a hook, a lever fulcrumed in the case and engagable with the shoulder, an abutment lever independently fulcrumed in the case and engagable directly with the first named lever to hold the latter in engagement with the shoulder, another lever fulcrumed in the case and engagable with the hook of the shackle, and means insertible within the case for first moving the abutment lever to a position to release the first named lever, for subsequently moving said first named lever out of engagement with the shoulder and for subsequently moving the third named lever out of engagement with the hook.

5. A lock, including a case, a shackle connected to the case and formed at one end with a shoulder and at the other end with a hook, a lever fulcrumed in the case and engagable with the shoulder, an abutment lever to hold the latter in engagement with the shoulder, another lever fulcrumed in the case and engagable with the hook of the shackle, and means insertible within the case for first moving the abutment lever to a position to release the first named lever, for subsequently moving said first named lever out of engagement with the shoulder, and for subsequently moving the third named lever out of engagement with the hook, and for engaging said third named lever with the first named lever.

[Claims 6 to 8 not printed in the Gazette.]

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1,037,972. LABELING-MACHINE. CHARLES H. OLSON, New York, N. Y. Filed Jan. 15, 1912. Serial No. 671,298. (Cl. 216—54.)



1. A label affixing machine comprising a carrier, adhesive-applying members carried thereby and adapted to support the labels and to apply adhesive thereto, means for applying the coated labels to a box while said label is supported by said adhesive applying members, an actuating pawl for moving said carrier to cause said adhesive applying members to place the labels in operative position relative to said applying means, a slide for actuating said pawl, and means connected with said slide for feeding the boxes.

2. A label affixing machine comprising a rotary carrier, adhesive-applying members carried thereby and adapted

to contact with the labels to apply adhesive thereto and to support the adhesive coated labels, means for applying the coated labels to boxes while said labels are supported by said adhesive applying members, a lever for rotating the carrier to successively effect the coating of the labels and the placing of the latter in operative relation with said applying means, means for intermittently operating said lever, and means operated by said lever operating means for feeding the boxes.

3. A label affixing machine comprising a carrier, adhesive-applying members carried thereby and adapted to support the labels and to apply adhesive thereto, means for supplying adhesive to said adhesive-applying members, means for applying the coated labels to boxes, while said labels are supported by said adhesive applying members, a reciprocating member for moving the carrier to cause said adhesive applying members to place the labels in operative position relative to said label applying means, and means actuated by said reciprocating member for feeding the boxes.

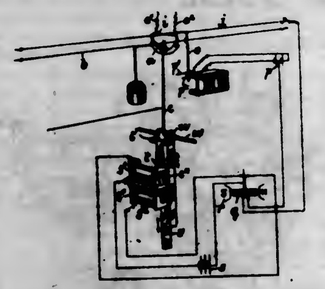
4. A label affixing machine comprising a carrier, spring-pressed adhesive-applying plates carried thereby and adapted to contact with the labels to apply adhesive thereto and to subsequently support the adhesive coated labels, means for applying the coated labels to boxes while supported by said plates, a reciprocating member for moving the carrier to place the labels in operative relation with said applying means, and means actuated by said reciprocating member for feeding the boxes.

5. A label affixing machine comprising a carrier, a plurality of sets of adhesive-applying members supported by said carrier adapted to contact with the labels to apply adhesive thereto and to subsequently support said labels, means for applying the coated labels to boxes, means for moving the carrier to place the labels in operative position relative to the applying means, and means for moving one member of each set of adhesive-applying members out of contact with the label previous to presenting the latter to the label applying means.

[Claims 6 to 64 not printed in the Gazette.]

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**1,037,972. ELECTROCAPILLARY INSTRUMENT FOR DETECTING AND RECORDING THE PASSAGE OF ELECTRIC IMPULSES.** AXEL ORLING, Tooting, England, assignor to Orling's Telegraph Instruments Syndicate Limited, London, England. Filed Dec. 29, 1908. Serial No. 469,821. (Cl. 178—160.)



1. In an electro-capillary contrivance for recording electric impulses, an oscillating capillary tube containing mercury in contact with an electrolyte and means for restraining movement of said mercury.

2. In an electro-capillary contrivance for recording electric impulses, a means of suspension and an oscillating capillary tube suspended by said means and curved concentrically with the axis of suspension.

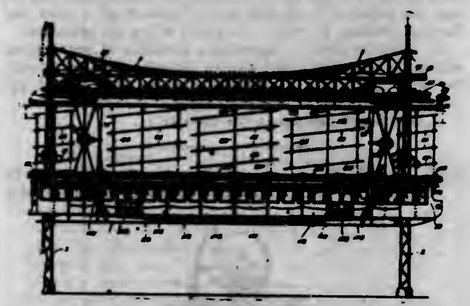
3. In an electro-capillary contrivance for recording electric impulses, a capillary tube containing mercury in contact with an electrolyte, the perimeter of the exposed surface of said mercury away from the contacting surface being of relatively larger perimeter than the internal perimeter of said tube.

4. A contrivance for recording a succession of mixed positive and negative electric impulses, comprising a combination of two independently suspended oscillating members, means for simultaneously actuating said two oscillating members by the same electric impulses, the scriber element of a recorder secured to one oscillating member and means whereby the material on which the record is being inscribed can be vibrated through the medium of the other oscillating member.

5. A contrivance for recording a succession of mixed positive and negative electric impulses comprising a combination of two independently suspended oscillating members, means for simultaneously actuating said two oscillating members by the same electric impulses, the scribe element of a recorder secured to one oscillating member, a contact maker secured to the other oscillating member, a relay source of electricity, positive and negative terminals thereof and means whereby the material on which the record is being inscribed can be vibrated through the medium of the relay.

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**1,037,973. AEROPLANE SUSPENSION-RAILWAY.** PAUL H. PAGES, New York, N. Y., assignor of three-twentieths to Walter W. Heroy, New York, N. Y. Filed Feb. 16, 1909. Serial No. 478,187. (Cl. 104—154.)

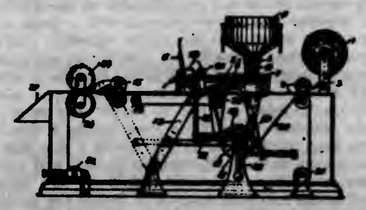


1. In a device of the character described, the combination of a car, one or more aeroplanes attached thereto, a flexible connector between the front and rear ends of the aeroplanes, and means for shifting said connector to change the angles of the planes, including a rack and pinion.

2. In a device of the character described, the combination of a car, one or more series of aeroplanes attached thereto, a flexible connector between the front and rear ends of each series of aeroplanes, and a common means for shifting said connectors to change the angles of the planes, including a rack and pinion.

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**1,037,974. POWDER-PACKING MACHINE.** TADEUS PARASKOVICH, Vienna, Austria-Hungary. Filed Oct. 1, 1910. Serial No. 584,942. (Cl. 93—3.)



1. An apparatus for packing medicinal and other powders or the like, comprising in combination, a guide plate, means for advancing a continuous strip of paper on said plate, means for depositing a predetermined quantity of powder on the strip, means for bending the free end of the strip upon the deposited powder, means for severing the strip, and means for perforating the side and end edges of the severed and folded paper to fasten the edges thereof and form a packet, substantially described.

2. An apparatus for packing medicinal and other powders or the like comprising in combination, a guide plate, means for advancing a continuous strip of paper on said plate, means for depositing a predetermined quantity of powder on said strip, means for bending the free end of the strip upon said powder deposited, means for severing the strip in the rear of the powder, and a roller provided with circumferential and transverse perforating means for fastening the side and end edges of the wrapper to form a packet for the contents thereof, substantially described.

3. An apparatus for packing powder comprising in combination, a guide plate, means for advancing a continuous strip of paper on said plate, a swinging holding plate intercepting the forward free end of said strip, means for depositing a predetermined quantity of powder on said strip, means for swinging said plate to fold the free end of said strip over said powder, means for advancing the strip, means for severing the strip in the rear of the powder, and means for mechanically interlocking the side and end edges of the packet in flat straight abutting relation, substantially described.

4. An apparatus for packing powder comprising in combination, a guide plate, means for advancing a continuous strip of paper on said plate, a spring controlled swinging folding plate normally held in an upright position to intercept and elevate the forward free end of the strip, means for depositing a quantity of powder on said strip, means for severing the strip in the rear of the powder, means for swinging said plate to fold the free elevated end of the strip over the powder, and means for mechanically connecting the side and end edges of the severed strip to form a packet, substantially described.

5. An apparatus for packing powder comprising in combination, a support, means for advancing a strip of paper on said support, means for depositing a predetermined quantity of powder on said strip, means for folding the free end of the strip over said powder to form a packet, means including pins for engaging the strip to advance the same by frictional engagement therewith, cams for withdrawing the pins from engagement with said strip at the end of each advancing movement, and means for interlocking the side and end margins of the strip with each other to complete the packet.

[Claims 6 to 11 not printed in the Gazette.]

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**1,037,975. METHOD OF FIGURING VELVET.** FRITZ PASTOR, Krefeld, Germany. Filed Apr. 1, 1912. Serial No. 687,922. (Cl. 26—2.)

1. The method of figuring velvet of the kind in which the material of the pile is less heatproof than is the material of the ground-fabric, consisting in heating the velvet on its back-side at those portions where it shall become figured on its front side so as to render friable the respective portions of the material of the pile and making them thereby removable, and removing said pile-portions.

2. The method of figuring velvet of a kind in which the threads forming the pile are less heatproof than are the threads forming the ground-fabric, consisting in heating the velvet on its rear surface at those places where it shall show figures on its front-surface, said heating being such as to render the respective portions of the pile-threads friable and making them thereby capable of being removed, and removing said portions of the pile-threads.

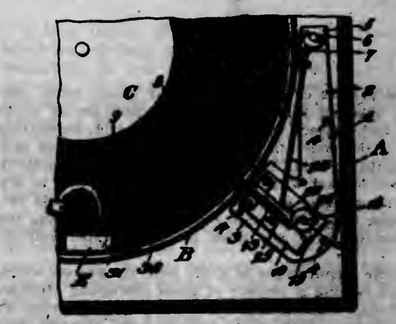
3. The method of figuring velvet of the kind in which the material of the threads forming the pile is less heatproof than is the material of the threads forming the ground-fabric, consisting in heating on the under side of the velvet parts of such extent and contours as correspond to the figures to be formed on the upper side of the velvet, rendering the pile-threads at these parts friable by this heating, and removing the friable pile-threads from the upper side of the velvet.

4. The method of figuring velvet in which the pile consists of cotton and the ground-fabric of silk, consisting in heating the velvet on its back-side at those portions where it shall become figured on its front-side so as to render friable the cotton-thread portions exposed to the heat and making them thereby removable from the upper side of the velvet, and removing said cotton-thread portions.

5. The method of figuring velvet, consisting in providing the velvet by a dressing or finishing method with appropriate means, heating the thus prepared velvet on its rear-surface at those places where it shall show figures on its front-surface, said heating being such as to render the respective portions of the pile-threads friable and making them thereby capable of being removed, and removing the said portions of the pile-threads.

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**1,037,976. BRAKE MECHANISM FOR TALKING-MACHINES.** WILLIAM J. PATTERSON, Denver, Colo. Filed Dec. 14, 1910. Serial No. 597,246. (Cl. 74—46.)




1. A talking machine brake mechanism embodying a pivotally mounted support, a movable brake element and a spring to project the same, carried by the support, an arbor mounted in the support and having an operating arm and a locking arm, a connection between one of the arms of the arbor and the movable brake element to actuate the latter when the arbor is turned, means co-acting with the locking arm to yieldingly secure the arbor in brake restraining position, a pivotally mounted operating arm, a crank arm movable with and connected to the said operating arm, and a connection between the operating arm of the arbor and the said crank arm.

2. In combination with a talking machine brake including a movable brake element, and a spring to project the same, a pivoted support, for the brake, an arbor carried by said pivoted support, having means whereby it may be turned and also having a releasing element connected to the said movable brake element, a second arbor connected to the first named arbor to turn therewith, and an operating arm carried by the second arbor.

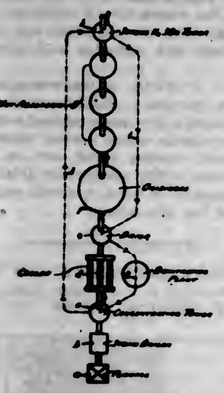
3. In combination with a talking machine brake including a movable brake element, and a spring to project the same, a pivoted support for the brake, an arbor carried by said pivoted support, having means whereby it may be turned and also having a releasing element connected to the said movable brake element, a second arbor connected to the first named arbor to turn therewith, and an operating arm carried by the second arbor, and means to lock said releasing element in restraining position.

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**1,037,977. PROCESS OF ABSORBING NITROUS GASES.** HANS PAULING, Gelsenkirchen, Germany, assignor to The Firm of Salpetersäure-Industrie-Gesellschaft, G. M. B. H., Gelsenkirchen, Germany. Filed June 8, 1911. Serial No. 632,076. (Cl. 23—2.)

1. The process of absorbing oxids of nitrogen, which comprises subjecting gases containing said oxids to an absorbing process, absorbing the oxids remaining in the

gases by contact with sulfuric acid, and using the nitrated sulfuric acid thus obtained for drying gases containing oxids of nitrogen previous to their subjection to the absorbing process.

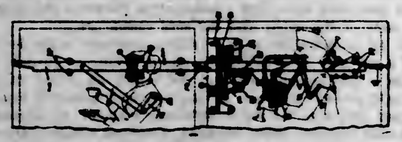


2. The process of absorbing nitrous gases, which consists in bringing said gases at a temperature of about 400° C. into contact with dilute sulfuric acid, condensing a part of the moisture taken up by the gases from said dilute sulfuric acid, bringing the gases thus partially dried into contact with concentrated sulfuric acid to dry the same, oxidizing said dried gases, subjecting said oxidized gases to a wet absorbing process, and absorbing the oxids remaining in the gases by concentrated sulfuric acid.

3. In the manufacture of nitric acid, the process which comprises passing a current of gases containing nitrogen oxids through suitable apparatus, treating said current at an initial stage with dilute sulfuric acid, treating said current at an intermediate stage with concentrated sulfuric acid containing nitrosyl sulfuric acid, and treating said current at a final stage with concentrated and substantially pure sulfuric acid.

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1,037,878. ADVERTISING DEVICE. ALFRED PEARCE, Hampstead Heath, London, England. Filed Apr. 10, 1909. Serial No. 489,179. (Cl. 46—40.)



Advertising devices comprising an operating member, means adapted to operate said member, advertising figures composed of movable parts, inflatable parts, and sound producing parts, bellows connected to the inflatable parts and the sound producing parts and means connecting the operating member to the movable parts of the advertising figures and the bellows.

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1,037,979. PROCESS AND APPARATUS FOR WELDING. FRANK C. PERKINS, Buffalo, N. Y. Filed Nov. 29, 1910. Serial No. 594,631. (Cl. 219—14.)

1. The herein described process of fusing matter consisting in simultaneously subjecting the same to the heat of an electric arc and a flame together with a jet of cutting gas.

2. The herein described process of fusing matter consisting in forming an electric arc between the electrode and the matter to be fused and directing a flame into said arc together with a cutting jet of a combustion supporting gas.

3. An apparatus for fusing matter comprising an electrode adapted to form one terminal of an electric arc and means for delivering a combustible gas to said arc together with means to conduct a separate jet of cutting gas.



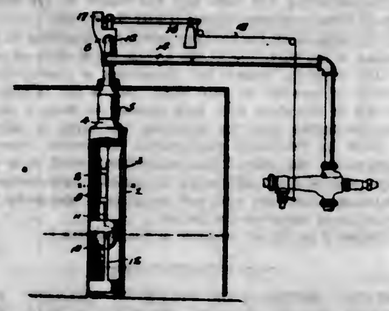
4. An apparatus for fusing matter comprising a tubular electrode adapted to conduct a combustible element to the front end thereof and a separate conduit adapted to conduct a cutting gas to the front end of the electrode.

5. An apparatus for fusing matter comprising a pair of electrodes constituting the terminals of an electric circuit and adapted to form an arc between them and one of said electrodes being of tubular form and adapted to conduct a combustible element to the front ends of said electrodes together with means to conduct a cutting jet of a combustion supporting gas.

[Claims 6 to 8 not printed in the Gazette.]

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1,037,980. FEED-WATER REGULATOR. CHARLES P. PHILLIPS and LEVI S. BARKER, McGehee, Ark. Filed May 5, 1911. Serial No. 625,196. (Cl. 137—101.)



A feed water regulator comprising a hollow body having a flattened side and provided at its upper end with a head, a cover fitted to the flattened side of the body and extending over an opening formed therein, a float controlled valve for closing the opening in the side of the body, a cage fitted to the lower end of the hollow body and inclosing the float, a pipe attached to the upper end of the hollow body and having its upper portion reduced, a valve casing fitted to the upper end of said pipe and having an opening in its side, a valve arranged within the valve casing and adapted to be operated by the pressure of the steam to uncover the opening in the side of the valve casing, a lever connected with the plunger valve and adapted to be used for opening a drain cock of the device for feeding water to a boiler, and a casing inclosing the hollow body and fitted to the head thereof and also receiving the said cage.

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1,037,981. TYPE-WRITER. JOHN B. PICKETT, Grand Rapids, Mich., assignor of one-fourth to Ernest M. Vreeman, one-eighth to John W. Pfeifer, and one-eighth to Seremus D. Ketchum, Edmore, Mich. Filed Oct. 12, 1911. Serial No. 654,270. (Cl. 197—28.)

1. In a typewriting machine, the combination with a frame, of a plurality of keys, angle levers, a supporting frame for said levers, each angle lever comprising a substantially horizontal arm and a vertical leg, said substantially horizontal arm pivotally connected to said supporting frame intermediate its ends, type-carrying bars pivotally connected to the lower ends of the vertical legs of said angle levers, and a guiding bar, said type-carrying bars passing through said guiding bar.





2. In a typewriting machine, the combination of a frame, angle levers, a supporting frame for said levers, said angle levers each being pivotally connected to said supporting frame to one side of the angle of the respective levers, type-carrying bars pivotally connected directly to one end of said levers, operating keys pivotally connected directly to the opposite end of said levers, and guiding means for said type bars.

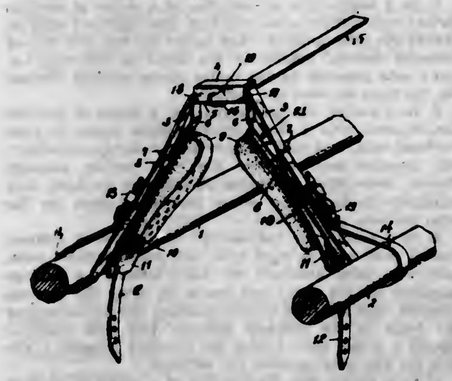
3. In a typewriting machine, the combination with a stationary support, of a lever projecting on opposite sides of and being pivotally connected to said support, said lever provided with a downwardly extending leg, a vertically slidable operating key pivotally connected at its lower end to the upper outer projecting end of said lever, and a type-carrying bar pivotally connected at its inner end directly to the lower end of the leg of said lever.

4. In a typewriting machine, the combination with a support, of a lever provided with an arm and a leg positioned at an angle to each other, the lever being pivotally mounted upon said support off-center of its arm, a key directly connected to the arm at one side of the support, and type-carrying means movably connected to the leg of said lever.

5. In a typewriting machine, the combination of a main frame, a plurality of keys, a supporting frame having a plurality of notches formed upon the top edge thereof, angle levers pivotally mounted in said notches of the supporting frame and having depending portions, a guide member carried by said main frame, operating keys pivoted directly to the outer end of the levers, and type-carrying means movable upon said guiding element and directly connected near their inner ends to the lower ends of the levers.

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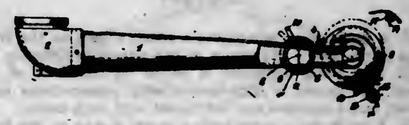
1,037,982. HARNESS-SADDLE. THOMAS H. POWELL, New York, N. Y. Filed Jan. 17, 1912. Serial No. 671,704. (Cl. 54—38.)



In harness saddles, saddle pieces provided with pads, a substantially rigid yoke formed of metal strip firmly secured to said saddle pieces, a guide box formed at the top of said yoke, a removable cover pivotally connected with said guide box and normally held in closed position, a series of pins mounted in said guide box, a series of antifriction rolls mounted on each of said pins, guides mounted on said saddle pieces and a shaft bearer provided with adjustable shaft loops to engage both shafts of the vehicle and extending through said guides and said guide box to freely move longitudinally under conditions of service and thereby minimize chafing movements of the saddle.

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1,037,983. TALKING-MACHINE. JAMES A. RABBITT, Yokohama, Japan. Filed Feb. 28, 1910. Serial No. 546,270. (Cl. 181—3.)



1. In a talking machine, a tubular sound-conveyer, a sound-box, a tubular extension on the sound-box, means for connecting the end of said extension to the end of said conveyer and in axial alinement therewith, comprising a cylindrical member secured to one of said parts and a shell secured to the other and having said member pivotally mounted therein, and a clamp movable upon said member adapted to grip the same and also adapted to coact with a part on said shell to position the shell relatively to the member, substantially as set forth.

2. In a talking-machine, a tubular sound-conveyer, a sound-box, a tubular extension on the sound-box, means for connecting the end of said extension to the end of said conveyer and in axial alinement therewith, comprising a cylindrical member secured to one of said parts and a shell secured to the other and having said member pivotally mounted therein, a clamp on said member adapted to grip the same, a handle on the clamp, and coacting engaging projections on the clamp and said shell, substantially as set forth.

3. In a talking-machine, a tubular sound-conveyer, a sound-box, a tubular extension on the sound-box, means for connecting the end of said extension to the end of said conveyer and in axial alinement therewith, comprising a cylindrical member secured to one of said parts and a shell secured to the other and having said member pivotally mounted therein, a split ring on said member adapted to grip the same, a handle on said ring for opening the latter and moving it upon the member, and coacting engaging portions on the ring and on said shell, substantially as set forth.

4. In a talking-machine, a tubular sound-conveyer, a sound-box, a tubular extension on the sound-box, means for connecting the end of said extension to the end of said conveyer and in axial alinement therewith, comprising a cylindrical member secured to one of said parts and closed at its ends, and a shell secured to the other of said parts, having an opening on one side and having said member pivotally mounted therein, and a clamp movable upon said member projecting through said opening in the shell and adapted to be moved about said member and to engage and actuate said shell, substantially as set forth.

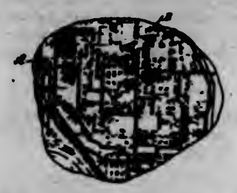
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1,037,984. GUIDE-MAP. ROBERT REID, Victoria, British Columbia, Canada. Filed Jan. 10, 1912. Serial No. 670,489. (Cl. 35—6.)

1. A guide map, comprising a sheet provided on one face with a map, columns of street names arranged on the other side of the map, indicating means associated with the said names to locate any street at an opposite point on the back of the map, and means for marking the sheet from the back at the said point to locate the street on the face of the map.

2. A guide map, comprising a sheet provided on the front face with a map, street names, indexes and location flags

on the back of the map and depending one on the other and corresponding to the matter depicted on the front face, and means for marking the sheet from the back at any point determined by the said names, indexes and location keys to visibly indicate the point on the front face of the map.

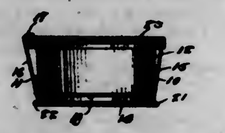


3. A guide map, comprising a sheet, a map on the front face of the sheet, the names of the streets depicted by the said map being arranged in series on the back of the sheet, the names in each series being consecutively numbered, and a location key associated with each name.

4. A guide map, comprising a sheet, a map on the front face of the sheet, the names of the streets depicted by the said map being arranged in series on the back of the sheet, the names in each series being consecutively numbered, and a location key associated with each name and consisting of a letter of the alphabet, and a numeral, of which the letter of the alphabet refers to another series of names and the numeral to the particular name in this series.

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1,037,985. COLLAPSIBLE DRINKING-CUP. HERMAN F. RENGSTORF, Waterloo, Ill. Filed Nov. 22, 1911. Serial No. 661,780. (Cl. 65—58.)



1. A collapsible receptacle having its lower section provided with oppositely disposed cut-out portions, a handle hinged to the upper section of said receptacle, a cover for said receptacle, the free end of said handle being adapted to be passed through one of said cut-out portions to engage the bottom of said receptacle to hold said receptacle in a set up position, and said handle being adapted to pass through said cut out portions and having its upper end engage said cover to hold the same upon said receptacle when in a folded position.

2. A collapsible receptacle, a cover therefor, an enlarged base carried by the lower section of said receptacle, said base being provided with oppositely disposed cut out portions, a handle pivotally connected with the upper section of said receptacle, said handle being formed from a strip of material having its free end bent to form a hook fitting beneath said base to support said receptacle when in an extended position, said strip passing through said cut out portions and up the side of said receptacle when in a folded position with its free end in a position to engage said cover to hold said cover upon said receptacle.

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1,037,986. RAILWAY-RAIL JOINT. JAMES REVIS, Raton, N. Mex. Filed May 1, 1912. Serial No. 694,495. (Cl. 238—6.)

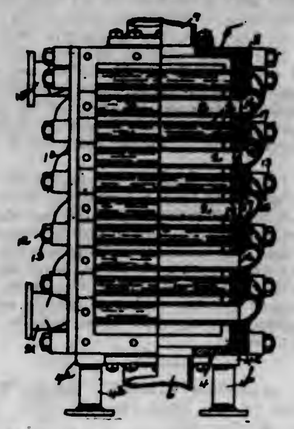
1. A railway rail joint comprising a base adapted to bear beneath the abutting ends of a pair of rails and adapted to engage at its ends against the confronting faces of the adjacent ties, said base having a rail brace at one side and a longitudinal depression and an inwardly curving rib at the other side, and another brace adapted to bear against the rail ends at the other side and provided with a projection conforming to and engaging in the depression of the base and with a rib conforming to and engaging in the curbing rib of the base and projecting at the ends beyond the same and adapted to bear upon the adjacent ties.



2. The combination with the abutting ends of a pair of rails and of the ties adjacent thereto of a base bearing beneath the rail ends and against the ties and provided with a rail brace at one side and an inwardly curving rib at the other side, said base having a longitudinal depression below the line of the rails, and another rail brace having an extension engaging in the depression of the base and with a rib extended to bear upon the ties and engaging beneath the inwardly curved base rib.

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1,037,987. HEATER. GEORGE E. EIBLEY, Erie, Pa. Filed Jan. 2, 1912. Serial No. 668,888. (Cl. 62—90.)



1. In a heater, the combination of a series of sections formed each with a cross tube with joint surfaced ends arranged one upon another; and covers for the ends having passages therein connecting the tubes of different sections, said passages having bridge pieces forming closures for the joint between the sections.

2. In a heater, the combination of a series of sections formed each with a series of cross tubes joined in joint surfaced ends, said ends being arranged one upon another; and passage manifolds for the ends having passages therein connecting the tubes of different sections, said manifolds having bridge pieces forming closures for the joint between the sections.

3. In a heater, the combination of a series of sections formed each with a cross tube and joint surfaced ends, said ends being arranged one upon another; a passage manifold for the ends; and means for tying the sections together, said manifold having passages therein connecting the tubes of the different sections, and said manifold having a bridge piece within the passages forming a closure for the joint between the sections.

4. In a heater, the combination of a series of sections formed each of a series of cross tubes joined together in joint surfaced ends, said ends being arranged one upon another, the tubes of each alternate section being varied to give the tubes in the united sections a staggered relation; and passage manifolds arranged on the said section ends and forming a means of connection between the tubes of different sections.

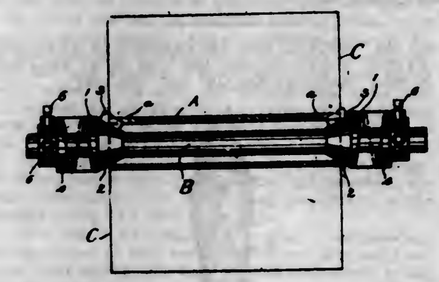
5. In a heater, the combination of a series of sections each formed with a series of cross tubes with joint surfaced ends, said ends being arranged one upon another; removable covers secured to the ends of said sections for inclosing the sides of the heater; and passage manifolds for the ends of the sections forming a means of connection between the tubes of different sections.

[Claims 6 to 9 not printed in the Gazette.]



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1,037,988. CORE-CHUCK. ERNST R. RICHARDS, Chicago, Ill., assignor to Sears, Roebuck and Co., Chicago, Ill., a Corporation of New York. Filed Sept. 26, 1910. Serial No. 583,848. (Cl. 242—68.)

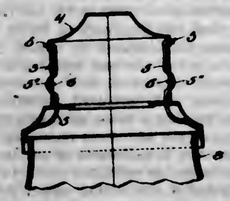


1. The combination of a rotary shaft; a member mounted on said shaft; a member slidably and rotatably mounted upon said shaft; means independent of the slidable member for securing the first mentioned member against rotation on the shaft, the adjacent faces of said members being of spiral formation; and clamping means on said shaft opposite the sliding member.

2. The combination of a rotary shaft, a hollow core surrounding the shaft, and a chuck carried by said shaft at each end of the core, each of said chucks comprising a section fixed to the shaft and a section rotatably and slidably mounted on the shaft, the latter section being cone shaped at one end and adapted to engage the end of the core, the adjacent faces of said sections extending radially across the adjacent ends of said sections and being of cam formation, whereby relative rotation of said sections will force the second mentioned section into engagement with the adjacent end of said core.

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1,037,989. SOCKET-COVER FOR LIGHT-FIXTURES. GEORGE A. RICHARDS and ALFRED J. PRICE, Watertown, Wis. Filed Feb. 8, 1912. Serial No. 676,234. (Cl. 173—362.)

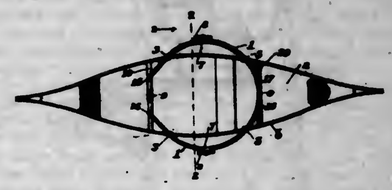


1. A separable angular socket-cover of an incandescent electric light fixture having the engaging ends of its body and cap sections provided with registering eyes, and spring-latches that being attached to one of said sections are engageable with said eyes of both and have the eye-engaging end of each at an obtuse angle to the remainder thereof.

2. A separable angular socket-cover of an incandescent electric light fixture having the engaging ends of its body and cap sections provided with diagonally opposite registering corner eyes, and spring-wires constituting latches secured in the eye-corners of the body-section of the cover, the wires being bent to extend through adjacent corner slots of said body section of said cover and having the eye-engaging end of each at an obtuse angle to the remainder thereof.

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1,037,990. OUTRIGGER-THWART FOR CANOES. ADDISON H. RIGGS, Belmar, N. J. Filed Oct. 11, 1911. Serial No. 653,968. (Cl. 9—26.)



1. An outrigger thwart for canoes comprised of a pair of bent members, said members being divided and being hingedly attached to one another at said dividing points and having canoe engaging means thereon, whereby said outrigger may be removably atached to a canoe.

2. An outrigger thwart for canoes comprised of a pair of bent pivoted members adapted to be folded against one another, engaging means on both said members whereby said outrigger may be removably attached to a canoe, and oarlocks mounted upon said outrigger.

3. A removable outrigger for canoes, comprised of a divided support, hinges at the point of said division, and stops at the said dividing points located in opposition to said hinges whereby said divided members are held in a horizontal plane and rigidly locked in said plane when attached to said canoe.

4. An outrigger thwart for canoes comprised of a pair of divided circumferentially formed members, hinges connecting said members together whereby said members may be folded one against the other, and adjustable canoe engaging members mounted thereon.

5. An outrigger thwart for canoes comprised of a pair of divided curved members, hinges connecting said members together whereby said members may be folded one against the other, adjustable canoe engaging members mounted thereon, and oarlocks on said curved members.

[Claims 6 to 8 not printed in the Gazette.]

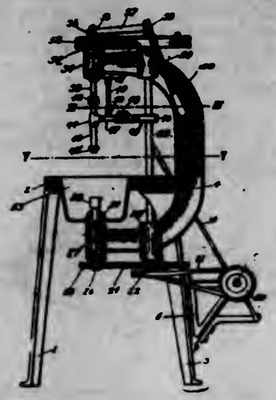
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1,037,991. FASTENER. HERBERT E. ROBINSON, Providence, R. I. Filed Apr. 8, 1912. Serial No. 689,907. (Cl. 24—201.)



In a fastener, the combination of a receiving member comprising an oblong body having at one end a small loop with opening and at the other end a larger loop and opening, with an intermediate longitudinal connecting slot, and an engaging member comprising a rod having upon one end an integral loop and the other end bent at substantially right angles and provided with a knob, said rod intermediate its length having upon its opposite sides cavities forming a reduced portion of substantially the same diameter as the width of said slot, said rod and its bent portion being of greater diameter than said slot and of less diameter than said smaller loop, said knob being sufficiently small to pass through the larger opening of the receiving member and of too great dimensions to pass through the smaller opening thereof.

1,037,902. LENS-GRINDING MACHINE. WALTER K. ROGERS, Kansas City, Mo. Filed Aug. 3, 1910. Serial No. 575,206. (Cl. 51—3.)

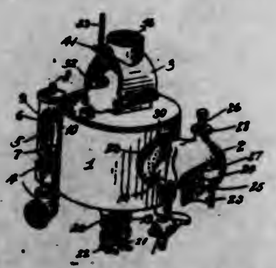


1. In a lens grinding machine, the combination with a tool holder, of an eccentric, a bearing carried by said eccentric, a jointed spindle journaled in said bearing and adapted for coöperation with the tool holder, a lever connected with said spindle, and a spring acting on said lever to tension the spindle toward the tool holder, substantially as and for the purpose set forth.

2. In a lens grinding machine, the combination of a suitable frame, a tool holder mounted in said frame, a revoluble shaft, an eccentric carried by said shaft, a link adjustably connected with said eccentric and having a bearing, a link pivotally suspending said eccentric link from the frame, a spindle revolubly mounted in said bearing and having a joint for permitting transverse pivotal movement, a lever connected with said spindle, and a spring yieldingly acting on said lever to normally retain said spindle in the direction of the tool holder.

3. The combination with a supporting frame, of a laterally disposed driving shaft, a vertically directed operating shaft, an eccentric on said operating shaft, provided with a collar, two vertically directed spindle shafts revolubly mounted in alinement with one another, the upper shaft having a universal coupling, a stub connecting the upper spindle shaft with said eccentric, and a link connecting the stub with said frame for the purpose set forth.

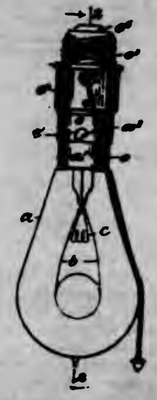
1,037,903. CARBURETER. GEORGE W. ROMANS, Los Angeles, Cal. Filed Jan. 19, 1911. Serial No. 603,489. (Cl. 48—155.2.)



1. A carbureter, comprising a casing having a float chamber therein, the said casing having a plurality of parallel and adjacent air inlet passages, one of which is open at its outer end directly to the atmosphere, a valve chamber adjoining said open end, a spring pressed inlet valve in said valve chamber controlling the other air inlet passage, fuel supply nozzles, one of which enters each of said air inlet passages, means for directing the mixing materials to the throttle mechanism of the carbureter, a throttle mechanism mounted above the mixing passages, a throttle valve mounted therein and having a controlling port for each inlet, one being longer than the other to begin the introduction of materials before the other.

2. A carbureter comprising a casing having a float chamber therein for controlling the admission of fuel, the said casing being formed with a plurality of L shaped passageways, the lower portions of which communicate with the atmosphere while the upper portions extend to a throttle valve, fuel inlet nozzles extending into the said passageways and a cylindrical throttle valve having a long port communicating with one of said L shaped passageways and an elongated portion communicating with the other, the said valve also having an opposing port in its wall of increasing size from one end thereof toward the other whereby the admission of mixing air and fuel may be controlled from both passages by the movement of said throttle valve.

1,037,904. SOCKET FOR INCANDESCENT ELECTRIC LAMPS. JOHN J. ROONEY, New York, N. Y. Filed Jan. 5, 1910. Serial No. 536,543. (Cl. 173—347.)

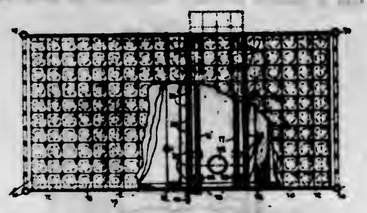


1. In an incandescent electric lamp, the combination of a lamp bulb, having two filaments in series, a lamp base having three insulated contacts to which the free ends of the filaments and the common connection between the two are respectively connected, said contacts being independent of the base and insulated therefrom, a switch-socket to receive the lamp base, three contacts carried by the socket but independent thereof and insulated therefrom for coöperation with the contacts on the lamp base respectively and a controlling switch independent of all the said contacts and connections from said switch to the contacts carried by the socket.

2. In an incandescent electric lamp, the combination of a lamp bulb, having two filaments in series, a lamp base having three insulated contacts to which the free ends of the filaments and the common connection between the two are respectively connected, said contacts being independent of the base and insulated therefrom, a switch-socket to receive the lamp base, an insulating block carried by the switch-socket and three insulated contacts carried by said block and independent of and insulated from the socket for coöperation with the contacts on the lamp base respectively and a controlling switch independent of all of said contacts, and connections from said switch to the contacts carried by the socket.

1,037,905. BED. WILLIAM JOHN ROSS, Silverton, Colo. Filed Sept. 6, 1911. Serial No. 647,832. (Cl. 5—12.)

1. In a bed, side-rails, a bar extending between said side-rails, a parallel screw extending between said side-rails, a movable spring and mattress section supported on said screw and bar, a lug depending from said movable section and engaging said screw, and means to rotate the screw.

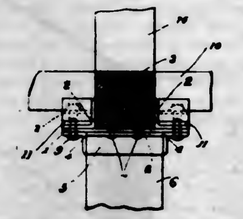


2 In a bed, a spring section having an opening therein, a mattress section superposed on said spring section and provided with an opening in alinement with the opening in the spring section, the mattress opening being larger than the spring opening, and a removable commode fitting said opening, a bar supporting said spring section adjacent one end thereof, a screw supporting said spring section adjacent the other end thereof, lugs under said mattress and said spring sections engaging said screw, and means to rotate the screw and move the spring and mattress sections laterally.

3. In a bed, a movable spring section, a mattress section superposed on said spring section, and diagonally arranged links having their ends pivoted respectively to the aforesaid spring and mattress sections.

4. In a bed, a movable spring section, a mattress section superposed on said spring section and diagonally arranged links having their ends pivoted respectively to the aforesaid spring and mattress sections and means to move said sections laterally.

1,037,906. POST-CAP. SAMUEL W. ROTHROCK, New York, N. Y., assignor to Lincoln Architectural Iron Company, a Corporation of New Jersey. Filed Dec. 8, 1909. Serial No. 531,155. (Cl. 20—95.)



1. In a post cap, the combination of a floor member, two angle irons spaced apart upon the same with their horizontal flanges facing out, two angle irons substantially parallel with the upper angle irons and spaced apart upon the lower surfaces of the floor member with their horizontal flanges facing out, the upper and lower adjacent outwardly facing horizontal flanges of the angle irons being secured to the floor member to form therewith reinforced side flanges, and transverse end pieces secured beneath the floor member between the vertical flanges of the lower longitudinal angle irons.

2. In a post cap the combination of a floor member, two angle irons spaced apart upon said floor member, with their horizontal flanges facing out, two angle irons substantially parallel with the upper angle irons and spaced apart below the floor member with their horizontal flanges facing out, the spacing between said lower angle irons being greater than the spacing between the upper angle irons, and means for securing said angle irons to the floor member.

3. In a post cap the combination of a floor member, two angle irons spaced apart upon the same with their horizontal flanges facing out, two angle irons spaced apart below the floor member substantially parallel with the upper angle irons and having their horizontal flanges facing out and narrower than the horizontal flanges of said upper angle irons, the spacing of said lower angle irons being greater than that of the upper angle irons, and means for securing said upper and lower angle irons to the floor member.

4. In a post cap the combination of a floor member, two angle irons spaced apart upon the same with their horizontal flanges facing out, two angle irons spaced apart below the floor member substantially parallel with the upper angle irons and with their horizontal flanges facing out, two other angle irons having their horizontal flanges facing out and arranged transversely of and below the floor member and embraced between the vertical flanges of the lower longitudinal angle irons, and means for securing all of said angle irons to the floor member.

5. In a post cap the combination of a floor member, two angle irons spaced apart upon the same with their horizontal flanges facing out, two angle irons spaced apart below the floor member substantially parallel with the upper angle irons and with their horizontal flanges facing out, two other angle irons having their horizontal flanges facing out and arranged transversely of and below the floor member and embraced between the vertical flanges of the lower longitudinal angle irons, means for securing the horizontal flanges of the upper and lower adjacent parallel angle irons to each other and to the floor member by passing through each, and separate means for securing said transverse lower angle irons to the floor member.

[Claims 6 to 11 not printed in the Gazette.]

1,037,907. PROCESS OF PRODUCING A REMEDY FOR TUBERCULOSIS. WILHELM RUPPEL, Höchst-on-the-Main, Germany, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed July 18, 1910. Serial No. 572,638. (Cl. 167—7.)

The process of producing efficacious anti-tuberculous serum, which consists in rendering normal animals, which are not hypersensitive to tuberculin, hypersensitive to tuberculin, by intravenous injections of living tubercle-bacilli which are apathogenic for the respective species, making the hypersensitiveness to tuberculin thus produced disappear by injecting increasing quantities of a preparation of tubercle-bacilli, then reproducing repeatedly the hyper-sensitiveness to tuberculin by successive injections of increasing quantities of living tubercle-bacilli, removing this hypersensitiveness by treatment with a preparation of tubercle-bacilli, and finally bleeding the animals several weeks after the last injection, that is to say, at the time when the amount of specific immune-bodies in the blood of the treated animals has risen to the desired strength, and allowing this blood to coagulate spontaneously, whereby the serum separates.

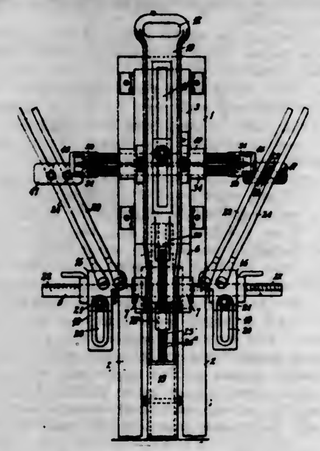
1,037,996. COIL-FORMING APPARATUS. MICHAEL SANDFIELD, Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 21, 1910. Serial No. 598,520. (Cl. 153—15.)

1. A coil former comprising relatively movable hinge-connected members, side clamps secured to the respective members and adjustable thereon toward and away from each other, and end clamps independently adjustable relative to the hinge-connected members.

2. A coil former comprising a vertical plate or frame, a lever pivotally connected thereto, side clamps respectively supported on the plate or frame and on the lever and adjustable thereon toward and away from each other, end clamps and supporting means therefor, whereby said end clamps are adjustable only in parallelism with the axis of the lever.

3. A coil former comprising a vertical plate or frame, a casting or bracket secured thereto, a shaft supported

by the casting or bracket, a lever rotatably mounted on the shaft, side clamping members secured to the plate or frame and to the lever and adjustable thereon toward and away from each other, and opposing end clamps supported on the respective ends of the shaft and adjustable only in parallelism relative thereto.



4. A coil former comprising a vertical plate or frame, a casting or bracket secured thereto, a shaft supported by the casting or bracket, a lever rotatably mounted on the shaft, side clamping members secured to the plate or frame and to the lever and adjustable thereon toward and away from each other, opposing end clamps, supporting blocks therefor adjustably mounted on the respective ends of the shaft, and connecting links between the end clamps and the supports.

5. A coil former comprising a vertical plate or frame, a casting or bracket secured thereto, a shaft supported by the casting or bracket, a lever rotatably mounted on the shaft, side clamping members adjustably secured to the plate or frame and to the lever, opposing end clamps, supporting blocks therefor adjustably mounted on the respective ends of the shaft, and parallel-motion connections between the shaft and the end clamps.

[Claims 6 to 12 not printed in the Gazette.]

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1,037,999. ARTICLE OF ALUMINA AND METHOD OF MAKING SAME. LEWIS E. SAUNDERS, Niagara Falls, N. Y., assignor to Norton Company, Worcester, Mass. Filed Dec. 26, 1908. Serial No. 469,308. (Cl. 106—9.)

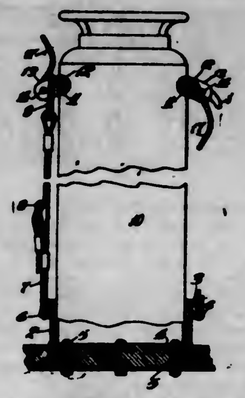
1. The method of making molded articles consisting essentially of alumina, which consists in bonding aluminous particles by a flux having a solvent effect upon alumina, and thereafter heating the article to a temperature approximating the melting or softening point of pure alumina, whereby the flux is expelled and the particles are bonded by the softened alumina.

2. A molded article consisting essentially of grains or particles of alumina having an interstitial bond of previously dissolved alumina, the mass fritted together at a temprature aproximating the melting or softening point of pure alumina.

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1,038,000. FIRE-EXTINGUISHER HOLDER. EDWARD SCHAEFER, St. Louis, Mo., assignor to Missouri Lamp & Mfg. Co., St. Louis, Mo., a Corporation of Missouri. Filed Mar. 7, 1910. Serial No. 547,849. (Cl. 224—29.)

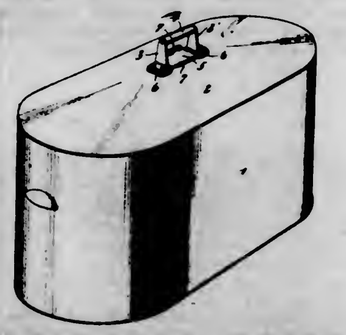
In a fire extinguisher holder for automobiles, a ring arranged to support and embrace the lower end of a fire extinguisher, means for securing the ring to a fixed support carried by the automobile, a pair of flexible straps secured to said ring, means for varying the lengths of said straps, links carried by the free ends of said straps, pairs of downwardly and outwardly inclined ears secured to the fire extinguisher at diametrically opposite points, there being a notch in the upper margin of each of said ears, and a handle pivotally supported in each pair of



ears at points laterally removed from said notches, integral extensions carried by each of said handles approximately parallel therewith, said handles and extensions arranged to seat or unseat said links in or out of said notches.

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1,038,001. COMBINED PROTECTIVE SHIELD AND ATTACHING DEVICE FOR RECEPTACLE-COVERS. JACOB SCHAFFER, New York, N. Y. Filed Apr. 27, 1911. Serial No. 623,625. (Cl. 68—30.)



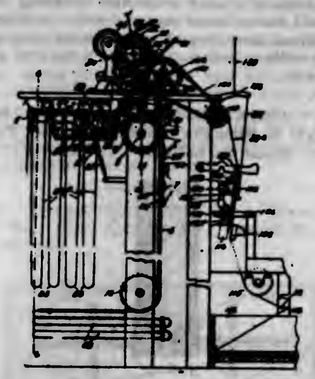
1. In combination, a receptacle cover, a handle for said cover, a combined supporting hook and protective shield for said handle disposed between said handle and cover, portions of said shield being adapted for engagement with the edge of the receptacle whereby the cover may be suspended from said edge.

2. In combination, a receptacle cover, a handle for said cover, a combined supporting hook and protective shield for said handle disposed between said handle and cover, the body of said shield being spaced from said cover, portions of the shield being adapted for engagement with the edges of the receptacle whereby the cover may be suspended from said edge.

3. The combination with a receptacle cover, of an arch-shaped protective shield attached to said cover, said shield having upturned edges on the sides thereof adapted to partly encircle and to support an elongated implement and forming a supporting hook by which the cover may be hung upon the edge of the receptacle, and a handle attached to said shield.



1,038,002. FABRIC-DRYING APPARATUS. JOHANNES H. SCHALLER, Troy, N. Y., assignor to Cluett, Peabody & Company, Troy, N. Y., a Corporation of New York. Filed Dec. 7, 1910. Serial No. 596,046. (Cl. 34—30.)



1. In an apparatus in the class described, and in combination, a movable carrier having fabric-supporting cross-rods; means for moving said carrier; means for feeding a web of fabric down through said carrier; an automatically operating folder movable relatively to the cross-bars into engagement with the web for folding the web of fabric over the successive cross-bars in a succession of loops and means for intermittently operating said folder.

2. In an apparatus of the class described, and in combination, a movable carrier having fabric-supporting cross-rods; a pair of downwardly feeding feed-rolls above said carrier; means for continuously operating said feed-rolls and said carrier; a folder movable into engagement with the fabric above the carrier in a direction opposite to that in which the carrier is moving; and means for automatically operating said folder at predetermined intervals.

3. In an apparatus of the class described, and in combination, a movable carrier having fabric-supporting cross-rods; a pair of downwardly feeding feed-rolls above said carrier; means for continuously operating said feed-rolls and said carrier; a folder movable into engagement with the fabric above the carrier in a direction opposite to that in which the carrier is moving; a wheel rotatory in engagement with said carrier; and mechanism carried by said wheel whereby an intermittent operation of said folder is induced at predetermined intervals.

4. In an apparatus of the class described, and in combination, a movable carrier having fabric-supporting cross-rods; a pair of downwardly feeding feed-rolls above said carrier; means for continuously operating said feed-rolls and said carrier; a folder movable into engagement with the fabric above the carrier in a direction opposite to that in which the carrier is moving; a wheel rotatory in engagement with said carrier; a series of pins carried by said wheel; continuously operating yielding means for imparting a folding movement to said folder; and means for positively imparting to said folder a return movement, comprising in part a lever connected therewith having one of its arms located in the path of said pins.

5. In an apparatus of the class described, and in combination, a movable carrier having cross-rods adapted to support a web of fabric in loops hanging therefrom; a support, an oscillatory frame pivotally mounted upon said support; a pair of feed-rolls mounted in bearings upon the swinging end of said frame; a guide-roll mounted concentrically with the axis of oscillation of said frame; means for operating the respective rolls; means for oscillating said frame; means for moving said carrier toward said frame; and a support subjacent to said frame upon which the fabric is adapted to be laid in folds by said feed-rolls as said frame is oscillated.

[Claims 6 to 28 not printed in the Gazette.]

1,038,003. PURE β-ANTHRAQUINONYL-UREA-CHLORID AND PROCESS OF MAKING SAME. ALBERTUS SCHMIDT and GEORG KRANZLEIN, Höchst-on-the-Main, Germany, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed May 11, 1910. Serial No. 560,736. (Cl. 23—24.)

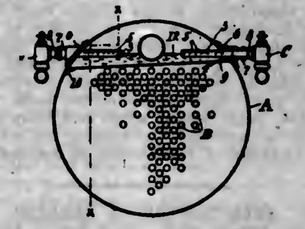
1. As a new product, β-anthraquinonyl-urea-chlorid in a pure state free from hydrochlorid of β-aminoanthraquinone, being a gray powder which when heated with anilin yields β-anthraquinonyl-phenyl-urea of the composition $C_{21}H_{14}N_2O_3$, soluble in concentrated sulfuric acid with a yellowish color.

2. The process of manufacturing β-anthraquinonyl-urea-chlorids in a pure state free from hydrochlorid of β-aminoanthraquinone, which consists in causing phosgen to act upon β-aminoanthraquinone in the presence of a solvent until the hydrochlorid of β-aminoanthraquinone, which forms first, has disappeared from the reaction-mass, and has changed into β-anthraquinone-urea-chlorid.

3. The process of manufacturing β-anthraquinonyl-urea-chlorids in a pure state free from hydrochlorid of β-amino-anthraquinone, which consists in causing phosgen to act upon β-aminoanthraquinone in the presence of a solvent at temperatures of from 40° to 120° C., until the hydrochlorid of β-amino-anthraquinone, which forms first, has disappeared from the reaction-mass, and has changed into β-anthraquinone-urea-chlorid.

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1,038,004. BOILER. CHARLES W. SEDDON, Proctor, Minn. Filed Nov. 11, 1910. Serial No. 591,853. (Cl. 122—436.)



1. The combination, with a boiler and a feed water pipe having a discharge nozzle within the steam space of the boiler, of a pan arranged below the discharge nozzle and making a tight joint with the sides and front flue sheet of the boiler, the pan being highest at the rear and being inclined downwardly to the flue sheet, whereby the feed water will be held within the pan until it has risen sufficiently to flow over the rear end thereof.

2. The combination, with a boiler and a feed water pipe having a discharge nozzle within the steam space of the boiler, of a pan arranged below the discharge nozzle, said pan forming a tight joint with the sides and front flue sheet of the boiler, and being inclined downwardly from one of its corners to the diagonally opposite corner, a blow off cock at the lowermost corner and washout means arranged in the boiler shell on the upper side of the pan.

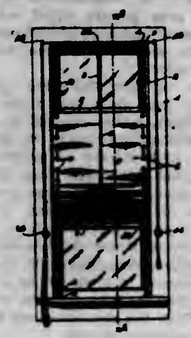
3. The combination, with a tubular boiler and a feed water pipe having a discharge nozzle within the steam space in the boiler, of a pan positioned below said discharge nozzle and making a tight joint at sides and front with the sides and front flue sheet of the boiler, the pan-bottom being inclined downwardly from one of its corners to the diagonally opposite corner, and a blow off cock at the lowermost corner.

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1,038,005. WINDOW-SHADE. WILLIS S. SHAFF, Faribault, Minn. Filed Nov. 4, 1909. Serial No. 526,268. (Cl. 160—27.)

1. In a window shade, the combination of vertically extended guide wires rigidly secured to the top and bottom of the window frame, a flexible shade having holes through which said guide wires are alternately passed

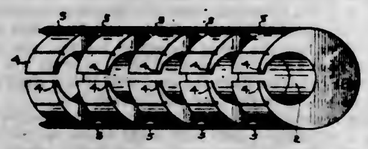
from one side to the other thereof, stiffening cleats applied to the upper and lower ends of said shade, independent adjusting cords attached to said upper and lower stiffening cleats, a guide at the top of the window frame through which both of said cords are passed, and means for securing said cords in different adjustments to hold the said shade in various raised, lowered and intermediate positions, substantially as described.



2. The combination with a window frame, of screw eyes applied to the upper and lower portions thereof, guide wires passed through axial perforations in the said upper and lower screw eyes and provided with heads within the screw eyes whereby said wires are kept taut, a flexible shade having eyelets through which said guide wires are alternately passed from one side to the other, stiffening cleats on the upper and lower edges of said shade also having guides through which said wires are passed, adjusting cords independently attached to said upper and lower cleats, guides on the upper portion of said window frame through which said cords are passed, and means on said frame for securing the said cords in different adjustments, substantially as described.

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1,038,006. SELF-TIGHTENING BEARING. CHARLES D. SHAW, Detroit, Mich. Filed July 5, 1911. Serial No. 636,896. (Cl. 64—65.)



1. A shaft bearing formed from a number of sections assembled together in interlocking relation to each other, each of said sections being of a circular shape and formed with a pair of crescent shaped horns, and a lateral crescent shaped projection extending from the rear of said horns.

2. A shaft bearing formed of two members, each comprising a number of sections assembled together, each of said sections being of a circular shape, and having a pair of crescent shaped horns, and a crescent shaped projection extending from the rear of said horns, the several sections of one of said members interlocking with the several sections of the other member.

3. A shaft bearing consisting of two members interlocked together, one of said members consisting of a number of circular shaped sections each formed with crescent shaped arms and a crescent shaped projection extending from the rear of said arms; the other section consisting of a circular shaped member formed with crescent shaped arms, and sections of a crescent shape, the several sections of one member interlocking with the sections of the other member.

4. A shaft bearing formed of a number of sections assembled together in interlocking relation to each other, several of said sections being in the shape of a circular block formed with a pair of crescent shaped horns, and a lateral crescent shaped projection extending from the rear of said horns, other sections each consisting of a circular shaped block formed with crescent shaped horns, and other sections each consisting of a block in the form of a crescent.

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1,038,007. CARTRIDGE-SHELL. LOUIS A. SHERMAN and HARRY E. SHERMAN, Kansas City, Mo. Filed Dec. 14, 1911. Serial No. 665,664. (Cl. 102—17.)

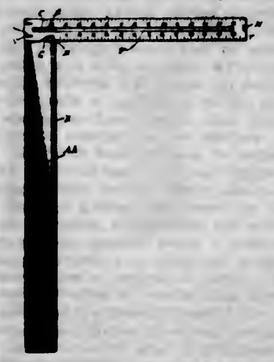


1. In a cartridge shell, a body member having an apertured end cap, and a battery cup comprising integral body and socket members, said body member having an edge flange crimped over the edge of the shell cap, and said socket member being projected through the aperture in said cap and provided with a primer.

2. In a cartridge shell, having a body member provided with an apertured end cap, a battery cup having a body member completely covering the end of the cap and having a perforated socket member projected through the cap aperture into the body of the shell and provided with a primer, substantially as set forth.

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1,038,008. SQUARE. MARCUS ARETAS KOSSUTH SHOTWELL, New Paltz, N. Y. Filed Aug. 27, 1910. Serial No. 579,362. (Cl. 73—116.)



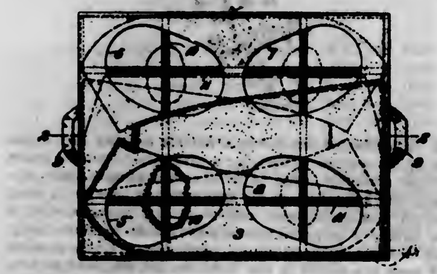
1. The combination in a square comprising a blade provided with an interior cross-head groove and stop rivet and also with a pivot rivet, a tongue provided with an angular slot engaging with said stop rivet, movably seated in said cross-head groove, said tongue having a longitudinal slot to receive said pivot rivet, substantially as set forth.

2. The combination in a square comprising a blade provided with an interior cross-head groove and stop rivet, a tongue provided with an angular slot engaging with said stop rivet, movably seated in said cross-head groove, said blade provided with dual guide rivets in alinement longitudinally of the blade, said tongue provided with dual guide slots in its rear edge, engaging with said guide rivets as means in maintaining said tongue stationary, substantially as set forth.

3. The combination in a square comprising a blade provided with an interior cross-head groove and stop rivet, a tongue provided with an angular slot engaging with said stop rivet, movably seated in said cross-head groove, said blade provided with dual guide rivets, said tongue provided with dual guide slots, engaging with said guide rivets as means in maintaining said tongue stationary, said blade provided with an interior pocket and pivot rivet, said tongue provided with a slotted center, movably engaged with said pivot rivet, so mounted as to rotate upward until perpendicular and slidably travel in said pocket, substantially as set forth.

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1,038,009. TRUNK-TRAY. WILLIAM A. SIMMONS, Kirkwood, Mo. Filed Apr. 16, 1911. Serial No. 620,168. (Cl. 190—35.)



In combination with a trunk, a plurality of superimposed trays, each tray having its upper and lower surfaces spaced a considerable distance apart, and there being an aperture extended entirely through the tray, whereby when apparel coats or like garments are placed between the trays with their bulky portions occupying said apertures the coats will be held in a pressed condition and the bulky portions prevent lateral or longitudinal movements of the coats relative the trays.

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1,038,010. PACKAGING-MACHINE. CHARLES F. SMITH, Bridgeport, Conn., assignor to Anita Safety Match Company, a Corporation of New York. Filed Feb. 23, 1910, Serial No. 546,396. Renewed June 16, 1911. Serial No. 633,560. (Cl. 93—3.)



1. A match packaging machine including in combination, means for intermittently advancing a web of material, means for cutting the side profiles in the web between consecutive intermittent advancements of said web, means for placing a plurality of matches between the side flaps during the advancement of said web, means for folding the side flaps, means for severing the end flaps from the web, means for folding the end flaps and means for fastening one end flap to the side flaps.

2. A match packaging machine including in combination, means for intermittently advancing a web of material, means for cutting the side profiles in the web between consecutive intermittent advancements of said web, means for placing a plurality of matches between the side flaps during the advancement of said web, means for folding the side flaps, means for severing the end flaps from the web, means for folding the end flaps and means for fastening one end flap to the side flaps, a revoluble carrier, means for delivering the severed package to the revoluble carrier, means for fastening the short end flap to the side flaps and means for ejecting the package from the carrier; and the following instrumentalities simultaneously operable during the advancement of the web: means, located between the means for folding the side flaps normal to the web and the means for folding said side flaps onto the matches, for delivering a plurality of matches between said side flaps and a revoluble carrier, located between the end flap severing means and the flap fastening means, for conducting the package in a direction transverse to the direction of travel of the web and means for coaction with said carrier for folding the end flaps.

3. A match packaging machine including in combination, means for intermittently advancing a web of material, means for cutting the side profiles in the web between consecutive intermittent advancements of said web, means for folding the side flaps normal to the web, means for placing a plurality of matches between the side flaps during the advancement of the web and means for folding the side flaps onto the matches, all during the maintenance of the integrality of the package with the web, and means for completing the package.

4. A match packaging machine including in combination, means for intermittently advancing a web of material and the following instrumentalities serially arranged and simultaneously operable between consecutive intermittent advancements of said web: means for cutting the side profiles in the web, means for folding the side flaps onto the matches, means for severing the end flaps from the web and means for fastening one end flap to the side flaps, and means operable during the advancement of the web for placing a plurality of matches between the side flaps.

5. A match packaging machine including in combination, means for intermittently advancing a web of material and the following instrumentalities serially arranged and simultaneously operable between consecutive intermittent advancements of said web: means for cutting the side profiles in the web, means for folding the side flaps onto the matches, means for severing the end flaps from the web and means for fastening the short end flap to the side flaps; and the following instrumentalities simultaneously operable during the advancement of the web; means, located between the side profile cutting means and the side flap folding means for placing a plurality of matches between the side flaps and means, located between the end flaps severing means and the flap fastening means, for folding the end flaps.

6. A match packaging machine including in combination, means for intermittently advancing a web of material, the following instrumentalities serially arranged and simultaneously operable between consecutive intermittent advancements of said web: means for cutting the side profiles in the web, means for registering the web with said cutting means, means for forming two pairs of approximately parallel creases longitudinally of the blank, means for folding the side flaps upwardly normal to the web along the outer pair of creases, means for folding the side flaps upwardly normal to the web along the inner pair of creases, means for folding the side flaps onto the matches, means for severing the end flaps from the web, means for delivering the severed package to the revoluble carrier, means for fastening the short end flap to the side flaps and means for ejecting the package from the carrier; and the following instrumentalities simultaneously operable during the advancement of the web: means, located between the means for folding the side flaps normal to the web and the means for folding said side flaps onto the matches, for delivering a plurality of matches between said side flaps and a revoluble carrier, located between the end flap severing means and the flap fastening means, for conducting the package in a direction transverse to the direction of travel of the web and means for coaction with said carrier for folding the end flaps.

[Claims 6 to 27 not printed in the Gazette.]

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1,038,011. TOOL-HOLDER. ALBERT C. SNELL, Rochester, N. Y., assignor to Electro Surgical Instrument Co., Rochester, N. Y., a Corporation of New York. Filed July 22, 1908. Serial No. 445,023. (Cl. 128—24.)



The combination with a tool holder having a tubular handle, a tubular arm extending upwardly and forwardly

from the handle and provided with a lamp socket at its extremity, of a combined incandescent lamp and condensing lens fitted in the socket and disposed at an angle to the holder for illuminating the field of operation of the tool in all positions of adjustment of the holder, said tubular handle and arm being adapted to receive the conductors for the lamp.

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1,038,012. COMBINED COUPLING AND CLAMP. ALBERT SOBEY, Syracuse, N. Y. Filed Oct. 12, 1911. Serial No. 654,929. (Cl. 137—28.)



1. A coupling device, comprising a tubular part adapted to be inserted part way in the ends of two pieces of hose so as to leave the central portion exposed, said exposed part having notched parallel circumferential flanges disposed intermediate its ends for limiting the insertion of said part in the hose, and a clamp, comprising a latticed flexible member, adapted to be folded around and to clamp the end of the hose and also the exposed portion of said tubular part, said clamp having an integral transverse band adapted to lie between said flanges and grip said tubular part for preventing longitudinal movement thereof, said clamp having a longitudinal bar adapted to engage the notches of said flanges for preventing circumferential movement of the coupling parts.

2. A hose coupling, comprising a tubular bushing, having cylindrical end portions adapted for insertion into the ends of two pieces of hose, said bushing having spaced circumferential flanges, formed intermediate its ends for limiting the insertion of said cylindrical end portions in the hose, and a clamping member adapted to encircle and clamp the adjacent ends of said hose, and having a transverse bar adapted to engage the said flanges for interlocking said bushing with said clamping member.

3. A combined coupling and clamp, comprising a tubular bushing adapted to be inserted part way into the end of a hose, the exposed portion of said bushing having parallel flanges spaced apart to provide a circumferential groove, said flanges having peripheral notches, a clamping member for holding said bushing in the hose, comprising a latticed flexible plate, having perforated end bands, adapted to encircle the hose for clamping the same to the bushing, and having a transverse band adapted to lie in the grove of said bushing, and having a longitudinal bar adapted to engage the notches in said flanges, and bolts for securing the adjacent ends of said bands for drawing the said plate tightly around the hose.

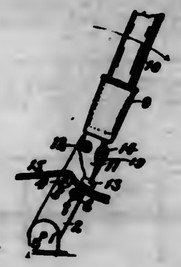
4. The combination with a flexible clamping member adapted to be folded around a piece of hose, and a series of bolts for clamping said member to the hose, of a coupling member comprising a tubular bushing adapted to be inserted part-way into the end of the hose for preventing the crushing of the hose when said clamp is drawn tight, the exposed portion of said coupling member having longitudinal and circumferential grooves adapted to receive integral portions of said clamping member, for interlocking and holding said coupling member from movement in any direction.

5. The combination with a tubular coupling member adapted to be inserted part way into a section of hose, the exposed portion of said coupling member having spaced circumferential flanges, of a clamping member comprising a flexible latticed plate having a perforated band adapted to encircle, and to clamp the hose to said coupling member, said band having a plurality of ribs for engaging the outer surface of the hose, said clamping member having a plain integral band adapted to encircle said coupling member between the said flanges, for interlocking the said parts against longitudinal or circumferential movement.

[Claim 6 not printed in the Gazette.]

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1,038,013. DEVICE FOR HANDLING ROPE AND THE LIKE. JOSEPH S. SOURBY, Bath township, Summit county, Ohio. Filed Aug. 2, 1911. Serial No. 641,956. (Cl. 29—55.)



1. A device for advancing a flexible member embodying a gripping member comprising a pivotally-fulcrumed plate, a roller rotatably mounted on one face of said plate providing one gripping-face for said gripping member, a lever pivotally connected with said plate and provided with a jaw having a gripping-face opposing said rotatable gripping-face, said gripping-faces when said gripping-member and lever are moved in one direction gripping and moving said flexible-member in one direction and when moved in the opposite direction releasing said flexible member.

2. A device for advancing a flexible member embodying a gripping-member comprising a pivotally-fulcrumed plate, a roller rotatably mounted on one face of said plate, a fixed pin on said plate adjacent to said roller, said roller and pin in association providing a gripping-face for said gripping-member, a lever pivotally connected with said plate having a gripping-face opposing said rotatable gripping face, said jaws when said gripping-member and lever are moved in one direction gripping and moving said flexible-member in said direction and when moved in the opposite direction releasing said flexible member, and permitting said roller to run thereon whereby wear on said rope is prevented.

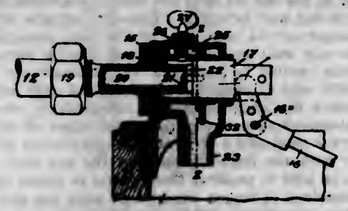
3. A device for advancing a flexible-member embodying a gripping-member comprising a pair of parallel spaced plates pivotally fulcrumed, a roller rotatably mounted between them and providing a gripping-face for said gripping-member, a lever pivotally mounted between said plates and provided with a jaw having a gripping-face opposing said rotatable gripping-face, a removable stop on said gripping-member engaging said lever to limit the inoperative movement thereof for preventing said pivoted jaw from engaging said flexible member, said gripping faces when said gripping-member and lever are moved in one direction and when said stop is removed gripping and moving said flexible-member in one direction and when moved in the opposite direction releasing said flexible-member and permitting said roller to run thereon whereby wear on said rope is prevented.

4. A device for advancing a flexible member embodying a gripping-member comprising a pivotally-fulcrumed plate, a member mounted on one lateral face of said plate and provided with a portion constituting a gripping-face for said gripping-member, a lever pivotally mounted on said plate and provided with a jaw having a gripping-face opposing said first gripping-face, a removable stop carried by said gripping-member and engaging said lever and operating when moved to its operative position to limit the movement of said lever to prevent the gripping-face on said lever from engaging said flexible member, said gripping-faces coöperating when said gripping-member and lever are moved in one direction and said stop is in its inoperative position for gripping and moving said flexible member in one direction, said gripping-faces being inoperative when said flexible member is moved in the opposite direction and said stop is in its operative position.

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1,038,014. BALL-COCK. ELMER S. STACK, Somerville, Mass. Filed Sept. 28, 1907, Serial No. 394,958. Renewed Feb. 3, 1912. Serial No. 675,342. (Cl. 137—104.)



1. A ball cock having a valve chamber, a supply inlet therefor, a valve in the chamber of greater cross-sectional area than the inlet, movable toward and from the inlet to close the same, a discharge outlet of less cross-sectional area than the inlet communicating with the valve chamber, and means for varying the pressure in the valve chamber.

2. A ball cock having a valve chamber, a supply inlet therefor, a valve in the chamber of greater cross-sectional area than the inlet, movable to and from and in alinement with the inlet, a discharge outlet of less capacity than the inlet communication with the chamber, and means for varying the pressure in the valve chamber.

3. A ball cock having a valve chamber, a supply inlet therefor, a valve in the chamber of greater cross-sectional area than the inlet, movable toward and from the inlet to close the same, a discharge outlet of less maximum capacity than the inlet communicating with the valve chamber, and means for regulating the capacity of the outlet.

4. A ball cock having a valve chamber, a supply inlet therefor, a compression valve in the valve chamber of greater cross-sectional area than the inlet, movable to close the inlet against the supply, a discharge outlet of less capacity than the inlet communicating with the valve chamber and adapted to be diminished when the valve is against its seat and increased when the valve is relatively distant from its seat.

5. A ball cock having a valve chamber, a supply inlet therefor, a discharge port of less capacity than the inlet communicating with the chamber, and a compression valve in the chamber movable to and from the inlet and thereby adapted to increase and diminish the discharge outlet.

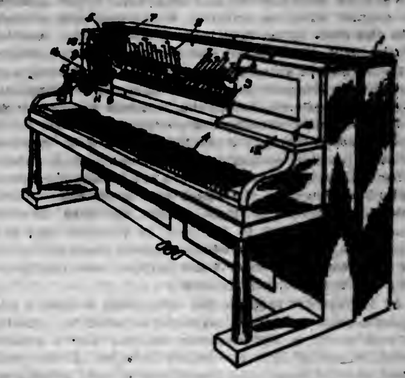
[Claims 6 to 21 not printed in the Gazette.]

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1,038,015. SILENCING ATTACHMENT FOR PIANOS. ALBERT STEIN, Kansas City, Mo. Filed Nov. 23, 1911. Serial No. 661,967. (Cl. 84—61.)

1. The combination with a piano having a suitable case and strings, of inclined guides mounted on the ends of the case and having apertures in their upper ends, a bar slidably mounted in said guides, springs disposed in the guides and bearing against the top of the bar, cords fixed to the bar and extending up through said guides and through said apertures, posts extending through the case and connected with said cords, and having springs adapted for yieldingly tensioning said posts to position for lowering said cords.

2. The combination with a piano having a case, and strings, of inclined guides mounted on the ends of the case and having apertures in their upper ends, a bar slidably mounted on said guides, springs disposed in the guides and bearing against the top of said bar, cords attached to the bar and passing through said apertures, posts extending through the case and connected with said cords, and springs adapted for tensioning the posts downwardly to assist in elevating the said bar against the tension of the guide springs.



3. The combination with a piano having a case, hammers and strings, of inclined guides mounted on the ends of the case and having apertures in their upper ends, a bar slidably mounted in said guides, and having a felt silencing base against which the hammers are adapted to strike and friction surfaces adapted for contact with the guides, springs mounted in the guides and engaging the top of the bar, cords attached to said bar and passing through said guide apertures, posts extending through the case and connected with said cords, and springs adapted for tensioning the posts downwardly, to assist in elevating the bar against the tension of guide springs and the friction of the guides.

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1,038,016. MAGNETIC SPEEDOMETER. JOHN K. STEWART, Chicago, Ill. Filed July 5, 1911. Serial No. 636,896. (Cl. 73—122.)



1. In a magnetic speedometer, in combination with a case, a magnet mounted for rotation in the case, a non-magnetic element having the form of an inverted cup mounted for rotation co-axially with the magnet and having its rim or flange encompassing the path of rotation of the magnet poles; a spindle upon which said non-magnetic element is carried for such rotation, a frame and bearings carried thereby for the opposite ends of the spindle and means for moving the frame bodily in the direction parallel to the axis of the spindle for adjusting said non-magnetic element relatively to the magnet.

2. In a magnetic speedometer comprising a rotatably mounted magnet, and a movably mounted non-magnetic element extending into the field of said magnet; an index device; an element having a graduated scale coöperating with said index; means for moving said non-magnetic element toward and from the magnet for varying the amount of its intrusion into the magnetic field thereof, and actuating connections from said means adapted to cause relative movement between said scale and index.

3. In a magnetic speedometer comprising a rotatably mounted magnet-carrier, a magnet and a soft iron ring positioned upon said carrier and separated by an annular space coaxial with the carrier; a non-magnetic element having the form of an inverted cup mounted for rotation coaxially with the carrier and having its rim intruded into the aforesaid annular space; means for moving said non-magnetic element along its axis for varying the amount of the intrusion of its rim into said annular space.

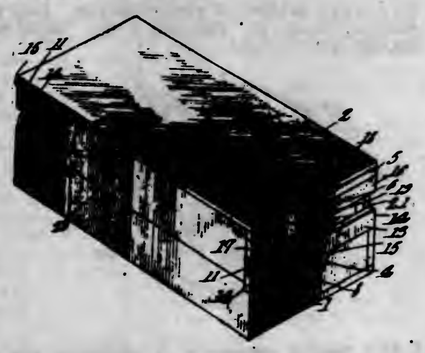
4. In a magnetic speedometer comprising a case, a hollow post formed therein; a magnet journaled for rotation upon said post; a non-magnetic element and a spindle therefor said spindle extending into the hollow interior of the post; bearings for the upper and lower ends of said spindle respectively; a frame within the case mounted for movement parallel to the axis of the post and provided with a pair of lugs which support respectively the upper and lower bearings of the spindle, and means for moving the frame within the case.

5. In a magnetic speedometer comprising a case, a hollow post formed therein; a magnet journaled for rotation upon said post; a non-magnetic element and a spindle therefor extending into the hollow interior of the post; bearings for the upper and lower ends of said spindle respectively; a frame within the case mounted for movement parallel to the axis of the post and provided with a pair of lugs which support respectively the upper and lower bearings of the spindle; a jack screw mounted for rotation within the case with its axis parallel to the axis of the post, the frame having a threaded aperture adapted to receive the threaded portion of the jack screw, and gearing mounted on the case and adapted for rotating the jack screw.

[Claims 6 to 9 not printed in the Gazette.]

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1,038,017. KNOCKDOWN RECEPTACLE. OTTO M. STIEHL, East St. Louis, Ill. Filed Nov. 9, 1911. Serial No. 659,457. (Cl. 217—12.)

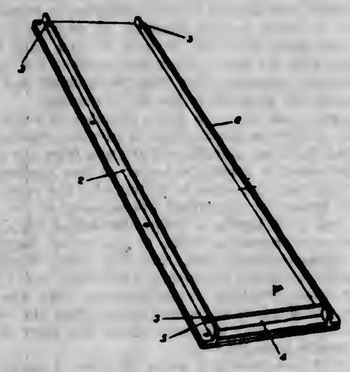


1. A knockdown box, comprising a rectangular base receptacle, the end walls of which terminate at a point below the side walls and are each provided with a central recess in the upper edge, a lid composed of a single plate to rest upon the upper edges of the side walls of the base and having two strips to fit upon the upper edges of the end walls of the base to fill the space above the end walls and side walls, each strip being provided with a projection to fit upon and register with the recess in the upper end walls, end wall extensions removably mounted within the base adjacent to the end walls of the base, two strips carried by each end wall extension to correspond with and fit upon the upper edge of the end wall and receive the strips of the lid, respectively, two side wall extensions to rest upon the upper edge of the side walls of the base receptacle, and a strip at each end thereof disposed to coact with the end wall extension to be held in position thereby.

2. A knockdown box, comprising a rectangular base receptacle, the end walls of which terminate at a point below the side walls and are each provided with a central recess in the upper edge and with a socket formed in the inner face thereof, a lid composed of a single plate to rest upon the upper edges of the side walls of the base and having two strips to fit upon the upper edges of the end walls of the base to fill the space above the end walls and side walls, each strip being provided with a projection to fit upon and register with the recess in the end walls, end wall extensions removably mounted within the base adjacent to the end walls of the base, a projection carried upon each end wall extension disposed to register with the inner socket of the end walls of the base receptacle to hold the end wall extensions against upward movement, two strips carried by each end wall extension to correspond with and fit upon the upper edge of each end wall and receive the strip of the lid, respectively, two side wall extensions to fit upon the upper edges of the side walls of the base, and a strip at each end thereof disposed to coact with the respective ends of the end wall extensions to be held in position thereby and to retain the end wall extensions in locked engagement with the end walls of the base receptacle.

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1,038,018. PRINTER'S GALLEY FOR USE WITH THE MONO OR OTHER TYPE CASTING MACHINES. ALFRED HENRY STOCKALL, Bath, England. Filed Nov. 16, 1911. Serial No. 660,660. (Cl. 101—53.)



1. A printer's galley having arc shaped notches cut in the top edges of the side flanges adjacent to the ends, and an end gate adapted to fit between said side flanges and having rigid arc shaped lugs projecting laterally from the ends thereof and adapted to fit into said notches.

2. A printer's galley having arc shaped notches cut in the side flanges adjacent to the ends and extending downwardly and inwardly from the top, and an end gate formed of a piece of angle iron having projections from one of the flanges split from the bottom upwardly to a point adjacent to the top, the projecting portions being bent forwardly in arc shape and forming lugs adapted to extend into and fit snugly into the arc shaped notches in the side flanges.

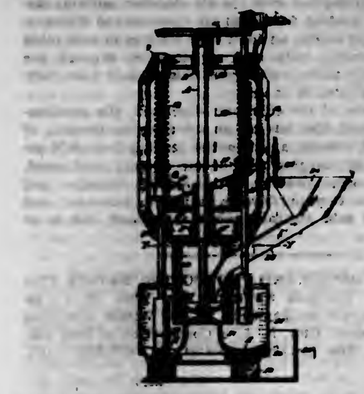
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1,038,019. STAMP-MILL. WILLIAM B. STRAUB, Oakland, Cal., assignor of one-half to John J. Knight, Alameda, Cal. Filed Oct. 9, 1911. Serial No. 653,484. (Cl. 83—57.)

1. A stamp mill consisting of an annular mortar, and dies, vertically guided stems with stamp heads at the lower ends registering with the dies, a central vertical rotary shaft, having a cam fixed to and revoluble with it, spring-pressed tappets upon the stamp stems successively reciprocated by the cam and springs, a concave disk fixed to the lower part of the central shaft and means to deliver ore thereto, and a cylindrical drum located between the disk and the line of travel of the stamps.



2. A stamp mill consisting of an annular mortar, and dies, vertically guided stems with stamp heads at the lower ends registering with the dies, a central vertical rotary shaft, having a cam fixed to and revoluble with it, spring-pressed tappets upon the stamp stems, successively reciprocated by the cam and springs, a concave disk fixed to the lower part of the central shaft and means to deliver ore thereto, a cylindrical open bottomed drum fixed between the disk and the line of travel of the stamps and a deflector between the drums and the mortar.



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1,038,020. ELEVATOR. CHARLES A. STURM, Portland, Oreg. Filed Jan. 10, 1912. Serial No. 670,500. (Cl. 187—82.)



1. In an elevator, the combination of a traveling cage, a motor, a switch-drum, and a brake-mechanism; with manually operated means for oscillating said switch-drum to start said motor in forward or reverse direction; a series of stops of increasing size fixed on said manually-operated means; a socket mechanism mounted on said cage in the path of said stops; means for adjusting said socket-mechanism to engage the stop corresponding to the floor at which the elevator is required, whereby said stop is carried along by the cage until the switch is oscillated to break the circuit and set the brake; upper and lower limit stops on said manually operated means, said stops being large enough to engage said socket-mechanism at any adjustment; and stationary stops cooperating with said limit stops to check the motion of the switch, when the latter is thrown by hand to start the motor.

2. In an elevator, the combination of a traveling cage, a motor, a switch, drum, and a brake-mechanism; with a pulley rigid on the switch-shaft, a pulley at the top of the elevator well, and an endless cable hung on said pulleys; a series of stops of increasing size rigid on said cable; a socket-mechanism mounted on the cage and encompassing said cable; means for adjusting said socket-mechanism to engage the stop corresponding to the floor at which the elevator is required, whereby the said stop is carried along by the cage until the switch is oscillated to break the circuit and set the brake; upper and lower limit stops on said cable, large enough to engage the socket-mechanism at any adjustment; and stationary stops cooperating with said limit stops to check the motion of the switch, when the latter is thrown by hand to start the motor.

3. In an elevator, the combination of a traveling cage, a motor, a switch-drum, and a brake-mechanism; with a pulley rigid on the switch-shaft, a pulley at the top of the elevator well, and an endless cable hung on said pulleys; a series of stops of increasing size rigid on said cable; a socket-mechanism mounted on the cage and encompassing the cable; means for adjusting said socket-mechanism to engage the stop corresponding to the floor at which the elevator is required, whereby the said stop is carried along by the cage until the switch is oscillated to break the circuit and set the brake; upper and lower limit stops on said cable, large enough to engage the socket-mechanism at any adjustment; said adjusting means comprising, a stationary member, a slidable member, said members forming the jaws of the socket, a handle for shifting said sliding member to increase or decrease the size of the socket, and means cooperating with said handle for retaining said sliding member in set position; and stationary upper and lower stops cooperating with said limit stops to check the motion of the switch, when the latter is thrown by hand to start the motor.

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1,038,021. SANITARY DRINKING-FOUNTAIN. ARTHUR E. SUMMERS, Mount Vernon, Ill. Filed Oct. 21, 1911. Serial No. 655,915. (Cl. 187—11.)



1. A drinking fountain of the character described, including a reservoir, a discharge nipple leading from the lower end of the reservoir and formed with a drain cock at its lower end, radially disposed discharge pipes leading from the said nipple above the drain cock and provided with discharging faucets at their ends, and a dished drainage pan disposed below the reservoir and spaced therefrom and extending out beyond the faucets, said pan having an upwardly extending marginal flange and a centrally disposed drainage opening beneath the lower end of the discharge nipple.

2. A drinking fountain of the character described, including a reservoir having a downwardly extending annular base, a dished drainage pan disposed below the base and having upwardly extending lugs upon which the base rests, said lugs being formed at their outer ends with upwardly extending limiting flanges, the drainage pan being formed with a marginal, upwardly extending flange and a central discharge opening, a discharge nipple and "

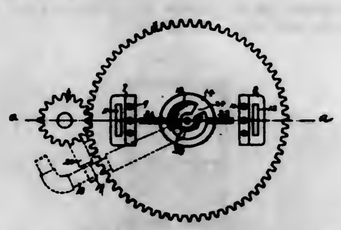
extending downward from the center of the reservoir and entirely housed within said base, a drain cock on the lower end of the T, radially extending discharge pipes leading from the T and projecting through the base, and discharge faucets located on the ends of the pipes, each having an upwardly extending discharge opening, said drain pan extending out beyond the faucets.

3. A drinking fountain of the character described including a reservoir having a downwardly extending annular base, a dished drainage pan disposed below the base and having upwardly extending lugs upon which the base rests and by which it is supported in spaced relation to the pan, said lugs being formed at their outer ends with upwardly extending limiting flanges whereby to center the base with relation to the pan, said pan being formed with a marginal upwardly extending flange and a central discharge opening, a discharge nipple and T extending downward from the center of the reservoir immediately above the discharge opening of the pan, a drain cock on the lower end of the T, radially extending discharge pipes leading from the T and projecting through the base, and discharge faucets located on the ends of the pipes, each having an upwardly extending discharge opening and a pressure valve at its extremity, the upwardly extending flange of the drainage pan being in proximity to the pressure valve and acting as a support for the hand of the operator.

4. A drinking fountain of the character described including a reservoir, a drain cock extending from the lower end of the reservoir, a base extending downward from the reservoir and entirely housing the drain cock, said base extending below the drain cock, and a dish-shaped drainage pan disposed below the base and spaced therefrom, the margin of said pan extending upwardly to a point above the lower edge of the base.

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1,038,022. PNEUMATIC COOLING DEVICE. HERMAN T. SUNDSTROM, Houston, Tex. Filed July 13, 1911. Serial No. 638,297. (Cl. 199—13.)



1. A device of the character described including the combination with a disk having an air chamber in the face thereof, of molds carried by said disk, a plate secured upon said disk and covering said air chamber and having an aperture therethrough communicating with said chamber, air outlets leading from said chamber and discharging against the molds carried by said disk, and an inlet tube secured to said plate and communicating with the air chamber through the aperture therein.

2. In a device of the character described the combination with a mold disk provided with an air chamber and carrying molds, of a plate secured upon said disk and covering said air chamber and having an aperture therethrough communicating with said chamber, air outlets leading from said chamber and discharging against the molds carried by the mold disk, and an inlet tube communicating with said air chamber through the aperture in said plate.

3. In a device of the character described the combination with a mold disk having an air chamber therein, of molds carried thereby, the air outlets leading from said air chamber and discharging jets of air against said molds, an air inlet communicating with said air chamber and conducting air thereto from a suitable generator and means closing said air inlet when said mold disk is at rest.

4. In a device of the character described the combination with a rotatable mold disk having an air chamber therein, of molds carried by said disk, a plate mounted upon said disk and rotatable relative thereto and inclosing said air chamber and having an aperture therethrough communicating with the air chamber, suitable discharge outlets leading from said air chamber and discharging against said molds, an inlet tube secured to said plate and communicating with said air chamber through the aperture in said plate, and means closing said inlet tube when said mold disk is at rest.

5. In a device of the character described, the combination with a mold disk having an air chamber therein, of a mold carried thereby, an air outlet leading from said air chamber and discharging jets of air against said mold, an air inlet communicating with said air chamber and conducting air thereto from a suitable generator and means closing said air inlet when said mold disk is at rest.

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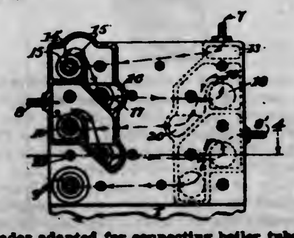
1,038,023. CLOSURE AND PROTECTING DEVICE FOR BOTTLES. MAURICE SWITZER, New York, N. Y., assignor, by mesne assignments, to The Wilson Distilling Company, Jersey City, N. J., a Corporation of New Jersey. Filed Feb. 8, 1909. Serial No. 476,782. (Cl. 215—23.)



A bottle provided with a stopper, a cover of flexible material extending downwardly over said stopper and the lip and lower contiguous portions of the bottle, a seal inclosing said stopper and cover and secured about the neck of the bottle to prevent removal except by rupturing it, and a cap of suitably hard materials interposed between said cover and seal, receiving the upper end of the stopper and suitably engaging the bottle to maintain its proper position thereon and prevent accidental removal or displacement of the stopper, substantially as described.

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1,038,024. STEAM-GENERATOR. PAUL A. TALBOT, Seattle, Wash. Filed July 17, 1906, Serial No. 326,948. Renewed Apr. 12, 1907. Serial No. 367,871. (Cl. 122—360.)



1. A header adapted for connecting boiler tubes lying at different levels having a circulating passage with its bottom elevated in its middle portion to a level higher than the upper part of the upper tube.

2. A header or circulating connection for tubes of a water tube boiler lying at different levels, having a single circulating passage and being provided with a diaphragm extending across said passage and from its bottom to a level as high as the upper portion of the upper tube section with which it is connected.



3. A steam generator comprising a plurality of sets of straight water tubes, said sets being disposed at different levels, a header connecting all the tubes of each set, circulating connections between the headers of successive sets permitting the passage of the water only when the set preceding it in the circulating system has been completely filled, and means for producing a circulation of both water and steam through the system in the direction coinciding with gravity.

4. A steam generator comprising a plurality of sets of straight water tubes lying at successive levels and connected in an open series, said series having a water supply connection at its upper end and a steam discharge at its lower end, and means connecting successive tubes, each having a single circulating passage, and a dam or diaphragm extending to a level substantially equal to that of the uppermost part of the tubes connected therewith.

5. In a steam generator, a plurality of evaporative members arranged in tiers, a water inlet to the uppermost tiers of evaporative members, a steam outlet for the lowermost evaporative members, traps between the tiers of evaporative members whereby the upper evaporative members are filled before a supply of water is admitted to the tiers of evaporative members below, and means for admitting water direct to the lower evaporative members independent of the water inlet to the upper evaporative members.

[Claims 6 to 10 not printed in the Gazette.]

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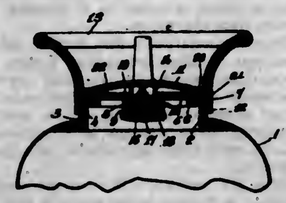
1,038,025. SELF-FEEDING SPRINKLER FOR CLOTHES. AUGUST W. TESCH, Chicago, Ill. Filed July 20, 1911. Serial No. 639,503. (Cl. 137—61.)



A self feeding sprinkler for clothes consisting of a receptacle contracted toward one of its ends and having perforations in its opposite end, a hollow handle secured to the side wall of the receptacle at a point spaced from each of its ends but nearer the perforated end and having communication therewith, said handle having near its outer end a vent opening, and a weight located in the handle near the vessel.

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1,038,026. FIRE-EXTINGUISHER. JESSE B. THOMAS, Boston, Mass. Filed May 11, 1912. Serial No. 696,577. (Cl. 220—124.)



1. In a fire-extinguisher, a canister having a tubular neck, a cover, cooperating sealing means on the cover and neck, respectively, a cap having a depending peripheral flange adapted for threaded engagement with the neck, said cap being adapted to depress the cover and effect sealing of the canister, a permanent connection between the cap and cover comprising an internally shouldered central hub on one, and a headed connecting member having threaded engagement with the other of said parts and extended into the hub, the head of said member extending laterally opposite the shoulder of the hub with a clearance therebetween, and a permanent closure for the open end of the hub adjacent the head of the connecting member, the latter permitting free relative rotation of the cap and cover and limited relative axial movement thereof.

2. In a fire-extinguisher, a canister having a tubular neck, a cover, a cap having threaded engagement with the neck and adapted to force the cover toward the canister neck to seal the same, a central, permanent connection between said cap and cover comprising a central, internally shouldered hub on one, and a headed connecting member permanently attached to the other, of said parts and extended loosely into the hub, the head of said member extending laterally opposite the shoulder with a clearance therebetween, and means to close the open end of the hub adjacent the head of the connecting member, said member permitting free relative rotation of the cap and cover and limited axial movement thereof, combined with a metallic friction-reducing member interposed loosely between the opposed portions of the cap and cover adjacent their peripheries, whereby when the cap is rotated the tendency of the cover to rotate is obviated.

3. In a fire-extinguisher, a canister having a tubular neck, a cover having a depending central hub provided with an internal annular shoulder, an imperforate cap having threaded engagement with the neck and adapted to force the cover toward the neck to seal the canister, a central, tubular hub depending from the cap and extended rotatably into the cover hub, a connecting member fixed in the inner end of said cap hub and having a head extended laterally below the shoulder in the cover hub with a clearance therebetween, whereby the cap and cover have a limited relative axial movement and are rotatable freely relatively to each other, and a fluid-tight closure for the inner end of the cover hub adjacent the head of the connecting member.

4. In a fire-extinguisher, a canister having a tubular neck, a cover having a depending central hub provided with an internal annular shoulder, an imperforate cap having threaded engagement with the neck and adapted to force the cover toward the neck to seal the canister, a tubular, internally threaded hub depending centrally from the cap and extended rotatably into the cover hub, a connecting member screwed into the inner end of the cap hub and having a cylindrical head extended laterally adjacent the shoulder of the hub with a clearance therebetween, to permit limited relative axial movement of the cap and cover, and a closure for the inner end of the hub to close the same fluid tight.

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1,038,027. MANUFACTURE OF HYDROQUININ. HEINRICH THROM, Frankfort-on-the-Main, Germany, assignor to The Firm of Vereinigte Chininfabriken Zimmer & Co. G. M. B. H., Frankfort-on-the-Main, Germany. Filed Mar. 7, 1912. Serial No. 682,276. (Cl. 22—34.)

1. The manufacture of hydro-cinchona-alkaloids by treating a cinchona alkaloid with hydrogen in the presence of a finely divided, non-colloidal, metal of the platinum group.

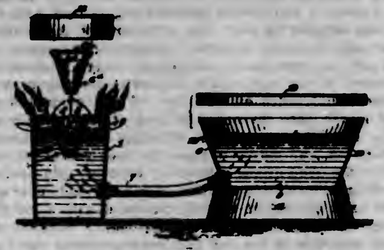
2. The manufacture of hydroquinin by treating quinin with hydrogen in the presence of a metal of the platinum group in the finely divided state deposited on inert bodies.

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1,038,028. ORCHARD-HEATER. LOUIS M. THERRIEN, St. Louis, Mo. Filed Oct. 20, 1911. Serial No. 655,770. (Cl. 158—91.)

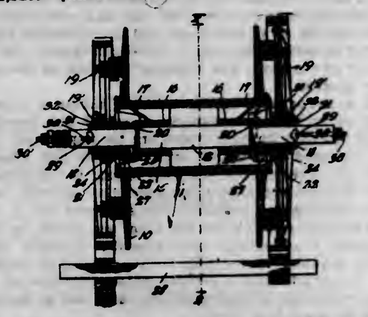
1. An orchard heater comprising a fuel-reservoir, a fire-pot, a fuel-supply pipe spacing apart and connecting said reservoir and pot, and devices adapted to facilitate combustion, the bottom of said reservoir being disposed in a plane substantially above the bottom of said pot, the upper edges of said pot and reservoir being disposed in substantially the same horizontal plane, said said pipe communicating with said pot at a point substantially above its bottom and oppositely communicating with said reservoir at substantially the bottom thereof.

2. An orchard heater comprising a fuel-reservoir, a fire-pot, a fuel-supply pipe spacing apart and connecting said reservoir and pot, and devices adapted to facilitate combustion, the bottom of said reservoir being disposed in a plane substantially above the bottom of said pot, the upper edges of said pot and reservoir being disposed in substantially the same horizontal plane, and said pipe communicating with said reservoir at substantially the bottom thereof and oppositely communicating with said pot at a point substantially below the plane of the bottom of said reservoir.



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1,038,029. LOGGING-ENGINE. HARRY LEON TURNEY, Portland, Oreg. Filed Aug. 14, 1911. Serial No. 644,029. (Cl. 57—83.)



In a logging engine, a shaft, a drum loosely mounted on said shaft, said drum being formed with spaced bearings, the end portions of said shaft being reduced, a collar secured on each of said reduced portions, said collar contacting with the shoulder formed by reducing said shaft and with the bearings carried by said drum, a gear wheel loosely mounted adjacent each end of said shaft, each of said gear wheels being capable of frictional contact with said drum to rotate the same, a plurality of apertured lugs carried by each of said gear wheels, a rod supported by each of said lugs, said rods being free to move within the aperture formed therein, a plate loosely mounted on said shaft adjacent each of said gear wheels, said rods being connected to said plate, and resilient means for normally spacing said plate and said gear wheels.

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1,038,030. BOX. WASHINGTON I. TUTTLE, Baltimore, Md. Filed Aug. 27, 1910. Serial No. 579,193. (Cl. 220—5.)



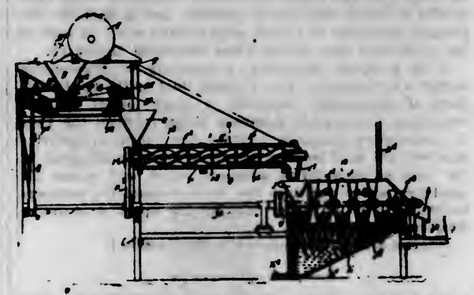
1) A box comprising a body having wings depending from the lower edge of the opposite walls of the body and intermediate the ends of the box, said wings being provided with lugs, and a bottom provided with struck up tongues intermediate the ends of the bottom interlocking with said lugs on the wings of the boxbody.

2. A box body the opposite walls of which are provided with converging wings having lugs adapted for engagement with tongues formed upon a box bottom.

3. A dished box bottom the base of which is provided with struck up tongues inside of and parallel with its opposite edges intermediate the ends thereof.

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1,038,031. MACHINE FOR REMOVING PULP FROM COFFEE-BERRIES. JOSÉ MARCELINO UMBELLIA, Bárcaoa, Cuba. Filed Dec. 11, 1911. Serial No. 664,927. (Cl. 83—30.)



1. A machine for treating coffee berries, comprising embedding means for embedding an abrading material in the pulp of the berries, means for grinding, tumbling and brushing the berries and the abrading material to cause the latter to loosen and detach the pulp from the berries, and means for subsequently separating the berries from the pulp and abrading material.

2. A machine for treating coffee berries, comprising in combination the following instrumentalities, namely, an embedding device for embedding an abrading material in the pulp of the berries, a grinding, tumbling and brushing device into which discharges the said embedding device and arranged to loosen and detach the pulp from the berries, and a washing, agitating and separating device into which discharges the said grinding, tumbling and brushing device and arranged to separate the berries from the detached pulp and abrading material.

3. A machine for treating coffee berries, comprising a traveling surface, feeding means for feeding abrading material onto the said traveling surface, feeding means for feeding the berries in between the said abrading material, means for pressing the abrading material into the pulp of the berries, and grinding means for subjecting the berries and the abrading material to a grinding action to loosen the pulp from the berries.

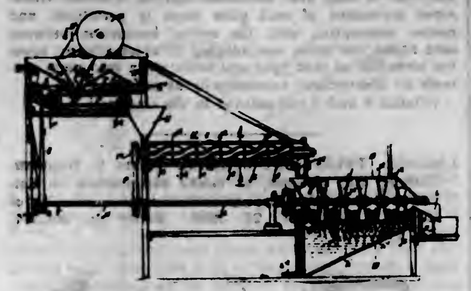
4. A machine for treating coffee berries, comprising a traveling surface, feeding means for feeding abrading material in separate layers onto the said traveling surface, feeding means for feeding coffee berries between the said layers of abrading material, and a presser roller operating in conjunction with the said traveling surface for pressing the said abrading material into the pulp of the coffee berries.

5. A machine for treating coffee berries, comprising a traveling surface, a feeding device over the said traveling surface for feeding a layer of an abrading material onto the said surface, a second feeding device adjacent the said first feeding device for feeding coffee berries onto the said layer of abrading material, a third feeding device adjacent the said berry feeding device for feeding a layer of abrading material onto the said berries, and a pressure roller operating in conjunction with the said traveling surface for pressing the abrading material into the pulp of the said berries.

[Claims 6 not printed in the Gazette.]



1,038,032. METHOD FOR TREATING COFFEE-BERRIES. José Marcelino Umbellia, Barcaoa, Cuba. Filed Dec. 11, 1911. Serial No. 664,928. (Cl. 83—30.)



1. The herein described method for removing the pulp of coffee berries, consisting in embedding an abrading material in the pulp of the berry, then subjecting the berry to a grinding action to cause the abrading material to remove the pulp from the berry, and then separating the berry from the removed pulp and abrading material.

2. The herein described method for removing the pulp of coffee berries, consisting in pressing an abrading material into the pulp of the berry, then subjecting the berry with the abrading material thereon to a grinding action, and subsequently to a cleaning action to detach the pulp and abrading material from the berry, and finally separating the berry from the detached pulp and abrading material.

3. The herein described method for removing the pulp of coffee berries, consisting in pressing an abrading material into the pulp of the berry, then subjecting the berry with the abrading material thereon to a grinding action, then to a polishing action, then washing the berry and separating the berry from the removed pulp and abrading material.

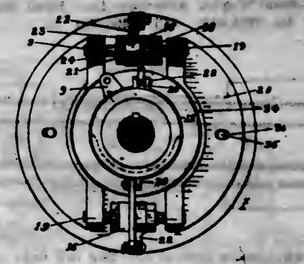
4. The herein described method for removing the pulp of coffee berries, consisting in feeding the berries onto a layer of an abrading material, then covering the berries with another layer of abrading material, then subjecting the berries and layers of abrading material to pressure to embed the abrading material in the pulp of the berries, then subjecting the berries with the abrading material to a grinding action and tumbling action to loosen and detach the pulp from the berries, then subjecting the berries to a brushing action to completely detach the pulp and abrading material from the berries, then washing the berries and separating the berries from the pulp and abrading material.

5. The herein described method for removing the pulp of coffee berries, consisting in feeding the berries onto a layer of an abrading material, then covering the berries with another layer of abrading material, then subjecting the berries and layers of abrading material to pressure to embed the abrading material in the pulp of the berries, then adding abrading material to the berries, then subjecting the berries with the abrading material to a grinding action and tumbling action to loosen and detach the pulp from the berries, then subjecting the berries to a brushing action to completely detach the pulp and abrading material from the berries, then washing the berries and separating the berries from the pulp and abrading material.

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1,038,033. CLUTCH. ADOLPH FRED WALTHER, Oakland, Cal. Filed Dec. 4, 1911. Serial No. 663,690. (Cl. 192—14.)

1. A clutch of the class described comprising a support, a shaft, a pocket carried by said support, and being provided with an angularly extending lip upon the inner face thereof, a collar carried by said shaft, a ring carried by said collar, said ring being provided with a worm groove upon its outer face and being adapted to engage said rib of said support whereby said ring will be moved longitudinally as said ring is rotated in one direction and moved transversely when said ring is rotated in the opposite direction, a rotating drum, clutch members carried by said drum, and means carried by said drum and coöperating with said ring and clutch members for causing said clutch members to engage said collar when said ring is moved longitudinally.



2. A clutch of the class described comprising a shaft, a support therefor, a collar keyed to said shaft, a flared clutch engaging portion carried by said collar, a rotating drum loosely mounted upon said shaft, ears carried by said drum and extending laterally thereof, clutch members carried by said rotating drum and partially encircling said flared portion of said collar, rotating shafts carried by said ears having oppositely threaded ends engaging said clutch members for drawing said clutch members together when said shafts are rotated and causing said clutch members to engage said flared portion of said collar, and means coöperating with said shafts for rotating the same.

3. A clutch of the class described comprising a shaft, a support therefor, a drum loosely mounted upon said shaft, a collar keyed to said shaft, ears carried by said drum, a ring carried by said collar and slidably mounted thereon, said collar being provided with a cylindrical groove, a split ring carried within said groove and loosely mounted therein, rotating shafts carried by said ears, clutch members carried by said drums and coöperating with said shaft whereby said clutch members will be drawn together when said shaft is rotated, an operating arm carried by said shaft, a conical portion formed upon said shaft and engaging said arm, a nut threaded upon said shaft and engaging said arm for holding the same in engagement with said conical portion, link members engaging the upper end of said arm, pins carried by said split ring, some of said links engaging said pins whereby said links will be swung when said first mentioned ring is slit upon said collar and said last mentioned shaft will be rotated for drawing said clutch members to an operative position.

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1,038,034. FOUNTAIN-PEN. TETSUGABURO WATANABE, New York, N. Y. Filed Sept. 23, 1911. Serial No. 650,947. (Cl. 120—113.)



A holder, a thimble inclosing the end of said holder and secured thereon, an ink holding cup shape reservoir, a rod

carrying said reservoir, and extending through the end of said thimble into said holder, said rod having a portion screw threaded, a nut upon said screw-threaded portion adapted to be used in adjusting said reservoir.

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1,038,035. RAIL JOINT AND FASTENER. SHADORN PENDLETON WATTS, Abbeville, La. Filed May 2, 1911. Serial No. 624,622. (Cl. 239—8.)



In a rail joint, a pair of abutting rail ends, one of said ends being provided with a notch V-shaped in horizontal section, the angle of the sides of the V increasing from the top of the rail downward, the remaining end being provided with a V-shaped projection closely fitting the notch, and means to hold said ends together.

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1,038,036. PLOW. IRA A. WEAVER, Springfield, Ill., assignor to Racine-Sattley Company, Springfield, Ill., a Corporation of Illinois. Filed Jan. 2, 1912. Serial No. 668,923. (Cl. 97—80.)



1. In a device of the character described, the combination of a frame, a plow beam, a plow carried by said beam, and a spring connection between said beam and frame, whereby longitudinal and transverse movement of the plow relative to said frame is permitted, substantially as described.

2. A device of the character described comprising, in combination, a frame, a plow beam, a plow on said beam, a spring connection between said frame and said beam whereby limited relative longitudinal and transverse movement between said frame and beam is permitted, and means mounted on said beam and connected to said frame, whereby the elevation of said beam is caused by the relative separation of said frame and beam, substantially as described.

3. A device of the class described comprising, in combination, a frame, a plow beam, a plow carried by said beam, a spring connection between said beam and said frame, whereby relative longitudinal movement between said beam and frame is permitted and a second spring connection between said beam and said frame, adapted to act at substantially a right angle to said first mentioned spring, whereby transverse movement of said plow beam is permitted, substantially as described.

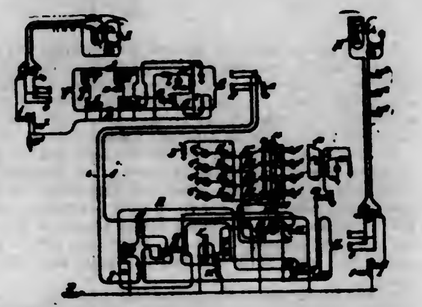
4. A device of the character described comprising, in combination, a frame, a plow beam, a plow secured to said beam, a connection between said beam and said frame, whereby limited relative movement between said beam and frame is permitted, said connection including a spring, and a second spring associated with said connection means, said second spring being arranged to permit sidewise movement of said plow and beam, substantially as described.

5. A device of the class described comprising, in combination, a frame, a plow beam, a plow carried by said beam, a spring connection between said beam and said frame, whereby relative longitudinal movement between said beam and frame is permitted, a second spring connection between said beam and said frame and located to the rear of said first mentioned spring, whereby transverse movement of said plow beam is permitted, and means codperating with the spring connection between said frame and beam and adapted to automatically cause the elevation of said plow and beam when said plow contacts an obstruction, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

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1,038,037. TELEPHONE SYSTEM. HARRY G. WEBSTER, Chicago, Ill., assignor, by mesne assignments, to Kellogg Switchboard & Supply Company, a Corporation of Illinois. Filed Nov. 27, 1908. Serial No. 464,577. (Cl. 179—73.)



1. A telephone system including a telephone line, a connection for projecting signaling current thereover, a relay for closing and opening said connection, a circuit for initially energizing said relay, a connection controlled by said relay for locking it during signaling, a source of current, and a switch at the substation of said line for operation to conductively unite a pole of said source with said relay, said relay being then effective to open said connection.

2. A telephone system including a telephone line, a connection for projecting signaling current thereover, a switch contact included in said connection, a relay, means for effecting a flow of current through said relay to cause it to close said contact, and a switch connected in said telephone line and in circuit with said relay for effecting a different flow of current through said relay to cause it to open said contact.

3. A telephone system including a telephone line, a connection for projecting signaling current thereover, a switch contact included in said connection, a relay, means for effecting a flow of current through said relay to cause it to close said contact, a locking contact of said relay operated responsive to said flow to maintain said relay energized, and a switch connected in said telephone line and in circuit with said relay for effecting a different flow of current through said relay to cause it to open said contact.

4. A telephone system including a telephone line, a signaling source for connection therewith, switch mechanism, a relay serving when energized to operate said mechanism to connect said source to said line, and a circuit including a switch contact of said relay and the limbs of said telephone line for passing current through said relay to cause it to disconnect said source from said line.

5. A telephone system including a telephone line, a signaling source for connection therewith, switch mechanism, a relay serving when energized to operate said mechanism to connect said source to said line, and a circuit including the limbs of said telephone line for passing current through said relay to cause it to disconnect said source from said line.

[Claims 6 to 40 not printed in the Gazette.]



1,038,038. COMBINED SHELF AND PARTITION. PETER M. WEBB, Marietta, Ohio, assignor to The Safe Cabinet Company, Marietta, Ohio, a Corporation of Ohio. Filed May 17, 1911. Serial No. 627,658. (Cl. 211—27.)



In a cabinet of the kind indicated, the combination with a sheet metal shelf formed at its lower side with grooves at its front and rear edges, of a partition of sheet metal having at its upper edge a hollow tongue including substantially horizontal walls and a wall connecting them one of said walls being free to be sprung toward the other, said tongue projecting at its ends to enter and engage the aforesaid grooves.

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1,038,039. HAND-RAMMER. FRANZ WEDEMEYER, Halle-on-the-Saale, Germany. Filed Dec. 5, 1910. Serial No. 595,706. (Cl. 94—9.)

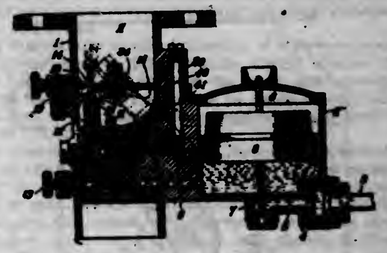


1. An improved paving rammer comprising in combination a supply valve for the motor fluid, a cylinder upon which said valve is fixed and a monkey fixed at the lower end of said cylinder, said monkey having a cavity in its lower end, a working piston in said cylinder, a piston rod, an enlarged lower end of said piston rod located in said cavity of the monkey and serving as support for the monkey, and buffer means between said working piston and said monkey and designed to lift the support for the monkey before the monkey begins to fall, substantially as described and shown and for the purpose set forth.

2. An improved paving rammer comprising in combination a supply valve having a central boring, a channel for the admission of motor fluid to said central boring, a channel connecting said central boring with the lower end of said supply valve and an exhaust opening for the motor fluid, a distributing piston in said central boring of the supply valve, a hand-lever for operating said distributing piston, a stud at the lower end of said distributing piston and a spiral spring acting against the lower end of said stud for maintaining said piston in inoperative position, a cylinder fixed in the lower end of said supply valve so that it communicates with the channel of the supply valve terminating in the lower end of the same, a monkey fixed at the lower end of said cylinder and having a central boring and a cavity at its lower end, a working piston in said cylinder, a rod of said piston guided in said central boring of the monkey, a buffer spring surrounding said piston rod and abutting with its upper end against the said working piston and with its lower end against said monkey, and a shoe at the lower end of said piston rod serving as support for the monkey, substantially as described and shown.

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1,038,040. CARBURETER. ARTHUR J. WEBB, West Orange, N. J., assignor, by mesne assignments, to Maxi Company, a Corporation of New York. Filed Jan. 25, 1912. Serial No. 673,377. (Cl. 48—185.1.)



1. A carbureter having a mixing chamber, a throttle valve, and a plurality of fuel outlet passages entering said chamber and arranged to supply a mixture of fuel and air and then liquid fuel progressively as said throttle valve is opened.

2. A carbureter having a mixing chamber, a throttle valve, and a fuel passage having a plurality of branching outlets entering said chamber at separate points below said throttle valve, said outlets being successively caused by the throttle valve as it is opened, first to take air and finally to eject liquid fuel.

3. A carbureter having a mixing chamber, a throttle valve, and a fuel passage having a plurality of branching outlets entering said chamber at separate points below said throttle valve, said outlets being successively caused by said throttle valve as it is opened, to take air, eject mixed air and fuel and finally eject liquid fuel.

4. A carbureter having a mixing chamber, and a fuel passage having a plurality of branching outlets entering said chamber, said outlets being arranged to act initially as air inlet openings and thereafter as liquid fuel outlet openings, and means for controlling the intake of air and the exit of liquid fuel through said outlets.

5. A carbureter having a mixing chamber, and a fuel supply passage having a plurality of branching outlets entering said chamber, said outlets being arranged to act initially as air inlet openings and thereafter as liquid fuel outlet openings, and a valve for controlling the intake of air and the exit of liquid fuel through said outlets.

[Claims 6 to 17 not printed in the Gazette.]

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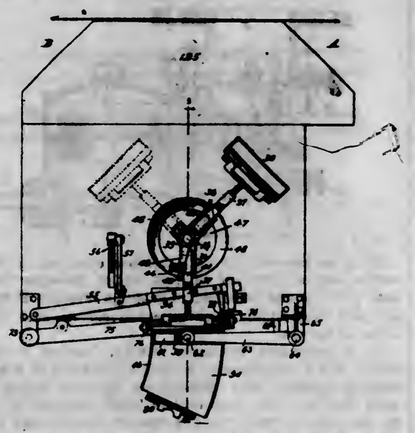
1,038,041. CIGAR-BUNCHING MACHINE. NATHAN WARSS, New York, N. Y., assignor to American Cigar Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 16, 1909. Serial No. 518,109. (Cl. 131—42.)

1. In a cigar bunching machine, a table, a bunch forming mechanism, and a filler feed mechanism comprising two filler receptacles adapted to oscillate about a common axis alternately between said bunch forming mechanism and opposite sides of the table.

2. In a cigar bunching machine, a table, a bunch forming mechanism, and a filler feed mechanism comprising two filler receptacles angularly disposed in fixed relation to each other adapted to oscillate in a plane about a common axis alternately between said bunch forming mechanism and opposite sides of the table.

3. In a cigar bunching machine, a table, a bunch forming mechanism, and a filler feed mechanism comprising two filler transporting receptacles fixed rigidly at an angle to each other and adapted to oscillate in unison and in the same plane about a common axis and alternately between the common bunch forming mechanism and opposite sides of the table.

4. In a cigar bunching machine, a table, a bunch-forming mechanism, a filler feed mechanism comprising two filler receptacles angularly disposed with relation to each other and adapted to oscillate in unison about the same axis alternately between the common bunch forming mechanism and opposite sides of the table, means for moving the receptacle above the bunch forming mechanism into cooperative relation therewith, and a plunger for forcing the contents of said receptacle onto the bunch-forming mechanism.



5. In a cigar bunching machine, a bunch-forming mechanism, an oscillating shaft, duplicate filler transporting receptacles adapted to swing vertically and oscillate about a common axis between separate filling station and a common bunch-forming mechanism, means adapted to hold said filler receptacles in upright position when they swing vertically connecting said receptacles to the oscillating shaft, means movable in the axis of oscillation for lowering the filler receptacles into close proximity to the bunch-forming mechanism, means for discharging the contents of said receptacles thereon, and means for oscillating the shaft.

[Claims 6 to 15 not printed in the Gazette.]

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1,038,042. HAT-PROTECTOR. LOUIS WEHR, New York, N. Y. Filed May 7, 1910. Serial No. 559,987. (Cl. 2—108.)



A collapsible hat protector formed of thin waterproofed fabric, and having an elongated collar portion adapted to be passed about the coat collar of the wearer, the extremities of the collar portion being adapted to overlap, when the device is in operative position, such overlapping portion being provided with cooperating fastening means for securing the device in position, an intermediate member joined to said collar portion, and adapted to be extended upwardly therefrom about the lateral and posterior sides of the wearer's head and open at its forward side to expose the face of the wearer, a crown portion joined to the upper part of said intermediate portion and adapted to be extended over the crown of the hat, a visor formed from flexible material joined to the inner surface of the forward part of the crown portion above the junction of the intermediate member and the crown portion, and adapted to be extended across the forward part of the hat brim, and having its end portions extended and secured to the intermediate member and to the crown portion, and binding strips secured along the edges of the intermediate member at the opening in the forward part thereof, and being of a width to extend a distance inwardly of the intermediate member, said binding strips overlapping the extended end portions of the visor and being secured to said extended portions and to the crown.

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1,038,043. KNITTING. EBER WESSELL, Johnstown, N. Y., assignor to Wessell Knitting Company, a Copartnership. Filed Dec. 22, 1911. Serial No. 667,270. (Cl. 66—4.)



1. The method of forming a knitted garment, which consists in knitting a tubular body portion and then successively knitting thereon divided tubular extensions, then joining another tubular body portion to said extensions and repeating these operations until a strip of the desired length has been formed and then cutting the strip into individual garments, substantially as described.

2. The method of forming knitted garments, which consists in knitting a tubular body portion, the successively forming thereon divided double length tubular limb extensions, then forming on the outer ends of such double length extensions a double length body portion and repeating these operations until a strip formed of alternate double length body portions and double length divided limb extensions has been formed, and then severing such strip into individual garments, substantially as described.

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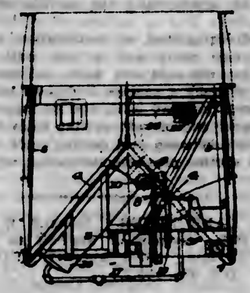
1,038,044. KNITTING-MACHINE. EBER WESSELL, Johnstown, N. Y., assignor to Wessell Knitting Company, a Copartnership. Filed Jan. 18, 1912. Serial No. 671,046. (Cl. 66—28.)



In a machine of the kind described, the combination of a crank having a variable throw, a plurality of points indicated thereon for determining the length of the throw, said points being arranged in groups, each group comprising a point corresponding to a throw suitable for use in forming the body portion of a garment of a predetermined size and one or more points indicating a throw suitable for forming extensions thereon, all in combination with an adjustable connecting rod having a plurality of points of adjustment indicated thereon for determining the length of throw, said points being arranged in groups, each group comprising a point corresponding to the length required for the body portion of the garment of said predetermined size, and one or more points indicating a length suitable for use in forming extensions thereon, substantially as described.



1,038,045. SIDE-DUMP CAR. HENRY JOHN WESTERMAN, Duluth, Minn. Filed Dec. 7, 1909. Serial No. 532,661. (Cl. 105—188.)



1. In a dumping car having vertically movable side and end walls, fluid pressure lifting motors on opposite ends of said car, and connections for supplying fluid pressure to said motors; substantially as described.

2. In a dumping car having vertically movable walls, a plurality of fluid pressure lifting cylinders on opposite ends of said car and connections for supplying fluid pressure to said cylinders; substantially as described.

3. In a dumping car having vertically movable walls, a fluid pressure lifting cylinder on opposite ends of said car, a fluid pressure storage tank on said car, connections for supplying fluid pressure from said tank to the lifting cylinders and connections for supplying fluid pressure to said tank; substantially as described.

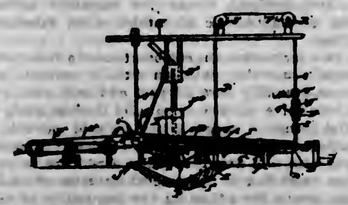
4. In a dump car, the combination with a ridge-shaped floor, of center sills and an A-shaped floor frame comprising a vertical plate notched to receive said center sills, a vertical member riveted to said plate to stiffen the same and a transverse member also riveted to said plate to stiffen the same; substantially as described.

5. In a dump car, the combination with a ridge-shaped floor, of a center sill structure and an A-shaped floor frame comprising a vertical plate notched to receive the center sill structure, a vertical member riveted to said plate and to the center sill structure to stiffen the frame and a transverse member riveted to said plate and to the center sill structure to stiffen said frame; substantially as described.

[Claims 6 to 39 not printed in the Gazette.]

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1,038,046. ORE-CONCENTRATOR. THOMAS W. A. WEST, Ocotlan, Oaxaca, Mexico. Filed Sept. 10, 1900. Serial No. 517,107. (Cl. 83—83.)



1. In an apparatus of the class described, a frame carrying a concentrator, suspending means for one end of said frame, and a hanger connected to the other end of the frame and to an intermediate point between said ends, said hanger having a flexible section passing around a support, and means for changing its length.

2. In an apparatus of the class described, a frame carrying a concentrator, pivoted suspending means for one end of said frame, a hanger connected to the other end of said frame and to an intermediate point between said ends, said hanger having a flexible section passing around overhead guides, means forming a part of said hanger whereby its length may be changed, and means for imparting to said frame transverse vibratory movements.

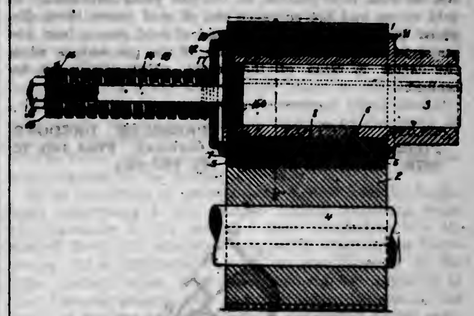
3. In an apparatus of the class described, a frame carrying a concentrator, pivoted suspending means for one end of said frame, a hanger comprising tension rods connected by a flexible section, and means on one of said rods for changing the length of the hanger, and overhead rollers around which said flexible section passes, one end of said hanger being attached to the belt frame at the end opposite the suspending means and to a point intermediate its ends, and means for imparting transverse vibrations to the belt frame.

4. A concentrator having a plurality of transverse series of relatively narrow, longitudinally curved pockets abruptly curved at each end and the lower ends provided with lips overhanging the pockets to retain concentrates, the pockets of each series being staggered with respect to those of the adjacent series.

5. A concentrator belt having a plurality of transverse series of relatively narrow, longitudinally curved pockets formed in the body thereof, said pockets being abruptly curved at each end and the lower ends provided with lips overhanging the pockets to retain concentrates, the pockets of each series being staggered with respect to those of the adjacent series.

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1,038,047. MULTIPLE-DISK GEARING. CHARLES P. WETHERBEE, Bath, Me., assignor to George Westinghouse, Pittsburgh, Pa. Filed Dec. 27, 1909. Serial No. 535,194. (Cl. 74—29.)



1. A pair of cooperating gears, one of which is composed of separate members adapted to yield independently against frictional resistance for causing the power transmitted to be evenly distributed over the contacting surfaces of engaging teeth throughout the entire length of the gears.

2. A pair of cooperating gears of which the teeth of one are made of a number of frictionally restrained independently yielding elements, the resistance to yielding of any one of said elements being less, and the resistance of all combined being greater, than the force transmitted by the gear, whereby uniform pressure over contacting surfaces of the gear teeth is obtained.

3. A gear wheel having the active portions of its teeth composed of a number of frictionally restrained elements arranged side by side and movable independently in the direction of power transmission, whereby an even and uniform bearing on a complemental gear may be obtained.

4. A gear wheel having the active portions of its teeth composed of a number of frictionally restrained elements arranged side by side and movable independently in the direction of power transmission, and means resisting tooth motion with a force which is less for each individual element, than the power delivered to or from the entire gear, whereby the teeth are enabled to yield locally to obtain an even bearing on the teeth of a gear in mesh therewith.

5. The combination with a gear, of a gear member therewith and consisting of a number of toothed disks loosely mounted upon a rotary holder, friction disks keyed to the

holder between adjacent toothed disks, and means for crowding said disks together longitudinally on the holder for frictionally resisting independent movement of the toothed disks.

[Claims 6 to 10 not printed in the Gazette.]

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1,038,048. SHUTTLE FOR LOOMS. ADOLPH WIDMER and SAMUEL WIDMER, Paterson, N. J.; said Adolph Widmer executor of said Samuel Widmer, deceased. Filed Nov. 26, 1909, Serial No. 530,067. Renewed Feb. 20, 1912. Serial No. 678,967. (Cl. 139—27.)



The combination of a shuttle body having opposed walls and a recess in one of said walls entering the same from one side thereof and open toward the other wall, and an elastic pin having a substantially straight body-portion and one end turned off at an angle to said body-portion and journaled in the other wall, whereby said pin may swing on said turned-off end thereof as a pivot, the free end of said body-portion of the pin being engageable in said recess and the entrance end of said recess being disposed farther than the other end of said recess from the plane in which the body-portion of the pin swings when the latter is clear of the recess, substantially as described.

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1,038,049. SUCTION AND PRESSURE DREDGER. PIETER VAN WIJNEN, Cologne, Germany. Filed July 19, 1910. Serial No. 572,666. (Cl. 37—45.)



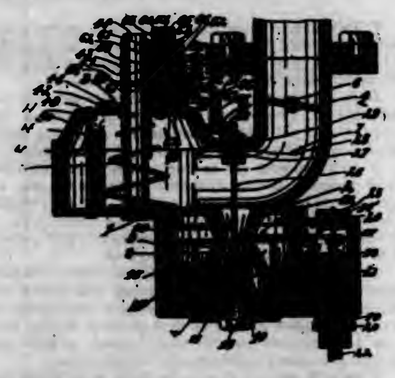
1. In a dredging head, in combination, a body portion provided with a plurality of openings, the planes of said openings being disposed at an angle to one another, one of said openings being in the front of the dredging head and the other of said openings being in the bottom thereof, cutting tools positioned within said head and dividing the same into front and rear compartments, the rear compartment communicating with the bottom opening and the front compartment communicating with the front opening, and a suction pipe communicating with both of said compartments.

2. In a dredging head, in combination, a body portion provided with a plurality of openings, the planes of said openings being disposed at an angle to one another, one of said openings being in the front of the dredging head and the other of said openings being in the bottom thereof, cutting tools positioned within said head and dividing the same into front and rear compartments, the rear compartment communicating with the bottom opening and the front compartment communicating with the front opening, a suction pipe communicating with both of said compartments, and a pipe for conveying fluid under pressure into the rear compartment, said pipe being so positioned that the fluid under pressure will assist the suction, thereby accelerating the motion of the material acted upon.

3. In a dredging-head, in combination, a body portion comprising side walls, and a rear wall, cutting tools positioned between said side walls and spaced from said rear walls whereby a passage is formed between the cutting tools and the rear wall, and an upper wall spaced from the upper end of said cutting tools whereby a passage is formed between said cutting tools and said upper wall, and a suction pipe communicating with both of said passages.

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1,038,050. CARBURETER. DONALD R. WILLS, Cincinnati, Ohio, assignor of one-half to Adolph Klein, Cincinnati, Ohio. Filed Apr. 17, 1911. Serial No. 621,509. (Cl. 48—155.2.)



1. In a carbureter, the combination with a casing having a primary air-intake passage, of a fuel-valve having a movable part and opening into said passage, an axially movable automatic air-intake valve, said automatic air-intake valve movable automatically in the direction of suction from the engine for opening said automatic air-intake valve, a pedestal mounted on and moving with said axially movable automatic air-intake valve, a guide on said pedestal, said guide provided with a guiding-face, means for adjusting the said guide on said pedestal for changing the angularity of said guiding-face with relation to the line of movement of said axially movable air-intake valve, a controlling part for said movable part of said fuel-valve provided with a part coacting with said guiding face, and resilient means for normally automatically closing said automatic air-intake valve, substantially as described.

2. In a carbureter, the combination of a fuel-valve having an axially movable part, an axially movable air-intake valve, said axially movable part and said axially movable air-intake valve movable in parallel lines in closely adjacent parallel planes, a spring acting on said movable part for normally opening said fuel-valve, a pedestal mounted on and moving with said axially movable air-intake valve, a guide thereon extending in the general direction of said parallel planes, means for adjusting the angularity of said guide with relation to said parallel planes, and a bell-crank connecting-member between said guide and movable part having a pair of contact-parts thereon, one of said contact-parts coacting with said guide and the other of said contact-parts acting on said movable part of said fuel-valve, substantially as described.

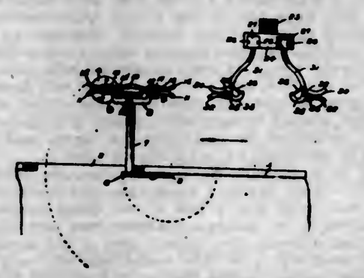
3. In a carbureter, the combination with a casing having a primary air-intake passage of a fuel-valve, said casing comprising an air-intake shell, an axially movable automatic air-intake valve for said shell automatically moving in the direction of suction from the engine for opening said automatic air-intake valve, a pedestal mounted on and movable with said axially movable automatic air-intake valve, a guide on said pedestal, said guide having a guide-face extending in the general direction of said axial movement, means for adjusting the angularity of said guide-face with relation to said axial movement, said pedestal and guide located within the longitudinal projection of said air-intake shell, and resilient means for normally automatically closing said automatic air-intake valve, and a controlling member for said fuel-valve guided by said guide-face, substantially as described.

4. In a carbureter, the combination of a casing provided with a throttle-passage and a fuel-reservoir, an axially movable automatic air-intake valve, an axially movable fuel-valve located between said throttle-passage and said air-intake valve, said fuel-valve and said air-intake valve being in closely adjacent positions, fuel-valve controlling means actuated by said axially movable automatic air-intake valve comprising an adjustable guide and a contact-part therefor within the longitudinal projections of said axially movable automatic air-intake valve and fuel-reservoir, and resilient means for normally automatically closing said automatic air-intake valve, substantially as described.

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1,038,051. MAIL-BAG CATCHER AND DELIVERER. GEORGE W. WILSON, Vineland, N. J. Filed Apr. 11, 1912. Serial No. 690,008. (Cl. 105—231.)



1. A mail bag catcher and deliverer comprising spring actuated fingers adapted to engage between them a suspending rope connected to a mail bag and provided with a knot or enlargement, a catching device at the station, said catching device comprising oppositely disposed curved arms provided with spring actuated fingers, and means for independently adjusting said arms vertically.

2. A mail bag catcher and deliverer comprising an arm hingedly connected to a mail car and provided with spring actuated fingers adapted to engage a suspending rope connected to a mail bag and provided with a knot or enlargement, stationary means for withdrawing the rope from the fingers, said means comprising curved arms, slides to which said arms are connected, spring actuated fingers on said arms, and means for holding said slides in vertically adjusted positions.

3. A mail bag catcher and deliverer comprising oppositely curved arms, spring actuated fingers connected to said arms, slides for carrying said arms, a guideway for said slides, means for holding said slides in vertically adjusted positions, and means on a mail car for withdrawing and presenting to the fingers mail bags provided with suspending ropes having knotted or enlarged ends.

4. A mail bag catcher and deliverer comprising an arm having spring actuated oppositely disposed supporting devices for mail bags each provided with a suspending rope having a knot or enlargement in one end, and means at the station for delivering to and removing from said fingers mail bags also having suspending ropes provided with an enlarged or knotted end and comprising spring actuated fingers connected to curved arms, slides for supporting said arms, and means for adjusting the slides vertically and independently.

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1,038,052. WIRE-WORKING APPLIANCE. CHARLES K. WOLF, near Xenia, Ohio. Filed May 23, 1910. Serial No. 562,845. (Cl. 140—117.)



1. As an article of manufacture, a wire stretching implement, comprising a bar having a slot extending inward from one end thereof, forming parallel fingers, the sides of said slot being substantially parallel throughout, and separated by a space substantially equal to the diameter of the wire to be operated upon, the parallel fingers formed by said slot being bent upon themselves throughout an arc of substantially one hundred and eighty degrees, having an intermediate space between the bar and fingers when so bent substantially equal to the diameter of the wire to be operated upon, the reversed portion of the fingers being extended somewhat beyond the strand of wire when engaged therewith, substantially as specified.

2. As an article of manufacture, a wire working implement comprising a bar, the extremity of which is bent to parallelism in U-shaped form, the arms of which are separated by a space substantially equal to the diameter of the wire to be operated upon, and an offset shoulder adjacent to the bend inclined in relation to the plane of the bar, whereby the extremity of the inclined shoulder will be below the plane of the bar and removed from the wire engaged in the U-shaped bend.

3. As an article of manufacture, a wire working implement comprising a bar, parallel fingers projecting from the extremity of the bar bent upon themselves into U-shaped form and separated from each other by an intervening space substantially equal to the diameter of the wire operated upon, a shoulder on said bar adjacent to the U-shaped fingers, said shoulder being inclined to the plane of the bar and substantially tangential to the exterior periphery of the U-shaped bend of said parallel fingers, and means carried by the opposite end of the bar to engage a pulling lever, substantially as specified.

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1,038,053. HARVESTER ATTACHMENT. CHARLES K. WOLF, near Xenia, Ohio. Filed Oct. 16, 1911. Serial No. 654,945. (Cl. 56—96.)



1. In a harvesting machine, a binding table, sheaf forming and tying devices, a series of obstructions fixed upon the binding table at the head side only of the sheaf forming and tying devices adjacent to the point of formation

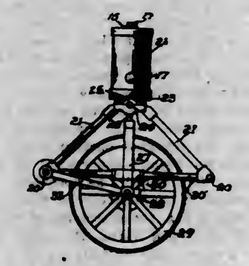
of the sheaf and in the path of travel of the head portions of the stalks whereby such head portions will be retarded while the passage of the butt portions of the stalks will be unretarded, substantially as specified.

2. In a harvesting machine, a binding table, sheaf forming and tying mechanism, a corrugated member carried upon the binding table and in the path of the severed stalks for retarding the movement of the head portions of the initial stalks forming the nucleus of the sheaf in their travel across the binding table to the sheaf forming devices, while the butt portions of the stalks are permitted free movement thereon, substantially as specified.

3. In a harvesting machine, a binding table, a series of inclined teeth fixed on said table and in the path of travel of the head portions of the advancing stalks, which over ride said teeth, substantially as specified.

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1,038,054. AUTOMOBILE VEHICLE. LEWIS WOLF, McNabb, Ill. Filed Apr. 1, 1912. Serial No. 687,787. (Cl. 21—50.)



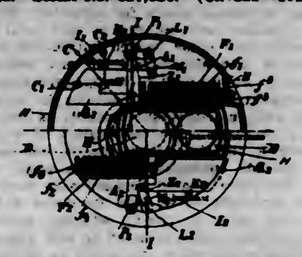
1. The combination with a vehicle body of a frame structure below said body; cylinders mounted in said frame; fork members slidably mounted in said frame; bearing boxes carried by said forks; wheels mounted between said bearing boxes and in the crutches of said forks; piston stems extending upwardly from said forks; and pistons secured to the ends of said stems, said pistons being slidably arranged in said cylinders, substantially as described.

2. The combination with a vehicle body of a frame structure below said body upon which the latter is supported; cylinders swingingly mounted in said frame; fork members slidably and swingingly mounted in said frame; bearing boxes carried by said forks; wheels mounted between said bearing boxes and the crutches of said forks; piston stems extending upwardly from said forks; and pistons secured to the upper ends of said stems, said pistons being slidably mounted in said cylinders, substantially as described.

3. The combination with a vehicle body of a frame structure below said body upon which the latter is supported; pneumatic cylinders swingingly mounted in said frame; fork members slidably and swingingly mounted in said frame; brace rods pivotally connected with said forks and swingingly connected with said frame; bearing boxes carried by said forks; wheels mounted between said bearing boxes and in the crutches of said forks; piston stems extending upwardly from said forks; and pistons secured to the upper ends of said stems, said pistons being slidably mounted in said cylinders, substantially as described.

4. The combination with a vehicle body of a frame structure arranged below said body upon which the latter is supported; vertically disposed pneumatic cylinders swingingly mounted in said frame; fork members slidably and swingingly mounted in said frame; brace rods pivotally connected with said fork and swingingly connected with said frame; bearing boxes carried by said forks; a short axle mounted in the bearing boxes of each of said forks; wheels mounted upon said axles in the crutches of said forks; piston stems extending upwardly from said forks; and pistons secured to the upper ends of said stems, said pistons being slidably mounted in said cylinders, substantially as described.

1,038,055. SHAFT-GOVERNOR FOR ENGINES. RUDOLF WOLF, Magdeburg-Buckau, Germany. Filed May 16, 1912. Serial No. 697,660. (Cl. 123—101.)



1. In a governor for steam engines, the combination with a shaft having a crank arm, of a casing mounted on said crank arm, a pair of coil spring members each attached at one end to a relatively fixed part of the casing and disposed upon opposite sides of and parallel with the crank arm, a fly body coöperating with each of said spring members, means adapted to guide said fly body in a direction substantially parallel to the crank arm, and means adapted to operatively connect said fly body with the mechanism for controlling the engine.

2. In a governor for steam engines, the combination with a shaft having a crank arm, of a casing mounted on said crank arm, a pair of coil spring members each attached at one end to a relatively fixed part of the casing and disposed upon opposite sides of and parallel with the crank arm, a fly body coöperating with each of said spring members, means adapted to guide said fly body in a direction substantially parallel to the crank arm, and means adapted to operatively connect said fly body with the mechanism for controlling the engine, said guiding means embodying an anti-friction bearing.

3. In a governor for steam engines, the combination with a shaft having a crank arm, of a casing mounted on said crank arm, a pair of coil spring members each attached at one end to a relatively fixed part of the casing and disposed upon opposite sides of and parallel with the crank arm, a fly body coöperating with each of said spring members, means adapted to guide said fly body in a direction substantially parallel to the crank arm, and means adapted to operatively connect said fly body with the mechanism for controlling the engine each of said fly bodies having its center of gravitation at a distance away from the axis of its coil spring member, and said means for connecting the fly bodies with the engine controlling mechanism each embodying a lever having one of its arms pivoted to said fly body and disposed substantially in the direction of force caused by the location of the fly body away from the axis of the spring.

4. In a speed governor, the combination with a casing and a fly body, of a coiled spring member coöperating with said fly body and constructed in two sections disposed one within the other and connected at one of their ends with each other and with the opposite ends respectively to the fly body and to a relatively fixed part of said casing.

5. In a speed governor, the combination with a casing and a fly body, of a coiled spring member coöperating with said fly body and constructed in two sections disposed one within the other, a stem passing through said spring sections and secured to a relatively fixed part of said casing, and a sleeve slidably mounted on said stem, said spring sections having one of their ends connected to said sleeve and their opposite ends respectively to said stem and to the fly body.

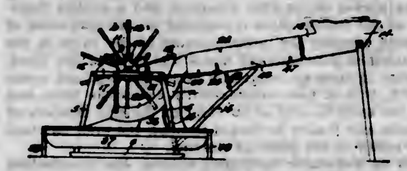
[Claims 6 to 8 not printed in the Gazette.]

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1,038,056. FRUIT-GRADER. JAMES A. WOODS, Jr., Ogden, Utah. Filed Mar. 22, 1912. Serial No. 685,484. (Cl. 130—32.)

1. In a fruit grader, the combination of an inclined grading element having a plurality of laterally adjustable fruit passages; a conveyer for introducing fruit into the upper end portion of the grading element, and means operated by the fruit for retarding the movement of the same on the grading element until it enters the fruit passages thereof.





2. A fruit grader comprising an inclined grading element, a conveyer adapted to discharge into the upper end of the grading element, means for controlling the passage of the fruit from the conveyer to the grader, and rotary means for operating the controller and actuated to do so by the fruit in the grader.

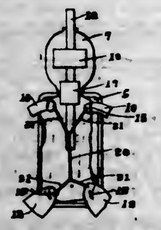
3. In a fruit grader, the combination with an inclined grading element and a conveyer adapted to discharge into the upper end of said grading element; of rotary means operated by the fruit in the grading element for controlling the passage of the fruit from the conveyer into the grader.

4. In a fruit grader, the combination with an inclined grading element and a conveyer adapted to discharge into the upper end of said grading element; of means for controlling the discharge of fruit from the conveyer into the grader, and adjustable means for intermittently operating the controller and actuated to do so by the fruit in the grader.

5. In a fruit grader, the combination of an inclined grading element, a conveyer adapted to discharge into the upper end of the grading element, and rotary means operated by the fruit in the grading element for intermittently operating the controller and retarding the movement of the fruit through the grading element.

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1,038,057. ADVERTISING DEVICE. WILLIAM E. YOUNGER, Seattle, Wash. Filed May 26, 1911. Serial No. 629,594. (Cl. 46—40.)



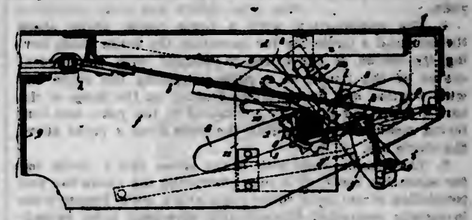
A device of the class described comprising a body; jointed legs and arms pivotally connected adjacent the corners of said body, a head formed on said body; guide pieces, a push and pull strip slidably fitted in the openings in said guide pieces, and connections between the inner extremity of said strip and the arms and legs for moving the same.

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1,038,058. DOOR. ROBERT MONTAGUE ZIMMERMAN, Montreal, Quebec, Canada, assignor to National Dump Car Company, Chicago, Ill., a Corporation of Maine. Filed Nov. 26, 1910. Serial No. 594,216. (Cl. 105—14.)

1. The combination with a door and a valvular member for closing one side of said door, an arm pivoted at one end to the door and having the valvular member mounted on its other end, and a link pivotally connected at one end to a fixed part and at the other end to the valvular member.

2. The combination with a door, of a valvular member hinged to the door, a link connecting the valvular member and a fixed part, and means co-acting with such link to operate the valvular member.



3. The combination with a door, of a valvular member hinged to the door, a link connecting the valvular member and a fixed part, and a member carried by the door and co-acting with such link to operate the valvular member.

4. In combination, a door, operating mechanism for such door, a valvular member for closing one side of said door, an arm on one end of which the valvular member is mounted, said arm being pivotally secured at its opposite end to the door, a link secured near one end to a fixed part by a sliding pivotal connection, said link secured near its opposite end by pivotal connection to the valvular member, and a lug rigidly secured to the door, and projecting into the plane of such link, for the purpose set forth.

5. In combination, a hinged door, operating mechanism for such door, a valvular member for closing the free end of the door, an arm on which said valvular member is mounted such arm being pivotally connected to the door, a link, means effecting a slidable and pivotal connection between one end of a stationary part and the link, and means effecting a pivotal connection between the opposite end of the link and the valvular member, for the purpose set forth.

[Claim 6 not printed in the Gazette.]

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1,038,059. BRAKE-SHOE CONTROL. LUSIAN ZENNE, Detroit, Mich. Filed Dec. 29, 1911. Serial No. 668,403. (Cl. 188—24.)



1. The combination with brake shoes and a circle bar operatively connected thereto, of a yoke embracing the bar and having friction rollers traveling on the upper face thereof, draft rollers journaled on the yoke in contact with the concave marginal portion of the circle bar, and a draft rod pivotally secured by a double connection to the forward portion of the yoke.

2. The combination with brake shoes and a circle bar for operating the brake shoes, of a yoke embracing the circle bar, friction rollers journaled in the upper portion of the yoke to travel on the upper face of the bar, draft rollers journaled in the yoke to bear against the concave marginal portion of the bar, a draft rod embracing the forward portion of the yoke, a pivot pin connecting the yoke and draft bar, and a guard pin in the draft bar loosely engaging the yoke.

3. The combination with brake shoes and a circle bar, for operating the shoes of a yoke having a roller plate overlying the bar and a keeper plate underlying the bar, draft rollers journaled in the roller plate in contact with the upper face of the bar, a pair of draft rollers each journaled between the adjacent end portions of the roller plate and

keeper plate in contact with the concave marginal portion of the circle bar, a draft rod embracing the forward portion of the yoke, a pivot pin connecting the rod and yoke and a guard pin in the draft rod playing in a slot in the yoke.

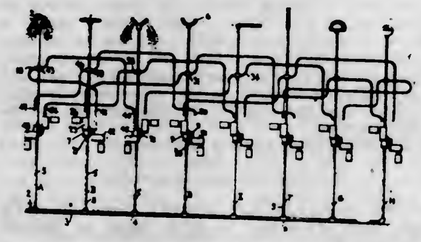
4. The combination with a bogie truck, brake shoes thereon and a circle bar for operating the brake shoes having its center of curvature co-incident with the pivotal center of the truck, of a yoke embracing the circle bar with friction and draft rollers bearing on the faces of the bar, a draft rod pivotally connected to the yoke, and centering means for suspending the yoke from a point above the circle bar.

5. The combination with brake shoes and a circle bar for operating them, of a yoke embracing the circle bar and consisting of an upper roller plate and a lower keeper plate integrally connected thereto with divergent arms extending to the outer extremities of the roller plate, draft rollers journaled in pockets in the under face of the roller plate to travel on the proximate face of the circle bar, pivot pins coupling the arms of the keeper plate and adjacent portions of the roller plate, draft rollers each journaled on a pivot pin in contact with the adjacent concave marginal face of the circle bar, a draft bar, a pivot pin connecting the draft bar and yoke and a guard pin in the draft rod traveling in a slot in the yoke.

[Claims 6 to 8 not printed in the Gazette.]

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1,038,060. AUTOMATIC SPRINKLER. GEORGE ZINT, Wapakoneta, Ohio. Filed Sept. 18, 1911. Serial No. 649,948. (Cl. 137—66.)



1. In an automatic sprinkling system, the combination with a series of upright standards, a feed pipe connecting their lower ends, and sprinkler heads at the upper ends of the standards; of a valve in each standard, opening and closing buckets carried by the valve stem at opposite sides thereof, and control pipes leading from each standard at a point above its valve, one to a point above the valve-closing bucket of another standard and the other to a point above the valve-opening bucket of a third standard.

2. In an automatic sprinkling system, the combination with a series of upright standards, means for feeding water to their lower ends, and sprinkler heads connected with their upper ends; of a valve in each standard, opening and closing buckets connected with the valve stem, and control pipes leading from each standard at a point between its valve and head, one to a point above the valve-closing bucket of another standard and the other to a point above the valve-opening bucket of a third standard, the last-named control pipe being restricted so that the flow of water therethrough will be slower, for the purpose set forth.

3. In an automatic sprinkling system, the combination with a series of upright standards, a feed pipe connecting their lower ends, and sprinkler heads at the upper ends of the standards; of a valve in each standard, opening and closing buckets carried by the valve stem at opposite sides thereof, two control pipes leading from the first standard at a point above its valve, one of them leading to a point above the closing bucket of the second standard and the other to a point above the opening bucket of the third standard, two similar pipes leading from the second standard, one of them leading to a point above the opening bucket of the first standard and the other to a point above the closing bucket of the fourth standard, two similar pipes leading from a point above the valve of the third standard, one of them to a point above the closing bucket of the first standard and the other to a point above the opening bucket of the fifth standard, and a similar disposition of the control pipes throughout all the standards of the series whereby the initial opening of the valve in the first standard automatically opens the valve in the third, the latter in turn automatically closes the first and opens the fifth, this in turn automatically closes the third and opens the seventh, and so on through the odd numbers of the series and thence backward through the even numbers of the series to the point of starting.

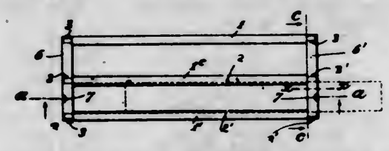
4. In an automatic sprinkling system, the combination with a series of upright standards having sprinkler heads, and a feed pipe connecting the lower ends of the standard; of a valve casing within each standard, a valve mounted on a rock shaft therein, a cross head carried by the outer end of said shaft, opening and closing buckets mounted on the opposite ends of said cross head, and two control pipes leading from each standard at a point above its valve, one to a point above the closing bucket of another standard and the other to a point above the opening bucket of a third standard.

5. In an automatic sprinkling system, the combination with a series of upright standards having sprinkler heads, and a feed pipe connecting the standards; of a valve casing within each standard, the casing having two lateral bosses above its valve seat, an oscillating shaft mounted within said casing, a valve connected thereto, a rocking cross head attached to said shaft, opening and closing buckets carried by the opposite ends of said cross head, and two control pipes connected with the outer ends of said bosses, one leading to a point above the closing bucket of another standard and the other to a point above the opening bucket of a third standard.

[Claims 6 to 11 not printed in the Gazette.]

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1,038,061. CLOTH-BOARD FOR WINDING FABRICS THEREON. JOHN H. ACKROYD, Elizabeth, N. J. Filed Sept. 13, 1910. Serial No. 581,835. (Cl. 206—50.)



1. In a cloth board a frame-work comprising two end pieces, and two or more longitudinal rods fixed to the inner sides of same, and having opposing grooves therein; in combination with a slot in each of said two end pieces, located in alinement with said opposing grooves in said longitudinal rods.

2. In a cloth board a frame-work comprising two end pieces, and two or more longitudinal rods fixed to the inner sides of same, and having opposing grooves therein; in combination with a slot having beveled edges, located in each of said two end pieces in alinement with the opposing grooves in said longitudinal rods.

3. A cloth board comprising two end pieces provided with rounded ends; two or more rounded longitudinal rods having their ends secured to the inwardly opposing sides of said end pieces; a slot with beveled edges in each of said end pieces; a groove along the opposing sides of each of two of said rods; and a sample holder arranged to engage said grooves and slide therein.

4. In a cloth board a framework comprising two end pieces each having a slot with beveled edges therein; two or more longitudinal rods having their ends secured to the inwardly opposing sides of said end pieces; a sample holder; and means in the body of the board for holding said sample holder in alinement with said slots and reciprocatingly movable therein.



1,038,062. GAME APPARATUS. RABETTE ALBERT, Rinderf, Germany. Filed Mar. 8, 1911. Serial No. 613,128. (Cl. 46—81.)




An improved lotto board and counter comprising in combination a board, raised panels on said board on which the numbers are printed, and counters consisting of capsules composed of a circular top-plate and a downwardly turned rim, substantially as described and shown and for the purpose set forth.

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1,038,063. CASTING DEVICE FOR DENTAL PURPOSES. JOSEPH FRANCIS ALEXANDER and WILLIAM GRAHAM ALEXANDER, Seattle, Wash. Filed Mar. 3, 1906. Serial No. 419,043. (Cl. 22—73.)



1. In a dental casting device, an air pump and a flask rigidly connected thereto and a detachable supporting means provided at the base of said flask preventing investment compound in said flask from entering said air pump connection and adapted to permit the circulation of air into said air pump connection.

2. In a dental casting device, a flask supporting investment material, an air pump connected at the base of said flask and a removable investment supporting means whereby said investment is held in said flask and prevented from gravitating into the air pump connection when in a plastic state.

3. In a dental casting device, a flask and a mold of porous investment material supported in said flask, an air pump connected to the base of said flask and means preventing said investment when in a plastic condition from gravitating into the connection to said air pump.

4. In a casting device, a flask, a heating means thereunder, an air pump connected to said flask, means whereby investment material is prevented from gravitating into said connection and whereby said flask may be fixed to said connection during the process of filling said flask with said investment material and during the process of casting.

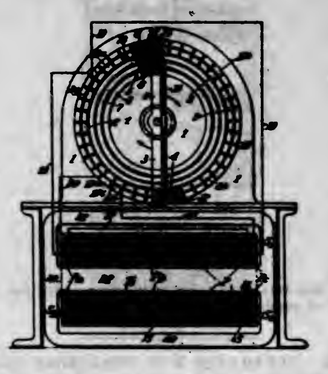
5. In a casting device, a flask, an air pump connection at the base of said flask, a heating means and an investment supporting device adapted to support said investment material when in a plastic state whereby air may be admitted through the investment and said supporting device to obviate the handling of said flask and permitting said flask to be permanently connected to said air pump.

[Claims 6 to 9 not printed in the Gazette.]

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1,038,064. CONVERTER FOR CONTINUOUS CURRENT. WILHELM ALIOTH, Berlin, Germany. Filed June 8, 1911. Serial No. 631,900. (Cl. 171—253.)

1. A converter comprising closed primary and secondary coils each divided into sections, a rectilinear magnetic core within said coils having lateral branches extending between said sections, a return magnetic piece or yoke connecting said branches, a commutator connected to said sections, and means for producing a substantially uniform and continuous advance of the magnetic field along said rectilinear core and within said coils.



2. A converter comprising closed primary and secondary coils each of which is composed of symmetrical interrelated portions and divided into an equal number of sections, a rectilinear magnetic core within said coils having lateral branches extending between said sections, a commutator having sets of segments for said coils, the corresponding sections of the two coil portions of the primary and secondary respectively being connected to the commutator segments alternately so that diametrically opposite contact brushes will connect the coil portions alternately in circuit, and means for producing a continuously advancing magnetic field along said core and within said coils.

3. A converter comprising closed primary and secondary members, each of which is divided into sections and one of which is composed of duplex symmetrical interrelated coil portions, a commutator having sets of segments connected respectively to the sections of the primary and secondary members, the set of segments connected to the duplex member being connected alternately to the coil portions, and a brush support carrying a set of brushes adapted to contact successively with the segments of the duplex coil portions, whereby the coil portions thereof are connected alternately in circuit, and another set of brushes adapted to simultaneously contact with the segments of the other member.

4. A converter comprising closed primary and secondary members concentrically arranged and extending longitudinally, each of which is divided into sections, a magnetic core extending longitudinally through said members, a commutator having segments connected to said sections, said commutator having contact portions extending spirally along the periphery of the support, and means co-operating with said segments for producing a continuously advancing magnetic field along said longitudinal core and within said coils.

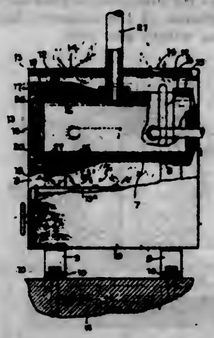
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1,038,065. OXYGEN-GENERATOR. NEWTON J. ANDERSON, Coffeyville, Kans. Filed May 18, 1911. Serial No. 627,016. (Cl. 22—10.)

1. A gas producer comprising arched supporting legs provided with concaved seats, an oxygen generating retort seated therein, a cap for sealing one end of said retort, the other end of said retort provided with threaded openings, a sealing plate for said end of the retort provided with a flange, bolts engaging the said flange and openings to lock said plate over said end of the retort, means for heating said retort, and a hood inclosing said retort and heating means and provided with openings for the escape of products of combustion.

2. A gas producer comprising a horizontally arranged cylindrical retort, supporting legs provided with concaved

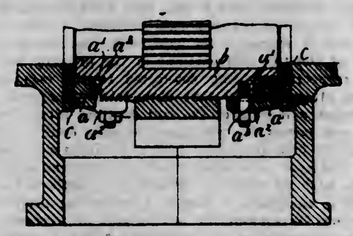
seats for said retort; clamping bars for locking said retort to said seat; means for heating said retort, and a hood



covering said retort provided with escape openings for the products of combustion.

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1,038,066. APPARATUS FOR STRAINING LIQUIDS. FRANK BAILEY and FREDERICK HENRY JACKSON, London, England. Filed Oct. 23, 1909. Serial No. 524,137. (Cl. 121—108.)



1. A packing device comprising a packing ring formed in segments, connected together at their adjacent extremities and provided with keeps respectively adapted to retain the said segments laterally in position in the wheel or other body to which they are applied and to prevent their circumferential movement thereon.

2. A packing device for a rotatable wheel comprising a packing ring formed in segments, perforated overlapping portions at the adjacent ends of said segments, pins in the perforations for locking said overlapping portions, and removable keeps bolted to said rotatable member having portions adapted to project into recesses in said segments at their overlapping portions, whereby circumferential travel of the segments is prevented.

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1,038,067. BOTTLE-STOPPER. JOSEPH BAILEY, Jersey City, N. J., assignor of one-half to Charles K. Curtis, Jersey City, N. J. Filed Apr. 30, 1912. Serial No. 694,107. (Cl. 215—63.)



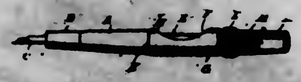
1. In a bottle stopper, a valve seat, a ball valve capable of movement of reciprocation, and of movement of revolution and of pivotal movement upon said seat, a cylinder neck having connection with said valve, a tube having an upper portion in line with and connected to said neck, and a lower bent portion having an oblique angular relation to said upper portion, and a movable weight in said tube.

2. In a bottle stopper, a collar adapted to rest upon the top of the neck of a bottle and having an internal shoulder provided with an angular valve seat juncture with the collar aperture, and an upper enlargement of said aperture having undercut side walls, a ball valve capable of movement of reciprocation in opening and closing, and of movement of revolution, a bent tube, a slender neck having rigid connection with said valve and with said tube, and a movable weight in said tube.

3. In a bottle stopper, a collar adapted to rest upon the top of the neck of a bottle and having a valve seat, a ball valve capable of movement of reciprocation, and of movement of revolution and of pivotal movement upon said seat, a slender neck having rigid connection with said valve, a tube having an upper portion in line and in rigid connection with said neck, and a lower bent portion having an oblique angular relation to said upper portion, a movable weight in said tube, a hollow guard means resting upon said collar, and an external sealing means having connection with said guard means and with the bottle neck.

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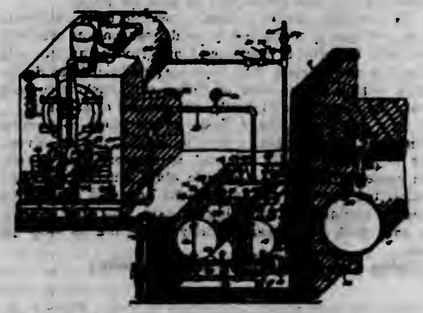
1,038,068. FOUNTAIN-PEN. GEORGE F. BARRETT, Ridgefield Park, N. J. Filed Feb. 16, 1912. Serial No. 678,044. (Cl. 120—46.)



A fountain pen comprising a barrel having a finger opening in its wall and having, adjacent to said opening, a shoulder, a compressible ink-reservoir in the barrel exposed at the finger opening of the barrel, and a sleeve having a finger opening, one end of said sleeve being arranged to come in contact with the shoulder on said barrel, a grand ring screw connected to said barrel for forcing and retaining said sleeve against said shoulder as and for the purposes set forth, and a further member screw connected to said barrel in rear of said guard ring, there being a slight distance between said further member and guard ring when the guard ring is pressing the sleeve against said shoulder; whereby the said further screw threaded member forms a stop for the guard ring.

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1,038,069. FUEL-FEEDING SYSTEM FOR STEAM-BOILER FURNACES. THOMAS T. BATTURSBY, Kansas City, Mo. Filed Oct. 2, 1911. Serial No. 652,372. (Cl. 158—66.)



1. In a fuel feeding system the combination with a steam generator of a liquid fuel burner, a liquid fuel holding pressure tank, a feed pipe connected with said tank and said burner, a water service and supply pipe connected with said tank, a hot water supply pipe leading from the steam generator to the water service and supply pipe, and automatic means for admitting the fluid of greatest pressure from either the water service pipe or the hot water supply pipe through the water service pipe to the fuel holding pressure tank to displace the liquid fuel therein.

2. In a fuel feeding system the combination with a steam generator of a liquid fuel atomizing spray producer, a liquid fuel holding pressure tank, a feed pipe for the liquid fuel connected with said tank and said liquid fuel automizing spray producer, a water service and supply pipe connected with said pressure tank supplying water to displace the liquid fuel at a low pressure, a check valve in said water service and supply pipe, and a hot water supply pipe connected with said steam generator and said water service pipe between said check valve in said water service pipe and said pressure tank.



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1,038,070. ADJUSTABLE EXTENSION-SOCKET. REUBEN B. BENJAMIN, Chicago, Ill., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed July 17, 1908. Serial No. 444,121. (Cl. 173—357.)



1. An adjustable extension plug lamp socket comprising a plug adapted to be inserted into a wall socket or the like, a conducting member in electrical communication with the outer contact of said plug, and a lamp receiving socket having its outer-lamp-terminal-engaging shell hinged to said conducting member.

2. An adjustable extension plug lamp socket comprising a plug adapted to be inserted into a wall socket or the like, a conducting member in electrical communication with the outer contact of said plug, a lamp receiving socket having its outer-lamp-terminal-engaging shell hinged to said conducting member and a casing hinged coaxially with the hinge of said conducting member, for inclosing the same.

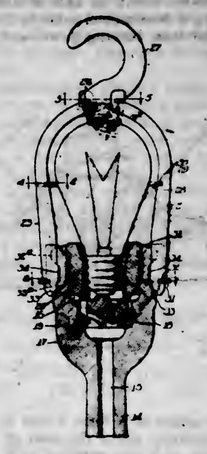
3. An adjustable extension plug socket comprising a plug adapted to be inserted into a wall socket or the like, the center contact of said plug being extended rearwardly, a conducting member in electrical communication with the outer contact of said plug, a lamp receiving socket having its outer-lamp-terminal-engaging shell hinged to said conducting member, and a second conducting member extending rearwardly from the center contact of said socket and hinged to the rearward extension of the center contact of said plug.

4. An adjustable extension plug socket comprising a plug adapted to be inserted into a wall socket or the like, the center contact of said plug being extended rearwardly, a conducting member in electrical communication with the outer contact of said plug, a lamp receiving shell having its outer-lamp-terminal-engaging shell hinged to said conducting member, a second conducting member extending rearwardly from the center contact of said socket and hinged to the rearward extension of the center contact of said plug, and a casing hinged coaxially with the hinges of said conducting member, for inclosing the same.



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1,038,071. PORTABLE PROTECTED LAMP-HOLDER. REUBEN B. BENJAMIN, Chicago, Ill., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 15, 1910. Serial No. 538,259. (Cl. 240—54.)



1. A lamp-holder comprising a lamp-receiving member having a locking projection thereon, a guard including a plurality of strips each having a locking projection thereon adapted to engage the projection of the lamp-receiving member, and manually releasable means for maintaining the projections of the guard strips and the projection of the lamp-receiving member in engagement.

2. A lamp-holder comprising a lamp-receiving member having a locking projection thereon, a guard including a plurality of strips each having a locking projection thereon adapted to engage the projection of the lamp-receiving member, manually releasable means for maintaining the projections of the guard strips and the projection of the lamp-receiving member in engagement, and releasable locking means for said retaining means.

3. A lamp-holder comprising a lamp-receiving member having an annular projection thereon, a guard including a plurality of guard strips arranged in a circle and each having a projection adapted to engage beneath said annular projection, and manually-releasable means for maintaining the projections of said guard strips in engagement with the projection of the lamp-receiving member.

4. The combination with a guard comprising a plurality of guard strips arranged in a circle, of a lamp-receiving member formed with slots for receiving the ends of said guard strips, whereby said strips receive lateral support, and means for preventing longitudinal withdrawal of said strips from said slots.

5. The combination with a guard comprising a plurality of longitudinal strips arranged in a circle and each having a projection thereon, of a lamp-receiving member formed with slots for receiving the ends of said guard strips, whereby said strips receive lateral support, and also formed with a projection beneath which the projections of said strips are adapted to engage, and manually releasable means for maintaining the projections of said strips in engagement with the projection of said lamp-receiving member.

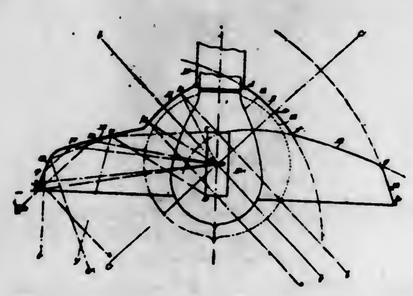
[Claims 6 to 10 not printed in the Gazette.]

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1,038,072. REFLECTOR-SHADE. REUBEN B. BENJAMIN, Chicago, Ill. Filed Dec. 4, 1911. Serial No. 663,903. (Cl. 240—104.)

1. A reflector shade of a form which is a figure generated by the revolution, about the axis of the lamp to be

used in the shade, of a line starting at a point at a predetermined distance from the axis of the lamp, said line extending outwardly and downwardly in a curve which approximately follows the curve of a spherical lamp contained in the shade, then following substantially the curve of a parabola drawn about an axis of distribution of the shade and having a determined point in the lamp filament for its focus, and then turning downward for a predetermined distance.



2. A reflector shade of a form which is a figure generated by the revolution, about the axis of the lamp to be used in the shade, of a line starting at a point at a predetermined distance from the axis of the lamp, said line extending outwardly and downwardly in a curve which approximately follows the curve of a spherical lamp contained in the shade, then following substantially the curve of a parabola drawn about an axis of distribution of the shade and having a determined point in the lamp filament for its focus, and then following substantially the curve of a parabola drawn about the other axis of distribution of the shade and having such point in the lamp filament for its focus.

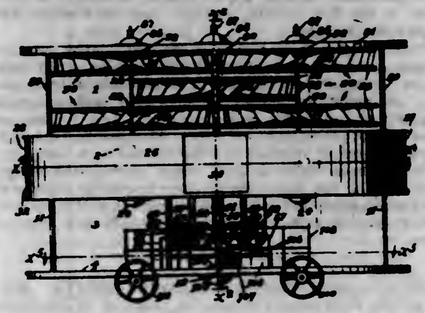
3. A reflector shade of a form which is a figure generated by the revolution, about the axis of the lamp to be used in the shade, of a line starting at a point at a predetermined distance from the axis of the lamp, said line following substantially the curve of a parabola drawn about one axis of distribution of the shade and having a determined point in the lamp filament for its focus, then following substantially the curve of a parabola drawn about the other axis of distribution of the shade and having such point in the lamp filament for its focus, and then turning downward for a predetermined distance.

4. A reflector shade of a form which is a figure generated by the revolution, about the axis of the lamp to be used in the shade, of a line starting at a point at a predetermined distance from the axis of the lamp, said line following substantially the curve of a parabola drawn about one axis of distribution of the shade and having a determined point in the lamp filament for its focus, then following substantially the curve of a parabola drawn about the other axis of distribution of the shade and having such point in the lamp filament for its focus, and then following substantially the curve of a parabola drawn about the first named axis of distribution of the shade and having such point in the lamp filament for its focus.

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1,038,073. FLYING-MACHINE. SANGUINET H. BENOIST, Los Angeles, Cal.; Marie Eugenia Benoist administratrix of said Sanguinet Hubert Benoist, deceased. Filed Jan. 20, 1910. Serial No. 539,201. (Cl. 244—18.)

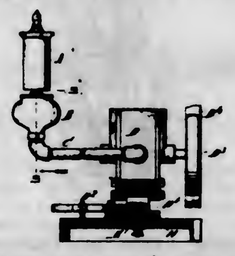
A flying machine having a vertical lifting power by means of downwardly directed air currents generated by a system of horisontally rotating fans, and having a compartment extending some distance below said fans, into which said air currents are forced through the motion of said fans, said compartment being provided with side and end ports, adjustable covers for said ports, and means for operating said covers, said flying machine accomplishing



its horisontal movements by means of the lateral discharge of said air currents through said ports.

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1,038,074. POWER-WHISTLE. REINOLD BERRENBERG, Boston, Mass. Filed July 15, 1908. Serial No. 443,736. (Cl. 116—19.)



1. A signaling device, comprising a base, a rotary air compressor pivotally mounted on said base and having a driving pulley, a power whistle connected to said air compressor, and a lever arranged to swing the air compressor about its pivot to bring its pulley into driving relation with a power operated wheel.

2. The combination with a fly-wheel of an engine, of a base, a rotary air-compressor pivotally mounted on the base and having a driving pulley, a power whistle connected to and movable with the compressor, and a lever by which the air-compressor can be turned about its pivot to bring the driving pulley of the compressor into contact with the fly-wheel of the engine.

3. The combination, with the fly-wheel of an engine, of a base, a rotary air-compressor pivotally mounted on the base and having a driving pulley, a power whistle, means for connecting the compressor with the whistle, a lever by which the air-compressor can be turned about its pivot to bring the driving pulley of the compressor into contact with the fly-wheel of the engine, and means for automatically freeing the driving pulley from the fly-wheel when the lever is released.

4. In a signaling device, the combination of a base, a rotary air-compressor pivotally mounted on the base and having a driving pulley, and a lever by which the air-compressor can be turned about its pivot to swing the driving pulley in a plane substantially parallel to said base, and a power whistle connected to said air compressor.

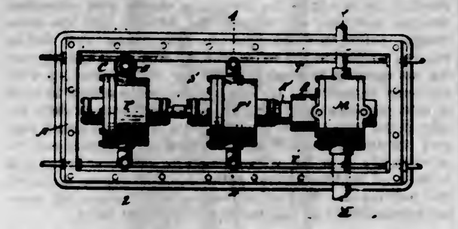
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1,038,075. VACUUM-PUMP APPARATUS. REINOLD BERRENBERG, Boston, Mass. Filed May 29, 1909. Serial No. 499,239. (Cl. 230—6.)

1. A vacuum pump apparatus, comprising a primary rotary air pump and a secondary rotary air pump both



inclosed in a tank and wholly immersed in oil, said primary pump discharging into the tank and said secondary pump drawing from the tank so as to free the oil from any included air or gases, and acting in series with said primary pump to produce a high degree of vacuum, substantially as described.



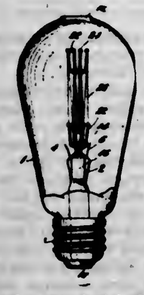
2. A vacuum pump apparatus, comprising a tank containing oil and having a pair of domes above the level of the oil, a primary rotary air pump and a secondary rotary air pump both inclosed in the tank and wholly immersed in the oil, said primary pump having its discharge communicating with one of said domes, and said secondary pump having its inlet communicating with the other of said domes, said secondary pump operating to free the oil in the tank from any included air or gases and acting in series with said primary pump to produce a high degree of vacuum, substantially as described.

3. A vacuum pump apparatus, comprising a tank containing oil and having a pair of domes above the level of the oil, a primary rotary air pump having its discharge communicating with one of said domes, a secondary pump having its inlet communicating with the other of said domes, a fluid driven motor for driving said pumps, all of said pumps and motor being inclosed in the tank and wholly immersed in the oil, said secondary pump operating to free the oil from any included air or gases and acting in series with said primary pump to produce a high degree of vacuum, substantially as described.

4. A vacuum pump apparatus, comprising a closed tank containing oil with a free space above the oil, a primary rotary pump unit having an inlet adapted to be connected to the receptacle which is to be exhausted and an outlet communicating with the free space above the oil, and a secondary pump unit having an inlet communicating with said free space and an outlet communicating with the atmosphere, said primary and secondary units operating in series to produce a high degree of vacuum, substantially as described.

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1,038,076. INCANDESCENT ELECTRIC LAMP AND METHOD OF RENEWING THE SAME. REINOLD BERRENBERG, Boston, Mass. Filed Nov. 28, 1911. Serial No. 662,836. (Cl. 176—4.)



1. A renewed incandescent electric lamp, comprising a bulb, a leading-in stem in said bulb, a filament-carrier cemented to said leading-in stem having a plurality of series of radiating supports, and a metallic filament mounted on said supports.

2. A renewed incandescent electric lamp, comprising a bulb, a leading-in stem in said bulb, a filament-carrier having one end bifurcated and secured to said stem, and a flexible metallic filament mounted on said carrier.

3. A renewed incandescent electric lamp, comprising a bulb, a leading-in stem in said bulb, a glass filament-carrier cemented to said leading-in stem, a plurality of apertured radiating arms mounted on said carrier, and a flexible metallic filament threaded through the apertures in said arms.

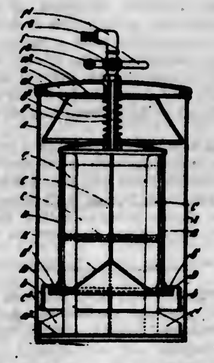
4. A renewed incandescent electric lamp, comprising a bulb, a leading-in stem in said bulb, a glass filament-carrier cemented to said leading-in stem, a plurality of series of flexible wires radiating from said carrier, each provided with an eye at its outer end, and a flexible metallic filament threaded through said eyes.

5. The method of renewing incandescent electric lamps, which consists in forming an aperture in the tip end of the lamp bulb, inserting a filament carrier with a filament threaded thereon through said aperture, cementing the carrier to the leading-in stem within the bulb, connecting the filament to the leading-in wires, and resealing the bulb.

[Claims 6 to 8 not printed in the Gazette.]

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1,038,077. GAS-GENERATOR. CHARLES BINGHAM, London, England. Filed July 1, 1912. Serial No. 707,076. (Cl. 48—22.)



1. In a gas generator, an outer casing to contain liquid, an open mouthed gas bell within the casing, a spring controlled valve adapted to close the mouth of the bell and to provide escape for gas above a predetermined pressure around the full periphery of the bell, and means for holding the valve open during supply of gas by the apparatus.

2. In a gas generator, an outer casing to contain liquid, a sliding open mouthed gas bell in the casing, a spring acting on the bell, a valve seat adapted to close the mouth of the bell when the latter is pressed down upon it by the spring and to provide escape for gas above a predetermined pressure around the full periphery of the bell, and means for holding the bell clear of the valve seat during supply of gas by the apparatus.

3. In a gas governor, an outer casing to contain liquid, a sliding open mouthed gas bell in the casing, a spring acting on the bell, a valve seat adapted to close the mouth of the bell when the latter is pressed down upon it by the spring and to provide escape for gas above a predetermined pressure around the full periphery of the bell, a gas supply tube leading from the bell through the casing, a gas cock on the said tube, and means operated by the gas cock for lifting the bell and holding it open against the pressure of the spring during supply of gas by the apparatus.

4. In a gas generator, an outer casing to contain liquid, a sliding open mouthed gas bell in the casing, a spring acting on the bell, a valve seat adapted to close the

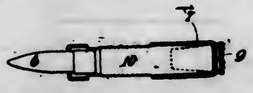
mouth of the bell when the latter is pressed down upon it by the spring and to provide escape for gas above a predetermined pressure around the full periphery of the bell, a gas supply tube leading from the bell through the casing, a gas cock on the said tube, a handle operating the said cock and an extension on the handle adapted to bear on the top of the casing and to lift the bell against the pressure of its spring when the cock is opened.

5. In a gas generator, an outer casing to contain liquid, a sliding open mouthed gas bell in the casing, a spring acting on the bell, an internal cage carrying the gas generating material, and provided with a conical bottom having a valve seat at its periphery adapted to close the mouth of the bell, and means for holding the bell clear of the seat during supply of gas by the apparatus.

[Claim 6 not printed in the Gazette.]

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1,038,078. CARTRIDGE-FEED BELT. NILS BJÖRGUM, Asker, near Christiania, Norway. Original application filed Aug. 22, 1910, Serial No. 578,442. Divided and this application filed Apr. 3, 1911. Serial No. 618,643. (Cl. 89—35.)

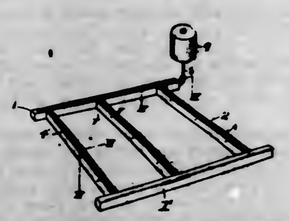


1. A cartridge feed-belt composed of a plurality of tubes each shorter than a cartridge, each tube having its front end bent inwardly to form a flange adapted to engage a projectile and spring arms formed on the rear end having inwardly projecting lips adapted to snap into the groove of a shell, and lateral knuckles formed in the side of the tube adapted to fit between knuckles formed in an adjacent tube.

2. A cartridge feed-belt composed of a plurality of tubes each made of a single piece of metal shorter than a cartridge and having its front end bent inwardly to form a flange and its rear end formed with inwardly projecting lips, said tubes having integral hollow knuckles pressed therein to form lateral hinge members for interconnecting the tubes.

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1,038,079. POULTRY-PERCH. BUCK R. BONNEY, Kansas City, Mo., assignor to Emmett A. Bittel, Kansas City, Mo. Filed Jan. 9, 1912. Serial No. 670,144. (Cl. 119—25.)



1. In a poultry perch, a bar having a trough opening through its upper surface and terminating near the ends thereof, a wedge shaped plug member located in the open portion of said trough and terminating flush with the top of the bar, said plug member being of relatively porous material and providing an open channel at the bottom of the trough and open spaces within the trough near the narrowed lower edge of the rail substantially as set forth.

2. A poultry perch, comprising a beam member having a trough and having a bore extending through its end into the trough, a bar having a trough portion and having a conduit extending through its end and communicating with the trough portion, a wedge shaped plug rail of porous material located in the open top of the trough of said beam and in each of said bars, a nipple in each of the said conduits projecting from the bar and through the side of the beam into the beam trough to afford support for the perch bar, and a core in said nipple comprising a tube having a porous filler and perforated ends, substantially as and for the purpose set forth.

3. A poultry perch, comprising side beams, one of said beams having a trough and having a bore extending through its end into the trough, a supply pipe extending through said bore and adapted for delivery into the beam trough, perch bars mounted on said beams and having troughs similar to the beam trough, each of said bars having an opening through its end for communicating with the beam trough near the bottom thereof, a nipple in each of said openings projecting from the bar and through the side of the frame beam into the beam trough to afford support for the perch bar, and a wedge shaped plug rail located in the open top of the trough in said first beam, and in each of said bars, said rails being of porous material, and terminating flush with the top of its supported member substantially as and for the purpose set forth.

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1,038,080. GAS-WELL PACKER. LEE P. BOOE and RAY DAVIS, Chanute, Kans. Filed Sept. 7, 1911. Serial No. 648,205. (Cl. 166—8.)

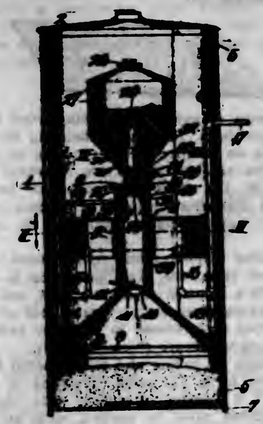


A well packer comprising a lower hollow section, a head in screw-threaded engagement with the upper end thereof and having an octangular opening therethrough, an upper head having a bore therethrough, a tubular octangular member fitting slidably through the opening in the former head and having its ends reduced alike and circular and provided with external screw-threads, a collar engaged on the lower end of the tubular member, the upper end of the tubular member engaging in the bore of the latter head, and an elastic sleeve on the tubular member between the said heads.

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1,038,081. ACETYLENE-GAS GENERATOR. DANIEL C. BORUFF, Kansas City, Mo. Filed Sept. 5, 1911. Serial No. 647,770. (Cl. 48—43.)

An acetylene gas generator, comprising a tank to contain water, an inverted funnel fitting in the tank and having its stem projecting above the water line thereof, a gas bell around the funnel and depending into the water, a perforated plate covering the upper end of the stem of the funnel, a tube rigid with and depending through the perforation of the plate and squared at its lower end, a carbid hopper fitting over the upper end of said tube, a vertical tubular guide within said hopper and terminating at its lower end above the said tube in a perforated flared end, a valve hinged to the lower end of the tube, a weight holding the hinged valve normally closed, a gravity plunger valve fitting in the said guide, and provided with a depending stem resting on the valve to hold the plunger valve above the end of said tube when the hinged valve is closed and to effect the reelevation of the plunger valve when the hinged valve is closed, a lever pivotally supported within the stem of the funnel and projecting out through an opening therein for depression by the bell when the same descends sufficiently, and a rod pivotally



connecting the lever with the weighted end of the hinged valve to reverse the pivotal operation of the lever when the bell is elevated.

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1,038,082. SNAP-SEAL. EDWARD J. BROOKS, East Orange, N. J. Filed July 22, 1912. Serial No. 710,834. (Cl. 70—99.)



1. In a snap seal comprising a flexible shackle and a shackle-end inclosing seal part, the combination of a tubular shackle end having a catch member and a longitudinal opening, and a tubular shackle end slidably insertible within the shackle end first named and provided with a matching catch member and a locking projection, the latter constructed and arranged to interlock with said longitudinal opening and to resist twisting strains.

2. In a snap seal comprising a flexible shackle and a shackle-end inclosing seal part, the combination of a tubular shackle end having a catch member and a longitudinal opening diametrically opposite said catch member, and a tubular shackle end slidably insertible within the shackle end first named and provided with a matching catch member and a locking projection, the latter constructed and arranged to interlock with said longitudinal opening and to resist twisting strains.

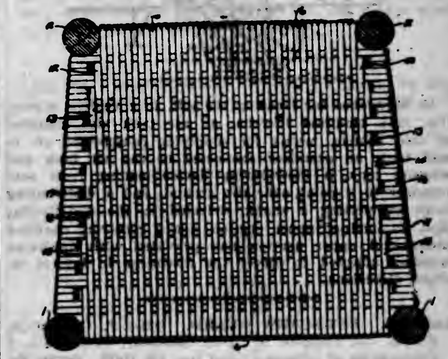
3. In a snap seal comprising a flexible shackle and a shackle-end inclosing seal part, the combination of a tubular shackle end having a catch member and a longitudinal opening, and a tubular shackle end slidably insertible within the shackle end first named and provided with a matching catch member and a free-ended locking projection constructed and arranged to project outward within said longitudinal opening.

4. In a snap seal comprising a flexible shackle and a shackle-end inclosing seal part, the combination of a tubular shackle end having a catch member and a longitudinal opening, and a tubular shackle end slidably insertible within the shackle end first named and provided with a matching catch member, a free-ended locking projection constructed and arranged to project upward and outward within said longitudinal opening and a rigid guard projection above said locking projection and in line therewith.

5. An improved snap seal having, in combination, a vase-shaped seal part of sheet metal the lip of which is turned inward and downward, and a flexible shackle bent up from a sheet-metal strip, said shackle being constructed with a tubular sheath end having a circumferential bead which coöperates with said lip to preliminarily fasten said sheath end within the seal part, a subjacent internally projecting snap catch and a diametrically opposite longitudinal opening, and a tubular shackle end, slidably insertible into said sheath end, having a catch hole matching said snap catch and a twist-resisting locking projection constructed and arranged to interlock with said longitudinal opening of the sheath end of the shackle, substantially as hereinbefore specified.

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1,038,083. CHAIR. ROBERT S. CALEY, Keene, N. H. Filed Jan. 2, 1912. Serial No. 669,653. (Cl. 155—4.)



1. As a new article of manufacture, a chair, the seat whereof is composed of front, rear and side stretchers suitably secured and filling and warp strands extending from front to rear and from side to side respectively and interwoven with each other, the main portion of the filling strands extending about the front and rear stretchers and constituting one continuous length composed of a series of strands having adjacent ends fastened together, the said warp strands passing about the side stretchers.

2. As a new article of manufacture, a chair, the seat whereof is composed of front, rear and side stretchers suitably secured, and filling and warp strands extending from front to rear and from side to side respectively and interwoven with each other, the main portion of the filling strands extending about the front and rear stretchers and constituting one continuous length composed of a series of strands having adjacent ends fastened together, said warp strands constituting one continuous length composed of a series of strands having their adjacent ends fastened together, the said warp strands passing about the side stretchers.

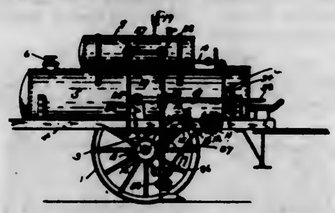
3. That method of forming a chair seat which consists in uniting together a number of strands to form a continuous filling, then wrapping said continuous filling about the front and rear cross stretchers, and then wrapping a warp strand about the side stretchers and interweaving said warp strand with the filling strand.

4. That method of forming a chair seat which consists in uniting together a number of strands to form a continuous filling, then securing one end of said strand directly to a part of the chair or seat frame, then wrapping said continuous filling about the front and rear stretchers, and then wrapping a warp strand about the side stretchers and interweaving said warp strand with the filling strand.

5. That method of forming a chair seat tapering from front to rear, which consists in uniting together a number of strands to form a continuous filling, then securing one end of said strand directly to a part of the chair or seat frame, then wrapping said continuous filling about the front and rear stretchers, then wrapping a warp strand about the side stretchers, and interweaving said warp strand with the filling strand, and finally in interweaving short filling sections with the warp between the edges of the applied continuous filling and the side stretchers.

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1,038,084. APPARATUS FOR TREATING SOIL. FRANK C. CARROLL, Cleveland, Ohio. Filed Feb. 21, 1911. Serial No. 609,883. (Cl. 97—34.)



In apparatus for treating the soil, in a vehicle, a solution tank mounted thereon, an air tank also mounted on said vehicle, means for supplying compressed air to said tank, an atomiser connected to the air tank and solution tank, a distributing device leading from said atomiser to a point near the ground, and a distributing tooth comprising a shank swiveled to the distributing pipe, an inclined upper portion, and a receiving chamber under said upper portion and provided with discharge openings adapted to direct the discharge in lateral inclined directions.

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1,038,085. SET-SCREW GUARD. OBLO P. CHUBBUCK, Peoria, Ill., assignor to Avery Company, Peoria, Ill., a Corporation of Illinois. Filed Dec. 10, 1909. Serial No. 532,496. (Cl. 74—52.)



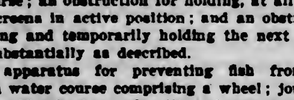
In a set screw guard, the combination of a circumferentially grooved annulus comprising two readily detachable and separable segments adapted to closely engage upon a pulley hub with their adjacent ends slightly separated from each other, one of the said segments having a through radial aperture adapted to receive a set screw and allow the adjustment thereof, and a spring clip adapted to embrace the said annulus in engagement with the groove thereof to hold the said segments in position relative to each other, substantially as set forth.

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1,038,086. PUFFED PAPER IMITATING FELT AND PROCESS OF MAKING THE SAME. ALBERT L. CLAPP, Braintree, Mass., assignor, by mesne assignments, to A. Leon Cutler, Boston, Mass. Filed July 25, 1911. Serial No. 640,505. (Cl. 8—20.)

1. As an article of manufacture a sheet composed of associated wood fibers puffed or increased in diameter, the sheet having a surface texture resembling felt.

2. The process of puffing and felting wood fibers associated in sheet form, the same consisting in saturating the sheet with a chemical solution having an affinity for elements of the air, and then subjecting the saturated sheet to contact with air until the fibers are puffed or increased in diameter and the sheet acquires a surface texture resembling felt.



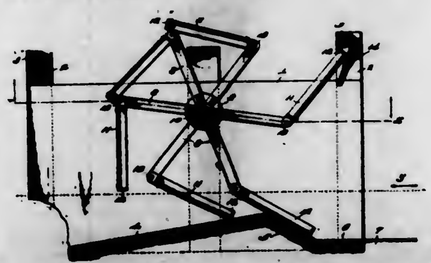
3. The process of puffing and felting wood fibers associated in sheet form, the same consisting in saturating the sheet with an alkaline solution having an affinity for elements of the air, then subjecting the sheet to contact with air until the fibers are puffed or increased in diameter and the sheet acquires a surface texture resembling felt, and finally neutralising the crystallised alkali.

4. The process of puffing and felting wood fibers associated in sheet form, the same consisting in saturating the sheet with a solution of caustic soda, and then subjecting the saturated sheet to contact with air until the fibers are puffed or increased in diameter and the sheet acquires a surface texture resembling felt.

5. The process of puffing and felting wood fibers associated in sheet form, the same consisting in saturating the sheet with a solution of caustic soda, then subjecting the saturated sheet to contact with air until the fibers are puffed or increased in diameter and the sheet acquires a surface texture resembling felt, and finally subjecting the sheet to a neutralising bath.

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1,038,087. FISH-SCREEN. WILLIAM E. CLARK and HENRY I. STEVENSON, Boise, Idaho. Filed Oct. 23, 1911. Serial No. 656,119. (Cl. 61—5.)



1. An apparatus for preventing fish from passing through a water course comprising a wheel; journal bearings for said wheel; a plurality of screens swingingly mounted on said wheel and disposed transversely of the water course; an obstruction for holding, at all times, one of said screens in active position; and an obstruction for intercepting and temporarily holding the next succeeding screen, substantially as described.

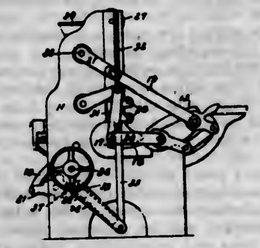
2. An apparatus for preventing fish from passing through a water course comprising a wheel; journal bearings for said wheel; a plurality of screens swingingly mounted on said wheel and disposed transversely of the water course; an inclined surface for engaging with and holding one of said screens in active position; an inclined surface for engaging with and holding another screen in active position; and an obstruction for intercepting and temporarily holding the next succeeding screen, substantially as described.

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1,038,088. PRINTING-PRESS. WILLIAM M. CLARK, Philadelphia, Pa., assignor to Clark Printing Press Company, Philadelphia, Pa., a Corporation of Pennsylvania. Original application filed Mar. 11, 1910, Serial No. 548,661. Divided and this application filed July 7, 1910. Serial No. 570,880. (Cl. 101—16.)

1. In a printing press, a form bed, a form roller, a carriage for the roller slidable in ways running parallel with the bed, and means for operating said roller carriage comprising an oscillating shaft, connections between said shaft and said carriage, a second oscillating shaft, and segmental gears between the two oscillating shafts, one of said gears having a retractable tooth adapted for movement out of engagement with the opposite gear to release the gears from one another and lock said gear with said tooth from rotation.





2. In a printing press, a form bed, a form roller, a carriage for the roller slidable in ways running parallel with the bed, an oscillating shaft, connections between said shaft and said carriage, a second oscillating shaft for operating said first shaft, intermeshing gears upon the shafts, a retractable tooth carried on one of said gears for movement out of engagement with the opposite gear to release the gears from one another, and an abutment in the path of said retractable tooth for engagement with the same when retracted to hold the gear from rotation.

3. In a printing-press, a form bed, a form roller, a carriage for the roller, an oscillating shaft, connections between said shaft and said carriage, an operating shaft, intermeshing gears carried on said shafts, a retractable tooth arranged on one of the gears for movement out of engagement with the opposite gear to release the gears, an abutment in the path of the retractable tooth to hold its supporting gear from rotation, and manually operable locking means associated with the retractable tooth for holding the same inoperative.

4. In a printing press, a form bed, a form roller, a carriage for the roller, a shaft connected to the carriage for retracting the same, an operating shaft, intermeshing gears on said shaft, a retractable tooth on one of said gears for movement out of engagement with the opposite gear, said tooth being elongated to extend diametrically oppositely from the gear when retracted, an abutment for the reception of the extension of the tooth when retracted to hold the gear from rotation, and a manually operable locking device associated with the tooth for positively holding the same inactive at a predetermined period in the operation of the press.

5. In a printing press, a form bed, a form roller, and means for moving said roller comprising a movable shaft, operative connections from the shaft to the roller, and means for controlling the movement of said roller comprising a continuously oscillating gear, a coöperating gear on said movable shaft, means for engaging and disengaging said gears at will, and means which determine the position of said form roller when said gears are unlocked.

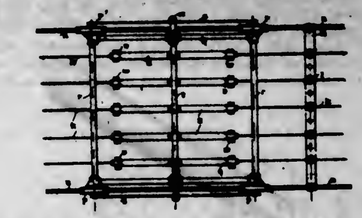
[Claims 6 to 11 not printed in the Gazette.]

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1,038,089. AERIAL TRACK. BERNHARD CLAUSEN, Dortmund, Germany, assignor to The Firm of Ludw. Heisse, Dortmund, Germany. Filed July 25, 1910. Serial No. 573,646. (Cl. 191—11.)

1. In an aerial support for cranes, parallel cables supported at their ends only, cross beams supported by said cables at intervals between the ends of the cables, and electric wires carried only by said beams.

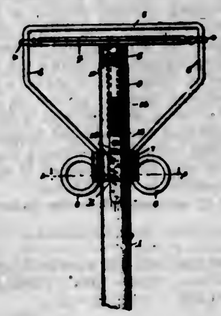
2. In an aerial support for cranes, a single span of parallel cables, cross beams, located at intervals along the span and supported by said cables, electric conductors carried by said cross beams, a truck like structure, wheels thereon resting on said cables, and electric contacts carried by said truck and bearing upon said conductors.



3. In an aerial support for cranes, a number of supporting cables spaced in parallel relation by spacer beams secured thereto, a number of electric conductors supported and spaced apart by said spacer beams, insulators intervening the conductors and the spacer beams, a frame, wheels connected to the frame adapted to travel on the supporting cables, a bar extending transversely of said frame and having connection with the frame, curved springs having their middle portion secured to the bar, and sheave wheels on the bar for the purpose specified.

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1,038,090. MOP-HOLDER. HENRY F. CONDON, De Kalb, Ill. Filed Oct. 16, 1911. Serial No. 655,036. (Cl. 15—56.)



In a mop holder, a handle; a cross piece secured to one end of said handle; a substantially U-shaped clamping member slidably mounted upon said cross-piece for coöperation therewith; a band slidably mounted upon said handle and securely connected with the ends of said movable clamping member; a leaf spring having one end rigidly secured to said handle and having its free end normally pressing upwardly against the inner side of said band; a plurality of stops on said spring adapted to engage said band for locking said movable clamping member in various positions of clamping relation with said cross piece, said spring adjacent the free end thereof being provided with an outwardly offset portion adapted for engagement by said band for maintaining the free end of said spring in close proximity with said handle when the band is moved toward the cross piece, substantially as described.

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1,038,091. HARNESS-TUG FASTENER. JAMES R. CRACROFT, Hartford, Kans. Filed Dec. 9, 1911. Serial No. 664,883. (Cl. 21—79.)

1. In a tug fastener, a shank having a slotted head, a fastening member pivoted in said head and having a stop lug and hook, the said hook being at the front of the fastening member and forming a J-shaped opening between same and the stop lug, for the reception of a tug ring or loop, when the said member is turned to its open position.

2. In a tug fastener, a shank having a slotted head, a fastening member pivoted partly in the slot in said head, said member having a curved stop lug and having a hook

disposed forward of the pivoted portion of said member, and forming a J-shaped opening between same and the lug, the said opening being closed when the stop lug is in engagement with the head and open when said member is turned from its functional position.



3. In a tug fastener, a shank having a slotted head, a fastening member pivoted in the head slot and having an integral stop lug and hook, the said hook being disposed at the front of the fastening member and having a back-turned free end, whereby a J-shaped opening is formed between said lug and hook and adapted for the reception of a tug ring or loop, only when the said member is turned substantially ninety degrees from its normal tub holding position.

4. A tug fastener comprising a shank, a head having a slot, and a fastening member pivoted in said slot, said fastening member being provided with a headed stud and with a hook, said stud being adapted to receive a tug slot and the hook being adapted to receive a tug ring or loop.

5. A tug fastener comprising a shank, a head having a slot, and a fastening member pivoted in said slot, said fastening member being provided with a headed stud and with a hook, said stud being adapted to receive a tug slot and the hook being adapted to receive a tug ring or loop, the head of said stud being arranged to stop the rotary motion of the member in one direction.

[Claims 6 to 11 not printed in the Gazette.]

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1,038,092. COOLING DEVICE FOR PNEUMATIC TIRES. ANDREW B. CRAIG, Tarkio, Mo. Filed Jan. 31, 1912. Serial No. 674,489. (Cl. 152—13.)



1. The combination with a wheel having a pneumatic tire, of a casing arranged at the center of the wheel and constituting a hollow false hub section or member, a radiator coil mounted on the exterior of the casing and supported by the same, a rotary pump housed within the casing and connected with the radiator coil, branch tubes connecting the pump and the radiator coil with the pneumatic tire for causing a circulation of a cooling medium through the tire and the coil, and means for operating the pump.

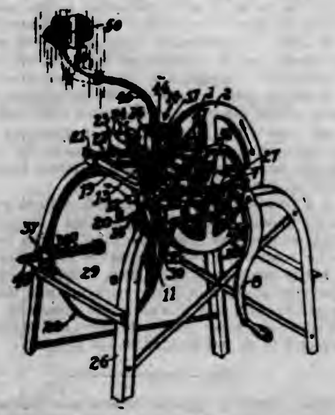
2. The combination with a wheel having a pneumatic tire, of a hollow cylindrical casing mounted on the wheel centrally thereof and forming a false hub section or member, a cylindrical coil arranged on the exterior of the casing and supported by the same, an eccentrically arranged rotary pump housed within the casing and connected with one end of the coil, branch tubes connecting the pump and the coil with the pneumatic tire for circulating a cooling medium within the same, and gearing connected with the pump for operating the same.

3. The combination with a wheel having a pneumatic tire, of a hollow casing mounted on the front of the wheel at the center thereof and forming a false hub and provided at the front with a removable plate adapted to afford access to the interior of the casing and the end of the axle, a radiator coil carried by the casing, an eccentrically arranged rotary pump secured to the wheel at the front or outer side and located within the casing and having a shaft extending through the wheel to the inner side thereof, gearing connected with the inner end of the shaft for operating the pump, and branch tubes connected with the radiator coil and the pump and extending to the pneumatic tire at spaced points.

4. The combination with an axle, and a wheel having a pneumatic tire and mounted on the axle, the latter projecting from the outer side of the wheel, of a hollow casing arranged at the center of the wheel and receiving the projecting portion of the axle and provided at the inner portion with an attaching flange secured to the said wheel, a radiator coil carried by the casing, an eccentrically arranged rotary pump housed within the casing and provided with attaching lugs or flanges secured to the wheel between the axle and the peripheral portion of the casing, pipe connections between the pump, the radiator coil and the tire, and means for operating the pump.

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1,038,093. CONDUIT FISH-WIRE MACHINE. FRANK CRAWFORD, Pasadena, Cal., assignor to Conduit Threading Device Co., Pasadena, Cal., a Corporation of California. Filed Sept. 10, 1909. Serial No. 517,155. (Cl. 247—23.)



1. In a conduit fish-wire machine, a frame, means to store the fish-wire thereon, and a single-axis rotary clamp on the frame with respect to which such fish-wire is fed tangentially.

2. In a conduit fish-wire machine, a frame, a rotary device rotatable about a single axis in said frame and having means at its periphery to clamp the fish-wire, and means to store a fish-wire in operative relation to said device.

3. In a conduit fish-wire machine, a supporting frame, a fish-wire spool journaled therein, and a device on the frame rotatable about a single axis and having peripheral wire clamping means through which the fish-wire is passed from said spool tangentially of the device.

4. In a conduit fish-wire machine, a supporting frame, a fish-wire spool journaled therein, a rotary single axis driving device on the frame having peripheral wire clamping means which receives the fish-wire from said spool and feeds the same forward, and a device which delivers the fish-wire from said driving device in a substantially tangential direction.

5. In a conduit fish-wire machine, a portable frame, a rotary single axis driving device on said frame having wire-gripping means which engage the fish-wire at opposite points and pushes the same into the conduit, and means associated with said driving device for guiding the fish-wire in a predetermined path with respect to the latter.

[Claims 6 to 28 not printed in the Gazette.]



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1,038,094. PAPER CARPET. GEORGE H. DAVIS, Portland, Me., assignor to E. T. Burrowes, Portland, Me. Filed Feb. 24, 1911. Serial No. 610,646. (Cl. 154—40.)



1. A carpet consisting of a dense body strip formed wholly of paper of substantial thickness to render the same durable, the same being decorated on its obverse surface, and a narrow reinforcing stiffening strip of suitable fabric at the edge of the body constituting with said edge a rigid abutting margin of substantial strength, the reinforcing stiffening strip projecting outwardly beyond the edge of the body, and the major portion of the paper body strip throughout the extent thereof being devoid of supplemental stiffening material to permit relatively free and uniform expansion and contraction thereof.

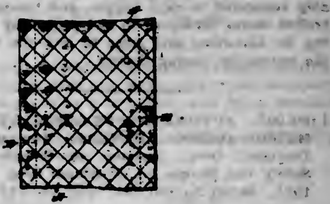
2. A carpet consisting of a dense body strip formed wholly of paper of substantial thickness to render the same durable, said strip being of double width and decorated on its obverse surface, a narrow reinforcing stiffening strip of suitable fabric at the edge of the body constituting with said edge a rigid abutting margin of substantial strength, and an additional reinforcing stiffening strip arranged intermediate of the edges of the paper body strip adapted to be severed longitudinally with the paper body strip, and constituting a guide for the severing operation, to constitute two strips of usual width from the double strip, the intermediate portions of the paper body strip throughout the extent thereof being devoid of supplemental stiffening material to permit relatively free and uniform expansion and contraction thereof.

3. A carpet consisting of a dense body strip formed wholly of paper of substantial thickness to render the same durable, and a narrow reinforcing stiffening strip of suitable fabric secured to the body to give the same added rigidity and strength along the line of the stiffening strip, said stiffening strip being transversely slitted to enable the structure to accommodate itself to any relative differential shrinkage or expansion of the paper and fabric reinforcing strip, and the major portion of the paper body strip throughout the extent thereof being devoid of supplemental stiffening material to permit relatively free and uniform expansion and contraction thereof.

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1,038,095. PAPER CARPET. GEORGE H. DAVIS, Portland, Me., assignor to E. T. Burrowes, Portland, Me. Continuation of application Serial No. 610,646, filed Feb. 24, 1911. This application filed Nov. 15, 1911. Serial No. 660,517. (Cl. 154—40.)

1. A carpet consisting of a dense body strip formed wholly of paper of substantial thickness to render the same durable, the obverse surface of said strip being decorated, and edge and intermediate narrow reinforcing stiffening strips of woven fabric, the edge reinforcing strip constituting with an edge of the paper body strip and abutting margin of substantial thickness and strength, the portions of the paper body strip intermediate of the reinforcing strips and beyond the intermediate strip being devoid of the supplemental stiffening material to permit relatively free and uniform expansion and contraction thereof.

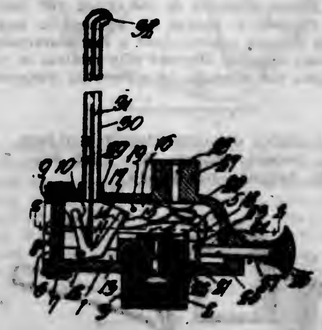


2. A carpet consisting of a dense body strip formed wholly of paper of substantial thickness to render the same durable, the obverse surface of said strip being decorated, and edge and intermediate narrow reinforcing stiffening strips of woven fabric, the edge reinforcing strip constituting with an edge of the paper body strip and abutting margin of substantial thickness and strength, the portions of the paper body strip intermediate of the reinforcing strips and beyond the intermediate strip being devoid of the supplemental stiffening material to permit relatively free and uniform expansion and contraction thereof.

3. A carpet consisting of a dense body strip formed wholly of paper of substantial thickness to render the same durable, and a narrow reinforcing stiffening strip of suitable fabric at the edge of the body constituting with said edge an abutting margin of substantial thickness and strength, the major portion of the paper body strip throughout the extent thereof being devoid of supplemental stiffening material to permit relatively free and uniform expansion and contraction thereof.

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1,038,096. SAFETY GAS-BURNER. EDWARD F. DRELEY, Portland, Oreg., assignor to Campbell's Automatic Safety Gas Burner Co., Portland, Oreg. Filed Dec. 26, 1911. Serial No. 667,698. (Cl. 67—117.)



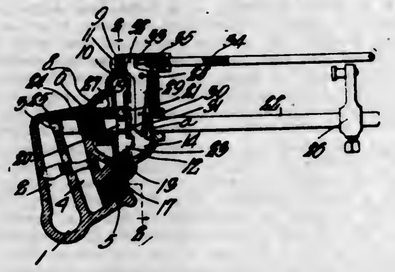
1. A safety gas burner, having a valve casing provided with a gas supply and a gas emission port, a spring closed valve mounted in said casing to control the supply port, a spring released trigger within the casing disposed to engage said valve to lock the same in open position and a thermostatically controlled means disposed to retain the trigger in locked position during the burning of the gas and to be released due to the extinguishment or falling temperature exerted upon the thermostat.

2. A safety gas burner, having a valve casing, said valve casing being provided with a gas supply connection and a burner connection, a valve guiding yoke mounted therein provided with a port adapted to aline with the

gas supply port of the casing, a slidingly mounted valve mounted in the casing within said frame and provided with a port adapted to be moved in registration with the supply port and port of the frame, a spring for normally holding the valve with its port out of registration with the supply port and port of the frame, a spring actuated trigger for engaging the valve and holding the ports in registration, a lever disposed within the casing and operably connected to said trigger, and thermostatically controlled means connected to and projecting within the casing for actuating said lever to lock the valve or permit the automatic closing thereof.

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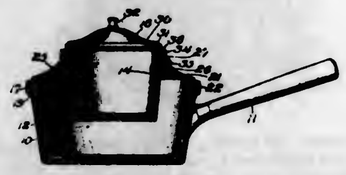
1,038,097. AUTOMATIC CUT-OFF VALVE FOR FLUID-HYDROCARBON BURNERS. EDWARD F. DEBLEY, Portland, Oreg., assignor to Campbell's Automatic Safety Gas Burner Co., Portland, Oreg. Filed Dec. 26, 1911. Serial No. 667,694. (Cl. 67—117.)



A valve of the class described, having a main casing provided with a circular spring incasing portion having an inwardly opening annular slot, a valve stem mounted concentrically of the main casing, a spring mounted in the circular portion of the main casing, an arm carried by the valve stem and projecting through the annular slot to engage one end of the spring, means for retaining the other end of the spring to normally hold the valve toward closing position, a toothed segment carried by the stem upon the opposite side thereto to the arm, a vertically swinging trigger mounted in the casing and having its free end disposed to engage the segment to retain the valve stem in open position, and a thermostatically controlled means operably disposed with relation to the trigger to release the same due to a lowering temperature.

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1,038,098. FOOD OR CONDIMENT HOLDER. THEODORE A. DECKER, Chicago, Ill. Filed Sept. 7, 1911. Serial No. 648,083. (Cl. 62—10.)

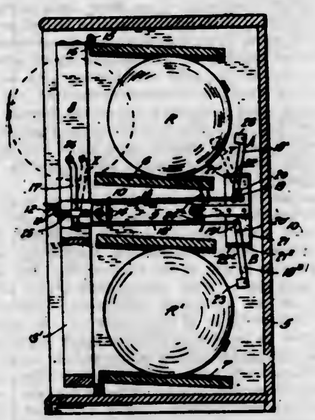


1. A device for the purpose set forth comprising an open-topped holder, a receptacle for a thermal medium removably fitted within said holder and provided at its top with an external, downwardly facing shoulder, through the medium of which it is supported on the margin of the holder, said receptacle having a metal top wall, the outer margin of which is folded about said shoulder to provide a fluid tight joint, and provided also with a central flanged opening surrounded by a seat, an open topped container fitted within said flanged opening and extending downwardly into said receptacle, and having an external, downwardly facing shoulder to engage said seat, a removable cover fitted over and closing the top of the container, and means whereby is afforded a sealed joint between the shoulder of said container and said seat and also between the open top of the container and said cover.

2. A device for the purpose set forth comprising a suitable holder, a receptacle for a thermal medium removably supported therein and having a metal top wall which is attached to the upper margin of the receptacle body by means providing a fluid tight joint, the said top wall being provided with a central opening, and around said opening with a horizontal seat, an open topped container provided with a removable cover, and provided also with an external, downwardly facing shoulder to engage said seat, whereby the container may be removably suspended within the receptacle and supported by said seat, and a sealing ring formed about said shoulder and the open top of the container for engagement with said seat and said removable cover, said metal top wall of the receptacle being provided radially within said seat with an annular depending flange which closely surrounds said container to provide a tight joint between the container and said flange.

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1,038,099. PHONOGRAPH-DISK-RECORD CABINET. WILLIAM H. DEWAR, Philadelphia, Pa., assignor to Anglo-American Cabinet Co., Seattle, Wash., a Corporation of Washington. Filed Dec. 20, 1911. Serial No. 667,048. (Cl. 211—16.)



1. In a record cabinet, a traveler, a pair of record ejecting devices arranged on the traveler, a controlling lever operatively connected with said devices whereby either of the devices may be actuated independently of the other.

2. In a record cabinet, the combination with the traveler and two record ejecting levers arranged one above the other and guided to swing in substantially vertical planes, of a means operatively connected with both of the ejecting levers but adapted so as to actuate but one of them at the same time.

3. In a record cabinet provided with receptacles for two superposed rows of records, the combination with a traveler provided with slots for the respective receptacles and arranged to be moved into positions to present said slots opposite predetermined positions of the receptacles, of devices for ejecting records from such receptacles, and a lever operatively connected with said devices whereby the latter may be selectively actuated to eject a record from either row of receptacles and through the corresponding slots of the traveler.



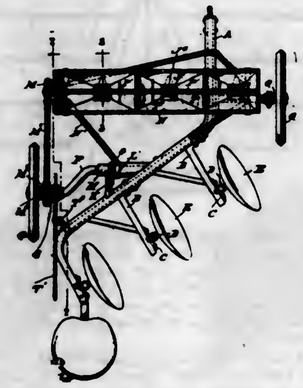
4. In a disk record cabinet, the combination with a traveler, of two record ejecting levers, a controlling lever, rods connecting the ejecting levers with said controlling lever whereby the latter may be employed to individually actuate either of said ejecting levers.

5. In a disk cabinet provided with two superposed record supporting shelves, in combination with a traveler movable transversely in said cabinet, of record ejecting devices carried by the traveler for each of said shelves, a controlling lever also carried by the traveler, and connections between the lever and both of said ejecting devices whereby the latter may be independently employed to eject a record from the upper or lower shelves selectively.

[Claims 6 and 7 not printed in the Gazette.]

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1,038,100. HARROW AND SEEDER. GEORGE M. EASTERLING, Blanket, Tex. Filed June 6, 1912. Serial No. 702,079. (Cl. 111—18.)

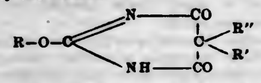


A combined seeder and harrow comprising a frame, a harrow disk thereon, stub axles mounted upon the frame, one of said axles being of the drop type, wheels upon said axles, a clutch collar loosely mounted upon one of the axles and having clutch teeth adapted to engage teeth upon the hubs of one of said wheels, an operating lever for shifting said clutch and provided with an elongated slot allowing the drop axle to have a play therein, a lever for turning said drop axle in its bearing, and a seed dropping apparatus actuated by the clutch collar, as set forth.

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1,038,101. 2-ALKOXY-5-DISUBSTITUTED BARBITURIC ACIDS. MAX ENGELMANN, Elberfeld, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Dec. 9, 1911. Serial No. 664,889. (Cl. 23—24.)

1. The herein described 2-alkoxy-barbituric acids having most probably the formula:

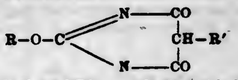


in which R = alkyl, R'' = alkyl, and R' = an aromatic substituent, being crystalline powders; being converted into 5-disubstituted barbituric acids by treatment with a hot acid; and being valuable soporifics, substantially as described.

2. The herein described 2-methoxy-5-phenyl-ethyl-barbituric acid being a white crystalline powder melting at 152° C. difficultly soluble in cold water, easily soluble in alcohol, benzene and acids; and being a valuable soporific, substantially as described.

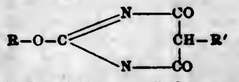
1,038,102. 2-ALKOXY-5-MONOSUBSTITUTED BARBITURIC ACIDS. MAX ENGELMANN, Elberfeld, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Dec. 9, 1911. Serial No. 664,890. (Cl. 23—24.)

1. The herein described 2-alkoxy-barbituric acids having most probably the formula:



in which R = alkyl, and R' = a substituent being crystalline powders; being converted into mono-substituted barbituric acids by treatment with a hot acid; and being valuable soporifics, substantially as described.

2. The herein described 2-alkoxy-barbituric acids having most probably the formula:

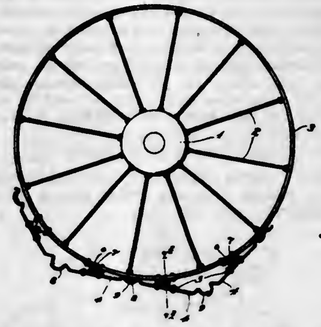


in which R = alkyl, and R' = an alkyl group, being crystalline powders; being converted into mono-substituted barbituric acids by treatment with a hot acid; and being valuable soporifics, substantially as described.

3. The herein described 2-ethoxy-5-ethyl-barbituric acid being a white crystalline powder melting at 211° C. difficultly soluble in cold water, easily soluble in alkalis and in acids; and being a valuable soporific, substantially as described.

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1,038,103. WHEEL-TREAD. LOUIS C. ERBE, St. Paul, Minn. Filed Aug. 31, 1911. Serial No. 647,036. (Cl. 21—64.)



The combination with a wheel, of an endless series of tread plates intermediately pivoted to the wheel rim and provided at their opposite ends with transversely curved sections, the arc of the one curved end being larger than the arc of the other curved end, and the curved ends having the smaller arc being always overlapped with adjacent curved ends having the larger arc, said overlapped ends having a rocking action, one with the other, when the said tread plates move, substantially as described.

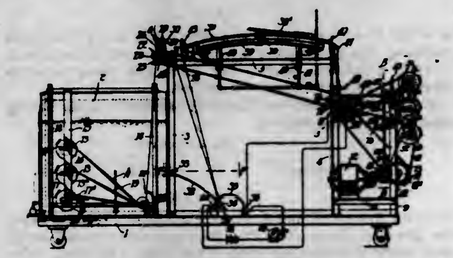
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1,038,104. TAPE-SHRINKING MACHINE. BENJAMIN F. FALTER and GEORGE J. LEDERER, Chicago, Ill. Filed Dec. 7, 1910. Serial No. 596,162. (Cl. 26—7.)

1. In a tape shrinking machine, the combination of a moistening bath, a wringer element, a heating element, drive rolls, re-winding rolls, a tape distributer for said re-winding rolls, and means for producing a progressive movement of the tape from said bath to said re-winding rolls, all being assembled as one structure.

2. In a tape shrinking machine, the combination of a magazine having supports for a plurality of spools of tape, a moistening bath, a drier, and re-winding mecha-

sium comprising a plurality of spindles corresponding in number to the tape supports on said magazine, means for individually guiding the tapes from their respective magazine spools, through said bath to said drier and then to the respective individual re-winding spindles, power driven mechanism for simultaneously rotating all of said re-winding spindles, and clutch mechanism adapted to permit the stopping of any of said re-winding spindles without interfering with the operation of the others.

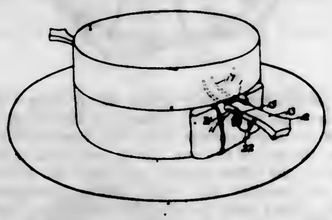


3. In a tape shrinking machine, the combination of a moistening element, a wringer element, a drying element, a re-winding element, and means for causing a tape to pass in succession to said elements, and a roller located at a distance from said elements and adapted to have the tape pass thereover in traveling from said wringer element to said drying element so as to provide an extended loop in said tape where the shrinkage occurs.

4. In a tape shrinking machine, the combination of a moistening element, a wringer element, a drying element, a re-winding element, means for causing a tape to pass in succession to said elements, a roller located at a distance from said elements and adapted to have the tape pass thereover in traveling from said wringer element to said drying element so as to provide an extended loop in said tape where the shrinkage occurs, and tension means for permitting said roller to yield to any irregularities of the tape during the shrinkage thereof.

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1,038,105. HAT-FASTENING DEVICE. VICTORIA E. FIFER, Kansas City, Mo. Filed Dec. 9, 1911. Serial No. 664,773. (Cl. 132—25.)

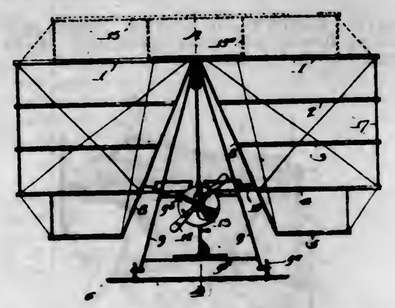


1. The combination with a mounting comprising a supporting strap, a horizontal base plate having a vertical flange adapted for attachment to a crown and having opposed keeper flanges bent thereover and provided with horizontal slots, of a pin member comprising a handle having horizontal side grooves, a prong member carried by said handle, and latches located in and projecting from the handle grooves, said latches having teeth on their projecting portions adapted for projection into the slots in the keeper flanges.

2. The combination with a mounting comprising a horizontal base supporting plate having a vertical back flange adapted for permanent attachment to a hat and having apertures, a strap extending downwardly and rearwardly from the front edge of the plate and having a vertical lip adapted for permanent attachment to the hat, end keepers on the supporting plate curved over the body of the plate and having horizontal slots, a handle member having a portion adapted for projection between the supporting plate and keeper flanges and having horizontal side grooves, prongs fixed within the handle, and spring latches having their outer ends fixed within the handle grooves with their inner ends projected from the grooves, the free ends of the latches being provided with teeth for projection into the keeper slots in the supporting member, substantially as set forth.

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1,038,106. AIRSHIP. EDWARD F. FISHER, San Diego, Cal., assignor of one-third to R. L. Fisher, Raymond, Wash. Filed Apr. 15, 1912. Serial No. 690,965. (Cl. 244—14.)



1. An airship, comprising a plurality of planes spaced apart one above the other, a carriage pivotally mounted thereon, near the upper plane and extending below the lower plane, a space being cut away in said planes for said carriage and propelling means pivotally mounted on said carriage adapted to be radially shifted for propelling said machine.

2. An airship, comprising a plurality of planes spaced apart one above the other, provided with a wedge shaped space in the middle of said ship, a carriage pivotally mounted therein near the upper plane, and extending below the lower plane, engine and propelling means pivotally mounted on said carriage for propelling said machine and means for holding said propellers in certain positions around said pivoted mounting.

3. An airship, comprising a plurality of planes spaced apart one above the other, having a space provided in the middle of the lower three planes, a carriage pivotally mounted thereon in said space near the upper plane and extending below the lower plane, means adapted to facilitate the shifting of said planes and for holding them in shifted positions, and propelling means pivotally mounted on said carriage for propelling said machine.

4. An airship comprising a plurality of planes spaced apart one above the other, having the upper plane entire and the other divided into two sections near the middle to provide a wedge shaped space therein, a carriage pivotally mounted thereon in said space near the upper plane and extending below the lower plane, a propelling means pivotally mounted on said carriage for propelling said machine, and a wind shield adapted to protect the operator from the wind.

5. An airship, comprising a plurality of planes spaced apart one above the other, a carriage pivotally mounted thereon, near the upper plane and extending below the lower plane, a space being cut away in said planes for said carriage, double propelling means pivotally mounted on said carriage for propelling said machine, adapted to be shifted simultaneously and to automatically shift.

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1,038,107. CORSET-STAY. WILLIAM HENRY FLETCHING, Victoria, British Columbia, Canada. Filed May 4, 1911. Serial No. 624,961. (Cl. 2—77.)

A corset stay comprising two sections, each having a recess in its inner side edge and a tongue projecting into its recess, each tongue having at its end a hinge knuckle, the two sections being laterally overlapped to bring the

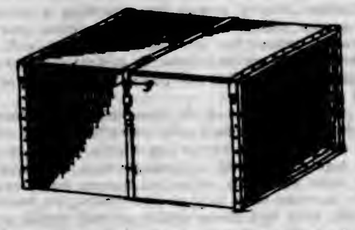


knuckles into alinement, and a pintle in the alined knuckles.

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1,038,108. ART OF JOINING METAL-STRAP ENDS. ELLSWORTH E. FLORA, Chicago, Ill. Filed Apr. 6, 1911. Serial No. 619,886. (Cl. 153—44.)



The improvement in the art of joining metal strips, which consists in overlapping the same and thereafter crimping them edgewise into infolding contact, thereby locking the parts against relative movement.

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1,038,109. TOOL FOR USE IN FASTENING METAL STRIPS. ELLSWORTH E. FLORA, Chicago, Ill. Filed July 1, 1911. Serial No. 636,520. (Cl. 81—15.)

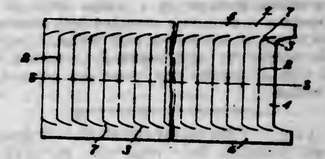


1. A tool for fastening metal strips, having coöperating jaws provided with extended terminals, bearing-surfaces for the strips toward opposite ends of the terminals and forming therewith transverse strip-edge receiving grooves, a strip-edge engaging and crimping shoulder on each jaw extending across said groove, and a transverse bearing-shoulder for the strip beneath the crimping-shoulder, for the purpose set forth.

2. A tool for fastening metal strips, having coöperating jaws provided with extended terminals, bearing-surfaces for the strips toward opposite ends of the terminals and forming therewith transverse strip-edge receiving grooves, a rounded strip-edge engaging and crimping shoulder on each jaw extending across said groove, and a concave transverse bearing-shoulder for the strip beneath the crimping-shoulder, for the purpose set forth.

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1,038,110. CENTRIFUGAL FAN-WHEEL. BENJAMIN S. FOSS, Boston, Mass., assignor to B. F. Sturtevant Company, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 28, 1911. Serial No. 605,235. (Cl. 230—41.)



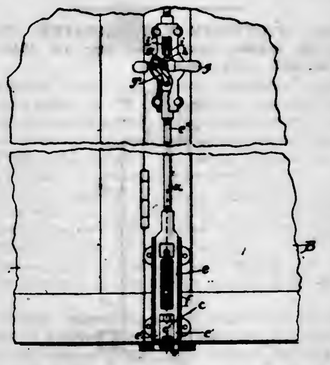
1. A centrifugal fan wheel comprising a cylindrical metal sheet having a series of parallel transverse slits and non-intersecting slits extending longitudinally from the ends of the transverse slits within the edges of the sheet to leave cylindrical marginal stripe along the edges of the sheet, and having only the metal bounded by the transverse and longitudinal slits bent at an angle to the end strips to form parallel blades integrally connected with the continuous cylindrical stripe, substantially as described.

2. A centrifugal fan wheel comprising a cylindrical metal sheet having a series of transversely parallel slits and slits extending longitudinally from the ends of the transverse slits with their ends in transverse alinement and separated by intervening metal which is bent transversely to bring the blades bounded by the slits into uniform angular relation to the stripe between the edges of the sheet and the longitudinal slits, substantially as described.

3. A centrifugal fan wheel comprising a sheet metal strip bent into cylindrical form and having transverse slits 2 and longitudinal slits 3 extending from the ends of the slits 2 into transverse alinement to the succeeding slit 2 and separated therefrom by intervening metal 7 which is bent to bring the blades 4 bounded by the slits 2 and 3 into uniform angular relation to the end strips 5 and 6, substantially as described.

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1,038,111. SAFETY DOOR-BOLT. BENJAMIN F. FOSS, Portland, Me. Filed Feb. 5, 1912. Serial No. 675,428. (Cl. 70—129.)



1. In a safety door bolt, the combination of a striker having a recess spanned by a bridge with an inclined bearing surface, a positively actuated bolt adapted to engage said recess at one side of said bridge, a spring actuated bolt carried by said positively actuated bolt and provided at its end with an antifriction roll adapted to bear on said bridge.

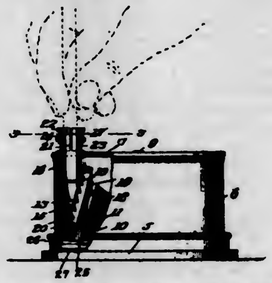
2. In a safety door bolt, the combination of a striker having a recess spanned centrally by a bridge having an inclined surface, a positively actuated bolt having a bifurcated end adapted to engage the recess at each side of the bridge, a spring actuated bolt carried by said

positively actuated bolt and longitudinally movable in said bifurcated end, said spring actuated bolt being provided with an antifriction roll adapted to bear on said bridge.

3. In a safety door bolt, the combination of a striker having a recess spanned by a bridge with an inclined bearing surface, a positively actuated bolt adapted to engage said recess at one side of said bridge, a spring actuated bolt carried by said positively actuated bolt and provided with an antifriction lower end adapted to bear on said bridge.

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1,038,112. PENCIL-SHARPENER. FREDERICK A. FRICKER, Scranton, Pa. Filed Oct. 25, 1911. Serial No. 656,577. (Cl. 120—96.)



A pencil sharpener comprising a base having a centrally located boss rising therefrom, a collar having inner and outer upturned flanges to provide an annular pocket, said collar surrounding the boss, a cylindrical casing, the lower end of the same being fitted in the said annular pocket, a standard rising from the said boss, a cog gear fixed to the boss concentrically with respect to said standard, a rotatable disk having a depending hollow stem surrounding the standard, bearings on the casing and the said stem, a stub axle in said bearings, a beveled gear fixed to said stub axle and meshing with the cog gear, a cutting element fixed to said stub axle, and a pencil receiving means intersecting the top of the casing substantially as and for the purpose specified.

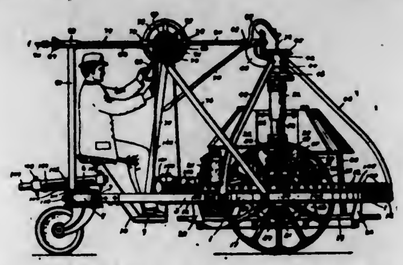
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1,038,113. STOVEPIPE WATER-HEATER. WILLEY G. GARRARD, Snyder, Tex. Filed Aug. 10, 1911. Serial No. 643,367. (Cl. 126—365.)



In combination, an inner and an outer casing having an annular water space therebetween, the inner casing being folded upon itself at its upper and lower ends to form grooves, while the other casing is provided with top and bottom inturned annular flanges terminating in annular flanged openings, the lower one of which being of larger diameter than the upper one to readily receive the inner casing, the flanges of the openings being received by the grooves thus affording slip joints between the casings, and means for adhering the joints together securely.

1,038,114. TRACTION-ENGINE. NOAH R. GETZ and ROBERT GETZ, Manheim township, Lancaster county, Pa. Filed Oct. 23, 1909. Serial No. 524,155. (Cl. 21—114.)



1. A traction engine of the class described, comprising a horizontal circular frame, a body frame secured thereto, supporting wheels pivotally secured to said body frame, a second circular frame or ring mounted in axial relation and rotatably within said circular frame, an inner circular frame or ring concentric with and diametrically pivoted within said second ring, and adapted to be rotated thereby, traction wheels mounted within said inner ring, a platform suspended from said inner ring, a power plant mounted upon said platform and adapted to operate said traction wheels, means for attaching a trailer to said traction engine, means for transmitting power to said trailer, means for rotating said second and inner rings within said circular frame by power, and means for controlling the propelling and power transmitting actions, of said power plant.

2. A traction engine of the class described, comprising a circular frame, a rearwardly extending frame secured to said circular frame, supporting wheels swivelly mounted to the rear end of said extending frame, a second ring formed with outwardly extending flanges embracing and slidably mounted upon said circular frame, an inner ring concentric with and diametrically pivoted within and to said second ring, an axle mounted in said inner ring, traction wheels mounted upon said axle, a supporting platform suspended from said inner ring, a motor mounted upon said platform, a counter shaft mounted upon said platform, suitable gearing between said traction wheels and said counter shaft, means for revolving said counter shaft by said motor, a bearing frame mounted above said circular frame and attached thereto, a bearing frame mounted upon the axle and attached to said platform, a flexible telescoping shaft rotatably mounted in said bearing frames, and means for rotating said shaft by suitable mechanism mounted upon said counter shaft, means for revolving the second ring upon the circular frame, means for controlling the operation of the traction wheels, means for securing a trailer behind said traction engine, means for transmitting power to said trailer and means for controlling the transmission of said power.

3. In a tractor of the class described, in combination with a frame formed with a circular body and a rearwardly extending portion having swivel supporting wheels, of a power plant supporting frame composed of two concentric rings, the inner ring swingably pivoted within the outer ring, and the outer ring slidably mounted upon the circular body of the tractor frame, traction wheels mounted within and to said inner ring, a power plant carried by said inner ring and suitable mechanism for transmitting power from said power plant to said traction wheels, means for rotating said power plant supporting frame within said traction frame, and means for transmitting power to an attached trailer.

4. A self-propelled traction engine comprising a suitable traction frame, a motor and transmission supporting frame mounted within said traction frame and adapted to be revolved therein, means for guiding or reversing the travel of said traction engine by revolving the power plant within the traction frame, means for allowing of the tilting of said power supporting frame within the traction frame to compensate for uneven ground, means for attaching a trailer to said tractor frame, and means for operating said trailer by power transmitted from said tractor.

5. In a tractor of the class described, a power plant comprising main traction wheels suitably and rotatably mounted in the frame of said tractor, means for rotating said power plant within said tractor frame, means for allowing of the directing of said power plant from the perpendicular within said tractor frame, a vertical telescoping and semi-flexible hollow shaft mounted in said frame above said power plant and adapted to be driven thereby, means for transmitting power from said vertical shaft to the rear of said tractor, and an independent steering device.

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1,038,115. PROCESS FOR THE MANUFACTURE OF ARTIFICIAL STONE. ALFRED GILLIES and WILLIAM GILLIES, Weston, Ontario, Canada. Filed Mar. 18, 1911. Serial No. 615,413. (Cl. 25—155.)

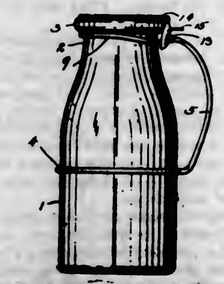


1. A process for the manufacture of artificial stone, consisting in first forming a mold with a cement surface, then filling the pores of the face of the mold and covering the surface thereof with a substance in liquid form which when dry presents a hard surface non-adhesive to cement, then placing a mixture of cement and particles of stone in the mold, and finally forcing the stone particles of said mixture into contact with the non-adhesive surface of the mold to the practical exclusion of the cement.

2. A process for the manufacture of artificial stone, consisting, in first covering a pattern with a layer of a mixture of damp sand and dry cement tamping down hard, then completing the mold with a backing of damp sand packing hard, then removing the pattern and allowing the cement layer to set hard, then filling the pores of the mold with a hard-drying substance rendering the mold surface non-adhesive, then placing a mixture of cement and stone particles in the mold, and finally forcing the stone particles of said mixture into contact with the mold surface to the practical exclusion of the cement to form a stone faced molded block.

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1,038,116. HANDLE FOR RECEPTACLES. PETER GRABLER, Cleveland, Ohio. Filed Feb. 21, 1910. Serial No. 545,224. (Cl. 215—2.)



1. A handle for bottles and the like comprising a body-loop, a pair of handle portions extending from said loop and having at the upper ends thereof portions bent inward toward each other forming recesses, curved clamping portions beyond said recesses for engaging the neck of the bottle, a clip having openings receiving the bent-in portions, and cam flanges arranged on said clip above the bent-in portions and adapted to engage the same and force the clip against the neck of the bottle, and a lid carried by said clip and adapted to seat itself in the mouth of the bottle.

2. A wire handle for bottles and the like comprising a body loop, a pair of handle portions extending upward from said loop and having a spring tendency away from each other, said handle portions being bent in toward each other to form shoulder portions and having its free ends curved to form clamping members for the neck of the bottle, said shoulder portions having notches cut in the wire to form clip shoulders, and a locking clip having openings therein for receiving the wire of the shoulders, said clip being bent outward at its lower edge and engaging the clip shoulders so that it may swing to and from the neck of the bottle freely, cam flanges extending toward each other and from the edges of said clip and having inclined edges extending above the wire forming the shoulders whereby the spring tendency of the handle forces the clip at its upper edge against the neck of the bottle, and a lid carried by said clip and extending over the mouth of the bottle.

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1,038,117. ELECTRIC ANNUNCIATOR AND SIGNALING SYSTEM. FREDERICK C. GRAHAM, New York, N. Y. Filed June 14, 1911. Serial No. 633,188. (Cl. 177—339.)



In an annunciator, the combination with flash openings, of a pair of solenoids for each flash opening, connected cores for said solenoids, said cores entering opposite ends of the respective solenoids, and a shutter carried by and movable with said cores adapted for covering or uncovering the flash opening controlled by a given pair of solenoids.

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1,038,118. HORSESHOE. HEINRICH GRAW, Charlottenburg, Germany. Filed May 26, 1910. Serial No. 563,515. (Cl. 168—18.)



1. A horseshoe, comprising a body presenting a groove, with undercut sides, on the under side; a tread of lamellar material, presenting two walls, which fits the shoe-groove; and substantially U-shaped clips located between the strip-walls and holding the same against the recessed groove-walls; substantially as described.

2. A horseshoe, comprising a body presenting a groove, with undercut sides, on the under side; a tread of lamellar material, presenting two walls, which fits the shoe-groove; and substantially U-shaped clips, having a buckled base, located between the strip-walls and holding the same against the recessed groove-walls; substantially as described.

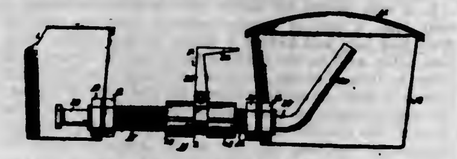
3. A horseshoe, comprising a body grooved on the under side; a tread of lamellar material presenting two walls and which fits the shoe-groove; means located between the tread-walls and holding the tread in place; and packing material filling out the vacant space between the tread-walls; substantially as described.

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1,038,119. RESERVE SUPPLY-TANK. EDWIN GREENE, Roswell, N. Mex. Filed Oct. 19, 1910. Serial No. 587,918. (Cl. 138—46.5.)

1. In a device of the character described, including a reservoir and a receiver, stuffing boxes carried by the walls of said reservoir and receiver, a supply pipe connecting the reservoir with the receiver and passing through said stuffing boxes, and an angularly extending end on said

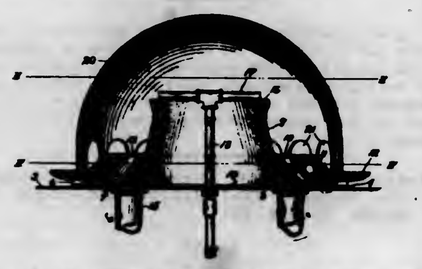
pipe within said reservoir, a pointer arm secured to said pipe intermediate the reservoir and receiver, and a scale in operative relation to said pointer arm.



2. The combination with a reservoir and a receptacle, of nipples extending through the sides of said reservoir and receptacle, glands carried by the outer ends of said nipples, a straight supply pipe extending through said glands and nipples and with its ends extending within the reservoir and receptacle, the end of said pipe extending within the reservoir being provided with a laterally directed terminal, a scale formed upon the outer wall of the reservoir, and an arm clamped to the intermediate portion of the supply pipe and extending in parallel relation to the laterally directed terminal thereof, said arm acting as an indicator in connection with the scale and also serving as a means for rotating the supply pipe within the nipples and glands.

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1,038,120. COMBINATION OIL AND GAS BURNER. JOHN A. GREENERT, Hutchinson, Kans., assignor to Benjamin L. Cornelius, Hutchinson, Kans. Filed Feb. 10, 1912. Serial No. 676,697. (Cl. 158—11.)



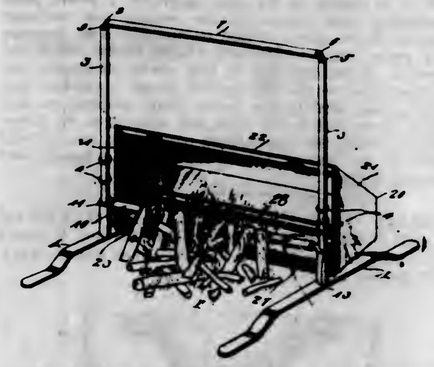
1. A burner, comprising a vertical drum having a trough on its outer face near its upper edge, an oil supply pipe extending through the interior of the drum, and adapted for delivering into said trough, a hood on the outside of said drum terminating in a troughed rim, and a dome covering said drum and a part of the hood, said dome having ports in its lower edge, for the purpose set forth.

2. A burner, comprising a vertical drum having a trough on its outer face near its upper edge, an oil supply pipe extending through the interior of the drum, and adapted for delivering into said trough, a hood on the outside of said drum terminating a troughed rim, and a semi-circular dome covering said drum and a part of the hood, said dome having ports in its lower edge, for the purpose set forth.

3. A burner, comprising a base having an edge flange provided with openings, a drum fitted on said base and having a hood portion supported on said flange, said hood portion being provided with a troughed rim, means for delivering oil to the outer surface of said drum, a dome seated in said rim and covering the drum and hood, and supply pipes opening through said base into said hood.

4. A burner, comprising a base having an edge flange provided with openings, a drum fitted on said base and having a hood portion supported on said flange, said hood portion being provided with a troughed rim, means for delivering oil to the outer surface of said drum, a dome seated in said rim and covering the drum and hood, and supply pipes opening through said base into said hood, said hood being divided into separate compartments, substantially as set forth.

1,038,121. FIELD COOKING OUTFIT. CHARLES A. GROVES, Markleeville, Cal., assignor of one-half to Lester T. Price, Markleeville, Cal. Filed Jan. 15, 1912. Serial No. 671,174. (Cl. 126—30.)



1. In a field cooking outfit, the combination with a frame consisting of a pair of foot members each having an upright plug, a pair of uprights removably mounted over said plugs, and a telescopic horizontal member having downturned pins removably mounted in the upper ends of said uprights, the latter each having a series of annular collars; of utensil supporting shelves, each consisting of a horizontal arm having a utensil holder at one end and a hook at the other, and a depending arm rigidly connected at one end with the center of said horizontal arm and depending obliquely therefrom and having a crotch at its lower end disposed beneath the open side of said hook, said crotch and hook embracing an upright and one of them resting upon one of the collars thereon, for the purpose set forth.

2. In a field cooking outfit, the combination with a frame adapted to be mounted upon the earth and including two uprights having collars around them, and means for holding said uprights at a certain distance apart; of a grate element consisting of a tubular member having a crotch fixed in one end, and a solid member whose body telescopes into the open end of said tubular member and has a crotch fixed in its exposed end, the crotches being adapted for engagement with said uprights above the collars thereon.

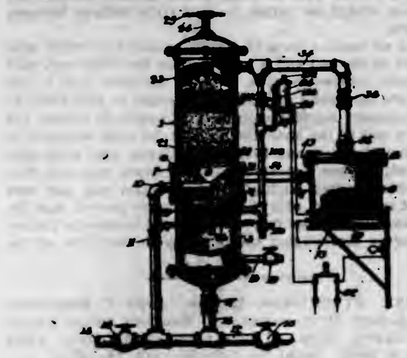
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1,038,122. ELECTROLYTIC WATER-PURIFIER. VIRGIL B. HAGG, Los Angeles, Cal., assignor to Continental Water Purifying Corporation, Los Angeles, Cal., a Corporation of California. Filed Apr. 1, 1912. Serial No. 687,870. (Cl. 204—25.)

1. In a water purifier, a chamber containing two electrodes and wall means between said electrodes having perforations therethrough for passage of the electrolyte, said wall means being provided with projecting portions above said perforations, said chamber having a top member provided with a flange forming a part of said wall means, said wall means dividing the said chamber into inner and outer compartments and said top member being provided with inlet means within said flange and with outlet means at the outside of said flange.

2. In an electrolytic water purifying apparatus, a chamber, a central electrode in said chamber, an outer annular electrode and a plurality of insulating rings interposed between said electrodes, said rings being downwardly convergent and having perforated ribs at their lower portions, said chamber having a top member provided with a downwardly extending flange making a tight joint with the uppermost of said rings, said top member being provided with water inlet means at the inside of said flange and with water outlet means at the outside of said flange.

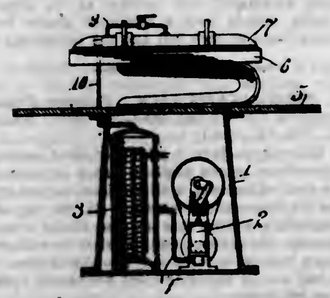
3. In a water purifier, a chamber containing two electrodes, wall means between said electrodes having perforations therethrough for passage of the electrolyte, said wall means being provided with projecting portions above said perforations, and carbon in a divided condition in the space between said rings and the outer electrode.



4. In a water purifier, a casing, a horizontal partition member dividing said casing into upper and lower chambers, a vertical tubular member extending upwardly from said partition and dividing the upper chamber into inner and outer compartments, water inlet means communicating with said inner compartment of the upper chamber at the upper end thereof, water outlet means communicating with the outer compartment of said upper chamber, filtering material in each of said compartments, a flange extending downwardly from said horizontal partition into the lower chamber, insulating rings in said lower chamber superimposed on to one another and forming in conjunction with said last named flange, a wall means dividing the lower chamber of the casing into inner and outer compartments, said rings being perforated to establish communication between said inner and outer compartments and having projecting portions above said perforations extending into the inner and outer compartments, an electrode in the inner compartment, an electrode in the outer compartment surrounding said rings, said horizontal partition being provided with perforations establishing communication between the upper and lower inner compartments and with perforations establishing communication between the lower and upper outer compartments.

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1,038,123. PROCESS OF PRESSING GARMENTS. DAVID C. HALE, Jr., Cincinnati, Ohio. Original application filed Aug. 16, 1911, Serial No. 644,430. Divided and this application filed Jan. 10, 1912. Serial No. 670,397. (Cl. 68—9.)

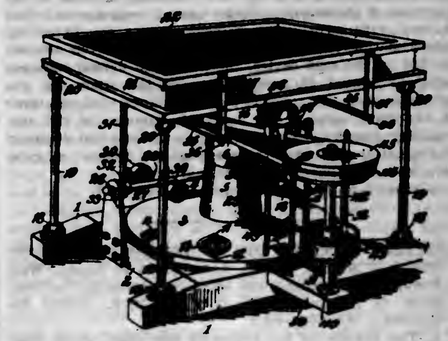


The herein described process of pressing garments, which consists in placing the garment to be pressed between pressing surfaces and in applying heated air under compression to said garment while said garment is under pressure between the pressing surfaces and until the operation of pressing said garment is completed.





1,038,124. SIEVE-BOLTER. GEORGE HALLIDAY, Tacoma, Wash., assignor, by direct and mesne assignments, of one-third to John Dill Armstrong, Tacoma, Wash., and one-third to Charles A. Black, Oakland, Cal. Filed May 17, 1911. Serial No. 627,884. (Cl. 88—56.)



1. In a machine for the purpose described, a drive element and a driven element, one surrounding the other and the surrounding element having a greater internal diameter than the diameter of the other element, one of the said elements having a fixed axis of rotation, and the other element being mounted for gyratory movement with relation to the axis of rotation of the first named element and provided with means for holding it against rotation about its own axis, the gyratory movement of the second named element being caused by the rotative movement of the first named element and said drive element constituting the sole constraining means for maintaining the driven member in engagement with the drive member.

2. In a machine for the purpose described, a drive element having a circular contour, all points of which rotate concentrically with relation to the axis of rotation, and a driven element having a circular wall adapted to engage the circular wall of the drive element and provided with means for holding it against rotation about its own axis, one element being in inclosing relation to the other element and of greater internal diameter than the diameter of the other element, the driven element being impelled and constrained by the drive element to move in a gyratory path about the axis of rotation of the drive element, and the diameter of the gyratory path being determined by the respective internal and external diameters of the two elements.

3. In a machine for the purpose described, a rotatable drive element provided with means for adjusting it in the direction of the axis of rotation and having a circular active wall tapering in one direction, a driven element also having a circular active wall tapering in the same direction as the taper of the wall of the drive element, one element being in surrounding relation to the other element and of greater internal diameter than the external diameter of the said other element, the driven element being mounted for gyratory movement by and with relation to the drive element due to the difference in the diameters of the active portions of the respective elements.

4. In a machine for the purpose described, a rotatable drive member having a circular portion, a device mounted for gyratory movement and provided with a driven member in coactive relation to the drive member, the drive and driven members being one in surrounding relation to the other, and the surrounding member being of larger internal diameter than the external diameter of the other, means for holding said device and the driven element against bodily rotative movement and means for imparting rotative movement to the drive member to cause gyratory movement of the said device to an extent equal to the difference between the internal diameter of one element and the external diameter of the other where in coactive relation, the drive member constituting the sole

constraining means for maintaining the driven member in in engagement with the drive member.

5. In a machine for the purpose described, a drive element comprising a head mounted on a shaft and provided with an axially tapered extension, a supporting means for the shaft provided with means for moving the shaft in the direction of its length, a device having supports on which it may have gyratory movement, means for imparting rotary motion to the drive member, and a driven member carried by the said device, the drive and driven members being so related that one surrounds the other and the driven member being tapered in accordance with the taper of the drive member, the internal diameter of the surrounding member being greater than the external diameter of the interior member to determine the amount of gyratory movement imparted to the said device.

[Claims 6 to 16 not printed in the Gazette.]

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1,038,125. PROCESS OF PRODUCING CONCRETE. HENRY J. HARMS, Orange, and GEORGE E. SMALL, West Orange, N. J., assignors to Monogram Construction Company, of Arizona. Filed July 10, 1909. Serial No. 507,005. (Cl. 106—44.)

1. The process of the character described, which comprises making a fluent emulsion of clay and water containing a sufficient amount of clay to decrease the voids in the resulting concrete, and adding said mixture to a quantity of cement and sand.

2. The process of the character described, which comprises making a fluent emulsion of clay and water containing a sufficient amount of clay to decrease the voids in the resulting concrete, and adding said mixture to a quantity of cement, sand and crushed stone.

3. The process of the character described, which comprises making a mixture of clay and water, and adding said mixture to a quantity of cement and sand, the particles of clay being finer than the particles of cement.

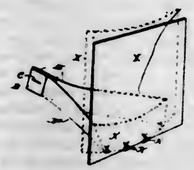
4. The process of the character described, which comprises making a mixture of clay and water, and adding said mixture to a quantity of cement, sand and crushed stone, the particles of clay being finer than the particles of cement.

5. The process of the character described, which comprises grinding one part of clay, mixing the same with water until the proper percentage is obtained, mixing the same with five parts of cement, ten parts of sand and fifteen parts of crushed stone, the clay, cement, sand and crushed stone being coarser than one another in the order stated.

[Claim 6 not printed in the Gazette.]

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1,038,126. EASEL. JAMES J. HANNERTY, Chicago, Ill., assignor, by mesne assignments, to Charles Turner Brown, Chicago, Ill. Filed May 22, 1911. Serial No. 628,691. (Cl. 40—146.)



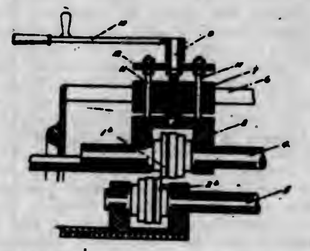
1. In an easel, a strip of flexible material provided with a receptacle at one end arranged to receive the other end, and to hold said ends extended in the same direction and in parallel planes, and said strip scored and bendable on said scores to maintain said ends at substantially right angles to the middle portion of said strip and means to attach an article to said strip midway between the ends.

2. In an easel, a strip of flexible material provided with a recess at one end and a receptacle at the other end, said receptacle consisting of a fastener and a piece of material attached to said strip by said fastener and said receptacle arranged to receive the recessed end of the strip with said fastener in said recess, and with the ends of the strip extended in the same direction and in parallel planes, and means to attach an article to said strip midway between the ends.

3. In an easel, a strip of flexible material provided with a recess at one end and a receptacle at the other end, said receptacle consisting of a piece of material and a fastener, the said piece of material attached to said strip by said fastener, the said receptacle arranged to receive the recessed end of the strip and to hold the ends extended in the same direction and in parallel planes, said strip provided with scores commencing at the lower edge and flaring outwardly from each other to the upper edge and bent on said scores, and with the several parts curved, and the upper and lower edges thereof in parallel horizontal planes, said curves intersecting substantially at the ends of the scores.

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1,038,127. STRETCHER-ROLLS. JOHN P. HEDSTROM, Big Rapids, Mich., assignor to Hanchett Swage Works, Big Rapids, Mich., a Corporation of Michigan. Filed Nov. 9, 1909. Serial No. 527,017. (Cl. 76—27.)



1. A combined tensioning and shearing device comprising a pair of revolubly mounted rolls each having a crowned stretching tread, and a shearing tread formed integral with the roll at one end thereof, one of said rolls being axially adjustable with relation to the other roll.

2. A combined tensioning and shearing device comprising a pair of revolubly mounted rolls each having a crowned stretching tread, and a shearing tread formed integral with the roll at one end thereof, one of said rolls being axially adjustable with relation to the other roll, the rear part of the shearing tread of each roll being of slightly reduced diameter.

3. A combined tensioning and shearing device comprising a pair of revolubly mounted rolls each having a crowned stretching tread, and a shearing tread formed integral with the roll at one end thereof, one of said rolls being axially adjustable with relation to the other roll, said roll being formed with a clearance groove between the stretching tread of each roll and the tensioning tread.

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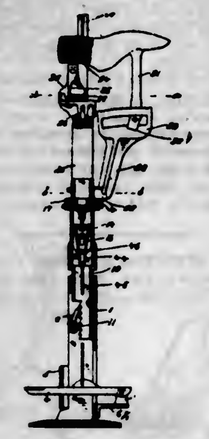
1,038,128. SHOEMAKER'S JACK. FERENCZ HEIMLICH, San Francisco, Cal. Filed June 29, 1908. Serial No. 440,836. (Cl. 12—127.)

1. In a shoemaker's jack, a hollow support having two pairs of oppositely placed inclines and a depression between each pair of inclines, a tilting post carried thereby and having its lower end adapted to fit the top of said support, depending slotted ears on said tilting post, pins passing through the support and the slots in said ears, a post having a turn table carried by the tilting post, and a removable last on the top of the last mentioned post, substantially as set forth.

2. In a shoemaker's jack, a hollow support having its top formed with two inclines on the opposite sides thereof, and a depression between the adjacent inclines, a post having a shoulder adapted to fit the top of the support, two depending slotted ears on said post, pins passing through said support and said slotted ears, a turn table



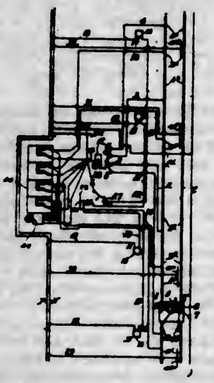
post on the first post, a depending flange on the turn table and surrounding the top of the first post, and means to



hold a shoe last on the top of the turn table post, substantially as set forth.

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1,038,129. ELECTRIC RAILWAY SIGNALING SYSTEM. MAX LEO HEIN, Moonee Ponds, Victoria, Australia, assignor of one-half to John Copp, Oakleigh, Australia. Filed July 5, 1911. Serial No. 636,863. (Cl. 246—25.)



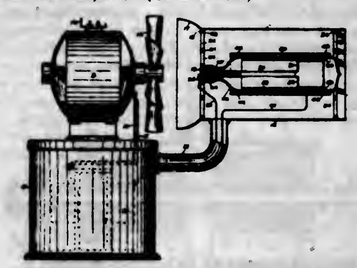
1. In electric railway signaling systems, a signal box, a series of divided insulated rail sections, constituting warning sections and signaling sections, an indicator in the engine of the train, an indicator in the signal box, circuit connections whereby said indicators are automatically put in circuit by the passage of the engine over said warning sections, a signal device in the engine, a signal switch in the signal box and circuit connections whereby said signal device and said signal switch are put in circuit by the passage of the engine over said signaling sections.

2. In electric railway signaling systems, an engine fitted with a signal device and a pair of contact makers, a pair of rails divided at predetermined points into insulated sections constituting warning sections and signaling sections, insulated contact pieces associated with said warning sections, an electric supply conductor arranged parallel to said rails, a signal box provided with signal switches and an indicator, there being a signal switch associated with each of said signaling sections, circuit connections associated with each signaling section and with its respective signal switch and with said indicator at the signal box and with the signal device on the engine, said circuit connections and the associated devices being energized when one of said contact makers engages said supply conductor and the train is in a signaling section, an indicator and a bell at the signal box operatively associated with said warning sections, and circuit connections for energizing said second-mentioned indicator and said bell when the second of said contact makers engages said insulated contact pieces.

3. In electric railway signaling systems, an engine fitted with a signal device and a pair of contact makers, a pair of rails divided at predetermined points into insulated sections constituting warning sections and signaling sections, insulated contact pieces associated with said warning sections, an electric supply conductor arranged parallel to said rails, a signal box provided with signal switches and an indicator, there being a signal switch associated with each of said signaling sections, circuit connections associated with each signaling section and with its respective signal switch and with said indicator at the signal box and with the signal device on the engine, said circuit connections and the associated devices being energized when one of said contact makers engages said supply conductor and the train is in a signaling section, an indicator and a bell at the signal box, a third contact maker on the engine adapted to engage one of the rails, a bell and an indicator on said engine, and circuit connections for energizing said bells and said second and third mentioned indicators when said third contact maker engages the rail and said second contact maker engages said insulated contact pieces.

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1,038,130. APPARATUS FOR PRODUCING OZONE. SIEGFRIED HELD, Chicago, Ill. Filed Aug. 2, 1911. Serial No. 641,909. (Cl. 204—32.)



1. An apparatus for producing ozone, comprising a source of current, a vacuum tube having on its inner surface near one of its ends a series of projections, a tubular electrode located in said tube and resting at one of its ends on said projections, a tubular electrode surrounding the vacuum tube and the first named electrode, means interposed between the outer electrode and said tube for maintaining them parallel and spaced apart, current conveying connections to said electrodes, and means for passing air along the exterior of said tube in the direction of the length thereof.

2. An apparatus for producing ozone comprising a source of current, a vacuum tube, a tubular electrode located in said tube, another tubular electrode surrounding said vacuum tube and the first named electrode and having at each of its ends a series of inturned lips arranged in pairs, an insulating piece located between each pair of said lips and resting on the outer surface of the vacuum tube, current conveying connections to said electrodes, and means for passing air through the space between the outer electrode and said closure.

3. An apparatus for producing ozone, comprising a source of current, a vacuum tube having on its inner surface near one of its ends a series of projections, a tubular electrode located in said tube and resting against said projections, a tubular electrode surrounding the vacuum tube and the first named electrode and having at

each of its ends a series of inturned lips arranged in pairs, an insulating piece located between each pair of said lips and resting on the outer surface of the vacuum tube, current conveying connections to said electrodes, and means for passing air through the space between the outer electrode and the tube.

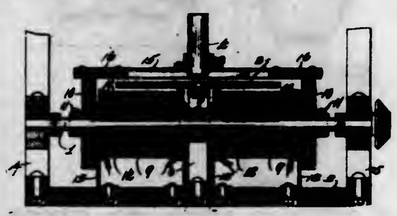
4. In an apparatus for producing ozone, the combination with a casing having an arm extended therefrom, of a drum mounted on said arm, a vacuum tube supported within the drum and insulated therefrom, an electrode within said vacuum tube, a tubular electrode surrounding the vacuum tube and the first named electrode and spaced from said tube, a transformer within said casing, electric connections uniting the transformer and said electrodes, a motor or rotary converter mounted on the casing, a fan mounted near one end of the drum and driven by said motor or converter, connections leading from a source of current to the motor or converter, and connections uniting the motor or converter and the transformer.

5. In an apparatus for producing ozone, the combination with a source of current, of a suitably supported drum, a vacuum tube mounted within the drum and insulated therefrom, a tubular electrode located in said tube, another tubular electrode surrounding the vacuum tube and the first named electrode and having at each of its ends a series of inturned lips arranged in pairs, an insulating piece located between each of said lips and resting on the outer surface of the vacuum tube, current conveying connections to said electrodes, an electrically driven fan mounted near one end of the drum for causing air to pass through the space between the outer electrode and the vacuum tube.

[Claim 6 not printed in the Gazette.]

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1,038,131. MAGNETIC CLUTCH. VICTOR HEMMING, New York, N. Y., assignor to H. Krantz Manufacturing Company, a Corporation of New York. Filed Nov. 10, 1911. Serial No. 659,515. (Cl. 172—284.)



1. The herein described magnetic clutch consisting of a driving shaft, a pair of magnetizable disks spaced apart, and means for magnetizing said disks, a driven shaft having its axis at right angles to the driving shaft and midway between the disks, a plate having its plane in right angles to the disks with a magnetizable portion adjacent to said disks, and said plate being resiliently connected with its shaft, and a magnetizable bar adjacent to one portion of the disks to make an almost complete closed magnetic field at a point adjacent to said ring.

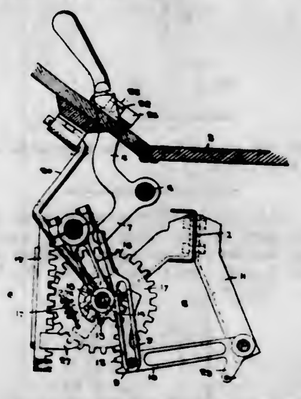
2. The herein described magnetic clutch consisting of a driving shaft, a plurality of magnetizable cores secured to said shaft and spaced apart, magnetizable disks carried by said cores, an electromagnet surrounding each of said cores, a driven shaft having its axis at an angle to the axis of said driving shaft, a resilient disk secured to said driven shaft, a magnetizable ring carried by said disk and located adjacent the periphery of the disks on the cores carried by the driving shaft, and a magnetizable bar adapted to localize the magnetic field, mounted adjacent said disk and extending over the adjacent ends of said magnets.

3. The herein described magnetic clutch consisting of a driving shaft, magnetizable disks rotatably secured thereto, stationary electromagnets surrounding said shaft, and located adjacent said disks, a magnetizable bar mounted adjacent said magnets, adapted to localize the magnetic field, there being an air gap between the ends of said bar and said disk, and driven shaft adjacent said magnets, a disk carried by said driven shaft, a magnetizable ring carried by said disk adapted to be drawn into contact with the periphery of the disks on the driven shaft when the magnets are energized.

4. In a magnetic clutch a driving element, magnets surrounding said driving element, magnetizable disks actuated by said driving element and located adjacent said magnets, a driven element, an armature carried thereby adapted to contact with said disks when said magnets are magnetized, and means adjacent said magnets but out of contact with said disks and said armature adapted to localize the magnetic field of said magnets.

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1,038,132. STARTER FOR ENGINES. JOHN C. HENDERSON, San Francisco, Cal. Filed June 29, 1910. Serial No. 569,515. (Cl. 123—185.)



1. In a starter for motors, the combination with a gear fixed to parts of the motor, a rotatable and slidably mounted gear adapted to be moved into engagement with the first mentioned gear and means to operate the rotatable and slidably mounted gear to rotate the first mentioned gear when engaged therewith in one direction, of a cam adapted to move between and separate said gears upon reverse rotation of the first mentioned gear.

2. In a starter for motors, the combination with a gear fixed to parts of the motor, a slidable and rotatably mounted gear adapted for engagement with the first mentioned gear and means to rotate said gears in a forward direction, of a cam adapted to frictionally engage the first mentioned gear when said gears are in mesh and move between and separate said gears upon backward rotation of the latter.

3. In a motor starter, the combination with a gear operatively connected with the shaft of a motor; of a second gear slidably mounted on its shaft, means for disposing said gear in operative or inoperative relation with said first mentioned gear, a pinion attached to the second gear, a segmental gear meshing with said pinion, a slotted link adapted to engage a pin on said segmental gear, a bell crank lever pivotally secured to the handle, means for operating the lever, means for returning the segmental gear to its initial position when a cycle of operation is completed.

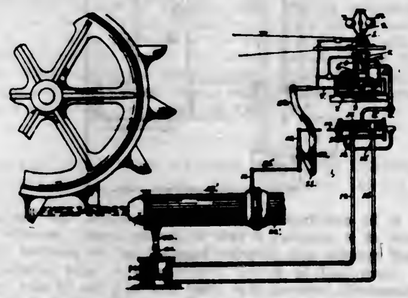
4. The combination with a motor having a shaft adapted to rotate in one direction; of a gear operatively connected with said shaft, a second gear slidably mounted on its shaft, means for disposing said second gear in operative or inoperative relation with the first mentioned gear, means for causing the rotation of the second gear, and means for automatically forcing said gears out of mesh when the motor shaft rotates in the wrong direction.

5. In a motor starter, the combination with a gear operatively connected with the shaft of a motor and a second gear slidably mounted on its shaft, of means for sliding said second gear into or out of mesh with the first, and additional means consisting of an arm pivotally mounted on the shaft of the second gear and having its end held in frictional engagement with the periphery of the first, whereby the rotation of the motor shaft in a certain direction will cause said arm to wedge between said gears and force the same out of mesh, and means to rotate the gears.



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1,038,133. GOVERNOR-CONTROLLED MECHANISM FOR HYDRAULIC NOZZLES. GEORGE J. HENRY, Jr., San Francisco, Cal. Filed Apr. 10, 1906. Serial No. 310,980. (Cl. 138—18.)



1. In an apparatus of the character described, means for regulating an impact stream for tangential water wheels, of a motor cylinder, a piston working therein and having direct connection with the regulating means, a governor, an actuating cylinder with a piston therein, a pilot valve actuated by the governor and controlling the actuating cylinder, a main controlling valve cylinder, means for connecting the piston of the actuating cylinder and valve of the main controlling valve cylinder, means establishing communicating between the motor cylinder and the main controlling valve cylinder, a displacing cylinder, a piston therein connected to the means for regulating the impact stream, an auxiliary cylinder having connection with the displacing cylinder, a piston in the auxiliary cylinder, and an actuating connection between said piston and the connecting means between the actuating cylinder piston and the valve of the main controlling cylinder.

2. In an apparatus of the character described, means for regulating an impact stream for tangential water wheels, of a motor cylinder, a piston working therein and having direct connection with the regulating means, a governor, a pilot valve chamber with a valve connected to the governor and controlled thereby, an actuating cylinder with a piston therein, a main controlling valve cylinder, a valve in the controlling valve cylinder, a plurality of communicating connections between the pilot valve chamber and the actuating cylinder, and independent communications between the pilot valve chamber and the main controlling valve cylinder, means for connecting the piston of the actuating cylinder and valve of the main controlling valve cylinder, means establishing communication between the motor cylinder and the main controlling valve cylinder, a displacing cylinder, a piston therein connected to the means for regulating the impact stream, an auxiliary cylinder having connection with the displacing cylinder, a piston in the auxiliary cylinder, and an actuating connection between said piston and the connecting means between the actuating cylinder piston and the valve of the main controlling cylinder.

3. The combination with means for regulating an impact stream for tangential water wheels, of a motor cylinder, a piston therein having direct connection with the regulating means, governor mechanism and controlling devices for the motor cylinder interposed between the governor and motor cylinder and comprising an actuating cylinder and piston therein, a pilot valve actuated by the governor and controlling the actuating cylinder, a controlling valve cylinder and valve therein, a rock shaft, a lever carried by said shaft having connection with the valve of the controlling valve cylinder and an auxiliary lever carried by the rock shaft having connection with the piston of the actuating cylinder, pipes establishing communication between the controlling cylinder and the motor cylinder, and a cylinder for the pilot valve having communication with the controlling valve cylinder, and means for returning the controlling valve to normal position.

4. The combination with means for regulating an impact stream for tangential water wheels, of a motor cylinder, a piston therein having direct connection with the regulating means, governor mechanism and controlling devices for the motor cylinder interposed between the governor and motor cylinder and comprising an actuating cylinder and piston therein, a pilot valve actuated by the governor and controlling the actuating cylinder, a controlling valve cylinder and valve therein, a cylinder for the pilot valve having communication with the controlling valve cylinder, a rock shaft, a lever carried by said shaft having connection with the valve of the controlling valve cylinder and an auxiliary lever carried by the rock shaft having connection with the piston of the actuating cylinder, and a plurality of pipe connections between the controlling cylinder and the motor cylinder, said last mentioned pipe connections communicating with the motor cylinder at points respectively upon opposite sides of the piston in the motor cylinder, and means for returning the controlling valve to normal position.

5. The combination with means for regulating an impact stream for tangential water wheels, of a motor cylinder, a piston therein having direct connection with the regulating means, governor mechanism and controlling devices for the motor cylinder interposed between the governor and motor cylinder and comprising an actuating cylinder and piston therein, a pilot valve actuated by the governor and controlling the actuating cylinder, a controlling valve cylinder and valve therein, a rock shaft, a lever carried by said shaft having connection with the valve of the controlling valve cylinder, and an auxiliary lever carried by the rock shaft having connection with the piston of the actuating cylinder, pipes establishing communication between the controlling cylinder and the motor cylinder, and a cylinder for the pilot valve, and means for returning the controlling valve to normal position.

[Claim 6 not printed in the Gazette.]

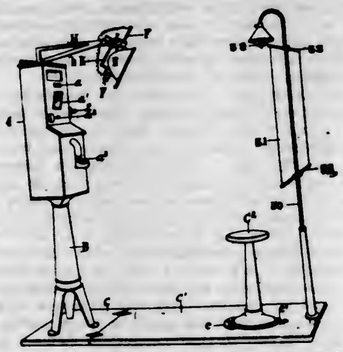
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1,038,134. SKIRT. JACOB AARON HERMAN, New York, N. Y. Filed June 3, 1911. Serial No. 630,970. (Cl. 2—42.)



A skirt, comprising a closed front portion, a closed back portion, said portions connected together for a part of their length, an intermediate portion arranged in front of the back portion, means for positively adjusting the intermediate portion to the size of the wearer, a placket opening formed by a side of said intermediate portion and a side of said front portion, fastening devices for closing said placket opening, and adjustable fastening means whereby the remainder of said back portion can be secured either to said front portion or to said intermediate portion.

1,038,135. PHOTOGRAPHING-MACHINE. JOHN HIRSCHT, New York, N. Y. Filed Oct. 27, 1911. Serial No. 657,028. (Cl. 240—2.)



1. A photographing machine comprising a cabinet and an arc light and mechanism to control said light, said mechanism having a grip for one of the carbons and means in the cabinet to actuate the same at predetermined times, said grip consisting of a plate having a hole large than the carbon in cross section and means to tilt the grip, substantially as described.

2. In a photographing machine, a cabinet and automatic mechanism therein, in combination with an arc light and means to open and close the circuit on said light operatively connected with said automatic mechanism, said means comprising a grip for one of the carbons and a pivoted member to actuate said grip, and a spring to press on one end of each said grip and pivoted member, substantially as described.

3 In combination, a cabinet and an arc light rotatably supported thereon, automatic mechanism in said cabinet and a line of mechanism operatively connected therewith and with the upper carbon of said light and comprising a grip with a hole engaged over the carbon, a pivoted lever to operate said grip and a spring bearing thereon, automatic mechanism in the cabinet comprising a rocking arm, and connections from said arm to said pivoted lever, substantially as described.

4. In combination, a cabinet and an arc light, and a support for said light rotatable on said cabinet, and mechanism for controlling the arc of the light connected with one of said carbons and comprising a cam lever and means to operate said lever located in said cabinet, substantially as described.

5. In combination, a cabinet and the actuating mechanism therein comprising a double track cam lever, in combination with an arc light and mechanism actuated by said lever operatively connected with one of the light carbons, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

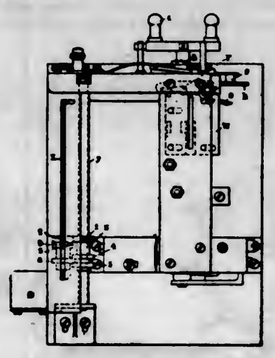
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1,038,136. COIN-FREED MECHANISM. CHARLES EDWIN HIBBERD, Westminster, London, England. Filed Apr. 25, 1911. Serial No. 623,224. (Cl. 194—87.)

1. In coin-freed prepayment mechanism, the combination of a spindle; a pair of inter-penetrating members loosely mounted on said spindle and lockable together by an inserted coin; a third member in driven relationship to said spindle and a connection between said third member and one of said other members, as set forth.

2. In coin-freed prepayment mechanism, the combination of a spindle; a pair of leaves loosely mounted on said spindle and lockable together by an inserted coin; a third leaf in driven relationship to said spindle and a connection between said third leaf and one of said other leaves, as set forth.

3. In coin-freed prepayment mechanism, the combination of a spindle; a leaf loosely mounted on said spindle and having apertures therein; a second leaf also loosely mounted on said spindle and having hook-like elements disposed to project through said apertures; a third leaf in driven relationship to said spindle and a connection between said third leaf and one of said other leaves, as set forth.



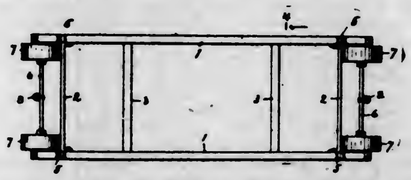
4. In coin-freed prepayment mechanism, the combination of a spindle; a pair of leaves loosely mounted on said spindle and lockable together by an inserted coin; a third leaf in driven relationship to said spindle; a connection between said third leaf and one of said other leaves; a commodity disk; a movable lock between one of said other leaves and said disk and a member mounted on said third leaf operating said lock, as set forth.

5. In coin-freed prepayment mechanism, the combination of a spindle; a leaf loosely mounted on said spindle and having apertures therein; a second leaf also loosely mounted on said spindle and having hook-like elements disposed to project through said apertures; a third leaf in driven relationship to said spindle; a connection between said third leaf and one of said other leaves; a commodity disk; a movable lock between said hook-carrying leaf and said disk and a member mounted on said third leaf operating said lock, as set forth.

[Claims 6 to 9 not printed in the Gazette.]

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1,038,137. TRUCK. JAMES A. HICKEY, North Hadley, Mass. Filed Jan. 15, 1912. Serial No. 671,224. (Cl. 21—65.)



1. In a truck, a frame comprising parallel side pieces, end pieces connecting said side pieces at points somewhat remote from the ends of the side pieces, and a cross piece attached to said side pieces between the ends and below the upper surfaces of the latter, axles journaled in the projecting terminals of the side pieces beyond said end pieces, and wheels mounted on said axles within said projecting terminals.

2. A basket-carrying truck comprising a frame made up of side pieces, end pieces connecting said side pieces at points somewhat remote from the ends of the side pieces, and a cross piece attached to said side pieces between the ends and below the upper surfaces of the latter, abutments rising from said side pieces for the ends of a basket, and wheels upon which said frame is mounted.

3. In a truck, a frame comprising side pieces and end pieces connecting said side pieces at points somewhat remote from the ends of the side pieces, such end pieces serving as cleaners for wheels, and wheels upon which the projecting parts of said side pieces are directly mounted, such wheels being located adjacent to said end pieces so as to enable them to be cleaned thereby.

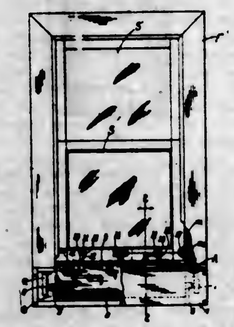
4. A basket-carrying truck consisting of a frame mounted on wheels and provided with means to support the bottom of a basket and hold the same against lateral movement, the supporting means in part being below the upper surface of said frame, and further provided with means above said upper surface of the frame to hold the basket against endwise movement.

5. In a truck designed to carry a basket provided with bottom runners, a frame comprising side pieces, end pieces connecting said side pieces at points somewhat remote from the ends of the side pieces, and an intermediate cross piece attached to said side pieces and situated below the upper surfaces of the same, such cross piece being adapted to receive the basket runners while the side pieces receive the basket bottom, abutments on said side pieces for the ends of the basket, and wheels upon which said frame is mounted.



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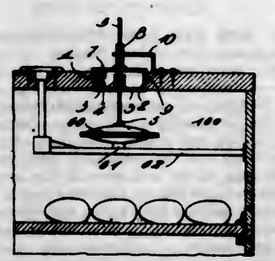
1,038,138. COMBINED WINDOW SASH AND SCREEN. MIRKO HIKES, St. Louis, Mo. Filed July 19, 1911. Serial No. 639,373. (Cl. 156—39.)



A movable screen provided with a terminal angle-bar operating in front of, and in conjunction with a sash-rail, a latch pivoted to a leg of the angle-bar and operating in the space between said leg and rail, and adapted to be coupled to the rail, the latch being provided with an outwardly deflected lip to engage the edge of the leg of the angle-bar for a released position of the latch.

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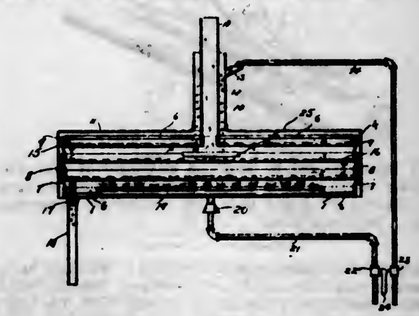
1,038,139. HEAT-REGULATOR FOR INCUBATORS. ALFRED A. HOWARD and ALBERT H. LOBSITZ, Perry, Okla. Filed Aug. 1, 1911. Serial No. 641,830. (Cl. 236—6.)



In an incubator a thermostat, a heat regulator comprising a thimble adapted to be inserted in an opening in the top of the incubator immediately above the thermostat, a spider in the lower end of said thimble, a guide sleeve formed on the center of said spider, a rod slidably engaged with said sleeve, said rod having a threaded upper end and having its lower end resting upon the thermostat, a valve plate threaded upon the upper end of the rod to open or close the thimble in the top of the incubator, an elongated lock nut threaded on the upper end of said rod and adapted to lock said valve plate in its adjusted position, and a guide bracket secured to the top of the incubator to receive the upper end of the nut and thereby guide the valve rod and plate in their opening and closing movements.

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1,038,140. INSTANTANEOUS WATER-HEATER. PHILIP G. HUBERT, Los Angeles, Cal.; Lily E. G. Hubert, executrix of said Philip G. Hubert, deceased, assignor to Lily E. G. Hubert, individually. Filed Apr. 22, 1911. Serial No. 622,740. (Cl. 126—355.)



In a water heater: the combination of a pan 1 for collecting leakage and moisture due to sweating; a discharge pipe 18 in the bottom of said pan; a gas burner 19 secured within a rectangular burner space in said pan 1; a pan 2 supported by aprons 7 above said pan 1; a tube 17 for discharging overflow from pan 2 into pipe 18; a double compartment pan 3 supported by aprons 8 above said pan 2; suitable overflow pipes 16 in said pan 3; a pan 4 supported by aprons 9 above said pan 3; suitable overflow pipes 15 in said pan 4; a suitable vent passing through said pan 4 adapted to carry off the burned gases; said aprons 7, 8, and 9 adapted to support said pans 2, 3 and 4 and also to direct leakage from either of said pans to the pan below; suitable removable sides 6 adapted to inclose the sides of said pans and direct leakage to the bottom pan 1; a suitable outer cover inclosing said pans; a jacket pipe connected with said cover and surrounding said vent pipe; and a suitable water supply tube for admitting water to said jacket.

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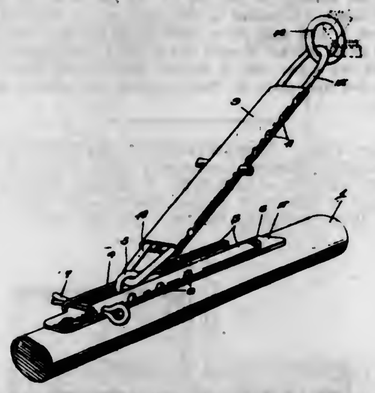
1,038,141. ADJUSTABLE HOLDBACK. SCHUYLER G. HUGHES, Mineral, W. Va. Filed Feb. 24, 1912. Serial No. 679,781. (Cl. 21—27.)

1. The combination with a thill; of a track member secured thereto, a slide mounted on said track, a portion of the means for securing said track member on the thill being adapted to limit the movement of said slide in one direction, adjustable means to limit the movement of the slide in the opposite direction, and means to connect a hold-back strap with said slide.

2. The combination with a thill; of a track member removably secured thereto, a slide mounted on said track member, a portion of the means securing said track to the thill being adapted to limit the movement of said slide in one direction, a key adjustably mounted transversely of the track member and adapted to limit the movement of said slide in the opposite direction, and means to connect a hold-back strap with said slide.

3. The combination with a thill; of a channel-shaped plate, means to removably secure the same to said thill, the side walls of said channel-shaped plate being provided with alining openings, a slide member mounted in said

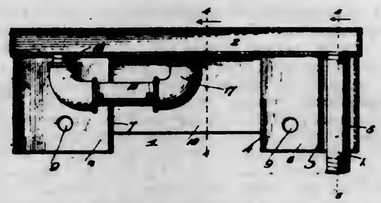
channel-shaped plate, a key adapted for insertion through a pair of aliming openings in said channel-shaped plate to limit the sliding movement of said slide member in one direction, a portion of the means securing said plate to the



thill being adapted to limit the movement of said slide member in the opposite direction, and an adjustable member engaged with said slide and adapted for connection with a hold-back strap.

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1,038,142. HYDROCARBON-BURNER. WILLIAM HUMPHREY and THOMAS RILEY STEWART, Auburn, Nebr. Filed Apr. 22, 1912. Serial No. 692,422. (Cl. 158—53.)



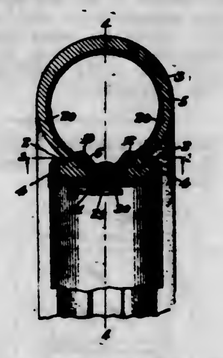
A hydrocarbon burner comprising a hollow body having therein air chambers provided with air holes and having its sides slitted and turned outwardly between said air chambers, a flat, shallow gas generating chamber arranged over and forming the top of said burner body, an oil supply pipe connected with one end of said generating chamber, and a gas conducting pipe connected with the opposite end thereof having its free end terminating and turned up beneath said generating chamber at which point the gas is discharged and burned.

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1,038,143. CLENCHER-TIRE AND SECURING-LUG THEREFOR. MILLER REESE HUTCHISON, Summit, N. J. Filed Nov. 20, 1906. Serial No. 443,695. (Cl. 152—20.)

1. A rim provided with inturned flanges and a pneumatic tire therefor including a tire shoe of the clencher type provided with circumferential ribs or projections interlocking with said flanges in combination with a continuous lug strip of adjustable length adapted to bear against opposite inner faces of the shoe and thereby positively lock the shoe with its circumferential projections in clenching relation to the flanges of the rim at substantially all points about the circumference thereof, said lug strip being provided with a take-up and lock for the adjusting the same and with an opening for the valve stem of the pneumatic tube at a point of the circumference opposite to said take-up, and with means independent of the valve stem located adjacent said valve stem opening for holding such portion of the lug strip against movement circumferentially of the rim and shoe.

2. A rim provided with inturned flanges and a pneumatic tire therefor including a tire shoe of the clencher type provided with circumferential ribs or projections interlocking with said flanges in combination with a continuous lug strip of adjustable length adapted to bear against opposite inner faces of the shoe and thereby positively lock the shoe with its circumferential projections in clenching relation to the flanges of the rim at substantially all points about the circumference thereof, said lug strip being provided with an adjustable take-up and lock adapted to secure the adjusted portions against circumferential movement relatively to each other and to the rim, said rim and said lug strip being provided with registering openings for the valve stem of the pneumatic tube at a point of the circumference approximately opposite to said take-up and lock.



3. A rim provided with circumferential locking recesses and a pneumatic tire therefor including a tire shoe of the clencher type provided with circumferential ribs or projections interlocking with said recesses in combination with a continuous lug strip adapted to bear against opposite inner faces of the shoe and thereby positively lock the circumferential projections of the shoe in clenching relation to the recesses of the rim at substantially all points about the circumference thereof, said lug strip being provided with a take-up and lock for adjusting the same, comprising a rotary member and a washer slidable on said member but held against rotation thereon, said rim having a locking recess adapted to receive said washer and to hold the same and said member against turning.

4. A rim and tire shoe of the clencher type, provided with interlocking circumferential ribs or projections, in combination with a continuous lug strip provided with toothed overlapped ends, a rotary toothed member for taking up said ends, and a washer slidable on said member but held against rotation thereon, said rim having a locking recess adapted to receive said washer and to hold the same and said member against turning.

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1,038,144. RIM AND TIRE FOR VEHICLE-WHEELS. MILLER REESE HUTCHISON, Summit, N. J. Filed July 28, 1909. Serial No. 510,184. (Cl. 152—20.)

1. In combination, a clencher rim, a clencher tire mounted thereon, a continuous, transversely rigid, expansible and contractible lock strip positioned between the beads of the tire casing, the edges of the lock strip when in locking position contacting with the tire casing nearer the axis of the rim than the outer edges of the rim flanges and leaving a clearance space between the lock strip and the base of the rim, and means independent of the rim to contract and expand the lock-strip.

2. In combination, a clencher rim, a clencher tire mounted thereon, a substantially continuous, transversely rigid, expansible and contractible lock-strip positioned between the beads of the tire casing, the edges of the lock-strip when in locking position contacting with the tire casing nearer the axis of the rim than the outer edges of



the rim flanges and leaving a clearance space between the lock-strip and the base of the rim, the width of the strip being such as to lock the beads of the tire casing firmly within the rim flanges when in such position and means independent of the rim to contract and expand the lock-strip.



3. In combination, a clencher rim, a clencher tire mounted thereon, a substantially continuous, transversely rigid radially flexible, expansible and contractible, metallic lock-strip positioned between the beads of the tire casing, the edges of the lock-strip when in locking position contacting with the tire casing nearer the axis of the rim than the outer edges of the rim flanges and leaving a clearance space between the lock-strip and the bottom of the rim cavity, and means independent of the rim to contract and expand the lock-strip.

4. In combination, a clencher rim, a clencher tire mounted thereon, a practically continuous, transversely rigid, expansible and contractible lock-strip positioned between the beads of the tire casing, the edges of the lock-strip when in locking position contacting with the tire casing nearer the axis of the rim than the outer edges of the rim flanges and leaving a clearance space between the lock-strip and the base of the rim, and means independent of the rim to contract and expand the lock-strip said means being such as to allow the pressure of the fluid within the inner tube to force the lock-strip into locking position.

5. In combination, a clencher rim, a clencher tire mounted thereon, an expansible and contractible lock-strip positioned between the beads of the tire casing, the edges of the lock-strip when in locking position contacting with the tire casing nearer the axis of the rim than the outer edges of the rim flanges and leaving a clearance space between the lock-strip and the bottom of the rim cavity, and means independent of the rim to contract, expand and lock the lock-strip in its contracted position.

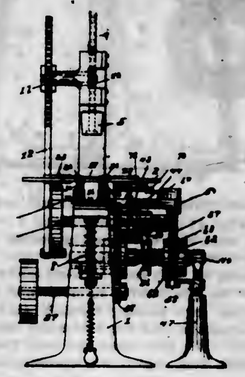
[Claims 6 and 7 not printed in the Gazette.]

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1,038,145. MACHINE FOR FORMING AND BAILING PAPER PAILS. HARRY A. INMAN, Amsterdam, N. Y. Filed May 3, 1911. Serial No. 624,812. (Cl. 93—36.)

1. In a machine for forming paper-pails or the like, and in combination, a head upon which the pail is formed; folding-mechanism comprising in part an upright folder coöperative with said head to fold a side of the pail, said upright folder being supported at its lower end, and having its upper end free; and a plate apertured to receive said head, and having certain of the walls of said aperture coöperative with said head to fold other sides of the pail, and certain other of said walls adapted to form lapping side-wings on the pail on the outer side of said upright folder, said upright folder projecting into said aperture with a free space on all sides between its free end and the walls of the aperture.

2. In a machine for forming paper-pails or the like, and in combination, a head upon which the pail is formed; a plate apertured to receive said head, and having certain of the walls of said aperture coöperative with said head to fold two sides of the pail, and certain other of said walls adapted to form side-wings on the pail; a support beneath said plate; a pair of upright folders mounted upon said support, and having free ends projecting into said aperture with a free space on all sides between said free ends and the walls of said aperture; and means for moving said head into and out of said aperture.



3. In a machine for forming paper-pails or the like, and in combination, a head upon which the pail is formed; means for imparting a reciprocating movement to said head; folding-mechanism comprising in part an upright folder coöperative with said head to fold one side of the pail; and means for infolding the side-wings of the pail on the outer side of said folder, said upright folder being supported at its lower end, and having its upper end free on all sides from said infolding means opposite said means, whereby it is adapted to permit the supported pail to be withdrawn from the folding-mechanism by the return movement of said head.

4. In a machine for forming paper-pails or the like, and in combination, an apertured plate having oppositely located edges for folding two sides of the pail, and other edges for forming a pair of wings for each of the other two sides of the pail; a pair of upright folders for folding said other two sides of the pail, said upright folders being supported at their lower ends below the level of said plate, and having their upper ends extending into said aperture with a free space on all sides between said folders and the walls of said aperture; a pair of arms movable toward each other on the outer side of each of said upright folders adapted to infold the side-wings of the pail to lapping position; and a reciprocating head adapted to carry a blank down through said apertured plate in folding the pail, and to withdraw the folded pail from said aperture by the return movement of said head.

5. In a machine for forming paper-pails or the like, and in combination, a head upon which the pail is formed; a yielding bed-plate coöperative with said head to clamp between them the bottom portion of the blank; means coöperative with said bed-plate and head to upturn the side-portions of the blank and form side-wings thereon; a pair of rock-shafts; wing-folding arms mounted upon the respective rock-shafts; and rocker-arms mounted upon the respective rock-shafts in the path of said yielding bed-plate.

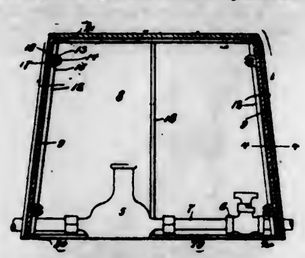
[Claims 6 to 8 not printed in the Gazette.]

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1,038,146. METER-BOX. JOHN T. JACKSON, El Reno, Okla. Filed Jan. 22, 1912. Serial No. 672,661. (Cl. 137—13.)

1. A box comprising separable side and end walls, and a cover, said side walls having spaced parallel vertical inwardly directed ribs adjacent to each end, and the end

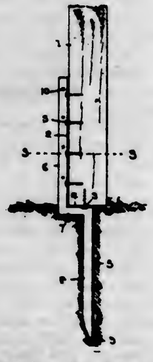
walls fitting at their ends between said ribs, the innermost ones of the ribs having recesses, and the end walls having internal lugs passing through said recesses, said lugs having openings, and the side walls having apertures which register with said openings, and fastening means passing through said registering openings and apertures.



2. A box comprising separable side and end walls having an internal ledge at the top thereof, and a cover supported on the ledge, said side walls having spaced parallel vertical inwardly directed ribs adjacent to each end, and the end walls fitting at their ends between said ribs, the innermost ones of the ribs having recesses, and the end walls having internal lugs passing through said receses, said lugs having openings, and the side walls having apertures which register with said openings, and fastening means passing through said registering openings and apertures.

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1,038,147. DETACHABLE FENCE-POST POINT. CHARLES JOHNSON, Dent, Minn. Filed Jan. 30, 1912. Serial No. 674,278. (Cl. 189—28.)



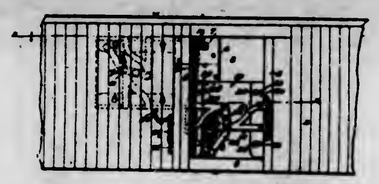
A supporting member for fence posts comprising a strip bent to form parallel end sections, and a right angularly disposed central portion, an integral flange projecting from said strip for the entire length of one of the longitudinal edges thereof, and disposed at right angles thereto, one end of said member being provided with spaced openings and the other end being tapered.

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1,038,148. GRAIN-CAR DOOR. CHRIST J. JOHNSON, Clear Lake, Wis., assignor of one-half to Frank J. Brandl, Clear Lake, Wis. Filed Oct. 12, 1911. Serial No. 654,888. (Cl. 20—27.)

1. The combination with a car door, of supporting means therefor shiftable transversely of the car to carry the door into or out of the door opening, said door being rotatable in planes parallel to the side of the car.

2. The combination with a car having a door opening and a car door therefor, of supporting means shiftable transversely of the car to carry the door into or out of the door opening and longitudinally movable with relation to the car, said door being rotatable in planes parallel to the side of the car.



3. The combination with a car having a door opening and a door therefor, of rotatable supporting means for the door shiftable with the door transversely of the car to carry the door into or out of the car through the door opening and shiftable with the door longitudinally of the car, said door being rotatable in planes parallel to the side of the car.

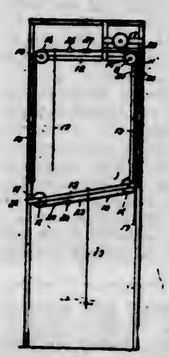
4. The combination with a car having a door opening, of longitudinally disposed tracks mounted within the car, a carrier longitudinally shiftable along said tracks, a door supporting member mounted on the carrier, and a door carried by said supporting member shiftable transversely with relation to the car into or out of the car through the door opening and rotatable in planes parallel to the side of the car.

5. The combination with a car having a door opening, of a longitudinally disposed track located within the car, a carrier longitudinally shiftable upon said track, a door support, a door supporting bar rotatably mounted in said carrier and shiftable thereto in a direction transverse to the length of the car to carry the door into or out of the door opening, and a door mounted upon the end of said bar and shiftable therewith.

[Claims 6 to 10 not printed in the Gazette.]

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1,038,149. ADVERTISING DEVICE. CHARLES C. KELLEY, Los Angeles, Cal., assignor, by mesne assignments, to George H. Allen, Los Angeles, Cal. Filed Jan. 4, 1912. Serial No. 669,506. (Cl. 40—78.)



1. A case, provided with an exposure opening, an endless sprocket chain within the case vertically movable along each vertical edge of the opening, a plurality of carrier rods having sign sheets suspended therefrom, means for supporting said carrier rods adjacent the path of the chains, means carried by said chains for engaging said carrier rods and moving them to the exposure opening, a cross shaft above the exposure opening, having depending arms with hooks at their lower ends normally resting alongside of the chains, means for holding said hooks in position to arrest and hold the ends of the carrier rods, an arm on the cross shaft projecting down and normally resting against the sprocket chain, and a tripping finger on the sprocket chain to engage with the downwardly projecting arm to disengage the hooked end of the tripping lever from the ends of the carrier rod.

2. In an advertising device the combination with a case of a pair of spaced sprocket chains located therein, upper and lower sprocket wheels over which said chains travel, downwardly and rearwardly inclined bars in which the lowermost of said sprocket wheels are journaled, a plurality of sign carrying rods supported on said bars, carrier pins on the chains for engaging and supporting said rods and moving them to view position, suspension hooks for engaging said rods and holding them in view position, a release member carried by one of said chains for releasing the suspension hooks and a receiving means on said chains for receiving the rods after they are released.

3. In a device of the character described, the combination with a pair of carrier chains of a casing within which said chains are mounted to travel, a plurality of sign carrying rods, a pair of rearwardly inclined bars supported in said casing, members carried by said rods having end portions recessed for the reception of said bars, and means carried by said chains for picking up said rods from said bars, means for arresting and suspending said rods in their travel and means carried by the chains for actuating said arresting and suspending means, and rod receiving members carried by the chains for receiving said rods when said rods are released by the arresting and suspending means.

4. A device of the character described comprising a display card having projections at each end of its upper edge, a trip shaft, hooks depending therefrom and engaging the display card projections to support the card, an endless chain adjacent each side of the display card supported on said hooks and traveling downwardly, a support secured to each of the chains and adapted to support the display card by engagement with its projections, an arm on the trip shaft, and a lug on one of the chains engageable with the arm to rotate said shaft and disengage the supporting hooks from the display card projections.

5. A device of the character described, comprising a frame, downwardly and rearwardly sloping ways therein, display cards having projections at each end of their upper edges, said projections adapted to move on said ways, a pair of endless chains one adjacent each of said ways and traveling upwardly near the rear end thereof and traveling downwardly near the forward end thereof, means on said chains to engage said projections and to thereby lift a display card from the rear end of the ways, a trip shaft journaled in the frame adjacent the chains where they are traveling downwardly, a pair of hooks depending from said shaft and adapted to engage the projections of a display card, an arm, mounted on the trip shaft, a lug on one of the chains adapted to engage and move said arm to rotate the trip shaft and disengage the hooks from the display card, and members on the chains adapted to receive the projections of the display card when disengaged by said hooks.

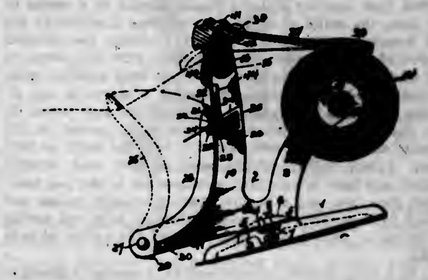
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1,038,150. ROLL-PAPER HOLDER AND CUTTER. JACOB H. KING, Piqua, Ohio, assignor to Clyde B. Miller, Piqua, Ohio. Filed Jan. 19, 1912. Serial No. 672,126. (Cl. 211—82.)

1. In a roll paper holder and cutter, the combination with a tension roller and a stationary support over which the strip of paper passes, of oscillating arms pivoted at their lower ends in front of the stationary support, and a cutter blade secured to the upper and free ends of said arms, and adapted to move over the forward edge of the support and deflect outward the end of the paper strip, substantially as set forth.

2. In a roll paper holder and cutter, the combination with a tension roller and a stationary support located beneath the roller and serving to support the end of the paper strip, of a gravity actuated cutter blade adapted to move over and in rear of the front edge of said support, and to be moved away from said support a distance greater than the distance between the tension roll and support, substantially as set forth.

3. In a roll paper holder and cutter, the combination with a cross bar which serves to support the end of the paper strip, of oscillating arms pivoted at their lower ends and a cutter blade secured to their upper ends and adapted to move away from and toward and over said support, substantially as set forth.

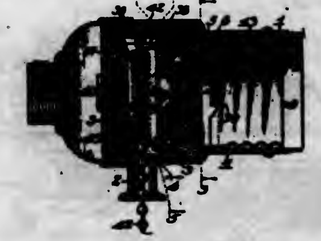


4. In a roll paper holder and cutter, the combination with a paper supporting cross bar and supports mounted thereon, and projecting upwardly therefrom, of an oscillating cutter adapted to engage said supports.

5. In a roll paper holder and cutter, the combination with a paper supporting cross bar provided with upwardly projecting supports, of a cutter adapted to rest against the supports in the cross bar and to be moved forward and upwardly with relation thereto.

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1,038,151. LAMP-SOCKET. CHARLES J. KLEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Sept. 14, 1908. Serial No. 452,883. (Cl. 173—354.)



1. The combination with a switch, of a toothed wheel movable therewith, a rigid toothed rack adapted, when moved in one direction, to engage and operate said toothed wheel, and, when moved in the opposite direction, to ride over said toothed wheel without operating the same, and means biasing said rack in the latter direction.

2. In combination, a rotary switch rotatable in the same direction to both open and close and being selflocking in both positions against movement in the opposite direction and operating means therefor comprising a toothed wheel and a coöperating rigid rack member reciprocal successively in the same direction to both open and close said switch.

3. In a lamp socket, in combination, an insulating base, a spindle revolubly mounted therein and carrying a switch member, a toothed wheel fixed to said spindle, a toothed rack member slidable longitudinally in a recess in said base, the walls of said recess forming a guideway for said member, means for yieldingly holding the toothed portion of said member in engagement with the teeth on said wheel, the teeth on said wheel and said member being so constructed that when said member is moved in one direction, its teeth will engage the teeth on said wheel to turn the same, and when said member is moved in the opposite direction, its teeth will ride over the teeth

on said wheel, and a coil spring within said member and bearing against said base to bias said rack member in the latter direction.

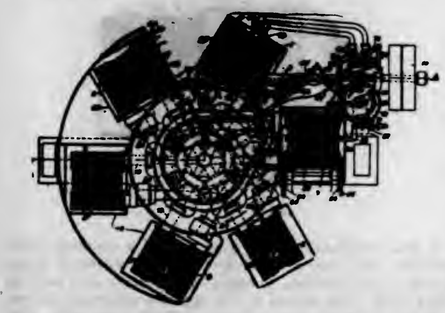
4. In a lamp socket, in combination, an insulating base, a spindle revolubly mounted therein and carrying a switch member, a toothed wheel fixed to said spindle, a toothed rack member slidable longitudinally in a recess in said base, the walls of said recess forming a guideway for said member, means for yieldingly holding the toothed portion of said member in engagement with the teeth on said wheel, the teeth on said wheel and said member being so constructed that when said member is moved in one direction, the teeth will engage the teeth on said wheel to turn the same, and, when said member is moved in the opposite direction, the teeth will ride over the teeth on said wheel, a coil spring within said member and bearing against said base to bias said rack member in the last mentioned direction, and a flexible chain connected to one end of said rack member and passing through said coil spring for operating said rack member against the action of said spring.

5. In a lamp socket, in combination, a casing, a substantially cylindrical insulating base therein, said base being formed in two sections secured closely together, a spindle revolubly mounted between the sections of said base, a contact member carried thereby, a toothed wheel fixed to said spindle, one section of said base having an elongated recess therein, extending transversely to said spindle, said wheel projecting into said recess, a rack member slidable in said recess, the walls of said recess forming a guideway for said rack member, said rack member being adapted to engage and revolve said wheel.

[Claims 6 to 10 not printed in the Gazette.]

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1,038,152. REVOLVER COTTON-MERCERIZING MACHINE. JOHANNES KLEINEWEFERS, Krefeld, Germany, assignor to The Firm of Joh. Kleinewefers Söhne, Krefeld, Germany. Filed June 3, 1909. Serial No. 499,948. (Cl. 8—20.)



1. A machine for mercerizing cotton comprising a turn table, a pair of rollers rotatably mounted thereon and adapted to hold the material to be operated upon, a gear wheel mounted upon one of said rollers, a gear wheel meshing with said first gear wheel, means for rotating said second gear wheel to cause rotation of said table and means acting intermittently to check the rotation of said table, whereby the roller will be rotated, said material preventing rotation of the roller when said checking means is in its inoperative position.

2. In a cotton mercerizing machine, in combination, a turntable, means for roating the same, a pair of rollers supported by said turntable and upon which the material to be treated is carried, a tank adapted to contain liquid in which the material to be treated is adapted to be immersed, and means for moving said tank up and down with respect to the rollers, whereby it may occupy operative or inoperative positions with respect to the material carried by the rollers.

3. In a cotton mercerizing machine, in combination, a turntable, means for rotating the same, a pair of rollers supported by said turntable and upon which the material to be treated is carried, a tank adapted to contain liquid in which the material to be treated is adapted to be immersed, means normally holding said tank in operative position with respect to the rollers, and means for depressing the tank as the rollers approach and leave the same, whereby it will be moved out of the path of the rollers, said means being inoperative when the rollers are in registry with the tank, whereby it will assume its operative position.

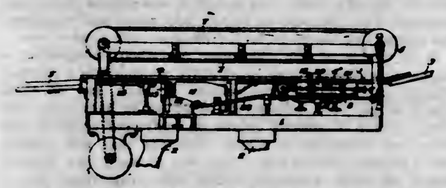
4. In a cotton mercerizing machine, in combination, a turntable, means for rotating the same, a pair of rollers supported by said turntable and upon which the material to be treated is carried, a tank adapted to contain liquid in which the material to be treated is adapted to be immersed, means normally holding said tank in operative position with respect to the rollers, and means carried by the turntable for depressing said tank.

5. In a cotton mercerizing machine, in combination, a turntable, means for rotating the same, a pair of rollers supported by said turntable and upon which the material to be treated is carried, a tank adapted to contain liquid in which the material to be treated is adapted to be immersed, means normally holding said tank in operative position with respect to the rollers, and means carried by the turntable in advance of said pair of rollers for depressing said tank.

[Claims 6 to 10 not printed in the Gazette.]

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1,038,153. MACHINE FOR APPLYING LABELS TO CANS OR THE LIKE. FREDERICK H. KNAPP, Westminster, Md., assignor to The Fred H. Knapp Company, Westminster, Md., a Corporation of Maryland. Filed Dec. 3, 1910. Serial No. 595,514. (Cl. 216—40.)



1. In a can labeling machine, the combination with a can runway, and means for applying labels to cans, of means for applying separated spots of paste to the can at the junction of the body and cover of the can, said means comprising a paste receptacle, a plurality of separated paste applying surfaces, and means for moving said surfaces to receive the paste from the receptacle and to deposit the same onto a moving can.

2. In a can labeling machine, the combination with a can runway and means for applying labels to cans, of means for applying spots of paste to the can at the junction of the body and cover of the can, said means comprising a paste receptacle arranged in the path of the cans, a plurality of separated paste applying surfaces mounted on the receptacle, and mechanism for moving said surfaces to receive the paste from the receptacle and to deposit the same on to a moving can.

3. In a can labeling machine, the combination of a runway, pick up pasting appliances, lap end pasting appliances, a label holder, a paste pot and means movable in the pot for applying separated spots of paste to the can at the juncture of the cover and body of the can, and an elongated guide on the pot arranged to one side of the last mentioned means and constituting a rest for the top end of the can.

4. In a labeling machine, labeling instrumentalities, a paste pot, pasting mechanism movable in the pot for applying a coating of paste for the end of the label, and mechanism movable in the pot for applying separated spots of paste at the juncture of the can body and can cover.

5 In a can labeling machine, the combination of a runway, pick up pasting appliances, lap end pasting appliances, a label holder, means for applying separated spots

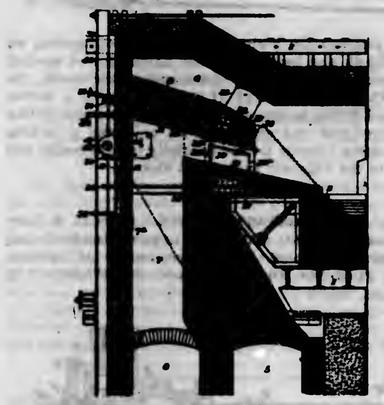


of paste to the can at the juncture of the cover and body of the can, and an elongated vertically adjustable guide arranged adjacent the last mentioned means for constituting a rest for the top end of the can.

[Claims 6 to 20 not printed in the Gazette.]

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1,038,154. REGENERATIVE REVERSING FURNACE. LUTHER L. KNOX, Avalon, Pa., assignor to Keystone Furnace Construction Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Feb. 17, 1911, Serial No. 609,205. Renewed Feb. 13, 1912. Serial No. 677,285. (Cl. 75—119.)



1. A regenerative reversing furnace having a wall or arch separating the air and gas ports, and a removable gas port forming and cooling structure forming the roof and side walls of said port and inserted underneath said wall or arch, and having a separately formed removable outer end wall or bulk head; substantially as described.

2. A port forming and cooling structure for furnaces, consisting of a hollow metal shell provided with water-circulating connections, said shell having top, bottom and depending side portions, and a separately formed removable outer end portion; substantially as described.

3. A regenerative furnace having gas and air ports, and a refractory wall or arch separating said ports, the gas port being formed by a metal shell inserted endwise underneath the said wall or arch, and having hollow, top, bottom, and side portions surrounding the gas port; substantially as described.

4. A regenerative furnace having gas and air ports, and a refractory wall or arch separating said ports, the gas port being formed by a metal shell inserted endwise underneath the said wall or arch, and having hollow, top, bottom, and side portions surrounding the gas port, the rear portion of said structure being open at the bottom to constitute the upper portion of a gas uptake; substantially as described.

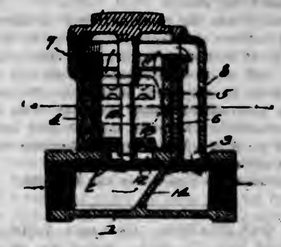
5. A gas port forming and cooling structure for furnaces, comprising a hollow metal shell extending from the mouth of the port to the rear wall of the gas uptake, and composed of top, bottom and side portions surrounding the gas port and having a rear part open at the bottom to constitute the upper portion of a gas uptake, together with a removable end wall or bulk head for closing the outer end portion of the structure; substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

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1,038,155. FLUID-CIRCULATING INDICATOR. GEORGE KOEHLER, Jr., Cincinnati, Ohio. Filed Jan. 29, 1912. Serial No. 674,053. (Cl. 116—31.)

1. The combination with a water pipe having two openings in its upper side, an inclined partition in said pipe and between said openings, a gage in communication with both of said openings and a float formed of a material which would normally sink, said float being arranged in said gage and in alinement with one of said openings.

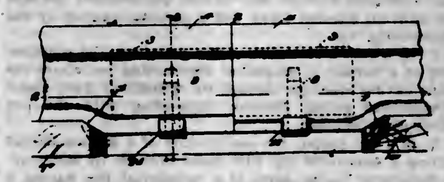


2. The combination with a pipe, of a gage mounted upon the upper side of the pipe, a hollow extension carried by one side of said gage and communicating with the top of the gage and also communicating at its bottom with the pipe, said pipe having also an opening communicating with the bottom of the gage, an inclined wall arranged in the pipe between the gage and the extension and adapted to direct the current of water through the last mentioned opening into the gage, and a metal float arranged in said gage and in alinement with said opening.

3. A device of the kind described comprising a pipe, a metal casing having sight openings therein, said casing being mounted upon the pipe, the pipe having an opening on its upper side concentric with said casing, a glass gage arranged in the casing, a cap inclosing the casing, a depending pin centrally carried by the cap, a metal float slidable upon said pin, a side extension carried by the casing, said extension communicating at the top with the upper portion of the casing and at the bottom with the pipe, and a partition arranged in the pipe between the opening communicating with the casing and the said extension, as and for the purpose set forth.

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1,038,156. RAIL-JOINT. ALBERT KURZAWSKEY, Nanticoke, Pa. Filed Aug. 29, 1911. Serial No. 646,747. (Cl. 238—8.)



1. In a rail joint, the combination of mating rail sections each provided with a longitudinally extending tongue and socket, each tongue and socket being provided with a keyway positioned intermediate the ends thereof partly in the socket wall and partly in the tongue, and a plate provided with a vertically disposed pin for insertion in the keyway, said plate having angularly disposed flanges adapted to be bent into engagement with the said rail base on each side thereof.

2. In a rail joint, the combination of mating rail ends, means for securely joining said ends, and a depending enlargement formed on the mating rails and having inclined terminals, said enlargement being adapted to fit between the adjacent cross ties with the inclined terminals bearing against the ties to prevent longitudinal movement of the rails.

3. In a rail joint, the combination of mating rail ends, each having the base near the end offset and pressed downwardly between the adjacent cross ties to form shoulders adapted to bear against said ties, and a tongue and socket formed on each rail for engagement with a socket and tongue formed on the adjacent rail end.

4. In a rail joint, the combination of mating rail ends each having enlargements which extend in a plane below the plane of the rail base and positioned between the ad-

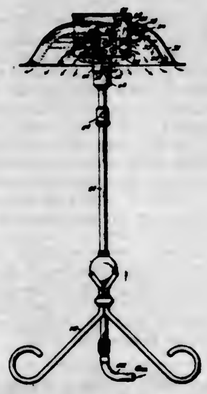
jacent cross ties to form shoulders adapted to bite into the corners of the ties, and a tongue and socket formed on each rail end adapted to engage with a socket and tongue of the adjacent rail end.

5. In a rail joint, the combination of mating rail ends each having sockets substantially triangular in cross section, one wall of each socket being extended longitudinally beyond the end of the adjacent rail section to form a tongue adapted to enter the socket in the mating rail, said tongue and socket being provided with registering grooves intermediate the ends thereof, and fastening devices seated in said grooves and embracing the base of the rails on each side thereof.

[Claims 6 to 8 not printed in the Gazette.]

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1,038,157. GAS-HEATER. GOLLADAY LAKE, Cleveland, Ohio. Filed Nov. 22, 1911. Serial No. 661,806. (Cl. 126—251.)



1. The combination, with a burner, of a distributing box supported thereby and having perforations through its wall, an internal sieve, and a deflector carried by the distributing box.

2. In a device of the character described, the combination of a burner, a cylindrical distributing box above the same having openings through its cylindrical wall, and a downwardly acting deflector connecting with the box above such openings.

3. In a gas heater, the combination of a Bunsen burner having a removable cap with holes through its side wall, a distributer in the form of a cylindrical box having a closed bottom resting on and secured to the top of the cap, said box having perforations through its cylindrical wall and having an internal sieve, and a deflector comprising two members of inverted basin shape, one above the other, both surrounding the box and held properly spaced apart, the lower member being perforated.

4. In a gas heater, the combination of a burner, a distributer in the form of a box with a closed bottom above the burner and with perforations in its side wall, the burner having flame holes beneath the box, and a deflector carried by the box.

5. In a gas heater, the combination of a Bunsen burner having a removable cap with flame holes in its side wall, a distributer comprising a hollow box having perforations in its side wall and having a closed bottom resting on and secured to said cap, and a downwardly and outwardly flaring deflector carried by said box.

[Claims 6 to 8 not printed in the Gazette.]

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1,038,158. TOOL-HOLDER. COLUMBUS K. LASEITER and FRANK E. BOCORNSLSKI, Richmond, Va. Filed Apr. 3, 1912. Serial No. 688,177. (Cl. 29—100.)

1. The combination with a cutter-holder, comprising a shank and a head integral therewith, the latter having a slot passing therethrough, the sides of said slot being parallel and the ends concave and converging, of a metal-cutting tool fitting in and abutting one end of said slot, a wedge fitting in and abutting the other end of said slot, the adjacent faces of said tool and wedge contacting, and a locking-screw engaging threads formed partially in said wedge and partly in the adjacent end of said slot.



2. The combination with a cutter-holder, comprising an integral shank and head, the latter having a slot passing therethrough at right angles to the axis of the shank, the ends of which slot converge at equal angles, of a metal-cutting tool fitting in one end of said slot, a wedge fitting in the other end and abutting said tool, and a locking screw engaging threads formed partially in said wedge and partially in the adjacent end of said slot.

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1,038,159. THERMOSTATIC VALVE. LINDLEY S. LAWSON, Homestead, Pa., assignor to Lawson Manufacturing Company, Homestead, Pa., a Corporation of Pennsylvania. Filed Nov. 10, 1911. Serial No. 659,580. (Cl. 236—5.)



1. The combination of a valve body having a gas inlet and a gas outlet, the body having a valve seat interposed between the inlet and outlet and with the body open outwardly from said seat and threaded internally, a threaded head fitting within and closing the open portion of the body and provided with a central opening, a valve coöperating with the seat and movable between the latter and said head and having a stem which extends through the head opening, a cap-like head secured to the projecting stem and fitting and rotatable relatively to the body, a tubular thermostatic device extending from the valve body, and a rod secured to the valve and adjustably connected to the thermostatic device.

2. The combination of a valve body having a valve seat and at one side a rim-like extension and with temperature indications on said extension, a valve, a thermostatic device projecting from the valve body, a rotatable rod secured to the valve and having threaded connection with the thermostatic device, and a cap secured to the valve and flanged to inclose the rim-like extension of the body, the flange of the cap being recessed to expose said temperature indications, and the cap having a pointer for registering with one or another of the indications.

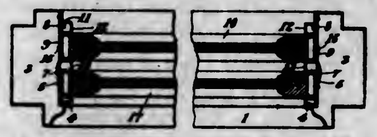
3. The combination of a valve body constructed at one side with an annular slotted extension a thermostatic valve, a valve operating rod rotatable for varying the throw of the valve, a head secured to the valve adjacent the annular body extension, a lug on the head movable in the slot of the annular extension for limiting the movement of the head, the body having temperature indications, and the head having a pointer for determining the temperature at which the valve is set to close.

4. The combination of a valve body having a gas inlet and a gas outlet, the body having a valve seat interposed between the inlet and outlet and with the body open outwardly from said seat, a head secured within and closing the open portion of the body and provided with a central opening, a valve coöperating with the seat and movable between the latter and said head and having a stem which extends through the head opening, a head secured to the projecting stem and closing the outer open portion of the valve body and rotatable relatively thereto, a thermostatic device extending from the valve body, and a rod secured to the valve and adjustably connected to the thermostatic device.



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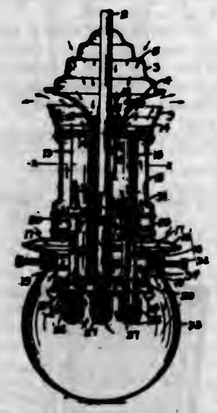
1,038,160. METAL WINDOW-FRAME. ELOY R. LEONARD, Woodcliff, N. J. Filed Jan. 24, 1912. Serial No. 673,161. (Cl. 189—73.)



The combination, with a metal window-frame, of hollow sides each formed of a single piece of sheet metal the vertical edges whereof are separated and are bent to form backwardly opening grooves the forward one lying outside of and the other inside of the plane of the bottom of the sash groove, metal cross braces bent to accommodate the outwardly-disposed, grooved edges, metal guide rails provided with forwardly extending edges lying in different planes and engaging in said side frame grooves, and means for attaching said guide rails to said braces.

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1,038,161. LAMP. WILLIAM S. LEVINGS, Minneapolis, Minn. Filed Oct. 19, 1909. Serial No. 523,533. (Cl. 67—94.)



1. A lamp, comprising a supply pipe and burner supported thereon, a jacket or casing, an exhaust tube within said casing arranged to receive the products of combustion from said burner, a collar below said jacket having a series of air intake ports, the space beneath said collar being in communication with the burner and with the interior of the jacket above the collar, and a globe inclosing said burner below said collar, said jacket having a down draft fresh air inlet opening in the upper part thereof and said exhaust tube having ports communicating with the interior of said casing, at a point above the openings in said collar, the suction established in said tube creating a circulation through the ports in said collar downward to the burner and upward through the jacket and also downward from the down draft inlet in said casing, substantially as described.

2. A lamp, comprising a gas supply pipe and a burner therefor, a jacket having a down draft fresh air inlet in its upper portion, an exhaust flue arranged to receive the products of combustion from said burner and having a discharge passage into the open air and inclosed by said jacket, a globe inclosing said burner, said jacket having air discharge ports at its upper portion through which the air, within the casing heated from said flue, may escape and the suction in said flue creating a draft through said down draft air inlet and within said jacket.

3. A lamp, comprising a gas pipe and a burner therefor, a crown mounted on said pipe and having down draft intake ports therein and a tube inclosing said pipe and communicating with said ports, a cup also inclosing said pipe and having a series of ports therein, exhaust flues connected at their upper ends with some of said ports, a casing inclosing said flues and spaced therefrom, a plate above said burner having a port therein to receive the lower end of said exhaust tube, said tube having ports in its walls communicating with the chamber in said casing, the products of combustion passing up through said tube creating a suction therein and drawing the air from within said casing and discharging it through the ports in said cup, the down draft fresh air tube inclosing said pipe supplying air to said casing and burner.

4. A lamp, comprising a pipe and mixing chambers and burners therefor, a casing inclosing said mixing chambers, exhaust tubes arranged to receive the products of combustion from said burners and conduct them upwardly through said casing, a cup provided at the upper end of said casing having ports therein, some of which are connected with said exhaust tubes, said cup being open at the top to permit the products of combustion to pass out therethrough, and a fresh air inlet pipe within said casing at its upper portion communicating with the outer air, said exhaust tubes having a series of ports through the walls thereof leading from the interior of said casing, the suction in said tubes creating a circulation within said casing and drawing fresh air therein and expelling the foul air through said tubes and ports, a globe inclosing said burners and means having air inlet ports supplying fresh air to said globe and burners.

5. A lamp comprising a supply pipe and mixing chambers and burners, a casing inclosing said mixing chambers, inlets for admitting air to the casing and the burners, and exhaust tubes arranged to receive products of combustion from the burners and conduct them upwardly through the casing, said exhaust tubes having ports arranged to communicate with the casing adjacent to the mixing chambers to draw air from the casing toward the mixing chambers for supply of air to the chambers, substantially as described.

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1,038,162. LOW-HUNG MOTOR-TRUCK. SOLOMON J. LEVY, San Francisco, Cal. Filed Apr. 6, 1911. Serial No. 619,275. (Cl. 21—114.)



An auto truck having in combination, steering wheels, driving wheels, a frame extending between the wheels having a portion projecting forwardly in a plane above the center of the steering wheels and having another portion, the upper surface of which is in a plane approximate the center of the driving wheels, a motor upon the elevated portion of said frame, a drive shaft beneath the other or main portion of the frame, the two parts of the frame having adjacent ends projected one past the other, parallel spaced members connecting these portions and forming a chamber, and a transmission mechanism contained within said chamber.

1,038,163. PUSHER ATTACHMENT FOR HAY-RAKES. BENJAMIN F. LEWIS and JOHN W. LEWIS, Hartland, Kans. Filed Feb. 6, 1912. Serial No. 675,713. (Cl. 56—137.)



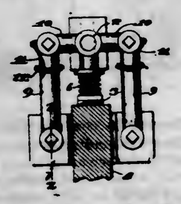
The combination with a hay gatherer including a main frame and a rake head, of a pulley supported by the main frame, a hand-lever fulcrumed on said main frame, a hay pusher slidably mounted on the rake head, a frame connected to the pusher and disposed below the main frame, earth-engaging teeth carried by the pusher frame, a longitudinal rod connected to the pusher frame, a ring slidably mounted on the rod, and a chain trained over the pulley and connecting the lever and the ring for raising and lowering the pusher frame.

1,038,164. DEVICE FOR REMOVING EYES FROM POTATOES, PINEAPPLES, &c. UNA LOSH, Philadelphia, Pa. Filed Nov. 9, 1910. Serial No. 591,413. (Cl. 146—6.)



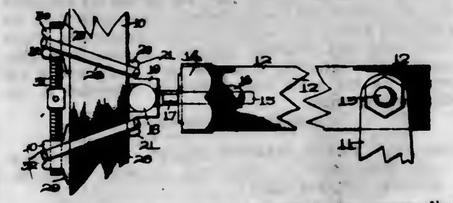
A device of the character described, comprising a single integral piece of spring sheet metal, bowed between its ends, enlarged transversely at its intermediate bowed portions to fit the palm of the hand, and enlarged between said bowed portions and its free ends to receive the thumb and fingers respectively, semi-conical cutters at the free ends of said device, said cutters having sharpened adjacent edges, the outer walls of said cutters inclining inwardly from their inner to their outer ends, and the members of said device which are formed by the bending positioned normally parallel between said cutters and said intermediate portion, substantially as described.

1,038,165. DEVICE FOR LUBRICATING ELEVATOR GUIDE-RAILS. JOHN FRANKLIN MACINDOE, Philadelphia, Pa., assignor to American Engineering & Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 4, 1909. Serial No. 475,973. (Cl. 184—21.)



In a device of the character described, in combination, a grease cup, a conduit connected to said cup, an arm pivotally connected to said conduit, a notched segment carried by said arm, a spring carried by said conduit adapted to engage said segment to throw said arm inward, and a grease distributer pivotally carried by said arm, said arm and distributer forming a continuation of said conduit.

1,038,166. PICKER-OPERATING DEVICE. JAMES F. MACWILLIAM, Hubbardston, Mass. Filed Nov. 9, 1910. Serial No. 591,413. (Cl. 139—48.)



1. The combination of a pair of links for surrounding a picker stick, means for adjustably fixing the links to the picker stick, a sweep stick, and a ball and socket joint for connecting the links with the sweep stick.

2. The combination of a pair of links adapted to surround a picker stick, a screw for adjustably clamping them to the picker stick, a sweep stick, and a ball and socket joint for connecting the links with the sweep stick.

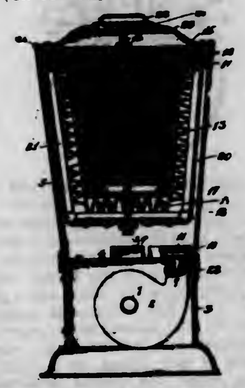
3. As an article of manufacture, a lug strap for a picker-stick comprising a plate adapted to be located on one edge of the picker stick, two plates adapted to be located on the other edge, each having projecting centrally therefrom, a boss having screw threads and constituting a nut, the outer surface of said bosses being depressed, a screw entering said nuts for adjusting said plates toward and from each other, and two links adapted to surround the picker stick and each engaging the depressed portions of said bosses.

4. In a loom, the combination with a picker stick, and a rocking operating arm therefor, of a metallic lug strap fixed on the picker stick, movable means for connecting the metallic lug strap with said arm, means whereby the lug strap can be tightened or loosened and moved along the picker stick, a ball and socket joint connected with the lug strap, and means for adjustably connecting the universal joint with the rocking arm.

5. In a loom, the combination with a picker stick, and a rocking arm for operating it, of a metallic adjustable lug strap fixed on the picker stick, a sweep stick pivoted to the operating arm, a ball and socket on the lug strap at the edge of the picker stick, and means for adjustably connecting said joint and sweep stick.

[Claims 6 to 16 not printed in the Gazette.]

1,038,167. VACUUM-CLEANER. GEORGE MAITLAND, Detroit, Mich. Filed Dec. 14, 1910. Serial No. 597,239. (Cl. 83—47.)



1. A dust separator, having in combination, a receptacle, a vertically depending strainer, a vertically depending rod extending through the axis and the bottom of the strainer, packing for said rod and said strainer parts in

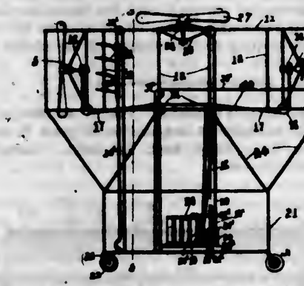


engagement, and for said strainer parts in engagement with the receptacle and a brush fastened to said rod conformable to the outline of the strainer and revoluble with said rod to sweep the exterior of the strainer, substantially as described.

2. A dust separator, having in combination, a receptacle, through which the air is adapted to vertically traverse, a vertically depending strainer, a vertically depending rod extending along the axis and through the bottom of the strainer, packing for said rod and said strainer parts in engagement and for said strainer parts in engagement with said receptacle, a brush extending along the bottom of the strainer and having an upright extension adapted to sweep the sides of the strainer, revoluble with said rod, the said rod, strainer and brush being removable as a unit through the top of the receptacle without inversion or partial inversion, substantially as described.

3. A dust separator having in combination, a receptacle, a depending and distended strainer, a vertically depending rod journaled on the axis of said strainer, a brush attached to and adjustable vertically on said rod and adapted to sweep the exterior of the bottom of the strainer and an upright brush extension attached to and adjustable laterally along said first mentioned brush and adapted to sweep the exterior of the side of the strainer, substantially as described.

1,038,168. FLYING-MACHINE. JAMES E. MARSHALL, New York, N. Y. Filed Aug. 15, 1910. Serial No. 577,161. (Cl. 244—15.)



1. In an aeroplane, a pair of circularly shaped planes disposed in vertical spaced relation to each other, a carrier suspended from the lowermost plane diametrically thereof, a horizontally rotatable propeller wheel supported axially above the uppermost plane and front and rear vertically rotatable propeller wheels disposed between said planes, the axes of all of said wheels being arranged in a common plane.

2. In an aeroplane, a pair of circularly shaped planes disposed in vertical spaced relation to each other, a carrier suspended from the lowermost plane, a horizontally rotatable propeller wheel supported above the center of the uppermost plane, front and rear vertically rotatable propeller wheels disposed between said planes and means for independently operating the horizontally and vertically rotatable propeller wheels, said wheels being arranged on a line diametrically of the planes.

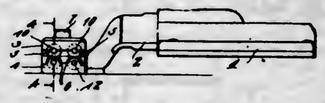
3. In an aeroplane, a pair of circularly shaped planes disposed in spaced relation one above the other, a wheeled carrier suspended from the lowermost plane, a horizontally rotatable propeller wheel supported above the uppermost plane, front and rear vertically rotatable propeller wheels simultaneously operable, means for independently operating the horizontally and vertically rotatable propeller wheels, a plurality of horizontally disposed guide planes pivotally arranged rearwardly of and adjacent to the forward vertically rotatable propeller wheel and operating means therefor.

4. The combination with a pair of spaced circularly shaped planes located one above the other in coincident relation; of a carrier supported by said planes, a plurality of horizontally pivoted guide planes arranged for pivotal movement at the forward portions of the planes, independently rotatable horizontally and vertically arranged propeller wheels, one of said propeller wheels being arranged centrally above the uppermost circular plane and the remaining propeller wheels being arranged upon sides diametrically opposite thereof, means for simultaneously rotating the forward and rear propellers and means for simultaneously raising or inclining said guide planes.

5. The combination with a pair of spaced circularly shaped planes of the same diameter and positioned in coincident relation; of a carrier suspended by said planes, a plurality of horizontally pivoted guide planes disposed between the first named planes and adjacent to the forward ends thereof, means for operating said guide planes to raise and lower the machine, independently rotatable horizontally and vertically arranged propeller wheels, one of said propeller wheels being arranged upon the axial line of the planes and the remaining propeller wheels being arranged diametrically opposite thereto and vertically disposed pivotal rudders supported by said first named planes rearwardly thereof for guiding the machine.

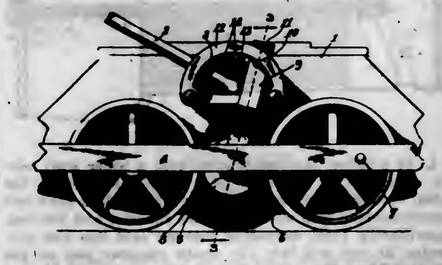
[Claims 6 and 7 not printed in the Gazette.]

1,038,169. LOOM-TEMPLE. JAMES MARVEL, New Bedford, Mass. Filed Feb. 19, 1912. Serial No. 678,505. (Cl. 139—86.)



A loom temple comprising upper and lower jaws, a tongue formed on the connected end of the upper jaw and removably received by a correspondingly shaped groove formed in the lower jaw, a bolt passing through the connected ends of the jaws, whereby the jaws are rigidly held in perfect alinement with one another with their opposite ends separated, shafts passing through the jaws and detachably secured to the connected ends of the same, said shafts being arranged in pairs and each pair being in vertical alinement, the lower shaft of each pair being journaled at both ends within the lower jaw, and the upper shaft of each pair being journaled at one end in the upper jaw and at its free end engaged with depressions formed in the same, and rolls revolubly mounted upon the shafts and of uniform dimensions throughout their entire length, said rolls being spirally constructed in opposite directions, whereby the peripheries of the rolls are closely engaged between the disconnected receiving ends of the jaws.

1,038,170. BRUSH ADJUSTMENT FOR CARPET-SWEEPERS. FRANCIS C. MASON and JOHN W. SHANAHAN, Grand Rapids, Mich., assignors to Bissell Carpet Sweeper Co., Grand Rapids, Mich., a Corporation of Michigan. Filed Dec. 11, 1911. Serial No. 665,013. (Cl. 15—60.)



1. In a carpet sweeper the combination of an arm pivoted at one end, a pintle carried by the other end of

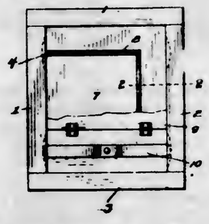
the arm on which pintle the brush shaft is journaled, a supporting and adjusting member pivoted on the pintle at the lower end, a ball guard having a series of openings therein at different vertical positions and a pin in the supporting member adapted to enter any one of the said openings.

2. In a carpet sweeper the combination of a supporting and adjusting member connected to the pintle on which the brush shaft is journaled and extending upward therefrom, a ball guard having an eccentric recess and a series of openings in the bottom of the recesses, a pin in said member traversing the recess and engaging any one of the openings and a guard attached to the ball guard and extending outside of said member.

3. In a carpet sweeper the combination of an arm pivoted at one end to the end guard of the sweeper and opposite the axis of the brush shaft, a pintle fixed in the arm on which pintle the brush shaft is journaled, a supporting and adjusting member pivoted on the pintle at its lower end and extending upward therefrom, a pin in said member, a ball guard having a segmental recess traversed by the pin and openings in the bottom of the recess to receive the pin and a segmental guard attached to the brush guard and extending outside of said member to retain the same with the pin in the recess.

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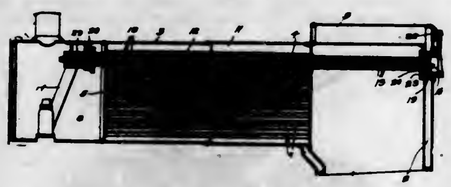
1,038,171. PHOTOGRAPHIC-PRINTING FRAME. ETTA S. MCADAM, Drummond, Mich. Filed Aug. 11, 1909. Serial No. 512,427. (Cl. 95—77.)



In combination with a photographic printing frame having side and end members formed with plate engaging shoulders, an attachment consisting of a plurality of right angular bars adapted to engage major portions of said shoulders and formed with shoulders on their inner edges adapted to engage a plate, said attachment when positioned on the shoulders serving to support a plate upon its shoulders and the shoulders of the frame not engaged thereby.

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1,038,172. SUPERHEATER. JAMES M. MCCLELLON, Everett, Mass. Original application filed Jan. 30, 1905, Serial No. 243,356. Divided and this application filed Dec. 5, 1906. Serial No. 346,367. (Cl. 122—463.)



1. In a boiler, the combination with a boiler shell having a fire box at one end and a smoke chamber at the other, of an enlarged flue extending through said shell and communicating both with the smoke chamber and fire box, superheating tubes extending through said flue and projecting at one end into the smoke chamber and at the other end into the combustion chamber, means to connect the latter ends of the tubes with the steam-generating compartment of the boiler, and a connection at the other end of the tubes leading to the cylinders of the engine to be operated.

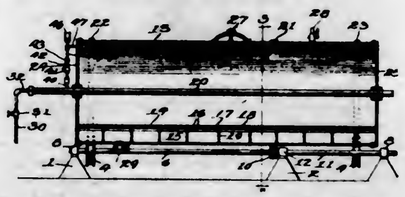
2. In a boiler, the combination with a boiler shell having a fire box at one end and a smoke chamber at the other, of superheating tubes extending through said shell and projecting at one end into the combustion chamber of the fire box and at the other end into the smoke chamber, means to protect said tubes from contact with the water in the shell, means to connect the latter end of said tubes with the steam-generating space of the boiler, and a connection at the other end of said tubes for delivering superheated steam therefrom.

3. In a locomotive boiler, the combination with a boiler shell having a smoke chamber at one end and a fire box at the other, of an enlarged flue extending through the shell and communicating at one end with the combustion chamber of the fire box and at the other end with the smoke chamber, superheating tubes extending through said flue and projecting at one end into said combustion chamber and at the other end into the smoke chamber, means to connect the former end with the steam-generating spaces of the boiler, and a connection with the other end of said tubes within the smoke chamber for delivering superheated steam therefrom.

4. In a boiler, the combination with a boiler shell having a fire box at one end and a smoke chamber at the other, of an enlarged flue extending through said shell and communicating both with the smoke chamber and fire box, a superheating tube extending through said flue and projecting at one end into the combustion chamber, means to connect said end of the tube with the steam-generating compartment of the boiler, and a connection at the other end of said tube leading to the cylinder of the engine to be operated.

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1,038,173. CYANID-CYLINDER. HENRY B. MEADE, Los Angeles, Cal., assignor of one-half to William F. Shedd, Los Angeles, Cal. Filed Sept. 14, 1911. Serial No. 649,390. (Cl. 75—86.)



1. In a cyanid treating mechanism, a revoluble central hollow shaft, a barrel mounted on the shaft, means for feeding fluid under pressure to the end of the hollow shaft, a pipe leading transversely from the shaft and entering the end of the barrel, a pressure gage connected to the pipe, and a check valve on the pipe on each side of the gage to prevent passage of pressure from barrel back to the shaft.

2. A cyanid treating mechanism, comprising a revoluble hollow shaft, a barrel mounted on the shaft and adapted to hold the materials to be treated, a convex filter bottom for the cylinder comprising an upwardly convex perforate wall and a fabric covering for the wall, and means for continuously injecting fluid under pressure into the barrel while in rotation, comprising means for feeding fluid under pressure to the end of the hollow shaft, a pipe leading transversely from the shaft and entering the outer end portion of the barrel, a pressure gage connected to the pipe, and check valves on the pipe one on each side of the gage to prevent the backing of pressure from the barrel to the shaft.

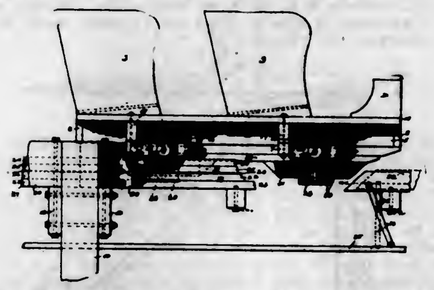
3. In a cyanid treating mechanism, a revoluble central hollow shaft, a barrel thereon, means for feeding fluid under pressure to the end of the hollow shaft, a pipe leading from the shaft and discharging into the barrel interior near its periphery, a pressure gage connected to the pipe, and a check valve to prevent passage of pressure from the barrel.

4. In a cyanid treating mechanism, a revoluble central hollow shaft, a barrel thereon, means for feeding fluid under pressure to the end of the hollow shaft, a pipe leading from the shaft and discharging into the barrel interior near its periphery, and a check valve to prevent passage of pressure from the barrel.



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1,038,174. PLEASURE-RAILWAY STRUCTURE. JOHN A. MILLER, Homewood, Ill. Filed Nov. 24, 1911. Serial No. 662,196. (Cl. 104—111.)

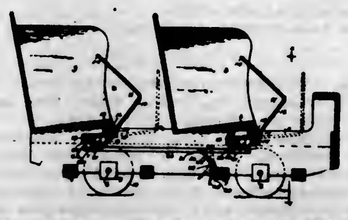


1. In pleasure railway systems, the combination of a supporting structure, flat beams on said supporting structure, and a flat rail on each beam, a vehicle having supporting wheels engaging said flat rails, guard beams mounted on said flat track beams along the inner edges thereof, a vertical flat rail engaging the inner face of each flat rail beam and the guard beam thereon, bearing frames suspended from the floor of the vehicle adjacent said vertical rails, and guard rollers journaled in said frames for engaging said vertical rails.

2. In pleasure railway systems, the combination of a supporting structure, parallel flat track beams on said supporting structure and a flat rail on each beam, a vehicle having supporting wheels for engaging said flat rails, a guard beam on each track beam at the inner edge thereof, a bearing frame secured to the under side of the vehicle floor, and a guard wheel journaled in each bearing frame, the outer sides of the guard beams acting as abutments to prevent lateral displacement of the vehicle on its tracks, and the inner sides of the guard beams acting as tracks for said guard wheels.

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1,038,175. HANDLE-BAR MECHANISM FOR PLEASURE-RAILWAYS. JOHN A. MILLER, Homewood, Ill. Filed Feb. 15, 1912. Serial No. 677,815. (Cl. 104—111.)



1. In a pleasure vehicle, the combination with the vehicle body and a seat thereon, of a handle bar structure pivoted at an intermediate point to said body and adapted to swing to one position to allow entrance of passengers to the seat and to another position to lock the passengers in the seat, and a detent for engaging the lower end of said handle bar structure to lock said structure in its latter position.

2. In a pleasure railway car, the combination with the car body and a seat thereon, of a handle bar structure pivoted at an intermediate point to the car body, a detent arm pivoted to the car body and held in raised position by the handle bar structure when in its open position and adapted when said handle bar structure is moved into locking position to fall by gravity into detent engagement with the lower end of said handle bar structure, and means controlled from the exterior of the car for raising said detent lever to release the handle bar structure and to allow said structure to move to its open position.

3. In a pleasure railway car, the combination with the car body and a seat thereon, of a handle bar structure pivoted at its sides to the car body and extending a distance below its pivot points and adapted to swing into an open position and into a closed position with reference to the seat, a detent arm pivoted to the car body adjacent the lower end of the handle bar structure, said handle bar structure being overbalanced to normally rest in open position and to hold the detent arm in its upward position, said arm being free to fall by gravity when the handle bar structure is moved to its locking position, and an abutment for stopping the arm, said arm when thus stopped being in detent engagement with the lower end of the handle bar structure to lock such structure in its closed position.

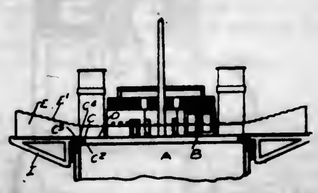
4. In a pleasure railway car, the combination with the car body and a seat thereon, of a handle bar structure pivoted at its sides to the car body and extending a distance below its pivot points and adapted to swing into an open position and into a closed position with reference to the seat, a detent arm pivoted to the car body adjacent the lower end of the handle bar structure, said handle bar structure being overbalanced to normally rest in open position and to hold the detent arm in its upward position, said arm being free to fall by gravity when the handle bar structure is moved to its locking position, an abutment for stopping the arm, said arm when thus stopped being in detent engagement with the lower end of the handle bar structure to lock such structure in its closed position, and means controllable from the exterior of the car for raising said abutment to break the detent engagement between said arm and handle bar structure and to allow said structure to fall to its open position.

5. In a pleasure railway car, the combination with the car body and a plurality of seats thereon, of a handle bar structure for each seat pivoted at an intermediate point to the car body and overbalanced to tend to fall to an open position, a detent link associated with each handle bar structure and pivoted to the car body adjacent the lower end of such structure, said detent links being normally held out of detent engagement by the handle bar structures and adapted to fall when said handle bar structures are raised to locking position to then move into detent engagement with the lower ends of said handle bar structures to lock said structures in closed position, and means controllable from the exterior of the car for simultaneously moving the links out of detent engagement with said handle bar structures to allow said structures and links to return to their normal positions.

[Claims 6 to 11 not printed in the Gazette.]

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1,038,176. BOAT. FREDERICK SAMUEL MILLICAN, Vancouver, British Columbia, Canada. Filed Feb. 7, 1912. Serial No. 675,964. (Cl. 114—5.)



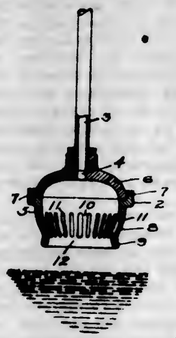
1. In a boat, sections having tiers of seats arranged on top thereof, means for slidably supporting the seats on the boat deck, means for supporting the sections over the side of the boat, and means for sliding the sections laterally

from the boat deck onto the supports located over the side of the boat, as and for the purpose specified.

2. In a boat, sections having tiers of seats arranged on top thereof, guide-ways on the deck for supporting the sections, swinging brackets secured to the side of the boat, and means for sliding the sections across the deck onto the supporting brackets as and for the purpose specified.

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1,038,177. GLASS-HANDLING APPARATUS. JOHN E. MILLIREN, Falls Creek, Pa. Filed Jan. 22, 1912. Serial No. 672,778. (Cl. 49—17.1.)



1. A glass drawing bait comprising a body portion having a dependent annular wall, the interior of which is provided with substantially upright and alternately disposed grooves and projections.

2. A glass drawing bait comprising a body portion having a depending annular wall the interior of which is provided with substantially vertically disposed projections.

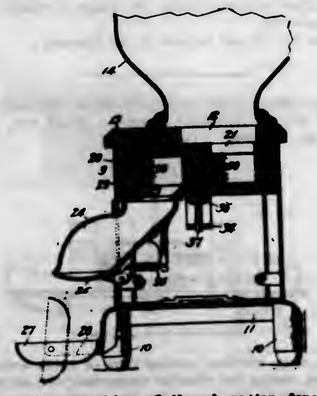
3. A glass drawing bait comprising a body portion having a depending annular wall the interior of which is provided with substantially vertically disposed ribs arranged to converge toward one another at the bottom.

4. A glass drawing bait comprising a body portion having a depending annular wall the interior of which is provided with substantially vertically disposed ribs having a varying cross-sectional shape from end to end.

5. A glass drawing bait comprising a body portion having a depending annular wall the interior of which converges downwardly, and which carries a series of substantially vertically disposed ribs.

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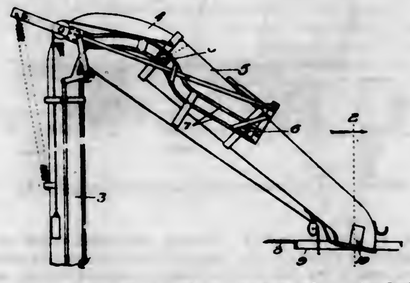
1,038,178. VENDING-MACHINE. HERBERT S. MILLS, Oak Park, Ill. Filed Dec. 23, 1911. Serial No. 667,539. (Cl. 211—8.)



In a vending machine of the character described, the combination of a casing having a top-opening, a box in the casing having a top receiving-opening located beneath the opening in the casing and a bottom discharge-opening, a pocket-containing receiving and delivery wheel centrally journaled in the box, with its upper surfaces moving in contact with the box-top, the top receiving-opening being substantially crescent shaped and cut eccentrically of the journal of the wheel, a brush mounted in said crescent shaped opening adjacent its central portion and extending across the greater portion thereof, said brush depending through said opening into contact with the upper surface of said delivery wheel, and means for rotating said wheel.

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1,038,179. STAND-PIPE. MOSES M. MOORE, Chicago, Ill., assignor to T. W. Snow Construction Company, a Corporation of Illinois. Filed Apr. 15, 1912. Serial No. 691,012. (Cl. 137—21.)



1. The combination with a tender, of a stand-pipe formed with a vertically-adjustable outlet-section for insertion into the inlet-opening of the tender, and means operating automatically to lift said section when the tender moves, for the purpose set forth.

2. In a stand-pipe formed with a vertically-adjustable outlet-section for insertion into the inlet-opening of a tender, means on said outlet-section coöperating with the tender for lifting said section when the tender moves, for the purpose set forth.

3. In a stand-pipe formed with a vertically-adjustable outlet-section for insertion into the inlet-opening of a tender, oppositely-extending members on said section cooperating with the tender for lifting said section when the tender moves, for the purpose set forth.

4. In a stand-pipe formed with a vertically-adjustable outlet-section for insertion into the inlet-opening of a tender, oppositely-extending arms on said section at which the stand-pipe rests on the tender, operating to lift said section when the tender moves, for the purpose set forth.

5. In a stand-pipe formed with a vertically-adjustable outlet-section for insertion into the inlet-opening of a tender, an upwardly inclined arm positioned on said section to engage with a wall of said opening for lifting said section when the tender moves.

[Claim 6 not printed in the Gazette.]

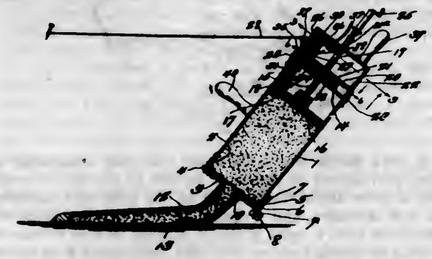
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1,038,180. PLASTER-POINTING-UP DEVICE. WILLIAM C. MORELAND, Clay Center, Kans. Filed Jan. 5, 1912. Serial No. 669,569. (Cl. 72—138.)

1. In combination, a main cylinder, a supplemental cylinder connected thereto, a plunger rod extending through the cylinders including a plunger at one end operable in the main cylinder, the rod having an operated gear between the cylinders, and a mechanism having an unreeling wire to operate the same, to actuate the gear of the plunger rod, and a trowel through which the material is forced by the plunger.

2. In combination, a main cylinder, a supplemental cylinder connected thereto, a plunger rod extending through the cylinders including a plunger at one end operable in the main cylinder, the rod having an operated gear between the cylinders, an additional gear between the cylinders and meshing with the gear of the plunger rod, a shaft on which the additional gear rotates having a ratchet and pawl connection therewith, a reel on said shaft, a wire wound on the reel, adapted to unwind, to impart motion to the reel and shaft, and thence to the intermeshing gears, spring tensioned gears for rotating the shaft of the reel in a reverse direction, to rewind the wire on the reel, without rotating the additional gear, and a detachable trowel through which the plastic or other material is forced by the plunger.

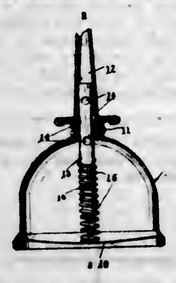




3. In combination, a main cylinder, a supplemental cylinder connected thereto, a plunger rod extending through the cylinders including a plunger at one end operable in the main cylinder, the rod having an operating gear between the cylinders, an additional gear between the cylinders and meshing with the gear of the plunger rod, a shaft on which the additional gear rotates having a ratchet and pawl connection therewith, a reel on said shaft, a wire wound on the reel, adapted to unwind, to impart motion to the reel and shaft, and thence to the intermeshing gears, spring tensioned gears for rotating the shaft of the reel in a reverse direction, to rewind the wire on the reel, without rotating the additional gear, and a detachable trowel through which the plastic or other material is forced by the plunger.

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1,038,181. SPRING ATTACHMENT FOR OIL-CANS. AXEL E. MOSSBERG, Westpoint, Nebr. Filed Sept. 7, 1911. Serial No. 648,218. (Cl. 221—48.)

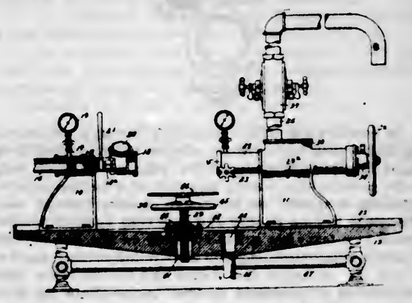


The combination with an oil can including a body having a flexible bottom adapted to be depressed to effect the discharge of oil from the can, said body having a threaded opening therein, a discharge spout having one end removably mounted in said opening, a perforated tube extending through said opening with one end disposed exteriorly of the body in the bore of the spout and engaging the inner walls thereof, and the other end disposed within the body, a spring encircling the end of the tube within the body and bearing against the bottom thereof, a pin extending transversely through the tube and disposed between the coils of said spring whereby the rotation of the tube relatively to the spring will move the latter longitudinally of the tube and vary the tension of the spring against the bottom of the body.

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1,038,182. FLUID-METER TESTER. PHILIP MUELLER, Decatur, Ill., assignor to H. Mueller Manufacturing Company, Decatur, Ill., a Corporation of Illinois. Filed Dec. 1, 1910. Serial No. 595,047. (Cl. 73—51.)

1. A meter tester comprising a table, two heads supported on said table, one of said heads being movable toward and from the other, means for so moving said head, a supply pipe to one head, and a discharge leading from the other head, a water retaining wall around the sides of said table, means for supporting a meter between said heads and in connection therewith, said means comprising an upright member passing through the body of the table, and a mound surrounding said member and rising from the table a height substantially equal the height of said retaining wall.



2. A meter tester comprising a table having a retaining wall at its edge, two heads supported on said table, one of said heads being movable toward and from the other, means for so moving said head, a supply pipe to one head, and a discharge leading from the other head, means for supporting a meter between said heads and in connection therewith, said means comprising an upright member passing through the body of the table, and a collar surrounding said member and making a water tight joint with the table, said collar being of a height substantially equal to the height of said retaining wall.

3. A meter tester comprising a table, two heads supported on said table, one of said heads being movable toward and from the other, means for so moving said head, a supply pipe to one head, and a discharge leading from the other head, means for supporting a meter between said heads and in connection therewith, said means comprising an upright member passing through the body of the table, and a flanged collar supporting said member, the flange of said collar being of a height substantially equal to the top of said retaining wall.

4. A meter tester comprising a frame, spaced stocks on the frame, a supply pipe leading to one of the stocks, a discharge pipe leading from the opposite stock, a casting extending inwardly from one stock and having at its inner end a valve casing, a valve in the casing controlling the flow of fluid therethrough, a head on the inner end of the valve casing, a spindle extending inwardly from the opposite stock and having a second valve casing at its inner end, a valve in said second valve casing controlling the flow of fluid therethrough, a second head on the inner end of the second valve casing, and a meter support on the frame between the heads adapted to support the meter connected to the heads.

5. A meter tester comprising a frame, spaced stocks on the frame, members extending inwardly from the stocks and having valves at their inner ends, heads carried by the members inwardly of the valves and adapted for attachment to a meter, a support on the frame between the heads for a meter, and inlet and discharge pipes connected to said members.

[Claims 6 to 23 not printed in the Gazette.]

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1,038,183. SEAL FOR SERVICE-COCKS. PHILIP MUELLER, Decatur, Ill., assignor to H. Mueller Manufacturing Company, Decatur, Ill., a Corporation of Illinois. Filed Dec. 28, 1911. Serial No. 668,867. (Cl. 137—7.)

1. In combination with a cock body having a perforated wing, and a cock key having a similar wing adapted to be brought into parallelism with the wing on the cock body and perforations therein into line, of a locking member comprising a smooth pin passing through said perforations

to hold the key and cock body against relative movement, a frangible collar mounted on said pin, and a screw for connecting said collar to the pin, said screw having a weakened portion intermediate its ends whereby its headed end may be broken off below the surface of the collar.



2. In combination with a cock body having a perforated wing, and a cock key having a similar wing adapted to be brought into parallelism with the wing on the cock body and the perforations therein into line, of a locking member comprising a smooth surfaced pin passing through said perforations to hold the key and cock body against relative movement, a frangible collar mounted on the end of said pin, and a screw threaded into said collar to bear against said pin for retaining said collar and pin in place, said screw having a weakened portion intermediate its ends whereby its headed end may be broken off below the surface of the collar.

3. In combination with a cock body having a perforated wing, and a cock key having a similar wing adapted to be brought into parallelism with the wing on the cock body and the perforations therein into line, of a locking member comprising a headed pin having a smooth body passing through said perforations to hold the key and cock body against relative movement, a frangible collar having an elongated opening therethrough for the end of said pin to provide breaking spaces on opposite sides of the pin, and a screw threaded into said collar to bear against said pin for retaining both collar and pin in place on the wings, said screw having a weakened portion intermediate its ends whereby its headed end may be broken off below the surface of the collar.

4. In combination with a cock body having a perforated wing and a cock key having a similar wing adapted to be brought into parallelism with the wing on the cock body and the perforations therein into line, of a locking member comprising a headed pin passing through said perforations and projecting beyond the same, a frangible collar having an opening therethrough for the end of the pin, said opening being longer in one direction to form breaking spaces between the collar and the pin on opposite sides of the pin, and a screw threaded into said collar and engaging the pin for retaining said collar and pin in place on the cock, said screw having a groove formed therein intermediate its ends which will permit the headed end to be broken off below the surface of the collar.

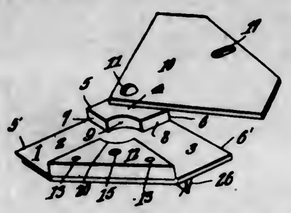
5. In combination with a cock, the body and key of which have each a perforated wing adapted to be brought into alinement, a pin adapted to be passed through the perforations in the wings and project beyond the same, said projecting portion having a flattened side and depression therein, a collar on said projecting portion of the pin and contracting therewith on opposite sides, other portions of said collar being spaced from the pin, and a screw having a weakened portion which may be broken off after being seated, threaded into said collar and into a depression in said pin.

[Claims 6 to 9 not printed in the Gazette.]

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1,038,184. SQUARE-RULE. SOLOMON NARUNSKY, Baltimore, Md. Filed Dec. 28, 1911. Serial No. 668,270. (Cl. 73—150.)

1. In a device of the character described, comprising a body part having an extension formed on one side thereof, a plate adjustably secured on the body part opposite the extension, and arranged to form angular faces on said body part, a cover pivotally secured on the said extension, and means for securing the cover on the said plate, substantially as described.



2. In a device of the character described, comprising a body part having an extension formed on one side thereof, and a plate adjustably secured on the body part opposite to said extension, and arranged to form angular faces on said body part, a cover pivotally secured on said extension having an oblong aperture provided therein, and a set screw extending through said aperture engaging with said plate whereby the cover is secured on the said plate in conformity with the adjustment thereof, substantially as described.

3. In a device of the character described, comprising a body part having an extension formed on one side thereof and a cover pivotally secured thereto, a plate adjustably secured on said body part, and means for securing said cover on the plate, substantially as described.

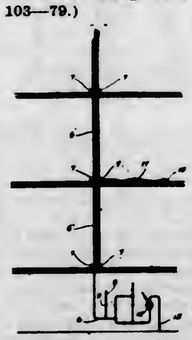
4. In a square rule of the character described, comprising a body part having an extension provided on one side thereof, and a plate adjustably secured thereon opposite the said extension, and arranged to form angular faces on the said body part, a hinged folding rule secured between the said extension and plate, said rule being partially folded and lying in a plane with the said angular faces, a cover pivotally secured on the said extension adapted to extend over the said rule, and means for securing the said cover in closed locked position, substantially as described.

5. In a device of the character described, comprising a body part having an extension formed on one side thereof, and a cover pivotally secured thereon, a plate adjustably secured on the said body part and arranged to form angular faces on said body part, means for securing the said cover on the plate in conformity with the adjustment of said plate, substantially as described.

[Claim 6 not printed in the Gazette.]

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1,038,185. CLEANING SYSTEM. ALBERT E. NICKERSON, Chicago, Ill. Filed Aug. 3, 1911. Serial No. 642,180. (Cl. 103—79.)



1. In a system of the class described, the combination of a main pipe, a water supply pipe, a suction mechanism, a connection from the main pipe to the suction mechanism, a check valve in said connection, a connection from the water supply pipe to the suction mechanism beyond said check valve, a connection from the water supply pipe to the main pipe in advance of the check valve, and means for controlling the admission of water through the last mentioned connection, substantially as described.

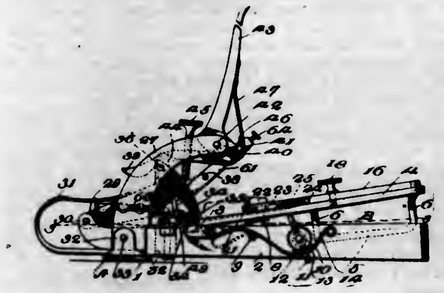


2. In a cleansing system, the combination of a main pipe, a water supply, and a suction mechanism, a connection from the main pipe to the suction mechanism, a check device in said connection, a connection from the water supply to the suction mechanism beyond said check device, a valve for controlling the admission of water from the water supply to the suction device, a connection from the water supply to the main pipe at a point in advance of the check device, and means for controlling the admission of water therethrough, substantially as described.

3. In a cleansing system, the combination of a main pipe, a water supply and suction mechanism, a connection from the main pipe to the suction mechanism, a check valve in said connection, a connection from the water supply to the suction mechanism at a point beyond the check valve, a valve in said connection, a connection from the water supply to the main pipe at a point in advance of the check valve, and a valve in said last mentioned connection, substantially as described.

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1,038,186. SAW-SETTING DEVICE. SAKARIAS KITKYT NIEMI, Tower, Minn. Filed July 22, 1910. Serial No. 573,228. (Cl. 76—62.)



1. In a saw setting device, an anvil, a feeding arm for moving a saw across the anvil, a slide on which the feeding arm is movably mounted, said slide being movable toward and away from the anvil, and means for both moving the feeding arm relative to the slide and moving the slide relative to the anvil.

2. In a saw setting device, an anvil, a feeding arm for moving a saw across the anvil, a support on which the feeding arm is movably mounted, means for permitting the support to move bodily toward and away from the anvil, and means for moving the feeding arm relative to the support and then moving the support relative to the anvil.

3. In a saw setting device, a pivoted feeding arm adapted to engage a saw and movable about its pivot to feed the saw across, means for permitting the feeding arm to move bodily into and out of engagement with the saw, and means for alternately moving the arm about its pivot and moving the arm bodily with respect to the saw.

4. In a saw setting device, an anvil, a saw table supported in juxtaposition thereto, a longitudinally adjustable guide bar mounted upon the table, a set screw connecting the guide bar to the saw table, and a guide pin having guided longitudinal movement relative to both the guide bar and the saw blade, whereby to hold the guide bar against turning movement about the set screw as a pivot, the guide pin being spring-pressed toward the end of the guide bar next to the anvil to bear against an edge of the saw.

5. In a saw setting tool, the combination of an anvil, a spring pressed hammer coacting therewith, a trigger designed to engage said hammer to raise the same against the tension of its spring, a handle operatively connected to said trigger, and a releasing rod carried by the trigger and arranged to engage the hammer to release the trigger therefrom at a predetermined point in the movement of the trigger.

[Claims 6 to 15 not printed in the Gazette.]

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1,038,187. EXPLOSIVE. JAMES F. O'BRIEN, Chicago, Ill. Filed Sept. 5, 1911. Serial No. 647,474. (Cl. 52—1.)

1. An explosive, consisting of a chlorate of an alkali metal, a carbo-hydrate, and a silico-aluminous substance.

2. An explosive, consisting of a chlorate of an alkali metal, a carbo-hydrate, and a comparatively inert substance containing silico-aluminous material.

3. An explosive, consisting of a chlorate of an alkali metal and carbo-hydrate in the approximate proportions three to one, and a silico-aluminous substance.

4. An explosive, consisting of a chlorate of an alkali metal, carbo-hydrate, and finely divided burned clay.

5. An explosive, consisting of a chlorate of an alkali metal and carbo-hydrate in the approximate proportions three to one, and finely divided burned clay.

[Claims 6 to 12 not printed in the Gazette.]

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1,038,188. EXPLOSIVE. JAMES F. O'BRIEN, Chicago, Ill. Filed Oct. 24, 1911. Serial No. 656,529. (Cl. 52—1.)

1. An explosive, consisting of molasses, potassium chlorate, and finely divided burned clay, in the approximate proportions one to two to one.

2. An explosive, consisting of molasses, potassium chlorate, and burned clay.

3. An explosive, consisting of molasses, a chlorate of an alkali metal, and a substance containing aluminum silicate.

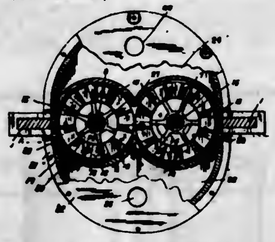
4. An explosive, consisting of molasses, potassium chlorate, and a silico-aluminous material.

5. An explosive, consisting of molasses, a chlorate of an alkali metal, and a silico-aluminous material.

[Claim 6 not printed in the Gazette.]

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1,038,189. WATER-WHEEL. EDMOND OLIVIER, Ottawa, Ontario, Canada. Filed Sept. 22, 1911. Serial No. 650,776. (Cl. 138—3.)



1. A pair of water wheels having blades extending longitudinally of the shafts and arranged parallelly and alongside one another, means operatively connecting the shafts of said wheels and means for supplying water in equal quantities to opposing sides of said wheels.

2. A pair of water wheels having blades extending longitudinally of the shafts and arranged parallelly and alongside one another, means operatively connecting the shafts of said wheels, a housing encompassing said wheels and forming water reservoirs on each side thereof, semi-circular partitions encompassing said wheels in close proximity thereto on each side thereof, a water feed opening through said semi-circular partitions at one side of said wheels and directing the flow of water in one direction therebetween and openings through said semicircular partitions directing the flow of water at each side of said wheels.

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1,038,190. PUZZLE OR TOY. WALDEMAR J. P. OLSEN, Brooklyn, N. Y. Filed Sept. 21, 1911. Serial No. 650,541. (Cl. 46—41.)

1. A puzzle comprising a closed shell, a support in one end thereof, a tilting plate the central portion of which rests on said support, a weight movable on said plate, and devices also movable on said plate that are adapted to form a seat for said weight and balance said shell.

2. A puzzle comprising a closed shell, a support in one end thereof, a tilting plate resting on said support and provided with recesses, a weight movable on said plate, and devices adapted to be placed in said recesses and form a seat for said weight and thereby balance said shell.



3. A puzzle comprising a closed shell, a support in one end thereof, a tilting plate resting on said support in one end thereof, a tilting plate resting on said support and provided with recesses, a ball movable on said plate, and devices adapted to be placed in said recesses and form a seat for said ball and thereby balance said shell.

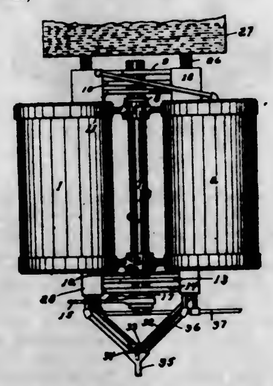
4. A puzzle comprising a closed shell, a support in one end thereof, a tilting plate resting on said support and provided with recesses, a weight movable on said plate, and a plurality of balls adapted to be placed in said recesses and form a seat for said weight and thereby balance said shell.

5. A puzzle comprising a closed shell, a support in one end thereof, a tilting plate resting on said support and provided with recesses, a master-ball movable on said plate, and a plurality of balls adapted to be placed in said recesses and form a seat for said master-ball and thereby balance said shell.

[Claims 6 to 9 not printed in the Gazette.]

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1,038,191. MACHINE FOR CARBONATING BEVERAGES. LEON C. PARIS and THOMAS MILLWARD, San Francisco, Cal., assignors of one-third to J. R. Howell, San Francisco, Cal. Filed Mar. 23, 1910. Serial No. 551,138. (Cl. 209—1.)



1. In a carbonating machine, a series or three or more connected containers, means to successively supply the containers with liquid, means to successively supply the containers next adjacent the containers being filled with liquid with carbon dioxid under pressure, means to successively draw liquid from the containers being filled with liquid, and means to reduce the pressure on the containers being filled and the container from which liquid is to be drawn prior to the operation of drawing said liquid, as described.

2. In a carbonating machine, a series of three or more connected containers, means to successively supply each of the containers with liquid, means to successively supply the containers ahead of the containers being filled with carbon dioxid under pressure, an exhaust valve on each container, means to successively draw liquid from the containers immediately behind the containers being filled, and means to open the exhaust valve on each container when liquid is to be drawn therefrom, as described.

3. In a carbonating machine, a series of three or more containers symmetrically arranged, a water supply valve, an exhaust valve and a circulation valve carried by each container, a pipe extending from each circulation valve into the bottom of the next adjacent container, a carbon dioxid supply valve and an outlet valve on the bottom of each container, a vertical shaft, cams carried by said shaft to operate the valves on the containers in succession so that while liquid is being drawn from one container, the container next adjacent the one side will be filling with a fresh supply of water and the container next adjacent the other side will be receiving a charge of carbon dioxid, as described.

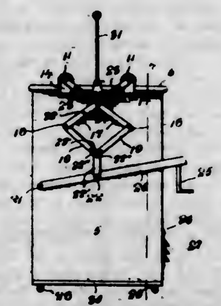
4. In a carbonating machine, a series of three or more containers, a gas circulation pipe extending from the upper portion of each container to the lower part of the next adjacent container, a water supply valve, a circulation valve and an exhaust valve at the top of each container, a gas supply valve and a water discharge valve at the bottom of each container, a vertical shaft adjacent the containers, cams carried by said shaft adjacent the top and bottom of the containers and arranged to operate the several valves, so that one of the containers will be discharging liquid while the next adjacent container is being filled with liquid and while the container next adjacent the other side is receiving a charge of carbon dioxid under pressure, and a handle for rotating said shaft, as described.

5. In a carbonating machine, a series of three or more containers, a water supply valve, a pressure relief valve and a circulation valve carried by each container at the top thereof, a water discharge valve and a carbon dioxid supply valve at the bottom of each container, a revoluble shaft carrying cams to operate all of said valves so that while one container is discharging fluid the next adjacent container on one side will be receiving a charge of fluid and the container next adjacent on the other side will be receiving a charge of carbon dioxid under pressure, as described.

[Claim 6 not printed in the Gazette.]

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1,038,192. MOP-WRINGER. THOMAS PETERSON, Duluth, Minn. Filed May 26, 1911. Serial No. 629,597. (Cl. 15—12.)



1. The combination with a pail, of means slidably engaged with its mouth edge, wringer rollers journaled in the said means, a yoke having limbs pivoted to opposite sides of the pail, toggle connections between the limbs of the yoke and the said means, a keeper rack fixed to the pail, and a foot stirrup swingingly connected to the yoke and adapted for locking engagement with the said keeper rack when moved into the path of the same.

2. The combination with a pail, of slidable bearings connected with the upper edge thereof, rotatable wringer rollers journaled in said bearings, crossing levers connected with said slidable bearings, a foot yoke pivoted to the pail and having connection with said crossing levers, the said crossing levers being provided with elongated slots, guide lugs fixed to and projecting from the pail into the said slots, stationary bearings fixed to the pail, and spaced wringer rollers journaled in said stationary bearings beneath the movable rollers.



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1,038,193. TRACKER-BOARD. AUGUST PHILIPPS and OSWALD PHILIPPS, Frankfort-on-the-Main, Bockenheim, Germany. Filed May 4, 1911. Serial No. 624,996. (Cl. 84—165.)



1. A tracker board comprising separable sections and having a main or note-duct and a bleed-duct connected with said note-duct, and a member carried by one of said sections and extending across said bleed-duct at the junction of the sections, said member having a bleed-hole which registers with the bleed-duct.

2. A tracker board comprising separable sections and having a main or note-duct, a bleed-duct arranged in one section at its junction with the other section, and a covering plate extending across said bleed-duct at said junction and having a bleed-hole communicating with said note-duct, said covering plate being carried by one of the sections of the tracker board.

3. A tracker board comprising separable sections and having a main or note-duct, a bleed-duct arranged in one section, a covering plate applied to said bleed-duct and having a bleed-hole, and a passage leading from said note-duct to said bleed-hole, said covering plate being carried by one of the sections of the tracker board.

4. A tracker board comprising separable sections and having a main or note-duct, a bleed-duct arranged in one section, a covering plate applied to said bleed-duct and arranged substantially flush with the face of the last named section, said plate being carried by said last named section and containing a bleed-hole, and a passage in the other section leading from said note-duct to said bleed-hole, said plate being arranged between the sections.

5. A tracker board comprising separable sections and having a main or note-duct, a transverse cleaning passage in one section extending from said duct to the side of the board, a cover applied to the outer end of said passage, a bleed-duct arranged in the face of the other section, a covering plate applied to said bleed-duct at the junction of said sections and having a bleed-hole, said covering plate being carried by said other section, and a connecting passage in the first named section extending from said transverse cleaning passage to said bleed-hole.

[Claim 6 not printed in the Gazette.]

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1,038,194. METHOD OF PREPARING HALOGEN-OXYGEN COMPOUNDS BY ELECTROLYSIS. MATHIAS PIER, Schlachtensee, near Berlin, Germany, assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Apr. 8, 1911. Serial No. 619,636. (Cl. 204—6.)

The method of preparing halogen-oxygen compounds of the alkalis and alkaline earths by electrolysis which consists in adding to the electrolyte in acid solution a compound of the rare earth metals.

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1,038,195. CORNER-PROTECTOR. ARTHUR PRESSEL, San Francisco, Cal. Filed Feb. 9, 1911. Serial No. 607,602. (Cl. 72—121.)



1. A corner protector comprising a plate of metal, a bead formed on the outer edge thereof, a series of anchoring lugs formed therein near its outer edge, bracing flanges formed on its inner edges, fastening lugs struck from the plate, said lugs being bent at an angle at their outer ends to form fastening prongs adapted to be driven into the frame work of the structure to which the protectors are applied.

2. A corner protector comprising a metal plate, a series of fastening devices struck from the plate and bent outwardly and then inwardly at an angle to the outwardly bent portion to form fastening prongs adapted to be driven into the frame work to support the protector in operative position, said prongs having a folded longitudinally disposed portion whereby the same are stiffened.

3. A corner protector comprising a metal plate, a series of fastening devices struck from the plate and bent outwardly and then inwardly at an angle to form fastening prongs adapted to be driven into the frame work to support the protector in operative position, said prongs having a square or blunt end and a folded intermediate portion for increasing the stiffness of the prongs and forming shoulders for providing a firm hold in the object in which the prong is driven.

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1,038,196. SAFETY DEVICE FOR FLYING-MACHINES. JOHN G. QUIGG, Pittsburgh, Pa. Filed Feb. 10, 1911. Serial No. 607,833. (Cl. 244—12.)



1. In a heavier than air flying machine, the combination of the main frame, an expansible frame secured to the upper portion thereof and expansible symmetrically in the plane of said upper portion of the main frame both transversely and longitudinally thereof, a fabric secured to said expansible frame, and means for expanding said frame.

2. In a heavier than air flying machine, the combination of the main frame, an expansible frame secured thereto and comprising side and end bars and corner angle members telescoping with both of said side and end bars, means for expanding and contracting said expansible frame, and a fabric secured to said expansible frame.

3. In a heavier than air flying machine, the combination of a rectangular expansible frame comprising side and end bars and corner angle members telescoping with both side and end bars, means for expanding said frame including oscillatory levers and connections therefrom to said side and end bars, and flexible members secured to said angle members and passing over guides and secured to the oscillatory levers.

4. In a heavier than air flying machine, the combination of the frame, telescoping members carried thereby and arranged to expand, some transversely and others longitudinally of the main frame, means for expanding said telescoping members, and a fabric secured to said telescoping members.

5. In a heavier than air flying machine, the combination of the frame, telescoping members arranged to expand,

some transversely and others lengthwise of said frame, a fabric secured to said telescoping members, and means for expanding said telescoping members comprising toggle members and oscillating levers for operating the same.

[Claims 6 to 10 not printed in the Gazette.]

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1,038,197. WHEELBARROW. RICHARD RADDATZ, Milwaukee, Wis. Filed July 15, 1910. Serial No. 572,069. (Cl. 21—68.)



1. A wheelbarrow body formed from two rectangular sheet metal blanks, one of which is larger than the other, the larger blank being provided with cuts and having parts bent up with respect to the bottom to form the sides and front and rear ends, the rear ends of the sides being bent over and secured to the rear end to completely close the rear end of the body but the front ends of the sides being extended beyond the front end leaving openings between the front end and the sides, the smaller blank being bent to fit against the sides and front end and being secured thereto to close said openings.

2. A wheelbarrow body formed from two rectangular sheet metal blanks, one of which is provided with cuts to proportion the bottom, sides and ends of the body, the sides and ends being bent at angles with respect to the bottom and secured together and the second blank being secured inside the bent first blank.

3. A wheelbarrow body formed from a rectangular sheet metal blank provided with cuts to proportion the bottom, sides and ends, the sides and ends being bent at angles with respect to the bottom, the rear ends of the sides being bent over to form flaps which are secured to the rear end and the front ends of the sides being bent over to form diagonal folds whereby braces are formed which are secured to the front end of the body.

4. A wheelbarrow body formed from a rectangular sheet metal blank provided with cuts to proportion the bottom, sides and ends, the sides and ends being bent at angles with respect to the bottom, the rear ends of the sides being bent over to form flaps which are secured to the rear end, the front ends of the sides being bent over to form diagonal folds whereby braces are formed which are secured to the front end of the body, and a secondary blank secured inside of said body formed from said first mentioned blank, said secondary blank being secured to the front end of said body, the sides and to said braces.

5. A wheelbarrow body formed from a rectangular sheet metal blank provided with cuts to proportion the bottom, sides and ends, the sides and ends being bent at angles with respect to the bottom, the rear ends of the sides being bent over to form flaps which are secured to the rear end, the tops of said flaps being bent over to form strengthening flanges, the front ends of the sides being bent over to form diagonal folds whereby braces are formed which are secured to the front end of the body, the tops of said braces being bent to form flanges, the extremity of the front end also being bent to form a strengthening flange, and a secondary blank secured inside of said body formed from said first mentioned blank, said secondary blank being secured to the front end of said body, the sides and to said braces.

[Claims 6 and 7 not printed in the Gazette.]

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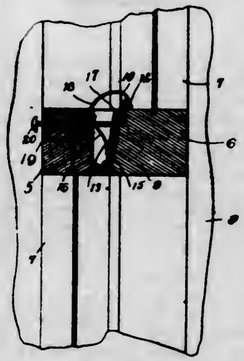
1,038,198. RACK. HERBERT K. RANDALL and STACY C. THOMPSON, Manistee, Mich. Filed Mar. 30, 1912. Serial No. 687,429. (Cl. 68—34.)

A knock-down rack comprising a base embodying intermeshing leg portions disposed at an angle to each other, a standard having intermeshing connection with the base at the juncture of the legs thereof, said standard comprising a plurality of superimposed sections having removable interlocking connection with each other, and radiating arms removably connected with said standard.



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1,038,199. COMBINED SASH-FASTENER AND ANTI-RATTLING DEVICE. MARCUS J. D. RAST, St. Louis, Mo. Filed Aug. 20, 1910. Serial No. 578,084. (Cl. 16—58.)



The combination with the meeting rails of movable window sashes, of a plate fixed to the inner edge of one of said rails and having an out-turned angular flange projecting above the top face of said rail, the said plate being provided with a rectangular shaped slot, an upwardly arched resilient finger fixed to the other rail and normally engageable with the said flange at a point adjacent its free end, whereby the said finger will hold the meeting rails in resilient contact with each other, and a spring-held latch interposed between the said rails and having a nib normally engaged in the slot in the said plate.

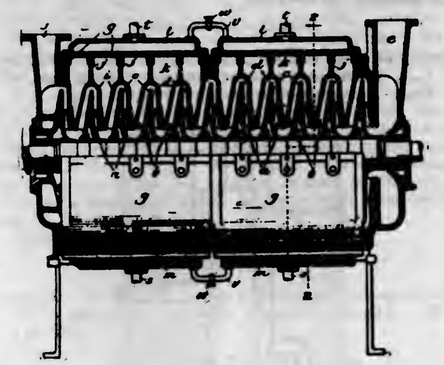
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1,038,200. MEANS FOR COOLING TURBO COMPRESSORS OR BLOWERS. AUGUSTE CAMILLE EDMOND RATEAU, Paris, France. Filed Mar. 1, 1909, Serial No. 480,531. Renewed June 13, 1912. Serial No. 703,559. (Cl. 230—11.)

1. A compressor having a hollow casing divided into a series of cells, said casing having openings for permitting access to the interior of said cells, removable panels each covering the opening to a plurality of cells, unions for interconnecting said cells, and means providing for a continuous circulation of water through the interconnected cells.

2. A compressor having a hollow casing divided into a plurality of cells, said casing having openings for permitting access to the interior of said cells, and removable panels each covering the opening to a group of cells, whereby access may be had to the group of covered cells by one of said panels without uncovering the remainder of said cells.

3. A compressor having a hollow casing divided into a plurality of cells, said casing having openings for permitting access to the interior of said cells, removable panels each covering the openings to a group of said cells, means for interconnecting all of said cells or for interconnecting a portion thereof only while isolating the remainder, as may be desired, and means providing for a continuous circulation of a cooling fluid through the interconnected cells.



4. A compressor having a hollow casing providing a system for the circulation of water, the exterior wall of said casing having one or more openings for permitting access to the exterior of the casing, and a removable cover for each of said openings, said cover consisting of a hollow panel which serves as a water collecting box.

5. A compressor provided with a hollow casing divided into a plurality of cells for the circulation of water, the exterior wall of said casing having openings each of which permits access to a group of said cells, and removable covers for said openings, said covers consisting of hollow panels which serve as water collecting boxes.

[Claims 6 to 9 not printed in the Gazette.]

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1,038,201. MEANS FOR INCREASING THE HEIGHT OF SUCTION OF PUMPS. AUGUSTE CAMILLE EDMOND RATEAU, Paris, France. Filed Aug. 9, 1900, Serial No. 511,874. Renewed June 18, 1912. Serial No. 704,469. (Cl. 103—54.)



1. In an apparatus for increasing the height of suction of pumps, the combination with a pump, of a suction pipe having an injector arranged therein, a shunt pipe extending from the upper portion of said suction pipe to said injector, and means for forcing a portion of the fluid, before its entrance to said pump, under pressure through said shunt pipe.

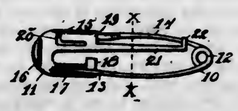
2. In an apparatus for increasing the height of suction of pumps, the combination with a pump, of a suction pipe having an injector arranged therein, a shunt pipe extending from the upper portion of said suction pipe to said injector, and a wheel for discharging a portion of the fluid, before its entrance to said pump, under pressure through said shunt pipe.

3. In an apparatus for increasing the height of suction of pumps, the combination with a pump, of a suction pipe having an injector arranged therein, a shunt pipe extending from the upper portion of said pipe to said injector, and a helicoidal wheel arranged in said shunt pipe for discharging a portion of the fluid under pressure into said shunt pipe.

4. In an apparatus for increasing the height of suction of pumps, the combination with a pump, of a suction pipe having an injector arranged therein, a shunt pipe extending from the upper portion of said suction pipe to said injector, a wheel for discharging a portion of the fluid, before its entrance to said pump, under pressure through said shunt pipe, and a shaft upon which both said pump and said wheel are mounted.

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1,038,202. SAFETY-PIN. JOHN C. REYNOLDS, Derrick City, Pa. Filed Feb. 5, 1912. Serial No. 675,596. (Cl. 24—158.)



1. A safety pin comprising a pin having a front and back portion, a cap portion slidably mounted upon said pin, a back brace rigidly extending from said cap to slidably engage said back portion at a distance from said cap, said cap having a notch therein to receive the end of said back portion in locking engagement.

2. A safety pin comprising a pin portion having front and back legs connected by a coil spring, the front leg ending in a pin point and the back leg bearing an angular projection, a metal cap slidably mounted on said pin portion and having an angular locking slot therein to slidably receive the projection of said back leg in locking engagement, an arm extending from said cap portion between said front and back legs and having its end slidably engaging said back portion a spaced distance from said cap, and a catch at one side of said cap portion to receive said pin point end of said front leg.

3. A safety pin comprising a sheet metal cap portion, one side of said sheet metal cap portion formed with a tubular sheath ending in a U-shaped catch, the other side side of said cap portion bent upon itself and having an angular locking slot therein, in combination with a wire pin portion comprising a pointed wire to engage within said catch and sheath, a flattened end and an angular projection to engage within said angular slot and beneath the bent over portion of said cap, said cap having an extension brace to hold said locking end in line, and a spring coil on said wire portion, substantially as and for the purpose specified.

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1,038,203. FISH-LINE REEL. JOHN A. RICKETTS, Rochester, N. Y. Filed Mar. 29, 1911. Serial No. 617,716. (Cl. 42—15.)

1. In combination with a fish rod, a reel frame movable in reverse directions along and upon the exterior of the rod, a reel in the frame, connections between the rod and reel for imparting rotary motion to said reel as the frame is moved in either direction, screw on the frame, a line shifter on the screw and means coacting with a part of

said connections for rotating the screw in reverse directions as the frame is moved in opposite directions.



2. In combination with a fish rod, a reel supporting frame movable in reverse directions along the rod, a reel in the frame having its axis at right angles to the rod, connections between the reel and rod for imparting rotary motion to the reel as the frame is moved in either direction, a screw on the frame parallel with the axis of the reel, means for rotating the screw in opposite directions as the frame is moved in reverse directions, and line shifting means actuated by the screw lengthwise of the reel.

3. In combination with a fish rod, a line reeling mechanism mounted on the rod and comprising a reel-supporting frame movable in reverse directions along and upon the exterior of the rod, a reel journaled in the frame wholly at one side of the rod and having its axis at right angles to that of the rod, connections between the reel and rod for imparting rotary motion to the reel as the frame is moved in either direction, and means including a screw parallel with the axis of the reel for shifting the line lengthwise of the reel.

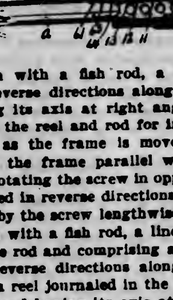
4. In combination with a fish rod, a toothed rack mounted upon and extending lengthwise of the rod, a reel-supporting frame movable in reverse directions along and upon the exterior of the rod lengthwise of the rack, a reel in the frame having its axis at right angles to the rack, connections between the rack and reel for imparting rotary motion to said reel as the frame is moved in either direction, a screw journaled in the frame parallel with the axis of the reel, connections between the screw and rack for rotating the screw as the frame is moved in either direction, and line shifting means actuated by the screw.

5. In combination with a fish rod, a toothed rack mounted on the rod lengthwise thereof, a reel-supporting frame movable lengthwise of the rack in reverse directions, a reel mounted in the frame and having its axis at right angles to the rack, connections between the reel and rack for rotating the reel in one and the same direction as the frame is moved in either direction, a screw mounted in the frame parallel with the axis of the reel, connections between the screw and rack for rotating the screw in opposite directions as the frame is moved in reverse directions, and line shifting means actuated by the screw.

[Claims 6 to 15 not printed in the Gazette.]

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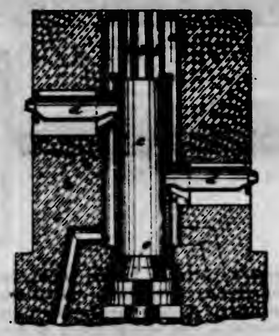
1,038,204. BEATING AND MIXING DEVICE. HENRY P. ROBERTS, Boston, Mass., assignor of two-thirds to Henry W. May, Somerville, Mass., and Henry S. Warner, Boston, Mass. Filed Aug. 5, 1911. Serial No. 642,455. (Cl. 31—63.)



An article of the character described, comprising a cover, a bridge plate spanning the interior of the cover and provided with a guiding aperture, a spiral stem arranged to be reciprocated through said aperture to give it a rotary motion, and a foraminous dasher affixed to the lower end of said stem provided with integral blades extending radially outward from its periphery, said blades being bent inwardly in proximity to the upper surface of the dasher, substantially as described.

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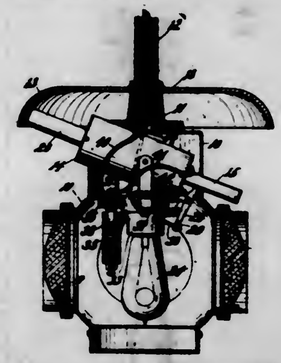
1,038,205. HEATER FOR ZINC-REDUCING FURNACES. CARL ROITZHEIM, Cologne, Germany. Filed Jan. 19, 1912. Serial No. 672,224. (Cl. 75—155.)



A metal reduction furnace comprising a furnace chamber and a reduction chamber, a charging device disposed within the furnace chamber and substantially wholly outside the reduction chamber and comprising a plurality of charging passages of relatively reduced cross-section with respect to their length and arranged to deliver to said reduction chamber, said charging device being subjected to the heat of the furnace whereby the charge is heated prior to its entrance into said chamber, substantially as described.

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1,038,206. SIGNAL. EDGAR E. SALISBURY, Milwaukee, Wis., assignor to Signalphone Alarm Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Sept. 1, 1910. Serial No. 579,988. (Cl. 177—7.)



1. A signal, comprising an electromagnet, a sounding device operated by the magnet, an electric lamp connected in series with the electromagnet, and switch means operated by the electromagnet and normally bridging across the lamp.

2. A signal, comprising a solenoid, a core therefor, a gong adapted to be struck by the core when the solenoid is energized, a suitably connected electric lamp, and switch means operated by the core of the solenoid and normally bridging across the terminals of the electric lamp.



3. A signal, comprising a solenoid, a gravity retracted core therefor, a gong adapted to be engaged by the core when the solenoid is energized, a lever operated by the core, an electric lamp connected in series with the solenoid, and contacts connected with the terminals of the lamp adapted to be connected by the lever in the normal position of the core.

4. A signal, comprising a solenoid, a core therefor, a switch operated by the core, an electric lamp controlled by the switch, and a gong in position to be struck by the core when the solenoid is energized and constituting a hood for protecting the parts from the weather.

5. A signal, comprising a lamp casing, a solenoid mounted in the hood thereof in an inclined position, a core tube for the solenoid, a core operating therein, a hammer carried by the core, a gong mounted on the lamp casing and adapted to be struck by the hammer, a lever passing through a slot of the core tube and engaged by the core, an electric lamp, and a switch for the electric lamp operated by the lever.

[Claims 6 and 7 not printed in the Gazette.]

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1,038,207. NAIL-SET. JOHN L. SCHMIDT, Jeffersonville, N. Y. Filed Mar. 25, 1910. Serial No. 551,454. (Cl. 145—46.)



A nail set comprising a body having an enlargement at its lower portion from which projects a tapering end, the body having an annular slot near its upper end, a sleeve surrounding the body and provided with an internal collar fast on its lower end that slides on the body, a thimble surrounding the body and flanged at the upper end to engage said annular slot and lying inside of the sleeve and a coil spring surrounding the body and engaging the lower end of said thimble, the other end of the spring pressing the sleeve collar against said enlargement on the body to yieldingly hold the sleeve in such position and permit it to slide upward on the body when the spring is compressed.

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1,038,208. ELECTRODE. OTTO SCHÖNHERR and JOHANNES HESSENBERG, Fiskaa, Norway, assignors, by mesne assignments, to Norsk Hydro-Elektrisk Kvaelstofaktieselskab, Christiania, Norway. Original application filed Mar. 16, 1906, Serial No. 306,410. Divided and this application filed Dec. 28, 1908. Serial No. 469,586. (Cl. 204—81.)

1. An electrode comprising a hollow tube leading to a hollow head through which runs a central adjustable rod movable relatively to the remaining parts of the electrode, the said tube and head containing openings for the circulation of cooling fluid.

2. An electrode comprising a rod of conducting material in a hollow holder, movable relatively to this holder, and means for cooling the said adjusting rod and holder.

3. In conjunction with an electric furnace for gas-reactions an electrode insulated from the furnace, a chamber at the end of said furnace not in communication with it, means for forcing a cooling fluid into the said chamber, openings from said chamber into the hollow tubular stem of the electrode, an annular space within the said stem surrounding a rod of conducting material and leading to the hollow head of the said electrode, and means for withdrawing the said cooling fluid from the electrode after it has become heated.

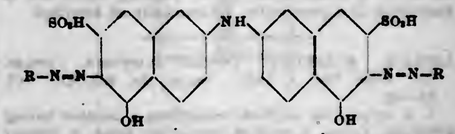


4. In conjunction with an electric furnace for gas reactions an electrode insulated from the furnace, a chamber at the end of said furnace, means for forcing gas into said chamber, openings from said chamber into the hollow tubular stem of the electrode, an annular space within said tubular stem surrounding an adjustable rod of conducting material and leading to the hollow head of the electrode and openings from said hollow head to the body of the furnace.

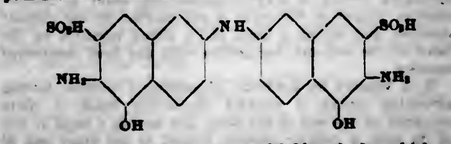
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1,038,209. POLYAZO DYES. HUGO SCHWEITZER and ARTHUR ZART, Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Dec. 9, 1911. Serial No. 664,859. (Cl. 8—1.)

1. The herein described new azo dyestuffs having most probably the formula:



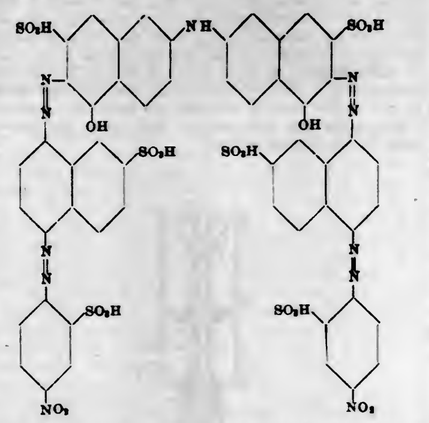
R meaning an azo compound being free from amino and oxy groups which are after being dried and pulverized in the shape of their alkaline salts dark powders soluble in water; yielding upon reduction with stannous chlorid and hydrochloric acid an aromatic amin, a diamin and a compound of the formula:



dyeing cotton from violet to greenish-blue shades which on being developed with diazotised para-nitraniliu change into

shades fast to washing and capable of being discharged to a pure white, substantially as described.

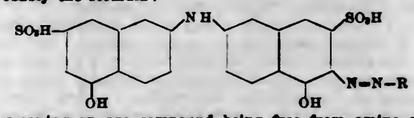
2. The herein described new dye having most probably the formula:



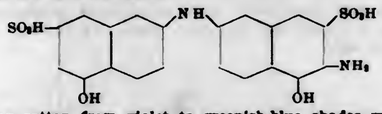
which is after being dried and pulverised in the shape of its sodium salt a dark powder soluble in concentrated sulfuric acid with a greenish-blue coloration; yielding upon reduction with stannous chlorid and hydrochloric acid 6.6'-diamino-5.5'-dioxy-2.2'-dinaphthylamin-7.7'-disulfonic acid, para-phenylenediamin sulfonic acid and 1.4-naphthylene-diamin-7-sulfonic acid; dyeing cotton greenish-blue, which shade after being developed with diazotised para-nitranilin is bluish-violet fast to washing which can be discharged to a pure white, substantially as described.

1,038,210. AZO DYES. HUGO SCHWEITZER and ARTHUR ZART, Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Dec. 9, 1911. Serial No. 664,860. (Cl. 8—1.)

1. The herein described new azo dyestuffs having most probably the formula:

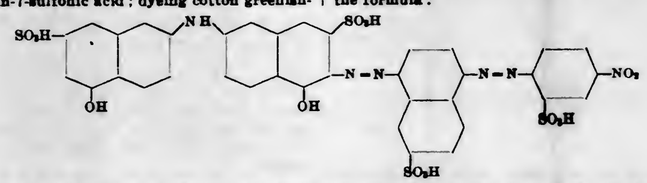


R meaning an azo compound being free from amino and oxy groups which are after beind dried and pulverised in the shape of their alkaline salts dark powders soluble in water, yielding upon reduction with stannous chlorid and hydrochloric acid an aromatic amin, a diamin and a compound of the formula:



dyeing cotton from violet to greenish-blue shades which on being developed with diazotised para-nitranilin change into shades fast to washing and capable of being discharged to a pure white, substantially as described.

2. The herein described new dye having most probably the formula:



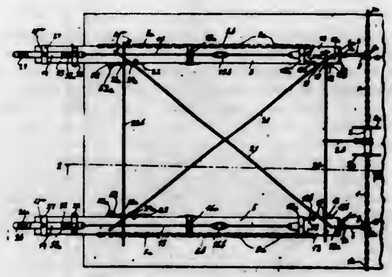
which is after being dried and pulverised in the shape of its sodium salt a dark powder soluble in concentrated sulfuric acid with a greenish-blue coloration; yielding upon reduction with stannous chlorid and hydrochloric acid 6-amino-5.5'-dioxy-2.2'-dinaphthylamin-7.7'-disulfonic acid, para-phenylenediamin sulfonic acid and 1.4-naphthylene-diamin-7-sulfonic acid; dyeing cotton greenish-blue, which shade after being developed with diazotised para-nitranilin is bluish-violet fast to washing which can be discharged to a pure white, substantially as described.

1,038,211. SCAFFOLD. OSWALD SCHWERIN, Chicago, Ill. Filed Dec. 4, 1911. Serial No. 663,781. (Cl. 20—82.)

1. A support for scaffolds comprising a member having attaching means, a scaffold supporting beam, a tubular member carried by the beam, a rod carried by the tubular member and having a bend, and a clamp mounted on the bend of the rod and engageable with the first mentioned member.

2. A support for scaffolds comprising a member having attaching means, a scaffold supporting beam, a tubular member hinged to the beam, a rod carried by the tubular member, and having a bend, and a clamp mounted on the bend of the rod and engageable with the first mentioned member.

3. A support for scaffolds comprising a member having attaching means, a scaffold supporting beam, a plate mounted on one end of the beam and having a bend at one of its ends, a tubular member hinged to the other end of the plate, a rod passing loosely through the tubular member and through the bend of the plate, one end of the rod having a bend, a nut screwed on the rod against the bend of the plate, and a clamp mounted on the bend of the rod and engageable with the first mentioned member.



4. A support for scaffolds comprising a member having attaching means, a scaffold supporting beam, a tubular member carried by the beam, a rod carried by the tubular member and having a bend and a clamp mounted on the bend of the rod, said clamp comprising tubular members arranged at an angle to each other, the bend of the rod passing through one of the tubular members, and the first mentioned member passing through the other tubular member, and screw plugs carried by the tubular member and engageable with the parts passing therethrough.

5. A support for scaffolds comprising a pair of parallel scaffold supporting beams, fastening means therefor, stems carried by the beams, clamps on the stems, and brace rods extending between the beams, said brace rods being secured by the clamps.

[Claims 6 to 13 not printed in the Gazette.]



1,038,212. CONCRETE RAILROAD-TIE. ALLEN THEOPHILE SCOTT, South Bellingham, Wash. Filed Jan. 24, 1912. Serial No. 673,198. (Cl. 238—3.)

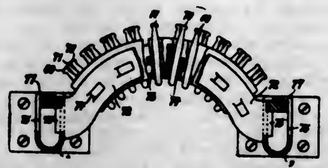


1. A railroad tie comprising a pair of reinforcing members, each including a vertical primary flange and a horisontal secondary flange projecting laterally from the primary flange, intermediate the upper and lower edges of the primary flange, the secondary flanges being in horisontal alinement; the primary flanges of both reinforcing members being equipped, adjacent their ends, with integrally formed rail-receiving shoulders projecting beyond both sides of the primary flanges and extended downwardly upon the opposed side faces of the primary flanges, the shoulders being equipped with rail-engaging fingers; means for securing the reinforcing members together; and a concrete body assembled with each reinforcing member.

2. A railroad tie comprising a pair of reinforcing members, each having a vertical primary flange and a horisontal secondary flange projecting laterally from the primary flange, intermediate the upper and lower edges of the primary flange, the secondary flanges being in horisontal alinement and both flanges being of equal length; each primary flange being equipped, adjacent its ends, with integrally formed rail-receiving shoulders, projecting beyond both sides of the primary flange and extended downwardly upon opposed side faces of the primary flange, there being rail-engaging fingers upon the shoulders; the primary flanges and the secondary flanges being pierced by a series of openings concrete-receiving; a concrete body assembled with each reinforcing member; and securing elements extended through certain of the openings in the primary flanges, to constitute a means for holding the reinforcing members together.

3. A tie comprising a pair of concrete members; an H-shaped reinforcing element embedded within each member, both of the vertical flanges of each H-shaped element being provided with integrally formed, laterally extended, rail-receiving seats, there being rail-holding fingers located at the ends of the seats, all of the fingers projecting in a common direction in each H-shaped element, and projecting in opposite directions in the two H-shaped elements.

1,038,213. SELECTOR FOR AUTOMATIC TELEPHONE-EXCHANGES. BERNHARD SETTEGAST, Karlshorst, near Berlin, Germany, assignor to Deutsche Telephonwerks G. M. B. H., Berlin, Germany. Original application filed May 23, 1910, Serial No. 562,924. Divided and this application filed Dec. 4, 1911. Serial No. 663,844. (Cl. 179—27.5.)



1. In a selector for automatic telephone exchanges a plurality of contact sets, each set comprising a row of groups, and each group consisting of a plurality of coordinate contacts, standards holding said contact sets in such a manner, that each set can be exchanged independently from the others, substantially as described.

2. In a selector for automatic telephone exchanges a plurality of contact sets, each set comprising a row of groups, and each group consisting of two speaking and a testing contact, standards holding said contact sets in such a manner, that each set can be exchanged independently from the others, substantially as described.

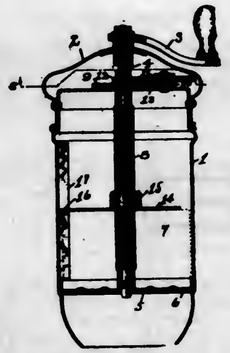
3. In a selector for automatic telephone exchanges a plurality of contact sets, each set comprising a row of groups, and each group consisting of a plurality of coördinate contacts, each set of contacts being held together by means of two plates with the insertion of intermediate insulating layers, standards holding said contact sets in such a manner, that each set can be exchanged independently from the others, substantially as described.

4. In a selector for automatic telephone exchanges a plurality of separately interchangeable contact sets, each set comprising a row of groups, and each group consisting of a plurality of coördinate contacts, each set of contacts being held together by means of two plates with the insertion of intermediate insulating layers, lugs stamped out from one of said plates, slots stamped out in the other of said plates, said lugs passing through, and being bent over said slots, substantially as described.

5. In a selector for automatic telephone exchanges a plurality of separately interchangeable contact sets, each set comprising a row of groups, and each group consisting of a plurality of coördinate contacts, each set of contacts being held together by means of two plates with the insertion of intermediate insulating layers, standards with transverse slots adapted to receive the ends of one of said plates, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,038,214. SOAP-DISPENSING MACHINE. GEORGE F. SHAFER, New York, N. Y., assignor, by mesne assignments, to Granulator Soap Company, New York, N. Y. Filed July 2, 1906. Serial No. 324,469. (Cl. 146—11.)



1. In a soap dispensing machine, in combination, a soap receptacle, a comminuting device, a shaft adapted to cause a relative rotative movement between said comminuting device and a cake of soap positioned in said receptacle, a hollow feeding shaft positioned on said first named shaft and adapted to be operated therefrom by a train of gears, a train of gears operated by said first named shaft and adapted to operate said feeding shaft continuously, and a follower operated by said feeding shaft to feed soap to said comminuting device.

2. In a device of the class described, the combination with a container adapted to receive a cake of soap, a cutter rotatively mounted in said container, a driving shaft, of means for feeding a cake of soap to the cutter comprising a threaded shaft coaxially mounted with relation to the driving shaft, a follower mounted upon said threaded shaft, and a train of gears positioned between said shafts

adapted when the driving shaft is operated to drive the threaded shaft continuously at a speed less than that of the driving shaft.

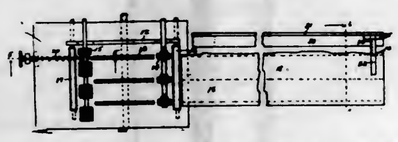
3. In a device of the class described, the combination of a vertical container adapted to receive a cake of soap, a cutter rotatively mounted in the lower portion of said container, a driving shaft detachably connected with said cutter, of means for continually feeding the soap to the cutter comprising a hollow screw threaded feeding shaft positioned upon the driving shaft, a follower threaded upon the feeding shaft, a gear wheel mounted upon the driving shaft, a gear wheel mounted upon the feeding shaft, and gear wheels forming an operative connection between said aforementioned gear wheels whereby a positive continuously operating driving connection is interposed between the driving shaft and the feeding shaft.

4. In a soap dispensing machine, in combination, a container adapted to receive a cake of soap, a rotatable cutter, an operating shaft for said cutter, a threaded feeding shaft extending from said cutter and having the end adjacent the cutter necked down to remove the threads, a threaded follower positioned upon said feeding shaft and engaging said container to prevent rotation thereof with said feeding shaft, and means for driving said feeding shaft from said operating shaft continuously at a reduced speed, said means comprising a small gear mounted upon said operating shaft and a larger gear mounted upon said feeding shaft operatively connected with said small gear.

5. In a soap dispensing machine, in combination, a container adapted to receive a cake of soap, a rotatable cutter, an operating shaft for said cutter, a threaded feeding shaft extending from said cutter and having the end adjacent the cutter and the opposite end thereof necked down to remove the threads, a threaded follower positioned upon said feeding shaft and engaging said container to prevent rotation thereof with said feeding shaft, and means for driving said feeding shaft from said operating shaft continuously at a reduced speed, said means comprising a small gear mounted upon said operating shaft at the end opposite the cutter and a larger gear mounted upon said feeding shaft operatively connected with said small gear.

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1,038,215. RIP-SAW MACHINE. CLAUDE SHAW, Indianapolis, Ind., assignor of one-half to The American Box Ball Co., Indianapolis, Ind., a Corporation of Indiana. Filed Dec. 2, 1909. Serial No. 531,023. (Cl. 143—168.)

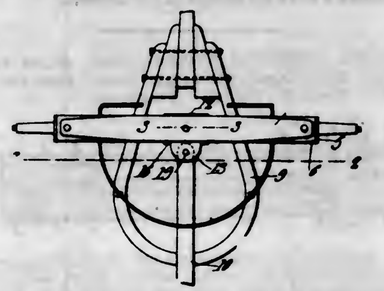


In a rip-saw machine including a saw and feed mechanism preceding the same, a stationary guide arranged in advance of the feed mechanism and at one side of but parallel to the plane of the saw, a transversely-disposed gage coöperating with said guide and adapted to abut against and travel along the same, and means for temporarily engaging the gage with the rear end of a board as it is being fed to the saw to preserve the line of feed of the board with respect to the saw.

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1,038,216. VEHICLE RUNNING-GEAR. OLIVER SHEARER, Manitou, Okla., assignor of one-half to Chas. D. Kirkpatrick, Manitou, Okla. Filed Sept. 9, 1910. Serial No. 581,249. (Cl. 21—39.)

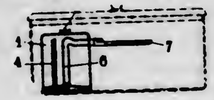
The combination of an axle and sand board, abutting each other and having opposed recesses, a pair of identically similar plates seated in said recesses and having abutting faces, each plate having a forward flange on its outer face, a rear offset perforated ear on its outer face, and transversely grooved and notched ends projecting beyond the flanges and ears, the grooves being in the abutting faces of said plates, and similar clips extending across the abutting faces of said plates and lying in the grooves and notches thereof and encircling the axle and sand



board, respectively, for holding said plates in position, the rear offset perforated ears of said plates being spaced from each other to receive a reach.

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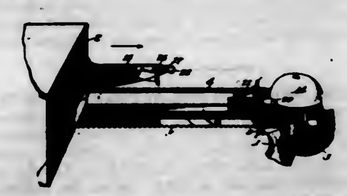
1,038,217. APPARATUS FOR AUTOMATICALLY BASTING FRIED OR ROAST MEAT. HERMANN SIEGRIST, Aarau, Switzerland. Filed Apr. 3, 1911. Serial No. 618,636. (Cl. 53—6.)



Apparatus for automatically basting meat, comprising a vessel for generating steam, an upwardly directed steam injector nozzle under the bottom of the vessel, a pipe adapted to convey steam from the interior of the vessel to said nozzle, and an uptake pipe above the injector nozzle provided with a distributing device, the whole being adapted to be placed in any ordinary cooking vessel large enough to receive it, and to raise the basting fat which is in the vessel and distribute it over the meat.

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1,038,218. ALARM FOR TYPE-WRITERS. GEORGE HERMAN SMILEY, Harrisburg, Pa., assignor to Elliott-Fisher Company, Harrisburg, Pa., a Corporation of Delaware. Filed June 19, 1908. Serial No. 439,446. (Cl. 197—192.)



1. The combination with a support, of a bell carrier adjustable on the support, a bell, and carrier retaining means adapted to be operated by the bell.

2. The combination with a rack and a bell carrier adjustable along the same, of a retaining device for the bell carrier, and a bell carried by the retaining device.

3. The combination with a rack, of a bell carrier adjustable along the same, a stem movably mounted in the bell carrier, a bell carried by the stem, and means operated by the stem to engage and release the rack.

4. The combination with a rack, of a bell carrier slidably mounted thereon, a stem extended through the carrier, a rack engaging tooth and a bell mounted at opposite ends of the stem, and a spring acting to urge the tooth into engagement with the rack.

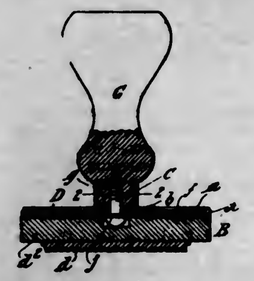


5. The combination with a support, of a bell carrier adjustable thereon, retaining means for the bell carrier, a bell movable relative to the carrier to operate the retaining means, a striker mounted on the bell carrier, and a trip for operating the striker.

[Claims 6 to 8 not printed in the Gazette.]

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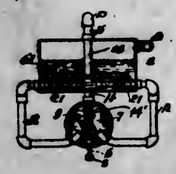
1,038,219. HAND-STAMP. ARTHUR P. SMITH, Springfield, Mass. Filed July 1, 1911. Serial No. 636,456. (Cl. 101—58.)



A stamp body comprising a body portion having a socket in the top, a frame secured on top of the body and having an aperture therein with flat sides, a screw having its head in said socket and projecting up through said aperture and secured from turning therein, the frame having bent over edges, a legend plate confined in the frame by the edges and having a central hole through which extends the screw, and a handle having a socket in the end whereby it removably engages the screw to be held thereon and retain the legend plate in position.

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1,038,220. PROCESS OF REFRIGERATION. DANIEL C. SMITH, Milford, Conn., assignor to Smith Refrigerating Company, New Orleans, La., a Corporation of Louisiana. Filed June 8, 1911. Serial No. 631,983. (Cl. 62—6.)



1. The herein described ammonia absorption refrigerating process which is characterized by the division of the ammonia water into upper and lower connected bodies, the attainment of higher temperatures in the lower body than in the upper body during both distillation and absorption, and the inducing of circulation wholly within and between said bodies.

2. The herein described ammonia absorption refrigerating process which is characterized by the division of the ammonia water into upper and lower siphonically connected bodies, the heating of the lower body during both distillation and absorption, the confining of circulation to and between said bodies and the communication and dissipation of heat from the lower body to and in the upper body through the agency of such circulation.

3. The herein described ammonia absorption refrigerating process which is characterized by the division of the ammonia water into relatively remote but siphonically connected bodies, the maintenance of the surface of one body above the top of the other, the attainment of higher temperatures in the latter than in the relatively remote and higher body during distillation and absorption, the inducing thereby of siphonic circulation within and between said bodies, the accumulation of gas under pressure at the surface of the higher body during distillation and the maintenance of a partial vacuum at the surface of the higher body when ammonia gas is being absorbed.

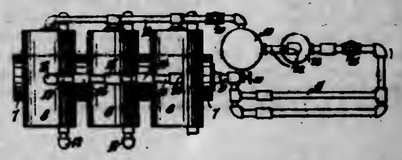
4. The herein described ammonia absorption refrigerating process which is characterized by inclosing bodies of ammonia water at different heights in connected closed tanks joined by circulation conduits arranged at different heights, keeping the openings of the conduits submerged at all times, the application of external heat to the contents of the relatively lower tank, and the maintenance of the contents of the upper tank at a lower temperature during the application of heat to the lower tank, whereby to condense the evolved steam while driving off ammonia gas at pressures sufficient to cause its condensation when cooled.

5. The herein described ammonia absorption refrigerating process which is characterized by inclosing bodies of ammonia water at different heights in connected closed tanks joined by circulation conduits arranged at different heights, keeping the openings of the conduits submerged at all times, the application of external heat to the contents of the relatively lower tank, the maintenance of the contents of the upper tank at a lower temperature during the application of heat to the lower tank, whereby to condense the evolved steam while driving off ammonia gas at pressures sufficient to cause its condensation when cooled, the lowering of the temperature of the residual water in the tanks after such distillation, the formation thereby of a partial vacuum above the higher body, the subsequent admission of ammonia gas to the lower tank and the absorption thereof by the residual water without materially reducing such partial vacuum.

[Claims 6 to 16 not printed in the Gazette.]

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1,038,221. REFRIGERATING-MACHINE. DANIEL C. SMITH, Milford, Conn., assignor to Smith Refrigerating Company, New Orleans, La., a Corporation of Louisiana. Filed June 29, 1911. Serial No. 635,996. (Cl. 62—6.)



1. The herein described ammonia absorption refrigerating apparatus, comprising upper and lower closed tanks to contain a requisite quantity of ammonia water, in combination with a valved gas outlet for the upper tank, a valved gas diffusing inlet for the lower tank, means for heating the contents of the lower tank to a higher temperature than the contents of the upper tank and siphonic circulating and diffusing ducts, together establishing a closed liquid circuit within and between said tanks and insuring the diffusion in the cooler liquid contents of the upper tank, of liquid, vapors and gases heated, evolved or diffused in the lower tank, whereby substantially anhydrous ammonia gas may be distilled under pressure and subsequently re-absorbed under a partial vacuum.

2. The herein described ammonia absorption refrigerating apparatus, comprising upper and lower closed tanks to contain a requisite quantity of ammonia water, in combination with a valved gas outlet at the top of the upper tank, a valved gas diffusing inlet in the lower part of the lower tank, means for heating the contents of the lower tank to a higher temperature than the contents of the upper tank and siphonic circulating and diffusing ducts, together establishing a closed liquid circuit within and between said tanks, limiting initial evolution and diffusion of vapors and gases to the liquid contents of the lower tank, and insuring subsequent diffusion in the cooler liquid contents of the upper tank, of liquid, vapors and gases from the lower tank, whereby substantially anhydrous am-

monia gas may be distilled under pressure and subsequently re-absorbed under a partial vacuum.

3. The herein described ammonia absorption refrigerating apparatus, comprising a lower closed tank and an upper closed tank, together adapted to contain a requisite quantity of ammonia water, in combination with riser and fall ducts joining said tanks, said riser duct arranged to lead ammonia water, steam and gases from the upper part of said lower tank into the ammonia water in said upper tank, and said fall duct arranged to lead ammonia water from a lower part of said upper tank into said lower tank, a valved gas outlet for said upper tank, a valved gas inlet duct for the lower tank, and a heater associated with said lower tank, whereby substantially anhydrous ammonia gas may be distilled under pressure and subsequently re-absorbed under a partial vacuum.

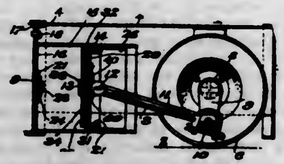
4. The herein described ammonia absorption refrigerating apparatus, comprising a lower closed tank and an upper closed tank, together adapted to contain a requisite quantity of ammonia water and a free space above the water, in combination with riser and fall ducts joining said tanks, said riser duct arranged to lead ammonia water, steam and gases from the upper part of said lower tank and deliver it only into the ammonia water in said upper tank, and said fall duct arranged to lead and direct ammonia water from the lower part of said upper tank into the lower part of said lower tank, a valved gas outlet for said upper tank, a valved gas inlet for the lower tank, and a heater associated with said lower tank, whereby substantially anhydrous ammonia gas may be distilled under pressure and subsequently re-absorbed under a partial vacuum.

5. The herein described ammonia absorption refrigerating apparatus, comprising a lower closed tank and an upper closed tank, together adapted to contain a requisite quantity of ammonia water, in combination with riser and fall ducts siphonically joining said tanks, said riser duct arranged to lead ammonia water, steam and gases from the upper part of said lower tank and diffuse the same in the ammonia water in said upper tank, and said fall duct arranged to lead ammonia water from the said upper tank and direct the same into the lower part of said lower tank, a valved gas outlet for said upper tank, a valved gas inlet for the lower tank, and a heater associated with said lower tank, whereby substantially anhydrous ammonia gas may be distilled under pressure and subsequently reabsorbed under a partial vacuum.

[Claims 6 to 17 not printed in the Gazette.]

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1,038,222. PUMP FOR VACUUM-CLEANERS. ROBERT R. SMITH, Philadelphia, Pa. Original application filed Jan. 9, 1912, Serial No. 670,208. Divided and this application filed Mar. 15, 1912. Serial No. 683,957. (Cl. 230—27.)



1. In a vacuum cleaner, a seamless sheet metal pump cylinder formed with an integral head, a seamless cylindrical sheet-metal pump-piston formed with an integral end and having the portion at that end reduced in diameter to form a shoulder, a packing fitting upon said reduced portion, and means for securing such packing to the end of the piston, said means comprising a yielding gasket upon the outer face of said packing, a disk formed with an annular rib bearing against said gasket, and means for holding said packing and disk in assembled position.

2. In a vacuum cleaner, a seamless sheet metal pump cylinder formed with an integral head, a seamless cylindrical sheet-metal pump-piston formed with an integral end and having the portion at that end reduced in diameter to form a shoulder, a fiber cup-packing fitting upon said reduced portion, a circular sheet-metal disk, a yielding gasket interposed between said disk and packing and a bolt passed through the end of the piston, packing and disk and having a nut for drawing said parts together.

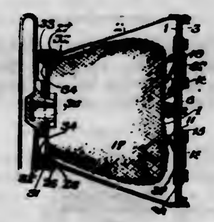
3. In a vacuum cleaner, a pump-cylinder, a seamless cylindrical sheet-metal pump-piston formed with an integral end and having the portion at that end reduced in diameter to form a shoulder, a fiber cup-packing fitting upon said reduced portion, a yielding gasket upon the outer face of said packing, a circular sheet-metal disk formed with an annular rib bearing against said gasket, and a bolt passed through the end of the piston, packing and disk and having a nut for drawing said parts together.

4. In a vacuum cleaner, a seamless sheet metal pump cylinder formed with an integral head, a seamless cylindrical sheet metal pump piston formed with an integral end, a packing fitted upon the integral end of said piston, a yielding gasket located against the outer face of said packing, an outer disk formed with an inner rib bearing against said gasket, and fastening devices common to said piston, packing and disk for securing the parts in assembled position.

5. In a vacuum cleaner, a seamless cylindrical sheet metal pump piston having a head thereon, a packing secured to the outer surface of said head, a yielding gasket upon the outer face of said packing, an outer disk formed with an annular rib bearing against said gasket, and fastening devices common to the end of said piston, packing and disk for holding said parts in assembled position.

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1,038,223. DUST-SEPARATOR FOR VACUUM-CLEANERS. ROBERT R. SMITH, Philadelphia, Pa. Original application filed Jan. 9, 1912, Serial No. 670,208. Divided and this application filed Mar. 25, 1912. Serial No. 686,064. (Cl. 83—47.)



1. The combination of a plurality of casings having ports therein, upper and lower fastening devices for said casings, a guard wire having angularly bent portions bridging said ports and engaging at its upper and lower portions said fastening devices, nuts on said fastening devices for both securing said wire in position and for holding said casings in assembled condition, and a dust bag in one of said casings, said dust bag being prevented from being drawn into said ports by the deflected portions of said guard wire.

2. The combination of a plurality of casings having ports therein, upper and lower bolts for securing said casings in assembled position, a guard wire having eyes 9 engaging a pair of said upper bolts, said wire having opposite deflected portions 10, 11, 12, 13, 14 and 15, the latter meeting in the common eye 16, the latter engaging said lower bolt, nuts for said bolts, said nuts serving to simultaneously hold said casings in assembled position and to retain said guard wire in fixed position with respect to said bolts, and a dust bag in one of said casings, said dust bag being prevented from being drawn into said ports by means of the deflected portions of said guard wire.

3. In a vacuum cleaner the combination of a dust bag casing, a dust bag therein, a ring for the open end of said dust bag, an annulus having a flange secured to said casing, a bolt common to said casing and said flange, a head having a flange, a nut having a tapered body engaging said bolt and said latter flange, and a gasket intermediate said annulus and head, the latter having an inwardly deflected portion, said ring being retained between said annulus and deflected portion.

4. In a dust bag casing having a port therein, a dust bag, a wire secured to the upper and lower portions of a wall of said casing and having a portion bent around said port and deflected outwardly therefrom to prevent said bag from entering said port, a ring secured to the open end of said dust bag, an annulus secured to said casing, a head also secured to said casing, said ring being held between said head and annulus, and a fastening device common to said casing, annulus and head.



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1,038,224. WINDOW. ARTHUR C. SOULE, San Francisco, Cal., assignor to Soule Reversible Window Co., San Francisco, Cal., a Corporation of California. Filed Sept. 13, 1910. Serial No. 581,841. (Cl. 20—49.)



1. The combination with a window casing, slides fitted to grooves of the casing, sashes horizontally pivoted to the slides, said casing having a longitudinally extending recess at a point intermediate the slides, of a longitudinally extending parting bead adapted to be moved laterally into and out of said recess, and into and out of the space between the swinging sashes, said bead comprising opposed members, an expanding spring between the members, and guide pins extending between the members, and links each of which is connected at one end with one of the guide pins and at its opposite end to the wall of the recess.

2. The combination with a window casing, slides fitted to grooves of the casing, sashes horizontally pivoted to the slides, said casing having a longitudinally extending recess at a point intermediate the slides, of a metal sheath in the recess and extending without the same and overlapping the joint between the slides and casing, and a parting bead adapted to extend between the sashes to lock the sashes against swinging movement, said parting bead being shiftable into the sheath to withdraw it from between the swinging sashes.

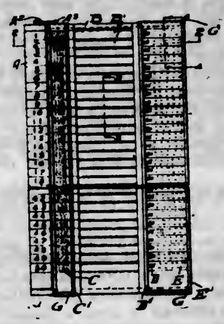
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1,038,225. RECORDING AND INDICATING DEVICE FOR MULTIPLE PAYMENTS. BENJAMIN J. STELLWAGEN, Chicago, Ill. Filed Feb. 23, 1912. Serial No. 679,481. (Cl. 235—1.)

1. A recording and indicating device for multiple payments comprising a series of receptacles into which envelops containing the payments are deposited, an identification mark for each contributor located opposite each receptacle, means opposite each receptacle for designating the number of envelops which have been deposited in each receptacle and a number opposite each receptacle showing the amount of each payment.

2. A recording and indicating device for multiple payments comprising a series of receptacles into which envelops containing the payments are deposited, an identification mark for each contributor located opposite each receptacle, means opposite each receptacle for designating the number of envelops which have been deposited in each receptacle, a number opposite each receptacle showing the amount of each payment and a table opposite each receptacle made up of a series of multiples of the said payment.

3. A recording and indicating device for multiple payments comprising a column or space for a series of identification marks for the contributor, a column for recording the number of payments made by each contributor, a column containing a series of envelop-receiving receptacles for receiving the envelops containing the payments and a column for the stated amount to be paid at each payment.

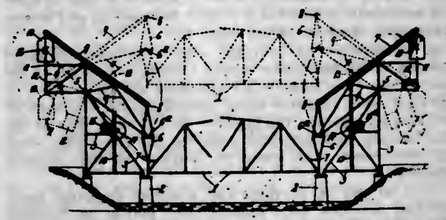


4. A recording and indicating device for multiple payments comprising a column or space for a series of identification marks for the contributor, a column for recording the number of payments made by each contributor, a column containing a series of envelop-receiving receptacles for receiving the envelops containing the payments and a column for the stated amount to be paid at each payment, the columns for the identification marks and the number of payments and the stated amount being removable so that the same envelop-receiving spaces may be used with a series of such columns.

5. A recording and indicating device for multiple payments comprising a series of envelop-receiving receptacles for receiving the envelops in which the payments are made, means associated with said envelop-receiving receptacles for identifying the contributor and for indicating the number of payments made and the amount of each payment and a table opposite each envelop made up of a number of multiples of the amount the contributor is to pay whose envelops are placed in such pocket whereby the total amount paid may be easily read off.

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1,038,226. BRIDGE. JOSEPH B. STRAUSS, Chicago, Ill. Filed May 1, 1911. Serial No. 624,826. (Cl. 14—42.)



1. A bridge comprising a vertically movable span, fixed supports at each end of said span, a plurality of pivoted levers at each end carried by said fixed supports and connected with said span so as to move it vertically when the levers are moved.

2. A bridge comprising a vertically movable span, fixed supports at each end of said span, a plurality of pivoted levers at each end carried by said fixed supports and connected with said span so as to move it vertically when the levers are moved, and separate counterweights for said span and for said levers.

3. A bridge comprising a vertically movable span, a fixed support at each end of said span, a lever at each end of said span and connected therewith and movably mounted on said fixed supports, and means associated with said le-

vers for compensating for the pivotal movement thereof so as to allow the span to be moved vertically when the levers are moved.

4. A bridge comprising a vertically movable span, a connecting piece at each end thereof pivotally connected therewith, a support at each end of said span, a pivoted lever at each end of said span mounted on said support, said pivoted levers connected with said connecting pieces, an arm at each end of said span each pivotally connected with one of said connecting pieces, and a counterweight connected with each arm.

5. A lifting device comprising a vertically movable part, a pivoted lifting lever at each end thereof, supports to which said levers are pivoted, a counter-weight arm at each end thereof, and a connecting piece at each end of said vertically movable part connecting both the lifting lever and the counterweight arm to said vertically movable part.

[Claims 6 to 9 not printed in the Gazette.]

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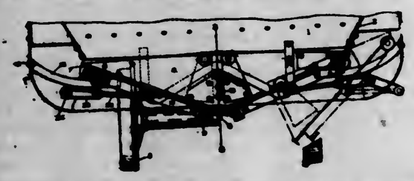
1,038,227. CHEWING-GUM CONTAINING PHARMACEUTICAL PREPARATIONS. NATHAN SULZBERGER, New York, N. Y. Filed July 25, 1911. Serial No. 640,488. (Cl. 127—4.)

1. A chewing-gum containing phenolphthalein.

2. A chewing gum containing a synthetic stable preparation, such preparation being white and practically devoid of any odor and taste, possessing laxative action.

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1,038,228. DOOR ARRANGEMENT FOR DUMPING-CARS. EDGAR W. SUMMERS, Pittsburgh, Pa. Filed Oct. 8, 1908. Serial No. 456,809. (Cl. 105—185.)



1. A railway car provided with a bottom discharge opening, a longitudinally arranged inclined door closing toward the center of the car, and guiding supports for the inner and outer edges of the door, the supports for the outer edge sloping upwardly and those for the inner edge sloping downwardly, whereby when the door is moving outwardly it assumes a greater inclination, and means for moving the door on its supports.

2. A railway car provided with a bottom discharge opening, an inclined door closing toward the center of the car, and guiding supports for the inner and outer edges of the door, said supports being located beyond the ends of the door opening and the supports for the outer edge of the door sloping upwardly and those for the inner edge sloping downwardly, and means for moving the door on said supports.

3. A railway car provided with a bottom discharge opening and provided with sloping body plates, an inclined door arranged to close said opening, supports for the inner and outer edges of the door located underneath the sloping body plates, the supports for the outer edge of the door sloping upwardly and those for the inner edge of the door sloping downwardly, and means for moving the door on said supports.

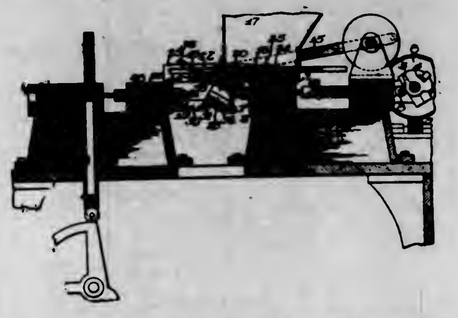
4. A railway car having a bottom discharge opening and provided with sloping end floor plates, a longitudinally arranged inclined door closing toward the center of the car, and guiding supports for the outer and inner edges of the door and located underneath the sloping end floor plates, the guides for the outer edge of the door sloping upwardly and those for the inner edge of the door sloping downwardly, and means for moving the door on said guides.

5. A railway car having a bottom discharge opening, a longitudinally arranged door closing toward the center of the car, transverse beams at the ends of the door opening, guides for the outer and inner edges of the door on said transverse beams, the guides for the outer edge of the door sloping upwardly and those for the inner edge of the door sloping downwardly, and means for moving the door on said guides.

[Claims 6 to 18 not printed in the Gazette.]

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1,038,229. FEED MECHANISM FOR NUT-CRACKING MACHINES. TADOMO C. SUZUI, Chicago, Ill. Filed Nov. 16, 1911. Serial No. 660,624. (Cl. 146—3.)



1. In a nut cracking machine, having opposed cracking plungers, and mechanism for actuating the same at regular intervals, a hopper for nuts to be cracked, a plunger having openings therein to receive nuts reciprocable in the bottom of said hopper and through a slot in one wall thereof, mechanism for reciprocating said plunger to alternately bring the openings therein into and out of said hopper, pockets open at their ends disposed to receive the ends of the opposed cracking plungers and disposed below and adapted to receive the nuts from said openings in said plunger as the latter reaches the forward limit of its movement, and means for rocking said pockets to cant the same after each cracking stroke of the cracking plungers to discharge the contents thereof.

2. In a nut cracking machine, having opposed cracking plungers, and mechanism for actuating the same at regular intervals, a hopper for nuts to be cracked, a plunger having openings therein to receive nuts reciprocable in the bottom of said hopper and through a slot in one wall thereof, mechanism for reciprocating said plunger to alternately bring the openings therein into and out of said hopper, a rocking member disposed below the cracking plungers and carrying pockets open at their ends and disposed to receive the ends of the cracking plungers and adapted to receive the nuts from said plunger as the latter reaches the forward limit of its movement, and means on said rocking member adapted to be actuated by the reciprocating nut feeding mechanism to impart rocking movement thereto in at least one direction.

3. In a nut cracking machine, having opposed cracking plungers, and mechanism for actuating the same at regular intervals, a hopper for nuts to be cracked, a plunger having openings therein to receive nuts reciprocable in the bottom of said hopper and through a slot in one wall thereof, mechanism for reciprocating said plunger to alternately bring the openings therein into and out of said hopper, a normally canted rocking member carrying pockets adapted to receive the nuts and support them in the path of the cracking plungers and adapted to be canted after each cracking stroke of said plungers to discharge their contents, and a bar carried by said rocking member and adapted to be engaged by a part of the feed plunger actuating means for turning the same to and maintaining it in horizontal position to receive and retain the nuts to be cracked until completion of the cracking stroke of the cracking plungers.



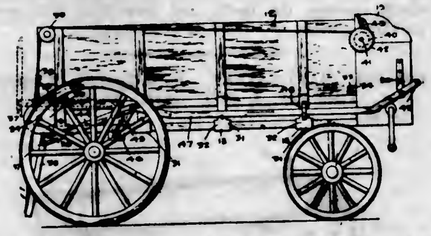
4. In a nut cracking machine, having opposed cracking plungers, and mechanism for actuating the same at regular intervals, a hopper for nuts to be cracked, a plunger having openings therein to receive nuts reciprocable in the bottom of said hopper and through a slot in one wall thereof, mechanism for reciprocating said plunger to alternately bring the openings therein into and out of said hopper, a normally canted rocking member carrying pockets adapted to receive the nuts and support them in the path of the cracking plungers and adapted to be canted after each cracking stroke to discharge their contents, and means carried by said rocking member and adapted to be engaged by a reciprocating part of the feed mechanism to turn the same to and maintain the same in horizontal position to receive and retain the nuts to be cracked until completion of the cracking stroke of the cracking plungers.

5. In a nut cracking machine, having opposed cracking plungers, and mechanism for actuating the same at regular intervals, a hopper for nuts to be cracked, a plunger having openings therein to receive nuts reciprocable in the bottom of said hopper and through a slot in one wall thereof, mechanism for reciprocating said plunger to alternately bring the openings therein into and out of said hopper, a normally canted rocking member carrying pockets adapted to receive the nuts and support them in the path of the cracking plungers and adapted to be canted after each cracking stroke to discharge their contents, and means carried by said rocking member and adapted to be engaged by reciprocating parts of the feed mechanism to alternately turn the same to horizontal and canted position respectively, at different intervals.

[Claims 6 and 7 not printed in the Gazette.]

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1,038,230. LOADING AND DISCHARGING WAGON-BODY. CHARLES R. TANSILL, New York, N. Y. Filed Jan. 16, 1912. Serial No. 671,448. (Cl. 21—20.)



1. A loading and discharging wagon body comprising parallel rails of horizontal U shape with their rounded ends toward the rear of the wagon body, said rails being of channel form in cross-section with the flanges of the channels toward the interior of the wagon body, the forwardly extending portions of each rail forming an upper horizontal rail channel and an underlying rail channel parallel thereto, a series of strips arranged transversely of the U rails having their ends engaging the channels of the rails and their longitudinal edges in contact, said series of strips extending rearwardly in the upper rail channels of the U rails and downwardly and in conformity to the rounded ends of the channels thereof into the underlying rail channels, each strip having a flat face to receive the load and a rounded face to engage the rails, cables connected to the rounded faces of the strips and to wind and unwind wheels for moving the strips conformably to the horizontal U rails, the cables having end stops whereby the strain of the wind and unwind wheels on the cables to move the strips maintains the contact of the strips at their edges, means for operating the wind and unwind wheels, and interior supports for the strips and guides for the cables extending longitudinally between the horizontal U rails and conforming to the shape thereof; substantially as set forth.

2. A loading and discharging wagon body comprising parallel rails of horizontal U shape with the rounded ends thereof toward the rear of the wagon body, said rails being of channel form in cross-section with the flanges of the channels toward the interior of the wagon body, the forwardly extending portions of each rail forming an upper horizontal rail channel and an underlying rail channel parallel thereto, a series of strips arranged transversely of the U rails with their ends engaging the channels thereof and their longitudinal edges in contact, each strip having a flat face to receive the load and a rounded face to engage the rails, said series of strips extending rearwardly in the upper horizontal rail channels and downwardly and in conformity to the rounded ends of the U rails into the underlying rail channels and movable in conformity to the horizontal U rails, and cables connected to the rounded faces of the strips having end stops whereby the strain on the cables maintains the contact of the strips at their edges; substantially as set forth.

3. In a loading and discharging wagon body the combination of parallel rails of horizontal U shape with the rounded ends thereof toward the rear of the wagon body, said rails being of channel form in cross-section with the flanges of the channels toward the interior of the wagon body, the forwardly extending portions of each rail forming an upper horizontal rail channel and an underlying rail channel parallel thereto, a series of connected strips arranged transversely of the U rails with their ends engaging the channels thereof each strip having a flat face to receive the load and a rounded face to engage the rails, said series of strips extending rearwardly in the upper horizontal rail channels and downwardly and in conformity to the rounded ends of the U rails into the underlying rail channels and movable in conformity to the horizontal U rails, and sprocket-wheels fixed to and turning with a shaft located transversely of the U rails at the rounded ends thereof, said sprocket wheels having teeth engaging the rounded faces of the strips to assist the strips in moving conformably to the channels of the rounded ends of said rails; substantially as set forth.

4. In a loading and dicharging wagon body the combination of parallel rails of horizontal U shape with their rounded ends toward the rear of the wagon body, said rails being of channel form in cross-section with the flanges of the channels toward the interior of the wagon body, the forwardly extending portions of each rail forming an upper horizontal rail channel and an underlying rail channel parallel thereto, sides, and brackets attached to the sides engaging horizontally extending studs attached to said upper and underlying rail channels for supporting the sides in vertical position and permitting horizontal movement of the sides outwardly and inwardly in their vertical position; substantially as set forth.

5. In a loading and discharging wagon body the combination of parallel rails of horizontal U shape with their rounded ends toward the rear of the wagon body, said rails being of channel form in cross-section with the flanges of the channels toward the interior of the wagon body, the forwardly extending portions of each rail forming an upper horizontal rail channel and an underlying rail channel parallel thereto, sides, brackets attached to the sides engaging horizontally extending studs attached to said upper and underlying rail channels for supporting the sides in vertical position and permitting horizontal movement of the sides outwardly and inwardly in their vertical position, and means for moving the sides outwardly and inwardly in their vertical position; substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

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1,038,231. CLEANSING AND WIPING DEVICE. CHARLES E. TAYLOR, Pittsburgh, and ALFRED C. WOLFE, Alicia, Pa. Filed Oct. 11, 1911. Serial No. 654,153. (Cl. 137—66.)

1. A wiping and cleansing device for use in a coke-quenching apparatus, comprising the combination with a slidable water-conducting pipe of a water reservoir with which the conducting pipe communicates and in which it is longitudinally slidable in both directions, means communicating with said reservoir for supplying water there-

from against the periphery of said pipe for cleaning the periphery of the pipe during the sliding movement thereof, and means for wiping the pipe during the sliding movement thereof.



2. In a wiping and cleansing device for a coke-quenching apparatus, comprising the combination with a slidable water conducting pipe of a water reservoir with which the said pipe communicates and in which it is longitudinally slidable in both directions and means communicating with said reservoir for surrounding the periphery of said pipe with a thin film of water under pressure to cleanse the periphery of the pipe during the sliding movement thereof.

3. In a wiping and cleansing device for a coke-quenching apparatus, comprising the combination with a slidable water conducting pipe of a water reservoir with which the said pipe communicates and in which it is longitudinally slidable in both directions, means communicating with said reservoir for surrounding the periphery of said pipe with a thin film of water under pressure to cleanse the periphery of the pipe during the sliding movement thereof, and means for wiping the periphery of the pipe simultaneously with the cleansing thereof by the film of water.

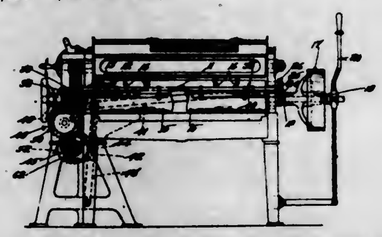
4. In a wiping and cleansing device for a coke-quenching apparatus, comprising the combination with a slidable water conducting pipe, of a water reservoir with which the said pipe communicates and in which it is longitudinally slidable in both directions, means communicating with said reservoir for surrounding the periphery of said pipe with a thin film of water under pressure to cleanse the periphery of the pipe during the sliding movement thereof, and means for regulating the supply of water from said reservoir for cleansing the periphery of the pipe.

5. In a wiping and cleansing device for a coke-quenching apparatus, comprising the combination with a slidable water conducting pipe of a water reservoir with which the said pipe communicates and in which it is longitudinally slidable in both directions, means communicating with said reservoir for surrounding the periphery of said pipe with a thin film of water under pressure to cleanse the periphery of the pipe during the sliding movement thereof, means for wiping the periphery of the pipe simultaneously with the cleansing thereof by the film of water, and means for regulating the supply of water from said reservoir for cleansing the periphery of the pipe.

[Claims 6 and 7 not printed in the Gazette.]

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1,038,232. SCORING-MACHINE. EUGENE H TAYLOR, Hyde Park, Mass. Filed Nov. 24, 1908. Serial No. 464,330. (Cl. 164—62.)



1. The combination of primary scoring mechanism, secondary scoring mechanism, a feeder for the secondary scoring mechanism, positive means for actuating the feeder so that the feeder makes a predetermined number of strokes for any given number of revolutions of the primary scoring mechanism and means for causing said feeder to make a different number of strokes during said given number of revolutions of the primary scoring mechanism.

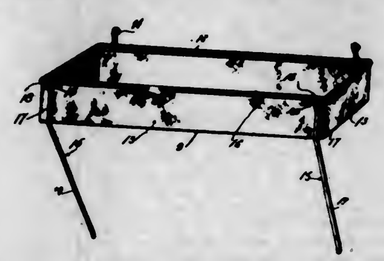
2. The combination of a source of power, primary scoring mechanism, secondary scoring mechanism, means for connecting said source of power and one of said scoring mechanisms to drive the same at a fixed speed, a feeder for the secondary scoring mechanism, positive means for actuating the feeder so that the feeder makes a predetermined number of strokes for any given number of revolutions of the scoring mechanism which runs at fixed speed and change speed gearing between the source of power and the said feeder by which may be changed the number of strokes made by the feeder during any given number of revolutions of the scoring mechanism running at fixed speed.

3. The combination of a source of power, primary scoring mechanism, secondary scoring mechanism, means for connecting said source of power and one of said scoring mechanisms to drive the same at a fixed speed, a feeder for the secondary scoring mechanism, a shaft by the rotation of which the feeder is given its movement and change speed gearing between the source of power and the said shaft causing the feeder to make a predetermined number of strokes for any given number of revolutions of the scoring mechanism which runs at fixed speed, said change speed gearing also permitting said predetermined number of strokes to be varied.

4. The combination of primary scoring mechanism, secondary scoring mechanism, a feeder for the secondary scoring mechanism, a shaft by the rotation of which the feeder is given its movement and change speed gearing between said shaft and one of said scoring mechanisms, said change speed gearing positively operating the feeder to make a predetermined number of strokes during any given number of revolutions of the scoring mechanism which operates the feeder and permitting said predetermined number of strokes to be changed.

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1,038,233. BABY-BASKET. JOHN THAISON, Rio grande, Tex. Filed Nov. 8, 1911. Serial No. 659,241. (Cl. 5—59.)



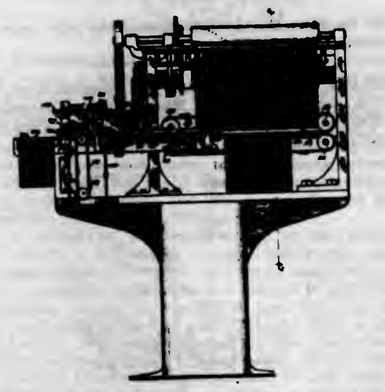
The combination with a seat, of a rail secured to the back of the seat and spaced therefrom, a collapsible receptacle detachably and pivotally secured to the rail along one edge and legs hingedly secured to the opposite edge for vertical and lateral pivotal movement, said legs extending downwardly and beneath the receptacle in contact with the seat and its floor support, said legs when folded into the receptacle permitting the same to swing in contact with the back and beneath the rail, in a collapsible condition.

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1,038,234. TYPE SETTING AND JUSTIFYING MACHINE. JOHN S. THOMPSON, Chicago, Ill. Filed Oct. 31, 1904. Serial No. 230,755. (Cl. 101—199.)

1. A device of the kind described, comprising a plurality of receptacles for storing type, means adapted to remove a type from any of said receptacles as desired, mechanism for moving the type so removed to the word assembling position and arranging the same to form a word, a carriage arranged to move each word as completed to the line assembling point and automatically position temporarily adjustable spaces between the successive words, said carriage also being arranged to move the completed line to the justifying position and start automatic mechanism adapted to justify said line by adjusting said spacers, form unconnected permanent spacers of suitable size between said words, and remove said temporary spacers, in combination with mechanism for moving said line to and positioning the same in a suitable position in a galley.





2. A device of the kind described, comprising a plurality of receptacles for storing type, means adapted to successively remove a type from any of said receptacles as required, assemble said type so removed into words, transfer each completed word to a line assembling point and automatically insert a temporary adjustable spacer between the adjacent words, and means adapted to automatically adjust said spacers to justify said lines and simultaneously replace each temporary spacer with a permanent one of suitable size by introducing molten metal into the spaces between the words in each line, in combination with mechanism for moving said line to and positioning the same in suitable position in a galley.

3. A device of the kind described, comprising a plurality of vertical receptacles each adapted to contain a plurality of horisontally disposed type, means for removing type from said receptacles as required, consisting of a rotatable roller, a horisontally movable ejector for each receptacle resiliently held at the outer limit of its travel, means operated by suitable keys or levers for frictionally engaging a part of any of said ejectors with said roller, and means for positively releasing said engagement when said ejector reaches the inner limit of its travel.

4. A device of the kind described, comprising a plurality of vertical receptacles, each adapted to contain a plurality of horisontally disposed type, a lever adapted to be manually operated and mechanism connected therewith for each receptacle to control the discharge of type therefrom, and means for assembling the type discharged from the receptacles in suitable position in a line for printing, and means for simultaneously forming any desired number of spacing units in said line to control its ultimate length, in combination with mechanism for moving said lines to and positioning the same in a suitable position in a galley.

5. A device of the kind described, comprising means for storing type, mechanism for selecting and positioning any of said type in the grip of opposing members, arranging the same in suitable position in a line for printing, and means for forming any desired number of spacing members in said line to justify the same, in combination with means for moving said line to and positioning the same in suitable position in the galley, without at any time releasing said type from the grip of opposing members controlling the position thereof.

[Claims 6 to 69 not printed in the Gazette.]

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1,038,235. TIRE. MARCELLINO TOSO, San Bruno, Cal., assignor of forty one-hundredths to Paul H. Patterson, San Francisco, Cal. Filed Aug. 29, 1911. Serial No. 646,569. (Cl. 152—16.)



1. A tire comprising a suitably shaped body portion having concaved depressions at the sides near the periphery, an annular fabric of belt-like form encompassing the periphery of said body and fashioned with tubular flanges at the side edges, and ring-like cushion members inclosed by the tubular flanges of said belt, and fitting said concaved depressions, said belt having spaced projections on its outer surface extending across the same.

2. A tire comprising a suitably shaped body portion having concaved depressions at the sides near the periphery, an annular fabric of belt-like form encompassing the periphery of said body and fashioned with tubular flanges at the side edges, and ring-like cushion members inclosed by the tubular flanges of said belt, and fitting said concaved depressions, said belt having spaced projections on its outer surface extending across the same, and having spaced fabric walls to inclose the projections.

3. A tire comprising a suitably shaped body portion having concaved depressions at the sides near the periphery, an annular fabric of belt-like form encompassing the periphery of said body and fashioned with tubular flanges at the side edges, and ring-like cushion members inclosed by the tubular flanges of said belt, and fitting said concaved depressions, said belt having spaced projections on its outer surface extending across the same and having spaced fabric walls to inclose the projections, and a link belt encompassing the fabric belt, the under surfaces of the links of said belt being concaved and inclosing said cushion members.

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1,038,236. VENDING-MACHINE. GEORGE J. TUBERGEN, Grand Rapids, Mich. Filed Sept. 14, 1911. Serial No. 649,246. (Cl. 194—88.)

1. In a vending machine, a revoluble element having recesses for the reception of articles to be dispensed, a revoluble coin receiving member, and means for actuating said member to shift a coin into and out of one of said recesses, subsequent to the discharge of an article from the recess, to rotate said element.

2. In a vending machine, a revoluble element having recesses each shiftable successively to receive an article to be dispensed, to deliver said article, and to receive an actuating coin, a revoluble coin receiving member, and means for actuating said member to move the coin into one of said recesses and actuate the revoluble element.

3. A vending machine including a revoluble dispensing element having article receiving portions, a coin wheel revoluble independently of said element and having a peripheral coin receiving recess, means for directing a coin into the recess, means for rotating the wheel to move the coin against said article receiving portions, and to actuate the dispensing element, and means close to the sides of the wheel for holding the coin in engagement with said wheel during the actuation of the dispensing element.

4. A vending machine including a revoluble dispensing

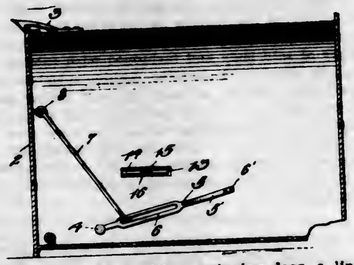
element having article receiving portions, a coin wheel having a peripheral recess, means for directing a coin into the recess, and means for rotating the wheel to direct the coin against said article receiving portions and to actuate the dispensing element.



5. In a vending machine the combination with spaced separately revoluble dispensing elements, having article receiving grooves, of a sectional shaft, a coin wheel secured to each section of the shaft and having a coin receiving peripheral recess, said shaft sections being revoluble together, and means for rotating the shaft to simultaneously actuate the wheels, the coin carrying wheel constituting means for directing a coin into one of the grooves to actuate the element adjacent thereto.

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1,038,237. MAIL-BOX. THOMAS HOUSE TUMEY, Austin, Tex. Filed Oct. 7, 1911. Serial No. 653,383. (Cl. 232—35.)

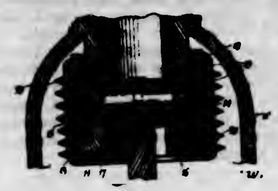


A mail box provided with a swinging door, a link pivotally mounted at one end within the box, said link being formed with a slotted intermediate portion and with a spring forked, free end, and a bar pivotally connected to the door at one end and formed with an eye engaging the slotted intermediate portion of the link and having a running connection therewith, whereby the opening movement of the door will draw said bar and cause the latter to swing the link upwardly and outwardly, the distance from the pivot point of the link to the end of the slot farthest from said pivot point being greater than the distance from the pivot point to the hinged end of the door, substantially as described.

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1,038,238. CYLINDER AND PISTON CONSTRUCTION FOR INTERNAL-COMBUSTION ENGINES. WALTER M. UPCHURCH, Hurley, N. Mex. Filed Oct. 23, 1911. Serial No. 656,187. (Cl. 123—193.)

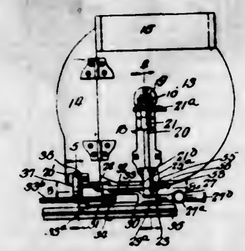
In an internal combustion engine, the combination with a cylinder open at one end and having a surrounding sleeve spaced from the body of the cylinder and formed integrally with said open end, of a piston movable in said cylinder and having one end extending beyond the same, said extended end of the piston being provided with an integrally formed sleeve surrounding the cylinder sleeve



with its inner face bearing against the outer face of the cylinder sleeve.

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1,038,239. GEARING. ABRA VAN WORMER, Fort Wayne, Ind., assignor to Horton Manufacturing Company, Fort Wayne, Ind., a Corporation of Indiana. Filed June 8, 1912. Serial No. 701,130. (Cl. 74—60.)



1. Gearing for washing machines and the like comprising, in combination with a support, a vertical rotary reciprocatory operating shaft, a horizontal rock-shaft operatively connected to said operating shaft, a rock-arm fixed to the outer end of said rock-shaft, a rocking prime-mover, a main link pivotally connected thereto, a large gear and a fly-wheel operated thereby, said main link having horizontally separated arms one of which is operatively connected to said large gear, and a secondary link connecting the end of the other arm of said main link with the rock-arm of said rock-shaft.

2. Gearing for washing machines and the like comprising, in combination with a support having a hinged member, a vertical rotary reciprocatory operating shaft carried by said hinged member, a horizontal rock-shaft mounted on said hinged member operatively connected to said operating shaft, a rock-arm fixed to the outer end of said rock-shaft, a rocking prime-mover mounted on a fixed part of said support, a main link pivotally connected to said prime-mover having horizontally separated arms, a long arm and a short arm, a large gear and a fly-wheel operated thereby both mounted on a fixed part of said support, the long arm of said link being operatively connected to said large gear, and a second link connecting the short arm of said main link with the rock-arm on said rock-shaft.

3. Gearing for washing machines and the like comprising, in combination with a support having a horizontal hinged member, a vertical rotary reciprocatory operating shaft, a horizontal rock-shaft connected to said operating shaft, both shafts being carried by said hinged member, a rock-arm fixed to the outer end of said rock-shaft, a rocking prime-mover mounted on the side of said support and having its axis of movement horizontal, a second horizontal shaft parallel to said rock-shaft mounted above said support on a fixed part thereof, a large gear on said second horizontal shaft, a fly-wheel mounted on the side of said support operated by said large gear, a main link pivotally connected to said prime-mover and having horizontally separated arms, an outer long arm and an inner short arm, the long arm being operatively connected to said large gear, and a second link connecting the short arm of said main link with the rock-arm on the rock-shaft.



1,038,240. SOD-PULVERIZER AND WEED-DESTROYER. ALBERT VEITL, Deadwood, S. D. Filed Sept. 26, 1911. Serial No. 651,421. (Cl. 55—65.)



1. In a machine of the class described, an axle having bearing wheels, a supporting frame swinging upon said axle, a plurality of rearwardly directed raker teeth mounted to swing upon said frame rearwardly of said axle, a drum mounted for rotation upon said frame rearwardly of said raker teeth, a plurality of beater teeth extending radially from said drum, each beater tooth operating between a pair of the raker teeth, and means for simultaneously elevating said raker teeth and the rear portion of the frame and the beater teeth carried thereby.

2. In a machine of the class described, an axle having bearing wheels, a supporting frame swinging upon said axle, a head member pivoted in said frame rearwardly of the axle, a plurality of raker teeth connected to said head and extending rearwardly thereof, a drum mounted for rotation upon said frame rearwardly of said head, a plurality of beater teeth extending radially from said drum, each beater tooth operating between a pair of the raker teeth, a tongue frame connected to said axle and extending forwardly above the supporting frame, a lever swinging from said tongue frame and including a rearward extension bearing upon the supporting frame, and means for holding said lever in adjusted position.

3. In a machine of the class described, an axle having bearing wheels, a supporting frame swinging upon said axle, a head member pivoted in said frame rearwardly of the axle, a plurality of raker teeth connected to said head and extending rearwardly thereof, a drum mounted for rotation upon said frame rearwardly of said head, a plurality of beater teeth extending radially from said drum, each beater tooth operating between a pair of the raker teeth, a tongue frame connected to said axle and extending forwardly above the supporting frame, a lever swinging from said tongue frame and including a rearward extension bearing upon the supporting frame, means for holding said lever in adjusted position, and coupling means between said lever extension and said raker head.

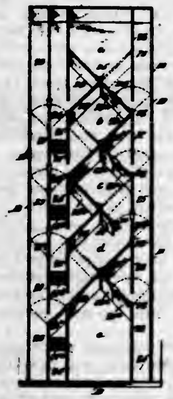
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1,038,241. COAL-DISTRIBUTER. ELMER L. VISH and CHARLES DENHAM, West Terre Haute, Ind. Filed Mar. 23, 1912. Serial No. 685,775. (Cl. 57—37.)

1. The improved coal-distributing apparatus, comprising a primary distributing chute having a series of openings and spouts pendent therefrom and a main distributing chute arranged beneath the first-named one and provided with compartments arranged directly under the several spouts of the upper distributer, the said compartments being in turn provided with openings and pendent spouts for final delivery into cars or other receptacles, as described.

2. The improved coal distributing chute, comprising an inclined platform having series of sectional longitudinal partitions, a series of fixed partitions composed of long and short sides arranged in the central space on the platform, long gates pivoted at the apex of the fixed partitions and adapted for adjustment right and left, and a series of shorter gates adapted for adjustment in line with the shorter fixed partition and in line with the adjacent sectional longitudinal partition for directing coal from a compartment into the right hand chute or passage or from said compartment into the one next below, substantially as described.

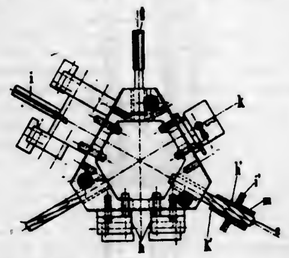
3. The improved coal distributing chute, comprising an inclined platform having parallel sectional partitions between two of which there is formed a series of scuttles having a corresponding series of spouts, fixed partitions arranged at an angle to each other and provided with swinging gates adapted for lateral adjustment for directing coal from a compartment above the partition laterally into the longitudinal passage and thus to the scuttle, substantially as described.



4. The improved coal distributing chute, comprising an inclined platform having parallel sides and three parallel sectional partitions which divide the platform into three longitudinal coal chutes or passages, one of which is provided with a series of scuttles, the two outer sectional partitions having a series of swinging gates for closing the openings therein, a series of fixed partitions composed of long and short sides arranged at an angle to each other in the wide space between two of the sectional partitions, a long gate pivoted at the apex of each angle of the fixed partitions, and short gates pivoted to the right hand sectional partition and adapted to close the openings therein or to swing into alinement with the short fixed partition, substantially as described.

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1,038,242. TURRET. PAUL VOGEL, Cologne-Deutz, Germany. Filed Nov. 14, 1911. Serial No. 660,212. (Cl. 29—48.)



1. In a turret of polygonal shape with alternately long and short outer side faces, and providing an inner cavity, wall portions of narrow cross section at the long side faces and other wall portions of broad cross section at the short side faces, said wall portions being provided with tool-receiving openings in the short side faces and with other tool-receiving openings in the long side faces.

2. In a turret of polygonal shape with alternately long and short outer side faces and providing an inner cavity, wall portions of narrow cross section at the long side faces and other wall portions of broad cross section at

the short side faces, said wall portions being provided with tool receiving openings in the short side faces, with other tool receiving openings extending through the side wall portions at the long side faces, and with openings extending from the long side faces partly into the wall portions of broad cross section.

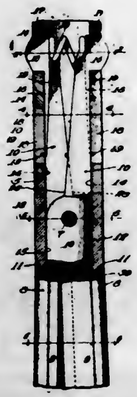
3. In a turret of polygonal shape with alternately long and short outer side faces and providing an inner cavity, wall portions of narrow cross-section at the long side faces and other wall portion of broad cross section at the short side faces, said wall portions being provided with tool receiving openings in the short side faces, with two other tool receiving openings and a centering opening in each of the side wall portions of the long side faces, and with threaded openings extending from the long side faces partly into the wall portions of broad cross section.

4. In a turret of polygonal shape with alternately long and short outer side faces and providing an inner cavity, wall portions of narrow cross-section at the long side faces and other wall portions of broad cross section at the short side faces, said wall portions being provided with tool receiving openings in the short side faces, extending through the corresponding wall portions for receiving shank tools, with two other tool receiving openings and a centering opening for receiving flanged tools and extending through each of the side wall portions at the long side faces, and with threaded openings extending from the long side faces partly into the wall portions of broad cross section.

5. In a turret of polygonal shape with alternately long and short outer side faces and providing an inner, equilateral, polygonal cavity, wall portions of narrow cross section at the long side faces and other wall portions of broad cross section at the short side faces, said wall portions being provided with tool receiving openings in the short side faces and extending through the corresponding wall portions for receiving shank tools, with two other tool receiving openings and a centering opening extending through each of the wall portions at the long side faces for receiving flanged tools, and with threaded openings extending from the long side faces partly into the wall portions of broad cross section.

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1,038,243. UNDERREAMER. WARREN WAGNER, Petrolia, Tex. Filed Apr. 15, 1911. Serial No. 621,278. (Cl. 166—6.)



1. An under-reamer, comprising a slotted hollow mandrel, a pair of cutters pivoted within the mandrel and extending below the same, upward extensions from the cutters, and lugs on the upper ends of the extensions and projecting out through the slots in the mandrel.

2. An under-reamer, comprising a hollow mandrel having longitudinal slots through opposite walls, a pivot pin extending across the interior of the mandrel below the bottoms of and perpendicularly to the plane of said slots, a pair of cutters mounted on the pivot pin and extending downwardly out of the mandrel, upward extensions on the cutters, and lugs on the upper ends of the extensions and projecting out through the slots in the mandrel.

3. An under-reamer, comprising a hollow mandrel having longitudinal slots through opposite walls, a pivot pin extending across the interior of the mandrel below the bottoms of and perpendicularly to the plane of said slots, a pair of cutters mounted on the pivot pin and extending downwardly out of the mandrel, inter-engaging shoulders on the lower end of the mandrel and the cutters, upward extensions on the cutters, and lugs on the upper ends of the extensions and projecting out through the slots in the mandrel.

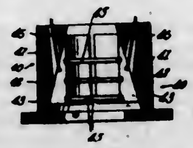
4. An under-reamer, comprising a hollow mandrel having longitudinal slots through opposite walls, a pivot pin extending across the interior of the mandrel below the bottoms of and perpendicularly to the plane of said slots, a pair of cutters mounted on the pivot pin and engaging downwardly out of the mandrel, inter-engaging shoulders on the lower end of the mandrel and the cutters, upward extensions on the cutters, lugs on the upper ends of the extensions and projecting out through the slots in the mandrel, and a compression spring arranged between the lugs.

5. An under-reamer, comprising a hollow mandrel having longitudinal slots through opposite walls, a pivot pin extending across the interior of the mandrel below the bottoms of and perpendicularly to the plane of said slots, a pair of cutters below the mandrel and on opposite sides of a vertical plane determined by the axis of the pivot pin, upward extensions on each of the cutters surrounding and supported by the pivot pin and lying one on each side of the vertical plane of said slots, a shoulder on the lower end of each extension and engaging with the upper end of the other cutter, inter-engaging shoulders on the lower end of the mandrel and the upper ends of the cutters, each of said extensions extending to points adjacent the upper end of the slot opposite the cutter carrying that extension and being of such configuration as to bear against the inner wall of the mandrel adjacent that slot and to be spaced from the opposite walls, lugs mounted on the upper ends of the extensions and extending outwardly through the upper portions of the slots, and members placed in the lower portions of the slots below the lugs.

[Claims 6 to 9 not printed in the Gazette.]

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1,038,244. SHUT-OFF HEAD FOR CASINGS AND THE LIKE. WARREN WAGNER, Petrolia, Tex. Filed June 27, 1911. Serial No. 635,565. (Cl. 166—1.)



1. A packer for the drill rod of oil wells and the like, comprising an annular casing adapted to be secured to the upper end of the well casing and having an upwardly converging inner wall, in combination with segmental slips loosely disposed within the casing and having upwardly converging outer faces and inner arcuate faces to surround the drill rod.

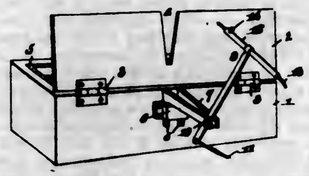
2. A packer for the drill rod of oil wells and the like, comprising an annular casing adapted to be secured to the upper end of the well casing and having an upwardly converging inner wall, in combination with segmental slips loosely disposed within the casing and having upwardly converging outer faces and inner arcuate faces to surround the drill rod, and means whereby to temporarily lift the slips within the casing to cause the same to be carried inwardly by the converging wall of the casing.



3. A packer for the drill rod of oil wells and the like, comprising an annular casing adapted to be secured to the upper end of the well casing and having an upwardly converging inner wall, in combination with segmental slips loosely disposed within the casing and having upwardly converging outer faces and inner arcuate faces, the said slips adapted to surround the drill rod, packing rings disposed about the drill rod within the space inclosed by the arcuate faces of the slips, and means whereby to temporarily lift the slips within the casing to cause the same to be carried inwardly by the converging wall of the casing.

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1,038,245. FLASH-LIGHT APPARATUS. CHARLES ALFRED WALDECK, Catonsville, Md. Filed June 13, 1910. Serial No. 566,696. (Cl. 67—32.)



1. A flashlight apparatus comprising an oblong rectangular receptacle, a cover hinged to one of the side walls of the receptacle and having a slot therein, a lever pivotally mounted upon the outer face of said side wall of the receptacle, an igniter arranged upon and transversely to said lever and adapted to be projected thereby through said slot into said receptacle, and means for operating the lever.

2. A flashlight apparatus comprising an oblong rectangular receptacle, a cover hinged to one of the side walls of the receptacle and having a slot therein, a lever pivotally mounted upon the outer face of said side wall of the receptacle, a tube mounted transversely upon the free end of said lever and adapted to be projected by a movement thereof through said slot into said receptacle, a taper of combustible material extending through said tube, a clamp upon the tube for securing said taper in adjusted position, and means for operating the lever.

3. A flashlight apparatus comprising an oblong rectangular receptacle, a cover hinged to one of the side walls of said receptacle and having a slot therein, a socket mounted upon the outer face of said side wall, a bracket comprising outwardly converging arms having downturned tapered fingers to fit within said socket, a lever pivotally mounted between the converging ends of the arms, an igniter arranged at right angles upon the upper end of the lever and adapted to be projected by a movement thereof through said slot into said receptacle, and means for operating the lever.

4. In a flash light apparatus, the combination of an open-topped receptacle, a lid or cover hinged to one of the side walls of the receptacle for closing the open top thereof, said lid or cover having a substantially V-shaped slot therein, a socket upon said wall of the receptacle, a bracket composed of spaced and outwardly converging members provided at their converging ends with a coupling pin and at their diverging ends with tapered fingers to fit within said socket, a lever pivotally mounted upon said coupling pin, a tube carried by the free end of the lever, a combustible taper fitted within the tube, and means connected with the lever for swinging the same to project the tube through said slot in the cover into the receptacle.

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1,038,246. ANIMAL-TRAP. GEORGE WILLIAM WALTERS, Wildwood, Pa. Filed Dec. 16, 1908. Serial No. 467,912. (Cl. 43—21.)

1. In an animal trap, the combination of a base frame stamped from an integral metal strip, comprising a flat U shaped platform and vertical rearwardly extending arms, one of said arms being turned up to form a catch seat and the other arm extending beyond the former, being adapted to receive one end of a trigger, a spring impelled wire striker having a bearing in the vertical sides of the base, a trigger mounted on the longer arm, and a catch seated on the upturned portion of the shorter arm and adapted to coöperate with the trigger to retain the striker in operative position, substantially as shown and described.



2. In an animal trap, the combination of a base frame comprising a flat U shaped platform, and sides bent at right angles to the face of the platform and extending rearwardly therefrom, and terminating in vertical arms of unequal length, a member connecting the vertical sides of the base, a spring mounted upon said member, a wire striker having a bearing in the vertical sides of the base, the sides of said striker being loosely engaged by the outer ends of the spring, and members mounted at the ends of the rearwardly extending base arms, and adapted to coöperate and hold the striker in operative position, substantially as shown and described.

3. In an animal trap the combination of a base frame formed from an integral metal strip, comprising a flat U shaped platform and rear extensions, said extensions being bent vertical and at right angles to the face of the platform, and bent inwardly toward each other, and then bent rearwardly again and forming arms of unequal length, a member connecting said vertical extensions, a spring impelled integral wire striker having a bearing in said extensions, a trigger mounted at the rear of the longer arm, and a catch member having a seat upon the rear of the shorter arm and having an aperture at its rear end adapted to receive one end of the trigger and hold the striker in operative position, substantially as shown and described.

4. An animal trap having in combination a base frame comprising a horizontal platform portion and a vertical portion integral with the platform, said vertical portion terminating in arms of unequal length, a spring impelled integral wire striker mounted on the base, a catch member having at one end a bait-receptacle and at the other end an aperture, said catch member being seated on the shorter arm of the base, and a trigger mounted on the longer arm and coöperating with the aperture in the catch member to retain the striker in operative position, substantially as shown and described.

5. An animal trap having in combination a base frame stamped from an integral metal strip, and comprising a front horizontal section and a rear vertical section, a member connecting the rear section of the base and a spring impelled integral wire striker having a portion thereof bent to form a shaft and having a bearing in the rear portion of the base, a catch member formed from a metal strip having a bait-receptacle at its front end and having an aperture at the rear end, seated upon an integral upturned portion of the base, a wire trigger connected to the rearmost part of the vertical portion of the base and coöperating with the aperture and the catch member to retain the striker in operative position, substantially as shown and described.

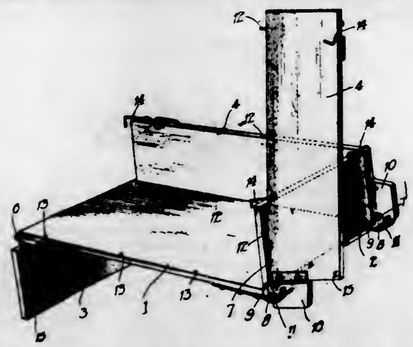
[Claims 6 to 11 not printed in the Gazette.]

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1,038,247. WAGON-BOX. GEORGE WEITZEL, Chicago, Ill. Filed Apr. 10, 1912. Serial No. 689,797. (Cl. 21—7.)

1. In a wagon box, the combination of a bottom member, a pair of side members hinged to said bottom member on horizontally disposed axes located adjacent to the lower corner at one end thereof, and adapted to be swung in their own planes substantially as and for the purpose specified.

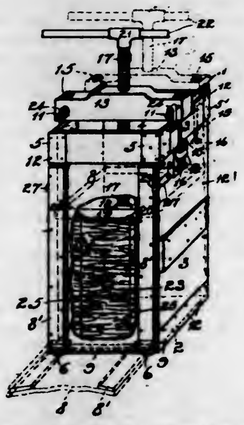
2. In a vehicle body, the combination of a bottom member, a pair of side members hinged to said bottom member on horizontally disposed axes located adjacent to the forward ends thereof, and adapted to be swung in their own planes, and guides arranged so as to insure the proper swinging of said side members substantially as and for the purpose specified.



3. In a vehicle body, the combination of a bottom member, a pair of side members hinged to said bottom member on horizontally disposed axes located adjacent to the forward ends thereof, and adapted to be swung in their own planes and guides arranged adjacent to the axes of said hinges so as to insure the proper swinging of said side members substantially as and for the purpose specified.

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1,038,248. BALING-PRESS. GUSTAVE WENZELMANN, Galesburg, Ill. Filed Mar. 2, 1912. Serial No. 681,032. (Cl. 100—8.)



1. A baling-press comprising a press-box having an open end, a beam crossing said open end, bent rods secured to said box and a portion of each disposed horisontally above it, said beam slidably mounted on said rods, staples projecting above said box for limiting the forward movement of said beam and for receiving the ends of said rods, hooks secured to said box and having their openings directed rearwardly, vertically disposed rods carried by said beam and their stems adapted to engage said hooks, nuts on the lower portions of the last recited rods and beneath the plane of said hooks, whereby said beam is prevented from rising when in operative position, and compressing means operatively and shiftably connected with said beam.

2. A baling-press comprising a press-box having an open side, a follower-block within said box and adapted to pass through said open side, means for actuating it, hooks secured to said box and having upturned ends projected forwardly therefrom, a door adapted to rest in said hooks and to close said opening, said door provided with a slot in its inner portion, adapted to be engaged by said hooks when the door is prone and turned face about, and means for securing the upper portion of the door to said press-box.

3. A baling-press comprising a press-box having an open end, a beam crossing said end, bent brackets fixed to and near the upper corners of the back of said box, on which brackets said beam may be shifted forwardly and back across said end and which brackets limit its rearward movement, and compression means including a screw operatively engaged and shiftable with said beam.

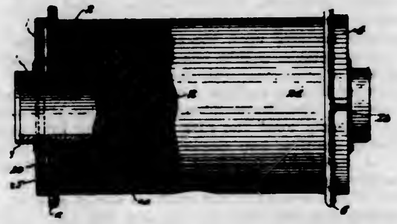
4. A baling-press comprising a press-box having an open end, a beam crossing said end, bent brackets fixed to and near the upper corners of the back of said box and projected forwardly, on which brackets said beam may be shifted forwardly and back and which brackets limit its rearward movement, means for preventing the beam from rising when in operative position, and compression means including a screw engaged and shiftable with said beam.

5. A baling-press comprising a press-box having an open end, a beam crossing said open end, bent brackets fixed to and near the upper corners of the back of said box and projected forwardly, on which brackets said beam may be shifted forwardly and back and which limit its rearward movement, and compression means including a screw engaged and shiftable with said beam.

[Claim 6 not printed in the Gazette.]

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1,038,249. PROTECTOR FOR TUBE-THREAD. JOHN W. WEST, East Braintree, Mass. Filed Feb. 12, 1912. Serial No. 677,115. (Cl. 242—138.)



1. The combination with a tube having a mass of thread wound thereon, said tube having its ends projecting beyond the ends of the mass of thread, and a head having a boss arranged to engage the exterior of the tube to hold the head in place, substantially as described.

2. The combination with a tube having a mass of thread wound thereon, said tube having its ends projecting beyond the ends of the mass of thread, protecting material arranged at the end of the mass of thread, and a head adapted to be forced tightly against said protecting material when in use on a machine, said head being provided with a boss arranged to engage the exterior of the tube to hold the head in place against said material, substantially as described.

3. The combination with a tube having a mass of thread wound thereon, said tube having its ends projecting beyond the ends of the mass of thread, packing material arranged to cover the end of the mass of thread, and means to hold said packing material in intimate contact with the surface of said mass during use on a machine comprising a head having a hollow boss adapted to engage the exterior of the tube, substantially as described.

4. The combination with a tube having a mass of thread wound thereon, said tube having its ends projecting beyond the ends of the mass of thread, packing material adapted to cover the ends of the mass of thread, and a pair of heads arranged to engage said material to hold it in intimate contact with the ends of said mass during use on a machine, each head being provided with a boss adapted to engage the exterior of the tube to hold the head in place, substantially as described.

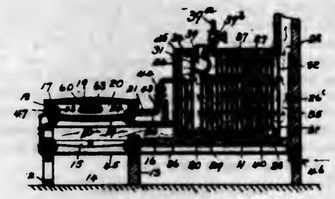
5. The combination with a tube having a mass of thread wound thereon, said tube having its ends projecting beyond the ends of the mass of thread, a pair of heads each having a boss arranged to engage the exterior of the tube to hold the head in place, and a protecting covering extending between said heads and surrounding said mass of thread, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]



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1,038,250. STEAM-GENERATOR. IGNACY WICHROWSKI and JULIAN PIOTROWSKI, New York, N. Y. Filed Sept. 7, 1910. Serial No. 580,878. (Cl. 122—40.)



1. In a steam generator, the combination with a furnace having a frame, of a boiler and superheating means associated with the boiler, said boiler comprising a chamber arranged over the furnace, said superheating means comprising a compartment situated in proximity to the boiler chamber and communicating therewith, a chest supported on the frame of said furnace, and communicating with the furnace, two baffle plates subdividing the interior of the chest and providing a chamber therebetween, and means arranged in the chamber in said chest adapted to contain the motive agent, said means being in communication with the superheating compartment.

2. In a steam generator the combination with a furnace having a frame, of a boiler and superheating means associated with said boiler, said boiler comprising a chamber arranged over the furnace, said superheating means comprising a compartment situated in proximity to the boiler chamber and communicating therewith, a chest supported on the frame of said furnace and communicating with the furnace, a steam head arranged at one end of the lower ends of said chest, a steam drum arranged at the opposite end of the chest, means adapted to convey steam from the superheating compartment to the steam head, and means adapted to convey the motive agent from said steam head to the steam drum.

3. In a steam generator, the combination with a furnace having a frame, of a boiler and superheating means associated with the boiler, said boiler comprising a chamber arranged over the furnace, said superheating means comprising a compartment situated in proximity to the boiler chamber and communicating therewith, a chest supported on the frame of said furnace and communicating with the furnace, two baffle plates subdividing the interior of the chest and providing a chamber therebetween, a steam head arranged at one end of the chamber formed by the baffle plates, a steam drum arranged at the opposite end of the chamber, means adapted to convey steam from the superheating compartment to the steam head, and means adapted to convey the motive agent from said steam head to the steam drum.

4. In a steam generator the combination with a furnace having a frame, of a boiler having a chamber therein arranged over the furnace, an extension provided upon one part of the boiler and having an interior compartment, a communicating means leading from the chamber of the boiler to the compartment of the extension, a chest provided upon the frame of the furnace and having a flue at one end thereof, two baffle plates subdividing the interior of the chest and providing a chamber therebetween, a communicating means leading from the furnace to the chamber of the chest and communicating means leading from said chamber to the flue of the chest.

5. In a steam generator, the combination with a furnace having a bed-plate and a communicating flue, of a base plate arranged directly over the furnace and flue, an annular wall provided upon one part of the base-plate and having a top-plate whereby a steam generating chamber is provided, a vertical wall provided upon another part of the base-plate, a top-plate arranged upon the vertical wall and having one end formed upon part of the annular wall whereby a superheating compartment is provided, a communicating means leading from the generating chamber to the superheating compartment, a box arranged upon the bed-plate of the furnace in which a drying chamber is provided and having a flue in the top at one end thereof, a steam head arranged at one of the lower ends of the drying chamber, a steam drum arranged at the opposite end of the drying chamber, means adapted to convey steam from the superheating compartment to the steam head, means adapted to convey the motive agent from said steam head to the steam drum, and a communicating means leading from the drying chamber to the communicating flue of the furnace.

[Claims 6 to 10 not printed in the Gazette.]

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1,038,251. SOAP-POWDER SPRAYER. EDMUND C. WIDEMAN, Wilkes-Barre, Pa. Filed Apr. 12, 1912. Serial No. 690,418. (Cl. 221—94.)



1. A powder spraying device consisting of a cylinder, a rotary distributer arranged within said cylinder, a shaft arranged transversely of the cylinder and spaced from said distributer, sheaves arranged on said shaft, and chains passing over said sheaves and actuated by said distributer for agitating the powder.

2. A powder spraying device, consisting of a cylinder, an adjustable concaved plate secured to one end of said cylinder, said plate being formed with perforations, a rotary distributer disposed adjacent said plate, and agitating means disposed for movement longitudinally of the cylinder and actuated by said rotary distributer.

3. A powder spraying device, consisting of a receptacle, a dispensing spout, an agitating mechanism, and a member formed of absorbent material disposed adjacent said spout.

4. A powder spraying device, consisting of a cylinder, a rotary distributer arranged within said cylinder, said distributer having its terminals provided with annular grooved members, a shaft disposed transversely of the cylinder, sheaves mounted on said shaft, and an agitating chain passing over said sheaves and said grooved members.

5. A powder spraying device, consisting of a receptacle, a dispensing spout, an agitating mechanism, said agitating mechanism including a cylinder formed of wire mesh and a member formed of absorbent material disposed within said distributer.

1,038,252. REINFORCED GRID RESISTANCE. HENRY J. WIEGAND, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed May 4, 1908. Serial No. 430,843. (Cl. 219—69.)



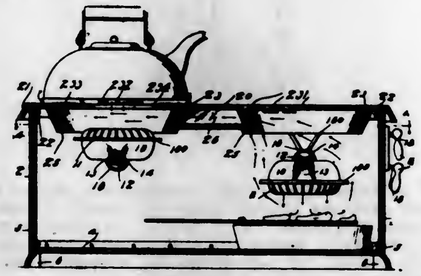
1. The combination with a resistance element, of a reinforcing member embracing portions thereof and means interposed between said reinforcing member and said resistance element for providing resilient and waterproof insulation between the same.

2. The combination with a grid resistance, of an elongated sheet metal strip folded over the ends of the convolutions of said grid for reinforcing the same and means interposed between said strip and said grid for providing a yielding and waterproof insulation between the same.

3. The combination with a grid resistance, of reinforcing strips placed over the edges thereof, a layer of yielding insulating material and a layer of waterproof insulating material interposed between each of said reinforcing strips and said grid, the waterproof material being interposed between the reinforcing strips and the yielding insulating material.

4. The combination with a grid resistance, of substantially U-shaped reinforcing strips placed over the edges thereof, a strip of asbestos and a layer of waterproof material interposed between each of said members and said grid, the waterproof material being interposed between the reinforcing strips and the asbestos strips.

1,038,253. GAS-STOVE. CHARLES W. WILLIAMS, New York, N. Y. Filed Aug. 31, 1911. Serial No. 647,109. (Cl. 126—41.)



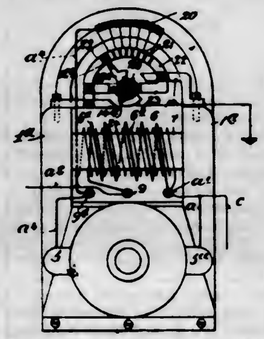
1. In a gas stove, the combination with the stove top having a plurality of openings, depending walls around such openings forming hoods, and walls forming a channel connecting said hoods; of a burner located beneath each opening and comprising a ring-shaped head having orifices in one face and a surrounding radial flange whose circumference is less than that of the wall of the hood above it, and means for supporting said burner head either side up.

2. In a gas stove, the combination with the stove top having a plurality of openings, depending walls around such openings forming hoods, and walls forming a channel connecting said hoods; of a burner located beneath each opening and comprising a ring-shaped head having orifices in one face, a surrounding radial flange whose circumference is less than that of the wall of the hood above it, and a tubular shank projecting radially from said head, a mixer having a tubular outlet in which said shank is swivelly mounted and from which it is removable longitudinally, and an arm connected with the head for permitting it to be set either side up.

3. In a gas stove, the combination with the body having an opening in its top, lids therefor, and a wall depending from said stove top around the opening and forming a hood; of a source of gas supply, an air mixer connected therewith and having a tubular outlet projecting into the rear of the stove body, a burner disposed beneath said opening in the stove top and having a tubular shank swivelly mounted in the outlet from said mixer, an arm projecting forward from said burner and having a notch in its front end, and a door in the front of the stove-body which when opened gives access to said notch.

4. In a gas stove, the combination with the body having a plurality of openings in its top, closed and open-work lids therefor, and a wall depending from said stove top and forming a hood around each opening except at one side thereof and a channel connecting the open sides of said hoods; of a source of gas supply, air mixers connected therewith and each having a tubular outlet projecting into the rear of the stove body, a burner disposed beneath each opening in the stove top and having a tubular shank swivelly mounted in the outlet from one of said mixers, an arm projecting forward from said burner and having an irregular front end, and a door in the front of the stove body which when opened gives access to said arm, the lower edge of said wall being sufficiently elevated above the axis of rotation of the burners to permit the latter to be set either side up.

1,038,254. ELECTRIC-CURRENT GENERATOR. JAMES M. WILSON, New York, N. Y., assignor, by mesne assignments, to Splitdorf Electrical Co., Newark, N. J., a Corporation of New Jersey. Filed Feb. 1, 1911. Serial No. 605,888. (Cl. 171—313.)



1. An electric generator comprising a permanent magnet having pole pieces, a nonmagnetic base for said magnet and pole pieces, other pole pieces mounted upon said base, a winding correlated with the second named pole pieces and in series in the working circuit of the armature, a regulator for said circuit, and a winding for the second named pole pieces in shunt to said armature.

2. An electric generator provided with a permanent magnet and armature, a working circuit for the armature including a series winding, a winding in shunt to said armature, a yoke and pole pieces for said windings, and a regulator for the working circuit controlled by the current in the shunt winding.

3. An electric generator provided with a permanent magnet, an armature, a working circuit for the armature including a series winding, a winding in shunt to said armature, a yoke and pole pieces for said windings, a regulator for the working circuit controlled by the current in the shunt winding, and a battery included in the working circuit arranged to cause diminution of magnetism in the pole pieces of said windings when the regulator is released by the action of the shunt winding.

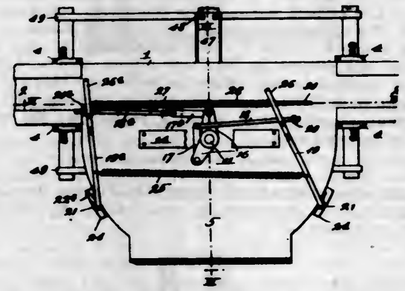
4. An electric generator comprising a permanent magnet, an armature, pole pieces, a yoke, a plurality of windings on said yoke, one of said windings being in series with the armature in the working circuit, the other winding being in shunt to the armature and out of the working circuit, and a regulator for the working circuit normally open until the armature attains a speed of rotation sufficient to cause the closing of the working circuit through the action of the shunt winding and its pole pieces.

5. An electric generator comprising a permanent magnet, a non-magnetic base supporting the same, an armature, pole pieces supported upon said base and provided with a yoke, a plurality of windings upon said yoke, one of said windings being in series with the working circuit through the armature, the other winding being in shunt to the armature and out of the working circuit, a regulator having contacts included in the working circuit, said contacts being open at a speed of rotation of the armature below a substantially predetermined point, said pole pieces having poles coacting with the armature of the regulator for attracting said armature when the first named armature speeds up above said predetermined point and supplies the required current in said shunt winding.

[Claims 6 and 7 not printed in the Gazette.]



1,038,255. BALING-PRESS. JOHN M. WILSON, Wichita, Kans., assignor of one-half to John Norman, Wichita, Kans. Filed Oct. 4, 1910. Serial No. 585,831. (Cl. 100—2.)



1. A baling-press consisting of a baling-case, a reciprocable plunger therein, a pair of shafts carried by said plunger, eccentric gears mounted on said shafts to travel with the plunger, and a relatively stationary intermediate eccentric gear for actuating the first-mentioned gears, said intermediate gear being mounted independently of the plunger.

2. A baling-press consisting of a baling-case having two baling-chambers, a hopper common to both baling chambers, a reciprocable plunger in said baling-case common to both baling-chambers, a pair of eccentric gear wheels carried by said plunger and provided with smooth peripheral portions, a relatively stationary intermediate eccentric gear-wheel for driving the first-mentioned eccentric gear-wheels, a driven shaft upon which the intermediate eccentric gear-wheel is mounted, and stationary bearings in which said shaft is journaled.

3. A baling-press having a baling-case with two baling-chambers, a hopper having a feed-opening and two passageways leading therefrom to the baling-chambers, a reciprocable plunger in the baling-case which alternately passes the discharge ends of said passageways, a feeder mounted in the hopper and adapted to alternately sweep through the passageways, means for locking said feeder at the end of each stroke and means in the path of the plunger, adapted to move longitudinally therewith, to unlock the feeder.

4. A baling-press consisting of a baling-case with two baling-chambers, a hopper having two passageways leading to said baling-chambers, an oscillatory feeder adapted to sweep through said passageways, a reciprocable plunger in the baling-case coacting with said feeder, latch-bars controlled by the plunger for locking said feeder at the end of each stroke and means connecting said latch-bars to cause the same to operate in unison.

5. A baling-press consisting of a baling-case with two baling-chambers, a hopper having two passageways leading to said baling-chambers, an oscillatory feeder adapted to sweep through said passageways, a reciprocable plunger in the baling-case coacting with said feeder, latch-bars for locking said feeder at the end of each stroke, a sliding-member controlled by the plunger for releasing said latch-bars from the feeder, and yielding means for holding said latch-bars in engagement with said sliding-member and the plunger.

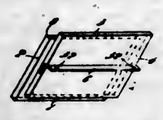
[Claims 6 to 14 not printed in the Gazette.]

1,038,256. BUCKLE. LOUIS W. WRIGHT, New Haven, Conn., assignor to The W. & E. T. Fitch Co., New Haven, Conn., a Corporation. Filed Aug. 1, 1911. Serial No. 641,780. (Cl. 24—194.)



A slide buckle comprising a frame having side bars, a front bar, a rear bar, an upper transverse bowed bar and a lower transverse bar, and a sheet metal slide extending beneath the front bar over the lower transverse bar and under the upper transverse bar, the rear end of the slide extending downwad and rearward forming a vertical wall engaging with the bowed portion of the upper transverse bar, the rear extension of the slide being adapted to engage with the upper transverse bar to prevent the withdrawal of the slide from the frame when the slide is at the limit of its forward movement.

1,038,257. FERROCONCRETE CONSTRUCTION OF BUILDINGS. THOMAS IGNATIUS YOUBELLE and JOHN BELLINGHAM, Wellington, New Zealand. Filed Oct. 16, 1909. Serial No. 523,009. (Cl. 72—19.)



1. A building block comprising a slab composed of two equal rectangular portions of cement-like material integrally joined face-to-face with a top and end edge of one advanced above and beyond the corresponding top and end edge of the other; a wire netting extending from edge to edge of one of said portions parallel to the broad face thereof; an angle iron extending horizontally from end to end of the slab and having a vertical web in said last named portion and against said netting and provided with cuts forming tongues bent back and engaging beneath said netting, the horizontal web of said angle iron extending from said slab and being provided with small holes.

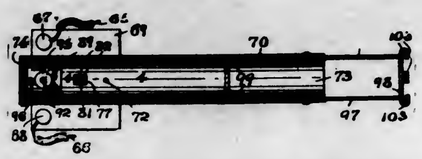
2. A building block comprising a slab composed of two equal rectangular portions of cement-like material integrally joined face-to-face with a top and end edge of one advanced above and beyond the corresponding top and end edge of the other, a wire netting extending from edge to edge of said portions parallel to the broad face thereof; an angle iron extending horizontally from end to end of the slab and having a vertical web in said last named portion and against said netting and provided with cuts forming tongues bent back and engaging beneath said netting, the horizontal web of said angle iron extending from said slab and being provided with small holes and horizontal tie-rods having turned down ends engaging in said holes and adapted to connect inner and outer walls.

3. A building block comprising a slab composed of two equal rectangular portions of cement-like material integrally joined face-to-face with a top and end edge of one advanced above and beyond the corresponding top and end edge of the other; a wire netting extending from edge to edge of one of said portions parallel to the broad face

thereof; an angle iron extending horizontally from end to end of the slab and having a vertical web in said last named portion and against said netting and provided with cuts forming tongues bent back and engaging beneath said netting, the horizontal web of said angle iron extending from said slab and being provided with small holes; horizontal tie-rods having turned down ends engaging in said holes, and a glass face on said slab.

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1,038,258. PYROMETER OR THERMO-BATTERY. JOHN L. ZANDER, Irvington, N. J. Filed Jan. 25, 1911. Serial No. 604,527. (Cl. 73—32.)



1. A heat-collector for measuring instruments consisting of a tubular body, a thermo-couple within said body, consisting of a tubular member and a post, both of insulating material, plate-like members of metal secured to said post, a frame-like element connected with said metal members, and heat-collecting rifles upon said frame-like element.

2. A heat-collector for measuring instruments consisting of a tubular body, a thermo-couple within said body, consisting of a tubular member and a post, both of insulating material, plate-like members of metal secured to said post, a frame-like element connected with said metal members, heat-collecting rifles upon said frame-like element, and a mirror back of said couple for reflecting the heat-rays upon said rifles.

3. A heat-collector for measuring instruments consisting of a tubular body, a thermo-couple within said body, consisting of a tubular member and a post, both of insulating material, plate-like members of metal secured to said post, a frame-like element connected with said metal members, heat-collecting rifles upon said frame-like element, a mirror slidably and adjustably arranged back of said thermo-couple for reflecting the heat-rays upon said rifles, and means for securing said mirror after adjustment in its fixed position.

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1,038,259. SHAPING-MACHINE. WILLIAM F. ZIMMERMANN, Newark, N. J., assignor to Gould & Eberhardt, Newark, N. J., a Corporation of New Jersey. Filed Sept. 27, 1911. Serial No. 651,567. (Cl. 90—39.)



1. The combination with a frame, of a ram mounted to reciprocate therein, horizontal and lateral guide surfaces on said ram, a pitman to actuate said ram, a bull wheel rotatably mounted in said frame and at a distance from said horizontal guide surfaces, approximating one half the diameter of said bull wheel, a crank pin actuated by said bull wheel and coöperating with said pitman, and means to rotate said bull wheel.

2. The combination with a frame, of a reciprocating ram mounted therein, horizontal and lateral guide surfaces on said ram, a crank pin to coöperate with said pitman, a crank plate therefor, a bull gear secured to said crank plate, said crank plate and bull gear rotatably mounted in said frame at a distance from said horizontal guide surfaces approximating one half of the diameter of said bull wheel, and means to actuate said bull wheel.

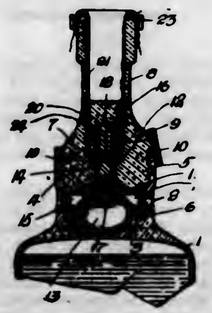
3. The combination with a bull wheel, of means to rotate same, a pitman, a crank pin actuated by said bull wheel and coöperating with said pitman, a ram reciprocally operated by said pitman, horizontal and lateral guide surfaces provided on said ram, and a frame having cooperating horizontal and lateral guiding surfaces, one of which horizontal guiding surfaces is interrupted to enable the bull gear to be rotatably mounted in said frame at a distance from said ram horizontal guide surface approximating one half the diameter of said bull wheel.

4. The combination with a reciprocating ram, of a frame, ram supports arranged on said frame, a bull wheel rotatably mounted in said frame, so as to intersect one of said ram supports, a pitman to reciprocate said ram, a crank pin actuated by said bull wheel and coöperating with said pitman, and means to rotate said bull wheel.

5. The combination with a bull wheel, of means to rotate same, a pitman, a crank pin actuated by said bull wheel and coöperating with said pitman, a ram reciprocally operated by said pitman, a frame, ram supports arranged on said frame, and one support provided with an opening therebeneath to afford a passage for the work to be operated upon.

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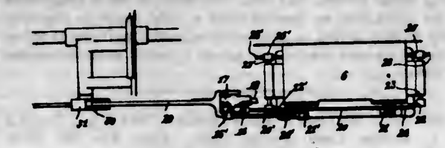
1,038,260. CLOSURE FOR BOTTLES. VINZENZ ZAUZSITZ, Aurora, Ill. Filed Feb. 1, 1912. Serial No. 674,702. (Cl. 215—61.)

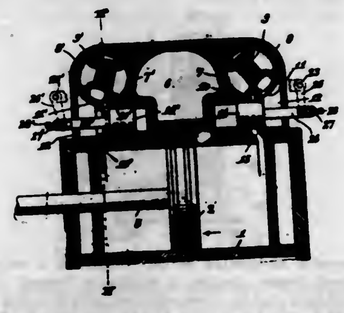


A closure for bottles comprising the combination for the bottle having a neck formed with an annular valve seat, a closure body secured to the neck and having its inner end provided with a recess, and further having a longitudinal bore closed at its upper end and opening at its lower end into said recess, an auxiliary neck integral with said closure body, said body provided with oppositely disposed openings for establishing communication between said recess and said auxiliary neck and further having openings communicating with said bore, a valvular member arranged in said recess and capable of engaging said seat, a tubular stem projecting from said valve and shiftably mounted in said bore and provided with ports adapted to communicate with said openings which communicate with the bore, a plug normally engaging the closed end of the bore and extending in said stem, a spring interposed between said plug and said valve, and a flexible member extending through said openings, ports and plug constituting means for elevating said valve against the action of said spring.



1,038,261. STEAM-ENGINE OR THE LIKE. JAMES B. ALLFREE, Chicago, Ill., assignor to The Hobart-Allfree Company, Chicago, Ill., a Corporation of Connecticut. Filed Nov. 28, 1908. Serial No. 464,923. (Cl. 191—98.)





1. A steam engine comprising a cylinder, a steam chest, main admission and exhaust ports connected with the cylinder, auxiliary exhaust ports connecting the cylinder with the exhaust, oscillating valves controlling the main admission and exhaust ports, and separate compression regulating valves controlling the auxiliary exhaust ports, and valve gear for simultaneously operating the oscillating and compression regulating valves, so that the compression regulating valves have a shorter stroke than the oscillating valves in the short or earlier cut-offs, and a longer stroke than the oscillating valves in the long or later cut-offs.

2. A steam engine comprising a cylinder, a steam chest, main admission and exhaust ports connected with the cylinder, auxiliary exhaust ports connecting the cylinder with the exhaust, independent oscillating valves controlling the main admission and exhaust ports, and independent and adjustable compression regulating valves controlling the auxiliary exhaust ports, and valve gear for simultaneously operating the oscillating and compression regulating valves, so that the compression regulating valves have a shorter stroke than the oscillating valves in the short or earlier cut-offs, and a longer stroke than the oscillating valves in the long or later cut-offs.

3. A steam engine comprising a cylinder, a steam chest, main admission and exhaust ports connected with the cylinder, auxiliary exhaust ports connecting the cylinder with the exhaust, independent oscillating valves controlling the main admission and exhaust ports, independent and adjustable compression regulating valves controlling the auxiliary exhaust ports and means for operating the compression regulating valves and closing the auxiliary exhaust ports after the oscillating valves close the exhaust through the main exhaust ports.

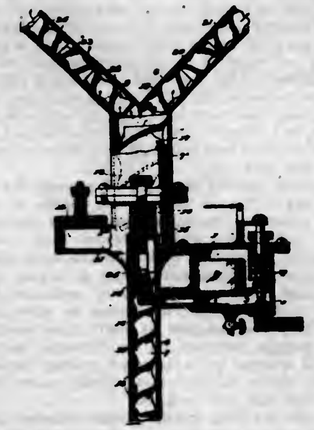
4. A steam engine comprising a cylinder, a steam chest, main admission and exhaust ports connected with the cylinder, auxiliary exhaust ports connecting the cylinder with the exhaust, independent oscillating valves controlling the main admission and exhaust ports, a compression regulating valve connected to each of the oscillating valves and controlling the auxiliary exhaust ports, and means for adjusting the connections between the oscillating valves and compression regulating valves for varying the closing of the auxiliary exhaust ports.

5. A steam engine comprising a cylinder, a steam chest, main admission and exhaust ports connected with the cylinder, auxiliary exhaust ports connecting the cylinder with the exhaust, separate and independent oscillating valves controlling the main admission and exhaust ports, means for operating said oscillating valves for quick admission and cut-off of the live steam and late release of the expanded steam, separate and independent compression regulating valves controlling the auxiliary exhaust ports and adjustable means connected with the compression regulating valves for varying and controlling the closing of the auxiliary exhaust ports.

[Claims 6 to 12 not printed in the Gazette.]

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1,038,262. CARBURETER. MORTIMER REYNOLDS ANSTICE, Rochester, N. Y. Filed Jan. 9, 1911. Serial No. 601,749. (Cl. 48—155.2.)



1. A carbureter comprising a mixing chamber, a gasolene outlet therein, the mixing chamber having an air inlet, a manifold communicating with the outlet of the mixing chamber, the air inlet having stationary means for imparting to the incoming air a whirling motion, and the manifold having stationary means for imparting to the passing mixture a whirling motion in a direction opposite the whirling motion imparted to the air inlet.

2. A carbureter comprising a mixing chamber, a gasolene outlet therein, the mixing chamber having an air inlet and mixture outlet, a manifold in communication with the mixture outlet, the manifold having stationary means for imparting to the passing mixture whirling motions in successive opposite directions.

3. A carbureter comprising a mixing chamber, a gasolene outlet therein, the mixing chamber having an air inlet and a mixture outlet, a manifold connected with the mixture outlet, the air inlet having a stationary helicoidal passage in one direction and the manifold having stationary helicoidal flanges arranged in successive reverse directions.

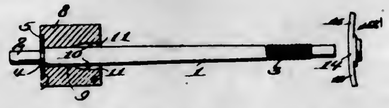
4. A carbureter comprising a mixing chamber, a gasolene outlet in said chamber and located between the ends of said chamber, said chamber having an air inlet at one side of the gasolene outlet and a mixture outlet at the opposite side of the gasolene outlet, stationary helicoidal flanges at the inlet of the said chamber, and oppositely arranged stationary helicoidal flanges at the outlet of said chamber, whereby the incoming air and the outgoing mixture are given whirling motions in opposite directions at opposite sides of said gasolene outlet.

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1,038,263. WINDING-SPINDLE. RAY S. ATWOOD, Plymouth, Pa. Filed May 27, 1911. Serial No. 629,809. (Cl. 242—35.)

1. A spindle adapted to be passed through the bore of a bobbin and to project beyond said bobbin at opposite

ends, said spindle having a plurality of laterally projecting spurs struck up therefrom adjacent one end; a roll mounted on said spindle and having its bore formed with longitudinal branches wherein said spurs are received, to prevent rotation of the roll upon the spindle, said branches opening through the inner end face of said roll; and a locking disk anchored upon said spindle and engaged with the outer end face of said roll.



2. A spindle adapted to be passed through the bore of a bobbin and to project beyond said bobbin at opposite ends, said spindle having one end thereof threaded and the other end provided with a locking disk which is anchored thereon; a roll mounted on the second-named end of the spindle and having its outer end face formed with a seat adapted to receive said disk; and a clamping member mounted upon the first-named end of said spindle and adapted to be tightened against the adjacent end face of the bobbin, to draw said spindle in one direction and force said disk into said seat.

3. A spindle adapted to be passed through the bore of a bobbin and to project beyond said bobbin at opposite ends, said spindle having one end of its body threaded and the other end formed with a reduced stem, and being formed at the junction of said stem and body with a retaining recess; in combination with a locking disk anchored in said recess; a roll mounted upon said body directly adjacent said stem and having its outer end face formed with a seat adapted to receive said disk; and a clamping member mounted on the threaded end of said spindle and adapted to be tightened against the adjacent end of the bobbin, to draw said spindle in one direction and force said disk into said seat.

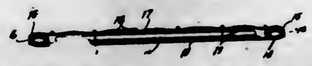
4. A bobbin-carrying spindle formed adjacent one end of its body with a plurality of laterally-projecting spurs, and terminating at that end in a reduced stem, said spindle being provided with a peripheral retaining recess at the junction between said stem and body; in combination with a locking disk anchored in said recess; and a roll mounted upon said spindle end and having its outer end face formed with a seat wherein said disk is received, the bore of said roll being formed with longitudinal branches wherein said spurs are received, to prevent rotation of the roll upon the spindle, said branches opening through the inner end face of said roll.

5. A bobbin-carrying spindle formed adjacent one end of its body with a plurality of laterally-projecting spurs, and terminating at that end in a reduced stem, said spindle being provided with a peripheral retaining recess at the junction between said stem and body; in combination with a locking disk anchored in said recess; a roll mounted upon said spindle end and having its outer end face provided with a seat wherein said disk is received, the bore of said roll being formed with longitudinal branches wherein said spurs are received, to prevent rotation of the roll upon the spindle; and clamping means carried by said spindle at its other end and adapted to be tightened against the adjacent end of the bobbin, to draw said spindle in one direction and force said disk into said seat.

[Claim 6 not printed in the Gazette.]

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1,038,264. SNOW-SHOE. ADOLPH A. BAKER, Butte, Mont. Filed May 1, 1912. Serial No. 694,565. (Cl. 46—67.)



A snow shoe comprising a frame formed of a single length of metal tubing, spaced substantially parallel cross braces within and terminally fixed to said frame, a plurality of transverse wires extending in parallelism with and arranged between said cross braces, there being notches formed in the outer faces of the frame between said cross braces, and the terminals of each transverse wire being bent at substantially a right angle to the wire and snugly fitting in said notches, and longitudinal wires secured to said braces and woven through said transverse wires.

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1,038,265. ENVELOP-MOISTENING DEVICE. DONALD C. BAKER, Canal Dover, Ohio. Filed Apr. 30, 1912. Serial No. 694,164. (Cl. 120—75.)



An envelop moistening device, comprising a body having a port formed therein, a receptacle formed integral with said body and in communication with the port thereof, a pad holder arranged in the front wall of said body and in communication with said port, a pad arranged in said holder, a retaining plate secured to the front wall of said body and extending over said pad, said plate having an opening formed therein to allow access to the pad for moistening the envelop flap, and depending portions carried by said plate and adapted to hold the flap of an envelop in engagement with said pad as said flap is passed over said pad.

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1,038,266. PROCESS FOR THE PRODUCTION OF INTAGLIO PRINTING-SURFACES FOR LITHOGRAPHIC OR ALUMINUM PRINTING. WALTER J. R. BARTLETT, San Francisco, Cal. Filed Jan. 2, 1908. Serial No. 409,083. (Cl. 101—178.)



1. The herein described process for the production of intaglio printing surfaces on zinc or aluminum, which consists in pressing a hardened cameo from an original engraved surface into a plate of zinc or aluminum, then covering said plate with a film of acid-resistant material capable of being hardened by the actinic action of light, hardening said film by exposure to actinic rays, polishing the plate with charcoal or other suitable material, etching the plate surfaces thus exposed by lithographic or aluminum etching methods, dissolving out the film left in the intaglio design by the solvent action of chloroform or other suitable solvent, whereby the intaglio design may be used as an ink-retaining surface from which to print.

2. The herein process for producing duplicate printing surfaces from an original engraving which consists in sinking a hardened cameo copy of the original engraving into the surface of a plate adapted for printing by lithographic or aluminum processes, covering said plate with a film of material of an acid-resisting character, drying the same, then polishing the film covered surface with charcoal or other suitable material, thereby exposing the plane surface of said plate without removing the film from the depressed portions thereof, then etching the exposed surfaces of the plate with chemicals suited to lithographic or aluminum printing processes, then using a suitable solvent, as chloroform, or benzole, to clear off the acid-resistant film covering the depressed portions of the plate.



3. The herein described process for the production of intaglio printing surfaces adapted for use under lithographic or aluminum printing conditions, which consists in producing the design in intaglio in a plate having normally ink-attractive qualities, protecting said intaglio designs by a coating or film, treating the plane surface of the plate with an etching fluid to render the same ink-repellent without coating the material of which it is composed, and then removing the protective film from the intaglio design; thereby producing an uncoated plate with design and non-design surfaces having opposite ink-receiving qualities.

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1,038,267. WHEELED TRAY. CHARLES A. BAYLER, York, Pa. Filed Jan. 23, 1912. Serial No. 672,951. (Cl. 21—65.)



1. In a device of the class described, the combination with a front and rear post, of outwardly curved non-resilient side frames secured thereto, trays mounted on said frames, studs depending from the bottom of the upper tray entering the upper ends of said posts.

2. In a device of the class described, the combination with a front and rear post, having wheels mounted upon the lower ends thereof, of an upper and lower non-resilient frame secured to said posts, the sides of said frames curved outwardly, trays resting upon said frames, studs secured to and depending from the lower surface of the upper tray entering the upper ends of said posts, and means for mounting one of said wheels in a swiveling manner to said front post.

3. In a device of the class described, the combination with upright hollow posts, non-resilient frames secured thereto and detachable trays resting upon said frames, of means for preventing the accidental tipping of said trays, comprising studs secured thereto and entering the upper ends of said posts, said frames outwardly curved and adjacent to the outer edge of said trays.

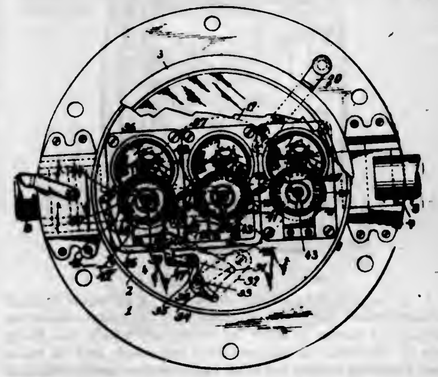
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1,038,268. LOCK. ORLANDO W. BEDELL, New York, N. Y., assignor to Ely-Norris Safe Company, Perth Amboy, N. J., a Corporation of New Jersey. Filed Feb. 19, 1908. Serial No. 416,654. (Cl. 70—26.)

1. In a lock, a movable locking member, operating means connected thereto for moving the member to unlocking position, a time mechanism for controlling the movement of said member to unlocking position, a holding device for holding said operating means while setting said time mechanism, and releasing mechanism acting independently of the time mechanism for causing the holding device to release said operating means, substantially as set forth.

2. In a lock, a movable locking member, operating means connected thereto for moving the locking member to unlocking position, a plurality of time mechanisms controlling the movement of said member to unlocking position one independently of another, a holding device for holding said operating means while setting said time mechanisms, and releasing mechanism acting independently of the time mechanisms for causing the holding device to release said operating means, substantially as set forth.

3. In a lock, a movable locking member, operating means connected thereto for moving the member to unlocking position, a plurality of time mechanisms independently controlling the movement of said member to unlocking position, a holding device for holding said operating means while setting said time mechanisms, and releasing mechanism actuated automatically and independently of the time mechanisms when said member is moved to locking position for causing the holding device to release said operating means, substantially as set forth.



4. In a lock, a movable locking member, operating means connected thereto for moving the member to locking and unlocking positions, a movable device for holding the member against movement to locking position, a time mechanism for controlling the movement of said member to unlocking position, and a movable holding device for holding said operating means while setting said time mechanism, said holding device being operable to release said operating means and permit it to be held by the time mechanism, substantially as set forth.

5. In a lock, a movable locking member, operating means connected thereto for moving the member to locking and unlocking positions, a movable device for holding the member against movement to locking position, a plurality of time mechanisms independently controlling the movement of said member to unlocking position, and a movable holding device for holding said operating means while setting said time mechanisms, said movable holding device being operable to release said operating means and permit it to be held by the time mechanisms, substantially as set forth.

[Claims 6 to 20 not printed in the Gazette.]

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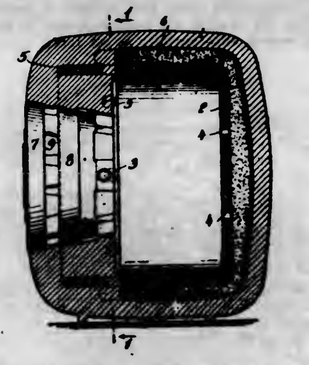
1,038,269. SAFE. ORLANDO W. BEDELL, New York, N. Y., assignor to Ely-Norris Safe Company, Perth Amboy, N. J., a Corporation of New Jersey. Filed Nov. 22, 1910. Serial No. 593,612. (Cl. 109—4.)

1. A compound safe-body comprising an outer body of unmachinable metal and an inner body mounted within the same, the inner body being spaced apart from the outer one over the major portion thereof and a portion of the inner body being embedded in the metal of the outer one to position the inner body rigidly with respect to the outer one, substantially as set forth.

2. A compound safe-body comprising an outer body of unmachinable metal and an inner body mounted within the same and spaced apart therefrom over the major portion thereof, a portion of the inner body being embedded in the metal of the outer one to position the inner body rigidly with respect to the outer one and the inner body being formed to facilitate securing it in a mold during the casting of the outer body, substantially as set forth.

3. A compound safe-body comprising an outer body of unmachinable metal and an inner body mounted within the same and spaced apart therefrom over the major portion thereof, a portion of the inner body being embedded in the metal of the outer one to position the inner body rigidly

with respect to the outer one and the inner body being provided with openings which the metal of the outer body may fill when casting the outer body, substantially as set forth.



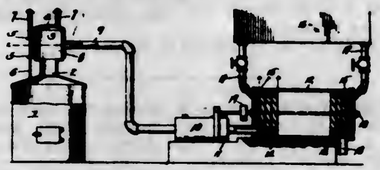
4. A compound safe-body consisting of an outer body of unmachinable metal of substantially uniform thickness throughout except around the door-jamb where the thickness of the metal is substantially increased, and an inner body mounted within the outer body with a portion thereof embedded in the thicker metal of the outer body about the door-jamb, the major portion of the inner body being spaced apart from the outer body, substantially as set forth.

5. A compound safe-body comprising an outer body of unmachinable metal and an inner body mounted within the same and spaced apart therefrom over the major portion thereof, a portion of the inner body being embedded in the metal of the outer one to position the inner body rigidly with respect to the outer one and the space between the two bodies being extended through the metal of the outer body out to the jamb of the door-opening, substantially as set forth.

[Claim 6 not printed in the Gazette.]

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1,038,270. SMOKE-DILUTER. NICHOLAS BENINCASA, Pittsburgh, Pa. Filed Sept. 21, 1910. Serial No. 583,058. (Cl. 110—183.)

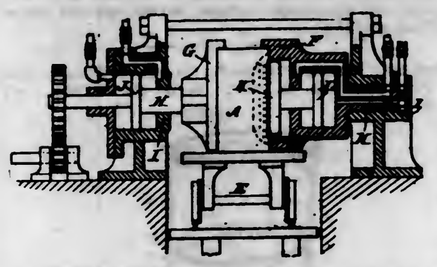


1. The combination with a furnace of a smoke discharge pipe leading therefrom, a mixing tank, a shaft passing horizontally through said tank, perforated transverse partitions arranged adjacent the tank ends, blades arranged on said shaft, and between said partitions, the smoke pipe discharging into the lower portion of the tank through one of said partitions, means for discharging water into the upper part of the tank between the tank end and the adjacent partition and means for drawing off said water from the lower portion of the tank at a point between the other partition and the adjacent end of the tank.

2. A device of the kind described comprising a mixing tank, a shaft passing therethrough, blades carried by said shaft, a cylindrical pump casing in alinement with the mixing tank, a shaft in said casing, fan blades on the last mentioned shaft, a gear on said shaft and within the casing, the first mentioned shaft extending to said casing, a gear on the first mentioned shaft meshing with the gear on the second mentioned shaft, means for driving the first mentioned shaft, means for admitting smoke into the casing, a pipe for conducting smoke from the casing to the tank, and means for injecting water into the tank, the blades on the first mentioned shaft mixing the smoke and water.

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1,038,271. METHOD OF TREATING METAL INGOTS. GEORGE HILLARD BENJAMIN, New York, N. Y. Filed Feb. 24, 1911. Serial No. 610,526. (Cl. 22—216.)



1. A step in the method of treating ingots which consists in casting the metal into a mold and maintaining the temperature of one side of the mold relatively higher than that of the other sides and bottom of the mold during the whole time that the ingot is cooling.

2. A step in the method of treating ingots which consists in rotating the ingot after casting, and simultaneously subjecting the ingot to lateral pressure along a portion of its length exerted against the warm side of the ingot.

3. The method of treating ingots which consists in first casting it in such manner that one side of the ingot shall be warmer than the other sides, and subsequently subjecting the ingot to rotation and to lateral pressure along a portion of its length exerted against the warm side of the ingot.

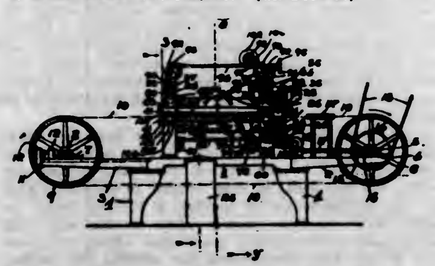
4. The method of treating ingots which consists in casting it into a mold provided with means whereby one side of the mold shall be warmer than the other sides, then withdrawing the ingot, rotating the ingot and subjecting the warmer side of the ingot to the action of lateral pressure along a portion of its length.

5. The method of treating ingots which consists in casting the metal into a mold, and then regulating the temperature of the sides and bottom of the mold to have that of one side relatively higher than that of the other sides and bottom, whereby all the shrinkage of the ingot will take place from without inward and at one side.

[Claims 6 and 7 not printed in the Gazette.]

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1,038,272. MACHINE FOR SPLITTING CORK-BARK. ALBERT H. BIESTCAMPFEL, Newark, N. J. Filed Aug. 4, 1911. Serial No. 642,249. (Cl. 144—2.)



1. In a machine for splitting cork-bark into sheets, a frame-work, a band-knife, means for producing a continuous movement of said knife, feed-rolls rotatably mounted in said frame-work, said feed-rolls being of such construction so that the cork-bark is passed under compression between said feed-rolls and that the surface of the cork-bar is spread before it reaches the cutting edge of said band-knife, and means for producing the rotary movements of said feed-rolls.

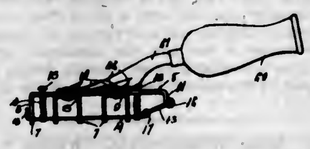
2. In a machine for splitting cork-bark into sheets, a frame-work, a band-knife, means for producing a continuous movement of said knife, feed-rolls rotatably mounted in said frame-work, said feed-rolls being conically shaped and tapering in opposite directions from the middle toward the ends of the rolls, so that the cork-bark is passed under compression between said feed-rolls and that the surface of the cork-bark is spread before it reaches the cutting edge of said band-knife, and means for producing the rotary movements of said feed-rolls.

3. In a machine for splitting cork-bark into sheets, a frame-work comprising a pair of standards, bearing-blocks slidably connected with said standards, a band-knife, means for producing a continuous movement of said knife, feed-rolls journaled between said bearing-blocks, said feed-rolls being of such construction so that the cork-bark is passed under compression between said feed-rolls and that the surface of the cork-bark is spread before it reaches the cutting edge of said band-knife, auxiliary feed-rolls, and tension-rolls also rotatably mounted between said bearing-blocks, and means for producing the rotary movements of said feed rolls and said tension rolls and causing said rolls to travel faster than the material which is to be split, whereby the material is sufficiently spread to remove visible cavities.

4. In a machine for splitting cork-bark into sheets, a frame-work comprising a pair of standards, bearing-blocks slidably connected with said standards, a band-knife, means for producing a continuous movement of said knife, feed-rolls journaled between said bearing-blocks, said feed-rolls being of such construction so that the cork-bark is passed under compression between said feed-rolls and that the surface of the cork-bark is spread before it reaches the cutting edge of said band-knife, auxiliary feed-rolls, and tension rolls also rotatably mounted between said bearing-blocks, and means for producing the rotary movements of said feed rolls and said tension rolls and causing said rolls to travel faster than the material which is to be split, whereby the material is sufficiently spread to remove visible cavities, combined with stationary plates fixed to said bearing-blocks, and guide-plates adjustably connected with said stationary plates, each guide-plate having chambered edge-portion located in close proximity to the surface of an auxiliary feed-roll.

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1,038,273. CURRYCOMB. JOE W. BLACK, Gomez, Tex. Filed July 17, 1911. Serial No. 638,922. (Cl. 119—88.)

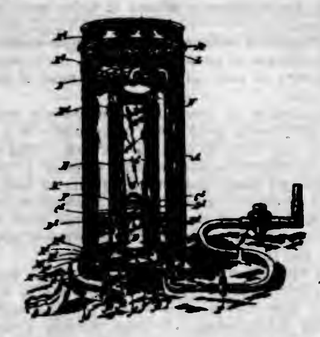


1. In a self-cleaning curry comb, a back plate, a handle secured thereto, U-shaped plates secured to the lower face of the back plate and formed with teeth, a cleaner plate pivotally connected at the rear edge of the back plate and having slots receiving said toothed plates, means normally holding said cleaner plate over the teeth and permitting the same to be depressed for action and an upturned portion at the forward end of the cleaner plate engaged with a downturned portion of the back plate to prevent displacement of the former.

2. A curry comb comprising a back plate having a downturned forward end provided with teeth, U-shaped plates secured to the lower face of the back plate and having toothed extremities, said back plate having a downturned rear end, a cleaner plate having slots receiving said toothed portions and an upturned forward portion preventing displacement thereof, a link pivotally connecting the rear end of the cleaner plate and the rear downturned portion of the back plate, pins connected to the cleaner plate and movably engaging the back plate and springs mounted upon the pins to force said cleaner plate over the teeth to automatically clean the same when released from a compressed condition.

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1,038,274. REGENERATIVE GAS-BURNER. FRANZ BLUMENSTEIN, London, England. Filed Dec. 17, 1910. Serial No. 597,771. (Cl. 158—108.)



1. In a regenerative gas burner, the combination of a chamber arranged to be heated by the flame of the burning gas and through which the gas supply passes, a second chamber from which the heated gas issues, pipes connecting the first chamber with the second chamber, and a mixing chamber surrounding the second chamber, and said pipes, and extending toward the first chamber, substantially as described.

2. In a regenerative gas burner, the combination of a chamber arranged over the point of ignition, a gas supply pipe for the chamber, a second chamber from which the heated gas issues, pipes connecting the first chamber with the second chamber, a mixing chamber surrounding the second chamber and said pipes, and extending toward the first chamber, means for admitting air at the lower end of the mixing chamber so as to pass said second chamber, and a baffle-plate arranged above the said second chamber for causing the mixing of the air with the heated gas issuing therefrom, substantially as described.

3. In a regenerative gas burner, the combination of a chamber, means for supplying gas to the chamber, a second chamber in communication with the first chamber and provided with an orifice for the escape of the gas, a mixing chamber surrounding the second chamber and arranged to convey air and the gas escaping from the orifice of the second chamber for ignition to heat the first chamber, means for regulating the admission of the air to the mixing chamber, and a baffle plate arranged in the mixing chamber opposite the orifice of the second chamber for causing the mixing of the air and the heated gas, substantially as described.

4. In a regenerative gas burner, the combination of a chamber, means for supplying gas to the chamber, a second chamber in communication with the first chamber and provided with an orifice for the escape of the gas, a mixing chamber surrounding the second chamber and having one end covered by wire gauze and carrying a perforated ring in proximity to the first chamber, and a baffle plate arranged in the mixing chamber opposite the orifice of the second chamber, substantially as described.

5. In a regenerative gas burner, the combination of a chamber, means for supplying gas to the chamber, a second chamber, conduits connecting the first chamber with the second chamber, the second chamber having an orifice for the escape of the gas, a mixing chamber surrounding the second chamber and having an end covered by wire gauze and carrying a perforated ring in proximity to the first chamber, a plate at the other end of the mixing chamber provided with openings for admitting air, a disk valve for regulating the size of the openings in said

plate, and a baffle plate arranged within the mixing chamber opposite the orifice of the second chamber and provided with perforations near its periphery, substantially as described.

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1,038,275. EXPLOSIVE. HARVEY PERRY BOSTAPH, Windsor, Ontario, Canada. Filed Apr. 11, 1912. Serial No. 690,214. (Cl. 52—3.)

1. An explosive compound comprising perchlorate of ammonia, dinitrobenzene, nitrate of soda, wood meal and rosin.

2. An explosive compound comprising in every hundred parts perchlorate of ammonia 37 parts, dinitrobenzene 11 parts, nitrate of soda 43 parts, wood meal 8 parts, and rosin 1 part.

3. The method of compounding explosives which consists in pulverizing perchlorate of ammonia to a fineness which will pass through a screen not larger than 80 mesh, pulverizing dinitrobenzene to pass through a screen not larger than 50 mesh, pulverizing nitrate of soda to pass through a screen not larger than 60 mesh, producing wood meal to pass through a screen not larger than 40 mesh, pulverizing rosin to pass through a screen not larger than 30 mesh, and then mixing such materials.

4. The method of compounding explosives which consists in pulverizing perchlorate of ammonia to a fineness which will pass through a screen not larger than 80 mesh, pulverizing dinitrobenzene to pass through a screen not larger than 50 mesh, pulverizing nitrate of soda to pass through a screen not larger than 60 mesh, producing wood meal to pass through a screen not larger than 40 mesh, pulverizing rosin to pass through a screen not larger than 30 mesh, and then mixing such materials by first mixing the rosin with the wood meal and then mixing the two ingredients so mixed with the other ingredients.

5. The method of preparing an explosive compound which consists in mixing together one part of rosin to a fineness to pass through a 40 mesh screen, with eight parts of wood meal of a fineness to pass through a 60 mesh screen, and incorporating the mixture so formed with 37 parts of perchlorate of ammonia of a fineness to pass through a 100 mesh screen, 11 parts of dinitrobenzene of a fineness to pass through a 60 mesh screen, and 43 parts of nitrate of soda of a fineness to pass through an 80 mesh screen.

[Claim 6 not printed in the Gazette.]

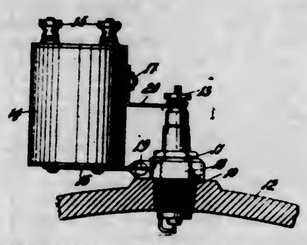
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1,038,276. WHIP-SOCKET. JAMES Y. BOWSER, Kittanning, Pa. Filed Aug. 4, 1911. Serial No. 642,285. (Cl. 21—130.)



A whip lock for whip sockets comprising a collar embracing a socket to secure the lock thereto, a strip connected at its lower end to the collar and engaging the upper end of the socket to prevent the downward movement of the collar thereon, said strip extending upwardly above its engagement with the socket, and a split elastic collar carried by the said extension with relation to the socket, and means for connecting the ends of the said split elastic collar.

1,038,277. TRANSFORMER ATTACHMENT FOR SPARK-PLUGS. STEPHEN F. BRIGGS, Milwaukee, Wis., assignor to Briggs & Stratton Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed May 31, 1910. Serial No. 564,052. Renewed Nov. 17, 1911. Serial No. 660,967. (Cl. 123—148.)



1. An induction coil, a clip carried thereby for clamping the body of a spark plug to support the coil, and an adjustable bracket on the induction coil adapted for engagement with the insulated central pin of the spark plug, said clip and bracket constituting the secondary terminals of the induction coil.

2. An induction coil, a metal strap secured to the bottom thereof and constituting one terminal of the secondary winding of the induction coil, said metal strap being twisted and bent to form a clip for engaging the body of a spark plug, a bolt passing through the end and neck portion of the strap for clamping it to the body of a spark plug for supporting the induction coil, a clamping bolt on the side of the induction coil, an angular bracket having an elongated slot passing over the clamping bolt, said bracket being adjustably clamped to the induction coil by means of the clamping bolt and provided with an opening in its extending portion to engage with the central pin of the spark plug, said clamping bolt constituting the other secondary terminal of the induction coil and the bracket and the clip forming the secondary connections between the induction coil and the spark plug.

3. An induction coil, a metal strap secured to the bottom thereof and twisted and bent to form a hexagonal clip with its end standing approximately parallel with the neck portion between the twisted portion and the hexagonal clip, a bolt passing through the neck portion and the end of the strap, a spark plug having a hexagonal body engaged by the clip, and an insulated central pin with a binding post on its end, said bolt serving to clamp the clip to the body of the spark plug for supporting the induction coil, a clamping bolt projecting from the side of the induction coil with a nut threaded thereon, and an angular bracket provided with a slot in its vertical arm fitting on the clamping bolt and held in an adjustable position by means of the nut, the horizontal arm of the bracket being provided with an opening fitting upon the binding post of the central pin member of the spark plug.

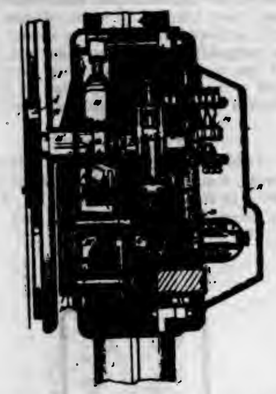
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1,038,278. SEMAPHORE-SIGNAL. WALTER W. BROWN, Schenectady, N. Y., assignor, by mesne assignments, to The Union Switch and Signal Company, a Corporation of Pennsylvania. Filed Mar. 21, 1907. Serial No. 363,579. (Cl. 246—21.)

1. In a semaphore signal, a semaphore-arm, a driving member, a slot mechanism for clutching said member to said arm, means for preventing relative movement of said arm and member in one direction only, a driving motor for said member, a brake for said member, and means for rendering said motor and said brake alternately operative.

2. In a semaphore signal, a drive-shaft, a semaphore-arm carried thereby, a driving member loose on said shaft, a slot mechanism for clutching said member to said shaft, means for preventing relative movement of said shaft and member in one direction only, a driving motor for said member, a brake for said member, and means for rendering said motor and said brake alternately operative.

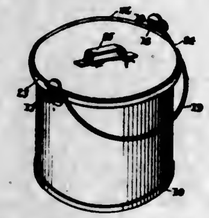
3. In a semaphore signal, a drive-shaft, a semaphore-arm carried thereby, a driving member loose on said shaft, a slot mechanism for clutching said member to said shaft, a ratchet and pawl device connecting said member to said



shaft, a driving motor for said member, and means for preventing the movement of said member except when the motor is operating.

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1,038,279. VESSEL-CLOSURE. HENRY E. BRYANT, Jacksonville, Fla., assignor to American Patent Manufacturing Company, Jacksonville, Fla., a Corporation of Arizona. Filed Aug. 25, 1911. Serial No. 645,963 (Cl. 220—27.)



In a vessel closure, the combination of a cylindrical vessel having an open upper end, a pair of ears secured to the upper end of the cylindrical wall of said vessel at diametrically opposite points, tongues struck centrally from said ears respectively inwardly and downwardly above the margin of the vessel and forming resultant perforations above the tongues in said ears, a bail having its ends engaged in said perforations respectively, a closure for the open end of said vessel comprising a crown and a depending annular flange carried by the latter and slidable in the vessel, and a laterally directed rib carried by said closure having recesses therein at diametrically opposite points through which said tongues respectively pass in the application and removal of the closure, said rib being adapted to pass beneath said tongues upon rotation of the closure relatively to the vessel when the former is applied to the latter whereby the closure and vessel are locked against disengagement from each other.

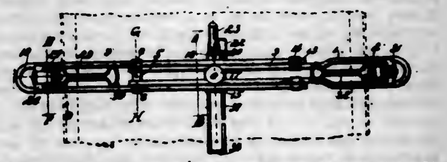
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1,038,280. BOOK-HOLDER. JAMES R. BURNETT, Heilson, Wash. Filed Apr. 9, 1912. Serial No. 689,650. (Cl. 45—61.)

1. A book holder including oppositely disposed interfitting slides each including a single length of wire bent upon itself to form parallel arms, the arms of one slide fitting between the arms of the other slide, means carried by the free ends of the arms of each slide for slidably engaging the arms of the opposed slide, and a clip carried by each slide.



2. A book holder including oppositely disposed interfitting slides each including a single length of wire bent upon itself to form parallel arms, the arms of one slide fitting between the arms of the other slide, means carried by the free ends of the arms of each slide for slidably engaging the arms of the opposed slide, and a clip slidably connected to each slide.



3. A book holder including oppositely disposed interfitting slides each including a single length of wire bent upon itself to form parallel arms, the arms of one slide fitting between the arms of the other slide, means carried by the free ends of the arms of each slide for slidably engaging the arms of the opposed slide, a block slidably connected to each slide and projecting beyond the face thereof to constitute a support, and a clip connected to each block.

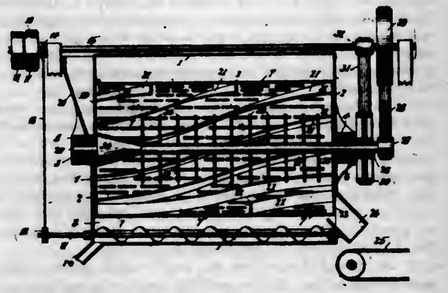
4. A book holder including oppositely disposed slides telescopically connected, a back plate detachably and adjustably connected to the interfitting portions of the slides, clips carried by the slides, and a support engaging element pivotally connected to the back plate.

5. A book holder including interfitting slides, clips slidably connected to the respective slides and oppositely disposed, a back plate adjustably and detachably connected to the slides, and a support engaging clip pivotally connected to the back plate.

[Claims 6 to 8 not printed in the Gazette.]

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1,038,281. BAG-CLEANER. EDWARD L. BUSCHMAN, East Orange, N. J. Filed July 21, 1910. Serial No. 573,082. (Cl. 15—8.)



1. In a bag cleaning machine, the combination of a rotatable horizontally arranged drum provided upon the interior with means for beating or knocking the bags introduced therein, one end of said drum being provided with an opening through which the bags are introduced into the drum and the other end of the drum being provided near the periphery thereof with an unobstructed arc shaped opening having its center of curvature substantially coincident with the axis of rotation of the drum and of substantially a uniform width, a casing in which said drum rotates, and a discharge chute located at one end of said casing at the bottom thereof and with which said arc-shaped opening in the drum registers during part of each complete revolution of said drum, substantially as described.

2. In a bag cleaner, the combination with a drum provided upon its interior with means for beating or knocking the bags to clean them, one end of said drum being provided with an opening for introducing the bags therein, and an inwardly tapering or inclined member located within the drum near said bag-receiving opening and acting to

move the bags away from said opening as the same are introduced within the drum.

3. In a bag cleaner, the combination with a drum provided upon its interior with means for beating or knocking the bags to clean them, one end of said drum provided with an opening for introducing the bags therein, a rotatable shaft within said drum and provided with a cone shaped or inwardly inclined member near said bag receiving opening and acting to move the bags away from said opening as the same are introduced within the drum.

4. A bag cleaner, comprising the combination of a horizontal rotatable drum provided upon its interior with inwardly extending projections, a rotatable shaft extending through said drum and provided with beater arms, an opening in one end of said drum through which the bags are fed to the drum, an inwardly tapering cone on said shaft within the drum and adjacent said feed opening, and means for rotating said drum and shaft.

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1,038,282. TAKE-UP FOR SEWING-MACHINES. WILLIAM JOSEPH BUTLER, Auckland, New Zealand. Filed Sept. 29, 1909. Serial No. 520,137. (Cl. 112—26.)



1. In a sewing machine, the combination with a needle, and thread guides on the machine head, of two levers fulcrumed on the head and adapted to engage a thread extending through said guides to the needle, a reciprocating bar mounted on the head and having a pin and slot connection with each of said levers, whereby the latter will be simultaneously rocked in opposite directions as the bar is reciprocated, and means for reciprocating said bar.

2. In a sewing machine the combination with a needle, and thread guides on the machine head, of a reciprocating bar engaging guides on the head, a pair of levers fulcrumed on the head on opposite sides of said reciprocating bar and adapted to engage a thread extending through the thread guides on the machine head to the needle, connections between said bar and levers whereby the latter will be rocked in opposite directions as the bar is reciprocated, and means for reciprocating the bar.

3. In a sewing machine, the combination with a needle, and thread guides on the machine head, of a reciprocating bar engaging guides on the head, a pair of levers fulcrumed on the head on opposite sides of said reciprocating bar and adapted to engage a thread extending through the thread guides on the machine head to the needle, each of said levers having a stud or pin extending into a slot in said bar, and means for reciprocating the bar.

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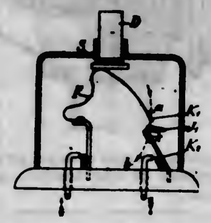
1,038,283. IGNITER. HANS BUTTNER, Buffalo, N. Y. Filed Apr. 10, 1912. Serial No. 689,794. (Cl. 67—8.)




In combination with a conical shape receptacle a file member rigidly attached thereto, an igniter member removably carried therein, said igniter members consisting of a cap internally threaded, a pusher rod centrally and rigidly fastened within said cap, a tubular nitrid carrying member having one end enlarged, said enlargement being screwthreaded and adapted to screw within said cap, a tubular wick carrying member having an enlarged portion of its outer periphery screwthreaded and adapted to screw within said cap, a portion of said wick carrying member being slotted so as to expose a portion of the wick and a sleeve adapted to slide upon said wick carrying member.

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1,038,284. PUSH-BUTTON ELECTRIC SWITCH. HERMANN CAHEN, Frankfort-on-the-Main, Germany, assignor to The Firm of Hartmann & Braun A.-G., Frankfort-on-the-Main, Germany. Filed Mar. 22, 1911. Serial No. 616,170. (Cl. 175—282.)



1. In a push button electric switch, a base member, a switch mechanism comprising terminal plates mounted upon the base member, a contact spring having an enlarged free end portion and secured to one of said terminal plates, the other terminal plate being inclined toward the contact spring, means on the other of said terminal plates for holding and an opening for releasing the contact spring, insulation on the inclined terminal plate to prevent premature contact by the said contact spring, and means for operating the contact spring.

2. In a push button electric switch, a base member, a switch mechanism comprising terminal plates mounted upon the base member, a contact spring having an enlarged free end portion secured to one of said terminal plates, the other terminal plate being inclined toward the contact spring, and provided with a hooked end portion and an opening, said opening corresponding to the enlarged free end portion of the contact spring to permit the latter to pass therethrough, insulation on the hooked end portion of the inclined terminal plate, a casing, and a push button for operating the contact spring.

3. In a push button electric switch, a base member, a switch mechanism comprising terminal plates mounted upon the base member, a movable contact spring mounted on one of the terminal plates, insulation on the hooked end portion of the other of said terminal plates, a wall of insulating material secured to the base of the latter terminal plate and diverging upwardly therefrom, said wall of insulation terminating short of the insulation on the hooked end portion of the plate, a casing, and a push button provided with means to cause it to follow the contact spring.

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1,038,285. CAPSULE OR CONTAINER FOR COMPRESSED OR LIQUEFIED GASES. ROBERT HUNTER CAMPBELL, Edmonton, England. Filed Feb. 16, 1911. Serial No. 609,368. (Cl. 220—110.)

1. A capsule for compressed gas, having a neck with internal lateral recess through which the gas passes during filling, a perforable disk closure for the discharge passage in said neck, and a crushable filling and retaining member above the disk and recessed to afford a fill passage adapted to be crushed into said lateral recess to close the same and to force said disk closure to its seat and retain the same in its closure position.

2. A capsule for compressed gas, having a neck with annular internal recess through which the gas passes during filling, a perforable disk closure for the discharge passage in said neck, and a crushable filling and retaining ring above the disk and recessed to afford a fill passage adapted to be crushed into said lateral recess to close the same and to force said disk closure to its seat and retain the same in its closure position.





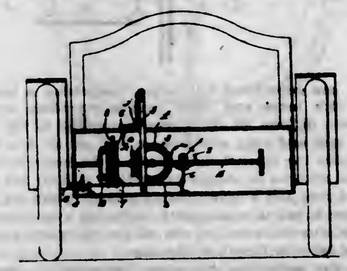
3. A capsule for compressed gas, having at each end a neck with internal lateral recess through which the gas passes during filling, a perforable disk closure for the discharge passage in said neck, and a crushable filling and retaining member above the disk and recessed to afford a fill passage adapted to be crushed into said lateral recess to close the same and to force said disk closure to its seat and retain the same in its closure position.

4. A capsule for compressed gas, having a discharge outlet, a perforable disk closure therefor, and crushable means above the disk for closing said fill passage and holding said closure disk to its seat after the capsule has been filled, said crushable means being recessed to afford a fill passage, substantially as described.

5. A capsule for compressed gas, having a neck internally undercut at its rigid upper edge, a closure disk, a seat for the closure disk and a closure ring of soft metal above the disk and recessed to afford a passage during filling but crushed into said undercut in the neck, in closed condition, to force and hold said disk to its seat, substantially as described.

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1,038,286. ENGINE-STARTER. EDWARD M. CARD, Bridgeport, Conn. Filed Sept. 5, 1911. Serial No. 647,487. (Cl. 123—185.)



1. In engine starting mechanism of the character stated, the combination of a starting shaft mounted to rotate and to have a longitudinal movement imparted thereto for throwing it into and out of clutched engagement with the engine shaft, a second shaft, gearing between said second shaft and the starting shaft, said gearing including elements which are adapted to be thrown into or out of engagement to admit of operating the starting shaft by the usual crank, and a ratchet mechanism applied to said second shaft to impart an intermittent rotary movement thereto.

2. In engine starting mechanism of the character stated, the combination of a starting shaft mounted to rotate and to have a longitudinal movement imparted thereto for throwing it into and out of clutched engagement with the engine shaft, a second shaft, gearing between said second shaft and the starting shaft, said gearing including elements which are adapted to be thrown into or out of engagement to admit of operating the starting shaft by the usual crank, a ratchet wheel secured to the said second shaft, a wheel mounted loosely upon the second shaft, a dog carried by said wheel and adapted to engage the teeth of the ratchet wheel, and means for imparting an oscillatory movement to the said wheel.

3. In engine starting mechanism of the character stated, the combination of a starting shaft mounted to rotate and to have a longitudinal movement imparted thereto for throwing it into and out of clutched engagement with the engine shaft, a second shaft, gearing between said second shaft and the starting shaft, said gearing including elements which are adapted to be thrown into or out of engagement to admit of operating the starting shaft by the usual crank, a ratchet wheel secured to the said second shaft, a wheel mounted loosely upon the second shaft, a hollow wheel encircling the ratchet wheel, a dog carried by the hollow wheel and adapted to engage the teeth of the ratchet wheel, a pulley at one side of the hollow wheel loosely mounted upon said second shaft, a disk closing the open side of the hollow wheel and secured thereto and loose upon the second shaft, a flexible connection wound upon the hollow wheel, a coil spring mounted upon the pulley and coöperating with the flexible connection wound upon the hollow wheel.

4. In engine starting mechanism, the combination of a starting shaft in line with the engine shaft and having the usual clutch member to engage with the companion clutch member of the engine shaft, said starting shaft being mounted to rotate and to move longitudinally, a gear wheel mounted upon the starting shaft, a second gear wheel in mesh with the first mentioned gear wheel, a second shaft, a third gear wheel mounted upon the second shaft and having a feather and spline connection therewith and adapted to be thrown into and out of engagement with the said second gear wheel, means for imparting a longitudinal movement to the starting shaft to throw the same into clutched engagement with the engine shaft, and a ratchet connection mounted upon said second shaft to impart an intermittent rotary movement thereto.

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1,038,287. ROLL-TOP BALANCED HOOD. BENJAMIN F. CARPENTER, Summit, N. J. Filed May 23, 1911. Serial No. 629,014. (Cl. 126—303.)

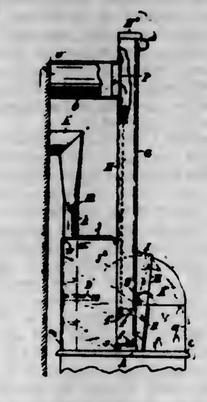
1. A movable hood adapted to set upon a stove or range, comprising a rectangular base, a yoke extended upwardly from the base, and a roll-top fitted movably on the yoke and adapted to turn within the yoke and wholly inclose the top of the base when lowered thereon, in combination with means for counterbalancing and guilding the hood and means for guiding the yoke.

2. A movable hood adapted to set upon a stove or range, comprising a rectangular base, a yoke having side and top-bars extended upwardly from the base, and a roll-top pivoted within the side-bars and adapted to turn beneath the top-bar to the rear side of the same, in combination with means for counterbalancing the hood and means for guiding the yoke.

3. A movable hood adapted to set upon a stove or range, comprising a rectangular base, a yoke having side and top-bars extended upwardly from the base, pivots upon the side-bars adjacent to the base, and a roll-top journaled upon such pivots with springs connected to the pivots for counterbalancing the weight of the said roll-top, in combination with means for counterbalancing the weight of the hood and means for guiding the yoke.

4. A movable hood adapted to set upon a stove or range comprising a rectangular base, a yoke having trough-shaped side-bars attached to said base with a top-bar con-

meeting the same and having attachment for a curtain at the rear edge of said top-bar, pivots upon the side-bars adjacent the base, and a segmental roll-top journaled upon said pivots and extended from the top of the base to the front edge of the top-bar, whereby a full opening of the base is secured by turning the roll-top less than ninety degrees.



5. A movable hood adapted to set upon a stove or range comprising a rectangular base, a yoke having trough-shaped side-bars with marginal flanges secured to the ends of the base, a top-yoke-bar connecting the side-bars with attachment for a curtain, pivots secured between the edges of the side-bars, a roll-top journaled upon the said pivots, the front of the base and of the roll-top being provided with sliding doors.

[Claims 6 to 10 not printed in the Gazette.]

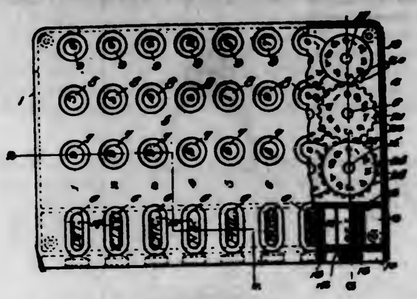
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1,038,288. STUD-AND-SOCKET FASTENER. FRED S. CARR, Brookline, Mass., assignor to Carr Fastener Company, Boston, Mass., a Corporation of Maine. Filed May 2, 1910. Serial No. 559,005. (Cl. 24—218.)



A stud-and-socket fastener comprising a stud member having an annular inwardly facing shoulder surrounding the axis of the stud member, and a socket member provided with resilient jaws adapted to spring inwardly toward the axis of the stud member and having segmental portions adapted to bear simultaneously against an extended portion of said shoulder, said shoulder being formed at all parts of its surface to prevent a direct outward movement of said segmental jaw portions, the jaws also having practically straight elongated tangential portions which extend substantially parallel with each other from said segmental portions and obliquely across said shoulder at points which are separated by a jaw-displacing portion of the shoulder, the jaws being displaceable outwardly, to disengage their segmental portions from the shoulder, only by a tipping movement which causes the displacing portion of the shoulder to exert a spreading action on the substantially parallel portions of the jaws, the annular form of the shoulder enabling any extended portion of its surface to positively lock the segmental portions of the jaws against a direct outward pull, and the edge of the remaining portion to act in spreading the jaws.

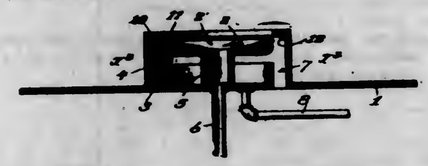
1,038,289. BASE-BALL SCORING DEVICE. WILLIS P. CARRUTHERS, Oberlin, Ohio. Filed Aug. 3, 1910. Serial No. 575,211. (Cl. 235—1.)



In a device of the kind described, a casing including a front member provided with a plurality of series of outwardly flaring openings, said casing being further provided with a plurality of recesses, one of said recesses extending throughout the length of one side of the casing and the remaining recess extending throughout the length of the bottom of said casing, a series of indicators held to rotate within said casing adjacent the side recesses and beneath one series of openings, a series of thumb nuts operatively connected to said indicators and lying wholly within said side recesses whereby the heads of said nuts are prevented from contact with external objects, a plurality of series of counters each having numerals thereon adapted to show through one of the remaining openings, said counters alternately overlapping and underlying each other whereby certain of said counters lie close to the front of said casing and the remainder of said counters are more remote therefrom, and a series of thumb nuts operatively connected to said counters and lying wholly within the recesses in the back of the casing, whereby said casing may be laid upon an object without said thumb nuts coming in contact therewith.

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1,038,290. GAS-GENERATING OIL-BURNER. ROLAND C. CASAD, Los Angeles, Cal. Filed July 12, 1909, Serial No. 507,244. Renewed Feb. 7, 1912. Serial No. 676,033. (Cl. 158—91.)



1. A gas generating oil burner comprising a base provided with inner and outer flanges extending upwardly therefrom to form an air passage extending to the bottom of the base and open at its lower end, an oil cup extending within the outer flange and over the inner flange and provided with an oil supply connection, said oil cup having a raised rim, and a deflector-ring extending inwardly from the outer flange into proximity to the oil cup, forming an air inlet directly over the rim of the oil cup to project a sheet of air over the oil in the cup.

2. A gas generating oil burner comprising a base, provided with inner and outer flanges extending upwardly therefrom to form an air passage extending to the bottom of the base and open at its lower end, an oil cup extending over the inner flange and within the outer flange and having a raised rim, oil supply means for said oil cup, and a deflector-ring extending from the outer flange into proximity to the rim of the oil cup, forming an air inlet directly over the rim of the oil cup, to project a sheet of air directly over the oil in the cup.



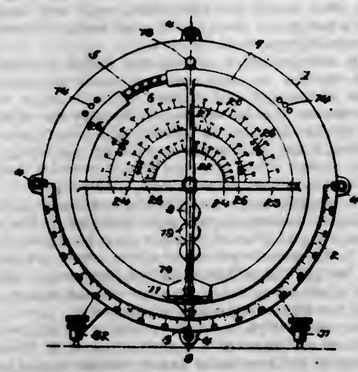
3. A gas generating oil burner comprising a base, provided with inner and outer flanges extending upwardly therefrom to form an air passage extending to the bottom of the base and open at its lower end, an oil cup having a lower rounded corner extending over the inner flange and within the outer flange and having a raised rim, oil supply means for said oil cup, a deflector extending from the outer flange into proximity to the rim of the oil cup, forming an air inlet directly over the rim of the oil cup, to project a sheet of air directly over the oil in the cup, and a drain connection communicating with the space within the inner flange.

4. A gas generating oil burner comprising a base, provided with inner and outer flanges extending upwardly therefrom to form an air passage extending to the bottom of the base and open at its lower end, an oil cup having a lower rounded corner extending over the inner flange and within the outer flange and having a raised rim, oil supply means for said oil cup, a deflector extending from the outer flange into proximity to the rim of the oil cup, forming an air inlet directly over the rim of the oil cup, to project a sheet of air directly over the oil in the cup, and a drain connection communicating with the space within the inner flange, said deflector being removably supported in the outer flange.

5. A gas generating oil burner comprising a base provided with inner and outer flanges extending upwardly therefrom to form an air passage extending to the bottom of the base and open at its lower end, an oil cup having a lower rounded corner extending within the outer flange and over the inner flange and provided with an oil supply connection, said oil cup having a raised rim, a deflector-ring extending from the outer flange into proximity to the oil cup, forming an air inlet directly over the rim of the oil cup to project a sheet of air over the oil in the cup, and a deflecting cap plate extending above the oil cup and air deflector-ring and separated therefrom for the purpose set forth.

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1,038,291. ANGLE-INDICATOR. OSCAR ROBT. CASSELL, New York, N. Y. Filed May 10, 1911. Serial No. 626,857. (Cl. 73—71.)



1. An angle indicator comprising a graduated supporting member, a plurality of graduated scales carried thereby, an indicating member having a pointer to operate over the graduations on the supporting member, means to automatically lock the indicating member against movement in either direction to the supporting member when the pointer reaches a predetermined graduation thereon, and a pointer carried by the indicating member and adapted to operate over the graduated scales when the member is locked to the supporting member.

2. An angle indicator comprising a graduated supporting member, an indicating member rotatably mounted thereon and having a pointer to operate over the graduations, means to automatically lock the indicating member to the supporting member when the pointer reaches a predetermined point of graduation, a plurality of indicating scales carried by the supporting members, independent pointers for said scales, and means carried by each pointer and adapted to coöperate with the corresponding scale to automatically lock the pointers in succession as they reach predetermined graduation points, together with weights on the pointers.

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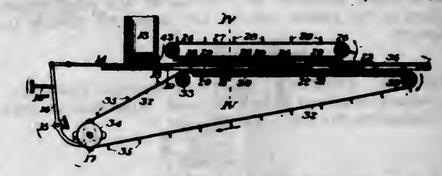
1,038,292. SAFETY EXPLOSIVE. NORBERT CRIPEN, Vienna, Austria-Hungary. Filed Sept. 5, 1911. Serial No. 647,740. (Cl. 52—3.)

1. A safety explosive comprising a mixture of ammonium nitrate with turmeric charcoal and sandal wood charcoal.

2. A safety explosive comprising a mixture of ammonium nitrate, turmeric charcoal, sandal wood charcoal, and trinitrotoluene.

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1,038,293. APPARATUS FOR SORTING AND TESTING COINS. SIEGMUND CHIGER, Berlin, Germany. Filed Dec. 18, 1911. Serial No. 666,574. (Cl. 133—3.)



1. In coin-sorting apparatus the combination of a track having a recess of different diameters at different portions thereof; and another track having openings of different heights with means for forcing the coins through the openings which they fit, substantially as described.

2. In coin-sorting apparatus of the character described, a track consisting of ledges, the distance separating the ledges being stepped to admit coins of different diameters between such ledges, and springs for guiding the coins centrally on the ledges, substantially as described.

3. In coin-sorting apparatus of the character described, a track consisting of ledges on which the coin is guided, there being openings of different heights in one of said ledges and a spring so arranged that the coins are forced into the opening through which their size permits them to pass, substantially as described.

4. In coin-sorting apparatus of the character described a track formed by ledges the distance separating such ledges being stepped so as to receive coins of varying diameter, there being openings of varying height in one of said ledges, blade springs for guiding the coins centrally on said ledges and a blade spring for forcing the coins into the openings in one of said ledges, substantially as described.

5. In coin-sorting apparatus a track formed by ledges, transporting device for forcing the coins along the surface, and means for guiding the coins centrally on said track.

[Claims 6 to 8 not printed in the Gazette.]

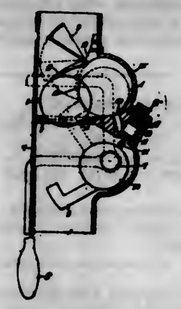
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1,038,294. SANITARY FLUSHING APPARATUS. EDWIN JOHN CHILTON, Kuripuni, Masterton, New Zealand, assignor to Chilton Flusher Company Limited, Auckland, New Zealand, a Corporation of New Zealand. Filed Nov. 17, 1910. Serial No. 592,885. (Cl. 4—5.)

1. In a flushing apparatus, the combination of a casing or conduit, a valve normally closing the passage through the casing, a by-pass for conducting water about said valve, a supplemental valve normally closing the by-pass, a spindle provided with radially projecting means adapted to successively move said supplemental and main valves from their seats as it is rotated, and means for turning the spindle.

2. In a flushing apparatus, the combination of a casing or conduit, a valve normally closing the passage through

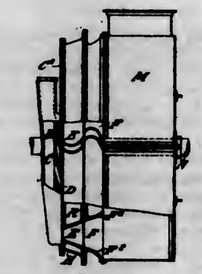
the casing, a by-pass for conducting water about said valve, a supplemental valve normally closing the by-pass, a spindle, a cam on the spindle adapted to move the supplemental valve from its seat as the spindle rotates, an



arm connected with the spindle and adapted to open the main valve following the opening of the supplemental valve as the spindle rotates, and means for turning the spindle.

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1,038,295. TURBINE. MONTAGUE HERBERT CHURCHILL-SHANN, county of Surrey, England. Filed Jan. 15, 1912. Serial No. 671,325. (Cl. 121—57.)



1. A parallel flow gas turbine comprising in combination a single ring of moving blades the passages between which increase in area from their inlet toward their exhaust ends, a ring of nozzles connected with a supply of working fluid and delivering to the ring of moving blades, the pitch of these nozzles being considerably greater than that of the moving blades, and a ring of fixed reaction blades on the exhaust side of the moving blades.

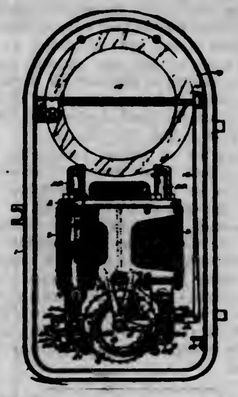
2. A parallel flow gas turbine comprising in combination a single ring of moving blades the passages between which increase in area from their inlet toward their exhaust ends, a ring of nozzles connected with a supply of working fluid and delivering to the ring of moving blades, the pitch of these nozzles being considerably greater than that of the moving blades, and a ring of fixed reaction blades on the exhaust side of the moving blades, the passages between said fixed blades increasing in area toward their discharge ends.

3. A parallel flow gas turbine comprising in combination a single ring of moving blades the passages between which increase in area from their inlet toward their exhaust ends, a ring of nozzles connected with a supply of working fluid and delivering to the ring of moving blades, the pitch of these nozzles being considerably greater than that of the moving blades, a ring of fixed reaction blades on the exhaust side of the moving blades, and a peripheral gas inlet chamber on inlet side of fixed casing communicating with the ring of nozzles and adapted to impart to the gas admitted under pressure to the chamber a flow in the same general direction as that imparted to it in the nozzles.

4. A parallel flow gas turbine comprising in combination a single ring of moving blades the passages between which increase in area from their inlet toward their exhaust ends, a ring of nozzles connected with a supply of working fluid and delivering to the ring of moving blades, the pitch of these nozzles being considerably greater than that of the moving blades, and a peripheral gas inlet chamber on inlet side of fixed casing communicating with the ring of nozzles and adapted to impart to the gas admitted under pressure to the chamber a flow in the same general direction as that imparted to it in the nozzles.

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1,038,296. SIGNAL. ABBA G. CLARK, Schenectady, N. Y., assignor, by mesne assignments, to The Union Switch and Signal Company, a Corporation of Pennsylvania. Filed Jan. 27, 1908. Serial No. 412,721. (Cl. 246—36.)



1. In combination, a step-by-step device, a signal controlled thereby, an electro-magnet, operative connections between the core of said magnet and said device whereby the movement of said core in one direction moves said device a step, means for disengaging said core from said device after it has been moved, and means for retarding the return movement of the core.

2. In combination, a step-by-step device, a signal controlled thereby, an electro-magnet, operative connections between the core of said magnet and said device whereby the movement of said core in one direction moves said device a step, means for disengaging said core from said device after it has been moved, means for retarding the return movement of the core, and electric contacts controlled by said core.

3. In combination, a ratchet-wheel, a signal controlled thereby, an electro-magnet, a pawl actuated by the core of said magnet and adapted to engage and move said ratchet-wheel a step upon the movement of the core in one direction, means for guiding said pawl out of engagement with said ratchet-wheel when it has been moved, and means for retarding the return movement of said core.

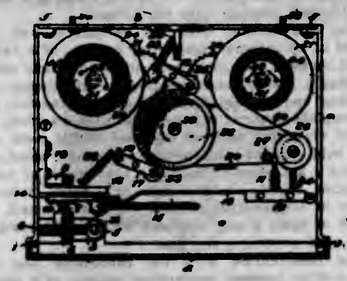
4. In combination, a ratchet-wheel, a signal controlled thereby, an electro-magnet, a pawl actuated by the core of said magnet and adapted to engage and move said ratchet-wheel a step upon the movement of the core in one direction, means for guiding said pawl out of engagement with said ratchet-wheel when it has been moved, means for retarding the return movement of said core, and electric contacts controlled by said core.

5. In combination, a ratchet-wheel, a signal controlled thereby, an electro-magnet, a pawl actuated by the core of said magnet and adapted to engage and move said ratchet-wheel a step upon the movement of the core in one direction, means for guiding said pawl out of engagement with said ratchet-wheel when it has been moved, means for retarding the return movement of said core, and guiding means for keeping said pawl out of engagement with the ratchet-wheel on the return movement of the pawl.

[Claims 6 to 9 not printed in the Gazette.]



1,038,297. SPEED-RECORDER AND ANALOGOUS APPARATUS. CLEMENT C. CLAWSON, Flagtown, N. J., assignor, by mesne assignments, to United States Mortgage & Trust Company, trustee, New York, N. Y., a Corporation of New York. Filed Apr. 9, 1907. Serial No. 367,217. (Cl. 234—32.)



1. A recorder which consists of blank supporting means, a marking instrument, means for supporting this latter, and means for causing the relative positions of the record blank and the marking instrument to be shifted in order that fresh surfaces of the blank may be presented to the marking instrument, the recorder including a box which incloses the recording appliances and an exterior flexible shaft, which conveys motion to said appliances from the exterior driving mechanism, the said box having a lock and being constructed to prevent access to its interior by taking apart when locked, and the said flexible shaft being detachably connected with said appliances and said mechanism by devices under lock and being devoid of connections formed by detachable devices not under lock whose disengagement would allow the disconnection from each other of said appliances and said mechanism so that the arrangement as a whole serves to prevent surreptitious running of said mechanism, substantially as described.

2. A recorder which consists of blank supporting means, a marking instrument, means for supporting this latter, and means for causing the relative positions of the record blank and the marking instrument to be shifted in order that fresh surfaces of the blank may be presented to the marking instrument, the recorder including a locked box which incloses the recording appliances and an exterior flexible shaft which is detachably connected at opposite ends with said appliances and the exterior driving mechanism whose movements are to be recorded the shaft connections at each end being under lock, substantially as described.

3. A recorder which consists of blank supporting means, a marking instrument, means for supporting this latter, and means for causing the relative positions of the record blank and the marking instrument to be shifted in order that fresh surfaces of the blank may be presented to the marking instrument, and which includes a locked box inclosing the recording appliances, means for transmitting motion from the exterior driving mechanism to said appliances, and detachable devices under lock for connecting with each other said appliances and said mechanism, all the detachable devices whose disengagement would allow the disconnection from each other of said appliances and said mechanism being under lock so as to prevent surreptitious running of said mechanism, substantially as described.

4. A recorder which consists of blank supporting means, a marking instrument, means for supporting this latter, and means for causing the relative positions of the record blank and the marking instrument to be shifted in order that fresh surfaces of the blank may be presented to the marking instrument, the said marking instrument being in the form of a pen supplied with liquid ink, and the said blank supporting means furnishing an open space behind the blank at the place where the pen bears against the face of the blank and holding the latter against the point of the pen with uniformity of pressure suited to induce the flow of the ink from the pen onto the record blank so as to make an ink line thereon, substantially as described.

5. A recorder which consists of blank supporting means, a marking instrument, means for supporting this latter, and means for causing the relative positions of the record blank and the marking instrument to be shifted in order that fresh surfaces of the blank may be presented to the marking instrument, the said marking instrument being in the form of a pen supplied with liquid ink, and the said blank supporting means being arranged to support a blank in the form of a tape and to stretch the same across an open space located behind the blank at the place where the pen bears against the face of the blank and to hold the latter against the point of the pen with uniform pressure suited to induce the flow of the ink from the pen on to the record blank so as to make an ink line thereon, substantially as described.

[Claims 6 to 18 not printed in the Gazette.]

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1,038,298. COMBINED INFORMATION AND ADVERTISING DEVICE. WILLIAM H. CONERY, Washington, D. C., assignor of one-fourth to John F. Robb, Washington, D. C. Filed Oct. 26, 1911. Serial No. 656,906. (Cl. 40—28.)



1. In a combined information and advertising device, the combination of a cabinet, drawers mounted therein, an exhibitor comprising a plurality of signs independently connected with and operable by the drawers, and an advertising device operable by any one of said signs in its movement.

2. In a combined information and advertising device, the combination of a cabinet, a stationary sign thereon, drawers mounted therein, an exhibitor comprising a plurality of movable signs independently connected with and operable by the drawers, and an indicator normally associated with the stationary sign operable by said movable signs to cooperate with the latter on actuation of any one of the same.

3. In a combined information and advertising device, the combination of a cabinet, drawers mounted therein, an exhibitor comprising a plurality of signs independently connected with and operable by the drawers, an advertising device associated with said signs, means connected with said advertising device whereby it may be operated on actuation of any of the signs, an indicator associated with the signs, and means connected with the indicator whereby it may be operated by any one of the signs.

4. In a combined information and advertising device, the combination of a cabinet embodying a compartment and a movable part whereby access may be had to said compartment, an exhibitor consisting of a casing having a vision opening, a stationary sign at said vision opening, a movable sign connected with the movable part and operable thereby to assume a position in front of the vision opening, an advertising device in said casing operable by said movable sign, and a movable indicator arranged to coact with the stationary and movable signs and operable by the movable sign when the latter is actuated.

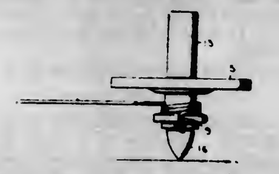
5. In a combined information and advertising device, the combination of a cabinet composed of a plurality of compartments adapted to contain information, movable

parts whereby access may be had to said compartments, an exhibitor comprising a casing, movable signs in said casing, connections between said signs and movable parts and having a certain amount of slack in their length, and take-ups separate from and coöperating with said connections permitting movement of the movable parts simultaneously with and independently of said signs.

[Claims 6 and 7 not printed in the Gazette.]

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1,038,299. TOP. SCOTT R. COFFINS, Princeton, Ill. Filed Apr. 19, 1912. Serial No. 691,852. (Cl. 46—32.)



1. A device of the class described comprising a horisontally disposed wheel having a bore therethrough, an integral sleeve extending from one side of said bore, a flange at the end of said sleeve, a string engaging notch in said flange, a handle, a stem extending from said handle and through said bore, and a tip at the lower end of said stem, said handle being rotatably mounted in said bore.

2. A device of the class described comprising a horisontally disposed wheel having a bore therethrough, a sleeve extending downwardly from said wheel, a flange at the lower end of said sleeve, a string engaging notch in said flange, a handle, a stem extending from said handle and through said bore, a tip adapted to be forced on said stem, antifriction devices interposed between the upper end of said stem and the wheel, and anti-friction devices interposed between the lower end of said sleeve and said tip.

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1,038,300. COMBINED VAPORIZER AND PRIMING-PUMP. FRANCIS G. CRONE, Buffalo, N. Y. Filed Mar. 24, 1911. Serial No. 616,612. (Cl. 123—180.)



1. The combination with the carbureter and intake manifold of an internal combustion engine; of a vaporiser disposed between said carbureter and said intake manifold, means connecting said vaporiser to said carbureter, means connecting said vaporiser to said manifold and an atomising section disposed within said vaporiser, said atomising section comprising a corrugated sheet of material and a flat sheet of material, said sheets of material being rolled together in the form of a spiral, whereby a plurality of longitudinal passage-ways are formed.

2. The combination with the carbureter and intake manifold of an internal combustion engine; of a vaporiser disposed between said carbureter and said intake manifold, means connecting said vaporiser to said carbureter, means connecting said vaporiser to said manifold and a plurality of atomising sections disposed within said vaporiser, each of said sections comprising a corrugated sheet of material and a flat sheet of material, said sheets of material being rolled together in the form of a spiral, whereby a plurality of longitudinal passage-ways are formed.

3. The combination with the carbureter and intake manifold of an internal combustion engine; of a vaporiser disposed between said carbureter and said intake manifold comprising a casing, heads secured to said casing, means connecting one of said heads to said carbureter, means connecting the other of said heads to said manifold, a plurality of atomising sections disposed within said casing, each of said sections comprising a corrugated sheet of material and a flat sheet of material, said sheets of material being rolled together in the form of a spiral, whereby a plurality of longitudinal passage-ways are formed, and a plurality of baffle plates disposed within said casing and between said atomising sections.

4. The combination with the carbureter and intake manifold of an internal combustion engine; of a vaporiser disposed between said carbureter and said intake manifold comprising a casing, heads secured to said casing, means connecting one of said heads to said carbureter, means connecting the other of said heads to said manifold, a plurality of atomising sections disposed within said casing, each of said sections comprising a corrugated sheet of material and a flat sheet of material, said sheets of material being rolled together in the form of a spiral, whereby a plurality of longitudinal passage-ways are formed, a plurality of baffle plates disposed within said casing and between said atomising sections, and a heating jacket surrounding said casing.

5. The combination with the carbureter and the intake manifold of an internal combustion engine; of a combined vaporiser and priming pump disposed between said carbureter and said intake manifold comprising a casing, means connecting said casing at one end with the said carbureter, means connecting said casing at the other end with the said intake pipe, atomising means disposed within said casing, a pump cylinder disposed centrally in said casing, means for holding said cylinder in its place, a piston slidably disposed in said cylinder, and means for operating said piston.

[Claims 6 to 13 not printed in the Gazette.]

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1,038,301. TELEPHONE AND TELEGRAPH RELAY OR REPEATER. JOHN H. CUNTS, Hoboken, N. J. Filed Feb. 19, 1903. Serial No. 144,134. (Cl. 179—171.)



1. In combination, in a relay or repeater, a plurality of coils in inductive relation to each other, and an auxiliary coil through which is flowing a periodically varying current of approximately constant mean strength.

2. In combination in a relay or repeater, a plurality of coils in inductive relation to each other, and an auxiliary coil through which is flowing a uniformly varying current from an independent source.

3. In combination in a relay or repeater, a plurality of coils in inductive relation to each other, and an auxiliary coil through which is flowing, from an independent source, an alternating current of a frequency below the limits of audibility.

4. A relay or repeater, including an auxiliary coil through which flows a regularly varying current from an independent source, and coils in circuit with line wires, and in inductive relation to the auxiliary coil.

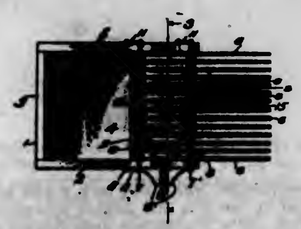
5. In combination, in a relay or repeater, an iron core, a plurality of coils in inductive relation to each other and to the iron core, and an auxiliary coil through which flows a periodically varying current during the entire time of operation.

[Claims 6 and 7 not printed in the Gazette.]



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1,038,302. BERRY-PICKER. ANDREW DALE, Funkley, Minn. Filed Jan. 2, 1912. Serial No. 668,923. (Cl. 56—99.)



1. In a berry picker, the combination of a receptacle, picking fingers mounted thereon, and means to simultaneously actuate all of said fingers to relatively adjust them for use according to the size of berries to be operated upon.

2. In a berry picker, the combination of a receptacle, equally spaced picking fingers mounted thereon, and means for simultaneously actuating said fingers to relatively adjust them for use according to the size of the berries to be operated upon, said means maintaining the picking fingers equally spaced.

3. In a berry picker, the combination of a receptacle, picking fingers mounted thereon, a spring adapted to hold the fingers relatively spaced from each other, means on the receptacle to compress the spring and decrease the spaces between said fingers, and means carried by the receptacle to hold the fingers thereon and permit bodily removal thereof from the same.

4. In a berry picker, the combination of a receptacle, means for picking berries mounted thereon comprising spaced longitudinally extending fingers, transverse rods upon which said fingers are mounted, means for retaining the fingers in their normal relatively spaced position, and means for simultaneously adjusting the fingers closer together or farther apart.

5. In a berry picker, the combination of a receptacle comprising sides, bottom, and a closed end, said sides extending beyond the bottom and having slots in their lower edge portions, pickers removably mounted in the extending portions of the sides in alinement with the bottom aforesaid consisting of a series of spaced fingers, transverse rods adapted to be received in said slots and upon which said fingers are mounted, means secured to the sides of the receptacle to hold said rods in position on the receptacle, springs mounted on the rods and having the fingers located between the coils of said springs whereby the fingers may be held relatively spaced from each other, means also mounted on said rods and adapted to engage with the springs aforesaid, and means mounted on one side of the receptacle for operating the last mentioned means to lessen or increase the relative space between the fingers aforesaid.

[Claim 6 not printed in the Gazette.]

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1,038,303. TOBACCO-PIPE. HARRY W. DAVENPORT, Chicago, Ill. Filed Aug. 5, 1911. Serial No. 642,553. (Cl. 131—12.)

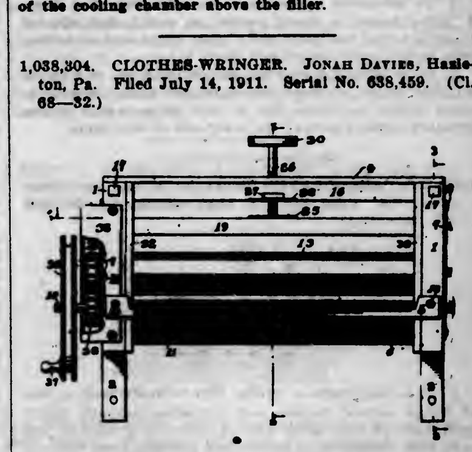
1. A tobacco pipe, comprising a bowl, a stem chamber communicating with the bowl, a stem adapted to be secured in the chamber and having a cooling chamber opening from its inner end said end being cut away at one side, a fibrous filler in the open end of the cooling chamber adapted to be inserted and removed through the side of the chamber, and a rod extending through the walls of said cooling chamber and bent upwardly at the end of the chamber to retain the filler in place, there being smoke apertures through the walls of the cooling chamber above the filler.



2. A tobacco pipe, comprising a bowl, a non-combustible lining in the bowl having a perforated bottom, a stem chamber communicating with the bowl, a stem adapted to be secured in the stem chamber, and having a cooling chamber opening from its inner end said end being cut away at one side, a fibrous filler in the open end of the cooling chamber adapted to be inserted and removed through the side of the chamber, and a rod extending through the walls of said cooling chamber and bent upwardly at the open end of the chamber to retain the filler in place, there being smoke apertures through the walls of the cooling chamber above the filler.

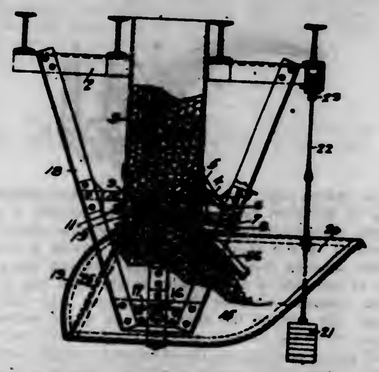
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1,038,304. CLOTHES-WRINGER. JONAH DAVIES, Hazleton, Pa. Filed July 14, 1911. Serial No. 638,459. (Cl. 68—32.)



A clothes wringer, comprising a frame including side members having vertical slots therein which open toward the upper ends of the members, metallic wear plates secured to the said side members and partially closing the slots in the side members at one side of the said members, the said wear plates having vertical slots therein, a driving roller, bearings seated against the lower walls of the said vertical slots and supporting the said driving roller, a driven roller disposed above the driving roller and provided with boxes adapted to bear against the trunnions of the said driven roller, a tensioning member disposed above the boxes, the said tensioning member having reduced end portions extending into the slots of the said vertical side members, and said reduced ends being arranged in sliding contact with the said wear plates, stems carried by the boxes and slidably mounted in the tensioning member, springs encircling the stems and interposed between the boxes and the said reduced ends of the said tensioning member, a bearing bar extending across the upper end of the frame and having a depending rib extending partly into the said guide slots in the vertical side members of the frame, means extending through the side members and through the rib to hold the said bearing bar operatively mounted on the frame, and means extending through the said bearing bar and operatively connected with the tensioning member so as to move the same and the said boxes relatively to govern the tension of the driven roller against the said driving roller.

**1,038,805. ROCK-MEASURING APPARATUS.** Roy P. M. DAVIS, Lock Haven, Pa. Filed June 24, 1912. Serial No. 705,605. (Cl. 73—137.)



1. In measuring apparatus, the combination of a chute, a tilting basket, a closed portion on said basket adapted to move across the lower end of said chute, and a yielding gate at the lower end of said chute.

2. In measuring apparatus, the combination of a chute, a tilting basket, a closed portion on said basket adapted to move across the lower end of said chute, and a spring actuated yielding gate at the lower end of said chute.

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**1,038,806. AEROPLANE.** DORSETTE A. DAVISON, Richmond, Va. Filed Dec. 14, 1911. Serial No. 665,596. (Cl. 244—12.)



1. In an aeroplane, a central keel or breastbone, a pair of wings secured thereto and extending laterally therefrom, each of said wings curving laterally in an arc, and each wing consisting of two arched portions from front to rear, and the forward edge of each wing having a greater radius of lateral curvature than the rear edge.

2. In an aeroplane, a central keel or "breastbone," a pair of wings secured thereto and extending laterally therefrom, each of said wings curving laterally in an arc, and each wing consisting of two portions arched from front to rear, the forward edge of each wing having a greater radius of lateral curvature than the rear edge, a flexible triangular fin secured to the front edge of said keel, and flexible cords secured to said fin and arranged to bend the latter in a rearward and upward direction.

3. In an aeroplane, a central keel or "breastbone," a pair of wings extending laterally therefrom, each of said wings being curved in a lateral direction and having two arc-shaped portions from front to rear, the front edge of each wing being curved to the rear and the rear edge of each wing being curved to the rear on a less radius than the front edge.

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**1,038,807. PROCESS OF MAKING A BEVERAGE FROM HONEY.** CLYDE W. DAYTON, Chatsworth, Cal. Filed Sept. 29, 1910. Serial No. 584,525. (Cl. 99—11.)

The process of treating honey consisting in mixing a quantity of honey and water in which a portion of the honey is dissolved and a portion remains un-dissolved, subjecting the mass to a temperature of about fifty-five or sixty degrees Fahrenheit to promote fermentation, mixing the fermenting mass, and bottling the mass, for completing the fermentation, maintaining the bottled mass at a temperature of about fifty-five degrees in which the fermentation is completed.

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**1,038,808. STOP-COCK.** HENRY H. DUCKENBACH, Cincinnati, Ohio. Filed July 10, 1911. Serial No. 637,706. (Cl. 137—7.)



1. In combination with a stop cock, a disk splined upon the nut-end of the plug and located between the casing and the nut, and a ring splined upon the nut and means of securing the disk to the ring.

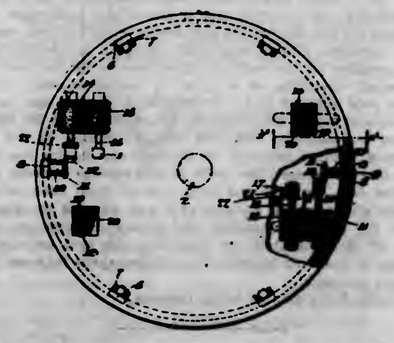
2. In combination in a stop cock, a plug having its reduced screw-threaded end flattened upon one side, a disk with a perforation to fit over said reduced end between the casing and the nut, a ring fitting over the nut and locked against rotation thereon, and means for securing the disk and the ring together.

3. In a stop cock, the combination of a plug with a reduced end, a disk splined upon the reduced end of the plug and having an outwardly projecting lug, a nut upon the plug, and a ring splined upon the nut and having a perforated lug fitting over the lug of the disk, and a lock securing the lugs together.

4. In a stop cock, the combination of a casing, a plug valve in the casing and having a downwardly projecting reduced screw-threaded end, a disk splined upon said reduced end and contacting with the casing, an angular nut upon the reduced end of the plug, an angular ring fitting over the nut, and means for locking the disk and the ring together.

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**1,038,809. AUTOMOBILE TURN-TABLE.** ALBERT DELAMORE, Los Angeles, Cal. Filed Apr. 16, 1912. Serial No. 691,246. (Cl. 104—19.)



1. An automobile turntable, comprising a rotary table, a track, driving wheels on the track and journaled on the table, friction wheels journaled on the table for operating said driving wheels, means for preventing one of said friction wheels from rotating in one direction, and a wheel depression in the table for holding a driving wheel of the automobile.

2. An automobile turntable, comprising a rotary table, a track, driving wheels on the track and journaled on the table, friction wheels journaled on the table for operating said driving wheels, means for preventing one of said friction wheels from rotating in one direction, a wheel depression in the table for holding a driving wheel of the automobile, said wheel depression having an abrupt incline at one side and a gradual incline on the other side.



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**1,038,810. DEVICE FOR FIXING CAPS TO BILLIARD-CUES.** THEODORE DETROYES, Villeneuve-sur-Yonne, France. Filed June 19, 1911. Serial No. 634,185. (Cl. 46—9.)



1. The combination with a cue, a sheet metal cap provided with a flange to form a cup and fitting on the end of the cue, a plurality of projections struck from the face of the cap and having their ends bent, an intermediate layer of leather seated on the cap and held in position by the projections and a cushioned tip secured to the intermediate layer of leather and having its outer end surface rounded.

2. The combination with a cue, a sheet metal cap secured to the end of the cue, outwardly projecting lugs struck from the surface of the cap and having their ends bent over, an intermediate layer of leather glued on the face of the cap and also secured thereto by the projections, a cushion tip seated on the intermediate tip, the bent over ends of the projections being embedded in the cushion tip and clenching the same.

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**1,038,811. NON-REFILLABLE-BOTTLE STOPPER.** ELENA MATOLINI DE VALDES, New York, N. Y. Filed Feb. 24, 1912. Serial No. 679,579. (Cl. 215—65.)



1. In a bottle of the class described, a glass encircling portion formed with a shoulder near the bottom and with a stop near the top, said stop having a substantially semi-globular upper portion provided with apertures and a depending substantially frusto-conical shaped portion merging into said semi-globular portion, said frusto-conical shaped portion being formed with an apertured wall merging into a tubular member and with a plurality of bracing cross bars, a valve resting on the shoulder of said tubular member, and means for normally holding said valve on its seat.

2. In a stopper of the class described, a tubular member, a semi-globular stop arranged between the ends of said tubular member formed with a plurality of passageways around the periphery and a hollow substantially frusto-conical member projecting from the inner surface thereof with the small end of said member in contact with the semi-globular member, said frusto-conical shaped member being formed with apertured sides and a braced bottom, and valve means arranged between the inner end of said tubular member and said stop.

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**1,038,812. HAT-PIN GUARD.** JAMES A. DICK and JOHN P. SINCLAIR, Vancouver, British Columbia, Canada. Filed June 5, 1912. Serial No. 701,743. (Cl. 24—155.)

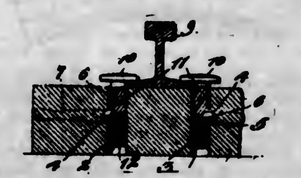


1. A hat pin guard, comprising a tube closed at one end and having a restricted entrance at the other, a wedge member loose within the tube, the thin edge of which member is directed toward the entrance.

2. A hat pin guard, comprising a tubular member closed at one end and at the other having a flared inlet offering a shoulder to the inside of the tube, and a wedge member loose within the tube, the smaller dimension of which is directed toward the inlet and of such width as to be retained by said shoulder.

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**1,038,813. COMBINED RAIL-JOINT AND TIE-FASTENER.** ALBERT DILLON, Altch, Ohio. Filed May 23, 1911. Serial No. 628,918. (Cl. 238—4.)



1. The combination with a base member having vertical slots therein; of means to secure an additional member thereto, comprising clamping members having shanks thereon disposed in said vertical slots, said shanks being provided with transverse channels, and rotatable locking keys extending transversely of the base member contiguous with said slots, said locking keys being adapted to engage the channels of said shanks when rotated in one direction, and means to manually rotate said locking keys.

2. In a device of the class described, the combination with a base member having vertical slots therein and also provided with transverse channels intersecting said slots; of means to secure an additional member to said base member, comprising clamping members removably mounted in said slots, said clamping members being provided with grooves adapted for alinement with the channels of said base member, and locking members rotatably mounted in the channels of said base member adapted to enter the grooves of said clamping members to retain the same in their effective positions.

3. In a device of the class described, the combination with a tie having vertical slots therein and also provided with transverse channels contiguous with said slots; of means to secure a member to said tie, comprising clamping members provided with shanks extending within said slots and vertically movable therewithin, said shanks being provided with grooves on one of their faces adapted to aline with the channels in said tie, locking keys rotatably mounted in the channels of said tie and permanently carried thereon, said locking keys being adapted to enter the

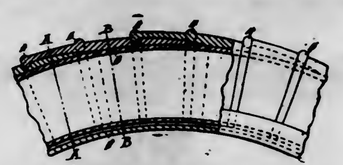
grooves of the shanks of said clamping members when moved in one direction to lock said clamping members in their effective positions, and means to rotate said locking keys.

4. In a device of the class described, the combination with a base member having vertical slots therein and provided with transverse channels intersecting said slots; of clamping members removably mounted in said slots and provided with grooves therein adapted for alinement with the channels in said base member, locking pins substantially circular in cross section mounted in the channels of said base member, said locking pins being each provided with a flattened face, and means to rotate said locking pins.

5. In a device of the class described, the combination with a base member having vertical slots therein and also provided with transverse channels intersecting said slots; of clamping members removably mounted in said slots provided with grooves therein adapted for alinement with the channels in said base member, locking pins substantially circular in cross section rotatably mounted in the channels of said base, said locking pins being each provided with a flattened face and permanently carried on the base, and a handle member carried on each of said pins to manually rotate the same.

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1,038,314. PNEUMATIC TIRE. FRANK DOHERTY and WILLIAM JOHN ROBBINS, Wellington, New Zealand. Filed June 7, 1910. Serial No. 565,622. (Cl. 152—13.)



The herein described cover for pneumatic tires comprising a series of similar sections each including a body and an apron separated by an exterior groove, the apron member of each section extending into the body of the adjoining section and the latter having a terminal bead 14, projecting from both the outer and inner surfaces thereof, said inwardly projecting portion being adapted to engage the groove separating said apron member from its body member, and a second exterior bead 15.

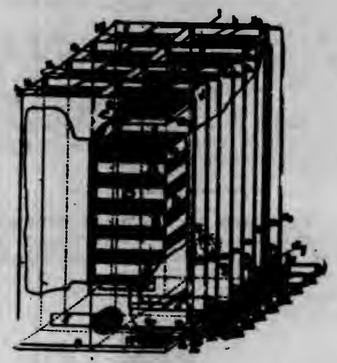
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1,038,315. PROCESS OF PURIFYING GASES. HENRY L. DOHERTY, New York, N. Y. Filed Feb. 15, 1910. Serial No. 544,093. (Cl. 48—220.)

1. The process of purifying foul gas which comprises, scrubbing said gas with ammonia liquor containing a substantial proportion of hydrated ammonia, whereby acid impurities in said gas are taken into combination by said hydrated ammonia, withdrawing the ammonia liquor from contact with said gas, separating from said liquor the major portion of its acid constituents while retaining in said liquor the major portion of its ammonia, by heating said liquor, whereby hydrated ammonia is regenerated in said liquor, and re-using said regenerated liquor to scrub another portion of said foul gas.

2. The process of purifying foul gas which comprises, scrubbing said gas with ammonia liquor containing a substantial proportion of hydrated ammonia, whereby acid impurities in said gas are taken into combination by said hydrated ammonia, withdrawing the ammonia liquor from contact with said gas, regenerating said liquor by heating the same to separate therefrom the major portion of its acid constituents while retaining therein the major portion of its ammonia, separating the regenerated liquor into two streams, scrubbing a fresh portion of foul gas with the liquor in one of these streams, subjecting the other of these streams to heating to free it from substantially all of its volatilizable gases, and subjecting the gas scrubbed by the first of the said streams to further scrubbing by the other of said streams after the same has been freed from its volatilizable gases.

3. The process of purifying foul gas which comprises, scrubbing said gas with ammonia liquor containing a substantial proportion of hydrated ammonia, whereby acid impurities in said gas are taken into combination by said hydrated ammonia, withdrawing the ammonia liquor from contact with said gas, regenerating said liquor by heating the same to separate therefrom the major portion of its acid constituents while retaining therein the major portion of its ammonia, dividing the regenerated liquor into two portions, scrubbing another body of foul gas with a portion of said regenerated liquor, heating the other portion of the regenerated liquor to eliminate volatilizable gases therefrom, subdividing the liquor from which volatilizable gases have been eliminated into two streams, using one of these streams to re-absorb the ammonia separated from said liquor with said acid gases, and the other of said streams to scrub the gas after the same has been scrubbed by the first-treated liquid.



4. The process of purifying foul coal gas by subetances obtained from the said gas, which comprises scrubbing the foul gas successively by two portions of treated liquid condensation from a previously made volume of said gas, the first portion of said liquid condensation having been treated to free it from the major part of its acid constituents, the other portion of said liquid condensation having been treated to free it from, substantially, all of its volatilizable gases, and withdrawing from the system the surplus ammonia and liquid by treating another portion of liquid condensation to free it from substantially all of its volatilizable gases, and using it to absorb said surplus ammonia.

5. The process of purifying foul coal gas which comprises absorbing the fouling constituents of the gas in treated liquid condensation from a previously made volume of gas, heating the liquid condensation containing the fouling constituents at a temperature below 200° Fah., whereby the major portion of the $CO_2$ and $H_2S$ contained in the liquid condensation is eliminated, therefrom, and the said liquid purified, while the major portion of the ammonia is retained therein, cooling a portion of the so-purified liquid condensation and using it to absorb the fouling constituents from a fresh portion of foul gas, subjecting the remaining portion of the so-heated liquid to boiling to eliminate therefrom the volatilizable ammonia, subdividing this portion of liquid into two streams, using one of these streams to absorb the ammonia from the gases evolved from the said liquid condensation on heating, and using the other of these streams to absorb the final portion of the ammonia from said coal gas after it has been scrubbed by said purified liquid.

[Claims 6 to 16 not printed in the Gazette.]



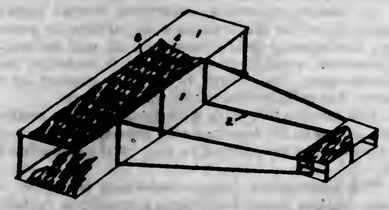
1,038,316. INSECTICIDAL-FERTILIZER CARTRIDGE. FREDERICK G. DOSKENWAGNER, Coshocton, Ohio. Filed Oct. 5, 1909. Serial No. 521,032. (Cl. 71—9.)



A fertilizer cartridge consisting of a joint-section of corn-stalk retaining its natural pith, the pith being thoroughly impregnated with fertilizing material.

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1,038,317. PLANE FOR AEROPLANES. FREDERICK GREGORY DOWNER, Pittsburgh, Pa. Filed Dec. 1, 1911. Serial No. 663,413. (Cl. 244—12.)



1. A wing or plane for aeroplanes, said wing or plane being provided with a plurality of supporting sections connected together and so inclined to the general plane of the wing or plane as to cause passage of air downwardly through the wing or plane.

2. A wing or plane for aeroplanes, said wing or plane being provided with a plurality of warped or curved supporting sections, the sections being connected together and each so inclined to the general plane of the wing or plane as to cause passage of air downwardly through the wing or plane.

3. A wing or plane for aeroplanes having a plurality of openings therethrough, and being provided with inclined surfaces adjacent said openings and arranged to deflect the air downwardly therethrough.

4. A wing or plane for aeroplanes, said wing or plane being provided with a plurality of supporting sections, the sections having spaced connections therebetween providing a plurality of openings through the wing and each section being inclined and adapted to deflect air downwardly through one of said openings.

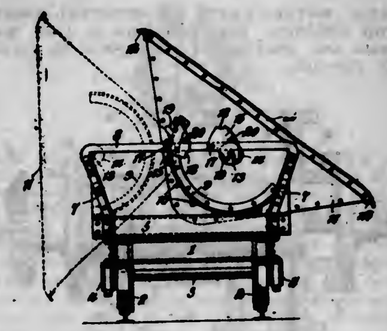
5. A wing or plane for aeroplanes comprising a plurality of rows of segments, said rows being each inclined to the general plane of the wing or plane, and spaced connections between adjacent rows providing a plurality of openings through the wing or plane and inclined supporting surfaces adjacent thereto and adapted to deflect air downwardly through the wing or plane.

[Claims 6 to 11 not printed in the Gazette.]

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1,038,318. DUMPING-CAR. ARTHUR N. DOUD, Cleveland, Ohio. Filed Mar. 25, 1911. Serial No. 616,925. (Cl. 105—190.)

1. A dump car provided with a dumping hopper, arc-shaped rocker supports for the hopper at the ends thereof, a straight track for each rocker, a stop member on each end of the hopper at the center of curvature of the respective rocker support, and a guide bar at each end of the hopper for and in overriding coactive relation to the corresponding stop member on the hopper and in parallel relation to the respective track.



2. A dump car provided with a substantially V-shaped dumping hopper, arc-shaped rocker supports for the hopper at opposite ends thereof with the terminal portions of the rockers toward the mouth of the hopper and the central portions of the rockers terminating short of the narrow bottom of the hopper, a straight track for each rocker, a stop pin on each end of the hopper at the center of curvature of the respective rocker support, and a straight guide bar for each stop pin in parallel relation to the respective track and on the side of the pin remote from the track.

3. A dump car provided with a substantially V-shaped dumping hopper, arc-shaped rocker supports for the hopper at opposite ends thereof with the terminal portions of the rockers toward the mouth of the hopper and the central portions of the rockers terminating short of the narrow bottom of the hopper, a straight track for each rocker, a stop pin on each end of the hopper at the center of curvature of the respective rocker support, and a straight guide bar for each stop pin in parallel relation to the respective track and on the side of the pin remote from the track, each guide bar terminating at each end in an extension constituting a stop member for the stop pin.

4. A dumping car comprising a suitable truck, straight track members disposed laterally of the car truck near the ends thereof, a hopper on the truck provided at the ends with arc-shaped rocker supports engaging the tracks, a pin or trunnion at each end of the hopper at the center of curvature of the respective rocker support, uprights at each end of the truck at the ends of the respective track, and a straight connecting bar in parallel relation with the corresponding track and located on the side of the pin or trunnion remote from the track, the said guide bar being connected at the ends of the respective uprights to constitute stops for the pins or trunnions to limit the movement of the hopper to one side or the other of the car on the hopper supports.

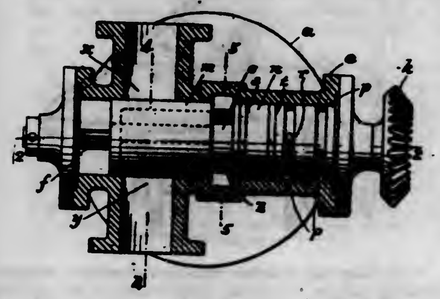
5. A dumping car comprising a suitable truck, straight track members disposed laterally of the car truck near the ends thereof, a hopper on the truck provided at the ends with arc-shaped rocker supports engaging the tracks, a pin or trunnion at each end of the hopper at the center of curvature of the respective rocker support, uprights at each end of the truck at the ends of the respective track, and a straight connecting bar in parallel relation with the corresponding track and located on the side of the pin or trunnion remote from the track, the said guide bar being connected at the ends to the respective uprights to constitute stops for the pins or trunnions to limit the movement of the hopper to one side or the other of the car on the hopper supports, the said rocker supports being provided with radially projecting studs and the tracks with corresponding perforations, and the guide bars carrying re-

taining members coacting with the corresponding pins located at the center of curvature of the tracks for locking the hopper in different positions.

[Claims 6 to 18 not printed in the Gazette.]

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1,038,319. ROTARY VALVE FOR INTERNAL-COMBUSTION ENGINES. ELEUTHERE PAUL DU PONT, Montchanin, Del. Filed May 18, 1910. Serial No. 561,038. (Cl. 123—190.)



1. In an internal combustion engine, the combination with the cylinder, of a valve casing communicating with the cylinder, a supply port and an exhaust port in the valve casing, a valve in the valve casing, and means to rotate and reciprocate said valve, said valve in one of said movements adapted to alternately open the supply and exhaust ports and in the other of said movements adapted to open and close communication between said ports and the cylinder.

2. In an internal combustion engine, the combination with the cylinder, of a valve casing, a supply port and an exhaust port in the valve casing, a valve in the valve casing, and means to rotate and reciprocate said valve, said valve adapted when rotating in one of its longitudinal positions to alternately open communication between the supply port and the cylinder and the exhaust port and the cylinder, and when rotating in the other of its longitudinal positions to maintain said communications closed.

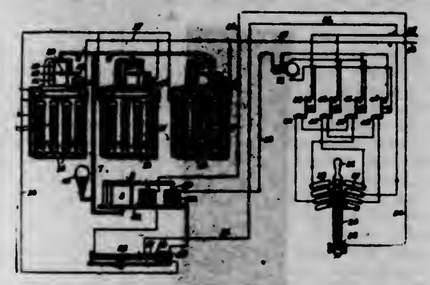
3. In an internal combustion engine, the combination with the cylinder, of a valve casing communicating with the cylinder, a supply port and an exhaust port in the valve casing, a rotatable valve in the valve casing adapted in its turning movement to alternately open the supply and exhaust ports, and means to rotate the valve and also to slide said valve longitudinally to alternately open and close communication between said ports and the cylinder.

4. In an internal combustion engine, the combination with the cylinder, of a valve casing communicating with the cylinder, a supply port and an exhaust port in the valve casing, means to rotate and reciprocate said valve, said valve in one of its movements adapted to alternately open the supply and exhaust ports and in the other of its movements adapted to open and close communication between said ports and the cylinder, and a packing carried by the valve and adapted to be interposed between the cylinder and the supply and exhaust ports in one of said movements.

5. In an internal combustion engine, the combination with the cylinder, of a valve casing communicating with the cylinder, a supply port and an exhaust port in the valve casing, a rotatable valve in the valve casing adapted in its turning movement to alternately open the supply and exhaust ports, means to rotate the valve and also to slide said valve longitudinally to alternately open and close communication between said ports and the cylinder, and a packing ring, carried by the valve, adapted, in one of the sliding movements of the valve, to be interposed between said ports and the cylinder.

[Claims 6 to 17 not printed in the Gazette.]

1,038,320. ELECTRIC CONTROLLER. GEORGE B. DUSENBERRY, Cleveland, Ohio. Filed Jan. 4, 1910. Serial No. 536,224. (Cl. 172—179.)



1. An electric controller comprising sets of resistance elements whose resistances are variable by pressure, and a fluid equalizer to impress pressure thereon, including a compensating device to cause the several columns to dissipate the same amount of energy.

2. An electric controller comprising several resistance elements in which the resistance is variable by pressure, means for inducing fluid pressure on all said devices, and compensators operated by the current to maintain the resistances equal, substantially as described.

3. An electric controller comprising several resistance elements in which the resistance is variable by pressure, means for inducing fluid pressure on all said devices, and compensators operated by the current to maintain the resistances equal, and means to equalize changes of fluid pressure due to operation of the compensators.

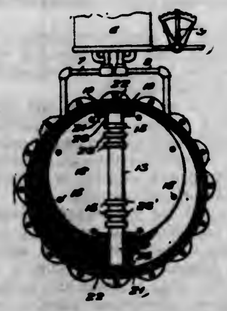
4. The combination with a variable pressure resistance device, of means for inducing fluid pressure thereon including a volume of gas, acting as part of the operating fluid body.

5. The combination with a resistance controller, of a current limiting device comprising a resistance variable by pressure and compensating means for varying the pressure thereon, operated by the total current.

[Claims 6 to 10 not printed in the Gazette.]

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1,038,321. ROTARY STEAM-ENGINE. OWEN HENRY EATON, Merced, Cal. Filed May 23, 1911. Serial No. 628,950. (Cl. 121—78.)



1. In a rotary steam engine, the combination with a casing, of a rotary piston composed of a separable disk shaped parts whose surfaces abut and have a channel therebetween, and a sliding vane carried by the piston and slidable in the channel between the separable parts thereof.

2. In a rotary steam engine, the combination with a casing, of a rotary piston eccentrically mounted therein and consisting of separable disk-shaped parts abutting each other face to face and having registering grooves or channels, and registering recesses intersecting said channels, a vane slidable in the registering channels, and packing set in the recesses and bearing on said vane.

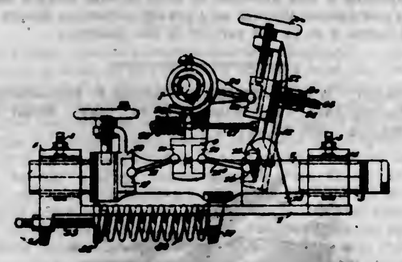
3. In a rotary steam engine, the combination with a casing, of a rotary piston eccentrically mounted in said casing and composed of twin separable disk-shaped parts each having an integral stub shaft section, the said parts abutting face to face and having a channel therebetween, and a sliding vane located in said channel between the separable parts of the piston.

4. The herein described rotary steam engine, comprising, in combination, a casing, a rotary piston eccentrically mounted in said casing and composed of twin disk-shaped parts abutting each other face to face each having an integral shaft section, the twin parts being provided with registering diametrically disposed channels or grooves and registering recesses in their inner adjacent faces, members connecting the parts of the piston together, the peripheries of the sections of the piston being notched where the channels emerge, packing set in the recesses, a vane slidable in the channels, and shoes carried by the ends of the vane which bear against the casing and are adapted for reception in the notches.

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1,038,322. HEAD-MOTION FOR ORE-CONCENTRATORS. HENRY EGGMAN, Denver, Colo., assignor to The Mine & Smelter Supply Company, Denver, Colo., a Corporation. Filed Feb. 15, 1910. Serial No. 543,987. (Cl. 74—14.)



1. The combination with a base and a movable draw-bar support thereon, of a lever fulcrumed on the base, and a drive shaft having a crank thereon which has direct connection with the lever at one point and indirect connection with the lever at another point and also with the draw-bar, and means for shifting and adjusting the point of direct connection with the lever.

2. The combination with a base and a movable draw-bar supported thereon, of a lever fulcrumed on the base and a drive shaft having a crank thereon which has direct connection with the lever at one point, and indirect connection with the lever at another point, indirect means of connection between the shaft and draw-bar and means for shifting and adjusting the point of direct connection with the lever.

3. The combination with a base and a movable draw-bar, of a lever fulcrumed on the base, a crank-shaft, and a pitman and a connecting rod both extending from the crank-shaft, one directly and the other indirectly to the lever and draw-bar.

4. The combination with a base, and a movable draw-bar, of a lever fulcrumed on the base, a drive shaft, and means for connecting both the draw-bar and lever with the drive shaft, the connection with the lever being at two different points, and said points on opposite sides of the fulcrum.

5. The combination with a base, and a movable draw-bar, of a lever fulcrumed on the base, a drive shaft, and means for eccentrically connecting the drive shaft with both the draw-bar and lever, the eccentric connection with the lever being at two different points, said points at opposite sides of the fulcrum, one of these points of connection being adjustable.

[Claims 6 to 17 not printed in the Gazette.]

1,038,323. LAMP-BURNER. GUSTAV EKLUND, New York, N. Y., assignor to The Dressel Railway Lamp Works, a Corporation of New York. Filed Dec. 18, 1909. Serial No. 533,774. (Cl. 67—53.)



1. A lamp-burner, comprising a base-portion, a wick-tube, a gallery, a cone, separated from said gallery to provide an air-inlet throat, means for supporting said gallery and cone from said base-portion, and for spacing said cone away from said base-portion to provide direct sidewise connection with the outer air for said cone, in the zone of the burner immediately above said base-portion, and deflecting means in connection with said cone for concentrating and directing air from within the cone toward a point above said tube, and for conducting air, entering through said throat, directly above said point.

2. In a lamp-burner, a cone, deflectors extending upwardly as continuations of the converging sides of said cone, a bridge spanning the upper open end of said cone, and an oil-collecting cup thereon.

3. A lamp burner comprising a wick tube, a gallery, a cone separated from said gallery by an annular throat, deflectors extending upwardly as continuations of the converging sides of said cone, and an oil collecting cup having its upper edge arranged in a horizontal plane with the upper edge of the body of said cone and below said deflectors.

4. A lamp-burner, comprising a wick-tube, a gallery, a cone, separated from said gallery by an annular throat, a bridge spanning the upper open end of said cone, and an oil-collecting cup thereon fitted to said wick-tube.

5. A lamp-burner, comprising a wick-tube, a gallery, a cone, separated from said gallery by an annular throat, converging deflectors extending upwardly from the upper edge of said cone, a bridge spanning the upper open end of said cone, and an oil-collecting cup thereon.

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1,038,324. MEANS OF REMOVING THE CARBON FROM THE CYLINDERS, VALVES, AND RINGS OF GASOLENE-ENGINES. CLAUDE ELLIOTT and CHARLES KELLY, Grundy Center, Iowa; Oscar A. Britsel administrator of said Charles Kelly, deceased. Filed Jan. 18, 1912. Serial No. 671,141. (Cl. 123—198.)

A method of removing carbon from the cylinder of an internal combustion engine consisting in placing a fusible metal or alloy in the cylinder and melting the same by the heat generated in the cylinder.

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1,038,325. TRUCK FOR AGRICULTURAL IMPLEMENTS. JOHN H. EMERT, Peoria, Ill., assignor to Emert Manufacturing Company, Pleasant Hill, Ill., a Corporation of Illinois. Filed July 16, 1910. Serial No. 572,867. (Cl. 21—63.)



1. In a device of the character described, in combination, supporting means, an axle having a pivotal relation with said supporting means both horizontally and verti-

cally, a steering tongue, a bar connected with said tongue and axle and capable of movement in a horizontal and a vertical plane, and a guiding means also connected with said tongue and movable transversely of said supporting means.

2. In a device of the character described, in combination, a stub-tongue, a casting secured to said tongue, an axle, a support between the axle and casting and rotatably connected with said casting, a steering-tongue, a bar connected with said steering-tongue and with said support, the connection between the bar and support permitting the bar to oscillate in a vertical plane.

3. In a device of the character described, in combination, a stub-tongue, a casting secured to said tongue, a support having a pivotal relation with said casting, an axle connected with the support and adapted to oscillate in a vertical plane, a steering tongue, a bar connected with said steering tongue and having a pivotal connection with said support, and guiding means attached to the steering tongue and movable across the vertical axis of the axle.

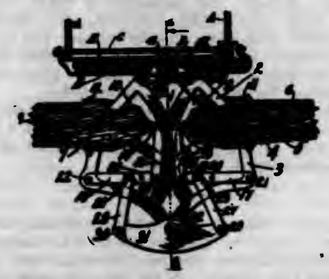
4. In a device of the character described, in combination, a stub-tongue, a support pivotally connected with the tongue, an axle having a pivotal relation with said support, a brace bar on the support extending parallel with the axle, a steering-tongue, a bar connected with said steering-tongue and having a pivotal relation with the support, and guiding means connected with the steering tongue and movable across the vertical axis of the axle.

5. In a device of the character described, in combination, a stub-tongue, a support having a pivotal connection with said tongue, said support composed of two parts, the matching faces of said parts having oppositely disposed inclined faces forming recesses between said parts, an axle having a pivotal relation with the lower part of said support, a steering-tongue, a bar connected at one end to the tongue, its opposite end extending through the recesses in the support and pivotally connected thereto, and guiding means connected with the steering tongue and movable across the pivotal connection between support and stub-tongue.

[Claims 6 to 9 not printed in the Gazette.]

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1,038,326. EQUALIZER. JOHN H. EMERT, Peoria, Ill., assignor to Emert Manufacturing Company, Pleasant Hill, Ill., a Corporation of Illinois. Filed July 16, 1910. Serial No. 572,368. (Cl. 21—189.)



1. In combination, a clevis, a draft attachment, and means connecting said clevis and said draft attachment, said means comprising a frame, locking members mounted therein, clamping means having eccentric relation with said locking members and adapted to pass through said clevis and to draw and hold said clevis against said frame.

2. In combination, a clevis, a draft attachment, and means connecting said clevis and said draft attachment, said means comprising a frame having inward projecting flanges, locking members mounted in said frame and positioned on opposite sides of the clevis, a bolt passing eccentrically through said locking members and adapted to pass through said clevis, whereby when said locking members are rotated the clevis will be drawn to and from said frame.

3. In combination, a clevis, a draft attachment, and means connecting said clevis and said draft attachment, said means comprising a frame having inward projecting flanges, locking members mounted in said frame and positioned on opposite sides of the clevis, a bolt passing eccentrically through said locking members and adapted to pass through said clevis, whereby when said locking members are rotated the clevis will be drawn to and from said frame and the means for immovably fixing said locking members in an adjusted position.

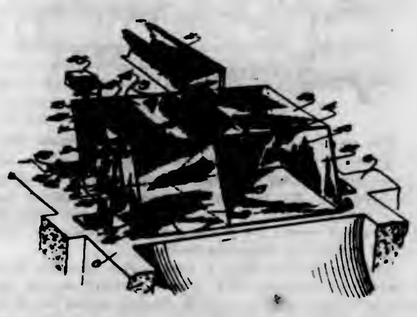
4. In combination, a clevis, a draft attachment, and means connecting said clevis and said draft attachment, said means comprising a frame composed of two plates having inward projecting flanges, said plates having an opening formed therein, locking members mounted in said openings and each having an eccentric bore, a bolt passing through said bores and said clevis, whereby when said locking members are rotated the clevis will be moved to and from said frame.

5. In combination, a clevis, a draft attachment, and means connecting said clevis and said draft attachment, said means comprising a frame composed of two plates having inward projecting flanges, and said plates having an opening formed therein, locking members mounted in said openings and each having an eccentric bore, a bolt passing through said bores and said clevis, whereby when said locking members are rotated the clevis will be moved to and from said frame, and means for immovably fixing said locking members in an adjusted position, said means comprising a bolt attached to each of said locking members and passing through said inward projecting flanges.

[Claims 6 to 11 not printed in the Gazette.]

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1,038,327. WATER-METER. WILLIAM F. ENGLEBRIGHT, Nevada City, Cal. Filed Oct. 10, 1911. Serial No. 653,924. (Cl. 73—178.)



1. A fluid measuring apparatus comprising a tiltable bucket divided into two equal chambers, said chambers being in part lozenge-shaped in cross-section, and in part triangular in cross-section.

2. A water measuring apparatus comprising a bucket having a substantially diamond shaped cross-section, bearings upon which the bucket will tilt longitudinally, and adjustable gudgeons secured to the bucket and resting on said bearings, said bucket being divided into two equal chambers.

3. A water measuring apparatus comprising a bucket having a substantially diamond shaped cross-section, bearings upon which the bucket will tilt longitudinally, adjustable gudgeons secured to the bucket and resting on said bearings, said bucket being divided into two equal chambers, and a central, diametral dividing panel forming bucket compartments.

4. A liquid meter comprising a bucket having a diamond-shaped cross-section, and divided into a plurality of chambers of equal volume, said chambers having overlapping portions.

5. A liquid meter comprising a bucket having a diamond-shaped cross-section, and divided into a plurality of chambers of equal volume, said chambers having overlapping portions, adjustable gudgeons secured to the bucket, and bearings upon which the gudgeons rest.

[Claims 6 to 10 not printed in the Gazette.]



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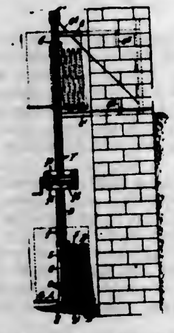
1,038,328. TENSION DEVICE FOR BAND-SAWS. GEORGE A. ENSIGN, Defiance, Ohio, assignor to Defiance Machine Works, Defiance, Ohio. Filed Apr. 6, 1912. Serial No. 688,882. (Cl. 143—27.)



In a band saw, the combination of a fixed part, a post mounted to slide up and down on the said fixed part and provided with a head, a bearing for the wheel spindle and provided at one side with a bracket, centers carried on the said head and on which is hung one end of the said bearing, a limiting screw on the said head and engaging the said bearing for limiting the swinging motion of the said bearing, a screw rod mounted to turn in the said fixed part and intermediate the said centers and the said limiting screw, a cross bar in which screws the said screw rod, coil springs interposed between the said cross bar and the said bracket, and guide rods held on the said cross bar and slidingly engaging the said bracket, the said guide bars passing through the openings in the said coil springs.

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1,038,329. HOISTING APPARATUS. CHARLES K. ERNST, Buffalo, N. Y. Filed Apr. 1, 1911. Serial No. 618,871. (Cl. 187—1.)



1. In a hoisting apparatus, the combination with a carriage elevating means, of a carriage comprising a supporting portion which is connected to said elevating means and is adapted to be raised and lowered thereby, a portion adapted to carry the object to be elevated, and pivotal connections between said carrying portion and said supporting portion which support said carrying portion and permit the same to be moved laterally relative to said supporting portion, substantially as set forth.

2. In a hoisting apparatus, the combination of a platform for the article to be raised, supporting members at opposite sides of said platform, upright guides for said supporting members, expansible connections between said platform and said supporting members which support said platform and permit the same to be projected laterally relative to said supporting members, said connections standing upright at the opposite side edges of said platform, and elevating means for said supporting members, substantially as set forth.

3. In a hoisting apparatus, the combination of a platform adapted to carry the object to be elevated, upright guides at opposite sides of said platform, expansible supporting means which connect said platfrom with said guides and permit said platform to be projected laterally relative to said guides, and elevating means for said supporting means, substantially as set forth.

4. In a hoisting apparatus, the combination of a carriage comprising a portion adapted to carry the object to be elevated, supporting members on opposite sides of said carrying portion, and lazy tongs connecting said carrying portion to said supporting members and arranged on edge at each side of said carrying portion, guides for said supporting members, and means connected to said supporting members for elevating said carriage, substantially as set forth.

5. In a hoisting apparatus, the combination of a carriage comprising a portion adapted to carry the object to be elevated, supporting members on opposite sides of said carrying portion, and lazy tongs connecting said carrying portion to said supporting members and arranged on edge at each side of said carrying portion, and cross rods connecting said lazy tongs together transversely of the carriage and forming supports for said carrying portion, guides for said supporting members, and means for elevating said carriage, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

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1,038,330. VENDING-MACHINE. GEORGE W. EVANS and CHARLES E. LOGAN, Connelsville, Mo. Filed Apr. 22, 1912. Serial No. 692,454. (Cl. 194—84.)



1. In a vending machine, a coin controlled mechanism comprising a rotary coin receiving member, a rock shaft, a plate on the rock shaft adapted to be engaged by the coin whereby said shaft is rotated, a radially disposed arm on the rock shaft, an arm on the coin receiving member, and means on the first named arm to be engaged by the latter arm to hold said coin receiving member against rotation, the oscillation of the rock shaft disengaging the means on the arm thereof from the arm on said coin receiving member to permit of the rotation of the latter.

2. In a vending machine, a coin controlled mechanism comprising a rotary coin receiving member, a rock shaft, means yieldingly holding said shaft against movement, an arm on the coin receiving member, means carried by the rock shaft to engage said arm and normally hold the coin receiving member against effective rotation in either direction, and additional means upon the rock shaft to be engaged by the coin carried by the coin receiving member whereby the rock shaft is oscillated, and the holding means thereof disengaged from the arm on said member to permit of the rotation of the coin receiving member.

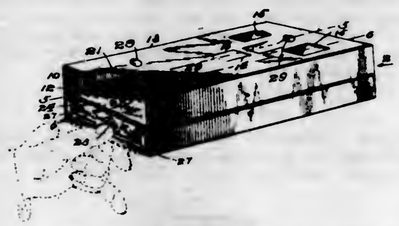
3. In a vending machine, coin controlled mechanism comprising an actuating shaft provided with a longitudinal slot, a rock shaft mounted above the actuating shaft and carrying a radially disposed plate, means yieldingly holding the rock shaft against movement, a radially disposed arm on the rock shaft, an arm on the actuating shaft, means carried by the arm on the rock shaft to en-

gage the arm on the actuating shaft and hold the same against movement in either direction, and a chute to direct the coin into the slot of the actuating shaft, said coin being adapted to engage the plate on the rock shaft to rock said shaft and disengage the holding means on the arm thereof from the arm on the actuating shaft whereby the latter shaft may be rotated.

4. In a vending machine, coin controlled operating mechanism comprising an actuating shaft provided with a coin receiving slot, a rock shaft mounted above the actuating shaft, a radially disposed plate carried by the rock shaft, means yieldingly holding the rock shaft against movement, an arm on the rock shaft, an arm on the actuating shaft, a rectangular loop fixed to the arm on the rock shaft having its end portions disposed in different planes with respect to the longitudinal axis of said arm, the arm on the oscillating shaft having a beveled edge to engage one end of the loop and elevate the arm on the rock shaft whereby said loop is engaged over the arm on the actuating shaft to hold the same against movement in either direction, and a coin chute to direct the coin into the slot of the actuating shaft, said coin projecting out of the slot to engage the plate on the rock shaft to rock said shaft and disengage the loop from the arm on the actuating shaft whereby the latter shaft may be rotated.

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1,038,331. FILING-CABINET UNIT. MARCUS P. EXLINE, Dallas, Tex., assignor to American Mailing System Co., Chicago, Ill., a Corporation of Illinois. Filed Apr. 9, 1912. Serial No. 689,610. (Cl. 129—43.)



1. A mailing unit comprising a housing embodying an upper and a lower compartment, stops bendable from the housing to extend entirely across the compartments, and a label holder hinged at one end and extending toward but stopping short of the bottom of one compartment, providing space between the lower edge of the label holder and the bottom of the compartment.

2. In a mailing unit, a housing, a partition separating the housing into an upper and a lower compartment, stops adapted to be inserted into the compartments at varying distances from the front of the compartments, and a label holder hinged to the front end of the partition and extending downwardly toward but stopping short of the housing at the bottom of the bottom compartment, providing a space between the lower edge of the label holder and the bottom of the housing.

3. In a mailing unit, a housing divided by a partition into an upper and a lower compartment, a label holder hinged to the front end of the partition and extending toward but stopping short of the housing at the bottom of the lower compartment, the said bottom of the housing and the lower edge of the label holder having cut-out portions to facilitate the removal of an envelop through the space provided by the stopping short of the label holder.

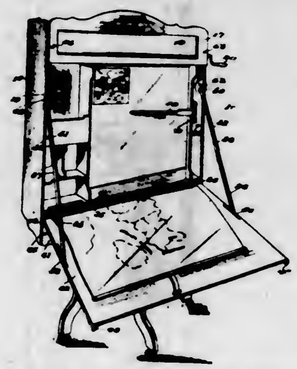
4. In a mailing unit, a housing, a partition inserted into the housing dividing such housing into an upper and a lower compartment, a label holder hinged to the front end of the compartment and extending downwardly over the front end of the lower compartment, and detents extending inwardly from the sides of the lower compartment into position to yieldingly engage the ends of the label holder.

5. In a mailing unit, a housing having a cut-out portion in the under side of the housing at the front end, a label holder pivoted above the bottom and provided with a cut-out portion registering with the cut-out portion in the bottom.

[Claim 6 not printed in the Gazette.]

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1,038,332. EDUCATIONAL DEVICE. SAM H. FANNING, Dallas, Tex., assignor of one-half to Homer Frady, Dallas, Tex. Filed Dec. 12, 1911. Serial No. 665,288. (Cl. 35—15.)



In a device of the class described an open casing, an upper receptacle above the casing, a lower receptacle below the casing, a flexible member movable within the upper receptacle and visible through the front of the same, a desk having a blackboard face and swinging relative to the casing, and a plurality of flexible members within the lower receptacle and movable over the desk.

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1,038,333. BOX-LID LIFTER. MEYER FREDDER, Baltimore, Md. Filed May 11, 1912. Serial No. 696,783. (Cl. 220—6.)



1. A box embodying a body portion and a lid, the body portion being formed with a slot extending below the lid and above the lower edge of the latter in the closed position of the lid, an arm pivotally connected to the body portion of the box and provided with means working in the slot for engagement with the lower edge of the lid, and means movable with said arm for closing the slot on one side of the latter.

2. A box, embodying a body portion and a lid, the body portion being formed with a slot extending below the lid and above the lower edge of the latter in the closed position of the lid, a pivot stud connected to one side of the box contiguous to said slot, an arm mounted on said stud, a pin secured to said arm and movable in said slot, and a plate disposed on the inside of the box and mounted on said pivot stud and movable with said arm, for the purpose specified.

3. A box, embodying a body portion and a lid, the body portion being formed with a slot, a pivot stud mounted in one side wall of the body portion contiguous to said slot, an arm mounted on said stud and provided with an outwardly projecting finger piece, a pin secured to said arm and movable in said slot, the arm being mounted on the outer side of the box, and a plate mounted on the inside of the box and secured to said stud, said plate being connected to said pin.



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1,038,334. SEASONING MATERIAL AND PROCESS OF MAKING SAME. HERMAN FLECK, Golden, Colo., assignor to The National Onion Salt Company, Denver, Colo., a Corporation of Colorado. Filed May 18, 1912. Serial No. 698,274. (Cl. 99—11.)

1. A composition of matter in the form of dry particles adapted for use as a seasoning and flavoring material and comprising vegetable fiber, the essential oils of the vegetable and salt, the compound being substantially free from the solid constituents of the vegetable which are soluble in water.

2. A composition of matter adapted for use as a seasoning and flavoring material and comprising solvent extracted essential oils and principles of a vegetable in combination with common salt, said composition being in dry pulverulent form.

3. A composition of matter in dry pulverulent form adapted for use as a seasoning and flavoring material comprising solvent extracted essential oils and principles of a vegetable, a finely subdivided fibrous carrier for said oils and principles and common salt.

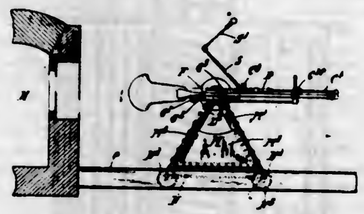
4. A composition of matter adapted for use as a seasoning and flavoring material comprising solvent extracted essential oils and principles of a vegetable intimately associated with common salt, said composition being substantially free from those solid constituents of the vegetable which are freely soluble in water.

5. A composition of matter adapted for use as seasoning and flavoring material containing the essential oils and principles of a vegetable and a fibrous carrier free from those solid constituents of the vegetable which are soluble in water.

[Claims 6 to 17 not printed in the Gazette.]

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1,038,335. MACHINE FOR BLOWING GLASS CYLINDERS. JOHN FORSTER, St. Helens, England. Filed Jan. 22, 1910. Serial No. 539,620. (Cl. 49—20.)



1. A glass blowing machine, comprising a blow pipe, a blow pipe carrier having wheels below the floor level, a track comprising a plurality of rails below the floor level, said rails having upper and lower flanges between which the wheels of the carrier are arranged to rotate, the wheels of the carrier being adapted to engage both flanges of the rails to prevent vertical and transverse movements of the carrier; substantially as described.

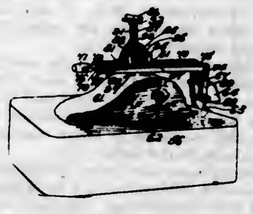
2. A glass blowing machine, comprising a blow pipe carrier, a frame or standard supporting said carrier extending above and below the level of the floor, a blow pipe mounted on said carrier and at the side of the frame, rails situated beneath the level of the floor, each of said rails having upper and lower flanges, wheels on said carrier arranged to engage both flanges of the rails, and a longitudinally disposed pit below said blow pipe; substantially as described.

3. In a glass blowing machine of the kind referred to the combination of a blow-pipe carrier a spindle L on which said carrier is rotatable a frame or standard supporting said spindle, rails situated beneath the level of the floor and on which said standard can be moved, a removable adjustable plate $Q^1$ secured to said standard and adapted to act as a stop to enable the blow-pipe to remain balanced in a substantially horizontal position, and an adjustable counter-balance weight for said carrier.

4. In a glass blowing machine of the kind referred to the combination of a blow-pipe carrier a spindle about which said carrier can rotate a standard or frame supporting said spindle a counter-balance weight on said spindle, wheels on said standard or frame, girders or joists situated beneath the level of the floor and between the flanges of which said wheels are adapted to run and a plate $Q^1$ secured to said standard or frame and adapted to permit of the blow-pipe carrier being balanced in such a position that the blow-pipe is in a substantially horizontal position.

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1,038,336. MEAT-CLAMPING DEVICE. GEORGE THOMAS FRANCISCO, Highland, Cal., assignor of one-half to Claudius M. Hill, Highland, Cal. Original application filed Aug. 4, 1911, Serial No. 642,372. Divided and this application filed Jan. 10, 1912. Serial No. 670,425. (Cl. 17—14.)



1. A meat holding device comprising in combination with the cutting block, a rack segment mounted on said block, a carrying frame pivotally mounted to said segment, a dog carried by said frame for engaging the ratchet teeth of said segment to hold said frame in position, operator controlled means for releasing said dog, and a meat gripping device carried by said frame.

2. A meat holding device comprising in combination with the cutting block, a rack segment mounted on said block, a carrying frame pivotally mounted to said segment, a dog carried by said frame for engaging the ratchet teeth of said segment to hold said frame in position, operator controlled means for releasing said dog, and a meat gripping device carried by said frame, said meat gripping device comprising a sliding carriage, a set of knives mounted on said carriage, and lever actuated devices for moving said knives toward and from each other to grip the bone of the meat.

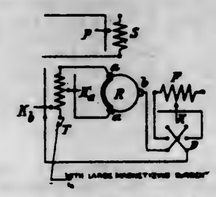
3. In a meat holding device, the combination with the cutting block, of a rack segment mounted thereon, a guide frame pivotally mounted on said rack segment, dog devices carried by said frame for engaging said rack segment to hold said frame in position, a sliding carriage mounted in said frame, two pairs of knives pivotally mounted on said carriage and mounted one pair in advance of the other, lever devices mounted on said carriage and connected to said knives for effecting their pivotal movement, means mounted on said levers for engaging said carriage to lock said knives from pivotal movement, all being arranged, that said knives may be swung toward one another to grip a meat bone when inserted into the meat.

4. A meat holding device comprising the combination with the meat block, of a rigid swingable frame secured thereto, and adapted to be swung over the meat in a vertical plane, a gripper and including gripping members carried by said frame for entering the meat and clasping and gripping the bone, and devices for holding the frame in its adjusted positions.

5. A meat holding device comprising a rack segment and means for rigidly securing it to a suitable support, a carrying frame pivoted on a horizontal axis to said segment to swing in a vertical plane, a dog carried by said frame for engaging the teeth of said segment to hold said frame down on the meat, operator controlled means for releasing said dog, and a meat gripping device carried by said frame.

[Claims 6 to 8 not printed in the Gazette.]

1,038,337. ALTERNATE-CURRENT MOTOR. VALÈRE ALFRED FYNN, Blackheath, England. Filed May 4, 1908. Serial No. 430,866. (Cl. 172—277.)



1. In an alternate current motor, the combination with an inducing member having a main inducing winding of an induced member closed along at least two axes, a series transformer requiring a large magnetizing current and linking the circuits of the induced member, means for varying the transformation ratio of said series transformer, and means for varying the magnetizing current required by said series transformer.

2. In an alternate current motor, the combination with an inducing member provided with a main inducing winding and a field winding displaced from said main inducing winding of an induced member, said induced member carrying two circuits connected in series relation with each other and with said field winding.

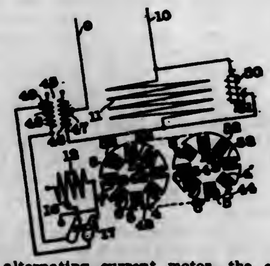
3. In an alternate current motor, the combination with an inducing member provided with a main inducing winding, of a field winding displaced from said main inducing winding, and an induced member, said induced member carrying two circuits connected in series relation with each other and with said field winding, and means for varying the magnitude of the magnetization due to said field winding.

4. In an alternate current motor, the combination with an inducing member provided with a main inducing winding, of a field winding displaced from said main inducing winding, and an induced member, said induced member carrying two circuits connected in series relation with each other and with said field winding, and means for reversing the direction of the magnetization due to said field winding.

5. In an alternate current motor, the combination with an inducing member provided with a main inducing winding, of a field winding displaced from said main inducing winding, and an induced member, said induced member carrying two circuits connected in series relation with each other and with said field winding, and means for varying the volts per turn in the main inducing winding.

[Claims 6 to 8 not printed in the Gazette.]

1,038,338. ALTERNATE-CURRENT MOTOR. VALÈRE ALFRED FYNN, London, England. Filed May 26, 1910. Serial No. 563,541. (Cl. 172—279.)



1. In an alternating current motor, the combination with a single rotor, of a laminated stator, means for producing a main 8-pole magnetisation along one axis through all of the stator laminations, and a field winding producing a like number of poles along another axis and embracing a part only of the stator laminations.

2. In an alternating current motor, the combination with a rotor, of a laminated stator, means for producing a main 8-pole magnetisation along one axis through all of the stator laminations, a field winding producing a like number of poles along another axis and embracing a part only of the stator laminations, and means for rendering the field winding inoperative.

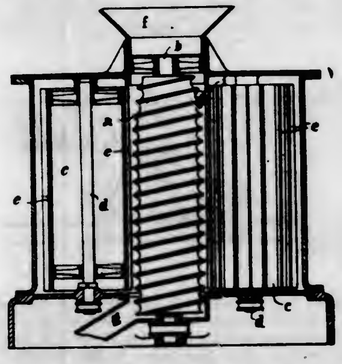
3. In an alternating current motor, the combination with a rotor, of a laminated stator, means for producing a main 8-pole magnetisation along one axis through all of the stator laminations, a field winding producing a like number of poles along another axis and embracing a part only of the stator laminations, and means for changing the relative direction of the main magnetization and the magnetisation produced by said field winding.

4. In an alternating current motor, the combination with a rotor, of a laminated stator, means for producing a main magnetisation along one axis through all of the stator laminations, a field winding disposed along another axis and embracing a part only of the stator laminations, said field winding being disposed in only one slot per pole.

5. In an alternating current motor, the combination with a rotor, of a laminated stator, means for producing a main 8-pole magnetization along one axis through all of the stator laminations, a field winding producing a like number of poles along another axis and embracing a part only of the stator laminations, and means for controlling the phase of the magnetisation due to the field winding relative to the phase of the main magnetization.

[Claims 6 to 11 not printed in the Gazette.]

1,038,339. DECORATICATING-MACHINE. HUGH WILLIAM GARRETT-FAIRFAX, Westminster, London, England. Filed Feb. 24, 1912. Serial No. 679,693. (Cl. 146—3.)



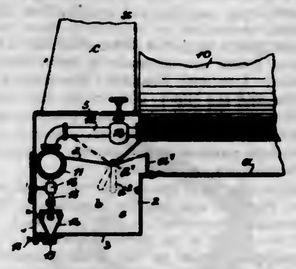
1. A machine for removing pericarp from nuts comprising a drum having a groove therein adapted to receive the nuts mounted upon a vertical spindle and adapted to be rotated and a plurality of abrading devices mounted upon vertical spindles and arranged around said drum with a space between the peripheries of the drum and of the abrading devices into which space the nuts are delivered and in which they are freed from their pericarp by the united action of the drum and the abraders.

2. A machine for removing pericarp from nuts comprising a casing, a conveyer operating in said casing, a plurality of abrading members, operating in conjunction with said conveyer, filling members substantially triangular in cross section, vertically supported within said casing, and means for operating said abrading members.

3. A machine for removing pericarp from nuts, comprising a casing, a hopper mounted upon said casing, a central vertical conveyer mounted in the casing, a plurality of abrading rolls substantially housing the conveyer, filling members supported in spaced relation around the central conveyer, and means for operating the conveyer and abrading members.



1,038,340. ROAD-OILER. WILLIAM H. GAILOR, Saratoga Springs, N. Y. Filed May 13, 1910. Serial No. 561,062. (Cl. 127—63.)



1. In a road oiler, the combination with a tank for oil or other suitable surfacing material and devices for conveying such material from the tank and distributing it upon the surface of the road, of a casing forming a fire or combustion chamber beneath the tank, a casing connected therewith and surrounding all the conveying devices for the material, having open communication with the first casing or combustion chamber and forming a heating chamber, an outlet stack therefrom, a baffle plate at the union of the two casings over which the products of combustion pass from beneath the tank, a swinging baffle-plate within the heating casing comprising parts at an angle to one another adapted at one edge in one position to rest upon the top of the baffle plate and in the other position to lie in proximity with the under surface of the tank for changing the direction of the movement of the escaping products of combustion, a shaft at the intersection of said parts at one end extending outside of the casing and means connected thereto and manually actuated for changing the position of the swinging baffle plate.

2. In a road oiler, the combination with a tank for oil or other suitable surfacing material and devices for conveying such material from the tank and distributing it upon the surface of the road, of a casing forming a fire or combustion chamber beneath the tank, a casing connected therewith and surrounding all the conveying devices for the material, having open communication with the first casing or combustion chamber, and forming a heating chamber, an outlet stack therefrom, a baffle-plate at the place of union of the two casings and over which all the hot gases and the products of combustion are compelled to pass from beneath the tank, and a swinging baffle-plate adapted at one edge in one position to rest upon the top of this baffle-plate and in the other position to lie in proximity with the under surfaces of the tank for changing the direction of the movement of the escaping products of combustion.

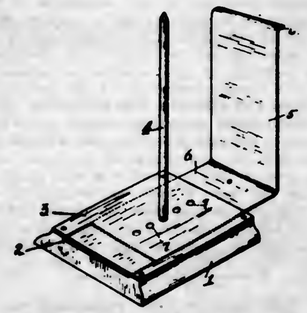
3. In a road oiler, the combination with a tank for containing oil or other suitable material for treating a road, a reservoir, a pipe and valve connecting the same with the tank, a distributer reservoir located below the aforesaid reservoir and a series of pipes and valves connecting the reservoirs, of a casing inclosing and surrounding the said reservoirs, pipes and valves and forming a heating chamber, one or more stacks rising from said casing, a casing beneath the tank forming a fire-box and combustion chamber and having communication with the said heating chamber, and a swinging baffle-plate, adapted in one position to direct the hot gases and products of combustion directly into the upper part of the heating chamber, and in the other position to divert the hot gases and products of combustion into the lower part of the heating chamber, to pass around the aforesaid devices therein.

4. In combination with a distributer, a receptacle, a fire-box for heating said receptacle, a flue for the fire-box, a conduit leading from the receptacle outside of said fire-box, a casing independent of the fire-box and surrounding the conduit, and means for directing the hot gases from the fire-box to the flue over variable portions of the surface of said conduit.

5. In combination, a receptacle, a fire-box for heating the receptacle, a flue, a distributer nozzle, a conduit leading from the receptacle to the nozzle, a portion of said conduit passing through the flue, a casing independent of the fire-box and surrounding that part of the conduit which is outside the flue, and means for conducting the hot gases directly up said flue or about the whole of the conduit.

[Claims 6 and 7 not printed in the Gazette.]

1,038,341. OFFICE PAPER-FILE. FREDERICK G. GANTNER, San Francisco, Cal. Filed June 17, 1912. Serial No. 704,081. (Cl. 129—21.)



1. A paper-file consisting of a base, an impaling-pin removably connected with the base, and a guard spaced from the impaling pin and secured to the base by the impaling-pin connection.

2. A paper-file consisting of a base, an impaling-pin removably connected with the base, and a guard spaced from the impaling pin and formed with a shank secured to the base by the impaling-pin connection.

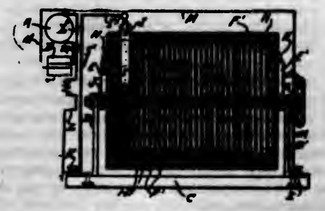
3. A paper-file consisting of a base, an impaling-pin having a threaded lower end adapted to be screwed into said base, and a guard spaced from the impaling-pin and formed with a shank secured to the base by the screw connection of the lower end of the impaling-pin with said base.

4. A paper-file consisting of a base, a guard having a shank slidably fitted to the base, and an impaling-pin removably connected with the base and adjustably engaging the shank of the guard.

5. A paper-file consisting of a base having a groove in its top and a cover plate overlying said groove; a guard formed with a shank, said shank fitting in the groove of the base under the cover plate, and an impaling-pin fitted to the cover plate and engaging the underlying shank of the guard.

[Claim 6 not printed in the Gazette.]

1,038,342. ADJUSTABLE AUTOMATIC RHEOSTAT. CHARLES H. GAYLORD, Chicago, Ill. Filed Sept. 6, 1910. Serial No. 580,562. (Cl. 219—56.)



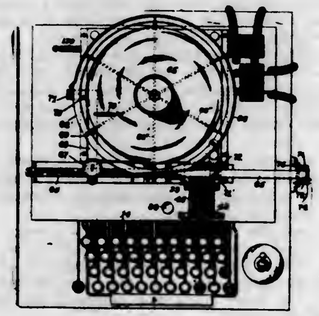
1. A base, standards on the base, arms respectively provided with hubs, and said hubs rotatably mounted in

the standards, a cylinder provided with a peripheral spiral groove, a spirally wound resistance coil mounted in said groove to turn with said arms, a non-rotatably mounted brush in electric contact with one turn of the wire of said coil, and in mechanical contact with said spiral groove, terminals on said base, and electric conductors from one of said terminals to one end of said coil and from the other of said terminals to the brush, all arranged so that the turning of said arms, cylinders and spirally wound resistance coil constitute a rotatable adjustment which varies the length of said wire between said brush and the terminal connected to the end of the wire.

2. A base, standards on the base, arms respectively provided with hubs and said hubs rotatably mounted in the standards, and one of said arms in electrical conducting contact with one of said standards, a cylinder, rotatably mounted in said standards, a hand wheel attached to one of said ends, said cylinder provided with a peripheral spiral groove, a covering of electrical non-conducting material to said cylinder, a resistance coil consisting of a spirally wound wire in the groove on said cylinder, one end of said wire attached to the arm which is in electrical contact with the standard, a rod mounted to be parallel to the axis of the cylinder, a brush movably mounted on said rod, and said brush in contact with one turn of the wire of said coil and with said spiral groove, terminals on the base, a wire connecting one of said terminals with the one of said standards which is in electrical contact with one of said arms, and a wire connecting the remaining terminal with said brush.

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1,038,343. APPARATUS FOR PERFORATING TAPE FOR AUTOMATIC TELEGRAPH INSTRUMENTS OR THE LIKE. JOHN GELL, London, England. Filed Jan. 9, 1911. Serial No. 601,751. Renewed Feb. 9, 1912. Serial No. 676,692. (Cl. 164—113.)



1. In combination in apparatus of the class described, tape feed mechanism, tape perforating mechanism, selecting mechanism, key levers, and a differential fulcrum comprising the upper bar having longitudinal and transverse grooves, pins on the key levers lying in the longitudinal grooves, and a second bar secured at the bottom of the first bar and having longitudinal and transverse grooves forming projections fitting in the longitudinal grooves of the first bar and upon which projections the fulcrum pins rest, substantially as described.

2. In combination in apparatus of the class described, a series of marking-hole and spacing-hole punches, a set of feed-hole punches corresponding to the marking-hole and spacing hole punches, selecting means for the marking-hole and spacing-hole punches, and means for operating the selected punches and for simultaneously operating therewith all of the feed-hole punches irrespective of the length of the character perforated.

3. In combination in a machine of the class described, marking-hole punches, spacing-hole punches, a slider, selecting mechanism to connect the said punches in different groups with the slider to be operated thereby, and a series of feed-hole punches operated by the slider independently of the other punches, substantially as described.

4. In combination, marking and spacing-hole punches, a slider, selecting mechanism to connect the said punches in predetermined groups with the slider, a series of feed-hole punches all of which are operated by the slider at each action, character keys with means for operating the selecting mechanism and the slider, differential tape-feed means controlled from the character keys, and a key with connections for effecting the operation of the slider to move the series of feed-hole punches independently of the character punches, substantially as described.

5. In combination in a machine of the class described, marking-hole punches, spacing-hole punches, a slider, selecting mechanism to connect the said punches in different groups with the slider to be operated thereby, a series of feed-hole punches operated by the slider independently of the other punches, and a maximum feed key with means controlled thereby for operating the slider to operate the feed-hole punches, and differential tape feed mechanism to feed the tape according to the length of the character perforated or to give the maximum feed when the maximum key is operated, substantially as described.

[Claims 6 to 26 not printed in the Gazette.]

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1,038,344. BOOT-HOLDER. WEBSTER D. GILBERT. Johnstown, N. Y. Filed May 11, 1912. Serial No. 696,619. (Cl. 152—24.)



1. A device of the character specified, comprising in combination with the boot adapted to be arranged transversely of the tread of a pneumatic tire, and provided with a series of spaced tabs at each side edge, of a holder at each side of the tire, each holder comprising a plurality of links, each having a longitudinal slot at one end and a headed pin at the other end for engaging the slot of the adjacent link, each link having a hook intermediate its ends for engaging the rim supporting the tire, a loop pivoted to the outer face of each link above the hook, and a buckle connected to each loop, each buckle engaging the adjacent tab of the boot.

2. A device of the character specified, comprising in combination with the boot adapted to be arranged transversely of the tread of a pneumatic tire, and provided with a series of spaced tabs at each side edge, of a holder at each side of the tire, each holder comprising a plurality of links, each having a longitudinal slot at one end and a headed pin at the other end for engaging the slot of the adjacent link, each link having a hook intermediate its ends for engaging the rim supporting the tire, a buckle pivoted to each link, each buckle engaging the adjacent tab of the holder.

3. A device of the character specified, comprising in combination with the boot adapted to be arranged transversely of the tread of a pneumatic tire, and provided with a series of spaced tabs at each side edge, of a holder at each side of the tire, each holder comprising a plurality of links connected together and slidable on each other, each link having a hook for engaging the rim, and a buckle pivoted to each link for engaging the adjacent tab.



4. A device of the character specified, comprising a plurality of series of slidably connected links, each link having a hook at one side, a loop pivoted to the outer face of each link, and a buckle connected with each loop.

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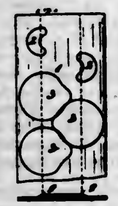
1,038,345. HOLDER FOR A PAPER OF PINS. GENNARO GIUGLIANO, West Hoboken, N. J. Filed June 21, 1911. Serial No. 634,465. (Cl. 132—27.)



In a holder for a paper of pins, a casing having an open top and provided with a hinged door at its front upper portion, means in the casing for exposing a row of a paper of pins at the open top of the casing, and a supporting member pivoted to the ends of the casing and extending forwardly beyond the front of the casing and adapted to rest upon a table or other support.

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1,038,346. MANUFACTURE OF JOINTLESS RINGS. AUGUST GLEBE, Pforzheim, Germany. Filed Mar. 8, 1911. Serial No. 613,188. (Cl. 29—8.)

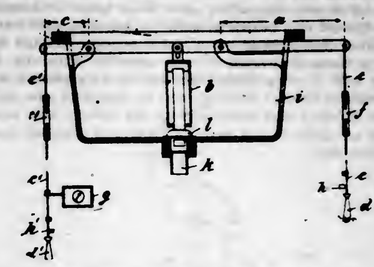


In the manufacture of jointless metal rings, forming a sheet metal strip of larger thickness in its middle than on its sides, punching flat ring pieces each having an outer and an inner projection out of said metal strip, the thicker part of each flat ring piece lying symmetrically on that side containing the outer projection, stamping a conical ring from said flat ring piece, and finally a cylindrical ring from said conical ring.

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1,038,347. APPARATUS FOR FLUSHING WATER-CLOSETS AND THE LIKE. HUGO GOLDAU, Zöllichau, Germany. Filed Feb. 17, 1912. Serial No. 678,274. (Cl. 4—5.)

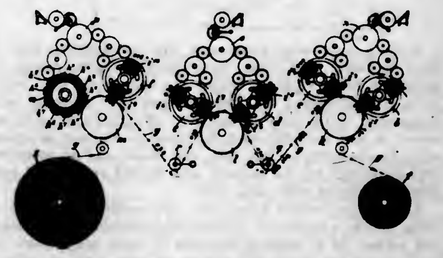
In a device of the character described the combination of a reservoir having an outlet, a hood movable in said reservoir above the outlet, a valve at the bottom of the hood and movable therewith, a pair of pull members, and a pair of levers connecting said pull members with the hood, one of said levers being pivotally supported at a point adjacent its point of connection with the hood, and the other lever being pivotally supported at a point remote from the said hood connection, for the purpose described,



and a stop to control the movement of the pull member attached to the first mentioned lever.

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1,038,348. MACHINE FOR NUMBERING SHEETS. RUDOLF GOMPF, Berlin, Germany. Filed Mar. 7, 1912. Serial No. 682,211. (Cl. 101—183.)



1. A rotary press for continuously numbering the sheets in paper rolls or textile webs by printing by means of large figure-printing, comprising means for consecutively numbering with large figures and distributed among a plurality of printing cylinders arranged one behind the other in pairs, an impression cylinder coöperating with each pair of the said printing cylinders, means for adjusting the length of the course of the paper roll or textile web between the pairs of printing cylinders, an inking apparatus, whereby by correspondingly adjusting and operating the type wheels of the numbering devices the latter mutually coöperate to produce a consecutive numbering on the sheets of the paper roll or textile web.

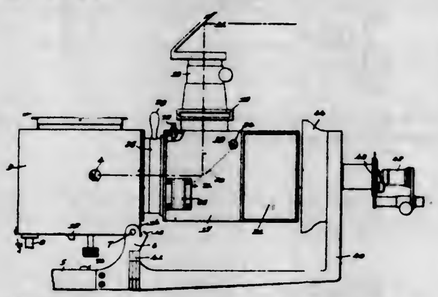
2. A rotary press for continuously numbering the sheets in paper rolls or textile webs by printing by means of large figure-printing, comprising five printing cylinders (*b*, *c*, *d*, *e*, *f*), each provided with two diametrically opposite numbering devices, impression cylinders (*k* and *l*) common to the cylinders (*b*, *c* and *d*, *e*) respectively, a separate impression cylinder for the printing cylinder (*f*), means for adjusting the length of the course of the paper roll or textile web between the pairs of printing cylinders, and an inking apparatus.

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1,038,349. PROJECTION APPARATUS. EMORY W. GOODRICH, Boston, Mass. Filed Dec. 30, 1910. Serial No. 600,165. (Cl. 88—26.)

1. In a projection apparatus, the combination with a lamp house provided with means to project a beam of light, of means supporting said lamp house to permit it to be turned into positions with the beam of light extending either horizontally or in a downwardly-inclined direction, a housing secured to and movable with the lamp house, said housing being open on the side toward which the beam of light is directed, and an objective lens carried by the housing and situated with its optical axis directed toward said open side.

2. In a projection apparatus, the combination with a lamp house provided with means to project a beam of light, of means supporting said lamp house to permit it to be turned into positions with the beam of light extending either horisontally or in a downwardly-inclined direction, a housing secured to and movable with the lamp house, said housing being open on the side toward which the beam of light is directed, and an objective lens carried by the housing and situated with its optical axis extending at an angle to the beam of light and directed toward the open side.



3. In a projection apparatus, the combination with a base or table, of a lamp house provided with means to project a beam of light, means for supporting said lamp house for movement into different positions about an axis transverse to the axis of the beam of light, a housing secured to and movable with the lamp house and provided with an open side in line with said beam, and an objective lens sustained by the housing and having its optical axis directed toward said open side.

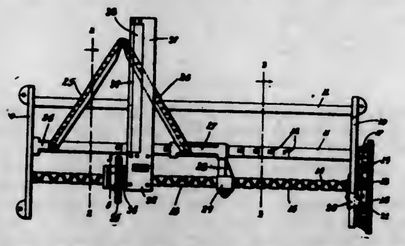
4. In a projection apparatus, the combination with a lamp house, a source of illumination therein and condensing lenses, of a housing swiveled to said lamp house to turn about the beam of light as an axis, and two objectives carried by said housing.

5. In a projection apparatus, the combination with a lamp house, a source of illumination therein and condensing lenses, of a housing swiveled to the lamp house to turn about the axis of the beam of light collimated by the condensing lenses, said housing having an angularly-disposed open side in the path of said beam, an opaque projection objective carried by the housing in line with said open side, a transparent projection objective also carried by the housing, and a movable reflector within the housing to reflect the collimated beam of light into the latter objective.

[Claims 6 to 14 not printed in the Gazette.]

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1,038,350. CALCULATING-MACHINE. GEORGE W. GOSS, St. Louis, Mo., assignor to Goss-Acrey Calculator Company, St. Louis, Mo., a Corporation of Missouri. Filed Feb. 23, 1912. Serial No. 679,522. (Cl. 235—61.)



1. In a calculating machine a frame, a shaft journaled for rotation therein, which shaft is provided with right and left hand threads, a disk fixed on the shaft for operating the same, a scale on said disk, an extensible scale pivotally connected at one end to the frame, a member arranged to slide on the frame and connected to the threaded shaft so as to be moved when said shaft is rotated, a scale for governing the position of the sliding member, a disk mounted on the threaded shaft, a counting and indicating mechanism, a driving connection between the said last mentioned disk and said counting and indicating mechanism and means for showing the position of the counting and indicating mechanism with respect to the extensible scale.

2. In a calculating machine a frame, an extensible scale pivotally connected at one end to said frame, means for moving said extensible scale, which means includes a threaded shaft and a disk, a scale on the frame for indicating the movement of said extensible scale, a counting and indicating mechanism and means mounted on the threaded shaft and connected to the counting and indicating mechanism for actuating the same.

3. In a calculating machine a frame, an extensible scale thereon, means for moving said extensible scale, which means includes a threaded shaft and a disk, a scale on the disk whereby the movement thereof may be accurately regulated, a counting and indicating mechanism, means arranged for movement on said threaded shaft and adapted to operate the counting and indicating mechanism and a guiding means fixed to said last mentioned means and overlying the extensible scale.

4. In a machine of the class described, a frame, a shaft journaled for rotation therein, which shaft is provided with a double thread, a disk on one end of the shaft, which disk is provided with a scale, an extensible scale pivotally connected at one end to the frame, a sliding member connecting the opposite end of said extensible scale with the threaded shaft, a scale adjacent to the sliding member, a disk mounted upon the threaded shaft, a counting and indicating mechanism which is actuated by the rotary movement of the last mentioned disk upon the threaded shaft and guiding means carried by the counting and indicating mechanism and overlying the extensible scale.

5. In a machine of the class described, a frame, an extensible scale pivotally connected at one end to the frame, a shaft journaled in the frame, which shaft is provided with right and left hand threads, a scale whereby the rotary movement of the shaft may be regulated, a sliding member mounted upon the threaded shaft and engaging with one of the threads thereon, which sliding member is connected to the free end of the extensible scale, a scale on the frame adjacent to the sliding member, a disk mounted for rotation on the threaded shaft, and which disk engages with the other one of the threads of said shaft and a counting and indicating mechanism movable with the disk and connected thereto so as to be actuated when said disk is shifted upon the threaded shaft.

[Claim 6 not printed in the Gazette.]

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1,038,351. WATERPROOF BAG. WILLIAM J. GRAHAM, Brooklyn, N. Y. Filed May 6, 1911, Serial No. 625,489. Renewed June 28, 1912. Serial No. 706,471. (Cl. 150—4.)

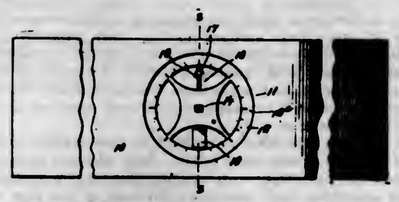


In a water-proof purse or bag, the combination with a bag, of hinged yokes having recesses around their inner faces, hinged frames one of them having a groove and fitting in the recesses and adapted to clamp the ends of the bag between same, and a tongue on the face of one of the frames and adapted to fit in a groove in the opposite frame to force the two upper edges of the bag together.

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1,038,352. LEVEL. WARREN B. GROTEVANT, Douglas, Ariz. Filed July 12, 1911. Serial No. 638,140. (Cl. 73—71.)



In a level, the combination with a level bar, of spaced dials mounted thereon and provided with cut-away portions, a shaft connecting the said dials and provided with reduced portions, and pointers journaled on the reduced portions of the said shaft, between the said dials.

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1,038,353. WATER-PURIFIER. VIRGIL B. HAGG, Los Angeles, Cal., assignor to Continental Water Purifying Corporation, Los Angeles, Cal., a Corporation of California. Filed Apr. 1, 1912. Serial No. 687,871. (Cl. 210—12.)



1. In a water purifier, the combination of a receiving tank having a perforated bottom, a porous medium at the bottom of said tank, a porous pressure plate resting on said medium and a member extending over said porous pressure plate and separated therefrom to allow passage of water to the pressure plate, said member being provided with means for retaining sediment settling thereon, said pressure plate being provided with a projection extending upwardly therefrom to engage the said member, whereby the weight of said member is brought on said pressure plate.

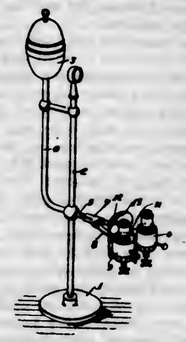
2. In a water purifier, the combination of a receiving tank having a perforated bottom, a porous medium at the bottom of said tank, a perforated pressure plate resting on said medium, a sediment receiving member extending over said perforated pressure plate and provided with a recess in its underface, said pressure plate having an upward projection engaging said recess to support the sediment receiving plate above said pressure plate to allow passage of water to the perforations in the pressure plate.

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1,038,354. LAMP. FRANK A. HALL, Okemos, Mich. Filed Apr. 25, 1911. Serial No. 623,283. (Cl. 240—44.)

1. In a lamp, a burner, a second burner positioned behind and laterally displaced with respect to the first mentioned burner, and a reflector arranged behind the burners and angularly adjustable about a vertical axis with respect thereto.

2. In a lamp, a burner, a second burner arranged rearwardly of the first mentioned burner and laterally displaced with respect thereto, and a reflector arranged behind the burners and adjustable toward and from the same and angularly about a vertical axis with relation thereto, the second mentioned burner being positioned nearer the reflector than the first mentioned burner.



3. In a lamp, an angularly adjustable reflector, a burner positioned relatively close to the reflector and in advance of one side thereof, and a burner forwardly and laterally displaced with respect to the first mentioned burner and located more nearly opposite the middle of the reflector than the first mentioned burner.

4. In a lamp, a fuel supply pipe, a union interposed therein, and having a forward end from which one branch of the fuel supply pipe extends, a second branch of the said pipe leading from the said end of the union and extending beside the first mentioned branch at an angle thereto, the last mentioned branch being of less length than the first mentioned branch, a burner supported at the forward end of each branch, a sleeve slidably fitted upon the first mentioned branch, means for holding the sleeve at adjustment thereon, the said sleeve having a laterally disposed socket, a reflector having a stem vertically adjustable in the said socket, and a set-screw threaded through the wall of the socket and bearing against the said stem.

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1,038,355. DETONATOR-MAGAZINE. ABRAM SMELLIE HAMILTON, Nanaimo, British Columbia, Canada. Filed Aug. 18, 1911. Serial No. 644,798. (Cl. 206—3.)



1. A detonator magazine comprising a body having a set of detonator compartments parallel to its axis, a cover swivelly mounted on said body to close said compartments, said cover having apertures which may be brought in register with the several detonator compartments, a shutter normally closing the cover apertures, means continuously tending to move said shutter to its aperture closing position, said shutter having a key receiving portion and said cover having a key hole slot, and a key mounted on said cover and having a portion to enter said keyhole slot and engage said shutter to move the same to open said cover apertures.

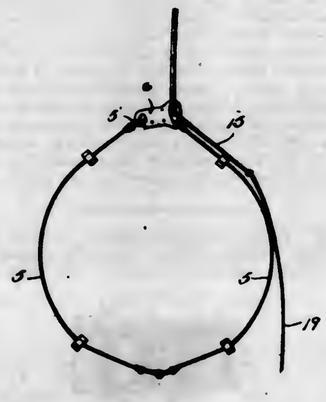
2. A detonator magazine comprising a body having a set of detonator compartments parallel to its axis and having a central chamber, a lug projecting upwardly into said central chamber, a cover mounted over said body to form a closure for said chamber, said cover having a depending hollow lug alining with said body lug, and a screw

passing swivelly through said hollow lug into said body lug to swivelly connect said cover to said body, said cover having apertures which may be brought into register with the several detonator compartments, said cover having an inner recess, a shutter mounted swivelly on said hollow lug to normally close the cover apertures, a spring mounted beneath said cover and held in said central chamber for continuously tending to move said shutter to its aperture closing position, and means for moving said shutter to its aperture opening position.

3. A detonator magazine comprising a body having a set of detonator compartments parallel to its axis and having a central chamber, a lug projecting upwardly into said central chamber, a cover mounted over said body to form a closure for said chamber, said cover having a depending hollow lug alining with said body lug, and a screw passing swivelly through said hollow lug into said body lug to swivelly connect said cover to said body, said cover having apertures which may be brought into register with the several detonator compartments, said cover having an inner recess, a shutter mounted swivelly on said hollow lug to normally close the cover apertures, a spring mounted beneath said cover and held in said central chamber for continuously tending to move said shutter to its aperture closing position, and means for moving said shutter to its aperture opening position, said last named means comprising a key, said cover having a key hole slot through which said key may be inserted, said shutter having a key receiving recess and a shoulder to coöperate with said key in virtue of which said shutter may be moved by said key.

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1,038,356. TRIP-COUPLING. ROBERT J. HAMILTON, Browning, Mont. Filed Oct. 7, 1910. Serial No. 585,838. (Cl. 57—11.)



A trip coupling comprising a pair of casings, each having a hook at one end extending inwardly and having slots formed in their meeting faces and extending longitudinally therein, the hooks curving across the casings, the casings being formed at the rear with inwardly extending shoulders reducing the width of the slot, a spring mounted in the slot and bearing against the shoulders, and a bolt having a reduced portion slidably mounted in the reduced portion of the slots and having an enlarged portion providing a shoulder against which the other end of the spring bears, whereby when the bolt and spring are introduced into the slot of one of the casings and the other casing is secured in position on the first the two casings securely lock the bolt and spring therebetween and prevent removal thereof, one of the casings having an attaching loop formed thereon, and an operating rod secured to the bolt and projecting rearwardly in the plane of the other casing to exert a direct rearward pull to draw the bolt into the casing.

1,038,357. STOVEPIPE-JOINT. EDWIN HAMMOND, Crescent Mills, Cal. Filed Mar. 2, 1912. Serial No. 681,284. (Cl. 126—308.)

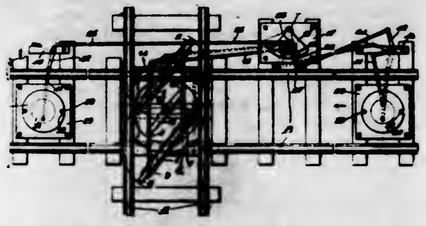


1. A stove pipe joint comprising in combination with a pair of stove pipe sections having their adjacent ends telescoped and provided with alined openings, a fastening band encircling said telescoped ends and having its ends secured together, and projections slidably mounted on said band and adapted to engage the alined openings in the stove pipe sections.

2. A stove pipe joint comprising in combination with a pair of stove pipe sections having their adjacent ends telescoped and provided with alining openings, a fastening band encircling said telescoped portions of the pipe sections, and strips of metal bent to encircle said band and having their ends formed with lugs pressed together, said lugs engaging the alining openings aforesaid.

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1,038,358. RAILROAD-CROSSING. LOSH O. HARBAUGH, Piqua, Ohio. Filed Oct. 12, 1911. Serial No. 654,423. (Cl. 104—116.)



1. In a railroad crossing the combination with a main and a crossing line; of track sections movably mounted within said crossing; means connected with and adapted to move said track sections; a turn table located to either side of said crossing, a lever mounted adjacent and engaging with the turn table; said lever adapted to be engaged and actuated by a moving car; a disk secured to rotate with said turn table; and operative connections between the disks of said turn tables and the track moving means, substantially as described.

2. In a railroad crossing the combination with a main and a crossing line; of track sections movably mounted within said crossing; means connected with and adapted to move said track sections; a turn table located to either side of said crossing, a two armed lever mounted adjacent and engaging with the turn table at diametrically opposite points; said lever arms adapted to be engaged by a moving car to turn said table; a disk secured to rotate with the turn table; a detent device associated with said disk; and operative connections between the disks of said turn tables and the track moving means, substantially as described.

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1,038,359. PROCESS OF PRODUCING ERYTHRENE. CARL HARRIES, Kiel, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed May 16, 1912. Serial No. 697,822. (Cl. 23—24.)

1. The herein described process for producing erythrene, which process consists in treating a butylene halogenid with an oxy compound of a metal of metallobasic character and in separating erythrene from the gaseous product thus produced, substantially as described.

2. The herein described process for producing erythrene, which process consists in treating a butylene halogenid with soda lime and in separating erythrene from the gaseous mixtures thus produced, substantially as described.

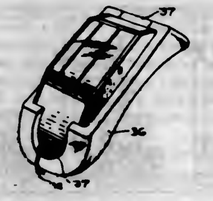
3. The herein described process for producing erythrene, which process consists in treating a butylene bromid with an oxy compound of a metal of metallobasic character and in separating erythrene from the gaseous mixtures thus produced, substantially as described.

4. The herein described process for producing erythrene, which process consists in treating butylene bromid with soda lime and in separating erythrene from the gaseous mixtures thus produced, substantially as described.



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1,038,360. TIRE-PROTECTOR. RHODA C. HARRIS, Pittsburgh, Pa. Filed Oct. 25, 1911. Serial No. 656,738. (Cl. 152—16.)

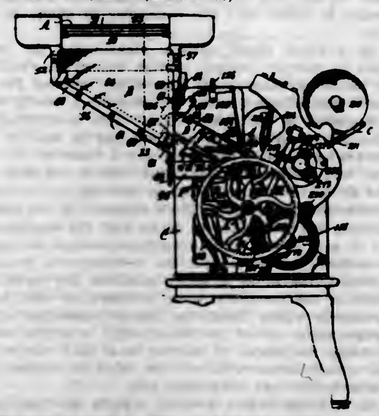


1. A tire protector comprising a plurality of sections each comprising an outer frame, an inner frame having a curved base, end walls extending from said base, side walls secured to said base and end walls, tread blocks carried by said inner frame, and means connecting said sections together.

2. A protector comprising a plurality of sections, each comprising an outer frame, an inner frame mounted in said outer frame, said inner frame comprising a curved base, converging end walls carried by said base, side walls removably secured to said base and end walls, and tread blocks in said inner frames.

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1,038,361. MACHINE FOR WRAPPING COINS. FREDERICK HART, Poughkeepsie, N. Y. Filed Dec. 18, 1907. Serial No. 407,017. (Cl. 93—2.)



1. The combination of a coin-feeding device, a coin support upon which the coins are assembled side by side, a packer by which the coins are pushed upon said support, a yielding abutment against which the coins are packed, a spring by which the packer is pressed toward said abutment, and a cam by which the packing movement of the packer is controlled and the return movement of the packer is effected, substantially as set forth.

2. The combination of a coin chute provided with an escapement device, a packing chamber receiving the released coins from said chute, a feeding lever operating in said chamber, a packer operating transversely to the packing chamber, a support upon which the coins are packed, and detent springs secured, respectively to said chute and said packing chamber, substantially as set forth.

3. The combination with the wrapping rolls mounted in stationary bearings, of a pressure roll, a movable support for the same by which the pressure roll is moved toward and from the opposing rolls, and a rocking actuating device for said movable support connected therewith midway between the ends of said pressure roll and permitting the latter to aline itself to the opposing rolls, substantially as set forth.

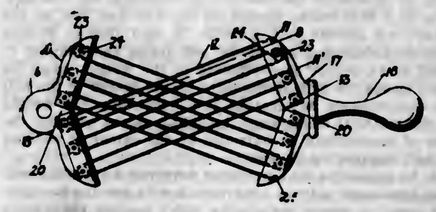
4. The combination with the bundle forming mechanism, the counting mechanism and the bundle wrapping mechanism, of a constantly rotating driving shaft, a clutch by which the wrapping mechanism is intermittently actuated from said driving shaft, and a clutch-engaging mechanism which is controlled by said counting mechanism and which comprises a shifting lever which is adapted to rock on three different fulcra, substantially as set forth.

5. The combination with the bundle forming mechanism, the counting mechanism and the bundle wrapping mechanism, of a constantly rotating driving shaft, a clutch by which the wrapping mechanism is intermittently actuated from said driving shaft, a clutch-engaging mechanism which is controlled by said counting mechanism and which comprises a cam actuated by the counting mechanism, a releasing rod controlled by said cam, a shifting rod, a lock from which said shifting rod is released by said releasing rod, and a shifting lever actuated by said shifting rod and connected with said clutch, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

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1,038,362. COMB-CLEANER. ROY A. HARVEY, Mullen, Idaho. Filed Aug. 15, 1911. Serial No. 644,127. (Cl. 132—17.)



1. A comb cleaner comprising a pair of plates, each having forward edges inclining from opposite sides of the center thereof, said inclined portions being arranged in diagonally opposite parallel pairs, and formed with openings, and a cord attached to one of said plates and passed diagonally in parallel relation through the openings of one pair of inclined portions, and through the openings in the other pair in parallel relation

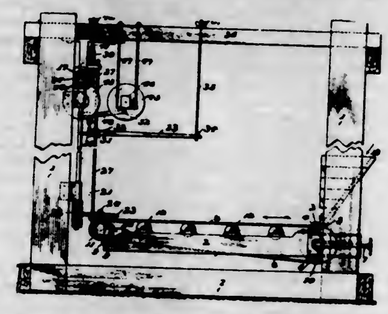
2. A comb cleaner comprising a pair of plates, oppositely inclined portions on the plates, the inclined portions of one plate being arranged respectively in parallel relation to the diagonally opposite inclined portions of the other plate, a hand grip on one of said plates, a cord passed back and forth between one pair of the diagonally opposite inclined portions, and then back and forth between the other pair of diagonally arranged inclined portions so that the portions of said cord will cross each other between the plates, and anti-friction means on said plates for engagement by said cord.

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1,038,363. WEIGHING APPARATUS. HERBERT E. T. HAULTAIN, Toronto, Ontario, Canada, and EDWARD S. WIARD, Denver, Colo. Filed Feb. 17, 1909. Serial No. 478,463. (Cl. 73—160.)

1. In weighing apparatus, a depressible movable conveyer, in combination with supporting yielding means governed as to the extent of their yielding by the weight of material upon the conveyer; a continuously-acting weight register geared to the conveyer; a lead indicator for indi-

cating, relatively to elapsing time, the passage of material with and off of the conveyer; and means governed as to position by the extent of yielding of the suspension means, for controlling the operation of the weight register and of the load indicator.



2. In apparatus for continuous weighing, a depressible movable conveyer, in combination with yielding devices supporting the same; a driving shaft; a rotary disk; separate trains of gearing driven from said shaft and driving, respectively, the conveyer and the said rotary disk; a second rotary disk; a time movement for driving the same; an arm carried by the said suspension devices and having at one end an integrating wheel in contact with the first disk, and at the other a marking point in contact with the second disk; and a register operated by the integrating wheel, whereby weights are continuously registered by said register, while at the same time the marking point traces a continuous line indicating the passage of material with relation to elapsing time.

3. In apparatus for continuous weighing, the combination of a belt frame hinged at one end and free at the other; an endless belt movable in said frame; devices supporting the free end of the belt frame and adapted to yield to an extent proportionate to the weight upon the belt; means for driving the belt; means geared to the belt for continuously integrating and registering the weight of the material transported, including means whereby the rate of registration is controlled by the extent of yielding of said supporting devices.

4. In apparatus for continuous weighing, a traveling endless depressible belt, in combination with gearing for driving same; a rotary integrating disk; gearing for driving said disk at a speed which is proportionate to the speed of the belt; a yieldably mounted support for the belt; an integrating wheel carried by said yielding support and driven by frictional contact with said integrating disk; and a continuously acting register driven by said integrating wheel, whereby with a uniform supply to the belt the integrating wheel rotates at a certain distance from the center of said disk while with a variable supply to the belt the said wheel rotates at variable distances from said center and faster or slower according to its position relatively to said center, and in all cases continuously operates said register.

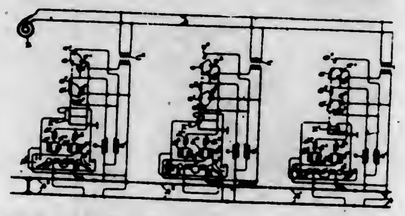
5. In apparatus for continuous weighing, a depressible belt frame hinged at one end and free at the other; an endless traveling belt carried by said frame; a hanger connected to the free end of the belt frame; a pivoted lever supporting said hanger; a spring supporting the free end of said lever; weight registering devices geared to the conveyer; and means whereby said devices are regulated in their operation by the depression of the belt frame.

[Claims 6 to 9 not printed in the Gazette.]

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1,038,364. BLOCK-SIGNAL SYSTEM. LAURENCE A. HAWKINS, Schenectady, N. Y., assignor, by mesne assignments, to The Union Switch and Signal Company, a Corporation of Pennsylvania. Filed Aug. 7, 1909. Serial No. 511,664. (Cl. 246—36.)

1. In a block signal system, signals for the blocks adapted to indicate danger, caution, and clear, track circuits including sources of alternating current for the blocks, a pair of track relays for each block having windings included in the track circuit and controlling the caution and clear indications according as one or both relays are energized, a resistance and a reactance for each source, and connections including switch contacts controlled by a train in one block controlling the circuit of the source for the preceding block arranged in one position to connect the resistance in series and the reactance in shunt to said circuit and in another position to connect the reactance in series and the resistance in shunt to said circuit, one of the track relays of said preceding block being responsive to current from said source with either of said connections and the other to current from said source with one connection only.



2. In a block signal system, signals for the blocks adapted to indicate danger, caution and clear, track circuits including sources of alternating current for the blocks, a pair of track relays for each block controlling the caution and clear indications, according as one or both relays are energized, each of said relays having a winding included in the track circuit and a second cooperating winding supplied with alternating current independently of the track circuits, the currents supplied to said second windings differing in phase in the two relays of each pair, a resistance and a reactance for each source, and connections including switch contacts controlled by a train in one block controlling the circuit of the source for the preceding block arranged in one position to connect the resistance in series and the reactance in shunt to said circuit and in another position to connect the reactance in series and the resistance in shunt to said circuit.

3. In a block signal system, signals for the blocks adapted to indicate danger, caution and clear, track circuits including sources of alternating current for the blocks, a pair of track relays for each block having windings included in the track circuit and controlling the caution and clear indications according as one or both relays are energized, a resistance and a reactance for each source, and connections including switch contacts controlled by a train in one block controlling the circuit of the source for the preceding block arranged in one position to connect the resistance in series and the reactance in shunt to said circuit and in another position to connect the reactance in series and the resistance in shunt to said circuit, the contacts which establish the series connections of the reactance being arranged to close before the contacts which break the series connection of the resistance open, one of the track relays of said preceding block being responsive to current from said source with either of said connections and the other to current from said source with one connection only.

4. In a block signal system, signals for the blocks adapted to indicate danger, caution and clear track circuits including sources of alternating current for the blocks, a pair of track relays for each block controlling the caution and clear indications according as one or both relays are energized, each of said relays having a winding included in the track circuit and a second coöperating winding supplied with alternating current independently of the track circuits, the current supplied to said second windings differing in phase in the two relays of each pair, a resistance and a reactance for each source, and connections including switch contacts controlled by a train in one block controlling the circuiting of the source for the preceding block arranged in one position to connect



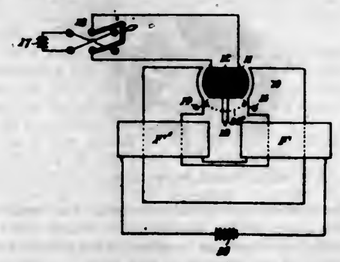
the resistance in series and the reactance in shunt to said circuit and in another position to connect the reactance in series and the resistance in shunt to said circuit, the contacts which establish the series connections of the reactance being arranged to close before the contacts which break the series connection of the resistance open.

5. In a block signal system, signals for the blocks adapted to indicate danger, caution and clear, track circuits including sources of alternating current for the blocks, a pair of track relays for each block having windings included in the track circuits and controlling the caution and clear indications according as one or both relays are energized, a resistance and reactance for each source, and connections including switch contacts controlled by the movement of a signal from danger to caution controlling the circuit of the source for the preceding block arranged in one position to connect the resistance in series and the reactance in shunt to said circuit and in another position to connect the reactance in series and the resistance in shunt to said circuit, one of the track relays of the preceding block being responsive to current from said source with either of said connections and the other to current from said source with one connection only.

[Claims 6 to 13 not printed in the Gazette.]

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1,038,365. INDICATOR. LAURENCE A. HAWKINS, Schenectady, N. Y., assignor, by mesne assignments, to The Union Switch and Signal Company, a Corporation of Pennsylvania. Filed Dec. 1, 1911. Serial No. 663,186. (Cl. 177—337.)



1. In a three-position indicator, a pivotally mounted indicator blade comprising two arms angularly disposed, a disk mounted in front of the blade, an opening in the disk through which one of the arms is disclosed when the blade occupies the middle position, means for moving the blade in one direction from the middle position to disclose the same arm in another position through said opening, and for moving the blade in the opposite direction from the middle position to disclose the other arm in a third position through the opening.

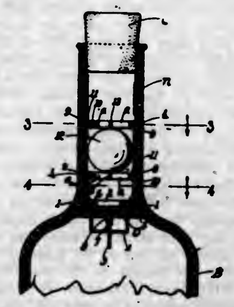
2. In a three-position indicator, the combination with a motor device having movement in opposite directions from a middle position, of a pivotally mounted indicator blade comprising two arms angularly disposed and operatively connected with the motor device, a disk mounted in front of the blade, an opening in the disk to disclose one of the arms when the motor device occupies its middle position, to disclose the same arm in another position when the motor device moves in one direction from the middle position, and to disclose the other arm in a third position when the motor device moves in the other direction from the middle position.

3. In a three-position indicator, a pivotally mounted indicator blade comprising two arms angularly disposed, a disk mounted in front of the blade, an opening in the disk through which one of the arms is disclosed in danger position when the blade occupies its middle position, means for moving the blade in one direction from the middle position to disclose the same arm in caution position through the opening, and for moving the blade in the other direction from its middle position to cover the said same arm and to disclose the other arm in clear position.

4. In a three position indicator, a pivotally mounted indicator blade comprising two arms disposed at substantially 135°, a disk mounted in front of the blade, an opening in the disk to disclose one of the arms in horizontal position when the blade occupies its middle position, means for moving the blade substantially 45° in one direction from its middle position to disclose the same arm in an inclined position and for moving the blade substantially 45° in the other direction from its middle position to cover the said same arm and to disclose the other arm in a vertical position.

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1,038,366. NON-REFILLABLE BOTTLE. RANDOLPH W. HAWKINS, St. Louis, Mo. Filed July 31, 1911. Serial No. 641,430. (Cl. 215—61.)



In combination with a bottle having a neck, a valve-seat at the base of the neck, a spring-controlled valve normally seating against the seat, for an upright, or an inverted position of the bottle when empty, a pair of diametrically ribbed rings locked to the neck and spaced apart, and a ball between the rings, a sufficient clearance being left between the ball and inner wall of the neck to allow for the flow of the liquid.

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1,038,367. ADJUSTABLE METALLIC FRAME FOR SCREENS AND THE LIKE. CHARLES A. HENRY, Chicago, Ill. Filed Apr. 24, 1911. Serial No. 622,861. (Cl. 156—38.)



1. A metallic frame including in its construction a corner piece consisting of two channeled members each having its walls mitered at their meeting ends, a rightangled extension on each of said members to lie one on the other, said members having in one of their surfaces between the corners of their meeting ends an apertured recess, a screw located in said openings and a nut engaging said screw and located in the recess of one of said members.

2. A metallic frame including in its construction a corner piece consisting of two pieces each having at each of its edges a wall each provided with a flange extended in the same direction, the walls and flanges of each piece being mitered at their meeting ends, each of said members also having between its walls a longitudinally extended corrugation, a rightangled extension on each of said members at their meeting ends to lie one on the other, each of said extensions having a longitudinally extended corrugation and provided on one of their surfaces between the corners of their meeting ends with an apertured recess, a screw located in said openings, a nut engaging said screw

and located in the recess of one of said members, an outer member located in each of the first named pieces and each consisting of a piece having a longitudinally extended and inwardly disposed corrugation to impinge against the first named corrugation and provided with an opening in its corrugated portion, each of said outer members also having at each of its edges a wall to fit between the walls of said inner members.

3. A metallic frame including in its construction a plurality of inner and outer clamping members connected together in pairs, each of said inner members consisting of a piece having at each of its edges a wall each provided with a flange extended in the same direction, each of said outer members consisting of a piece having at each of its edges a wall to fit between the walls of said inner members and provided between its ends with an opening, a splicing member telescopically engaging the adjacent ends of two pairs of the said inner and outer members and consisting of a piece having at each of its edges a wall one of which is provided with a channeled recess to receive one of the flanges on the said inner members, and an extension member located within the splicing member between the adjacent ends of said pairs of the inner and outer members and provided with an opening between its ends, said extension member having at each of its edges a wall to fit between the walls of the splicing member.

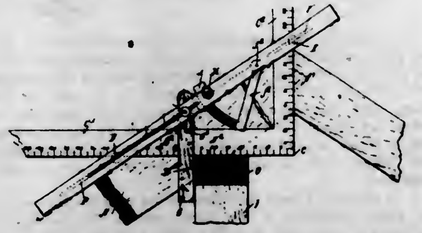
4. In an adjustable metallic frame, the combination with a pair of channeled members located in alinement with one another but spaced apart at one of their ends, each of said members having on one of its walls a flange extended outwardly from said wall, a channeled splicing member embracing said alined members at their adjacent portions and having in one of its walls a channeled extension to receive the flanges on the first named members and provided with an eye extended from said channeled wall, a link loosely mounted in said eye, and an extension member located within the splicing member between the ends of the alined members.

5. In an adjustable metallic frame, the combination with a pair of channeled members located in alinement with one another but spaced apart at one of their ends, each of said members having on one of its walls a flange extended outwardly from said wall, a channeled splicing member telescopically engaging said alined members at their adjacent portions and having in one of its walls a channeled extension to receive the flanges on the first named members, and an extension member located within the splicing member between the ends of the alined members.

[Claim 6 not printed in the Gazette.]

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1,038,368. ATTACHMENT FOR SQUARES. LEONARD MARION HODGE, San Jose, Cal. Filed Aug. 30, 1911. Serial No. 646,822. (Cl. 73—80.)



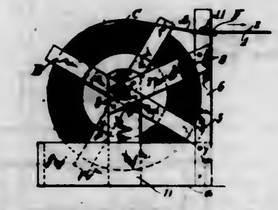
1. An attachment for squares, comprising a stock provided with clamping means for fastening the stock to a square, a graduated straight arm adjustably held on the said stock and provided with an angular foot adapted to rest on an edge of the square to hold the said arm at a right angle to the square, and a segmental graduated member formed at the end of a radial arm pivoted at its free end intermediate the ends of the stock and adapted to be fastened thereon.

2. An attachment for squares, comprising a stock slotted to receive the square and provided with clamping means for adjustably clamping the stock to the square, the stock having a longitudinal slot, at a point between its ends an arm associated with the stock and having a linear graduation and provided with a longitudinal slot, said arm also having an angular foot at a point between its ends adapted to rest on an edge of a square to hold the arm at a right-angle to the square, and a clamping screw engaging the said stock and arm and extending through the said longitudinal slots thereof.

3. An attachment for squares, comprising a stock provided with clamping means for clamping the stock to a square, said stock having a longitudinal slot at a point between its ends, an arm associated with the stock and having a linear graduation and provided with a longitudinal slot, said arm also having an angular foot adapted to rest on an edge of the square to hold the arm at a right-angle to the square, a clamping screw engaging the said stock and arm and extending through the longitudinal slots thereof, a segmental arm carried by one end of a radial arm, the opposite end of which radial arm is pivoted on the stock intermediate the ends of the latter, said segmental arm having a graduation representing cuts for rafters, and a clamping screw for fastening the segmental arm in adjusted position on the stock.

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1,038,369. PLURAL-STRAP DISPENSER. LEON S. HOWE, New York, N. Y. Filed Nov. 25, 1911. Serial No. 662,270. (Cl. 242—105.)



1. In a plural-strap dispensing package, the combination of a frame for rotatably sustaining a coil of a set of a plurality of metallic straps; a clip-bearing mounted crosswise of said coil and secured to said frame; a feeding clip comprising two outwardly extending jaws pivoted at the rear to said clip-bearing, lateral confining ears formed on said jaw to prevent the lateral displacement of said plurality of straps, and spring means to cause said jaws to grip said set of straps at a locality forward of said clip bearing for preventing movement of one of said straps relative to the other.

2. In a plural-strap dispensing package, a frame for rotatably sustaining a coil of a set of a plurality of metallic straps occupying an axial space several times the width of a single strap; a clip-bearing of a length as great as the axial width of said coil and secured to said frame crosswise of said coil; a gripping clip for confining and feeding said set of straps mounted on said clip-bearing and free to move lengthwise of said bearing to accommodate the lateral weaving of said set of straps upon unwinding; and lateral confining means formed on said clip to prevent the lateral displacement of the straps of said set said gripping clip being adapted to prevent movement of one of said straps relative to the other.

3. In a plural strap dispensing package, the combination of a frame for rotatably sustaining a coil of a set of a plurality of metallic straps; a clip-bearing mounted crosswise of said coil and secured to said frame; a feeding clip pivoted upon said clip-bearing having a pair of spring pressed jaws disposed eccentrically of said clip-bearing and adapted to rotate about said clip-bearing, said jaws clamping said set of straps between them; and a shoulder formed upon said feeding clip adapted to kink said set of straps for preventing movement of one of said straps relative to the other.



4. In a plural strap dispensing package, the combination of a frame for rotatably sustaining a coil of a set of a plurality of metallic straps; a clip-bearing mounted cross-wise of said coil and secured to said frame; a feeding-clip pivoted upon said clip-bearing having a pair of spring-pressed jaws disposed eccentrically of said clip-bearing, said jaws clamping said set of straps between them and being adapted to be rotated about said clip-bearing by said set of straps; and a shoulder formed upon said feeding-clip adapted to kink said set of straps as said feeding clip is rotated, for preventing movement of one of said straps relative to the other.

5. In a box strap dispensing package, the combination of a delivery device pivotally mounted upon said support, said delivery device being formed with a passage eccentric of its pivot and an end of said strap being adapted to be fed through said passage; means adjacent said passage for gripping said strap; and means adjacent said passage adapted to kink said strap when said delivery device is rotated, to prevent withdrawal of said strap.

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1,038,370. PROCESS FOR BRIQUETTING FLUE-DUST AND THE ARTICLE OF MANUFACTURE PRODUCED THEREBY. ROBERT HOWSON, Elizabeth, N. J. Filed June 21, 1911. Serial No. 634,576. (Cl. 75—73.)

1. The herein described process which consists in combining flue dust, clay, silica, lime, magnesia, hydrofluoric acid and water, in approximately the described proportions.

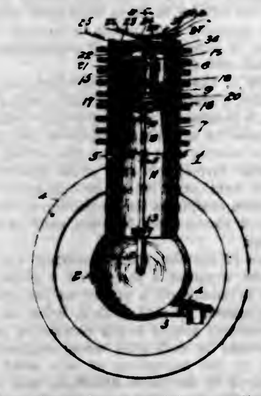
2. The herein described process which consists in combining iron flue dust, clay, silica, lime, magnesia, hydrofluoric acid and water in approximately the described proportions, and subsequently subjecting the mixture to mechanical manipulation to form briquets.

3. As a new article of manufacture, a briquet formed by subjecting flue dust, clay, silica, lime and magnesia to the action of a solution of hydrofluoric acid, and subsequently to the action of pressure to consolidate the materials in a portable form.

4. As a new article of manufacture, a briquet formed by subjecting the flue dust, clay, silica, lime and magnesia to the action of a solution of hydrofluoric acid, and then subjecting it to limited pressure whereby a portable mass is formed which is porous, strong and infusible at any temperature below that at which metallic iron will be separated from the gangue combined therewith.

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1,038,371. REVERSIBLE TWO-CYCLE ENGINE. CHARLES HULL, Bloomville, Ohio. Filed Aug. 8, 1911. Serial No. 642,914. (Cl. 123—41.)



1. A two-cycle engine comprising a cylinder having an explosion chamber at its upper end, a compression chamber at its lower end provided with a valve controlled admission port and one or more exhaust ports at a point intermediate said explosion and compression chambers, a piston operating in the cylinder and controlling said ports, said piston having a valve controlled passage for the feed of the explosive charge from the compression chamber to the explosion chamber, spark points carried by the piston and arranged at different elevations and out of vertical alinement with each other, a spark plug having a rotary stem provided with a sparking point for coöperation with the first-named points, and means for adjusting said stem for coöperation with either of the first-mentioned sparking points.

2. A two-cycle engine including a cylinder having an explosion chamber provided with a relief port, a spark plug having an adjustable spark point, a valve controlling said relief port, a piston provided with spark points arranged at different elevations and out of vertical alinement with each other, and means for adjusting the said adjustable spark point for coöperation with either of the latter-named spark-points and opening the relief valve at prescribed intervals.

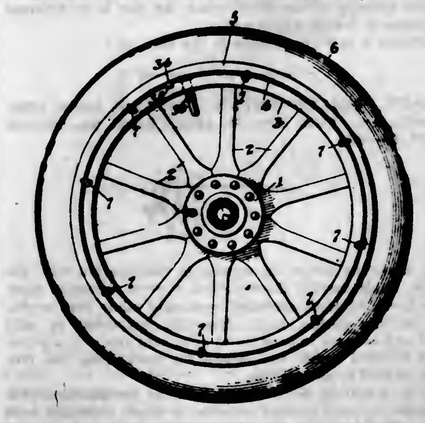
3. A two-cycle engine including a cylinder having an explosion chamber, an adjustable sparking device, a piston provided with spark points arranged at different elevations and out of vertical alinement with each other, and means for adjusting said adjustable sparking device for coöperation with each of said spark points.

4. A two-cycle engine including a cylinder having a crank casing provided with an admission port, an explosion chamber, and exhaust ports arranged at a point intermediate the crank casing and explosion chamber, a piston controlling the exhaust port and having a valved feed passage, a tubular shield extending upwardly from the piston in line with said passage, a pair of sparking points carried by the shield at different elevations and out of vertical alinement with each other, and a sparking point within the explosion chamber adjustable to coöperate with either of the first-named sparking points.

5. A two-cycle engine comprising a cylinder having an explosion chamber provided with a relief port, a valve controlling said port, a piston provided with spark points arranged at different elevations and out of vertical alinement with each other, a spark plug provided with an automatically retracted, spark terminal adjustable to coöperate with either of said spark points, a movable member for adjusting said spark terminal, means for operating the same, and means controlled by the first-named means for opening the relief valve after adjustment of said adjustable spark terminal.

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1,038,372. DETACHABLE RIM FOR VEHICLE-WHEELS. MILLER REESE HUTCHISON, Summit, N. J. Filed Apr. 29, 1909, Serial No. 492,920. Renewed July 20, 1912. Serial No. 710,606. (Cl. 152—21.)



1. A wheel and a detachable tire rim, in combination with securing means comprising a rotary dog formed with

circular bearing surfaces and with flattened sides adapted to project different radial distances when the dog is in different positions of rotary adjustment, the radii of said flattened surfaces and their peripheral extent being proportioned to the radius and circumference of said circular bearing surfaces so that when one of said flattened surfaces is presented outwardly the rim may be applied to or removed from the wheel, when the other of said flattened surfaces is presented outwardly the rim is forcibly engaged and forced outwardly, and the radius of the cylindrical portion is too great to permit further rotation of the dog to present such cylindrical surface outwardly.

2. A wheel and a detachable tire rim in combination with a plurality of peripherally distributed intermediate rotary dogs having their axes parallel with the axis of the wheel, the side or peripheral surfaces of said dogs comprising a flat surface at such distance from the axis of the dog that when presented outwardly the rim may be applied or detached, another flat surface at a greater radial distance such that when presented outwardly the rim is forced outwardly and radially clamped, said side or peripheral surfaces of said dogs comprising also a circular bearing surface of greater radius than the first mentioned flattened surface.

3. A wheel and a detachable tire rim in combination with a plurality of peripherally distributed intermediate rotary dogs having their axes parallel with the axis of the wheel, the side or peripheral surfaces of said dogs comprising a flat surface at such distance from the axis of the dog that when presented outwardly the rim may be applied or detached, another flat surface at a greater radial distance such that when presented outwardly the rim is forced outwardly and radially clamped, said side or peripheral surfaces of said dogs comprising also a circular bearing surface of greater radius than either of said flattened surfaces.

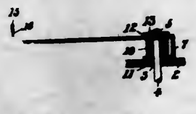
4. A wheel and a detachable tire rim in combination with a plurality of peripherally distributed intermediate rotary dogs having their axes parallel with the axis of the wheel, the side or peripheral surfaces of said dogs comprising a flat surface at such distance from the axis of the dog that when presented outwardly the rim may be applied or detached, another flat surface at a greater radial distance such that when presented outwardly the rim is forced outwardly and radially clamped, said side or peripheral surfaces of said dogs comprising also a circular bearing surface of greater radius than any portion of either of said flattened surfaces.

5. A wheel and a detachable tire rim, in combination with securing means comprising a rotary dog formed with cylindrical bearing surfaces and with flattened sides having their minimum radii less than the radius of said cylindrical bearing surfaces, said radii of said flattened sides being proportioned so that the latter project different distances radially of the wheel when the dog is in different positions of rotary adjustment.

[Claims 6 to 9 not printed in the Gazette.]

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1,038,373. SEALING DEVICE. ARCHIE E. IRONS, Pittsburgh, Pa. Filed Nov. 24, 1911. Serial No. 662,145. (Cl. 70—80.)



1. A sealing device for meters, in combination with the meter, studs carried thereby, and a cover arranged upon said studs, of arms arranged upon said studs and having nut holding means, nuts adjustably supported by said arms and adapted to be screwed upon said studs by a movement of said arms, and means for connecting the free ends of said arms together.

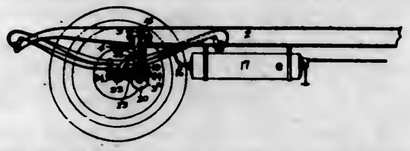
2. In a sealing device for meters, the combination with a meter, a stud carried thereby, a cover engaging said stud, and an arm arranged upon said stud against said cover and adapted to have one end thereof sealed whereby said arm cannot be moved, of a nut detachably supported by said arm and adapted to be screwed upon said stud by said arm, said nut having provision whereby it can be adjusted relatively to said arm to permit of said arm being correctly positioned for sealing purposes.

3. A sealing device for the cover of a receptacle, comprising cover supporting means carried by the receptacle, arms having the outer ends thereof mounted upon said supporting means and engaging the cover and capable of having their inner ends connected together for sealing, and hold-fast devices arranged in the outer ends of said arms and engaging said supporting means for forcing the outer ends of the arms against the cover to tightly lock the same when the inner ends of the arms are correctly positioned for sealing.

4. A sealing device for the cover of a receptacle comprising cover supporting means carried by the receptacle, arms having the outer ends thereof mounted upon said supporting means and engaging the cover and capable of having their inner ends connected together for sealing, and hold-fast devices arranged in the outer ends of said arms and engaging said supporting means for forcing the outer ends of the arms against the cover to tightly lock the same when the inner ends of the arms are correctly positioned for sealing, said hold-fast devices capable of being adjusted in the outer ends of said arms whereby the inner ends of said arms can be correctly positioned for sealing.

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1,038,374. COMBINED AIR-COMPRESSOR AND SHOCK-ABSORBER. JOSEPH D. JACKSON, Washington, Pa. Filed Dec. 23, 1911. Serial No. 667,519. (Cl. 21—50.)



1. In a device of the character described, the combination of a cylinder, a piston, a piston rod, a crank to which said piston is connected and means operated by the jolting of the vehicle for moving said crank always in the same direction whereby the stroke of the piston is completed before it reverses, a storage reservoir and connections between said cylinders and said storage reservoir.

2. In a device of the character described, the combination of a cylinder, a piston, a piston rod, a crank to which said piston is connected, a pinion in the crank shaft, a gear wheel engaged by said pinion, and means operated by the jolting of the vehicle to move said gear wheel in the same direction whereby said piston completes its stroke before reversing, a storage tank and connections between said cylinder and said storage tank.

3. In a device of the character described, the combination of a cylinder, a piston, a piston rod, a crank to which said piston rod is connected, a pinion on the crank shaft, a gear wheel engaged by said pinion, arms on the gear wheel shaft, means for moving said arms by the jolting of the vehicle, and means carried by said arms operating alternately to move said gear wheel in the same direction whereby the piston completes its stroke before reversing, a storage tank and connections between said cylinder and said storage tank.

4. In a device of the character described, the combination of a cylinder, a piston, a piston rod, a crank to which said piston rod is connected, a pinion on the crank shaft, a gear wheel engaged by said pinion, arms on the gear wheel shaft, reversely acting pawls carried by said arms, a ratchet connected to said gear wheel engaged by said pawls whereby by the movement of said arms the gear wheel 20 is moved in the same direction, and the piston completes its stroke before reversing, a storage tank, connections between said storage tank and said cylinder.

5. In a device of the character described, the combination of a cylinder, a piston, a piston rod, a crank to which said piston rod is connected, a pinion on the crank shaft, a gear wheel engaged by said pinion, arms on said gear wheel shaft, reversely mounted pawls carried by said arms, a ratchet connected to said gear wheel engaged by said pawls, lever arms connected to said arms, means for moving said lever arms by the jolting of the vehicle whereby said pawls turn the gear wheel 20 in the same direction, a storage tank and connections between said storage tank and said cylinder.



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1,038,375. MEANS FOR HEATING WATER. EMIL JACOBSON and AARON WOLFF, San Francisco, Cal. Filed Apr. 17, 1911. Serial No. 621,728. (Cl. 126—344.)



1. A water heating device comprising a receptacle adapted to contain fermentable matter, a water tank in the receptacle, means through which water is admitted to the tank, means through which water is drawn from the tank, said receptacle having means through which matter may be introduced and having an elevated and movable bottom which is therefore adapted for dumping the matter from the receptacle.

2. A water heating device comprising a receptacle adapted to contain fermentable matter, an elongated downwardly tapering water tank in the receptacle, supply means and discharge means connected with the tank, said receptacle having a supply aperture therein, and said receptacle having a hinged bottom whereby and because of the downward taper of said tank the decomposing matter may freely slide from the receptacle substantially as described.

3. In combination with a wall of a building, a receptacle juxtaposed to the wall, a tank in the receptacle, liquid supply means and liquid outlet means connected with the tank, said wall having an aperture through which solid fermentable matter may be introduced into the receptacle, and means for admitting liquid fermenting material into the receptacle.

4. In combination with a wall of a building, a receptacle juxtaposed to the wall, a tank in the middle portion of the receptacle, liquid supply means and liquid outlet means connected with the tank, a door communicating with the interior of the receptacle through which solid fermentable material may be introduced into the portion of the receptacle nearest the wall, means for admitting liquid fermenting material into the receptacle, said wall having a second door over the first said door, and means correlated with the second door for receiving and delivering said material to the portion of the receptacle farthest from the wall.

5. In a heating device, a stable floor, a stable wall, a fermentation receptacle on the outer side of said wall extending below the level of said floor, a drain along said floor and entering into said receptacle, a closable window through said wall between said stable and said receptacle a water tank located inside said receptacle and inlet and outlet pipes connected with said water tank.

[Claims 6 and 7 not printed in the Gazette.]

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1,038,376. SELF-FEEDING PAINT-BRUSH. ALFRED JARSCHKE, San Diego, Cal. Filed Aug. 15, 1911. Serial No. 644,098. (Cl. 91—39.)

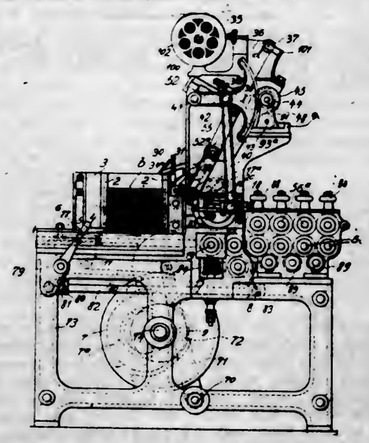


1. The combination with a paint brush having a head, bristles on the head said head having a longitudinal opening leading to the bristles, and a handle having an opening, of a bulb arranged above said head and within the handle, a tube connected to the head and one end of the bulb for feeding paint to the bristles, a collapsible portion in said tube, a tube leading from the opposite end of the bulb to a paint supply, and a valve between the bulb and paint supply.

2. The combination with a paint receptacle of a brush having bristles and a handle, a compressible means in the handle, connections between the compressible means and the receptacle, and a collapsible tube between the bulb and the bristles.

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1,038,377. PASTING-MACHINE FOR BOX-BLANKS. EMIL JAGENBERG, Dusseldorf, Germany. Filed May 28, 1912. Serial No. 700,141. (Cl. 93—55.)



1. In a machine of the type specified for pasting box-blanks, the combination with means for guiding long middle blanks, of means for guiding short lateral blanks on both sides of the middle blanks while maintaining them at a uniform distance from the middle blanks equal to their thickness, means for applying cut gummed paper

strips to the neighboring edges of the blanks, and means for pressing the gummed paper strips on the blanks.

2. In a machine of the type specified for pasting box-blanks, the combination with a frame, of a roll mounted to turn in said frame, a shaft turnable in said frame parallel to said roll, two pressing disks on said shaft, means for supplying gummed paper strips to said two pressing disks, means for passing long middle blanks one after the other between said roll and said two disks, means for passing short lateral blanks on both sides of the middle blanks between said roll and said two disks while maintaining them at a uniform distance from the middle blanks equal to their thickness, means for pressing said roll, the blanks and said shaft with said two disks together, and means for driving said roll and said shaft.

3. In a machine of the type specified for pasting box-blanks, the combination with a frame, of a roll mounted to turn in said frame, a shaft turnable in said frame parallel to said roll, two pressing disks on said shaft, means for supplying gummed paper strips to said two pressing disks, two grippers guided in said two pressing disks and adapted to grip and to release the gummed paper strips, a cam disk on said frame, means operated from said cam disk for actuating said two grippers, means for passing long middle blanks one after the other between said roll and said two disks, means for passing short lateral blanks on both sides of the middle blanks between said roll and said two disks while maintaining them at a uniform distance from the middle blanks equal to their thickness, means for pressing said roll, the blanks and said shaft with said two disks together, and means for driving said roll and said shaft.

4. In a machine of the type specified for pasting box-blanks, the combination with a frame, of a shaft mounted to turn in said frame, means for driving said shaft, two pressing disks on said shaft, a rocking shaft in said frame, two guides in said frame for cut paper strips, two locks on said rocking shaft adapted to catch and to release the cut paper strips sliding in said two guides, a first cam disk on said shaft, means operated from said first eccentric for actuating said rocking shaft, two grippers guided in said two pressing disks and adapted to grip and to release the gummed paper strips, a second cam disk on said frame, means operated from said second cam disk for actuating said two grippers, and means operated from said two locks for applying the ends of the two paper strips to the active faces of said two grippers during the withdrawal of said two locks.

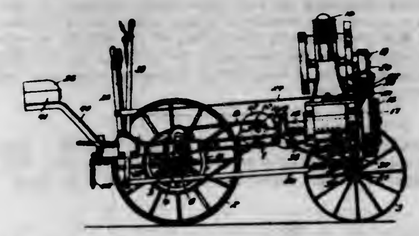
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1,038,378. RAZOR-SHARPENER. CHARLES JEREMIAS, Fremont, Ohio. Filed Aug. 24, 1911. Serial No. 645,884. (Cl. 51—16.)



A sharpener of the class described, comprising a carrying frame, a blade holding bar rigidly connecting opposing portions of said frame and having its ends bent downward in spaced relation to the associated frame sides with the terminals thereof attached to such sides, a cradle disposed within said frame and having side members fitting at their lower ends within the spaces between the bent portions of said bar and the frame sides and pivoted therein for rocking movements relative to the frame and bar, and a strop guided for reciprocating movements by said cradle and operable to impart rocking movements thereto to alternately move opposite portions of the strop into contact with a blade carried by said bar.

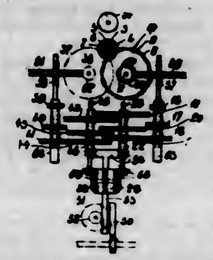
1,038,379. TRACTION-ENGINE. MARK JNO. STICKNEY, S. D. Filed Mar. 22, 1911. Serial No. 616,117. (Cl. 21—414.)



In a traction engine, the combination of an axle having vertical bearing sleeves at its ends, braces secured at their inner ends to the axle and having their outer ends spaced therefrom and formed with vertical bearing sleeves in line with the bearing sleeves at the ends of the axle, other braces secured at their forward ends to the outer ends of the first mentioned braces and connected at their rear ends to the frame of the machine, vertical shafts mounted in the bearing sleeves of the axle and braces and formed at their lower ends with spindles upon which supporting wheels are mounted, set collars secured to the lower ends of the vertical shafts and engaging the bearing sleeves of the braces, sector plates mounted upon the vertical shafts and arranged between the bearing sleeves at the ends of the axle and the braces and engaging the opposing ends of both bearing sleeves, a bar adjustably connecting the sector plates, an arm secured to one of the vertical shafts and operating lever, and connecting means between the said arm and operating lever.

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1,038,380. AUTOMATIC RECORDING APPARATUS FOR LONG SAWS OR SIMILAR MACHINES. GUSTAF EMANUEL JOHANSON, Sundsvall, Sweden. Filed Dec. 20, 1910. Serial No. 598,374. (Cl. 234—1.)



1. In a recording apparatus for long saws and similar machines the combination of, a plurality of driving rollers rotatable independently of each other and adapted to be rotated by the deals or the like passing through the machine, a recording roller, variable speed gearings between said driving rollers and said recording roller, means for changing the feed speed of the machine, means for adjusting said gearings, and connections between said adjusting means and said means for changing the feed speed of the machine, substantially as and for the purpose set forth.

2. In a recording apparatus for long saws and similar machines the combination of, a plurality of driving rollers rotatable independently of each other and adapted to be rotated by the deals or the like passing through the machine, a recording roller for recording the wages due to the workman, variable speed gearings between said driving rollers and said recording roller, a second recording roller for recording the actual running of the machine, and a variable speed gearing between said second recording roller and one of said driving rollers, substantially as and for the purpose set forth.



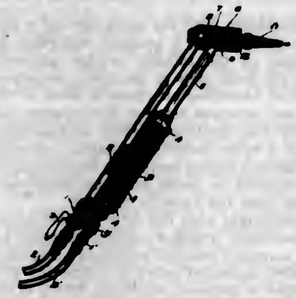
3. In a recording apparatus for long saws and similar machines the combination of, a plurality of driving rollers rotatable independently of each other and adapted to be rotated by the deals or the like passing through the machine, a recording roller for recording the wages due to the workman, variable speed gearings between said driving rollers and said recording roller, a second recording roller for recording the actual running of the machine, a variable speed gearing between said second recording roller and one of said driving rollers, means for changing the feed speed of the machine, means for adjusting the last-mentioned gearing, and connections between said adjusting means and said means for changing the feed speed of the machine, substantially as and for the purpose set forth.

4. In a recording apparatus for long saws having feed rollers adjustable to and from each other, the combination of a plurality of driving rollers rotatable independently of each other and adjustable sidewise and adapted to be rotated by deals passing through the machine, a recording roller, variable speed gearings between said driving rollers and said recording roller, means for changing the feed speed of the machine, means for adjusting said gearings, and connections between said adjusting means and said means for changing the feed speed of the machine.

5. In a recording apparatus for long saws and similar machines, the combination of a plurality of driving rollers rotatable independently of each other and adjustable longitudinally in relation to each other and adapted to be rotated by deals or the like passing through the machine, a recording roller, variable speed gearings between said driving rollers and the said recording roller, means for changing the feed speed of the machine, means for adjusting said gearings, and connections between said adjusting means and said means for changing the feed speed of the machine.

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1,038,381. BLOWPIPE. CHARLES E. JOHNSON, Havelock, Nebr. Filed Nov. 16, 1911. Serial No. 660,662. (Cl. 158—109.)

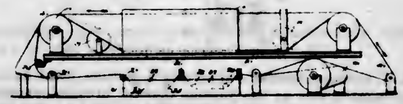


1. In a blow pipe, the combination of oxygen and acetylene supply pipes, a mixing chamber secured to said pipes having a hollow portion in the body thereof tapering at one end and terminating in a passage communicating with the oxygen supply pipe, the other end being internally threaded, a mixer adapted to be received into the hollow portion aforesaid, said mixer having oppositely tapering end portions and a longitudinal passage therethrough communicating with the first mentioned passage and having also transversely arranged passages connecting at their inner ends with the longitudinal passage aforesaid, and a detachable burner tip having a passage therethrough adapted to be screwed into the chamber and having its inner end recessed to conform to the outer tapered end of the mixer, whereby the latter is positioned in the chamber aforesaid and a continuous passage is formed from the oxygen supply pipe.

2. In a blow pipe, the combination of oxygen and acetylene supply pipes, a mixing chamber secured to said pipes having a hollow portion in the body thereof tapering at one end and terminating in a passage communicating with the oxygen supply pipe, the other end being internally threaded, a removable mixer adapted to be received into the hollow portion aforesaid, said mixer comprising sections having their opposite ends tapered and having passages therethrough, the inner contiguous ends of the sections being reduced, collars mounted on said reduced ends, and means connecting said collars to thereby join said sections together, the inner face of one of said sections having a groove extending thereacross forming a transverse passage intersecting the passages through the sections aforesaid, a detachable burner tip screwed into the threaded end of said chamber and having a passage therethrough communicating with the passages in said sections, the inner end of said burner tip being recessed to receive the outer reduced end of the mixer and thereby position the latter centrally in the chamber aforesaid.

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1,038,382. FILTER. RICHARD PERRY JOHNSON, New York, N. Y. Filed Mar. 13, 1911. Serial No. 613,962. (Cl. 100—37.)



1. The combination with a filtering member in the form of a continuous endless blanket, of means for manipulating said filtering member so as to offer successive portions thereof to a solution to be filtered, a washer for cleansing said filtering member, a bag-former for doubling said filtering member into the form of a bag, a spreader for opening out said filtering member from the bag form into a spread-out condition, a folder for bringing the edges of said filtering member together, and an unfolder for spreading out said filtering member.

2. The combination with a filter, of a filtering member for said filter, a washer for cleansing said filtering member, said filtering member being adapted to pass through said filter in the form of a bag with its obverse side innermost and its reverse side outermost, and mechanism interposed between said filter and said washer adapted to reverse said filtering member so as to bring said obverse side outermost and said reverse side innermost.

3. The combination with a filter, of a filtering member for said filter, a washer for cleansing said filtering member, said filtering member being adapted to pass through said filter in the form of a bag, with its obverse side innermost and its reverse side outermost, mechanism interposed between said filter and said washer adapted to reverse said filtering member so as to bring said obverse side outermost and said reverse side innermost, and mechanism interposed between said washer and said filter adapted to reverse said filtering member, so as to bring said filtering member in the form of a bag, with its obverse side innermost and its reverse side outermost.

4. The combination with a filter, comprising a casing, a series of erect rollers mounted in said casing, and means for driving said rollers, of a filtering member, in the form of a bag, extending between said rollers, said filtering member being open at the top and ends, and squeezing rollers adapted to force portions of the sides of said filtering member in intimate contact so as to produce a bag closed substantially on all sides and at the bottom.

5. The combination with a filtering member, of a series of pressure rollers adapted to bring the sides of said filtering member in intimate contact so as to divide the same into sections, and a series of supporting rollers contacting with said filtering member so as to support the sides thereof in each section.

[Claims 6 to 28 not printed in the Gazette.]

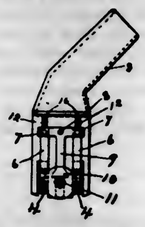
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1,038,383. BRUSHES FOR VACUUM-CLEANERS. WILLIAM TENSLEY JONES, Spokane, Wash. Filed Sept. 25, 1911. Serial No. 651,240. (Cl. 15—99.)

1. A vacuum cleaner comprising a suction head having an elongated slot at the bottom thereof, brushes mounted

one on each side of said slot, T-shaped levers pivoted to said head, connections between the same and said brushes, and means for tilting said levers to actuate the brushes as the cleaner is moved backward or forward, as set forth.

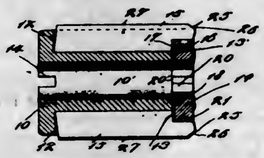
2. A vacuum cleaner comprising a suction head having an elongated slot at the bottom thereof, brushes mounted one on each side of said slot, T-shaped pivotal levers pivoted to said head, connections between the levers and said brushes, the lower end of each lever being serrated, wheels journaled upon the head, pinions rotating with the wheels and in mesh with said serrations, as set forth.



3. A vacuum cleaner comprising a suction head having an elongated slot at the bottom thereof, brushes mounted one upon each side of said slot, T-shaped levers pivotally mounted upon the ends of the head, springs fastened to the two oppositely extending arms of each of said T-shaped levers, pins fastened to the head to which said springs are secured, the lower end of each lever having teeth formed therein, wheels journaled upon the head, pinions fixed to said wheels and in mesh with said teeth, and connections between each brush and the ends of the oppositely extending arms of the lever, as shown and described.

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1,038,384. EXPANDING REAMER. JOHN KAEFER, Hamilton, Ohio. Filed Apr. 5, 1911. Serial No. 619,047. (Cl. 77—75.)



1. A reamer or the like comprising a body member having a circular recess at its forward end, a plurality of radially movable blades carried thereby having segmentally threaded portions projecting into the recess and cutting portions projecting past the recess, and a member revoluble within the recess and within the ends of the cutting portions and having a scroll thread meshed with the threaded portions of the blades for radial movement of the blades upon rotation of the revoluble member.

2. A device of the class described comprising a body member having a circular recess at its forward end and having longitudinal channels opening into the recess, blades radially slidable in the channels and having portions projecting into the recess, said portions having segmental threads thereon eccentric to the axis of the reamer, an expanding member revoluble in the recess and having a scroll thread meshed with those on the blades, said expanding member having an encircling channel thereabout, and retaining members projected thereinto from the body member.

3. A device of the class described comprising a body member having an enlarged bore therethrough, a circular recess at its forward end and longitudinal channels opening into the recess, blades radially slidable in the channels, and having portions projected into the recess and segmentally threaded eccentrically of the axis of the device, an annulus revoluble in the recess within the ends of the blades and having a scroll thread meshed with those on the blades, the opening through the annulus corresponding in size to that of the bore of the body member, and retaining means co-engaged between the annulus and the body member.

4. A device of the class described comprising a body member, having a circular recess at its forward end, radially movable blades carried thereby, said blades projecting beyond the recess and having segmentally threaded shoulders spaced inwardly of their forward ends and projecting into the recess, an expanding member revoluble in the recess and having scroll thread meshed with those of the blades, said expanding member lying within the forward ends of the blades, and having an encircling channel therearound, and members projected into the channel from the body member.

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1,038,385. PRESSURE-GAGE. GEORGE W. KELLOGG, Rochester, N. Y., assignor to Kellogg Manufacturing Company, Rochester, N. Y., a Corporation of New York. Filed Nov. 6, 1909. Serial No. 526,510. (Cl. 137—28.)



1. The combination with the valve stem of a pneumatic tire, of a tubular member, a pressure indicating device, a device mounted on the tubular member adapted to cooperate with the valve stem of the tire, a transversely arranged chamber extending on opposite sides of the tubular member and arranged between the pressure indicating device and the last mentioned device, said chamber being provided with a valve controlled inflating connection, and the tubular member having movement longitudinally of the valve stem whereby to cause said last mentioned device to engage and open the valve in the tire.

2. The combination with the valve stem of a pneumatic tire, of a vertically disposed tubular member having a transversely arranged chamber extending on opposite sides thereof, a valve controlled inflating connection at one end of said chamber, a pressure indicating device arranged on the tubular member above the transverse chamber, a device mounted on the tubular member below the transverse chamber and adapted to coöperate with a valve located in said valve stem, the tubular member having movement longitudinally of the valve stem whereby to cause said device to engage and open the valve in the valve stem.

3. The combination with the valve stem of a pneumatic tire, having a reduced threaded end portion, of a tubular member having a valve controlled inflating connection, a pressure indicating device arranged on the tubular member above the inflating connection, a device mounted on the tubular member below the inflating connection and adapted to coöperate with the valve located in said valve stem, a collar attached to the end of the tubular member and having threaded engagement with said valve stem, a bushing secured between the collar and the end of the tubular member and having threaded engagement with the reduced end of the valve stem whereby said tubular member is movable longitudinally of the valve stem to cause said device to engage and open the valve in the valve stem.



4. The combination with the valve stem of a pneumatic tire having a reduced threaded end portion, of a tubular member having a transversely arranged chamber, a valve controlled inflating connection at one end of said chamber, a pressure indicating device arranged on the tubular member above the chamber, a device mounted on the tubular member below the chamber and adapted to coöperate with a valve located in the valve stem, a collar secured to the end of the tubular member and having threaded engagement with said valve stem, and a bushing arranged between the collar and the end of the tubular member and having threaded engagement with the reduced end of the valve stem whereby the tubular member is movable longitudinally of the valve stem to cause said device to engage and open the valve in the valve stem.

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1,038,386. NUT-LOCK. DANA S. KENT and WILLIAM A. WRECKLE, Peoria, Ill. Filed Mar. 25, 1912. Serial No. 686,145. (Cl. 151—27.)



1. In a device of the character described and in combination, an axle and its nut, a locking member on the end of said axle, having an eccentric bearing whereby the locking member may be turned to one position to permit the removal and application of the nut, and to another position to overlap the nut and prevent its working loose, and means for limiting the movement of the locking member.

2. A device of the character described comprising a bearing member in the form of a disk having an annular opening therethrough off center, a locking member in the form of an annular disk having an opening located eccentrically therein in which said bearing member is positioned, said members being adapted to be rotated relatively to each other.

3. A device of the character described comprising a bearing member in the form of a disk having an annular opening therethrough off center, a locking member in the form of an annular disk having an opening located eccentrically therein in which said bearing member is positioned, said members being adapted to be rotated relatively to each other, and stops on said members for limiting their movement relatively to each other.

4. A device of the character described comprising a bearing member in the form of a disk having an opening therethrough and positioned off center, lugs or projections on said member, a locking member having an opening eccentrically positioned therein to receive said bearing member, said locking member having a stop thereon, against which one of said lugs or projections is adapted to engage, said members being rotatable relatively to each other.

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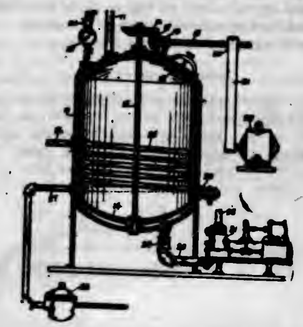
1,038,387. PROCESS OF MAKING LIME-SULFUR SOLUTION. WALTER KIESLER, Indianapolis, Ind. Filed Feb. 29, 1912. Serial No. 680,615. (Cl. 167—6.)

1. In the process of making lime sulfur solution, boiling the lime, sulfur and water with the air excluded therefrom.

2. The process of making lime sulfur solution, the process including mixing lime, sulfur and water together, boiling the same out of contact with the atmosphere, and agitating the same while being boiled.

3. The process of making lime sulfur solution, boiling lime, sulfur and water under pressure.

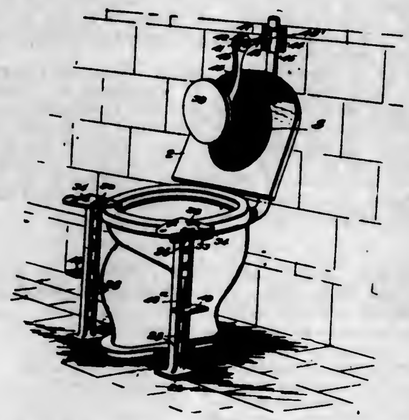
4. In the process of making lime sulfur solution, boiling lime, powdered sulfur and water out of contact with the



atmosphere and under pressure which raises the boiling point thereof appreciably above that of water.

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1,038,388. CLOSET ATTACHMENT. HARRY R. KIESIG, Sacramento, Cal. Filed May 19, 1909. Serial No. 497,015. (Cl. 4—18.)



1. In a water closet, the combination with the bowl of a standard at each side of the bowl at the front thereof, each of said standards having upon one side thereof a series of rack teeth, a bar provided with a longitudinal slot and with rack teeth for engaging the first named teeth, said standards having openings registering with the slot, bolts traversing the openings and the slot for securing the parts together, said bar having at the upper end thereof an integral plate, a foot rest hinged to the plate, a lug supported above the bowl, an arm hinged to the lug, means for limiting the downward movement of the arm, and a back secured to the arm.

2. In a water closet, the combination with the bowl, of a standard at each side of the bowl at the front thereof, a bar provided at its upper end with an integral plate adjustable longitudinally of the standard, and a foot rest hinged to the plate.

3. In a water closet, the combination with a bowl, of a standard at each side of the bowl at the front thereof, a bar adjustable longitudinally of the standard, and a foot rest hinged to the upper end thereof.

4. In a water closet, the combination with the bowl, of a standard at each side of the bowl at the front thereof,

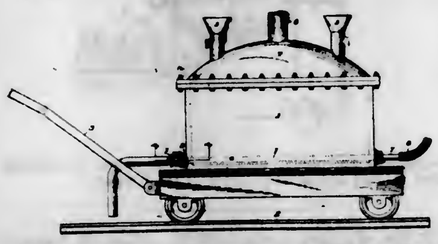
a bar adjustable longitudinally of the standard, and a foot rest on the bar.

5. In a water closet, the combination with a bowl, of a standard at each side of the bowl at the front thereof, and a foot rest supported by each standard.

[Claim 6 not printed in the Gazette.]

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1,038,389. APPARATUS FOR HEATING AND UTILIZING HYDROCHLORIC ACID. TOM COBB KING, East Orange, N. J.; Mary H. King executrix of said Tom Cobb King, deceased. Filed Sept. 21, 1907. Serial No. 393,904. (Cl. 75—36.)

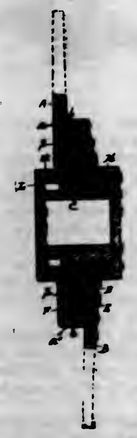


1. In an apparatus for treating metalliferous bodies with hot hydrochloric acid, the combination of the vessel having a lining proof against hot hydrochloric acid, a heat transmitting substance proof against hot hydrochloric acid when submerged therein, and unexposed to the atmosphere, and means to transmit heat through said heat transmitting substance.

2. In an apparatus for treating metalliferous bodies with hot hydrochloric acid, the combination of a vessel having a lining proof against hot hydrochloric acid, means to reciprocate said vessel for the purpose of agitating the hot acid and the metalliferous bodies contained therein, a copper tube so located in said vessel as to be submerged in the acid contained therein, and unexposed to the atmosphere, and means to transmit heat through said tube to the contents of said vessel.

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1,038,390. RECOIL-ARRESTER. WILLIAM J. KING, Grand Blanc, Mich. Filed May 21, 1910. Serial No. 562,601. (Cl. 21—105.)



1. In a recoil arrester, the combination of two pivotally connected arms, one of said arms being adapted to be connected to a spring-supported frame of a vehicle and the other to the axle thereof, friction members between the meeting faces of said pivotally connected arms, a plurality of flat springs arranged in pockets of the face of one of the arms, the said pockets confining the face and the springs adapted to press the friction members into frictional relation with each other and the face of the other arm, and means for causing the said springs to exert a different pressure on said friction members when said arms are moved relatively, substantially as described.

2. In a recoil arrester, the combination of two arms, one arm being provided with a central threaded aperture and the other arm being provided with a cylindrical aperture having half cylindrical recesses cut into the said arm, one of the arms being adapted to be connected to a spring supported frame of a vehicle and the other to the axle thereof, a bolt having at one end a threaded portion adapted to engage in the said threaded aperture and having at the other end a plurality of half cylindrical recesses in its periphery, any one of said recesses being adapted to be turned to register with any one of several of the recesses in the arm, pins adapted to be inserted in the cylindrical hole formed by two of said recesses registering and resilient means for affording frictional contact between the said arms, substantially as described.

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1,038,391. OVERSHOE. GEORGE N. KINNELL, Pittsfield, Mass. Original application filed Mar. 6, 1909, Serial No. 481,830. Divided and this application filed Jan. 3, 1910. Serial No. 536,057. (Cl. 168—1.)



1. In a device of the class described, flexible tread connections, and securing means comprising a diagonally arranged toe member, a rearwardly extending heel member, and an equalizing lever secured to the forward tread connection at one end and at the other end, to a member having sliding engagement with the rear tread connection, and to the toe strap by means adapted to cause the tension of the latter to take effect on said equalizing lever as if applied at a point intermediate its ends.

2. An overshoe comprising articulated tread strands adapted to serve as calks beneath the tread of the hoof, in combination with securing means therefor comprising a toe member connected to the forward strands and adapted to afford upward and forward tension, and a member having sliding engagement with the rear strands and passing around the heel of the hoof in the direction adapted to afford rearward tension in a direction more nearly horizontal than the direction of tension of said toe member.

3. An overshoe comprising articulated tread strands adapted to serve as calks beneath the tread of the hoof, in combination with securing means therefor comprising a toe member connected to the forward strands and adapted to afford upward and forward tension, and a member having sliding engagement with the rear strands and passing around the heel of the hoof in a direction adapted to afford rearward tension in a direction more nearly horizontal than the direction of tension of said toe member, the desired directions of tension of the several members being predetermined by the lengths of the respective members.

4. In a device of the class described, flexible tread connections and securing means comprising a diagonally arranged toe member, a rearwardly extending heel member and a straight equalizing lever secured to the forward tread connection at one end and at the other end to a member having sliding engagement with the rear tread connection and connected to the toe strap so that the tension of the latter is applied to said equalizing lever at a point intermediate its ends.

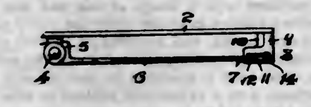


5. In a device of the class described, flexible tread connections and securing means comprising a diagonally arranged toe member, a rearwardly extending heel member, an intermediate member secured to the forward tread connection, and a member extending between said intermediate member and said heel member having a sliding engagement with the rear tread connection.

[Claim 6 not printed in the Gazette.]

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1,038,392. SAFETY-CATCH FOR JEWELRY. EDMUND P. KOHN, Newark, N. J. Filed Apr. 17, 1912. Serial No. 691,391. (Cl. 24—156.)



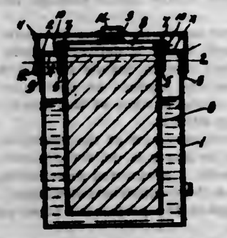
1. In jewelry, or the like, a pin-receiving catch comprising a pair of post-like elements and a connecting piece, arranged to form a pin-point receiving socket, said post-like elements being provided with longitudinally extending slots, a pin-retaining slide disposed between said post-like elements and intermediate the base of said post-like elements and said connecting piece, and end-lugs connected with said slide, said end-lugs extending into and being slidably disposed in the slots of said post-like elements, and the free end-portions of said lugs being bent to prevent lateral displacement of said slide, substantially as and for the purposes set forth.

2. In jewelry, or the like, a pin-receiving catch comprising a pair of post-like elements and a connecting piece, arranged to form a pin-point receiving socket, said post-like elements being provided with longitudinally extending slots, a pin-retaining slide disposed between said post-like elements and said connecting piece, and end-lugs connected with said slide, said end-lugs extending into and being slidably disposed in the slots of said post-like elements, said slide being provided between the said post-like elements with a centrally curved and extending portion toward the base of the post-like elements, substantially as and for the purposes set forth.

3. In jewelry, or the like, a pin-receiving catch comprising a pair of post-like elements and a connecting piece, arranged to form a pin-point receiving socket, said post-like elements being provided with longitudinally extending slots, a pin-retaining slide disposed between said post-like elements and intermediate the base of said post-like elements and said connecting piece, and end-lugs connected with said slide, said end-lugs extending into and being slidably disposed in the slots of said post-like elements, said slide being provided between the said post-like elements with a centrally curved and upwardly extending portion, and the free end-portions of said lugs being bent to prevent lateral displacement of said slide, substantially as and for the purposes set forth.

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1,038,393. COOKER. JULIA KOFFMANN, Groveland, township, Tazewell county, Ill. Filed Oct. 21, 1910. Serial No. 588,286. (Cl. 53—1.)

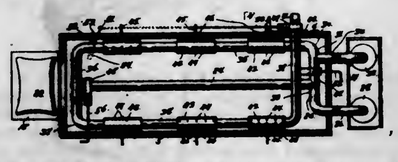


1. In a device of the character described and in combination, an outer vessel, a supporting frame for suspending an inner vessel within said outer vessel, said supporting frame comprising a depending band adapted to fit and frictionally engage the outside of the upper portion of the wall of said outer vessel and having an inner member in the form of a ring or band with radial connecting strips or arms between said inner member and said depending band, and a vessel suspended from said inner member.

2. In a cooking utensil, a vessel having a vertical wall, a supporting frame comprising an outer ring fitted to said vertical wall, an inner ring and radial connecting strips, a second vessel supported from said inner ring, a cover for said second vessel, a cover for said first mentioned vessel fitted within said vertical wall thereof and having slots or notches to fit over said radial connecting strips.

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1,038,394. PORTABLE VAPOR-BATH CABINET. JOHN F. KRUSE, Denver, Colo. Filed Mar. 1, 1912. Serial No. 680,795. (Cl. 4—13.)



1. A vapor bath cabinet apparatus comprising a box having a pipe construction comprising a centrally located perforated member extending lengthwise of the cabinet, two pipe members arranged parallel with the first named pipe member and located on opposite sides thereof, the said last named members having openings, means mounted thereon and operable from the outside of the cabinet for controlling said openings, the last named pipe members being connected by a transverse member and in communication with an exhaust extending outside the cabinet, and means for supplying fluid to the perforated pipe member, and separate means for supplying fluid to the other pipe members substantially as described.

2. A vapor bath cabinet, comprising a box having a body support within the box, three pipe members arranged below the body support and in parallel relation with each other, one of the said pipe members having uncovered perforations while the other members are provided with openings controlled by sleeve valves mounted thereon and means for supplying the medicated vapor to the perforated pipe member and distinct means for supplying fluid to the other pipe members, substantially as described.

3. In a vapor bath cabinet, a body support located within the cabinet, three pipe members arranged below the body support and in parallel relation with each other, one of said pipe members having uncovered perforations, while the other pipe members are provided with openings controlled by valves mounted thereon and operable from the outside of the cabinet, means for supplying medicated vapor to the perforated pipe member and distinct means for supplying fluid to the other pipe members, the said pipe members being in communication with one another, and suitable means for cutting off communication between the perforated pipe member and the other pipe members substantially as described.

4. A vapor bath cabinet comprising a box having a body-support arranged lengthwise of the box, and perforated pipes arranged below the body-support and in communication with each other, one of said pipes having uncovered perforations, while the other pipes are equipped with valves for controlling the perforations, means for cutting off communication between the one perforated pipe and the valve-controlled pipes, a source of fluid supply connected with the first named pipe, and a distinct source of fluid supply connected with the other pipes, substantially as described.

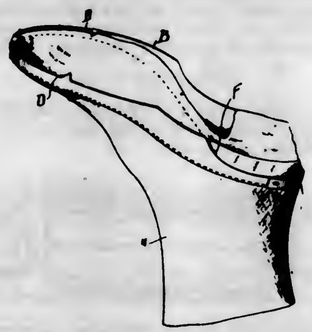
5. A vapor bath cabinet, including a box, a body-support arranged therein, and a pipe system located in the box below the body-support and composed of perforated pipe members, a portion of said system having the perforations

constantly open, and another portion having valves for controlling its perforations, and two sources of fluid supply respectively connected with the two portions of the pipe system, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

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1,038,395. PROTECTING-COVER FOR SHOES. EDWARD LAFRENIERE, Lynn, Mass. Filed Apr. 9, 1912. Serial No. 689,455. (Cl. 36—45.)



1. A device for protecting light colored uppers of shoes while being manufactured, comprising a metallic band having projections for engagement with a lasted shoe, a cover secured to said band, and means for fastening the latter to the shoe, as set forth.

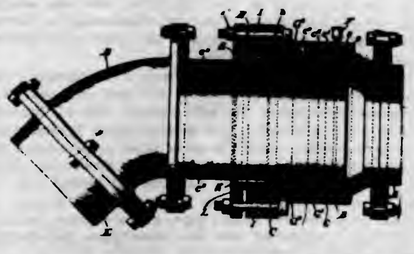
2. A device for protecting light colored uppers of shoes while being manufactured, comprising a metallic band having projections for engagement with a lasted shoe, a cover secured to said band, a strap fastened to one end of the band, and a buckle upon the other end adapted to be engaged by said strap, as set forth.

3. A device for protecting light colored uppers of shoes while being manufactured, comprising a metallic band having inwardly extending projections at right angles to the band adapted to engage under the shoe above the sole, a cover fastened to the band, and means for fastening the band about the heel of the shoe, as set forth.

4. A device for protecting light colored uppers of shoes while being manufactured, comprising a metallic band having projections for engagement with a lasted shoe, a cover secured to said band, means for fastening the ends of the band, and a buckle upon the other end adapted to adjacent to its ends being cut away to allow the heel to be shaved, as set forth.

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1,038,396. PIPE-COUPLING. JAMES M. LANGFORD, Mulberry, Fla. Filed Dec. 12, 1911. Serial No. 665,233. (Cl. 137—34.)

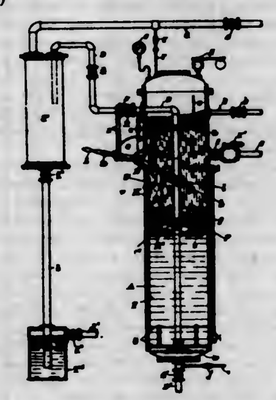


1. In a pipe coupling, the combination of a fixed pipe with a hollow cylindrical casing secured thereto and provided with a conical wearing surface; of a pipe projecting into said casing and provided with a conical wearing surface engaging the wearing surface of said casing, and with a shoulder in rear of said conical wearing surface, with a cylindrical portion in rear of said shoulder; a series of packing rings mounted exterior to said cylindrical surface and between it and said casing; a sleeve mounted over said casing with means for causing said sleeve to compress said packing rings; and anti-friction rollers inclosed in said sleeve and mounted between said sleeve and said cylindrical surface, with a face plate secured to said sleeve inclosing the run way therein for said antifriction rollers, substantially as described.

2. In a pipe coupling, the combination of a stand pipe with a hollow cylindrical casing secured thereto, said casing being provided with a flange at one end, and with a conical wearing surface near the other end; of a pipe projecting into said casing, and provided at its free end with a conical wearing surface engaging the wearing surface of said casing, and with a shoulder in rear of said conical wearing surface, with a cylindrical portion in rear of said shoulder, a series of packing rings mounted exterior to said cylindrical surface and between it and said casing; a sleeve mounted over said casing, and provided with a flanged end, bolts passed through said flanged end of said casing and said flange on said sleeve, with nuts mounted on said bolts for compressing said packing rings, antifriction rollers inclosed in said sleeve and mounted between said sleeve and said cylindrical surface, and means for retaining the antifriction rollers in the run-way in said sleeve, substantially as described.

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1,038,397. APPARATUS FOR THE CONTINUOUS CONVERSION OF STARCH INTO GLUCOSE AND OTHER DERIVATIVES. SAMUEL MORRIS LILLIE, Philadelphia, Pa. Filed Apr. 15, 1912. Serial No. 691,073. (Cl. 127—10.)



1. In a starch converting vessel of the character described into which the starch liquor is delivered above the surface of the starch liquor therein, devices for distributing the entering liquor over the surface of the body of the starch liquor, and means for supporting said devices near the surface of the liquor through the agency of the liquor.

2. In a starch converter of the character described into which the starch liquor is delivered above the surface of the starch liquor therein, means for distributing the falling liquor over the surface of the liquor supported on floats resting on the surface of the starch liquor and rising and falling with it.

3. In a starch converter of the character described into which the starch liquor is delivered above the surface of the liquor therein, a perforated distributing plate in combination with a float construction adapted to float in the liquor and support the perforated plate near the surface of the liquor.

4. In a starch converter of the character described into which the starch liquor is delivered above the surface of the liquor therein, two perforated plates supported one above the surface of the liquor and the other a short distance below the said surface by a float construction adapted to float in the liquor and rise and fall with the surface of the same.

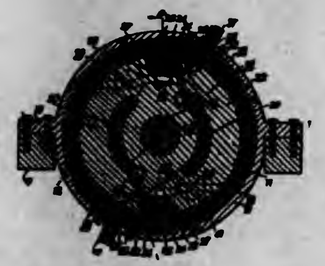
5. In a starch converter of the character described into which the starch liquor is delivered above the surface of the liquor therein, a device for distributing the liquor over the surface of the liquor in the converter consisting of two horizontally disposed perforated plates, a float construction between the two plates, and means for fastening the two plates and the float construction together.

[Claims 6 and 7 not printed in the Gazette.]

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1,038,398. ROTARY ENGINE. HERMAN LINDENBERG, West Hoboken, N. J. Filed July 20, 1911. Serial No. 639,495. (Cl. 121—91.)



1. A rotary engine comprising a stator, a rotor therein having a recess, and a movable piston mounted in said rotor and adapted to be projected therefrom into operative position, said stator and said rotor having means for introducing motive fluid into the engine, and a controllable by-pass for intermittently connecting said recess and the space between said rotor and said stator, whereby the operation of said piston can be cushioned in various degrees.

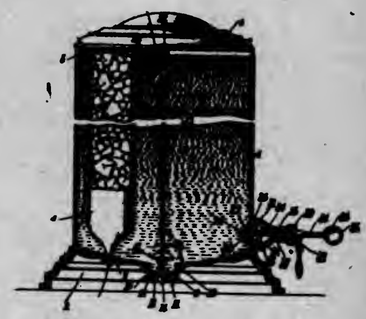
2. A rotary engine comprising a stator having a fixed abutment, a rotor mounted in said stator and having a recess, a piston movably mounted in said recess and adapted to be projected therefrom into an operative position, said stator and said rotor having passages for introducing motive fluid into the engine, said stator having a passage constituting a by-pass for intermittently connecting said rotor and the space between said recess of rotor and said stator, and a valve for controlling the flow of fluid through said by-pass whereby the operation of said piston can be cushioned in various degrees.

3. A rotary engine comprising a stator, a rotor therein and having a recess, a piston movably mounted in said recess and adapted to be projected therefrom into an operative position, and means for introducing motive fluid into said recess to project said piston, said stator having a controllable passage for effecting intermittent communication between said recess of said rotor and the space between said rotor and said stator.

4. A rotary engine comprising a stator having a fixed abutment therein, a rotor within said casing and spaced inwardly from the wall thereof, said rotor having an elemental recess, said recess being open at the periphery of said rotor, a double-vane piston mounted to swing within said recess whereby one of its vanes can be radially projected, said vanes of said piston being of different areas, said rotor having a passage communicating with said recess, means for introducing motive fluid into said passage, said stator having a passage for intermittently connecting said recess and the space between said rotor and said stator, said stator having an exhaust outlet, and an adjustable member for controlling said last-mentioned passage of said stator.

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1,038,399. DRINKING-FOUNTAIN. THOMAS EUGENE LINDSAY, Jackson, Tenn. Filed Jan. 8, 1912. Serial No. 669,157. (Cl. 137—11.)



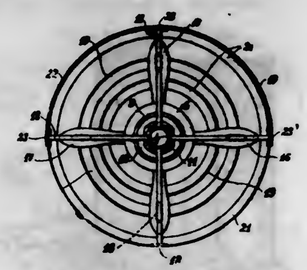
1. In a drinking fountain, a receptacle, means for dispensing a liquid from said receptacle, a flushing means arranged in the lowermost point of the receptacle, said means including a valve member, an upwardly extending valve rod having a hook thereon, and a depending hook member secured to the lid of said receptacle engaging the first mentioned hook member whereby whenever said lid is raised said valve will be operated for causing the flushing of the receptacle.

2. In a drinking fountain, a receptacle, means for dispensing liquid from the receptacle, a flushing device arranged in the lowermost point of the receptacle, said flushing device comprising a tubular member, a plug therefor having a substantially conical shaped aperture therein, a substantially conical shaped valve member fitting in said aperture for normally filling the same, an operating rod extending upwardly from said valve member, a substantially U-shaped member pivotally mounted in the bottom of said receptacle having one end loosely engaging said operating rod, a reciprocating bar loosely connected to one end of said substantially U-shaped member for rocking the same back and forth, said reciprocating bar being formed with a hook at its upper end, and means connected to the lid of said receptacle engaging said hook whereby when the lid of the receptacle is raised said rod will be moved upwardly longitudinally and said valve will be raised from its seat.

3. In a drinking fountain, a receptacle and dispensing means connected therewith, said dispensing means comprising a valve member having a rotatable portion, a discharge tube connected with said valve member for guiding fluid from said receptacle when the valve member is in an open position, a manually operated lever for rotating said tube and said movable valve member simultaneously for opening said valve, and a spring surrounding said tube connected at one end therewith and at the other end to the housing of said valve for reversing the movement of said tube and valve member when said lever is released whereby the valve member is closed and the tube is permitted to drain.

4. In a drinking fountain, a receptacle and dispensing means connected therewith, said dispensing means comprising a valve member, a pipe connected with said valve member, a cup connected with said pipe formed with an opening therein, said opening being arranged to be uppermost when said valve member is open and lowermost when said valve member is closed, a manually operated lever for rotating said pipe, valve member and cup simultaneously for opening said valve member and turning the open side of the cup uppermost, and a spring connected with said pipe for reversing the movement of said cup, pipe and valve member when said lever is released whereby the valve member is closed and the cup is permitted to drain.

1,038,400. AERIAL TORPEDO. JOHANN ALEXANDER LINSMEYER, Vienna, Austria-Hungary. Filed Oct. 6, 1910. Serial No. 585,760. (Cl. 244—1.)



1. An aerial torpedo consisting, in combination, of a tubular shaft extending the entire length of the torpedo and adapted to be loosely fitted on an adjustable aiming bar; and an explosive body and a motor mounted on said shaft, said body being provided with a percussion cap.

2. An aerial torpedo consisting, in combination, of a shaft; an explosive body fixed thereon and provided with a percussion cap; and a motor mounted on said shaft and comprising a drum adapted to contain a gaseous charge, a turbine wheel located at each end of said drum and communicating with the same and a series of hollow propeller blades connected with said wheels and having their interiors in communication therewith for actuation by said charge.

3. An aerial torpedo consisting in combination, of a shaft; an explosive body fixed thereon and provided with a percussion cap; and a motor mounted on said shaft and comprising a drum adapted to contain a gaseous charge, a turbine wheel located at each end of said drum and communicating with the same and a series of hollow propeller blades connected with said wheels and having their interiors in communication therewith for actuation by said charge, the outer ends of said blades being provided with rearwardly directed outlet nozzles.

4. An aerial torpedo consisting, in combination, of a shaft; an explosive body fixed thereon and provided with a percussion cap; and a motor mounted on said shaft and comprising a drum adapted to contain a gaseous charge, the end walls of said drum having outlet openings for the charge formed therethrough, a hollow turbine wall arranged against each of said end walls and provided with inlet openings for said charge registering with the adjacent first-named openings, a series of vanes disposed within each wall, and a series of hollow propeller blades secured to the outer peripheral wall of each wall, and having their interiors in communication with the latter.

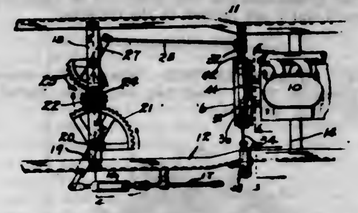
5. An aerial torpedo consisting, in combination, of a shaft; a series of juxtaposed open-ended tubular sustaining compartments mounted co-axially on said shaft, said compartments decreasing stepwise in diameter; a motor mounted on said shaft within the foremost compartment; and an explosive body fixed on said shaft in advance of said foremost compartment and provided with a percussion cap.

[Claims 6 to 12 not printed in the Gazette.]

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1,038,401. STARTING DEVICE FOR INTERNAL-COMBUSTION ENGINES. ROBERT W. LONG and GEORGE BURESS, Indianapolis, Ind.; said Buress assignor to said Long. Filed Aug. 10, 1911. Serial No. 643,461. (Cl. 123—185.)

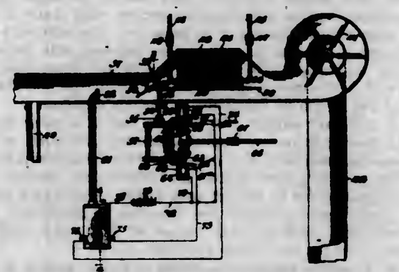
1. The combination with the chassis of an automobile, and an internal combustion engine mounted thereon having a crank shaft, of a wheel secured on said crank shaft, a friction band surrounding the rim of said wheel, the ends of said band being pivotally secured to a lever whereby said band may be tightened about said wheel, a cable secured to the end of said lever at a point remote from said band connections, a lever arm mounted on said chassis and carrying a segmental gear said lever being operably connected to said cable, a pinion meshing with said segmental gear, a second pinion secured coaxially to said pinion, a second lever arm mounted on said chassis having a segmental gear meshing with said second pinion, a lever mounted on said chassis and operably connected to said second lever arm whereby a movement of said lever will tighten said band about said wheel and give said wheel and crank shaft a partial revolution, and a spring for returning said operating parts to a normal position.



2. The combination with the chassis of an automobile, and an internal combustion engine mounted thereon having a crank shaft, of a wheel secured on said crank shaft, a friction band surrounding the rim of said wheel, the ends of said band being pivotally secured to a lever whereby said band may be tightened about said wheel, a cable secured to the end of said lever at a point remote from said band connections, a lever arm mounted on said chassis and carrying a segmental gear said lever arm being operably connected to said cable, a pinion meshing with said segmental gear, a second pinion secured coaxially to said pinion, a second lever arm mounted on said chassis having a segmental gear meshing with said second pinion, a lever mounted on said chassis and operably connected to said second lever arm whereby a movement of said lever will tighten said band about said wheel and give said wheel and crank shaft a partial revolution, a flat spiral spring flexibly connected to said band operating lever for returning said operating parts to a normal position, and means for securing said spring under tension.

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1,038,402. TEMPERATURE-CONTROLLING APPARATUS. ANDERSON MACPHEE, New York, N. Y. Filed May 12, 1910. Serial No. 561,182. (Cl. 236—8.)



1. A temperature controlling apparatus comprising hot and cold air ducts, a damper arranged to vary the relative volumes of air discharged from the said ducts, a motor connected with the damper and having a controlling valve provided with a projecting stem, thermostatically operated means for actuating the valve including a pair of solenoids co-acting with the valve stem, and means for automatically moving the valve to a central position to cut off the motive power and stop the damper at an intermediate point.

2. In a temperature controlling apparatus, the combination of a movable damper, a cylinder, a piston operating in the cylinder and connected with the damper, a valve chest, solenoids mounted at opposite ends of the valve chest, a valve for controlling the admission of motive fluid to the cylinder, a valve stem connected with the valve and projecting beyond the ends of the valve chest and extending into the said solenoids and co-acting therewith, a thermostat, thermostatically operated circuits connected with the solenoids, and means for automatically centering the valve for cutting off the motive power, whereby the damper may be stopped at an intermediate point of its travel.

3. In a temperature controlling apparatus, the combination of a movable damper, a cylinder, a piston operating in the cylinder and connected with the damper, a valve chest, a valve for controlling the admission of motive fluid to the cylinder, brackets mounted on the cylinder at the end of the valve chest, solenoids supported by the brackets, a valve stem connected with the valve and projecting from the valve chest and adapted to be drawn into either of the solenoids and co-acting directly therewith, thermostatically controlled circuits for operating the solenoids, and springs mounted on the valve chest and arranged to engage the solenoids for centering the valve to cut off the pressure when the circuits are broken, whereby the damper may be stopped at an intermediate point of its travel.

4. A temperature controlling apparatus comprising hot and cold air ducts, a mixed air conduit, a mixing damper arranged to close or partially close either of the said ducts, and a piston connected with the damper, a cylinder receiving the piston and having a valve chest, a valve for controlling the admission of a motive fluid to the cylinder, a valve stem connected with the valve and extending beyond the valve chest, opposite solenoids arranged to receive and attract the valve stem for actuating the valve, a thermostat including a movable member, spaced contacts between which the said member moves, a sensitive element connected with the said member, a source of electric supply, and separate circuits connected with the solenoids, the electric supply and the contacts and movable member of the thermostat.

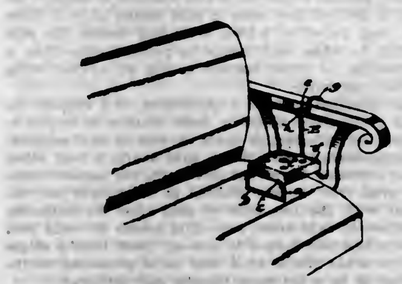
5. A temperature controlling apparatus including a mixed air conduit, a partition extending longitudinally of the conduit and dividing a portion of the same into hot and cold air ducts, a fan or blower for forcing air through the ducts, a heating device arranged in the hot duct, a mixing damper arranged in the partition for varying the relative volumes of air delivered to the mixed air conduit, a motor connected with the damper and provided with a pressure controlling valve, thermostatically controlled means for operating the valve, and means for automatically centering the valve and for returning the same to a central position when released by the thermostatically controlled means, whereby the power may be cut off and the damper stopped at an intermediate point of its travel.

[Claims 6 to 10 not printed in the Gazette.]

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1,038,403. HEAD-REST. VERNON H. MANKEY, Aberdeen, S. D. Filed Jan. 18, 1912. Serial No. 671,968. (Cl. 155—10.)

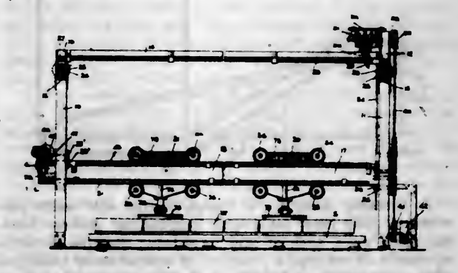


1. In a head rest for use on a railway car seat, the combination of an open main frame having depending loops adjacent its corners, a bail-shaped support having portions bent around the depending loops at one end of the frame, whereby the support is pivotally connected to the frame, and also having extensions on said bent portions, which extensions are adapted in the working position of the support to bring up against the adjacent end bar of the frame, and a hanger comprising a member having a stem and an enlargement at the outer end thereof and also having a bail at the inner end of the stem and portions on the bail bent around the depending loops of the opposite end bar of the frame and terminating in extensions adapted in the working position of the hanger to bring up against said end bar, and a hook-shaped member having an eye adapted to be swung about and moved lengthwise of the stem of the first-named member.

2. A foldable head rest for use on a railway car seat, comprising a main frame or body, a support pivoted to one end of the frame and movable from a folded position against the under side of the frame to a working position at an angle to the frame and having a stop for bringing up against the frame when the support is in the latter position, and a hanger having a member pivoted to the opposite end of the main frame and movable from a folded position at the under side of the main frame to a position in which it extends upward from the main frame and provided with an enlargement at its upper end, and a hook-shaped member capable of being swung about and moved in the direction of the length of the first-named member and connected therewith.

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1,038,404. POLISHING-MACHINE. JOSEPH F. MARONI, Montpelier, Vt. Filed May 20, 1912. Serial No. 698,473. (Cl. 51—11.)



1. In a polishing machine, the combination of a main frame, pairs of parallel transverse horizontal bars movably guided in the frame for vertical adjustment, a bridge supported by and between the respective pairs of said bars and movable along the same longitudinally thereof and transversely of the main frame, a trolley supported upon and movable longitudinally along said bridge, polishing devices carried by said trolley, and a power driven endless cable adapted to operate all of the aforesaid movable devices.

2. In a polishing machine, the combination of a main frame having vertical corner posts, a screw parallel to and adjacent each of said posts, pairs of horizontal bars supported upon and adjustable vertically by means of said screws, polishing means supported upon and adjustable laterally and longitudinally of the frame by means of said bars, means for operating the polishing means continuously, and means for rotating said screws from said power means, the screw operating means including a set of friction gears and shifting means therefor comprising a horizontal shaft extending adjacent and parallel to one pair of said bars and having means at its opposite ends whereby it may be operated from either side of the polishing means.

3. In a polishing machine, the combination of a main frame, a bridge extending longitudinally thereof and supported thereon, polishing means supported upon said bridge and movable longitudinally thereof, a series of guide pulleys on the bridge and frame, an endless power

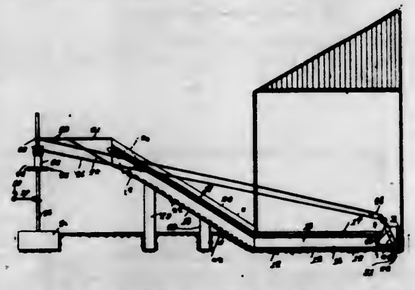
cable guided over all of said pulleys to operate the polishing means, and means to shift the bridge laterally with respect to the main frame, said shifting means comprising one of said guide pulleys, a pair of racks, a longitudinal shaft mounted upon the bridge, a pair of pinions on said shaft meshing with said racks, and shiftable gearing between said guide pulley and said shaft.

4. In a polishing machine, the combination of a horizontal bridge, a polishing unit supported upon said bridge and movable longitudinally thereof, said unit comprising a scroll, a cable pulley, a clutch to establish geared connection between said pulley and scroll, hand operated means accessible at either side of the unit for operating said clutch, and an endless power device to operate said pulley.

5. In a polishing machine, the combination of a horizontal bridge, a polishing unit supported upon said bridge and movable longitudinally thereof, said unit comprising a scroll, a cable pulley, means to propel the unit along the bridge including shiftable change speed gearing, connections between said pulley and the scroll including a clutch, said gearing and clutch being operable from either side of the unit, and an endless power cable driving said cable pulley.

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1,038,405. LOADER. JULIUS G. MATTSON, Plumb, Minn. Filed Nov. 29, 1911. Serial No. 663,045. (C. 214—10.)



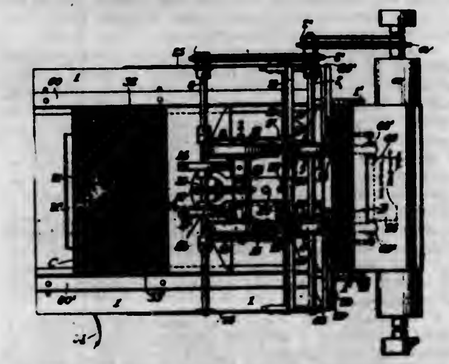
1. A loader including a trough having side walls provided in their inner faces with longitudinal grooves forming guide ways, each of said sides being directed abruptly upwardly at one end, a plurality of substantially U-shaped straps having their bridges engaged transversely across said sides and having their legs extended upwardly along the sides and rigidly fixed thereto, a bottom connecting the sides remote from their upwardly directed ends and bearing upon the bridges of said straps, said bottom being formed of hardened plastic material, and a bottom connecting said sides at their upwardly directed ends, the last named bottom bearing upon and being supported by the bridges of the straps connecting said upwardly directed ends, said second named bottom further forming a continuation of said first named bottom, and a scoop mounted for movement in said trough and having gudgeons bearing within said guide ways.

2. A loader including a trough having side walls provided with longitudinal grooves in their inner faces forming guide ways, each of said sides having an outer end portion inclined upwardly, a plurality of substantially U-shaped straps having their bridges projecting across said sides and having their legs extended upwardly along said sides and rigidly secured thereto, a hardened material bottom bearing upon the bridges of said straps remote from said inclined ends, a second bottom bearing upon the bridges of the straps carried by said inclined ends and forming a continuation of the first named bottom, said second named bottom terminating short of the extreme outer edges of said inclined ends, and a scoop mounted for sliding movement in said trough and having gudgeons bearing within said guide ways, said scoop being adapted to rock to unloading position upon the extreme free edge of said second named bottom as a fulcrum.

3. A loader including a trough having a substantially horizontal end portion, and having its opposite end portion inclined upwardly, the sides of said trough being provided in their inner faces with longitudinal grooves forming guide ways, a scoop mounted for sliding movement within said trough and having gudgeons bearing within said guide ways, a substantially U-shaped bail strap carried by said scoop having its legs projecting upwardly along the scoop sides, and having its bridge portion projecting along the underneath face of the scoop bottom and forming a shoe for contact with the trough bottom, a hauling cable operatively connected to said bail strap, said hauling cable operating to advance and to retract said scoop in said trough.

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1,038,406. ENVELOP, CARD, AND SHEET FEEDER FOR TYPE-WRITERS. WILLIAM H. MCARDLE and ROBERT B. MCARDLE, Camden, N. J. Filed Apr. 6, 1911. Serial No. 619,281. (Cl. 197—130.)



1. The combination with a typewriter, of a support for carrying a pile of envelops or other similar articles to be fed to the typewriter, a rotatable transverse shaft carried by said support, members movably mounted at one of their ends on said shaft, a feed roller or wheel pivotally supported by said members, the latter at their opposite ends free, adjusting devices adapted to engage the free ends of said members on each side of said roller or wheel, means to actuate said feed roller or wheel and means to prevent more than a single envelop or other article to be fed at a time to the typewriter.

2. The combination with a typewriter, of a support for carrying a pile of envelops or other articles to be fed to the typewriter, a rotatable transverse shaft carried by said support, means independently movable on said shaft and carrying a feed roller or wheel rotatably supported therefrom, said means having free ends arranged inclined or beveled and an adjusting device adapted to engage the inclined or beveled free ends of said means on both sides of said feed roller or wheel, actuating means for said feed roller or wheel and means to prevent more than a single envelop or other similar article at a time being fed to the typewriter.

3. The combination with a typewriter, of a support for carrying a pile of envelops or other articles to be fed to the typewriter, a rotatable shaft carried by said support, arms independently movable on said shaft, a feed roller or wheel rotatably connected therewith, the opposite ends of said arms free, devices adapted to be brought into engagement with the free ends of said arms for adjusting the position of said arms, actuating means for said feed roller or wheel and means to prevent more than a single envelop or other article at a time to be presented to the typewriter to be acted upon thereby and delivered.

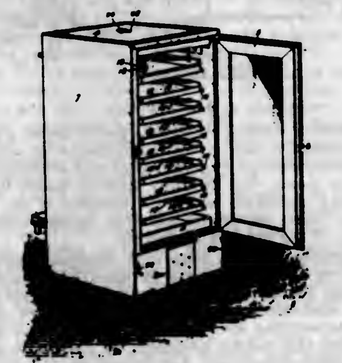
4. The combination with a typewriter, of a support for carrying a pile of envelops or other articles, means to feed the same to the typewriter, means to advance the same to the feeding mechanism, a lever pivoted to said support and having a finger grip at one end, said lever engaging at the other end a member carried by said advancing means to conveniently back the advancing means from said feeding mechanism to thereby enable the envelops or other articles to be supplied to said support and means to maintain said envelops or other articles in proper position while being fed singly to said typewriter.

5. The combination with a typewriter, of a support for carrying a pile of envelops or other articles, means to feed the same to the typewriter, said means consisting of a shaft connected with said support, arms independently rotatable on said shaft, a feed roller or wheel movably connected to said arms, the latter having free ends, devices provided with springs and arranged to engage the ends of said arms, means to actuate said feed roller or wheel and means to maintain said envelops or other articles against said feed roller or wheel while being singly fed to the typewriter to be acted upon thereby and delivered.

[Claims 6 and 7 not printed in the Gazette.]

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1,038,407. APPARATUS FOR SPROUTING GRAIN. ESCO MCFARLIN and ASEL CLINE, Doniphan, Mo. Filed Apr. 1, 1912. Serial No. 687,643. (Cl. 47—30.)

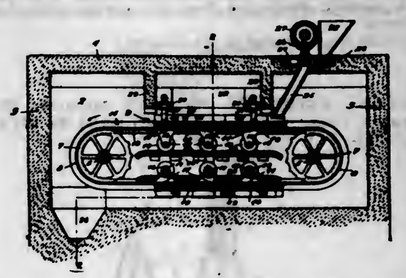


1. In an apparatus for sprouting grain, a casing provided with hot air passages at its sides, an upper and a lower reservoir within said casing, a series of slidable trays disposed between said upper and said lower reservoirs, means for controlling the flow of air through said passages, a pipe extending downwardly from said upper reservoir and terminating above said lower reservoir, a series of perforated pipes connected with said downwardly extending pipe, each pipe of said series extending over one of said trays, means for controlling the flow of water into said downwardly extending pipe, and a fertiliser tray disposed beneath said upper reservoir and being provided with a perforated bottom.

2. In an apparatus for sprouting grain, a casing provided with hot air passages between its side walls, an upper and a lower reservoir within said casing, said lower reservoir extending outside of said casing at the rear thereof, a series of slidable perforated trays disposed between said upper and said lower reservoirs, a pair of dampers at the lower ends of said passages for controlling the flow of air, a pair of dampers in the side walls near the upper ends of said passages for admitting air beneath said upper reservoir, a pipe extending downwardly from said upper reservoir and terminating above said lower reservoir, a series of perforated pipes connected with said downwardly extending pipe, each pipe of said series extending over one of said trays, a valve disposed in said pipe beneath said upper reservoir, a stop cock at the lower end of said pipe, and a fertiliser tray disposed beneath said upper reservoir and being provided with a perforated bottom.



1,038,408. ORE-BURNER. CURTIS C. MEIGS, Woodbury, N. J. Filed Dec. 14, 1911. Serial No. 665,685. (Cl. 75—134.)



1. The combination with a furnace shell, comprising side walls provided on their inner faces with grooves, of an endless conveyer operating in the shell and comprising a plurality of inner sections and a plurality of outer sections secured thereto and formed of heat resisting material, each outer section being provided near its ends that extend into said grooves with outwardly extending flanges, sprocket wheels disposed within said endless conveyer, sprocket chains connecting the sprocket wheels and having connection with said inner sections, a discharge chute disposed near one end of the endless conveyer, and means disposed near the opposite end to feed material to the conveyer.

2. The combination with a furnace shell, of an endless conveyer operating therein, means to effect the travel of the conveyer, means to feed material to the conveyer, and rakes disposed near the conveyer including substantially horisontal tubular body portion carrying depending teeth, to permit of a cooling medium being freely circulated through said body portion.

3. The combination with a furnace shell having side walls provided upon their inner faces with endless grooves having inner and outer walls, an endless conveyer disposed within the furnace shell and having its longitudinal edges operating within the endless grooves to prevent the products of combustion generated in the furnace shell exteriorly of the endless conveyer from passing into the interior of the conveyer, driving mechanism to effect the travel of the endless conveyer disposed within such endless conveyer, means disposed within the endless conveyer for supporting the upper and lower portions thereof to prevent the upper portion from having undue frictional engagement with the inner walls of the endless grooves and the lower portion from having undue frictional engagement with the outer walls of the endless grooves, and means for feeding material upon the endless conveyer.

4. The combination with a furnace shell having side walls provided upon their inner faces with endless grooves having inner and outer walls, an endless conveyer disposed within the furnace and having its longitudinal edges operating within the endless grooves in close proximity to the outer and inner walls thereof to prevent the products of combustion generated in the furnace shell exteriorly of the endless conveyer from passing into the interior of such endless conveyer, mechanism disposed within the endless conveyer to effect its longitudinal travel, and means to feed material upon the endless conveyer.

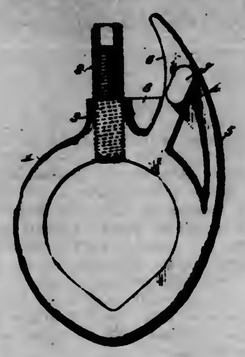
5. The combination with a furnace shell having side walls provided upon their faces with approximately elliptical grooves, an endless conveyer disposed entirely within the furnace shell and having its longitudinal edges operating in the approximately elliptical grooves, the said endless conveyer comprising a plurality of pivoted sections, operating mechanism disposed within the endless conveyer comprising endless belts and pulleys, supporting wheels connected with the pivoted sections and extending inwardly to be disposed entirely interiorly of the endless conveyer, superposed spaced tracks disposed

entirely within said endless conveyer to be engaged by said supporting wheels, means for feeding material to one end portion of the conveyer, and means for receiving such material discharged from the opposite end of the conveyer.

[Claim 6 not printed in the Gazette.]

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1,038,409. LATHE-DOG. ELMER J. MICHAUD, Willimantic, Conn. Filed Sept. 6, 1911. Serial No. 647,909. (Cl. 82—41.)



A lathe dog comprising a ring and a set screw threaded therethrough, in combination with a tail formed integrally with said ring and projecting outwardly adjacent said screw, said tail having an outer curved edge merging into the periphery of said ring, and a stem projecting laterally from said tail, substantially as described.

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1,038,410. ELECTRIC HEATER. FRANK P. MIMS, Chicago, Ill., assignor to Plural System Ventilator Co. Filed Jan. 10, 1910. Serial No. 537,260. (Cl. 219—38.)

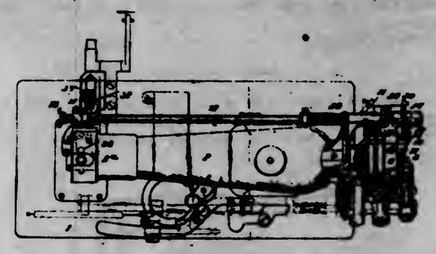


1. A heating device comprising an upper supporting member having a plurality of concentric rings and radial arms connecting said rings, a lower supporting member having a like plurality of concentric rings of relatively larger diameter and radial arms connecting said rings, bars extending between said upper and lower supporting members, and engaging the exterior edges of said rings at regular intervals around the peripheries thereof, and a continuous unbroken wire wound successively upon the concentric truncated-cone structures so formed.

2. In a heating device of truncated-cone shape, an upper and a lower structure each having a plurality of concentric rings and radial connecting arms, the rings of the lower structure being greater in diameter than corresponding rings of the upper structure, separable interchangeable bars having notches near their ends, said rings having on their outer edges counting notches at frequent intervals around their peripheries, whereby bars may be placed upon the innermost rings of both upper and lower structure, held vertically by said counting-notch engagement and radially by a wire to be wound thereabout to constitute a heating medium, successive rings subsequently to be similarly connected by bars and the bars similarly bound by wire, and a wire so wound upon the device to form concentric, truncated-cone shaped, heating members included in the space defined by the ring of largest diameter.

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1,038,411. BUTTONHOLE-MACHINE. HENRY C. MILLER, Waterford, N. Y. Filed Feb. 11, 1905. Serial No. 245,320. (Cl. 112—4.)



1. A sewing machine including a power means, a stitching mechanism, a cutting mechanism, means for automatically causing successive operations of said mechanisms by the power means, and manually operable means to shift the cutting mechanism within the influence of the power means to insure its normal operation without successive operation of the stitching mechanism.

2. A sewing machine, comprising stitching mechanism, and cutting mechanism, means for operating the stitching mechanism and cutting mechanism including power transmitting mechanism and a trip device operated by the power transmitting mechanism for causing the stitching mechanism and cutting mechanism to operate in a continuous cycle of movement, and manual means for operating the trip to cause the power transmitting mechanism to independently operate the cutting mechanism.

3. A sewing machine including a stitching mechanism, an operating means therefor, a cutting mechanism including a normally inoperative member, means for operating said cutting mechanism, automatic means to position the normally inoperative member in the normal operation of the machine, and means for manually operating said member to cause it to be positioned to be operated by the cutter operating mechanism.

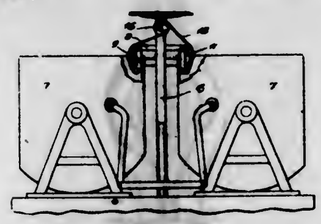
4. A sewing machine including a power means, a stitching mechanism, a cutting mechanism including a normally inoperative member, an operating means for each of said mechanisms, the member being automatically operated during the transfer of the power means from one operating means to the other, and means for manually controlling the member to remove the cutting mechanism from the influence of its operating means at any stage in the operation of the machine.

5. In combination, a buttonhole machine having stitching mechanism and cutting mechanism, power mechanism including fast and loose elements, power transmitting means, a cam carried by the loose element for operating the cutting mechanism, stopping mechanism having a trip, said stopping mechanism shifting the power transmitting means from one element to the other and stopping the stitching mechanism and the trip operating to cause the cam to actuate the cutting mechanism independently of the stitching mechanism while the latter is at rest.

[Claims 6 to 17 not printed in the Gazette.]



1,038,412. LOCKING DEVICE. GEORGE ALEXANDER MINNEMA, Davenport, Iowa. Original application filed Apr. 25, 1911, Serial No. 623,204. Divided and this application filed Nov. 21, 1911. Serial No. 661,080. (Cl. 105—188.)



1. A locking device comprising a supporting frame, a pivotally swinging locking bar threaded thereon and provided with a shoulder at its free end, a dog pivotally mounted to said frame and adapted to bear its acting end in engagement with said shoulder, the position of the pivotal points of said dog and said bar with respect to the point of engagement at the free ends thereof constituting in effect the points of a triangle, a loose connection between said dog and said locking bar, and means for disengaging said dog from said locking bar, whereby the latter is unlocked, said means also serving to withdraw said bar from locking position, substantially as described.

2. A locking device comprising a support and two members swingingly secured thereto, having different pivotal centers, and having their free ends in engagement with one another, and means for withdrawing the free ends of said members from engaging position with one another, said means serving also to withdraw said members from locking position, substantially as described.

3. A locking device comprising a support and two members swingingly secured thereto, having different pivotal centers, and having their free ends in engagement with one another, a loose connection between said members, and means for withdrawing the free ends of said members from engaging position with one another, said means serving also to withdraw said members from locking position, substantially as described.

4. A locking device comprising a support, a pivotally swinging locking bar mounted thereon, and provided with a shoulder at its free end, a dog pivotally mounted to said frame and adapted to bear its acting end in engagement with said shoulder, the position of the pivotal points of said dog and said bar with respect to the point of engagement at the free ends thereof constituting in effect the points of a triangle, and means for disengaging said dog from said locking bar, whereby the latter is unlocked, said means serving also to withdraw said bar from locking position, substantially as described.

5. A locking device comprising a support and two members swingingly secured thereto, having their free ends in engagement with one another, the position of the pivotal points of said members with respect to the point of engagement at the free ends thereof constituting in effect the points of a triangle, and means for disengaging the free ends of said members, said means serving also to withdraw said members from locking position, substantially as described.

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1,038,413. DUST-RECEPTACLE. THOMAS E. MITCHELL, Meaderville, Mont. Filed Feb. 19, 1912. Serial No. 678,547. (Cl. 125—10.)

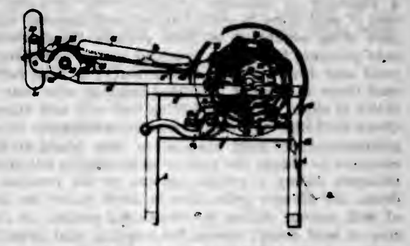
A device of the class described comprising a flexible container having open ends, rings secured to the flexible material adjacent the ends, one ring being provided with a plurality of resilient fingers extending therefrom, each of the fingers being provided with a plurality of projections, the fingers being adapted to enter a hole with the projections thereon in engagement with the side wall of the hole whereby the container is held in position, a rope carried adjacent the other open end of the container, a number of corrugations on the flexible material with which the rope is adapted to engage whereby the end portion of the container may be held in close engagement with the drill carrying device, an outlet chute carried by the container, the



said outlet chute being adapted to communicate with a receptacle whereby dust or other substances entering the container from the said hole may be collected in the receptacle.

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1,038,414. FISH-NET REEL. HENRY A. MONMON, Astoria, Oreg. Filed May 10, 1912. Serial No. 696,439. (Cl. 57—22.)



1. A fish net reel, comprising a drum rotatively mounted and provided adjacent the median plane with an open channel, the surfaces of the periphery of said drum adjacent said channel being inclined inwardly toward said channel; means for gathering and delivering the net upon said inclined surfaces, means for rotating said drum; a plurality of plungers reciprocatively mounted in said drum to move across said channel; a guide disk mounted adjacent said drum, in fixed relation thereto and perforated to form bearings for a portion of said plungers; a plurality of springs interposed between said disk and said plungers, to normally extend said plungers across said channel; and stationary means engaging said plungers to withdraw the same during a certain portion of the rotation of the drum, said plungers being free to move under the influence of said springs during the remaining portion of the rotation of said drum.

2. A fish net reel, comprising a drum rotatively mounted and having in the periphery thereof a centrally-disposed channel, the surfaces adjacent said channel at opposite sides thereof being inclined, to deliver to said channel; a guide trough contracted to deliver a net within the boundary of said periphery and upon the inclined sides thereof; a plurality of plungers reciprocatively mounted in one side of said drum to extend across said channel, said plungers being separated to form pockets therebetween, and said plungers being each provided with a rod extended beyond said drum; a guide disk mounted in fixed relation to said

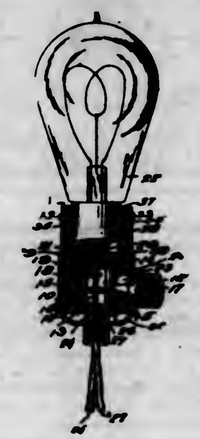
drum to support in guided relation said rods; a plurality of spiral springs infolding said rods and disposed between said disk and said plungers, to normally extend the plungers across said channel; a cam plate stationarily mounted to engage the ends of said rods, to withdraw said plungers during a certain portion of the rotation of the drum, the plunger being free to move under the influence of said springs during the remaining portion of the rotation of said drum; and means for rotating said drum.

3. A fish net reel, comprising a drum rotatively mounted and having in the periphery thereof a centrally-disposed channel, the surfaces adjacent said channel at opposite sides thereof being inclined, to deliver to said channel; a guide trough contracted to deliver a net within the boundary of said periphery and upon the inclined sides thereof; a plurality of plungers reciprocatively mounted on one side of said drum to extend across said channel, said plungers being separated to form pockets therebetween, and said plungers being each provided with a rod extended beyond said drum; a guide disk mounted in fixed relation to said drum to support in guided relation said rods; a plurality of spiral springs infolding said rods and disposed between said disk and said plungers, to normally extend the plungers across said channel; a cam plate stationarily mounted to engage the ends of said rods, to withdraw said plungers during a certain portion of the rotation of the drum, the plunger being free to move under the influence of said springs during the remaining portion of the rotation of said drum; means for rotating said drum; and a plurality of rollers, one mounted on each of said rods to roll over said cam plate.

4. A fish net reel, comprising a drum rotatively mounted and having in the periphery thereof a centrally-disposed channel, the surfaces adjacent said channel at opposite sides thereof being inclined, to deliver to said channel; a guide trough contracted to deliver a net within the boundary of said periphery and upon the inclined sides thereof; a plurality of plungers reciprocatively mounted in one side of said drum to extend across said channel, said plungers being separated to form pockets therebetween, and said plungers being each provided with a rod extended beyond said drum; a guide disk mounted in fixed relation to said drum to support in guided relation said rods; a plurality of spiral springs infolding said rods and disposed between said disk and said plungers, to normally extend the plungers across said channel; a cam plate stationarily mounted to engage the ends of said rods, to withdraw said plungers during a certain portion of the rotation of the drum, the plunger being free to move under the influence of said springs during the remaining portion of the rotation of said drum; means for rotating said drum; and a delivery roller rotatively mounted adjacent the receiving end of said trough, to aid in the delivery of the net to said trough.

5. A fish net reel, comprising a drum rotatively mounted and having in the periphery thereof a centrally-disposed channel, the surfaces adjacent said channel at opposite sides thereof being inclined, to deliver to said channels; a guide trough contracted to deliver a net within the boundary of said periphery and upon the inclined sides thereof; a plurality of plungers reciprocatively mounted in one side of said drum to extend across said channel, said plungers being separated to form pockets therebetween, and said plungers being each provided with a rod extended beyond said drum; a guide disk mounted in fixed relation to said drum to support in guided relation said rods; a plurality of spiral springs infolding said rods and disposed between said disk and said plungers, to normally extend the plungers across said channel; a cam plate stationarily mounted to engage the ends of said rods, to withdraw said plungers during a certain portion of the rotation of the drum, the plunger being free to move under the influence of said springs during the remaining portion of the rotation of said drum; means for rotating said drum; a delivery roller rotatively mounted adjacent the receiving end of said trough, to aid in the delivery of the net to said trough; and vertically-disposed fenders to guide the net for introduction to said trough.

1,038,415. **ELECTRIC-LIGHT SOCKET.** FRANK T. MORELAND, Oakland, Cal., assignor of one-half to Peter H. Petersen, Oakland, Cal. Filed Apr. 1, 1912. Serial No. 687,653. (Cl. 173—350.)



1. An incandescent lamp socket comprising a porcelain base member provided with a recess, a porcelain disk mounted on the base, and covering said recess, a pair of supports mounted on the disk, a key shaft journaled in the supports, conducting wire connecting one of the supports, an elongated disk mounted on the key shaft, a contact spring secured to the disk and extending between the supports in the path of the disk, a contact secured in the disk disposed below the free end of the spring, a lamp socket member mounted on the disk, attaching screws for securing the socket member to the disk, one of said screws passing through the disk and base, a metallic plate secured to the end of said screw, a wire attached to said plate, and means on the socket member for engagement with the lamp whereby positive contact is made between the stem of the lamp and the socket member.

2. The combination with an incandescent lamp having a stem provided with oppositely extending lugs of an electric light socket, a base carrying a key switch, a spring on the socket in electrical connection with the switch, a tubular socket member, ribs mounted in the socket member near its outer end, the opposing ends of the said ribs being spaced apart to provide diametrically opposite vertical ways, the lower edge portion of each of the ribs being upwardly curved longitudinally, whereby when the stem is inserted in said socket member, the lugs will pass through the ways to engage the upwardly curved edge portions of the ribs, and will be forced upwardly thereagainst by means of said spring.

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1,038,416. **THEATRICAL SCHEDULE AND ADVERTISING CABINET.** THOMAS W. MULLALY, Fort Worth, Tex. Filed July 26, 1911. Serial No. 640,542. (Cl. 40—132.)

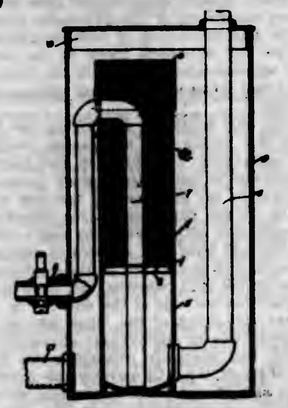
A bulletin board comprising large frames hinged together, fastening means for holding the frames together, a small frame disposed in the center of each of said large frames, vertical and horizontal strips within the small frame, semi-transparent removable slides on the horizontal strips, pivoted members on the said strips for holding the slides, vertical and horizontal strips between the large and small frames, semi-transparent slides between the strips, pivoted members for holding the last-named slides, supporting means for the large frames, and



a lighting means between the frames whereby the announcements may be read from either side of the board.

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1,038,417. **FILTER.** JOHN S. MULLENNIX, Bradford, Ohio. Filed Oct. 16, 1911. Serial No. 654,871. (Cl. 210—4.)



1. A filter comprising a casing having an unobstructed portion for the reception of filtering material and having an inlet opening, an outlet opening and a chamber between said openings, a supply pipe communicating with said inlet opening, a perforated plate between said openings, a removable perforated plate extending across the outlet opening and provided with a depending flange for surrounding the upper portion of said casing, filtering material in said unobstructed portion of said casing and between said plates, an outer casing surrounding said first mentioned casing having an outlet near its bottom, a siphon communicating with said chamber and extending above the top of said chamber and then out through a wall of each of said casings, the inlet of said siphon being located near the bottom of said chamber.

2. A filter comprising a casing having its top provided with a perforated cap to form an outlet opening, its bottom cap shaped to form a well, a chamber above said well, and an opening near said well through which said chamber communicates with a supply pipe, a perforated plate between said chamber and said perforated cap, filtering material between said perforated plate and cap, an outer casing surrounding said first mentioned casing having an outlet opening near its bottom, and a cap for closing its upper end, said cap having an opening through which the supply pipe passes, and a siphon passing through said chamber, a portion of the filtering material, then through a wall of each of said casings, the end of said siphon within the filter lying within said well.



1,038,418. **INSULATOR.** WILLIAM H. S. NELSON, Capon Springs, W. Va. Filed Feb. 20, 1911. Serial No. 609,745. (Cl. 173—316.)



1. An insulator comprising a body having a straight inwardly extending wire-receiving groove the inner terminus of which is widened laterally at opposite sides and at each end of the groove to form abutment shoulders to coöperate with and prevent displacement of the wire from the groove.

2. The combination of an insulator comprising a body having a wire-receiving groove the walls of which are undercut at points adjacent to the inner terminus of the groove, and a wire extending through said groove and having expanded portions engaging the undercut portions of the walls thereof to prevent displacement of the wire from the groove.

3. An insulator comprising a body having a wire-receiving groove the two walls of which are recessed at points adjacent to the inner terminus of the groove to form laterally widened slots which extend laterally beyond the walls of the groove and limiting shoulders between them.

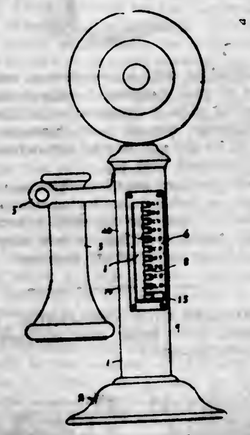
4. An insulator comprising a body having a wire-receiving groove the opposed walls of which are formed with two pairs of opposed recesses at points adjacent to the inner terminus of the groove and the periphery of the insulator body to form slots which are wider than the groove and intervening limiting shoulders.

5. An insulator comprising a body having a wire-receiving groove corresponding in width to substantially the diameter of the wire to be used, the two walls of the groove being formed with pairs of opposed recesses at points adjacent to the inner terminus of the groove and toward the periphery of the insulator body, the portions of the walls between the recesses forming shoulders which separate the recesses.

[Claim 6 not printed in the Gazette.]

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1,038,419. **TELEPHONE CALLING DEVICE.** ROY C. NEVIN, Oakland, Cal. Filed Aug. 10, 1911. Serial No. 643,384. (Cl. 179—90.)



1. In a circuit breaking device, electrical circuits, a spring connected therewith, said spring having a contact point, a cylinder, a piston in said cylinder having a rack with projections thereon, a finger catch connected with said piston, a slot in the standard through which said finger catch passes, and a slotted guard for said

finger catch through any one of which slots said finger catch may be passed to break the circuits a given number of times, substantially as described.

2. In a circuit breaking device, electrical circuits, a spring connected therewith, said spring having a contact point, a cylinder, a piston in said cylinder having a rack with projections therein, a finger catch connected with said piston, a slot in the standard through which said finger catch passes, and a slotted curved guard secured to the standard, substantially as described.

3. In a circuit breaking apparatus, a telephone standard having electrical circuit wires, a cylinder, a piston in said cylinder and having a rack within the piston, a finger catch connected with said piston and projecting outwardly through a slot in the standard, an outwardly curved guard having a plurality of slots therein and through any one of which the finger catch may be passed to break the circuit a number of times, substantially as described.

4. In a circuit breaking apparatus, a telephone standard, electrical circuits therein, a spring to which one of said circuits is connected, a cylinder within the standard, a piston within the cylinder to regulate the timing of the circuit breaking apparatus and a guard wire concentric with the piston to break one of the electrical circuits when the piston is down, substantially as described.

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1,038,420. ORCHARD-HEATER. NATHAN B. NEWCOMER and CARL O. JOHNSON, Peoria, Colo. Filed May 21, 1912. Serial No. 698,748. (Cl. 158—91.)

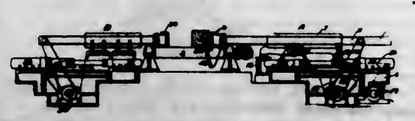


1. In combination with a container, a radiator mounted thereon, one of said members having openings thereinto at their meeting ends, a circumferential damper for regulating the passage through said openings, said radiator being closed at its top and having circumferential openings immediately adjacent said top.

2. A portable orchard heater comprising an imperforate fuel container, a radiator, and ring-like plates mounted on said container, and having each a series of vertical openings, said radiator fitting on said rings, and having an upper and lower series of air openings.

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1,038,421. ROLLING-MILL APPLIANCE. DAVID F. NISBET, Crafton, Pa. Filed Oct. 6, 1909. Serial No. 521,416. (Cl. 80—53.)



1. A rolling mill appliance, comprising a roller feed-table of a rolling mill, a longitudinal side-guard adapted to move laterally with reference to said roller feed-table, supporting beams attached to the side-guard slidably mounted, trunnioned guides pivotally mounted in stationary bearings to carry the said supporting beams, and means for oscillating the said guides in a vertical plane for the purpose of raising or lowering the said side-guard.

2. A rolling mill appliance comprising roller feed tables, longitudinal side guards adapted to move laterally with reference to the feed tables, means for actuating the said side guards through links attached to levers mounted on an oscillating shaft, beams for supporting the side guards, a trunnioned guide for the supporting beams adapted to oscillate in a vertical plane, means for actuating the said trunnioned guide, and means for compelling the transverse travel of the moving side guard to be approximately parallel to the surface of the rollers of the feed tables when the said side guard is in its raised position.

3. A rolling mill appliance comprising roller feed tables, longitudinal side-guards adapted to move laterally with reference to the feed tables, means for actuating the said side-guards through links attached to levers mounted on an oscillating shaft, beams for supporting the side guards, a trunnioned guide for the supporting beams adapted to oscillate in a vertical plane, means for oscillating the said trunnioned guide, a roller attached near one extremity of the trunnioned guide, and a cam mounted on the said oscillating shaft, of such projection of lobe as will limit the oscillatory movement of the trunnioned guide by contact with the said roller, and of such peripheral contour as will compel the transverse travel of the moving side guard to be approximately parallel to the surface of the rollers of the feed tables when the said side-guard is in its raised position.

4. A rolling mill appliance comprising the feed-tables on each side of a rolling mill, side-guards mounted above each table, mechanism whereby each side-guard can be moved transversely to the tables, a shaft operated by the actuating power of the appliance on one side of the mill and extending to the appliance on the opposite side of the mill, terminating with a lever-arm and a slotted link attached to the said lever-arm, adapted to engage a member on the actuating mechanism of the appliance on the opposite side of the mill, whereby the transverse travel of the side-guard on one side of the mill can be restricted to that of the side-guard of the other side of the mill, thereby bringing them in approximate alinement.

5. A rolling mill appliance comprising the feed-tables on each side of a mill, laterally movable side-guards mounted above each side of each table, mechanism whereby each side-guard can be moved laterally, a shaft operated by the actuating power of the appliance on one side of the mill and extending to the appliance on the opposite side of the mill, a lever-arm on said shaft, a lever-arm on the operating shaft of the second appliance, and a lug or projection on said second lever-arm, adapted to engage and act as a stop to limit the travel of the side-guard to that of its mate on the opposite side of the mill.

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1,038,422. RESISTANCE ELEMENT. JOHN J. NOLAN, Linton, Ind. Filed Apr. 13, 1912. Serial No. 690,505. (Cl. 219—63.)



1. A resistance unit comprising a base having raised ribs on the sides thereof, said ribs having notches, a resistance wire extended across the base and having its loops lying in said notches, said wire being arranged in superimposed coils, a division piece between the coils, insulating buttons arranged in the notches between the loops of the coils, and a cover resting on the ribs.



2. A resistance unit comprising an insulating fire proof base having integral notched ribs adjacent the sides thereof, an insulating fire proof division piece, a resistance wire wound across the base and lying upon opposite sides of the division piece, the loops of said wire being arranged in the notches of the ribs, independent insulating fire proof buttons lying in the notches between the loops of the separated coils, and an insulating fire proof cover mounted upon the ribs.

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1,038,423. APPARATUS FOR IMPREGNATING WOOD. WILLIAM W. NORMAN, Huntersville, Mo. Filed Nov. 20, 1908. Serial No. 463,648. (Cl. 99—12.)



1. An apparatus for impregnating bodies of wood for veneer purposes comprising a gripping-head having an annular flange on the outer edge thereof, and flanges extending from the annular flange for forming chambers, which chambers extend from the annular flange inwardly toward the center of the gripping-head, some of said chambers receiving one kind of a coloring fluid, and others, other coloring fluids, said chambers so placed that the layers of veneer cut from around the bodies of wood contain a series of multi-colored strips, and means for introducing different colored fluids into the chambers for impregnating the wood with the different coloring fluids at one operation.

2. An apparatus for impregnating bodies of wood for veneer purposes comprising a gripping-head having an annular flange on the outer edge thereof, V-shaped flanges extending from the annular flange inwardly toward the center for forming fluid chambers therebetween, said chambers having passages for the introduction of coloring fluids therein, some of the chambers receiving one coloring fluid, and others receiving other coloring fluids, said chambers so placed that the layers of veneer cut from around the bodies of wood contain a series of multi-colored strips, and means for introducing the different coloring fluids into the various chambers, whereby the wood will be impregnated with the coloring fluids simultaneously.

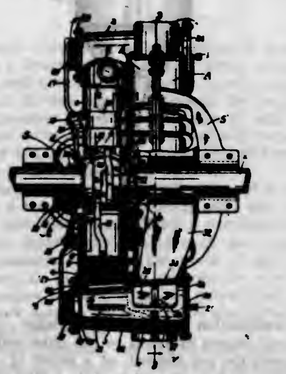
3. An apparatus for impregnating wood comprising a gripping-head having an annular flange on the outer edge thereof, flanges extending inwardly toward the center from the annular flange for forming fluid chambers between the inwardly extending flanges, said chambers having passages leading thereto for the introduction of the fluids, some of the chambers receiving one kind of a coloring fluid and the other chambers receiving other coloring fluids, a supporting head connected to the gripping-head, concentric flanges formed on the supporting head engaging the gripping-head for forming chambers for the various coloring fluids therebetween, said last-named chambers in communication with the chambers on the gripping-head, and means for introducing the various coloring fluids to the concentric chambers whereby the wood to be treated will be impregnated with the various coloring fluids simultaneously.

4. An apparatus for impregnating bodies of wood for veneer purposes comprising a gripping-head adapted to engage an end of the wood being treated, a plurality of chambers formed on the gripping-head extending from the outer edge of the head so that the coloring fluid will extend from the outer edge of the object being treated toward the center thereof, and layers of veneer cut from around the bodies of wood are cut transversely of the layers of color thus formed, some of said chambers receiving one kind of a coloring fluid, and other chambers receiving other coloring fluids, and means for introducing various coloring fluids into the chambers of the gripping-head for impregnating the wood simultaneously with a variety of coloring fluids.

5. An apparatus for impregnating wood comprising a head having grooves radiating from the center, and grooves parallel therewith on one side of the head, and concentric grooves on the opposite side in communication with the radial grooves.

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1,038,424. ROTARY EXPLOSIVE-ENGINE. JOSEPH M. NOVY, St. Louis, Mo. Filed Sept. 5, 1911. Serial No. 647,753. (Cl. 123—13.)



1. In a rotary explosive engine, a casing, a rotatable member within the same forming an annular chamber with the casing walls, a blade on the rotatable member traversing said chamber, a compression cylinder having a reciprocating piston actuated by the rotatable member, a chambered rock-valve interposed between the discharge from the cylinder and the annular chamber aforesaid, means interposed between the rock-valve and rotatable member for actuating the valve to proper position to cause the chamber thereof to receive the contents from the cylinder, means for permitting the confinement of the charge within the valve-chamber for a definite arc of travel of the blade, and means for effecting a release of the confined charge into the annular chamber behind the blade preparatory to exploding the same.

2. In a rotary explosive engine, a casing, a rotatable member within the same forming an annular chamber with the casing walls, a blade on the rotatable member traversing said chamber, a cylinder having a piston actuated in response to the rotation of the rotatable member, a chambered rock-valve interposed between the discharge from the cylinder and annular chamber and rotating in response to the rotation of the rotatable member to a position to present the passage of the valve to proper position to receive the charge expelled from the cylinder, means for permitting the confinement of said charge within the valve-passage for a definite arc of travel of the blade, and means for effecting a release of the confined charge into the annular chamber behind the blade preparatory to exploding the same.

3. In a rotary explosive engine, a casing, a rotatable member within the same forming an annular chamber with the casing walls, a blade on the rotatable member

traversing said chamber, a compression cylinder having a piston actuated by the rotatable member, a chambered rock-valve interposed between the discharge from the cylinder and the chamber, means for rotating the valve and its chamber to receive the contents from the cylinder, means for permitting the confining of the charge within the valve-chamber for a definite arc of travel of the blade, and means for effecting the release of the confined charge into the annular chamber behind the blade preparatory to exploding the same.

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1,038,425. FRUIT-PICKER. CHRISTIAN OLSEN, Soldier, Iowa. Filed June 7, 1911. Serial No. 631,779. (Cl. 56—99.)



The combination with a fruit-picker comprising a basket, and fingers attached to the outer surface and extending over the top thereof, of a series of stays secured to the outer surface of said basket, a ring connecting the lower ends of said stays, a foot plate secured to the bottom of said basket, and a pole passing through said ring and engaging said foot-plate.

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1,038,426. TEMPERATURE-INDICATING INSTRUMENT. ALBERT N. OZIAS, Minneapolis, Minn.; R. V. L. Haxby and D. L. Fairchild, Hennepin county, Minn., administrators of said Ozias, deceased. Filed Oct. 27, 1911. Serial No. 657,069. (Cl. 73—118.)



1. In a device of the character set forth, the combination with a curved bi-metallic arc member, the curvature of which is changed by variations in temperature, of a deflectable member attached rigidly at its opposite ends to the opposite ends of the bi-metallic member, and mechanism to be controlled by the changes in curvature of the bi-metallic member connected with the deflectable member at a point intermediate the ends of the latter.

2. In a device of the character set forth, the combination with a curved bi-metallic arc member, the curvature of which is changed by variations in temperature, of a deflectable arc member attached rigidly at its opposite ends to the opposite ends of the bi-metallic arc member, and yielding means for utilizing the variations in such deflection effected by the change in curvature of the bi-metallic member.

3. In a device of the character set forth, the combination with a curved bi-metallic arc member, the curvature of which is changed by variations in temperature, of a flexible member attached rigidly at its opposite ends to the opposite ends of the bi-metallic member, and mechanism including a spring connected with the flexible member intermediate the ends of the latter and controlled by the changes in curvature of the two members due to variations in temperature.

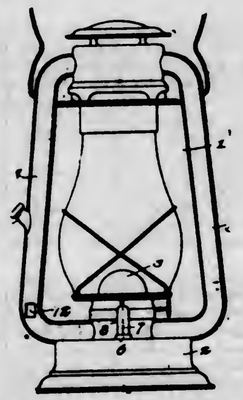
4. In a device of the character set forth, the combination with a curved bi-metallic arc member, the curvature of which is changed by variations in temperature, and a support connected therewith, of a flexible member attached rigidly at its opposite ends to the opposite ends of the bi-metallic member, actuated mechanism mounted on the said support and connected with the flexible member at a point intermediate the ends of the latter.

5. In a device of the character set forth, the combination with a curved bi-metallic arc member, the curvature of which is changed by variations in temperature, of a flexible member attached rigidly at its opposite ends to the opposite ends of the bi-metallic member, and deflected centrally away from the bi-metallic member, and mechanism actuated by the changes in curvature of the bi-metallic and flexible members under the influence of variations in temperature.

[Claims 6 to 10 not printed in the Gazette.]

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1,038,427. LANTERN ATTACHMENT. JOHN H. PECKHAM, Fraser, Idaho. Filed June 2, 1911. Serial No. 630,751. (Cl. 67—85.)



A lantern having one of its hollow side bars provided with an opening, an offset threaded nozzle secured to the said bar and surrounding the opening, a threaded cap for the nozzle, the hollow side bar above the opening being closed, the said side bar being provided with a transparent sight adjacent its offset connection with the reservoir of the lantern and the said offset portion of the hollow bar being provided with an opening which communicates with a similar opening formed in the top of the lantern reservoir.



1,038,428. PORTABLE FIREPROOF SAFE. CHARLES S. PEDERSON, Grantsburg, Wis. Filed Feb. 29, 1912. Serial No. 680,570. (Cl. 109—2.)



A fireproof case comprising a receptacle and cover therefor, each consisting of an outer metallic shell, a layer of asbestos next the shell, a corrugated metallic layer next to the asbestos, a layer of cork next to the last mentioned metal layer, and an inner lining of metal.

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1,038,429. GAME-STICK. HERBERT T. PENNY, Saugus, Mass. Filed Aug. 9, 1911. Serial No. 643,114. (Cl. 46—4.)



1. A game stick comprising a handle and a hollow, injury preventing, cushion, ball striking head therefor substantially larger than said handle.

2. A game stick comprising a handle and a hollow injury preventing, ball striking head therefor, inherently yieldable and yieldable as a whole relatively to said handle.

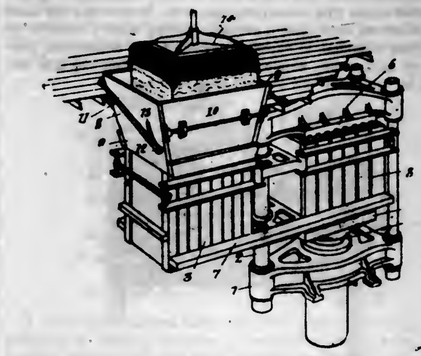
3. A game stick comprising a light handle and a hollow injury preventing, striking head therefor offset from the axial line of said handle.

4. A game stick comprising a handle, a hollow, injury preventing striking head therefor yieldable throughout and means for confining fluid in said head.

5. A game stick comprising a handle and a hollow, injury preventing striking head therefor yieldable throughout and having confined fluid therein.

[Claims 6 to 15 not printed in the Gazette.]

1,038,430. COTTON-COMPRESS. FRANK PHELPS, Little Rock, Ark. Filed Oct. 23, 1911. Serial No. 656,337. (Cl. 100—28.)



1. In a cotton compress, the combination of a compression chamber, a hopper communicating with the compression chamber and adapted to receive a previously formed bale, means for driving the bale through the hopper and into the compression chamber, the walls of said hopper being so formed as to resist the action of said bale-driving means whereby the bale may be reduced in two dimensions in its passage to the compression chamber.

2. In a cotton compress, the combination of a compression chamber, a hopper communicating with the compression chamber and adapted to receive a previously formed bale, means for driving the bale through the hopper and into the compression chamber, the walls of said hopper being so formed as to yieldably support the bale within the hopper against the action of the bale-driving means, whereby the bale may be reduced in two dimensions in its passage through the hopper.

3. In a cotton compress, the combination with a compression chamber, of a hopper having fixed sides and swinging sides mounted upon and extending between the said fixed sides and adapted to support a bale, the said fixed and swinging sides forming a hopper having a bottom of the same dimensions as the compression chamber, and means for forcing a bale supported above the said swinging sides through the hopper and into the compression chamber.

4. In a cotton compress, the combination with a compression chamber, of fixed side plates converging toward the mouth of the compression chamber, swinging sides mounted upon and extending between the said fixed sides and adapted to support a bale when in a horizontal position, and links having their opposite ends connected respectively to the opposite swinging sides above and below the pivotal supports of the same.

5. In a cotton compress, the combination with a compression chamber, of fixed side walls converging toward the mouth of said compression chamber, swinging side walls mounted upon and extending between the said fixed side walls, said fixed side walls being provided with slots describing arcs about the pivotal point of one swinging side as a center, and links pivoted at one end to the upper end of one swinging side and provided at the opposite end with pins passing through said slots and connected with the lower end of the opposite swinging side.

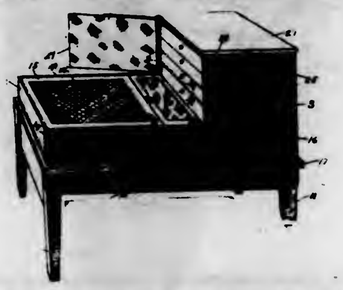
[Claim 6 not printed in the Gazette.]

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1,038,431. HEATERLESS INCUBATOR AND BROODER. EDGAR W. PHILO, Elmira, N. Y. Filed June 13, 1911. Serial No. 632,904. (Cl. 119—30.)

1. A heaterless incubator comprising a table support, a rectangular base member mounted thereon, an incubator casing removably mounted on said base member, a plural-

ity of egg trays positioned in superposed relation within said casing, a heat insulated cover member positioned upon said casing, said trays and casing covering but a portion of the top of said base member, a removable glass panel mounted upon the remaining portion of the top of said base member, said base member covering only a portion of the table support, a runway covering the remaining portion of said table support, and a depending curtain secured to the inner end of said base member.



2. A heaterless incubator section comprising a rectangular frame, oppositely-disposed aliming notches in the top of said frame, a screen member positioned upon said frame and aliming with one side of said notches, a glass panel upon said frame and aliming with the opposite side of said notches, a depending curtain over one end of said frame, and an incubator casing mounted on said frame and having a depending strip fitting in said notches.

3. An incubator tray provided with a double wall and an air passage therebetween and one of said walls having an air port communicating with said passage, a false bottom within said tray, a thermostatic member substantially centrally positioned within said tray, a damper within said passage, an air flue beneath said false bottom extending inwardly of said tray, a damper at the mouth thereof, and coupling members beneath said false bottom connecting said thermostatic member and said dampers.

4. In an incubator, a tray provided with double walls, partitions spaced from the end walls of the tray and provided with openings, an egg supporting bottom located above the bottom of the tray, vertical air passages between the partitions and inner end walls of the tray and establishing communication through said openings between the tray and the space below said egg supporting bottom, dampers in said vertical air passages for controlling the admission of air through said openings, a thermostatic member within the tray, and coupling members beneath the egg-supporting bottom connecting said thermostatic member with said dampers.

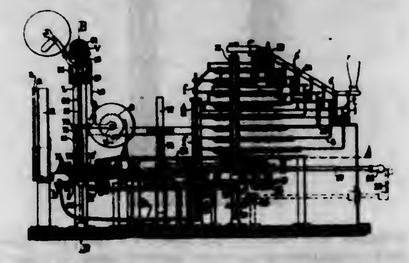
5. In an incubator, an incubating tray provided with a bottom and open at its top, an egg-supporting bottom arranged above the bottom of the tray, vertical partitions arranged within the tray and spaced from the end walls of such tray to provide vertical air passages at the ends of the tray, said vertical partitions having openings establishing communication between the tray space and said vertical air passages, said air passages communicating with the space between the tray bottom and the egg-supporting bottom, dampers arranged in said vertical air passages, a thermostatic member arranged within the tray, and means between the tray supporting bottom and the bottom of the tray connecting the thermostatic member with said dampers.

[Claim 6 not printed in the Gazette.]

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1,038,432. CASH ISSUING, INDICATING, AND REGISTERING APPARATUS. JOHANN PLANECKI, Krakau, and FRANZ DROGNIAK, Jawiszowice, Austria-Hungary. Filed Apr. 5, 1910. Serial No. 553,627. (Cl. 133—8.)

1. In a coin handling apparatus, the combination, with a pair of coin receptacles, and a pair of ejectors therefor; of a pair of shafts; a counter and a ratchet mounted upon each shaft; means carried by said ejectors for driving said ratchets in one direction; a pair of centrally pivoted detents normally engaged at one end with said ratchets, for holding the same against reverse movement and having their other ends arranged in juxtaposition; a pair of springs connected to said shafts and adapted to be tensioned during the first-mentioned rotation of said ratchets; a slide provided with a projection adapted to extend between the second-named ends of the detents, for separating the same and releasing the first-named ends of said detents from engagement with said ratchets, to permit reverse rotation of the latter; and means for operating said slide.



2. In a coin handling apparatus, the combination, with a pair of coin receptacles, and a pair of ejectors therefor; of a pair of shafts; a counter and a ratchet mounted upon each shaft; means carried by said ejectors for driving said ratchets in one direction; a pair of centrally pivoted detents normally engaged at one end with said ratchets, for holding the same against reverse movement and having their other ends arranged in juxtaposition; a pair of springs connected to said shafts and adapted to be tensioned during the first-mentioned rotation of said ratchets; and means for separating the juxtaposed ends of said detents, to release the first-named ends thereof from engagement with said ratchets and permit reverse rotation of the latter.

3. In a coin handling apparatus, the combination, with a plurality of coin receptacles and ejectors therefor; of a rotary member common to the several ejectors for operating the same; a depressible stop arranged in the path of movement of said member for determining the initial position thereof; means for normally holding said stop in elevated position; a tilting member for depressing said stop against the action of said holding means; and means for operating said tilting member.

4. In a coin handling apparatus, the combination, with a plurality of coin receptacles and ejectors therefor; of a rotary member common to the several ejectors for operating the same; a depressible stop arranged in the path of movement of said member for determining the initial position thereof; means for normally holding said stop in elevated position; a tilting member for depressing said stop against the action of said holding means; means for operating said tilting member; and means for retaining said stop in depressed position.

5. In a coin handling apparatus, the combination, with a plurality of coin receptacles and ejectors therefor; of a rotary member common to the several ejectors for operating the same; a depressible stop arranged in the path of movement of said member for determining the initial position thereof; means for normally holding said stop in elevated position; a tilting member for depressing said stop against the action of said holding means; and a movable member provided with an inclined projection adapted to engage said tilting member, to operate the latter.

[Claims 6 to 15 not printed in the Gazette.]

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1,038,433. TIRE-ALARM. JOSEPH B. POLO, Clear Lake, S. D. Filed Jan. 27, 1912. Serial No. 673,985. (Cl. 116—L.)

1. An alarm of the character described, including a casing, a spring retracted plunger mounted therein and formed with a longitudinal opening and a valve seat leading thereinto, a spring pressed valve on said seat, a lever operatively connected to said valve to unseat the same, and means for automatically tripping said lever at a predetermined point in the inward movement of the plunger.



2. An alarm of the character described, including a casing, a plunger mounted in the casing and spring pressed inwardly therein, the plunger being formed with a longitudinal opening and a valve seat opening thereinto, a spring pressed valve on said seat, and opening inwardly therefrom, the plunger being formed with a sound producing port communicating with its opening, the valve being provided with an inwardly projecting stem, a lever carried by the plunger and engaging said stem, and relatively stationary means carried by the casing for tripping said lever at a predetermined point in the inward movement of the plunger.

3. An alarm of the character described, including a casing, a plunger movable therein and spring pressed inwardly, the plunger being formed with a longitudinal opening extending therethrough adapted to produce a signal, the plunger being formed at the inner end of said opening with a valve seat, a valve spring held on said seat and movable inwardly to open position, the valve being formed with an inwardly projecting stem, a collar adjustably mounted on said stem, a lever carried by the plunger, and relatively stationary means carried by the casing for automatically tripping said lever at a predetermined point in the inward movement of the plunger.

4. An alarm of the character described, including a casing, a plunger movable therein and spring pressed inwardly, the plunger being formed with an opening leading to the atmosphere and with a valve seat communicating with said opening, a spring pressed valve mounted on said seat and opening inwardly, means for automatically opening said valve at a predetermined point in the inward movement of the plunger, and means for holding said plunger stationary in an extended position, against the tension of its spring and independently of the air pressure.

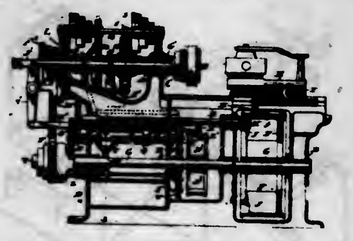
5. An alarm of the character described, including a casing, a plunger movable therein and spring pressed inwardly, the plunger being formed with an opening adapted to produce an audible signal and with a valve seat communicating with and facing inwardly from said opening, a spring pressed valve mounted on said seat, a trip lever carried by the plunger and adapted to open the valve, and a bushing carried by the casing and formed with a lug adapted to engage said lever to trip the same at a predetermined point in the inward movement of the plunger.

[Claims 6 to 8 not printed in the Gazette.]

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1,038,434. METAL-WORKING MACHINE. JAMES CHARLES POTTER and JOHN JOHNSTON, Pawtucket, R. I., assignors to Potter and Johnston Machine Company, Pawtucket, R. I., a Corporation of Rhode Island. Filed Mar. 19, 1904. Serial No. 199,018. (Cl. 29—44.)

1. The combination of a work spindle, different sets of gears for driving it at different work-performing speeds in the same direction, automatic means to change the gear connection with the spindle, a tool slide movable at different speeds at different times and in the same direction for the performance of work, and while the spindle is revolving in the same direction, means for moving said slide, and gearing between the slide moving means and the work spindle that preserves the ratio of working spindle speed and working feed of tool.



2. The combination with the work spindle and the tool slide, of a driving member, a gear connection from said driving member to said work spindle, including a plurality of trains of gears, said trains, respectively, driving the spindle at different working speeds, automatically operated clutch mechanism for said trains of gears, and means for gearing the spindle and the tool slide together that preserves the ratio of working spindle speed and working feed of tool.

3. The combination with the work spindle and the tool slide, of a driving shaft, gearing between said shaft and the work spindle to drive the same at different working speeds, comprising a pair of gears of different diameter on the shaft, and a pair of gears on the spindle of different diameters respectively meshing with these on the drive shaft, a clutch for controlling the gear connection between the drive shaft and the spindle, means automatically operating the clutch, and means for gearing the spindle and the tool slide together that preserves the ratio of working spindle speed and working feed of tool.

4. The combination with the work spindle, rotatable at different working speeds, and the turret slide, of a driving member, a connection from said driving member to said work spindle, a driving connection from the spindle to said turret slide that preserves the ratio of working spindle speed and working feed of tool, and automatic speed changing means located in advance of said driving connection.

5. The combination of a work holding means and a driving shaft operatively connected therewith, different sets of gears for driving said shaft in the same direction for different work performing speeds of the work holding means, automatic means to change the gear connections with said shaft, a tool slide movable at different speeds and in the same direction for the performance of work and while the work holding means is revolving in the same direction, means for moving said slide, and gearing between the slide moving means and said shaft that preserves the ratio of speed of the work and the working feed of the tool.

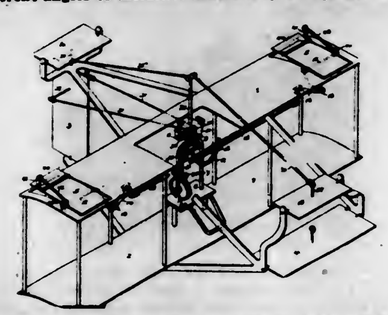
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1,038,435. AEROPLANE. BURT J. PRESSEY, Newport News, Va. Filed Oct. 25, 1909. Serial No. 524,531. (Cl. 244—29.)

1. The combination of an aeroplane having dip-controlling means and a universally-swinging aviator's seat for operating the same, a steering plane, manually operated devices swinging with the seat and controlling the position of said plane, and connecting devices having guides which are substantially coincident with the fore and aft and transverse axes of the swinging seat.

2. An aeroplane having a transversely pivoted deflecting plane composed of parts adjustable in respect to one another, whereby it is possible to vary the relative effect of the air upon the members of said plane as its angle of incidence varies and thereby maintain the center of pressure in proximity to the transverse axis of the plane.

3. An aeroplane having a transversely pivoted deflecting plane, composed of parts adjustable in respect to one another and means whereby one portion of the same is caused to change its angle in respect to another portion, in such manner as to maintain the center of pressure in proximity to the transverse axis of the plane in the different angles of incidence assumed by said plane.



4. An aeroplane having a transversely pivoted deflecting plane composed of parts adjustable in respect to one another and means whereby, as the angle of incidence of the plane changes, the effective area of one member of the plane in respect to the other, changes in such manner as to maintain the center of pressure in proximity to the transverse axis of the plane.

5. An aeroplane having a transversely pivoted deflecting plane composed of parts adjustable in respect to one another, and means whereby a terminal portion of a member of said deflecting plane is permitted to change its angle in respect to said member in such manner as to maintain the center of pressure in proximity to the transverse axis as the angle of incidence of the plane varies.

[Claims 6 to 16 not printed in the Gazette.]

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1,038,436. CORE RETAINER OR LIFTER. CHARLES S. PROCTOR, NICHOLAS LOFTUS, and JOHN ANDERSON, Beckley, W. Va. Filed Apr. 29, 1911. Serial No. 624,127. (Cl. 166—3.)



1. A device of the character described, comprising a body, a cap thereon, and means tending to rotate said device through the medium of a flow of water.

2. A device of the character described, comprising a body, a cap carried thereby, anti-friction bearings carried by said device, and means whereby said device is caused to remain stationary within a revolving member.

3. A device of the character described, comprising a body, a cap carried by said body, a spiral fin carried by said cap, anti-friction bearings supported by said device, and means in said body for retaining the contents thereof.

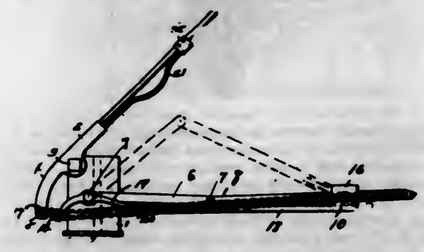
4. In a device of the character described, the combination with a drill casing, of a body adapted to be received within said casing, means for reducing the friction between said device and said drill casing, and means carried by said device whereby the latter is prevented from rotating with said drill casing.

5. In a device of the character described, the combination with a drill casing, of a barrel adapted to be received therein, means for reducing the friction between said device and said drill casing, and means carried by said device whereby a flow of fluid through said drill casing causes said device to remain relatively stationary.

[Claims 6 to 13 not printed in the Gazette]

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1,038,437. TROLLEY-CATCHER. CHARLES H. REAMES, Fort Worth, Tex., assignor of one-fourth to Dan Tubbs and one-fourth to Roy Hill, Fort Worth, Tex. Filed Mar. 11, 1911. Serial No. 613,878. (Cl. 191—36.)



An automatic trip for trolley poles comprising a single piece socket, a trolley pole pivoted on the upper front part of said socket and provided with a forked extension down in front of said socket, a tripping bar carried by the arms of said forked extension and projecting through both arms, a rearward extending bar rigid with said socket, bearing arms thereon, a pivot bolt projecting through said socket, toggle arms consisting of two bars pivotally mounted on said pivot bolt and a single bar pivotally connected to said two bars at one end and having a slot therein and extending between said bearing arms, a bearing bolt projected through said slot and carried by said arms, a cross-head carried by said single bar, tension springs attached to the ends of said tripping bar, stud bolts loosely mounted in said cross-head and connected to said springs, trips pivotally mounted on said pivot bolt and having their forward ends hanging in the path of said tripping bar and their rear ends curved and projecting under said two toggle arm bars, and a cushioning spring attached to said trolley pole and adapted to fall on said toggle arms.

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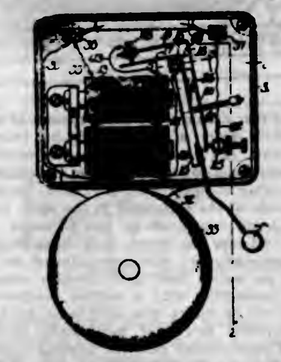
1,038,438. ELECTRORESPONSIVE VIBRATOR-MOVEMENT. CHARLES H. RETTMANN, Chicago, Ill. Filed Jan. 7, 1911. Serial No. 601,400. (Cl. 177—7.)

1. In an electro-responsive vibrator, the combination of a magnet having coils that magnetically oppose each other, suitable circuit connections normally including one of said coils, an armature, and contact devices actuated by said armature to establish circuit connections for the other coil and subsequently to break the circuit connections for both coils.

2. In an electro-responsive vibrator, the combination of an electromagnet having windings that magnetically oppose each other, a normally closed contact device, a normally open contact device, circuit connections for one of said windings, normally including the closed contact device, and closed thereby, circuit connections for the other said winding including both said contact devices, and normally opened by the open contact device, and means responsive to uni-directional movement of said armature first to close the normally open contact device and subsequently open the normally closed contact device.



3. In an electro-responsive vibrator, the combination of an electro-magnet having windings that magnetically oppose each other, an armature having a contact leaf, a contact frame pivoted for movement by the armature leaf, and circuit connections including a normally open contact device local to the connections of one winding and closable by the armature leaf, and a normally closed contact device common to the connections of both windings arranged to be opened by armature-impelled movement of the contact frame.



4. In an electro-responsive vibrator, the combination of an electromagnet having windings that magnetically oppose each other, a pivoted armature therefor, a contact frame pivoted coaxially with the armature, a fixed contact for one end of said frame, a contact for the other end of said frame movable with the armature to close a circuit and thereafter move the frame, circuit connections for one winding including both the normally opened and the normally closed contacts, and circuit connections for the other winding including only the normally closed contacts.

5. In a device of the character described, the combination of an electromagnet having windings that magnetically oppose each other, a base, an armature and a contact frame each mounted for movement upon said base, a normally open contact device arranged to be closed by movement of said armature, the armature providing a member for abutment against the frame to cause contact-opening movement thereof, a normally closed contact device arranged to be opened by such movement of the frame, and a circuit connection including said normally closed contact device and having a branch for each winding, one branch including and one branch excluding said normally open contact device.

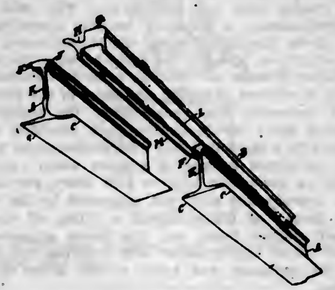
[Claim 6 not printed in the Gazette.]

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1,038,439. COMPOUND-RAIL CONSTRUCTION. EDGAR RHODES, Leeds, England, assignor to Continuous Rail Company, Wilmington, Del., a Corporation of Delaware. Filed Jan. 27, 1912. Serial No. 673,788. (Cl. 29—149.)

1. The method of uniting the top wearing section of a compound rail to the base section, both of which sections are held in place by bending at least one holding lip on one of the sections in engagement with the other section, which method consists in bending said lip into contact with the section which it engages and also in applying pressure on the outside of said lip sufficient in amount to elongate, in a direction transverse to the direction in which the rail extends, the metal in the outer portion of the lip being acted upon, so as to create compression strains in said metal at the outside of said lip whereby the metal at the inner portion of the lip will be firmly pressed against the surface of the section with which it engages.

2. The method which consists in assembling on a base section of a compound rail a wearing section having depending holding flanges, applying lateral pressure to the flanges to bend them into engagement with the base section and subsequently applying a sufficient pressure to materially change the cross sectional shape of at least one of the flanges so as to reduce the thickness of the flange and to elongate it on the outer portion a greater percentage than on the inner portion which engages the base section.



3. A compound rail comprising a bottom base section and a top wearing section held together by bent holding lips which have the metal on the outer portion compressed a sufficient amount to create compression strains therein whereby the lips will remain firmly pressed against the surface with which the inner side of the lips contact.

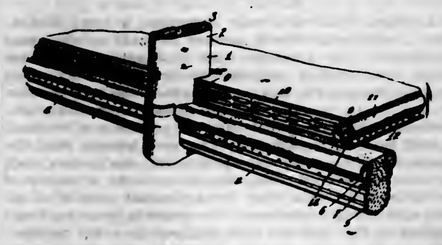
4. A compound rail comprising a longitudinally extending base section and a longitudinally extending top wearing section held in place thereupon, one of said sections having integral therewith at least one bent holding lip in which there exist at the outer sides thereof compression strains that extend in a direction transverse to that in which the rails extend.

5. The method of securing the top wearing section of a compound rail to the bottom section thereof, which comprises the bending of at least a portion of a holding lip on one of the sections into engagement with the companion section and materially reducing the thickness of the metal in the lip and simultaneously therewith elongating the metal in the outer portion of the holding lip a greater percentage than the metal in the inner portion of the holding lip is elongated.

[Claim 6 not printed in the Gazette.]

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1,038,440. COMPOSITE BUILDING-FRAME STRUCTURE. ROY HENRY ROBINSON, Chicago, Ill. Filed Jan. 2, 1908. Serial No. 409,053. (Cl. 72—66.)



1. In a composite floor construction, the combination with a pair of spaced apart stringers, each of said stringers consisting of a tubular member provided at its lower side with a depending web-like reinforcement having laterally outturned flanges, of a sheet metal reinforcement bridging the space between said stringers and having its edges interengaged with and supported by the corresponding flanges of the stringers, a layer of cementitious material resting upon and incorporated with said sheet metal reinforcement, and tile blocks resting upon said concrete layer, bridging the space between the stringers and bayed between the latter to form floor arches.

2. In a composite floor structure, the combination with a pair of spaced apart stringers, each of said stringers consisting of a tubular member provided at its lower side with a depending web-like reinforcement having laterally outturned flanges, of a sheet metal reinforcement bridging the space between said stringers and having its edges interengaged with and supported by the corresponding flanges of the stringers, a layer of cementitious material resting upon and incorporated with said sheet metal reinforcement, a filling of concrete occupying the interiors of the tubular stringers, tile blocks resting upon said concrete layer, bridging the space between the stringers and keyed between the latter to form floor arches, and a covering of concrete overlying said layer of tile blocks.

3. In a composite floor construction, the combination with spaced apart tubular joists, each provided at its lower side with a depending web like reinforcement having laterally out-turned flanges, of a sheet metal reinforcement bridging the spaces between said joists, and having its edges interengaged with and supported by the corresponding flanges of the stringers, a filling of concrete within said tubular joists, and tile blocks supported by said sheet metal reinforcement and bridging the spaces between the stringers, and keyed to the latter to form floor arches.

4. In a composite floor construction, the combination with spaced apart joists, each having lower lateral flange extensions and an expanded comparatively large hollow head, of metal reinforcement bridging between the joists and supported on the lateral flanges thereof, a layer of concrete upon said metal reinforcement, tile blocks resting on said concrete layer extending between the hollow heads of the joists and keyed thereto to form floor arches, and concrete or cement filling the heads of said joists and applied over said tile and about said joists.

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1,038,441. TIRE OF VEHICLE-WHEELS. FREDERICK ROSS, Liverpool, England. Filed Mar. 31, 1911. Serial No. 618,103. (Cl. 152—16.)

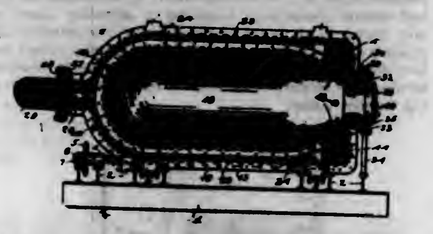



A vehicle wheel tire tread comprising a tread foundation, a continuous elastic member mounted on the tread foundation and provided with upstanding projections which are obliquely disposed relatively to radial lines passing through the axis of the wheel, the body portion of said elastic member and the oblique upstanding projections, constituting the walls of pockets and crescent shaped blocks of considerably greater thickness, than the upstanding projections and which fit into the pockets, each crescent shape block comprising a plurality of layers of textile material, each layer being disposed parallel to the said upstanding projections, and extending from the tread surface to the bottom of the pockets as a flat member, whereby all strains occurring to the tread surface are deflected in the circumferential, as well as radial directions of the wheels and are cushioned in each direction.

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1,038,442. SULFUR-BURNER. BARNET ROSSITER, Port Edwards, Wis. Filed Sept. 15, 1910. Serial No. 582,161. (Cl. 23—1.)

1. In a sulfur burner, the combination of an outer rotatable drum having a gas outlet at one end, an inner drum rotatable with the outer drum and spaced therefrom to leave an annular compartment, air inlets for said inner drum, gas passages connecting the interior of the inner drum with the annular compartment, and air inlets for said annular compartment.



2. In a sulfur burner, the combination of an outer axially rotatable drum, a drum having air inlets within said outer drum and connected to rotate axially therewith, said inner drum being spaced from the outer drum to leave an annular compartment, air inlet ducts leading from the outside of the apparatus to the inner drum, said inner drum being connected by gas passages with the compartment between the drums, said outer drum having air inlet passageways to said compartment between the drums, and an outlet from said annular compartment adapted for connection with a suction producing device whereby air will be drawn into said inner drum and the gas and vaporized sulfur of said inner drum drawn through said passageways into the annular compartment between the drums and the gas drawn from said annular compartment through the outlet from said compartment.

3. In a sulfur burner, the combination of an outer drum mounted to be axially rotatable, a drum within said outer drum connected to rotate axially therewith, said inner drum being spaced from the outer drum to leave an annular compartment, air inlets for connecting one end of said inner drum for air supply, the other end of said inner drum having passageways connecting said drum with said annular compartment, said outer drum having air inlets at one end located near said passageways for supplying air to said annular compartment, and a delivery outlet from the other end of the drum for connecting said annular compartment with a suction producing device, the suction from said device causing air flow inwardly through the various air inlets and causing the gas particles to be drawn from the inner drum and through the annular compartment and out through the outlet from said annular compartment.

4. In a sulfur burner, the combination of an outer drum mounted to be axially rotatable, a drum arranged concentrically within said outer drum and connected to rotate axially therewith, said inner drum forming a primary sulfur combustion chamber and being spaced from the outer drum to leave an annular compartment for receiving the heat radiated from said inner drum, air inlets at one end of the inner drum, the other end of said drum having passageways through which gas may flow from the inner drum into the annular compartment, said outer drum having air inlets located near said passageways for supplying air to said annular compartment, and an axial outlet extension from said outer drum located near the air inlets to the inner drum, said outlet being adapted for connection with a suction device adapted to cause air to flow inwardly through the various air inlets and to cause the gas to be drawn from the inner drum into the annular compartment to be there given a secondary heating to be purified, and to draw off the purified gas through said outlet.

5. In a sulfur burner, the combination of an outer drum mounted to be axially rotatable, a drum arranged concentrically within said outer drum and connected to rotate axially therewith, said inner drum forming a primary sulfur combustion chamber and being spaced from the outer drum to leave an annular compartment for receiving the heat radiated from said inner drum, air inlets at one end of the inner drum, the other end of said drum having passageways through which gas may flow from the inner

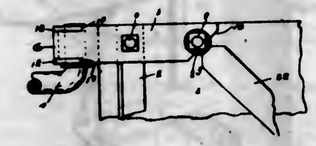


drum into the annular compartment, said outer drum having air inlets located near said passageways for supplying air to said annular compartment, and an axial outlet extension from said outer drum located near the air inlets to the inner drum, said outlet being adapted for connection with a suction device adapted to cause air to flow inwardly through the various air inlets and to cause the gas to be drawn from the inner drum into the annular compartment to be there given a secondary heating to be purified, the purified gas being drawn off through said outlet, the inner drum having an axial closure opening at its outlet end through which the interior of the inner drum may be inspected.

[Claims 6 to 9 not printed in the Gazette.]

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1,038,443. GATE. ALVIN V. ROWE, Galesburg, Ill. Filed Dec. 19, 1910. Serial No. 598,168. (Cl. 39—8.)



1. In a device of the character described, a hinge member formed with a circular recess, and a truss member having a round, flat extension adapted to fit in the circular opening of said hinge member.

2. In a device of the character described, a hinge member formed of a U-shaped strap, means for securing said strap to the gate, said strap formed with a circular opening, a truss member having a circular flat extension adapted to be seated and have a limited oscillatory movement in said circular opening of the hinge member, and means for securing the truss to the gate.

3. In a device of the character described, a hinge member formed with an arcuate portion, a hinge block adapted to be secured in said arcuate portion of the hinge member, a truss, and means for pivotally connecting the truss and the hinge member to permit free movement in a plane at right angles to said pivotal connection.

4. In a device of the character described, a hinge member formed with an arcuate portion, a hinge block, means for removably locking said block in said arcuate portion of the hinge member against movement in any direction, a truss, and means for connecting the truss and hinge member.

5. In a gate, in combination, a hinge member formed of a U-shaped strap, means for securing said member to the gate with the longitudinal portions of said member upon opposite sides of the gate and the bend of said member removed from the end of the gate, a hinge block, and means for locking said block in the bend of the member between the longitudinal portions thereof against movement in any direction, a truss, and means for connecting the truss to the hinge member.

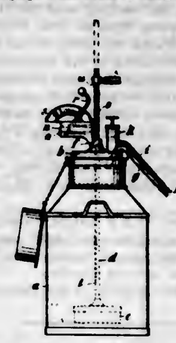
[Claims 6 to 25 not printed in the Gazette.]

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1,038,444. DISTRIBUTING APPARATUS FOR LIQUIDS. ALGOT SÄTTERSTRÖM, Grillby, Sweden, assignor to Grillby Metallfabrik, Stockholm, Sweden. Filed Aug. 17, 1911. Serial No. 644,581. (Cl. 137—20.)

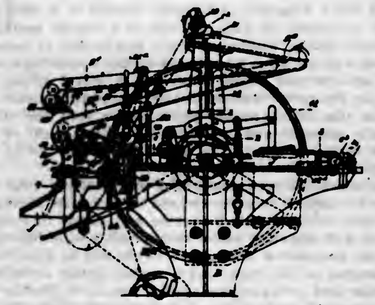
1. A dispensing apparatus for liquids adapted to be attached to a milk can, comprising a removable lid, a movable receptacle for drawing up the liquids from the can, a siphon attached to said lid, which coöperates with the said receptacle, a pump attached to the lid for creating a vacuum in the siphon, a lifting rod atached to said receptacle and mounted and guided on the lid and means carried by said lid for positively stopping and sustaining the lifting rod at different points.

2. In an apparatus for dispensing liquid, a can, a vertically movable receptacle in said can, a rod attached to the receptacle, and having a recess in its side, pins adapted to alternately engage said recess and sustain the receptacle at different heights, and a pivoted indicating arm engaging said pins.



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1,038,445. MACHINE FOR SETTING AND CASTING FROM LINES OF TYPE-MATRICES. FRANZ SCHIMMEL, Montrouge, near Paris, France. Filed Dec. 5, 1908. Serial No. 466,076. (Cl. 199—7.)



1. In a machine for setting and distributing matrices and for casting lines of type therefrom, the combination of a main frame, three independently movable arms mounted to rotate about a common axis, a composing frame on each arm, a matrix collector through which matrices are supplied to the composing frames, means connecting the arms with each other whereby the movement of one of the arms from setting to casting position, also gives movement to the other arm but through arcs of less extent, means for casting lines of type from the matrices, and means for distributing the type.

2. In a machine for setting and distributing matrices and for casting lines of type therefrom, the combination of a main frame, three independently movable arms mounted to move about a common axis, a composing frame carried by each arm, a matrix collector through which matrices are supplied to the composing frames, means for casting lines of type from the matrices, and connections between the arms whereby the movement of an arm from setting to casting position moves another arm from casting to distributing position, and the third arm from distributing to setting position.

3. In a machine for setting and distributing matrices and for casting lines of type therefrom, the combination of a main frame, a circular guide rim supported by the frame, three independently movable arms mounted to move about a common axis centrally arranged in the annular rim, composing frames carried by the arms, toothed slides mounted in the arms and adapted to move radially therein, teeth carried by the arms and adapted to engage the an-

nular rim, driving mechanism, and teeth carried by the slides adapted to engage the driving mechanism.

4. In a machine for setting and distributing lines of matrices and for casting lines of type therefrom, the combination of a main frame, an annular rim having steps on diametrically opposite sides in the horizontal plane of the axis of the rim, a supporting shaft centrally arranged in the rim, arms mounted to move independently about said shaft, composing frames carried by the arms, slides moving radially in the arms and each carrying a tooth adapted to engage the periphery of the rim and to rest on the steps thereof, driving mechanism for moving the arms, and teeth carried by the slides adapted to engage said driving mechanism.

5. The combination with a matrix collector of a friction ring engaging the matrices near their peripheries, means for rotating this ring rapidly, and metal rollers adapted to press the matrices against the ring.

[Claims 6 to 11 not printed in the Gazette.]

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1,038,446. SHOCK-ABSORBER FOR VEHICLES. CHARLES T. SCHOBN, Media, Pa. Filed Mar. 5, 1912. Serial No. 681,860. (Cl. 21—105.)



1. A shock absorber, comprising essentially a tube and means to connect it with one end of a vehicle spring, a rod freely sliding within said tube and means to connect said rod with the other end of said spring, a collar mounted upon the free end of the tube, and a spiral spring secured to the collar and to the rod connecting means, so that as the vehicle spring yields under load the spiral spring is extended and is compressed by the recoil of the vehicle spring to absorb the shock of the rebound as the load lifts from the vehicle spring.

2. A shock absorber, comprising essentially a tube and means to connect it with one end of a vehicle spring, a rod freely sliding within said tube and means to connect said rod with the other end of said spring, a collar mounted upon the free end of the tube, a swivel nut in said collar and secured to the tube, and a spiral spring secured to the collar and to the rod connecting means, so that as the vehicle spring yields under load the spiral spring is extended and is compressed by the recoil of the vehicle spring to absorb the shock of the rebound as the load lifts from the vehicle spring.

3. A shock absorber, comprising essentially a tube and means to connect it with one end of a vehicle spring, a rod freely sliding within said tube and means to connect said rod with the other end of said spring, a collar mounted upon the free end of the tube, a spiral spring secured to the collar and to the rod connecting means, and a second spiral spring arranged loosely within the first named spiral spring and acting solely by compression, so that as the vehicle spring yields under load the spiral spring is extended and is compressed by the recoil of the vehicle spring to absorb the shock of the rebound as the load lifts from the vehicle spring, the inner spiral spring aiding in such absorption.

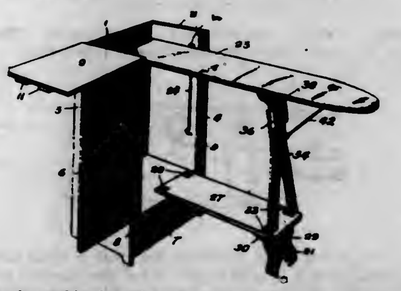
4. A shock absorber, comprising a tube, having a screw-threaded portion at its inner end, a rod fitted to slide in said tube and provided at its outer end with means for connection with the end of a spiral spring, a nut mounted upon the screw-threaded end of said tube, a spring connection loosely mounted upon said tube for engaging the other end of said spiral spring and swiveled to said nut, a spiral spring interposed between and connected to said spring connections, and means for connecting the free ends of said tube and rod with the scroll ends of an elliptic spring.

5. A shock absorber, comprising a tube, having a screwthreaded portion at its inner end, a rod fitted to slide in said tube and provided at its outer end with means for connection with the end coil of a spiral spring, a nut mounted upon the screw-threaded end of said tube, a spring connection loosely mounted upon said tube for engaging the other end of said spiral spring and swiveled to said nut, a spiral spring interposed between and connected to said spring connections, a casing for said spiral spring, and means for connecting the free ends of said tube and rod with the scroll ends of an elliptic spring.

[Claim 6 not printed in the Gazette.]

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1,038,447. COMBINED CUPBOARD AND IRONING-BOARD. ANDREW G. L. SCHWARTZ and JOHN GRIGSS, Pittsburgh, Pa. Filed Feb. 3, 1912. Serial No. 675,273. (Cl. 68—10.)



1. A combined cupboard and ironing board comprising a sectional ironing board adapted to be folded, a foldable bench, a foldable leg carried by said bench, a foldable supporting member carried by said bench, a support adjustably connected to said member, a cleat carried by the under side of said ironing board and adapted to engage said support for maintaining the sections of said ironing board extended, and a cupboard for inclosing said ironing board and said bench when in a folded position.

2. A combined cupboard and ironing board comprising a sectional ironing board adapted to be folded, a foldable bench, a foldable leg carried by said bench, a foldable supporting member carried by said bench, a support adjustably connected to said member, a cleat carried by the under side of said ironing board and adapted to engage said support for maintaining the sections of said ironing board extended, a cupboard for inclosing said ironing board and said bench when in a folded position, and a shiftable lid forming the top of said cupboard and adapted to be shifted and supported by the door of said cupboard to provide a support for clothes.

3. A combined cupboard and ironing board comprising a sectional ironing board adapted to be folded, a foldable bench, a foldable leg carried by said bench, a foldable supporting member carried by said bench, a support adjustably connected to said member, a cleat carried by the under side of said ironing board and adapted to engage said support for maintaining the sections of said ironing board extended, a cupboard for inclosing said ironing board and said bench when in a folded position, a shiftable lid forming the top of said cupboard and adapted to be shifted and supported by the door of said cupboard to provide a support for clothes, means arranged within said cupboard and independent of said bench for retaining said ironing board in a folded form therein, and means carried by said first-named support for bracing the outer section of said ironing board when in an extended position.

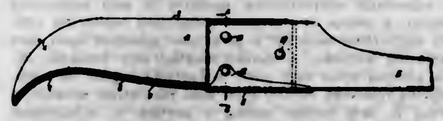
4. In a combined cupboard and ironing board, a structure having an adjustable support upon the inner side of the rear wall thereof, a sectional ironing board hinged to said support and adapted to be extended through the doorway of said structure, a bench connected to said structure and adapted to be extended through the doorway thereof, a supporting member hinged to said bench, a support adjustably connected to said member and adapted to support said ironing board in an extended position, and means carried by said support for bracing the outer end of said ironing board.



5. The combination with a cupboard having a doorway normally closed by a door, of a foldable ironing board having one end thereof adjustably mounted in said cupboard, a foldable bench having one end thereof hinged in said cupboard, a leg carried by one end of the bench, a supporting member carried by one end of the bench, a support adjustably connected to said member for supporting said ironing board in an extended position, and means arranged within said cupboard and independent of said bench for retaining said ironing board folded therein.

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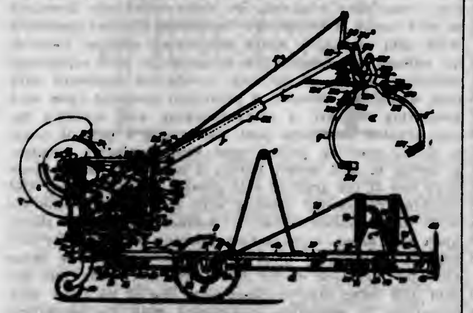
1,038,448. PRUNING-KNIFE. WILSON SCIONEAUX, Lagan, La. Filed Nov. 8, 1911. Serial No. 658,329. (Cl. 30—9.)



A knife of the character described, comprising a handle having a flat end and provided in said end with a kerf extending in the direction of the width of said end, a flat blade having a curved cutting edge and an unreduced heel end, the said heel end being approximately the same width as the handle and fitting in the kerf thereof, a U-shaped shield fitting upon the lower edge of the end of the handle, the shield being of a length greater than the depth of the kerf and having its sides broadened at the forward end, and fastening devices passing through the handle and blade, one of the said fastening devices also passing through the shield.

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1,038,449. GRAIN-SHOCKER. PEARL WILSON SHARP, Bowbells, N. D. Filed Oct. 1, 1908, Serial No. 456,621. Renewed July 23, 1912. Serial No. 711,191. (Cl. 56—121.)



1. The combination of a binding platform, a revoluble bundle receiver, means for conducting bundles from the platform to the receiver, a stacker supported by the receiver and bundle-retaining devices carried by the stacker.

2. The combination of a binding platform, a revoluble bundle receiver, directing mediums associated with the said platform and receiver, a shock forming element supported by the receiver, and movable retaining devices carried by the shock-forming element.

3. The combination of a revoluble bundle receiver, a shock-forming element constituting a portion thereof, releasable retaining devices for the bundles carried by the said element, a shock conveyer movable to and from the shock-forming element, means for opening and closing the conveyer, means for raising and lowering the conveyer, means for moving the conveyer laterally, and devices operated by the movement of the machine for timedly operating said means.

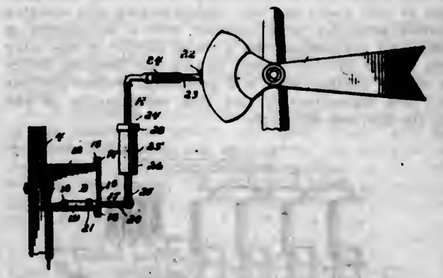
4. In a shocker, the combination of a revolving carriage, a guide arm pivoted thereon, a shifting arm slidable in the guide arm, a shock conveyer having members movable to and from each other, and a trip arm adapted to open and close the said conveyer.

5. In a shocker, the combination of a revolving carriage, a guide arm pivoted thereon, means for raising and lowering the guide arm, a shifting arm slidably mounted in the guide arm, a shock conveyer constructed with pivotally-connected jaws, a slidable trip arm, means connecting the trip arm and conveyer for opening and closing the latter, means for rotating the carriage, and means for imparting end movement to said arms.

[Claims 6 to 12 not printed in the Gazette.]

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1,038,450. SIGNAL. ROY C. SHOWALTER, Altoona, Pa. Filed Nov. 11, 1911. Serial No. 659,788. (Cl. 246—87.)



1. A signaling system comprising a semaphore, a lamp, a switch box having a switch therein, a switch actuating mechanism pivotally connected to said switch, said mechanism comprising a lower member having a cylinder at its free end, an upper member slidable in said cylinder, means carried by said upper member for limiting the movement thereof in said cylinder, and means connecting said upper member with said semaphore whereby said lamp is illuminated when said semaphore has reached the limit of its upward movement.

2. A signaling system comprising a semaphore, a lamp, a switch box having a switch therein, conducting means between said switch box and said lamp, a switch actuating mechanism pivotally connected to said switch, said mechanism comprising a lower member having a cylinder at its free end, an L-shaped upper member having one of its arms slidable in said cylinder, means carried by said upper member for limiting the movement thereof in said cylinder, the other arm of said member being provided with an elongated slot, and means engaging said slot and connected to said semaphore whereby said lamp is illuminated when said semaphore has reached the limit of its upward movement.

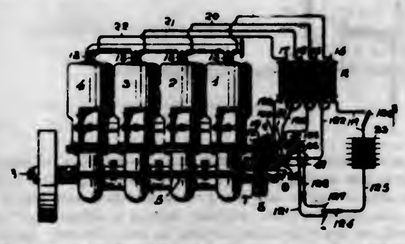
3. A signaling system comprising a semaphore, a lamp, a switch box having a switch therein, conducting means between said switch box and said lamp, a switch actuating mechanism pivotally connected to said switch, said mechanism comprising a lower member having a cylinder at its free end, an L-shaped upper member having one of its arms slidable in said cylinder, the other arm of said member being provided with an elongated slot, means engaging said slot and connected to said semaphore whereby said lamp is illuminated when said semaphore has reached the limit of its upward movement, and means carried by the lower end of said L-shaped member for limiting the movement of said member in said cylinder whereby said switch will be drawn in and out of contact.

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1,038,451. CURRENT DISTRIBUTER AND TIMER. JAMES M. SMITH, Philadelphia, Pa., assignor of one-half to Wilson D. Craig Wright, Philadelphia, Pa. Filed Jan. 18, 1909. Serial No. 472,096. (Cl. 123—167.)

1. A current distributer and timer for a sparking system comprising a casing, an arbor rotatably arranged in said casing, a non-electric insulating element connect-

ed with said casing, a metal supporting member thereon, an adjustable contact-screw mounted in said supporting member, a means of electrical connection connected with said supporting member, a pivot-post mounted upon said insulating element, a contact making and breaking device pivoted upon said post, comprising a pair of arms, a spring-receiving socket upon said insulating element, a spring in said socket having a portion in engagement with one of the arms of said pivoted contact making and breaking device for causing the latter to make contact with said contact-screw, a contact-establishing sleeve upon said arbor, a contact-establishing disk movably and adjustably mounted upon said arbor, said sleeve being provided upon one of the faces with serrations, and the said disk being also provided upon one of its faces with serrations in separable engagement with the serrations of said sleeve for the adjustment of said disk with relation to said sleeve and the contact-making and breaking devices, said disk being provided with a multiplicity of peripheral depressions, and a roller carried by the other arm of said pivoted contact making and breaking device in rolling contact with said peripheral surface-portions and said depressions of said disk, substantially as and for the purposes set forth.



2. A current distributer and timer for a sparking system comprising a casing, an arbor rotatably arranged in said casing, a non-electric insulating element connected with said casing, a metal supporting member thereon, an adjustable contact-screw mounted in said supporting member, a means of electrical connection connected with said supporting member, a pivot-post mounted upon said insulating element, a contact-making and breaking de vice pivoted upon said post, comprising a pair of arms one of which is adapted to make contact with said contact-screw, a contact-establishing sleeve upon said arbor, a contact-establishing disk movably and adjustably mounted upon said arbor, said sleeve being provided upon one of the faces with serrations, and the said disk being also provided upon one of its faces with serrations in separable engagement with the serrations of said sleeve for the adjustment of said disk with relation to said sleeve and the contact making and breaking devices, and means upon the other arm of said pivoted contact making and breaking device in engagement with said contact-establishing disk, all of the said parts being arranged to provide a short-dwell contact, and a second set of contact making and breaking elements upon said arbor and within said casing to produce a long-dwell contact, substantially as and for the purposes set forth.

3. A current distributer and timer for a sparking system comprising a casing, an arbor rotatably arranged in said casing, a non-electric insulating element connected with said casing, a metal supporting member thereon, an adjustable contact-screw mounted in said supporting member, a means of electrical connection connected with said supporting member, a pivot-post mounted upon said insulating element, a contact making and breaking device pivoted upon said post, comprising a pair of arms, one of which is adapted to make contact with said contact-screw, a contact-establishing sleeve upon said arbor, a contact-establishing disk movably and adjustably mounted upon said arbor, said sleeve being provided upon one of the faces with serrations, and the said disk being also provided upon one of its faces with serrations in separable engagement with the serrations of said sleeve for the adjustment of said disk with relation to said sleeve and the contact making and breaking devices, said disk being provided with a multiplicity of peripheral depressions, and a roller carried by the other arm of said pivoted contact making and breaking device in rolling contact with said peripheral surface-portions and said depressions of said disk, all of the said parts being arranged to provide a short-dwell contact, and a second set of contact making and breaking elements upon said arbor and within said casing to produce a long-dwell contact, substantially as and for the purposes set forth.

4. A current distributer and timer for a sparking system comprising a casing, an arbor rotatively arranged in said casing, a non-electric insulating element connected with said casing, a metal supporting member thereon, an adjustable contact-screw mounted in said supporting member, a means of electrical connection connected with said supporting member, a pivot-post mounted upon said insulating element, a contact-making and breaking device pivoted upon said post, comprising a pair of arms, a spring-receiving socket upon said insulating member, a spring in said socket having a portion in engagement with one of the arms of said pivoted contact-making and breaking device for causing said arm to make contact with said contact-screw, a contact-establishing sleeve upon said arbor, a contact-establishing disk movably and adjustably mounted upon said arbor, said sleeve being provided upon one of the faces with serrations, and the said disk being also provided upon one of its faces with serrations in separable engagement with the serrations of said sleeve for the adjustment of said disk with relation to said sleeve and the contact-making and breaking devices, and means upon the other arm of said pivoted contact-making and breaking device in engagement with said contact-establishing disk, all of the said parts being arranged to provide a short-dwell contact and a second set of contact-making and breaking elements upon said arbor and within said casing to produce a long-dwell contact, substantially as and for the purposes set forth.

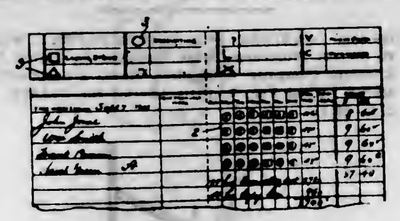
5. A current distributer and timer for a sparking system comprising a casing, an arbor rotatively arranged in said casing, a non-electric insulating element connected with said casing, a metal supporting member thereon, an adjustable contact-screw mounted in said supporting member, a means of electrical connection connected with said supporting member, a pivot-post mounted upon said insulating element, a contact-making and breaking device, pivoted upon said post, comprising a pair of arms, a spring-receiving socket upon said insulating member, a spring in said socket having a portion in engagement with one of the arms of said pivoted contact-making and breaking device for causing said arm to make contact with said contact-screw, a contact-establishing sleeve upon said arbor, a contact-establishing disk movably and adjustably mounted upon said arbor, said sleeve being provided upon one of the faces with serrations, and the said disk being also provided upon one of its faces with serrations in separable engagement with the serrations of said sleeve for the adjustment of said disk with relation to said sleeve and the contact-making and breaking devices, said disk being provided with a multiplicity of peripheral depressions, and a roller carried by the other arm of said pivoted contact-making and breaking device in rolling contact with said peripheral surface-portions and said depressions of said contact-establishing disk, all of the said parts being arranged to provide a short-dwell contact, and a second set of contact-making and breaking elements upon said arbor and within said casing to produce a long-dwell contact, substantially as and for the purposes set forth.

[Claim 6 not printed in the Gazette.]

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1,038,452. TIME-BOOK. JOHN M. SPIKER, Aurora, Ill. Filed Sept. 27, 1907. Serial No. 394,921. (Cl. 11—19.)

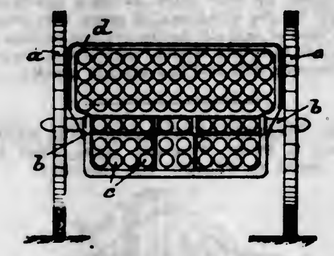
1. A time-book comprising sheets for memoranda, having the sheets ruled for forming spaces, some of the spaces designated to indicate the days of the week, and other spaces to contain the names of parties employed, marginal spaces and symbols arranged in columns along the upper edge of the sheet having rulings leading therefrom for classes of work, said symbols adapted to be placed on the rulings opposite the names of the employees, together with the number of hours employed.



2. A time-book comprising sheets for memoranda, having the sheets ruled for forming spaces, some of the spaces designated to indicate the days of the week, and other spaces to contain the names of parties employed, symbols arranged in columns along the upper edge of the sheet and having rulings leading therefrom for classes of work, said symbols adapted to be placed on the rulings opposite the name of the employee, and beneath the day of the week, together with the number of hours employed.

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1,038,453. AMMUNITION-WAGON. EUGEN STEINHART, Dusseldorf, Germany, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany, a Corporation of Germany. Filed Oct. 4, 1911. Serial No. 652,806. (Cl. 89—40.)



1. In an ammunition wagon having an ammuniation chest, an axle for the carrying wheels of the wagon extending through the chest, such axle being provided with recesses extending transversely thereof to accommodate ammunition.

2. In an ammunition wagon having an axle for the carrying wheels and an ammunition chest through which the axle extends, said chest having openings above and below the axle to accommodate ammunition, and said axle having recesses extending transversely therethrough to accommodate ammunition.

3. In an ammunition wagon having an ammunition chest, an axle for the carrying wheels of the wagon having an I-shaped portion extending through the chest, the web of the I-shaped portion having apertures to accomodate the ammunition.

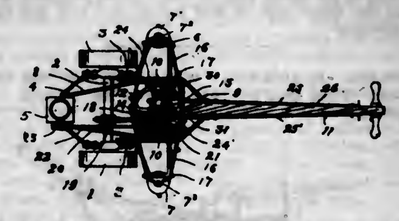
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1,038,454. MOTOR-DRIVEN HAND-CULTIVATOR. SYLVESTER GEORGE STEVENS, Duluth, Minn., assignor of one-half to Abram B. Hostetter, Duluth, Minn. Filed Jan. 20, 1912. Serial No. 672,513. (Cl. 97—51.)

1. A cultivator, comprising a vehicle, a motor carried by the vehicle, cultivating elements carried by the vehicle, means carried by the vehicle for operating the latter either by the motor or by hand and means for operating the vehicle and cultivating element independent of each other.



2. A cultivator comprising a vehicle, a motor carried by the vehicle, means for manually controlling and operating the vehicle independent of the motor, soil cultivating elements supported by the vehicle and operated by the motor and means for operating the soil cultivating elements independent of the operation of the vehicle.



3. A cultivator comprising a vehicle, a motor carried by the vehicle, transverse horizontally operated cultivating elements carried by the vehicle movable thereon and continuously in cultivating position and operated by the motor.

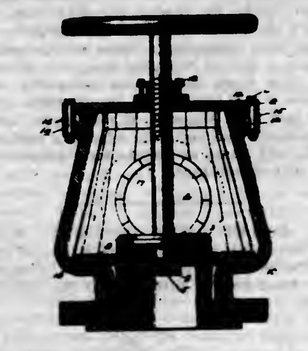
4. A cultivator, comprising a vehicle, a motor carried by the vehicle, an endless belt upon vertical axis and operated horizontally and transversely the track of the vehicle, soil cultivating elements attached to the belt, whereby they engage the soil during their entire travel, and means whereby the cultivating element may be raised and lowered.

5. A cultivator, comprising a vehicle, a motor carried by the vehicle, cultivating elements carried by the vehicle and operated at a different speed to that of the wheels of the vehicle, and means carried by the vehicle for operating the latter by the motor or by hand.

[Claim 6 not printed in the Gazette.]

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1,038,455. VALVE. CYRUS M. STONER, Connellsville, Pa., assignor to Boyts, Porter & Co., Connellsville, Pa., a Partnership. Filed June 6, 1910. Serial No. 565,270. (Cl. 137—4.)



1. In a device of the character described, an upwardly tapering housing provided on the interior of its bottom with an annular recess, an upwardly tapering lining on the inside of the housing, said tapering lining comprising staves, the lower ends of which fit in the recess, and a detachable cover for the housing, said cover having a yielding packing member which bears on the upper ends of the stave and holds same in the recess.

2. In a device of the character described, a housing and a lining therefor comprising a wooden portion and a metallic portion formed with an annular notch accommodating one end of the wooden portion for assisting in holding the latter in place.

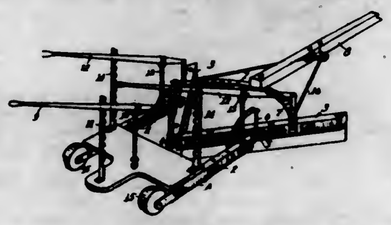
3. In a device of the character described, a housing, a lining therefor, comprising a wooden portion and a lead portion, the lead portion being formed with an annular

notch adapted to accommodate one end of the wood portion for assisting in holding the wood portion in position.

4. In a device of the character described, a housing, a lining therefor provided with a plurality of wooden staves, a cap having a wooden lining formed with a recess for receiving the ends of said wooden staves, and a lead sheathing for lining part of said housing arranged to engage the lower part of said staves, and hold the staves in position.

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1,038,456. ROAD-DRAG. WILLIAM STOOPS, Eau Galle, Wis. Filed Oct. 10, 1910. Serial No. 586,222. (Cl. 37—5.)



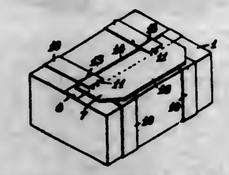
1. A road drag comprising a frame supported to drag at one end upon the ground, a pair of diverging pivotally connected drag bars carried by the drag end of said frame, and means for independently and vertically adjusting said bars with relation to said frame whereby said bars may be lifted from the ground with said frame dragging upon the ground or the drag end of said frame lifted above the ground with said drag bars in contact with the ground.

2. A road drag comprising a frame arranged to drag at one end upon the ground, a pair of diverging pivotally connected drag bars supported by the drag end of said frame, means for vertically adjusting the pivoted ends of said bars and for adjusting the bars with relation to said frame to cause the pivoted ends of said bars and the supporting end of said frame to stand above the ground with the diverging ends of the drag bars upon the ground and independent means for raising the drag bars from the ground with the frame resting upon the ground.

3. A road drag comprising a frame having forwardly extending bars, a pair of diverging drag bars pivotally connected at their inner ends, means adjustably connecting the free ends of said bars, means for adjustably supporting said drag bars upon the ends of said frame bars, means for independently and vertically adjusting said bars with reference to said frame, and means for vertically adjusting the inner ends of said bars.

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1,038,457. TOILET-PAPER PACKAGE. WILLARD E. SWIFT, Worcester, Mass., assignor to United States Envelope Company, Springfield, Mass., a Corporation of Maine. Filed Feb. 7, 1910. Serial No. 542,575. (Cl. 206—57.)

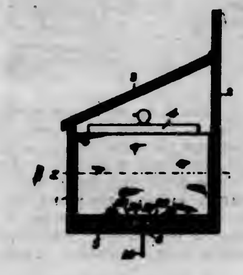


1. A toilet package, comprising interfolded sheets of paper, a strip of stiff material attached at its edge to the edge of one of said interfolded sheets and at the center of one side of the package, and a band inclosing the package having its ends attached to opposite sides of said strip of stiff material.

2. A toilet package, comprising interfolded sheets of paper, a strip of stiff material attached at its edge to the edge of one of said interfolded sheets and at the center of one of the sides of the package, a band inclosing the package having its ends united to the attached edge of said stiff strip, said band having transverse weakened lines adjacent to its attached ends and on opposite sides of said strip of stiff material.

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1,038,458. CABINET FOR TOILET-PAPER. WILLARD E. SWIFT, Worcester, Mass., assignor to United States Envelope Company, Springfield, Mass., a Corporation of Maine. Filed Feb. 7, 1910. Serial No. 542,576. (Cl. 211—29.)

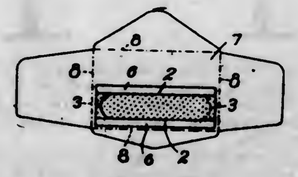


1. A cabinet for toilet paper, having a bottom provided with a slit for the withdrawal of paper, and a series of pairs of balls held in recesses in said bottom on opposite sides of said slit, with the balls in each pair in contact, the balls of each pair being capable of separation to provide for the passage of paper between them.

2. A cabinet for toilet paper, having a bottom provided with a slit for the withdrawal of paper, with recesses on opposite sides of said slit having bottoms inclined toward said slit, and balls held in said recesses, with the adjacent side of opposing balls held in contact by gravity.

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1,038,459. TRANSPARENT PANEL FOR ENVELOPS. WILLARD E. SWIFT, Worcester, Mass. Filed Jan. 24, 1912. Serial No. 673,128. (Cl. 154—46.)



1. As an article of manufacture, a continuous strip of paper having a transparent longitudinal central section, and opaque or semiopaque margins.

2. As an article of manufacture, a continuous strip of paper having a central longitudinal section rendered transparent by the application of an oleaginous material and having a marginal strip on each of its opposite edges untreated by oleaginous material.

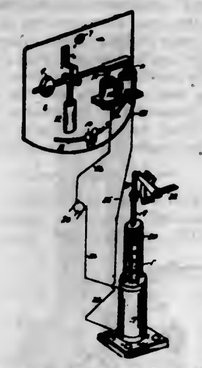
3. As an article of manufacture, a transparent panel for the openings of envelop blanks having its longitudinal central section treated to an application of oleaginous material.

4. A material for the covering of windows of envelop blanks consisting of a continuous strip of paper having a central longitudinal section rendered transparent and having its margins in their natural state.

5. A covering for the windows of envelop blanks, consisting of a strip of paper having a section treated with a foreign material to render it transparent, and having a longitudinal margin untreated.



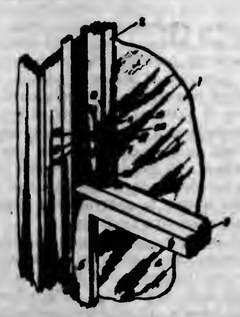
1,038,460. MEANS FOR THE PREVENTION OF RACING OF MARINE ENGINES. FELIX TANNER, Sydney, New South Wales, Australia. Filed June 1, 1911. Serial No. 630,653. (Cl. 121—113.)



Means for preventing racing of marine engines, comprising a plate pivotally mounted for adjustment in the direction of the longitudinal plane of the vessel, a beam pivotally mounted on the plate and adapted to occupy a normal horizontal position in the longitudinal plane of the vessel, the beam being provided at one end thereof with contact means, and at the other end thereof with an axial weighting extension, the beam also having a weighted extension projecting downward from its pivoted connection, relatively fixed contact means mounted on the plate for coöperation with the contact means on the beam, the plate, the beam, and the relatively fixed contact means being assembled as a unit, an electric circuit including the fixed contact means, a throttle valve, and a solenoid included in said circuit and mechanically connected to the throttle valve.

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1,038,461. VENTILATING WINDOW-LOCK. LEANDER H. THOMAS, Bloomington, Ill. Filed May 29, 1911. Serial No. 630,180. (Cl. 16—18.)



1. In a device of the character described, a support having a stop thereon, a lever pivoted to said support adapted to engage said stop, said lever having a portion projecting beyond said support and a depending portion and a second lever adapted to engage said depending portion.

2. In a device of the character described, a support having a stop, a lever pivoted thereto and adapted to engage said stop, said lever having a projecting portion and a depending portion, and a second lever pivoted to said support and adapted to engage said depending portion to lock said first mentioned lever against said stop.

3. In a device of the character described, a support having a stop, a lever pivoted to said support and having one arm projecting beyond said support, said projecting arm having a curved edge adapted to engage said stop, said lever also having a depending arm having an inclined edge, a second lever pivoted to said support having an inclined end portion adapted to engage said inclined edge on said depending arm to lock said first mentioned lever against said stop.

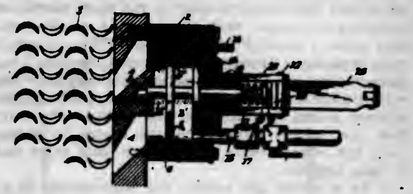
4. In combination with the sashes of a window, of a lever pivoted to one of said sashes having a portion projecting into the path of movement of the other sash and also having a depending portion, a stop with which said lever engages and a lever adapted to engage said depending portion of the said first mentioned lever to lock said lever against said stop.

5. In combination with the sashes of a window, of a support secured to one of said sashes, a stop on said support, a lever pivoted to said support and having a horizontal arm projecting into the path of movement of the other sash and a depending arm, a second lever pivoted to said support adapted to engage said depending arm to lock said first mentioned lever against said stop.

[Claim 6 not printed in the Gazette.]

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1,038,462. VALVE FOR ROTARY GAS-ENGINES. WALLACE S. THOMPSON, Smyrna, Ga. Filed June 1, 1911. Serial No. 630,675. (Cl. 123—9.)



1. In a rotary gas engine, the combination of a main casing having a passage through its wall, a casing carried by said main casing and inclosing a combustion chamber, a valve controlling communication between said combustion chamber through said passage to the inside of said main casing, a disk rigidly connected to the first-named valve and of smaller area than the same, said disk seating against the inner wall of the combustion chamber for the purpose of partly balancing the outward pressure on the valve, means for supplying combustible mixture to said combustion chamber, and means for actuating the valve to open communication between the combustion chamber and the interior of the main casing after the mixture is ignited.

2. In a rotary gas engine, the combination of a main casing having a passage in its wall, a casing mounted on said main casing and adapted to communicate with same through said passages, said second-named casing inclosing a combustion chamber, a valve mounted within said second-named casing to control communication between said combustion chamber and the inside of the main casing through said passage, a stem on which said valve is mounted, said stem passing through the wall of the casing inclosing the combustion chamber, a recess concentric with said stem formed on the inner face of said wall, a disk mounted rigidly upon said stem and seating against the edge of said recess, said disk being of smaller diameter than the inner face of the valve, means for supplying combustible mixture under pressure to said combustion chamber, said mixture under pressure acting in opposite directions on the opposed faces of said valve and disk, and means engaging the outer end of said valve stem to actuate the same after the combustible mixture has been fired to open communication between the combustion chamber and the main casing to allow the burning gases to flow into said main casing.

3. In a rotary gas engine, the combination of a main casing having a passage in its wall, a casing mounted on said main casing and adapted to communicate with same through said passage, said second-named casing inclosing a combustion chamber, a valve mounted within said second-named casing to control communication between said combustion chamber and the inside of the main casing through said passage, a stem on which said valve is mounted, said stem passing through the wall of the

casing inclosing the combustion chamber, a recess concentric with said stem formed on the inner face of said wall, a disk mounted rigidly upon said stem and seating against the edge of said recess, said disk being of smaller diameter than the inner face of the valve means for supplying combustible mixture under pressure to said combustion chamber, said mixture under pressure acting in opposite directions on the opposed faces of said valve and disk, a head on the outer end of said valve stem, a spring between said head and the outside of the second casing to hold said valve and disk to their seats, and means engaging the outer end of said valve stem to actuate the same after the combustible mixture has been fired to open communication between the combustion chamber and the main casing to allow the burning gases to flow into said main casing.

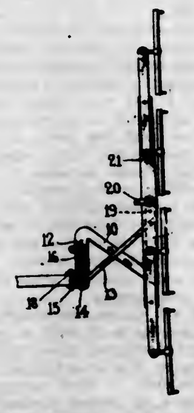
4. In a rotary gas engine, the combination of a main casing having a passage through its wall, a casing inclosing a combustion chamber mounted upon said main casing and adapted to communicate with the inside of the main casing through said passage, a valve mounted upon a reciprocating stem controlling said communication, said stem passing outward through the wall of said combustion chamber, a disk mounted upon said stem and having a seat in a recess formed on the inner serface of said combustion chamber, said disk being of smaller area than said valve, a passage adapted to establish communication with said recess beyond said disk and the interior of the main casing, means for supplying combustible mixture to said combustion chamber under pressure, said combustible mixture acting oppositely on the faces of the valve and disk, and means actuated by the engine to engage the outer end of said valve stem to move said valve and disk to open position.

5. In a rotary gas engine, the combination of a valve casing inclosing a combustion chamber, a main casing upon which said valve casing is mounted, a passage in the wall of said main casing adapted to communicate with the interior of the valve casing, a valve in said valve casing for controlling said communication, a cylindrical disk rigidly mounted to move in unison with the valve, a recess formed inside of the valve casing to receive said cylindrical disk, means for supplying combustible mixture to said combustion chamber, and means connected to said valves and extending through the wall of the valve casing to be operated by the engine to move said valves to open position.

[Claims 6 to 16 not printed in the Gazette.]

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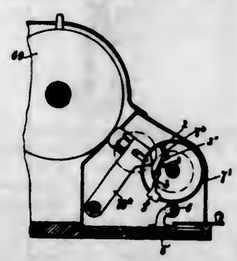
1,038,463. EVENER ATTACHMENT. CARL O. THORSON, Bancroft, Iowa. Filed Oct. 6, 1909. Serial No. 521,215. (Cl. 97—4.)




An evener attachment comprising a rigid frame consisting of spaced parallel limbs and a diagonal connection, one of said limbs being shorter than the other and formed near its free end with an aperture and an elongated opening adapted to respectively register with certain openings of a clevis, a brace extending across the diagonal connection and having one end connected to the free end of the shorter limb and having its other end connected to the longer limb intermediate the ends thereof, a clip connected to the free end of the shorter limb and formed with an opening which registers with the opening of the shorter limb for receiving an attaching bolt, said clip and the adjacent end of the brace being connected to the shorter limb by a common fastening means, and an attaching clevis secured to the free end of the longer limb of the frame.

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1,038,464. CALCULATING-MACHINE. FRANZ TRINKS and CARL SCHALLER, Brunswick, Germany. Filed Jan. 5, 1912. Serial No. 669,623. (Cl. 235—138.)



1. In a calculating machine, the combination with the setting mechanism, the registering mechanism comprising a plurality of numeral wheels, and means to bring said setting mechanism into coöperation with either one of two sets of numeral wheels, of carrying mechanism located intermediate said sets of numeral wheels and comprising a rocking member controlled by the revolution of one numeral wheel and means to transmit carrying operation from said member to the numeral wheel of next higher order, and slide means associated with said member and carrying a device to control the operative and inoperative position of the member.

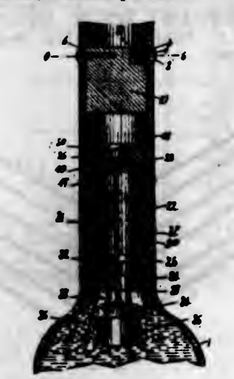
2. In a calculating machine, the combination with the setting mechanism comprising setting disks provided with shiftable teeth and means to shift the desired number of teeth into operative position, the registering mechanism comprising a plurality of numeral wheels, and means to bring said setting mechanism into coöperation with either one of two sets of numeral wheels of carrying mechanism located intermediate said sets of numeral wheels and comprising a rocking member controlled by the revolution of one numeral wheel and means to transmit carrying operation from said member to the numeral wheel of next higher order, and slide means to control said member as to its inoperative and operative position.

3. In a calculating machine, the combination with the setting mechanism, the registering mechanism comprising plurality of numeral wheels, and means to bring said setting mechanism into coöperation with either one of two sets of numeral wheels, of carrying mechanism located intermediate said sets of numeral wheels and comprising a member controlled by the revolution of one numeral wheel, a rocker controlled by said member, means to transmit carrying operation from said rocker to the numeral wheel of next higher order, and slide means to move said member out of operative position relatively to the rocker.

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1,038,465. STOPPER FOR BOTTLES. WILLIAM J. WARNER and ALBERT FEILER, New York, N. Y. Filed Apr. 1, 1912. Serial No. 687,587. (Cl. 215—15.)

1. In a device of the character described, the combination with a bottle formed with a neck, of a valve structure positioned in said neck, said valve structure comprising spaced partitions acting with part of said neck for defining a measuring chamber, a valve seat provided in each of said partitions, a valve for each of said seats, a pair of telescopically connected rods flexibly connected at their ends to said valves whereby said valves may act normally independently but acting on each other when the bottle is in a substantially vertical position.



2. In a device of the character described, the combination with a bottle formed with a neck, of a valve structure positioned in said neck, said valve structure comprising spaced partitions, a valve seat arranged in each of said partitions, a valve co-acting with each of said valve seats, flexible means for connecting said valves, and a loosely positioned guiding sleeve for guiding one of said valves to its seat, said sleeve being formed with an annular depression or groove portion adapted to engage the edge of the valve seat with which it co-acts for holding the valve which it guides from its seat until said bottle is substantially in a vertical position.

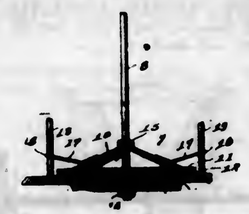
3. In a device of the character described, the combination with a bottle formed with a neck, of a guard arranged in said neck near the outer end thereof, said guard having a passageway extending therethrough, and a combined valve and measuring device arranged in said neck between said guard and the interior of said bottle, said device comprising spaced partitions which define a measuring chamber when taken with part of said neck, a sleeve arranged in each of said partitions and defining a passageway therethrough, a pair of connected bars for connecting said sleeves, each of said bars being formed with a stop, a valve for each of said sleeves adapted to close the same at different times, a pair of rods connected to said valves and flexibly connected together whereby each of said valves are permitted an independent longitudinal movement, and a perforated guiding sleeve positioned in one of said first mentioned sleeves and adapted to engage and guide one of said valves to its seat on one of said first mentioned sleeves, said perforated sleeve engaging said stop and supported thereby for holding the same in position for continuously acting as a guide for said first mentioned valve.

4. In a device of the character described, the combination with a bottle formed with a neck, of a valve structure positioned in said neck, the said valve structure comprising spaced partitions, a valve seat arranged in each of said partitions, a valve co-acting with each of said valve seats, and a rod connected with each of said valves, the said rod comprising a pair of independent sections, one of which has a loop at the end encircling the other section, said last-mentioned section having a pair of loops encircling said first-mentioned section whereby said sections have telescoping movement in respect to each other in order to permit one valve to close before the other valve opens.

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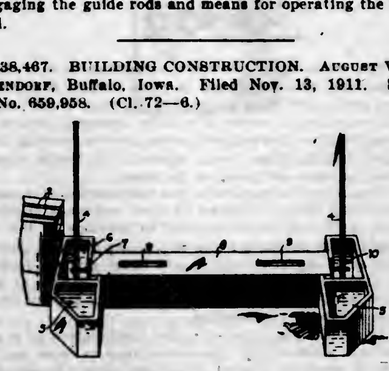
1,038,466. SPRINKLING-POT VALVE. THOMAS E. WASHBURN, Coalinga, Cal. Filed Dec. 31, 1910. Serial No. 600,824. (Cl. 137—21.)

A sprinkling pot having an outlet opening and spaced guide rods located near said opening, a valve rod having its lower end threaded, a valve plug mounted upon said lower end, a flexible member mounted on said lower end and against said plug, a metallic disk engaging the lower side of the plug, a metallic disk engaging the flexible member, a nut threaded against the first metallic disk, a conical member mounted on said rod and bearing at its larger end against the second metallic disk, a nut threaded on said valve rod against the smaller end of said conical member to clamp the flexible member against the valve plug, angular arms secured at their inner ends to the conical member and having bifurcated outer ends slidably engaging the guide rods and means for operating the valve rod.



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1,038,467. BUILDING CONSTRUCTION. AUGUST WESTENDORF, Buffalo, Iowa. Filed Nov. 13, 1911. Serial No. 659,958. (Cl. 72—6.)



1. In a building composed of blocks laid in courses, the courses being interrupted to form a doorway, reinforcing means for holding said blocks in alinement, vertically extending rods, hollow base side blocks positioned about the base of said vertically extending rods, said blocks being provided with an off-set portion, an elongated hollow sill block having its ends seated in the off-set portion of said base side blocks, and means passing through said hollow sill block and engaging said vertically extending rods for holding said rods together and also holding said side blocks in engagement with the ends of said sill block.

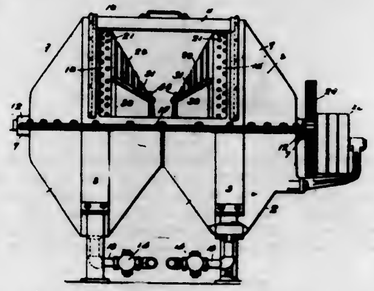
2. In a building composed of blocks laid in courses, the courses being interrupted to form a doorway, reinforcing means for holding said blocks in alinement, vertically extending rods, a series of hollow side blocks positioned around said vertically extending rods and constituting a door jamb, each of said blocks being provided with an off-set portion for forming an abutting flange for the door adapted to be supported thereby, each of said blocks being provided upon one side with a vertically extending opening for facilitating the placing of said block around said vertically extending rods, a sill block positioned between two of the lower of said blocks, and means for tying said rods and blocks in engagement with said sill block.

3. A door sill and jamb comprising a plurality of side blocks having openings formed therein, vertically extending rods, said side blocks placed around said rods, a hollow sill block comprising an elongated body and having apertures formed therein, said hollow sill block being provided with a partition extending longitudinally thereof for constituting a plurality of compartments, said partition having apertures formed therein, and said sill block being adapted to receive cement for forming a substantially solid body, and means passing through each of said

compartments formed in said sill block and engaging said vertically extending rods for tying said rods, said blocks, and sill block together whereby a substantially solid structure may be produced.

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1,038,468. DRY-CLEANING APPARATUS. EDWARD Y. WHITE, San Antonio, Tex. Filed Oct. 22, 1909. Serial No. 523,985. (Cl. 8—8.)



1. In a cleansing apparatus, the combination of a casing substantially diamond-shaped in cross section, a similarly shaped perforated drum mounted in bearings in the casing, said drum having a series of annular draining grooves on the outer surface thereof, said outer grooves forming inner annular rubbing ridges, and a plurality of blades or paddles on the inner periphery of the drum.

2. In a cleansing apparatus, the combination of a casing substantially diamond shaped in cross section, a similarly shaped perforated drum mounted in bearings in the casing, said drum having a series of annular draining grooves on the outer surface thereof, said outer grooves forming inner annular rubbing ridges, and annular flanges at both ends of the drum to prevent the cleansing material from gaining access to the bearings.

3. In a cleansing apparatus, the combination of a pair of castings substantially diamond-shaped in cross section, a pair of similarly shaped perforated drums mounted in bearings in the casings, said drums having series of annular draining grooves on the outer surfaces thereof, said outer grooves forming inner annular rubbing ridges, and said drums being connected to rotate together in such a manner that the operations of cleaning and rinsing fabrics may be simultaneously and continuously carried on.

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1,038,469. SHORTENING-MIXER. PETER S. WOOD, Burton, Wash. Filed Mar. 16, 1912. Serial No. 684,244. (Cl. 107—53.)



1. The herein described shortening mixer comprising a pair of handled disks provided with projections on their opposing sides.

2. The herein described shortening mixer comprising a pair of handled disks having projections on their opposing sides, each disk being also provided at one side with a straight edge.

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1,038,470. PORTABLE FENCE. ELBERT J. WOODFORD, Candor, N. Y. Filed Feb. 17, 1912. Serial No. 678,381. (Cl. 39—109.)



A fence comprising a plurality of sections, each section consisting of a pair of posts having their upper and lower ends formed with perforations for receiving the threaded ends of upper and lower rods respectively, eye members connected to one of said rods, a hook member connected to one end of the upper rod, a similar member connected to the lower rod and having its free end adapted to resiliently engage the end of the rod to which it is connected, means for adjusting the posts longitudinally upon the rods, and means for holding the same in their adjusted positions, said sections being adapted to be connected when the hook members of one section engage the eye members of the adjoining section.

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1,038,471. SPLICE-BAR. WALTER C. WORKMAN, Londonville, Ohio. Filed Mar. 30, 1912. Serial No. 687,464. (Cl. 173—262.)

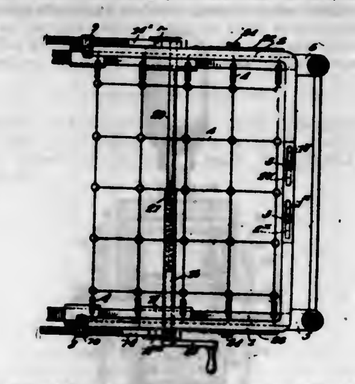


A rail bond device of the class described comprising a web engaging portion having a wide longitudinally extending groove portion upon its inner face and near the lower edge thereof, an auxiliary groove portion extending longitudinally of said web engaging portion, and near the upper edge thereof for constituting a rail bond receiving pocket, the edges of said auxiliary groove being sharpened to form longitudinally extending biting ribs, the upper edge of said web engaging portion adapted to fit snugly under the tread of a rail for forming a seal against the entrance of moisture into said bond retaining pocket, and said bond retaining pocket adapted to firmly hold the bond therein against wear or against severance thereof.

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1,038,472. ADJUSTABLE BED. DAVID B. ALLEN, Newport, R. I. Filed May 8, 1912. Serial No. 695,862. (Cl. 5—43.)

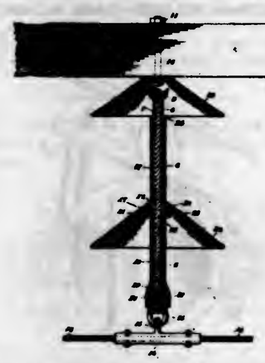
In an attachment for beds, a U-shaped frame, adjustable plates adapted to be secured to the sides of the bed, the ends of the U-shaped frame being pivotally secured to said plate, a segment secured to the U-shaped frame on each side thereof, a second pair of adjustable plates adapted to be secured to the sides of the bed, a shaft rotatably disposed in said second pair of plates, a gear at each end of said shaft arranged to engage its respective segment, a link pivoted to each of the sides of the bed, a link pivoted to each of the sides of the U-shaped frame, each of said links being provided with a slot, and set



screws arranged to pass through the slots of adjacent links for clamping the links together.

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1,038,473. INSULATOR. JULIUS ALSBERG, New York, N. Y. Original application filed Nov. 18, 1908, Serial No. 463,285. Divided and this application filed Dec. 18, 1911. Serial No. 666,392. (Cl. 173—318.)



1. An insulator comprising an insulating element, and protecting means therefor comprising a series of tubular protecting sections surrounding said insulating member, and a separate protecting hood secured to each tubular protecting section, substantially as specified.

2. An insulator comprising an insulating element, and protecting means therefor comprising a series of flexibly-connected tubular protecting sections surrounding said insulating element, and a separate protecting hood secured to each of said tubular protecting sections adjacent to the adjoining ends of said tubular sections, substantially as specified.

3. An insulator comprising a flexible insulating element, and protecting means therefor comprising a series of flexibly-connected tubular protecting sections surrounding said insulating element, and a separate protecting hood secured to each of said tubular protecting sections adjacent to the adjoining ends of said tubular sections, substantially as specified.

4. An insulator comprising an insulating element, and protecting means therefor comprising a series of tubular protecting sections provided at their lower ends with socket portions adapted to receive the ends of adjoining tubular sections, and separate protecting hoods supported upon said socket portions and secured to said tubular protecting sections, substantially as specified.

5. An insulator comprising a flexible insulating element, and protecting means therefor comprising a series of tubular protecting sections provided at their lower ends with socket portions adapted to receive the upper end of an adjoining tubular section, and separate protecting hoods supported upon said socket portions and secured to said tubular sections, substantially as specified.

[Claims 6 and 7 not printed in the Gazette.]

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1,038,474. BAG-HOLDER. ARTHUR D. BACK, Juneau, Alaska. Filed Mar. 5, 1912. Serial No. 681,676. (Cl. 211—2.)



A bag holder comprising a base, back, front, and side-bars, a shield or follower loosely and slidably mounted on two of the side-bars, and a spring secured to the back and slidably connected with the shield or follower.

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1,038,475. PROCESS OF MAKING INSOLUBLE BODIES DERIVED FROM PHENOL ALCOHOLS. LEO H. BAEKELAND, Yonkers, N. Y., assignor to General Bakelite Company, New York, N. Y., a Corporation of New York. Original application filed Oct. 4, 1909, Serial No. 520,850. Divided and this application filed July 6, 1911. Serial No. 637,085. (Cl. 106—22.)

1. The process of transforming phenol-alcohols or their anhydrids into hard, coherent infusible bodies, which consists in reacting thereon with formaldehyde or bodies capable of engendering formaldehyde.

2. The process of transforming phenol-alcohols or their anhydrids into hard, coherent infusible bodies, which consists in reacting thereon in presence of condensing agents with formaldehyde or bodies capable of engendering formaldehyde.

3. The process of transforming phenol-alcohols or their anhydrids into hard, coherent infusible bodies, which consists in reacting thereon with formaldehyde or bodies capable of engendering formaldehyde, under the action of heat and pressure.

4. The process of transforming phenol-alcohols or their anhydrids into hard, coherent infusible bodies, which consists in reacting thereon in presence of condensing agents with formaldehyde or bodies capable of engendering formaldehyde, under the action of heat and pressure.

5. The process of transforming phenol-alcohols or their anhydrids into hard, coherent bodies, which consists in incorporating therewith formaldehyde or bodies capable of engendering formaldehyde and suitable filling materials, and hardening the mass.

[Claims 6 to 33 not printed in the Gazette.]

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1,038,476. BOTTLE-CLOSING DEVICE. FRANZ BAGAR, Vienna, Austria-Hungary, assignor to Josef Inwald Glass Co., New York, N. Y. Filed Dec. 16, 1911. Serial No. 666,100. (Cl. 113—5.)

1. In a bottle-closing machine, a hollow spindle, a tool head rigidly mounted on said spindle, said tool head having a series of eyes symmetrically disposed about said

head and at an angle to the longitudinal axis of the spindle, a series of oscillating spindles, one mounted in each of said eyes, a rotatable jaw mounted on the end of each of said oscillating spindles, means normally pressing said oscillating spindles toward the axis of said hollow spindle, and means carried by said hollow spindle for forcing said oscillating spindles outward.



2. In a bottle-closing machine, a hollow spindle, a tool head rigidly mounted on said spindle, said tool head having a series of eyes symmetrically disposed about said head and at an angle to the longitudidnal axis of the spindle, a series of oscillating spindles, one mounted in each of said eyes, a rotatable jaw mounted on the end of each of said oscillating spindles, means normally pressing said oscillating spindles toward the axis of said hollow spindle, means carried by said hollow spindle for forcing said oscillating spindles outward, and means for rotating said hollow spindle.

3. In a bottle closing machine, a rod, a disk carried by the lower end of said rod, a hollow spindle encircling said rod above said disk, a tool head carried by said spindle, a series of rotatable jaws normally bearing on said disk, spindles carried by said head and having said jaws rotatably mounted upon the lower end thereof, and resilient means for maintaining said jaws in contact with said disk.

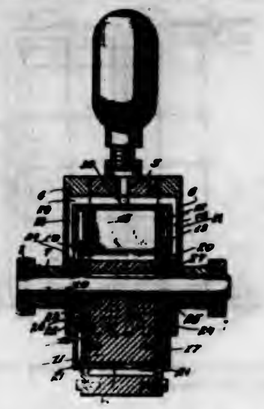
4. In a bottle-closing machine, a rod, a disk carried by the lower end of said rod, a hollow spindle encircling said rod above said disk, a tool head carried by said spindle, a series of rotatable jaws normally bearing on said disk, spindles carried by said head and having said jaws rotatably mounted upon the lower end thereof, resilient means for maintaining said jaws in contact with said disk, and means rotating said tool head on said rod.

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1,038,477. ROTARY PUMP. DEXTER C. BAKER and HARVEY F. HANSEN, San Jose, Cal. Filed Mar. 12, 1912. Serial No. 683,391. (Cl. 103—44.)

1. In a pump, a cylinder having a chamber therein, a rotary piston mounted in said chamber and having sliding blades and inner air or liquid chambers to supply the blades with liquid or air pressure at their inner ends, center chambers at opposite ends of the piston valve disks held against rotation in the center chambers and having lower openings to establish communication between the air or liquid chambers of the piston and said center chambers as the piston rotates, and air or liquid supply ducts leading from said center chambers, and having outlet into the discharge line.

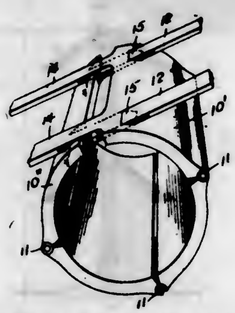
2. In a rotary pump, the combination of a cylinder, having a piston chamber, a rotary piston mounted in said chamber and formed with radial slots having air or liquid chambers at their inner terminals, center chambers at opposite ends of the piston, valve disks held against rotation in the center chambers and provided with lower openings to establish communication between the latter chambers and the air or liquid chambers of the piston, a shaft extending through the piston and valve disks, inlet and outlet means communicating with opposite portions of the lower portion of the piston chamber, and ducts and an air



chamber in continual communication with the center chambers and the inner portion of the discharge means and piston chamber.

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1,038,478. BAND-BRAKE. GEORGE M. BAKER, Bath, N. Y. Filed Sept. 13, 1911. Serial No. 649,053. (Cl. 188—33.)



A brake made up of a series of sections hinged together, one of said sections having recesses formed in the circumference thereof and extending through its free edge, integral bars projecting from said recessed section and beneath the recesses therein, the section at the other end of the series provided with holes to receive said integral bars, and bars projecting from said section having holes therein and extending through and guided in said recesses, as set forth.

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1,038,479. NUT-LOCK. HENRI BART, Paris, France. Filed Sept. 12, 1910. Serial No. 581,526. (Cl. 151—14.)



A nut lock comprising a nut and a threaded bolt having a plane surface disposed at an angle of approximately



forty-five degrees to the axis of the bolt, and a threaded bolt section having two approximately equal surfaces disposed on parallel planes and at an angle of approximately forty-five degrees to the axis of the bolt and fitted into the nut into contact with the first said plane surface.

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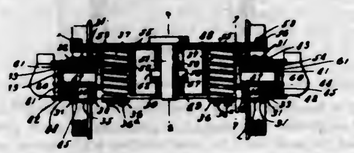
1,038,480. WATER-PURIFIER. EMIL BEROMANN, Los Angeles, Cal., assignor to August J. Gulck, Los Angeles, Cal. Filed Dec. 26, 1911. Serial No. 667,826. (Cl. 210—12.)



In a water purifier, in combination with a water receptacle, a funnel, a tube leading downward from said funnel, a T on said tube, plugs in said T, branch tubes leading upward from said tube, a ring on said branch tubes and connected therewith, and perforations in said ring.

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1,038,481. CAR-TRUCK. HENRY W. BLAKE, Ball Ground, Ga. Filed Aug. 24, 1911. Serial No. 645,750. (Cl. 105—243.)



1. A car truck comprising side frames, a transom, a bolster, all of said elements being removably connected together, and a king-bolt adapted to control the disconnection of all of the elements.

2. A car truck comprising side frames, a transom, a bolster, said side frames and said transom being removably connected together, and a king-bolt adapted, in normal position, to lock said frames and transom against disconnection.

3. A car truck comprising side frames, a transom, a bolster, all of said elements being removably connected together, and a king-bolt adapted, in normal position, to lock all of said elements against disconnection, an axial movement of the bolt in a direction to remove it rendering the elements free to be disconnected.

4. In a car truck, a pair of interfitting elements, a key engaging the elements to hold the same together, and a king-pin engaging the key for locking the same in position.

5. In a car truck, a transom, a bolster fitting in the transom, a key engaging through the transom and the bolster for holding the same together, and a king-pin mounted in the transom and the bolster and passing through the key to lock the same in position, said king-pin being held in position by gravity.

[Claims 6 to 40 not printed in the Gazette.]

1,038,482. PIPE-THREADING DIE. BRADFORD BORDEN, Toronto, Ontario, Canada, assignor to The Borden Company, Warren, Ohio, a Corporation of Ohio. Filed Mar. 23, 1910. Serial No. 551,138. (Cl. 10—111.)



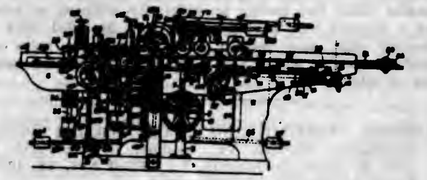
1. A die formed with a cutting face having a series of threads in its throat, and a series of main cutting threads, the roots or base lines of the threads of the two series being on different planes, and the main threads stepped up from the throat threads.

2. A die formed with a cutting face having a series of threads in its throat whose base line is on a plane substantially parallel with the axis of the die, and a series of main threads whose base line and points are on different planes from the base line and points of the first mentioned threads.

3. A die formed with a cutting face having a series of threads in its throat whose base line is on a plane substantially parallel with the axis of the die, and a series of main threads whose base line and points are at acute angles to the first mentioned threads.

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1,038,483. FEED AND PRESSURE MECHANISM FOR WOODWORKING-MACHINES. CHARLES W. BORG, Moline, Ill. Original application filed Sept. 7, 1906, Serial No. 333,707. Divided and this application filed Jan. 23, 1907. Serial No. 353,664. (Cl. 144—242.)

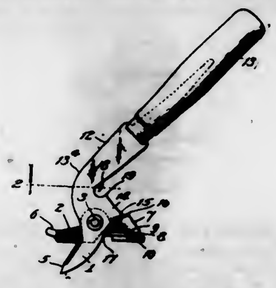


1. In a wood-working machine, in combination, a feed-chain adapted to move wholly without the path of travel of a blank and having removable blank-driving members projecting into said path and power-driven feed-rolls adapted to engage a blank simultaneously with the blank-driving members or to feed the blank when the blank-driving members are removed from the chain.

2. In a wood-working machine, in combination, a feed table adapted to receive long pieces of stock, power-driven feed-rolls, a power-driven feed-chain mounted without the path of travel of the work and having removable members adapted to feed short blanks in coöperation with the feed-rolls, and means for disconnecting the chain-driving mechanism when the removable members are detached, to permit the unobstructed feed of long stock by the feed-rolls only.

3. In a wood working machine, in combination, a power driven feed chain having removable blank feeding members, the feed chain being mounted without the path of travel of the work, and an upwardly yieldable presser-roll mechanism adjustable to serve either as a mere presser device on account of the presentation of a smooth roll surface for engagement with a blank, or as a combined feed and presser device on account of the presentation of a corrugated roll surface for engagement with a blank.

1,038,484. KNIFE-SHARPENER. JAMES H. BOYE, Chicago, Ill., assignor to The Boye Needle Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 21, 1912. Serial No. 679,196. (Cl. 76—86.)



1. An implement of the character set forth, comprising a pair of pivotally-connected blades, having extremities adapted to rest on a table, said blades having heels provided with knife-sharpening edges, which form an angle with each other when the blades are open, one of said blades having means enabling the implement to be grasped and held while the extremities of its blades rest on the table.

2. An implement of the character set forth, comprising a handle-equipped blade, having an extremity adapted to serve as a support, and having a heel provided with a knife-sharpening edge, and a handle-less blade pivoted to said first-named blade and having an extremity adapted to serve as a support, and having also a heel provided with a sharpening edge co-acting with said first-named sharpening edge, said sharpening edges crossing each other at an angle when the blades are in open condition.

3. An implement of the character set forth, comprising a handle-equipped blade having an extremity adapted to serve as a support, and having also a heel provided with a beveled edge, a handle-less blade pivoted to said first-named blade and having an extremity adapted to serve as a support and having also a heel provided with a beveled edge, said beveled edges adapted to serve as knife-sharpening edges, and means for limiting the opening of said blades.

1,038,485. SELF-LOCKING SEAL. WILLIAM ALONZO BRAMBERRY, Norfolk, Va., assignor of one-fourth to Leon M. Jones, Portsmouth, Va. Filed Nov. 18, 1911. Serial No. 661,114. (Cl. 70—99.)



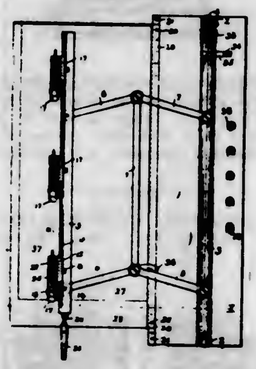
1. A locking seal comprising a blank strip constructed at one end to provide a box, one wall of said box having a projecting portion thereof interlocked with another wall of the box to secure the box structure, and to provide a guard; and the opposite end of said blank constructed with an engaging device, and slotted to permit of insertion of said device in the box past the guard thereof, substantially as described.

2. A locking seal comprising a blank strip constructed to provide a box, one wall of said box having a tongue struck therefrom, said tongue passing through and engaging with the opposite wall to secure the box atructure, and to provide a guard; and the opposite end of said blank constructed with an engaging device, and slotted to permit of insertion of said device in the box past the guard thereof, substantially as described.

3. A locking seal comprising a blank strip constructed to provide a closed box, one end of the strip beat to provide a catch within said box, one wall of the box having a tongue struck therefrom, said tongue passing through a slot in said catch and a slot in the opposite wall and engaging with said wall to secure the box structure, and to provide a guard; the opposite end of said blank constructed with a member for engaging with the catch, and slotted to permit of insertion of said member in the box past the guard, substantially as described.

4. A locking seal comprising a blank strip constructed to provide a closed box; one end of the strip slotted and bent to provide a catch within said box; one wall of the box having a tongue struck therefrom, and the wall opposite perforated; said tongue passing through the slotted catch and said perforation and beaded to engage with the perforated wall to secure the box structure, and to provide a guard; and the opposite end of said blank constructed with a hook for engaging with said catch, and slotted to permit of insertion of said hook in the box past the guard, substantially as described.

1,038,486. MULTIPLE-WRITING MACHINE. JOHN S. BRAND, Fairhaven, Mass., assignor, by direct and mesne assignments, of one-third to F. Amos Johnson, South Orange, N. J., and one-third to William E. Brand, Boston, Mass. Filed Mar. 13, 1909. Serial No. 483,124. (Cl. 33—6.)



1. In a machine of the class described, a pen-bar mounted for universal movement; a plurality of pens pivotally attached to said bar; in combination with means carried by the pen-bar, independent of said pivotal attachment, for holding said pens near their bottom ends.

2. In a machine of the class described, a pen-bar mounted for universal movement; a plurality of pens pivotally attached to said bar, in combination with independent means carried by the pen-bar for securing said pens near their bottom ends—said independent securing means holding said pens to move laterally with said pen-bar but permitting a slight transverse movement.

3. In a machine of the class described, a pen-bar; means for attaching a pen thereto, comprising a pivotal attachment and an independent inclosing or encircling member which is adapted to hold said pen near its bottom end.

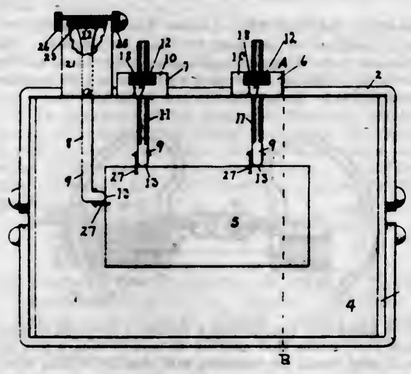
4. In a machine of the class described, a pen-bar mounted for universal movement; a plurality of pens; intermediate parts between said pens and said bar which are adjustable on said bar—each of said pens being pivotally attached to one of said adjustable parts; and independent connections from said adjustable parts—each of said connections being provided with an elongated slot which is adapted to inclose one of the pens near its lower or bottom end.

5. In a machine of the class described, a pen-bar mounted for universal movement; a plurality of pens; intermediate parts between said pens and said bar, which are adjustable on said bar—each of said pens having an encircling band which is pivotally attached to one of said adjustable parts; guides for said pens near their writing points, each of which guides is secured to one of the adjustable parts and is provided with an elongated slot adapted to inclose one of the pens; and springs for normally holding said pens to one end of said slots.

[Claims 6 to 8 not printed in the Gazette.]



1,038,487. FEED-GUIDE FOR PRINTING-PRESSES. WILLIAM F. BREWER and ABRAHAM KNOBEL, Louisville, Ky. Filed Jan. 9, 1911. Serial No. 601,576. (Cl. 101—22.)



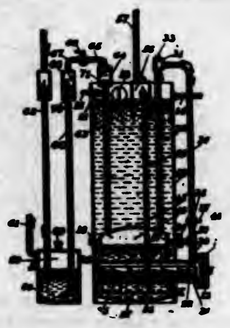
In a guide for printing presses, a clip, said clip being provided with a thin, flat leg adapted to be inserted between the platen and the bail of a printing press, for the purpose of securing the guide to the press, said clip being perforated to receive the guide bar, a threaded guide bar of polygonal cross section adjustably mounted in the perforation of said clip, a threaded adjusting and fixing element mounted in said clip in operative relation to said bar, said clip being formed of springy material and at such an angle that when inserted between the tympan and the bail it yieldingly presses the nose of said guide bar upon the tympan, cramps said leg so that it holds tightly between the tympan and the bail, and cramps said adjusting and fixing element to prevent its spinning and working loose in said clip.

1,038,488. OIL-CUP. FRANK S. BROWN, Baltimore, Md. Filed Mar. 26, 1912. Serial No. 686,306. (Cl. 184—88.)



A device of the character described, comprising a cup having a threaded upper portion and a notch in its upper edge, a threaded cap, having an open slot at one side, adapted to engage the upper end of said cup, and a spring pin, having one end secured within the cap and whose free end normally lies out of contact with the top wall of said slot, adapted for engagement with said notch in said cap, extended in alinement with said slot in said cap and beyond the periphery thereof, whereby it can be moved vertically in said slot to release it from said notch.

1,038,489. ACETYLENE-GENERATOR. CYRILLE DELCAMPE, Bridgeport, Conn. Filed Feb. 16, 1912. Serial No. 677,946. (Cl. 48—81.)



1. Apparatus for generating acetylene gas comprising a water tank provided with water supply means and an overflow outlet, a stationary gas storage bell arranged within said tank and wholly below the level of the overflow outlet, a generating chamber arranged within said bell and sealed from direct communication therewith, valved conduit means connecting said bell and generating chamber and means for conducting gas from said bell to a place of use.

2. Apparatus for generating acetylene gas comprising a water tank provided with water supply means and an overflow outlet, a stationary gas storage bell arranged within said tank below the level of the overflow outlet, a generating chamber extending transversely through said bell and tank and sealed from direct communication therewith, valved piping connecting one end of said generating chamber with the upper part of said bell, overflow water supply means connecting said bell with said generating chamber, and piping leading from said bell to a place of gas consumption.

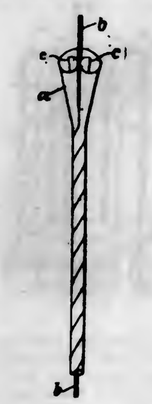
3. Apparatus for generating acetylene gas comprising a water tank, automatic feed means for maintaining water in said tank at a substantially constant normal level, a stationary gas storage bell arranged to be wholly submerged within said tank, a gas generating chamber, means for feeding water from the interior of said bell to said generating chamber when the water reaches a predetermined level in said bell, the height of such water feeding means above the lower edges of said bell being a minor fraction of the height of the normal water level in said tank above such edges, means for conveying gas from said generating chamber to said bell at a point above such water feeding means, and means for conveying gas from said bell to a place of use.

4. Apparatus for generating acetylene gas, comprising a relatively tall water tank having an overflow outlet arranged in its upper portion, means controlled by the liquid level in the tank for supplying water to said tank, a gas storage bell located within and near the base of said tank, the height of said bell being small as compared to that of said tank, a gas generating chamber connected to said storage bell, and means for conveying gas under pressure from said bell to a place of use.

5. Apparatus for generating acetylene gas, comprising a water tank having an overflow outlet adjacent its upper edge, means controlled by a float valve for supplying water to said tank, a gas storage bell arranged in said tank with its lower edges adjacent the tank bottom, the height of said bell being a minor fraction of the height of said tank, a gas generating chamber, an overflow feed for supplying water from the interior of said bell to said generating chamber, a conduit connecting said generating chamber with the upper part of said bell, and a conduit for conveying gas under pressure from said bell to a place of use.

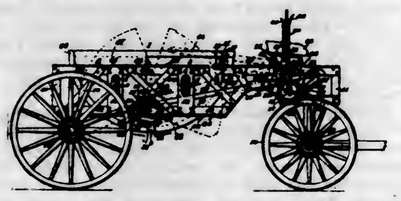
[Claims 6 and 7 not printed in the Gazette.]

1,038,490. TWINE. JOHN DYMOCK, Stockport, England. Original application filed Oct. 7, 1909, Serial No. 521,538. Divided and this application filed Aug. 22, 1911. Serial No. 645,450. (Cl. 28—5.)



As a new article of manufacture, twine consisting of a textile fiber core and a paper ribbon curled around the said core with edges longitudinally opposite each other turned inwardly.

1,038,491. DUMPING-WAGON. HENRY L. HAZEN, Fort Lee, N. J. Filed June 2, 1911. Serial No. 630,847. (Cl. 21—20.)



1. A dumping wagon having a body formed of sections adapted to close together, pivots supporting said sections near the centers of gravity thereof, a link connected with one of said sections so as to exert a thrust above the pivots thereof, a link connected to the other section below the pivotal axis thereof, means for actuating said links simultaneously to rotate said sections in opposite directions, a latch mechanism for locking said sections together, and means actuated by a pair of said links for releasing said latch mechanism.

2. A dumping wagon having a body formed of sections adapted to close together, a rock shaft, means for actuating said sections from said rock shaft, a lever for actuating said rock shaft, means for positively locking said lever to said rock shaft in a plurality of different positions enabling said lever to rotate said shaft in either direction and a quadrant for holding said lever fixed.

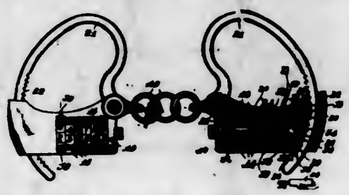
3. A dumping wagon having a body having sections adapted to close together and open apart, a rock shaft, means for actuating said sections from said rock shaft, a lever for operating said rock shaft, means for positively locking said lever to said rock shaft in a plurality of different positions, enabling said lever to rotate the same in either direction, means for adjustably locking said lever to hold said rock shaft in different fixed positions and a brake device for holding said rock shaft against rotation when said lever is released therefrom.

4. A dumping wagon having side frames of built up girder form, bearing brackets carried by the said side frames, and a wagon body formed of sections having trunnions supported on said bearing brackets, said sections having overlapping side plates.

5. A dumping wagon having side frames comprising upper stringers and lower stringers, vertical plates connecting said stringers, means for connecting said stringers at other points, a body formed of sections mounted between said side frames, said sections having overlapping side plates, said sections having trunnions, and means for supporting said trunnions on said vertical plates.

[Claim 6 not printed in the Gazette.]

1,038,492. HANDCUFF. JOSEPH LOEBY, San Quentin, Cal., assignor of one-half to Leonard Mordaunt, Los Angeles, Cal. Original application filed June 7, 1910, Serial No. 565,482. Divided and this application filed June 4, 1912. Serial No. 701,616. (Cl. 70—24.)



1. A hand-cuff comprising a frame, a shackle therefor, means for locking said shackle to said frame, a pin slidable in said frame for releasing said shackle locking means, combination tumblers carried by said pin, and anti-friction rollers carried by said pin and adapted to be engaged by said tumblers to prevent said pin releasing said shackle-locking means.

2. A hand-cuff comprising a frame, a shackle therefor, bolts for automatically locking said shackle to said frame, a pin for releasing said bolts, anti-friction rollers carried by said pin, and rotatable tumblers adapted to engage said rollers to prevent said pin releasing said bolts.

3. A hand-cuff comprising a frame, a shackle therefor, automatically acting bolts for locking said shackle to the frame, dogs carried by said frame, a pin slidably mounted in said frame for actuating said dogs to release said bolts, and combination means controlling the operation of said pin.

4. A hand-cuff comprising a frame, a shackle therefor, bolts for automatically locking said shackles to said frame, dogs pivotally mounted in said frame, means for causing said dogs to release said bolts, and combination tumblers controlling the operation of said means.

1,038,493. APPARATUS FOR MAKING SANITARY NAPKINS. MARTIN H. MARCUS, Yonkers, N. Y., assignor to Johnson & Johnson, New Brunswick, N. J., a Corporation of New Jersey. Filed Apr. 28, 1910. Serial No. 558,218. (Cl. 223—15.)



1. In an apparatus for making sanitary napkins, the combination with devices for reducing two strips of material to different widths, conveying rolls and chutes for delivering the narrow strip upon the wider strip, and means for folding the sides of the wider strip over the narrow strip, substantially as set forth.

2. In an apparatus for making sanitary napkins, the combination with devices for reducing two strips of material to different widths, conveying rolls and chutes for delivering the narrower strip upon the wider strip, means for folding the sides of the wider strip over the narrower strip and the sides over each other, and a cutter and actuating mechanism for automatically cutting the folded strips into desired lengths, substantially as set forth.

3. In an apparatus for making sanitary napkins, the combination with devices for reducing two strips to different widths, conveying rolls and chutes for delivering the narrower strip upon the wider strip, means for folding the sides of the wider strip over the narrower strip and the sides over each other, a cutter and actuating mechanism for automatically severing the folded strip into desired lengths, of conveying rolls, guides and folders for automatically folding a third strip over said folded strip sections, substantially as set forth.

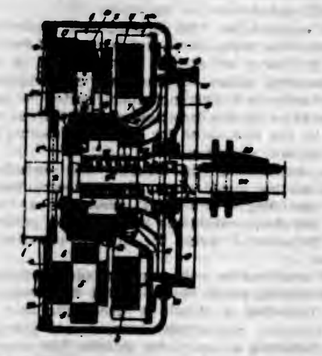
4. In apparatus of the character described, the combination with means for inclosing the cotton batting strip within another, of means for inclosing said cotton batting strips within a fabric strip, severing means for said strips, and common driving mechanism for all of said means.

5. In apparatus of the character described, the combination of means for inclosing one cotton batting strip within another, means for inclosing said cotton batting strips within a fabric strip, severing means, driving mechanism common to all of said means, and means for timing the severing means.

[Claims 6 to 8 not printed in the Gazette.]



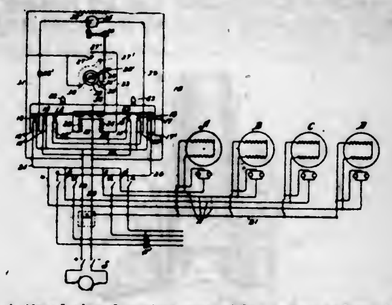
1,038,494. DYNAMO-ELECTRIC MACHINE. LEWIS W. NELSON, Philadelphia, Pa. Original application filed May 16, 1910, Serial No. 561,546. Divided and this application filed Nov. 15, 1910. Serial No. 592,488. (Cl. 171—252.)



The combination in a dynamo electric machine of a closed casing; a field yoke mounted on one end of said casing within the same; a shaft extending through the casing; a series of pole pieces mounted on the yoke and projecting in lines parallel to the shaft; field windings mounted on said pole pieces; a cylindrical structure fixed to the shaft in position to be inclosed by the pole pieces and their windings; said cylinder having a flange at one end; a commutator mounted on the cylinder; an armature disk fixed to said cylinder and having a portion cooperating with said flange thereof to retain the commutator in place; and an armature with its core carried by said disk and having an air gap lying in a radial plane of the shaft between itself and the pole pieces.

1,038,495. BOILER-TIMING DEVICE. FRANK W. WOOD, New York, N. Y. Filed Nov. 7, 1911. Serial No. 659,025. (Cl. 161—1.)

1. In a timing device for electric circuits, a plurality of switches included in the circuits, a relay for alternately closing and opening the circuits in separate groups, a pair of stationary contacts in circuit with one side of the relay, a pair of movable contacts adjustable toward and from the stationary contacts and in circuit with the opposite side of the relay, a closing arm movable between the pairs of contacts to alternately close the same and operate the relay, a reversible motor for actuating the closing arm, and a motor circuit controlled by the relay for reversing the motor.



2. A timed signal system comprising a transmitter having fixed and movable contacts and a swinging arm for alternate engagement with the contacts, means upon the transmitter for adjusting the movable contacts toward and from the fixed contacts, a motor associated with the transmitter to swing the arm, switches controllable by the fixed and movable contacts to reverse the motor, and separate groups of electric circuits associated with the switches whereby the groups of circuits are alternately opened and closed.

3. A timed signal system comprising a transmitter having spaced circuit closing devices, means for varying the space separating said devices, a swinging arm for alternate engagement with the said devices, a motor for moving said arm, switches controllable by the circuit closing devices to reverse the motor, and separate electric circuits associated with said switches whereby said switches are alternately opened and closed.

4. An electric timing device comprising a source of power, a motor driven from the source of power, groups of electric circuits, a relay arranged in circuit with the source of power and the motor for reversing the motor and alternately closing the groups of circuits, spaced pairs of contacts associated with the relay to operate the same and effect the reversing of the motor, one pair of contacts being movable with respect to the opposite pair, and closing means actuated by the motor adapted for alternate engagement with the contacts.

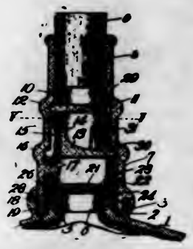
5. In an electric timing device, a source of power, a motor driven from the source of power, groups of electric circuits, a pole changing relay arranged in circuit with the source of power and the motor whereby the latter is reversed and being associated with the groups of circuits to alternately close the same, a movable arm having operative connection with the motor to swing the arm, fixed contacts arranged in the path of the arm, adjustable contacts arranged in the path of the arm and adapted for movement toward and from the fixed contacts, said contacts being in circuit with the opposite sides of said relay, and means for adjusting said movable contacts.

[Claims 6 to 12 not printed in the Gazette.]

1,038,496. NON-REFILLABLE BOTTLE. JAMES T. DEMPSEY, Kansas City, Kans., assignor of one-half to W. H. Daniels, Kansas City, Kans. Filed Sept. 14, 1910. Serial No. 582,072. (Cl. 215—69.)

A non-refillable bottle, comprising a body having a short neck at its upper end provided with a circular groove, a long neck fitting and cemented in the circular groove and provided with an annular external flange resting upon and cemented to the neck at the outer side of the groove, a ring secured rigidly in the neck and projecting above the same and forming a valve seat, a valve normally engaging the seat, a spring hinge connecting the valve with the neck and holding the former seated with a yielding pressure, the long neck having a pair of downwardly disposed internal annular shoulders and a baffle project-

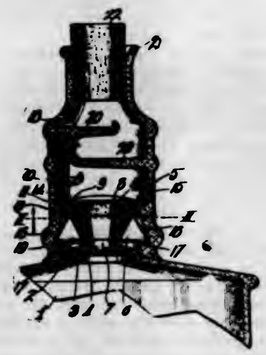
ing inwardly between the undermost shoulder and the valve in the vertical plane of the hinged side of the latter, a baffle cemented to the undermost internal shoulder of the long neck and provided with an opening in the vertical plane of the first-named baffle and extending upwardly in said shoulder around said opening and provided



with a stud projecting upwardly to the plane of the top of said extension, a baffle cemented to the other internal shoulder of the long neck and provided with an opening out of alinement with the opening of the baffle secured to the other shoulder, and a removable cork fitting in the long neck at its upper end.

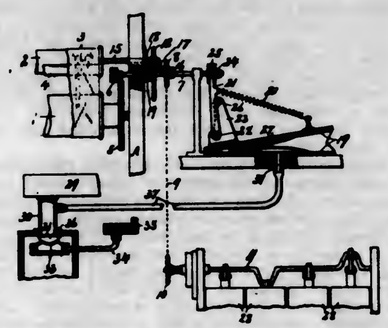
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1,038,497. NON-REFILLABLE BOTTLE. JAMES T. DEMPSEY, Kansas City, Kans., assignor of one-half to W. H. Daniels, Kansas City, Kans. Filed Oct. 11, 1910. Serial No. 586,552. (Cl. 215—103.)



A nonrefillable bottle comprising a body having a short neck, of reduced diameter between its ends to provide an annular external groove and a downwardly facing shoulder at the upper side of said groove, a long neck fitting upon and forming a rigid extension for the short neck and provided internally with an annular groove in the horizontal plane of the groove of the short neck and provided above the latter with baffle-plates and above the baffle-plates with a removable cork, an inverted frustum-shaped valve seat ring fitting in the short neck, a collar fitting around and cemented to the upper end of the short neck and engaging the inner side of the long neck with a liquid tight joint, spring detents secured to the collar and extending downwardly and outwardly therefrom into the groove of the long neck to prevent disconnection thereof with the short neck, a valve overlying the short neck and provided with a portion depending into and engaging the seat ring, and a spring hinge secured to the collar and the valve and normally holding the latter in liquid tight engagement with the seat ring of the short neck.

1,038,498. SELF-PLAYING MUSICAL INSTRUMENT. LEWIS B. DOMAN, Elbridge, N. Y. Filed Mar. 13, 1906. Serial No. 305,764. (Cl. 84—166.)



1. In a self-playing musical instrument a music sheet, actuating mechanism including a clutch, an actuating member connected to the clutch, a pneumatic yieldingly connected to said member to actuate the same, and means for controlling the action of said pneumatic.

2. In combination with winding and rewinding rollers for a traveling music sheet, a driving mechanism for said rollers including an axially moving shaft, a pneumatic and operating means therefor and connections between the pneumatic and shaft including a spring for moving the shaft endwise in one direction.

3. In combination with winding and rewinding rollers for a traveling music sheet, a driving mechanism for said rollers including an axially moving shaft, a pneumatic and operating means therefor and connections between the pneumatic and shaft including a spring for moving the shaft endwise in one direction, and additional means actuated by the pneumatic for positively moving the shaft in the opposite direction.

4. In combination with winding and rewinding rollers for a traveling music sheet, driving mechanism for said rollers including a clutch, a pneumatic and operating means therefor, connections between said pneumatic and clutch including a spring for shifting the clutch in one direction.

5. In combination with winding and rewinding rollers for a traveling music sheet, driving mechanism for said rollers including a clutch, a pneumatic and operating means therefor, connections between said pneumatic and clutch including a spring for shifting the clutch in one direction, and additional means actuated by the pneumatic for positively shifting the clutch in the opposite direction.

[Claims 6 and 7 not printed in the Gazette.]

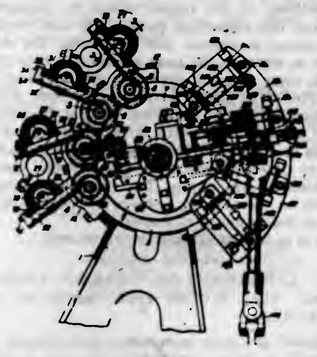
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1,038,499. BOBBIN-TURNING MACHINE. WILLIAM C. FARNUM, Fitchburg, Mass., assignor to U. S. Bobbin & Shuttle Company, Providence, R. I., a Corporation of New Jersey. Filed Mar. 29, 1911. Serial No. 617,669. (Cl. 142—4.)

1. In an automatic bobbin turning machine, the combination of a series of bobbin blank holding and rotating devices arranged in an arc, a corresponding series of gouges disposed in a similar arc, means for causing each of the gouges to act upon a bobbin blank a plurality of times to successively remove portions of the blank, and a back knife mounted to swing in an arc corresponding to that of the blank holding and rotating devices to enable said back knife to be positioned for action upon any one of the blanks after it has been rough turned by its gouge.

2. In an automobile turning machine, the combination of a series of blank holding and rotating devices, a series of bearings fixed to the machine frame and arranged to support said holding and rotating devices in a fixed circular arc, a corresponding series of gouge beds extending longitudinally of the blanks held by said devices and arranged in an arc concentric with that of the holding and rotating devices, gouges supported on and by said gouge beds, and means for causing each of said gouges to traverse longitudinally of its supporting bed a plurality of times to successively remove concentric portions of the blank and complete the roughing operation thereon, and a back knife movable into position opposite a blank after it is rough turned to finish the same.





3. In an automatic bobbin turning machine, the combination of a series of head and tail stock spindles arranged in a circular arc, a corresponding series of gouge beds and gouges to act upon the bobbin blanks held by said series of spindles, means for driving the spindles, means for traversing the gouges longitudinally of the blanks held by said spindles, and a back knife arranged to swing about a center coincident with the center of the series of spindles to present the back knife to any one of the blanks carried by said spindles.

4. In an automatic bobbin turning machine, the combination of a series of head and tail stock spindles arranged in a circular arc, a corresponding series of gouge beds and gouges to act upon bobbin blanks held by said series of spindles, means for driving the spindles, means for traversing the gouges longitudinally of the blanks held by said spindles, a back knife arranged to swing about a center coincident with the center of the series of spindles to present the back knife to any one of the blanks carried by said spindles, and means for swinging the back knife to a position opposite any one of the blanks.

5. In an automatic turning machine, the combination of a series of blank holding and rotating devices arranged in a circular arc, a corresponding series of gouges arranged in an arc concentric to that of said devices, means for causing the gouges to traverse longitudinally of the blanks a plurality of times that each gouge may complete the roughing operation on its opposed blank, and a finishing knife movable into positions successively opposite each blank to finish the same after it is rough turned.

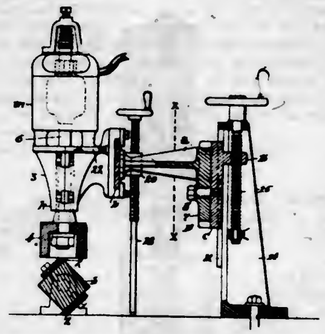
[Claims 6 to 41 not printed in the Gazette.]

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1,038,500. PORTABLE GRINDING DEVICE FOR SHARPENING KNIVES OF JOINTING OR PLANING MACHINES. HUGH B. FOLEY and JEREMIAH F. TRACEY, Cleveland, Ohio, assignors, by direct and mesne assignments, to The Foley-Wardwell Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 9, 1911. Serial No. 653,546. (Cl. 51—7.)

1. A device for sharpening planer blades comprising an upright support and an arm adjustable vertically thereon having a track-bar on its outer end, in combination with a substantially right angled head horizontally slidable on said bar and a rotatable shaft vertically through said head having a grinder fixed on its lower end.

2. A device to sharpen planer blades comprising a frame adapted to be fixed on the planer bed plate and comprising a horizontally disposed bar, an arm supporting the same at its middle adjustable to different elevations in respect to said plate, and independent means adjustably supporting the ends of said bar and adapted to level the same in respect to said bed plate, in combination with a grinder for said blades and a supporting head therefor adapted to be moved back and forth horizontally on said bar.



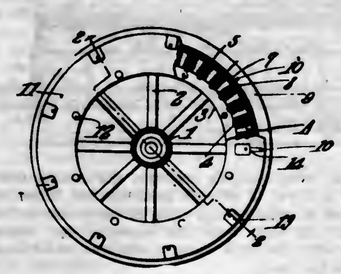
3. A sharpening device for planer blades comprising a horizontally disposed guide and supporting bar, an arm supporting said bar and means adjustably supporting the said arm as to elevation, in combination with a substantially right angled head slidable horizontally on said bar, a shaft vertically through said head and a motor on the upper end thereof and a grinder on the lower end.

4. A planer having a base and blades thereon, in combination with a grinder supporting mechanism comprising a standard fixed on said base and an arm vertically adjustable on said standard and a cross-bar fixed on said arm, independent standards adjustably supporting the ends of said cross-bar and a grinder and a head carrying the same horizontally slidable on said bar.

5. The attachment described comprising a fixed standard and a carrier adjustable vertically thereon, a bracket pivotally and adjustably mounted on said carrier and adjusting standards adapted to support the outer portion of said bracket, a guide-bar fixed on said bracket, a head slidable horizontally on said guide-bar, a power driven shaft having its bearing in said head and a grinder supported next beneath said head.

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1,038,501. WHEEL. WILLIAM HALLINAN, Greenville, Ky. Filed Aug. 30, 1911. Serial No. 646,873. (Cl. 152—8.)



In a wheel, a felly; a yieldable band surrounding the felly; a tire carried by the band; rigid side plates secured to the felly and provided with radial slots; lugs on the tire mounted to slide in the slots; closures for the slots pivoted to the side plates and provided with recesses receiving the lugs slidably, the lugs engaging in the recesses to prevent pivotal movement of the closures and a consequent uncovering of the slots; and springs abutting against the band and against the felly, the springs being

engaged throughout their entire lengths by the side plates to prevent a buckling of the springs and to prevent a consequent withdrawal of the lugs from the recesses.

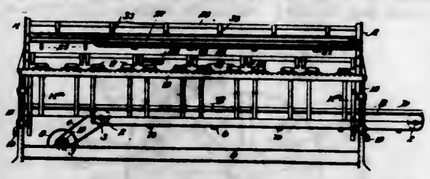
1,038,502. DOOR-HANGER. JAMES T. MCCABE, New York, N. Y. Filed Oct. 27, 1909. Serial No. 524,985. (Cl. 16—91.)



1. In a door hanger, the combination of a stationary track having a grooved upper face and a longitudinal slot in the base of such groove, of a rider bar having a grooved face and a longitudinal slot in the base of such groove, balls contained within the grooves in the track and rider bar, and a flat ball retaining spacing plate, having its upper and lower edges contained in the slots in the track and rider bar respectively, the plate having ears struck up thereon from its opposite sides to serve as ball retainers.

2. In a door hanger, a track composed of a strip of metal bent longitudinally upon itself to form a web of double thickness, the tops of the metal comprising the web being bent outwardly to form inclined flanges, a V-shaped reinforcing flange member laid on the flange thus formed and secured by the inturned edges of the flange member, whereby a longitudinal groove is provided in the base of the track in the flange and between the inturned edges.

1,038,503. MACHINE FOR CHARGING AND DISCHARGING OVENS. GEORGE SMITH, Richmond, Va. Filed Nov. 29, 1911. Serial No. 663,089. (Cl. 107—57.)



1. In an oven charging machine, the combination of a frame, a conveyer to advance pans into the frame, elevating devices movable up and down in the frame and adapted to lift the pans from the conveyer, and means engageable with the pans when so elevated to advance the same into the oven.

2. In an oven charging machine, the combination of a frame adapted to be placed in front of the oven, a conveyer traveling in the machine and adapted to convey pans within the same, elevating means at opposite sides of the conveyer and provided with devices engageable with opposite edges of the pans to lift the same, and means to advance the pans when so lifted into the oven.

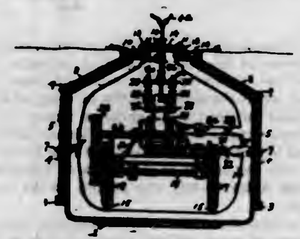
3. In an oven charging machine, the combination of a frame adapted to be placed in front of an oven, a horizontally traveling conveyer movable in the frame and adapted to advance a row of pans into the same, elevating devices movable up and down at opposite sides of the conveyer and engageable with the pans to lift the same, and a charging device movable transversely across the frame and engageable with the pans when so elevated and adapted to advance the same into the oven.

4. In an oven charging device, the combination of a frame, a conveyer movable in the frame and provided with a series of devices engageable with pans in succession and adapted to advance the same to a certain position respectively in the frame, means to disengage said devices from the respective pans when they reach such position, means to elevate the pans from the conveyer, and means to advance the pans so elevated into the oven.

5. In an oven charging machine, the combination of a frame adapted to be placed in front of an oven, a conveyer movable horizontally in the lower part of the frame and adapted to advance a pan into the same, elevating devices movable up and down in the former and engageable with said pan to lift the same from the elevator, and means movable transversely across the frame and engageable with a pan so elevated to advance the same out of the front of the frame and into the oven.

[Claims 6 to 22 not printed in the Gazette.]

1,038,504. LURE-CONVEYER. OWEN P. SMITH, Houston, Tex. Filed Feb. 26, 1912. Serial No. 680,057. (Cl. 104—111.)



1. A device of the character described composed of a track and a tunnel inclosing the same, a conveyer arranged to move on said track, a motive mechanism for said conveyer, a flexible support carried by the conveyer and projecting through a lengthwise passageway along the upper side of the tunnel, rotatable bearings carried by the support and operating against the sides of said passageway and a lure mounted upon the upper end of said support and moving lengthwise of the tunnel and above the same.

2. A device of the character described composed of a tunnel and a track in the bottom thereof, a conveyer arranged to move on said track, a motive mechanism for said conveyer, a suitable brake mechanism provided therefor for the purpose of regulating the movement thereof, a support yieldably secured to the conveyer and having lateral movement relative thereto and projecting through a lengthwise passageway along the upper side of the tunnel anti-friction members carried by the support and operating against the sides of the passageway and a lure mounted upon the upper end of said support.

3. A device of the character described, composed of a tunnel having a lengthwise passageway along the upper side thereof, a track in the bottom of said tunnel, a conveyer arranged to move on said track, a motive mechanism for said conveyer, a suitable brake mechanism provided for the purpose of regulating the movement thereof, a support yieldably secured to the conveyer and having lateral movement relative thereto and projecting through the lengthwise passageway of the tunnel, suitable bearing members carried by said support and operating against the sides of the passageway, a platform carried by the upper end of said support and a lure secured to said platform.

4. In a device of the character described, a conveyer comprising a frame work and carrier wheels, upon which the frame work is mounted, a motive mechanism operatively connected with the carrier wheels, a yieldable support upstanding from the frame work, laterally extending arms on each side of said support and resilient members interposed between the free ends of said arms, a platform carried by the upper ends of said support and a lure secured on said platform.

5. A device of the character described, including a tunnel and a track located therein, a conveyer arranged to move on said track, a motive mechanism for said conveyer, a support hinged to the conveyer and laterally movable relative thereto and projecting through a lengthwise passageway along the upper side of the tunnel and a lure mounted upon said support.



1,038,505. ROLL FOR PAPER-SURFACE-FINISHING MACHINES. JAMES SPEED, Mittineague, Mass., assignor to Mittineague Paper Company, Mittineague, Mass., a Corporation of Massachusetts. Filed Apr. 5, 1911. Serial No. 619,005. (Cl. 92—68.)



1. A metallic roll for surface finishing paper having a longitudinal channel within the periphery thereof, a surface finishing covering of sheet material for enveloping the roll having one edge portion entering said channel at one side thereof and secured therein, a bar extending lengthwise of the roll having its outer surface curved correspondingly to the circumference of the roll having a width approximately the same as the mouth of the channel, the other edge portion of said sheet material overlapping the curved exterior of said bar and extended partially around such bar, and means for connecting such edge portion of the sheet material to an internal portion of the said bar.

2. A metallic roll for surface finishing paper having a longitudinal channel within the periphery thereof, a surface finishing covering of sheet material for enveloping the roll having one edge portion thereof entered within said channel at one side thereof, and secured therein, a bar extending lengthwise of the roll having its outer surface curved correspondingly to the circumference of the roll having a width approximately the same as the mouth of the channel and fulcrumed at a corner thereof at the junction of the periphery of the roll and one side wall of the channel, a device for hinge connecting the bar and roll located internally of the roll, said bar being exteriorly overlapped by the other edge portion of the sheet covering material, and means for connecting such edge portion of the sheet material to an internal portion of the said bar.

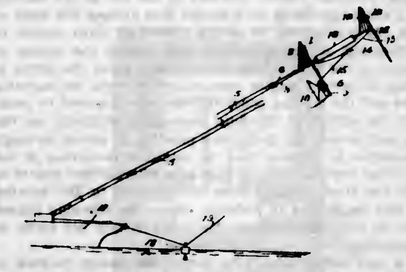
3. A roll for surface finishing paper having a longitudinal channel within the periphery thereof, a bar fulcrumed at its corner at the junction of the periphery of the roll and one side wall of the channel and an internally located hinge connecting the roll and bar, a winding shaft carried by the bar, a surface finishing covering of sheet material for enveloping the roll and the outer surface of the bar having one edge portion thereof extended within the channel at one side of the latter and secured therein, having its other edge portion extending across the edge of the bar opposite its fulcrum point and connected with the winding shaft, and means for confining the latter against rotative movement.

4. A metallic roll for surface finishing paper having a longitudinal channel within the periphery thereof, a bar extending lengthwise of the roll having its outer surface curved corresponding to the circumference of the roll and having a width approximately the same as the mouth of the channel, a covering of sheet material having one edge portion thereof entered within the channel at one side thereof and secured therein, said sheet material enveloping the roll and the outer surface of the bar and having its other edge portion extending across the edge of the bar which is adjacent the first named secured edge, and means for tensioning and confining the latter named edge portion of the covering sheet in relation to the bar.

5. A roll for the purpose described having a longitudinal channel within its periphery, a bar having a curved outer surface corresponding to the circumference of the roll and jointed to the roll body so as to swing from a center of movement coincident with one of its corners and the corner constituted by the junction of the periphery of the roll and at one side wall of said channel, a swinging shaft carried at an internal part of the bar and normally within said channel having an end thereof extending beyond the end of the bar provided with means whereby it may be rotated, and means for confining said shaft against rotative movement.

[Claims 6 to 10 not printed in the Gazette.]

1,038,506. APPARATUS FOR AERIAL SIGNALING AND SIMILAR PURPOSES. WILLIAM G. SPIEGEL, New York, N. Y. Filed Sept. 8, 1911. Serial No. 648,330. (Cl. 178—319.)



2. The combination of a kite, a set of antennæ for wireless telegraphing suspended therefrom, and conductors extending from each end of the antennæ to the earth, said conductors also serving as cords for operating the kite.

2. The combination of two kites arranged in tandem, a set of antennæ for wireless telegraphing stretched between the kites, and conductors extending from each end of the antennæ to the earth, said conductors also serving as cords for operating the kites.

3. The combination of a kite, a parachute attachment thereto, a set of antennæ for wireless telegraphing suspended from the kite, a conductor connected to one end of the antennæ and to the kite, and a second conductor connected to the other end of the antennæ and to the parachute, whereby the kite and parachute may be operated from the ground, and an electric circuit is established through the antennæ to the ground.

4. The combination of two kites arranged in tandem, a set of antennæ for wireless telegraphing stretched between the kites, a parachute attachment for each kite, conductors extending from each end of the antennæ to the ground, and also connected to the kites and parachute to serve as means for operating them.

5. The combination of a kite, a parachute attachment thereto, an electric signaling device carried by the kite, a conductor electrically connected to one pole of the signaling device and mechanically connected to the kite, and a second conductor electrically connected to the other pole of the signaling device and mechanically connected to the parachute.

[Claims 6 to 8 not printed in the Gazette.]

1,038,507. ELASTICALLY-CONNECTED SURFACES FOR INSURING THE STABILITY OF AIRSHIPS, AEROPLANES, AND SUBMARINE BOATS. GAETANO ARTURO CROCCO and OTTAVIO RICALDONI, Rome, Italy. Filed Mar. 27, 1909. Serial No. 486,123. (Cl. 244—39.)

1. A self acting steadying device for bodies moving in a fluid, as dirigible airships, aeroplanes, self propelling

torpedoes, submarine and submergible boats and the like, comprising: movable planes provided at the tail of the moving body; shafts carrying said planes and around the axes of which the planes can be swung, placed at right angles to the direction of the movement and behind the center of pressure of the fluid acting on the plane, when the latter is moving obliquely, and elastic connections between the movable planes and the moving body conveniently disposed to counteract the action of the fluid impinging obliquely on the plane and to stop the latter in a position in which its angle of deviation is greater than the angle of deviation of the axis of the moving body, for the purposes set forth in the specification.

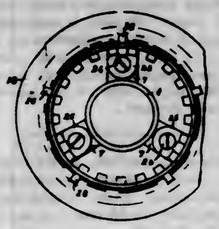


2. A self acting steadying device for bodies moving in a fluid, as dirigible airships, aeroplanes, self-propelling torpedoes, submarine and submergible boats and the like, comprising: movable planes provided at the tail of the moving body; shafts carrying said planes and around the axes of which the planes can be swung placed at right angles to the direction of the movement and behind the center of pressure of the fluid acting on the plane when the latter is moving obliquely; elastic connections between the movable planes and the moving body conveniently disposed to counteract the action of the fluid impinging obliquely on the plane and to stop the latter in a position in which its angle of deviation is greater than the angle of deviation of the axis of the moving body; and means whereby the points to which the elastic connections are secured to the moving body can be shifted in order to cause the movable planes to act as ordinary rudders, for the purposes set forth in the specification.

3. A self acting steadying device for bodies moving in a fluid as dirigible airships, self-propelling torpedoes, submarine and submergible boats and the like, comprising: movable planes provided outside the hull of the moving body; shafts carrying said planes and around the axes of which the planes can be swung, placed at right angles to the direction of the movement and behind the center of pressure of the fluid acting on the plane, when the latter is moving obliquely; extensions of said shafts projecting inside the hull of the moving body, and elastic connections placed also inside the hull and operating on members fastened to said extensions of the supporting shafts, and conveniently disposed to counteract the action of the fluid impinging obliquely on the plane and to stop the latter in a position in which its angle of deviation is greater than the angle of deviation of the axis of the moving body, for the purposes set forth in the specification.

4. A self acting steadying device for bodies moving in a fluid as dirigible airships, self-propelling torpedoes, submarine and submergible boats and the like, comprising: movable planes provided outside the hull of the moving body; shafts carrying said planes and around the axes of which the planes can be swung, placed at right angles to the direction of the movement and behind the center of pressure of the fluid acting on the plane, when the latter is moving obliquely; extensions of said shafts projecting inside the hull of the moving body; elastic connections placed also inside the hull between members fastened to said extensions and points of the hull and conveniently disposed to counteract the action of the fluid impinging obliquely on the plane and to stop the latter in a position in which its angle of deviation is greater than the angle of deviation of the axis of the moving body; and means whereby the points to which the elastic connections are secured to the moving body can be shifted so that the steadying planes may also act as a horizontal rudder for varying the longitudinal inclination of the boat and thus also the depth of navigation, for the purposes set forth in the specification.

**1,038,506. SLEET-CUTTING TROLLEY. DELBERT R. BARTON, Milwaukee, Wis.; James H. Spence administrator of said Delbert R. Barton, deceased. Filed Oct. 4, 1909. Serial No. 520,973. (Cl. 191—38.)**



1. A sleet cutting trolley, comprising a supporting harp, a hub removably secured thereto, and provided with radially extending arms, a rim flange connected with said arms, a ring having one margin removably secured to one face of said flange and having a radially extending flange on its other margin, said flanges and ring being arranged to form a pulley shaped and rotatably adjustable shoe and projections on one of said flanges adapted respectively to engage the harp and prevent the shoe from rotating when the latter is in different positions of adjustment, said ring having a series of transverse slots, the side walls of which are substantially in planes radial to the hub axis.

2. A sleet cutting trolley, comprising a harp, a spindle thereon, a circular sleet cutting shoe having a peripheral ring provided with transverse slots, and having outwardly extending flanges at its respective side margins, a hub connected with one side of said shoe and adapted to be removably connected with said spindle, and means for holding said shoe against rotation in various positions of rotatable adjustment on said spindle.

3. A sleet cutting trolley, comprising a harp, a spindle thereon, a circular sleet cutting shoe having a peripheral ring provided with transverse slots, and having outwardly extending flanges at its respective side margins, a hub connected with one side of said shoe and adapted to be removably connected with said spindle, and means for holding said shoe against rotation in various positions of rotatable adjustment on said spindle, together with an auxiliary shoe, and a spring supported arm connected with said harp and adapted to hold the auxiliary shoe in contact with a conducting wire in the rear of the sleet cutting shoe.

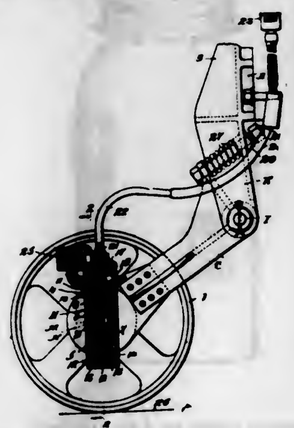
4. A sleet cutting trolley shoe, comprising a circular device having a rim portion conforming in general outline to that of a trolley wheel, and provided with slots in its bearing surfaces extending in planes radial to the axis of said shoe, a hub, supporting arms connecting the hub with said rim portion at one side, and arranged with the space between the hub and rim substantially open on both sides to the exterior; said shoe being adapted to be substituted for a trolley wheel upon a supporting spindle; and projections on said shoe adapted to engage a spindle supporting member and hold said shoe against rotation in various positions of rotatable adjustment on the spindle.

5. In a sleet cutting trolley shoe, the combination of a hub, a circular flange supported therefrom, a ring having one side margin in interlocking engagement with said flange between the hub and the outer margin of the flange,—said ring being provided with transverse slots,—and an outwardly extending circular flange on the other side margin of said ring, the outer margins of said circular flanges being curved laterally and divergently in the form of trolley wheel rim flanges, and means for holding said shoe against rotation in various positions of adjustment.

[Claims 6 to 8 not printed in the Gazette.]



**1,038,509. SPEED-MEASURING EQUIPMENT FOR RAILWAY OR OTHER CARS. ARTHUR P. WARNER and ADDI BENJAMIN CADMAN, Beloit, Wis., assignors to Warner Instrument Company, Beloit, Wis., a Corporation of Wisconsin. Filed Oct. 14, 1907. Serial No. 397,202. (Cl. 235—96.)**



1. The combination with a supporting bracket, and an arm pivotally mounted thereon, of a casting carried by said arm, said casting having a hub, a driving wheel mounted on said hub, a shaft journaled in said hub, connections between said shaft and wheel, a speed indicator, transmitting gearing for driving said indicator and gearing intermediate said transmitting gearing and shaft, including automatic clutch devices, whereby said transmitting gearing is driven in constant direction whether said shaft is driven in one direction or the other.

2. The combination with a supporting bracket, and an arm yieldingly mounted thereon, of a casting carried by said arm, a hub mounted on the casting, a driving wheel journaled on said hub, a shaft having bearing within the hub and connected to said wheel to be driven therefrom, a counter shaft also journaled in said casting, gears mounted thereon and arranged on opposite sides of the first mentioned shaft and geared thereto, clutches for coupling said gears to said counter shaft, a speed indicator, and transmitting connections intermediate said counter shaft and indicator.

3. The combination with a supporting bracket and an arm yieldingly mounted thereon, a driving wheel journaled on said arm, a shaft also journaled in said arm and in concentric relation with reference to said wheel, connections between said wheel and shaft, a countershaft journaled in said arm, gears mounted thereon and arranged to be driven in relatively reverse directions by said first mentioned shaft, automatic clutch connections between said gears and countershaft, a speed indicator, and means actuated by said countershaft for driving said speed indicator.

4. The combination with a supporting bracket, and an angle arm pivotally mounted at its angle upon said bracket, of a casting carried by said arm, said casting having a hub, a driving wheel mounted on said hub, a shaft journaled in said hub, connections between said shaft and wheel, a speed indicator, transmitting gearing for driving said indicator, and gearings intermediate said transmitting gearing and shaft, including automatic clutch devices, whereby said transmitting gearing is driven in constant direction whether said shaft is driven in one direction or the other, and a spring acting upon one arm of said pivotally mounted angle arm and operating to yieldingly press said wheel into a casement with a driving surface.

5. The combination with a supporting bracket, and an arm pivotally mounted thereon, of a casting carried by said arm, said casting having a horizontally extended hub, a driving wheel journaled on said hub to revolve thereon, a shaft journaled longitudinally in said hub, connections between said shaft and wheel, a countershaft arranged in right angular relation with said first mentioned shaft and also journaled in said casting, a speed indicator, transmitting gearings for driving said indicator, and gearings intermediate said transmitting gearings and said countershaft including automatic clutch devices whereby said transmitting gearing is driven in constant direction whether said shaft is driven in one direction or the other, and gearings intermediate said first mentioned shaft and said counter shaft, whereby the latter is driven from the former when said wheel is rotated.

[Claims 6 to 10 not printed in the Gazette.]

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1,038,510. PISTON. EARLE T. ROBINSON, University, Mo., assignor to Robinson Fire Apparatus Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Dec. 30, 1910. Serial No. 600,018. (Cl. 121—104.)



1. In a piston, the combination of a piston head having a rearwardly contracted portion, a ring slidably mounted on said contracted portion toward and away from said piston head, said ring and head being provided with oppositely disposed beveled surfaces, and packing disposed about said contracted portion between said beveled surfaces.

2. In a piston, the combination of a piston head contracted rearwardly and provided with a beveled shoulder at the forward end of said contracted portion, packing disposed about said contracted portion adjacent said beveled shoulder, and a member slidable axially on said contracted portion and provided with a beveled shoulder adapted to coöperate with the first said beveled shoulder to expand the packing radially by its axial movement.

3. In a piston, the combination of a piston head having a rearwardly extending contracted portion and a beveled shoulder at the forward end of said contracted portion, a follower ring slidable axially along said contracted portion and having a beveled shoulder adapted to coöperate with the first said beveled shoulder, packing disposed between said beveled shoulders, and means threaded to said contracted portion for moving said follower ring.

4. In a piston, the combination of a piston head having a rearwardly extending contracted portion and a beveled shoulder at the forward end of said contracted portion, a follower ring slidable axially along said contracted portion, and having a beveled shoulder adapted to coöperate with the first said beveled shoulder, packing disposed between said beveled shoulders, means threaded to said contracted portion, for moving said follower ring, and means releasably engaging said threaded means to hold it against rotation.

5. In a piston, a piston head having a contracted rear portion, packing surrounding said contracted rear portion, a packing expansion follower also surrounding said

contracted rear portion, a ring threaded to said contracted rear portion, and a ring abutting said follower to operate the latter.

[Claims 6 to 10 not printed in the Gazette.]

# DESIGNS.

42,988. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. GROSVENOR N. ALLEN, Oneida, N. Y., assignor to Oneida Community, Limited, Oneida, N. Y., a Corporation of New York. Filed June 11, 1912. Serial No. 703,079. Term of patent 14 years.



The ornamental design for a handle for spoons, forks, or similar articles as shown.

42,989. PLAYER-PIANO LEVER. CARL BENGLARD, East Orange, N. J., assignor to Lauter Company, Newark, N. J., a Corporation of New Jersey. Filed May 2, 1912. Serial No. 694,737. Term of patent 3½ years.



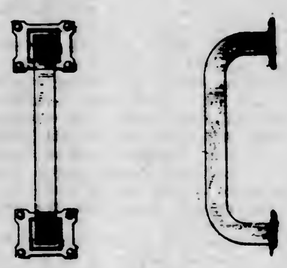
The ornamental design for a player piano lever, as shown.

42,990. JAR. FRANK A. BROWN, Wilmette, Ill. Filed Apr. 22, 1912. Serial No. 692,500. Term of patent 7 years.



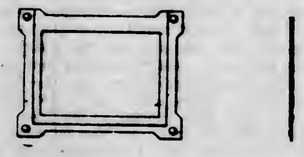
The ornamental design for a jar as shown.

42,991. HANDLE FOR DOCUMENT-FILES. CHARLES U. CARPENTER, New York, N. Y. Filed Apr. 26, 1911. Serial No. 623,535. Term of patent 14 years.



The ornamental design for a handle for document files, as shown.

42,992. CARD-HOLDER. CHARLES U. CARPENTER, New York, N. Y. Filed Apr. 26, 1911. Serial No. 623,536. Term of patent 14 years.



The ornamental design for a card holder, as shown.



42,993. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. WILLIAM C. CODMAN, Providence, R. I., assignor to Gorham Manufacturing Company, Providence, R. I., a Corporation of Rhode Island. Filed Apr. 24, 1912. Serial No. 692,943. Term of patent 14 years.



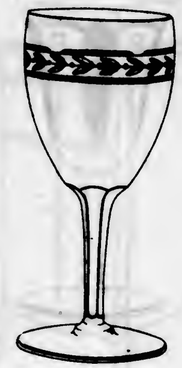
The ornamental design for a handle for spoons, forks or similar articles, as shown.

42,994. DRINKING VESSEL. ALFRED B. GUNTHEL, Sea Cliff, N. Y. Filed June 20, 1912. Serial No. 704,881. Term of patent 7 years.



The ornamental design for a drinking vessel, as shown.

42,995. GOBLET OR SIMILAR ARTICLE. ALFRED B. GUNTHEL, Sea Cliff, N. Y. Filed June 20, 1912. Serial No. 704,882. Term of patent 7 years.



The ornamental design for a goblet or similar article, as shown.

42,996. GOBLET OR SIMILAR ARTICLE. ALFRED B. GUNTHEL, Sea Cliff, N. Y. Filed June 20, 1912. Serial No. 704,884. Term of patent 7 years.



The ornamental design for a goblet or similar article, as shown.

42,997. GOBLET OR SIMILAR ARTICLE. ALFRED B. GUNTHEL, Sea Cliff, N. Y. Filed June 20, 1912. Serial No. 704,885. Term of patent 7 years.



The ornamental design for a goblet or similar article, as shown.

42,998. GOBLET OR SIMILAR ARTICLE. ALFRED B. GUNTHEL, Sea Cliff, N. Y. Filed June 20, 1912. Serial No. 704,886. Term of patent 7 years.



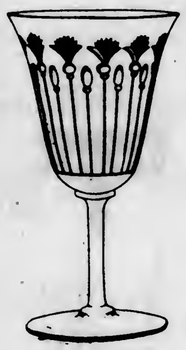
The ornamental design for a goblet or similar article, as shown.

42,999. GOBLET OR SIMILAR ARTICLE. ALFRED B. GUNTHEL, Sea Cliff, N. Y. Filed June 20, 1912. Serial No. 704,887. Term of patent 7 years.



The ornamental design for a goblet or similar article, as shown.

43,000. GOBLET OR SIMILAR ARTICLE. ALFRED B. GUNTHEL, Sea Cliff, N. Y. Filed June 20, 1912. Serial No. 704,888. Term of patent 7 years.



The ornamental design for a goblet or similar article, as shown.



43,001. GAS-LAMP. ALFRED H. HUMPHREST, New York, N. Y., assignor to General Gas Light Company, Kalamazoo, Mich. Filed June 20, 1912. Serial No. 704,929. Term of patent 14 years.



The ornamental design for a gas lamp as shown.

43,002. STOVE. LAZARD KAHN, Hamilton, Ohio, assignor to The Estate Stove Company, Hamilton, Ohio, a Corporation of Ohio. Filed Feb. 5, 1912. Serial No. 675,676. Term of patent 14 years.



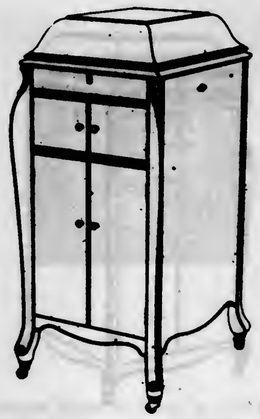
The ornamental design for a stove as shown.

43,003. CABINET FOR TALKING-MACHINES. EUGENE T. KIEFFER, Philadelphia, Pa., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed June 29, 1912. Serial No. 706,817. Term of patent 14 years.



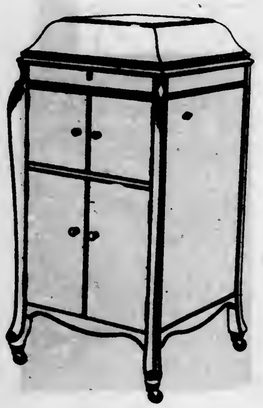
The ornamental design for a cabinet for a talking machine, as shown.

43,004. CABINET FOR TALKING-MACHINES. EUGENE T. KIEFFER, Philadelphia, Pa., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed June 29, 1912. Serial No. 706,818. Term of patent 14 years.



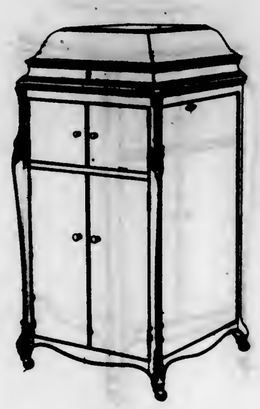
The ornamental design for a cabinet for a talking machine, as shown.

43,005. CABINET FOR TALKING-MACHINES. EUGENE T. KIEFFER, Philadelphia, Pa., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed June 29, 1912. Serial No. 706,819. Term of patent 14 years.



The ornamental design for a cabinet for a talking machine, as shown.

43,006. CABINET FOR TALKING-MACHINES. EUGENE T. KIEFFER, Philadelphia, Pa., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed June 29, 1912. Serial No. 706,820. Term of patent 14 years.



The ornamental design for a cabinet for a talking machine, as shown.

43,007. RUG. DAVID G. MELVILLE, Medford, Mass., assignor to Roxbury Carpet Company, Boston, Mass., a Corporation of Massachusetts. Filed June 25, 1912. Serial No. 705,880. Term of patent 3½ years.



The ornamental design for a rug as shown.

43,008. RUG. DAVID G. MELVILLE, Medford, Mass., assignor to Roxbury Carpet Company, Boston, Mass., a Corporation of Massachusetts. Filed June 28, 1912. Serial No. 706,093. Term of patent 3½ years.



The ornamental design for a rug as shown.

43,009. BUTTON. ARAHEL B. T. MOORE, Cedar Rapids, Iowa. Filed May 20, 1912. Serial No. 698,634. Term of patent 14 years.



An ornamental design for a button as shown.

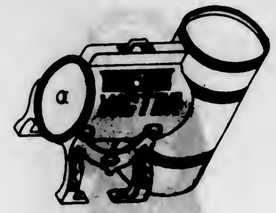
43,010. COMBINED BUBBLING AND DRAFT FOUNTAIN. GEORGE WILLIAM NAHUIS, Cleveland, Ohio. Filed June 13, 1912. Serial No. 703,568. Term of patent 7 years.



The ornamental design for a combined bubbling and draft fountain, as shown.



43,011. VACUUM-CLEANER FRAME. RALPH T. OWEN, Springfield, Ill. Filed Apr. 8, 1912. Serial No. 689,626. Term of patent 7 years.



The ornamental design for a vacuum cleaner frame as shown.

43,012. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading as John Bromley & Sons, Philadelphia, Pa. Filed July 15, 1912. Serial No. 709,587. Term of patent 3½ years.



The ornamental design for a rug, as shown.

43,013. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading as John Bromley & Sons, Philadelphia, Pa. Filed July 15, 1912. Serial No. 709,588. Term of patent 3½ years.



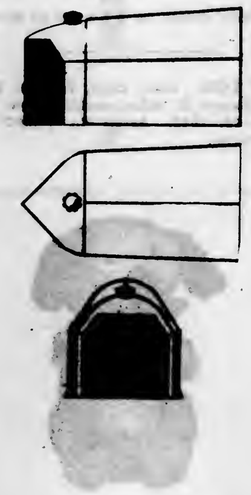
The ornamental design for a rug, as shown.

43,014. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading as John Bromley & Sons, Philadelphia, Pa. Filed July 15, 1912. Serial No. 709,589. Term of patent 3½ years.



The ornamental design for a rug, as shown.

43,015. AUTOMOBILE-HOOD. FERDINAND PORSCHE, Wiener-Neustadt, Austria-Hungary. Filed June 3, 1912. Serial No. 701,659. Term of patent 7 years.



The ornamental design for an automobile hood as shown.

43,016. TOY DOG. LEON REES, London, England, assignor to Monroe M. Schwarzschild, New York, N. Y. Filed June 13, 1912. Serial No. 703,569. Term of patent 3½ years.



The ornamental design for a toy dog as shown.

43,017. TOY CAT. LEON REES, London, England, assignor to Monroe M. Schwarzschild, New York, N. Y. Filed June 13, 1912. Serial No. 703,570. Term of patent 3½ years.



The ornamental design for a toy cat as shown.

43,018. TOY DOG. LEON REES, London, England, assignor to Monroe M. Schwarzschild, New York, N. Y. Filed June 13, 1912. Serial No. 703,571. Term of patent 3½ years.



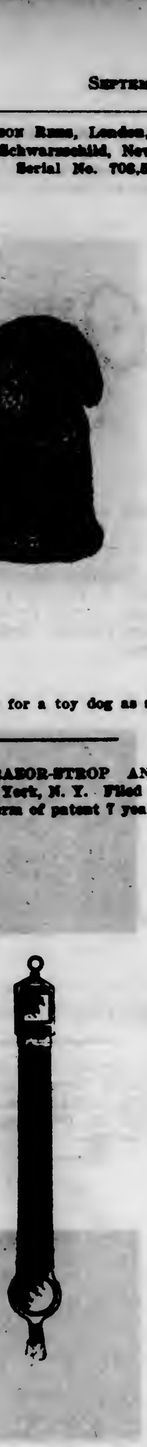
The ornamental design for a toy dog as shown.

43,019. TOY DOG. LEON REES, London, England, assignor to Monroe M. Schwarzschild, New York, N. Y. Filed June 13, 1912. Serial No. 703,572. Term of patent 3½ years.



The ornamental design for a toy dog as shown.

43,020. COMBINED RAZOR-STROP AND MIRROR. SALOMON RIMSZA, New York, N. Y. Filed July 12, 1912. Serial No. 709,672. Term of patent 7 years.



The ornamental design for a combined razor strop and mirror, as shown.

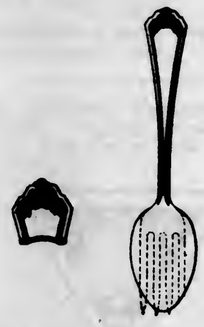


43,021. BACK FOR BRUSHES, MIRRORS, OR SIMILAR ARTICLES. WILLIAM H. SAART, Attleboro, Mass., assignor to The W. H. Saart Company, a Corporation of Massachusetts. Filed June 10, 1912. Serial No. 702,897. Term of patent 3½ years.



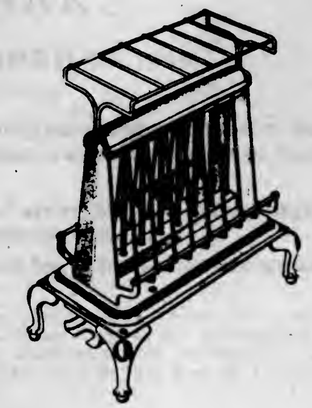
The ornamental design for a back for brushes, mirrors or similar articles, as shown.

43,022. SPOON, FORK, OR SIMILAR ARTICLE. RICHARD SCHULER, Wallingford, Conn., assignor to International Silver Co., Meriden, Conn., a Corporation of New Jersey. Filed June 10, 1912. Serial No. 702,889. Term of patent 7 years.



The ornamental design for a spoon, fork or similar article, as shown.

43,023. ELECTRICALLY-HEATED TOASTER. EDWARD SCHWARTZ, Chicago, Ill., assignor to The Pelouse Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed July 5, 1912. Serial No. 707,913. Term of patent 14 years.



The ornamental design for an electrically heated toaster, as shown.

43,024. ROUND BRAID. SIMON W. WARDWELL, Providence, R. I. Filed Oct. 5, 1910. Serial No. 585,589. Term of patent 14 years.



The ornamental design for round braid, as shown.

# TRADE-MARKS

## PUBLISHED SEPTEMBER 10, 1912.

**The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.**

**Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.**

**As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.**

Ser. No. 40,177. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THOMAS WOOD & Co., Boston Mass. Filed Jan. 28, 1909.

GILT EDGE

*Particular description of goods.*—Blended Coffee.
*Claims use* since January, 1898.

Ser. No. 50,624. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) PACKARD MOTOR CAR COMPANY, Detroit, Mich. Filed June 29, 1910.



*Particular description of goods.*—Motor-Vehicles Propelled by Internal-Combustion Motors.
*Claims use* since June 6, 1910.

Ser. No. 50,952. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ROMAN UHL NACHFOLGER JOSEF M. BREUNIG, Vienna, Austria. Filed July 21, 1910.

„Uhllob"

*Particular description of goods.*—Food-Wafers for Invalids.
*Claims use* since the beginning of 1907.

Ser. No. 51,078. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) AMERICAN Z ELECTRIC LAMP CO., New York, N. Y. Filed July 26, 1910.

Z

*Particular description of goods.*—Incandescent Electric Lamps.
*Claims use* since about Jan. 1, 1908.

Ser. No. 54,020. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE FORT SCOTT SORGHUM SYRUP CO., Fort Scott, Kans. Filed Jan. 23, 1911.

BUSY BEE

*Particular description of goods.*—Honey.
*Claims use* since March, 1910.

Ser. No. 56,436. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) OTTO DEMISCH, Nieder-Ludwigsdorf, Germany. Filed May 18, 1911.

Yoghurtogen

*Particular description of goods.*—A Food Product Made of Yoghurt or Bulgarian Curdled Milk.
*Claims use* since 1911.

Ser. No. 56,982. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE AMERICAN STEEL & WIRE COMPANY OF NEW JERSEY, Hoboken, N. J. Filed June 12, 1911. Under ten-year proviso.



*Particular description of goods.*—Barb-Wire.
*Claims use* since 1886.

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Ser. No. 57,771. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) JOHN B. THOMPSON, Harrodsburg, Ky. Filed July 21, 1911. Under ten-year proviso.

**OLD JORDAN**

*Particular description of goods.*—Bourbon and Pure Rye Whisky.
*Claims use* since the year 1832.

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Ser. No. 57,835. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) ADOLPH SAUER, Arbon, Switzerland. Filed July 26, 1911.



*Particular description of goods.*—Revolvers, Pistols, and Shotguns.
*Claims use* since May 1, 1910.

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Ser. No. 58,551. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KATHERINE POWELL, St. Louis, Mo. Filed Sept. 6, 1911.

Keeta

*Particular description of goods.*—Bottled Ointment.
*Claims use* since Jan. 15, 1911.

Ser. No. 58,697. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) JACKSON ENO RUBBER COMPANY, Los Angeles, Cal. Filed Sept. 16, 1911.




No claim being made to the words "Jackson Eno Rubber Co." and "Los Angeles, Cal."
*Particular description of goods.*—Rubber Tires.
*Claims use* since Feb. 1, 1911.

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Ser. No. 59,023. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) PHILIPP I. ADAM, New Orleans, La. Filed Oct. 6, 1911.




No claim is made for the word "Adam."
*Particular description of goods.*—Yellow-Pine and Southern Hardwood Lumber, Sawed.
*Claims use* since Apr. 1, 1908.

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Ser. No. 59,408. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) RUTLAND MFG. COMPANY, Rutland, Vt. Filed Oct. 28, 1911. Under ten-year proviso.



The background of the upper portion of the shield is blue, while the letters which appear on this portion are red. The background of the lower portion of the shield is red, while the letters which appear thereon are blue.
*Particular description of goods.*—Churns, Dog and Goat Powers, Milk-Bottle-Filling Machines, Cream-Mixing Machines, and Butter-Workers.
*Claims use* since 1885.





Ser. No. 59,526. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) RADGER STATE CLEANER COMPANY, Seymour, Wis. Filed Nov. 7, 1911.



*Particular description of goods.*—A Cleaning-Powder for Metal, Wood, and Household Articles.
*Claims use* since Oct. 26, 1911.

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Ser. No. 59,879. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) GEO. BORGFELDT & Co., New York, N. Y. Filed Nov. 23, 1911.

madonna

*Particular description of goods.*—Infants' Toilet Soap.
*Claims use* since Oct. 25, 1911.

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Ser. No. 59,912. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) MINERVA MOTORS, Berchen, near Antwerp, Belgium. Filed Nov. 25, 1911.




*Particular description of goods.*—Transmission Apparatus and Explosion-Motors for Motor-Cars, Motor-Cycles, and Aeroplanes.
*Claims use* since 1897.

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Ser. No. 60,617. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ATLANTIC MACARONI CO., Long Island City, N. Y. Filed Jan. 4, 1912.

Flosca

*Particular description of goods.*—Macaroni.
*Claims use* since about February, 1911.

Ser. No. 60,623. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) JAMES S. KIRK & COMPANY, Chicago, Ill. Filed Jan. 4, 1912. Under ten-year proviso.

FLAKE WHITE

*Particular description of goods.*—Toilet and Laundry Soap.
*Claims use* since July 1, 1887.

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Ser. No. 60,794. (CLASS 15. OILS AND GREASES.) ORIENTAL OIL COMPANY, Dallas, Tex. Filed Jan. 13, 1912.



No claim being made to the shield-shaped figure.
*Particular description of goods.*—Lubricating Oils and Greases and Illuminating-Oils.
*Claims use* since Dec. 8, 1911.

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Ser. No. 60,809. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE GEO. TILESTON MILLING CO., St. Cloud, Minn. Filed Jan. 15, 1912.

MAGIC

*Particular description of goods.*—Wheat-Flour.
*Claims use* since 1889.

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Ser. No. 60,825. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) NORTH AMERICAN CONSTRUCTION COMPANY, Bay City, Mich. Filed Jan. 15, 1912.




No claim being made to the words "Readi-Cut."
*Particular description of goods.*—Knockdown Houses.
*Claims use* since Dec. 1, 1911.

Ser. No. 61,147. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) LINDSAY LIGHT COMPANY, Chicago, Ill. Filed Jan. 31, 1912.



*Particular description of goods.*—Incandescent Gas-Burners, Incandescent Gas-Mantles, and Incandescent Gas-Lights.
*Claims use* since June 21, 1911.

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Ser. No. 61,346. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) S. R. WHITE'S SONS, Norfolk, Va. Filed Feb. 7, 1912. Under ten-year proviso.

CAROLINA

*Particular description of goods.*—Plows, Plow Shares or Points, Moldboards, Sweeps, Heels, Standards, Plow-Beams, Plow-Handles, and Cultivators.
*Claims use* since about Jan. 1, 1892.

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Ser. No. 61,390. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) THE GUM TRAGASOL SUPPLY COMPANY LIMITED, Hooton, County of Chester, England. Filed Feb. 9, 1912.

TRAGASOL

The trade-mark consists of the word "Tragasol."
*Particular description of goods.*—Mucilaginous Products of Vegetable Origin for Sizing, Dressing, and Finishing Fabrics and Materials.
*Claims use* since about Sept. 23, 1893.

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Ser. No. 61,411. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE ROOT & VAN DERVOORT ENGINEERING COMPANY, East Moline, Ill. Filed Feb. 10, 1912.



No claim being made to the word "Engine."
*Particular description of goods.*—Internal-Combustion Engines.
*Claims use* since Jan. 1, 1905.

Ser. No. 61,476. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) RICHARD HUDNUT, New York, N. Y. Filed Feb. 15, 1912.



*Particular description of goods.*—Soap. (Solid and Liquid.)
*Claims use* since Jan. 1, 1899.

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Ser. No. 61,570. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SIXEAS POULTRY & STOCK REMEDIES CO. INC., New Castle, Va. Filed Feb. 17, 1912.



The exclusive right to the use of the word "Sixeas" being disclaimed.
*Particular description of goods.*—Remedies for Cholera, White Diarrhea, Roup or Sore Head, and Blackheads and Lice-Exterminators.
*Claims use* since Jan. 13, 1912.

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Ser. No. 61,617. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE YALE SOAP & REFINING COMPANY, Cincinnati, Ohio. Filed Feb. 29, 1912.



The pictures being those of Elihu Yale, deceased, and the signature being a facsimile of his signature.
*Particular description of goods.*—Laundry Soap.
*Claims use* since Feb. 9, 1912.

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Ser. No. 61,881. (CLASS 7. CORDAGE.) FELTEN & GUILLEAUME CARLSWERK ACTIEN-GESELLSCHAFT, Mülheim-on-the-Rhine, Germany. Filed Mar. 2, 1912.

NEPTUNE

*Particular description of goods.*—Cordage, Being Cords and Threads Composed of India-Rubber, Gutta-Percha, and Balata Alone or Mixed with Waxes, Oils, Resin, Grease, Tar, Pitch, or Asphalt; Wire Ropes, Cables, (Bare.)
*Claims use* since 1870.





Ser. No. 61,891. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMBROSIA CHOCOLATE COMPANY, Milwaukee, Wis. Filed Mar. 2, 1912.

ANGELS FOOD

*Particular description of goods.*—A Chocolate Confection.
*Claims use* since Sept. 15, 1905.

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Ser. No. 62,238. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN GOSNELL & CO., LTD., London, England. Filed Mar. 18, 1912.



*Particular description of goods.*—A Tooth-Paste.
*Claims use* since 1853.

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Ser. No. 62,311. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) GES. FÜR PRÄCISIONS TECHNIK M. B. H., Berlin, Germany. Filed Mar. 21, 1912.

Argos

*Particular description of goods.*—Calculating-Machines.
*Claims use* since Jan. 22, 1912.

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Ser. No. 62,332. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE OXYPATHOR CO., Buffalo, N. Y. Filed Mar. 22, 1912.

OXYPATHY

*Particular description of goods.*—Face-Cream, Tooth-Paste, Antiseptic Powder, Foot-Cream, Foot-Powder, and Hydrogen-Peroxid Powder.
*Claims use* since the 1st day of February, 1912.

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Ser. No. 62,378. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) CHARLES MUNTER, New York, N. Y. Filed Mar. 23, 1912. Under ten-year proviso.

Nabild

*Particular description of goods.*—Orthopedic Surgical Devices.
*Claims use* since Jan. 1, 1890.

Ser. No. 62,530. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE SHERWIN-WILLIAMS COMPANY, Cleveland, Ohio. Filed Mar. 30, 1912.



The word "Paste" being disclaimed.
*Particular description of goods.*—An Oil-Paint Used as a Wall and Ceiling Finish.
*Claims use* since Feb. 8, 1912.

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Ser. No. 62,563. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KNOLL & Co., Ludwigshafen-on-the-Rhine, Germany. Filed Apr. 1, 1912.

Codeonal

*Particular description of goods.*—A Remedy for Sleeplessness.
*Claims use* since Sept. 15, 1910.

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Ser. No. 62,642. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) HYGIENIC FIBRE COMPANY, New York, N. Y. Filed Apr. 4, 1912.




No claim being made to the words "Absorbent Cotton."
*Particular description of goods.*—Absorbent Cotton.
*Claims use* since during the year 1908.

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Ser. No. 62,643. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) HYGIENIC FIBRE COMPANY, New York, N. Y. Filed Apr. 4, 1912.




No claim being made herein to the words "Absorbent Cotton" as a trade-mark.
*Particular description of goods.*—Absorbent Cotton.
*Claims use* since during the year 1908.

Ser. No. 62,655. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MARYLAND ICE CREAM AND FRUIT PRODUCTS CO., Baltimore, Md. Filed Apr. 4, 1912.




No claim is made to the word "Brand."
*Particular description of goods.*—Ice-Cream and Ice-Cream Made Up in Fancy Shapes.
*Claims use* since Apr. 1, 1912.

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Ser. No. 63,083. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) VOORHEES RUBBER MANUFACTURING COMPANY, Jersey City, N. J. Filed Apr. 24, 1912.

HURRICANE

*Particular description of goods.*—Vacuum-Hose Made of Rubber and Fabric.
*Claims use* since Aug. 19, 1911.

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Ser. No. 63,084. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) VOORHEES RUBBER MANUFACTURING COMPANY, Jersey City, N. J. Filed Apr. 24, 1912.



*Particular description of goods.*—Vacuum-Hose Made of Rubber and Fabric.
*Claims use* since Aug. 19, 1911.

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Ser. No. 63,086. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) VOORHEES RUBBER MANUFACTURING COMPANY, Jersey City, N. J. Filed Apr. 24, 1912.

TYPHOON

*Particular description of goods.*—Vacuum-Hose Made of Rubber and Fabric.
*Claims use* since Oct. 28, 1911.

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Ser. No. 63,212. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) W. B. MCCOY, Cleveland, Ohio. Filed Apr. 30, 1912.

HYKI

*Particular description of goods.*—A Tonic for the Scalp and Hair.
*Claims use* since May 15, 1910.

Ser. No. 63,455. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BURNS AND REED, New York, N. Y. Filed May 10, 1912.

PRUDENTIAL

*Particular description of goods.*—Baking-Powder.
*Claims use* since Sept. 7, 1911.

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Ser. No. 63,660. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ROWE RING-POINT COMPANY, Hartford, Conn. Filed May 20, 1912.

RING-POINT

*Particular description of goods*—Welding-Powder and Welding-Plates.
*Claims use* since Oct. 1, 1911.

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Ser. No. 63,667. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) THE ELLANAM ADJUSTABLE DRESS-FORM COMPANY, New York, N. Y. Filed May 20, 1912.

KUMPAKT *form* KUMPLEET

No claim being made to the words "Kumpakt Form Kumpleet."
*Particular description of goods.*—Garment-Forms.
*Claims use* since about May 10, 1912.

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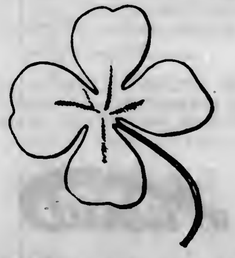
Ser. No. 63,682. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) FRANK FULLER, New York, N. Y. Filed May 21, 1912. Under ten-year proviso.

FULLAIRE

*Particular description of goods.*—Inhaling-Tubes.
*Claims use* since about 1887.

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Ser. No. 63,779. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE DENVER VEGETABLE GROWERS ASSOCIATION, Denver, Colo. Filed May 24, 1912.



*Particular description of goods.*—Fresh Vegetables and Fresh Fruits.
*Claims use* since about Apr. 15, 1912.





Ser. No. 63,860. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JEAN GERLACHE, Brussels, Belgium. Filed May 28, 1912.

ACZOL

*Particular description of goods.*—A Product for Preserving Wood and other Organic Materials.
*Claims use* since Apr. 14, 1906.

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Ser. No. 63,868. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THOS. ROULSTON, INC., New York, N. Y. Filed May 29, 1912.




In which the escutcheon, the word "Prospect," and the background for the polka-dots are in blue.
*Particular description of goods.*—Soap Powder and Soap.
*Claims use* since May 1, 1912.

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Ser. No. 63,877. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) JAGO MFG. CO., Houston, Tex. Filed May 29, 1912.




*Particular description of goods.*—A Metal-Polish.
*Claims use* since Apr. 19, 1912.

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Ser. No. 63,890. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GEORGE W. LOFT, New York, N. Y. Filed May 31, 1912.

CANDY

I make no claim herein to the word "Candy."
*Particular description of goods.*—Candy.
*Claims use* since October, 1905.

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Ser. No. 63,928. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) GEO. BORGFELDT & CO., New York, N. Y. Filed June 1, 1912.

RSTFL

*Particular description of goods.*—Bed-Pans.
*Claims use* since May 25, 1912.

Ser. No. 63,961. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) MONROE DRUG CO., Quincy, Ill. Filed June 5, 1912.

PUTNAM



Wherein the scene represents General Putnam's famous ride.
*Particular description of goods.*—A Preparation Capable of Dissolving in Gasolene, Naphtha, Benzol, or Like Solvent to Form with Said Solvent a Mixture for Cleaning Garments.
*Claims use* since Mar. 2, 1912.

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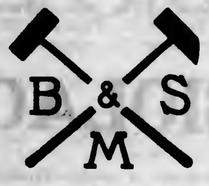
Ser. No. 63,990. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) THE VISCOSE DEVELOPMENT CO. LIMITED, London, England. Filed June 5, 1912.

"SEMREH"

*Particular description of goods.*—Corks, Caps, and Capsules for Sealing Bottles and Bottle-Sealing Devices.
*Claims use* since Sept. 9, 1911.

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Ser. No. 64,154. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) BERGMANN & SIMONS, G. M. B. H., Mülheim-on-the-Rhine, Germany. Filed June 13, 1912.




*Particular description of goods.*—White Lead, Red Lead, Orange Mineral, and Oxid of Zinc.
*Claims use* since 1882.

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Ser. No. 64,237. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FORT SCOTT SORGHUM SYRUP COMPANY, Fort Scott, Kans. Filed June 17, 1912.

WESTERN PRIDE

*Particular description of goods.*—Sorghum and Sorghum Compounds.
*Claims use* since Sept. 21, 1909.

Ser. No. 64,251. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) LEWIS BECHTOLD, New York, N. Y. Filed June 18, 1912.

SENELITH

*Particular description of goods.*—Lithographing-Stones.
*Claims use* since May 29, 1912.

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Ser. No. 64,269. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) AUTO STROP SAFETY RAZOR CO., New York, N. Y. Filed June 19, 1912.

Valet

*Particular description of goods.*—Strops and Soaps.
*Claims use* since May 11, 1912.

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Ser. No. 64,289. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) PENSACOLA TAR & TURPENTINE COMPANY, Gull Point, Fla. Filed June 20, 1912.

PENTARCO

*Particular description of goods.*—Pine Paint-Oils, Resin-Spirits, Wood-Turpentine, and Ready-Mixed Paints.
*Claims use* since June 1, 1912.

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Ser. No. 64,290. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE BIOLAC FERMENTED MILK COMPANY, New York, N. Y. Filed June 20, 1912.

BIOLAC

*Particular description of goods.*—Fermented Milk.
*Claims use* since June 1, 1912.

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Ser. No. 64,384. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) RETAILERS' COÖPERATIVE ASSOCIATION, Camden, N. J. Filed June 26, 1912.

KEWTEX

*Particular description of goods.*—Medicated and Toilet Soaps.
*Claims use* since June 24, 1912.

Ser. No. 64,407. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) HASKINS BROS. & CO., Sioux City, Iowa. Filed June 26, 1912.

SPARK

*Particular description of goods.*—Laundry Soap.
*Claims use* since June 5, 1912.

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Ser. No. 64,411. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) AMERICAN FILM MANUFACTURING CO., Chicago, Ill. Filed June 26, 1912.



The trade-mark consists of the representation of a pair of outspread or flying wings and the initial letter "A" intermediate the same, no claim being made to the initial letter "A."
*Particular description of goods.*—Moving-Picture Films.
*Claims use* since Sept. 1, 1910.

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Ser. No. 64,496. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed July 1, 1912.

RADIANT

*Particular description of goods.*—Biscuits.
*Claims use* since at least May, 1908.

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Ser. No. 64,569. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed July 3, 1912.




The picture being that of Paolo Veronese, deceased.
*Particular description of goods.*—Biscuits.
*Claims use* since at least Mar. 12, 1900.





Ser. No. 64,688. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PENNSYLVANIA SUGAR COMPANY, Philadelphia, Pa. Filed July 12, 1912.




*Particular description of goods.*—Sugar.
*Claims use* since June 17, 1912.

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Ser. No. 64,709. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) CLAYTON JAMES HOWEL, Fort Worth, Tex.; Chicago, Ill., and Toronto, Canada. Filed July 13, 1912.

Howel's

The same being the name of the applicant written in his own handwriting.
*Particular description of goods.*—Carbonated Beverages and Flavoring-Syrups Therefor.
*Claims use* since June 1, 1912.

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Ser. No. 64,768. (CLASS 48. MALT EXTRACTS AND LIQUORS.) SIOUX CITY BREWING CO., Sioux City, Iowa. Filed July 16, 1912.

Heidel Bräu

No claim is made to the exclusive use as a trade-mark of the word "Bräu."
*Particular description of goods.*—Lager-Beer.
*Claims use* since May 8, 1911.

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Ser. No. 64,829. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SEACOAST CANNING COMPANY, Eastport, Me. Filed July 20, 1912.




*Particular description of goods.*—Canned Sardines.
*Claims use* since October, 1908.

Ser. No. 64,830. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SEACOAST CANNING COMPANY, Eastport, Me. Filed July 20, 1912.



Yankee Boy

*Particular description of goods.*—Canned Sardines.
*Claims use* since July 1, 1912.

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Ser. No. 64,831. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SEACOAST CANNING COMPANY, Eastport, Me. Filed July 20, 1912.

WHITE CROSS

*Particular description of goods.*—Canned Sardines.
*Claims use* since July, 1899.

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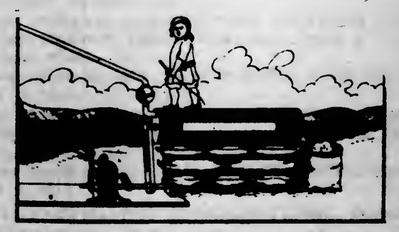
Ser. No. 64,858. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE VORL COMPANY, Baltimore, Md. Filed July 22, 1912.

VORL

*Particular description of goods.*—A Flavoring Compound.
*Claims use* since about Nov. 15, 1911.

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Ser. No. 64,860. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PETER SCHMITT, Columbus, Nebr. Filed July 22, 1912.



*Particular description of goods.*—Whole-Wheat Flour.
*Claims use* since Jan. 1, 1912.

Ser. No. 64,910. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CARDINET CANDY CO., Oakland, Cal. Filed July 25, 1912.

TEXAS TOMMY

*Particular description of goods.*—Candy.
*Claims use* since Jan. 1, 1912.

Ser. No. 65,077. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) STANDARD MANUFACTURING COMPANY, Cedar Falls, Iowa. Filed Aug. 2, 1912.

TroJan

*Particular description of goods.*—Metal Gates and Parts Thereof.
*Claims use* since on or about Nov. 1, 1910.

Ser. No. 65,078. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) STANDARD MANUFACTURING COMPANY, Cedar Falls, Iowa. Filed Aug. 2, 1912.

TroJan

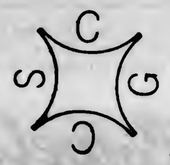
*Particular description of goods.*—Corn-Graders and Concrete-Mixers.
*Claims use* since on or about Nov. 1, 1910.

Ser. No. 65,084. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) UNITED STATES GAUGE COMPANY, Sellersville, Pa., and New York, N. Y. Filed Aug. 2, 1912.

INVINCIBLE

*Particular description of goods.*—Vacuum-Gages, Pressure-Gages, Test-Gages, and Self-Recording Gages.
*Claims use* since Sept. 1, 1910.

Ser. No. 65,099. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) CUMBERLAND STEEL COMPANY, Cumberland, Md. Filed Aug. 5, 1912.




*Particular description of goods.*—Steel Bars.
*Claims use* since July 17, 1912.

Ser. No. 65,102. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) AEROMETAL SYNDICATE, LIMITED, Westminster, England. Filed Aug. 5, 1912.

AEROMIN

*Particular description of goods.*—Unwrought and Partly-Wrought Metals Used in Manufacture.
*Claims use* since Jan. 6, 1911.





# TRADE-MARKS

## REGISTERED SEPTEMBER 10, 1912.

88,224. FERTILIZERS. AMERICAN AGRICULTURAL CHEMICAL COMPANY, New York, N. Y.
Filed May 4, 1912. Serial No. 63,349. PUBLISHED JULY 9, 1912.

88,225. COTTON AND BURLAP BAGS. AMERICAN BAG COMPANY, Memphis, Tenn.
Filed April 2, 1912. Serial No. 62,610. PUBLISHED JULY 9, 1912.

88,226. CANDY. AMERICAN CANDY MFG. CO., Selma, Ala.
Filed May 18, 1912. Serial No. 63,621. PUBLISHED JULY 9, 1912.

88,227. CONDUITS FOR ELECTRICAL PURPOSES. THE AMERICAN CONDUIT MANUFACTURING CO., Pittsburgh, Pa.
Filed April 29, 1912. Serial No. 63,201. PUBLISHED JULY 9, 1912.

88,228. CORSETS. AMERICAN LADY CORSET CO., Detroit, Mich.
Filed February 17, 1912. Serial No. 61,564. PUBLISHED JULY 2, 1912.

88,229. SUGAR. THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J.
Filed May 9, 1912. Serial No. 63,429. PUBLISHED JULY 2, 1912.

88,230. FURNITURE-POLISH. CHARLES ANSON, Stockton, Cal.
Filed February 12, 1912. Serial No. 61,439. PUBLISHED JULY 2, 1912.

88,231. WEAR-RESISTING SLUGS FOR BOOT AND SHOE HEELS. ATLAS TACK COMPANY, Fairhaven, Mass.
Filed March 25, 1912. Serial No. 62,412. PUBLISHED JULY 9, 1912.

88,232. BRONZE, GOLD-BRONZE, ALUMINUM-BRONZE POWDERS, AND BRONZING LIQUIDS. BAER BROS., New York, N. Y.
Filed May 17, 1912. Serial No. 63,601. PUBLISHED JULY 2, 1912.

88,233. CERTAIN KINDS OF PAPER, TABLETS, ENVELOPS, AND BLANK BOOKS. J. C. BLAIR COMPANY, Huntingdon, Pa.
Filed June 17, 1908. Serial No. 35,574. PUBLISHED JUNE 25, 1912.

88,234. CERTAIN KINDS OF PAPER, TABLETS, ENVELOPS, AND BLANK BOOKS. J. C. BLAIR COMPANY, Huntingdon, Pa.
Filed May 18, 1910. Serial No. 49,711. PUBLISHED JUNE 25, 1912.

88,235. LADIES' HATS. BOVIO BROS. & D. DONNE, New York, N. Y.
Filed May 20, 1912. Serial No. 63,665. PUBLISHED JULY 9, 1912.

88,236. CANDIES. BRAZIER BROTHERS COMPANY, Helena, Mont.
Filed March 18, 1912. Serial No. 62,232. PUBLISHED JULY 2, 1912.

88,237. CREAM-PUDDING OF VARIOUS FLAVORS, ARTIFICIALLY COLORED. ORAM D. BRUBAKER, Bird in Hand, Pa.
Filed April 18, 1912. Serial No. 62,980. PUBLISHED JULY 2, 1912.

88,238. CERTAIN NAMED OILS AND GREASES. GEORGE E. BUCK, Palmer and Worcester, Mass.
Filed April 26, 1912. Serial No. 63,157. PUBLISHED JULY 2, 1912.

88,239. PACKING MATERIAL MADE OF COMPRESSED ASBESTOS. CALMON ASBESTOS & RUBBER WORKS OF AMERICA, New York, N. Y.
Filed November 21, 1911. Serial No. 59,831. PUBLISHED JUNE 18, 1912.

88,240. NESTABLE CORRUGATED CULVERTS. THE CANTON CULVERT COMPANY, Canton, Ohio.
Filed May 6, 1912. Serial No. 63,384. PUBLISHED JULY 2, 1912.

88,241. PLAYING-CARDS. THE CHECK GAME COMPANY, Hiram, Ohio.
Filed May 1, 1912. Serial No. 63,222. PUBLISHED JULY 9, 1912.

88,242. PURGATIVES. CHEMISCHE FABRIK AUF ACTIEN VORM. E. SCHERING), Berlin, Germany.
Filed February 21, 1911. Serial No. 54,632. PUBLISHED JULY 9, 1912.

88,243. CANDY. CLARENCE ARTHUR CRANE, Cleveland, Ohio.
Filed November 6, 1911. Serial No. 59,560. PUBLISHED JULY 2, 1912.

88,244. NATURAL MINERAL WATERS. COMPAGNIE FERMIÈRE DE L'ETABLISSEMENT THERMAL DE VICHY, Paris, France.
Filed June 16, 1911. Serial No. 57,092. PUBLISHED JULY 9, 1912.

88,245. MASSICOT LITHARGE, LEAD, AND TYPE-METAL. COOKSON AND COMPANY LIMITED, Newcastle-upon-Tyne, England.
Filed February 29, 1912. Serial No. 61,821. PUBLISHED JULY 2, 1912.

88,246. PILE REMEDY. ROBERT A. COURTNEY, Baltimore, Md.
Filed March 7, 1912. Serial No. 62,012. PUBLISHED JULY 9, 1912.

88,247. GUNPOWDER. CURTIS'S & HARVEY, LIMITED, London, England.
Filed April 19, 1912. Serial No. 63,000. PUBLISHED JULY 9, 1912.

88,248. CERTAIN NAMED MACHINES AND IMPLEMENTS AND WINDMILLS. DEERE & COMPANY, Moline, Ill.
Filed April 8, 1911. Serial No. 55,630. PUBLISHED FEBRUARY 18, 1912.

88,249. CERTAIN AGRICULTURAL MACHINES AND IMPLEMENTS AND WINDMILLS. DEERE & COMPANY, Moline, Ill.
Filed October 23, 1911. Serial No. 59,294. PUBLISHED JULY 9, 1912.

88,250. MACARONI, SPAGHETTI, VERMICELLI, AND NOODLES. THE DENVER MACARONI & NOODLE CO., Denver, Colo.
Filed August 2, 1911. Serial No. 57,985. PUBLISHED JULY 2, 1912.

88,251. CANS MADE OF METAL AND PAPER. DETROIT CAN COMPANY, Detroit, Mich.
Filed May 16, 1910. Serial No. 49,764. PUBLISHED JULY 9, 1912.

88,252. INSULATED ELECTRIC WIRES. DETROIT INSULATED WIRE COMPANY, Detroit, Mich.
Filed November 14, 1910. Serial No. 52,755. PUBLISHED JULY 9, 1912.

88,253. GUANO-DISTRIBUTERS. DILLON PLOW & NOVELTY WORKS, Dillon, S. C.
Filed August 29, 1911. Serial No. 58,434. PUBLISHED JULY 9, 1912.

88,254. REMEDY FOR DISEASES OF THE LIVER. JAMES G. DODSON, Americus, Ga.
Filed June 14, 1911. Serial No. 57,010. PUBLISHED MARCH 12, 1912.

88,255. WHEAT-FLOUR. DULUTH-SUPERIOR MILLING COMPANY, Duluth, Minn.
Filed March 4, 1912. Serial No. 61,904. PUBLISHED JULY 2, 1912.

88,256. COCKTAILS. ELDER-HARRISON COMPANY, Baltimore, Md.
Filed May 8, 1912. Serial No. 63,404. PUBLISHED JULY 9, 1912.

88,257. WATCH-MOVEMENTS. ELGIN NATIONAL WATCH COMPANY, Elgin and Chicago, Ill.
Filed April 12, 1912. Serial No. 62,865. PUBLISHED JULY 2, 1912.

88,258. WHEAT-FLOUR. FISHER FLOURING MILLS COMPANY, Seattle, Wash.
Filed May 21, 1912. Serial No. 63,700. PUBLISHED JULY 9, 1912.

88,259. WHEAT-FLOUR. FISHER FLOURING MILLS COMPANY, Seattle, Wash.
Filed May 21, 1912. Serial No. 63,701. PUBLISHED JULY 9, 1912.

88,260. WHEAT-FLOUR. FISHER FLOURING MILLS COMPANY, Seattle, Wash.
Filed May 21, 1912. Serial No. 63,702. PUBLISHED JULY 9, 1912.

88,261. WHEAT-FLOUR. FISHER FLOURING MILLS COMPANY, Seattle, Wash.
Filed May 21, 1912. Serial No. 63,703. PUBLISHED JULY 9, 1912.

88,262. CERTAIN KIND OF FURNITURE-FINISH. FLASH CHEMICAL CO., Boston, Mass.
Filed June 9, 1911. Serial No. 56,935. PUBLISHED JULY 2, 1912.

88,263. TOMATO CATSUP AND CHILLI SAUCE. THE FRAZIER PACKING COMPANY, Elwood, Ind.
Filed May 4, 1912. Serial No. 63,304. PUBLISHED JULY 2, 1912.

88,264. CERTAIN NAMED STOUTS, BEER, PORTER, WINES, AND ALES. BASS, RATCLIFF & GRETTON, LIMITED, Burton-upon-Trent, England.
Filed August 2, 1911. Serial No. 57,990. PUBLISHED JULY 9, 1912.

88,265. CERTAIN NAMED STOUTS, BEER, PORTER, WINES, AND ALES. BASS, RATCLIFF & GRETTON, LIMITED, Burton-upon-Trent, England.
Filed August 2, 1911. Serial No. 57,991. PUBLISHED JULY 9, 1912.

88,266. PALE ALE AND BEER. BASS, RATCLIFF & GRETTON, LIMITED, Burton-upon-Trent, England.
Filed August 2, 1911. Serial No. 57,992. PUBLISHED JULY 9, 1912.

88,267. CERTAIN NAMED STOUTS, BEER, PORTER, WINES, AND ALES. BASS, RATCLIFF & GRETTON, LIMITED, Burton-upon-Trent, England.
Filed August 2, 1911. Serial No. 57,993. PUBLISHED JULY 9, 1912.

88,268. NUMBERING AND DATING MACHINES. WILLIAM A. FORCH & COMPANY, INC., New York, N. Y.
Filed January 15, 1912. Serial No. 60,832. PUBLISHED MAY 28, 1912.

88,269. REFRACTORY METALS AND ALLOYS HAVING HIGH ELECTRICAL RESISTANCE. GENERAL ELECTRIC COMPANY, Schenectady, N. Y.
Filed May 25, 1912. Serial No. 63,803. PUBLISHED JULY 9, 1912.

88,270. MOTOR-TRUCKS. GENERAL MOTORS TRUCK CO., Detroit, Mich.
Filed April 11, 1912. Serial No. 62,832. PUBLISHED JULY 9, 1912.

88,271. CERTAIN NAMED CANNED FISH. THE GEORGE & BARKER CO., Point Roberts, Wash.
Filed February 15, 1912. Serial No. 61,507. PUBLISHED JULY 9, 1912.

88,272. GOLF-CLEEKS, GOLF-IRONS OF ALL KINDS, AND WOODEN GOLF-CLUBS. WILLIAM GIBSON AND COMPANY, Kinghorn, Scotland.
Filed February 1, 1909. Serial No. 40,267. PUBLISHED JULY 9, 1912.

88,273. DRIED FRUITS AND RAISINS. GIFFEN-HOBBS CO., Fresno, Cal.
Filed April 8, 1912. Serial No. 62,737. PUBLISHED JULY 2, 1912.

88,274. TIME-RECORDERS. GISHOLT MACHINE COMPANY, Madison, Wis.
Filed March 25, 1912. Serial No. 62,404. PUBLISHED JULY 9, 1912.

88,275. COCOA-BEANS. GRAHAM, HINKLEY & CO., New York, N. Y.
Filed March 22, 1912. Serial No. 62,334. PUBLISHED JULY 2, 1912.

88,276. BABBITT AND ANTIFRICTION METALS. GREAT WESTERN SMELTING & REFINING CO., Chicago, Ill.
Filed May 4, 1912. Serial No. 63,361. PUBLISHED JULY 2, 1912.

88,277. AUTOGRAPHIC REGISTERS. HAINES BOOKKEEPING MACHINE CO., Providence, R. I.
Filed May 16, 1912. Serial No. 63,585. PUBLISHED JULY 9, 1912.

88,278. CALENDAR-PADS, MEMORANDUM-FILES, AND PAPER-WEIGHTS. HALE SPECIALTY CO., Chicago, Ill.
Filed April 8, 1912. Serial No. 62,744. PUBLISHED JUNE 25, 1912.

88,279. LEMON-PIE FILLING PREPARATION. HERBERT HARPER, New Bedford, Mass.
Filed May 16, 1912. Serial No. 63,583. PUBLISHED JULY 2, 1912.

88,280. CANNED FRUITS AND VEGETABLES. W. H. HARRIS GROCERY CO., Richmond, Va.
Filed May 21, 1912. Serial No. 63,689. PUBLISHED JULY 9, 1912.

88,281. SHEETS, PLATES, BARS, AND RODS OF IRON AND STEEL. ROBERT HEATH & SONS LIMITED, Stoke-upon-Trent, England.
Filed December 5, 1911. Serial No. 60,081. PUBLISHED JUNE 25, 1912.

88,282. BAKING-POWDER. THE HEEKIN SPICE CO., Cincinnati, Ohio.
Filed March 7, 1908. Serial No. 33,233. PUBLISHED OCTOBER 8, 1911.

88,283. HANDKERCHIEFS. HELLER & LONG, New York, N. Y.
Filed May 23, 1912. Serial No. 63,744. PUBLISHED JULY 9, 1912.

88,284. FOOD-PRESERVATIVE. B. HELLER & CO., Chicago, Ill.
Filed January 15, 1912. Serial No. 60,804. PUBLISHED JULY 9, 1912.

88,285. EVAPORATED MILK. HELVETIA MILK CONDENSING COMPANY, Highland, Ill.
Filed May 4, 1912. Serial No. 63,303. PUBLISHED JULY 9, 1912.

88,286. RAZORS. J. A. HENCKELS, New York, N. Y.
Filed May 28, 1912. Serial No. 63,844. PUBLISHED JULY 9, 1912.

88,287. RAZORS. J. A. HENCKELS, New York, N. Y.
Filed May 28, 1912. Serial No. 63,845. PUBLISHED JULY 9, 1912.



88,288. RAZORS. J. A. HENCKELS, New York, N. Y.
Filed May 28, 1912. Serial No. 63,846. PUBLISHED JULY 9, 1912.

88,289. DRY PAINTS. HENRY MANUFACTURING CO., New York, N. Y.
Filed April 26, 1912. Serial No. 63,156. PUBLISHED JULY 2, 1912.

88,290. SPOON AND TROLLING HOOKS. JOHN J. HILDEBRANDT, Logansport, Ind.
Filed February 10, 1910. Serial No. 47,709. PUBLISHED JULY 9, 1912.

88,291. WHEAT-FLOUR. HIXON MILLING COMPANY, La Crosse, Wis.
Filed May 20, 1912. Serial No. 63,650. PUBLISHED JULY 9, 1912.

88,292. HARMONICAS. M. HOHNER, New York, N. Y.
Filed May 9, 1912. Serial No. 63,437. PUBLISHED JUNE 25, 1912.

88,293. HARMONICAS. M. HOHNER, New York, N. Y.
Filed May 9, 1912. Serial No. 63,438. PUBLISHED JUNE 25, 1912.

88,294. TONIC FOR THE STOMACH. C. I. HOOD CO., Lowell, Mass.
Filed April 11, 1911. Serial No. 55,683. PUBLISHED JULY 9, 1912.

88,295. ORANGES AND LEMONS. HUNT, HATCH & CO., Oakland, Cal.
Filed April 15, 1912. Serial No. 62,900. PUBLISHED JULY 2, 1912.

88,296. ORANGES AND LEMONS. HUNT, HATCH & CO., Oakland, Cal.
Filed April 15, 1912. Serial No. 62,904. PUBLISHED JULY 2, 1912.

88,297. EGG-BEATERS, CREAM-WHIPPERS, MAYONNAISE-MIXERS, AND PARTS THEREOF. JOB HUTCHINSON, New York, N. Y.
Filed March 20, 1912. Serial No. 62,294. PUBLISHED JULY 9, 1912.

88,298. BUILDING, SHEATHING, ROOFING, INSULATING, AND CASE-LINING PAPERS. THE HYDREX FELT & ENGINEERING COMPANY, Portland, Me.; New York, N. Y., and Rahway, N. J.
Filed April 20, 1911. Serial No. 55,844. PUBLISHED JULY 9, 1912.

88,299. PLAIN BIRD'S-EYE NAPKINS AND SEAMLESS SANITARY NAPKINS. HYGIENIC FIBRE COMPANY, New York, N. Y.
Filed April 16, 1912. Serial No. 62,921. PUBLISHED JULY 9, 1912.

88,300. SANITARY NAPKINS. HYGIENIC FIBRE COMPANY, New York, N. Y.
Filed April 16, 1912. Serial No. 62,924. PUBLISHED JULY 9, 1912.

88,301. SANITARY NAPKINS. HYGIENIC FIBRE COMPANY, New York, N. Y.
Filed April 29, 1912. Serial No. 63,194. PUBLISHED JULY 9, 1912.

88,302. CANNED KIDNEY-BEANS. THE ILLINOIS CANNING COMPANY, Hoopeston, Ill.
Filed June 21, 1911. Serial No. 57,215. PUBLISHED NOVEMBER 28, 1911.

88,303. ALUMINUM WARE. INVINCIBLE ALUMINUM COMPANY, New York, N. Y.
Filed March 5, 1912. Serial No. 61,942. PUBLISHED JULY 9, 1912.

88,304. READY-MIXED PAINTS AND VARNISHES AND PAINT-OILS. THE IRONSIDES COMPANY, Columbus, Ohio.
Filed March 2, 1912. Serial No. 61,866. PUBLISHED JUNE 11, 1912.

88,305. LUBRICATING-OILS, LUBRICATING-GREASES, AND LUBRICATING COMPOUNDS. THE IRONSIDES COMPANY, Columbus, Ohio.
Filed March 2, 1912. Serial No. 61,874. PUBLISHED JULY 2, 1912.

88,306. BUST-REDUCER OR FLEXIBLE BRASSIÈRES. THE JUNOFORM COMPANY, Philadelphia, Pa.
Filed May 1, 1912. Serial No. 63,290. PUBLISHED JULY 2, 1912.

88,307. CANNED SALMON. KELLEY-CLARKE CO., Seattle, Wash.
Filed November 29, 1907. Serial No. 31,429. PUBLISHED JULY 2, 1912.

88,308. REMEDY FOR COUGHS, COLDS, HOARSENESS, AND CATARRH. KOLBERGER ANSTALTEN FÜR EXTERIKULTUR WILH. ANHALT G. M. B. H., Ostseebad Kolberg, Germany.
Filed July 11, 1911. Serial No. 57,583. PUBLISHED JULY 9, 1912.

88,309. LADIES' DRESS AND SHIRT WAISTS. KROHNBERG & KROHNBERG, New York, N. Y.
Filed February 12, 1912. Serial No. 61,419. PUBLISHED JULY 2, 1912.

88,310. WHEAT-FLOUR. KRUGER, DARBIE & CO., Liverpool, England.
Filed December 31, 1909. Serial No. 46,881. PUBLISHED APRIL 26, 1910.

88,311. PIANOS. C. KURTZMANN & COMPANY, Buffalo, N. Y.
Filed May 4, 1912. Serial No. 63,356. PUBLISHED JUNE 25, 1912.

88,312. CERTAIN NAMED MACHINE-TOOLS. THE LAPOINTE MACHINE TOOL CO., Hudson, Mass.
Filed February 8, 1912. Serial No. 61,361. PUBLISHED JULY 9, 1912.

88,313. BROACHING, BORING, REAMING, AND MILLING MACHINES AND PLANERS. THE LAPOINTE MACHINE TOOL CO., Hudson, Mass.
Filed February 8, 1912. Serial No. 61,363. PUBLISHED JULY 9, 1912.

88,314. TAP-SOLES. LEAS & MCVITTY INC., Philadelphia, Pa.
Filed January 24, 1912. Serial No. 61,000. PUBLISHED JULY 9, 1912.

88,315. DRESS AND STREET GLOVES MADE OF LEATHER. RUBY LEVI, Gloversville, N. Y.
Filed May 27, 1912. Serial No. 63,830. PUBLISHED JULY 9, 1912.

88,316. CANNED AND PRESERVED FRUITS. LIBBY, MCNEILL & LIBBY, Portland, Me.; Chicago, Ill., and Sunnyvale, Cal.
Filed May 10, 1912. Serial No. 63,450. PUBLISHED JULY 2, 1912.

88,317. BUTTER. LONG'S MARKET CREAMERY, San Francisco, Cal.
Filed September 12, 1911. Serial No. 58,648. PUBLISHED JULY 2, 1912.

88,318. BREAD. S. E. LOVELESS ADVERTISING SERVICE INC., New York, N. Y.
Filed May 23, 1912. Serial No. 63,746. PUBLISHED JULY 9, 1912.

88,319. BLENDED COFFEE. THE LOWRY COFFEE CO., Philadelphia, Pa.
Filed May 4, 1912. Serial No. 63,307. PUBLISHED JULY 9, 1912.

88,320. REFRIGERATORS. MAINE MANUFACTURING COMPANY, Nashua, N. H.
Filed August 1, 1910. Serial No. 51,213. PUBLISHED JULY 9, 1912.

88,321. CERTAIN NAMED CLOTHING. MALLOCH KNITTING COMPANY, Grand Rapids, Mich.
Filed April 4, 1912. Serial No. 62,647. PUBLISHED JULY 9, 1912.

88,322. OIL-PAINTS, VARNISHES, AND STAINS. F. H. MESSENGER CO., Auburn, N. Y.
Filed November 28, 1911. Serial No. 59,978. PUBLISHED JULY 9, 1912.

88,323. VARNISHES AND STAINS. F. H. MESSENGER CO., Auburn, N. Y.
Filed November 28, 1911. Serial No. 59,981. PUBLISHED JULY 9, 1912.

88,324. CORN WHISKY. MEYER, PITTS & Co., Baltimore, Md.
Filed May 28, 1912. Serial No. 63,862. PUBLISHED JULY 9, 1912.

88,325. CERTAIN NAMED ELECTRICAL INSULATORS. MICA INSULATOR COMPANY, New York, N. Y.
Filed April 24, 1912. Serial No. 63,098. PUBLISHED JULY 9, 1912.

88,326. IRON. MILL & MINE SUPPLY Co., Seattle, Wash.
Filed January 3, 1912. Serial No. 60,584. PUBLISHED JULY 2, 1912.

88,327. CIGARETTE-PAPER. SAUL D. MODIANO, Trieste, Austria-Hungary.
Filed March 7, 1912. Serial No. 61,999. PUBLISHED JULY 9, 1912.

88,328. COCKS OR FAUCETS. H. MUELLER MANUFACTURING Co., Decatur, Ill.
Filed May 7, 1912. Serial No. 63,397. PUBLISHED JULY 2, 1912.

88,329. LEATHER BOOTS AND SHOES. MATTHIAS J. MULLEN, Pittsburgh, Pa.
Filed February 14, 1912. Serial No. 61,457. PUBLISHED MAY 21, 1912.

88,330. GASEOUS LIQUID FOR COMBUSTION, ILLUMINATING, AND POWER PURPOSES. MYERS GAS GENERATOR COMPANY, Buffalo, N. Y.
Filed March 1, 1912. Serial No. 61,844. PUBLISHED APRIL 30, 1912.

88,331. CERTAIN HARDWARE AND PLUMBING SUPPLIES. C. M. MCCLUNG & Co., Knoxville, Tenn.
Filed November 4, 1911. Serial No. 59,549. PUBLISHED JULY 2, 1912.

88,332. STRAIGHT SCOTCH WHISKY. D. P. MCDONALD & SONS, LIMITED, Fort William, Scotland.
Filed November 24, 1911. Serial No. 59,893. PUBLISHED JULY 9, 1912.

88,333. BISCUIT AND SUGAR-WAFERS. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed May 11, 1912. Serial No. 63,481. PUBLISHED JULY 2, 1912.

88,334. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed May 16, 1912. Serial No. 63,569. PUBLISHED JULY 2, 1912.

88,335. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed May 16, 1912. Serial No. 63,570. PUBLISHED JULY 2, 1912.

88,336. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed May 16, 1912. Serial No. 63,571. PUBLISHED JULY 2, 1912.

88,337. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed May 16, 1912. Serial No. 63,572. PUBLISHED JULY 2, 1912.

88,338. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed May 16, 1912. Serial No. 63,573. PUBLISHED JULY 2, 1912.

88,339. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed May 16, 1912. Serial No. 63,575. PUBLISHED JULY 2, 1912.

88,340. BISCUIT. NATIONAL BISCUIT COMPANY, New York, N. Y.
Filed May 16, 1912. Serial No. 63,577. PUBLISHED JULY 2, 1912.

88,341. DRY CELLS. NATIONAL CARBON COMPANY, Cleveland, Ohio.
Filed February 5, 1912. Serial No. 61,277. PUBLISHED JULY 9, 1912.

88,342. HATS, HELMETS, CAPS, AND BONNETS. NEW FAILSWORTH HAT MANUFACTURING COMPANY, LIMITED, Failsworth, near Manchester, England.
Filed March 8, 1912. Serial No. 62,036. PUBLISHED JULY 9, 1912.

88,343. CERTAIN AGRICULTURAL MACHINES AND IMPLEMENTS. NEW IDEA SPREADER Co., Coldwater, Ohio.
Filed March 30, 1912. Serial No. 62,534. PUBLISHED JULY 9, 1912.

88,344. INTERNAL-COMBUSTION ENGINES. THE NEW LONDON SHIP & ENGINE COMPANY, Groton, Conn.
Filed April 19, 1912. Serial No. 62,995. PUBLISHED JULY 9, 1912.

88,345. MATTRESSES. NEW YORK MATTRESS Co., Boston, Mass.
Filed July 28, 1909. Serial No. 43,845. PUBLISHED OCTOBER 5, 1909.

88,346. GAMES. THE O. NEWMAN COMPANY, Los Angeles, Cal.
Filed December 7, 1911. Serial No. 60,110. PUBLISHED JULY 9, 1912.

88,347. TOMATO CATSUP AND VINEGAR. NORTHERN PICKLE Co., Tacoma, Wash.
Filed April 13, 1912. Serial No. 62,873. PUBLISHED JULY 9, 1912.

88,348. BLEND OF STRAIGHT RYE WHISKY. THE OLD DOMINION DISTILLING Co., Richmond, Va.
Filed April 24, 1912. Serial No. 63,094. PUBLISHED JULY 9, 1912.

88,349. MALT WHISKY. THE OLD DOMINION DISTILLING Co., Richmond, Va.
Filed April 24, 1912. Serial No. 63,095. PUBLISHED JULY 9, 1912.

88,350. HOSIERY FOR BOYS AND GIRLS. ORION KNITTING MILLS, Kinston, N. C.
Filed May 1, 1912. Serial No. 63,224. PUBLISHED JULY 9, 1912.

88,351. FERTILIZERS. PATAPSCO GUANO Co., Baltimore, Md.
Filed May 21, 1912. Serial No. 63,670. PUBLISHED JULY 9, 1912.

88,352. FERTILIZERS. PATAPSCO GUANO Co., Baltimore, Md.
Filed May 21, 1912. Serial No. 63,673. PUBLISHED JULY 9, 1912.

88,353. FERTILIZERS. PATAPSCO GUANO Co., Baltimore, Md.
Filed May 21, 1912. Serial No. 63,674. PUBLISHED JULY 9, 1912.

88,354. FERTILIZERS. PATAPSCO GUANO Co., Baltimore, Md.
Filed May 21, 1912. Serial No. 63,675. PUBLISHED JULY 9, 1912.

88,355. POULTRY FOOD. J. G. PEPPARD SEED Co., Kansas City, Mo.
Filed May 22, 1911. Serial No. 56,505. PUBLISHED JULY 2, 1912.

88,356. CERTAIN NON-ALCOHOLIC BEVERAGE. THE PEPSI-COLA Co., Newbern, N. C.
Filed February 21, 1912. Serial No. 61,656. PUBLISHED JULY 9, 1912.

88,357. WHEAT-FLOUR. THE PORTLAND FLOURING MILLS COMPANY, Portland, Oreg.
Filed March 7, 1912. Serial No. 61,980. PUBLISHED JULY 2, 1912.

88,358. WHEAT-FLOUR. THE PORTLAND FLOURING MILLS COMPANY, Portland, Oreg.
Filed March 7, 1912. Serial No. 61,983. PUBLISHED JULY 2, 1912.

88,359. WHEAT-FLOUR. THE PORTLAND FLOURING MILLS COMPANY, Portland, Oreg.
Filed March 14, 1912. Serial No. 62,152. PUBLISHED JULY 2, 1912.



88,360. ORANGES. LYDIA A. REDFIELD, Auburndale, Fla.
Filed November 7, 1911. Serial No. 59,601. PUBLISHED JULY 2, 1912.

88,361. GRAPE-FRUITS AND ORANGES. LYDIA A. REDFIELD, Auburndale, Fla.
Filed November 7, 1911. Serial No. 59,602. PUBLISHED JULY 2, 1912.

88,362. PAPER TABLETS AND NOTE-BOOKS. THE REYNOLDS & REYNOLDS COMPANY, Dayton, Ohio.
Filed March 28, 1912. Serial No. 62,476. PUBLISHED JUNE 25, 1912.

88,363. CANDY. ROACH, TISDALE & Co., Minneapolis, Minn.
Filed May 20, 1912. Serial No. 63,661. PUBLISHED JULY 9, 1912.

88,364. STERLING-SILVER AND SILVER-MOUNTED TABLEWARE, JEWELRY, TOILET ARTICLES, AND TOYS. ROGERS, LUNT & BOWLEN Co., Greenfield, Mass.
Filed April 4, 1912. Serial No. 62,653. PUBLISHED JUNE 25, 1912.

88,365. REMEDIES FOR COLDS, GRIPPE, AND HEADACHE. L. C. ROHLFING, St. Louis, Mo.
Filed August 5, 1910. Serial No. 51,279. PUBLISHED OCTOBER 17, 1911.

88,366. HORSESHOE-CALKS. THE ROWE PATENT CALK COMPANY, Hartford, Conn.
Filed May 15, 1912. Serial No. 63,553. PUBLISHED JULY 9, 1912.

88,367. HORSESHOE-CALKS. THE ROWE PATENT CALK COMPANY, Hartford, Conn.
Filed May 15, 1912. Serial No. 63,554. PUBLISHED JULY 9, 1912.

88,368. HORSESHOES. THE ROWE CALK COMPANY, Hartford, Conn.
Filed May 17, 1912. Serial No. 63,596. PUBLISHED JULY 9, 1912.

88,369. HORSESHOE-CALKS. THE ROWE PATENT CALK COMPANY, Hartford, Conn.
Filed May 17, 1912. Serial No. 63,637. PUBLISHED JULY 9, 1912.

88,370. HORSESHOE-CALKS. THE ROWE PATENT CALK COMPANY, Hartford, Conn.
Filed May 22, 1912. Serial No. 63,709. PUBLISHED JULY 9, 1912.

88,371. ALIMENTARY PASTE. SAN ANTONIO MACARONI FACTORY, San Antonio, Tex.
Filed April 19, 1912. Serial No. 62,987. PUBLISHED JULY 2, 1912.

88,372. CHILDREN'S LEATHER, CANVAS, AND RUBBER SHOES. SEARS, ROEBUCK AND Co., Chicago, Ill.
Filed May 4, 1912. Serial No. 63,302. PUBLISHED JULY 2, 1912.

88,373. REMEDY FOR CUTS AND BRUISES. SHINOHARA SHOZI, Tokyo, Japan, assignor to Shigetaro Nao, San Francisco, Cal.
Filed August 15, 1911. Serial No. 58,217. PUBLISHED JULY 9, 1912.

88,374. KITCHEN-CABINETS, CUPBOARDS, CLOSETS, AND TABLES. G. I. SELLERS & SONS COMPANY, Elwood, Ind.
Filed February 21, 1912. Serial No. 61,662. PUBLISHED JULY 9, 1912.

88,375. DYED OR PRINTED SATEENS. WM. SIMPSON SONS & Co., Philadelphia, Pa.; New York, N. Y.; Baltimore, Md.; Chicago, Ill., and St. Louis, Mo.
Filed January 27, 1911. Serial No. 54,110. PUBLISHED OCTOBER 31, 1911.

88,376. CERTAIN NAMED PHARMACEUTICAL PRODUCT. SOCIETY OF CHEMICAL INDUSTRY IN BASLE, Basel, Switzerland.
Filed February 6, 1912. Serial No. 61,303. PUBLISHED JULY 9, 1912.

88,377. COAL-TAR COLORS. SOCIETY OF CHEMICAL INDUSTRY IN BASLE, Basel, Switzerland.
Filed February 6, 1912. Serial No. 61,305. PUBLISHED JULY 9, 1912.

88,378. ENVELOPS. EDWARD G. SOLTMANN, New York, N. Y.
Filed May 6, 1912. Serial No. 63,372. PUBLISHED JULY 2, 1912.

88,379. WHEAT-FLOUR. THE SOUTHWESTERN MILLING COMPANY, Jersey City, N. J., and Kansas City, Mo.
Filed May 13, 1912. Serial No. 63,516. PUBLISHED JULY 2, 1912.

88,380. COOKING-PAPER. NICOLAS SOYER, London, England.
Filed June 9, 1911. Serial No. 56,931. PUBLISHED JULY 2, 1912.

88,381. BLENDED COFFEE. ST. LOUIS COFFEE & SPICE MILLS, St. Louis, Mo.
Filed May 4, 1912. Serial No. 63,292. PUBLISHED JULY 9, 1912.

88,382. BLENDED COFFEE. ST. LOUIS COFFEE & SPICE MILLS, St. Louis, Mo.
Filed May 21, 1912. Serial No. 63,676. PUBLISHED JULY 9, 1912.

88,383. REMEDY FOR SORE THROAT. ALBERT F. STIEFEL, Pittsburgh, Pa.
Filed February 29, 1912. Serial No. 61,810. PUBLISHED JULY 9, 1912.

88,384. SLIPPERS. SULTANA MFG. COMPANY, Cincinnati, Ohio.
Filed December 27, 1910. Serial No. 53,493. PUBLISHED JUNE 27, 1911.

88,385. CANNED SALMON. THE HARBOR PACKING Co., Port Blakeley, Wash.
Filed April 20, 1912. Serial No. 63,011. PUBLISHED JULY 9, 1912.

88,386. CERTAIN KINDS OF PAINT AND PAINTERS' MATERIALS. THE A. H. THOMAS PAINT COMPANY, Waverly, N. Y.
Filed March 6, 1912. Serial No. 61,956. PUBLISHED JULY 2, 1912.

88,387. THOMASPHOSPHAT. THOMASPHOSPHATFABRIKEN GESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG, Berlin, Germany.
Filed June 12, 1911. Serial No. 56,990. PUBLISHED JULY 9, 1912.

88,388. LUBRICATING-OIL. UNION WELL SUPPLY Co., Los Angeles, Cal.
Filed July 29, 1911. Serial No. 57,932. PUBLISHED FEBRUARY 6, 1912.

88,389. HATS. VANDERHOEF & COMPANY, New York, N. Y.
Filed May 25, 1912. Serial No. 63,806. PUBLISHED JULY 9, 1912.

88,390. HATS. VANDERHOEF & COMPANY, New York, N. Y.
Filed May 25, 1912. Serial No. 63,807. PUBLISHED JULY 9, 1912.

88,391. SOUND RECORDING OR REPRODUCING MACHINES AND PARTS THEREOF. VICTOR TALKING MACHINE COMPANY, Camden, N. J.
Filed April 2, 1909. Serial No. 41,575. PUBLISHED JULY 2, 1912.

88,392. REFINED PETROLEUM FOR ILLUMINATING, HEATING, AND POWER PURPOSES. WEST INDIA OIL COMPANY, Bayonne, N. J.
Filed May 25, 1912. Serial No. 63,792. PUBLISHED JULY 9, 1912.

88,393. CERTAIN NAMED TOOLS AND MACHINES. THE L. AND I. J. WHITE COMPANY, Jersey City, N. J., and Buffalo, N. Y.
Filed March 20, 1912. Serial No. 62,301. PUBLISHED JULY 9, 1912.

88,394. INSOLES FOR FOOTWEAR. JOHN C. WILLIAMS, Chicago, Ill.
Filed May 27, 1912. Serial No. 63,824. PUBLISHED JULY 9, 1912.

# LABELS

## REGISTERED SEPTEMBER 10, 1912.

16,561.—*Title:* "ALDENA WATER." (For Water.) ALDEN MINERAL WATER COMPANY, Buffalo and Alden, N. Y. Filed August 5, 1912.

16,562.—*Title:* "SOUTH POLE WHISKEY." (For Whisky.) S. FRIEDBERG, Norfolk, Va. Filed July 18, 1912.

16,563.—*Title:* "DRUMMOND'S ROYAL LIQUEUR." (For Scotch Whisky.) JOHN DRUMMOND & Co., Glasgow, Scotland. Filed August 6, 1912.

16,564.—*Title:* "EVABELLE." (For Cigars.) JULIUS BIEN COMPANY, New York, N. Y. Filed July 26, 1912.

16,565.—*Title:* "ARROW PAD GARTER." (For Garters.) LIBERTY GARTER MANUFACTURING COMPANY, New York, N. Y. Filed June 18, 1912.

# PRINTS

## REGISTERED SEPTEMBER 10, 1912.

3,095.—*Title:* "MECCA." (For Cigarettes.) THE AMERICAN TOBACCO Co., New York, N. Y. Filed August 10, 1912.

3,096.—*Title:* "THE MAN WITH THE DECANTER." (For Distilled Alcoholic Liquors.) CAHN, BELT & Co., Baltimore, Md. Filed August 6, 1912.

3,097.—*Title:* "KINGSFORD'S OSWEGO CORN STARCH." (For Corn-Starch.) NATIONAL STARCH COMPANY, New York, N. Y. Filed August 8, 1912.

3,098.—*Title:* "BERLIN." (For Cotton Piece Goods.) WM. SIMPSON, SONS & Co., Philadelphia, Pa.; New York, N. Y.; Baltimore, Md.; Chicago, Ill., and St. Louis, Mo. Filed August 12, 1911.



# DECISIONS

OF THE

# COMMISSIONER OF PATENTS

AND OF

# UNITED STATES COURTS IN PATENT CASES.

## COMMISSIONER'S DECISIONS

### EX PARTE REVERE RUBBER COMPANY.

*Decided July 31, 1912.*

TRADE-MARKS—"RED MAN" THE EQUIVALENT OF "INDIAN."

The words "Red Man" have come to be understood as the equivalent of "Indian" and the registration of these words *Held* properly refused in view of certain prior registrations in each of which the picture of an Indian is a predominating feature.

ON APPEAL.

TRADE-MARK FOR BELTING AND HOSE AND MACHINERY PACKING COMPOSED OF METAL, RUBBER, ETC.

*Messrs. Fraser, Turk & Myers* for the applicant.

MOORE, *Commissioner:*

This is an appeal from the decision of the Examiner of Trade-Marks refusing to register the words "Red Man" as a trade-mark applied to—

belting, hose and machinery packing composed of metal, rubber, rubber compositions or textile fabrics, or combinations thereof, pneumatic tires and solid rubber tires.

Registration was refused in view of the following registered marks: Goodyear Rubber Company, September 6, 1898, No. 31,929; Henion & Hubbell, December 24, 1901, No. 37,521; American Steam Packing Company, January 28, 1906, No. 49,141; Bay State Belting Co., May 12, 1908, No. 69,021.

Each of the registered marks includes the representation of an Indian or an Indian's head, and the mark of the Bay State Belting Co. likewise includes the word "Indian" in the expression "Indian Tanned." The Examiner has held that the words "Red Man" are the full equivalent of the picture of an Indian or the word "Indian," and he has also called attention to the fact that the labels filed by applicant include the representation of an Indian's head with full feather head-dress.

Appellant contends that "Red Man" is not the equivalent of "Indian" or the representation of an Indian and that the Office is not justified in referring to features on the label not claimed as parts of the trade-mark in deciding the question of similarity.

In my opinion the words "Red Man" have come to be understood in our language as the equivalent of "Indian," and the significance of applicant's mark is clearly the same as that of the registered marks, in each of which the picture of an Indian is the predominating feature. The propriety of considering features on the label not claimed as parts of the mark in deciding the question of similarity was considered in the recent case of *ex parte J. C. Blair Company*, in which a decision was rendered July 5, 1912, 182 O. G., 247. In that case the word "Tika" was held deceptively similar to "Swastika" in view of the fact that the label on which "Tika" was used also bore the representation of a swastika. It was there said:

There might be some doubt as to whether the contraction "Tika" would carry the same significance as the word "Swastika" in the absence of the evidence furnished by applicant's specimens. The application states that the mark has been used since February, 1908, and the specimens indicate both by the illustration and the legend that it has used it in such a way as to bear home to the mind of the purchaser in every instance that the word "Tika" is a contraction of the word "Swastika" and is intended to have the same significance. Under these circumstances it must be held that the two marks bear such a resemblance as would be likely to cause confusion as to the origin of the goods if both were used simultaneously upon similar goods.

The applicability of this ruling to the present case is obvious. In this instance if there were any doubt as to the significance of the words "Red Man" it is clear that the representation of the Indian's head immediately below the words on the label would bear home to the mind of the purchaser in every instance that the words were the equivalent of "Indian." It must be held that the applicant's mark was properly refused registration in view of the registered marks cited.

The decision of the Examiner of Trade-Marks is affirmed.

### EX PARTE BRENZINGER.

*Decided August 20, 1912.*

APPLICATION—PROSECUTION—ABANDONMENT.

Where no action was taken within one year from a decision of the Examiners-in-Chief affirming the action of the Examiner save the presentation of a petition that the case be reopened, which was denied, *Held* that the application is abandoned for lack of responsive prosecution.

ON PETITION.

CAN-BODY.

*Mr. Fred H. Bowersock* for the applicant.

MOORE, *Commissioner:*

This is a petition that applicant's prior petition



No. 2.]

and the decision of the Assistant Commissioner thereon rendered July 20, 1911, be considered such actions on the case as to save it from abandonment and that applicant be permitted to amend his drawing in a certain particular preparatory to further consideration either by the Board or the Commissioner in person.

It appears that the Examiners-in-Chief in a decision dated May 12, 1911, affirmed the action of the Primary Examiner rejecting applicant's claims. Thereafter applicant petitioned the Commissioner to admit a proposed amendment, which petition was denied on July 20, 1911, as above noted. On August 18, 1911, a letter was written to the attorney in the case in response to his inquiry of July 28, 1911, as to the proper amendment or procedure, informing him that any further action in the case should be by way of direct appeal to the Commissioner in person from the decision of the Examiners-in-Chief. No action was thereafter taken until June 21, 1912, when this petition was filed, this being more than a month after the expiration of the year following the decision of the Examiners-in-Chief.

It is clear that applicant's petition, which was denied on June 20, 1911, was not such an action as to save the case from abandonment. The latter part of Rule 171 is directly applicable:

> Prosecution of an application to save it from abandonment must include such proper action as the condition of the case may require. The admission of an amendment not responsive to the last official action, or refusal to admit the same, and any proceedings relative thereto, shall not operate to save the application from abandonment under section 4894 of the Revised Statutes.

The change in the drawings which applicant contends should have been required either by the Primary Examiner or by the Examiners-in-Chief before disposing of the case on its merits could obviously have had no effect on the patentability of the claims. These must stand or fall on the original disclosure, and the change in the drawing, if necessary, is only a matter of form. Owing to the fact that the case is abandoned, however, no further action thereon could be permitted in any event.

The petition is denied.

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CHILTON PRINTING CO. *v.* THE CLASS JOURNAL CO.

*Decided September 26, 1912.*

1. TRADE-MARKS—"AUTOMOBILE TRADE DIRECTORY"—NOT DESCRIPTIVE.

   The words "The Automobile Trade Directory" as applied to applicant's publication must be *Held* to constitute a valid trade-mark, these words not being so wholly descriptive of applicant's publication as to fall within the prohibition of the statute.

2. SAME—SIMILARITY.

   The title "The Automobile Trade Directory" as applied to a publication *Held* not so similar to the title "The Cycle and Automobile Trade Journal" as applied to a publication of the same class as to be likely to cause confusion in the mind of the public.

3. SAME—OPPOSITION.

   Where an opposer used neither the mark sought to be registered by the applicant nor one so similar thereto as to be liable to cause confusion in the mind of the public, he has no standing in the opposition proceedings, (citing *Underwood Typewriter Co. v. A. B. Dick Co.*, 163 O. G., 730; 36 App. D. C., 175.

APPEAL from Examiner of Interferences.

TRADE-MARK FOR A PUBLICATION.

*Mr. W. S. Jackson* for Chilton Printing Co.

*Mr. H. H. Byrne* and *Messrs. Knight Bros.* for The Class Journal Co.

C. C. BILLINGS, *First Assistant Commissioner:*

This is an appeal by The Class Journal Co. from a decision of the Examiner of Interferences sustaining an opposition filed by the Chilton Printing Co. and holding that The Class Journal Co. is not entitled to register the mark shown in its application.

The mark sought to be registered consists of the words "The Automobile Trade Directory" as a trade-mark for a publication. The opposition is based on the ground that the opposer publishes a similar publication to that of the applicant; that confusion in the trade and injury to the opposer had resulted from applicant's use of its mark, and that such confusion and injury would be increased by the registration of said mark. The notice of opposition also alleges that the mark sought to be registered is descriptive, and a ruling on that point is asked.

The record shows that the opposer and its predecessors have published for some years a magazine under the title "Cycle and Automobile Trade Journal;" that the issue of March, 1901, contained, in addition to news matter, a list of manufacturers of bicycles and of automobiles and their parts and accessories, and that a similar list has been published in each January issue of the "Cycle and Automobile Trade Journal." These special issues in addition to the regular title bore the designation "Buyers Guide Special."

Applicant's publication is issued quarterly and is alleged to be a classified list of all American manufacturers of automobiles and similar vehicles and of all makers of accessories thereto, machinery, and special equipment. It is not a news publication and is intended solely as a book of reference.

The Examiner of Interferences held that the record showed that the opposer had never used the words "The Automobile Trade Directory" as a name for its pubication or the special issues thereof prior to the filing of this opposition; that the titles "The Automobile Directory" and "The Cycle and Automobile Trade Journal" were not so alike as to be liable to cause confusion in the mind of the public, and that no evidence had been introduced which satisfactorily showed that such confusion had resulted. He held, however, that the opposer had a right to file the opposition, since the mark sought to be registered is descriptive of its publication as well as of that of the applicant, and that, being descriptive, its registration is forbidden by section 5 of the Trade-Mark Act. He accordingly sustained the opposition.

In my opinion the words "The Automobile Trade Directory" as applied to applicant's publication must be held to constitute a valid trade-mark, these words not being so wholly descriptive of applicant's publication as to fall within the prohibition of the statute.

In the case of *Social Register Ass'n v. Howard* (60 Fed. Rep., 270) the words "Social Register" as applied to a list of names and residences of persons living in New York city and the immediate vicinity thereof were held to constitute a valid trade-mark. In this case the court said:

> These words "Social Register" are clearly selected arbitrarily to designate the publication of the complainant, and cannot be properly called descriptive, in any sense. Hence, the words, when chosen, associated together, and applied to a list of persons selected at will by the compiler, as in the case at bar, become a trade-mark, and are entitled to protection as such.

This holding was referred to with approval in the case of the *Social Register Ass'n v. Murphy*, (128 Fed. Rep., 116–120.)

In my opinion the name of applicant's publication and that of the publication of the opposer are not so similar as to be liable to cause confusion. As pointed out by the Examiner of Interferences, there is no satisfactory evidence that confusion resulted by reason of the use of these titles. While the law is of course the same relating to trade-marks for publications as it is with respect to trade-marks for other merchandise, yet it is to be noted that the purchasing public of newspapers and publications is a more discriminating public than the general purchasing public of other kinds of merchandise and that for this reason the difference between two marks when applied to publications and newspapers need not be so distinct as when applied to ordinary merchandise.

Since the opposer used neither the mark sought to be registered by applicant nor one so similar thereto as to be liable to cause confusion in the mind of the public, it clearly has no standing in this opposition under the ruling of the Court of Appeals of the District of Columbia in the case of *Underwood Typewriter Company v. A. B. Dick Company*, (163 O. G., 730.) In that case opposition was filed to the registration of a mark on the ground that that mark was the name of a patented article and, the patent having expired, the mark was public property; but the opposer did not allege that he had ever applied the mark to goods of a similar character. The court, after referring to the decision in the case of *McIlhenny's Son v. New Iberia Extract of Tabasco Pepper Co., Ltd.*, (133 O. G., 995; 30 App. D. C., 337,) and *Battle Creek Sanitarium Co. v. Fuller*, (134 O. G., 1299; 30 App. D. C., 411,) said:

> Tested by the rule declared in those cases, the opposition is fatally defective. The opponent does not claim to have manufactured and put on the market a similar article to that on which the trade-mark has been used. The sole ground of opposition, therefore, is that the trade-mark of the proponent has become public property by reason of the expiration of the patent upon the machine. If the opponent has the right to oppose the registration, any other person could be recognized to make the same opposition in the public interest which, so far as the pleading is concerned, is all that is involved.

The rule is obviously the same whether the opposer has not manufactured goods like those of the applicant or whether it has not used a mark similar to that of the applicant.

But even if the mark were descriptive, as held by the Examiner of Interferences, this opposition would under the rulings in the cases cited have no standing, since, as above pointed out, opposer had not prior to filing the opposition used either the mark sought to be registered or one so similar thereto as to be likely to cause confusion in the mind of the public and deceive purchasers.

It is held, therefore, that applicant is entitled to register the mark shown in its application, and the decision of the Examiner of Interferences is reversed.

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EX PARTE HAMBY.

*Decided August 30, 1912.*

APPLICATION—PETITION—QUESTION OF SUFFICIENCY OF AFFIDAVITS NOT REVIEWED ON.

The question of the sufficiency of affidavits presented under Rule 75 is reviewable by the Examiners-in-Chief in the first instance.

ON PETITION.

SLIDE-RULE.

*Messrs. C. A. Snow & Co.* for the applicant.

TENNANT, *Assistant Commissioner:*

This is a petition—

> that the Examiner be advised that Rule 75 specifically and completely sets forth all requirements to be met in order to avoid a reference under said rule; that no additional requirements should be read into the rule by the Examiner; and that a showing of diligence between the time of the completion of the invention by the applicant and the time of the filing of his application for patent therefor, is not required by the rule and should not be insisted upon by the Examiner.

The record shows that in response to the rejection of certain claims an affidavit is filed purporting to establish the completion of the invention prior to the filing date of the reference. In response to this action of the applicant the Examiner stated:

> Applicant is advised that he must show cause for the delay of over two years between the completion of his device and the filing of the application. It is not thought that the mere submitting of his device to a firm of patent attorneys and the further manufacture of one or two of such rules, without any additional act of prosecution of the case, is sufficient to cover such a considerable lapse of time, particularly in view of the simplicity of his device. In this connection he is referred to the decision of Blount, (13 Gourick, p. 21, par. 13.)

The question presented in this petition clearly relates to the merits of the invention and is reviewable by the Examiners-in-Chief upon appeal in the first instance. It may be stated, however, that the character of affidavits required by Rule 75 is fully set forth in the decision in *ex parte McElroy* (140 O. G., 1207) and the decisions cited therein.

The petition is dismissed.

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## DECISIONS OF THE U. S. COURTS.

### Court of Appeals of the District of Columbia.

LEDERER *v.* WALKER.

*Decided May 20, 1912.*

1. INTERFERENCE—PRIORITY—REDUCTION TO PRACTICE—CONCEALMENT.

   "The principle governing *Mason v. Hepburn*, and cases following it, applies where the facts and circumstances of inaction show an intention to abandon, suppress, or conceal the knowledge of the invention, until notice of the entry of a subsequent inventor on the unoccupied field induces activity; and that mere delay, not induced by such facts and circumstances, may be explained and accounted for in accordance with the general principles governing the equitable doctrine of laches."

2. SAME—SAME—SAME—SAME.

"As Walker's application was not stimulated by knowledge of Lederer's subsequent invention, we are of the opinion that his delay in making the same, under all the facts and circumstances stated, was not so inexcusable as to estop him from claiming the reward of his earlier invention."

*Mr. E. A. Byrnes*, *Mr. J. H. Brickenstein*, and *Mr. Delphin M. Delmas* for the appellant.

*Mr. Guy Cunningham* and *Mr. F. P. Fish* for the appellee.

SHEPARD, *C. J.*:

This is an appeal from a decision of the Commissioner of Patents (179 O. G., 851) in an interference proceeding awarding priority to the claim of William H. Walker to the invention embraced in the following issue:

1. The process for the manufacture of solutions suitable as lacquers or varnishes and for other industrial purposes, which consists in dissolving a suitable organic compound in acetylene tetra-chlorid, substantially as described.

2. The process for the manufacture of solutions suitable as lacquers or varnishes and for other industrial purposes, which consists in dissolving suitable organic compounds in acetylene tetra-chlorid and another solvent of the said compound substantially as described.

3. The process for the manufacture of solutions suitable as lacquers or varnishes and for other industrial purposes, which consists in dissolving an acidified cellulose in acetylene tetra-chlorid, substantially as described.

4. The process for the manufacture of solutions suitable as lacquers or varnishes and for other industrial purposes, which consists in dissolving acetyl cellulose in acetylene tetra-chlorid, substantially as described.

5. A composition of matter consisting of a solution of acidified cellulose in acetylene tetra-chlorid, substantially as described.

6. A composition of matter consisting of a solution of acidified cellulose in acetylene tetra-chlorid and another solvent, substantially as described.

7. A composition of matter consisting of a solution of acetyl cellulose in acetylene tetra-chlorid, substantially as described.

8. A composition of matter consisting of a solution of acetyl cellulose in acetylene tetra-chlorid and another solvent substantially as described.

As stated by the appellant, the first five counts of the foregoing issue embody the idea of the solution of cellulose acetate in acetylene tetrachlorid; the last three counts, the idea of the solution of cellulose acetate in acetylene tetrachlorid and another solvent.

It is conceded, as found by the tribunals of the Office, all of which concurred in awarding priority to Walker, that he discovered the invention of the issue in October, 1901; and that he reduced the same to practice between October, 1901, and May, 1902. Lederer, a resident of Germany, filed his application April 10, 1905. Walker filed October 23, 1905. A patent issued to Lederer November 21, 1905; but as Walker's application was then pending no advantage accrues to Lederer thereby, so far as the burden of proof is concerned. Lederer was the last to conceive and reduce to practice, but the first to enter the Patent Office. The reduction to practice by Walker consisted in trying the solvents and testing their efficiency. No commercial use was made. It will be perceived that about four years elapsed between this test and the filing of his application. The appellant has conceded the facts and bases his contention of error on Walker's delay. He relies on the following assignment of error:

The Commissioner erred in not holding that Walker was barred by his own laches from applying for a patent as against Lederer, a subsequent independent inventor, who had made his invention in good faith, without knowledge or notice of Walker's prior invention or claim.

His contention is thus stated:

We contend that the claim of a first inventor for a patent is lost by his unreasonable neglect after he has reduced his invention to practice to apply for a patent.

Our contention—

he further says—

is that neither an actual intention to abandon, nor other statutory bar is an essential or indispensable element to the postponement of the first inventor's claim of priority, and that such postponement may be based upon the sole ground of negligence in applying for a patent. The doctrine upon which we rely is based neither upon the idea of abandonment, nor upon that of immoral intent. Laches constitutes its sole foundation.

This clear and candid statement of their position by counsel for the appellant, which has been maintained before every tribunal of the Patent Office, eliminates any question of actual abandonment of the invention by the appellee, or of an intent to conceal or suppress knowledge of it.

Counsel cite many decisions in support of their contention. Some of these relating to laches in making actual or constructive reduction to practice after the complete conception of an invention have no bearing on this controversy, because reduction had been made before the independent, rival inventor entered the field. Many of the other cases cited are reviewed in *Mason* v. *Hepburn*, (13 App. D. C., 86,) on which reliance is had. *Mason* v. *Hepburn* was a case of deliberate secretion of an invention after its reduction to practice, for about seven years, during which interval another, without knowledge of the work of the first inventor, conceived the same invention, and procured a patent for it. The first inventor was stirred to activity by the knowledge of the latter's patent. It was held that the first inventor had lost his right. In an opinion reviewing the previous decisions bearing on the principle involved, it was said, (p. 95:)

Considering, then, this paramount interest of the public in its bearing upon the question as presented here, we think it imperatively demands that a subsequent inventor of a new and useful manufacture or improvement who has diligently pursued his labors to the procurement of a patent in good faith and without any knowledge of the preceding discoveries of another, shall, as against that other, who has deliberately concealed the knowledge of his invention from the public, be regarded as the real inventor and as such entitled to his reward.

This has become the settled doctrine of this court. (*In re Mower*, 15 App. D. C., 144–154; *Thomson* v. *Weston*, 19 App. D. C., 373–379; *Mathes* v. *Burt*, 24 App. D. C., 255–269–270; *Dieckmen* v. *Brune*, 37 App. D. C., 399–408. See also *Curtain Supply Co.* v. *National Lock Washer Co.*, 174 Fed., 45–47.) In each of those cases there was a deliberate suppression of the invention for different periods, during which another independent inventor entered the field and reducing the invention diligently to practice, introduced it to the trade. The first inventor was in each instance stirred to activity by the knowledge of his rival's successful exploitation of the invention. In other cases the doctrine is approved, though not essential to the particular decision. (*Werner* v. *Smith*, 13 App. D. C., 111; *Howard* v. *Bowes*, 31 App. D. C., 619–625.)

None of the cases cited support the doctrine that mere delay in applying for a patent, after actual reduction to practice, will necessarily subordinate the first inventor's right to one who in the meantime has applied for a patent for the same invention;





though it may be a potent circumstance in determining whether the alleged reduction to practice had, in fact, been made: The right of the first inventor who has actually reduced to practice has always been respected where there is no doubt of actual reduction to practice, and consideration has always been given to the circumstances excusing the delay. (*Hoty* v. *Newton*, 14 App. D. C., 50–53–54.) In that case it was held that the circumstances of the delay did not bring it within the operation of the principle governing *Mason* v. *Hepburn*, *supra*. It was said, (p. 54:)

By actual reduction to practice the right to the invention becomes perfect, and can only become subordinate to the claim of a subsequent *bona fide* inventor by some such course of conduct as that shown in *Mason* v. *Hepburn*, *supra*, and cases therein cited. The importance of mere delay while the inventor is engaged in the prosecution of other improvements in the same art is in its weight—more or less great, according to the explanatory circumstances—in determining whether the attempted reduction to practice of the device amounted to an actual demonstration of its practical efficacy and utility, or fell short thereof and rendered it nothing more than an abandoned experiment.

Later, apprehending that there was a disposition to give the doctrine of *Mason* v. *Hepburn* a wider scope than was justified, the court took occasion to say that the rule of that case "will not be extended to any case not coming clearly within it." (*McBerty* v. *Cook*, 16 App. D. C., 133–139. See also *Oliver* v. *Felbel*, 20 App. D. C., 255–262.) In *Oliver* v. *Felbel*, Mr. Justice Morris further explained the limitation of the doctrine as follows:

The diligence required of an inventor is diligence rather in the reduction of his invention to practice than in application to the Patent Office or in manufacturing his device for public use. It is very true, as we held in *Mason* v. *Hepburn*, *Werner* v. *Smith*, and other cases that delay long and unexplained, and yielding to activity only where the knowledge come of the entrance of a rival on the field, is always presumptive evidence that what is claimed to have been reduction to practice was no more in fact than an unsatisfactory or abandoned experiment. But when reduction to practice has been satisfactorily shown, and there is no unreasonable, or unexplained delay, there is no law that would bar the first or original inventor of his right. In order to give to delay the effect of destroying such a right, there must be some circumstance of concealment, suppression or abandonment of the invention.

To the same effect see *Rolfe* v. *Hoffman*, (26 App. D. C., 336–341;) *Burson* v. *Vogel*, (29 App. D. C., 388–395;) *Rolfe* v. *Kaisling*, (32 App. D. C., 582–588.) In the last named case, Leeper, to whom priority was awarded, conceived the invention and undoubtedly reduced it to practice; but he waited four years before applying for a patent. Under the explanatory circumstances the delay was held no bar. Having found the facts concerning the earlier conception of Leeper and his reduction to practice, Mr. Justice Robb, who delivered the opinion of the court, said:

There is no controversy regarding the date to which Leeper is entitled, which is earlier than the earliest date even claimed by Rolfe. It is, however, contended that Leeper by his long delay in filing his application is estopped to set up his rights against those of Rolfe, who was diligent both in respect to reduction to practice and in applying for a patent. It is true that Leeper's application was not filed until May 28, 1904. It is also true that he did not conceal or abandon his invention. The evidence shows quite the contrary. He appears to have realized its value, to have discussed it freely with others, and to have endeavored to interest men of means to exploit it. We do not think the evidence brings the case within the doctrine enunciated in *Mason* v. *Hepburn*, *supra*, and *Werner* v. *Smith*, (13 App. D. C., 111,) but rather under the rule announced in *Rolfe* v. *Hoffman*, (26 App. D. C., 336–341.)

The foregoing review shows that the principle governing *Mason* v. *Hepburn*, and cases following it, applies where the facts and circumstances of inaction show an intention to abandon, suppress, or conceal the knowledge of the invention, until notice of the entry of a subsequent inventor on the unoccupied field induces activity; and that mere delay, not induced by such facts and circumstances, may be explained and accounted for in accordance with the general principles governing the equitable doctrine of laches. It remains to consider the evidence of Walker explanatory of his delay and apply thereto the principles of law that have been declared.

As we have seen, it is admitted that there was no intention on the part of Walker either to abandon his invention after testing its efficacy, or to conceal it from the knowledge of the public. The charge against him is that he slept upon his rights, for about four years, and thus by his failure to apply for a patent during that time he has forfeited his right to the later inventor.

The later inventor, who in his laboratory in Germany had made the same discovery and tested it as Walker had done, had not made commercial use of the invention; nor had he obtained a patent for it prior to the filing of Walker's application. Walker had no knowledge of Lederer's discovery and was not roused to action thereby. Lederer's application for the patent was not known to him because of the rule of secrecy that governs Patent Office procedure in such matters.

Coming now to the facts relating to Walker's discovery of the solvent, his test of the same, and the excuses for his delay in applying for a patent, it appears that he was a learned and skilful chemist. He had been an instructor in chemistry in a Pennsylvania college, and in the Boston Institute of Technology; later was professor of industrial chemistry in the latter institution. In 1901, he entered into partnership with Arthur D. Little, who was also a skilled chemist with reputation for his work in cellulose and its derivations, to engage in analytical, consulting and research work in chemistry. Cellulose nitrate had long been in use with well-known solvents, but there was a lack of practical solvents for cellulose acetate. Chloroform and phenol had been used as solvents, but their use commercially was attended with serious practical disadvantages. Being interested in the development of the uses of cellulose acetate, Walker was energetic in his efforts to discover an additional solvent that could be utilized. In the course of those efforts he conceived the idea that acetylene tetrachlorid would accomplish the purpose. This compound was little known. It had never been produced in the United States, and in Europe only as a laboratory experiment. It could not be obtained in the market at the time of his conception of its availability as an efficient solvent. Being too busy at the time of his conception of the idea in October, 1901, to undertake the production of the acetylene tetrachlorid, he employed Professor Norris to produce a small quantity in the laboratory. The latter, by a method described by a French chemist, Mouneyrat, succeeded in producing

a very small quantity. Walker and Norris found this sufficient to test the solubility of cellulose acetate therein. They found that it dissolved readily and also in various by-products formed during the process of making the acetylene tetrachlorid. This was a reduction to practice of some of the counts of the issue. Later experiments reduced to practice the remaining counts in May, 1902. The invention was then complete. Walker communicated it to Little, and obtained a written report from Professor Norris fully explaining the entire process from the production of the acetylene tetrachlorid to the final test of the solution. During 1902, Walker disclosed his invention to Mr. Callan of the General Electric Company, and to Mr. Buchanan, head of the experimental chemical laboratory of Stone & Webster, who was then engaged in the manufacture of chlorin substitution products of methane such as carbon tetrachlorid and chloroform. There was no injunction of secrecy concerning the disclosure. As the acetylene tetrachlorid could not be procured for commercial use, Walker, with the aid of competent assistants set about methods of producing the same. The attempts were attended with serious and dangerous explosions. Sufficient quantities of the compound were made during 1902 to thoroughly test the efficacy of the solution. Films were made and preserved. But the process was too dangerous and expensive to obtain the new solvent for commercial use. An experiment made in December, 1902, was attended with a very damaging explosion. Walker went to Europe in the spring of 1903, part of his purpose being to investigate the different processes which might be useful for the manufacture of chemicals useful in the preparation and handling of cellulose acetate. The making of artificial silk seems to have been one of his chief objects of investigation. In August, 1903, he and his associate chemists heard that Dr. Askenasy, of Nuremberg, Germany, had a process for manufacturing acetylene tetrachlorid on a commercial scale, that he was working to begin. Walker wrote to Askenasy in October, 1903, requesting the price in lots of 2,000 pounds. It was not until in a letter of February 24, 1904, that Askenasy replied stating that he had at last completed his works, and quoting price. March 8, 1904, Walker wrote Askenasy ordering 50 kilos of acetylene tetrachlorid. Askenasy replied, April 7, 1904, that he would make the shipment of the order in about fourteen days. Not receiving notice of the shipment Walker wrote, on May 24, 1904, making inquiry. June 8, Askenasy wrote saying it was impossible to ship until the following week, and excused his delay. The shipment was finally received in September, 1904. Solutions were made, and in December a mixture of solvent was sent to the General Electric Company. Samples of the solutions and films were sent to France in January, 1905. Before going abroad in June, 1905, Walker prepared a draft of a specification for an application for patent. It was not in shape for executing and filing. It was worked on during Walker's absence, by Little and Mork. It was executed by Walker after his return and filed October 23, 1905.

As Walker's application was not stimulated by knowledge of Lederer's subsequent invention, we are of the opinion that his delay in making the same, under all the facts and circumstances stated, was not so inexcusable as to estop him from claiming the reward of his earlier invention. The situation is quite similar to that disclosed in *Rolfe* v. *Kiesling, supra*, in which the claim of the earlier inventor was sustained.

Perceiving no error in the decision appealed from, it will be affirmed. It is so ordered, and the clerk will certify this decision to the Commissioner of Patents.

Affirmed.

## Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., September 5, 1912.*

*Meyer & Dickinson, their assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of the Miesch Manufacturing Company, corner Leslie and Courtland streets, Paterson, N. J., for registration of a trade-mark and trade-mark No. 27,173, registered November 5, 1895, to Meyer & Dickinson, 80 Green street, New York, N. Y., and 227 Chestnut street, Philadelphia, Pa., and a notice of such declaration sent by registered mail to said Meyer & Dickinson at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Meyer & Dickinson, their assigns or legal representatives, shall within thirty days from the date of first publication of this order enter an appearance therein the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., August 27, 1912.*

*James W. Popham & Co., its assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of The American Ink Company, 2163 Arapahoe street, Denver, Colo., for registration of a trade-mark and trade-mark No. 15,937, registered October 9, 1888, to James W. Popham & Co., of Elizabethtown, Ky., and a notice of such declaration sent by registered mail to said James W. Popham & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said James W. Popham & Co., its assigns or legal representatives, shall within thirty days from the first publication of this order enter an appearance therein the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., August 22, 1912.*

*James Hancock, his assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Fitzpatrick & Draper, of 330 River street, Troy, N. Y., for registration of a trade-mark and trade-mark No. 9,813, registered November 21, 1882, to James Hancock, of Lynchburg, Va., and a notice of such declaration sent by registered mail to James Hancock at the address of record having been returned by the post-office undelivered, notice is hereby given that unless said James Hancock, his assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*





THE
# OFFICIAL GAZETTE
OF THE
# United States Patent Office.

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| Patents | 455—No. | 1,038,511 to No. | 1,039,075, inclusive. |
| Designs | 5—No. | 42,025 to No. | 42,029, inclusive. |
| Trade-Marks | 46—No. | 88,395 to No. | 88,440, inclusive. |
| Labels | None. | | |
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### TO CITIZENS OF THE UNITED STATES.

| States. | Patents and Designs. | Trade-Marks, Labels, and Prints. | States. | Patents and Designs. | Trade-Marks, Labels, and Prints. |
|---|---|---|---|---|---|
| Alabama | 4 | | New York | 73 | 5 |
| Arizona | | | North Carolina | 2 | |
| Arkansas | | | North Dakota | 1 | |
| California | 19 | 6 | Ohio | 45 | 1 |
| Colorado | 14 | | Oklahoma | 8 | |
| Connecticut | 6 | | Oregon | 3 | |
| Delaware | | | Pennsylvania | 36 | 1 |
| Florida | | | Rhode Island | 15 | 1 |
| Georgia | 2 | | South Carolina | | 1 |
| Idaho | 2 | | South Dakota | | |
| Illinois | 62 | 7 | Tennessee | 4 | 1 |
| Indiana | 14 | 1 | Texas | 11 | |
| Iowa | 10 | 1 | Utah | 4 | |
| Kansas | 7 | | Vermont | 1 | |
| Kentucky | 5 | | Virginia | 5 | |
| Louisiana | 7 | | Washington | 12 | 2 |
| Maine | 1 | | West Virginia | | |
| Maryland | 1 | | Wisconsin | 10 | 2 |
| Massachusetts | 23 | 1 | Wyoming | 1 | |
| Michigan | 15 | 2 | | | |
| Minnesota | 12 | | Canal Zone | | |
| Mississippi | 1 | | District of Columbia | 5 | |
| Missouri | 10 | 1 | Hawaii Territory | | 1 |
| Montana | 1 | | Philippine Islands | | |
| Nebraska | 5 | | U. S. Army | | |
| Nevada | | | U. S. Navy | | |
| New Hampshire | 2 | | | | |
| New Jersey | 15 | 3 | Total to citizens of the United States | 502 | 42 |
| New Mexico | 2 | | | | |

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| Countries. | Patents and Designs. | Trade-Marks. | Countries. | Patents and Designs. | Trade-Marks. |
|---|---|---|---|---|---|
| Argentina | | | Madeira | | |
| Austria-Hungary | 3 | 1 | Mexico | 1 | |
| Belgium | | | Netherlands | | |
| Bermuda | | | Newfoundland | | |
| Brazil | | | New South Wales | 1 | |
| British West Indies | | | New Zealand | | |
| Canada | 14 | | Norway | | |
| Chile | | | Queensland | 1 | |
| China | | | Russia | 3 | |
| Costa Rica | | | Scotland | | |
| Cuba | | | Spain | | |
| Denmark | 1 | 1 | Sweden | 1 | |
| Ecuador | | | Switzerland | 1 | |
| Egypt | | | Tasmania | | |
| England | 8 | | Transvaal, South Africa | 1 | |
| France | 6 | | Victoria | | |
| Germany | 26 | 1 | Western Australia | | |
| Guatemala | | | Total to citizens of foreign countries | 67 | 4 |
| Ireland | | 1 | | | |
| Italy | | | | | |
| Japan | | | | | |

## Amendments.

RULE 73. In every amendment the exact word or words to be stricken out or inserted in the application must be specified and the precise point indicated where the erasure or insertion is to be made. All such amendments must be on sheets of paper separate from the papers previously filed, and written on but one side of the paper. Erasures, additions, insertions, or mutilations of the papers and records must not be made by the applicant.

Amendments and papers requiring the signature of the applicant must also, in case of assignment of an undivided part of the invention, be signed by the assignee. (Rules 6, 107.)

## Communications to the Patent Office.

RULE 9. A separate letter should in every case be written in relation to each distinct subject of inquiry or application. Assignments for record, final fees, and orders for copies or abstracts must be sent to the Office in separate letters.

## Patent Office Classification.

Copies of the Manual of Classification of Subjects of Invention of the United States Patent Office, revised to January 1, 1912, may be obtained from the Commissioner of Patents for ten cents each.

Copies of the Supplement to the Manual of Classification, containing the definitions of the classes and subclasses that have been revised to January 1, 1912, 495 pages, paper covers, may be obtained from the Commissioner of Patents for fifty cents each. A small number of copies of the "supplement," printed on one side only and unbound, may be had for fifty cents. These may be bound by the purchaser to suit himself and the blank pages utilized to note changes of classification as published from time to time in the OFFICIAL GAZETTE, or they may be retained in temporary binders for convenience in correcting the classification by interleaving the Classification Bulletins containing the definitions of revised classes as completed.

## APPLICATIONS UNDER EXAMINATION.

*Condition at Close of Business September 14, 1912.*

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. New. | Amended | No. of applications awaiting action. |
|---|---|---|---|---|
| 313 | 1. Fences; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers. | July 12 | July 10 | 728 |
| 128 | 2. Bee Culture; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco. | June 14 | July 22 | 487 |
| 175 | 3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Shaping Fluid Metal. | Aug. 15 | Sept. 3 | 197 |
| 232 | 4. Bridges; Conveyers; Cranes and Derricks; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures. | July 6 | July 8 | 618 |
| 167 | 5. Bookbinding; Harvesters; Jewelry; Music. | June 24 | July 1 | 592 |
| 318 | 6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Medicines; Preserving; Sugar and Salt. | July 15 | Aug. 5 | 369 |
| 312 | 7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Nut and Bolt Locks; Optics; Velocipedes. | Mar. 7 | May 13 | 1062 |
| 131 | 8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports. | June 12 | Aug. 1 | 748 |
| 142 | 9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Pumps; Wind-Wheels. | May 21 | July 25 | 467 |
| 235 | 10. Carriages and Wagons | May 25 | July 1 | 845 |
| 154 | 11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus. | June 6 | July 15 | 376 |
| 322 | 12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements. | July 3 | June 26 | 853 |
| 329 | 13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Turning. | June 10 | July 18 | 481 |
| 307 | 14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working. | July 20 | Aug. 1 | 370 |
| 308 | 15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Liquid Coating Compositions; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastic Compositions; Plastics. | June 1 | July 22 | 983 |
| 109 | 16. Telegraphy; Telephony | June 22 | June 15 | 434 |
| 303 | 17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making. | July 27 | Aug. 6 | 313 |
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| 236 | 19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces. | July 17 | July 12 | 513 |
| 179 | 20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking. | July 20 | July 16 | 351 |
| 112 | 21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling. | May 4 | June 17 | 522 |

*Applications Under Examination*—Continued.

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. New. | Amended | No. of applications awaiting action. |
|---|---|---|---|---|
| 249 | 22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships. | June 6 | July 22 | 367 |
| 379 | 23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism. | June 22 | July 12 | 561 |
| 144 | 24. Apparel; Apparel Apparatus; Sewing-Machines. | June 14 | July 5 | 526 |
| 315 | 25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers. | Aug. 9 | Aug. 14 | 186 |
| 106 | 26. Electricity, Generation; Motive Power. | Mar. 13 | Apr. 6 | 807 |
| 372 | 27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus. | July 16 | July 16 | 479 |
| 65 | 28. Internal-Combustion Engines | June 12 | June 11 | 1086 |
| 147 | 29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools. | May 20 | July 12 | 617 |
| 152 | 30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines. | June 17 | July 22 | 443 |
| 172 | 31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue. | June 27 | July 26 | 301 |
| 278 | 32. Carbonating Beverages; Curtains, Shades, and Screens; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration. | July 15 | July 25 | 264 |
| 71 | 33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes. | May 28 | July 2 | 453 |
| 304 | 34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners. | June 17 | July 6 | 695 |
| 244 | 35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet. | July 30 | July 30 | 831 |
| 264 | 36. Drafting; Driers; Engraving; Measuring Instruments; Photography. | July 22 | July 6 | 695 |
| 107 | 37. Electric Lighting; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications. | July 15 | July 16 | 359 |
| 378 | 38. Animal Husbandry; Artesian and Oil Wells; Fishing and Trapping; Stationery; Stone-Working. | June 1 | June 26 | 803 |
| 321 | 39. Water Distribution | May 25 | June 17 | 564 |
| 280 | 40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles. | Aug. 3 | Aug. 17 | 455 |
| 125 | 41. Railway Draft Appliances; Resilient Tires and Wheels. | June 24 | July 12 | 606 |
| 279 | 42. Electric Railways; Electric Signaling; Railway Signaling; Signals. | July 8 | July 9 | 481 |
| 382 | 43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification. | July 12 | July 16 | 399 |

Oldest new case, Mar. 7; oldest amended, Apr. 6

Total number of applications awaiting action..... 23,643

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| 161 | TRADE-MARKS, DESIGNS, LABELS AND PRINTS: | | | |
| | Trade-Marks | June 10 | July 30 | 1319 |
| | Designs | July 1 | July 30 | 266 |
| | Labels and Prints | Aug. 20 | Aug. 14 | 86 |



# PATENTS

## GRANTED SEPTEMBER 17, 1912.

1,038,511. COOLER. ALFRED E. ANDERSEN, Copenhagen, Denmark, assignor to F. L. Smidth & Co., New York, N. Y., a Corporation of New York. Filed Dec. 21, 1910. Serial No. 598,539. (Cl. 62—29.)



1. A cooler comprising a longitudinal drum revoluble about an axis to which it is eccentric, housings by which the drum is supported, a jacket about the drum, means to deliver to the drum through one of the housings the material to be cooled, a central pipe for the cooling medium extending throughout the length of the drum, and a plurality of ducts extending therefrom into the jacket of the drum intermediate the ends of the latter.

2. A cooler comprising revoluble end housings, longitudinal drums carried by said housings and symmetrically disposed about the axis of revolution, means to deliver to said drums through one of said housings the material to be cooled, jackets about said drums and a central pipe connected with said jackets intermediate their ends to supply a cooling medium.

3. A cooler comprising a longitudinal drum revoluble about an axis to which it is eccentric, housings by which the drum is supported, a jacket about the drum, means to deliver to the drum through one of the housings the material to be cooled, a central pipe connected with said jacket intermediate its ends to supply a cooling medium, and means to admit a limited quantity of a cooling medium to said drum.

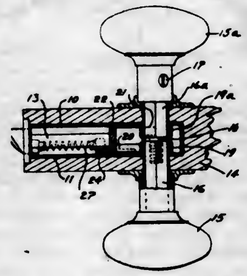
4. A cooler comprising a longitudinal drum, a revoluble end housing by which the drum is supported for revolution about an axis to which it is eccentric, means to deliver to the drum through the housing the material to be cooled, a jacket about the drum, means to supply to the jacket a cooling medium, a plurality of partitions disposed interiorly of the drum adjacent its discharge end, a duct in each of said partitions so disposed as to be out of register with the duct of the adjacent partition whereby discharge of the cooled material is permitted while the admission of air is limited.

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1,038,512. LOCK. ANDERS GUSTAF ANDERSON, New York, N. Y. Filed Nov. 20, 1911. Serial No. 661,300. (Cl. 70—42.)

1. In a lock, the combination of a bolt, a spring for throwing the same, handles at opposite sides of the lock having independently rotatable stems, a single arm lever on one of said stems constructed and arranged to directly hold the bolt in locked position when its stem is turned in one direction and also to retract the bolt when its stem is turned in the opposite direction, and a double arm lever on the other stem constructed and arranged to retract the bolt when said stem is turned in either direction, but incapable of locking the bolt.

2. In a lock, the combination of a bolt having a yoke, handles at opposite sides of the lock having independently rotatable stems, an arm on one of said stems located within the yoke and constructed and arranged to engage with the front of the yoke to throw and directly hold the bolt in locked position and with the back of the yoke to retract the bolt, and a double arm lever on the other stem also located within said yoke and adapted to engage with the back of the yoke when its stem is turned in either direction to retract the bolt.



3. In a lock, the combination of a bolt, a handle, an arm carried by the handle constructed and arranged to throw and directly hold the bolt in locked position, a plate pivoted to one side of said bolt and said arm, having the edge thereof bearing against the face of the arm, being positioned so that the latter displaces it in moving to and from locking position, and means pressing said plate against the arm so as to retain it in either position.

4. In a lock, the combination of a sectional casing, screws connecting the sections thereof together, a bolt, a handle, a lever connected with the handle and constructed and arranged to lock the bolt in thrown position, a yielding detent for holding the arm positioned so that the arm rides against and displaces it, said detent being pivoted on one of said screws and engaging with another thereof as a limit stop, and a spring acting on said detent in opposition to the arm.

5. In a lock, the combination of a bolt having a yoke, a handle, a lever connected with the handle and located inside said yoke, said lever being constructed and arranged to engage with the front part of the yoke to lock the bolt in thrown position and with the back part of the yoke to retract the bolt and a spring-pressed plate for yieldingly holding the lever, being pivoted independently of the bolt by the side of said yoke with an edge in position intercepting the path of said lever to and from locking position.

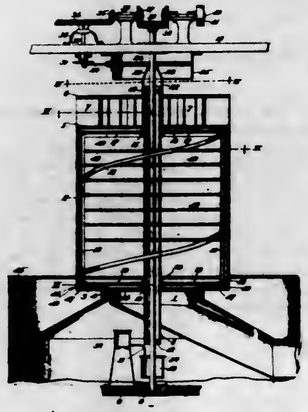
[Claims 6 to 8 not printed in the Gazette.]

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1,038,513. APPARATUS FOR SEPARATING SMOKE-SUSPENDED MATTER. HAMILTON EDWARD ANDERSON, Wichita, Kans. Filed Apr. 29, 1905. Serial No. 258,125. (Cl. 110—137.)

1. In an apparatus of the character described, a stack comprising a stationary portion to receive the products of

combustion and a revoluble portion having an opening in one end to receive the products of combustion from the stationary portion and an opening in its opposite end for the discharge of such products, a revoluble scraper within said revoluble portion and adapted to scrape the wall of the latter, and means encircled by the revoluble scraper for causing the products of combustion in passing through the revoluble portion to travel circularly.



2. In an apparatus of the character described, a stack comprising a stationary portion to receive the products of combustion and a revoluble portion having an opening in one end to receive the products of combustion from the stationary portion and an opening in its opposite end for the discharge of such products, a revoluble scraper within said revoluble portion and adapted to scrape the wall of the latter, means encircled by the revoluble scraper for causing the products of combustion in passing through the revoluble portion to travel circularly, and means for automatically traveling on the lower end of the revoluble portion to discharge the scrapings off the wall from the stack.

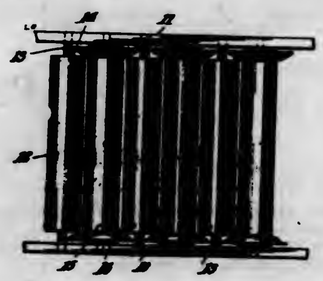
3. In an apparatus of the character described, a stack comprising a stationary portion to receive the products of combustion and a revoluble portion to receive the products of combustion from the stationary portion, revoluble means within the revoluble portion of the stack for causing the products of combustion in passing through the revoluble portion to travel circularly, suitable horisontal portions rotating with the means revolving within the revoluble portion of the stack for preventing the products of combustion from passing vertically upward through the stack near the wall thereof, and means for scraping adhering matter from said wall to permit it to drip down to the bottom of the revoluble portion.

4. In an apparatus of the character described, a stack comprising a stationary portion to receive the products of combustion and a revoluble imperforate portion open at each end and adapted to receive at its lower end the products of combustion from the stationary portion and discharge them at its opposite end, and a turbine wheel at the discharge end of said revoluble portion to utilize a portion of the kinetic energy of the discharge products and revolve the revoluble portion.

5. In an apparatus of the character described, a stack, comprising a stationary portion, and a revoluble portion to receive the products of combustion from the stationary portion and provided with one or more discharge openings, means rotatable with the revoluble portion and within the same for causing the products of combustion to pass circularly through said revoluble portion and impinge against the wall of the same, and means to scrape the adhering matter from the wall of said revoluble portion and dispose it in position to be discharged through said discharge openings.

[Claims 6 to 9 not printed in the Gazette.]

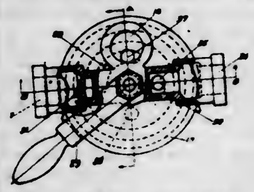
1,038,514. GRAVITY-CONVEYER. JOHN WILLIAM ANDERSON, Jr., Woodland, Ill. Filed May 31, 1911. Serial No. 630,500. (Cl. 193—1.)



1. A gravity conveyer consisting of a plurality of rollers, some but not all of which are provided with means for preventing the lateral movement of the article conveyed.

2. A gravity conveyer consisting of a plurality of equally spaced rollers, flanges arranged on some of said rollers for preventing the lateral movement of the article conveyed, said flanges being of a diameter greater than the distance between the unflanged adjacent rollers.

1,038,515. ATTACHMENT FOR STEAM-LOCOMOTIVES. HALSTEAD T. AYDELOTT, Birmingham, Ala. Filed Mar. 30, 1911. Serial No. 617,828. (Cl. 137—26.)



1. A locomotive attachment comprising a controller valve adapted to be located in the cab, means to supply fluid pressure to said valve, a blower pipe for the locomotive, a fluid pressure controlled valve for controlling the flow of fluid pressure to the blower pipe, separate fluid pressure pipe lines leading from said controller valve and adapted to deliver fluid pressure to operate respectively a bell ringer and said fluid pressure controlled valve, there being a port in the casing for said controller valve for each of said pipe lines, and there being ports in the movable member of the controller valve adapted to simultaneously control the fluid pressure conditions in said several pipe lines, as and for the purposes described.

2. A locomotive attachment comprising a multi-ported valve adapted to be located in the cab and comprising a valve casing and a pipe connection therefrom to a suitable source of fluid pressure, a rotary disk valve mounted in the casing and held against its seat by the fluid pressure therein, said disk valve having ports 33, 34 extending therethrough and a curved groove in its seat face disposed on the opposite side from said ports, a multi-ported seat for the disk valve having on one side an exhaust port with which said groove is adapted to be brought into communication and adjacent thereto and on the same side thereof two ports 35, 37, said several ports and groove being so arranged relatively to each other that as the valve is moved from one operating position to another the ports 33, 34 are adapted to successively register with port 35, and port 37 adapted to successively register with port 34 and said groove, a pipe leading from port 37 adapted to deliver fluid pressure to control the operation of valve mechanism in the blower line, and a pipe leading from port 35 adapted to deliver fluid-pressure to operate a bell ringer mechanism, substantially as described.

3. A locomotive attachment comprising a valve, adapted to be located in the cab and comprising a valve casing having a fluid pressure supply port, a rotary disk valve disposed within said casing, a ported seat for said valve against which said valve is held by the fluid pressure in the casing, spring means to urge said valve against its seat, means to rotate the valve, said valve and seat having each two main ports arranged equi-distant from the valve center, there being also an exhaust port in the seat and an elongated groove normally registering therewith in the face of the valve, said groove in one position of the valve establishing communication between the exhaust port and one of said main seat ports while one of the valve ports register with the other main seat port, which groove is sufficiently elongated to remain in register with the first mentioned main seat port when the valve has moved to a second operating position when it closes the other main seat port, said main ports in the valve and seat being so arranged relatively that in a third operating position of the valve the ports thereof register with the respective main seat ports in the valve seat and in a fourth operating position but one of the main valve ports registers with a port in the seat the other seat port being closed, and pipe connections adapted to lead from said valve seat ports to deliver fluid pressure to operate a bell ringer and a valve in the blower pipe of the locomotive, substantially as described.

4. A locomotive attachment comprising a controller valve adapted to be located in the cab, means to supply fluid pressure to said valve, a number of pipes leading from said controller valve, a fluid-pressure controlled valve adapted to be placed in a pipe line leading to the blower of the locomotive, a fluid-pressure operated device adapted to operate a locomotive bell, one of said pipes operatively connecting said fluid pressure controlled valve with the valve casing of the controller valve, another of said pipes operatively connecting said fluid-pressure operated device with the said casing, there being a valve port in the said casing for each of the pipes leading therefrom, and there being ports in the movable member of the controller valve adapted to simultaneously control the fluid-pressure conditions in the several pipes leading therefrom, as and for the purposes described.



1,038,516. EYEGLASS-MOUNTING. GUSTAV A. BADER, Rochester, N. Y. Filed Dec. 6, 1912. Serial No. 664,280. (Cl. 88—50.)



1. In an eyeglass-mounting, a nose-clamp lever consisting of an integral piece of sheet-metal and comprising a part projecting rearwardly from the pivotal point of the lever, the metal in said part being disposed with its width substantially horisontal, and a part bent downwardly from the inner edge of the horisontal part near the rear end of the latter, said downwardly-bent part being disposed with its width substantially vertical and extending, in outline, downwardly and rearwardly from the horisontal part to its point of attachment to the nose-clamp.

2. In an eyeglass-mounting, a nose-clamp lever consisting of an integral piece of sheet-metal comprising a horisontal perforated part adapted for pivotal connection with the bridge of the mounting; a second part projecting upwardly from the first part, the metal in said second part being disposed with its width substantially vertical and parallel with the plane of the lenses, a third part projecting rearwardly from the second part, with its width substantially horisontal, a fourth part bent downwardly from the inner edge of the third part near the rear end of the latter, said downwardly-bent part being disposed with its width substantially vertical and extending in outline downwardly and rearwardly from the third part to its point of attachment to the nose-clamp, and a spring-engaging abutment bent upwardly from the rear extremity of the third part.

3. In an eyeglass-mounting, a nose-clamp lever consisting of an integral piece of sheet-metal comprising a horisontal perforated part adapted for pivotal connection with the bridge of the mounting, a second part projecting at a right angle from the first part, the metal in said second part being disposed with its width substantially in a vertical plane parallel with the plane of the lenses, a third part projecting rearwardly from and at a right angle with the second part, with its width substantially horisontal, and a fourth part adapted for attachment to the nose-clamp and bent at a right angle to the third part from the inner edge thereof, and having its width in a substantially vertical plane.

1,038,517. TOOL FOR VACUUM-CLEANERS. SAMUEL C. BALL, Chicago, Ill. Filed Sept. 20, 1910. Serial No. 582,934. (Cl. 15—60.)



1. A tool or head for vacuum cleaners having a longitudinally extended mouth, the inner walls thereabove converging upwardly and from the ends toward the center.

2. A tool or head for vacuum cleaners having a longitudinally extended mouth the walls thereabove converging in a horisontal plane from the ends toward the middle.

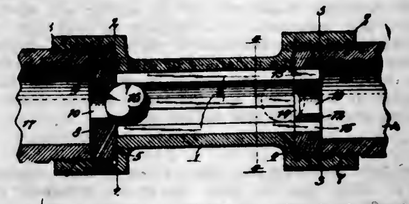
3. A tool of the class described having a relatively broad recess extending approximately for the entire length of the bottom thereof, walls above said recess converging in both substantially vertical and horisontal planes toward one another affording a gradually decreasing area of passage therebetween of narrower width toward the middle.

4. A vacuum tool of the class described embracing a hollow elongated head, provided with a relatively broad recess in the bottom thereof and extending substantially the length of the tool, said recess communicating with an elongated slot or mouth decreasing in width from the ends to the middle of the head, and a comb on each side of said mouth with the teeth thereof converging downwardly.

5. A vacuum cleaning tool comprising an elongated hollow head having a straight bottom containing a relatively broad recess extending substantially the length thereof, and having a mouth or slot opening inwardly therethrough at the center thereof and varying from its maximum width at the ends to its minimum width at the middle, and converging combs, one on each side of said mouth or slot and projecting into said recess, the teeth thereof finishing flush with the bottom of the tool.

[Claim 6 not printed in the Gazette.]

1,038,518. CHECK-VALVE. FRED J. BARSO, Buffalo, N. Y. Filed Apr. 20, 1912. Serial No. 692,166. (Cl. 137—32.)



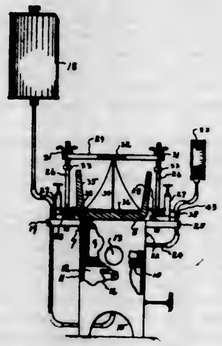
1. A check valve comprising a casing having a body provided with internal longitudinal guide ribs and sockets at its front and rear ends, a valve disk arranged in the

rear socket and provided with a central port, a stop disk arranged in the front socket and provided with an annular row of openings around the center thereof, and a stopper movable lengthwise on the inner edges of said ribs and capable of engaging with the valve disk for closing the port thereof and preventing backward movement through the valve of the medium which is being conducted or of engaging the stop disk and permitting the flow of said medium through the valve.

2. A check valve comprising a casing having a reduced body provided with internal longitudinal guide ribs and enlarged internally threaded sockets at the front and rear ends of the body forming forwardly and rearwardly facing shoulders at the front and rear ends of the body, a rear valve disk arranged in the rear stopper and engaging with said rear shoulder and having an external thread engaging with the internal thread of the respective socket and also provided centrally with a port, a front stop disk arranged in the front socket and engaging with said front shoulder and having an external screw thread engaging with the internal thread of the respective socket and also provided with a central opening and with an annular row of openings around said central opening, each opening of the annular row being in line with the space between two adjacent ribs of the body, and a ball stopper movable lengthwise in the body on the inner edges of said ribs and adapted to engage the front side of the valve disk for closing the port thereof or the rear side of the stop disk over the rear end of the central opening thereof.

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1,038,519. STEAM-VULCANIZER. ANSEL M. BAUGH, Omaha, Nebr. Filed May 22, 1911. Serial No. 628,711. (Cl. 18—18.)

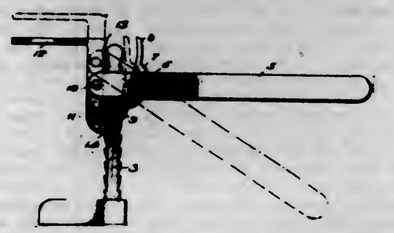


In a vulcanizer, the combination with a hollow casting comprising a water chamber and a flat top portion, a burner element for heating the water in the water chamber, swinging arms mounted to swing in a horizontal plane above the top and pivoted to said casting, vertical screws threaded into the extremities of said arms, contact blocks swiveled for universal movement upon the lower ends of said screws, upstanding rods disposed in transverse alinement with each other centrally of the casting and upon which the arms have their pivotal mounting, a plate extending transversely of the casting and through which said rods pass, nuts threaded on said rods for forcing said plate downwardly, there being a bearing recess formed in the underface of said plate, and a cone like compression member, the apex of which has loose bearing in said recess and the lower face of which is formed to coact with said flat top portion.

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1,038,520. VALVE-REMOVER. HARRY J. BECK, Indiana, Pa. Filed Apr. 21, 1911. Serial No. 622,640. (Cl. 29—87.1.)

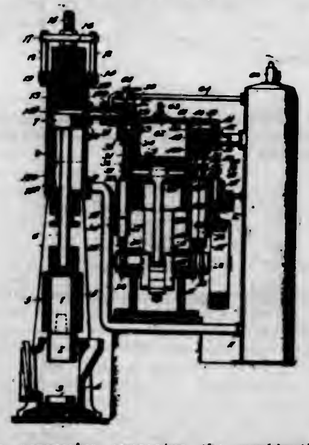
1. In a valve removing tool, the combination with a base and upright, of a valve supporting member composed of a shank and a supporter arranged at one end part thereof and laterally in relation thereto, said shank being slidable on the upright and the supporting member being reversibly related to the base, and means coöperating with the shank and upright for elevating said valve supporting member in relation to the base when it is in either normal or reversed position.



2. In a valve removing tool, the combination with a base, of a double rack rising therefrom, a reversible valve supporting device having one tooth for engaging the rack in one position by the valve supporting device, and another tooth for engaging the rack in a reverse position of the valve supporting device, an operating lever pivoted to said valve supporting device, and a double pawl carried by the lever, which pawl is adapted to engage the double rack, whereby when the valve supporting device is reversed the pawl may engage with the rack.

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1,038,521. PNEUMATIC ORE-STAMP. HANS CHARLES BEHR, Johannesburg, Transvaal. Filed Nov. 20, 1911. Serial No. 661,296. (Cl. 83—57.)



1. In a percussive apparatus the combination of a cylinder provided with an extension; a reservoir of compressed air in communication with said extension; a piston in said cylinder; a stamp head associated with said piston; means comprising an operating piston and cylinder whereby air of greater pressure than that in said reservoir may be delivered to one side of said piston; and means whereby the pressure on said side is prevented from remaining below that in said reservoir during the downward stroke, substantially as described.

2. In a percussive apparatus the combination of a cylinder provided with an extension; a reservoir of compressed air in communication with said extension; a piston in said cylinder; a stamp head associated with said piston; means comprising an operating piston; a cylinder in which said last mentioned piston reciprocates; and a valved connection between said cylinders whereby air of greater pressure than that in said reservoir may be delivered to one side of said piston; and means whereby the pressure in said side is prevented from remaining below that in said reservoir during the downward stroke, substantially as described.

3. In a percussive apparatus the combination of a cylinder provided with an extension; a piston reciprocating in said cylinder above said extension; a stamp head associated with said piston; a compressed air reservoir connected to said extension; an operating piston and cylinder adapted to deliver compressed air to said first mentioned cylinder above said piston; a valved connection between said cylinders; a valved connection between said operating cylinder and said reservoir; and automatic means timed with said operating piston for controlling said connection, substantially as described.

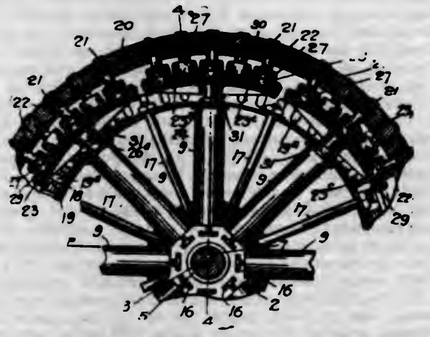
4. In a percussive apparatus the combination of a cylinder provided with an extension; a piston reciprocating in said cylinder above said extension; a stamp head associated with said piston; a compressed air reservoir connected to said extension; an operating piston and cylinder adapted to deliver compressed air to said first mentioned cylinder above said piston; a valved connection between said cylinders; a valved connection between said operating cylinder and said reservoir; and automatic means comprising reciprocating rods and cams for controlling said connections, substantially as described.

5. In a percussive apparatus the combination of a cylinder provided with an extension; a piston reciprocating in said cylinder above said extension; a stamp head shoe associated with said piston; means to lessen the space above said piston as said shoe wears; a compressed air reservoir connected to said extension; an operating piston and cylinder adapted to deliver compressed air to said first mentioned cylinder above said piston; a valved connection between said cylinders constituting a cushioning means; a valved connection between said operating cylinder and said reservoir; and automatic means comprising reciprocating spring controlled rods and cams for controlling said connections, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

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1,038,522. VEHICLE-WHEEL. GEORGE R. BENNETT, Denver, Colo. Filed Jan. 18, 1910. Serial No. 538,767. (Cl. 152—29.)



1. A vehicle wheel comprising a hub, a flexible tire, metal plugs radially secured therein and having depressions in their inner ends, and a multiplicity of reciprocating pistons independently under fluid pressure, concentrically arranged relative to the said hub and respectively projecting into the said depressions.

2. In a vehicle wheel, a hollow hub, means for introducing motive fluid thereinto, a plurality of concentrically arranged heads, radially movably connected with the said hub in communication with the interior thereof, pistons reciprocatingly fitted in the said heads and projecting beyond the circumferential surfaces thereof, and a flexible tire connected with the said pistons.

3. In a vehicle wheel, a hollow hub, means for introducing motive fluid thereinto, a plurality of concentrically arranged heads radially movably connected with the said hub, and each having a plurality of bores separately communicating with the interior thereof, pistons fitted for reciprocation in the respective bores and protruding beyond the circumferential surfaces of the said heads, and a flexible tire connected with the said pistons.

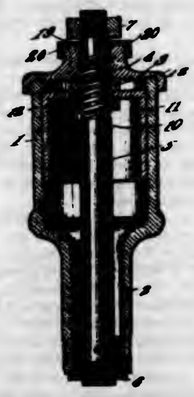
4. In a vehicle wheel, a hollow hub, means for introducing motive fluid thereinto, hollow spokes radiating from the said hub in communication with its interior, plungers fitted for reciprocation in the said spokes, heads associated with the said plungers, in concentric relation to the hub and interiorly in communication with the interior thereof, pistons fitted for reciprocation in the said heads and projecting beyond the circumferential surfaces thereof, check valves adapted to automatically control the flow of fluid from the interior of the hub into the said spokes, and a flexible tire connected with the said pistons.

5. In a vehicle wheel, a hollow hub, means for introducing motive fluid thereinto, hollow spokes radiating from the said hub in communication with its interior, plungers fitted for reciprocation in the said spokes, heads associated with the said plungers in concentric relation to the hub, each of the said plungers having a bore connecting the interior of its head with that of the respective spoke, pistons fitted for reciprocation in the said heads and projecting beyond the circumferential surfaces thereof, and a flexible tire connected with the said pistons.

[Claims 6 to 11 not printed in the Gazette.]

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1,038,523. FIRE-PLUG. WILLIAM FRANCIS BENTON, Birmingham, Ala. Filed Oct. 16, 1911. Serial No. 655,041. (Cl. 137—13.)



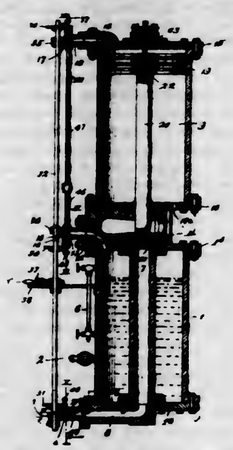
A fire plug including a casing having an inlet at its lower end and spaced outlets adjacent its upper end, a valve stem having screw threads engaging the upper end of the casing, means for rotating the stem to shift it longitudinally within the casing, a cut-off valve revoluble with the stem and normally closing the inlet, a cup-like valve detachably secured to and revoluble with the threaded portion of the stem and normally closing the outlets, said valve having elongated slots movable into position to open either or both of the outlets during the rotation of the stem and the unseating of the inlet valve.

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1,038,524. GENERATOR OF HYDRAULIC POWER FOR PRESSES, &c. ALBERT T. BOSSERT, Kansas City, Mo., assignor of one-half to Smith & Sons Manufacturing Company, Kansas City, Mo. Filed Jan. 16, 1911. Serial No. 602,984. (Cl. 138—17.)

1 In a generator of the character described, a low-pressure cylinder containing motive fluid, an intensifier cylinder containing motive fluid and arranged within the said

low-pressure cylinder, a valve to admit pressure to the low-pressure cylinder to force fluid therefrom, an intensifier plunger to force the fluid from the intensifier cylinder, and means to conduct the motive fluid to the point of use.



2. In a generator of the character described, a low-pressure cylinder containing motive fluid, an intensifier cylinder containing motive fluid and arranged within said low-pressure cylinder, means to admit pressure to the low-pressure cylinder to force fluid therefrom, a valve to exhaust pressure from said low-pressure cylinder, and an intensifier plunger to force the fluid from the intensifier cylinder.

3. In a generator of the character described, a low-pressure cylinder containing motive fluid, an intensifier cylinder containing motive fluid and arranged within said low-pressure cylinder, a valve to admit pressure to the low-pressure cylinder to force fluid therefrom, a valve to exhaust pressure from said low-pressure cylinder, cams to actuate said valves, an intensifier plunger to force the fluid from the intensifier cylinder, and means to conduct the motive fluid to the point of use.

4. In a generator of the character described, a low-pressure cylinder containing motive fluid, an intensifier cylinder containing motive fluid and arranged within said low-pressure cylinder, a valve to admit pressure to the low-pressure cylinder to force fluid therefrom, a valve to exhaust pressure from said low-pressure cylinder, cams to actuate said valves, an intensifier plunger to force the fluid from the intensifier cylinder, means to conduct the motive fluid to the point of use, a valve to control communication between the low pressure cylinder and said conducting means, a cam for actuating said valve, and means for simultaneously actuating said cams.

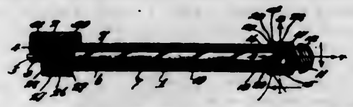
5. In a generator of the character described, a low-pressure cylinder containing motive fluid, an intensifier cylinder containing motive fluid and arranged within said low-pressure cylinder, means to admit pressure to the low-pressure cylinder to force fluid therefrom, an intensifier plunger to force fluid from the intensifier cylinder, means to conduct the motive fluid to the point of use, a third cylinder in which the plunger operates, a piston on the plunger reciprocably arranged in the third cylinder, means to admit pressure upon said piston, and means to exhaust said pressure.

[Claim 6 not printed in the Gazette.]

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1,038,525. ROTARY TOOTH-BRUSH. HENRY M. BRENNSTUL, Bellevue, Ohio. Filed Oct. 4, 1910. Serial No. 585,283. (Cl. 15—37.)

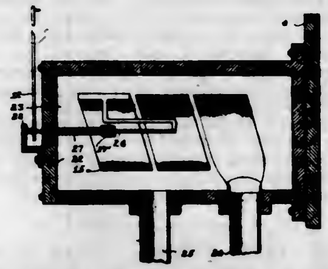
In a tooth brush, a cylindrical member, a second cylindrical member mounted within the first mentioned cylindrical member, a shaft arranged within the second mentioned member, said shaft being formed with a spiral groove, the inner cylindrical member being of a length in excess of the length of the first mentioned cylindrical member, said inner member being provided with a plurality of alined slots, a plate forming a bearing for said shaft, said plate being provided with radial extensions, a flanged cap embracing said outer cylindrical member, the flange of



said cap contacting with the radial extensions formed integral with the bearing plate to hold the same in contact with the end portion of the first mentioned cylindrical member, a brush mounted on said shaft, and a pin carried by the inner cylindrical member, said pin riding in the spiral groove formed in said shaft to rotate said shaft as the inner cylindrical member is reciprocated.

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1,038,526. DIFFERENTIAL-PRESSURE RECORDER. WILLIAM H. BRISTOL, New York, N. Y., assignor to The Bristol Company, Waterbury, Conn., a Corporation of Connecticut. Filed May 29, 1908. Serial No. 435,740. (Cl. 73—109.)



1. In a differential pressure recorder: a sealed pressure casing, and an inlet thereto for one of the pressures; pressure actuated mechanism within said casing, exposed on the outside to the pressure existing in the casing and constrained to angular motion; an inlet to said mechanism for the other of said pressures and to which the said mechanism is exposed on the inside, whereby said mechanism is adapted to oscillate proportionally to varying differences between the pressures existing in said mechanism and said casing; a shaft in the axis of oscillation of said pressure actuated mechanism and oscillated thereby; a horizontal pressure sealing tube of small diameter relatively to its length, affording a substantially frictionless bearing for said shaft and extending through a wall of said casing, said tube being adapted to retain a film of a suitable sealing liquid to surround a portion of said shaft which extends therethrough; and a recording arm outside of said sealed pressure casing and in connection with said shaft.

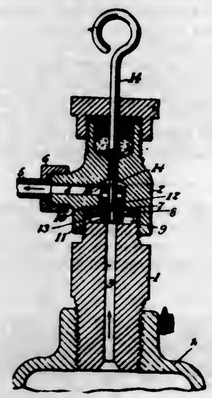
2. In a differential pressure recorder; a sealed pressure casing, and an inlet thereto for one of the pressures; pressure actuated mechanism within said casing, exposed on the outside to the pressure existing in the casing and constrained to angular motion; an inlet to said mechanism for the other of said pressures and to which the said mechanism is exposed on the inside, whereby said mechanism is adapted to oscillate proportionally to varying differences between the pressures existing in said mechanism and said casing; a shaft in the axis of oscillation of said pressure actuated mechanism and oscillated thereby; a horizontal pressure sealing tube of small diameter relatively to its length, affording a substantially frictionless bearing for said shaft and extending through a wall of said casing, said tube being adapted to retain a film of a suitable sealing liquid to surround a portion of said shaft which extends therethrough; a tube in alinement with said shaft



which extends therethrough; a portion of enlarged internal diameter at the inner end of said tube to provide a reservoir for the sealing liquid; and a recording arm outside of said sealed pressure casing and in connection with said shaft.

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1,038,527. NEEDLE-VALVE. CLYDE J. COLEMAN, New York, N. Y., assignor to Conrad Hubert, New York, N. Y. Filed Sept. 12, 1907, Serial No. 392,575. Renewed Feb. 24, 1912. Serial No. 679,766. (Cl. 50—14.)



1. A valve mechanism comprising a pressure-chamber provided with an inlet and an outlet, a diaphragm forming a wall of the pressure-chamber, a valve-seat carried by the diaphragm, an outlet valve coactive with the valve-seat and having a stem extending outward, and a guide for the valve-seat carried by the diaphragm and guided by the valve stem.

2. A valve mechanism comprising a pressure-chamber provided with an inlet and an outlet, a diaphragm forming a wall of the pressure-chamber, a valve-seat carried by the diaphragm, an outlet-valve coactive with the valve-seat from the outside of the pressure-chamber, the coaction of the valve and its seat being controlled by the diaphragm, and means for imparting opening and closing movements to the valve independently of the diaphragm, the valve-seat being adapted to rest on the bottom of the pressure-chamber when the valve is firmly closed by said means, whereby the diaphragm is relieved of excessive strain.

3. A valve mechanism comprising a pressure chamber provided with an inlet and an outlet, a diaphragm forming a wall of the pressure chamber, a valve seat carried by the diaphragm, an outlet valve coactive with the valve seat from the outside of the pressure chamber and having a stem extending outward, the coaction of the valve and its seat being controlled by the diaphragm, and a guide for the valve seat carried by the diaphragm and guided by the valve stem, the valve stem being manually operable for imparting opening and closing movements to the valve independently of the diaphragm and the valve seat being adapted to rest on the bottom of the pressure chamber when the valve is firmly closed by manual actuation.

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1,038,528. NUT-LOCKING WASHER. JOSIAH COOKERLEY, South Milford, Ind. Filed July 6, 1911. Serial No. 637,137. (Cl. 151—35.)

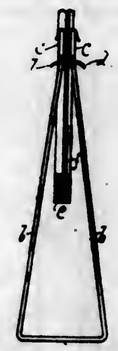
A device of the class described comprising a bolt; a nut thereon; and a locking washer interposed between the nut and the object through which the bolt passes; the washer comprising a body portion of the same contour as the nut whereby the nut and the washer may be engaged simultaneously by a wrench and upturned, converging lips engaging terminally with the nut, and compressible by the nut to engage with the threads of the bolt; there being an opening in the body, threaded to engage with the bolt, and concaved notches in the ends of lips, the notches defining an opening which is larger than the



opening in the body, whereby the nut may be rotated, independently of the washer, to aline the peripheries of the nut and of the washer, for engagement by the wrench, whereby the washer and the nut may be rotated together until the washer engages the material.

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1,038,529. WINDOW-CLEANING DEVICE. THERESA ADÈLE CORCORAN, New York, N. Y. Filed Mar. 15, 1912. Serial No. 683,958. (Cl. 15—59.)



1. A window cleaning device consisting of a single piece of resilient wire, having a pair of vertical arms with lower portions joined together, while the upper portions of the arms are bent at right angles to form a pair of skeleton jaws, said arms being adapted to spring toward each other and move the jaws to contact with the inner and outer sides of a window pane.

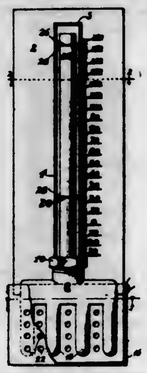
2. A window cleaning device, consisting of a piece of resilient wire, including a pair of vertical arms joined with a cross piece to constitute a V-shaped member, the upper portions of which are bent at right angles to form a pair of skeleton jaws, said arms having a tendency to spring toward each other and move the jaws to contact with the inner and outer sides of a window pane.

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1,038,530. THERMOMETER. JAMES COWLING, Galena, Ill. Filed Jan. 11, 1911. Serial No. 602,126. (Cl. 73—52.)

A thermometer, comprising a slotted registering plate, a thermometer tube arranged longitudinally in the slot of said plate and projecting beyond the front and rear faces of the latter, a fluid receptacle provided with separated fluid compartments, said receptacle being threaded at its upper end, packing between the thermometer tube and fluid receptacle, a nut embracing the thermometer tube and securing the same to the threaded upper end of the fluid receptacle, a filler member arranged within the thermometer tube and extending substantially the entire

length thereof and being substantially evenly spaced from the walls thereof, and a member extending across the



thermometer tube and supporting the lower end of the filler member.

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1,038,531. SIDE-BOARD LOCK. EDWARD CRAIG, Albion, Ill. Filed Nov. 24, 1911. Serial No. 662,221. (Cl. 21—7.)



1. In combination with a side board and a standard, means for locking the side board with relation to the standard comprising a member adapted to be applied to the outer surface of the side board, said member having a socket provided with a lip, a plate adapted to be applied to the standard, a second member pivotally mounted upon the plate and having a hooked pawl adapted to enter the socket of the first mentioned member and engage the lip thereof, and means carried by the first mentioned member for holding the second mentioned member in closed position with relation thereto.

2. In combination with a side board and a standard, means for locking the said parts comprising a member adapted to be applied to the outer surface of the side board, said member having a socket provided with a lip, said member having below the said lip a curved exserted portion, a plate adapted to be applied to the standard, a second member pivoted upon the plate and having a hooked pawl adapted to enter the socket and engage the lip, the said second member having an eccentric end adapted to engage the exserted portion upon the first mentioned member and force the same in a downward direction, and means carried by the first mentioned member for engaging the second mentioned member and holding the same in closed position with relation thereto.

3. In combination with a side board and a standard, means for locking the same comprising a member adapted to be applied to the outer surface of the side board and having at its outer side a socket provided at its lower end with a lip, said member having at its outer side below the said socket a curved exserted portion which is provided at its upper end with a shoulder, a plate adapted to be applied to the side of the standard and having a gudgeon, a second member pivoted upon the gudgeon, means for holding the second member in position upon the gudgeon, a pivoted pawl carried by the said second member and adapted to enter the socket and engage the lip, said second mentioned member having at its upper end a shoulder adapted to fit snugly over the shoulder at the upper end of the first mentioned member, said second mentioned member having at its lower end a cam portion adapted to engage the exserted portion upon the first mentioned member and force the same in a downward direction when the second mentioned member is closed against the first mentioned member, and means carried by the first mentioned member for engaging the free end portion of the second mentioned member and holding the same in closed position against the first mentioned member.

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1,038,532. WOVEN PILE FABRIC. GEORGE CROSSLAND, Long Island City, N. Y., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed Mar. 30, 1912. Serial No. 687,329. (Cl. 139—71.)



1. A woven pile fabric having four filling threads or wefts within each crossing of the binder warps, said filling threads or wefts extending in three planes, two wefts in the upper plane above the stuffer warp or warps, a third weft between the stuffer warp or warps and the pile warps carried in the body of the fabric, and a fourth weft below all the pile warps.

2. In a woven pile fabric, the combination with the binder warps, of four filling threads or wefts within each crossing of the binder warps, and extending in three planes, two wefts in the upper plane above the stuffer warp or warps, a third weft between the stuffer warp or warps and the pile warps carried in the body of the fabric, and a fourth weft below all the pile warps.

3. A woven pile fabric, having four filling threads or wefts within each crossing of the binder warps, said filling threads or wefts extending in three planes, and pile warps looped around the filling threads or wefts in the upper plane, and looped around the filling threads or wefts in the middle plane.

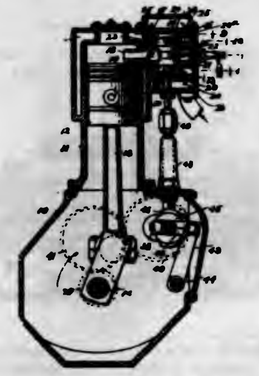
4. A woven pile fabric, having four filling threads or wefts within each crossing of the binder warps, said filling threads or wefts extending in three planes, and pile warps looped around the filling threads or wefts in the upper plane, and pile warps looped around the filling threads or wefts in the middle plane.

5. A woven pile fabric, having filling threads or wefts in three planes, within each crossing of the binder warps, stuffer warp or warps extending between the filling threads of the middle plane and one of the outer planes, and pile warps extending between the middle plane and the other outer plane, said pile warps looped around the filling threads in one or more planes.

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1,038,533. VALVE AND VALVE-GEAR. WALKER L. CROUCH, Cleveland, Ohio. Filed Nov. 17, 1910. Serial No. 592,770. (Cl. 123—188.)

1. The combination in an internal combustion engine, a cylinder, a valve chamber, a reciprocating valve in said chamber controlling both the admission and exhaust of gases, and a valve gear for actuating the valve comprising a crank, a pivoted arm, a link connected at one end to the crank and at its opposite end to the arm, and a valve rod having at its end means forming a connection with said link.



2. In combination in an internal combustion engine, a cylinder, a reciprocating valve controlling the exhaust and admission of gases, a valve rod connected to the valve, and a valve gear comprising a rotating crank, a pivoted arm, a link pivotally connected to the crank and to the arm, a swiveled member carried by the valve rod and having a groove which receives and along which the link is adapted to slide.

3. In combination in an internal combustion engine, a cylinder, a valve chamber, a double piston valve therein controlling both the exhaust and admission of gases, a valve rod connected to the valve, a valve gear comprising a rotating crank, a member connected thereto and adapted to be given an oscillatory and endwise movement, a substantially annular yoke at the end of the valve rod, a substantially annular swiveled member seated in said yoke and provided with a transverse slot which receives and along which said member is adapted to slide.

4. In combination in an internal combustion engine, a cylinder, a reciprocating valve controlling the admission and exhaust of gases to and from the cylinder, a valve gear comprising a crank shaft, a crank, a pivoted arm, a link connected to the crank and to said arm, a valve rod connected to the valve, a swiveled member carried by the valve rod and having a relatively sliding engagement with the link, the axis of the crank shaft being offset from the valve rod a distance substantially equal to the radius of the crank.

5. In combination in an internal combustion engine, a cylinder, a reciprocating valve controlling the admission and exhaust of gases to and from the cylinder, a valve gear comprising a crank shaft, a crank, a pivoted arm, a link connected to the crank and to said arm, a valve rod connected to the valve, a swiveled member carried by the valve rod, and having a relatively sliding engagement with the link, the axis of the crank shaft being offset from the valve rod a distance substantially equal to the crank radius and the distance between the connections of the link with the crank and arm being substantially twice the crank radius.

[Claim 6 not printed in the Gazette.]

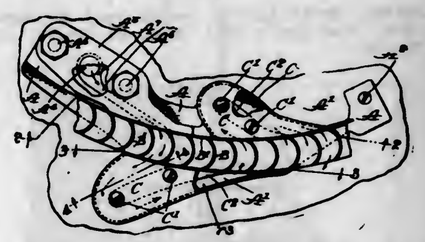
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1,038,534. STEAM-TURBINE. CHARLES W. DAKE, Chicago, Ill., assignor to Pyle National Electric Headlight Company, Chicago, Ill., a Corporation of New Jersey. Filed Oct. 11, 1911. Serial No. 654,004. (Cl. 121—60.)

1. A nozzle and guide passage support for steam turbines comprising a plate and a curved groove therein of rectangular cross section and a plurality of grooves extending therefrom and of lesser depth than and decreasing in depth from said groove.



2. A nozzle and guide passage support for steam turbines comprising a plate and a curved groove therein of rectangular cross section and a plurality of grooves inclined thereto of lesser depth than and increasing in depth from said groove.



3. A nozzle and guide passage support for steam turbines comprising a plate and a curved groove therein of rectangular cross section and a plurality of grooves extending therefrom and of lesser depth than and decreasing in depth from said groove said grooves being of rectangular cross section.

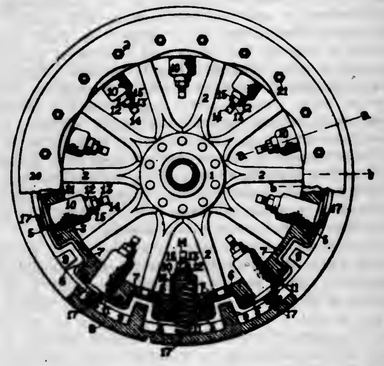
4. A nozzle and guide passage support for steam turbines comprising a plate and a curved groove therein of rectangular cross section and a plurality of grooves inclined thereto of lesser depth than and increasing in depth from said groove said grooves being of rectangular cross section.

5. A nozzle and guide passage support for steam turbines comprising a plate and a curved groove therein and a plurality of grooves extending therefrom and of lesser depth than and decreasing in depth from said groove.

[Claims 6 to 9 not printed in the Gazette.]

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1,038,535. SPRING-WHEEL. CHARLES J. DEAN, Blasdell, N. Y. Filed Nov. 17, 1911. Serial No. 660,757. (Cl. 152—38.)

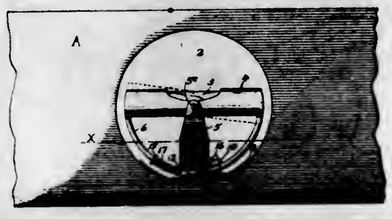


In a wheel of the class described, a felly provided with a series of exterior pockets which extend transversely and completely through the outer portion of the felly from side to side thereof and a series of openings arranged at intervals and located between the pockets which extend completely through the felly in a radial direction, an exterior tread rim loosely encircling the felly and having a series of inwardly extending projections which fit loosely in the exterior pockets, a metal felly band fitted rigidly around the felly and having complementary exterior pockets and radial openings, face plates attached to opposite sides of the felly and projecting on opposite sides of the tread rim, and a series of springs and spring-tensioning devices mounted in the radial openings and constructed and ar-

ranged to yieldingly support the outer tread rim with respect to said felly; said outer tread rim being adapted to be removed transversely from the felly upon the detachment of one of the face plates.

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1,038,536. SPIRIT-LEVEL. SAMUEL DEAN, Wellington, Mich. Filed July 9, 1910. Serial No. 571,258. (Cl. 73—70.)



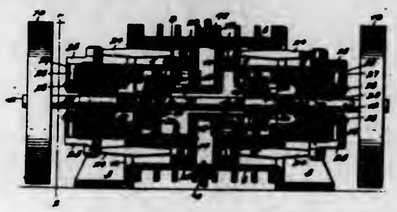
1. The combination, in a spirit level of a bubble glass, a sleeve or casing therefor having a sight opening in the upper side thereof, and mounted on opposite sides in a pair of vertical standards formed from one piece of metal and perforated near the top to form pivotal bearings, the said sleeve or casing having pivots secured thereto on opposite sides, to engage the pivotal bearings in the standards; and a beveled bearing plate having one end bent downward securely fastened to the lower or horizontal portion of said legs or standards, all substantially as set forth.

2. In a spirit level, a bubble glass, a sleeve or casing therefor having a sight opening in the upper side thereof, a pair of legs or standards connected to said sleeve or casing on opposite sides by pivots, said sleeve or casing being adapted to rotate slightly upon said pivots, a round rod formed to a half circle connected securely at opposite ends of said sleeve or casing, a clip secured to the lower and horizontal portion of the standards, said clip being adapted to guide the said semi-circular rod, a helical compression spring encircling said rod, one end of the spring being fastened securely to said rod, (preferably with solder), the other end of the spring being adapted to press against the loop or clip on the lower and horizontal portion of standards, a screw passing laterally through perforations in the standards and adapted to rotate therein, the point of the screw being riveted over a washer on the outside at one standard to hold same in position, a skeleton wedge shaped piece with both ends bent and threaded to fit said screw and adapted to reciprocate on same in a lateral direction, and a lug secured rigidly to the semi-circular rod and bent over the skeleton wedge shaped piece sufficiently to hold same in a horizontal position and adapted to engage said wedge for the purpose specified.

3. In a spirit level, a bubble glass, a sleeve or casing therefor, a pair of legs or standards connected to said sleeve or casing, a round rod of a partially circular form rigidly secured to opposite ends of said sleeve or casing and passing through a clip on the lower portion of the standards, an adjusting screw passing laterally through perforations in the standards, a skeleton wedge shaped piece with both ends bent to right angles to the imaginary center line of the wedge and bored and threaded to receive the said screw, to effect the adjustment of the level glass, a lug secured to the semi-circular rod on one side of the standards and a compression spring on the other, the tension of the spring being arranged to hold the lug hard against the wedge shaped piece at all points of adjustment, a beveled bearing plate having a partially circular notch formed in one side secured rigidly to the under side of the lower portion of the standards, a detachable base clutch of partially circular form having a beveled stop secured thereto, said stop having one end formed at right angles to the beveled part and adapted to hold the bearing plate in position, and a wire spring of circular form with ends elongated and bent to right angles secured rigidly to the base plate or clutch hard against the bearing plate when in position for use, the circular portion of the spring being adapted to fit in a correspondingly shaped notch in the bearing plate all substantially as set forth.

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1,038,537. GAS-ENGINE. ALBERT J. DEXTER, Indian Orchard, Mass. Filed June 14, 1911. Serial No. 633,058. (Cl. 123—48.)



1. In an engine of the character described, a plurality of horizontally disposed cylinders, each having reciprocating pistons therein and provided with inlet and exhaust ports, a rotatably mounted shaft arranged in parallel relation to said cylinders, plates connecting said cylinders through which the shaft extends, valves normally closing the inlet and exhaust ports of the cylinders, means rotatable with said shaft and longitudinally movable thereon to open said valves at predetermined times, and additional means co-acting with said last named means to move the same longitudinally on the shaft, whereby the opening of the valves is effected.

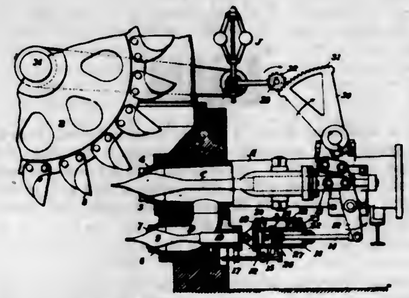
2. In an engine of the character described, a plurality of horizontally disposed cylinders, each having oppositely reciprocating pistons therein and provided with inlet and exhaust ports, a rotatably mounted shaft, valves normally closing said inlet and exhaust ports, valve engaging members longitudinally movable on said shaft to open said valves at predetermined times, springs yieldingly holding said members against longitudinal movement and adapted to return the same to their normal positions, and stationary means co-acting with said movable members to move the same longitudinally on the shaft, whereby the opening of the valves is effected.

3. In an engine of the character described, a plurality of horizontally disposed cylinders each having oppositely reciprocating pistons therein and centrally provided with inlet and exhaust ports, a rotatably mounted shaft arranged in parallel relation to said cylinders, stationary plates connecting said cylinders, disks longitudinally movable on said shaft, said plates having cam lugs formed thereon, said disks engaging said cams whereby said disks are moved in one direction on the shaft, springs acting to return the disks to their normal positions, and a lug formed upon each of said disks at their peripheries to engage the stems of said valves and automatically open the same at a predetermined time.

4. In an engine of the character described, a plurality of horizontally positioned cylinders, each of said cylinders being open at each end and having oppositely reciprocating pistons therein and centrally provided with inlet and exhaust ports, spring seated valves normally closing said ports, the stems of said valves being longitudinally disposed, a shaft rotatably mounted and disposed in parallel relation to said cylinders, stationary plates arranged between the cylinders and fixed thereto, said shaft extending through said plates, said plates having cam lugs formed thereon, spring held disks keyed on said shaft for longitudinal movement and normally engaging said plates, said disks each having a spaced lug formed thereon, said disks having additional lugs formed thereon co-acting with the cam lugs on said stationary plates whereby said disks are moved longitudinally against the tension of the springs, said springs returning the disks to their normal positions and engaging the lugs thereof with the valve stems to automatically open the same at a predetermined time.



1,038,538. IMPACT WATER-MOTOR. WILLIAM A. DOBLE, San Francisco, Cal., assignor to May E. Doble, Alameda, Cal. Filed Nov. 16, 1906, Serial No. 343,732. Renewed July 22, 1912. Serial No. 710,977. (Cl. 138—18.)



1. A valve casing having main and supplemental ports and valves, a device connected to shift both valves, and a direct connection with the supplemental valve including a fluid medium capable of yielding to a limited extent under the movement of one part of the connection and constructed and arranged to permit a partial sudden closing or a slow and complete closing of the main port without opening the supplemental port.

2. In combination, a valve casing having main and supplemental ports and valves, a device connected to shift both valves, the connection with the supplemental valve being direct and including a dash-pot constructed to permit the closing of the main valve by a slow movement without opening the supplemental valve, said supplemental valve being closed by means independent of the dash-pot, and the connections to the two valves being structurally independent of each other.

3. The combination with the valve casing and main and supplemental ports and valves, of a device connected to the main valve and directly connected to the supplemental valve to shift both valves, means in the line of connection between said device and the supplemental valve constructed and arranged to insure the simultaneous sudden movement of both valves in reverse directions while permitting a slow closing movement or a partial sudden movement of the main valve without shifting the supplemental valve.

4. The combination of the casing having main and supplemental ports and valves, means for operating said valves, a dashpot in the connection between the supplemental valve and said means, the said dashpot having a piston and ports arranged to permit a free movement of one part of the dashpot in respect to the other on the first part of the closing action of the main valve and restricting said movement as the main valve terminates its closing action.

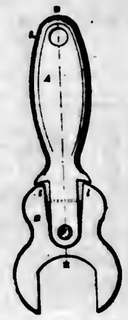
5. The combination with the casing and main and supplemental valves and ports, of means for shifting said valves mechanically and connections between said means and supplemental valve consisting of a dashpot having a cylinder, piston and supply chamber, and with ports arranged to permit a preliminary free movement of one part in respect to another, and thereafter retard said movement.

[Claims 6 to 26 not printed in the Gazette.]

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1,038,539. WRENCH. CHARLES H. DOUGLAS, Quincy, Mich. Filed May 15, 1911. Serial No. 627,373. (Cl. 81—63.)

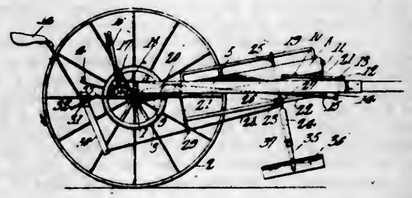
A wrench having a head provided with jaws and a socket, a web connecting the opposite walls of the socket, and a handle member, pivoted to and straddling the web, and having free oscillation in the socket, whereby its



lateral throw may impart a hammer blow to the wrench head, as set forth.

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1,038,540. COTTON-CHOPPER. GEORGE W. DOWELL, Jr., Athens, Tex. Filed Sept. 22, 1911. Serial No. 650,778. (Cl. 97—45.)

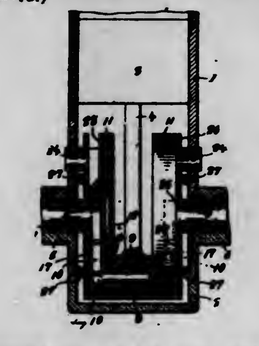


1. A cotton chopper including a guide rod, an element mounted for oscillation thereon, a hoe connected to one end portion of said element, a crank shaft mounted for rotation and engaging the other end portion of said element to oscillate the same, and means for sliding said element along the rod and crank shaft during the oscillation of the element.

2. A cotton chopper including a main frame, a supplemental frame mounted for swinging movement therein, means for raising and lowering the supplemental frame relative to the main frame, a crank shaft extending longitudinally of and journaled within the supplemental frame, a guide rod parallel therewith, a hoe carrying element mounted for sliding movement upon the rod and crank shaft, said element having a slot in which the crank shaft is adapted to work, means for rotating the crank shaft to oscillate the hoe carrying element, and means for shifting said element longitudinally of the rod and shaft in either direction.

3. A cotton chopper including a wheel supported drive axle, a main frame supported at one end thereby, a supplemental frame mounted to swing relative to the axle, a lifting element fulcrumed upon the main frame means under the control of the operator for shifting said element upwardly or downwardly, a bearing projection upon the supplemental frame, and supported by the lifting element, a guide rod extending longitudinally of the supplemental frame, a crank shaft journaled within the supplemental frame, coöperating means upon the crank shaft and axle for actuating the crank shaft, a hoe carrying element mounted to slide and rotate upon the guide rod and having a slotted end portion engaged by the crank shaft, and means under the control of the operator for shifting said element longitudinally in either direction along the rod and crank shaft.

1,038,541. EXPLOSIVE-ENGINE. ORLANDO DUCKER, Washington, D. C. Filed Sept. 24, 1910, Serial No. 583,626. Renewed Jan. 2, 1912. Serial No. 669,126. (Cl. 123—73.)



1. A counterbalance for the crank shafts of explosive engines comprising a disk having excess weight at one side and provided in one of its faces with a radial groove communicating at its outer end with a transverse slot extending through the periphery and both faces of the disk, a clamping plate adapted to close said groove and slot, and means for securing said clamping plate to the disk.

2. A counterbalance for the crank shafts of explosive engines comprising a disk having excess weight on one side of its center and provided in one of its faces with a radial groove arranged mainly on the opposite side of its center and communicating at its outer end with a slot opening through the peripheral edge and both faces of the disk, said disk being formed in its other face with a recess of greater width than said slot, a clamping plate adapted to fit within the groove and slot and provided at one end with a projection to close the outer end of the slot, and means for securing said clamping plate to the disk.

3. A counterbalance for the crank shafts of explosive engines comprising a disk hollow on one side of its center and having a solid portion at the opposite side of its center, said disk being formed in one face of its hollow side with a radial recess communicating at its outer end with a slot extending transversely through the disk and opening through the adjacent edge thereof, the other face of the disk being provided with a recess of greater width than the slot, a clamping plate adapted to fit within the first-named recess and slot and provided with a projection to close the outer end of the slot, and means for securing said clamping plate in position.

4. A counterbalance for the crank shafts of explosive engines comprising a disk having excess weight at one side and provided in one face with a radial groove communicating at its outer end with a slot extending through the periphery and both faces of the disk, said slot being widened on the other face of the disk, and a clamping plate adapted to fit within the radial groove and to close the outer side of said groove and the adjacent side of the slot, said plate being adapted for attachment to the disk and provided at its outer end with an inwardly extending projection to close the outer end of the slot.

5. In an explosive engine, a crank casing provided with an opening in one of its sides, a crank shaft journaled in said casing, a counterbalancing disk mounted upon one of the arms of the shaft and provided with a fuel feed recess in its outer face, a disk arranged between the first-named disk and the adjacent side of the casing and having a tubular projection forming a feed port adapted to register with said recess and projecting outwardly through said opening in the casing, and springs interposed between the second-named disk and said side of the casing for pressing said disk against the adjacent side of the counterbalancing disk.

[Claims 6 to 8 not printed in the Gazette.]

1,038,542. COMBINED SCRUBBER AND MOP. WILFRED DUPRÉ, Worcester, Mass. Filed July 1, 1911. Serial No. 636,206. (Cl. 15—44.)



In a scrubbing device, a frame, a plate having flanges, said plate being mounted on the frame, a wringing roll carried by the plate, in combination with a brush the head of which is provided with a dove-tailed groove said groove adapted to receive the flanges of the plate and means for holding the latter in the groove.

1,038,543. ARBOR PRESS OR RAM. GARDNER T. EAMES, Kalamazoo, Mich., assignor, by direct and mesne assignments, to The G. T. Eames Company, Kalamazoo, Mich., a Corporation of Michigan. Filed Sept. 13, 1911. Serial No. 649,158. (Cl. 29—35.)



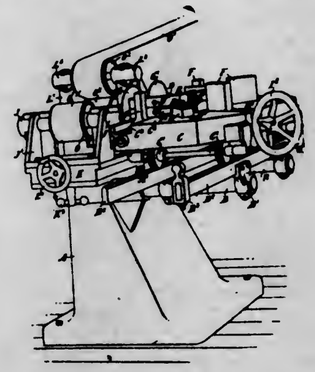
1. In an arbor press, the combination of a suitable base and standard; ways in an overhanging head of such standard; a ram in said ways, with suitable rack teeth on one side; a pinion meshing with said rack; a pinion shaft journaled in the same frame; a hand wheel at one end of said shaft; a clamp for clamping the said shaft; a face plate on the standard; a ratchet wheel on the said shaft in proximity to the face plate; a pawl carrier journaled on said shaft; a pawl pivoted on the said carrier; a stop on the said face plate disposed to act upon the said pawl and throw it out of engaging position when the pawl carrier is thrown back; a lever fulcrumed on the pawl carrier, having a suitable slotted extension to one side; a pivot pin slidable in a suitable aperture in the face plate, disposed to be moved into the slot of the said lever for compounding the same in the actuation of the pawl carrier; a slidable pin parallel with the said pivot pin in the said pawl carrier, disposed to act against the end of the same to drive the said pivot pin out of position and to enter said slot for locking the lever in fixed relation to said pawl carrier; and a suitable adjustable table secured to the said column in position to coact with the said ram, substantially as described.

2. In an arbor press, the combination of a suitable base and standard; ways in an overhanging head of such standard; a ram in said ways, with suitable rack teeth on one side; a pinion meshing with said rack; a pinion shaft journaled in the same frame; a clamp for clamping the said shaft; a face plate on the standard; a ratchet wheel on the said shaft in proximity to the face plate; a pawl pivoted on the said carrier; means to disengage said pawl; a lever fulcrumed on the pawl carrier, having a suitable slotted extension to one side; a pivot pin slidable in a suitable aperture in the face plate, disposed to be moved into the slot of the said lever for compounding the same in the actuation of the pawl carrier; a slidable pin parallel with the said pivot pin in the said pawl carrier, disposed to act against the end of the same to drive the said pivot pin out of position and to enter said slot for locking the lever in fixed relation to said pawl carrier; and a suitable adjustable table secured to the said column in position to coact with the said ram, substantially as described.

3. In an arbor press, the combination of a suitable base and standard; ways in an overhanging head of such standard; a ram in said ways, with suitable rack teeth on one side; a pinion meshing with said rack; a pinion shaft journaled in the same frame; a face plate on the standard; a ratchet wheel on the said shaft in proximity to the face plate; a pawl carrier journaled on said shaft; a pawl pivoted on the said carrier; means to disengage said pivot; a lever fulcrumed on the pawl carrier, having a suitable slotted extension to one side; a pivot pin slidable in a suitable aperture in the face plate, disposed to be moved into the slot of the said lever for compounding the same in actuation of the pawl carrier; a slidable pin parallel with the said pivot pin in the said pawl carrier, disposed to act against the end of the same to drive the said pivot pin out of position and to enter said slot for locking the lever in fixed relation to said pawl carrier; and a suitable adjustable table secured to the said column in position to coact with the said ram, substantially as described.

4. In an arbor press, the combination of a suitable base and standard; ways in an overhanging head of such standard; a ram in said ways, with suitable rack teeth at one side; a pinion meshing with said rack; a pinion shaft journaled in the same frame; a face plate on the standard; a ratchet wheel on the said shaft in proximity to the face plate; a pawl carrier journaled on said shaft; a pawl pivoted on said carrier; means to disengage said pawl; a lever fulcrumed on the pawl carrier; means for locking said lever to said carrier; slidable contact means for said lever on said face plate and means for throwing it into and out of engagement with said lever; and a table disposed to coöperate with said ram.

1,038,544. WHEEL-RIM EQUALIZING AND TRUING MACHINE. GEORGE A. ENSION, Defiance, Ohio, assignor to Defiance Machine Works, Defiance, Ohio. Filed Apr. 2, 1912. Serial No. 687,979. (Cl. 143—52.)



1. A wheel rim equalising and truing machine, comprising a pair of circular saws arranged in the same plane, a carriage mounted to travel sidewise in front of the said saws, truing means mounted on the said carriage for bending a wheel rim to a true circle and holding it in this trued position while moving the said carriage sidewise to cut off the ends of the rim by the said saws, the latter being located diametrically within the opening of the rim to cut off the ends from the inside of the rim to the outside thereof.

2. A wheel rim equalising and truing machine, comprising a carriage mounted to travel, a centering device on the carriage for centering the wheel rim, truing means mounted on the carriage for bending the wheel rim to a true circle, and sawing means intermediate the ends of the wheel rim for cutting off the ends while the wheel rim is held in centered and trued position.

3. A wheel rim equalising and truing machine, comprising a traveling carriage, abutments arranged in a circle for the inner face of a wheel rim to abut against, pressure devices movable on the carriage and adapted to engage the peripheral face of the wheel rim to bend the latter and cause it to assume a circular form, a pair of saws arranged intermediate the ends of the wheel rim and located in a plane diametrically relative to the wheel rim to reduce the wheel rim to true semicircular form, head stocks carrying the said saws, one of the head stocks being adjustable toward and from the other head stock, a support carrying the said head stock, and manually-controlled means for adjusting the support transversely.

4. A wheel rim equalising and truing machine, comprising a traveling carriage, abutments arranged in a circle for the inner face of a wheel rim to abut against, pressure devices movable on the carriage and adapted to engage the peripheral face of the wheel rim to bend the latter and cause it to assume a circular form, a pair of saws arranged intermediate the ends of the wheel rim and located in a plane diametrically relative to the wheel rim to reduce the wheel rim to true semicircular form, head stocks carrying the said saws, a slide having longitudinal guideways on which one of the said head stocks is longitudinally adjustable and the other head stock is fixed, and a support on which the said slide is mounted to slide transversely.

5. A wheel rim equalising and truing machine, comprising a pair of circular saws arranged in the same plane, a carriage mounted to travel sidewise in front of the said saws, truing means mounted on the said carriage for bending a wheel rim to true circular shape and holding it in this trued position while moving the said carriage sidewise to cut off the ends of the rim by the said saws, the latter being located diametrically within the opening of the rim to cut off the ends from the inside of the rim to the outside thereof, manually-controlled means for adjusting one saw toward or from the other, and manually-controlled means for adjusting the saws toward or from the said truing means.

[Claim 6 not printed in the Gazette.]

1,038,545. HYDROGENATED BUTTER SUBSTITUTE. CARLETON ELLIS, Montclair, N. J. Filed May 31, 1912. Serial No. 700,841. (Cl. 99—18.)

1. The process of making a butter-like composition which comprises incorporating edible hydrogenated oil with milk material.

2. The process of making a butter-like composition which comprises incorporating edible hydrogenated fatty oil with milk material.

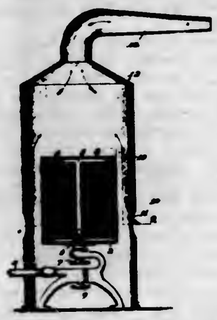
3. The process of making a butter-like composition which comprises incorporating edible hydrogenated fatty oil with milk material and in expressing the excess of moisture.

4. The process of making a butter-like composition which comprises incorporating edible hydrogenated vegetable oil with milk material and in expressing the excess of moisture.

5. The process of making a butter-like composition which comprises incorporating by emulsification edible hydrogenated vegetable oil with milk material and in expressing the excess of moisture.

[Claims 6 to 26 not printed in the Gazette.]

**1,038,546. APPARATUS FOR PRODUCING FORMALDEHYDE.** GUSTAVE FRENKEL, Pittsburgh, Pa., assignor to John A. Snee, West Elizabeth, Pa. Filed Feb. 18, 1911. Serial No. 609,480. (Cl. 23—24.)



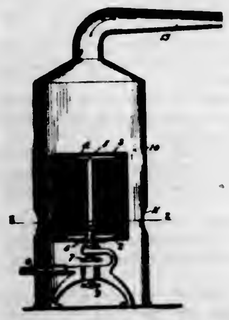
1. Apparatus for producing formaldehyde comprising a burner for supplying mixed air and gas, means for baffling the substances issuing from the burner and the flame thereof before the substances are fully consumed, and means for confining the flame to a restricted area and for passing the baffled and unconsumed substances away from the flame area.

2. Apparatus for producing formaldehyde comprising a combustion chamber having a closed top which forms a flame and product spreading baffle and with screen-like side walls depending from the baffle for cooling the baffled products passing therethrough and confining the flame within the chamber, and means arranged to project a stream of flame and unconsumed products against the baffle-forming top of the chamber.

3. Apparatus for producing formaldehyde comprising a combustion chamber having a closed top which forms a flame and product spreading baffle, the chamber having a closed bottom and screen-like side walls interposed between the top and bottom, the latter adapted to cool the unconsumed substances and products which are directed therethrough by the baffling action of the chamber top, and a Bunsen burner discharging in the chamber and arranged to project a stream of flame and unconsumed products against the baffle-forming top of the chamber.

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**1,038,547. METHOD OF PRODUCING FORMALDEHYDE.** GUSTAVE FRENKEL, West Elizabeth, Pa., assignor to John A. Snee, West Elizabeth, Pa. Continuation of application Serial No. 609,441, filed Feb. 18, 1911. This application filed May 11, 1912. Serial No. 696,711. (Cl. 23—24.)



1. The method of producing formaldehyde consisting in heating a stream containing air and methane to formaldehyde-producing temperature with the outer air excluded from the inner part of the stream, and baffling the stream with a heat conducting medium.

2. The method of producing formaldehyde consisting in heating a stream containing air and methane to formaldehyde-producing temperature, and baffling and cooling the stream before oxidation thereof proceeds beyond the formaldehyde-producing stage.

3. The method of producing formaldehyde consisting in producing a stream containing air and methane with the stream consisting of an inner part and an outer part and with the outer part forming an envelop for the inner part and excluding outer air therefrom, heating the outer part of the stream to ignition temperature and thereby oxidising the inner part thereof to formaldehyde and cooling both portions of the stream before oxidation of the inner portion thereof can proceed beyond the formaldehyde-producing stage.

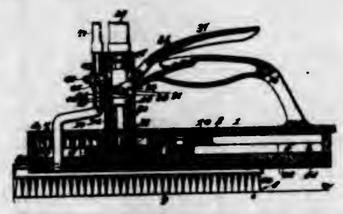
4. The method of producing formaldehyde consisting in baffling flaming air and methane with a heat conducting medium before they are fully consumed, and removing the unconsumed substances from the flame.

5. The method of producing formaldehyde consisting in burning air and methane in a flame-confining space, baffling the flaming air and methane before they are fully oxidised, and removing the unconsumed substances from the flame-confining space.

[Claims 6 to 8 not printed in the Gazette.]

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**1,038,548. SCRUBBING APPARATUS.** ADOLF W. FIETZ, Martins Ferry, Ohio. Filed Mar. 9, 1912. Serial No. 682,635. (Cl. 15—8.)



1. A brushing and scrubbing tool, comprising a carrier movable over the article being scrubbed, a brush mounted on and reciprocably movable on the carrier, a continuous driving means including a clutch device for actuating the brush as it is moved over the work, and another means for feeding a scouring fluid to the brush as the brush is moved over the work, a valve for controlling said fluid feed, and a single device for operating both said valve and said clutch.

2. An apparatus of the character described, comprising a carrier movable over the article being scrubbed, a brush mounted and reciprocably movable on the carrier, a continuous driving means for actuating the brush as it is moved over the work, another means for feeding a scouring fluid to the brush as the brush is moved over the work, the said other means including a delivery pipe that connects with the carrier and is movable therewith, and further means including a single operating device on the carrier for cutting out the driving means and the fluid feed.

3. A scouring and cleaning means comprising a carrier movable over the article worked upon, power operated brushes reciprocably mounted on the carrier, and means separate from the power mechanism for constantly feeding a scouring solution thereto during the operation of brushing and cleaning together with a single controlling device for simultaneously controlling the operation of the brushes and of the scouring solution feeding means.

4. A scouring and cleaning means comprising a carrier having a handle for moving it over the article being operated on, brushes reciprocably mounted on the carrier, means for operating the brushes, said means including a clutch for controlling the transmission of the power to the brushes, a means for constantly feeding the scouring solution to the brushes, said feeding means including a valved delivery pipe mounted on the carrier and a lever on the handle connected with the clutch and the valve in said pipe for shifting the clutch to release the brushes from the power and simultaneously close the valve in the delivery pipe to cut off the scouring solution feed.

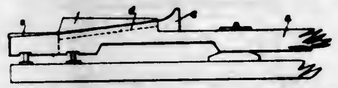
5. A scouring and cleaning means of the character stated, comprising a carrier having a handle for moving it over the article being worked upon, brushing and fluid feeding devices on the carrier and movable therewith, power mechanism for imparting movement to the brushes independent of the carrier movement and hand controlled mechanism on the carrier for throwing out of operation the power mechanism and the fluid feeding devices, said fluid feeding devices being separate from the power mechanism.

[Claims 6 and 7 not printed in the Gazette.]



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**1,038,549. KEYBOARD FOR PIANOS.** CARL FISCHER, Barmen, Germany. Filed July 7, 1910. Serial No. 570,819. (Cl. 84—16.)



An improved piano keyboard comprising black and white keys arranged as usual, each of said keys having a projection on its rear end, said projections being alined horizontally and rising to the same height above the tops of the black keys, the front parts of the upper surface of the white keys being substantially horizontal as usual and the back parts sloping upward and reaching the level of the tops of the black keys, substantially as described.

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**1,038,550. CORE.** MORDECAI H. FLETCHER, Cincinnati, Ohio. Filed May 21, 1912. Serial No. 698,697. (Cl. 22—166.)



1. A core for casting hollow pipes and the like, consisting of the metal core barrel wrapped with embossed combustible material in sheet form, and one or more non-combustible outer layers.

2. A core for casting hollow pipes and the like, consisting of a metal core barrel, having one or more layers of embossed combustible material superimposed thereon, and one or more non-combustible outer layers.

3. An improved core for casting pipes, consisting of a metal core barrel wrapped in a spiral direction with a relatively wide and thin strip of embossed combustible material; and one or more non-combustible outer layers.

4. An improved core for casting pipes, consisting of a metal core barrel wrapped in a spiral direction with a relatively wide and thin strip of embossed combustible material, said layers so applied as to overlap one or more preceding layers; and one or more non-combustible outer layers.

5. A core for casting hollow pipes and the like, consisting of a metal core barrel wrapped with embossed paper in sheet form, and one or more non-combustible outer layers.

[Claim 6 not printed in the Gazette.]

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**1,038,551. FIREPROOF FLOOR SYSTEM.** WILLIAM D. FORSYTH, Youngstown, Ohio. Filed July 17, 1911. Serial No. 638,791. (Cl. 72—66.)

1. In a reinforced concrete floor system a sectional metallic trough having curved ribs transverse the axis thereof; said ribs being connected with each other by sections of reticulated metal of said trough; said trough being provided with means at the ends thereof for interlocking, end to end, with like metallic troughs in said system.



2. In a reinforced concrete floor system, a metallic trough having curved ribs transverse the axis thereof connected by sections of reticulated metal, said ribs being at the ends of said trough and intermediate said ends and means insertible in the end ribs of said trough for closing the ends thereof.

3. In a reinforced concrete floor system, the combination of the floor beams of the building with metallic sectional base plates having entire longitudinal ribbed sections connected by reticulated sections and means of interlocking said base plates; sectional metallic interlocking troughs, having curved ribbed sections with ribs transverse their axes and means for interlocking the sections thereof, mounted upon said base plates; and plastic cementitious material applied to said floor beams, base plates and troughs so as to form air spaces within said troughs and the ceiling and floor of rooms in said building respectively below and above said floor system.

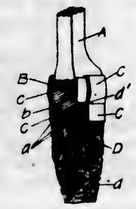
4. In a reinforced concrete floor system, the combination of the floor beams of the building with metallic sectional base plates having entire longitudinal ribbed sections connected by reticulated sections and means of interlocking said base plates; sectional metallic interlocking troughs having curved ribbed sections with ribs transverse their axes and means for interlocking the sections thereof, mounted upon said base plates; reinforcing bars placed above said base plates, between said floor beams and said troughs, and between said troughs, parallel to the axes of said troughs; and plastic cementitious material applied to said floor beams, base plates and troughs so as to form air spaces within said troughs and the ceiling and floor of rooms in said building respectively below and above said floor spaces.

5. In a reinforced concrete floor system the combination of floor beams of the building with metallic sectional base plates having entire longitudinal ribbed sections connected by reticulated sections and means of interlocking the sections thereof; metallic troughs closed at both ends thereof mounted upon said base plates so as to form spaces, for the reception of cementitious material, plastic cementitious material placed upon said floor beams, base plates, and end closed metallic troughs so as to form air spaces within said troughs and the ceiling and the floor of the rooms in said building below and above said floor system respectively.

[Claims 6 and 7 not printed in the Gazette.]

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**1,038,552. BRUSH.** WALTER D. FORS, Wooster, Ohio. Filed Aug. 25, 1911. Serial No. 646,032. (Cl. 15—36.)

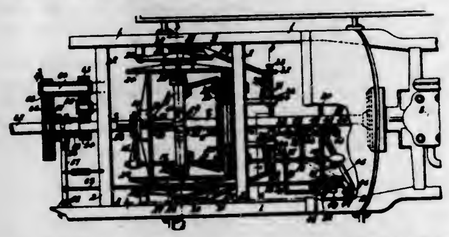


In a brush, the combination with a brush-head block having a convexed under surface, a mass of bristles having a concavity adapted to fit over said convexity in such a manner that the root ends of the outer portion of said mass will extend higher up in the completed brush than the inner portion thereof, and said mass will taper out-

wardly to a point; a series of pegs projecting from said convex surface and forced into the said root ends in said concavity, and a ferrule secured to said block and said bristles, the outer portion of said mass of bristles extending deeper into said ferrule than the inner portion thereof, substantially as set forth and for the purpose specified.

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1,038,553. TRANSMISSION-GEAR MECHANISM. CLAYTON E. FREDERICKSON, San Francisco, Cal., assignor of one-half to William H. Stenger, Berkeley, Cal. Filed Nov. 7, 1911. Serial No. 658,960. (Cl. 74—26.)



1. In a power transmitting mechanism, a driving shaft and a driven shaft, a train of friction gears connecting said shafts and including a shiftable gear disk mounted on the driven shaft, a disk member meshing with said shiftable disk, means continuously tending to move said last named disk member out of engagement with said shiftable disk, other means continuously tending to oppose the action of said first mentioned disk moving means, and means for positively overcoming the action of said last named continuously tending means to permit first mentioned continuously tending means to act.

2. In a power transmitting mechanism, a driving shaft and a driven shaft, friction gears connecting said shafts and including a pair of laterally movable gear disks mounted independently of said shafts, a fixed driving disk on the driving shaft, means for imparting motion from said fixed driving disk to said independently mounted disks, a shiftable disk on said driven shaft to engage said independently mounted disks, pedal actuated means for operatively disconnecting and connecting said independently mounted disks from said shiftable driven shaft disk, and another pedal actuated means for shifting said shiftable driven shaft disk.

3. In a power transmission mechanism, a driven shaft and a driving shaft, a transverse frame member, a pair of friction disks mounted on said frame member and movable toward and from the axial line of said shafts, a shiftable disk on said driven shaft, means for shifting said driven shaft disk along said driven shaft, means continuously tending to hold said transverse frame member disks in engagement with said driven shaft disk, means for transmitting the power of the driving shaft to said transverse frame member disks, means continuously tending to release said transverse frame member disks from engagement with said driven shaft disk, and pedal actuated means for controlling the movement of said transverse frame carried disks.

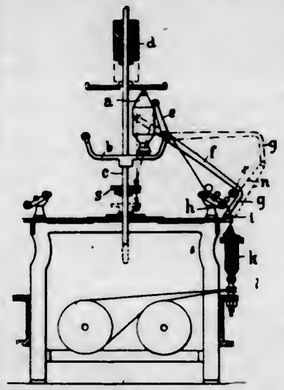
4. In a power transmitting mechanism, a driving shaft, and a driven shaft, a shiftable friction disk mounted on said driven shaft, a train of normally engaged friction gears for transmitting the motion of said driving shaft to said disk, means including a screw and lever device cooperative with certain of the gears of said train for operatively disconnecting said train of gears from said disk, and other means for shifting said disk to change speed.

5. In a power transmitting mechanism, a driving shaft and a driven shaft, a shiftable friction disk mounted on said driven shaft, a train normally engaged friction gears for transmitting the motion of said driving shaft to said disk, means including a screw operated device for operatively diconnecting said train of gears from said disk, other means for shifting said disk to change speed, and means coöperative with said last named means for operatively reconnecting said train of gears with said disk when said disconnecting means is released.

[Claims 6 to 14 not printed in the Gazette.]

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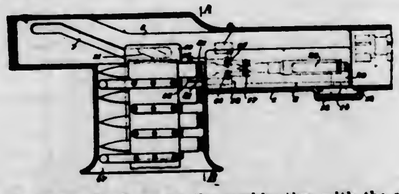
1,038,554. APPARATUS FOR DRAWING THE THREAD END INTO COPS. EMIL FRITSCH, Weiler, near Schlettstadt, Germany. Filed July 10, 1911. Serial No. 637,716. (Cl. 118—16.)



In an apparatus for drawing the thread end into the interior or hollow of cops, the combination of the supply means for the yarn, a spindle adapted to receive the thread end and form a cop, a pivotally mounted device intermediate said supply means and spindle over which the thread is guided to the spindle, and means counterbalancing the device so that upon the device being lifted from a normal position under control of said counterbalancing means, a loop is formed in the thread providing slack for the starting of another cop, the said device being returned to a normal position by the winding of the thread subject to action of the spindle.

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1,038,555. AUTOMATIC FIREARM. RUDOLF FROMMER, Budapest, Austria-Hungary. Filed Jan. 11, 1910. Serial No. 537,432. (Cl. 89—3.)



1. In automatic fire-arms the combination with the sliding barrel, breech mechanism and loading chamber of a cartridge feeder, means directly connected with the barrel and operated thereby for automatically extracting a cartridge from said cartridge feeder, and a transverse slide adapted to receive the cartridge from said extracting means and to position it in front of the loading chamber.

2. In automatic fire-arms the combination with the sliding barrel, breech bolt and loading chamber, of a cartridge feeder, a longitudinal slide connected with the barrel, means on said slide for automatically extracting a cartridge from said cartridge feeder, a transverse slide adapted to coöperate with said longitudinal slide and to receive the cartridge withdrawn from the cartridge feeder, and position it in front of the loading chamber.

3. In automatic fire-arms the combination with the sliding barrel, breech bolt and loading chamber, of a cartridge feeder, a longitudinal slide connected with the barrel, means on said slide for automatically extracting a cartridge from said cartridge feeder, a transverse slide adapted to coöperate with said longitudinal slide and to receive the cartridge withdrawn from the cartridge feeder, and position it in front of the loading chamber, and means for retaining the breech bolt in its rearward position during the forward movement of the barrel, and means on the latter for releasing the breech bolt.

4. In automatic fire-arms the combination with the sliding barrel, breech bolt and loading chamber, of a cartridge feeder, means for automatically extracting a cartridge from said cartridge feeder, a transverse slide adapted to coöperate with said extracting means and a yielding fork on said transverse slide adapted to receive the cartridge withdrawn from said cartridge feeder.

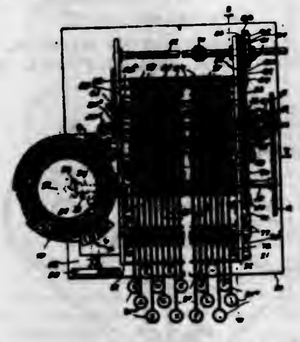
5. In automatic fire-arms the combination with the sliding barrel, breech bolt and loading chamber, of a cartridge feeder, means for automatically extracting a cartridge from said cartridge feeder, a transverse slide adapted to coöperate with said extracting means and a yielding fork on said transverse slide adapted to receive the cartridge withdrawn from said cartridge feeder, and a hook pivoted to said slide and adapted to temporarily retain the cartridge in said fork.

[Claims 6 and 7 not printed in the Gazette.]



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1,038,556. MACHINE FOR ENCIPHERING AND DECIPHERING MESSAGES. ERWIN W. FULLER, Chicago, Ill. Filed Mar. 8, 1912. Serial No. 682,337. (Cl. 35—13.)



1. In a machine of the class described, the combination of a key lever, a gear wheel associated therewith, a segmental rack normally out of mesh with said gear wheel, but capable of intermeshing therewith, a shift lever under the control of said key lever and operatively connected to said gear wheel, movement of said shift lever in one direction being adapted to throw the gear wheel and segmental rack into mesh with each other, means for rotating said segmental rack, selecting mechanism operatively connected to said gear wheel and arranged to be actuated therefrom, individual character presenting elements each having a certain character thereon and arranged to be acted upon by said selecting mechanism, and independent actuating means for actuating said character presenting element affected by the selecting mechanism.

2. In a machine of the class described, a key-board the keys of which denote certain characters, a key lever for each key, a dog carried by each lever, a spring actuated shift lever normally in engagement with an associated dog, a shiftable gear wheel associated with each shift lever and arranged to be shifted thereby, a common shaft upon which all of said gears are slidably but non-rotatably mounted, a segmental rack associated with each gear wheel, said gear wheels being normally out of mesh with their associated racks but capable of being thrown into mesh therewith, one at a time, upon the depression of a key lever, driving means for rotating said racks, selecting mechanism actuated from said gear wheels, and character presenting elements arranged to be acted upon by said selecting mechanism.

3. In a machine of the class described, the combination of a series of individual character presenting elements, a series of corresponding character denoting keys, operative connections for said character presenting elements, under the control of said keys, and having means for changing the relation between the keys and the individual character presenting elements, including an indicating dial whereby said change may be made known.

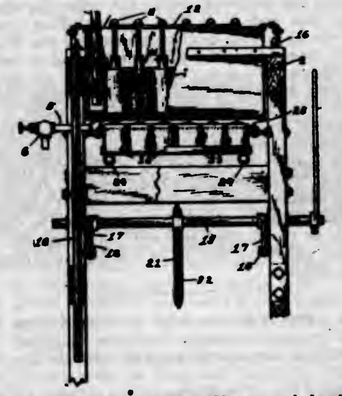
4. In a machine of the class described, a series of independent character presenting levers, a series of character denoting keys, controlling the action of said levers, and means for changing the relation between any key and the levers, whereby different levers are actuated upon the depressing of the one and the same key a number of times in succession.

5. In a machine of the class described, a key controlled, rotary selecting mechanism, having a series of active places arranged around its axis of rotation, and a series of suitably operated, character presenting elements, each capable of co-acting with an active place on said selecting mechanism.

[Claims 6 to 18 not printed in the Gazette.]

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1,038,557. CAN-FILLING MACHINE. EDWARD B. GAGE, Kahoka, Mo. Filed July 17, 1911. Serial No. 639,072. (Cl. 226—18.)



1. A can filling machine including a tank having a discharge opening in the bottom thereof, a measuring cup projecting upwardly from the bottom of the tank and surrounding the discharge opening, a valve rod projecting upwardly through the measuring cup and controlling the discharge opening, a frame connected to the valve rod and adapted to rest loosely upon the top of the tank when the valve rod is in closed position, a vertically movable displacement member mounted within the tank so as to cause the liquid within the tank to overflow into the measuring cup when it is lowered, and means for raising and lowering the displacement member, the said displacement member upon its upward movement engaging the before mentioned frame which is arranged in the path thereof so as to elevate the valve rod and permit the liquid within the measuring cup to be discharged through the before mentioned discharge opening.

2. A can filling machine including a tank having a discharge opening in the bottom thereof, a measuring cup projecting upwardly from the bottom of the tank and surrounding the discharge opening, a valve rod projecting upwardly through the measuring cup and controlling the discharge opening, a frame connected to the valve rod and normally resting loosely upon the top of the tank when the valve rod is in a closed position, a displacing weight adjustably mounted upon the valve rod so as to hold the valve rod normally in a lowered and closed position, said

displacing weight forming a means for regulating the exact amount of liquid in the cup, a vertically movable displacement member mounted within the tank and serving when lowered to cause the liquid within the tank to overflow into the measuring cup, and means for raising and lowering the displacement member, the said displacement member upon its upward movement engaging the before mentioned frame which is arranged in the path thereof so as to lift, the valve rod and permit the liquid within the measuring cup to be discharged through the discharge opening.

3. A can filling machine including a tank having a discharge opening in the bottom thereof, a measuring cup surrounding the discharge opening and projecting upwardly from the tank bottom, a valve rod controlling the discharge opening and projecting upwardly through the measuring cup, a frame connected to the valve rod and normally resting loosely upon the top of the tank when the valve rod is in a closed position, a vertically movable displacement member extending around the sides of the measuring cup and mounted within the tank, the said displacement member serving when lowered to cause the liquid within the tank to overflow into the measuring cup, and means for raising and lowering the displacement member, the said displacement member upon its upward movement serving to engage the frame to lift the valve rod into an open position and permit the liquid within the cup to be discharged through the discharge opening.

4. A can filling machine including a tank having a discharge opening in the bottom thereof, a measuring cup surrounding the discharge opening and projecting upwardly from the tank bottom, a valve rod projecting upwardly through the measuring cup and controlling the discharge opening, a frame connected to the valve rod, a vertically movable displacing member mounted within the tank and serving when lowered to cause the liquid within the tank to overflow into the measuring cup, a rock shaft, a crank arm projecting from the rock shaft, a slide having an operative connection with both the crank arm and the displacement member, and means for moving the rock shaft to raise and lower the displacement member, the said displacement member upon its upward movement engaging the before mentioned frame which is arranged in the path thereof so as to lift the valve rod and permit the liquid within the measuring cup to be discharged through the discharge opening.

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1,038,558. TEA AND COFFEE POT AND THE LIKE. ALFRED FRANCIS GARDNER, Leicester, England. Filed June 19, 1911. Serial No. 633,936. (Cl. 53—3.)



For use in a tea or coffee pot, a tubular neck constructed to be loosely inserted into the opening of the pot and form an air chamber on the interior of the latter, a rubber ring to be located between the opposing faces of the neck and pot and to make an air tight joint therebetween, internal ledges at the top of the neck, an interual flange at the lower end of the neck, a detachable cylindrical strainer, external lips on said strainer constructed to rest upon either the ledges at the top or the flange at the bottom of the neck to support the strainer in an upper or lower position therein, lifting means ou the strainer, and a lid to fit within the upper end of the neck, substantially as described.

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1,038,559. CORN-PLANTER. STEPHEN H. GARST, Moline, Ill. Filed Aug. 19, 1911. Serial No. 644,928. (Cl. 111—6.)

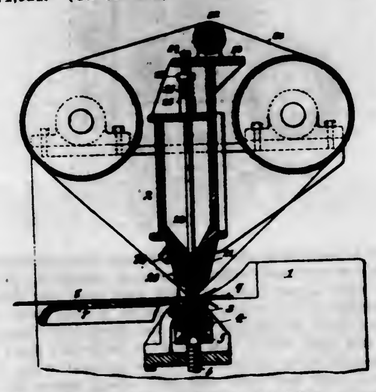
1. In a corn planter, a standard through which grain is dropped in planting, valves in said standard controlling the passage of the grain, and a shallow pocket at the base of said standard and receiving the grain therefrom to be deposited in the furrow, said pocket being out of alinement with the passage through the standard so that the contents thereof may be visible from above said pocket, substantially as described.



2. In a corn planter, a standard through which the grain is dropped, valve mechanism at the entrance and intermediate portion of said standard controlling the passage of grain therethrough, and a shallow grain pocket at the base of said standard out of alinement with the passage through the standard, a valve in said pocket, the interior of said pocket and the valve in said pocket being visible from above said pocket, whereby the grain passing to and from said pocket may be seen, and means for concurrently opening or closing the valve at the entrance of the standard and in the pocket at the base thereof, and for closing the valve at the intermediate portion of said standard when said upper and lower valves are open, substantially as described.

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1,038,560. LEATHER-SPLITTING MACHINE. JOSEPH H. GAY, Newark, N. J. Filed Jan. 13, 1912. Serial No. 671,021. (Cl. 69—10.)



1. A hide-splitting machine, comprising a splitting-blade, a moving support, a moving web, and a presser block having an edge bearing upon said web to compress said hide between said web and said support; the said edge being rounded to produce a clearance of sufficient width to permit of the adjustment of said blade in close proximity to the line of maximum compression of said hide.

2. A hide-splitting machine, comprising a splitting blade, a rotary gage roll, a moving web above said roll, and a plurality of presser blocks having their lower edges in line and bearing upon said web to compress said hide between said web and said support: the said edges being rounded to produce a clearance of sufficient width to permit of the adjustment of said blade in close proximity to the line of maximum compression of said hide.

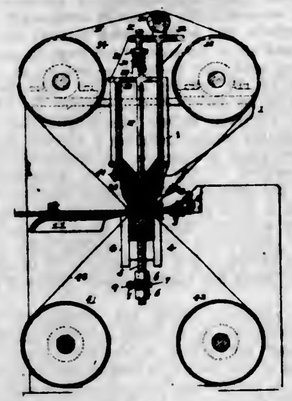
3. A hide-splitting machine, comprising a splitting blade, a moving support for the hide, end frames, a truss frame supported on said end frames, means for vertically adjusting said truss frame, a plurality of presser blocks disposed in line in said truss frame and having their lower edges in proximity to said moving support, a web passing under said presser blocks, and means for driving said web to coöperate with said moving support to engage said hide and move the same to said blade.

4. A hide-splitting machine, comprising a splitting blade, a moving support for the hide, end frames, a truss frame supported on said end frames, a plurality of presser blocks disposed in line in said truss frame and having their lower edges in proximity to said moving support, means for vertically adjusting said blocks in said truss frame, a web passing under said presser blocks, and means for driving said web to coöperate with said moving support to engage said hide and move the same to said blade.



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1,038,561. LEATHER-SPLITTING MACHINE. JOSEPH H. GAY, Newark, N. J. Filed Jan. 13, 1912. Serial No. 671,022. (Cl. 69—10.)



1. A hide-splitting machine, comprising a splitting blade, two moving webs, and members having plane faces bearing on said webs to hold the same respectively in contact with opposite sides of the hide: the said members adjacent to said faces being rounded to produce a clearance of sufficient width to permit of the adjustment of said blade in close proximity to the line of maximum compression of said hide.

2. A hide-splitting machine, comprising a splitting blade, two moving webs, and members having oppositely inclined plane faces bearing on said webs to hold the same respectively in contact with opposite sides of the hide: the said members adjacent to said faces being rounded to produce a clearance of sufficient width to permit of the adjustment of said blade in close proximity to the line of maximum compression of said hide.

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1,038,562. PRESERVED COTTON-BOLL. WALTER W. GAYLE, Montgomery, Ala. Filed Feb. 29, 1912. Serial No. 680,670. (Cl. 99—8.)



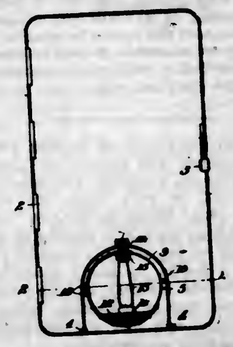
1. As a new article of commerce, an unopened cotton boll incased in a covering of material impervious to air and moisture, whereby the said boll is preserved in its unopened state, substantially as described.

2. As a new article of commerce, an unopened cotton boll incased in a coating of a substance which is impervious to air and moisture applied over the surface of the boll to preserve the same in the unopened state, substantially as described.

3. As a new article of commerce, an unopened cotton boll incased in a coating of paraffin applied over the surface of the boll to preserve the same in the unopened state, substantially as described.

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1,038,563. POCKET-HUMIDOR. JOSEPH E. GELDER, New York, N. Y. Filed Jan. 5, 1912. Serial No. 669,575. (Cl. 131—30.)



1. A pocket receptacle comprising a case, a tank therein, a wick leading from the tank and extending over a portion of the exterior surface of the tank, and a foraminous housing inclosing said tank and spaced apart therefrom.

2. A pocket receptacle comprising a case, a tank provided with a mouth portion, said tank pivotally mounted in the case whereby said mouth portion is maintained in uppermost position, a wick leading from the tank and a foraminous partition over the tank.

3. A pocket receptacle comprising a case, a weighted tank pivotally mounted therein, a wick leading from the tank, and a foraminous partition over the tank.

4. A pocket receptacle comprising a case, a tank therein, a wick leading from the tank, said wick being weighted within the tank, and a foraminous partition over the tank.

5. A pocket receptacle comprising a case, a tank therein, a wick leading from the tank, and extending over a portion of the exterior surface of the same, and a foraminous partition over the tank.

[Claims 6 to 10 not printed in the Gazette.]

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1,038,564. SMOKING-PIPE. JOHN GLOSSINGER, New York, N. Y., assignor to Manhattan Briar Pipe Company, New York, N. Y., a Corporation of New Jersey. Filed July 18, 1912. Serial No. 710,203. (Cl. 131—12.)



1. As a new article of manufacture, a calabash smoking-pipe comprising a gourd shell having a mouthpiece, a carrier-ring or collar removably fitted in the open end of the shell and having an opening of standard size, a tobacco bowl of earthy material and of standard size removably fitted in said ring or collar and a packing ring interposed between the shell and collar.

2. As a new article of manufacture, a calabash smoking-pipe comprising a gourd shell having a mouth-piece, a flanged carrier ring or collar removably fitted in the open end of the shell and having its flange projecting over the upper edge or rim of the shell, said ring or collar having a counterbored opening of standard size, a tobacco-bowl of earthy material and of standard size having an annularly projecting rim removably fitted in said counterbored opening of the carrier ring or collar and a packing ring interposed between the shell and the collar.

3. As a new article of manufacture, a calabash smoking-pipe comprising a gourd shell having a mouth-piece, a flanged carrier-ring or collar of brier removably fitted in the open end of the shell and having its flange projecting over the upper edge thereof, said ring or collar having a counterbored opening of standard size, a meerschaum tobacco-bowl of standard size having an annularly projecting rim at its upper end shaped to fit said counterbored opening of the carrier-ring or collar and a packing ring interposed between the shell and collar.

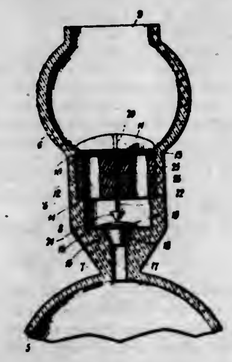
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1,038,565. MANUFACTURE OF PAPER FROM PEAT. BERNARD GRANVILLE, New York, N. Y., assignor to National Fibre Products Company, a Corporation of Delaware. Filed Jan. 28, 1911, Serial No. 605,330. Renewed Feb. 8, 1912. Serial No. 676,444. (Cl. 92—14.)

The hereindescribed method of excavating and separating peat fiber from the bog, the same consisting in applying to the peat, as it lies in the bog, a powerful stream of water, cutting thereby the peat, and forming a body of water carrying the fiber in suspension, taking the mixed water and fiber from said body and separating the fiber therefrom, substantially as described.

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1,038,566. NON-REFILLABLE BOTTLE. JOHN S. GREAVES, Negley, Ohio. Filed June 15, 1911. Serial No. 633,326. (Cl. 215—68.)



The combination with a bottle having its neck enlarged adjacent the mouth thereof, said neck being contracted adjacent the bottom, said contracted portion being flared at its upper end producing a valve seat, and the said neck having an annular interior groove formed between the enlarged and contracted portions thereof, of a stopper held within the said annular groove, said stopper having a central and surrounding openings, a valve stem movable through the central opening, a valve engaging the valve seat, a head carried by the valve stem and engaging the valve, and a stopper carried by the valve stem, said stopper being disposed in the enlarged portion of the neck and being of a diameter larger than the diameter of the medial portions of the neck whereby the said second mentioned stopper will engage the interior of the enlarged portion of the neck in spaced relation to the first mentioned stopper.

1,038,567. ELECTRICAL SWITCH. MORRIS D. GRIMGARD, New York, N. Y. Filed Oct. 14, 1910. Serial No. 586,966. (Cl. 175—290.)



1. In an electrical switch, the combination of rotary contact-operating means including a vertical spindle having a flatted lower end-portion, an apertured support detachably secured to the switch in underneath alinement with the spindle, and a rod passing through said aperture having a head above the support too large to pass through the aperture, said head having a socket fitting the flatted end-portion of the spindle, said rod below the support having a grip for twisting it to operate the switch.

2. In an electrical switch, the combination of rotary contact-operating means including a vertical spindle having a flatted lower end-portion, an apertured support detachably secured to the switch in underneath alinement with the spindle, a rod passing through said aperture having a head above the support too large to pass through the aperture, said head having a socket fitting the flatted end-portion of the spindle, said rod below the support having a grip for twisting it to operate the switch, and insulating means between said rod and spindle.

3. In an electrical switch, the combination of rotary contact-operating means including a vertical spindle having a flatted lower end-portion, an apertured support detachably secured to the switch in underneath alinement with the spindle, a rod passing through said aperture having a head above the support too large to pass through the aperture, said head having a socket fitting the flatted end-portion of the spindle, said rod below the support having a grip for twisting it to operate the switch, and a universal joint connection in the rod below the apertured support.

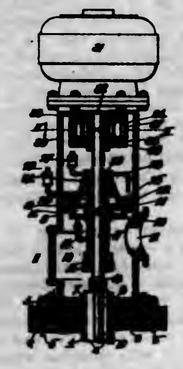
4. In combination with a fixture and its apertured bottom shell, an electric switch attachable to said fixture having a rotary contact-operating means, including a rod which is twisted to operate the switch, an externally threaded downwardly extending sleeve supported from the switch body of a length adapting it to be cut off to correspond with the depth of the particular bottom shell and so that said threaded sleeve projects downwardly a short distance through the aperture in said shell when the latter is in position, and a shell-supporting nut on said projecting end of the threaded sleeve.

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1,038,568. PUMP. WALTER S. GREGG, Kansas City, Mo. Filed July 24, 1911. Serial No. 640,332. (Cl. 103—43.)

1. In a pump, a hollow vertical head having a discharge opening 12, a bearing resting upon and depending into the head and provided with a chamber 14 at its upper end and a stuffing box 15 at its lower end, and an oil pipe 16, establishing communication between chamber 14 and the interior of the bearing above the stuffing box; a skeleton standard bolted upon the upper end of the bearing; an arched bearing 24 bolted down upon the first-named bearing and inclosed by the standard and provided with a chamber in its upper end; an oil supply pipe extending through the lower part of the arched bearing to discharge into the chamber in the top of the first-named bearing, an oil supply pipe to discharge into the chamber at the top of the arched bearing; a drain-pipe leading from said last-named chamber; a vertical shaft extending through and journaled in said bearings; and antifriction bearing around said shaft and resting on the underlying bearing to minimize friction between the latter and the shaft.

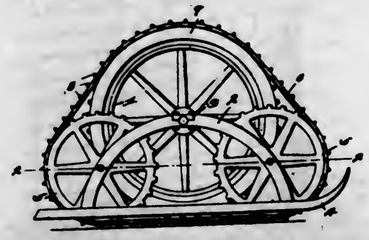




2. In a pump, a hollow vertical head having a discharge opening 12, a bearing resting upon and depending into the head and provided with a chamber 14 at its upper end and a stuffing box 15 at its lower end and an oil pipe 16 establishing communication between chamber 14 and the interior of the bearing above the stuffing box; a skeleton standard bolted upon the upper end of the bearing; an arched bearing 24 bolted down upon the first-named bearing and inclosed by the standard, and provided with a chamber in its upper end; an oil supply pipe extending through the lower part of the arched bearing to discharge into the chamber in the top of the first-named bearing; an oil-supply pipe to discharge into the chamber at the top of the arched bearing; a drain-pipe leading from said last-named chamber; a vertical shaft extending through and journaled in said bearings; an anti-friction bearing around said shaft and resting on the underlying bearing to minimize friction between the latter and the shaft; a motor supported on the standard; and a shock-absorbing connection to transmit power from the motor to the shaft.

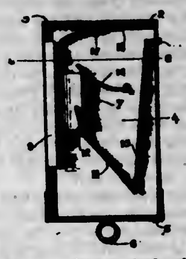
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1,038,569. ATTACHMENT FOR AUTOMOBILE-WHEELS. FRED V. GROVER, Park Rapids, Minn. Filed Jan. 2, 1912. Serial No. 668,870. (Cl. 21—47.)



A device of the character described, including a pair of runners, curved braces secured to and extending vertically from said runners, front and rear sprocket wheels journaled in said braces at the front and rear thereof and arranged in laterally disposed pairs, a vehicle wheel journaled in said braces at a point above the said sprocket wheels, a sprocket casing detachably encircling the second mentioned wheel and provided with transversely extending sprocket teeth, and a sprocket chain provided with transversely extending ground engaging members, the said sprocket chain passing around the said sprocket wheels and the second mentioned wheel, as and for the purpose set forth.

1,038,570. MATCH-BOX. FREDERICK W. GULLAND, Stonewall, Manitoba, Canada. Filed Oct. 2, 1911. Serial No. 652,264. (Cl. 206—27.)

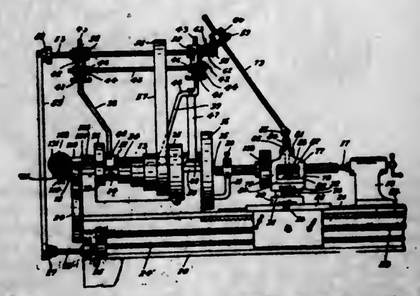


1. A match safe, comprising a body closed at both ends and provided at one end with a discharge opening, a partition in said body, and a match ejecting mechanism positioned in the space formed by said partition, said mechanism consisting of a match carriage extending into the main body of the safe and adapted to receive a match therefrom, a lever pivoted intermediate its length to said partition, a link connecting one end of said lever with the carriage, a thumb button slidable in a slot formed in said casing, a second link connecting the other end of said lever with said thumb button, a spring secured by one end to the partition and with its other end bearing upon said carriage, a slide movable across a discharge opening, a second spring secured by one end to said carriage and by the other end to said slide.

2. A match safe, comprising a body closed at both ends and provided at one end with a discharge opening, a partition in said body provided at one side with a longitudinal slot communicating with the body, and a match ejecting mechanism positioned in the space formed by said partition, said mechanism consisting of a match carriage, said match carriage being wholly positioned within the spaced portion divided off by the partition, said carriage having a lateral extension adapted to receive and support a match as it comes from the body of the safe through the longitudinal slot of the partition, a lever pivoted intermediate its length to said partition, a link connecting one end of said lever with the carriage, a thumb button slidable in a slot formed in said casing, a second link connecting the other end of said lever with said thumb button, a spring secured by one end to the partition and with its other end bearing upon said carriage, a slide movable across the discharge opening, and a second spring secured by one end to said carriage and by the other end to said slide, said spring serving both to support the slide in position against the top of the casing and also to actuate the same upon the actuation of the carriage.

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1,038,571. MILLING ATTACHMENT FOR METAL-LATHES. HERMAN G. HAASE, Minneapolis, Minn. Filed Oct. 7, 1911. Serial No. 653,422. (Cl. 90—11.)



1. In combination with the spindle and tool carriage of a metal lathe, a milling device removably mounted directly

upon said carriage and including a vertical shaft adapted to receive a milling tool of usual construction, a drive rod having universal joint connection with said shaft, and means operated directly from the lathe for driving said rod with which the same is slidably connected.

2. In combination with the spindle and tool carriage of a metal lathe, a milling device removably mounted directly upon said carriage and including a vertical shaft adapted to receive a milling tool of usual construction, a shaft mounted above the lathe spindle and driven therefrom, a bevel gear mounted at a fixed angle to and driven by the shaft, and a driving shaft slidably mounted in said bevel gear and having universal-joint rotative connection therewith and with the vertical shaft.

3. In combination with the spindle and tool carriage of a metal lathe, a milling device removably mounted directly upon said carriage including a vertical shaft, a frame removably secured to the lathe frame and extending outwardly above the spindle, a shaft journaled in said frame parallel with and driven from the cone pulley of the lathe spindle, a bevel gear on one end of said shaft, a gear casing rigid on said frame and provided with a bearing for said shaft, a bevel gear held in mesh with said first gear and at a fixed angle with the shaft by said gear casing, and a driving shaft slidably mounted in said last named bevel gear and having universal-joint rotative connection therewith and with the vertical shaft.

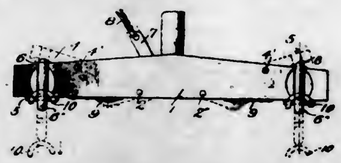
4. In combination with the spindle and tool carriage of a metal lathe, a milling device removably mounted directly upon said carriage including a vertical shaft, a frame removably secured to the lathe frame and extending outwardly above the spindle, a shaft journaled in said frame parallel with and driven from the cone pulley of the lathe spindle, means for driving the tool carriage feed from said shaft, and extensible means having universal joint connection with the vertical shaft and with the horizontal shaft for operating the former from the latter.

5. In combination with the spindle and tool carriage of a metal lathe, a milling device removably mounted directly upon said carriage including a vertical shaft, a frame removably secured to the lathe frame and extending outwardly above the spindle, a shaft journaled in said frame parallel with and driven from the cone pulley of the lathe spindle, a bevel gear on one end of said shaft, a gear casing rigid on said frame and provided with a bearing for said shaft, a bevel gear held in mesh with said first gear and at a fixed angle with the shaft by said gear casing, a member mounted for universal movement in said last gear provided with an angular opening, and a driving shaft constructed and arranged to slide in said opening, and having universal-joint connection with the vertical shaft.

[Claims 6 to 13 not printed in the Gazette.]

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1,038,572. HORSE-DETACHER. GRANT HARER, Long Creek, Oreg. Filed Mar. 26, 1912. Serial No. 686,285. (Cl. 21—75.)



1. A horse detacher comprising in combination, a swingletree, a toggle lever mounted on said swingletree intermediate its ends, releasing levers operatively connected at one end with the toggle lever, trace attaching hooks mounted on the ends of said swingletree and normally held in operative position by said releasing levers, and means connected with the toggle lever to disengage the releasing levers aforesaid to release the hooks.

2. A horse detacher comprising in combination, a swingletree, a toggle lever mounted on said swingletree intermediate its ends, releasing levers operatively connected at one end with the toggle lever, trace attaching hooks mounted on the ends of said swingletree and normally held in operative position by said releasing levers, and means for holding the releasing levers in engagement with the trace hooks, and means connected with the toggle lever to disengage the releasing levers aforesaid to release the hooks.

3. A horse detacher comprising in combination, a swingletree, a toggle lever mounted on said swingletreee intermediate its ends, releasing levers operatively connected at one end with the toggle lever, trace attaching hooks mounted on the ends of said swingletree and normally held in operative position by said releasing levers, and an operating arm connected with the toggle lever and operable to disengage the releasing levers from the hooks aforesaid.

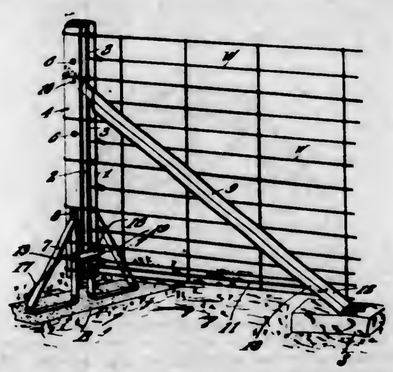
4. A horse detacher comprising in combination, a swingletree having a recess extending longitudinally thereof, a toggle lever mounted in the recess aforesaid and intermediate the ends of said swingletree, releasing levers pivotally mounted intermediate their ends adjacent to each end of the toggle lever, trace attaching hooks mounted on the ends of said swingletree and normally held in operative position by said releasing levers, links connecting the opposite ends of the toggle lever with the releasing levers, an operating arm connected with the toggle lever and operable to disengage the releasing levers from the hooks aforesaid, and springs secured to the swingletree, the free ends of which bear against the toggle levers to hold the releasing levers normally in engagement with the trace hooks.

5. A horse detacher comprising, in combination, a swingletree, a toggle lever mounted on said swingletree intermediate its ends, releasing levers connected at one end with the toggle lever, trace attaching hooks mounted on the ends of said swingletree, the said hooks each having jaw members to receive a trace, and between which the end of the adjacent releasing lever is adapted to lockingly engage, and an operating arm connected with the toggle lever and operable to disengage the releasing levers from the jaw members of the hooks aforesaid.

[Claim 6 not printed in the Gazette.]

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1,038,573. FENCE-POST. ABRAHAM C. HARRISON, Grand Rapids, Ohio. Filed May 12, 1911. Serial No. 626,818. (Cl. 189—29.)



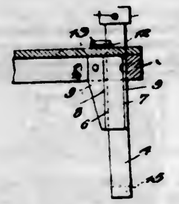
1. A fence post having feet arranged to rest upon a support, an inclined brace secured to the post adjacent to its upper end and having its lower end arranged to rest upon a second support, a tie rod connecting the lower portion of the brace and the post, an anchor to be embedded in the ground, a traction rod connected with the anchor and having arms disposed on opposite sides of the post, a cleat through which the ends of the arms project, and nuts threaded on the ends and serving to clamp the cleat against the post.



2. A fence post having feet arranged to rest upon a support, an inclined brace secured to the post adjacent its upper end and having its lower end arranged to rest upon a second support, a tie rod connecting the lower portion of the brace and the post, an anchor to be embedded in the ground, a U-shaped traction rod connected at its bend with the anchor and having its arms disposed on opposite sides of the post, a cleat through which the ends of the arms project, and nuts threaded on the ends and serving to clamp the cleat against the post.

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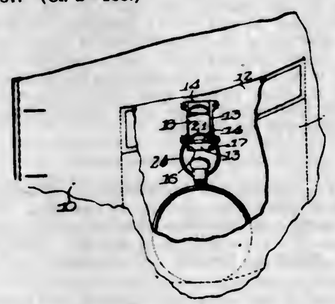
1,038,574. RAILWAY-SWITCH-OPERATING DEVICE. EDWARD T. HEAD, Caldwell, Kans. Filed Jan. 6, 1912. Serial No. 669,794. (Cl. 104—171.)



The combination with a car frame embodying a platform having members arranged at a right angle relative to each other, a guide housing of strap formation formed with right angular retaining members and attaching members secured to the frame members at the corner thereof with the retaining members spaced from the corner and forming therewith, a rectangular casing, a vertically movable standard mounted within said casing and freely movable therein, said standard being provided at its lower end with a switch operating shoe and formed intermediate of its end with a notch, and a latch pivotally mounted on the platform for engagement in said notch, whereby to hold the standard in raised inoperative position.

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1,038,575. WATCH-SECURING DEVICE. JOHN F. H. HEIDE, Chicago, Ill. Filed Jan. 20, 1912. Serial No. 672,487. (Cl. 2—158.)



1. In a device of the class described, the combination of a base adapted to be secured in position in a pocket, a lever pivotally mounted on said base adapted to be closed upon the bow of a watch inserted thereon, and a shoulder for preventing the bow from slipping off of said lever when the lever is closed, there being a recess below the lower end of said lever adapted to receive the stem of the watch.

2. In a device of the class described, the combination of a base adapted to be secured in position in a pocket, a lever pivotally mounted on said base adapted to be closed upon the bow of a watch inserted thereon, a spring carried by said base extending opposite the pivotal point of said lever, and an arm curved substantially in the form of a section of a hollow cylinder secured to said lever substantially at right angles thereto bearing on said spring whereby the lever is held yieldingly against opening.

3. In a device of the class described, the combination of a base adapted to be secured in position in a pocket, a lever pivotally mounted on said base adapted to be closed upon the bow of a watch inserted thereon, a spring carried by said base extending opposite the pivotal point of said lever, and an arm carried by said lever adapted to bear upon said spring whereby the first part of the stroke of said lever to open the same is against the action of said spring, there being provided a shoulder in position a short distance above the arm of said lever when the lever is closed between which and said arm the bow of the watch rests whereby said bow is prevented from working off of said lever when the lever is closed.

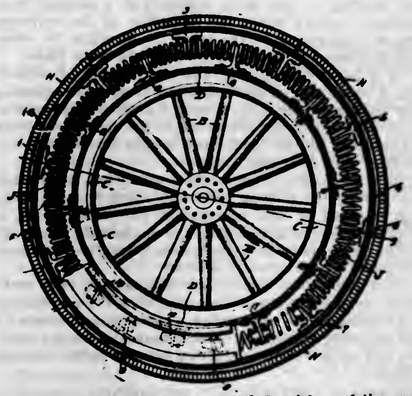
4. In a device of the class described, the combination of a base adapted to be secured in position in a pocket, a lever pivotally mounted on said base adapted to be closed upon the bow of a watch inserted thereon, a spring carried by said base extending opposite the pivotal point of said lever, and an arm carried by said lever adapted to bear upon said spring whereby the first part of the stroke of said lever to open the same is against the action of said spring, there being provided a curved shoulder in position a short distance above the arm of said lever when the lever is closed between which curved shoulder and said arm the bow of the watch rests whereby said bow is prevented from working off of said lever when the lever is closed.

5. In a device of the class described, the combination of a base adapted to be secured in position in a pocket, a lever pivotally mounted on said base adapted to be closed upon the bow of a watch inserted thereon, a spring carried by said base extending opposite the pivotal point of said lever, and an arm secured to said lever substantially at right angles thereto bearing on said spring whereby the lever is held yieldingly against opening, said arm being curved whereby it may support a watch without undue wear upon the bow thereof, there being provided a curved shoulder conforming to the curvature of the arm in position a short distance above the curved arm of said lever when the lever is closed between which curved shoulder and said curved arm the bow of the watch rests whereby said bow is prevented from working off of said lever when the lever is closed.

[Claims 6 to 8 not printed in the Gazette.]

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1,038,576. SPRING VEHICLE-WHEEL. CHRISTIAN F. HEINSS, Cincinnati, Ohio. Filed Aug. 10, 1911. Serial No. 643,274. (Cl. 152—32.)



1. In a vehicle wheel, provided with a felly, and a floating rim separate from the felly, an annular coiled spring intermediate the felly and rim, with the plane of the coils radially disposed, and a series of lugs secured alternately to the felly and the rim and projecting radially toward each other for supporting the spring free from the felly and the rim, each of said lugs engaging said

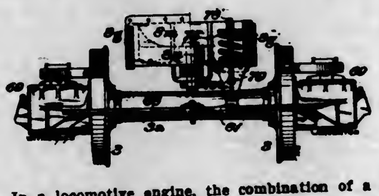
spring uniformly around the circumference of the coil, whereby uniform pressure may be applied between the lugs, and the tendency of the coil to buckle between the points of suspension is avoided.

2. In a vehicle wheel, provided with a felly, and a floating rim separate from the felly, an annular coiled spring intermediate the felly and rim, with the plane of the coils radially disposed, and a series of lugs secured alternately to the felly and the rim and projecting radially toward each other for supporting the spring free from the felly and the rim, each of said lugs engaging said spring circumferentially of its coils, said lugs being divided and embracing the coil from the outside.

3. In a vehicle wheel, provided with a felly, and a floating rim separate from the felly, an annular coiled spring intermediate the felly and rim, with the plane of the coils radially disposed, and a series of lugs secured alternately to the felly and the rim and projecting radially toward each other for supporting the spring free from the felly and the rim, each of said lugs engaging said spring circumferentially of its coils, said lugs being divided and formed with screw threads on the inner surface, with means for locking the parts together to provide a screw-threaded socket for the coil.

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1,038,577. LOCOMOTIVE-ENGINE. CHARLES L. HEISLER, Schenectady, N. Y. Filed Mar. 20, 1912. Serial No. 685,025. (Cl. 105—17.)



1. In a locomotive engine, the combination of a main frame, a supporting truck connected thereto, and a centering mechanism interposed between the main frame and truck and comprising a centering spring bearing on the main frame and a pivoted lever mechanism through which the resistance of said spring acts upon the main frame and truck, and means for varying the leverage of said lever mechanism.

2. In a locomotive engine, the combination of a main frame, a supporting truck connected thereto, a centering spring bearing on the main frame, and a pivoted lever mechanism through which the resistance of the centering spring is transmitted to the truck, in direction to resist lateral movement thereof relatively to the main frame.

3. In a locomotive engine, the combination of a main frame, a supporting truck connected thereto, a centering spring bearing on the main frame, a pivoted lever mechanism through which the resistance of the centering spring is transmitted to the truck, and means for varying the leverage of said lever mechanism.

4. In a locomotive engine, the combination of a main frame, a supporting truck connected thereto, a centering spring attached to and bearing on the main frame, a lever pivoted on the main frame, and operatively connected with the truck, and means for transmitting the resistance of the centering spring to said lever.

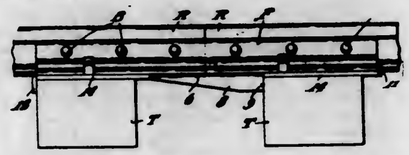
5. In a locomotive engine, the combination of a main frame, a supporting truck connected thereto, a centering spring bearing on the main frame, a lever coupled centrally to the centering spring and pivoted laterally on the main frame, and an operative connection between said lever and the truck.

[Claims 6 to 8 not printed in the Gazette.]

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1,038,578. TIE-PLATE. JOHN HENDERSON, North Chillicothe, Ill. Filed Sept. 15, 1911. Serial No. 649,409. (Cl. 238—2.)

1. An elongated tie plate for the rail joints adapted to be interposed between the joints and the underlying ties, having a pair of upright lugs at one end to snugly receive the base flange of one rail and engage the ends of the fish plates, and having a pair of longitudinal grooves extending throughout the length thereof to lie below the edges of the base flanges of the rails and having spike holes at each end thereof adjacent the outer edges of the said grooves, longitudinal depending flanges having vertical shoulders facing the end of the plate having the said lugs and adapted to abut against the inner face of one of the ties underlying the rail joint, a depending transverse lip at the other end of the plate adapted to engage the outer face of another underlying tie, and an upright rib along one side of the plate arranged adjacent the corresponding spike holes, the corresponding longitudinal flange lying in the same vertical plane with the said rib.

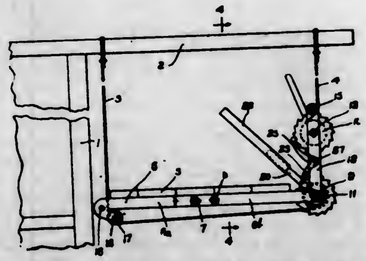


2. An elongated tie plate for rail joints adapted to be interposed between the joints and the underlying ties, having a pair of upright lugs at one end to snugly receive the base flange of one rail and engage the ends of the fish plates, and having spike holes at each end thereof, longitudinal depending flanges having vertical shoulders facing the end of the plate having the said lugs and adapted to abut against the inner face of one of the ties underlying the rail joint, a depending transverse lip at the other end of the plate adapted to engage the outer face of another underlying tie, and an upright rib along one side of the plate, the corresponding longitudinal flange lying in the same vertical plane with the said rib.

3. An elongated tie plate for rail joints adapted to be interposed between the joints and the underlying ties, having a pair of upright lugs at one end to snugly receive the base flange of one rail and engage the ends of the fish plates and having spike holes at each end thereof, longitudinal depending flanges having vertical shoulders facing the end of the plate having the said lugs and adapted to abut against the inner face of one of the ties underlying the rail joint, a depending transverse lip at the other end of the plate adapted to engage the outer face of another underlying tie, and an upright rib along one side of the plate, the corresponding longitudinal flange lying in the same vertical plane with the said rib, and the other longitudinal flange being struck outwardly to form lips to rest upon the ties.

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1,038,579. SCAFFOLD-SUPPORTING MECHANISM. ELIAS H. HENDERSON, Chicago, Ill., assignor, by mesne assignments, to Henderson Scaffold Hoist Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 7 1910. Serial No. 590,965. (Cl. 20—82.)



1. In a scaffold support, the combination of a horisontal frame, a vertical frame at one end of the horisontal frame,



a rod extending through the two frames to pivot them together, and a hoisting drum mounted upon the rod.

2. In a scaffold support, the combination of a horisontal frame, a vertical frame at one end of the horisontal frame, a rod extending through the two frames to pivot them together, and hoisting mechanism mounted upon the rod.

3. In a scaffold support, the combination of a horisontal frame, a vertical frame at one end of the horisontal frame, a rod passing through the two frames to pivot them together, a device mounted upon said rod for receiving a cable, and a hoisting drum rotatably mounted in the vertical frame to which a cable is secured.

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1,038,580. DIE AND CARRIER. EDWIN C. HENN, Cleveland, Ohio, assignor to The National Acme Manufacturing Co., Cleveland, Ohio, a Corporation of Ohio. Filed Feb. 10, 1910. Serial No. 543,025. (Cl. 10—95.)



1. The combination of a die-body having a rearwardly extending shank and provided with undercut ways, members provided with thread-cutting means and having lateral extensions projecting into said undercut ways and movable radially of the body, a head slidable on said shank and having a shell encircling substantially the whole of said body, said members and head each having one a tapered surface and the other a surface coöperating therewith to move said members inwardly, springs located at the sides of the ways for moving said members outwardly, and means extending through the body from front to rear thereof and in engagement with rear of the shell for limiting the movement of said slidable head.

2. The combination of a die-body provided with undercut ways and having a rearwardly extending shank, members provided with thread-cutting means and having lateral extensions projecting into said undercut ways and movable radially in said body and each provided at its side with a projection, a spring carried by the body at one side of each way for engaging said projection to move the thread-cutting members outwardly from the center, each of said members having a tapered surface, a sliding shell encircling substantially the whole of said body and having surfaces on the inner side thereof coöperating with the tapered surfaces of said members for moving the members inwardly against the action of the springs and independent means extending through the body from front to rear thereof for limiting respectively the forward and rearward movements of said slidable head.

3. The combination of a die-body provided with undercut ways and having a rearwardly extending shank, members provided with thread-cutting means and having lateral extensions projecting into said undercut ways and movable radially in said body and each provided at its side with a projection, a spring carried by the body at one side of each way for engaging said projection to move the thread-cutting members outwardly from the center, each of said members having a tapered surface, a sliding shell encircling substantially the whole of said body and having round cams carried by and projecting transversely of the axis of the shell for coöperating with the tapered surfaces of said members for moving the members inwardly against the action of the springs and independent means extending through the body from front to rear thereof for limiting respectively the forward and rearward movements of said slidable head.

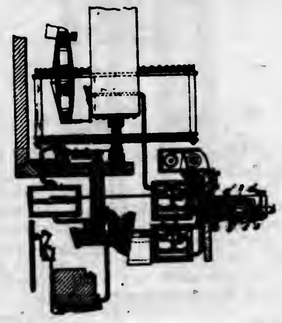
4. The combination of a die body provided with radially disposed ways, members provided with thread-cutting means movable in said ways, a head slidable longitudinally on the die body, springs for moving the said members outwardly from the center, cam surfaces between the head and said members for moving the members inwardly upon relative sliding movement of the head and die body, a screw adjustable in the die body and arranged to engage the head to limit the movement of the head on the die body in one direction, and a screw passing through an aperture in the die body and secured in the head for limiting the movement of the members in the opposite direction.

5. The combination of a die body provided with ways, members provided with thread-cutting means slidable in the ways toward and from the center, a head slidable on the die body and inclosing said members, said members being provided with tapered portions and the head being provided with cams coöperating upon the relative sliding movement of the head and die body, springs for pressing said members outwardly to retain said cams and tapered surfaces in engagement, the die body having a threaded bore, a screw operating in said bore for engaging the head and limiting the movement of the head and die body in one direction, the die body having a bore therethrough, and a bolt passing through said bore and secured in the head for limiting the separating movement of the die body and head.

[Claims 6 and 7 not printed in the Gazette.]

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1,038,581. MEANS TO ASSIST TUNING PNEUMATICALLY-OPERATED MUSICAL INSTRUMENTS. GUSTAV KARL HENNIG, Wahren, near Leipsig, Germany, assignor to Ludwig Hupfeld Aktiengesellschaft, Leipsig, Germany. Filed Apr. 1, 1911. Serial No. 618,413. (Cl. 84—43.)



1. A musical instrument comprising two independent sets of sounding bodies, pneumatic playing mechanism for causing the sounding of said bodies at will and under all usual conditions of playing of said instrument; in combination with a port block having ports therein arranged in pairs, each port of a pair having pneumatic connection with the pneumatic playing mechanism of a sounding body in a set, and means to control said pairs of ports to cause two of said bodies, one in each set, to sound together for the purpose of tuning.

2. A musical instrument comprising two independent sets of sounding bodies, playing means for causing the sounding of said bodies at will and under all usual conditions of playing of said instrument; in combination with a port block having ports therein arranged in pairs, one port of a pair having operative pneumatic connection with said playing means for a body of one set and the other port having operative pneumatic connection with the playing means for a body of the other set, and means for simultaneously opening the ports of a pair.

3. A musical instrument comprising two independent sets of sounding bodies, playing means for causing the sounding of said bodies at will and under all usual conditions of playing of said instrument; in combination with a port block having ports therein arranged in pairs, one port of a pair having operative pneumatic connection with said playing means for a body of one set and the other

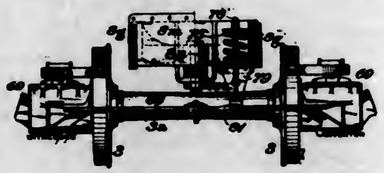
spring uniformly around the circumference of the coil, whereby uniform pressure may be applied between the lugs, and the tendency of the coil to buckle between the points of suspension is avoided.

2. In a vehicle wheel, provided with a felly, and a floating rim separate from the felly, an annular coiled spring intermediate the felly and rim, with the plane of the coils radially disposed, and a series of lugs secured alternately to the felly and the rim and projecting radially toward each other for supporting the spring free from the felly and the rim, each of said lugs engaging said spring circumferentially of its coils, said lugs being divided and embracing the coil from the outside.

3. In a vehicle wheel, provided with a felly, and a floating rim separate from the felly, an annular coiled spring intermediate the felly and rim, with the plane of the coils radially disposed, and a series of lugs secured alternately to the felly and the rim and projecting radially toward each other for supporting the spring free from the felly and the rim, each of said lugs engaging said spring circumferentially of its coils, said lugs being divided and formed with screw threads on the inner surface, with means for locking the parts together to provide a screw-threaded socket for the coil.

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1,038,577. LOCOMOTIVE-ENGINE. CHARLES L. HEISLER, Schenectady, N. Y. Filed Mar. 20, 1912. Serial No. 685,025. (Cl. 105—17.)



1. In a locomotive engine, the combination of a main frame, a supporting truck connected thereto, and a centering mechanism interposed between the main frame and truck and comprising a centering spring bearing on the main frame and a pivoted lever mechanism through which the resistance of said spring acts upon the main frame and truck, and means for varying the leverage of said lever mechanism.

2. In a locomotive engine, the combination of a main frame, a supporting truck connected thereto, a centering spring bearing on the main frame, and a pivoted lever mechanism through which the resistance of the centering spring is transmitted to the truck, in direction to resist lateral movement thereof relatively to the main frame.

3. In a locomotive engine, the combination of a main frame, a supporting truck connected thereto, a centering spring bearing on the main frame, a pivoted lever mechanism through which the resistance of the centering spring is transmitted to the truck, and means for varying the leverage of said lever mechanism.

4. In a locomotive engine, the combination of a main frame, a supporting truck connected thereto, a centering spring attached to and bearing on the main frame, a lever pivoted on the main frame, and operatively connected with the truck, and means for transmitting the resistance of the centering spring to said lever.

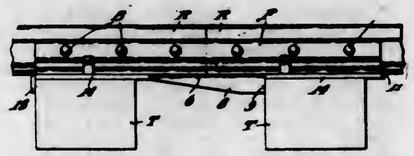
5. In a locomotive engine, the combination of a main frame, a supporting truck connected thereto, a centering spring bearing on the main frame, a lever coupled centrally to the centering spring and pivoted laterally on the main frame, and an operative connection between said lever and the truck.

[Claims 6 to 8 not printed in the Gazette.]

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1,038,578. TIE-PLATE. JOHN HENNEBERGER, North Chillicothe, Ill. Filed Sept. 15, 1911. Serial No. 649,409. (Cl. 238—2.)

1. An elongated tie plate for the rail joints adapted to be interposed between the joints and the underlying ties, having a pair of upright lugs at one end to snugly receive the base flange of one rail and engage the ends of the fish plates, and having a pair of longitudinal grooves extending throughout the length thereof to lie below the edges of the base flanges of the rails and having spike holes at each end thereof adjacent the outer edges of the said grooves, longitudinal depending flanges having vertical shoulders facing the end of the plate having the said lugs and adapted to abut against the inner face of one of the ties underlying the rail joint, a depending transverse lip at the other end of the plate adapted to engage the outer face of another underlying tie, and an upright rib along one side of the plate arranged adjacent the corresponding spike holes, the corresponding longitudinal flange lying in the same vertical plane with the said rib.

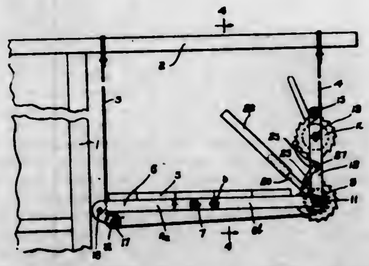


2. An elongated tie plate for rail joints adapted to be interposed between the joints and the underlying ties, having a pair of upright lugs at one end to snugly receive the base flange of one rail and engage the ends of the fish plates, and having spike holes at each end thereof, longitudinal depending flanges having vertical shoulders facing the end of the plate having the said lugs and adapted to abut against the inner face of one of the ties underlying the rail joint, a depending transverse lip at the other end of the plate adapted to engage the outer face of another underlying tie, and an upright rib along one side of the plate, the corresponding longitudinal flange lying in the same vertical plane with the said rib.

3. An elongated tie plate for rail joints adapted to be interposed between the joints and the underlying ties, having a pair of upright lugs at one end to snugly receive the base flange of one rail and engage the ends of the fish plates and having spike holes at each end thereof, longitudinal depending flanges having vertical shoulders facing the end of the plate having the said lugs and adapted to abut against the inner face of one of the ties underlying the rail joint, a depending transverse lip at the other end of the plate adapted to engage the outer face of another underlying tie, and an upright rib along one side of the plate, the corresponding longitudinal flange lying in the same vertical plane with the said rib, and the other longitudinal flange being struck outwardly to form lips to rest upon the ties.

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1,038,579. SCAFFOLD-SUPPORTING MECHANISM. ELIAS H. HENDERSON, Chicago, Ill., assignor, by mesne assignments, to Henderson Scaffold Hoist Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 7 1910. Serial No. 590,965. (Cl. 20—82.)



1. In a scaffold support, the combination of a horisontal frame, a vertical frame at one end of the horisontal frame,



a rod extending through the two frames to pivot them together, and a hoisting drum mounted upon the rod.

2. In a scaffold support, the combination of a horisontal frame, a vertical frame at one end of the horisontal frame, a rod extending through the two frames to pivot them together, and hoisting mechanism mounted upon the rod.

3. In a scaffold support, the combination of a horisontal frame, a vertical frame at one end of the horisontal frame, a rod passing through the two frames to pivot them together, a device mounted upon said rod for receiving a cable, and a hoisting drum rotatably mounted in the vertical frame to which a cable is secured.

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1,038,580. DIE AND CARRIER. EDWIN C. HENN, Cleveland, Ohio, assignor to The National Acme Manufacturing Co., Clevelaud, Ohio, a Corporation of Ohio. Filed Feb. 10, 1910. Serial No. 543,028. (Cl. 10—95.)



1. The combination of a die-body having a rearwardly extending shank and provided with undercut ways, members provided with thread-cutting means and having lateral extensions projecting into said undercut ways and movable radially of the body, a head slidable on said shank and having a shell encircling substantially the whole of said body, said members and head each having one a tapered surface and the other a surface coöperating therewith to move said members inwardly, springs located at the sides of the ways for moving said members outwardly, and means extending through the body from front to rear thereof and in engagement with rear of the shell for limiting the movement of said slidable head.

2. The combination of a die-body provided with undercut ways and having a rearwardly extending shank, members provided with thread-cutting means and having lateral extensions projecting into said undercut ways and movable radially in said body and each provided at its side with a projection, a spring carried by the body at one side of each way for engaging said projection to move the thread-cutting members outwardly from the center, each of said members having a tapered surface, a sliding shell encircling substantially the whole of said body and having surfaces on the inner side thereof coöperating with the tapered surfaces of said members for moving the members inwardly against the action of the springs and independent means extending through the body from front to rear thereof for limiting respectively the forward and rearward movements of said slidable head.

3. The combination of a die-body provided with undercut ways and having a rearwardly extending shank, members provided with thread-cutting means and having lateral extensions projecting into said undercut ways and movable radially in said body and each provided at its side with a projection, a spring carried by the body at one side of each way for engaging said projection to move the thread-cutting members outwardly from the center, each of said members having a tapered surface, a sliding shell encircling substantially the whole of said body and having round cams carried by and projecting transversely of the axis of the shell for coöperating with the tapered surfaces of said members for moving the members inwardly against the action of the springs and independent means extending through the body from front to rear thereof for limiting respectively the forward and rearward movements of said slidable head.

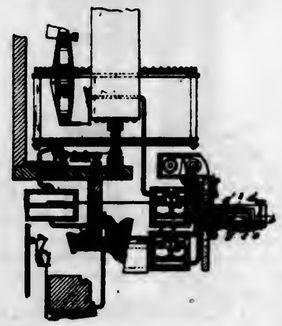
4. The combination of a die body provided with radially disposed ways, members provided with thread-cutting means movable in said ways, a head slidable longitudinally on the die body, springs for moving the said members outwardly from the center, cam surfaces between the head and said members for moving the members inwardly upon relative sliding movement of the head and die body, a screw adjustable in the die body and arranged to engage the head to limit the movement of the head on the die body in one direction, and a screw passing through an aperture in the die body and secured in the head for limiting the movement of the members in the opposite direction.

5. The combination of a die body provided with ways, members provided with thread-cutting means slidable in the ways toward and from the center, a head slidable on the die body and inclosing said members, said members being provided with tapered portions and the head being provided with cams coöperating upon the relative sliding movement of the head and die body, springs for pressing said members outwardly to retain said cams and tapered surfaces in engagement, the die body having a threaded bore, a screw operating in said bore for engaging the head and limiting the movement of the head and die body in one direction, the die body having a bore therethrough, and a bolt passing through said bore and secured in the head for limiting the separating movement of the die body and head.

[Claims 6 and 7 not printed in the Gazette.]

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1,038,581. MEANS TO ASSIST TUNING PNEUMATICALLY-OPERATED MUSICAL INSTRUMENTS. GUSTAV KARL HENNIG, Wahren, near Leipzig, Germany, assignor to Ludwig Hupfeld Aktiengesellschaft, Leipzig, Germany. Filed Apr. 1, 1911. Serial No. 618,413. (Cl. 84—48.)



1. A musical instrument comprising two independent sets of sounding bodies, pneumatic playing mechanism for causing the sounding of said bodies at will and under all usual conditions of playing of said instrument; in combination with a port block having ports therein arranged in pairs, each port of a pair having pneumatic connection with the pneumatic playing mechanism of a sounding body in a set, and means to control said pairs of ports to cause two of said bodies, one in each set, to sound together for the purpose of tuning.

2. A musical instrument comprising two independent sets of sounding bodies, playing means for causing the sounding of said bodies at will and under all usual conditions of playing of said instrument; in combination with a port block having ports therein arranged in pairs, one port of a pair having operative pneumatic connection with said playing means for a body of one set and the other port having operative pneumatic connection with the playing means for a body of the other set, and means for simultaneously opening the ports of a pair.

3. A musical instrument comprising two independent sets of sounding bodies, playing means for causing the sounding of said bodies at will and under all usual conditions of playing of said instrument; in combination with a port block having ports therein arranged in pairs, one port of a pair having operative pneumatic connection with said playing means for a body of one set and the other

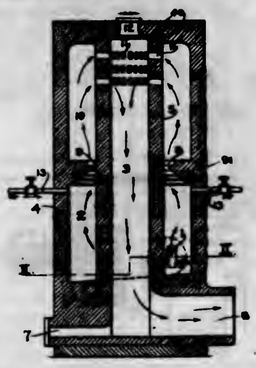
port having operative pneumatic connection with the playing means for a body of the other set, and means for simultaneously or independently opening the ports of a pair.

4. A musical instrument comprising two independent sets of sounding bodies, playing means for causing the sounding of said bodies at will and under all usual conditions of playing of said instrument; in combination with a port block having ports therein arranged in pairs, one port of a pair being behind the other port of said pair and each port having operative pneumatic connection with the playing means of a body of a set, a valve controlling each port, a key for operating each valve, the key of one valve overlapping the key of the other valve, whereby said bodies may be caused to sound simultaneously or independently and the standard tone be sounded in advance of a similar tone to be tuned thereto.

5. A musical instrument comprising two independent sets of sounding bodies and means for causing the sounding of said bodies at will under all usual conditions of playing of said instrument; in combination with means additional to the aforesaid means and operable independently thereof for causing the sounding of a single body of each set to assist the tuning of one of said bodies with respect to the other.

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1,038,582. GAS-PRODUCER. JULES H. HIRT, El Paso, Tex., assignor, by mesne assignments, to Allis-Chalmers Company, Milwaukee, Wis., a Corporation of New Jersey. Filed Feb. 14, 1910. Serial No. 543,721. (Cl. 48—74.)



1. The combination in a gas producer, of a shell having an inner recess in the top thereof, a hollow column within said shell extending from bottom to top thereof and into said recess permitting of a sliding movement within said recess said column being pierced by ports near one end, the whole forming an annular vertically disposed gas generating chamber, an inlet to said chamber and an offtake pipe connecting therewith through said column and ports.

2. The combination in a gas producer, of a shell, a hollow column within said shell forming a gas generating chamber, said column joining with the shell at top and bottom but constructed to allow for any expansion and contraction relatively thereto due to heating and cooling, ports through said column, an inlet to said chamber and an off-take pipe leading from said column.

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1,038,583. LOCKING RECEPTACLE. PERCY W. HODGKINSON, Rochester, N. Y., assignor to Caldwell Manufacturing Company, Rochester, N. Y., a Corporation of New York. Filed Nov. 10, 1909. Serial No. 527,348. (Cl. 232—41.)

1. The combination, with a cupboard having an outer door and an inner door, the outer door carrying a latch, of a lever having a plurality of arms and pivoted within the box and having on one arm a hook adapted to engage the latch, and an unlocking device movably supported within the cupboard and adapted, in one position, to be moved by the inner door, in closing, to engage a second arm of the lever and thereby swing the lever to disengage the hook from the latch; substantially as shown and described.



2. The combination, with a cupboard having an outer door and an inner door, the outer door carrying a latch, of a lever having a plurality of arms, pivoted within the receptacle and carrying on one arm a hook adapted to engage the latch, an unlocking device adapted to engage one arm of said lever to disengage said lever from the latch and to engage another arm to set said lever in position to engage the latch, the unlocking device receiving its impulse from the movement of one door for one of said operations and controlled by the other door with respect to the other said operation; substantially as shown and described.

3. The combination, with a cupboard having an outer door and an inner door, the outer door carrying a latch, of a lever having a plurality of arms, pivoted within the receptacle and carrying on one arm a hook adapted to engage the latch, an unlocking device pivotally supported within the receptacle movable to and from said lever and adapted, in one angular position, to be moved longitudinally against said lever by the movement of the inner door and thereby to operate said lever in one direction, and also adapted to engage said lever when swung about its pivotal support to operate said lever in the opposite direction; and means controlled by the outer door for causing said unlocking device to operate the lever as last described; substantially as shown and described.

4. The combination, with a cupboard having an outer door and an inner door, the outer door carrying a latch, of a lever having a plurality of arms, pivoted within the cupboard and carrying on one arm a hook adapted to engage the latch, a spring-controlled unlocking device pivotally supported within the receptacle and adapted, in one angular position, to be moved longitudinally, against the resistance of its spring, by the inner door, to operate said lever in one direction, and also adapted to engage said lever, when swung about its pivotal support, to operate said lever in the opposite direction; and means controlled by the outer door for causing said unlocking device to swing and so to operate the lever as last described; substantially as shown and described.

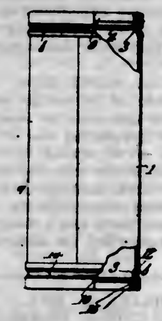
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1,038,584. VENDING-BOTTLE. SAMUEL HOLLAND, Colorado Springs, and HARRY H. WIESER, Colorado City, Colo. Filed July 21, 1909. Serial No. 508,813. (Cl. 229—3.)

1. A package having a body, a head fitting within the same, and a metal protector covering the end of the body, on the outer and inner sides thereof, the inner end of the protector abutting against the head to hold the same in place and the outer edge of the protector being pressed inwardly on the body and constricting the same to form a rib within or behind the head.

2. A package having a body with an internal rib, a head resting against said rib, and a channeled metal protector pressed onto the end of the body and against the outer side of the head, the outer edge of the protector being pressed inwardly and constricting the body to form a rib behind the head.

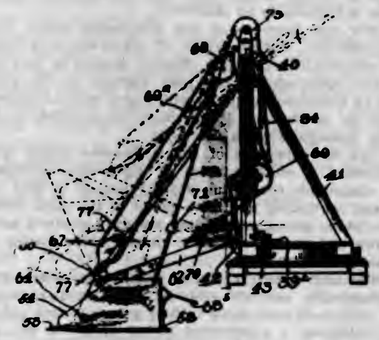
3. A package having a body, a head fitting within the same, and a metal combined end protector and hoop inclosing the end of the body and pressed at its outer side against the exterior of the body opposite the edge of the



head and constricting the body on both sides of the head, to hold the head in place.

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1,038,585. CAR-UNLOADING SHOVEL. ERA HOLLINGSWORTH, Grant Park, Ill., assignor of one-third to H. B. Crum, Chicago, Ill. Filed Dec. 17, 1910. Serial No. 597,826. (Cl. 214—10.)



1. A car unloading device embracing parallel ways adapted to be secured to the car top, a revolving platform slidably engaged thereon to move the length thereof, a power shovel slidably carried thereon to operate in the car, a gin pole on each side of the car and tackle carried on said gin poles for elevating the power shovel and its ways above the car.

2. A car unloading device embracing parallel ways adapted to be secured to the car top, a rotatable platform slidably engaged thereon to move the length thereof, a power shovel frame and its shovel slidably carried thereon to operate in the car, a gin pole on each side of the car, tackle carried thereon acting to elevate the power shovel and its ways above the car, an independently supported hoisting engine, and cables leading thereto for operating the shovel.

3. A car unloading device of the class described embracing parallel ways detachably secured to the car top and attached to the track, a power shovel slidably carried thereon to operate in the car, uprights on each side the car, connecting means between said uprights at the top thereof and tackle carried on said connecting means acting to elevate the power shovel and its ways above the car and move the same laterally to clear the track.

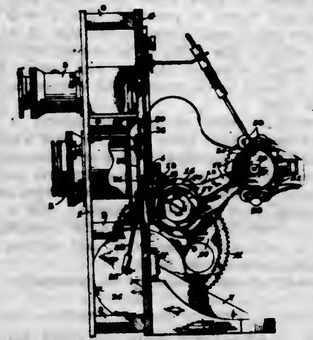
4. A car unloading device of the class described embracing parallel ways adapted to be secured to the car top, a power shovel slidably carried thereon to operate in the car, uprights on each side the car, one of the same a distance from the track more than a car width, connecting means between said uprights at the top thereof and tackle carried on said connecting means acting to elevate the power shovel and its ways above the car and to swing the same toward the remote upright.

5. A car unloading device embracing parallel ways, adapted to be rigidly but removably secured on each side the car, a revolving platform slidably engaged thereon to move the length thereof, a power operated shovel carried on said platform, a hoisting engine positioned beside the car, tackle operated thereby for moving said platform on its ways, other tackle for revolving the platform, and means for elevating and supporting the machine as a whole clear of the car.

[Claims 6 to 48 not printed in the Gazette.]

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1,038,586. MOTION-PICTURE MACHINE. ALBERT S. HOWELL, Chicago, Ill., assignor to Bell & Howell Co., Chicago, Ill., a Corporation of Illinois. Filed Oct. 25, 1911, Serial No. 656,698. Renewed July 26, 1912. Serial No. 711,781. (Cl. 88—18.)



1. A film feeding mechanism comprising a film guide way, means for shifting said guide way transversely to its direction, reciprocating pins adapted to extend into said guide way and engage film therein in one position of said guide way, and fixed pins adapted to extend into said guide way and engage said film in the other position.

2. A film feeding mechanism comprising reciprocating pins, a flexible film guide way and means for flexing said guide way to bring it into and out of the path of reciprocation of said pins.

3. A film feeding mechanism comprising pins, means for reciprocating said pins, a film guide way movable transversely to its direction, and means for moving said guide way into and out of the path of reciprocation of said pins.

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1,038,587. MAIL-MARKING MACHINE. FRED C. IMMELE, Silver Creek, N. Y., assignor to Columbia Postal Supply Company, Silver Creek, N. Y., a Corporation of New York. Filed Dec. 26, 1911. Serial No. 667,848. (Cl. 101—82.)



1. A mail marking machine comprising a rotatable printing wheel, a stationary stop arranged adjacent to said wheel, a latch mounted on said wheel and adapted to engage said stop for holding said wheel against turning, and a movable shifting member having means for

engaging a letter to be marked and coupling said shifting member with said latch.

2. A mail marking machine comprising a rotatable printing wheel, a stationary stop arranged adjacent to said wheel, a latch mounted on said wheel and adapted to engage said stop for holding said wheel against turning, a rotatable shifting arm, and a coupling member movably mounted on said arm and adapted to engage a letter to be marked and connect said arm with said latch.

3. A mail marking machine comprising a rotatable printing wheel, a stationary stop arranged adjacent to said wheel, a latch mounted on said wheel and adapted to engage said stop for holding said wheel against turning, a rotatable shifting arm, a coupling member pivoted on said arm and adapted to engage a letter to be marked to connect said arm with said latch, a spring for yieldingly moving said coupling member in the direction in which the same sweeps across the letter path, and a stop which limits the movement of said coupling member under the action of said spring.

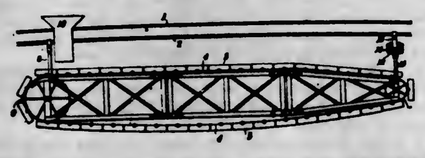
4. A mail marking machine comprising a rotatable printing wheel, a fixed arbor on which said wheel is journaled and which is provided with a stop shoulder, a latch pivoted on said wheel on one side of its axis and provided with a jaw adapted to engage with said stop shoulder, and a rotatable shifting arm having means for engaging a letter to be marked and connecting said arm with said latch.

5. A mail marking machine comprising a rotatable printing wheel, a fixed arbor on which said wheel is journaled and which is provided with a stop shoulder, a latch pivoted on said wheel on one side of its axis and provided with a front coupling arm and a rear locking arm adapted to engage with said stop shoulder, and a rotatable shifting arm provided with means for engaging with a letter to be marked and connecting said shifting arm with said coupling arm of the latch.

[Claims 6 to 8 not printed in the Gazette.]

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1,038,588. APPARATUS FOR COALING SHIPS. MICHAEL S. IVERSON, New York, N. Y. Filed Nov. 26, 1907. Serial No. 403,954. (Cl. 193—19.)



1. In an apparatus for coaling ships, the combination of a conveyer, means for pivotally suspending the same at one end below a ship's deck to permit the conveyer to swing horizontally thereunder, an arc-shaped track suspended from the deck at the other end of the conveyer and concentric with the pivotal support of the conveyer, a carriage running on said track and supporting the adjacent end of the conveyer, and means permitting adjustment of said track above the conveyer, as set forth.

2. In an apparatus for coaling ships, the combination of a conveyer, a T-iron attached to the underside of the deck of said ship, means connected to said T-iron and supporting the conveyer for allowing the conveyer to be moved longitudinally as a whole, and means for allowing one end to be moved laterally.

3. In an apparatus for coaling ships, the combination of a T-iron attached to the underside of the deck of said ship, a conveyer, means for pivotally supporting said conveyer at one end to the T-iron, means at the other end for allowing a movement of the conveyer in a horizontal direction around the pivoted end as a center, and means for allowing the conveyer to be moved bodily along said T-iron.

4. In an apparatus for coaling ships, the combination of a conveyer composed of removable sections, permitting the conveyer to be shortened or lengthened at will, means for pivotally suspending the conveyer below the ship's deck, an arc-shaped track, concentric with the said pivotal suspending means, means for suspending the track from the deck and permitting adjustment of the track toward and from the said pivotal suspending means and a carriage running on said track and supporting one end of the conveyer.

5. In apparatus for coaling ships, the combination of a conveyer composed of removable sections, permitting the conveyer to be shortened or lengthened at will, a pivoted hanger for supporting one end of the conveyer from a ship's deck, an arc-shaped track at the other end of the conveyer, concentric with the hanger pivot, means for suspending the track from the deck, to permit adjustment of the track toward and from the hanger pivot, a carriage running on the track and a hanger depending from the carriage and supporting the adjacent end of the conveyer.

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1,038,589. ANTHRACENE DYE. ANDREAS JACOBI, Leverkusen, near Cologne, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed June 1, 1912. Serial No. 700,985. (Cl. 8—1.)

1. The new dyestuffs of the anthracene series, which are chemically sulfonic acids of alpha-amino-anthraquinone compounds containing aryloxy groups in beta position and containing in the para position to the amino-group and auxochromic group, which dyes are dark powders soluble in water and dyeing wool from violet to blue shades, substantially as described.

2. The new dyestuffs of the anthracene series, which are chemically sulfonic acids of alpha-amino-anthraquinone compounds containing phenoxy groups in beta position and containing in the para position to the amino-group an auxochromic group, which dyes are dark powders soluble in water and dyeing wool from violet to blue shades, substantially as described.

3. The new dyestuffs of the anthracene series, which are chemically sulfonic acids of alpha-amino-anthraquinone compounds containing aryloxy groups in beta position and containing an amino group in the para position to the amino group, which dyes are dark powders soluble in water and dyeing wool from violet to blue shades, substantially as described.

4. The new dyestuffs of the anthracene series, which are chemically sulfonic acids of alpha-amino-anthraquinone compounds containing aryloxy groups in beta position and containing a substituted amino group in the para position to the amino group, which dyes are dark powders soluble in water and dyeing wool from violet to blue shades, substantially as described.

5. The new dyestuffs of the anthracene series, which are chemically sulfonic acids of alpha-amino-anthraquinone compounds containing phenoxy groups in beta position and containing amino group in the para position to the amino group, which dyes are dark powders soluble in water and dyeing wool from violet to blue shades, substantially as described.

[Claim 6 not printed in the Gazette.]

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1,038,590. DOOR. WILLIAM R. JEAVONS, Cleveland, Ohio. Filed Nov. 12, 1910. Serial No. 591,987. (Cl. 126—194.)



1. The combination of a door frame, an upper and a lower projection extending therefrom, and a door having at one edge a projection which is inclined outwardly from the top to the bottom, said projection having an upper and a lower pivotal extension operatively supported by the former projections.

2. The combination of a door frame, an upper and a lower projection extending therefrom, the lower projection being longer than the upper projection, a door having at one edge a lateral projection the upper end of which is offset a shorter distance from the edge of the door than the lower end, and means pivotally connecting the ends of said door projection with the former projections.

3. The combination of a door frame, an upper and a lower projection extending therefrom, the lower projection being longer than the upper projection, a door having at one edge a lateral projection the upper end of which is offset a shorter distance from the edge of the door than the lower end and having an inclined edge portion extending between and above and below the offset ends thereof and forming pivots by which the door is supported from said projections.

4. The combination of a door frame, a pair of vertically spaced projections adjacent to one edge thereof and extending therefrom, the lower projection being of greater length than the upper and each of said projections having an aperture near its outer end, and a door having at the edge complementary to the said door-frame edge a sheet metal projection, said projection being of greater lateral extent at the bottom than at the top and having its outer edge portion of greater length than the body portion and rolled upon itself to form a pintle or pivotal connection between the door and the apertures in the first mentioned projections.

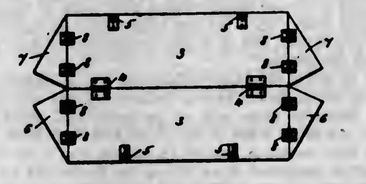
5. As a new article of manufacture, a sheet metal door having at one edge a lateral extension the bottom whereof is longer than the top and the outer edge portion whereof is of greater vertical extent than the body portion, said edge portion being rolled upon itself to form a pintle with ends projecting above and below the body portion of such extension, a frame combined with said door, and a pair of supports extending from the frame and adapted to receive the ends of the pintle.

[Claims 6 to 10 not printed in the Gazette.]



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1,038,591. COVER. ALPHA JOHNSON, Nokomis, Ill., assignor of one-half to Charles Zimmermann, Ohlman, Ill. Filed Feb. 13, 1912. Serial No. 677,354. (Cl. 21—7.)



A foldable wagon top, comprising two hinged top plates provided with means for engaging with the sides of the wagon box, triangular end plates arranged right and left in pairs, and hinges pivoting the long sides of the end plates to the ends of the top plates and permitting the end plates to be folded flat against the top plates and to be arranged vertically over the ends of the wagon box.

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1,038,592. MAGNETO. CARL E. JOHNSON, Los Angeles, Cal., assignor of one-half to Chas. E. Payne, Los Angeles, Cal. Filed Aug. 30, 1909. Serial No. 515,329. (Cl. 123—149.)

1. A magneto comprising a magnet, pole pieces on the magnet, adjustable shoes on the pole pieces, means for adjusting the angular relation between the adjustable shoes and the pole pieces, an armature, a primary winding on the armature, a secondary winding and means operated by the pole pieces for breaking the primary circuit.

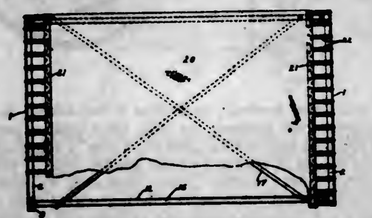
2. A magneto comprising a magnet with pole pieces thereon, an armature extending beyond the magnet, auxiliary pole pieces at one side of the magnet cooperating



with the extended portion of said armature, a primary and secondary circuit, and means operated by said auxiliary pole pieces for breaking the primary circuit.

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1,038,593. FOLDING MATTRESS-SUPPORT. WILLIAM H. JOHNS, Cleveland, Ohio. Filed May 24, 1912. Serial No. 699,518. (Cl. 5—63.)



1. In a device of the character described, the combination, with a rectangular frame, the side members of which have resilient upper portions, of a rectangular web of textile material resiliently secured to the end members of said frame and overlying the resilient portion of said members, and resilient members secured to the resilient portions of opposite sides of said frame and traversing diagonally the lower face of said web whereby the same is reinforced.

2. In a folding mattress support, the combination, with end members and side members and means for detachably securing said members together whereby a rectangular frame is formed, said side members being formed with resilient upper portions, of a rectangular web of textile material stretched above said resilient portions, and yielding means for securing said web to the end members of said frame.

3. In a folding mattress support, the combination, with end members and side members and means for detachably securing said members together whereby a rectangular frame is formed, of elastic metallic strips secured to each of said side members and extending diagonally across said support and detachably engaging the other side member, a rectangular web of textile material above said diagonal strips, and means for securing the ends of said web to opposite ends of said frame.

4. In a folding mattress support, the combination, with end members and side members, certain of said members having vertical sockets and other members having plugs received in said sockets for detachably securing said members together whereby a rectangular frame is formed, of elastic metallic strips secured to each of said side members and extending diagonally across said support and detachably engaging the other side member, a rectangular web of textile material above said diagonal strips, and yielding means secured to said web and detachably connected to opposite ends of said frame.

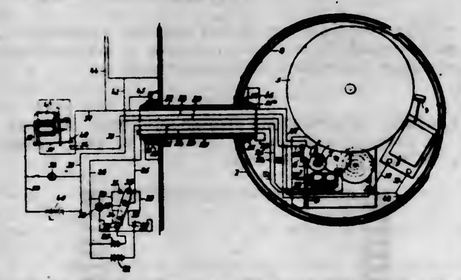
5. In a folding mattress support, the combination, with rigid end members and rigid side members and means for detachably securing said members together whereby a rectangular frame is formed, the mid-portion of each of side members being offset downwardly out of the plane of each of said end members, of elastic metallic straps secured

to the ends of said side members and lying substantially in the plane of said end members, a second elastic metallic strip pivoted to each of said first strips and adapted to detachably engage the other first strip, a web of textile material adapted to overlie said strips, and means for securing the ends of said web to said end members.

[Claims 6 to 11 not printed in the Gazette.]

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1,038,594. BURGLAR-ALARM SYSTEM. MAXIMILIAN F. JURUICK, New York, N. Y., assignor, by mesne assignments, to Electric Bank Protection Company, a Corporation of Delaware. Filed Aug. 16, 1907. Serial No. 388,788. (Cl. 177—314.)



1. An alarm system, comprising a bell-alarm, an electrically-operated hammer for said bell-alarm, a mechanically-operated hammer for said bell-alarm, a normally-open electric circuit, a normally-closed electric circuit, the electrically-operated hammer being controlled by said normally-open circuit, whereby the closing of said open circuit operates the electrically-operated hammer and the mechanically-operated hammer being controlled by said normally-closed circuit, and means whereby the opening of the closed circuit closes the open circuit and thereby operates the electrically-operated hammer.

2. An alarm system, comprising a bell, an electrically-operated hammer adjacent thereto, a normally-open electric circuit, the operating mechanism of said hammer forming a portion of said normally-open electric circuit, whereby the closing of said open circuit operates the electrically-operated hammer, a normally-closed electric circuit, a mechanically-operated hammer adjacent the bell and having means for normally holding it in a locked position, said means constituting a portion of said normally-closed circuit, and means whereby the opening of the closed circuit closes the open circuit and thereby operates the electrically-operated hammer.

3. In an alarm system, a hammer for sounding an alarm bell, a mechanical movement for operating said hammer, a normally-closed electric circuit, means for locking said mechanical movement in position to hold said hammer from operation, said means being controlled by said normally-closed electric circuit, a normally-open electric circuit, an electrically-operated hammer for sounding an alarm bell, said electrically-operated hammer being controlled by said normally-open electric circuit, and means whereby the opening of the closed circuit closes the open circuit.

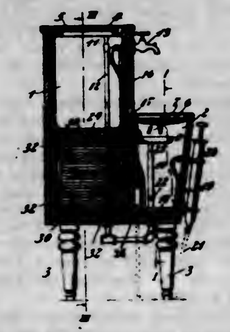
4. An alarm system, comprising a bell, a hammer located adjacent thereto, a mechanical movement for operating said hammer, a normally-closed electric circuit, means for locking said mechanical movement in position to hold said hammer from operation, said means being comprised in said closed circuit, a normally-open electric circuit, an electrically-operated hammer adjacent the bell and forming a portion of said normally open circuit, and means whereby the closing of the open circuit or the opening of the closed circuit starts the electrically-operated hammer in operation.

5. In an alarm system, a hammer for sounding an alarm bell, a mechanical movement for operating said hammer, a normally-closed electric circuit, means for locking said mechanical movement in position to hold said hammer from operation, said means comprising an electro-magnet in said normally-closed electric circuit, a normally-open electric circuit, an electrically-operated hammer for sounding an alarm bell, said electrically-operated hammer being controlled by said normally-open electric circuit, and means whereby the opening of the closed circuit closes the open circuit.

[Claims 6 to 14 not printed in the Gazette.]

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1,038,595. LIQUID-DISPENSING APPARATUS. ALBRECHT KALTHOFF, New York, N. Y., assignor to H. D. Berner & Winterbauer Company, New York, N. Y., a Corporation of New York. Filed Apr. 13, 1909. Serial No. 489,749. (Cl. 62—2.)



1. A liquid dispensing apparatus, comprising a rear ice-compartment formed with an overflow opening at about the middle of its front wall, a coil-structure in said compartment and extending to about the level of said overflow opening, a front compartment extending to above the overflow opening and having the latter communicating with its upper end, a coil-structure in said forward compartment, a faucet in the front wall of the rear compartment and communicating with the rear coil-structure, another faucet in said front wall, and a pipe from the coil-structure in the front compartment and passing through the overflow opening to said faucet.

2. In liquid dispensing apparatus, the combination with an ice compartment formed with vertical ribs upon its opposite sides, of a cooling coil structure consisting of a top and a bottom frame formed with pairs of lugs engaging and sliding upon the ribs and of vertical bars connecting said frames and of a pipe coiled around said bars between the frames.

3. In liquid dispensing apparatus, the combination with an ice compartment having faucet-couplings and pipes in and upon the inner side of its front wall, vertical ribs upon the inner sides of the front and rear walls one of each pair having a gap at its middle, and a cooling coil structure composed of an oblong top frame and an oblong bottom frame both formed with pairs of lugs at their ends engaging and sliding upon the vertical ribs and of vertical bars connecting said frames and of a pipe coiled around said bars and between the frames,—the gaps in the ribs admitting of the coil structure being raised a short distance to disengage the lugs and turned so as to be removed without interfering with faucets and pipes in the upper portion of the compartment.

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1,038,596. GLOVE-FORMER. JOHN K. KELLOGG, Oakland, Cal. Filed Oct. 30, 1911. Serial No. 657,667. (Cl. 223—17.)

1. In apparatus of the character set forth, the combination with a member having spaced fingers, of a glove-holding shield that fits within a glove and detachably fits over the member, said shield having hollow fingers that detachably engage over the fingers of the member, and a glove-folding comb having teeth that detachably fit between the fingers of the shield when the fingers of said shield are detached from the member by the relative movement of the shield and member.





2. In apparatus of the character set forth, the combination with a member having spaced fingers, of a glove-holding shield that fits within a glove and detachably fits over the member, said shield having hollow slotted fingers that detachably engage within the fingers of the glove and detachably engage over the fingers of the member, and a glove folding comb having teeth that are wider than the spaces between the fingers of the shield, said comb detachably engaging in said spaces and in the slots of the fingers of said shield when the same are detached from the member by the relative movement of the shield and member.

3. In apparatus of the character set forth, the combination with a member having fingers, of a glove-holding shield that fits within a glove and detachably engages over the member, said shield having hollow fingers that detachably fit over the fingers of the member.

4. In apparatus of the character set forth, the combination with a member having fingers, of a glove-holding shield that fits within a glove and detachably engages over the member, said shield having hollow fingers that detachably fit over the fingers of the member, portions of said shield fingers being open to expose portions of the glove fingers to the fingers of the member located therein.

5. In apparatus of the character set forth, the combination with a member having fingers, of a glove-holding shield that fits within a glove and detachably engages over the member, said shield having hollow fingers that detachably fit over the fingers of the member, portions of said shield fingers being open and portions of the fingers of the member projecting through said open portions to engage directly upon the portions of the glove fingers that extend across said open portions.

[Claims 6 to 10 not printed in the Gazette.]

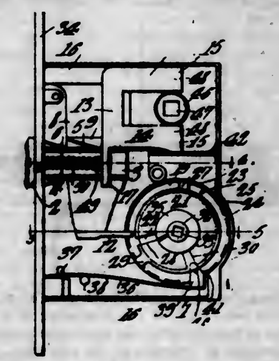
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1,038,597. LOCK. LUKE L. KELLOGG, Fredonia, N. Y. Filed Sept. 25, 1911. Serial No. 651,236. (Cl. 70—53.)

1. In a lock, a latch bolt operating member having a tongue, a plurality of tumblers frictionally engaging each other and having open slots therein, one of the tumblers being operable whereby the other tumblers tend to move therewith, means for limiting the movement of the latter tumblers whereby the slots may be brought into registration to receive the tongue, and means for changing the limit of movement of one of the latter tumblers.

2. In a lock, a latch bolt operating member having a tongue, a plurality of tumblers frictionally engaging each other and having open slots therein, one of the tumblers being operable whereby the other tumblers tend to move therewith, means for limiting the movement of the latter tumblers whereby the slots may be brought into registration to receive the tongue, and means coöperating with the operable tumbler for causing slots on the said tumbler to rotate to assist in bringing the slots into registration.

3. In a lock, a casing, a latch bolt operating member arranged therein and having a tongue, three disk tumblers arranged in the casing and having open slots, the inner disk tumbler being operable from the outside of the casing and the outer disk tumblers being spring-pressed against the inner disk tumbler, means for limiting the movement of the outer disk tumblers whereby the slots may be brought into registration to receive the tongue, and means for changing the limit of movement of one of the outer tumblers.



4. In a lock of the character described, the combination with a casing and a latch bolt operating member having a tongue thereon, of three disk tumblers having open slots, the outer disk tumblers being limited in movement and spring pressed against the inner disk tumbler and the inner disk tumbler having a plurality of notches around its periphery and being operatable from the outside of the casing to bring the slots into coincidence with each other to permit of the passage of the tongue therein, and a spring-actuated dog engaging the periphery of the inner disk.

5. In a lock of the character described, the combination with a casing and a latch bolt operating member having a tongue thereon, of three disk tumblers having open slots therein, the outer disk tumblers being spring pressed against the inner disk tumbler and each having a lug on the periphery thereof, and the inner disk tumbler having notches on the periphery thereof and having bosses which pass through the outer disk tumblers having a key socket therein, a spring pressed dog engaging the periphery of the inner disk tumblers, a disk arranged between one of the outer disk tumblers and the casing and having an inturned flange with notches therein, a stop pin for the corresponding disk tumbler carried by said disk, the said tongue being engageable in various notches of the said disk to shift said stop pin, and a stop pin for the other outer tumbler.

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1,038,598. VALVE MECHANISM FOR AUTOMOBILE-ENGINES AND THE LIKE. ORLANDO B. KELLUM, Los Angeles, Cal. Filed July 29, 1911. Serial No. 641,265. (Cl. 121—97.)

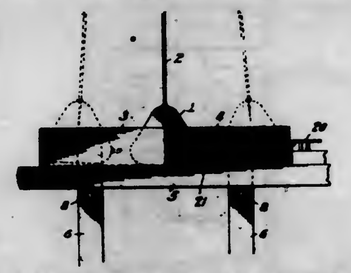


A valve mechanism, comprising a seat, a poppet valve adapted to seat thereon, a valve stem connected to the

valve, a spring arranged around the valve stem to hold it on the seat, a hollow electro-magnet through which the valve stem passes, and an armature on the end of the valve stem and attractable by the electro-magnet to lift the valve off its seat.

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1,038,599. TIMING DEVICE. OTTO ALBRECHT KNOPF, Oakland, Cal., assignor to Pacific Gas & Electric Company, San Francisco, Cal., a Corporation of California. Filed Jan. 11, 1912. Serial No. 670,599. (Cl. 161—15.)



1. A timing device comprising a pendulum, means for releasing said pendulum at the beginning of a time interval, and means for stopping the pendulum instantly at any point in its swing at the will of the operator.

2. In a timing device, a pendulum, a catch for holding said pendulum before it begins its swing, and jaws for engaging said pendulum to instantly stop the swinging movement thereof, at the will of the operator.

3. In a timing device, the combination of a pendulum, a manually operated releasing means for starting the swing of said pendulum, means for stopping the swing thereof instantly at the will of the operator, and a scale for indicating the position of the pendulum when stopped, the indication being in decimal parts of a millihour.

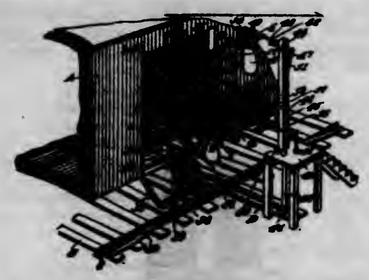
4. In a timing device, the combination of a pendulum normally swinging through a complete cycle in one millihour, a scale adjacent to said swinging pendulum and calibrated in decimal parts of a millihour, releasing means for starting the movement of said pendulum at the will of the operator, and clamping means for gripping the pendulum to ultimately stop its movement.

5. In a timing device, a pendulum, a jaw on either side of said pendulum, holding means which when released starts the movement of said pendulum, and manually controlled means for moving one of said jaws with respect to the other to instantly stop the swing of said pendulum, at the will of the operator.

[Claim 6 not printed in the Gazette.]

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1,038,600. APPARATUS FOR DELIVERING AND RECEIVING MAIL. WILLIAM KRAENNER, Ripley, Ohio. Filed Jan. 30, 1912. Serial No. 674,325. (Cl. 105—231.)



1. In apparatus of the class described the combination with a car structure having an opening, of a receiving member and a delivering member normally suspended within the opening, and means for automatically swinging the members about parallel axes to elevate them simultaneously when passing a point of exchange.

2. In apparatus of the class described the combination with a car structure having an opening, of an upper receiving member and a lower delivering member normally suspended within the opening, means for automatically swinging the members about parallel axes to elevate them simultaneously when passing a point of exchange and a cushion movably connecting the members.

3. In apparatus of the class described, the combination with a car structure having an opening, of upper and lower shafts mounted for rotation within the opening, receiving and delivering members fixedly connected to and movable with the respective shafts, elastic cushioning means connecting the members, mechanism for simultaneously rotating the shafts to elevate the members and cushioning means, said members being normally suspended within the opening, and fixed means in the path of a portion of said mechanism for automatically actuating the mechanism while passing a point of exchange.

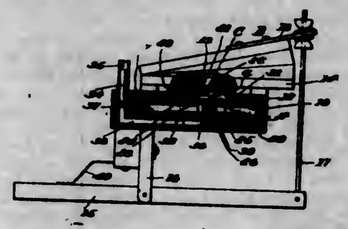
4. Apparatus of the class described including a car structure having an opening, an upper receiving member and a lower delivering member normally suspended within the opening, coöperating means upon the car structure and adjacent the path of the car for automatically shifting said members out of the opening and into active positions while passing a point of exchange, and means for detachably connecting said means to the members.

5. A car structure, a receiving member and a delivering member normally suspended therefrom out of active positions, means for simultaneously swinging the members upwardly into active positions while passing a point of exchange, and a pouch cushioning connection between the members.

[Claims 6 to 8 not printed in the Gazette.]

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1,038,601. PNEUMATIC PIANO-ACTION. VICTOR KRANICH, New York, N. Y., assignor to Helene B. Kranich, New York, N. Y. Filed July 29, 1910. Serial No. 574,435. (Cl. 84—178.)



1. A valvular means for a power pneumatic or the like of a pneumatic player for musical instruments, comprising a hollow body having a closed end, and a projection extending from said closed end an open end and lateral inlet openings between said ends.

2. A valvular means for a power pneumatic or the like of a pneumatic player for musical instruments, comprising a hollow body having a closed end, an open end and lateral inlet openings between said ends, an apertured diaphragm supporting the open end of the body, the aperture communicating with the open end of the body, a solid diaphragm, a projection from the closed end of the body engaging the latter diaphragm and a support for the diaphragms.

3. A valvular means for a power pneumatic or the like of a pneumatic player for musical instruments, comprising a casing having at one end an inwardly extending valve seat, an apertured diaphragm mounted over the other end of said casing, a valve having a hollow body with a closed end, an open end and lateral openings between said ends, said upper end being connected to the apertured diaphragm and said closed end adapted to said valve seat the aperture in the diaphragm communicating with the hollow body.

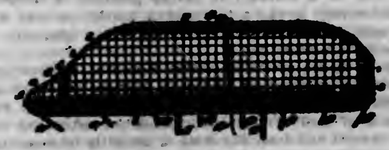


4. A valvular means for a power pneumatic or the like of a pneumatic player for musical instruments, comprising a casing having at one end an inwardly extending valve seat, an apertured diaphragm mounted over the other end of said casing, a valve having a hollow body with a closed end, an open end and lateral openings between said ends, said upper end being connected to the apertured diaphragm and said closed end adapted to said valve seat provided with a projection, and the aperture in the diaphragm communicating with the hollow body, and means for engaging said projection to unseat the valve.

5. A valvular means for a power pneumatic, comprising a casing having at one end an inwardly extending valve seat, an apertured diaphragm mounted over the other end of said casing, a valve having a hollow body with a closed end, an open end, and lateral openings between said ends, said upper end being connected to the apertured diaphragm, the aperture in the diaphragm communicating with the hollow body, said closed end adapted to said valve-seat and provided with a projection, a solid diaphragm to engage said projection, and a support for said casing and said solid diaphragm.

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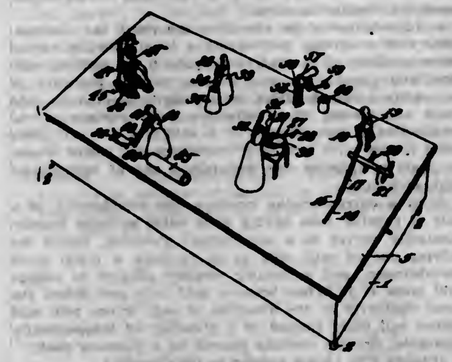
1,038,602. AIRSHIP. CHARLES A. KUENNEL, Buena Vista, Colo. Filed Jan. 23, 1911. Serial No. 604,017. (Cl. 244—8.)



In a dirigible air ship, a gas bag made of greater length than width and having a tapering nose in front sloping from the top to near the bottom and terminating in a rounded cone, a rounded top and a flat and broad bottom.

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1,038,603. MECHANICAL TOY. ALBERT FRANKLIN KUHL, Van Wert, Ohio. Filed May 28, 1912. Serial No. 700,238. (Cl. 46—40.)



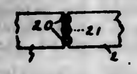
1. A mechanical toy, including a platform, a motor driven shaft journaled below and longitudinally thereof, two oppositely disposed links having their inner ends operably connected to the motor driven shaft, a rock shaft parallel to the first shaft and operably connected to one link, a second rock shaft operably connected to the remaining link, three lay figures mounted upon the platform and operably connected to the first rock shaft, a miniature saw connected to the second rock shaft, a lay figure connected to said saw, a crank upon the motor driven shaft, a plurality of levers fulcrumed below the platform and having their free ends disposed in the path of to be operated by the crank, and a plurality of lay figures mounted upon the platform and operably connected to said levers.

2. A mechanical toy, including a platform, a motor driven shaft below and longitudinally of the platform, a link operably connected at its inner end to said motor driven shaft, a rock shaft journaled below and parallel to the motor driven shaft and operably connected to the link, three cranks carried by the rock shaft, an inclined rod connected to one crank and reciprocable through the platform, a jointed lay figure mounted upon the platform and connected to the upper end of said inclined rod, a double lever pivoted below the platform and having one end operably connected to one of the other cranks of the rock shaft, a vertically reciprocable rod mounted through the platform and operably connected to the other end of the double lever, a jointed lay figure mounted upon the platform and operably connected to the upper end of the vertically reciprocable rod, a horizontally disposed reciprocable link connected at one end to the remaining crank of the rock shaft, a horizontally mounted bell-crank lever below the platform and operably connected to the other end of the horizontally disposed reciprocable link, and a rocking element disposed upon the platform and operably connected to the other terminal of the bell-crank lever.

3. A mechanical toy, including a platform, a motor driven shaft below and longitudinally of the platform, two oppositely disposed links connected at their inner ends to said driven shaft, a rock shaft journaled below and parallel to the motor driven shaft, said rock shaft being operably connected to one of the links, three cranks carried by the rock shaft, an inclined rod connected to one crank and reciprocable through the platform, a jointed lay figure mounted upon the platform and connected to the upper end of said inclined rod, a double lever pivoted below the platform and having one end operably connected to one of the other cranks of the rock shaft, a vertically reciprocatory rod mounted through the platform and operably connected to the other end of the double lever, a jointed lay figure mounted upon the platform and operably connected to the upper end of said rod, a horizontally disposed reciprocatory link connected at one end to the remaining crank of the rock shaft, a bell crank lever below the platform operably connected to the other end of the reciprocatory link, a rocking element disposed upon the platform and operably connected to the other terminal of the bell crank lever, a short rock shaft journaled below the platform and operably connected to the remaining link of the oppositely disposed links, an inclined rod connected to said last rock shaft and projecting through the platform, a miniature saw having one end connected to and operated by said rod, and a jointed lay figure connected to the other end of the saw and operated through the saw.

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1,038,604. PROCESS OF ELECTRIC WELDING. LAURENCE S. LAGERMAN, New York, N. Y., assignor to Universal Electric Welding Company, Long Island City, N. Y., a Corporation of New York. Original application filed May 8, 1907, Serial No. 372,506. Divided and this application filed Mar. 25, 1912. Serial No. 686,864. (Cl. 219—10.)



1. The method of joining metal plates or pieces edge to edge by their plane surfaces consisting in superposing on said plates a plurality of welding pieces along the line of proposed union and bridging the adjacent edges of the plates, passing an electric current through the welding pieces and plates to be joined and applying pressure to and for the purpose described.

2. The method of joining metal plates or pieces edge to edge by their plane surfaces consisting in superposing on said plates a plurality of flat welding pieces along the line of proposed union and bridging the adjacent edges of the plates, passing an electric current through the welding pieces and plates to be joined and applying pressure thereto to unite said pieces to both said plates.

3. The method of joining metal plates edge to edge by their plane surfaces consisting in superposing on said plates a plurality of flat welding pieces along the line of proposed union and having a restricted area of contact with the surfaces of both plates on either side of the line of union, passing an electric current through the pieces and plates and applying pressure to unite the pieces to both plates.

4. The method of joining metal plates edge to edge consisting in superposing on said plates a plurality of flat, circular welding pieces bridging the line of the opposed edges, passing an electric current through the welding pieces and plates and applying pressure as and for the purpose described.

5. The method of joining metal plates or pieces edge to edge by their plane surfaces, consisting in superposing on said plates a separate welding piece bridging the adjacent edges of the plates and provided with curved edges where said piece engages the plates or pieces to be joined so as to engage the latter by a limited area of contact and welding said pieces together by the application of electric current and pressure applied transversely as and for the purpose described.

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1,038,605. COMPOSITE SYSTEM. OTTO T. LADSMAN, Milwaukee, Wis., assignor to Railway Telephone & Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 15, 1909. Serial No. 478,073. (Cl. 179—8.)



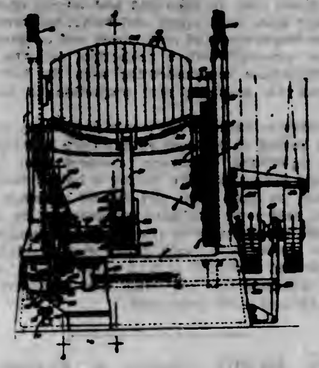
1. A composite system of telegraphy and telephony comprising a line circuit, telephone instruments associated with said circuit for impressing voice currents thereon, telegraph keys serially associated with said circuit, low capacity condensers bridged exclusively around said keys, telegraph relays also serially associated with said circuit, and high capacity condensers bridged exclusively around said relays.

2. A composite system of telegraphy and telephony comprising a line circuit, telephone instruments serially associated with said circuit for impressing voice currents thereon, telegraph keys serially associated with said circuit, low capacity condensers bridged exclusively around said keys, telegraph relays also serially associated with said circuit, and high capacity condensers bridged exclusively around said relays.

3. A composite system of telegraphy and telephony comprising a line circuit, telegraph instruments associated with said circuit, telephone instruments also associated with said circuit, a telephone receiver included with each telephone, a signaling circuit for each telephone adapted when in circuit to permit the passage therethrough of telegraphic currents, and a local signal inductively associated with said signaling circuit, unresponsive to telegraph currents.

4. A composite system of telephony and telegraphy comprising a line circuit, telegraph instruments serially arranged on said line circuit, and telephone instruments also associated with said line circuit, each having a transmitter and induction coil, the secondary of said induction coil being serially included in the line circuit when transmitting messages, and being short-circuited when receiving messages.

1,038,606. MACHINE FOR CIRCLING METAL BLANKS. Gustave E. Lemmerman, Cleveland, Ohio, assignor to The W. W. Sly Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 4, 1912. Serial No. 695,466. (Cl. 153—23.)



1. In a device of the character described, the combination, with a driving roll having portions of different diameters, of a driven roll having portions of diameter complementary to the corresponding portion of said first roll, said driven roll being formed as a plurality of separately revoluble disks.

2. In a device of the character described, the combination with a driving roll, different portions of which are of different diameter, of a shaft substantially parallel with the axis of said driving roll, means for adjusting said shaft toward and from the same, a plurality of separately revoluble disks independently sleeved on said shaft, the diameter of said disks being complementary to the diameter of the portions of said driving roll opposite which they lie, said disks forming together a driven roll, and means for rotating said first roll.

3. In a device of the character described, the combination with a driving roll having a longitudinally curved outer surface, of a driven roll rotatable about an axis parallel to said first roll and having its outer surface curved longitudinally complementarily to said first roll, said driven roll being formed of a plurality of separately revoluble circular sections.

4. In a device of the character described, the combination, with a driving roll having a longitudinally curved outer surface, of a shaft supported in a position substantially parallel to said driving roll, a plurality of separately revoluble disks independently sleeved on said shaft and having their collective outer surface curved longitudinally complementarily to said first roll, said disks being formed with interiorly located spacing means whereby their peripheries are maintained out of engagement with each other.

5. In a barrel-forming machine, the combination of a pair of parallel rolls having their outer surfaces complementarily curved in a longitudinal direction, means for driving one of said rolls so as to draw a metal plate therebetween, and a forming member adapted to engage said plate as it passes between said rolls and deflect the same circularly in the direction of said driven roll, said driven roll being formed of a plurality of independently rotatable, circular sections sleeved on a common shaft.

[Claims 6 to 11 not printed in the Gazette.]

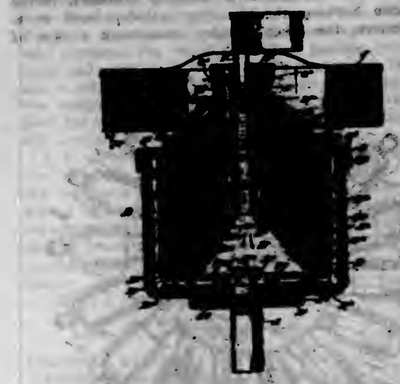
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1,038,607. CENTRIFUGAL SEPARATOR. WILCOMB H. LAWSON, Poughkeepsie, N. Y. Filed June 17, 1910. Serial No. 567,265. (Cl. 127—3.)

1. A bowl having a plurality of elements therein arranged in superimposed relation, each of said elements having radial channels formed in the upper and lower surfaces thereof; and a filtering medium clamped between said elements, said channels constraining the liquid to



be filtered to pass from one element to the adjacent element, for the purpose set forth.



2. A bowl having a plurality of cone shaped elements therein arranged in superimposed relation, each of said cone shaped elements having channels formed in one of the surfaces thereof; and a filtering medium clamped between said elements, for the purpose set forth.

3. A bowl having a plurality of cone shaped elements therein arranged in superimposed relation, each of said cone shaped elements having channels formed in the upper and lower surfaces thereof; and a filtering medium clamped between said elements, for the purpose set forth.

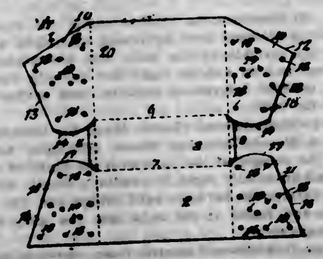
4. A bowl having a plurality of cone shaped elements located therein, each of said elements comprising a body portion having channels in its upper and lower surfaces, and having a collar provided with openings which extend from said channels through said collar; said body portion also being provided with a circular flanged portion having openings which communicate with said channels and the interior of said bowl; and a filtering medium held between said elements.

5. In a centrifugal separator of the character described; a cone shaped element comprising a body portion provided with a plurality of radial channels formed in its upper and lower sides and having a collar portion and provided with a central opening at its inner periphery, which collar portion is provided with a plurality of passages which lead from certain of said channels to said central openings; said body portion being also provided with a circular flanged portion having openings which communicate with certain other of said channels and extend therefrom to the outer periphery of said flanged portion.

[Claims 6 to 19 not printed in the Gazette.]

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1,038,608. ELEVATOR-BUCKET. FRANK G. LAWYER, Iola, Kans., assignor of one-half to William A. Wheeler, Iola, Kans. Filed Apr. 20, 1911. Serial No. 622,410. (Cl. 198—28.)

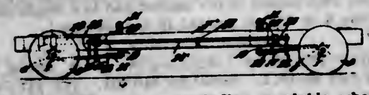


2. A bucket formed from a single blank, said blank comprising a main body portion constituting when folded the bottom and two sides of the bucket, those portions of the body constituting the sides provided at their opposite edges respectively with similarly shaped wings, said wings being of a width and height substantially equal to the width and height of the finished bucket, said wings overlapping to form end walls of double thickness throughout substantially the entire area of the ends of the bucket and said wings having registering openings at their opposite edges, and fastening means passing through said registering openings.

2. A bucket formed from a single blank, said blank comprising a main body portion constituting when folded the bottom and two sides of the bucket, those portions of the body constituting the sides provided at their opposite edges respectively with similarly shaped wings, said wings being of a width and height substantially equal to the width and height of the finished bucket, said wings overlapping to form end walls of double thickness throughout substantially the entire area of the ends of the bucket and said wings having registering openings at their opposite edges, and fastening means passing through said registering openings, that portion of the body of the blank constituting the bottom of the bucket having relatively narrow tongues folded about the lower edges of the overlapping wings at the ends of the bucket.

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1,038,609. SAWMILL-CARRIAGE. GEORGE LEMIEUX, Washburn, Wis. Filed Aug. 5, 1911. Serial No. 643,500. (Cl. 143—111.)



1. A saw mill carriage including revoluble wheel supported axles, a frame slidable upon the axles transversely of the path of movement of the axles, an element revoluble with each axle, a member normally supported yieldingly out of engagement with said element, cooperating means upon each axle and the adjacent member for elevating said member into engagement with the revoluble element at the beginning of each longitudinal movement of the carriage in each direction, a rock shaft actuated by said member, said revoluble element operating to shift the member when brought into engagement therewith, and cooperating means upon the shafts and axles for shifting the carriage along the axles.

2. A saw mill carriage including revoluble wheel supported axles, a frame slidable upon the axles transversely of the path of movement of the axles, a star wheel revoluble with each axle, a grooved collar secured to and revoluble with each axle, a bar normally supported yieldingly out of engagement with the star wheel, cooperating means upon each axle and the adjacent bar for elevating said bar into engagement with the star wheel at the beginning of each longitudinal movement of the carriage in each direction, a rock shaft actuated by the bar, and means carried by said shaft and cooperating with the grooved collar for shifting the carriage along the axles.

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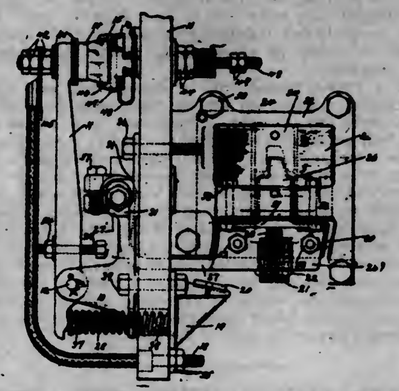
1,038,610. ELECTROMAGNET. DAVID L. LINDQUIST, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Feb. 12, 1909. Serial No. 477,768. (Cl. 175—21.)

1. The combination of a board, an electromagnet attached thereto, an armature, and an eccentric forming a pivot member for the armature and located at the opposite side of the said board from the electro-magnet.

2. The combination of a base, an alternating current magnet attached thereto, an armature, and an eccentric having a pivot bearing for the armature and located on the reverse side of the base from the magnet.

3. The combination of a support, a magnet secured on one side thereof, an armature pivoted on the other side of the support, and rotatably adjustable with respect to the magnet.

4. The combination of a support, a magnet secured on one side of a support, an armature pivoted on the opposite side of the support and adjustable in the direction of its axis, and also rotatably adjustable with respect to the magnet.

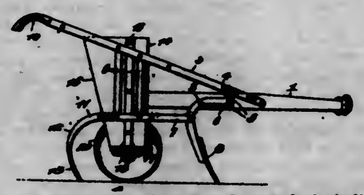


5. The combination of a support, a magnet secured to one side thereof, an armature adjustably pivoted on the opposite side, and means for rotary adjustment of the armature with respect to the magnet and in a single plane.

[Claims 6 to 28 not printed in the Gazette.]

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1,038,611. PLANTER. WALLACE W. LOWE, Byron, Ga. Filed July 26, 1911. Serial No. 640,601. (Cl. 111—52.)



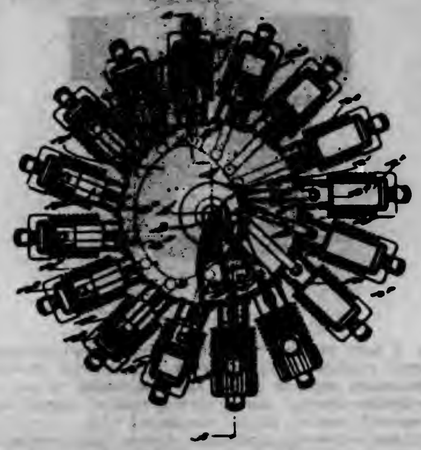
1. A planter of the character described, including a draft beam, plow supporting standards pivotally connected to said beam for angular adjustment thereon, means for holding said standards in different adjusted positions relative to the beam, a furrow opening plow carried by said standards, a hopper supporting frame embodying side bars which are formed with forward extensions pivotally connected to the standards, a wheel supported hopper vertically movable in said frame, the frame being provided, in connection with the hopper, with means for limiting the free downward movement of the hopper in the frame, and handles connected to the beam and extending rearwardly and upwardly therefrom and operatively connected to the frame.

2. A planter of the character described, including a draft beam, standards pivotally connected to said beam for angular adjustment thereon, means for holding said standards in adjusted positions on the beam, a furrow opening plow carried by said standards, handles connected to said beam and extending rearwardly therefrom, a hopper supporting frame embodying side bars which are formed with forward extensions pivotally connected to the standards below the pivotal point of the latter, vertical bars secured at their lower ends to the side bars of the frame and at their upper ends to the handles, and a wheel supported hopper mounted in said frame and vertically movable therein.

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1,038,612. ENGINE. GEORGE A. LOWRY, Pawtucket, R. I. Filed May 7, 1910. Serial No. 560,970. (Cl. 123—44.)

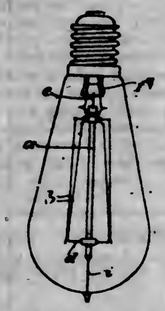
In an engine, the combination of relatively rotatable active and reactive members, one equipped with a plurality of convergently directed working cylinders having their axes canted from a radius of rotation, pistons and piston rods for said cylinders, charging cylinders, valved connections between the charging cylinders and working cylinders, the other member comprising a cam of



which the working surface is eccentric to the axis of rotation and against which the working cylinder piston rods bear, said cam provided with a dwell between maximum radii of its eccentric surfaces, said charging cylinders timed respectively to compress while their associated working cylinders pass said dwell.

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1,038,613. METAL-FILAMENT INCANDESCENT LAMP. GEORG LUDECKE, Augsburg, Germany, assignor to The Firm of Wolfram Lampen Aktien-Gesellschaft, Augsburg, Germany. Filed Mar. 20, 1909. Serial No. 484,812. (Cl. 176—39.)



1. In an incandescent electric lamp, the combination of a bulb, a filament-carrying frame, leading-in wires connecting the outside of the bulb with the filament upon the frame and an axially rigid, but radially elastic supporting member interposed between said bridge and the stem of the bulb.

2. In an incandescent electric lamp, the combination of a bulb, a filament-carrying frame, leading-in wires connecting the outside of the bulb with the filament upon the frame and an axially rigid, but radially elastic supporting member interposed between said bridge and the stem of the bulb and fused at its ends into the lamp foot and frame respectively.

3. In an incandescent electric lamp, the combination of the bulb, the filament, the glass bridge carrying the filament, the leading-in wires connecting the outside of the bulb with the filament carried by the bridge and a straight elastic supporting member interposed between said bridge and the stem of the bulb.

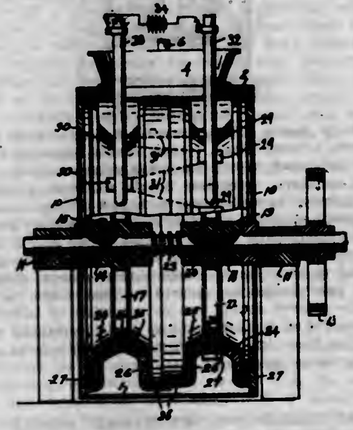
4. In an incandescent electric lamp, the combination of the bulb, the filament, the bridge forming a carrier for said filament, the leading-in wires passing through the bulb and connected with the filament upon the bridge and a straight wiry elastic member interposed between the bridge and the bulb and located in the axial line of both the bulb and of the filament carrier and forming the sole support for the said bridge or carrier.

5. In an incandescent electric lamp, the combination of the bulb, the filament, the bridge carrying said filament, the leading-in wires passing through the bulb and connected with the filament, a straight wiry flexible support, connecting the bridge with the lamp foot and a radially elastic projection carried by the bridge and adapted to engage the bulb and to limit the lateral movement of the bridge.

[Claim 6 not printed in the Gazette.]

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1,038,614. ELECTRIC MELTING-FURNACE. WAYNE D. LUDWICK, near Tacoma, Wash., assignor of fifty-one one-hundredths to Henry Hewitt, Jr., Tacoma, Wash. Filed Jan. 9, 1911. Serial No. 601,541. (Cl. 204—64.)



1. In an electric melting furnace, the combination of a plurality of rotating hearths; a corresponding number of electrodes, each electrode adjacent one hearth; conducting blocks within said hearths; means for introducing the elements to be fused equally to each of the hearths; means for separating the fused elements from those remaining unfused from each hearth; and means for introducing the unfused elements from each hearth to the hottest part of said hearth.

2. In an electric melting furnace, the combination of a plurality of rotating hearths; a corresponding number of electrodes, each electrode adjacent one hearth; conducting blocks within said hearths, said blocks being equally spaced thereabout and being arranged in staggered relation to each other in adjacent hearths, and being electrically connected together; means for introducing the elements to be fused between the blocks and the electrodes; means for separating the fused elements from those remaining unfused; and means for introducing said unfused elements in the hottest part of the hearth.

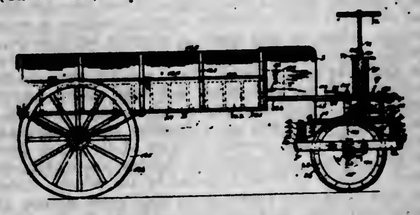
3. In an electric melting furnace, the combination of a casing; a rotating shaft mounted therein; a hearth rigidly secured to said shaft; a hearth slidably secured to said shaft beside said rigid hearth and rotating therewith; and yielding means engaging said slidable hearth and pressing it away from the other hearth whereby the axial expansion of the hearths compresses said yielding means and said yielding means maintains an even pressure between the hearths independent of the temperature thereof.

4. In an electric melting furnace, the combination of a casing; a rotating shaft mounted thereja; a hearth rigidly secured to said shaft; a hearth slidably secured to said shaft beside said rigid hearth and rotating therewith; telescoping flanges formed on the adjacent sides of the rims of said hearths; and yielding means engaging said slidable hearth and pressing it away from the other hearth whereby the axial expansion of said hearths compresses said yielding means causing said flanges to telescope.

5. In an electric melting furnace, the combination of a casing; a rotating shaft mounted therein; a hearth rigidly secured to said shaft; a hearth slidably secured to said shaft beside said rigid hearth and rotating therewith; refractory lining for said hearths; telescoping flanges formed on the adjacent sides of the rims of said hearths; conducting blocks within said hearths, said blocks being equally spaced thereabout and being arranged in staggered relation to each other in adjacent hearths, and being electrically connected together; electrodes mounted within said casing and each extending adjacent a hearth; means for introducing the elements to be fused between the blocks and the electrodes; means for separating the fused elements from those remaining unfused; means for introducing said unfused elements in the hottest part of the hearth; and yielding means engaging said slidable hearth and pressing it away from the other hearth whereby the axial expansion of said hearths compresses said yielding means causing said flanges to telescope.

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1,038,615. ELECTRIC VEHICLE. RODERICK MACRAE, Chicago, Ill. Filed Feb. 13, 1911. Serial No. 608,332. (Cl. 21—90.)



1. In a power driven vehicle, a truck comprising a main rigid supporting frame, wheels for said truck each having an independent axle and the end of each axle being independently journaled on said frame whereby a load on the vehicle is equally distributed on the wheel axles whereby said wheels are always maintained in perfect vertical position, an annular swivel frame secured to said main supporting frame, a second annular frame concentric with said swivel frame and secured to the vehicle, and means supported by said second annular frame for controlling the swiveling of said swiveling frame and thereby bodily turning of said main supporting frame.

2. In a power driven vehicle, the combination of wheels for supporting one end of the vehicle body, a steering truck for supporting the other end of said body, said truck comprising a main supporting frame having side compartments, a wheel at each side compartment pivoted at both its sides to said frame whereby said load on the frame is evenly distributed at the sides of the wheels, a swivel member secured to said frame, a companion swivel member secured to the vehicle body, steering means controlled directly by the operator for effecting rotation of said truck, a driving motor within each truck wheel, and means controllable by the operator for effecting operation of said driving motors to drive the wheels to effect turning of the truck independently of physical exertion on the part of the operator.

3. In a power driven vehicle, the combination of the vehicle body, an annular structure secured to the vehicle body and having a lower swivel end, a companion an-

nular swivel member engaging said lower end to rotate about said end, front and rear extensions and side extensions on said companion swivel member, a semi-elliptical spring secured at its center to the front and rear extensions, a semi-elliptical spring secured at its middle to each of the side extensions, said springs being at right angles with each other and over-lapping at their ends, a truck frame, wheels pivoted to said truck frame, the ends of said springs being confined to individual sliding engagement with said truck frame, and means controlled by the operator of the vehicle for effecting turning of said companion swivel member, such turning being communicated through the springs to the truck frame whereby the vehicle is steered.

4. In a power driven vehicle, the combination of a vehicle body, an annular frame secured to the body having an annular lower swivel end, a companion annular swivel member encircling said lower end, a truck frame connected with said companion swivel member and having swiveling wheels, a shaft journaled on said annular frame and having a sprocket wheel, a chain engaging said sprocket wheel and encircling said companion annular member, a second sprocket wheel on said shaft, a steering shaft having a steering wheel for the operator of the vehicle, said steering shaft having a sprocket wheel, a chain engaging said steering shaft sprocket wheel and said second sprocket wheel on said first mentioned shaft whereby turning of the steering wheel will cause rotation of the companion swivel member and thereby turning of the truck frame on said wheels, an individual driving motor for each wheel, a source of current carried by the vehicle, circuits for connecting said source with said wheel motors, and circuit controlling mechanism adjustable by the operator to vary the relative current supply to the motors whereby said wheels may be driven relatively to have relatively different propulsion power whereby turning of the truck and steering of the vehicle may be accomplished slowly by the wheels themselves.

[Claims 6 to 12 not printed in the Gazette.]

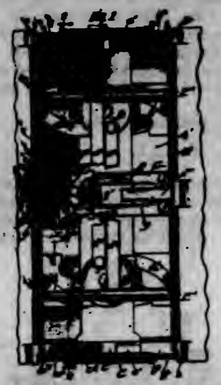
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1,038,616. BINDER-FRAME. FRED L. MANNY, Benton Harbor, Mich., assignor to Metal Sectional Furniture Company, Portland, Me., a Corporation. Filed Aug. 6, 1909. Serial No. 511,482. (Cl. 129—13.)

1. In a binder frame, the combination with binder members, a binder back, pitmen cranks attached to said binder back and having operative engagement with the binder members, extensible posts, and spring carrying tubes attached to said binder back and engaging at their respective ends with sockets attached to said binder members, of a lock consisting of a two faced rack attached to one of said members and pawls rotatably attached to the other of said binder members and adapted respectively to engage the faces of the said rack.

2. In a binder frame, the combination with binder members, a binder back, pitmen cranks attached to said binder back and having operative engagement with the binder members, and extensible posts, of a lock constituting a two faced rack consisting of a U shaped piece ratcheted on its inner face and attached to one of said binder members, and pawls rotatably attached to the other of said binder members and having engagement with the said ratcheted faces respectively.

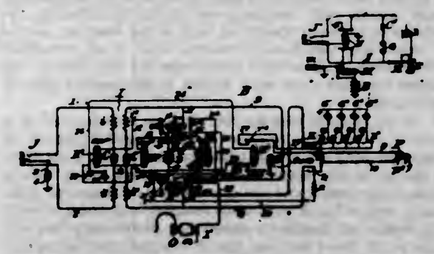
3. In a binder frame, the combination with binder members, a binder back, spring carrying tubes attached to said binder back and having telescoping engagement at their respective ends with sockets attached to the said binder members, automatic means for maintaining sliding engagement between the said binder back and the said binder members, and extensible posts, of a lock consisting of a multiple faced rack attached to one of said binder members, a corresponding multiple of pawls rotatably attached to axes held between the other of said binder members and a supporting plate also attached to said other binder member, said pawls adapted to engage said multiple faced rack.



4. In a binder frame, the combination with binder members, a binder back, pitmen cranks attached to said binder back and having operative engagement with said binder members, extensible posts, and spring carrying tubes attached to said binder back and having telescoping engagement at their respective ends with sockets attached to said binder members, of a lock consisting of a U shaped piece provided with ratchets on the inner face thereof attached to one of said binder members, and spring actuated pawls rotatably secured to axes which in their turn are secured at one end to the other of said binder members and at the other end to a plate attached to and projecting from said other binder member, said pawls being adapted to engage said ratchets.

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1,038,617. TELEPHONE-EXCHANGE SYSTEM. RAY H. MANSON, Elyria, Ohio, assignor to The Dean Electric Company, Elyria, Ohio, a Corporation of Ohio. Filed May 22, 1906. Serial No. 318,250. (Cl. 179—50.)



1. In a telephone exchange system, the combination of a central exchange, a cord circuit at the exchange, a subexchange, a trunk circuit connecting the central exchange with the subexchange, a supervisory relay for the cord circuit, a high resistance relay in the trunk circuit connected in circuit with the supervisory relay upon connection of the cord circuit with the trunk circuit, said high resistance relay preventing operation of the supervisory relay, a telephone line leading from the subexchange and terminating in substations, ringing mechanisms at the subexchange, automatic relay mechanism for controlling the connection of the ringing mechanism with the trunk circuit and telephone line connected therewith, a low resistance relay, and a controlling relay automatically operated upon the response of the called subscriber for closing the circuit of the low resistance relay, said high resistance relay being normally effective to control the circuit for the automatic ringing relay, and said low resistance relay being connected in shunt of the high resistance relay upon operation of the controlling relay to destroy the control of the automatic relay by the high resistance relay and to assume the control of said automatic relay circuit.

2. In a telephone exchange system, the combination of a main exchange, a cord circuit at the main exchange, a subexchange, a trunk circuit for connecting the main exchange with the subexchange and terminating in substations, a supervisory relay for the cord circuit, a high resistance and a low resistance relay for the trunk circuit, a controlling relay for controlling the circuit of the low resistance relay, connection of the cord circuit with the trunk circuit causing closure of a circuit including the supervisory relay and the high resistance relay, said high resistance relay preventing operation of the supervisory connection of the trunk circuit with the telephone line and operation of telephone apparatus at the connected substation causing closure of a circuit through the controlling relay whereby the low resistance relay is bridged about the high resistance relay and the supervisory relay rendered operative, ringing mechanism associated with the trunk circuit, automatic relay mechanism for controlling the connection of the ringing mechanism with the trunk circuit, said automatic ringing mechanism circuit being first controlled by the high resistance relay and then by the low resistance relay.

3. In a telephone exchange system, the combination of a cord circuit, a trunk circuit, normally closed master key springs in said trunk, a ringing circuit extending through a normally open operator's key and normally open also at a second point independent of said master key springs, and relay mechanism for closing the ringing circuit at such second point, such relay mechanism being controlled by the connection of the cord circuit with the trunk circuit.

4. In a telephone system, the combination of a central exchange, connecting conductors thereat, a subexchange, a trunk circuit for connecting the central exchange with the subexchange, a telephone line leading from the subexchange and terminating at a substation, a source of ringing current at the subexchange in a circuit normally disconnected from the trunk circuit, an operator's key at the sub-exchange, relay mechanism under the control of the central exchange operator for placing the ringing circuit under the control of such operator's key, said ringing circuit being completed through to said key when said sub and central exchanges are connected and a source of current connected to said central exchange connecting conductors for controlling said relay mechanism.

5. In a telephone exchange system, the combination of a central exchange, a subexchange, a trunk circuit for connecting the central exchange with the subexchange, a telephone line leading from the subexchange and terminating at a substation, a source of ringing current at the subexchange in a circuit normally disconnected from the trunk circuit, a normally open operator's key in the ringing circuit, a source of current at the central exchange normally connected to the central exchange circuit, and means under the control of the central exchange operator for preventing the closure of the ringing circuit by such operator's key, said means being controlled by said source and when operated completing the ringing circuit through to the operator's key.

[Claims 6 to 10 not printed in the Gazette.]

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1,038,618. PIN. CHARLES F. MARKHAM, Providence, R. I. Filed Jan. 6, 1912. Serial No. 669,735. (Cl. 24—160.)

A pin having an ornamental front plate, an independent joint member having an integral flange or base plate



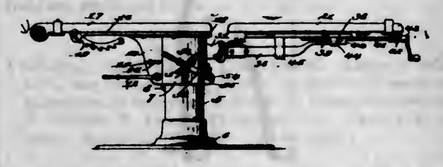
around the inner end thereof, said base plate resting against the inner surface of the front plate and having its edge turned slightly upward from its own plane and the



edge of said front plate being rolled over the said upturned edge of said base plate whereby the latter is interlocked with the roll of the front plate near one end of the pin body to rigidly retain said member in position therein.

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1,038,619. OSTEOPATHIC TABLE. JOHN V. MCMANIS and WALKER L. SHERWOOD, Kirksville, Mo.; said Sherwood assignor to said McManis. Filed Apr. 3, 1911. Serial No. 618,583. (Cl. 128—16.)



1. In a table of the class specified, the combination of a main table section having a supporting means, an auxiliary terminal table section held by and extending from the supporting means of the main table section, means permitting the auxiliary section to have depressing and lateral movements, and means operating with the auxiliary section to restore the latter to its original position from either a depressed or lateral position.

2. In a table of the class specified, a main table section having a single intermediate supporting pedestal, an auxiliary terminal table section movably suspended at one extremity by and extending from the said pedestal and having depressing and lateral movements, the space below the means for holding the auxiliary table to the pedestal being clear, and means coöperating with the auxiliary table section to restore the latter to its original position when released.

3. In a table of the class specified, the combination of a supporting pedestal, a main table section mounted on the said pedestal, an auxiliary table section movably associated with the main table section and having a depressing movement, and means coöperating with the auxiliary table section to restore the latter to its original position when released and also to adapt the same to compensate for variations in weight pressure thereon.

4. In a table of the class specified, the combination of a main table section having supporting means, an auxiliary table section movably associated with the main section and depressible below the horizontal plane of the main table, and means coöperating with the auxiliary section to compensate for variations in weight pressure thereon.

5. In a table of the class specified, the combination of a main table section having supporting means, an auxiliary table section movably attached to the supporting means and capable of a lateral adjustment in opposite directions and also a vertical movement, and means coöperating with the auxiliary section to restore the latter to its original position when released.

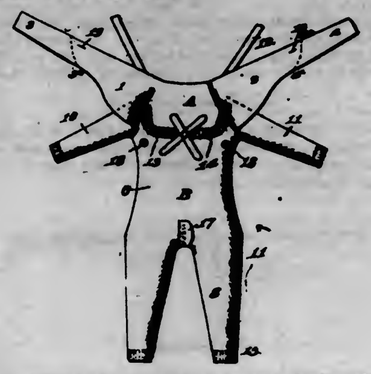
[Claims 6 to 10 not printed in the Gazette.]

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1,038,620. UNDERGARMENT. ANGELINE A. H. MCALLISTER, Cedarview, Utah. Filed Aug. 31, 1910, Serial No. 579,621. Renewed Mar. 12, 1912. Serial No. 683,940. (Cl. 2—144.)

1. A combination garment comprising a front piece and a back piece, said front piece including a body portion and leg extensions, said back piece including a body portion of substantially the same form in outline as the body portion

of the front piece, the body portion of said back piece having shoulder flaps on its upper edge, sleeves arranged between the body portions of said front and back pieces at their upper ends and secured thereto, said body portions being secured together at their side edges, said shoulder flaps being adapted to be folded across the breast of the wearer in opposite directions and having attenuated end portions to extend across the back, and means for securing the extremities of said flaps together.



2. A combination garment comprising back and front pieces, said front piece including a body portion and leg extensions, said leg extensions each being cut to provide an outwardly extending portion adapted to be folded over upon the remaining portion of the extension and secured thereto at its inner edge, the outer edges of said outwardly projecting portions of the leg extensions at their upper ends being brought together and secured to form the seat of the garment, said front piece being secured to the side edges of the back piece, said back piece extending within and below the connected upper ends of the leg extensions, and sleeves arranged between the front and back pieces at their upper ends, the front and rear portions of the sleeves being secured to the front and back pieces respectively.

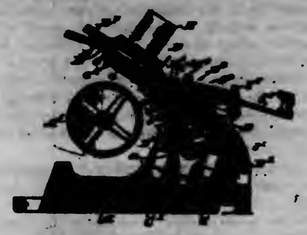
3. A combination garment comprising front and back pieces, said front piece including a body portion and leg extensions, said front and back pieces being secured together at their side edges to form the body of the garment, said side edges at the upper end of the front piece being unsecured, sleeves arranged between the unsecured edges of the front and back pieces, the front and rear sides of the sleeves being secured to the corresponding pieces of the garment, said back piece having spaced shoulder flaps formed upon its upper edge, one edge of the flaps lying upon the edges of the back piece and being secured thereto, said flaps being adapted to be folded across the breast of the wearer and beneath the arms, means for securing the ends of said shoulder flaps together, and drawing strings arranged in the upper edges of said flaps at their point of intersection.

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1,038,621. PHONOGRAPH. HARRY B. MCNULTY, East Cleveland, Ohio, assignor, by mesne assignments, to The United States Phonograph Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 11, 1909. Serial No. 471,657. (Cl. 181—2.)

1. In mechanism of the class described, the combination of a carriage; a reproducer mounted on said carriage, said reproducer including a diaphragm, a floating weight, and a plurality of styluses carried by said weight and respectively movable into operative position with respect to a record; and a movable member apart from said weight adapted to raise the same and thereupon actuate said styluses.

2. In mechanism of the class described, the combination of a carriage; a reproducer mounted on said carriage, said reproducer including a diaphragm, a floating weight, and a plurality of styluses carried by said weight and respectively movable into operative position with respect to a record; and a movable member on said carriage adapted to raise said weight and thereupon actuate said styluses.



3. In mechanism of the class described, the combination of a carriage; a reproducer mounted on said carriage, said reproducer including a diaphragm, a floating weight, and a plurality of styluses carried by said weight and respectively movable into operative position with respect to a record; and a member apart from said weight, said member having two distinct movements whereby it is respectively adapted to raise said weight and thereupon to actuate said styluses.

4. In mechanism of the class described, the combination of a carriage; a reproducer mounted on said carriage; said reproducer including a diaphragm, a floating weight, and a plurality of styluses carried by said weight and respectively movable into operative position with respect to a record; and a member apart from said weight, said member being oscillatorily and rotatably movable, whereby it is respectively adapted to raise said weight and thereupon to actuate said styluses.

5. In mechanism of the class described, the combination of a carriage; a reproducer mounted on said carriage, said reproducer including a diaphragm, a floating weight, a lever pivoted to said weight and connected with said diaphragm, and a stylus holder carried by said lever and provided with a plurality of styluses, said holder being movable so as to bring either of said styluses into operative position with respect to a record; and a movable member on said carriage adapted to raise said weight and thereupon actuate said stylus holder.

[Claims 6 to 22 not printed in the Gazette.]

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1,038,622. VENDING-MACHINE. LOUIS K. MEARKLE, Philadelphia, Pa. Filed Mar. 16, 1912. Serial No. 684,232. (Cl. 194—91.)



1. In a vending machine, an inclosing casing having an open lower end, a projecting means on the inner surface of a wall of said casing, said means adapted to support edgewise articles to be vended while opposite edges rest against a wall of said casing, a resilient bar arranged crosswise of said casing for supporting a coin below the level of said projecting means and to permit said coin to trip singly said articles and means manually operated for actuating said bar, substantially as and for the purposes described.

2. In a vending machine, an inclosing casing open at its lower end, a projecting means on the inner surface of a wall of said casing, said means supporting one edge of strips or pieces to be vended while opposite edges rest against a wall of said casing, a resilient bar for supporting a coin below the level of said projecting-means and a device to belly the central portion of said bar to cause a strip or piece to be released and thereby said coin automatically to be dropped into a receptacle.

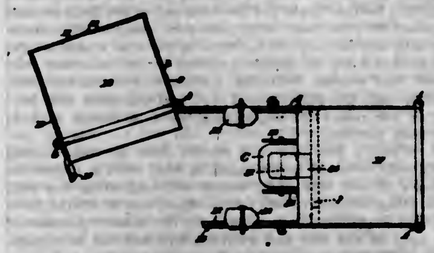
3. In a vending machine, an inclosing casing open at its lower end, a projecting lip on the inner surface of a side wall of the casing, the lip being adapted to support one edge of a strip or piece of gum or the like, while the opposite edge of the strip or piece bears against the side wall, a resilient sheet-metal bar extending across the inner surface of the first-named wall of the casing below the lip, means on the bar to hold a coin in position and means, whereby the central portion of the resilient bar may be manually sprung away from said first-named wall.

4. In a vending machine, an inclosing casing open at its lower end, the casing containing an inner wall parallel with and spaced from one of its side walls, the upper wall of the casing having an inlet slot communicating with the space between the first-named wall and the inner wall, the lower edge of the inner wall having a lip adapted to support one edge of the article, while the opposite edge bears against the wall of the casing, a coin support arranged on the inner surface of the first-named wall below the inner wall and adapted to hold a coin in position so as to project above the level of the lip of the inner wall and manually operated means to move the coin support toward the opposite wall, whereby the coin carried by the support trips the edge of the article from said lip.

5. In a vending machine, an inclosing casing open at its lower end, the casing containing an inner wall parallel with and spaced from one of the side walls, the upper wall of the casing having an inlet slot communicating with the space between the first-named wall and the inner wall, the lower edge of the first-named wall being turned inward and upward to form a pocket for a coin, the lower edge having means adapted to support one edge of an article with the opposite edge bearing against said casing, a resilient device arranged across the inner surface of said first-named wall, means on said bar to catch and hold a coin inserted in the inlet slot, the inner wall provided with guiding flanges to lead the coin to the supporting means of said bar, the holding means of said bar being arranged to so support the coin as that the upper portion projects above the lower edge of said article, said bar having a manual operating device extending through the first-named wall and means to cause the coin to be released from the holding means of said bar, when pressed inward from said first-named wall.

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1,038,623. HOSPITAL-BED. WOODSON T. MERCHANT, Louisville, Ky. Filed Aug. 14, 1911. Serial No. 644,026. (Cl. 5—12.)



1. An invalid bed comprising head and foot posts and a frame connecting said posts and extending beyond the foot posts, said frame comprising two sections having their side bars, at one side of the bed, hinged together, and their side bars, at the other side of the bed detachably connected together.

2. An invalid bed comprising head and foot posts and a frame connecting said posts and extending beyond the foot posts, said frame comprising two sections one fixed to the head posts, the other fixed to the foot posts, the side bars of said sections, at one side of the bed, being hinged together at one foot post, and the side bars of said sections, at the other side of the bed, being detachably connected together at a point between the head and foot posts.



3. An invalid bed comprising head and foot posts and a frame connecting said posts and extending beyond the foot posts, said frame comprising two sections one fixed to the head posts, the other fixed to the foot posts, the side bars of said sections, at one side of the bed, being hinged together at one foot post, and the side bars of said sections, at the other side of the bed, being detachably connected together at a point between the head and foot posts, and folding legs for supporting said sections when the latter side bars are disconnected.

4. An invalid bed, comprising head and foot posts, and a frame connecting said posts and extending beyond the foot posts, said frame comprising two sections, one section fixed to the head posts, the other section fixed to the foot posts, the side bars of said sections, at one side of the bed, being hinged together at one foot post and the side bars of said sections, at the other side of the bed, being detachably connected together, in combination with a two-part mattress normally extending between the head and foot posts, one part of said mattress adapted to slide on the bed frame from one section of the latter to the other.

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1,038,624. PNEUMATIC DOOR-LOCK. JOHN C. MASSICK, San Rafael, Cal., assignor, by direct and mesne assignments, of one-third to Robert G. Jones and one-third to William F. Jones, San Rafael, Cal. Filed Jan. 23, 1912. Serial No. 672,839. (Cl. 70—102.)



1. In a lock, the combination with a chambered case, of a stationary pivot, a bolt mounted upon said pivot having a swinging and shifting movement relatively thereto, and a pneumatically operated member connected to said bolt and adapted to swing and shift the same about the pivot.

2. In a lock, the combination with a chambered case, of a stationary pivot, a bolt mounted upon said pivot having a swinging and shifting movement relatively thereto, a pneumatically operated member connected to said bolt and adapted to swing and shift the same about the pivot, and an automatically projected detent adapted to lock the bolt in shifted position.

3. In a lock, the combination with a chambered case, of a stationary pivot, a bolt mounted upon said pivot having a swinging and shifting movement relatively thereto, a pneumatically operated member connected to said bolt and adapted to swing and shift the same about the pivot, an automatically projected detent adapted to lock the bolt in shifted position, and pneumatically operative means adapted to retract said detent to release the bolt.

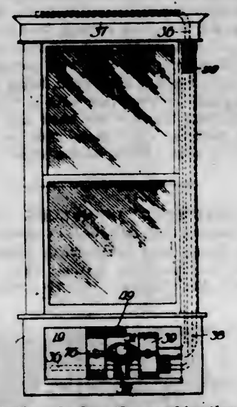
4. A pneumatic lock comprising a casing having a bolt capable of a swinging and shifting movement in the casing, a detent adapted to lock the bolt in shifted position, and pneumatically operable means for releasing the detent and shifting and swinging the bolt.

5. A pneumatically operable lock comprising a casing, a swinging and sliding bolt mounted in said casing, a pneumatically projected piston for operating said bolt, a valve controlling the movement of said piston, and means whereby said valve may be automatically closed.

[Claim 6 not printed in the Gazette.]

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1,038,625. VENTILATING DEVICE. FRANK P. MIMS, Chicago, Ill. Filed Nov. 10, 1910. Serial No. 591,665. (Cl. 98—36.)



1. In a ventilating device, the combination of a fan, a fan casing containing in its bottom under the fan a liquid reservoir, a source of liquid supply, means for automatically maintaining the liquid at a predetermined height therein relatively close to the tips of the fan, and an electric heater adapted and arranged to be submerged in said liquid.

2. In a ventilating device the combination of a fan, a fan casing providing an approximately circular path for air adjacent the tips of the fan, said casing containing in its bottom a liquid reservoir, an electric heater adapted and arranged to vaporize said liquid, an air heating means mounted upon the casing in position to heat the air in said circular path before it reaches the liquid reservoir in the bottom of the casing, and means for controlling said vaporizing means.

3. In a ventilating device, the combination of a centrifugal fan, a scroll-shaped fan casing having a tangential outlet above its bottom to provide directly under the fan a liquid reservoir, and, within the clearance between said fan and casing, means for vaporizing said liquid and an independent air heating means.

4. In a ventilating device, the combination of a fan, a fan casing containing a liquid reservoir, an electrical liquid-heating device to vaporize said liquid submerged therein, an air heating device within said fan casing, and means for regulating the current supplied to said heating devices.

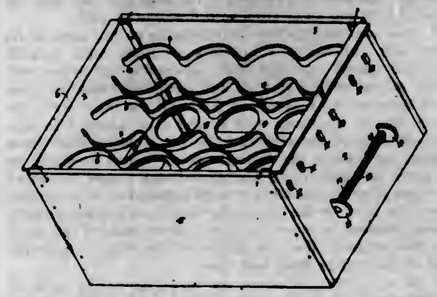
5. In a ventilating device, the combination of a fan, and a casing therefor, with a humidifying casing to contain water, opening into the air inlet of said fan casing, an ice casing, a water receptacle therebeneath to receive drippings therefrom, a water connection between the water receptacle and the humidifying chamber, a valve for the connection, and a float device in the humidifying chamber to operate said valve for automatically maintaining the water level therein.

[Claims 6 to 11 not printed in the Gazette.]

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1,038,626. BOTTLE-CASE. JOHN C. MILLER, Canton, Ohio. Filed May 21, 1906. Serial No. 317,917. (Cl. 217—23.)

1. In a bottle-holding and transporting device, the combination of a body portion, comprising rigidly connected side walls, devices fixedly carried by said side walls engaging the walls of the bottles for holding and spacing them within said body portion, a removable bottom for one open end of the body portion on which bottles rest during transportation thereof, means for detachably connecting said bottom to said body portion, a removable rack arranged at or near the opposite open end of the body portion and adapted to engage the shouldered portions of the bottles for supporting them in inverted position during the washing operation thereof, and means for detachably connecting said rack to said body portion.



2. In a bottle-holding and transporting device, the combination of a body portion comprising side and end walls, two opposite walls of which are provided with flanges, devices fixedly carried by the body portion engaging the walls of the bottles for holding and spacing them therein, a removable bottom for one open side of the body portion on which bottles rest during transportation thereof, means coöperating with the flanges of the walls of said body portion for positioning and detachably connecting said bottom to said body portion, a removable rack arranged at or near the opposite open side of the body portion and adapted to engage the shouldered portion of the bottles for supporting them in inverted position during the washing operation thereof, and means for detachably connecting the said rack to said body portion.

3. A bottle case for holding bottles in either an upright or inverted position, comprising a body portion having a slot in one side wall thereof, a rack fixed in the body portion and arranged near one open end thereof, a second rack arranged near the other open end of the body portion and adapted to engage the shouldered portions of bottles and support them in inverted position during the washing thereof, the said second rack being provided with a projection, a bottom board for the open end of the body portion adjacent to said fixed rack, means for temporarily retaining said bottom board in position to serve as a support for the bottles when in upright position for transporting purposes, and means, including a slidable locking and supporting bolt movable in said slot and engaging said projection for removably supporting the said second rack in the body portion.

4. A bottle case having a slotted body portion, a rigid perforated internal bottle-engaging rack with a projection thereon at one side edge, means for supporting the said rack along one of its other side edges, and a sliding locking and supporting bolt guided in the slotted portion of the body of the case and movable into and out of engagement with the projection on the rack.

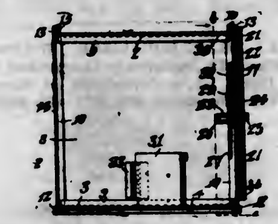
5. A bottle case having a slotted body portion, an internal bottle-engaging rack having projections thereon at one side, means for supporting one of the other sides of the rack in the case, bolts slidably mounted in the slotted portion of the body of the case, and springs for projecting said bolts into locking engagement with the projections on the bottle-engaging rack.

[Claim 6 not printed in the Gazette.]

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1,038,627. MEAT. LOUIS W. MITTENDORFF, York, Nebr. Filed Jan. 29, 1910. Serial No. 540,877. (Cl. 119—49.)

1. A knock-down nest comprising a body portion composed of two members joined intermediately and each including one end of the body member and a portion of the top and bottom, and removable front and back members each slidable along the end members transversely to the top members and toward and from the bottom members, the latter having marginal grooved flanges for receiving the corresponding edges of the front and back members, and the said front and back members having marginal flanges receiving corresponding portions of the end and top members.



2. The combination of a body having grooved flanges at its lower edges and upstanding flanges at its upper edges, a back plate provided at its upper edge with an overhanging flange adapted to engage the upstanding flange on the body and having its lower edge adapted to rest in the grooved flange at the lower edge of the body, a front plate provided with an overhanging flange engaging the upstanding flange at the top of the body and having its lower edge resting in the grooved flange at the lower edge of the body, and a door carried by the said front plate.

3. A knock-down nest comprising a body portion composed of two members joined intermediately and each including one end of the body member and a portion of the top and bottom, and removable front and back members each slidable along the end members transversely to the top members and toward and from the bottom members, the latter having marginal grooved flanges for receiving the corresponding edges of the front and back members, and the said front and back members having marginal flanges receiving corresponding portions of the end and top members, a top and a bottom member where joined to the mating top and bottom member being provided with U-shaped guides, and there being also provided a partition adapted to slidably engage in said guides and held thereto between the back and front members.

4. A knock-down nest comprising a body portion composed of two members joined intermediately and each including one end of the body member and a portion of the top and bottom, and removable front and back members each slidable along the end members transversely to the top members and toward and from the bottom members, the latter having marginal grooved flanges for receiving the corresponding edges of the front and back members, and the said front and back members having marginal flanges receiving corresponding portions of the end and top members, a top and bottom member where joined to the mating top and bottom member being provided with U-shaped guides, and there being also provided a partition adapted to slidably engage in said guides and held thereto between the back and front members, the front member having openings therein with guides on opposite sides, and doors slidably mounted in said guides.

5. The combination of a nest body, a removable front plate therefor, a door slidably mounted on said front plate, a trigger mounted for transverse movement in the front plate and adapted to support the door, and a lever hung on the front plate in a normally pendent position and connected with the trigger to release the latter, the said lever having an initial extent of idle movement with reference to the trigger.

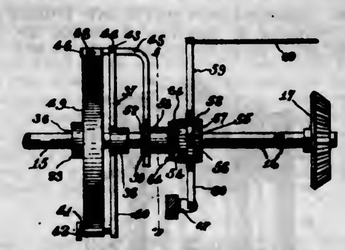
[Claims 6 and 7 not printed in the Gazette.]

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1,038,628. STRAP-CLUTCH. JAMES L. MORROW, Antioch, Tenn. Filed Dec. 27, 1911. Serial No. 668,113. (Cl. 192—14.)

1. In a mower, the combination with a drive shaft, of a driven shaft disposed in longitudinal alinement therewith, a pulley fixedly secured on the drive shaft, a bracket fixedly secured on the driven shaft, the ends of the bracket projecting beyond the periphery of the pulley, a pin carried by one end of the bracket and disposed longitudinally beyond the periphery of the pulley, a lever fulcrumed on the other end of the bracket, a clutch strap for the pulley engageable at its bight with a pin and having its ends connected to one end of the lever, and means to actuate said lever.





2. In a mower, the combination with a drive shaft, of a driven shaft disposed in longitudinal alinement therewith, a pulley fixedly secured on the drive shaft, a bracket fixedly secured on the driven shaft, the ends of the bracket projecting beyond the periphery of the pulley, a pin carried by one end of the bracket and disposed longitudinally beyond the periphery of the pulley, a lever fulcrumed on the other end of the bracket, a clutch strap for the pulley engageable at its bight with the pin and having its ends connected to one end of the lever, a sleeve loosely mounted on the driven shaft and having pivotal connection with the other end of said lever, and operating means connected with said sleeve to actuate said lever.

3. In a mower, the combination with a drive shaft, of a driven shaft disposed in longitudinal alinement therewith, a pulley fixedly secured on the drive shaft, a bracket fixedly secured on the driven shaft, the ends of the bracket projecting beyond the periphery of the pulley, a pin carried by one end of the bracket and disposed longitudinally beyond the periphery of the pulley, a lever fulcrumed on the other end of the bracket, a clutch strap for the pulley engageable at its bight with the pin and having its ends connected to one end of the lever, a sleeve loosely mounted on the driven shaft and having pivotal connection with the other end of said lever, a second sleeve loosely mounted on said driven shaft, means connecting said sleeves, a bracket, a lever pivoted on the bracket and having a pin and slot connection with the second mentioned sleeve, and means for actuating said lever to slide said sleeves along the driven shaft to actuate the first mentioned lever.

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1,038,629. TWISTER-HEAD FOR WIRE-BASKET-MAKING MACHINES. VERNON D. MUNGER, Antwerp, Ohio, assignor to The Munger Wire Basket Company, Massillon, Ohio, a Corporation of Ohio. Filed July 27, 1910, Serial No. 574,162. Renewed Apr. 1, 1912. Serial No. 687,776. (Cl. 140—13.)

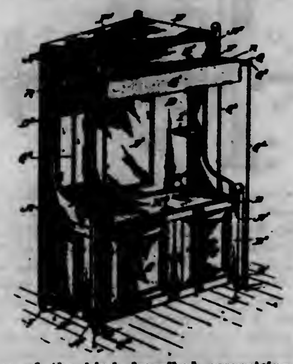


A twister head for wire basket machines, comprising a cylindrical portion with an active face, a shank extending

from the opposite face, said head having a central longitudinal passage therethrough, and a pin socket adjacent and in eccentric relation thereto, a pin mounted to move freely in said socket, and a set-screw adapted to hold said pin against movement, said set-screw being of a diameter equal to approximately one-half the length of the pin.

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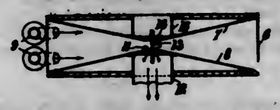
1,038,630. COMBINATION BATH AND TOILET CABINET. WILLIAM W. MURPHEY, Louisville, Ky. Filed Jan. 23, 1911. Serial No. 604,256. (Cl. 4—27.)



A device of the kind described comprising a cabinet, hinged front doors carried by the lower portion of the cabinet, a top hinged to the cabinet back, a tub arranged below said top and to the rear of said doors, standards arranged in advance of and to one side of the doors, said standards being connected to the upper portion of the cabinet, and a pole supported by said standards, and a curtain carried by said pole and adapted to drop in advance of said doors and hinged top.

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1,038,631. APPARATUS FOR STERILIZING LIQUIDS BY MEANS OF ULTRAVIOLET RAYS. ALFRED NEVEU, Paris, France, assignor to Société Anonyme Francaise Dite; Banque Du Radium, Paris, France. Filed June 19, 1911. Serial No. 633,855. (Cl. 210—20.)



1. An apparatus for sterilizing liquid, by the aid of ultra-violet rays, comprising a cylindrical receptacle provided with an inlet orifice extending tangentially to its peripheral wall and a centrally arranged outlet in its bottom, and means for conducting liquid under pressure to the inlet.

2. An apparatus for sterilizing liquid, by the aid of ultra-violet rays, comprising a stationary receptacle having an interior cylindrical chamber provided with an inlet orifice in the side wall and a centrally arranged outlet in its bottom, of means for introducing liquid into said chamber under pressure so that it will rapidly rotate therein and form a depression above the outlet, for the purpose described.

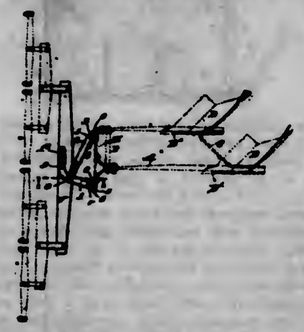
3. An apparatus for sterilizing liquid, by the aid of ultra-violet rays, comprising means for causing a body of liquid to revolve at such rate as to provide a central depression therein, and a source of light extending into said depression.

4. An apparatus for sterilizing liquid, by the aid of ultra-violet rays, comprising a receptacle having alined openings in its top and bottom walls, means for supplying liquid under pressure to said receptacle through a tangentially arranged inlet in the side wall, and a source of light adapted to be introduced into the receptacle through an opening in the top thereof.

5. An apparatus for sterilizing liquid, by the aid of ultra-violet rays, comprising a casing having an interior chamber of cylindrical form provided in the side wall with the tangentially arranged inlet orifice and having an outlet arranged centrally of its bottom, said chamber decreasing in depth from its side wall to the outlet, and a source of light arranged within the shallower portion of the chamber.

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1,038,632. DRAFT-EQUALIZER. WINFIELD SCOTT NICHOLS, Plano, Ill., assignor to Independent Harvester Company, Plano, Ill., a Corporation of Maine. Filed Nov. 25, 1911. Serial No. 662,267. (Cl. 97—4.)



1. A draft equalizer comprising, in combination with a frame, a pair of links pivotally connected to the forward end of said frame at points laterally separated, the forward end of one link being pinned to the other link, said other link extending beyond the point of attachment, and having its extending portion provided with a series of apertures, an evener bar provided with a pivot aperture at its mid-point, and a pivot bolt extending through said aperture of the evener bar and through one of the series of apertures of the link for connecting them.

2. A draft equalizer comprising, in combination with a frame, a pair of links pivotally connected to the forward end of the said frame at points laterally separated, the forward end of one link being pinned to the other link, said other link being bent beyond the point of attachment to extend substantially transverse to the direction of travel of the plow, and having its extending portion provided with a series of apertures, an evener bar provided with a pivot aperture at its mid-point, and a pivot bolt adapted to extend through said aperture of the evener bar and through one of the apertures of the link for connecting them.

3. A draft equalizer comprising in combination with a frame, a pair of links pivotally connected to the forward end of said frame at points laterally separated, the forward end of one link being pinned to the other link, said other link extending beyond such point of attachment and having its extending portion provided with a series of apertures, and a pivot bolt adapted to be lodged in any one of said series of apertures for fulcruming an evener bar.

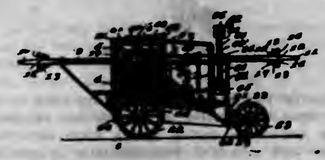
4. A draft equalizer comprising in combination with a frame, a pair of links pivotally connected to the forward end of said frame at points laterally separated, the forward end of one link being pinned to the other link, said other link being bent beyond the point of attachment to extend substantially transverse to the direction of travel of the frame, and having its extending portion provided with a series of apertures, and a pivot bolt adapted to be lodged in any one of said apertures for fulcruming an evener bar.

5. A draft equalizer comprising in combination with a frame member extending transversely of the direction of travel, a pair of pivot brackets mounted on said transverse member and adapted for adjustment therealong independently of each other, a pair of links extending forwardly from said brackets, respectively, means pivotally connecting them thereto, one link being pinned near its forward end to the other link, and a fulcrum pin carried by the other link for securing an evener bar.

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1,038,633. FLYING-MACHINE. GOBY O'BRYAN, Louisville, Ky. Filed Aug. 15, 1911. Serial No. 644,122. (Cl. 244—14.)



1. In a flying machine, a gliding structure, a guide member thereon, balancing planes, a swinging car having a projection engaging said guide member, operating connections between the car and balancing planes, a wedge arranged in rear of and movable forwardly between the guide member and car to lock the latter against movement, a spring for retracting said wedge, and means for drawing the wedge forward to locking position.

2. In a flying machine, a main frame, an upper supporting surface, a lower supporting surface having its wings dihedrally inclined and extending at their lateral extremities beyond the upper supporting surface, balancing planes at the ends of the upper supporting surface above the said lateral extremities of the lower supporting surface, gearing for swinging the balancing planes including toothed sectors, a laterally swinging car having a projection, and links connecting said projections with the toothed sectors, whereby the balancing planes are automatically operated in the swinging movements of the car.

3. In a flying machine, a gliding structure, a longitudinally extending hollow shaft, balancing planes, a laterally swinging car supported by said shaft, connections between said car and the balancing planes, rudders pivoted to tilt vertically upon the shaft, an operating device for rocking shaft laterally and pivoted upon said shaft to swing longitudinally, and connections between said operating device and the rudders extending through the hollow shaft.

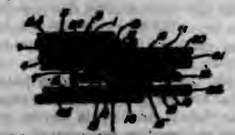
4. In a flying machine, a gliding structure, a guide member thereon, balancing planes, a swinging car having a projection engaging said guide member, operating connections between the car and balancing planes, a wedge movable between the guide member and car to lock the latter against movement, and means for operating said wedge.

5. In a flying machine, a main frame carrying supporting surfaces, a shaft extending fore and aft, balancing planes, a laterally swinging car supported by said shaft, connections between said car and the balancing planes, rudders pivoted to tilt vertically upon the shaft, and means for tilting said rudders in unison and rocking the shaft laterally to adjust the rudders at an angle to the line of flight.

[Claims 6 and 7 not printed in the Gazette.]

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1,038,634. WINDING-INDICATOR FOR TIMEPIECES. OLOF OHLSON, Newton, Mass., assignor to Waltham Watch Company, Waltham, Mass., a Corporation of Massachusetts. Filed Oct. 6, 1910. Serial No. 585,581. (Cl. 58—85.)



1. A time piece comprising an arbor, a pointer disk fast on one end thereof and provided with a sight opening, an indicator disk loose on the arbor and provided with indicating means adapted to be displayed through the pointer disk opening, said indicator disk being provided with peripheral teeth, a toothed wheel fast on the opposite end of the arbor, a winding wheel provided with lugs for engaging the teeth of the indicator disk to intermittently rotate said disk, and a main wheel provided with arms for engaging the teeth of the toothed wheel to intermittently rotate the arbor.

2. The combination in a time piece, of a movement therefor including a main arbor, a winding wheel carried thereby, a main wheel on the arbor and provided with a pendent annular rib, a split collar seated on said rib and provided with an outwardly projecting arm, and a winding indicator comprising a supporting arbor, an indicator member fast thereon, a second indicator member loose on the supporting arbor and intermittently rotated by a winding wheel, and a wheel fast on the supporting arbor and intermittently rotated by the said arm.

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1,038,635. METHOD OF CONSTRUCTING FOUNDATIONS. JOHN F. O'ROURKE, New York, N. Y. Filed Oct. 24, 1911. Serial No. 656,417. (Cl. 61—3.)



1. The method of constructing foundations consisting in installing a pneumatic caisson in an excavation in the earth, continuing the excavation in the form of a chamber below such caisson, filling such chamber with foundation material, continuing the excavation in the form of a chamber below such filling, and filling such chamber with foundation material.

2. The method of constructing foundations consisting in inserting a pneumatic caisson containing a working shaft in an excavation in the earth and maintaining said caisson in such position, producing a chamber in the earth beneath such caisson through said working shaft, and filling said chamber with foundation material into contact with the filling above and forming a working shaft in the second named filling.

3. The method of constructing foundations consisting in inserting a pneumatic caisson containing a working shaft in an excavation in the earth and maintaining said caisson in such position, producing a chamber in the earth beneath such caisson through said working shaft, filling said chamber with foundation material into contact with the filling above and forming a working shaft in the second named filling, excavating another chamber below the second named filling, and filling the last named chamber with foundation material.

4. The method of constructing foundations consisting in inserting a pneumatic caisson containing a working shaft in an excavation in the earth and maintaining said caisson in such position, producing a chamber in the earth beneath such caisson through said working shaft, filling such chamber with foundation material into contact with

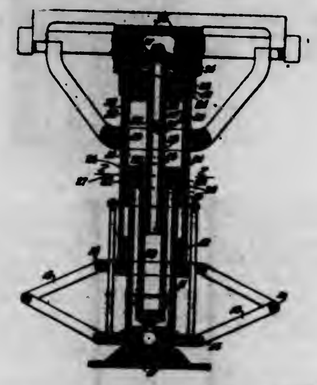
the filling above and forming a working shaft in the second named filling, excavating another chamber below the second named filling, filling the last named chamber with foundation material, binding the meeting faces of said fillings, and charging said working shafts with foundation material.

5. The method of constructing foundations consisting in producing in an excavation a permanently fixed caisson having an opening therethrough, continuing the excavation in the form of a chamber below the caisson, filling such chamber with foundation material and forming in such material an opening through the same communicating with the opening in the caisson, continuing the excavation in the form of a chamber below such filling, and filling such chamber with foundation material.

[Claims 6 to 9 not printed in the Gazette.]

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1,038,636. EXPANSIBLE CHAMBER. HENRY E. OXNARD, Newton, Mass. Filed May 18, 1910. Serial No. 562,011. (Cl. 21—50.)



1. An expansible chamber, comprising the combination of a round casing with a plunger therein, an everted sleeve septum between them, and a soft, resilient disk septum at each end of the sleeve, mounted on the opposing chamber ends, and each joined to one of the sleeve ends.

2. In an expansible chamber comprising a round casing, a plunger and an everted sleeve septum; a fastening for the sleeve, comprising a soft, resilient disk septum; the sleeve septum being arranged in contact with the periphery thereof.

3. In an impervious chamber comprising a round casing, a plunger and an everted sleeve septum, composed of rubber and a supporting material; a fastening for the septum, comprising an annular peripheral adhesive attachment of rubber; a radial arrangement of ends of the supporting material, and means to grip the said supporting material in an axial direction.

4. In an expansible chamber comprising a round casing, a plunger and an everted sleeve septum, composed of rubber and a supporting material; a fastening for the septum, comprising two rubber disks, having the said supporting material of the septum end intervening between them in part, and the disks being connected by contiguous rubber in part, thus enveloping the supporting material end in rubber.

5. A laminated everted sleeve septum, in combination with means to fasten the same in place, comprising disks lapping alternately with the layers of the septum, one of the disks being soft, resilient and impervious.

[Claims 6 to 14 not printed in the Gazette.]

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1,038,637. KNOTTER FOR GRAIN-BINDERS. JAMES O. PARSONAGE, Hester, N. Y. Filed Mar. 22, 1912. Serial No. 685,606. (Cl. 56—33.)

1. A knotter for grain binders, comprising a rotary stem with fixed bill member, a movable bill member, and a laterally deflectable spring acting upon said movable bill member and arranged longitudinally in relation to the rotary stem.



2. A knotter for grain binders, comprising a rotary stem with fixed bill member, a movable bill member, and a laterally deflectable spring acting upon said movable bill member and arranged longitudinally in relation to the rotary stem inside the outer circumference of the rotary stem.

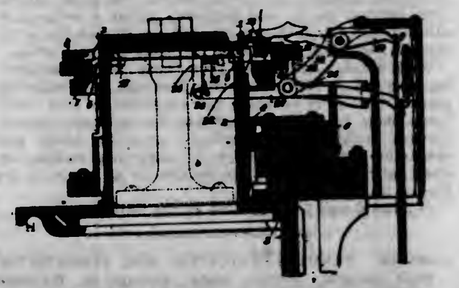
3. A knotter for grain binders, comprising a rotary stem with laterally projecting fixed bill member, a movable bill member pivoted thereto and having a notch in its upper side, and a laterally deflectable spring arranged longitudinally to the rotary stem and having its lower end entered into the notch of the movable bill member.

4. A knotter for grain binders, comprising a longitudinally grooved rotary stem with rigid laterally projecting bill member at its lower end, a movable bill member pivoted thereto, and a laterally deflectable spring located within the groove of the rotary stem in longitudinal position thereto and having its lower end connected in operative relation to the movable bill member.

5. A knotter for grain binders, comprising a rotary stem with fixed bill member, a movable bill member pivoted thereto, and a laterally deflectable spring acting upon said movable bill member and arranged longitudinally in relation to the rotary stem, and an encompassing collar for the rotary stem also inclosing and retaining the upper end of the spring.

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1,038,686. KNITTING-MACHINE. EMILIAS PAQUETTE, Lowell, Mass., assignor to Lawrence Manufacturing Company, Lowell, Mass., a Corporation of Massachusetts. Filed May 22, 1911. Serial No. 628,764. (Cl. 66—26.)



1. A knitting machine, having, in combination, needles, means for forming a knitting wave in the needles, devices for casting off the fabric at the knitting point, and means for interrupting the operation of the cast-off devices during the running on of the fabric, substantially as described.

2. A knitting machine, having in combination, needles, means for forming a knitting wave in the needles, devices for casing off the fabric at the knitting point, and mechanism acting to render the cast-off devices inactive in running on the fabric and again active after the yarn has been fed to the needles for several courses, substantially as described.



3. A knitting machine, having, in combination, needles, means for forming a knitting wave in the needles, sinkers, means for actuating the sinkers to cast off the fabric at the knitting point, and devices for rendering the sinkers inactive to cast off the fabric when running on the fabric, substantially as described.

4. A knitting machine, having, in combination, needles, means for forming a knitting wave in the needles, sinkers, sinker cams for actuating the sinkers to cast off the fabric at the knitting point, and means for throwing the sinker cams out of active relation with the needles at the knitting point when running on the fabric, substantially as described.

5. A knitting machine, having, in combination, needles, means for forming a knitting wave in the needles, sinkers, a sinker cam ring, and means for shifting the ring out of its normal position when running on the fabric, and returning it to normal position after the yarn has been fed to the needles for several courses, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

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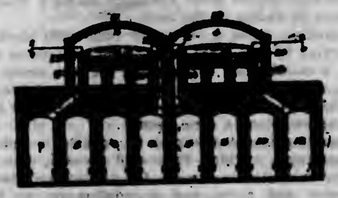
1,038,639. SEAL. ALFONSO M. FAULKNER, Richmond, Va. Filed Nov. 29, 1912. Serial No. 734,792. (Cl. 229—78.)



A three-piece seal including a cap formed of a base member and a cover member having marginal interfitting portions which spring into locking engagement upon the members being pressed together, said base member having a concentrically arranged circular series of openings, and a locking plate having a continuous series of pointed locking tongues adapted to be passed outwardly through the back and flap of an envelop, thence through said openings and into said cap, and finally clenched radially upon the inner face of said base member with a resultant clamping of the sealed portions of the envelop between said base member and said plate.

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1,038,640. REGENERATIVE FURNACE. PETER PASTUSAN, Pittsburgh, Pa. Filed Sept. 18, 1911. Serial No. 649,463. (Cl. 75—64.)



Twin regenerative furnaces having a central partition wall, furnace chambers on each side thereof, regenerators located under the twin furnaces and regenerator flues rising therefrom on each side of said central wall and at the outer sides of the furnace chambers.

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1,038,641. WATER-CARRIER. WILBERT W. PRENZ, Echo, Oreg. Filed Jan. 26, 1911. Serial No. 604,912. (Cl. 21—19.)

A water carrier comprising a hollow body journaled for rotation, means for tilting the body located at the axis about which the body rotates, a vent provided upon the body at one side of its axis, said body having a covered opening located at the opposite side of its axis from that side at which the vent is located.



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1,038,642. WASHER FOR GLASS GAGES, &c. EDWARD L. PERRY, Jr., Paterson, N. J. Filed Mar. 11, 1912. Serial No. 683,179. (Cl. 73—54.)



1. A packing composed of expansible material, having a pressure-receiving chamber extending into the packing body from the exterior thereof at an angle to the joint-forming wall of the packing and providing lips at opposite sides, and connecting members between the walls of said chamber, spaced apart therein.

2. A packing composed of a ring of expansible material, said ring having an annular expansion chamber inclined from the edge of its inner wall, and a series of integral partitions spaced apart in said chamber and connecting the opposite walls thereof.

3. An elastic packing for gage-glasses, said packing consisting of a ring of elastic material having parallel outer and inner sides and one end flat and the other outwardly inclined, and having a circumferential expansion-chamber extending from the mounting edge of said inner side and inclined end, and at an inclination to both, and integral partitions bridging said chamber at intervals, and connecting the opposite walls thereof.

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1,038,643. PIANO-VIOLIN. AUGUST PHILIPPS, Frankfort-on-the-Main, Germany, assignor to Frankfurter Musikwerke-Fabrik J. D. Philipps & Söhne Akt. Ges., Frankfort-on-the-Main, Germany. Filed Nov. 1, 1911. Serial No. 657,979. (Cl. 84—46.)



1. The combination with a string musical instrument and a bow therefor, of a plurality of operating rails for the bow, guiding means for the bow, and a driven roller engaging said rails to operate the bow.

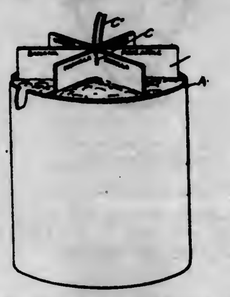
2. The combination with a string musical instrument and a bow therefor, of a plurality of operating rails for the bow, guiding means for the bow, a driven roller engaging said rails to operate the bow, and means for moving the roller into and out of engagement with said rails, substantially described.

3. The combination with a string musical instrument and a bow therefor, of a plurality of operating rails for the bow, guiding means for the bow, a [illegible] shaft

adapted to be driven in one direction, a roller on said shaft, and means engaging said shaft to move said roller into and out of engagement with said rails, substantially described.

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1,038,644. DIVISIONAL RECEPTACLE. JOHN ALEXANDER PHIN, Toronto, Ontario, Canada. Filed Dec. 22, 1911. Serial No. 667,816. (Cl. 206—44.)



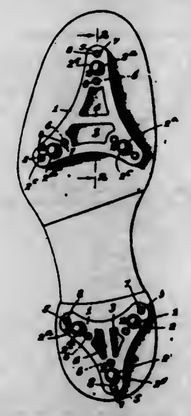
1. The combination with a receptacle having an inturned rim at its peripheral edge, of a series of cards having shoulders designed to come in contact with the rim and forming divisions, said cards extending upward beyond said rim.

2. The combination with a receptacle having an upper rim, of a series of cards having shoulders designed to come in contact with the upper rim forming divisions, and extensions on the upper ends of the cards having imprinted thereon an indicating name as and for the purpose specified.

3. The combination with a receptacle, of a plurality of cards connected together in the center and formed so as to extend radially toward the wall of the receptacle and projecting upwardly from the mouth of the receptacle to clearly present a portion of said cards to view when said receptacle is filled with candy or the like.

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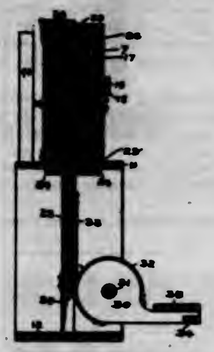
1,038,645. ANTISLIP-CLEAT. GEORGE L. PIERCE, New York, N. Y. Filed Apr. 6, 1910. Serial No. 553,886. (Cl. 36—59.)



An anti-slip cleat for shoes, comprising a base plate of generally triangular shape and having an open center and a transverse web bridging the same, a plurality of ground-entering parts, one being located at each corner of the base plate and being disposed between the inner and outer margins thereof, and sets of fastening devices for securing the base to the shoe, the devices of each set being located on opposite sides of each ground-entering part and each set being disposed on a substantially radial line proceeding from the center of the cleat.

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1,038,646. BLOCK-MAKING MACHINE. HARRY H. PIERCE, Indianapolis, Ind. Filed Jan. 10, 1911. Serial No. 601,816. (Cl. 25—41.)



1. A molding table having an opening, a removable closure making a working fit in said opening, core pieces carried by said closure, cam-levers, means by the operation of said cams for raising and lowering the closure, a molding-box in folding hinged sections surrounding the hole in the table and cores and adapted to be opened to release the product of the machine and holding means from the box to the core adapted by the lowering of said closure and core to release the core.

2. A molding table, a vertically removable block, core pieces carried by said block, a guide board depending from said block, cam-levers, a pair of oppositely wrapped straps on each cam connecting it with said guide board above and below the cam whereby the guide board may be raised or lowered by correspondingly rocking the cam, a molding-box in hinged-together sections surrounding the core pieces and adapted to be opened to release the product of the machine, means to hold the top of a core-piece in position and to automatically release the core by the lowering of the core.

3. In a machine for molding building blocks, a molding-box in a plurality of hinged-together sections adapted to be opened out to release the product of the machine, the oppositely disposed sides of said box having formations in opposite directions for the two sides to produce irregularities in the sides of the block product and means on the back-section to move the block forward when said back-section is swung to the rear.

4. A molding table, a vertically removable block, core pieces carried by said block, one of said core pieces having a socket, a molding-box surrounding the core pieces and a centering and holding means comprising a rod hinged at one end to the box and having a hook at its other end to engage the socket of a core piece.

5. A molding machine having an opening, a removable closure making a working fit in said opening, core pieces carried by said closure, means for raising and lowering said closure and cores, and a molding-box in folding hinged sections surrounding the hole in the table and the cores adapted to be opened to release the product, the rear member being also hinged at its lower end to the table and inwardly oblique at that end to cause its inner edge to project over the opening when the member is swung back.

[Claim 6 not printed in the Gazette.]

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1,038,647. CARVING-DISH. WILLIAM J. PITT, Bodmin, Cornwall, England. Filed Feb. 28, 1912. Serial No. 680,472. (Cl. 65—15.)

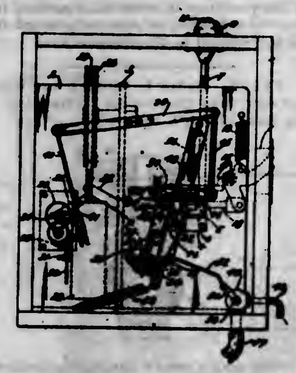
1. A carving dish provided with a central raised portion around which is a deep groove, said central raised portion being also provided with a recess with which said groove communicates, and said central raised portion being also provided in the top surface thereof with grooves which cross each other at an angle and one of which communicates with said recess and the other of which communicates centrally thereof with the groove which communicates with said recess the ends of said last named groove being closed and provided with apertures through which a skewer may be passed.



2. A carving dish provided with a central raised portion at one end of which is a recess and around which is a deep groove which communicates with said recess, the central raised portion being also provided with grooves which cross each other at right angles and one of which communicates with said recess and the other of which is closed at its ends and communicates with the groove which communicates with the recess, the closed ends of the last named grooves being provided with apertures through which skewers may be passed.

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1,038,648. VENDING-MACHINE. GEORGE PLOOGER, Antigo, Wis. Filed Nov. 17, 1911. Serial No. 660,774. (Cl. 161—7.)



1. A vending machine, comprising a valve, a pivoted bar adapted to operate the same, a locking lever, a trip lever pivoted upon the bar and adapted to engage the locking lever, a bell-crank lever, a clockwork mechanism adapted to operate the bell-crank lever and thereby operate the valve, and means operated by the clockwork adapted to release the trip lever from the locking lever.

2. A vending machine, comprising a valve, a pivoted bar adapted to operate the same, a bell-crank lever, means connecting said lever and said bar, means adapted to disconnect said bell-crank lever from said bar at a predetermined time, means adapted to return said bar to normal position and thereby close the valve, and means adapted to operate the bell-crank lever.

3. A vending machine, comprising a valve, a pivoted bar connected therewith and adapted to operate the same, a locking lever, a trip lever pivoted upon the bar and adapted to connect the locking lever with the bar, a bell-crank lever connected with the locking lever, clockwork mechanism adapted to operate the bell-crank lever and thereby cause the bar to open the valve, means operated by the clockwork mechanism adapted predeterminedly to disconnect the trip lever from the locking lever, and means adapted to throw the bell-crank lever to operative position.

4. A vending machine, comprising a valve, a bell-crank lever, a plunger, a sleeve adapted to hold the plunger and cylinder in alinement, means adapted to cause the plunger to move the bell-crank lever to operative position, means operatively connecting the bell-crank lever with the valve, and weight-operated mechanism adapted to operate the bell-crank lever.

5. A vending machine, comprising a bell-crank lever, a cylinder pivoted thereupon, an operating lever, means to move the bell-crank lever to operative position, a pawl adapted to hold the bell-crank lever in such position, means on the operating lever adapted to hold the bell-crank lever in such position, means on the operating lever adapted to release the pawl when the operating lever returns to position, a valve, operating mechanism for the valve controlled by the bell-crank lever, and means for operating the bell-crank lever.

[Claim 6 not printed in the Gazette.]

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1,038,649. EYEGLASSES. LAWRENCE POSTON, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Corporation of Massachusetts. Filed Oct. 21, 1911. Serial No. 655,975. (Cl. 88—47.)



1. The combination with a lens clip, of a lens fitting therein and having an aperture formed therethrough, and means carried by the clip and engaging a wall of the aperture in the lens at an acute angle to said wall to wedge the lens in correct position within the clip.

2. The combination with a lens clip, of a lens fitting within the clip and having a portion thereof cut away to provide an inclined wall, and means carried by the clip and bearing against said inclined wall for wedging the lens within the clip.

3. The combination with a lens clip, of a lens having a countersunk lens screw receiving aperture formed therein, and means carried by the clip and engaging said countersunk portion for locking the lens in position in the clip.

4. The combination with a lens clip, of a lens mounted therein, a lens screw passing transversely of the clip and lens, and means for locking both the lens and the screw in position in the clip.

5. The combination with a lens clip, of a lens fitting therein, a lens screw, and means for wedging the lens against rocking in the clip and for also locking the lens screw in position.

[Claim 6 not printed in the Gazette.]

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1,038,650. GEAR-GENERATING MACHINE. FREDERICK E. POMEROY and JOSEPH D. HARBAUGH, Muncie, Ind. Filed June 28, 1911. Serial No. 635,727. (Cl. 90—9.)



1. In a machine of the kind described, the combination with the segmental arm 163 of an interchangeable base

block, a coöperative rib and groove on the said base block and said arm for interchangeably locking them, a sector gear, means carried by the base block to permit the sector gear to be moved to and secured at different adjusted positions thereon concentrically of the meeting point of the meshing pitch lines of the sector gear and the crown gear segment.

2. An interchangeable sector gear device for a machine of the character described, comprising a base block having a frontal flat surface and its rear side being of curvature and having a longitudinal rib to fit the corresponding groove in the segmental arm 163, a pivot stud projecting from the face of the said base block, a sector gear member adapted to mesh with the crown gear segment and having a pitch to correspond to that of the gear to be generated, there being a hole in said sector gear located adjacent to the pitch line and equidistant from its ends, a threaded stud projecting from the face of said base block, to engage an arcuate slot provided in said segmental gear member, a nut on said threaded stud to be screwed down thereon to lock the sector gear member to the block, and means to lock the base block to the arm 163.

3. In a machine of the kind described, the combination with the segmental arm 163 of an interchangeable base block, means to secure the base block to the arm, a stud on the said base block, a sector gear having a hole adjacent the pitch line of its teeth to coöperate with the said stud, means to lock the sector gear at different positions concentrically of the said stud.

4. In a gear generating machine of the character described, the combination with the segmental arm 163 of an interchangeable base block carried by said arm, a sector gear, means carried by the base block to permit the sector gear to be moved to and secured at different adjusted positions thereon concentrically of the meeting point of the meshing pitch lines of the sector gear and the crown segment.

5. In a gear generating machine of the kind described, in combination with the segmental arm 163, a sector gear capable of adjustment to varied positions longitudinally of said arm and concentrically of the crown gear segment, and means to hold the sector gear at different adjusted positions.

[Claims 6 to 14 not printed in the Gazette.]

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1,038,651. SANITARY BOTTLE-CLOSURE. ALBERT D. RAY and CHARLES H. RUSSMAN, Cleveland, Ohio. Filed Apr. 12, 1911. Serial No. 620,995. (Cl. 215—9.)



A bottle closure, consisting of a single blank of nonmetallic material comprising a disk member and an integral angular shaped bottle bead engaging and covering rim, said disk member having a peripheral locking projection engaging within the groove of the mouth of the bottle and said rim member consisting of an upwardly projecting inwardly inclined annular wall, terminating in a flat horizontally extending portion and an inwardly inclined depending portion forming a constricted exterior bottle bead engaging member.

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1,038,652. COMBINED MAILING-CARD AND FRAME. CLARENCE K. REESE, Cleveland, Ohio, assignor to The Reese & Crittenden Co., Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 28, 1912. Serial No. 686,786. (Cl. 120—74.)

1. A mailing card, comprising a cardboard body, partially cut to form a mat or frame opening but leaving integral connecting parts, and a plurality of retaining parts thereon adjacent to the partially cut opening, substantially as set forth.

2. In a combined mailing card and frame, the combination with a card-board body having a mat-opening partially cut therein, and retaining parts provided adjacent thereto in line with the horizontal and vertical axes of the card, of a picture mounted beneath said retaining parts, substantially as set forth.



3. A convertible mailing card, comprising a card-board body having a mat-opening cut therein, a removable integral address-bearing portion normally occupying said opening and a plurality of retaining parts for holding a picture in position before the opening, substantially as set forth.

4. A convertible mailing card, comprising a card-board sheet having a mat-opening partially cut centrally thereof to leave a plurality of integral portions, and a plurality of integral picture-supporting points cut adjacent to said integral parts, substantially as set forth.

5. A convertible mailing card, comprising a card-board sheet centrally cut through by a plurality of separate curved lines which together define a mat-opening and integral points cut peripherally about said opening to form retaining parts for a picture, substantially as set forth.

[Claim 6 not printed in the Gazette.]

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1,038,653. VALVE. EDGAR L. ERDECK and DONALD MACKAY MACLEOD, Lake Charles, La. Filed Aug. 12, 1911. Serial No. 643,325. (Cl. 137—7.)

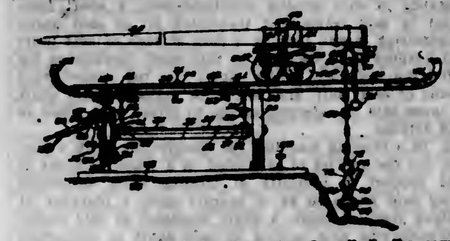


A valve comprising a casing having an annular flange at the upper end thereof, a valve body rotatably mounted in the casing and having a transverse circular opening arranged at one side of its axis of rotation, a removable head closing the upper end of the valve casing, a resilient gasket interposed between said head and said annular flange, a stem formed on the valve body and extending upwardly through said head, a washer surrounding said stem at its junction with said valve body, said washer being surrounded by said gasket, a packing gland connected with said head and surrounding said valve stem, coupling extensions formed at the opposite sides of said valve casing and having passages in alinement with the opening in said valve body, and means secured to said valve stem for rotating the same.

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1,038,654. RAIL-LAYING APPARATUS. JOHN RENNIE, Sycamore, Ill., assignor to Rail Laying Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 24, 1910. Serial No. 578,762. (Cl. 104—16.)

1. In apparatus of the character described, the combination with a truck, of a transversely arranged track, and means for removably securing the track to the truck comprising clips and a removable link.



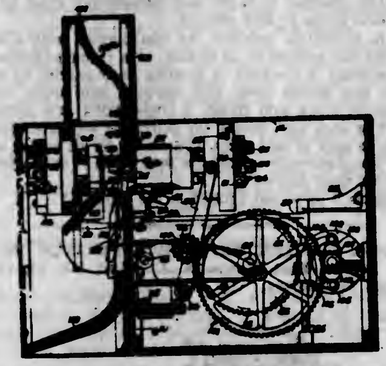
2. In apparatus of the character described, the combination with a truck provided with flanged side members, a transversely arranged track comprising rails and cross pieces connecting said rails together, clips on said track which engage with the flanges of the truck side members, and a removable link which holds said track in position on the truck.

3. In apparatus of the character described, the combination with a truck comprising side members composed of I beams, a track comprising rails and cross pieces connecting said rails together, transverse members on the I beams which prevent the spreading of the rails, clips on the under side of said rails adapted to engage with the flanges of said I beams, and a link secured to one of said I beams and to said track.

4. In apparatus of the character described, the combination with a truck, of a transversely arranged track, means for removably securing the track to the truck comprising clips and a removable link, and means adapted to prevent the tilting of the truck.

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1,038,655. COIN-SELECTOR. GEORGE C. SMITH and GEORGE F. FLAMM, Philadelphia, Pa., assignors to Edward F. Simmon, trustee, Philadelphia, Pa. Filed Aug. 20, 1909. Serial No. 513,215. (Cl. 194—97.)



1. The combination in a coin selector of coin directing means, and electrically controlled mechanism depending for its operation upon differences in the thickness of the parts of a coin, for governing said means.

2. The combination in a coin selector of coin directing means, an electromagnet controlling said means, a switch and a source of current in circuit with said magnet, and means depending for its action upon differences in the thickness of the parts of a coin, for governing the operation of said switch.

3. The combination in a coin selector of a valve, an electromagnet controlling said valve, a switch and a source of current in circuit with said magnet, means depending for its operation upon variations in the thickness of a coin for controlling said switch, and a device for presenting a coin to said latter means.

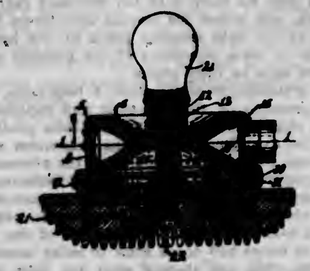
4. The combination in a coin selector, of a valve, an electromagnet controlling said valve, a switch and a source of current in circuit with said magnet, means depending for its operation upon variations in the thickness of the coin, and an automatically acting device for presenting a coin to said latter means.

5. The combination in a coin selector of a series of members mounted to be capable of engaging different points on the face of a coin, means for presenting a coin to said members, a switch controlled by said members, and electrically actuated mechanism in circuit with said switch for determining the path of a coin after it has been released from engagement with said members.

[Claims 6 to 22 not printed in the Gazette.]

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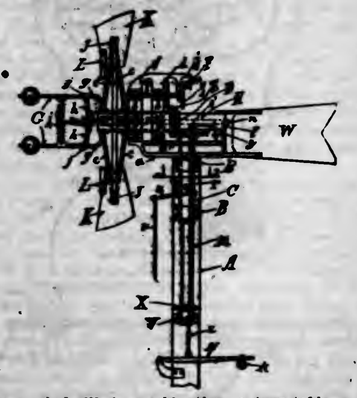
1,038,656. SPRAY-VIBRATOR. JEAN G. F. RENNIE, Waterbury, Conn. Filed June 6, 1910. Serial No. 565,365. (Cl. 128—16.)



The combination of a casing, a fluid motor rotatable in the casing and provided with a shaft projecting through the casing, an inlet member for the casing arranged to direct fluid against the motor to rotate the same, the casing having passages in one side giving exit to the water after engaging the motor, a massage device carried by the shaft outside of the motor, such device having passages registering with the said outlet passages in the casing during the rotation of the device whereby the water after driving the motor will pass through the massage device during its rotation, and means for regulating the passage of the water from the casing to the massage device.

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1,038,657. WINDMILL. RAPHAEL D. RICHARD, Westchester Lake, Nova Scotia, Canada. Filed Oct. 9, 1909. Serial No. 521,916. (Cl. 170—2.)



1. In a windmill, in combination, a turn-table, a wheel rotatably mounted on the turn-table and including arms and fixed rings and a movable ring, sails pivotally secured to the fixed rings and having connection with the movable ring, crank-arms journaled on the aforesaid arms, and at one end engaging said movable ring and at their

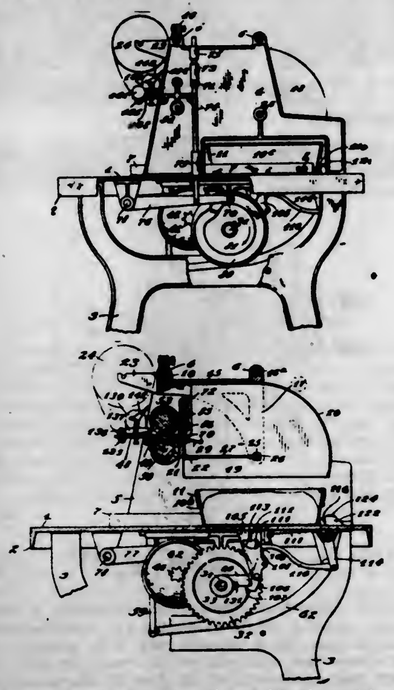
opposite ends carrying a gear segment, levers pivoted on the first-mentioned arms and each having a segment gear for mesh with one of the aforesaid gear segments of the crank-arms, and means for moving said levers on their pivots to effect operation of the meshing gear segments of the levers and crank arms to cause movement of the movable ring and shift the sails on their pivots.

2. In a windmill, in combination, a turn-table, a wheel rotatably mounted on the turn-table and including a hub, arms radiating from the hub, fixed rings secured to said arms and a movable ring mounted for coöperation with said fixed rings, sails pivotally secured to the fixed rings and having connection with said movable ring, crank arms journaled on the aforesaid arms and having engagement with said movable ring and each carrying a gear, a regulating bar journaled through the hub of said wheel, levers having connection with said regulating bar and with said arms and each of the levers carrying a gear for mesh with the aforesaid gears of the crank arms, and means for moving said levers to effect operation of the said meshing gears of the levers and crank arms to cause movement of the movable ring and to shift the sails on their pivots.

3. In a windmill, in combination, a turn-table, a wheel rotatably mounted on the turn-table and including arms and fixed rings and a movable ring, sails pivotally secured to the fixed rings and having connection with the movable ring, crank arms journaled on the aforesaid arms and each carrying a gear, levers movably mounted on the first mentioned arms and each having a gear for mesh with the aforesaid gears of the crank arms, and means for moving said levers to effect operation of the meshing gears of the levers and crank arms to cause movement of the movable ring and thereby shift the sails on their pivots.

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1,038,658. LABELING-MACHINE. WILLIAM ROBERTSON, Cleveland, Ohio. Filed Apr. 24, 1911. Serial No. 622,912. (Cl. 216—12.)



1. In a labeling machine, the combination, with a support for the articles to be labeled, of a frame adjacent to said support, a plurality of labeling units carried by said frame and adjustable thereon so as to operate upon a plurality of said articles simultaneously, a shaft journaled in said frame and traversing all of said units, transferring means forming a part of each of said units and adapted to be operated by said shaft, mechanism for delivering separate labels singly to the transferring means of each unit, and means for actuating said shaft to cause said transferring means to attach said labels to said articles.

2. In a labeling machine, the combination, with a support for the articles to be labeled, of a frame adjacent to said support, a plurality of labeling units adjustable along said frame so as to operate upon a plurality of articles simultaneously, a shaft journaled in said frame, a transferring arm carried by said shaft in connection with each of said units, means for delivering separated labels singly to each of said arms, and means for actuating said shaft to swing said arms and transfer said labels to said articles.

3. In a labeling machine, the combination, with a support for the articles to be labeled, of a frame adjacent to said support, a plurality of labeling units carried by said frame, a shaft journaled in said frame and traversing all said units, collars slidably but non-rotatably sleeved upon said shaft, there being one collar for each of said units, an arm carried by each of said collars, means for delivering separated labels singly to each of said arms, and means for rotating said shaft to transfer said labels to the surface of articles on said support and affix said labels thereto.

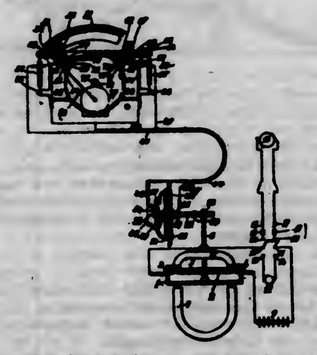
4. In a labeling machine, the combination, with a support for the articles to be labeled, of a frame secured above said support, a plurality of labeling units carried by said frame and adjustable thereon so as to operate upon a plurality of said articles simultaneously, an operating member carried by said frame and traversing all of said units, a swinging arm associated with and forming a part of each of said units and adapted to be operated by said member, mechanism for delivering separate labels singly to said arms, and means for actuating said operating member to cause said transferring arms to attach said labels to said articles.

5. In a labeling machine, the combination, with a support for the articles to be labeled, of a frame adjacent to said support, a plurality of labeling units carried by said frame and spaced from said support, said units being adjustable along said frame, a transferring arm forming a part of each unit, means for delivering separated labels singly to each of said arms, and means for actuating said arms simultaneously to transfer said labels to said articles and affix them thereto.

[Claims 6 to 24 not printed in the Gazette.]

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1,038,659. ELECTRIC METERING APPARATUS. FRANK W. ROLLER, East Orange, N. J. Filed Jan. 19, 1911. Serial No. 603,484. (Cl. 171—34.)



1. In an electric metering apparatus, the combination with a motor element comprising a continuously rotating motor actuated by the current to be measured, indicating mechanism mechanically dissociated from said motor element and electrical means for controlling said mechanism according to the operation of said motor, said electrical means comprising conductors extending from said motor element to said indicating mechanism and means for reversing the indicating mechanism when the rotation of the motor is reversed.

2. In an electric metering apparatus, the combination with a motor element comprising a continuously rotating motor actuated by the current to be measured, indicating mechanism mechanically dissociated from said motor element and electrical means for controlling said mechanism according to the operation of said motor, said electrical means comprising conductors extending from said motor element to said indicating mechanism and means for automatically reversing the indicating mechanism when the rotation of the motor is reversed.

3. In an electric metering apparatus, the combination with an indicating element comprising an indicator and mechanism for operating said indicator in both directions but at a different rate in one direction from that in the other, of a motor element mechanically dissociated from said indicating element, comprising a motor adapted to be actuated by current to be measured and electrical means for controlling the operation of said mechanism in both directions of movement of the indicator according to the operation of said motor, said electrical means comprising conductors extending from said motor element to said indicating element.

4. In an electric metering apparatus, the combination with an indicating element comprising an indicator and mechanism for operating the same, of a motor element mechanically dissociated from said indicating element, comprising a motor adapted to be actuated by the current to be measured and a contacting device driven by said motor, and electrical conductors extending from said contacting device to the indicating mechanism, said contacting device comprising a contact and a second contact movable toward and away from the aforesaid contact to make and break the circuit therethrough and means for causing said second contact to move away from the other contact at a greater speed than it is driven by said motor.

5. In an electric metering apparatus, the combination with an indicating element, of a motor element mechanically dissociated therefrom, said motor element comprising a motor adapted to be actuated by the current to be measured and a contacting device actuated by said motor, and conductors extending from said contacting device to said indicating element, said contacting device comprising means for producing a magnetic pole, an elastically mounted contacting member adapted to be moved into and out of the attractive influence of said pole and means whereby said contact member is driven by said motor.

[Claims 6 to 8 not printed in the Gazette.]

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1,038,660. RIBBON-SPOOL FOR ADDING-MACHINES. WILLIAM A. ROTTER, Chicago, Ill., assignor to Comptograph Company, a Corporation of Illinois. Filed Apr. 24, 1907. Serial No. 369,989. (Cl. 197—175.)



1. In an adding-machine, in combination, a ribbon-spool holder having a removable flange and a fixed flange with a hub and stud-pin, and a core adapted to hold the wound-up ribbon and to be removably placed upon the aforesaid hub and stud and held thereon by the aforesaid removable flange of the ribbon-spool holder, substantially as specified.

2. In an adding-machine ribbon-holding device, a ribbon spool holder having a removable flange and a fixed flange with a hub, a core adapted to hold the wound-up ribbon and having the center hole 27 and lateral means for engaging the non-removable member of the ribbon-holding spool of the adding-machine, substantially as specified.

3. In an adding-machine, in combination, a ribbon-spool holder and a ribbon-spool consisting in a core adapted to carry the wound-up ribbon and to be removably inserted in said ribbon-spool holder, said core having a socket within its peripheral edges and adapted to engage the ribbon-reversing mechanism of the adding-machine, substantially as specified.

4. In an adding-machine, in combination, a ribbon-spool holder having a removable flange and a fixed flange with a hub and stud-pin, and a core adapted to hold the wound-up ribbon and to be removably placed upon the aforesaid hub and stud and held thereon by the aforesaid removable flange of the ribbon-spool holder, said core having means adapted to engage the ribbon-reversing mechanism of the adding-machine, substantially as specified.

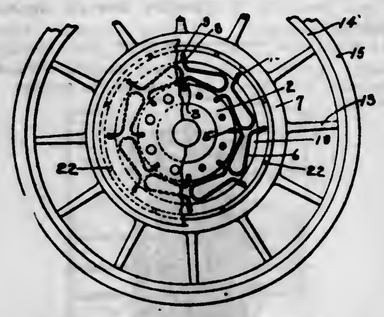
5. In an adding-machine, in combination, a ribbon-spool holder and a ribbon-spool consisting in a core adapted to carry the wound-up ribbon and to be removably inserted in said ribbon-spool holder, said core having a socket 33 within its peripheral edges and adapted to engage the ribbon-reversing mechanism of the adding-machine, substantially as specified.

[Claims 6 to 9 not printed in the Gazette.]

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1,038,661. VEHICLE-WHEEL. CHARLES A. RUSSELL, Providence, R. I. Filed Sept. 27, 1910. Serial No. 584,066. (Cl. 152—44.)

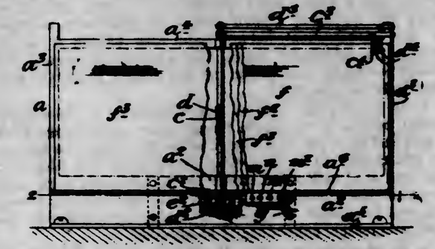


1. A wheel comprising a hub, a hub ring encircling the same, a plurality of springs interposed between said hub and said hub ring, said springs being each formed of an elongated U-shaped body having arms of unequal length, the ends of said arms being connected to the hub and hub ring respectively, and approximately in radial alinement with the center of the hub, whereby the shorter arms of each spring will lie close to the hub when the wheel is rotating in one direction, and will contact with said hub when rotation of the wheel is reversed.

2. A wheel comprising a hub, a hub ring encircling the same, a plurality of springs interposed between said hub and said hub ring, said springs being each formed of an elongated U-shaped body having arms of unequal length, said hub and hub rings being provided with recesses in which the ends of the springs are pivotally mounted, said ends being approximately in radial alinement with the center of the hub, and a rim supported by said hub ring.

3. A wheel comprising a hub, a hub ring encircling the same, a plurality of elongated U-shaped springs interposed between said hub and said hub ring, and having their opposite ends loosely connected to said hub and hub ring respectively, the short arms of said springs lying close to the hub when the wheel is rotated in one direction and contacting with the hub when the rotation of the wheel is reversed, and supporting side plates engaging and overlapping the hub and the hub ring to permit vertical movement and yet prevent lateral movement of the hub ring and springs relative to the hub.

1,038,662. MUSIC-SHEET TURNER. MICHAEL J. RYAN, Perth Amboy, N. J. Filed Mar. 26, 1912. Serial No. 686,237. (Cl. 84—17.)



1. In a music sheet turner, the combination with a music sheet support of two vertically disposed rock shafts one within the other, gears at the lower end of said shafts, arms pivoted adjacent to said gears and provided with segmental gears engaging said first named gears, reciprocating armature bars which engage said arms and means for reciprocating said bars to rotate said rock shafts in either direction.

2. In a music sheet turner, the combination with a music sheet support of two vertically disposed rock shafts one within the other, gears at lower end of said shafts, arms pivoted adjacent to said gears and provided with segmental gears engaging said first named gears reciprocating armature bars engaging said arms for reciprocating said bars consisting of oppositely arranged electromagnetic devices.

1,038,663. DOOR-LOCK. GUSTAV SAHMER, Strassburg, Germany. Filed Oct. 5, 1911. Serial No. 652,898. (Cl. 70—52.)



1. The combination with a lock comprising a reciprocating bolt, of a lock bar, coaxially arranged electromagnets, an armature thereto, secured to said lock bar and adapted to move said lock bar into or out of coöperation with said bolt, and electromagnetically controlled means for securing said lock bar in either operative end position.

2. The combination with a lock comprising a reciprocating bolt, of coaxially disposed electromagnets, a reciprocating armature thereto operating between said electromagnets and axially thereof, a lock bar operated by said armature and coöperating with said reciprocating bolt in the one end position, and electromagnetically controlled means for securing said lock bar in either end position.

3. The combination with a lock comprising a reciprocating bolt, of coaxially disposed electromagnets, a reciprocating armature thereto operating axially thereof, a lock bar operated by said armature and coöperating with said reciprocating bolt, and a rocking armature operated by said electromagnets and coöperating with said lock bar for securing it in either operative end position.

4. The combination with a lock comprising a reciprocating bolt, of a lock bar, stop means thereon, electromagnets coaxially spaced apart, a reciprocating armature actuated by said electromagnets and secured to said lock bar, means for securing said lock bar against inadvertent operation consisting of a spring actuated rocking armature operated by said electromagnets and coöperating with said stop means on said lock bar, and means adapted to cause part of the lock bar to recede to its unlocking position when the bolt is shot with the lock bar in the locking position.

5. The combination with a lock comprising a reciprocating bolt, of a lock bar, stop means thereon, electromagnets coaxially spaced apart, a reciprocating armature actuated by said electromagnets and secured to said lock bar, electrically controlled means for securing said lock bar against inadvertent operation consisting of a spring-actuated rocking armature operated by said electromagnets and coöperating with said stop means on said lock bar, and manually operable means for actuating said rocking armature independently of the electrical control, for the purpose of unlocking said bolt.

1,038,664. BOLT AND LOCKING DEVICE THEREFOR. NATALIS SCHELL, New York, N. Y. Filed Sept. 22, 1910. Serial No. 583,179. (Cl. 85—1.)



1. In combination, a bolt and a U-shaped spring metal clip, the bolt having an annular recess and the clip having forked ends, one fork being inserted into straddling position in the annular recess and the other fork being inserted into straddling position on the bolt-shank next the object and there delivering the tension of the clip, the side-arms constituting at least one of the forks being resilient and coöperating with the bolt-shank to prevent its accidental withdrawal from the fork.

2. In combination, a bolt having a recessed shank and a U-shaped spring metal clip having one end which detachably engages the recessed shank of the bolt and having its other end forked to straddle the bolt-shank next the object, the back of said clip being provided with an opening and a transverse groove leading thereto for engagement by a clip-operating instrument.

3. In combination, a bolt and a permanently U-shaped spring metal clip instantly attachable and detachable at will from the bolt, the bolt being annularly recessed and each end of the clip having an open-mouthed fork, one fork being endwise insertible into straddling position in the annular recess and the other fork being endwise insertible into straddling position on the bolt shank next the object, and there delivering the tension of the clip.

4. In combination, a bolt and a permanently U-shaped spring metal clip instantly attachable and detachable at will from the bolt, the bolt being annularly recessed and each end of the clip having an open-mouthed fork, one fork being endwise insertible into straddling position in the annular recess and the other fork being endwise insertible into straddling position on the bolt shank next the object, and there delivering the tension of the clip, the extremities of the side arms, of the forks being upturned, substantially as and for the purposes set forth.

1,038,665. SANITARY PORTABLE WATER-CLOSET. MORRIS SCHILLER, St. Louis, Mo. Filed Mar. 2, 1912. Serial No. 681,249. (Cl. 4—32.)



A device of the class described comprising a receptacle divided into a water compartment and a deposit compartment, a spout leading from the deposit compartment through which the contents can be discharged, a cylindrical wall located in the water compartment, a tapered cylinder located centrally and extending into the deposit compartment, said tapered cylinder provided with a plurality of apertures on a line with the bottom of the water compartment, a valve mechanism located in the water compartment, a valve supported in the central cylinder and operated by the valve mechanism for discharging the water from the compartment through the apertures in the tapered cylinder for flushing the cylinder and conveying the water into the deposit compartment, a seat located on the top of the receptacle and a cover located on said seat, substantially as specified.

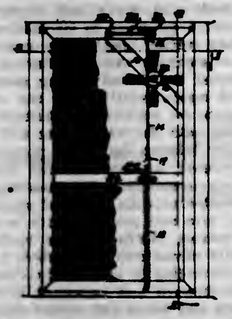


1,038,666. SAFETY-RAZOR. JOHN A. SHEVICH, New Orleans, La. Filed Sept. 8, 1911. Serial No. 648,874. (Cl. 30—12.)



In a safety razor, in combination, a frame provided with roller guards; blade positioning means therebetween said means comprising a pin at one side of the frame and a clamping member at the opposite side of said frame; and a blade provided with inwardly extending lugs coacting with said positioning means whereby it is secured in operative position.

1,038,667. DOOR-FAN. ALBERT SETTERBERG, Denver, Colo. Filed Nov. 16, 1911. Serial No. 660,620. (Cl. 230—7.)



1. A door fan comprising a fan journaled on the door, a flexible device arranged parallel to the hinge of the door and connected in operative relation with the said fan, one extremity of the said flexible device being secured to the upper portion of the door casing, means connected with the opposite extremity of the flexible device and secured to the lower extremity of the door for permitting the flexible device to operate the fan when the door is opened, and a pulley journaled on the upper extremity of the door at right angles to the hinge of the latter and over which the upper extremity of the flexible device passes.

2. A device of the class described, comprising a door, a fan journaled thereon, a pulley connected with the fan, a cable passing around the said pulley and having one extremity fixedly secured to the upper portion of the door casing, a spring having one extremity connected with the door and its opposite extremity secured to the cable, whereby whenever the door is opened the spring is caused to expand and the cable caused to be drawn around the pulley connected with the fan for operating the latter, the said spring acting to close the door and draw the cable in the opposite direction around the pulley when the door is released, and a pulley journaled on the upper extremity of the door and over which the upper extremity of the flexible device is passed, substantially as described.

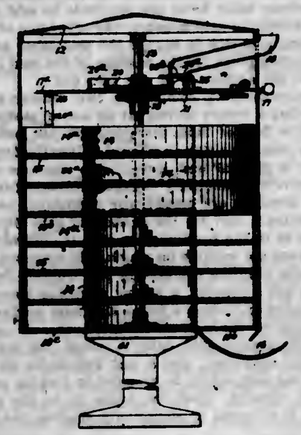
3. A door fan comprising a fan journaled in one corner of the door, the journal of the said fan having a grooved pulley made fast thereto, a flexible device passing around the said pulley, one extremity of the said flexible device being made fast to the upper portion of the door casing, a spring connected with the opposite extremity of the said flexible device and secured to the lower extremity of the door, whereby whenever the door is opened the spring will be caused to expand and the flexible device drawn around the pulley for revolving the fan, substantially as described.

4. A door fan comprising a fan journaled on the door, a flexible device connected in operative relation with the said fan, one extremity of the said flexible device being secured to the door casing, and a spring connected with the opposite extremity of the flexible device and secured to the lower extremity of the door, whereby when the door is open the said spring is caused to expand and the flexible device caused to operate the fan, substantially as described.

5. A device of the class described comprising a door, a fan journaled thereon, means for operating the fan consisting of a cable connected in operative relation with the said fan, one extremity of the said cable being fixedly secured to the door casing, a spiral spring connected with the opposite extremity of the cable, the said spring being fixedly connected to the lower extremity of the door, whereby when the door is opened the spring is caused to expand and the cable caused to operate the fan, and a roller mounted on the door to have a horizontal sliding movement and over which the upper extremity of the cable passes, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,038,668. VENDING-MACHINE. NICHOLAS I. SHEEHAN, Lakewood, Ohio. Filed Mar. 4, 1911. Serial No. 612,239. (Cl. 211—8.)



1. In a vending machine, a casing provided with a vertical spindle therein, a plurality of carriers secured to the spindle and arranged one above the other in different horizontal planes, each carrier being provided with a plurality of circumferentially spaced pockets, each having upright inclosing side walls and being open at the bottom, a stationary horizontal bottom plate beneath each of the carriers and normally maintaining the articles to be vended in the pockets, there being a discharge opening beneath the lowermost carrier and the different bottom plates above the lowermost carrier, each having a discharge opening which is arranged in staggered relation to the adjacent discharge openings.

2. In a vending machine, a casing provided with a vertical spindle arranged centrally thereof, a plurality of carriers secured to the spindle and arranged one above the other in different horizontal planes, each carrier having a

plurality of circumferentially arranged pockets provided with upright side walls and open at the bottom, stationary horizontal partitions arranged between the carriers and constituting bottom plates for the pockets thereof, there being beneath the lowermost carrier a discharge opening and the different partitions having discharge openings each of which is spaced circumferentially from the openings of the adjacent partitions an angular distance equal substantially to twice the width of a pocket.

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1,038,669. PIPE-COUPLING. JAMES H. SHEPHERD, Denver, Colo., assignor of one-half to John C. Reagan, Whitepine, Colo. Filed Sept. 30, 1910. Serial No. 584,741. (Cl. 137—30.)



1. A pipe-coupling comprising two members, clamping elements disposed at opposite sides of one of said members to rotate in unison about a common axis, and having flanges whose inner faces are eccentric to said axis, and a nut adjustable on said member, the other one of said members having cam-ribs to engage the said faces and the said flanges having recesses to admit said nut so as to lock the element against rotation.

2. A pipe-coupling comprising two members, clamping elements disposed at opposite sides of one of said members to rotate in unison about a common axis, and having flanges whose inner faces are eccentric to said axis, and a nut adjustable on said member, the other one of said members having cam-ribs to engage the said faces and the said flanges having ports for the passage of the said ribs and recesses for the admission of the said nut.

3. A pipe-coupling comprising two conduit-members, a valve having a rotary movement on one of said members to control the flow of fluid therethrough, the other member having a cam-rib, a flange on said valve, the inner surface of which is circular and eccentric to the axis of rotation of the valve to clampingly engage with said cam-rib when the two members are operatively connected, and the said flange having a port for the passage of said rib only, when the valve is in the position in which it obstructs the passage through the member on which it is mounted.

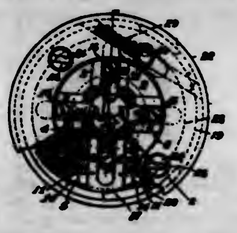
4. A pipe coupling comprising two conduit-members one of which has a cam-rib, a rotary clamping element on the other member, including a flange the inner surface of which is eccentric to the axis of rotation of said element, to clampingly engage said cam-rib when the members are operatively connected, and a nut adjustable on the other member and adapted to be brought in locking engagement with said element, when the latter is in the position to which it is adjusted to clampingly connect the said members.

5. A pipe coupling comprising two conduit members one of which has a cam rib, a rotary clamping element on the other member, including a flange the inner face of which is eccentric to the axis of rotation of said element, to clampingly engage said cam rib when the members are operatively connected, and a nut adjustable on the other member, the said flange having a recess to admit said nut whereby to lock said element against rotation when the latter is in the position to which it is adjusted to clampingly connect the said members.

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1,038,670. THREADING-DIE. OSCAR A. SMITH, Cleveland, Ohio, assignor to The National-Acme Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 30, 1911. Serial No. 617,834. (Cl. 10—95.)

1. The combination of a die body and shank, said body having an axial bore and provided with ways, members provided with thread cutting means movable radially in said ways, means shiftable relatively to said body and shank to shift the thread-cutting members, means for shifting said means and beyond which the shank projects for attachment to its holding means, and means for holding said shiftable means and its shifting means in operative relation thereby to prevent premature independent movement of said shiftable means in any direction relatively to said thread-cutting members, said thread-cutting members and shiftable means having one a cam surface extending in one direction and one a cam surface extending in another direction whereby on the operation of said means in one direction the thread cutting members will be closed and on the operation of one of said members in another direction the thread cutting members will be adjusted relatively to the work.



2. The combination of a die body and shank, said body having an axial bore and provided with ways, members having thread cutting means movable radially in said ways, each of said thread cutting members having a pair of cam surfaces extending in opposite directions, shiftable means having a forward and backward movement relatively to said body and shank and beyond which the shank projects for attachment to its holding means for closing the thread cutting members by engagement with one of said cam surfaces and also having a swinging movement to adjust the thread cutting members on the swinging of said means relatively to the other of said cam surfaces, means for shifting said shiftable means, and means for holding said shiftable means and its shifting means in operative relation thereby to prevent premature independent movement of said shiftable means in any direction relatively to said thread-cutting members.

3. The combination of a die body and shank, said body having an axial bore and provided with ways, members having thread cutting means movable radially in said ways, each of said thread cutting members having a pair of cam surfaces extending in opposite directions, shiftable means having a forward and backward movement relatively to said body and shank and beyond which the shank projects for attachment to its holding means for closing the thread cutting members by engagement with one of said cam surfaces and also having a swinging movement to adjust the thread cutting members on the swinging of said means relatively to the other of said cam surfaces means for swinging said operating means and comprising a micrometer screw, means for shifting said shiftable means, and means for holding said shiftable means and its shifting means in operative relation thereby to prevent premature independent movement of said shiftable means in any direction relatively to said thread-cutting members.

4. The combination of a die body and shank, said body having an axial bore and provided with ways, members having thread cutting means movable radially in said ways, each of said thread cutting members having at its rear outer end a cam surface extending depthwise thereof and having in front thereof a straight surface extending depthwise thereof and a cam surface extending transversely of such straight surface, shiftable means having a forward and backward movement relatively to said body and shank and beyond which the shank projects for attachment to its holding means and a swinging movement and effective to close the thread cutting means on engagement with the depthwise extending cam surface and to hold them against movement on engagement with such straight surface and effective to adjust the thread cutting members on the swinging thereof relatively to the transversely extending cam surface, means for swinging the same, means for shifting said shiftable means backward and forward, and means for holding said shiftable means and its shifting means in operative relation thereby to prevent premature independent movement of said shiftable means in any direction relatively to said thread-cutting members.

5. The combination of a die body and shank, said body having an axial bore and provided with ways, members having thread cutting means movable radially in said ways, each of said thread cutting members having at its rear outer end a cam surface extending depthwise thereof and having in front thereof a straight surface extending depthwise thereof and a cam surface extending transversely of such straight surface, shiftable means having a forward and backward movement relatively to said body and shank and beyond which the shank projects for attachment to its holding means and a swinging movement, and effective to close the thread cutting means on engagement with the depthwise extending cam surface and to hold such thread cutting means against movement on engagement with such straight surface and effective to adjust the thread cutting members on the swinging thereof relatively to the transversely extending cam surface, means for swinging the same, said shiftable means comprising a disk having forwardly projecting arms, means comprising a head inclosing said disk and arms, for shifting said disk, and means for holding said disk and its head in operative relation thereby to prevent premature independent movement of said disk in any direction relatively to said thread-cutting members.

[Claims 6 to 8 not printed in the Gazette.]

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1,038,671. PIPE-WRENCH. EDWARD J. SPINK, Council Bluffs, Iowa, assignor of one-third to Joseph A. Miller and one-third to Robert S. Humphrey, Council Bluffs, Iowa. Filed Apr. 20, 1911. Serial No. 622,416. (Cl. 81—138.)



1. A wrench including a fixed jaw having a hollow shank provided at the back with interiorly arranged teeth, an adjustable jaw coöperating with the fixed jaw and having a shank slidable along the hollow shank between the sides thereof and fitting against the back of the same and provided at its rear edge with teeth adapted to interlock with the teeth of the hollow shank and arranged to be carried into engagement with the same by the strain on the movable jaw in the operation of the wrench, and a spring secured to the movable shank and bearing against the fixed shank to disengage the shanks automatically from each other when the wrench is relieved of strain.

2. A wrench including a fixed jaw having a hollow shank provided at the back with interiorly arranged teeth, a movable jaw coöperating with the fixed jaw and having a shank slidable along the hollow shank between the sides thereof and fitting against the back of the same and provided at its rear edge with teeth adapted to interlock with the teeth of the hollow shank and arranged to be carried into engagement with the same by the strain on the movable jaw in the operation of the wrench, and a locking device mounted on the fixed shank and arranged to lock the teeth of the movable shank in engagement with the teeth of the fixed shank.

3. A wrench comprising a fixed jaw provided with a hollow shank composed of spaced sides and a connecting back portion provided with interiorly arranged teeth, an adjustable jaw having a shank slidable longitudinally in the space between the sides of the fixed shank and fitting against the back of the same and provided at the back with teeth, and a locking device extending across the space between the sides of the fixed shank and having a crank bend arranged between the sides of the fixed shank and adapted to bear against the movable shank to lock the teeth thereof in engagement with the teeth of the fixed shank.

4. A wrench including a fixed jaw provided with a hollow shank having spaced sides and a connecting back portion provided with interiorly arranged teeth, said shank being also provided with exterior depressions, a movable jaw having a shank slidable in the hollow-fixed shank and provided at the rear edge with teeth, and a locking device mounted on the fixed shank and composed of a portion operating between the sides of the fixed shank to hold the teeth of the movable shank in engagement with the teeth of the fixed shank, and an exteriorly arranged resilient operating arm movable to and from the said depressions and adapted to engage with the same to hold the locking device in or out of engagement.

5. A wrench including a fixed hollow shank composed of spaced sides and a connecting back portion provided with interiorly arranged teeth located at the outer end of the fixed shank, a fixed transverse jaw provided at its inner end with an integral portion extending longitudinally of the wrench and connecting the jaw with the outer end of the said fixed hollow shank, a movable jaw having a shank arranged within the hollow shank and provided at the back with a straight longitudinal series of teeth arranged to engage with the teeth of the fixed shank, the rear edge of the shank of the movable jaw being also curved to provide a space between it and the back of the fixed shank, a spring secured to the shank of the movable jaw in the said space and bearing against the back of the fixed jaw, and means extending across the space between the sides of the fixed shank to retain the shank of the movable jaw in place.

[Claim 6 not printed in the Gazette.]

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1,038,672. RAT-TRAP. HORACE M. SPRAGUE, Denver, Colo. Filed Oct. 26, 1911. Serial No. 656,873. (Cl. 43—23.)



1. In a trap as specified, the combination with a pair of jaws hinged together adjacent to their rear ends, and a spring for normally holding their forward ends in engagement, of a means for holding the jaws open against the tension of said spring, consisting of a spring operated latch slidably mounted upon one of said jaws and projecting through its rear end, the end of the other jaw being provided with a slot to engage the projecting end of said latch, a trip lever pivotally secured to the jaw adjacent to the latch, and having a member which engages the latch and retracts the same when the lever is rocked, and a bait holder on the forward end of the lever.

2. In a trap as specified, a rectangular box-shaped jaw having a slot through its rear end, an ear on said jaw having a slot in line with the aforesaid slot, a latch supported in said slots and extending beyond the rear end of the jaw, said latch having lateral projections near its rear end, a coil spring interposed between the lateral projections and said ear, a trip lever pivoted to the jaw, having a slotted abutment portion through which the rear end of the latch passes, and against which the lateral projections of the latch bear, and a bait holder on the forward end of the lever, a second jaw, a pin which passes through the sides of said jaws to unite them in hinged relation, and a spring on said pin which exerts an outward pressure on the jaws at the rear of the pivot pin, said second jaw having a slot in its rear end which engages the latch when the jaws are open.

1,038,673. PAPER-ROLL PRINTER AND HOLDER. JAMES J. SPRINGER, Webb City, Mo., assignor of one-half to Norman W. Waddle, Webb City, Mo. Filed Feb. 20, 1912. Serial No. 678,772. (Cl. 211—20.)



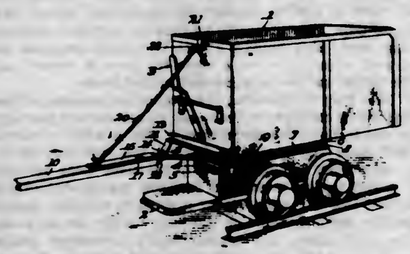
1. The combination with a paper roll holder frame, and a bracket that extends laterally from the holder frame; of an open bottom casing, pivotally suspended from the bracket, said casing including a hinged section at the lower end, the dividing edge of the stationary casing section having bearing seats, a printing roller having journals for engaging the said seats, arms held under spring tension that engage the journals to hold them to their seats and the printing roller against the paper roll, and inking rollers mounted in the casing for engaging each other and with the printing roller.

2. The combination with a paper roll holder frame, and a bracket that extends laterally from the holder frame; of an open bottom casing, pivotally suspended from the bracket, said casing including a hinged section at the lower end, the dividing edge of the stationary casing section having bearing seats, a printing roller having journals for engaging the said seats, arms held under spring tension and having loop ends for engaging the journals to hold them to their seats and the printing roller against the paper roll, and inking rollers mounted in the casing for engaging each other and with the printing roller.

3. The combination with a paper roll holder frame, and a bracket that extends laterally from the holder frame; of an open bottom casing, pivotally suspended from the bracket, said casing including a hinged section at the lower end, the dividing edge of the stationary casing section having bearing seats, a printing roller having journals for engaging the said seats, arms held under spring tension and having loop ends that extend between the adjacent side portions of the stationary and hinged casing members, the hinged casing members having journal seats that oppose the seats in the stationary casing members, the seat edges of the hinged member having portions for holding the aforesaid loop ends in engagement with the said journals.

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1,038,674. DUMPING-LEVER FOR ORE-CARS AND THE LIKE. PHILIP S. STANHOPE, Denver, Colo. Filed Nov. 25, 1911. Serial No. 662,447. (Cl. 105—128.)



1. The combination with a dumping car having keepers thereon, of a dumping lever having a forked end adapted to enter the keepers, and a chain connecting the lever with the car body.

2. The combination with a dumping car having opposite pairs of keepers thereon, of a lever having a forked end adapted to enter said keepers, a chain connected at one end to the lever, and a hook on the opposite end of the chain for engaging the car body.

3. A lever for the purpose specified, comprising an arm which terminates in a forked end, and a chain secured at one end to the lever and having a hook on its opposite end.

4. A lever for the purpose specified, comprising an arm; bars secured to one end of the arm and bent to provide spaced, parallel extremities; a bar connecting said parallel portions a suitable distance from their outer ends; and a chain secured at one end to said lever and having a hook on its opposite end.

5. The combination with a dumping car having U-shaped keepers on its bottom, of a fork adapted to be inserted in the keepers; a bar connecting the members of the fork; a lever arm connected to the rear end of the fork; and a chain secured at one end to the lever arm and having a hook on its opposite end for engaging the edge of the car.

[Claim 6 not printed in the Gazette.]

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1,038,675. SPECTACLES. FREDERICK A. STEVENS, Providence, R. I. Filed July 15, 1911. Serial No. 638,628. (Cl. 88—43.)



1. In spectacles, the combination with the lens supports, of an arched portion comprising inclined arms provided with bends connected with the lens supports, and auxiliary supports rigidly connected with the arms.

2. In spectacles, the combination with the lens supports, of an arched portion comprising rearwardly directed arms provided with angular bends connected with the lens supports, and auxiliary supports rigidly connected to the arms.

3. In spectacles, the combination with the lens supports, of an arched portion comprising rearwardly and downwardly inclined arms provided with angular bends and continued forwardly from the said bends to form shanks connected with the lens supports, and auxiliary supports connected with the shanks.

4. In spectacles, the combination with the lens supports, of an arched portion comprising rearwardly and downwardly inclined arms provided with angular bends and continued downwardly and forwardly from said bends to form shanks connected with the lens supports, auxiliary supports, and arms connecting the auxiliary supports to the shanks.

5. In spectacles, the combination with the lens supports and lenses, of an arched portion comprising rearwardly inclined arms provided with bends, downwardly and forwardly inclined shanks integral with the lens supports at points below the horizontal axes of the lens supports, auxiliary supports, and arms connecting the auxiliary supports to the shanks.

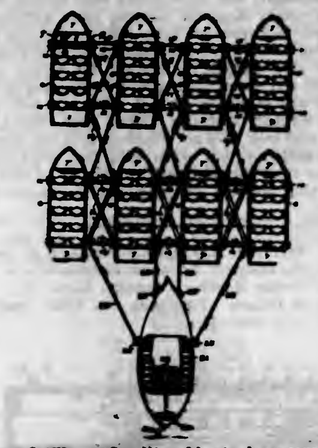
[Claims 6 and 7 not printed in the Gazette.]

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1,038,676. FLOTILLA JOINING AND STEERING MECHANISM. WILLIAM P. SEAVERNS, Indianapolis, Ind., assignor of one-fifth to Charles L. Schmidt. Filed July 28, 1911. Serial No. 641,067. (Cl. 114—235.)

1. In a flotilla, a motor-driven boat, means for steering said boat, a plurality of other boats on each side of the path of the motor-driven boat, means for flexibly connecting the plurality of other boats together to be propelled and steered as a unit means connected with said last means for limiting the rocking movement of the boats, and means connecting said unit with the motor-driven boat to cause the unit to be moved and steered by the latter and to maintain the boats of said unit on each side of the path of the motor-driven boat.

2. In a flotilla, a plurality of boats, means for connecting the boats with each other to form a flexible unit adapted to be propelled and steered as such, said means having extensions to limit the rocking movement of the boats, a motor-boat, means for steering the motor-boat, and means for connecting said unit with the motor-boat to propel and steer the unit by the movement of the motor-boat.



3. In a flotilla, a plurality of boats, bars connecting the boats with each other side by side in rows, means connected with said last means for limiting the rocking movement of the boats, means for connecting said rows in a column, a motor-driven boat, means for steering the latter, and means for connecting said column of boats with the motor-driven boat whereby the column of boats will be propelled and steered by the motor-driven boat.

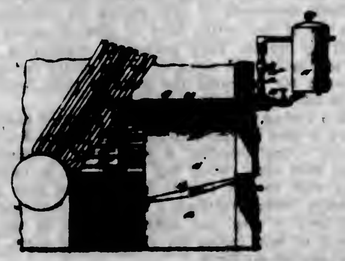
4. A plurality of boats, plates on the sides of the boats having horizontal perforated members, bars having hooked ends passing loosely through said perforated members some of said hooked ends being extended downwardly to form stops in contact with the sides of the boats below the horizontal members and limit the rocking of the boats.

5. A plurality of boats abreast of each other, transverse bars and oblique braces holding the boats in that position, the upper ones of said oblique braces being in two jointed pieces.

[Claims 6 to 8 not printed in the Gazette.]

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1,038,677. FURNACE. JAMES D. STEWART, Chicago, Ill., assignor of one-third to Oscar G. Lundy and one-third to William F. Dickson, Chicago, Ill. Filed Jan. 20, 1909, Serial No. 473,426. Renewed Nov. 25, 1909. Serial No. 529,982. (Cl. 110—34.)



1. A steam boiler furnace having an arch above the fire box, and a bridge wall, a set of horizontal fire brick flues in the space between the bridge-wall and the arch and a vertical cross passage through said flues, and a series of mixing tubes exposed to the heat of the furnace and provided with perforated discharge pipes located in said passage.

2. A steam boiler furnace having an arch above the fire box thereof, and a bridge wall, a plurality of mixing and vaporizing tubes extending lengthwise above the arch and projecting at their front ends through the front wall of the furnace, air and oil supply pipes entering the front ends of the tubes, and perforated pipes which are connected to the rear ends of the tubes and which extend downwardly to the bridge wall, across the combustion space above said wall.

3. A furnace provided with a series of passages through which products of combustion from the furnace pass and separated into sections between which is formed a cross passage with which the passages of each section connect, the passages of the two sections being in alinement, means for introducing a gas in said cross passage between said sections so as to bring it into contact with said products of combustion.

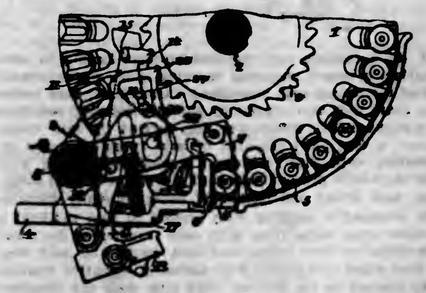
4. A furnace comprising a grate, a heat non-conducting device back of said grate having a series of free substantially horizontal passages through which products of combustion pass, a second non-conducting device, with a series of substantially horizontal open passages, back of said first device, said heat non-conducting devices forming two separated heat storing devices with a mixing chamber between them with which both sets of passages communicate said mixing chamber formed between vertical faces of said heat storing device, and means for commingling a heated gas with said products of combustion in said mixing chamber.

5. A furnace comprising a grate, a heat non-conducting device back of said grate having a series of free passages through which products of combustion pass, a second non-conducting device with a series of free passages located back of said first device, said heat non-conducting devices forming heat storing devices with a mixing chamber between them, a gas conducting tube associated with said mixing chamber and provided with openings through which the gas escapes so as to mingle with the products of combustion while they are passing through the mixing chamber, the passages in the two non-conducting devices being in alinement.

[Claim 6 not printed in the Gazette.]

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1,038,678. MAGAZINE-STOP FOR WEFT-REPLENISHING LOOMS. HOWARD H. STEARNS, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed May 8, 1911. Serial No. 625,886. (Cl. 139—85.)



1. An automatic weft-replenishing loom having, in combination, a rotary magazine for spare weft-carriers; feed mechanism for said magazine, comprising a hand-movable detent and a feed pawl; a transferrer for transfering weft-carriers from said magazine into weaving position; a spring-uplifted transferrer dog mounted on said transferrer; and a stop on said feed pawl, said stop being normally out of the path of said dog but being moved into position to obstruct the lift of said dog whenever the feed mechanism is inoperatively positioned with respect to said magazine.

2. An automatic weft-replenishing loom having, in combination, a rotary magazine for spare weft-carriers; feed mechanism for said magazine; a transferrer for transferring weft-carriers from said magazine into weaving posi-

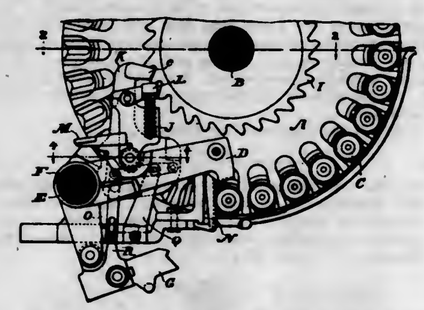
tion; a spring uplifted dog mounted on said transferrer; and a stop movable with said feed mechanism, said stop being normally out of the path of said dog but being moved into position to obstruct the lift of said dog whenever the feed mechanism is inoperatively positioned with respect to said magazine.

3. An automatic weft-replenishing loom having, in combination a rotary magazine for spare weft-carriers; feed mechanism for said magazine, including a feed pawl; a transferrer for transferring weft-carriers from said magazine into weaving position; and a stop on said feed pawl, said stop being normally out of operative position but being moved into position to prevent the action of the transferrer whenever the feed pawl is inoperatively positioned with respect to said magazine.

4. An automatic weft-replenishing loom having, in combination, a magazine for spare weft-carriers; feed mechanism for said magazine; a transferrer for transferring weft-carriers from said magazine into weaving position; and a stop movable with said feed mechanism, said stop being normally out of operative position but being moved into position to prevent the action of the transferrer whenever the feed mechanism is inoperatively positioned with respect to said magazine.

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1,038,679. MAGAZINE-STOP FOR WEFT-REPLENISHING LOOMS. EDWARD S. STIMPSON, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed May 8, 1911. Serial No. 625,887. (Cl. 139—85.)



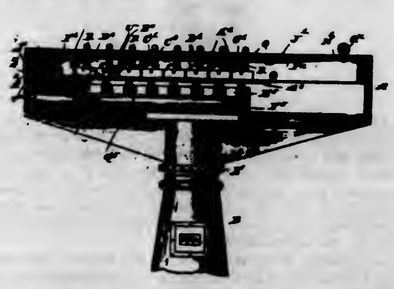
1. An automatic weft-replenishing loom having, in combination, a rotary magazine carrying spare weft-carriers; a feed ratchet on such magazine; a transferrer that transfers spare weft-carriers one by one into weaving position; a spring-uplifted transferrer dog carried by said transferrer; a feed pawl actuated by said transferrer and cooperating with said ratchet; a detent coöperating with said ratchet to prevent backward movement of said magazine, said detent and feed pawl being manually movable into inoperative position with respect to said ratchet; a movable stop coöperating with said transferrer dog; and a multiplying lever connecting said detent and said stop, so that when said detent is in normally operative relation with respect to the ratchet, said stop does not interfere with the movement of said dog, but when said detent is moved away from normal position relatively to said ratchet, said stop prevents the functional movement of said dog.

2. An automatic weft-replenishing loom having, in combination, a rotary magazine carrying spare weft-carriers; a feeding ratchet on such magazine, a transferrer that transfers spare weft-carriers one by one into weaving position; a feed pawl actuated by said transferrer and cooperating with said ratchet; a detent coöperating with said ratchet to prevent backward movement of said magazine, said detent and feed pawl being movable into inoperative position with respect to said ratchet; and a movable stop connected to said detent, so that when said detent is in normally operative relation with respect to the ratchet, said stop does not interfere with the movement of said transferrer, but when said detent is moved away from normal position relatively to said ratchet, said stop prevents the functional movement of said transferrer.

3. An automatic weft-replenishing loom having, in combination, a rotary magazine carrying spare weft-carriers; a transferrer that transfers spare weft-carriers one by one into weaving position; feed mechanism for said magazine; a movable stop adapted to prevent the action of said transferrer; and a multiplying lever connecting said feed mechanism and said stop, so that when said feed mechanism is in normally operative relation with respect to the magazine, said stop does not interfere with the movement of said transferrer, but when said feed mechanism is moved away from normal position relatively to said magazine, said stop prevents the functional movement of said transferrer.

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1,038,680. VOTING-MACHINE. WILLIAM A. SWAREN, Chicago, Ill., assignor, by mesne assignments, to International Voting Machine Company, Elgin, Ill., a Corporation of Illinois. Filed Aug. 26, 1903. Serial No. 170,792. (Cl. 235—54.)



1. In a voting machine, a rotarily mounted casing, voting keys or pins carried thereby and independently movable into voting position, registering mechanism associated with each voting key or pin but in inoperative relation with respect thereto except when such keys or pins occupy voting position, and means operated by the rotary movement of said casing for simultaneously moving all of the keys which occupy voting position to operate their associated registering mechanisms, as and for the purpose set forth.

2. In a voting machine, a rotarily mounted casing, voting keys or pins arranged therein and independently movable into voting position, a registering mechanism associated with each voting key or pin but in inoperative relation with respect thereto except when such voting keys or pins occupy voting position, means operated by the rotary movement of said casing for simultaneously moving all of the voting keys or pins occupying voting position to operate their associated registering mechanisms, and means also actuated by the rotary movement of said casing for restoring the parts to their initial positions, as and for the purpose set forth.

3. In a voting machine, a rotarily mounted casing, voting keys or pins arranged therein and independently movable into voting position, a registering mechanism associated with each voting key or pin but in inoperative relation with respect thereto except when such pins or keys occupy voting positions, a slide plate connected to all of said keys or pins, and means actuated by the rotary movement of said casing for shifting said plate, as and for the purpose set forth.

4. In a voting machine, a casing rotarily mounted, a slotted slide plate carried thereby, voting keys or pins mounted in the slots of said plate and independently movable through such slots into voting position, a registering mechanism associated with each voting key or pin but in inoperative relation with respect thereto except when such pins occupy voting position, and means actuated by the rotary movements of said casing for shifting said plate whereby all of the keys or pins occupying voting position simultaneously operate their associated registering mechanisms, as and for the purpose set forth.

5. In a voting machine, a casing rotarily mounted, a slide plate arranged therein, said slide plate being slotted, voting keys or pins independently movable into voting position through the slots in said plate, registering mechanism associated with each voting key or pin but in inoperative relation with respect thereto except when such keys occupy voting position, and a fixed cam arranged to engage said slide plate whereby when said casing is rotated said plate is shifted to move the keys or pins occupying voting position so as to operate their associated registering mechanisms, as and for the purpose set forth.

[Claims 6 to 30 not printed in the Gazette.]



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1,038,681. INCANDESCENT ELECTRIC LAMP. EARL H. TATE, Los Angeles, Cal. Filed Sept. 21, 1911. Serial No. 650,628. (Cl. 176—26.)



1. In a switch, the combination with guides, fixed and spaced triangular contact plates between the guides and at right angles thereto and having notches in their upper corners, and a spring above the space between said plates; of a switch bar movable through the guides between said plates and under said spring, and arms disposed in said bar and adapted respectively to be moved into or out of contact with the plates, for the purpose set forth.

2. In a switch, the combination with guides, fixed and spaced triangular contact plates between the guides and at right angles thereto and having notches in their upper corners, and a spring above the space between said plates; of a switch bar movable through the guides between said plates and under said spring, contact arms projecting from opposite sides of said bar out of line with each other whereby they are adapted to be engaged with said notches at different times, other contact arms projecting from opposite sides of said bar and in alinement with each other whereby they are adapted to simultaneously engage said notches, and means for adjusting the bar in its guides, for the purpose set forth.

3. In an independent electric lamp, the combination with contact plates within the lamp casing; of a slidable switch bar moving between said plates, two arms on said bar out of alinement with each other for engagement with said plates at different times, and two other arms on the bar in alinement with each other for simultaneous engagement with said plates, all as and for the purpose set forth.

4. In an incandescent electric lamp, the combination with a pair of spaced supporting brackets having alined rectangular passages constituting guides, a pair of spaced contact plates disposed at right angles to said brackets and having notches at their upper edges, the brackets and plates being supported on an insulating base plate, an upright conducting post above these elements, and an elliptical spring carried by the post; of a rectangular switch bar movable through said guides and under and in contact with the spring, and a plurality of arms carried by the bar and adapted to engage the notches in said plates as hereinbefore described.

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1,038,682. PROCESS OF MAKING IMPALING-ROLLS FOR RAISIN-SEEDERS. ALBERT RILEY THOMPSON, San Jose, Cal., assignor to Anderson-Barngrover Manufacturing Company, San Jose, Cal., a Corporation of California. Filed Feb. 21, 1910. Serial No. 545,221. (Cl. 22—208.)



1. The process of making an impaling roll which consists in supporting pins in a peripheral portion of an annular mold, rotating the mold to cause the pins to move outwardly, arresting such outward movement at definite distance from the center of the mold, pouring melted metal into the mold and rotating the mold while said metal is cooling, whereby the metal is forced between the pins and into contact with the peripheral portions of the mold.

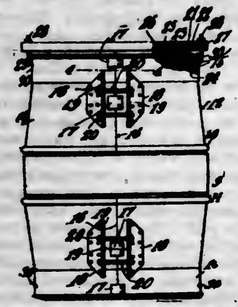
2. The process of making an impaling roll, which consists in maintaining pins in a peripheral portion of a mold by centrifugal action, pouring melted material into the mold between said pins, and subjecting said melted material while in the mold to pressure by rotating the mold to produce centrifugal action on said material.

3. The process of making an impaling roll, which consists in normally supporting pins in a peripheral portion of a mold, rotating the mold to cause the pins to move outwardly, arresting such outward movement at definite distance from the peripheral portion of the mold, and casting material into the mold.

4. The process of making an impaling roll, which consists in normally supporting pins in a peripheral portion of a mold, rotating the mold to cause the pins to move outwardly, arresting such outward movement at definite distance from the peripheral portion of the mold, and casting material into the mold, said cast material extending under the inner ends of the pins.

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1,038,683. BEER-KEG MOLD. JACOB MULLEN THOMPSON, Fond du Lac, Wis. Filed Dec. 19, 1911. Serial No. 666,712. (Cl. 25—124.)



1. A device for fashioning barrels, comprising a lining; a bilge band spaced from the lining; a bung tube connect-

ing the bilge band with the lining; a separable casing adapted to engage removably with the bilge band; and a chine ring adapted to fit within the end of the casing.

2. A device for fashioning barrels, comprising a lining; a bilge band spaced from the lining; a bung tube connecting the lining with the bilge band; a separable casing adapted to interengage with the bilge band; a chine ring adapted to fit within the end of the casing; and a follower adapted to fit within the chine ring.

3. A device for fashioning barrels, comprising a lining; a bilge band spaced from the lining; a bung tube connecting the bilge band and the lining; a separable casing engaged with the bilge band; a chine ring fitting within the end of the casing; a follower fitting within and engaging the chine ring; and means connecting the follower with the casing, to produce relative movement between the casing and the follower.

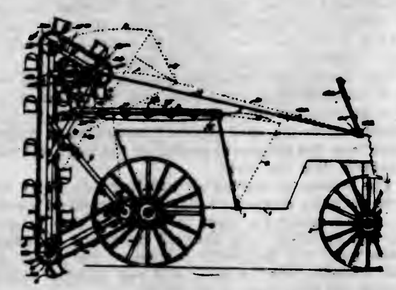
4. In a device for fashioning barrels, a lining; a bilge band spaced from the lining; a bung tube connecting the bilge band with the lining; a separable casing removably engaged with the bilge band; a chine ring fitting within the end of the casing; a follower fitting within and engaging the chine ring; bolts extended through the follower and having hooked portions engaged removably with the casing; and nuts upon the bolts, adapted to engage the follower.

5. In a device for fashioning barrels, a bilge band, a separable casing removably engaged about the bilge band, a chine ring adapted to fit within the casing; means for moving the chine ring toward the bilge band; and a lining within the casing.

[Claims 6 to 9 not printed in the Gazette.]

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1,038,684. EXCAVATING AND LOADING MECHANISM. JOB SHERIDAN TINDALL, Pueblo, Colo. Filed Aug. 2, 1910. Serial No. 575,146. (Cl. 37—32.)



1. In an excavating machine, the combination with a driven counter-shaft, of a frame pivotally mounted thereon, sprockets mounted on said counter-shaft, a second counter-shaft journaled in said frame, driving chains carried on said sprockets and transmitting motion to said second counter-shaft, an endless conveyer chain carrying buckets and driven by said second counter-shaft, idler sprockets mounted in said frame, said conveyer chains passing up over said idler sprockets and inverting said buckets at the upper part of said frame, a hopper below the place where the buckets are inverted and an endless traveling belt below said hopper in position to deliver material dropped by the buckets through said hopper.

2. In combination, a wagon, gears mounted on the hubs of the wheels of said wagon, a counter-shaft journaled in the bearings on said wagon, gear-wheels freely mounted on said counter-shaft in position to engage the gears on said hubs, clutches holding said gear-wheels to the counter-shaft, cams on said clutches, means for engaging said cams to release the said clutches, a frame pivotally mounted on said counter-shaft, sprockets mounted on said counter-shaft, a second counter-shaft journaled in said frame, driving chains carried on said sprockets and transmitting motion to said second counter-shaft, an endless conveyer chain carrying buckets and driven by said second counter-shaft, idler sprockets mounted in said frame, said conveyer chains passing up over said idler sprockets and inverting said buckets at the upper part of said frame, a hopper below the place where the buckets are inverted, an endless traveling belt below said hopper in position to deliver material dropped by the buckets through said hopper, and means for swinging the frame about the first mentioned counter-shaft.

3. In combination, a vehicle, a power shaft mounted thereon, a frame journaled to oscillate on said power shaft, a plurality of shafts journaled in said frame, sprockets on said last mentioned shafts, a conveyer traveling over said sprockets, and means for transmitting power from said power shaft to one of the shafts journaled in the frame.

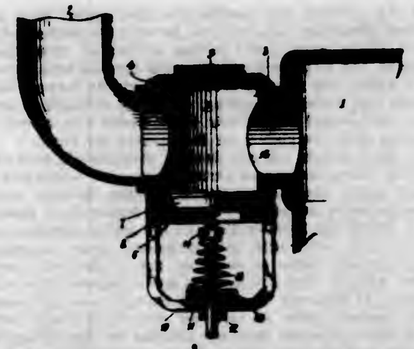
4. In combination, a vehicle, a power shaft mounted thereon, an oscillatory frame journaled on said power shaft, a plurality of shafts journaled in said frame, sprockets on said last mentioned shafts, a conveyer traveling over said sprockets, means for transmitting power from said power shaft to one of said shafts journaled in the frame, a belt conveyer frame pivoted at one end to the oscillatory frame and at its other end to a pivotal link on the vehicle, sheaves carried by said belt conveyer frame, and a belt conveyer traveling over said sheaves.

5. In combination, a vehicle, a power shaft mounted thereon, a frame journaled on said power shaft, a plurality of shafts journaled in said frame, sprockets on said last mentioned shafts, a conveyer traveling over said sprockets, means for transmitting power from said power shaft to one of said shafts journaled in the frame, means for swinging the frame about the power shaft as an axis, and means operated by the frame as it is swung out of operative position for disengaging the power transmission.

[Claims 6 to 7 not printed in the Gazette.]

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1,038,685. EXHAUST FOR GAS-ENGINES. ALBERT T. TITUS and ALBERT R. TITUS, Robbinsdale, Minn. Filed Apr. 25, 1911. Serial No. 623,220. (Cl. 123—194.)



1. The combination with a gas engine and its exhaust pipe, of a vacuum relieving device operable under the influence of suction within said pipe and having means for varying the delicacy of its responsiveness to suction, said device comprising a valve adapted to close by gravity and having a spring arranged to assist in its opening.

2. In a device of the character described, the combination with an exhaust pipe of an engine and the exhaust pocket thereof, of a casing positioned between said pipe and pocket and forming an exhaust chamber, said chamber being provided in its lower wall with a valve seat and with an outwardly extending integrally formed yoke apertured to receive the valve stem, a gravity closing valve in said valve seat and with its stem compressibly mounted through said yoke, a set nut threaded upon said valve stem between said yoke and valve seat, and a helical spring surrounding the stem and bearing by one end against the yoke and by its other end against the nut, said spring being proportioned to overcome the weight of the valve and the valve stem.

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1,038,686. GARMENT-PRESSING MACHINE. CHARLES TODD, St. Louis, Mo. Filed Sept. 21, 1911. Serial No. 650,656. (Cl. 68—9.)



1. In a garment pressing machine, the combination with a frame, of a pressing-head pivotally mounted thereon, and a pressing-bed fixedly mounted upon said frame below and in operative position relatively to said pressing-head and having superimposed upper and lower non-communicating steam-chambers provided with separate steam inlet-openings and a plurality of steam discharge-ducts leading from said lower chamber upwardly through said upper chamber to the top surface of the pressing-bed; substantially as described.

2. In a garment pressing machine, the combination with a frame, of a pressing-head pivotally mounted thereon, a source of steam supply, and a pressing-bed fixedly mounted upon said frame below and in operative position relatively to said pressing-head and having a substantially closed upper steam chamber normally in open connection with said source of steam supply and adapted to be always filled with steam and thereby constantly steam heated, a separate lower steam chamber normally in closed communication with said source of steam supply, and a plurality of steam discharge ducts leading upwardly from said lower chamber through said upper chamber to and opening upon the outer upper surface of the pressing-bed; substantially as described.

3. In a garment pressing machine, the combination with a frame, of a pressing-head pivotally mounted thereon, a source of steam supply, a pressing-bed fixedly mounted upon said frame below and in operative position relatively to said pressing-head and having a substantially closed upper steam chamber normally in open communication with said source of steam supply and adapted to be always filled with steam and thereby constantly steam heated, a separate lower steam chamber normally in closed communication with said source of steam supply, a plurality of steam discharge ducts leading upwardly from said lower chamber through said upper chamber to and opening upon the outer upper surface of the pressing-bed, and means adapted to open communication between said lower chamber and said source of steam supply and thereby permit the passage of steam from said source of steam supply into said lower chamber and therefrom through said steam discharge ducts to the upper outer pressing surface of the pressing-bed; substantially as described.

4. In a garment pressing machine, a fixed hollow pressing-bed provided interiorly with a horizontally-disposed partition dividing said bed into separate, independent, upper and lower steam chambers, and a plurality of steam discharge ducts leading from the lower chamber through the upper chamber to the top of the bed; substantially as described.

5. A fixed pressing bed for garment pressing machines comprising a substantially closed upper steam chamber provided with a steam inlet opening, a separate lower steam chamber provided with a separate steam inlet opening, and a plurality of steam discharge ducts leading from said lower chamber upwardly through said upper chamber to and opening upon the outer upper surface of said bed; substantially as described.

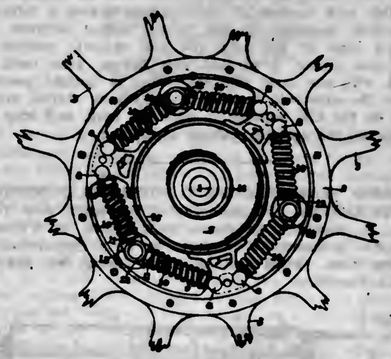
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1,038,687. PNEUMATIC WHEEL. GEORGE H. THRASHER, Port Huron, Mich. Filed Oct. 20, 1911. Serial No. 655,575. (Cl. 152—32.)

1. In a wheel, a main hub having side collars one of which is detachable, an annular pneumatic chamber on the hub between the collars, a sleeve concentric on the chamber, a floating hub between the collars centered on the sleeve by inwardly projecting bridges, a spring keeper hinge pivoted to the collars between each pair of bridges, a spring knuckle removably journaled in each bridge adjacent a hinge, and compression springs each secured at one end to a knuckle and at the other end to a hinge member, the knuckles and hinges with connecting springs being bodily removable from the hubs when the collar is detached.



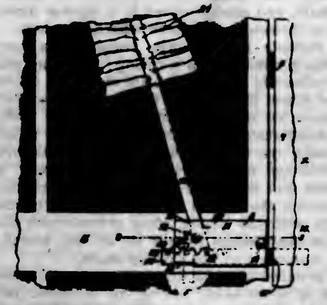




2. In a wheel, a main hub, side collars thereon one of which is detachable, an inner metallic bushing rotatable on the hub between the collars, an annular pneumatic chamber on the bushing and an outer metal liner on the chamber, a sleeve rotatable on the liner, a floating hub between the collars, inwardly extending bridges on the floating hub centering it on the sleeve, a spring keeper hinge between each pair of bridges removably pivoted to the collars, a spring knuckle removably journaled on each bridge adjacent a hinge and a spring in compression between each hinge member and adjacent knuckle.

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1,038,688. FLY-GUARD. JOSEPH J. TULLY, Chicago, Ill. Filed Oct. 19, 1911. Serial No. 655,574. (Cl. 296—7.)



1. The combination with a door and its frame, of a slidable rack carried by the door and having a laterally extending member adapted to be loosely located between the hinged edge of the door and the opposite portion of the door frame to locate the rack, and a pivoted arm having gear teeth in mesh with the rack, said arm being in erect position when the rack is locked.

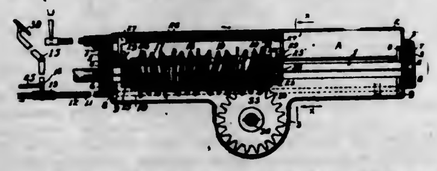
2. The combination with a door and its frame, of a channeled member mounted on the door, a slidable rack seating in the channel of said member and having a laterally extending member adapted to be loosely located between the hinged edge of the door and the opposite portion of the door frame to lock the rack, and a pivoted arm having gear teeth in mesh with the rack, said arm being in erect position when the rack is locked.

3. The combination with a door and its frame, of a channeled member mounted on the door, and having a slot at one of its ends, said slot being in the bottom of the channel, a slidable rack seating in the channel of said member and having a laterally extending member adapted to be located between the hinged edge of the door and the opposite portion of the door frame, and a pivoted arm having gear teeth in mesh with the rack, said arm being in line with the aforesaid slot.

4. The combination with a door and its frame, of a slidable rack carried by the door and having a laterally extending member adapted to be located between the hinged edge of the door and the opposite portion of the door frame, a pivoted arm having gear teeth in mesh with the rack, said arm being in upright position when the aforesaid member is located as stated, and a stop on the arm engageable with the rack, said stop determining the upright position of the arm.

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1,038,689. VARIABLE-SPEED POWER-TRANSMISSION MECHANISM. WILLARD IRVING TWOMBLY, New York, N. Y., assignor, by mesne assignments, to Twombly Motors Company, New York, N. Y., a Corporation of New York. Filed Apr. 12, 1910. Serial No. 554,977. (Cl. 74—36.)



1. A variable speed power transmission mechanism, comprising in combination a casing; a driving shaft journaled in eccentric bearings in said casing; a driven shaft; a toothed wheel fixed to the driven shaft; a plurality of worms mounted upon the driving shaft to rotate therewith and adjustable along the same; means to adjust the worms along the driving shaft to change the speed and direction of the driven shaft; and a rotatable shaft geared to the bearings of the driving shaft whereby as said latter shaft is rotated in one direction the worms are thrown into mesh with the toothed wheel on the driven shaft, and when rotated in a reverse direction the worms are thrown out of mesh with said wheel.

2. A variable speed power transmission mechanism, comprising in combination a casing; a driving shaft journaled in eccentric bearings in said casing; a driven shaft; a toothed wheel fixed to the driven shaft; a plurality of worms mounted upon the driving shaft to rotate therewith and adjustable along the same; means to adjust the worms along the driving shaft; means to impart motion to the bearings of the driving shaft whereby to throw the worms into or out of mesh with the toothed wheel on the driven shaft; and means connected to the worms to engage with the casing when thrown into mesh with the driven shaft wheel to lock the driving worms against endwise movement on the driving shaft.

3. In a variable speed power transmission mechanism, a casing, a drive shaft having an eccentric bearing at each end in said casing, a plurality of single and multiple threaded worms on the drive shaft, the pitch of at least one of which worms is opposite to the pitch of the other worms, said worms rotating with and slidable along the drive shaft; a collar at each end of the worms to engage in guideways in the casing to lock said worms against endwise movement; a driven shaft; a worm wheel connected thereto; and selective means to adjust the worms alonge the drive shaft and throw either one of said worms into mesh with the worm wheel on the driven shaft.

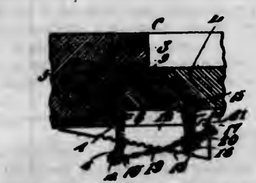
4. In a variable speed power transmission mechanism, a casing; a drive shaft having an eccentric bearing at each end in said casing; a plurality of single and multiple threaded worms mounted on the drive shaft to rotate therewith and slide therealong, the pitch of at least one of which worms is opposite to the pitch of the other worms; a collar at each end of the worms to engage in guideways in the casing to lock said worms against endwise movement; a driven shaft, a worm-wheel thereon; means to throw said worms into and out of mesh with the worm-wheel on the driven shaft; and selective means to adjust the worms along the drive shaft.

5. In a variable speed power transmission mechanism, a casing; a drive shaft having an eccentric bearing at each end in said casing; a plurality of single and multiple threaded worms mounted on the drive shaft to rotate therewith and slide therealong, the pitch of at least one of which worms is opposite to the pitch of the other worms; a collar at each end of the worms to engage in guideways in the casing to lock said worms against endwise movement; a driven shaft; a worm-wheel thereon; and means to throw said worms into and out of mesh with the worm-wheel on the driven shaft, comprising a gear connected to each of the eccentric bearings, a shaft having a helical slot, pinions on said shaft to mesh with said gears, a sleeve on the pinion shaft having a thread to engage with the helical slot in said shaft, and a pivoted operating lever or actuator connected to said sleeve.

[Claims 6 to 14 not printed in the Gazette.]

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1,038,690. DOOR-SECURER. EDWIN F. VINCENT, Lima, Mont. Filed Mar. 22, 1912. Serial No. 685,500. (Cl. 16—8.)



1. A door securer embodying a keeper having door casing engaging means, a horisontally adjustable door holding key engageable with the keeper, and a vertically adjustable wedge insertible between the door and the key.

2. A door securer embodying a slotted keeper having door casing engaging means at its inner end, a horisontally adjustable tapered door holding key insertible through the slot in the keeper, and a vertically adjustable wedge insertible between the door and the said key.

3. A door securer embodying a keeper having door casing engaging means, a door holding key engageable with the keeper, and a wedge insertible between the door and key and comprising a plate bent upon itself and having the edges outturned to provide door engaging flanges, the line of the bend of the plate converging toward the plane in which the flanges lie.

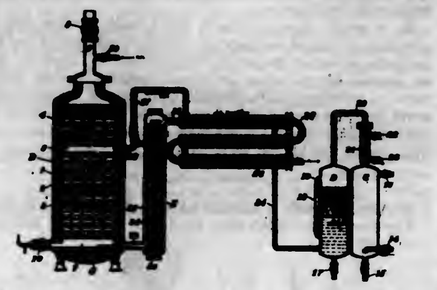
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1,038,691. APPARATUS FOR GENERATING HIGH-PRESSURE OIL-GAS. RUDOLPH VUILLEUMIER, New Rochelle, N. Y., assignor to Pintsch Compressing Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 1, 1909. Serial No. 487,261. (Cl. 48—74.)

1. An apparatus adapted to produce high candle-power gas under high pressure, combining a generator, means for internally heating the same, a pre-heater, means for introducing oil through said pre-heater into said internally heated generator, means for removing the resultant fixed gases through said pre-heater, and means adapted to maintain throughout said apparatus a pressure of approximately fourteen atmospheres.

2. An apparatus adapted to produce high candle power gas under high pressure combining, a generator adapted to be brought to a high temperature, means for internally heating the generator, a preheater, means for introducing finely divided oil under steam pressure into said generator, means for introducing steam to displace through said preheater the products of decomposition of said oil resulting from its exposure to the heat in said generator and means adapted to maintain throughout said apparatus a pressure of approximately fourteen atmospheres.





3. An apparatus adapted to produce high candle power gas under high pressure combining, a generator adapted to be brought to a high temperature, means for internally heating the generator, means for filling said heated generator with steam, means for introducing finely divided oil into said steam-filled generator, a scrubber, means for removing through said scrubber the products of decomposition of said oil and a source of steam adapted to maintain throughout said apparatus a pressure of approximately fourteen atmospheres.

4. An apparatus adapted to produce high candle power gas under high pressure combining, a generator adapted to be brought to a high temperature, means for internally heating the generator, means for preliminarily filling said generator with steam, means for simultaneously introducing steam and oil, means for scrubbing the resultant products of decomposition of said oil and a source of steam adapted to maintain throughout said apparatus a pressure of approximately fourteen atmospheres.

5. An apparatus adapted to produce high candle power gas under high pressure combining, a generator containing reticulated refractory material, means for maintaining a combustion within said generator to preheat the contents thereof, means for discharging the products of combustion, means for introducing steam, means for introducing oil, a store-holder adapted to receive the products of decomposition of said oil and a source of steam adapted to maintain throughout said apparatus a pressure of approximately fourteen atmospheres.

[Claims 6 to 12 not printed in the Gazette.]

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1,038,692. METHOD OF MAKING CORKSCREWS. EDWIN WALKER, Erie, Pa. Filed Nov. 8, 1909. Serial No. 526,692. (Cl. 72—101.)

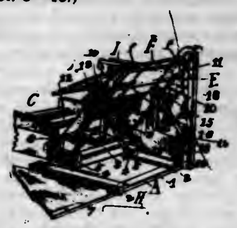


1. The method of making an article of the class described which consists in splitting a wire or rod so as to produce two blanks, each of which is substantially cylindrical in cross section at one portion of its length and substantially semicylindrical at another portion of its length, and then twisting the said semicylindrical portion so as to form cork screw convolutions therein, and with the flat face of said portion forming the inner surface of the convolutions.

2. The method of making an article of the class described which consists in splitting a wire or rod so as to produce two blanks, each of which is substantially cylindrical in cross section at one portion of its length and substantially semicylindrical at another portion of its length, then twisting the said semicylindrical portion so as to form cork screw convolutions therein, and with the flat face of said portions forming the inner surface of the convolutions, and then twisting the said cylindrical portion into a loop whereby a handle is formed for the screw.

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1,038,693. SOFA OR CHAIR BEDSTEAD. CHARLES A. WARNER, New York, N. Y., assignor to Albion L. Warner, New York, N. Y. Filed May 12, 1911. Serial No. 626,806. (Cl. 5—46.)



1. In a folding bed, the combination, with three folding frames each embodying end walls and cross beams; of an elastic fabric supported by and between said frames and connected at its ends to the outer cross beams of the two end frames, and means comprising bolts and nuts for taking up slack in said fabric, and means embodying a base and end pieces for supporting and inclosing the said frames when folded, substantially as shown and described.

2. In a sofa or chair-bedstead, the combination, with three folding frames hinged to each other and each embodying end walls and cross beams, an elastic fabric supported by and between said frames and connected at its ends to the outer cross beams of the two end frames, the inner one of the two said end frames having a cushioned frame hinged thereto adapted for a back; and the outer one having a cushioned frame hinged thereto adapted for a seat; of a base, end pieces hinged thereto, a removable back board, and swinging rods linking said end pieces to the inner one of the said end frames, whereby outward movement thereof is limited, substantially as shown and described.

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1,038,694. POLISHING-CLOTH. HARRY S. WEBSTER, Toledo, Ohio. Filed Sept. 6, 1911. Serial No. 647,801. (Cl. 51—1.)



1. A polishing cloth consisting of a piece of fabric chemically treated with a mixture consisting of neutral oil, Australian floor oil, boiled linseed oil, wood alcohol and turpentine to which has been added a mixture of chalk dissolved in vinegar and rotten stone dissolved in stale beer.

2. A polishing cloth consisting of a piece of fabric chemically treated with a mixture of non-volatile oil and a volatile fluid, to which has been added chalk and rotten stone dissolved in suitable solvents.

3. A polishing cloth consisting of a fabric chemically treated with a mixture of oil, and chalk and rotten stone dissolved in suitable solvents.

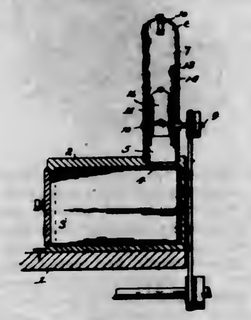
4. A polishing cloth consisting of a piece of fabric chemically treated with a mixture of an oil and rotten stone dissolved in a suitable solvent.

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1,038,695. FLOATING-THREAD CUTTER. GEORGE S. WEINREITH, Reading, Pa. Filed Feb. 5, 1912. Serial No. 675,665. (Cl. 26—9.)

1. In a device for the purpose described, a tubular member having oppositely disposed flattened surfaces at the upper end, slots in said flattened portions and V-shaped depressions in the upper edges; a movable cutter blade pivoted to the inside of the tubular member in close proximity to each of the slots; a shearing strip along the edge of each slot adapted to coöperate with the blades; a pair of arms operatively connected at their upper ends with the blades and pivoted at their lower ends to the in-

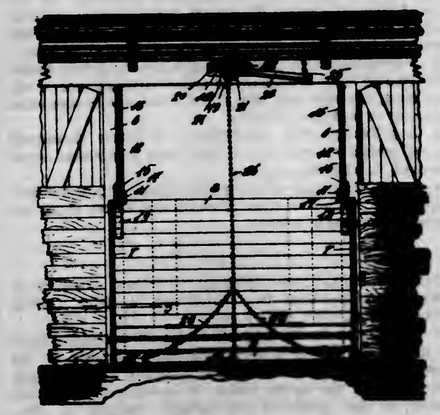
mer surface of the tubular member, said arms each being formed with an enlargement about midway of its length; a power shaft; an eccentric on the shaft adapted to be engaged by the enlarged portions of the arms, whereby the movement of the shaft will rock the arms and move the cutter blades across the slots, in combination with a receptacle support for the tubular member.



2. In a device for the purpose described, a vertical tubular member, screw-threaded at its lower end and removably secured to a receptacle, said tube having oppositely disposed flattened surfaces at its upper end, each of which is formed with a slot; a power shaft passing through the tube; two eccentrics on the shaft; a pair of rocking arms, each of which is pivoted to the inside of the tube below the shaft; enlargements on the arms engaging the eccentrics so that the movement of the shaft will give a rocking motion to the arms; a pair of shearing blades connected to the upper ends of the arms and pivoted, at a point approximately their center, to the inside of the tube in close proximity to the slots; a pair of shearing strips extending along the one edge of each slot and adapted to coöperate with the blades; a tension spring secured to the tube at its top and bearing against the inner wall at a point opposite; a hook at the top of the tube adapted to engage and turn the stocking as it is being removed from the tube and a shedding plate secured to the inside of the tube and lying across the power shaft.

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1,038,696. GRAIN-DOOR. CHARLES W. WHITE, East St. Louis, Ill. Filed Apr. 22, 1912. Serial No. 692,395. (Cl. 20—32.)

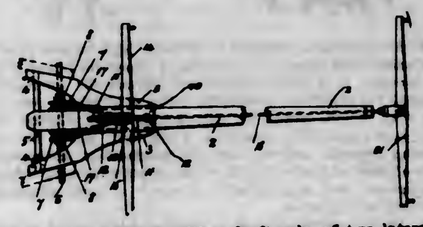


1. In combination with a car having door posts, a stop carried by each post, a guide rod carried by each post, a grain door having a rigid body portion provided with a flexible lower end, means for securing the body portion of the grain door to the door posts, means for securing the flexible lower end of the door against hinging, and means for slidably connecting the body portion of the grain door with said guide rods.

2. A grain door having a rigid body portion and a plurality of hinged sections at its lower end, means for detachably securing the rigid body portion in place in the car, means for securing the hinged sections against movement, a winding shaft, flexible connections between said shaft, and the means which secures the flexible sections of the grain door against movement, and a flexible connection with one of the hinged sections and said winding shaft.

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1,038,697. DRAFT ATTACHMENT. WALTER W. WHITE, Dawson, N. D. Filed Mar. 22, 1912. Serial No. 685,593. (Cl. 21—76.)

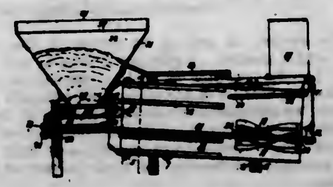


1. The combination, with a draft pole, of two laterally movable sheaves journaled at the rear end portion of the draft pole and arranged one on each side thereof, a whiffletree arranged in front of the said sheaves and slidable longitudinally of the draft pole, a guide for the said whiffletree, springs which press the said sheaves toward the draft pole, and a flexible draft connection extending longitudinally of the draft pole and provided at its rear end with two stretches which pass over the said sheaves and are operatively connected with the said whiffletree.

2. The combination, with a draft pole having two forked portions at its rear part, and a shaft passing through the said forked portions, of two sheaves journaled on the said shaft, springs encircling the said shaft and pressing the sheaves toward the central pole, a longitudinally slidable plate operatively connected to the draft pole in front of the sheaves, a whiffletree pivoted to the said plate, and a flexible draft connection extending longitudinally of the draft pole and provided at its rear end with two stretches which pass over the said sheaves and are connected to the said plate.

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1,038,698. CONCRETE-MIXER. CALVIN M. WHITNEY and EDWARD C. VAN LEUVEN, Jackson, Mich., assignors to The Miles Mnfg Co. Inc., Jackson, Mich. Filed Mar. 13, 1909. Serial No. 483,103. (Cl. 83—73.)

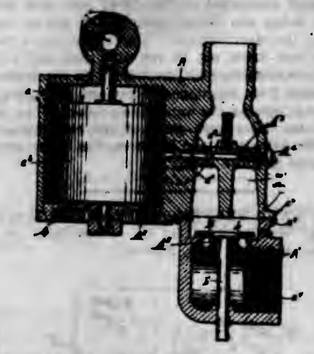


A concrete mixer comprising a rotary, inclined drum, means for feeding the materials into said drum, means mounted upon the inner wall of the drum at its upper end for mixing the materials dry and feeding them longitudinally therethrough, a rotary shaft passing through the drum and projecting beyond the ends thereof, means at the extreme upper end of said shaft for supporting it and imparting a rotary movement thereto, said shaft lying near the lower wall of the drum and at one side of the vertical center thereof, mixing blades mounted on the lower end of said shaft within the lower end of said drum, said blades standing adjacent the inner wall of the drum below the horizontal center and at one side of the vertical center thereof, a bearing exterior of the lower end of the drum for supporting the lower end of said shaft, said lower bearing being slotted radially of the drum allowing the lower end of the shaft to move radially to permit said mixer to move away from the wall thereof when the blades of the mixer encounter obstructions between their edges and the wall of the drum.



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1,038,699. CARBURETER. JOHN WILKINSON, Syracuse, N. Y., assignor to H. H. Franklin Manufacturing Company, Syracuse, N. Y., a Corporation of New York. Filed Aug. 18, 1902. Serial No. 120,066. (Cl. 48—188.2.)



1. In a carbureter, the combination of a mixing chamber, means for maintaining a substantially constant lever of hydrocarbon within the chamber and for exposing the upper surface of said hydrocarbon within the chamber, a conduit communicating with the mixing chamber for admitting air thereto, and a gravity-seating valve for controlling the passage of air through the conduit, said valve having its weight so proportioned to the vacuum required to take up an amount of hydrocarbon sufficient to provide a minimum operative charge, that the valve will remain upon its seat until said vacuum is attained in the mixing chamber, substantially as and for the purpose described.

2. In a carbureter, the combination of a mixing chamber, a hydrocarbon reservoir-chamber, a feed-duct leading from the latter and communicating with the mixing chamber, said feed-duct having substantially the same level of hydrocarbon therein as in the reservoir-chamber, and being normally open to permit the passage of the hydrocarbon therethrough, and having an exit-opening within the mixing chamber for exposing within said chamber the upper surface of the level of hydrocarbon within the feed-duct, a float-valve within the reservoir-chamber for controlling the admission of the hydrocarbon thereto and maintaining a substantially constant level of hydrocarbon within the reservoir-chamber, a conduit communicating with the mixing chamber for admitting air thereto, and a gravity-seating valve for controlling the passage of air through the conduit, said valve having its weight so proportioned to the vacuum required to take up an amount of hydrocarbon sufficient to provide a minimum operative charge, that the valve will remain upon its seat until said vacuum is attained in the mixing chamber, substantially as and for the purpose set forth.

3. In a carbureter, the combination of a mixing chamber having a portion of less size than the remaining portion of such chamber, a feed-duct having a part thereof vertically disposed within the mixing chamber and opening directly therefrom, the exit of the feed-duct opening into the portion of less size of the mixing chamber and being normally open to permit the passage of the hydrocarbon therethrough, a hydrocarbon-supply connected to the feed-duct and including means for maintaining a substantially constant level of hydrocarbon in said vertically-disposed part of the feed-duct below the opening therein into the mixing chamber, an air-inlet to the mixing chamber below the opening of said vertically-disposed part of the feed-duct, and a valve for closing and controlling the air-inlet, substantially as and for the purpose described.

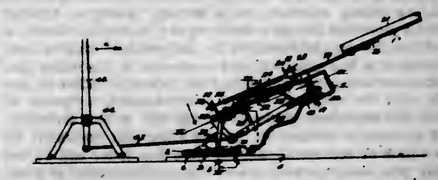
4. In a carbureter, the combination of a mixing chamber having a portion of less size than the remaining portion of such chamber, a feed-duct having a part thereof vertically disposed within the mixing chamber and opening at its upper end directly therefrom, the exit of the feed-duct opening into the portion of less size of the mixing chamber, and being normally open to permit the passage of the hydrocarbon therethrough, a hydrocarbon-supply comprising a reservoir-chamber connected to the feed-duct, and a float-valve within the reservoir-chamber for controlling the admission of the hydrocarbon to the reservoir-chamber and thereby maintaining a constant level of the hydrocarbon in the feed-duct and the reservoir-chamber, a normally-fixed valve for controlling the flow through the feed-duct arranged intermediate of the vertically-disposed part of the latter and the reservoir-chamber, an air-inlet to the mixing chamber below the opening of said vertically-disposed part of the feed-duct, and a gravity-seating valve for controlling the passage of air through the air-inlet, said valve having its weight so proportioned to the vacuum required to take up an amount of hydrocarbon sufficient to provide a minimum operative charge, that the valve will remain upon its seat until said vacuum is attained in the mixing chamber, substantially as and for the purpose set forth.

5. In a carbureter, the combination of a casing having a conduit for the passage of the air and a feed-duct for the hydrocarbon discharging into the conduit, said casing being provided with a substantially square surface surrounding the inlet of the conduit and with substantially equidistant openings at the corners of said surface, a second conduit for communicating with the former conduit having a laterally-extending branch, said second conduit being provided with a substantially square surface surrounding its exit and opposed to the former substantially square surface, and with substantially equidistant openings at the corners of said surface alined with the former openings when the second conduit is arranged with its branch extending to one side, or the front, or the rear of the frame, and fastening means passed through said openings, substantially as and for the purpose set forth.

[Claim 6 not printed in the Gazette.]

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1,038,700. TARGET-TRAP. JAMES HARVEY WILSON, Randall, Kans. Filed Jan. 26, 1912. Serial No. 673,567. (Cl. 124—6.)



1. In a target trap, a base board, a circular base rotatably connected to the base board, a transverse member on the base board which underlies one side of the base, a yoke centrally secured to the base board and underlying the opposite side of the base, said yoke having its ends turned inwardly so as to engage on the top face of the base, a yoke secured to the base and extending upwardly therefrom, a substantially U-shaped inclined frame having the free end of its lower leg secured to the base and having the free end of its upper leg secured to the top of the second mentioned yoke, a shaft projected through both legs of the frame at its outer end, a throwing arm fixedly secured to the shaft above the upper leg of the frame, a spring connected to the throwing arm and to

the upper leg of the frame, a trigger carried by the upper leg of the frame, and means to operate the trigger.

2. In a target trap, in combination with a frame, having an inclined leg portion, and a spring throwing arm pivotally connected to said leg portion and having a catch, a trigger having a horizontal portion that extends across the leg portion and is movably connected thereto, one end of said trigger being turned upwardly to engage the catch of the throwing arm, the other end of said trigger being bent downwardly, a releasing bar, links for swingingly supporting said bar from said leg portion of the frame, said releasing bar having a perforated lug that receives the downturned end of the trigger, and a spring connected to the top extremity of the upturned end of the trigger and to the leg portion of the frame.

3. In a trap, in combination with a base board, a circular base rotatably connected to the base board, a member on the base board on which one side of the base rests, a second member on the base board on which the base rests at the opposite side of the latter, said second member having guide portions which engage on top of the base, a vertical member secured to the base, a substantially U-shaped frame having one end secured to the top portion of the vertical member and having its other end secured to the base, and throwing means carried by said frame.

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1,038,701. SPARK-PLUG. WILLIAM SIBERT WITTER, Julesburg, Colo. Filed Feb. 21, 1911. Serial No. 609,961. (Cl. 123—154.)



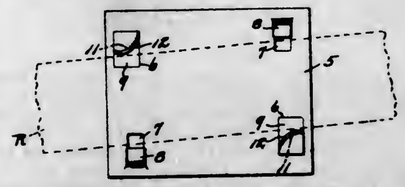
1. A spark plug having a fixed sparking point, a longitudinally movable firing pin having a sparking point, an insulating sleeve in which the firing pin is movable, an electromagnet having a tubular core through which the insulating sleeve extends, an armature having a tubular portion mounted for movement on the insulating sleeve, a guide carried by and mounted for independent longitudinal movement in the armature and connected to the firing pin, said armature, guide and firing pin being included in circuit with the windings of the electromagnet, a spring to move the armature, guide and firing pin in one direction, and a hammer carried by the armature and normally, by the action of the spring, spaced from the upper end of the firing pin, said hammer, when the electromagnet is energized, striking the firing pin and moving the same downwardly to suddenly separate the sparking points.

2. A spark plug having a fixed sparking point, a longitudinally movable firing pin having a sparking point, an insulating sleeve in which the firing pin is movable, an electromagnet having a tubular core and also having a tubular outer member forming a casing, magnetically connected to the tubular core piece and forming a pole of the electromagnet, both poles being presented at the upper end of the electromagnet, an armature presented to the poles of the electromagnet and having a tubular portion mounted for movement on the insulating sleeve, a guide carried by and mounted for independent longitudinal movement in the armature and connected to the firing pin, said armature, guide and firing pin being included in circuit with the windings of the electromagnet, a spring to move the armature, guide and firing pin in one direction, and a hammer carried by the armature and normally, by the action of the spring, spaced from the upper end of the firing pin, said armature, guide and firing pin being included in circuit with the windings of the electromagnet, a spring to move the armature, guide and firing pin in one direction, and a hammer carried by the armature and normally, by the action of the spring, spaced from the upper end of the firing pin, substantially as described.

3. A spark plug having a fixed sparking point, a longitudinally movable firing pin having a sparking point, an insulating sleeve in which the firing pin is movable, an electromagnet having a tubular core and also having a tubular outer member forming a casing, magnetically connected to the tubular core piece and forming a pole of the electromagnet, both poles being presented at the upper end of the electromagnet, an armature presented to the poles of the electromagnet and having a tubular portion mounted for movement on the insulating sleeve, a guide carried by and mounted for independent longitudinal movement in the armature and connected to the firing pin, said armature, guide and firing pin being included in circuit with the windings of the electromagnet, a spring to move the armature, guide and firing pin in one direction, and a hammer carried by the armature and normally, by the action of the spring, spaced from the upper end of the firing pin, a nonmagnetic cap forming the upper end of the casing, attached to the tubular outer core piece of the electromagnet and inclosing the armature, the hammer, the upper end of the electromagnet and the firing pin.

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1,038,702. ANTICREEPER TIE-PLATE. DAVID P. WOLHAUPTER, Washington, D. C. Filed May 28, 1909. Serial No. 498,987. (Cl. 238—4.)



1. An anti-creeping device consisting of a single piece tie-plate having rigid rail gripping elements, and means for causing, through bodily adjustment of said plate, a biting of said elements into the rail.

2. An anti-creeping device consisting of a single piece tie-plate having rail gripping elements rigid therewith, and means for effecting lateral bodily adjustment of the plate, through driving of the spike, to cause biting of said elements into the rail.

3. An anti-creeping device consisting of a single piece tie-plate having oppositely located rail gripping elements rigid therewith, and rail engaging means arranged to cause lateral bodily adjustment of the plate for forcing said elements into biting engagement with opposite portions of the rail.

4. An anti-creeping device consisting of a single piece tie-plate having rigid therewith diagonally opposite rail gripping elements, and fastening devices located opposite the gripping elements and arranged to cause lateral bodily adjustment of the plate, upon the fastening-down operation, to carry the opposite gripping elements into biting engagement with the rail.

5. A tie plate having sockets at two diagonally opposite points, and spike-receiving openings at two other diagonally opposite points, anti-creeping devices having bases that engage in the sockets and underlie the rail placed on the plate, said devices having teeth arranged to bite the base flange of the rail and having heads that engage over the said flanges.

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1,038,703. FILE-CABINET. RICHARD WM. WOOD, New York, N. Y. Filed Feb. 2, 1911. Serial No. 606,186. (Cl. 129—32.)

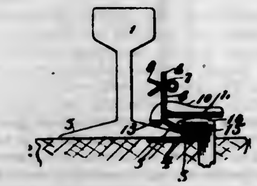
The combination with a rectangular shaped file cabinet completely open at its top, of a combined compressor and card holder comprising a strip of spring sheet metal doubled closely upon itself forming thereby two similarly curved converging wings, their opposite outer terminal edges being adapted for yielding and vertical adjustment with the front wall of the cabinet and the contents thereof, the lower round portion of the device being adapted for



movable contact with the base of the cabinet, whereby a card may be guided by the inner curved surfaces of the wings and yieldingly and temporarily held in a vertical position with the edges of the wings located below the upper edge of the cabinet for the purposes described.

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1,038,704. SPIKE-HOLDER. GEORGE W. WRIGHT, Akron, Ohio. Filed Apr. 12, 1912. Serial No. 690,286. (Cl. 238—4.)



1. The combination with a rail and tie of a V-shaped member one leg of which is positioned under the flange of the rail and with its companion member immediately above said flange, said companion provided with an upright portion and a keeper shiftably mounted on the upright portion with its extended end adapted to rest on the head of a spike for holding the latter against upward movement.

2. The combination with a rail and tie of a member adapted to be inserted under and be forced downwardly by the weight of the rail, said member provided with an upright portion, and a vertically shiftable keeper on said upright portion adapted to engage the head of a spike used for holding a rail, to hold the former against upward movement.

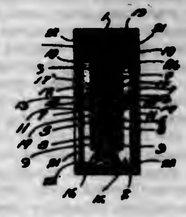
3. A device for holding spikes in position comprising a member engaging under and forced downwardly by a rail, said member embodying an upwardly-extending portion, and a vertically shiftable keeper on said upright portion a portion of which is arranged to rest on the head of a spike for holding the same against upward movement.

4. A device for holding railroad spikes in position embodying a member engaging under the flange of the rail and provided with an upwardly-extending portion, a keeper shiftably mounted on said upright portion and arranged to engage the head of the spike, said keeper provided with means engaging said upright portion of said member to prevent its unintentional upward movement.

5. A device for holding railroad spikes against upward movement embodying a member adapted to be engaged and forced downwardly by the flange of the rail, said member provided with an upright portion, a keeper mounted on said upright portion adapted to be freely movable in a downward direction and adapted to engage said upright portion to prevent its unintentional upward movement, said keeper provided with a portion adapted to engage the head of a spike.



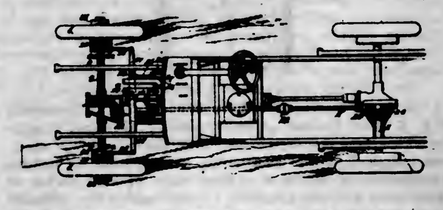
1,038,705. PLUMB-LEVEL. BENJAMIN F. YANTIS, Hollis, Okla. Filed Nov. 2, 1911. Serial No. 658,215. (Cl. 73—71.)



A plumb level comprising a stock, recesses formed in each side thereof, said recesses being separated by a partition, a perforation formed in the central portions of the partition, a shaft mounted in said perforations and having its ends projected into the recesses and formed with race ways, disks secured in the recesses and provided with peripheral graduations, indicators rotatably mounted upon each end of said shaft, said indicators consisting of a weighted portion and pointers, race ways formed at the point of conjunction of the weighted portion and pointers, said pointers being adapted to coact with the graduations to indicate the different positions of the stock when the race ways are confronting and balls placed therebetween, and means for removably securing the indicators to the shaft.

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1,038,706. UNIVERSAL JOINT AND FOUR-WHEEL DRIVE. JOHN L. YEOMAN, Chehalis, Wash. Filed Dec. 5, 1911. Serial No. 664,018. (Cl. 21—90.)



1. In a motor vehicle, wheels universally mounted on the front axle thereof, said axle having ball ends, the hubs of the front wheels each comprising an inner member having two internally threaded portions, a ball engaging plug that threads into one of the internally threaded portions of the inner hub member, a ring loosely mounted on the hub, a cap member threaded into the other threaded portion of the said hub member, said cap having a keeper portion for holding the ring onto the hub, said ring having a flat member that extends over and engages a flat portion of the chassis, and means coöperating with the said member for turning the wheels on their pivots.

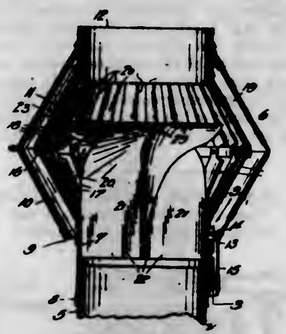
2. In a motor vehicle, wheels universally mounted on the front axle, said axle having ball ends, the hubs of the front wheels each comprising an inner member having two internally threaded portions, a ball engaging plug that threads into one of the internally threaded portions of the inner hub member, a ring loosely mounted on the hub, a cap member threaded into the other threaded portion of the said hub member, said cap having a keeper portion for holding the ring onto the hub, said ring having a flat member that extends over and engages a flat portion of the chassis and means coöperating with the said flat member for turning the wheels on their pivots, an outer hub member that opposes the inner hub member, and a cap that threads onto the inner hub member and engages the outer hub member and covers the threaded plug that engages the ball end of the axle.

3. In a motor vehicle, the combination with the front chassis, a front power driven axle rotatable thereon, a ball on the end of the axle having a radial lug, a wheel

having a hub consisting of two opposing members each having flanges for engaging the wheel spokes, one of the said members having an annular groove and two internally threaded portions of different diameters, said flange member also having a segmental groove and an aperture that communicates with the said groove, a cap plate adapted to screw onto the outer end of the aforesaid hub member and adapted to clamp the other hub member against the spokes, the said other hub member forming a closure for the aperture in the first named hub member, a plug having a concaved seat for engaging one side of the ball, a cap plate that threads into the threaded hub portion, said hub portion having an annular groove movable in the said groove, said ring having members that extend over the vehicle chassis, a cap member threadable into the first named hub member, said cap member forming a keeper to hold the wing to the hub.

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1,038,707. SPARK-ARRESTER. WALLACE C. YEOMANS, Pe Ell, Wash. Filed Nov. 2, 1910. Serial No. 590,373. (Cl. 110—139.)



1. In a spark arrester, the combination with a smoke-stack, a shell formed of two reversely arranged frusto-conical sections secured to the top of said stack, the maximum diameter of said shell being intermediate its height, two superposed series of blades, each of said series of blades being inclined similarly to the respectively adjacent section affording an annular space between said blades and shell, and a plurality of vanes arranged axially of said shell to effect a whirling motion to smoke passing upwardly through the shell.

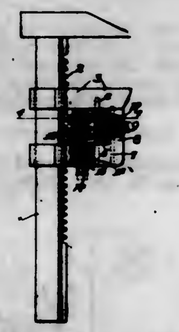
2. In a spark arrester, the combination with a smoke-stack, of a sleeve adapted to fit over the exterior of the stack, a bracket flange secured to said sleeve and provided with a discharge opening, a pipe in axial alinement above said sleeve, a funnel-shaped plate secured to said flange, a conoidal plate secured to the above named plate and to said pipe, two superposed series of blades spaced respectively from said plates to afford an annular chamber therebetween, said blades being each curved to afford an inwardly protruding lip, and curved vanes fixedly secured to said sleeve for effecting a whirling motion to an ascending column of smoke and causing the same to be subject to the action of said blades.

3. In a spark arrester, the combination with a smoke-stack, of a sleeve adapted to fit over the exterior of the stack, a bracket flange secured to said sleeve and provided with a discharge opening, a pipe in axial alinement above said sleeve, a tongue blade extending in an inclined direction partly across said opening, a funnel-shaped plate secured to said flange, a conoidal plate secured to the above named plate and to said pipe, two superposed series of blades spaced respectively from said plates to afford an annular chamber therebetween, said blades being each curved to afford an inwardly protruding lip, and curved vanes fixedly secured to said sleeve for effecting a whirling motion to an ascending column of smoke and causing the same to be subject to the action of said blades.

4. In a spark arrester, the combination with a smoke-stack, of a sleeve adapted to fit over the exterior of the stack, a bracket flange secured to said sleeve and provided with a discharge opening, a funnel-shaped plate secured to said flange, a conoidal plate secured to the above named plate, a pipe secured to the smaller end of the last named plate and extending a distance therebelow, two superposed series of blades respectively secured to the sleeve and the pipe and spaced from said plates to afford an annular chamber therebetween, said blades being each provided with an inwardly protruding lip, and curved vanes fixedly secured to said sleeve for effecting a whirling motion to an ascending column of smoke and causing the same to be subject to the action of said blades.

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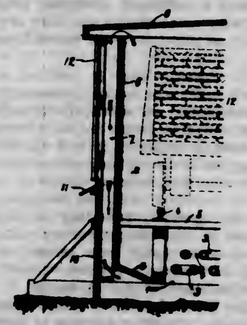
1,038,708. WRENCH. HIPOLIT ZIELINSKI, Chelsea, Mass. Filed Nov. 1, 1911. Serial No. 658,007. (Cl. 81—158.)



The combination in a wrench comprising a fixed jaw and a movable jaw suitably apertured, of a knuckle pivotally mounted in the said movable jaw and provided with a worm, a pin provided with a spring adapted for engagement with the said knuckle disposed in an apertured portion of the said movable jaw, a slotted spring-actuated pin suitably supported disposed within another apertured portion of the said movable jaw for releasable locking-engagement with the said knuckle.

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1,038,709. DRYING-KILN. ROBERT ARMSTRONG, Port Moody, British Columbia, Canada, assignor of one-half to Robert Hamilton, Vancouver, Canada. Filed Nov. 1, 1911. Serial No. 658,028. (Cl. 34—3.)

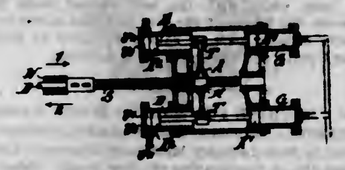


In a drying kiln having a non-conducting inner wall and an outer wall composed of an upper and a lower section, said lower section formed of non-conducting material, said upper section including an open frame work and vertically disposed corrugated sheet metal sheathing over said frame work, said upper wall section being spaced from said lower wall section, and a downwardly and outwardly inclined shedding plate mounted in the space between the upper and lower outer wall sections to receive the water of condensation from said corrugated sheathing and deliver it to the outside of the kiln.



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1,038,710. STEP-BY-STEP ROLLING-MILL. HUGO ACKERMANN, Dinslaken, Germany. Filed Feb. 13, 1912. Serial No. 677,322. (Cl. 80—14.)



1. In a step-by-step rolling mill for rolling a blank, a reciprocatory mandrel for carrying the blank, means for effecting the forward movement of said mandrel, a brake cylinder having an exhaust opening therein in constant communication with the interior of said cylinder and with a fluid space, and a piston working in said cylinder, said piston being adapted to draw fluid into said cylinder during the backward movement of said mandrel and to force out said fluid under compression through said opening on the forward movement of said mandrel, so as to diminish the pressure in said cylinder near the end of said forward movement.

2. In a step-by-step rolling mill for rolling a blank, a reciprocatory mandrel for carrying the blank, means for effecting the forward movement of said mandrel, a brake cylinder having an exhaust opening therein in constant communication with the interior of said cylinder and with a fluid space, means for regulating the cross-sectional area of said opening, and a piston working in said cylinder, said piston being adapted to draw fluid into said cylinder during the backward movement of said mandrel and to force out said fluid under compression through said opening on the forward movement of said mandrel so as to diminish the pressure in said cylinder near the end of said forward movement.

3. In a step-by-step rolling mill for rolling a blank, a reciprocatory mandrel for carrying the blank, means for effecting the forward movement of said mandrel, a brake cylinder having an exhaust opening therein in constant communication with the interior of said cylinder and with a fluid space, a valve adapted to more or less close said opening, an adjustable spindle carrying said valve and a piston working in said cylinder, said piston being adapted to draw fluid into said cylinder during the backward movement of said mandrel and to force out said fluid under compression through said opening on the forward movement of said mandrel, so as to diminish the pressure in said cylinder near the end of said forward movement.

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1,038,711. NOSE-GUARD FOR EYEGLASSES. LEO F. ADT, Albany, N. Y. Filed Mar. 24, 1906. Serial No. 307,774. (Cl. 88—50.)



1. In a nose guard, the combination with a substantially horizontally arranged arm, of a nose engaging member composed of a resilient piece of material having one end pivotally connected to the arm, then extended downwardly and upwardly to form a loop and carried upwardly above the arm and free of the latter, and an upper nose engaging pad at the free end of said resilient portion.

2. In eyeglasses, the combination with the lenses, and a bridge connecting them, of nose guards each embodying a nose-engaging portion having bearing surfaces thereon connected by a resilient loop to enable the nose-engaging portions to conform to the surface of the nose, and an attaching portion connected to the mounting and having the nose-engaging portion fulcrumed thereon at a point intermediate of the bearing surfaces thereof to permit a free relative rocking movement between the nose-engaging portion and the attaching portion, the bearing surfaces and the fulcrum point being arranged substantially in alinement.

3. In eyeglasses, the combination with the lenses, and a bridge connecting them, of nose guards each embodying an attaching portion connected to the mounting, and a nose-engaging member composed of resilient material having one end journaled to turn on the attaching arm, a nose-bearing surface being formed on the member at one side of its point of attachment, and the other end of the material being doubled and extended beyond the point of attachment and forming an additional or supplemental nose-bearing surface.

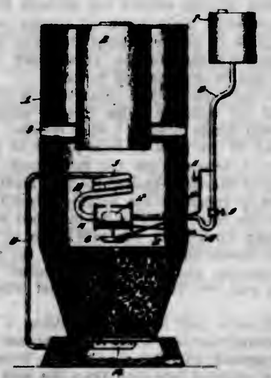
4. In eyeglasses, the combination with the lenses, and a bridge connecting them, of nose guards each embodying an attaching portion connected to the mounting having a flat portion thereon and a nose-engaging member having a bearing portion coöperating with the flat portion on the attaching portion to permit a relative rocking movement of the nose-engaging member, the sides of said bearing portion being relatively inclined to limit the rocking movement of said member.

5. In eyeglasses, the combination with the lenses, and a bridge connecting them, of nose guards each embodying a rearwardly-extending attaching arm connected to the mounting and having recesses formed in its upper and lower edges to form limiting shoulders, and a nose-engaging member having a portion loosely embracing the attaching arm and resting in said recesses between the limiting shoulders to form a bearing permitting relative rocking movement of the nose-engaging member about the attaching arm as a center, said shoulders preventing movement of said member substantially in the plane of said arm.

[Claims 6 to 9 not printed in the Gazette.]

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1,038,712. LIQUID-FUEL BURNER. THOMAS R. AULENBROOK, Louisville, Ky. Filed Nov. 11, 1911. Serial No. 659,795. (Cl. 158—54.)



1. In means for burning oil, the combination of a generator, means for supplying oil to the generator, means for heating the oil in the generator to convert the same into gas, a pan arranged beneath the generator and a small pipe tapped into the lower portion of the generator and extending outwardly therefrom and formed into a loop and terminating over the pan to discharge oil thereon from the generator, and a valve in the length of said pipe.

2. In means for burning oil, the combination of a generator, a pan located below the generator and in close proximity thereto, a pipe for leading the oil from a source of supply to the generator, a small pipe tapped into the oil supplying pipe and leading to the said pan and having a valve in its length, and a second small pipe having connection with the lower portion of the generator and formed into a loop and terminating over the before mentioned pan to discharge oil therein from the generator, the last mentioned pipe having a controlling valve in the outer end of the loop.

3. In means for burning oil, the combination of a generator, a pipe having connection with the generator for supplying oil thereto, a burner arranged beneath the generator, a coil located above the generator and having connection with the said generator and with the burner, a pan arranged below the generator and between it and the burner, a drain pipe having connection with the lower portion of the generator and formed into a loop and terminating above the said pan, and a small pipe tapped into the oil supplying pipe and likewise terminating above the said pan, both the drain pipe and the said small pipe having a valve in their length.

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1,068,713. TRAIN-ORDER-PAD HOLDER. WILLIAM H. BARNEY, Albuquerque, N. Mex. Filed Oct. 27, 1911. Serial No. 657,066. (Cl. 11—11.)



1. A train order pad holder comprising a plate having one end and its opposite sides formed with upturned flanges, the end flange forming a stop member for holding the upper end of the pack as it is placed in position on the plate and a second plate the full width of the pad hinged to one of the side edges of the first mentioned plate to fold laterally thereover for holding down the pack of leaves under the loose leaves to be inscribed and to form a solid writing surface for the said loose leaves, said first mentioned plate being of greater length than said second plate to project beyond the same and form a hand engageable holder portion at the end of the pad opposite the end having the end flange.

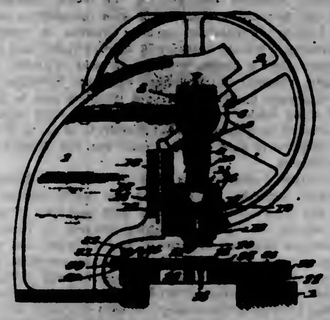
2. A train order pad holder comprising a plate having one end and its opposite sides formed with upturned flanges, the end flange forming a stop member for holding the upper end of the pack as it is placed in position on the plate and a second plate the full length of the pad hinged to one of the side edges of the first mentioned plate to fold laterally thereover for holding down the pack of leaves under the loose leaves to be inscribed and to form a solid writing surface for the said loose leaves, and a supplemental means on the lower end of the first named plate for engaging and clamping the loose leaves, the hinged plate and the order pack against sliding out of the holder.

3. A train order pad holder, comprising a body plate having projecting portions along two adjacent edges, said projecting portions extending upwardly from the said body plate, a plate of less area than the said body plate hinged to the said body plate along a third edge, said second plate when folded over the said first plate lying within the confines of said body plate and leaving a portion of the said body plate below the said second plate exposed to form a supporting portion adapted to be gripped by the fingers of the operator and all being arranged whereby the train order pad may be retained on said body plate with the said second plate folded over between the leaves of the said pad.

4. A [illegible] pad holder, comprising a body plate having projecting portions along two adjacent edges, said projecting portions extending upwardly from the said body plate, a plate of less area than the said body plate hinged to the said body plate along a third edge, said second plate when folded over the said first plate lying within the confines of said body plate and leaving a portion of the said body plate below the said second plate exposed all being arranged whereby the train order pad may be held on said body plate with the said second plate folded over between the leaves of the said pad, and a clip secured to the said exposed part of said body plate to hold the said second plate after the said pad in position.

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1,068,714. MACHINE FOR MAKING SCOOP WASHING-CYLINDERS. WERNER SCHMIDTGEWV, Chicago, Ill., assignor to Troy Laundry Machinery Company, Limited, Chicago, Ill., a Corporation of New York. Filed June 19, 1911. Serial No. 633,967. (Cl. 113—1.)



1. A machine for forming buckets in plates, comprising a bed having die clamping means, detachable gages mounted on said bed, an adjustable gage for advancing the plate to be operated upon, and a reciprocating plunger carrying a die holder.

2. A machine for forming buckets in plates comprising a stationary die clamping means and a movable die clamping means, coöperating male and female dies mounted in said clamping means, a stripper coöperating with the male die, and means for positioning and adjusting a plate in respect to said dies.

3. A machine for forming buckets in plates comprising a bed having die clamping means, a plunger provided with die clamping means, means for initially positioning a plate upon said bed, and a back gage for advancing the plate as the same is acted upon by the dies.

4. A machine for forming buckets in plates comprising a bed, a plunger, coöperating dies carried respectively by said bed and plunger, detachable gages carried by the bed, a slidably mounted back gage, means for imparting a step-like movement to said back gage, and means for locking the same in its adjusted position.

5. A machine for forming buckets in plates having coöperating dies, means for positioning the plate in respect to the dies, detachable gages for holding said plate in different positions in respect to the dies, and a back gage for advancing the plate.

[Claim 6 not printed in the Gazette.]

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1,068,715. ROLLER SPINNING-DISK FOR CRIMPING-MACHINES. GEORGE W. SHARLA, Bayonne, N. J., assignor to Single Service Package Corporation of America, New York, N. Y. Filed Sept. 30, 1910. Serial No. 584,756. (Cl. 93—38.)

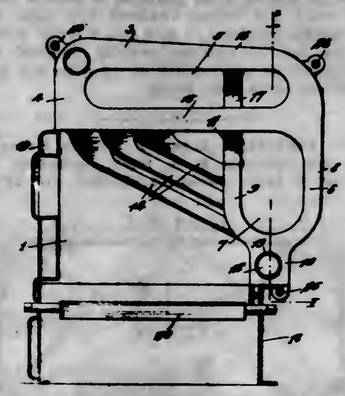
2. A spinning disk for carton crimping machines provided with a spinning groove adapted to curve the edge of a carton to the desired shape; means comprising a





1. In a device [illegible] the combination with the sleigh body [illegible] of a pair of rigidly connected brakes, [illegible] one on each side of the sleigh body and extending downward, [illegible] each brake [illegible] of said brakes [illegible] and [illegible] of said brakes [illegible] and [illegible] said brakes [illegible] and [illegible] said brakes [illegible] and [illegible]

close to the top wall of the fire box to form a passage from the fire box into the fire flue of said pedestal, all of said pedestal portions fitting closely together and forming the rear wall of the fire box, means at one end of the boiler for directing the products of combustion from the pedestal fire flue into the fire flue of the main portion, and means at the other end of the boiler for directing the products of combustion from the upper fire flue to the smoke outlet.



2. A boiler composed of two sections and intermediate water sections arranged side by side and extending from front to rear of the boiler, each of said intermediate sections being formed with an upper main portion and a rear pedestal portion, the upper main portion being formed with a transverse flue and all of said main portions fitting closely together and forming a closed top to the fire box, the pedestal portion of each section being formed with a transverse flue and with a part reduced in cross section close to the top wall of the fire box to form a passage from the fire box into the fire flue of said pedestal, all of said pedestal portions fitting closely together and forming the rear wall of the fire box, and a series of forwardly and upwardly extending water tubes connecting the pedestal portion of each section with the main portion thereof, said water tubes being within the fire box and arranged one above the other and gradually increasing in diameter from the lower one to the upper one, one vertical side of each of said tubes being flush with one side of the boiler section, and said tubes serving to direct the fire gases to the passages leading into the pedestal fire flues.

3. A boiler composed of two sections and intermediate water sections arranged side by side and extending from front to rear of the boiler, each of said intermediate sections being formed with an upper main portion and a rear pedestal portion, the upper main portion being formed with a transverse flue and all of said main portions fitting closely together and forming a closed top to the fire box, the pedestal portion of each section being formed with a transverse flue and with a part reduced in cross section close to the top wall of the fire box to form a passage from the fire box into the fire flue of said pedestal, all of said pedestal portions fitting closely together and forming the rear wall of the fire box, and a series of forwardly and upwardly extending water tubes connecting the pedestal portion of each section with the main portion thereof, said water tubes being within the fire box and arranged one above the other and gradually increasing in diameter from the lower one to the upper one, one vertical side of each of said tubes being flush with one side of the boiler section, and said tubes serving to direct the fire gases to the passages leading into the pedestal fire flues.

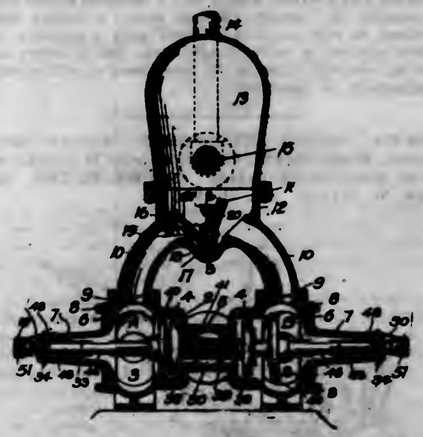
4. A water section for a sectional boiler formed with an upper main horizontal portion substantially uniform in width and extending from the front to the rear of the boiler, a rear pedestal portion connected to the rear end of the main portion, each of said portions being formed with a transverse fire flue, the lower part of the main portion being adapted to form a part of the upper wall of a fire box, the forward part of the pedestal portion being adapted to form a part of the rear wall of a fire box, a part of the pedestal portion on the fire box side thereof and close to the bottom of the main portion being reduced in cross sectional area, whereby a passage will be formed from the fire box into the pedestal fire flue when a plurality of sections are arranged side by side to form a boiler.

5. A water section for a sectional boiler formed with an upper main horizontal portion substantially uniform in width and extending from the front to the rear of the boiler, a rear pedestal portion connected to the rear end of the main portion, each of said portions being formed with a transverse fire flue, the lower part of the main portion being adapted to form a part of the upper wall of a fire box, the forward part of the pedestal portion being adapted to form a part of the rear wall of a fire box, a part of the pedestal portion on the fire box side thereof and close to the bottom of the main portion being reduced in cross sectional area, whereby a passage will be formed from the fire box into the pedestal fire flue when a plurality of sections are arranged side by side to form a boiler.

[Claim 6 not printed in the Gazette.]

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1,038,719. DUPLEX HYDRAULIC RAM. RANSOM Y. ROWE, Denver, Colo., assignor to Hydro Engine, Power and Irrigation Company, Denver, Colo. Filed Mar. 13, 1909. Serial No. 483,267. (Cl. 103—29.)



1. In an apparatus of the class named, a raising main, two drive pipes adapted to separately communicate therewith, an interposed waste pipe adapted to connect with either of said drive pipes, a reciprocating valve element constructed to alternately close the communication between the waste pipe and the drive pipes at opposite sides thereof, and means adapted to be actuated independently from the valves by influence of the varying momentums of fluid emitted from the drive pipes, for reversing the position of the said valves.

2. In an apparatus of the class named, a raising main, two drive pipes adapted to separately communicate therewith, an interposed waste pipe adapted to connect with either of said drive pipes, a reciprocating valve-element constructed to alternately close the communication between the waste pipe and the drive pipes at opposite sides thereof, by influence of the varying momentums of fluid emitted from the latter, means for exerting a continually decreasing pressure upon the closed side of the said element, and means for varying the degree of decrease of said pressure in ratio to a determinate period.

3. In an apparatus of the class named, a raising main, two drive pipes adapted to separately communicate therewith, a waste pipe interposed to connect with either of said drive pipes, oppositive valves adapted to alternately close the communication between the waste pipe and one of the drive pipes while closing that with the opposite one and an independently operating element adapted to be impelled by the momentum of the body of fluid emitted from the drive pipe in communication with the waste-conduit, and constructed to engage the said valves so as to reverse their position.

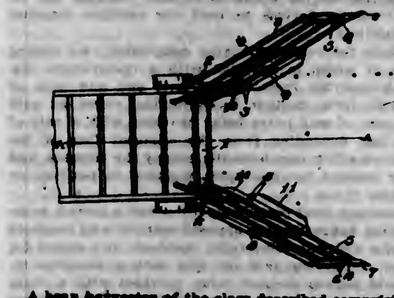
4. In an apparatus of the class named, a raising main, two drive pipes adapted to separately communicate therewith, a waste pipe interposed to connect with either of said drive-pipes, oppositive valves adapted to alternately close the connection between the waste pipe and one of the drive pipes while closing that with the opposite one, and an independently operating element adapted to be impelled by the momentum of the body of fluid emitted from the drive pipe in communication with the waste-conduit, and constructed to engage the said valves so as to reverse their position at a degree of velocity disproportionate to that of the said body of fluid.

5. In an apparatus of the class named a housing including two throttle chambers, an interposed waste conduit adapted to connect with either of the said chambers, drive pipes separately in communication with the respective chambers, a valve element constructed to alternately close the connections between the waste-pipe and the chambers at opposite sides thereof, and a driving element adapted to reverse the position of the said valve element by engagement therewith and composed of oppositive members, movable in the said chambers in spaced relation to their walls.

[Claims 6 to 15 not printed in the Gazette.]

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1,038,720. HEAN-HARVESTER. VIRGIL C. BRYANT, Berkeley, Cal. Filed July 12, 1911. Serial No. 638,104. (Cl. 56—1.)



A bean harvester of the class described comprising a plurality of frames, each frame comprising a vertical cutter supporting plate, and a plurality of rearwardly extending bars, a supporting cleat engaging the rear ends of said bars, a bracing rod extending from the top of said supporting cleat to the top of said supporting plate for bracing the outer end of said frame, an auxiliary bracing cleat engaging said bars intermediate their ends, a horizontal cutting blade supported by said supporting cleats and extending for a portion of the length of said rods, a vertically extending cutter carried by said supporting plate, and a shoe carried by said supporting plate for facilitating the moving of said frame over the ground and preventing the lower end of said cutter from digging into the ground.

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1,038,721. CENTERING-TOOL FOR LATHES. DELONA L. CALAHAN, Centralia, Wash. Filed Jan. 9, 1912. Serial No. 670,221. (Cl. 122—53.)

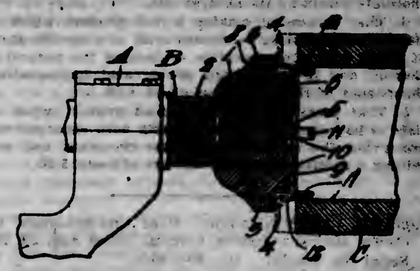
1. A centering tool including a head having a reduced peripheral portion, and a recessed working face surrounded by said portion, radially adjustable elements mounted upon said face, and resilient steel engaging fingers carried by said elements and diverging rearwardly therefrom.

2. A centering tool including a head, radially disposed elements adjustably mounted upon the working face of the



same, forwardly extending arms carried by said elements, and rearwardly diverging fingers extending from the same.

3. A centering tool including a head, radially adjustable elements upon the working face thereof, forwardly extending spring arms carried by said elements, and rearwardly diverging spring fingers upon the arms.



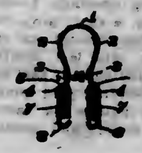
4. A centering tool including a head, radially adjustable elements upon the working face thereof, forwardly extending spring arms carried by said elements, rearwardly diverging spring fingers upon the arms, and means upon the head and adjacent the free ends of the fingers for engaging the work centered by the fingers.

5. A centering tool including a head having an annular shoulder, work engaging elements extending from said shoulder, and resilient centering fingers projecting beyond and movable with the working face of the head and diverging rearwardly toward the work engaging elements.

[Claims 6 and 7 not printed in the Gazette.]

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1,038,722. KEY-HOLDER. MILO CASTHOLM, Kansas City, Mo. Filed Dec. 9, 1911. Serial No. 664,882. (Cl. 70—35.)



1. In a key holder, the combination of a yoke closed at one end and open at the other end, said yoke constructed to slip longitudinally over the knob shank of a door lock in an approximately transverse direction to the axis of said shank, and a coil spring attached to each end of said yoke and constructed to engage the opposite sides of a key while expanded in tension.

2. In a key holder, the combination of a flat metal yoke closed at one end and open at the other end, said yoke constructed to slip longitudinally over the knob shank of a door lock in an approximately transverse direction to the axis of said shank, and a coil spring attached to each end of said yoke and constructed to engage the opposite sides of a key while expanded in tension.

3. In a key holder the combination of a flat metal yoke closed at one end and open at the other end, said yoke constructed to slip longitudinally over the knob shank of a door lock in an approximately transverse direction to the axis of said shank, and a coil spring attached to each end of said yoke and constructed to engage the opposite sides of a key while expanded in tension.

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1,038,723. CHOCOLATE COMPOUND AND METHOD OF PREPARING THE SAME. ARTHUR W. CHASE, Newport News, Va. Filed Nov. 16, 1910. Serial No. 592,997. (Cl. 99—11.)

1. A food product composed of condensed milk impregnated with chocolate and containing the natural milk thereof, but containing substantially the constituents of the condensed milk.

2. The process of making a food product which consists in impregnating condensed milk with chocolate, while maintaining substantially the normal consistency of the former.

3. A food product composed of substantially nine parts of condensed milk by weight mixed with one part of chocolate retaining its natural oils.

4. That process of making a food product which consists in impregnating condensed milk of a specific gravity of about 1.36 with chocolate containing the natural oils thereof, and in maintaining during said impregnation a consistency of the mixture of about 1.36.

5. That process of making a food product which consists in impregnating condensed milk with chocolate while preserving the natural oils of the chocolate, and maintaining a consistency of the mixture of about 1.36.

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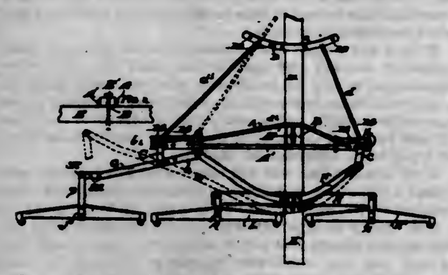
1,038,724. ANNUNCIATOR. CARL CHRISTIANSEN, Vancouver, British Columbia, Canada. Filed Aug. 22, 1911. Serial No. 645,457. (Cl. 40—86.)



An annunciator for street cars comprising a casing, annunciating means carried by said casing, said annunciating means comprising a strip of material having characters formed thereon, spools on which said strip is wound, shafts carrying said spools; a second casing adjacent the first mentioned casing, and provided with a pair of longitudinally extending openings, blocks longitudinally slidable in said casing, a shaft projecting from each of said blocks and extending through one of said openings, guide rollers carried by said last mentioned shafts, springs mounted between the ends of said casing and said blocks, and means for operating said annunciating means, said means comprising pulleys on said shafts, and a cord trained over said pulleys and passing between said guide rollers.

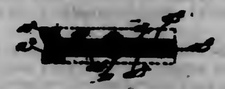
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1,038,725. EVENER. JOHN PAULUCCI CORMODE, Chatham township, Kent county, Ontario, Canada. Filed June 23, 1910. Serial No. 568,481. (Cl. 21—76.)



In an evener, a truss bar secured to a tongue and having a long and a short arm on respective sides of the tongue, an evener lever comprising two similar members, a double tree carried between the members, said evener bar having a long and a short arm, the shorter arm connected to the shorter arm of the truss bar, an auxiliary evener lever connected to the longer arm of the truss bar, the shorter arm of said auxiliary evener lever connected with the longer arm of the first-mentioned evener lever, a swingle tree carried by the longer arm of said auxiliary evener lever, and swingle trees carried by said double tree.

1,038,726. CHAIN CONVEYER. FREDERICK R. CORNWALL, St. Louis, Mo., assignor to C. T. Patterson Company, Ltd., New Orleans, La., a Corporation of Louisiana. Filed June 15, 1910. Serial No. 566,961. (Cl. 198—8.)



1. A flight for conveyer chains comprising a carrying member divided substantially throughout its entire length, the adjacent faces of the two parts of the divided member having interfitting projections and recesses, which permits one of said parts to have a longitudinal sliding movement with respect to the opposite part when said parts are assembled and positioned on a chain or taken apart, there being transversely disposed link receiving grooves formed in the top and bottom of said carrying member at one end thereof and means passing through the two parts of the divided member between the interfitting projections and recesses for fastening said parts together.

2. In a conveyor chain the combination with the chain proper, of a flight comprising two castings, one of which is provided with a link seat and both of which when assembled form another link seat, and interlocking recesses and projections whereby one of said castings may be slid longitudinally upon the opposite casting into and from position, and means for locking the two parts together in position.

3. A flight for conveyer chains comprising two castings, one of which has a link receiving recess at its butt end and both of which form another link receiving recess at said butt end, means on the adjacent faces of the two castings for interlocking said castings together and permit longitudinal movement of one casting relative to the other, and registering openings in said castings for receiving fastening devices to hold the castings together when in position.

4. A flight for conveyer chains comprising two mating parts one of which is provided with a transversely disposed link-receiving recess in its butt end and both of which parts form another link-receiving recess at said butt end, one of said parts being provided with a pair of recesses, lugs depending from the adjacent face of the opposite part which lugs normally occupy the recesses, and means for locking the two parts together in position on the conveyer chain.

5. A conveyer cleat comprising a top and a bottom member including flanges having opposed vertical wall members and endwise abutting reinforcing members, and means for detachably connecting said top and bottom members together; said bottom member being provided with a chain link receiving groove and the upper faces of the bottom and top members being provided with recesses combining to form a chain link receiving groove.

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1,038,727. MORTISING-AUGER. ORLANDO CRANK, Salt Lake City, Utah. Filed Apr. 30, 1912. Serial No. 694,284. (Cl. 145—116.)



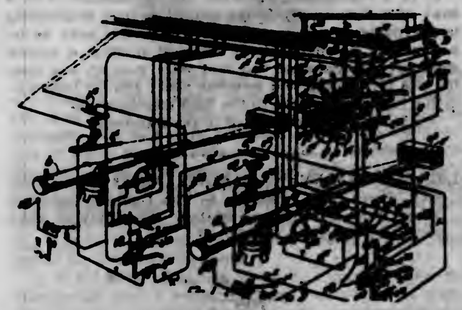
1. A mortising auger consisting of a shank; integral cutting blades on one end thereof and at right angle to the axis and aligned at said axis; and side cutting members integral with said shank and having equal radii, the cutting edges of which are in lines parallel with said shank and their bodies forming an interrupted spiral column.



2. A mortising auger consisting of a shank; integral cutting blades on one end of said shank and at right angles thereto and in line at the axis; side cutting members integral with said shank all having radii equal to said end cutting blades, the cutting edges of which are in lines parallel with said shank, one of said lines being at the back of said end cutting blades, the following line being at the back of the preceding line that runs to the back of the end cutting blades, each line dropping back the same distance.

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1,038,728. TARGET-PRACTICE APPARATUS. HENRY H. CUMMINGS, Newton, Mass., assignor, by mesne assignments, to Atlantic National Bank, Providence, R. I., a Corporation of Rhode Island. Filed Sept. 24, 1906. Serial No. 335,591. (Cl. 124—35.5.)



1. In an apparatus of the class described, the combination with a gun, a screen carried by said gun in front of the muzzle and in the line of sight thereof, image-projecting means for casting a target-image upon the screen, means for imparting movement to said image-projecting means and said image in simulation of the movement of a vessel, recording apparatus comprising a secondary target, a recording needle, a holder in which said needle is mounted for universal movement, said holder also having a universal movement about axes intersecting substantially in the plane of the secondary target face, connections between said holder and said image projecting means for giving the holder a proportionate movement whereby the needle point tends to displacement relatively to the secondary target in like proportion to the actual displacement of the target-image, connections between the gun and the needle whereby the latter undergoes an additional displacement corresponding to the movement of the gun and thereby preserves at all times the relation to the secondary target maintained by the gun to the target-image, and means for moving the target against the needle to record the aim of the gun at the selected instant of firing.

2. In an apparatus of the class described, the combination with a gun, a screen, image-projecting means for casting a target image upon the screen, means for imparting movement to said image-projecting means in simulation of the movement of a vessel, recording apparatus comprising a secondary target, a recording needle, a holder in which said needle is mounted for universal movement, said holder also having a universal movement, connections between said holder and said image-projecting means for moving the holder in like proportion whereby the needle point undergoes displacement relatively to the secondary target in like proportion to the actual displacement of the target-image, connections between the gun and the needle whereby the latter is displaced about its fulcrum to correspond to the movement of the gun, thereby preserving the same relation to the secondary target maintained by the gun and the target-image, and means for moving the target against the needle to record the aim of the gun at the selected instant of firing.

3. In an apparatus of the class described, the combination with a gun, a screen in the line of sight thereof, image-projecting means for casting a target image upon the screen, means for imparting undulatory movement to said projecting means in simulation to the movement of a vessel, a recording apparatus comprising a secondary target, a recording needle, connections between the needle and the image-projecting apparatus and connections also between the needle and the gun whereby the needle maintains the same relation to the secondary target maintained by the gun and the target-image, and means for moving the target against the needle to record the aim of the gun.

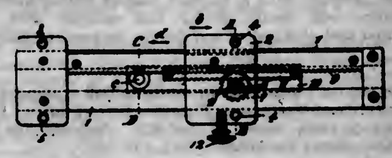
4. In an apparatus of the class described, the combination with a gun, a screen, movable image-projecting means for casting a movable target image upon the screen, a recording apparatus comprising a secondary target and a recording needle, connections between the recording apparatus and the image-projecting apparatus for causing relative movement between the same proportioned to the relative movement of the target-image, connections also for causing relative movement proportionate to the movement of the gun, and means for causing record of the gun aim upon the secondary target.

5. In an apparatus of the class described, the combination with a gun, a screen, movable image-projecting means for casting a movable target image upon the screen, a recording apparatus comprising a secondary target and a recording member, means to cause relative movement between the same proportionate to the movement of the image, means to cause an additional relative movement proportionate to the deflection of the gun sight, and means to cause record of the gun aim upon the secondary target at the selected instant of firing.

[Claims 6 to 58 not printed in the Gazette.]

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1,038,729. INSTRUMENT FOR CENTERING PURPOSES. ALADÁR DÉNES, Berlin, Germany, assignor to Max Elsner, Berlin, Germany. Filed Apr. 16, 1912. Serial No. 691,226. (Cl. 82—45.)



1. In an instrument of the character specified, the combination with a guide frame provided with means for engaging the periphery of an object, of a slide adjustable relatively to said frame and provided with means for engaging the periphery of an object, a center mark movable in said frame, and means for automatically moving said center mark one half the distance moved by said slide.

2. In an instrument of the character specified, the combination with a guide frame provided with fixed means for engaging the periphery of an object, of a slide adjustable, in said frame and provided with means for engaging the periphery of an object at a point opposite said fixed means, a slide rule provided with a center mark, and gearing operable by the movement of said slide for moving said slide rule and center mark one half the distance moved by said slide.

3. In an instrument of the character specified, the combination with a guide frame provided with means for engaging the periphery of an object, of a slide adjustable in said frame and provided with means for engaging the periphery of an object, a slide rule provided with a center mark, a gear member carried each by the frame and the slide rule, and complementary gear members carried by said slide whereby, upon movement of the latter, the slide rule and center mark are moved one half the distance moved by the said slide.

4. In combination with a centering instrument, a track forming frame, a slide adjustable by hand and guided along the said frame, both frame and slide being provided with suitable symmetrically disposed abutting pins, a slide

adapted to slide and to be adjusted along the frame and carrying the center mark, a gear connected with the slide and having its pinions intermeshing with racks fixed to the frame and rule respectively, the gearing ratio being 1:2, so as to cause the center mark to be self-adjusted by such gear to the central position between the abutting pins, substantially as described and shown.

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1,038,730. PROCESS OF UTILIZING INDIAN-CORN STRAW. BÉLA DOMBRA, Budapest, Austria-Hungary. Filed Apr. 11, 1911. Serial No. 620,479. (Cl. 99—11.)

1. A process for extracting foodstuffs from Indian corn-straw and for simultaneously producing a substance suitable for the manufacture of paper, consisting in reducing the Indian corn-straw to a fiber, subjecting the same under pressure to the action of a strongly diluted organic acid, discharging the liquid, treating the straw under pressure with a strongly diluted alkaline liquid for completing the extraction, discharging the solution obtained and finally concentrating and mixing this solution and the solution first obtained to the thickness of syrup, as and for the purpose specified.

2. A process for extracting foodstuffs from Indian corn-straw and for simultaneously producing a substance suitable for the manufacture of paper, consisting in reducing the Indian corn-straw to a fiber, subjecting the same under moderate pressure to the action of a strongly diluted (0.2–0.4%) acetic acid solution, discharging the liquid, treating the straw under pressure with a strongly diluted soda solution and finally mixing this solution and the solution first obtained as and for the purpose specified.

3. A process for extracting foodstuffs from Indian corn-straw and for simultaneously producing a substance suitable for the manufacture of paper, consisting in reducing the Indian corn-straw to a fiber, subjecting the same under moderate pressure to a strongly diluted (0.2–0.4%) acetic acid solution, discharging the liquid, treating the straw under pressure with a strongly diluted sodium-hydroxid solution, and finally mixing this solution with the solution first obtained as and for the purpose specified.

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1,038,731. CENTRIFUGAL SEPARATOR. GEORGE M. DUFFIN and WILLIAM A. PRESTON, Detroit, Mich. Filed July 3, 1909, Serial No. 505,875. Renewed Jan. 12, 1912. Serial No. 670,951. (Cl. 127—20.)



1. In a centrifugal separator, the combination with a bowl, of an inlet tube for the incoming full fluid, and means associated with said inlet tube for introducing the full fluid into the body of the bowl in a thin sheet concentric with the axis of the bowl and traveling in a direction parallel to said axis.

2. In a centrifugal separator, the combination with a bowl, of an inlet tube for the incoming full fluid, and means associated with said inlet tube for introducing the full fluid into the body of the bowl in a thin sheet concentric with the axis of the bowl and traveling in a direction parallel thereto, said thin sheet being introduced in a zone intermediate the heavier and the lighter of the separated products.

3. In a centrifugal separator, the combination with a bowl, of means for introducing the full fluid into the body of the bowl in a thin annular sheet concentric with and traveling parallel to the axis of the bowl, and associated means for communicating the movement of the bowl to said thin sheet whereby disposition is facilitated and the separated products are permitted to travel in opposite directions when first introduced into the body of the bowl and without interference with each other.

4. In a centrifugal separator, the combination with a bowl, of means for introducing the full fluid into said bowl in a thin conical sheet and for changing the direction of travel of said sheet to one parallel to the axis of the bowl before discharging the same into the body of the bowl.

5. In a centrifugal separator, the combination with a bowl, of a downwardly-flaring conical member terminating in a cylindrical portion arranged within said bowl, an inner member of similar form arranged to form a narrow space between the same and said outer member, and spacing ribs for holding said members apart and for communicating rotary movement to the fluid therebetween.

[Claims 6 and 7 not printed in the Gazette.]

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1,038,732. IMPLEMENT-HANDLE. WILEY JULIUS DURHAM, Berea, Ohio, assignor to The Durham Company, Berea, Ohio, a Corporation of Ohio. Filed May 22, 1912. Serial No. 699,068. (Cl. 55—6.)



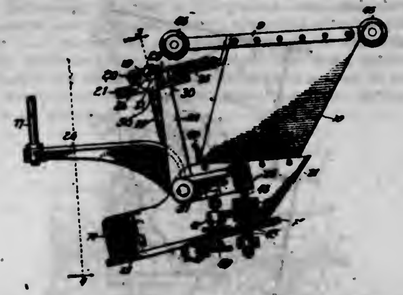
1. An implement handle comprising the combination of a primary supporting member, a looped extension member, said extension member being further more bifurcated and having its extremities overlying the side portions of said supporting member, a pair of brace members having ends affixed to said extension member, the other ends of said brace members overlying said extremities, and means for simultaneously securing each brace member and extremity of said extension member to said supporting member.

2. An implement handle comprising the combination of a primary arched supporting member, an elongated looped extension member, said extension member being furthermore bifurcated and having its free extremities divergent and overlying opposite side portions of said supporting member, a pair of medially straight brace members having ends affixed respectively to an intermediate portion of said extension member, the other ends of said brace members overlying said divergent extremities at their points of contact with said arched supporting member, and means including rivets and registering openings for simultaneously securing each brace member and extremity of said extension member to the common point of intersection with said supporting member.

3. An implement handle comprising the combination of a bail-shaped supporting member, a looped extension member having a pair of arms, said arms being furthermore inwardly curved and tangentially overlying opposite sides of said supporting member, and a pair of medially straight brace-members extremely disposed with reference to said arms and having their pairs of ends secured to an intermediary portion of said arms, the other ends of said brace-members overlying the tangential portions of said arms, and means simultaneously securing said arms said brace-members to said supporting member.



1,038,733. FEEDING APPARATUS. OTTO DUNZWEILER, Parral, Chihuahua, Mexico, assignor of one-half to Frank Reichmann, Chicago, Ill. Filed Dec. 21, 1911. Serial No. 667,258. (Cl. 83—57.)



1. In a feeding apparatus of the character described, the combination with a rotary feed-plate on which the material to be fed is supported, a relatively stationary deflector extending over said plate, a vertical shaft to the lower portion of which the feed plate is secured, an annular clutch-rim fixed to the upper portion of said shaft in a plane parallel with the feed plate, a swinging clutching lever having rigid gripping members coöperating with said rim to positively grip and advance the rim when moved in one direction and in its return movement to release the rim, and means for actuating the lever.

2. In a feeding apparatus of the character described, the combination with a rotary feed plate on which the material to be fed is supported, a relatively stationary deflector extending over said plate, a vertical shaft to the lower portion of which the feed plate is secured, a disk having an annular clutch-rim extending therefrom, said disk being secured to the upper portion of said shaft in a plane parallel with the feed-plate, a swinging lever provided with a laterally extending rigid pair of gripping members adapted to extend on each side of the annular rim, a keeper extending from the lever into contact with the disk to hold the gripping members in position, said gripping members coöperating with said rim to positively grip and advance the rim when moved in one direction and in its return movement to release the rim, and means for actuating the lever.

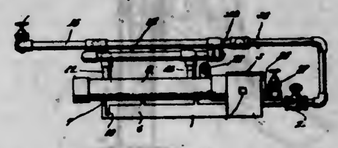
3. In a feeding apparatus of the character described, the combination with a rotary feed-plate on which the material to be fed is supported, a relatively stationary deflector extending over said plate, a vertical shaft to the lower portion of which the feed plate is secured, an annular clutch rim fixed to the upper portion of said shaft in a plane parallel with the feed plate, a swinging spring returned clutching-member having rigid gripping members coöperating with said rim to positively grip and advance the rim when moved in one direction and in its return movement under the action of its spring to release the rim, and means for moving the lever intermediately against the resistance of its spring.

4. In an ore feeding apparatus for stamp mills, the combination with a rotary feed plate on which the material to be fed is supported, a relatively stationary deflector extending over said plate, a vertical shaft to the lower portion of which the feed plate is secured, an annular clutch rim fixed to the upper portion of said shaft in a plane parallel with the feed plate, a swinging clutching lever having rigid gripping members coöperating with said rim to positively grip and advance the rim when moved in one direction and in its return movement to release the rim, and actuating means for the clutching lever comprising a bell crank lever with means for its connection in operative relation to a stamp mill.

5. In an ore-feeder for stamp-mills, the combination, with a tappet-rod actuated by the stamp-mill, of a rotary feed-plate on which the ore to be fed is supported, a relatively stationary deflector extending over said plate, an annular clutch-rim in fixed relation to, and in a plane parallel with, said plate, a clutch-lever having a pair of clutch-rim spanning prongs at which it is supported at its inner end, said prongs operating to positively clutch said rim when said lever is turned in one direction relative to a line drawn through the axis of the said rim, a bell-crank lever having an arm in the path of said tappet-rod and an arm loosely engaging the outer end of said clutch-lever, and a clutch-lever return-spring connected with the clutch-lever between the ends thereof, all constructed to operate substantially as described.

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1,038,734. HYDROCARBON-BURNER. OTIS J. EPPENBECK, Stockton, Cal. Filed Oct. 28, 1911. Serial No. 657,247. (Cl. 158—92.)



1. In a hydrocarbon burner, a base plate having a forwardly extending casing, said casing being open at the rear and provided with a detachable lid having an air inlet, and said base plate having at its rear end an upstanding flange provided with notches at the sides thereof, suitably connected boiler members supported upon the base plate and engaging the notches in the upstanding flange of the latter, being thereby spaced apart, a pipe connecting the boiler members, a feed pipe connected with one of the boiler members, a steam pipe connected with the other boiler member and including a coil arranged above the boiler members, said coil having a valved terminal and a valved branch extending through the front wall of the casing at the front end of the base plate, a nozzle carried by said pipe and having an upper and a lower channel, the latter communicating with the steam pipe, and an oil pipe communicating with the upper channel of the nozzle and having a regulating valve.

2. In a hydrocarbon burner, a base plate having side flanges and a rear end flange, the latter being provided with notches at the sides thereof, said base plate being also provided with a forwardly extending casing which is open at the rear, two boiler members supported upon the side flanges and in the recesses of the rear flange of the base plate, a pipe connecting the boiler members, a feed pipe connected with one boiler member, a steam discharge pipe connected with the other boiler member, said steam pipe being provided with a valved branch extending through the front wall of the casing at the front end of the base plate, a nozzle within said casing connected with the valved branch of the steam pipe, an oil feed pipe connected with the nozzle, an oil tray supported upon the base plate adjacent to the nozzle, and a wedge-shaped deflector supported upon said tray and having overhanging flanges at the sides thereof to divide the flame and to direct it against the boiler member.

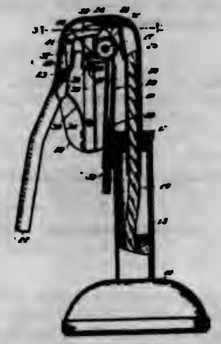
3. In a hydrocarbon burner, the combination with a nozzle, and means for supplying steam and oil to said nozzle, including two suitably supported connected and spaced boiler members, of a wedge-shaped deflector arranged intermediate the boiler members with its apex facing the nozzle, said deflector being provided with overhanging flanges at the upper sides thereof.

4. In a hydrocarbon burner, a base plate having a forwardly extending casing, an oil tray supported upon the base plate and having its bottom inclined to form a well, a wedge-shaped deflector supported upon the tray and having overhanging flanges, a burner nozzle within the casing, two boiler members suitably connected and spaced and supported upon the base member, a steam coil connected with one of the boiler members and arranged above the said boiler members, said steam coil having a valved branch connected with the nozzle, means for supplying oil to the nozzle, and a wedge-shaped deflector supported upon the bottom of the oil tray adjacent to the discharge end of the nozzle and intermediate the boiler members, said deflector

being provided with overhanging flanges at the upper side edges thereof.

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1,038,735. CIGAR-LIGHTER. GEORGE S. ELDRED, Chicago, Ill. Filed July 22, 1911. Serial No. 640,042. (Cl. 67—4.)



1. In a cigar lighter, in combination, a lamp, means for developing a spark for igniting the lamp and comprising two elements arranged for frictional engagement, a spring-actuated striker for moving one of the said elements, an extinguisher, a handle for simultaneously removing the extinguisher from the lamp and moving the striker to set position and being arranged to automatically release the striker when set.

2. In a cigar lighter, in combination, a lamp, a spring-actuated means for frictionally developing a spark for igniting the lamp wick, a spring-retracted handle, and means connecting the handle with the spark-developing means whereby the spring of the latter means is brought to tension and released by the advance of the handle.

3. In a cigar lighter, in combination, a lamp, spring-actuated means for frictionally developing a spark for igniting the lamp wick, a spring-retracted handle, means connecting the handle with the spark-developing means whereby the spring of the latter means is brought to tension and released by the advance of the handle, and an extinguisher carried by the handle and normally covering the burner of the lamp.

4. In a cigar lighter, in combination, a lamp having a wick-tube, a piece of spark-yielding material located adjacent the end of the tube, a file wheel bearing on the spark-yielding material, a pivoted lever arranged to rotate the file wheel, a handle, a trigger carried by the handle and normally engaging the lever and being releasable therefrom by the advance of the handle, and a spring reacting between the handle and lever for advancing the lever and retracting the handle.

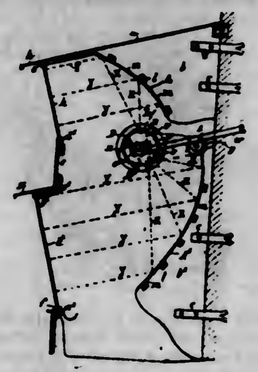
5. In a cigar lighter, in combination, a lamp having a wick-tube, a piece of spark-yielding material located adjacent the end of the tube, a file wheel bearing on the spark-yielding material, a pivoted lever arranged to rotate the file wheel, a handle, a trigger carried by the handle and normally engaging the lever and being releasable therefrom by the advance of the handle, a spring reacting between the handle and lever for advancing the lever and retracting the handle, and an extinguisher carried by the handle and adapted to normally cover the wick-tube.

[Claims 6 to 14 not printed in the Gazette.]

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1,038,736. MEANS FOR PRODUCING AND EXHIBITING LUMINOUS SIGNS. JULES EMBINGER, Paris, France. Filed Jan. 5, 1910. Serial No. 536,581. (Cl. 40—132.)

1. Means for producing and exhibiting luminous signs comprising in combination a translucent glass blackened on its inner surface with a removable paste, a source of light, a mirror close behind said source of light and a second mirror adapted to receive the rays from said first mirror and spaced to the rear of said translucent glass to permit access of the operator to the back thereof.



2. An apparatus of the class described including in combination a pair of reflectors, a source of light arranged in front of and intermediate said reflectors, each of said reflectors reflecting light independently of the other, and a pair of translucent glasses blackened on their inner faces with a removable paste and located one in line with the reflected rays from each of said said reflectors.

3. An apparatus of the class described including in combination a pair of reflectors, a source of light arranged between said reflectors, each of said reflectors reflecting light independently of the other, and a pair of translucent glasses blackened on their inner faces with a removable paste and located one in line with the reflected rays from each of said reflectors, said source of light comprising a lamp for each of said reflectors, and a second pair of reflectors for throwing the rays of said lamp on said first pair of reflectors.

4. Means for producing and exhibiting luminous signs comprising in combination a pair of translucent glasses located one above the other, a rod behind said glasses and intermediate the same, a source of light mounted upon said rod, a drum having a plurality of colored glasses around its periphery revolubly mounted upon said rod and inclosing said source of light, and reflectors above and below said drum and source of light, adapted to reflect the light from said source of light through the upper and lower translucent glasses respectively.

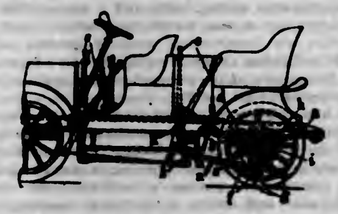
5. Means for producing and exhibiting luminous signs comprising in combination a pair of translucent glasses located one above the other and blackened on their inner faces with a removable paste, whereby portions thereof may be removed with a stylus, a rod behind said glasses and intermediate the same, a source of light mounted upon said rod, a drum having a plurality of colored glasses around its periphery revolubly mounted upon said rod and inclosing said source of light, and reflectors above and below said drum and source of light, adapted to reflect the light from said source of light through the upper and lower translucent glasses respectively, said reflectors being arranged sufficiently distant from said translucent glasses to permit access to the inner blackened faces of said glasses by an operator.

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1,038,737. ANTISKIDDING DEVICE. ERNST FINKING, Leipsig, Germany. Filed May 20, 1910. Serial No. 562,284. (Cl. 21—60.)

1. An anti-skidding device comprising a pair of pivoted levers carrying cutting brake-shoes and supported at opposite sides of the vehicle to which the device is applied, springs for holding the levers and their shoes normally in an elevated position, a rock-shaft to extend transversely beneath the vehicle and formed with a longitudinally extending groove and provided at each end with a depending crank-arm lever each provided on its side with a grooved sheave, a cable lying in the groove of said shaft and in engagement with the grooved sheaves on the crank-arm levers and attached to the pivoted brake-shoe carrying levers, and an operating lever connected with the rock-shaft for lowering the shoe carrying levers in opposition to the tension of said springs, the springs being operable to restore the parts including the operating lever to normal position on release of the operating lever, substantially as described.

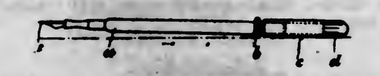




2. An anti-skidding device comprising a pivoted lever provided with a brake-shoe having a cutting-edge, a spring to normally hold the shoe and its carrying lever in an elevated position, a rock-shaft provided with a crank-arm lever operatively connected with the brake-shoe lever, an operating lever sleeved to the rock-shaft and having a slotted hub receiving a pin connected to the rock-shaft, and a second operating lever connected with the crank-arm lever of the rock-shaft to enable the shoe carrying lever to be operated by either of said two operating levers as desired, substantially as described.

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1,038,738. PEN AND THE LIKE. PAUL JEAN FOUQUIER, Paris, France. Filed Mar. 17, 1911. Serial No. 615,180. (Cl. 120—42.)



In a fountain pen the combination of a hollow handle closed at one end and forming a reservoir, a pen point fitting in the open end of the reservoir, a flange near the closed end of the handle, a detachable cap to protect the pen point when the latter is not in use and a weight carried by the closed end of the cap, whereby when said cap is applied to the closed end of the handle and the pen rests on the flange, the weight will tilt the handle and elevate the pen point from its support.

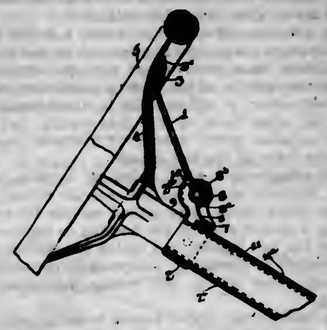
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1,038,739. DIRIGIBLE HEADLIGHT. JOSEPH PATRICK FOX, Chemnitz, Germany, assignor of one-half to Otto Reimann, Chemnitz, Germany. Filed June 16, 1911. Serial No. 633,581. (Cl. 240—62.)

1. In means for adjusting the lamps of motor driven vehicles in various directions, the combination, with the steering-gear and rotatably mounted lamps on the vehicle of means adapted to be detachably connected with and driven by a part of the steering-gear within reach of the driver's seat for adjusting the position of the lamps by the motion of the steering-gear or manually independent of it.

2. In means for adjusting the lamps of motor-driven vehicles in various directions, the combination, with the steering-gear and rotatably mounted lamps on the vehicle, of means comprising a detachable clutch member adapted to be driven both by a part of the steering-gear within reach of the driver's seat and by hand from the driver's seat for adjusting the position of the lamps and holding them stationary.

3. In means for adjusting the lights of motor driven vehicles in various directions, the combination, with the steering-gear and rotatably mounted lights on the vehicle, of means controllable from the driver's seat, connecting the lights with the steering-gear, said means comprising a resilient clutch member automatically and manually detachable.



4. In means for adjusting the lamps of motor driven vehicles in various directions, the combination, with the steering-column having a steering-wheel, a transmission member and rotatably mounted lamps on the vehicle, of means for adjusting the position of the lamps, comprising a lever having one end pivotally connected with the transmission member 2 for controlling the lamps and the other end detachably connected with the steering-wheel.

5. In means for adjusting the lamps of motor driven vehicles in various directions, the combination, with the steering-column, having a steering-wheel, a transmission member and rotatably mounted lamps on the vehicle, of means for adjusting the position of the lamps, comprising a resilient lever having one end pivotally connected with the transmission member 2 for controlling the lamps and the other end normally detachably connected with the steering-wheel, and a spring normally holding the lever in position, said lever being adapted to be locked by the spring after it has been disengaged from the steering-wheel.

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1,038,740. WATCH-PROTECTOR. JAMES A. FULLER, Providence, R. I., assignor to Hamilton and Hamilton Jr., Providence, R. I. Filed Apr. 13, 1912. Serial No. 690,506. (Cl. 63—25.)



1. In a device of the type set forth, a hollow housing having a hook at one end and having its opposite end open, a hollow slide in said open end of the housing having a yoke at one end and oppositely disposed interior shoulders spaced from the yoke, a pair of prongs pivoted to the casing on the exterior thereof and having bell-crank levers with rounded inner ends which extend on the interior of the housing and in the yoke of the slide in overlapping relation with each other, said yoke having the inner face of its bottom of convex form to engage the rounded inner ends of the bell cranks, a pressor member in the hollow slide having shoulders to engage the shoulders of the slide and having its bottom concave to engage on

top of the rounded ends of the bell cranks, arms projecting upwardly from the presser member in spaced relation thereto, a pin carried by the housing and extending through the hollow slide at the outer end thereof, and a spring arranged in the space between the arms of the presser member and engaging said pin.

2. In a device of the type set forth, a hollow housing, a pair of prongs pivoted to the exterior of the housing and having their inner ends formed with bell cranks that extend on the interior of the housing in overlapping relation with each other, a hollow slide in the housing that engages the outer faces of the bell cranks, and a spring pressed member in the interior of the slide that engages the inner faces of the bell cranks.

3. In combination with a hollow housing, a pair of prongs pivotally secured on the exterior thereof and having bell crank levers that extend on the interior of the housing, a hollow slide in the housing to engage the outer faces of the bell cranks, and spring pressed means in the slide capable of movement independent thereof to engage the inner faces of the bell cranks and to engage the housing.

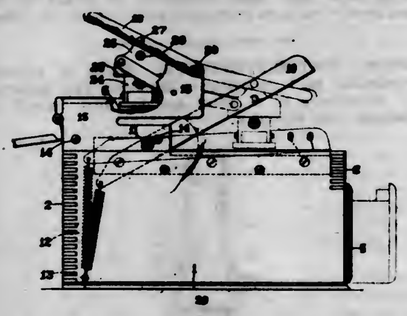
4. In combination with a hollow housing, prongs pivoted on the exterior thereof, a hollow slide to engage and actuate the prongs located in the interior of the housing, and means in the slide capable of movement independent thereof to restore the prongs to normal position, after actuation thereof.

5. In combination with a hollow housing, prongs pivoted on the exterior thereof, a hollow slide in the housing to move the prongs away from the housing, and spring pressed means arranged in the slide and capable of movement independent thereof to engage the prongs to restore same and the slide to normal position after actuation.

[Claim 6 not printed in the Gazette.]

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1,038,741. CUTTING AND STAMPING MACHINE. CALDER C. GIBSON, Buffalo, N. Y. Filed Nov. 24, 1911. Serial No. 662,092. (Cl. 101—63.)



1. In a machine of the class described, the combination with a main frame, of printing mechanism pivotally linked to said main frame and including a stamp supporting frame, a block fitted in the stamp supporting frame and having a vertical extension provided with a vertical opening and a transverse opening intersecting the vertical opening, a locking bar slidably mounted in the stamp supporting frame and fitted through the transverse opening in the vertical extension of the block and a spring slide in the vertical opening of the vertical extension.

2. In a machine of, the class described, the combination with a main frame, of printing mechanism pivotally linked to said main frame and including a stamp supporting frame, a block fitted in the stamp supporting frame and having a vertical extension provided with a vertical opening and a transverse opening intersecting the vertical opening, a locking bar slidably mounted in the stamp supporting frame and fitted through the transverse opening in the vertical extension of the block and a spring slide in the vertical opening of the vertical extension; said locking bar having an intermediate reduced portion and said spring slide having a depending lower end adapted to engage in the groove of the reduced portion.

3. In a machine of the class described, the combination with a main frame, of printing mechanism pivotally linked to said main frame, and including a stamp supporting frame, a block fitted in the stamp supporting frame and having a vertical extension provided with a vertical opening and a transverse opening intersecting the vertical opening, a locking bar slidably mounted in the stamp supporting frame and fitted through the transverse opening in the vertical extension of the block and a spring slide in the vertical opening of the vertical extension; said locking bar having an intermediate reduced portion and said spring slide having a depending lower end adapted to engage in the groove of the reduced portion and an enlarged finger gripping upper portion.

4. In a machine of the class described, the combination with a main frame, of printing mechanism pivotally linked to said main frame and including a stamp supporting frame having a rectangular opening, a dished shell fitted in said rectangular opening, a vertical block extending from said shell and having a horizontal opening, printing stamps attached to said shell, and a locking bar adapted to be detachably fitted through the horizontal opening in the vertical block.

5. In a machine of the class described, the combination with a main frame, of printing mechanism pivotally linked to said main frame and including a stamp supporting frame having a rectangular opening, a dished shell fitted in said rectangular opening, a vertical block extending from said shell and having an intermediate horizontal opening and a vertical upper opening, printing stamps attached to said shell, a locking bar adapted to be detachably fitted through the horizontal opening in the vertical block, and a spring locking slide in the vertical upper opening adapted to engage the locking bar.

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1,038,742. RUBBER-STAMP CABINET. CALDER C. GIBSON, Buffalo, N. Y. Filed Nov. 24, 1911. Serial No. 662,093. (Cl. 101—188.)



1. A cabinet of the class described, consisting of an intermediate frame-like member divided in compartments adapted to contain stamps and flanged top and bottom members between which the intermediate frame-like member is removably fitted; the inner surface of the top and bottom members being respectively corrugated and provided with an inking pad, and the printing ends of a plurality of stamps loosely supported in the compartments of the intermediate member being adapted to rest against the inking pad when the cabinet is in one position and the reduced opposite ends of the stamps being adapted to drop into and be supported in the corrugations when the cabinet is inverted.

2. A cabinet of the class described, consisting of an intermediate frame-like member having two of its opposed walls provided with indentations or notches, longitudinal partitions removably fitted in said notches to divide the interior of said frame-like member into a series of parallel longitudinal compartments, a flanged top member or cover removably fitted upon the intermediate frame-like member, and a flanged bottom member removably fitted beneath the intermediate frame-like member, the inner surface of the top and bottom members being respectively corrugated and provided with an inking pad, and the printing ends of a plurality of stamps loosely supported in the compartments of the intermediate member being adapted to rest against the inking pad when the cabinet is in one position and the reduced opposite ends of the stamps being adapted to drop into and be supported in the corrugations when the cabinet is inverted.



3. A cabinet of the class described, consisting of an intermediate frame-like member having two of its opposed walls provided with indentations or notches, partitions removably fitted in said notches to divide the interior of said frame-like member into a series of compartments in which a series of rubber stamps are adapted to be supported, a flanged top member or cover removably fitted upon the intermediate frame-like member, a corrugated metal sheet fitted within the cover, the corrugations of which form a series of parallel longitudinal V-shaped grooves in which the reduced upper ends of rubber stamps fit and are supported when the cabinet is inverted, and a bottom member removably fitted beneath the intermediate frame-like member.

4. A cabinet of the class described, consisting of an intermediate frame-like member having a series of removable longitudinal partitions dividing its interior into parallel longitudinal compartments, a removable top member or cover, a removable bottom member and a metal sheet fitted in the top of the top member, said metal sheet being corrugated to provide a series of longitudinal grooves of V-shaped cross section which extend substantially parallel and in correspondence with the longitudinal compartments in the intermediate member.

5. A cabinet of the class described, consisting of an intermediate frame-like member having a series of removable partitions dividing its interior into compartments; each of said partitions being relatively thin and of even thinness throughout having its opposite ends bent to form offset end portions and being adapted to be turned over or reversed to secure a fine variation in the width of the compartments, a removable top member or cover, and a removable bottom member.

[Claim 6 not printed in the Gazette.]

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1,038,743. FOUNTAIN OR SELF-FEEDING PEN. HORACE GILBERT, Drummoyne, New South Wales, Australia. Filed Mar. 17, 1911. Serial No. 615,019. (Cl. 120—48.)



1. A fountain pen comprising a barrel, a removable reservoir having puncturable ends located within the barrel, an ink feed at one end of the barrel and an air feed at the other end of the barrel, both feeds having pointed ends extending within the removable reservoir, the normal distance between the pointed ends being less than the length of the reservoir.

2. A fountain pen comprising a barrel with longitudinal visual slots therein, a removable reservoir having puncturable ends located within the barrel, a valve controlled ink feed at one end of the barrel, and a valve controlled air feed at the other end of the barrel, both feeds having pointed ends extending within the puncturable ends of the removable reservoir, the normal distance between the pointed ends of said feeds being less than the length of the reservoir.

3. A fountain pen comprising a barrel, a removable reservoir having puncturable ends located within the barrel, a valve controlled air feed at one end of the barrel, and a valvular ink feed having a terminal off-set passage at the other end of the barrel, both of said feeds having pointed ends extending within the puncturable ends of the removable reservoir, the normal distance between the pointed ends being less than the length of the reservoir.

4. A fountain pen, comprising a barrel, a removable reservoir having puncturable ends located within the barrel, a valve controlled air feed at one end of the barrel, a valvular ink feed having a terminal offset passage at the other end of the barrel, both of said feeds having pointed ends extending within the puncturable ends of the removable reservoir, the normal distance between the pointed ends being less than the length of the reservoir, and a rotatable valvular cap to regulate the flow through the ink feed.

5. A fountain pen comprising a barrel, a removable reservoir having puncturable ends located within the barrel, a valve controlled air feed at one end of the barrel, a valvular ink feed having a terminal offset passage at the other end of the barrel, both of said feeds having pointed ends extending within the puncturable ends of the removable reservoir, the normal distance between the pointed ends being less than the length of the reservoir, a rotatable valvular cap to regulate the flow through the ink feed, and means for indicating the position of the valvular cap with relation to the ink feed.

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1,038,744. CAR-SEAL. WILLIAM GRAYSON, Jr., St. Louis, Mo. Filed Nov. 15, 1911. Serial No. 660,384. (Cl. 70—99.)



A car seal comprising a latch box having a transverse slot in its peripheral wall, a spring wire latch formed with a bow secured to the back wall of the box, and arms extending rearwardly from the bow and having their ends crossed and projecting rearwardly opposite the transverse slot, and a doubled loop strip having its ends arranged parallel with each other and provided with registering slots and insertible through the transverse slot so as to first spread the ends of the arms of the spring apart and then permit them to spring back through the strip-slots into normal crossed position.

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1,038,745. PARALLEL-JAW PLIERS. ROBERT E. GREGG, Indianapolis, Ind., assignor to General Specialty Company, Indianapolis, Ind., a Corporation of Indiana. Filed Jan. 17, 1912. Serial No. 671,770. (Cl. 81—50.)



1. In combination, a pair of jaw members mounted one on the other so that relative movement between the two is constrained to be a parallel movement, a pair of handle members pivoted together at a point fixed longitudinally relatively to said jaw members, and projections from said handle members engaging longitudinal slots in the jaw members.

2. In combination, a pair of jaw members slidably mounted the one on the other by a parallel motion connection, a pair of intersecting forked handle members pivoted together at their intersecting point by a pivot which is fixed longitudinally relative to the jaw members, and a pin on each side of said pivot joining the two prongs of the fork of each handle member and passing through a longitudinal slot in one of said jaw members.

3. In combination, a pair of jaw members slidably mounted the one on the other by a parallel motion connection, a pair of intersecting forked handle members pivoted together at their intersecting point by a pivot which is fixed longitudinally relative to the jaw members, and a pin joining the two prongs of the fork of each handle member and passing through a longitudinal slot in one of said jaw members.

4. In combination, a pair of jaw members slidably mounted the one on the other by a parallel motion connection, a pair of intersecting forked handle members pivoted together at their intersecting point by a pivot which is fixed

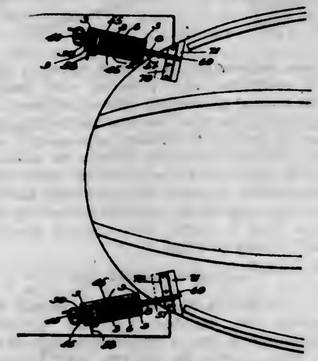
longitudinally relative to the jaw members, and a pin on each side of said pivot joining the two prongs of the fork of each handle member and passing through a longitudinal slot in one of said jaw members, and through an opening in the other jaw member, which opening does not interfere with the movement of such pin.

5. In combination, a pair of jaw members slidably mounted the one on the other by a parallel motion connection, a pair of intersecting forked handle members pivoted together at their intersecting point by a pivot which is fixed longitudinally relative to the jaw members, and a pin joining the two prongs of the fork of each handle member and passing through a longitudinal slot in one of said jaw members, and through an opening in the other jaw member, which opening does not interfere with the movement of such pin.

[Claims 6 to 9 not printed in the Gazette.]

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1,038,746. MOORING DEVICE. OLE E. HANSEN, Brooklyn, N. Y. Filed Nov. 13, 1911. Serial No. 660,049. (Cl. 114—231.)



1. A mooring device comprising a latch, a latch engaging and interlocking member adapted to engage and interlock with said latch and an adjusting screw for adjusting said latch to register with said latch engaging and interlocking member.

2. A mooring device comprising a frame, a cross head adjustably mounted in said frame, a latch arm operatively mounted in said cross head, an engaging part on the forward end of said latch arm, a latch engaging and interlocking member adapted to engage and interlock with said part, and an adjusting screw rotatably mounted in said cross head and operatively mounted in said frame for adjusting said cross head to cause said part to register with said latch engaging and interlocking member.

3. A mooring device comprising a latch, a latch engaging and interlocking member adapted to engage and interlock with said latch, and a spring adapted to resist and overcome the reaction of the bridge and the rebound of the boat and to draw the ferryboat to said bridge when said reaction and rebound are overcome.

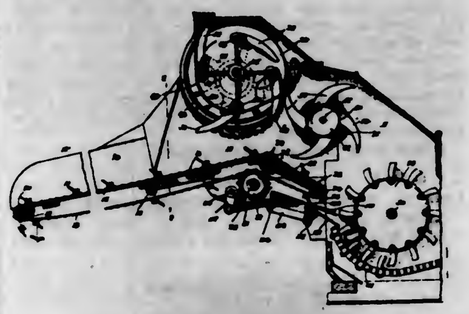
4. A mooring device comprising a frame, a cross head adjustably mounted in said frame, a latch arm operatively mounted in said cross head, an engaging part on the forward end of said latch arm, a latch engaging and interlocking member adapted to engage and interlock with said part, a block slidably mounted in the rear part of said frame, an adjusting screw rotatably mounted at one end in said cross head and operatively mounted at its other end in said block for adjusting said cross head to cause said part to register with said latch engaging and interlocking member, a spring mounted in said frame in the path of movement of said block adapted to resist and overcome the forward movement of said block caused by the reaction of the bridge and the rebound of the boat and to draw the boat to the bridge when said forward movement of the block is overcome.

5. A mooring device comprising a frame, a cross head adjustably mounted in said frame, a latch arm operatively mounted in said cross head, an engaging part on the forward end of said latch arm, a latch engaging and interlocking member adapted to be engaged by said to interlock with said part, a block slidably mounted in the rear part of said frame, an adjusting screw rotatably mounted at its forward end in said cross head and operatively mounted at its rear end in said block for adjusting said part to register with said latch engaging and interlocking member, a spring resisting plate mounted in said frame forwardly of said block, a spring mounted in said frame resting between said plate and said block adapted to resist and overcome the forward movement of said block caused by the reaction of the bridge and the rebound of the boat and to draw the boat to the bridge when said forward movement of the block is overcome.

[Claim 6 not printed in the Gazette.]

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1,038,747. BAND-CUTTER AND FEEDER. JOEL D. HAWES, Waterloo, Iowa, assignor to Waterloo Threshing Machine Company, Waterloo, Iowa, a Corporation. Filed Oct. 18, 1905. Serial No. 283,219. (Cl. 130—1.)



1. In a band cutter and feeder, the combination with the revolving band cutting knives and with the endless carrier, of a revolving feed regulator arranged in rear of the revolving knives and above the rear end of the carrier, said regulator comprising a shaft journaled in the feeder frame, heads fixed to said shaft, a cylindrical drum extending between said heads and a series of knives or blades secured to said drum and arranged in vertical planes and circular flanges fixed to the frame of the threshing machine and entirely surrounding the ends of said drum, substantially as described.

2. In a band-cutter and feeder, the combination with the revoluble shaft, of heads fixed to said shaft, a series of rock-shafts journaled at their ends in said heads and extending between the same, band-cutting knives fixed to said rock-shafts, crank-arms on the ends of said rock-shafts, a pair of fixed eccentrics, one at each end of said revoluble shaft, a series of eccentric straps on said eccentrics and connected one to each of said crank-arms, substantially as described.

3. In a band cutter and feeder, the combination with the revoluble shaft, of heads fixed to said shaft, rock-shafts extending between said heads, band cutting knives carried on said rock shafts, hubs through which said rotatable shaft extends mounted in the side wall of the feeder casing, eccentrics fixed to said hubs, eccentric straps connected to said rock shafts, fins on said hubs and notched plates with which said hubs and fins engage to hold the hubs and eccentrics against movement, substantially as described.

4. In a band cutter and feeder, the combination with the shaft, of heads on the ends of said shaft, cross knife-supporting rock-shafts extending between said heads, hubs within which said shaft is journaled abutting against the outer faces of said heads, an eccentric on the inner end of each of said hubs abutting against said heads and having flanges at their outer edges, eccentric straps held in place upon said eccentrics between said flanges and the outer faces of said disks, means for holding said hubs and eccentrics against movement, arms on said knife-supporting rock-shafts and rods connecting said arms and eccentric straps, substantially as described.

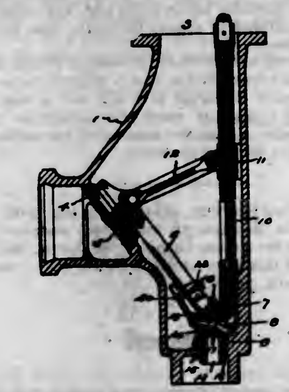
5. In a band cutter and feeder, the combination with the casing, of a rotatable shaft extending between the side walls of the casing, heads on the ends of said shafts within said casing, knife-carrying rock-shafts extending between said heads, hubs arranged in the side walls of the casing within which said rotatable shaft is journaled, eccentrics on the inner ends of said hubs between the casing side walls and said heads, eccentric straps connected to said rock-shafts, knives arranged in vertical planes fixed to said rock-shafts and curved guard bars secured to said casing and extending outside of the path of travel of said rock-shafts, said knives being arranged to project between said guard bars as they are rotated, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

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1,038,748. HYDRANT. GEORGE W. HAYDEN, Hartford, Conn., assignor to The Pratt & Cady Company, Hartford, Conn., a Corporation of Connecticut. Filed Nov. 29, 1911. Serial No. 663,052. (Cl. 137—18.)

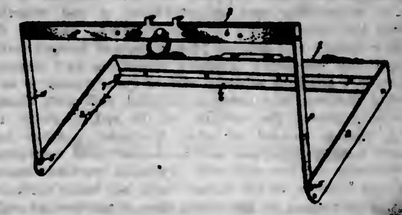


1. A hydrant having a casing with a main port and a drain outlet, a casting seated on the inside of the bottom of the casing, an arm hinged to the casting, a valve mounted on the arm, a spindle stepped in the casting, a portion of said spindle being threaded, a nut moving on the threaded portion of the spindle, a link connecting the nut and the valve arm, whereby the rotation of the spindle causes the valve to swing toward and from the main port, a valve adapted to close the drain outlet, and a lever adapted to be engaged by the valve arm and to lift the drain valve when the main valve is closed.

2. A hydrant having a casing with a main port and a drain outlet, a casting removably seated in the bottom of the casing, an arm hinged to said casting, a valve carried by the arm, a spindle stepped in said casting, a portion of the spindle being threaded, a nut moving on the threaded portion of the spindle, a link connecting the nut and the valve arm, whereby when the spindle is rotated, the valve is swung toward and from the main port, a sleeve screwed into the lower end of the casting, the upper end of the sleeve forming a valve seat, a valve having a stem guided by the casting, said valve being adapted to seat on the end of said sleeve, and a lever engaging the valve stem, said lever extending into the path of the main valve arm and engaged thereby when the main valve is closed for lifting the drain valve from its seat.

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1,038,749. BAG-FRAME. CHRISTIAN HUBBUCH and ALBERT FULLER, Newark, N. J., assignors to The J. B. Mergott Company, Newark, N. J., a Corporation of New Jersey. Filed Jan. 2, 1907. Serial No. 350,486. (Cl. 190—49.)



1. A bag frame member consisting of a flat strip of metal bent at an angle to form a central main member and two hinge members having sharp corners, a straight L-shaped insert located between said hinge members and lying flat against the inside of the said main member and flush with the front thereof so as to present an unbroken and flush surface and provided with fastening means at its extremities and extending inwardly from said insert for securing the insert to the hinge members in close proximity to the sharp corners of the frame members, thereby strengthening the same and means for securing a bag body to said insert.

2. A bag frame composed of a pair of pivotally connected members each consisting of a flat strip of metal bent at an angle to form a main body, and two hinge members having sharp corners, a straight L-shaped insert located between said hinge members and lying flat against the inside and flush with the front of said main member so as to present an unbroken and flush surface and means integral with an extending inwardly from said L-shaped insert for securing the insert to the hinge members.

3. A bag frame composed of a pair of pivotally connected members each consisting of a flat strip of metal bent at an angle to form a main body and two hinge members having sharp corners, a straight L-shaped insert located between said hinge members and lying flat against the inside of the said main body and flush with the front thereof, so as to present an unbroken and flush surface, apertured lugs formed integral with and at right-angles to said L-shaped insert at its extremities for securing the insert to the main body.

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1,038,750. WATCH-HOLDER. EUGENE W. HILL, San Francisco, Cal. Filed Nov. 21, 1911. Serial No. 661,460. (Cl. 224—4.)



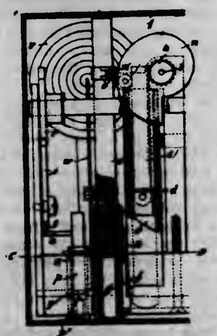
1. A watch holder comprising a body portion, consisting of a continuous length of wire bent upon itself to form cooperating U-shaped clamping sections adapted to receive a supporting part therebetween, the arms of one of said clamping sections being curved outwardly and inwardly to form eyes, a frame mounted in said eyes for movement to positions substantially at right angles and substantially parallel to the clamping sections, a watch-receiving casing carried by said frame, [illegible] between the frame and one of the clamping sections and supporting the former substantially at right angles to the

latter, said connection being shiftable to permit the movement of the frame to a position substantially parallel to the clamping section.

2. A watch holder comprising a body portion consisting of a continuous length of wire bent upon itself to form coöperating U-shaped clamping sections adapted to receive a supporting part therebetween, a rod mounted between the arms of one of said clamping sections for partial rotation, a U-shaped portion formed integral with said rod and extending laterally therefrom and adapted to move to a position substantially at right angles to said clamping sections to a position parallel with said clamping section during the rotation of the rod, a watch receiving casing carried by said U-shaped portion and rod, and a supporting bar having looped ends embracing the clamping section and said U-shaped portion respectively and slidable on the former, said bar being shiftable to permit movement of the frame from a position at right angles to the clamping section to a position parallel to said clamping section.

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1,038,751. TACHOMETER. MAX HOSER, Berlin, Germany. Filed Sept. 7, 1910. Serial No. 580,857. (Cl. 73—123.)



1. A tachometer comprising a pump, a cylinder communicating therewith and having a main outlet and an auxiliary outlet, means adapted to regulate the effective size of the main outlet according to the position of the piston in said cylinder, and automatic means adapted to continuously open and close said auxiliary outlet.

2. A tachometer comprising a pump, a cylinder communicating therewith and having a main larger outlet opening and an auxiliary smaller outlet opening, a main valve adapted to control the larger outlet opening, an auxiliary valve adapted to control the smaller outlet opening, means adapted to open said main valve to a greater or less extent according to the position of the piston in said cylinder, and mechanism adapted to open and close said auxiliary valve.

3. A tachometer comprising a casing containing fluid, a pump in said casing, a cylinder communicating therewith and having a large or main outlet-opening, a small auxiliary outlet-opening, means adapted to regulate the effective size of the main outlet-opening according to the position of the piston in said cylinder, an expansion-box located in said casing, and a valve adapted by mechanical connection with said box to be adjusted by the same according to the temperature of the fluid in the casing.

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1,038,752. SAFETY-BOLT FOR DOORS. FRANK X. HOHNAUER, East Orange, N. J. Filed Jan. 5, 1912. Serial No. 669,596. (Cl. 16—81.)

1. A safety bolt for doors comprising a bolt secured to the inside of the door, having a vertical incision in its front portion, a top shoulder formed by said incision, a swing arm mounted on the door frame with an integral guiding strip at a right-angle thereto and a short vertical stop shoulder adapted to coöperate with the recessed front portion and shoulder of the said bolt and having a small opening, and a separate small sliding bolt on the door frame adjoining the swing arm adapted to engage the opening therein for locking the door permanently.



2. A safety bolt for doors comprising a bolt secured to the inside of the door, having a vertical incision in its front portion, a top shoulder formed by said incision, and a slightly curved swing arm mounted on the door frame with an integral guiding strip at a right-angle thereto and a short vertical stop shoulder adapted to coöperate with the recessed front portion and shoulder of the said bolt, so arranged that the guiding strip of the swing arm is held within the incision of the said bolt by its top shoulder.

3. In a safety bolt for doors, a sliding bolt on the inside of the door with front incision and shoulder formed thereby at its inner top end, a sliding curved swing arm pivotally mounted on the door frame with integral bottom guiding strip extending to nearly its support and short vertical stop shoulder at its outer end, and means on the door frame adapted to engage the swing arm for locking the door permanently.

4. In a safety bolt for doors, a recessed sliding bolt with shoulder on the inside of the door, a slightly curved swinging arm adapted to engage said bolt and having a small opening, and a separate small sliding bolt on the door frame adapted to engage the opening of the swinging arm for locking the door permanently.

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1,038,753. CAST-STEEL UNDERFRAME FOR CARS. CLARENCE H. HOWARD, St. Louis, Mo., assignor to Locomotive Tender Frame Company, St. Louis, Mo., a Corporation of Delaware. Filed June 16, 1911. Serial No. 633,621. (Cl. 105—76.)



1. In a cast steel underframe the combination of longitudinal members having top and bottom flanges extending upwardly and outwardly, a bolster member having a curved top plate coincident with said top flanges and a bottom plate coincident with said bottom flanges, said bolster member having webs connected at their ends to said longitudinal members and throughout their length to said top and bottom plates.

2. In an underframe having longitudinal draft members a bolster member comprising a curved top plate, a bottom plate, transversely disposed webs connecting said top and bottom plates, said top and bottom plates having openings therein between said webs, and longitudinal members whose vertical webs are connected to the ends of said transversely disposed webs.

3. In an underframe having longitudinal draft members, a bolster comprising upper and lower plates secured at their extremities to the draft members, said upper plate being concave and said lower plate being shaped to form a center bearing.

4. In an underframe having longitudinal draft members, a bolster comprising upper and lower plates connected at their extremities to the draft members, transverse webs connecting said upper and lower plates and secured at their extremities to the draft members, said plates being provided with series of openings intermediate said webs.

5. An underframe having longitudinal draft members provided with upper and lower flanges; and a bolster comprising an upper plate connected at its extremities with the upper flanges of the draft members, a lower plate connected at its extremities with the lower flanges of the draft members, vertical webs connecting said upper and lower plates, said plates being provided with series of openings intermediate said webs.

[Claims 6 and 7 not printed in the Gazette.]

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1,038,754. GUIDE FOR KEYHOLES. LANSING B. HOWARD, San Diego, Cal. Filed July 12, 1911. Serial No. 638,156. (Cl. 70—16.)



An escutcheon guide comprising a relatively thin plate oval in form, having a central key opening and apertures in alinement with its longitudinal axis, said plate being bodily curved in a transverse direction but substantially flat along its said longitudinal axis for the purpose described.

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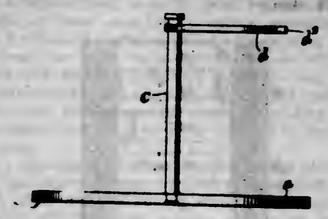
1,038,755. CHUCK. HENRY S. HUBBELL, Ashburnham, Mass. Filed Dec. 20, 1909. Serial No. 534,012. (Cl. 29—117.)



1. A drill chuck comprising a body provided with an annular recess, the body portion above said recess being cylindrical and that below said recess being conical and the diameter of said conical portion immediately adjacent said recess being substantially less than that of the cylindrical portion, an internally threaded nut in said recess having dependent teeth peripherally arranged as to said conical portion, a sleeve embracing and connected to said nut and adapted to be rotated upon the aforesaid cylindrical body portion the bottom of said sleeve being above said dependent teeth, externally threaded jaws movable in said chuck body and engaged by the internal threads of said nut, and means upon said chuck body adapted to be engaged by mechanism to operate the teeth upon said nut.

2. A drill chuck comprising a body provided with an annular recess, the body portion above said recess being cylindrical and that below said recess being conical and the diameter of said conical portion immediately adjacent said recess being substantially less than that of the cylindrical portion, an internally threaded nut in said recess having dependent teeth arranged between the periphery of said nut and the periphery of said conical portion adjacent to said nut, a sleeve embracing and connected to said nut and adapted to be rotated upon the aforesaid cylindrical body portion the bottom of said sleeve being not lower than the bottom surface of said nut, externally threaded jaws movable in said chuck body and engaged by the internal threads of said nut, and means upon said chuck body adapted to be engaged by mechanism to operate the teeth upon said nut.

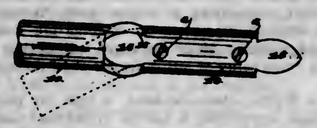
1,038,756. GAME APPARATUS. BENJAMIN T. BARNEY HYNE, New York, N. Y. Filed Mar. 9, 1912. Serial No. 682,796. (Cl. 46—56.)



In a game apparatus, a portable base-plate having displayed thereon configurations and a stationary post, a disk eccentrically arranged normally in frictional contact with said post and manually operated to cause said disk by gravity to fall on the post to above the base-plate thereof, substantially as and for the purposes described.

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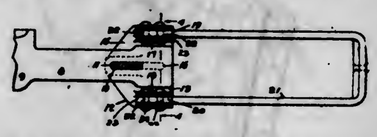
1,038,757. FLEXIBLE COUPLING. STEWART W. JAMESON, Oskaloosa, Iowa. Filed June 1, 1909. Serial No. 499,520. (Cl. 64—30.)



A shaft coupling comprising in combination, a plurality of semi-cylindrical elements joined in pairs to form cylindrical lengths, an arm projecting from each extremity of said semi-cylindrical members, each of said arms having a portion of its outer face in alinement with the outer face of said semi-cylindrical member and its inner face recessed to form a socket, a ball secured between the projecting arms of the opposite semi-cylindrical members and in said sockets, and means for securing the semi-cylindrical members together.

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1,038,758. DRAFT-YOKE FOR RAILWAY-CAR DRAFT-RIGGING. GEORGE A. JOHNSON, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Jan. 8, 1912. Serial No. 670,038. (Cl. 213—42.)



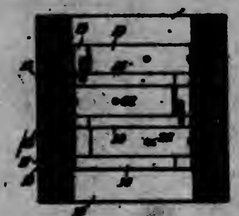
1. In a device of the character described, a yoke strap and means for connecting said strap to a draw bar, said means consisting of a hollow head slidably connected to the draw bar and riveted to the yoke strap.

2. In a device of the character described, a yoke strap and means for connecting said strap to a draw bar, said means consisting of a hollow head slidably connected to the draw bar and provided with longitudinal slots to receive the ends of the yoke strap.

3. In a device of the character described, a yoke strap and means for connecting said strap to the draw bar, said means consisting of a hollow head riveted to the yoke strap and, transversely slotted for the passage of coupler key which slidably engages therewith.

4. As an article of manufacture a hollow yoke head provided with transverse slots to receive a coupler key and longitudinal slots to receive the free ends of a yoke strap.

**1,038,759. FLEXIBLE PACKING FOR ENGINE PISTON-RODS AND THE LIKE.** ARTHUR C. JUNE, New York, N. Y. Filed Jan. 26, 1911. Serial No. 604,718. (Cl. 121—100.)



1. In a flexible piston-packing, the combination with a cage having inner circumferential grooves, of expansible steam rings mounted in the grooves and expansible tubular packing rings containing lubricating material, arranged between the steam rings and having emission apertures for the lubricating material.

2. In a flexible piston-packing, the combination with a cage having inner circumferential grooves, of steam rings mounted in the grooves, each ring comprising a plurality of radially movable sections and yielding means for urging the sections inwardly, and packing rings arranged between the steam rings and outside of said grooves.

3. In a flexible piston-packing, a cage for packing, and steam rings, comprising a hollow body having interior zones of different diameters, in combination with flexible steam and packing rings arranged alternately in said zones, the rings being of less diameter than their respective zones.

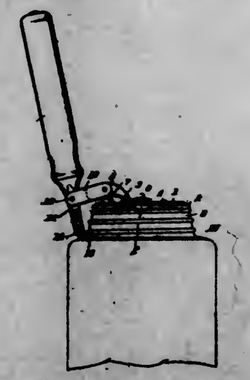
4. In a flexible piston-packing, a cage for packing and steam rings, comprising a hollow cylindrical body having a plurality of different inner diameters, and inwardly extending circumferential flanges or abutments at the ends of the body, the inner diameter of the flanges or abutments being less than the smallest inner diameter of the said body.

5. In a flexible piston-packing, the combination with a tubular cage having inner circumferential grooves, of expansible steam rings mounted in the grooves, and expansible packing rings between the steam rings and outside of the grooves, the packing rings being filled with lubricating material and provided with emission apertures therefor.

[Claims 6 to 8 not printed in the Gazette.]

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**1,038,760. FRUIT-JAR-CAP SEALER.** HENRY KAISER, New Holstein, Wis. Filed Feb. 3, 1912. Serial No. 675,247. (Cl. 81—15.)



1. In a fruit jar sealing device a clamp, an arm pivoted to the center of said clamp, links attached to said arm, said links carrying a bar supporting a roller, all substantially as set forth.

2. In a jar sealing device the combination of a clamp, an arm pivoted to said clamp, links attached to said arm, a bar pivoted between said links, said bar having a handle on its upper extremity, a roller on its lower extremity, for straightening and pressing the flange of a fruit jar cover over the neck of the jar, substantially as set forth.

3. In a jar sealing device, the combination of a plate having clamping lugs integral therewith, a clamping bar attached to said plate, an arm loosely pivoted to the center of the clamping member, links attached to the said arm, a bar pivoted between said links, said bar having means for straightening and pressing the flange of a fruit jar cover securely upon a rubber ring on the neck of the said jar, substantially as and for the purposes set forth.

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**1,038,761. PNEUMATIC PIANO-PLAYER AND THE LIKE.** MACARIUS MAXIMILIAN KASTNER and CONRAD KATZ, London, England; said Katz assignor to said Kastner. Filed June 21, 1911. Serial No. 634,528. (Cl. 84—168.)



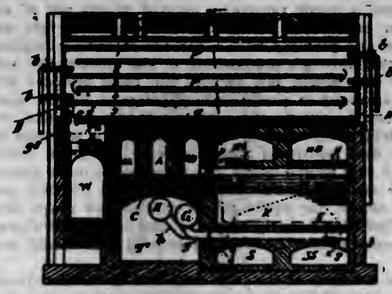
1. In an expression device for pneumatic pianos and similar musical instruments, a tracker bar having a tone producing perforation and a tone accentuating perforation, a vacuum chamber, hammer actuating bellows, a diaphragm controlling communication between said chamber and bellows, a first duct cooperating with the tone producing perforation and controlling said diaphragm, a tone accentuating diaphragm, means controlled thereby for establishing additional communication between the chamber and bellows, a second duct controlling said last named diaphragm, and means controlled by the tone accentuating perforation for establishing communication between both of said ducts.

2. In an expression device for pneumatic pianos and similar musical instruments, a tracker bar having a tone producing perforation and a tone accentuating perforation, a vacuum chamber, hammer actuating bellows, a first diaphragm controlling communication between said chamber and bellows, a first duct cooperating with the tone producing perforation and controlling said first diaphragm, a tone accentuating second diaphragm, means controlled thereby for establishing additional communication between the chamber and bellows, a second duct controlling said second diaphragm, and a third diaphragm controlled by the tone accentuating perforation for establishing communication between both of said ducts.

3. In an expression device for pneumatic pianos and similar musical instruments, a tracker bar having a tone producing perforation, and a tone accentuating perforation, a vacuum chamber, a first duct cooperating with the tone producing perforation, a first diaphragm intermediate said chamber and duct, hammer actuating bellows, means controlled by said first diaphragm for establishing communication between said chamber and bellows, a tone-accentuating second diaphragm, means controlled by said second diaphragm for establishing additional communication between the chamber and bellows, a second duct controlling said second diaphragm, and a third diaphragm controlled by the tone accentuating perforation for establishing communication between both of said ducts.



**1,038,762. RETORT-COKE-OVEN SYSTEM.** HUGHES W. KING, Syracuse, N. Y., assignor to Semet-Solvay Company, Syracuse, N. Y., a Corporation of Pennsylvania. Filed Jan. 12, 1910. Serial No. 537,619. (Cl. 202—9.)

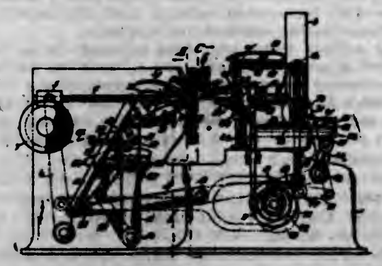


1. In a coke oven system the combination of a series of ovens having heating flues on the sides thereof, a single regenerator located under each oven, air supply pipes connected the one with one-half the regenerators and the other with the remainder thereof, a main hot air flue connected with the heating flues of all the ovens, two auxiliary hot air flues arranged to be connected alternately with said main hot air flue and having permanent connections the one with one-half the regenerators and the other with the remainder thereof, a main waste gas flue connected with the heating flues of all the ovens, and two auxiliary waste gas flues arranged to be alternately connected with said main gas flue and having permanent connections the one with one-half of the regenerators and the other with the remainder thereof.

2. In a coke oven system the combination of a series of coke ovens having heating flues on the sides thereof, a regenerator located under each oven, air supply pipes arranged to supply air alternately to a portion of said regenerators, a main hot air flue connected with the heating flues of all the ovens, two auxiliary hot air flues arranged to be alternately connected with said main hot air flue and having permanent connections the one with a portion of the regenerators and the other with the remainder thereof, a main waste gas flue connected with the heating flues of all the ovens, two auxiliary waste gas flues arranged to be alternately connected with said main gas flue and having permanent connections the one with a portion of the regenerators and the other with the remainder thereof, and discharge waste gas passages from the regenerators.

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**1,038,763. MACHINE FOR MAKING BRUSHES.** GEORG KLEEMANN, Stuttgart, Germany. Filed Aug. 5, 1910. Serial No. 575,789. (Cl. 15—7.)



1. In a machine for making brushes, means for supporting a brush block, a loosely movable pliers feeding tufts of brush material to the block, a retractile spring retarding the forward movement of the pliers, in combination with means for passing loops of wire through the brush block and means for causing the wire to draw the tuft into the brush block.

2. In a machine for making brushes, means for supporting a brush block, movable jaws adapted loosely to hold tufts of brush material, a spring maintaining the jaws in a yieldable condition, means for passing loops of wire through the brush block and to cause the wire to embrace the tuft, means for drawing said wire taut, thereby forcing the jaws against and the tuft into the brush block, in combination with a retractile spring retarding the forward movement of the jaws until the tuft is firmly fixed in the block.

3. In a machine for making brushes, means for supporting a brush block, loosely movable jaws adapted to feed tufts of brush material to the brush block, one of the jaws being prolonged and forming a stop for the brush material while the tuft is being formed and means for securing the tufts in the brush block.

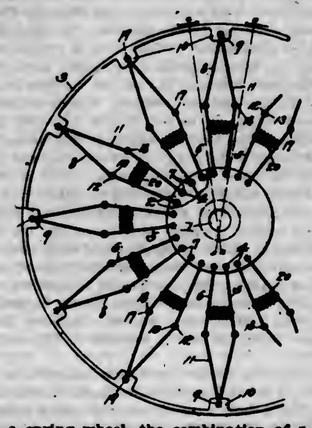
4. In a machine for making brushes, means for supporting a brush block, loosely movable pliers having jaws for feeding brush material to the block, means for moving the pliers forward and back, inclined planes located in the path of the pliers, in combination with means attached to pliers adapted to engage the inclined planes and to open the pliers.

5. In a machine for making brushes, means for supporting a brush block, a movable pliers having jaws adapted to loosely hold tufts of brush material, a reciprocatory needle, means for placing a wire across the path of the needle at as flat an angle as possible to said path whereby loops of the wire are passed through the block by the needle means for placing the tufts in said loops, means for drawing said wire taut and forcing the jaws against the brush block and the tuft into the brush block.

[Claims 6 and 7 not printed in the Gazette.]

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**1,038,764. SPRING-WHEEL.** JOEL D. KNIGHT, Lombardy, Miss. Filed Feb. 29, 1912. Serial No. 680,714. (Cl. 152—50.)



1. In a spring wheel, the combination of a hub, a rim concentric with the hub, pivot pins carried by the hub and arranged in pairs, a single pivot pin carried by the rim for each pair of pivot pins upon the hub, flat plates having the inner ends thereof hinged to the pivot pins of the hub, pivot pins carried by the outer ends of the plates, a plurality of flat bars connecting the said pivot pins at the outer ends of the plates to the corresponding pivot pin of the rim, the combined width of the several flat bars being equal to the width of one of the plates, and tension means holding the plates yieldingly in normal position.

2. In a spring wheel, the combination of a hub formed with a pair of outwardly projecting annular flanges, a rim concentric with the hub, transversely disposed pivot pins connecting the flanges of the hub, flat plates arranged in pairs and having the inner ends thereof pivoted upon the

pins of the hub, a transversely disposed pivot pin carried by the rim for each pair of the plates, a series of flat bars having a combined width equal to the width of one of the plates, the outer end of each of the flat bars being pivotally mounted upon the pivot pin of the rim, a portion of the flat bars having the inner ends thereof connected to the outer end of one of the plates, while the remainder of the flat bars have the inner ends thereof connected to the opposite plate, and tension means holding the plates yieldingly in normal position.

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1,038,765. **WELDING-BURNER.** HOWARD H. LANNING, Topeka, Kans., assignor of one-half to Henry W. Jacobs, Topeka, Kans. Filed Oct. 6, 1911. Serial No. 653,180. (Cl. 158—109.)



1. A burner of the class described, comprising a hollow member, a second member arranged within the hollow member, the second member being provided with an annular flange in proximity to the one end thereof adapted to engage the wall of the hollow member and maintain the second member substantially at the longitudinal center of the hollow member so as to provide a chamber intermediate of the walls of both members, said annular flange being provided with a series of openings whereby communication between portions of the chamber on opposite sides of the flange is established, means secured to the other or upper end of the second member, arranged to screw into the hollow member, whereby the second member is adjustably secured to the hollow member, means whereby the first mentioned means is locked in the adjusted position and a gas tight connection maintained, said second member being provided with a tip at the lower end thereof, and an outer or main nozzle provided with a tapering passage extending longitudinally therethrough and having a reduced extended end or shank adapted to abut against the end of the second member and incase the tip thereof, the extended end or shank being provided with one or more ports at a slight distance from the end thereof whereby communication between the chamber in the hollow member and the tapering passage in the main nozzle is established and said passage utilized as a mixing chamber, the outer or main nozzle being removably secured in the end of the hollow member.

2. A burner of the class described, comprising a hollow outer member, a second member arranged within the hollow member, the second member being provided with a passage extending longitudinally therethrough and having an annular flange in proximity to each end thereof, whereby the position of said second member relative to the walls of the hollow member is maintained and a chamber intermediate of the members provided, the flange adjacent the one end of the second member being provided with a series of openings for the passage of gas therethrough, a sleeve portion arranged to receive the other end of the second member and adapted to screw into the other end of the outer member whereby the second member is adjustably secured within the outer member, means whereby said sleeve portion is locked in its adjusted position and a gas tight connection maintained, and an outer or main nozzle provided with a reduced extended end or shank arranged to screw into the outer member and adapted to abut against the end of the second member, said shank being provided with one or more ports whereby communication between the chamber in the outer member and the nozzle interior is established.

3. In a burner of the class described, an outer member provided with an opening in its side for the admission of a gas, a nozzle removably secured at one end of said member and having a reduced end extending into said member and provided with a passage extending longitudinally therethrough, diminishing in size toward the outer end of said nozzle, said reduced end being provided with ports arranged at predetermined points, a second nozzle extending longitudinally within said member and provided with a tip adapted to abut against the extended end of the first mentioned nozzle whereby the gases flowing through said second nozzle and through the outer member will be made to mingle in the passage of the first mentioned nozzle, the upper end of said second nozzle being connected with a source of gas supply, and means whereby said second nozzle is adjustably secured within said member.

4. In a burner of the class described, an integral handle portion provided with a number of passages extending longitudinally therethrough, one of said passages being provided with a filter pack, a breach block provided with a number of passages extending therethrough, adapted to communicate with the passages in said handle portion and with said breach block whereby the latter is removably secured to said handle portion.

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1,038,766. **POULTRY-FEEDER.** MICHAEL WILLIAM LAWLOR, Needham Heights, Mass. Filed Dec. 28, 1911. Serial No. 668,248. (Cl. 119—70.)



1. A poultry feeder comprising a receptacle, and a depending discharge tube connected thereto, said tube comprising a helical coil which is closed at its lower end, and has its lower convolutions permanently spaced apart to permit escape of the feed.

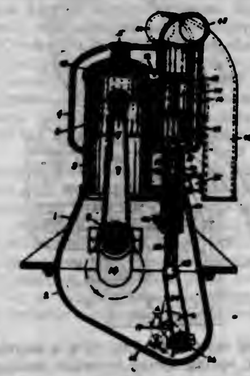
2. A poultry feeder comprising a receptacle, a depending discharge tube connected thereto, said tube comprising a helical coil which is closed at its lower end, and has its lower convolutions permanently spaced apart to permit escape of the feed, and an agitator carried by the coil and extending therethrough into the receptacle.

3. A poultry feeder comprising a receptacle having a threaded nipple at its outlet, and a depending discharge tube connected to the nipple, said tube comprising a helical coil which is closed at its lower end and screws at its upper end on the nipple, said coil having its lower convolutions permanently spaced apart to permit escape of the feed.

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1,038,767. **INTERNAL-COMBUSTION ENGINE.** ARTHUR M. LAYCOCK, Detroit, Mich. Filed Nov. 27, 1911. Serial No. 662,552. (Cl. 123—188.)

1. In an internal-combustion engine, the combination of a cylinder, a piston therein, a valve-chamber adjacent said cylinder and connected thereto by a port, said chamber provided with an inlet port at its lower end for the admission of air, an exhaust port intermediate its ends for the exhaust of the air, and a by-pass in its wall, a valve movable in said chamber and formed of two parts so as to constitute a receptacle for the compressed explosive mixture at the time of the explosion, the lower part of the valve controlling the passage of air through said by-pass and exhaust port of the valve chamber to cause scavenging of said receptacle for the explosive mixture.



2. In an internal-combustion engine, the combination of a cylinder, a piston therein, a valve-chamber adjacent said cylinder and connected thereto by a port, the lower end of said valve-chamber forming a compression chamber having a by-pass in its wall and a port opposite the upper end of the by-pass, a valve in said chamber formed of two cylindrical parts, means to so position the valve that the space between its parts will be opposite the cylinder port during the working stroke of the piston, and to so move the valve that said space will be in line with the upper end of the by-pass and the port opposite the same so said space may be scavenged after each explosion.

3. In an internal-combustion engine, the combination of a cylinder, two cylindrical valve-chambers adjacent thereto and connected thereto by ports, a valve movable in each chamber and comprising two connected pistons, a hollow stem for each valve, a guide therefor having an aperture registering with a port in said stem when at the upper end of said stroke, said stem having a second port which opens into the lower end of the valve chamber when the stem is at the upper end of its stroke, and means to actuate said valves.

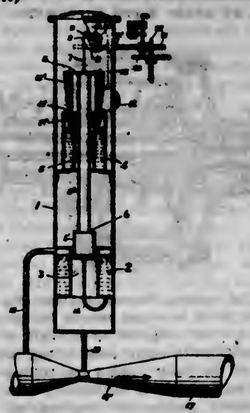
4. In an internal-combustion engine, the combination of a cylinder, two cylindrical valve-chambers adjacent thereto and connected thereto by ports, a valve movable in each chamber and comprising two connected pistons, a hollow stem for each valve, a guide therefor having an aperture registering with a port in said stem when at the upper end of said stroke, said stem having a second port which opens into the lower end of the valve chamber when the stem is at the upper end of its stroke, and means to actuate said valves, each valve-chamber having a by-pass in its wall to permit communication around the lower valve-piston when at the lower end of its stroke, and an exhaust passage which is opened by said lower piston when at such lower end of its stroke.

5. In an internal-combustion engine, the combination of a cylinder, two cylindrical valve-chambers adjacent thereto and connected thereto by ports, an exhaust pipe connected to the outer end of one chamber, a fuel-supply pipe connected to the outer end of the other chamber, a valve in each chamber formed of two pistons connected by a stem, each valve-chamber having a by-pass in its wall to permit communication around the lower valve-piston when at the lower end of its stroke, and an exhaust passage which is opened by said lower piston when at such lower end of its stroke.

[Claims 6 to 8 not printed in the Gazette.]



1,038,768. **FLUID-METER.** JOHN W. LEMOUX, Swarthmore, Pa. Filed May 21, 1910. Serial No. 562,857. (Cl. 73—167.)



1. In a fluid meter, a stationary receptacle, a balanced receptacle, a duct comprising a flexible member for connecting said receptacles, a liquid heavier than that to be measured for sealing communication between said receptacles, a conduit, a duct for connecting said conduit with said stationary receptacle above the level of said heavier liquid, a duct for connecting said conduit with said balanced receptacle above the level of said heavier liquid, and a liquid displacing mechanism for regulating the movement of said balanced vessel, said displacing mechanism effecting a movement which bears a constant ratio to the flow in said conduit.

2. In a fluid meter, a closed casing, a closed stationary chamber, an open stationary chamber in said casing, an open balanced chamber in said casing, a float connected with said balanced chamber and acting in said open stationary chamber, a duct having a flexible member connecting said closed stationary chamber with said balanced chamber, a conduit, a duct connecting said conduit with said casing, and a duct connecting said conduit with said closed stationary chamber.

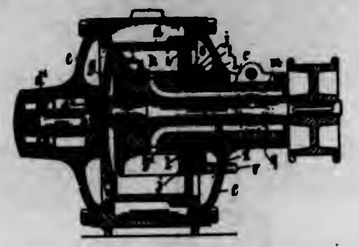
3. In a fluid meter, a closed casing, a closed stationary chamber, an open chamber in said casing, means for balancing said open chamber, a duct comprising a flexible member connecting said chambers, and a liquid displacing mechanism for regulating the movement of said open chamber.

4. In a fluid meter, a conduit, means for differentiating the pressure of fluid flowing in said conduit, a closed stationary receptacle, means whereby pressure from fluid flowing in said conduit is communicated to said receptacle, a balanced receptacle, a duct comprising a flexible member connecting said receptacles, a liquid heavier than that to be measured for sealing the communication between said receptacles through said duct, means whereby differential pressure from fluid flowing in said conduit is communicated to said balanced receptacle, and liquid displacing mechanism for regulating the movement of said balanced receptacle, said displacing mechanism comprising an open vessel and a device adapted for displacing liquid therein so as to regulate the movement of said balanced vessel in the ratio of the changes in the rate of the flow to be measured.

5. In a fluid meter, a closed casing, a stationary closed chamber, a balanced open chamber movable in said casing, a duct comprising a flexible member for connecting said chambers, a liquid displacing mechanism comprising a float movable with said balanced chamber, a conduit, a duct connecting said conduit with said closed chamber, a duct for connecting said conduit with said casing, and an integrating mechanism regulated by the movement of said balanced chamber.

[Claims 6 and 7 not printed in the Gazette.]

1,038,769. ROTARY PUMP. JOSEF LEHNE, Charlottenburg, Germany, assignor to Internationale Rotations-Maschinen-Gesellschaft M. B. H., Berlin, Germany. Filed Jan. 11, 1912. Serial No. 670,625. (Cl. 230—22.)



1. In a rotary pump, the combination of a cellular wheel provided with fluid passages, means for positively driving said wheel, a drum adapted to contain a working fluid mounted eccentrically about said wheel for free rotation independent of the latter, and a controlling member slidably engaging said wheel for controlling such fluid passages.

2. In a rotary pump, the combination of a cellular wheel provided with fluid passages, means for positively driving said wheel, a drum adapted to contain a working fluid mounted eccentrically about said wheel for free rotation independent of the latter, and a stationary member for controlling said fluid passages.

3. In a rotary pump, the combination of a cellular wheel having a hollow hub provided with fluid passages, means for positively driving said wheel, a drum adapted to contain a working fluid mounted eccentrically about said wheel for free rotation independent of the latter, and a controlling member slidably engaging the inner surface of said hollow hub.

4. In a rotary pump, the combination of a cellular wheel having a hollow hub provided with fluid passages, means for positively driving said wheel, a drum adapted to contain a working fluid mounted eccentrically about said wheel for free rotation independent of the latter, and a controlling member extending in sliding engagement with a portion only of the inner periphery of said hollow hub.

5. In a rotary pump, the combination of a cellular wheel having a hollow hub provided with a series of fluid passages, means for positively driving said wheel, a drum adapted to contain a working fluid mounted eccentrically about said wheel for free rotation independent of the latter, and a controlling member slidably engaging said hollow hub for successively covering such several fluid passages.

[Claims 6 to 9 not printed in the Gazette.]

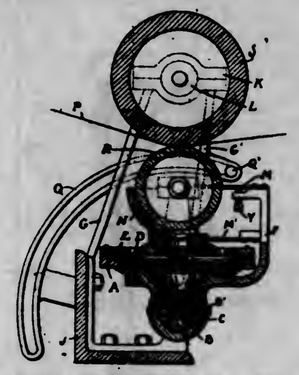
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1,038,770. INDICATOR. NATHANIEL C. LOCKE, Salem, Mass., assignor of two-thirds to Thomas French, Rumford, Me. Filed May 20, 1911. Serial No. 628,589. (Cl. 73—105.)

1. An indicator comprising a rotatable cylinder, a second cylinder, spring means normally holding the second cylinder in peripheral contact with the former, means connected with the latter indicating any motion of the second cylinder radially in relation to the first cylinder, and means connected with one of the cylinders to swing it out of and into peripheral contact with the other.

2. An indicator comprising a rotatable cylinder, a shaft rigidly supported in relation to said cylinder, a frame supported on the shaft and rotatable thereon, a diaphragm carried on the frame, a second rotatable cylinder supported on the diaphragm, spring means carried on the frame to hold the second cylinder in peripheral contact with the first cylinder, and means for rotating the frame and the shaft, thereby moving the second cylinder out of and into peripheral contact with the first cylinder.

3. An indicator comprising a rotatable frame, a diaphragm on the frame, a rotatable cylinder on the diaphragm, a second rotatable cylinder, spring connection between the frame and the first cylinder to hold the cylinder normally in peripheral contact with the second cylinder, and means connected with the diaphragm to indicate any radial movement of the first cylinder in relation to the second cylinder.

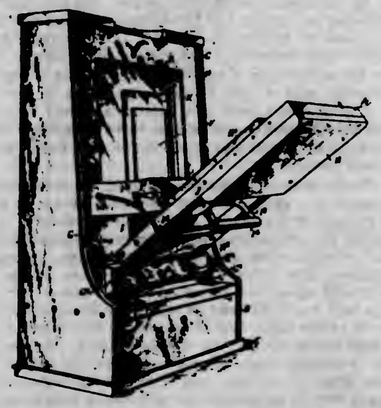


4. An indicator comprising two rolls, a movable support for the first roll, spring means normally holding the first roll in peripheral contact with the second roll, a diaphragm engaging the support of the first roll, and means connected with the diaphragm indicating any motion of said roll radially in relation to the other roll.

5. An indicator comprising two rotatable rolls flexibly supported in peripheral contact, means for swinging one of the rolls laterally out of and into peripheral contact with the other, and means connected with one of the rolls indicating any radial movement of the rolls in relation to each other.

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1,038,771. PHOTOGRAPHIC-PRINTING MACHINE. ROY R. LOVING, Center, Tex. Filed May 19, 1910. Serial No. 562,186. (Cl. 95—73.)



1. A photographic pripting machine, provided with a transparent plate for the negative to rest against, a platen mounted to swing toward and from the said plate and adapted to carry the printing paper into contact with the negative, and a clamping device for clamping the negative in place on the said plate, the clamping device having a handled extension for controlling the clamping device and for forming a bottom rest for the lower edge of the printing paper to rest on while being carried to the negative.

2. A photographic printing machine, provided with a transparent plate for the negative to rest against, a platen mounted to swing toward and from the said plate, and adapted to carry the printing paper into contact with the negative, a clamping device for clamping the negative in place on the said plate, the clamping device having a handled extension for controlling the clamping device and for forming a bottom rest for the lower edge of the printing paper to rest on while being carried to the negative, and manually-controlled means for adjusting the tension of the said clamping device.

3. A photographic printing machine, comprising a casing having a door at its front, a frame hinged in the rear of the casing and carrying a transparent plate for the negative to rest on, a platen hinged on the said frame and adapted to carry the printing paper into printing contact with the negative, a clamping device for removably holding the negative in position on the said platen, and a spring-pressed gage mounted on the said platen at one side thereof for one side of the printing paper to abut against.

4. A photographic printing machine, comprising a casing having a door at its front, a frame hinged in the rear of the casing and carrying a transparent plate for the negative to rest on, a platen hinged on the said frame and adapted to carry the printing paper into contact with the negative, and a clamping device for removably holding the negative in position on the said plate, the said clamping device having a handled extension passing through the platen and forming a rest for the lower edge of the printing paper.

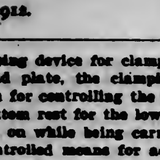
5. A photographic printing machine, comprising a casing having a door at its front, a frame hinged in the rear of the casing and carrying a transparent plate for the negative to rest on, a platen hinged on the said frame and adapted to carry the printing paper into printing-contact with the negative, a clamping device for removably holding the negative in position on the said plate, a mat vertically slidable on the said frame in front of the said transparent plate and normally in a lowermost position, and means for holding the mat in an uppermost position.

[Claims 6 to 11 not printed in the Gazette.]



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1,038,772. SAFETY GAS-BURNER. OTTO LOWY, Newark, N. J. Filed Jan. 10, 1912. Serial No. 670,409. (Cl. 67—115.)



1. A safety gas burner comprising a tube having an end opening for a tip, a partition closing the tube intermediate of its ends, the tube having openings on both sides of the partition, a chamber surrounding the tube and inclosing the side openings, the chamber acting as a by-pass for conducting gas from the side openings on one side of the partition to the side openings on the other side of the partition, means for closing the side openings when said last-mentioned means is in its normal position, and operating means extending to the exterior of the chamber for manipulating the closing means to cause said closing means to open the side openings, said closing means being held in its open position by the gas under pressure passing through the burner.

2. A safety gas burner comprising a tube open on both ends and having side openings therein, a partition closing the tube on the inside, the openings being disposed on both sides of the partition, a chamber surrounding the tube so as to inclose the side openings, a diaphragm in the chamber, the diaphragm when in normal position closing the side openings to prevent the issue of gas from the side openings, and means for manipulating the diaphragm to raise it from the side openings, said diaphragm being held in its raised position by the pressure of gas passing through the burner.

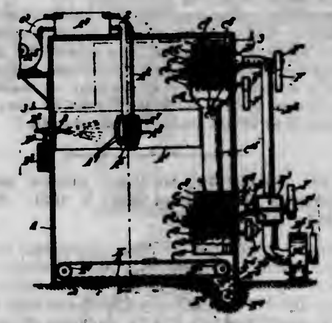
3. A safety gas burner comprising a tube having its ends open and having a partition between its ends, the tube having side openings on both sides of the partition, a chamber inclosing the side openings, a diaphragm having a flange thereon, said flange embracing the tube to close the side openings when the diaphragm is in its normal position, and means extending to the exterior of the chamber for moving the diaphragm to its operated position, the diaphragm being held in this last-mentioned position by gas under pressure.

4. A safety gas burner comprising a tube having its ends open and having a partition between its ends, the tube having side openings on both sides of the partition, a chamber inclosing the side openings, a diaphragm having a flange thereon, said flange embracing the tube to close the side openings when the diaphragm is in its normal position, a thimble embracing the burner, the marginal flange of the thimble embracing the outside of the casing, the chamber having openings in its bottom, and studs extending through said openings and engaging the diaphragm on its under side whereby when the thimble is raised the diaphragm is moved to its operated position to permit the issue of gas from the side openings, said gas acting to maintain the diaphragm in its operated position when the thimble resumes its normal position, the studs and the walls of the perforations in the chamber having coacting means for closing said openings, when the thimble is in its normal position, against the escape of gas.

5. A safety gas burner comprising a tubular burner, means for preventing the passage of gas through said burner, and means for manipulating said first-mentioned means to permit the passage of gas through said burner, said first-mentioned means being held in its operated position by gas under pressure passing through the burner, but not being adapted to be moved from its normal position by gas under pressure.

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1,038,773. DESICCATING APPARATUS. JOHN C. MACLACHLAN, Chicago, Ill. Filed July 17, 1911. Serial No. 638,828. (Cl. 99—5.)



1. A desiccator comprising a desiccating chamber, means for discharging liquid and gases thereto, together with means for inducing eddy currents in a horisontal plane therein.

2. A desiccator comprising a desiccating chamber, means for supplying heated gases thereto, a discharge head through which said gases pass, said head being located centrally within said chamber.

3. A desiccator comprising a desiccating chamber, means for supplying heated gases thereto, a rotary discharge head through which said gases pass, said head being located centrally within said chamber.

4. A desiccator comprising a desiccating chamber, means for supplying heated gases thereto, a discharge head through which said gases pass, said head being located centrally within said chamber and discharging in a horisontal plane.

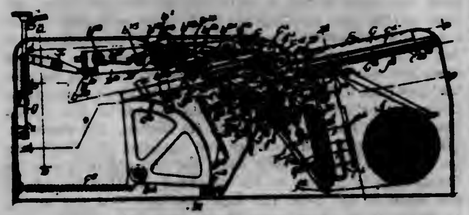
5. A desiccator comprising a desiccating chamber, means for supplying heated gases thereto, a discharge head through which said gases pass, said head being located

centrally within said chamber, means located adjacent the walls of said chamber for supplying liquid thereto.

[Claims 6 to 27 not printed in the Gazette.]

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1,038,774. COMPUTING-MACHINE. FRED L. MANNY, Benton Harbor, Mich., assignor of one-half to Charles W. Haas, Chicago, Ill. Filed Jan. 28, 1909. Serial No. 474,747. (Cl. 235—58.)



1. In a computing machine, a series of endwise movable bars, registering mechanism operated by the variable movements of said bars, means for printing automatically operated by the actuation of said bars, a stop, the movements of the bars being limited by said stop.

2. In a computing machine, a series of push bars, type on the under side of said bars, and a hammer automatically actuated by the operation of any bar and coöperating with said type to print.

3. In a computing machine, a series of push bars, type on said bars, a paper feed mechanism operated by the units bar, and a hammer operated by any bar and coöperating with said type to print in accordance with the actuation of said bars.

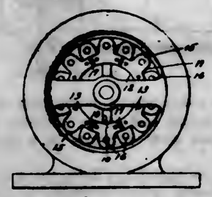
4. In a computing machine, the combination of slide-bars, slide-bar-operated adding mechanism, and slide-bar-operated listing mechanism, adapted to list the numbers by the actuation of the bars, the adding mechanism being separate from the listing mechanism.

5. In a computing machine, the combination of push-bar-operated computing mechanism, slide-bar-operated listing and printing mechanism, and means for permitting the operation of the computing mechanism without printing, each slide-bar having a plurality of numbered positions thereon for the actuation thereof by a stylus.

[Claims 6 to 26 not printed in the Gazette.]

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1,038,775. INDUCTION-MOTOR. BURTON MCCOLLUM, Washington, D. C. Filed Mar. 3, 1911. Serial No. 612,118. (Cl. 172—120.)



1. In an induction motor of the squirrel cage type, conductor bars, and a short circuiting device permanently connected in circuit with said conductor bars of the squirrel cage winding comprising a resistance element characterized by an abrupt rise of resistance at a critical current value.

2. In an induction motor of the squirrel cage type, conductor bars, and a short circuiting device permanently connected in circuit with the conductor bars of the squirrel cage winding, said device comprising a resistance element having portions of reduced cross section of a material having a positive temperature coefficient of resistance and a resistance curve characterized by an abrupt rise of resistance at a critical current value, and so proportioned that the starting currents of the motor are above the critical current value and the normal load currents of the motor are below the critical current value.

3. In an induction motor of the squirrel cage type, conductor bars, and a short circuiting device permanently connected in circuit with the conductor bars of the squirrel cage winding, said device comprising a resistance conductor having portions which are alternately attenuated and massive in cross section and of a material having a resistance curve characterized by an abrupt rise of resistance at a critical current value and so proportioned that the starting currents of the motor are above the critical current value and the normal load currents of the motor are below the critical current value.

4. In an induction motor of the squirrel cage type, a short circuiting device permanently connected in circuit with the conductor bars of the squirrel cage winding, said device comprising a resistance conductor having portions which are alternately attenuated and massive in cross section and of a material having a resistance curve characterized by an abrupt rise of resistance at a critical current value and so proportioned that the starting currents of the motor are above the critical current value and the normal load currents of the motor are below the critical current value.

5. In an induction motor of the squirrel cage type, conductor bars, and a short circuiting device permanently connected in circuit with the conductor bars of the squirrel cage winding, said device comprising a resistance conductor having portions which are alternately attenuated and massive in cross section, said attenuated portions being of a material having a resistance curve characterized by an abrupt rise of resistance at a critical current value and so proportioned as that the starting currents of the motor are above the critical current value and the normal load currents of the motor are below the critical current value.

[Claims 6 to 17 not printed in the Gazette.]

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1,038,776. PLUNGER-SWITCH. ERNEST S. MCLAREN, New York, N. Y., assignor to Western Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 16, 1909. Serial No. 483,858. (Cl. 179—96.)



1. In a key, the combination with a switch, of a plunger for controlling said switch, and a mounting for said plunger having an opening through which said plunger may be screwed into operative relation to said switch, and be thereafter free to reciprocate to operate the same.

2. In a key, the combination with a mounting, of a switch, a plunger movable longitudinally in said mounting for controlling said switch, stops for limiting the longitudinal movement of said plunger, said plunger and mounting being constructed to permit the insertion and withdrawal of the plunger by a relative screwing motion.

3. In a key, the combination with a frame having a threaded opening, of a switch, and a plunger for controlling said switch, said plunger having a part adapted to traverse said threaded opening by a screwing motion of the plunger, and said frame being constructed to permit the free longitudinal and rotary movement of said plunger after said part has passed through the threaded opening.

4. In a key, the combination with a switch, of a mounting, and a plunger for controlling said switch, said plunger being freely rotatable and longitudinally movable between limits in said mounting, and said mounting being constructed to permit the insertion and withdrawal of the plunger by a rotary motion of said plunger.

5. In a key, the combination with a switch, of a plunger for controlling said switch, a mounting for said plunger having a threaded opening, and a projection on said plunger adapted to engage with said threaded part, and after a limited engaging movement to be disengaged therefrom and rendered free to reciprocate to actuate said switch.

[Claims 6 and 7 not printed in the Gazette.]

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1,038,777. DEVICE FOR THREADING SHUTTLES. CORNELIUS MILLER, Providence, R. I., assignor to Michael Lenahan, Providence, R. I. Filed Apr. 4, 1912. Serial No. 688,397. (Cl. 139—43.)



1. In a shuttle threading device, a vertical U-shaped arm, a disk carried by the upper end of said arm and having a rubber washer on its under face to close the top end of the shuttle opening, the lower end of said arm engaging the shuttle bottom, said arm having an opening, a cylinder having a piston therein formed with a contracted inner end which extends through said opening, a rubber mouth for the cylinder having a tubular shank which is received in said contracted end of the cylinder, a head on said shank formed with raised ribs which are for engagement in the side groove of the shuttle, a right angular member carried by said arm and having a bolt rigidly secured to its free end, an arm having a right angular end which is perforated to receive the shuttle tip and being slotted to receive said bolt, and a nut on the bolt to secure said last named arm to the right angular member of the first named arm.

2. In a shuttle threading device, a U-shaped arm having its free ends adapted to engage on opposite sides of the shuttle, means carried by one of said free ends of the arm to close and seal the shuttle opening, the connecting portion of the said ends of said arm being formed with an opening, a cylinder having a piston therein, said cylinder having an end thereof projecting in said opening, a right angular member carried by said connecting portion of the arm, and adjustable means carried by said member for engaging the tip end of the shuttle.

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1,038,778. TROUSERS-PRESSING DEVICE. JAMES B. MILLER, Braddock, Pa., assignor of one-half to John J. Sixsmith, Homestead, Pa. Filed Dec. 5, 1911. Serial No. 664,662. (Cl. 129—57.)

1. The combination with a base board and complementary folding boards hinged thereto, of a lever pivoted on one hinge strap on a folding board and carrying a ring, and the hinge strap on the opposite folding board having a hooked end to receive said ring, whereby the folding boards may be folded down upon and held to the base board.

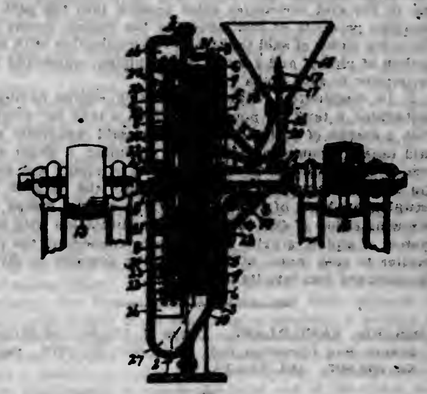


2. The combination with a base board and complementary folding boards and hinges connecting the parts, the hinge straps on one folding board adapted to overlap the adjoining edge of the opposite board, and having a lever pivoted thereon, a hooked hinge strap on the opposite board and a ring or loop carried by said lever to engage said hooked strap.

3. The combination with a base board and complementary folding boards, the edges of the folding boards being beveled as described and the base board formed with a groove as described, hinges connecting the base board with the folding boards, the hinge straps on one folding board adapted to overlap the adjoining edge of the opposite board and having a lever pivoted thereon, a hooked hinged strap on the opposite board, and a ring carried by said lever adapted to engage said hooked strap.

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1,038,779. PULVERIZER. GEORGE R. MITCHELL, Syracuse, N. Y., assignor of one-third to John William Smith and one-third to Robert Crossdale, Syracuse, N. Y. Filed Nov. 8, 1910. Serial No. 591,235. (Cl. 83—11.)



1. In a pulverizing machine, a plurality of concentric grids, a revoluble disk, a plurality of concentric rows of pivoted hammers in close proximity to the grids and mounted upon one face of said disk, and radially projecting fans upon the periphery of said disk positioned outside of the path of movement of the hammers.

2. In a pulverizing machine, a rotary circular grid and means for rotating it, a series of pivoted hammers having their free ends disposed in close proximity to the inner face of the grid and means for rotating the hammers in a direction opposite to that of the grid, a track positioned adjacent said hammers, rollers carried by said grid adapted for bearing upon a track, radially and outwardly-projecting fans positioned adjacent said hammers, and an inclosing case for the grid hammers and fan blades and said case provided with an inlet and an outlet.

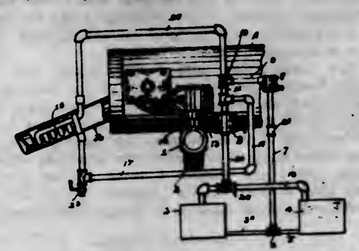
3. A coal pulverizer comprising an inclosing case having an inlet and an outlet, a rotary circular grid, a concentric series of hammers, a rotatable support for the hammers, a fan upon said support, said support and grid mounted within the inclosing case, and means for rotating said grid and support.

4. In a coal pulverizing machine, a plurality of rotary concentric grids and a support therefor, a rotary hammer support having a plurality of circular rows of hammers

pivotally mounted thereon and operated centrifugally into grinding coaction with the inner faces of their respective grids, means for rotating said supports in opposite directions, fan blades mounted on one of the supports, and an inclosing case for the grids, hammers and fan blades, having an inlet adjacent the grids and an outlet adjacent to the fan blades.

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1,038,780. ENGINE. JOHN W. MOORE and WILLIAM A. BROWNE, Columbus, Ohio. Filed Sept. 14, 1910. Serial No. 581,936. (Cl. 123—122.)



1. In combination with a combustion engine having a carbureter, a tank for non-volatile fuel, a tank for volatile fuel, a system of piping connecting said tanks and the said carbureter, a pump in said system of piping, a shunt system of piping connected to said system of piping and leading to the said carbureter after passing into the path of escaping products of combustion of the engine, means for throwing either of said tanks into communication with said system of piping, and gravity return piping connecting the carbureter to said tanks.

2. In combination with a combustion engine having a carbureter, a tank for non-volatile fuel, a tank for volatile fuel, a system of piping connecting the said carbureter and said tanks, a pump in said system of piping, a shunt system of piping connected to said system of piping and leading to said carbureter after passing into the path of the escaping products of combustion of the engine, means for throwing either of said tanks into communication with said system of piping, gravity return piping connecting the carbureter to said tanks, said means being operable to divert the returned fuel into its proper tank.

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1,038,781. SAND-BLAST. JAMES C. MYLES and HAROLD GIRVIN, San Francisco, Cal. Filed Nov. 23, 1910. Serial No. 593,807. (Cl. 51—12.)



1. A gun for sand blast apparatus having a mixing chamber, a sand passage having an inclined wall leading into said mixing chamber, an air chamber, and needle holes leading from said air chamber into said mixing chamber through the inclined wall of the sand passage.

2. A gun for sand blast apparatus having a mixing chamber, a sand passage substantially the diameter of said mixing chamber and being provided with an inclined wall, an air chamber, and needle holes leading from said air chamber to said mixing chamber through the inclined wall of said sand passage, said needle holes being convergent and having their axes intersecting at a point substantially coincident with the axis of said mixing chamber.

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1,038,782. SEAL FOR BOX-CARS, &c. WILLIAM H. NORTHALL, Evansville, Ind., assignor of one-half to Fred W. Goedeke, Evansville, Ind. Filed Aug. 29, 1911. Serial No. 646,709. (Cl. 70—99.)

1. A seal of the class described including a hollow casing having an entrance at one edge, a locking plate mounted within the casing and provided with an interior opening, the walls of the opening projecting into the opening from opposite sides and overlapping in spaced relation to divide the opening into a front and rear portion connected by a narrow lateral passage, the locking plate having an entrance channel registering with the entrance to the casing and adapted to afford passage to a flexible strip provided in its ends with engaging openings, the entrance to the locking plate continued as a narrow inwardly tapering channel cutting into the rear portion of the opening at a slight angle, the wall of the said rear portion of the opening forming a continuation of the entrance wall and disposed at a slight angle thereto to direct the strip upon attempted withdrawal past the mouth of the entrance channel and through the lateral passage into the front portion of the opening, the wall of the front opening adjacent the lateral passage curved to direct the strip away from said passage to prevent its return therethrough.



2. A seal of the class described including a hollow casing having an entrance at one edge, a locking plate mounted within the casing and provided with an inwardly tapering entrance channel leading from the entrance in the casing toward the center of the plate and there widening into an interior elongated opening having its axis disposed at an oblique angle to the entrance channel and the front wall of which is cut in its central portion at a slight angle by the entrance channel, and is provided on each side of the entrance passage with a bulge, the rear wall of the opening projecting toward the entrance and deflected in a substantially parallel spaced relation to the front wall of the opening to divide the said opening into a front and rear portion connected by a narrow lateral passage, and a flexible strip provided in its face with engaging portions arranged to be passed through the entrance into the rear portion of the opening and upon being retracted to be directed by the bulged portion of the front wall past the entrance of the channel and through the lateral passage into the front portion of the opening, the bulge on the passage side of the entrance serving to direct the strip away from the lateral passage to prevent its return therethrough.

3. A seal of the class described including a casing, a locking plate mounted within the casing and provided with an opening and having a rear catch dividing the opening into two separate portions, said locking plate being also provided with a front catch located adjacent to one of the sides of the said opening and forming an entrance, said front catch being interposed between the rear catch and the said entrance and co-acting with the same to form a passage, which connects the two portions of the divided opening, and a flexible strip provided at its free end with a slot to engage with the catches and having a resilient tongue at the outer wall of the slot, said tongue being arranged at an angle to the free end of the flexible strip and adapted to engage the front catch and guiding the free end of the flexible strip through the said passage of the second portion of the opening.

4. A seal of the class described including a casing, a locking plate provided with an opening and having a rear catch dividing the opening into two separate portions, said locking plate being also provided with a front catch arranged at an angle to one wall of the said opening to form an entrance and interposed between the entrance and the rear catch and having a curved edge adjacent to the latter to form a lateral passage which connects the two portions of the opening, and a flexible strip provided at its free end with the slot to engage with the said catches and having a resilient tongue arranged at an angle to the free end of the flexible strip and adapted to engage the curved edge of the front catch to guide the flexible strip through the said passage into the second portion of the opening.

5. A seal of the class described including a casing, a locking plate mounted within the casing and provided with an opening and having a rear catch dividing the opening into two separate portions, said locking plate being also provided with a front catch arranged adjacent to one of the sides of the opening to form an entrance and interposed between the entrance and the rear catch and co-acting with the same to form a passage which connects the two portions of the opening, and a flexible strip provided with slotted ends adapted to be guided both into the second portion of the said opening by the catches, whereby the seal forms a double lock for both ends of the flexible strip.

[Claim 6 not printed in the Gazette.]



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1,038,783. CLEANING COMPOUND. CARL A. NOWAK, Chicago, Ill., assignor to A. G. Wackenreuter, Chicago, Ill. Filed Nov. 27, 1911. Serial No. 662,646. (Cl. 87—5.)

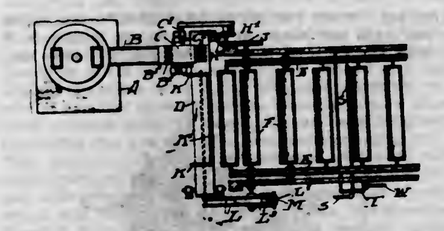
1. The process of preparing a cleaning compound which consists in thoroughly mixing carbon tetra chlorid and a solution of saponin, whereby the carbon tetra chlorid is emulsified, and then separating the emulsion from the solution which has not been taken up.

2. The process of preparing a cleaning compound which consists in thoroughly mixing with carbon tetra chlorid substantially twice its weight of a solution of saponin of between 3 and 4% strength, whereby the carbon tetra chlorid is emulsified, and then separating the emulsion from the solution which has not been taken up.

3. An emulsion of carbon tetra chlorid, containing more than 92% carbon tetra chlorid, less than 7% water and less than 1% saponin.

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1,038,784. BREAD-PROOFING APPARATUS. SAMUEL OLSON, Chicago, Ill. Filed Jan. 8, 1912. Serial No. 669,960. (Cl. 193—24.)



1. In a device for the purpose indicated, an inclined chute terminating at its lower end in a series of fingers extending in the direction of the chute, a rotary element mounted for revolution about an axis extending transversely of the direction of the chute, said rotary element being provided with outwardly extending fingers positioned to register with the intervals between the fingers of the chute and thus adapted to pass between said fingers of the chute, a receiver for the material positioned at the opposite side of the rotary element from that to which the chute is adjacent, and means for revolving said rotary element.

2. In a device for the purpose indicated, an inclined chute terminating in a series of fingers extending in the direction of the chute, a shaft extending transversely of said direction of the chute beyond the end thereof, a drum mounted upon said shaft and provided with outwardly extending fingers positioned to register with the intervals between the fingers of the chute and thus adapted to pass said fingers when the drum is revolved, a portion of the chute being depressible by the weight of material thereon, a clutch device adapted to engage the drum with the shaft, operating means for said clutch device connected with the depressible portion of the chute, and means for revolving the shaft.

3. In a device for the purpose indicated, an inclined chute terminating in a series of fingers extending in the direction of the chute, a shaft extending transversely of said direction of the chute beyond the end thereof, a drum mounted upon said shaft and provided with outwardly extending fingers positioned to register with the intervals between the fingers of the chute and thus adapted to pass said fingers when the drum is revolved, the terminal fingered portion of the chute being hinged with the remainder, and depressible therefrom by the weight of material upon said hinged portion, a clutch device adapted to engage the drum with the shaft, operating means for said clutch device connected with the depressible portion of the chute, and means for revolving the shaft.

4. In a device for the purpose indicated, an inclined chute terminating in a series of fingers extending in the direction of the chute, a shaft extending transversely of said direction of the chute beyond the end thereof, a drum mounted upon said shaft and provided with outwardly extending fingers positioned to register with the intervals between the fingers of the chute and thus adapted to pass said fingers when the drum is revolved, a portion of the chute being depressible by the weight of material thereon, a clutch device comprising a notch in the shaft and a radially movable clutch bolt in the drum, a presser arm positionable to engage the outer end of the clutch bolt for thrusting said bolt into the notch of the shaft, a linkage connecting said presser arm with the depressible portion of the chute, and means for revolving the shaft.

5. In a device for the purpose indicated, an inclined chute terminating in a series of fingers extending in the direction of the chute, a shaft extending transversely of said direction of the chute beyond the end thereof, a drum mounted upon said shaft and provided with outwardly extending fingers positioned to register with the intervals between the fingers of the chute and thus adapted to pass said fingers when the drum is revolved, a portion of the chute being depressible by the weight of material thereon, a clutch device comprising a notch in the shaft and a radially movable clutch bolt in the drum, a presser arm positionable to engage the outer end of the clutch bolt for thrusting said bolt into the notch of the shaft, a linkage connecting said presser arm with the depressible portion of the chute, a pin extending from the end of the drum at a point radially beyond the outer end of the clutch bolt, the presser arm having an extension adapted to engage said pin for arresting the drum when said presser arm stands out of position for engaging the bolt.

[Claim 6 not printed in the Gazette.]

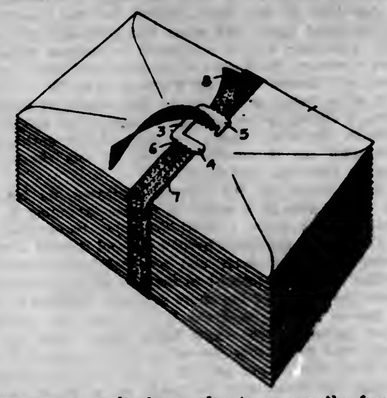
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1,038,785. PACKAGE-CLASP. CYRIL G. PARKS, Minneapolis, Minn. Filed Apr. 17, 1911. Serial No. 621,640. (Cl. 24—136.)

1. A package clasp comprising a clip, U-shaped substantially in form, one of the arms of said clip having prongs on its outer edge, a tape having one end attached to said prongs, the other arm having prongs or points on both of its edges, a tab attached to the outer prongs of said other arm, the free end of said tape adapted to enter the space between said arms and engage the inner prongs of said other arm.

2. A package clasp comprising a clip, U-shaped, substantially, in form, a tape having one end attached to one of the arms of said clip, a tab attached to the outer edge

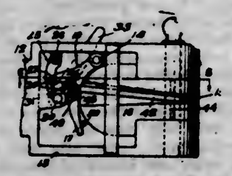
of said other arm, the free end of said tape adapted to enter the space between said arms and said other arm



having means on its inner edge to engage the free end of said tape, substantially as described.

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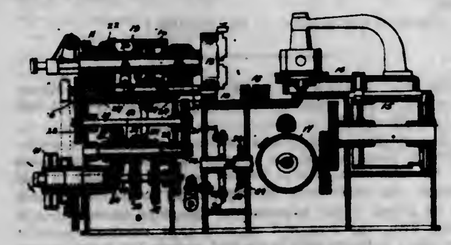
1,038,786. CAR-COUPLING. EDWARD F. PENDEXTER, Milford, Mass. Filed Mar. 22, 1912. Serial No. 685,490. (Cl. 213—12.)



In a car-coupling, a pivoted knuckle on the draw-head having a latch-engaging portion, a pivotally supported gravitating latch for said knuckle having a rearward projection provided with engaging-means, a pivotally supported gravitating retaining-latch having means to engage said engaging-means on the rearward projection of said knuckle-latch, an oscillating-shaft having a cam to move said knuckle-latch into engagement with said retaining-latch and upon further movement in the same direction to disengage the retaining-latch from the knuckle-latch, and means to oscillate said shaft, substantially as described.

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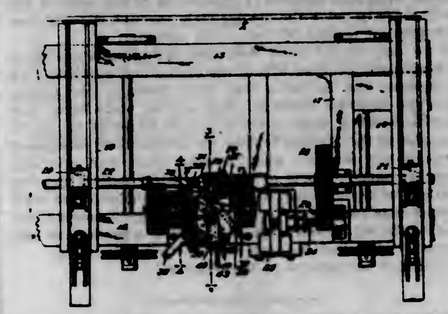
1,038,787. GEARING FOR LATHE-SPINDLES. JAMES CHARLES POTTER, Pawtucket, R. I. Original application filed May 12, 1909, Serial No. 495,474. Divided and this application filed Feb. 21, 1910. Serial No. 545,199. (Cl. 74—59.)



The combination of a spindle, a main shaft, three gears of graduated diameter on the main shaft, three spindle driving gears of graduated diameter meshing with the main shaft gears, an operative connection between said three spindle driving gears and the spindle, an automatic clutch for the largest spindle driving gear, a lever operated clutch mechanism for the two smaller spindle driving gears, and automatic means to operate said lever.

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1,038,788. SAWMILL SETTING AND RECEDING MECHANISM. DE WITT C. PASSCOTT, Chicago, Ill. Filed June 9, 1911. Serial No. 632,294. (Cl. 143—120.)



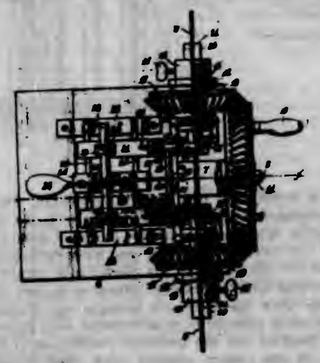
1. In a saw mill set works, in combination, a set shaft, a worm wheel, a motor for driving the set shaft and worm wheel, a worm shaft meshing with the worm wheel, a hand crank directly applied to the worm shaft, a ratchet, a train of speed reducing gears operatively connecting the worm shaft and ratchet, an oscillatable pawl arm driven in one direction by the ratchet and a positive stop for limiting the movement of the pawl arm in that direction.

2. In a saw mill set works, in combination, traveling knees, a motor for moving the knees, a worm wheel driven by the motor, a worm shaft engaging the worm wheel, a hand crank, a ratchet, operative connection between the hand crank the worm shaft and the ratchet including a pair of speed reducing gears whereby the ratchet is turned at a less rate than the hand crank and worm shaft, an oscillatable pawl arm driven in one direction by the ratchet, and a positive stop for limiting the movement of the pawl arm in that direction.

3. In a saw-mill set-works, in combination, a set shaft, a motor for rotating the shaft, a worm wheel driven from the shaft, a worm shaft meshing with the worm wheel, a ratchet wheel driven by the worm shaft, a pawl-arm driven by the ratchet wheel, a positive stop for the pawl-arm, and means for manually turning the worm shaft.

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1,038,789. WIRE TWISTING OR SPLICING MACHINE. ROY REED and ALBERT D. FIVEMILLING, Buffalo, N. Y. Filed Apr. 15, 1912. Serial No. 690,854. (Cl. 140—115.)



1. In a machine of the kind described, two axially coinciding longitudinally-slotted spindles, means for rotating said spindles in opposite directions, and wire-retaining means co-acting with each of said spindles, each of said wire-retaining means comprising a portion notched to embrace one-half of its coöperating spindle and a co-acting portion notched to embrace the other half and being movable toward and from its coöperating spindle.

2. A machine of the kind described, comprising a pair of oppositely rotating spindles provided with longitudinal wire-receiving slots, means co-acting with each spindle for retaining the wire or wires in the slots thereof, said means comprising a slotted bar arranged at right angles to its coöperating spindle and having an upstanding lug notched to fit around one-half of said spindle and a sliding retainer block on said bar movable lengthwise thereof and notched to fit around the other half of said spindle, thus closing the slot of said spindle to prevent accidental removal of the wire therefrom.

3. In a machine of the kind described, the combination with a base having a pair of spaced supports, a pair of guide-rods extending from one pair of said supports to the other, a pair of retainer bars arranged at right angles to said guide-rods and movable relatively on said guide-rods, a pair of axially coinciding wire-holding spindles provided with longitudinal slots and being movable relatively, and means on said retainer bars embracing the adjacent ends of said spindles to retain the wire or wires being twisted in the slots thereof, said embracing means including a part movable to permit the insertion of the wires into the slots and the removal of the same therefrom.

4. In a machine of the kind described, the combination with a base having supports rising therefrom, axially-alined spindles rotatable in said supports and relatively movable, said spindles having longitudinal slots therein, means for rotating said spindles in opposite directions, a pair of supported guide-rods spaced apart and arranged parallel with said spindles, a pair of retainer bars spaced apart and movable relatively on said guide-rods, each retainer bar coöperating with one of said spindles and having an upstanding lug extending substantially around one-half of its coöperating spindle, a slidable block embracing the other half of said spindles to prevent accidental removal of the wire or wires from the slots in said spindles, and means for simultaneously moving said slidable blocks to permit insertion of the wires into the slots of said spindles or the removal therefrom.

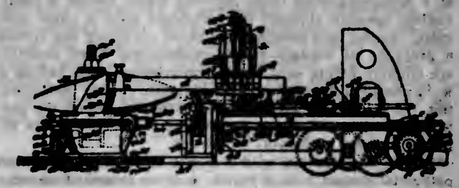
5. In a machine of the kind described, the combination of a pair of axially alined spindles having longitudinal slots therein, means for rotating said spindles in opposite directions, a pair of guide-rods arranged parallel with said spindles, a bracket secured to said guide-rods and having an upstanding guide-arm and an upstanding bifurcated supporting arm, a pair of retainer bars arranged on said guide-rods and movable relatively, said retainer bars having means at one of their ends to embrace the adjacent ends of said spindles and prevent the accidental removal therefrom of the wires inserted in the slots of said spindles, an operating lever fitting into said bifurcated supporting arm and having a portion extending inward therefrom, a single guide-rod passing through said bifurcated supporting arm and extending in opposite directions therefrom parallel with said first-mentioned guide-rods, said single guide-rod serving as a pivot for said operating lever and said retainer bars having upstanding lugs through which said single guide-rod loosely passes, thumb-screws threaded into said lugs and adapted to impinge against said single guide-rod, and a link connecting the inner extending portion of said operating lever with said wire retainer means.

[Claim 6 not printed in the Gazette.]

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1,038,790. PLANING APPARATUS. WALTER F. RICH, Quincy, Mass., assignor to Fore River Ship Building Company, a Corporation of Massachusetts. Filed Feb. 21, 1910. Serial No. 545,202. (Cl. 90—31.)

1. A planing apparatus comprising a reciprocating tool carrier; a movable support for the material to be planed; means for automatically producing intermittent movements of the tool carrier in a direction other than the direction of reciprocating movement thereof, said means operating at the end of the reciprocating movement; and connecting mechanism whereby said movable support is moved a distance proportional to that movement of the tool-carrier which is independent of its reciprocating movement.



2. The combination with a horizontally reciprocating tool-carrier; of a vertically movable holder for the tool; means for automatically producing an intermittent vertical movement of said holder, said means operating at the end of each complete reciprocation of the tool carrier; a rotatable support for the material to be planed; and means for causing an intermittent rotating movement of said support coincident with and having a definite relation to the vertical movement of the tool holder.

3. The combination with a horizontally reciprocating and vertically movable tool; of a normally horizontal rotating support for the material to be operated upon by said tool; means for producing a transverse movement of the tool at the end of its reciprocating movement; means co-operating therewith for correspondingly rotating the support; and means for inclining said support from its normally horizontal position, without disconnecting it from its rotating means.

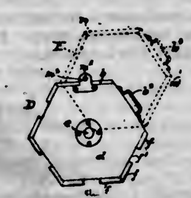
4. The combination with a reciprocating tool; of means for reciprocating said tool; a traveling support for material to be operated on by said tool; actuating mechanism connected with said support to cause a movement thereof at the end of a complete reciprocation of the tool; and means for inclining the surface of said support without disconnecting it from its actuating mechanism, whereby the material on the support can be placed in the necessary position relative to the cutting tool.

5. The combination with a reciprocating tool; of a rotary support for material to be operated upon thereby; a gear connected and coaxial with said support; an actuating shaft; a worm on said shaft meshing with said gear; trunnions coaxial with said shaft; bearing members for said support mounted on said trunnions, whereby the axis of said support can be inclined without interfering with the operation thereof; and connecting mechanism whereby the actuating shaft for the rotary support is adapted to operate intermittingly, one of the intermittent operations occurring at the end of each complete reciprocation of the tool.

[Claims 6 to 15 not printed in the Gazette.]

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1,038,791. TUMBLING AND POLISHING MACHINE. HENRY B. RICHARDSON, Attleboro, Mass. Filed Mar. 22, 1912. Serial No. 685,451. (Cl. 51—14.)



1. In a tumbling and polishing machine of the general class described, the combination with a tank, of a polygonal-shaped apertured frame revolubly mounted in the tank, a cover member removably secured to one face of the frame, a series of apertured independent polygonal-shaped contain-

ers arranged side by side and removably fitting the interior of said frame transversely, and having the covers of the several work-charging openings of the containers normally held in place by the said frame opening cover.

2. In a machine of the class described, the combination of a hexagon-shaped main carrying frame having a longitudinal opening through its peripheral wall, a cover normally closing said opening, means for revolving the frame, a plurality of hexagon-shaped independent work containers slidably fitting said frame transversely, each having a work-charging opening, a cover normally closing each opening, the said frame cover being superimposed upon the container covers, and means for locking the several parts together against accidental separation.

3. The combination with a liquid tank, of an elongated polygonal-shaped hollow frame, a cover-protected opening communicating with the frame's interior, means for revolving the frame, a plurality of containers slidably fitting, transversely, the said frame, a main or charging opening formed in each container arranged to register with that of the frame, a cover element for each container, and means for removably securing the covers in position against accidental opening.

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1,038,792. APPARATUS FOR STRETCHING THE ARMHOLES OF COATS. JOHN SCHLOSSER, New York, N. Y. Filed Apr. 18, 1912. Serial No. 691,557. (Cl. 223—19.)



1. A machine for stretching the armholes of coats which comprises a stationary cylinder, heads at the ends of the same a center-spindle supported in bearings of said heads and provided at one end with a crank, and at the opposite end with a screw-thread, a traveling nut on the threaded portion of the spindle, quadrantal and inwardly-curved portions hinged to the end of the cylinder and pivot-link connections between the traveling nut and the quadrantal portions for moving the same in outward or inward direction.

2. A machine for enlarging or stretching the armholes of coats, which comprises a cylinder, heads at both ends of the same supporting standards for the cylinder, quadrantal and inwardly curved portions hinged to the end of the cylinder a center-spindle supported in bearings in the heads of the cylinder and provided with a crank at one end, and a screw-thread at the opposite end, stop collars on the spindle for preventing longitudinal shifting motion of the same, a traveling nut on the threaded end of the spindle, and pivot-link connections between the traveling nut and the inside of the quadrantal portions for moving the same in outward or inward direction for enlarging the armholes of coats.

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1,038,793. COMBINATION BRUSH AND COMB. JOSEPH SCHMITT, Minneapolis, Minn. Filed Aug. 1, 1911. Serial No. 641,831. (Cl. 15—29.)



1. In a device such as described, a brush having a recess formed therein, a plate secured to said brush having an opening registering with said recess, a second plate mounted in said recess and spaced from said first-mentioned plate, a comb-retaining member adapted to slide on said second plate and means for operating said comb retaining member, substantially as described.

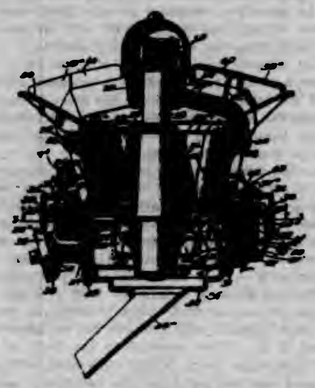
2. In a combination with a brush having a recess formed therein, a plate secured to said brush, having an opening formed therein, a second plate mounted in said recess and spaced from said opening by means of angle plates, a comb-retaining member adapted to slide on said second plate, arms extending from said comb retaining member, bell cranks pivoted to the lower side of the said second plate, said arms engaging said bell cranks, a lever for operating said bell cranks, means for operating said lever, lugs extending from said comb retaining member adapted to slide in slots formed in said angle plates and enlarged portions formed on said lugs for engaging recesses formed at the ends of said slots to cause the comb retaining member to assume a vertical position.

3. The combination with a brush, having a recess formed in the back thereof, a comb pivotally mounted adjacent to said recess, a plate mounted over said recess, bearings formed on said plate, a bar slidably mounted upon said bearings, and means to reciprocate said bar.

4. The combination with a brush, having a recess formed in the back thereof, a comb pivotally mounted adjacent to said recess, a plate mounted over said recess, bearings formed on said plate, a bar slidably mounted upon said bearings, a lever mounted on the under side of said plate, bell cranks adapted to be oscillated by said lever, and connections between said lever and said bar.

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1,038,794. CRUSHING-MACHINE. JACOB M. SHOLL, Milwaukee, Wis. Filed Feb. 15, 1908. Serial No. 416,021. (Cl. 83—10.)



1. In a machine of the class described in combination, a crushing chamber, a crushing head, a gyratory shaft, a spider adapted to furnish suspension means for said shaft adjacent the upper extremity thereof and adapted to permit a gyratory movement of the shaft, a spider into which the lower end of the shaft is journaled, the said spider being provided with members extending beyond the walls of the chamber, and means adapted to impart a gyratory movement to the last said spider in relation to the crushing chamber, said means comprising an eccentric ring interposed between the said spider and the crushing chamber.

2. In a machine of the class described in combination, a main crushing chamber, a stationary spider carried by the said chamber at its upper extremity, a main gyratory shaft provided with a crushing head journaled in said spider and suspended therefrom to permit a gyratory movement of said shaft in relation to the spider and the crushing chamber, a spider at the lower extremity of the gyratory shaft and connected therewith, said spider being mounted on suitable bearings whereby it is susceptible of a gyratory



movement, and having portions thereof extending beyond the outer walls of the crushing chamber, an eccentric ring interposed between the said outer portions of the spider and the chamber, and driving means for imparting a rotary movement to said eccentric ring whereby the said spider and the gyratory shaft are caused to gyrate in relation to the crushing chamber.

3. In a machine of the class described in combination, a crushing chamber, a main gyratory shaft, a stationary spider fixed to the crushing chamber, a suspension bearing in said spider adapted to carry the upper end of the gyratory shaft, a spider at the lower extremity of the shaft and connected therewith, arms on said spider extending beyond the outer walls of the chamber through openings in the walls of the chamber, and means on the exterior of the chamber for imparting a gyratory movement to the spider, said means comprising an upwardly extending flange around the periphery of the spider, and an eccentric ring mounted to rotate between said flange and a suitable bearing surface fixed in relation to the crushing chamber.

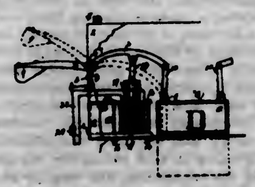
4. In a machine of the class described in combination, a crushing chamber, a spider fixed to said chamber, a main gyratory shaft suspended from said spider, a non-rotating spider into which the lower end of said gyratory shaft is journaled, a bearing for permitting gyratory movement of the last said spider in relation to the main crushing chamber, and means for imparting a gyratory movement between said last mentioned spider and the crushing chamber, said means comprising an eccentric ring interposed between the spider and a suitable bearing surface in fixed relation to the chamber, and means for imparting movement to said eccentric ring.

5. In a machine of the class described in combination, a crushing chamber, a spider fixed to said chamber, a main gyratory shaft suspended from said spider, a second spider into which the lower end of said gyratory shaft is journaled, a bearing for permitting movement of said spider in relation to the main crushing chamber, means for imparting relative movement between said last mentioned spider and the crushing chamber, said means comprising an eccentric ring interposed between the spider and a suitable bearing surface in fixed relation to the chamber, and means for imparting movement to said eccentric ring comprising a concentric rim-pulley secured thereto.

[Claims 6 to 14 not printed in the Gazette.]

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1,038,795. ANNUNCIATOR. LEO LEON SIMPSON, Seattle, Wash. Filed June 19, 1911. Serial No. 634,058. (Cl. 40—52.)

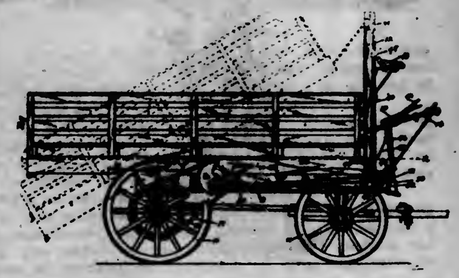


1. The combination in an annunciator of a housing and rods extending along two of its sides, levers pivoted upon said rods and arranged in oppositely disposed pairs, the inner ends of the levers upon one of the rods being in spaced relation to the inner ends of the levers upon the other rod and all the levers having their outer ends weighted; display cards, the length of each of which substantially equals the space between the inner ends of each pair of levers; means for attaching one of said cards between the inner ends of each pair of levers whereby each card has a true vertical and free movement when its levers are moved about their pivots, said means including a substantially vertical link extending from the inner end of each lever to the upper edge of the card, a magnet under each lever to attract the inner end thereof, and means for energizing and deënergizing the two magnets of a pair of levers at a time.

2. The combination in an annunciator of a housing having its bottom formed of a sheet of metal and two of its sides formed by upwardly bending each end of said sheet, eyes formed by rolling the upper edges of said sheet, rods extending through said eyes, a series of levers arranged in pairs oppositely disposed upon each side of said housing and pivoted upon said rods, a magnet for each lever and means for energizing and deënergizing the same, display cards, means for suspending said cards between the inner ends of said levers whereby the cards have a true and free vertical movement, said means including links extending vertically from the upper corners of each card to the corresponding inner ends of a pair of said levers.

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1,038,796. DUMPING-WAGON. HOWARD F. SNYDER, Newton, Iowa, assignor to Fred L. Maytag, Newton, Iowa. Filed July 2, 1908. Serial No. 441,648. (Cl. 21—20.)



1. In a device of the class described, the combination of a wagon-bed carrying at its rear end a pivot, a tilting wagon bed mounted to swing on said pivot, a rope and windlass connected to lift the front of said tilting bed when desired, a friction drive for said windlass controlled from the front end of said first named wagon-bed, and a friction brake adjusted to said windlass and controlled from the front of said wagon-bed, said brake being adapted to control the return movement of said tilting bed when it drops back under the action of gravity.

2. In a device of the class described, the combination of a wagon bed provided with running gear, a tilting wagon bed pivoted on said first-mentioned wagon bed, tilting mechanism, means for operatively connecting said mechanism with the running gear, means for controlling said connections, and a spring-actuated friction brake for holding the tilting wagon bed in any position of its movement.

3. In a device of the class described, the combination of a wagon bed provided with running gear, a tilting wagon bed pivoted on said first-mentioned wagon bed, tilting mechanism, means for operatively connecting said mechanism with the running gear, foot-controlled means for controlling said connections, a spring-actuated friction brake for normally holding the tilting wagon bed in any position of its movement, and foot-operated means arranged to act in opposition to said spring-actuated means when the tilting body is to be returned to its initial position.

4. In a device of the class described, the combination of a wagon bed, supporting wheels therefor, a shaft mounted therein, means for rotating said shaft by power from a supporting wheel, a drum on said shaft, means for throwing said drum into and out of operative engagement with the shaft, a rope or cable fixed to and wound upon the shaft, an elevated support on the wagon bed, a pulley thereon having said rope or cable passed over it, and a tilting wagon bed pivoted on the stationary wagon bed, having said rope or cable attached to its forward portion, and a spring for normally holding the drum in position out of operative engagement with the shaft.

5. In a device of the class described, the combination of a wagon bed, supporting wheels therefor, a shaft mounted therein, means for rotating said shaft by power from a supporting wheel, a drum on said shaft, means for throw-

ing said drum into and out of operative engagement with the shaft, a rope or cable fixed to and wound upon the shaft, an elevated support on the wagon bed, a pulley thereon having said rope or cable passed over it, and a tilting wagon bed on the stationary wagon bed, having said rope or cable attached to its forward portion, and a spring for normally holding the drum in position out of operative engagement with the shaft, a stop attached to said rope or cable, a means actuated by said stop for automatically throwing the drum to position out of operative engagement with the shaft.

[Claim 6 not printed in the Gazette.]

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1,033,797. ROPE-MEASURING DEVICE. WILLIAM O. SOMMERFIELD, East Peoria, and DANIEL W. MORRIS, Peoria, Ill. Filed Nov. 29, 1911. Serial No. 663,051. (Cl. 73—9.)



In a rope measuring device, in combination, an open framework adapted to be fixed in any desired position, a pulley wheel provided with a V-groove, means for supporting the pulley wheel in a reciprocal relation to said frame comprising a yoke, a stem bearing through a fixed portion of said frame, a coil spring interposed between the yoke and said fixed portion, and slots within the frame, a thin toothed disk, a shaft to which said disk is fixed, journaled in the main frame and provided with a friction groove near one end and with a worm screw thereon, a friction brake, comprising a screw in said frame engaging the groove in said shaft, a worm wheel engaging the worm on said shaft and provided with a dial face, means for supporting the worm wheel, a fixed indicating finger supported relative to the worm wheel dial and a rope guiding frame connected with said main frame, substantially as described.

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1,033,798. COMBINATION-KNIFE FOR CUTTING TOOTHPICKS. GEORGE P. STANLEY, Dixfield, Me., assignor to Dixfield Toothpick Co., Dixfield, Me. Filed Mar. 22, 1911. Serial No. 616,228. (Cl. 144—190.)



1. A cutter die for making tooth picks or the like, comprising longitudinal slicing means for cutting the body length of the tooth picks, end cutting means, means for preventing relative displacement of the end cutting means and longitudinal slicing means from operative thrusts, said means consisting in an abutment projecting from one of said means transversely of the direction of cutting movement, the other of said means being provided with a recess for receiving said abutment, and means for rigidly clamping said end cutting and longitudinal slicing means together with the end cutting means adjustably spaced laterally from said slicing means.

2. A cutter die for making tooth picks or the like, comprising longitudinal slicing means for cutting the body length of the tooth picks, end cutting means, and means for rigidly clamping said end cutting means to said longitudinal slicing means in different positions of lateral adjustment relative to said slicing means.

3. A cutter die for making tooth picks or the like, comprising a pair of longitudinal slicing cutters, and end cutters, said slicing unit and cutters being rigidly clamped together and said end cutters having provision for adjustable lateral spacing from the cutting edges of said slicing cutters.

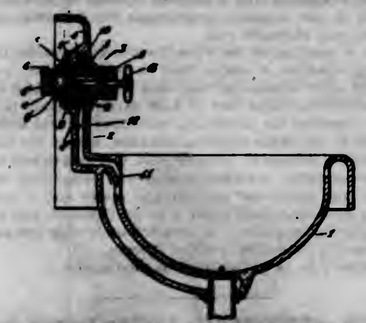
4. A cutter die for making tooth picks or the like, comprising longitudinal slicing means for cutting the body length of the tooth picks, and forming end cut-off means, connections for holding the latter means rigid with said slicing means, and means cooperative therewith for positioning the cut-off means in different positions of transverse lateral adjustment relative to the slicing means while preserving the rigid connection between the parts.

5. A cutter die for making tooth picks or the like, comprising longitudinal cutting means for cutting the body length of the tooth picks, end cut-off means, and means for rigidly clamping said cut-off means in rigid interlocking relation to said slicing means in different positions of angular adjustment transversely of said slicing means.

[Claims 6 to 8 not printed in the Gazette.]

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1,033,799. WASHBASIN. GEORGE H. SWINEY, Seattle, Wash. Filed Mar. 7, 1911. Serial No. 612,929. (Cl. 4—34.)



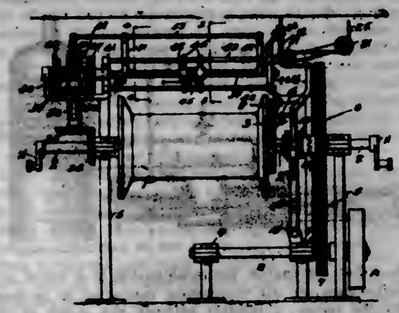
A wash basin formed in its wall with an inlet, an upwardly projecting back for said basin formed with an opening enlarged intermediate its ends to provide an annular chamber and having a passage leading from such chamber to the inlet of said basin, a cylindrical casing seated in the reduced end portions of the opening of said back and projecting outwardly therefrom, said casing being formed with a valve seat and with an outlet communicating with the chamber of said back, means for securing said casing to said back comprising nuts having threaded engagement on said casing and engaging the adjacent faces of said back, and a valve in said casing for engagement with the seat thereof for controlling the flow of fluid through the casing.

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1,033,840. WINDLASS FOR HAY-FORKS. THOMAS F. TALLEY, Maryville, Mo. Filed June 19, 1911. Serial No. 633,914. (Cl. 97—63.)

1. The combination with a winding drum and a clutch mechanism therefor and a circular rack on the drum and a pawl therefor, of an actuating lever for said clutch operatively engaging said pawl, and trip mechanism comprising a trip lever formed with an end hook, a weighted lever suspended in said hook, and a pull cord connecting said weighted lever and the clutch lever, whereby said actuating lever is pulled when said weighted lever is freed.

2. The combination with a winding drum and release mechanism of trip mechanism comprising a track, a sleeve adjustably secured on the track, a trip lever pivoted in said sleeve and formed with an end hook, a second adjustable sleeve on the track, a weighted lever pivoted therein and supported in said end hook, and a pull cord connecting said weighted lever with the release mechanism, whereby said release mechanism is actuated to free the drum when said weighted lever is freed.



3. The combination with a winding drum and a clutch mechanism therefor, a circular rack on the drum and a pawl therefor, of an actuating lever for said clutch operatively engaging said pawl, trip mechanism comprising a track a sleeve adjustably secured on the track and a trip lever pivoted in said sleeve and formed with an end hook, a second adjustable sleeve and a weighted lever pivoted in said sleeve and supported in said end hook, and a pull cord connecting said weighted lever and the clutch lever, whereby said actuating lever is pulled when said weighted lever is freed.

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1,033,801. MEANS FOR INDICATING THE DEFLATION OF PNEUMATIC TIRES. FRANCIS H. TRAUT, Cleveland, Ohio. Filed Oct. 7, 1911. Serial No. 653,206. (Cl. 116—1.)



1. Means for indicating the deflation of pneumatic tires comprising a member having means for its connection to the wheel of a vehicle and also to the valve tube of the tire of said wheel, and means for detaching said member at one end operated by the reduction of pressure within the tire, substantially as described.

2. Means for indicating the deflation of pneumatic tires comprising a flexible member having means for its connection to the wheel of a vehicle and also to the valve tube of the tire of said wheel, and means for detaching said member at one end operated by the reduction of pressure within the tire, substantially as described.

3. A device for indicating the deflation of pneumatic tires, comprising a cap having a threaded portion for attachment to the valve tube or nipple of a tire and also having means for normally holding the tire valve open, a diaphragm contained in the cap or casing and subject to the internal pressure of the tire upon one side, a plunger seated against the opposite side of the diaphragm, a spring acting on the plunger oppositely to the diaphragm, and an alarm device having a normally locked engagement with said plunger to release by the inward movement thereof, substantially as described.

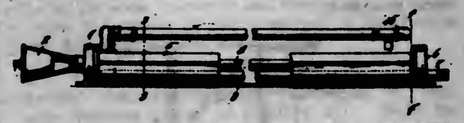
4. In a device for indicating the deflation of pneumatic tires, a cap or casing adapted for attachment to the valve tube of a tire, a diaphragm, a plunger arranged to be actuated by the diaphragm, a locking member normally engaging the plunger, and a flexible connection between the locking member and the rim or felly of the wheel which carries the tire, substantially as described.

5. A device for indicating the deflation of pneumatic tires, comprising a flexible signal member having means for its connection to a wheel of a vehicle, and also to the valve tube of the tire of said wheel, and means for freeing said member operated by the reduction of pressure within the tire, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

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1,033,802. WATER-HEATER. NELSON L. VAN ZANDT, St. Louis, Mo. Filed May 3, 1911. Serial No. 624,971. (Cl. 122—236.)



1. In a water heater the combination of a horizontally disposed burner, a hood casting arranged thereabove and provided with water passages, and headers at each end of said casting and ported to connect said passages.

2. In a water heater the combination of a horizontally disposed burner, a hood casting arranged over said burner and provided with water passages, the passage at the top of the burner being flattened, and water pipes extending parallel to and spaced from the legs of said hood.

3. In a water heater the combination of a horizontally disposed burner, water pipes grouped thereabout, and a drip pan under the lowermost pipes for retaining the water of condensation to permit its being evaporated in the heater.

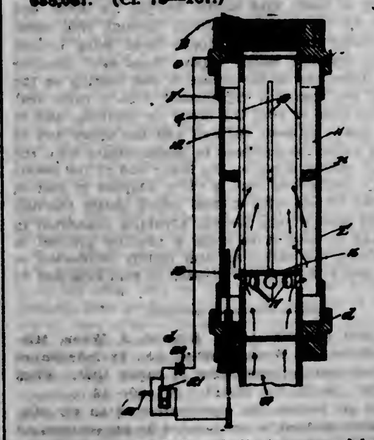
4. In a water heater the combination of a horizontally disposed burner, horizontally disposed pipes grouped thereabout, an imperforate hood over said burner and a drip pan under the lowermost pipes for holding water to permit its being evaporated.

5. In a water heater the combination of a horizontally disposed burner, a hood extending over said burner and provided with water passages, pipes arranged under and parallel to said hood, said pipes being below the burner, and a coil of pipes located above said hood.

[Claims 6 to 8 not printed in the Gazette.]

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1,033,806. FLOW-INDICATOR. JOHN F. VAUGHAN, Wellesley Hills, Mass. Filed July 12, 1911. Serial No. 638,067. (Cl. 73—167.)



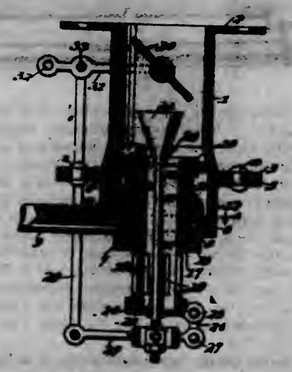
1. The improved flow indicator comprising a tubular inclosure, a tubular slotted partition separating the interior of said inclosure into two chambers, and an annular

movable member cooperating with the slotted condition and moved by the back pressure set up by the flow.

2. The improved flow indicator comprising a tubular inclosure, a second tubular inclosure within the first named inclosure, a barrier dividing said second inclosure into two parts, said second tubular inclosure being slotted on one side of said barrier, and having a port for the passage of the fluid on the other side of the barrier, and an annular movable member cooperating with the slotted portion of the second inclosure, and moved by the back pressure set up by the flow of the fluid.

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1,038,804. CARBURETER. JOSEPH D. WARREN, Providence, R. I. Filed May 9, 1910. Serial No. 560,109. (Cl. 48—155.1.)



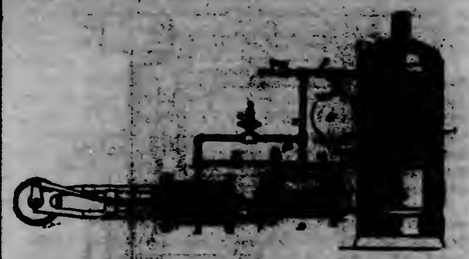
1. In a carbureter, an outer casing, a hollow nozzle in the lower end of the outer casing composed of a head formed with vertical channels and a chamber, a disk seating on the upper end of the nozzle, a cap formed with a valve seat for holding said disk on said nozzle, said channels registering with the space between the cap and the nozzle, a valve movably mounted in the nozzle and adapted to seat in said valve seat, a throttle in the upper end of the casing and connections between the throttle and valve whereby when the throttle is moved to open position the valve will be lifted.

2. In a carbureter, an outer casing having an opening formed in its bottom, and a chamber surrounding the opening, a gasolene pipe leading into the chamber, a hollow nozzle having a head, said nozzle having its lower end formed with air ports and extending through said opening in the casing bottom, said nozzle head being formed with vertical channels which extend from said chamber through the upper end of the nozzle, a disk seating on the upper end of the nozzle, a cap formed with a valve seat seating on the disk to hold the latter in position, and to also leave a space between the cap and the upper end of the nozzle to allow the gasolene to communicate with the interior of the nozzle, a cap on the lower end of the nozzle formed with a perforated boss, a valve adapted to seat in said valve seat formed with a stem which passes through the perforated boss, a yoke member pivotally connected to the nozzle and to said valve stem, a throttle pivoted in the casing above the valve, an arm rigidly connected to the throttle and a vertical rod pivoted to said arm and to said yoke.

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1,038,805. HOT-AIR ENGINE. SAMUEL J. WEBB, Minden, La.; Robert D. Webb, Minden, La., by inheritance and by mesne assignments owner of entire title. Filed Jan. 8, 1902. Serial No. 88,917. (Cl. 60—13.)

1. In a hot air engine, the combination of an air compressor, a motor adapted to be operated by air compressed by the compressor, the latter connected to be operated by the motor, a conduit between the outlet of the compressor and the inlet port of the motor, means for heating the air passing through said conduit, and a by-pass connection between the compressor and motor without going through the heater, substantially as set forth.



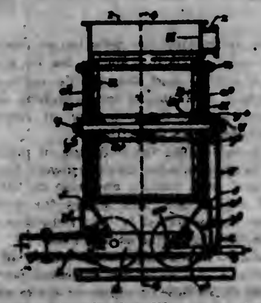
2. In a hot air engine, the combination of a motor air-actuated engine, an air compressor connected to be operated by the motor, a conduit between the outlet of the compressor and the inlet port of the motor, means for heating the air passing through said conduit, and a by-pass and loaded valve for permitting air above determined pressure to pass to the motor without passing through the heater, substantially as set forth.

3. In a hot air engine, the combination of a motor engine having a cylinder and reciprocating piston, an air compressor connected to be operated by the motor but of smaller diameter, a conduit between the outlet of the compressor and the inlet port of the motor, means for heating the air passing through said conduit, and an air receptacle communicating with said conduit, substantially as set forth.

4. The combination with a compound motor engine having high and low pressure cylinders, of a compound air compressor having high and low pressure cylinders, the cylinders being arranged in line with a piston rod common to all the pistons, a conduit between the compound motor engine and its cylinder and the compound air compressor, and a connection with the compound air compressor adapted to deliver compressed air for the purpose of heating, substantially as described.

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1,038,806. APPARATUS FOR HANDLING CONCRETE. RUDOLPH WELCKER, Yonkers, N. Y. Filed May 26, 1910. Serial No. 563,647. (Cl. 198—10.)



1. In an apparatus for handling concrete and like material, the combination of an air tight casing having side walls sloping downwardly and inwardly and terminating in an elongated channel extending lengthwise of the bottom of the casing; an outlet conduit at the exit end of the channel; an air supply pipe at the rear end of the channel and so disposed as to deliver a blast of air lengthwise of the channel; and means above the sloping walls for dropping small masses of concrete upon said walls for direction thereby into said blast of air.

2. In an apparatus for handling concrete and like material, the combination of an air-tight container adapted to hold highly compressed air therein and having a downwardly projecting tapering extension at an lower portion downwardly narrowed elongated receiving part secured to the lower part of said tapering extension and forming a continuation thereof; an air supply pipe entering the lower part of one end of the receiving part, parallel to the axis thereof; a discharge pipe of much larger diameter than the air supply pipe and extending from the opposite end of the receiving part co-axial therewith; and movable means for at intervals conducting small masses of material in front of the air supply pipe, whereby the masses are separately moved at high velocity into the discharge pipe, whereupon the pressure of the air in the casing is added to the momentum of the masses.

3. In an apparatus for handling concrete and like material, the combination of an approximately cylindrical axially horizontal casing provided with a hopper like extension on its upper part and a downwardly projecting tapering extension at its lower part; a downwardly narrowed elongated steel metal receiving part secured to the lower part of said tapering extension and forming a continuation thereof; an air supply pipe entering the lower part of one end of the receiving part parallel to the axis thereof; a discharge pipe of much larger diameter than the supply pipe and extending from the opposite end of the receiving part co-axial therewith, a rotatable axle passing longitudinally through the casing; and a rotatable device formed of blades and compressible packings mounted on said axle and fitting snugly within the casing.

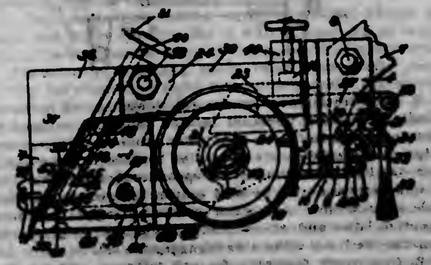
4. In an apparatus for handling concrete and the like, the combination of a substantially cylindrical air-tight casing having an outlet near the bottom thereof, and having a central opening in each end thereof; means for supplying fluid under pressure to said casing; horizontally adjustably supported bearings in line with said central openings, an axle passing through said bearings and openings; a rotatable device formed of compressible rotatable blades mounted on said axle and fitting in said casing.

5. An apparatus comprising an approximately cylindrical air-tight casing having inlet and outlet parts and having its ends each provided with a central opening; horizontal pieces supported adjacent to the ends of the casing; bearing supports adjustably mounted on the horizontal pieces respectively and each having its bearing adjacent to one of said central openings; an axle passing through the casing, said central openings and said bearings; and a rotatable device formed of rotatable blades and compressible packings therefor mounted on said axle, said device being adjustable eccentrically of the casing by adjusting the bearing supports on the horizontal pieces.

[Claims 6 to 10 not printed in the Gazette.]

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1,038,807. FLOOR-SCRAPER. JOHN WETMUR, Seattle, Wash. Filed Mar. 8, 1909. Serial No. 482,168. (Cl. 148—47.)



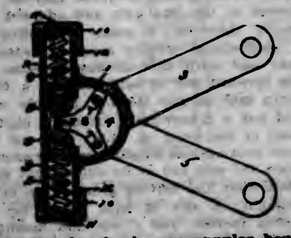
1. In a floor scraping device, a wheeled frame work, an end wall provided at the rear of said frame work and a forwardly projecting boss provided on said end wall, a movable member and a scraper blade held between said movable member and said wheeled frame work, a pivotal connection for said movable member, and lever extensions on said movable member, a cross bar connecting said lever extensions and an adjusting screw carried by said cross bar and engaging said lug whereby said movable member is adjusted.

2. In a floor scraper, a wheeled frame work, a boss pivotally connected to said wheeled frame work having an opening therein, an apertured scraper blade and an adjusting screw and an adjusting nut operated by said screw, a pin engaging the aperture in said scraper blade and secured to said adjusting nut and positioned to be visible through said opening in said jaw whereby the position of the blade relative to said pin may be easily determined.

3. In a floor scraping machine, a wheeled frame work and a body portion forming a part thereof, a recess provided on the under surface of said body portion, a runner provided on each side of said recess and an anti-friction facing detachably secured to said runner.

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1,038,808. SHOCK-ABSORBER. FREDERICK W. WEIMAR, Hartford, Conn. Filed Jan. 8, 1912. Serial No. 669,982. (Cl. 21—105.)



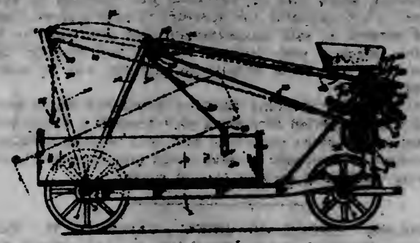
1. A shock absorber having an annular housing with two opposed cylinders extending tangentially from the edge of the housing back of the center and an integral arm projecting from the housing in front of the center, two circular hubs with their outer edges fitting the interior wall of the housing and having integral arms projecting from their edges in front of the center of the housing, a block interposed between the hubs, means securing the block and the hubs together as one piece, plungers movable in the cylinders and bearing against oppositely disposed surfaces of the block back of the axis of the hubs, springs located in the cylinders and thrusting in straight lines against the plungers, and caps closing the ends of the cylinders and holding the springs in place.

2. A shock absorber having an annular housing with two opposed integral cylinders extending tangentially from the edge back of the center of the housing and an arm projecting from the housing in front of the center, two arms with circular hubs that fit and turn in the open sides of the housing, a spacing block located in the housing between the hubs, bolts extending through the hubs and said block for securing these parts together so that they will act as one piece, hollow plungers with rounded ends movable in the cylinders and engaging oppositely disposed surfaces of a portion of said block back of the axis of the housing, caps fastened upon the ends of the cylinders, and spiral springs located in the cylinders between the plungers and the caps.

3. A shock absorber having an annular housing with two opposed integral cylinders extending tangentially from the edge back of the center of the housing and an integral arm projecting from the housing in front of the center, two arms with integral circular hubs that fit and turn in the open sides of the housing, a spacing block located in the housing between the hubs, bolts extending through the hubs and said block for securing these parts together so that they will act as one piece, hollow plungers with rounded ends movable in the cylinders and engaging oppositely disposed surfaces of a portion of said block back of the axis of the housing, caps screwed upon the ends of the cylinders, spiral springs located in the cylinders between the plungers and the caps, pins carried

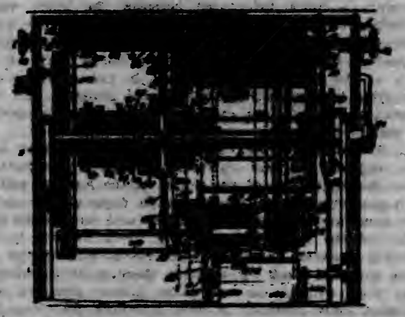
by the cups for entering the outer ends of the spindles, and shaft mote turning on the spindles day holding the cups in place.

1,028,268. TRUCK. CLARENCE A. WILLIAMS, Chicago, Ill. Filed July 26, 1910. Serial No. 573,207. (Cl. 213—18.)



A truck of the class described, comprising front and rear wheeled axles, a body mounted thereon, a U-shaped frame pivoted to the rear axle and adapted to oscillate longitudinally thereover, a pulley depending from said frame, a longitudinal tubular member pivotally engaged at its rear end with said U-shaped frame, a tubular nut in the forward end of said member, a threaded rod screwed into said tubular member, a guide on the inner end of said rod, a transversely extending shaft journaled in the front of the truck in which said rod is pivotally mounted but held against longitudinal movement, spur and driving gears for said rod at its outer front end, a frame carrying said spur and driving gears, a pin on said truck loosely engaging a slot in said frame for preventing rotary motion thereof, and a windlass mounted on said body in operative connection with said pulley.

1,028,816. VOTING-MACHINE. JAMES C. WELSH, Washington, D. C. Filed Dec. 21, 1911. Serial No. 667,215. (Cl. 235—64.)



1. In a voting machine, the combination of a casing, a freely rotatable drum, a plurality of registers and register setting mechanisms mounted on the drum, a key on the casing to operate any individual setting mechanism when the drum is turned to present one of said setting mechanisms adjacent said key, means for limiting the number of the register setting mechanisms which can be set by the key, and means for simultaneously operating the set registers to tabulate the vote cast.

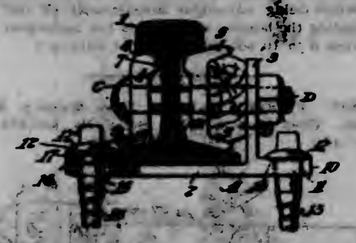
2. In a voting machine, the combination of a casing, a freely rotatable drum, a plurality of registers and register setting mechanisms mounted on the drum, a key in the casing to operate any of the register setting mechanisms when the drum is turned to present one of said setting mechanisms adjacent said key, means for limiting the number of the register setting mechanisms which can be set by the key, said means including a handle and gearing for simultaneously operating the set registers to tabulate the vote cast, and means for locking the handle against movement.

3. In a voting machine, the combination of a casing formed with an opening, a drum freely rotatable in the casing and adapted to receive on its periphery the names of the candidates and the offices they seek, whereby the same may be observed through the opening, registers and register setting mechanisms mounted on the drum, there being a register for each candidate, a key on the casing to operate any one of the register setting mechanisms, means for limiting the number of register setting mechanisms which can be operated by the key, and means for simultaneously operating the set registers to tabulate the vote cast.

4. In a voting machine, the combination of a casing formed with a slight opening, a horizontally disposed freely rotatable drum mounted in the casing and adapted to receive on its periphery the names of the candidates and the offices they seek, whereby the same may be observed through the slight opening, registers and register setting mechanisms mounted on the drum, there being a register for each candidate, a key on the casing to operate any one of the register setting mechanisms, means for limiting the number of register setting mechanisms which can be operated by the key, and means for simultaneously operating groups of register setting mechanisms by the key to vote a party ticket, and means for simultaneously operating the set registers to tabulate the vote cast.

[Claims 5 to 24 not printed in the Gazette.]

1,028,511. TRACK-FASTENING FOR RAIL-JOINTS. BENJAMIN WOLMANSTEIN, New Rochelle, N. Y., assignor to The Rail Joint Company, New York, N. Y., a Corporation of New York. Filed Apr. 7, 1911. Serial No. 619,801. (Cl. 238—6.)

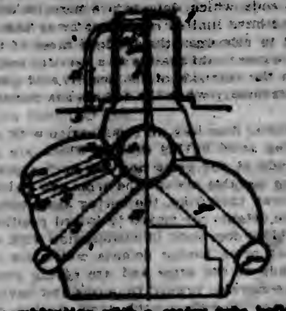


1. In a track fastening for rail joints, a rail joint including the web, the joint bolts, a fish-plate engaged by the bolts and having a base plate provided adjacent one edge with a right-angle rail engaging flange overlapping said web, the opposite edge portion of said plate provided with a right-angle bolt receiving portion, a bolt carried by the latter and having a head bearing against the outer side of said portion, said head provided with a recess, a locking plate engaged by said recess and having the head of the latter also engaging the rail flange.

2. In a track fastening for rail joints, a rail joint including the web, the joint bolts, a fish-plate engaged by the joint bolts and provided at its under surface with a spacing flange having a right-angle end or terminal engaging said web, and at the outer edge having a right-angle end or terminal engaging the head of the rail, said end having an opening therein, a bolt engaging said opening and having a head, and a locking plate engaging said head and having a recess engaging the head of the bolt.



1,028,576. WATER-TUBE BOILER. [illegible], Allentown, assignor to [illegible], Pa. Filed Apr. 17, 1911. Serial No. 621,502. (Cl. 122—337.)



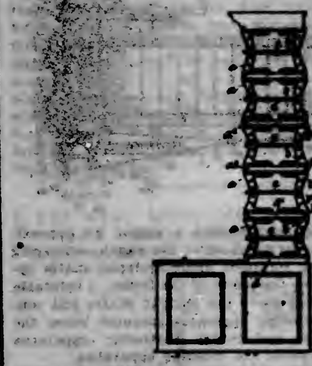
1. The combination with a water tube boiler having a steam and water drum, a pair of water drums one on each side of the combustion space of the boiler furnace and sets of downwardly extending water tubes respectively connecting the steam and water drum directly with the water drums, of a superheater comprising a number of tubes and arranged on one side only of the said combustion space, uptakes located one on each side of the steam drum, one of said uptakes adapted to receive the gases passing from the combustion space through the superheater and the water tubes disposed on one side of the steam and water drum and the second uptake adapted to receive the gases traversing the water tubes on the other side of the steam and water drum, and means for controlling the flow of the gases to the said said uptake, as and for the purpose described.

2. The combination with a water tube boiler having a steam and water drum, a pair of water drums one on each side of the combustion space of the boiler furnace and sets of downwardly extending water tubes respectively connecting the steam and water drum directly with the water drums, of a superheater comprising a number of tubes and arranged on one side only of the said combustion space, uptakes located one on each side of the steam drum, one of the uptakes adapted to receive the gases passing from the combustion space through the superheater and the water tubes disposed on one side of the steam and water drum and the second uptake adapted to receive the gases traversing the water tubes on the other side of the steam and water drum, and a damper fitted within the first said uptake whereby the flow of gases through the superheater and the water tubes associated therewith may be controlled.

3. The combination with a water tube boiler having a steam and water drum, a pair of water drums one on each side of the combustion space of the boiler furnace and sets of downwardly extending water tubes respectively connecting the steam and water drum directly with the water drums, of a superheater comprising a number of tubes and arranged on one side only of the said combustion space, uptakes located one on each side of the steam drum, one of the uptakes adapted to receive the gases passing from the combustion space through the superheater and the water tubes disposed on one side of the steam and water drum and the second uptake adapted to receive the gases traversing the water tubes on the other side of the steam and water drum, a damper fitted within the first said uptake whereby the flow of gases through the superheater and the water tubes associated therewith may be controlled, and means for simultaneously controlling [illegible]

4. A boiler comprising an upper steam and water drum, lower water drums one on each side of the furnace, down takes of water tubes one on each side of the furnace connecting the upper drum with the respective drums, separate uptakes for the [illegible] and leading from each side of the furnace to the point of the gases from the superheater on that side and a damper in the said uptake whereby the furnace gases can be directed from the superheater when desired and the steam generating capacity of the boiler simultaneously reduced.

1,028,818. SHELF-SUPPORT. GEORGE W. ESTEN, Swampscott, Mass. Filed Aug. 26, 1911. Serial No. 646,697. (Cl. 211—87.)



1. A shelf-structure consisting of two pairs of upright clamping-members, the members of each pair being arranged one in front of the other and having opposing shelf-engaging lugs at their upper ends to engage respectively, the front and rear edges of a shelf, and means to connect the members of each pair together and hold them in clamping position, substantially as described.

2. A shelf-structure consisting of two pairs of upright clamping-members, the members of each pair being arranged one in front of the other and having opposing shelf-engaging lugs at their upper and lower ends to engage the front and rear edges of two shelves, and means to connect the members of each pair together and hold them in clamping position, substantially as described.

3. A shelf-structure consisting of two pairs of upright clamping-members, the members of each pair being arranged one in front of the other and having opposing shelf-engaging lugs at their upper and lower ends to engage the front and rear edges of two shelves, and adjustable means to connect the members of each pair together and hold them in clamping position to provide for engaging shelves of different widths, substantially as described.

4. A shelf-structure consisting of a pair of upright members adapted to be arranged one in front of the other, said members having opposing rubbered ends to receive the front and rear edges of a shelf between them, the upright members of said rubbered ends extending short distances from the edges of the shelf, and means to connect said members together and hold them in clamping position, substantially as described.

5. A shelf-support consisting of a pair of upright clamping-members, said members having their upper and lower ends rubbered to receive a shelf between them, the upright members of said rubbered ends extending but a short distance over the edge of the shelves, whereby several shelf-supports may be arranged in vertical alignment, and means for connecting said members together and for holding them in clamping position, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,028,811. MANURE-SPREADER. WILLIAM H. ADDISON, [illegible], Boone county, Ind. Filed [illegible], 1911. Serial No. 668,611. (Cl. 111—49.)

[illegible] spreader including a wagon provided with [illegible] spreading devices, stationary [illegible]

devices, and movable conical toothed crushing apparatus operatively connected with the spreading devices and cooperating with the stationary crushing devices.

2. A manure spreader including a wagon provided with a plurality of upright rotatable shafts and also a breaker device supported uprightly between the shafts in one and the same plane with the shafts, each shaft having a plurality of fingers thereon, and a driving shaft rotatably mounted horizontally above the upright shafts and connected therewith.



3. A manure spreader including a wagon, an approximately horisontal feeder mounted in the wagon, scattering apparatus comprising rotatable finger-equipped shafts uprightly mounted above the plane of the feeder, a rotatable driving shaft mounted above the upright shafts and connected therewith, crushing apparatus mounted below the plane of the feeder, and rotary scattering apparatus mounted in a plane below the crushing apparatus.

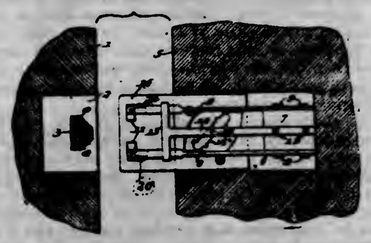
4. A manure spreader including a plurality of upright rotatable shafts, each shaft having a conical base thereon provided with blades and also fingers, each shaft having also a plurality of spreader fingers thereon above the conical bases, a casing supported above the plane of the blades and extending about the conical bases, the inner side of the casing having teeth thereon, and a driving shaft connected with the rotatable shafts.

5. A manure spreader including a wagon provided with movably mounted spreading devices, stationary crushing devices supported in a plane below the spreading devices, movable crushing apparatus operatively connected with the spreading devices and cooperating with the stationary crushing devices, and spreading apparatus movably mounted in a plane below the stationary crushing devices and operatively connected with the movable crushing apparatus.

[Claims 6 to 18 not printed in the Gazette.]

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1,038,815. LOCK FOR CAR-DOORS. NOBL L. ANTHONY, Cranston, R. I. Filed Mar. 13, 1912. Serial No. 683,468. (Cl. 70—81.)



1. In a sliding door lock, in combination with a keeper having oppositely inclined front faces, a block secured in the socket of the door, a spring arm secured to the top and a spring arm secured to the bottom of said block, the outer ends of said spring arms extending without the socket and having spring pressed detents pivoted to their ends, which detents have movement toward the spring arms and limited movement away therefrom, a plate secured to the door and overlying the outer ends of the spring arms, said plate having a keyhole, a spring arm secured to the side of the block and having a cross-piece whose ends are turned at right angles so as to engage the outer sides of the first named spring arms, and a pin carried by the third named spring arm and aligned with the keyhole.

2. In a sliding door lock, in combination with a keeper having inclined front faces, a pair of movably mounted members carried by the door and having pivoted detents at their outer ends which detents are movable toward said members and have limited movement away therefrom and are adapted to ride upon the inclined faces of the keeper, and means to move said detents to a vertical position when same are on the rear side of the keeper, said pair of members being stationary when the detents are moved to locked position.

3. In a sliding door lock, in combination with a keeper, a pair of spring arms having detents which are pivoted to the outer ends of the arms and are spring pressed, said detents being movable toward the arms and having limited movement away therefrom, the spring arms being stationary when the detents are moved to locked position.

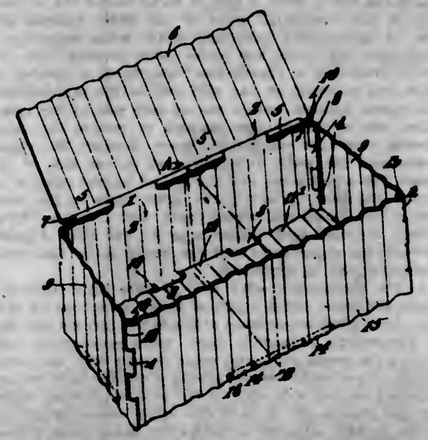
4. In a sliding door lock, in combination with a keeper, a pair of spring arms having detents which are pivoted to the outer ends of the arms and are spring pressed, said detents being movable toward the arms and having limited movement away therefrom, the arms having pockets to receive said detents, and a movable bridge member having parts for engagement with the outer sides of the spring arms.

5. In a sliding door lock, in combination with a keeper, a pair of movably mounted members having means which when the door is closed will ride over the keeper and which when in position on the rear side of the keeper will be moved outwardly so as to engage with the rear side of the keeper, said members being stationary when said means is moved to locked position.

[Claims 6 to 9 not printed in the Gazette.]

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1,038,816. SHIPPING-BOX. CHARLES L. ARNOLD, Hardstown, Ky. Filed June 19, 1911. Serial No. 634,041. (Cl. 220—17.)

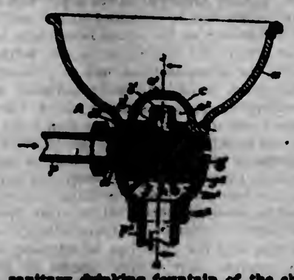


1. A collapsible box or crate including hingedly connected front, back and end panels, a top panel hingedly connected to and foldable onto one of the first named panels, a bottom panel, spaced aligning eyes extending inwardly from the lower edges of the front, back and end panels respectively, said bottom panel bearing downwardly at its front, rear and end edges upon the eyes, eyes upon the front and rear edges of the bottom panel and movable between the eyes on the front and back panels, separate connecting devices extending through the eyes upon the front and back panels respectively and through the eyes on the bottom panel, either of said devices being removable, the remaining device constituting a pivotal connection between the bottom panel and one of the other panels, and rods mounted in the eyes on the end panels and constituting supports for the ends of the bottom panel.

2. A collapsible box or crate including hingedly connected wall panels, eyes extending inwardly from the lower edge portions of said panels, the eyes on each panel being disposed in alinement, a bottom panel having outstanding eyes adapted to extend between eyes in opposed panels respectively, and to aline therewith, said bottom panel, when its eyes are thus located, being supported by the eyes on the wall panels, and rods extending through the alining eyes in the wall and bottom panels, either of said rods being removable to permit the bottom panel to swing upwardly upon the other rod.

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1,038,817. SANITARY DRINKING-FOUNTAIN. JOHN H. ASHTON, Providence, R. I. Filed Aug. 30, 1911. Serial No. 646,588. (Cl. 137—11.)



1. In a sanitary drinking fountain of the character described, the combination of a hollow body having its upper portion enlarged and open at the top to produce a water receiving cup adapted to freely receive a person's mouth, a transverse hollow hub uniting the opposite walls of said body, a waste water outlet disposed below said hub in continuous open communication with said cup, a water inlet passage extending into the hub's interior having its inner end adapted to form a valve seat, a normally stationary valve member adjustably mounted in and closing the opposite end of the hub, arranged to engage said seat and also for controlling the area of discharge orifice formed between the seat and valve, a continuously open inner discharge orifice communicating with the hub's interior, and a chambered protector member having an opening in its wall directly above, alining with and larger than said discharge orifice.

2. In a sanitary drinking fountain of the character described, the combination with a vertically disposed hollow body member having an enlarged open cup at its upper end, a main waste water outlet at its lower end in continuous open communication with said cup, and a hollow transverse hub uniting the opposite side walls of the body, of a longitudinally apertured fitting mounted in one end of said hub, a normally stationary valve member adjustably mounted in and closing the other end of the hub and also capable of closing the inner end of said apertured fitting, and a central convex inner member forming an auxiliary chamber located at the base of said cup having a discharge outlet registering with an orifice formed in the upper wall of said hub.

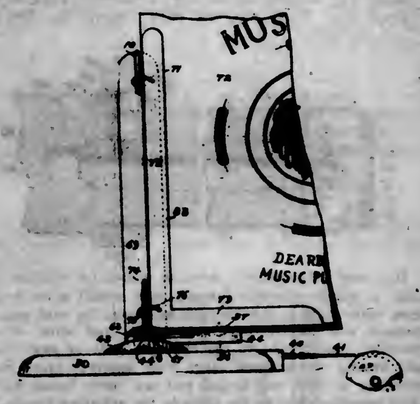
3. In a fountain of the general character described, the combination with a chambered body part having a transversely hollow hub uniting its inner opposite side walls, a centrally apertured hollow protector member extending upwardly from said hub, through which aperture the water is discharged for use, a nozzle having an opening extending from the said hub's interior into the protector's chamber, the latter also having openings through its wall for the passage of waste water, and means for conveying water via said hollow hub to the said body part, and means for conducting water therefrom.

4. In a fountain of the general character described, the combination with a hollow body member having an interiorly tapped, transversely disposed hollow hub provided on its upper side with a continuously open orifice for discharging water therefrom, of a fitting member screwed into one end of the hub, adapted to connect with the main water supply, a valve member adjustably mounted in the hub, having a portion thereof reduced in diameter and adapted to engage the inner end of said fitting for controlling the volume of outflow from said open orifice, and a cap-plug removably mounted in the opposite end of the hub.

5. In a sanitary drinking fountain, the combination of an integral hollow body member open interiorly throughout its length for the escape of waste water, said body arranged to connect with the main water supply, a hollow hub uniting the opposite inner side walls of the body, said hub having an initial discharge opening formed through its upper wall, a chambered protector, integral with the hub, practically surrounding the latter's opening, having a main discharge orifice disposed above and in alinement with said initial opening, but of greater area than the latter, and valve mechanism adjustably mounted in said hollow hub for controlling the volume of water discharged from the fountain.

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1,038,818. MUSIC-LEAF TURNER AND HOLDER. KNUTE S. ASLAND, Chicago, Ill. Filed Nov. 13, 1911. Serial No. 659,999. (Cl. 84—17.)




1. In a device of the character described, the combination with a supporting frame including a base and an upright, of means on the upright to pivotally support one or more sheets of music, a sheet turning arm pivoted at one of its ends on said base at the lower end of the upright, means engaging said pivot whereby it and the arm may be turned in one direction, a spring engaging said means to actuate it and said arm in the opposite direction, a pair of fingers pivotally supported on the arm to alternately engage a sheet and each having a cam-slot, a spring-pressed plunger on the arm and extended between said fingers, pins on the plunger engaging the slots of the fingers, a cam-bracket on the plunger, a wing-trigger pivoted for vertical movement on said pivot and adapted to actuate the cam-bracket and plunger in one direction and thereby cause said fingers to automatically engage a sheet.

2. In a device of the character described, the combination with a supporting frame including a base and an upright, of means on the upright to pivotally support one or more sheets of music, a shaft extended upwardly and downwardly through the base at the lower end of said upright, a pinion on the lower portion of said shaft, a spring-actuated rack engaging said pin, means to move the rack in one direction, a sheet turning arm pivoted at one of its ends on said shaft and having a longitudinally disposed opening, a pair of fingers pivotally supported on the inner surface of the walls of the opening in said arm and each having a cam slot, a spring actuated plunger located in

the opening of said arm and extended between said fingers, pins on the plunger engaging the slots of the fingers, a cam bracket on the end of the plunger adjacent to said shaft, a wing-trigger mounted for vertical pivotal movement on said pivot and adapted to actuate the cam bracket and plunger in one direction and thereby cause said fingers to automatically engage a sheet.

3. In a device of the character described, the combination with an upright support having forwardly and upwardly extended pintles thereon, of a music sheet holder comprising a channeled portion to receive the lower edge of the music sheet and a pair of spaced apart members extended in parallelism with one another and at right angles from one end of the walls of the channeled portion to receive and support the vertical edge of the sheet, rings loosely secured to the said parallel members and encircling the pintles on the support, a sheet turning arm pivotally mounted at one of its ends at the lower portion of said upright and having means to automatically engage the channeled portion of the music sheet holder, means to turn said arm in one direction, and a spring connected to said means to reverse the movement of said arm and to return it to its initial position.

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1,038,819. TOOL WITH RADIALLY-MOVABLE BLADES FOR CIRCULAR CUTTING. FRED A. BABCOCK, Wyndmoor, Pa., assignor of one-half to Carlos C. Peck, Wyndmoor, Pa. Filed Mar. 28, 1912. Serial No. 686,758. (Cl. 10—96.)



In a tool with radially movable blades for circular cutting, a spindle element formed with radial slots having open outer ends, a cam-element supported by said spindle-element and formed with cam-bulges and with circumferential cam-flanges at the opposite ends of said bulges and having cam-grooves upon their opposed faces corresponding to said cam-bulges and the outer flange having slots corresponding to the slots in the spindle-element, one of said elements rotatable in its relation to the other, blades radially movable in the slots of the spindle-element and having lugs at both ends engaging the cam-grooves and having their edges bearing against the cam-bulges, a cap secured to bear against the ends of the spindle and cam element to close the ends of the slots therein, and means for rotating the movable element.

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1,038,820. BREAD-CUTTER. CARL BACKMAN, Jamestown, N. Y. Filed Mar. 14, 1912. Serial No. 683,850. (Cl. 146—12.)



In a bread cutter, the combination with a base and a support formed with an integral arm secured upon said base, of a longitudinal shaft pivotally secured to said arm, a toothed segment terminally carried by said shaft, a blade suspended from said longitudinal shaft and movable independently thereof, a pinion carried by the aforesaid support in mesh with the aforesaid segment and a link connecting the said pinion with the said blade.

1,038,821. REVERSIBLE AND ADJUSTABLE GARMENT. WILLIAM C. P. BALDWIN, Holyoke, Mass., assignor to Baldwin Garment Company, Holyoke, Mass., a Corporation of Massachusetts. Filed May 11, 1911. Serial No. 626,602. (Cl. 2—54.)



1. A single piece waist and skirt garment having overlapping apron sections which extend across the front of the body of the wearer with their edges terminating at the sides, there being outer button holes adjacent the edges of the apron sections and inner button holes at the sides of the garment, the inner and outer holes being arranged at the waistline and spaced at approximately equal distances apart, and a fastener arranged in one inner hole and to the inner end of which the underlapped apron section is buttoned, and a fastener in the other inner hole and to the outer end of which the overlapped apron section is buttoned whereby the apron sections may be reversed.

2. A single-piece waist and skirt garment having reversible overlapping apron sections, there being at the waistline inner and outer groups of button holes spaced at equal distances apart, the outer groups of holes being adjacent the edges of the apron sections and the inner groups being located at the sides of the garment to register with the holes in the apron sections, the holes of each group being arranged in horizontal and vertical rows, fasteners engaged in appropriate holes of the registering groups whereby the waistline and the girth can be adjusted to suit the form of the wearer, and a belt capable of being worn around the outside of the garment and attached to the outer ends of the fasteners or capable of being worn between the overlapping apron sections and held by the fasteners whereby the style of the garment can be changed.

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1,038,822. ROLLER-BEARING CENTER PLATE. JOHN C. BARBER, Chicago, Ill., assignor to Standard Car Truck Company, Chicago, Ill., a Corporation of New Jersey. Filed Dec. 17, 1909. Serial No. 533,557. (Cl. 64—64.)



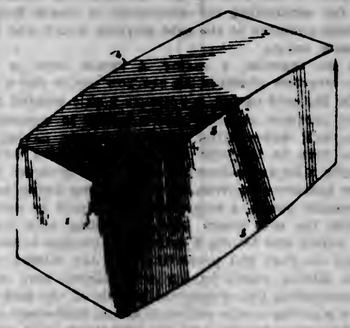
1. A center bearing comprising lower and upper plates and rollers radially disposed between said plates, one of the said plates having a thrust flange engaging the outer ends of the said rollers and a retaining flange projecting from its hub and overlapping the inner ends of said rollers, the said retaining flange having a roller entrance notch and the hub of said plate having a radial perforation alined with said entrance notch, and a roller retaining key normally seated in said entrance notch and having an inner end passed through the perforation in said hub and bent to lock said key in working position, substantially as described.

2. A center bearing comprising lower and upper plates and rollers radially disposed between said plates, one of said plates having a thrust flange engageable with the outer ends of said rollers and a retaining flange projecting from its hub portion and overlapping the inner ends of said rollers, said retaining flange having a tapered roller entrance notch and the hub of said plate having a radial perforation alined with said notch and terminating in a depression formed on the inner surface of said hub, in combination with an approximately flat roller retaining key having a downwardly extended head engaging said notch and having a reduced inner end passed through the perforation of said hub and bent integrally and seated in the depression formed in said hub at the inner extremity of the said perforation, substantially as described.



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1,038,823. BRICK. JAMES G. BARBOUR, Canton, Ohio, assignor to The Metropolitan Paving Brick Company, Canton, Ohio, a Corporation of Ohio. Filed Mar. 18, 1912. Serial No. 684,041. (Cl. 94—1.)



1. A paving block comprising plane top, bottom, and end surfaces, the longitudinal boundaries of the top and of the bottom being continuous, substantially concentric curves oppositely disposed in the two surfaces, the vertical side surfaces of the block being such that any section of the block parallel to the end surfaces will be a parallelogram.

2. A paving block comprising plane top, bottom, and ends, the longitudinal boundaries of the top and of the bottom being continuous, substantially, concentric curves, the curvature of said top and bottom boundaries being oppositely disposed, the vertical sides being warped surfaces generated by a line lying, at every point in its travel, in a plane parallel to the end surfaces of the block and having as generatrices the top and bottom edges of the block.

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1,038,824. AUTOGRAPHIC REGISTER. ENGLAND J. BARBER, Morgan Park, Ill. Filed Feb. 14, 1910. Serial No. 543,764. (Cl. 11—36.)



1. An autographic register comprising a suitable casing, a platen therefor, a superimposed marginal frame engaging said platen, a transversely disposed cutting-edge, a tension pawl adapted to engage the underside of the portion of the record strip extending beyond the platen, and a longitudinally disposed substantially flat clamping-plate having lugs that are pivoted at one side of the said casing below the plane of the platen and adapted when in normal position to clamp the contiguous end portion of the manifolding material substantially in alinement with the plane of the platen.

2. An autographic register comprising a suitable casing, a platen therefor, a superimposed marginal frame engaging said platen, a transversely disposed movable cutting-edge, a tension pawl adapted to engage the underside of the portion of the record strip extending beyond the platen, and a longitudinally disposed substantially flat clamping-plate having lugs that are pivoted at one side of the said casing and adapted when in normal position to clamp the contiguous end portion of the manifolding material substantially in alinement with the plane of the platen, and means for retaining said plate in a disengaged position.

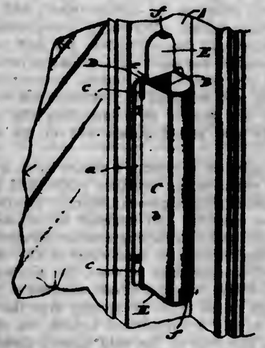
3. An autographic register comprising a suitable casing, a platen therefor, a superimposed marginal frame engaging said platen, a transversely disposed cutting-edge having supporting members, a tension pawl adapted to engage the underside of the portion of the record strip extending beyond the platen, a longitudinally disposed clamping-plate having lugs that are pivoted at one side of the said casing, and adapted to clamp the contiguous end portion of the manifolding material between its longitudinal edge and the casing, and means that simultaneously retain said plate in its lowered or disengaged position, and hold said pawl out of engagement with the record-strips.

4. An autographic register comprising a suitable casing, a platen therefor, a superimposed marginal frame engaging said platen, a transversely disposed movable cutting-edge having supporting members, a tension pawl adapted to engage the underside of the portion of the record strip extending beyond the platen, a longitudinally disposed clamping-plate having lugs that are pivoted at one side of the said casing and adapted to clamp the contiguous end portion of the manifolding material, and means connected with said clamping-plate that are engaged by the supporting members of the cutting-edge when it is raised and retain said clamping-plate in its opened position.

[Claims 6 to 14 not printed in the Gazette.]

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1,038,825. WINDOW-VENTILATOR. NATHAN M. BARNES, Minneapolis, Minn. Filed Feb. 1, 1912. Serial No. 674,873. (Cl. 98—31.)



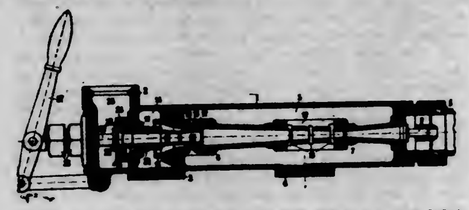
1. The herein described ventilator adapted to be attached to a stile of a window sash over apertures in the stile and consisting essentially of a sheet-metal body bent into U-shape in cross-section and having integral apertured flanges disposed at right-angles to its sides, cross-rods having angularly disposed end portions arranged in the corners between the sides and flanges of the body and soldered thereto, and swinging doors adapted to be suspended to the ends of the body and having barrels surrounding the cross-rods and also having on their outer ends curvilinear projections forming combined frictional fasteners and finger pieces.

2. The herein described ventilator adapted to be attached to a stile of a window sash over apertures in the stile, and comprising a body of channel form in cross-section open at its opposite ends and having on its sides

means for attaching it to a window sash stile or the like, and swinging doors connected with the body and adapted to be closed against the ends thereof, whereby the air from without the sash can be entirely excluded or can be directed from either or both ends of the body.

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1,038,826. INJECTOR. JOHANN BASCHKIN, Kolomna, Moscow, Russia. Filed Feb. 21, 1912. Serial No. 679,086. (Cl. 162—1.)



1. In an injector, a casing, a steam inlet, a water inlet, an overflow chamber, an overflow outlet and a water outlet in the said casing, a pressure nozzle located within the said overflow chamber and adapted to communicate with the said water outlet, a mixing nozzle communicating with the said water inlet and connected to the said pressure nozzle, overflow apertures between the mixing nozzle and the pressure nozzle, a steam nozzle, having a cylindrical end portion, adapted to communicate with the steam inlet and projecting into the said mixing nozzle, and means for controlling the admission of steam from the said steam chamber to the said steam nozzle, said mixing nozzle having a cylindrical bore opposite to the said cylindrical portion of the said steam nozzle.

2. In an injector, a casing, a steam inlet, a water inlet, an overflow chamber, an overflow outlet and a water outlet in the said casing, a pressure nozzle located within the said overflow chamber and adapted to communicate with the said water outlet, a mixing nozzle, being provided with a cylindrical bore at its inlet end, communicating with the said water inlet and connected to the said pressure nozzle, overflow apertures between the mixing nozzle and the pressure nozzle, a steam nozzle adapted to communicate with the said steam inlet and projecting into the said mixing nozzle, a starting nozzle, having a cylindrical outside on its end adjacent to the said mixing nozzle, surrounding the said steam nozzle, and adapted to communicate with the said steam inlet, and means for controlling the admission of steam to the said steam nozzle and to the said starting nozzle.

3. In an injector, a casing, a steam inlet, a water inlet, an overflow chamber, an overflow outlet and a water outlet in the said casing, a pressure nozzle, located within the said overflow chamber and adapted to communicate with the said water outlet, a mixing nozzle communicating with the said water inlet and connected to the said pressure nozzle, overflow apertures between the mixing nozzle and the pressure nozzle, a steam nozzle adapted to communicate with the said steam inlet, projecting into the said mixing nozzle and having a cylindrical outside on that end projecting into the bore of the said mixing nozzle, said mixing nozzle having a cylindrical bore at the inlet end and on that part surrounding the cylindrical part of the said steam nozzle, a starting nozzle, having a cylindrical outside on its end adjacent to the said mixing nozzle, surrounding the said steam nozzle and adapted to communicate with the said steam inlet, and means for controlling the admission of steam from the said steam chamber to the said starting nozzle and to the said steam nozzle.

4. In an injector, a casing, a steam inlet, a water inlet, an overflow chamber, an overflow outlet and a water outlet in the said casing, a pressure nozzle located within the said overflow chamber and adapted to communicate with the said water outlet, a mixing nozzle, having a cylindrical bore at its inlet end, communicating with the said water inlet and connected to the said pressure nozzle, overflow apertures between the said mixing nozzle and the said pressure nozzle, a steam nozzle adapted to communicate with the said steam inlet and projecting into the said mixing nozzle, a starting nozzle surrounding the said steam nozzle, and having a cylindrical outside on that end adjacent to the said mixing nozzle and a partially cylindrical bore, and adapted to communicate with the said steam inlet, the said steam nozzle being provided with a cylindrical outside on that part surrounded by the cylindrical part of the bore of the said starting nozzle, and means for controlling the admission of steam from the said steam chamber to the said starting nozzle and to the said steam nozzle.

5. In an injector, a casing, a steam inlet, a water inlet, an overflow chamber, an overflow outlet and a water outlet in the said casing, a pressure nozzle located within the said overflow chamber and adapted to communicate with the said water outlet, a mixing nozzle, having a cylindrical bore at its inlet end, communicating with the said water inlet and connected to the said pressure nozzle, overflow apertures between the said mixing nozzle and the said pressure nozzle, a steam nozzle, adapted to communicate with the said steam inlet, projecting into the said mixing nozzle and having a cylindrical outside between its ends and on that end projecting into the mixing nozzle, the said mixing nozzle having a cylindrical bore on that part surrounding the cylindrical outside of the said steam nozzle, a starting nozzle surrounding the said steam nozzle, adapted to communicate with the said steam inlet and having a cylindrical outside on the end adjacent to the inlet end of the said mixing nozzle, and a partially cylindrical bore around the cylindrical middle portion of the said steam nozzle, and means for controlling the admission of steam from the said steam chamber to the said starting nozzle and to the said steam nozzle.

[Claims 6 to 10 not printed in the Gazette.]

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1,038,827. REFRACTORY ARTICLE AND PROCESS OF MAKING IT. FREDERICK M. BECKET, Niagara Falls, N. Y., assignor to Electro Metallurgical Company, Niagara Falls, N. Y., a Corporation of West Virginia. Filed June 23, 1911. Serial No. 634,907. (Cl. 204—64.)

1. A refractory article, comprising a body containing a reducible compound, and an adherent facing reduced from said body.

2. A refractory article, comprising an oxid body, and an adherent facing of a reduction-product of said oxid.

3. A refractory article, comprising a body of mixed metal oxid and carbon, and an adherent facing of a metal carbid reduced from said body.

4. A refractory article, comprising a body and a facing of titanium carbid distinct from but adherent to said body.

5. A refractory article, comprising a body of mixed titanium oxid and carbon, and an adherent facing of titanium carbid reduced from said body.

[Claims 6 to 11 not printed in the Gazette.]

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1,038,828. GARMENT-STAY. MARCUS M. BREMAN, Meadville, Pa., assignor to The Spirella Company, a Corporation of Pennsylvania. Filed Oct. 28, 1908. Serial No. 459,893. (Cl. 2—76.)

1. A garment stay or clasp member comprising a broad thin strip of resilient metal bent transversely and folded sidewise on itself into successive overlapping parts and forming a flat structure composed of a plurality of piles of said strip superimposed one on the other.

2. A garment stay or clasp member comprising a broad thin strip of resilient metal folded on itself in successive overlapping parts oppositely disposed with relation to each other and forming a flat structure composing a plurality of piles superimposed upon and in close proximity to each other.

3. A garment stay or clasp member consisting of a broad thin strip or ribbon of resilient metal bent to form a plurality of piles and having successive portions arranged alternately on opposite faces of the stay and united by intermediate portions extending alternately in opposite directions.



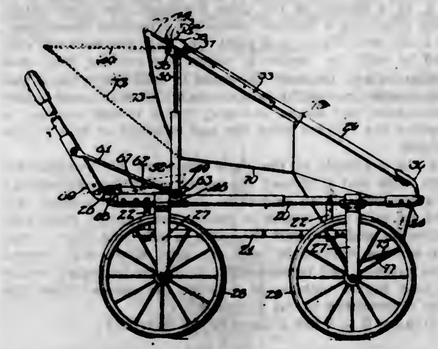
4. A garment stay or clasp member consisting of a continuous comparatively broad strip or ribbon of metal having successive portions arranged alternately on opposite faces of the stay, and intermediate portions extending alternately in opposite directions and uniting the ends of the oppositely disposed face portions, all said parts lying in substantially parallel planes.



5. A garment stay or clasp consisting of a continuous comparatively broad strip or ribbon of metal having successive portions arranged alternately on opposite faces of the stay and intermediate portions extending alternately in opposite directions and uniting the ends of oppositely disposed face portions, said face portions being curved or concaved transversely.

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1,038,829. FOLDING PERAMBULATOR OR BABY-CARRIAGE. FRANK J. BEIER, Elkhart, Ind., assignor to Alwin Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 9, 1907. Serial No. 356,531. (Cl. 21—83.)



1. In a device of the class described, the combination of a running gear frame, a seat support, an adjustable back support telescoping with the seat frame, inter-engaging means on said supports for locking the latter in an adjusted position, and yielding means engaging one of the supports for holding the last said means in engagement.

2. In a device of the class described, the combination of a running gear frame, a seat support, an adjustable back support telescoping with the seat frame, inter-engaging means on said supports for locking the latter in an adjusted position, and a spring secured to one of the supports and engaging the other support for holding the last said means in engagement.

3. In a device of the class described, the combination of a running gear frame, a seat support, an adjustable back support telescoping with the seat support, means for preventing disengagement of the supports, said means forming a pivot for the back support when the latter is in an adjusted position, and a rest for the last said support in its adjusted position.

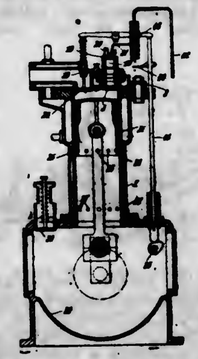
4. In a device of the class described, the combination of a running gear frame, a seat support, a back support telescoping with the seat support, means for preventing disengagement of the supports, said means being adapted to form a pivot about which said back support is adapted to be deflected, and means for holding said support in its deflected position.

5. In a device of the class described, the combination of a running gear frame, a seat support, a back support telescoping with the seat support, a lateral projection adjacent the telescoped extremity of the back support, means standing within the path of movement of and adapted to be engaged by the projection when the back support is adjusted, to form a pivot about which said back support is adapted to be deflected, means for holding the back support in its deflected position, and means on the said seat support for holding the back support in its adjusted position.

[Claims 6 to 24 not printed in the Gazette.]

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1,038,830. INTERNAL-COMBUSTION ENGINE. LOUIS HENRI LIBERT BELLEM and GASTON JEAN-BAPTISTE BRÉGÉRAS, Neuilly-sur-Seine, France. Filed Aug. 17, 1909. Serial No. 513,261. (Cl. 123—31.)



1. In an internal combustion motor of the four-cycle type, an intake valve provided with a plurality of conduits, means for introducing hydrocarbon into certain of the conduits, the said conduits being so arranged that the intake stroke of the piston sucks air and hydrocarbon through said conduits in order to intimately mix the two, and means for introducing air for supporting combustion at the end of the intake stroke of the piston.

2. In a four cycle internal combustion engine, an inlet valve provided with a plurality of passages, means for introducing air to all these passages, means for introducing hydrocarbon to some of the passages, the said passages being so arranged that the suction stroke of the engine piston will draw air and hydrocarbon through some of them for mingling the two, and draw pure air through the other passages and cause it to impinge against the mingled air and hydrocarbon for atomizing it, and means for introducing air to support combustion into the cylinder at the end of the suction stroke of the piston.

3. In a four cycle internal combustion engine, an automatic inlet valve having a hollow stem provided with orifices through the walls thereof, a slide exterior to the stem and forming passages between it and the stem, which passages terminate near said orifices, means for supplying air to the hollow stem, means for supplying air and hydrocarbon to the passages around the stem, whereby the suction stroke of the engine piston will mingle and atomize the combustible charge and draw it into the cylinder.

4. In a four cycle internal combustion engine, an automatic inlet valve having a hollow stem provided with orifices through the walls thereof, a slide exterior to the stem

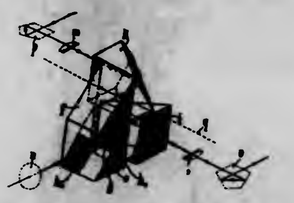
and forming passages between it and the stem, which passages terminate near the said orifices, means for supplying air to the hollow stem, means for supplying air and hydrocarbon to the passages around the stem, whereby the suction stroke of the engine piston will mingle and atomize the combustible charge and draw it into the cylinder and means for introducing air to support combustion into the cylinder at the end of the suction stroke of the piston.

5. In a four cycle internal combustion engine, an automatic inlet valve having a hollow stem provided with constricted transverse orifices through the walls thereof, a slide exterior to the stem and forming passages between it and the stem and provided with constricted longitudinal bores communicating with the said passages and terminating near the said orifices, means for supplying air to the hollow stem and means for supplying air and hydrocarbon to the passages around the stem, whereby the suction stroke of the engine piston will mingle and atomize the combustible charge and draw it into the cylinder, and means for introducing air to support combustion into the cylinder at the end of the suction stroke of the engine.

[Claim 6 not printed in the Gazette.]

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1,038,831. DISTANCE-MEASURING INSTRUMENT OF THE COINCIDENT-IMAGE TYPE. ERNST BERNICK, Riga, Russia, assignor to The Firm of Optische Anstalt C. P. Goers Aktiengesellschaft, Friedenau, near Berlin, Germany. Filed Nov. 25, 1911. Serial No. 662,283. (Cl. 88—3.)



1. In a base line telemeter one ocular and image producing and reflecting means adapted to produce two images of distant objects in juxtaposition with each other in the field of view of the ocular, the reflecting means comprising reflecting surfaces forming a substantially straight edge traversing the field of view, said reflecting surfaces arranged partially on the one and partially on the other side of said straight edge.

2. In a base line telemeter an ocular prism device provided with reflecting surfaces having a limiting edge in an image plane of the instrument forming the dividing line in the image field the reflecting surfaces producing the dividing line lying partly on one and partly on the other side of said limiting edge in the image plane.

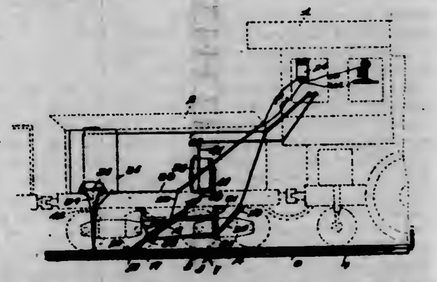
3. In a base line telemeter an ocular prism device comprising two prisms contacting with each other in a surface crossing the image field, reflecting layers provided in said contact surface having a limiting edge parallel to the base line of the instrument and coincident with an image plane of the instrument said reflecting layers having sections positioned on opposite sides of said limiting edge.

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1,038,832. RAILWAY-TELEPHONE. DENNIS D. BROWN, May, Okla. Filed May 27, 1911. Serial No. 629,755. (Cl. 246—25.)

1. In a telephone or signaling system for railways, the combination with a pair of rails and a current conductor extending thereabout, of an object adapted to move on said rails, line and ground wires carried by said object, one end of the ground wire being carried to a point just above the surface of the ground; means to collect the current from said conductor and transmit the same to said line wire, and additional means to conduct a stream of water over the free end of the ground wire.

2. In a system of the class described, the combination with a pair of rails and a current conductor extending thereabout; of an object adapted to move on said rails, a lever pivotally engaged with said object, an insulated sleeve carried on the free end of said lever, a current collector removably mounted on said sleeve, line and ground wires carried by said object, said line wire having connection with said current collector, means to retain said lever in its raised and inoperative position, and additional means manually operable from the object to lower said lever and the collector into engagement with said current conductor.



3. In a system of the class described, the combination with rails and a current conductor extending thereabout; of a car adapted to move on said rails, a lever pivotally carried on the bottom of said car, an insulated sleeve secured to the free end of said lever, a current collector removably mounted on said sleeve and line and ground wires carried by the car, said line wire having connection with said current collector, means to normally retain said lever in its raised position, additional means manually operable from the car to lower said lever and the collector into engagement with said current conductor, and means carried on said sleeve to prevent the collector from being disengaged from the conductor through any lateral movement of the lever.

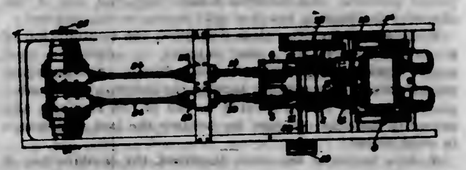
4. In a system of the class described, the combination with rails and a current conductor extending thereabout; of a car movable on said rails, line and ground wires carried by said car, means to collect the current from said conductor and transmit the same to said line wire, a hollow member carried by said car in which said ground wire terminates, and means to supply water to said member to conduct the current from the last referred to wire to the ground.

5. In a system of the class described, the combination with rails and a current conductor extending thereabout; of a car movable on said rails, line and ground wires carried by said car, means to collect the current from said conductor and transmit the same to said line wire, a funnel member carried by said car into which said ground wire extends and terminates, and means to supply water to said funnel member to conduct the current from the wire therewithin to the ground.

[Claims 6 to 8 not printed in the Gazette.]

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1,038,833. POWER-TRANSMITTING MECHANISM. JOSEPH R. BISSELL, Pittsburgh, Pa. Filed June 28, 1909. Serial No. 504,781. (Cl. 74—53.)



1. In a power transmitting mechanism, the combination of a shaft, a disk secured to the shaft, a reciprocating member mounted on the shaft adjacent to said disk, means whereby said member may engage the disk when moving in one direction, a stationary part or member, an annulus surrounding the disk, means for causing the annulus to simultaneously engage the disk and stationary part or member, and means for shifting the annulus.

2. In a power transmitting mechanism, the combination of a shaft, a disk secured to the shaft, a reciprocating member mounted on the shaft adjacent to said disk, means whereby said member may engage the disk when moving in one direction, a stationary part or member, an annulus surrounding the disk, means for causing the annulus to simultaneously engage the disk and stationary part or member, and means for shifting the annulus.

3. In a power transmitting mechanism, the combination of a shaft, a disk secured to the shaft, a reciprocating member mounted on the shaft adjacent to said disk, means whereby said member may engage the disk when moving in one direction, a stationary part or member, an annulus surrounding the disk, means for causing the annulus to simultaneously engage the disk and stationary part or member, means for simultaneously shifting the reciprocating member into engagement with the disk and the annulus to position where it will engage both the disk and stationary part or member.

4. In a power-transmitting mechanism, the combination of a driven shaft, a ratchet member rotatable upon said shaft, a pawl member movable longitudinally upon said shaft to make and break engagement with said ratchet member and oscillatory transversely of said shaft to shift said ratchet member when in engagement therewith, connection between said pawl member and a source of power, a disk arranged adjacent to said ratchet member, a casing surrounding said disk, operative resilient connection from said disk to said driven shaft, a wedge member arranged between said ratchet member and said disk causing said disk to turn in unison with said ratchet member when the latter advances and allowing said ratchet member to recede independent of said disk, and a wedge member arranged between said disk and said casing causing said disk to be held against rotation when said ratchet member is receding and allowing said disk to turn in unison with said ratchet member when the latter advances, substantially as described.

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1,038,834. PACKING. EDGAR J. BLOOM, Tiffin, Ohio. Filed Jan. 21, 1911. Serial No. 603,790. (Cl. 85—2.8.)



1. A packing comprising a disk member, a tubular member projecting centrally therefrom, the said tubular member being bored with a conical bore extending partially therethrough and with a cylindrical bore continuing said conical bore and extending through the remaining part thereof, combined with a conical expander member, substantially as described.

2. A bolt and packing therefor, having in combination, a bolt enlarged at one end and threaded at the other end, a pair of split tubes located on said bolt and provided with tapering interiors, the tapering of the tubes being toward each other, two spreading plugs engaging about the bolt and having peripheral portions tapering toward each other, one of the plugs being adjacent the enlarged end of the bolt and engaging the tapered portion of the adjacent split tube and the other plug being adjacent the opposite end of the bolt and engaging the interior tapering portion of the other split tube and a nut adapted to be inserted on the end of the bolt opposite the enlarged end and adapted, when run along the bolt, to draw the spreading plugs toward each other and thereby spread the split tubes, substantially as and for the purposes set forth.

3. A bolt and packing therefor, having in combination, a bolt enlarged at one end and threaded at the other end, a pair of split tubes, each tube provided with an annular flange adapted to seat on the surface of the member through which the bolt is passed, said split tubes being located on said bolt and provided with tapering interiors, the tapering being toward each other, two spreading plugs engaging about the bolt and having their tapering portions tapering toward each other, one of the plugs being adjacent the enlarged end of the bolt and engaging with the tapering portion of the adjacent split tube and the other plug being adjacent the opposite end of the bolt and engaging the interior tapering portion of the other split tube and a nut running on the end of the bolt opposite the enlarged end and adapted to be tightened against the annular flange of the adjacent split tube, whereby the spreading plugs are drawn toward each other and spread the split tubes, thereby providing a packing for the bolt, substantially as described.

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1,038,835. TRACTION-WHEEL. SAMUEL M. BOWEN, Chicago, Ill. Filed Sept. 6, 1910. Serial No. 580,744. (Cl. 21—64.)



1. In a traction wheel, the combination of a rim, feet independently mounted on the rim for rocking movement, and means for positively preventing tilting of each foot when approaching the ground comprising a bridge member between the foot and rim, one end of said bridge overlying the foot in front of its point of connection to the rim and the other end overlying the foot next in rear thereof, whereby some of the pressure of the rim is transmitted through said bridge to the forward end of each foot as it approaches the ground positively to prevent digging of its rear edge into the ground as it descends.

2. In a traction wheel, the combination of a rim, feet each connected to the rim for rocking movement, a bridge between the rim and each pair of feet throughout the wheel, the end of each bridge overlapping the end of adjoining bridges to extend beyond the points of connection of the feet to the rim, means of connection of each bridge to the rim to leave both ends thereof free for radial movement.

3. In a traction wheel the combination of a rim, comprising separated annuli, feet carried by the rim extending across the annuli, bridges arranged in alternating, overlapping, inner and outer pairs, a link member between each inner pair of bridges and the rim within the annuli, and a link between each outer bridge and the rim.

4. In a traction wheel the combination of a rim, feet carried thereby, a lug adjacent the front and rear edge of each foot, a bridge extending between the rear lug of each foot to the front lug of the foot next in front thereof, and a link connecting each bridge to the rim.

5. In a traction wheel the combination of a rim, comprising separated annuli, feet therefor, cross plates between the annuli at the longitudinal center of each foot, means of engagement between each foot, and the associated cross plate to support said foot upon the rim, inner and outer bridges, links pivoted upon alternate cross plates and pivoted at their free ends to the appropriate inner

bridges, cleats upon the rim alternating with the link-supporting cross pieces, and links pivoted between said cleats and outer bridges.

[Claim 6 not printed in the Gazette.]

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1,038,836. VALVE FOR WATER-TANKS. HUGH L. BEALY, Shamrock, Tex. Filed May 12, 1910. Serial No. 560,997. (Cl. 137—27.)



1. In a device of the character described, the combination with a tank, of a discharge pipe extending through the wall of said tank and having a liquid inlet opening at its inner end, the outer end of the pipe being provided with separated air inlet and water outlet openings, a tubular rod passing through the pipe and longitudinally movable therein, a valve carried on said rod and adapted to close against the inner end of the pipe, the rod being formed with perforations at its outer and inner ends, and the extremity of the rod being screw-threaded and passing through the end of the discharge pipe, and a nut engaging the screw-threaded end of the rod whereby the valve may be held closed against the end of the discharge pipe.

2. In a device of the character described, the combination with a tank, of a discharge pipe extending through the wall of said tank and having a liquid inlet opening at its inner end, the outer end of the pipe being provided with separate air inlet and water outlet openings, a tubular rod passing through the pipe and longitudinally movable therein, a valve carried on the rod adapted to close against the inner end of the pipe, the rod being formed with a perforation at its outer end and perforations at its inner end disposed adjacent to the face of the valve, and adjusting means engaging the outer end of the rod whereby the rod may move longitudinally and the valve held closed against the end of the pipe.

3. In a device of the character described, the combination with a tank, of a discharge pipe extending through the wall of the tank, the inner end of said pipe having an inlet opening and the outer end being formed with a discharge opening and with an air inlet opening, a tubular rod passing longitudinally through said pipe and formed with a perforation at its inner end, a valve carried on said rod adjacent to said perforation and adapted to close the inlet opening of the pipe when the rod is drawn in one direction and to open said inlet when the rod is forced in the other direction, and an air inlet pipe disposed within the tubular rod having an air inlet opening at its outer end and at its inner end opening into the interior of the tubular rod.

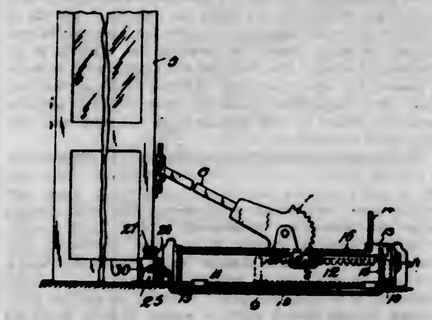
4. In a device of the character described, the combination with a tank, of a discharge pipe extending through the wall of said tank and having a liquid inlet opening at its inner end, the outer end of the pipe being provided with separate air inlet and outlet openings, and a tubular rod passing through the center of the pipe and longitudinally movable therein, a valve carried on said rod adapted to close against the inner end of the pipe, the rod being formed with a perforation at its outer end and a perforation at its inner end adjacent to the face of the valve, means for longitudinally moving the rod to open and close the valve, and an air inlet tube disposed within the rod having a normally closed air inlet opening at its outer end, the inner end of the tube opening into the interior of the rod.

5. In a device of the character described, the combination with a tank, of a discharge pipe extending through the wall of said tank and having a water inlet opening at its inner end, the outer end of the pipe being provided with separate air inlet and water outlet openings, a tubular rod passing through the pipe and longitudinally movable therein, a valve carried on the rod and adapted to close against the inner end of the pipe, the rod being formed with perforations disposed adjacent to the face of the valve, means for longitudinally shifting the rod to open and close the valve, an air inlet pipe disposed within the tubular rod open at its inner end and at its outer end, and detachable means for closing the outer end of the air inlet pipe.

[Claim 6 not printed in the Gazette.]

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1,038,837. COMBINED DOOR OPERATING AND LOCKING DEVICE. FRANCIS M. BRINCKERHOFF, New York, N. Y., assignor to National Pneumatic Company, Chicago, Ill., a Corporation of West Virginia. Filed Dec. 24, 1910. Serial No. 599,210. (Cl. 39—94.)



1. In a combined door operating and locking device, a pneumatic motor having pressure supply and exhaust connections, means for controlling the same, door operating devices actuated by the motor, a lock for the door, and means operated by the exhaust of pressure from the motor for releasing the lock.

2. In a combined door operating and locking device, a pneumatic motor having pressure supply and exhaust connections, means for controlling said connections, door moving devices operated by said motor, an auxiliary cylinder and piston, the motor exhaust connections delivering to said auxiliary cylinder, and a door lock device operated by said piston.

3. In a combined door operating and locking device, a pneumatic motor having pressure supply and exhaust connections, means for controlling the same, door moving devices operated by said motor, an auxiliary cylinder having an exhaust opening, a weighted piston operating in said cylinder, the motor exhaust connections delivering to said cylinder, and a door lock device operated by said piston.

4. The combination with a door motor, of a lock for retaining the door in its closed position, a supplementary motor for said lock, said supplementary motor operated by exhaust from the door motor, and means for automatically limiting the duration of the time of action of said supplementary motor.

5. The combination with a pneumatic door motor, of an automatic lock for the door, and a pneumatic releasing device for the said door connected to the exhaust of said motor.

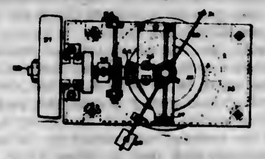
[Claim 6 not printed in the Gazette.]

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1,038,838. WHEELWRIGHT-MACHINE. CHARLES L. BRINK, Lansing, Mich., assignor to W. K. Prudden and Company, Lansing, Mich., a Corporation of Michigan. Filed May 21, 1910. Serial No. 562,756. (Cl. 157—1.)

In a machine for the purpose set forth, the combination of a main frame, a wheel press mounted on said frame for rotation horizontally, a hub support at the center of the press, means for clamping one member of an adjustable hub to the hub support and rigid with the rotatable press, means for holding and adjusting wheel spokes to a hub on the hub support, said means comprising a plurality of screw clamps mounted around the outer part of the press, each screw clamp being provided with a socket to receive the outer end of a spoke, a wrench mounted in the frame above the hub support, said wrench being adjustable to and from the support for turning a hub member, which has a screw threaded engagement with the hub member that is

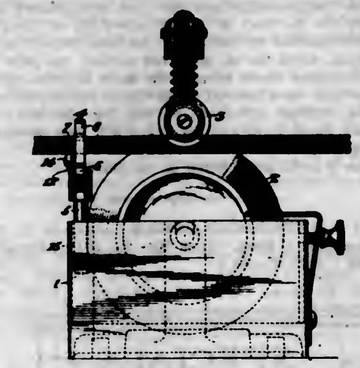




clamped to the hub support, to tightly clamp the wheel spokes between said hub members, a stop movable into engagement with the wheel press to prevent the wheel press from revolving when the wrench is operating on the adjustable hub member, and means for operating and adjusting the wrench.

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1,038,839. STAY-STRIP WIPER FOR BOX-STAYING MACHINES. HERBERT L. BROCKWAY, Rochester, N. Y., assignor to M. D. Knowlton Company, Rochester, N. Y., a Corporation of New York. Filed Nov. 23, 1906. Serial No. 344,775. (Cl. 91—59.)



1. In a device of the class described, means for coating a strip with a moist substance, a V-shaped absorbent pad for evenly distributing said substance over the strip, a supporting member for said pad, a clamping plate for holding said pad on the supporting member, a projection on said plate arranged to bear against said supporting member for retaining said plate in proper relation to the pad, and a complemental V-shaped member adjacent the operating surface of said pad to hold the strip in contact therewith.

2. In a device of the class described, means for coating a strip of material with a moist substance, an absorbent pad adapted to evenly distribute such substance over the strip, a supporting member for said pad on which it is adapted to slide, a complemental member fixed to said supporting member, and means for positively moving said pad to and from the complemental member and holding it in fixed position after adjustment.

3. In a device of the class described, means for coating a strip with a moist substance, a V-shaped absorbent pad for evenly distributing said substance over the strip, a supporting member for said pad, a plate for holding said pad against said member, a complemental V-shaped member adjacent and overlying the operating surface of said pad to hold the strip in contact with said surface, a post to which said complemental member is fastened and on which the supporting member is adapted to slide, and adjusting means between said members for regulating the width of the strip space.

4. In a device of the class described, means for coating a strip with a moist substance, a V-shaped absorbent pad for evenly distributing said substance over the strip, a supporting member for said pad, a plate for holding said pad against said member, a complemental V-shaped member adjacent the operating surface of said pad to hold the strip in contact therewith, a post to which said complemental member is fastened and on which the supporting member is adapted to slide, positive means for moving said pad toward the complemental member, and a spring for moving the same in opposite direction.

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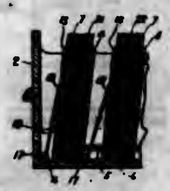
1,038,840. HOSE-PIPE COUPLING. THEODORE BROOKFIELD, Kamloops, British Columbia, Canada. Filed Dec. 16, 1911. Serial No. 666,134. (Cl. 137—23.)



A two part hose pipe coupling, one part of which is provided with a spigot end having radial projections of uniform thickness, and the other with a faucet end having an internal annular groove of uniform width, and having removed entrant portions to said groove, such projections designed to fit in said groove in the faucet part of the coupling and to be admitted through the removed portions in the end thereof, the spigot end of said coupling having an internal ring, and an internal annular groove adjacent to said ring, a resilient ring held within said spigot end, and having an outer annular bead to fit said internal groove and abut said internal ring, the internal diameter of said spigot ring and said resilient member being equal, said resilient member having its free edge V-shaped in cross section, said faucet member having an internal projecting ring portion provided on one face with a V-shaped groove to receive the free end of said resilient member, and means for latching said spigot and faucet members together.

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1,038,841. CABINET FOR HOLDING TALKING-MACHINE RECORDS. HENRY C. BROWN, Philadelphia, Pa. Filed May 11, 1910. Serial No. 560,589. (Cl. 211—16.)



In a cabinet, a drawer, a back board removably engaged in guides thereof, separators having recesses in the bottoms thereof, a front board having a recess in the bottom thereof, means for pressing said front board and separators toward said back board, and a block adapted to be inserted in said recesses by the removal of said back board and to be held against the front of said drawer by the engagement of the reinserted back board therewith.

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1,038,842. COUPLING DEVICE FOR CARRIER-SECTIONS. HERMAN J. BUCK, Minneapolis, Minn., assignor to Mathews Gravity Carrier Company, St. Paul, Minn., a Corporation. Filed Aug. 17, 1911. Serial No. 644,687. (Cl. 193—1.)

1. The combination, with the abutting rails provided with recessed ends, of yokes pivoted on said ends and

having sockets therein and cross bars bridging said sockets, each yoke having a projection to enter the socket of the other yoke, and the cross bar of one yoke bearing on the rail at the top of its recess and the cross bar of the other yoke bearing on the rail at the bottom of its recess, whereby when the rails are in alinement their abutting ends will be locked together.



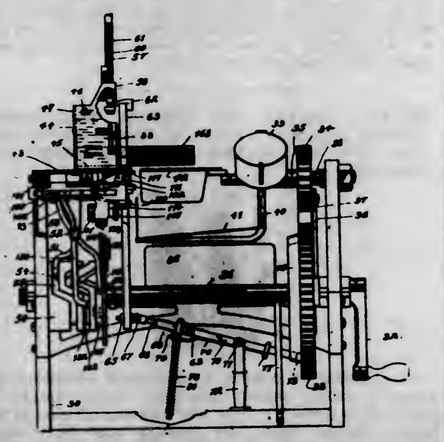
2. The combination, with abutting rails, of interchangeable, interlocking coupling members pivoted on said rails, each coupling member having a socket to receive the other coupling member, and both coupling members having means for locking them against premature separation.

3. The combination, with rails having abutting ends, of coupling members pivoted thereon, each member having a socket to receive the other member and capable of being interlocked with one another, when the rails are swung out of alinement with each other, and means preventing the separation of said coupling members when the rails are in alinement with one another.

4. The combination, with rails having abutting ends, of yokes mounted thereon and having cross bars and sockets between them, the outer cross bars having depending portions adapted to enter the socket in the contiguous coupling member when the rail ends are swung out of alinement with one another, the other cross bars of said yokes engaging the edges of said rail ends and locking them together when the ends are in alinement with one another.

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1,038,843. PARCEL-TIER. BENJAMIN H. BUNN and ROMANZO N. BUNN, Chicago, Ill. Filed Dec. 9, 1910. Serial No. 596,482. (Cl. 100—81.)



1. In a parcel tier, the combination of means for wrapping a cord around a parcel, a cord holder, a knotter for tying the portions of the cord between the parcel and the holder, and means for drawing the two portions of the cord together adjacent to the package so that the knot may be tied close to the package.

2. In a package or parcel tier, the combination of means for holding a parcel, means for winding a string around the parcel, a holder for holding the ends of the string which has been wound around the parcel, a knotter for tying such ends together, guides for bringing the portions of the string to be tied, in close proximity adjacent to the parcel, and means for causing the knotter to engage with the string, close to the parcel in order to form the knot close to the same.

3. A cord holder for a tying device comprising a casing or supporting member, a rod slidably mounted in said member, a head on said rod, having its inner surface beveled to guide the cord, and a spring for pressing said head toward the supporting member, the arrangement being such that the string is held between the inner portion of the head and the supporting member.

4. In a package tier, the combination of means for supporting a package, a cord holder for holding the end of the string which is about to be wound around the package, means for winding said string around the package, said cord holder lying within the path of the string as it is wound around the package, and means for deflecting said string at a predetermined time or times away from said holder so that the string may be again wound around the package before engaging with the holder.

5. A combined cord holder and cord guide or deflecting device for a tying machine, comprising a casing or support, a rod slidably mounted in said support, a head on said rod, the cord being adapted to be held between said head and the end of said support, a spring tending to hold said head against the support, a roller on said rod, a bar slidably mounted in said support, a finger on the end of said bar and adapted to guide or deflect the cord away from the head at predetermined times, a pawl on said bar, an elbow lever pivotally mounted in said support and adapted to coact with said pawl and said roller, and means for reciprocating said bar, the arrangement being such that the bar may be moved outwardly to bring the finger into position for deflecting the cord away from the holder, then, when the bar is moved farther, the pawl will engage the elbow lever, causing the lever to press against the roller and move the rod forwardly to release the cord, and upon further movement of the bar the pawl will release the elbow lever and the finger will pass beyond its deflecting position.

[Claims 6 to 18 not printed in the Gazette.]

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1,038,844. ADVERTISING DEVICE. CHARLES E. BURGER, Springfield, Mass. Filed Mar. 13, 1912. Serial No. 683,404. (Cl. 40—64.)




1. In an advertising device, a frame made with an open front and having a vertical back plate formed with trough shaped top and bottom portions to form a horizontal guideway therein, which opens to its vertical edge, and a plate slidable in and removable from said guideway and having a plurality of horizontal parallel endwise open card holders, each comprising a pair of opposite and approached retaining lips, and sign cards removably engaged in said card holders.

2. In an advertising device, a frame made with an open front and having a horizontal edgewise opening guideway therein, and a plate slidable in and removable from said guideway and having a plurality of card holders, and said slidable plate having a bar hinge connected at its edge portion at top and bottom thereof, adapted to be positioned with a face thereof across and to close the opening at the edge of the frame, and to conceal and to serve as a guard for sign cards in the card holders, and to be



rocked so that its face is in a plane offside from the said horizontal edgewise opening guideway.

3. In an advertising device, a frame made with an open front and having a horizontal edgewise opening guideway therein, and a plate slidable in and removable from said guideway and having a plurality of card holders, and having hinge lugs horizontally extended outwardly beyond its edge at the top and bottom thereof, and a bar, wider than said guideway opening, having angularly extended ear lugs at the upper and lower ends thereof which are narrower than said guideway opening and which are pivotally connected to the hinge lugs of the plate, and said bar being provided with a handle.

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1,038,845. PROCESS OF MAKING SWISS BOWS. CHARLES W. BUTTS, Sag Harbor, N. Y., assignor to Joseph Fahys & Co., New York, N. Y., a Corporation of New York. Filed Jan. 26, 1911. Serial No. 604,777. (Cl. 29—177.)

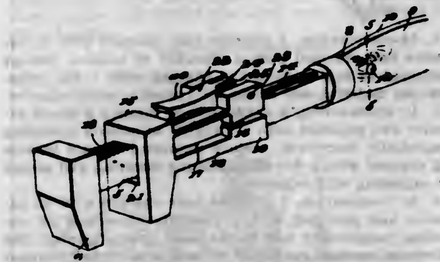


1. The process of producing Swiss or French bows of filled stock, which comprises striking up ears or nibs forming the inner and outer ends of the bars, removing base metal from the ends of the stock beyond the ears and subsequently contracting the precious metal at the ends of the stock to completely inclose the base metal, and bowing the stock.

2. The process of producing Swiss or French bows of filled stock which comprises forming the preliminary bow having integral bow portion and bar portions of filled stock with base metal exposed in the ends of the stock intermediate the two ends of each bar portion and subsequently contracting the precious metal shell of the ends of the stock and then covering the said exposed base metal with the precious metal shell.

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1,038,846. WRENCH. BENJAMIN B. CALDWELL, Culdesac, Idaho, assignor of one-half to William B. Keller, Culdesac, Idaho. Filed Feb. 25, 1911. Serial No. 610,902. Renewed July 11, 1912. Serial No. 708,934. (Cl. 81—141.)



1. A wrench including a shank, a movable jaw slidably mounted on the shank and provided with resilient arms, and a cam lever pivotally mounted on the arms and adapted to engage said shank for holding the movable jaw in different positions of adjustment.

2. A wrench including a shank provided with transverse teeth, a movable jaw split longitudinally to form spring arms slidably mounted on the shank and provided with teeth, and a lever pivotally mounted on the arms and adapted to engage the shank for forcing the teeth on said movable jaw into engagement with the teeth on the shank.

3. A wrench including a toothed shank, a movable jaw slidably mounted on the shank and provided with oppositely disposed sets of teeth arranged in different planes and adapted to engage the teeth on the shank, said movable jaw being split longitudinally to form movable arms, and a lever pivotally mounted on the arms of the movable jaw and having a cam surface adapted to bear against the shank for holding the movable jaw in different positions of adjustment.

4. A wrench including a shank, a movable jaw slidably mounted on the shank and having its side walls split longitudinally to form oppositely disposed resilient arms, and a lever pivotally mounted on the free ends of said arms and movable into engagement with the shank for holding the movable jaw in different positions of longitudinal adjustment.

5. A wrench including a shank having its opposite longitudinal edges provided with transverse teeth, there being a longitudinal recess formed in one edge of the shank and intersecting the adjacent teeth, a movable jaw slidably mounted on the shank and having teeth adapted to engage the teeth on said shank, the side walls of the movable jaw being split longitudinally to form oppositely disposed spring arms, and a lever pivotally mounted between the spring arms and provided with a rib having a cam surface adapted to bear against the wall of the recess.

[Claims 6 to 9 not printed in the Gazette.]

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1,038,847. METHOD OF PRODUCING EXPLOSIVES CONTAINING COMMON RESIN. OSCAR BIRGER CARLSON, Mälsbo, Avesta, Sweden, assignor to Oscar Fredrik Carlson, Stockholm, Sweden. Filed Feb. 12, 1910. Serial No. 543,534. (Cl. 52—3.)

1. The method of producing combustibles for explosives comprising heating a mixture of common resin and an organic nitro compound to a temperature of at least 40° C. for a time of at least a number of hours, substantially as described.

2. The method of producing explosives consisting in heating a mixture of common resin and an organic nitro compound to a temperature of at least 40° C. for a time of at least a number of hours and adding a solid oxidising salt, substantially as described.

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1,038,848. SPEED-REGULATING MECHANISM. JOHN C. CARPENTER, Houston Heights, Tex. Filed Nov. 29, 1909. Serial No. 530,507. (Cl. 121—112.)



1. In a speed regulating mechanism the combination of a spindle responsive to engine speed, and governor stem carried thereby and rotating therewith, and connected to a device for controlling the application of force to the element whose speed is to be regulated; a weight carried by said spindle and rotatable relative thereto, a member having a threaded engagement with said governor stem, a differential train of gears connecting said member with said weight whereby the relative rotation of said weight and said governor stem causes a greater relative rotation of said member and said governor stem.

2. In a speed regulating mechanism the combination of a spindle responsive to engine speed, a two-part governor stem carried thereby and rotating therewith, and connected to a device for controlling the application of force to the element whose speed is to be regulated, a weight carried by said spindle and rotatable relative thereto, a member connecting the two-parts of the governor stem by means of right and left hand threads, a differential gearing connecting said member with said weight whereby the relative rotation of said weight and said governor stem causes a greater relative rotation of said member and said governor stem.

3. In a speed regulating mechanism the combination of a spindle responsive to engine speed, a two-part governor stem carried thereby and rotating therewith, and connected to a device for controlling the application of force to the element whose speed is to be regulated a weight carried by said spindle and rotatable relative thereto, a member connecting the two-parts of the governor stem by means of right and left hand threads, a differential gearing connecting said member with said weight whereby the relative rotation of said weight and said governor stem causes a greater relative rotation of said member and said governor stem and a means actuated by centrifugal force for operating said governor stem independent of the differential gearing.

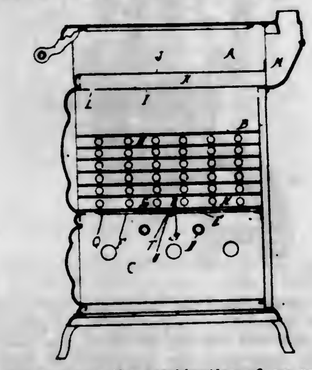
4. In a device of the character described, the combination of a spindle responsive to engine speed, a weight carried by said spindle and rotatable relative thereto, a means connecting said spindle and weight and tending to operate said weight, a train of differential gears operatively connecting said spindle and weight, and a means operatively connecting said train of differential gears with a device to be regulated.

5. In a device of the character described, the combination of a spindle responsive to engine speed, a weight carried by said spindle and rotatable relative thereto, a means connecting said spindle and weight and tending to operate said weight, actuating means for operating a device to be regulated, and an epicyclic train of gears operatively connecting said spindle, weight and actuating means, whereby a relative rotation of said spindle and weight causes a relative longitudinal movement of said spindle and actuating means.

[Claims 6 to 8 not printed in the Gazette.]

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1,038,849. GAS-STOVE. GEORGE B. CARTER, Detroit, Mich., assignor to The H. Wetter Manufacturing Company, Memphis, Tenn., a Corporation of West Virginia. Filed Nov. 21, 1910. Serial No. 593,399. (Cl. 126—39.)



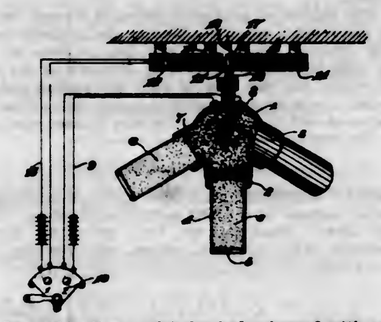
1. In a gas stove, the combination of an oven having an apertured bottom and provided with chambered side walls, a damper controlling the apertured portion of the bottom, a chamber beneath said oven bottom in communication with the chambers of the side walls, a burner arranged directly beneath and in close proximity to the apertured portion of the bottom, the side walls being apertured to form a communication between the oven interior and the chambers of the side walls, and a flue, the oven top being provided with a chamber forming a communication between the oven interior and the flue.

2. In a gas stove, the combination of an oven having an apertured bottom and provided with chambered side walls, a damper controlling the apertured portion of the bottom, a chamber beneath said oven bottom in communication with the chambers of the side walls, and a burner arranged directly beneath and in close proximity to said apertured portion of the bottom, said side walls being apertured to form a communication with the oven interior and the chambers of the side walls.

3. In a gas stove, the combination of an oven including a bottom having a circular depression provided with a plurality of apertures, a rotary damper for controlling the apertured portion of the bottom positioned within said circular depression with its top face in the plane of the upper surface of the bottom, said oven having chambered side walls, a chamber beneath the oven in communication with the chambers of the side walls, the latter being apertured to form a communication between the oven interior and the chambers of the side walls, and a burner arranged in said chamber directly beneath and in proximity to said apertured portion of the bottom.

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1,038,850. FIRE-EXTINGUISHER. ARTHUR ALBERT CHARBONNEAU and LEO ALBERT CHARBONNEAU, Montreal, Quebec, Canada. Filed Dec. 16, 1911. Serial No. 666,291. (Cl. 169—14.)



1. In combination, a globular body charged with an explosive and provided with a plurality of sockets, casings connected to said sockets and charged with a fire extinguishing material, and means for exploding said explosive.

2. In combination, a globular body charged with an explosive and provided with a plurality of sockets extending tangentially therefrom, casings connected to said sockets and charged with a fire extinguishing material, and means for exploding said explosive.

3. In combination, a globular body charged with an explosive and provided with a plurality of sockets all extending tangentially and in the same circumferential line therefrom, casings connected to said sockets and charged with a fire extinguishing material, and means for exploding said explosive.

4. In combination, a globular body charged with an explosive and provided with a plurality of sockets extending tangentially therefrom, and a single socket extending radially from said body, casings connected to said sockets and charged with fire extinguishing material, and means for exploding said explosive.

5. In combination, a globular casing charged with an explosive and provided with a single socket extending radially downward therefrom, and also provided with a plurality of sockets extending tangentially therefrom in a circumferential line at right angles to the direction of said first named socket, each of said tangentially arranged sockets being also arranged at an acute angle with the first named socket; casings connected to said sockets and

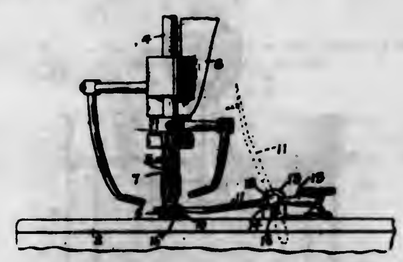


charged with a fire extinguishing substance, and means for exploding the aforesaid explosive.

[Claims 6 to 9 not printed in the Gazette.]

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1,038,851. SEWING-MACHINE. FRANKLIN CHATFIELD, Minneapolis, Minn., assignor to Northwestern Knitting Company, Minneapolis, Minn. Filed June 8, 1910. Serial No. 564,876. (Cl. 112—9.)

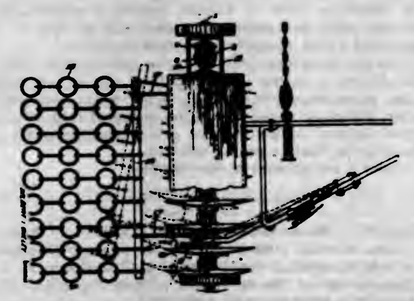


1. The combination, with a slotted work plate, presser foot and needle, of a swinging arm mounted transversely with respect to the direction of movement of the goods, said arm having a fuss deflecting foot provided with a heel portion that is adapted to enter the slot in said work plate and engage the fuss on the edge of the fabric as it is fed past said fuss deflecting foot, said fuss deflecting foot also having a toe portion which projects beyond the needle and operates to hold the fuss in its bent position against the fabric during the stitch forming operation.

2. The combination, with a work plate, presser foot and needle, of a sliding spring-pressed rod, an arm mounted thereon and extending transversely to the direction of movement of the work, a foot piece mounted on said arm and extending parallel with the direction of movement of the work and adapted to rest upon the upper surface of said work plate, said foot piece having a depending portion thereon to enter a slot in said work plate, said depending portion being located in advance of said needle and contacting with the fuss on the edge of the fabric to bend it inwardly against the fabric, said foot piece operating to hold the fuss so bent against the edge of the fabric until the stitches have been formed.

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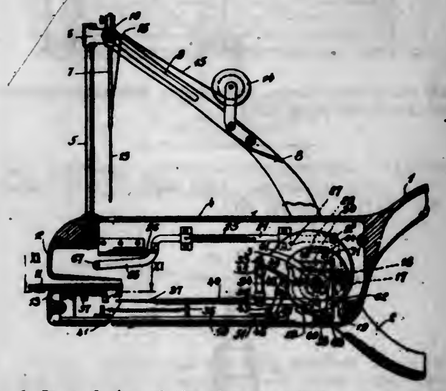
1,038,852. SEED-DRILL. DELBERT I. CHELEY, Carnduff, Saskatchewan, Canada. Filed Sept. 29, 1911. Serial No. 651,923. (Cl. 111—11.)



In combination, a seed box provided with a seed outlet, a U shaped bar extending downwardly from said box beneath said opening, a seed drill pivotally mounted on said bar and adapted to receive seed through said opening, and a spring secured to said seed box and extending about the rear of said drill, said spring being adapted to engage the rear of the drill to yieldingly maintain the drill in operative position.

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1,038,853. SEWING-MACHINE. CLYDE J. COLEMAN, New York, N. Y., assignor to Melville P. Hall, New York, N. Y. Filed June 17, 1911. Serial No. 633,692. (Cl. 112—41.)



1. In a device of the class described, a support for the material, a thread carrying needle, fingers passing between the thread and the needle to form a thread loop, means for cutting off the thread, means for carrying the thread ends between the fingers, and means for causing said fingers to draw the thread ends through the thread loop.

2. In a device of the class described, the combination of a thread carrying needle, means for forcing the needle through the material to form a thread loop, means for maintaining said loop at one side of the material, means for cutting off the thread, and means for carrying the thread ends about the edge of the material and through the thread loop.

3. In a device of the class described, a support for the material, a thread carrying needle, fingers passing between the thread and the needle to form a thread loop, means for carrying the thread ends between the fingers, and means for causing said fingers to draw the thread ends through the thread loop.

4. In a device of the class described, the combination of a thread carrying needle, means for forcing the needle through the material and withdrawing the needle to form a loop at the opposite side of the material from which the needle enters, and means for carrying the thread ends about the edge of the material and through said loop.

5. In a device of the class described, the combination of a thread carrying needle, means for forcing the needle through the material and withdrawing the needle, to form a loop at the opposite side of the material from which the needle enters, said means embracing two relatively movable handles pivotally connected with respect to one another, and means for carrying the thread ends about the edge of the material and through said loop.

[Claims 6 to 13 not printed in the Gazette.]

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1,038,854. FARM-GATE. JAMES J. CORCORAN, Adrian, Mich. Filed June 6, 1911. Serial No. 631,541. (Cl. 39—25.)

In a gate, a latch post and a hinge post spaced apart, a gate, a vertical guide member connected to the hinge post, a lower sleeve slidable and rotatable upon said guide member and provided with a projection pivotally connected to the gate whereby the gate will swing vertically and laterally relative to the guide member, an upper sleeve rotatable upon the guide member and having a

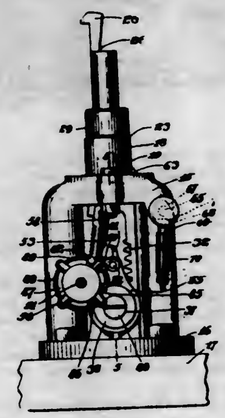
rod extending therefrom, a spring carried upon said rod and operating to draw the gate toward the guide mem-



ber, and a latch device operating to detachably connect the gate to the latch post.

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1,038,855. KEY-SEATING MACHINE. GEORGE J. COSTELLO, Philadelphia, Pa. Filed Sept. 11, 1911. Serial No. 648,713. (Cl. 90—46.)



1. In a key-seating machine, the combination of rack and pinion means for reciprocating the tool, a wedge for moving the tool toward the work, rack and pinion means for reciprocating the wedge, and friction means between the tool reciprocating means and the wedge reciprocating means.

2. In a key-seating machine, the combination of rack and pinion means for reciprocating the tool, a wedge for moving the tool toward the work, rack and pinion means for reciprocating the wedge, friction means between the tool reciprocating means and the wedge reciprocating means, for moving the wedge relatively to the tool, and a ratchet, movable independently of the friction means, for causing a relative movement between the wedge and the tool.

3. In a key-seating machine, the combination of a removable post, a work support connected therewith, said post having oppositely disposed tapering grooves therein, one of said grooves adapted to receive a securing wedge and another of said grooves adapted to receive a feed wedge and a tool, and a pivoted spring controlled lever for exerting pressure upon the tool.

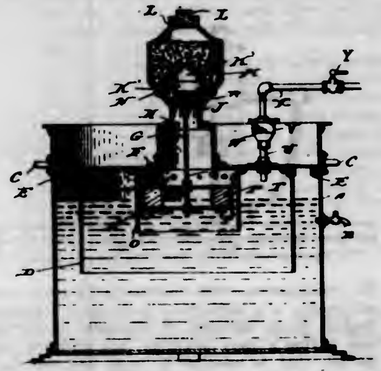
4. In a key-seating machine, the combination of a post, a slotted work support connected therewith, said post having oppositely disposed tapering grooves therein, one of said grooves adapted to receive a securing wedge and another of said grooves adapted to receive a feed wedge and a tool, and a pivoted spring controlled lever for exerting pressure upon the tool.

5. In a key-seating machine, the combination of a slotted chucking post, a slotted housing, a cam stud rotatably mounted in the housing and extending transversely to the slot therein, a lever mounted on said stud and operating in said slot, and a spring controlled plunger having operative relationship with the lever and the stud.

[Claims 6 to 24 not printed in the Gazette.]

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1,038,856. ACETYLENE-GAS GENERATOR. WILLIAM W. COSENS, Cochranton, Pa. Filed Dec. 27, 1911. Serial No. 668,162. (Cl. 48—53.4.)



1. In an acetylene gas generator, the combination of a tank, a bell supported therein, a carbid holder mounted upon the bell, a guard in said carbid holder to prevent the too rapid feed of the carbid, a float, flexible devices connected to said float for retaining the float in proper position and a valve or gate carried by the float and guided in the discharge end of the holder.

2. In an acetylene gas generator, the combination of a tank, a bell supported therein, a carbid holder mounted upon the bell, a guard in said carbid holder to prevent the too rapid feed of the carbid, a float, and a valve or gate carried by the float and guided in the discharge end of the holder, said gate comprising a cap piece and a series of arms depending therefrom arranged in spaced parallel relation to form feeding openings.

3. In an acetylene gas generator, the combination with a tank and a bell therein, a carbid holder communicating therewith and having a reduced discharge neck, a float and a gate or valve provided with a plurality of depending arms and carried by the float and guided in the neck of the holder for regulating the feed of the carbid.

4. In an acetylene generator, the combination of a tank, a bell supported therein, a carbid holder communicating with the bell, a guard mounted in the carbid holder, a gate or valve consisting of a cap piece and a series of parallel depending arms of varying lengths depending from said cap piece and guided in a discharge portion of the holder and a float connected with said cap piece.

5. In an acetylene generator, the combination with a tank, a bell, a casing depending from the bell, a carbid holder arranged above the bell, a valve for said carbid holder, a float arranged within the casing of said bell, and flexible devices connecting the casing and the float for retaining the float in proper position.

[Claim 6 not printed in the Gazette.]

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1,038,857. SELF-SHARPENING PENCIL. NEWTON CRANE, Boston, Mass., assignor, by mesne assignments, to Self-Sharpening Pencil Company, Providence, R. I., a Corporation of Rhode Island. Filed Sept. 13, 1911. Serial No. 649,143. (Cl. 120—18.)

1. A pencil consisting of a substantially prismatic lead, each of the angles of which is sharper than a right angle, and a case having flattened finger-engaging portions substantially parallel to the several sides of the lead.

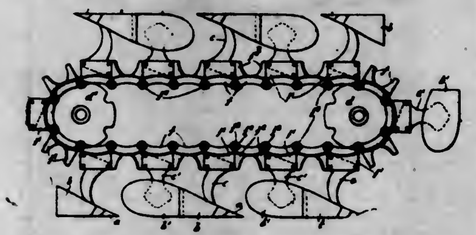
2. A pencil consisting of a casing and a lead, each having substantially the form of an equilateral triangular prism, arranged with corresponding sides respectively substantially parallel, whereby grasping of the casing in any



position suitable for use causes one of the angles of the lead to be directed toward the marking surface.

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1,038,858. IMPLEMENT FOR CULTIVATING OR PLOWING LAND. THOMAS CHURCHMAN DARBY, Wickford, England. Filed June 5, 1912. Serial No. 701,725. (Cl. 97—30.)



1. In an implement for plowing or cultivating land, the combination of chain wheels, a chain running on said chain wheels, divided plows carried by said chain, each plow breast being made in two parts and each of said parts being carried by separate links so that the two parts separate when passing around the chain wheels, substantially as set forth.

2. In an implement for plowing or cultivating land, the combination of chain wheels, a chain running on said chain wheels, projections carried by the links of the chain which come into contact with each other when the chain is straight, and divided plows, each half of each plow being carried by separate projections on the chain, substantially as set forth.

3. In an implement for plowing or cultivating land, the combination of chain wheels, a chain running on said chain wheels, projections on each link which come into contact with each other when the chain is straight, some of said projections being in the form of plates, plow holders fixed to said plates, and divided plow breasts each part of which is fixed to one of two adjacent plow holders, substantially as shown and described.

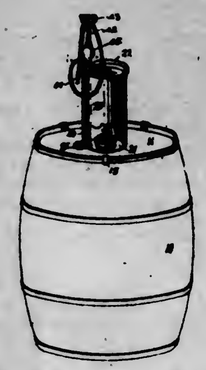
4. In an implement for plowing or cultivating land, the combination of chain wheels, a chain on said wheels, projections on each link of the chain which come into contact when the chain is straight, guide rollers carried by the ends of the chain links, and divided plow breasts carried by separate projections on the chain, substantially as shown and described.

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1,038,859. FIRE-EXTINGUISHING APPARATUS. WILLIAM L. DEMING, Salem, Ohio, assignor to The Deming Company, Salem, Ohio, a Corporation of Ohio. Filed June 28, 1911. Serial No. 635,878. (Cl. 169—13.)

1. In an apparatus of the class described, the combination, with a vessel, of a top therefor readily depressible into the vessel and having an opening through it, a portable tank removably seating on such top and having an entrance opening near its bottom, and a valve for controlling such opening.

2. In an apparatus of the class described, the combination of a vessel adapted to contain liquid, a top therefor, means for normally supporting such top above the liquid in the vessel, said means being adapted to be distorted by downward pressure to free the top, whereby it may descend into the vessel, a portable tank adapted to rest on the top and be normally supported by it, an intake opening into the tank near its bottom, and a valve within the tank for automatically controlling said opening.



3. In an apparatus of the class described, the combination of a vessel adapted to contain liquid, a top therefor normally supported above the liquid but depressible into it, said top having an opening through it, a portable tank adapted to be supported by the top and cover the opening, said tank having an opening in its bottom, and a valve within the tank automatically closing said opening.

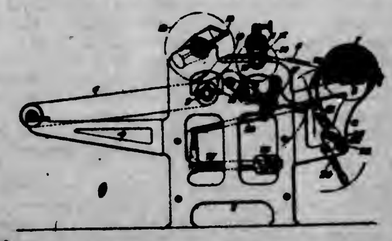
4. The combination of a vessel, a false head therefor, means engaging said head and the body of the vessel for temporarily supporting the head, said head having an opening through it, a portable tank formed to rest on said head over the opening therein and having in its base an opening adapted to register therewith, and a gravity valve within the tank tending to close said opening.

5. The combination of a suitable vessel adapted to contain liquid, a false head therefor, straps secured to the head and adapted to extend over the upper edge of the vessel to normally support the head, said straps being adapted to be bent by downward pressure on the head to free the head, said head having an opening through it, a portable tank adapted to rest on said head and having an opening in its base adapted to register with the opening through the head, and a valve within the tank tending to close said opening into it.

[Claims 6 to 12 not printed in the Gazette.]

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1,038,860. SHEET-CUTTING MACHINE. HENRY DE SMITH, Rochester, N. Y., assignor to M. D. Knowlton Company, Rochester, N. Y., a Corporation of New York. Filed Dec. 19, 1908. Serial No. 468,820. (Cl. 164—68.)



1. In a sheet cutting machine, the combination with a roll holder, of feeding means for drawing off a continuous web from a roll on said roll holder, means for cutting said web into sheets, and means engaging against the outer

side of said web and deflecting the same out of line with the normal path of the web at one point for taking out the curl in said web before it is severed into sheets.

2. In a sheet cutting machine, the combination with a roll holder, of feeding means for drawing off a continuous web from a roll on said roll holder, means for cutting said web into sheets, means between the roll holder and said feeding means engaging the outer face of the web and holding it out of line with respect to its path between the roll holder and the feeding means for taking out the curl in said web, said means being adjustable whereby to accommodate webs varying in thickness and to insure the taking out of the curl of the same.

3. In a sheet-cutting machine, the combination with a roll-holder, of feeding means for drawing off a continuous web from a roll on said roll-holder, means for cutting said web into sheets, a device for taking out the curl in said web before it is severed into sheets, and means for maintaining said device in contact with a roll on said roll-holder.

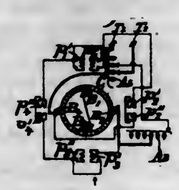
4. In a sheet-cutting machine, the combination with a roll-holder, of feeding means for drawing off a continuous web from a roll on said roll-holder, means for cutting said web into sheets, and a straight-edge in position to engage the outer side of the web passing off from a roll on said roll-holder and form therewith an angle sufficient to take out the curl in said web before it is severed into sheets.

5. In a sheet-cutting machine, the combination with a roll-holder, of feeding means for drawing off a continuous web from a roll on said roll-holder, means for cutting said web into sheets, and a straight-edge in position to engage the periphery of a roll on the roll-holder and form with the web passing off from said roll an angle sufficient to take out the curl in said web before it is severed into sheets.

[Claims 6 to 18 not printed in the Gazette.]

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1,038,861. ALTERNATING-CURRENT COMMUTATOR DYNAMO-ELECTRIC MACHINE. WLADIMIR DOINIKOFF, Karlsruhe, Germany. Original application filed Mar. 6, 1908, Serial No. 419,537. Divided and this application filed Sept. 28, 1908. Serial No. 455,151. (Cl. 172—276.)



1. Mechanism for preventing sparking at the brushes of compensated single phase dynamo electric machines, having two short circuited brushes, a main armature winding, a commutator, connecting wires between the said winding and commutator; comprising an auxiliary armature iron core, upon which the said connecting wires are wound, commutating poles, adapted to influence the said connecting wires in such a manner that the commutator potential curve at the places where the brushes are situated is flattened, windings on the said commutating poles, and direct connections between the windings of the said commutating poles and the said commutator, the said windings being in series between points of the said commutator which are at a sufficient potential difference for feeding the said windings.

2. Mechanism for preventing sparking at the brushes of compensated single phase dynamo electric machines, having a main armature winding, a commutator, two pairs of brushes, one of said pairs being short circuited, connecting wires between the said winding and commutator; comprising an auxiliary armature iron core upon which the said connecting wires are wound, commutating poles adapted to influence the said connecting wires in such a manner that the commutator potential curve at the places where the brushes are situated is flattened, windings on the said commutating poles, and direct connections between the windings of the said commutating poles and the said commutator, the said windings being in series between points of the said commutator which are at a sufficient potential difference for feeding the said windings, the number of ampere turns in the windings of the poles adjacent the short circuited brushes being greater than that of the other poles.

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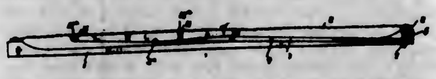
1,038,862. RAIL-JOINT. VINCENT DOMOGALLA, Salem, Oreg. Filed June 12, 1911. Serial No. 632,611. (Cl. 239—13.)



In a rail joint, the combination of rails having end slots extending from their bases and formed with parallel vertical walls provided with spaced recesses of uniform depth, a rectangular locking member mounted in such slots and provided with spaced lugs extending slidably through such recesses into engagement with the upper walls of such slots, a chair provided with a series of longitudinal tapered ribs constituting reduced supporting surfaces for the rail ends and locking member, and means on said chair for strongly clamping said locking member and rail ends in interlocked engagement on said reduced surfaces.

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1,038,863. ATTACHMENT FOR WIRE-MESH BED-SPRINGS OR THE LIKE. JOHN NELSON EASTWOOD, Carleton Place, Ontario, Canada. Filed Apr. 15, 1911. Serial No. 621,251. (Cl. 5—66.)



1. The combination with a wire mesh bed spring or the like, of a pair of side arms pivotally supported intermediate of their length from the side bars of said bed spring, a cross frame supported by said side arms at one end thereof and extending across the under side of the mesh fabric of said bed spring and spring means for adjustably supporting said side arms at the other end thereof.

2. The combination with a wire mesh bed spring or the like, of a pair of side arms, a pair of hook members caught onto the side bars of said bed spring frame and pivotally supporting said side arms intermediate of the length thereof, a cross frame pivotally supported between the said side arms at one end thereof and extending across the under side of the mesh fabric of said bed spring and a bow spring secured to the end bar of said bed spring frame and to the other end of said side arms.

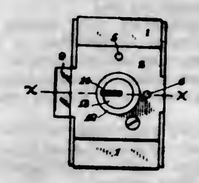
3. The combination with a wire mesh bed spring or the like, of a pair of side arms, a pair of hook members caught onto the side bars of said bed spring frame and pivotally supporting said side arms intermediate of the length thereof, a cross frame pivotally supported between the said side arms at one end thereof and extending across the under side of the mesh fabric of said bed spring, a bow spring secured to an end bar of said bed spring frame and having an orifice toward each end thereof and bolts extending through the orifices in said bow spring and having hooked ends caught over the other ends of said side arms.

4. The combination with a wire mesh bed spring or the like, of a pair of side arms yieldingly supported from the frame of said bed spring and having stud pins projecting from one end thereof and a cross-frame comprising notched side bars and cross bars extending between said side bars and pivotally supported upon the stud pins of said side bars.



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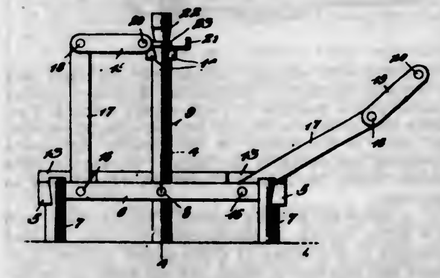
1,038,864. LOCK. FREDERICK EGGE, Bridgeport, Conn., assignor to The Smith & Egge Mfg. Co., Bridgeport, Conn., a Corporation of Connecticut. Filed June 20, 1911. Serial No. 634,306. (Cl. 70—75.)



In a lock, in combination, with the casing and a series of spring actuated tumblers pivotally mounted on a post, said tumblers having gates located at the front ends of the tumblers, a bolt which completely overlies the outermost tumbler and the gates and formed with a narrow longitudinal slot of but slightly greater width than the diameter of the post in which the outer end of said post engages to guide the bolt in its sliding movements, said longitudinal slot being enlarged at its front end to receive the key.

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1,038,865. MATTRESS-RACK. ROBERT EVANS, Cravens, La. Filed Mar. 27, 1912. Serial No. 686,665. (Cl. 211—14.)



1. In a display rack of the character described, the combination of a base and a plurality of spaced vertical supporting posts for said base, rack frames pivotally mounted upon the base in spaced relation to said post, said frames each including an independently movable extension, and hooks secured in the supporting post with which said frame extensions are adapted to engage to hold the rack frames against pivotal movement.

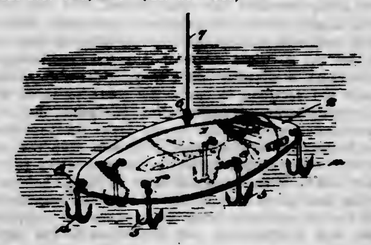
2. In a display rack of the character described, the combination of a base and spaced vertical supporting posts therefor, rack frames pivotally mounted in said base and arranged on opposite sides of the supporting posts, each of said frames including a main section, and an extensible section pivotally mounted upon the main section for movement with relation thereto, and hooks secured in certain of the supporting posts to be engaged by the respective extensions of the rack frames to hold said frames against pivotal movement on the base.

3. In a display rack of the character described, the combination of a base structure consisting of rigidly connected longitudinal and transverse bars, a plurality of vertical supporting posts for said frame structure arranged centrally between the longitudinal bars thereof, rack frames each including a main section pivotally mounted in the transverse base bars and an extensible section pivotally mounted upon the main section for movement with relation thereto, said extensible rack sections each consisting of a plurality of bars and a rod connecting said bars at their free ends, and oppositely extending hooks secured in certain of the base supporting posts to be engaged by said rods to hold the rack frames against pivotal movement upon the base.

4. In a display rack of the character described, the combination of a base structure including rigidly connected longitudinal and transverse bars, a plurality of vertical supporting posts for said base arranged between the transverse bars thereof, rack frames arranged upon opposite sides of the supporting post and each consisting of a main section pivotally mounted in the transverse base bars and adapted to engage the longitudinal base bars to limit the pivotal movement of the frames in one direction, extensible frame sections pivotally mounted upon the main sections for movement with relation thereto, said extensible sections consisting of a plurality of parallel bars and rods connecting the same at their free ends, the upper ends of said supporting posts being provided with reduced portions forming annular shoulders thereon with which the ends of the bars of the extensible frame sections are adapted to engage, and hooks fixed in certain of the supporting posts to be engaged by the rods connecting the bars of the extensible frame sections, said rods being forced into close frictional engagement with said hooks when the ends of the extension bars of the rack frames are engaged with the shoulders of the supporting posts.

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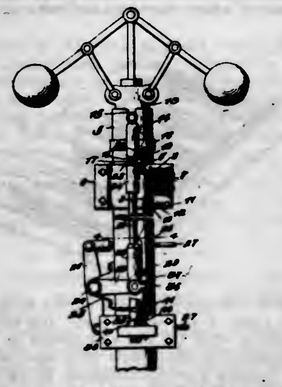
1,038,866. FISHING DEVICE. JAMES H. FULLER and AUSTIN MILLER, Moberly, Mo. Filed Aug. 15, 1911. Serial No. 644,220. (Cl. 43—30.)



A fishing device comprising an oblong curvilinear transparent hollow retainer having pointed ends, a line connected with the upper part of the retainer at a point midway between the ends thereof, said retainer having at its sides openings which communicate with the interior thereof, and hooks connected with the retainer at the openings thereof.

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1,038,867. ENGINE STOP DEVICE. ANSON GALE, Decatur, Ill. Filed Aug. 23, 1911. Serial No. 645,587. (Cl. 121—103.)



1. In a stop device for engines, a governor, valve controlling mechanism, a rod connecting said valve mecha-

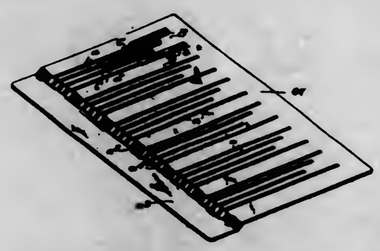
nism to the governor and consisting of two relatively movable sections, a pivoted latch member normally connecting the rod sections, a gravity member longitudinally movable upon one of said sections, a pivotally mounted spring held plate engaging said gravity member to support the same, a spring normally acting to operate the valve mechanism and close the valves, and means carried by the governor to engage said spring held plate and release the gravity member, said gravity member co-acting with the latch device in its movement to disconnect the rod sections and permit of the movement of one of said sections with relation to the other.

2. In an engine stop device, the combination of a governor, valve controlling mechanism, means connecting said mechanism to the governor including a tubular rod connected to the valve controlling mechanism, a rod connected to the governor and telescopically engaged in said tubular rod, said tubular rod being provided with an opening in its wall, a spring held latch bar having a detent disposed through said opening and engaging said rod to normally cause the rods to move in unison, said latch member also having a beveled face, a weight movable upon the tubular rod, a spring held plate having an angularly disposed portion to engage and support the weight, a trip member carried by the governor to engage the angularly disposed end of said plate and release the weight, said weight moving downwardly upon the tubular rod and engaging the beveled face of the latch bar to release the rods for relative movement, and a contractile spring to actuate the valve mechanism and close the valves when the rods are disconnected.

3. In a stop device for engines, a governor, valve controlling mechanism, a connecting rod between said mechanism and the governor consisting of two relatively movable sections, a pivoted latch member normally connecting said rod sections to cause the same to move in unison, a contractile spring tending to move one of said rod sections with relation to the other and operate the valve mechanism to close the valve and stop the engine, a gravity member longitudinally movable upon the other of said rod sections provided with a flange on one end, a spring held plate having one of its ends angularly disposed for engagement with said flange to support the weight, and a depending rod connected to the governor and having a hook on its lower end disposed beneath the angularly disposed end of said plate to move said plate when the engine attains an excessive speed and release the gravity member, said gravity member engaging the latch bar to disconnect the rod sections whereby the valve mechanism is actuated to close the valves and stop the engine.

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1,038,868. ADDRESS-PLATE. HARRY C. GAMMETER, Bratenahl, Ohio, assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Filed Feb. 18, 1909. Serial No. 478,660. (Cl. 101—169.)



1. A stiff type-carrying plate having a permanent offset in its plane, a slot in the plate, and an enlargement communicating with the slot and located in the offset.

2. A typeholding plate made of a sheet of metal bent into two extreme portions connected by an intermediate portion, a plurality of parallel slots in one of the extreme portions, and enlargements of said slots respectively in the intermediate portion, the other extreme portion being continuous and connected with the ends of the strips between the enlargements.

3. The combination of a plate having a slot through its surface, a permanent offset in the plate adjacent to the end of the slot, an opening through the offset communicating with the slot, said opening being of larger width than the slot, and type having grooves in its opposite sides adapted to be passed through the enlargement and slid along the slot.

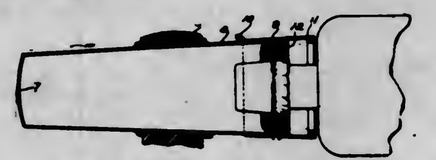
4. A stiff type-holding plate having a plurality of parallel slots through it, an offset in the plate transverse of the slots, and enlargements at the ends of the slots through such offset, the plate being continuous beyond the enlargements and thereby bracing the strips between them.

5. A type-holding plate made in three planes, two of them parallel and connected by an offset portion, a slot in one of the planes, and an enlargement at the end of the slot in the offset portion.

[Claims 6 to 12 not printed in the Gazette.]

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1,038,869. CAPSULING DEVICE. CUTHBERT GENTLE, Dorchester, Mass. Filed June 22, 1912. Serial No. 707,645. (Cl. 113—2.)



1. A device for pressing capsules over the closed neck of a bottle, having, in combination, a hollow chamber consisting of a plurality of frusto-conical sections, a resilient ring arranged to engage and roll along the peripheral walls of the interior of the chamber, and means permitting one section of the chamber to telescope upon another during the capsuling operation, substantially as described.

2. A device for pressing capsules over the closed neck of a bottle, having, in combination, a hollow chamber consisting of a plurality of frusto-conical sections, a resilient ring arranged to engage and roll along the peripheral walls of the interior of the chamber, and means permitting one section of the chamber to telescope upon another under contact with the shoulders of a bottle as its neck is passed into the chamber for the capsuling operation, substantially as described.

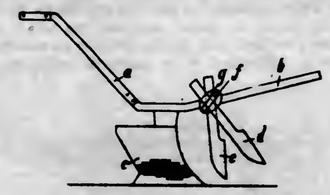
3. A device for pressing capsules over the closed neck of a bottle, having, in combination, a hollow chamber, a resilient ring arranged to engage the peripheral walls of the interior of the chamber and roll thereon over the closed neck of a bottle inserted into the chamber, and means permitting the length of the chamber to be decreased to increase the neck area over which the ring rolls, substantially as described.

4. A device for pressing capsules over the closed neck of a bottle, having, in combination, a support, a hollow sectional chamber carried thereby, a spring coiled around the exterior of the chamber and connected to each of the sections, and a resilient ring arranged to engage and roll over the interior peripheral walls of the chamber, substantially as described.

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1,038,870. PLOW. OTTO GMOSS, Ilbesheausen, Germany. Filed May 31, 1911. Serial No. 630,287. (Cl. 97—6.)

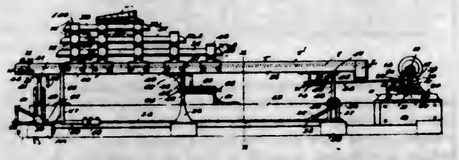
In a plow of the character described, the combination with two colters and with a U bolt for holding said colters adjustably at opposite sides of the plow beam, of a distance piece threaded on the members of said bolt and divided by an inclined cut into two parts between which the outer colter can be held at an angle to the



plane of the inner colter, substantially as and for the purpose set forth.

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1,038,871. ORE-CONCENTRATOR. CLARENCE I. GLASSBROOK, Salt Lake City, Utah. Filed Feb. 9, 1911. Serial No. 607,559. (Cl. 83—88.)



1. A shaking table having supports at the ends and central portion, said table being transversely horizontal and said supports being rockable in the direction of the length of the table, said central supports having connections adapted to restrain the vertical displacement of the central portion of the table, and means for shaking the table.

2. The combination of a shaking table, rockable supports at both sides of the ends and central portion thereof, said table being transversely horizontal and said supports being rockable in the direction of the length of the table, the central supports having connections adapted to restrain the vertical displacement of the central portion of the table, means to restrain the supports from movement transversely of the table, and means for shaking the table.

3. The combination of a concentrating table, supplemental concentrating planes, or surfaces arranged in superposed order thereover, said planes or surfaces affording a means performing a plurality of independent complete concentrating operations at the same time in one machine, rockable supports at the sides and central portion of the table, said table being transversely horizontal and said supports being rockable in the direction of the length of the table, means to restrain the supports from movement transversely of the table, the central supports having stationary bearings for preserving the central longitudinal position of the table by restraining the vertical displacement thereof, means to restrain the supports from movement transversely of the table, the supplemental planes having rigid connections with the table adapted to prevent distortion and to transmit movements of the table to said planes, and means for reciprocating said table.

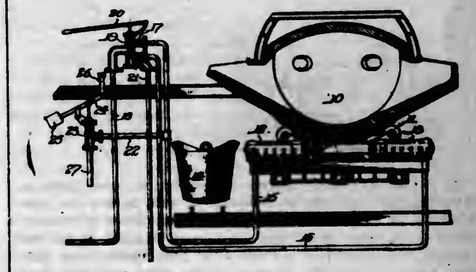
4. The combination of shaking table, rockable supports at both sides of the ends and central portion thereof, said table being transversely horizontal and said supports being rockable in the direction of the length of the table, the central supports having connections adapted to restrain the vertical displacement of the central portion of the table, means to restrain the supports from movement transversely of the table, and means at one end of the table for imparting to said table a reciprocating and differential motion.

5. In combination, a longitudinally tiltable table, supports at the ends and intermediate portion thereof comprising rockers, the intermediate rockers having stationary bearings and being connected to the bearings and the table to restrain vertical displacement of the central portion of the table, means engaging the rockers at the ends of the table and adapted to impart simultaneous opposite movements at opposite ends of the table to said rockers, and means for reciprocating the table.

[Claims 6 to 10 not printed in the Gazette.]

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1,038,872. SAFETY DEVICE FOR METAL-MIXERS. WILLIAM P. GLEASON, Gary, Ind. Filed June 7, 1912. Serial No. 702,203. (Cl. 138—2.)



1. A device of the class described, comprising in combination, opposed fluid pressure cylinders, a valve controlling the entrance of fluid to said cylinders, conduits connecting said valve with said cylinders and a second normally open conduit interposed in the conduit between one of said cylinders and said valve, the parts being so arranged that fluid cannot be supplied to one of said cylinders without first closing said normally open conduit, substantially as described.

2. A device of the class described, comprising in combination, a tilting furnace, a pair of opposed fluid pressure cylinders arranged to cause the tilting and righting of said furnace, a valve controlling the entrance of fluid to said cylinders, conduits connecting said valve and said cylinders, and a second normally open conduit interposed in the conduit connecting said valve with said tilting cylinder, and means for closing said normally open conduit whereby pressure may be supplied to said tilting cylinder, substantially as described.

3. A device of the class described, comprising in combination, a tilting furnace, two opposed fluid pressure cylinders adapted to respectively tilt and right said furnace, a valve controlling the supply of fluid pressure to both of said cylinders and the exhaust from one of said cylinders, conduits connecting said valve with said cylinders, a normally open escape conduit interposed in the conduit connecting said valve with said tilting cylinder and means for closing said normally open escape conduit whereby when said escape conduit is closed fluid pressure may be supplied to said tilting cylinder, substantially as described.

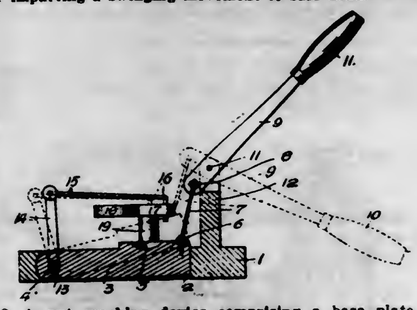
4. A device of the class described, comprising in combination, opposed fluid pressure cylinders, a valve controlling the entrance of fluid to said cylinders, conduits connecting said valve with said cylinders and a second normally open conduit interposed in the conduit between one of said cylinders and said valve, a counter-weighted valve interposed in said normally open conduit, said valve being normally held in open position by said counterweight, the parts being so arranged that fluid cannot be supplied to one of said cylinders without first closing said normally open conduit, substantially as described.

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1,038,873. NUT-CRACKING DEVICE. MIKE GOLEK, Crosby, Wyo. Filed July 8, 1912. Serial No. 708,186. (Cl. 146—3.)

1. A nut cracking device comprising a base plate having an oblong opening formed therein, a crushing block pivotally mounted in said opening and adapted to support a nut, an operating lever fulcrumed above said base

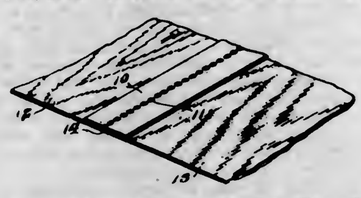
plate and adapted to move said crushing block, a swinging head movable above said crushing block and adapted to impart a rolling movement to a nut supported by said block, and means actuated by a movement of said block for imparting a swinging movement to said head.



2. A nut cracking device comprising a base plate, a crushing block pivotally mounted in said base plate and adapted to support a nut, an operating lever fulcrumed above said base plate and connected to said block for raising and lowering the same, a post carried by said base plate, a swinging head arranged upon said post and adapted to swing over said block and impart a rolling movement to a nut placed thereon, and means actuated by said block for imparting a movement to said head.

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1,038,874. VENEERING-TAPE. GEORGE GOODSIR, Jr., New York, N. Y., assignor to Ideal Coated Paper Co., Brookfield, Mass., a Corporation of New Jersey. Filed Jan. 16, 1912. Serial No. 671,429. (Cl. 20—89.)



1. In combination with the abutting edges of pieces of veneering, a perforated tape overlapping said abutting edges and the seam formed thereby, said tape having a film of glue thereunder to securely hold the abutting edges in place and said tape permitting the passage of heated glue therethrough to soften the film of glue under said tape when desired.

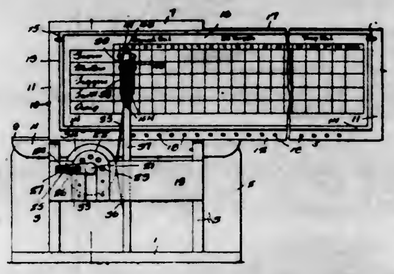
2. In combination with the abutting edges of pieces of veneering, a perforated tape overlapping the abutting edges and the seam formed thereby, said tape having one face thereof coated with a film of adhesive which binds said tape to the edges of the veneering, said veneering and tape being capable of receiving similar plies of veneering, and said tape permitting the passage of heated adhesive therethrough when subsequent plies are added thereto, thereby permitting the film of glue under said tape to be softened and spread into an imperceptible film.

3. In combination with the abutting edges of pieces of veneering, a perforated tape having one face thereof supplied with a film of adhesive, said tape being secured to said veneering so as to overlap the abutting edges thereof and the seam formed by the abutting edges, said tape holding said pieces of veneering together, and said tape permitting subsequently applied warm adhesive to pass therethrough to soften the adhesive between the tape and veneering.

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1,038,875. SCORE-BOARD. JAMES A. GROVES, Jacksonville, Ill. Filed Nov. 14, 1910. Serial No. 592,393. (Cl. 234—1.)

1. In a scoring device, a single scoring means, a holder for a record sheet, means for moving the scoring means at will with reference to the sheet both actively and back to the initial position, and means for causing a movement of the sheet with reference to the scoring means by the return of the latter to initial position, the single scoring means being provided with means operable at will for causing a scoring indication to be produced upon the record sheet.



2. In a scoring device, a single scoring means, a plane, rectangular holder for a scoring sheet movable in the direction of its length in a right line, means for moving the scoring means with relation to the record sheet held in the holder to different extents at will in a direction at right angles to the movement of the record sheet, and means for moving the record sheet holder step by step in the direction of its length by the return of the scoring means to the initial position.

3. In a scoring device, a score sheet holder movable in one direction, a score marker having means whereby it may be operated at will, a carrier for the marker, means for moving the carrier at will step by step across a score sheet on the score sheet holder in a direction at right angles to the movement of the score sheet holder, and means both on the carrier for the marker and on the holder for the score sheet for moving the score sheet holder by the return movement of the marker carrier to initial position.

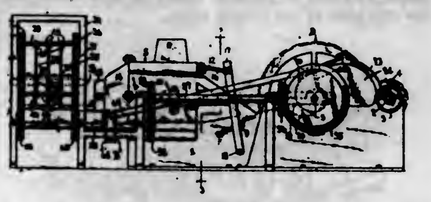
4. In a scoring device, a score card carrier, a support therefor along which the carrier is movable in the direction of its length, means on the carrier for holding the score card therein, a marker for designating scores on the score card, a carrier for the marker movable with relation to a score card on the carrier in the direction across the same, means for moving the marker carrier comprising a drum with strands connected thereto and to the carrier to move the same longitudinally in either direction, a shaft carrying the drum, a handle on the shaft, a latch mechanism carried by the shaft and handle, and a fixed holding member for the latch having a series of engaging means for the latch spaced in conformity with the markings of the score card.

5. In a scoring device, a score card carrier, a support therefor along which the carrier is movable in the direction of its length, means on the carrier for holding the score card therein, a marker for designating scores on the score card, a carrier for the marker movable with relation to a score card on the carrier in the direction across the same, means for moving the marker carrier comprising a drum with strands connected thereto and to the carrier to move the latter longitudinally in either direction, a shaft carrying the drum, a handle on the shaft, a latch mechanism carried by the shaft and handle, a fixed holding member for the latch having a series of engaging means for the latch spaced in conformity with the markings of the score card, and means for moving the score card carrier in the direction of its length comprising a series of pins on the score card carrier in operative relation to the carrier for the marker, and a pawl on the carrier for the marker adapted to engage the pins on the carrier for the score card and move the latter when the carrier for the marker is moved toward the initial position.

[Claims 6 to 11 not printed in the Gazette.]



1,038,876. BRICK AND BLOCK MACHINE. JOHN A. GUSTAFSON and JOSEPH M. FLICKINGER, Kushequa, Pa. Filed Nov. 9, 1911. Serial No. 659,801. (Cl. 25—109.)



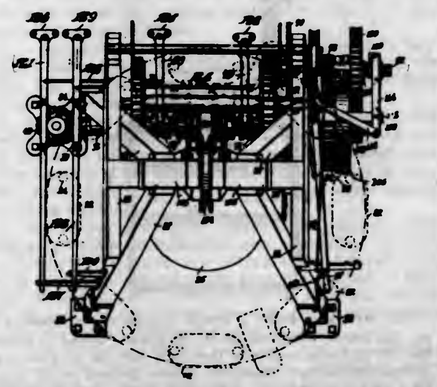
1. In a brick machine, the combination with the plug forming and ejecting mechanism, the cutting mechanism to which said plug forming mechanism delivers, and the driving mechanism including a mutilated gear; of a shaft geared to the cutting mechanism and having a pinion adapted to engage said mutilated gear, a brake for this shaft, and mechanism carried by the driving mechanism for applying the brake while the blank portion of said mutilated gear is opposite said pinion.

2. In a brick machine, the combination with the plug forming and ejecting mechanism, the cutting mechanism to which said plug forming mechanism delivers, and the driving mechanism including a mutilated gear; of a shaft geared to the cutting mechanism and having a pinion adapted to engage said mutilated gear, a brake for this shaft, a pivoted lever connected at one end with the brake and having a pin at its other end, and a cam fast on the shaft of the mutilated gear and so shaped and disposed as to engage said pin and apply the brake while the clear space on the mutilated gear is opposite said pinion.

3. A rotary plug cutting mechanism for brick machines and the like comprising two upright spaced parallel walls having alined openings and connected rigidly by a central rod, circular tracks around said walls concentric with said rod, rings movable on said track and connected by a series of equi-distant rods, a series of fingers rigidly connected with the central rod, said end walls having alined openings properly disposed for the passage through them and over said fingers of the plug being treated, collars revolubly mounted on the axial rod between said fingers, and wires connecting said collars with the rods which connect said rings.

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1,038,877. PORTABLE WELL BORING AND DRILLING MACHINE. HIRAM H. HAIGHT, Clarinda, Iowa. Filed May 11, 1911. Serial No. 626,524. (Cl. 166—3.)



1. In a portable well drilling machine, a revolving platform; a driving shaft mounted on said platform; a stationary member operatively engaged to rotate said shaft in harmony with the rotation of said revolving platform; a weighted fly-wheel mounted on said shaft; a power transmission and speed-multiplying mechanism operatively connecting said fly-wheel and said shaft, embodying a large gear wheel fixedly mounted on said shaft; and a manually-operative clutch mechanism for initiating and discontinuing the operation of said speed-multiplying mechanism.

2. In a portable well-drilling machine, a revolubie platform; a driving shaft mounted on said platform, to be revolved about the center of said platform; a stationary member operatively engaging the end of said shaft to rotate said shaft in harmony with the movement of the revolving platform; a housing loosely mounted on said shaft to form a bearing for a spudding pulley, and having clutch ends; a manually operative clutch slidably mounted on said shaft to engage said housing, to rotate the same with said shaft; a plurality of engaging devices for intermittently connecting said pulley and said housing in fixed relation; and a plurality of interference members mounted in the path of said devices to disengage the same from said pulley.

3. In a portable well drilling machine, a revolving platform; a driving shaft mounted on said platform to revolve about the center thereof; a stationary member operatively engaging the end of said shaft to rotate said shaft in harmony with the movement of said platform; a winding drum disposed in parallel relation to said shaft; a plurality of variable-speed-transmission gear wheels, rotatively mounted on said drive shaft and operatively engaging the winding drum; and a plurality of clutches mounted on said driving shaft to engage the said gear wheels mounted thereon, to rotate the same with said shaft.

4. In a portable drillig machine, a revolving platform, a driving shaft mounted on said platform to revolve therewith about the center of said platform; a stationary member operatively engaging one end of said shaft to rotate the same in harmony with the movement of said platform; a winding drum mounted on said platform, in parallel relation with said shaft, and having fixedly attached thereto driving gears of varied diameter; a plurality of power-transmission gear wheels loosely mounted on said driving shaft, in engaged relation with said gears on said drum; a plurality of clutches mounted on said driving gear to selectively engage the said gear wheels mounted thereon; and a manually operative brake mechanism fixedly connected to either of said gear wheels on said driving shaft, engaging the gear wheels on said drum.

5. In a portable well drilling machine, a revolving platform; a driving shaft mounted on said platform to revolve therewith about the center thereof; a stationary member operatively connected with said shaft to rotate the same as it is revolved about the center of said platform; a spudding wheel loosely mounted on said shaft, adapted to intermittently elevate and release a suitable cable; a hoisting drum mounted on said platform in parallel relation to said driving shaft; a plurality of power transmission and speed-varying mechanisms connecting said driving shaft and said winding drum; and manually operative clutches for engaging said power-transmission mechanisms alternately, one of said clutch mechanisms operating to engage and release said spudding wheel and one of said speed-varying mechanisms alternately.

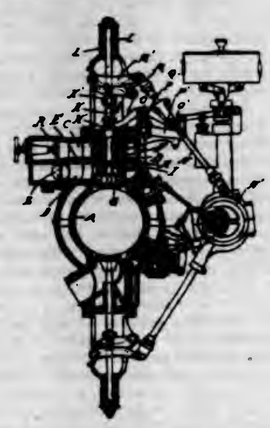
[Claims 6 and 7 not printed in the Gazette.]

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1,038,878. GAS-ENGINE VALVE. WILLIAM E. HALLETT, Bucyrus, Ohio. Filed Oct. 16, 1909. Serial No. 523,057. (Cl. 123—106.)

1. In an explosion engine, the combination with a cylinder, of a chest having an air chamber and a gas chamber, the former communicating through the main admission port with the cylinder, and the latter communicating with said air chamber through a port alined with the admission port, a puppet valve for said main admission port having a stem extending through said alined port, a puppet valve for said gas port sleeved upon the stem of said main valve, timed operating mechanism for the main valve and an operating mechanism for the gas valve comprising a lever engaging the stem of said valve, an operating member engaging the opposite end of said lever, and a shiftable fulcrum for said lever whereby the amplitude of movement imparted to said valve will be varied.

2. In an explosion engine, the combination with a cylinder, of a mixing chamber directly communicating through the main admission port with said cylinder, an air supply chamber in constant communication with the mixing chamber, a gas chamber communicating with said mixing chamber through a port aligned with the main admission port, a puppet valve controlling the main admission port and having its stem extending through the gas port, a valve sleeve upon said stem controlling said gas port, means for varying the degree of opening of said gas valve, and means for opening the main admission port valve in advance of the gas valve and for closing the gas valve in advance of the main admission port irrespective of the degree of opening of said gas valve.



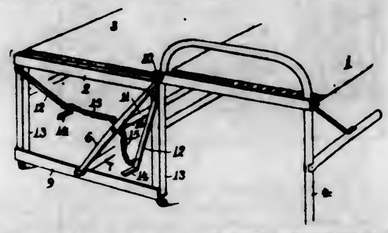
3. In an explosion engine, the combination with a cylinder of a mixing chamber communicating through the main admission port with said cylinder, a gas supply connection communicating with said mixing chamber, a valve controlling communication between said chamber and said connection, an air supply connection communicating with the mixing chamber at a point intermediate the main port and the point of communication of the gas supply with the mixing chamber, means for varying the degree of opening of said gas valve, and means for opening the main admission port valve in advance of the gas valve and for closing the gas valve in advance of the main admission port irrespective of the degree of opening of said gas valve, said air supply being in all positions of adjustment of the gas valve in communication with the mixing chamber upon both the opening and closing of the gas valve.

4. In an explosion engine, the combination with a cylinder of a mixing chamber communicating through the main admission port with said cylinder, a gas supply connection communicating with said mixing chamber, a valve controlling communication between said chamber and said connection, an air supply connection in constant communication with the mixing chamber at a point intermediate the main admission port and the point of communication of the gas supply with the mixing chamber, means for varying the degree of opening of said gas valve, and means for opening the main admission port valve in advance of the gas valve and for closing the gas valve in advance of the main admission port irrespective of the degree of opening of said gas valve.

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1,038,879. COUCH-BED. WILLIAM P. HAMMOND, Rockport, Mass., assignor to Triumph Couch Bed Co., Boston, Mass., a Corporation. Filed July 24, 1911. Serial No. 640,266. (Cl. 5—46.)

1. The combination of a stationary bed-section, a movable bed-section, lever arms pivoted to the ends of the stationary bed-section and supporting the rear of the movable bed-section, a bar attached at its ends to intermediate points of the lever arms, a treadle arm pivoted to an end of the stationary bed-section at each side of the lever arm thereat, a collar loosely mounted on said bar close to the lever arm between said treadle arms, and chains attached to opposite points of said collar and to the free ends of the treadle arms.

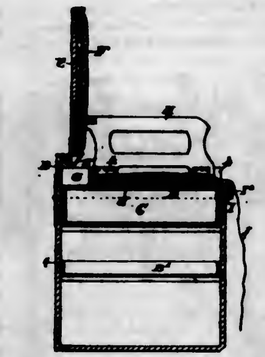


2. The combination of a stationary bed-section, a movable bed-section, lever arms pivoted to the ends of the stationary bed-section and supporting the rear of the movable bed-section, a bar attached at its ends to intermediate points of the lever arms, a treadle arm pivoted to an end of the stationary bed-section at each side of the lever arm thereat, a collar loosely mounted on said bar near the lever arm located between said treadle arms, said collar having diametrically opposite radial projections, and chains attached to said projections and to the free ends of the treadle arms.

3. The combination of a stationary bed-section, a movable bed-section, lever arms pivoted to the ends of the stationary bed-section and supporting the rear of the movable bed-section, a bar attached at its ends to intermediate points of the lever arms, a treadle arm pivoted to an end of the stationary bed-section at each side of the lever arm thereat, a collar rotatably mounted on said bar near the lever arm located between said treadle arms, said collar having diametrically opposite radial projections, a headed pin projecting from each said projection parallel with said bar, a headed pin projecting from the free end of each treadle arm parallel with said bar, and chains terminally attached to said headed pins.

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1,038,880. TRUNK. WILLIAM C. T. HANSEN, Seattle, Wash. Filed Sept. 6, 1910. Serial No. 580,746. (Cl. 190—8.)

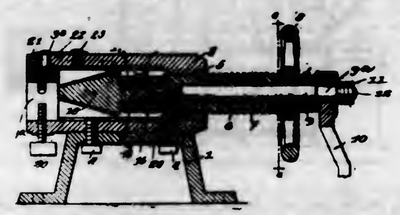


In a trunk, a body, a frame hinged to the body, a lid for the frame, arms hinged to the frame, means to connect the lid and arm whereby the same will be mutually supported, said means comprising plates secured to the lid and each having outwardly and oppositely turned ears and limiting ears arranged at right angles thereto, L-shaped plates carried by the arms and adapted to be engaged by the oppositely extending ears and limited in their movement by the limiting ears, and locking members pivoted to the first plates and adapted to engage over the L-plates to hold them in engagement with the oppositely turned ears.



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1,038,881. PIPE-REAMER. DELBERT M. HATTON, Burnetts Creek, Ind. Filed May 1, 1911. Serial No. 624,276. (Cl. 77—73.)



In a pipe reamer, a base, a hollow frame carried thereby, said frame having a threaded opening at one end, a threaded sleeve disposed in said threaded opening and provided with a hand wheel, a cylindrical rod disposed within the said sleeve and provided with a handle at one end and at the other end with a head having a socket, a reaming tool having a shank adapted to enter and to be held in said socket, said reaming tool being disposed within said hollow frame, a ball bearing washer disposed between said head and the end of said threaded sleeve, a series of radially disposed centering screws carried by said hollow frame at the end opposite the threaded opening, a cylindrical collar provided with radial slots adapted to enter the end of said hollow frame, said slots being adapted to straddle said centering screws, and a spring pin carried by said hollow frame and arranged to engage said collar for holding the latter in position.

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1,038,882. SMOKE AND CARBON CONSUMER. SAMUEL HEATH, Roxboro, Pa. Filed Dec. 16, 1911. Serial No. 666,110. (Cl. 67—72.)



1. As a new article of manufacture, a smoke and carbon consumer comprising two leaves of mica, fastened together at their upper ends and diverging toward their lower ends and means for holding their lower ends in a predetermined shape and size.

2. A new article of manufacture consisting of a shaping and sizing collar, and two mica leaves carried by the collar and fastened together at their upper ends to form a conical housing open at two opposite sides.

3. In a smoke and carbon consumer, an annular collar made in a certain predetermined size, adapted to surround the burner of a lamp, a pair of oppositely disposed mica leaves secured to the collar and having a portion of their edges diverging, and means for fastening the upper ends of the leaves together.

4. In a smoke and carbon consumer, an annular collar made in a certain predetermined size, adapted to surround the burner of a lamp, a pair of oppositely disposed mica leaves secured to the collar and having a portion of their edges diverging, and a metallic clip for fastening the upper edges of the leaves together, said clip having indents therein for firmly holding the parts in place.

5. In a smoke and carbon consumer, a collar consisting of an interior ring having an exterior projecting flange formed from its lower edge, said flange having draft perforations therein, an exterior ring of greater size than the interior ring, a pair of oppositely disposed mica leaves secured between the rings the width of said leaves at their lower edges being less than one-half the circumference of the rings, whereby a pair of oppositely disposed openings are produced between the side edges of the leaves, and a metallic clip for fastening the upper ends of said leaves together thereby producing a conical housing.

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1,038,883. CLAMP FOR HORSESHOE-CALKS. GEORGE J. HELFRICH, Cincinnati, Ohio. Filed Dec. 14, 1911. Serial No. 665,696. (Cl. 168—34.)



1. The herein described clamp for horseshoe calks comprising a base member having a flat body with an upturned lip along its outer edge, means on this member for detachably carrying the calk, a screw whose axis stands on a horizontal plane above the vertical center of said base member and whose shank inclines downward and outward and merges into the inner edge of this member, a nut on said screw; and a washer member having an upright body with an inturned lip at its upper edge, said body being pierced with a hole loosely embracing said screw and its shank.

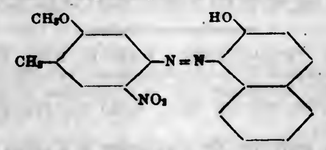
2. The herein described clamp for horseshoe calks comprising a base member having a flat body with an upturned lip along its outer edge, means on this member for detachably carrying the calk, a screw whose axis stands on a horizontal plane above the vertical center of said base member and whose shank inclines downward and outward and merges into the inner edge of this member, the inner edge of the body having grooves at opposite sides of said rib and ribs outside said grooves, a nut on said screw; and a washer member having an upright body with an inturned lip at its upper edge, said body being pierced with a hole loosely embracing said screw and its shank, the upper portion of the inner face of this member being flat to engage the edge of the horseshoe and its lower portion having three oblique grooves with two interposed ribs to respectively engage the shank and ribs on and the two interposed grooves in the inner edge of the body member.

3. In a clamp for horse shoe calks, the combination with a base member underlying the shoe and having an upturned lip along the outer edge of the latter, the inner face of the lip being recessed, and a screw projecting inward from the inner edge of said member; of a cushion disposed within said recess, a washer member movably mounted on the shank of the screw, and a nut on the threads of the latter.

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1,038,884. AZO DYE. WILHELM HERZBERG and OSWALD SCHARFENBERG, Schöneberg, near Berlin, Germany, assignors to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Filed Jan. 30, 1912. Serial No. 674,255. (Cl. 8—1.)

The herein-described new red monoazo coloring-matter derived from 2-methoxy-5-nitro-4-aminotoluene and 2-naphthol and corresponding to the formula:



being more especially adapted for the manufacture of pigments and being insoluble in water, insoluble in cold alcohol, sparely soluble in hot alcohol, soluble in concentrated sulfuric acid to a violet solution, which separates the coloring-matter in orange flakes on addition of ice, and being split off by action of strong reducing agents to 4.5-diamino-2-methoxytoluene and 1-amino-2-naphthol.

1,038,885. BAND-SAW-FILING MACHINE. HARDY HESTAND and CHARLES F. DAYTON, Chickasha, Okla., assignors to Granville M. Carr and Rodolphus H. Jones, Chickasha, Okla. Filed June 29, 1911. Serial No. 635,947. (Cl. 76—35.)



1. A band saw filing machine comprising a supporting frame, a carriage slidably mounted therein, means to reciprocate said carriage, a file holder pivotally mounted on said carriage, means to hold the file in operative engagement with the saw on the working stroke of the carriage, a roller disposed to engage said holder to swing it laterally and thereby disengage the file from the saw when the carriage has reached the limit of its working stroke, a spring projected stop adapted to engage said holder during the return stroke of the carriage, a stop depressing arm for engagement with said stop when the carriage has reached the limit of its return stroke, thereby releasing said file holder.

2. A band saw filing machine comprising a supporting frame, a carriage slidably mounted therein, means to reciprocate said carriage, a file holder pivotally mounted on said carriage, a spring connected with said file holder and adapted to cause the same to hold the file in operative engagement with the saw on the working stroke of the carriage, a holder operating roller adapted to engage said holder to swing the same laterally to disengage the file from the saw when the carriage has reached the limit of its working stroke, a spring projected stop pin adapted to engage said holder when moved laterally by said roller thereby fastening the file holder in an inoperative position during the return stroke of the carriage, a stud depressing arm adapted to engage said stud when the carriage has reached the limit of its return stroke thereby releasing said file holder and permitting its spring to swing the same in position to again engage the file with the saw on the working stroke of the carriage.

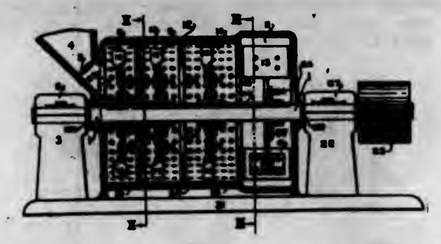
3. A band saw filing machine comprising a supporting frame, a file operating carriage slidably mounted in said frame, a file holder pivotally mounted on said carriage, a spring adapted to actuate said holder whereby the file is held in yielding engagement with the saw on the working stroke of the carriage, means to swing the file holder laterally and thereby disengage the file from the saw when the carriage has reached the limit of its working stroke, a stop to fasten said holder in an inoperative position during the return stroke of the carriage whereby the file is prevented from engaging the saw, means to release said stop from said file holder when the carriage has reached the limit of its return stroke, a crank shaft revolubly mounted in said frame, means to operate said shaft, a pitman rod adapted to operatively connect said crank shaft with said carriage, and an automatically operated saw feeding mechanism whereby the saw is shifted to bring the successive teeth thereon into position to be engaged by the file on the working stroke of the carriage.

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1,038,886. PULVERIZER. JULES H. HIRT, El Paso, Tex., assignor, by mesne assignments, to Allis-Chalmers Company, Milwaukee, Wis., a Corporation of New Jersey. Filed Feb. 14, 1910. Serial No. 543,722. (Cl. 83—11.)

1. In a pulveriser, the combination of a casing divided into chambers, an inlet and an outlet therefor, a shaft, beaters on said shaft in said chambers, said beaters being of decreasing width from inlet to outlet and all being set substantially at the same angle on the shaft, and means for relatively moving said beaters and casing.

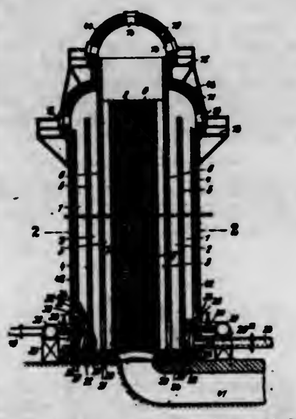
2. In a pulveriser, the combination of a casing, an inlet and an outlet therefor, said casing being divided into chambers all of increasing width from said inlet to said outlet, a shaft, beaters on said shaft in said chambers, said beaters being of decreasing width from said inlet to



said outlet and all being set substantially at the same angle on the shaft, and means for relatively moving said beaters and casing.

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1,038,887. AIR-BLAST HEATER. EDMUND HOHMANN, Stettin, Germany, assignor to Stettiner Chamotte-Fabrik Action-Gesellschaft vorm. Didier, Stettin, Germany, a Corporation of Germany. Filed Aug. 31, 1911. Serial No. 646,965. (Cl. 75—52.)



1. A heater comprising walls forming nested chambers and partitions extending outwardly through said chambers and subdividing them into flues, the adjacent flues of the several chambers being connected in series by individual connections to form a group of flues constituting a sinuous path, each of these paths, between its inlet and its outlet, being entirely separate or disconnected from the other paths or flue groups.

2. A heater comprising walls forming nested chambers and partitions extending outwardly through said chambers and subdividing them into flues, the adjacent flues of different chambers being connected in series to form a group of flues constituting a sinuous path, the individual flues of the outermost chamber being each provided with separate inlets for fuel and for air to support combustion respectively.

3. A heater comprising ring walls forming nested coaxial annular chambers and radial walls subdividing said chambers into segmental flues, the adjacent flues of the several chambers being connected in series by individual connections to form a radial group of flues constituting a sinuous path, each of these paths, between its inlet and its outlet, being entirely separate or disconnected from the other paths or flue groups.

4. A heater comprising ring walls forming nested coaxial annular chambers and radial walls subdividing said chambers into segmental flues, the adjacent flues of different chambers being connected in series to form a radial group of flues constituting a sinuous path, the individual flues of the outermost chamber being each provided with closely adjacent segmental slots forming inlets for fuel and air to support combustion respectively.

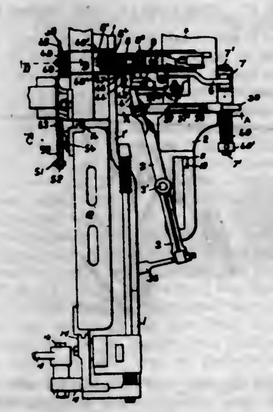
5. A heater comprising walls forming nested chambers surrounding a central space, and partitions subdividing said chambers into flues, the flues of the innermost chamber communicating with said central space, and the adjacent flues of the several chambers being connected alternately at opposite ends, a conduit extending adjacent to the outermost flues of the several groups and having individual connections with such outermost flues, and means for regulating said connections individually.

[Claims 6 to 12 not printed in the Gazette.]



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1,038,888. AUTOMATIC WEFT-REPLENISHING LOOM. DENIS MACHELL HOLLINS, Blackburn, England, assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Apr. 1, 1912. Serial No. 687,612. (Cl. 139—85.)



1. In an automatic weft replenishing loom, the combination with vertically movable shuttle boxes at one end of the lay to hold a plurality of shuttles, and means to change said boxes automatically, of a feeler device mounted adjacent said shuttle boxes and having two weft engaging members located one above the other and spaced apart to span one of said boxes, whereby when either engaging member enters the inactive shuttle in one box the other engaging member will pass clear of the box for the active shuttle, and means to coöperate with the feeler device and maintain both engaging members clear of the shuttle boxes when a change in the vertical position thereof is effected.

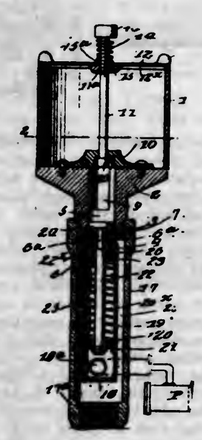
2. In a loom, the combination with a filling carrier magazine located above a stationary shuttle box at one end of the lay, and means for transferring a bobbin from said magazine to a shuttle in said stationary box, of two movable shuttle boxes at the opposite end of the lay, means for changing the boxes every two picks, means for feeling at the weft in the inactive shuttle to detect substantial exhaustion thereof, and means acting on substantial exhaustion of weft in a shuttle to operate the transferring mechanism to cause a new bobbin to be transferred to that shuttle when the boxes have been changed and the shuttle has been picked across to the stationary box at the magazine end of the loom.

3. In a loom, the combination with a filling carrier magazine located above a stationary shuttle box at one end of the lay, and means for transferring a bobbin from said magazine to a shuttle in said stationary box, of two movable shuttle boxes at the opposite end of the lay, pattern controlled means for changing the positions of the boxes, means for feeling or detecting weft absence in the shuttle next to become active, means for holding the feeler or detecter in inoperative position until one pick before a change of boxes, and means acting on detection of substantial exhaustion of weft in a shuttle to operate the transferring mechanism to cause a new bobbin to be transferred to that shuttle when the boxes have been changed and the shuttle has been picked across to the stationary box at the magazine end of the loom.

4. In an automatic weft replenishing loom, the combination with vertically movable shuttle boxes at one end of the lay to hold a plurality of shuttles, and means to change said boxes automatically, of a feeler device mounted adjacent said shuttle boxes and having two weft engaging members located one above the other and spaced apart to span one of said boxes, whereby when either engaging member enters the inactive shuttle in one box the other engaging member will pass clear of the box for the active shuttle, said engaging members moving in fixed and substantially horizontal paths into and out of feeling position, means to coöperate with the feeler device and maintain both the engaging members retracted from feeling position when the shuttle boxes are changed, and pattern mechanism to govern such means and cause it to release the feeler device and permit one of the engaging members thereof to feel the weft in an inactive shuttle one pick before said shuttle becomes active.

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1,038,889. OIL-FEEDING DEVICE. CHARLES F. HOOPER, Spokane, Wash. Filed July 22, 1911. Serial No. 639,910. (Cl. 184—76.)



1. In an oil feeding device, a receptacle provided with a cylindrical extension and having grooves running parallel with and communicating with said extension, a plunger disposed in said extension, a plunger rod having a cut-away portion, a piston head secured to said plunger rod, a chamber for said piston, means for forcing air into and exhausting air from said chamber, an exterior casing surrounding said chamber and spaced therefrom to form a passage way, said passage way being adapted to be connected with the interior of said extension through the movement of said plunger rod.

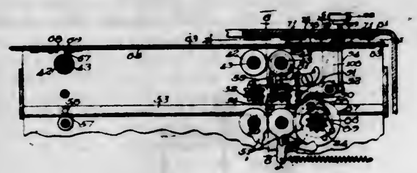
2. In an oil feeding device, a receptacle provided with a hollow cylindrical extension and having grooves establishing communication between the interior of the receptacle and the interior of said hollow cylindrical extension, a valve seat within said hollow cylindrical extension, a screw plug for closing the bottom of said cylindrical extension, a plunger valve within said hollow extension arranged to engage said valve seat, a plunger rod hav-

ing a cut away portion connected at one end of said plunger valve, a piston connected to said plunger rod at the other end, a chamber for said piston, and a spring within said chamber arranged to bear at one end upon said plunger and at the other upon said plug.

3. In an oil feeding device, a receptacle provided with a hollow cylindrical extension and having grooves establishing communication between the interior of the receptacle and the interior of said hollow cylindrical extension, a valve seat within said hollow cylindrical extension, a screw plug for closing the bottom of said cylindrical extension, a plunger valve within said hollow extension arranged to engage said valve seat, a plunger rod having a cut away portion connected at one end of said plunger valve, a piston connected to said plunger rod at the other end, a chamber for said piston, a spring within said chamber arranged to bear at one end upon said plunger and at the other upon said plug, an exterior casing having communication with the interior of said cylindrical extension above said plug, and a pipe for supplying motive fluid to said chamber.

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1,038,890. CALCULATING-MACHINE. FRANCIS A. HOPKINS, Chicago, Ill., assignor to Carlin Calculator Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 23, 1911. Serial No. 604,027. (Cl. 235—60.)



1. In a calculating machine, the combination of a totalizer embodying number bearing members, means for actuating said members to register an amount thereon, means for adding an additional digit thereto after the said registering operation, and means for indicating when such additional digit should be added.

2. In a calculating machine, the combination of a totalizer embodying number bearing members, means for actuating said members to register an amount thereon, manually-controlled means for adding an additional digit thereto after the said registering operation, and means for indicating when such additional digit should be added.

3. In a calculating machine, the combination of a totalizer embodying number bearing members, means for actuating said members to register an amount thereon, means for adding an additional digit thereto, an indicator, means for rendering said indicator active to designate when such additional digit should be added, and means for rendering the indicator inactive after such additional digit has been added.

4. In a calculating machine, the combination of a totalizer embodying number bearing members, means for actuating said members to register an amount thereon, manually-controlled means for adding an additional digit thereto, an indicator, means for rendering said indicator active to designate when such additional digit should be added, and means for reddering the indicator inactive after such additional digit has been added.

5. In a calculating machine, the combination of a totalizer embodying number bearing members, means for actuating said members to register an amount thereon, means for adding an additional digit thereto, an indicator, means for rendering said indicator active to designate when such additional digit should be added, and means controlled by the second recited means for rendering the indicator inactive after such additional digit has been added.

[Claims 6 to 41 not printed in the Gazette.]

1,038,891. TIRE-FILLER. WILLIAM EDGAR HOWERS and ALBERT M. WOLFE, Greensboro, N. C. Filed Oct. 27, 1911. Serial No. 657,158. (Cl. 106—38.)

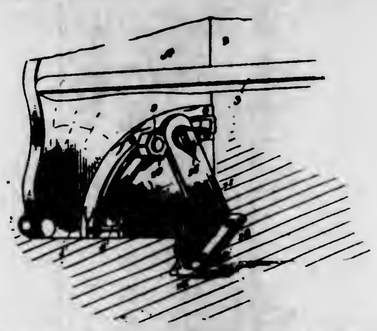


1. A filler for tubular rubber tires, consisting of pulverized cork, sulfur and corn oil.

2. A composition for filling tubular rubber tires consisting of 1 part pulverized cork, 8.5 parts of sulfur and 30.5 parts corn oil thoroughly intermingled.

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1,038,892. SEAT-FASTENER. LESSIE H. HUBBARD, Clinton, N. C. Filed June 14, 1910. Serial No. 566,769. (Cl. 155—33.)



1. In a seat fastener, the combination with a seat having uprights, upon which the seat is supported and tilted, of curved slotted plates mounted on the uprights, standards, and studs connected to and projecting through the standards, the protruding ends of the studs received in the slots of the plates for supporting the seat only in a reclining position, and retaining it in position when on the floor.

2. In a seat fastener, the combination with a seat having uprights, of curved slotted plates mounted upon the uprights, standards, studs on the standards adapted to be received in the slots of the plates, and means adjustably held in the slots of the plates adapted to be engaged by the studs for holding the seat only in a reclining position.

3. In a seat fastener, the combination with a seat having uprights, of curved slotted plates mounted on the uprights, standards, removable studs supported by the standards adapted to be received in the slots of the plates for holding the uprights upon the floor, and bolts connected to the plates adjustable through the slots of the plates, adapted to be engaged by the studs for holding the seat in a reclining position.

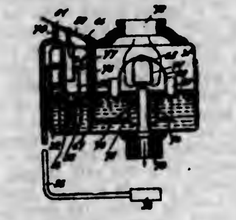
4. In a seat fastener, the combination with a seat having uprights upon which the seat is supported and tilted, of curved slotted plates mounted on the uprights, standards extending parallel with and independent of the uprights, and studs connected to and projecting through the standards, the protruding ends of the studs received in the slots of the plates for supporting the seat only in a reclining position, and retaining it in position when on the floor against lateral movement.

5. In a seat fastener, the combination with a seat having uprights upon which the seat is supported and tilted, of curved slotted plates, means connecting the plates to the uprights, standards extending parallel with and independent of the uprights, and studs connected to the standards and extending into the slots of the plates for supporting the seat only when in a reclining position.



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1,038,893. SAFETY DEVICE FOR GAS-LAMPS. FRIEDRICH HUTTENLOCHER, Charlottenburg, Germany. Original application filed Aug. 17, 1911, Serial No. 644,659. Divided and this application filed Apr. 15, 1912. Serial No. 690,749. (Cl. 67—116.)



1. Device for gas burners for preventing the escape of unburnt gas comprising a liquid tank, gas inlet and outlet connections opening above the liquid in said tank, a liquid outflow connection enabling the escape of liquid on the admission of gas to the space above the liquid in said tank, a float in said liquid, a gas cut off member supported by said float and adapted to cut off the gas supply on the diminution of the level of the liquid in said tank, a thermostat actuated by the heat of the gas flame, means operated by said thermostat for preventing the outflow of liquid from said tank, and means for raising said float.

2. Device for gas burners for preventing the escape of unburnt gas comprising a liquid tank, gas inlet and outlet connections opening above the liquid in said tank, a liquid outflow connection enabling the escape of liquid on the admission of gas to the space above the liquid in said tank, a float in said liquid, a liquid seal normally permitting the inlet and outlet of gas, said float operating said liquid seal to cut off the gas supply on a diminution in the level of the liquid in said tank, a thermostat actuated by the heat of the gas flame, means operated by said thermostat for preventing the outflow of liquid from said tank, and means for raising said float.

3. A device for gas burners for preventing the escape of unburnt gas comprising a liquid tank, an inlet gas connection opening above the liquid in said tank, central inlet and outlet gas connections, a central liquid cup, a cap inverted over said cup, a liquid outflow connection enabling the escape of liquid on the admission of gas to the space above the liquid in said tank, a float in the liquid in said tank and supporting said cap, said float being lowered by a diminution in the level of the liquid in said tank so as to immerse said cap in the liquid in sad cup and thereby cut-off the gas supply, a thermostat actuated by the heat of the gas flame, means operated by sad thermostat for preventing the outflow of liquid from said tank, and means for raising said float.

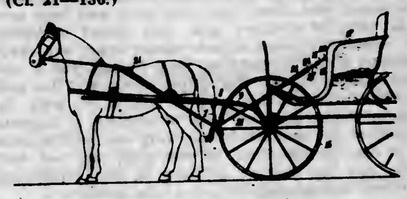
4. Device for gas burners for preventing the escape of unburnt gas comprising a liquid tank, gas inlet and outlet connections opening above the liquid in said tank, a liquid outflow connection enabling the escape of liquid on the admission of gas to the space above the liquid in said tank, a fluid brake for braking the outflow of said liquid, a float in said liquid, a gas cut off member supported by said float and adapted to cut off the gas supply on the diminution of the level of the liquid in said tank, a thermostat actuated by the heat of the gas flame, means operated by said thermostat for preventing the outflow of liquid from said tank, and means for raising said float.

5. Device for gas burners for preventing the escape of unburnt gas, comprising a liquid tank, gas inlet and outlet connections opening above the liquid in said tank, a liquid outflow connection enabling the escape of liquid on the admission of gas to the space above the liquid in said tank, an air brake for braking the outflow of said liquid, a float in said liquid, a gas cut-off member supported by said float and adapted to cut off the gas supply on the diminution of the level of the liquid in said tank, a thermostat actuated by the heat of the gas flame, means operated by said thermostat for preventing the outflow of liquid from said tank, and means for raising said float.

[Claims 6 to 9 not printed in the Gazette.]

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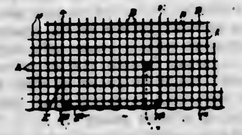
1,038,894. HORSE-HITCHING DEVICE. GRENVILLE K. F. JACK, Clifton, Colo. Filed Mar. 14, 1910, Serial No. 549,175. Renewed Feb. 17, 1912. Serial No. 678,413. (Cl. 21—136.)



A horse hitching device, comprising a strap member having a loop section permanently attached to the shafts of the vehicle adjacent one of the carrying wheels; a snap hook pivotally mounted on the end of said strap; a plurality of eyelets mounted on said strap at intervals to form loops in said strap when connected with said snap hook; a reins holder embodying a loop and a roller mounted therein; and a flexible attachment permanently mounted on the vehicle structure and provided with a snap hook at the end thereof to receive said loop in holding engagement whereby the reins may be held slack to accommodate the swing of the head of a horse and be slidably attached to the forward section of a carrying wheel.

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1,038,895. SCREEN-WIRE CLOTH. HERBERT FARRAR JACKSON, Indianapolis, Ind. Filed Dec. 2, 1910. Serial No. 595,249. (Cl. 245—2.)



1. In screen wire cloth, the combination with the body of the cloth consisting of interwoven longitudinal and transverse body strands of the ordinary gage and spaced apart the usual distance in both directions, of spaced reinforcing strands of heavier gage than the said body strands, the said reinforcing strands extending longitudinally and transversely of the body of the fabric and parallel with the body strands and interwoven with the latter during the process of manufacture, the said reinforcing strands being spaced apart and of sufficient gage to prevent distortion of the wire cloth while maintaining its flexibility.

2. As a new article of manufacture, a screen wire cloth, consisting of interwoven transverse and longitudinal body strands of usual gage, and spaced the usual distance apart in both directions, and spaced reinforcing strands of a heavier gage than the said body strands and interwoven with the latter, the said reinforcing strands extending longitudinally and transversely of the body of the fabric and having portions extending along the selvage of the cloth and interwoven with the body strands forming the selvage.

3. As a new article of manufacture, a screen wire cloth, consisting of body warp strands, body weft strands interwoven with the said body warp strands, both body warp and body weft strands being of ordinary gage, and spaced the usual distance apart in both directions, reinforcing warp strands spaced apart and arranged be-

tween adjacent body warp strands, and a reinforcing weft strand arranged between adjacent body weft strands and interwoven with the said warp strands, the said reinforcing weft strand being continuous and being interwoven with the selvage of the screen wire cloth alternately at opposite sides thereof, the said reinforcing warp and weft strands being of heavier gage than the said body warp and weft strands.

4. As a new article of manufacture, a screen wire cloth, consisting of body warp strands, body weft strands interwoven with the said body warp strands to form a body of the desired mesh and also selvages at the sides of the screen wire cloth, both body warp and body weft strands being of ordinary gage, and spaced uniformly apart, reinforcing warp strands spaced apart and ranging parallel with the said body warp strands, and a continuous reinforcing weft strand interwoven with the said warp strands and having portions interwoven with the selvage of the screen wire cloth alternately at opposite sides thereof, the said reinforcing warp and weft strands being of heavier gage than the said body warp and weft strands, and the selvage portions of the reinforcing weft strand having plain corners at the selvage.

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1,038,896. CUTTING DEVICE. ROWLAND W. JOLLY, New York, N. Y. Filed May 23, 1911. Serial No. 629,021. (Cl. 120—1.)



1. The combination with a cutting blade, of a casing for said blade, having a corner thereof cut off so as to expose a portion of said blade, and a guard at the edge of said blade, slidingly connected to said casing, to cover and uncover the exposed portion of the blade.

2. The combination with a blade, of a casing for said blade, having a corner thereof cut of so as to expose a portion of said blade, a guard at the edge of said blade, slidingly connected to said casing, and means for limiting the motion of said guard.

3. The combination with a blade, of a casing for said blade, having a corner thereof cut off so as to expose a portion of said blade, and a guard at the edge of said blade, slidingly connected to said casing, said casing having slots therein adjacent one edge, and said guard having lugs projecting into said slots so as to limit the extent of movement of said guard relative to said casing.

4. The combination with a blade, of a casing for said blade, comprising a single strip of metal bent intermediate its ends to form an arch spring tending to force the sides of said casing together to grip said blade, and having its ends curled up to form guides, said casing having one corner thereof cut away to expose a portion of said blade, and a guard engaging said guides, adapted to cover said exposed portion.

5. The combination with a blade, of a casing for said blade, comprising a single strip of metal bent intermediate its ends to form an arch spring tending to force the sides of said casing together to grip said blade, and having its ends curled up to form guides, said casing having one corner thereof cut away to expose a portion of said blade, and a guard engaging said guides, adapted to cover said exposed portion, said guard being shorter than said casing by an amount equal to the length of the cut-away portion of said casing, so as to fully expose the edge of said blade up to the limit of said cut-away portion, while said guard still remains within the terminal limits of said casing.

[Claims 6 and 7 not printed in the Gazette.]

1,038,897. DOOR-SECURING DEVICE. JAMES KELLY, Tula, Mich. Filed Feb. 28, 1912. Serial No. 680,388. (Cl. 16—8.)



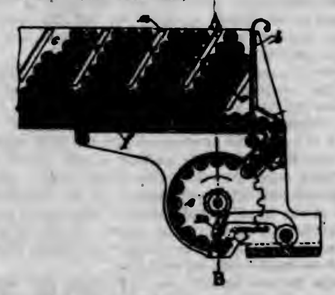
1. In a door securing device, the combination with a gripping plate, of a tongue struck from the forward end of the gripping plate and extending laterally thereto, a locking plate mounted to slide on the gripping plate, toothed flanges formed on the locking plate, a locking dog mounted to swing on the gripping plate and adapted for engagement with the teeth on the said flanges, an abutting plate mounted to swing on the forward end of the locking plate and a retaining plate mounted to swing on the outer end of the abutting plate and adapted for removable engagement with the said locking plate to retain the said abutting plate in abutting position.

2. In a door securing device, the combination with a gripping plate, of a tongue struck from the gripping plate and extending laterally thereto, a locking plate mounted to slide on the gripping plate, toothed flanges formed on the locking plate, a locking dog mounted to swing on the gripping plate and terminating at the free end thereof in projections adapted to engage the teeth of the said flanges, an abutting plate mounted to swing on the locking plate, a retaining plate mounted to swing on the abutting plate and a securing lug formed on the retaining plate and adapted to extend into a slot in the said locking plate to retain the abutting plate in abutting position.

3. In a door securing device, the combination with a gripping plate, of a tongue extending laterally therefrom, the forward end of the gripping plate terminating in a head for insertion between the closure and the casing thereof, the mentioned tongue being adapted to extend into the casing, a locking plate mounted to slide on the gripping plate, toothed flanges formed on the locking plate, means mounted on the gripping plate and adapted to engage the toothed flanges to retain the locking plate in rigid engagement with the gripping plate, an abutting plate mounted to swing on the locking plate and adapted to abut against the said closure and a retaining plate mounted to swing on the abutting plate and having the free end thereof for engagement with the said locking plate to retain the abutting plate in abutting position.

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1,038,898. AUTOMATIC SPOOL-CHANGING APPARATUS FOR LOOMS. ALBERT GEORG KOECHLIN, Steinen, Germany, assignor to Spinnerei und Weberei Steinen A. G., Steinen, Germany. Filed Mar. 18, 1911. Serial No. 615,257. (Cl. 139—35.)



1. A removable spool magazine of rectangular open-topped box shape, with sides and bottoms all at right angles to one another, and of an internal width very slightly greater than the length of a spool, a spool outlet opening in its front end wall extending the whole internal width of the magazine, of a depth slightly greater than the greatest diameter of a filled spool, means for closing said outlet opening, transverse partitions spaced to provide room between each two partitions for superimposed rows of filled spools and each vertically inclined and extending down toward the base so as to leave a permanently free passage for one filled spool, and a guide fillet shaped to engage in the groove formed by the foot and the yarn filling of the spool, along the bottom of the magazine, as set forth.

2. In automatic spool changing apparatus for looms, the combination of a removable spool magazine of rectangular open-topped box-shape with sides and bottoms all at right angles to one another, and of an internal width very slightly greater than the length of a spool, a spool outlet opening in its front end wall extending the whole internal width of the magazine, of a depth slightly greater than the greatest diameter of a filled spool, means for closing said outlet opening, transverse partitions spaced to provide room between each two partitions for superimposed rows of filled spools and each vertically inclined and extending down toward the base, so as to leave a permanently free passage for two or more superposed filled spools, excepting the last inclined partition, before the outlet opening, which only leaves a permanently free passage for one filled spool, and a guide fillet along the bottom of the magazine, with brackets extending rearwardly, from the outlet opening, under and along the base of the magazine for holding the entire magazine tilted downward toward the front, whereby when the magazine, filled with spools resting in rows on one another across the magazine, is placed in position and the said outlet opening is unclosed, the spools will, unimpeded, travel down in succession from front to back and roll forward along the bottom of the magazine and pass out singly through said outlet opening, as set forth.

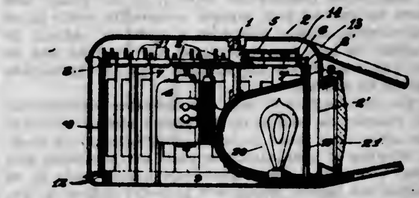
3. In automatic spool changing apparatus for looms the combination of a removable spool magazine of rectangular open-topped box shape, with sides and bottom all at right angles to one another, and of an internal width very slightly greater than the length of a spool, a spool outlet opening in its front end wall extending the whole internal width of the magazine, of a depth slightly greater than the greatest diameter of a filled spool, means for closing said outlet opening, transverse partitions spaced to provide room between each two partitions for superimposed rows of filled spools and each vertically inclined and extending down toward the base, so as to leave a permanently free passage for two or more superposed filled spools, excepting the last inclined partition before the outlet opening, which only, leaves a permanently free passage for one filled spool, and a guide fillet along the bottom of the magazine, with a feeder and guides between the magazine and said feeder, whereby the spools passing out unimpeded from the magazine are caused to travel by gravity in succession directly to said feeder, as set forth.

4. In automatic spool changing apparatus for looms, the combination of a removable spool magazine of rectangular open-topped box shape, with sides and bottom all at right angles to one another, and of an internal width very slightly greater than the length of a spool, a spool outlet opening in its front end wall extending the whole internal width of the magazine, of a depth slightly greater than the greatest diameter of a filled spool, means for closing said outlet opening, transverse partitions spaced to provide room between each two partitions for superimposed rows of filled spools and each vertically inclined and extending down toward the base, so as to leave a permanently free passage for two or more superposed filled spools, excepting the last inclined partition before the outlet opening, which only leaves a permanently free passage for one filled spool, and a guide fillet along the bottom of the magazine, with a feeder, guides for the spools between the magazine and said feeder, a framing in which said feeder is mounted, side frames extending up from said framing and continued in the form of brackets to extend rearwardly, from the magazine outlet opening, under and along the base of the magazine, and having an upper surface inclined downwardly toward said guides, whereby when the magazine is simply placed on said brackets it will be held tilted downward toward said guides, as set forth.



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1,038,899. DISPLAY APPARATUS. KIHEI KOIKE, Seattle, Wash., assignor, by direct and mesne assignments, to Kanischi Takahashi, Seattle, Wash. Filed Dec. 24, 1910. Serial No. 599,216. Renewed Feb. 8, 1912. Serial No. 675,645. (Cl. 88—28.)



1. A display apparatus comprising a track having a depressed section, an eccentrically disposed actuator supported for movement over the depressed section of said track, a slide carrier mounted on said track, and means on said carrier for connecting the latter with said actuator, said last means being arranged to be withdrawn from the path of said actuator by movement of said carrier down said depressed section of said track.

2. A display apparatus comprising a track having a depressed section, a slide carrier on said track, an actuator, means supporting said actuator for movement into and out of the path of said carrier, engaging means for said actuator provided on said carrier so as to be withdrawn from engagement with said actuator by and during movement of said carrier on said depressed section of said track, and means for operating said actuator.

3. A display apparatus comprising a track having a depressed section, a series of slide carriers on said track, an actuator comprising spaced operating members movable over said depressed section of said track and arranged to simultaneously engage respective adjacent carriers, means for operating said actuator, and engaging parts on said carriers for engagement by said operating members, said engaging parts being arranged to be withdrawn from the path of said operating members by movement of said carriers down said depressed section of said track.

4. A display apparatus comprising a continuous track having a depressed section, an illuminating means arranged to project a beam of light across said track, a series of slide carriers on said track, an actuating means for simultaneously moving one carrier to a position of display and another from such position, and connecting means on said carriers for engagement with said actuating means arranged to be disengaged from the latter by and during movement of the carriers down said depressed section of said track.

5. A display apparatus comprising a continuous track having a depressed section, an illuminating means arranged to project a beam of light across said track, a series of slide carriers on said track, an actuating means comprising a pair of arms arranged one in advance of the other for engagement with respective slide carriers, and connecting means on said carriers for engagement with said actuating means arranged to effect the release of said carriers by and during movement of the latter on said depressed section of said track.

[Claims 6 to 8 not printed in the Gazette.]

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1,038,900. ORGANIC-CHLORO-COMPOUND SOAPS AND CLEANSING COMPOSITIONS. GUSTAV KOLLMS, Forest Gate, England. Filed June 22, 1911. Serial No. 634,702. (Cl. 87—5.)

1. The manufacture of organic chloro compound soaps and cleansing compositions which consists in incorporat-

ing chlorinated hydrocarbon solvents of the ethane and ethylene series (preferably tetrachlorethane, pentachlorethane, dichlorethylene, trichlorethylene or perchlorethylene) into soaps and compositions of which soaps form an integral part other than soaps or soap compositions containing sulfo-oleaginous bodies, by means of organic compounds made up of a hydrocarbon radical joined to a hydroxyl radical which organic compounds are soluble both in water and in the chlorinated hydrocarbon.

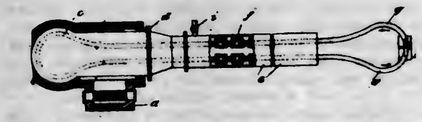
2. The manufacture of soap and cleansing compositions which consists in adding to the known oils or mixtures of oils other than those containing sulfo-oleaginous products, chlorinated hydrocarbon solvents of the ethane and ethylene series, and such organic compounds, made up of a hydrocarbon radical joined to a hydroxyl radical, as are soluble in both the chlorinated hydrocarbons and in water, and saponifying the mixture with an appropriate compound of sodium.

3. The manufacture of soap and cleansing compositions which consists in adding to the known oils or mixtures of oils other than those containing sulfo-oleaginous products, chlorinated hydrocarbon solvents of the ethane and ethylene series, and such organic compounds, made up of a hydrocarbon radical joined to a hydroxyl radical, as are soluble in both the chlorinated hydrocarbons and in water, and saponifying the mixture with a sodium salt and a potassium salt mixed therewith.

4. An organic chloro-compound soap or cleansing composition composed of a sodium or sodium potassium soap or a composition of which sodium or sodium potassium soaps form an integral part, which soaps do not contain sulfo-oleaginous bodies and in which the percentage of water is so low that the amount of the fatty acid radical is more than 55% and a chlorinated hydrocarbon solvent of the ethane and ethylene series, and an organic compound made up of a hydrocarbon radical joined to a hydroxyl radical, which compound is soluble both in the chlorinated hydrocarbon and in water.

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1,038,901. DEVICE FOR ANNEALING METALLIC ARTICLES. ANTON KREIDLER, Stuttgart, Germany. Filed Dec. 6, 1911. Serial No. 664,198. (Cl. 148—16.)



1. In devices for annealing articles, the combination of a retort, means extending into said retort and arranged to convey the articles into and out of said retort at the same side thereof, and means connected with and extending from said retort over and covering said conveying means.

2. In devices for annealing metallic articles, the combination of a retort, a conveying device extending into said retort and describing a returning curve therein whereby the articles are moved into and out of said retort at the same side thereof, and means connected with and extending from said retort over and covering said conveying device.

3. In devices for annealing metallic articles, the combination of a retort, a conveying device extending into said retort and describing a returning curve therein whereby the articles are moved into and out of said retort at the same side thereof, said device having its feed portion and its return portion substantially parallel and in close proximity, and means connected with and extending from said retort over and covering said conveying device.

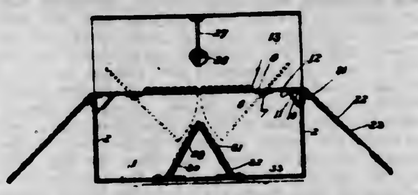
4. In devices for annealing metallic articles, the combination of a retort, a conveying device extending into said retort and describing a returning curve therein whereby the articles are moved into and out of said retort at the same side thereof, and a common delivery pipe connected with and extending from said retort and surrounding the feed portion and the return portion of said feeding device.

5. In devices for annealing metallic articles, the combination of a retort, a conveying device extending into said retort, and describing a returning curve therein whereby the articles are moved into and out of said retort at the same side thereof, and a common delivery pipe connected with said retort in an air-tight manner and extending from said retort so as to surround the feed portion and the return portion of the feeding device, said delivery pipe being open at the end opposite to that which is connected with the retort.

[Claims 6 to 8 not printed in the Gazette.]

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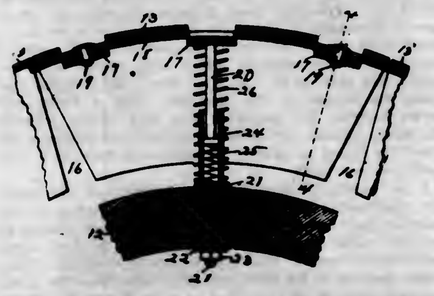
1,038,902. ELECTRIC RAT-TRAP. MIKE KRUCZYNSKI, Elyria, Ohio. Filed May 19, 1911. Serial No. 628,218. (Cl. 43—84.)



In an electric rat trap, a receptacle, a pair of tilting doors opposing each other and each carrying contacts insulated from its door and each other and forming the terminals of an electrocuting circuit, means for normally retaining said doors in a substantially common plane, and a member carried by the bottom of the receptacle and being of inverted V-shape in cross section with the apex in a vertical plane passing between the doors, each of the inclined walls of said member carrying contacts insulated from the member and from each other to form terminals of electrocuting circuits, said contacts being spaced from the bottom of the receptacle.

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1,038,903. RESILIENT METAL WHEEL-RIM. CARL LA COUR, Hubbard, Iowa. Filed Nov. 29, 1910. Serial No. 595,164. (Cl. 152—8.)

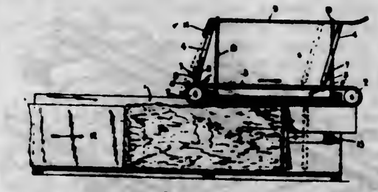


1. The combination of an inflexible rim and a resilient metal wheel rim composed of a plurality of abutting metal sections, means for connecting said sections in series, yokes mounted on the inflexible rim, sockets on said yokes, piston bolts entering said sockets and fixed to said sections, and springs between said piston bolts and yokes.

2. A resilient metal wheel rim composed of a plurality of abutting metal sections, each section concavo-convex in cross-section and curved longitudinally on an arc of the circumference of the rim, each section formed with an inwardly extending loop, a strap extending through successive loops of the sections and secured at its ends to one section, in combination with an inflexible rim and yielding supports between said sections and inflexible rim.



1,038,904. BALING-PRESS. ALEXIS L. LAMAR, Pittsburg, Kans., assignor to William Barbee and John Barbee, Pittsburg, Kans. Filed Apr. 4, 1912. Serial No. 688,466. (Cl. 100—24.)



1. In a baling press, an endless elastic belt of longitudinally extensible material mounted to travel around one side of the baling chamber of the press, and spacing blocks suitably connected with said belt and adapted to be successively brought around thereby into operative position.

2. In a baling press, a baling chamber, guide pulleys revolubly mounted in the front and rear ends of the baling chamber, endless coiled spring belts engaged with said pulleys and adapted to travel around one side of the baling chamber, and a plurality of spacing blocks hingedly connected at their inner edges to said endless belts and adapted to be carried around thereby and successively brought into engagement with the end of the bales as they are formed in the baling chamber.

3. In a baling press, a baling chamber, guide pulleys revolubly mounted in the front and rear ends of said chamber, endless coiled spring belts engaged with said pulleys and adapted to travel around one side of the baling chamber, a plurality of block attaching devices secured to said spring belts, spacing blocks pivotally connected with said attaching devices, springs arranged on said devices and adapted to engage said blocks whereby the latter will be swung around into engagement with the hay when brought to the intake end of the baling chamber and will be swung upwardly and outwardly at the discharge end of said chamber, and means to hold said blocks in position while being carried by said belts across the top of the baling chamber.

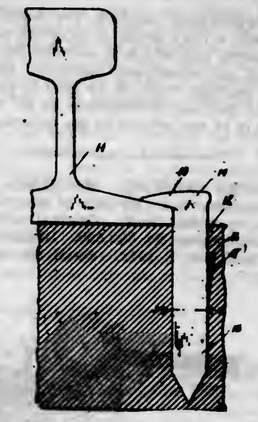
4. In a baling press a baling chamber, guide pulleys revolubly mounted in the front and rear ends of said chamber, endless coiled spring belts engaged with said pulleys and adapted to travel around one side of the baling chamber, a plurality of block attaching devices secured to said spring belts, spacing blocks pivotally connected with said attaching devices, springs arranged on said devices and adapted to engage said blocks whereby the latter will be swung around into engagement with the hay when brought to the intake end of the baling chamber and will be swung upwardly and outwardly at the discharge end of said chamber, a block holding member arranged above said baling chamber in position to receive the blocks when swung upwardly from the discharge end of the baling chamber and to hold the blocks in position while being carried across the top of the baling chamber, a block retaining finger on the end of said rod above the intake end of the chamber to hold said blocks in an upright position while being carried around the guide pulleys at this end of the chamber.

5. In a baling press a baling chamber, guide pulleys revolubly mounted on the ends of the top of the chamber, endless coiled spring belts engaged with said pulleys and adapted to travel around adjacent to the inner and outer sides of the top of the baling chamber, spacing blocks, block attaching devices comprising pairs of clamping blocks adapted to be rigidly clamped to said spring belts, a pivot rod engaged with said clamping blocks, brackets to pivotally connect said spacing blocks with said pivot rod, coiled springs arranged on said rod, said springs having one end secured to said clamping blocks and the opposite ends engaged with said spacing block whereby the pressure of said springs is exerted to swing the blocks downwardly or inwardly at the intake end of the baling chamber and outwardly and upwardly at the discharge end of said chamber when brought to these positions by said spring belts, and a block holding rod arranged above the baling chamber to hold the blocks from being swung downwardly by said springs while being carried over or across the top of the baling chamber.

[Claim 6 not printed in the Gazette.]

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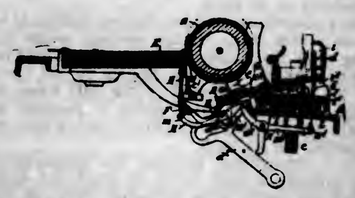
1,038,905. RAILROAD-SPIKE. HERMAN H. LANGE, Mason City, Ill. Filed Aug. 17, 1911. Serial No. 644,541. (Cl. 85—28.)



The combination with a spike, having a channel opening through one side of the head thereof, the said channel extending for a greater portion of the length of said spike, of a locking member pivoted in said channel near the inner end thereof, ratchet teeth formed on the inner edge of said member, a wedge of corresponding shape with respect to the channel and of considerably less length than the same, the said wedge being provided with a tapering inner end, and ratchet teeth formed on the outer side of the tapered end of said wedge and reversely disposed with respect to the ratchet teeth on the locking member for positive engagement therewith for preventing retraction of the wedge when inserted in the channel, the said ratchet teeth being disposed throughout the area of one side of the tapered end thereof for engagement with all of the teeth on the locking member when the outer end is flush with the outer end of the spike.

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1,038,906. TYPE-WRITING MACHINE. EMMIT G. LATTA, Syracuse, N. Y., assignor of one-half to Harvey A. Moyer, Syracuse, N. Y. Filed Dec. 11, 1909. Serial No. 532,530. (Cl. 197—78.)



1. In a typewriting machine, the combination of a platen carriage, a shift frame for the carriage, and an auxiliary support which exerts a lifting action directly on the carriage, substantially as set forth.

2. In a typewriting machine, the combination of a platen carriage, a shift frame on which the carriage is

guided in its horisontal travel, and an auxiliary support which exerts a lifting action on the carriage independently of the shift frame, substantially as set forth.

3. In a typewriting machine, the combination of a platen carriage, a shift frame for the carriage, and an auxiliary spring-actuated support which exerts a lifting action on the carriage independently of the shift frame, substantially as set forth.

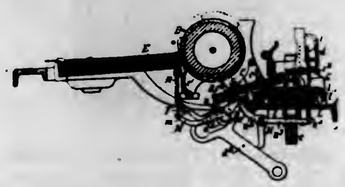
4. In a typewriting machine, the combination of a platen carriage, a shift frame for the carriage, and an auxiliary spring-actuated support provided with an anti-friction bearing on which the carriage bears, substantially as set forth.

5. In a typewriting machine, the combination of a platen carriage, a track acting to guide the carriage in its horisontal travel and which is movable for shifting the carriage, and an independent auxiliary support which relieves the carriage track of at least a portion of the weight of the carriage, substantially as set forth.

[Claims 6 to 20 not printed in the Gazette.]

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1,038,907. TYPE-WRITING MACHINE. EMMET G. LATTA, Syracuse, N. Y., assignor of one-half to Harvey A. Moyer, Syracuse, N. Y. Original application filed Dec. 11, 1909, Serial No. 532,530. Divided and this application filed Feb. 1, 1911. Serial No. 606,002. (Cl. 197—155.)



1. In a typewriting machine, the combination of a platen carriage, a shift frame for the carriage, an auxiliary support which exerts a lifting action directly on the carriage, a ribbon vibrator which is mounted on said auxiliary support, and means for actuating said vibrator, substantially as set forth.

2. In a typewriting machine, the combination of a platen carriage, a shift frame for the carriage, an auxiliary spring-actuated support which exerts a lifting action on the carriage independently of the shift frame, a ribbon vibrator which is mounted on said auxiliary support, and means for actuating said vibrator, substantially as set forth.

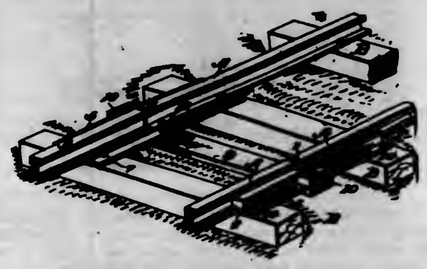
3. In a typewriting machine, the combination of a platen carriage, a track on which the carriage is guided in its horizontal travel and which is movable for shifting the cagriage, an independent auxiliary support which relieves the carriage track of at least a portion of the weight of the carriage, a ribbon vibrator which is mounted on said auxiliary support, and means for actuating said vibrator, substantially as set forth.

4. In a typewriting machine, the combination of a platen carriage, a shift frame for the carriage, means for shifting the shift frame and the carriage, a spring-actuated auxiliary support which acts directly on the carriage to assist the shifting movement of the shift frame and the carriage, a ribbon vibrator which is mounted on said auxiliary support, and means for actuating said vibrator, substantially as set forth.

5. In a typewriting machine, the combination of a platen carriage, a shift frame on which the carriage is mounted and guided in its horizontal travel, an auxiliary support which has a movement limited by the carriage and exerts a lifting action directly on the carriage, a ribbon vibrator which is mounted on said auxiliary support, and means for actuating said vibrator, substantially as set forth.

[Claims 6 to 24 not printed in the Gazette.]

1,038,908. RAIL-JOINT. MARSHAL L. LEONARD, Nida, Okla., assignor of one-sixth to Geo. W. Stephens and one-sixth to William C. Blanchard, Nida, Okla. Filed Oct. 31, 1911. Serial No. 657,752. (Cl. 239—6.)



1. The combination with a railroad track, of plates secured to and spanning the cross ties beneath the track rails, each plate being formed with a longitudinal rib adapted to engage the outer face of the adjacent rail, each plate being recessed at a point intermediate its ends, and a transverse bar provided with upstanding terminal enlargements each having a recess, each enlargement being adapted to fit into the recess of the plate with the recess of the enlargement adapted to receive a portion of the plate so that each enlargement engages the rib of the adjacent plate.

2. The combination with a railroad track, of plates secured to and spanning the cross ties beneath the track rails, and provided with apertures, a transverse bar adapted to pass under the plates and engage the outer edge of each plate, and locking members passing through the apertures in the plates and entering registering apertures in the bar.

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1,038,909. APPARATUS FOR FIRE-POLISHING GLASSWARE. LOUIS LEVIEN, New York, N. Y., and CHARLES B. DUNCAN, Neshanic Station, N. J., said Duncan assignor to said Levien. Filed Dec. 10, 1910. Serial No. 596,672. (Cl. 49—57.)



1. In a fire polishing apparatus, a table, a flue extending upwardly through the table for directing heat and flame in an upward direction, a perforated deflector placed over the upper end of said flue and maintaining itself in position extending above the table by its own gravity, said deflector being provided with a plurality of apertures, said apertures being smaller at the upper portion of the deflector and increasing in size toward the lower edge, and a supporting ring for supporting a dish over and to substantially incloss said deflector, said ring being formed with an upstanding flange for maintaining the dish in position.

2. In a fire polishing apparatus, a table formed with an aperture therein, a flue extending upwardly through said table and projecting slightly beyond the upper edge of the table for directing heat and flame in an upward direction through the table, a deflector arranged over the upper end of said flue formed with an inwardly extending annular flange engaging said flue for holding the deflector centered over the flue, said flue being formed with a plurality of apertures, and means for supporting an article to be polished adjacent the upper and outer surface of said deflector, whereby the heat and flame from said flue will be substantially evenly distributed to the article.

3. In a fire polishing apparatus, a table formed with an aperture therein, a tube projecting through said aperture and extending above said table designed to guide heat and flame upwardly through said table, a ring of fire resisting material surrounding the upper end of said tube and spacing the same from said table, a sheet of fire resisting material arranged on said table and formed with an aperture designed to accommodate said ring, a deflector fitting over said tube and resting against said ring and against said tube whereby the same is held by gravity in position and held against lateral displacement, said deflector being formed with a plurality of apertures, and means resting on said sheet of fire resisting material for supporting an article to be polished adjacent the exterior surface of said deflector.

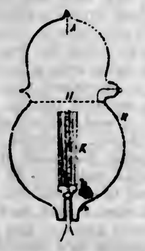
4. In a fire polishing apparatus, a table, a flue extending upwardly through the table, a substantially semi-spherical deflector emplaced over the upper end of the flue and extending above the table, said deflector being provided with small openings at its top which increase in size toward its lower edge.

5. In a fire polishing apparatus, a table formed with an aperture therein, a tube fitting into said aperture for projecting heat and flame through the table, fire resisting material surrounding the upper part of said tube and covering part of said table around said aperture, a perforated deflector inclosing the upper end of said tube, a ring substantially U-shaped in cross section surrounding said deflector, and a ring of fire resisting material positioned in said first mentioned ring for supporting an article above and adjacent said deflector.



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1,038,910. RELAY FOR UNDULATORY CURRENTS. ROBERT VON LIEBEN and EUGEN REISZ, Vienna, Austria-Hungary, assignors of one-third to Siegmund Strauss, Vienna, Austria-Hungary. Filed Jan. 30, 1911. Serial No. 605,548. (Cl. 179—171.)



1. A relay for undulatory currents comprising a discharge tube, a cathode and an anode therein, an auxiliary electrode to cause a drop of potential between the cathode and anode and formed with apertures and intersecting the space in the discharge tube between said cathode and anode and dividing it into separate parts, and a source of direct current connected to said auxiliary electrode.

2. A relay for undulatory currents comprising a discharge tube, a cathode and an anode therein embodied in an electric circuit with said cathode, an auxiliary electrode formed with apertures and intersecting the space between the cathode and the anode, a source of direct current connected to said auxiliary electrode, the latter forming a resistance for the currents in the circuit, and means for varying said resistance in accordance with the currents to be reinforced.

3. In a relay for undulatory currents, an exhausted discharge tube, a cathode and an anode therein, embodied in an electric circuit, a grid-like auxiliary electrode intersecting the discharge tube between the cathode and the anode and dividing it into separate parts, a source of direct current connected to the auxiliary electrode, the latter forming a resistance for the currents in the circuit, an adjustable resistance between said source of direct current and the auxiliary electrode, and means for varying the resistance of said electrode in accordance with the currents to be reinforced.

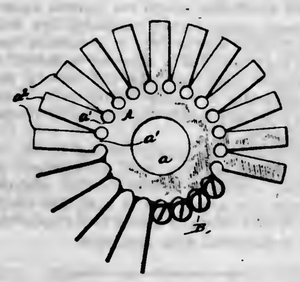
4. In a relay for undulatory currents, an exhausted discharge tube, a cathode of metallic oxid filaments heated to incandescence, the filaments being wound on a carrier in the manner of a metal filament lamp, an anode embodied in an electric circuit with said cathode, a grid-like auxiliary electrode intersecting the space of the discharge tube and dividing it into separate parts, this electrode being perpendicular to the axis of the carrier, a source of direct current connected to said electrode, the latter thus forming a resistance for the currents in the circuit, an adjustable resistance between the source of direct current and the electrode, and means for varying the resistance of said electrode in accordance with the currents to be reinforced.

5. In a relay for undulatory currents, an exhausted discharge tube, a cathode and an anode therein embodied in an electric circuit, a grid-like auxiliary electrode intersecting the discharge tube between the cathode and the anode and dividing it into separate parts, a source of direct current connected to the auxiliary electrode, an adjustable resistance in the circuit between the source of direct current and the auxiliary electrode, and means to superpose the undulating currents to be reinforced on said circuit.

[Claim 6 not printed in the Gazette.]

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1,038,911. METAL SPACER FOR GIN-SAWS. HARRY W. LIGON, Atlanta, Ga., assignor to Continental Gin Company, Birmingham, Ala., a Corporation of Delaware. Filed Mar. 27, 1912. Serial No. 686,556. (Cl. 13—14.)



1. A gin saw spacer formed up from sheet metal with a central web lying in a plane transverse to the axis of the spacer and a periphery formed by fingers integral with the web and extending parallel with the axis of the spacer on both sides of the plane of the web.

2. A gin saw spacer formed of sheet metal with a radial web lying in a plane transverse to the axis of the spacer and a periphery formed by fingers integral with the web and twisted to extend at right angles to the plane of the web parallel with the axis of the spacer.

3. A gin saw spacer formed of sheet metal with a radial web lying in a plane transverse to the axis of the spacer and a periphery formed by fingers integral with the web, twisted to extend on both sides of and at right angles to the plane of the web, parallel with the axis of the spacer.

4. A gin saw spacer formed of sheet metal with a radial web lying in a plane transverse to the axis of the spacer and a periphery formed by fingers integral with the web, twisted to extend at right angles to the plane of the web parallel with the axis of the spacer and each made sinuous in the plane of the web to increase its resistance to collapse by pressure applied to opposite edges.

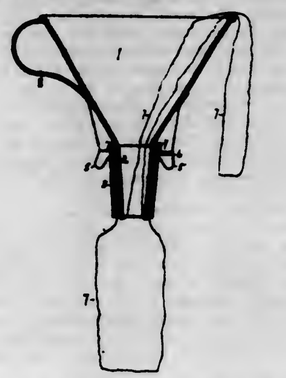
5. A gin saw spacer formed of sheet metal with a central web and a rim formed of sections of sheet metal in-

tegral with the web each coiled with its axis parallel with the axis of the spacer.

[Claims 6 to 9 not printed in the Gazette.]

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1,038,912. SAUSAGE-CASE TURNER. ANTHONY B. LOERKE, Menasha, Wis. Filed Mar. 11, 1912. Serial No. 682,842. (Cl. 17—12.)



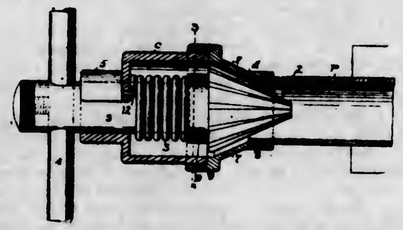
1. A sausage casing turner, consisting of a funnel, its tube, a thimble shorter, but of a suitable length compared with said tube and a diameter sufficient to permit its being slipped upon the tube and leave a space sufficient for permitting a sausage casing to be held between it and said tube, a shoulder extending outward around the upper end of the thimble, and spring catches attached to opposite sides of the funnel adapted to engage under said shoulder and detachably retain the thimble upon the tube.

2. A sausage casing turner, consisting of a funnel bowl, its tube, a thimble shorter, but of a suitable length compared with said tube and a diameter sufficient to permit its being slipped upon the tube and leave a space sufficient for permitting a sausage casing to be held between it and said tube, and means for detachably connecting the thimble and tube.

3. In combination a sausage casing turner, consisting of an open ended tapering tube, an enlarged upper end to said tube, a thimble shorter, but of slightly greater diameter than the largest end of said tube adapted to be slipped on to said tube and means at its upper end for its detachable engagement with said tube.

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1,038,913. PIPE-REAMER. JOHN R. LONG, East Akron, Ohio. Filed Dec. 15, 1911. Serial No. 666,051. (Cl. 77—73.)

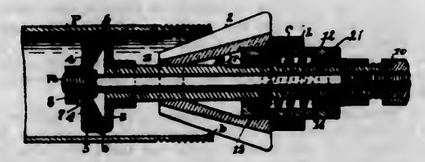


1. A pipe reaming device having a body with a tubular bearing on its rear and a reducing coupling of two diameters detachably engaged thereon and threaded internally at both diameters, a tool having a shank projecting through the said bearing and a pressure coil about the said shank within said body adapted to press the tool forward in work, and a handle through said shank adapted to rotate the tool and to come against said bearing and limit the thrust of the tool forward beyond working limits.

2. A pipe reaming device comprising a body having a tubular extension of reduced cross section at its rear and threaded externally at its front and a coupling member screwed onto the front of said body and threaded in its smaller diameter, in combination with a reaming tool in said body having a shank extending through said extension, a collar on said shank at the base of said tool and a spring confined within said body coiled about said shank and bearing against said collar and a handle through said shank adapted to bear against said extension and limit the thrust of the tool forward under the action of said spring.

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1,038,914. PIPE-REAMING MACHINE. JOHN R. LONG, East Akron, Ohio. Filed Dec. 18, 1911. Serial No. 666,502. (Cl. 77—73.)



1. A pipe reamer comprising a central tubular shaft and a reamer rotatably and slidably mounted thereon, a thimble carrying the rear portion of said tool on said shaft and means to rotate the same about said thimble, a sleeve nut threaded on said tube and extending within said thimble and having a flange about its inner portion, and a check screw through said thimble bearing against said flange and adapted to limit the inward movement of the said thimble and head, and a spring within the thimble to press the same forward.

2. A reaming device having a tubular shaft and a rod extending through both ends of said shaft, jaws operatively connected with the inner ends of said shaft and rod and adapted to lock both said parts in a pipe to be reamed, in combination with a reaming tool rotatably and slidably mounted on said tube, a spring to force said tool forward and means to rotate the tool.

3. A pipe reamer comprising a tube adapted to be projected into a pipe to be reamed and a reaming tool slidably and rotatably mounted thereon, a thimble threaded in the outer portion of said tool and slidably and rotatably supported with said tool, a spring within said thimble bearing axially against the same and adapted to force the tool forward when rotated to do the work and means to tighten said spring in said thimble, in combination with a rod through said tube, a head on the outer end of said tube and jaws pivoted thereon, and means on the outer end of said rod engaging said jaws and adapted to force them outward into locking position.

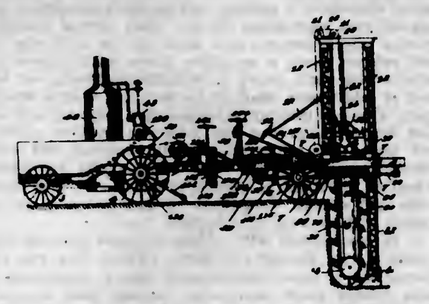
4. A pipe reamer having a tubular shaft and a rod through the same and jaws at the inner ends of said parts pivoted on said shaft and in actuating relations with said rod, in combination with a reaming tool slidable on said shaft and a thimble in the base of said tool slidably mounted on said shaft and a spring therein adapted to press the said tool forward into working position, a nut to tighten the said spring threaded on the said shaft within said thimble, and a nut on the end of said rod adapted to slide the rod axially and set the said jaws in engaging position.

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1,038,915. DITCHING-MACHINE. PETER J. LYBACK, Chicago, Ill. Filed Aug. 26, 1909. Serial No. 514,753. (Cl. 37—24.)

1. In a machine of the character described, a main frame, a traveler movable horizontally thereon to effect the feeding, a carriage movable vertically on the traveler and having vertically operating excavators, a driven horizontal shaft journaled on the frame and having a splined wheel journaled on the traveler, and means actuated by the rotation of the splined wheel to raise and lower the carriage.





2. In a machine of the character described, a main frame, a traveler movable horizontally thereon to effect the feeding and provided with vertically operating excavators and a conveyer adapted to convey the excavated earth from the excavators, a driven horizontal shaft journaled on the frame and having a splined wheel journaled on the traveler, and means actuated by the rotation of the splined wheel to drive the conveyer.

3. In a machine of the character described, having two vehicle bodies one of which carries excavators and has two vehicle wheels normally coaxial, a leveling device comprising a vertical screw shaft journaled on one body, whose nut is carried by the other body, and a reinforcing member threaded on the screw adjacent said nut and vertically slidable on the body on which the screw shaft is journaled.

4. In a machine of the character described, having two vehicle bodies one of which carries excavators and has two vehicle wheels normally coaxial, a leveling device comprising a vertical screw shaft, journaled in brackets movable vertically in slides on one body, whose nut is carried by the other body, and means for immovably clamping the brackets on their slides.

5. In a machine of the character described having two vehicle bodies and a vertical screw shaft, journaled in brackets movable vertically in slides on one body, and whose nut is carried by the other body, a device for immovably clamping the brackets on their slides comprising tapering keys adapted to tightly engage in orifices in the brackets and slides, and levers fulcrumed on the brackets and operating to insert and withdraw the keys.

[Claims 6 to 9 not printed in the Gazette.]

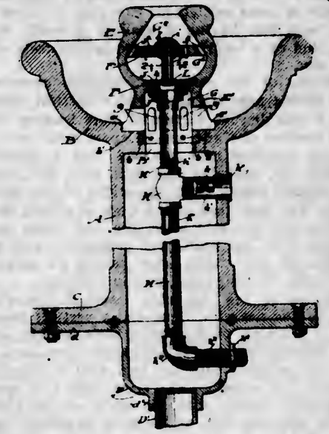
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1,038,916. DRINKING-FOUNTAIN. PATRICK J. MADDEN, Chicago, Ill. Filed June 15, 1909. Serial No. 502,391. (Cl. 137—11.)

1. A drinking cup for drinking fountains having a bubbling chamber having at top an opening surrounded by an over-flow rim of sufficient diameter at its highest point to admit the lips; and a rose, located at the bottom of the bubbling chamber, through the perforations of which water is supplied to said chamber, said perforations being so located that the streams issuing from them will impinge against the inner surface of the walls of said chamber.

2. A drinking cup for drinking fountains having a bubbling chamber having at top an opening surrounded by an over-flow rim of sufficient diameter at its highest point to admit the lips; and a rose, located at the bottom of the bubbling chamber, through the perforations of which water is supplied to the said chamber, some of said perforations being so located that the streams issuing from them will impinge against the inner surface of the walls of said chamber at an angle thereto.

3. A drinking cup for drinking fountains having a bubbling chamber provided with an overflow rim, and a rose, located within the cup, through the perforations of which water is supplied to said chamber, some of said perforations being so located that streams issuing from them will impinge against the inner surface of the walls of said chamber in directions substantially parallel therewith.



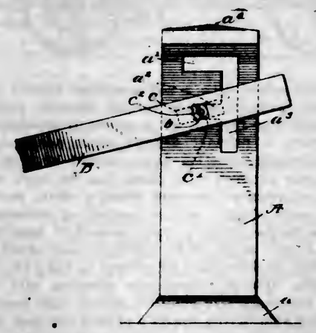
4. A drinking cup for drinking fountains having a bubbling chamber provided with an overflow rim, and a rose, located within the cup, through the perforations of which water is supplied to said chamber, said perforations being so located that streams issuing from them will impinge against the inner surface of the walls of said chamber, some at an angle thereto and others in directions substantially parallel therewith.

5. A drinking cup for drinking fountains having a bubbling chamber having an over-flow rim, and a rose, located in the cup, through the perforations of which water is supplied to the bubbling chamber, said perforations being so located that a stream issuing from one perforation will pass upward through and above the rim of said chamber without impinging against the inner surface of the walls thereof, while other streams will impinge against said inner surfaces in directions substantially parallel therewith.

[Claims 6 to 37 not printed in the Gazette.]

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1,038,917. BUGGY OR WAGON GREASER. WILLIAM T. MADDOX, Alexandria, La. Filed Oct. 24, 1911. Serial No. 656,544. (Cl. 57—48.)



1. A device of the character specified, comprising an upright or standard having a base, and having its upper end beveled in opposite directions and having near its

upper end a plurality of spaced parallel substantially horizontal slots, and a vertical slot connecting the horizontal slots at one end and extending below the lowermost of the said slots, said slots being of equal width, a lever provided near one end with an opening polygonal in cross section, and a pivot bolt having one end polygonal in cross section to fit the lever opening and the other end circular in cross section for engaging the slots of the standard, said bolt having a head of a width to enter the slots, and of a length to extend transversely on each side of a slot.

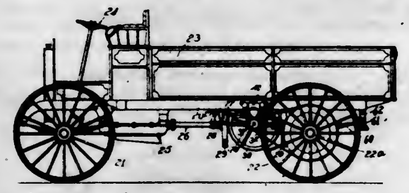
2. A device of the character specified, comprising a standard having near its upper end a vertical transverse slot, and a plurality of horizontal slots leading laterally from the vertical slot and spaced apart from each other, and a lever provided near one end with a laterally extending bolt for engaging the slots, said bolt having a head of greater length than the width of the slots and of a width less than that of the slots to permit the head to pass through the said slots, the bolt being cylindrically adjacent to the head, and polygonal in cross section within the lever, said lever having an opening for the bolt fitting the polygonal portion thereof.

3. A device of the character specified, comprising a standard having near its upper end a vertical transverse slot, and a plurality of horizontal slots leading laterally from the vertical slot and spaced apart from each other, and a lever provided near one end with a laterally extending bolt for engaging the slots, said bolt having a head of greater length than the width of the slots and of a width less than that of the slots to permit the head to pass through the said slots, the bolt being cylindrically adjacent to the head.

4. A device of the character specified, comprising a standard having near its upper end a vertical transverse slot, and a plurality of horizontal slots leading laterally from the vertical slot and spaced apart from each other, and a lever provided near one end with a laterally extending bolt for engaging the slots, said bolt having a head of greater length than the width of the slots and of a width less than that of the slots to permit the head to pass through the said slots.

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1,038,918. POWER-TRANSMISSION DEVICE. GEORGE W. MARBLE, Chicago, Ill., assignor to Stephenson Motor Truck Company, Milwaukee, Wis., a Corporation. Filed Jan. 29, 1910. Serial No. 540,796. (Cl. 21—90.)



1. In combination with a self-propelled vehicle having a frame and traction wheels carried thereby and movable longitudinally thereof, of a power transmission device comprising a primary driving shaft adapted to be rotated, confronting friction disks carried by said shaft, friction wheels between said disks, one on each side of the axis of rotation of the said disks, a shaft secondary driven for each of said wheels located at substantially right angles to the primary shaft, a pair of bearings for each said driven shaft, said bearings and shaft being bodily movable in directions transverse to the axis of said driven shafts, driving connections between said driven shafts and the respective traction wheels, and means for bodily moving said driven shafts and said traction wheels, whereby said shafts are at all times maintained in parallel relation with the faces of said friction disks when said friction wheels are moved into and out of contact with the faces of said disks.

2. In combination with a self-propelled vehicle having a frame, traction wheels carried thereby and slidingly movable longitudinally thereof, of a power transmission device comprising a primary driving shaft adapted to be rotated, two confronting friction disks carried thereby, friction wheels between said disks, one on each side of said primary shaft, a secondary driven shaft located at substantially right angles to said primary shaft, one for each of said wheels, bearings for each end of each driven shaft, a power transmitting connection between each of said driven shafts and the respective traction wheels, and means for bodily moving said bearings and said traction wheels, whereby said driven shafts are maintained at all times in parallel relation with said disks when said friction wheels are brought into and out of contact with the face of said disks.

3. In combination with a vehicle frame and traction wheels carried thereby and bodily movable fore and aft thereof, of a power transmission device comprising a main driving shaft, confronting friction disks mounted on said shaft, a pair of driven shafts in substantially the horizontal plane of the main shaft, friction wheels upon said driven shafts, power-transmission means connecting said driven shafts and traction wheels respectively, and means for simultaneously moving said driven shafts respectively and said traction wheels in opposite directions, comprising for each said shaft a pair of pivotally suspended bearings, and means for moving said pairs of bearings oppositely about their respective pivots.

4. In combination with a vehicle having a frame and traction wheels, carried thereby, and movable longitudinally of the frame, of a power transmission device comprising a rotatable main driving shaft, confronting friction disks upon said shaft, a sleeve rotatively loose upon said shaft, a bearing member pivoted to said sleeve, a driven shaft disposed at substantial right angles to said main shaft mounted in said pivoted bearing, a pivoted bearing member for the other end of said driven shaft, a power transmitting connection between said driven shaft and one of said traction wheels, connecting means between said shaft and said traction wheels to bodily move said wheels when said shaft is moved, and means for shifting the bearing members simultaneously and co-extensively to move said driven shaft bodily toward and from said disks.

5. In combination with a vehicle having a frame and a pair of traction wheels longitudinally movable of the frame, a pair of rotative, longitudinally-stationary friction-bearing confronting disks on the frame, a pair of longitudinally-shiftable wheels interposed between said disks, a rotative driving connection between each of said shiftable wheels, and its respective traction wheel, and means for simultaneously shifting said pair of friction wheels and respective traction wheels in opposite directions, thereby to move said friction wheels into and out of contact with the faces of the respective disks.

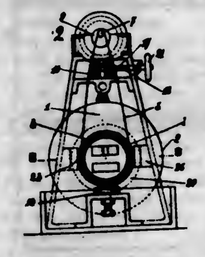
[Claims 6 to 8 not printed in the Gazette.]

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1,038,919. CONSTRUCTION AND MEANS OF OPERATION OF PULP-STRAINING DRUMS FOR PAPER-MAKING MACHINES. LUCIEN MARQUET, Rioupéroux, Isère, France. Filed Apr. 25, 1912. Serial No. 693,070. (Cl. 92—36.)

1. In paper making machines a pulp straining drum having collars forming pulleys receiving endless belts, a shaft above and parallel with the axis of the drum, a crank on said shaft over which pass the endless belts carrying the drum, the rotation of said crank causing at the same time two movements to be given to the drum, the one a vertical or reciprocating movement, the other a very slow continuous or intermittent revolution, means for regulating the amplitude of vertical movements, means for taking up elongation of the belts and for preventing lateral displacement of the drum during its operation.

2. In paper making machines a pulp straining drum having collars forming pulleys receiving endless belts, a shaft above and parallel with the axis of the drum, a plurality of cranks on said shaft over which pass the endless belts carrying the drum, means for regulating the amplitude of vertical movements and means for taking up elongation of the belts and for preventing lateral displacement of the drum during its operation.



3. In a paper making machine, a drum carried by endless belts at its extremities, a shaft above and parallel with the axis of the drum, cranks on said shaft over which pass the endless belts carrying the drum, screwed adjustable abutments for varying the extent of reciprocating movement and taking up elongation of the belts, and means for preventing lateral displacement of the drum during its operation as specified.

4. In a paper making machine, a pulp straining drum having collars forming pulleys receiving endless belts, a shaft above and parallel with the axis of the drum, cranks on said shaft over which pass the endless belts carrying the drum, a pair of round shaped members acting as guides for the belts and having screws oppositely threaded governed by hand wheels for the purpose of regulating said members in distance and taking up elongation of the said belts, as specified.

5. In a paper making machine, a pulp straining drum having collars forming pulleys receiving endless belts, a shaft above and parallel with the axis of the drum, bearings for said shaft having means for simultaneously lifting, cranks on said shaft over which pass endless pulleys carrying the drum as specified.

[Claim 6 not printed in the Gazette.]

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1,038,920. RENNET-PACKAGE AND METHOD OF MAKING SAME. ADOLF J. MARSCHALL, Madison, Wis. Filed Jan. 19, 1912. Serial No. 672,187. (Cl. 99—11.)



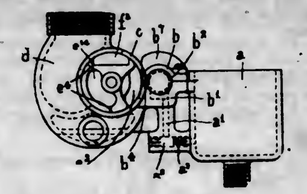
1. The herein described method of producing a body of rennet material containing the rennet ferment in uniform distribution, which method consists in mincing the rennet-containing portions of a large number of calf stomachs, mixing the minced material thoroughly, and compacting the minced and mixed material under pressure, substantially as set forth.

2. A body of rennet material containing the rennet ferment in uniform distribution, such body consisting of the compacted, minced and mixed rennet-containing portions of a large number of calf stomachs, substantially as set forth.

3. A body of rennet material containing the rennet ferment in uniform distribution, such body consisting of the compacted, minced and mixed rennet-containing portions of a large number of calf stomachs, and an enveloping casing, substantially as set forth.



1,038,921. CARBURETER. WILLIAM EDWARD MARTIN, Stamford, England. Filed Dec. 27, 1911. Serial No. 668,191. (Cl. 48—155.1.)



1. In a carbureter for internal combustion engines the combination of a jet chamber, a slot in said chamber, a mixing chamber, an elongated air inlet leading into the mixing chamber and adjacent to the petrol slot, means for regulating the width of the petrol slot, means for regulating the passage through the air inlet, and means for simultaneously adjusting the length of the air inlet and petrol slot substantially as set forth.

2. In a carbureter for internal combustion engines the combination of a jet chamber, a slot in said chamber having a fixed and an adjustable side, a mixing chamber, an elongated air inlet leading into the mixing chamber and adjacent to the petrol slot, means for regulating the adjustable side of the petrol slot, means for regulating the passage through the air inlet, means for simultaneously adjusting the suction passage, and means for simultaneously adjusting the lengths of the air inlet, suction passage and petrol slot substantially as set forth.

3. In a carbureter for internal combustion engines, the combination of a jet chamber of cylindrical form, a slot in said chamber, bearings at the end of said chamber, a rotatable jet regulator having concentric parts fitting said bearings and an eccentric part to regulate the width of the jet, a mixing chamber, an elongated air inlet leading into the mixing chamber and adjacent to the petrol slot, a suction chamber parallel to the mixing chamber, a slot connecting the mixing and the suction chambers, means for regulating the width of the air inlet, means for regulating the width of the slot connecting the mixing and suction chambers, and means for simultaneously adjusting the length of the air inlet, petrol slot and slot connecting the mixing and suction chambers, substantially as set forth.

4. In a carbureter for internal combustion engines the combination of a jet chamber, a slot in said chamber, a cylindrical mixing chamber, an elongated air slot adjacent to the slot in the jet chamber leading into the mixing chamber, a rotatable shutter to adjust the effective width of the air slot and a rotating and sliding throttle having a groove fitting the air shutter substantially as set forth.

5. In a carbureter for internal combustion engines the combination of a jet chamber, a slot in said chamber, a cylindrical mixing chamber, an elongated air slot adjacent to the slot in the jet chamber leading into the mixing chamber, a rotatable shutter to adjust the effective width of the air slot, a suction chamber communicating with the mixing chamber, a second shutter fixed with relation to the said rotatable shutter to regulate the passage between the mixing chamber and suction chamber and a rotating and sliding throttle having grooves fitting the two shutters substantially as set forth.

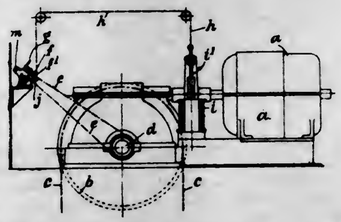
[Claims 6 to 8 not printed in the Gazette.]

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1,038,922. RECORDING AND INDICATING THE WORKING OF HYDRAULIC AND ELECTRIC LIFTS OR HOISTS. HUGH ARTHUR MATEAR, THOMAS FRANK KENNEY, and HENRY WOODHOUSE, Liverpool, England. Filed Aug. 18, 1910. Serial No. 577,114. (Cl. 234—1.)

1. Means for recording and indicating the working of lifting and hoisting apparatus comprising means for moving a length of recording paper, a recording marker, a mechanism for obtaining relative motion between the marker and the paper in one direction, a part which is connected with and moves with the apparatus when it is in

use, means for transmitting motion from the said part to the mechanism for obtaining the relative motion, means for controlling the operation of the lifting and hoisting apparatus, and means for obtaining relative motion between the marker and the paper connected with the controlling means.



2. Means for recording and indicating the working of lifting and hoisting apparatus comprising means for moving a length of recording paper, a recording marker, mechanism for moving the marker transversely of the paper, a part which is connected with and moves with the apparatus when it is in use, means for transmitting motion from the said part to the transverse moving mechanism, means for controlling the operation of the lifting and hoisting apparatus, and means connected with the controlling means for moving the recording paper longitudinally.

3. Means for recording and indicating the working of lifting and hoisting apparatus comprising means for moving a length of recording paper, a recording marker, a carrier for the marker having a screw nut, a screw engaging the said nut, means for rotating the screw and moving the nut and carrier with its marker transversely of the paper, means for controlling the operation of the lifting and hoisting apparatus, a winding on the roller having a ratchet wheel connected therewith, an arm having a pawl, the latter of which engages with said wheel, and means connecting the said arm to the controlling means for actuating it.

4. Means for recording and indicating the working of lifting and hoisting apparatus comprising means for moving a length of recording paper, means for controlling the operation of the apparatus, a length of recording paper, means for intermittently moving the paper lengthwise for predetermined distances connected with the said controlling means, a recording marker, a spring held marker carrier connected with a screw nut, a screw disposed transversely of the paper and engaging the said nut, a sprocket wheel on the said screw, a hoisting and lifting pulley shaft, a toothed wheel connected with said shaft, and means connecting with said shaft, and means connecting the said wheels together and imparting motion to the screw and nut when the apparatus is in use.

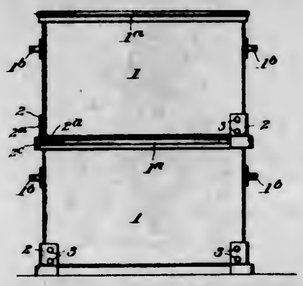
5. Means for recording and indicating the working of lifting and hoisting apparatus comprising means for moving a length of recording paper, means for controlling the operation of the apparatus, means connected with the control means for intermittently moving the paper, a recording marker, a carrier for the marker having a nut, a screw engaging the nut, means for imparting motion to the screw, clutch mechanism for engaging and disengaging the screw and the motion imparting means, and a part connected and movable with the apparatus and connected with the said motion imparting means.

[Claim 6 not printed in the Gazette.]

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1,038,923. CRATE-CORNER LOCK. JOSEPH MATHY, Washington, D. C. Filed May 27, 1909. Serial No. 498,727. (Cl. 220—111.)

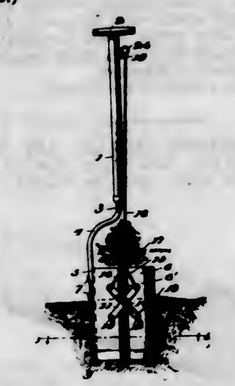
1. In combination a metallic box, with corner pieces having vertical portions extending at right angles to each other adapted to fit the corner of a box, horizontally extending flanges at the lower end of the vertical portions and short vertical pieces at the outer end of the horizontal flanges,—and a web at the lower ends of the vertical portions adjacent the horizontal flanges said web extending under the adjacent corner of the box to support the same.



2. In combination with a metallic box having vertical sides and flanged upper edge, of corner pieces having vertical side portions extending at right angles to each other adapted to fit the corner of a box and be attached thereto by rivets, horizontally extending flanges at the lower ends of these side portions, and short vertical pieces at the outer ends of the horizontal flanges,—and a web adjacent the horizontal flanges underlying the corner of the box and supporting it on the corner piece, said corner pieces being adapted to serve as feet for the box, and as means to prevent lateral and horizontal movement of a superposed box relative to the underlying box.

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1,038,924. TRANSPLANTER. JAMES T. MATTHEWS, San Antonio, Tex. Filed Mar. 7, 1912. Serial No. 682,117. (Cl. 55—119.)



1. A transplanter comprising a split cylindrical member, a handle carried thereby and lazy tong levers for contracting said cylindrical member.

2. A transplanter comprising a split cylindrical member, a handle carried thereby, pivoted lazy tong levers having their lower ends connected to the cylindrical member on opposite sides of the split portion, and means carried by the handle for operating said lazy tong levers.

3. A transplanter comprising a split cylindrical member, a handle carried thereby, lazy tong levers pivoted together intermediate their ends and having their lower ends connected to the cylindrical member on opposite sides of the slit, wires connected to the upper ends of the lazy tong levers and an operating rod carried by the handle and connected to said wires.

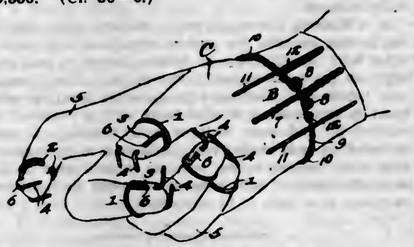
4. A transplanter comprising a split cylindrical member, a handle secured thereby, two lazy tong levers pivoted together intermediate their ends and having their lower ends pivoted to the cylindrical member on opposite sides of the split portion, wires connected to the upper ends of the lazy tong levers, a rod connected to the upper ends of said wires and passing through guides carried by the handle, and an operating means connected to the upper end of the rod, whereby the lazy tongs are drawn together and the cylindrical member compressed.

5. A transplanter comprising a split cylindrical member, a handle secured to one side and having its upper end bent inwardly over the center of said cylindrical member, two lazy tong levers pivoted together intermediate their ends and having their lower ends pivoted to the cylindrical member on opposite sides of the split portion, wires connected to the upper ends of the said lazy tong levers, a ring connected to said wires, a rod connected to the said ring, and passing upwardly through guides carried by the handle and operating means connected to the upper end of the rod, whereby the lazy tongs are drawn together and the cylindrical member compressed.



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1,038,925. COTTON-PICKER. FRANKLIN P. MCCOIG, Durant, Okla., assignor of one-half to Albert F. Ninde, Inglewood, Cal. Filed Nov. 15, 1911. Serial No. 660,850. (Cl. 56—6.)



1. In a cotton picking device, a detaching device formed of a single piece of wire, the same being bent at the central portion thereof to form a nearly circular resilient finger engaging hoop, the ends of the wire being doubled to form U-shaped loops at the ends of the hoop and the outer ends of said loops being bent to form hooked shanks lying approximately at right angles to the resilient hoop.

2. In a cotton picking device, a glove, resilient finger engaging hoops surrounding the fingers of said glove, and hooked shanks extending from said hoops through the ends of the glove fingers, the latter being provided with apertures for the passage thereof.

3. A glove finger having apertures at the outer end thereof, a resilient hoop surrounding the finger, loops formed upon the ends of the hoop, and hooked shanks extending from the loops through the apertures.

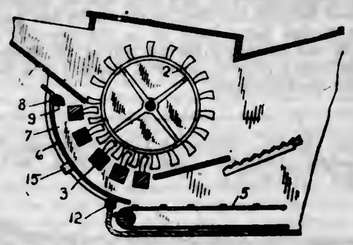
4. A cotton picking device comprising a glove, a retaining device, the latter comprising a bracelet engaging and partly surrounding the wrist of the glove, and L-shaped fingers extending from said bracelet beneath and spaced from the palm of the glove and in the direction of the fingers, and hooked detaching members connected with the glove fingers.

5. A cotton picking device comprising a glove, a retaining device including a bracelet engaging and partly surrounding the wrist of the glove, said bracelet having spring coils, and said bracelet being provided with L-shaped fingers extending beneath and spaced from the palm of the glove in the direction of the fingers, and hooked detaching members connected with the glove fingers.

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1,038,926. CLOSURE FOR THRESHING-MACHINES. DAVID A. MCCONNELL, Thornton township, Buffalo county, Nebr. Filed Aug. 5, 1908. Serial No. 447,030. (Cl. 130—27.)

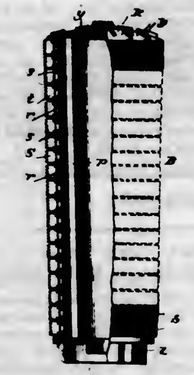
1. A casing having an opening, a cross bar at the lower edge of the opening, and a cross brace adjacent to the upper edge of the opening, in combination with a door or closure consisting of a curved plate having straight upper and lower edges, said door being concave on its inner side and convex on its outer side and provided at its upper edge with an outturned flange, said door being also provided on its inner face adjacent to the upper edge thereof with downturned hooks adapted to engage the cross brace of the casing when the lower portion of the door is supported on the cross bar at the lower edge of the opening in the casing, and said door having at its outer convex side a handle whereby it may be manipulated.



2. A door or closure of the character described consisting of a curved plate having straight upper and lower edges and arcuate side edges, said door being concave on its inner side and convex on its outer side and provided at its upper edge with an outturned flange, said door being also provided on its inner face adjacent to the upper edge thereof with downturned hooks, and said door having on its outer convex side a handle whereby it may be manipulated.

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1,038,927. COTTON-SEED-DELINTING DRUM. JOHN HOWARD MCCORMICK, New Orleans, La. Filed Nov. 2, 1911. Serial No. 658,244. (Cl. 19—20.)



1. As a new article of manufacture, a brush for use on delinter drums, comprising blades of thin steel, and a body interposed between and fixed to the blades and having a portion flexible in the direction of its thickness and extending inward beyond the blades and adapted to effect flexible connection of the blades to a drum; said portion being of dovetail shape.

2. As a new article of manufacture, a brush for use on delinter drums, comprising blades of thin steel, and a body interposed between and fixed to the blades and having a portion flexible in the direction of its thickness and extending inward beyond the blades.

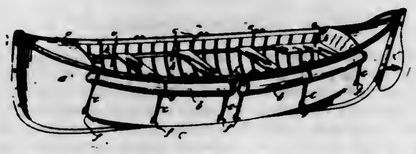
3. In a cotton seed delinter, a drum comprising a body having circumferential grooves, of dovetail form in vertical section, at its perimeter, in combination with superposed circumferential series of brushes surrounding the body, each brush comprising upright blades of thin steel and an upright body interposed between and fixed to the

blades and having a portion flexible horisontally or in the direction of its thickness and extending inward beyond the blades and provided with a dovetail extension disposed in a groove of the drum body.

4. In a cotton seed delinter, a brush drum comprising upright staves, segments surrounding and fixed to the staves, each pair of segments having in opposed sides grooves which together form a single groove of dovetail form in vertical section, and superposed circumferential series of brushes surrounding the body; each brush comprising upright blades of thin steel and an upright body interposed between and fixed to the blades and having a portion flexible horisontally or in the direction of its thickness and extending inward beyond the blades and provided with a dovetail extension disposed in a dovetail groove of the drum body.

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1,038,928. BOAT. CHRISTIAN LUDWIG MENZEL, Nobby, Queensland, Australia. Filed Mar. 9, 1912. Serial No. 682,678. (Cl. 9—3.)



1. The combination with a boat, of inflatable and collapsible tubes or compartments surrounding the outer periphery of said boat, cords secured to said tubes and passing downwardly to and around pulleys fitted to the sides of the boat, loops or rings on the inside of said tubes for engaging said cords and means for securing the free ends of the said cords, substantially as described and for the purposes set forth.

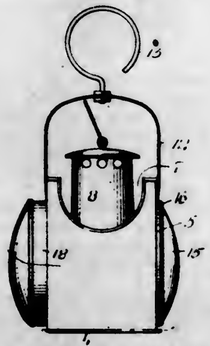
2. The combination with a boat, of externally disposed inflatable and collapsible tubes or compartments surrounding the outer periphery of said boat, cords attached to said tubes and passing around rollers on the outside and inside of the boat and having their opposite ends secured to horizontal cords within the boat, and a winding drum fitted with a handle and retaining pawl for operating said horizontal cords, substantially as described and illustrated and for the purposes set forth.

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1,038,929. [WITHDRAWN.]

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1,038,930. MINER'S LAMP. SILAS W. METZ, Beaver Falls, Pa. Filed Dec. 9, 1911. Serial No. 664,727. (Cl. 240—41.)



1. A housing for supporting a miner's lamp, said housing having an open top and having its front and rear walls provided with openings, the bottom of said housing supporting the lamp, a lens arranged in and projecting from the opening in the front wall of the housing, a reflector arranged at the opening in the rear wall of the housing, said housing having its side walls cut away to provide a convenient insertion of a lamp.

2. A housing for supporting a miner's lamp, said housing having an open top and having its front and rear walls provided with openings, the bottom of said housing supporting the lamp, a lens arranged in and projecting from the opening in the front wall of the housing, a reflector arranged at the opening in the rear wall of the housing, said housing having its side walls cut away to provide a convenient insertion of a lamp, and suspension means for said housing.

3. A housing for supporting a miner's lamp, said housing having an open top and its front and rear walls provided with openings, a lens holder carried by and projecting from the front wall of said housing, a lens mounted in said holder and positioned in operative relation with respect to the opening in said front wall, a reflector holder carried by the rear wall of said housing, a reflector mounted in said holder and positioned in operative position with respect to the opening in said rear wall, and suspension means for said housing connected to the front and rear walls thereof.

4. A housing for supporting a miner's lamp, said housing having an open top and its front and rear walls provided with openings, a lens holder carried by and projecting from the front wall of said housing, a lens mounted in said holder and positioned in operative relation with respect to the opening in said front wall, a reflector holder carried by the rear wall of said housing, a reflector mounted in said holder and positioned in operative position with respect to the opening in said rear wall, and said side walls of said housing cut away to facilitate the entrance of a lamp to be supported.

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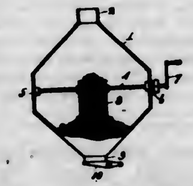
1,038,931. MUFFLER. JOSEPH M. MICHAELSON, Minneapolis, Minn. Filed June 5, 1911. Serial No. 631,236. (Cl. 121—116.)



A muffler comprising an expansion chamber, an exhaust pipe leading therefrom and having open ends, tubes twisted together to form a spiral fitting within said pipe and also having open ends, the walls of said pipe being spaced from said tubes to allow the passage of the exhaust through said tubes or through the space between said tubes and the wall of said pipe and out at the discharge end of said pipe.

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1,038,932. RESERVE CARBID-RECEPTACLE. EDWIN MILLER, Detroit, Mich., assignor to Miller Lighting Company, Inc., Detroit, Mich., a Corporation. Filed June 19, 1911. Serial No. 634,116. (Cl. 48—38.)

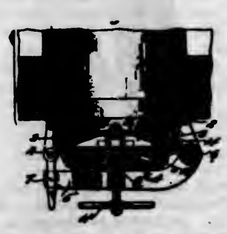


An acetylene generator having in combination with the main magazine, a rod journaled therein, a bucket attached near its top to the rod, the said bucket being comparatively deep so that its lower end reaches nearly to the outlet of the main magazine, and means by which the rod may be rocked.

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1,038,933. CLOSURE FOR RETORTS. THOMAS D. MILLER, St. Louis, Mo. Filed Apr. 22, 1912. Serial No. 692,462. (Cl. 48—124.)



1. A retort having an open bottom, a closure therefor pivotally mounted at the side of said opening, a false bottom mounted on and movable with said closure, and means whereby the closure may be relieved of the weight of said false bottom in service.

2. A retort having an open bottom, a closure pivotally mounted on horisontal axis at the side of the bottom opening, a false bottom mounted on said closure and capable of slight vertical movement relative thereto, and means whereby the weight of said false bottom may be transferred from said closure to the wall of said retort.

3. A retort having an open bottom, a closure pivotally mounted on a horisontal axis at the side of the bottom opening, a false bottom mounted on said closure and capable of slight vertical movement relative thereto and means on the wall of the retort for engaging and supporting said false bottom.

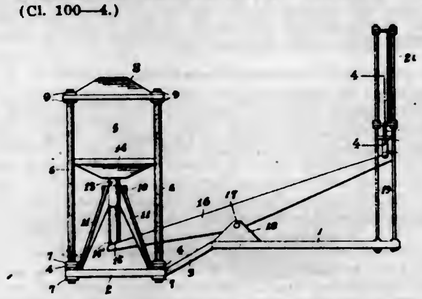
4. A retort having an open bottom, a closure therefor pivotally mounted on a horisontal axis at the side of the opening, said closure having an annular depression, a shaft rotatably mounted in the central portion of said closure, a beam operatively connected to said shaft to be turned thereby and a false bottom on said beam, the inner surface of the retort having means for supporting the ends of the beams.

5. A retort having an open bottom, a closure therefor pivotally mounted on a horisontal axis at the side of the opening, said closure having an annular depression, a shaft rotatably mounted in the central portion of said closure, a beam operatively connected to said shaft to be turned thereby, and a false bottom on said beam, the inner surface of the retort having recesses with inclined bottoms in position for the ends of the beams to engage.

[Claims 6 to 8 not printed in the Gazette.]

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1,038,934. COTTON-COMPRESS. MARSHALL M. MODE, Cameron, Tex. Filed Feb. 2, 1912. Serial No. 674,891. (Cl. 100—4.)

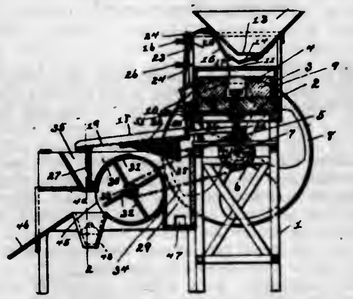


1. In a cotton press, the combination of a base having supporting portions at different elevations and an offset portion connecting the same, a compressor cylinder rising from the lower supporting portion, a compressor head working in said cylinder, an air cylinder mounted upon the higher supporting portion of the base, a piston operating in said cylinder, bracket members disposed upon the higher portion of the base adjacent to said piston, the latter being inclined at an angle therefrom to the lower supporting portion of the base and a walking beam or lever pivoted to said bracket members and in operative engagement at its opposite ends with the stems of the compressor head and piston head, said angularly disposed offset portion of the base permitting the power applying end of said lever to move down to a position in line with the base.

2. In a cotton press, the combination of a base having a depressed end provided with spaced arms, and formed adjacent said depressed end with upstanding lugs, cross plates extending between said spaced arms, a compressor chamber including rods or bolts having their lower ends passing through and coupled to said arms and cross plates and carrying at their upper ends a stationary compressor head, a guide bracket disposed in said chamber and having depending arms engaged by the bolts, and clamped between the arms and cross plates, a plunger stem movable in said guide bracket and carrying a compressor head, a lever pivoted to the lugs to provide long and short arms, said short arms being arranged to operate said plunger stem, an air cylinder mounted upon the opposite end of the base, a piston operated therein, and connections between said piston and the long arm of the lever.

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1,038,935. PORTABLE GRIST-MILL. PETER MONDRY, Amsterdam, N. Y. Filed Apr. 3, 1912. Serial No. 688,181. (Cl. 130—15.)



1. In a machine of the class described and in combination, screen-mechanism having screens of different degrees of fineness; means for agitating said screen-mechanism; a fan; a fan-casing provided with an outlet for the blast from the fan; delivery-chutes arranged to receive the product in different degrees of fineness from successive portions of said screen-mechanism, one of said delivery-chutes being formed in part by said fan-casing, said delivery-chutes being provided with bottom-outlets in approximately the same vertical plane transversely of and adjacent to the outlet for the blast from said fan.

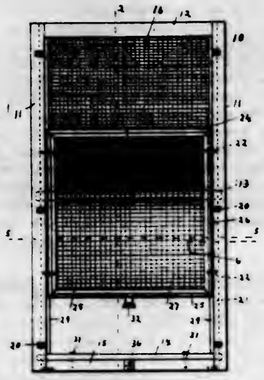
2. In a machine of the class described, and in combination, screen-mechanism; and a plurality of delivery-chutes adapted to receive the product in different degrees of fineness from successive portions of said screen-mechanism, said chutes being provided with bottom-outlets in approximately the same transverse vertical plane.

3. In a machine of the class described, and in combination, screen-mechanism; a pair of delivery-chutes, formed in part by a transverse partition, adapted to receive the product in different degrees of fineness from successive portions of said screen-mechanism; and a pair of delivery-chambers separated by a longitudinal partition below said transverse partition, one of said chutes having

its walls downwardly convergent toward said transverse partition, and being provided with a bottom-outlet on one side of said longitudinal partition, and the other of said chutes having its walls downwardly convergent toward said transverse partition, and being provided with a bottom-outlet on the opposite side of said longitudinal partition, said bottom-outlets communicating with the respective delivery-chambers.

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1,038,936. WINDOW-SCREEN. FRANK P. MOYER, Utica, N. Y. Filed June 24, 1911. Serial No. 635,102. (Cl. 156—14.)



1. The combination in a window screen of a rigid frame forming a closure of the entire window frame and removable bodily therefrom consisting of top and bottom cross-pieces and two sides having inwardly extending grooves on their inner edges, a screened movable sash normally closing the lower part of said frame and loosely fitting between said frame sides, pins projecting from the side edges of said sash into said grooves and adapted to slidingly hold said sash between said frame sides, a central cross-piece out of the path of said sash and a fixed screen over the upper part of said frame secured to said top and central cross-pieces and the sides.

2. The combination in a window screen of a rigid frame forming a closure of the entire window frame and removable bodily therefrom consisting of top and bottom cross-pieces and two sides having inwardly extending grooves on their inner edges, a screened movable sash normally closing the lower part of said frame and loosely fitting between said frame sides, pins projecting from the side edges of said sash into said grooves and adapted to slidingly hold said sash between said frame sides, a central cross-piece out of the path of said sash, a fixed screen over the upper part of said frame secured to said top and central cross-pieces and the sides and strips projecting from said frame sides beyond the outer edges of said sash and spaced therefrom.

3. The combination in a window screen of a rigid frame forming a closure of the entire window frame and removable bodily therefrom consisting of a top, a central and a fixed bottom cross-piece and two sides having inwardly extending groves on their inner edges, a screened movable sash normally closing the lower part of said frame and loosely fitting between said frame sides, pins projecting from the side edges of said sash into said grooves and adapted to slidingly hold said sash between said frame sides, a fixed screen over the upper part of said frame, said central and fixed bottom cross-pieces being out of the path of said movable sash, and a removable bottom cross-piece closing the lower end of said slots.

1,038,937. DRINKING-FOUNTAIN. WILLIAM MUELLER, Dubuque, Iowa. Filed July 27, 1911. Serial No. 640,956. (Cl. 137—11.)



1. In a device of the character described, a nozzle provided with an opening through the top, a supply pipe, a coupling to couple the nozzle to the supply pipe, and a water controlling member larger at the center and tapering toward each end and having at all times one end projecting into the coupling and the other end through the opening in the nozzle and its sides substantially filling the space in the nozzle above the coupling.

2. In a device of the character described, a hollow nozzle provided with a circular opening in the top, a supply pipe, a coupling to couple the nozzle to the supply pipe, and a water controlling member having one end projecting into the coupling and the other end formed into three converging sides and projecting through the opening in the nozzle and the body of the member nearly filling the inside of the nozzle above the coupling.

3. In a device of the character described, a hollow nozzle having a circular opening through the top, a supply pipe, a coupler between the supply pipe and nozzle and provided with means for coupling them together, and a water-controlling member having a square body and pyramidal ends, one of said ends inserted in the coupling and the other slightly curved and projecting some distance through the opening in the nozzle.

4. In a device of the character described, a hollow nozzle provided with a circular opening in the top, a supply pipe, a coupling to couple the nozzle to the supply pipe, and a water controlling member formed with a square body with one end converging along four sides toward a point and inserted in one end of the coupling and the other end converging on three sides to nearly a point and projecting through the opening in the nozzle and the corners of the body closely engaging the inside of the nozzle and substantially filling the space in the nozzle above the coupling.

5. In a device of the character described, a water supply, a nozzle having an opening therethrough smaller at the upper end, a coupling surrounding the water supply at the base of the coupling and the upper end of the coupling screwed into the nozzle, and a water controlling member at all times nearly contacting with the inner surface of the nozzle with one end projecting some distance through the opening in the top of the nozzle and the other end projecting into the coupling and held in such position by the nozzle and coupling.

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1,038,938. DOOR-HANGER. JOHN F. MURPHY, Minneapolis, Minn., assignor to Flour City Ornamental Iron Works, Minneapolis, Minn., a Corporation. Filed June 19, 1911. Serial No. 634,044. (Cl. 39—94.)



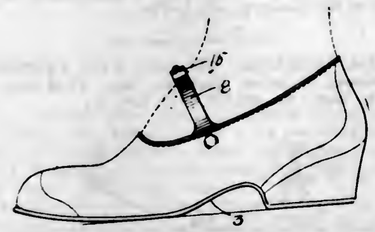
1. The combination, with a stationary track having a longitudinal groove or recess in its underside, of carriages and anti-friction rollers therefor adapted to rest and roll on the upper side of said track, upper movable track sections and hangers secured thereto, independent door sections supported by said hangers respectively, said upper track sections bearing on said anti-friction rollers and movable thereon, said upper track sections having centrally arranged, longitudinal grooves or recesses in their under surfaces, a pinion interposed between said upper track sections and said stationary track, and rack bars attached to said door sections respectively and slidable in the grooves in said stationary track and in said upper track sections, one of said rack bars being above said pinion and meshing with the teeth thereof, and the other of said rack bars being located beneath said pinion and meshing with the teeth thereof.

2. The combination, with a stationary track having a raised central portion and bearing surfaces on each side thereof, and a longitudinal recess in its underside, of carriages having anti-friction rollers provided with annular grooves adapted to receive the raised central portion of said track, the flanges of said rollers on each side of said grooves resting and rolling on the bearing surfaces of said track, door sections and hangers therefor, upper track sections carried by said hangers and having longitudinal recesses in its underside, the walls of said recesses resting on the flanges of said rollers and supported thereby, a pinion interposed in said stationary track, rack bars arranged above and below said pinion and meshing therewith, one of said rack bars being attached to one door section and sliding in the recess in the underside of said stationary track, and the other rack bar being attached to the other door section and sliding in the recess of said upper track sections and in the annular grooves of said rollers, substantially as described.



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1,038,939. OVERSHOE-FASTENER. JOHN B. MURRAY and MARCUS E. CAVEN, Ellwood City, Pa. Filed Dec. 26, 1911. Serial No. 667,807. (Cl. 36—7).

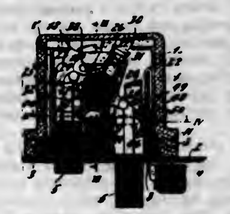


1. An over-shoe fastener comprising a base having a lip capable of being detachably connected to the arch of an over-shoe, a pair of straps hinged intermediate their ends to said base, the inner ends of said straps being disposed at an angle with respect to the remaining portion of the straps and capable of being actuated by pressure to throw the straps into closed position, and means for detachably connecting the outer ends of the straps together.

2. An over-shoe fastener comprising a base having a lip capable of being detachably connected to the arch of an over-shoe, a pair of straps hinged intermediate their ends to said base, the inner ends of said straps being disposed at an angle with respect to the remaining portion of the straps and capable of being actuated by pressure to throw the straps into closed position, means for detachably connecting the outer ends of the straps together, and means for detachably connecting each of the straps to the over-shoe.

3. An over-shoe fastener comprising a base capable of being detachably connected to the inner face of the arch of an over-shoe, a pair of straps hinged to said base and capable of being actuated by pressure of the foot for throwing the straps into closed position, and means for detachably connecting the outer ends of the straps together.

1,038,940. COMBINED SWITCH AND TAP-OFF. WILLIAM J. NEWTON, Lynbrook, N. Y., assignor to Metropolitan Electric Mfg. Co., a Corporation of New Jersey. Filed Mar. 4, 1911. Serial No. 612,219. (Cl. 175—282.)

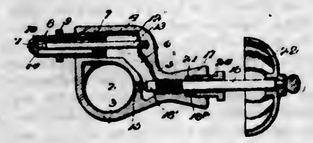


1. A combined plug wall switch and tap off comprising a casing, an apertured cover therefor, conductive members mounted in said casing and adapted to be connected to the leads of an electric circuit, a removable plug, switch elements carried by said plug, contacts in electrical communication with some of said switch elements and adapted to engage said conductive parts when the switch elements are inserted into said casing, and separate tap-off means comprising conductive elements adapted to be inserted through apertures in said cover into engagement with the contacts aforesaid which are carried by the plug.

2. A combined plug wall switch and tap-off comprising a casing, an apertured cover therefor, conductive members mounted in said casing and adapted to be connected to the leads of an electric circuit, a removable plug, switch elements carried by said plug, conductive parts carried by said plug including contacts in electrical communication with some of said switch elements and adapted to engage said conductive members when the switch elements are inserted into said casing, separate tap-off means comprising conductive elements adapted to be inserted through apertures in said cover into engagement with some of said conductive parts carried by said plug, and means for locking said conductive elements against displacement with respect to said conductive parts when the switch is closed.

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1,038,941. GAS-VALVE. FREDERIC G. NICOLAUS, Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo., a Corporation of New Jersey. Filed July 11, 1911. Serial No. 637,933. (Cl. 158—120.)



1. A valve comprising a casing having a gas-opening therethrough, said casing having a passage partially around the opening and extending at right angles to the gas opening and having one end in communication with the gas opening and the opposite end of the passage having a discharge opening, and means passing into the passage for controlling the communication between the gas opening and said passage.

2. A valve comprising a casing having a gas-opening therethrough, said casing having a passage partially around the opening and in communication therewith and having a discharge opening at one end, means for controlling the said discharge opening, and means passing into the passage for controlling the communication between the gas opening and the passage.

3. A valve comprising a casing having a gas-opening therethrough and adapted to be connected to a gas-supply pipe, said casing having a passage extending partially around the opening and in communication at one end therewith, means passing into the passage for controlling the communication between the opening and passage, and a nipple

secured within the passage and having a discharge opening for the passage.

4. A valve comprising a casing having a gas-opening therethrough and internally screw-threaded at each end and into which gas-supply pipes are adapted to be screwed, said casing having a passage extending partially around the opening and having one end in communication with the gas opening, means passing into the passage for controlling the opening between the gas-opening and the passage, a valve stem within the passage, and a nipple secured in the passage and adapted to coöperate with the valve stem to control the discharge of gas from the passage.

5. A valve comprising a casing, having a gas opening therethrough, the said casing having a passage partially around the gas opening and extending at right angles to the gas opening, having one end in communication therewith, a valve stem extending through the wall of the casing and into the passage end and controlling the communication between the passage and the gas opening, and the opposite end of the passage having a discharge opening.

[Claims 6 to 10 not printed in the Gazette.]

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1,038,942. METHOD OF PRODUCING HORNS FOR GRAMOPHONES AND THE LIKE. ERNST NIES, Beierfeld, Germany. Filed Jan. 3, 1912. Serial No. 669,222. (Cl. 113—116.)



1. The method of manufacturing a trumpet mouthed horn for a gramophone or the like by bending a sheet of metal to the shape of a hollow truncated cone, securing the side edges together and making longitudinal indentations in the sides of said cone, increasing in depth from each of their ends toward their central parts and curving the metal inward between the largest and smallest diameter of said cone.

2. The method of manufacturing a trumpet mouthed horn for a gramophone or the like by bending a sheet of metal to the shape of a hollow truncated cone, securing the side edges together and making longitudinal indentations in the sides of said cone, increasing in depth from each of their ends toward their central parts and curving the metal inward between the largest and smallest diameter of said cone, and bending together the walls of the several indentations, so that the indentations are converted into tubular ribs tapering to zero at each end.

3. The method of manufacturing a trumpet mouthed horn for a gramophone or the like by bending a sheet of metal to the shape of a hollow truncated cone, securing the side edges together and making longitudinal indentations in the sides of said cone, increasing in depth from each of their ends toward their central parts and curving the metal inward between the largest and smallest diameter of said cone, bending together the walls of the several indentations, so that the indentations are converted into tubular ribs tapering to zero at each end and flattening the said tubular ribs.

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1,038,943. TUFT. FRANKLIN W. OEHRLE, Philadelphia, Pa., assignor to Oehrle Brothers Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 3, 1910. Serial No. 536,205. (Cl. 2—148.)

1. The combination of a plurality of threads and a cord-like article about which said threads are bound, one of the said threads being longer than the other and extending back and forth around the said article and being interlocked with the shorter of said threads at two different points or places, the interlocking loop or loops at one point or place being straight and one of the threads at the other interlocking point or points being twisted adjacent to the point or points of interlocking of said threads.

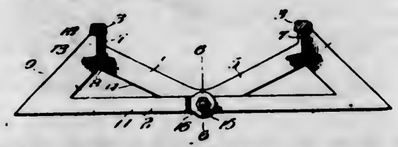


2. The combination of a plurality of threads and a cord-like article about which said threads are bound, one of the said threads extending through the said cord-like article and being interlocked with the other thread, the said first thread beyond the said interlocking point extending back through the said article and then around one side of the same and being again interlocked with the said other thread and thereafter extending back and forth around the said article and being interlocked along opposing lines or sides with the said other thread, the loops at one point of interlocking being straight while one of the threads adjacent to the other point of interlocking is twisted, and the said first-named thread being again extended through the said cord-like article and interlocked with the said other thread to complete the tying or binding of the said threads about the said article.

3. The combination of a bundle of strands of yarn lying in contiguous and generally parallel relation to each other with a plurality of independent threads bound around said strands each of the said threads extending partially around the said bundle of strands a plurality of times and the said threads being interlocked with each other at different circumferential points on the surface of said bundle of strands and the said threads being grouped together as shown in a plane approximately at right angles to the length of the strands in said bundle.

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1,038,944. COMBINED TIE AND RAIL-FASTENER. THEODORE G. OELKE, Anadarko, Okla. Filed Mar. 22, 1912. Serial No. 685,529. (Cl. 238—5.)



1. In combination, an angular member having rail seats formed in the legs thereof, and clamping members pivoted to said angular member at the juncture of the legs and having corresponding rail seats.

2. A combined rail tie and rail fastening device comprising a U-shaped member having rail seats at its ends, clamping members pivoted to the U-shaped member intermediate its ends, and rail seats formed therein to correspond with the rail seats in the U-shaped member.

3. A combined rail tie and rail fastener comprising a pair of pivotally connected members, rail receiving seats formed thereon, and a member pivoted between said first members and having corresponding rail seats lying in a plane with said first seats.

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1,038,945. HAT-PIN-POINT PROTECTOR. BLAŻEJ OLAS, Chicago, Ill., assignor of one-half to Maciej Malacina, Chicago, Ill. Filed Jan. 2, 1912. Serial No. 668,912. (Cl. 24—155.)

1. In combination a hat pin provided with a head, a spring actuated drum carried by said pin in proximity to said head, a flexible member connected to and normally wound upon said drum, and a guard for the pointed end of the pin connected to the free end of said member.



2. In combination a hat pin having a head at one end and the opposite end pointed, a stationary casing fixed to said pin in proximity to said head, a spring controlled ac-



tuated drum mounted upon the pin and arranged within said casing, a flexible member normally wound upon said drum, and a guard for the pointed end of said pin connected to the outer end of said member.

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1,038,946. WINDOW-PANE FASTENING. VOLNEY V. OAMSBY, Chaney, Okla. Filed May 4, 1912. Serial No. 695,221. (Cl. 20—56.4.)

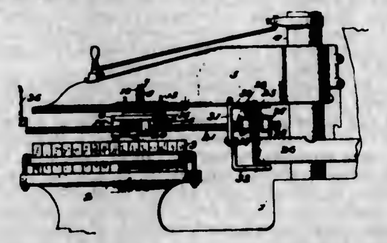


1. A window sash comprising a frame having a glass receiving rabbet formed therein, a rib extending into the rabbet forming an undercut groove, and a glass pane having a rib formed on one face adjacent to and parallel with the marginal edges of the pane.

2. A combination with a window sash having an undercut rabbet formed therein, of a pane of glass having integrally formed on its outer face, a sharpened rib, said rib having an undercut groove on its outer face, said groove and said rabbet receiving putty, whereby the pane is securely locked in the sash, and the putty prevented from breaking or loosening.

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1,038,947. RESURFACING DEVICE. GEORGE A. PARKS, Upland, Cal., assignor of one-half to James M. Brennan, Upland, Cal. Filed Oct. 14, 1911. Serial No. 654,657. (Cl. 164—78.)



1. A machine of the class described, comprising, in combination with a block, and a presser member arranged to swing about a vertical axis at one side of the block, means for resurfacing said block horizontally slidable on said presser member, and means for effecting a continuous relative movement between said resurfacing means and said presser member as the latter is moved laterally in one direction.

2. A machine of the class described, comprising, in combination with a block, and a presser member arranged to swing about a vertical axis at one side of the block, means for resurfacing said block carried by said presser member, and means for effecting a continuous relative movement between said resurfacing means and said presser member as the latter is moved laterally in either direction.

3. A machine of the class described, comprising, in combination with a block, and a presser member arranged to swing about a vertical axis at one side of the block, means for resurfacing said block carried by said presser member, means for effecting a continuous relative movement between said resurfacing means and said presser member as the latter is moved laterally in one direction, and means for changing the direction of such relative movement between said resurfacing means and the presser member.

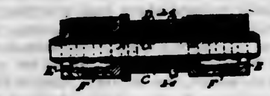
4. A machine of the class described, comprising, in combination with a block, and a presser member arranged to swing about a vertical axis, at one side of said block, means for resurfacing said block comprising a carrier slidably mounted on said presser member, said carrier having a threaded portion, a screw rod engaging said threaded portion of the carrier, a gear wheel on said screw rod, and a rack concentric with said vertical axis of the presser arm and with which said gear wheel engages.

5. A machine of the class described, comprising, in combination with a block, and a presser member arranged to swing about a vertical axis at one side of said block, means for resurfacing said block comprising a carrier slidably mounted on said presser arm, said carrier having a threaded portion, a screw rod engaging said threaded portion of the carrier, a gear wheel loose on said screw rod, a clutch for locking said gear-wheel to said screw rod, and a rack concentric with said vertical axis of the presser arm and with which said gear wheel engages.

[Claims 6 to 9 not printed in the Gazette.]

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1,038,948. HOSE-COUPLING AND HOSE-FASTENER. WILLIAM E. PATRICK, Newport, R. I. Filed June 14, 1909. Serial No. 502,157. (Cl. 137—28.)



1. A hose coupling comprising a female section having a bayonet slot in one end thereof, a male section provided with a laterally extending lug member adapted to engage in the bayonet slot and a spring member disposed across said slot and extending longitudinally of said female section, said lug member and said spring member coacting to lock the sections in assembled relation, one of said members being provided with a cam surface.

2. A hose coupling comprising abutting members, a plurality of pins on one member having cam surfaces on one side and notches on the other side, the other of said members having bayonet slots for said pins, and outwardly yielding members extending across said bayonet slots and adapted to be moved out of the path of the pins when the abutting members are given relative rotation in one direction, by engagement of the cam surfaces of the pins therewith, and on rotation in the opposite direction to be engaged by the notches of said pins.

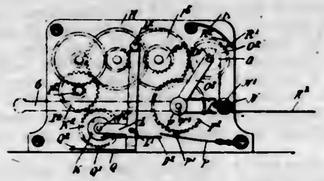
3. A hose coupling comprising a male member, a female member, and a sleeve for inclosing the abutting ends

of said members and having bayonet slots formed therein, means for maintaining said sleeve on one of said members, pins on the other of said members adapted to work in said bayonet slots to draw the members together, and outwardly yielding members extending across said slots, said pins having entering sides cam-shaped and the opposite sides notched said yielding members adapted to be moved out of the path of the pins when the abutting members are given relative rotation in one direction, by engagement of the pins therewith and on rotation in the opposite direction to be engaged by the notches of the pins.

4. A hose coupling comprising abutting members, a plurality of pins on one member having cam surfaces on one side, the other of said members having bayonet slots for said pins, and outwardly yielding members extending substantially lengthwise of the abutting members and across said bayonet slots.

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1,038,949. MECHANISM FOR OPERATING TOY DERRICKS. ADOLPH PFEIFFER, New York, N. Y. Filed Jan. 26, 1912. Serial No. 673,530. (Cl. 74—58.)



1. In mechanism for operating toy derricks, a train of gearing, a motor for operating the said gearing, a swinging frame having a handle at one end, a power transmitting shaft mounted in the frame, and a gear wheel on the power transmitting shaft and adapted to be moved into and out of mesh with one of the wheels of the train of gearing by said swinging frame.

2. In mechanism for operating toy derricks, a frame, a train of gearing mounted in the frame, a swinging frame having a handle at one end, a power transmitting shaft mounted in the swinging frame, a gear wheel on the power transmitting shaft and adapted to be moved into and out of mesh with one of the wheels of the train of gearing by said swinging frame, and a spring provided with a tooth adapted to engage the said gear wheel when the gear wheel is out of mesh with a wheel of the train of gearing to hold the said shaft from rotating.

3. In mechanism for operating toy derricks, a main frame, a train of gearing mounted in the frame, a motor for operating the said gearing, a manually operated swinging frame, a power transmitting shaft mounted in one end of the swinging frame, a gear wheel on the said shaft and adapted to mesh with one of the wheels of the gearing, a second power transmitting shaft mounted in guideways of the main frame, a gear wheel on the said second shaft and adapted to mesh with another wheel of the train of gearing, and links connecting the said transmitting shafts.

4. In mechanism for operating toy derricks, a main frame, a train of gearing mounted in the frame, a motor for operating said gearing, a manually operated swinging frame, a power transmitting shaft mounted in one end of the swinging frame, a gear wheel on said shaft and adapted to mesh with one of the wheels of said gearing, a second power transmitting shaft mounted in guideways of the main frame, a gear wheel on said second shaft and adapted to mesh with another gear wheel of the train of gearing, links connecting said shafts, and a spring secured to the main frame adjacent to each of the said gear wheels and provided with a tooth for engaging the same when out of mesh with the train of gearing.

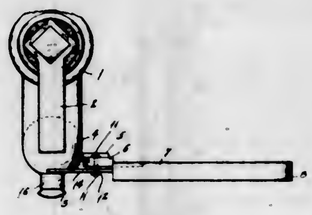
1,038,950. PROCESS OF MANUFACTURING HOT VULCANIZED FROTH FROM INDIA-RUBBER, GUTTA-PERCHA, AND BALATA. FRITZ PFLEUMER, Dresden, Germany. Filed July 26, 1911. Serial No. 640,648. (Cl. 18—53.)

1. A process for manufacturing hot vulcanized froth from india rubber, gutta-percha and balata, consisting in hot vulcanizing raw or partly vulcanized material, under such a high pressure of a gas that the gas penetrates the structure of the material, and on partly or wholly releasing the external gas-pressure raises the material into froth.

2. A process for manufacturing hot vulcanized froth from india rubber, gutta-percha and balata, consisting in keeping the thus treated material under high gas-pressure, so that the gas penetrates the structure of the material, until it is cooled, and afterward releasing it of the gas-pressure in order to produce froth containing more than atmospheric pressure.

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1,038,951. DEVICE FOR INDICATING LIQUID MEASURE. CLARENCE L. PHILLIS, Mount Lebanon, Pa. Filed Jan. 27, 1912. Serial No. 673,936. (Cl. 235—94.)



1. The combination with a faucet, of an arm detachably connected thereto, a casing carried by said arm, a lever pivotally connected to said arm and extending into the casing, a pivoted curved holder carried by the outer end of said lever and adapted to support a receptacle beneath the end of said faucet, and an indicating mechanism carried by said casing and adapted to be actuated by said lever to indicate the number of times said receptacle is placed upon said holder.

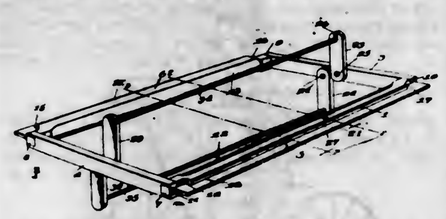
2. In an indicator, the combination with a faucet, of an arm detachably connected thereto, a casing carried by said arm, a lever pivotally mounted upon said arm and extending into said casing, a pivoted holder carried by the outer end of said arm and adapted to support a receptacle beneath said faucet, an h shaped actuating member pivotally supported by said lever within said casing, and an indicating mechanism carried by said casing and adapted to be actuated by said member to indicate the number of times the receptacle is placed upon said holder.

3. An indicator of the type described comprising an arm, a casing carried thereby, a lever pivotally connected to said arm and extending into said casing, a holder pivotally carried by said holder and adapted to support a receptacle, an h shaped actuating member carried by said lever within said casing, and an indicator shaft adapted to be operated by said member, substantially as described.

4. An indicator of the type described comprising an arm, a casing carried thereby, a lever pivotally connected to said arm and extending into said casing, a pivoted holder carried by said lever and adapted to support a receptacle, an h shaped actuating member carried by said lever within said casing, a ratchet wheel adapted to be actuated by said member, an indicator shaft adapted to be rotated through the medium of said ratchet wheel, and an indicator or pointer carried by said shaft exteriorly of said casing and adapted to indicate the number of times the receptacle is suspended from said holder, substantially as described.



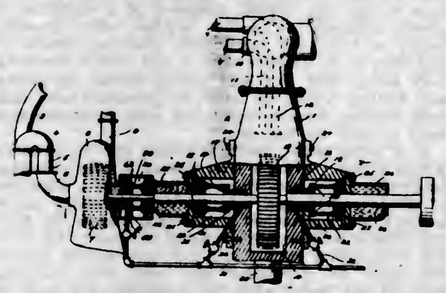
1,038,952. DRIER. JOHN G. PIERCE, Salt Lake City, Utah, assignor of seven-sixteenths to Kate Thomas, seven-sixteenths to Annie Eliza Pierce, and two-sixteenths to John Gustave Pierce, Salt Lake City, Utah. Filed Mar. 21, 1911. Serial No. 615,975. (Cl. 45—24.)



In a drier the combination of a frame, arms pivoted to the end of said frame and one pair of arms provided with recesses on their inner face and the other pair of arms provided with longitudinal recesses on their inner face extending from the outer ends thereof, rods adapted to be supported by said arms and their ends adapted to fit within said recesses, said arms adapted to swing in a plane above and below that of said frame, a plurality of strips, the sides of said frame being provided on their outer faces with longitudinal grooves adapted to receive said strips for securing the articles to be dried, and the end portion of the sides of said frame being cut away.

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1,038,953. WATER-PROTECTOR FOR OIL-BEARINGS. JOSEPH E. PIOVESAN, Glassport, Pa. Filed Feb. 3, 1912. Serial No. 675,201. (Cl. 121—109.)



1. In combination with a shaft, a water chamber in which said shaft is mounted and a shaft bearing mounted in said water chamber, a housing surrounding said shaft bearing secured to said chamber, a plurality of flexible members disposed within said housing and snugly embracing said shaft, means for rigidly joining said members, an oil box against a wall of which said members bear, and means connected to said shaft bearing and said joined members for holding the latter against said wall.

2. In combination with a shaft, a water chamber, a stuffing box in said chamber surrounding said shaft and having a water charged packing, a housing mounted upon said water chamber, an oil box for said shaft mounted upon said housing, a plurality of leather disks snugly embracing said shaft, segmental plates disposed in overlapping relation against the sides of the outer disks, means for clamping said plates against said disks and means mounted on the stuffing box engaging said disks to hold them against a wall on said oil-box.

3. In combination with a shaft, a water chamber, a stuffing box in said chamber, surrounding said shaft and having a water charged packing, a housing mounted upon said water chamber, an oil box for said shaft mounted upon said housing, a plurality of leather disks snugly embracing said shaft, segmental brass plates disposed in overlapping relation against the sides of the outer disks, means for clamping said plates against said disks, and means carried by said stuffing box for resiliently holding said disks against the wall of the oil box.

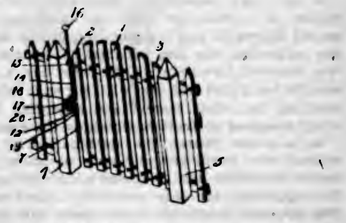
4. In combination with a shaft, a water chamber, a stuffing box in said chamber surrounding said shaft and having a water charged packing, a housing mounted upon said water chamber, an oil box for said shaft mounted upon said housing, a plurality of split leather disks snugly embracing said shaft, a pair of brass segmental plates, one plate of each pair formed with stepped segmental ends arranged to overlie the ends of the other plate to form a cylinder, each cylinder arranged to overlie the surface of an outer leather disk, screw bolts tapped through the opposing plates and through the leather disks to join the latter, and means mounted in said housing for resiliently holding said disks against the wall of an oil box.

5. In combination with a shaft, a water chamber, a stuffing box in said chamber surrounding said shaft and having a water charged packing, a housing mounted upon said water chamber, an oil box for said shaft mounted upon said housing, a plurality of leather disks snugly embracing said shaft, a pair of brass segmental plates, one plate of each pair formed with stepped ends arranged to overlie the ends of the other plate to form a cylinder, each cylinder arranged to overlie the surface of an outer leather disk, brass screw bolts tapped through the opposing plates and through the leather disks to join the latter, and a plurality of coiled springs secured to one of said cylinders and connected to said stuffing box.

[Claims 6 to 8 not printed in the Gazette.]

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1,038,954. GATE-FASTENER. ADOLPH A. POCHYLA, West, Tex. Filed Feb. 27, 1912. Serial No. 680,271. (Cl. 70—28.)



The combination with a hinged gate and a fence post for the gate, a gravity catch upon the fence post, the latch post of the gate being recessed to provide a pocket having an open face, of a plate normally closing the pocket, said plate being provided with an elongated opening and being further provided with a guide member which is arranged within the pocket, a latch member within the pocket, a spring contacting the latch member to force the same toward the top of the pocket, the top end of the latch having a right angular catch engaging finger, a rod extending from said finger and having its terminal provided with a knob and an eye surrounding the rod to provide a guide therefor and connected with the latch post of the gate.

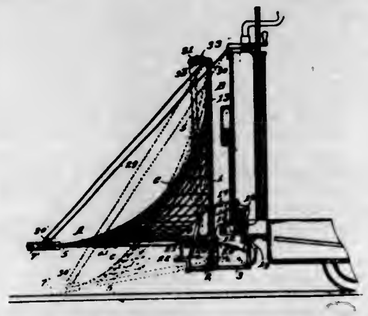
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1,038,965. CAR-FENDER. ROBERT H. POGUE, New Westminster, British Columbia, Canada. Filed Oct. 25, 1910. Serial No. 588,977. (Cl. 105—252.)

1. In a car fender, the combination of a forwardly-projecting frame having jointed side members adapted to break outwardly, a device adapted to strike an obstacle in the track, and means for connecting the device with both sides of the frame for breaking the joints thereof and causing the frame to spread.

2. In a car fender, the combination of a forwardly-projecting frame having jointed side members adapted to break outwardly, a device adapted to strike an obstacle in the track, means for connecting the device with both sides of the frame for breaking the joints thereof, and causing the frame to spread, means for normally supporting the frame a suitable distance above the track, and means for operatively connecting the last-mentioned

means with said device for effecting the dropping of the frame.



3. In a car fender, the combination of a forwardly-projecting frame having jointed side members adapted to break outwardly, a device adapted to strike an obstacle in the track, means for connecting the device with both sides of the frame for breaking the joints thereof and causing the frame to spread, means for normally supporting the frame a suitable distance above the track, means for operatively connecting the last-mentioned means with said device for effecting the dropping of the frame, a support on which the frame is mounted, and springs mounted on the support and arranged to assist in the dropping of the frame when an obstacle is struck by the said device.

4. In a car fender, the combination of a frame consisting of a front bar and side members hingedly connected therewith and composed of jointed sections, means for supporting the side members, a combined guard and trip disposed forwardly of the front bar, and means connecting the guard and trip with the said side members for breaking the joints thereof and spreading the frame laterally when an obstacle is struck by the guard and trip.

5. In a car fender, the combination of a frame consisting of a front bar and side members hingedly connected therewith and composed of jointed sections, means for supporting the side members, a combined guard and trip disposed forwardly of the front bar, means connecting the guard and trip with the said side members for breaking the joints thereof and spreading the frame laterally when an obstacle is struck by the guard and trip, means for normally holding the frame raised, and an operative connection between the guard and trip and said last-mentioned means for causing the frame to drop simultaneously with the spreading thereof.

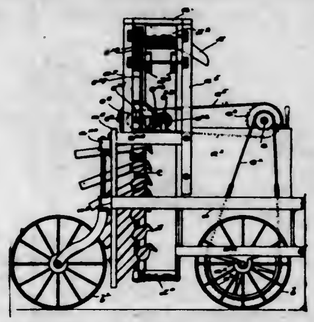
[Claims 6 to 14 not printed in the Gazette.]

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1,038,956. COTTON PICKER OR HARVESTER. MATTHEW PRIOR, Watertown, Mass. Filed Jan. 21, 1901. Serial No. 44,016. (Cl. 56—6.)

1. A cotton picker, having a long slender freely projecting arm constructed and arranged to enter freely far within a bush, having a cotton-picking surface composed of a multitude of fine wires set on end parallel and closely together and having their cotton-gripping ends arranged to project so that, on the side which faces the forward direction of travel of the picker, said ends extend transversely outward from the arm with their free ends pointing in a direction slightly away from the free end of the arm and toward the opposite end of the arm.

2. A cotton picker, having a long slender arm supported at one end only and at its opposite end capable of entering freely within the bushes, a support for said arm, said arm having a cotton-picking surface composed of a multitude of fine wires standing endwise from said arm, parallel and closely together, said wires, at the bush-engaging side of the arm, projecting at their free ends toward the supported end of the arm at an acute angle, said arm being yieldingly mounted, rendering it free to swing on its support when abnormally opposed by a bush.



3. A cotton picker, having a slender arm for entering at its free end within the bushes, said arm being provided with a cotton-picking surface composed of a multitude of fine wires set on end parallel and closely together and, at the front side where the arm engages the bushes as the cotton picker moves forward, arranged to project transversely at their free ends away from the free end of the arm at an obtuse angle for presentation laterally to the bush, combined with an endless belt carrier for receiving the picked cotton from the inner end of said arm.

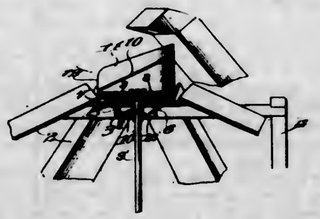
4. A cotton picker, having a slender arm for entrance within a bush, having a picking surface extending lengthwise of one side thereof, composed of a multitude of closely arranged, fine parallel, hair-like, cotton grabbing points or teeth, and longitudinal protecting guards at and close to the opposite sides of said surface extending very nearly level with said picking surface, projecting only slightly beyond the latter for preventing said teeth from catching branches and leaves while permitting said teeth to catch the ripe cotton.

5. A cotton picker, having a slender arm for entrance within a bush, having a level picking surface extending lengthwise of one side thereof, composed of a multitude of closely packed, fine, hair-like, cotton grabbing points or teeth, and longitudinal protecting guards at the opposite sides of said surface extending very nearly flat with the level picking surface and only very slightly beyond the latter for preventing said teeth from catching branches and leaves while yet permitting said teeth to freely and unrestrictedly catch the ripe cotton, said arm being mounted for free movement within the bush.

[Claims 6 to 17 not printed in the Gazette.]

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1,038,957. DISTRIBUTING-HOPPER. HORACE E. PRITCHETT, Niantic, Ill. Filed Mar. 22, 1912. Serial No. 685,445. (Cl. 57—37.)



The combination with a plurality of chutes, of a platform disposed intermediate said chutes and provided with a central opening, a hopper mounted upon said platform and rotatable thereon, a sleeve secured to the under surface of the hopper and projected through the opening in the platform and formed with a vertical slot, a shaft slidably disposed within the sleeve, a pin carried by the shaft and projecting through the slot in said sleeve whereby the hopper may be rotated in the rotation of the shaft, and an annulus connected to the under side of the platform and provided with a plurality of notches spaced apart and adapted to receive the said pin to hold the hopper against accidental movement.



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1,038,958. AUTOMATIC FIRE-EXTINGUISHER. FRANK J. QUICK, Cranston, R. I., assignor of one-third to Jacob Hahn, Providence, R. I. Filed July 31, 1911. Serial No. 641,652. (Cl. 169—5.)



1. In a fire extinguisher a valve releasing device consisting of two struts arranged in V-form, the apex of said V arranged to be seated in a similar shaped groove located on the valve cap, and the opposite ends of said struts connected by a bridge composed of plurality of bridge members positioned with their adjacent edges a distance apart, and said members held in position by one or more binding-plates secured thereto by solder fusible at a lower temperature and arranged to separate and fall apart and thereby release the valve upon the fusing of the solder by calefaction of the surrounding atmosphere.

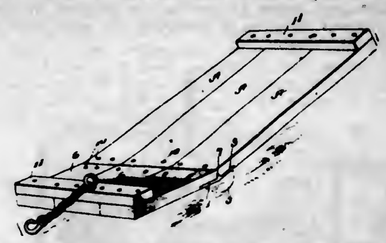
2. In a fire extinguisher having a base provided with a centrally located outlet adapted to serve as a seat for the valve, a sprinkler head provided with a plurality of perforations arranged and adapted to distribute and spray the water over the entire surface within a considerable radius, and head supporting arms integrally connected with said base and head, and a valve releasably seated in said outlet, the combination with said parts of a cap fitted upon said valve top and provided with a V-shaped groove extending across the same, two struts arranged in V-form with the apex of the V seated in said groove and the opposite ends of said struts connected by a bridge composed of a plurality of bridge members disposed with their adjacent edges a distance apart, and held in position by one or more binding plates secured thereto by solder fusible at a lower temperature, a thrust yoke arranged to engage said bridge members and an adjusting-screw operating through said head to hold the parts in position until the bridge members are allowed to separate upon the fusing of the solder connecting them.

3. In a fire extinguisher the combination with a base having an outlet opening, of a circular sprinkler-head having a flat central portion and an annular peripheral concavo-convex perforated rim surrounding and extending above and below said central portion and constituting an arched hood disposed above and overhanging said outlet opening.

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1,038,959. STONE-BOAT. MICHAEL J. QUINLAN, Bristol, Vt. Filed Dec. 4, 1911. Serial No. 663,854. (Cl. 21—48.)

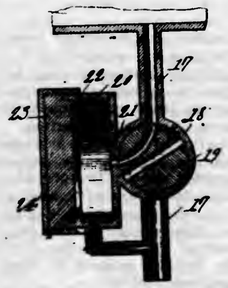
In a stone boat, a plank having at one side a transversely disposed recess, said plank being partially severed at a line between the edges of the recess and having its end portions bent at an angle to each other at the line where the plank is partially severed, and a plate inserted in the recess and having its outer surfaces approximately in alinement with the surfaces of the end



portions of the plank, said plate having a rib which fills the opening where the plank is partially severed.

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1,038,960. SYRINGE. GEORGE MOBLEY RHONE, Brownwood, Tex. Filed Feb. 19, 1912. Serial No. 678,512. (Cl. 4—26.)



1. In a device of the class described, a receptacle; a tube projecting from the receptacle; a valve casing interposed in the tube; a soap box carried by the casing and communicating with the casing; a connection between the soap box and the tube, the connection being independent of the casing and constituting an auxiliary means for supporting the box; a valve in the casing, located between the connection and the receptacle to direct the entire contents of the receptacle through the box and through the tube, independently of the box.

2. In a device of the class described, a receptacle; a tube projecting from the receptacle; a valve casing interposed in the tube; a soap box carried by the casing and communicating with the casing; a rib within the soap box; a closure for the soap box, adapted to hold the soap against the rib; a connection between the box and the tube, the connection opening into the box between the rib and the casing; and a valve in the casing, located between the connection and the receptacle, to direct the contents of the receptacle through the box, and to cut off the box and to establish communication through the tube.

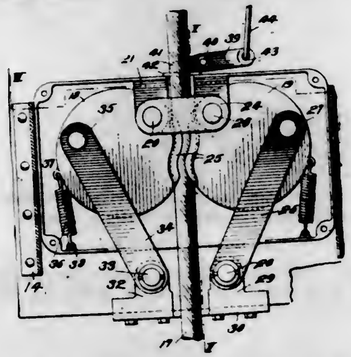
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1,038,961. SAFETY-ELEVATOR. PHILIP J. RIVERS, New Rochelle, N. Y. Filed Feb. 5, 1912. Serial No. 675,632. (Cl. 187—81.)

1. The combination of a support, a bracket carried by said support, a stationary element adapted to be gripped, eccentrically held and opposed gripping devices having substantially S-shaped gripping surfaces and opposed to each other, links connecting the gripping devices to the support, springs for forcing the gripping devices into gripping position, and means for forcing the gripping devices in the opposite direction to disengage the same from the gripped element.

2. The combination of a support, a stationary element adapted to be gripped, gripping devices opposed to each other and having substantially S-shaped gripping sur-

faces, means connecting the gripping devices to the support, means for forcing the gripping devices into gripping position, and means for forcing the gripping devices in the opposite direction to disengage the same from said stationary element.



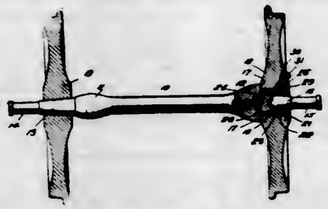
3. The combination of a stationary element adapted to be gripped, eccentrically arranged and pivotally held and opposed gripping devices having substantially S-shaped gripping surfaces, springs for forcing the gripping devices into gripping position, and means for forcing the gripping devices in the opposite direction.

4. The combination of a casing, a bracket freely movable in said casing, studs extending transversely of said bracket and supported thereby, two disk-like devices pivotally held to said studs and having opposed gripping means, means adapted to be engaged by said gripping means, a movable support, links connecting the gripping means to the movable support, and means for moving the casing relatively to the movable support to force the gripping means to a disengaged position.

5. The combination of a casing, a bracket free to move in said casing, two disk-like devices pivotally held in said bracket and having opposed gripping means, means adapted to be engaged by said gripping means, a movable support, means connecting the gripping devices to the movable support, and means for moving the casing relatively to the movable support to force the gripping devices to a disengaged position.

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1,038,962. CAR-AXLE. PHILIP J. RIVERS, New Rochelle, N. Y. Filed May 7, 1912. Serial No. 695,775. (Cl. 105—67.)



1. The combination of an axle having an enlarged portion provided with a tapering channel and a tapered portion projecting outward from said enlarged portion, a bushing held to said tapered portion of the axle under pressure and having a bendable end fitting said channel and with an integral collar at the end thereof opposite the bendable end, and a wheel interposed between the collar of the bushing and the enlarged part of the axle and adapted to move about said bushing.

2. The combination of an axle having a tapering annular channel, a bushing held to the axle under pressure and having a bendable end adapted to be forced into said channel and with an integral collar at the end thereof opposite the bendable end, and a wheel interposed between the collar of the bushing and a part of the axle and adapted to move about said bushing.

3. The combination of an axle having an enlarged portion provided with a channel larger at one end than at the other and a tapered part projecting outward from said enlarged portion, a bushing held to said tapered portion of the axle and having an end adapted to be forced into said channel end with a collar at the end thereof opposite the bendable end, and a wheel interposed between the collar of the bushing and the enlarged part of the axle and adapted to move about or with said bushing.

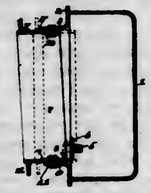
4. The combination of an axle having a tapered portion, a bushing having a bendable portion and held to the tapered part of the axle under pressure, said bendable portion engaging a part of the axle and holding the bushing thereto, and a wheel mounted on the bushing to rotate thereon and held between the bushing and a part of the axle.

5. The combination of an axle having an enlarged part, a bushing having a bendable portion and rigidly held to a part of the axle, said bendable portion engaging a part of the axle and holding the bushing thereto, and a wheel mounted upon the bushing to rotate thereon or with the axle and held between the bushing and a part of the axle.

[Claims 6 and 7 not printed in the Gazette.]

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1,038,963. COVER FOR ELECTRIC SWITCH-BOXES. HOWARD B. ROE, Pittsburgh, Pa. Filed Dec. 13, 1909. Serial No. 532,748. (Cl. 247—6.)



1. An electric switch box cover having an opening therein, and a slidable sleeve fitting in said opening and having outwardly extending spring portions within the same, and means between said cover and said spring portions to permit the adjustment of said sleeve.

2. An electric switch box cover having an opening therein, a sleeve fitting in said opening having spring portions provided with a slot therein, and means passing through said slots and engaging with said cover to permit the adjustment of said sleeve.

3. An electric switch box cover having an opening therein provided with a surrounding flange, a sleeve fitting in said opening having spring portions provided with a slot therein, and means passing through said slots and engaging with said flange to permit the adjustment of said sleeve.

4. An electric switch box cover having an opening therein provided with a surrounding flange, a sleeve fitting in said opening having spring portions provided with a slot therein, and a screw passing through said slots and engaging with said flange and sleeve to permit the adjustment of said sleeve and hold the same in place.

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1,038,964. FLYING-MACHINE. CHARLES T. ROGERS, Newton, Ala., assignor of one-half to John W. Rogers, Newton, Ala. Filed Sept. 5, 1911. Serial No. 647,494. (Cl. 244—6.)

In an aerial vehicle, the combination of a frame structure, a supporting surface therefor, a motor, a car or platform supporting said motor, a vertical drive shaft in gear with the motor and extending above and below said platform, driving propellers, gearing for connecting said



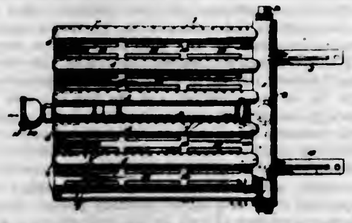
driving propellers with and disconnecting them from the drive shaft, a secondary drive shaft in gear with the lower end of the vertical drive shaft, an auxiliary pro-



peller mounted to swing in an arc concentric with said shaft, gearing between said shaft and the propeller, and means for adjusting said propeller within an arc of 180°.

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1,038,965. GAS-BURNER. JOSEPH ROY, Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo., a Corporation of New Jersey. Filed July 26, 1911. Serial No. 640,721. (Cl. 158—99.)



1. A gas burner, comprising an elongated gas distributing chamber, a mixing tube connected to the lower face of the said chamber, a series of burner tubes connected to one side of the chamber at right angles thereto and extending in the same direction as the mixing tube and attaching means carried by the chamber on the opposite side from the burner tubes.

2. A gas burner, comprising an elongated gas distributing chamber, a series of burner tubes connected to one side of the chamber at right angles thereto, webs connecting said burner tubes, and a mixing tube connected to the lower face of the distributing chamber and extending forwardly parallel with the burner tubes and below the same.

3. A gas burner comprising an elongated gas distributing chamber, a series of burner tubes connected to one side of the chamber at right angles thereto, attaching means carried by the said chamber, webs connecting said burner tubes, and a mixing tube connected to the distributing chamber and extending parallel with the burner tubes below the same.

4. A gas burner comprising an elongated gas distributing chamber, a series of parallel burner tubes connected to one side of the chamber and extending at right angles thereto, perforated webs connecting said burner tubes, and a mixing tube connected to the distributing chamber.

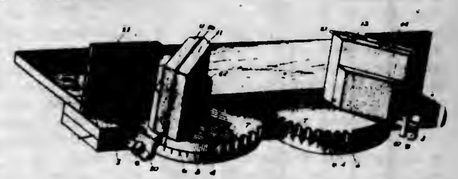
5. A gas burner comprising an elongated gas distributing chamber, a series of burner tubes connected to one side of the distributing chamber, attaching means carried by the opposite side of the chamber, and a mixing tube connected to the said chamber.

[Claims 6 to 13 not printed in the Gazette.]

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1,038,966. MITERING DEVICE. FRANK N. RUSSELL and EDWIN CLARK, Chicago, Ill. Filed Feb. 24, 1911. Serial No. 610,554. (Cl. 143—89.)

1. A mitering device comprising a base board having end stops adjacent the forward edges thereof, spacing means attached to the bottom of said board at the front corners thereof and projecting forward, a strip attached to said means and held spaced from the base board thereby, said strip having a pair of segment-shaped projections extending from its front edge on either side of the middle of said board, a pair of sectors pivotally secured between said strip and said board, said sectors having engaging gear teeth along their curved edges, a saw guide carried by each of said sectors, said sectors and said segment-shaped projections being concentric, and means carried by the sectors to engage the curved edges of the segment-shaped projections to secure the saw guides in any adjusted position.



2. A mitering device comprising a base board having spacing blocks attached to the bottom thereof, a strip secured to said blocks and held spaced from the base board thereby, said strip having a pair of contiguous segment-shaped projections extending from one edge of the same beyond the adjacent edge of the base board, a pair of sectors pivotally secured between said strip and said board, each of said sectors being concentric with one of said segment-shaped projections, said sectors having engaging gear teeth along their curved edges, whereby they can be moved in unison, a saw guide carried by each of said sectors, and means for securing said sectors in adjusted position.

3. A mitering device comprising a strip having a pair of contiguous segment-shaped projections extending from one longitudinal edge of the same, said projections lying on either side of the middle of said board, a pair of spacing blocks secured to said strip adjacent the ends thereof, a base board mounted upon said blocks and spaced from the said strip, a pair of saw guides mounted upon said strip in operative relation to said base board, said saw guides being pivoted to said strip adjacent the center of said segment-shaped projections, means for connecting said saw guides together to enable them to move in unison, and means for securing said guides in adjusted position.

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1,038,967. TAP-WRENCH. WHITMAN RUSSELL, Greenfield, Mass. Filed Apr. 9, 1912. Serial No. 689,592. (Cl. 10—149.)



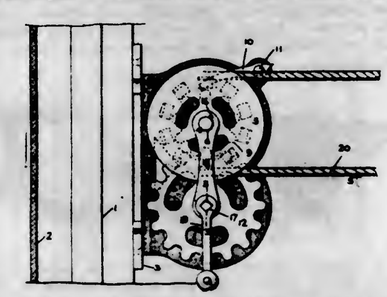
In a tap wrench, the combination of a stock member having a central rectangular opening with a mortised section; handles secured to said stock member; a jaw fixed within said opening and seated against the four surrounding faces of said mortised section; a jaw movably mounted on the stock member within said opening; a screw shank carried by said movable jaw; and an adjusting nut for the movable jaw mounted on said screw shank intermediate the movable jaw, and an end wall of said stock member, substantially as described.

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1,038,968. CLOTHES-LINE SUPPORT. MAX RUTH, Jersey City, N. J. Filed Apr. 17, 1912. Serial No. 691,389. (Cl. 68—3.)

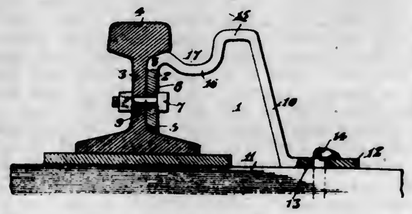
The combination of a base having a stud projecting therefrom, an operating wheel pivotally mounted upon said stud, said stud extending through said wheel, a gear wheel rigid with said operating wheel and located between the same and the base, a pawl carried by the base

and engaging the gear to prevent the same from moving in one direction while permitting it to move freely in the other direction, a second stud, a second gear wheel having a hollow boss receiving said second stud to be pivotally mounted upon said base, said boss being closed at one end and having a reduced section adjacent its closed end terminating in a shoulder, a link having a perforation at one end receiving said reduced section and fitting against said shoulder, and another perforation at its opposite end to give passage to the outer end of the first-named stud, means carried by the first-named stud to hold the link in place, and a crank for engaging the outer end of the boss beyond the shoulder to operate the gears.



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1,038,969. GUARD-RAIL. MICHAEL RYAN, Somerville, N. J. Filed Feb. 26, 1912. Serial No. 680,021. (Cl. 104—14.)

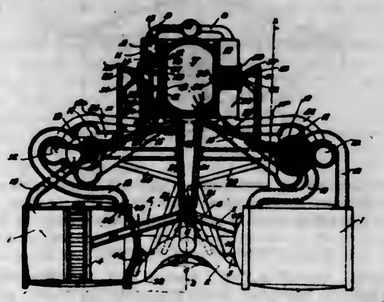


A guard rail of the class described comprising an inner vertical side or wall adapted to fit against the web of a rail and extending from the bottom flange of the same to the head thereof and having an inclined upper edge fitting against the underside of the head of the rail and extending from the web to the side face of the head, an outer inclined side or wall provided at the bottom with a foot flange seated upon the cross tie in spaced relation with the rail and adapted to be spiked to the same, an integral top having an approximately horisontal head portion at the top of and extending inwardly from the inclined outer side or wall, and a longitudinally grooved portion extending downwardly from the head portion and inwardly to the upper portion of the inner side or wall, the bottom of the groove being located below the plane of the inclined upper edge of the inner side or wall, and bolts piercing the inner side or wall for securing the same to the web of the rail.

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1,038,970. ENGINE CONSTRUCTION. JOHN T. RYDBERG, Garwood, N. J. Filed Oct. 9, 1911. Serial No. 653,647. (Cl. 60—31.)

1. In a motor of the class described, a plurality of cylinders and a piston for each cylinder, a crank shaft and connections therebetween and the pistons, valve mechanism for each cylinder, means for operating said valve mechanism actuated by the movement of the respective pistons, a fuel chamber, connections between the valve mechanism and the cylinders and between the valve mechanism and fuel chamber whereby a fluid pressure medium may be alternately supplied to opposite portions of each cylinder and exhaust may be conducted to the fuel chamber from the cylinders, and pumping mechanism for supplying fresh fuel and exhaust to the fuel chamber.



2. In a motor of the class described, a plurality of cylinders and a piston for each cylinder, a crank shaft and connections therebetween and the pistons, valve mechanism for each cylinder, means for operating said valve mechanism actuated by the movement of the respective pistons, a fuel chamber disposed above said cylinders, connections between the valve mechanism and cylinders and between the valve mechanism and the fuel chamber whereby a fluid pressure medium may be alternately supplied to opposite portions of each cylinder and exhaust may be conducted to the fuel chamber from the cylinders, pumping mechanism for supplying fresh fuel and exhaust to the fuel chamber, means for operating said pumping mechanism operable from said valve operating means, and means for igniting a charge of fuel in the fuel chamber also operable from said valve operating means.

3. In a motor of the class described, the combination of a crank shaft, cylinders arranged at opposite sides of said shaft in opposed relation, pistons in said cylinders, connections between the pistons and the crank shaft, valves adjacent to the cylinders and controlling the passage of a pressure medium thereto, rods movable on the movement of the pistons for operating said valves, a fuel chamber, passages connecting said fuel chamber with said cylinders to supply fluid pressure to the same, and means for conducting the exhaust from the cylinders to the fuel chamber.

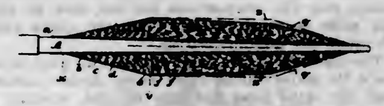
4. In a motor of the class described, the combination of a crank shaft, cylinders arranged at opposite sides of said shaft in opposed relation, pistons in said cylinders, connections between the pistons and the crank shaft, valves adjacent to the cylinders and controlling the passage of a pressure medium thereto, rods movable on the movement of the pistons for operating said valves, a fuel chamber, passages connecting said fuel chamber with said cylinders to supply fluid pressure to the same, means for conducting the exhaust from the cylinders to the fuel chamber, said means including portions of said last named passages, pumping mechanism adapted to force fresh fuel into the fuel chamber, and rods for operating said pumping mechanism operable from said valve operating rods.

5. In a motor of the class described, the combination of two sets of cylinders spaced apart, a fuel chamber arranged above the space between the cylinders, a crank shaft, a piston in each cylinder and connections between the pistons and crank shaft, combined inlet and exhaust pipes communicating with the cylinders at opposite ends thereof to supply the pressure medium to opposite sides of the pistons therein, valve means controlling the supply and exhaust of the fluid pressure medium through said pipes, rods directly connecting the crank shaft with said valves for controlling the operation of the latter, pumping mechanism for supplying the fluid pressure medium to the fuel chamber, means for operating said pumping machanism from the crank shaft, and passages connecting said valve means with said fuel chamber to conduct the exhaust to the latter.

[Claims 6 to 16 not printed in the Gazette.]



1,038,971. COP OR BOBBIN. CLARK RYDER, Providence, R. I., assignor to Universal Winding Company, Portland, Me., a Corporation of Maine. Filed Feb. 10, 1910. Serial No. 543,182. (Cl. 242—160.)



1. A cop or bobbin wound on a tapered support and having an extended body portion consisting of coniform layers of uniform length and terminating in a conical nose, with said body portion tapering from its base to the nose with a greater taper than that of the support on which the bobbin is wound.

2. A cop or bobbin having an extended body portion consisting of coniform layers of uniform length and terminating in a conical nose, with said body portion tapering from its base to the nose and inclined to the surface on which the bobbin is wound.

3. A cop or bobbin wound with concentric, coniform layers of yarn of uniform length superimposed to form an extended body portion with a tapered periphery and a conical delivery end, said body portion tapered so that its periphery is nearer the surface of the tube on which the bobbin is wound at the outer end of the bobbin than at the base end.

4. A cop or bobbin wound on a tube with concentric coniform layers of yarn of uniform length advancing progressively to form the body of the cop, the edges of the successive layers forming a tapered periphery on the body with said periphery nearer the surface of the tube at the outer end of the cop than at the base end.

5. A cop or bobbin having an extended body portion wound with all the layers of the same length and terminating in a conical nose, with said body portion tapering from its base to the nose so that the thickness of the yarn at the outer end of the cop is less than at he base end.

[Claims 6 to 8 not printed in the Gazette.]

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1,038,972. ELASTIC-FLUID TURBINE. THOMAS R. SANDERS, Hyde Park, Mass., assignor to B. F. Sturtevant Company, Boston, Mass., a Corporation of Massachusetts. Filed Feb. 14, 1910. Serial No. 543,679. (Cl. 121—56.)



1. An elastic fluid turbine, having, in combination, a rotor provided with parallel return buckets, a nozzle partially converting the pressure of the elastic fluid into velocity arranged to direct the fluid into the rotor buckets, a stator provided with parallel return buckets opposed to the rotor buckets and provided with inner and outer walls for controlling the jet which diverge at the delivery side in the direction of the flow of the fluid jet, substantially as described.

2. An elastic fluid turbine, having, in combination, a rotor provided with parallel return buckets, a nozzle arranged to direct the elastic fluid into the rotor buckets converting pressure into velocity, a stator provided with parallel return buckets opposed to the rotor buckets and provided with inner and outer walls for controlling the jet which converge at the entrance side of the buckets in the direction of the flow of the fluid jet, substantially as described.

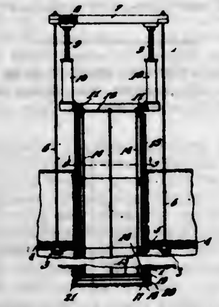
3. An elastic fluid turbine, having, in combination, a rotor provided with parallel return buckets, a nozzle partially converting the pressure of the elastic fluid into velocity arranged to direct the fluid into the rotor buckets, a stator provided with parallel return buckets opposed to the rotor buckets and provided with inner and outer walls which converge at the entrance sides and diverge at the delivery side in the direction of the flow of the fluid jet, substantially as described.

4. An elastic fluid turbine, having, in combination, a rotor provided with parallel return buckets, a nozzle arranged to direct the fluid into the rotor buckets converting pressure into velocity, a stator provided with a series of parallel return buckets opposed to the rotor buckets, and provided with inner and outer walls for controlling the jet which converge at the entrance side in the direction of the flow of the fluid jet, the entrance areas at the ends of successive buckets increasing in the direction of rotation of the rotor, substantially as described.

5. An elastic fluid turbine, having, in combination, a rotor provided with parallel return buckets, a nozzle partially converting the pressure of the elastic fluid into velocity arranged to direct the fluid into the rotor buckets, a stator provided with a series of parallel return buckets opposed to the rotor buckets and provided with inner and outer walls which converge at the entrance side and diverge at the delivery side in the direction of the flow of the fluid jet, the entrance areas at the ends of succeeding buckets and the cross sectional areas of the passages at the bottoms of the buckets increasing in the direction of the rotation of the rotor, substantially as described.

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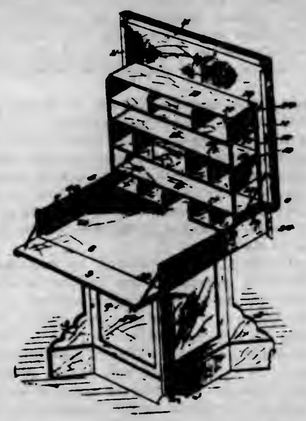
1,038,973. SAND-WELL CASING AND APPARATUS FOR SINKING THE SAME. ADOLF P. SCHNYDER, Poag, Ill. Filed Mar. 25, 1912. Serial No. 686,080. (Cl. 61—3.)



1. A well casing of the class described, composed of a plurality of porous cylindrical sections, a band secured to the lower section thereof, an annular cutter carried by said band and projecting below the sections, a ring mounted upon the upper section, and means for holding the sections in locked relation during the insertion thereof within the ground.

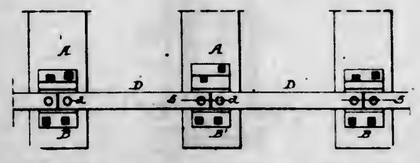
2. A well casing adapted to be sunk, comprising a plurality of porous tubular sections and a retaining ring at the lower end thereof, another ring at the upper end thereof, a cutter carried by the lower retaining ring, and a plurality of longitudinal stay rods detachably connected to both rings for holding the sections rigidly together.

1,038,974. COMBINATION TABLE AND DESK. CHRISTIAN F. SCHULS, Chicago, Ill. Filed Jan. 14, 1911. Serial No. 602,672. (Cl. 45—70.)



A pedestal having a horizontal top, vertical side members and a vertical rear member at the side and rear edges of said top, a front member swinging from said horizontal top at its front edge and bearing when closed against the forward ends of the vertical side members, bearing strips at the juncture of the vertical sides and the horizontal top, a stationary receptacle open at the front and supported upon the horizontal top at the rear thereof and spaced at the ends from said vertical side members, a plurality of movable receptacles, coupling bars pivoted to said stationary receptacle at its lower forward corners and likewise to the lower forward corners of said movable receptacles, and other coupling bars pivoted to said stationary receptacle at the rear upper corners thereof and likewise to the rear upper corners of said movable receptacles, said forward coupling bars resting upon said bearing strips when in lowered position and holding the movable receptacles spaced from the horisontal top, a top hinged to said vertical rear member and bearing upon said vertical side members and folding front member and over said folded and stationary receptacle when in lowered position.

1,038,975. ANTICREEPING DEVICE FOR TIES. JEREMIAH O'SHEA, Philadelphia, Pa. Filed Dec. 28, 1911. Serial No. 668,282. (Cl. 238—2.)



1. The combination of two ties, a tie plate on each tie, each tie plate being recessed and having perforations; and a bar extending from one tie plate to the other and fitting within the recess of each tie plate, said bar having projections adapted to engage respective perforations in the the plates.

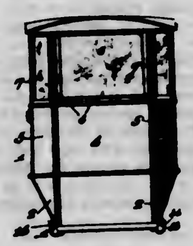
2. The combination of two ties; a tie plate on each tie; each tie plate being recessed and having perforations; with a bar extending from one tie plate to the other and located in the recess and having a projection at each end adapted to enter the perforations in the tie plates.

3. The combination of a series of ties; tie plates rigidly mounted thereon, each tie plate having a transverse recess and having perforations in the bottom of the recess; a bar extending from one tie plate on one tie to a tie plate on another tie, the ends of the bar being mounted in the recesses of the tie plate and having projections entering the perforations in the tie plate, whereby the two tie plates are connected together; a rail resting on the tie plates and extending over the recesses and the bar, said tie plates having spike openings through which the spikes extend which retain the rails in position.

4. The combination of a series of ties; a tie plate on each tie, said tie plates having spike holes; spikes extending through the spike holes and into the ties, whereby the tie plates are rigidly secured to the ties; each tie plate having a transverse recess and a flange at one side of the recess; a rail mounted on the tie plates and having a side bearing against the said flanges, said plates having perforations at the base of the recess; a bar extending from one tie plate to another under each rail and having projections extending into the perforations whereby the said bars connecting the tie plates prevent them from moving one independently of the other.

5. A tie plate consisting of a body portion having a transverse recess extending to and between opposite edges, the base portion of the recess being perforated and having a flange at one side of the recess and a series of spike openings.

1,038,976. CARRIAGE. THEODORE M. SHOTTS, New Richmond, Ind. Filed Mar. 10, 1909. Serial No. 482,428. (Cl. 21—125.)



In combination with a vehicle body having door openings provided in its sides, doors slidable in the openings, a longitudinally extending outwardly projecting track secured to the lower portion of each door, U-shaped spring members having one of their arms connected with the base of the body and their opposite arms each provided with a roller for engaging the under side of the track on the door, and resiliently supporting part of the weight of the door, the said arms having portions extending above the rollers normally contacting the outer sides of the said tracks for holding the doors in close contact with the vehicle body, and a resilient member for holding the doors in closed position.

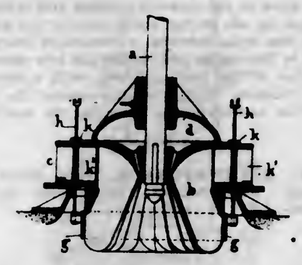
1,038,977. REGULATING DEVICE FOR REACTION-TURBINES. HENRI ALBERT SINGRÜN, Épinal, France, assignor to Société des Etablissements Singrün, Épinal, France. Filed Apr. 23, 1912. Serial No. 692,653. (Cl. 138—5.)

1. A regulating device for reaction turbines, comprising means for controlling the sectional area of the inlet to the turbine wheel and means for controlling the sectional area of the discharge outlet from the wheel, and means for operating the same to secure a proportional modification of the sectional area of said inlet and outlet passages, for the purpose described.

2. A regulating device for reaction turbines, comprising means for controlling the sectional area of the inlet to the turbine wheel and means for controlling the sectional area of the discharge outlet from the wheel, and means for operating the same to secure a proportional modification of the sectional area of said inlet and outlet passages and being independent of the turbine wheel and its motion, for the purpose described.



3. A regulating device for reaction turbines comprising means at the inlet and discharge ports of the turbine for controlling the flow therethrough, said controlling means



being independent of the turbine wheel and its motion, and being regulable to secure a proportional modification of the sectional area of said ports, as described.

1,038,978. STALK-PULLER. CULLEN ROGERS SMITH, Perris, Cal. Filed Sept. 28, 1911. Serial No. 651,757. (Cl. 55—66.)



1. In a stalk puller, the combination of a pair of chains made up of units connected together and movable relatively to each other for the purpose of giving flexibility to the chain, each unit comprising a link, a swinging member carried by said link and movable relatively in the direction lateral to the general direction of travel of said link, said movable member being provided with gripping edges, and spring mechanism for normally maintaining said swinging member in a predetermined position relatively to said link.

2. In a stalk puller, the combination of a pair of movable chains, each comprising links, a swinging member carried by each link and provided with a plate having serrated surfaces, and a spring disposed between said link and said plate for the purpose of normally holding said plate in a predetermined position relatively to said link.

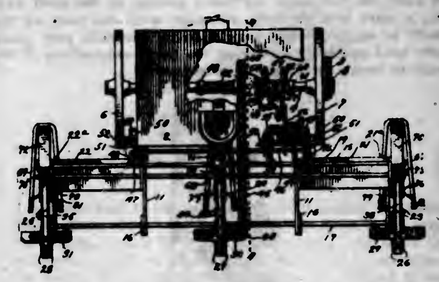
3. In a stalk puller, the combination of a plurality of chains each made up of units provided with gripping surfaces, each unit being further provided with a guard extending into the next successive unit for the purpose of preventing the entrance of stalks or the like between the successive units of the same chain, framework for supporting said chains, and means for moving said framework and chains along the ground.

4. A stalk puller comprising a pair of chains provided with gripping surfaces, each chain being made up of units movable relatively to each other for the purpose of giving flexibility to the chains, each unit being provided with a member having an arcuate surface and mounted upon one of said units, said member extending from the unit on which it is mounted so as to slidably engage the next successive unit for the purpose of preventing the entrance of foreign substances between the successive units of the same chain, and means for actuating said chains.

5. A stalk puller comprising endless sprocket chains having portions traveling in parallelism, and embodying links, each of which links carries a stalk gripping member and sprocket wheels over which said chains travel having flanges on which the chains are supported.

[Claim 6 not printed in the Gazette.]

1,038,979. CORNSTALK-CUTTER. WILLIAM C. SMITH, Kearney, Mo. Filed June 6, 1912. Serial No. 702,666. (Cl. 55—63.)



1. In a machine of the class described, a frame, a shaft journaled on said frame, traction wheels secured to said shaft, arms pivotally mounted on said frame and adapted for vertical oscillation, rods secured to said arms, a shaft journaled on said arms, chopping blades mounted for oscillation on the rods aforesaid, gearing connecting the shaft journaled on the frame and the shaft journaled on said arms, means to raise and lower said arms, and means operated by said raising and lowering means to throw the gearing aforesaid into and out of gear with the first mentioned shaft.

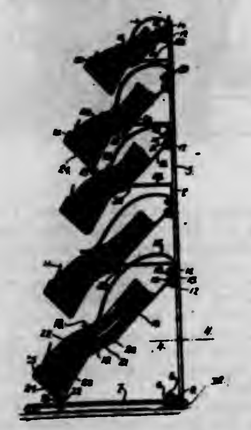
2. In a machine of the class described, a frame, a shaft journaled on said frame, traction wheels secured to said shaft, arms pivotally mounted on said frame and adapted to move in vertical planes, rods secured to said arms, a shaft journaled on said arms, said shaft having crank members formed thereon, rearwardly extending arms pivotally mounted on one of the rods aforesaid, downwardly extending arms pivotally secured to the free terminals of the last mentioned arms, chopping blades secured to the lower terminals of said downwardly extending arms, a rod pivotally secured to each of said downwardly extending arms and pivotally engaging the other of said rods, links connecting the crank members on the shaft aforesaid with said rearwardly extending arms, a sprocket wheel revolubly mounted on the first mentioned shaft, a clutch member secured to said sprocket wheel, a clutch member secured to the shaft and adapted to engage the clutch member on the sprocket wheel, means to hold said clutch members in engagement, said sprocket wheel being geared to the shaft journaled on said vertically moving arms, means to raise and lower said vertically moving arms, and means operated by said raising and lowering means to move said clutch members into and out of engagement.

3. In a machine of the class described, a frame, a shaft journaled on said frame, arms pivotally secured to said frame and adapted for movement through vertical planes, chopping members operatively mounted on said arms, gearing mounted on said shaft and operatively connected with said chopping members, a clutch member secured to the gearing member mounted on the shaft, a clutch member secured to said shaft, a spring mounted on the shaft and engaging said gearing member to hold the clutch members in engagement, a sleeve slidably mounted on the shaft and having upwardly extending ears, a plate secured to said sleeve and engaging the gearing member, a laterally inclined rod slidably engaging said ears, a rock shaft journaled on said frame and operatively secured to said vertically moving arms, means to rock said shaft, and an arm secured to said shaft and pivotally engaging said laterally inclined rod.

1,038,980. PAPER-BAG HOLDER. HARRY L. SNYDER, Denver, Colo. Filed Oct. 17, 1911. Serial No. 655,193. (Cl. 211—2.)

1. A bag-holder consisting, in combination with a suitable support, of a shelf mounted thereon in an inclined

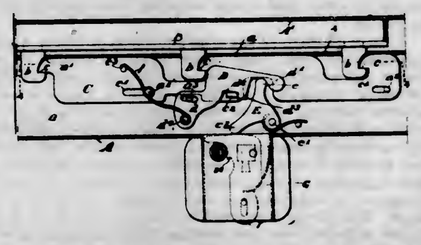
position and equipped with a spring secured to the upper part of the shelf and extending downwardly in front of the latter, the spring being adapted to engage bags when in place on the shelf, the lower portion of the shelf having a part bent to form an angle with the body of the shelf to maintain the bags thereon, the said part being also bent upwardly to engage the lower extremities of the bags in front, substantially as described.



2. In a bag-holder, the combination with a suitable support, of a shelf mounted thereon to occupy an inclined position, the lower extremity of the shelf having a part extending outwardly and forwardly therefrom to engage the lower extremities of the folded bags, the said part being bent upwardly to engage the bottoms of the bags in front, the said shelf being equipped with a spring extending forwardly and downwardly from the top of the shelf and adapted to engage the bags in front, the shelf being bent forwardly to cause the bags below the point of engagement of the spring to curve outwardly to facilitate their removal, substantially as described.

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1,038,981. TRUNK-LOCK. FRANK SOLBY, Philadelphia, Pa., assignor to Miller Lock Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 21, 1911. Serial No. 609,891. (Cl. 70—27.)



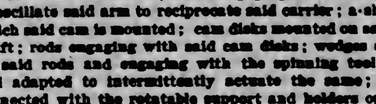
1. The combination of a keeper, a sliding bolt adapted to engage the keeper, a pivoted locking dog engaging the bolt and arranged to be acted upon by the keeper, a spring actuated lever for throwing the bolt and lifting the dog, and a tumbler engaging the lever.

2. The combination in a lock, of a keeper, having a wide hooked projection, a sliding bolt for the hook arranged to be engaged by the projection on the keeper, a pivoted locking dog arranged to be actuated by the hooked projection and having a projection engaging the lug on the bolt and the locking dog, and a separate locking mechanism for actuating the lever.

3. The combination in a lock, of a keeper having a series of hooked projections, a casing, a sliding bolt mounted in the casing and having a series of hooks to engage the projections of the keeper; a pivoted locking dog engaging the bolt when in the forward position and arranged to be acted upon by one of the projections of the keeper, said bolt and dog being notched, a two-armed lever pivotally mounted in the casing and having one arm extending into the notches of the lever and dog, with a separate lock casing, a tumbler therein bearing against the other arm of the lever, and means for actuating the tumbler.

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1,038,982. TRAMWAY-TRACK. PAUL STARKE, Berlin, Germany. Filed June 2, 1912. Serial No. 701,319. (Cl. 104—14.)



1. In a street railway track, a tie, chairs mounted on the tie, rails supported on the chairs, clamps secured to the chairs, and overlapping the flanges of the rails to fasten said rails in position, plates located on opposite sides of each rail below the upper surface of the latter, each of said plates having an undercut portion to receive the clamps, a layer of concrete between the inner plates of the track, and a layer of surfacing material over the plates and abutting against the rails.

2. In a street railway track, a layer of concrete in which the track is embedded, grooved rails, ties for supporting said rails, means for securing said rails onto said ties, and comprising a sole piece on which rests the rail foot and embedded in said tie, clips on top and on each side of said rail foot and said sole piece, and bolts securing said clips and consequently said rail to said tie, removable separating plates between said concrete layer and said rail, extending alongside the rail webs and covering the rail foot and an asphalt covering at level with the rail head and covering said concrete and said plates.

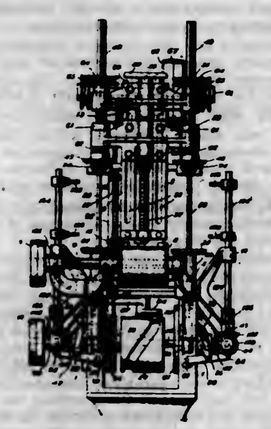
3. In a street railway track, a tie, rails supported by the tie, means on opposite sides of each rail to secure the latter to the tie, a plate located on each side of each rail below the upper surface of the latter, each of the plates having an undercut portion to receive the rail securing means, a layer of concrete abutting against the plates, and a layer of surfacing material located over the plates and the layer of concrete.

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1,038,983. MACHINE FOR AFFIXING CLOSURES TO VESSELS. ALDEN B. STARR, New York, N. Y., assignor to Single Service Package Corporation of America, New York, N. Y., a Corporation of New Jersey. Filed July 21, 1911. Serial No. 639,825. (Cl. 113—20.)

1. In a machine for applying end closures to vessels the combination of a supporting frame; a vessel feeding mechanism; closure affixing mechanism disposed to either side of said feeding mechanism and comprising each, a rotatable support and holder; a rotatable mandrel adapted to hold the closure on the vessel, a spinning tool coöperable with said mandrel; reciprocable slides on which said spinning tools are mounted; a reciprocable carrier operable to feed the vessels to the closure affixing mechanisms alternately; an arm fulcrumed on the supporting frame and connected with said carrier; a cam engaging with and operable to oscillate said arm to reciprocate said carrier; a shaft on which said cam is mounted; cam disks mounted on said cam shaft; rods engaging with said cam disks; wedges carried by said rods and engaging with the spinning tool slides and adapted to intermittently actuate the same; means connected with the rotatable support and holders operable to release the vessels with applied closures; and rotatable arms operable to remove the released vessels, substantially as described.





2. In a machine for applying end closures to vessels the combination of a supporting frame; a vessel feeding mechanism; a tray adapted to receive the vessels; closure affixing mechanism disposed to either side of said tray and comprising each; a rotatable support having an axially movable disk adapted to engage with the vessel, a rotatable mandrel adapted to hold the closure on the vessel, a spinning tool coöperable with said mandrel; reciprocable slides on which said spinning tools are mounted; a reciprocable carrier operable to feed the vessels to said rotatable supports alternately; an arm fulcrumed on the supporting frame and connected with said carrier; a shaft journaled in the frame; a cam drum mounted on said shaft and having engagement with said arm to actuate the same; a pair of cam disks mounted on said cam drum shaft; means for rotating said cam drum shaft; rods having wedges engaging with said cam disks and the spinning tool slides and adapted to intermittently actuate said slides means for axially moving the disks of said rotatable supports to release the vessels with applied closures; and rotatable arms operable to remove the released vessels, substantially as described.

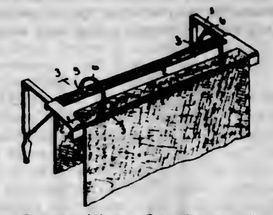
3. In a machine for applying end closures to vessels, the combination of a rotatable support having an axially movable disk; means for moving said disk axially to engage with the inner wall surface of the vessel to hold said vessel, and to bring said disk flush with the surface of the support to permit of removal of the vessel; a mandrel; a spinning tool; and means for feeding the vessels to the support and removing the same therefrom, substantially as described.

4. In a machine for applying end closures to vessels, the combination of a rotatable support having an axially movable disk adapted to engage within and hold the vessel; a rod secured to said disk; a pivotally mounted lever engaging with said rod; a cam engaging with and adapted to actuate the lever to lift the rod and raise and lower said disk; means for actuating said cam; a mandrel; a spinning tool; and means for feeding the vessels to the support and removing the same therefrom, substantially as described.

5. In a machine for applying end closures to vessels, the combination of a rotatable support having an axially movable disk; a mandrel disposed above said support; a spinning tool coöperable with the mandrel; means for guiding the vessel to said support; means for raising and lowering said support and disk to bring the vessel into and out of engagement with the mandrel; means for moving the disk independently to engage with and release the inner wall of the vessel; and means for removing the released vessel from the support, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

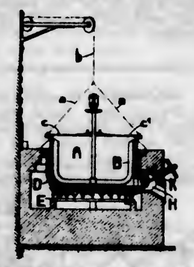
1,038,984. TOWEL-RACK. LOUIS STRAUB, Denver, Colo. Filed Dec. 22, 1911. Serial No. 667,276. (Cl. 45—32.)



A towel rack comprising a flat plate having its opposite longitudinal edges bent downwardly to form towel engaging ledges, means for rigidly supporting the plate in a horizontal position, studs secured adjacent to one edge of the latter, the upper ends of which are reduced to form pins, bails movably mounted upon the plate one end of which are provided with sockets to receive the pins of the studs, a locking bar slidably and detachably located in slots in the lower ends of the bail adjacent the head thereof, whereby when the bar is withdrawn from the slots the bail can be elevated and turned to expose the pins of the studs, and means for holding the bar to prevent longitudinal movement thereof.

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1,038,985. MANUFACTURE OF OXALATES. DAVID STRAUSS, Basel, Switzerland, assignor to Society of Chemical Industry in Basle, Basel, Switzerland. Filed Apr. 11, 1910. Serial No. 554,808. (Cl. 23—24.)



The herein described process for the manufacture of oxalates from formates by introducing alkali formate without any initial admixture and without exclusion of air into a fusion vessel previously heated to a temperature above 400° C., the introduction of the formate and the heating being so controlled that during the reaction the temperature of the vessel is constantly maintained above 400° C.

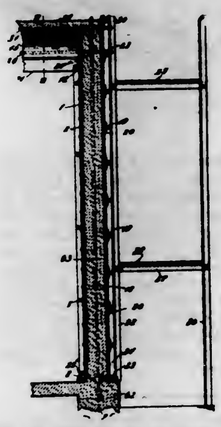
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1,038,986. MOLD FOR CONCRETE BUILDINGS. JOSEPH STRETCH, Freeport, N. Y., assignor to Frank D. Lambie, Montclair, N. J. Filed Nov. 25, 1910. Serial No. 594,065. (Cl. 25—131.)

1. A knockdown room mold for concrete buildings comprising wall forming mold sections of successively shorter lengths, stairway forming parts, said parts including a plurality of riser plates, and an obliquely disposed mold section to which said riser plates are attached, said obliquely disposed mold section having both the upper and lower edges thereof stepped to respectively conform with the treads of the stairway and with said successively shortened wall forming mold sections.

2. A knock-down room mold for monolithic structures comprising a casing in the form of an inverted box, the walls of said casing being built up of separable flat sheet metal panels, said panels being flanged and adapted to interlock, and separable sheet metal plates forming the ceiling of said casing, said casing further having a rectangular frame therein adapted to hold said panels in alinement, and ceiling plate supporting struts extending from one side

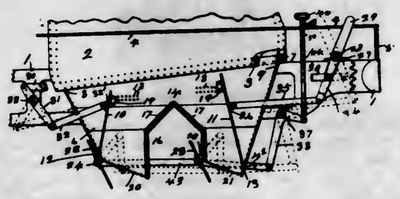
of the casing to another, the casing being rigid and self supporting when the parts thereof are in assembled relationship, exterior mold sections, a combined scaffold and supporting frame for said sections, tie connections between said supporting frame and said casing, said connections ex-



tending across the mold space between the exterior mold sections and the casing, said exterior mold sections extending horizontally and being adapted to be superimposed as needed during the erection of the monolithic walls, said exterior mold wall sections being also of sheet metal and adapted to interlock.

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1,038,987. LOCOMOTIVE ASH-PAN. JOSEPH A. SWARTZ, Fort Wayne, Ind. Filed Mar. 12, 1909. Serial No. 482,932. (Cl. 110—167.)



1. A locomotive ash pan having a transverse arch intermediate its ends, the bottom of said pan being open to provide discharge orifices at the sides of said arch, means for normally closing said discharge orifices, means for actuating said closing means, and means arranged within the pan above said discharge orifices and cooperating with the transverse arch to exert lateral pressure on the contents thereof in the plane of said arch and at right angles thereto.

2. A locomotive ash pan having a transverse arch midway of its ends; normally closed vertical discharge openings in the bottom of the pan upon the opposite sides of the arch; means for opening and closing the opposite discharge openings from the engine cab simultaneously; inwardly opening doors in the ends of the pan and hinged at their lower ends; said doors coöperating with said arch to exert pressure upon the contents of the pan to facilitate discharge of said contents, and means for opening and closing such doors simultaneously from the engine cab independently of the last mentioned means.

3. A locomotive ash pan having a centrally disposed transverse arch, the bottom of said pan being open to provide discharge orifices at the sides of said arch, means for closing said orifices, means for actuating said closing means, means arranged at the sides of the arch and coöperating therewith to exert a pressure upon the contents of the pan to effect discharge thereof, and means for actuating the closing means for said orifices simultaneously and independently of the movement of the means for aiding discharge of the contents.

4. A locomotive ash pan having a transverse arch arranged centrally thereof, the bottom of said pan being open to provide discharge orifices at the sides of said arch, means for normally closing said openings, means for actuating said closing means simultaneously from the engine cab, means arranged within the pan and above said discharge orifices for coöperation with said transverse arch, whereby to aid the discharge of the contents of the pan by lateral pressure upon said arch, and means for actuating the last mentioned means from the engine cab independently of the actuation of the closing means for said discharge orifices.

5. In a locomotive ash pan the combination of a pendant pan transversely divided by an arched portion of its bottom, and having a vertical discharge opening upon each side of the arch; means for simultaneously opening and closing the said openings from the engine cab; means for exerting a lateral pressure upon the contents of the pan from the ends thereof to aid in its discharge, consisting of hinged doors operatively mounted in the opposite ends of the pan; means for operating the said doors from the engine cab independently of the means for opening and closing the said openings; and means for firmly securing the discharge opening closing means in an open position.

[Claim 6 not printed in the Gazette.]

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1,038,988. SHOCK-TYING DEVICE. CHARLEY R. TILFORD, Tullahoma, Tenn., assignor of one-third to Harry Frye, Tullahoma, Tenn. Filed Jan. 19, 1912. Serial No. 672,202. (Cl. 100—31.)



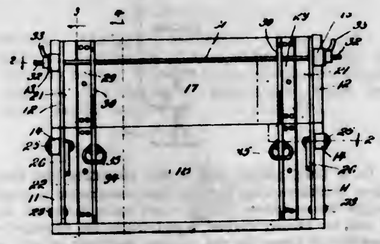
1. In a shock tying device, an upright, a curved shield connected with and spaced from said upright, a shaft supported for rotation on the upright and having at one end a conical pin extending through the shield and at the other end a crank, that portion of the conical pin which is located between the shield and the upright constituting a drum, a tightening cord having one end permanently connected with the drum, said drum being provided with a perforation with which the other end of the tightening cord may be detachably connected, and a shock engaging pin connected with and extending from the lower end of the upright.

2. In a shock tying device, an upright, a curved shield connected with and spaced from said upright, a shaft supported for rotation on the upright and having at one end a conical pin extending through and provided with a shoulder abutting upon the shield and at the other end a crank, that portion of the conical pin which is located between the shield and the upright constituting a drum, a tightening cord having one end permanently connected with the drum, said drum being provided with a perforation with which the other end of the tightening cord may be detachably connected, and a shock engaging pin connected with and extending from the lower end of the upright.

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1,038,989. WAGON END-GATE. SWAN J. TILLEY, Chappell, Nebr. Filed Feb. 7, 1911. Serial No. 607,063. (Cl. 21—21.)

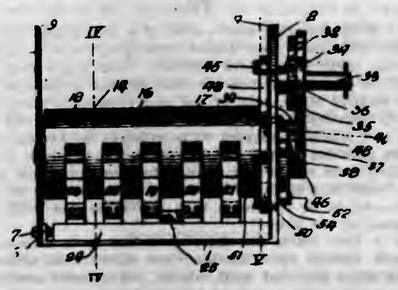


1. A device of the class described comprising a wagon body, stationary cleats fixed to the inner faces of the sides of said body, L-shaped clamping cleats pivoted at their lower ends to the inner faces of the side of said body adjacent said stationary cleats, said clamping cleats being provided adjacent their upper ends with arcuate slots, stationary pivot pins engaging said slots and said clamping cleats, and a removable end gate insertible between said stationary and said clamping cleats.

2. A device of the class described comprising a wagon body, stationary cleats fixed to the inner faces of the sides of said body, L-shaped clamping cleats pivoted at their lower ends to the inner faces of the side of said body adjacent said stationary cleats, said clamping cleats being provided adjacent their upper ends with arcuate slots, stationary pivot pins engaging said slots and said clamping cleats, a removable end gate insertible between said stationary and said clamping cleats, and cam members carried by said pivot pins and coöperative with said clamping cleats for locking the same in clamping relation to said end gate.

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1,038,990. SWITCH FOR ALTERNATING-CURRENT MACHINES. FREDERICK WILLIAM TRENEY, Pittsburgh, Pa. Filed Nov. 25, 1911. Serial No. 662,822. (Cl. 175—287).



1. In a switch for alternating current machines for elevator service, the combination with a rock shaft, of a rotor means operated by said rock shaft and capable of operatively engaging with said roter for oscillating it, a contact drum loosely mounted upon said rotor and having a yieldable connection with said roter, means for holding said drum during a movement of said rotor in one direction, and means adapted to release the first mentioned means whereby said drum will oscillate relatively to said rotor, and sets of contact fingers associated with said drum.

2. In a switch for alternating current machines, an oscillatory rotor, a contact drum loosely mounted upon said rotor and yieldably connected thereto, means for holding said drum during a movement of said rotor, and means for releasing said drum whereby said drum will oscillate while said rotor is stationary.

3. In a switch for alternating current machines, a rotor, a contact drum loosely mounted upon said rotor, a spring encircling said rotor within said drum and having one end thereof fixed to said rotor and the opposite end to said drum, means in connection with said rotor for placing said spring under tension, means for automatically holding said drum during the operation of said rotor, and means adapted to release the last mentioned means whereby said spring can restore said drum to its normal position.

4. In a switch for alternating current machines for elevator service, the combination with a rock shaft, of a rotor, a contact drum loosely mounted upon said rotor, a spring connecting said rotor and said drum, means actuated by said rock shaft and operatively engaging with said rotor for placing said spring under tension, means for holding said drum while said spring is placed under tension, and means operated by said rotor for automatically releasing the last mentioned means.

5. In a switch for alternating current machines for elevator service, a rotor, a contact drum loosely mounted upon said rotor, sets of contact fingers associated with said drum, a spring having the ends thereof attached to said rotor and to said drum, means including gears for placing said spring under tension, means including arms for holding said drum while said spring is placed under tension, means including a lever for locking said drum in an adjusted position, and means carried by said rotor for releasing said arms and lever.

[Claims 6 to 10 not printed in the Gazette.]

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1,038,991. METHOD OF BENDING PRINTING-SURFACES. BURT F. UPHAM, Boston, Mass., assignor to Southgate Machinery Co., Boston, Mass., a Corporation of Massachusetts. Filed Jan. 30, 1908. Serial No. 413,389. (Cl. 101—178.)



The herein described method of producing electrotype plates which register with each other, the same consisting in making a mold from an original flat plate, taking an electrotype shell from said mold, backing it up and then curving it to fit the cylinder for which it is desired, taking a mold from said original plate and curving it, taking an electrotype shell from the last-named mold, removing such shell and flattening it, and then backing it up flat, whereby said curved electrotype and said flat electrotype shall mutually register.

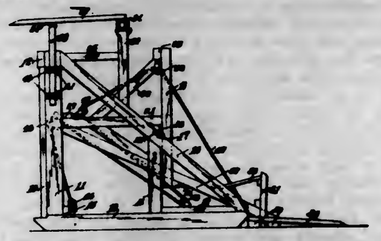
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1,038,992. HAY-STACKER. JOHN ORISON VAN CLEAVE, Sidney, Colo. Filed Sept. 9, 1910, Serial No. 581,212. Renewed Feb. 21, 1912. Serial No. 679,187. (Cl. 57—53.)

1. In a hay loader, a main frame, a secondary frame pivoted to the main frame, a loading fork provided with arms pivoted to the secondary frame, and hoisting means arranged to first rotate the secondary frame on its pivots and then rotate the fork on its pivots.

2. In a hay loader, a main frame, a secondary frame pivoted to the main frame, a loading fork provided with arms pivoted to the secondary frame at points remote from the pivots connecting the main and secondary frames, a stop member on the secondary frame to limit the movement of the fork arms in one direction relative to said frame, and hoisting means arranged to first rotate the

secondary frame on its pivots and thereby raise the fork and then rotate the fork on its pivots to complete the movement of said fork.



3. In a hay loader, a main frame, a secondary frame of substantially triangular form, pivots connecting said main frame with the base of said triangular frame, the connection of said pivots with the triangular frame being intermediate the extremities of the base, a loading fork, arms fixed to the loading fork and having their free extremities pivoted to the apex of the triangular frame, a stop member forming part of said triangular frame and against which said arms engage to limit the movement of the arms in one direction relative to said frame, the base of said triangular frame being vertical when the fork is lowered, a pulley fixed to the triangular frame adjacent its upper angle, a second pulley attached to the triangular frame adjacent its apex, a third pulley attached to the main frame forward of and below the triangular frame, a fourth pulley fixed to the triangular frame adjacent its apex, and a cable having one end attached to the fork and led around the pulleys in the order named.

4. In a hay loader, a main frame, a secondary frame pivoted to the main frame, a loading fork provided with arms pivoted to the secondary frame, and hoisting means arranged to first rotate the secondary frame on its pivots and then rotate the fork on its pivots; in combination with a discharging platform carried by said main frame and having its forward portion arranged to be engaged by said fork when the latter is raised.

5. In a hay loader, a main frame, a secondary frame pivoted to the main frame, a loading fork provided with arms pivoted to the secondary frame at points remote from the pivots connecting the main and secondary frame, a stop member on the secondary frame to limit the movement of the fork arms in one direction relative to said frame, and hoisting means arranged to first rotate the secondary frame on its pivots and thereby raise the fork and then rotate the fork on its pivots to complete the movement of said fork; in combination with a discharging platform carried by said main frame and having its forward portion arranged to be engaged by said fork when the latter is raised.

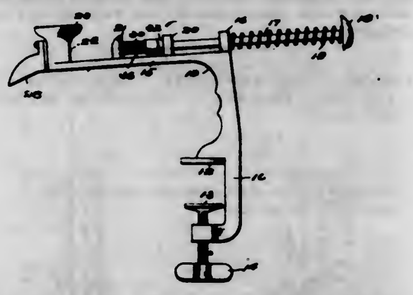
[Claim 6 not printed in the Gazette.]

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1,038,993. HAND FRUIT-PITTER. ELMER A. VARY, Middleport, N. Y. Filed Mar. 18, 1912. Serial No. 684,611. (Cl. 146—5.)

1. In a fruit pitter, means for receiving the fruit, a plunger, a fork carried thereby, said fork comprising a plurality of fruit piercing prongs having their ends outwardly turned and flattened, and a prong for directly and positively engaging a pit, said flattened prongs being of staple-like form and having their sides substantially parallel, a shank portion provided with bores through which said flattened prongs extend, the prongs having portions disposed within said bores, and a collar carried by the plunger and provided with a central bore, said plunger having a reduced portion passing through the bore last mentioned and entering the shank portion at a point between the parallel members of the prongs.

2. In a fruit pitter, means for receiving the fruit, a plunger, a fork carried thereby and comprising a plurality of staple-like members having their ends outwardly turned, a shank portion for carrying said members, portions of said members extending through the shank, and a collar abutting the middle portion of each staple member, for retaining the same in position.



3. In a fruit pitter, means for receiving the fruit, a plunger, a fork carried thereby and comprising a plurality of staple-like members having their ends flattened, broadened, and outwardly turned, a shank portion provided with a plurality of bores for the prongs, portions of said members extending through the shank, a collar carried by the plunger and abutting the central portion of the staple members at one end of the shank, and a prong located between the prongs first mentioned and terminating at a slight distance from the ends thereof, said shorter prong engaging the pit directly when received between the ends of the other prongs.

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1,038,994. DOOR-FRAME. CHARLES P. VERNIER, Cedar Rapids, Iowa. Filed Apr. 1, 1912. Serial No. 687,874. (Cl. 20—1.4.)



1. In combination with a silo, of a door frame for the same, the said door frame embodying vertical stiles having their inner faces adjacent their edges rabbeted and the inner wall thus provided beveled, cross sills for the vertical stiles, each of the said cross sills being centrally provided with a tongue which extends beyond the sill and which is adapted to be received within the rabbeted portions of the vertical stiles, the opposite longitudinal faces of the tongue being beveled and plates upon the outer face of the sills adapted to project beyond the sills and to be connected with the stiles and with the tongues of the sills.

2. A door frame for the purpose set forth embodying spaced vertical stiles having their inner faces adjacent their edges provided with rabbets, transversely arranged sills for the stiles, each of said sills being centrally provided with a longitudinally extending tongue which projects beyond the edges of the sills and which is adapted to be received in and secured within the rabbets of the vertical stiles, plates upon the outer faces of the sills and projecting from the faces of the stiles and means for connecting the plates with the stiles.

3. A door frame for silos comprising vertical stiles, having their inner faces rabbeted adjacent their opposite vertical edges, angle plates for the edges of the stiles, sills for the stiles, said sills being each provided with a centrally arranged longitudinally extending tongue which projects beyond the edges of the sills and is adapted to be received within the rabbets of the stiles and to be secured therein, plates upon the outer faces of the sills, each of said plates projecting beyond the faces of the oppositely arranged stiles, means for securing the plates to the stiles, L-shaped brackets upon the stiles, each of said brackets having its offset member centrally recessed and hoops arranged within the recesses and connected with the silo.



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1,038,995. ELECTRIC SWITCH. ANTHONY F. WALLBILLICH, Bridgeport, Conn., assignor to The Perkins Electric Switch Manufacturing Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Aug. 18, 1911. Serial No. 644,824. (Cl. 175—289.)



1. A switch mechanism for rotary snap switches, comprising a switch spindle, a pair of switch blades, a yoke freely journaled on said spindle and carrying the switch blades, a shouldered eccentric in sliding engagement but rotarily movable with said yoke, a series of stop lugs coöperating with the shoulder of said eccentric, and a cam for operating said eccentric.

2. A switch mechanism for rotary snap switches, comprising a switch spindle, a pair of switch blades, a yoke freely journaled on said spindle and carrying the switch blades, an eccentric in sliding engagement but rotarily movable with said yoke, a peripheral shoulder on said eccentric, a series of stop lugs coöperating with said peripheral shoulder and a cam for operating said eccentric.

3. A switch mechanism for rotary snap switches, comprising a stop plate with punched up stop lugs projecting from its upper face, an eccentric with peripheral shoulder coöperating with said stop lugs and a pin projecting from the upper face of said eccentric, a slotted yoke moving with the switch blades and in sliding engagement with said pin, in combination with a cam for operating said eccentric.

4. A switch mechanism for rotary snap switches comprising a switch spindle, a yoke freely journaled thereon, contacts carried by said yoke, a radially slotted lug on said yoke, a cam fast with the switch spindle, a yoke with bearing aperture journaled on said cam and provided with a punched up pin engaging in the radial slot of the yoke, and a peripheral shoulder, in combination with a stop plate with punched up lugs engaging said peripheral shoulder on the eccentric, substantially as described.

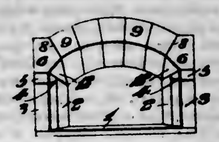
5. A switch member for rotary snap switches, comprising a switch spindle, a cam thereon, an eccentric with peripheral shoulder and struck-up lug journaled on said cam, and a contact carrying yoke having a slotted lug in the slot of which said struck-up lug engages, together with a series of stationary stop lugs adapted to be serially engaged by said peripheral shoulder on the eccentric, substantially as described.

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1,038,996. ARCH CONSTRUCTION. JAMES WARNER, Philadelphia, Pa. Filed May 24, 1912. Serial No. 699,371. (Cl. 72—56.)

1. A structure of the character stated, comprising outer and inner pier-blocks, said inner blocks having inwardly inclined upper ends, wedge-blocks adapted to fit upon said inclined ends to provide level upper faces on the piers, skew-backs fitting upon said faces and formed with inwardly beveled seats, and voussoirs abutting against said seats and forming an arch.

2. A structure of the character stated, comprising outer pier-blocks, inner pier-blocks shorter than said outer blocks and having inwardly inclined upper ends, wedge-blocks fitting upon said inclined ends to form level faces with the ends of the outer blocks, skew-backs fitting upon such faces and having outwardly inclined upper sides and inwardly beveled seats having a similar incline as said upper sides, and voussoirs abutting against said seats and forming an arch.

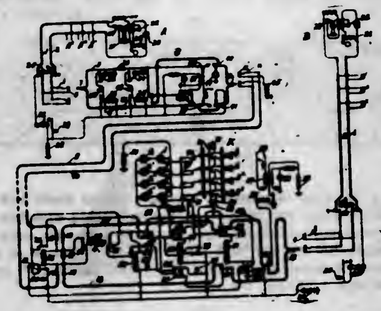


3. A structure of the character stated, comprising pier-blocks having obliquely-diverging inner faces, skew-backs seated upon the upper ends of said pier-blocks and having outwardly inclined upper sides and inwardly beveled seats having a similar incline as such sides and formed with flaring beveled faces below said seats, and voussoirs abutting against said beveled seats and forming an arch.

4. In a structure of the character stated, a skew-back formed with an outwardly inclined upper side, an inwardly beveled seat having a similar incline as said side, and beveled triangular faces below said seats.

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1,038,997. TELEPHONE SYSTEM. HARRY G. WEBSTER, Chicago, Ill., assignor, by mesne assignments, to Kellogg Switchboard & Supply Company, a Corporation of Illinois. Filed Mar. 19, 1909. Serial No. 484,466. (Cl. 179—84.)



1. A telephone system comprising a telephone line, a link-circuit for connecting with said line, a source of ringing current, two control relays, connections from said source through normally open contacts of one of said relays, means dependent upon the connection of said link-circuit to said line to operate said relay to connect said source to said line, means controlled over the line circuit to operate said second relay to directly disconnect said ringing source, and means responsive to such operation to restore said first relay to normal.

2. A telephone system comprising a telephone line, a link-circuit for connecting with said line having tip and sleeve stranda, tip and sleeve relays connected with said stranda, a source of ringing current, two control relays, connections from said source through normally open contacts of one of said relays, means for actuating said control relay by closing a circuit through contacts of said tip and sleeve relays to connect said source to said line, and means for actuating the second control relay to disconnect said source by a circuit through contacts of said tip relay.

3. A telephone system comprising a telephone line, a link-circuit for connecting with said line having tip and sleeve stranda, tip and sleeve relays connected with said stranda, a source of ringing current, two control relays, contacts for closing an actuating circuit for the first control relay through contacts of said sleeve relay, to connect

said source to said line, and contacts for changing the second control relay connections to actuate it to disconnect said source by a circuit through contacts of said sleeve relay.

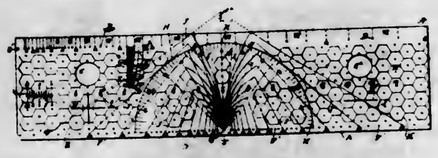
4. A telephone system comprising a telephone line, a link-circuit for establishing connection to said line, a source of ringing current, two differential control relays, normally open connections from said source to said line through contacts of said relays, means for energizing said windings of both relays differentially, means for subsequently destroying the differential action of the windings of one of said relays to apply ringing current to the line, and means for subsequently destroying the differential action of the windings of said other relay to disconnect said source from said line.

5. A telephone system comprising a telephone line, a link-circuit for establishing connection to said line, a source of ringing current, two differential control relays, normally open connections from said source to said line through contacts of one of said relays, means for energising said windings of both relays differentially, means for opening the circuit of one differential winding of said relay to apply ringing current to said line, and means for subsequently opening the circuit of one differential winding of the other of said relays to disconnect said source from said line.

[Claims 6 to 33 not printed in the Gazette.]

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1,038,998. DRAWING INSTRUMENT. JOHN WILLIAM WHALEN, Graymont, Ill.; Catharine L. Whalen, Cambridge, Mass., administratrix of said John W. Whalen, deceased. Filed Dec. 18, 1902. Serial No. 135,731. (Cl. 33—8.)



1. A drawing instrument having a linear scale and numerals thereon, the division of the said scale equaling the algebraic expression $ab^n$, and the said numerals equaling the exponent "n" of said algebraic expression, a of said algebraic expression having the value of .78125 millimeters and b having the value of

$$\sqrt[10]{2},$$

the said exponent "n" being variable, free from fractions, of the value of 1, 2, 3, 4 . . . respectively, for each successive division, as set forth.

2. A drawing instrument having two apertured linear scales with numerals thereon, one of which linear scales is of equal parts and one of which linear scales has divisions which equal the algebraic expression $ab^n$, the numerals of which latter scale equal the exponent "n" of which algebraic expression a equals .78125 millimeters, b equals

$$\sqrt{2}$$

and "n" is a variable of the value of 1, 2, 3, 4 . . ., respectively, for each successive division, as set forth.

3. A drawing instrument consisting of a transparent plate provided with an apertured linear scale having a primary and a secondary set of divisions, each of the primary divisions of said scale being successively limited by the points D′ and 38, D′ and 39, D′ and 40 . . ., each of the primary divisions of said scale being respectively represented by the numerals 38, 39, 40 . . ., each of the primary divisions of said scale being respectively equal to the algebraic expression $ab^{38}$, $ab^{39}$, $ab^{40}$ . . ., in which algebraic expression a has the value of .78125 millimeters and b has the value of

$$\sqrt[10]{2},$$

each of the secondary divisions of said scale being successively limited by the points 39 and 40, 40 and 41, 41 and 42 . . ., each of the secondary divisions of said scale being respectively represented by the inverted numerals

$$1, 2, 3, 4, \ldots,$$

each of the secondary divisions of said scale being respectively equal to the algebraic expression, $ab$, $ab^2$, $ab^3$, $ab^4$ . . ., in which algebraic expression a has the value of .78125 millimeters, and b has the value of the

$$\sqrt[10]{2},$$

as set forth.

4. A drawing instrument having an apertured linear scale provided with numerals, the divisions of said scale equaling the algebraic expression $ab^n$ and the said numerals equaling the exponent "n" of said algebraic expression, a of said algebraic expression having the value of .78125 millimeters, b having the value of the

$$\sqrt[10]{2},$$

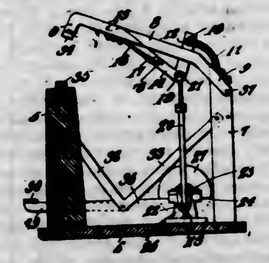
and "n" being a variable of the value 1, 2, 3, 4 . . . respectively, for each successive division, and also having graduated vernier arcs extending from said scale, the common center of the arcs being in the beginning point of said scale, as set forth.

5. A drawing instrument having an apertured linear scale of unequal divisions, said scale being so divided that each successive division is the mean proportional between its preceding and its succeeding division, the larger divisions of said scale being limited by their respective scale points and the beginning point of said scale, the smaller divisions of said scale being limited by two succeeding points of said scale, as set forth.

[Claims 6 to 42 not printed in the Gazette.]

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1,038,999. POWER-HAMMER. JOHN AMOS WILLEY, Waterloo, Iowa. Filed Mar. 18, 1912. Serial No. 684,556. (Cl. 78—32.)



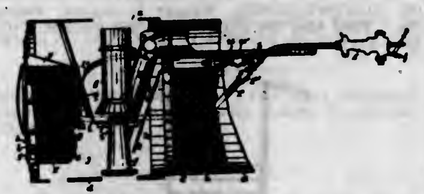
1. In a power hammer, the combination of a frame, a hammer helve pivoted thereto at one end, two yielding members each fixedly secured at one end to the said helve at opposite sides thereof, one at a point adjacent to and the other at a point remote from the fulcrum of the helve, the free ends of said members extending toward each other, and a member reciprocable transversely of the helve and engaging the free ends of the yielding members to impart a yieldable oscillatory movement to the helve.

2. In a power hammer, the combination of a suitable frame, a hammer helve pivoted thereto at one end, two yielding members each fixedly secured at one end to the said helve at opposite sides thereof, one at a point adjacent to and the other at a point remote from the fulcrum of the helve, the free ends of said members extending toward each other, a lever pivoted to the helve at a point remote from the fulcrum and having members engageable with the free ends of the respective yielding members, and a member reciprocable transversely of the helve and connected to the said lever so as to impart a yieldable oscillatory movement to the helve.

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1,039,000. FEED-WATER HEATER. DAVID T. WILLIAMS, Paterson, N. J., assignor of one-half to Frank L. Connable, Wilmington, Del. Filed Mar. 26, 1912. Serial No. 686,355. (Cl. 122—423.)



1. In combination, with a smoke-box having an opening in its wall-structure affording access to the interior of the smoke-box and a removable closure member for said opening, a feed water heater carried by said closure member, substantially as described.

2. In combination, with a smoke-box having an opening in its wall-structure affording access to the interior of the smoke-box and a removable closure member for said opening, said closure member itself having an opening, a feed water heater carried by the closure member and having a passage opposed to the opening therein, and a removable closure member for the latter opening, substantially as described.

3. In combination, with a smoke-box having an opening in its wall-structure affording access to the interior of the smoke-box and a removable closure member for said opening, a tubular structure coiled to form a passage therethrough and arranged within the smoke-box relatively close to, and with the passage thereof opposed to, said opening, substantially as described.

4. In combination, with a smoke-box structure having an opening in one of its walls affording access to the interior of the smoke-box and a removable closure member for said opening, a feed-water heater carried by said closure, and supply and discharge means attached to said structure and removably connected with the heater, substantially as described.

5. In combination, with a locomotive smoke-box structure, the front wall of said structure having an opening affording access to the interior thereof, a removable closure member for said opening, and a feed-water heater carried by said closure member, substantially as described.

[Claim 6 not printed in the Gazette.]

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1,039,001. ANIMAL-TRAP. JOSEPH F. WINKLER, Dollar Bay, Mich. Filed May 1, 1912. Serial No. 694,237. (Cl. 43—21.)



1. A trap, comprising a supporting base having spaced upstanding flanges at its opposite ends, shafts supported on said base, a spring-actuated striker pivoted on one of said shafts, a latch member engageable with the said striker, said latch member being pivoted on the other shaft and having a portion extending between, and guided by, the flanges at one end of the base, and a bait carrier engageable with the latch member, the said flanges at the opposite end of the base coöperating with the striker for the purpose described.

2. A trap comprising a supporting base having upstanding flanges along its sides and provided at one end with spaced upstanding flanges, shafts supported by the said side flanges, a spring actuated striker pivoted on one of said shafts, a bait-carrier pivoted on the same shaft with the striker, and a latch member pivoted upon the other of said shafts, said latch member having portions engageable with the striker and with the said bait-carrier and also having a portion disposed between, and guided by, the said end flanges of the said supporting base.

3. A trap comprising a supporting base having side flanges, a shaft supported by said side flanges, a spring actuated striker pivoted on said shaft, a bait-carrier also pivoted on the said shaft, a latch member adapted for engagement at one end with the said bait-carrier, said latch member being longitudinally slitted adjacent its opposite end whereby to provide a central tongue and side portions upon opposite sides of the tongue which are crimped or bent in the same direction, and a second shaft supported by the side flanges of the base and extending beneath the said crimped side portions of the latch member and over the said tongue, the said tongue of said latch member being bent upwardly at one side of the last-mentioned shaft and provided with an angular extremity for engagement with the said striker.

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1,039,002. HORSESHOE. CLARENCE L. WINSTON, Boston, Mass. Filed Mar. 27, 1912. Serial No. 686,513. (Cl. 168—18.)



1. A horse shoe comprising an inner sole, an upper connected thereto, means for lacing the upper on the hoof, an outer sole having an annular flange to engage over the inner sole, and a concave band for securing the outer sole to the inner sole.

2. A horse shoe comprising an inner sole, an upper connected thereto, means for locking the upper on the hoof, an outer sole having an annular flange to engage over the inner sole, a concave band for securing the outer sole to the inner sole, a concave band having threaded ends, an apertured plate to receive said ends, and nuts for drawing the plate and band around the inner sole.

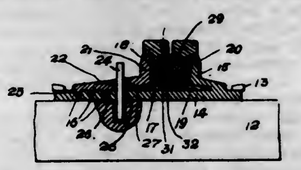
3. In combination, a boot having an inner sole, an outer sole having a flexible flange surrounding the edge of the inner sole, a concave band having its lower edge toothed to bite into the flexible flange, and means for drawing the band tightly around the inner sole.

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1,039,003. GUARD-RAIL AND RAIL-JOINT. GEORGE E. WOODS, Pittsburgh, Pa., assignor of one-half to Herman Samuel Jacobson, Pittsburgh, Pa. Filed May 25, 1912. Serial No. 699,671. (Cl. 239—18.)

1. In combination a chair plate, a holding member integral with said plate, a fastener, said fastener and member adapted to secure elements therebetween, said

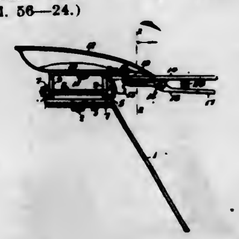
plate having its upper face provided with a diagonally disposed dove tailed groove, a dove tailed tongue depending from the fastener and seated in said groove, said tongue and groove constituting means for tightening the fastener when shifted in one direction, and a wedge extending through the fastener and plate and engaging with the fastener for shifting it when the wedge is driven, said wedge further constituting means to prevent the shifting of the fastener from locked position.



2. In combination a chair plate for supporting a main and a guard rail, a holding member carried by the plate and adapted to engage the guard rail, a transversely extending fastener shiftably interlocking with said plate and adapted to engage the main rail, and interlocked filler blocks adapted to be interposed between the guard and main rails, and means extending through the fastener and said plate for transversely shifting the fastener to locked position and further constituting means to prevent the fastener from shifting from locked position.

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1,039,004. ADJUSTABLE SEAT FOR SIDEHILL IMPLEMENTS. CHESTER YOUNG and EDWIN G. YOUNG, Livermore, Cal. Filed Oct. 19, 1911. Serial No. 655,481. (Cl. 56—24.)



In combination with a support having upwardly extending apertured plates, one of said plates having a forward extension from its upper portion, of a seat frame having depending lugs formed with apertures registering with the apertures in the plates, a longitudinal bolt through said apertures in said lugs and plates, the seat frame having rigidly connected therewith a rack, the teeth of which are above said bolt and lie in a plane transverse thereto, and in an arc of a circle about the axis of said bolt as center, a lever pivoted upon said extension, and formed at one end with a dog engaging said rack, and a spring between said extension and lever.

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1,039,005. BRUSH-BACK BLANK. FRANCISZEK ZIELINSKI, Warsaw, Russia. Filed Sept. 9, 1910. Serial No. 581,151. (Cl. 15—33.)

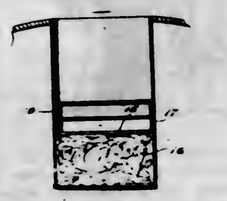


1. A brush back blank comprising a soft or malleable metal blank having an upstanding rib or flange provided with transverse bristle tuft receiving perforations located and adapted to permit the tufts to be doubled and clamped by the metal of the blank when folded and compressed thereupon.

2. A brush back blank, comprising a soft or malleable blank having two upstanding ribs or flanges, each of which is provided with transverse perforations situated opposite perforations in the other rib or flange, said perforations being adapted to receive and hold bristle tufts by the middle and permit them to be doubled and clamped by the metal of the blank when the flanges are folded and compressed thereon.

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1,039,006. PROTECTOR FOR THE SAFETY DEVICES OF OIL-CONTAINERS. ROBERT L. ZILLER, Austin, Tex. Filed May 28, 1912. Serial No. 700,266. (Cl. 220—121.)



1. The combination with a duct of a container for holding explosive fluids and a non-explosive device mounted in the duct, of means for preventing tampering with the said non-explosive device and including a plurality of baffles disposed exterior to the non-explosive device, each having cutaway and solid portions, said baffles being disposed in spaced relation to each other and the solid portions of one baffle registering with the cutaway portions of the next adjacent baffle.

2. The combination with a duct of a container holding explosive fluids, of a mass of filamentous, refractory material disposed in said duct, and means for preventing tampering with the said filaments consisting of a plurality of baffles disposed exterior to the mass of filamentous material, each having cutaway and solid portions, the said baffles being disposed in spaced relation to each other and the solid portions of one baffle registering with the cutaway portions of the next adjacent baffle.

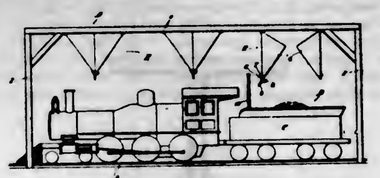
3. The combination with a duct of a container holding explosive fluids and non-explosive devices mounted in the duct, of means for preventing tampering with the said devices including a plurality of baffles disposed exterior to the non-explosive devices, the said baffles each having an annular peripheral portion and having a cutaway and solid portion carried by the annular portion, the solid portion of one baffle registering with the cutaway portion of the next adjacent baffle.

4. The combination with a duct of a container holding explosive fluids, said duct having an inwardly turned flange at one end, of a screen supported on the flange, a mass of filamentous, refractory material supported upon the screen, a screen holding said mass in place, and means for preventing tampering with the filamentous material and consisting of a plurality of baffles disposed exterior to the mass of filamentous material, each having cutaway and solid portions, said baffles being disposed in spaced relation to each other, the solid portion of one baffle registering with the cutaway portion of the next adjacent baffle.

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1,039,007. LOADING APPARATUS. JOHN R. ALEXANDER, Mount Sidney, Va. Filed Sept. 12, 1911. Serial No. 648,841. (Cl. 214—1.)

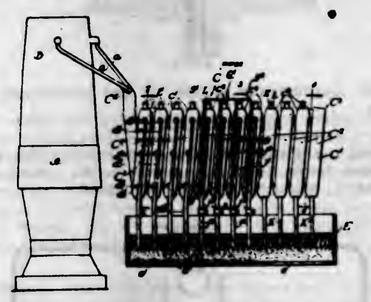
A loading apparatus comprising a stationary frame, a stationary receptacle adapted to contain a load and formed of two sections suspended from said frame and hinged directly thereto and movable toward and away from each other, and a latching device pivoted adjacent to the lower edge of one of said sections and having a member engaging with the adjacent portion of the opposite section to connect the sections in receptacle formation, said latching device being designed to be tripped



by means carried by a car or the like passing beneath the receptacle for the purpose of delivering the load.

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1,039,008. DUST-SEPARATOR. LAWRENCE ANDERSON, Chicago, Ill. Filed Apr. 18, 1911. Serial No. 620,747. (Cl. 75—30.)



1. An apparatus for separating matter in suspension from a rapidly moving current of gaseous fluid, comprising a single pipe bent in the form of a coil, means providing a plurality of equally spaced discharge passages opening through the outer peripheral wall of said coil at circumferentially arranged points, a common outlet passage communicating with said discharge passages, and means normally closing the discharge end of said common outlet passage.

2. An apparatus for separating matter in suspension from a rapidly moving current of gaseous fluid, comprising a single pipe bent in the form of a helical coil having a horisontal axis and provided with a plurality of convolutions, said convolutions being provided with a plurality of equallay spaced discharge passages opening through the outer peripheral walls thereof at circumferentially arranged points, a common outlet passage for the several discharge passages of each convolution, and means normally closing the discharge end of each of said common outlet passages.

3. An apparatus for separating matter in suspension from a rapidly moving current of gaseous fluid, comprising a single pipe bent in the form of a helical coil having a horisontal axis and provided with a plurality of convolutions, means providing a plurality of equally spaced, circumferentially arranged discharge passages opening through the outer peripheral wall of each of said convolutions, a common outlet passage for the several discharge passages of said convolutions, and a water seal closing the discharge end of each of said common outlet passages.

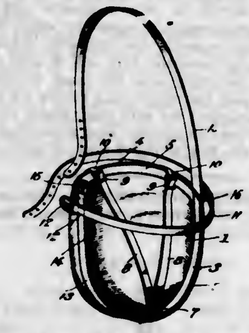
4. An apparatus for separating matter in suspension from a rapidly moving current of gaseous fluid, comprising a single pipe bent in the form of a coil, said coil being provided in its outer peripheral wall with a plurality of equally spaced, circumferentially arranged pockets, means substantially encircling said coil and providing a common discharge passage connected with each of said pockets, and means normally closing the outlet end of said common discharge passage.

5. An apparatus for separating matter in suspension from a rapidly moving current of gaseous fluid, comprising a single pipe bent in the form of a helical coil, having a horizontal axis and provided with a plurality of convolutions, some of said convolutions being provided in their outer peripheral walls with a plurality of equally spaced, circumferentially arranged pockets, having orifices constituting discharge passages opening into said convolutions in a direction opposed to the direction of movement of said current, and a common discharge pipe for each convolution connected with the several discharge passages thereof, said several common discharge pipes being provided with a water seal at their outlet ends.

[Claims 6 to 13 not printed in the Gazette.]

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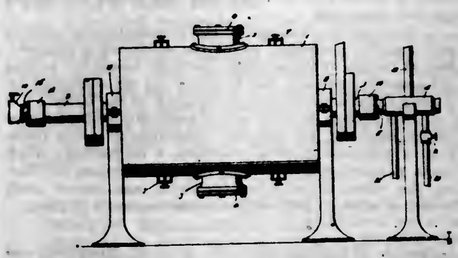
1,039,009. BABY-CARRIER. CARRIE BROWNELL AVERILL, Fort Wayne, Ind. Filed Nov. 11, 1911. Serial No. 659,734. (Cl. 224—6.)



A baby carriage adapted to be suspended from the shoulders and comprising a flexible receptacle of approximately semicircular shape having open front and top sides, a strap connected to the lower edge of said front side, said strap being bifurcated, the bifurcations being adapted to embrace the limbs of the child within such carriage and extending upwardly toward the top edge of the top side, means for connecting the free ends of the bifurcated portions of said strap to the top edge, a shoulder strap rigidly connected to one side of said front edge and detachably connected to the opposite side of said front edge whereby the carriage may be supported from the shoulders, and a waist band secured to said front edge and adapted to encircle the waist of the child within the carriage and the waist of the person carrying such carriage.

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1,039,010. DEVULCANIZING APPARATUS. JAMES BARDSLEY, Akron, Ohio. Filed Dec. 31, 1910. Serial No. 600,227. (Cl. 18—2.)



1. A device of the class described comprising a cylindrical receptacle, a lining of non-corrosive material, diametrically opposite man-holes in said receptacle, removable closures for said man-holes, a plurality of diametrically

opposite valved outlets for said receptacle, reticulated protectors for said valved outlets carried by the non-corrosive lining, hollow shafts carried by said receptacle, supports for rotatably mounting said shafts, means whereby said shafts may be operated, a reticulated protector carried by lining from one of the shaft openings, a pipe mounted within the other hollow shaft and extending into the receptacle, the inner portion of said pipe being perforated and having its end closed, and means by which fluid may be injected through said pipe into the receptacle.

2. A device of the class described comprising a cylindrical receptacle having central openings in its ends, manholes in said receptacle, closures for said man-holes, valved outlets in said receptacle, reticulated protectors for said valved outlets, and one of the end openings carried by the receptacle, a plurality of baffle plates carried by the receptacle and arranged in longitudinal rows, teeth upon said baffle plates, the teeth on one plate being opposite the spaces between the teeth on the adjacent plates, hollow shafts carried by said receptacle and communicating with its end openings, means by which said shafts may be operated, supports for rotatably mounting said shafts, a fixed pipe mounted with one of said shafts and extending into the receptacle, the inner portion of said pipe being enlarged, perforated, and having its end closed, a fixed external support for said pipe, means for injecting fluid into the receptacle through said perforated pipe, and means whereby the flow of liquid may be regulated.

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1,039,011. CURRENT-INTERRUPTER. EDGAR S. BECK, Treichlers, Pa. Filed June 2, 1911. Serial No. 630,738. (Cl. 172—281.)



1. In a current interrupter, the combination of a copper electrode, an iron electrode, means for magnetizing the iron electrode, a circuit including the electrodes, and an inductance in series with the electrodes.

2. In a current interrupter, the combination of a copper electrode, an iron electrode, means for magnetizing the iron electrode, a circuit including the electrodes, an inductance in series with the electrodes, and means for cooling the iron electrodes.

3. In a current interrupter, the combination of positive and negative electrodes, means for producing a magnetic field at the tip of the negative electrode, means for cooling the negative electrode, and a circuit for the electrodes including an inductance in series relation to the latter.

4. In a current interrupter, the combination of a positive copper electrode, an inductive resistance in series therewith, a magnetic negative electrode, a magnetizing winding in inductive relation to the negative electrode and having one terminal connected therewith, and circuit leads connected with the said resistance and magnetic winding.

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1,039,012. WEEDING DEVICE. FRED W. BEHRENDT and CARL J. BEHRENDT, Zanesville, Ohio. Filed Mar. 19, 1912. Serial No. 684,674. (Cl. 55—65.)

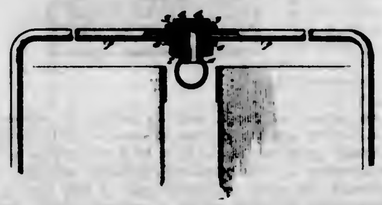
In a weed extractor, a tubular body, a tubular bit having a circumferential series of prongs, said prongs being provided with slots extending upwardly through the body of the bit and having terminal enlargements, and a follower



movable longitudinally of the bit and constituting an ejector.

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1,039,013. APPARATUS FOR MANUFACTURING ICE. ROBERT JAMES BERRYMAN, Annapolis, Md. Filed Jan. 22, 1912. Serial No. 672,676. (Cl. 62—6.)



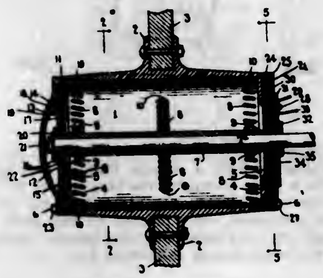
1. In apparatus for manufacturing ice, the combination with a pipe, cone plugs secured therein, and having outwardly-extending orifices which communicate with said pipe, and a cap fitted to the cone and having openings opposite the orifices in the cone, and nozzles at these openings for the discharge and distribution of the air.

2. In apparatus for manufacturing ice, the combination with a main water pipe and hollow-cone-shaped plug secured therein and having orifices extending from the bore to the surface of the plug, of a cap fitted to the cone and provided with openings at points opposite the orifices, and L-shaped nozzles or discharge pipes secured in the openings for the discharge and distribution of the air.

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1,039,014. SPRING-HUB FOR VEHICLE-WHEELS. HERBERT BERTON BIGSBY and WILLIAM MILO LEWIS, New Hartford, Iowa. Filed Jan. 11, 1912. Serial No. 670,639. (Cl. 152—45.)

A hub of the character described comprising a hollow body having on its ends inwardly extending annular flanges, stud bolts arranged on and projecting outwardly from said flanged ends of the hub, a front end plate having therein a central opening and secured to the front end of the hub by said stud bolts, a guide stud arranged on said front end plate and projecting outwardly therefrom, a guide roller on said stud, a box arranged in the hub and having threaded ends projecting through the ends of the body of the hub, a front guide plate, clamping nuts having a threaded engagement with the forward end of the box and adapted to rigidly clamp said front guide plate to said front end of the box, said guide plate having therein a slot adapted to receive the guide stud, and a roller on said front end plate, inner and outer rear end plates spaced apart and secured to the rear end of the hub, said plates having therein centrally disposed openings, a guide stud arranged on the inner end plate and projecting through said outer end plate, anti-friction rollers arranged on said stud on opposite sides of the outer end plate, inner and outer guide plates arranged on the rear end of the box and having a sliding engagement with said inner and outer end plates, said guide plates having therein radially disposed slots adapted



to receive said guide stud and rollers, a washer arranged between said guide plates, clamping nuts having a threaded engagement with the rear end of the box and adapted to clamp said guide plates thereto, and series of radially disposed springs arranged between and secured at their opposite ends to said box and the inner side of the body of the hub whereby the box is yieldingly held in position in the hub.

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1,039,015. CAN-OPENER. ROY BLAKE and CLARENCE W. COLLEGE, Hopewell, Pa. Filed Nov. 3, 1910. Serial No. 590,523. (Cl. 30—3.)



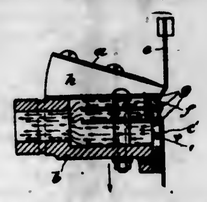
A can opener comprising a bar, said bar having a cross-sectional configuration to prevent pivotal movements of the holder thereon, having a puncturing pin at its outer end adapted to act as a pivot for swinging the bar, a holder fitting over and slidable longitudinally of the bar, and a pivotally-mounted member carried by said holder, said member carrying a cutter and having a depression spaced from the cutter, said depression being located in substantial alinement with the pivot of said member and being adapted to receive the rim of the can being operated upon.

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1,039,016. STAKING-MACHINE. PAUL BOHAČEK, Frankfort-on-the-Main, Germany, assignor to Maschinenfabrik Moenus A. G., Frankfort-on-the-Main, Germany, a Corporation. Filed Mar. 16, 1912. Serial No. 684,285. (Cl. 149—20.)

1. In a machine of the character described the combination, with a staking-blade, of a friction-plate, and means for causing the skin to be forced by air-pressure against the said friction-plate.

2. In a machine of the character described the combination, with a staking-blade, of a friction-plate provided with horizontal serrations, and means for causing the skin to be forced by air-pressure against the said friction-plate.



3. In a machine of the character described the combination, with a staking-blade, of a friction-plate having horizontal grooves and intermediate edges, and means for causing the skin to be forced by air-pressure against the said friction-plate.

4. In a machine of the character described the combination of a staking-blade, a support for the same, a friction-plate attached to the said support at an inclination to the vertical plate, and means for causing the skin to be forced by air-pressure against the said friction-plate.

5. In a machine of the character described the combination of a staking-blade, a support for the same arranged so as to leave a clearance passage between it and said blade, a friction-plate attached to the said support at an inclination to the vertical plane, and means for causing the skin to be forced by air-pressure against the said friction-plate.

[Claims 6 to 9 not printed in the Gazette.]

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1,039,017. NUT-LOCK. WILLIAM F. BONNESS, Madison, Wis. Filed Aug. 14, 1911. Serial No. 643,976. (Cl. 151—21.)



1. A nut lock, consisting of a folded plate, the two leaves of which are provided with substantially coaxial threaded openings, and one of which is provided with a lug to engage the nut to be locked, the diameter and threads of the openings corresponding with those of such nut, and said leaves when free maintaining such relation as to hold the threads of the two slightly out of parallel.

2. A nut lock comprising two substantially parallel leaves connected by a resilient web, said leaves having substantially co-axial threaded openings of diameter and pitch corresponding to those of the nut to be locked, said yielding web tending to hold the threads of the two leaves out of normal relation, and one of said leaves being provided with a lug to engage such nut.

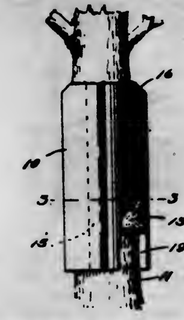
3. A nut lock consisting of two substantially parallel leaves connected by a resilient web or fold, said leaves having threads normally displaced slightly from true relative pitch, whereby, when the lock is screwed upon a stem the connecting web will be stressed and the threads of the lock will be caused to exert an elastic friction upon those of the stem, said lock being provided with means for engaging the nut to be locked, whereby independent rotation is prevented.

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1,039,018. TREE-PROTECTOR. JOSEPH BOUSKA, Bridgeport, Wash., assignor, by direct and mesne assignments, to Superior Tree Protector Manufacturing Co., Bridgeport, Wash., a Corporation of Washington. Filed Nov. 29, 1911. Serial No. 663,056. (Cl. 47—35.)

A tree protector comprising a section of resilient metal bent in form to engage a tree or the like, the same having one end bent at an abrupt angle to resiliently engage

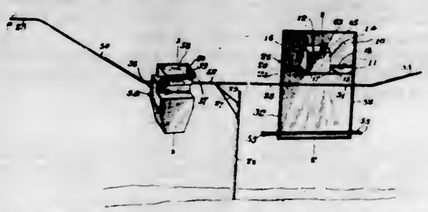
against the outer face of the metal adjacent the other end and permit expansion thereof, said metal having a coating



to render the same smooth and diametrically opposed depressions in the upper end of the protector.

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1,039,019. ELECTRIC MAIL-CARRIER. SAMUEL A. BRANDT, Tremont, Ill. Filed Feb. 8, 1912. Serial No. 676,328. (Cl. 104—146.)



1. The combination in a device such as described with a mail box, having a sliding closure, a track disposed at an incline below the mail box, the conveyer movable upon the track, a sliding closure for the mail box, and an operative connection between said closures.

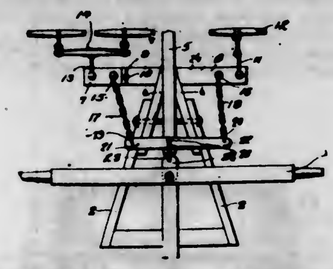
2. The combination with a mail box of a sliding closure therefor, an inclined track disposed adjacent the mail box, a conveyer movable upon said track, a sliding closure for said conveyer, ribs formed upon said closures, an arm carried by one closure for engagement with the rib of the other closure and a roller journaled upon the other closure for engagement with the rib of the first closure.

3. The combination with a mail box of an inclined cable located adjacent the mail box, a sliding closure for said mail box, a conveyer, pulleys carried by the conveyer for engagement with said track, means for rotating the pulleys, a sliding closure for the conveyer, ribs formed upon the closures, an arm formed upon one closure and a roller journaled upon the outer closure for engaging the ribs, and means for slidably supporting the mail box.

4. The combination with a mail box, of a conveyer, an operative connection between the mail box and the conveyer and an inclined track supporting the conveyer to break the operative connection.

5. The combination with a mail box, of a sliding closure therefor, a track, said track being extended downwardly and inclined below said mail box, teeth formed upon the inclined portion of the track, pulleys engaging said track, means carried by the pulleys for engagement with the teeth, a conveyer supporting said pulleys, means for rotating the pulleys, a sliding closure upon the conveyer, means for yieldingly holding the closures in their normal positions, ribs formed upon the opposite sides of the closures, an arm extending from one closure for engagement with the rib of the other closure, a roller journaled upon the other closure for engagement with the arm and rib of the first mentioned closure, and means for movably supporting the mail box.

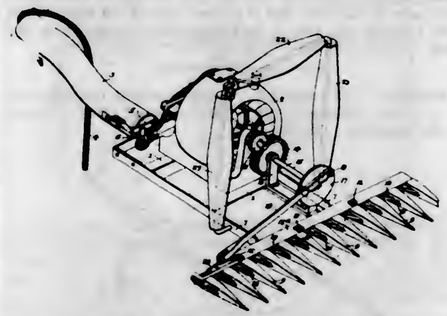
1,039,020. THREE-HORSE DOUBLETREE. HARRY B. BRIDGMAN, Barada, Nebr. Filed Nov. 22, 1910. Serial No. 593,683. (Cl. 21—76.)



In combination with a vehicle running gear provided with a pole, a plate pivoted to the king bolt in the bolster of the vehicle, an evener bar pivoted to the plate for horizontal movement, bars pivoted to the pole, double and swingle trees on said bars, and means between the bars and the outer ends of the evener bar.

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1,039,021. HEDGE-TRIMMING MACHINE. EDWARD T. BULLOCK, Ridley Park, Pa., assignor of one-third to E. W. Twaddell, Devon, Pa. Filed Dec. 20, 1910. Serial No. 598,333. (Cl. 56—16.)

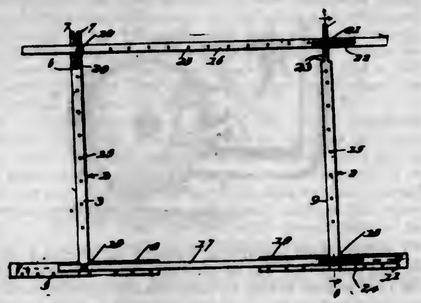


The combination in a hedge trimming machine of a substantially flat frame; a finger bar rigidly fixed to and extending across one end of said frame; a motor mounted on the frame; a gear on the armature shaft of said motor; an intermediate shaft carried by the frame and having a crank; a cutter guided by the finger bar; a connecting rod extending between the cutter and the crank; a handle rigidly fixed to and projecting rearwardly from the back part of the supporting frame; and a second handle pivotally connected to and extending upwardly from that part of the frame between the motor and the finger bar.

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1,039,022. STRETCHING DEVICE. EDGAR BURKS, Eldorado, Ill. Filed May 13, 1912. Serial No. 696,959. (Cl. 45—24.)

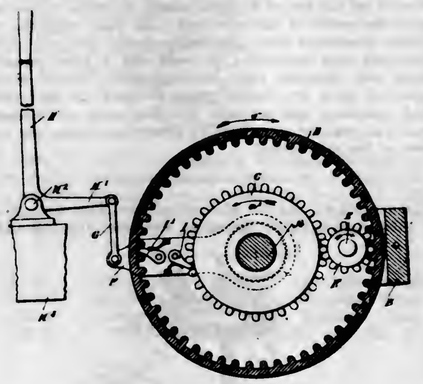
In a stretching device of the character described, a pair of stretching members comprising longitudinal bars having in one end a series of bolt holes, cross bars secured to the opposite ends of said longitudinal bars, stretching pins arranged in said cross bars, a connecting bar having therein near one end a bolt hole and near the opposite end a slot, fastening bolts adapted to be engaged with said bolt hole and slot and with said series of bolt holes in the longitudinal bars of said stretching members, a second connecting bar having therein near one end a bolt hole and in the opposite end a slot, fastening bolts engaged with said bolt hole and slot and with the adjacent parts of the longitudinal bars and cross bars of said stretching members, whereby, these parts are adjustably connected together, and stretching pins arranged



in said longitudinal bars and in said first mentioned connecting bar, whereby, the device may be employed as a stretching frame for stretching curtains and the like.

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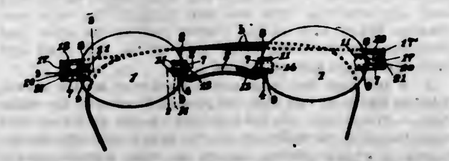
1,039,023. INTERMITTENT-GRIP DEVICE. JAMES CALKINS and FRANK RICE, Port Huron, Mich. Filed June 1, 1911. Serial No. 630,567. (Cl. 74—54.)



The combination of a shaft to be driven, a gear wheel on said shaft, an internally geared ring journaled on said shaft and extending around the said gear wheel, a second gear wheel connecting said first gear wheel and said geared ring, an operating lever, and pawls mounted on said lever in the space between said first gear wheel and said geared ring and engaging the same in relatively opposite directions.

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1,039,024. EYEGLASSES. NAPOLEON CARON, Nashua, N. H., assignor of one-half to Napoleon Rodier, Lowell, Mass. Filed Feb. 13, 1912. Serial No. 677,305. (Cl. 88—47.)



1. An eye-glass mounting, embodying parallel bars, and a cross bar connecting the same, terminal studs on the parallel bars at one end, hooks at the opposite end of the parallel bars, a lens having holes to receive the studs, a nose piece having a terminal shank receivable in said hooks, and a spring key embracing the cross bar with one end bearing against the lens and the other end engaging the shank of the nose piece and serving to lock all of said members together.

2. An eye glass mounting, embodying parallel bars, a cross bar connecting the parallel bars between the ends thereof, laterally projecting lens engaging studs at corresponding ends of the parallel bars, attaching means at the opposite ends of the parallel bars, and a lens engaging spring removably inserted behind said cross bar and held in place thereby.

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1,039,025. VENTILATING APPARATUS. RALPH CARROLL, Simmonsville, R. I. Filed Dec. 23, 1910. Serial No. 598,895. (Cl. 230—11.)



In a ventilating apparatus of the character set forth including a casing having its inner peripheral edges separated to provide an annular slot, brackets formed on the casing, a driving shaft journaled centrally with respect to the casing, a hub fixed to the driving shaft and having radial socket extensions, spokes formed with a Y-shaped outer end, the inner ends of said spokes being detachably fitted in the socket extensions and their Y-shaped outer ends projecting through the annular slot through the interior of the casing, blades secured to the Y-shaped outer ends of the spokes and movable in the casing, sector shaped braces having their opposite free ends bent to provide securing and reinforcing angular flanges, and means passing through said flanges for securing the same to the opposed side faces of said spokes and positioning said braces in close contact with the peripheral slot of the casing.

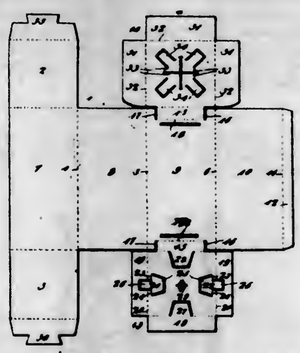
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1,039,026. FOLDING CARTON. JAMES H. CARTER, Chicago, Ill. Filed June 3, 1912. Serial No. 701,350. (Cl. 229—39.)

1. A collapsible carton comprising a foldable body having end closures, one of which is spaced inwardly from the end of the body and provided with article cushioning tongues fulcrumed intermediately of their ends with one end arranged to engage the article to be cushioned and the other to engage the inner face of said body when the parts are in operative position.

2. A collapsible carton comprising a foldable body having end closures, one of which is spaced inwardly from the end of the body and provided with article cushioning tongues fulcrumed intermediately of their ends with one end arranged to engage the article to be cushioned and the other to engage the inner face of said body when the parts are in operative position, the center of said closure being slit to form an opening for the passage of a projection on the article within the carton and to provide cushioning tongues or tabs.

3. A collapsible carton comprising a foldable body having end closures, one of which has members stamped therefrom and fulcrumed intermediately of their ends in position to cause one end to engage the article within the carton and the other to engage the side walls of the body whereby they are reliably held in cushioning engagement with said article.



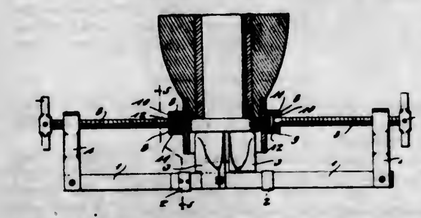
4. A collapsible carton comprising a foldable body having end closures, one of which is hingedly connected at one edge to one edge of the body and provided at its other edges with hinged wall engaging flaps, members stamped from said closure and fulcrumed intermediately their ends in position to cause one end thereof to extend transversely across the hinged connection of the adjacent flap and engage the side wall of the body whereby the other end is held in cushioning engagement with the article in the carton.

5. A collapsible carton comprising a foldable body having end closures, one of which has members stamped therefrom and fulcrumed intermediately of their ends in position to cause one end to engage the article within the carton and the other to engage the side walls of the body whereby they are reliably held in cushioning engagement with said article, said closure being hinged at one edge to said body at a point spaced from the edge of said body to position said closure inward from the edges of the body when in operative position.

[Claim 6 not printed in the Gazette.]

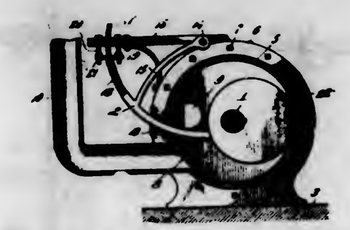
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1,039,027. COMBINED WRENCH AND CLAMP. WILLIAM CHARLTON, Marinette, Wis. Filed Feb. 26, 1912. Serial No. 679,905. (Cl. 81—75.)



A wrench for removing hub retaining nuts of vehicles comprising two overlapping slidably connected jaw operating bars, nut engaging jaws secured to said jaws near their inner ends and extending laterally in the same direction, clamp supporting arms on the outer ends of said bars and extending in the same direction in a plane at right angles to said bars and in the same direction as said nut engaging jaws and having screw threaded passages in their free ends, said passages extending in a plane parallel with said bars, threaded clamp operating rods operable in the threaded passages of said arms, hub clamping jaws swiveled to the inner ends of said rods, and means for actuating said rods.

1,039,028. ROTARY PUMP. FERDINAND T. CLARKE, Finley, Wash. Filed Jan. 19, 1912. Serial No. 672,050. (Cl. 103—44.)



A rotary pump comprising a casing embodying a cylinder and end plates, one of the end plates having an inlet, and the cylinder having an outlet and an opening between the inlet and outlet, a piston rotatably mounted within the casing and arranged eccentrically thereto, an abutment slidable through the opening in the cylindrical portion of the casing and formed on the arc of a circle whose center is exterior to the casing, a stuffing box for the abutment fitted to the opening of the casing, an arm carrying the said abutment and having pivotal connection with the casing at a point corresponding with the circle from which the abutment is struck, a support projecting from the casing, a guide connected with the abutment and formed on the arc of a circle having its center coinciding with the center of the abutment, said guide engaging the before mentioned arm, a spring mounted upon the guide, threaded rods carried by the said arm, a plate mounted upon the threaded rods, an expansible helical spring mounted upon the curved guide between the said plate and abutment, and set nuts mounted upon the threaded rods and adapted to adjust the plate for varying the tension of the said spring.

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1,039,029. RAIL. HARRY COLLINS, New York, N. Y. Filed Apr. 3, 1912. Serial No. 688,248. (Cl. 238—16.)



1. A rail provided with a rail head seat, a removable rail head seated on the said seat, wedges for wedging the rail head in place on the seat, and means for drawing up the wedges and holding the same locked in position.

2. A rail provided with a rail head seat having a continuous flange at one side and a series of spaced flanges at the other side, a removable rail head seated on the said seat and abutting with one side against the said continuous flange, and wedges sliding one on the other and interposed between the other side of the rail head and each of the said spaced flanges.

3. A rail provided with a rail head seat having a continuous flange at one side and spaced flanges at the other side, a removable rail head seated on the said seat and abutting with one side against the said continuous flange, a pair of wedges sliding one on the other and interposed between the other side of the rail head and a corresponding spaced flange, and means for drawing up the wedges and holding the same locked in position.



4. A rail provided with a rail head seat having a continuous flange at one side and spaced flanges at the other side, a removable rail head seated on the said seat and abutting with one side against the said continuous flange, a pair of wedges sliding one on the other and interposed between the other side of the rail head and a corresponding spaced flange, the outer base ends of the wedges being provided with transverse apertured lugs, and a bolt engaging the said lugs for drawing up the wedges and for locking the same in place.

5. A rail, comprising a base, a web rising integrally from the base and terminating in an integral rail head seat provided at one side with a continuous flange and at the other side with spaced flanges, a rail head seated on the said seat and abutting with one side against the said continuous flange, wedges interposed between the other side of the rail head and the said spaced flanges for wedging the rail head in position on the said seat, the said wedges being provided at their base ends with transverse apertures lugs, and a bolt engaging the said lugs.

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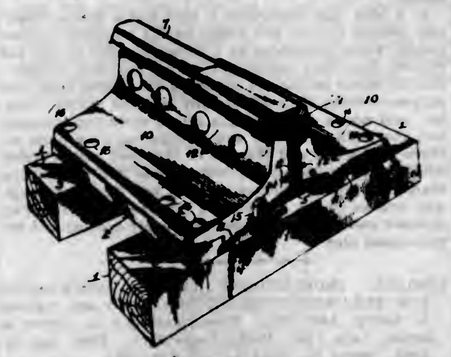
1,039,030. SHOE-LACE GUARD. FRANK COLT, Wallace, Idaho, assignor of one-half to B. O. Skonnord, Wallace, Idaho. Filed June 27, 1911. Serial No. 635,553. (Cl. 36—1.)



A shoe lace guard comprising a substantially semi-circular curved body portion open upon its underconcave side, and lace-engaging fingers extending from each side toward the opposite side and into engagement and contained wholly within the hollow of the body portion.

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1,039,031. COMBINED RAIL-JOINT AND SECURING DEVICE. CORNELIUS F. COURSON, Memphis, Tenn., assignor of one-half to Paul Lensi, Memphis, Tenn. Filed Apr. 20, 1912. Serial No. 692,013. (Cl. 238—6.)



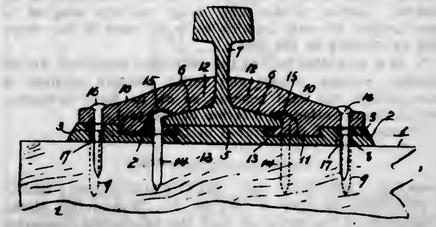
1. In a rail joint, the combination of a chair adapted to span the space between two adjacent ties and be secured to both by spikes, and provided with dovetailed mortises in its upper face, and with a seat for the rails intermediate the mortises, and combined clamping blocks and fish plates, the two blocks covering and concealing the spikes which secure the chair to the ties, and each block having an integral dovetailed tenon to engage a mortise in the chair, a jaw to receive and engage the upper and lower faces of the base flanges of the rails, and a fish plate extending upwardly from each jaw.

2. The combination of a chair adapted to span the space between two adjacent ties and be secured to both by spikes, and provided with dovetailed mortises in its upper face and with spike holes on opposite sides of the rail seat for the passage of spikes which engage the base flanges of the rails, and combined clamping blocks covering and concealing the spikes which secure the chair to the tie and the rail to the chair, and each having an integral dovetailed tenon to engage its mortise in the chair, a jaw to receive and engage the base flange of the rail and an upwardly extending fish plate.

3. The combination of a chair having dovetailed mortises in its upper face and with spike holes for the passage of spikes which secure the chair to the tie and the rail on the chair, clamping blocks covering said spike holes, each block having an integral dovetailed tenon to engage a mortise in the chair and a jaw to overlap the base flange of the rail, the jaw of one of said blocks projecting up alongside of the web of the rail and terminating under and adjacent the head of the rail and a bendable brace extending from near the outer edge of the block to near the upper edge of the jaw for bracing the latter.

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1,039,032. DEVICE FOR SECURING RAILROAD-RAILS TO TIES. CORNELIUS F. COURSON, Memphis, Tenn., assignor of one-half to Paul Lensi, Memphis, Tenn. Filed Apr. 20, 1912. Serial No. 692,014. (Cl. 238—2.)



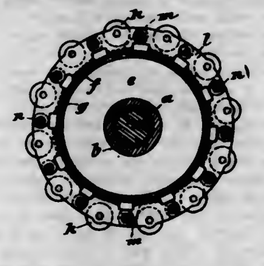
1. In a rail fastener, the combination of a chair adapted to be spiked to a tie and having dovetailed mortises in its upper face and a rail seat intermediate the mortises, and clamping blocks each having a dovetailed tenon adapted to engage a mortise in the chair, and a jaw to overlap the base flange of the rail, the said clamping blocks also locking the chair securing spikes against withdrawal.

2. In a rail fastener, the combination of a chair having dovetailed mortises in its upper face and a rail seat intermediate said mortises, and clamping blocks each having a dovetailed tenon adapted to engage a mortise in the chair, and a jaw to overlap the base flange of the rail, the said jaw being recessed at one edge to receive and house the head of a spike engaging the base flange of the rail and passing through the chair.

3. In a rail fastener, the combination of a chair having dovetailed mortises in its upper face and a rail seat intermediate said mortises, clamping blocks resting on said chair at opposite sides of the rail, each block having a dovetailed tenon resting within a mortise in the chair, and a jaw overlapping the base flange of the rail, spikes for securing the rail, and spikes for securing the chair to the tie, the said spikes for the rail and chair being locked against displacement by the clamping blocks.

4. In a rail fastener, the combination of a chair having dovetailed mortises, and a rail seat intermediate said mortises, a rail resting on said seat, spikes engaging the base flange of the rail and passing through the chair and into the tie, clamping blocks having dovetailed tenons resting in said mortises, and jaws overhanging and engaging the base flange of the rail, the said jaws being recessed to receive the heads of the rail securing spikes, and spikes passing through the clamping blocks, and chair and into the tie.

1,039,033. ROTATABLE TOOL FOR BEATING UPPERS ON LASTS. RUDOLF ERNST CRAIN, Oberursel-on-the-Taunus, and HEINRICH LUDWIG HECKMANN, Offenbach-on-the-Main, Germany, assignors to Moenus Machine Company, Frankfort-on-theMain, Germany. Filed Apr. 11, 1912. Serial No. 690,151. (Cl. 12—51.)



1. A rotatable tool of the character described, comprising an air cushion, and beating rollers mounted thereon.

2. In a rotatable tool of the character described, an air cushion, means for regulating the resiliency thereof, and beating rollers mounted on the said cushion.

3. In a rotatable tool of the character described, an air cushion, beating rollers, and roller carriers adapted to bear against the said cushion.

4. In a rotatable tool of the character described, an air cushion, beating rollers, and roller carriers adapted to bear against the said cushion so as to yield in the direction of rotation of the tool.

5. In a rotatable tool of the character described, an air cushion, beating rollers, and roller carriers adapted to bear against the said cushion so as to yield inwardly, and in the direction of rotation of the tool.

[Claims 6 to 9 not printed in the Gazette.]

1,039,034. METHOD OF MANUFACTURING ELECTRODES. ROBERT W. DAVIS, Jr., Wyandotte, Mich., assignor to Pennsylvania Salt Manufacturing Company, Wyandotte, Mich., a Corporation of Pennsylvania. Filed May 25, 1912. Serial No. 699,801. (Cl. 148—41.)

1. In the manufacture of electrodes and other articles, the step consisting of heating iron or steel in a furnace fired with hydrogen gas in the absence of air in excess of that required for complete combustion.

2. The method of making electrodes and other articles, consisting in heating iron or steel in a furnace, by firing said furnace with hydrogen gas in the presence of a slightly deficient amount of air to complete combustion.

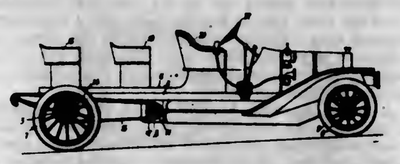
3. In the manufacture of electrodes and other articles, the step consisting of heating iron or steel in a furnace at a temperature above 600 degrees centigrade fired with hydrogen gas in the absence of air in excess of that required for complete combustion.

4. The method of making electrodes and other articles, consisting in heating iron or steel at a temperature above 600 degrees centigrade in a furnace, by firing said furnace with hydrogen gas in the presence of a slightly deficient amount of air to complete combustion.

5. In the manufacture of electrodes and other articles, the steps consisting of heating iron or steel articles in a furnace by means of a hydrogen flame, and burning said hydrogen flame in the presence of a slight excess of hydrogen for a sufficient time to produce a substantial layer of magnetic oxid of iron.

1,039,035. BUCKING AUTOMOBILE. EDWARD W. DESENFANTS, Chicago, Ill., assignor of one-half to Charles E. Desenfants, Chicago, Ill. Filed Dec. 9, 1909. Serial No. 532,184. (Cl. 21—90.)

1. A vehicle comprising front and rear axles, a body supported by said axles, and wheels mounted on the end of each of said axles with their peripheries disposed eccentric to their axis of rotation, the wheels on said front axles being independently revoluble with respect to each other.



2. A vehicle comprising front and rear axles, a body supported by said axles, and wheels mounted on the ends of each of said axles with their peripheries disposed eccentric to their axis of rotation, the wheels on said front axles being independently revoluble with respect to each other and of different diameters than the wheels on the rear axles.

1,039,036. BLOWPIPE. MELBOURNE K. DUNHAM, Brookline, Mass. Filed Dec. 31, 1909. Serial No. 535,784. (Cl. 158—109.)



1. In a blow pipe, the combination with a body having a duct extending centrally therethrough, of a nozzle removably secured to said body and provided with a burner opening and a mixing chamber leading thereto, said nozzle being formed with a nipple 13 which projects into the rear end of the mixing chamber and is provided with a duct communicating with the duct in the body, said body also having an annular chamber surrounding the duct therethrough, but having no communication therewith, and said nozzle having a plurality of radially-arranged ports leading from said annular chamber into the mixing chamber and opening thereinto in an inwardly and downwardly-inclined direction at a point adjacent the end of the nipple.

2. A blow pipe comprising a head and a nozzle removably secured thereto, said nozzle having a mixing chamber therein which terminates at a burner opening at the end thereof, said head having an oxygen-receiving chamber, and the nozzle having one or more ducts leading from said oxygen-receiving chamber laterally into the mixing chamber, said nozzle also having a nipple extending centrally into the mixing chamber and terminating at a point between said ducts and the end of the head and provided with a duct or passageway which leads into said mixing chamber, a pipe communicating with said duct or passageway, and an oxygen pipe leading into the oxygen-receiving chamber and situated between the burner opening and the first-named pipe.

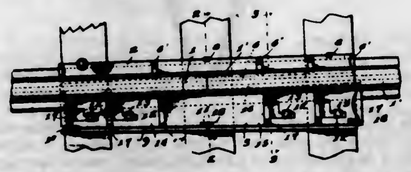
1,039,037. INDEPENDENT INSIDE VALVE-DRIVE FOR STEAM-ENGINES. ROBERT EATON and GEORGE L. KEITH, Lake City, Minn., assignors to Gillett & Eaton, Lake City, Minn., Copartners. Filed Apr. 9, 1908. Serial No. 426,159. (Cl. 121—99.)



The combination with a steam engine having the usual crank shaft, crank arm, pitman, cross head and guide bars therefor, valve stem, and piston rod, of a rocker arm pivotally mounted in a bearing situated upon the engine frame adjacent the inner end of the guide bars, the upper end of said rocker arm being pivotally connected to the valve stem, said rocker arm provided intermediate of its ends with a transverse opening, a cylindrical rod adapted to have one of its ends mounted in said rocker arm opening so that it will extend longitudinally with respect to the pitman, a support rigidly fastened to the upper surface of the pitman at a point intermediate of its length and having a horizontal opening therein extending transversely with respect to the longitudinal axis of the pitman, a swiveled boxing rotatably mounted in the opening in said support and adapted to receive the free end of the cylindrical rod rigidly attached to the rocker arm, said boxing adapted to support the free end of said rod so that the rod will be in a horizontal position when the crank arm of the engine is on dead center, and said boxing being adapted to slide upon the said rod so that when the crank end of the pitman moves into either a downward or upward position the free end of the rod will be depressed or elevated thus imparting through the medium of the rocker arm reciprocating motion to the valve stem.

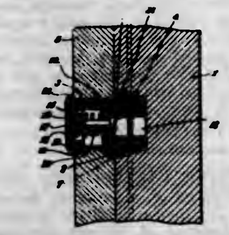


1,039,038. RAIL-JOINT. GEORGE EDICK, Albuquerque, N. Mex. Filed May 4, 1911. Serial No. 624,916. (Cl. 239—6.)



A rail joint comprising a base plate, an angle bar formed integrally with the said base plate, a series of studs provided with overhanging lips and arranged in the base plate in a plane inclined with relation to the longitudinal axis of the base plate, a movable angle bar provided with L-shaped slots, each of said slots comprising a wide transverse portion and a narrow longitudinal portion, said narrow portions being arranged in a plane inclined with relation to the longitudinal axis of the plate, the studs and narrow portions of the slots being adapted to force the movable angle bar into engagement with the rails on the movement of the movable angle bar with relation to the said base plate, means adapted to hold the movable angle bar against accidental displacement, ribs formed on the movable angle bar adjacent the transverse portions of the L-shaped slots, and studs formed between the stationary angle bar and base plate and adapted to engage recesses formed in the base flanges of the rails.

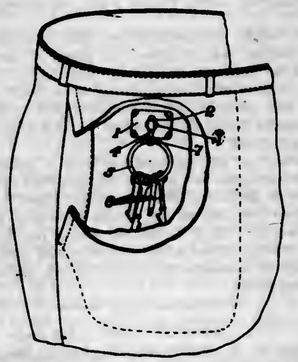
1,039,039. PUSH-BUTTON. WILLIAM BELL EICHHOLTZ, New Orleans, La. Filed Mar. 15, 1911. Serial No. 614,663. (Cl. 177—10.)



1. A push button comprising a support provided with spaced longitudinally extending grooves and with a recess intersecting said grooves, circuit wires arranged within the grooves, a finishing strip secured to the support and having an opening alined with said recess, an insulating base frictionally engaged within said recess, a circuit-closer, and a circuit-closer supporting shell fitted within said opening and having a portion thereof in removable engagement with said support and insulating base substantially as and for the purpose described.

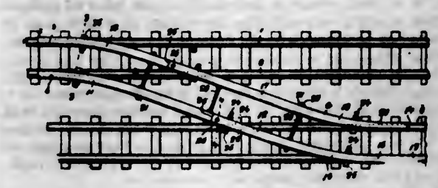
2. An electric push button comprising a support provided with spaced circuit wire receiving grooves and with a recess intersecting said grooves, an insulating base frictionally engaged within the said recess and provided with passages formed therein, circuit wires extending through the passages formed in the base, a circuit-closer, and a circuit-closer receiving passage formed in the base and traversing the first passages so as to expose the circuit wires for circuit closing contact with respect to the path of travel of the circuit-closer.

1,039,040. KEY-RING HOLDER. HERBERT ELDER, St. Louis, Mo. Filed Nov. 12, 1910. Serial No. 591,957. (Cl. 24—3.)



A key-ring holder composed of a substantially rectangular plate for attachment to the wall of a pocket, said plate having a vertical slot, and a member having a head of less length and greater width than said slot, said head being receivable through said slot and having a comparatively narrow shank that is offset from the head, forming a shoulder, the lower free end of said shank being curled to form an integral eye through which the key-ring is adapted to be passed, said eye being bent rearwardly to project beyond the rear face of the shank, the member between the eye and shoulder being adapted to receive the portion of the plate between one end of the slot and the adjacent edge of the plate, to prevent independent movement of the parts.

1,039,041. CROSSOVER-SWITCH. FRANCIS FINK and LEWIS F. REX, Lansford, Pa. Filed Aug. 26, 1911. Serial No. 646,220. (Cl. 104—112.)



The combination with main tracks, of a cross-over switch for connecting the main tracks and comprising sectional rails, said sections having their adjacent ends rabbeted and extended and overlapped to lie in the same plane at the point of intersection with the adjacent rails of the main tracks, the adjacent ends of the sections being

cut away obliquely and forming walls spaced apart to provide a receiving groove for the main track ways, means for holding the rails of the cross-over spaced apart, clamping devices holding the free ends of the rails of the cross-over to the adjacent portions of the main track rails, and filler blocks interposed between the main track rails and the adjacent portions of the cross-over switch rails.

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1,039,042. BUCKLE. WILLIAM C. FISHER, Middletown, Conn., assignor to The Russell Manufacturing Company, Middletown, Conn. Filed Oct. 18, 1909. Serial No. 523,375. (Cl. 24—170.)



1. In a buckle, the combination with a frame provided with a cross bar, of two plates or members hinged to the cross bar, one plate having a serrated or toothed free end, and provided at its opposite end with a tongue which projects beneath the other hinged plate, substantially as set forth.

2. In a buckle, the combination with a frame provided with a cross-bar located below the plane of the frame, of two plates or members hinged at their inner ends to the cross bar, one of the plates having a serrated or toothed free end, and provided at its opposite end with a tongue which projects beneath the other hinged plate, substantially as set forth.

3. In a buckle, the combination with a frame provided with a central cross bar and an intermediate cross bar, of two plates or members hinged at their inner ends to the central cross bar, one of the plates having a serrated or toothed free end which is located above the intermediate cross bar, and provided at its opposite end with a tongue which projects beneath the other hinged plate, substantially as set forth.

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1,039,043. CAR CONSTRUCTION. CHARLES F. FREDE and CHARLES T. WESTLAKE, St. Louis, Mo., assignors to Double Body Bolster Company, St. Louis, Mo., a Corporation of New Jersey. Original application filed July 3, 1911, Serial No. 636,762. Divided and this application filed Feb. 17, 1912. Serial No. 678,394. (Cl. 105—76.)



1. In car construction, a hollow cast metal buffing sill provided with alined openings in its top and bottom plates adapted to receive the lower ends of the vestibule posts of the car superstructure, and integral reinforcing webs within the buffing sill adjacent to the openings therein.

2. The combination with a car underframe buffing sill having top and bottom plates through which are formed openings, of a vestibule post the lower end of which is seated in said openings and fixed to the top and bottom plates of said sill, and the lower end of which post is notched to accommodate the bottom flange or plate of the buffing sill.

3. The combination with a car underframe buffing sill through which is formed a vertically disposed opening, of a vestibule post the lower end of which extends through said opening, a bracket projecting upwardly from the top plates of the sill, a bracket depending from the bottom plate of said sill, and fastening means passing through said brackets and the vestibule post.

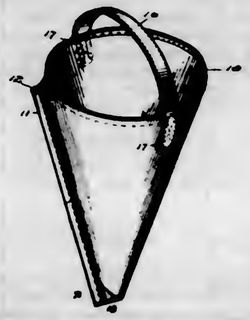
4. The combination with a car underframe buffing sill having a comparatively wide opening formed through its top plate and a comparatively narrow opening formed through its bottom plate, of a vestibule post the lower end of which passes through the openings in the top and bottom plates of the buffing sill, and the lower end of which vestibule post is cut away so as to occupy the opening in the bottom plate of said buffing sill.

5. The combination with a car underframe buffing sill, provided with openings through its top and bottom plates, of a vestibule post having its lower end seated in said openings, a strengthening web integral with the buffing sill adjacent the openings therein and means including brackets on the top and bottom plates of the buffing sill whereby the post is rigidly fixed to the sill.

[Claims 6 to 9 not printed in the Gazette.]

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1,039,044. COLLAPSIBLE BUCKET. SAMUEL J. FUHRMAN, Scranton, Pa. Filed Dec. 21, 1911. Serial No. 667,184. (Cl. 150—48.)



In a folding paper bucket rolled in the form of a cone and having an apex at its lower end, a single V-shaped strip of paper having two straight edges; one of the edges being turned over the other and contacting both sides of the latter for the greater part of its length, said apex being turned up and received under part of the turned over edge, a line of stitching securing the turned over edge and the apex to the second mentioned edge, and a handle secured to both sides of the bucket.

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1,039,045. FASTENING DEVICE. MILO STEPHEN FULLER, Oneonta, N. Y. Filed Dec. 21, 1910. Serial No. 598,554. (Cl. 24—131.)



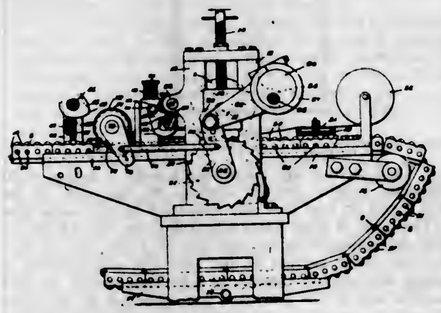
A fastening device consisting of parallel members having their ends bent over to form a clamping hook, said bent-over ends converging together to receive the end of a cord or rope between them, one of said members having a guiding projection adjacent the hook, the said projection and the said hook being located on the same side of said members, and the said bent-over extremities forming an acute angle with said parallel members, whereby the end of a cord can be engaged with the projection and then slipped between the converging bent-over extremities of said parallel members, to be drawn into wedging engagement therewith when the cord is pulled taut.

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1,039,046. MACHINE FOR FORMING COVERS FOR CIGARS. ESSINGTON N. GILFILLAN, deceased, Skaneateles, N. Y., by Emma Gilfillan, executrix, Skaneateles, N. Y., assignor of fifty-one one-hundredths to John Hunter, Fulton, N. Y. Filed Dec. 27, 1910. Serial No. 599,389. (Cl. 93—1.)

1. In a machine of the class described, a pair of intermittently actuated coacting die carriers, one carrier advancing relatively to the other, the die carriers being adapted to receive between them a strip of material and the material remaining on one of the die carriers after passing between the dies, a tool for operating on the molded strip remaining on one of the die carriers, such tool operating during the intermittent stoppings of the die carriers, the dies on the carrier on which the molded strip remains, serving as a bed with which such tool coacts, and means for intermittently actuating the die carriers and the tool, substantially as and for the purpose described.





2. In a machine of the class described, a pair of intermittently actuated coacting die carriers having dies which intermesh to mold a strip of material passing between the die carriers, one of the die carriers advancing relatively to the other and such material remaining on the advancing die carrier after being molded by the dies, means for punching a line of perforations between the forms struck by the dies of the carriers, the dies of the advancing carrier serving as a bed for the punching means and such punching means operating during intermittent stoppings of the carriers, and means for intermittently actuating the carriers and for actuating the punching means, substantially as and for the purpose specified.

3. In a machine of the class described, a frame formed with a table, a pair of intermittently actuated coacting die carriers, one comprising a rotary drum supported by the frame above the table and having its periphery formed with dies, and the other carrier comprising a series of die blocks linked together forming an endless belt, a portion of the carrier passing over the table beneath the drum substantially tangent thereto, the die blocks being formed with dies complementary to those of the drum, and the carriers being adapted to receive between their engaging dies a strip of material and to feed such material, and the forms struck or molded by the dies remaining on the die blocks, a tool arranged above the table and above the die blocks carrying the molded forms, the tool being movable toward and from the die block carrier during intermittent stoppings of the die carriers, for operating on the forms remaining on the die blocks, the die blocks serving as a bed coöperating with the tool, and actuating means for the carriers and the tool, substantially as and for the purpose set forth.

4. In a machine of the class described, a pair of intermittently actuated coacting die carriers adapted to receive between them a strip of material, and the forms struck by the dies remaining on one of the die carriers after the formation thereof, and adjacent forms being designed to be brought together to form a single article, and a band cutter operating once during every two stoppings of the advancing carrier and coacting with alternate dies of the die block on which the forms remain after being molded, for cutting a band on one-half of each portion of the form which with another portion of such form completes an article, substantially as and for the purpose described.

5. In a machine of the class described, a pair of intermittently actuated coacting die carriers adapted to receive between them a strip of material, and the forms struck by the dies remaining on one of the die carriers after the formation thereof, adjacent dies of the carrier on which the forms remain being adapted to mold forms which when brought together complete single articles, punching means and band cutting means operating on the forms remaining on said die carrier and coacting with the same during intermittent stoppings of the die carriers, and the band cutting means operating during every two stoppings of the carriers in order to coact with the alternate forms on the dies, substantially as and for the purpose specified.

[Claim 6 not printed in the Gazette.]

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1,039,047. LOOSE-LEAF BINDER. BERNHARD GLASER, Chicago, Ill., assignor of one-half to Alexander B. Seelenfreund, Chicago, Ill. Filed Feb. 12, 1912. Serial No. 677,259. (Cl. 129—23.)



1. In a loose leaf binder, the combination of upper and lower jaw members, posts extending from said lower jaw member and notched at their ends, a flat spring within said upper jaw member having holes for receiving the post ends, loops in said spring, and lever mechanism for engaging with said loops to shorten said spring whereby the edges of the spring adjacent said holes will enter said post notches to lock the upper jaw member to said posts.

2. In a loose leaf binder, the combination of upper and lower jaw members, posts extending from the lower jaw member and having locking shoulders at their upper ends, a flat spring secured at its center to the upper jaw member and having holes at its ends for receiving the post ends, loops formed in said spring at intermediate points thereof, and lever mechanism for engaging with said loops to shorten said spring to bring the holes together whereby the edges adjacent said holes will be engaged by the shoulders on said posts and said jaw members connected together.

3. In a loose leaf binder, the combination of upper and lower jaw members, posts extending from the lower member and having locking abutments at their ends, a flat spring secured at its center to said upper jaw member and having holes at its ends for receiving the ends of said posts, reverse bends in said spring at intermediate points thereof, and levers for engaging with loops of said bends to close said loops to thereby cause the spring ends to approach each other and to engage with the post abutments to lock the upper jaw member to the post ends.

4. In a loose leaf binder, the combination of upper and lower jaw members, posts extending from the lower jaw member and each having a locking abutment at its upper end, a flat spring secured at its center to said upper jaw member and having holes at its ends for receiving the post ends, a reverse bend in said spring at each side of its center having an upper and a lower loop, latch levers for compressing the upper loops to cause the spring ends to be drawn together to carry the hole edges into locking engagement with the post abutments, and a latch plate for compressing the lower loops of the spring to thereby cause the spring ends to exert full tension on said posts.

5. In a loose leaf binder, the combination of upper and lower jaw members, a post extending from one of the jaw members and having a locking abutment at its end, a flat spring anchored to the other jaw member and having a hole for receiving the post end, a loop in said spring, and means for compressing said loop to thereby shorten the spring to cause the edge of its hole to engage with the post abutment to lock the jaw members together.

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1,039,048. GAS-COCK LOCK. GEORGE A. GLASS, Newark, N. J. Filed Feb. 24, 1912. Serial No. 679,724. (Cl. 137—7.)

1. In combination with a gas fixture, a valve controlling the passage of gas therethrough and having a hollow handle, a locking plunger slidably mounted in the hollow

portion of the handle, the fixture being provided with a recess to receive the end of said plunger, a supporting lever mounted in the hollow portion of the handle, an operating lever also mounted in the hollow portion of the handle and having a pressure piece projecting from said handle, and spring means connected with the operating lever for projecting the plunger into engagement with said recess.



2. In combination, a tubular member, a valve mounted therein and having a projecting handle, said tubular member being provided on a side thereof with an arcuate surface provided with recesses at its opposite ends, stops adjacent to said recesses, a removable side plate for said handle in spaced relation to the body of the handle, a supporting lever pivoted at its inner end to the handle in the space between the handle body and side plate, a tubular guide carried by said handle, a plunger slidable therein and adapted to engage at its inner end with the recesses aforesaid and to slide at said end on the surface above referred to, a transverse operating lever pivoted between its ends to the outer end of the supporting lever and having a projecting pressure piece at one end, the other end of said lever being pivoted to the outer end of the plunger, a spring located between the guide and supporting lever and connecting the handle with the operating lever, and means removably securing the side plate to the handle so as to house the spring, the supporting lever and the body of the operating lever.

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1,039,049. TOBACCO-PIPE. ROBERT D. GRAME, Richmond, Va. Filed July 29, 1911. Serial No. 641,201. (Cl. 131—12.)

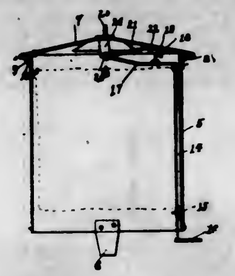


The combination with a pipe bowl having a stummel, and a mouth piece for said bowl, said mouth piece being provided with an annular channel and oppositely disposed longitudinal channels communicating with said annular channel, of a cleaning member comprising a single strip of metal having side members enlarged at their adjacent ends to form a cleaning disk which is adapted to close the bore in the stummel contiguous to the pipe bowl, said disk being provided with a smoke aperture, the opposite ends of said strip of metal being formed with lateral extensions, one of said extensions having oppositely disposed slots, and the other extension being formed with similar tongues adapted to be received in the slots in the other extension, the side members of the cleaner and said extensions being adapted to fit in said longitudinal and annular channels respectively.

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1,039,050. SANITARY GARBAGE-CAN. ALBERT E. GRUBB and THOMAS J. BURY, Enid, Okla. Filed July 18, 1911. Serial No. 639,089. (Cl. 220—115.)

1. A garbage can comprising a body, a removable receptacle suspended within the body, a ported cover closing the receptacle, gravity closures for the ports of the said cover, a lever arranged within the body and pivotally supported by the said cover, an arm pivoted to the cover and connected to one end of the said lever, means supported by the said arm and adapted to engage the said gravity closures to move the same to an open position and a foot actuating rod connected to the opposite end of the said lever substantially as and for the purpose described.



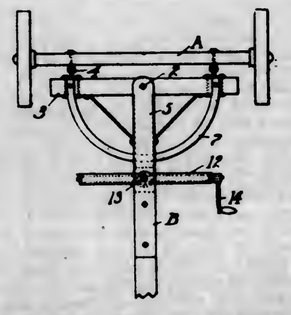
2. In a garbage can comprising a body, a ported cover connected thereto, gravity closures for the ports of the said cover, an arm pivotally supported by the under side of the cover, a lever carried by the cover and having its free end connected to the said arm by a slot and pin connection, means carried by the said arm and adapted to engage said gravity closures to move the same to an open position and a foot actuating rod connected to the opposite end of the said lever substantially as and for the purpose described.

3. In a garbage can comprising a body being open throughout, a ported cover connected thereto, gravity closures for the ports of the said cover, a lever pivotally supported by the cover intermediate its ends, a movable arm carried by the cover and disposed above the said lever and connected to one end thereof, an actuating member supported by the said arm and adapted to engage the said gravity closures to move the same to an open position and a foot actuating rod connected to the opposite end of the lever substantially as and for the purpose described.

4. In a garbage can comprising a body, a ported cover connected thereto, gravity closures for the ports of the said cover, an arm pivoted to the under side of the said cover, a lever pivotally supported by the cover and having its free end connected to the said arm, a foot actuating rod connected to the opposite end of the said lever, and a U-shaped actuating member supported by the said arm and adapted to contact the said gravity closures to move them to an open position.

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1,039,051. ADJUSTABLE TONGUE. PAUL HANSMANN, Long Prairie, Minn. Filed Nov. 30, 1908. Serial No. 465,287. (Cl. 21—114.)



1. In combination with a vehicle, a tongue having pivotal connection therewith, a relatively short rigid tongue and extending forwardly in line with said pivoted tongue when the same is in normal position, a nut pivotally supported upon the end of said rigid tongue and a screw rod carried by said pivoted tongue and threaded through said nut.

2. In combination with a vehicle, a forwardly extending tongue having pivotal connection at its inner end therewith, a rigid member extending forwardly from said vehicle, an adjusting connection between said rigid member and said tongue forward of its pivotal support, said adjusting connection having pivotal support upon said tongue and a positive driving connection with the center of the forward end of said rigid member, said adjusting mechanism being actuable to carry said tongue to either side of the pivotal support of said connection.

3. In combination with a vehicle and its cross bar, a tongue having pivotal connection therewith, a relatively short forwardly extending tongue rigidly connected with said cross bar, a nut carried by the free end of said rigid tongue, a bracket supported by said pivoted tongue, a screw rod carried by said bracket and threaded through said nut and an actuating handle for said rod.

4. In combination with a tongue having pivotal support at its inner end, a stub pole extending forwardly from the supporting pivot of said first mentioned pole, an adjusting connection between the end of said stub pole and the adjacent part of said stub pole and the adjacent part of said pivoted pole including a screw shaft having a central pivotal support upon said pivoted pole and a screw threaded traveling connection with the end of said stub pole allowing said pivoted pole to be adjusted angularly past the free end of said stub pole.

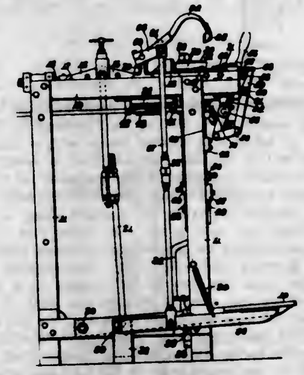
5. In combination with a vehicle, a forwardly extending tongue having pivotal support thereon at its inner end, means for angularly adjusting the tongue from a point forward of its pivotal support comprising a screw shaft having central pivotal support upon said tongue at a point forward of its pivot, said shaft having screw threaded connection with a fixed support alongside its pivotal support upon said tongue.

[Claims 6 to 8 not printed in the Gazette.]



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1,039,052. MACHINE FOR MAKING BOX-TOES. JOHN W. HARNEY, Lynn, Mass. Filed Nov. 17, 1911. Serial No. 660,913. (Cl. 12—64.)



1. In a machine of the class described, the combination of a female mold; a co-acting male mold provided with an upward extension and a flat face between its edge and said extension; and slidable wiper members pivoted together with edges conforming to the wall of said extension and adapted to turn the edges of a blank over said flat face and form a rib on said blank against said extension wall.

2. In a machine of the class described, the combination of a female mold; a coacting male mold provided with an upward extension and a flat face between its edge and said extension; a pivoted member adapted to position the blank by being forced temporarily into contact with a portion thereof extending beyond the walls of said molds; means for depressing said male mold into said female mold; and wiper members adapted to subsequently turn over the edges of said blank in contact with said flat face and the wall of said extension.

3. In a machine of the class described, the combination of a female mold; a coacting male mold provided with an upward extension and a flat face between its edge and said extension; a pivoted member fitting the end of said male mold adapted to be forced temporarily into contact with the blank to position it; means for depressing said male mold into said female mold; and wiper members adapted to subsequently turn over the edges of said blank in contact with said flat face and the wall of said extension.

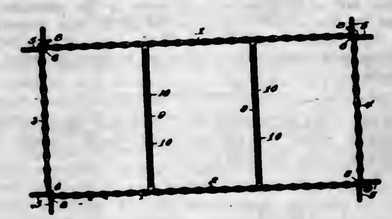
4. In a machine of the class described, the combination of a female mold; a coacting male mold provided with an upward extension and a flat face between its edge and said extension; a pivoted member fitting the end of said male mold adapted to be forced temporarily into contact with the blank to position it; means for locking said pivoted member in operative position; means for depressing said male mold into said female mold; and wiper members adapted to subsequently turn over the edges of said blank in contact with said flat face and the wall of said extension.

5. In a machine of the class described, the combination of a female mold; a coacting male mold provided with an upward extension and a flat face between its edge and said extension; slidable pivoted wiper members adapted to turn the edges of a blank over said flat face and form a rib on said blank against the wall of said extension; and adjustable members adapted to engage the edges of said wiper members to limit the outward movement thereof about their pivot.

[Claims 6 to 12 not printed in the Gazette.]

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1,039,053. CURTAIN-STRETCHER. NAN G. HARPER, Altoona, Pa. Filed Mar. 17, 1908. Serial No. 421,600. (Cl. 45—24.)



A curtain stretcher comprising side and end members consisting of a plurality of lazy tongs pivotally connected together, members pivotally connected to the side members intermediate of their ends and having longitudinal slots, members connecting said slotted members, angular members having slotted legs connecting the adjacent ends of the side and end members, means for holding the first slotted members in adjusted positions, portions of the adjacent ends of the side and end members being pivotally connected to each other and to the angular slotted members.

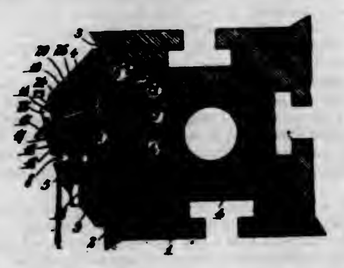
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1,039,054. CUTTER-HOLDER FOR CUTTER-HEADS. HERBERT C. HARTSELL, Los Angeles, Cal. Filed Mar. 27, 1912. Serial No. 686,548. (Cl. 144—224.)

1. In a cutter holder for rotary cutters, the combination of a carrier block having a transverse slot presenting a straight front wall and an inclined rear wall, a cutting blade disposed in said slot and resting against said inclined wall at an obtuse working angle, an adjustable filler between said blade and the straight wall of the slot, and

means for adjusting the blade to regulate the extent of projection thereof.

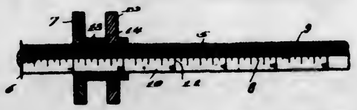
2. In a cutter holder for cutter heads, the combination of a carrier block of substantially truncated triangular form in cross section, said block having a longitudinal slot extending through its ends and truncated face and presenting straight and inclined front and rear walls, the rear wall being provided with passages in rear of its inclined face, a cutting blade disposed in said slot and resting against the inclined face of the rear wall at an obtuse working angle, an adjustable filler block disposed between said blade and the straight wall of the block, adjusting screws projecting into the passages, and members adjustable by said screws to regulate the extent of projection of the blade.



3. In a cutter holder for rotary cutter heads, the combination of a carrier block of substantially truncated triangular form in cross section, said block being provided at its base with one or more T-shaped head-engaging members, and being formed with a longitudinal slot opening through its ends and truncated face and forming straight front and inclined rear walls, the latter-named wall being provided at intervals with passages and recesses intersecting the same, a cutting blade disposed in the slot and bearing against the inclined wall at an obtuse working angle, an adjustable wedge-shaped filler block disposed between said blade and the straight front wall, screws projecting into said passages, and nuts in the passages engaged by the screws and provided with lugs projecting into the recesses and engaging the heel of the blade, whereby said blade may be adjusted to vary its extent of projection.

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1,039,055. MARKING-GAGE. NICHOLAS HELWIG, Middletown, Ohio. Filed Mar. 13, 1912. Serial No. 683,621. (Cl. 73—145.)

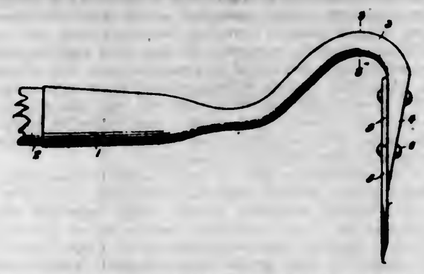


In a gage, a stock having a longitudinal recess, one of the walls of which extends radially with respect to the stock, and the other wall having graduations, and a head adjustably mounted on the stock, and having radial graduations, said head being rotatable to bring its graduations into registry with the first-mentioned wall.

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1,039,056. WEEDING-HOOK. JULIUS J. HASS, St. Louis, Mo. Filed Nov. 25, 1911. Serial No. 662,427. (Cl. 55—45.)

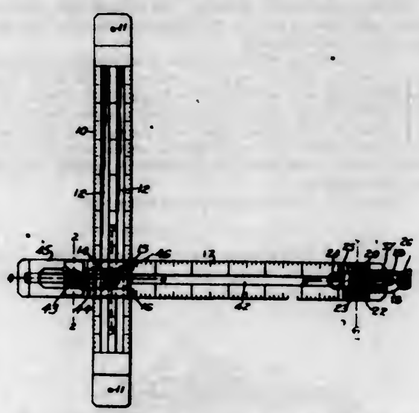
A weeding hook comprising a head member having a handle receiving socket and a shank, said shank being curved to form a goose neck having a wedge-shaped head flattened on its rear side, and a blade secured upon the rear side of the head, said blade being relatively long and narrow and provided with upwardly converging side edges terminating adjacent to the side edges of the wedge-shaped head, said blade being provided with a semi-oval lower



portion, the front face of which is beveled to provide a semi-oval cutting edge.

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1,039,057. DRAWING INSTRUMENT. CHARLES HILL, Phoenix, British Columbia, Canada. Filed Nov. 23, 1909. Serial No. 529,614. (Cl. 33—8.)



1. In combination with a base piece adapted to be secured to a board, of a slotted bar secured to the base piece, and an adjustable slotted block with a socket carried at the end of the bar and adapted to receive a circling pen or pencil, a studded plate mounted on the block, the said block having its upper base provided with grooves adapted to receive the studs of the said plate, a bolt extended through the said block and plate, and a nut on the bolt substantially as and for the purpose described.

2. In a drawing instrument, the combination with a grooved base piece adapted to be secured to a board, a sliding block on the same, a slotted bar with a scale, a bolt securing the base piece, the block and the bar together at any desired angle, a sliding plate provided with a stud arranged at the under side of said bar, and a block pivoted on the stud on the upper side of the bar and adapted to carry a circling pen or pencil.

3. In a drawing instrument, the combination with a grooved base piece having perforations in its ends, of a sliding block on the same, a slotted scale bar, a plate carried by the bar, a stud and nut carried by the said block and adapted to clamp the said bar at different points on the base, a swiveled block adjustably mounted on the outer end of the bar, and a circling pen or pencil carried by the said block.

4. The combination with a grooved base piece having a scale and adapted to be secured to a board, of a sliding block carried in the said grooves, a slotted bar with a scale, a stud and nut on the block, a plate adjustable on

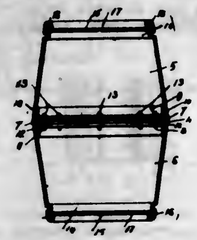


the bar and adapted to clamp the bar to the said base on adjustment of said nut, a swiveled block at the outer end of the said slotted bar, and a bolt and nut for locking the said block at different points on said bar.

5. The combination with a grooved base piece, of a slotted bar secured to the said base piece, an adjustable block mounted on the said bar and provided with a stud extending through the slot of the bar, a nut for the stud, and a slide mounted on said bar and straddling the said stud and provided with forward hooked ends adapted to engage the end of said block substantially as and for the purpose described.

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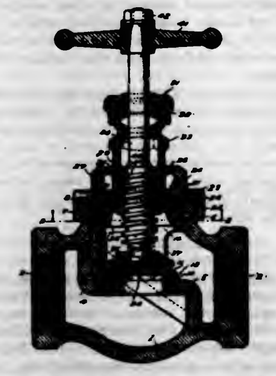
1,039,058. BARREL. CHARLES I. HOEFFEL, Defiance, Ohio. Filed June 7, 1911. Serial No. 631,771. (Cl. 220—4.)



A device of the class described comprising reversely tapered cylindrical sections, said sections having inbent annular flanges at the larger meeting ends thereof, said flanges being adapted to abut against each other for forming an unbroken outer surface, substantially L-shaped annular rings each having one wing thereof adapted to rest against said inbent flanges, said wings being of a greater length than said flanges, the other wings of said rings being adapted to abut the inner surfaces of said sections at and adjacent the point of junction with said inturned flanges, said rings being provided with alining openings spaced from said flanges, and means engaging said openings for drawing said rings together and causing said sections to be maintained in close contact with each other.

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1,039,059. VALVE OR CUT-OFF. LAURENCE B. HOWARD and GEORGE W. DENIEF, Lynn, Mass. Filed Aug. 14, 1907, Serial No. 388,546. Renewed Dec. 14, 1911. Serial No. 665,749. (Cl. 137—4.)

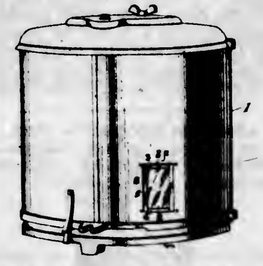


1. In a valve or cut-off, a valve casing having inlet and exhaust ports, a partition formed with an opening, and a neck provided with vertical grooves, one of said grooves being wider than the other, a valve seat adapted to fit within said opening, a cage having spaced depending arms forming intervening ports detachably connected with said seat and provided with lugs, one wider than the other, to engage the respective grooves, said lugs having a specified arrangement relative to the arms, a head having a threaded engagement with the cage, a cap fitted upon the neck and holding the head in applied position, a bonnet carried by the head and extending through the cap, the neck and head being formed with beveled surfaces and the cap with a beveled projection to fit down between and engage said surfaces, a valve stem adjustably mounted in the bonnet and head, a valve carried by said stem, and a shoulder upon the neck to limit the downward movement of the head.

2. In a valve or cut-off, a valve casing having inlet and exhaust ports, a partition formed with an opening, and a neck provided with vertical grooves, one of said grooves being wider than the other, a valve seat adapted to fit within said opening, a cage having spaced depending arms forming intervening ports detachably connected with said seat and provided with lugs, one wider than the other, to engage the respective grooves, said lugs having a specified arrangement relative to the arms, a head having a threaded engagement with the cage, a cap fitted upon the neck and holding the head in applied position, a valve stem adjustably mounted in the head, and a valve detachably connected with said stem.

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1,039,060. BOX FOR SEED-PLANTERS. MICHAEL E. HUGHES, Manteno, Ill. Filed Oct. 24, 1911. Serial No. 656,879. (Cl. 111—6.)



A grain box having an opening therein, a frame for said opening, said frame comprising upper and lower bars of angle iron construction and vertical side bars adapted to close the ends of the upper and lower bars, the said upper and lower angle iron bars presenting channels, means located in the channel members, a transparent member extending into the channel members and engaged against the said means located therein whereby any accidental breakage of the transparent material is prevented under the vibrations of the machine as it is propelled across the field.

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1,039,061. SELF-RETAINING UTERINE-TUBE. RICHARD JENTZSCH, Chicago, Ill. Filed Feb. 8, 1911. Serial No. 607,229. (Cl. 128—21.)



As an article of manufacture, a self retaining uterine tube comprising a tubiform body having an end portion

tapering outwardly from a point spaced from the intermediate portion of said tube, the said tapered end being provided at diametrically opposite points with slits and also with circular orifices at the inner ends of said slits to provide separable semicircular-shaped retaining legs adapted to be flared in diverging relation with respect to each other, a flared annular flange formed at the larger end of the tube and having a rounded edge, and outturned rounded semi-annular flanges formed on the legs at the free edges thereof.

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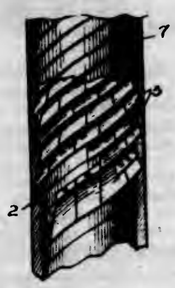
1,039,062. CRUSHER. HENRY LECHTENBERG, Quincy, Ill. Filed Dec. 27, 1909. Serial No. 535,171. (Cl. 83—9.)



A hollow inlet head for a crusher drum comprising an outer wall provided with an inlet opening, an inner wall having discharge openings, ribs extending from each discharge opening to a point adjacent to the inlet opening, each of said ribs being substantially L-shape at the discharge opening to form a pocket for receiving material passing into the head, said ribs being inclined to serve as guides for deflecting the material in said head and causing it to pass out through the discharge openings.

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1,039,063. ARMORED PNEUMATIC TIRE. JOHN LEND, Chicago, Ill., assignor, by mesne assignments, to Sanford C. McKnight, Chicago, Ill. Filed Nov. 24, 1909. Serial No. 529,803. (Cl. 152—16.)




1. A tire casing having embedded therein obliquely directed, spirally arranged plates of puncture resisting material.

2. A tire casing having embedded therein overlapped spirally arranged, outwardly diverging plates of puncture resisting material.

3. A tire having overlapped spirally arranged resilient plates of puncture resisting material embedded therein and vulcanized in place, and inclined outwardly and peripherally of the tire.

4. A tire embracing an inner structure of canvas, an outer investment of rubber vulcanized thereto, and plates of puncture resisting material secured on the canvas and extending obliquely into the rubber and arranged in overlapped relation.

5. In a tire the combination with the canvas lining of fiber plates riveted thereto and extending obliquely and spirally into the rubber, said fiber plates being arranged in close relation in lines each overlapping another.

[Claims 6 to 14 not printed in the Gazette.]

1,039,064. DANDRUFF REMEDY. THOMAS J. LYNCH, New York, N. Y., assignor of one-half to himself and one-half to Henry S. Livingston, New York, N. Y. Filed May 10, 1910. Serial No. 560,460. (Cl. 167—5.)

1. A hair tonic consisting of lactic acid bacilli substances of a culture of lactic acid bacilli and substantially free from the lactic acid bacilli themselves together with other hair tonic ingredients having no detrimental action on said lactic acid bacilli substances.

2. A hair tonic comprising the filtrate from a culture of lactic acid bacilli, and being substantially free from lactic acid bacilli.

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1,039,065. MAKING METAL TUBES AND SIMILAR ARTICLES. EMILE MAERTENS, Providence, R. I. Continuation of application Serial No. 52,015, filed Mar. 20, 1901. Renewed Mar. 25, 1902, Serial No. 99,921. This application filed May 5, 1906. Serial No. 315,416. (Cl. 29—185.)



1. A pile for rolling tubes consisting of an interior tubular mass of metal having a tapering exterior surface, extending the full length of the said tubular mass, and a second tubular mass of metal surrounding and making contact with said exterior surface of the said interior tubular mass, the end of one of said tubular masses projecting beyond the end of the other tubular mass.

2. A pile for rolling tubes consisting of a plurality of telescopically arranged tubular masses of metal having tapering exterior and interior surfaces respectively contacting one with another and with their ends in different cross sectional planes, said tapering surfaces extending the full lengths of said tubular masses.

3. A pile for rolling tubes consisting of two tubular masses of metal one telescoping the other, the inner tubular mass tapering externally from end to end, the outer tubular mass tapering internally from end to end the ends of said tubular masses being located in different planes, and the tapering surfaces making an angle with the common axis of the tube, whereby on the application of a welding heat the two contacting surfaces will be partly and automatically welded together so that the pile may be readily handled.

4. A pile for making tubes consisting of a plurality of telescopic hollow masses having tapering welding surfaces, one end of the outer mass extending beyond the corresponding end of the inner mass and the opposite end of the inner mass extending beyond the corresponding end of the outer mass.

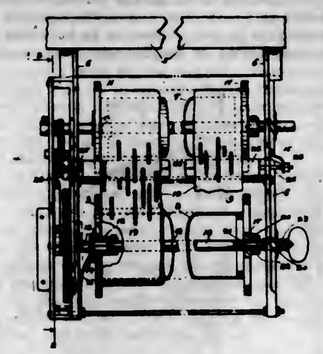
5. A pile for making tubes consisting of a plurality of telescopic integral hollow masses with tapering and contacting welding surfaces, one end of the outer mass extending beyond the corresponding end of the inner mass and the opposite end of the inner mass extending beyond the corresponding end of the outer mass, whereby, when the pile is stood on either end, the weight of one mass is carried by the other.

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1,039,066. ADJUSTING MECHANISM FOR ROLLS OR SPOOLS FOR PERFORATED MUSIC-SHEETS. OSCAR NELSON, Chicago, Ill., assignor to J. P. Seeburg Piano Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 4, 1911. Serial No. 652,738. (Cl. 242—69.)

In a device of the character described, the combination with a supporting frame having upright side pieces, of a stub-shaft journaled in one of said side pieces, a roll slidably mounted at one of its ends on said shaft but rotatable therewith, another shaft extended centrally through the other end of said roll and having at its outer end a tapered socket, means on the end of the roll near said tapered socket to rotatably secure it to the last named shaft, a screw having a tapered end to fit in said socket and extended through the other side piece of the supporting

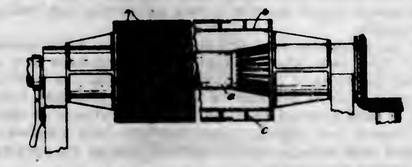




frame, means in the last named side piece to fix said screw, a spring secured at one of its ends to the stub-shaft supporting side piece and disposed to exert pressure on that end of the roll opposite said screw.

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1,039,067. ROLL. HOWARD PARKER, Nashua, N. H., assignor to Improved Paper Machinery Company, Nashua, N. H., a Corporation of Maine. Filed Sept. 21, 1911. Serial No. 650,560. (Cl. 92—53.)



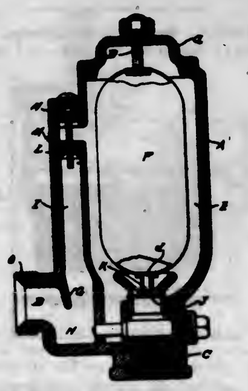
1. A working surface for a roll adapted for use in pulp and paper machinery formed from a metallic rod of rectangular cross section wound spirally onto a frame with adjacent convolutions spaced slightly apart to form suction and drainage spaces.

2. The combination with a roll frame comprising a shaft, longitudinally extending, radially disposed partitions, spacing rings connecting the edges of said partitions, and frame rods supported by said rings and extending longitudinally of the frame, of a working surface for said roll formed of a rod of metal of rectangular cross section wound spirally onto said frame and seated in notches in said partitions, the adjacent convolutions of said bar being spaced apart slightly, said bar being sealed in the notches in the partitions in order to isolate the compartments between the partitions from adjacent compartments.

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1,039,068. VALVE. ALFRED H. PROBST, Chicago, Ill., assignor to Byron E. Van Auken. Filed July 11, 1908. Serial No. 443,143. (Cl. 237—26.)

Valve mechanism for the discharge of air and water of condensation from steam heating systems by differential pressure, comprising a float chamber, a liquid discharge passage communicating therewith, a float for governing said discharge passage, a conduit adapted to provide a steam, air and water inlet to said float chamber, a liquid seal positioned between the inlet of the casing and the float chamber, said seal arranged to be sealed by the accumulation of water of condensation, and means to prevent the flow of liquid in said seal back to said radiator, whereby when the pressure is sufficiently lower on the float chamber side of said seal a portion of the water of condensation in said conduit is forced into said float chamber and when the pressure on the inlet side of said seal is less than the pressure in the float chamber water of condensation is not permitted to flow from said conduit



into said radiator to break said seal, and an air discharge passage arranged to discharge the air after it has passed said liquid seal.

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1,039,069. EYEGLASSES. NELSON M. BAKER, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Corporation of Massachusetts. Original application filed Oct. 10, 1908, Serial No. 457,119. Divided and this application filed Feb. 13, 1911. Serial No. 608,290. (Cl. 88—50.)



1. In eyeglasses, the combination with the bridge, of a nose clamp, a pivot upon which it swings, a tubular member separable from said bridge central with said pivot and inclosing a chamber, a spring within said chamber, and means coöperating with said tubular member for attaching said pivot to the bridge substantially as and for the purpose described.

2. In eyeglasses, the combination with the bridge, of a nose clamp, a pivot upon which it swings, a tubular member integral with said pivot and inclosing a chamber, a spring within said chamber, and means for attaching said pivot to the bridge, substantially as and for the purpose described.

3. In eyeglasses, the combination with the bridge, of a nose clamp, a pivot upon which it swings, means provided with a head for attaching said pivot to the bridge, a tubular member inclosing a chamber reaching to said head, and a spring within said chamber, substantially as and for the purpose described.

4. In eyeglasses, the combination with the bridge, of a nose clamp, a pivot upon which it swings comprising a sleeve provided with a shoulder and an upstanding tubular member, and a pivot screw provided with a threaded end and a head adapted to bear against the top of said tubular member said screw being spaced from said flange so as to form a chamber for inclosing the controlling spring, substantially as and for the purpose described.

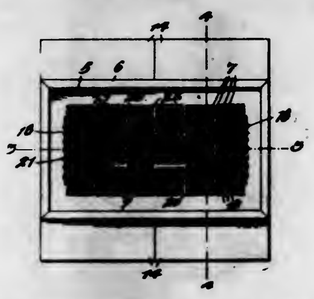
5. In eyeglasses provided with pivoted spring controlled nose clamps, a screw provided with a threaded end for engaging the bridge, a shank and a head, a sleeve upon said shank upon which the nose clamp swings, and a tubular member surrounding but spaced from said shank so as to form a chamber for inclosing the controlling spring one end of said tubular member forming a bearing

for one side of the nose clamp and the other reaching to said head, substantially as and for the purpose described.

[Claims 6 and 7 not printed in the Gazette.]

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1,039,070. TABLE. MORRIS BARON, Boston, Mass. Filed Aug. 23, 1911. Serial No. 645,586. (Cl. 45—31.)



1. A work table including a top formed with a plurality of sets of slots, all of the slots of each set extending parallel to each other and an end slot of each set lying contiguous to the ends of all of the slots of an adjacent set and at an angle to the slots of such adjacent set, as for the purpose set forth.

2. A work table including a top formed with a plurality of sets of slots of equal length, all of the slots of each set extending parallel to each other and an end slot of each set lying contiguous to the ends of all of the slots of an adjacent set and at an angle to the slots of such adjacent set.

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1,039,071. METHOD OF MANUFACTURING METALLIC-OXID ELECTRODES. ROBERT W. DAVIS, Jr., Wyandotte, Mich., assignor to Pennsylvania Salt Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 17, 1911. Serial No. 644,565. (Cl. 148—41.)

1. In the manufacture of electrodes or similar articles, the step consisting of exposing steel or iron of the desired shape to a hydrogen flame for a sufficient time to produce a substantial layer of iron oxid thereon; substantially as described.

2. The method of making electrodes or similar articles, consisting in inserting iron or steel articles of the desired shape in a furnace chamber and burning hydrogen gas in said chamber to expose the articles to the flame for a sufficient time to produce a substantial layer of magnetic oxid of iron thereon; substantially as described.

3. The method of making electrodes or similar articles, consisting in exposing iron to a hydrogen flame at a temperature of 600° C. for a sufficient time to afford a substantial layer of substantially pure magnetic oxid thereon; substantially as described.

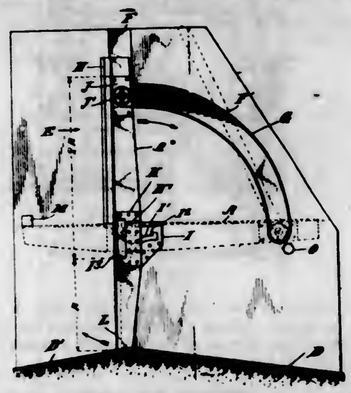
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1,039,072. AUTOMATIC FLOOD-GATE. WALTER S. EDGE, New York, N. Y. Filed Nov. 3, 1911. Serial No. 658,341. (Cl. 61—47.)

1. An automatic flood gate comprising two walls spaced apart from each other, each of which is provided with a curved guideway and a gate which extends from one wall to the other, means on which said gate may rock, and means coöperating with said guideways to hold said gate in proper position during its opening and closing movements.

2. An automatic flood gate comprising two walls spaced apart from each other, each of which is provided with a curved guideway, a gate supported below its median center line on bearings carried by said walls, said gate being provided with guiding means which enter said guideways in said walls.

3. An automatic flood gate comprising two walls spaced apart from each other, each of which is provided with a guideway which is open from the top to the bottom thereof and one portion which is curved, a gate which extends from one wall to the other, means carried by said walls on which said gate may rock, and means mounted on said gate and movable in said guideways to hold said gate in proper position during its opening and closing movements.



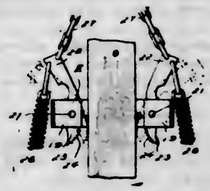
4. An automatic flood gate comprising two walls spaced apart from each other, each of which is provided with a curved guideway and a gate which extends from one wall to the other, curved bearings on which said gate may lock, and means coöperating with said guideways to hold said gate in proper position during its opening and closing movements.

5. An automatic flood gate comprising two walls spaced apart from each other, each of which is provided with a curved guideway, a gate which extends from one wall to the other, curved bearings on which said gate may rock, each of said bearings provided with an abutment at each end thereof, and means coöperating with said guideways to hold said gate in proper position during its opening and closing movements.

[Claims 6 and 7 not printed in the Gazette.]

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1,039,073. SAFETY DEVICE FOR ELEVATORS. HARMAN G. TESSMER, Pittsburg, Kans., assignor of three-tenths to O. Douglas Smith and three-tenths to Claude G. Weathers, Pittsburg, Kans. Original application filed Mar. 16, 1912, Serial No. 684,245. Divided and this application filed May 8, 1912. Serial No. 696,913. (Cl. 187—87.)



1. In an elevator, uprights constituting guide members, a car guided thereon and having uprights, clamps secured on the uprights and having U-shaped ends, shafts journaled in said U-shaped ends, levers fulcrumed on the shafts and having ratchet toothed heads adapted to engage the upright guides, springs actuating the levers to hold the toothed heads in engagement with the upright guides, a hoisting bar, a flexible element connecting the hoisting bar with the car, and flexible elements connecting the hoisting bar with the levers to pull the latter against the tension of their actuating springs, the last named flexible elements being proportioned to hold the levers against the tension of the actuating springs with the toothed heads clear of the upright guides when the flexible element connecting the car with the hoisting bar is held taut by the weight of the car.

2. In an elevator, uprights constituting guide members, a car guided thereon and having uprights, clamps secured on the outer faces of the uprights and having U-shaped ends, reinforcing strips for the clamps extending across the inner faces of the uprights, shafts mounted in the U-shaped ends of the clamps, levers fulcrumed on the shafts and having ratchet toothed heads adapted to engage the upright guides, spacing spools on the shafts to maintain the levers in position for effective engagement with the guides, and lever actuating means.

3. In an elevator, uprights constituting guide members and having guide strips on their inner faces, a car having uprights and clips on said uprights engaging the guide strips and guided thereon, clamps secured on the outer faces of the uprights and having U-shaped ends, reinforcing strips for the clamps extending across the inner faces of the uprights, shafts supported in the U-shaped ends of the clamps, levers fulcrumed on the shafts and having ratchet toothed heads adapted to engage the upright guides, and lever actuating means.



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1,039,074. HANDLE-MOUNT FOR PLOWS. ARTHUR M. WHITE, Norfolk, Va., assignor to S. R. White's Sons, Norfolk, Va. Original application filed Feb. 21, 1912, Serial No. 679,162. Divided and this application filed Apr. 25, 1912. Serial No. 696,065. (Cl. 97—15.)



1. A handle mount for plows comprising a standard having spaced elongated slots pitched at an angle to each other, handles applied to the standard, and bolts carried by the handles and passing through the slots.

2. A handle mount for plows comprising a standard having elongated slots disposed at an angle to each other, the side faces of the standard about the slots being provided with ridges transverse thereto, handles applied to the sides of the standard and engaged by the ridges, and bolts carried by the handles and passing through the slots.

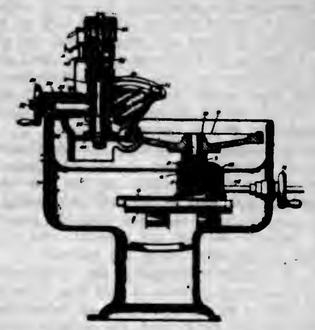
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1,039,075. FACE-MILL GRINDER. GEORGE W. SMITH, Rockford, Ill., assignor to The Ingersoll Milling Machine Company, Rockford, Ill., a Corporation of Illinois. Filed Sept. 2, 1911. Serial No. 647,338. (Cl. 51—12.)

1. In a machine of the character set forth, the combination with a base, of a work holder mounted thereon, a swinging support, a rotary grinding member journaled in the swinging support, means for swinging the support, and means for continuously rotating the grinding member during such swinging movement.

2. In a machine of the character set forth, the combination with a base, of a work holder mounted thereon, a swinging support on the base, a reciprocatory carrier mounted on the swinging support, a rotary grinding member journaled in the carrier, and means for rotating the carrier irrespective of the swinging of the support and the reciprocation of the carrier.

3. In a machine of the character set forth, the combination with a base, of a work holder mounted thereon, a yoke pivoted on the base, a sleeve movable in the yoke, a shaft journaled in the sleeve and carrying a grinding member, means for swinging the support and reciprocating the sleeve, and means for rotating the shaft during such movement.



4. In a machine of the character set forth, the combination with a base comprising a receptacle, of a work holder mounted in the receptacle, a swinging yoke journaled in the receptacle, means for limiting the swinging movement of the yoke, a reciprocatory sleeve mounted in the yoke, means mounted in the yoke for reciprocating the sleeve, a shaft journaled in the sleeve, and carrying a grinding member, and means for rotating the grinding member during the movement of the yoke and sleeve.

5. In a machine of the character set forth, the combination with a base comprising a receptacle, of an adjustable work holder mounted in the receptacle, a yoke pivotally mounted in the receptacle, an adjustable stop for limiting the swinging movement of the yoke, a reciprocatory sleeve mounted in the yoke, a shaft journaled in the sleeve, means mounted on the yoke and engaged with the shaft for reciprocating the same and the sleeve, a grinding member carried by the lower end of the shaft and operating on the work, a pulley mounted on the yoke and engaged with the shaft, and means for driving the pulley.

[Claims 6 to 14 not printed in the Gazette.]

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# REISSUES.

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18,466. EYEGLASS-MOUNTING. LEO F. ADT, Albany, N. Y. Filed July 16, 1912. Serial No. 709,830. Original No. 1,019,115, dated Mar. 5, 1912, Serial No. 501,562. (Cl. 88—50.)



1. In an eyeglass mounting, the combination with a support, of a guard pivoted on one side of the support and extending in front and rear thereof, the rear portion of said guard having a bearing pad thereon and the forward portion constituting an operating arm, and a flat spiral spring located on the side of the support opposite the guard substantially in line with the pivot and having one end connected to the support and the other to the guard.

2. In an eyeglass mounting, the combination with the support, of a guard pivoted on the upper side of the support and extending in front and rear thereof, the front portion constituting an operating arm and the rear portion having a bearing pad thereon, and a flat spiral

spring arranged beneath the support and substantially in line with the pivot and having one end connected to the guard and the other connected to the support.

3. In an eyeglass mounting, the combination with the support, of a guard pivoted on one side of the support and extending in front and rear thereof, the rear portion having a bearing pad thereon and the front portion having an operating arm, and an arm extending from said operating arm on the side of the support opposite the guard, and a spring connected to the end of the last mentioned arm and to the support.

4. In an eyeglass mounting, the combination with a support, of a guard pivoted on one side thereof and having the rearwardly-extending portion provided with a nose-bearing pad and a forwardly-extending operating portion, an arm being extended from the guard and lying on the opposite side of the support, and a coil spring connected to the arm and to the support.

5. In an eyeglass mounting, the combination with a support, of a guard pivoted to said support and extending in front and in rear thereof, and an independent connection between the guard and the support comprising an arm extending rearwardly from the forwardly extending portion and a coil spring arranged substantially in line with the pivotal center of the guard.

6 In an eyeglass mounting, the combination with the support, of a nose guard pivoted thereon and having a bearing pad in rear of the pivot and an operating arm in front thereof, a rearwardly-extending arm, a coil spring substantially in line with the pivot forming a continuation of the last mentioned arm and having its free end extending outwardly therefrom and means for connecting the latter to the support.

7. As an article of manufacture, a nose guard having at one end a nose-bearing pad and at the other two parallel arms connected at their outer ends, and a coil spring arranged at the inner end of one of the arms and having an arm extending outwardly therefrom.

8. As an article of manufacture, a nose guard comprising a lever formed from flat stock and having a finger piece at its forward end; a nose engaging member carried by the rear end of the lever, a flat spiral spring for the guard arranged about a vertical axis and formed from flat stock integral with and below the lever, and an arm extending from the spring for coöperation with the mounting.

9. In an eyeglass, the combination with the support for the lenses, of the guards pivoted on the support and extending transversely thereof, the forward ends of the guards serving as operating portions and the rear ends provided with bearing pads, flat spiral springs arranged substantially in line with the pivots and each connected at one end to the guard and the other extending over the faces of the lense and means for securing said ends to the lenses.

10. In an eyeglass mounting, a support, a guard pivoted to the support and comprising a rearwardly-extending portion with a nose bearing pad and a forwardly extending portion constituting the operating arm and having an arm connected to its outer end and extending rearwardly substantially parallel thereto, and a coil spring arranged between the inner end of the operating arm and the rearwardly extending arm.

11. In an eyeglass mounting, a support and a guard pivoted to the support to project rearwardly and forwardly therefrom, and an arm extending from the guard and having a coil spring forming a continuation thereof, arranged in a line with the pivotal center and coöperating with the support.

12. In an eyeglass mounting, the combination with a support, of a guard pivoted on one side of the support and extending in front and rear thereof, the rear portion having a bearing pad and the forward portion constituting an operating arm, and a coil spring connected at one end to the guard for positioning the latter and located on the side of the support opposite the guard.

13. In an eyeglass mounting, the combination with a support, of a guard pivoted on the upper side of the support and extending in front and in rear thereof, the rear portion of the guard having a bearing pad thereon and the forward portion constituting an operating arm, and a coil spring located on the under side of the support and connected to the guard for positioning the latter.

14. In an eyeglass mounting, the combination with a support, of a flat spiral spring located on one side of the support and having its outer end secured thereto, and a guard pivoted on the side of the support opposite the spring, connected to the inner end of the latter, and having its pivotal center substantially in line with the axis thereof.

15. In an eyeglass mounting, the combination with a support, of a coil spring arranged on one side of the support, and a guard positioned by the spring arranged on the other side of the support and having a connection extending to and secured to the coil spring.

16. The combination with a support for the lenses, and a removable nose guard pivoted thereon, of a coil spring on the opposite side of the support having its axis coincident with the turning axis of the guard, permanently secured to one of said parts and detachably secured at its other end, permitting the spring to remain with one of said parts on the separation of the guard and the support.

17. The combination with a support for the lenses, and a removable nose guard pivoted thereon, of a coil spring on the opposite side of the support and having its axis coincident with the turning axis of the guard, formed integral with the guard to be removed therewith and detachably secured at its other end.

18. In an eyeglass mounting, the combination with a support, a nose guard and cooperating pivot bearings on said parts permitting the guard to swing on one side of the support substantially in a horizontal plane, of a coil spring arranged on the other side of the support with its axis coincident with the turning axis of the nose guard and having one end secured to said guard to be removed therewith, and its other end provided with an arm for cooperation with the support.

19. The combination with a support and a nose guard, of a fastener for securing the guard to the support also serving as a pivot for the latter, and a coil spring surrounding the fastener and having an end coöperating with the support and the other end permanently secured to the guard so that the spring may be removed with said guard.

20. The combination with a support for the lenses, and a removable nose guard embodying a lever pivoted on one side of the support and carrying the nose engaging portion, of a coil spring having its axis coincident with that of the guard and arranged on that side of the lever on which the support is located.

21. The combination with a support having a pivot rigidly secured thereto and provided with a head at its outer end, of a guard embodying a lever turning on the pivot and contacting with the head, and a coil spring having its axis coincident with the axis of the pivot and arranged on the same side of the lever as the support.

22. The combination with a support for the lenses and a nose guard, of a headed pivot pin detachably secured to one of said parts, extending through the other and having the head thereof contacting with the opposite face of said last mentioned member, and a coil spring arranged with its axis coincident with the axis of the pin and on the same side of the guard as the support.

23. The combination with a support for the lenses and a nose guard turning in contact with one face of the support, of a removable abutment bearing against the opposite face of one of said members, and a coil spring having its axis coincident with the turning axis of the guard and located on the same side of the guard as the support.

24. The combination with a support having a seat on one side thereof, of a guard having a pair of parallel arms arranged on opposite sides of the support, one of which turns in engagement with the seat, a coil spring arranged between the arms and a screw fastener surrounded by the spring and holding said arm in engagement with the seat.

25. In an eyeglass mounting, the combination with a support, of a guard pivoted thereon embodying a pair of parallel arms connected in front of the support and lying on opposite sides of the latter, one of said arms extending in rear of the support and carrying both the upper and the lower nose engaging pads, and a coil spring for positioning the guard having its axis coincident with the turning axis of the guard and lying between the arms of said guard.



26. In an eyeglass mounting, the combination with a support having an aperture therein, of a pivotally mounted guard embodying a pair of parallel arms connected on one side of the support and lying above and below the latter, a nose engaging member carried by one of said arms and a removable fastener engaging one of said arms and passing through the aperture in the support to secure the guard to said support, and a coil spring for positioning the guard having its axis coincident with the axis of said guard and lying between the arms of the latter.

27. In an eyeglass mounting, the combination with a support having a seat on one side thereof, of a nose guard embodying an apertured arm turning in engagement with the seat, a second arm connected in front of the support with the apertured arm and lying on the side of the support opposite said apertured arm and a nose engaging member carried by one of said arms, a headed removable fastener passing through the apertured arm having its head engaging said arm to hold the latter upon the seat and extending through the support to the opposite side thereof, and a coil spring surrounding the fastener between the support and the second mentioned arm.

28. In an eyeglass mounting, the combination with a support having a seat on one side thereof, of a headed pivot projecting from the seat, a projection on the opposite side of the support alined with the pivot, a nose guard turning on the pivot in engagement with the seat and the head, and a coil spring for positioning the guard surrounding the projection on the opposite side of the support.

29. In an eyeglass mounting, the combination with a support for the lenses, of a fastener having a screw threaded portion engaging the support, a pivot portion extending from one side of the support and a projecting portion on the other side of the support, of a nose guard turning on the pivot portion, and a coil spring for positioning the guard surrunding the projecting portion.

30. In an eyeglass mounting, the combination with a support for the lenses having a bearing and a pivoted guard lever turning on said bearing, of a coil spring for positioning the guard wound in a flat spiral about the axis of the latter, the outer end being arranged to act against the support and the inner end to act against the guard at a point removed from its bearing.

31. In an eyeglass mounting, the combination with a support having a seat thereon, a pivoted guard turning with one side against the seat and a member engaging the other side of the guard to hold it against the seat, of a projection extending in the direction of the axis of the guard and lying to one side of both the guard and support and a spring for positioning the guard coiled about such projection.

32. In eyeglasses, the combination with a support and a nose guard mounted to swing on one side of the support substantially in a horizontal plane, of a coil spring arranged on the opposite side of the support with its axis coincident with the turning axis of the guard, carried by the guard and coöperating with the support.

33. As an article of manufacture, a nose guard for eyeglasses comprising a guard lever having a finger portion, nose engaging portion and an intermediate bearing portion and a positioning spring forming a continuation of said lever coiled in a flat spiral in axial alinement with the bearing portion and provided with a part adapted to coöperate with the guard support, said part being extended from the outer convolution of the spring.

34. In an eyeglass mounting, the combination with a support, of a guard pivoted on one side of the support to extend forwardly and rearwardly thereof, a coil spring located on the opposite side of the support from the guard and an arm proceeding from the latter transversely through the horizontal plane of the support to coöperate with the spring.

35. In an eyeglass mounting, the combination with a support, of a guard pivoted on one side of the support to extend forwardly and rearwardly thereof, a spring composed of a flat strip material wound in a flat spiral on the opposite side of the support from the guard and an arm proceeding from the latter through the horizontal plane of the support and coöperating with the spring in the plane of the coil thereof.

36. In an eyeglass mounting, the combination with a support, of a guard pivoted on one side of the support to extend forwardly and rearwardly thereof, a coil spring located on the opposite side of the support from the guard and an arm proceeding from one of said parts through the horizontal plane of the support to coöperate with the other.

37. In an eyeglass mounting, the combination with a support having a seat on one side thereof, and a guard turning on the seat, of a pivot member for the guard projecting beyond the opposite face of the support from that on which the seat is arranged, and a spring coiled about such projecting portion and means for holding the guard against its seat.

38. In an eyeglass mounting, the combination with a support having a seat on one side thereof, and a guard turning on the seat, of a pivot member for the guard projecting beyond the opposite face of the support from that on which the seat is arranged, and a spring coiled about such projecting portion.

39. An eyeglass mounting comprising in combination a pivoted guard, a positioning spring therefor and a supporting portion on the mounting arranged between said parts.

40. In an eyeglass mounting, the combination with a support embodying a vertical pivotal projection and a guard turning thereon in a horizontal plane, one of said parts being provided with two spaced bearing surfaces engaging upon opposite sides of the other to prevent axial movement of the guard, of a centering projection extending to one side of the guard and support and arranged in the pivotal axis of the guard and a spring for positioning the latter surrounding said projection.

41. In an eyeglass mounting, the combination with a support, a guard pivoted thereto to operate in a horizontal plane and a centering projection extending axially of the guard and to one side of the guard and support, of a spring for positioning the guard coiled about the projection, and two members each independent of the spring having bearing surfaces respectively engaging opposite sides of the guard to hold it against tilting in a vertical plane.

42. In an eyeglass mounting, the combination with a support and a guard pivoted thereto, of a downwardly extending projection on the support arranged in alinement with the turning axis of the guard and a flat spiral spring for positioning the guard wound about the projection and arranged below both the guard and the support.

43. In an eyeglass mounting, the combination with a support, a guard pivoted thereto to operate in a horizontal plane and a centering projection extending axially of the guard and to one side of the guard and support, of a flat spiral spring for positioning the guard coiled about the projection below the support, and two members each independent of the spring having bearing surfaces respectively engaging opposite sides of the guard lever to hold it against tilting in a vertical plane.

44. In an eyeglass mounting, the combination with a support and a nose guard mounted to swing thereon substantially in a horisontal plane, of a spring for positioning the guard made from flat stock embodying a flat spiral coil arranged with its axis vertical secured at one end to one of the first two named parts and having an arm proceeding from the other end and coöperating with the other part, the arm being connected to the coil by a flatwise bend of the stock.

45. In an eyeglass mounting, the combination with a support, of a finger piece guard pivoted to turn on one side of the support, a flat spiral positioning spring for

the guard arranged on the other side of the support and a pivot for the guard extending through the support and within a coil of the spring.

46. In eyeglasses, the combination with a mounting, of a pivot pin having one portion secured in the mounting and having a shoulder bearing against the outer face of the latter and also having a projecting portion beyond the shoulder and a nose guard turning on the projecting portion.

47. In eyeglasses, the combination with a mounting, of a pivot pin having one portion threaded into the mounting and having a shoulder bearing against the outer face of the latter and also having a projecting portion beyond the shoulder and a nose guard turning on the projecting portion.

48. In eyeglasses, the combination with a mounting, of a pivot pin having a reduced portion secured in the mounting and having a shoulder bearing against the outer face of the latter and also having an enlarged portion projecting beyond the shoulder and terminating in a head and a guard turning on the enlarged portion and confined between the head and the mounting.

49. In a finger piece eyeglass mounting, the combination with a support and a pivoted guard lever mounted to swing thereon, of a coil spring for positioning the guard wound in a flat spiral about the axis thereof having its outer end acting against one of said parts and its inner end arranged to proceed outwardly toward the periphery of the coil to coöperate with the other part.

50. In a finger piece eyeglass mounting, the combination with a support and a pivoted guard lever mounted to turn thereon, of a coil spring for positioning the guard wound in a flat spiral about the axis thereof having its outer end acting against one of said parts and its inner end arranged to proceed outwardly beyond the circumference of the coil and to act against the other part.

51. In a finger piece eyeglass mounting, the combination with a support and a pivoted guard lever mounted to swing thereon, of a coil spring for positioning the guard wound in a flat spiral about the axis thereof having its outer end acting against one of said parts and its inner end formed with an arm arranged to proceed outwardly radially of the coil to coöperate with the other part.

52. In a finger piece eyeglass mounting, the combination with a support and a pivoted guard lever mounted to swing thereon, of a coil spring for positioning the guard wound in a flat spiral about the axis thereof having its outer end acting against one of said parts and its inner end extended from an inner convolution across an outer convolution of the spiral to act against the other part.

# DESIGNS.

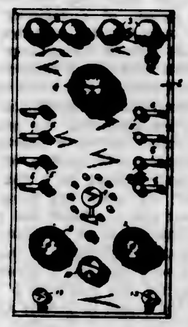
43,025. ASH-TRAY. LOUIS ALBINO, Brooklyn, N. Y. Filed July 16, 1912. Serial No. 709,825. Term of patent 14 years.





The ornamental design for an ash tray, as shown.

43,026. ELECTRIC SWITCHBOARD. WALTER J. BELL, Los Angeles, Cal. Filed Jan. 22, 1912. Serial No. 672,787. Term of patent 14 years.



The ornamental design for an electric switch board as shown and described.

43,027. LABEL-BLANK. EDWIN J. SONN, Newark, N. J., assignor to Eastern Bottlers Supply Company, New York, N. Y., a Corporation of New York. Filed July 15, 1912. Serial No. 709,582. Term of patent 7 years.



The ornamental design for a label blank, as shown.



43,028. LABEL-BLANK. EDWIN J. SONN, Newark, N. J., assignor to Eastern Bottlers Supply Company, New York, N. Y., a Corporation of New York. Filed July 15, 1912. Serial No. 709,583. Term of patent 7 years.



The ornamental design for a label blank, as shown.

43,029. LABEL-BLANK. EDWIN J. SONN, Newark, N. J., assignor to Eastern Bottlers Supply Company, New York, N. Y., a Corporation of New York. Filed July 15, 1912. Serial No. 709,584. Term of patent 7 years.



The ornamental design for a label blank, as shown.

# TRADE-MARKS

## PUBLISHED SEPTEMBER 17, 1912.

**The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.**

**Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.**

**As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.**

Ser. No. 42,931. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SENTNEY WHOLESALE GROCERY Co., Hutchinson, Kans. Filed June 10, 1909.




*Particular description of goods.*—Canned Fruits and Canned Vegetables, Evaporated and Dried Fruits, Jellies, Fruit-Butters, Pickles, Flavoring Extracts, Ground Spices, Mince-Meat, Evaporated Milk, Vinegar, a Compound of Corn and Cane Syrups.
*Claims use* since about Mar. 5, 1906.

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Ser. No. 50,953. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ROMAN UHL NACHFOLGER JOSEF M. BRUNIG, Vienna, Austria. Filed July 21, 1910.

Sprudel

*Particular description of goods.*—Biscuits.
*Claims use* since 1907.

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Ser. No. 54,933. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) MID-WEST SPECIALTY COMPANY, Chicago, Ill. Filed Mar. 8, 1911.




*Particular description of goods.*—Steel-Wool Journal and Machinery Packing.
*Claims use* since Feb. 1, 1911.

Ser. No. 55,293. (CLASS 15. OILS AND GREASES.) TORRES, LAGARDE & Co., Buenos Aires, Argentina. Filed Mar. 24, 1911.

"GUAY"



No claim being made to the word "Guay."
*Particular description of goods.*—Petroleum.
*Claims use* since Aug. 31, 1910.

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Ser. No. 58,619. (CLASS 10. FERTILIZERS.) A. D. ADAIR & MCCARTY BROS., Atlanta, Ga. Filed Sept. 11, 1911. Under ten-year proviso.

ADAIR'S

PACIFIC

*Particular description of goods.*—Guano and Fertilizer.
*Claims use* since about July 1, 1886.

Ser. No. 59,331. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) HUGO SCHNEIDER AKTIENGESELLSCHAFT, Leipsig-Paunsdorf, Germany. Filed Oct. 25, 1911.

**Hasag**

*Particular description of goods.*—Lamps and Lanterns Fed with Combustible Liquid and Burners for Same, Liquid-Fuel Heaters, Cookers, Ovens, Incandescent Gas Burners and Mantles, Heaters for Curling-Irons, and Wicks.

*Claims use* since Nov. 8, 1910.

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Ser. No. 60,684. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) COMPAÑIA EXPLOTADORA DEL MUNDATOR, S. A., Morelia, Mexico. Filed Jan. 8, 1912.




No claim being made to the words "Mundator," "Sin Mundator," "Con Mundator," "Compañia Explotadora del Mundator, S. A., Morelia, Mich., Mex.," appearing on the drawing.

*Particular description of goods.*—Chemical Compositions Used to Assist in the Defecation of Sugar.

*Claims use* since Aug. 1, 1911.

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Ser. No. 60,836. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE A. C. HOWARD POLISH COMPANY, INCORPORATED, New York, N. Y. Filed Jan. 15, 1912.




The portrait being that of Adolphus C. Howard, no claim being made to the words "Shoe Polishes," "The A. C. Howard Polish Co. Inc., New York, U. S. A."

*Particular description of goods.*—Shoe-Polish Pastes.

*Claims use* since Jan. 1, 1909.

Ser. No. 61,211. (CLASS 37. PAPER AND STATIONERY.) ED. HASSINGER, Paris, France. Filed Feb. 2, 1912.

**MONA LISA**

*Particular description of goods.*—Pencils, Crayons, Charcoals, Stubs, Pens, Drawing-Pens, Penholders, Fountain-Pens, Drawing-Paper, Writing-Paper, Ink-Wells, Rulers, Rubber Stamps, Paper-Fasteners, Drawing-Pins, Paper-Weights, and Rubber Bands.

*Claims use* since November, 1911.

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Ser. No. 62,122. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) WILLIAM SCHLATTER & SON, Springfield, Mass. Filed Mar. 12, 1912.



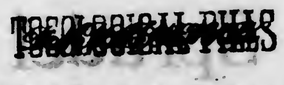

No claim being made to the words "Before" and "After," nor to the representation of the staple.

*Particular description of goods.*—Staples for the Repairing of Carnations.

*Claims use* since on or about Feb. 1, 1912.

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Ser. No. 62,391. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DR. NICANOR BOLNY, INC., New York, N. Y. Filed Mar. 25, 1912. Under ten-year proviso.



*Particular description of goods.*—Tocological Medicines.

*Claims use* since 1882.

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Ser. No. 62,392. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DR. NICANOR BOLNY, INC., New York, N. Y. Filed Mar. 25, 1912. Under ten-year proviso.



*Particular description of goods.*—Tocological Medicines.

*Claims use* since 1882.





Ser. No. 62,467. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) FRIEDR. & GUILLAUME CARLSWERK ACTIEN-GESELLSCHAFT, Mulheim-on-the-Rhine, Germany. Filed Mar. 26, 1912.



No claim being made to the words "Made in Germany (Registered)," "Music Wire," "Warranted Patent Steel," and "Sole Agents."

*Particular description of goods.*—Steel Wire for Pianofortes and other Musical Instruments.

*Claims use* since May 12, 1894.

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Ser. No. 62,949. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) JAP AMONIA CO., Rochester, N. Y. Filed Apr. 17, 1912.



*Particular description of goods.*—Detergent Cleaning Preparations.

*Claims use* since Mar. 1, 1909.

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Ser. No. 63,111. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) CARL ALFRED KRAUSE, Aurora, Ill. Filed Apr. 25, 1912.




No claim being made to the words "Aurora, Ill."

*Particular description of goods.*—A Composition to be Applied to Razor-Strops to Produce a Surface for Sharpening, Cleaning, and Polishing Razors, said Composition Consisting of Emery, Tripoli, Tallow, and Paraffin Molded into Cakes.

*Claims use* since Mar. 20, 1912.

Ser. No. 63,710. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) FRIEDR. W. LUTZ & CO., Richmond, Va. Filed May 22, 1912.




*Particular description of goods.*—Dental Burs and Drills.

*Claims use* since Aug. 29, 1910.

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Ser. No. 63,797. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) NEW VACUUM HEATING CO. LTD., Leicester, England. Filed May 25, 1912.

**NUTOMATIC**

*Particular description of goods.*—Vacuum Steam-Heating Apparatus, Hot-Water Heating Apparatus and Boilers, Radiators, and Pumps for Heating Apparatus, and Pipes and Valves Used in Connection with Steam and Hot-Water Heating Apparatus.

*Claims use* since June 23, 1908.

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Ser. No. 63,929. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) EDMUND M. POND, Rutland, Vt. Filed June 1, 1912.



*Particular description of goods.*—Surgical Bandages.

*Claims use* since Jan. 23, 1912.

Ser. No. 63,954. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) SHELLASH COMPOUND CO., Delance, N. J. Filed June 8, 1912.

SHELLASH

*Particular description of goods.*—A Powder Adapted to be Applied to a Strop and of Abrasive Material.
*Claims use* since Jan. 1, 1912.

Ser. No. 64,421. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ALBERT H. LANDENBERGER, San Francisco, Cal. Filed June 26, 1912.

Nectar

*Particular description of goods.*—Soup-Bases and Sauces.
*Claims use* since Jan. 1, 1908.

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# TRADE-MARKS

## REGISTERED SEPTEMBER 17, 1912.

88,395. ROLLED OATS. AMERICAN RICE & CEREAL CO., Keokuk, Iowa.
Filed April 28, 1911. Serial No. 56,023. PUBLISHED JANUARY 2, 1912.

88,396. WHEAT-FLOUR. THE BLISH MILLING COMPANY, Seymour, Ind.
Filed October 28, 1911. Serial No. 59,897. PUBLISHED JANUARY 30, 1912.

88,397. WHEAT-FLOUR. CENTENNIAL MILL CO., Seattle and Spokane, Wash.
Filed March 1, 1912. Serial No. 61,851. PUBLISHED JULY 16, 1912.

88,398. CANDY. ADA FORREST CHEVALIER, New York, N. Y.
Filed April 20, 1912. Serial No. 62,032. PUBLISHED JULY 16, 1912.

88,399. LARD. THE CLEVELAND PROVISION CO., Cleveland, Ohio.
Filed May 16, 1906. Serial No. 5,951. PUBLISHED SEPTEMBER 11, 1906.

88,400. NON-ALCOHOLIC BEVERAGE. WM. COREY & CO., LIMITED, Belfast, Ireland.
Filed April 1, 1911. Serial No. 55,452. PUBLISHED JULY 16, 1912.

88,401. TEA, COFFEE, AND COCOA. ARCHIBALD DAVIDSON, New York, N. Y.
Filed March 18, 1912. Serial No. 62,225. PUBLISHED JULY 16, 1912.

88,402. COTTON-SEED OIL. THE N. K. FAIRBANK COMPANY, Chicago, Ill.
Filed April 16, 1912. Serial No. 62,087. PUBLISHED JUNE 4, 1912.

88,403. ARTIFICIALLY-DIGESTED MEAT. FARBWERKE VORM. MEISTER LUCIUS & BRÜNING, Höchst-on-the-Main, Germany.
Filed March 26, 1912. Serial No. 62,428. PUBLISHED JULY 16, 1912.

88,404. WHEAT-FLOUR. FISHER FLOURING MILLS COMPANY, Seattle, Wash.
Filed May 21, 1912. Serial No. 63,099. PUBLISHED JULY 16, 1912.

88,405. FRESH DECIDUOUS FRUITS. FRESNO FRUIT GROWERS COMPANY, East Fresno, Cal.
Filed May 7, 1912. Serial No. 62,402. PUBLISHED JULY 16, 1912.

88,406. FLAVORING-SYRUPS USED IN COMPOUND GINSENG BEVERAGES. THE GINSENG SYRUP COMPANY, Grand Rapids, Mich.
Filed April 6, 1912. Serial No. 62,684. PUBLISHED JULY 16, 1912.

88,407. TEA. GRIGGS, COOPER & COMPANY, St. Paul, Minn.
Filed May 9, 1912. Serial No. 63,424. PUBLISHED JULY 16, 1912.

88,408. CANNED PINEAPPLES. HAIKU FRUIT & PACKING CO., LTD., Haiku, Maui, Territory of Hawaii.
Filed August 15, 1911. Serial No. 58,215. PUBLISHED JULY 16, 1912.

88,409. PUDDING-POWDER. CHRISTIAN HANSEN, Copenhagen, Denmark, and Little Falls, N. Y.
Filed May 9, 1912. Serial No. 63,427. PUBLISHED JULY 16, 1912.

88,410. DRIED FRUITS AND CANNED VEGETABLES. KLAUBER WANGENHEIM CO., San Diego, Cal.
Filed October 24, 1911. Serial No. 59,221. PUBLISHED JULY 16, 1912.

88,411. CHEESE. MENKEL & CO., New York, N. Y.
Filed May 17, 1912. Serial No. 63,097. PUBLISHED JULY 16, 1912.

88,412. SPICES. THE MURRAY DRUG CO., Columbia, S. C.
Filed July 5, 1911. Serial No. 57,498. PUBLISHED JULY 16, 1912.

88,413. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed May 16, 1912. Serial No. 63,574. PUBLISHED JULY 16, 1912.

88,414. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed May 16, 1912. Serial No. 63,576. PUBLISHED JULY 16, 1912.

88,415. CERTAIN NAMED FOODS. NIBBS GROCER COMPANY, St. Louis, Mo.
Filed August 25, 1911. Serial No. 58,378. PUBLISHED JULY 16, 1912.

88,416. RYE, BLEND, SCOTCH, AND BOURBON WHISKIES AND GIN. THE NORMAN COMPANY, INC., New York, N. Y.
Filed January 26, 1912. Serial No. 61,057. PUBLISHED JULY 16, 1912.

88,417. CANNED CRABS, SHRIMPS, AND ABALONE. NORTH AMERICAN MERCANTILE CO., San Francisco, Cal.
Filed January 23, 1912. Serial No. 60,962. PUBLISHED JULY 16, 1912.

88,418. CANNED CRABS, SHRIMPS, AND ABALONE. NORTH AMERICAN MERCANTILE CO., San Francisco, Cal.
Filed January 23, 1912. Serial No. 60,963. PUBLISHED JULY 16, 1912.

88,419. CERTAIN NAMED CANNED GOODS. THE J. M. PAVEK COMPANY, Chicago, Ill.
Filed April 6, 1912. Serial No. 62,667. PUBLISHED JULY 16, 1912.

88,420. HAMS, BACON, AND SAUSAGE. LOUIS PFAELZER & SONS, Chicago, Ill.
Filed August 2, 1911. Serial No. 57,997. PUBLISHED JULY 16, 1912.

88,421. WHEAT-FLOUR. PILLSBURY FLOUR MILLS COMPANY, Minneapolis, Minn.
Filed January 26, 1912. Serial No. 61,084. PUBLISHED JULY 16, 1912.

88,422. FLAVORING FOR BEVERAGES. EDWIN C. PUTNAM, Millbury, Mass.
Filed April 15, 1912. Serial No. 62,886. PUBLISHED JULY 16, 1912.

88,423. COFFEES. RICHHEIMER & CO., Chicago, Ill.
Filed February 4, 1910. Serial No. 47,579. PUBLISHED JULY 16, 1912.

88,424. CERTAIN NAMED FOODS. ROUNDY, PECKHAM & DEXTER CO., Milwaukee, Wis.
Filed November 21, 1908. Serial No. 33,803. PUBLISHED FEBRUARY 1, 1910.

88,425. QUARRIED MARBLE AND PREPARED MARBLE. ROYAL MARBLE CO., Knoxville, Tenn.
Filed May 16, 1912. Serial No. 63,567. PUBLISHED JULY 16, 1912.

88,426. BREAD. SCHULZE BAKING COMPANY, Chicago, Ill.
Filed March 29, 1912. Serial No. 62,512. PUBLISHED JULY 16, 1912.

88,427. WHISKY STRAIGHT AND BRANDY. AUTHOR M. SMITH, Minneapolis, Minn.
Filed May 2, 1912. Serial No. 63,262. PUBLISHED JULY 16, 1912.

88,428. PORT AND SHERRY WINES. AUTHOR M. SMITH, Minneapolis, Minn.
Filed May 2, 1912. Serial No. 63,254. PUBLISHED JULY 16, 1912.

88,429. LAXATIVE BREAKFAST FOOD. STERLING HEALTH FOOD COMPANY, Sterling, Ill.
Filed April 26, 1911. Serial No. 55,978. PUBLISHED JULY 16, 1912.

88,430. WHEAT-FLOUR. TRENTON MILLING COMPANY, Trenton, Ill.
Filed April 8, 1912. Serial No. 62,619. PUBLISHED JULY 16, 1912.

88,431. LEATHER IN THE PIECE, EITHER VEGETABLE, MINERAL, OR OIL TANNED. ALBERT TROSTEL & SONS COMPANY, Milwaukee, Wis.
Filed March 11, 1912. Serial No. 62,114. PUBLISHED JULY 16, 1912.

88,432. CERTAIN NAMED MACHINES. UNITED SHOE MACHINERY COMPANY, Paterson, N. J., and Boston, Mass.
Filed July 3, 1911. Serial No. 57,450. PUBLISHED JULY 9, 1912.

88,433. COMPOSITION FOR USE AS A SUBSTITUTE FOR RUBBER. VACUMIT-GESELLSCHAFT M. B. H., Vienna, Austria-Hungary.
Filed April 1, 1910. Serial No. 48,793. PUBLISHED JULY 16, 1912.

88,434. COFFEE. JAMES VAN DYK COMPANY, New York, N. Y.
Filed October 24, 1911. Serial No. 59,906. PUBLISHED JULY 16, 1912.

88,435. BREAD. WAGNER BAKING CO., Detroit, Mich.
Filed May 6, 1912. Serial No. 63,378. PUBLISHED JULY 16, 1912.

88,436. THIMBLES MADE OF PLATED OR PRECIOUS METAL. WAITE, THRESHER COMPANY, Providence, R. I.
Filed April 25, 1910. Serial No. 49,292. PUBLISHED JULY 25, 1911.

88,437. PIMENTOS. WIELAND BROS., San Francisco, Cal.
Filed April 27, 1912. Serial No. 63,175. PUBLISHED JULY 16, 1912.

88,438. PIMENTOS. WIELAND BROS., San Francisco, Cal.
Filed April 27, 1912. Serial No. 63,179. PUBLISHED JULY 16, 1912.

88,439. WHEAT-FLOUR. YARDLEY MILLS COMPANY, Yardley, Pa.
Filed April 15, 1911. Serial No. 56,766. PUBLISHED MAY 9, 1911.

88,440. STOCK FEED. K. & E. NEUMOND, New Orleans, La.
Filed March 2, 1912. Serial No. 61,878. PUBLISHED JULY 16, 1912.



# DECISIONS

OF THE

# COMMISSIONER OF PATENTS

AND OF

# UNITED STATES COURTS IN PATENT CASES.

## COMMISSIONER'S DECISIONS.

### EX PARTE KAUFMAN.

*Decided August 9, 1912.*

APPLICATION—PROSECUTION—FINAL REJECTION.

A final rejection *Held* not premature where the only change made in the claims was in stating that the supporting-chain is "secured to" the vessel instead of referring to it as a "suspending-chain" or as "adapted to sustain" the vessel.

ON PETITION.

CANTEEN-BALL RECEPTACLE OR HOLDER.

*Mr. Israel Benjamins* for the applicant.

MOORE, *Commissioner:*

This is a petition that the Examiner be directed to withdraw the final rejection of May 1, 1912, and enter and act upon the amendment filed by applicant May 11, 1912.

The rejection was made under the practice approved in *ex parte Miller*, (150 O. G., 827.) The claims finally rejected differ from those previously submitted in stating that the supporting-chain is "secured to" the vessel, whereas the preceding claims merely referred to the chain as a "suspending-chain" or as "adapted to suspend" the vessel. As pointed out by the Examiner, it is obvious that if the chain is adapted to suspend the vessel it must be secured to the vessel in some way, and the change in the claims cannot be held to be a matter of substance. The final rejection is considered to have been properly entered.

The petition is denied.

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### EX PARTE COMPOS.

*Decided September 6, 1912.*

APPLICATION—CLAIMS—REFERENCE TO PARTS OF THE STRUCTURE NOT COVERED THEREBY.

Where claims are clear as to the elements intended to be covered thereby and the structure is such that it can only be described with clearness by referring to other parts of the device, there is no objection to wording the claims in this way.

ON PETITION.

PRINTING-CONTROLLED ELECTRIC SIGN.

*Mr. E. H. Bond* for the applicant.

MOORE, *Commissioner:*

This is a petition requesting that the Examiner be instructed that his requirement as to claims 2 to 8, inclusive, is improper and unnecessary.

The Examiner states in his answer to the petition that—

claim 2 has been amended so as to avoid the formal objection made.

The record shows that the claims in question were rejected on January 20, 1912, and again on March 9, 1912, as covering aggregations, it appearing from the context that in the Examiner's opinion the connections for the flasher could not properly be made an element of the claim unless the flasher itself was also included as an element. This rejection was repeated on the same ground in the letters of April 20, 1912, and May 25, 1912. In the letters of June 29, 1912, and August 10, 1912, however, the Examiner seems to have shifted to an *objection* to the claims instead of a rejection. In both of those letters the Examiner states "the objection to claims 2 to 8, inclusive, was made final."

The Examiner should not attempt to compel the applicant to insert elements in his claims which the applicant does not desire to have there. This is not a case in which an element is indirectly included in the claim where the obvious intention is to make it an element of the combination. It is clear from an inspection of the claims that there is no intention on the part of the applicant to include the flasher as an element of his invention. The mere statement that certain conductors are for connection with the flasher is not necessarily objectionable. It often happens where an invention is a part merely of a device or system that it can only be described with clearness by referring to other parts of such device or system. Where the claims are clear as to the elements intended to be covered, there can be no objection to wording them in this way. The Examiner may of course reject such claims on the ground that they are incomplete or that they cover an aggregation if he is convinced that such is the fact, and such action on his part is reviewable by appeal to the Examiners-in-Chief in the first instance and not on petition to the Commissioner.

In view of the record it appears that the Examiner was in error in entering an objection to the claims in the letters immediately preceding this petition.

The petition is granted to the extent indicated.

SLINGLUFF *v.* BOLIN.

*Decided September 30, 1911.*

1. INTERFERENCE—PRIORITY—RIGHT TO MAKE THE CLAIM.
The disclosure in S.'s application *Held* sufficient basis for a claim including a blowpipe notwithstanding the fact that in his application as originally filed no blowpipe construction was shown in the drawing.
2. SAME—SAME.
Evidence reviewed and *Held* to establish that S. reduced the invention to practice prior to the earliest date to which B. is entitled, and priority *Held* properly awarded the former.

APPEAL from Examiners-in-Chief.

APPARATUS FOR GLASS MANUFACTURING.

*Messrs. Christy & Christy* and *Mr. Paul Synnestvedt* for Slingluff.

*Mr. H. A. Seymour* for Bolin.

BILLINGS, *First Assistant Commissioner:*

This is an appeal by Bolin from the decision of the Examiners-in-Chief affirming a decision of the Examiner of Interferences awarding priority of invention to Slingluff as to the following issue:

Apparatus for drawing glass articles from a mass of molten glass, comprising a glass tank containing the molten glass, a refractory body having an opening therethrough, mechanism supporting said body for movement with relation to the body of the glass in said tank, a blowpipe, mechanism constructed and arranged to support and lower said blowpipe into the body of the molten glass in said tank through said opening in said refractory body, and to draw said blowpipe upward therefrom in the drawing process, and means to supply a blast of air through said blowpipe during the drawing process.

Bolin is a patentee, having been granted on May 4, 1909, Patent No. 920,107, upon an application filed August 12, 1907. Slingluff, the junior party, filed his application December 3, 1907, and made the claims corresponding to the issue on June 22, 1909, which is also claim 19 of the patent to Bolin. Inasmuch as the two applications were pending together, Slingluff, the junior party, is required to establish his case only by a preponderance of evidence.

Bolin has taken no testimony, and therefore his date of conception and reduction to practice is that of the filing of his allowable application of August 12, 1907. The lower tribunals have held that Slingluff has established the fact that he actually reduced the invention to practice as early as September, 1906, the date alleged by Slingluff in his preliminary statement.

In order to determine the scope of the invention defined in the issue, it is necessary to examine the disclosures of the respective parties. Inasmuch as the claim was originally made by Bolin, his specification will be first examined, since it is the rule in interference cases to determine the scope of the invention in issue and the true meaning of the claim constituting the count thereof from the disclosure of the party first making the claim.

Bolin provides a main heating-chamber 111, in which the glass is made and from which it flows over the wall 114 into the tank 113. He states in lines 40 to 48, page 1 of the specification, that—

another object of my said invention is to provide a form of apparatus in which the cylinders or other shapes are drawn directly from the body of the molten glass in the glass tank proper as contradistinguished from apparatus in which the glass is drawn from pots, troughs or extended hearths, the advantages of which will hereinafter more fully appear.

After describing the construction of his apparatus and tank Bolin states in lines 88–95, page 4:

I am not aware of any apparatus other than that constituting my invention, wherein the glass cylinders are machine made, wherein the cylinders are formed direct from the glass in the tank, or in which a plurality of cylinder forming units draw glass from a chamber common to two or more such units.

And again, on page 5, lines 67–74:

Another advantage possessed by the present invention is the drawing of glass directly out of the main supply tank, permitting a uniformity of fluidity to the molten glass, not generally acquired when the molten glass is transferred from the main supply tank to the pots by a process known in the art as ladling.

Slingluff shows a tank 1, in the melting end 2 of which is a wall 3, extending below the surface of the glass, which flows under it into the drawing end, which extends entirely across the front of the furnace.

On page 3, lines 2–6, of Slingluff's specification it is stated:

By means of the present invention I am enabled to draw glass articles from the deep body of molten metal in the tank itself, and such heated body, by reason of its great mass and internal high temperature, substantially maintains itself in the proper condition.

Just previous to this statement of utility Slingluff has this to say in his specification as to the prior art:

In the methods of drawing glass which have heretofore been commercially practised, the article has been drawn from a comparatively small quantity of glass, about sufficient for a single drawing, contained in a shallow pot or pan. * * *

It has also been proposed to draw glass articles from a comparatively shallow pool of molten glass which is permitted to flow from the melting-tank upon a hearth or floor projecting from the tank somewhat below the surface of the body of glass in the latter, but the difficulty of maintaining such a shallow pool of glass at the proper temperature is very great.

It is evident that each of these parties was seeking to obviate the difficulties encountered in drawing the glass from a shallow or frequently-filled pool by maintaining a large supply of molten glass to draw from, and each party used substantially the same means—i. e., a melting-pot discharging into a large drawing-chamber containing what is defined in the count as "the body of the glass." It has been held by the tribunals below that the words "body of the glass" are sufficiently broad to define any quantity of glass, whether it is contained in the main tank or in a "dog-house" or extended hearth.

The claim can be no broader than the disclosure of invention upon which the claim is supported and any reasonable equivalent thereof.

The previous patent to Slingluff, No. 804,775, granted November 14, 1905, has been offered in evidence and shows a structure containing a melting-tank, to which are attached two drawing-tanks, projecting from the end of the main melting-tank.

It is contended by Bolin, and this contention is believed to be correct, that this is the structure referred to by him in his description as an apparatus in which the glass is drawn from "pots, troughs, and extended hearths" and by Slingluff as a device from which the article has been drawn from a comparatively small quantity of glass "contained in a shallow pot or pan." It is evident from the disclosures of both of the interfering parties that each of them designed the invention of the issue to overcome the defects subject to a structure such as disclosed in the prior patent to Slingluff.





Slingluff has presented testimony to establish a reduction to practice in his behalf prior to the date of filing of the Bolin application. It is clearly established from the testimony offered in behalf of Slingluff that a satisfactorily operative apparatus for drawing sheet-glass was erected for Slingluff in Allegheny in the fall of 1906, and Bolin does not seriously contend otherwise. Bolin argues, however, that the Allegheny structure erected by Slingluff in the fall of 1906 does not embody the invention of the issue, for the reason that Slingluff's witnesses all testify that this structure was provided with two "dog-houses" or tank extensions. It is contended by Bolin that the testimony of Slingluff's witnesses establishes the fact that the apparatus then erected in Allegheny by Slingluff was fashioned after the structure shown in his prior patent, No. 804,775, and did not therefore embody the structure defined by the issue, which latter was invented to overcome the practical defects attributed to a structure as shown in the prior Slingluff patent.

It is not believed that the term "dog-house" or "tank extension" necessarily limits the structure to one having shallow pots or pans. In each of the structures shown in the applications involved in the interference the glass is drawn from an extended tank. There has been introduced in evidence in behalf of Slingluff two exhibits marked "Slingluff Sketch F" and "Slingluff Exhibit Blue Print of Figure 9 of Slingluff Applications." A study of the structure disclosed in these two sketches or drawings in the light of the testimony given in behalf of Slingluff, especially that presented by the witness Synnestvedt, shows that notwithstanding the fact that the structure erected by Slingluff in Allegheny and successfully operated by him in the fall of 1906 contained the tank extensions which the witnesses term "dog-houses" yet those extensions or "dog-houses" were so constructed as to contain molten glass supplied from the main body of molten glass in the melting-tank and that the articles were drawn from a bed of molten glass in these tank extensions having substantially the same characteristics as that contained in the melting-tank proper.

There is an ample supply provided for the continual drawing of the articles of glass, and the capacity of the machine is not limited to the supply of molten glass, such as that utilized in the prior art. It is true that the construction shown in Slingluff's sketch F, which is testified by the witnesses as being the same as the structure operated at Allegheny in September, 1906, is provided with two extensions, yet from the illustration shown in Fig. 2 it is clear that such a structure provides a constant supply of molten glass directly from the main tank from which the glass articles are drawn. These extensions are of the same depth as the main tank and contain, in fact, molten glass which is of the same quality and consistency as the molten glass in the main tank, and therefore is properly defined as the "body of the molten glass in said tank."

It is held that notwithstanding the fact that the Slingluff Allegheny apparatus is provided with "dog-houses" or tank extensions this apparatus meets conditions sought to be attained by the inventors and embodies the invention of the issue and is therefore a reduction to practice in behalf of Slingluff as of September, 1906.

Bolin further contends that Slingluff had no right to make a claim in his application corresponding to the count of the issue, for the reason that Slingluff's application as filed contained an insufficient disclosure of a blowpipe structure in connection with the necessary operating means. The count includes elements comprising—

a blowpipe, mechanism constructed and arranged to support and lower said blowpipe into the body of the molten glass in said tank.

In Slingluff's application as originally filed the drawing failed to disclose a blowpipe construction. The Examiner has admitted by amendment what he held to be a showing of a conventional construction of blowpipe and operating mechanism. Whether or not this amendment contains specific matter not warranted by the disclosure is not necessary to decide at this time.

It is only necessary now to decide whether Slingluff originally disclosed in his specification the elements defined in the count of the issue. With regard to the blowpipe construction it is found that on page 7 of the original specification of Slingluff the following description occurs:

In Fig. 4 I have indicated the lower portion of a cylinder being drawn from the glass within the ring, it being understood that any suitable drawing mechanism may be employed, the drawing being performed by the usual or any desired form of bait, and air or other fluid supplied to the article through the bait or in any other suitable way. In drawing articles of other form, such as a sheet, the opening in the top-stone and the ring will be modified accordingly.

This disclosure is sufficient to enable any one skilled in the art to construct a blowpipe with operating means as defined in the count of the issue. The other elements of the issue are clearly disclosed in Slingluff's specification, and no question has been raised to the contrary.

It is held that the structure erected and operated successfully in September, 1906, by Slingluff embodies the invention of the issue and constitutes for him a reduction to practice on that date, which is prior to Bolin's filing date.

The decision of the Examiners-in-Chief awarding priority of invention to Slingluff is therefore affirmed.

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CONSUMERS COMPANY *v.* HYDROX CHEMICAL CO.

*Decided August 27, 1912.*

TRADE-MARKS—DISTILLED WATER AND PEROXID OF HYDROGEN—NOT GOODS OF THE SAME DESCRIPTIVE PROPERTIES.

Where a notice of opposition was filed to the registration of a mark as a trade-mark for peroxid of hydrogen, alleging use of the mark first upon artificial ice and subsequently upon distilled water, ginger-ale, metal coolers, and peroxid of hydrogen, but the mark was not used upon peroxid of hydrogen until after its use by applicant, *Held* that the opposition was properly dismissed, since peroxid of hydrogen does not constitute goods of the same descriptive properties as distilled

water nor merchandise of such character as to come within the natural expansion of the previous business of the opposer.

ON APPEAL.

TRADE-MARK FOR PEROXID OF HYDROGEN.

*Messrs. Offield, Towle, Graves & Offield* for Consumers Company. (*Mr. James R. Offield* and *Messrs. Bacon & Milans* of counsel.)

*Mr. Ernest Hopkinson* for Hydrox Chemical Co. (*Mr. Edward W. Vaill* of counsel.)

TENNANT, *Assistant Commissioner:*

This is an appeal from the decision of the Examiner of Interferences sustaining a demurrer filed by the Hydrox Chemical Co. against the opposition of the Consumers Company and dismissing the notice of opposition.

Several grounds of demurrer are set forth against the notice of opposition, the principal one being that the merchandise of the respective parties upon which the trade-mark in controversy is used are not of the same descriptive properties, and this ground was alone considered by the Examiner of Interferences sufficient to warrant the dismissal of the notice of opposition.

The mark which is sought to be registered is the word "Hydrox" as a trade-mark for peroxid of hydrogen. It is alleged in the application for registration filed by the Hydrox Chemical Co. that this mark has been in use for peroxid of hydrogen since July 19, 1905. In the notice of opposition it is alleged that the word "Hydrox" has been used in the business of the opposer's company and its predecessors upon various products from the year 1892 to the present time. It is alleged that a predecessor company, the Consumers Ice Co., was organized in 1888 for the manufacture and sale of artificial ice; that in January of 1892 distilled water was put on the market under the name of "Hydrox," and subsequently in 1898 by an extension of business the trade-mark "Hydrox" was applied to various beverages, such as ginger-ale, root-beer, sarsaparilla, and others; that in 1906 metal coolers for "Hydrox" water and artificial ice were manufactured and placed on the market by this company; that in 1908 the word "Hydrox" was applied to peroxid of hydrogen and in 1910 the same trade-mark was applied to ice-cream. It is alleged:

That peroxid of hydrogen would naturally come within the line of articles manufactured by the said Consumers Company and its predecessors is evidenced by the fact that the basis of such product is substantially ninety-six per cent. (96%) of distilled water.

It is urged in the brief that—

the products heretofore marked by the opposer are based almost entirely on distilled water and therefore any product which has as a basis distilled water and where the purity of that product depends largely upon the purity of the water, this company should have the exclusive right to use the word because the purity of its water has become universally known. It seems obvious that the Consumers Company would be injured by the registration of its trade-mark by the applicant, the Hydrox Chemical Company, because your honor appreciates the fact that many forms of beverages and distilled waters, as well as peroxid, are sold in drug stores and similar places for dispensing goods of this character and the Consumers Company's products being so well known under the trade-mark Hydrox, it would seem equally apparent that the public would be misled by any other company using the same trade-mark on any goods the basis of which is distilled water.

The gist of the controversy therefore, and on this proposition we feel that in justice and equity we should be permitted to take testimony, is that the trade-mark Hydrox was duly registered Jan. 18, 1898 by the Consumers Company, No. 51147, as a trade-mark for distilled water. By reason of this registration of the coined word Hydrox, a technical trade-mark, which the Consumers Company originated in the month of Jan. 1892, the Consumers Company not only has the right to the exclusive use of the trade-mark Hydrox as applied to distilled water, but *to all other allied products as well.* That before the Hydrox Chemical Company had placed peroxid of hydrogen upon the market the Consumers Company had used the trade-mark Hydrox as applied to a large variety of products in which carbonated or distilled water formed the greater part, and since the Consumers Company had acquired a reputation as the manufacturer of certain high grade products it therefore had the right to include other products of similar nature, and by "similar nature" is meant such products as are wholly or in part composed of the material to which the trade-mark Hydrox was originally applied in 1892. In keeping with the theory that a manufacturer has the right to include all goods under his established trade-mark comprised in a normal and legitimate expansion of his business, and in this instance that normal and legitimate expansion would certainly include a product consisting of 96% of distilled water, the very product on which the mark was first applied.

In support of this argument it is further urged that distilled water, carbonated water, and peroxid of hydrogen are sold through the same channels, especially drug-stores.

In support of this contention reference is made to the following decisions: *Florence Mfg. Co.* v. *J. C. Dowd & Co.*, (178 Fed. Rep., 73;) *Collins* v. *Oliver Ames & Sons*, (18 Fed. Rep., 561;) *Leyton Pure Food Co.* v. *Church & Dwight Co.*, (182 Fed. Rep., 35;) *Phoenix Paint & Varnish Co.* v. *John T. Lewis*, (139 O. G., 990; 32 App. D. C., 235;) *Walter Baker & Co. Ltd.* v. *Harrison*, (138 O. G., 770; 32 App. D. C., 272.)

There is no dispute in respect to the dates upon which the respective parties began the use of the mark upon peroxid of hydrogen. It is alleged in the application of the Hydrox Chemical Co. that its mark was adopted in 1905. In the opposition it is alleged that the opposer began the use of its trade-mark for peroxid of hydrogen in 1908.

In my opinion the merchandise upon which the opposer had used the mark prior to 1908 were not goods of the same descriptive properties as peroxid of hydrogen, nor is peroxid of hydrogen merchandise of such a character as to come within the natural expansion of the previous business of the opposer within the rulings contained in the decisions to which reference has been made. In each of those cases the merchandise to which the trade-mark was later extended was directly in line of the regular line of merchandise in which the mark had been used. For example, in the case of *Collins* v. *Oliver Ames & Sons* the trade-mark had been used on axes, picks, etc., and subsequently the business was expanded to the manufacture of shovels, to which the same mark was applied.

The Examiner of Interferences aptly distinguishes the present case from those cited by the appellant as follows:

It is believed that peroxid of hydrogen and distilled and carbonated waters, and soft drinks, such as ginger ale, root beer, sarsaparilla, etc., belong to different classes of goods. The one is a pharmaceutical preparation, the others are beverages. Peroxid of hydrogen is a disinfectant and is found on sale principally in drug stores or places where drugs and preparations of this general character are sold. On the other hand, the beverages of the opposer are sold at restaurants, cafés, soda fountains, etc. It is not believed that people buying peroxid of hydrogen with the mark "Hydrox" thereon would have any right to think that the preparation was put up by a company engaged in the making of beverages. The contention of the opposer that the making of this preparation is a mere normal expansion of its business because ninety-six per cent. of the compound is distilled water is without force, for distilled water enters into the preparation of innumerable compounds which have no relation whatever to each other in use and trade. The only question is whether the public, knowing of the Consumers Company's products, would have a right to believe that peroxid of hydrogen bearing the mark "Hydrox" originated with that company. It is believed that the goods are too far apart in composition, use and method of distribution to justify such an assumption.

This conclusion is in my opinion supported by the recent decision of the court of appeals in the case of *Johnson Educator Food Company* v. *Sylvanus Smith & Company, Inc.*, (175 O. G., 268; 37 App. D. C., 107,) and the case of *Muralo Company* v. *National Lead Company*, (165 O. G., 475; 36 App. D. C., 541.) In the former case it was held that the use of the word "Educator" upon salted, smoked, pickled, and canned fish by Sylvanus Smith & Company did not invade the right of the Johnson Educator Food Company of the use of the word "Educator" as a trade-mark for biscuits, breads, and breakfast-cereals, the court stating that—

in the present case it requires altogether too great a stretch of the imagination to conclude that any one calling for breakfast food would accept salted codfish without knowing the disbursals. The general and essential characteristics of the two products are dissimilar, and while each is prepared for human consumption, no confusion such as the statute contemplates can possibly arise in the mind of the public if the two products are sold under the same mark.

In the latter decision it was held that calcimine was not of the same descriptive properties as white lead.

In my opinion the decision of the Examiner of Interferences dismissing the notice of opposition is right, and it is accordingly affirmed.





## DECISIONS OF THE U. S. COURTS.

### Court of Appeals of the District of Columbia.

WESTERN ELECTRIC CO., ASSIGNEE OF MCQUARRIE AND BULLARD, *v.* MARTIN.

*Decided May 20, 1912.*

1. INTERFERENCE — PRIORITY — CONSTRUCTION OF THE ISSUE.

"While it is true that the issue will not be strained to cover an invention to which it does not naturally apply and that in case of doubt or ambiguity the issue will be read in the light of the specification in which it first appeared, real and not artificial distinctions must be found in the involved applications or, obviously, there will be no room for the application of the familiar rule."

2. SAME—SAME.

*M. Held* entitled to make the claims in issue and the evidence *Held* to establish conception and reduction to practice by him prior to the earliest date to which McQ. and B. are entitled or at least prior conception followed by diligence and priority properly awarded him.

*Mr. Charles Neave* for the appellant.

*Mr. C. C. Bulkley* and *Mr. H. A. Swenarton* for the appellee.

ROBB, *J.:*

This is an appeal from the decision of the Patent Office in an interference proceeding in which priority of invention was awarded Martin.

The invention relates to an automatic telephone system. As originally declared the issue was expressed in four counts. The Examiner of Interferences awarded priority of invention as to the first and second counts to McQuarrie and Bullard and as to the third and fourth counts to Martin. This decision was affirmed by the Board of Examiners-in-Chief and McQuarrie and Bullard acquiesced in that decision. Martin appealed. The Commissioner sustained his appeal and awarded priority as to the counts involved to him. Count 1 sufficiently illustrates the two counts here directly involved and reads as follows:

1. In a telephone exchange system, the combination with a line switching device carrying line terminals and a group of trunk terminals, of a moving contact member for said switching device, automatic means for stopping said member to any of said line terminals or the first trunk terminal of said group, and means, actuated in case said first trunk is busy for stepping said member to a terminal of an idle trunk line.

We also reproduce count 4, since, by acquiescing in the award of this count to Martin, McQuarrie and Bullard necessarily conceded him to have been the prior inventor of its subject-matter:

4. In a telephone system, a plurality of lines any one of which will serve the purpose of a calling subscriber, means including an automatic switch for automatically selecting an idle line for the calling subscriber, and means controlled at said automatic switch for supplying talking current to a subscriber's substation.

The theory upon which the Examiner of Interferences and the Board of Examiners-in-Chief based their decision as to counts 1 and 2 was that inasmuch as these counts originated in the McQuarrie and Bullard application they should be given an interpretation in harmony with that application; specifically, that the term "trunk" or "trunk line," as used in these claims, is not properly used to define a line to a substation provided with a single telephone; that the word "terminals," as used in these claims, depends upon the nature of the line to which it is connected. The Examiner was further of the opinion that "line," as used in these two claims, signifies something different from a trunk-line. This reasoning was adopted by the Board of Examiners-in-Chief. Proceeding upon this theory those tribunals held that the Martin application was not intended to disclose a system involving a switch containing terminals connecting with trunk-lines.

The Commissioner, while admitting that if the appealed claims were to be given the restricted interpretation placed upon them by the lower tribunals Martin was not entitled to make them, was of the opinion that the terms "lines" and "trunk lines," as used in these counts, "do not require that this technical meaning be read into them," and further that if so read the counts do not set forth a patentable invention over count 4.

While it is true that the issue will not be strained to cover an invention to which it does not naturally apply and that in case of doubt or ambiguity the issue will be read in the light of the specification in which it first appeared, real and not artificial distinctions must be found in the involved applications or, obviously, there will be no room for the application of the familiar rule. This consideration led the Commissioner to the conclusion which he ultimately reached in favor of Martin. An examination of count 4 discloses that it has to do with—

a plurality of lines any one of which will serve the purpose of a calling subscriber—

and that the term "line," as used in this count, clearly may refer to a single line or a trunk-line; in other words, the term is used in its broadest sense. In this connection the Commissioner said:

As stated by the Examiner of Interferences in respect to count 4, there appears to be no doubt as to the right of either party to make the claim. In that claim the word "lines" or "plurality of lines" is used broadly and it is difficult to perceive any valid distinction between the use of the word "line" broadly in count 4 and the use of the word "line" in count 1, except that certain of the lines in count 1 are provided with terminals which are called trunk terminals, but the equivalent of trunk terminals are clearly common to the structures of both parties. In order, therefore, that claim 4 may be read upon the McQuarrie and Bullard structure, and it undoubtedly does read upon such structure if the claim is construed broadly, the word "line" applies to a single line or to a trunk line. The switching mechanism referred to in both count 4 and count 1 is the same whether it is adapted to connect a calling subscriber with a single line, a trunk line having a single operative instrument, or one of a series of trunk lines, that is to say, the essence of the invention, so far as the making of automatic connection is concerned, is the same in either case and the distinctions between the use of the word "line" in count 4, and of "line terminals" and "trunk terminals" found in counts 1 and 2 are, in my opinion, verbal rather than differences of substance. This position is believed to be supported by the specifications of the respective parties.

In the Martin disclosure, after describing his invention, he says:

In this way my improved system and apparatus is adapted to give common battery telephone service to subscribers one or more of which may have one or more telephones, any one of which will answer the purpose of the calling subscriber.

And again:

From the foregoing it will be seen that I provide means for giving common battery telephone service to the subscribers of an automatic exchange wherein one or more of such subscribers may have a plurality of telephones any one of which will answer the purpose of a calling subscriber.

As pointed out by the Commissioner, if certain of the subscribers are allotted a single telephone and one of the subscribers a plurality of lines, the function of the connector disclosed by Martin will not differ from that disclosed by McQuarrie and Bullard, and this is apparently true whether the lines served by such connector terminate in "line terminals or trunk terminals." It will be observed from an examination of the claims here in issue that no particular "busy" test is called for therein.

McQuarrie and Bullard, relying upon their record date, took no testimony. Giving the claims the interpretation placed upon them by the Commissioner, we think it clear that the evidence of Martin establishes prior conception and reduction to practice, or at least prior conception followed by diligence. This entitles Martin to the award of priority. Whether, in view of this construction of the claims, there is any patentable distinction between these claims and those awarded Martin remains for the consideration of the Patent Office.

The decision is affirmed.

Affirmed.

## ADJUDICATED PATENTS.

(U. S. C. C. A.) The Hardie patent, No. 569,044, for a car-truck, *Held* void for insufficiency of description. *American Steel Foundries* v. *Scullin-Gallagher Iron & Steel Co.*, 197 Fed. Rep., 49.

(U. S. C. C. A.) The Beets patent, No. 995,843, for a feed mechanism for drying apparatus, *Held* void for anticipation. *Beets* v. *Schoenlaw-Kuhlbach Trunk Top & Veneer Co.*, 197 Fed. Rep., 40.

(U. S. C. C.) The Jackson patents, Nos. 666,859 and 729,870, for counterbalance for centrifugal pumps, *Held* valid and infringed. *Byron Jackson Iron Works* v. *United Iron Works*, 197 Fed. Rep., 44.

(U. S. D. C.) The Barnes patent, No. 684,776, for a clothes-drier, *Held* not infringed. *American Laundry Machinery Co.* v. *Adams Laundry Machinery Co.*, 197 Fed. Rep., 51.

(U. S. D. C.) The Bowers patent, No. 872,892, for a spare-tire holder for automobiles, *Held* void for lack of invention. *Gilbert Mfg. Co.* v. *Post & Lester Co.*, 197 Fed. Rep., 56.

## Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., August 27, 1912.*

*James W. Popham & Co., its assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of The American Ink Company, 2163 Arapahoe street, Denver, Colo., for registration of a trade-mark and trade-mark No. 15,937, registered October 9, 1888, to James W. Popham & Co., of Elizabethtown, Ky., and a notice of such declaration sent by registered mail to said James W. Popham & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said James W. Popham & Co., its assigns or legal representatives, shall within thirty days from the first publication of this order enter an appearance therein the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., September 5, 1912.*

*Meyer & Dickinson, their assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of the Miesch Manufacturing Company, corner Leslie and Courtland streets, Paterson, N. J., for registration of a trade-mark and trade-mark No. 27,172, registered November 5, 1895, to Meyer & Dickinson, 50 Green street, New York, N. Y., and 227 Chestnut street, Philadelphia, Pa., and a notice of such declaration sent by registered mail to said Meyer & Dickinson at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Meyer & Dickinson, their assigns or legal representatives, shall within thirty days from the date of first publication of this order enter an appearance therein the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., September 11, 1912.*

*J. A. Meierdiercks & Sons, their assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Otto L. Kuehn Co., 133–135 Detroit street, Milwaukee, Wis., for registration of a trade-mark and trade-mark registered October 14, 1890, No. 18,536, by J. A. Meierdiercks & Sons, 710 Water street and 24 Harrison street, New York, N. Y., and a notice of such declaration sent by registered mail to the said J. A. Meierdiercks & Sons at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said J. A. Meierdiercks & Sons, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

FREDERICK A. TENNANT, *Acting Commissioner.*





THE
# OFFICIAL GAZETTE
OF THE
# United States Patent Office.

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| Designs | 47—No. | 42,329 to No. 42,375, inclusive. |
| Trade-Marks | 105—No. | 82,441 to No. 82,545, inclusive. |
| Labels | 1—No. | 16,286. |
| Prints | None. | |
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TO CITIZENS OF THE UNITED STATES.

| State. | Patents and Designs. | Trade-Marks, Labels, and Prints. | State. | Patents and Designs. | Trade-Marks, Labels, and Prints. |
|---|---|---|---|---|---|
| Alabama | 1 | | North Carolina | 2 | |
| Arizona | 2 | | North Dakota | 3 | |
| Arkansas | 1 | | Ohio | 40 | 6 |
| California | 28 | 4 | Oklahoma | 3 | |
| Colorado | 5 | | Oregon | 4 | 1 |
| Connecticut | 14 | | Pennsylvania | 54 | 12 |
| Delaware | | 1 | Rhode Island | 2 | 1 |
| Florida | 3 | | South Carolina | 5 | |
| Georgia | 4 | 1 | South Dakota | 2 | |
| Idaho | 1 | | Tennessee | 2 | 2 |
| Illinois | 63 | 7 | Texas | 13 | |
| Indiana | 21 | 2 | Utah | 2 | |
| Iowa | 8 | 1 | Vermont | 2 | |
| Kansas | 4 | | Virginia | 10 | 1 |
| Kentucky | 4 | 1 | Washington | 16 | 2 |
| Louisiana | 2 | | West Virginia | 3 | |
| Maine | 2 | 1 | Wisconsin | 11 | 2 |
| Maryland | 6 | | Wyoming | | |
| Massachusetts | 35 | 7 | Alaska, District of | | |
| Michigan | 18 | 5 | Canal Zone | 1 | |
| Minnesota | 11 | 2 | District of Columbia | 7 | 1 |
| Mississippi | 2 | | Hawaii Territory | 1 | |
| Missouri | 36 | 4 | Philippine Islands | | |
| Montana | 1 | | Porto Rico | | |
| Nebraska | 4 | 2 | U. S. Army | 1 | |
| Nevada | | | U. S. Navy | | |
| New Hampshire | 3 | | Total to citizens of the United States | 574 | 92 |
| New Jersey | 24 | 6 | | | |
| New Mexico | | | | | |
| New York | 88 | 19 | | | |

TO CITIZENS OF FOREIGN COUNTRIES.

| Countries. | Patents and Designs. | Trade-Marks. | Countries. | Patents and Designs. | Trade-Marks. |
|---|---|---|---|---|---|
| Argentine | | | Netherlands | 1 | |
| Austria-Hungary | 1 | 1 | Newfoundland | | |
| Belgium | 1 | | New South Wales | | |
| Brazil | | | New Zealand | 3 | |
| Canada | 6 | | Norway | 1 | 1 |
| Chile | | | Russia | | |
| Colombia | | | Scotland | 1 | |
| Cuba | | | Straits Settlements | | |
| Denmark | | | Sweden | | 2 |
| England | 3 | 4 | Switzerland | 3 | |
| France | 9 | 3 | Transvaal, South Africa | 1 | |
| Germany | 36 | 3 | Tunis | | |
| Guatemala | | | Victoria | 2 | |
| Ireland | | | Total to citizens of foreign countries | 79 | 14 |
| Italy | 3 | | | | |
| Japan | | | | | |
| Mexico | 1 | | | | |

## Patents Canceled.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington D. C., September 23, 1912.*

By a decree of the United States District Court for the Eastern District of Pennsylvania, entered July 18, 1912, in the case of the *United States* v. *John Allen Heany*, patents numbered 839,585, 842,546, and 872,936 were canceled. A copy of this decree is recorded in Liber G 90, page 94, of the Assignment Records of the United States Patent Office.

EDWARD B. MOORE,
*Commissioner.*

## Renewal of Forfeited Cases.

A petition for the renewal of a forfeited application need not be signed by the inventor or assignee, but may be signed by the attorney.

A power of attorney in the original application authorizing an attorney to transact all business in the Patent Office in connection with the application construed to be of sufficient scope to include the signing of a petition for renewal and the subsequent prosecution of the application. (*Ex parte Apes*, 161 O. G., 1060.)

## Full Names of Applicants.

* * * All applications which disclose the full name of the applicant in the preamble of the specification will be received and considered as a sufficient compliance with Rule 40 of the Rules of Practice. (Order 661.)

When the full first name of the applicant does not appear either in his signature or in the preamble to the specification, the Examiner will, in his first official letter, require an amendment supplying the omission, and he will not pass the application to issue until the omission has been supplied, unless an affidavit shall have been filed setting forth that the full first name of the applicant is the one originally given by him. (Order 662.)

## APPLICATIONS UNDER EXAMINATION.

*Condition at Close of Business September 21, 1912.*

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. | | No. of applications awaiting action. |
|---|---|---|---|---|
| | | New. | Amended | |
| 313 | 1. Fences; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers. | July 17 | July 16 | 720 |
| 128 | 2. Bee Culture; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Press; Store-Service; Tobacco. | June 19 | July 22 | 516 |
| 175 | 3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Shaping Fluid Metal. | Aug. 22 | Sept. 9 | 197 |
| 232 | 4. Bridges; Conveyers; Cranes and Derricks; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures. | July 13 | July 15 | 616 |
| 167 | 5. Bookbinding; Harvesters; Jewelry; Music. | July 3 | July 3 | 593 |
| 318 | 6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Medicines; Preserving; Sugar and Salt. | July 20 | Aug. 13 | 369 |
| 312 | 7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Nut and Bolt Locks; Optics; Velocipedes. | Mar. 21 | May 27 | 1071 |
| 131 | 8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports. | June 12 | Aug. 9 | 731 |
| 142 | 9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Pumps; Wind-Wheels. | May 21 | July 31 | 484 |
| 235 | 10. Carriages and Wagons | May 27 | July 5 | 827 |
| 154 | 11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus. | July 5 | July 18 | 367 |
| 322 | 12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements. | July 11 | July 9 | 816 |
| 329 | 13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Turning. | June 22 | July 25 | 496 |
| 307 | 14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working. | July 29 | Aug. 16 | 260 |
| 308 | 15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Liquid Coating Compositions; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastic Compositions; Plastics. | June 10 | July 24 | 999 |
| 109 | 16. Telegraphy; Telephony | June 27 | June 26 | 413 |
| 308 | 17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making. | Aug. 8 | Aug. 17 | 289 |
| 237 | 18. Injectors and Ejectors; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Boilers; Steam-Engines; Steam-Engine Valves. | June 25 | Aug. 1 | 271 |
| 236 | 19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces. | July 22 | July 10 | 455 |
| 179 | 20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking. | July 20 | July 26 | 330 |
| 152 | 21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling. | May 16 | June 26 | 854 |

*Applications Under Examination*—Continued.

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. | | No. of applications awaiting action. |
|---|---|---|---|---|
| | | New. | Amended | |
| 249 | 22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships. | June 6 | July 27 | 370 |
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| 215 | 25. Butchering; Mills; Thrashing; Vegetable Cutters and Crushers. | Aug. 20 | Aug. 19 | 121 |
| 106 | 26. Electricity, Generation; Motive Power. | Mar. 13 | Apr. 13 | 802 |
| 372 | 27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus. | July 16 | July 16 | 487 |
| 65 | 28. Internal-Combustion Engines | June 15 | June 20 | 1071 |
| 147 | 29. Coopering; Fire-Escapes; Ladders; Rods; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Wood-working; Woodworking-Tools. | May 20 | Aug. 7 | 613 |
| 152 | 30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines. | June 19 | Aug. 5 | 440 |
| 172 | 31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating. Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue. | June 27 | July 26 | 319 |
| 278 | 32. Carbonating Beverages; Curtains, Shades, and Screens; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration. | July 23 | Aug. 5 | 289 |
| 71 | 33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes. | June 12 | July 22 | 445 |
| 304 | 34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners. | June 26 | July 8 | 709 |
| 244 | 35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet. | July 20 | July 31 | 330 |
| 264 | 36. Drafting; Driers; Engraving; Measuring Instruments; Photography. | July 23 | July 23 | 694 |
| 107 | 37. Electric Lighting; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications. | July 15 | July 16 | 360 |
| 378 | 38. Animal Husbandry; Artesian and Oil Wells; Fishing and Trapping; Stationary; Stone-Working. | June 14 | July 11 | 853 |
| 221 | 39. Water Distribution | May 23 | June 13 | 806 |
| 280 | 40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles. | Aug. 8 | Aug. 21 | 833 |
| 125 | 41. Railway Draft Appliances; Resilient Tires and Wheels. | July 10 | July 13 | 660 |
| 279 | 42. Electric Railways; Electric Signaling; Railway Signaling; Signals. | July 17 | July 19 | 461 |
| 382 | 43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification. | July 13 | July 20 | 412 |

Oldest new case, Mar. 13; oldest amended, Apr. 13.

Total number of applications awaiting action..... 28,843

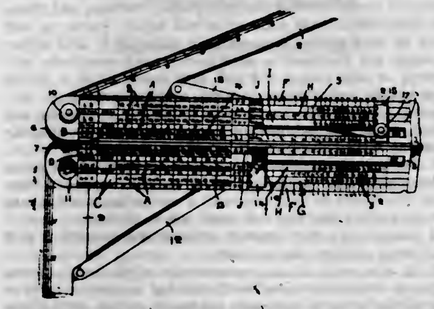
| | | | | |
|---|---|---|---|---|
| 161 | TRADE-MARKS, DESIGNS, LABELS AND PRINTS: | | | |
| | Trade-Marks | July 16 | July 17 | 1497 |
| | Designs | July 1 | Aug. 31 | 313 |
| | Labels and Prints | Aug. 20 | Aug. 14 | 111 |



# PATENTS

## GRANTED SEPTEMBER 24, 1912.

1,039,076. FRAMING-TOOL. MARIAN F. ADKINS, Ranger, W. Va. Filed Nov. 9, 1909. Serial No. 527,006. (Cl. 73—143.)



1. The herein described device, comprising the combination with a handle composed of two plates secured together along their edges at a right angle to each other and each having a slot in one end thereof; of a pair of arms pivotally secured in said slots and adapted to rotate therein, means to fixedly secure each of said arms in their adjusted positions, brace rods, one end of each of said brace rods being pivotally secured near the pivotal ends of said arms, the other end of each of said brace rods being pivotally secured to an indicating means, said plates having channels therein, said indicating means being engaged and adapted to slide in said channels and a scale on said plates coöperating with the said indicating means.

2. In a new article of manufacture, a pair of plates positioned at right angles to each other, each of said plates having a slot therein, a pair of arms pivotally secured and adapted to rotate one in each of said slots, means for securing said arms in fixed relation to each of said corresponding plates, a brace rod pivotally secured to one edge of each of said arms, the opposite edge thereof being marked with a scale, each of said plates having a channel extending longitudinally from one end thereof substantially half the length thereof, indicating slides designed to move laterally one in each of the said channels, the free end of each of said brace rods being pivotally secured to one of the said slides whereby each of said arms may be raised at an angle to its respective plate, scales upon the outer faces of the plates along the channeled ends thereof, said indicating slides being adapted to move over the last mentioned scales to determine the cuts of rafters, and a rafter length determining scale upon the outer faces of the plates at the adjacent ends of said plates.

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1,039,077. FUSIBLE LINK. JOSEPH ALSPAUGH, Chicago, Ill. Filed Aug. 28, 1911. Serial No. 645,589. (Cl. 236—16.)

1. In a fusible link, the combination with fusible material, of end pieces between which the said material is disposed and to which it is secured, an apertured member, and means extending through the member and positioned by the end pieces, whereby when the link is in tension the said material is under compression.

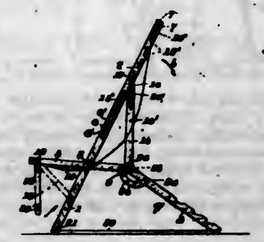
2. In a fusible link, the combination with material fusible at a predetermined degree of heat of end pieces secured thereto with outwardly projecting tips, an apertured member, and links disposed over the said tips and extending through the aperture, the said links being fastened from the side of the member opposite to that of the fusible material, to the members which the fusible link is to connect.



3. In a fusible link, the combination with an apertured member, of material susceptible to heat, disposed on one side thereof, end pieces less susceptible to heat secured to the material, spaced apart thereby and having outward projections and links for chain fastenings engaging said projections and extending through the said aperture, the projecting ends of the said chain-links having connection on the other side of the apertured member with tension members, whereby when the material is melted the end members will be drawn toward each other and the said links will be drawn through the said aperture.

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1,039,078. COMBINED COLLAPSIBLE CHAIR AND BAG. JOSEPH MATHIAS ARNOLD, Brussels-Kockelberg, Belgium. Filed Jan. 25, 1911. Serial No. 604,661. (Cl. 155—30.)



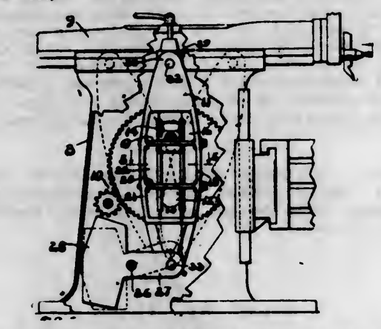
1. In a collapsible chair comprising a rear supporting frame, the combination with two rectangular frames, pivot-pins connecting the same, each frame being composed of two portions, the two portions of the inner frame being adapted to be folded into one another (see portions 3, 4) means for collapsibly connecting said portions together, a band of cloth fastened at one end to one frame and having its opposite end free, a transverse rod secured to this free end of the cloth and upon which the latter may be wound as desired, means for removably fastening the ends of said transverse rod to the side-bars of the back-frame, a supporting frame, longitudinal slots in the side-bars of said frame, hook-shaped portions at the upper ends of said slots, laterally projecting pins on the side-bars of the outer or back-frame, said pins engaging said slots, a pair of supporting arms pivotally connected to the front end of the inner frame, and means for removably connecting said arms to the lower end of the outer frame, substantially as set forth.

2. In a collapsible chair comprising a rear supporting frame, the combination with two rectangular frames,

pivot-pins connecting the same, each frame being composed of two portions, hinges connecting said portions, means for yielding locking said hinges, a band of cloth fastened at one end to one frame and having its opposite end free, a transverse rod secured to this free end of the cloth and upon which the latter may be wound as desired, means for removably fastening the ends of said transverse rod to the side-bars of the back-frame, a supporting frame formed of two side-bars and lower and intermediate cross-bars, the lower cross-bar of said supporting frame coöperating with the cross-bar (25) of the inner frame to form a rigid side of the bag when collapsed, longitudinal slots in the side bars of the supporting frame, hook-shaped portions at the upper ends of said slots, laterally projecting pins on the side-bars of the outer or back-frame, said pins engaging said slots, laterally projecting pins on the said bars of said supporting frame, bayonet grooves in the side-bars of the outer or back-frame and adapted to be engaged by the pins of the supporting frame for guiding the latter when it is moved within said back-frame, means for temporarily securing the supporting frame within the back-frame, a pair of supporting arms, pivotally connected to the front end of the inner frame, and means for removably connecting said arms to the lower end of the outer frame, substantially as set forth.

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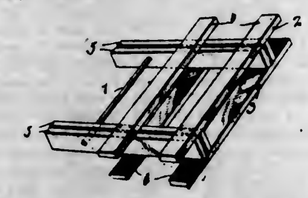
1,039,079. SHAPER. HENRY J. AVERBECK, Covington, Ky. Filed Aug. 22, 1911. Serial No. 645,677. (Cl. 90—39.)



In combination in a shaper, a reciprocable ram, a frame having ways along which said ram moves, a substantially vertically extending rocker arm pivotally secured to the ram, a counterbalancing lever pivotally mounted on the frame to which the lower end of the arm is pivotally secured and a weight mounted on the lever for counterbalancing the weight of the ram and the arm.

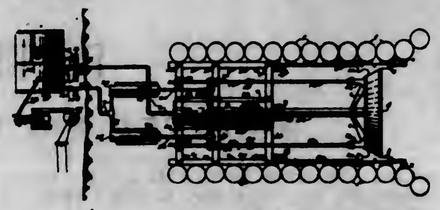
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1,039,080. PORTABLE RACK. JOHN J. BAILEY, Ubly, Mich. Filed Apr. 11, 1912. Serial No. 690,037. (Cl. 84—26.)



A portable rack comprising frames pivotally connected near one end thereof to fold one within the other, and each composed of side bars connected by longitudinally spaced cross bars secured to the edges of said side bars, the cross bars of one frame being arranged to engage the free edges of the side bars of the other frame when in open position for limiting the opening movement of said frames.

1,039,081. WAVE-MOTOR. FRANCIS C. BATES, San Jose, Cal. Filed Feb. 26, 1912. Serial No. 679,982. (Cl. 61—49.)



1. In a wave motor of the character described the combination of a solid incline support, guides, timbers, and crossties fastened to said support, slides which travel up and down on said guides, a motor head fastened to said slides, a piston rod fastened to said motor head, stay-rods connecting to said piston rod and said motor head, a piston head having any suitable packing, a cylinder having a perforated piston guide nut attached thereto, air intake and outlet check valves, and air intake valves controlling air intake to intake check valves for the purpose set forth.

2. In a wave motor having a solid inclined support; power producing means attached to said support; lever arms fulcrumed to said support; a motor head and means for connecting the same to said power producing means, and connecting rods fulcrumed at each end connecting said lever arms and said motor head.

3. In a wave motor the combination with a solid incline support; of a motor head made dishing in shape, slides to which the same is fastened, guides on which said slides travel, means of fastening the same to the solid support, means for water to return against the rear side of motor head, a compressing cylinder, a plate to which said compressing cylinder is fastened, a perforated piston guide nut, a three-way pipe connection to which check valves are connected, air controlling valves connected thereto, springs fastened to the side of cross ties to check the up stroke of the motor head, and springs fastened to the upper side of cross ties with which lever arms come in contact to check the down stroke of the motor head.

4. In a wave motor of the character described the combination of a rigid incline support extending above high-water a distance, and below low-water a distance, metallic guides fastened thereto, slides operated on said guides, a motor head attached to said slides, an air compressing cylinder, a piston rod and piston head working in said air compressing cylinder, connecting rods, lever arms connected thereto, an adjustable cross-shaft, connected to said lever arms, springs connecting to said lever arms to check the down stroke of the motor head, springs to check up stroke of the motor head, a perforated guide nut, check valves and air intake controlling valves.

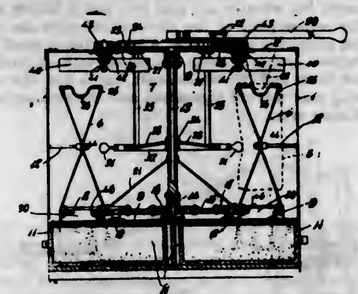
5. In a wave motor the combination of a motor head, slides to which said motor head is fastened, guides on which said slides travel back and forth, and means of fastening the same, a piston and means of fastening the same to the motor head, an air compressing cylinder, and means of fastening the cylinder to said solid incline support, a piston head adjusted to said cylinder by any suitable packing, connecting rods fastened to said motor head, which extend back and connect to lever arms, an adjustable cross shaft connected to said lever arms to which connecting rods are attached, the same being connected to piston heads in the air compressing cylinders, the stroke of the same being adjustable.

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1,039,082. SACK-CLEANING MACHINE. FRANCIS A. BELT, Cincinnati, Ohio. Filed Feb. 19, 1912. Serial No. 678,635. (Cl. 15—8.)

1. A device of the character described having an upper and lower chamber separated by a floor having passages therethrough, a circular rotatable table in said upper chamber, supporting arms extending radially from the periphery of said table, a wire support bracket fastened to each supporting arm, and adapted to carry sacks, stationary agitators extending into the path of the sacks, a sweeper on the bottom of one of said supporting arms adapted to brush over said passages in the floor of said upper chamber, a drawer in the lower chamber and operating mechanism for rotating the table.





2. In a device of the character described, a table rotatably mounted, a series of wire bracket supports thereon each adapted to carry a sack, rotating means therefor, fans above the bracket supports, agitators adapted to strike sacks when they are placed on said bracket supports and the table rotated and a chamber adapted to receive the contents of the sacks.

3. In a device of the character described, the combination with a rotatable table having operating means, of a series of wire bracket supports mounted thereon and adapted to carry sacks, a chamber underneath said table and separated therefrom by means of a slotted floor, agitators adapted to engage the sacks when the table is rotated, and a drawer in said chamber adapted to receive the contents of said sacks.

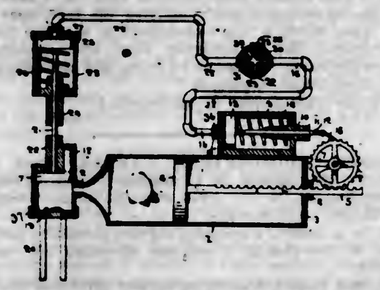
4. In a device of the character described, a casing, a table rotatably mounted therein, a series of supports thereon each adapted to carry a sack, rotating means for said table, agitators for said sacks, and a chamber adapted to receive the contents of said sacks.

5. In a device of the character described the combination with a rotatable table, of a series of wire bracket supports arranged radially thereon each adapted to carry a sack, means for agitating the sacks, fans above said supports operated in connection with said table, a slotted floor under said table and a chamber under said table adapted to receive the contents of the sacks through the said slotted floor, substantially as set forth.

[Claim 6 not printed in the Gazette.]

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1,039,083. OILING DEVICE. JACOB W. F. BERRY and JOHN MACON, St. Louis, Mo. Filed Nov. 23, 1911. Serial No. 661,865. (Cl. 184—39.)



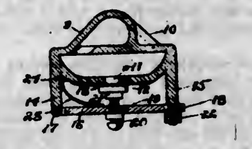
1. An oiling device comprising an oil containing receptacle having a discharge opening, a piston in said receptacle and means to operate said piston to force the oil through said discharge opening, a cylinder connected to said discharge opening, distributing pipes connected to one end of said cylinder, a piston normally positioned in the opposite end of said cylinder, and means to move said piston to the other end of said cylinder, means carried by said piston to close the discharge opening from said receptacle when said piston is out of normal position.

2. An oiling device comprising an oil containing receptacle having a discharge opening, a piston in said receptacle and means to operate said piston to force the oil through said discharge opening, a cylinder connected to said discharge opening, distributing pipes connected to one end of said cylinder, a piston normally positioned in the opposite end of said cylinder, an operating cylinder adjacent the first mentioned cylinder, a piston therein, means to normally hold said piston at one end of said cylinder, a fluid operating supply pipe communicating with said end of said cylinder, means to control the admission of operating fluid to said pipe, and means connecting said pistons to cause the same to move simultaneously.

3. An oil device comprising the combination with an oil containing receptacle having a discharge opening, a piston in said receptacle and means to operate said piston; of a cylinder in connection with the discharge opening of said receptacle, a piston therein normally positioned at one end thereof, distributing pipes connected with the opposite end of said cylinder, a cut-off integral with last said mentioned piston adapted to close the discharge opening when said piston is moved out of normal position, an operating cylinder adjacent said first mentioned cylinder, a piston therein, a fluid operating supply pipe communicating with one end of said cylinder, a spring interposed between said piston and the other end of said operating cylinder, means connecting said piston with the piston in said first mentioned cylinder, and means to control the admission of operating fluid to said supply pipe.

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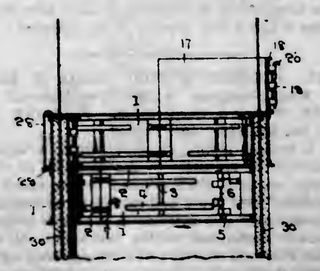
1,039,084. SPRINKLING DEVICE. ELBRIDGE S. BICKFORD, Bristol, N. H. Filed Nov. 29, 1911. Serial No. 663,140. (Cl. 169—5.)



The combination with a rotary sprinkler having inlet and outlet openings therein; of a pair of integral stems depending from said casing, the lower end of one of said stems being reduced and threaded, a bar pivoted to the other stem, means carried thereby for closing said outlet opening, a fusible nut threaded on the reduced end of said stem and engaging the free end of said bar, and a spring carried by said sprinkler and engaged against the upper face of said bar whereby when the free end of the latter is released it will be thrown into a vertical position and out of the path of the fluid issuing from the outlet opening.

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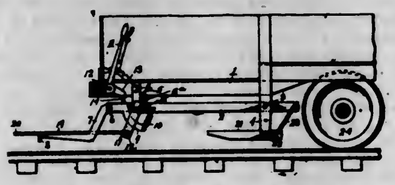
1,039,085. SILO-MOLD. EMIL BLUMER, St. Jacob, Ill. Filed July 21, 1911. Serial No. 639,795. (Cl. 25—130.)



In a silo-mold consisting of a cylindrical outer form and a cylindrical inner form, a number of curved plates form-

ing the inner cylinder, each curved plate being held in its curved formation by means of a vertical brace-bar at the middle of the plate and extending from the bottom to the top thereof, an upper horisontal brace-rod having an end secured to the plate at a point near an end of the plate and having its other end secured to the plate medially between said vertical beam and an end of the plate, a lower horisontal brace-rod crossing the plane of the upper brace-rod and having its ends secured to said plate, said horisontal brace-rods being secured to said vertical brace beam at the intersection of the planes thereof, and thereby rigidly bracing said plate at its top and bottom and at several points intermediate of its ends.

1,039,086. CAR-FENDER AND WHEEL-GUARD. GEORGE H. BOLDUC, Detroit, Mich. Filed Dec. 6, 1909. Serial No. 531,519. (Cl. 105—180.)



1. A fender comprising side bars pivoted at their rear ends, pivotally hung trip arms supporting said side bars, a fender frame pivoted upon the forward ends of the side bars, and a trip bar extending in front of the fender frame and connected with said arms.

2. A car fender comprising side bars pivoted at their rear ends, a fender frame pivotally mounted between the forward ends of said side bars, trip arms for supporting the side bars and fender frame, and a movable trip bar connected thereto and projecting in front of said fender frame.

3. A fender comprising side bars pivoted at their rear ends, a shaft supported in hangers from the car frame, trip arms on said shaft, a cross bar connecting said side bars adapted to be engaged by the trip arms to hold the forward end of the side bars in a raised position, a fender frame pivoted between the forward ends of the side bars, and a trip bar slidably mounted on the fender frame and adapted to actuate said trip arms.

4. A fender comprising side bars, a fender frame having side pieces pivoted between the forward ends of said side bars, a cross bar connecting the side pieces of the fender frame, a lever having an arm engaging said cross bar, and springs connecting the depending ends of the side pieces with said side bars.

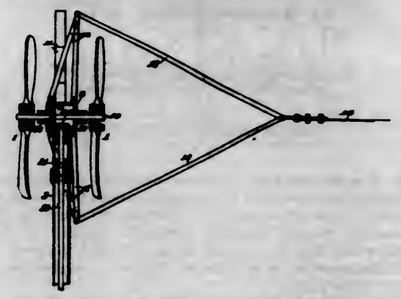
5. A fender comprising side bars pivoted at their rear ends, trip arms for supporting the forward ends of the side bars in a raised position, a fender frame pivoted between the forward ends of the side bars, a trip bar carried by the fender frame for actuating the trip arms that support said side bars, and a pivoted guard shoe mounted in advance of each car wheel and connected with each side bar to be actuated by a dropping of the fender frame.

[Claims 6 and 7 not printed in the Gazette.]

1,039,087. CURRENT-MOTOR. OSCAR D. BOOTH, Everett, Wash., assignor to Ideal Development Company, Everett, Wash., a Corporation. Filed Oct. 30, 1911. Serial No. 657,616. (Cl. 138—3.)

1. In a current motor, in combination, a wheel having blade surfaces at an angle to the direction of the flow of the stream, an axial shaft secured to the wheel, a hollow body receiving said shaft and carrying the bearings therefor, a power shaft also entering said hollow body, a power transmission mechanism within the hollow in said body and connecting said shafts, and a tubular body surrounding the power shaft and communicating with the chamber containing the transmission gearing whereby a lubricant under pressure may be supplied to said chamber.

2. A current motor comprising a bladed wheel having its blade surfaces at an angle to the current, a shaft for said wheel, a frame having bearings for said shaft and comprising members adapted to rest upon the stream bed and carry the wheel above said bed, and a hollow arm extending transversely of the current and with one end extending above the water level, a transmission shaft within said hollow arm, a driving connection between said transmission shaft and the wheel shaft, and a box like member inclosing said driving connection and communicating with said hollow arm.



3. In a current motor, in combination, a wheel having angularly placed blades and with its axis extending in the direction of the current, a shaft secured to said wheel, a frame having bearings for said shaft, and also having legs adapted to support said wheel from and above the stream bed, a hollow arm extending from said frame, transversely the current and upwardly to above the water surface, stay bars extending upstream from said frame and adapted to be secured to an anchoring cable, and a power transmission mechanism extending from said wheel through said hollow arm to the surface.

4. In a current motor, in combination, a propeller wheel and its shaft, a frame having bearings for said shaft, arms extending from said frame to beyond the periphery of the wheel, bars extending from the outer ends of said arms up-stream and there being joined and adapted to connect with an anchoring cable, legs extending from the shaft bearing frame downwardly for engagement with the stream bed, an arm extending from said frame toward the bank, and means for transmitting the power generated by the wheel to the shore along said arm.

5. A current motor comprising a power wheel having blades with surfaces angularly placed to the current, a shaft therefor, in line with the current, a box carrying bearings for the wheel shaft and through which said shaft passes, a bevel gear secured to said wheel shaft within said box, a transmission shaft entering said box, a bevel gear on the transmission shaft engaging the bevel gear upon the wheel shaft, a tube communicating with the box and surrounding the transmission shaft and extending to above the water, and means for fixing said mechanism with the power wheel submerged.

[Claim 6 not printed in the Gazette.]

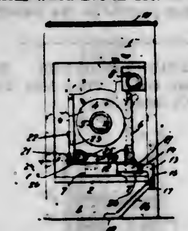
1,039,088. PHOTOGRAPHIC CAMERA. CARL BORNMANN, Binghamton, N. Y., assignor to Ansco Company, Binghamton, N. Y. Filed Jan. 12, 1912. Serial No. 670,914. (Cl. 96—40.)

1. In a camera, a swinging support pivoted to the inner side of the shutter supporting structure and moving with it.

2. In a camera, a swinging support pivoted to the inner side of the shutter supporting structure and adapted to fold behind and be hidden and protected by a part of the shutter supporting structure when not in use.

3. In a camera, a movable shutter casing adjustable toward and from the focal plane and a camera support pivoted to the inner side of said casing and moving therewith, whereby it is at all times in substantially the same vertical plane as the shutter mechanism and is adapted to fold behind and be hidden and protected by a part of the shutter mechanism when not in use.

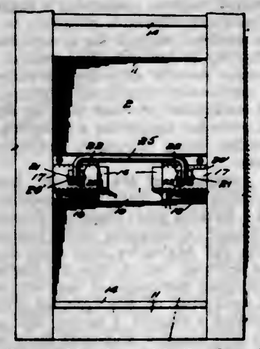




4. In a camera, a movable shutter casing adjustable toward and from the focal plane and a camera support pivoted to and moving with said casing, whereby it is at all times in substantially the same vertical plane as the shutter mechanism and means to maintain the support in its projected or operative position.

5. In a camera, a support pivoted to the inner side of the shutter supporting structure and adapted to be swung outwardly into operative position and when not in use secreted behind and protected by the shutter supporting structure.

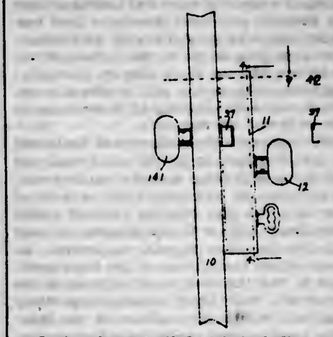
1,039,089. SILO. JOHN BORRUSCH, Maryville, Mo. Filed May 27, 1911. Serial No. 629,793. (Cl. 20—1.4.)



In a silo, the combination with the door frames, of a series of doors arranged one above the other in said frames, and door locks for the respective doors, each lock comprising a pair of keeper plates attached to a door and provided with pairs of outwardly projecting laterally spaced off-sets, bolts mounted to slide laterally in said keeper plates and provided at their outer ends with bevsled portions and in their bodies with inclined slots and a U-shaped bail made in one piece pivoted at opposite ends in the off-sets of the keeper plates and provided with reduced cylindrical extensions working in the slots of the bolts the central member of the bail forming a step for the operator.

1,039,090. COIN-CONTROLLED LOCK. GEORGE G. F. BOSWELL, Indianapolis, Ind., assignor of one-half to Ralph W. Boswell, Indianapolis, Ind. Filed May 4, 1911. Serial No. 624,974. (Cl. 194—84.)

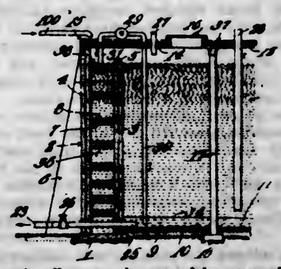
1. A coin-controlled lock including a case with a coin slot in the side wall thereof, a chute secured to the side wall leading from a position near said slot, a knob shaft with a coin slot diametrically through it, a sleeve on said knob shaft with a diametric slot therethrough registerable at times with the slot in the knob shaft and with one edge of said slot normally adapted to engage and maintain the coin when in said slot in said knob shaft, an arm extending from said sleeve for withdrawing the bolt of the lock when a coin is in the slots in said sleeve and knob shaft and the knob shaft is actuated, and a plate oscillatably mounted on said knob shaft with a slot therein registering with the chute and said slots in the sleeve and knob shaft, whereby a coin can move into position with the knob shaft and be held in such position and when the knob shaft is actuated said plate will be actuated and close the coin slot in the case and indicate its closure.



2. A coin-controlled lock including a case with a coin slot in the side wall thereof, a chute secured to the side wall leading from a position near said slot, a knob shaft with a coin slot diametrically through it, a sleeve on said knob shaft with a diametric slot therethrough registerable at times with the slot in the knob shaft and with one edge normally adapted to project beyond the edge of said slot in said knob shaft and maintain a coin in said slot, an arm extending from said sleeve for withdrawing the bolt of the lock when a coin is in the slots in said sleeve and knob shaft and the knob shaft is actuated, a plate oscillatably mounted on said knob shaft with a slot therein registering with the chute and said slots in the sleeve and knob shaft, whereby a coin can move into position with the knob shaft and be held in such position and when the knob shaft is actuated said plate will be actuated and close the coin slot in the case and indicate its closure, and another knob shaft for returning said plate to its normal position after the coin is discharged and means for adjusting the dimensions of said slot in said knob shaft.

3. The combination with a door, of a lock case, a knob shaft extending through the case having a coin slot therein, a screw in the inner end of the shaft for adjusting the dimensions of the coin slot in the shaft, said door having an opening through it to render said screw adjustable, and a plug in said hole to render the screw non-accessible.

1,039,091. CEMENT RESERVOIR. WILLIAM A. BOYCE and SAMUEL FISHER, Gas City, Ind. Filed July 10, 1911. Serial No. 637,705. (Cl. 72—13.)



1. A concrete oil reservoir comprising spaced inner and outer walls, the inner wall being of less height than the outer wall; buttresses reinforcing the outer wall; reinforcing elements uniting the walls transversely, and terminally embedded in the buttresses; the bottom consisting of a layer of concrete, having a layer of heat-insulating material embedded therein; means for supplying water

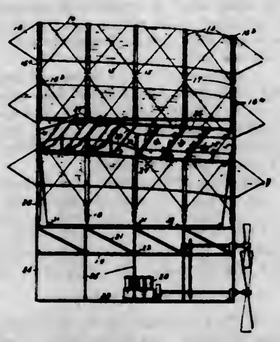
to the bottom of the reservoir; and means for introducing water between the walls.

2. A concrete oil reservoir comprising spaced inner and outer walls, the inner wall being of less height than the outer wall; buttresses reinforcing the outer wall; reinforcing elements uniting the walls transversely, and terminally embedded in the buttresses; a bottom for the reservoir, consisting of a layer of concrete, having a layer of heat-insulating material embedded therein; a roof supported by the outer wall, and provided with an upstanding lip; means for supplying water to the bottom of the reservoir; means for introducing water between the walls; and means for applying water to the roof, within the contour of the lip; and means for effecting an interchange of water between the walls and the bottom.

3. A concrete oil reservoir comprising spaced inner and outer walls, and a roof supported by the outer wall, the upper edge of the inner wall being spaced from the roof, an oil inlet pipe entering the roof within the contour of the inner wall; an oil outlet pipe entering the roof within the contour of the inner wall; a U-pipe passing through the roof and having its branches disposed respectively between the walls and within the contour of the inner wall; a pump interposed in the last mentioned pipe, upon the outside of the reservoir; drain pipes opening respectively between the walls and within the contour of the inner wall; water supply pipes opening respectively between the walls and within the contour of the inner wall; steam pipes opening respectively between the walls and within the contour of the inner wall; and a water supply pipe discharging upon the roof.

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1,039,092. AIR-CRAFT. FREDERICK BRACKETT, Washington, D. C. Filed July 11, 1910. Serial No. 571,428. (Cl. 244—6.)



1. In an air craft, a steering mechanism comprising a rectangular frame disposed vertically against each side of the craft and being inclined downwardly at its rear end, independent groups of planes hinged obliquely to the vertical axis of the craft in said frames, and independent operating means for each group of said planes whereby the latter are moved in different directions.

2. In an air craft, a steering mechanism comprising a frame disposed against the side of the craft and inclining downwardly toward one end of the craft, and a plurality of planes mounted in spaced relation in the frame.

3. In an air craft, a steering mechanism comprising a vertical frame for attachment at an angle against the side of the craft, and a plurality of planes mounted in the frame.

4. In an air craft, a steering mechanism comprising an inclined frame for attachment against the side of the craft, and a plurality of planes arranged in the frame and being consecutively spaced downwardly whereby their lower ends lie in the direct path of the air currents.

5. In an air craft, a steering mechanism comprising a frame carried against the side of the craft and being inclined with respect to the length of the craft, and a plurality of planes hinged obliquely in the frame whereby said planes are disposed in the path of the air currents upon the vertical and the horizontal flight of the craft.

[Claims 6 to 8 not printed in the Gazette.]

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1,039,093. VIBRATION-RECORDER. WILLIAM HIRAM BROWN, Cleveland, Ohio. Filed Mar. 26, 1912. Serial No. 686,879. (Cl. 234—96.)



1. A vibration recorder comprising a support, a recording marker held non-vibratable relatively to said support, and a clock operated support for a recording surface vibratable relatively to said recording marker.

2. A vibration recorder comprising a support, a recording marker held non-vibratable relatively to said support, and a clock mechanism provided with an hour shaft carrying a dial plate for supporting a recording surface, said clock mechanism being vibratable relatively to said recording marker.

3. In an apparatus of the type set forth, recording means comprising a dial plate for supporting a recording surface, and a marking point operating thereon, a pivotally suspended hanger, a swinging clock mechanism carried by the hanger and having an hour shaft upon which the dial plate is mounted, and devices for limiting and cushioning the swinging movements of the clock mechanism.

4. In an apparatus of the type set forth, recording means comprising a support, a marker held non-vibratable relatively to said support, a support for a recording surface, and a clock mechanism operatively connected with said recording surface support to produce a continuous movement of the support and vibratable relatively to the marker to impart a corresponding movement to the support, and means operated by the clock mechanism for changing the position of the marker with relation to the recording surface support in accordance with transitions from one period of time to another.

5. In an apparatus of the type set forth, a support, a recording marker held non-vibratable relatively to said support, a clock mechanism provided with an hour shaft carrying a dial plate for supporting a recording surface and vibratable relatively to the recording marker, and means operated by the clock mechanism for progressively moving the marker toward the center of the dial plate.

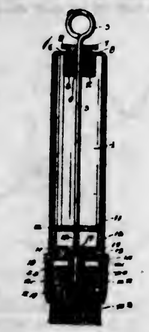
[Claims 6 and 7 not printed in the Gazette.]

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1,039,094. STENCIL-BRUSH. ALBERT D. CARDINET, Oakland, Cal., assignor to Cardinet Fountain Brush Company, a Corporation of California. Filed Feb. 28, 1911, Serial No. 611,498. Renewed Feb. 15, 1912. Serial No. 677,961. (Cl. 15—40.)

A device of the character described comprising a reservoir, a valve stem adjustably mounted in said reservoir, a detachable cap in said reservoir, said cap being provided with a centrally located feed tube, a plate below said cap and provided with a depending collar open at both ends for engaging said feed tube, a brush securely fastened to said plate, an annular externally threaded





flange depending from said cap, and a ring threaded to said flange and engaging said brush.

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1,039,095. CURTAIN-STRETCHER. CHARLES G. CARLSON, Chicago, Ill. Filed Mar. 11, 1912. Serial No. 683,143. (Cl. 45—24.)



1. In a curtain stretcher, the combination of a center brace section; side rails, each comprising a pair of sections; end sections adapted to be secured to said side rails; transversely disposed plates rigidly mounted on said center brace section; bolts carried by said plates at opposite sides of said center brace section; each of said side rail sections having a slot extending inwardly from one end thereof and adapted to receive one of said bolts said slots being of a length sufficient to allow the ends of said side rail sections to abut; and winged nuts on said bolts adapted to secure said side rail sections to said plates when said bolts are in said slots.

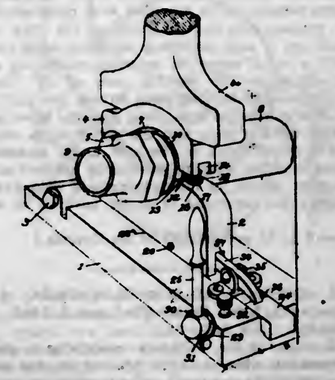
2. In a curtain stretcher, the combination of a center brace section; side rails, each comprising a pair of sections; end sections adapted to be secured to said side rails; transversely disposed plates mounted on said center brace section by means of a bolt centrally located with respect to the intersecting portions of said brace and plate; and lugs upset from said plate at opposite sides of said bolt, and adapted to engage the edges of said center brace section for holding said plate in positive right angular relation to said center brace section; bolts carried by said plate at opposite sides of said center brace section, each of said side rail sections having a slot extending inwardly from one end thereof, and adapted to receive one of said bolts; and winged nuts on said bolts adapted to secure said side rail sections to said plates when said bolts are in said slots.

3. In a curtain stretcher, the combination of a center brace section; side rails, each comprising a pair of sections; end sections adapted to be secured to said side rails, all of said sections being provided with slots, closed at their ends and extending along a considerable portion of the length of said sections; transversely disposed plates mounted on said center brace section; bolts carried by said plates at opposite sides of said center brace section; each of said side rail sections having a slot extending inwardly from one end thereof and adapted to receive one of said bolts; winged nuts on said bolts adapted to secure said side rail sections to said plates when said bolts are in said slots for holding said side rails substantially at right angles to said center brace section; one pair of said side rail sections being adapted to be secured to said plates by means of the bolts carried thereby in substantially parallel relation with said center brace section, and the other pair of said side rail sections and said end sections being adapted to be secured to respectively opposite sides of said first pair of side rail sections in substantially parallel relation therewith.

4. In a curtain stretcher, the combination of a center brace section; side rails, each comprising a pair of sections; end sections adapted to be secured to said side rails; all of said sections being provided with slots, closed at their ends and extending along a considerable portion of the length of said sections; transversely disposed plates mounted on said center brace sections; bolts carried by said plates at opposite sides of said center brace section; each of said side rail sections having a slot extending inwardly from one end thereof and adapted to receive one of said bolts; winged nuts on said bolts adapted to secure said side rail sections to said plates when said bolts are in said slots for holding said side rails substantially at right angles to said center brace sections; bolts and winged nuts adapted to connect said end sections at their intersections with said side rail sections; one pair of said side rail sections being adapted to be secured to said plates by means of the bolts carried thereby in substantially parallel relation with said center brace section, and the other pair of said side rail sections and said end sections being adapted to be secured to respectively opposite sides of said first pair of side rail sections in substantially parallel relation therewith, said bolts and winged nuts being adapted to be used for connecting said other pair of side rail sections and end sections to said first pair of side rail sections, substantially as set forth.

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1,039,096. MACHINE FOR ATTACHING HOSE-CLAMPS. GEORGE CHRISTENSON, New York, N. Y., assignor to H. W. Johns-Manville Company, a Corporation of New York. Filed Dec. 8, 1911. Serial No. 664,605. (Cl. 29—88.2.)



1. In a mechanism for fastening hose clamps, the combination of a bed piece having a semi-circular recess therein, and a hinged member having a similar semi-circular recess registering with that in the bed piece, the hinged member having a recess adapted to receive projecting ends of the clamp, and the bed piece having a beveled lip adapted to engage and outwardly deflect one end of the clamp when driven against it by the closing movement of the hinged member.

2. In a mechanism for fastening hose clamps, the combination of a bed piece having a semi-circular recess therein, and a hinged member having a similar semi-

circular recess registering with that in the bed piece, the hinged member having a recess adapted to receive projecting ends of the clamp, and the bed piece having a beveled lip adapted to engage and outwardly deflect one end of the clamp when driven against it by the closing movement of the hinged member, together with a plunger mounted in the bed piece and adapted to have one end projected into the recess in the hinged member in a direction substantially tangent to the circular recess formed when the bed piece and hinged member are forced together.

3. In a mechanism for fastening hose clamps, the combination of a bed piece having a semi-circular recess therein, and a hinged member having a similar semi-circular recess registering with that in the bed piece, the hinged member having a recess adapted to receive projecting ends of the clamp, and the bed piece having a beveled lip adapted to engage and outwardly deflect one end of the clamp when driven against it by the closing movement of the hinged member, together with a plunger mounted in the bed piece and adapted to have one end projected into the recess in the hinged member in a direction substantially tangent to the circular recess formed when the bed piece and hinged member are forced together, said plunger having a beveled face on said projecting end.

4. In a mechanism for fastening ring shaped hose clamps, the combination of a base plate, a bed piece hinged thereto and normally tilted slightly upward therefrom, a hinged member mounted on the bed piece, said bed piece and hinged member being provided with registering semicircular recesses adapted to encircle the ring shaped clamp and one of said encircling members being also provided with a radial recess for receiving outwardly extending projections on the meeting ends of the clamp, a plunger mounted in the bed piece having one end resting on the before mentioned base plate, and the other projecting through the bed piece into the radial recess when the bed piece is forced down on the base, and a movable stop for holding said bed piece in its slightly uptilted position.

5. In a mechanism for fastening ring shaped hose clamps, the combination of a base plate, a bed piece hinged thereto and normally tilted slightly upward therefrom, a hinged member mounted on the bed piece, said bed piece and hinged member being provided with registering semicircular recesses adapted to encircle the ring shaped clamp and one of said encircling members being also provided with a radial recess for receiving outwardly extending projections on the meeting ends of the clamp, a plunger mounted in the bed piece having one end resting on the before mentioned base plate, and the other projecting through the bed piece into the radial recess when the bed piece is forced down on the base, and a movable stop for holding said bed piece in its slightly uptilted position, together with means for disengaging said stop and automatic means for returning it to its position of engagement.

[Claims 6 to 13 not printed in the Gazette.]

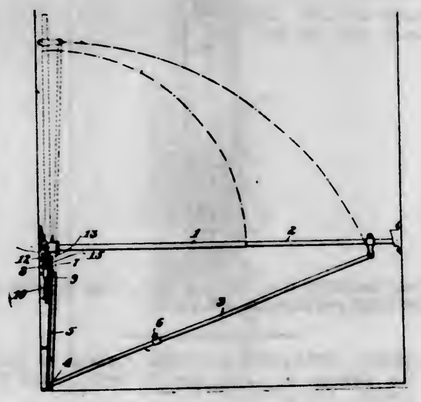
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1,039,097. DOOR-GUARD FOR ELEVATORS. LUDWIG CHRISTIANSEN, Lynn, Mass. Filed Apr. 6, 1912. Serial No. 689,054. (Cl. 187—51.)

1. A door guard for elevators comprising a guard, a spring operated slide, a latch pivoted on the slide, a cam operated by the elevator car for forcing the latch into active position against the tension of the spring and arranged to form a fulcrum about which the latch may turn in engaging the guard, substantially as described.

2. A door guard for elevators comprising a guard provided with a latching lug 6, a latch 7, a spring-operated slide 9 to which the latch is pivoted, a rod 12 carrying a cam shoe arranged to ride over the latch and force it into position to engage the lug 6, and a cam 18 on the elevator car for operating the rod 12, substantially as described.

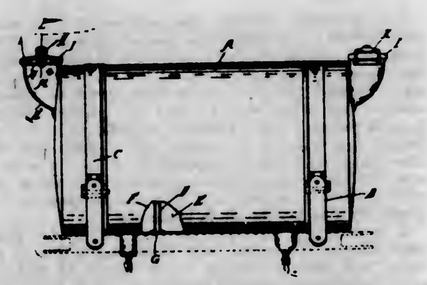
3. A door guard for elevators comprising the telescoping sections 1 and 2 and the link 3, a latching lug 6 secured to the link 3, a latch 7, a slide 9 to which the latch is pivoted, a spring 10 for holding the latch out of active position, a rod 12, a cam shoe 11 carried by the



rod and arranged to depress the latch and its slide, and a cam on the elevator car for operating the rod 12, substantially as described.

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1,039,098. TANK FOR MOTOR-VEHICLES. HOWARD E. COFFIN, Detroit, Mich. Filed Aug. 14, 1911. Serial No. 643,865. (Cl. 220—125.)



1. In a tank for motor vehicles, a hollow partition dividing the space therein into a plurality of compartments, and means for indicating any leakage from either compartment into said hollow partition.

2. In a tank, a hollow partition for dividing the same into two compartments, said tank having a drainage opening connecting with the space within said hollow partition for the purpose described.

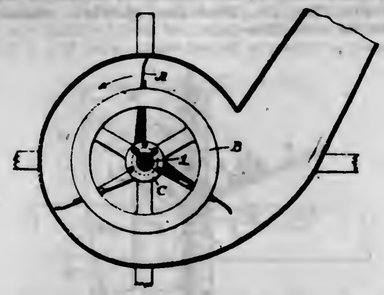
3. In a tank a hollow partition for dividing the tank into two compartments with a narrow normally empty chamber therebetween, and means for draining from said chamber, any leakage thereinto from either compartment.

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1,039,099. BLOWER-FAN. DARWIN H. COOK and KEVON J. WILSON, Lansford, N. D. Filed Nov. 11, 1911. Serial No. 659,811. (Cl. 230—11.)

In combination in a blower fan for threshing machines, a casing having an inlet and an outlet, a shaft extending into said casing and continuously driven in one direction, a fan mounted on said shaft, a clutch between the shaft and fan to drive the said fan, and to permit the fan, by its own momentum, to run ahead of the shaft when the

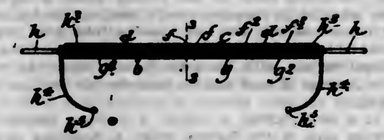




said shaft is checked or reduced in its speed of rotation in one direction, substantially as described.

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1,039,100. HAT-FASTENING DEVICE. JOSEPH CONCOS, New York, N. Y. Filed Aug. 31, 1911. Serial No. 646,983. (Cl. 135—25.)



1. A hat fastening device comprising a main tubular member of less length than the transverse dimensions of the hat crown, two inner tubular members movable longitudinally in the main tubular member and provided at their outer ends with downwardly and inwardly curved pins which are rigidly secured thereto a spiral spring mounted in said inner tubular members and the ends of which are secured thereto, and pointed pins adapted to be passed through the sides of the crown of the hat and to be secured to the outer ends of said inner tubular members.

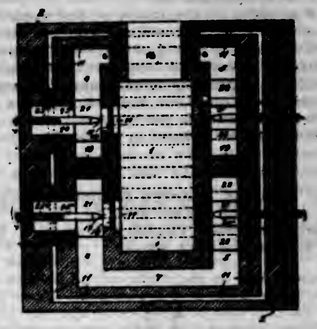
2. A hat fastening device comprising a main outer tubular member the length of which is less than the transverse dimensions of the crown of the hat, two inner tubes movable longitudinally therein and the combined lengths of which are at least equal to the length of the main tubular member, said inner tubes internally screw-threaded at their outer ends and being provided at their outer ends with downwardly and inwardly curved pins rigidly secured thereto, a spring spiral placed in said inner tubes and the ends of which are secured thereto, and pins adapted to be passed, through the side portions of the crown of the hat and threaded and adapted to be screwed into the outer ends of said inner tubes, and means for preventing the inner tubes from rotating in the main tubular member.

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1,039,101. FURNACE. FRANK F. CORLISS, Bradford, Pa., assignor to Corliss Carbon Company, a Corporation. Filed Feb. 1, 1911. Serial No. 605,927. (Cl. 158—1.)

1. In a furnace of the character described, a heating chamber having its opposing walls provided with horizontally alined openings, fused quartz panes disposed within said openings, and means for holding a suitable burner which is adapted to provide a flame for impinging against said panes.

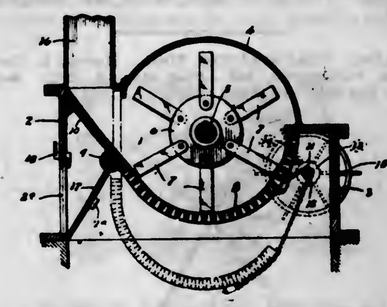
2. A furnace of the character described, comprising an outer shell having thick walls formed of a high heat resisting material and being a comparatively poor heat conductor due to said thickness, an inner shell disposed within the outer shell in spaced relation thereto and having its walls formed thick and of a high heat resisting material and being a comparatively poor heat conductor due to said thickness, said inner shell being provided upon its opposite longitudinal walls with horizontally alined openings, relatively thin plates closing such openings and formed of material to withstand the action of heat and to allow of the radiation of the heat



through the same to a much greater extent than the walls of the inner shell, a number of openings formed in the side walls of the outer shell and disposed adjacent the openings of the inner shell, and burners of the blowpipe type disposed within the said openings to provide intensely hot flames to impinge against the thin plates which close the openings of the inner shell.

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1,039,102. PULVERIZER. FREDERICK R. CORNWALL, St. Louis, Mo., assignor to Williams Patent Crusher and Pulverizer Company, St. Louis, Mo., a Corporation of Missouri. Filed Nov. 15, 1911. Serial No. 660,528. (Cl. 83—11.)



1. In a machine of the character described, the combination of hammers, a grinding surface, a breaker plate upon which the material is primarily crushed, said breaker plate having an extension, and means for moving said breaker plate whereby said extension will shut off the supply of material to the grinding surface.

2. In a machine of the character described, the combination of hammers, a pivoted grinding surface, and a pivoted breaker plate, said grinding surface and breaker plate being connected so as to move together, whereby, when the grinding surface is lowered, the breaker plate will shut off the supply of material to the machine.

3. In a machine of the character described, the combination of hammers, a movable grinding surface, means for permitting said grinding surface to be lowered and for raising said grinding surface again to operative position, and a pivoted breaker plate connected to said grinding surface, whereby when the grinding surface is

lowered, the breaker plate will shut off the supply of material from the machine.

4. In a machine of the character described, the combination of hammers, a grinding surface, a feed hopper, one wall of which is movable to shut off the supply of material to the grinding surface, and means for directing the material outside of the machine when said wall is moved to its shut-off position.

5. In a machine of the character described, the combination of hammers, a grinding surface, a feed hopper for directing the material to the grinding surface, means for moving one wall of said hopper to shut off the supply of material to the grinding surface, and a deflecting wall for diverting the material so shut off from the grinding surface to a point outside the machine.

[Claims 6 to 10 not printed in the Gazette.]

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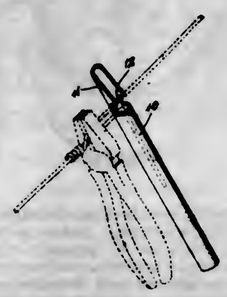
1,039,103. STAPLE. ARTHUR E. COUPAL, South Boston, Mass., assignor to Buffalo Shoe Co., Buffalo, N. Y., a Corporation of West Virginia. Filed Nov. 15, 1911. Serial No. 660,362. (Cl. 85—49.)



As an article of manufacture, a staple with two legs having parallel faces adjacent to the extremities of said legs, oblique to a plane passing longitudinally through the body of said staple, and containing the median axial line of the wire constituting the legs of said staple, said faces terminating at one and the same side of said plane, said legs also having outer oppositely disposed surfaces inclined toward a longitudinal plane extending laterally of said first mentioned longitudinal plane, whereby when said staple is driven against a flat anvil the extremities of said legs are caused to turn toward each other and laterally of and on the same side of said longitudinal plane.

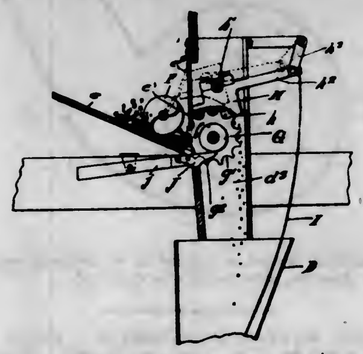
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1,039,104. WIRE-SPLICING TOOL. HARVEY L. CROWDER, Indianapolis, Ind. Filed May 18, 1912. Serial No. 698,266. (Cl. 140—117.)



As a new article of manufacture, a splicing tool comprising an integral tubular member having a longitudinally extending opening formed therein for receiving one end of the wire, said tubular member having a transversely extending recess formed therein adjacent one end thereof communicating with said opening and extending below the center thereof for receiving both of the wires, the outer wall of said recess being of less height than the inner wall thereof, and a longitudinally inclined portion extending from said outer wall to the end of the tubular member, substantially as and for the purpose described.

1,039,105. SEED-PLANTER. PETER A. CROSBY, Woodriver, Ill., assignor of one-tenth to Edward G. Meriwether, Alton, Ill., and four-tenths to Martin Heller, Granite City, Ill. Filed Jan. 16, 1911. Serial No. 602,808. (Cl. 111—81.)



1. In a cotton seed planter, a hopper, a conveyer therein for conveying seeds to the feeding point, a movable carrier adapted to transport seed therefrom, and a separator located outside the feed opening from said hopper and movable in relation to said carrier, operating by frictional contact with the seeds in said carrier to break up the clusters of seed and to separate the seed as they are fed.

2. In a seed planter, a hopper, a conveyer therein for conveying seed to the feeding point, a revolving carrier adapted to transport seed therefrom, and a reciprocating separator located adjacent the feed opening from said hopper and moving at a different rate of speed from said carrier and adapted to rub against the seed carrier by said carrier and to separate said seed as they are fed.

3. In a seed planter, a hopper, a conveyer for conveying seeds to the feeding point, a revolving carrier having a plurality of peripheral recesses for transporting seed therefrom, a moving separator adapted to move adjacent to said carrier and to rub against the seed in said recesses and to separate them.

4. In a seed planter, a hopper, a screw conveyer for conveying seeds to the feeding point, a revolving carrier having a plurality of peripheral pockets for transporting seed therefrom, an oscillating separator having a friction face adapted to travel adjacent to said carrier and to rub against the seed therein and to separate them.

5. In a seed planter, a hopper, a double-acting screw conveyer for conveying seeds to the feeding point, a rotary carrier having a plurality of slitted transverse peripheral ribs, forming seed pockets between said ribs, an oscillating separator, having a roughened face formed substantially in the arc of the circle of said carrier, and adapted to travel adjacent to said carrier and to rub against the seed carried thereby and to separate them.

[Claims 6 to 22 not printed in the Gazette.]

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1,039,106. ADJUSTABLE SUPPORT FOR CHANDELIERS. EMIL DAGENHART, Harrisburg, Pa. Filed Oct. 6, 1911. Serial No. 653,182. (Cl. 240—68.)

1. In an adjustable light support, a stationary tube, a tube slidably mounted within said stationary tube, a lamp supported by the sliding tube, a second stationary tube arranged within said sliding tube, said stationary tube being formed of insulating material, a plurality of plates of insulating material arranged within the second mentioned stationary tube, a resilient connection between one of said plates and the wall of the stationary tube, a plurality of brushes supported by said plate, and a plurality of contact plates supported to move with the stationary tube, said plate being insulated from the sliding tube and connected to said lamp.



2. In an adjustable support for incandescent lights, a stationary tube, a tube slidably arranged within said stationary tube, a lamp supported by said sliding tube, a plurality of sliding contact plates supported by said tube and insulated from the same, said plates being connected to said lamp, a tube formed of insulating material



arranged within said sliding tube, a plurality of plates formed of insulating material, arranged within said stationary tube, brushes supported by said plate and adapted to contact with the plates carried by the sliding tube, and resilient means arranged within the stationary tube for holding said contacts in contact with the sliding contact plates.

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1,039,107. GOVERNING DEVICE. WILLIAM W. DEAN, North Ridgeville, Ohio, assignor to The Dean Electric Company, Elyria, Ohio, a Corporation of Ohio. Filed Aug. 16, 1911. Serial No. 644,447. (Cl. 175—310.)



1. In a circuit controller, the combination with a rotating member of a supporting member carried thereby, a flexible member carried by said supporting member and attached thereto, one end of said flexible member being free, a weight carried by the free end of said flexible member, a frame, a flexible contact carrying member mounted in said frame, a contact carried thereby, means to connect said flexible member with said flexible contact carrying member, said means being in the axis of rotation of the rotating member and a stationary contact adapted to cooperate with said first named contact to form an electric switch, said weight being moved by centrifugal force to close said contacts when the rotating member reaches a predetermined speed.

2. In a circuit controller, the combination with a rotating member, a supporting member, a flexible member mounted on said supporting member, perpendicular to said rotating member, a part of said flexible member being free to move parallel to the long axis of said rotating member, a frame, a second flexible member mounted at one end on said frame and connected to said first named flexible member, a contact carried by said second named flexible member, a second contact on said frame cooperating with said first contact, said contacts constituting an electric switch controlled by said first named flexible member, said movable part of said flexible member being moved when the rotating member reaches a predetermined speed to operate said switch.

3. In a circuit controller, the combination with a rotating member, a flexible member carried by said rotating member, one end of said member being free to move substantially parallel to the long axis of said rotating member, a weight carried by the free end of said flexible member, a frame, a contact carrying member mounted in said frame, a contact carried thereby, means to connect said flexible member with said contact carrying member, said means being in the axis of rotation of the rotating member and a stationary contact adapted to cooperate with said first named contact, said weight being moved by centrifugal force to operate said switch when the rotating member reaches a predetermined speed.

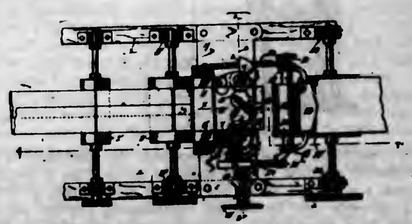
4. In a device of the class described, the combination of a rotating member, a movable member connected to said rotating member on one side thereof, a weight on said movable member on the other side of said rotating member, said weight being moved in a direction substantially parallel to the axis of rotation of said rotating member, when the rate of rotation of said member reaches a predetermined amount, and a circuit controller governed by said movable member.

5. In a device of the class described, the combination of a rotating member, a disk shaped support carried upon one end thereof, a flexible member attached at one end near the edge of said support and free to move at the other end, a weight mounted on the free end and adapted to move through an opening in the support when the centrifugal force has reached a predetermined value, and a switch controlled by said flexible member.

[Claim 6 not printed in the Gazette.]

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1,039,108. MACHINE FOR FORMING CONICAL-NECKED WRAPPERS. WILLIAM DICHMANN, Oshkosh, Wis., assignor of one-half to Charles A. Wakeman, Oshkosh, Wis. Filed June 28, 1912. Serial No. 706,436. (Cl. 93—1.)



1. A machine for forming conical necks upon flat tubular wrappers comprising a feed-throat having an upper oblique edge and a lower oblique edge, said edges being upon opposite sides of the throat and converging in the direction of feed, upper and lower wiper wings arranged to simultaneously fold the mouth corners of the tubular blanks inwardly upon the oblique throat edges, adhesive delivery means adapted to discharge between the inner face of the folded corners and the adjacent face of the blank body, and means for extracting the folded edged blank from said throat.

2. A machine for forming conical necked flat tubular wrappers comprising a feed throat for the wrapper blanks having upper and lower templet edges between which said wrapper blanks are fed, means for simultaneously folding the mouth corners of the aforesaid wrapper blanks over the templet edges of the throat, means for distributing adhesive substance under the folds, and means for compressing the folds and extracting the completed wrapper from said throat.

3. A machine for forming conical necked flat tubular wrappers comprising a feed throat for the wrapper blanks having upper and lower templet edges between which said wrapper blanks are delivered, means for intermittently feeding the wrapper to the throat, upper and lower rotatory wiper wings adapted to fold the mouth corners of the aforesaid wrapper blank over the templet edges of the throat during the delay in said feed, means for distributing adhesive material under the folds, and means for compressing the rolls and extracting the wrapper from said throat.

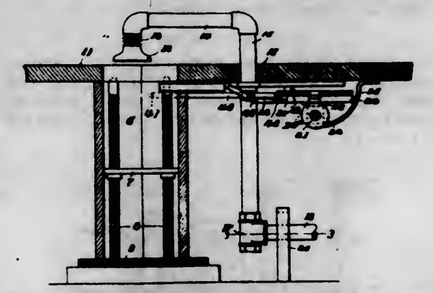
4. A machine for forming conical necked flat tubular wrappers from a tubular strip comprising means for cutting the tubular strip into predetermined lengths, a forming throat having an upper templet edge and a lower templet edge opposite the upper templet edge, means for intermittently feeding the cut lengths into the throat, means for simultaneously folding the mouth corners of the lengths over the templet edges of said throat during a delay of the feed, and rotatory snapping rolls for engagement with the folded mouths of the wrappers.

5. A machine for forming conical necked flat tubular wrappers comprising a feed throat for the wrapper blanks having upper and lower templet edges between which said wrapper blank is fed, spirally formed rotatory wiper wings for folding the mouth corners of the aforesaid wrapper blank over the templet edges of the throat, apertured nozzles extending in juxtaposition to the discharge end of the throat for engagement with the wrapper folds, and means for compressing said wrapper folds and extracting the wrapper from the throat.

[Claim 6 not printed in the Gazette.]

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1,039,109. PICKER FOR COUPONS, LABELS, AND THE LIKE. EDWARD T. DENNIS, Richmond, Va. Filed Sept. 16, 1911. Serial No. 649,712. (Cl. 101—41.)

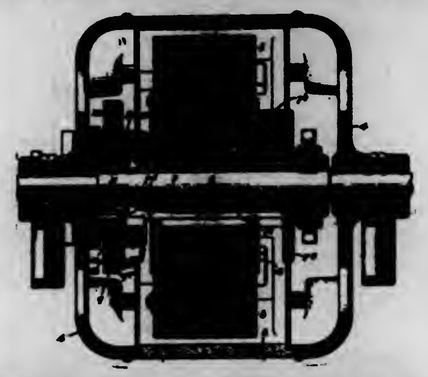


In a machine of the kind described, the combination of a magazine adapted to hold coupons or the like, a bottom therein, a screw on which the bottom is mounted, a vertically movable pipe having an overhanging portion terminating in a downwardly directed nozzle adapted to lift coupons from the magazine, said pipe being also mounted for oscillation to swing the nozzle toward and from the magazine, means to intermittently produce suction through the pipe, a lifting lever connected to the pipe, a throw lever connected to the pipe, a slide having an operative connection to the screw to intermittently turn the same as the slide is reciprocated, and a wheel having a cam groove into which the lifting lever projects, a cam rise adapted to operate the slide, and a crank pin operatively engaging the throw lever, whereby both of said levers and the slide are operated by rotation of the wheel.

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1,039,110. ELECTRIC MOTOR. HERBERT I. FINCH, St. Louis, Mo., assignor to Emerson Electric Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 15, 1911. Serial No. 621,351. (Cl. 172—120.)

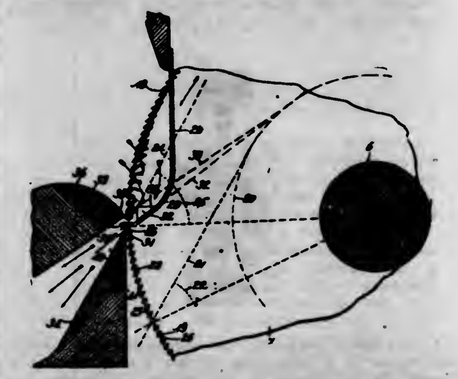
In combination with a shaft and armature lamina, an integrally cast armature hub formed with an annular flange and having a sleeve portion adapted to encircle the shaft, which sleeve portion is provided with longitudinal grooves extending from the flange to the opposite end of the hub and having fan blades interposed between said grooves, which blades extend continuously between said



laminæ and said flange, the said grooves being deepest at the end opposite the flange and the hub being provided at said end with a spider frame encircling said hub and passing over said grooves, and at its other end with a portion extending beyond said flange, and means carried by said extending portion for securing the hub to the shaft.

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1,039,111. COTTON-GIN. JOHN R. FORDYCE, Little Rock, Ark. Filed Apr. 2, 1910. Serial No. 553,100. (Cl. 13—9.)



1. In a saw gin employing suction currents for removing cotton from the saws, the combination of a series of saws, a suction conduit having an inlet thereto adjacent the periphery of the saws, and a dust hood extending above the suction opening of the conduit and leading rearwardly and downwardly for directing the suction currents free of dust into the inlet of the suction conduit.

2. In a saw gin employing suction currents for removing cotton from the saws, the combination of a series of saws, a suction conduit having an inlet opening, and a series of fingers extending between said saws and constituting one wall of a gradually contracting air passage leading to the inlet opening of the suction conduit, said suction conduit having a portion constituting the other wall of the air passage.

3. In a saw gin employing suction currents for removing cotton from the saws, a suction conduit having an inlet opening adjacent the periphery of the saws, an air conduit



gradually contracting toward the inlet opening of the suction conduit in the direction of saw movement to direct induced air currents with gradually increasing offset toward the said inlet of the suction conduit, and a dust hood to prevent dust and dirt entering the zone of induced currents.

4. In a saw gin employing air suction currents for removing cotton from the saws, the combination of a series of saws, a suction conduit for inducing suction currents over the saws and having an inlet opening adjacent the periphery of the saws, said opening being contracted to augment the force of the induced currents as they enter said opening, and a series of fingers extending between the saws and having portions extending in a plane toward the inlet opening of the nozzle for directing induced currents toward the said inlet opening.

5. In a saw gin employing air suction currents for removing cotton from the saw teeth, the combination of a series of saws, a suction conduit having an inlet adjacent the rear portion of the periphery of the saws, and a series of fingers extending between the saws at the rear portion thereof, said fingers and a wall of said inlet having portions converging toward the said inlet and forming a gradually diminishing air passage to direct the induced currents.

[Claims 6 to 15 not printed in the Gazette.]

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1,039,112. CHIP-HOLDER. WILLIAM P. FORNFINNE, Brooklyn, N. Y. Filed July 8, 1911. Serial No. 637,462. (Cl. 65—15.)



A chip holder comprising a base having a stem and a cone-shaped bowl connected with the stem, the said bowl adapted to receive a chip sustaining disk and to provide an ice chamber between the bottom of the chip and the bottom of the bowl, the said bowl having its inner face formed with finger depressions, the said depressions being arranged in pairs which are diametrically opposite each other, and one of the pairs of depressions being arranged at a direct right angle to the second pair of depressions, substantially as and for the purpose set forth.

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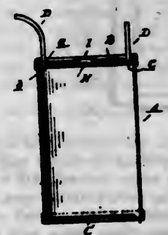
1,039,113. POULTRY-COOP. LEWIS D. FOWLER, Oklahoma, Okla. Filed June 26, 1909, Serial No. 504,484. Renewed June 11, 1912. Serial No. 703,592. (Cl. 217—36.)



In a device of the character described, the combination with a coop body having a doorway formed therein, said coop body comprising vertical standards, a horizontally disposed wire located above said doorway and fixedly secured to the coop body, a horizontally disposed wire located below the doorway and fixedly secured to the coop body, a door formed entirely of wire netting, the ends of the vertical strands of said netting being bent into engagement with said horizontal wires above and below the doorway, to thereby slidably mount the door upon said wires, and a fastening device for said door formed of a single piece of wire and having one of its ends bent substantially at right angles to itself, said bent end being driven into one of said standards and an offset portion formed in said fastening device to adapt it to be engaged with one of the wires of the door.

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1,039,114. PACKAGE. JOHN M. FRANCIS, Detroit, Mich., assignor to Parke, Davis & Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 7, 1911. Serial No. 619,588. (Cl. 221—25.)



1. A metal container and dropper for volatile liquids, comprising a headed tubular body, one head being formed with separated vent and discharge apertures, and a recess extending therebetween, and a tubular connection of soft metal uniting the openings and lying normally within the recess.

2. A shipping can for volatile liquids, formed with depressed heads, one being apertured at spaced points and provided with a soft metal tube uniting the apertures, said tube lying normally in the plane of the apertured depressed head.

3. A hermetically sealed package comprising a container formed with an inlet and an outlet opening, and a severable soft metal tube leading from said openings and having its ends fixedly secured to said container, said inlet and outlet being opened upon the severance of said tube.

4. A combined shipping package, container and dropper, comprising a closed body having one head formed with separate vent and discharge apertures, and a recess extending therebetween, and a tubular connection of soft metal fixedly secured to said body and uniting said openings and lying normally within said recess.

5. A hermetically sealed package, comprising a container formed with an inlet and an outlet opening, and a severable soft metal tube leading from each opening and fixedly secured to said container.

[Claims 6 and 7 not printed in the Gazette.]

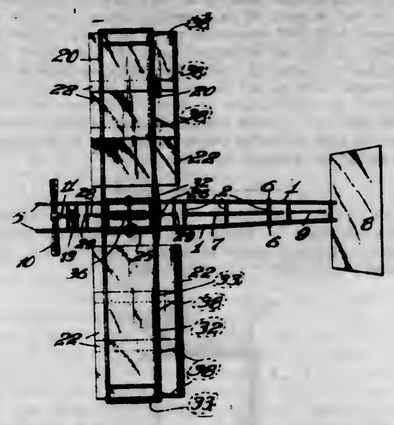
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1,039,115. FLYING-MACHINE. RUSSELL H. FROELICH, St. Louis, Mo. Filed Mar. 30, 1911. Serial No. 618,021. (Cl. 244—12.)

1. In an aeroplane, the combination with a body frame, of wing plane sections arranged in series extending upwardly and outwardly from said body frame, said sections being spaced vertically and offset from each other in a direction transverse to the line of flight with the outside lateral edge of each section approximately beneath the inside lateral edge of the section next above it.

2. In an aeroplane, the combination with a body frame, of wing frames projecting upwardly and outwardly from said body frame, the angle between said wing frames above said body frame being substantially equal to the angle between each wing frame and the central vertical

longitudinal plane of said body frame below said wings, and aeroplane sections mounted in said frames, said sections being inclined upwardly and outwardly from said longitudinal plane of the body frame.



3. In an aeroplane, the combination with a body frame, of wing frames projecting upwardly and outwardly from said body frame, the angle between said wing frames above said body frame being substantially equal to the angle between each wing frame and the central vertical longitudinal plane of the body frame below said wings, and aeroplane sections mounted in said frames, said sections being inclined upwardly and outwardly from said central longitudinal plane of the body frame, and having the outer edge of one plane approximately beneath the inner edge of the next plane farther out.

4. In a flying machine, the combination with a main body frame, of a plurality of plane sections spaced vertically and at different distances from said body frame, and means for warping said plane sections on one side only and successively toward the central vertical plane of the machine.

5. In a flying machine, the combination with a main body frame, of a pair of wing frames projecting upwardly and outwardly from said body frame, said wing frames having their inner ends oscillatable in a vertical plane extending longitudinally of the machine, a plurality of plane sections spaced vertically in each wing frame, and means for warping said wing plane sections on one side only.

[Claims 6 to 10 not printed in the Gazette.]

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1,039,116. AIRSHIP. CHARLES A. FURTAW, Philadelphia, Pa., assignor to Furtaw-McKay Monoplane Company, Philadelphia, Pa., a Corporation of Delaware. Filed Nov. 9, 1910. Serial No. 591,422. (Cl. 244—12.)



1. An air ship comprising a main plane, a tail at the rear central portion of said main plane comprising two vertically movable side sections, and a longitudinally positioned vertical web between said side sections, substantially as described.

2. An air ship comprising a main plane, a tail at the rear central portion of said main plane comprising two vertically movable side sections, a longitudinally positioned vertical web between said side sections, and means for moving said wing sections in the same direction and in opposite directions, substantially as described.

3. An airship of the monoplane type comprising a main plane of greater length than breadth and when at rest on the ground inclining downwardly from front to rear, curved transversely in cross section at its intermediate portion, and at its sides flared outwardly and upwardly, a tail at the rear central portion of said plane, said tail folded longitudinally comprising two side sections capable of opposite vertical movement, substantially as described.

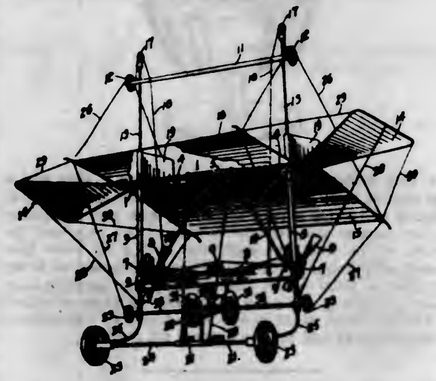
4. An airship, comprising a main plane of greater length than breadth and when at rest on the ground inclining downwardly from front to rear, curved transversely at its intermediate portion and flaring outwardly and upwardly at both sides of said curved portion, triangular extensions at the ends of said plane, and a triangular tail supported between said extensions, substantially as described.

5. An airship, comprising a main plane inclining downwardly from front to rear, curved transversely at its intermediate portion and flaring outwardly and upwardly at both sides of said curved portion, triangular extensions at the ends of said plane, and a triangular tail supported between said extensions, said tail folded at two points longitudinally, and both side members of said tail moved vertically, substantially as described.

[Claims 6 to 32 not printed in the Gazette.]

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1,039,117. FLYING-TENT. EMANUEL GERBER, Kansas City, Mo. Filed Nov. 8, 1910. Serial No. 590,420. (Cl. 244—1.)



1. In a flying tent, the combination with a main frame, of front and rear planes and side wings, all of which are loosely supported centrally upon the main frame, means for holding the said planes and wings in position for flying, and means for releasing the planes and wings so that they may be collapsible to form a covering or housing when desired.

2. In a flying tent, the combination with a main frame, of front and rear planes and side wings, means for lifting said planes and wings and holding the same in a relatively stationary position for flying purposes and means for releasing them so that they may collapse and form a housing or covering when desired.

3. In a flying tent, the combination with a main frame and the wings, of a front plane and a rear plane, both loosely supported upon said main frame, upper and lower supports, cables or ropes attached to the planes and passing around the top support, cables or ropes likewise attached to the planes and passing around the lower support, and means for manipulating said ropes or cables jointly or independently so as to adjust the angle of the two planes symmetrically or to warp one plane or the other for guiding purposes, and means for releasing the planes and wings so that they may collapse and form a housing or covering when desired.

4. In a flying tent, the combination with a main frame, of front and rear planes and side wings, means for lifting the outer edges of all of them and holding the same in a relatively adjustable position for flying purposes, and means for releasing said outer edges of all of said parts so that they may collapse and form a housing or covering when desired.

5. In a flying tent, the combination with a main frame of front and rear planes and side wings all loosely connected to said frame, an upper supporting bar, means for holding said bar in its top position means for supporting the planes and wings upon said bar when the apparatus is in flying position, suitable propelling mechanism and suitable means for adjusting and warping the position of the planes during the process of flying.

[Claims 6 to 8 not printed in the Gazette.]



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1,039,118. ENGINE-STARTER. JOHN A. GERMONPREZ, Detroit, Mich., assignor of one-third to John L. Schneider and one-third to William J. Wirts, Detroit, Mich. Filed Dec. 15, 1911. Serial No. 665,998. (Cl. 123—180.)



1. The combination with a motor having explosion chambers, of a casing having outlets each connected to one of the chambers and a fuel inlet common to all the outlets, a self-seating closure for the inlet, and means for moving the closure to open the inlet, adjustable to release the closure when the latter has moved any predetermined extent.

2. The combination with a motor having explosion chambers, of a casing having outlets each connected to one of the chambers and a fuel inlet common to all the outlets, a self-seating closure to open the inlet, means for moving the closure to open the inlet, and operating connections between the closure and means, adapted to release the closure to seat itself when the latter has moved to a predetermined point.

3. The combination with a motor having explosion chambers, of a casing having outlets each connected to one of the chambers and a fuel inlet common to all the outlets, a self-seating closure for the inlet, means for moving the closure to open the inlet, and operating connections between the closure and means, adjustable to release the closure to seat itself when the latter has moved to any predetermined extent.

4. The combination with a motor having explosion chambers, of a casing having outlets each connected to one of the chambers and a fuel inlet common to all the outlets, a self-seating closure for the inlet, a reciprocable member adapted to engage and move the closure to open the inlet when the member is shifted in one direction, and to release the closure during the same movement when the closure moves a predetermined extent.

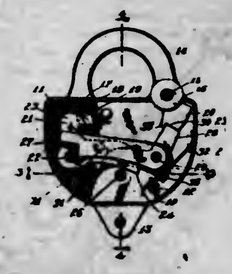
5. The combination with a motor having explosion chambers of a casing having outlets each connected to one of the chambers and a fuel inlet common to all the outlets, a self-seating closure for the inlet, a reciprocable member for moving the closure to open the inlet, and operating connections between the member and closure adapted to engage the latter when the closure is moved in one direction only and to release the closure to seat itself when the closure has moved a predetermined extent.

[Claims 6 to 10 not printed in the Gazette.]



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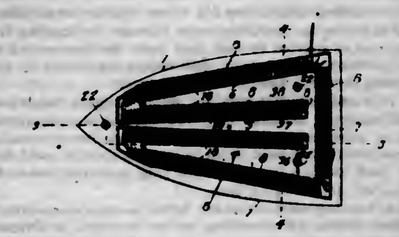
1,039,119. PADLOCK. JAMES A. GIBBS, Chicago, Ill., assignor to The Adams & Westlake Company, a Corporation of Illinois. Filed Apr. 8, 1911. Serial No. 618,722. (Cl. 70—105.)



In a padlock, in combination, a chambered casing, a bowed shackle pivoted to the casing, locking mechanism engaging the shackle, and a spring-actuated ejecting bar engageable with the nose of the shackle and lying in the path of the key when the shackle is closed.

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1,039,120. ELECTRIC SAD-IRON. LEWIS E. GAUSS, Logansport, Ind. Filed Mar. 30, 1911. Serial No. 617,852. (Cl. 219—25.)



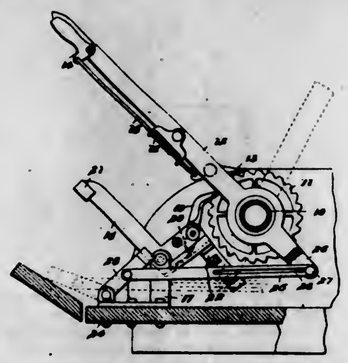
1. An electric iron comprising a body having separate grooves forming separate wedge-shaped portions between said grooves and a groove extending across the heel of the iron and connecting the outside grooves, and a coreless heating element composed of one continuous coil of resistance wire disposed within the longitudinal and transverse grooves.

2. An electric iron having a body formed with longitudinally extending grooves and a transverse groove at the heel connecting the outermost of said longitudinal grooves, a coreless heating element composed of a continuous coil of resistance wire disposed within said grooves, a top to the iron having a cavity into which the ends of said coil extend for connection with terminals, and terminals on said top with which said ends are connected.

3. An electric iron comprising a body having outer and intermediate channels extending lengthwise of said body, the outer channels being inclined from the heel toward the toe, and the intermediate channel connecting the rear ends of said outer channels and a coreless heating element in one continuous unit disposed within said channels with the terminals thereof disposed in the rear ends of two of the longitudinally disposed channels.

4. An electric sad iron comprising a body having inclined side channels, a connecting cross channel, and intermediate substantially parallel channels communicating with said side channels, a coil resistance wire forming a coreless heating element disposed in said side, cross and intermediate channels, the terminals of said wire being extended through the body, said body having a chamber to receive the securing means of said terminals, a removable cover, and a non-heat conducting material interposed between said cover and the upper wall of said body and overlying said heating element.

**1,039,121. WINDING MECHANISM FOR DUMP-WAGONS.** CHARLES M. HARSKE and ROY F. ANDERSON, South Bend, Ind. Filed Jan. 13, 1912. Serial No. 671,182. (Cl. 21—20.)



1. A winding mechanism for dump-wagons comprising a winding drum, an operating lever therefor, a locking pawl for preventing reverse rotation of said drum, a carrier for said pawl, and means operated by said lever for locking said carrier with said pawl in operative relation with said drum.

2. A winding mechanism for dump wagons comprising a winding drum, an operating lever therefor, a tripping foot lever, a pawl carried by said foot lever for preventing reverse rotation of said drum, and means controlled by said operating lever for locking said foot lever.

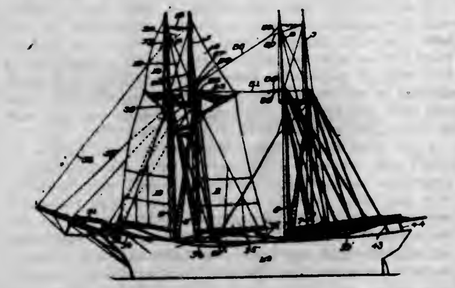
3. A winding mechanism for dump wagons comprising a winding drum, an operating lever therefor, a tripping foot lever, a pawl carried by said foot lever for preventing reverse rotation of said drum, a locking link for said foot lever, and means connected with said operating lever for controlling said locking link.

4. A winding mechanism for dump wagons comprising a winding drum, an operating lever therefor, a tripping foot lever, a pawl carried by said foot lever for preventing reverse rotation of said drum, a locking link for said foot lever, and a lost motion connection between said link and said operating lever.

5. A winding mechanism for dump wagons comprising a winding drum, an operating lever therefor provided with an extension, a tripping foot lever, a pawl carried by said foot lever for preventing reverse rotation of said drum, a locking link for said foot lever, a link connected to said locking link and provided with a longitudinal slot, and a stud on the extension of said operating lever working in said slot.

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**1,039,122. SAILING VESSEL.** JAN E. HAGBORG, Chicago, Ill. Filed Oct. 2, 1911. Serial No. 652,350. (Cl. 114—102.)

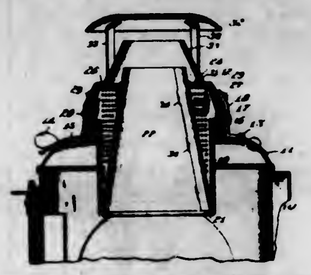


1. The combination with a sailing vessel, of a pair of masts arranged transversely of the vessel, shrouds crossing from one of said masts to the other, braces for supporting the masts transversely of the vessel, stays or cables running longitudinally of the vessel, and branches from said stays or cables running to both masts.

2. The combination with a sailing vessel, of a series of masts arranged abreast or transversely of the vessel, stays or cables between the pairs that extend in a vertical plane midway between the masts of each pair, similar stays or cables which also extend to the body of the vessel, a pair of shrouds for each pair of masts that extend from the one mast to the other of each pair and across each other between the pairs, arms carrying cords or cables thereon and pulleys on said cords or cables, said pulleys having rope connections for swinging sails on said masts.

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**1,039,123. SIGNAL-LAMP.** WILLIAM S. HAMM, Hubbard Woods, Ill., assignor to The Adams & Westlake Company, a Corporation of Illinois. Filed Apr. 15, 1911. Serial No. 621,340. (Cl. 240—51.)



1. In an upper draft lamp, in combination, a dome having induction ports, a polygonal screen depending into the body of the lamp, a polygonal upwardly-tapering flue extending upwardly from the base of the screen, and a plate extending inwardly from the wall of the dome above its induction ports.

2. In an upper draft lamp, in combination, a dome having induction ports, a square screen depending from the dome into the body of the lamp, a square upwardly-tapering flue extending upwardly from the base of the screen, and a plate extending inwardly from the dome above its induction ports.

3. In an upper draft lamp, in combination, a dome having induction ports, a square screen depending from the dome into the body of the lamp, a square upwardly-tapering flue extending upwardly from the base of the screen, a plate extending inwardly from the dome above its induction ports, and perforated baffle plates extending downwardly from the last-named plate and joining the corners of the screen and the flue.

4. In an upper draft lamp, in combination, a dome having induction ports, a screen depending from the dome into the body of the lamp and having a shoulder resting upon the dome, an upwardly-tapering chimney rising from the base of the screen, and an openable cap for the top of the dome.

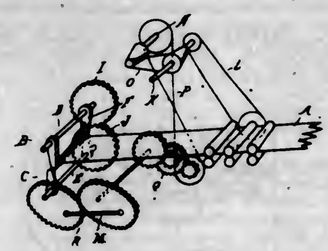
5. In an upper draft lamp, in combination, a dome having induction ports, a screen depending from the dome into the body of the lamp and having a shoulder resting upon the dome, an upwardly tapering chimney rising from the base of the screen, and a hinged cap constituting the upper portion of the dome.

[Claims 6 to 11 not printed in the Gazette.]

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**1,039,124. PAPER FEED AND CUT-OFF.** WILLIAM F. HARRMECHT, Sandusky, Ohio, assignor to Hinde & Dauch Paper Company, Sandusky, Ohio, a Corporation of Ohio. Filed Mar. 11, 1911. Serial No. 613,795. (Cl. 164—68.)

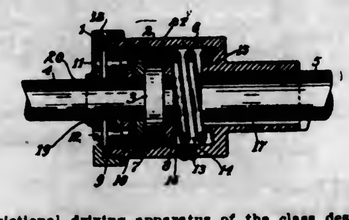
1. The combination with a strip feeding mechanism having a constant and uniform feed, of a rotary cut-off, a mechanism connecting said cut-off and said feed mechanism including a variable speed transmission, means for producing variable speeds within the cut-off cycle, and means of adjustment therefor to compensate for adjustments in said transmission and to maintain uniform speed of the cut-off at the point of operation.



2. The combination with a strip feeding mechanism having a constant and uniform feed, of a rotary cut-off, a mechanism connecting said cut-off including a variable speed transmission, a pair of intermeshing elliptical gears having their cycles coincident with that of the cut-off, and means for adjusting said gears to compensate for adjustment in said transmission and to maintain uniform speed of operation of the cut-off.

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**1,039,125. FRICTIONAL DRIVING DEVICE.** WILLIAM JAMES HARDY, High Bridge, N. J., assignor, by direct and mesne assignments, to Taylor Iron & Steel Company, High Bridge, N. J., a Corporation of New Jersey. Filed June 10, 1911. Serial No. 632,399. (Cl. 64—13.)

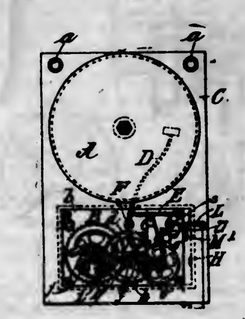


A frictional driving apparatus of the class described, the combination of a closed housing, shaft attaching means on said housing, a transmission shaft rotatably mounted in the other end of said housing, said shaft having thereon a disk member, said disk member being located away from the end of said transmission shaft thereby leaving an extension of said shaft projecting therefrom, a pair of friction rings mounted upon said transmission shaft, one on each side of the said friction disk, a spring in said housing, one end of said spring bearing against the housing, the other end of said spring bearing against one of said friction rings, a pair of threaded adjusting collars arranged opposite the spring end of said housing, said collars adapted to be adjusted to and fro in said housing and locked at will, said collars so located and arranged as to create a pressure on the other said friction ring and to permit the frictional pressure between said friction rings and disk to be varied at will, the said friction disk being advanced to and from the said friction spring member, and a cover on said housing having a bore therein, the same being adapted to support and maintain the said transmission shaft in operating alinement.

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**1,039,126. BURGLAR-ALARM.** FREEMAN C. HATCH, Springfield, Mass. Filed Apr. 16, 1910. Serial No. 555,959. (Cl. 116—44.)

1. In an apparatus of the character described, an alarm or signaling apparatus, actuating means therefor, a device for restraining the actuating means from operating and adapted to be moved to a releasing position in one direction, and also movable in the reverse direction to a releasing position, a spring for throwing it to its reversed releasing position, a cord connected with the restraining device, adapted to be extended across a room, and by draft thereon to move the restraining device in the first mentioned direction to its releasing position, and a shiftable button adapted to have positions respectively to permit and prevent the aforementioned reversed releasing movements of the restraining device.



2. In an apparatus of the character described, an alarm or signaling device, actuating means therefor, a rotatively mounted device for restraining the actuating means comprising an arm to intercept the path of the movable part of the actuating means, and a resilient arm, a part on which the resilient arm may have a riding engagement with spring pressure provided with a detent portion, a cord adapted to be connected with said resilient arm so that when under draft it will draw such arm into its riding engagement with said part to place its restraining arm in a releasing position, and a spring operative on the restraining device for moving it to a releasing position in a direction the reverse from that imparted to it by the cord.

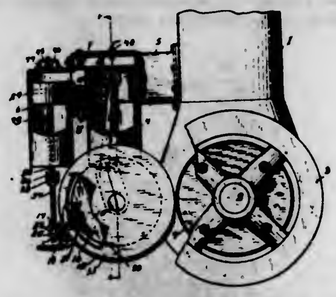
3. In an apparatus of the character described, an alarm or signaling device, actuating means therefor, a rotatively mounted device for restraining the actuating means, comprising an arm to intercept the path of the movable part of the actuating means, and a resilient arm, a part on which the resilient arm may have a riding engagement with spring pressure provided with a detent portion, a cord adapted to be connected with said resilient arm so that when under draft it will draw such arm into its riding engagement with said part to place its restraining arm in a releasing position, a spring operative on the restraining device for moving it to a releasing position in a direction the reverse from that imparted to it by the cord, and a button or stop for preventing the movement of the restraining device under the reaction of said spring to its release position.

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**1,039,127. STARTING DEVICE FOR EXPLOSION-ENGINES.** FREDERICK C. HAYES, Battle Creek, Mich. Filed Sept. 18, 1911. Serial No. 649,996. (Cl. 123—179.)

1. The combination with a driven shaft, of a starting motor; a crank shaft therefor; a friction wheel on said crank shaft having a segmental friction surface coacting with the friction wheel of said driven shaft; a fuel pump for said cylinder; means for actuating said pump comprising an actuating lever and toggle, the pump piston rod being one member of the toggle; means for locking said motor comprising a catch dog and a coacting disk mounted on said crank shaft and having a peripheral groove provided with a notch-like keeper for said dog, and a pair of springs secured to the sides of said disk to swing into the notch when the dog is withdrawn therefrom, said dog being positioned to be released by said pump actuating toggle; a pressure release valve for said pump; means for returning the parts to their initial position comprising a spring, a plunger rod actuated by said

spring, and a link connecting said rod to said disk; an exhaust valve actuating cam on said crank shaft positioned to open the exhaust valve during the return of the parts to their initial position; and an ignition system comprising circuit connections having a spring switch which is closed by the pump actuating lever when in its normal position.



2. In a structure of the class described, the combination with the driven shaft, of a friction wheel on said driven shaft; a motor provided with a crank shaft; a friction member on said crank shaft arranged to engage said friction wheel only during the partial revolution of said crank shaft; means for automatically locking said crank shaft on each revolution thereof with said friction member thereof out of engagement with said friction wheel on said driven shaft; a pump for charging said motor; means for actuating said pump adapted to release said lock; an ignition system for said motor comprising a circuit switch adapted to automatically open on the actuation of the pump actuating means; a pressure release valve for said pump; a spring for returning said crank shaft to its initial position; an exhaust valve for said motor; and a cam on said crank shaft for opening said exhaust valve during the return of the parts to their initial position.

3. In a structure of the class described, the combination with the driven shaft, of a friction wheel on said driven shaft; a motor provided with a crank shaft; a friction member on said crank shaft arranged to engage said friction wheel only during the partial revolution of said crank shaft; means for automatically locking said crank on each revolution thereof with said friction member thereof out of engagement with said friction wheel on said driven shaft; a pump for charging said motor; means for actuating said pump adapted to release said lock; an ignition system for said motor comprising a circuit switch adapted to automatically open on the actuation of the pump actuating means; and a pressure release valve for said pump.

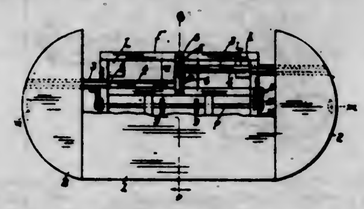
4. In a structure of the class described, the combination with the driven shaft, of a friction wheel on said driven shaft; a motor provided with a crank shaft; a friction member on said crank shaft arranged to engage said friction wheel only during the partial revolution of said crank shaft; means for automatically locking said crank shaft on each revolution thereof with said friction member thereof out of engagement with said friction wheel on said driven shaft; a pump for charging said motor; means for actuating said pump adapted to release said lock; a pressure release valve for said pump; a spring for returning said crank shaft to its initial position; an exhaust valve for said motor; and a cam on said crank shaft for opening said exhaust valve during the return of the parts to their initial position.

5. In a structure of the class described, the combination with the driven shaft, of a friction wheel on said driven shaft; a motor provided with a crank shaft; a friction member on said crank shaft arranged to engage said friction wheel only during the partial revolution of said crank shaft; means for automatically locking said crank shaft on each revolution thereof with said friction member thereof out of engagement with said friction wheel on said driven shaft; a pump for charging said motor; means for actuating said pump adapted to release said lock; and a pressure release valve for said pump.

[Claims 6 to 21 not printed in the Gazette.]

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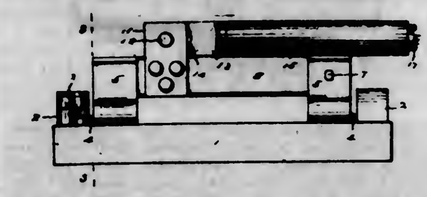
1,039,128. EXTENSION-TABLE. CHARLES HEDRICH, Granite City, Ill. Filed Sept. 11, 1911. Serial No. 648,617. (Cl. 45—112.)



A table comprising a frame, a central vertically adjustable top or section mounted on the frame, terminal leaves provided with parallel slides extending under the central section and operating in the frame, means positioned between the slides and in coöperation therewith for imparting to the leaves a simultaneous movement in opposite directions, a central rocker-bar disposed between the slides, cams on said bar operating in planes transverse to the slides and engaging the central section, a block provided with suitable ways or grooves for housing the cams, and means for limiting the outward movement of the leaves.

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1,039,129. DISCONNECTING ELECTRICAL SWITCH. DUNCAN C. HOOKER, Farmington, Conn., assignor to The Johns-Pratt Company, Hartford, Conn., a Corporation of Connecticut. Filed Oct. 27, 1911. Serial No. 657,195. (Cl. 175—282.)



1. The combination in a disconnecting switch, of conducting line terminals, a conductor adapted to be engaged with and electrically connect said terminals, also to be removed from and electrically disconnect said terminals, an insulating handle for manipulating said conductor, and means adjustably connecting said conductor and said handle, said means when in one adjustment permitting free oscillation of the handle with relation to the conductor, and when in another adjustment causing a rigid connection of the handle to the conductor.

2. The combination in a disconnecting switch, of conducting line terminals, a blade adapted to connect the terminals, said blade being removably pivoted to one terminal and adapted to swing into and out of engagement with the other terminal, an insulating handle, and means adjustably connecting the handle and the blade, said means when in one relation permitting free oscillation of the handle, and when in another relation rigidly connecting the handle and the blade.

3. In a switch in combination, conducting terminals, a conductor adapted to be engaged with and electrically connect said terminals, an insulating handle, and a pin and slot connection between said handle and the conductor, said slot being so arranged as to permit longitudinal movement of the handle with relation to the conductor, and when the parts are in one relation permit independent oscillations of the handle and conductor, and when the parts are in another relation, hold the handle rigid against oscillation independently of the conductor.

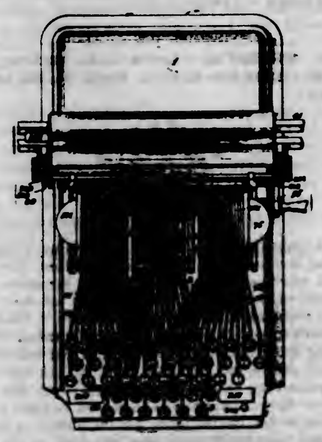
4. In a switch in combination, conducting terminals, a conductor pivoted to one terminal and detachable therefrom when in one position, and an insulating handle pivotally connected to the conductor and adapted to swing the free end thereof into and out of engagement with the other terminal, said pivotal connection of the handle to the conductor being adjustable and when in one position holding the handle and the conductor rigidly united, and when in another position allowing the handle to swing freely on the pivotal connection.

5. In a switch in combination, conducting terminals, a conductor pivoted to one terminal and detachable therefrom when in one position, an insulating tube pivoted to the conductor and adapted to swing the free end thereof into and out of engagement with the other terminal, said tube being movable longitudinally on its pivot and when in one position being rigid with the conductor, and when in another position being free to swing on the pivot, and a handle detachably attached to said tube.



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1,039,130. ADDING AND WRITING MACHINE. HUBERT HOPKINS, St. Louis, Mo., assignor to Addograph Manufacturing Company, a Corporation of Missouri. Filed Jan. 24, 1903. Serial No. 140,390. (Cl. 235—60.)



1. The combination of the type-carriers, racks controlling said carriers, devices for operating said type-carriers and racks in recording operations, a transversely movable carriage, parts adjusted by the movement of said carriage to limit the movement of said type-carriers and racks, and means for moving the type-carriers and racks independently a certain distance to record certain figures, substantially as specified.

2. The combination of the type-carriers, racks controlling said type-carriers, a carriage, stops for limiting movement of the racks and type-carriers, means for moving said carriage effectively to set said stops in position to limit the movement of said type-carriers and racks, adding wheels, means for causing said racks to operate said adding wheels effectively to transfer from lower to higher orders in said wheels, and carrying levers arranged to aline the adding wheels and racks in their idle positions, substantially as specified.

3. In an adding machine, type-carriers, a carriage, racks in connection with said type-carriers, stops for limiting the movement of said type-carriers and racks, means for causing said carriage to set said stops in position to limit movement of said type-carriers and racks, means for operating said type-carriers and racks, adding wheels, pivoted elements arranged to aline the adding wheels and racks in idle adjustments, and means for operating said racks effectively to transfer from lower to higher orders in said adding wheels, substantially as specified.

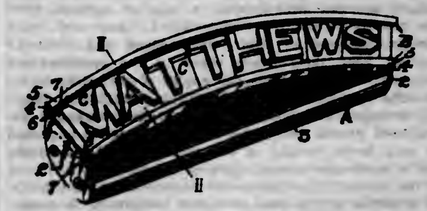
4. In an adding machine, a platen, an inking ribbon, a portion of the platen adjacent to the ribbon being visible to the operator, a series of type-carriers each of which carries a series of type, means for moving said type-carriers to position the type adjacent to the writing line of the platen to represent numbers, means for causing the type to record on the platen the numbers as represented while the type-carriers remain stationary, and automatic means for rotating the platen a distance sufficient to bring the numbers so recorded into view of the operator.

5. In an adding machine, a platen, a portion thereof being visible to the operator, an inking ribbon held close to the visible portion of the platen, relatively movable type-carriers arranged side by side, each thereof being provided with a series of type, means for moving said type-carriers to position the type adjacent to the writing line of the platen to represent numbers, means for causing the type to record on the platen the numbers so represented while the type-carriers remain stationary, and automatic means for moving the ribbon and the surface of the platen relatively to render the number so recorded visible to the operator.

[Claims 6 to 284 not printed in the Gazette.]

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1,039,131. CHANGEABLE TYPE-BLOCKS. JOHN J. HOWARD, Pittsburgh, Pa., assignor to Jas. H. Matthews & Co., Pittsburgh, Pa., a Corporation of Pennsylvania. Filed June 18, 1912. Serial No. 704,812. (Cl. 101—58.)




1. The combination with a holder, provided with retaining-flanges extending along the longitudinal edges thereof, of removable type-blocks disposed in said holder and having, in their upper faces, grooves extending parallel and adjacent to said flanges, said flanges being normally out of engagement with said grooves, but engaging the same when said type-blocks are bowed upward.

2. The combination with a holder, provided with retaining-flanges extending along the longitudinal edges thereof, of removable type-blocks disposed in said holder and having lateral base-flanges disposed under said retaining-flanges, and provided, in their upper faces, with grooves extending parallel and adjacent to said retaining flanges, said retaining-flanges being normally out of engagement with said grooves, but engaging the same when said type-blocks are bowed upward.

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1,039,132. MACHINE FOR SIZING AND SEPARATING GRANULAR MATERIAL. BENJAMIN A. HUGHES, Colorado Springs, Colo. Filed Nov. 8, 1911. Serial No. 659,158. (Cl. 130—18.)

1. In a device of the class described, the combination of a reciprocating frame, a supporting frame, flexible connections between said frames, a pair of inclined riffle decks mounted upon the reciprocating frame, said decks being hingedly connected at their upper edges, plates slidably mounted on the reciprocating frame, said decks being pivotally connected near their lower edges to said plates, means for adjusting said plates to change the inclination

of the decks, and means for reciprocating the first mentioned frame.



2. In a device of the class described, the combination with upper and lower frames, of toggle joints connecting said frames at each of their ends, said toggle joints consisting of flexible belting, the upper edge of said belting being connected to the upper frame and the lower edge of the same being connected to the lower frame, and plates clamped to said belting whereby buckling of the same is prevented.

3. A device of the class described comprising a reciprocating frame, a pair of inclined riffle decks mounted upon said frame and adapted to reciprocate therewith, said riffle decks having solid backs, a plurality of diagonally alined teeth arranged in spaced relation formed upon said backs, a hopper supported above the upper edges of said riffle decks, and means for reciprocating said decks and imparting a slight upward movement thereto whereby material fed from the hopper is caused to travel in a direction diagonal to the line of teeth to separate or classify the fine and coarse material.

4. A device of the class described comprising a reciprocating frame, a supporting frame, a flexible connection arranged between said frames, a pair of inclined riffle decks mounted upon the reciprocating frame and being hingedly connected at their upper edges and pivotally connected near their lower edges to the reciprocating frame, means for changing the angles of said riffle decks, each riffle deck being provided with a plurality of diagonally arranged and spaced teeth, channels arranged between each line of teeth whereby when material is passed over said decks certain of the material will pass from tooth to tooth and certain other of the material will pass into the channel, and means for reciprocating said decks.

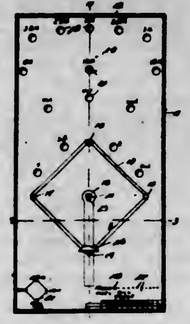
5. A device of the class described comprising in combination, a supporting frame, another frame flexibly connected to the first mentioned frame, a plurality of decks hingedly connected and angularly disposed over the last mentioned frame, adjusting devices for tipping said decks to various angular positions, buffers on said last mentioned frame, holders disposed on the first mentioned frame, adjustable buffers disposed in said holders, said last mentioned buffers being alined with the buffers on said second mentioned frame, and means for reciprocating said second mentioned frame.

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1,039,133. GAME APPARATUS. JOSEPH C. HUTTON, Louisville, Ky. Filed May 24, 1911. Serial No. 629,094. (Cl. 46—21.)

1. In a game apparatus, in combination, a playing board marked off to indicate a baseball diamond, a pitcher's stand located within the diamond and indicated on the said board, the said board being provided with a slot contiguous to the said pitcher's stand, a resilient arm passed vertically through the slot to protrude beyond the upper face of the board and having a striking head at its upper end, and an outturned lower end, means securing the outturned end of the arm to the under face of the board, and a deflector plate rising from the upper face of the board in spaced relation to and in alinement with the resilient arm to be struck by a missile shot by said arm.

2. In a game apparatus, in combination, a playing board marked off to indicate a baseball infield and outfield, a pitcher's stand located within the diamond and indicated on the said board, the said board being provided with a slot contiguous to the said pitcher's stand, a resilient arm passed vertically through the slot to protrude beyond the upper face of the board and having a striking head at its upper end, and an outturned lower end, means securing the outturned end of the arm to the under face of the



board, a deflector plate rising from the upper face of the board in spaced relation to and in alinement with the resilient arm to be struck by a missile shot by said arm, the said board being provided with a plurality of pockets, said pockets being adapted to receive said missile after the same has struck the deflector plate.

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1,039,134. PEDESTAL. JAMES L. E. JENKINS, Kansas City, Mo. Filed Dec. 9, 1911. Serial No. 664,900. (Cl. 155—40.)



1. In a pedestal, a leg section comprising a head, and supporting stripe having inner members bent beneath the head and mortised thereinto and outer members secured to the ends of the head, substantially as set forth.

2. In a pedestal, a leg section comprising a head, blocks on said head spaced to provide a central opening, leg stripe comprising inner members bent beneath and mortised into said head, and outer members fixed to the ends of the head, a second leg section comprising a head, blocks fixed to the inner face of said head and spaced to form a central opening, leg stripe having inner members fixed to the inner ends of said blocks and outer members fixed to the ends of the head and blocks, the heads of said sections being mortised into each other, a bolt extending through the central portions of said heads and projecting thereabove, and a top pivotally mounted on said bolt.

3. In a pedestal, separate leg sections, a square base board having rounded corners, means for pivotally mounting said board on the members of one of said sections and for detachably securing same to the members of the other sections when the parts are assembled, and a rung connecting the members of the other leg section beneath said base board.

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1,039,135. PROCESS OF ELECTRIC WELDING. ALBERT L. JOHNSON, Hamburg, N. Y. Filed Sept. 29, 1911. Serial No. 652,016. (Cl. 219—10.)

1. The process of joining metal elements so that in the resulting product they will be spaced a predetermined distance apart, which process consists in interposing a metal insert between said elements, adjusting said elements and insert in desired relative position, pressing said elements against said insert, and welding the parts together by an electric current applied to said elements, said insert being of such shape that a portion thereof will remain firm during the welding operation and thereby serve to space said elements.



2. The process of joining metal elements so that in the resulting product they will be spaced a predetermined distance apart, which process consists in interposing a metal insert between said elements, adjusting said elements and insert in desired relative position, pressing said elements against said insert, and welding the parts together by an electric current applied to said elements in substantial alinement with said insert, said insert being of such shape that a portion thereof will remain firm during the welding operation and thereby serve to space said elements.

3. The process of electrically welding elements of different thicknesses which comprises the interposing of a metal insert between said elements at the point of welding, and then pressing the electrodes of the welding current against the outer surfaces of said elements, the insert being of such shape that the area of the portion thereof in contact with the thinner element is larger than the area of the portion of said insert in contact with the thicker element.

4. The process of electrically welding elements of different thicknesses which comprises the interposing of a metal insert between said elements at the point of welding, and then pressing the electrodes of the welding current against the outer surfaces of said elements substantially in alinement with said insert, the insert being of such shape that the area of the portion thereof in contact with the thinner element is larger than the area of the portion of said insert in contact with the thicker element.

5. The process of electrically welding elements of different thicknesses which comprises the interposing of a metal insert between said elements at the point of welding, and then pressing the electrodes of the welding current against the outer surfaces of said elements, the portion of the insert in contact with the thicker element being of smaller area than the cross-sectional area of the middle portion of said insert.

[Claims 6 and 7 not printed in the Gazette.]

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1,039,136. SECURING-CLIP FOR WALL STRUCTURES. ALBERT L. JOHNSON, Hamburg, N. Y., assignor to Corrugated Bar Company, St. Louis, Mo., a Corporation of Missouri. Filed Sept. 29, 1911. Serial No. 652,014. (Cl. 12—118.)



1. A clip of the character described comprising a body whose thickness decreases toward one edge and is thereby adapted to fit in a hollow sheet metal rib and having a slot in its margin which slot decreases in width inwardly and terminates in a hole which is enlarged in both directions from the inner throat of said slot such a distance that a portion of the overlying rib may be indented into such enlargement without careful centering, said body also having an additional hole near the margin opposite the slotted margin.

2. A clip of the character described comprising a body having a slot in the margin thereof converging inwardly and terminating in an enlarged hole which has a notch offset at the back of said hole diametrically opposite said slot, all arranged so that when said clip is mounted on a hollow sheet metal rib the edges of the slot will bind the rib and the notch will prevent transverse displacement.



3. A clip of the character described comprising a body portion which has a straight edge and which increases in thickness inwardly from said edge whereby said clip is adapted to fit in the hollow of a sheet metal rib, said body having an enlarged hole extending transversely through it and a slot extending with increasing width from said hole to the edge opposite said first mentioned edge and said hole having a notch offset at the back thereof diametrically opposite said slot, whereby when said clip is mounted on a supporting member the edges of the slot will bind said member and the notch will prevent transverse displacement.

4. The combination with a clip comprising a body having a slot in a margin thereof terminating in a hole which is enlarged transversely from the inner throat of said slot, of a sheet having a high ribbed portion fitted upon said clip, the ribbed portion in the region of said hole being indented into the hole.

5. The combination with a clip comprising a body having a slot in a margin thereof terminating in a hole, said body being tapered toward a different margin, of a sheet having a high ribbed portion tapered to conform to the tapered portion of the clip and fitted upon it, the ribbed portion in the region of said hole being indented into the hole.

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1,039,137. PROCESS OF ELECTRIC WELDING. ALBERT L. JOHNSON, Hamburg, N. Y. Filed Apr. 4, 1912. Serial No. 688,564. (Cl. 219—10.)



1. The process of joining metal elements which comprises the interposing of a metal insert between them and electrically welding the parts together simultaneously, the aggregate area of the contact portion of one face of the insert being less than the area inclosed in the contour of said face.

2. The process of joining metal elements which comprises the interposing of a metal insert between them and electrically welding the parts together simultaneously, the portion of the insert in contact with one of the elements being hollow.

3. The process of joining metal elements which comprises the interposing between them of a metal insert and electrically welding the parts together simultaneously, the insert having an open bore.

4. The process of joining metal elements which comprises the interposing of a tubular metal insert between them, and applying an electrical welding current by means of electrodes in contact with the outer surface of said elements in substantial alinement with said insert.

5. The process of joining metal elements which comprises the interposing of a tubular metal insert between them and electrically welding the parts together under pressure by means of electrodes in contact with the outer surfaces of said elements in substantial alinement with said insert.

[Claims 6 to 10 not printed in the Gazette.]

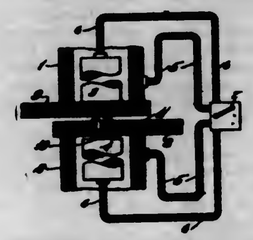
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1,039,138. PROCESS OF ELECTRIC WELDING. ALBERT L. JOHNSON, Hamburg, N. Y. Filed Apr. 17, 1912. Serial No. 691,471. (Cl. 219—2.)

1. The process of joining metal members which consists in forming a hole in one of said members and placing a metal insert therein with its end projecting therefrom, placing an imperforate portion of the second member against the end of said insert, and electrically welding said insert to said members.

2. The process of joining metal members which consists in forming a hole in one of said members and placing a metal insert therein with its end projecting therefrom, placing a second member against the end of said insert, and electrically welding said insert to said members under endwise pressure, the side wall of said insert having ribs to

contact with the wall of the hole, and the voids between the insert and the wall of the hole being of sufficient volume to permit the projecting portion of the rivet to be forced into the hole during the welding operation.



3. The process of joining metal members which consists in arranging a metal insert to project through a hole in one member and bear endwise against an imperforate portion of the other member and electrically welding the parts together by passing an electric current through the perforated member, said insert and said second member serially.

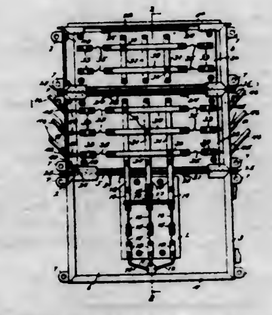
4. The process of joining metal members which consists in projecting a metal insert through one of said members and into contact endwise with an imperforate portion of the other member, passing an electric current from said first mentioned member through said insert and thence through said second mentioned member.

5. The process of joining metal members which consists in projecting a metal insert through one of said members and into contact endwise with an imperforate portion of the other member, passing an electric current from said first mentioned member through said insert and said second mentioned member serially, said insert being meanwhile submitted to endwise pressure.

[Claims 6 to 9 not printed in the Gazette.]

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1,039,139. SECTIONAL SERVICE-BOARD. NELS JOLEEN, Chicago, Ill. Filed Oct. 30, 1911. Serial No. 657,464. (Cl. 247—13.)



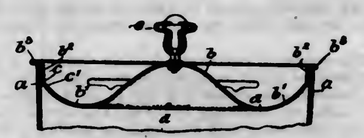
1. A sectional lock cabinet of the class described comprising a base section containing main supply terminals and having an aperture in the top for the passage of connector bars, a removable plate adapted to close said aperture, said plate being inaccessible from a point outside said base, a supplemental section having an aperture in the bottom registering with the aperture in the top of the base section, and interlocking connections on said sections adapted to permit the sections to be brought into and out of interlocked engagement while the plate remains *in situ*.

2. A sectional lock cabinet for electric service comprising a base section having main supply terminals inclosed therein, said base section having walls on all six faces with a locking door in front whereby the contents may be protected, and said section having an aperture in the top for the passage of connector bars, a removable plate for closing said aperture, said plate being inaccessible from a point outside the cabinet, a supplemental section having an aperture in the bottom registering with the aperture in the top of the base section, and horizontal interlocking flanges at the proximate ends of said sections whereby the supplemental section may be slid into interlocked engagement with the base section while said plate remains in place.

3. A sectional lock cabinet for electric service comprising a base section having main supply terminals inclosed therein, said base section having walls on all six faces with a locking door in front whereby the contents may be protected and said section having an aperture in the top for the passage of connector bars, a removable plate for closing said aperture, said plate being inaccessible from a point outside the cabinet, a supplemental section having an aperture in the bottom registering with the aperture in the top of the base section, horizontal interlocking flanges at the proximate ends of said sections whereby the supplemental section may be slid horizontally backward along the top of the base section into interlocked engagement with said base section without disturbing said plate nor preventing its removal, and a stop at the back of the base section for directing the backward movement of the supplemental section for the purpose of bringing the fronts of said section flush with each other.

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1,039,140. COVER FOR VESSELS. OTTO KAMPEN, New York, N. Y. Filed Sept. 30, 1911. Serial No. 652,085. (Cl. 53—8.)



1. A cover for a vessel consisting of a domed central portion, a rim in a horizontal plane concentric with said portion, a peripheral wall depending from the inner edge of said rim and at right angles to said rim, which wall sets within and fits the wall of the liquid holding vessel, and said cover having an annular depression extending from the domed central portion to the lower edge of the peripheral wall and having holes or slotted openings therein at the lower part and in a higher plane at its union with the peripheral wall with other holes or slotted openings coming into juxtaposition with the inner surface of the vessel and serving as overflows for the discharge and return of the boiling liquid.

2. A cover for vessels consisting of a domed central portion, a rim in a horizontal plane concentric with said portion, a peripheral wall depending from the inner edge of said rim and at right angles to said rim, which wall sets within and fits the wall of the liquid holding vessel, and said cover having an annular depression extending from the domed central portion to the lower edge of the peripheral wall and having holes or slotten openings therein at the lower part and in a higher plane at its union with the peripheral wall with other holes or slotted openings coming into juxtaposition with the inner surface of the vessel and provided with notches or lips preferably at the center and in the lower edge of the slotted openings and serving as overflows for the discharge and return of the boiling liquid.

3. A sheet metal cover for a liquid holding vessel having a supporting flange and peripheral wall setting within and fitting the said vessel and provided with openings adjacent to the peripheral wall and the inner surface of the wall of the vessel for immediately receiving and forming an exit or relief for the boiling liquid and with other openings in a plane below the aforesaid openings, for returning the boiling liquid to the liquid holding vessel.

4. A sheet metal cover for a liquid holding vessel having a supporting flange and peripheral wall setting within and fitting the said vessel, said cover at the lower edge of said peripheral wall provided with circularly arranged elongated openings for immediately receiving and forming an overflow exit or relief for the boiling liquid and said cover having a portion in a plane below said opening and in which portion are other elongated openings circularly arranged for returning the boiling liquid to the liquid holding vessel.



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1,039,141. EMBROIDERY-HOOP. MARTIN L. KRAGT, Canton, Ohio. Filed Jan. 18, 1911. Serial No. 603,241. (Cl. 45—24.)

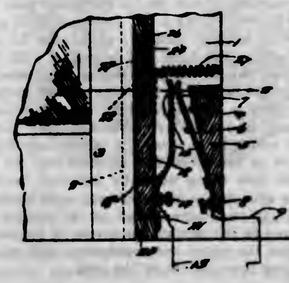


1. In an embroidery hoop, a split ring, a casing fixed to one end of said ring, a threaded rod fixed to the opposite end of said ring and extending into said casing, there being a recess formed in said casing, a knurled nut in said recess and threaded upon said rod and flanges formed on said casing constituting thrust members for said nut, substantially as described.

2. In an embroidery hoop, a split ring, a casing fixed to one end of said ring, a threaded rod fixed to the opposite end of said ring and extending into said casing, there being a recess formed in said casing, a knurled nut in said recess and threaded upon said rod, thrust members for said nut upon each side thereof, and a spring having one end secured to said rod and the other end secured to said casing and adapted to expand said ring, substantially as described.

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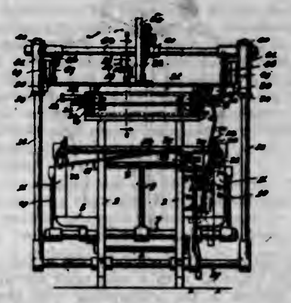
1,039,142. ELECTRIC BURGLAR-ALARM. THOMAS WILLIAM KENNERSIDE, Bisbee, Ariz. Filed Apr. 15, 1912. Serial No. 691,061. (Cl. 177—202.)



In a circuit closer, the combination of a window frame having a recess therein, a member secured therein and provided with a stationary contact member, the window frame having an opening communicating with said recess, a block pivoted in the opening and provided with a contact member, a spring connected to the upper end of the block at one end, with its other end secured to the window frame, and adapted to oscillate the block to bring the two contact members together, the frame having a recess above the opening, a latch pivoted in the last named recess and provided with a dog to engage the block, to lock the same in its normal position with its contact members separated, and a lug constituting a stop arranged at the lower portion of the opening, to limit the outward movement of the block.

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1,039,143. MOLDING-MACHINE. ANDREW KOWALSKY, Chicago, Ill. Filed Sept. 26, 1911. Serial No. 651,322. (Cl. 22—43.)



1. In a molding machine of the character described, the combination with a main frame having a platform to support the flask and a pair of vertical guides, of a flask the cope whereof is provided with a pair of laterally projecting studs on each end wall thereof, and a flask-separating frame having sleeve members slidably mounted on said guides and horizontal lifting bars adapted to successively engage the studs of the cope and the ends of the pattern-plate as said flask-separating frame is raised, whereby to permit the removal of the pattern-plate without removing the flask from the machine, and means for actuating said flask-separating frame, substantially as described.

2. In a molding machine of the character described, the combination with a main frame having a platform to support the flask and a pair of vertical guides, of a flask the cope whereof is provided with a pair of laterally projecting studs on each end wall thereof and a flask-separating frame having sleeve members slidably mounted on said guides and horizontal lifting bars provided with notches in their upper edges forming seats for the studs of the cope, and other horizontal lifting bars adapted to engage the ends of the pattern plate as said flask-separating frame is raised, whereby the raised cope may be either bodily removed or swung upwardly to inclined position on its laterally projecting studs, substantially as described.

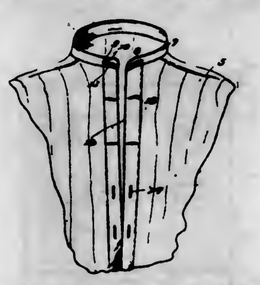
3. In a molding machine of the character described, the combination of a flask having jointed walls permanently connected at all the corners thereof and permitting a spreading movement of said walls, flask squeezing mechanism, mechanism for spreading the walls of the flask, and mechanism for raising the spread flask off the mold, substantially as described.

4. In a molding machine of the character described, the combination with a main frame and platform to support the flask, of a flask having jointed walls permanently connected at all the corners thereof and permitting a spreading movement of said walls, a flask-separating frame slidably mounted on said main frame and adapted, as the same is raised, to separate the cope, pattern-plate and drag vertically, means carried by said flask-separating frame for effecting a spreading of the walls of the flask, and means for actuating said flask-separating frame, substantially as described.

5. In a molding machine of the character described, the combination with a main frame and platform to support the flask, of a flask having jointed walls permitting a spreading movement of the latter, laterally projecting headed studs on opposed walls of said flask, a flask-engaging frame slidably mounted on said main frame and carrying members adapted to liftingly engage said studs, and means carried by said flask-engaging frame adapted to engage and thrust outwardly the heads of said studs and thereby effect a spreading of the walls of the flask, and means for actuating said flask-lifting frame, substantially as described.

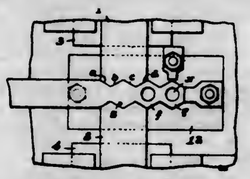
[Claims 6 to 11 not printed in the Gazette.]

1,030,144. SHIRT. CAROLINE KREMER, Gulfport, Miss. Filed May 18, 1911. Serial No. 628,061. (Cl. 2—41.)



As a new article of manufacture, the herein described body garment provided with a neck band having longitudinal slits formed in the overlapping ends thereof, the walls of said slits being connected at intervals by vertical rows of stitching to form independent button holes, said garment being arranged to open down the front and having other button holes formed therein near the adjacent vertical edges thereof, the button hole next to the neck band being disposed parallel with the button holes in the neck band, and the button hole at the waist portion of the garment being disposed at right angles to the button holes in said neck band.

1,039,145. NUT-MACHINE. FREDERICK LACKNER, Pittsburgh, Pa., assignor to Neely Nut and Bolt Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 5, 1910. Serial No. 547,584. (Cl. 10—79.)



1. In a nut machine the combination of a finishing matrix, a reciprocating plunger in line with said matrix, a primary matrix formed by jaws having V-shaped notches oppositely disposed in the respective jaws and having faces adapted to bear against the adjacent previously formed blank and arranged on the feed side of the finishing matrix in such relation to the latter that the distance between the axes of the matrices is not less than the combined widths of two of the blanks being formed, a punch in line with the axis of the primary matrix and adapted to reciprocate in a direction at right angles to the direction of feed of the stock and means for operating the jaws of the primary matrix to grip the stock during the operation of the plunger and punch.

2. In a nut machine the combination of jaws having a primary matrix formed by jaws having V-shaped notches oppositely disposed in the respective jaws and having faces adapted to bear against the adjacent previously formed blank, a head, a punch carried by the head and operative on a blank while inclosed in the primary matrix thereby preventing a material movement of the metal longitudinally of the stock during such punching, a plunger so mounted in the head that the distance between the axis of the punch and plunger is not less than the combined widths of two blanks, and a finishing matrix similarly spaced from the primary matrix and in line with the plunger.

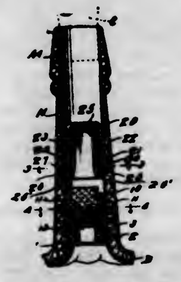
3. In a nut machine, the combination of a punch, a compressing plunger concentric with the punch, a finishing plunger, the distance between the axes of the finishing plunger and the punch being not less than the combined width of two blanks, a finishing matrix in line with the finishing plunger, means for partially shaping a blank, means for maintaining such shape during the operation of the punch and compressing plunger, and means intermediate the finishing matrix and the shape maintaining means for supporting a blank as against the thrust of the finishing plunger when forcing a blank into the finishing matrix.

4. In a nut machine, the combination of a reciprocating head provided with a socket, two blocks provided with grooves in adjacent faces for the reception of tools, means for forcing said blocks toward each other to grip the tools and means for positively locking the tools from longitudinal movement on the head.

5. As an improvement in the art of making nuts, etc., the method herein described, which consists in partially shaping a blank, partially perforating such blank, simultaneously finishing a partially shaped and perforated blank, preventing any material movement of metal longitudinally of the stock during the perforating and finishing operations, and supporting the partially formed blank in position for the finishing operation by a partially formed blank integral with the stock and the blank being finished.

[Claims 6 and 7 not printed in the Gazette.]

1,039,146. NON-REFILLABLE BOTTLE. CARL E. LANING, Gloversville, N. Y., assignor of one-half to Edward Thurber, Gloversville, N. Y. Filed July 10, 1911. Serial No. 637,764. (Cl. 215—65.)



The combination with a bottle neck having an internal annular weakening groove and a valve movable below the latter, said groove having a flat abutting wall, and an inclined portion leading thereto; of a plug of a size to snugly fit within the neck and provided with longitudinally disposed peripheral grooves for the passage of the liquid contained in the bottle, a U-shaped spring closely confined within a correspondingly shaped recess in the plug, yielding and angularly disposed feet forming the ends of the spring by bending the latter, said feet passing through eyes in the lower end of the plug, the bent portions of the feet being normally adjacent to the lower walls of the eyes in the plug with the ends thereof directed upwardly by the inclined wall of the groove and bindingly confined in the weakening recess of the neck of the bottle against the upper flat continuous wall of the same, for preventing the removal of the plug.

1,039,147. CAR, HOSE, AND ELECTRIC-WIRE COUPLING. LOUIS LE COMPTE and JOSEPH LE COMPTE, Aurora, Ill., assignors, by mesne assignments, to The Le Compte Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 9, 1909. Serial No. 511,892. (Cl. 213—40.)

1. In a device of the class described, the combination of a draw head, connecting mechanism adapted to connecting mechanism adapted to connect said draw head with an adjacent draw head, a coupler shoe movably mounted on the draw head and supported independently of said connecting mechanism and adapted to be moved transversely with respect to the draw head, and an electric wire supported by said coupler shoe and movable therewith into engagement with an adjacent electric conductor.

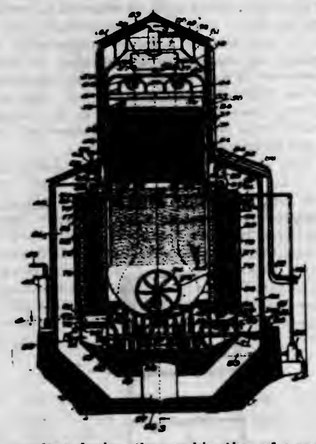




2. In a device of the class described, the combination of a pair of draw heads, a coupler shoe pivotally mounted on each draw head, an electric conductor supported by and movable with each of said coupler shoes, means for insulating each electric conductor from its supporting shoe, and means for connecting said draw heads and thereby automatically connecting said electric conductors.

3. In a device of the class described, the combination of a pair of draw heads, a coupler shoe pivotally mounted on and movable transversely to and from the longitudinal center of each draw head, an electric conductor supported by each coupler shoe, means for insulating the electric conductor from the draw head, and means for connecting said draw heads.

1,039,148. APPARATUS FOR REFRIGERATING AND DRYING GASES. CHARLES H. LEINERT, Chicago, Ill. Filed Apr. 23, 1910. Serial No. 557,225. (Cl. 62—21.)



1. In a cooling device, the combination of a preliminary cooling chamber, a pair of final cooling chambers adjacent to and on opposite sides of and of substantially the same height as said preliminary chamber, said final chambers thereby decreasing the radiation from said preliminary chamber, and means for passing through said preliminary chamber into said final chambers a gas to be cooled, substantially as described.

2. In a refrigerating device, the combination of a cooling chamber, means for introducing a liquid cooling medium into said chamber, means for spraying said cooling medium, means for cooling said medium in its sprayed condition, means for retaining said liquid medium in a finely divided state, and means for passing a gas through said chamber, said liquid medium thereby serving to reduce the moisture in said gas and to remove mechanical impurities therefrom, substantially as described.

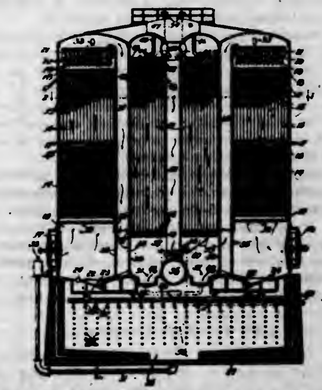
3. In a refrigerating device, the combination of a preliminary cooling chamber having an inlet thereto, means for cooling said chamber, an intermediate chamber adapted to contain a chemical drier, a final drying chamber outside of and adjacent to said preliminary cooling chamber, means for cooling said final chamber, and means for successively passing through said chambers a gas to be cooled, substantially as described.

4. In a refrigerating and drying device, the combination of a cooling chamber, means for introducing a liquid cooling medium into said chamber, means for finely dividing said cooling medium, a drying chamber below said cooling chamber and adapted to contain a chemical drying agent, means for passing a gas through said first chamber into said second chamber, and mechanically actuated means within said second chamber for bringing said gas into intimate contact with said drying agent, substantially as described.

5. In a refrigerating and drying device, the combination of a cooling chamber, means for introducing a liquid cooling medium into said chamber, means for finely dividing said cooling medium, a drying chamber adapted to contain a chemical drying agent, a passage connecting said first chamber with said second chamber, means for passing a gas through said cooling chamber into said drying chamber, and rotatable spiral means adapted to bring said gas into intimate contact with the drying agent within said drying chamber, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

1,039,149. METHOD OF REFRIGERATING AND DRYING GASES. CHARLES H. LEINERT, Chicago, Ill. Filed Aug. 19, 1910. Serial No. 577,929. (Cl. 62—22.)



1. The herein described method of treating gases which consists in maintaining two independent currents of gas traveling inwardly in opposite directions toward one another, each current of gas being divided into a plurality of upwardly traveling currents and at least one downwardly traveling current of gas located between and out of contact with the upwardly traveling currents of gas leading from the upper portion of one upwardly traveling current of gas to the lower portion of the next succeeding upwardly traveling current of gas, mingling the two currents of gas into a single current of gas, and subjecting the upwardly traveling currents of gas to a refrigerating medium.

2. The herein described method of treating gases which consists in maintaining two independent currents of gas traveling inwardly in opposite directions toward one another, each current of gas being divided into a plurality of upwardly traveling currents and at least one downwardly-traveling current of gas located between and out of contact with the upwardly traveling currents of gas and leading from the upper portion of one upwardly traveling current of gas to the lower portion of the next succeeding upwardly traveling current of gas, mingling the two currents of gas into a single downwardly traveling current of gas located between and out of contact with the innermost upwardly traveling portions of the two currents, and

subjecting the upwardly traveling currents of gas to a refrigerating medium.

3. The herein described method of treating gases which consists in maintaining two independent currents of gas traveling inwardly in opposite directions toward one another, each current of gas being divided into a plurality of upwardly traveling currents and at least one downwardly traveling current of gas located between and out of contact with the upwardly traveling currents of gas and leading from the upper portion of one upwardly traveling current of gas to the lower portion of the next succeeding upwardly traveling current of gas, mingling the two currents of gas into a single downwardly traveling current of gas located between and out of contact with the innermost upwardly traveling portions of the two currents, and permitting a cooling liquid to gravitate through the upwardly traveling currents of gas, substantially as and for the purpose described.

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1,039,150. PROCESS OF TANNING. GUSTAF HJALMER LINDSTRÖM, New Plymouth, New Zealand, assignor to Fitzroy Tanning Company Limited, New Plymouth, New Zealand. Filed Jan. 21, 1910. Serial No. 539,247. (Cl. 149—5.)

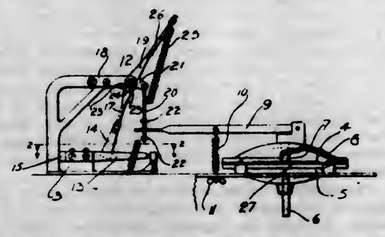
1. The improved process of tanning hides consisting in subjecting the hides to an initial unhairing, cleaning, and washing treatments and in then treating them to a solution of alum, common salt and pyrophosphate of sodium in water and to the subsequent treatment of a mixture of such solution with a solution of gambier and quebracho in water, substantially as specified.

2. The improved process of tanning hides consisting in subjecting the hides to an initial unhairing, cleaning, and washing treatments and in then treating them to a solution of alum, common salt and pyrophosphate of sodium in water and to the subsequent treatment of a mixture of such solution with a solution of gambier and quebracho in water, and to baths of borax solution in water alternated therewith substantially as specified.

3. The improved process of tanning hides consisting in subjecting the hides to initial unhairing, cleaning, and washing treatments and in then submitting them to the action of a solution of alum, common salt and pyrophosphate of sodium in water and to the subsequent treatment of a mixture of such solution with a solution of gambier and quebracho in water, all prepared in the manner and approximately in the proportions herein specified.

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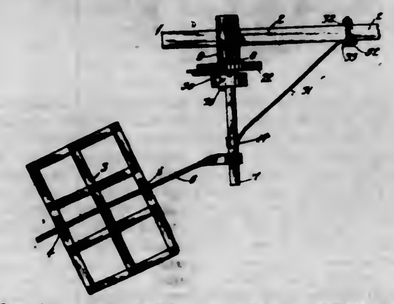
1,039,151. GOVERNOR. JACOB J. LISCH, Bellevue, Ky., assignor of one-half to Frank J. Geverts and one-half to Kerney McCann, Bellevue, Ky. Filed Nov. 15, 1909. Serial No. 528,004. (Cl. 175—308.)



In an apparatus of the character described, a control switch comprising blade-shaped spring terminals normally contacting with each other, an insulating member capable of moving between and separating said terminals, a pivotally mounted arm for actuating said member, a lost-motion connection between the arm and the member, a spring secured to the arm for moving it from an intermediate to an extreme position, a rod for moving said arm from either extreme position past the intermediate position in opposition to the spring, an adjustable lost-motion connection between the rod and the arm, and pressure actuated means for actuating the arm.

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1,039,152. HARROW ATTACHMENT. WILLIARD O. LONG, Mansfield, Ohio, assignor to Stoughton Wagon Company, Stoughton, Wis., Incorporated. Filed Aug. 16, 1909. Serial No. 512,985. (Cl. 97—44.)



In a harrow attachment for plows, the combination of a shaft revolubly supported from a plow, a draw-bar rigidly affixed at one end to said shaft and at its opposite end to a harrow, an operating lever pivotally connected at one end with said plow through said shaft, a coil spring rigidly connected at its inner end to said shaft and at its outer end to said lever, a reversing lever rigidly affixed to said shaft and provided with a bearing adapted to contact with said operating lever, and means for locking said operating lever at any desired point of adjustment whereby as the tension of the spring is increased or diminished by the movement of said lever, the harrow connected with said draw-bar will be forced into the soil with a greater or less yielding pressure, and whereby as the movement of said operating lever is reversed, said harrow will be raised from the soil substantially as specified.

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1,039,153. ADJUSTABLE MEASURE. GEORGE LOYD, Fort Wayne, Ind. Filed Nov. 6, 1911. Serial No. 658,861. (Cl. 73—165.)



1. A measuring receptacle consisting of a cylindrical body having a series of internal spaced annular recesses; an adjustable bottom loosely mounted therein and formed of two circular plates in spaced relation; a pair of levers pivotally mounted between the said plates and provided with operating handles upon their inner ends; a circular wire having a plurality of lateral bends therein and arranged between the said plates and having its opposite ends secured to the outer ends of the said levers respectively by swiveled connections, the said wire being adapted to normally engage the said annular recesses of the receptacle, and a swiveled connection between the said levers and the ends of the said wire.

2. A measuring receptacle having lateral recesses in spaced relation upon its inner face and an adjustable bottom vertically movable therein; a pair of levers pivotally connected and mounted on the said bottom with pendant

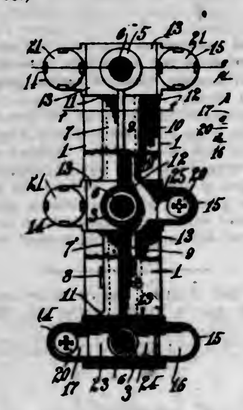


operating handles thereon; means for normally engaging the said recesses arranged in the said bottom and a swiveled connection between the outer ends of the said levers and the said recess engaging means.

3. In a measuring receptacle a vertically adjustable bottom consisting of a pair of circular plates fixed in spaced relation; a wire having a series of lateral bends therein and arranged adjacent to the perimeter of the said plates and between the same and adapted to normally project beyond the perimeter of said plates; a pair of pivotally connected levers having upon their inner ends operating handles; and a swiveled connection between the ends of the said wire and the said levers for the purpose described.

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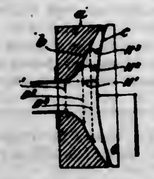
1,039,154. PUMP CONSTRUCTION. CHARLES O. LUCAS, Dayton, Ohio. Filed Jan. 31, 1912. Serial No. 674,561. (Cl. 103—65.)



A pump casing having a central vertical wall, integral cylindrical walls providing chambers, the axes of which are within the plane of said central vertical wall, inlet and exhaust chambers lying adjacent to and on opposite sides of said central wall and deflected around the circumferences of the cylindrical walls and inclosed by outer integral walls parallel with said central wall, the portions of said chambers deflected around the cylindrical walls being provided with inlet and exhaust ports, and valve housings mounted on each side of said base and communicating with said ports and chambers.

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1,039,155. ACOUSTICAL INSTRUMENT. LOUIS LUMIÈRE, Lyon, France. Filed May 18, 1910. Serial No. 561,929. (Cl. 181—11.)



1. A sound box for acoustical instruments comprising a movable wall and a stationary wall in which the inner face of the movable wall bears such a form in relation to the inner face of the stationary wall that the surfaces of successive sections taken concentrically with the delivery orifice of the sound box between the inner faces of the two walls are substantially equal.

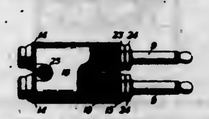
2. A sound box for acoustical instruments comprising a stationary wall provided with a delivery orifice, and a movable wall arranged opposite the inner surface of said stationary wall, the inner surface of said movable wall and the inner surface of said stationary wall converging radially outwardly toward each other, the surfaces of successive cylindrical sections taken coaxially with said delivery orifice between the inner faces of said walls being substantially equal.

3. A sound box for acoustical instruments comprising a stationary wall provided with a delivery orifice, and a movable wall having an inner convex surface opposed to the inner surface of said stationary wall and opposite said orifice, the inner surfaces of said stationary wall and said movable wall converging radially outwardly from said orifice toward each other and the surfaces of successive cylindrical sections taken coaxially with said delivery orifice between the inner faces of said walls being substantially equal.

4. In a sound box, the combination of a fixed wall having a delivery opening coaxial therewith, and a movable wall, the distance between any point in the stationary wall and the point in the movable wall opposite thereof, measured along a line parallel with the axis of said walls, being the quotient of a constant, divided by the distance between the said point in the stationary wall and the axis of said sound box.

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1,039,156. PLUG-SWITCH. JOHN J. LYNG, New York, N. Y., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Nov. 18, 1909. Serial No. 528,724. (Cl. 173—361.)



1. In a plug-member, the combination with a pair of plugs having a normal relative position, resilient means coöperating with said plugs to maintain them in such position, and a confining member adapted to limit the outward relative movement of said plugs.

2. In a plug-member, the combination with a pair of plugs, tension means tending to separate said plugs, and a confining member limiting the separating effect of said tension means.

3. In a plug-member, the combination with a shell, a pair of plugs laterally movable but longitudinally rigid therein, and a spring normally separating said plugs.

4. In a switch plug-member, the combination with a body portion, of a pair of plugs carried by said body portion, one of said plugs being movably mounted, and a spring between said plugs.

5. In a switch plug-member, the combination with a body portion, of a pair of plugs movably carried by said body portion, and a spring between said plugs.

[Claims 6 to 11 not printed in the Gazette.]

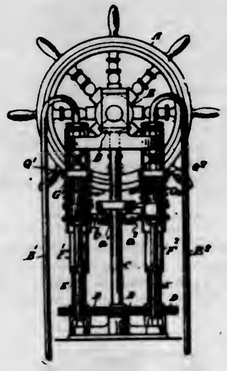
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1,039,157. TELEMOTOR-GEAR. JOHN MACKINTOSH, Paisley, Scotland. Filed June 17, 1911. Serial No. 633,820. (Cl. 121—13.)

1. In a telemotor apparatus, the combination of a suitable frame, two cylinders movably carried by said frame, a ram for each of said cylinders, two receiving cylinders, a ram for each receiving cylinder, conducting means operatively connecting said first mentioned cylinders and receiving cylinders, said first mentioned cylinders, conducting means and receiving cylinders being adapted to confine fluid to transmit movement of one ram to another, and means operatively connected with said first mentioned cylinders opposing movement thereof responsive to actuation of the fluid confined, but yieldable upon pressure upon said fluid beyond a predetermined amount.

2. In a telemotor apparatus, the combination of a suitable frame, two cylinders movably carried by said frame,

a ram for each of said cylinders, two receiving cylinders, a ram for each receiving cylinder, conducting means operatively connecting said first mentioned cylinders and receiving cylinders, said first mentioned cylinders, conducting means and receiving cylinders being adapted to confine fluid and transmit movement of one ram to another, and yieldable resilient means operatively connected with said first mentioned cylinders opposing movement thereof responsive to actuation of the confined fluid, but yieldable upon pressure upon said fluid above a predetermined amount.



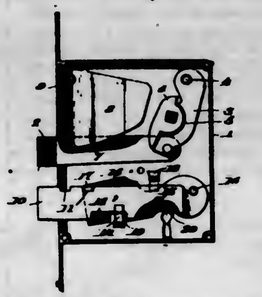
3. In a telemoter apparatus, the combination of a suitable frame, two cylinders movably carried by said frame, abutments carried by said cylinders, adjustable cross heads carried by said frame, a ram for each of said cylinders, two receiving cylinders, a ram for each receiving cylinder, conducting means operatively connecting said first mentioned cylinders and receiving cylinders, said first mentioned cylinders, conducting means and receiving cylinders being adapted to confine fluid to transmit movement of one ram to another, and compression springs interposed between said abutments of said first mentioned cylinders and cross heads, opposing movement of said first mentioned cylinders responsive to actuation of the confined fluid, but yieldable upon pressure upon said fluid above a predetermined amount.

4. In a telemotor apparatus, the combination of a suitable frame, two cylinders movably carried by said frame, a ram for each of said cylinders, two receiving cylinders, a ram for each receiving cylinder, conducting means operatively connecting said first mentioned cylinders and receiving cylinders, said first mentioned cylinders, conducting means and said receiving cylinders adapted to confine fluid to transmit movement of one ram to another, means operatively connected with said first mentioned cylinders opposing movement thereof responsive to actuation of the confined fluid, but yieldable upon pressure upon said fluid above a predetermined amount, and mechanism adapted to rigidly hold said first mentioned cylinders against movement after movement thereof to a predetermined extent.

5. In a telemotor apparatus, the combination of a suitable frame, a cylinder movably carried by said frame, a ram for said cylinder, a receiving cylinder, a ram for said receiving cylinder, conducting means operatively connecting said first mentioned cylinder and receiving cylinder, said first mentioned cylinder, conducting means and receiving cylinder being adapted to confine fluid to transmit movement of one ram to the other, and means operatively connected with said first mentioned cylinder opposing movement thereof responsive to actuation of the confined fluid, but yieldable pressure upon said fluid above a predetermined amount.

[Claims 6 to 14 not printed in the Gazette.]

1,039,158. LOCK. PETER C. MANGOLD, Carrolltown, Pa. Filed Oct. 10, 1911. Serial No. 653,828. (Cl. 70—51.)



In a lock, the combination of a latch bolt having a longitudinal depression in its upper side, a weight pivotally supported at its upper forward corner and having its lower forward corner entering the recess of the latch bolt, a link pivotally connected at its lower end to the rear end of the latch bolt and pivotally connected at its upper end to the lock case, said link having a semi-circular recess in its forward edge and having projecting portions at opposite sides of said recess, and a latch bolt operator having a part entering the semicircular recess of said link and provided with opposite projections to engage with parts of the link adjacent the semicircular recess thereof.

1,039,159. WIRE BARB. FRANK MATOUSHEK, Witten, S. D. Filed Apr. 9, 1912. Serial No. 689,504. (Cl. 39—1.)



1. A barb device for fences comprising a perforated base adapted to be attached to a wire fence member, and a barb member having a plurality of radial points and with an aperture surrounded by a lateral flange, said flange adapted to enter the aperture of the base and be expanded over the same to rotatably engage the pointed member to the base.

2. A barb device for fences comprising a base having lateral points adapted to be bent around a wire fence member, a barb member having a plurality of radial spurs, and means for rotatably coupling said barbed member to said base.

3. A barb device for fences comprising a base having an aperture and with lateral points adapted to be bent around a wire fence member, and a barb member having a plurality of radial spurs and with an opening surrounded by a flange, said flange adapted to enter the aperture of the base and be expanded over the same to rotatably engage the pointed member to the base.

1,039,160. AIRSHIP. ERNST H. MATTSON, Chicago, Ill. Filed Jan. 7, 1910. Serial No. 536,863. (Cl. 244—115.)



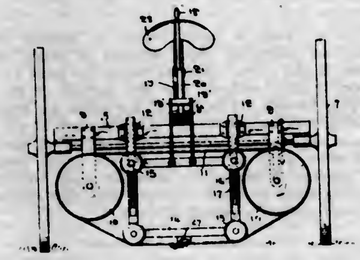
1. The combination with the body of the craft, of inclined and horizontal air-passages, the propellers arranged



to create currents therein, hinged sides for said craft, said sides being normally folded as wings near the body of the craft, yielding means for supporting said sides in their normally folded positions, said means yielding to undue pressure of air against the undersides of said sides to permit said sides or wings to expand, and propellers arranged to drive a current of air between each of said sides and the body of the craft.

2. The combination with the body of the craft, of horizontal and inclined air passages communicating with each other and having a common outlet at the rear end of said horizontal air-passage, propellers arranged to create currents of air through said passages and exert lifting and forwardly propelling forces, hinged sides adapted to serve as wings for said craft, said sides or wings being normally folded and providing a space between each side or wing and the body of the craft, propellers arranged to create currents of air through said spaces, means supporting said wings in their normally folded position and permitting said wings to become outstretched under unusual air pressures, a driving engine, and clutch mechanisms whereby each system of propellers may be separately or all together set in motion by said engine.

1,039,161. BEET-TOP CUTTER. WILLIAM MAURER and HERMAN A. MAURER, Rocklyn, Wash. Filed Apr. 4, 1912. Serial No. 688,547. (Cl. 55—107.)



1. In a beet top harvester, a main frame, an axle supporting the frame, ground wheels supporting and adapted to rotate the axle, an adjusting frame carried in a plane forward of the ground wheels, a pair of pulleys having their axes fixed on the main frame and in the plane of the adjusting frame, a band-saw carried by the pulleys, and means associated with the main frame and with the adjusting frame whereby the latter may be moved vertically for adjusting the position of the saw independently of the pulleys which carry the saw.

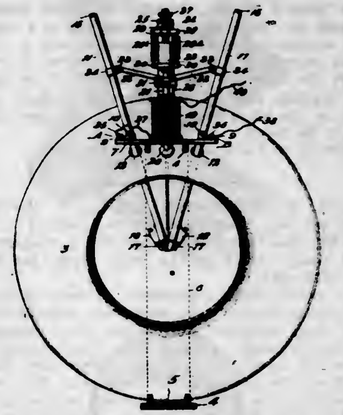
2. In a beet top harvester, a main frame, a main axle supporting the main frame and supported by a pair of ground wheels and rotatable with the ground wheels, bearing supported by the forward end of the main frame, pulleys carried by the bearings, means connecting the main axle with one of the pulleys for rotating the latter, a band-saw carried by the pulleys, and combined adjusting and tension means for the band-saw, said means consisting of the vertically movable frame carrying wheels in contact with the saw, certain of said wheels being automatically adjustable relative to the adjusting frame.

3. In a beet top harvester, a main frame, a main axle supporting the frame and supported by a pair of ground wheels and adapted to be rotated thereby, a pair of pulleys having their axes secured to the main frame and adapted to be rotated by the main axle, a band-saw carried by the pulleys, and means for raising and lowering the operating part of the band-saw.

4. In a beet top harvester, a main frame, a band-saw supported by the main frame and adapted to travel in a vertical plane, vertical guides carried by the frame, and adjusting means associated with the guides, whereby the operating portion of the saw may be raised and lowered relative to the main frame.

5. In a beet top harvester, a main frame, a band-saw carried by the main frame, means associated with the band-saw for guiding the same, an adjusting frame for the band-saw, an adjusting lever, and means comprising a bell-crank and links for moving the adjusting means and thereby adjusting the saw.

1,039,162. ELECTRIC-ARC LAMP. LEWIS M. McBARNS, Denver, Colo., assignor to The McBride-Frazier Arc Lamp Company, Denver, Colo., a Corporation of Colorado. Filed Oct. 18, 1909. Serial No. 523,175. (Cl. 176—114.)



An electric arc-lamp having an electrode actuating solenoid, a plunger in said solenoid, a cylinder secured to the upper end of said plunger, a piston within said cylinder, a threaded rod secured to said piston, a support for said threaded rod, a cross-bar adjustably secured on said threaded rod having springs attached to its outer ends, and bands encircling the cylinder having projecting ears secured to the other ends of said springs, thereby providing means for keeping said cylinder normally in a fixed position.

1,039,163. CIGAR-BOX CABINET. JOHN J. McCARTHY, Yardley, Pa. Filed May 17, 1912. Serial No. 698,062. (Cl. 211—7.)



1. A cabinet of the character described, including ends provided with aliming slots, a rod adjustably mounted in said slots, and spaced clamping members swingingly mounted on said rod, the inner ends of the clamping members being heavier than the outer ends thereof.

2. A cabinet of the character described including ends provided with aliming slots, a rod adjustably mounted in said slots, clamping members swingingly mounted on the rod and disposed within the cabinet, and spacing collars on the rod to hold the clamping members in spaced relation to the ends of the cabinet and with relation to each other, the bottom of the cabinet being notched.

3. A box-like cabinet having a forward open side, a rod extending through the box-like cabinet, clamping members swingingly mounted on said rod, the inner ends of the clamping members being heavier than the outer ends thereof to throw the outer ends of the clamping members normally toward the top of the box-like cabinet.

4. A box-like cabinet having a forward open side, through which may be inserted a cigar box, a rod extending through the box-like cabinet and adjustable therein, and clamping members swingingly mounted on said rod and adapted to be actuated by the insertion of the cigar box into the box-like cabinet to cause the clamping members to bind tightly on the cigar box adjacent the front and rear sides of the latter.

5. A cabinet of the character described having one open side for the insertion and removal of a cigar box, a rod extending through the cabinet, and a clamping member mounted on said rod and adapted to be actuated by the cigar box on the insertion of the latter to cause opposite ends of the clamping member to bind tightly on the lid of the cigar box at the front and rear sides of the latter.

[Claims 6 to 9 not printed in the Gazette.]

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1,039,164. ROLL-TOP CAN. FRANCIS P. MCCOLL, St. Andrews, New Brunswick, Canada, assignor to American Key Can Company, Chicago, Ill., a Corporation of New Jersey. Filed Jan. 18, 1912. Serial No. 671,782. (Cl. 220—65.)



1. In a roll-top can, a can body, a cup-shaped head fitting into one end of the body with its mouth directed outwardly, a tongue on the head for rolling it up, and said head having laterally-projecting flange portions at points of lesser resistance to the rolling up of the head and being unflanged at points of greatest resistance to rolling, said flange portions resting upon the edge of the can body and limiting the extent to which the head can enter the body.

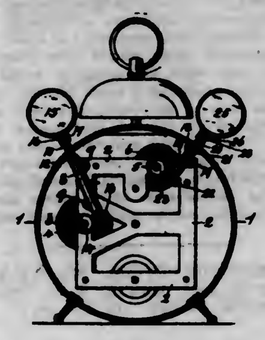
2. In a roll-top can, a can body, a cup-shaped head fitting into and soldered in one end of the body with its mouth directed outwardly, a tongue for rolling up the head projecting laterally from the mouth of the head, and flange portions projecting laterally from the mouth of the head and coöperating with the tongue to limit the extent to which the head can enter the can body, said flange portions being so disposed angularly of the head and relative to the tongue so as to leave the points of greatest resistance to rolling of head unflanged.

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1,039,165. CLOCK. ARCHIBALD MCGUGAN and HENRY SPRAGG, Hamilton, Ontario, Canada. Filed Nov. 18, 1911. Serial No. 660,962. (Cl. 58—85.)

1. In a clock, a rigid frame, a bearing rigidly secured thereto, an indicating shaft adapted to rotate in the bearing and one end of said shaft extending beyond the common casing of the clock, an adjustable indicating disk secured to the extended end of the shaft, a worm wheel secured on the opposite end of the indicating shaft, a worm wheel secured on a common rotating shaft of the clock adapted to gear into the worm wheel on said indicating shaft to rotate the indicating shaft one-half revolution in a period of time.

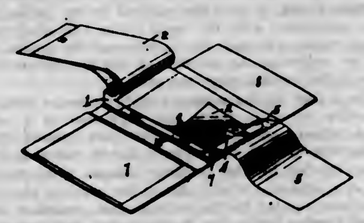
2. In a clock, a rigid frame, a bearing rigidly secured thereto, an indicating shaft adapted to rotate in said bearing, and one end of the shaft extending beyond the common casing of the clock, an adjustable indicating disk on the extended end of the shaft, a worm wheel secured on a common rotary shaft of the clock adapted to engage with a worm-wheel on the opposite end of the indicating shaft, adapted to rotate said indicating shaft one-half revolution in a period of time.



3. In a clock, a rigid frame, a bearing secured thereto, an indicating shaft adapted to rotate in said bearing, means on the shaft to retain the same in operative and rotary position, one end portion of the shaft extending beyond the casing of the clock, an adjustable indicating disk secured to the extending end of the shaft, a rotary shaft of the clock, a worm wheel on said shaft and a worm wheel on the opposite end of the indicating shaft adapted to engage one with the other, whereby the indicating shaft together with the disk may revolve one half revolution in a period of time.

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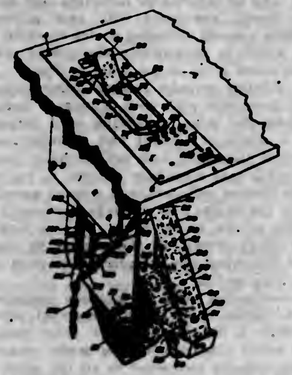
1,039,166. MANIFOLD SALES-BOOK. GUSTAVE MEYPORT, Fremont, Ohio, assignor to The Simple Account Salesbook Company, Fremont, Ohio, a Corporation of Ohio. Filed June 19, 1911. Serial No. 634,120. (Cl. 11—28.)



In a sales book, a back, a cover hingedly connected to one side of the back, a separator hingedly connected to the opposite side of the back, a pad comprising a plurality of sheets folded to form a long lower and a short upper section, a tissue sheet between the sections of the sheets having one end located adjacent to the free end of the lower section, said just mentioned sheets being folded transversely of their length and being transversely weakened adjacent to the said end of the tissue sheet, the separator being movable to engage the uppermost short section of the folded sheets to separate said section from the used tissue sheets all of the first mentioned sheets and all of the tissue sheets being connected together, at the free ends of the lower sections of the first mentioned sheets and the adjacent ends of the tissue sheets to form a pad.



1,039,167. TICKET VENDING AND REGISTERING MACHINE. ALBERT J. MEIER, Glendale, and WILLIAM L. SULLIVAN, St. Louis, Mo., assignors to The Tesco Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed July 24, 1911. Serial No. 640,218. (Cl. 211—88.)



1. A machine of the character described having an exit for tickets from a perforated ticket strip and comprising in combination, a slotted rotatable drum, pins borne by said drum adapted to enter the perforations in the ticket strip, thereby to feed same through the exit, means for rotating said drum intermittently, and automatic means for engaging a slot in said drum when the last ticket of the ticket strip is fed through the exit, for locking said drum against subsequent rotation.

2. A machine of the character described having an exit for tickets from a ticket strip and comprising in combination, a rotatable drum provided with means adapted to engage said ticket strip for feeding same through the exit, a knife for severing the issued tickets from the ticket strip in the machine and normally closing the exit, means for rotating said drum and adapted to move said knife away from the exit, means for returning said knife to its normal position, and a locking member interposed between said drum and knife and adapted to be held in engagement with the former by the latter until same uncovers said exit.

3. In a machine of the character described having an exit for tickets from a rolled perforated ticket strip, the combination of a rotatable drum, a support whereon the ticket roll is revolubly mounted, pins borne by said drum adapted to enter the perforations in the ticket strip, thereby to feed same through the exit, means for rotating said drum, a pivoted member pivoted on said support, a roller revolubly attached to said member, a spring holding said roller in engagement with the ticket strip between the roll and said drum, thereby to hold same taut, and a guide secured to said member and partly encircling said roller for holding the ticket strip in engagement with said roller.

4. In a machine of the character described, the combination of a shaft, a drum revoluble thereon and having means for feeding a perforated ticket strip, a ratchet-wheel revolubly mounted on said shaft, a ratchet-wheel secured to said drum, a pawl pivoted to said second-mentioned ratchet-wheel, a spring holding the nose of said pawl in engagement with said first-mentioned ratchet-wheel, and means for imparting rotary reciprocatory motion to said first-mentioned ratchet-wheel.

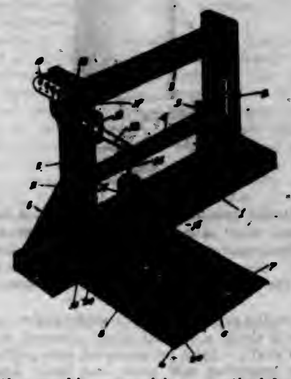
5. In a machine of the character described, the combination of a shaft, a drum revoluble thereon and having means for feeding a perforated ticket strip, a ratchet-wheel revolubly mounted on said shaft, a ratchet-wheel secured to said drum, a pawl pivoted to said second-mentioned ratchet-wheel, a spring holding the nose of said pawl in engagement with said first-mentioned ratchet-wheel, means for imparting rotary reciprocatory motion to said first-mentioned ratchet-wheel, and a pawl preventing retrograde movement of said second-mentioned ratchet-wheel.

[Claims 6 to 65 not printed in the Gazette.]



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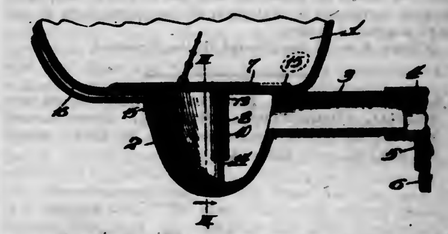
1,039,168. COUNTING-MACHINE. ROBERT A. MELTON, Stockton, Cal. Filed Mar. 25, 1911. Serial No. 616,863. (Cl. 235—99.)



A counting machine comprising a vertical frame, a register on said frame, a horizontal plate on said frame, a cross plate hinged to one end of said horizontal plate, means for maintaining said cross plate in normal vertical position, back stops spaced apart on each side of said horizontal plate, said cross plate resting against said back stops when in a vertical position, and means connected between said cross plate and said register whereby when said cross plate is turned to horizontal position it will cause said register to operate as described.

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1,039,169. COMBINATION TRAP AND FIXTURE. ADOLPH MEYER, St. Louis, Mo., assignor of one-half to Paulina Weidemann, St. Louis, Mo. Filed Dec. 15, 1910. Serial No. 597,571. (Cl. 182—13.)



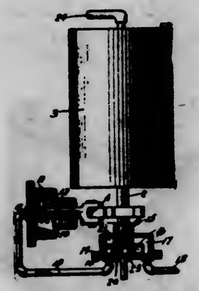
In a device of the character described, the combination with a sink or basin provided with a well into which it discharges, of a drain pipe leading from said well adjacent the bottom of said sink or basin in such manner as to retain a body of water within said well, a partition depending into the water within said well and providing an air-tight cover about the opening into said drain pipe, said partition being provided with a removable strainer plate reaching to the bottom of said well, and said strainer plate being provided with a horizontal portion provided with strainer openings and extending across the opening between said sink or basin and said well.

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1,039,170. ELECTRIC-CONTROLLER DEVICE. JOHN F. MILLER and WALTER V. TURNER, Edgewood, Pa. Filed Apr. 6, 1911. Serial No. 619,382. (Cl. 172—179.)

1. A controller provided with a handle, a device operated by fluid pressure for locking said handle against movement,

and means operated by the movement of the handle for controlling the fluid pressure for operating said locking device.



2. A controller provided with a shaft and a handle for operating said shaft, a mechanism operated by fluid pressure for locking said shaft in its operating positions, and a valve device operated by the movement of the shaft for controlling the supply of fluid pressure for operating said mechanism.

3. A controller provided with a shaft and a handle for operating said shaft, a ratchet wheel adapted to be operated by said shaft, a pawl for engaging said ratchet wheel, a piston for operating said pawl, and valve means operated by the movement of the controller shaft for supplying and releasing fluid to and from said piston.

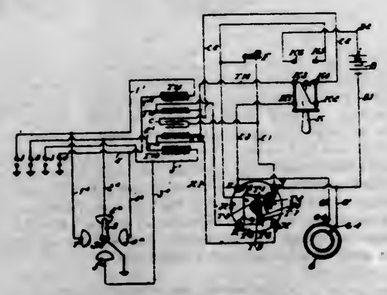
4. A controller provided with a shaft and a handle for operating said shaft, a ratchet secured to said shaft and provided with teeth, pawls adapted to alternately engage a tooth of the ratchet wheel upon rotation of the shaft, means operated by fluid under pressure for actuating said pawls, and a valve mechanism controlled by the movement of the controller shaft for supplying and releasing fluid to and from said means, to alternately operate said pawls.

5. A controller provided with a shaft and a handle for operating said shaft, a member secured to said shaft and provided with teeth, two pawls, one or the other of which is adapted to be in position for engaging a tooth on said member upon rotation of the shaft, fluid pressure operated means for actuating said pawls, and a valve operated by movement of said shaft for supplying fluid to the pawl actuating means.

[Claims 6 to 10 not printed in the Gazette.]

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1,039,171. ELECTRIC IGNITION SYSTEM FOR INTERNAL-COMBUSTION ENGINES. JOHN LEWIS MILTON, Louisville, Ky. Filed Oct. 20, 1911. Serial No. 655,746. (Cl. 123—148.)



1. In a multiple cylinder ignition system for internal combustion engines, spark plugs associated with the several cylinders, a source of current, a primary circuit including said source, and an interrupter, a transformer, means for distributing secondary current to the fixed spark gaps in the various cylinders, in combination with means for periodically connecting to the ground the insulated terminal of the spark plug of a cylinder not to be fired as a spark is created in one of the other cylinders.

2. In a multiple cylinder ignition system for internal combustion engines, a primary circuit including a source of current, and an interrupter including said source and a secondary circuit associated with said primary circuit and including a spark arresting device operated by the engine, and which is periodically electrically connected to each of the spark plugs in the order of firing.

3. In a multiple cylinder internal combustion engine, a spark plug associated with each cylinder, a jump spark ignition system for same, consisting of a primary circuit including a source of current and an interrupter, a secondary circuit associated with said primary circuit, means for distributing said secondary current, to the fixed spark gaps in the various cylinders, and a spark arresting device operated by the engine and which is electrically connected to each one of the spark plugs, thereby establishing a temporary short circuit to the ground in the order of firing, and following the cylinder to be fired during the short-circuiting period.

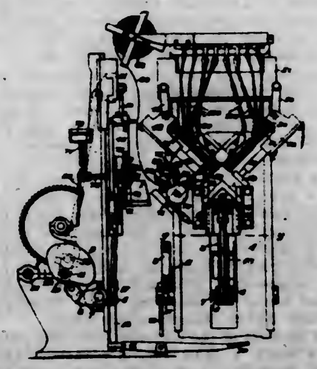
4. In combination with a multiple cylinder internal combustion engine, spark plugs associated with the several cylinders, a multiple cylinder jump spark ignition system, in which a spark arresting device operated by the engine is electrically connected to all the spark plugs and means for temporarily establishing a low resistance circuit to the ground circuit for each plug through said spark arresting device, in the order of firing, and one engine cycle before said plug is to receive a wave of electric current for igniting the combustible gas.

5. In combination with a multiple cylinder internal combustion engine, spark plugs associated with the several cylinders, a multiple cylinder jump spark ignition system, in which a spark arresting device operated by the engine is electrically connected to all the spark plugs, and which temporarily establishes a low resistance circuit from the high tension circuits leading to each plug to the ground circuit, through said spark arresting device, in the order of firing during the intake cycle of the cylinder in which a given plug is being temporarily short circuited, and simultaneously with the ignition of the gas in one of the other cylinders.

[Claims 6 and 7 not printed in the Gazette.]

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1,039,172. NAILING-MACHINE. HENRY W. MORGAN, Rochester, N. Y. Filed May 13, 1909. Serial No. 495,817. (Cl. 1—10.)



1. In a nailing machine, a work support having two faces at an angle to each other, nailing devices operating upon work on the work support, a gage adjustable on the work support and including flat faces arranged at angles to each other and adapted to overlie said faces of the work support, and means for adjusting said gage.



2. In a nailing machine, a work support having two faces at a right angle to each other, a pair of clamps arranged perpendicular to the faces of the work support, nail chucks arranged between the clamps at right angles to the faces of the work support, and hammers operating in the nail chucks.

3. The combination with a work support, and means for holding two work pieces in definite intersecting planes, of a device operating to press the work pieces toward the point of intersection of their planes, and mechanism for securing the work pieces together.

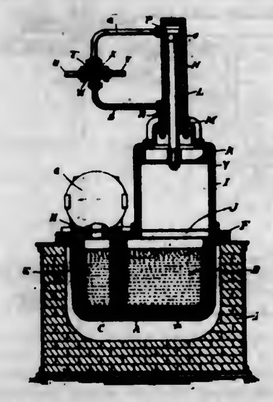
4. The combination with a work support having two faces arranged at an angle to each other, of a pair of clamp members arranged at an angle to each other, nailing devices operating between the clamp members, and work piece shifting pawls carried by the work support and the clamp members and having eccentric work engaging faces.

5. In a nailing machine, the combination with a work support having a pair of faces arranged at a right angle to each other, and a nailing mechanism embodying nailing devices arranged perpendicular to said faces and operating upon work on both faces of the work support, of strap-shaping means for applying a strap to the work in a position to be secured by the nailing mechanism.

[Claims 6 to 19 not printed in the Gazette.]

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1,039,173. PRESSURE CASTING APPARATUS. ALBERT WOOD MORRIS, Philadelphia, Pa., assignor to Wetherill Finished Castings Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 18, 1911. Serial No. 639,104. (Cl. 22—69.)



1. In pressure casting apparatus, the combination with a mold, of a molten metal reservoir for supplying metal to the mold, a cylinder containing a tapped body of air heated by contact with the upper surface of the molten metal in the reservoir, a piston for progressively diminishing the volume and increasing the density of said heated trapped body of air, so as to raise the metal quietly into the mold, and means for restoring the trapped body of air to its original volume and for supplementing its volume by the admission of additional air to said trapped body, after a mold is filled, to compensate for the lowering of the normal level of the metal in the reservoir and the increase in size of the air chamber incident to such filling; substantially as described.

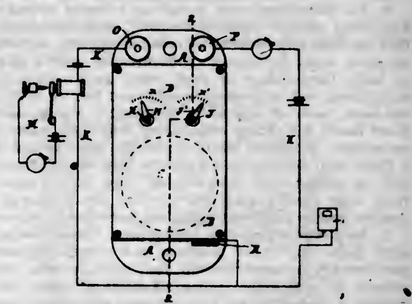
2. In pressure casting apparatus, the combination with a mold, of an up-take communicating therewith, a molten-metal reservoir for supplying metal to the up-take and mold, an open-ended cylinder whose bore is in direct and unrestricted communication with the reservoir, and a piston operating in the cylinder to progressively diminish the volume of the body of air trapped between the piston and the upper surface of the molten metal; substantially as described.

3. In pressure casting apparatus, the combination with a mold, of an up-take communicating therewith, a molten-metal reservoir for supplying metal to the up-take and mold, an open-ended cylinder whose bore is in direct and unrestricted communication with the reservoir, a piston operating in said cylinder to alternately diminish and increase the volume of the body of air trapped between the piston and the upper surface of the molten metal, and means for actuating said piston hydraulically; substantially as described.

4. In pressure casting apparatus, the combination with a mold, of an up-take communicating therewith, a molten-metal reservoir for supplying metal to the up-take and mold, an open-ended cylinder whose bore is in direct and unrestricted communication with the reservoir, a piston operating in said cylinder to alternately diminish and increase the volume of the body of air trapped between the piston and the upper surface of the molten metal, and means for actuating said piston hydraulically, said means consisting of a second cylinder, a piston in said second cylinder connected to said first-named piston, and controlling mechanism for the admission of a suitable liquid supply under pressure to said second cylinder; substantially as described.

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1,039,174. THERMOSTAT. ERNEST MOSS, Dallington, Christchurch, New Zealand. Filed June 24, 1909. Serial No. 504,167. (Cl. 177—128.)



In a thermostat, the combination of a metallic casing; a front cover fitting thereon and having a recess in the lower part of its inner face; a flexible inner wall secured over said recess and forming therewith a receptacle; an expansive fluid in said receptacle; a stud secured to said flexible wall and having an angular end portion spaced from said wall; separate insulating blocks secured at the upper corners respectively of the inner face of said cover; spaced approximately parallel pending arms secured to said blocks respectively and each having an inclined lower end disposed respectively to the front and the rear of said angular end of the stud; regulating screws passing through said cover and engaging said arms respectively; pointer arms on said screws respectively; and a scale under each pointer and on the front of the cover.

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1,039,175. ILLUMINATED SIGN. HUGH MULHOLLAND, New York, N. Y., and CHARLES G. WEST, Greenwich, Conn., assignors, by mesne assignments, to George M. Potter, New York, N. Y. Filed Aug. 20, 1910. Serial No. 578,120. (Cl. 40—133.)

1. An illuminated sign including a frame having opposed channel members, and a series of units slidable along said frame, and each having a front frame provided with upwardly and downwardly-extending projections adapted to enter the grooves of said channels, rearwardly-extending converging walls carried by said second frame, means illuminating the interior of the unit, a front wall having its upper and lower edges adapted to enter within said channel members between said projections, and having its upper edge provided with a depending

flange overlapping a portion of the upper rear wall of the unit, a color screen adjacent the inner surface of said front wall, and a plurality of transparent bulbs carried by said front wall and arranged to form the display matter.



2. An illuminated sign including a frame having opposed channel members and a series of units slidable along said frame, each of said units having a front frame the upper and lower edges of which extend into said channel members, rearwardly extending walls carried by said second frame, means for illuminating interior of the unit, a front wall having its upper and lower edges adapted to enter within said channel members so as to be retained in engagement with its respective unit by said first mentioned frame, said front frame and said front wall having interengaging connections independent of the first mentioned frame for preventing relative sliding movement of said front frame and said front wall, and a plurality of transparent bulbs carried by said front wall, and arranged to form the display matter.

3. An illuminated sign including a frame having upper and lower opposed channel members, and connecting members permanently secured thereto for holding said channel members rigid in respect to each other, and a plurality of units independent of each other and independent of said frame, but supported thereby and free to slide along the same, each of said units including a casing, having a front frame for sliding engagement with said main frame, rearwardly extending walls carried by such second frame, a front wall detachably carried by said second frame and held in engagement therewith by said main frame, said front wall having apertures to form the sign, and independent means for illuminating the interior of each unit.

4. An illuminating sign including a frame having parallel upper and lower members and connecting members permanently secured thereto for holding them rigid in respect to each other, and a plurality of units, each including a casing having an apertured front wall, and projections on said casing for engaging with the upper and lower members of said frame, and permitting of the sliding of the units along the frame, said front wall being secured between said projections, so as to slide with the unit but freely removable from the remainder of the unit upon the removal of the unit from the frame.

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1,039,176. BOTTLE-STOPPER. CHARLES A. NATT, Rochester, N. Y., assignor of one-half to Norman E. MacEwan, Rochester, N. Y. Filed Dec. 28, 1910. Serial No. 599,666. (Cl. 215—55.)



1. A bottle stopper comprising a pair of members cooperating to provide a chamber, one of said members being provided with a discharge and the other being provided with an inlet, a valve for the discharge, a weighted stem on the valve, and a guide member coöperating with the stem and having portions extending downwardly therefrom and held between and engaged by the two chamber forming members.

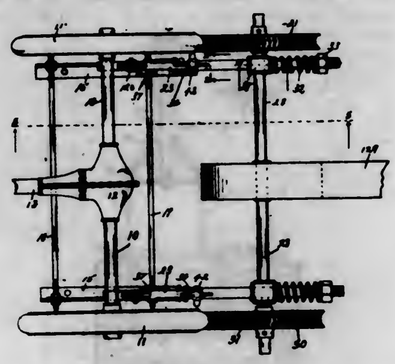
2. A bottle stopper comprising a pair of members cooperating to provide a chamber, one of said members being provided with a discharge and the other being provided with an inlet, a valve for said discharge, a weighted stem connected to the valve, and a guide member including a ring engaged and held by both chamber forming members, and a guide carried by said ring above the connection between the members.

3. A bottle stopper comprising a pair of members cooperating to provide a chamber, one of said members being provided with a discharge and the other being provided with an inlet, a valve for said discharge, a weighted stem connected to the valve, and a guide member including a guide and a ring supporting said guide and having a flange at its lower end arranged between and engaged by the two chamber-forming members and also having a portion conforming to and tightly fitting to the inner face of the chamber above the flange.

4. A bottle stopper comprising a spherical chamber having a discharge at its top, a valve for said discharge, a weighted stem secured to said valve, a ring segment of a sphere having its entire outer face tightly fitting the inner walls of said chamber, and a guide rigidly secured to said ring segment and coöperating with the valve stem.

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1,039,177. POWER-TRANSMISSION ATTACHMENT FOR AUTOMOBILES. THOMAS NESOM, Indianapolis, Ind. Filed Feb. 6, 1911. Serial No. 606,694. (Cl. 21—90.)



1. A power transmission device adapted to receive power from the driven traction wheels of a vehicle while said vehicle is stationary which includes a frame separate from the vehicle and adapted to be located between said vehicle wheels, means on said frame for elevating the axle of the vehicle so the wheels will clear the ground, a shaft mounted on said frame so as to be slidable toward the vehicle wheels, friction wheels secured on the said shaft in position to engage and be driven by the vehicle wheels, and means for transmitting power from said shaft.

2. A power transmission device adapted to receive power from the driven traction wheels of a vehicle while said vehicle is stationary which includes a frame adapted to be located between the wheels of the vehicle, rods extending rearwardly therefrom near each end of the frame, a shaft slidably mounted on said rods, friction wheels mounted on said shaft and adapted to engage the peripheries of the vehicle wheels, and springs adjustably mounted on said rods for acting against the shaft bearings, whereby said friction wheels will be forced against the vehicle wheels.

3. A power transmission device adapted to receive power from the driven traction wheels of a vehicle while said vehicle is stationary which includes a frame adapted to be located between the wheels of a vehicle, rods extending rearwardly from the upper part thereof, sleeves slidable thereon, bearings swiveled in said sleeves, a shaft mounted on said rods, friction wheels mounted on said shaft in position to engage the vehicle wheels, spiral springs on the outer ends of said rods, and nuts which screw up on said rods against said springs for regulating the tension.

4. A power transmission device adapted to receive power from the driven traction wheels of a vehicle while said vehicle is stationary which includes a frame adapted to be placed between the wheels of a vehicle, a lever fulcrumed on the upper part of the frame at each end with one end of each lever adapted to extend under and partially embrace the axle of the vehicle, means in connection with said frame for holding the outer ends of said lever down when the axle of the vehicle is elevated, a shaft mounted on said frame, and friction wheels on said shaft in position to engage the vehicle wheels.

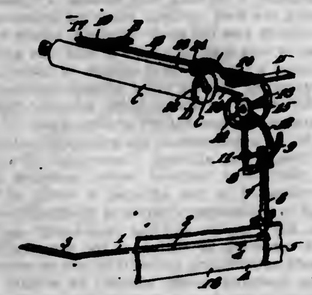
5. A power transmission device adapted to receive power from the driven traction wheels of a vehicle while said vehicle is stationary which includes a frame adapted to be located between the wheels of the vehicle, levers fulcrumed between their ends and their inner ends adapted to extend under and embrace the axle of the vehicle, rods extending rearwardly from the upper part of said frame, brackets mounted on said rods in position to hold down the outer ends of said levers when the axle of the vehicle is elevated, a shaft on said rods, and friction wheels on said shaft in position to engage the wheels of the vehicle.

[Claims 6 and 7 not printed in the Gazette.]



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1,039,178. SHIFTING ATTACHMENT FOR TYPEWRITERS. CHRISTIAN OLSON, Everett, Wash. Filed Jan. 18, 1912. Serial No. 671,936. (Cl. 197—65.)



1. The combination with a typewriter structure and a shiftable carriage, of a revoluble eccentric having a spiral working face, a flexible connection between the carriage and said working face, a rack bar having ratchet teeth, a segmental ratchet in the path of said teeth but normally out of mesh therewith, key operated means for shifting the rack bar into mesh with the ratchet to rotate said ratchet, means operated by the rotating ratchet for rotating the eccentric, and means for returning the rack to its normal position and out of mesh with the ratchet upon the release of the key operated means.

2. The combination with a typewriter structure including a shiftable carriage, of a revoluble eccentric having a spiral working face, a flexible connection between said face and the carriage, a segmental ratchet mounted for rotation, means for transmitting motion from the ratchet to the eccentric to wrap the connection upon the eccentric, a rack bar having ratchet teeth normally out of mesh with the ratchet, key operated means for shifting the rack bar into mesh with and for rotating the ratchet, yielding means for holding the rack bar in mesh with the ratchet while the bar is out of normal position, and yielding means for automatically returning the bar to normal position and out of engagement with the ratchet upon the release of the key operated means.

3. The combination with a typewriter structure including a shiftable carriage, and a revoluble platen on the carriage, of coöperating means upon the platen and carriage for intermittently rotating the platen, a slidable element upon the carriage and connected to said means, an eccentric mounted for rotation and having a spiral working face, a flexible connection between said eccentric and said element, and means for rotating the eccentric to wind the connection thereon, said connection constituting means for first shifting said element relative to the carriage to operate the platen operating mechanism and to then shift the carriage.

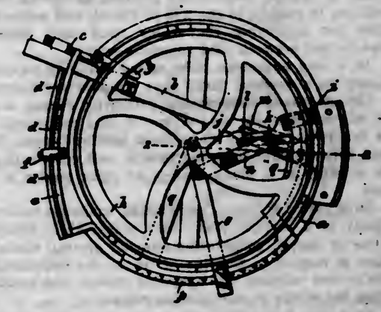
4. The combination with a typewriter structure including a shiftable carriage, of an eccentric having a spiral working face, a flexible band connected at one end to the carriage and at its other end to that portion of the working face nearest the axis of the eccentric, key operated mechanism movable in one direction to rotate the eccentric and wind the band thereon, and means for automatically returning said key operated means to its normal position independently of the eccentric.

5. The combination with a typewriter structure including a shiftable carriage, of an eccentric having a spiral working face, a flexible connection between said face and the carriage and adapted to be wound on the eccentric, and key operated means movable in one direction to rotate the eccentric and means for automatically shifting said key operated means back to its normal position independently of the eccentric and out of operative relation therewith.

[Claims 6 to 8 not printed in the Gazette.]

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1,039,179. COMPUTING CHEESE-CUTTER. JOHN H. OSBORNE, Anderson, Ind. Filed Dec. 15, 1906. Serial No. 348,006. (Cl. 31—68.)



1. In a computing cheese-cutter, the combination of a base and a rotary table mounted thereon, a vibrating operating lever, a pivot therefor at its inner end, a pivoted arm, means for pivotally and slidably connecting this arm to the lever and means on the arm for engaging the cheese table, a scale carried by the arm, and means working over this scale and movable with it for varying the influence of the lever upon the table.

2. In a computing cheese-cutter, the combination of a base and a rotary table mounted thereon, a vibrating operating lever, a pivoted arm, means for pivotally connecting this arm to the lever and means on the arm for engaging the cheese table, a scale carried by the arm, and means working over this scale for varying the influence of the lever upon the table.

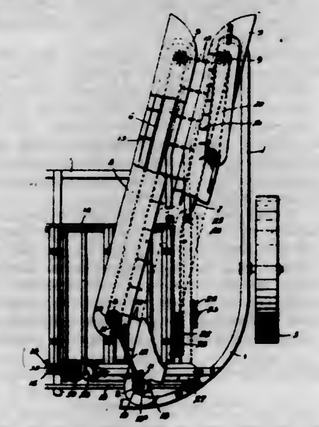
3. In a computing cheese cutter, the combination of a base, a rotary table thereon, an operating handle and means for limiting its stroke, a clutch-carrying part and means connecting it to the operating handle, said clutch-carrying part carrying also a scale, and means over this scale for varying the influence of the operating handle upon the table.

4. In a computing cheese-cutter, the combination of a base, a rotary table, an operating lever, a pivoted member carrying a table clutch and operatively connected to said lever, a curved scale lying beyond the edge of the table and carried by said pivoted member, and means working

over this scale and movable with it for varying the influence of the lever upon the table.

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1,039,180. CORN-HARVESTER. JOHN B. OURBN, Hanska, Minn. Filed June 9, 1911. Serial No. 632,187. (Cl. 56—118.)



1. In a corn harvester, coöperating snapping rollers set obliquely in a vertical plane that transversely intersects the line of travel, coöperating parallel gathering chains set oblique in respect to the line of travel, and coöperating devices for delivering the stalks from said gathering chains to and between said snapping rollers.

2. In a corn harvester, coöperating snapping rollers set obliquely in a vertical plane that transversely intersects the line of travel, coöperating gathering chains set oblique in respect to the line of travel, and coöperating devices for delivering the stalks from said gathering chains to and between said snapping rollers, said coöperating devices working in a plane that is at right angles to said rollers.

3. In a corn harvester, coöperating snapping rollers set obliquely in a vertical plane that transversely intersects the line of travel, coöperating parallel picking chains set oblique in respect to the line of travel, for delivering the stalks to and between said snapping rollers, and means for guiding the stalks to said picking chains.

4. In a corn harvester, coöperating snapping rollers set obliquely in a vertical plane that transversely intersects the line of travel, coöperating picking chains having overlapping blades or fingers working in oblique planes that are at right angles to the said rollers, for delivering the stalks to and between said snapping rollers, and means for guiding the stalks to said picking chains.

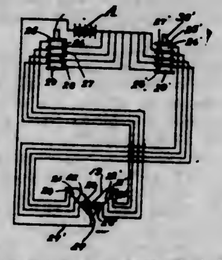
5. In a corn harvester, coöperating snapping rollers set obliquely in a vertical plane that transversely intersects the line of travel, coöperating horisontally extended picking chains having overlapping blades or fingers working in oblique planes that are at right angles to the said rollers, for delivering the stalks to and between said snapping rollers, and means for guiding said stalks to said picking chains.

[Claims 6 to 8 not printed in the Gazette.]

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1,039,181. AEROSTRUCTURAL BALANCE. ROY M. PALMER, Washington, D. C. Filed June 16, 1911. Serial No. 633,468. (Cl. 244—29.)

1. In an aerostructure, an automatic balancing mechanism comprising ailerons, connections therebetween, a shifting fluid column, an electrically operated means connected to the ailerons, said electrically operated means comprising a series of superimposed electromagnets, whereby upon shifting of the fluid column said electrically operated means will be energized to shift the ailerons at various degrees of inclination, and means for maintaining the stability of the ailerons when said fluid column returns to normal position.



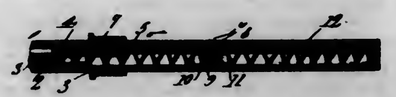
2. In an aerostructure, an automatic balancing mechanism comprising ailerons, connections therebetween, a shifting fluid column, a source of electric energy, electrically operated means connected to the ailerons and to the source of electric energy, said electrically operated means comprising a series of superimposed electromagnets, a plurality of series of contact points adjacent the fluid column, whereby upon movement of said fluid column said electrically operated means will be energized at various points to shift the ailerons at various degrees of inclination, and means for energizing the electrically operated means for maintaining the stability of the ailerons when said fluid column is returned to normal position.

3. In an aerostructure, an automatic balancing mechanism comprising ailerons, connections therebetween, a series of superimposed electro-magnets connected to each of the ailerons, a shifting fluid column, a series of contacts adjacent the fluid column, electrical connections between the contacts and the electromagnets, means for energizing one set of said electromagnets to hold said ailerons against movement when said fluid column is normal, and means for energizing certain other of said electromagnets upon the shifting of the fluid column, whereby the ailerons are actuated to various degrees of inclination.

4. In an aerostructure, an automatic balancing mechanism comprising ailerons, connections between the ailerons, electrically operated means arranged in succession and connected to the ailerons, a series of contacts arranged in succession, a series of electrical connections between the contacts and the electrically operated means, means actuating by tilting of the aerostructure for successively establishing a circuit in one or more of the electrically operated means, whereby to actuate the ailerons at the requisite degree of inclination, and means for establishing a circuit in said electrically operated means for maintaining said ailerons in fixed position when the aerostructure is in normal position.

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1,039,182. MAGAZINE-FIREARM. BERT STEELE PARSONS and WILLIAM ARCHIE FREEMAN, Harrisonville, Mo. Filed June 15, 1912. Serial No. 703,963. (Cl. 42—49.)



1. The combination with a magazine of a fire-arm, said magazine being provided with an outer threaded end, and a spring mounted in said magazine, of a tube having an outer closed end and having co-acting threads in the opposite end to engage the threads of the main magazine to form a magazine extension, a spring disposed in said tube and in coöperation with the spring of the main magazine, and a coupling member for the adjacent ends of the magazine spring and the spring disposed normally within the tube.



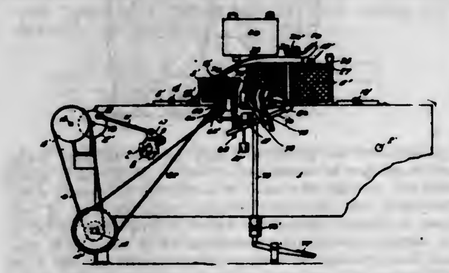
2. The combination with a magazine of a fire-arm, said magazine being provided with an outer threaded end, and a spring mounted in said magazine, of a tube having an outer closed end and having co-acting threads in the opposite end to engage the threads of the main magazine to form a magazine extension, a spring disposed in said tube and in coöperation with the spring of the main magazine, and a cylindrical member provided with an oppositely disposed chamber slidably mounted in the tubular member, said chambers forming receptacles for the adjacent ends of the two springs.

3. The combination with the main magazine of a fire-arm, and a feed spring mounted therein, of an extension for the magazine comprising a tube sealed at one end and provided with means at the open end to engage the outer end of the main magazine, a spring mounted in said extension, and a spring coupling slidably mounted within the extension for engaging the adjacent ends of the magazine spring and the spring of the extension.

4. The combination with the main magazine of a fire-arm, and a feed spring mounted therein, of an extension for the magazine comprising a tube sealed at one end and provided with means at the open end to engage the outer end of the main magazine, a spring mounted in said extension, and a tubular spring coanecting member slidably mounted in the extension and provided with oppositely disposed spring receiving chambers.

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1,039,183. ICE-CREAM-CONE MACHINE. THOMAS G. PERKINS, Seattle, Wash. Filed Sept. 5, 1911. Serial No. 647,541. (Cl. 107—58.)



1. In a machine of the class described, cake rolling means comprising a cone provided with a slot, normally operative driving connections for rotating said cone, a second cone, and a conical wheel normally held in operative relation with the first named cone, manually controlled means whereby the second named cone and said wheel are coincidentally moved into operative positions and likewise affecting the said driving connections to render the same inoperative with respect to the first named cone.

2. In a machine of the class described, a chain comprised of pairs of hingedly connected cooking irons, sprocket wheels therefor, a track-rail intermediate said sprocket wheels, a superposed track-rail, rollers carried by the respective cooking irons and adapted to track on said track-rails and adjustable devices whereby the uppermost elements of said pairs of irons may be selectively caused to be tilted into positions to be supported by said superposed track-rail or rendered inoperative for the purpose of allowing the above mentioned elements to travel unsupported by the superposed track-rail.

3. In a machine of the class described, a shaft, a cake-rolling cone fixedly mounted thereon, a slot in said cone, a second cone, a conical wheel adapted to coöperate with said rolling cone, a driving element loosely mounted on said shaft, clutch devices for engaging said element to said shaft for rotating said rolling cone, and manually controlled means whereby the clutch devices are disengaged and the rotation of the rolling cone arrested to present said slot in a position to receive the edge of a cake, said means likewise serving to regulate the conjoint movements of the second named cone and said wheel.

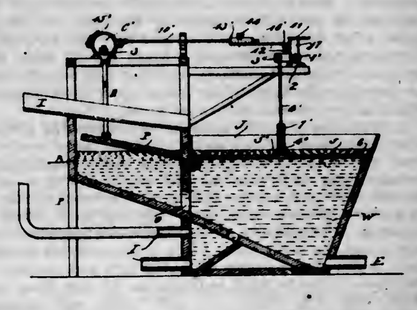
4. In a machine of the class described, a shaft, a cake-rolling cone fixedly mounted thereon, a slot in said cone, a driving element, clutch devices for engaging said element to said shaft for rotating said rolling cone, the cake guides and manually controlled means whereby the cake guides are rendered operative and the clutch devices are disengaged and the rotation of the rolling cone arrested to present said slot in position to receive the edge of a cake when directed thereto by said guides.

5. In a machine of the class described, the combination with the cake-rolling cone, driving devices for said cone, a clutch included in said devices, guides for directing cakes in being moved to said cone, means controlling the action of the clutch and of said guides whereby the latter are rendered inoperative when the clutch is operative and also to cause the clutch to become inoperative when the guides are operative.

[Claims 6 to 8 not printed in the Gazette.]

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1,039,184. GRATE-CLEANER. CHARLES F. PIERCE, Cartersville, and SAMUEL C. BYRD, Webb City, Mo. Filed Dec. 11, 1911. Serial No. 665,106. (Cl. 83—56.)

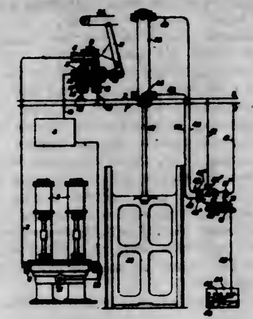


1. In an agitating device of the class described, the combination with the grate, and a rod for rapping upon the same when it descends; of a rock shaft having a laterally projecting arm in which said rod is hung and an upwardly projecting arm provided with a lug, a set screw passing upward through said lug, a bar having a double angle in its body resting on said set screw and a foot passing over the upper end of this arm and projected across the latter, and means for reciprocating said bar, for the purpose set forth.

2. In an ore separator the combination with the grate; of agitating mechanism therefor including an oscillatory shaft journaled in the framework of the separator, an arm projecting from said shaft, a rod depending from the outer end of said arm, a guide rising from the grate and loosely inclosing the lower end of said rod, and means for intermittently turning the shaft to raise said arm and then releasing it so as to permit the rod to rap upon the grate at each descent of said arm.

3. In an ore separator of the jigger type, the combination with the grate; of agitating mechanism therefor including an oscillatory shaft, an arm projecting from said shaft, a rod depending from the outer end of said arm, a plate riveted upon the grate and having a threaded pin rising from it, and a piece of tubing screwed upon said pin and loosely receiving the lower end of said rod whereby the latter raps upon the pin at each descent of the arm.

**1,039,185. FLUID-PRESSURE APPARATUS FOR OPERATING BULKHEAD AND OTHER DOORS.** FREDERIC JOHN PIKE, Beckenham, and HERBERT NEVILLE, Forest Hill, England, assignors to J. Stone & Company Limited, Deptford, England. Filed May 17, 1912. Serial No. 698,012. (Cl. 188—2.)



1. Reversing valve for hydraulic door-operating systems in which a pressure main and an exhaust main reversible from the bridge are employed, said valve comprising a casing, a flat slide face in said casing having a door-opening port and a door-closing port formed therein, a connection between said casing and the main which is normally a pressure main, a connection between said casing and the other main which is normally an exhaust main, a flat slide movable over said face and adapted to distribute pressure fluid and exhaust to and from said ports, and covering means for the rear face of said valve for reducing the area of the latter upon which pressure fluid is active substantially as set forth.

2. Reversing valve for hydraulic door-operating systems in which a pressure main and an exhaust main reversible from the bridge are employed, said valve comprising a casing, a flat slide face in said casing having a door-opening port and a door closing port formed therein, a connection between said casing and the main which is normally a pressure main, a connection between said casing and the other main which is normally an exhaust main, a flat slide movable over said face and adapted to distribute pressure fluid and exhaust to and from said ports, balancing means for said valve, and pressure means operating said balancing means and constantly pressing said valve to its seat, substantially as set forth.

3. Reversing valve for hydraulic door operating systems in which a pressure main and an exhaust main reversible from the bridge are employed, said valve comprising a casing, a flat slide face in said casing having a door opening port and a door closing port formed therein, a connection between said casing and the main which is normally a pressure main, a connection between said casing and the other main which is normally an exhaust main, this latter connection opening into said casing opposite one end of said face, a flat slide movable over said face and adapted to distribute pressure fluid and exhaust to and from said ports and to be pressed in one direction by pressure fluid when the latter is admitted to the normal exhaust main, and balancing means for said valve, substantially as set forth.

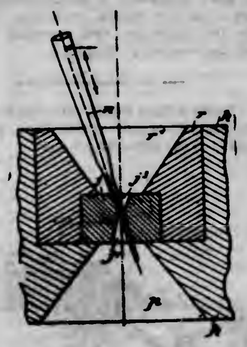
4. Reversing valve for hydraulic door operating systems in which a pressure main and an exhaust main reversible from the bridge are employed, said valve comprising a casing, a flat slide face in said casing having a door-opening port and a door closing port formed therein, a connection between said casing and the main which is normally a pressure main, a connection between said casing and the other main which is normally an exhaust main, a slide valve movable over said face and adapted to distribute pressure fluid to and from said ports, balancing means for said valve, a manual control operative upon said valve, and self-acting means constantly operative upon said valve in one direction, substantially as set forth.

5. Reversing valve for hydraulic door operating systems in which a pressure main and an exhaust main reversible from the bridge are employed, said valve comprising a casing, a flat slide face in said casing having a door opening port and a door closing port formed therein, a connection between said casing and the main which is normally a pressure main, a connection between said casing and the other main which is normally an exhaust main, a slide valve movable over said face and adapted to distribute pressure fluid to and from said ports, balancing means for said valve, a rod operatively connected to said valve and passing to the exterior of said casing, a gland in said casing for packing said rod, manually controlled means connected with said rod, and a spring constantly operative between said casing and an abutment on said rod, substantially as set forth.

[Claims 6 to 15 not printed in the Gazette.]

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**1,039,186. PROCESS OF REGRINDING AND POLISHING PERFORATED DIAMONDS.** LEOPOLD POPPA, Berlin, Germany. Filed Sept. 10, 1910. Serial No. 581,395. (Cl. 51—3.)



A process for grinding jewels having through bores, which consists in rotating the jewel, in projecting a needle into and through the bore, in oscillating the needle away from and into coincident relation with the axis of said bore, a slightly lifting the needle during that period of its swing or oscillating movement away from such axis, and in disposing the weight of the needle on the walls of the bore during its swing from an outward position toward said axis, substantially as described.

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**1,039,187. SIGN.** LEIGHTON POWELL, U. S. Army. Filed Jan. 8, 1909. Serial No. 471,289. (Cl. 40—130.)



1. An illuminated sign comprising a frame, and a single source of light therein, said frame having diverging visual light-receiving surfaces surrounding said source of light and carrying sign characters, said surfaces diverging away from said source respectively from opposite sides of a geometrical plane in which the source of light lies, the lines of divergence of the surfaces intersecting said plane without and spaced from the source of light, whereby said source of light will directly illuminate said sign characters.

2. An illuminated sign comprising a frame, and a single source of light lying centrally within the frame, the frame having visual light-receiving diverging conical sign bearing surfaces adapted to intersect within a geometric plane passing through the light, the line of intersection being spaced considerably from the source of light.

3. An illuminated sign comprising a frame having visual light-receiving diverging conical surfaces adapted to intersect in a common plane and carrying sign characters, a single source of light lying within said plane and adapted to directly illuminate said sign characters, and blinds having illuminated characters on either side of said light.

4. An illuminated sign comprising a frame having visual light-receiving diverging conical surfaces adapted to intersect in a common plane and carrying sign characters, a single source of light lying within said plane and adapted to directly illuminate said sign characters, blinds on either side of said light, and illuminated letters projecting from the periphery of said blinds.

5. An illuminated sign comprising a frame, and a source of light therein, said frame having diverging visual light-receiving sign characters annular with respect to said source of light, said characters diverging away from said source respectively from opposite sides of a geometrical plane in which the source of light lies, the lines of divergence of the characters intersecting said plane without and spaced from the source of light, blinds on either side of said light, and means having its axis extending through and at a right angle to said plane and operating intermediate said blinds for producing changing color effects on the sign characters.

[Claims 6 and 7 not printed in the Gazette.]

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**1,039,188. BAG-JAW FASTENER.** LESTER L. PRAHAR, New York, N. Y. Filed May 11, 1912. Serial No. 696,607. (Cl. 70—116.)



1. The combination with a pair of jaws having locking projections thereon including base portions and knobs or heads, of a locking device including a bar having its end portions substantially in parallelism and having its intermediate portion bowed outwardly, one of said end portions having pivotal connections with the base portion of one of said projections and the other of said end portions having locking engagement with the base portion of the other projection.

2. The combination with a pair of jaws having locking projections thereon including base portions and knobs or heads, of a locking device pivotally connected with one of said base portions and movable in the plane of said jaws into engagement with the outer side of the other jaw.

3. The combination with a pair of jaws having projections thereon including base portions and knobs or heads, of a locking device including a sheet metal bar movable in the plane of the jaws and extending lengthwise of said base portions and having two spaced leaves upon opposite sides of and pivotally connected to one of said base members and two spaced leaves in detachable locking engagement with the base portion of the other projection.

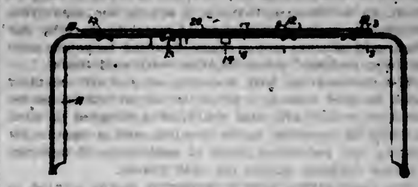
4. The combination with a pair of jaws having projections thereon including base portions and knobs or heads, of a locking device comprising a sheet metal bar extending lengthwise of said base portions and having pivotal connections with the outer end of one of said base portions and a flange adapted to hook over the base portion of the other projection.

5. The combination with a pair of jaws having projections thereon including base portions and knobs or heads, of a locking device having two spaced leaves pivotally connected upon opposite sides of the base portion of one of said projections and having a flange for engagement with the outer surface of the other jaw.

[Claims 6 to 8 not printed in the Gazette.]



**1,039,189. BAG-FASTENER.** LOUIS B. PRAHAR, Mamaroneck, N. Y. Filed May 24, 1912. Serial No. 699,557. (Cl. 70—116.)



1. The combination with a pair of jaws, of a pivoted fastening member extending lengthwise of one of said jaws, separate means adjacent to the opposite ends of the other jaw for engaging with said member to retain said jaws in closed position and a finger piece intermediate of the ends of said member for releasing said means and also serving as a fastening means.

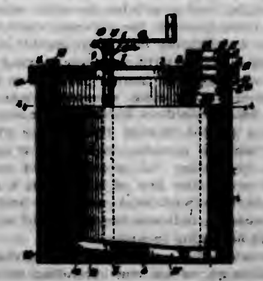
2. The combination with a pair of jaws of a pivoted fastening member extending lengthwise of one of said jaws, separate means on the other jaw adjacent to the opposite ends of said member for engaging with said member to retain said jaws in closed position, a finger piece carried by said member intermediate of its ends and means for engaging with said finger piece to tilt said member upon the closing of the jaws.

3. The combination with a pair of jaws, a fastening member extending lengthwise of one of said jaws and having one edge thereof provided with a pair of lugs projecting into said jaw and spread apart at their inner ends to retain said member in position and permit of a tilting movement and means on the other jaw for engaging with said member to retain said jaws in closed position.

4. The combination with a pair of jaws, a fastening member extending lengthwise of one of said jaws and having one edge thereof provided with a series of lugs projecting into said jaw and certain of said lugs constituting combined pivots and retainers for said member and one of said lugs constituting a stop to limit the tilting movement of said member and means on the other jaw for engaging with said members to retain the jaws in closed position.

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**1,039,190. DEVELOPING APPARATUS.** SEDGWICK PRATT, Piedmont, Cal. Filed Jan. 5, 1911. Serial No. 600,918. (Cl. 95—90.5.)



1. The combination with a casing, of a holder in said casing adapted to hold a reel with a film thereon, means mounted in said casing for cutting said film from said reel in such a manner that the transmission of a fluid is permitted between the successive layers, and plates in said casing for supporting said reel and said means, said having perforations therein adapted to permit the transmission of a fluid therethrough.

2. The combination with a casing, of a shaft adapted to coil up a strip of material to be treated in said casing, a spacer for separating the successive layers of said strip of material, a collar loosely mounted on said shaft adapted

to form a drum for said spacer, and means for operatively connecting said collar to said shaft.

3. The combination with a casing, of a shaft rotatably supported in said casing and adapted to wind a strip of material, to be treated, thereon, a spacer for separating the successive coils of said strip of material, a collar for winding said spacer, and a crank adapted to rotate said shaft alone, and said collar together with said shaft.

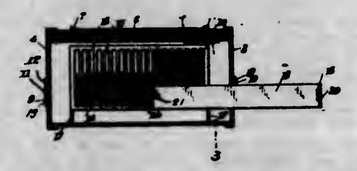
4. The combination with a casing, of a shaft rotatably mounted in said casing, a plurality of perforated plates mounted on said shaft, said shaft being adapted to wind up a strip of material to be treated, and a spacer for separating the successive coils of said strip of material said plates forming guides for said spacer.

5. The combination with a casing, of means located in said casing for coiling up a strip of material to be treated, a cover for said casing, said cover having a pair of flanges extending in spaced relation on opposite sides of the rim of the body of said casing, a strip of flexible material interposed between said flanges, and exterior clamps for securing said cover in place whereby a light-tight joint is made between the body of said casing and said cover.

[Claims 6 and 7 not printed in the Gazette.]

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1,039,191. PHOTO-EXPOSURE METER. SEDGWICK PRATT, Piedmont, Cal. Filed June 3, 1911. Serial No. 631,018. (Cl. 95—10.)



1. The combination with a casing having a line of sight therethrough, of a plurality of independent light-absorbing screens disposed in said casing above and tending to drop of their own weight into, the path of the line of sight, and a controller engaging said screens to hold the same out of the path of the line of sight, said controller being movable to successively disengage from said screens.

2. The combination with a casing having a line of sight therethrough, of an arm extending inwardly of the casing, a plurality of light-absorbing screens independently supported on said arm in a series superjacent the path of the line of sight, said arm being movable outwardly of the casing and from beneath the screens, whereby to permit the latter to successively drop into operative position.

3. The combination with a casing having a scale and a plurality of apertures therein forming a line of sight through the casing, of light screening means comprising a plurality of independent movable members adapted to obstruct in a graded manner the passage of light along said line of sight, a movable controller for said screening means for controlling the movement of said members successively across the line of sight, and a pointer movable consentaneous with said controller and coöperating with said scale to indicate the degree of obstruction of light by said screening means.

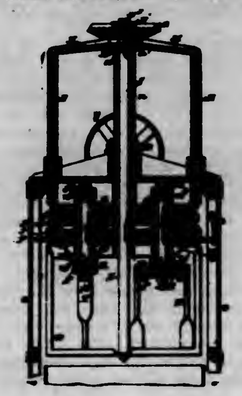
4. The combination with a casing having a line of sight therethrough, of an arm extending inwardly of the casing, a plurality of light absorbing screens independently supported on the said arm in a series superjacent the path of the line of sight, and the said arm being movable outwardly of the casing and from beneath the screens, whereby to permit the latter to successively drop into operative position, and means to lock said arm in its innermost position whereby to maintain all of the screens in inoperative position.

5. The combination with a casing having a line of sight therethrough, of a plurality of light-absorbing screens movably mounted in said casing, so as to be capable of moving into and out of the path of said line of sight, and a controller normally engaging said screens to hold the same in an inoperative position and movable to successively disengage from, and release, the same.

[Claims 6 to 10 not printed in the Gazette.]

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1,039,192. MIXING-MACHINE. HENRY URSON PRINDLE, San Francisco, Cal., assignor to Planetary Machinery Company, Incorporated, San Francisco, Cal. Filed July 18, 1911. Serial No. 639,218. (Cl. 83—73.)



1. In a mixing mechanism of the character stated, the combination of a suitable base, a tank on the base, standards that rise from the base, a cross head mounted on the top of the standards, said cross head having a central passage and side passages, a yoke frame including a pair of pendent side bars having rack faces movable through the side passages in the cross head, a central shaft pendent from the yoke frame, movable through the central passage in the yoke frame and the driven gear on the upper end of the said shaft, mixing elements sustained by the pendent rack bars, drive gearing actuated from the central shaft for imparting movement to the elements, a driving gear mounted on the cross head, and a manually actuated means for raising and lowering the rack bars and the mechanism sustained thereby into and out of active position, to disconnect or connect said driving and driven gears according as said rack bars are raised or lowered, said means comprising a shaft journaled on top of the cross head, gears thereon that mesh with the rack bars and means for holding the said rack bars and the mechanism sustained thereby to the elevated position.

2. In a mixing machine of the character described, the combination with a suitable base, uprights that rise therefrom, a cross head mounted on the uprights, said cross head having a central and two side passages, a yoke frame including pendent side bars that slide through the side passages in the cross head, a central shaft having a driven gear at the upper end suspended from and movable with the yoke frome, said shaft extending through the central passage of the cross head; a mixing mechanism carried on the lower ends of the pendent rack bars, said mechanism including a rim having an internal gear, upper and lower plates carried on the said rim, a pair of shafts journaled in the said plates, stirrer members on the said shafts and gears connecting the central shaft, the stirrer shafts and the internal gear of the rim, other means for bodily raising and lowering the yoke with its attached parts and a drive gearing for imparting motion to the gear on the central shaft when it is lowered to the active position.

3. In a mixing machine, the combination of a base, standards projected upwardly therefrom, a cross head connecting said standards, said cross head having a central opening, a yoke frame movable through apertures in said cross head, a receptacle mounted on the base, mixing mechanism supported by said yoke frame and including a rotatable shaft sleeve vertically movable in the central bearing of said cross head, a rotatable shaft relatively fixedly located and carried by said yoke frame and sleeve, and coöperatively connected with said mixing elements to actuate the same, a gear on said shaft also relatively fixedly located with regard to said yoke frame, a driving shaft having a pinion for meshing with said first mentioned gear when said yoke frame is lowered, and means coöperative with said yoke frame for raising and lowering said yoke frame and the parts carried thereby to unmesh and mesh said gears according as said yoke frame is raised or lowered.



4. In a mixing machine, the combination with a suitable base, standards projecting vertically therefrom, a cross head on said standards, said cross head having a central opening and a pair of side openings, a yoke frame movable through said side openings, a mixing mechanism supported by said yoke frame and including a sleeve projecting through said cross head central opening, a U-shaped frame supported by said mixing mechanism, a shaft mounted in said sleeve and U-shaped frame in a relatively fixed relation thereto, a relatively fixedly located driving pinion mounted on said cross head, and a gear mounted on said shaft, to move with said shaft and with said yoke frame, and means coöperative with said yoke frame for raising and lowering said yoke frame and the mechanism carried thereby to unmesh and mesh said gears and pinion according as said yoke frame is raised or lowered, substantially as shown and described.

5. In a mixing machine of the character described, the combination with a suitable base, uprights that rise therefrom, a cross head mounted on the uprights, said cross head having a central and two side passages,, a yoke frame including pendent side bars that slide through the side passages in the cross head, a central shaft having a driven gear at the upper end suspended from and movable with the yoke frame, said shaft extending through the central passage of the cross head, a rim member secured to said side bars, upper and lower plates carried on said rim member, a sleeve carried by said upper plate and projecting through the central passage of said cross head to support said central shaft, mixing elements mounted on said upper and lower plates, power transmitting gearing mechanism between said mixing elements and said central shaft, a driven gear on said central shaft, said driven gear having a fixed relation to said yoke frame to move therewith, a relatively fixedly located driving gear, and means for raising and lowering said yoke frame with its attached parts to disconnect or connect said gears according as said yoke frame is raised or lowered.

[Claims 6 to 8 not printed in the Gazette.]

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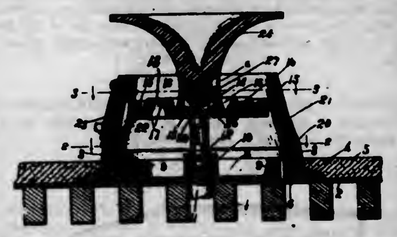
1,039,193. WHEEL-STRAIGHTENER. CARRY S. RAY, Dublin, Tex. Filed Feb. 5, 1912. Serial No. 675,486. (Cl. 21—69.)



A wheel straightener comprising an annular member engaging the inner end of the wheel hub and having a plurality of offsets, an inner set of rods projected through said member and through the off-sets thereof at angles to the spokes of the wheel and having heads countersunk in the inner periphery of said member, an outer set of rods projected through the tire and felly of the wheel and having heads countersunk in the tire and having the inner ends threaded and coöperating with said inner set of rods, and internally threaded sleeves, each sleeve engaging the ends of two coöperating rods and all the sleeves serving to draw the inwardly projecting rods toward the outwardly projecting rods for drawing the spokes of the wheel from abnormal outwardly leaning positions to normal positions relative to the hub.

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1,039,194. FLUID-HYDROCARBON BURNER. ED B. RAYMOND and CLAUDE B. WATSON, Wichita, Kans. Filed Nov. 24, 1911. Serial No. 662,234. (Cl. 158—91.)



1. A fluid hydro-carbon burner, having an annular base, a concentric drip pan carried thereby and providing therewith a plurality of peripherally disposed air admitting ports, a concentrically disposed oil feed pipe projecting upwardly from the drip pan, a fluid dispensing disk provided with a concentric chamber, the upper rim of which terminates above the upper surface of the disk and in communication with the upper end of the oil feed pipe, a tapering ring mounted upon the base and surrounding the fluid dispensing disk to form a mixing chamber, and a conical flame spreader invertedly disposed with the apex thereof concentric of the chamber of the fluid dispensing disk, the surface of the spreader adjacent the rim of the chamber of the fluid dispensing disk being provided with a plurality of oil passages to conduct the oil to the fluid dispensing disk.

2. A fluid hydro-carbon burner, having an annular base provided with an outwardly projecting flange, a drip pan carried by the base within the same and providing an annular air admitting channel therethrough, a concentrically disposed oil feed pipe carried by the pan and projecting upwardly therefrom, a fluid dispensing disk connected concentrically to the upper end of said pipe and provided with a concentric chamber above and in communication with the upper end of said pipe, said chamber being larger in diameter than the pipe, said disk being provided with a plurality of concentric alternately disposed oil recesses and air ports, a tapering ring having the enlarged portion thereof fitting upon the base and forming a mixing chamber about the fluid dispensing disk, and a flame spreader removably mounted in the concentric chamber of the fluid dispensing disk and projecting above the fluid dispensing disk and mixing chamber.

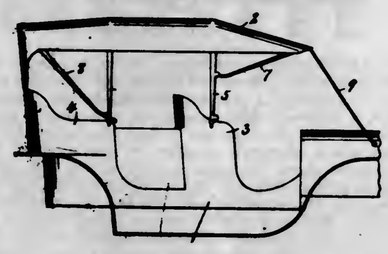
3. A fluid hydro-carbon burner, having an annular base provided with an outwardly projecting flange, a drip pan carried by the base within the same and providing an annular air admitting channel therearound, a concentrically disposed oil pipe carried by the pan and projecting upwardly therefrom, a fluid dispensing disk connected concentrically to the upper end of said pipe and provided with a concentric chamber in communication with the upper end of said pipe, said chamber having an upper open end of larger diameter than the pipe, said disk being provided with a plurality of concentric alternately disposed oil receptacles and air ports, a tapering ring having the enlarged portion thereof fitting upon the base and form-

ing a mixing chamber about the disk, and a flame spreader having a tapered stem removably mounted in the concentric chamber of the disk and having its body projecting above the generator and mixing chamber.

4. A fluid hydro-carbon burner, having an annular base provided with an outwardly projecting flange, a drip pan carried by the base within the same and providing an annular air admitting channel thereabout, a concentrically disposed oil pipe carried by the pan and projecting upwardly therefrom, a fluid dispensing disk connected concentrically to the upper end of said pipe and provided with a concentric chamber in communication with the upper end of said pipe, said disk being provided with a plurality of concentric alternately disposed oil receptacles and air ports, a tapering ring having the enlarged portion thereof fitting upon the base and forming a mixing chamber about the disk, and a conically shaped flame spreader provided with a plurality of grooves formed in the body portion thereof adjacent the apex, the apex of the flame spreader being adapted to be projected into the chamber of the disk so that the grooves thereof form a plurality of oil directing radially disposed ducts leading outwardly above the disk.

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1,039,195. BOW-COUPLING FOR CARRIAGE-TOPS. ERNEST R. RHODES, Fulton, N. Y. Filed May 16, 1911. Serial No. 627,504. (Cl. 21—62.)



1. A bow coupling for carriage tops comprising a pair of members, one of said members including a body having a lug projecting laterally therefrom and provided in its inner face with a segment-spherical recess and having an opening radially disposed thereto, the other of said members including a body portion having a cylindrical shank projecting therefrom adapted to fit said opening and a segment-spherical head on said shank having flattened sides spaced substantially the same distance as the diameter of said shank, the lug of the first mentioned member being provided with a slot leading from said recess and opening and inclined to the normal stress on said members, said slot being of dimensions to permit the passage of the head and shank when turned to an abnormal position.

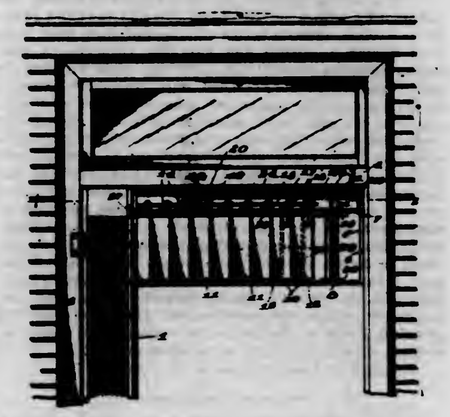
2. A bow coupling comprising two members, one member having a substantially flat inner side and a continuous unbroken convex outer side, the inner flat side having a radial slot opening from the periphery thereof, the portion of said member between the flat side and convex side being provided with a circular socket of greater diameter than the transverse width of the slot and having its side corresponding to the open side of the slot cut away, the other member having a cylindrical shank fitted in the slot and an enlarged head fitted in the socket, the head being elongated in one direction to substantially the diameter of the socket, while its width at right angles thereto is substantially equal to the diameter of the cylindrical portion.

3. In combination with a bow for a carriage top, coupling members secured to opposite ends of the bow and having substantially flat inner sides provided with radial sockets extending through the periphery thereof, said members having convex outer sides and circular sockets between the slotted inner sides and convex sides, said sockets being of greater diameter than the transverse width of the slots and provided with radial openings through their peripheries registering with and of substantially the same width as the corresponding slots, and supporting members for the bow having T-shape heads fitted in the slots and sockets, the width of the heads in one direction being substantially equal to that of the slots.

4. A bow for carriage tops having each of its opposite sides provided with a pair of coupling members having substantially flat inner sides provided with radial slots opening through the peripheries thereof, said members having convex outer sides and circular sockets between the slotted inner sides and convex outer sides, the sockets being of greater diameter than the transverse width of their corresponding slots, supporting members having T-shape heads fitting in the slots and sockets of their respective coupling members on the bow, and an additional bow having its ends provided with T-shape heads fitted in the slots and sockets of the other corresponding coupling members.

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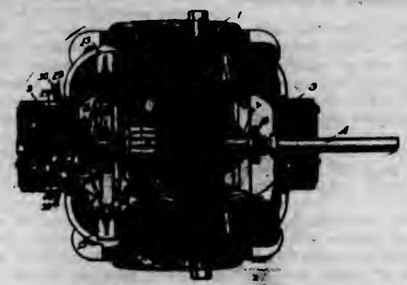
1,039,196. FLY-FAN. JOHN W. RICHARDS, Jr., Flint, Mich. Filed Nov. 21, 1911. Serial No. 661,487. (Cl. 230—7.)



A fly fan comprising a supporting bar adapted to be secured to the upper sill of a door frame, a frame supported by said bar and consisting of end, and upper and lower bars, the upper bar being provided with a series of spaced perforations, sockets formed in the lower bar, a plurality of fan blades mounted between said bars, shafts passing through the perforations in the upper bar and through said blades, the lower ends of said shafts being seated in the sockets of the lower bar, crank arms formed upon the upper ends of said shafts, a link pivotally connected to said crank arms, a pulley rotatably supported by the supporting bar, one of said crank shafts being eccentrically connected to said pulley, a shaft rotatably mounted adjacent one of the end bars, a second pulley fixed to the upper end of said shaft, an endless belt operatively connecting said pulleys, a drum connected to said shaft, a cord wound upon said drum and having its ends adapted to be connected to a screen door, a spring surrounding said shaft and having one of its ends secured thereto and its other end secured to the lower bar, whereby when said door is opened or closed, said drum will rotate said shaft and pulleys to oscillate the link to simultaneously rotate said blades, said spring acting to positively close the door.



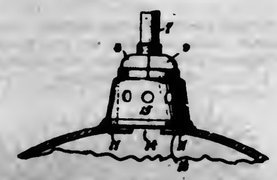
1,039,197. VARIABLE-SPEED ELECTRIC GENERATOR. CHARLES H. ROTH and WALTER J. WARREN, Jr., Chicago, Ill. Filed Nov. 3, 1909. Serial No. 526,050. (Cl. 171—227.)



In a dynamo-electric machine, the combination of a stator frame, a rotor shaft journaled in said frame and confined against axial movement, a sleeve splined on said shaft, a rotor mounted on said sleeve, a centrifugal governor mounted to rotate with said shaft and acting between said shaft and sleeve for shifting said sleeve axially through changes in the speed of said shaft, and a spring acting between said sleeve and shaft and adapted to normally resist the movement of said sleeve, said governor comprising two parts, one being secured to said sleeve and the other being mounted to have a limited axial movement on said shaft, and a circuit-breaker controlled by the relative movement of said parts.

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1,039,198. SHADE-HOLDER. WILLIAM G. SCHMUCKER, Ben Avon, Pa. Filed Sept. 14, 1911. Serial No. 649,345. (Cl. 240—114.)



1. A shade holder comprising a pair of jaws hinged together intermediate their ends and having their upper ends turned in to form a hood to fit over the top of a light fixture and their lower ends turned out to fit inside and support the shade when the upper ends are closed over the fixture.

2. A shade holder comprising a pair of jaws hinged together intermediate their ends and having their upper ends turned in to form a hood to fit over the top of a light fixture and their lower ends turned out to fit inside and support the shade when the upper ends are closed over the fixture and releasable means for locking the jaws in closed or operative position.

3. A shade holder comprising a pair of jaws hinged together intermediate their ends and having their upper ends turned in to form a hood to fit over the top of a light fixture and their lower ends turned out to fit inside and support the shade when the upper ends are closed over the fixture and a slip collar adapted to fit over the upper ends of the jaws when in closed position.

4. A shade holder comprising a pair of jaws hinged together intermediate their ends and having their upper ends turned in to form a hood to fit over the top of a light fixture and their lower ends turned out to fit inside and support the shade when the upper ends are closed over the fixture and a slip collar adapted to fit over the upper ends of the jaws when in closed position with its lower edge in engagement with the shade and its upper edge above the hinge between the jaws.

5. A shade holder comprising a pair of jaws hinged together intermediate their ends and having the portions of the jaws above the hinge when in closed position formed so as to engage a light fixture and prevent downward movement of the holder with respect to the fixture and adapted when in open position to release the fixture, and the said jaws having their portions below the hinge turned out so as to fit inside of and support a shade when the portions of the jaws above the hinge are closed.

[Claim 6 not printed in the Gazette.]

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1,039,199. EXPLOSIVE PROJECTILE. EUGÈNE SCHNEIDER, Le Creusot, France. Filed May 4, 1911. Serial No. 625,055. (Cl. 102—39.)



1. In combination, a projectile body, a removable head, two passages provided in one of said parts one for direct transmission of the flame of ignition and the other for retarded transmission, a priming holder mounted in said body, a fuse mounted in said head, and connections between said head and body whereby the former can be moved to obturate one of said passages.

2. In combination, a projectile body, a removable head, two passages provided in one of said parts one for direct transmission of the flame of ignition and the other for retarding transmission, a holder for detonating material secured in said body, a priming holder attached to said holder for the detonating material, a fuse mounted in said head and connections between said head and body whereby the former can be moved toward said priming holder to obturate one of said passages.

3. In combination, a projectile body, an adjustable head, two passages provided in said body one for direct transmission of the flame of ignition and the other for retarded transmission, a priming holder mounted in said body, a fuse mounted in said head, and screw-thread connections between said head and body whereby the former can be moved to obturate one of said passages.

4. In combination, a projectile body, an adjustable head, two passages provided in said body one for direct transmission of the flame of ignition and the other for retarded transmission, a holder for detonating material screwed in said body, a priming holder screw-threaded in said holder for detonating material, a fuse screwed into said head and having its bottom perforated, and screw-thread connections between said head and body whereby the former can be moved toward said priming holder to obturate one of said passages.

5. In combination, a projectile body, an adjustable head, two passages provided in said body one for direct transmission of the flame from the primer and the other for retarded transmission, and a detachable collar provided between said head and body.

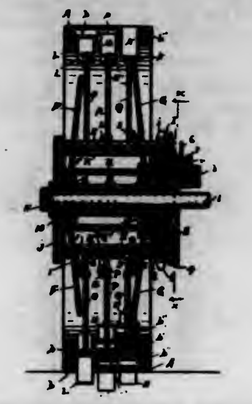
[Claims 6 to 8 not printed in the Gazette.]

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1,039,200. TRACTION-WHEEL. RICHARD SMEDWICK, Richmond, Ind. Filed Mar. 25, 1912. Serial No. 686,053. (Cl. 21—64.)

1. A traction wheel having a relatively broad rim with slots formed therethrough in sets arranged diagonally across the rim and each set being equi-distant from the ones next thereto, a blade slidable in each of said slots, a hub, disks secured to the ends of the hub, spokes extend-

ing from the ends of the hub to the rim, a plurality of rocking-shafts extending across between and pivoted in said disks, fingers formed on each of said rocking-shafts, a rod connecting each of the fingers to one of said blades, and means for rotating each of said rocking-shafts in succession to move said blades in and out all substantially as shown and described.



2. A traction wheel having a rim, a hub, spokes rigidly connecting the rim and the hub, disks secured to the inner and the outer ends of the hub, rocking shafts extending across longitudinally of the hub and having their end portions pivoted in said disks, a butterfly secured on the inner projection of each rocking-shaft, a relatively stationary cam adapted to engage each of the butterflies in succession and thereby turn the rocking-shafts, means for turning the rocking-shafts back to normal position, arms extending out from each rocking shaft, a rod pivoted to each of said arms, and a blade connected to the outer end of each of said rods, each of said blades being adapted to operate through the rim, all substantially as shown and described and for the purposes set forth.

3. A tractor wheel having a rim with slots formed therethrough, a hub, spokes connecting the rim and the hub, a blade slidable in and out in each of said slots, disks secured on the inner and outer ends of said hub, a plurality of rocking-shafts extending between and pivoted in said disks, a butterfly rigidly secured on the inner projecting end of each rocking-shaft, a relatively stationary cam adapted to engage each butterfly in succession as the wheel revolves and turn the rocking-shaft attached thereto, pins for engaging each butterfly as it leaves the cam to turn the shaft back to normal position, arms extending from each of said rocking-shafts, a link pivoted to each arm, the outer end of each link being attached to one of said blades, all substantially as set forth.

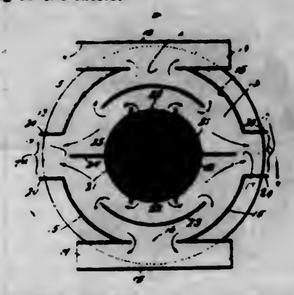
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1,039,201. VENTILATOR. RALPH T. SENTER, Buffalo, N. Y., and LOUIS A. KLING, Elisabeth, N. J., assignors, by mesne assignments, to The Near-Side Car Company, New York, N. Y., a Corporation of New York. Filed Aug. 2, 1911. Serial No. 641,964. (Cl. 98—4.)

1. In a ventilator, a flue having an extension provided with openings facing the front and rear of the car, and a casing surrounding such flue extension, said casing having openings facing the sides of the car and also having laterally projecting flanges at the sides of said openings.

2. In a ventilator, a flue having an extension provided with openings facing the front and rear of the car, a casing surrounding such flue extension, said casing having openings facing the sides of the car, and means for directing the air currents issuing from such flue extension toward the openings of said casing.

3. In a ventilator, a flue having an extension provided with an opening facing one end of the car, a casing surrounding each flue extension and having an opening in alinement with the opening thereof, and a hollow member having an opening facing toward the side of the car, said hollow member communicating with said casing through the opening in the latter.



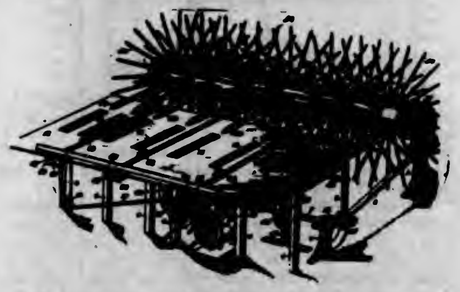
4. In a ventilator, a flue having an extension provided with an opening facing one end of the car, a casing surrounding such flue extension and having an opening in alinement with the opening thereof, a hollow member having an opening facing toward the side of the car, said hollow member communicating with said casing through the opening in the latter, and a baffle plate interposed between the opening of said extension and the opening of said casing.

5. In a ventilator, a flue having an extension provided with an opening facing one end of the car, a casing surrounding such flue extension and having an opening in alinement with the opening thereof and a second opening facing toward the side of the car, and a hollow member having an opening facing toward the side of the car, said hollow member communicating with said casing through the first-named opening thereof.

[Claims 6 to 10 not printed in the Gazette.]

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1,039,202. SHEET-COOLING MACHINE. GEORGE W. SMEAD, Canton, Ohio, assignor to The Berger Manufacturing Company, Canton, Ohio, a Corporation of Ohio. Filed Feb. 1, 1912. Serial No. 674,696. (Cl. 34—28.)



1. In a sheet cooling machine, the combination of a sheet receiving table, a series of sheet conveying rollers adapted to move the sheets upon the table, a series of guide bars located in a plane below the receiving surface of the table, reciprocating bars located in the guide-bars, said reciprocating bars provided with push-heads, said push-heads located above the sheet receiving table, a trip bar provided with a trip head, said trip head located in the path of the movement of the sheets actuated by the conveying rollers, a clutch adapted to be brought into action by the movement of the trip head and trip bar, a second clutch adapted to be brought into action by means intermediate the clutch actuated by the clutch head and bar, said last mentioned clutch adapted to bring into action the sheet moving and lifting devices, substantially as and for the purpose specified.

2. In a sheet cooling machine, the combination of a sheet receiving table, sheet conveying rollers, means for rotating said sheet conveying rollers, an initiative clutch and means for bringing said initiative clutch into action, a machine actuating clutch, and means intermediate the initiative clutch and the machine actuating clutch adapted to bring the machine actuating clutch into action, substantially as and for the purpose specified.

3. In a sheet cooling machine, the combination of a sheet receiving table, means for conveying sheets upon said receiving table, inter related clutches, means for bringing one of the inter related clutches into action by the movement of a sheet, and means intermediate the interacting clutches adapted to bring the machine actuating clutch into action by the clutch brought into action by the movement of a sheet, a shaft provided with sheet lifting fingers and means for moving the sheets upon the sheet receiving table toward and upon the lifting fingers, substantially as and for the purpose specified.

4. In a sheet cooling machine, the combination of a sheet receiving table, means for conveying sheets upon said receiving table, inter related clutches, means for bringing one of the inter related clutches into action by the movement of a sheet, and means intermediate the inter acting clutches adapted to bring the machine actuating clutch into action by the clutch brought into action by the movement of a sheet, a shaft provided with sheet lifting fingers and means for moving the sheets upon the sheet receiving table toward and upon the lifting fingers, and means for actuating the lifting fingers, substantially as and for the purpose specified.

5. In a sheet cooling machine, the combination of a sheet receiving table, sheet conveying rollers, means for rotating said sheet conveying rollers, a power shaft having mounted thereon a gear wheel, a gear wheel meshing with the gear wheel mounted upon the power shaft, said gear wheels adapted to impart rotary motion to the machine actuating shaft, said machine actuating shaft provided with a pitman wheel, a pitman journaled to said pitman wheel, reciprocating bars operatively connected to said pitman, said reciprocating bars provided with sheet push heads, two clutches, one of said clutches adapted to be coupled in advance of the other and the action of the first coupled clutch adapted to couple the other clutch and the last coupled clutch adapted to actuate the intermittent moving parts of the sheet actuating machine, substantially as and for the purpose specified.

[Claims 6 to 22 not printed in the Gazette.]

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1,039,203. BROOM-BRIDLE. WILLIAM H. SMITH, Beach, N. D. Filed Mar. 30, 1912. Serial No. 687,498. (Cl. 15—23.)



1. A broom bridle consisting of a primary member formed from a single length of resilient wire bent to provide parallel longitudinal portions and angularly disposed converging end portions, brace wires connecting the corresponding end portions of said member, and means mounted between the end portions of the body member and supported thereby for engagement in the body of a broom to hold the bridle in position thereon.

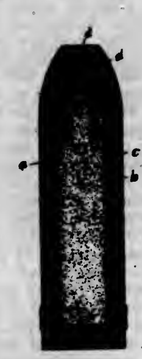


2. A broom bridle comprising a primary member consisting of a single length of resilient wire bent to provide parallel longitudinal portions and angularly disposed converging portions at each end of the longitudinal portions of the wire, coils formed in the wire and connecting said end portions at their converging ends, retaining elements mounted in said coils for engagement in the broom body to hold the bridle in position thereon, and longitudinal brace wires connecting the angular portions of said primary member, said brace wires and the longitudinal portions of the main body wire engaging upon opposite sides of the broom body.

3. A broom bridle comprising a primary member formed from a single length of wire bent to provide parallel longitudinal portions for engagement upon opposite sides of a broom body and convergently disposed end portions at the corresponding ends of said longitudinal portions to engage upon the edge of the broom body, coils formed in said body wire intermediate of its end and connecting the converging end portions thereof, and retaining spurs mounted in said coils for engagement in the broom body to retain the bridle in its adjusted position thereon.

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1,039,204. METHOD OF PLACING CONTAINERS IN PROJECTILES. ERNST SOKOLOWSKI, Hamburg, Germany, assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Aug. 3, 1911. Serial No. 642,294. (Cl. 86—18.)



1. The hereinbefore described method which consists in filling the space between the explosive charge container and projectile with a fused explosive.

2. The hereinbefore described method which consists in pouring into the projectile a fused explosive, pressing into and centering the explosive container in said fused explosive.

3. The hereinbefore described method which consists in pouring into the projectile a fused explosive, pressing into and centering the explosive container in said fused explosive, and filling any interstices between the container and the wall of the projectile with a fused explosive.

4. The hereinbefore described method which consists in pouring into a heated projectile a fused explosive, pressing into and centering the explosive container in said fused explosive.

5. The hereinbefore described method which consists in embedding the explosive container in a fused explosive in the projectile.

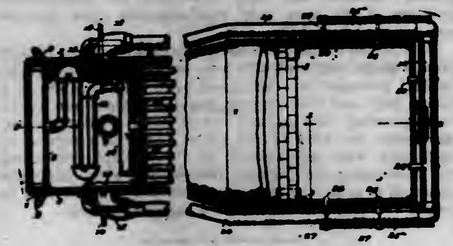
[Claims 6 to 8 not printed in the Gazette.]

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1,039,205. SMOKE-CONSUMER. ROBERT G. STRAM, St. Louis, Mo. Filed Dec. 14, 1911. Serial No. 665,780. (Cl. 110—50.)

1. The combination with a boiler and its furnace, of pipes leading from the breeching to the fire box of the furnace, a plurality of branch pipes leading from the first mentioned pipes through the side and front walls of the

fire box thereby substantially surrounding the same, means within the breeching for heating atmospheric air and discharging the same when heated into the inlet ends of the first mentioned pipes, and jet tubes arranged in the branch pipes and in the inlet ends of the first mentioned pipes for producing a forced circulation and mixture of the products of combustion and air through the first mentioned pipes and discharging such mixture into the fire box.



2. The herein described smoke consumer for boiler furnaces, comprising pipes leading from the breeching of the boiler to the fire box of the furnace, a plurality of branch pipes leading from said first mentioned pipes through the side and front walls of said fire box so as to substantially surround the same, a manifold within the breeching of the boiler, which manifold receives air from the exterior of the boiler, pipes leading from said manifold into the inlet ends of the first mentioned pipes, jet pipes arranged to discharge directly into the inlet ends of the first mentioned pipes and jet pipes arranged to discharge directly into the branch pipes, all of which jet pipes are adapted to produce a circulation and mixture of heated air and products of combustion through the first mentioned pipes.

3. The herein described smoke consumer for boiler furnaces comprising pipes leading from the breeching of the boiler to the boiler furnace, a plurality of branch pipes leading from the first mentioned pipes through the side and front walls of the fire box so as to substantially surround the same, jet tubes attached to discharge through said branch pipes for producing forced circulation through the first mentioned pipes, a pair of headers within the breeching chamber of the boiler, one of which headers is provided with air inlet openings, pipes leading from the other header into the inlet ends of the first mentioned pipes, a pipe having a series of transversely disposed legs which last mentioned pipe connects the headers and jet tubes arranged to discharge into the inlet ends of the first mentioned pipes for assisting the first mentioned jet tubes in producing a circulation of products of combustion and heated air through said first mentioned pipes.

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1,039,206. CLASSIFYING OR GRADING APPARATUS. GEORGE HARDY STANLEY, Johannesburg, Transvaal, assignor to Sands Limited, Johannesburg, Transvaal. Filed Sept. 30, 1911. Serial No. 652,209. (Cl. 83—56.)

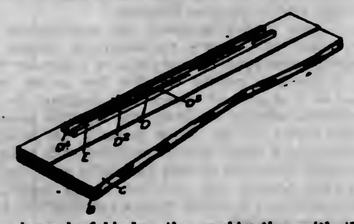


1. The combination of a screen disposed at an angle to the vertical so that oversize material will fall directly therefrom by gravity, said screen being movable in its own plane, mechanism for reciprocating the screen in said plane with small amplitude, rapidly and with shock, means inclosing the feed side of the screen to form with said screen a chamber adapted to contain pulp, means for passing pulp continuously into said chamber, and means below the screen and in connection with said chamber adapted to receive oversize material rejected by the screen and to prevent return thereof to the screen.

2. The combination of a substantially vertical screen, mechanism for rapidly reciprocating said screen up and down in its own plane and causing the same to be bumped at the end of each downward movement, and means for feeding a continuous stream of pulp to said screen.

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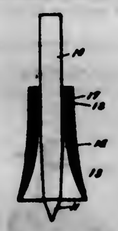
1,039,207. LOOSE-LEAF BINDER. ELDRIDGE STANTON, Toronto, Ontario, Canada. Filed June 21, 1911. Serial No. 634,627. (Cl. 129—25.)



In a loose leaf binder, the combination with the separate cover members and the loose leaves, of a U-shaped strip located to each side of the loose leaves having opposing internal longitudinal grooves and having perforations extending through the base of the strip, flexible metal strips extending at each end through the leaves and through separate perforations in the U-shaped strip, and bent over at the ends onto the base of the U-shaped strip and a flat cover strip secured to each cover member and adapted to slide longitudinally into the opposing internal grooves of the U-shaped strip, as and for the purpose specified.

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1,039,208. PHONOGRAPH-NEEDLE. RUDOLPH STEINBERG, New Haven, Conn. Filed July 1, 1911. Serial No. 636,545. (Cl. 181—11.)



1. An attachment for talking machines comprising a cupped resonator provided with an opening therethrough to receive a stylus whereby the resonator may be wholly supported by the stylus intermediate the ends thereof.

2. A stylus for talking machines made of rigid material pointed at one end and having an encircling band rigidly clamped thereon between its ends and provided with a skirt surrounding said stylus and spaced therefrom and separate from the stylus supporting means.

3. A stylus for talking machines made of rigid material pointed at one end and having an encircling band firmly clamped thereon between its ends and spaced from its supporting means, said band being provided with a skirt surrounding said stylus open toward its pointed end and spaced therefrom, its free edge being made relatively sharp.

4. A stylus for talking machines made of rigid material pointed at one end and having an encircling band firmly clamped thereon between its ends and spaced from its supporting means, said band being provided with a spreading skirt surrounding said stylus open toward its pointed end and spaced therefrom, the wall of said skirt portion being of gradually lessening thickness toward its free edge.

5. A stylus for talking machines made of rigid material pointed at one end and having an encircling band firmly clamped thereon above said end and separate from the stylus supporting means, said band having a pocket opening thereinto and forming a space around said stylus.

[Claims 6 to 8 not printed in the Gazette.]



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1,039,209. VACUUM CISTERN-CLEANER. HOWARD STUCKER, Shawnee, Okla. Filed Feb. 2, 1912. Serial No. 674,964. (Cl. 210—8.)



1. A cistern cleaner comprising a collector having a valved inlet opening and a valved outlet opening, a chamber, a valved connection between the chamber and the collector, a valved connection leading from the chamber, and a liquid spreader located within the collector.

2. A cistern cleaner comprising a collector having an inwardly opening valve at its bottom and provided also at its bottom with an outwardly opening valve, means for holding the second valve closed against the collector, a spreading member located within the collector, a flushing chamber disposed above the collector, a valved connection between the reservoir and the collector and having one of its ends disposed above the plane of the said spreading member, a pipe leading from the reservoir, and a valve located within the pipe.

3. A cistern cleaner comprising a collector having an inlet opening and a valve for closing the opening, a spreading member located within the collector and having its walls flared downwardly in the direction of the collector, a reservoir, a pipe connecting the reservoir with the collector and having one end disposed above the center of the spreading member, and a valved connection leading from the reservoir.

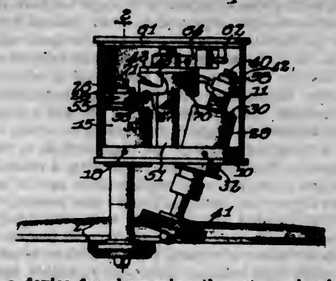
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1,039,210. SHARPENING DEVICE FOR KNIVES OF MEAT-SLICING MACHINES. HENDRIK STUKART, Rotterdam, Netherlands, assignor to U. S. Slicing Machine Company, Chicago, Ill., a Corporation of Illinois. Filed June 12, 1912. Serial No. 703,136. (Cl. 51—7.)

1. In a device for sharpening the rotary circular knife of a slicing machine, the combination of a sharpener for the front of the knife, a sharpener for the back of the knife, and cam means for successively moving the sharpeners into engagement with the respective faces of the knife.

2. In a device for sharpening the rotary circular knife of a slicing machine, the combination of a rotatable sharpener for the front of the knife, a rotatable sharpener for the back of the knife, and means for successively controlling the movements of the sharpeners into engagement with the respective faces of the knife, said sharpeners being rotatable by the engagement of the knife therewith.

3. In a device for sharpening the rotary circular knife of a slicing machine, the combination of a sharpener for acting on the back of the knife, a sharpener for acting on the face of the knife, means for moving the sharpeners into engagement with the knife and means common to the sharpeners for successively controlling such movement.



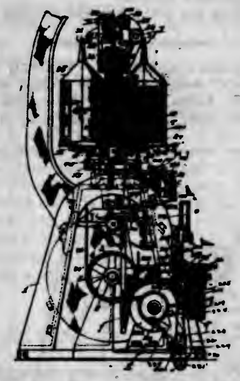
4. In a device for sharpening the rotary circular knife of a slicing machine, the combination of a sharpener movable into and out of engagement with the back of the knife, a sharpener movable into and out of engagement with the front of the knife, and means common to the sharpeners for successively controlling such movements.

5. In a device for sharpening the rotary circular knife of a slicing machine, the combination of a sharpener movable into and out of engagement with the back of the knife, a sharpener movable into and out of engagement with the front of the knife, and means common to the sharpeners for causing the sharpeners to move independently.

[Claims 6 to 30 not printed in the Gazette.]

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1,039,211. AUTOMATICALLY-ACTING MACHINE FOR MAKING A TWISTED CORD OR THREAD AND FOR REELING THE SAME. LAWRENCE A. SUBERS and ERNEST MOSMAN, Cleveland, Ohio; said Mosman assignor to said Subers. Filed May 16, 1910. Serial No. 561,698. (Cl. 28—21.)



1. In an automatically acting machine for twisting and coating yarns to make a coated cord or thread a rotatable head provided with a lateral flange, yarn tube supporting means in said flange, a vertical central member for the head provided with a longitudinal central opening, a closure at the lower end of the opening, guide tubes secured in said closure and extending upwardly in said opening, a central tubular member in said inclosure, tension devices for said yarns mounted on said rotatable head, a twist forming member on the extremity of said central member, and rotatable with said head, said device provided with radial converging guide openings in its sides for the said yarns, a cup for coating fluid in which said

twist forming member is immersed, a non-rotatable twist holder in said tank, provided with a central perforation through which all said yarns pass, pulling rollers for the finished cord or thread, and a common source of power for said rotatable head and pulling rollers.

2. In a twisting machine, in combination, a frame, a rotatable head thereon, supports thereon for yarn tubes on which yarn is wound, a pair of grooved tension wheels for the yarn on each yarn tube, a separate tubular guide for each yarn, in said rotatable head and rotatable therewith, a twist former rotatable with said head, a non-rotatable twist holder mounted in said frame and provided with a common central twisting opening for all said yarns, and a vertically adjustable support for said twist holder.

3. In a twisting machine, in combination, a frame, a head rotatable thereon and provided with a central opening, a series of supports for thread tubes spaced apart on said head about said opening, guide tubes passing through said central opening and rotatable with said head, a central tubular member in said head, tension devices for all the yarns rotatable with said head, a slotted twist former located below said rotating head and rotatable therewith, a stationary twist holder underneath said disk and adjustably spaced therefrom, the said twist holder formed in separable portions, elastically connected together, and having a central opening a portion of which is formed in each of said portions.

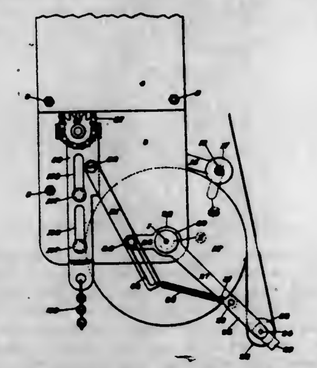
4. In a coating and twisting machine, a frame, a rotatable head thereon, supports for yarn tubes mounted thereon, a separate inclosing and covered chamber for each yarn tube, friction rolls for the yarns or said yarn tubes adapted to receive the yarns from said chambers, and rotatable with said head, guide tubes for said yarns passing through said rotatable head and rotatable therewith, a slotted twist forming member rotatable with said head through which said yarns pass to the twisting point, a stationary twist holder spaced from said slotted twist forming member, an adjustable support for said twist holder mounted in said frame, and a cup for coating material vertically adjustable on said twist holder support.

5. In a twist holder, a supporting disk having a central opening, segmental portions mounted on said disk and inclosing a common vertical central opening, and radially separable from each other, and means for elastically securing said segments together.

[Claims 6 to 36 not printed in the Gazette.]

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1,039,212. TICKET-MACHINE. WILLIAM L. SULLIVAN, Ferguson, Mo., assignor to The Temco Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Oct. 16, 1911. Serial No. 655,010. (Cl. 211—33.)



1. In a machine of the character described, in combination with means for feeding tickets from a rolled ticket strip and operating means for same, a pivoted bell-crank, a link connecting the operating means with one arm of said bell-crank, a member pivoted to the other arm of said bell-crank, a spring connecting said member with said link, and a roller rotatably attached to said member adapted to unwind part of the ticket strip after each feeding operation.

2. In a machine of the character described, in combination with means for feeding tickets from a rolled ticket strip and operating means for same, a pivoted bell-crank, a link connecting the operating means with one arm of said bell-crank, a member pivoted to the other arm of said bell-crank, a spring connecting said member with said link, a roller rotatably attached to said member adapted to unwind part of the ticket strip after each feeding operation, and a guide borne by said member for preventing the ticket strip from sliding off said roller.

3. In a machine of the character described, in combination with means for feeding tickets from a rolled ticket strip, a reciprocatory operating bar for actuating same, a pivoted bell-crank having a stud attached to an arm thereof, a member pivoted to the other arm of said bell-crank, a link pivoted to said operating bar and having a slot to receive the stud borne by said bell-crank adapted to rotate same during the feeding operation, a spring connecting said member with said link adapted to hold said bell-crank normally in position to be actuated by said link, and a roller rotatably attached to said member for unwinding part of the ticket strip after each feeding operation.

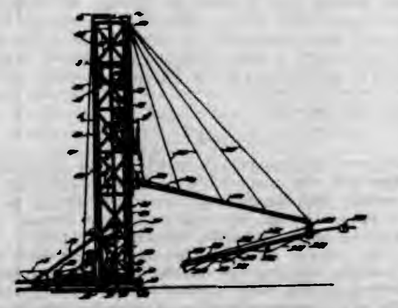
4. In a machine of the character described, in combination with means for feeding tickets from a rolled ticket strip and operating means for same, a pin projecting from the casing of the machine and supporting the ticket roll, a pivoted member provided at one end with a finger overlapping the adjacent side of the ticket roll to hold the latter in place upon said pin, and a roller carried by said member at such end and adapted to ride upon said ticket roll to prevent backlashing of same.

5. In a machine of the character described, in combination with means for feeding tickets from a rolled ticket strip and operating means for same, a pin projecting from the casing of the machine and supporting the ticket roll, a bell-crank lever pivoted at its apex to said casing, a roller carried by one arm of said lever at the end thereof and adapted to ride upon said ticket roll to prevent backlashing of same, a finger provided upon said arm and overlapping the adjacent side of the ticket roll to hold the latter in place upon said pin, and a spring connected to the other arm of said lever for holding said roller against said ticket roll.

[Claims 6 to 8 not printed in the Gazette.]

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1,039,213. CONCRETE-POURING SYSTEM. RIDLEY F. TAYLOR, Los Angeles, Cal. Filed Oct. 5, 1911. Serial No. 653,005. (Cl. 214—12.)



1. In combination, a vertically extending structure, a hoisting apparatus within the structure, vertical ways on the exterior of the structure, a frame on said ways, a material bin on said frame, means for directing material from the hoisting apparatus to the bin, a chute pivoted at its inner end to said frame, another set of ways on said structure, a hoisting drum mechanism slidably mounted on said ways, connecting means between said mechanism and said frame on the first mentioned ways whereby one is moved upwardly when the other is moved downwardly, and connections between the hoisting drum mechanism and the outer end of the chute for the support of the same.

2. In combination, a vertically extending structure, vertical ways thereon, a hopper movable on the ways, a chute extending outwardly and downwardly from the hopper and having its inner end vertically movable therewith, a frame vertically movable on the ways on the structure, adjustable supporting means for the outer end of the chute connected to said frame, connecting means between the frame and hopper whereby the frame is lowered or raised when the hopper is raised or lowered, and means in combination with the structure for hoisting material to the hopper.

3. In combination, a vertically extending structure, a hopper vertically movable thereon, a chute extending outwardly and downwardly from the hopper and having its inner end vertically movable therewith, a hoisting frame vertically movable on the structure, adjustable supporting connections between the hoisting frame and the outer end of the chute, connection between the frame and the hopper whereby the downward movement of one causes the upward movement of the other, and means in combination with the structure for hoisting material to the hopper.

4. In combination, a vertically extending structure, two sets of vertical ways on the structure, a hopper vertically movable on one set of ways, a chute extending outwardly and downwardly from the hopper and having its inner end vertically movable therewith, a hoisting mechanism comprising a frame and hoisting drum vertically movable on the other set of ways, flexible connecting means passing over the top of the structure and connecting between the hoisting mechanism frame and the hopper, means for moving the hoisting mechanism downwardly, and flexible connecting means between the hoisting mechanism drum and the outer portion of the chute, said means passing over the top of the structure.

5. In combination, a vertically extending structure, a chute carrying frame vertically movable thereon, a chute having its inner end movable with said frame and extending outwardly therefrom, another frame vertically movable on the structure, connecting means between the two frames so that when one is lowered the other is raised, adjustable supporting means for the outer end of the chute connected to said second mentioned frame, and means in combination with the structure for hoisting material to the inner end of the chute.

[Claims 6 and 7 not printed in the Gazette.]

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1,039,214. CLAMP FOR WIRE-STRETCHERS. JAMES ARTHUR THOMAS, Allisonia, Va. Filed Apr. 9, 1912. Serial No. 689,655. (Cl. 39—53.)



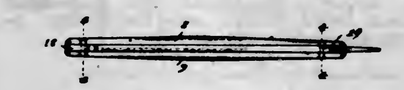
1. A clamping device for wire stretchers, comprising a pair of clamping bars hinged one to the other, a loop member hingedly carried on one of said clamping bars, a locking bar fulcrumed on the other of said bars and adapted for engagement at one end thereof with said loop member, a stud carried on said locking bar, and means on the last mentioned clamping bar adapted to receive said stud to retain said locking bar and correspondingly said clamping bar in their effective positions.

2. A clamping device for wire stretchers comprising a pair of clamping bars hinged one to the other, loop members hinged on one of said clamping bars and adapted to project over the other, when said bars are disposed to their effective positions, locking bars removably fulcrumed on the other of said clamping bars and adapted to engage said loop members, a stud carried on each of said locking bars, and laterally extending arms carried on the last mentioned clamping bars provided with openings therein adapted to receive the studs of said locking bars therein, to retain said clamping bars in their effective positions.

3. A clamping device of the class described, comprising a pair of clamping bars hinged one to the other, a plurality of loop members hingedly carried on one of said clamping bars and adapted to project over the other clamping bar, a plurality of arms secured to the other of said clamping bars, locking bars removably fulcrumed on said arms and bent at their ends to engage said loop members and draw the clamping bars together, a plurality of laterally extending arms secured to the last mentioned clamping bar, said arms being provided with a plurality of openings thereon, and studs formed on said locking bars and adapted to be received in the openings of said lateral arms, after said locking bars have been drawn to their effective positions, whereby said clamping bars will be effectively retained.

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1,039,215. RAZOR-HANDLE. HENRY W. THOMPSON, Oak Park, Ill. Filed Mar. 29, 1911. Serial No. 617,795. (Cl. 30—12.)



1. A razor comprising a blade and a handle consisting of two separable parts, in combination with a threaded bolt having a head non-rotatably secured to one part of said handle and a nut non-rotatably secured to the other part of said handle, whereby when one part of the handle is rotated a complete revolution on the pivot bolt it will carry the nut with it and thus tighten the blade shank between the handle portions.

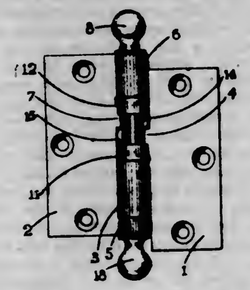
2. A razor comprising a blade and a two-part handle, in combination with a threaded bolt upon which said blade is pivotally mounted, a head for said bolt non-rotatably secured to one part of said handle and a nut having a threaded engagement with said bolt and non-rotatably secured to the other part of said handle whereby adjacent ends of said handle are secured to said blade and when one part of the handle is rotated a complete revolution on the pivot bolt it will carry the nut with it and thus tighten the blade shank between the handle portions and means for readily securing the other ends of said handle together after the blade shank has been tightened.

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1,039,216. GRAVITY-HINGE. GEORGE E. TOMS and THOMAS P. BLAIR, San Diego, Cal., assignors of one-third to Sigmund Frey, Los Angeles, Cal. Filed May 10, 1912. Serial No. 696,404. (Cl. 16—163.)

1. In a gravity hinge, a pair of companion hinge leaves, coöperating knuckles on their adjacent edges arranged to form a recess therebetween when said leaves are assembled in their relative positions, a pintle adapted for insertion in said knuckles to hingedly and slidably connect said leaves, lugs on the inner edges of said leaves projecting in said recess, collars pivotally mounted on said pintle within said recess, and provided with longitudinal slots for engagement with said lugs, and cam faces on said collars co-acting to shift said leaves longitudinally upon said pintle when said leaves are turned, substantially as set forth.

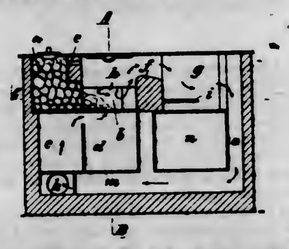
2. In a gravity hinge, a pair of companion hinge leaves, coöperating knuckles on the adjacent edges of said leaves arranged to form a recess therebetween when said leaves are assembled, collars mounted in said recess, a pintle adapted for insertion in said leaves and collars to slidably and pivotally connect the same, lugs on said leaves engaging with said collars whereby the collars are




rotated in unison with said leaves, inclined co-acting faces on the inner ends of said collars to move the hinge leaves longitudinally relative each to the other when the same are rotated, and tapered projections on the inner ends of said knuckles engaging with said collars to strengthen and brace the same when co-acting to operate said hinge leaves, substantially as set forth.

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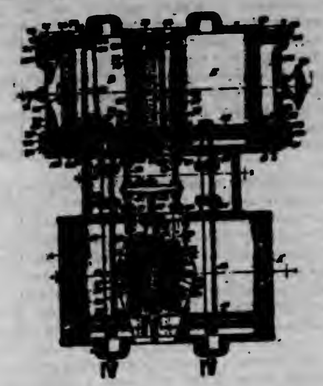
1,039,217. FURNACE. OTTO TROSSIN, Hamburg, Germany, assignor to (Mrs.) Isabella Eliza Robinson, née Robinson, London, England. Filed Feb. 25, 1911. Serial No. 610,849. (Cl. 110—52.)



1. In a smoke consuming furnace, the combination of a combustion chamber, a bridge wall or partition extending transversely across and of less height than said chamber, a fuel chamber communicating at its lower end with the section of the combustion chamber in front of the bridge wall, one of the walls of the combustion chamber being provided with a conduit or passage connecting the two sections of said chamber about one end of the bridge wall, means for causing products of combustion passing over the bridge wall to return through said passage to the section of the combustion chamber in front of said wall, and an escape flue connected with the section of the combustion chamber in rear of the bridge wall.

2. In a smoke consuming furnace, the combination of a combustion chamber, a bridge wall or partition extending transversely across and of less height than said chamber, a fuel chamber having at its lower end a fuel discharge opening communicating with the section of the combustion chamber in front of the bridge wall and having near its upper end a gas conduit leading to the same section of the combustion chamber, one of the walls of the combustion chamber being provided with a conduit or passage leading from the rear of the bridge wall to the front thereof, means for causing products of combustion passing over the bridge wall to return through said passage to the section of the combustion chamber in front of said wall, and an escape flue connected with the section of the combustion chamber in rear of the bridge wall.

1,039,218. COMPOUND PUMP. FRANK TUMA, Buffalo, N. Y., assignor of one-half to James C. Currie, Jersey City, N. J. Filed Mar. 3, 1910. Serial No. 547,077. (Cl. 121—7.)



1. A pump comprising high and low pressure motor cylinders and oppositely disposed high and low pressure compression cylinders, and a piston movable in each cylinder, all four pistons being movable at the same time and in the same direction.

2. A pump comprising a plurality of motor and compression cylinders, connected pistons in said cylinders arranged for movement in unison and in the same direction, and valve mechanism for controlling each set of motor and compression cylinders for operation in the event of derangement to either.

3. A pump comprising high and low pressure motor and compression cylinders, connected pistons arranged for movement in said cylinders, and means for supplying motive fluid to said motor cylinders to move said pistons in unison and in the same direction.

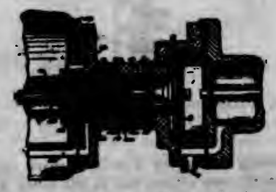
4. A pump comprising high and low pressure motor and compression cylinders, connected pistons arranged for movement therein, means for supplying motive fluid to the high pressure motor cylinder, to actuate the piston therein, and means for supplying the exhaust from said high pressure cylinder to actuate the piston in said low pressure motor cylinder in unison with and in the same direction as the first-mentioned piston.

5. In a pump comprising high and low pressure cylinders and a piston movable in each cylinder, means for supplying motive fluid to the high pressure cylinder to actuate the piston therein, and means for supplying the exhaust from said cylinder to the low pressure cylinder to actuate the piston in the latter cylinder in unison with and in the same direction as the first-mentioned piston.

[Claims 6 to 11 not printed in the Gazette.]

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1,039,219. RETARDED-RELEASE VALVE. WALTER V. TURNER, Wilkinsburg, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 13, 1905. Serial No. 240,902. (Cl. 188—15.)



1. A valve device for controlling a brake cylinder exhaust, comprising a main valve having an exhaust port, or ports, a secondary valve having a movement relative to the main valve for controlling said exhaust port, or ports, a movable abutment operated by train pipe pressure to move said secondary valve to restrict said exhaust, and yielding resistance means for opposing the movement of said secondary valve to its restricted position.

2. In a fluid pressure brake, the combination with a main valve having a brake cylinder exhaust port, a secondary valve having a normal full release position in which said port is fully open, and a retarded release position in which said port is restricted, of a movable abutment operated by train pipe pressure for moving said secondary valve to its retarded release position, and yielding resistance means for returning the same to full release position.

3. In a fluid pressure brake, the combination with a valve for controlling the brake cylinder exhaust, and a movable abutment for operating said valve, of means operating at the time of releasing brakes for reducing the pressure upon one side of said abutment to move said valve to restrict the exhaust port, and yielding resistance means for opposing this movement.

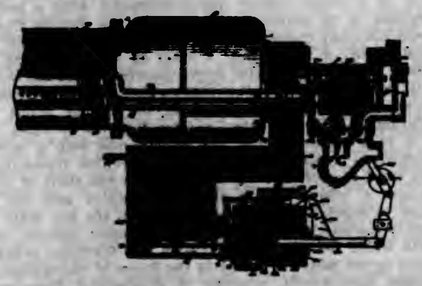
4. A retarded release valve device for fluid pressure brakes, comprising a movable abutment and valve for controlling the brake cylinder exhaust, means operating upon an increase in train pipe pressure for causing a sudden variation of pressure upon one side of said abutment to move said valve to restrict the exhaust, and yielding resistance means for returning said valve to full release position.

5. A retarded release valve device comprising a valve for controlling the brake cylinder exhaust and having a normal full release position and a retarded release position, a movable abutment subject to train pipe pressure for operating said valve, means operating upon an increase in train pipe pressure for venting air from one side of said abutment and moving said valve to retarded release position, and yielding resistance means for returning the valve to full release position.

[Claims 6 to 20 not printed in the Gazette.]

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1,039,220. LOAD BRAKE DEVICE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 20, 1906. Serial No. 448,607. (Cl. 188—11.)



1. In a fluid pressure brake, the combination with an apparatus adapted to be adjusted to a light braking position or to a heavy braking position, of means operated upon a predetermined reduction in the pressure in the brake system for setting said apparatus to its heavy braking position.

2. In a fluid pressure brake, the combination with an apparatus adapted to be adjusted to a light braking position or to a heavy braking position, of means automatically operating upon a partial reduction in the pressure of the brake system for setting the apparatus to its heavy braking position.

3. In a fluid pressure brake, the combination with an apparatus adapted to be adjusted to a light braking position or to a heavy braking position, of means automatically operated upon a predetermined increase in the pressure of the brake system to a degree less than the normal pressure carried in the system for setting the apparatus to its light braking position and upon a decrease in the pressure of the brake system for adjusting the apparatus to its heavy braking position.

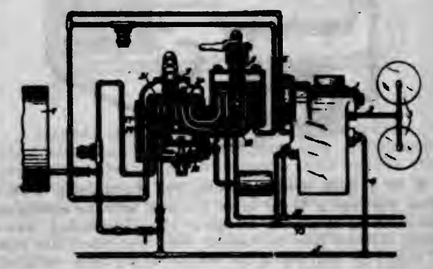
4. In a fluid pressure brake, the combination with apparatus for applying the brakes, of means operating upon a predetermined decrease in the pressure of the brake system for increasing the force of a brake application.

5. In a fluid pressure brake, the combination with apparatus adapted to be adjusted for light braking power and for heavy braking power, of means operating according to the degree of pressure in the system for adjusting said apparatus from the light to the heavy braking position.

[Claims 6 to 24 not printed in the Gazette.]

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1,039,221. LOCOMOTIVE-BRAKE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Sept. 14, 1910. Serial No. 582,095. (Cl. 188—1.)



1. In a fluid pressure brake, the combination with a brake cylinder, of a chamber, a valve device operated by variations in pressure in said chamber for controlling the pressure in the brake cylinder, means for supplying air to said chamber, a direct pipe for also supplying air to said chamber, and means for supplying air to said pipe upon supplying air to said chamber.

2. In a fluid pressure brake, the combination with a train pipe and brake cylinder, of a valve for controlling the supply of air to the brake cylinder, an application chamber, a movable abutment subject to variations in pressure in said chamber for controlling said valve, an automatic valve device operated by a reduction in train pipe pressure for supplying air to said chamber, a pipe for supplying air directly to the chamber, and a brake valve having a position for effecting a reduction in train pipe pressure and in which air is supplied to said direct supply pipe.

3. In a fluid pressure brake, the combination with a brake cylinder, of a chamber, a valve mechanism operated by variations in pressure in said chamber for controlling the admission and release of fluid under pressure to and from said brake cylinder, a valve device for varying the pressure in said chamber, a pipe for directly releasing air from said chamber, and means for supplying air to said release pipe upon operation of said valve device to vary the pressure in said chamber.

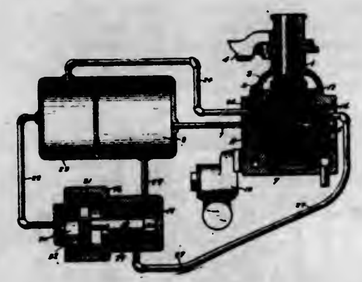
4. In a fluid pressure brake, the combination with a brake cylinder, of a chamber, valve means for controlling the admission and release of fluid under pressure to and from said chamber to control the fluid pressure in the brake cylinder, a movable abutment subject to variations in pressure in said chamber for operating said valve means, a direct application and release pipe through which fluid under pressure is admitted to and released from said chamber, and means for supplying fluid to said pipe when said valve means is operated to supply air to said chamber.

5. In a fluid pressure brake, the combination with a

brake cylinder and train pipe, of a chamber, a valve mechanism subject to the pressure in said chamber for controlling the admission of fluid under pressure to the brake cylinder, a release pipe, an automatic valve device operated by variations in train pipe pressure for supplying air to said chamber and for releasing air from said chamber through said pipe, and means for supplying air to said pipe upon operation of said valve device to supply air to said chamber.

[Claims 6 to 11 not printed in the Gazette.]

1,039,222. BRAKE-VALVE DEVICE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 24, 1911. Serial No. 629,189. (Cl. 188—7.)



1. In a fluid pressure brake, the combination with a train pipe and a brake valve provided with an equalizing reservoir, an equalizing discharge valve mechanism, and a direct exhaust port for venting fluid from the train pipe, of means for controlling the exhaust of air from the equalizing reservoir to the atmosphere and operating upon a predetermined reduction in the equalizing reservoir pressure to close said atmospheric exhaust.

2. In a fluid pressure brake, the combination with a train pipe and a brake valve provided with an equalizing reservoir, an equalizing discharge valve mechanism, and a direct exhaust port for venting fluid from the train pipe, of means for controlling the exhaust of air from the equalizing reservoir and from the train pipe through said direct exhaust port to the atmosphere and adapted upon a predetermined reduction in equalizing reservoir pressure to close said atmospheric exhaust.

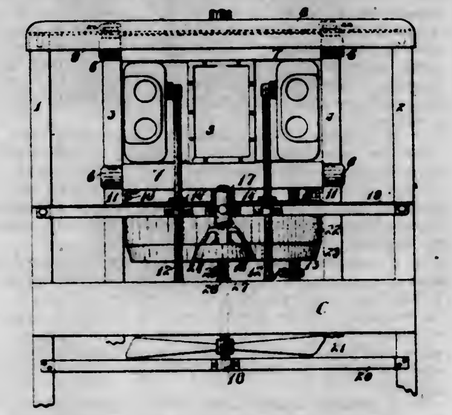
3. In a fluid pressure brake, the combination with a train pipe and a brake valve provided with an equalizing reservoir and an equalizing discharge valve mechanism governed by the pressure in the equalizing reservoir for controlling the discharge of air from the train pipe, of means for controlling the exhaust of air from the equalizing reservoir to the atmosphere, said means being adapted upon a predetermined reduction in equalizing reservoir pressure to close said atmospheric exhaust.

4. In a fluid pressure brake, the combination with a train pipe and a brake valve provided with an equalizing reservoir and an equalizing discharge valve mechanism governed by the pressure in the equalizing reservoir for controlling the discharge of air from the train pipe, of a valve device subject to the opposing pressures of the equalizing reservoir and a chamber for controlling the exhaust of air from the equalizing reservoir and the train pipe.

5. In a fluid pressure brake, the combination with a train pipe and a brake valve provided with an equalizing reservoir and an equalizing discharge valve mechanism governed by the pressure in the equalizing reservoir for controlling the discharge of air from the train pipe, of a valve device subject to the opposing pressures of the equalizing reservoir and a chamber for controlling the exhaust of air from the equalizing reservoir and directly from the train pipe.

[Claims 6 to 8 not printed in the Gazette.]

1,039,223. MEANS TO DRIVE FANS OF MOTOR-VEHICLES. WILLARD IRVING TWOMBLY, New York, N. Y., assignor to Twombly Motors Company, New York, N. Y., a Corporation of New York. Filed Feb. 10, 1911. Serial No. 607,738. (Cl. 21—90.)



1. In a motor vehicle, the combination of a motor having a fly wheel connected thereto and adapted to be placed in position in the vehicle from the front thereof; a rotary fan; and a drive wheel connected to the fan with which the fly wheel is thrown into operative engagement as the motor is placed in position in the vehicle frame whereby to drive said wheel and fan from the fly wheel.

2. In a motor vehicle, the combination of a motor having a fly wheel connected thereto and adapted to be placed in position in the vehicle frame from the front thereof; a rotary fan; and a friction drive wheel connected to the fan with which the fly wheel is thrown into frictional engagement as the motor is placed in position in the vehicle frame, whereby to frictionally drive said wheel and fan from the fly wheel.

3. In a motor vehicle, the combination with a motor adapted to be placed in position in the vehicle frame from the front thereof, of a fly wheel fixed to the shaft of said motor; a rotary fan; a shaft on which said fan is fixed; and a friction drive wheel mounted on the fan shaft with which the fly wheel is thrown into frictional engagement as the motor is placed in the vehicle frame to frictionally drive said wheel and fan from the fly wheel.

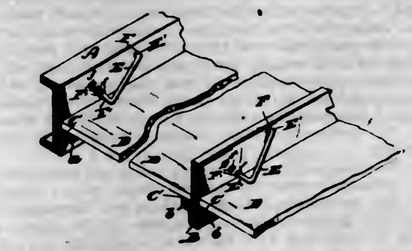
4. In a motor vehicle, the combination with a motor adapted to be placed in position in the vehicle frame from the front thereof, of a fly wheel fixed to the shaft of said motor; a rotary fan; a shaft upon which said fan is fixed; a friction drive wheel mounted on the fan shaft to rotate therewith and have sliding movement thereon, and with which the fly wheel is thrown into frictional engagement as the motor is placed in the frame to automatically couple said wheels, whereby to frictionally drive said wheel and fan from the fly wheel; and means to maintain the friction drive wheel in frictional engagement with the fly wheel.

5. In a motor vehicle, the combination with a motor adapted to be placed in position in the vehicle frame from the front thereof, of a fly wheel fixed to the shaft of said motor; a water cooler fixed to the frame in the rear of the motor and with which the motor is automatically coupled as it is placed in the frame; a rotatable shaft passing through said cooler with its axis parallel with the axis of the motor; a fan fixed to said shaft in the rear of the cooler; a friction drive wheel mounted on said shaft to rotate therewith and have sliding movement thereon, and with which the fly wheel is automatically coupled as the motor is placed in the frame, whereby to frictionally drive said wheel and fan from the fly wheel; and a spring to maintain the friction drive wheel in frictional engagement with the fly wheel.

[Claims 6 and 7 not printed in the Gazette.]



1,039,224. METALLIC-SASH-GLAZING CLIP. WILLIAM E. ULRICH, Detroit, Mich. Filed Jan. 12, 1912. Serial No. 670,758. (Cl. 108—16.)



1. Means for securing glass in a metallic sash frame, consisting of mullions in which are provided perforations to receive one leg of a plurality of engaging staple-like clips, also a plurality of indentations on a radius from the several perforations to receive the swinging leg of the clip, and a plurality of clips, one leg of each being pivotally engaged to the mullion, the other being free to enter any of the several radial indentations encircling the pivot, whereby the swinging end of the clip may be held in contact with the glass to secure the latter in position.

2. In means for supporting and securing glass in a sash frame, mullions provided with perforations to receive one end of a clip and also with indentations radially arranged from each of said perforations to receive the swinging end of the clip, and the clip, one leg of which is adapted to enter one of the perforations, the other leg being free to swing into contact with the glass and to enter one of the several indentations, whereby the glass may be held in position.

3. In means for supporting and securing glass in a sash frame, mullions provided with perforations to receive one end of a staple-like clip and also with indentations radially arranged from each of said perforations to receive the swinging end of the clip, and the clip, one leg of which is adapted to enter one of the perforations, the other leg being free to swing into contact with the glass and to enter one of the several indentations, said legs being inclined toward each other whereby the clips are held against accidental dislodgment from the mullion.

4. In means for supporting and securing glass in a sash frame, mullions provided with perforations to receive one end of a clip and also with indentations radially arranged from each of said perforations to receive the swinging end of the clip, and the clip, one leg of which is adapted to enter one of the perforations, the other leg being free to swing into contact with the glass to enter one of the several indentations, the ends of said legs being beveled to form a knife edge whereby they may more readily enter the depressions.

5. Means for securing glass in a metallic sash frame, mullions provided with perforations to receive one end of a clip and also with indentations radially arranged therefrom to receive the swinging end of the clip, said indentations having an upstanding bur on one side of the indentation to hold the swinging end of the clip against the glass when adjusted.

[Claim 6 not printed in the Gazette.]

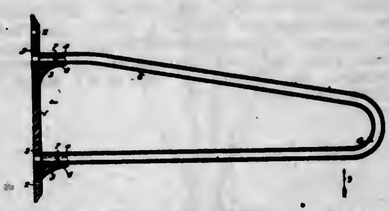
1,039,225. PACKING-CASE. JEAN J. VANDERVEER, Concord, Mass. Filed Mar. 2, 1906, Serial No. 303,766. Renewed Nov. 5, 1910. Serial No. 590,879. (Cl. 229—47.)

1. A blank for a packing-case, having flaps at its sides and ends adapted to be folded over the central portion, the edges of the outer set of flaps when thus folded abutting together, and a metallic fastener for tying each corner of each outer flap to the adjacent corner of its abutting flap and to the adjacent inner flap.



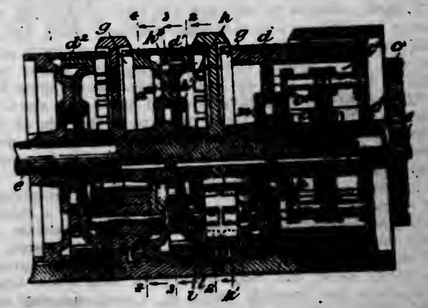
2. An envelop, composed of a single piece of material having side and end flaps folded over the central portion, the side flaps not overlapping each other, in combination with metallic fasteners detachably tying each side flap directly to both end flaps.

1,039,226. GARMENT-RACK. MARSHAL VAUGHAN, Welland, Ontario, Canada. Filed Dec. 14, 1911. Serial No. 665,754. (Cl. 248—18.)



A garment rack comprising a vertical wall bracket provided with two vertically alined, outwardly projecting and parallel webs having parallel concave upper faces in alinement with holes formed in said bracket, said webs being considerably greater in length than the thickness of the material from which the wall bracket is made, an integral supporting rail extending outwardly at right angles to said bracket and bent upon itself to form two substantially horizontal legs, the cross section of which at their free ends conforms to the shape of the holes in the wall bracket, said ends fitting snugly in said holes, the terminal portions of said legs lying in said concaved upper faces of the webs and studs upstanding from the upper faces of the webs adjacent the outer ends of said webs over which said legs are sprung, said legs having openings formed therein for the reception of said studs.

1,039,227. COUNTER. CURTIS HUSSEY VENNER, Hartford, Conn., assignor to Veeder Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed July 23, 1909. Serial No. 509,208. (Cl. 235—95.)



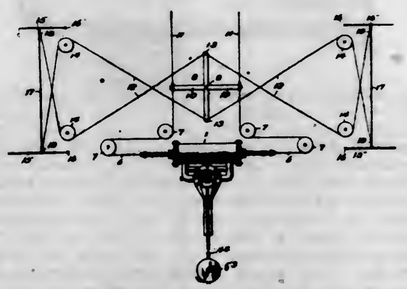
1. In a counter, the combination of a rotatable supporting shaft, number wheels mounted to rotate thereon, an internal transmitting pinion for transmitting movement from one number wheel to the next higher, a driving gear mounted to rotate concentrically with the shaft and in engagement with the transmitting pinion, a pawl

and ratchet connection between the driving gear and the corresponding number wheel and a pawl and ratchet engagement between the supporting shaft and the same number wheel, whereby the number wheel is driven by the driving gear in normal operation and may be rotated independently thereof in resetting.

2. In a counter, the combination of a rotatable supporting shaft, number wheels mounted to rotate thereon, a transmitting pinion for transmitting movement from one number wheel to the next higher, a driving gear mounted to rotate concentrically with the shaft and in engagement with the transmitting pinion, a pawl and ratchet connection between the driving gear and the corresponding number wheel and a pawl and ratchet engagement between the supporting shaft and the same number wheel, whereby the number wheel is driven by the driving gear in normal operation and may be rotated independently thereof in resetting.

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1,039,228. AUTOMATIC BALANCING MECHANISM FOR AEROPLANES. JESSE S. VOOT, Long Green, Md., assignor of one-third to Dwight F. Mallory, Roland Park, Md., and one-third to Ira O. Wright, Baltimore, Md. Filed Feb. 14, 1912. Serial No. 677,583. (Cl. 244—29.)



1. Automatic balancing means for aeroplanes comprising in combination a cylinder, a piston within the cylinder, two piston rods movable with the piston, a valve casing, a rotary valve within the casing having ports in the wall and an exhaust passage, means having passages connecting opposite ends of the cylinder with the interior of the casing and the exhaust passage in the valve, a pipe for introducing fluid under pressure to the interior of the valve and casing, an air tank, a pipe for delivering air under pressure to the tank, valve mechanism in connection with the said delivery pipe actuated by the air under pressure in the tank and pipe to close the delivery pipe when a determinate pressure exists within the tank, a weighted pendulum, means for pivotally supporting the pendulum intermediate its ends, means carried by the short arm of the pendulum and engaging the rotary valve for actuating the said valve and simultaneously admitting fluid under pressure to one side of the piston and allowing it to escape from the opposite side thereof, and means for locking the pendulum so it cannot move about its pivotal point.

2. The combination in balancing means for aeroplanes, of a cylinder, a piston having two piston rods, a rotary valve for controlling the admission to and discharge of fluid under pressure from opposite sides of the piston, a pinion in connection with the valve, a pendulum having relatively short and long lever arms, said short arms comprising two branches united by a rack engaging the said pinion, and means for pivotally supporting the pendulum intermediate its ends.

3. The combination in balancing means for aeroplanes, of a cylinder, a piston having two piston rods, a rotary valve for controlling the admission to and discharge of fluid under pressure from opposite sides of the piston, a pinion in connection with the valve, a pendulum having relatively short and long arms, said short arm comprising two branches united by a rack engaging the said pinion, means for pivotally supporting the pendulum intermediate its ends, and means for locking the pendulum so it cannot move about its pivotal point.

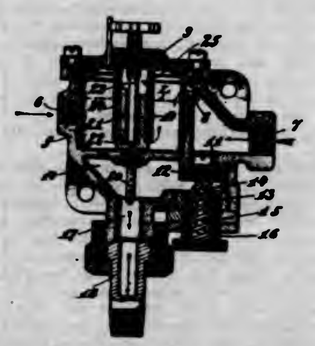
4. The combination in balancing means for aeroplanes, of a cylinder, a piston having two piston rods, a rotary valve for controlling the admission to and discharge of fluid under pressure from opposite sides of the piston, a pinion in connection with the valve, a weighted pendulum having relatively short and long lever arms, said short arm comprising two branches united by a rack engaging the said pinion, means for pivotally supporting the pendulum intermediate its ends, and means for locking the pendulum against movement consisting of a spring retracted reciprocating rod and a wire connected therewith for moving the same into engagement with the pendulum.

5. The combination in balancing means for aeroplanes, of a cylinder, a piston having two piston rods, a rotary valve for controlling the admission to and discharge of fluid under pressure from opposite sides of the piston, a pinion in connection with the valve, a pendulum pivoted intermediate its ends, one end of said pendulum having a rack engaging the said pinion, and a dash pot mechanism operated by the pendulum for retarding its movement.

[Claim 6 not printed in the Gazette.]

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1,039,229. CARBURETER. FRANK H. WALKER, Laporte, Ind. Filed July 27, 1911. Serial No. 640,775. (Cl. 123—180.)



1. In a carbureter, a liquid fuel vessel having an air inlet and a mixture outlet, a jet nozzle having its inlet connected to the vessel and its outlet discharging into the mixture outlet, means for discharging fuel from the vessel through the nozzle by air pressure, means for delivering air under pressure past the outlet of the nozzle, and a pressure reducing valve for said delivery means.

2. In a carbureter, a liquid fuel vessel having a compressed air inlet and a mixture outlet, a nozzle extending into the vessel and discharging into the mixture outlet, a sleeve surrounding the inlet end of the nozzle and having an air port above the liquid level in the vessel, means for delivering air under pressure into the mixture outlet past the mouth of the nozzle, and a pressure reducing valve for said delivery means.

3. In a carbureter, a liquid fuel vessel having a compressed air inlet and a mixture outlet, a nozzle extending into the vessel and discharging into the mixture outlet, a sleeve surrounding the inlet end of the nozzle and located in close proximity thereto to form a contracted passage to the nozzle inlet, said sleeve having an air port above the liquid level in the vessel, and means for delivering air under pressure into the mixture outlet past the mouth of the nozzle.

4. In a carbureter, a liquid fuel vessel having a compressed air inlet and a mixture outlet, a nozzle extending into the vessel and discharging into the mixture outlet, a sleeve surrounding the inlet end of the nozzle and having an air port above the liquid level in the vessel, an air passage from the aforesaid air outlet past the mouth of the nozzle, and a pressure-reducing valve in said passage.

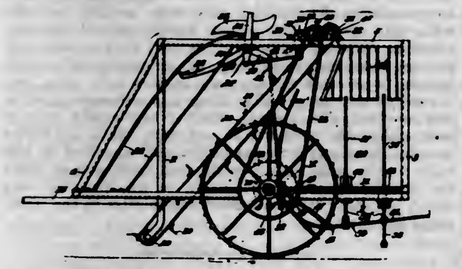
5. In a carbureter, a liquid fuel vessel having a compressed air inlet and a mixture outlet, a nozzle extending upwardly into the vessel from the bottom thereof and discharging into the mixture outlet, a sleeve depending from the top of the vessel and surrounding in spaced relation that portion of the nozzle which extends into the vessel, the lower end of the sleeve being spaced from the bottom of the vessel, and its upper end above the liquid level in the vessel, and having an air port, means for delivering air under pressure into the mixture outlet past the mouth of the nozzle, and a pressure reducing valve for said delivery means.

[Claim 6 not printed in the Gazette.]



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1,039,230. HAY-SHOCKER. OWEN H. WATKINS, Corvallis, Oreg. Filed July 3, 1911. Serial No. 636,809. (Cl. 56—68.)



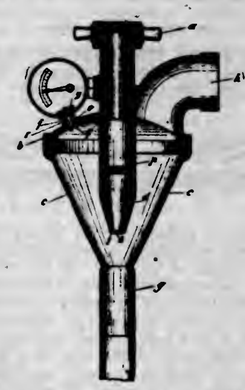
1. In a machine of the character described, a wheeled frame, a transverse shaft mounted in the frame, a shock receptacle in the rear of the frame whose bottom is formed by tines connected to said shaft, a crank shaft mounted transversely in the frame in spaced relation to the aforesaid shaft, a bar to hold said tines normally in operative position, connections between said bar and the crank bends of said crank shaft, a conveyer in front of the receptacle, means for driving the conveyer, means for throwing the conveyer into and out of operation, and means operatively connected to said crank shaft to operate the latter to tilt the tines to discharge the hay from the shock receptacle.

2. In a machine of the character described, a wheeled frame, a transverse shaft in the frame, a shock receptacle in the rear of the frame whose bottom is formed by tines connected at their inner ends to said shaft, a conveyer in front of the receptacle, means for driving the conveyer, means for throwing the conveyer into and out of operation, a crank shaft mounted transversely in the frame, a supporting bar to hold said tines normally in operative position, connections between said supporting bar and the crank bends of said crank shaft, a lever having operative connection with said crank shaft to operate the latter and in turn operate said holding bar so as to tilt the tines to discharge the hay from the receptacle, and packer arms operatively connected with the drive shaft of the machine for packing the material in the receptacle.

3. In a machine of the character described, a wheeled frame, a transverse shaft in the frame, a shock receptacle in the rear of the frame whose bottom is formed by tines connected at their inner ends to said shaft, a conveyer in front of the receptacle, means for driving the conveyer, means for throwing the conveyer into and out of operation, a crank shaft mounted transversely in the frame, a supporting bar to hold said tines normally in operative position, connections between said supporting bar and the crank bends of said crank shaft, a lever having operative connection with said crank shaft to operate the latter and in turn operate said holding bar so as to tilt the tines to discharge the hay from the receptacle, and packer arms operatively connected with the drive shaft of the machine for packing the material in the receptacle, the outer ends of said packer arms being looped, and means at the top of the shock receptacle to prevent the hay from being lifted out of the receptacle by the packer arms on the up-stroke of the latter.

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1,039,231. NOZZLE FOR APPARATUS FOR EXHAUSTING, PROPELLING, AND INDUCING CURRENTS IN FLUIDS. GOTTFRIED WEIDMANN, Hollihon, near Rüschlikon, Switzerland. Filed Feb. 13, 1911. Serial No. 608,368. (Cl. 230—13.)



In a vacuum producing device, the combination of a casing having a discharge outlet and an air inlet opening to said casing rearwardly of said outlet, said casing being normally closed except for said outlet and inlet, a liquid discharge nozzle projecting through the normally closed portion of the casing toward said outlet and with the discharge end in advance of said inlet, the bore of said nozzle being circular and converging toward the discharge end, and an inwardly projecting circular flange at the discharge end of said nozzle contracting the discharging stream, said flange being relatively thin as compared with the cross section of the opening therein.

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1,039,232. AUTOMATIC PISTOL. JOSEPH H. WESSON, Springfield, Mass., assignor to Smith & Wesson, Incorporated, a Corporation of Massachusetts. Filed Dec. 14, 1910. Serial No. 597,241. (Cl. 42—8.)



1. In an ejector mechanism for automatic pistols, the combination with a stationary frame and barrel; of a blow back breech block; an ejector rod located in a recess formed in the lower corner of said breech block, and having a projection extending into a secondary recess in the breech block; a spring located in said secondary recess between the end thereof and the projection from the ejector rod; and a stop on the stationary frame at the

rear of the breech block to engage the ejector rod during the rearward movement of the breech block.

2. The combination with a stationary frame and barrel; of a blow back breech block; an ejector rod located in a recess formed along the lower corner of said breech block, said ejector rod having a projection extending into a supplemental recess, and normally bearing against one end thereof; a spring located in said recess and bearing at one end against said projection, and at the opposite end against the other end of the recess, the end of the ejector rod, in this position, being flush with the end of the breech block; and a stop behind said ejector rod, said stop being formed integral with the stationary frame and the hinge lug, and lying in the path of the ejector rod so as to engage and hold the same stationary during the last part of the rearward movement of the breech block.

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1,039,233. PATTERN FOR COAT-COLLARS. HARRY ROBERT WESTERN, Portsmouth, England. Filed Feb. 17, 1911. Serial No. 609,142. (Cl. 223—2.)



1. An adjustable pattern for the collars of coats and similar garments, comprising in combination, a body portion cut to the shape of the "fall" of the coat collar and provided with transverse slits open to the bottom margin thereof, and longitudinally extending apertures adjacent to the ends of the body portion with graduated margins, a tape secured to said body portion centrally thereof and adjacent the open ends of the said slits therein, with relative movement between the said tape and body portion at both sides of the point of connection therebetween for fitting the pattern in place, and indicators carried by said tape for coöperation with the graduations at the margins of said apertures in said body portion for determining the dimensions of the collar to be formed according thereto.

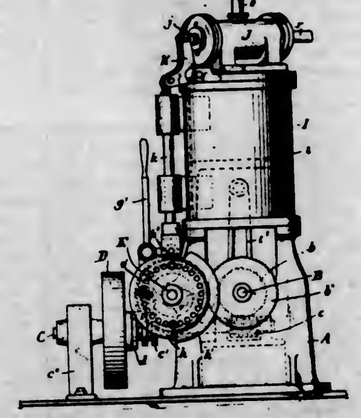
2. An adjustable pattern for the collars of coats and similar garments, comprising in combination, a body portion cut to the shape of the "fall" of the coat collar and provided with transverse slits open to the bottom margin thereof, and longitudinally extending apertures adjacent to the ends of the body portion with graduated margins, a tape secured to said body portion centrally thereof and adjacent the open ends of the said slits therein, with relative movement between the said tape and body portion at both sides of the point of connection therebetween for fitting the pattern in place, indicators carried by said tape for coöperation with the graduations at the margins of said apertures in said body portion for determining the dimensions of the collar to be formed according thereto, and a supplementary portion for said body portion, provided with slits open to the bottom margin thereof and disposed in staggered relation to the said slots in said body portion, whereby a uniform or uninterrupted bottom margin is provided for when the pattern is in place.

3. In patterns for the collars of coats and similar garments, the combination, an adjustable pattern including a body portion cut to the shape of the "fall" of the coat collar and provided with transverse slits open to the bottom margin thereof, and longitudinally extending apertures adjacent to the ends of the body portion with graduated margins, a scale carried by said body portion and extending longitudinally along the top margin thereof, a tape secured to said body portion centrally thereof and adjacent to the open ends of said slits therein with relative movement between said tape and said body portion at both sides of the point of connection therebetween for fitting the pattern in place, indicators carried by said tape for coöperation with the graduations at the margins of said apertures in said body portion for determining the dimensions of a collar to be formed according thereto, and a rigid pattern for supplementing said adjustable pattern and provided with a scale identical to the said scale of said adjustable pattern, an aperture, provided with graduated margins, homologous to one of the said apertures in said body portion with respect to said scale, and an index for positioning the rigid pattern to the material from which the collar is to be formed and relative to the transverse center thereof.

4. In patterns for the collars of coats, and similar garments, the combination, an adjustable pattern including a body portion cut to the shape of the "fall" of the coat collar and provided with transverse slits open to the bottom margin thereof, and longitudinally extending apertures adjacent to the ends of the body portion with graduated margins, a scale carried by said body portion extending longitudinally along the top margin thereof, a tape secured to said body portion centrally thereof and adjacent to the open ends of said slits therein with relative movement between said tape and body portion at both sides of the point of connection therebetween for fitting the pattern in place, indicators carried by said tape for coöperation with the graduations at the margins of said apertures in said body portion for determining the dimensions of the collar to be formed according thereto, a supplementary portion for said body portion provided with slits open to the bottom margin thereof and disposed in staggered relation to the said slots in said body portion, whereby a uniform or uninterrupted bottom margin is provided for when the pattern is in place, and a rigid pattern for supplementing said adjustable pattern and provided with a scale identical to the said scale of said adjustable pattern, an aperture, with graduated margins, homologous to one of the said apertures in said body portion with respect to the said scale, and an index for positioning the rigid pattern to the material from which the collar is to be formed and relative to the transverse center thereof.

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1,039,234. PRESSURE CASTING APPARATUS. SAMUEL PRICE WETHERILL, Jr., and ALBERT WOOD MORRIS, Philadelphia, Pa., assignors to Wetherill Finished Castings Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 18, 1911. Serial No. 639,105. (Cl. 22—69.)



1. In pressure casting apparatus of the character described, the combination with the chamber containing the molten metal, of a valve for admitting compressed air thereto, and automatic power driven mechanism operatively connected with said valve to effect successive similar cycles of movement of said valve; substantially as described.

2. In pressure casting apparatus of the character described, the combination with the chamber containing the molten metal, of a valve for admitting compressed air thereto and automatic power driven mechanism operatively connected with said valve to effect a predetermined cycle of operation of said valve, said mechanism being adapted to be manually started and automatically stopped at the expiration of said cycle; substantially as described.

3. In pressure casting apparatus of the character described, the combination with the chamber containing the molten metal, of separate sources of air under low pressure and high pressure respectively, and means whereby communication may be established between said chamber and the source of air under low pressure, and subsequently between said chamber and the source of air under high pressure; substantially as described.

4. In pressure casting apparatus of the character described, the combination with the chamber containing the molten metal, of separate sources of air under low pressure and high pressure, respectively, and coöperating valves associated to first establish communication between said chamber and the source of air under low pressure, and to then cut off said communication and simultaneously establish communication between said chamber and the source of air under high pressure; substantially as described.

5. In pressure casting apparatus of the character described, the combination with the chamber containing the molten metal, of a cylinder, a piston therein, means for reciprocating said piston, and a valve actuated by said means to effect communication between said chamber and said cylinder during a certain portion of the travel of said piston, and to effect communication between said cylinder and the atmosphere throughout the remainder of the cycle of said piston; substantially as described.

[Claims 6 to 12 not printed in the Gazette.]



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1,039,235. PORTE-POLISHER. HARRY G. WIGGINS, Denver, Colo., assignor to The S. S. White Dental Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 26, 1912. Serial No. 686,299. (Cl. 32—10.)



1. A porte-polisher comprising a tubular section or member having a socket at its forward end for reception of an operative element, a plunger in said tubular section for engaging and holding the said operative element in said socket, means at the opposite end of the said tubular section from said socket for causing movement of the said plunger to project its forward end into said socket for engaging the said operative element, and a device controlled by said means for causing movement of the said plunger in the opposite direction.

2. A porte-polisher comprising a tubular section having at its forward end a socket for the reception of an operative element, the bore of the said tubular section terminating in the said socket, a plunger in said tubular section for engaging and holding the operative element in said socket, means for causing movement of the said plunger to project its forward end into the said socket for engaging the said operative element, and a device controlled by said means for causing movement automatically of the said plunger in a direction away from the said socket.

3. A porte-polisher comprising a tubular section having at its forward end a head provided with a socket for the reception of an operative element, a section having adjustable connection with the end of said tubular section opposite the said head, the said second-named section having an opening in alinement with the said tubular section, a plunger in the said tubular section for engaging and holding the operative element in said socket, the basal end of the said plunger being seated against the bottom of the opening in the said second-named section, movement of the said plunger into and from the said socket being caused by the relative adjustment of the said sections.

4. A porte-polisher comprising a tubular section having a head at its forward end provided with a socket for the reception of an operative element, the bore of said tubular section terminating in the said socket, and the end portion of the said tubular section opposite the said head being screw-threaded, a member having an internally screw-threaded opening in engagement with the said screw-threaded end portion, a plunger in the said tubular section, the basal end of which rests against the bottom of the internally screw-threaded opening of the said member, the said plunger being moved forward to project the forward end into the said socket when the said member is screwed upon the said tubular section, and a spring acting to move the said plunger in the opposite direction when the said member is unscrewed from the said tubular section.

5. A porte-polisher comprising a curved or angular tubular section having an angularly disposed head or member at its outer extremity, said head or member having a socket for the reception of an operative element, a handle section having adjustable connection with said tubular section, a plunger in said tubular section having a flexible portion, means controlled by said handle section for causing the forward end of said plunger to enter the socket, and means also controlled by said handle section for withdrawing said plunger from said socket.

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1,039,236. MULTICOMPARTMENT SHAKER. CHARLES J. WILK and GEORGE F. HOLTZ, Rochester, N. Y. Filed Apr. 1, 1912. Serial No. 687,667. (Cl. 65—45.)



1. A multi-compartment shaker comprising a main compartment having a reduced discharge portion open at its upper end, the reduced discharge portion connecting with the other portion of the main compartment above the bottom of said compartment by an outwardly turned portion, a member surrounding said reduced discharge portion, open at its upper end, and having its lower end secured to the main compartment at such a point that the outwardly turned portion forms the bottom of a compartment lying between the said member and the reduced portion, and a common closure for the two compartments.

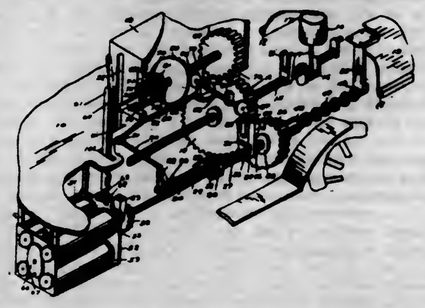
2. In a multi-compartment shaker, the combination of a main compartment formed of a bottom member and a reduced discharge member open at its top, flared outwardly at its lower end and secured to the bottom member, with a second compartment formed by a member surrounding the reduced discharge member and secured at its lower end so that the flared portion of the discharge member forms the bottom of the second compartment.

3. In a multi-compartment shaker, the combination of a main compartment formed of a bottom member and a member open at its upper end and turned outwardly at its lower end which is secured to the bottom member, with a second compartment formed of a member surrounding the open ended member, open at its upper end and secured at its lower end at the lower end of the second named member, and a common closure for the two compartments.

4. In a multi-compartment shaker, the combination with a bottom member, and a member seamed thereto and open at its upper end, of a member arranged within the structure thus formed, open at its upper end, flared outwardly at its lower end and secured in the seam between the first two named members.

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1,039,237. STARTING DEVICE FOR GAS-ENGINES. ELLIOTT WILLIAMS, Kansas City, Mo. Filed Aug. 26, 1911. Serial No. 646,147. (Cl. 123—179.)



1. In a mechanism for imparting a starting movement to gas engines, a motor, and a rotary power shaft actuated thereby, a sliding sleeve keyed on said shaft, and a gear wheel loosely mounted on said sleeve having a recess, and ratchet teeth in the side of said recess concentric with the gear teeth and the periphery of said wheel, a fixed wheel on said sleeve, and a spring bolt adapted to engage with the ratchet teeth.

2. In a mechanism for imparting a rotary movement to gas engines, a motor, and a rotary shaft actuated thereby, a suitable guide support for said shaft, a sliding sleeve keyed on said shaft, self-engaging means on said support engaging with said sleeve, and a retracting spring on said shaft connected with said shaft and sleeve.

3. In a mechanism for imparting a starting movement to gas engines, a motor, and a rotary shaft actuated thereby, a suitable guide support on said shaft, and a catch on said support, a loose and a fixed wheel on said sleeve, and interlocking means for the fixed and loose wheels for rotation in one direction in unison, means for retracting said sleeve, and means on the sleeve engaging with the catch on the support on said shaft.

4. A mechanism for imparting a starting movement to gas engines comprising the main rotary driving shaft of the engine and its fly wheel, an auxiliary rotary power shaft and a shaft support a motor actuating said auxiliary rotary shaft, a fixed gear wheel on the main power shaft and a sliding sleeve on the auxiliary rotary shaft keyed on said shaft a gear wheel on said sleeve movable in gear with the gear wheel on the main driving shaft a catch on the support for the auxiliary rotary shaft engaging devices on said sleeve engaging with said catch a lever acting to move the sliding sleeve rearwardly into engagement with the said catch, a sleeve retracting spring, and a catch releasing device to which movement is imparted from the fly wheel on the main power shaft upon the completion of a number of initial revolutions thereof.

5. The combination with a gas engine and a main rotary driving shaft, and the fly wheel on said shaft provided with gear teeth upon its periphery, of starting mechanism consisting of an auxiliary rotary power shaft, and a guide support through which said shaft extends adjacent the fly wheel, a motor actuating the auxiliary shaft, a sliding gear wheel keyed on the latter shaft, a catch on the said support for releasably holding the gear wheel in mesh with the fly wheel, and a retracting spring on said auxiliary shaft for moving said sliding gear wheel out of mesh with the fly wheel, a train of gears actuated by the fly wheel, and a rotary wheel actuated by the train of gear, and a releasing device carried by the rotary wheel for releasing said catch.

[Claims 6 to 13 not printed in the Gazette.]

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1,039,238. OXYACETYLENE-TORCH. PRIOR F. WILLIS, St. Louis, Mo. Filed Oct. 6, 1911. Serial No. 653,162. (Cl. 158—100.)



1. In an oxy-acetylene torch a burner head comprising a body having a nozzle extension and a coupling extension or extensions, said body having intercommunicating passageways for oxygen and acetylene gas, respectively, said coupling extension or extensions having supply ducts for oxygen and acetylene gas communicating with the respective intercommunicating passageways, said nozzle extension having a passageway for mixed oxygen and acetylene gas extending therethrough and communicating with said intercommunicating passageways at their point of connection, said body and coupling and nozzle extensions being integral throughout said passageways and ducts.

2. A burner head for oxy-acetylene torches comprising a body having a nozzle extension, said body being relatively larger in diameter than the nozzle extension and having an annular chamber extending about its longitudinal axis, the portion of the body within said chamber having a transverse passageway therethrough communicating at its ends with the chamber, said body having an axial passageway communicating at one end with said transverse passageway, an oxygen supply duct communicating with said axial passageway and an acetylene-gas supply duct communicating with said annular chamber, said nozzle extension having an axial passageway therethrough extending into said body and communicating with said transverse passageway, said body and nozzle extension being integral throughout said passageways and ducts.

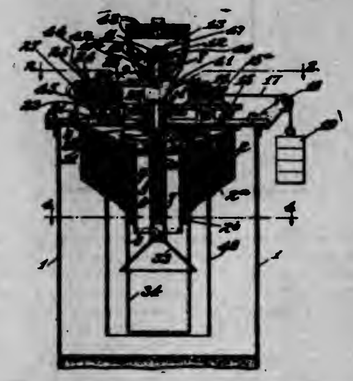
3. A burner head for oxy-acetylene torches comprising a body having an integral nozzle extension, said body having an annular chamber extending about its longitudinal axis, a transverse passageway extending through the portion of the body within said chamber and communicating at its ends with the chamber, said body having an axial bore adjacent to its end, the outer portion of said bore being counterbored and closed by a removable plug, an axial passageway communicating at its inner end with said transverse passageway and at its outer end with said axial bore, a lateral oxygen supply duct communicating with said axial bore, a lateral acetylene-gas supply duct communicating with said annular chamber, and a lateral opening adapted to communicate with said annular chamber and closed by a removable plug, said nozzle extension having an axial passageway therethrough extending into said body and communicating with said transverse passageway.

4. In an oxy-acetylene torch, a burner head provided with an integral nozzle portion, the burner head at the base of the nozzle portion being enlarged and globular, said globular portion having a central annular chamber extending around the axis thereof, a longitudinal outlet passageway extending axially through the nozzle portion and into the globular portion, a transverse passageway communicating with the inner end of said outlet passageway and communicating at its opposite ends with said annular chamber, said burner head also having a restricted axial passageway in line with said outlet passageway and communicating at its end with said transverse passageway, said burner head also having an acetylene gas passageway communicating with said annular chamber and an oxygen passageway communicating with said restricted passageway.



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1,039,239. ACETYLENE-GAS GENERATOR. PRIOR F. WILLIS, St. Louis, Mo. Filed Feb. 10, 1912. Serial No. 676,741. (Cl. 48—38.)



1. In an acetylene-gas generator, a carbid-receptacle having a vertically-movable open-ended tubular member constituting the carbid-outlet for such receptacle, and pressure-controlled mechanical means coöperating with said tubular member so as to support it with its upper end initially near the top of the receptacle and adapted to effect an intermittently progressive movement of the tubular member downward.

2. In an acetylene-gas generator, a carbid-receptacle having a vertically-movable tubular member therein terminating initially near the top of the receptacle and constituting a carbid-outlet for such receptacle, means including a motor for progressively lowering said tubular member, and a pressure-controlled brake for said motor.

3. In an acetylene-gas generator, a carbid-receptacle having a vertically movable tubular member constituting a carbid-outlet for such receptacle, and means for moving the carbid in said receptacle to said tubular member.

4. In an acetylene-gas generator, a carbid-receptacle having a vertically-movable tubular member constituting a carbid-outlet for such receptacle, means for progressively moving said tubular member, and means coöperating with said tubular member for moving the carbid thereto.

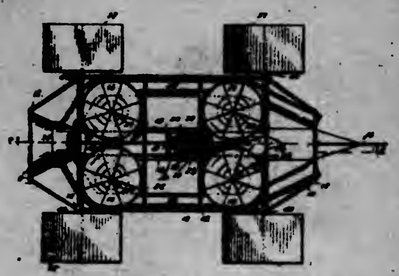
5. In an acetylene-gas generator, a carbid-receptacle having a vertically-movable tubular member constituting a carbid-outlet for such receptacle, and a rotatory device for moving the carbid to said tubular member.

[Claims 6 to 20 not printed in the Gazette.]

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1,039,240. AEROMOTOR. BRUNO KOHN, Chicago, Ill. Filed June 15, 1908. Serial No. 438,481. (Cl. 244—11.)

1. In a mechanically levitated aeromotor, in combination, a body-framework sustaining a propeller-motor axially upright lifting propellers disposed in pairs forward and aft and on either side of the fore-and-aft centerline and all rotating frontward and inward, said propellers being mutually separated by sheathing supported around the zones of the sweep of their blades, an axially horizontal propeller, and steering means, substantially as specified.



2. In a mechanically levitated aeromotor, in combination, a body-framework sustaining a propeller-motor, axially upright lifting propellers disposed in pairs forward and aft and on either side of the fore-and-aft centerline and all rotating frontward and inward, an axially horizontal propeller located forward, an exhaust conduit leading rearward from said propeller, and steering means, substantially as specified.

3. In a mechanically levitated aeromotor, in combination, a body-framework sustaining a propeller-motor, axially upright lifting propellers disposed in pairs forward and aft and on either side the fore-and-aft centerline and all rotating frontward and inward, an axially horizontal propeller located forward, a pair of laterally disposed exhaust conduits leading rearward from said propeller, and steering means, substantially as specified.

4. In a mechanically levitated aeromotor, in combination, a body-framework sustaining a propeller-motor, axially upright lifting propellers disposed in pairs forward and aft and on either side of the fore-and-aft centerline and all rotating frontward and inward, an axially horizontal propeller located forward, a pair of laterally disposed exhaust conduits leading rearward from said propeller, and a rudder swung between the discharge ends of said conduits, substantially as specified.

5. In a mechanically levitated aeromotor, in combination, a body-framework sustaining a propeller-motor, axially upright lifting propellers disposed in pairs forward and aft and on either side the fore-and-aft centerline and all rotating frontward and inward, an axially horizontal propeller located forward, a pair of laterally disposed exhaust conduits leading rearward from said propeller and having their discharge ends converging toward the rudder, and a rudder swung between the discharge ends of said conduits, substantially as specified.

[Claims 6 to 20 not printed in the Gazette.]

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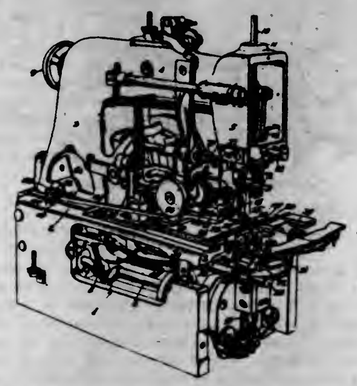
1,039,241. CORD-LAYING DEVICE FOR SEWING-MACHINES. EDWARD B. ALLEN, Bridgeport, Conn., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed June 10, 1911. Serial No. 632,832. (Cl. 112—4.)

1. In a sewing machine, the combination with means for producing an overseam comprising stitch-forming and feeding mechanisms, of a cord-guide for laying a cord within said overseam, and means for effecting the drawing of the cord-end within the initial end of the overseam.

2. In a sewing machine, the combination with means for producing an overseam comprising stitch-forming and feeding mechanisms, of a cord-guide for laying a cord within said overseam, and means disposed between the delivery end of the cord-guide and the source of cord-supply for measuring and cutting off a length of cord prior to its delivery from the cord-guide.

3. In a sewing machine, the combination with means for producing an overseam comprising stitch-forming and feeding mechanisms, of a cord-guide for laying a cord within said overseam, intermittently acting means for

effecting the drawing of the initial cord-end through the initial overseam stitches, and means for measuring and cutting off a length of cord proportionate to but shorter than the length of the overseam.



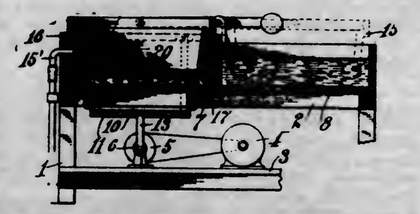
4. In a sewing machine, the combination with means for producing an overseam comprising stitch-forming and feeding mechanisms, of a cord-guide for laying a cord within said overseam, a cord-cutter, and actuating means adapted to impart operative movements to said cord-cutter and timed to impart such operative movements while the stitch-forming mechanism is in action.

5. In a sewing machine, the combination with means for producing an overseam comprising stitch-forming mechanism, and feeding mechanism for producing relative feeding movements between the stitch-forming mechanism and the work for spacing the stitches, of cord-presenting means sustained at a fixed distance from said stitch-forming mechanism and adapted to present to it a cord to be embraced by said overseam, and means for temporarily detaining the cord from passage through said cord-presenting means as the stitching and feeding progresses.

[Claims 6 to 27 not printed in the Gazette.]

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1,039,242. MACHINE FOR ETCHING PLATES. HORACE W. BAKER, Dayton, Ohio. Filed Oct. 18, 1911. Serial No. 655,360. (Cl. 41—9.)

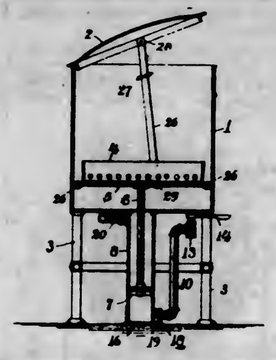


1. In a machine of the type specified, the combination with a tank for containing an etching solution, of a reciprocating frame received by said tank, means for reciprocating said frame, a plate holder received by said reciprocating frame and adapted to be reciprocated thereby, and arms pivotally attached to said plate holder and adapted to act as guides for said plate holder when said plate holder is transferred from one tank to the other, said pivotal arms being also adapted to permit the plate holder to be reversed to permit inspection of the plate.

2. In a machine of the type specified, the combination with an etching tank and an adjacent washing tank, of a reciprocating frame received by said etching tank, means for reciprocating said frame, a plate holder received by said reciprocating frame and adapted to be reciprocated thereby, and arms pivotally attached to said plate holder and adapted to act as guides for said plate holder when said plate holder is transferred from one tank to the other, said pivotal arms being also adapted to permit the plate holder to be reversed to permit inspection of the plate.

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1,039,243. STERILISER. ROBERT P. BARNSTEAD, Boston, Mass. Filed May 25, 1906. Serial No. 318,772. (Cl. 167—3.)



1. The combination with a steriliser tank, of a cylinder located beneath the same, a piston fitted to the cylinder and having a piston rod rising therefrom within the tank, a shelf supported by said rod, and means for admitting fluid under pressure to the cylinder beneath the piston.

2. The combination with a steriliser tank, of a cylinder located beneath the center of the same, a piston fitted to the cylinder, a piston rod rising from the piston into the tank, supporting devices carried by said rod, means for admitting fluid under pressure to the cylinder beneath the piston, and closing means for said means.

3. The combination with a steriliser tank, of a cylinder fixed beneath the center of the bottom of the tank, a piston fitted to the cylinder, a piston rod rising from the piston into the tank, a shelf fitted to receive the upper end of the rod, and means for introducing a fluid under pressure to the cylinder beneath the piston.

4. The combination with a tank, of a cylinder fixed beneath the center of the bottom of the tank, a piston fitted to the cylinder, a piston rod rising from the piston, a removable guide penetrated by the rod and located at the juncture of the cylinder and tank, means for introducing a fluid under pressure to the cylinder beneath the piston, and valve-controlled pipes connected to the upper end and the lower end of the cylinder.

5. The combination with a tank, of a cylinder fixed beneath the same, a piston fitted to the cylinder, a piston rod rising from the piston into the tank, an object-carrying means supported by said rod, a pipe communicating with the lower end of said cylinder and rising to a point close beneath said tank, a fluid receiving pipe and a discharge pipe both communicating with the upper end of the first-named pipe, and a three-way valve at the juncture of said pipes and controlling the same.

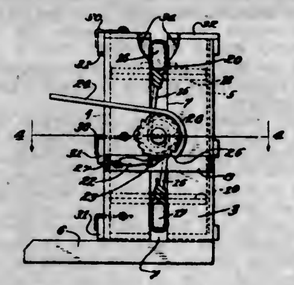
[Claims 6 to 9 not printed in the Gazette.]

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1,039,244. PAPER-BALER. ALBERT H. BEALL, Clinton, Iowa, assignor to R. N. Howes and H. U. Crockett. Filed Aug. 11, 1910. Serial No. 576,684. (Cl. 100—12.)

1. A baler comprising, in combination, a frame-work having side walls and end walls, an intermediate wall associated with each end wall to form therewith an end chamber said intermediate walls having vertical openings, a baling chamber between said end chambers, a pair of followers adapted to operate in said baling chamber to compress the material between them, said followers comprising each a compression member and an actuating bar, said bars extending from one end chamber to the other across said baling chamber, a rotatable shaft mounted in each end chamber and provided with a transverse opening, said shafts extending longitudinally of the frame-work in axial alinement with each other, a cable passing through said opening and engaging the shaft at a point midway of the cable, whereby rotation of the shaft causes both ends of the associated cable to be wound upon the shaft or unwound therefrom, the free ends of each cable being adapted for attachment to said bars, a ratchet wheel secured to each shaft, a hook-shaped hand lever for engaging said ratchet wheels to actuate the same, so that the followers are simultaneously moved toward each other, and means for preventing reverse rotation of said shafts.





2. A baler comprising in combination, a frame-work having side walls and end walls, an intermediate wall having vertical openings in its upper and lower portions associated with each end wall to form therewith an end chamber, said intermediate wall forming the end walls of the baling chamber, a pair of followers adapted to operate in said baling chamber to compress the material between them, a rotatable shaft journaled in each end wall and the associated intermediate wall substantially midway of the end chambers, said shafts extending longitudinally of the frame-work in axial alinement with each other, connections in said end chambers between said shafts and said followers, so that rotation of said shafts causes the followers to move toward each other simultaneously, and means on the outside of said end chambers for operating said shafts.

3. A baler comprising in combination, a frame-work having side walls and end walls, an intermediate wall having vertical openings in its upper and lower portions associated with each end wall to form therewith an end chamber, said intermediate walls forming the end walls of the baling chamber, a pair of followers adapted to operate in said baling chamber to compress the material between them a rotatable shaft journaled in each end wall and the associated intermediate wall substantially midway of the end chambers, said shafts extending longitudinally of the frame-work in axial alinement with each other, the outer ends of said shafts projecting beyond the end walls of the frame-work, connections in said end chambers between said shafts and said followers, so that rotation of the shafts causes the followers to move simultaneously toward each other, a lever wheel fixed to the outer end of each shaft on the outside of said end chambers, and a hand lever having a curved portion adapted to engage the periphery of the ratchet wheels when applied thereto, said curved portion terminating in a hook to engage the teeth of the ratchet wheels for actuating said shafts, and means for preventing reverse rotation of said shafts.

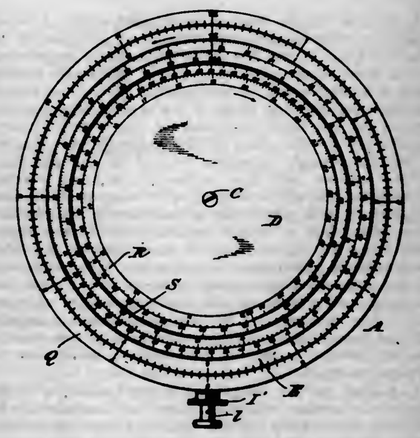
4. A baler comprising, in combination a frame-work having side walls and end walls, an intermediate wall associated with each end wall to form therewith an end chamber, said intermediate walls having vertical openings said intermediate walls forming the end walls of the baling chamber, a follower adapted to operate in said chamber to compress the material therein, a rotatable shaft journaled in each end wall and the associated intermediate wall substantially midway of the end chambers, said shafts extending longitudinally of the frame-work in axial alinement with each other, connections in said end chambers between said shafts and said follower, so that rotation of the shafts lowers the follower, and means outside of said end chambers for operating said shafts.

5. In a baler, a frame-work having end walls and side walls, a pair of end chambers and a central baling chamber arranged between said end walls and having vertical side openings, a follower movable in said baling chamber to compress the material therein, a shaft journaled in each end chamber longitudinally of the frame-work, operative connections housed in said end chambers between said followers and said shafts, and means on the outside of said end chambers for operating said shafts.

[Claims 6 and 7 not printed in the Gazette.]

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1,039,245. CALCULATING INSTRUMENT. CLARENCE A. BISHOP, New York, N. Y. Filed Nov. 13, 1908. Serial No. 462,376. (Cl. 235—84.)



1. In a calculating instrument, means for determining elapsed time, means for indicating said elapsed time, and a logarithmic scale coöperating with said means for calculating the amounts of wages for such elapsed time at variable rates per hour.

2. In a calculating instrument, means for indicating variable periods of time, and a logarithmic scale coöperating with said indicating means for calculating the amounts of wages for such variable periods at variable rates per hour.

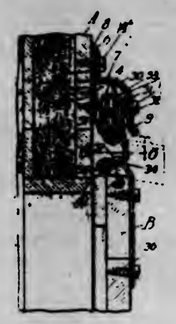
3. In a calculating instrument, a plurality of revoluble members provided with dials, separate operating devices whereby said members may be rotated independently of each other, and stop mechanism operated by one of said members and adapted to control or limit the rotation of the other member.

4. In a calculating instrument, a plurality of revoluble members provided with logarithmic scales, a separate clock dial, separate operating devices whereby said members may be rotated independently of each other, and stop mechanism operated by one of said members and adapted to control or limit the rotation of the other member.

5. In a calculating instrument, a clock dial, a plurality of revoluble dials, means for separately operating said revoluble dials, and stop mechanism whereby the rotation of one dial to a determined position is adapted to arrest the rotation of the other dial at a determined position.

[Claims 6 to 17 not printed in the Gazette.]

**1,039,246. DOOR-HANGER.** LOUIS A. BITTORF, Sterling, Ill., assignor to National Manufacturing Company, Sterling, Ill., a Corporation of Illinois. Filed Nov. 9, 1911. Serial No. 659,436. (Cl. 16—7.)



1. A door hanger comprising a track-wheel, a wheel-supporting member extending downward considerably beyond the wheel at one side thereof and thence transversely of the wheel to the other side thereof where said member forms a hinge bearing; a door bracket having legs extending past opposite side edges of the said wheel-supporting member at the lower part thereof and bent to extend transversely of the wheel in the same general direction as the transversely extending portion of the wheel-supporting member, said legs terminating in hinge bearings alined with that of the latter; and a hinge pintle extending through said alined bearings and forming therewith a hinge offset from a central vertical plane of the wheel; there being left an unobstructed space between the wheel tread and the transversely extending portions of the door bracket and wheel-supporting members to accommodate the track and provide for outward and upward swinging of the door bracket, and the said transversely extending portions having overlapping parts adapted to contact when the door bracket is pendent, substantially as and for the purpose described.

2. A door hanger comprising a track-wheel, a wheel-supporting member extending downward considerably beyond the wheel at one side thereof and thence transversely of the wheel to the other side thereof where said member forms a hinge bearing; a door bracket having legs extending past opposite side edges of the said wheel-supporting member at the lower part thereof and bent to extend transversely of the wheel in the same general direction as the transversely extending portion of the wheel-supporting member, said legs terminating in hinge bearings alined with that of the latter; and a hinge pintle extending through said alined bearings and forming therewith a hinge offset from a central vertical plane of the wheel; there being left an unobstructed space between the wheel tread and the transversely extending portions of the door bracket and wheel-supporting member to accommodate the track and provide for outward and upward swinging of the door bracket, and the transversely-extending portion of the wheel-supporting member having laterally projecting lugs on its side edges underlying the transversely extending portions of the wheel bracket legs respectively; substantially as and for the purpose described.

3. A door hanger comprising a track wheel; a substantially U-shaped sheet-metal door bracket, a wheel-supporting member consisting of the metal piece removed to form the U-shaped door bracket and so produced with laterally projecting lugs; the legs of the U-shaped bracket and the lug bearing portion of the wheel-supporting member being bent to extend transversely of the wheel and terminating in alined hinge bearings, and the lugs underlying the transversely extending portions of the bracket-legs; and a hinge pintle engaging said bearings and forming therewith a hinge offset from a central vertical plane of the wheel.

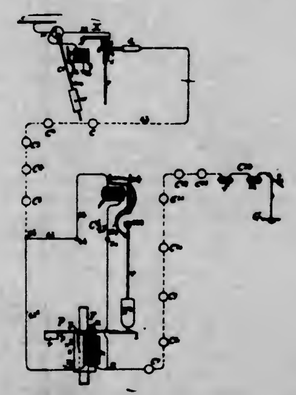
4. A door hanger structure comprising a track plate adapted to be secured against the building and having an angular portion to project therefrom terminating in an upturned portion for forming a grooved track; a cover plate adapted to be secured at its upper portion against the building and having an overhanging portion extending outwardly beyond the track plate and downwardly into proximity thereto; a wheel adapted to run in the grooved track and under the cover-plate; a wheel supporting member having a wheel bearing portion under said cover plate and above the track, an outer portion depending angularly through the space between the latter and the cover plate, and a lower inwardly turned portion extending under the track and spaced therefrom and terminating in a hinge bearing; a door bracket having an inturned portion terminating in a hinge bearing alined with that of the wheel-supporting member; and a hinge pintle; the hinge axis being inwardly beyond the vertical plane of the wheel tread, and the door bracket and wheel-supporting member having stop-portions adapted to contact when the door bracket is pendent.

5. A door hanger structure comprising a track plate adapted to be secured against the building and having an angular portion to project therefrom terminating in an upturned portion for forming a grooved track; a cover plate adapted to be secured at its uppper portion against the building and having an overhanging portion extending outwardly beyond the track plate and downwardly into proximity thereto and terminating in an outwardly inclined or flaring portion; a wheel adapted to run in the grooved track and under the cover plate; a wheel carrier or frame comprising portions lying on opposite sides of the wheel, the portion on the outside having a downward extension directed outwardly at an angle approximating that of the flaring portion of the cover plate; and a door bracket bent inwardly at its upper portion to join the wheel carrier in a plane inward of the aforesaid portion of cover plate which extends downwardly into proximity to the track.

[Claims 6 to 8 not printed in the Gazette.]

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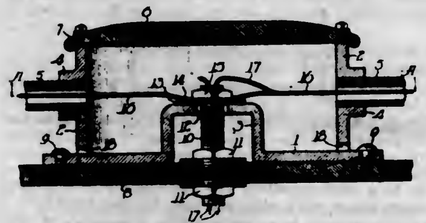
**1,039,247. ELECTRIC SIGNAL.** CHARLES C. BLAKE, Brookline, Mass., assignor to Blake Signal and Manufacturing Co., Boston, Mass., a Corporation of Massachusetts. Filed Feb. 29, 1912. Serial No. 680,569. (Cl. 177—341.)



A selective signal system consisting of a transmitting-station having means for sending impulses of different frequencies over a line-wire when connected thereto; a series of way-stations each provided with a pendulum device adapted to respond to said impulses, with means at each way-station to lock said pendulum device and prevent its vibrating, as set forth.



**1,039,248. JUNCTION-BOX.** WILLIAM L. BLISS, Milwaukee, Wis., assignor to The United States Light & Heating Company, New York, N. Y., a Corporation of Maine. Filed May 2, 1910. Serial No. 559,017. (Cl. 247—12.)



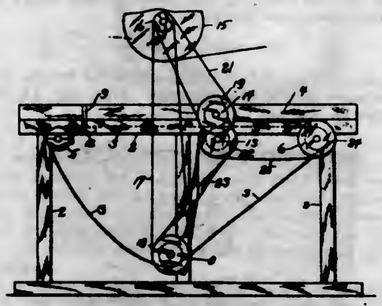
1. A junction box having a raised portion, an opening in said portion for the exit of conductors, other openings in said box in substantially the same plane as the top of said raised portion, for the exit of additional conductors which are connected to said first conductors, drainage holes in said box, located lower than said raised portion, and a cover for said box.

2. The combination with a junction box, of a support therefor, a projecting member secured to said support, said junction box having a recessed portion adapted to fit over said member and provided with an opening to receive said member, conductors carried by said member and entering the box, openings in said box for additional conductors, said openings being located above the base of said box, whereby moisture is prevented from entering by any of said openings.

3. The combination with a junction box having a cover and external lugs, of a support, means for securing said lugs to said support, a tube secured to said support and projecting therefrom, said box having a raised portion across the base with an opening to receive said tube; a nut, washer and gasket on said tube to seal said opening, additional openings in opposite ends of said box adapted to receive threaded pipes, main leads passing through said box from said opposite openings, branch conductors secured to said leads and passing out through said tube, drainage openings in the walls of said box and a sealing gasket between said cover and said box.

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**1,039,249. BEAN-CLEANER.** WILLIAM J. BLOOMFIELD, Antioch, Cal. Filed July 15, 1912. Serial No. 709,434. (Cl. 130—18.)



1. In a bean cleaner, the combination of an endless traveling screen, a yielding surface roller in operative relation with said screen and means for driving said screen.

2. In a bean cleaner, the combination of an endless traveling screen of spiral wire fabric, a yielding surface roller arranged above said screen and a support below said screen in line with said roller.

3. In a bean cleaner, the combination of an endless traveling screen of spiral wire fabric, a yielding surface roller arranged above and in proximity to said screen and a hard surface roller arranged below and in contact with said screen in line with said yielding surface roller.

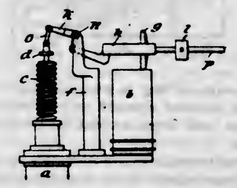
4. In a bean cleaner, the combination of an endless traveling screen of spiral wire fabric, a yielding surface roller arranged above and in close proximity to said screen, a hard roller arranged below and in contact with said screen in line with said yielding surface roller, and a pin roller engaging said screen.

5. In a bean cleaner, the combination of an endless traveling screen of spiral wire fabric, a yielding surface roller arranged above said screen, a hard roller arranged below said screen in line with said yielding surface roller, and means for driving said screen and said rollers.

[Claims 6 to 9 not printed in the Gazette.]

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**1,039,250. COUNTING APPARATUS FOR THE INDICATED OUTPUT OF PISTON-ENGINES.** ANTON FRIEDRICH CLAUS BÖTTCHER and LUDWIG WILHELM LEHMANN, Hamburg, Germany, assignors to The Firm of H. Maihak, Hamburg, Germany. Filed Nov. 8, 1909. Serial No. 526,828. (Cl. 73—15.)



1. In an apparatus of the character described, the combination with the indicating drum, the calibrated spring and piston rod of an engine indicator; of a friction wheel contacting with and driven by said drum, a spindle on which said wheel is mounted, means connecting the spindle to the piston rod of the indicator to traverse said wheel and spindle with respect to the drum and a registering mechanism operated from said wheel.

2. In an apparatus of the class described, the combination with the indicating drum, the calibrated spring, and piston rod of an engine indicator; of a friction wheel maintained in frictional engagement wth the end of said drum, a frame in which said wheel is mounted, a bell-crank lever to which said frame is pivoted and pivotally connected to the piston rod, a registering mechanism carried by the frame to register the rotations of said wheel and means to vary the pressure of the wheel on the cylinder.

3. In an apparatus of the character described, the combination with the indicating drum, the calibrated spring, and piston rod of an engine indicator; of a friction wheel maintained in frictional engagement with the end of said drum, a frame in which said wheel is mounted, a bell-crank lever to which said frame is pivoted and pivotally connected to the piston rod, a registering mechanism carried by the frame to register the rotations of said wheel and an adjustable weight to vary the pressure of the wheel on the cylinder.

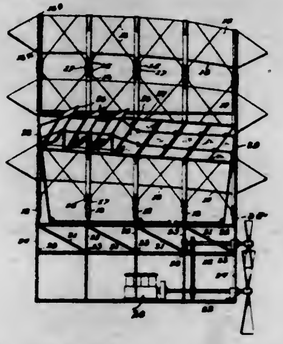
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**1,039,251. AIR-CRAFT.** FREDERICK BRACKETT, Washington, D. C. Original application filed July 11, 1910, Serial No. 571,428. Divided and this application filed August 12, 1911. Serial No. 643,653. (Cl. 244—6.)

1. An air craft comprising a plurality of gas containers, each one of said containers being formed of an elongated and pointed element substantially rectangular in cross-section and being curved longitudinally, means for securing said gas containers side by side in superposed groups to provide planes, and propelling means for the planes.

2. An air craft comprising a plurality of plane-elements each one of said elements being formed of an elongated gas container having wedge-shaped ends and flat sides, means for grouping said containers in superposed and transverse series, and propelling means suspended beneath the plane-elements.

3. An air craft comprising a plurality of elongated and pointed gas containers being substantially rectangular in cross-section, securing means for the gas containers for holding the same side by side in separate groups to form planes, said gas containers being curved longitudinally throughout their lengths whereby the planes are curved in the direction of the line of flight, and propelling means for the planes.



4. An air craft having a gas container formed of an elongated and pointed element substantially rectangular in cross-section and being curved longitudinally throughout its length.

5. An air craft comprising a plurality of gas containers substantially rectangular in cross-section and tapering at their ends, said containers being curved longitudinally throughout their lengths, means for grouping said containers to form planes, and propelling means for the planes.

[Claims 6 to 12 not printed in the Gazette.]

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1,039,252. SAFETY-ENVELOP. MIRA E. CALDWELL, Lynn, Mass. Filed Feb. 4, 1911. Serial No. 606,546. (Cl. 229—82.)

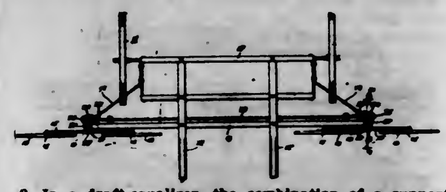


A safety envelop, comprising two end flaps and two side flaps of centrally converging form, the side flap at the bottom having converging edges slitted transversely to the envelop on each side of the apex in parallel lines to form a tongue 5 with the slits diverging to the outer converging edges of the flap on each side of its apex to form an enlarged head 5ª, the side edges of said flap and the tongue and its enlarged head being all gummed on the inner face, and the centrally converging flap at the top being slitted near its apex and being gummed along its side edges and also on both sides of the slit on the inner face to give, with the conventional form of envelop, a double sealing effect as described.

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1,039,253. DRAFT-EQUALIZER. WILLIAM W. CAMERON, La Crosse, Wis., assignor to La Crosse Plow Company, La Crosse, Wis., a Corporation of Wisconsin. Filed Dec. 16, 1910. Serial No. 597,701. (Cl. 21—76.)

1. In a draft equaliser, the combination of a support, a draft-bar at each side, pivotal connections for the draft-bars respectively which permit them to swing laterally, a plurality of draft-arms rigid on each draft-bar and capable of swinging with said bars respectively, pivotal connections for said bars which permit them to be rocked in fore and aft direction by said arms, and a connection between the bars for operating one from the other when they are rocked by said arms.



2. In a draft-equaliser, the combination of a support, a draft-bar at each side, brackets for the draft-bars respectively pivoted to swing laterally, a plurality of draft-arms rigid on each bar and capable of swinging laterally with said bars respectively, pivotal bearings for said bars in said brackets which permit the bars to be rocked by the fore and aft swing of the arms, and a connection between the bars for operating one from the other when the draft-arms rock said bars in their bearings.

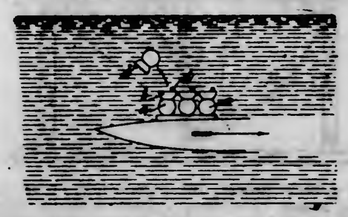
3. In a draft-equaliser, the combination of a support, a draft-bar at each side, brackets for the draft-bars respectively which permit them to swing laterally, said brackets having openings therein, a pair of draft-arms rigid on each bar and capable of swinging laterally with said bars respectively, bearings in said brackets which permit the bars to be rocked by the fore and aft swing of the arms, a rigid arm on each of the draft-bars and disposed in the openings in the brackets, and an equalizing connection between said latter brackets.

4. In a vehicle or implement, the combination of a support, a draft-bar at each side, each bar having draft-arms rigid on each of its ends, brackets in which said draft-bars are pivoted to permit said arms to rock vertically, pivotal connections between the brackets and said support, for permitting the brackets to swing laterally, an arm rigid on each of said draft bars and adjacent the brackets respectively, an equalising connection between the latter arms, comprising a flexible element at each side, and guides for said elements.

5. In a vehicle or implement, the combination of a support, a draft-bar on each side, each bar having draft-arms at its ends, pivotal connections for said bars which permit them to swing laterally and which permit the arms to swing vertically, an arm on each of said draft-bars adjacent the pivotal connections, an equalising-connection between said latter arms, comprising flexible elements, guides for said elements, and braces having looped ends in which said guides are held.

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1,039,254. SUBMARINE MINE. CHARLES PIERRE JULES CARTERON, Sevran-Livry, France. Filed Apr. 11, 1912. Serial No 689,955. (Cl. 102—3.)



1. In a submarine mine adapted to be moored from the deck of a submarine boat while under water, the combination of a float, an anchor and a regulating weight normally superimposed in the inverse order named while on deck and flexible connections for the parts, the whole being floatable while in normal position.



2. In a submarine mine adapted to be moored from the deck of a submarine boat while under water, the combination of a float, an anchor and a regulating weight, normally superimposed in the inverse order named while on deck, flexible connections for the parts, means for changing the floatability of one or more of said parts operable on invasion of the mine, the whole being floatable while in normal position.

3. In a submarine mine adapted to be moored from the deck of a submarine boat while under water, the combination of a float, an anchor and a regulating weight, normally superimposed in the inverse order named while on deck, flexible connections for the parts, means for changing the floatability of one or more of said parts operable on inversion of the mine and means for retarding the action of the last named means, the whole being floatable while in normal position.

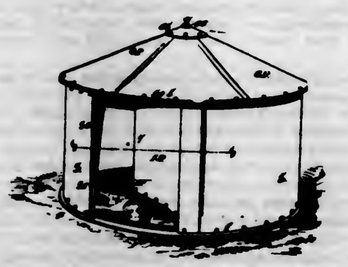
4. In a submarine mine adapted to be moored from the deck of a submarine boat while under water, the combination of a float, an anchor and a regulating weight normally superimposed in the inverse order named while on deck and flexible connections for the parts, the whole being floatable while in normal position, said float and anchor each having an air reservoir provided with a valve controlled water passage adapted to be closed while the parts are in normal position and to open when the parts are inverted for admission of water to said reservoirs for the purpose described.

5. In a buoyant mine, the combination of firing device, a float provided with an auxiliary air chamber having a valve-controlled water passage, means controlled by a water soluble member housed in said chamber and adapted to maintain the firing device in inoperative position while said valve-controlled water passage is closed and to release said device when said member dissolves by water entering said chamber.

[Claims 6 and 7 not printed in the Gazette.]

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1,039,255. FARROWING-HOUSE. JOHN Q. CLARKE, Crawfordsville, Ind., assignor to The J. Q. Clarke Tank Co., Incorporated, Crawfordsville, Ind. Filed Feb. 17, 1912. Serial No. 678,826. (Cl. 119—16.)

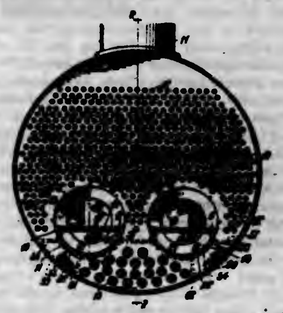


1. A farrowing house composed entirely of sheet metal and including a single sheet bent to form the vertical wall of the housing, one end of the said sheet being bent inwardly across and beyond its adjacent end whereby to form an entrance opening and a passage that extends beyond the said opening, and a top that extends entirely over the housing mounted on the upper edge of the said housing.

2. A farrowing house comprising lower and upper angle rims, and transversely extended angle rims that connect with the opposite inner edges of the said upper and lower rims, a housing formed of a single sheet of metal, the upper and lower edges of which engage and are secured to the top and bottom rims, one end of the said single sheet being bent inwardly and transversely over and beyond the other edge of the said sheet whereby to form a blind wall and a passage that extends beyond the said other edge, the upper and lower edges of the said inwardly extended end engaging and being secured to the transversely extended upper and lower angle rims and a top closure for the housing mounted upon the upper angle rim.

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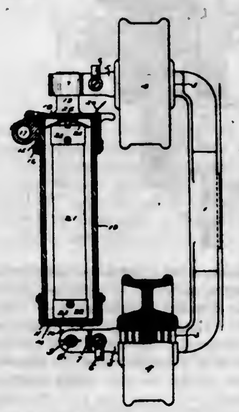
1,039,256. STEAM-GENERATOR. HARRY CLIFTON, Canal Dover, Ohio. Filed Dec. 28, 1908. Serial No. 469,633. (Cl. 122—136.)



An internally fired boiler, comprising a shell, a pair of parallel furnace flues leading into a rear combustion chamber, and means for supporting said flues, said means consisting of a plurality of frames each comprising spaced apart curved portions conforming to and bearing beneath the furnace flues and connected centrally by a horizontal portion, said curved portions each terminating in a horizontal extension bearing against the inner face of the shell, downwardly extending vertical portions carried by said curved portion, and curved bracket members connecting said horizontal and vertical extensions and conforming with and adapted to bear against the inner face of the shell.

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1,039,257. FUSED DISCONNECTING-SWITCH. ROBERT CHAS. COLE, Hartford, Conn., assignor to The Johns-Pratt Company, Hartford, Conn., a Corporation of Connecticut. Filed Apr. 23, 1912. Serial No. 692,652. (Cl. 175—273.)



1. A fused switch having a base, insulators mounted on the base, contacts carried by the insulators, and a housing of insulating material that is closed at both ends, one closed end being pivoted to the contact carried by one insulator and the other end being closed by a removable cap that is adapted to be swung into and out of engagement with the contact on the other insulator.

2. A fused switch having a yoke-shaped base with insulators mounted on the ends of the yoke, pins with contacts projecting from the insulators, a housing with one

end pivoted to one contact and the other end adapted to swing into and out of engagement with the other contact, a cover adapted to open and close one end of the housing, and a fuse removably retained in the housing by the cover.

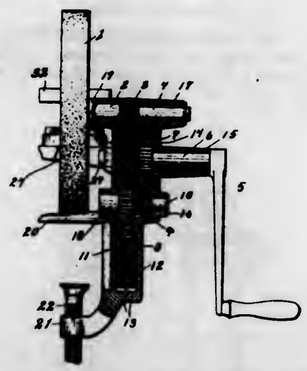
3. A fused switch having a base, insulators mounted on the base, contacts carried by the insulators, a cap pivoted to one contact, a tubular housing fastened to the cap, a cover hinged to the other end of the housing and having a part adapted to engage the other contact, and a fuse removably located in the housing and having one terminal in electrical engagement with the cap and the other terminal in electrical engagement with the cover.

4. A fused switch having a base, insulators mounted on the base, contacts projecting from the insulators, a cap pivoted to one contact, a housing secured to the cap, a cover hinged to the other end of the housing and adapted to be engaged with and disengaged from the other contact, a spring projecting into the housing from the cover, and a fuse with one terminal engaging the cap and the other terminal engaging and held by the spring on the cover.

5. A fused switch havig a yoke-shaped base with insulators mounted on the ends of the base, pins projecting from the insulators, said pins having contact plates at their outer ends, a cap removably hinged to one contact, an insulating tubular housing secured to the cap, a band encircling the other end of the housing, a cover hinged to the band, a blade projecting from the cover and adapted to be engaged with and disengaged from the contact carried by the other insulator, a fuse removably located in the housing and having one terminal electrically connected with the cap and the other terminal electrically connected with the cover, means connected with the band for holding the cover closed, and means for swinging the free end of the housing from its contact plates.

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1,039,258. GEARING. EUGENE COOK, Kalamazoo, Mich. Filed Sept. 27, 1909. Serial No. 519,810. (Cl. 74—7.)



1. The combination of a combined gear casing and support, comprising a pair of cylindrical plate-like casing members, having opposed flanges at their edges, the inner casing member having triangularly-disposed clamping arms formed integrally therewith and projecting therefrom, the lower arm being threaded to receive a clamping screw, said inner casing member being provided with ribs extending between the lower arm and the edge of the upper clamping arms, the ribs being adapted to rest against the object to which the casing is clamped; a driven shaft arranged in bearings disposed on the upper edges of said casing members; a pinion on said shaft; a connecting gear shaft arranged in bearings disposed centrally of said casing members; a pinion on said connecting gear shaft; a connecting gear on said shaft arranged in mesh with said pinion on said driven shaft; a crank shaft arranged in a bearing disposed on the outer casing member between said driven shaft and connecting gear shaft bearings; and a crank gear arranged on said crank shaft at the side of said connecting gear between said driven shaft and connecting gear shafts, and in mesh with said connecting pinion, said inner casing member being provided with a boss-like housing for said crank gear, said bearings being formed integrally with said casing members, the crank bearing and bearing for the outer end of said connecting gear shaft being formed on said crank gear housing.

2. The combination of a combined gear casing and support, comprising a pair of cylindrical plate-like casing members having opposed flanges at their edges; a driven shaft arranged in bearings disposed on the upper edges of said casing members; a pinion on said shaft; a connecting gear shaft arranged in bearings disposed centrally of said casing members; a pinion on said connecting gear shaft; a connecting gear on said shaft arranged in mesh with said pinion on said driven shaft; a crank shaft arranged in a bearing disposed on the outer casing member between said driven shaft and connecting gear shaft bearings; and a crank gear arranged on said crank shaft at the side of said connecting gear between said driven shaft and connecting gear shafts, and in mesh with said connecting pinion, said inner casing member being provided with a boss-like housing for said crank gear, said bearings being formed integrally with said casing members, the crank bearing and bearing for the outer end of said connecting gear shaft being formed on said crank gear housing.

3. The combination of a combined gear casing and support, comprising a pair of cylindrical plate-like casing members having opposed flanges at their edges, the inner casing member having triangularly disposed clamping arms formed integrally therewith and projecting therefrom, the lower arm being threaded to receive a clamping screw, said inner casing member being provided with ribs extending between the lower arm and the edge of the upper clamping arms, the ribs being adapted to rest against the object to which the casing is clamped; a driven shaft arranged in bearings disposed on the upper edges of said casing members; a pinion on said shaft; a connecting-gear shaft arranged in bearings disposed centrally of said casing members; a pinion on said connecting gear shaft; a connecting gear on said shaft arranged in mesh with said pinion on said driven shaft; a crank shaft arranged in a bearing disposed on the outer casing member between said driven shaft and connecting gear shaft bearings; and a crank gear arranged on said crank shaft at the side of said connecting gear between said driven shaft and connecting gear shafts, and in mesh with said connecting pinion.

4. The combination of a combined gear casing and support, comprising a pair of cylindrical plate-like casing members having opposed flanges at their edges; a driven shaft arranged in bearings disposed on the upper edges of said casing members; a pinion on said shaft; a connecting gear shaft arranged in bearings disposed centrally of said casing members; a pinion on said connecting gear shaft; a connecting gear on said shaft arranged in mesh with said pinion on said driven shaft; a crank shaft arranged in a bearing disposed on the outer casing member between said driven shaft and connecting gear shaft bearings; and a crank gear arranged on said crank shaft at the side of said connecting gear between said driven shaft and connecting gear shafts, and in mesh with said connecting pinion.

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1,039,259. MATCH-BOX. CHARLES B. COOMBS, Nashua, Fla. Filed May 12, 1910. Serial No. 560,889. (Cl. 206—20.)



As an article of manufacture, a match box comprising a cylindrical body formed of a single section of sheet metal with its vertical edges in engagement and having integral and oppositely curved resilient attaching fingers extending therefrom in a horizontal position and adjacent to each other to form gripping members, the fingers being located at spaced points vertically of the body and a match receptacle member movable in the body for ejecting or inclosing the matches.

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1,039,260. COMBINATION POCKET IMPLEMENT. JAMES E. COOPER, Perry, N. Y., assignor to Robeson Cutlery Company, Rochester, N. Y., a Corporation of New York. Filed Apr. 18, 1910. Serial No. 556,016. (Cl. 7—11.)



1. In an article of the character described, the combination with a handle, of an implement pivoted to said handle at one end and having folded and extended positions with reference thereto, and two jaws, one of which is formed on the implement intermediate its free end and the pivot and the other on the handle, constituting a bottle cap lifter, said jaws being oppositely disposed in operative relation when the implement is in folded position with relation to the handle.

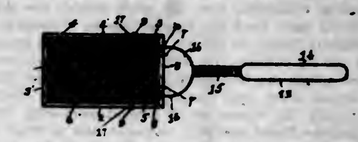
2. In an article of the character described, the combination with a handle, of an implement pivoted to said handle at one end and having folded and extended positions with reference thereto, and two jaws, one of which is formed on the implement intermediate its free end and the pivot and the other on the handle to constitute a bottle cap lifter, the jaw on the implement being operatively disposed opposite that on the handle when the implement is in folded position and both jaws being arranged to one side of the handle and located, respectively, on opposite sides of a line transverse to the handle and extending through the pivot of the implement.

3. In an article of the character described, the combination with a pocket knife comprising a handle having the usual spring secured between the side plates thereof and a folding blade having its tang pivoted between said plates, of a projecting hook or jaw on the handle adjacent to the pivot and a projecting hook or jaw on the tang of the blade arranged for disposal in an operative position opposite to the other jaw to form a bottle cap lifter when the blade is closed against the handle, and adapted to abut against the knife spring to limit the movement of the blade when the latter is extended.

4. The combination with a folding pocket knife comprising a handle, and a blade pivoted thereto to close against the handle, of a projecting hook on the tang of the blade on the side forming the exposed back of the latter when in closed position and adapted to engage beneath the edge of a bottle cap while a portion of the handle simultaneously bears on the top of the cap.

5. In an article of the character described, the combination with a pocket knife comprising a handle and a folding blade having its tang pivoted to the handle, of a projecting hook or jaw on the handle adjacent to the pivot and a projecting hook or jaw on the tang of the blade arranged for disposal in an operative position opposite to the other jaw to form a bottle cap lifter when the blade is closed against the handle, and adapted to swing to the rear of the handle when the blade is extended, the jaw on the handle being then disposed to project on the side of the cutting edge of the blade to constitute an intermediate guard member between the blade and the gripping portion of the handle.

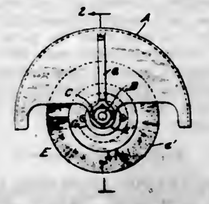
1,039,261. CORN-POPPER WITH DETACHABLE HANDLE AND LID. CLAUDE C. CORNWELL, Toledo, Ohio. Filed Feb. 14, 1912. Serial No. 677,463. (Cl. 53—4.)



In a cooking utensil of the kind described, the combination of an open topped receptacle comprising a bottom and a continuous wall flared therefrom, said wall having a rim portion provided with a pair of closed slots longitudinally parallel with the rim, and located on opposite sides of a line, if drawn through a point central of the rim portion, and with a pair of perforations in line at right angles to and on opposite sides of said line, a pair of hook hinges projecting outward from the rim between the slots, said hooks having their curved portions extending through the plane of the rim and their point portions extending between the plane of the slots and the plane of the bottom, a lid adapted to form a closure for the top of the receptacle and having hinge holes adapting it to be detachably hinged at one side to the hinge hooks, and a handle having diverging spring arms adapted, when sprung toward each other, to enter the slots of the rim, and having free end portions angled oppositely in alinement and adapted to enter the perforations of the rim when the arms, after being inserted through the slots, are released, whereby the handle is detachably secured to the rim portion of the receptacle in position locking the lid against detachment from the hooks.

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1,039,262. CLEANER FOR ABRADING-ROLLS. WILLIAM T. COURTNEY, Chicago, Ill., assignor of one-half to Louise M. Courtney, Chicago, Ill. Filed June 27, 1912. Serial No. 706,160. (Cl. 15—87.)



1. The combination of a tray, handles on said tray, a bolt extending through the sides of said tray, and means to hold said bolt in said sides, and a rotary brush provided with a body part and an aperture through said body part of greater diameter than the outside diameter of said bolt, to obtain transverse movement of said brush on said bolt when said brush is rotatably mounted on the bolt and in the tray.

2. The combination of a tray, handles on said tray, a rotary brush provided with a body part and an aperture in said body part, a roller fitting loosely in said aperture, means on said roller to hold said brush midway of the ends of the roller, and a bolt extending through the sides of the tray and through the said roller, with means to maintain said bolt in said sides.

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1,039,263. WINDOW. HARRIS M. DAVIS, Leetsdale, Pa. Filed Mar. 10, 1909. Serial No. 482,497. (Cl. 20—51.)

1. A window, comprising a main frame, an auxiliary frame hinged to the main frame at one side thereof, a plurality of sash guides in the auxiliary frame, the main frame having an upwardly extending guide forming a continuation of the outer guide in the auxiliary frame and also having a downwardly extending guide forming an extension of the inner guide in the auxiliary frame, a sash

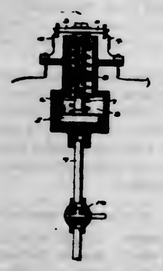
slidably mounted in the guide and arranged to extend through the auxiliary frame into the main frame when the sashes are closed, a screen secured to each of the sashes in the portion extending into the main frame, the arrangement being such that the sashes can be withdrawn into the auxiliary frame to permit said frame to be swung inwardly on its hinges, the hinges being also so arranged that the sashes can be pushed outwardly through the auxiliary frame when said frame is swung on its hinges, so as to permit the sashes to be pushed outwardly through the auxiliary frame without engaging any portion of the main frame, substantially as described.



2. A window, comprising a main frame, an auxiliary frame hinged to the main frame at one side thereof, there being a plurality of sash guides in the auxiliary frame, sashes slidably mounted in the guides and arranged to extend through the ends of the auxiliary frame when the sashes are closed, a screen secured to each of the sashes in the portion extending into the main frame, and counterbalancing connections between the sashes and each of the auxiliary frames, said counterbalancing connections being arranged to raise one sash when the other sash is lowered, and the hinge connection being such that the sashes can be pushed outwardly through the auxiliary frame to remove them therefrom without engaging any portion of the main frame when the auxiliary frame is swung on its hinges, substantially as described.

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1,039,264. PNEUMATIC BLOW-OUT FOR ELECTRIC SWITCHES. EDWARD H. DEWSON, New York, N. Y., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 13, 1905. Serial No. 282,553. (Cl. 175—308.)



1. A pressure operated electric switch mechanism comprising a movable switch member, a piston for operating the same, means for suddenly admitting fluid under pressure to said piston to cause the quick movement thereof, a chamber on the opposite side of said piston and a duct or passage leading from said chamber to the switch contact points, communication through said passage being controlled by the movement of the piston.

2. A pressure operated electric switch mechanism comprising a movable switch member, a cylinder and piston for operating said switch, means for controlling the supply of fluid under pressure to and the release from the cylinder on one side of said actuating piston, and a duct or passage leading from the cylinder on the opposite side of said piston and directly controlled by said piston for discharging the air compressed by the movement of the piston upon the switch contact points.

3. A pressure operated electric switch mechanism, comprising a piston and rod carrying the movable switch member, a chamber on one side of said piston, and a passage leading from said chamber through the piston rod for directing an air jet upon the switch contact points.

4. A pressure operated electric switch mechanism comprising a movable switch member, a cylinder and piston for operating said switch, a pressure controlled valve device for supplying fluid to actuate said piston to open the circuit, and a duct or passage directly controlled by said piston and leading from the cylinder on the opposite side of the piston to a point near the switch contacts for discharging thereon the air compressed by the movement of the piston in opening the switch, communication through said duct being cut off in the closed position of the switch.

5. An electric pump governor comprising a switch having a movable contact point, a piston for operating said switch to open the circuit, means subject to the pump pressure for controlling the action of said piston and adapted to cause a quick positive movement of said piston, a chamber in which the air is compressed by the movement of the piston, and a duct or passage for discharging a blast of air from said chamber to the switch contact points when the circuit is opened.

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1,039,265. SAFETY EYEGLASS-HOLDER. EDWARD W. DICK, Albert Lea, Minn. Filed Jan. 15, 1912. Serial No. 671,206. (Cl. 242—98.)



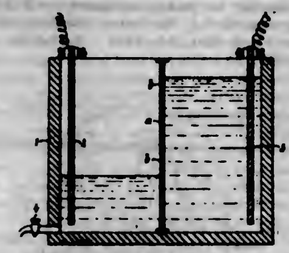
1. In an eyeglass holder, a main casing, a combined spring casing and reel revolubly mounted in said main casing, an eyeglass holder chain adapted to be wound on and off said reel, a coiled spring in said spring casing adapted to be wound up by said chain when the latter is unwound from said reel, a catch pin slidably mounted in said reel and operated by said chain, and a keeper adapted to receive said pin thereby holding the reel against operation.

2. In an eyeglass holder a main casing, a combined spring casing and reel revolubly mounted therein, a reel operating spring in said spring casing, a catch pin slidably mounted in said reel, an eyeglass holding chain operatively connected to said pin, a keeper arranged in said main casing, a guide finger adapted to guide said catch pin into said keeper when said pin is moved to a proper position by said chain and means whereby said pin is released from the keeper to permit said reel to be revolved by said spring to wind up said chain.

3. In an eyeglass holder, a main casing formed in telescopically engaged sections, a pivot stud engaged with one of said sections, a holder fastening pin arranged in the outer end of said stud whereby the latter is secured in place, a combined spring casing and reel revolubly mounted on said stud, a reel operating spring in said spring casing, a chain adapted to be wound on said reel by the unwinding of said spring and to wind up said spring when unwound from the reel, a catch pin slidably mounted in said reel, and operated by said chain, a keeper to receive said pin and thereby hold said reel against retrograde movement by said spring and means whereby said pin is released from said keeper.



1,039,266. DIAPHRAGM FOR ELECTROLYSIS. OTTO DIEFFENBACH, Darmstadt, Germany. Filed July 1, 1911. Serial No. 636,868. (Cl. 204—28.)



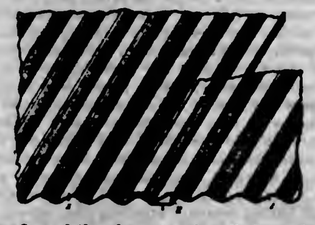
1. A porous diaphragm, for the purposes of electrolysis, composed of an intimate mixture of cement and asbestos fibers said fibers being located parallel with the plane of the diaphragm.

2. The hereindescribed process of manufacturing porous diaphragms for the purposes of electrolysis, which consists in mixing asbestos fibers with water, in removing said fibers from the water and applying cement to the fibers and simultaneously forming the fibers and cement into a plate having the asbestos fibers located therein parallel to the plane of the plate, and in allowing the plate to dry.

3. The hereindescribed process of manufacturing porous diaphragms, for the purposes of electrolysis, which consists in mixing asbestos fibers with water, in removing said fibers from the water and simultaneously applying cement to the fibers and simultaneously forming the fibers and cement into plates having the asbestos fibers located therein parallel to the plane of the plate, and in finally pressing and hardening the plates.

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1,039,267. SHEET-METAL ROOFING. JOHN L. FAULMABER, Elwood, Ind., assignor to The Eller Manufacturing Company, Canton, Ohio, a Corporation of Ohio. Filed Jan. 14, 1911. Serial No. 602,546. (Cl. 106—22.)



1. In roofing of the character described a substantially rectangular sheet of metal provided at one side edge with an integral upturned flange standing substantially at right-angles to the plane of the sheet, a plain portion adjacent said upturned flange, and corrugations in the body of said sheet extending parallel to said flange and arranged in series from said plain portion to the opposite side edge of the sheet.

2. Sheet metal roofing consisting of a plurality of substantially rectangular sheets of metal with over-lapping edges, each sheet provided in its body portion with longitudinal corrugations arranged parallel to each other and to the side edges of the sheet, said corrugations extending in transverse series to one of said side edges, the other side edge of the sheet being plain and having a portion turned into vertical position with reference to the general plane of the sheet, and a plain portion arranged intermediate said vertically disposed portion and said corrugations, and the corrugated edge of one sheet overlapping the plain edge of the other sheet, said plain intermediate portion and said vertical portion of one sheet with the over-lapping corrugated edge of the other sheet forming an air space adapted to interrupt capillary attraction.

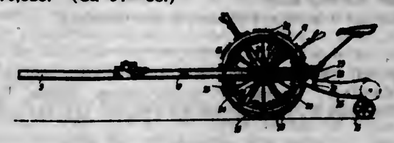
1,039,268. BOTTLE-STOPPER. WILLIAM G. GAGUE, Burlington, Vt. Filed Jan. 2, 1912. Serial No. 668,679. (Cl. 215—14.)



A bottle provided in its neck and near the rim edge thereof with a circular recess, the walls of which project outwardly in an upwardly inclined direction, the inner circumference of the upper wall being of greater diameter than the inner circumference of the lower wall and the interior wall of the bottle neck being beveled outwardly in all directions from the upper wall of the recess to the rim edge of the bottle, and a stopper of pliable material embodying a dished body portion with its convexed side facing downwardly and a rim extending around the body portion and angularly disposed in relation thereto and projecting upwardly and outwardly therefrom, the normal diameter of the body portion being equal to the diameter of the interior circumference of the bottom wall of the recess and the normal diameter of the entire stopper including its rim being normally less than the extreme diameter of the recess, the body portion of the stopper fitting on the ledge formed by the bottom wall of the recess and the rim of the stopper engaging the upper wall of the recess, as and for the purpose set forth.

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1,039,269. AGRICULTURAL IMPLEMENT. GAMEN B. GARRISON, Myrtle, Mo. Filed July 7, 1910. Serial No. 570,815. (Cl. 97—38.)



The combination with an axle having crank arms formed thereon, supporting means carried by the crank arms, spiders mounted upon the axle and arranged in spaced relation to each other, rocking bars pivotally mounted on the spiders, said rocking bars being provided with pulverizing teeth, rods secured to the rocking bars and projecting inwardly therefrom, a roller mounted upon said axle for actuating the rods and rocking the bars, and means for rocking the axle whereby the rocking bars are brought into and out of engagement with the earth substantially as and for the purposes set forth.

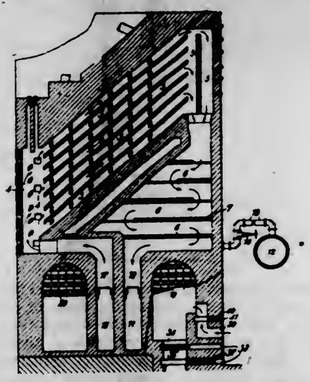
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1,039,270. REGENERATIVE GAS-PRODUCING OVEN. ARTHUR GOHMANN, Stettin, Germany, assignor to Stettiner Chamotte-Fabrik Actien-Gesellschaft vorm. Didier, Stettin, Germany, a Corporation of Germany. Filed July 1, 1912. Serial No. 706,858. (Cl. 48—113.)

1. In a regenerative oven, heating flues, regenerators, connections from the regenerators to the inlets and to the outlets of the heating flues, means for reversing said connections, and a cooling device interposed in the connection between the flue outlets and the reversing means.

2. In a regenerative oven, heating flues, regenerators, reversing means for connecting the regenerators alternately with the inlets and with the outlets of the heating flues, and a cooling device interposed in the path of the off gases from the flue outlets to the reversing means.

3. In a regenerative oven, heating flues, air-heating



regenerators, reversing means for connecting the regenerators alternately with the inlets and with the outlets of the heating flues, and a recuperator having a path through which the off gases travel on their way from the flue outlets to the reversing means, and another path through which the fuel travels on its way to the heating flues.

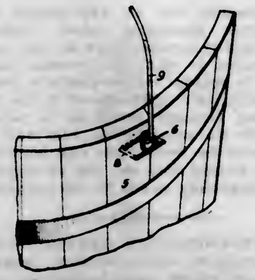
4. In a regenerative oven, heating flues, regenerators, means for reversing the connection of the regenerators with the heating flues, and a cooling device interposed in the path of the off gases from the flues to the reversing means.

5. In a regenerative oven, heating flues, air-heating regenerators, means for reversing the connection of the regenerators with the heating flues, and a recuperator having a path through which the off gases travel on their way from the heating flues to the reversing means, and another path through which the fuel travels on its way to the heating flues.

[Claims 6 to 10 not printed in the Gazette.]

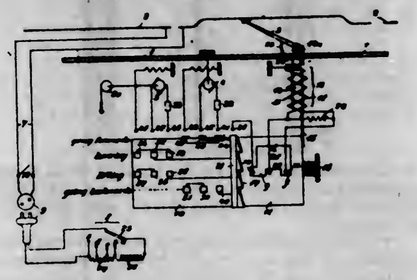
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1,039,271. EYELET FOR ENGAGING THE BAILS OF VESSELS. ROBERT W. GOODPASTURE, Celina, Tenn. Filed June 13, 1912. Serial No. 703,456. (Cl. 217—126.)



A device of the character described comprising a pair of horizontally disposed prongs lying in substantially the same horizontal plane, and a transverse connecting portion extending between said prongs, said transverse connecting portion having formed therein a vertically disposed single bend complete circular loop which lies in the longitudinal plane of said transverse connecting portion.

1,039,272. SYSTEM FOR CONTROLLING ELECTRIC MOTORS AND THE LIKE FROM A DISTANCE. HERMANN GRADENWITZ, WILHELM VOLLBRECHT, and HANS LEVZOW, Berlin, Germany, assignors to The Firm of Elektromotoren-Werke Hermann Gradenwitz, Berlin, Germany. Filed Mar. 15, 1911. Serial No. 614,692. (Cl. 191—22.)



1. In an electrical control system of the character described, the combination of a single line wire, at least one motor, a step by step controller connected to the line wire by which the several operations of the motor are to be controlled, to effect said motor operations, a solenoid energized from said line wire for operating said controller, interposed between the line wire and said controller, and a motor starter in said line wire disposed any desired distance away from said motor having means controlling the current for energizing only said solenoid to operate said controller or also for controlling such operation of said motor for which the circuit has been set by said controller.

2. In an electrical control system of the character described, the combination of a single line wire, at least one motor, a step by step controller connected to the line wire by which the several operations of the motor are to be controlled, to effect said motor operations, a solenoid energized from said line wire for operating said controller, interposed between the line wire and said controller, said solenoid having a low resistance winding adapted to conduct the motor current and a high resistance winding connected in series with said low resistance winding with a suitable resistance interposed to permit only sufficient current to pass through it to retain the solenoid core attracted, means on said controller for short circuiting said resistance when said solenoid is deënergized but for inserting said resistance after the solenoid is energized and the controller is operated one step, and a motor starter in said line wire disposed any desired distance away from said motor having means controlling the current for energizing only said solenoid to operate said controller or also for controlling such operation of said motor for which the circuit has been set by said controller.

3. In an electrical control system of the character described, the combination of a single line wire, at least one motor, a step by step controller connected to the line wire by which the several operations of the motor are to be controlled, said controller having a member provided with suitable contacts for setting the several circuits to effect said motor operations and rotatable in one direction only, said member being provided at one end with an annular ratchet bar faced in one direction, said controller also having an oscillating member in engagement with said ratchet bar to move it step by step in said direction, a solenoid interposed between the line wire and said controller having a spring pressed core connected with said oscillating member for oscillating it when the solenoid is energized to feed said rotatable member one step at each oscillation against the tension of the spring, and a motor starter in said line wire disposed any desired distance away from said motor having means controlling the current for energizing only said solenoid to operate said controller or also for controlling such operation of said motor for which the circuit has been set by said controller.



4. In an electrical control system of the character described, the combination of a single line wire, at least one motor, a step by step controller connected to the line wire by which the several operations of the motor are to be controlled, said controller having a member provided with suitable contacts for setting the several circuits to effect said motor operations and rotatable in one direction only, said member being provided at one end with an annular ratchet bar faced in one direction, said controller also having an oscillating member in engagement with said ratchet bar to move it step by step in said direction, a solenoid interposed between the line wire and said controller having a spring pressed core connected with said oscillating member for oscillating it when the solenoid is energized to feed said rotatable member one step at each oscillation against the tension of the spring, said solenoid having a low resistance winding adapted to conduct the motor current and a high resistance winding connected in series with said low resistance winding, with a suitable resistance interposed to permit only sufficient current to pass through it to retain the solenoid core attracted, said oscillating member of said controller having a contact plate for short circuiting said resistance when the solenoid is deënergized but for inserting said resistance and simultaneously connecting said rotatable controller member to the line wire through said low resistance coil after the solenoid is energized and the oscillating member has operated the rotatable member one step and a motor starter in said line wire disposed any desired distance away from said motor having means controlling the current for energizing only said solenoid to operate said oscillating member or also for controlling such operation of said motor for which the circuit has been set by the operation of said controller.

5. In an electrical control system of the character described, the combination of a single line wire, at least one motor, a step by step controller connected to the line wire, by which the several operations of the motor are to be controlled, a solenoid energized from said line wire for operating said controller interposed between the line wire and said controller, and a motor starter in said line wire disposed any desired distance away from said motor and adapted to carry the motor current, said starter having a motor starting resistance and a choking resistance in series therewith permitting only sufficient current to pass through it to energize said solenoid for step by step operation of said controller to set any desired circuit for said motor and a controlling lever on said starter for cutting off said choking coil to increase the current to operate said motor through the desired circuit which has been set by said controller.

[Claims 6 to 10 not printed in the Gazette.]

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1,039,273. APPARATUS FOR CONTROLLING THE ADMISSION OF STEAM TO THE AUXILIARY BLAST OF BOILER-FURNACES. GUSTAV DE GRAHL, Zehlendorf, near Berlin, Germany. Filed June 18, 1912. Serial No. 703,428. (Cl. 110—147.)



1. In means for regulating the supply of steam to the auxiliary blast of locomotive boiler furnaces, the combination of a valve-box having a steam admission port at one end thereof connected to the boiler, an auxiliary blast port leading to the auxiliary blast normally in open relation with the steam-admission port, and a steam port at the other end of the valve-box connected to the steam-chest; a closure member movable in the valve-box for shutting off the auxiliary blast port from the steam-admission port, the admission port end of the closure member being smaller than the other end, throttling means in the valve-box between the steam port and the latter end of the closure member, said closure member having a duct connecting the end of the valve-box in front of the smaller end with the end thereof behind the larger end of the closure member.

2. In means for regulating the supply of steam to the auxiliary blast of locomotive boiler furnaces, the combination of a valve-box having a steam admission port at one end thereof connected to the boiler, an auxiliary blast port leading to the auxiliary blast normally in open relation with the steam-admission port, and a steam port at the other end of the valve-box connected to the steam-chest; a closure member movable in the valve-box for shutting off the auxiliary blast port from the steam-admission port, the admission port end of the closure member being smaller than the other end, throttling means in the valve-box between the steam port and the latter end of the closure member, said closure member having a duct connecting the end of the valve-box in front of the smaller end with the end thereof behind the larger end of the closure member.

3. In means for regulating the supply of steam to the auxiliary blast of locomotive boiler furnaces, the combination of a valve-box having a steam admission port at one end thereof connected to the boiler, an auxiliary blast port leading to the auxiliary blast normally in open relation with the steam-admission port, and a steam port at the other end of the valve-box connected to the steam-chest; a closure member movable in the valve-box for shutting off the auxiliary blast port from the steam-admission port, the admission port end of the closure member being smaller than the other end, throttling means in the valve-box between the steam port and the latter end of the closure member, said closure member having a constricted, narrow duct connecting the end of the valve-box in front of the smaller end with the end thereof behind the larger end of the closure member.

4. In means for regulating the supply of steam to the auxiliary blast of locomotive boiler furnaces, the combination of a valve-box having a steam admission port at one end thereof connected to the boiler, an auxiliary blast port leading to the auxiliary blast normally in open relation with the steam-admission port, and a steam port at the other end of the valve-box connected to the steam-chest; a closure member movable in the valve-box for shutting off the auxiliary blast port from the steam-admission port, the admission port end of the closure member being smaller than the other end, throttling means in the valve-box between the steam port and the latter end of the closure member, said closure member having a longitudinal narrow duct connecting the end of the valve-box in front of the smaller end with the end thereof behind the larger end of the closure member, and means for regulating the section of said duct.

5. In means for regulating the supply of steam to the auxiliary blast and to the steam nozzles of locomotive boiler furnaces, the combination of a valve-box having a steam admission port at one end thereof connected to the boiler, an auxiliary blast port leading to the auxiliary blast normally in open relation with the steam-admission port, a steam port at the other end of the valve-box connected to the steam-chest, and a steam-nozzle port leading to the steam nozzles; a closure member movable in the valve-box for shutting off the auxiliary blast port from the steam-admission port, the admission port end of the closure member being smaller than the other end and having a duct for connecting the steam-admission port with the steam-nozzle port in the closed position of the closure member, throttling means in the valve-box between the steam port and the latter end of the closure member, the end of the valve-box in front of the smaller end of the closure member being connected with the end thereof behind the larger end of the closure member.

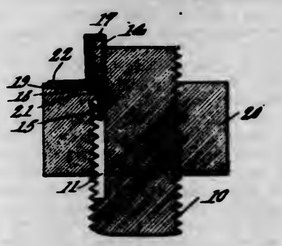
[Claims 6 and 7 not printed in the Gazette.]

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1,039,274. NUT-LOCK. ERNST W. GREINER, Williamsburg, Pa. Filed Mar. 12, 1912. Serial No. 683,228. (Cl. 151—23.)

1. In a nut lock, a bolt the threaded end portion of which is provided with a longitudinal slot, a flexible key,

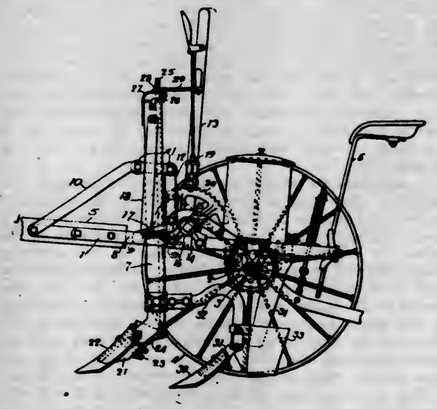
arranged to extend within said slot, the terminal of said key which rests within said slot being formed with a tapered enlargement, and a tapered key arranged to extend within said slot, said key being interposed between the first mentioned key and the nut, said key being provided with a transverse slot, the terminal of the first mentioned key being bent to embrace the second mentioned key.



2. In a nut lock, a bolt, the screw threaded terminal of which is provided with a longitudinal slot, a flexible key arranged within said slot, said key being formed with a tapered enlargement, a second key the terminal of said key which extends within said slot being beveled, and arranged to contact with the beveled enlargement of the first mentioned key, one of the bevel faces of said key being formed with a transverse groove arranged to receive the screw threads of the nut, the first mentioned key being bent to embrace the second mentioned key.

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1,039,275. PLANTER. RICHARD H. GRIFFITH, Bellevue, Ohio, assigner to The Ohio Cultivator Company, Bellevue, Ohio, a Corporation of Ohio. Original application filed Oct. 10, 1910, Serial No. 586,181. Divided and this application filed Aug. 14, 1911. Serial No. 643,859. (Cl. 97—29.)

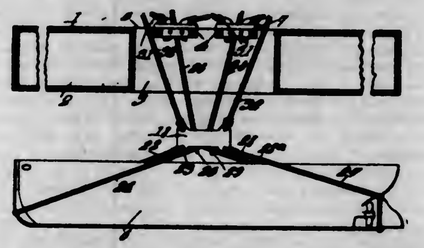


1. A planter comprising a frame, ground wheels therefor, a vertically adjustable shank carried by said frame, a shovel support mounted on said shank and adjustable to support said shovel at different angles to the ground line, and an adjusting device connected with said shovel support, extending above said frame and capable of movement with and independently of said shank.

2. A planter comprising a frame, ground wheels therefor, a vertically adjustable shank carried by said frame and consisting of two members spaced apart, a shovel support mounted on said shank and adjustable to support said shovel at different angles to the ground line, an adjusting device connected with said shovel, extending upwardly therefrom between said shank members and movable with and independently of said shank, means at the top of said shank for operating said adjusting device, and guides for said shank.

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1,039,276. DEVICE FOR RAISING SUNKEN VESSELS. OLIVER GUYOR and FRANK E. BANKER, Sumas, Wash. Filed May 15, 1912. Serial No. 697,577. (Cl. 114—51.)



1. Mechanism for hoisting a sunken vessel, comprising an eye; separate, individually manipulable hoisting lines secured each at one end to the eye and having their other ends extended through the eye; and mutually independent means for raising and lowering each end of the eye with respect to the horisontal.

2. Mechanism for hoisting sunken vessels, comprising an eye; hoisting lines secured each at one end to the eye and having their other ends extended through the eye; and fore-and-aft lines connected to the eye adjacent its ends and upwardly extended, the fore-and-aft lines being adapted to change the position of the eye with respect to the horisontal.

3. Mechanism for hoisting sunken vessels, comprising a pontoon; locks upon the pontoon; an eye; hoisting lines secured each at one end to the eye and having their other ends extended upwardly through the eye and engaged with the locks; and fore-and-aft lines secured to the eye and extended upwardly above the pontoon, the fore-and-aft lines being manipulable to alter the angle between the eye and the horisontal.

4. Mechanism for raising sunken vessels, comprising a pontoon provided with a well; locks located in alinement with the well and supported by the pontoon; hoisting lines engaged with the locks and provided at their lower ends with loops adapted to engage the vessel; and means assembled with the locks for releasing the hold of the locks upon the hoisting lines after the pontoon has been sunk.

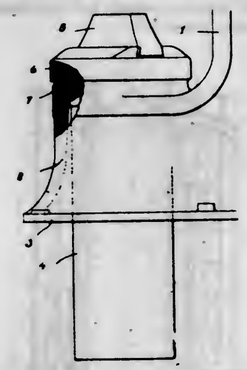
5. Mechanism for hoisting sunken vessels, comprising a pontoon provided with a well; locks supported by the pontoon and alined with the well; an eye; hoisting lines engaged by the locks and extended through the eye, the free ends of the hoisting lines being assembled with the eye thereby to form loops adapted to engage the vessel; fore-and-aft lines connected with the eye and upwardly extended through the well; and operating members connected with the locks and adapted to release the hold of the locks upon the hoisting lines after the pontoon has been sunk.

[Claim 6 not printed in the Gazette.]

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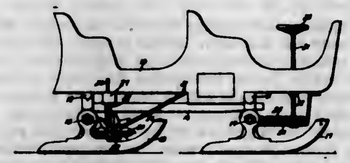
1,039,277. HAMMER-PRESS. WILLIAM J. HAGMAN, Philadelphia, Pa., assignor to Niles-Bement-Pond Company, Jersey City, N. J. Filed July 23, 1912. Serial No. 711,078. (Cl. 78—44.)

A hammer-press comprising, a hammer-frame base-portion adapted for support upon a foundation and provided with an anvil-receiving aperture, an anvil disposed freely within such aperture, an annular flange formed upon the top of the anvil and over the surrounding portion of the hammer-frame base-portion, and a cushion interposed between said flange and hammer-frame base-portion, combined substantially as set forth.



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1,039,278. AUTOSLEIGH. WILLIAM H. HALLADEY, Bemidji, Minn. Filed June 20, 1910. Serial No. 567,887. (Cl. 21—47.)



The combination with an automobile body having a front steering axle and runner and a rear axle and runner; of a cross beam secured beneath the body and projecting beyond the sides thereof, said projecting portions being provided with vertical apertures immediately outwardly of the sides of the body, said sides being provided with recesses forwardly of said cross beam, bracket members comprising single sections of resilient metal bent intermediate of their ends to provide upwardly inclined forward portions having eye terminals disposed in the recesses and horisontal intermediate lower portions terminating in vertical extensions disposed through the apertures in the cross beam, detachable pivots engaged through the eye terminals to pivotally connect the forward ends of the rods to the body, resilient means engaged on the vertical portions of the rods between the cross beam and horisontal portions thereof, bearings suspended from said horisontal portions and a traction wheel carrying drive shafts rotatable in the bearings.

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1,039,279. CONNECTOR. WILLIAM P. HAMMOND, Passaic, N. J., assignor to American Ever Ready Company, a Corporation of New York. Filed Oct. 21, 1911. Serial No. 655,942. (Cl. 173—259.)

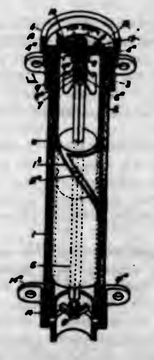


1. A connector including a pair of coöperating jaws each of which is formed with a pair of spaced and parallel plates having corresponding cut away portions adapted to receive a post or like member, an integral spring arm projecting from one of said plates of each jaw and disposed substantially in the plane thereof, a sleeve integral with the spring arms and serving to engage a conductor, the said spring arms normally tending to force the jaws apart to hold the edges of the openings in engagement with a post or like member such as can be inserted through the openings of the jaws when the said jaws are moved against the action of the spring arms to bring the openings into registry with each other.

2. A connector adapted to be formed from a single piece of sheet metal and including a pair of coöperating jaws, each of the jaws being formed with a pair of spaced and parallel plates having corresponding openings therein and connected at the edges thereof by a cross bar, an integral spring arm projecting from one of the plates of each jaw, said spring arms crossing each other intermediate their ends, an integral sleeve connecting the ends of the spring arms and forming a means for engaging a conductor, the said spring arms normally tending to force the jaws apart so as to cause the edges of the openings of the plate to engage a post or like member previously inserted through the openings, and the cross bars connecting the plates at each jaw forming finger pieces for moving the jaws against the action of the spring arms to bring the openings into registry with each other preparatory to applying the connector to a post or like member or disengaging it therefrom.

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1,039,280. FLUID-GAGE. HERBERT HASTINGS, Rochester, N. Y. Filed Dec. 21, 1908. Serial No. 468,539. (Cl. 73—83.)



1. In a fluid gage a float, an indicator controlling member actuated thereby, a guide adapted to turn said float as it rises or falls, means for suspending said guide in the filling opening of a tank, a removable closure for said opening, an indicator movably supported thereon and means for causing said indicator to automatically interengage said indicator controlling member as said closure is applied.

2. In a fluid gage a float, a collar having a filling opening, a float guide supported thereby and adapted to turn the float as the float rises and falls, a revolving member adapted to be turned by the float, a closure for said filling opening, an indicator carried by said closure and means whereby said indicator interengages said revolving member as the closure is applied to said opening.

3. In a fluid gage the combination with a fluid receptacle provided with a filling opening, a float, a float guide supported in the filling opening and provided with means for turning the float as it rises and falls, an oscillating member turned by the float, a closure for said opening provided with an indicator and means for causing the indicator to interengage the oscillating member as the closure is applied to the opening.

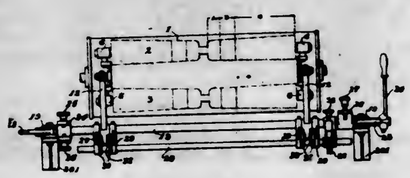
4. In a fluid gage a float, a body portion adapted to guide and to turn said float as it rises and falls, an open center suspending means for said body portion, a rocking member adapted to be turned by the float, a closure for said open center, an indicator carried by the closure and means whereby the indicator always engages the rocking member in the same relation one to the other as the closure is applied.

5. In a fluid gage a fluid receptacle provided with a filling aperture, a pivoted member, a float, a guide coacting with the float to turn said pivoted member, a removable closure for said aperture and means mounted on said closure for indicating the position of the float by contacting in one position with said pivoted member when said closure is in position.

[Claims 6 to 10 not printed in the Gazette.]

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1,039,281. CLOTH-STRETCHING MACHINE. MELVILLE P. HAYWARD, Quincy, Mass., assignor to American Finishing Machinery Company, Boston, Mass., a Corporation of Massachusetts. Filed Nov. 12, 1909. Serial No. 527,645. (Cl. 26—8.)



1. A bristle roll for a bristle stretching machine, having clotch stretching bristles arranged thereon radially inclined at different angles in different parts thereof.

2. A bristle roll for a bristle stretching machine having bristles arranged thereon radially inclined at various angles to secure an approximately rectilinear parallel weft progression.

3. A bristle stretching machine, having, in combination, a bristle roll, an arm at each end for carrying the bristle roll, an arm shaft upon which the arms are mounted, an arm adjusting shaft, and connections between the shafts for adjusting the pressure transmitted by the arms to the brush roll.

4. A bristle stretching machine having, in combination, a bristle roll, arms at each end of the roll for supporting it, an arm shaft upon which said arms are mounted, holding means on the arm shaft, a stop member movable to a position of engagement with the holding means to a position of disengagement therefrom for permitting the bodily movement of the entire bristle carrying apparatus from operative to inoperative position.

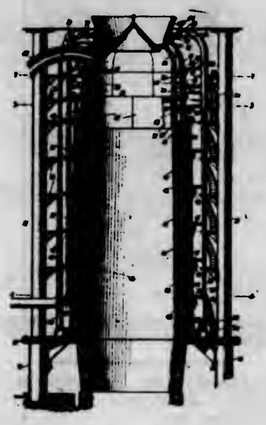
5. A bristle roll for bristle stretching machine comprising a plurality of bristle holders, having bristle holding flanges and hubs supporting them, the bristle holding hubs being longer than the bristle holding flanges so that when assembled the flanges are separated from each other thereby affording facility for the washing and drying of the rolls.

[Claims 6 to 10 not printed in the Gazette.]

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1,039,282. BLAST-FURNACE. CALVIN HICKS, Auburn, Pa. Filed Apr. 15, 1912. Serial No. 690,878. (Cl. 122—6.)

1. A blast furnace having the lower portion of its wall formed solid and the upper portion of said wall constructed of a plurality of hollow castings disposed one upon the other, a water jacket surrounding the lower portion of the furnace and formed with a plurality of superimposed independent compartments, a cooling fluid supply main surrounding the upper end of the furnace, connections between said supply main and the lower portions of the interior of the hollow castings and the compartments of said water jacket respectively, a discharge main surrounding the lower portion of the furnace and connections between said discharge main and the upper portions of the interior of the hollow castings and the compartments of said water jacket respectively.



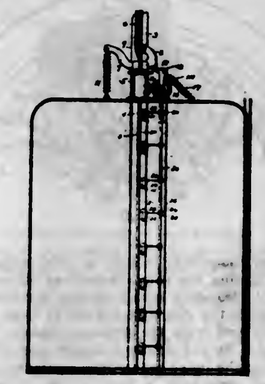
2. A blast furnace having the lower portion of its wall formed solid and the upper portion of said wall constructed of a plurality of hollow castings disposed one upon the other, a water jacket surrounding the lower portion of the furnace and formed with a plurality of superimposed independent compartments, a cooling fluid supply main surrounding the upper end of the furnace, feed pipes depending from said supply main, branch pipes connecting said feed pipes with the lower portion of the interior of said castings and with the lower portion of the compartments of the water jacket, a discharge main surrounding the lower portion of the furnace, drain pipes extending vertically from said discharge main, and branch drain pipes connecting said drain pipes with the upper portion of the interior of the castings and the upper portion of the compartments of the water jacket.

3. A blast furnace having the lower portion of its wall formed solid, and the upper portion of said wall constructed of a plurality of hollow castings disposed one upon the other, a water jacket surrounding the lower portion of the furnace and formed with a plurality of superimposed independent compartments, a cooling fluid supply main surrounding the upper side of the furnace, feed pipes depending from said supply main and decreasing in diameter at spaced points in a downward direction, branch pipes connecting said feed pipes with the lower portion of the interior of said castings and with the lower portions of the compartments of the water jacket, a discharge main surrounding the lower portion of the furnace, drain pipes extending vertically from said discharge main and decreasing in diameter at spaced points in an upward direction, and branch drain pipes connecting said drain pipes with the upper portion of the interior of the castings and the upper portion of the compartments of the water jacket.

4. A blast furnace having the lower portion of its wall formed solid, and the upper portion of said wall constructed of a plurality of hollow castings disposed one upon the other, a water jacket surrounding the lower portion of the furnace and formed with a plurality of superimposed independent compartments, a plurality of columns surrounding said furnace, platforms supported by said columns at spaced points respectively, stairways connecting said platforms, and pipe connections for effecting a current of water through the interior of the castings and the compartments of the water jacket, said pipe connections being accessible from said platforms.



1,039,283. SAFETY DEVICE FOR ELEVATORS. JOSIAH HILL, Pasadena, Cal., assignor of one-half to Estella Miller, Pasadena, Cal. Filed Mar. 29, 1912. Serial No. 687,096. (Cl. 187—83.)



1. The combination with an elevator, a hoisting cable, and socketed beams or racks to be secured in the sides of an elevator shaft, of a lever pivoted between its ends on the car, a spring connected with one arm of said lever and normally pressing the other arm thereof toward the hoisting cable, dogs mounted on the car to coöperate with said socketed beams or racks, a shaft on the car, an arm secured to said shaft and constituting a locking device for said lever, devices for controlling the release of said dogs, gearing between said controlling devices and said shaft, and a spring for moving said arm and the shaft to which it is secured to transmit motion to said controlling devices.

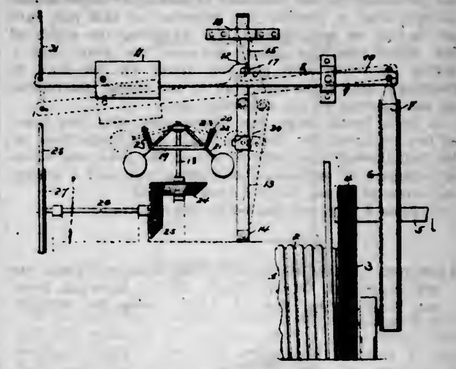
2. The combination with an elevator car, a hoisting cable attached thereto, dogs at respective sides of the car, and socketed beams or racks for coöperation with said dogs, to be fixed in the sides of an elevator shaft, of a lever pivoted between its ends on the car and having an arm to engage the hoisting cable, a spring connecting another arm of said lever with the car, a transverse shaft mounted on the car, an arm secured to said shaft and having normally locked engagement with said pivoted lever, a spring connected with said arm for moving it, vertical shafts at respective sides of the car, gears connecting said vertical shafts with the transverse shaft, arms attached to the vertical shafts, links connecting said arms with the dogs, and springs for moving said dogs into engagement with the socketed beams or racks.

3. The combination with an elevator car, dogs thereon, and racks to be fixed in the sides of an elevator shaft for engagement of said dogs, and a plurality of hoisting cables attached to said car, of a lever pivoted between its ends on the car and provided with an arm terminating at one end in proximity to said hoisting cables, said arm having a slot, a short bar mounted in said slot and normally bearing against the respective hoisting cables, a spring connecting the other arm of said lever with the car, and devices controlled by movement of said pivoted lever for controlling the operation of said dogs.

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1,039,284. BRAKE FOR ELEVATORS. JOSIAH HILL, Pasadena, Cal., assignor of one-half to Estella Miller, Pasadena, Cal. Filed Mar. 29, 1912. Serial No. 687,097. (Cl. 74—46.)

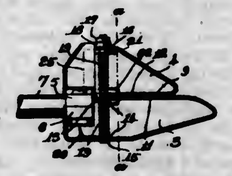
1. The combination with a brake wheel and a brake band, of a lever pivoted between its ends and having one arm connected with said brake-band and provided on its other arm with a weight, two vertically disposed levers pivotally connected together and one of said vertical levers pivoted to a fixed support, a guide for the other of said vertical levers, a pin on one vertical lever to engage the weighted lever and sustain the latter normally elevated and means for striking one of said vertical levers to release the pin on the other of said vertical levers from engagement with the weighted lever.



2. The combination with a brake-wheel and a brake-band, of a horizontal lever pivotally supported between its ends and having one arm connected with the brake-band, a weight on the other arm of said lever, a hook projecting from one arm of said lever, vertically disposed toggle levers, a pin on one of said toggle levers to engage said hook and normally sustain the weighted lever in an elevated position to release the brake-band, a centrifugal governor in position to strike one of said toggle levers and break the joint between the latter to release the weighted lever, means for adjusting said governor, and means for imparting rotation in one direction to said governor.

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1,039,285. THREAD GUIDE AND CLEARER. LEWIS T. HOUGHTON, Worcester, Mass. Filed Oct. 12, 1907. Serial No. 397,122. (Cl. 28—20.)



1. A thread guide and clearer comprising two jaws forming between them a thread-receiving groove, one of said jaws being pivotally mounted to turn about an axis at right angles to said groove, and a spring tending normally both to hold said jaws separated and to hold the pivoted jaw in line with the fixed jaw.

2. In a thread guide, the combination with a fixed jaw having a thread-guiding edge, of a pivotal pin supported by said jaw and extending upwardly therefrom, a pivoted jaw sustained by said pivotal pin, said pivoted jaw having two arms, one on its top and the other on its bottom edge through which the pivoted pin extends, and a spring encircling said pin and engaging the upper arm of the pivoted jaw and tending to hold the pivoted jaw in its normal position and to separate said jaws, said pivoted jaw being provided with a stop projecting beyond the pivotal pin for engagement with the fixed jaw to limit the swinging movement of the pivoted jaw.

3. In a thread guide, the combination with a fixed jaw having a thread-guiding edge, of a pivotal pin supported by said jaw and extending upwardly therefrom, a pivoted jaw sustained by said pin, a spring encircling said pin and tending normally both to hold said jaws separated and to hold the pivoted jaw in alinement with the fixed jaw, said pivoted jaw having a stop projecting

beyond the pivotal pin and adapted to engage the fixed jaw to limit the swinging movement of the pivoted jaw.

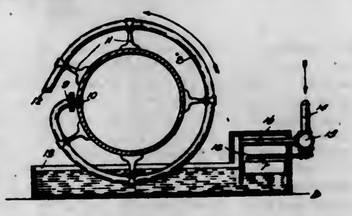
4. In a thread-guide and clearer, the combination with a fixed jaw having a thread-guiding edge, of a pivotal pin journaled in said jaw and extending at right angles to said edge, a pivoted jaw mounted on said pin, said pin having an adjusting nut for adjusting the width of the thread-receiving groove between the jaws, and a spring encircling said pin and acting on the jaws to yieldingly hold them separated to the extent determined by the position of the adjusting nut.

5. In a hread guide, the combination with two jaws, of two clamping feet, both of which have projections extending through apertures in one of the jaws and which are adapted to embrace a supporting rod, and a clamping screw to clamp the feet about the rod.

[Claims 6 to 8 not printed in the Gazette.]

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1,039,286. APPARATUS FOR THE PRODUCTION OF MECHANICAL WOOD-PULP. GUY C. HOWARD, Everett, Wash. Filed Nov. 15, 1911. Serial No. 660,423. (Cl. 92—20.)



1. In a mill for reducing wood pulp material, the combination with a revolving cylinder having an intake for material and a discharge, of a supplementary inlet or inlets for water intermediate said intake and said discharge.

2. A mill for the reduction of wood pulp, consisting of a revolving cylinder, provided with intake and discharge devices for material and water, means within said drum for mechanically macerating said material, and means for intermittently introducing additional water within the cylinder intermediate said intake and said discharge.

3. A mill for the reduction of wood-pulp consisting of a revolving cylinder provided with intake devices for pulp material and water at one end, and discharge devices therefor at its other end, means within said mill for macerating said material, a peripherally arranged pipe about said cylinder having an open end and an end opening into said cylinder, and a receptacle for water into which said open end of the pipe may be submerged at each revolution of the cylinder.

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1,039,287. SPRING-WHEEL. ALEXANDER S. HUDSON, Sourlake, Tex., assignor of one-half to T. S. Crosbie, Sourlake, Tex. Filed Mar. 9, 1912. Serial No. 682,640. (Cl. 152—28.)

1. A wheel comprising a hub; a rim; primary spring spokes constituting the sole connections between the hub and the rim; secondary spring spokes connected at their outer ends with the rim and spaced at their inner ends from the hub and from the primary spokes; and resilient means for connecting the primary and secondary spokes adjacent the hub, and independently of the hub.

2. A wheel comprising a hub; a rim; primary spring spokes constituting the sole connections between the hub and the rim, the primary spokes being curved in a common direction; a straight spring spoke constituting a chord for one primary spoke and constituting a tangent to the other primary spoke; means for securing one end of the straight spoke to the rim; resilient means engaging the straight spoke and the curved spoke to which the straight spoke is tangent, for supporting the other end of the straight spoke for reciprocation independently of the hub.



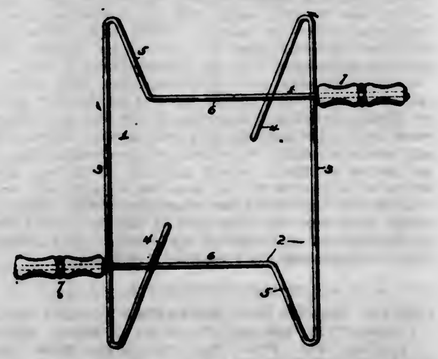
3. A wheel comprising a hub; a rim; primary spring spokes constituting the sole connections between the hub and the rim; secondary spring spokes connected at their outer ends with the rim and spaced at their inner ends from the hub and from the primary spokes; and helical springs carried by the primary spokes and affording the sole support of the inner ends of the secondary spokes.

4. A wheel comprising a hub; a rim; primary spring spokes connecting the hub and the rim; secondary spring spokes connected at their outer ends with the rim and spaced at their inner ends from the hub and from the primary spokes; casings supported upon the primary spokes; springs located within the casings; the secondary spokes being mounted for reciprocation in the casings, and being engaged with the springs.

5. A wheel comprising a hub; a rim; primary spring spokes connecting the hub and the rim; secondary spring spokes connected at their outer ends with the rim and spaced at their inner ends from the hub and from the primary spokes; casing carried by the primary spokes, and engaged with the primary spokes against movement circumferentially of the wheel, the casings being engaged with the hub against movement radially of the wheel; springs located within the casings; the inner ends of the secondary spokes being slidable in the casings, and engaged with the springs.

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1,039,288. HAND-REEL FOR CLOTHES-LINES. WALTER E. HUENNEFELD, Cincinnati, Ohio. Filed Dec. 4, 1911. Serial No. 663,852. (Cl. 242—96.)



A hand reel consisting of a rectangular frame formed of two pieces of wire bent to form two parallel winding bars, two end bars, four end flanges, one of the ends of each piece projecting inside one of the winding bars, and the other end projecting outside one of the end bars and constituting handle supports, and revoluble handles mounted on said supports.



1,039,289. OVEN-DOOR. WALTER E. HUENNEFELD, Cincinnati, Ohio. Filed Jan. 9, 1912. Serial No. 670,245. (Cl. 126—200.)



1. The combination with a downwardly opening oven door having a transparent panel, of a guard plate, and means connecting said plate with the inner side of the door and adapted to afford a free hinge connection for said guard plate approximately in line with one edge of the transparent panel, whereby said plate can be disposed with one edge near the free edge of the door and made to cover the transparent panel either when the door is in its lowered open position or when it is in its closed position.

2. The combination with an oven door adapted at its lower edge to be hinged to an oven, said door having a transparent panel, of a guard plate for said transparent panel, and arms pivoted to an edge of said guard plate and to the inner side of the door, said arms constituting hinged supports for the guard plate and permitting the latter to lie in protective relation to the transparent panel when the door is in its lowered or open position and when the door is in its raised or closed position.

3. The combination with an oven door adapted at its lower edge to be hinged to an oven, said door having a transparent panel, of a guard plate for said transparent panel, arms pivoted, respectively, to the guard plate and to the inner side of the door, said arms affording a free hinge-connection between one edge of said guard plate and the inner side of the door and permitting the guard plate to lie in protective relation to the transparent panel when the door is in open position, said guard plate having a width sufficient to project beyond the lower hinged edge of the door.

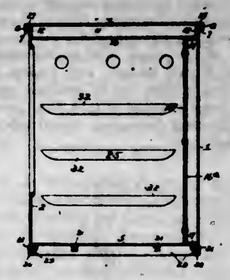
4. The combination of an oven door having a glass panel, said door adapted to be hinged at its lower edge to an oven, a guard plate for the glass panel, a hinge connection between one edge of said plate and the inner side of the door, and a latch near the upper edge of the door, said latch having an arm to engage the oven and also having an arm to engage the hinged guard plate.

5. The combination of an oven door adapted at its lower edge to be hinged to an oven, said door having a transparent panel, a guard plate for said transparent panel, devices affording a free hinge connection between one edge of the guard plate and the inner side of the door and permitting the guard plate to lie in protective relation to the transparent panel when the door is in its open position, and fastening means on the door to engage the free upper edge of the guard plate and hold the latter in position to cover the transparent panel when the door is in its raised and closed position.

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1,039,290. PORTABLE OVEN. WALTER E. HUENNEFELD, Cincinnati, Ohio. Filed Jan. 10, 1912. Serial No. 670,491. (Cl. 126—275.)

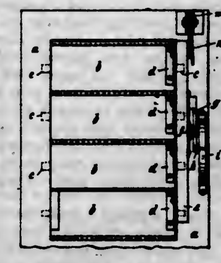
1. A knockdown portable oven, comprising oven top, back, front, and ends, lining sheets permanently secured to the oven ends and back, the vertical edges of the oven ends having direct interlocking connection with adjacent edges of the oven front and back, and the top having direct interlocking connection with the front and back, said top having depending flanges at its ends, provided with overturned edges, a top lining sheet provided at its ends with flanges provided with lateral extensions and with flanges at the edges of said lateral extensions, said last-mentioned flanges lying parallel with the depending flanges at the ends of the oven top and permanently held by the overturned edges of said depending flanges, and an oven bottom removably secured in place.



2. A knockdown portable oven, comprising a back having open beads at its vertical edges, a back lining sheet having flanges at its ends permanently secured to said back, ends, each having front and back open beads at its respective vertical edges, the back open beads of the oven ends having direct removable interlocking connection with the open beads at the ends of the oven back, end lining sheets having flanges at the top and bottom, and said oven ends having flanges engaging said flanges of the end lining sheets and permanently holding the latter in place, an oven top, a lining sheet permanently secured at its ends thereto, an oven front having removable interlocking connection with the oven top, and an oven bottom removably secured to the oven ends, front and back.

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1,039,291. FASTENER FOR BLIND-SLATS. BARTHOLOMÄUS JÄCKLE, Locherhof, Germany. Filed Aug. 8, 1910. Serial No. 576,200. (Cl. 16—1.)



A fastener for blind slats, comprising in combination a rail, angle pieces adapted to connect said rail to the blind slats, a curved rack adapted to be attached to the blind frame, a lever attached to said rail and having two arms, a blade spring attached to said rail, a stud at the end of said blade spring engaging with said rack for maintaining the blind in position, substantially as described and shown and for the purpose set forth.

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1,039,292. SHEET-METAL DOOR AND THE LIKE. ANDREW JOHNSON, Jamestown, N. Y. Filed May 1, 1911. Serial No. 624,316. (Cl. 189—46.)

1. A sheet metal door or the like having a hollow rail, two oppositely arranged channel-irons located within said rail with their wings projecting toward and engaging each other, the said irons having their backs welded to the inner faces of the respective plates forming the stile, and a member placed within one of said channel irons and secured fast to each wing of said iron, substantially as described.

2. A sheet metal door or the like having hollow rails and stiles provided with a glass panel, moldings secured to said rails and stiles and engaging and holding said glass, the pair of moldings engaging the lower end of the glass being formed of one piece of sheet metal and provided with a deep central socket receiving the lower edge of the glass, the moldings engaging the upper edge of the glass being provided with upwardly extending flanges for taking against opposite sides of the glass, and an inverted channel iron placed over said two flanges and means for supporting said channel iron within the hollow rail, said means comprising angle irons secured within the upper part of said top rail and brackets depending therefrom and secured to said channel iron.



3. A sheet metal door or the like having hollow rails and stiles and provided with a glass panel, moldings secured to said rails and stiles and engaging and holding said glass, the pair of moldings engaging the upper edge of the glass being provided with upwardly extending flanges, and an inverted channel iron placed over said flanges, angle irons secured within the upper end of the upper rail, brackets secured to said channel iron and removably attached to said angle irons by means of hooked ends on the brackets and perforated lugs on said angle irons.

4. A sheet metal door or the like having a hollow rail at the end of the door, a pair of angle irons welded within said hollow end at respective places thereof, one wing extending outwardly toward the end of the door and provided with an off-set, a channel iron inserted within the hollow end with its wings projecting inwardly and taking into off-sets of the angle iron, and screws for detachably securing said channel iron to the wings of the angle irons.

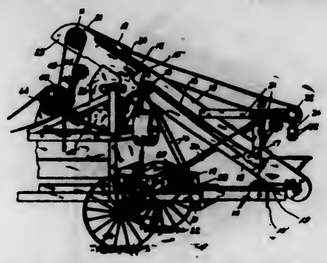
5. A sheet metal door or the like having a hollow rail at the end of the door, a pair of angle irons welded within said hollow end to the respective sides thereof, one wing extending outwardly toward the end of the door and provided with an off-set, a channel iron inserted within the hollow end with its wings projecting inwardly and taking into off-sets of the angle iron, fasteners for detachably securing said channel iron to the wings of the angle irons, and a strengthening bar placed within said angle irons and secured thereto by detachable fasteners.

[Claims 6 to 10 not printed in the Gazette.]

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1,039,293. CORN-SHELLER FEEDER. JOHN N. KAILOR, Columbus, Ind., assignor to Reeves & Company, Columbus, Ind., a Corporation of Indiana. Filed May 13, 1912. Serial No. 696,928. (Cl. 198—18.)

1. A feed chute comprising an upwardly inclined chute, supports for both ends of the chute on which the chute is slidable, the supports for the two ends of the chute being relatively adjustable horizontally, and means for sliding said chute on said supports and holding it in adjusted position.



2. A feed chute comprising an upwardly inclined chute, separate supports for the upper and lower ends of the chute on which supports the chute is slidable, the support for the lower end of the chute being horizontally adjustable.

3. A feed chute comprising an upwardly inclined chute, separate supports for the upper and lower ends of the chute on which supports the chute is slidable, the support for the lower end of the chute comprising a cross bar having a rack and pinion mounting on a pair of supporting arms.

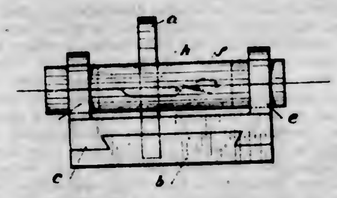
4. A feed chute comprising an upwardly inclined chute, a pair of slide bars attached to the upper end of said chute, a pair of supports slidingly coöperating with said slide bars, and a support on which the lower end of the chute is slidingly mounted.

5. A feed chute comprising an upwardly inclined chute, supports upon which said chute may slide, a pair of supporting brackets 15, a windlass, and cables passing from the windlass over supports on the brackets and thence connected to the lower end of the feed chute.

[Claims 6 to 12 not printed in the Gazette.]

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1,039,294. SUPPORT FOR WORK-PIECES FOR GRINDING HELICAL CONCAVE SURFACES IN BLADES. CARL AUGUST KIRSCHNER, Solingen, Germany. Filed Jan. 30, 1911. Serial No. 605,394. (Cl. 51—7.)




A device of the character described, comprising a grinding wheel, a support arranged in proximity thereto, a slide movable along said support and having a pair of bearings the center of which extends parallel to the axis of the grinding wheel and is adapted to be alined with the periphery of said wheel, and a work holder rotatably mounted within said bearings and adapted for so supporting a scissor-blade that the cutting edge of the blade extends substantially along the axis of the holder, whereby said blade is ground hollow with a straight cutting edge.

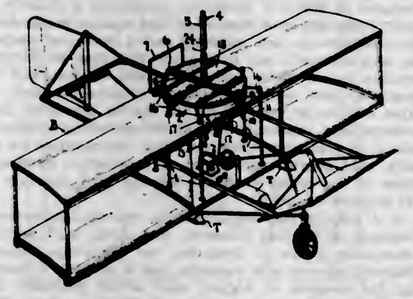
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1,039,295. SAFETY DEVICE FOR AIR-CRAFT. JOHN KRATOVILL, Chicago, Ill. Filed Feb. 2, 1912. Serial No. 675,086. (Cl. 244—21.)

1. A safety device for air craft comprising a round and shallow casing secured upon the craft, a parachute whose body is folded within the casing and whose ropes are attached thereto, a tubular mast rising from the bottom of the casing through the body of the parachute and having perforations near its upper end, an annular traveler slidably mounted upon the mast beneath the parachute, and ropes leading from the traveler upward through the parachute, inward through said perforations, and downward within the mast to a point within reach of the aviator.



2. A safety device for air craft comprising a casing upon the craft, a parachute whose body is adapted to be folded therein and whose ropes are connected to the craft, a tubular mast rising from the casing through a hole in the top of the parachute and having perforations near its upper end, a traveler sliding on the mast below the parachute, and a rope leading from the traveler upward through the hole, inward through one of said perforations, and downward throughout the length of the mast; combined with a valve for closing said hole in the parachute when the latter is tossed off the upper end of the mast.



3. A safety device for air craft comprising an open-topped casing secured upon the craft, a parachute whose body is adapted to be housed therein and has a vent in its top and whose ropes are attached to the craft, a mast rising from the casing through said vent, a spring-closed valve adapted to close the latter, a spring-opened cover hinged at one side to the casing, having a slot standing astride the mast, and provided with a catch opposite its hinge, a latch for said catch, an ejector for the parachute, and connections leading from the latch and the ejector to within reach of the aviator.

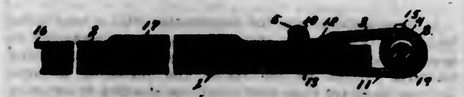
4. A safety device for air craft comprising a parachute whose top has a vent and whose ropes are connected with the craft, a spring-closed valve adapted to close said vent, a mast rising rigidly from the craft through said vent, manually-controlled means for tossing the parachute off the mast, a cover for retaining the parachute in folded condition, the cover having a slot standing astride the mast, and manually-controlled means for freeing the cover.

5. A safety device for air craft comprising a parachute whose top has a hole and whose ropes are connected with the craft, a mast rising from the craft through such hole, manually-controlled means for tossing the parachute off the mast, means for retaining the parachute in folded condition around the mast, and devices for releasing it at will independent of said tossing means.

[Claims 6 and 7 not printed in the Gazette.]

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1,039,296. BINDER OR HOLDER FOR SHEETS OR PADS. REINHOLD KRUMMING, Milwaukee, Wis. Filed Sept. 5, 1911. Serial No. 647,747. (Cl. 129—37.)



1. In a binder or holder for sheets or pads, the combination of the back and front covers having upturned-integrally formed knuckles at their rear ends; a clamp member having downturned integrally-formed knuckles on its rear edge coacting with the knuckles of said back cover and upturned integrally-formed knuckles on its front edge coacting with the knuckles of said front cover; pintles; a U-shaped spring embracing said back cover and clamp member knuckles to apply tension to said clamp member, said clamp member being provided with an opening and said spring with a lug engaging therewith, whereby said spring is retained in position; and a pair of washer-like stop members arranged on the back cover and clamp member pintle between their knuckles, said stop members being provided with pairs of outwardly-projecting laterally-turned stops adapted to engage said back and clamp member to limit the opening movement of said clamp member.

2. In a binder or holder for sheets or pads, the combination of the back and front covers having upturned integrally formed knuckles at their rear ends; a clamp member having downwardly integrally-formed knuckles on its rear edge coacting with the knuckles of said back cover and upturned integrally-formed knuckles on its front edge coacting with the knuckles of said front cover; pintles; a tension spring for said clamp member; and a pair of washer-like stop members arranged on the back cover and clamp member pintle between their knuckles, said stop members being provided with pairs of outwardly-projecting laterally-turned stops adapted to engage said back and clamp member to limit the opening movement of said clamp member.

3. In a binder or holder for sheets or pads, the combination of the back and front covers having upturned-integrally formed knuckles at their rear ends; a clamp member having downturned-integrally formed knuckles on its rear edge coacting with the knuckles of said back cover and upturned-integrally formed knuckles on its front edge coacting with the knuckles of said front cover; pintles; and a U-shaped spring embracing said back cover and clamp member knuckles to apply tension to said clamp member, said clamp member being provided with an opening and said spring with a lug engaging therewith whereby said spring is retained in position.

4. In a binder or holder for sheets or pads, the combination of the cover having knuckles at its rear end; a clamp member having knuckles at its rear end coacting with the knuckles of said cover; a pintle; a U-shaped spring embracing said cover and clamp member knuckles to apply tension to said clamp member, said clamp member being provided with an opening and said spring with a lug engaging therewith whereby said spring is retained in position; and a washer-like stop member arranged on said pintle, said stop member being provided with a pair of outwardly-projecting stops adapted to engage said cover and clamp member to limit the opening movement of said clamp member.

5. In a binder or holder for sheets or pads, the combination of the cover having knuckles at its rear end; a clamp member having knuckles at its rear end coacting with the knuckles of said cover; a pintle; a tension spring for said clamp member; and a washer-like stop member arranged on said pintle, said stop member being provided with a pair of outwardly-projecting stops adapted to engage said cover and clamp member to limit the opening movement of said clamp member.

[Claims 6 to 9 not printed in the Gazette.]

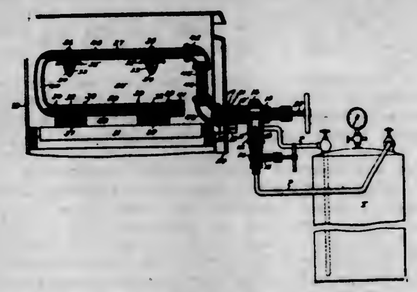
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1,039,297. APPARATUS FOR BURNING FUEL-OIL. ALBERT R. KUNKEL, Palestine, Tex. Filed Apr. 20, 1912. Serial No. 692,067. (Cl. 158—63.)

1. In a device of the class described, the combination with a mixing chamber for oil and air, of a gas mixing and generating pipe communicating with said chamber, a portion of said pipe having fuel jet openings therein adapted to direct the jet of fluid toward the imperforate portion of the pipe, and means within the perforate and imperforate portions of said pipe to further mix the oil and air.

2. In a device of the class described, the combination with a mixing chamber for oil and air under pressure, of

a gas mixing and generating pipe communicating with said chamber and having a perforate portion to provide an opening for the escape of fuel under pressure, an imperforate portion disposed above said perforate portion, means on the imperforate portion adapted to distribute the heat and flame caused by the ignited jet of fuel issuing from the said opening, and loose metal strips in both the imperforate and perforate portions of said pipe to further mix the oil and air and intercept incombustible matter.



3. In a device of the class described, the combination with a mixing chamber for oil and air adapted to be supported outside the firebox of a heating device, of a continuous gas mixing and generating pipe and burner disposed within the firebox and communicating with the said chamber, a portion of said pipe having openings therein adapted to direct jets of the fluid toward the imperforate portion of the pipe, means in the imperforate portion for mixing and cleaning the mixture of air and oil delivered from the mixing chamber on the outside of the heating device, and means in the perforate portion for further mixing the gas.

4. In a device of the class described, the combination with a combustion chamber the wall of which is provided with an opening, of a mixing chamber for oil and air supported on said wall outside the combustion chamber, a nozzle communicating with said mixing chamber and projecting and discharging through said opening, a gas generating pipe disposed within the combustion chamber having a discharge opening therein, a pipe connecting the generating pipe with the end of said nozzle projecting through said opening in the combustion chamber wall, and a perforate non-combustible material in said connecting pipe to further mix the air and oil and clean the same.

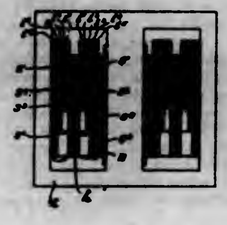
5. In a device of the class described, the combination with a mixing chamber for oil and air, of a continuous U-shaped pipe constituting a retort, one of the arms of which pipe is provided with perforations facing the other arm to direct the fluid escaping therefrom toward the latter, a pipe connecting the imperforate portion of the retort with the mixing chamber, and means in said pipe to further mix and clean the mixture of air and oil.

[Claims 6 to 8 not printed in the Gazette.]

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1,039,298. STEP-BY-STEP INSULATION FOR ELECTRIC CONDUCTORS OR THE LIKE. KARL KURDA, Charlottenburg, Germany, assignor to Siemens-Schuckert Werke G. M. B. H., Berlin, Germany, a Corporation of Germany. Filed Aug. 20, 1907. Serial No. 389,352. (Cl. 171—124.)

1. A step by step insulation for electric conductors or elements of different potential, comprising a plurality of alternating layers of insulating and conducting material disposed between said elements and a conductor connecting said two elements and having the full drop in potential between its two ends, equal to the drop between said two elements, said conducting layers being consecutively connected with a corresponding number of points of said conductor intermediate its ends, said points representing a consecutive corresponding number of steps of decreasing potential between said elements for the purpose set forth.



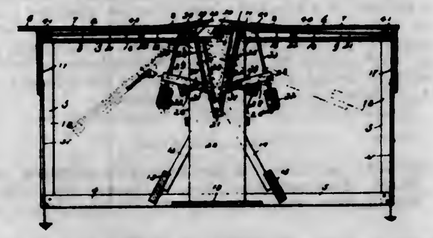
2. A step by step insulation for electric conductors or elements of different potential, comprising a plurality of alternating layers of insulating and conducting material disposed between said elements and a conductor connecting said elements and having the full drop in potential between its two ends, equal to the drop between said two elements, said conducting layers, commencing with the layer nearest to the element of highest potential, being consecutively connected with a corresponding number of points on said connecting conductor intermediate its two ends, said points representing a consecutive number of steps of decreasing potential between said elements for the purpose set forth.

3. A step by step insulation for electric conductors or elements of different potential, comprising a plurality of alternating layers of insulating and conducting material disposed between said elements, and a resistance connecting the element of highest and lowest potential, said conducting layers being consecutively connected with a corresponding number of intermediate points of said resistance, said intermediate points representing a consecutive corresponding number of steps of decreasing potential between said elements, for the purpose set forth.

4. A step by step insulation for electric conductors or elements of different potential, comprising a plurality of alternating layers of insulating and conducting material disposed between said elements, and a resistance connecting the element of highest and lowest potential, said conducting layers, commencing with the layer nearest to the element of highest potential, being consecutively connected with a corresponding number of intermediate points of said resistance, said intermediate points representing a consecutive corresponding number of steps of decreasing potential between said elements, for the purpose set forth.

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1,039,299. TRAP. LEOPOLD LABECKI, Perth Amboy, N. J. Filed July 27, 1911. Serial No. 640,965. (Cl. 43—34.)



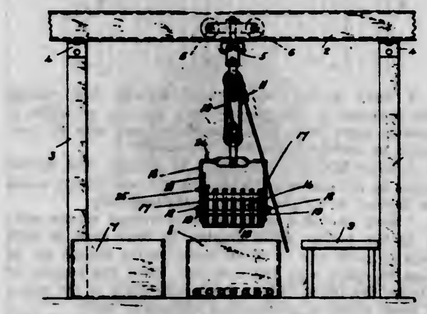
1. In an animal trap, the combination with a supporting frame and a normally open electric circuit connected to spaced contact plates carried by the frame; of a tilting platform carried by the frame and including metallic sections insulated from each other one of which is normally in contact with one of said contact plates and the other of which is arranged so as to move under the weight of an animal into contact with the other of said contact plates.



2. In an animal trap, the combination with a supporting frame and a normally open electric circuit connected to spaced contact plates carried by the frame; of a platform pivotally connected to the frame and having spaced metallic plates insulated from each other one of which is normally in contact with one of the contact plates and the other of which is yieldingly held in spaced relation to the other of said contact plates and adapted to be depressed by the weight of an animal thereon into contact with the last-named contact plate, a latch for latching the platform to the frame, and means operated by the depression of the second-named section of the platform to unlatch the latch.

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1,039,300. SCALDING APPARATUS. EMMET I. LANNAN, Troutville, Va. Filed May 6, 1912. Serial No. 696,520. (Cl. 146—14.)



1. In a scalding apparatus, the combination, with a tilting basket having vertical sides and curved bottom and end portions all formed of slats secured crosswise of each other, and a reinforcing crosspiece secured under the middle part of the basket and provided with upwardly projecting arms at its ends, said arms being secured to the vertical sides of the basket and being continuations of the said crosspiece, of a supporting bail pivoted to the said arms, and a disengageable catch which normally locks one of the arms to the said bail.

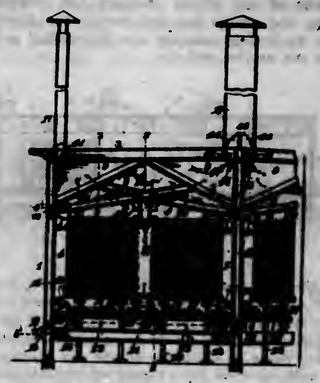
2. In a scalding apparatus, the combination, with a tilting basket having vertical sides and curved bottom and end portions all formed of slats secured crosswise of each other, and a re-inforcing crosspiece secured under the middle part of the basket and provided with upwardly projecting arms at its ends, said arms being secured to the vertical sides of the basket and being continuations of the said crosspiece, of a supporting bail pivoted to the said arms, one of the said arms having an extension which projects above the top of the basket, and a locking ring which slides over one side portion of the bail and the said extension and which normally rests on the top edge of the basket and prevents it from tilting.

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1,039,301. DRY-KILN FOR LUMBER. JAMES M. LEAVER, Longbeach, Cal. Filed July 10, 1911. Serial No. 637,805. (Cl. 34—46.)

1. A dry kiln including a drying chamber, a mixing chamber or duct located at the top of the kiln, means for conducting the air from the outside atmosphere to the mixing chamber or duct, means contained within the kiln for mixing a portion of the heated moist air with the cold air to cause the same to commingle in the mixing chamber before the air from the outside atmosphere is introduced into the drying chamber, means for conducting the mixture from the mixing chamber or duct to the drying chamber, and heating means located within the kiln and arranged in the path of the said mixture, and a chimney or stack communicating with the drying chamber for producing a circulation through the kiln.

2. A dry kiln including a drying chamber, a mixing chamber located above the drying chamber, separate ducts connecting the mixing chamber with the outside atmosphere and with the lower portions of the drying chamber, means contained within the kiln for introducing a portion of the heated moist air of the drying chamber into the mixing chamber to cause the same to commingle with the cold air before the latter is introduced into the drying chamber, and heating means located within the drying chamber and arranged in the path of the air entering the same.



3. A dry kiln including a drying chamber, a mixing chamber, separate means for connecting the mixing chamber with the outside atmosphere and with the drying chamber, means contained within the kiln for mixing a portion of the heated moist air of the drying chamber with the cold air to cause the same to commingle in the mixing chamber before the air from the outside atmosphere is introduced into the drying chamber, a chimney or stack, and a suction chamber connected with the drying chamber and with the chimney or stack for conveying away the heated air and moisture.

4. A dry kiln including a drying chamber, a mixing chamber communicating with the drying chamber and adapted to receive heated air and moisture from the same, ducts connecting the mixing chamber with the outside atmosphere and with the drying chamber at the bottom thereof, heating means located within the drying chamber in the path of the air entering the same, and a suction chamber connected with the drying chamber, a chimney or stack connected with the suction chamber for conveying away the heated air and moisture and for causing a draft or circulation through the kiln, and means for controlling the draft through the stack or chimney.

5. A dry kiln including a drying chamber, a mixing chamber located above the drying chamber and communicating therewith so as to receive heated air and moisture therefrom, separate ducts connecting the mixing chamber with the outside atmosphere and with the drying chamber, means for heating the air entering the drying chamber, a suction chamber also located above the drying chamber and connected therewith, and a chimney or stack communicating with the suction chamber.

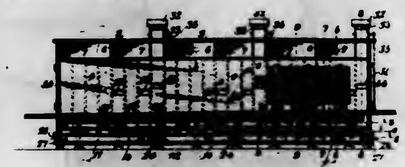
[Claims 6 to 27 not printed in the Gazette.]

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1,039,302. DRY-KILN FOR LUMBER. JAMES M. LEAVER, Longbeach, Cal. Filed Nov. 29, 1911. Serial No. 663,102. (Cl. 34—46.)

1. A dry kiln including a drying chamber, heating means at the bottom thereof, a plurality of sets of ducts or passages each comprising a mixing duct or chamber located at the top of the drying chamber, a cold air passage located at one end of the mixing duct or chamber and extending upward from the lower portion of the kiln to the said mixing duct or chamber, a return duct extending from the other end of the mixing duct or chamber to the bottom of the drying chamber and communicating therewith, and means for conducting heated air from the drying chamber to the mixing duct or chamber.

2. A dry kiln including a drying chamber, heating means at the bottom thereof, a plurality of sets of ducts or passages each comprising a mixing duct or chamber located at the top of the drying chamber, a cold air passage located at one end of the mixing duct or chamber and extending upward from the lower portion of the kiln to the said mixing duct or chamber, a return duct extending from the other end of the mixing duct or chamber to the bottom of the drying chamber and communicating therewith, and means for introducing the heated moist air from the drying chamber into the mixing chamber at the same end as the cold air.



3. A dry kiln including a drying chamber, and a plurality of separate sets of ducts or passages comprising separate mixing ducts or chambers located at the top of the drying chamber, ducts or passages connected with the mixing ducts or chambers at one end thereof for conducting cold air from the exterior of the kiln and heated moist air from the drying chamber to the said mixing ducts or chambers, return ducts extending downwardly from the other end of the mixing ducts or chambers to the bottom of the kiln and communicating with the drying chamber, and a separate suction duct for each of said sets of ducts or passages communicating with the drying chamber, and heating means located within the drying chamber and arranged in the path of the air entering the same.

4. A dry kiln including a drying chamber, and a plurality of sets of ducts or passages each comprising a mixing duct and extending across the top of the drying chamber from one side of the kiln to the other, a cold air duct extending upwardly from the lower portion of the kiln and connected with one end of the mixing duct, a return duct extending from the other end of the mixing duct, a hot air duct connected with the mixing duct at the same end as the cold air duct and extending downwardly from the mixing duct and communicating with the interior of the drying chamber for conducting heated moist air therefrom to the mixing chamber, a suction duct also communicating with the drying chamber, and a chimney or stack connected with the suction duct.

5. A dry kiln including a drying chamber, and a plurality of separate sets of ducts or passages comprising mixing ducts arranged at the top of the drying chamber, cold and hot air ducts connected with the mixing chamber at one end thereof for conducting cold air from the outside of the kiln and heated moist air from the drying chamber to the mixing chamber, return ducts connected with the mixing ducts at the other end thereof and extending therefrom to the lower portion of the kiln and communicating with the drying chamber at the bottom thereof, and suction ducts connected with the drying chamber, said sets of ducts or passages being reversed at intervals to arrange their corresponding ducts at opposite ends of the mixing ducts.

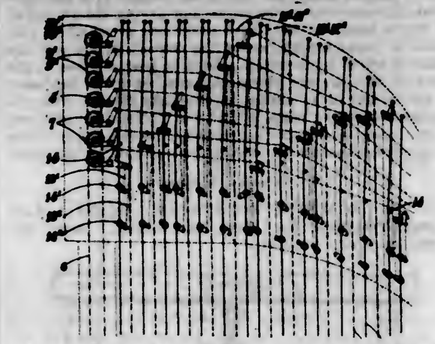
[Claims 6 to 14 not printed in the Gazette.]

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1,039,803. HARP. GUSTAVE FRANTZ LYON, Paris, France. Filed Dec. 28, 1909. Serial No. 535,300. (Cl. 84—14.)

1. A harp having diatonic strings, means operable by the player while playing to alter the key in which said strings are tuned, and another set of strings to coöperate with the first set in producing a chromatic scale.

2. A harp having a set of strings, means to alter simultaneously the tuning of the strings in all the octaves having the same name, and a second set to coöperate with the first in producing a chromatic scale.



3. A harp having two sets of strings, and tuning means operable by the player while playing by which a chromatic scale may be produced by said sets in conjunction or certain notes may be doubled.

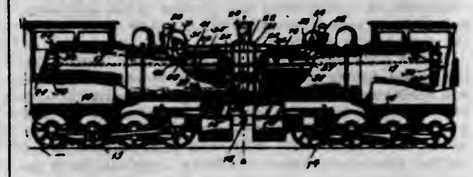
4. A harp having crossed sets of strings, and means operable by the player while playing to cause certain notes to be doubled in all the octaves simultaneously.

5. A harp having a set of diatonic strings, means operable by the player while playing to tune each of said strings to emit any of three tones, and a second set of strings to coact with the first set, when the strings of the latter are tuned to give the intermediate of the aforesaid three tones, in producing a chromatic scale.

[Claims 6 to 10 not printed in the Gazette.]

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1,039,804. LOCOMOTIVE. FRANK MARTIN, Renova, Pa., assignor of one-half to Morris Di Bella, Renova, Pa. Filed Jan. 18, 1912. Serial No. 671,894. (Cl. 105—17.)



1. In a locomotive, confronting boilers each having a smoke box at its end terminating in a flared flange, a common ring of curvilinear cross section conforming to the contour of both flanges and securing the boilers for relative movement, a smoke stack carried by said ring, and a wheeled frame supporting said boilers.

2. In a locomotive, opposing boilers having confronting smoke boxes joined together for relative movement, wheeled frames supporting said boilers and pivotally connected together, cylinders carried by said frames, steam pipes leading from the steam spaces of said boilers to said cylinders, throttle valves in said steam pipes, and means for simultaneously opening or closing said throttle valves from the outer end of either of said boilers.

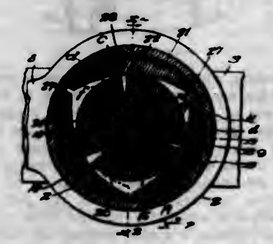
3. In a locomotive, opposing boilers each including a fire-box, a shell inclosing a steam space, and a smoke box in advance of said shell, the smoke boxes of both boilers confronting each other and terminating in outwardly flared flanges, a common ring of greater diameter than said shells and of curvilinear cross section seated upon and connecting said flanges, cylinders assembled with said boilers, steam pipes leading from the steam spaces of said boilers to said cylinders, throttle valves in said steam pipes, and means for simultaneously operating both throttle valves from the outer end of either boiler.



4. In a locomotive, opposing fire tube boilers having a common smoke box, a slip joint connecting the shells of both boilers at said common smoke box, cylinders connected to said boilers, steam pipes leading from the steam spaces of said boilers to said cylinders, throttle valves in said steam pipes, means for simultaneously controlling said throttle valves from the fire box of either of said boilers, a common steam pipe connecting the steam spaces of both boilers, a valve in said common steam pipe, valves in said steam pipes intermediate the throttle valves and said cylinders, and means for operating the last named valves independent of each other.

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1,039,805. SHOCK-ABSORBER. GEORGE CUSHING MARTIN, Los Angeles, Cal. Filed Sept. 11, 1911. Serial No. 648,799. (Cl. 21—105.)



1. The combination with a circular ring wall of a resilient shoe having inside the wall a frictional surface that normally does not conform to the wall, and means operable to deflect the shoe toward conformity with said wall to produce frictional resistance between the shoe and the wall.

2. A shock absorber comprising relatively rotatable elements having frictional surfaces, the frictional surface of the external one of said elements being circular; and the other element being resilient; and normally unconfronted to the external frictional surface means to spring the resilient element outwardly from its normal shape to effect varying frictional engagement between said elements.

3. In a shock absorber the combination with a circular wall, of a shoe of greater radius than the wall, and means to apply force to the middle of the shoe to effect frictional action between said shoe and wall.

4. In a shock absorber the combination with a circular wall, of a shoe of different radius than the wall, and means to apply force to the middle of the shoe to effect frictional action between said shoe and wall.

5. In a shock absorber the combination with a circular wall, of an odd number of resilient shoes which do not conform to the wall, and floating means between said shoes to force said shoes into conformity with said wall.

[Claims 6 to 9 not printed in the Gazette.]

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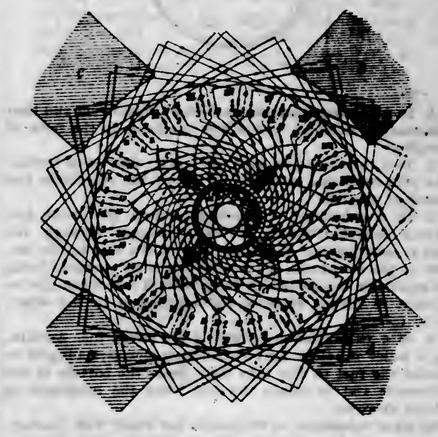
1,039,806. DETACHABLE RUBBER HEEL. AMANDA MCDONALD, Central City, S. D. Filed Oct. 3, 1911. Serial No. 652,515. (Cl. 36—73.)



A rubber heel adapted to be connected to a shoe heel and formed with a flange to embrace the shoe heel, and a base portion to underlie said shoe heel, fasteners adapted to extend into the shoe heel and provided with spherical heads, said heel flange being provided with openings to receive said heads, and female fasteners secured in said openings and adapted to snap on said heads and hold said rubber heel in position on the shoe heel.

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1,039,807. ARMATURE-WINDING. JAMES F. MCELROY, Albany, N. Y., assignor, by mesne assignments, to The United States Light & Heating Company, New York, N. Y., a Corporation of Maine. Filed Oct. 21, 1905. Serial No. 283,735. (Cl. 171—206.)



1. An armature-winding for dynamo electric machines of the multipolar type, having a plurality of circuits in multiple, equal in number to the number of field magnet poles, each of the multiple circuits containing coils in series embracing two or more branches of the magnetic flux, and each circuit traversing all of the generative positions on the face of the armature, and each generative position including a wire from each circuit.

2. An armature-winding for dynamo electric machines of the multipolar type, having a plurality of circuits in multiple equal in number to the number of field-magnet poles and each circuit embracing two or more branches of the magnetic flux and traversing each generative position on the face of the armature an equal number of times.

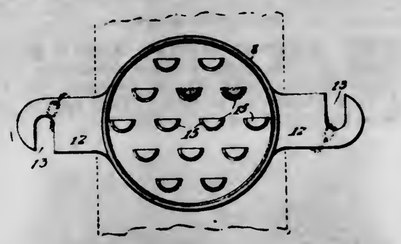
3. An armature-winding for dynamo electric machines of the multipolar type, having more than two circuits in multiple, each circuit comprising coils in series embracing two or more branches of the magnetic flux, and each circuit traversing each generative position on the armature an equal number of times in the same relation to the flux as every other one of the said circuits.

4. In an armature for dynamo electric machines of the multipolar type, a slotted core, more than two circuits in multiple, each embracing two or more branches of the magnetic flux and traversing all of the armature-slots the same number of times, and bearing the same relation to the flux as every other circuit and passing alternately through the top and bottom portions respectively of the slots traversed successively by it in its course.

5. In an armature for dynamo electric machines of the multipolar type, a slotted core, a plurality of circuits in multiple the number of which is equal to the number of field magnet poles, said circuits embracing two or more branches of the magnetic flux and composed of coils arranged in the armature-slots in pairs, the wires of a pair lying alternately in the top and bottom of the slots and a coil of one pair being connected in series with the coil of a diametrically opposite pair.

[Claims 6 to 14 not printed in the Gazette.]

1,039,306. VULCANIZER. EDWIN C. MCGRAW, East Palestine, Ohio, assignor to McGraw Tire & Rubber Company, East Palestine, Ohio, a Corporation of Pennsylvania. Filed June 29, 1912. Serial No. 706,717. (Cl. 18—18.)



1. In a vulcanizer, a receptacle for a fluent fuel and heat distributing members within the receptacle in the form of troughs.

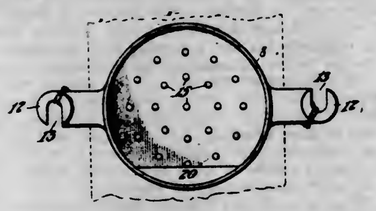
2. In a vulcanizer, an open receptacle, a series of trough-like pins connected with the bottom of the receptacle and closed at the top.

3. In a vulcanizer, an open receptacle for fluent fuel having heat-distributing members passing through the fuel to communicate the flame heat of the fuel to the bottom of the receptacle, the heat-distributing members being substantially trough-like in form to hold fuel when the receptacle is turned sidewise for application to the object to be treated.

4. In a vulcanizer, a receptacle for fluent fuel containing a series of hollow heat-distributing members adapted to permit the fuel to flow into them, from the bottom of the receptacle and to retain the fuel when the receptacle is turned sidewise.

5. In a vulcanizer, a receptacle for fluent fuel containing a series of heat-distributing members capable of serving as receptacles for the fuel and arranged in substantially staggered relation.

1,039,309. VULCANIZER. EDWIN C. MCGRAW, East Palestine, Ohio, assignor to McGraw Tire & Rubber Company, East Palestine, Ohio, a Corporation of Pennsylvania. Filed Aug. 9, 1912. Serial No. 714,259. (Cl. 18—18.)

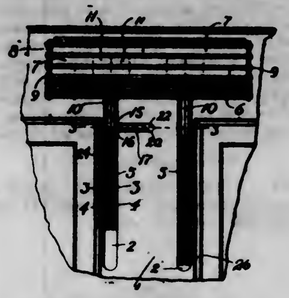


1. In a vulcanizer, the combination with a receptacle for a fluent fuel having heat-distributing members communicating with the bottom of the receptacle, of a separate receptacle adapted to be placed in the main receptacle and to hold a fluent fuel when the vulcanizer is used in positions other than substantially horizontal.

2. In a vulcanizer a receptacle for fluent fuel, heat-distributing pins rising from the bottom of the receptacle, and a removable segmental-shaped cup adapted to fit against the wall of the receptacle and to lie below the pins when in operative position.

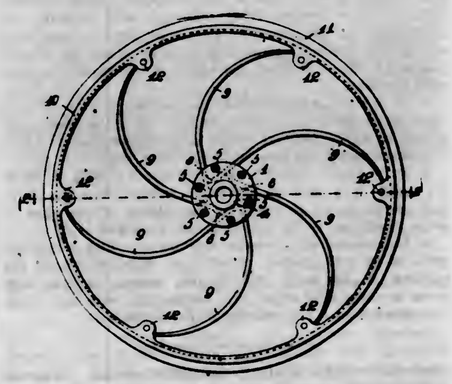
3. In a vulcanizer, a receptacle for fluent fuel, rows of heat-distributing pins and a removable cup adapted to fit in the space between the pins and the wall of the receptacle and to hold a fluent fuel when the vulcanizer is in positions other than substantially horizontal.

1,039,310. BASKET FOR PASSENGER-CARS. OSKO J. MENNENGA, Renville, Minn. Filed Mar. 18, 1911. Serial No. 615,243. (Cl. 105—5.)



In combination with a support, of recesses formed therein, guide strips mounted in said recesses to form slotted guideways, one of said guideways being longer than the other, a basket, guide members secured to the back of the basket, said guide members being provided with heads adapted for travel within the slotted guideways, a handle for one of the guide members and stops for the other guide members, openings formed in the guideways and guide members and adapted to register when the basket is in its normal position, a spring pressed bolt carried by the support and adapted to co-act with the registered openings of the guideways and guide members.

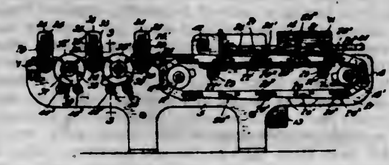
1,039,311. SPRING-WHEEL. IRA J. MERRILL, Portland, Oreg., assignor of one-half to C. A. Benbow, Portland, Oreg. Filed May 5, 1910, Serial No. 559,461. Renewed Dec. 7, 1911. Serial No. 664,492. (Cl. 152—50.)



A spring wheel comprising a hub provided with a plurality of spoke channels extending for a portion of their length in planes tangentially to the axle box thereof and having their inner ends bent outwardly at an obtuse angle and communicating with the tangentially arranged portion of the adjacent channel, a plurality of flat spring steel spokes tapering in thickness from their inner toward their outer ends with their body portions curved outwardly throughout the great part of their lengths and the inner ends of said spokes being bent to conform to the shape of the channels in the hub, the terminals of the inner ends of the respective spokes abutting against the inner faces of the adjacent spokes, means for rigidly connecting said spokes within said hub and means for pivotally connecting the outer ends of said spokes to the wheel tire.



1,039,312. COMBINED SHINGLE SAWING AND JOINTING MACHINE. WILLIAM C. MILES, Seattle, Wash. Filed Feb. 9, 1911. Serial No. 607,680. (Cl. 144—39.)



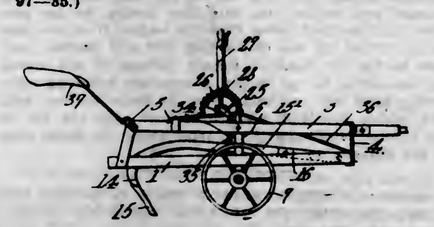
In combination with a frame, a band saw operating in a horizontal position thereabove and adapted for the removal of a shingle from the underneath side of a block, feed links adapted for movement transversely beneath said saw and each of said links having a sloping face thereof corresponding to the taper of a shingle, three adjacent links unitedly forming the seat for a single complete shingle, means for operating said saw and links, a platform with a tapered forward edge positioned rearwardly of the same and in horizontal alinement therewith and adapted to receive the block thereon, and an inclined guide member mounted upon said platform, substantially in alinement with the line of movement of said links, and said saw being positioned transversely of and between said links and guide.

1,039,313. CONSTRUCTION OF BUILDING-WALLS. JOHN MITCHELL, Ponsonby, New Zealand. Filed Sept. 26, 1910. Serial No. 583,930. (Cl. 72—30.)



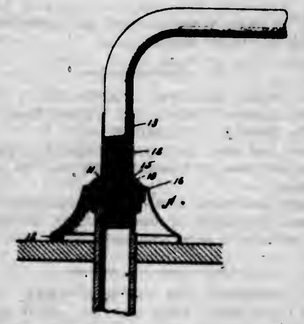
A reinforcing wall construction comprising courses of blocks, vertical rods engaging said blocks, the blocks having recesses receiving said rods, and also being formed with horizontal trenches, and horizontal crimped rods received in said trenches and having their crimped portions in direct interlocking engagement with the vertical rods.

1,039,314. PLOW. WILLIAM L. MORFORD, Maitland, Mo. Filed June 1, 1911. Serial No. 630,712. (Cl. 97—35.)



A plow including a wheel supported frame, beams pivotally connected to the front portion of the frame, spaced alining shafts extending transversely of and journaled on the frame, a crank arm extending from the outer end of each of said shafts, link connections between said crank arms and the respective beams, a toothed segment straddling the outer end portion of one of the shafts, a lever secured to said shaft, means carried thereby for engaging said segment, a toothed segment secured to the inner end of said shaft, a lever secured to the inner end of the other shaft, means thereon for engaging the toothed segment on the first named shaft, said levers coöperating to indicate the relative positions of the crank arms and the beams connected thereto, the said crank arms being normally parallel and the levers being also normally parallel.

1,039,315. BOX-FLANGE FOR PIPE-COUPLINGS. HENRY MUELLER, Decatur, Ill.; Ora B. Mueller and Adolph Mueller, executors of said Henry Mueller, deceased, assignors to H. Mueller Manufacturing Company, Decatur, Ill., a Corporation of Illinois. Filed July 28, 1910. Serial No. 574,392. (Cl. 137—94.)



1. In combination with a section of pipe, a second section of pipe adapted to telescopically engage with said first mentioned section, and a coupling nut for adjustably securing together the sections, of a flange box adapted to conceal the joint, said flange box comprising a dished member having a relatively broad base and a contracted open neck, and a sleeve adapted to envelop one of said pipe sections and to contact with said coupling nut whereby displacement in one direction may be prevented, said sleeve also being flared at one end whereby displacement in an opposite direction is prevented.

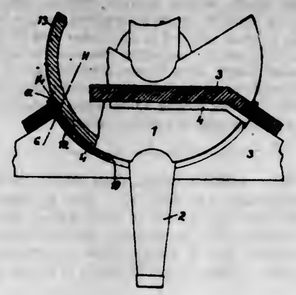
2. The combination with a flange box having a relatively broad base, a contracted open neck and an inturned annular lip bordering said neck, of a relatively long sleeve removably fitted in the open neck of said flange box and adjustable longitudinally therethrough, said sleeve being flared at one end to engage the lip on said flange box whereby it is secured against withdrawal therefrom in one direction.

3. As a new article of manufacture, a fitting for a pipe coupling comprising a dished member having a relatively broad base and a contracted open neck, and a relatively long sleeve removably fitted therein and adjustable longitudinally thereof, said sleeve being flared at one end, the flared portion of said sleeve forming the sole means for maintaining engagement between the same and said fitting.

1,039,316. METHOD OF RENDERING THE JOINTS OF THE CASEMATED PORT-HOLES OF WAR-SHIPS WATER-TIGHT. MAX NOACK, Friedenau, near Berlin, Germany. Filed Mar. 8, 1909. Serial No. 482,057. (Cl. 114—175.)

The combination of a gun-shield for closing the port-holes in gun turrets or casemates in warships with an inflatable packing tube, said inflatable packing tube being inserted in the rift between the porthole or casemate wall and the gun shield while the said inflatable packing tube is in a deflated condition, said inflatable packing tube extending all around said gun-shield and

overlapping at its ends, the said inflatable packing tube being caused by inflation to closely follow the form and



contour of the parts in such manner as to completely seal the rift in a watertight manner.

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1,039,317. WEED-KILLING COMPOSITION. HILLERY O. OWEN, Corpus Christi, Tex. Filed Mar. 1, 1912. Serial No. 680,985. (Cl. 167—6.)

1. A grass and weed destroying composition comprising an aqueous solution or arsenous oxid, sodium carbonate and ammonia.

2. A grass and weed destroying composition comprising an aqueous solution of arsenious oxid, 32 parts, carbonate of sodium, 16 parts and ammonia, 1 part.

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1,039,318. SWINGLE OR DOUBLE TREE. PHILLIP PECARD, Lena, Wis. Filed May 24, 1912. Serial No. 699,395. (Cal. 21—78.)



1. A swingle or double tree member comprising a swivel block having a pair of forwardly disposed hinge-pin apertures and a circular slot described about each hinge-pin aperture rearwardly thereof, hinge-pins mounted in the hinge apertures of the swivel block, hollow arms having wings spanning the swivel-block and in hinge connection with the pivot-pins, a stop-pin carried by each wing for engagement with the circular swivel block slots, and a coiled spring connecting the end of each arm and swivel-block.

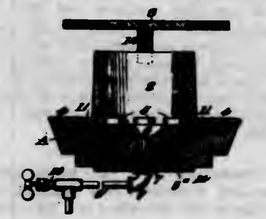
2. A swingle or double tree comprising a swivel-block provided with a pair of forwardly disposed hinge-pins and circular slots described about the hinge pin axes rearwardly thereof, U-shaped hollow arms provided with wings that overlap the top and bottom faces of the swivel-block, the wings being in hinge connection with the swivel-block hinge-pins, stop-pins carried by the wings engageable with the circular slots of the swivel-blocks, a coiled spring for each arm having one end secured to the aforesaid swivel-block, and adjustable securing means carried at the end of each arm for connecting the outer ends of said springs.

3. A swingle or double tree member comprising a swivel-block having forwardly disposed hinge-pins, and circular slots described about the hinge-pin axes rearwardly thereof, U-shaped hollow arms provided with wings that overlap the top and bottom faces of the swivel-block, the U-shaped arms being in pivotal connection with the hinge-pins of said block, stop-pins carried by the wings engageable with the swivel block circular slots, shackels carried by the aforesaid swivel-block having conical projecting plugs, bolts secured to the outer ends of the arms, conical plugs in threaded engagement with the bolts, and coiled springs connecting said conical plugs and plug extensions of the shackles, the ends of the coiled springs being contracted thereabout.

4. A swingle or double tree member comprising a swivel-block having a pair of forwardly disposed hinge-pins, and circular slots described about the hinge-pin axes rearwardly thereof, U-shaped hollow arms having wings that overlap the top and bottom faces of the swivel-block, the wings being in hinge connection with the swivel-block hinge-pins, stop-pins carried by the wings engageable with the circular slots of the aforesaid swivel-block, apertured clips secured to the ends of the arms, bolts having threaded ends fitted through the clip apertures, plugs in threaded engagement with the bolt ends, and coiled springs connecting the plugs and rear corners of the swivel-blocks.

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1,039,319. OIL-BURNER. FREDERICK W. PENN, Petaluma, Cal. Filed May 13, 1912. Serial No. 696,834. (Cl. 158—91.)



1. An oil burner comprising a base having a circumferential open channel on the top adjacent the outer edge, and having a central interior depression, said base having inclined channels in its top leading from the central depression to said channel, a chimney adapted to fit upon the base between said depression and channel, and an oil supply pipe leading into said depression, said base having regulable air inlet passages opening through it within the interior of the chimney.

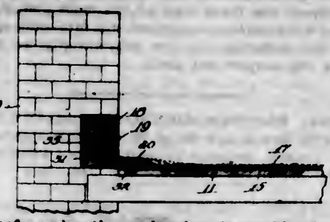
2. An oil burning heater consisting of a base having an annular channel on the top, a central cup with an oil passage leading from below thereto, inclined channels leading from the edge of the cup to the bottom of the surrounding channel, a plurality of vertical air passages leading upwardly around the cup having their upper ends raised above the cup level, a chimney, an annular rim within which the chimney fits between the central cup and the annular channel, a damper having holes corresponding with the air inlet passages, and a handle by which the damper may be turned to regulate the air inlet openings.

3. An oil burning and heating device comprising a metal base having a central cup at the top, means for supplying oil thereto from below, said base having an annular channel in its top adjacent the outer edge, a chimney removably fitting upon the top of the base between said channel and central cup, said base having its top provided with inclined radial channels leading from the edge of the central cup and discharging into said channel, said base having air channels formed through it and means for controlling the air supply, a separable deflecting table having rigid legs projecting from its under surface, said legs having shoulders adapted to rest upon the top of the chimney and support the table above the upper edge of the chimney.

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1,039,320. FLASHING-BLOCK. FELIX D. RENAUD, Chicago, Ill. Filed Feb. 10, 1912. Serial No. 676,792. (Cl. 108—26.)

1. A roof construction embracing, in combination with a roof including roofing strips, a vertical wall or member formed at the roof level with a recess to receive the flashing ends of the said strips, said recess having its lower wall substantially flush with the surface of the roof, and a flashing block fitted in said recess and between which and the bottom of the recess the flashing ends of said strips are confined.



2. A roof construction embracing, in combination with a roof including roofing strips, a vertical wall or member formed at the roof level with a recess to receive the flashing ends of said strips, said recess having its lower wall substantially flush with the surface of the roof, a flashing block fitted in said recess and between which and the bottom of the recess the flashing ends of the strips are confined, the upper side of the recess being undercut to interfit with the upper side of the flashing block.

3. A roof construction embracing, in combination with a roof including roofing strips, a vertical wall or member formed at the roof level with a recess to receive the flashing ends of said strips, said recess having its lower wall substantially flush with the surface of the roof, a flashing block fitted in said recess and between which and the bottom of the recess the flashing ends of the strips are confined, the upper side of the recess being undercut to interfit with the upper side of the flashing block, and means to engage the lower side of said block for the purpose set forth.

4. A roof construction embracing, in combination with a composition roof including foundation strips, a vertical wall or member formed with a recess to receive the flashing ends of said strips, and a flashing block fitted in the recess and between which and the bottom of the recess the flashing ends of the strips are confined, the upper side of the recess being undercut to interfit the upper side of the flashing block, a surface layer of roofing material covering said strips said surface layer being thickened at the lower outer side of said block to constitute a key, for the purpose set forth.

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1,039,321. SAFETY STARTING DEVICE FOR INTERNAL-COMBUSTION ENGINES. JAMES M. RENTT, Beaufort, S. C. Filed June 20, 1911. Serial No. 634,348. (Cl. 123—185.)



1. In a gas engine starter, the combination of a ratchet wheel, means connecting the ratchet wheel to an engine shaft, a lever, a pawl pivoted to the lever for engaging the ratchet wheel, a disk provided with abutments, the lever and outer ends of the pawl being arranged between said abutments, means for holding the disk against backward rotation, and means for holding the pawl out of engagement with the ratchet wheel, substantially as described.

2. In a gas engine starter, the combination of an engine shaft, a shaft connected to be driven by the engine shaft, a ratchet wheel fixed to the second shaft, a lever, a pawl pivoted to the lever for engaging the wheel and having an edge extending beyond an edge of the lever, a disk loosely mounted on the second shaft and provided with abutments, the lever and outer end of the pawl being arranged between said abutments, a spring tending to press the pawl into engagement with the ratchet wheel, said second shaft being journaled in an anchored rod, a jam-latch carried by the rod for preventing backward rotation of the disk, and means for automatically engaging the pawl to hold it out of engagement with the ratchet wheel, substantially as described.

3. In a gas engine starter, the combination of an engine shaft, a shaft connected to be driven by the engine shaft, a ratchet wheel fixed to the second shaft, a lever, a pawl pivoted to the lever for engaging the ratchet wheel and having an edge extending beyond an edge of the lever, a disk loosely mounted on the second shaft and provided with abutments, the lever and outer end of the pawl being arranged between said abutments, a spring tending to press the pawl into engagement with the ratchet wheel, said second shaft being journaled in a pair of rods extending at an angle to each other, standards for adjustably supporting the rods, a jam-latch carried by one of the rods for preventing backward rotation of said disk, and means for adjustably engaging the pawl to hold it out of engagement with the ratchet wheel, substantially as described.

4. In a gas engine starter, the combination of an engine shaft, a shaft connected to be driven by the engine shaft, a ratchet wheel fixed to the second shaft, a lever, a pawl pivoted to the lever for engaging the ratchet wheel and having an edge extending beyond an edge of the lever, a disk loosely mounted on the second shaft and provided with abutments, the lever and outer end of the pawl being arranged between said abutments, a spring tending to press the pawl into engagement with the ratchet wheel, said second shaft being journaled in a pair of rods extending at an angle to each other, standards for adjustably supporting the rods, the free end of one of the rods being elongated beyond the periphery of the disk, a jam-latch carried thereby for preventing backward rotation of the disk, and a spring actuated latch for engaging the pawl to hold it out of engagement with the ratchet wheel, substantially as described.

5. In a gas engine starter, the combination of an engine shaft, a shaft connected to be driven by the engine shaft, a ratchet wheel fixed to the second shaft, a lever, a pawl pivoted to the lever for engaging the ratchet wheel and having an edge extending beyond an edge of the lever, a disk loosely mounted on the second shaft and provided with abutments, the lever and outer end of the pawl being arranged between said abutments, a spring tending to press the pawl into engagement with the ratchet wheel, said second shaft being journaled in an anchored rod, a jam-latch carried by the rod for preventing backward rotation of the disk, and means for automatically engaging the pawl to hold it out of engagement with the ratchet wheel, substantially as described.

6. In a gas engine starter, the combination of an engine shaft, a shaft connected to be driven by the engine shaft, a ratchet wheel fixed to the second shaft, a lever, a pawl pivoted to the lever for engaging the ratchet wheel and having an edge extending beyond an edge of the lever, a disk loosely mounted on the second shaft and provided with abutments, the lever and outer end of the pawl being arranged between said abutments, a spring tending to press the pawl into engagement with the ratchet wheel, said second shaft being journaled in a pair of rods extending at an angle to each other, standards, said rods being telescopically arranged in the standards, the standards being slotted, bolts passing through the slots and threaded in the rods, the standards being pivotally connected to bearings, one of the free ends of the rods being elongated and carrying a jam-latch for preventing backward rotation of said disk, and a spring actuated latch for engaging said pawl to hold it out of engagement with the ratchet wheel, substantially as described.

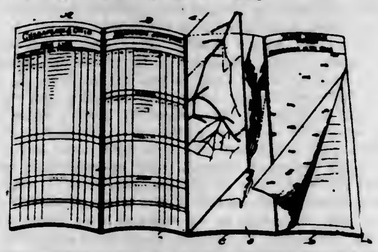
[Claims 6 and 7 not printed in the Gazette.]

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1,039,322. GUIDE-CHART. JOEL RINDALL, Rhinelander, Wis., assignor of one-half to Henry N. Segerstrom, Rhinelander, Wis. Filed Oct. 21, 1911. Serial No. 655,998. (Cl. 35—6.)

1. The combination with a book having certain numbered sections, of a chart used in connection therewith and including a leaf having thereon a map, a transparent leaf having thereon a diagram registering with and coordinating with said map, and a transparent leaf having thereon index marks registering with and relating to certain topographical points on said map and diagram, said index marks including reference characters referring to the corresponding sections of the book.

2. The combination with a book-like folder consisting of a plurality of sheets, the sheets being folded to form a plurality of leaves, of a chart sheet used in connection therewith and also folded to provide a plurality of leaves of the same size as the leaves of said folder, one of said leaves forming a basic leaf and attached to the folder and having thereon a map, the other leaves being of transparent material and foldable over upon said map, said transparent leaves having thereon indicia registering with and referring to localities on said map.

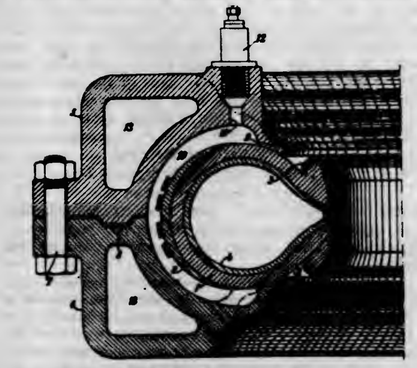


3. The combination with a folder having therein certain numbered sections containing time-tables, railway information and like matter, of a chart sheet attached to said folder, said sheet being foldable into three parts to form a middle leaf and two lateral leaves, the middle leaf having printed thereon a map, one of said lateral leaves being transparent and having printed thereon a railway diagram registering with and relating to said map, the other of said lateral leaves being transparent and having thereon index marks registering with localities indicated on said map and railway diagram, said index marks including reference characters relating to the said other folder sections whereon information relating to said localities is contained.

4. The combination with printed matter having numbered sections, of a chart to be used in connection therewith and including a leaf having thereon a map, and a plurality of transparent leaves, one of said leaves having thereon a diagram registering with and coördinating with said map and another of said leaves having thereon index marks registering with and relating to certain topographical points on the map and diagram, said index marks including reference characters referring to the corresponding sections of the printed matter.

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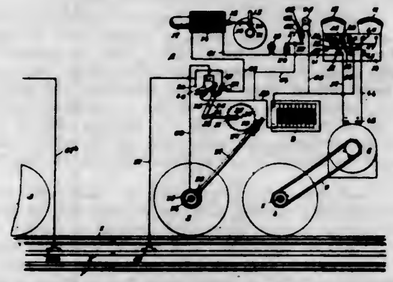
1,039,323. APPARATUS FOR VULCANIZING TIRES. PHILIPPE ROUSSILLON, Argenteuil, France, assignor to Société A. Oller & Cie., Clermont-Ferrand, France. Filed May 6, 1912. Serial No. 695,392. (Cl. 18—38.)



In an apparatus for vulcanizing the tread on pneumatic tire covers, the combination of a mold in two parts, passages in said parts for the heating medium, annular projecting ribs on both parts of the mold adapted to engage the side portions of the cover, so that a free space is left between the inner wall of the mold and the tread, means for admitting compressed air into said space and means for inflating the tire substantially as described and for the purpose set forth.

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1,039,324. ELECTRIC SIGNAL AND TRAIN CONTROL. JOHN H. SANOR and ELIAS W. CONKELL, Canton, Ohio; said Conkell assignor to said Sanor. Filed Nov. 27, 1911. Serial No. 662,587. (Cl. 246—25.)



1. In combination with a track formed of continuous, conducting rails, a continuous trolley paralleling said track and a railway vehicle provided with air-brakes mounted on said rails; a signal and control unit mounted upon said vehicle and comprising an electrically actuated air-brake-applying device, an electrically operated visible signal, an electrically operated audible signal, a signal-switch, a signal-switch magnet, a generator, a generator-switch armature, a storage battery, a polarity reverser, a maine circuit having one terminal connected to said polarity reverser and including in series said air-brake-applying device, visible signal, signal-switch magnet, generator, generator-switch armature, and storage battery, and having its other terminal connected to said polarity reverser, electrical connection between said polarity reverser and said trolley, and between said polarity reverser and said rails, a circuit shunted across said main circuit and including said signal-switch and audible signal, said signal-switch adapted to be operated by said signal-switch magnet, a generator-switch armature operating magnet, a circuit shunted across said main circuit intermediate said generator and other apparatus mentioned and including said generator-switch armature-operating magnet, said generator-switch armature adapted to cut said generator in and out of said main circuit, mechanical means operatively connecting said generator with the wheels of said vehicle, mechanical means operatively connecting said polarity reverser with the wheels of said vehicle and said polarity reverser adapted to reverse the terminals of said main circuit with respect to said electrical connection between said polarity reverser and said rails and between said polarity reverser and said trolley, respectively.

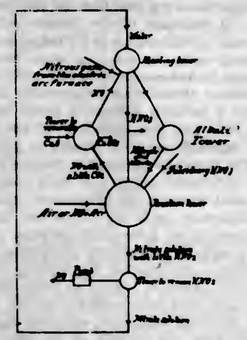
2. In combination with a track formed of continuous, conducting rails, a continuous trolley paralleling said track and a railway vehicle provided with air-brakes mounted on said rails; a signal and control unit mounted upon said vehicle and comprising an electrically actuated air-brake-applying device, an electrically operated signal, a generator, a generator-switch, a storage battery, a polarity reverser, a main circuit having one terminal connected to said polarity reverser and including in series said air-brake-applying device, signal, generator, generator-switch and storage battery and having its other terminal connected to said polarity reverser, electrical connection between said polarity reverser and said trolley and between said polarity reverser and said rails, a generator-switch operating magnet, a circuit shunted across said main circuit intermediate said generator and



other apparatus mentioned and including said generator-switch operating magnet, said generator-switch adapted to cut said generator in and out of said main circuit, mechanical means operatively connecting said generator with the wheels of said vehicle, mechanical means operatively connecting said polarity reverser with the wheels of said vehicle and said polarity reverser adapted to reverse the terminals of said main circuit with respect to said electrical connection between said polarity reverser and said rails and between said polarity reverser and said trolley, respectively.

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1,039,325. PROCESS OF MAKING NITRATES AND NITRIC ACID. OTTO SCHÖNHERR, Christiania, and JOHANNES BRODE, Christiansand, Norway, assignors, by mesne assignments, to Norsk Hydro-Elektrisk Kvaelstofaktieselskab, Christiania, Norway. Filed Jan. 29, 1910. Serial No. 540,883. (Cl. 23—13.)



1. The process of producing nitrate and nitric acid by treating a nitrite with nitric acid, adding a limited quantity of oxygen to the gas which is evolved during said treatment, and then subjecting the gaseous mixture so obtained to the action of water.

2. The process of producing nitrate and nitric acid by treating a mixture of nitrite and nitrate with nitric acid, adding a limited quantity of oxygen to the gas which is evolved during said treatment, and then subjecting the gaseous mixture so obtained to the action of water.

3. The process of producing nitrate by treating a mixture of nitrite and nitrate with nitric acid, adding a limited quantity of a gas containing free oxygen to the gas which is evolved during said treatment, and then subjecting the gaseous mixture so obtained to the action of water.

4. The process of producing nitrate and nitric acid by treating a mixture of nitrite and nitrate with nitric acid, adding a limited quantity of a gas containing free oxygen to the gas which is evolved during said treatment and then subjecting the gaseous mixture so obtained to the action of an absorbing agent containing water but containing no basic compound.

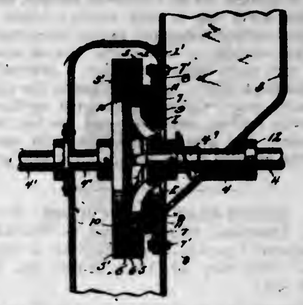
5. The process of producing nitrate and nitric acid by treating a nitrite with nitric acid, then purifying the gases evolved by bringing them into contact with a suitable alkaline reagent for the purpose of absorbing carbon dioxid from the said gases, then adding a limited quantity of oxygen to the residual gas, and then subjecting the whole gaseous mixture to the action of water.

[Claims 6 to 14 not printed in the Gazette.]

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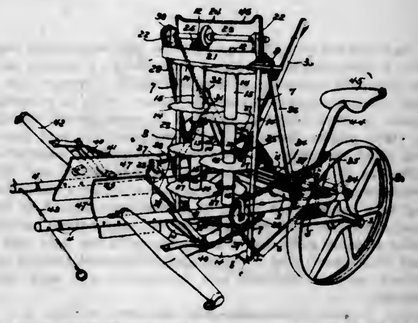
1,039,326. ATTRITION-MILL. ADAM SCHROEDER, Barton, Wis. Filed June 17, 1912. Serial No. 708,904. (Cl. 83—8.)

In an attrition mill having a housing provided with a delivery throat, alined oppositely rotative power shafts and grinder disks carried thereby; the combination of a bridging collar adjustably secured about the delivery throat of the housing, the collar being provided with a flange having an outer tapered circular face, and a sealing ring secured to one of the disks, the sealing ring being provided with an inner tapered circular face for engagement with the outer tapered circular face of the collar-flange.



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1,039,327. STALK-CHOPPER. OSCAR FRANKLIN SCOTT, Gainesville, Tex. Filed Mar. 16, 1912. Serial No. 684,284. (Cl. 55—62.)



1. In a stalk chopper, the combination with a wheeled frame, and a pivoted bail, of an upright frame mounted on the pivoted bail, a plurality of pairs of cutting disks mounted in said upright frame, one pair above another, means for operating said disks, and manually operable devices mounted on the wheeled frame and connected with said pivoted bail for causing the latter to swing and raise or lower said upright frame.

2. In a stalk chopper, the combination with a wheeled frame, and a pivoted bail, of an upright frame mounted on the pivoted bail, shafts mounted in said upright frame and carrying superimposed pairs of cutters, gearing between said shafts and a wheel of the wheeled frame for operating said cutters, and manually operable devices mounted on the wheeled frame and connected with the bail for causing the latter to swing to raise or lower the upright frame and the cutters therein.

3. In a stalk chopper, the combination with a wheeled frame, of a pivoted bail, a vertical frame connected at its lower end with said bail, means for adjustably supporting the upper ends of said frame, cutting mechanism carried by the vertical frame, and hand operated devices mounted on the wheeled frame and connected with said bail for raising the vertical frame and the cutting mechanism carried thereby.

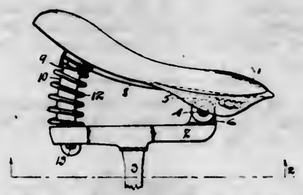
4. In a stalk chopper, the combination with a wheeled frame, of a pivoted bail, a vertical frame connected at its lower end with said bail, a shaft mounted on the horizontal frame, bell-crank levers secured to said shaft, rods adjustably connecting said bell-crank levers with the upper portion of the vertical frame, connections between

said bell-crank levers and the pivoted bail, and a hand lever secured to said shaft.

5. In a stalk chopper, the combination with a wheeled frame and a vertical frame supported thereby, of bearing boxes at the lower end of said vertical frame, vertical shafts in said vertical frame and having mountings in said bearing boxes, cutters on said shafts, sleeves spacing the cutters on each shaft from each other, a bearing on each shaft for the lower sleeve, gears secured to the upper ends of said shafts above the top bar of the vertical frame, roller bearings between said gears and the top bar of the vertical frame, and gearing connected with one of the wheels of the wheeled frame for operating said gears.

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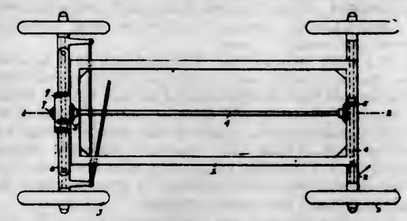
1,039,328. SPRING-SEAT FOR BICYCLES. WILLIAM J. SLEFFEL, Cleveland, Ohio, assignor to The Kirk-Latty Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 27, 1911. Serial No. 662,585. (Cl. 208—15.)



In a vehicle seat, the combination of a supporting member; a horisontally extending cross-piece; a second member pivotally attached at one end to the forward end of said cross-piece, such pivotal movement being in a vertical plane; a third member attached to said second member at right angles thereto; a seat mounted on said second and third members; a downwardly extending member attached at the point of intersection of said second and third members and curved to conform to the arc of a circle having as a center such point of pivotal attachment of said second member and said cross-piece, said curved member being slidably disposed in an aperture in the rear end of said cross-piece; and a coiled spring disposed around said curved member between said cross-piece and said third member.

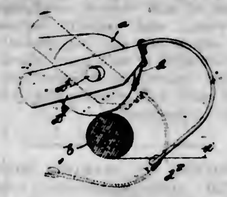
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1,039,329. FRAME SUSPENSION FOR MOTOR-VEHICLES. EDWARD R. SMITH, WILLIAM E. SMITH, and JOHN J. WEIER, Birmingham, Mich. Filed Mar. 14, 1910. Serial No. 549,340. (Cl. 21—90.)



In combination with the axle of a vehicle, having intermediate its ends a connection with a source of power, a casing inclosing said axle, and provided with a central portion in the form of a hollow saddle, having an arched stepped hollow surface and inclosing the devices connecting said axle to the source of power, a hood-supporting platform having mid-way its ends a concavity complementary in curvature and stepped structure to that on the upper surface of said saddle and slidably mounted thereon, a radius arm at one end pivotally attached to said casing at a point concentric to the arch of said saddle portion and at the other end pivoted to the hood-supporting platform, substantially as described.

1,039,330. TWISTER STOP-MOTION. CHARLES STANSFIELD, Jamestown, N. Y., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Sept. 12, 1910. Serial No. 581,714. (Cl. 118—12.)



1. The combination, with the top and bottom rolls of a twister, of a pivotally mounted holder having a metallic tongue to enter between the rolls upon breakage of a thread and stop rotation of the top roll, and a rounded boss or protuberance on the face of the tongue adjacent the bottom roll, entrance of the tongue between the rolls causing the said protuberance to be interposed between the top and bottom rolls, to take up wear due to frictional contact of such protuberance with the rotating bottom-roll.

2. In a twister stop-motion, a pivotally mounted holder provided with a metallic tongue to enter between the top and bottom rolls and stop rotation of the former, and a plurality of laterally separted bosses or protuberances on the face of the tongue adjacent the bottom roll, to take up wear due to frictional contact of said roll with the protuberances, said bosses or prfuberances being arranged in transverse alinement near the tip of the tongue, whereby they are caused to be interposed between the rolls when said tongue tongue is operatively positioned.

3. In a twister stop-motion, a pivotally mounted holder provided with a metallic tongue to enter between the top and bottom rolls and stop rotation of the former, and a plurality of laterally separated spherico-segmental projections integral with and formed on the face of the tongue adjacent the bottom roll, said projections being arranged in transverse alinement near the tip of the tongue, whereby they are caused to be interposed between the rolls and take up the wear due to continued rotation of the bottom roll.

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1,039,331. DUST-CAP FOR VEHICLE-WHEELS. THOMAS M. STUTEMAN, Sedalia, Mo. Filed Apr. 6, 1911. Serial No. 619,432. (Cl. 21—89.)



1. A device of the class described including a split ring provided with interior screw threads and exterior teeth and adapted to be arranged wholly within the outer end of a hub band, and a cap for closing the outer end of the band, said cap being provided with a threaded portion to engage the threads of the ring and adapted to expand the same into engagement with the band when screwed inwardly and releasing the ring from such engagement when screwed outwardly.

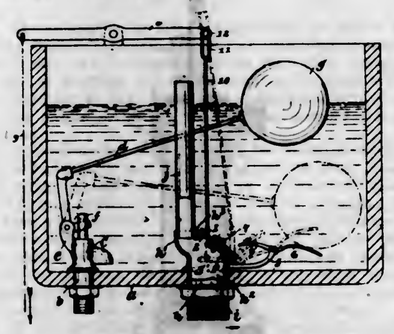
2. A device of the class described including a split ring tapered in cross section and provided with interior screw threads and adapted to be arranged wholly within the outer end of a hub band, and a cap for closing the outer end of the band, said cap being provided with a tapered threaded portion to engage the threads of the ring and adapted when screwed inwardly to expand the same within the hand and releasing the split ring from such engagement when screwed outwardly, said ring being provided on its periphery with opposite series of reversely shouldered teeth for engaging the interior of the band.

3. In combination with the hub band, a cap for closing the outer end of the hub band, said cap being provided with a threaded portion, and a retaining device for the cap arranged wholly within the hub band and composed of a single part which frictionally engages the interior wall of the band and is forced into such engagement or released therefrom by screwing or unscrewing the cap.

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1,039,332. FLUSHING APPARATUS. ARCHIBALD SUMMERS, Paterson, N. J. Filed May 13, 1912. Serial No. 696,806. (Cl. 4—5.)



1. An outlet attachment for a flushing apparatus including, in combination, an outlet member having an upwardly open discharge port, a lever fulcrumed on a horisontal axis in said member and projecting toward said port, and a lever-structure fulcrumed in said member on a horisontal axis relatively between said port and the axis of said lever, said lever-structure being movable relatively over its axis past its center of gravity, in one direction against said member and in the other against the adjoining part of said lever, and including a valve adapted to seat against said member over said port, substantially as described.

2. In combination, with a tank and a float arranged therein, an outlet member for the tank having an upwardly open discharge port, a lever of the first kind having one arm longer than the other and being fulcrumed on a horisontal axis in said member with its short arm projecting toward said port, and a lever-structure fulcrumed in said member on a horisontal axis relatively between said port and the axis of said lever, said lever-structure being movable relatively over its axis past its center of gravity, in one direction against said member and in the other against the short arm of said lever, and including a valve adapted to seat against said member over said port, the float being above and adapted to impinge against the long arm of said lever on descending substantially as described.

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1,039,333. BRUSHING AND POLISHING DEVICE. ELIZABETH MILTON SWANSON, Melbourne, Victoria, Australia. Filed Dec. 29, 1911. Serial No. 668,429. (Cl. 15—16.)

1. In a device of the class described, in combination, a brush, a holder attached to the back thereof, flaps hinged to the holder adjacent the upper edges of the back, said flaps being provided with flanges at their free edges and rotatable on their hinges to position the flanges below said brush or above said holder, and polishing pads carried by said flanges.

2. In a device of the class described, in combination, a brush, a holder attached to the back thereof, flaps hinged to the holder adjacent the upper edges of the back, said flaps being provided with flanges at their free edges and rotatable on their hinges to position the flanges below said brush or above said holder, and reversible polishing pads carried by said flanges.

3. In a device of the class described, in combination, a brush, a holder attached to the back thereof, flaps hinged to the holder adjacent the upper edges of the back, said flaps being provided with flanges at their free edges and



rotatable on their hinges to position the flanges below said brush or above said holder, polishing pads carried by said flanges, and a sheath slidingly engaging said flaps for covering said pads when the latter are positioned below or above the brush.

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1,039,334. BATH-CUSHION. WILLIAM C. TRICK, Mount Vernon, Ohio. Filed Dec. 12, 1911. Serial No. 665,304. (Cl. 4—2.)



1. A cushion rest for bath-tubs, comprising a waterproof receptacle, having an opening for filling the same with hot water, a closure for the opening, hooks formed on the receptacle for suspending the same from the edge of the tub, and partitions in said receptacle, said partitions being of a length less than the width of the receptacle, whereby the faces of the receptacle present series of elongated curved projections.

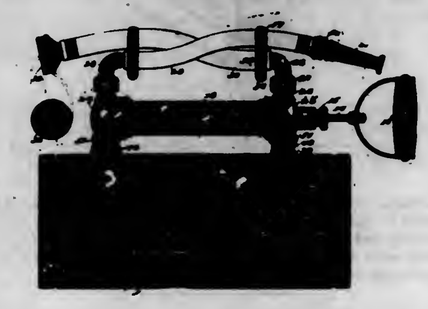
2. A cushion rest for bath-tubs, comprising a bag united at its marginal edges, means for suspending the bag from the edge of the tub, said bag having the filling opening, the rear wall of said bag being plain, the front wall of said bag being secured to the rear wall along transverse lines at a number of points intermediate of the top and bottom edges, said lines of attachment terminating at suitable distances from the side edges of the bag, whereby a plurality of transverse channels and vertical connecting channels are formed.

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1,039,335. AUTOMATIC SPRAYING APPARATUS. AARON J. TYLER, Rochester, N. Y., assignor to F. S. Bidwell, Shortsville, N. Y. Filed Mar. 31, 1911. Serial No. 616,153. (Cl. 137—67.)

1. The combination with a liquid container, of a pipe extending into the container and provided exteriorly with a terminal spraying nozzle, external supporting brackets secured rigidly to the container, a pump operatively connected with the pipe at an intermediate point of the length thereof for forcing either air or water into the container, and means for clamping the pump rigidly to the supporting brackets.

2. The combination with a liquid container, of a pipe extending into the container and having its lower portion bent laterally and arranged near the bottom of the container, said laterally bent portion being provided with perforations, a pump secured to the exterior of the container and operatively connected with the pipe between the ends thereof for forcing either air or liquid through the pipe to the interior of the container, and a spraying nozzle carried by the outer end of the pipe.



3. The combination with a liquid container, of a pipe extending into the container and having the end portion thereof perforated, supporting brackets secured rigidly on the exterior of the container, a pump cylinder supported on said brackets and communicating at one end with the pipe, a spraying nozzle communicating with said end of the cylinder, a hose section communicating with the opposite end of the cylinder, a piston operating within the cylinder for forcing either air or liquid into the container, and means for clamping the pump cylinder rigidly to the brackets.

4. The combination with a liquid container of a substantially L-shaped pipe disposed within the container and having one arm thereof perforated and disposed parallel with and near the bottom of said container, a pump cylinder secured directly to the exterior of the container and communicating at one end with said pipe, a nipple communicating with the opposite end of the cylinder, a second nipple communicating with the pipe near the first-named end of said cylinder, pipe sections respectively connected with said nipples, one of which is provided with a strainer and the other with a spraying nozzle, and a piston operating within the cylinder for forcing either air or liquid into the container.

5. The combination with a liquid container, of front and rear supporting brackets resting on the exterior of the container, a pipe extending through one of the supporting brackets and provided with a perforated portion arranged near the bottom of the container, a pump cylinder resting on said brackets, a nipple communicating with one end of the pump cylinder, a second nipple communicating with the pipe near the other end of said pump cylinder, flexible hose sections connected with said nipples, one of which is provided with a strainer and the other with a spraying nozzle, a piston operating within the pump cylinder, and means for clamping the pump cylinder in engagement with the supporting brackets.

[Claims 6 to 13 not printed in the Gazette.]

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1,039,336. FORCE-PUMP. AARON J. TYLER, Rochester, N. Y., assignor to Frank S. Bidwell, Shortsville, N. Y. Filed May 17, 1911. Serial No. 627,697. (Cl. 103—80.)

1. A pump including a cylinder having inlet and outlet ports, a valve arranged near one of the ports, a piston rod operating within the cylinder, a piston head mounted on the rod and including co-acting disks having ports formed therein, one of said disks being provided with a concaved outer face constituting a valve seat, a flexible valve secured on the piston rod and normally engaging said seat, and a flexible packing interposed between and held by the disks.

2. A pump including a cylinder having inlet and outlet ports, a piston rod operating within the cylinder, a piston head carried by the rod and including co-acting disks having radiating ribs defining intermediate ports, one of said disks being provided with a concaved outer face constituting a valve seat and the other with a curved wall, a flexible packing interposed between and held by the disks and bearing against said curved wall, a valve engaging the concaved valve seat, and an auxiliary valve arranged at one end of the cylinder.



3. A pump including a cylinder having inlet and outlet ports, a valve arranged near one of the ports, a piston rod operating within the cylinder and provided with a reduced extension defining an annular stop shoulder, said extension having a threaded extremity, a piston head including co-acting disks, one of which is smooth-bored and bears against the stop shoulder, the other disk being threaded to fit on the extremity of the piston rod and provided with a concaved outer face constituting a valve seat, a valve engaging said seat, and a cup-shaped flexible packing interposed between the disks, the threaded disk clamping the packing against the first-mentioned disk and said disk against the stop shoulder.

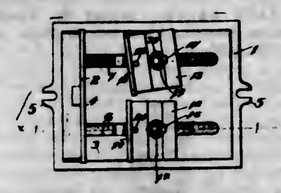
4. A pump including a cylinder having inlet and outlet ports, a valve arranged near one of the ports, a piston rod operating within the cylinder and having one end thereof provided with an annular stop shoulder defining a reduced cylindrical extension, the free end of which is threaded, a piston head mounted on the rod and including co-acting disks, one of which bears against the stop shoulder, one disk being smooth-bored and the other disk being threaded to engage the threaded portion of the rod and provided with a concaved outer face constituting a valve seat, both of said disks being provided with ports, a valve engaging the concaved face of the adjacent disk, a flexible packing interposed between and held by said disks, and a nut engaging the threads on the rod and retaining both disks and the valve thereon.

5. A pump including a cylinder having inlet and outlet ports, a valve arranged near one of the ports, a piston rod operating within the cylinder, a piston head carried by the rod and including co-acting disks one of which is provided with an internal longitudinally curved wall and the other with a concaved outer face constituting a valve seat and having its outer edge opposing the outer wall of the first-mentioned disk, both of said disks being provided with ports, a valve bearing against the valve seat, and a flexible packing interposed between and held by the said curved wall and the edge opposing the same, the outer edge of one of the disks being cut away adjacent the inner face of the packing to form an annular groove.

[Claims 6 and 7 not printed in the Gazette.]



1,039,337. VISE. ABRAHAM VANDERBEEK, Hartford, Conn. Filed Aug. 27, 1910. Serial No. 579,291. (Cl. 90—61.)



1. In combination in a vise, a base-piece or bed, a jaw thereon having a recess, a rack and rack block appurtenant to said jaw, a clamping device for rigidly clamping the jaw in position, a resilient member arranged within the recess in the jaw, means for compressing said member, and means connecting the resilient member and the rack block.

2. In combination in a device of the class specified, a base, a rack operatively arranged upon the base, a rack block engaging said rack and having a transverse groove in its bottom surface, a plurality of jaws mounted upon the base and movable each independently of another, a clamping bolt extending through one of said movable jaws, and through the base and rack block and provided at one end with an integral T-shaped projection located in said groove in the bottom of the rack block, and means for drawing the movable jaw toward the rack block.

3. A vise including a base piece, a supporting jaw, a jaw movable toward and from the supporting jaw, a rack and rack block appurtenant to said movable jaw, clamping means for drawing the rack block into engagement with the rack and rigidly holding it in place, and means for resiliently suspending the rack block from said movable jaw.

4. A vise including a base piece, a supporting jaw, a jaw movable toward and from the supporting jaw, a rack and rack block appurtenant to said movable jaw, a clamp bolt movably connected to the rack block, a spring for holding the bolt in one position with respect to the rack block, one end of said spring having an opening, and a suspension rod with its end engaging said spring through said opening to retain the bolt in position.

5. A vise including a base piece having a slot therein, a jaw movably arranged upon the base, a rack on the underside of the base adjacent to said slot, a rack block to engage said rack, a bolt supporting the rack block and projecting through said slot and movable jaw, means for drawing the bolt to cause the rack block to engage the rack, a bow spring located within a recess underneath the movable jaw and straddling said slot, suspension means for the rack block, said suspension means being secured to said bow spring, and means for releasing the tension of said bow spring to disengage the teeth of the rack block from said rack.

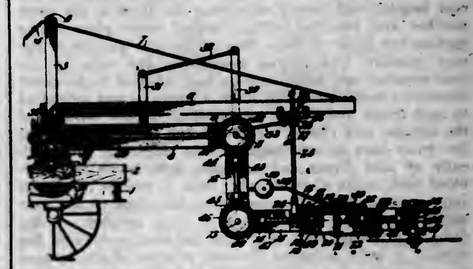
[Claims 6 and 7 not printed in the Gazette.]

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1,039,338. TREE-FELLING MACHINE. JAMES WALLACE, St. Louis, Mo. Filed Oct. 2, 1911. Serial No. 652,437. (Cl. 143—43.)

1. In a machine of the class described, a carriage, a boom pivotally supported upon the carriage, a frame member supported by the carriage for movement with said boom, a saw, a two-part frame for the saw, a universal joint between said two-part frame, a link pivotally connecting the two-part frame with the frame member movable with the boom, and means for imparting motion to said saw, which means permits tilting the saw in any desired angle or moving it toward or from said carriage, for the purposes stated.

2. In a machine of the class described, a portable carriage, a boom pivotally supported by the carriage, a frame member supported by the carriage and movable with said boom, a link suspended from said frame member, a two-part frame member pivotally carried by said link, a universal joint connecting said two-part frame, a saw carried by said two-part frame, means for suspending said two-part frame from said boom, which means are capable of lengthwise movements relative to the boom, and gear devices interconnecting the saw with gear devices on said carriage whereby motion is imparted to the saw from the gear devices on the carriage, and while in motion the saw is capable of being swung laterally relative the carriage toward or away from the carriage and tilted at various inclines.



3. In a machine of the class described, a saw-carrying frame comprising two members pivotally connected, gear devices carried by each of said frame members, a gear wheel meshing with each of said gear devices and supported at the pivotal points between said frame members, bearings between said frame members whereby they may be rotated relative each other, and a worm and gear wheel mechanism for rotating said frame members relative each other.

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1,039,339. LOADING-MACHINE. WALTER R. WARING, Waverly, Kans.. Filed Aug. 13, 1909. Serial No. 512,744. (Cl. 214—10.)



1. In a machine of the character described, a scraper comprising a rear member having a bottom, sides and a rear end portion, a front member comprising a bottom and sides, and an intermediate or link member comprising sides fitting snugly within and pivoted to the sides of the rear member and snugly embracing the sides of the front member and provided with a curved cross piece fitting against the inner or front face of the rear portion of the rear member, and toggles connecting the ends of the rear member and front member and adapted to transmit movement from one to the other.

2. In a machine of the character described, a scraper comprising a rear member having a bottom, sides and a rear end portion, a front member comprising a bottom and sides, and an intermediate or link member comprising sides fitting snugly within and pivoted to the sides of the rear member and snugly embracing the sides of the front member and provided with a curved cross piece fitting against the inner or front face of the rear portion of the rear member, and toggles connecting the ends of the rear member and front member and adapted to transmit movement from one to the other, a frame, pivots journaled in said frame, and in the intermediate or link member of the scraper and rigidly secured to the front member and the front bars of said toggles, rods extend-

ing concentrically of said pivots and engaging said frame and provided with heads at their upper ends to engage the frame and provided with pivots engaging the sides of the rear member and the intermediate or link member of the scraper, a handle projecting from the rear member of the scraper, and a latch engaging the rear member of the scraper to prevent dumping action thereof.

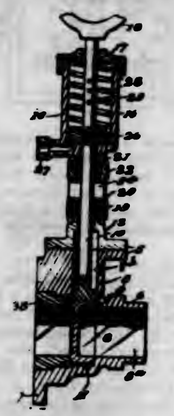
3. In a machine of the character described, a scraper comprising a rear member having a bottom, sides and a rear end portion, a front member comprising a bottom and sides, and an intermediate or link member comprising sides fitting snugly within and riveted to the sides of the rear member and snugly embracing the sides of the front member and provided with a curved cross piece fitting against the inner or front face of the rear portion of the rear member, and toggles connecting the ends of the rear member and front member and adapted to transmit movement from one to the other, a frame, pivots journaled in said frame and in the intermediate or link member of the scraper and rigidly secured to the front member and the front bars of said toggles, rods extending concentrically of said pivots and engaging said frame and provided with heads at their upper ends to engage the frame and provided with pivots engaging the sides of the rear member and the intermediate or link member of the scraper, a handle projecting from the rear member of the scraper, a latch engaging the rear member of the scraper to prevent dumping action thereof, and means for unlocking the said latch to permit the rear member of the scraper to swing to a downwardly and forwardly inclined position and to move downward bodily until arrested by the engagement of the heads of said rods with the said frame.

4. In a machine of the character described, a scraper comprising a rear member having a bottom, sides and a rear end portion, a front member comprising a bottom and sides, and an intermediate or link member comprising sides fitting snugly within and pivoted to the sides of the rear member and snugly embracing the sides of the front member and provided with a curved cross piece fitting against the inner or front face of the rear portion of the rear member, and toggles connecting the ends of the rear member and front member and adapted to transmit movement from one to the other, a frame, pivots journaled in said frame and in the intermediate or link member of the scraper and rigidly secured to the front member and the front bars of said toggles, rods extending concentrically of said pivots and engaging said frame and provided with heads at their upper ends to engage the frame and provided with pivots engaging the sides of the rear member and the intermediate or link member of the scraper, a handle projecting from the rear member of the scraper, a latch engaging the rear member of the scraper to prevent dumping action thereof, means for unlocking the said latch to permit the rear member of the scraper to swing to a downwardly and forwardly inclined position and to move downward bodily until arrested by the engagement of the heads of said rods with the said frame, and lever actuated means carried by the said frame to restore the scraper members to their original positions.

5. In a machine of the character described, a scraper comprising a rear member having a bottom, sides and a rear end portion, a front member comprising a bottom and sides, and an intermediate or link member comprising sides fitting snugly within and pivoted to the sides of the rear member and snugly embracing the sides of the front member and provided with a curved cross piece fitting against the inner or front face of the rear portion of the rear member, and toggles connecting the ends of the rear member and front member and adapted to transmit movement from one to the other, a frame, pivots journaled in said frame and in the intermediate or link member of the scraper and rigidly secured to the front member and the front bars of said toggles, rods extending concentrically of said pivots and engaging said frame and provided with heads at their upper ends to engage the frame and provided with pivots engaging the sides of the rear member and the intermediate or link member of the scraper, and a latch engaging the rear member of the scraper to prevent dumping action thereof in combination with a supporting frame, and means for tripping the said latch to cause dumping action of the scraper.

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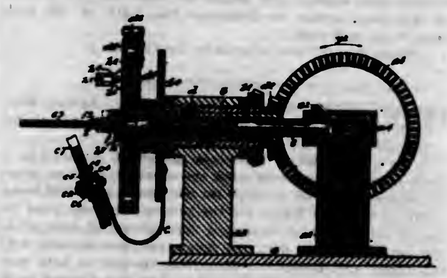
1,039,340. GATE-VALVE. HARRY E. WHITZEL, Empalme, Sonora, Mexico. Filed Feb. 2, 1910. Serial No. 541,512. (Cl. 137—5.)



A gate valve comprising a casing having a bore and a chamber intersecting the bore and extending laterally therefrom, the bore being enlarged at one side of the chamber, the bottom and one wall of the chamber constituting a valve seat and guide across said bore, and the several walls of the lateral portion of the chamber constituting a valve guide, a slidable stem in the chamber extending through one wall of the casing, a supporting ring at the inner end of the stem having a width equal to the width of the lateral portion of the said chamber, a valve head consisting of a disk having an annular peripheral flange fitting removably in the supporting ring and equal in extent to the width of the ring, and a bushing removably fitted in the enlarged portion of the bore of the casing and having its inner end in alinement with the corresponding wall of the lateral portion of the chamber and abutting the said head when the valve is in its closed position.

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1,039,341. CONDUIT-MACHINE. JEROME S. WHEELER and EDIA R. RAMSEY, Penn Yan, N. Y., assignors to Penn Yan Flexible Conduit Company, Penn Yan, N. Y., a Corporation of New York. Filed Mar. 16, 1910. Serial No. 549,702. (Cl. 93—80.)



1. In a machine for forming conduits, a support, a sleeve rotatable in said support, a support for a roll of ribboned material secured to said sleeve, a supplemental sleeve within said first named sleeve, a support for a roll of ribboned material secured to said supplemental sleeve, a mandrel passed through said supplement sleeve and projecting beyond said roll supports, a pinion on each of said sleeves, a shaft, a gear wheel on said shaft enmeshed with one of said pinions, and a supplemental gear wheel on the opposite side of said mandrel enmeshed with the other of said pinions.

2. In a machine for forming conduits, a support, a sleeve rotatable in said support, a support for a roll of ribboned material secured to said sleeve, a supplemental sleeve within said first named sleeve, a drum adapted to receive a roll of ribboned material secured to said supplemental sleeve, means carried by said drum for guiding said ribboned material, means for simultaneously rotating said sleeves, and a mandrel passed through said supplemental sleeve and projecting beyond said drum.

3. In a machine for forming conduits, a support, a sleeve rotatable in said support, a support for a roll of ribboned material secured to said sleeve, a supplemental sleeve within said first named sleeve, a drum adapted to receive a roll of ribboned material secured to said supplemental sleeve, means carried by said drum for guiding said ribboned material, means for simultaneously rotating said sleeves, a mandrel passed through said supplemental sleeve and projecting beyond said drum and means connected with said drum for forcing the formed conduit along said mandrel.

4. In a machine for forming conduits, a support, a sleeve rotatable in said support, a support for a roll of ribboned material secured to said sleeve, a supplemental sleeve within said first named sleeve, a drum adapted to receive a roll of ribboned material secured to said supplemental sleeve, means carried by said drum for guiding said ribboned material, means for simultaneously rotating said sleeves, a mandrel passed through said supplemental sleeve and projecting beyond said drum and means connected with said drum for forcing the formed conduit along said mandrel, said means comprising a spring retracted casing slidable on said mandrel and an inclined block on said drum operating against a projection on said casing, intermittently.

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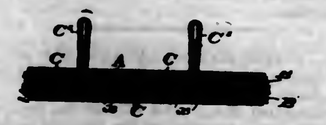
1,039,342. COUPLING FOR ROTARY TOOLS. ETTA W. WHEELOCK, Arlington, Mass. Filed June 28, 1911. Serial No. 635,848. (Cl. 64—13.)



In a device of the class described, the combination of a bearing, a shaft journaled in said bearing and having a semi-cylindrical terminal portion provided with a longitudinal groove, a tool having a complementary semi-cylindrical terminal portion provided with a longitudinal projection entering said groove, said shaft being provided with an axial hole, and said tool being provided at its inner end with a shank located in said hole, and means for normally preventing withdrawal of said tool from operative connection with said shaft.

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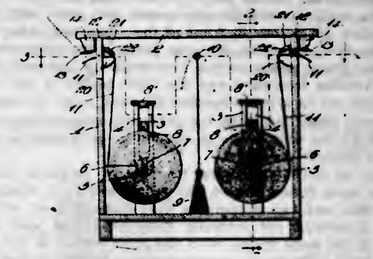
1,039,343. MEANS FOR HANGING CURTAINS OR THE LIKE. CHARLES BERNARD WHITE, Manchester, England, assignor to James Carr & Sons, Manchester, England, a Partnership. Filed Feb. 18, 1911. Serial No. 609,499. (Cl. 139—9.)



A gathering or plaiting tape for curtains, such tape being provided with integral suspending loops for engagement with the curtain rod and with draw cords for gathering or plaiting, substantially as hereinbefore described.

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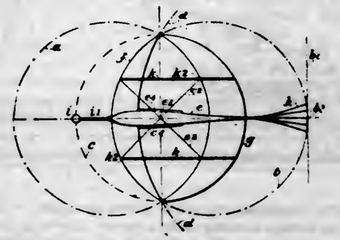
1,039,344. WRAPPING-PAPER CABINET. GLENN A. WILKINSON and ARTHUR E. OSBORN, Marion, Ind. Filed Dec. 1, 1911. Serial No. 663,871. (Cl. 211—39.)



The combination with a cabinet provided with a horizontal slit in its side wall, an external molding above said slit, and a blade carried by and projecting horizontally from said molding at a point just above the slit and below the top of the cabinet; of a lower guide carried rigidly inside the cabinet just beneath said slit, an upper guide resting on the upper face of the lower guide, links flexibly connecting the ends of the upper guide with the cabinet wall, slotted uprights carried within the cabinet for movably receiving the shaft of a paper roll, and means for retarding the rotation of said roll.

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1,039,345. AEROPLANE FLYING-MACHINE. CLARE ERIC WINTERBOS, Takoma Park, D. C. Filed Jan. 29, 1909. Serial No. 475,017. (Cl. 244—14.)



1. In an aeroplane flying machine, a backbone longitudinal main frame, two supporting wings, one in front of the other, branching out laterally from the front and rear parts of the main frame, with the front border of the forward wing laid out on a curve bending backward, and the front border of the rear wing laid out on an equal curve bending forward, and the connections of the two wings with each other in a tip at each side being produced, respectively, by the rear border curves gradually approaching and uniting at the said tips, as and for the purpose described.

2. In an aeroplane flying machine, a backbone longitudinal main frame, two supporting wings, one in front of the other, branching out laterally from the front and rear parts of the main frame, with the front border of the forward wing laid out on an elliptical arc bending backward and the front border of the rear wing laid out on an equal elliptical arc bending forward, and the connections of the two wings with each other in a tip at each side being produced, respectively, by the rear border curves gradually approaching and uniting at the said tips, as and for the purpose described.

3. In an aeroplane flying machine, a backbone longitudinal main frame, two supporting wings, one in front of the

other branching out laterally from the front and rear parts of the main frame and joined at their lateral tips on each side, an extension rearward of said frame formed into an elongated central body, and vertical and horizontal steering fins projecting from said body, as and for the purpose described.

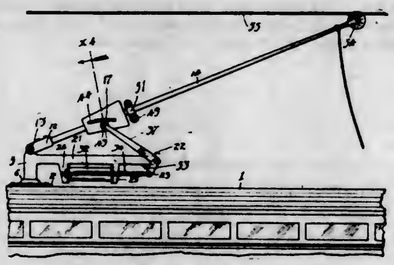
4. In an aeroplane flying machine, a backbone longitudinal main frame shaped into a hollow body so as to form a living compartment for passengers and crew, and two supporting wings, one in front of the other, branching out laterally from the front and rear parts of the main frame, with the front border of the forward wing laid out on a curve bending backward and the front border of the rear wing laid out on a curve bending forward, so as to connect with each other and with the gradually approaching rear borders of the said wings in one tip at each side, as and for the purpose described.

5. In an aeroplane flying machine, a backbone longitudinal main frame formed into a hollow body in shape of a flat fish, and two supporting wings, one in front of the other branching out laterally from the front and rear parts of the main frame, with the front border of the forward wing laid out on a curve bending backward and the front border of the rear wing laid out on a curve bending forward, so as to connect with each other and with the gradually approaching rear borders of the said wings in one tip at each side, as and for the purpose described.

[Claims 6 to 11 not printed in the Gazette.]

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1,039,346. TROLLEY-POLE RETRIEVER. EDWARD B. WINTRODE, deceased, Los Angeles, Cal., by Alfred H. Wintrode, administrator, Los Angeles, Cal. Filed Apr. 13, 1911. Serial No. 620,887. (Cl. 191—36.)



1. The combination, with a trolley pole, of a lifting member, means tending normally to raise said member, a track carried by said pole against which said member operates to lift said pole and over the end of which said member may pass to allow said pole to fall, a roller carried by said lifting member and traveling on said track, and a dog to permit said member to pass said track in returning to normal position, said dog forming a portion of said track.

2. The combination, with the trolley pole, of a track carried by said pole, said track being extended out from both sides of said pole, a pair of lifting arms pivoted to swing in unison in a vertical plane, said arms having inwardly projecting portions to engage said track on each side of said pole, and means to force said arms upwardly to cause said inwardly projecting portions thereof normally to bear against the under side of said track to lift said pole, said arms being movable across the end of said track to permit said pole to fall after an excessive upward movement thereof, said track having a pivoted portion to permit said arms to be brought therebeneath.

3. The combination, with the trolley pole, of a track carried by said pole, a lifting arm to lift said pole, a roller carried by the free end of said arm normally to press against the lower side of said track, said arm and said pole normally being inclined in reverse directions to increase the lifting power of said arm and roller upon said track and pole when the pole approaches the normal position, means tending to swing said arm upwardly, said arm and roller being adapted to escape from the end of said track upon an excessive upward movement of the pole, and means to automatically restore said arm, roller and track to operative relations when the trolley pole is fully depressed.

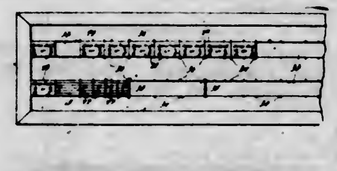
4. In combination, a trolley pole, a track carried by said pole and extending in approximately the same direction therewith, a dog normally forming a continuation of the end of said track nearest the base of the trolley pole, said dog being adapted for downward deflection, means to automatically restore said dog to normal position, and lifting means to bear against and travel along the under side of said track to lift said pole, said lifting means freeing itself from the upper end of said track to permit said pole to fall from an excessively elevated position, and means carried by said pole to force said lifting means down upon and under said dog when said pole is fully depressed.

5. In combination, a trolley pole, a track carried thereby and extending from each side thereof in the same general direction therewith, arms to bear against the under side of said track to maintain said pole normally in the elevated position, antifriction means carried by said arms to engage said track, and vertical plates carried by said pole to keep said arms in place on said track.

[Claims 6 to 9 not printed in the Gazette.]

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1,039,347. MUSICAL BLOCKS. SIDNEY IGNATIUS JOSEPH WOLF, Dunedin, New Zealand, assignor to Wolf's Music Time Blocks Limited, Dunedin, New Zealand. Filed June 7, 1910. Serial No. 565,656. (Cl. 84—89.)



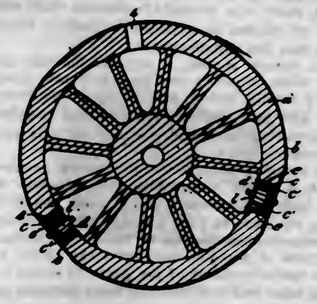
1. An appliance for teaching time in music, comprising a board having therein horizontal grooves and vertically disposed incisions intersecting said grooves at regular intervals, removable plates adapted to be inserted in any of said incisions for dividing the grooves into musical measures, and a removable block at the end of the groove carrying a sign representing musical time.

2. In an appliance for teaching time in music, the combination of a board having therein horizontal grooves and alined pairs of vertically disposed incisions communicating with the grooves at right angles thereto, said grooves being approximately as deep as wide; removable plates inserted in any of said incisions and positively held by the sides of the incisions against movement longitudinally of the grooves; removable blocks of square transverse-section in said grooves and each provided on one side with a character representing a note and on the opposite side with a character representing a corresponding rest; and a removable block at the left hand end of each of said grooves having on one side a character representing simple time and on the opposite side a character representing compound time.

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1,039,348. WHEEL HAVING DETACHABLE RIM. GILBERT JAMES ARNOLD, Torquay, England. Filed Sept. 30, 1911. Serial No. 652,078. (Cl. 152—21.)

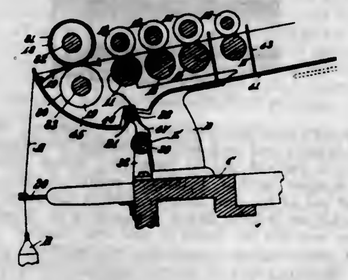
The combination of a wooden felly having flats upon it, a metal band closely surrounding the felly and having flats upon it in contact with the flats on the felly, a detachable rim fitting on to the band, segmental blocks provided with holes fixed inside the rim and filling the space between it and the flats on the band, screw-threaded sleeves passing



through the felly and the band, and bolts screwing into the sleeves and engaging the holes in the blocks.

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1,039,349. DEVICE FOR HANDLING BROKEN ENDS. GEORGE M. ARRAGG, Lawrence, Mass. Filed Oct. 31, 1911. Serial No. 657,859. (Cl. 118—17.)



1. A device for handling broken ends which comprises a horizontal pivot shaft, a member adapted to rock in a vertical plane carried thereby and slidable transversely thereon having a receiving arm which carries guide pins for the roving and a delivery arm which carries a guide wire for the roving and has an eye through which the roving passes and a blade, combined with a worm in operative relation with said blade, and means for revolving the worm.

2. In a drawing box having two or more pairs of drawing rolls of which one member of each pair is formed with a neck, the combination of a pivot shaft parallel with the axes of said rolls, and a rocking device carried by and slidable transversely on the pivot shaft and having a receiving arm which carries guide pins for the roving and a delivery arm through an eye in which the roving passes and a blade, combined with a worm in operative relation with said blade and having screw sections between plain sections which correspond in position with the necks on the rolls, and means for revolving the worm.

3. In a drawing box having two or more pairs of drawing rolls of which one member of each pair is formed with a neck, the combination of a pivot shaft parallel with the axes of said rolls, and a rocking device carried by and slidable transversely on said pivot shaft and having a receiving arm which carries guide pins for the roving and a delivery arm through an eye in which the roving passes and a blade, combined with a worm in operative relation with said blade and having screw sections between plain sections which correspond in position with the necks on the rolls, means for revolving the worm, and means for limiting the rocking motion of the rocking member.

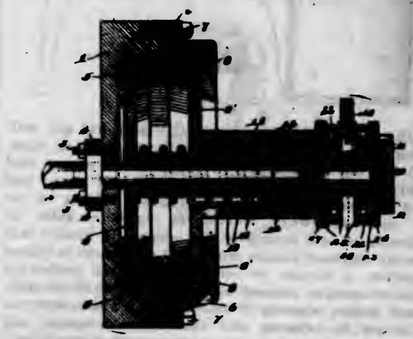


1,039,350. PROCESS OF TREATING PINEAPPLES FOR CANNING. WILLIAM A. BALDWIN, Haiku, Maui, Hawaii. Filed May 13, 1912. Serial No. 696,809. (Cl. 99—8.)

The process of preparing the acid-containing, light colored pineapple for canning purposes, which comprises the cooking of the peeled fruit in pineapple juice sufficient to remove the undesired acidity content of the pineapple; then withdrawing the liquor from the fruit; covering the fruit with fresh syrup, and subjecting this to a second cook for a time sufficient to deepen the color desirably, and insufficient to destroy the natural pineapple flavor.

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1,039,351. CLUTCH. GUSTAF BERGMARK, Chicago, Ill. Filed Oct. 30, 1911. Serial No. 657,425. (Cl. 192—7.)



1. In a spring pressed double cone clutch, flanges connected to the cones; an oscillatory yoke arranged for cooperation with said flanges; and diametric projections on said yoke disposed in the axis of oscillation of said yoke and positioned between said flanges, said projections being adapted, when said yoke is rocked, to move said flanges to actuate said cones, substantially as described.

2. In a spring pressed double cone clutch, flanges connected to the cones; an oscillatory substantially semicircular yoke arranged for coöperation with said flanges; and diametric projections on said yoke disposed in the axis of oscillation of said yoke and positioned between said flanges, said projections being adapted, when said yoke is rocked, to move said flanges to actuate said cones, substantially as described.

3. In a spring pressed double cone clutch, flanges connected to the cones; an oscillatory yoke arranged for cooperation with said flanges; diametric projections on said yoke disposed in the axis of oscillation of said yoke and positioned between said flanges, said projections being adapted, when said yoke is rocked, to move said flanges to actuate said cones; and means for manually oscillating said yoke, substantially as described.

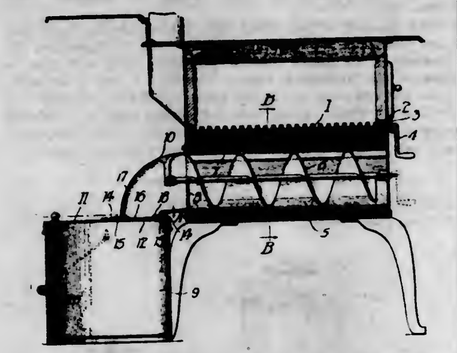
4. In a spring pressed double cone clutch, flanges connected to the cones; an oscillatory substantially semicircular yoke arranged for coöperation with said flanges; diametric projections on said yoke disposed in the axis of oscillation of said yoke and positioned between said flanges, said projections being adapted, when said yoke is rocked, to move said flanges to actuate said cones; and means for manually oscillating said yoke, substantially as described.

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1,039,352. ASH DEVICE FOR STOVES. DOMINIK IGNAC BERNOTOWICZ, Chicago, Ill. Filed June 5, 1911. Serial No. 631,369. (Cl. 126—242.)

1. The combination of a stove, having an ash pit with an opening at one end, a removable ash receptacle having an opening in the top thereof, a spout connecting said openings having inwardly disposed flanges, a closure for said spout having guideways thereon adapted to co-act with said flanges whereby said closure may be used to close said spout when said receptacle is removed, and

mechanism for conveying ashes from said ash pit to said receptacle.

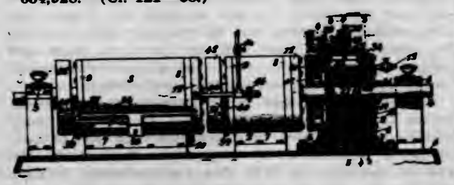


2. The combination of a stove having an ash pit with an opening at one end, an ash receptacle having an opening in the top thereof, a spout adapted to connect said openings, said spout being secured to said stove and having outwardly and inwardly disposed flanges on its outer end, guideways located at opposite sides of the opening in said receptacle and adapted to receive said outwardly disposed flanges when said receptacle is placed in position, a closure for said spout having guideways thereon adapted to support said closure on said inwardly disposed flanges whereby it may be shifted into and out of position for closing and opening said spout, and mechanism for conveying ashes from said ash pit into said receptacle.

3. An ash removing device comprising a casing having an ash pit with an opening at one end thereof, a spiral conveyer for conveying ashes from said pit located in and extending along said pit, said casing being spaced away from said conveyer at one side and having an overhanging ledge secured at the other side, said ledge having its free edge extending substantially to the periphery of said conveyer whereby ashes will be prevented from overriding said conveyer at the side thereof which travels upward but will be free to enter the space between said casing and conveyer at the other side.

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1,039,353. ROTARY STEAM-ENGINE. ALFRED ADAM BILYEU, Granby, Mo. Filed Oct. 16, 1911. Serial No. 654,928. (Cl. 121—68.)



1. In a rotary engine, a cylinder having peripheral and side walls, a piston mounted to rotate loosely therein and arranged to expand laterally under pressure of motive fluid to seal the interspace between the piston and the cylinder walls.

2. In a rotary engine, a cylinder having peripheral and side walls, a piston mounted to rotate loosely therein and comprising a body portion, and a piston head, the head arranged to expand laterally under pressure of motive fluid to seal the interspace between the head and the cylinder walls.

3. In a rotary engine, a cylinder having peripheral and side walls, a piston mounted to rotate loosely therein and comprising a body portion, and an expansible piston head, the piston head mounted to allow for limited forward movement relative to the piston body under the action of the pressure fluid, and a wedge connection between the head and piston body, whereby such forward movement under the action of pressure fluid will cause the head to expand to seal the interspace between the said head and the cylinder walls.

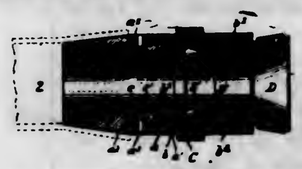
4. In a rotary engine, a cylinder having peripheral and side walls, a piston mounted to rotate therein and comprising a body portion and an expansible piston head, the head and body having wedge-shaped complementary parts coöperating to expand the head as it is acted upon by the pressure fluid.

5. In a rotary engine, a cylinder having peripheral and side walls, a piston mounted to rotate therein and comprising a body portion and a piston head, one of the members being cut-away to form a wedge and the other formed with a wedge-shaped opening to receive the wedge, whereby the action of pressure fluid upon the piston head will cause the wedge surfaces of the parts to co-act to expand the piston head and seal the interspace between the piston and the cylinder walls.

[Claims 6 to 22 not printed in the Gazette.]

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1,039,354. HOSE-COUPLING. PASQUALE BONADIO, Watertown, N. Y. Filed Mar. 29, 1910. Serial No. 552,208. (Cl. 137—28.)



1. A pipe coupling comprising two members, one having a tapered end and interior springs terminating beyond said tapered end in outwardly facing hooks, the other member having a tapered socket to receive the tapered end of the first member, and at the inner end of the socket an interior flange designed to lie between the extreme end and the hooks of said first member.

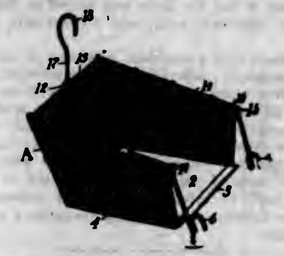
2. A pipe coupling comprising two members, one having a tapered end and interior springs terminating beyond said tapered end in outwardly facing hooks, the other member having a tapered socket to receive the tapered end of the first member, and at the inner end of the socket an interior flange provided with an annulus, and a gasket seated on said annulus in contact with the flange, said flange and gasket being designed to lie between the extreme end and the hooks of said first member.

3. A pipe coupling comprising two members, one having a tapered end annularly recessed at its extremity and interior springs terminating beyond said tapered recessed end in outwardly facing hooks, the other member having a tapered socket to receive the tapered end of the first member, and having at the inner end of the socket an interior flange provided with an outwardly extending annulus, and a gasket seated on said annulus in contact with the flange, said flange and gasket being designed to lie between the end of the first member and its hooks, with the annulus of the socketed member engaging the annular recess of the first member.

4. A pipe coupling comprising two members, one having a tapered end annularly recessed at its extremity and oppositely arranged apertures, springs secured within said member to lie opposite the apertures therein and terminating beyond the recessed extremity of said member in outwardly facing hooks and having intermediate their ends outwardly projecting studs entering said apertures, the second member having a flaring socket to receive the tapered end of the first member, and having at the inner end of the socket an interior flange to engage the hooks of the first member, an annulus extending outwardly from said flange to engage the annular recess of the first member, and a gasket seated on said annulus and abutting the flange.



1,039,355. GRASS-COLLECTOR FOR LAWN-MOWERS. WILLIAM BOSS, St. Paul, Minn. Filed Apr. 8, 1907, Serial No. 366,933. Renewed Jan. 20, 1912. Serial No. 672,475. (Cl. 56—114.)



1. The combination with a lawn mower and its handle bar, of a grass receptacle removably supported at its front end upon the lawn mower, a handle for the receptacle consisting of wire portions formed with terminal hooks at its extreme ends having engagement respectively with the sides and rear of the receptacle and intermediately brought together to form a hand grip and a hook having swing support on the rear of the receptacle alongside the rear hook of the handle portion and detachably engaging the mower handle.

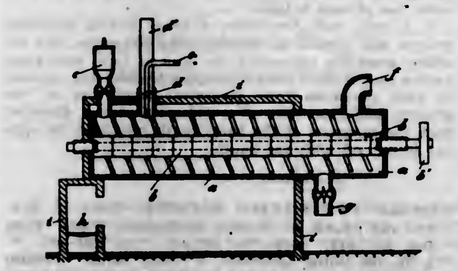
2. In combination with a lawn mower and handle, a grass catching receptacle having means at its front ends for detachably engaging with said lawn mower frame, a handle 13 extending from the rear of said lawn mower receptacle to the opposite sides thereof and having separated portions at its point of attachment to the rear side of said receptacle, and an arm having swing support upon said receptacle between said separated portions, for the purpose set forth.

3. In combination with a lawn mower frame and handle, angle shaped brackets having slidable swing support upon said frame, a grass catching receptacle having means at its front ends for detachably engaging with the out-turned ends of said brackets, and an arm for detachably connecting the rear end of said receptacle and said lawn mower handle.

4. The combination, with a lawn mower and its handle bar, of a grass receptacle detachably supported at its front end upon the lawn mower, a handle for the receptacle consisting of wire portions centrally twisted together, the forward portions diverging forwardly and being formed with terminal hooks engaging the sides of the receptacle, and the rear portions being spaced apart and secured over the top member of the receptacle frame at the rear, and an arm having swing support upon the top member of the receptacle between the spaced wire portions and detachably engaging the handle bar of the mower.

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1,039,356. PROCESS OF MAKING ANHYDROUS TETRACHLORID OF TIN FROM DIOXID OF TIN. FRITZ BRÄUNLICH, Brünn, Austria-Hungary. Filed Jan. 13, 1912. Serial No. 671,121. (Cl. 23—13.)



1. The hereindescribed process of making anhydrous tetrachlorid of tin, which consists in exposing dioxid of tin at an elevated temperature to the action of acetylene and chlorin.

2. The hereindescribed process of making anhydrous tetrachlorid of tin, which consists in exposing dioxid of tin at an elevated temperature to the successive action of acetylene and chlorin.

3. The hereindescribed process of making anhydrous tetrachlorid of tin, which consists in exposing dioxid of tin at an elevated temperature to the alternating action of acetylene and chlorin.

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1,039,357. ENGINE-STARTER. FRANK BRIGGS, Caro, Mich., assignor of one-half to Clyde E. Kenyon, Spokane, Wash. Filed Oct. 28, 1911. Serial No. 657,206. (Cl. 123—185.)



1. A starting device for explosive engines comprising a driving shaft, a friction cone thereon, a casing in rotatable, frictional engagement with the cone, having an inner peripheral face concentric with the shaft, a driving member on the shaft within the face having outer curvilinear faces correspondingly eccentric to the inner face of the casing, rolling members between the concentric face of the casing and adjacent eccentric faces of the member each having a diameter greater than the shortest distance between the concentric and eccentric faces between which the member lies, means for oscillating the member on the shaft and means for locking the casing when the latter is freed from engagement with the rolling members by the movement of the driving member.

2. A starting device for explosive engines comprising a driving shaft, a friction cone secured thereon, a casing in adjustable frictional engagement with the cone, an annular flange at one end of the casing, a cam roller wheel journaled on the shaft within the flange and provided with cam faces eccentric to the flange, cam rollers adapted to wedge between the eccentric faces and the flange when the roller wheel is moved in one direction, a dog adapted to positively lock the casing from turning in the other direction, and reciprocable means for turning the roller wheel adapted when in initial position to hold the dog disengaged.

3. A starting device for explosive engines comprising a driving shaft, a friction cone secured thereon, a casing in adjustable frictional engagement with the cone provided with an annular flange, ratchet teeth on the flange, a cam roller wheel journaled on the shaft within the flange provided with cam faces eccentric to the flange, cam rollers adapted to wedge between the cam faces and the flange when the roller wheel is turned in one direction, a dog adapted to engage the flange teeth and lock the casing from turning in the other direction, a pinion journaled on the shaft for rotating the cam roller wheel, and a reciprocable rack in mesh with the pinion adapted when moved into initial position to trip the dog and hold the same disengaged.

4. A starting device for explosive engines comprising a driving shaft, a friction cone secured thereon having a screwthreaded hub, a casing in frictional engagement with the cone, jam nuts in screwthreaded engagement with the cone hub for forcing the casing against the cone, an annular flange on the casing, a cam roller wheel journaled on the shaft and provided with peripheral cam faces eccentric

to the flange, cam rollers adapted to wedge between the cam faces and the flange when the cam roller wheel is turned in one direction, ratchet teeth on the flange, a dog engaging the teeth for locking the casing against movement in the other direction, a pinion rotatable on the shaft secured to the cam roller wheel, and a reciprocable rack in mesh with the pinion adapted to trip the dog when moved into initial position and to hold the same disengaged.

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1,039,358. SNAP-SEAL. WINFRED MUDGE BROOKS, East Orange, N. J., assignor to E. J. Brooks & Co., New York, N. Y., a Corporation of New York. Filed June 6, 1912. Serial No. 702,021. (Cl. 70—99.)



1. The combination, in a snap seal, of a seal part composed of top and body pieces permanently united by a circumferential joint, the former having a main portion provided with an inlet hole surrounded by a curb and a pair of catches integral with said main portion inturned horizontally beneath the same and constructed with thin and horizontally flat effective edges, and a flexible shackle provided with embossed inlet guards fitted to said inlet hole and curb and milled to form notches adapted to interlock with said horizontally flat catch edges.

2. The combination, in a snap seal, of a seal part composed of top and body pieces permanently united by a circumferential joint, the former having a main portion provided with an inlet hole surrounded by a curb and a pair of catches integral with said main portion inturned horizontally beneath the same, divided by longitudinal slits and constructed with thin and horizontally flat effective edges, and a flexible shackle provided with embossed inlet guards fitted to said inlet hole and curb and milled to form notches adapted to interlock with said horizontally flat catch edges.

3. The combination, in a snap seal, of a seal part composed of top and body pieces permanently united by a circumferential joint, the former being of hardened sheet metal and having a main portion provided with an inlet hole having a rounded central enlargement and a pair of resilient catches integral with said main portion inturned horizontally beneath the same and constructed with thin and horizontally flat effective edges, and a flexible shackle of sheet metal provided with embossed inlet guards fitted to said central enlargement of the inlet hole constructed to extend both above and below said main portion of the top piece and notched to interlock with said horizontally flat catch edges, the two shackle ends being constructed to snugly fill said inlet hole; whereby provision is made for more securely locking the shackle ends by expanding them in width within the inlet hole should their said inlet guards be flattened above the said top piece to expose the inlet hole.

4. The combination, in a snap seal, of a seal part composed of top and body pieces permanently united by a circumferential joint, the former having a main portion provided with an inlet hole having a rounded central enlargement and a pair of resilient catches integral with said main portion inturned horizontally beneath the same and constructed with thin and horizontally flat effective edges, and a flexible sheet-metal shackle provided with embossed inlet guards fitted to said central enlargement of the inlet hole, constructed to extend both above and below said main portion of the top piece and milled to form notches adapted to interlock with said horizontally flat catch edges.

5. In a snap seal, a seal part composed of top and body pieces permanently united by a circumferential joint, the former having a main portion provided with an inlet hole and a pair of resilient catches integral with said main portion, inturned horizontally beneath the same, divided by longitudinal slits and constructed with thin and horizontally flat effective edges, in combination with a flexible shackle the ends of which are constructed to enter said inlet hole and to interlock with said horizontally flat catch edges within the seal part, substantially as hereinbefore specified.

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1,039,359. CORN-RACK. JAMES H. BROWN, St. Charles, Ill., assignor to J. G. Wurtele, Chicago, Ill. Filed Jan. 19, 1912. Serial No. 672,251. (Cl. 34—26.)



1. A corn rack comprising a panel having marginal grooves and notches extending thereto from the edge of the panel and resilient arms for supporting the ears of corn, said arms being adapted to enter said grooves and notches and thereby hold themselves in position upon the panel.

2. A corn rack having vertical marginal grooves on opposite sides thereof and horizontal notches in the edge, and resilient arms having approximately horizontal portions for supporting the corn ears, said horizontal portions being united by an eye and there being parallel vertical portions extending from the horizontal portions to the eye, said horizontal portions being adapted to spring into said grooves, and the eye being adapted to enter one of said notches.

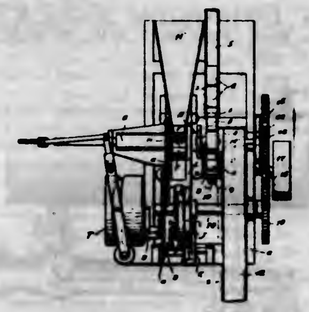
3. A corn rack comprising a panel having marginal grooves and transverse notches along the edges, and resilient arms for supporting the ears of corn, said arms having eyes formed therein adapted to enter the notches to hold the arms from movement lengthwise of the grooves, said eyes being of considerably greater diameter than the thickness of the panel to thereby hold the ears out of contact with the panel.

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1,039,360. CAN-FILLING MACHINE. JOHN H. BURPEE and FRANK W. BURPEE, Bellingham, Wash. Filed Dec. 22, 1911. Serial No. 667,357. (Cl. 226—9.)

1. In can filling apparatus, a rotary carrier provided with a transverse seat for holding a can on its side, means for operating said carrier, and means for tilting the cans on said carrier to eject and simultaneously upend the cans.





2. In can filling apparatus, a rotary carrier provided with a transverse seat for holding a can on its side, means for operating said carrier intermittently, means movable against the cans for tilting the cans on said carrier and simultaneously ejecting the same, and means for operating said second means during a pause of said carrier.

3. In a can filling apparatus, a vertically disposed rotatably supported carrier provided with a seat for holding a can on its side, said seat extending transversely of said carrier for delivery of the can from the side thereof, means for rotating said carrier, and means for ejecting a can from the seat of said carrier by first tilting the can on said carrier.

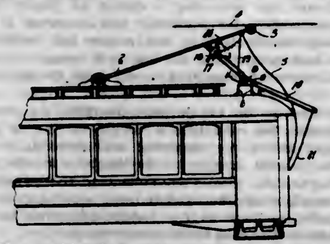
4. In a can filling apparatus, a vertically disposed rotatably supported carrier provided with a seat for holding a can on its side, said seat extending transversely of said carrier for delivery of the can from the side thereof, means for rotating said carrier intermittently, means movably crosswise of the path of said carrier for ejecting a can therefrom by first tilting of the can on said carrier, and means for operating said last named means during a pause of said carrier.

5. In can filling apparatus, a rotary carrier provided with a transverse seat for holding a can on its side, a can delivery means extending alongside said carrier, means for operating said carrier, means for effecting the transfer of cans from said carrier to said delivery means, and the upending of the cans during such transfer, and means for operating said first means to tilt a can on said carrier during the initial portion of the transfer movement of the can.

[Claims 6 to 16 not printed in the Gazette.]

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1,039,361. CAR ATTACHMENT. EMIL E. CAMPBELL, Tacoma, Wash. Filed June 2, 1911. Serial No. 630,740. (Cl. 191—36.)

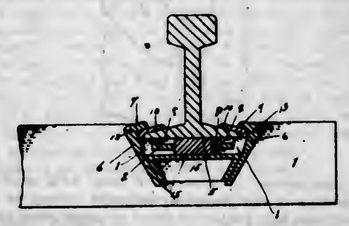


1. The combination with a car, of a trolley therefor, a bracket mounted on the roof of the car, a lever pivoted to the bracket and having a weighted upper end, a pawl pivoted to the lever and engaging the bracket for normally locking the weighted end of the lever in raised position, connections between the trolley and the pawl for moving the pawl out of engagement with the bracket when the trolley pole rises, and connections between the trolley pole and the weighted end of the lever, whereby when the trolley slips off the trolley wrie its upward movement will release the pawl to permit the weighted end of the lever to descend and the descent of said weighted end will draw the trolley downward with it.

2. The combination with a car, of a bracket secured on the roof thereof, said bracket having upstanding ears, a lever pivoted between the ears, said lever having a weighted upper end, means for normally locking the weighted end in raised position, connections between said weighted end and the trolley of the car, and means operable when the trolley slips off the trolley wire for releasing the weighted end to allow the same to descend and draw the trolley downward.

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1,039,362. AUTOMATIC RAIL-FASTENER. ARTHUR C. CANDLAND, Provo, Utah. Filed July 8, 1912. Serial No. 708,372. (Cl. 238—4.)



1. A railway tie and fastener consisting of extended lugs cut from the sides of an upturned metal channel each of said lugs having an opening longitudinal cut therein with its ends widened outwardly by beveled cuts, the slots adapted to receive locking blocks and the beveled cuts to form a seating mortise; a key adapted to seat in said mortise; bell crank levers pivoted to the sides of said metal channel; depending arms thereon beveled toward said channel; wedges having their side edges formed at an opposed angle to that on said bell crank levers; clamps transversely fitted in said channel having a portion of each bent to engage the base flange of a rail; cushion blocks to support a rail above said lugs; and a locking block between said rail and each of said wedges.

2. In a railway tie and fastener therefor the combination of portions of the sides of said tie bent outwardly to form lugs having open slots cut longitudinally therein, and other open slots in the sides of said tie adjoining said lugs; rail supporting blocks adjacent said lugs; clamps transversely placed in said tie, each having a portion bent to engage the base flange of a rail; bell crank levers detachably pivoted to the sides of said tie each having one arm beveled and the other adapted to engage the rail engaging portions of said clamps; wedges having each side edge beveled to engage the said bell crank levers; locking blocks adapted to fit within said open slots in said lugs, and prevent the unintentional removal of said locking blocks.

3. In a railway tie and fastener the combination of portions of the sides of said tie bent outwardly to form lugs, each lug having open slots longitudinally cut therein adapted to receive keys and locking blocks; bell crank levers detachably pivoted to the sides of said tie each having one arm beveled and the other arm bent to grip the base flange of a rail; wedges having their side edges beveled to engage the said bell crank levers; and locking blocks adapted to be placed in the slots in said lugs and between said wedges and a railway rail.

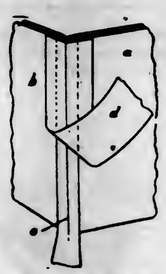
4. A railway tie and fastener consisting of bell crank levers pivoted without and to the sides of said tie; an arm thereon adapted to engage the base flange of a railway rail; wedges vertically placed to engage between the depending arms of two opposed bell crank levers;

and means to prevent the unintentional withdrawal of said wedges from between the said levers.

5. A railway tie and fastener consisting of bell crank levers detachably pivoted without and in pairs to the sides of a railway tie; an arm on each of said levers adapted to grip the base flange of a rail; wedges adapted to vertically engage between the depending arms of each pair of said levers; and means to prevent the unintentional withdrawal of said wedges from between said levers.

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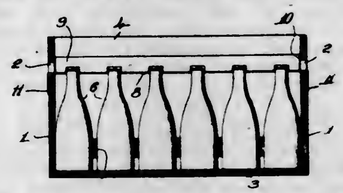
1,039,363. COMPOUND STAY FOR PAPER BOXES. WILLIAM G. CHAPIN, Brooklyn, N. Y., assignor to The Thompson & Norris Company, Brooklyn, N. Y., a Corporation of New Jersey. Filed Oct. 20, 1910. Serial No. 588,199. (Cl. 229—49.)



The combination of a strip of cloth with a strip of paper backing it and projecting laterally beyond its edges, said cloth and said projecting parts of paper being adapted to adhere to the materials on each side of a joint.

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1,039,364. PROTECTIVE SHIELD FOR BEER-CASES. PETER T. CLARK, Roxbury, Mass. Filed June 26, 1912. Serial No. 705,916. (Cl. 217—19.)



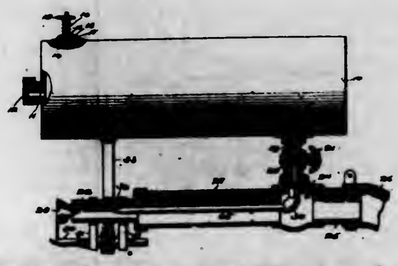
1. The combination with a bottle case and a group of bottles upright therein, of a protective shield attached thereto within its open top and made of opaque sheet material having a series of apertures therein for the necks of the bottles to pass therethrough and be snugly embraced, and means on the shield adjacent each aperture to be upturned and engage the under edge of the sealing cap of a bottle and prevent lifting of the shield adjacent the bottle.

2. The combination with a bottle case and a group of bottles upright therein, of a protective shield attached thereto within its open top and made of tough, opaque paper having a series of substantially circular apertures therein to receive and snugly embrace the necks of the bottles, and a flexible segmental lip extended into each aperture and adapted to be upturned against the bottle neck below the sealing cap when the shield is applied, said lips engaging the lower edges of the caps and serving to retain the shield in place around the neck of the bottles.

3. As an article of manufacture, a protective shield for bottle cases, composed of tough opaque paper having substantially circular apertures for the reception of and to fit snugly around the necks of the bottles, flexible segmental devices on the shield to be bent up against the bottle necks and to coöperate with the sealing caps of the bottles to retain the shield in place, and means on the shield for attachment thereof to the walls of the bottle case.

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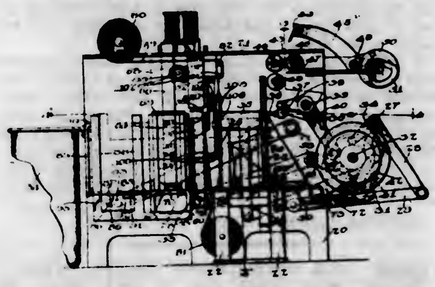
1,039,365. LIQUID-SPRAYER. WILLIAM B. COULTER, Seattle, Wash. Filed Dec. 1, 1910. Serial No. 595,110. (Cl. 137—14.)



In a spraying apparatus, a receptacle, a stop cock communicating with the receptacle, a T-coupling connected with the stop cock, a water supply nipple connected with one end of the T-coupling, an elbow connected with the stop cock disposed within the T-coupling, a discharge tube connected with the elbow and disposed axially within the water discharge pipe and extending beyond the end thereof and terminating in a tapered reduced extremity, a discharge nozzle connected with the discharge pipe being of reduced diameter and carrying capacity and embracing but extending beyond the end of the tube, and means located at the end of the discharge nozzle for dividing the discharge into a spray.

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1,039,366. AUTOMATIC BUNDLING-MACHINE. SANFORD C. COX, Brookline, Mass., assignor to Cox Multi-Mailer Company, Augusta, Me., a Corporation of Maine. Filed Dec. 2, 1907. Serial No. 404,778. (Cl. 100—20.)



1. In a machine for the purpose described, the combination of means for collecting a supply of papers into a bundle, mechanism for applying and securing a band around said bundle bodily, and means for feeding the bundle to said mechanism, the last said means being also adapted to eject the completed bundle from the said mechanism.

2. In a machine for the purpose described, the combination of means for collecting a supply of papers into a bundle, mechanism for applying and securing a band around the bundle, means for feeding the bundle bodily to said mechanism, means for collecting the papers into another bundle while the band is being applied to the previous bundle, and means for bodily delivering the said other bundle to the said feeding mechanism.

3. In a machine for the purpose described, the combination of means for collecting a supply of papers into a bundle, mechanism for applying and securing a band around the bundle, means for feeding the bundle thus collected bodily to said mechanism, and means operating in time with said feeding mechanism for collecting the papers into another bundle and for delivering the last said bundle thus collected bodily to the feeding mechanism.

4. In a machine for the purpose described, the combination of means for collecting a supply of papers into a bundle, a compressor, means for feeding the bundle bodily to the compressor, means for operating the compressor to compress the bundle, means for applying and securing a band around the bundle while the latter is under compression, and means operating in time with the said feeding mechanism for releasing the compressor to permit the latter to compress the bundle and for moving and locking the compressor out of operative position.

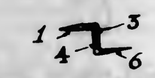
5. In a machine for the purpose described, the combination of means for collecting a supply of papers into a bundle, a compressor, means for feeding the bundle thus collected bodily to the compressor, means for operating the compressor to compress the bundle, means for applying and securing a band around the bundle while the latter is under compression, means for collecting the papers into another bundle while the band is being applied to the previous bundle, and means operating in time with the feeding means for respectively delivering the said other bundle bodily to the said feeding means and for locking the compressor against operation.

[Claims 6 to 38 not printed in the Gazette.]



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1,039,367. HOOK FOR HANGING PICTURES AND THE LIKE. MARTIN DEHN, Buffalo, N. Y. Filed July 13, 1911. Serial No. 638,264. (Cl. 40—145.1.)



1. A hook having ends to engage with a frame and a wall surface, and a body portion connecting the ends so formed and containing a loop capable of being stretched to increase the distance between said ends.

2. A hook formed of two sections of metal secured together centrally of their length, bendable loops adjacent to the point of union, the ends of said sections being bent oppositely and outwardly in pairs to form two points for engaging in a frame and two points for engaging in a wall surface.

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1,039,368. APPARATUS FOR OPENING OUT MULTIPLE-WIRE CABLE OR THE LIKE APPLICABLE TO THE FORMATION OF BLOCKS ON SUCH CABLE. ARTHUR DOXFORD, Sunderland, England. Filed Jan. 10, 1911. Serial No. 601,902. (Cl. 29—88.)



1. In apparatus for forming driving blocks on multiple wire cables the combination of, a fixed cable-gripping device, a support, a second cable-gripping device opposed to and spaced away from the first and revolubly mounted in the support, means for revolving the second gripping device in such direction as to open the wires between the two gripping devices and means for regulating the length of cable between the stationary grip and a previously opened portion of the cable, so that the process may be repeated regularly and continuously.

2. In apparatus for forming driving blocks on multiple wire cables the combination of, a fixed cable-gripping device, a support, a second cable-gripping device opposed to and spaced away from the first and revolubly mounted in the support, means for revolving the second gripping device to open the wires between the two gripping devices, a table supporting the fixed grip and divided into sections affording a gap between each section and the one adjacent to it and a device for maintaining in an extended state the length of cable held between the stationary grip and a previously opened portion of the cable.

3. An apparatus for forming driving blocks on multiple wire cables, comprising a table, a fixed grip connected to said table, a support adjacent to said table, a second gripping device rotatably mounted on said support and spaced from the fixed grip, means for rotating said second grip, said table having a plurality of openings spaced apart from each other and from the fixed grip for receiving molds surrounding the cable; substantially as described.

4. In apparatus for forming driving blocks on multiple wire cables the combination of, a fixed cable-gripping device, a support, a second cable-gripping device opposed to and spaced away from the first and revolubly mounted in the support, means for revolving the second gripping device to open the wires between the two gripping devices, means for regulating the length of cable held between the stationary grip and a previously opened portion of the cable so that the process may be repeated regularly and continuously and means for maintaining such length of cable in an extended state.

5. In apparatus for forming driving blocks on multiple wire cables the combination of, a fixed cable-gripping device, a support, a second cable-gripping device opposed to and spaced away from the first and revolubly mounted in the support, means for revolving the second gripping device to open the wires between the two gripping devices, a table supporting the fixed grip and divided into sections affording a gap between each section and the one adjacent to it and a device for maintaining in an extended state the length of cable held between the stationary grip and a previously opened portion of the cable.

[Claims 6 to 19 not printed in the Gazette.]

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1,039,369. CUSHION-HEAD FOR CONCRETE PILES. ALBERT R. EICHLER, Sacramento, Cal. Filed Dec. 7, 1911. Serial No. 664,316. (Cl. 61—37.)



1. A cushion head for piles comprising a jacket, a block inclosed in the jacket and rigidly secured thereto, a resilient plate on one end of the block, and a layer of soft material on the other end of the block.

2. A cushion head for piles, comprising a metallic jacket, a hard-wood block inclosed in the jacket and secured thereto, said jacket extending beyond the ends of the block, a resilient plate on the upper end of the block surrounded by the jacket, and a layer of soft wood on the lower end of the block surrounded by the jacket.

3. A cushion head for piles, comprising a metallic jacket, a hard-wood block inclosed in the jacket and secured thereto, said jacket extending beyond the ends of the block, a resilient plate on the upper end of the block surrounded by the jacket, a layer of soft wood on the lower end of the block surrounded by the jacket, and guide-engaging members mounted on the jacket.

4. The combination with a pair of vertical guides having a hammer thereon, of a metallic jacket, a hard-wood block inclosed in the jacket and secured thereto, said jacket extending beyond the ends of the block, a resilient plate

on the upper end of the block surrounded by the jacket, a layer of soft wood on the lower end of the block surrounded by the jacket, and guide members mounted on the jacket engaging said vertical guides.

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1,039,370. HOLLOW METAL DOOR. ALFRED J. ELLIS, Woodcliff-on-Hudson, N. J., and CHARLES E. NELLIS, New York, N. Y., assignors to A. J. Ellis, Inc., a Corporation of New Jersey. Filed Aug. 27, 1910. Serial No. 579,219. (Cl. 189—53.)



1. In a metal door, metal boxes forming the stiles and rails of said door, each of the stile-forming boxes having a pair of angularly disposed flanges at the inner edge of each of the sides thereof, each of said flanges having a groove therein, the respective grooves in a pair of flanges opening in two different directions, flanged stiffening members in said stiles, the respective flanges of said members being adapted for interlocking engagement with grooves of said stile flanges which open in a common direction, the rails of said door also having flanges at the ends thereof, said last mentioned flanges being adapted for interlocking engagement with the grooves in the stile flanges which open in other directions than that last mentioned.

2. In a metal door, metal boxes forming the stiles and rails of said door, each of the stile-forming boxes having a pair of angularly disposed flanges at the inner edge of each of the sides thereof, one flange of each pair extending substantially in parallelism with the sides of the stile and the other flange of each pair being disposed substantially perpendicular to the general plane of the door and extending into the body of the stile, said inwardly extending flanges being grooved, and the rails having flanges at the ends thereof adapted to enter said grooves to interlock said stiles and rails.

3. In a sheet metal structure, in combination, a sheet metal part having a portion thereof adjacent its edge folded back substantially into parallelism with the general surface of the part, the folded over portion having a substantially ninety degree bend adjacent the folding line and the material between said bend and the edge of said part being further folded back upon itself to form a recessed flange, such flange extending out laterally from the body of the part, the extreme edge of the part being spaced from the last mentioned folded portion to form together with the recess in the flange aforesaid an L-shaped groove, and a coöperating part having an L-shaped flange adapted to enter said groove.

4. In a sheet metal structure in combination, a sheet metal part having a portion thereof adjacent its edge folded back upon itself, the folded portion having a substantially ninety degree bend adjacent the folding line, and the material between said bend and the edge of the part being further folded back upon itself to form a recessed flange, such flange extending out laterally from the body of the part and stiffening the same, the extreme edge of the part being spaced from the last mentioned folded portion to form together with the recess in the flange aforesaid an L-shaped groove, a coöperating part having an L-shaped flange adapted to enter said groove, and a stiffening member having flanges adapted to enter between the walls of the first mentioned fold.

5. In a sheet metal structure, in combination, a sheet metal part having a portion thereof adjacent its edge folded back substantially into parallelism with the general surface of the part, the folded over portion having a substantially ninety degree bend adjacent the folding line and the material between said bend and the edge of said part being further folded back upon itself to form a recessed flange, such flange extending out laterally from the body of the part, the extreme edge of the part being spaced from the last mentioned folded portion to form together with the recess in the flange aforesaid an L-shaped groove, and a coöperating part adapted to enter said groove.

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1,039,371. HOLLOW METAL DOOR AND THE LIKE. ALFRED J. ELLIS, Woodcliff-on-Hudson, N. J., assignor to A. J. Ellis, Inc., a Corporation of New Jersey. Filed Mar. 4, 1911. Serial No. 612,226. (Cl. 189—46.)



1. In a sheet metal structure having substantially parallel opposed walls, sheet metal parts forming portions of said walls, each having a laterally extending flange, said flanges being directed toward each other, and a sheet metal stiffening and spacing member for said walls, said member having offset tongues struck up from the body thereof, said flanges being received and firmly held between the respective tongues and portions of said member adjacent to said tongue.

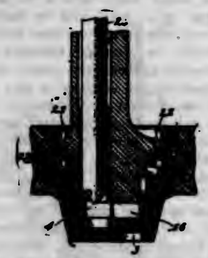
2. In a sheet metal structure, a plurality of substantially rectangular, juxtaposed parts having interlocking connections at their respective abutting edges, some of said parts being disposed in substantial parallelism side by side intermediate others of said parts, the interlocking edges of the latter extending over the line or lines of jointure of the said intermediate parts, said intermediate parts being welded together at the ends of said lines of jointure, and the said other parts covering and protecting the welds.

3. In a sheet metal structure, in combination, a sheet metal part having a portion thereof adjacent its edge folded back substantially into parallelism with the general surface of the part, the folded over portion having a substantially ninety degree bend adjacent the folding line and the material between said bend and the edge of said part being further folded back upon itself to form a recessed flange, such flange extending out laterally from the body of the part, the extreme edge of the part being spaced from the last mentioned folded portion to form together with the recess in the flange aforesaid a substantially L-shaped groove, a coöperating part adapted to enter said groove, and a stiffening member having an offset tongue struck-up from the body thereof, said tongue and other portions of said member being adapted to embrace the flange aforesaid therebetween.

4. In a sheet metal structure having substantially parallel opposed front and rear walls, flanged sheet metal parts forming portions of said walls, and a sheet metal stiffening and spacing member for said walls, said member having offset tongues struck up from the body thereof, one of said tongues being adjacent the front wall and another being adjacent the rear wall, flanges of the said sheet metal parts being recessed and firmly held between the respective tongues and portions of said member adjacent to said tongues.



1,039,372. BARREL-TAPPING DEVICE. STANISLAV FIEDAS and JOSEPH MILCINSKY, Chicago, Ill. Filed Sept. 20, 1911. Serial No. 650,451. (Cl. 225—8.)



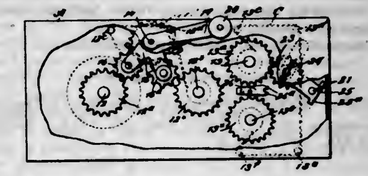
1. The combination of a bung-hole casing having a port in its inner end wall; a valve member rotatably mounted within said casing and provided with a port adapted to register with the first mentioned port; a lug upon the upper end of said valve member adapted to contact with stop shoulders formed in said casing, said stop shoulders determining the open and closed positions of said valve member; an annular externally screw-threaded member having a screw-thread connection with the inner walls of said casing and serving to hold said valve member against displacement, said casing having an internal screw-thread, the outer end of which thread is connected with the outer end surface of said casing by means of a notch in said casing; a barrel-tapping implement having a non-circular projection upon its inner end adapted to enter a corresponding socket in the valve member, and having a cylindrical portion directly above said projection, and an annular flange above said cylindrical portion; a lug on said flange constituting a partial screw-thread adapted to engage with the internal screw-thread of said casing; and a packing ring upon said cylindrical portion at the under side of said flange and adapted to bear against said annular member.

2. The combination of a bung-hole casing having a port in its inner end wall, a valve member rotatably mounted within said casing and provided with a port adapted to register with the first mentioned port, an annular member having a screw-thread connection with the interior walls of said casing and serving to prevent axial displacement of said valve member, said casing having a screw-threaded formed in its internal walls said annular member being located between said valve member and said screw-thread and the outer end of said screw-thread being connected with the end surface of the casing by means of a notch, an implement provided with a lug adapted to pass through said notch and enter and move within said screw-thread, means for forming an operative connection between said implement and said valve member, and a packing member carried by said implement adapted to contact said annular member within the casing to form a fluid-tight joint between said implement and said casing.

3. The combination of a bung-hole casing having a port in its inner end wall, a valve member rotatably mounted within said casing and provided with a port adapted to register with the first mentioned port, a packing disk of hard rubber interposed between the end wall of said casing and the adjacent portion of said valve member and secured against rotation with relation to said valve member, said disk having an opening therethrough in alinement with the second mentioned port, a lug upon the upper end of said valve member adapted to contact with stop-shoulders formed in said casing, said stop shoulders determining the open and closed positions of said valve member, a washer overlying the valve member and provided with stop shoulders adapted to engage the first mentioned stop shoulders to prevent rotation of said washer, an annular externally-screw-threaded member having a screw-thread connection with the interior walls of said casing and overlying said washer and serving to hold said washer and valve member against displacement, said annular member having an annular rib upon its outer side, said casing having an internal double screw-thread, the outer end of which thread is connected with the outer end surface of said casing by means of notches in said casing, a barrel-tapping implement having a non-circular projection upon its lower end adapted to enter a corresponding socket in the valve member, and having a cylindrical portion directly above said projection, and an annular flange above said cylindrical portion, diametrically opposite lugs on said flange constituting partial screw-threads, and a packing ring upon said cylindrical portion and contacting the under side of said flange.

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1,039,373. INTEREST-CALCULATING DEVICE. JAMES J. FITZGERALD, Chicago, Ill., assignor of one-third to Donald Rawstron and one-third to Henry Rawstron, Chicago, Ill. Filed May 5, 1910. Serial No. 559,430. (Cl. 235—86.)



1. In a device of the class described, a case provided with a plurality of display openings, a pair of rollers mounted within said case, a month table mounted on one of said rollers, said table consisting of a single month and a plurality of consecutive months arranged alternately in transverse rows, an interest table mounted on the other roller consisting of days of the month, rate per cent., unit of value with calculated interest on said unit for predetermined intervals of time arranged in transverse rows, a plurality of rows for various units being arranged in vertical columns, and means for causing the characters on said strips to be brought into view through said display openings.

2. In a device of the class described, a case provided with a plurality of display openings, a pair of rollers mounted within said case, a month table mounted on one of said rollers, said table consisting of a single month and a plurality of consecutive months arranged alternately in transverse rows, an interest table mounted on the other roller consisting of days of the month, rate per cent., unit of value with calculated interest on said unit for predetermined intervals of time arranged in transverse rows, a plurality of rows for various units being arranged in vertical columns, said calculated interest column being in line with the consecutive months appearing on said first table, and means for causing the characters on said strips to be brought into view through said display openings.

3. In a device of the class described, a case provided with a plurality of display openings, a pair of rollers mounted within said case, a month table mounted on one of said rollers, said table consisting of a single month and a plurality of consecutive months commencing with said first-named month arranged alternately in transverse rows, an interest table mounted on the other roller consisting of days of the month, rate per cent., unit of value with calculated interest on said unit for predetermined intervals of time arranged in transverse rows, a plurality of rows for various units being arranged in vertical columns, and means for causing the characters on said strips to be brought into view through said display openings.

4. In a device of the class described, a case provided with a plurality of display openings, a pair of rollers mounted within said case, a month table mounted on one of said rollers, said table consisting of a single month and a plurality of consecutive months, arranged alternately in transverse rows, an interest table mounted on the other

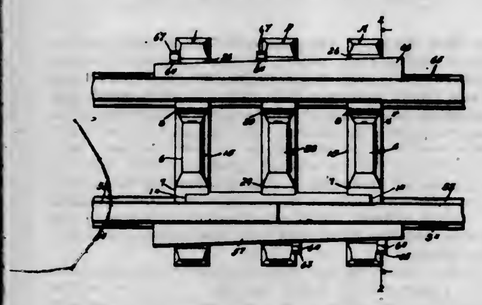
roller consisting of days of the month, rate per cent., unit of value with calculated interest on said unit for predetermined intervals of time arranged in transverse rows, a plurality of rows for various units formed into as many series as there are dates and desired percentages, and arranged in vertical columns, and means for causing the characters on said strips to be brought into view through said display openings.

5. In a device of the class described, a case provided with a plurality of display openings, a pair of rollers mounted within said case, a month table mounted on one of said rollers, said table consisting of a single month and a plurality of consecutive months arranged alternately in transverse rows, an interest table mounted on the other roller consisting of days of the month, rate per cent., unit of value with calculated interest on said unit for predetermined intervals of time arranged in transverse rows, a plurality of rows for various units formed into as many series as there are dates and desired percentages, and arranged in vertical columns, and means for causing the characters on said strips to be brought into view through said display openings.

[Claims 6 to 9 not printed in the Gazette.]

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1,039,374. RAIL-FASTENING. WILLIAM E. FRANKLIN, Crossnore, N. C. Filed Feb. 24, 1912. Serial No. 679,648. (Cl. 239—6.)



1. In a railway track structure, the combination with a pair of spaced parallel rail sections, of a transverse member having slots for respectively receiving said sections, one side of the member being formed with an inclined groove, an element disposed in one of the slots of the member against the inner wall thereof for receiving a respective rail section, a wedge-shaped rail clamp disposed within the last mentioned slot and between the outer wall thereof and the rail section, the smaller end of the clamp being formed with an opening registering with the groove of the transverse member, said clamp and member being respectively movable one with the other, and a wedge-shaped key disposed within said opening and slot for locking the member, element and rail section against lateral movement.

2. In a railway track structure, the combination with a pair of spaced parallel rail sections, of a transverse member having slots for respectively receiving said sections, one side of the member being formed with an inclined groove, an element disposed in one of the slots of the member against the inner wall thereof for receiving a respective rail section, a wedge-shaped rail clamp disposed within the last mentioned slot and between the outer wall thereof and the rail section, the smaller end of said clamp being formed with an elongated opening registering with the groove of the transverse member, said clamp and member being respectively movable one with the other, and a flat wedge-shaped key disposed within said opening and slot for locking the member, element and rail section against lateral movement, said key being formed on its upper face with a series of transverse teeth adapted for engagement with said clamp.

3. In a railway track structure, the combination with a pair of spaced parallel rail sections, of a transverse member having slots for respectively receiving said sections, said slots being each formed to provide a transverse overhanging inner wall and an inclined overhanging outer wall, one side of the member being formed with an inclined groove, an element disposed in one of the slots of the member against the inner wall thereof for receiving a respective rail section, a rail clamp disposed within the last mentioned slot between the outer wall thereof and the rail section, the outer face of the clamp tapering longitudinally toward the grooved side of the member, the smaller end of said clamp being formed with a downwardly inclined opening registering with the groove of the member, and a wedge-shaped key disposed within said opening and slot for locking the member, element and rail section against lateral movement.

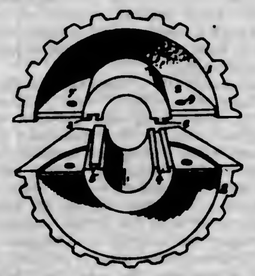
4. In a railway track structure, the combination with a pair of spaced parallel rail sections, of a transverse member having slots for respectively receiving said sections, said slots being each formed to provide a transverse overhanging inner wall and an inclined overhanging outer wall, one side of the member being formed with an inclined groove, an element disposed in one of the slots of the member against the inner wall thereof for receiving a respective rail section, a rail clamp disposed within the last mentioned slot between the outer wall thereof and the rail section, the outer face of the clamp tapering longitudinally toward the grooved side of the member and formed with a longitudinal groove forming an inclined wall and a resultant shoulder, the smaller end of said clamp being formed with a downwardly inclined opening disposed at an angle to and registering with the groove of the member, and a wedge-shaped key disposed within said opening and slot for locking the member, element and rail section against lateral movement, said key being formed on its upper face with a series of transverse teeth adapted for engagement with the shoulder of the rail clamp.

5. In a railway structure, the combination with a pair of spaced ties respectively having transverse slots formed in each end, one of said ties being formed with an inclined groove, of a splice bar seated at its ends in certain of the slots of the ties, a wedge-shaped element associated with the last mentioned slots of the ties for clamping a rail section against the splice bar, the smaller end of the element being formed with an opening, and a wedge-shaped key disposed within the groove of the tie to draw said element longitudinally.

[Claims 6 to 9 not printed in the Gazette.]

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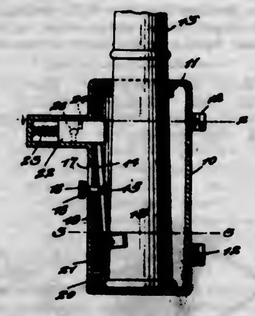
1,039,375. SPLIT GEAR. STEPHEN B. FREELAND, Saginaw, Mich. Filed Apr. 25, 1912. Serial No. 693,016. (Cl. 74—28.)



In a bevel gear, the combination of the two gear members, each formed with a pair of radially extending webs connecting the hub of said gear with the rim, the faces of the hub members being formed with longitudinally arranged dove-tailed tongues and grooves respectively, and bolts for clamping said webs together.



1,039,376. SAFETY WHIP-SOCKET. AUGUST F. FROMBISTER, Evansville, Ind. Filed May 11, 1912. Serial No. 696,717. (Cl. 21—130.)



1. In a whip socket the combination of a cylindrical casing having a vertically extending slot formed therein, an arm slidably mounted within said slot, a gripping member pivotally connected to said arm, a leaf spring secured to said casing and adapted to hold the lower ends of said gripping member in an inward position, a coil spring for normally holding said gripping member in a raised position, a sliding lock for holding said gripping member in a lowered position and the upper end of said gripping member adapted to hold said lock in an inward position when said gripping member has been released substantially as described.

2. In a whip socket, the combination of a cylindrical casing having a vertical extending slot formed therein, a laterally extending arm slidably mounted within said slot, a gripping member fulcrumed at its intermediate portion to said arm, means for normally holding the lower end of said gripping member in an outward and upward position, and a lock for engaging the upper end thereof, substantially as described.

3. In a whip socket, the combination of a cylindrical casing, a slidable gripping member mounted in said casing, springs for normally holding the lower end of said gripping member in an upward and outward position and a sliding lock adapted to engage the upper end thereof for holding the same in a lowered position substantially as described.

4. In a whip socket, the combination of a casing, of an auxiliary casing extending laterally therefrom and made integral therewith, a vertically sliding gripping member mounted within the said casing, a sliding pawl mounted within said auxiliary casing and the said gripping member adapted to rest below said sliding pawl when in a locked position, and means for holding said gripping member in a raised position when the said pawl has been released, substantially as described.

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1,039,377. RAZOR. HENRY J. GAISMAN, New York, N. Y., assignor to Auto Strop Company, New York, N. Y., a Corporation of New York. Filed Oct. 25, 1909. Serial No. 524,330. (Cl. 30—12.)



1. In a razor, a blade carrying holder, a guard for the edge of the blade, means for rotatably mounting the blade carrying holder and guard together, said means permitting endwise movement of one with relation to the other, means for limiting rotary motion of one member with relation to the other, means operated by said endwise movement for holding one member at an angle with relation to the other, and means for yieldably retaining the last mentioned means in operative position.

2. In a razor, a blade carrying holder, a guard for the edge of the blade, means for rotatably mounting the blade carrying holder and guard together, said means permitting endwise movement of one with relation to the other, means for limiting rotary motion of one member with relation to the other, means operated by said endwise movement for holding one member at an angle with relation to the other, means for yieldably retaining the last mentioned means in operative position, and clips hinged to the guard and adapted to embrace the corners of said guard to protect the corners of the blade.

3. In a razor, a blade carrying member having studs thereon, a guard for the edge of the blade having sleeves at the ends thereof in which the studs are trunnioned, stop lugs spaced apart on one of the studs, means carried by one of the sleeves extending between the stop lugs and adapted to engage the said lugs to limit the movement of the guard with relation to the blade carrying member, a spring bearing against the blade carrying member in the opposite sleeve, and the end of said sleeve for retaining the lugs and member in operative relation, the said blade carrying member being of less length than the length of the frame to permit movement axially of the said studs whereby the lugs are disengaged from the said means carried by one of the sleeves.

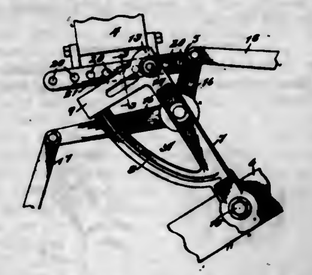
4. In a razor, a blade carrying member having studs thereon, a guard for the edge of the blade having sleeves at the ends thereof in which the studs are trunnioned, stop lugs spaced apart on one of the studs, means carried by one of the sleeves extending between the stop lugs and adapted to engage the said lugs to limit the movement of the guard with relation to the blade carrying member, a spring bearing against the blade carrying member in the opposite sleeve and the end of said sleeve for retaining the lugs and member in operative relation, the said blade carrying member being of less length than the length of the frame to permit movement axially of the said studs whereby the lugs are disengaged from the said means carried by one of the sleeves, said lugs also comprising means whereby the blade is held out of operative relation to the guard.

5. In a razor, a blade carrying member, studs thereon, a guard for a razor edge, sleeves on the said guard in which the studs are rotatable and in which they are movable axially, a spring in one of the sleeves bearing against the blade carrying member and the end of the sleeve for forcing the blade carrying member outwardly with relation to the spring, lugs spaced apart on the opposite stud, a member projecting from the sleeve into a space between the lugs, the relation of said member to the space being such that slight rotary motion is permitted the studs whereby the guard may be oscillated with relation to the blade.

[Claim 6 not printed in the Gazette.]

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1,039,378. EQUALIZER CONNECTION. JOSEPH W. GAMBLE, Carpentersville, Ill. Filed June 14, 1909. Serial No. 501,889. (Cl. 97—4.)



1. In an implement of the class described, a main tongue, a clevis attached thereto, an evener bar, a draft

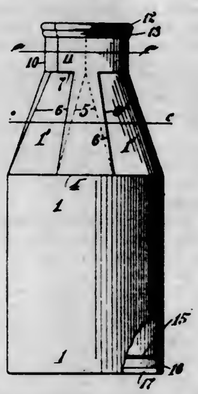
device including a member for connecting said clevis and said evener bar pivoted at a single point to said clevis, a stop extending at an angle from said member and adapted to bear against said clevis when said implement is moving in a straight line and to move away therefrom when said implement is turning.

2. In an implement of the class described, a main tongue, a clevis attached thereto, an evener bar, a draft device including a member pivoted at a single point to said clevis for connecting said clevis and said evener bar, a stop integral with and extending at an angle from said member, a brace connecting the ends of said member and stop, said stop adapted to bear against said clevis along its whole length while said implement is moving in a straight line and to swing away therefrom when said implement is turning.

3. In an implement of the class described, a main tongue, a clevis attached thereto, an evener bar, a draft device including a member pivoted to said clevis for connecting said clevis and said evener bar, a stop integral with and extending at an angle from said member, said stop consisting of a channel bar adapted to inclose and bear against said clevis along its whole length while said implement is moving in a straight line and to swing away therefrom when said implement is turning, and a brace connecting the ends of said member and channel bar.

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1,039,379. SANITARY PAPER BOTTLE. WILLIAM GIESSEMAN, Dayton, Ohio. Filed May 9, 1912. Serial No. 696,115. (Cl. 229—3.)



A bottle made of a single blank of paper and comprising a cylindrical body the upper portion of which is of tapered form provided with outer overlapping folds, the neck of the bottle comprising two thicknesses around its entire circumference the same being formed by an extended portion of said overlapping folds which is scored and slitted to form said neck, said neck so formed having a beaded margin and an annular inner channel adjacent to said beaded margin.

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1,039,380. DIES AND DOLLY. FRED A. GILL, Culebra, Canal Zone. Filed July 25, 1912. Serial No. 711,591. (Cl. 76—95.)

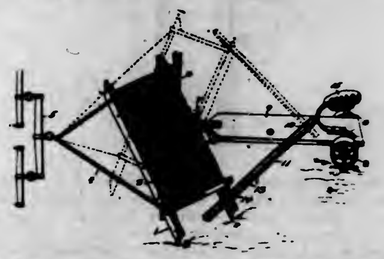


1. A pair of like dies, each having in one face, a pair of grooves, the grooves flaring in rectangularly disposed directions to define an intermediate core, comprising a cylindrical neck and a flaring toe.

2. A dolly comprising opposed fingers, the adjacent faces of which are transversely curved and slope longitudinally to a meeting line, the dolly having, upon both sides of each finger, faces which slope to the meeting line and likewise slope longitudinally of the meeting line.

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1,039,381. DRAG ATTACHMENT. EDWARD C. GLEDHILL, Galion, Ohio, assignor to Galion Iron Works Company, Galion, Ohio. Filed Apr. 21, 1911. Serial No. 622,604. (Cl. 37—5.)

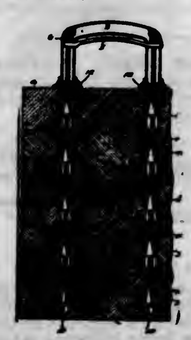


1. The combination with a road drag including a frame, a transversely extending blade mounted thereon and draft devices connected to the frame, of a drag attachment comprising a relatively elongated platform having ground engaging devices at its rear end, the forward end of the platform being provided with a clip loosely engaging the drag frame at its middle to permit free pivotal movement of the platform relative to the frame, and a pressure transmitting bar pivoted at one end adjacent the rear end of the platform and at its other end provided with a clip engaging the frame, said bar being adjustable relative to the clip.

2. The combination with a road drag including a frame, a blade extending transversely of the frame and draft attachments connected to the frame to hold the frame and blade at an angle to the line of draft, of a non-skidding attachment therefor including an elongated platform, ground engaging devices mounted at the rear end of the platform, a seat mounted upon the rear end of the platform, a coupling pivotally connecting the forward end of the platform to the frame at the middle thereof and directly opposite the point of application of the draft devices, and a pressure transmitting bar pivoted at one end to the platform adjacent the rear end thereof, and pivotally connected at its forward end to one end of said frame.

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1,039,382. BRICK-CARRIER. GEORGE E. GOLDNER, Fort Dodge, Iowa. Filed Feb. 5, 1912. Serial No. 675,407. (Cl. 57—126.)



1. A brick carrier adapted to be inserted into alined holes previously formed through a number of closely arranged parallel green bricks and to internally grasp said bricks so that they can be lifted together by the carrier without marring their faces, said carrier having a carrying portion, a member formed and adapted to enter the holes through said several bricks and provided with separate series of normally retracted brick gripping means, said several means being spaced apart to correspond to the thickness of the bricks to be internally grasped thereby, and manually controlled means, operative from a point adjacent to said carrying portion, for causing simultaneous movement of said several means to brick-gripping position and simultaneous movement of said several means to retracted position while within said several bricks, substantially as described.

2. A brick carrier comprising a straight elongated brick supporting member internally provided with spring-supported normally withdrawn brick engaging means having mechanism within said member for moving the same to operative position against the tension of their supporting springs.

3. A brick carrier comprising an elongated straight tubular brick supporting member at one end provided with a handle, said member internally provided with a longitudinal series of separate normally withdrawn radially-reciprocatory brick engaging and carrying devices, and manually controlled operating means within said member for projecting said devices, said member having radial openings closed by said devices.

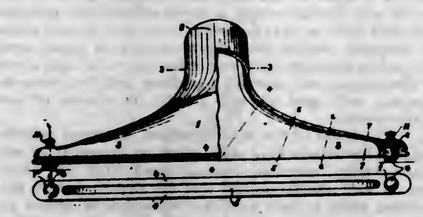
4. A brick carrier comprising an elongated closed tubular member having a handle, separate sets of internal brick gripping means normally withdrawn in said member, and manually actuated expanding mechanism for moving said means to operative brick gripping position and comprising a longitudinally movable rod in said member and provided with gripping-means-projecting inclines, said member having openings receiving and closed by said means.

5. A brick carrier comprising an elongated tubular supporting member, a series of sets of radially movable blades normally withdrawn in said member and provided with blade withdrawing and supporting springs within the member, means for flexing the springs to project the blades, and manually controlled operating means.

[Claims 6 to 14 not printed in the Gazette.]

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1,039,383. SUCTION-NOZZLE. CHARLES L. GOUGHNOUR, Canton, Ohio, assignor to The United Electric Company, Canton, Ohio, a Corporation of Ohio. Filed May 10, 1911. Serial No. 626,356. (Cl. 15—60.)



1. A suction cleaning nozzle having a substantially equal area in the opening of its shank and the intake slot, and having the cavity of each lateral half shaped with a substantially constant cross area from the shank to the median line of the intake slot, and thence with a regularly decreasing cross area inversely proportioned to the distance from the median line, so that the cross area at any given point is substantially equal to the area of the slot opening beyond said point.

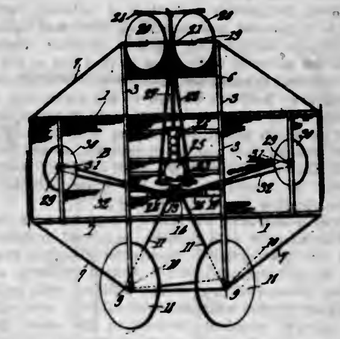
2. A suction cleaning nozzle having parallel lips forming an intake slot, with normally-protruding spring-cushioned roller bearings at the ends of the slot and in alinement therewith, the bearings being of less diameter than the width of the lips, whereby the lips can be alternately oscillated to and from the cleaning surface.



3. A suction cleaning nozzle having parallel lips forming an intake slot, with normally-protruding roller bearings at the ends of the slot and in alinement therewith, the bearings being of less diameter than the width of the lips, whereby the lips can be alternately oscillated to and from the cleaning surface.

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1,039,384. AERODROME. WILLIAM L. GREEN, Monroe City, Mo., assignor of one-half to George F. Jasper, Hannibal, Mo. Filed May 31, 1910. Serial No. 564,235. (Cl. 244—29.)



In an airship, a sustaining plane, a revoluble controlling shaft mounted for swinging movement, arcuate guides for the shaft, upstanding shafts mounted for rotation at the sides of the sustaining plane, upstanding shafts arranged beyond one end of the plane, controlling planes mounted on and revoluble with the said upstanding shafts and inclined relative thereto, means operated by the rotation of the controlling shaft for simultaneously rotating the upstanding shafts beyond one end of the plane, said shafts being revoluble in opposite directions respectively, and means operated by the swinging movement of the controlling shaft for simultaneously rotating the other upstanding shafts and their planes in the same direction.

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1,039,385. DRIER. RUSSELL DE C. GREENE, Nichols, Fla. Filed Sept. 11, 1911. Serial No. 648,604. (Cl. 34—5.)



1. A drier, comprising a furnace, a cylinder rotatably mounted and with one end communicating with said furnace, a second cylinder surrounding the first cylinder, means for supplying the material to be dried to that end of the outer cylinder adjacent the furnace, means for conveying said material through the outer cylinder, means for passing said material into that end of the inner cylinder farthest from the furnace, means for conveying the material through the inner cylinder, means for discharging the material from the furnace end of said inner cylinder, and means for rotating said inner cylinder.

2. In a drier, the combination with a furnace having an opening in its back wall, of an outer cylinder, an inner cylinder extending through said outer cylinder and revoluble therein, said inner cylinder having one end in communication with the opening in the back of the furnace, means for revolving said inner cylinder, means for supplying the material to be dried to the outer cylinder, and

means whereby the revolving of the inner cylinder will cause said material to be conveyed through the outer cylinder in one direction and back through the inner cylinder in the opposite direction.

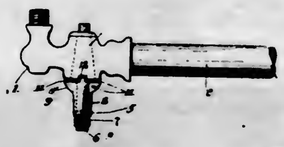
3. A drier, comprising an outer cylinder, an inner cylinder extending through said outer cylinder and revoluble therein, means for passing heated gases through said inner cylinder in one direction and back through the outer cylinder in the other direction, and means for passing the material to be dried through the outer cylinder in one direction and back through the inner cylinder in the other direction, the direction of travel of the gases and material at all times being opposite.

4. A drier, comprising a furnace, a cylinder rotatably mounted with one end communicating with said furnace, a second cylinder surrounding the first cylinder, means for supplying the material to be dried to that end of the outer cylinder adjacent the furnace, outwardly extending spirally wound conveyer members secured to the outer face of the inner cylinder and adapted to convey said material through the outer cylinder, means for passing said material from the outer cylinder into the inner cylinder, means for conveying the material through the inner cylinder, means for discharging the material from the inner cylinder, and means for rotating the inner cylinder.

5. A drier, comprising a furnace, a cylinder with one end communicating with said furnace, a second cylinder surrounding the first cylinder, means for rotating the first cylinder, an exhaust port in the second cylinder, an exhaust fan, communicating means between said port and fan, a supply hopper adjacent said exhaust port, spirally wound conveyer members secured to the outer face of said first mentioned cylinders, the outer end of said first mentioned cylinder being slotted, buckets carried by said first mentioned cylinder and adapted to discharge through said slots, longitudinally extending partition walls positioned in the slotted end of said cylinder, spirally wound conveyer members carried by the inner face of the first mentioned cylinder, said members being wound in the opposite direction to the first mentioned members, and longitudinally extending spaced apart steps positioned between said members.

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1,039,386. GAS-COCK. AUGUST W. GROVE and DAVID F. ANDERSON, Chicago, Ill. Filed June 5, 1911. Serial No. 631,357. (Cl. 137—7.)

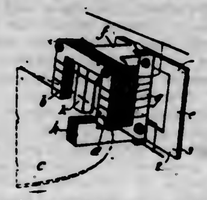


A gas cock having a rotary plug; a stem extending from said plug; a member splined on said stem and provided with laterally extending wings and an enlarged inner end; projections on the inner end of said member, there being recesses in the body of said cock adapted to register with and receive said projections; and a spring arranged to hold said member normally in position to effect engagement between said projections and said recesses, substantially as described.

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1,039,387. ALTERNATING-CURRENT METER. KARL HEINRICH GYR, Zug, Switzerland, assignor to The Firm of Landis and Gyr, Zug, Switzerland. Filed May 12, 1909. Serial No. 495,504. (Cl. 171—309.)

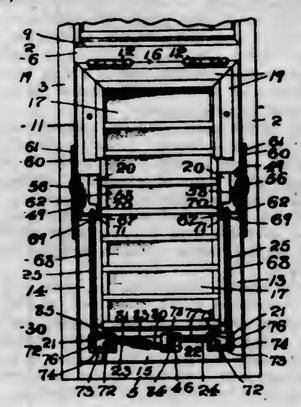
In an alternating current meter the combination with an armature, of main magnetic cores, coils on said cores producing a main flux cutting the armature, a shunt coil, a core for said shunt coil, a frame of magnetic material containing said shunt core, said frame including an air gap, the frame forming a path for a shunt magnetic flux independent of the path of the main flux and cutting the armature and a second entirely closed frame in connection with



said shunt core, said second frame also forming a path for a shunt flux independent from said main flux.

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1,039,388. FASTENING DEVICE FOR SHUTTERS AND THE LIKE. CARL J. HAGSTROM, Glen Cove, N. Y. Filed Dec. 20, 1911. Serial No. 666,901. (Cl. 16—28.)



1. In a device of the kind described, a hinged shutter-section, pivoted retaining stays mounted exteriorly of said shutter-section, movable pins connected with the lateral edges of said shutter-section and adapted to engage said retaining stays to hold said shutter-section in opened position, a stem or rod extending laterally across a portion of said shutter-section, a sleeve oscillatorily mounted upon said stem or rod, means upon one end of said sleeve for normally locking said shutter-section in closed position, and means connected with the other end of said sleeve for disengaging said movable pins from their retaining engagement with said stays to permit the closing of said shutter-section.

2. In a device of the kind described, a hinged shutter-section, pivoted retaining stays mounted exteriorly of said shutter-section, movable pins connected with the lateral edges of said shutter-section and adapted to engage said retaining stays to hold said shutter-section in opened position, a stem or rod extending laterally across a portion of said shutter-section, a sleeve oscillatorily mounted upon said stem or rod, a beam mounted upon one end of said sleeve, a lock-bolt connected with said beam for normally locking said shutter-section in closed position, a push-piece for releasing said lock-bolt, and means connected with the other end of said sleeve for disengaging said movable pins from their retaining engagement with said stays to permit the closing of said shutter-section.

3. In a device of the kind described, a hinged shutter-section, pivoted retaining stays mounted exteriorly of said shutter-section, a stem or rod extending laterally across a portion of said shutter-section, a sleeve oscillatorily mounted upon said stem or rod, a beam mounted upon one end of said sleeve, a lock-bolt connected with said beam for normally locking said shutter-section in closed position, a push-piece for oscillating said sleeve and beam to release said lock-bolt, plate-like members connected with the side-portions of said shutter-section, a slide-plate movably disposed upon each plate-like member, a pin extending from each slide-plate, said pins being in movable engagement with said stays, and means between the other end of said sleeve and the said side-plates for actuating the latter to disengage said pins from their retaining engagement with said stays to permit the closing of said shutter-section.

4. In a device of the class described, a hinged shutter-section, pivoted retaining stays mounted exteriorly of said shutter-section, a stem or rod extending laterally across a portion of said shutter-section, a sleeve oscillatorily mounted upon said stem or rod, a beam mounted upon one end of said sleeve, a lock-bolt connected with said beam for normally locking said shutter-section in closed position, a push-piece for oscillating said sleeve and beam to release said lock-bolt, plate-like members connected with the side-portions of said shutter-section, a slide-plate movably disposed upon each plate-like member, a pin extending from each slide-plate, said pins being in movable engagement with said stays, a lever-like element mounted upon the other end of said sleeve, crank-like plates pivotally connected with said shutter-section, connecting rods between said lever-like element and said crank-like plates, and connecting rods between said crank-like plates and said slide-plates, all arranged for actuating said slide-plates to disengage said pins from their retaining engagement with said stays to permit the closing of said shutter-section.

5. In a device of the kind described, a hinged shutter-section, a retaining stay pivotally connected exteriorly of said shutter-section, said stay being formed with an elongated opening and a cut-away portion connected with said opening, a movable pin connected with said shutter-section, said pin extending into said opening of the stay and being adapted to be moved into retaining engagement with said cut-away portion of the same to retain said shutter-section in opened position, and means for operating said movable pin to disengage the same from said cut-away portion of said stay to permit said shutter-section to be closed.

[Claims 6 to 14 not printed in the Gazette.]

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1,039,389. PUMP-OPERATING MECHANISM. THOMAS PERRY HANNEMAN, Clear Lake, Wis. Filed Jan. 5, 1911. Serial No. 600,993. (Cl. 74—5.)



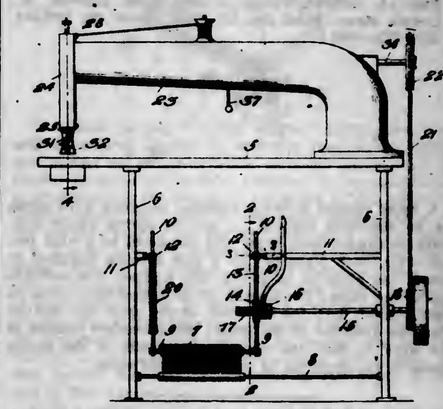
An apparatus of the character described, including a drive shaft, fixed bearings therefor, a gear wheel mounted on said shaft, a crank gear wheel meshing with the first named gear wheel, a hanger, a support from which said hanger is pivotally suspended from its upper end, the crank gear being formed at one side with an annular shoulder, a link pivotally mounted upon the drive shaft and provided with a strap encircling said shoulder, a disk secured to one face of the crank gear adjoining said shoulder and overlapping said strap, whereby to maintain the latter in place, an eccentric pivotal connection between the lower end of the hanger and the crank gear, a reciprocating element, in vertical alinement with said hanger support, and a pitman pivotally connected at one end to said reciprocating element and having an eccentric pivotal connection at its other end with the crank gear, the latter connection being diametrically opposite the pivotal connection between the hanger and the crank.





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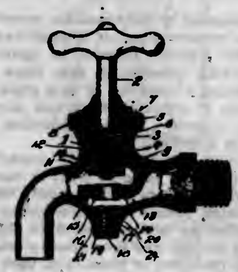
1,039,390. MECHANICAL MOVEMENT. JOHN HAYS, Uniontown, Pa. Filed Dec. 31, 1909. Serial No. 536,794. (Cl. 74—53.)



The herein described operating mechanism for sewing machines comprising in combination, a hand wheel shaft, a pinion loosely and slidably mounted on said shaft, a clutch head keyed on the shaft to co-act with a clutch head carried by said pinion, a supporting arm, a lever pivotally mounted thereon and connected to said pinion to slide the same and engage or disengage the clutch heads, a pivoted foot treadle, vertically disposed rods pivotally connected at their lower ends to said treadle, a second arm, guide eyes swiveled on said arms to receive the upper ends of said rods and movably support the same, a rack formed upon one of the rods engaging with the teeth of said pinion to rotate the hand wheel shaft upon downward pressure on the treadle, and a spring arranged upon the other of said rods placed under tension in the downward movement of the treadle and adapted to return said treadle and said rack to their normal positions upon the release of pressure on the treadle.

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1,039,391. VALVE. EDWIN HAKMLIP, Baltimore, Md., assignor of one-fourth to Thomas B. Trimble, Baltimore, Md., and one-half to Alexander L. Cummings, Melvale, Md. Filed May 6, 1911. Serial No. 626,502. (Cl. 137—4.)



A valve seat comprising a hollow member, a support having an aperture therein and adapted to slidably re-

ceive the said seat, a removable valve seat extracting element disposed immediately below the said seat and arranged in axial alinement therewith, the said extracting element being formed to provide a head having a slightly lesser diameter than that of said seat, the said extracting element being adapted to move in an upward direction whereby the said head engages the lower end of the said seat so as to move the same to an extracted position from the support.

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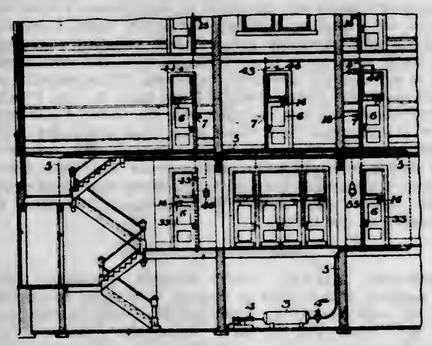
1,039,392. LOCK-SNAP CONTACT FOR MAKING ELECTRICAL CONNECTIONS. JOHN OTTO HEINER, Jr., Lowell, Mass. Filed Dec. 13, 1910. Serial No. 597,031. (Cl. 173—269.)



A spool shaped metallic terminal provided with steps, for an electrical element; a pair of spring plates compressible toward each other and connected to a high tension wire, each plate having a side opening designed to permit the plate to be moved into position and embrace one of the steps; the mouths of these openings, being in width larger than the diameter of the spool but smaller than the diameter of the steps; and shoulders outside of the steps to limit the opening movements of the spring plates in the direction of the axis of the spool.

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1,039,393. DOOR-OPERATING MECHANISM. THOMAS J. HERON, Pittsburgh, Pa. Filed Nov. 16, 1909, Serial No. 528,360. Renewed Aug. 18, 1910. Serial No. 577,881. (Cl. 89—95.)



1. Door mechanism of the character described, comprising a system of pressure pipes or conduits having branches extending to the different doors to be opened, means for normally supplying pressure to said pipes or conduits, means for effecting a reduction of said pressure from any one of a number of different points, and door opening devices rendered operative by such reduction of pressure; substantially as described.

2. Door opening mechanism of the character described, comprising a system of pressure pipes or conduits extending to the different doors to be opened, means for normally maintaining pressure in such system, a plurality of pressure releasing devices located at different points, latch releasing devices, and door opening devices rendered operative by a reduction of pressure in such system; substantially as described.

3. In door operating mechanism of the character described, a device for opening each of the doors, a door closing device for each door normally overcoming the action of the opening device, a fluid pressure system for controlling the operation of the closing device, and means for effecting a reduction of pressure in said system to throw the closing device out of operation; substantially as described.

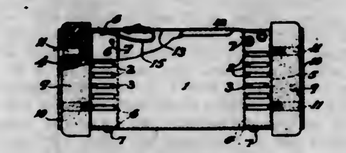
4. In door opening mechanism of the character described, a device for opening each of the doors, a device for closing each of the doors and normally overcoming the action of the opening device, a fluid pressure system for controlling the operation of the door closing devices, and means operated by reduction of pressure in said system and whereby the door closing devices of all the doors can be thrown out of operation; substantially as described.

5. In door opening mechanism of the character described a device for opening each of the doors, a device for closing each of the doors and normally overcoming the action of the opening device, a pneumatic system for controlling the operation of the door closing devices, and means operated by a reduction of pressure in such system and whereby the door closing devices of all the doors can be thrown out of operation from any one of a number of different points, substantially as described.

[Claims 6 to 20 not printed in the Gazette.]

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1,039,394. CARRIER FOR PNEUMATIC TUBES. ALFRED HESS, Chicago, Ill. Filed Mar. 4, 1912. Serial No. 681,890. (Cl. 243—35.)



1. A carrier for pneumatic tubes comprising a receptacle having perforations in its sides near its ends; headed guide members projecting through said perforations; and removable ends for said receptacle having inwardly projecting portions arranged to hold said guide members in position in said perforations, substantially as described.

2. A carrier for pneumatic tubes comprising a receptacle having superposed perforations in each of its sides near each of its ends; headed guide members projecting through said perforations; and removable ends for said receptacle having inwardly projecting portions arranged to hold said guide members in position in said perforations, substantially as described.

3. A carrier for pneumatic tubes comprising a sheet metal receptacle having series of superposed longitudinal slots therein; substantially T-shaped guide members having their stems projecting through said slots; and removable ends for said receptacle having inwardly extending flanges arranged to hold said guide members in position in said slots, substantially as described.

4. A carrier for pneumatic tubes comprising a sheet metal receptacle having a series of superposed longitudinal slots located at each side and each end of said receptacle; substantially T-shaped guide members having their stems projecting through said slots; and removable ends for said receptacle having inwardly extending flanges arranged to hold said guide members in position in said slots, substantially as described.

5. A carrier for pneumatic tubes comprising a sheet metal receptacle having a series of superposed longitudinal slots located at each side and each end of said receptacle; substantially T-shaped guide members having their stems projecting through said slots, said guide members consisting of a single strip of metal bent into T form; and removable ends for said receptacle having inwardly extending flanges arranged to hold said guide members in position in said slots, substantially as described.



1,039,395. EXPULSION-SWITCH. EDWARD M. HEWLETT, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed May 21, 1906, Serial No. 317,924. Renewed Mar. 30, 1912. Serial No. 687,528. (Cl. 175—282.)



1. In an electric switch, the combination with an oil vessel containing relatively movable coöperating contacts immersed in oil, of a pressure retaining vessel for inclosing said contacts when said contacts are in engagement, said vessel having a tubular vent which nearly surrounds one of said contacts and extends along the path of movement thereof to a considerable distance and directs the oil put under pressure by the arc against the arc to extinguish it, and operating mechanism for moving one of said contacts out of said pressure retaining vessel through said tubular vent in a horizontal plane beneath the surface of the oil in an arc to which a stream of fluid from said tubular vent is tangential.

2. In an electric switch, the combination of an oil vessel containing fixed and movable contacts immersed in oil, said movable contact being mounted to move in a curved path in a horizontal plane, of a pressure retaining vessel surrounding said fixed contact and provided with a curved tubular vent which extends along a considerable portion of the path of said movable contact and provides comparatively small clearance around said contact, said tubular vent having an outlet which projects a stream of fluid from said outlet in a horizontal path tangential to the curved path of said contact.

3. In an electric switch, the combination with an oil vessel containing oil, a stationary contact mounted in said vessel, a pressure retaining vessel mounted beneath the oil to surround said stationary contact and provided with a tubular outlet which forms a nozzle of considerable length, a movable coöperating contact mounted to swing in a curved path in a horizontal plane beneath the oil through said tubular vent and into and out of engagement with the fixed contact, and operating means for carrying said movable contact out of said pressure retaining vessel through said tubular vent and out of alinement with the outlet of said tubular vent as the switch opens, said operating mechanism comprising means for permitting said movable contact to move independently of said operating mechanism when said contacts separate.

4. In an electric switch, the combination of an oil vessel containing oil, a pressure retaining chamber mounted in said vessel beneath the oil and provided with a tubular vent which forms a nozzle of considerable length, a stationary contact mounted in said pressure retaining chamber in alinement with said vent, a movable contact mounted to move into said chamber through said tubular vent with small clearance and to engage said stationary contact and an arm pivoted to swing in a horizontal plane and to carry said movable contact through said tubular vent and out of alinement with it.

5. In an electric switch, the combination with an oil vessel containing relatively movable coöperating contacts mounted to move in a horizontal plane beneath the oil, of a pivoted operating rod for one of said contacts, operating means, connections between said operating means and said rod permitting said rod to move independently of said operating means, and pressure retaining walls about the point of engagement of said contacts closely surrounding said rod throughout a portion of the path of said rod to direct the oil put under pressure by the arc against the arc at an angle to the path of the movable contacts.

[Claims 6 to 8 not printed in the Gazette.]

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1,039,396. SHOE. MATHEW HILGERT, New York, N. Y. Filed June 15, 1912. Serial No. 703,881. (Cl. 36—1.)



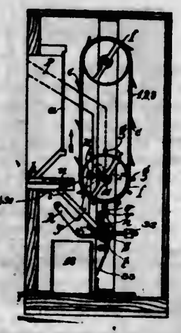
1. A shoe having a filler inserted within the shoe, said filler being thicker on one side than on the other, and having an excess of vamp material adjacent to the thicker portions of the filler sufficient to compensate approximately for the excess of thickness in the filler and thereby adjust the lines of the upper with relation to the wearer's foot in the position given to it by the filler.

2. A shoe having a filler inserted above the innersole, which filler is of greater average thickness upon one side of the shoe than upon the other, and having an excess of vamp material on the side of the shoe adjacent to the thicker edge of the filler to compensate substantially for the displacement of the foot of the wearer from normal relation to the tread face of the outsole and thereby insure normal relations of the lines of the upper to the foot of the wearer.

3. In a welted boot or shoe the combination with the upper, outersole and innersole, of a filler thicker on one side than on the other throughout its length to support the wearer's foot at an angle to the tread surface of the outersole transversely of the shoe, said upper being formed with an excess of upper material adjacent to said thicker edge of the filler to compensate approximately for such greater thickness and thereby provide for the proper relation of the lacing opening and side seams of the shoe relatively to the foot of the wearer.

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1,039,397. AUTOMATIC EXHIBITION DEVICE. ALFRED HINNFETER, Munich, Germany. Filed Oct. 19, 1911. Serial No. 655,468. (Cl. 40—36.)



1. In an automatic exhibition device of the character specified, the combination with endless traveling bands having a series of hooks thereon projecting substantially in the direction in which said bands travel, of means for feeding cards to said bands, said cards having perforations in which the said hooks are adapted to engage.

2. In an automatic exhibition device of the character specified, the combination with a plurality of traveling

bands each having a series of hooks thereon extending substantially in the direction in which said bands travel, of a plurality of means for feeding perforated cards to said bands with the perforations in the path of said hooks, a plurality of means for normally rendering said card-feeding means inoperative, and mechanism for selectively rendering any of said card-feeding means operative.

3. In an automatic exhibition device of the character specified, the combination with bands having hooks thereon projecting substantially in the direction of travel of said bands, of rollers over which said bands are adapted to travel, means for driving said bands, means for feeding perforated cards to the hooks on said bands, means whereby said card-feeding means is normally held in inoperative position, and means on said rollers whereby said card-feeding means is rendered operative.

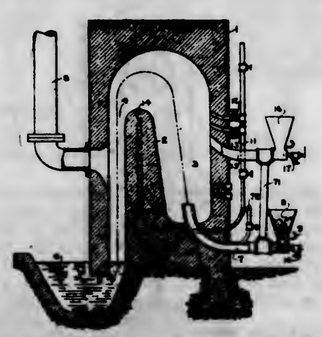
4. In an automatic exhibition device of the character specified, the combination with a plurality of series of rollers and means for driving the same, of bands traveling over each said series of rollers, hooks on said bands projecting substantially in the direction in which said bands are adapted to travel, means for feeding perforated cards to said hooks, means including a locking arm engaging said card-feeding means, for normally rendering the latter inoperative, and mechanism whereby said arm is moved out of engagement with the card-feeding means and the latter is rendered operative.

5. In an automatic exhibition device of the character specified, the combination with a plurality of series of rollers and means for driving the same, of endless bands traveling over each of said series of rollers, hooks on said bands projecting substantially in the direction in which said bands are adapted to travel, means for feeding perforated cards to said hooks, a shaft arranged in proximity to said rollers, said shaft having a series of hubs thereon each of which hubs has a projecting arm adapted to engage and normally render inoperative one of said card feeding means, and a lug projecting from said hub, pins on certain of said rollers, and mechanism whereby one of said pins is adapted to engage one of said lugs and move a predetermined arm out of engagement with one of said card feeding means and render the same operative.

[Claims 6 to 11 not printed in the Gazette.]

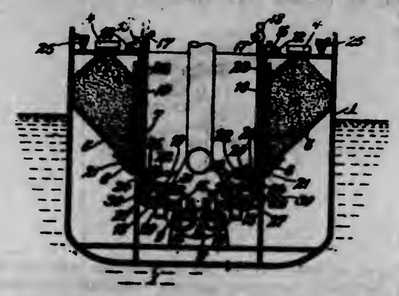
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1,039,398. PROCESS OF PRODUCING GAS. JULES H. HIRT, El Paso, Tex., assignor, by mesne assignments, to Allis-Chalmers Company, Milwaukee, Wis., a Corporation of New Jersey. Filed Feb. 14, 1910. Serial No. 543,724. (Cl. 48—206.)



In the art of producing gas, introducing into the free space of a chamber an upwardly directed blast of gas forming combustible material, igniting said blast, introducing into the same free space of said chamber a second upwardly directed blast of gas forming combustible material, changing the direction of the flow of said combined blast, introducing moisture into said blast at the place of change and taking off from the changed flow the gas produced.

1,039,399. METHOD OF TRANSPORTING AND UTILIZING FUEL. JOSEPH H. HEARLEY, New York, N. Y. Filed June 2, 1911. Serial No. 630,938. (Cl. 110—104.)



1. The method herein described which consists in exhausting the air from sealed compartments containing fuel in bulk, and then feeding said air jointly with the fuel into a furnace.

2. The method herein described which consists in placing fuel in compartments, sealing said compartments, exhausting the air therefrom and employing the exhaust air as a force draft for injecting said fuel into the fire box.

3. The method herein described which consists in placing fuel in a series of compartments, or bunkers, sealing said compartments, and finally by a continuous and cooperative process exhausting the free oxygen from the compartments, withdrawing the fuel successively therefrom and introducing it jointly with said oxygen into the furnace.

4. The method herein described which consists in placing powdered coal in a series of compartments in a moist condition, sealing said compartments, heating the coal and driving off the moisture therefrom, and by a continuous and cooperative process exhausting the moisture from the compartments, withdrawing the fuel successively therefrom, and introducing the moisture and the fuel jointly into the furnace.

5. The method herein described which consists in storing, safe-guarding and transporting powdered coal in a series of sealed compartments, introducing steam therein, preheating the fuel at, or near, its exit, and then simultaneously and by cooperating means withdrawing the gases and the coal through separate channels and forcing them jointly into the furnace.

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1,039,400. OUTSIDE METAL CAR-ROOF. JOHN J. HOFFMAN, New Kensington, Pa., assignor to Peter H. Murphy, Pittsburgh, Pa. Filed May 2, 1912. Serial No. 694,679. (Cl. 105—8.)



1. A ridge seam cap for car roofs having intersecting longitudinal and transverse grooves and a shoulder overhanging the top of the longitudinal groove substantially as described.

2. A ridge seam cap for car roofs comprising an elongated strip of sheet metal having intersecting longitudinal and transverse grooves one arm of said cap having its ends beveled and a shoulder overhanging the longitudinal groove, substantially as described.

3. A ridge seam cap for car roofs having a groove extending transversely thereof near one end and a longitudinally extending groove and a flattened area at the intersection of said grooves, said flattened area having a shoulder overhanging the longitudinal groove in the direction of the near end of the seam cap, substantially as described.

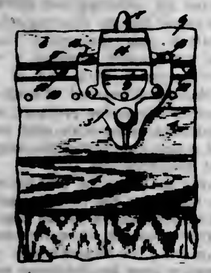
4. In a car roof, the combination of roof sheets extending from eaves to ridge and movably mounted relative to each other, of seam caps at the ridge, each of said seam caps having a longitudinal groove adapted to receive the upturned ridge ends of the sheets and a transverse groove adapted to receive the side seams and a bolt hole at the point of intersection of said grooves, the portion of the seam cap adjacent to said bolt hole being flattened and provided with a shoulder overhanging the longitudinal groove, one of the seam caps having its end engaged below the shoulder of the next adjacent cap.

5. In a car roof, the combination of roof sheets extending from eaves to ridge and movably interlocked with each other, of seam caps at the ridge, each of said seam caps having a longitudinal groove adapted to receive the upturned ridge ends of the sheets and a transverse groove adapted to receive the side seams and a bolt hole at the point of intersection of said grooves, a bolt extending through said bolt hole and a flexible washer mounted on said bolt underneath the seam cap and overlapping the adjacent corners of the roof sheets.



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1,039,401. CAR-ROOF. JOHN J. HOFFMAN, New Kensington, Pa., assignor to Peter H. Murphy, Pittsburgh, Pa. Filed May 15, 1912. Serial No. 697,406. (Cl. 105—8.)



1. A car roof comprising movably secured metal sheets mounted on the substructure and movable transversely thereof and whose side margins are interlocked to form seams and whose outer ends are rebent on the under side along a line short of the eaves, and metal flashing strips whose outer margins overlap the eaves continuously from end to end of the car and whose inner margins are rebent to be slightly above and movably engage the rebent portions of the roof sheets, the middle portion of said flashing strip below their rebent margin being provided with spaced upward projections lying below the rebent ends of said roof sheets and maintaining them above the middle portions of the flashing strips, the edges of said rebent portions being normally spaced from the corresponding bend to permit the rebent portions of the sheets to slide inwardly and outwardly over said flashing strips.

2. A car roof comprising metal sheets mounted on the substructure and whose outer ends are rebent on the under side along a line short of the eaves, and metal flashing strips whose outer margins overlap the eaves continuously from end to end of the car and whose inner margins are rebent to be slightly above and movably engage the rebent portions of the roof sheets, the middle portion of said flashing strip below their rebent margin being provided with spaced upward projections lying below the rebent ends of said roof sheets and maintaining them above the middle portions of the flashing strips.

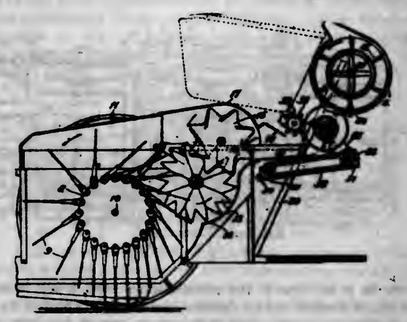
3. In a car roof, the combination of roof sheets having their eaves ends turned under and spaced from the body portions of said sheets, flashing strips arranged along the eaves of the car and having their lower margins secured to the side of the car below the eaves, said flashing strips having their upper edges rebent over the turned under ends of said roof sheets to loosely engage therewith, and spaced upward projections on said flashing strips adapted to support the turned under ends of said roof sheets out of contact with said flashing strips.

4. In a car roof, the combination of roof sheets having their eaves ends turned under and spaced from the body portions of said sheets, flashing strips arranged along the eaves of the car and having their upper edges rebent over the turned under ends of said roof sheets to loosely engage therewith, and spaced stiffening ribs on said flashing strips adapted to support the turned under ends of said roof sheets out of contact with said flashing strips.

5. An eaves flashing strip for car roofs, said flashing strip being formed with a flange adapted to overhang the eaves and be secured to the side of the car, and a rebent flange adapted to engage the ends of roof sheets arranged upon the car, said flashing strip having stiffening ribs arranged transverse to its length adapted to coöperate with said rebent flange for loosely securing the ends of said roof sheets above the eaves of the car.

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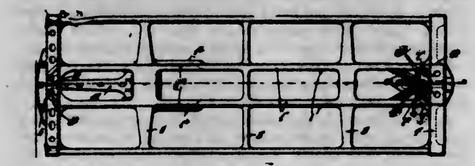
1,039,402. MACHINE FOR REMOVING LEAVES AND TRASH FROM SEED-COTTON. ORLEY C. HOUGHTON, Chicago, Ill., assignor to H. B. and J. B. Bullock, Chicago, Ill. Filed Mar. 6, 1911. Serial No. 612,628. (Cl. 19—9.)



1. A machine of the character described, comprising means for gathering cotton in separate loose bunches from the standing plants, a traveling conveyer on which the bunches are deposited as gathered, a series of cotton engaging pick-ups extending over the conveyer, means for combing trash from the cotton raised by the pick-ups, and means for removing the cleaned cotton from the pick-ups, whereby green leaves gathered with the cotton are unbroken and eliminated therefrom.

2. A cleaner for seed cotton, including a frame structure constructed to receive the cleaning mechanism, said cleaning mechanism comprising a traveling conveyer on which the cotton to be cleaned is deposited, a series of rotating spaced cotton-engaging pick-ups located above said conveyer in spaced relation thereto, said conveyer extending beyond the lowermost peripheral margins of said pick-ups, a rotating separator located above said conveyer comprising members having fingers constructed to enter the peripheral spaces between the pick-ups, a pneumatic apparatus located above said pick-ups, and a receptacle constructed to receive the cleaned cotton, said pneumatic apparatus being constructed to detach the cleaned cotton from said pick-ups and to conduct said cotton to said receptacle.

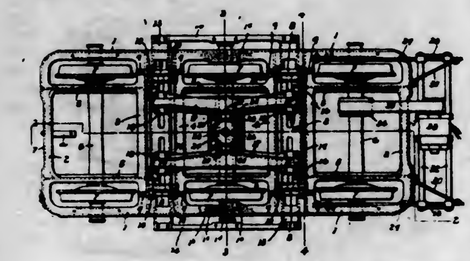
1,039,403. CAST-STEEL UNDERFRAME FOR CARS. CLARENCE H. HOWARD, St. Louis, Mo., assignor to Locomotive Tender Frame Company, St. Louis, Mo., a Corporation of Delaware. Filed June 21, 1911. Serial No. 634,588. (Cl. 213—42.)



1. In a cast steel underframe for cars the combination of an end sill and longitudinal members, flanges of the latter forming a horizontal strengthening web, pocket walls depending from said strengthening web to form a central pocket and lateral pockets on each side of the central pocket.

2. In a cast steel underframe for cars the combination of an end sill, longitudinal sills, the vertical webs of the latter being extended forwardly to form reinforcing webs for the end sill, and downwardly to form pocket walls, the bottom flanges of said longitudinal sills being connected to form a horizontal strengthening web which constitutes the top wall of a plurality of pockets.

1,039,404. CAR-TRUCK. CLARENCE H. HOWARD and HARRY M. PFLAGER, St. Louis, Mo., assignors to Double Body Bolster Company, St. Louis, Mo., a Corporation of New Jersey. Filed July 10, 1911. Serial No. 637,810. (Cl. 105—244.)



1. In a car truck, the combination with truck bolsters, of an H-shaped center bolster detachably applied to and supported by said truck bolsters, a center bearing plate detachably applied to the center member of said H-shaped bolster, and pairs of shoulders on the end portions of said center member, which shoulders engage the end portions of the center bearing plate.

2. In a car truck the combination with truck bolsters, of an H-shaped center bolster, a center bearing plate detachably applied to the center member of said center bolster, and pairs of lugs on the end portions of said center member which lugs engage the end portions of the center plate.

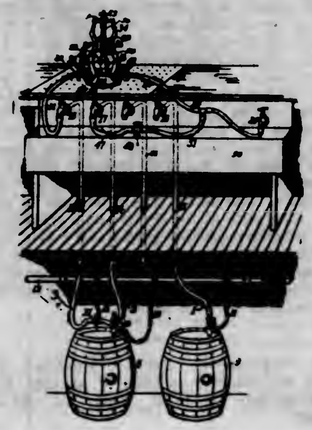
3. In a car truck, an H-shaped center bolster the center member of which is of inverted U-shape in cross section and lugs arranged in pairs on the end of said center member which lugs are adapted to engage the ends of a center bearing plate applied to said center member.

4. In a car truck, an H-shaped center bolster the center member of which is of inverted U-shape in cross section, and pairs of shoulders formed on the ends of said center member which shoulders are adapted to engage the ends of a center bearing plate applied to said center member.

5. In a car truck, the combination with truck bolsters, of an H-shaped center bolster, the central web of which is of inverted U-shape in cross section with the top plate of said central portion in a plane substantially below the plane occupied by the top of said center bolster, horizontally disposed strengthening flanges integral with the lower ends of the vertical legs of the inverted U-shaped central portion, pairs of lugs formed on the top plate of the central portion of said center bolster and a center bearing plate detachably applied to the top plate of said central portion, the end portions of which center bearing plate are positioned between the pairs of lugs on said top plate.

[Claims 6 to 15 not printed in the Gazette.]

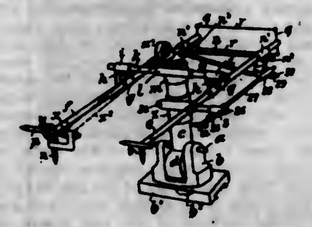
1,039,405. BEER-PIPE CLEANER. HENRY HUBERT and ELWOOD FRY, New York, N. Y. Filed Apr. 12, 1911. Serial No. 620,642. (Cl. 225—12.)



1. An apparatus for cleaning beer-pipes, comprising a mixing-vessel, a vessel for the cleaning-solution connected therewith, a valved pipe connecting the mixing-vessel with a source of water under pressure, a valved pipe connecting the mixing-vessel with one of the dispensing faucets, a hose for the lower end of each beer-pipe to be cleaned, a source of air under pressure, a valved union, a pipe connecting said union with said air-supply, a discharge-cock, and a pipe connecting the opposite dispensing faucet with said discharge-cock.

2. An apparatus for cleaning beer-pipes, comprising a mixing-vessel, a vessel for the cleaning solution, a valved pipe connecting said vessels, a valved pipe connecting the mixing-vessel with a source of water under pressure, a valved pipe connecting the mixing-vessel with one of the dispensing faucets, a hose for the lower end of each beer-pipe to be cleaned, a valved union, a pipe connecting said union with a source of air under pressure, a three-way discharge-cock, a pipe connecting said discharge-cock with the opposite dispensing faucet, and a pipe connecting said discharge-cock with the water-supply-pipe.

1,039,406. SCULPTOR'S COPYING-MACHINE. HANS HUNDRIESER, Halensee, near Berlin, Germany. Filed Dec. 29, 1911. Serial No. 668,462. (Cl. 159—7.)



1. A sculptor's copying machine comprising a column, a sleeve rotatable thereon, a traverse rotatable and slidable in the sleeve, a pair of rotatable and oscillable arms carried by the traverse, levers fast on the arms, rods connecting the levers, and a feeler and tool carried respectively by the arms.

2. A sculptor's copying machine comprising a column, a pair of sleeves rotatable thereon, a pair of traverses rotatable and slidable in the respective sleeves, a pair of rotatable and oscillable arms carried by one of the traverses, a third arm carried by the other traverse, and means for pivotally connecting said third arm to the first mentioned arms.

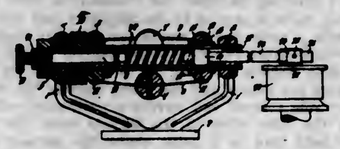
3. A sculptor's copying machine comprising a pair of connected arms, a feeler carried by one of said arms, a pair of tools carried by the other arm, said tools being intergeared and disposed at right angles to one another.

4. A sculptor's copying machine comprising a column, a pair of connected arms, a tool and a feeler secured respectively thereto, a plurality of superposed traverses pivotally connected to each other and provided with arms adjustable at any angle to the column, said arms being so connected as to perform uniform rotary motions, the arms and connecting parts being composed of telescoping tubes.

5. A sculptor's copying machine comprising a rocking column, a pair of connected arms carried thereby, a tool and a feeler carried by the respective arms, springs engaging the column and brakes controlling the springs.



1,039,407. SPARKING-REGULATOR FOR INTERNAL-COMBUSTION ENGINES. GEORGE WILLIAM HUTCHINSON, Walton, Auckland, New Zealand. Filed Apr. 9, 1912. Serial No. 689,672. (Cl. 123—117.)



A sparking regulator of the kind described, comprising a governor, a sliding rod operated by the governor, a rack upon the sliding rod, a commutator, and a toothed wheel on the commutator engaged by the rack, as set forth.

1,039,408. COMPOUND CONTAINING ACTIVE OXYGEN AND PROCESS OF MAKING. GEORGES FRANÇOIS JAUBERT, Paris, France. Filed Oct. 13, 1904. Serial No. 228,317. (Cl. 23—13.)

1. The process of making a new compound which consists in subjecting one of those peroxids which in the presence of a hydrogen-containing acid normally form hydrogen-peroxid and the salt of the acid, to the slow action of such an acid at a reduced temperature, and then isolating the solid peroxidised body so formed.

2. The process of making a new compound which consists in subjecting one of those peroxids which in the presence of a hydrogen-containing acid normally form hydrogen-peroxid and the salt of the acid, to the slow action of such an acid at a reduced temperature and in the presence of water, and then isolating the solid peroxidised body so formed.

3. The process of making a new compound, which consists in subjecting one of those peroxids which in the presence of an acid normally form hydrogen peroxid and the salt of the acid, to the slow action of an acid at a reduced temperature, then isolating the solid peroxidised body so formed, washing said peroxidised body and drying it.

4. The process of making a new compound which consists in slowly adding one of those peroxids which in the presence of an acid normally form hydrogen peroxid and the salt of the acid, and an acid, to cold water while stirring, then filtering it removing the solid peroxidised body and drying it first without artificial heat and then with artificial heat not exceeding 60 degrees C.

5. The process of making a new compound which consists in intimately mixing a dry peroxid with a solid acid, adding the mixture to water and isolating the new solid peroxidised compound formed.

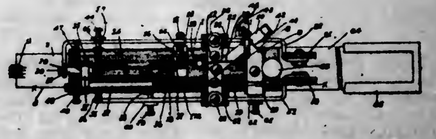
[Claims 6 to 10 not printed in the Gazette.]

1,039,409. RESILIENT HEEL FOR SHOES. ANDREW JENCZYK, Chicago, Ill. Filed Mar. 16, 1911. Serial No. 614,909. (Cl. 36—35.)



The combination with a shoe heel having the lower portion of its four edges inwardly and downwardly beveled, of a rubber tread; and a continuous upstanding flange substantially V-shaped in cross section on the outer edge of said tread and formed to fit said beveled edge, the outer surface of said tread and flange being so formed that when the tread is applied to said heel said flange shall snugly fit said beveled portion with its outer face flush with the adjacent faces of the shoe heel whereby the outer surfaces of the completed heel will be smooth and continuous, substantially as described.

1,039,410. TELEGRAPHIC INSTRUMENT. LEE H. JERNIGAN, Sacramento, Cal., assignor of seven one-hundredths to Eugene H. Carpenter, seven one-hundredths to William H. Bost, seven one-hundredths to Willis B. Weaver, seven one-hundredths to Albert M. Cabler, seven one-hundredths to Roland R. Fletcher, seven one-hundredths to Don E. Gilman, and seven one-hundredths to Ralph E. Trickle, Sacramento, Cal. Filed Feb. 22, 1912. Serial No. 679,226. (Cl. 178—63.)



1. A device of the character described comprising a base member, a pivotal member on said base member, an adjustment screw mounted independently on said base member, a spring connecting said adjustment screw and said pivotal member, adjustment screws disposed through the sides of said pivotal member on each side of its pivotal point and adapted to engage the side of said base member to limit the movement of said pivotal member, a vibrating wire, means connected between said pivotal member and said vibrating wire for holding said vibrating wire normally quiet, means for releasing said holding means to cause said wire to vibrate, a contact point, said vibrating wire being adapted to strike such contact point as it vibrates, and means electrically connecting said vibrating wire and said contact point with opposite terminals of the same telegraphic circuit, as described.

2. A device of the character described comprising a base member, a pivotal member mounted on said base member, a bell crank connected with said pivotal member, a projecting arm on said bell crank, a vibrating wire, an adjustment screw projecting through said arm and normally engaging said vibrating wire, a contact point, said vibrating wire being adapted to strike said contact point as it vibrates, and means for electrically connecting said vibrating wire and said contact point with opposite terminals of the same telegraphic circuit, as described.

3. A device of the character described comprising a base, a lever pivoted to the side of said base and provided with an operating key, two adjustment screws projecting

through said lever and adapted to engage the side of said base to limit the movement of said lever, a spring pulling on said lever to hold it in normal position, a vibrating wire mechanism, means connected between lever and said vibrating wire mechanism to hold said vibrating wire mechanism still when the said lever is in normal position and to move said holding mechanism when said lever is moved to permit said vibrating wire mechanism to vibrate and means for making and breaking an electrical circuit with the vibration of said wire mechanism, as described.

4. A device of the character described comprising a base, a plate insulated from said base, a lever pivoted at one side of said base and being held in normal position by a spring, an adjustment screw projecting through said lever and adapted to engage said base to limit the movement of said lever, an adjustable contact point on said lever adapted to engage said plate when said lever is moved out of normal position and means for connecting a source of electrical energy to said plate and to said base, as described.

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1,039,411. WINDOW-SCREEN. IRVING W. JONES, Ogden, Utah. Filed June 5, 1911. Serial No. 631,265. (Cl. 156—39.)



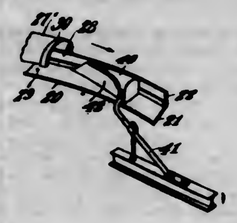
1. The combination with a normally rolled screen fabric, and a head connected to one end thereof, of channeled guides for the reception of the side edges of the fabric and of the ends of the head, said channels having offset portions, means adapted to be attached to a window sash, and movable in one direction to automatically engage the head and in the opposite direction to shift the head and the fabric with the sash, said head being movable into the offset portions of the channels to become disengaged from said means.

2. The combination with a window casing, a sash, and channeled guide member connected to the casing, said members having offset portions, of a hood secured to the casing, a normally rolled screen fabric adapted to be housed within the hood, a head connected to the fabric and movable against the hood, said head being connected to one end of the fabric, the ends of the head and the side edges of the fabric being movable within the channeled guide members, and means upon the sash for automatically engaging the head when the sash is closed and for shifting the head and fabric with the sash when said sash is opened, said head being movable into the offset portions to disengage the said means on the sash.

3. In a device of the class described a hood comprising a housing and having an inset portion, a normally rolled screen fabric within and adapted to extend beyond the hood, a head upon one end of said fabric and adapted to be seated within the inset portion, said head including a handle portion and a resilient hooked portion, and means adapted to move with the sash for automatically engaging said hooked portion when the sash is closed and for shifting said hooked portion and the screen fabric when the sash is opened, channeled guides for the reception of the side edges of the fabric, each of the channels within the guides having an offset portion, said head being shiftable into the offset portions to disengage the hooked portion from said means on the sash.

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1,039,412. DITCHING-MACHINE. RICHARD YATES KESSLER, Morrisonville, Ill. Filed May 20, 1911. Serial No. 628,404. (Cl. 37—17.)



1. In a ditching machine, the combination with an upright ring, buckets carried by its periphery and each open on one side, a main frame, means for pivotally supporting the ring therein, of two face plates carried by the frame, one of them lapping the ring on that side thereof where the buckets are closed and the other lapping the ring on the other side thereof and having a peripheral extension covering the open sides of the buckets from the lowest point of said ring to a point above the surface of the earth.

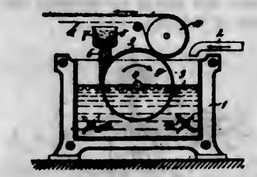
2. In a ditching machine, the combination with an upright ring, buckets carried by its periphery and each open on one side, a main frame, means for pivotally supporting the ring therein, of two face plates carried by the frame, one of them lapping the ring on that side thereof where the buckets are closed and the other lapping the ring on the other side thereof and having a peripheral extension covering the open sides of the buckets from the lowest point of said ring to a point above the surface of the earth, an ejector carried by the frame just in rear of the last-named point, a runner traveling in the ditch behind the ring, and a curved shield carried by said runner and its support and extending rearwardly from the lowest point of the ring around the periphery thereof.

3. In a ditching machine, the combination with an upright ring, buckets carried by its periphery and each open on one side, a main frame, of two face plates carried by the frame, one of them lapping the ring on that side thereof where the buckets are closed and the other lapping the ring on the other side thereof and having a peripheral extension covering the open sides of the buckets from the lowest point of said ring to a point above the surface of the earth, an ejector located just in rear of said last-named point and having a beveled side, the shape of the ejector being such as to scrape the material out of each bucket which passes over it, and a bracket mounted on the main frame for supporting said ejector and connected with it at a point over which the open side of each bucket passes.

4. In a ditching machine, the combination with an upright ring comprising a flat rim and a radial flange projecting from one edge thereof, a frame within which said ring is supported, means therein for rotating the ring, and face plates carried by the frame and lapping the ring, the plate on that side of the ring opposite its flange having a radial extension from the lowest point of the plate around its front to a point near its top; of substantially tabular buckets each having one side closed and connected with said flange and the other side open, and an ejector consisting of a triangular scraper resting upon the rim and against the flange of said ring just in rear of the last-named point and of a shape to eject the material from each bucket as the latter passes over the scraper, and a bracket connecting the scraper with the main frame and standing in position to permit the open side of each bucket to pass astride it.



1,039,413. MANUFACTURE OF PLATES FROM FIBROUS SUBSTANCES, LIKE ASBESTOS, AND HYDRAULIC BINDING SUBSTANCES. HEINRICH KLEE, Klausthal, Germany. Filed Sept. 14, 1906. Serial No. 334,632. (Cl. 92—43.)

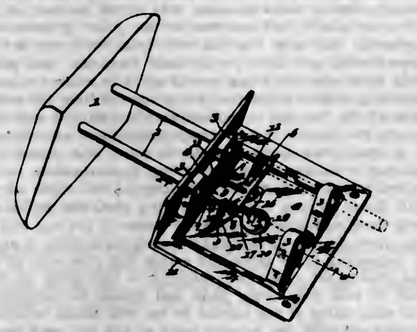


1. The process of manufacturing plates from fibrous material and hydraulic binding material consisting in, first mixing the fibrous material with water, thereupon forming the mixture into an open, loose web, thereupon, and before any pressing or rolling of said web whatever, applying the hydraulic binding material thereto, and, thereupon, subjecting the same to such couching and pressing operation as are necessary for the formation of the finished plates.

2. The process of manufacturing plates from fibrous materials and hydraulic binding material consisting in first mixing the fibrous material with water and thereupon forming the mixture into an open loose web and at the same time applying hydraulic binding material to the surface of the web previous to any rolling or pressing of the web and thereupon subjecting the web to the final pressing operation to form the finished plates.

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1,039,414. HEAD-REST LOCK. WALTER F. KOHNE, St. Louis, Mo. Filed July 24, 1911. Serial No. 640,316. (Cl. 155—10.)



1. In combination with the rod of a head-rest, a plate formed with an opening to receive said rod, a leaf having knuckles at its ends secured rigidly to the plate, a member received between said knuckles and pivoted thereto, means for pivoting the upper end of said member, a coil spring engaging the upper face of the plate to normally force same downwardly, and means for operating the plate including a bell-crank having one end arranged to engage the under face of the plate.

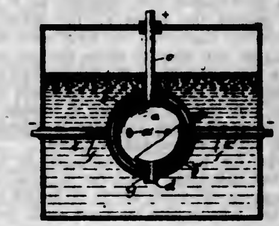
2. A lock for the head-rest of a barber's chair, including a substantially vertical member pivotally supported at its upper end, a gripping plate pivoted at its inner end to the lower end of said vertical member, said plate being formed with an opening to receive the head-rest rod, and means to normally force said plate downwardly.

3. A lock for the head-rest of a barber's chair, including in combination with a casing having a face plate with an opening therein, a substantially vertical member pivoted at its upper end to the casing, a downwardly inclined plate having its inner end pivoted to the lower end of said member and having its outer end perforated to receive the rod of the head-rest, a spring for forcing said plate downwardly, and a bell-crank lever pivoted to the casing and having its inner end arranged to engage the under face of the plate and having its outer end extending through said face plate opening and formed with a head which abuts against the face plate adjacent the opening thereof to limit the downward movement of the bell-crank lever.

4. A lock for the head-rest of a barber's chair comprising, in combination with a casing including a face plate having an opening therein, a substantially vertical member pivoted at its upper end to the casing, a downwardly inclined plate having its inner end pivoted to the lower end of said member, said plate being provided with a perforation to receive the rod of the head-rest, means for forcing said plate downwardly, and a bell-crank lever pivoted to said casing below said plate and having the free end of one arm arranged to engage the plate to move the same into unlocked position, the other arm of said lever extending outwardly through said opening.

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1,039,415. PROCESS OF OXIDIZING OR REDUCING CHEMICAL SUBSTANCES BY WAY OF ELECTROLYSIS. GEORGES KOLSKY, New York, N. Y. Filed Nov. 3, 1911. Serial No. 658,375. (Cl. 204—60.)



1. In an electrolytic apparatus the arrangement of two spherical, perforated electrodes, one of them surrounding the other.

2. In an electrolytic apparatus, the combination of a spherical, perforated electrode surrounding another likewise spherical and perforated electrode, and means for rapidly rotating the said inner electrode.

3. In an electrolytic apparatus, the combination of a containing vessel, another smaller vessel connected therewith, electrodes in the said smaller vessel, and means for rapidly rotating one of the said electrodes.

4. In an electrolytic apparatus the combination of an outer, spherical, perforated electrode, an inner, likewise spherical and perforated electrode, a socket extending from the bottom of the second electrode and freely penetrating the first electrode, and means for rotating the second electrode.

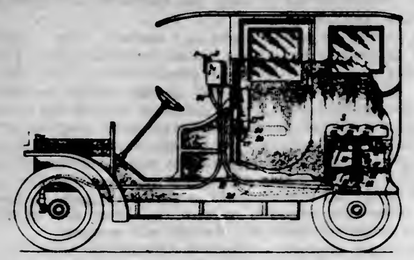
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1,039,416. TAXIMETER. MAX KUHN and RAPHAEL NETTER, New York, N. Y.; said Netter assignor to said Kuhn. Filed Apr. 27, 1911. Serial No. 622,896. (Cl. 235—30.)

1. A locking device comprising a shaft provided with means to be engaged by a bolt, a lever, a bolt pivoted thereon, and means on the lever, operatively connecting the bolt therewith; a spring, yieldingly holding the bolt withdrawn from the shaft; a movable seat in the vehicle, and means operatively connecting the seat with the lever, and whereby the bolt is set in position to engage with the means on the shaft, when the seat is depressed; substantially as herein shown and described.

2. A locking device for a taximeter and similar fare registering and indicating devices for vehicles, comprising the shaft of the taximeter, means on the shaft adapted to be engaged by a bolt, to lock the shaft in its position; a bolt, pivotally mounted in position to be moved in engagement with the means on the shaft; mechanism for

moving the bolt; a spring set to hold the bolt away from the means on the shaft; movable seats in the vehicle; and means operatively connected therewith and with the mechanism moving the bolt, to set the bolt against the action of the spring in engagement with the means on the taximeter shaft when the seat is depressed, substantially as herein shown and described.



3. A device for locking a taximeter, or other fare registering and indicating device for vehicles, in its "registering" position, comprising a shaft, means on the shaft adapted to be engaged by a bolt to hold the shaft when turned to set the taximeter into its "registering" position; a hook-shaped bolt mounted on a pivot and adapted to engage the means on the shaft; a lever; means operatively connecting the lever with the bolt; a spring acting on the lever to move the bolt away from the shaft; a movable seat in the vehicle and means, operatively connecting the lever therewith, and moving the lever to set the bolt in position to engage with the means on the shaft when the seat is depressed; substantially as herein shown and described.

4. A device for locking a taximeter or other fare registering and indicating device for vehicles, comprising a shaft, means on the shaft of the taximeter adapted to be engaged by a bolt to hold the shaft when turned to set the taximeter into its "registering" position; a hook-shaped bolt adapted to engage the means on the shaft; a lever; means operatively connecting the lever with the bolt; a spring, secured to the lever and acting on the bolt, when the bolt is moved in position to engage the means on the shaft, to press it into engagement therewith; a spring acting on the lever to move the spring away from the bolt and the bolt away from the shaft; a movable seat in the vehicle and means operatively connecting the lever therewith and moving the lever to set the bolt in position to engage with the means on the shaft and the spring on the lever in position to press the bolt in engagement with the means on the shaft; substantially as herein shown and described.

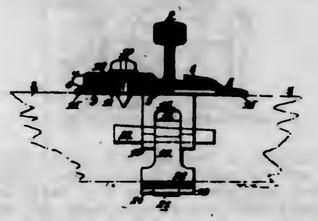
5. A device for locking a taximeter or other fare registering and indicating device for vehicles, comprising a shaft, means on the shaft adapted to be engaged by a bolt to hold the shaft when turned to set the taximeter into its "registering" position; a hook-shaped bolt mounted on a pivot and adapted to engage the means on the shaft; a two-armed lever; means operatively connecting one arm of the lever with the bolt; a pull cord, connected to the other arm of the lever; a spring, set to stretch the pull cord and to yieldingly hold the lever in position turning the bolt from the means on the shaft; a movable seat in the vehicle, and mechanism connected therewith to draw the pull cord when the seat is depressed, whereby the lever is actuated to set the bolt in position to engage with the means on the shaft; substantially as herein shown and described.

[Claims 6 to 10 not printed in the Gazette.]

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1,039,417. MEANS FOR SECURING RAILS TO TIES. JOHN W. KUMMER and GEORGE JORGENSEN, Vancouver, British Columbia, Canada. Filed May 3, 1912. Serial No. 694,896. (Cl. 238—4.)

1. A means for securing a rail to a tie, said means comprising a plate of sheet metal having a portion sheared along three sides toward the rail and bent upward from the plate to engage the upper side of the rail flange on one side, a similar sheared portion on the other side of the rail seat but bent upward only a short distance above the plate, a clamp having abutment serrations to engage this upwardly bent portion, means for securing the clamp to the seat plate, and means for securing the seat plate to the underside of the tie.



2. A means for securing a rail to a tie, said means comprising a plate of sheet metal having a portion on one side of the rail seat sheared along the sides nearer to the rail seat and bent upward to engage the upper side of the rail flange, a similar sheared portion on the other side of the rail seat but upwardly bent a short distance only above the face of the plate, a clamp member designed to bear on the rail flange and having at the other end abutment notches to engage the edge of the upwardly bent portions of the plate and an elongated aperture to take a bolt passed through a square aperture in the plate close to the flange, and means for securing the seat plate to the underside of the tie.

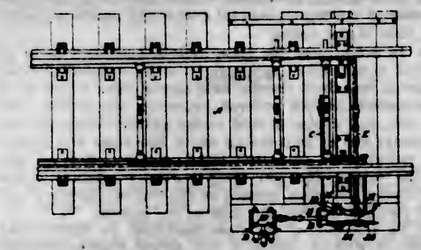
3. A means for securing a rail to a tie, said means comprising a plate of sheet metal having a portion sheared along three sides nearer to the rail seat and bent upward to engage the upper side of the rail flange, a similar sheared portion on the other side of the rail seat but upwardly bent a short distance only above the face of the plate, a square bolt aperture in the plate between this upwardly bent edge and the rail sheet, hook members integral with and downwardly bent from the seat plate, said hook members being spaced apart to receive a corresponding hook member projecting upward from the underside of the tie, and a connecting plate on the underside of the tie between the upwardly projecting hook members.

4. Means for securing a rail to a tie, said means comprising a bearing plate conforming approximately to the width of the tie and extending beyond the width of the rail flange on each side, said bearing plate having on one side fixed means for holding the flange of the rail and on the other adjustable removable means for holding it down, a connecting plate extending across the underside of the tie, means for removably securing a side plate to each end of said connecting plate and means for connecting the side plates of the bottom to the side plates extending downward from the bearing plate at the top, said means comprising two cotter holding members on one spaced apart to receive a corresponding cotter holding member of the other and a taper cotter driven through the three cotter holding members.

5. A means for securing a rail to a tie, said means comprising a bearing plate conforming approximately to the width of the tie and extending beyond the width of the rail flange, said bearing plate having fixed means for holding down the flange of the rail on one side and adjustable removable means for holding it down on the other, means for securing the rail seat to the tie comprising an under connecting plate having downwardly turned ends to enter apertures in side members bent under the connecting plate and extending upwardly beyond the half depth of the tie, said member being downwardly turned to form a cotter holding hook and designed to enter between two corresponding cotter holding hooks integral with and downwardly projecting from the bearing plate and a taper cotter passing through the hook members.



1,039,418. APPARATUS FOR CONTROLLING THE PASSAGE OF VEHICLES ALONG A RAILWAY. ARTHUR C. LIVERMORE, Edgewood Park, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Nov. 11, 1910. Serial No. 591,855. (Cl. 246—21.)



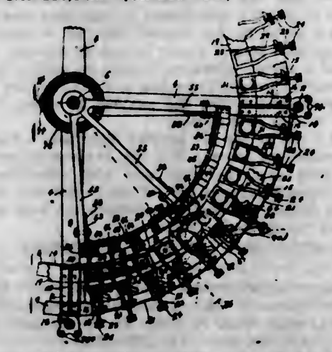
1. In combination, a switch rail, a switch operating mechanism connected therewith, a circuit controller comprising a contacting member operatively connected with the operating mechanism, a contact finger movable into and out of position for engagement with the contacting member and biased to a position out of engagement with the contacting member, and means operated by the switch rail for moving the contact finger into position for engagement with the contacting member when the switch rail is in an extreme position of its stroke.

2. In combination, a switch rail; a switch operating mechanism connected therewith; a circuit controller comprising a contacting member operatively connected with the operating mechanism, an oscillating member, a contact finger carried by said oscillating member, and biased to a position out of engagement with the contacting member, and mechanism interposed between the oscillating member and the switch rail and operated by the switch rail for moving the member into position for engagement of the contact finger with the contacting member when the switch rail is in an extreme position of its stroke.

3. In combination, a switch rail; a switch operating mechanism connected therewith; a circuit controller comprising a contacting member operatively connected with the operating mechanism, an oscillating member, a contact finger carried by said oscillating member, and biased to a position out of engagement with the contacting member, a cam device operatively connected with the switch rail, a rocker arm, one end of which coacts with the cam device, and a link connecting the rocker arm with the oscillating member.

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1,039,419. MULTIPLEX VOTING-MACHINE. SYVER LOE, Minneapolis, Minn., assignor of two-thirds to Jesse W. Walker, Pittsburgh, Pa. Filed Dec. 7, 1908. Serial No. 466,312. (Cl. 235—54.)



1. In a multiplex voting machine, a common set of registers, several independent sets of register actuators for action on said common set of registers, and means for moving one of said class of elements bodily to thereby bring said common set of registers into coöperative relation in respect to any one of said sets of register actuators.

2. In a multiplex voting machine, the combination with a common set of registers and a traveling support for the same, of several independent sets of register actuators, the actuators in each set being equal in number to the registers in the said common set, and which common set of registers, by their traveling support, is movable into coöperative relation in respect to any one of the said independent sets of register actuators.

3. In a multiplex voting machine, the combination with several independent sets of register actuators, of a common set of registers movable into different positions to render the same subject to any one of the said independent sets of actuators the actuators in each set being equal in number to the registers in the said common set and which actuators in the several sets are arranged in multi-office and multi-party groups.

4. In a multiplex voting machine, the combination with several independent sets of register actuators, of a common set of registers, and a support for said registers capable of two movements, the one serving to approximately position and the other movement serving to completely position said registers, so that they will be subject to any register actuators of any one of the said independent sets the actuators in each set being equal in number to the registers in said common set and which actuators in the several sets are arranged in multi-office and multi-party groups.

5. In a multiplex voting machine, the combination with several independent sets of register actuators, of a common set of registers, a support for said registers, means for moving said register support, first, to bring the registers approximately in a position for co-action with the selected set of register actuators and then to move said registers completely to positions in which they will co-act with registers of the selected set.

[Claims 6 to 28 not printed in the Gazette.]

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1,039,420. ANGLE ATTACHMENT FOR DENTAL HANDPIECES. JAMES A. MACDONALD, Boston, Mass. Filed Apr. 12, 1909. Serial No. 489,289. (Cl. 32—11.)



1. A dental handpiece having a tubular shank provided with an angularly disposed projection having an annular groove, an adjustable bearing ring rotatably mounted in said groove, a tool carrying head attached to said ring, and means for compressing said ring to adjust it in said groove.

2. A dental handpiece having a tubular shank, provided with an annular grooved bearing, a tool carrying head rotatably mounted on said bearing, a split ring fitting the groove of said bearing, and screws carried by said head and entering recesses in said ring.

3. A dental handpiece having a shank provided with a bearing with a V-shaped annular groove, a V-shaped split ring held in said groove, a head having a socket mounted on and inclosing said bearing and said V-shaped ring, and tightening screws carried by said head and entering said V-shaped ring.

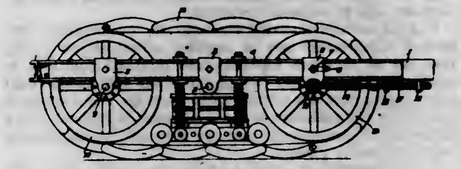
4. A dental handpiece having a longitudinally grooved shank, an annular bearing on said shank, a tool carrying head rotatably mounted on said annular bearing and provided with notches, a latch slidable in the groove of said shank and adapted to engage said notches, and means for imparting movement to said latch in said groove.

5. A dental handpiece having a shank with a longitudinal groove and an annular bearing on said shank, a notched head rotatably mounted in said bearing, a latch slidable in the groove of said shank and adapted to engage the notches of said head, and a cam ring rotatably

mounted on said shank and engaging said latch to move the same into or out of engagement with said rotatable head.

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1,039,421. BAND-TIGHTENER FOR FLEXIBLE BAND-WHEELS. WALTER C. MATTESON, San Jose, Cal. Original application filed Mar. 28, 1910, Serial No. 551,093. Divided and this application filed Aug. 30, 1911. Serial No. 646,931. (Cl. 64—52.)



1. A device as described comprising a frame, a wheel fixedly journaled in one end of said frame, said frame being provided with elongated longitudinal slots in its other end, two journal boxes, pins mounted in said journal boxes and being slidable through said slots, a shaft mounted in said journal boxes, rods connected with said shaft, a flange on said frame, said rods projecting through said flange, a stop member secured on said rods, a plurality of independent pins secured to said flange and projecting through said stop member, springs interposed between such stop member and said flange and around said rods and said independent pins, a wheel mounted on said shaft, and a flexible band disposed over said two named wheels, as described.

2. A device as described comprising a frame, a wheel fixedly journaled in one end of said frame, said frame being provided with elongated longitudinal slots in its other end, a journal box disposed slidably over each of the sides of said frame and having pins movable in said slots, a shaft journaled in the lower ends of said journal boxes, a flange on the end of said frame, rods mounted on each end of said shaft and projecting through said flange, a bar bolted on said rods at a spaced distance from said flange, a plurality of pins bolted into said flange and having their free ends projecting through said bar, springs disposed around said rods and said pins and interposed between said flange and said bar, a wheel mounted on said shaft, and a flexible band disposed over said two named wheels, as described.

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1,039,422. CONNECTOR FOR ELECTRIC CONDUCTORS. HOSEA F. MAXIM, Norfolk, Va., assignor of one-half to Otto Wells, Norfolk, Va. Filed Aug. 4, 1911. Serial No. 642,396. (Cl. 173—259.)



1. In a device of the class described adapted to be attached to an electrical conductor, and to electrically connect a wire therewith, a metallic casing open at both ends, and a spring retained in said casing, said spring being formed with a coil normally within the casing but adapted on pressure being applied to one extremity to extend without the walls of the chamber and grip a wire between the walls of the chamber and the coil when pressure is removed.

2. In a device of the class described adapted to be attached to an electrical conductor, and to electrically connect a wire therewith, a metallic casing open at both ends, and a spring retained in said casing, said spring on being compressed, slidable longitudinally within the casing and adapted on being released to grasp a wire between the ends of the casing and a portion of the spring.

3. In a device of the class described adapted to be attached to an electric conductor, a wire, a metallic casing, and a spring contained therein, said spring being coiled at its intermediate portion, one end extending tangentially from the coil, the other end extending radially and positioned to be pressed against an edge of the casing, the coil being normally retained within the casing and when pressed at the top to encircle a wire and retain it against the ends of the casing.

4. In a device of the class described adapted to be attached to an electric conductor, a wire, a metallic casing, a spring contained therein, said spring being coiled at its intermediate portion one end extending tangentially from the coil, and a stop in said casing against which the longitudinal end of said spring abuts, the other end extending radially and positioned to be pressed against an edge of the casing, the coil being normally retained within the casing and when pressed at the top to encircle a wire and retain it against the ends of the casing.

5. In a device of the class described, an electric conductor, a wire, a casing, a coil spring slidably mounted within said casing along lines located in the planes of the coils, an extension on the spring formed at an acute angle to its line of motion and pressed into engagement with the said casing, a portion of the spring being adapted to engage the wire, the resiliency of said spring giving it a longitudinal motion and pressing the wire engaging portion of the spring against the wire.

[Claims 6 to 9 not printed in the Gazette.]

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1,039,423. CONNECTOR FOR ELECTRIC CONDUCTORS. HOSEA F. MAXIM, Norfolk, Va., assignor of one-half to Otto Wells, Norfolk, Va. Filed Dec. 20, 1910. Serial No. 598,453. (Cl. 173—259.)



1. In a device of the class described the combination of a tubular element having near one end opposed alined apertures, and a movable finger mounted within the said tubular element and having its outer end extending to points outside of the tubular element, the said finger being resilient and adapted to press against a wire extending through the said alined apertures.

2. In a device of the class described the combination of a tubular element provided with opposite alined apertures, and a resilient finger within the tube adapted to engage with a wire extending through the said apertures.

3. In a device for the purpose described, a resilient tapered holder having a transverse opening near one end and a spring held within the holder at the opposite end, with its free end protruding through said holder and adapted to clamp a wire passed through said opening.

4. In a device for the purpose described, a tapered longitudinally split spring holder having an opening near one end, and a spring extending lengthwise within the holder and secured thereto at one end with its free end protruding through the holder and adapted to clamp a member passed through said opening.

5. In a device for the purpose described, a holder having a transverse opening near one end and oppositely disposed slots near the other end with shoulders, and a spring extending lengthwise of the holder and having at one end flanges and shoulders coöperating with said slots and with the shoulders thereof.

[Claims 6 to 14 not printed in the Gazette.]

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1,039,424. CONNECTOR FOR ELECTRIC CONDUCTORS. HOSEA F. MAXIM, Norfolk, Va., assignor of one-half to Otto Wells, Norfolk, Va. Filed May 20, 1911. Serial No. 628,492. (Cl. 173—259.)

1. In a device of the class described, the combination of a tube adapted to be attached to an electrical conductor



and having near one end oppositely alined apertures together with another aperture in said tube located between the oppositely alined apertures, and a resilient finger of substantially U-shape, one leg being shorter than the other, the end of the short leg adapted to be retained by the last mentioned aperture, and the other leg adapted to normally press against a wire extending through the oppositely alined apertures and its end protruding outside the tube.



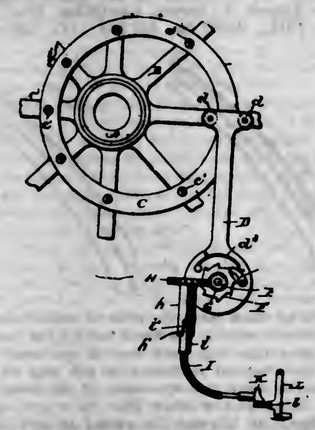
2. In a device of the class described, the combination of a tube adapted to be attached to an electrical conductor and having near one end oppositely alined apertures, a resilient finger of substantially U-shape, means for securing one leg of the U to the tube, the other leg adapted to normally press against a wire extending through the oppositely alined apertures, the end of the said last mentioned leg extending to points outside of the tube, and means for securing said tube to the electrical conductor.

3. In a device of the class described adapted to be attached to an electrical conductor, the combination of a tube comprising a rectangular shaped sheet of metal, a tab extending tangentially from one edge of the rectangular sheet and adapted to be fastened to an electrical conductor, the said tube provided near one end with oppositely alined apertures, and a movable finger mounted within the tube and adapted to normally press against a wire extending through the aperture, one end of the said movable finger extending to points outside of the tube.

4. In a device of the class described, the combination of a tube adapted to be attached to an electric conductor having near one end oppositely alined apertures, a resilient finger substantially U-shaped, means for securing one leg of the U to the tube, the other leg of the U extending to points adjacent the oppositely alined apertures and adapted to normally press against a wire extending through the said apertures.

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1,039,425. TRANSMISSION-GEARING. GEORGE S. MAXWELL, Newark, N. J. Filed Oct. 27, 1911. Serial No. 657,006. (Cl. 235—66.)



1. In a transmission gearing, the combination, with a vehicle wheel, a cam ring secured to said wheel, and a lever fulcrumed at one end and provided at the other end with means for engaging the inside and the outside respectively of the cam ring, of a flexible shaft, means actuated by said lever for converting oscillatory motion into rotary motion, and a connection between said means and the flexible shaft.

2. In a transmission gearing, the combination, with a flexible shaft, and a rotatable cam device, of a lever arranged to be oscillated by the cam device, a pawl carried by said lever, a ratchet wheel arranged to be moved by the pawl, and reducing gearing driven by the ratchet wheel and arranged to rotate the flexible shaft.

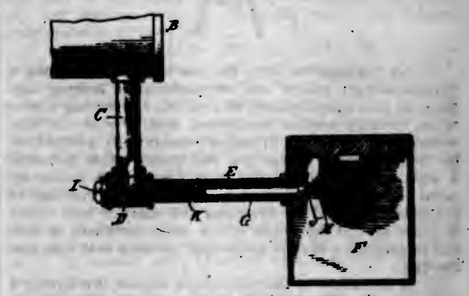
3. In a transmission gearing, the combination, with a flexible shaft, and a rotatable cam device, of a lever arranged to be oscillated by the cam device, a pawl carried by said lever, a ratchet wheel engaged by the pawl, a worm driven by the ratchet wheel, and a worm-wheel in mesh with the worm and arranged to drive the flexible shaft.

4. In a transmission gearing, the combination, with a flexible shaft, a cam-ring arranged to be secured to a vehicle wheel, and a lever provided with means for engaging the ring at each side thereof, of a pawl carried by said lever, a ratchet-wheel engaged by the pawl, a worm driven by the ratchet-wheel, and a worm-wheel fixed to the flexible shaft and engaging with the worm.

5. In a transmission gearing, the combination, with a vehicle wheel, a cam-ring secured to said wheel, a lever fulcrumed at one end and provided at the other end with rollers arranged one inside and the other outside the cam-ring and in contact therewith, a spring-pressed pawl carried by the lever, a shaft, a ratchet-wheel fixed thereon and engaged by the pawl, a worm fixed on said shaft, a worm-wheel engaging said worm, and a flexible shaft to which said worm-wheel is connected.

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1,039,426. AUTOMATIC LUBRICATOR FOR JOURNAL-BEARINGS. JOSEPH ALBERT MCCALLUM, Crestline, Ohio. Filed Dec. 22, 1911. Serial No. 667,472. (Cl. 64—28.)



1. The combination with a journal box of a reservoir for lubricating material, a pipe connection between the reservoir and the box, a stopper within the journal box detachably connected with and projecting from the discharge end of the pipe which has an opening through it for the exit of the lubricant and is yieldingly held against a part of the journal box near the journal, and fusible material contained within the stopper which normally closes the opening thereof.

2. The combination with a journal box of a reservoir for lubricating material, a pipe connection between the reservoir and the box, a stopper within the journal box detachably connected with the discharge end of the pipe and which has an opening through it for the exit of the lubricant, a spring connected with the stopper and which presses it against a part of the journal box, and fusible material contained within said stopper and normally closing the opening therein.

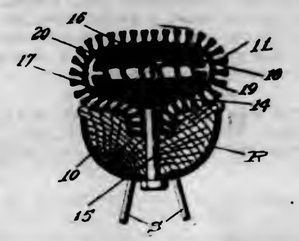
3. The combination with a journal box of a reservoir for lubricating material, a pipe connection between the reservoir and the box, a lubricant-conveying tube movable in said pipe connection, a stopper detachably connected with the discharge end of said tube having an opening through it for the exit of the lubricant, a spring for pressing the tube outward toward the journal, and fusible material contained within said stopper which normally closes the opening therein.

4. The combination of a journal box, a reservoir for lubricating material, a pipe connection extending from the reservoir to the interior of the box for conveying lubricant from the reservoir and discharging it into the box, and a stopper extending into the discharge end of the pipe and detachably connected therewith, said stopper having a perforated outer end and being provided on its inside with a chamber for fusible material, and fusible material contained in said chamber and normally closing said perforations.

5. The combination with a reservoir for lubricating material of a journal box, pipe connections between the reservoir and the journal box, a lubricant-conveying tube telescoping with the pipe connections, a stopper attached to the discharge end of the tube and having an opening through it, fusible material contained in the stopper, a spring pressing the tube outward toward the journal, and a screw plug against which the spring presses.

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1,039,427. VEHICLE-TIRE. EUGENE J. MCCARTY, Clinton, Mass., assignor to Walter R. Dame, trustee, Clinton, Mass. Filed Dec. 12, 1903. Serial No. 184,932. (Cl. 152—8.)




1. The combination with the rim of a wheel, having a circumferential groove and circumferential bearing surfaces on both sides thereof, of a vehicle tire having a wire fabric wearing surface comprising coils of wire the convolutions of which are arranged substantially perpendicular to the surface of the tire, two plates inside the same a wire spring core between said plates, and means located centrally with respect to the rim and extending to the outside thereof for fastening the edges of said fabric in place around the center of the outer periphery of said rim to produce a flexible connection between said core and the rim.

2. As an article of manufacture, a vehicle tire having a seamless wire fabric wearing surface consisting of coils or spirals of wire arranged transversely to the circumference of the tire, said coils or spirals being interwoven, and an elastic core arranged inside of the same, comprising outside plates and flexible material held between the same.

3. As an article of manufacture, a vehicle tire having a seamless wire fabric wearing surface, consisting of coils or spirals of wire arranged transversely to the circumference of the tire, said coils or spirals being interwoven, and an elastic core arranged inside of the same, comprising outside plates, plates of flexible material, and a center of wire fabric.

4. As an article of manufacture, a vehicle tire having a wearing surface and an elastic core arranged inside the same and comprising a pair of outside plates, a pair of plates of flexible material located between the outside plates and a center of resilient material.

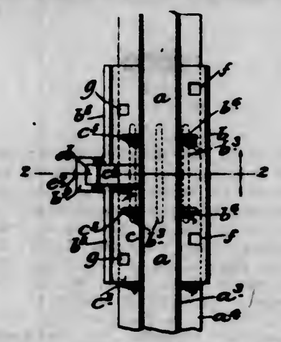
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1,039,428. PROCESS OF MAKING STEEL. JOHN MCCONNELL, Canton, Ohio, assignor to The United Steel Company, Canton, Ohio, a Corporation of Ohio. Filed May 9, 1912. Serial No. 696,066. (Cl. 75—27.)

The improvement in the process of making basic open-hearth steel, which consists in introducing into the bath during the closing period of the carbon reducing portion of the process, pure steel billets, having less than .05% of carbon and from 2 to 5% of silicon therein, for deoxidizing and decarbonizing the molten iron.

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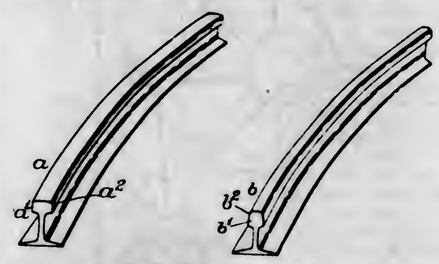
1,039,429. RAILWAY-RAIL COUPLING. FRANK MCCUE, New York, and FREDERICK B. MCCREA, Troy, N. Y. Filed Jan. 20, 1912. Serial No. 672,410. (Cl. 238—6.)




A railway rail coupling comprising a base plate provided at one side with an integral angle plate that overlaps the base flanges at one side of the rails and abuts against the webs thereof, a separate angle plate which overlaps the base flanges of the rails at the opposite side and abuts against the webs thereof, said separate plate being provided centrally thereof with a transverse shoulder, and said base plate being provided with a raised keeper adapted to receive a nut placed loosely therein, the outer wall of said keeper being provided with an aperture, and a screw passed loosely through said aperture and through said nut and adapted to bear on said shoulder, the outer end of said screw being provided with an angular head of less dimensions than said aperture, and which is inclosed by the outer wall of the keeper when the screw is in operation.

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1,039,430. RAILROAD-TRACK CURVE. JOHN WILLIAM MCMANAMA, Waltham, Mass., assignor of one-third to Samuel W. Simonds, Somerville, Mass., and one-third to Francis A. Barbey, Cambridge, Mass. Filed Feb. 15, 1912. Serial No. 677,748. (Cl. 238—14.)



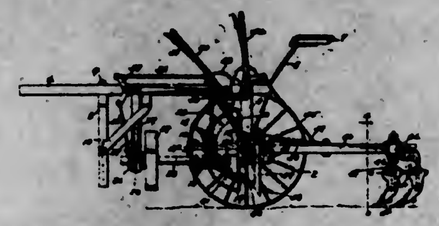

1. A railroad track curve the rails of which have tread faces of different widths, the tread face of the inner rail being narrower than the tread face of the outer rail to minimise the frictional resistance to side slip of wheels running on the inner rail, the depth of the head of the inner rail being greater than that of a rail head of standard depth, to increase the extent of safe wear of the inner rail, and compensate for the reduction of the width of the tread face of the inner rail, and for the increased weight of the rolling stock sustained by the inner rail.

2. In a railroad track curve, a curved inner rail having its tread face narrower than the standard width to minimise frictional resistance to side slip of wheels running thereon, and having its head deeper than a rail head of standard depth to increase the extent of safe wear of the tread face, and compensate for the reduction of the width of the tread face.



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1,039,431. COTTON-CHOPPER. ELMER K. MOORE, Hattiesburg, Miss. Filed Dec. 11, 1911. Serial No. 665,045. (Cl. 97—46.)



1. A cotton chopper including an axle, supporting wheels upon the axle, a guide member carried by said axle, arms pivoted upon the axle and formed with bearings, a drive shaft journaled in the bearings and geared to one of the supporting wheels the drive shaft being engaged by said guide, a bearing block carried by the drive shaft, a chopper shaft journaled upon the bearing block and geared to the drive shaft, and a chopper upon the chopper shaft.

2. A cotton chopper including an axle, supporting wheels upon the axle, arms pivoted upon the axle and formed with bearings, a drive shaft journaled in the bearings and geared to one of the supporting wheels, a bearing block upon the drive shaft, a guide member upon the cotton chopper, a bearing block adjustably mounted upon the guide member, a chopper shaft journaled in the two bearing blocks and geared to the drive shaft, a lever, an operative connection between the lever and both the second bearing block and the drive shaft for raising and lowering the said members.

3. A cotton chopper including an axle, supporting wheels upon the axle, a guide member formed with a curved slot concentric with the axle, an arm pivoted upon the axle and formed with a bearing, a drive shaft journaled in the bearing of the arm, the said drive shaft extending through the curved slot of the guide member and being geared to one of the drive wheels, a bearing block upon the drive shaft, a chopper shaft journaled in the said bearing block, a chopper upon the chopper shaft, and means for swinging the drive shaft and arm about the axle as an axis to raise and lower the same.

4. A cotton chopper including an axle, supporting wheels upon the axle, a drive shaft geared to one of the supporting wheels and mounted to be swung bodily about the axle as an axis, means for moving the drive shaft, yielding means normally tending to raise the drive shaft, a bearing block upon the drive shaft, a chopper shaft journaled upon the bearing block and geared to the drive shaft, and a chopper upon the chopper shaft.

5. A cotton chopper including an axle, supporting wheels upon the axle, an arm pivoted upon the axle and formed with a bearing, a drive shaft journaled in the bearing and geared to one of the supporting wheels, a spring actuated plunger normally tending to swing the arm upwardly, means for swinging the drive shaft and arm about the axle to raise and lower the drive shaft, a bearing block upon the drive shaft, a chopper shaft journaled upon the bearing block and geared to the drive shaft, and a chopper upon the chopper shaft.

[Claims 6 and 7 not printed in the Gazette.]

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1,039,432. SPINDLE-SUPPORT FOR SPINNING, TWISTING, AND LIKE MACHINES. ALBERT H. MORTON, Lowell, Mass. Filed May 11, 1912. Serial No. 696,732. (Cl. 118—19.)

1. A spindle support for spinning and the like machines having, in combination, a bolster case and a bolster and step having screw-threaded connection for relative adjustment, the bolster having a friction recess in its end and the step having a portion adapted to be received in the friction recess provided with a groove and an expansive clutch ring held in the groove and engaging the friction recess for holding the step in adjusted position in the bolster, substantially as described.

2. A spindle support for spinning and the like machines having, in combination, a bolster case and a bolster and step having screw-threaded connection for relative adjustment, the bolster being provided with a friction recess in its lower end and a step having a portion adapted to be received in the friction recess provided with a groove and an expansive clutch ring held from rotation with relation to the step and engaging the surface of the friction recess in the bolster for holding the step in adjusted position in the bolster, substantially as described.

3. A spindle support for spinning and the like machines having, in combination, a bolster case and bolster and step having screw-threaded connection for relative adjustment, a bolster having a friction recess in its end and the step having an expansive clutch ring held from rotation with relation to the step and engaging the surface of the friction recess in the bolster for holding the step in adjusted position in the bolster, substantially as described.

4. A spindle support for spinning and the like machines having, in combination, a bolster case and a bolster and step having screw-threaded connection for relative adjustment, the bolster being provided with a friction recess in its lower end and the step being provided with a clutch ring engaging the friction recess in the lower end of the bolster, substantially as described.

5. A spindle support for spinning and the like machines having, in combination, a bolster case and a bolster and step having screw-threaded connection for relative adjustment, the bolster being provided with a friction recess in its lower end and the step being provided with a clutch ring held from rotation with relation to the step and engaging the surface of the friction recess in the bolster for holding the step in adjusted position in the bolster, substantially as described.

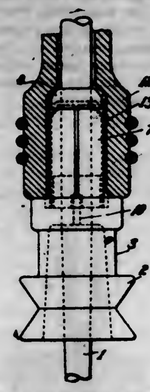
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1,039,433. SPINDLE FOR SPINNING, TWISTING, AND LIKE MACHINES. ALBERT H. MORTON, Lowell, Mass. Filed May 31, 1912. Serial No. 700,715. (Cl. 118—19.)

1. A spindle for spinning and the like machines, comprising in combination, a spindle blade, a resilient sleeve loosely supported by the whirl and arranged to be contracted when the bobbin is applied thereto, a guide secured to the spindle above the sleeve, and means for holding the sleeve against rotation relative to the spindle, substantially as described.

2. A spindle for spinning and the like machines, comprising in combination, a spindle blade, a resilient sleeve loosely supported by the whirl and arranged to be contracted when the bobbin is applied thereto, a guide secured

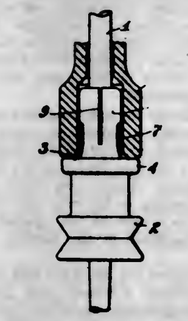
spindle blade above the sleeve, and a pin secured in the whirl and projecting into a recess in the sleeve to lock the



sleeve against rotation relative to the spindle, substantially as described.

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1,039,434. SPINNING-SPINDLE. ALBERT H. MORTON, Lowell, Mass. Filed July 5, 1912. Serial No. 707,733. (Cl. 118—31.)



1. A spinning spindle having, in combination, a spindle-blade, and an integral whirl and bobbin-clutch secured to the blade, said clutch consisting of a plurality of upwardly-projected free-ended resilient bobbin-clutching members united to the whirl at their lower ends, substantially as described.

2. A spinning spindle having, in combination, a spindle-blade, an integral whirl and bobbin-clutch consisting of a whirl, a base supporting the whirl, and a plurality of clutch-members projected upward from the base, substantially as described.

3. A spinning spindle having, in combination, a spindle-blade and a combined whirl and clutch consisting of a single integral member having a base secured to the spindle-blade, a whirl supported therefrom, and a plurality of clutch-arms resiliently conected to the base, substantially as described.

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1,039,435. WEAVING-SHUTTLE. EDWARD H. OTTENHEIMER and EDWARD C. AUTHIER, Willimantic, Conn. Filed June 21, 1911. Serial No. 634,582. (Cl. 139—46.)



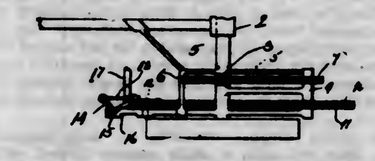
1. The combination with a shuttle having, in the delivery end portion, a central recess communicating by an open channel with the bobbin chamber, a service aperture leading out from said recess, a threading aperture leading out from said chamber, and a narrow slot leading outward from said chamber and recess and connecting the two apertures, of a headed stud seated centrally in said recess and provided with a transverse slot upon the side opposite the service aperture, and a projection from one wall of the stud's slot extending across the slot into the central portion of a larger cavity in the opposite wall.

2. The combination with a shuttle having in the upper side of its delivery-end portion a deep recess communicating with the bobbin chamber through an open passage, a lateral delivery aperture leading out from said recess, a lateral threading aperture leading out from said chamber, and a lateral slot connecting the apertures from end to end, of a stud smaller than the recess, located centrally therein and provided upon the side opposite the delivery aperture with a lateral slot, an externally rounded member extending from one wall of the stud slot and entering slightly within the central portion of a larger recess in the opposite wall of the slot.

3. The combination with a shuttle, of a headed stud seated in a recess in the upper side of the delivery-end portion thereof and having its lower end hollow and transversely slotted upon one side, and a small externally rounded finger projecting from above into the central portion of the cavity below the plane of the transverse slot.

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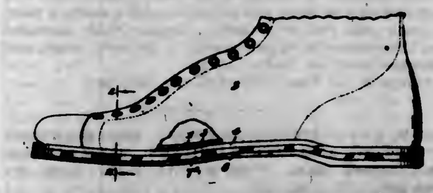
1,039,436. MOWING-MACHINE. CHARLES H. PETERSON, Littlestown, Pa. Filed July 29, 1911. Serial No. 641,217. (Cl. 56—75.)



In a mowing machine, a frame, a rearwardly projecting bracket formed therewith, a forwardly projecting bracket also formed with said frame, an axle journaled in the frame, traction wheels mounted upon said axle, a main sprocket wheel carried by said axle, a short shaft journaled in the rearwardly projecting bracket, two sprocket wheels of different sizes mounted on said short shaft, a sprocket wheel carried by the forwardly projecting arm, a chain running over the main sprocket wheel and the smaller sprocket wheel on the short shaft, another chain running over the larger sprocket wheel on the short shaft and the sprocket wheel carried by the forwardly projecting arm, a cutter bar, a bellcrank lever pivoted to the forwardly projecting arm in front of the cutter bar, one end of said bell crank lever being pivoted to said cutter bar and a pitman pivoted to the sprocket wheel carried by the forwardly projecting arm and to the opposite end of the bell crank lever as shown and described.

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1,039,437. SHOE. GEORGE L. PERKINS, Brooklyn, N. Y. Filed Feb. 17, 1911. Serial No. 609,229. (Cl. 36—14.)



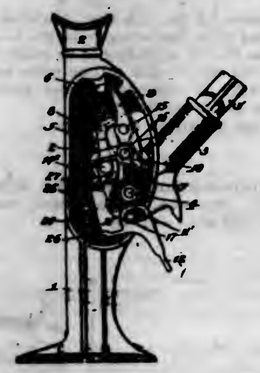
1. In a shoe, an upper, a sole comprising a rubber body and a fabric backing permanently secured to the upper face of the body and having integral marginal portions projecting beyond the edges of said body, and means passing through the projecting marginal flanges of the fabric backing only, directly adjacent to the edges of the rubber body for securing the sole to the upper.

2. In combination, a shoe, a rubber sole, and means for securing the rubber sole to the shoe comprising canvas material vulcanized to the top of the rubber sole and having a folded margin projecting beyond the sole, and stitching securing said folded margin to the shoe.

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1,039,438. LIFTING-JACK. FREDERICK E. PLAGE, Chicago, and GARRETT P. S. CROSS, Harvey, Ill., assignors to Buda Foundry & Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 8, 1909. Serial No. 476,834. (Cl. 57—100.)



1. The combination with a lifting jack comprising a rack, an operating handle, and spring held lifting and holding pawls, of a reversing member having a lost motion pivotal support and adapted in one position to secure the alternate retraction of the pawls, and a seat with which the reversing member coöperates and whereby it is maintained in such position.

2. The combination with a lifting jack comprising a rack, an operating handle, and spring held lifting and holding pawls, of a reversing member having a slot 11' and an engaging portion 26, a pivot 17 engaging the slot, and an abutment 24 for engaging the said portion 26 and maintaining the reversing member in position to secure the alternate retraction of the pawls.

3. The combination with a lifting jack comprising a rack, an operating handle, and spring held lifting and holding pawls, of a reversing member having a lost motion pivotal support and provided with a handle adapted on depression to one position to secure the alternate retraction of the pawls, and fixed means coöperating with the lost motion pivotal support for maintaining the reversing member in such position.

4. The combination with a lifting jack comprising a rack, an operating handle, and spring held lifting and holding pawls, of a reversing member having a slot, a pivot adapted to engage the said slot affording a lost motion pivot support for the reversing member, a cover plate abutting the said pivot and holding the reversing member against lateral movement, and fixed means coöperating with the lost motion pivotal support for maintaining the reversing member in position to secure the alternate retraction of the pawls.

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1,039,439. CASE FOR MARINE CLOCKS. WILSON B. POMEROY, New Haven, Conn., assignor to New Haven Clock Co., New Haven, Conn., a Corporation. Filed June 17, 1912. Serial No. 704,194. (Cl. 58—84.)

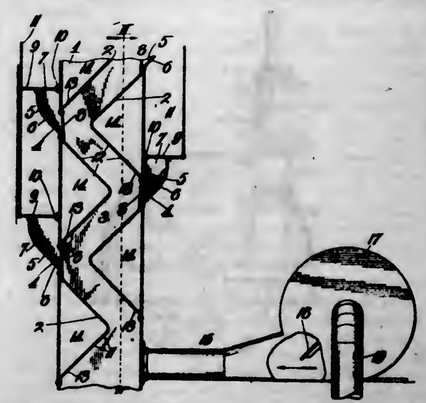
1. In a clock-case, the combination with a sheet-metal inner shell closed at the back, open in front, and provided at its forward end with a positioning-flange; of assembling-bubs mounted upon the periphery of the said inner shell, an outer shell adapted in diameter to fit over the said assembling-bubs and formed with a vertical positioning-shoulder for co-action with the positioning-flange of the said inner shell, means passing through the outer shell into the said assembling-bubs for securing the two shells together, a concentric bell fastened to the inner shell and extending forward into an annular space formed between the two shells, a clock-movement secured to the closed back of the inner shell, a dial-plate secured to the positioning-flange of the inner shell, and a glass and mat positioned in the inner shell by means of the said dial-plate.



2. In a clock-case, the combination with a sheet-metal inner shell closed at the back, open in front, and formed at its forward end with a vertical positioning-flange; of assembling-bubs fastened to the periphery of the said inner shell, an outer shell adapted in internal diameter to fit over the said assembling-bubs and formed with a vertical positioning-shoulder and with a horizontal flange smaller in diameter than the said outer shell, a pendant and legs passing through the outer shell into the said assembling-bubs for coupling the inner and outer shells together, a concentric bell secured to the closed back of the said inner shell and having its edge extended forward into the annular space between the two shells, a dial-plate secured to the positioning-flange of the inner shell and interposed between the said flange of the inner shell and said positioning-shoulder of the outer shell, and a glass and mat located within the horizontal flange of the outer shell and positioned and held in place by the said dial-plate.

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1,039,440. GRAIN-DRYING APPARATUS. HUGH J. PUCKETT and VALENTINE LUCAS, Kansas City, Mo. Filed June 21, 1912. Serial No. 705,122. (Cl. 34—87.)



1. In a grain drying apparatus, a chute, provided in opposite walls with openings arranged in staggered relation and with upstanding stacks exterior to said walls and communicating at their lower ends with said openings, foraminous partitions of substantially V-shape, secured to and projecting from the walls in opposite directions be-

tween the openings of their respective walls and inclosed by the chute and arranged in overlapping relation to form a tortuous channel, and means for discharging heated air into the spaces inclosed by said partitions.

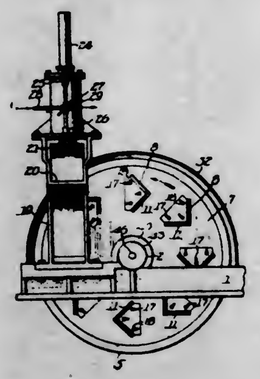
2. In a grain drying apparatus, a chute, provided in opposite walls with openings arranged in staggered relation and with upstanding stacks exterior to said walls and communicating at their lower ends with said openings, foraminous partitions of substantially V-shape, secured to and projecting from the walls in opposite directions between the openings of their respective walls and inclosed by the chute and arranged in overlapping relation to form a tortuous channel, means for discharging heated air into the spaces inclosed by said partitions, and valves or doors controlling the upper ends of the stacks.

3. In a grain drying apparatus, a chute, provided in opposite walls with openings arranged in staggered relation and with upstanding stacks exterior to said walls and communicating at their lower ends with said openings, foraminous partitions of substantially V-shape, secured to and projecting from the walls in opposite directions between the openings of their respective walls and inclosed by the chute and arranged in overlapping relation to form a tortuous channel, means for discharging heated air into the spaces inclosed by said partitions, valves or doors controlling the upper ends of the stacks, and means connecting vertically alined valves or doors for transmitting movement from one to the other thereof.

4. In a grain drying apparatus, a chute, provided in opposite walls with openings arranged in staggered relation and with upstanding stacks exterior to said walls and communicating at their lower ends with said openings, foraminous partitions of substantially V-shape, secured to and projecting from the walls in opposite directions between the openings of their respective walls and inclosed by the chute and arranged in overlapping relation to form a tortuous channel, means for heating air, a hot air chamber communicating with all of the spaces inclosed by said partitions, a blower, a pipe receiving the air heated by the heater and discharging it into the blower, and a pipe for conducting the air from the blower to the hot air chamber.

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1,039,441. CHIPPING-MACHINE. JOSHUA R. RAY and THOMAS RAY, Manistee, Mich. Filed May 3, 1909. Serial No. 493,476. (Cl. 83—75.)



1. In a device of the character described, a movable cutter head, means for supporting material to be acted on by said cutter head, and a cutting blade carried by said cutter head, the edge of said cutting blade being provided with a plurality of parallel separated cutting portions arranged parallel to the line of cut.

2. In a device of the character described, a rotatable disk, means for supporting material to be acted on, cutting means carried by and projecting from the face of said disk, said cutting means comprising a plurality of substantially parallel separated cutting edges arranged in stepped relation and parallel to the line of cut.

3. In a device of the character described, a rotatable disk, and a cutting blade projecting from the face thereof, said blade being provided with a plurality of V-shaped notches in the edge thereof, the corresponding side of each notch being sharpened to provide a cutting portion, said cutting portions being parallel to each other and to the line of cut.

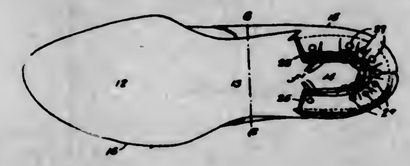
4. In a device of the character described, a rotatable disk, a V-shaped cutting member carried thereby, the edges of which are provided with a plurality of separated cutting portions parallel to each other and to the line of cut.

5. In a device of the character described, a rotatable disk, a cutting blade projecting from the face of the disk with the edge thereof extending at an angle to the radius of the disk, the edge of said cutting blade being provided with a plurality of separated cutting portions parallel to each other and to the line of cut.

[Claim 6 not printed in the Gazette.]

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1,039,442. DOUBLE-SOLED TURNED SHOE. EDWARD E. REDMAN, Hampton, N. H. Filed June 29, 1912. Serial No. 706,642. (Cl. 36—18.)



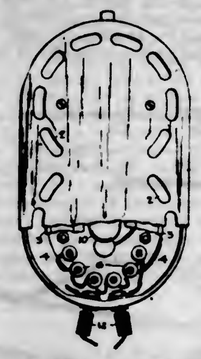
1. A double soled turned shoe comprising a full length inner sole, an upper having the margin of its heel portion turned inwardly on and attached to the under side of the heel portion of the inner sole and forming a heel seat, the fore part of the margin of the upper being turned inwardly on the upper side of the shank and fore portions of the inner sole and stitched to said portions, and an outer sole attached to the heel seat and to the shank and fore portions of the inner sole, the inwardly turned margin of the heel portion of the upper being interposed between the heel portions of the inner and outer soles.

2. A double soled turned shoe comprising a full length inner sole, an upper having notches in opposite edges of its margin forming the ends of a heel seat flange which is turned inwardly on and attached to the under side of the heel portion of the inner sole and the ends of a stitch-receiving flange which is turned inwardly on the upper side of the shank and fore portions of the inner sole and is stitched to said portions, and an outer sole attached to the heel seat flange, heel portion, shank portions, and fore portion of the inner sole.

3. A double soled turned shoe comprising a full length inner sole, an upper having notches in opposite edges of its margin forming the ends of a heel seat flange which is turned inwardly on and attached to the under side of the heel portion of the inner sole and the ends of a stitch-receiving flange which is turned inwardly on the upper side of the shank and fore portions of the inner sole and is stitched to said portions, and an outer sole attached to the heel seat flange, heel portion, shank portions, and fore portion of the inner sole, the said notches being formed in the flange of the usual heel stiffener, so that the main portion of the stiffener flange forms a part of the said heel seat flange, while the end portions of the stiffener flange form parts of the ends of the said stitch-receiving flange.



1,039,443. TELEPHONIC TRANSMITTING APPLIANCE. JOHN E. RHODES, Brooklyn, N. Y., assignor to Kelley Monroe Turner, Jamaica, N. Y. Filed Apr. 6, 1912. Serial No. 688,861. (Cl. 179—107.)

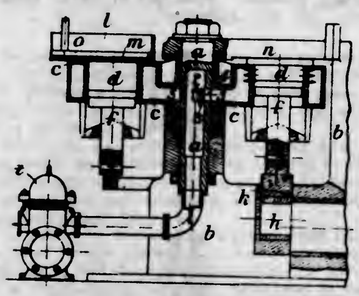


1. A telephonic transmitting appliance for deaf persons comprising a casing having a rounding edge, a transmitter concentrically disposed within said casing and providing an intervening annular cavity between the transmitter and the casing, resistance coils within said cavity and concentrically arranged around said transmitter for about a third of its periphery, and a swinging arm concentrically pivoted with respect to said transmitter on the back of the casing adapted to cut in and cut out the various resistance coils by a movement generally parallel to said rounded edge, whereby said arm is both concealed and accessible in all positions.

2. A telephonic transmitting appliance for deaf persons, comprising a pair of transmitters, an oval casing having rounded ends and provided with annular spaces surrounding the transmitters, resistance coils in the annular space at one end, and a swinging arm on said end of the instrument on the rear face thereof adapted to cut in and cut out the various resistance coils, said arm having a handle extremity with a movement in the same arcuate direction as said rounding edge.

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1,039,444. PRESS. OTTO RIEMANN, Hamburg, Germany. Filed Aug. 11, 1910. Serial No. 576,631. (Cl. 100—89.)



1. The combination in a press for removing water from wet material of a fixed hollow shaft provided with openings in its periphery, a suction pump connected with said shaft, a mold-table revolubly mounted around said shaft and provided with a plurality of molds having perforated walls and with chambers surrounding said walls and with passages running from said chambers to said openings in said shaft, and reciprocating plungers in said molds.

2. The combination in a press for removing water from wet material of a fixed hollow shaft provided with openings in its periphery, a suction pump connected with said shaft, a mold-table revolubly mounted around said shaft and provided with a plurality of molds having walls having lattice-like openings and sieve-like linings and with chambers surrounding said walls and with passages running from said chambers to said openings in said shaft, and reciprocating plungers in said molds.

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1,039,445. RAZOR-STROPPING DEVICE. ALBERT C. RODIBAUGH, Frank, Pa. Filed Mar. 8, 1912. Serial No. 682,353. (Cl. 51—16.)



1. In a razor stropping device a yoke, a shaft extending through and journaled in the arms of the yoke, frames mounted upon said shaft, a razor holder within said frames, a support mounted upon said shaft exteriorly of said frames and extending through and connected to the razor holder for suspending it, said support and said shaft provided with means for longitudinally shifting the support, guide rods carried by said yoke for said support, a reciprocatory strap arranged between the frames, and means within the frames and engaged by the strap for tilting the frames during the reciprocation of the strap whereby the strap will alternately engage the opposite sides of the razor carried by the holder.

2. In a razor stropping device a shaft, frames suspended from said shaft and having the sides provided with openings, a support extending through said openings and having the ends thereof mounted upon said shaft, a blade holder fixed to and depending from said support, said shaft and said support provided with means for longitudinally shifting the support carrying the holder therewith, guiding means for said support, a reciprocatory strap within said frames and means carried by the frames and engaged by the strap for tilting the frames during the reciprocation of the strap whereby the latter will alternately engage the opposite side of the razor during the tilting of the frames.

3. In a razor stropping device a shaft, frames suspended from said shaft and having the sides provided with openings, a support extending through said openings and having the ends thereof mounted upon said shaft, a blade holder fixed to and depending from said supports, said shaft and said support provided with means for longitudinally shifting the support carrying the holder therewith, guiding means for said support, a reciprocatory strap within said frames and means carried by the frames and engaged by the strap tilting the frames during the reciprocation of the strap whereby the latter will alternately engage the opposite sides of the razor during the tilting of the frames, and means connected to said guide means and to said shaft for suspending the holder.

4. In a razor stropping device a shaft, tiltable spaced frames mounted upon said shaft and provided with openings, a support extending through said openings and mounted upon said shaft at the side of said frames, said shaft and support provided with means for longitudinally shifting the support, a depending blade holder fixedly connected to said support and normally arranged between said frame, a reciprocatory strap arranged between said frames and capable of alternately engaging the opposite sides of a razor blade during the tilting of the frames, and means interposed between said frames and engaged by said strap for tilting the frames when the strap is reciprocated.

5. In a razor stropping device a shaft, tiltable spaced frames mounted upon said shaft and provided with open-

ings, a support extending through said openings and mounted upon said shaft at the side of said frames, said shaft and support provided with means for longitudinally shifting the support, a depending blade holder finally connected to said support and normally arranged between said frames, a reciprocatory strap arranged between said frames and capable of alternately engaging the opposite side of a razor blade during the tilting of the frames, and means interposed between said frames and engaged by said strap for tilting the frames when the strap is reciprocated, and means mounted upon said shaft for suspending the same.

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1,039,446. CAR-DOOR. ALBERT C. SAGER, Savanna, Ill. Filed Nov. 18, 1911. Serial No. 660,058. (Cl. 20—23.)



1. The combination with a rotatable tubular supporting member; of members mounted for reciprocation therein; and a door hinged to said reciprocatory members.

2. In a sliding door of the class described a tubular supporting member, a sliding member within said tubular member, a door hinged to said sliding member, means for turning said tubular member and securing said door in fixed position, substantially as described.

3. In a sliding door of the class described, a slotted tubular supporting member, a sliding member in said tubular member and slot, a door pivotally connected with said sliding member, a lever on said tubular member adapted to turn the same, and means for holding the door in fixed position.

4. In a sliding door of the class described a tubular member rotatably mounted in fixed supports, a collar at each end of said tubular member adapted to prevent lateral movement thereof, a continuous longitudinal slot in said tubular member, a sliding member in said tubular member comprising a longitudinal bar with depending lugs and projections at each end thereof in the recesses between said depending lugs and projections, a door pivotally connected with said depending projections, said depending projections extending through said slot and constituting levers for the movement of said door, a lever rigidly secured to said tubular member for rotating the same, and means for maintaining said door in either closed or open position.

5. The combination with a tubular supporting member provided with a slot therein; of a plurality of reciprocatory members mounted in said tubular member; downwardly extending bars carried by said reciprocatory member, projecting through and operating in the slot aforesaid; and a door hinged to said bars.

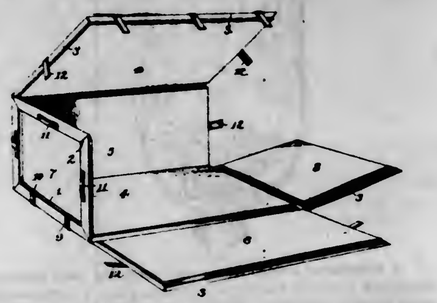
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1,039,447. PACKING-BOX. JOHN W. SCHLEICHER, St. Louis, Mo., assignor to Mengel Box Company, Louisville, Ky., a Corporation of New Jersey. Filed July 12, 1910. Serial No. 571,661. (Cl. 417—121.)

1. A box composed of a plurality of sides, each side being formed of battens having their outer edges beveled, and a panel secured to said battens; and flexible metallic connections for securing said sides together.

2. A box composed of a plurality of sides, each side comprising battens beveled upon their outer edges and a panel secured to the inner face of said battens, the ends being flexibly connected at one edge to the ends of the bottom, the front likewise connected to the bottom, the back likewise connected to the bottom and the top likewise connected to the back; and means for securing the back, top and front to the ends when the parts are brought to their final form or position.

3. A box comprising of a plurality of sides, each side comprising battens beveled upon their outer edges and a panel secured to said battens, the ends being flexibly connected at one edge to the ends of the bottom, the front likewise connected to the bottom, the back likewise connected to the bottom and the top likewise connected to the back; and means for securing the back, top and front to the ends when the parts are brought to their final form or position.



4. A box comprising a front and back, top and bottom and ends, each member being formed of a frame having the outer edge thereof beveled to make a close joint with the corresponding member of the adjacent frame, and a panel secured to each frame, the panels being of such dimensions that when the parts of the box are brought to form they will overlap and produce a substantially flush interior at the angles of the box; and means for securing the various members together.

5. A box composed of a front and back, top and bottom and ends, each of said members being formed of a frame composed of battens, the outer edges of which are beveled, and a panel secured to each of said frames; metallic hinges for securing the top to the back, the back to the bottom, the bottom to the front, and the ends to the bottom; a series of loops secured to the outer face of each end and likewise to the front; and a series of metallic straps secured to the back, top and front, said straps adapted to coact with the loops upon the ends and front, respectively.

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1,039,448. LUBRICATING DEVICE. KARL SCHWARZ, Nuremberg, Germany. Filed May 17, 1911. Serial No. 627,741. (Cl. 121—115.)



1. In a vertical cylinder-engine, in combination, a cylinder with a conduit for the lubricant passing centrally through same and secured in its top cover, and a stuffing box in the center of its bottom cover, a reciprocating piston in the cylinder with a stuffing box in its center adapted to slide on the conduit for the lubricant, a hollow piston rod sliding in the stuffing box of the cylinder and being in constant communication with the lubricant conduit, and a crosshead on the bottom end portion of the hollow piston rod having a crosshead pin and a channel that communicates with the bore of the piston rod, and leads to said crosshead pin.

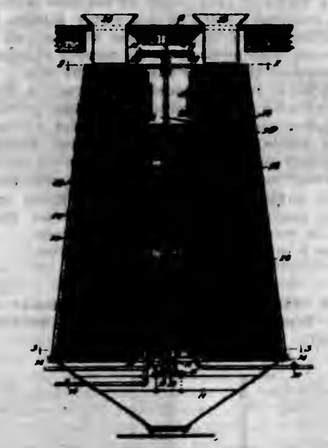
2. In a vertical cylinder-engine, in combination, a cylinder with a central tube secured in its top cover and a stuffing box in its bottom cover, a conduit for the lubricant passing through the central tube of the cylinder, a hollow piston reciprocating in the cylinder and sliding in its stuffing box, a stuffing box in the top of the hollow piston sliding on the central tube of the cylinder, a crosshead with a pin, a cup in the top of said head and a bore through same connecting with said cup and leading to said crosshead pin, and a connecting rod for the crosshead adapted to rock on the crosshead pin.

3. In a vertical cylinder-engine having a cylinder with reciprocating piston and a crosshead with crosshead pin, a lubricating device adapted to lubricate the crosshead pin from above without pressure comprising essentially a conduit for the lubricant passing vertically through the cylinder in its center, and intermediary means for establishing communication between said conduit for the lubricant and the crosshead pin.

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1,039,449. DRIER. GEORGE H. SCOTT, Chicago, Ill. Filed Jan. 29, 1912. Serial No. 674,042. (Cl. 34—9.)



1. In a drier, in combination, a vertical, annular, rotary drum having portions of its interior and exterior walls porous, through which are adapted to pass gases, a gas-heating device located within said drum, and means for rotating the drum.

2. In a drier, in combination, an annular drum having porous walls, and provided with an opening at each end thereof through which the articles or material being dried may be admitted and taken out, and gas-heating means located within said drum.

3. In a drier, in combination, a rotary drum adapted to allow gases to pass therethrough, means for supplying a heated gas to said drum, and mechanism for giving said drum a reciprocating movement transverse to its plane of rotation.

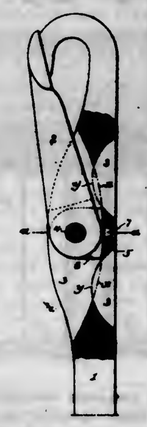
4. In a drier, in combination, an annular drum having portions of its interior and exterior walls porous and through which gases are adapted to pass, and a gas-heating device, said drum being provided with a non-porous plate extending over one end of the inner wall of the drum.

5. In a drier, in combination, a rotary, hollow, vertically disposed drum having one of its walls cylindrical, and the other conical, said walls having portions thereof porous, whereby gases are adapted to pass therethrough, and means for supplying a heated gas to said drum.

[Claims 6 to 17 not printed in the Gazette.]

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1,039,450. LATCH-NEEDLE FOR KNITTING-MACHINES. ROBERT W. SCOTT, Leslie Point, N. J., assignor, by direct and mesne assignments, to Scott & Williams, Incorporated, Camden, N. J., a Corporation of New Jersey. Filed Mar. 18, 1909. Serial No. 484,186. (Cl. 66—5.)



1. A knitting machine latch needle having a stem with slot extending through the stem from front to rear, a pivot web contained in said slot but less in width than the same, whereby it permits a free passage through the slot, and a latch pivotally mounted upon said web.

2. A knitting machine latch needle having a stem with slot extending through the same from front to rear, a pivot web contained in said slot but less both in length and in width than the same whereby it permits a free passage through the slot, and a latch pivotally mounted upon said web.

3. A knitting machine latch needle having a stem with slot extending through the same from front to rear, a bridge in the rear of said slot but less in length than the same, a pivot web secured to said bridge and less in width than the slot, and a latch pivotally mounted upon said web.

4. A knitting machine latch needle having a slot extending through the same from front to rear, a bridge in the rear of said slot but less in length than said slot, a pivot web secured to said bridge and less both in length and in width than the slot, and a latch pivotally mounted upon said web.

5. A knitting machine latch needle having a stem with slot extending through the same from front to rear, but having imperforate side walls, a pivot web contained in said slot but less in width than the same whereby it permits a free passage through the slot, and a latch pivotally mounted upon said web.

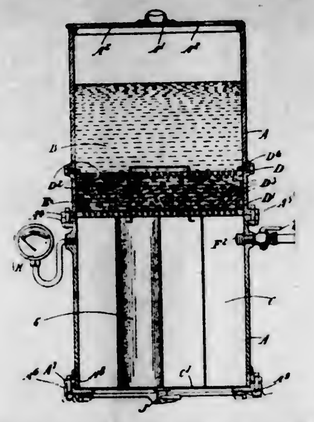
[Claims 6 to 8 not printed in the Gazette.]

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1,039,451. FILTER FOR OIL, GREASE, AND OTHER SUBSTANCES. GEORGE GOUTHWAITE SCURFIELD, Carlisle, England. Filed Apr. 9, 1908. Serial No. 426,700. (Cl. 210—10.)

1. A filter of the character described, comprising a receptacle having an upper space or chamber for the liquid to be filtered, a lower steam space or chamber, a perforated plate having a plurality of slots in its outer edge and forming the bottom of the liquid space or chamber, a plurality of steps extending inwardly from the wall of the upper chamber for retaining the plate in position, said slots being arranged to be brought into register with said steps to permit the removal of said plate, another perforated plate forming the top of the steam space or chamber, and a plurality of superposed filter pads between said plates, said pads and plates being capable of limited vertical movement in the chamber, the perforations in said plates

and the filtering pads forming the only path for the liquid from the upper to the lower chamber; substantially as described.

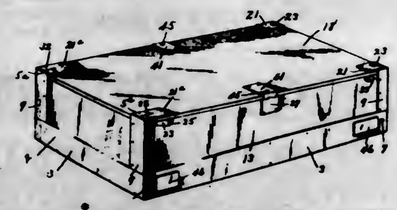


2. A filter of the character described, comprising a receptacle having an upper space or chamber for the liquid to be filtered, a lower steam space or chamber, a perforated plate having a plurality of slots in its outer edge and forming the bottom of the liquid space or chamber, a plurality of stops extending inwardly from the wall of the upper chamber for retaining the plate in position, said slots being arranged to be brought into register with said stops to permit the removal of said plate, another perforated plate forming the top of the steam space or chamber, and a plurality of superposed filter pads between said plates, said pads and plates being capable of limited vertical movement in the chamber, together with means for creating a partial vacuum in the steam space or chamber; substantially as described.

3. A filter of the character described, comprising a receptacle having an upper space or chamber for the liquid to be filtered, a lower steam space or chamber, a perforated plate forming the bottom of the liquid space or chamber, another perforated plate forming the top of the steam space or chamber, and a plurality of superposed filter pads between said plates, said pads and plates being capable of limited vertical movement in the chamber, one of said plates having a peripheral expansion packing, substantially as described.

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1,039,452. FOLDABLE SHIPPING-CRATE. MELZAR SHEPARD, Holly, Mich. Filed Mar. 25, 1912. Serial No. 685,960. (Cl. 217—15.)



1. A foldable crate comprising a bottom, a rigid base portion, fittings secured within the base portion at the corners, foldable end and side members hinged to said fittings to fold inwardly within the rigid base portion, a cover having fittings at its corners adapted to coöperate with said fittings at the corners of the base portion to effect a locking engagement between the fittings of the base portion and of the cover, to retain the cover in place in the base portion over the folded members therein, and screws detachably coupling the fittings of the base portion and the fittings of the cover at one end of the crate.

2. A crate comprising a bottom, a fixed base portion, fittings at the corners of the fixed base portion to which the foldable sides and ends are hinged, a cover having fittings at the corners thereof, said cover fittings at one end of the cover having engageable members adapted to effect a locking engagement with the corner fittings of the base portion to which the end and side pieces are hinged, the cover fittings at the other end of the cover coöperating with the corner base fittings at the opposite end of the crate to effect a locking engagement between said parts, and screws in the last mentioned base fittings adapted to be drawn into engagement with the corner fittings of the cover to rigidly connect said parts.

3. A foldable crate comprising a bottom, a fixed base portion forming a tray, end and side members hinged to fold within said tray, fittings in the fixed base portion at one end having recesses with depending shoulders, a cover having at one end a fitting provided with hooked members adapted to enter the recesses in the base fittings and engage said shoulders to lock said parts together, and engageable members at the opposite end of the cover and at the opposite end of the base portion coöperating to detachably secure the end of the cover to the base portion over the foldable members therein.

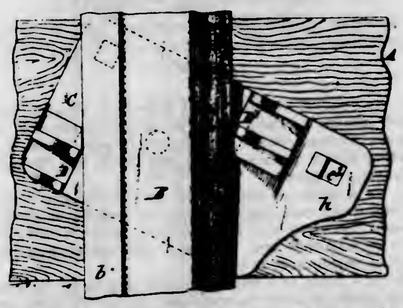
4. A foldable crate comprising a bottom, a fixed base portion, a fitting at each corner of the base portion, foldable end members pivoted to said corner fittings, foldable side members pivoted to said corner fittings, and a cover having engageable members at its corners adapted to detachably engage the corner fittings of the base.

5. A foldable crate comprising a bottom, a fixed base portion, a fitting at each corner of the base portion, foldable end members pivoted to said corner fittings, foldable side members pivoted to said corner fittings, said corner fittings having engageable members for the cover, a cover having corner fittings and said corner fittings of the cover having engageable members which coöperate with said engageable members of the corner fittings of the base to detachably lock the cover thereto.

[Claims 6 to 10 not printed in the Gazette.]

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1,039,453. TIE-PLATE. CLIFTON W. SHERMAN, Buffalo, N. Y. Filed Dec. 2, 1910. Serial No. 595,218. (Cl. 238—2.)



1. A tie plate adapted to be arranged between a tie and a railway rail comprising a body provided with fastening hooks on diagonally opposite parts of its upper side and with a pivot spur on its underside.

2. A tie plate adapted to be arranged between a tie and a railway rail comprising a body provided on its upper side with fastening hooks and on its underside with a circular anchoring rib.

3. A tie plate adapted to be arranged between a tie and a railway rail comprising a body provided on its upper side with fastening hooks and on its underside with a circular anchoring rib and a radial anchoring rib.

4. A tie plate adapted to be arranged between a tie and a railway rail comprising a body provided on its upper side with fastening hooks on diagonally opposite parts thereof and on its underside with a pivot spur which is arranged between said hooks, and circular anchoring ribs arranged concentrically relatively to said spur.

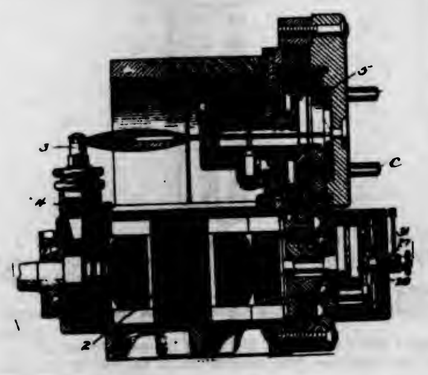
5. A tie plate adapted to be arranged between a tie and a railway rail comprising a body provided on its upper side with fastening hooks on diagonally opposite parts thereof and on its underside with a pivot spur which is arranged between said hooks, circular anchoring ribs arranged concentrically relatively to said spur and radial anchoring ribs adjacent to said concentric ribs.

[Claim 6 not printed in the Gazette.]



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1,039,454. MAGNETO-ELECTRIC MACHINE. FREDERICK RICHARD SIMMS, Kilburn, London, England, assignor to Simms Magneto Company, New York, N. Y. Filed Oct. 9, 1911. Serial No. 653,539. (Cl. 123—149.)



1. In a high tension magneto electric machine for a dual ignition system, the combination with a rotary armature, of a rotary part operatively connected with said armature, a pair of brushes carried by said rotary part and electrically connected in circuit with the primary coil of the armature, a commutator provided with a plurality of metallic segments forming substantially a circle, the surfaces of said segments forming the entire brush engaging surface of the commutator, said segments being insulated from each other and certain of said segments only being provided with means for connecting them electrically with an exterior source of electrical energy.

2. In a high tension magneto electric machine for a dual ignition system, the combination with a rotary armature, of a rotary part operatively connected with said armature, a pair of brushes carried by said rotary part and electrically connected in circuit with the primary coil of the armature, a commutator provided with four segments arranged in a substantially complete circle and having their ends separated a shorter distance than the width of said brushes, said segments being insulated from each other, and two alternate segments being provided with means for connecting them electrically with an exterior source of electrical energy.

3. In a high tension magneto electric machine for a dual ignition system, the combination with a rotary armature, of a rotary part operatively connected therewith, two brushes carried by said rotary part and electrically connected in circuit with the primary coil of the armature, a commutator comprising a block of insulating material having a metal ring connected therewith, said ring being divided into four separate segments, two only of said segments being provided with means for connecting an exterior source of electrical energy thereto.

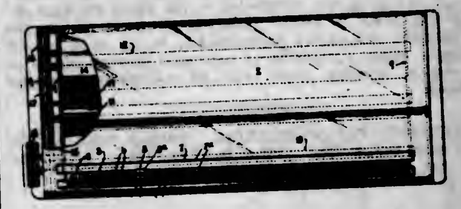
4. In a high tension magneto electric machine for a dual ignition system, the combination with a rotary armature, the primary coil of which has one end connected to "earth," of a rotary part operatively connected with the armature, two brushes carried by said rotary part, one of said brushes being connected to the primary coil, and the other to "earth," a commutator provided with contact segments adapted to be connected in circuit with the poles of an accumulator, and provided with a brush holder and brush engaging a portion of said rotary part connected with the primary coil, and a detachable arm connected with the frame of the magneto and detachably engaging said commutator brush holder, for "earthing" the magneto.

5. In a high tension magneto electric machine for a dual ignition system, the combination with the rotary armature, of a rotary circuit breaker connected therewith and provided with a fixed and a movable contact in circuit with the primary coil of the armature and means for operating said movable contact as the contact breaker is rotated, two brushes carried by said contact breaker, one of which is electrically connected with each of said contacts, a commutator provided with brush engaging contacts in circuit with an exterior source of electrical energy, said brush contacts being so located with respect to the means for operating the movable contact of the circuit breaker, as to make contact with said brushes when the contacts of the contact breaker are open, said brush engaging contacts being insulated from each other and widely separated.

[Claims 6 to 8 not printed in the Gazette.]

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1,039,455. CALCULATING APPARATUS. WILLIAM H. SLEIGHT, St. Louis, Mo. Filed Aug. 28, 1911. Serial No. 646,460. (Cl. 235—86.)

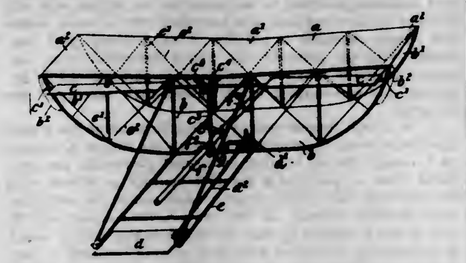


1. A calculating machine comprising a base, end standards, a front shaft carrying a spool, a rear shaft carrying a spool, a valuation table sheet having its ends wound around the spools, a hood having a longitudinal sight-slot, a longitudinal pocket along the front side of the sight-slot, a longitudinal pocket along the rear side of the sight-slot and an indicator extending across the sight-slot and having flanges embracing the contiguous flanges of the pockets and a pointer extending over the front pocket.

2. A calculating machine comprising a base, end standards, a front shaft carrying a spool, a rear shaft carrying a spool, a valuation table sheet having its ends wound around the spools, a hood having a longitudinal sight-slot, a U-shaped longitudinal pocket along the front side of the sight-slot, having inturned flanges, a U-shaped longitudinal pocket along the rear side of the sight-slot, having inturned flanges, and an indicator extending across the sight-slot and having inturned flanges embracing the contiguous inturned flanges of the pockets and a pointer extending over the front pocket.

3. A calculating machine comprising a base, end standards, a front shaft carrying a spool, a rear shaft carrying a spool, an intermediate shaft, spur wheels connecting the shafts, a valuation table sheet having its ends wound around the spools, a hood having a longitudinal sight-slot, a longitudinal pocket along the front side of the sight-slot, a longitudinal pocket along the rear side of the sight-slot, and an indicator extending across the sight-slot and having flanges embracing the contiguous flanges of the pockets and a pointer extending over the front pocket.

1,039,456. AEROPLANE, FLYING-MACHINE, AND THE LIKE. GEORGE PERCY BRAGG SMITH, Mitcham, England. Filed Dec. 16, 1909. Serial No. 533,427. (Cl. 244—12.)



1. An aeroplane comprising a top plane set at a dihedral angle, a bottom plane, the ends of which rise obliquely and extend approximately to the ends of said upper plane, and a plurality of horizontal steering planes, said curved ends of the bottom plane being adapted to counteract the turning movement on the longitudinal axis set up by the horizontal steering planes.

2. An aeroplane comprising a top plane set at a dihedral angle, a bottom plane, the ends of which rise obliquely and extend approximately to the ends of said upper plane, a plurality of horizontal steering planes located on either side of the longitudinal axis of the aeroplane, and a vertical steering plane located in front of said aeroplane.

3. An aeroplane comprising a top plane set at a dihedral angle, a bottom plane, the ends of which rise obliquely and extend approximately to the ends of said upper plane, a plurality of horizontal steering planes, a vertical steering plane, and an adjustable balancing boom.

1,039,457. FLYING-MACHINE. THOMAS NOAH SMITH, San Angelo, Tex. Filed Mar. 28, 1910. Serial No. 551,889. (Cl. 244—29.)

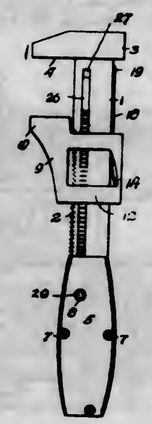


1. In a flying machine, a frame extended longitudinally in the direction of flight, a fixed steadying plane or tail rigidly secured to the rear end of said frame, and a main supporting plane pivoted at its front edge to the forward end of said frame, a spring extending upwardly from the rear edge of said main plane to a part of the frame and serving to support said plane, a second spring extending downwardly from the rear edge of said plane and connected with a part of said frame, and means for adjusting the tension of the latter of said springs, whereby the angular relation of said plane and frame may be varied.

2. In a flying machine, a frame extended longitudinally in the direction of flight, a main supporting plane attached to said frame at the forward end thereof, a horizontal steadying plane or tail secured to the rear end of said frame, a vertically arranged rudder pivoted to said frame intermediate said main plane and tail, a pair of vertically disposed balancing planes pivoted about a common axis, one above and one below said tail, said rudder and balancing planes all lying normally in the same vertical plane parallel with the line of flight, and means for simultaneously turning said balancing planes about their common axis in opposite directions.

3. In a flying machine, a substantially horizontal single main supporting plane, a frame to which said plane is attached, a motor and operator's seat carried by said frame immediately beneath said plane, a framework extending rearwardly from the main frame, a pair of vertically disposed leveling planes pivoted about a common axis at their forward edge to said framework, said leveling planes normally lying in the same vertical plane, such plane passing through the center of gravity of the machine, means for simultaneously swinging said leveling planes on their pivots in opposite directions, and a fixed horizontal plane extending between said vertical leveling planes.

1,039,458. WRENCH. RALPH M. SNYDER, Hawthorne, Pa., assignor of one-half to Craig C. Snyder, New Bethlehem, Pa. Filed June 28, 1912. Serial No. 706,390. (Cl. 81—130.)



1. In a wrench of the type described, the combination with a shank having the front side thereof toothed, a stationary jaw carried by the outer end of said shank, and said shank having the longitudinal bore formed therein with the outer end thereof open at the rear side of said shank, of an adjustable jaw body slidably mounted upon said shank, said jaw body having a longitudinal opening providing clearance for said shank, the front wall of said opening at the inner end thereof having teeth adapted to engage said toothed shank, a flat compression spring connected to the rear wall of the opening of said jaw body and bearing against the rear side of said shank, a sheave revolubly mounted in the outer end of said shank, a cord attached to the rear wall of said jaw body and extending over said sheave into the bore of said shank, and a coiled retractile spring arranged in the bore of said shank and connected to said cord and adapted to close said adjustable jaw body when said body is released.

2. In a wrench of the type described, the combination with a shank having the front side thereof toothed, a stationary jaw carried by the outer end of said shank, and said shank having the longitudinal bore formed therein with the outer end thereof open at the rear side of said shank, of an adjustable jaw body slidably mounted upon said shank, said jaw body having a longitudinal opening providing clearance for said shank, the front wall of said opening at the inner end thereof having teeth adapted to engage said toothed shank, a flat compression spring connected to the rear wall of the opening of said jaw body and bearing against the rear side of said shank, a sheave revolubly mounted in the outer end of said shank, a cord attached to the rear wall of said jaw body and extending over said sheave into the bore of said shank, a coiled retractile spring arranged in the bore of said shank and connected to said cord and adapted to close said adjustable jaw body when the said body is released, and means arranged in the side of said shank and including a resilient toothed bar adapted to engage the side wall of said adjustable jaw body to cooperate with the teeth thereof in locking said adjustable jaw body relatively to said shank.



1,039,459. PLACING CONTAINERS IN PROJECTILES. ERNST SOKOLOWSKI, Hamburg, Germany, assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Original application filed Aug. 3, 1911, Serial No. 642,294. Divided and this application filed Nov. 16, 1911. Serial No. 660,691. (Cl. 102—29.)



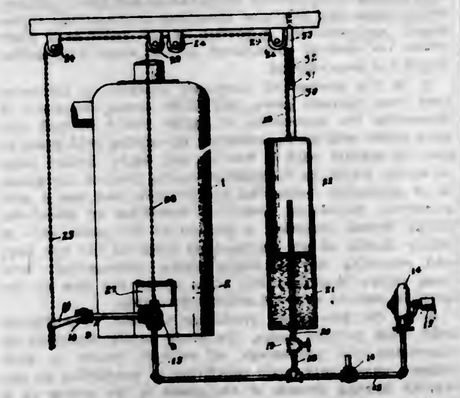
1. In combination, a projectile, a container therein, and a fused explosive contained in the projectile and in which the container is embedded and centered.

2. In combination, a projectile, a container and a fused explosive between said container and the wall of the projectile.

3. In combination, a projectile, a container and a fused explosive filling the space between said container and the wall of the projectile.

4. In combination, a projectile, a container therein, and fused trinitrotoluol contained in the projectile and in which the container is embedded and centered.

1,039,460. OIL-BURNING FURNACE. EDWIN SQUIRE, Claremont, Cal. Filed Jan. 29, 1912. Serial No. 674,197. (Cl. 158—36.)



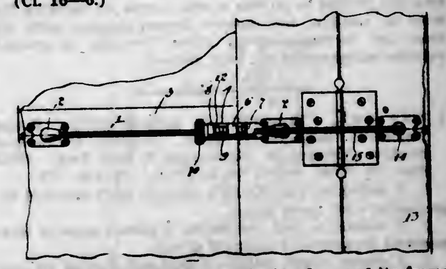
1. The combination of a furnace, an oil burner therefor, compressed air supply means for said oil burner, a pressure operated controlling means communicating with said compressed air supply means to operate responsively to the pressure of the compressed air, an oil supply means for the burner, a valve for said oil supply means, a connection from said valve to said pressure operated controlling means to cut off the oil supply after a definite amount of movement of said controlling means so as to cut off the oil supply subsequently to the failure of the compressed air supply, an auxiliary air inlet for the furnace open to the outer air, a damper therefor, and a connection from said damper to said pressure operated controlling means to open the said damper by operation of said pressure operated controlling means on failure of the compressed air supply.

2. The combination of a furnace, an oil burner therefor, compressed air supply means for said oil burner, air storage means communicating with said compressed air supply means, an oil supply means for the burner, a valve for said oil supply means, controlling means responsive to the pressure in the storage means and connected to said oil supply valve to cut off the oil supply on failure of the compressed air supply, and means for restricting the escape of compressed air from said storage means to retard the cut off of the oil supply.

3. The combination of a furnace, an oil burner therefor, compressed air supply means for said oil burner, a gasometer connected to said compressed air supply means, an oil supply means for the burner, a valve for said oil supply means, a connection from said valve to said gasometer to cut off the oil supply on failure of the air supply, and means for restricting the communication of air from said gasometer to the burner to retard the cut-off of the oil supply.

4. The combination of a furnace, an oil burner therefor, compressed air supply means for said oil burner, a gasometer connected to said compressed air supply means, an oil supply means for the burner, a valve for said oil supply means, a connection from said valve to said gasometer to cut off the oil supply on failure of the air supply, means for restricting the communication of air from said gasometer to the burner to retard the cut-off of the supply, an auxiliary air inlet for the furnace, a damper therefor, and a connection from said damper to said gasometer to open the said damper on failure of the compressed air supply.

1,039,461. DOOR-STOP. FREDERICK W. STANTON, Chicago, Ill. Filed July 11, 1912. Serial No. 708,704. (Cl. 16—6.)



1. The combination with a swinging door and its frame, of a guide member mounted on one of said parts, a carriage having an opening therethrough for the passage of said guide member, and longitudinally movable on the latter, said opening having diverging walls, a wedge within said opening having one face bearing on said guide-member and its opposite face bearing on a wall of said opening, a set-screw rotatably mounted in said carriage, means preventing longitudinal movement of said set-screw relatively to said carriage, said set-screw having threaded engagement with said wedge for imparting longitudinal movement thereto relatively to said carriage, and a connecting rod pivotally secured at one end to the other of said parts and at its other end to said carriage to move the latter relatively to its guide as said door is swung.

2. The combination with a swinging door and its frame, of a guide member mounted on one of said parts, a carriage having an opening therethrough for the passage of said guide member, and longitudinally movable on the latter, said opening having two opposed divergent walls one of which contacts with said guide member, a wedge within

said opening having one of its divergent faces bearing on said guide-member and the other on one of said divergent walls of said opening, a projection on the last-named face of said wedge projecting through a longitudinal slot in a wall of said carriage, and having a threaded opening, a set-screw engaged in said opening and rotatably engaged with a part of said carriage and adapted when rotated in either direction to impart movement to said wedge relatively to said carriage to regulate the pressure exerted by said wedge upon said guide member, and a connecting rod pivotally secured at one end to the other of said parts and at its other end to said carriage to move the latter relatively to its guide as said door is swung.

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1,039,462. EYEGLASSES. HARRY H. STYLL, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Corporation of Massachusetts. Filed Feb. 5, 1912. Serial No. 675,512. (Cl. 88—41.)



1. The combination with a lens mount having a seat provided with a tapped aperture, of a lever resting upon the seat, a screw passing through the lever and engaged in the tapped aperture for securing the lever upon the seat, and tongues for locking the lever against pivotal movement relative to the lens mounting.

2. The combination with a lens mounting having a seat, of a lever mounted upon the seat and provided with a pair of tongues engaging a portion of the mounting to prevent relative rotation of the mounting and lever, and means for detachably securing the lever to the seat.

3. The combination with a bridge, said bridge having a bearing portion at one end thereof, of a lever rotatably supported on the bearing, and tongues for locking the lever against rotation.

4. The combination with a lens clip, of a bridge secured thereto, said bridge having a portion thereof adjacent the lens clip formed to provide a seat, means for securing the lever in position, and tongues formed integral with the lever and curving partially around the clip to prevent relative movement of the lever and clip.

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1,039,463. ELECTRICAL RESISTANCE. ELIHU THOMSON, Swampscott, Mass., assignor to General Electric Company, a Corporation of New York. Filed Sept. 18, 1909. Serial No. 518,378. (Cl. 219—76.)

1. A resistance comprising a mass of inert material impregnated with fused silicon.

2. A resistance unit comprising a porous mass of inert material permeated with fused silicon.

3. A strong, tough resistance material, having an electrical resistance higher than silicon, comprising a concrete of inert material and a binder of silicon.

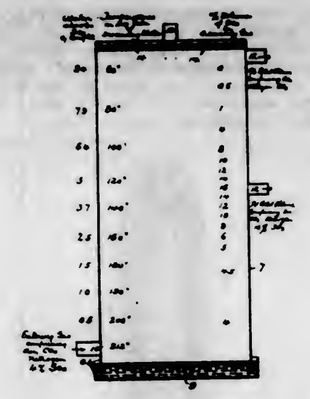
4. A strong, tough resistance material, having an electrical resistance higher than silicon, comprising silicon and a substantial admixture of silicious material.

5. The process of making a resistance material which consists in making an intimate mixture of silicon and an inert material while the silicon is heated considerably above its melting point and shaping said mixture into desired form.

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1,039,464. TREATING FURNACE-GASES. UTLEY WEMER, Ardmore, Pa. Filed Jan. 11, 1910. Serial No. 537,485. (Cl. 23—1.)

1. In the process of producing sulfuric or sulfurous acid from furnace gases, the mode herein described of increasing the percentage of sulfur dioxid in said furnace gases, said mode consisting in causing said gases to flow in contact with a flowing body of water which, in its relation to the flow of the gases, is of gradual decreasing temperature and has a progressively increasing power of absorbing or dissolving sulfur dioxid, and removing a portion of the gases at the point where the desired enrichment of the same with sulfur dioxid has been effected.



2. In the process of producing sulfuric or sulfurous acid from furnace gases, the mode herein described of increasing the percentage of sulfur dioxid in said furnace gases, said mode consisting in causing said gases to flow in contact with a flowing body of water which, in its relation to the flow of the gases, is of gradually decreasing temperature and has a progressively increasing power of absorbing or dissolving sulfur dioxid, removing a portion of the gases rich in sulfur dioxid, at an intermediate point of the gas flow, and removing the remaining gases, substantially free from sulfur dioxid, at the point where the flow of the gases in contact with the water terminates.

3. In the process of producing sulfuric or sulfurous acid from furnace gases, the mode herein described of increasing the percentage of sulfur dioxid in said furnace gases, said mode consisting in causing said gases to flow in contact with a flowing and finely divided body of water, which, in its relation to the flow of the gases, is of gradually decreasing temperature and has a progressively increasing power of absorbing or dissolving sulfur dioxid, and removing a portion of the gases at a point where the desired enrichment of the same with sulfur dioxid has been effected.

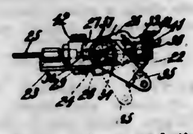
4. In the process of producing sulfuric or sulfurous acid from furnace gases, the mode herein described of increasing the percentage of sulfur dioxid in said furnace gases, said mode consisting in causing said gases to flow in contact with a flowing and finely divided body of water, which, in its relation to the flow of the gases, is of gradually decreasing temperature and has a progressively increasing power of absorbing or dissolving sulfur dioxid, removing a portion of the gases rich in sulfur dioxid, at an intermediate point of the gas flow, and removing the remaining gases, substantially free from sulfur dioxid, at the point where the flow of the gases in contact with the water terminates.

5. In the process of producing sulfuric or sulfurous acid from furnace gases, the mode herein described of increasing the percentage of sulfuric dioxid in said furnace gases, said mode consisting in subjecting an upwardly flowing stream of the gases to the action of a downwardly flowing body of water which, in its relation to the flow of the gases, is of gradually decreasing temperature and has a progressively increasing capacity for absorbing or dissolving sulfur dioxid, and removing a portion of the gases at the point where their desired enrichment with sulfur dioxid has been effected.

[Claims 6 to 22 not printed in the Gazette.]



1,039,465. GAS-STOVE LIGHTER. THEODORE L. WIMER, Milwaukee, Wis., assignor of one-fourth to Joseph Froelich, one-fourth to William J. Sarres, and one-fourth to Leon B. Lamfrom, Milwaukee, Wis. Filed Oct. 25, 1911. Serial No. 656,626. (Cl. 175—116.)



1. A lighter for gas stoves and the like, comprising a pilot burner adapted to have communication with the gas supply pipe, a spring retracted valve for controlling the flow of gas through the pilot burner, a plate carried by the valve, a stop pin engaged by the plate for limiting the movements of the valve, a projection on the plate, a coil spring surrounding the projection with one end forming a spring contact, an insulated contact on the pilot burner engaged by the spring contact, a dog pivotally mounted on the plate and connected with the other end of the spring, an arm pivotally mounted on the valve, a tooth carried by the arm for engaging the dog and causing the valve to move with the arm, said dog being adapted to engage the stop pin during the movement of the valve and to be forced thereby out of engagement with the tooth to release the valve and permit it to return to its closed position, and means for connecting the arm with the valve of the stove burner.

2. A lighter for gas stoves and the like, comprising a pilot burner adapted to have communication with a gas supply pipe, a spring retracted valve for controlling the flow of gas through the pilot burner, an insulated contact on the pilot burner, a spring contact carried by the valve and adapted to engage the insulated contact during the opening of the valve for igniting the gas issuing from the pilot burner, a spring pressed dog on the valve, a threaded boss on the valve, a flanged bushing threaded thereon, a toothed disk pivotally mounted on the bushing, an arm also pivotally mounted on the bushing, an adjustable pin connection between the disk and the arm, the tooth of the disk adapted to engage the dog and cause the valve to turn when the arm is swung, means in the path of the dog for releasing it from the tooth, and means for connecting the arm with the valve of the stove burner.

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1,039,466. WRENCH. HENRY J. WILKER, Pittsburgh, Pa., assignor of one-half to Christ Geish, Pittsburgh, Pa. Filed Feb. 23, 1912. Serial No. 679,386. (Cl. 81—189.)

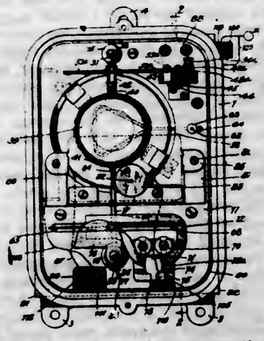


1. A wrench comprising a shank having a fixed jaw at its outer end, and one of its side edges formed with a longitudinally extending T-shaped groove of less length than the length of the shank, a rack carried by said front edge of the shank and one side of said groove, an adjustable jaw abutting against said shank and provided with a rearwardly extending arm terminating in an outwardly disposed angular portion, said arm centrally arranged with respect to said adjustable jaw, said adjustable jaw and said arm provided with a T-shaped tongue slidably mounted in said groove, said arm disposed at one side of said rack, a pin mounted in and projecting laterally from the free end of said angular portion of said arm, a locking pawl loosely mounted on said pin and capable of engaging the teeth of the rack to prevent movement of the adjustable jaw, said pawl intermediate its ends provided with a slot, and a lever mounted upon the projecting portion of the pin and carrying intermediate its ends a protuberance capable of engaging in the slot of the pawl for shifting the latter into engagement with the rack.

2. A wrench comprising a shank, a rack projecting from the front edge of the shank, a jaw abutting against the front edge of the shank and provided with an inwardly extending arm, said arm having its inner portion extending outwardly at an angle with respect to the front edge of the shank, said shank and said jaw and arm provided with means whereby the jaw and arm is slidably connected to the shank, said arm positioned at one side of said rack, a pin mounted in the front end of the angular portion of the arm and projecting laterally therefrom, a locking pawl loosely mounted on the projecting portion of said pin and capable of engaging the teeth of the rack to resist movement of said jaw, a lever mounted at one end upon the projecting portion of the pin and provided near its other end with a protuberance capable of engaging within said pawl for shifting the latter into engagement with the rack, a handle projecting from that end of the lever and provided with a pin and a jaw integral with the forward end of the shank.

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1,039,467. ELECTRICITY-METER. GEORGE M. WILLIS, Chicago, Ill., assignor to Willis Electric Meter Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 10, 1908. Serial No. 410,185. (Cl. 171—265.)



1. In an electricity meter, the combination of field-producing means, an armature subjected to the influence of said means, windings for said armature, a support for the windings, and a hollow inclosing shell of insulating material forming part of the armature structure and entirely inclosing the support and windings.

2. In an electricity meter, the combination of field-producing means, an armature subjected to the influence of said means, and a spherical protective shell entirely inclosing the armature and adapted to move therewith.

3. In an electricity meter, the combination of field-producing means, an armature subjected to the influence of said means to be rotated, windings for said armature, an inner spherical shell supporting said windings, and a spherical outer protective shell entirely inclosing the windings and forming part of the rotatable armature structure.

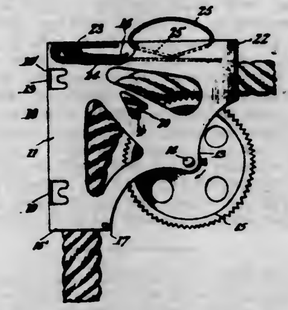
4. In an electricity meter, the combination of field-producing means, a rotatable armature structure, windings for said armature structure subjected to the influence of said means, a thin spherical shell on which said windings are mounted, and a thin protecting spherical shell entirely surrounding the windings and forming part of the armature structure, said inclosing shell being in two halves which are secured together after application about the windings.

5. In an electricity meter, the combination of field-producing means, a rotatable armature spindle, a thin spherical supporting shell mounted axially on said spindle, armature windings supported on said spherical shell and subjected to the influence of said field-producing means, and an outer spherical protecting shell mounted on said spindle and inclosing the windings and the supporting shell.

[Claims 6 to 23 not printed in the Gazette.]

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1,039,468. ROPE-MEASURER. ARTHUR M. WISWELL, Hutchinson, Kans. Filed June 6, 1911. Serial No. 631,520. (Cl. 73—9.)



1. A device of the class described comprising a casing including opposed sections having inturned edge portions provided with support portions, a wheel supported therebetween a rivet member coengaged between the sections as a tie and disposed to fend material from engagement with the wheel adjacent one extremity of the casing, a similar member coengaged between the sections adjacent another extremity and adapted to fend material from lateral movement outwardly of the casing, and a third rivet member spaced laterally of a line between the first two and coengaged with the sections, a pressure arm pivoted on the last named rivet, and resilient means engaged therewith bearing the arm toward the wheel.

2. As an improved article of manufacture, a casing comprising opposed sections stamped from sheet material having inturned abutting edge portions, and having bifurcated lugs pressed outwardly therefrom in a common plane with one side portion of the casing for engagement with a supporting surface, said sections having bracket portions adapted for the support of a shaft therebetween, and a fender member stamped integrally from one of the sections to lie adjacent the periphery of a wheel carried by the casing, whereby material will be fended from the wheel.

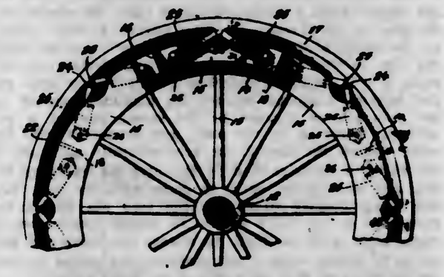
3. A device of the class described comprising a casing, a wheel revoluble therein, an indicating means operable by the wheel, an arm pivoted a spaced distance from the wheel and adapted to lie thereagainst, resilient means tending to force the arm against the wheel, said casing having an oblong opening adjacent the arm, and a member broader in one transverse dimension than another swiveled in the plate and adapted for raising thereof and to rest upon the casing when disposed transversely of said opening for support of the arm.

4. A device of the class described comprising a support, a wheel revoluble therein, an indicating means operable by the wheel a transverse pivot member spaced from the wheel an arm pivoted thereon and adapted to lie against the wheel, and a spring member comprising two helixes revolubly engaged on the pivot member and having a projecting portion adapted to bear against the arm, and having opposite portions secured to the support.

5. A device of the class described comprising a support, a revoluble shaft thereon, a wheel carried thereby and adapted to be rotated by friction with a strand member, a head member on the shaft, a volute thread thereon and a dial member having uniformly spaced portions engaged by the thread.

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1,039,469. SPRING-TIRE. CHARLES F. WREN, Prescott, Ariz., assignor, by mesne assignments, to Charles E. Woods, Liberal, Kans. Filed Jan. 7, 1906. Serial No. 469,802. (Cl. 152—27.)



1. In a tire, the combination with substantially rigid inner and outer rims, of a plurality of supporting devices independently connected at their opposite ends to said inner and outer rims, respectively, said devices being provided with means for yieldingly resisting both tension and compression applied thereto and stops for limiting the operation of said resisting means.

2. In a tire, the combination with substantially rigid inner and outer rims provided with laterally rigid overlapping side portions, of a plurality of alternately oppositely disposed and laterally rigid supporting devices independently pivoted at their opposite ends to said inner and outer rims respectively, said devices being provided with means for yieldingly resisting both tension and compression applied thereto and stops for limiting the operation of said resisting means.

3. In a vehicle wheel, the combination with a rim provided with side plates, of transverse, inclined struts for bracing said side plates against lateral strains.

4. In a vehicle wheel, the combination with a tread member, of laterally rigid and oppositely inclined devices for supporting said tread member, said devices being provided with means for yieldingly resisting tension applied thereto, and means for rendering said tension-resisting means inoperative when said device is in normal condition.

5. In a vehicle wheel, the combination with a tread member, of a device for supporting said tread member, means for yieldingly resisting both tension and compression applied to said device, and stops for limiting the operation of both of said resisting means.

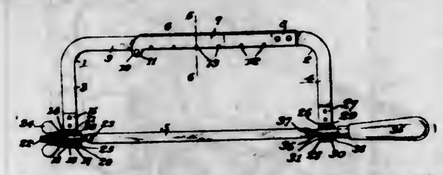
[Claims 6 to 11 not printed in the Gazette.]

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1,039,470. HACKSAW. CHARLES FREDRICK WURST and WILLIAM SCHAFF, Hudson Heights, N. J. Filed May 11, 1912. Serial No. 696,588. (Cl. 145—84.)

1. A hack-saw frame comprising a main yoke-shaped part having side arms adjustable toward and from each other, supplemental side arms adapted to be rotatably connected with the arms of the main part, and a saw adapted to be connected either with the arms of the main part of the frame or with the supplemental arms, the means by which the saw is connected with the arms of the main part of the frame being the same as the means by which said saw is connected with the supplemental arms.

2. A hack saw, comprising a main yoke-shaped frame consisting of side arms adjustable toward and from each other, supplemental side arms rotatably connected with the first named arms and adapted to be adjusted at an angle thereto, a saw, and means whereby said saw may be connected with the supplemental arms and with the arms of the main frame when the supplemental arms are detached therefrom.



3. In a hack saw, a main yoke-shaped frame, consisting of side arms adjustable toward and from each other, supplemental arms rotatably connected with the first named arms, a saw, and means whereby said saw may be connected either with the arms of the main yoke-shaped frame or with the supplemental arms and rotated in either.

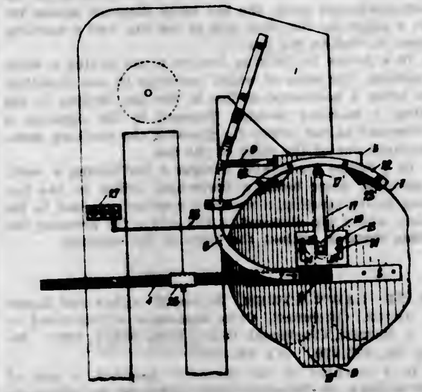
4. In a hack saw, a main yoke-shaped frame having side arms, supplemental arms rotatably connected with the arms of the main frame and adapted to be adjusted into different positions, a saw, and means whereby said saw may be connected with the supplemental arms and rotatably adjusted into different positions, and connected with the arms of the main frame when the supplemental arms are detached therefrom.

5. In a hack saw, a main yoke-shaped frame having parallel side arms, supplemental arms adapted to be connected therewith, a saw, and means whereby the saw may be connected with the supplemental arms and with the arms of the main frame when the supplemental arms are detached therefrom.

[Claim 6 not printed in the Gazette.]

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1,039,471. AUTOMATIC GRAIN-WEIGHER. EDWIN LEONARD ADAMS, Edgar, Nebr., assignor of one-half to Nicholas A. Linstrom and Frank A. Westering, Edgar, Nebr. Filed Oct. 14, 1911. Serial No. 654,573. (Cl. 78—168.)



1. An automatic grain weigher comprising a receiving casing having an open inlet and an outlet, a movable member mounted in said casing in position to control said outlet by the movements thereof without closing the inlet of said casing, said means being operated by the weight of the grain passing into said casing, and means for permitting the adjustment of said movable member.

2. An automatic grain weigher comprising a pivotally-mounted weighing lever supporting a casing at one end and having means for counterbalancing said casing, said casing having inlet and outlet openings, a valve or damper pivotally mounted in said casing between the inlet and outlet openings, said valve serving to put the space on one side thereof into communication with the inlet opening, and the space on the other side thereof at the same time into communication with the outlet opening, retaining means for holding the valve in said position, an arm connected to the valve and engaging said means and coöperating with the same to hold the valve against movement when the valve is in such position, the weight of the grain when the space on one side of the valve is filled acting to depress the casing and release the arm connected to the valve from the action of said means, the weight of the grain in said space thus serving to move the valve to uncover the discharge opening and release the grain therein, and at the same time put the space on the other side of the valve into communication with the inlet to enable the space on each side of the valve to be filled and discharged in turn, and means for permitting the adjustment of said valve relative to said casing.

3. An automatic grain weigher comprising a casing having an open inlet and an outlet, a movable member to control said outlet by the movements thereof without closing the inlet of said casing, a pair of plates in which said member is mounted, and means for adjustably connecting said plates to the sides of said casing.

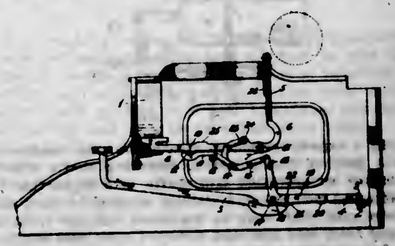
4. In an automatic grain weigher comprising a casing having an inlet and an outlet, a movable member mounted in said casing in position to control the outlet thereof without closing the inlet of said casing, and a spindle on which said member is mounted, said spindle having lateral arms projecting therefrom to engage said member.

5. In an automatic grain weigher comprising a receiving casing having an open inlet and an outlet, a movable member mounted in said casing in position to control said outlet by the movements thereof without closing the inlet of said casing, said member comprising a pair of plates secured to each other having portions spaced apart, and a spindle on which said plate is mounted, said spindle being located between said spaced-apart portions and having lateral projections engaging said member.

[Claims 6 to 8 not printed in the Gazette.]

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1,039,472. TYPE-WRITER KEY AND TYPE-BAR MECHANISM. JAMES ALEXANDER, New York, N. Y., assignor of one-half to Theodore A. Reed and one-half to William Grosvenor Ridgway, Brooklyn, N. Y. Filed July 15, 1911. Serial No. 638,607. (Cl. 197—27.)



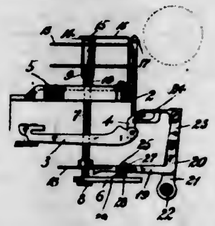
1. In typewriter key and type bar mechanism, a type bar, a key lever therefor, an actuating bell-crank having an arm provided with a projection extending beneath said key lever adjacent the pivotal point of the latter, a lost motion connection between said key lever and said bell-crank lever at a greater distance from said pivotal point, a link pivoted to the other arm of said actuating lever and having a lost motion connection with said type bar adjacent the pivotal point of the latter, a camming member connected with said link, and a cam projection on the said type bar located beyond said lost motion connection and engaged by said camming member, whereby initial movement may be imparted to said type bar by an easy touch upon the key lever, and said movement accelerated by further movement of said key lever.

2. In typewriter key and type bar mechanism, a frame, a type bar, a key lever therefor pivoted at the rear of said frame, a bell-crank actuating lever pivoted on said frame and having a horizontal arm provided with a projection extending beneath said key lever adjacent its pivotal point, a lost motion connection between said arm and said key lever beyond said first connection, a link pivoted to the other arm of said bell-crank lever and having a lost motion connection with said type bar adjacent its pivotal point, a camming member pivoted to said link and extending forwardly therefrom, a cam projection on said type bar located beyond said lost motion connection and engaged by said camming member, whereby initial movement may be imparted to the type bar by easy touch upon the key lever, and the movement of the type bar may be accelerated by further movement of the key lever.

3. In typewriter key and type bar mechanism, a frame, a key lever pivoted at the rear of said frame, a bell crank actuating lever pivoted on said frame forward of said key lever pivot and having a rearwardly extending arm provided with a projection at its rear end extending beneath said key lever and having a lost motion connection with said key lever between said projection and the pivotal point of said actuating lever, said bell-crank lever having an upwardly extending arm, a link pivoted to the upper end of said second arm and extending forwardly therefrom and thence curved to the rear and connected at its outer end by a lost motion connection with said type bar, a camming member pivoted intermediately of said link and lying adjacent the type bar, a cam projection on said type bar located beyond the lost motion connection of said link therewith, coöperating with said member whereby initial movement of said type bar may be effected by easy touch upon said key lever, and whereby accelerated movement of said type bar may be effected by further movement of said key lever.

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1,039,473. TYPE-WRITER-RIBBON MECHANISM. JESSE ALEXANDER, New York, N. Y., assignor of one-half to Theodore A. Reed and one-half to William Grosvenor Ridgway, Brooklyn, N. Y. Filed July 15, 1911. Serial No. 638,608. (Cl. 197—151.)

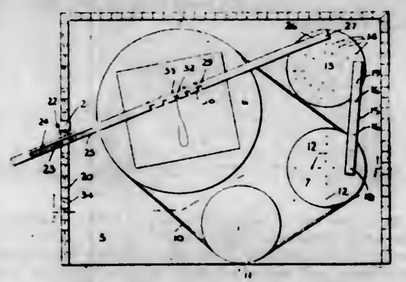


1. In a typewriter ribbon mechanism, the combination with a pair of ribbon spools, operating shafts therefor and means for operating said shafts, of a supporting arm overstanding each spool, a yielding support for each shaft whereby said shaft may be depressed and the spool disengaged from said arm and detached from said shaft.

2. In typewriter ribbon mechanism, the combination with a pair of ribbon spools, actuating shafts therefor, operative connections for said shafts, a detachable connection between the end of each spool and its shaft, a supporting arm to hold the spool in engagement with its shaft, a yielding support for said shaft whereby the shaft may be removed away from said arm and the ribbon spool removed therefrom.

3. In typewriting ribbon mechanism, the combination with a pair of ribbon spools of actuating shafts therefor, means for actuating said shafts, said shafts being slidably and yieldably mounted in bearings, a supporting arm for each spool opposite each shaft and detachable connections between said spool, said shaft and said arm whereby the spool may be removed by moving said shaft away from the coöperating supporting arm.

1,039,474. DEVICE FOR MAKING DESIGNS. LYNN L. ALLEN, Atlanta, Ga. Filed Apr. 17, 1912. Serial No. 691,490. (Cl. 33—2.)



1. In a device for making designs a pivoted table, a pivoted plate, means for simultaneously rotating the table and the plate, a second pivoted plate, a link connecting the two plates, by which the second plate is operated by the first-mentioned plate, a bar articulated at one end to the second-mentioned plate, and disposed across the table, a guide for the other end of the bar and a marking member carried by the bar.

2. In a device for making designs a pivoted table, a pivoted plate having an orifice, means for simultaneously rotating the table and the plate, a second pivoted plate having an orifice, a bar, a pin at one end of the bar, adapted to be disposed in the orifice in either of the plates, a guide for the other end of the bar, a marking member carried by the bar, and a link for connecting the two plates when the pin on the bar is disposed in the orifice in the second-mentioned plate.

3. In a device for making designs a pivoted table, a pivoted plate, means for rotating the table and the plate, a second pivoted plate having orifices, a link articulated to the first-mentioned plate, a pin on the link adapted to be disposed in any one of the orifices in the second-mentioned plate, a bar, a pin at one end of the bar adapted to be disposed in any one of the orifices in the second-mentioned plate, the bar being disposed across the table, a guide for the other end of the bar, and a marking member carried by the bar.

4. In a device for making designs a bar having a vertical opening, the sides of which converge in one direction, there being a horizontal orifice in the bar leading to the opening, a marking member disposed in the opening, a pin disposed in the orifice for pressing the marking member against one of the sides of the bar.

5. In a device for making designs a bar having a vertical opening, there being a horizontal orifice in the bar leading to the opening, a marking member disposed in the opening, and a pin disposed in the orifice for pressing the marking member against the sides of the opening.

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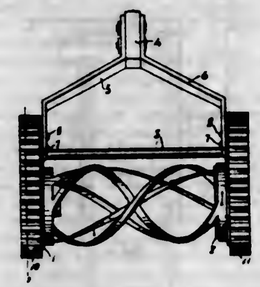
1,039,475. LAWN-MOWER. JAMES H. AUBLE and JAMES L. AUBLE, Cincinnati, Ohio, assignors of one-third to H. A. Barrett, Cincinnati, Ohio. Filed Feb. 7, 1912. Serial No. 675,970. (Cl. 56—19.)

1. In a machine of the character specified, a pair of spiral cutters of different pitch arranged to coöperate with each other to make a shearing cut with the one cutter mounted inside the opposing cutter, and means for rotating said cutters in opposite directions.

2. In a machine of the character specified, a pair of spiral cutters of different pitch, each spiral cutter provided with a plurality of spirally arranged cutting knives, the knives of each cutter arranged to coöperate with the knives of the opposing cutter with the one cutter mounted inside the opposing cutter, and means for rotating said cutters in opposite directions.

3. In a machine of the character specified, a pair of spiral cutters of different pitch, each cutter provided with a plurality of spirally arranged knives, the knives of each cutter being of the same pitch, with one cutter mounted inside the opposing cutter, and means for rotating said cutters in opposite directions.





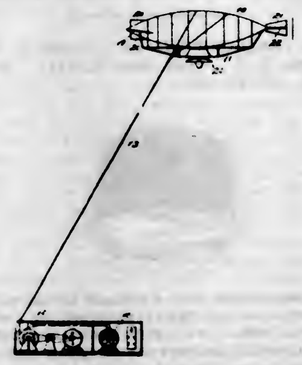
4. In a machine of the character specified, a pair of spiral cutters of different pitch, each cutter provided with a plurality of spirally arranged knives, the knives of each cutter being of the same pitch, with one cutter mounted inside the opposing cutter, and the two cutters in the shape of truncated cones, with means for adjusting the cones longitudinally and means for rotating the cutters in opposite directions.

5. In a mower, the combination with a framework, of carrying wheels mounted thereon, to rotate independently, and a pair of spiral cutters of different pitch, arranged to coöperate with each other to make a shearing cut, mounted on said frame with the one cutter mounted inside the opposing cutter, and means to rotate said cutters in opposite directions with the advance of the implement.

[Claims 6 to 15 not printed in the Gazette.]

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1,039,476. AERIAL ILLUMINATING MECHANISM. ARCHIBALD J. AUSTIN, Los Angeles, Cal. Filed Apr. 17, 1912. Serial No. 691,522. (Cl. 240—52.)



1. In a moored suspensional structure, a gas container, a horizontally-disposed frame attached thereto, a single reflector rigidly secured to the frame, and searchlight on said structure adapted to project its light against said reflector and disperse its rays downwardly at right angles to the axis of the frame.

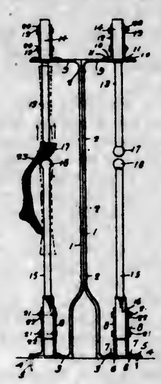
2. In illuminating mechanism, a horizontally-disposed elongated gas container, a rigid frame beneath extending from end to end, a single searchlight and reflecting means on said frame midway between the ends, a cable attached to the forward end of the frame to anchor said gas container to a station, and means for supplying power from a station to the suspended light.

3. In illuminating mechanism, a horizontally-disposed elongated gas container, a rigid frame beneath extending from end to end, means for stabilising the same, a horizontally-disposed reflector beneath the gas container and rigidly fixed to the frame, a light adapted to project its beams against said reflector and to disperse its rays downwardly and a power plant on the earth having a drum and a cable between said drum and the forward end of the frame of the gas container.

4. In an illuminating apparatus, a gas container having on said container fixed vertical and horizontal stabilising planes at the extreme forward end, and vertical and horizontal tail planes at its rear end, a frame below said container extending from end to end thereof, a reflector of large area rigidly secured to the frame midway between its ends and adapted to project light rays downwardly, a searchlight to direct its beams upwardly into said reflector, an anchoring station, a hollow anchoring cable from the forward end of the frame of the gas container to the station, and means for transmitting electricity from the anchoring power station to the searchlight through said hollow cable.

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1,039,477. STOCKING-TURNER. ALFRED P. BAMBERGER, New Cumberland, and GEORGE PORTER, New Market, Pa. Filed Apr. 3, 1912. Serial No. 688,188. (Cl. 223—20.)



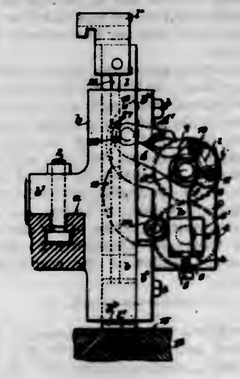
1. A stocking turner comprising a supporting-member, lateral pole-supporting members mounted on said lateral members, members extending therefrom in relatively fixed position, and adjustable stocking turning poles having a common axis parallel with said supporting member and maintaining said axis in all adjustments thereof.

2. A stocking turning device embodying a supporting member, lateral members extending therefrom in relatively fixed position, pole-supporting devices mounted on said lateral members, and stocking turning poles movable only in the direction of their length and having their outer ends parallel with said supporting member and held against turning in said pole supporting devices, and means for the adjustment of the poles longitudinally.

3. A stocking turning device embodying two vertical members provided at opposite ends with lateral members, means securing the vertical members together, pole securing devices upon said lateral members, and stocking turning rods mounted therein and oppositely disposed in vertical alinement with each other.

4. A stocking turning device embodying two vertical members provided at opposite ends with lateral members, means securing the vertical members together, pole securing devices upon said lateral members, and stocking turning rods mounted therein and oppositely disposed in vertical alinement with each other, said poles being arranged in pairs upon opposite sides of the secured vertical members.

**1,039,478. MACHINE FOR CORRUGATING, CUTTING UP, AND DRIVING STRIPS OF METAL INTO WOOD.** ERASTUS H. BARNES and ERNEST CLEMENS THOMSCHMIDT, New York, N. Y. Filed Mar. 8, 1906. Serial No. 304,822. (Cl. 1—9.)



1. The combination with devices for deflecting and thus corrugating a strip of sheet metal, of devices for cutting said strip into suitable lengths and thereby forming fastening plates, and devices for driving the cut up strips or fasteners successively and edgewise in the line of the corrugations into wood.

2. The combination with devices for corrugating a strip of metal and means for actuating said devices whereby the strip is simultaneously corrugated and fed, of devices for cutting said strip into suitable lengths and thereby forming fastening plates and devices for driving the cut up strips or fasteners successively and edge-wise in the line of the corrugations into wood.

3. The combination with devices for corrugating a strip of metal and means for actuating said devices whereby the strip is simultaneously corrugated and fed, of devices for cutting such strip into suitable lengths and thereby forming fastening plates, devices for regulating the length of the cut up strips and other devices for driving the cut up strips or fasteners successively and edgewise in the line of the corrugations into wood.

4. The combination with a supporting body of metal and associated supporting parts, of a pair of corrugating rollers for corrugating a strip of metal, a cutter device and cutter bed for severing the corrugated strip into suitable lengths and thereby forming fastening plates, devices providing for feeding a cut up strip at a time and a hammer device for driving the said cut up strips or fasteners successively and edgewise in the line of the corrugations into wood.

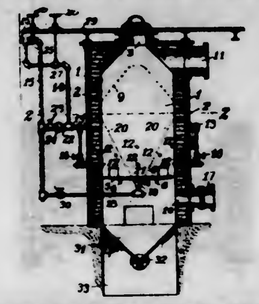
5. In a machine for corrugating, cutting up and driving strips of metal into wood, the combination with a pair of corrugating rollers, shafts and bearings therefor, of a ratchet and pawl device upon the shaft of one of said rollers for rotating the same, a cam arm co-acting with the pawl device and a vertically movable device for acting upon the pawl device and the cam arm successively for effecting the feed of the corrugating rollers.

[Claims 6 to 27 not printed in the Gazette.]

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**1,039,479. PROCESS OF GENERATING GAS.** DANA D. BARNUM, Worcester, Mass. Filed Feb. 29, 1912. Serial No. 680,562. (Cl. 48—206.)

1. The within described process of producing gas from carbonaceous fuel inclosed in a fuel chamber, comprising igniting the fuel, supplying an air current to the bottom of the chamber to bring the fuel to a state of incandescence, simultaneously supplying a temperature reducing medium to the outer mass of fuel adjacent to the wall of the fuel chamber, substituting an upwardly directed steam jet under the central portion of the fuel for the air current at the bottom of the fuel chamber, and simultaneously introducing a series of steam jets to the mass of fuel adjacent to the wall of the fuel chamber.



2. The within described process of producing gas from carbonaceous fuel inclosed in a fuel chamber, consisting in igniting the fuel, bringing the fuel to a state of incandescence by the introduction of an air current at the bottom of the fuel chamber, simultaneously introducing a temperature reducing medium to the outer mass of fuel adjacent to the wall of the fuel chamber, substituting an upwardly directed steam jet for the air current at the bottom of the fuel chamber, simultaneously introducing with said steam jet a series of radially disposed steam jets through the wall of the fuel chamber, and automatically removing the accumulation of ash.

3. The within described process of producing gas from carbonaceous fuel contained in an inclosed fuel chamber, comprising bringing the fuel to a state of incandescence by supplying a current of air to the fuel chamber, blowing steam upwardly into the central portion of the mass of fuel, supplying steam to the fuel near the wall of the fuel chamber, and regulating independently the flow of steam to the central portion of the mass of fuel and the flow of steam to the fuel near the wall of the fuel chamber to maintain a substantially uniform temperature throughout each thin horizontal layer of the fuel.

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**1,039,480. RADIATOR-SHIELD.** FRANK F. BASSETT, Lawrence, N. Y. Filed Feb. 27, 1911. Serial No. 611,166. (Cl. 21—90.)



1. The combination with a radiator having a plurality of passageways or openings therethrough, of a shield for said radiator formed with socket members, and a plurality of supporting members extending into said openings or passageways and detachably secured to said radiator, each of said supporting members being formed with a stud fitting into said socket members for detachably securing said shield to the supporting members so as to occupy a position in front of said radiator.

2. In a radiator shield, the combination with a supporting member having a catch thereon, of an apron engaging said catch, said supporting member comprising a bolt adapted to extend through a radiator from front to back thereof and having a flange at the front thereof, a nut on said bolt, a flexible washer interposed between said flange and said radiator, a flexible washer interposed between said nut and said radiator, and a soft sleeve interposed between said bolt and said radiator.



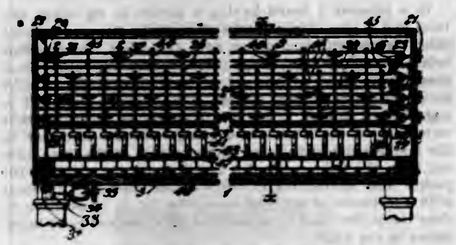
3. In a radiator shield, the combination with one or more supporting members adapted to engage a radiator and comprising bolts extending through the radiator having snap-heads eccentrically located with respect to the shank of the bolt and means engaging each of the bolts and the radiator for clamping the supporting members to the radiator, of a shield having snap sockets thereon adapted to engage said snap-heads.

4. The combination with a radiator having a plurality of openings or passages therethrough, of a shield for said radiator, and one or more supporting members extending into said openings or passages, for securing said shield in position on said radiator, said supporting members having eccentrically-located catches, said shield having means thereon adapted to engage said catches, to secure said shield to said supporting members and said radiator, said catches being eccentrically located so as to properly engage said means by allowing for varying distances between said passages or openings.

5. The combination with a radiator having a plurality of openings or passages extending therethrough, of a shield for said radiator, one or more supporting members extending through said openings or passages, for securing said shield in position on said radiator, means for securing said supporting members to said radiator, and a flexible member interposed between each of said supporting members and said radiator.

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**1,039,481. VIOLIN-PIANO.** WILHELM ADOLF BASTING, Erbach, Germany. Filed June 5, 1911. Serial No. 631,248. (Cl. 84—46.)



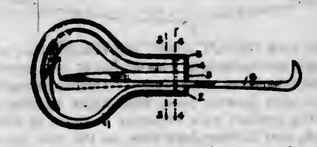
1. In an instrument of the character stated, a series of strings, a bow mounted transversely to said strings and in close proximity thereto, means for operating said bow, a plurality of pivoted keys, a hammer operatively connected to each key and adapted to strike one of said strings, a shift rod movably mounted adjacent each key and adapted to engage said bow, means to transmit movement of each key to one of said shift rods whereby a portion of said bow is moved into engagement with a predetermined string, and means for rendering said transmitting means inoperative.

2. In an instrument of the character stated, a series of strings, a bow mounted transversely to said strings and in close proximity thereto, a plurality of pivoted keys, a hammer operatively connected to each key and adapted to strike one of said strings, a shift rod movably mounted in the path of movement of each key, a block pivoted to each key and adapted in normal position to engage a shift rod whereby a portion of said bow is moved into engagement with a predetermined string, and means to move said blocks whereby said shift rods are rendered inoperative when said keys are operated.

3. A musical instrument comprising several series of strings arranged in superposed relation, a bow mounted adjacent each series, means for simultaneously operating said bows, a hammer positioned in striking relation to each string, a plurality of pivoted keys, a shift rod movably mounted adjacent each key, means located in the path of movement of each key for actuating one of said hammers, means located in the path of movement of each key for actuating one of said shift rods to bring a portion of one of said bows into contact with each string and means for simultaneously shifting the position of both of said means.

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**1,039,482. COMBINATION-TOOL.** CHRISTOPHER BAUER, Clara City, Minn. Filed June 1, 1912. Serial No. 700,918. (Cl. 7—16.)



1. In a tool of the class described, a pair of resilient supporting arms, one of said arms being formed with an aperture therethrough merging into an enlarged bore extending partially therethrough, a pivotal pin extending through said arms formed with an enlarged head fitting in said enlarged bore, said enlarged bore permitting said arms to move back and forth, a plurality of implements journaled on said pin, each of said implements being formed with raised portions, and each of said arms being formed with grooves for accommodating the raised portions when the implements are in an outer and inner position whereby the implements are locked in said positions, the construction of said enlarged bore and said pin being such as to permit said arms to separate when either of said implements are moved so that their particular bead will be moved out of its co-acting groove.

2. In a tool of the class described, a handle formed of resilient material having a looped portion merging into a pair of tool retaining arms, each of said arms being formed with an aperture and one of said arms being formed with an enlarged bore, a pivotal pin fitting into said apertures formed with an enlarged head whereby the arm having the enlarged bore may move back and forth freely within certain limits, each of said arms being formed with a groove extending longitudinally thereof, and a plurality of implements arranged between said arms, each of the implements arranged in contact with said arms being formed with a bead for fitting into the grooves of said arms, the resilient construction of the handle and arms causing a clamping action of the arms against said implements so that the same will normally be held against movement when the respective beads are in engagement with the respective grooves.

3. In a combination tool, a handle formed into a loop having a pair of radiating spaced clamping members, each of said members being formed with an aperture therein, one of said apertures having an enlarged bore merging therein, a pin formed with a head at each end, said pin extending through said apertures with one head resting against the exterior of one of said radial members and with the other head mounted in said enlarged bore whereby the radial member may freely separate within certain limits, and a plurality of tools pivotally mounted on said pin each of which is provided with a longitudinally positioned bead and one of said tools is provided with a longitudinal groove designed to at times register with the adjacent bead, said radial members being each provided with a longitudinally arranged groove co-acting with some of said beads.

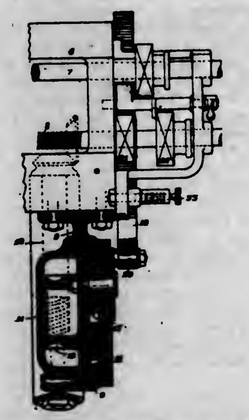
4. A combination tool comprising a handle formed into a loop having clamping members, an intermediate tool and tools on opposite sides of said intermediate tool, said tools being pivoted at one end between the clamping members and adapted to fold at their free ends into the space within the handle loop, the intermediate tool being shorter than the said other tools on opposite sides thereof and said tools on opposite sides of the intermediate tool having their outer ends turned inwardly toward each other forming hook like portions which project inwardly from opposite sides of the intermediate tool and overlap the point of said tool when the several tools are folded into the handle loop whereby to guard the point of said intermediate tool, substantially as set forth.

1,039,483. NUT-LOCK. CORNELIUS BEAVER, Spangler, Pa. Filed Sept. 26, 1911. Serial No. 651,403. (Cl. 151—49.)



In a nut lock for rail joints, the combination with rail ends, fish plates, bolts and nuts of usual construction connecting the fish plates, of springy or resilient arms through which the bolts loosely pass, said arms having resilient parts bearing against nuts adjacent to those to which they are secured, and independent pins on the fish plate which engage opposite sides of the arms to hold them against swinging movement, one of said members bearing on the spring arm, in each instance, and being removable to permit the arm to be swung without disturbing the nuts which secure the arms.

1,039,484. FEED MECHANISM OF TURNING MILLS, LATHES, OR LIKE MACHINES. ARTHUR EDWARD BENNETT and HARRY THOMPSON, Coventry, England. Filed Mar. 29, 1911. Serial No. 617,657. (Cl. 82—21.)



1. In feed mechanism for machines of the character described, mechanism for simultaneously and automatically imparting two motions to the cutting tool vis: a uniform velocity in one direction and a variable velocity in a transverse direction, said tool acting upon the revolving work for the purposes set forth.

2. In feed mechanism for machines of the character described, mechanism for imparting a uniform velocity to a cutting tool in one direction, and mechanism for simultaneously and automatically imparting a variable velocity to said tool in a direction transverse to said direction comprising, a pin mounted eccentrically on a rolling pinion, and means for transmitting the variable motion of said pin to the cutting tool in said transverse direction, for the purposes set forth.

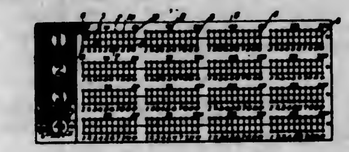
3. In feed mechanism for machines of the character described mechanism for imparting a uniform velocity to a cutting tool in one direction, and mechanism for simultaneously and automatically imparting a variable velocity to said tool in a direction transverse to said direction comprising, a pin mounted eccentrically on a pinion, a stationary wheel upon the interior of which said pinion rolls, and means for transmitting the variable motion of said pin to the cutting tool in said transverse direction, for the purposes set forth.

4. In feed mechanism for machines of the character described, mechanism for imparting a uniform velocity to a cutting tool in one direction, and mechanism for simultaneously and automatically imparting a variable velocity to said tool in a direction transverse to said direction comprising, a pin mounted eccentrically on a pinion, a stationary wheel upon the interior surface of which said pinion rolls and having said surface of twice the diameter of the pinion, and means for transmitting the variable motion of said pin to the cutting tool in said transverse direction, for the purposes set forth.

5. In feed mechanism for machines of the character described, mechanism for imparting a uniform velocity to a cutting tool in one direction, and mechanism for simultaneously and automatically imparting a variable velocity to said tool in a direction transverse to said direction comprising, a pin mounted eccentrically on a rolling pinion, a screw shaft for operating the tool, a pinion on said screw shaft, and a rack connected to said pin and engaging the pinion on said screw shaft, for the purposes set forth.

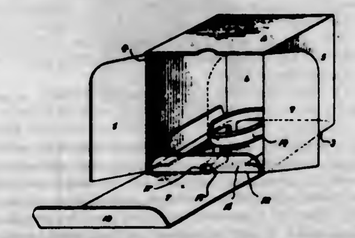
[Claim 6 not printed in the Gazette.]

1,039,485. COUNTER. JAMES GOLDIE BIGGAR, New York, N. Y. Filed July 1, 1911. Serial No. 636,360. (Cl. 235—90.)



In a counter a board having a pocket in its upper surface, and a plurality of series of sections disposed in horizontal alinement, one series over the other, each section being rectangular in shape with vertical parallel lines, there being holes at one set of terminals of the parallel lines, the holes in each section being marked from left to right 1, 2, 3, 4, 5, 6, 7, 8, 9 and 0, and holes at the opposite terminals of the lines, there being reference numbers on the last-mentioned holes at the terminals of the lines leading from the holes marked 5 and 0, a lid for covering the pocket and having digits thereon, disposed in alinement with the series of sections when the lid is in position to close the pocket, and a plurality of pins adapted to be introduced in the holes.

1,039,486. PACKAGE FOR GAS-MANTLES. FREDERICK V. BOWMAN and WILBUR S. HUNN, New Haven, Conn. Filed May 23, 1912. Serial No. 699,141. (Cl. 206—68.)



1. The combination with a folding box including side wings and a top, of a pocket located within the box, said pocket formed with a notch opening at the outer end, a flap at the outer end of the pocket and adapted to be turned up to close the open end of the notch.

2. The combination with a folding box, of a pocket located therein, said pocket formed with a notch opening at the outer end, and with a flap adapted to be turned up to close the open end of the pocket, said flap formed with an opening adapted to be entered by one arm of a gas mantle located in the pocket, said flap being held by the top of the box.



1,039,487. ABRASIVE. CHARLES H. CARBOLT, St. Louis, Mo., assignor of fifty-five one-hundredths to Williams Patent Crusher & Pulverizer Company, St. Louis, Mo., a Corporation of Missouri. Filed Mar. 9, 1912. Serial No. 682,818. (Cl. 83—3.)



1. An abrasive comprising a pliable meshed foundation member, a plurality of abrasive elements secured in said foundation, and a plastic filler surrounding the said elements and filling the fabric.

2. An abrasive comprising a pliable fabric, abrasive elements secured in said fabric, and provided with reduced projecting portions and plastic material surrounding said projecting portions.

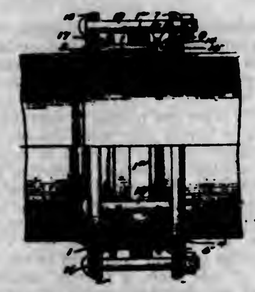
3. An abrasive surface comprising a plurality of strips of fabric, abrading elements secured in said fabric, reinforcing elements connecting said strips, and plastic material surrounding said abrading elements and said reinforcing elements.

4. An abrading surface comprising a meshed fabric foundation, abrading elements set in said foundation, and rigid material covering and filling said foundation.

5. An abrasive comprising a pliable meshed fabric, abrading elemnts set in said fabric, and plastic material applied to said fabric.

[Claims 6 and 7 not printed in the Gazette.]

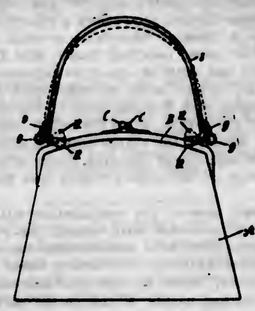
1,039,488. REPAIR-CLAMP FOR PIPE-JOINTS OF THE BELL AND SPIGOT TYPE. JAMES CLARK and GUY IRWIN, Bradford, Pa., assignors to S. R. Dresser Manufacturing Company, Bradford, Pa., a Corporation of Pennsylvania. Filed May 20, 1912. Serial No. 698,561. (Cl. 137—28.)



1. A clamping ring for pipe joints of the bell and spigot type formed of wrought metal and comprising a flat annular plate member provided with bolt holes, an annular wall extending from the inner edge of said plate member, and angularly thereto, said wall terminating in an inwardly extending annular flange, and an outwardly extending annular flange, formed integrally with and bent sharply outward from the inwardly extending flange and having a gasket engaging face on the side farther from the plate member, the inner edges of said flanges where they are united, forming the pipe aperture of the ring, the bend at the junction of said flanges and the reverse bends at opposite ends of said annular wall giving the ring great rigidity with a minimum thickness and weight of metal.

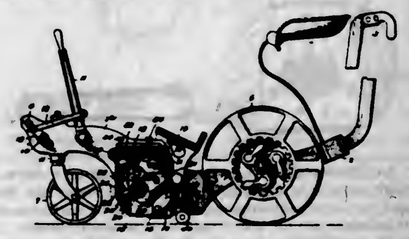
2. A clamping ring for pipe joints of the bell and spigot type formed of a single piece of wrought sheet metal pressed into form, and comprising a flat annular plate member, provided with bolt holes, an annular wall extending from the inner edge of the plate member and connected thereto by an obtuse angular bend, said wall having at the opposite end an inwardly extending flange, disposed substantially perpendicular to the axis of the ring and connected to said wall by an obtuse angular bend, said ring having an outwardly extending flange bent sharply back from the inner edge of said inwardly extending flange and being curved in cross section in a direction away from the inwardly extending flange and the plate member, and having a packing engaging face on the side farther from the plate member.

1,039,489. HAND-BAG. HERMAN COHN and PHILIP BERMAN, New York, N. Y. Filed Mar. 27, 1912. Serial No. 686,568. (Cl. 190—55.)



A hand-bag having hinged metal jaws whose outer edges are flush when they are closed, one of said jaws having perforated lugs projecting outwardly and not exceeding in length the width of the jaw to which they are attached, and U-shaped clasps having pivots passing through the said lugs which thus constitute a bearing therefor, and a loose sleeve applied to the pivots and its ends abutting the aforesaid lugs and the adjacent arms of the clasps, as and for the purpose specified.

1,039,490. LAWN-MOWER. WILLIAM H. COLDWELL, Newburgh, N. Y. Filed Mar. 14, 1912. Serial No. 683,738. (Cl. 56—19.)



1. A demountable cutter unit for the cutter carrying frame of a lawn mower, comprising a rotary cutter, a stationary knife, and a framing adapted to be removably seated in and secured to the cutter carrying frame, and provided with means for holding the rotary cutter and stationary knife in operative relation, whereby the said cutter unit can be removed from and placed in the cutter carrying frame, without disturbing the relation of the said rotary cutter and stationary knife.

2. A demountable cutter unit for the cutter carrying frame of a lawn mower, comprising a rotary cutter, a stationary knife and a framing adapted to be removably seated in and secured to the cutter carrying frame, said framing being provided with devices for holding the rotary cutter and stationary knife in operative relation, and adjusting mechanism for adjusting the relation of said cutter and knife, whereby the cutter unit can be removed from and placed in the cutter carrying frame

without disturbing the adjustment of the rotary cutter and stationary knife.

3. A demountable cutter unit for the cutter carrying frame of a lawn mower, comprising side plates adapted to fit and be removably secured to the cutter carrying frame, a transverse knife bar rigidly connected with said side plates independently of the said carrying frame, a stationary knife secured to said knife bar, a rotary cutter carried by said plates independently of the said carrying frame, and adjusting devices carried by said side plates, for adjusting the relation of the rotary cutter and the stationary knife, whereby said cutter unit may be removed from or placed in said cutter carrying frame without disturbing the adjustment of said cutter and knife.

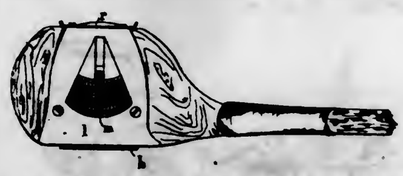
4. A demountable cutter unit for the cutter carrying frame of a lawn mower, comprising a rotary cutter, a stationary knife, a framing removably secured to and forming part of the cutter carrying frame, said framing holding said cutter and knife in operative relation at all times, the said rotary cutter being provided with a gear member, for engaging and forming part of the cutter driving mechanism of the mower, when the cutter unit is is operative position, whereby the cutter unit can be removed from and placed in said cutter carrying frame without disturbing the relation of the rotary cutter and the stationary knife.

5. In a lawn mower, the combination with the cutter carrying frame, provided with means for receiving and seating a cutter unit, of a demountable cutter unit comprising a rotary cutter, a stationary knife and a light framing provided with seating portions to removably engage the seating means of the cutter carrying frame, said framing holding the rotary cutter and stationary knife in operative relation at all times, and means for rigidly securing said framing to the cutter carrying frame, when seated therein.

[Claims 6 to 23 not printed in the Gazette.]

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1,039,491. MEANS FOR INDICATING THE STRIKING FORCE OF GOLF-CLUBS OR SIMILAR INSTRUMENTS. STEPHEN OGLE HENN COLLINS and HAROLD VYVYAN PEARCE, London, England. Filed June 21, 1910. Serial No. 568,120. (Cl. 73—15.)



1. In combination in a device for striking a blow, a member capable of a compound movement under the force of said blow and indicating means capable of similar movement whereby the nature of said blow is ascertained.

2. In combination in a device for striking a blow, a member forming the striking surface, springs supporting said member and allowing a compound movement thereof under the force of said blow, and indicating means capable of similar movement whereby the nature of said blow is ascertained.

3. In combination in a device for striking a blow, a member forming the striking surface, a frame surrounding and retaining said member, springs pressing said member forward into said frame but allowing backward and tilting movement thereof under the force of said blow, and indicating means capable of contacting with said member at a plurality of points whereby the backward and tilting movements of said member are ascertained.

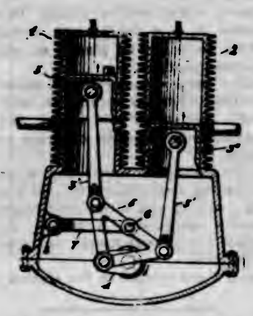
4. In combination in an apparatus for striking a blow, a flanged plate forming the striking surface, a frame surrounding said plate, said flanges engaging behind said frame, spring behind said plate causing the aforesaid engagement but allowing backward movement of said plate under the force of said blow, and indicating means capable of contacting with said plate at a plurality of points whereby the nature of the movement of said plate is ascertained.

5. In combination in a device for striking a blow, a plate capable of compound movement under the force of said blow, a member the movements of which indicate the nature of said blow, and a plurality of means capable of forming connections between said plate and said member.

[Claims 6 to 24 not printed in the Gazette.]

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1,039,492. INTERNAL-COMBUSTION ENGINE AND THE LIKE. ELMER L. COURTWRIGHT and EDGAR D. COURTWRIGHT, Tacoma, Wash. Filed Dec. 20, 1911. Serial No. 666,881. (Cl. 123—197.)



1. The combination of a pair of cylinders, reciprocatory pistons in said cylinders, and a shaft provided with a crank, of a driving connection connected with the stems of said pistons and said crank, and a fulcrum member having said driving connection pivoted thereto intermediate the points of engagement of said piston-stems, said member being supported for movement bodily in an arcuate path.

2. The combination of a pair of cylinders, reciprocatory pistons in said cylinders one of which pistons has a lead over the other, and a shaft provided with a crank, of a driving connection pivotally connected at one end portion to the crank of said shaft, a fulcrum member pivotally connected with the other end portion of said driving connection, said pistons having their stems pivoted to said connection on opposite sides of its point of connection with said fulcrum member, and means supporting said fulcrum member for bodily movement in an arcuate path.

3. The combination of a pair of cylinders, reciprocatory pistons in said cylinders one of which pistons has a lead over the other, and a shaft provided with a crank, of a driving connection pivotally connected at one end portion to the crank of said shaft, a fulcrum member pivotally connected with the other end portion of said driving connection, said pistons having their stems pivoted to said connection on opposite sides of its point of connection with said fulcrum member, and a fulcrum member comprising an arm pivoted to said driving connection and to a relatively fixed part for directing said connection through an arcuate path during its bodily movement with said crank shaft.

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1,039,498. WRENCH. LEONARD G. CROSBY and JACOB C. SLAUGHENHAUPT, Ouray, Colo. Filed July 20, 1911. Serial No. 639,550. (Cl. 81—156.)

1. In a wrench comprising a shank having a jaw fixed to its outer end, an inner jaw slidably mounted on said shank, a grooved extension formed upon the inner jaw, a worm screw mounted for rotation within the grooved extension, a channel formed in the lower end of the shank, a rod adapted for rocking movement within said channel, teeth formed upon said rod and being adapted to engage between the convolutions of the worm screw, and means carried by said rod for rocking the same to permit quick adjustment of the inner jaw, and means carried upon the worm screw to permit fine adjustment of the inner jaw.





2. In a wrench of the class described, comprising a shank having a jaw rigidly secured to its outer end, a channel formed in its lower portion, an inner jaw slidably mounted upon the shank and having a grooved extension, a worm screw rotatably mounted within the grooved extension, a rock rod mounted in the channel portion of the shank, teeth formed integral with said rod and being arranged in spaced oblique relation, said teeth being adapted to normally engage between the convolutions of the worm screw, means for yieldingly holding the rock rod teeth in engagement with the worm screw, said means being operable to disengage the teeth of the rock rod from the worm screw to permit adjustment of the inner jaw and means carried by the worm-screw to permit further adjustment of said jaw.

3. In a wrench comprising a shank having a channel formed in its lower end and a jaw formed upon its outer end, a jaw slidably mounted upon said shank, an extension formed integral with said jaw, a groove formed in said extension, a worm screw rotatably mounted in said groove and having an operating nut secured to its upper end, a toothed rocking rod mounted in the channel of the shank and adapted to mesh with the convolutions of the worm screw, a butt plate secured to the lower end of the shank, an operating nut secured to the lower end of the rocking rod and adapted to have its lower face resting upon the butt plate, an extension formed integral with said nut and passing through the butt plate, a coil spring surrounding said extension and having its opposite terminals secured to the last mentioned nut and butt plate, whereby the toothed rocking rod normally engages the worm screw, a housing rigidly secured to the shank and in which the extension of the sliding jaw is adapted to slide upon operation of the last mentioned nut.

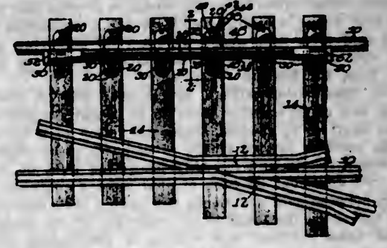
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1,039,494. GUARD-RAIL. DENNIS H. CUSIC, Chicago Heights, Ill., assignor to Morden Frog & Crossing Works, Chicago, Ill., a Corporation of Illinois. Filed Feb. 21, 1912. Serial No. 678,998. (Cl. 289—17.)

1. In combination with a main rail, a plurality of chairs rigidly secured adjacent thereto, a guard rail with a side flange near its lower edge placed with said flange entering recesses in the chairs, and means for securing the rail to the respective chairs.

2. In combination with a main rail, a plurality of chairs rigidly secured adjacent thereto, a guard rail of channel shape placed with the flanges of the channel entering recesses in the chairs, and means for securing the channel to the respective chairs.

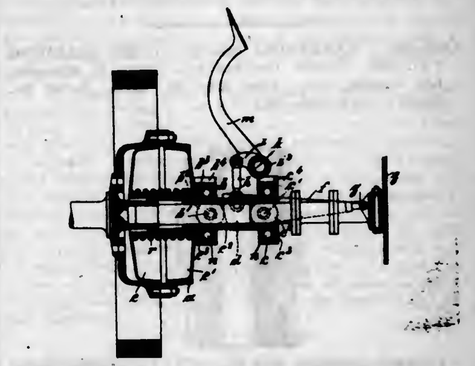
3. In combination with a main rail, a plurality of chairs rigidly secured adjacent thereto, a guard rail of channel shape placed with the flanges of the channel entering recesses in the chairs, lugs projecting from the channels into recesses in the chairs, and means connecting the lugs to the chairs, for the purposes set forth.



4. In combination with a main rail, a plurality of chairs rigidly secured adjacent thereto, a guard rail with a side flange near its lower edge placed with said flange entering recesses in the chairs, lugs projecting from the rail into recesses in the chairs, and means connecting the lugs to the chairs, for the purposes set forth.

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1,039,495. CLUTCH-ACTUATING MECHANISM. PAUL DAIMLER, Untertürkheim, Stuttgart, Germany, assignor to Daimler Motoren-Gesellschaft, Untertürkheim, near Stuttgart, Germany. Filed Sept. 16, 1911. Serial No. 649,763. (Cl. 192—7.)



1. In combination with a double cone friction clutch having two cones slidably movable in opposite directions on one shaft to be coupled under the action of a spring, friction surfaces carried by the other shaft to be coupled and concentrically and laterally projecting hubs on said cones; an abutment on each of said hubs, a wedge between said abutments, a pivoted arm carrying said wedge, a disengaging lever and a connection between said lever and said wedge, whereby on actuating said lever, said abutments are forced apart to disengage said cones from the friction surfaces.

2. In combination with a double cone friction clutch having two cones slidably movable in opposite directions on one shaft to be coupled under the action of a spring, friction surfaces carried by the other shaft to be coupled and concentrically and laterally projecting hubs on said cones; an abutment on each of said hubs, a plurality of wedges between said abutments, pivoted arms carrying said wedges, a disengaging lever and connections between said lever and wedges whereby, on actuating said lever, said abutments are forced apart to disengage said cones from the friction surfaces.

3. In combination with a double cone friction clutch having two cones slidably movable in opposite directions on one shaft to be coupled under the action of a spring,

friction surfaces carried by the other shaft to be coupled and concentrically and laterally projecting hubs on said cones; an abutment on each of said hubs, a wedge between said abutments, and having its engaging edges curved in the longitudinal direction of the wedge, a pivoted arm carrying said wedge, a disengaging lever and a connection between said lever and wedge whereby, on actuating said lever, said abutments are forced apart to disengage said cones from the friction surfaces.

4. In combination with a double cone friction clutch having two cones slidably movable in opposite directions on one shaft to be coupled under the action of a spring, friction surfaces carried by the other shaft to be coupled and concentrically and laterally projecting hubs on said cones; an abutment on each of said hubs, a plurality of wedges between said abutments and having their engaging edges curved in the longitudinal direction of the wedges, pivoted arms carrying said wedges, a disengaging lever and connections between said lever and wedges, whereby, on actuating said lever, said abutments are forced apart to disengage said cones from the friction surfaces.

5. In combination with a double cone friction clutch having two cones slidably movable in opposite directions on one shaft to be coupled under the action of a spring, friction surfaces carried by the other shaft to be coupled and concentrically and laterally projecting hubs on said cones; an abutment on each of said hubs, a roller on each of said abutments, a wedge between said rollers, a pivoted arm carrying said wedge, a disengaging lever and a connection between said lever and said wedge whereby, on actuating said lever, said rollers and abutments are forced apart to disengage said cones from the friction surfaces.

[Claims 6 to 8 not printed in the Gazette.]

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1,039,496. EXPANDING SLEEVE FOR STANDING VALVES. DANIEL DANIELS and LYALE P. BURGESS, Los Angeles, Cal. Filed Mar. 25, 1912. Serial No. 686,177. (Cl. 103—66.)



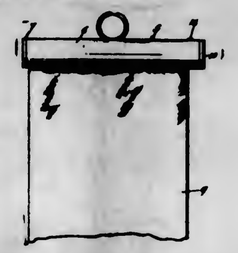
1. The combination with the shoe of a working barrel having a tapering recess and provided with an upward extension from said tapering recess, a sliding ring having a tapering face adapted to seat in said recess, an expansion sleeve of deformable metal above said ring, and a standing valve body extending through said ring and sleeve and having a tapering portion for engaging said sleeve to expand the same.

2. The combination with the shoe of a working barrel having a tapering recess and provided with an upward extension from said tapering recess, a sliding ring having a tapering face adapted to seat in said recess, an expansion sleeve of deformable metal above said ring, a standing valve body extending through said ring and sleeve and having a tapering portion for engaging said sleeve to expand the same, and means on the lower end of said valve body for engaging the tapering ring to hold the same in position while the valve is being inserted.

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1,039,497. HOLDER FOR FOB-RIBBONS. DOCK T. DENNY, Hartsville, S. C. Filed Dec. 15, 1911. Serial No. 665,893. (Cl. 63—21.)

1. The combination in a ribbon holder, of a tubular body portion, a slot provided in one side thereof, a plate closing one end of said tubular body portion, said plate being provided with a recess, a cap engaging the open end of said tubular body portion, a sleeve extending from said cap and engaging the recess, and a spring rod carried by the sleeve and engaging the body portion for preventing the displacement of the cap.

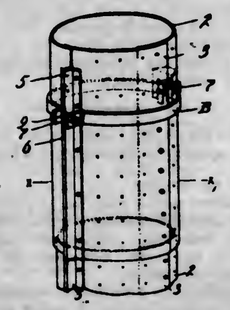


2. The combination in a ribbon holder, of a tubular body portion, a slot formed in one end thereof, a plate closing one end of the tubular body portion, a cap engaging the open end of said tubular body portion, a reduced extension formed upon said cap and engaging the interior of the tubular body portion and preventing the lateral displacement of the said cap, a recess formed in one side of the plate, a sleeve extending from the cap and engaging the recess, a spring rod supported by the sleeve, one end of said rod being off-set and extended through a slot formed in the said sleeve, an opening provided in said tubular body portion to receive the spring rod and prevent the displacement of the sleeve and cap from the body portion.

3. The combination in a ribbon holder of a tubular body portion having a slot formed in one side thereof and an opening provided in the opposite side thereof, a plate closing one end of said tubular body portion, said plate being formed with a recess, a cap engaging the open end of the tubular body portion, a reduced extension formed upon said cap and extending into said tubular body portion, a sleeve secured to said reduced extension and projecting through the tubular body portion and engaging the recess formed in the closing plate, a spring rod supported by said sleeve, one end of said spring rod being off-set and extended through the opening and supporting means attached to said tubular body portion.

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1,039,498. COLUMN-MOLD. PHILIPPE A. DESLAURIERS and LOUIS P. DESLAURIERS, St. Paul, Minn., assignors, by mesne assignments, to Philippe A. Deslauriers and Louis P. Deslauriers, Copartners, doing business under the firm-name and style of Deslauriers Column Mold Company, St. Paul, Minn. Filed July 6, 1909. Serial No. 506,002. (Cl. 25—127.)



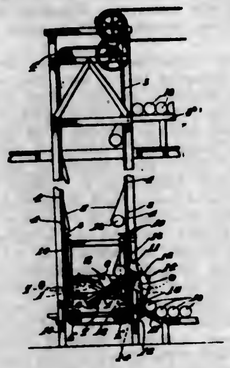
1. The combination with a split mold of the class described, one edge of said mold being turned outwardly and rearwardly with its edge interspaced from the mold, and a flange constructed to receive said bent edge arranged longitudinally along the opposite free edge of the mold, the edge of the mold carrying said flange underlapping said bent edge, the portion of said flange which overlaps the rearwardly-bent edge being off-set with respect to the meeting edges of the mold, whereby a wedging action is produced at the joint, of means surrounding the mold for compressing said flange upon said bent edge.

2. The combination with a split sheet-metal mold of the class described having one of its edges outwardly and rearwardly directed, said edge being interspaced from the adjacent portion of the mold, and a flange carried by the other edge of the mold and extending outwardly and forwardly over the rearwardly-directed edge, the edge of the mold carrying said flange underlapping said bent edge, the portion of said flange which overlaps the rearwardly-directed edge being off-set with respect to the meeting edges of the mold, whereby a wedging action is produced at the joint, and means for clamping the rearwardly-directed edge within said flange comprising a templet frame surrounding said mold, said templet frame having outwardly-bent portions upon opposite sides of said flanges, means for contracting the templet frame, and means for holding the templet frame in contracted position upon the mold.



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1,039,499. ELEVATOR OR CONVEYER. PERCY GRIKIN DONALD and MATTHEW HENRY MATTHEWS, London, England. Filed July 25, 1912. Serial No. 711,496. (Cl. 193—8.)



1. A conveying device comprising traveling chains mounted to assume a vertical position during a part of their travel, slings of flexible material carried by the chains, two axes of suspension for each of said slings, means for discharging goods from said slings when their axes of suspension are in a vertical plane, said means comprising a hinged platform, normally intercepting the path of the slings and inclined downward therefrom, means for retaining the platform in its inclined position when the platform is supporting a sling and the goods contained therein, means connected with the traveling chains adapted to release said platform and by their downward movement turn the platform upon its hinge until the same is inclined downward toward the path of the slings, and means for returning the platform to its normal position.

2. A conveying device comprising flexible chains mounted to assume a vertical position during a portion of their travel, slings of flexible material suspended from said traveling chains, two axes of suspension for each sling, means for discharging goods from said slings when their axes of suspension are in a vertical plane, said means comprising a hinged platform normally intercepting the path of the slings, and inclined downward away therefrom, a hinged catch for retaining the platform in this position, a tail piece on said catch, said tail piece intercepting the path of the chain, a spring attached to said catch, means connected with the traveling chains adapted to release said platform, and by their downward movement turn the platform upon its hinge until the same is inclined downward toward the path of the slings, and means for returning the platform to its normal position.

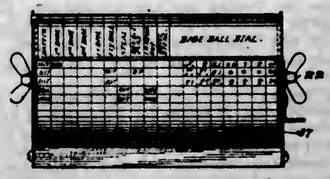
3. A conveying device comprising traveling chains, said chains being mounted to assume a vertical position during a portion of their travel, slings of flexible material suspended from said chains, two axes of suspension for each sling, means for discharging goods from said slings when their axes of suspension are in a vertical plane, said means comprising a platform suspended from an axis about which it is hinged, said platform adapted to normally intercept the path of the slings, a hinge catch for retaining the platform in this position, a tail piece on said catch intercepting the path of the chain, a spring attached to said catch, means connected with the traveling chains adapted to release said platform and by their downward movement turn the platform upon its hinge, until it is inclined downward toward the path of the slings, and means for returning the platform to its normal position.

4. A conveying device comprising traveling chains mounted to assume a vertical position during a portion of their travel, slings of flexible material suspended from said traveling chains, two axes of suspension for each of the slings, means for discharging goods from said slings when their axes of suspension are in a vertical plane, said means comprising a hinged platform, normally intercepting the path of the slings and inclined downward away therefrom, a hinged catch for retaining the platform in this position, a tail piece on said catch projecting into the path of the chain, a spring attached to said catch, means connected with the traveling chains adapted to release said platform, and by their downward movement turn the platform upon its hinge until it is inclined downward toward the path of the slings, an extension on said platform adapted to engage said means for preventing premature ascent of the platform, and a weight secured to the platform for returning the same to its normal position.

5. A conveying device comprising traveling chains mounted to assume a vertical position during a portion of their travel, slings of flexible material suspended from said traveling chains, two axes of suspension extending the distance between the chains, means for discharging goods from said slings when their axes of suspension are in a vertical plane, said means comprising chain guides, a horizontal member secured to said guides, the arm hinged on said horizontal member, a platform carried by said arm, a catch hinged to the guides and engaging one end of the platform, the spring attached to the catch and the guides, an extension on one end of the platform, adapted to engage the catch, and a weight at the opposite end of said platform.

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1,039,500. APPARATUS FOR GAMES. GEORGE A. DROSTE, Seattle, Wash. Filed July 18, 1911. Serial No. 639,095. (Cl. 46—36.)



1. The combination with a board marked to indicate a game field, of a drum having a stationary member indicating acts which are to be done in the playing of the game, and a cylinder mounted to rotate adjacent such strip and provided with columns read in conjunction with the designations upon such strip indicating how such acts are to be performed and the outcome of such acts.

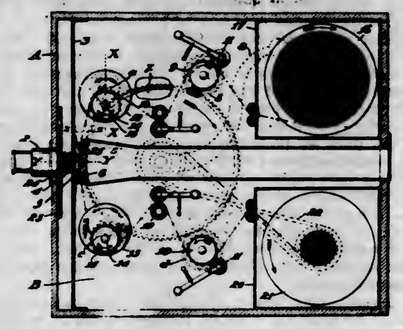
2. The combination with a board having markings thereon to indicate a game field, of a strip carrying designations of acts to be performed upon such field, and a drum mounted to rotate adjacent such strip and hav-

ing spaces corresponding to the designations upon the strip and indicating by chance the performance and outcome of the act indicated upon the strip.

3. The combination with a board marked to indicate a game field, of a drum having longitudinal and circumferential lines dividing the surface into longitudinal and circumferential columns, a strip mounted adjacent the drum and having indications corresponding to the circumferential columns indicating acts to be performed upon the board, and indications appearing in the longitudinal columns of the drum which when read in conjunction with the indications upon the strip form directions as to how such acts are to be performed and the outcome of such acts.

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1,039,501. MOVING-PICTURE CAMERA AND PROJECTION-MACHINE. VICTOR L. DUHEM, Oakland, Cal., assignor to American Vimograph Company, a Corporation of Arizona. Filed May 4, 1911. Serial No. 624,957. (Cl. 88—18.)



1. The combination with a lens, shutter and a movable film, means for passing the film step by step across the lens, said means including eccentrically mounted rollers over which the film travels.

2. The combination with a lens and shutter, of a continuously moving film, and means by which the section of the film traversing the lens will have alternate periods of rest and intermediate periods of accelerated movement, said means including eccentric guides for the film.

3. The combination with a lens and shutter, of a continuously moving film, means by which the section of the film traversing the lens will have alternate periods of rest and intermediate periods of accelerated movement, said means including eccentric guides for the film, and means for rotating said eccentric guides continuously.

4. The combination with a lens, of a rotary shutter, a film adapted to be wound from one reel on to another reel, means for feeding the film continuously, eccentrically mounted guides around which the film passes for feeding the film intermittently across the lens, and a master gear for operating said several film feeding means and the shutter in unison.

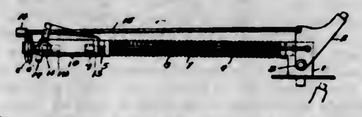
5. In a camera or projector, the combination with a lens, a movable film, of means for winding said film continuously from one reel on to another reel, means whereby the film will be given a reciprocal movement synchronous with its continuous winding movement, said means embodying a pair of revoluble disks, and an idler roller mounted on each disk eccentric to the axis of rotation thereof.

[Claims 6 to 11 not printed in the Gazette.]

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1,039,502. TROLLEY-RETRIEVER. ROBERT ROWSE DUNLOP, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company. Filed Feb. 20, 1909. Serial No. 479,090. (Cl. 191—36.)

1. In a trolley supporting mechanism, the combination of a pivotally mounted trolley arm, a slidably mounted carriage, a spring engaging with the carriage and tending to move it in one direction, a connecting member pivotally secured at one end to the trolley arm and slidably engaging the carriage at the other and an engaging device between the carriage and the connecting member whereby the spring may act to hold the trolley arm in operative position, and means whereby the movement of the carriage beyond a certain point will cause the engaging means to disengage the connecting member, substantially as set forth.



2. In a trolley supporting mechanism, the combination with a base and a trolley arm pivotally mounted thereon, of a strut mounted on the base and extending in the plane of motion of the arm, a carriage slidably mounted on the strut near its outer end, a spring adapted to engage the carriage and move it in one direction, connecting devices between the carriage and the arm comprising two separate members in engagement with each other, one member being connected to the arm and the other to the carriage, and means for automatically moving the second said member to disengage the first when the carriage moves beyond a certain point, substantially as set forth.

3. In a trolley supporting mechanism, the combination of a pivotally mounted trolley arm, two connecting devices pivotally fastened to the trolley arm at points unequally distant from the pivotal axis of the arm, a spring, a movable carriage adapted to be acted on by the spring and to engage the connecting device which is fastened to the trolley arm nearest its pivotal axis, the carriage being also adapted to be engaged by the other connecting device whereby said connecting device may move the carriage in opposition to the action of the spring and at a rate greater than the rate of movement of the first connecting device, substantially as set forth.

4. In a trolley supporting mechanism, the combination with a base, and a trolley arm pivotally mounted thereon, of a coiled spring extending longitudinally in the plane of motion of the arm, and engaging at one end with the base, a slidably mounted carriage engaging with the other end of the spring, a hook member pivotally mounted on the carriage, a connecting member pivotally connected at one end to the trolley arm, and engaging at the other end with the hook member, and means whereby the movement of the carriage beyond a certain point will cause the hook to disengage the connecting member, substantially as set forth.

5. In a trolley supporting mechanism, the combination with a base, and a trolley arm pivotally mounted thereon, of a strut mounted on the base and extending in the plane of motion of the arm, a carriage slidably mounted on the strut near its outer end, a spring adapted to engage the carriage and force it outward, a member extending substantially parallel to the strut between the arm at one end and the carriage at the other, means for connecting the member with the arm, means for connecting the member with the carriage, and means for breaking the connection between the member and the carriage when the carriage moves beyond a certain point, substantially as set forth.

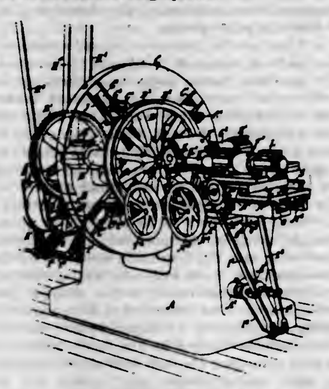
[Claims 6 to 15 not printed in the Gazette.]

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1,039,503. WHEEL BORING AND FACING MACHINE. GEORGE A. ENSION, Defiance, Ohio, assignor to Defiance Machine Works, Defiance, Ohio, a Corporation of Ohio. Filed Mar. 16, 1912. Serial No. 684,182. (Cl. 144—3.)

1. A machine of the class described, comprising a revoluble face plate provided with adjustable jaws adapted to engage the rim of a wheel to be bored and faced and to hold the rim centrally on the face plate, means for moving the jaws simultaneously into and out of engagement with the rim, a retractable revoluble boring spindle, boring and facing tools attached to the said spindle for boring a hole centrally in the wheel and facing the wheel adjacent the hole, a revoluble cutter head adapted to engage the face of the wheel, a manually controlled means for bodily moving the said cutter head into active position relative to the face of the wheel and into inactive position relative to the face of the wheel and into inactive position and out of the path of the said boring spindle.





2. A machine of the class described, comprising a revoluble face plate provided with adjustable jaws for engagement with the rim of a wheel to be bored to hold the latter centrally on the face plate, means for moving the jaws simultaneously into and out of engagement with the rim, a guideway mounted to swing, manually-controlled means for imparting a swinging motion to the guideway to move the latter into position either parallel with the axis of the said face plate or at an angle thereto, a manually-controlled slide mounted on the said guideway, a boring spindle journaled in the said slide, a boring tool and a facing tool, both tools being attached to the said spindle and the said boring tool for boring a cylindrical or conical hole centrally in the wheel and the said facing tool facing the wheel adjacent the said hole.

3. A machine of the class described, comprising a revoluble face plate provided with adjustable jaws for engagement with the rim of a wheel to be bored to hold the latter centrally on the face plate, means for moving the jaws simultaneously into and out of engagement with the rim, a guideway mounted to swing, manually-controlled means for imparting a swinging motion to the guideway to move the latter into position either parallel with the axis of the said face plate or at an angle thereto, a manually-controlled slide mounted on the said guideway, a boring spindle journaled on the said slide, a boring tool and a facing tool, both attached to the said boring spindle, the said boring tool boring a cylindrical or conical hole centrally in the wheel, and the said facing tool facing the wheel adjacent the said hole, and a stop to limit the return sliding motion of the said slide.

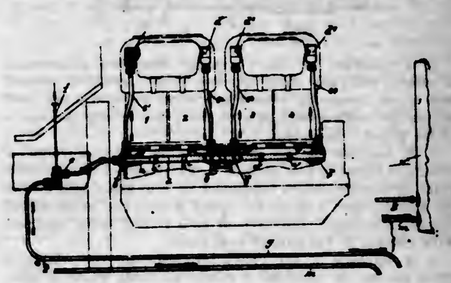
4. A machine of the class described, comprising a revoluble face plate having means for holding a wheel to be faced, a cutter head adapted to engage the face of the wheel, a driven spindle on which the said cutter head is secured, and manually-controlled means carrying the said spindle and moving the said spindle and cutter head in a direction parallel to the axis of the face plate and then radially thereto to engage the cutter head with the face of the wheel.

5. A machine of the class described, comprising a revoluble face plate having means for holding a wheel to be faced, a fixed longitudinal guideway parallel to the axis of the said face plate, a longitudinal slide mounted to slide on the said longitudinal guideway and provided with a transverse guideway extending parallel to the face of the said face plate, a transverse slide mounted to slide on the said transverse guideway, a bearing held on the said transverse slide, a driven spindle journaled in the said bearing, a cutter head secured on the said spindle, and manually-controlled means imparting movement simultaneously to the said slides.

[Claims 6 to 16 not printed in the Gazette.]

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1,039,504. STARTING DEVICE FOR INTERNAL-COMBUSTION ENGINES. ORESTE FRASCHINI, Milan, Italy. Filed June 16, 1906. Serial No. 438,782. (Cl. 123—181.)



1. In an internal combustion engine, the combination, with a cylinder, and a valve controlling a fuel inlet thereto, of an air inlet, a compressed air pipe leading to such air inlet, a valve controlling the passage of the air through the air pipe, and means carried by the air valve stem to actuate the fuel inlet valve.

2. In an internal combustion engine, the combination, with a cylinder, and a valve controlling a fuel inlet thereto, of an air inlet, a compressed air pipe leading to such inlet, a rotary valve controlling the passage of the air through the air pipe, and a cam device carried by the rotary valve stem to actuate the fuel inlet valve.

3. In an internal combustion engine, the combination, with a plurality of cylinders, and valves controlling the fuel inlets thereto, of a compressed air pipe, a rotary distributing valve communicating with said pipe, a pipe leading from said valve to each cylinder, and a cam device carried by the rotary valve stem to actuate each of the fuel inlet valves.

4. In an internal combustion engine, the combination, with a plurality of cylinders, and valves controlling the fuel inlets thereto, of a compressed air pipe, a tubular rotary shaft provided with cams to actuate the several fuel inlet valves, the interior of said shaft communicating with the air supply pipe and provided with laterally opening angularly displaced ports, a casing surrounding said shaft and provided with ports arranged to register in succession with the ports in said shaft and forming therewith a rotary distributing valve, and branch pipes leading from each of the ports of said distributing valves to one of the cylinders.

5. In an internal combustion engine, the combination, with a plurality of cylinders, and valves controlling the fuel inlets thereto, of a compressed air pipe, a tubular rotary shaft provided with cams to actuate the several fuel inlet valves, the interior of said shaft communicating with the air supply pipe and provided with laterally opening angularly displaced ports, a casing surrounding said shaft and provided with ports arranged to register in succession with the ports in said shaft and forming therewith a rotary distributing valve, branch pipes leading from each of the ports of said distributing valve to one of the cylinders, a manually operable valve in the compressed air pipe, and a check valve in each of the branch pipes.

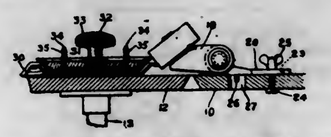
[Claim 6 not printed in the Gazette.]

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1,039,505. MACHINE FOR TRIMMING AND RIMMING PIES. JOSEPH P. FRISBIE, Bridgeport, Conn. Filed Jan. 22, 1912. Serial No. 672,710. (Cl. 107—49.)

1. A machine of the character described comprising a rotary carrying plate, pivoted arms arranged around said plate, and trimming rollers supported by said arms.

2. A machine of the character described comprising a rotary carrying plate, pivoted arms arranged around said plate, and trimming rollers supported by said arms, the axes of said rollers being inclined with respect to the axis of said plate.



3. A machine of the character described comprising a rotary carrying plate, pivoted arms, arranged around said plate, trimming rollers supported by said arms, and means for locking each arm at any point within the range of its pivotal movement.

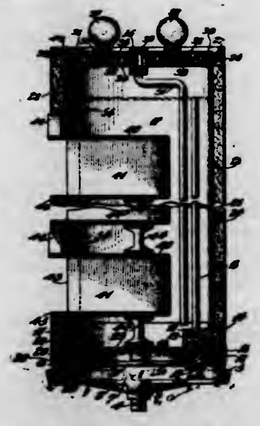
4. A machine of the character described comprising a rotary carrying plate, pivoted arms arranged around said plate, trimming rollers supported by said arms, and means for locking each arm at any point within the range of its pivotal movement, the axes of said rollers being inclined with respect to the axis of said plate.

5. A machine of the character described comprising a table having an opening, a rotary carrying plate in said opening, plates secured to the table and radially adjustable relatively to the carrying plate, trimming rollers and arms by which said rollers are carried and which are pivotally connected to the plates.

[Claims 6 to 11 not printed in the Gazette.]

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1,039,506. CONTAINER FOR RETAINING ARTICLES IN A CHILLED OR FROZEN CONDITION. JOHN FRITSCHE, Philadelphia, Pa., assignor of one-third to Joseph V. Horn and one-third to Frank Hardart, Philadelphia, Pa. Filed Dec. 20, 1911. Serial No. 666,918. (Cl. 62—10.)



1. In a device of the character stated, a bottom member adapted to be rotatably mounted, an insulated plate carried by said member, inner and outer shells carried by said plate, a top member secured to said shells and adapted to be rotatably mounted, insulation between said shells, an insulated removable closure carried by said top member, a plurality of superimposed article receiving compartments extending into the chamber formed by the inner shell and having an open side extending through said shells, spacing means supporting the inner ends of said compartments, and means for removing liquid from the compartment formed by said inner shell.

2. In a device of the character stated, a bottom member having a shaft on which it is adapted to be mounted, an insulated plate carried by said member, inner and outer shells carried by said plate, a top member secured to said shells and having an opening therein adapted to receive a journal, a conduit communicating with said opening and discharging into the chamber formed by the inner shell, a discharge conduit communicating with said chamber near its upper end, a plurality of superimposed article receiving compartments extending into the chamber formed by the inner shell and having an open side extending through said shells, spacing means supporting the inner ends of said compartments, and means for circulating a cooling medium through said opening.

3. In a device of the character stated, a bottom member having a shaft on which it is adapted to be mounted, an upwardly extending flange at its outer periphery and having a rib on its upper face, an insulated bottom plate contained within said flange and interlocking with said rib, inner and outer inqulated shells carried by said bottom plate, a top member carried by said shells, a closure carried by said top member, and means for removing liquid from the chamber formed by said inner shell.

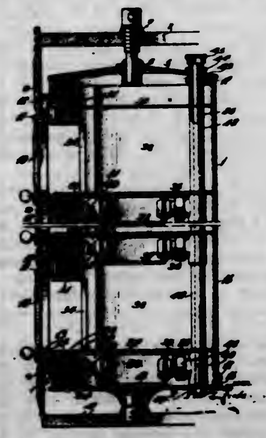
4. In a device of the character stated, a bottom member having a shaft on which it is adapted to be rotatably mounted and having on its upper face a rib, a bottom plate interlocked with said rib, insulation between said plate and said bottom member, inner and outer shells carried by said plate, insulation therebetween, a top member secured to said shells, a removable insulated closure carried by said top member, a plurality of superimposed compartments within the chamber formed by the inner shell and having an open side extending through said shells, spacing means between said compartments, and means for removing liquid from said chamber.

5. In a device of the character stated, a bottom member having a shaft on which it is adapted to be mounted, an insulated plate secured to said member, inner and outer shells carried by said plate, a top member secured to said shells, insulation between said shells, an insulated removable closure carried by said top member, a plurality of article receiving compartments extending into the chamber formed by said inner shell and having an open side extending through said shells and secured thereto, spacing means supporting the inner ends of said compartments, and means for circulating a cooling medium through said chamber.

[Claims 6 and 7 not printed in the Gazette.]

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1,039,507. CONTAINER FOR RETAINING ARTICLES IN A HEATED CONDITION. JOHN FRITSCHE, Philadelphia, Pa., assignor of one-third to Joseph V. Horn and one-third to Frank Hardart, Philadelphia, Pa. Filed Dec. 20, 1911. Serial No. 666,919. (Cl. 126—261.)

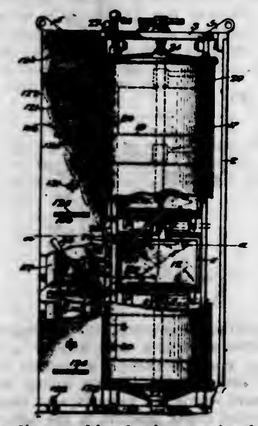


1. In a device of the character described, a container having compartments arranged one above the other, a water container disposed immediately below the lower compartment and having a depending conduit closed at its lower end, means for heating said depending conduit, a water container disposed immediately below the upper compartment, an upright conduit connected with the said water-containers and closed at its lower and upper ends and extending above the upper water container, and an upright conduit, of smaller diameter than the first-named conduit, arranged in the first-named conduit and extending above the upper water container and open at its upper end, and extending down below the first-named conduit and open at its lower end.

2. In a device of the character described, a container having compartments arranged one above the other, a water container disposed immediately below the lower compartment and having a depending conduit closed at its lower end, means for heating said depending conduit, a water container disposed immediately below the upper compartment, a water container arranged in the upper portion of the lower compartment, an upright conduit connected at intermediate points of its length with said water containers and extending below the lower compartment and above the upper compartment, means closing the upper end of said conduit, a sleeve closing the lower end of the conduit, an upright conduit, smaller in diameter than the first-named conduit, arranged in the first-named conduit and extending from a point adjacent the upper closed end thereof downward and through the sleeve and open at its upper and lower ends, and means in the sleeve for supporting the second-named conduit.

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1,039,508. CHECK OR COIN CONTROLLED VENDING APPARATUS. JOHN FRITSCHE, Philadelphia, Pa., assignor of one-third to Joseph V. Horn and one-third to Frank Hardart, Philadelphia, Pa. Filed Dec. 20, 1911. Serial No. 666,920. (Cl. 194—1.)



1. In a vending machine having a coin slot, a coin retainer movably mounted and normally registering with said slot, means for adjusting the coin slot to receive one or more coins, means coacting with a coin in said retainer to move the latter, and means controlled by the movement of said coin retainer to prevent the passage of a coin through the coin slot when said coin retainer is out of its normal position.

2. In a vending machine having a coin slot, a coin retainer, resilient means for retaining said coin retainer normally in register with said slot, a shaft rotatably mounted, a cam carried thereby and adapted to engage a coin in said coin retainer to move the latter from normal position, and means carried by said coin retainer for indicating to the attendant that the coin retainer has been moved from normal position.



3. In a vending machine having a coin slot, a coin retainer adapted to normally register therewith, a catch carried by said coin retainer, a resiliently mounted catch adapted to interlock with said first catch, a tension device adapted to move said coin retainer when said catches are released, and means coacting with a coin in said coin retainer for unlocking said catches.

4. In a vending machine having a coin slot, a coin retainer adapted to normally register therewith, a catch carried by said coin retainer, a resiliently mounted catch adapted to interlock with said first catch, a tension device adapted to move said coin retainer when said catches are released, means coacting with a coin in said coin retainer for unlocking said catches, and a lever pivotally mounted and connected with said coin retainer and adapted to be manually actuated to unlock said catches.

5. In a vending machine having a coin slot, a coin retainer movably mounted and adapted to receive a coin from said slot, a catch carried by said coin retainer, a spring actuated catch adapted to interlock with the coin retainer catch, means coacting with a coin in said coin retainer to unlock said catches, a tension device for moving said coin retainer when said catches are unlocked, and a coin chute adapted to receive the coin discharged from said coin retainer.

[Claims 6 to 28 not printed in the Gazette.]

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1,039,509. SLEEPING-BAG. GEORGE WILLIAM GAIL, Jr., Baltimore, Md. Filed June 15, 1912. Serial No. 703,846. (Cl. 5—5.)



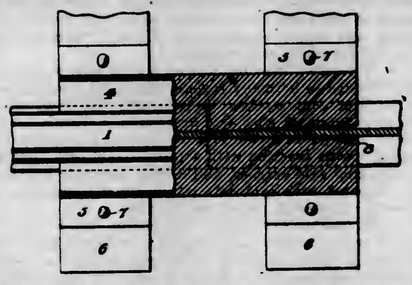
1. A sleeping bag comprising a bottom and a top or cover united at the sides and foot, the bag being open endwise at the head and said cover having an extension in the form of a head flap beyond the bottom of the bag, the said flap being disposed in the direction of length of the bag beyond the end opening thereof and having means at its outer transverse edge whereby to engage a prop, and means at its side edges whereby to hold the same down at points beyond the body of the bag.

2. A sleeping bag open endwise at the head, and comprising a bottom, and a top or cover, the said cover having a flap at the head end free from the bottom of the bag at the outer edge and side edges of the flap, said flap having means at its free transverse edge whereby it may be held raised, and means at its free side edges whereby said edges may be held down.

3. A sleeping bag comprising a top and bottom, and open at the head end, the top and bottom being united permanently along one side and having detachable fastening means at the opposite side, the top extending laterally beyond the bottom along that side of the bag provided with the detachable fastening means,

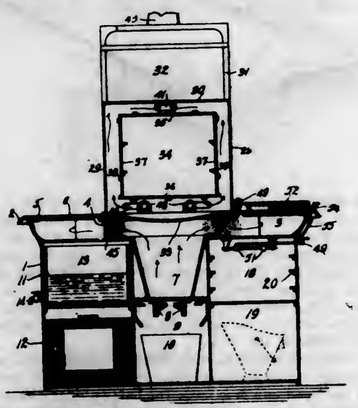
4. A sleeping bag comprising a top and bottom, and open at the head end, the top and bottom being united permanently along one side and having detachable fastening means at the opposite side, the top extending laterally beyond the bottom along that side of the bag provided with the detachable fastening means, the said top being furthermore provided with a head flap beyond the said detachable fastening means.

1,039,510. RAIL-JOINT. WILLIAM H. GAITHER, Thomas, W. Va. Filed July 9, 1912. Serial No. 708,408. (Cl. 238—6.)



In a rail joint, the combination with the confronting ends of rails, and ties, of a rail chair mounted upon said ties and embracing the confronting ends of said rails, said chair comprising a tie plate having lateral flanges secured to said ties, braces formed integral with said tie plate and engaging the sides of said rails, said braces having the confronting sides thereof beveled and removed from said rails with the intermediate portion of said braces engaging the webs of said rails.

1,039,511. COOK STOVE OR RANGE. CHARLES M. GENTHNER, Peoria, Ill., assignor to Culter & Proctor Stove Co., Peoria, Ill., a Corporation of Illinois. Original application filed May 28, 1910, Serial No. 563,955. Divided and this application filed July 25, 1910. Serial No. 573,823. (Cl. 126—36.)



1. In a stove, in combination, a fire-pot, an oven casing mounted on the top of the stove immediately above the fire-pot, the lower wall of said casing being dished and serving as a baffle-plate, the bottom of the oven proper being spaced above the baffle-plate forming an interposed air circulating space, a flue-strip for directing the products of combustion to the opposite ends of the stove, burners disposed within the oven casing above the baffle-plate and below the bottom of the oven proper, and a gas supply pipe connected with said burners.

2. In a stove, in combination, a fire-pot, an oven casing mounted on the top of the stove immediately above the fire-pot, the lower wall of said casing being dished and serving as a baffle-plate, the bottom of the oven proper being spaced above the baffle-plate forming an interposed air circulating space, compartments disposed upon opposite sides of the said fire-pot, "end top" plates disposed in the top of the stove on opposite sides of the oven casing and supporting removable lids, a flue strip having a sinuous shape and its opposite ends terminating beneath the respective "end tops" for causing the products of combustion from the fire-pot to circulate beneath said "end tops," burners disposed within the oven casing above the baffle-plate and below the bottom of the oven proper.

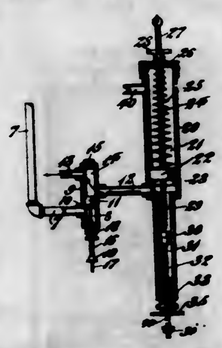
3. In a stove, in combination a fire-pot, an oven disposed above and in proximity to the fire-pot with the bottom of the oven spaced above the fire-pot, a baffle-plate interposed between the fire-pot and the bottom of the oven, and heating instrumentalities disposed between the baffle-plate and bottom of the oven whereby said oven may be heated by the products of combustion from said fire-pot or by said heating instrumentalities.

4. In a stove, in combination, a fire-pot disposed in the center of said stove with respect to its end walls, an oven located directly on top of the stove and above the fire-pot, a baffle-plate between the fire-pot and bottom of the oven and spaced from said oven bottom so as to provide an interposed air circulating space, and heating instrumentalities arranged in the space between the oven bottom and said baffle-plate.

5. In a stove, in combination, a fire-pot and an oven located above the fire-pot, means between the oven bottom and fire-pot for protecting the oven bottom from the products of combustion arising from the fire-pot, gas burners interposed between the oven bottom and said protecting means, and a supply pipe having a valved connection with said burners whereby said oven may be heated by the products of combustion from said fire-pot or by said burners.

[Claims 6 and 7 not printed in the Gazette.]

1,039,512. AUTOMATIC SPRING-DAMPER. MICHAEL F. GIBBONS, Philadelphia, Pa. Filed June 26, 1911. Serial No. 635,385. (Cl. 236—6.)



1. In a regulating mechanism, the combination with a furnace, its boiler and stack, of a damper located in the stack, a casing, a piston therein, a conduit communicating with said boiler and with said casing beneath said piston, a pressure regulating valve in said conduit whereby a predetermined steam pressure in the boiler will cause the piston to be moved in one direction, a spring within the casing and secured to said piston to move the latter in the opposite direction a compression spring on the opposite side of said piston and located between the latter and the end of the casing, and means exterior of the casing for adjusting the tension of the compression spring.

2. In a regulating mechanism, a casing having a piston chamber and a seat therein, a piston in said piston chamber, a rod connected with said piston, a spring for normally maintaining said piston against its seat, a conduit opening into said casing beneath said seat and connected with a source of fluid supply, said casing having a chamber beneath said seat, a plunger adjustable in said chamber and of less diameter than said chamber and exposed on its front and rear faces to the motive fluid a spring connecting said plunger with said piston and valve mechanism controlled by said piston.

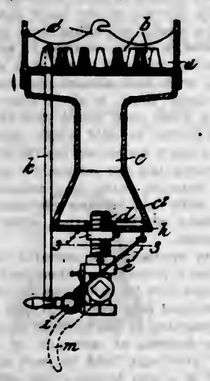


3. In a regulating mechanism, a casing having a piston chamber and a seat, and a chamber below said seat in alinement with the piston chamber, a piston in the piston chamber, a removable cap at one end of the piston chamber, a rod secured to the piston and passing through said cap, a portion of said rod being threaded, a spring between the piston and said cap, a nut exterior of the cap and engaging the threaded portion of said rod, said rod being connected with suitable mechanism to be regulated, a plunger in said chamber and of less diameter than the diameter of said chamber, a spring connecting said piston and said plunger, means for longitudinally adjusting said plunger and thereby the tension of said spring, a conduit communicating with said casing beneath said piston and also communicating with a source of motive fluid supply and valve mechanism controlled by said piston.

4. In a regulating mechanism, a casing having a piston chamber therein, a piston within said chamber, a piston rod extending through one end of the casing and secured to the piston, and having a portion thereof threaded, a nut exterior of the casing engaging the threaded portion of said rod, a spring intermediate the piston and the end of said casing, a spring connected to the opposite side of said piston, means for varying the tension of said last named spring, said casing having a conduit leading from a source of variable fluid supply and communicating with the interior of said casing beneath said piston, a pressure regulating valve in said conduit, and valve mechanism controlled by said piston rod.

5. The combination with a furnace having a boiler, a stack and a damper in said stack, of a casing having a conduit communicating therewith and with said boiler, a pressure regulating valve in said conduit, a casing having a piston chamber communicating with said conduit, a piston in said chamber, a piston rod secured to said piston, a spring intermediate said piston and one end of the casing, a piston rod connected with said piston and operatively connected with said damper, a spring between one end of the casing and said piston, means exterior of the casing and co-acting with said rod to vary the tension of said spring, a spring secured to the opposite side of said piston for moving the latter toward its seat, and means exterior of the casing for varying the tension of said last named spring.

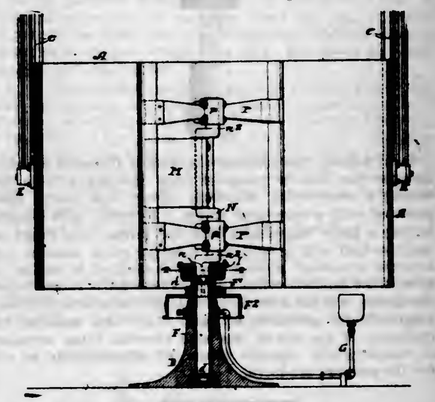
1,039,513. BURNER. GEORGE C. GILL, Holyoke, Mass., assignor to Barlow Company, Holyoke, Mass., a Corporation of Massachusetts. Filed Feb. 15, 1912. Serial No. 677,701. (Cl. 158—115.)



1. The combination with a gas burner having burner tips, an air inlet, a gas inlet, means for conducting the gas and air to the burner tips, and a shutter controlling the air inlet, of an igniting burner adjacent the burner tips, a gas supply pipe connected to the igniting burner, a valve connected to the gas supply pipe, and a device connecting the shutter and valve and adapted to close the shutter when the valve is opened and to open the shutter when the valve is closed.

2. In a device to prevent back firing in a gas burner, the combination with said burner, means for supplying gas and means for supplying air thereto, a shutter to control the air supply to the burner, of an igniting device for the burner, a gas supply pipe leading to the igniting device, means in said gas supply pipe to control the flow of gas therethrough, and a device connecting the shutter and said gas controlling means in the gas supply pipe to close the shutter when the gas controlling means is opened and to open the shutter when said gas controlling means is closed.

1,039,514. MEANS FOR DRIVING SUSPENDED STRUCTURES, SUCH AS SIFTERS. HARVEY W. GLADHILL, Chambersburg, Pa. Filed Mar. 1, 1910. Serial No. 546,609. (Cl. 83—88.)



1. The combination of a suspended structure; a base; a vertical shaft in the base, said structure having a central chamber; a crank shaft in said chamber and resting on the driving shaft; a flexible connection between the driving shaft and the crank shaft; and bearings carried by the suspended structure in which the cranks of the said crank shaft are mounted.

2. The combination of a suspended structure; a base; a vertical driving shaft in the base, said structure having a central chamber; a crank shaft in said chamber and resting on the driving shaft; a flexible connection between the driving shaft and the crank shaft; and bearings carried by the structure in which the cranks of the crank shaft are mounted; with a balance weight on the crank shaft within the central chamber.

3. The combination of a suspended structure having an open center; a base; a vertical driving shaft; a crank shaft within the open center of the structure; a ball and socket support for the crank shaft in line with the center of the driving shaft; a flexible connection between the driving shaft and the crank shaft; bearings carried by the structure for the reception of the cranks of the crank shaft; and a balance weight on the crank shaft.

4. The combination of a suspended structure; a bearing located below the structure; a driving shaft mounted in the bearing; a crank shaft located above the driving shaft; means for holding the lower end in alinement therewith; a flexible driving connection at the point between the driving shaft and the crank shaft; and bearings on the suspended structure for the cranks of the said crank shaft.

5. The combination of a suspended structure; a bearing located below the structure and independent thereof; a vertical driving shaft mounted in said bearing; a crank shaft; a ball and socket connection between the crank shaft and the vertical driving shaft so that the lower end of the crank shaft will always be in line with the driving shaft; a flexible driving connection between the driving

shaft and the crank shaft; and bearings carried by the structure for the cranks of the crank shaft.

[Claim 6 not printed in the Gazette.]

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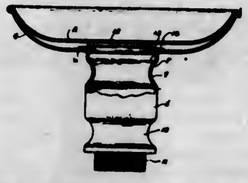
1,039,515. WRENCH. PEARL P. GLASS, Ansdarko, Okla. Filed Oct. 4, 1911. Serial No. 652,710. (Cl. 81—161.)



In a wrench, the combination with a threaded shank, a movable jaw loosely mounted upon the shank, said jaw having a rearwardly extending sleeve, said sleeve being provided with a segmental recess, a follower, said follower having a finger engaging within the recess, said finger being provided with a stud, and a spring catch member constructed of a single piece of material adapted to engage the stud of the follower when the said follower is rotated upon the shank, and the bore of the follower being provided with longitudinally extending recesses of a width equaling the thickness of the shank, the said recesses being arranged at diametrically opposite points, all substantially as and for the purpose set forth.

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1,039,516. JEWEL-CUP. HENRY F. GOETZ, Waterbury, Conn., assignor to Waterbury Mfg. Co., Waterbury, Conn., a Corporation. Filed Dec. 18, 1911. Serial No. 666,546. (Cl. 45—28.)

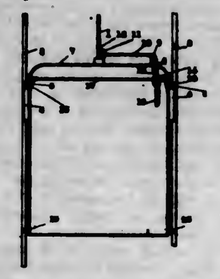


In a jewel cup, the combination with a cup-body having a central circular opening formed with a plurality of inwardly projecting coupling fingers, of a washer arranged upon the upper face of the said body concentric with the opening therein and formed with a plurality of notches spaced with reference to the spacing of the said fingers, of which there are more notches than fingers, and a hollow standard provided at its upper end with a retaining flange adapted to be passed upward through the central opening in the cup-body, and to be spun outward over the said fingers when they are turned upward and outward in notches in the said washer.

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1,039,517. SAFETY APPLIANCE. MILON O. GODDING, Portland, Oreg. Filed June 20, 1911. Serial No. 634,381. (Cl. 187—83.)

1. The combination with an elevator car of a guide rail at each side thereof, a housing mounted at each side of the car having its front side open along its median line and positioned to embrace its respective rail and provided at the center in the rear side with a pair of downwardly diverging slots, a member secured in each side of the housing whose inner face stands parallel with its respective slot, a reciprocating member conforming thereto whose inner face stands parallel with said rail, a shank fixed upon each reciprocating member and extending through its respective slot, and mechanism operatively connected with said shanks, whereby the reciprocating members are brought to bear upon the guide rail.



2. The combination in an elevator car of a guide rail at each side thereof, a housing mounted at each side of the car having its front side open along its median line and positioned to embrace its respective rail and provided at the center in the rear side with a pair of downwardly diverging slots, a member secured in each side of the housing whose inner face stands parallel with its respective slot, a shoe conforming thereto whose inner face stands parallel with said rail, a shank extending from each shoe through its respective slot, a spring secured to said housing above the slots, a pulley mounted below each slot, a cable engaging the spring, with said shanks, for drawing the shoes toward their upward limit, a shaft above the housing, a cable extending from each shank downwardly beneath a pulley and returning to said shaft, and means for winding the cable on the shaft for retracting the shoes toward their lower limit.

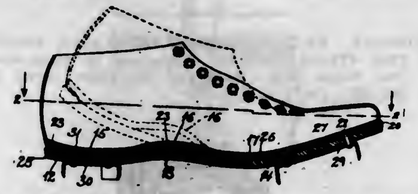
3. The combination with an elevator car of a guide rail at each side thereof, a housing mounted at each side of the car having its front side open along its median line and positioned to embrace its respective rail and provided at the center in the rear side with a pair of downwardly diverging slots, a member secured in each side of the housing whose inner face stands parallel with its respective slot, a shoe conforming thereto whose inner face stands parallel with said rail, a shank extending from each shoe through its respective slot, a spring secured to said housing above said slots, a pulley mounted below each slot, a cable uniting the spring with said shanks, for drawing the shoes toward their upper limit, a shaft above the housing, a cable extending from each shank downwardly beneath a pulley and returning to said shaft, means for winding the cable on the shaft for retracting the shoes toward their lower limit, mechanism for releasably holding said winding means, a hoisting cable, and means connecting the hoisting cable with said holding mechanism, whereby any relative movement of the hoisting cable will release the holding mechanism.

4. In a safety appliance for elevator cars, a housing, a guide rail having a plurality of elongated apertures in the web thereof, embraced by said housing, a member having an upwardly inclined face secured in each side of the housing, a shoe conforming to the inclined member and slidably mounted in the housing at each side of the guide rail, a transverse bar yieldingly held by each shoe and adapted for engagement in a slot in the guide rail, and means for forcing the shoes against the guide rail.

5. In a safety appliance for elevator cars a housing, a guide rail embraced thereby, a series of wedges secured in each side thereof, a shoe slidably mounted in the housing at each side of the guide rail, a series of inverted wedges secured to each shoe the faces of which are adapted to bear against the corresponding faces of the first mentioned wedges, transverse bars yieldingly held by said shoes and adapted for engagement in the guide rail, and means for forcing the shoes against the guide rail.

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1,039,518. SPORTING-SHOE. DANIEL J. GOLDEN, Randolph, Mass. Filed July 5, 1912. Serial No. 707,818. (Cl. 36—17.)



1. A sporting shoe, comprising an outer sole having a heel portion, an inner sole having also a heel portion, and an upper attached to the heel, shank, and fore portions of the outer sole, and to the heel and fore portions of the inner sole, the shank portion of the inner sole being free to be flexed outwardly from the shank portion of the inner sole.

2. A sporting shoe, comprising an outer sole having a heel portion, an inner sole having also a heel portion, and longitudinal recesses in its shank edges forming a narrow flexible shank portion, an upper attached to the heel portions of the inner and outer soles by stitches passing through both of said heel portions, and to the shank portion of the outer sole by stitches located outside the edges of the recesses in the shank portion of the inner sole, and a welt stitched to the fore part of the upper and to the fore part of the outer sole, the shank portion of the inner sole being free to be flexed outwardly from the shank portion of the inner sole.

3. A sporting shoe having an opening in the fore part of its inner sole, the edges of said opening being beveled outwardly from the upper surface of the inner sole, an elastic pad filling said opening and having correspondingly beveled edges, and rivets passing through the outer and inner soles and having heads bearing on portions of the upper surface of the pad.

4. A sporting shoe having an opening in the fore part of its inner sole, the edges of said opening being beveled outwardly from the upper surface of the inner sole, an elastic pad filling said opening and having correspondingly beveled edges, and a spurred plate bearing on the tread surface of the outer sole and attached to the outer and inner soles by rivets having heads bearing on portions of the upper surface of the pad.

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1,039,519. SHADE-HOLDER. HENRY GOODFRIEND, Yonkers, N. Y. Filed Apr. 26, 1912. Serial No. 693,315. (Cl. 240—115.)



1. In a shade holder, the combination of a body having an open end, a ring rotatably carried by said open end, and projections carried by said end and said ring, said projections extending toward the opposite end of the body and being movable into and out of overlying position to enable a shade to be inserted into said holder and held therein.

2. In a shade holder, the combination of a body having an open end, a ring inclosing said body adjacent said open end and being rotatably secured thereto, and projections carried by said ring and said body, said projections extending inward toward the opposite end of the body and movable into and out of overlying position to enable a shade to be inserted into the holder and retained in place therein.

3. In a shade holder, the combination of a body, having an open end, and a ring rotatably mounted upon said body adjacent said end, said body and said ring having projections extending inward toward the opposite end of the body and being movable into and out of overlying position to permit a shade to be inserted into the open end of the body and held in place therein, said body having stops for limiting the movement of the ring.

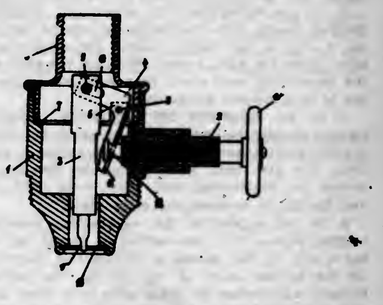
4. In a shade holder, a body having an open end, a rotatable ring inclosing said end, said ring and said body having inward-extending lugs movable into and out of overlying position, a stop carried by one of said lugs to limit the movement of the other when the ring is moved to permit the insertion of a shade, and another stop to limit the movement of the ring after the shade has been inserted into the holder.

5. A shade holder comprising a body having an open end, said end having a cylindrical section terminating in a shoulder at one edge and having its opposite edge bent over, a ring having flanges to engage the said bent over edge and shoulder and hold the same in place on said body, said ring being rotatably mounted on said body, and means carried by said body and said ring to engage a shade and hold the same in place.

[Claims 6 to 10 not printed in the Gazette.]

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1,039,520. REGULATING-NOZZLE FOR INCANDESCENT GAS-LAMPS. MAX GRAETZ, Berlin, Germany. Filed Nov. 14, 1911. Serial No. 660,252. (Cl. 67—121.)



1. In a regulating nozzle for incandescent lamps and the like, the combination with the casing having a discharge opening of a movable valve stem adapted to increase and decrease the cross-sectional area of said discharge opening, a regulating screw, and a bell-crank lever in loose engagement both with said screw and said valve stem for transmitting thereto the movements of said screw and having its fulcrum located between said screw and the gas inlet to permit the easy removal and insertion of the movable parts.

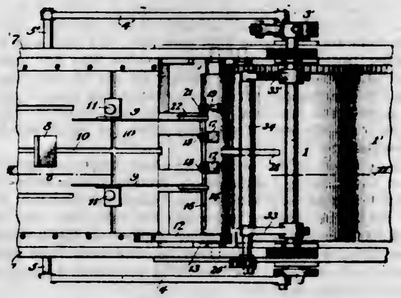
2. In a regulating nozzle for incandescent lamps and the like, the combination with the casing having a discharge opening, of a removable valve stem adapted to increase and decrease the cross-sectional area of said discharge opening, a perforated plate for guiding said valve stem, a regulating screw, and a bell-crank lever in loose engagement both with said screw and said valve stem for transmitting thereto the movements of said screw and having its fulcrum located between said screw and the gas inlet to permit the easy removal and insertion of the movable parts.

3. In a regulating nozzle for incandescent lamps and the like, the combination with the casing having a dis-

charge opening, of a movable stem having a reduced lower end adapted to enter said discharge opening, a perforated plate for guiding said valve stem, a regulating screw, and a bell-crank lever pivoted on said plate and adapted to transmit the movements of said screw to said valve stem, and having its pivot located between said screw and the gas inlet to permit the easy removal and insertion of the movable parts.

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1,039,521. SHEET SEPARATING, REGISTERING, AND FEEDING APPARATUS. HARRY B. GREEN, Woodbury, N. J. Filed Sept. 30, 1909. Serial No. 520,299. (Cl. 101—41.)



1. In an apparatus for separating, registering and feeding sheets, the combination of means for reciprocating a pile of the sheets, means for separating a single sheet from the pile, and means for registering said sheet before separation is completed and feeding it to operating mechanism.

2. In an apparatus for separating, registering and feeding sheets, the combination of means for reciprocating a pile of the sheets, means for separating a single sheet from the pile, a rear guide for the pile, and means for registering said sheet from said pile guide and feeding it to operating mechanism.

3. In an apparatus for separating, registering and feeding sheets, the combination of means for reciprocating a pile of the sheets, means for separating a single sheet from the pile, rear and side guides for the pile, and means for registering said sheet from said pile guides and feeding it to operating mechanism.

4. In an apparatus for separating, registering and feeding sheets, the combination of means for reciprocating a pile of the sheets, a suction roll adapted to strip off the bottom sheet of the pile on the forward stroke thereof, and means for registering said sheet before separation is completed and feeding it to operating mechanism.

5. In an apparatus for separating, registering and feeding sheets, the combination of means for reciprocating a pile of the sheets, a suction roll adapted to strip off the bottom sheet of the pile on the forward stroke thereof, a rear guide for the pile, and means for registering said sheet from said pile guide and feeding it to operating mechanism.

[Claims 6 to 10 not printed in the Gazette.]

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1,039,522. ARC-LIGHT ELECTRODE. EMILE J. GUAY, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed May 22, 1911. Serial No. 628,634. (Cl. 176—136.)

1. An arc light electrode composed of titanium carbid, cerium fluorid, cerium tungstate, carbon, and cryolite to the amount of substantially 5% of the total mass of the electrode.

2. An arc light electrode composed of titanium carbid, from 20 to 30 parts; cerium fluorid 15 to 25 parts; cerium tungstate 12 to 18 parts; cryolite substantially 5 parts; carbon 30 to 35 parts.

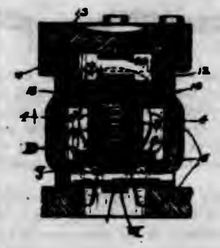
3. An arc light electrode composed of the following constituents in substantially the proportions indicated: titanium carbid 25%; cerium fluorid 20%; cerium tungstate 15%; cryolite 5%; carbon 35%.

4. An arc light electrode containing a titanium compound, cerium fluorid, cryolite and carbon.

5. An arc electrode containing titanium carbid, cerium fluorid, cryolite and carbon.

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1,039,523. BY-PASS AND RELIEF VALVE DEVICE FOR STEAM-ENGINES. THEODORE H. HABBERKORN, Fort Wayne, Ind. Filed Oct. 17, 1910. Serial No. 587,495. (Cl. 121—117.)

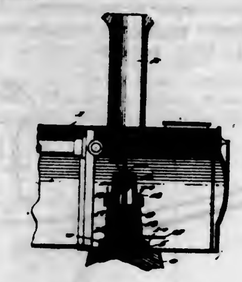


1. The combination, with two valve-casings spaced to render them capable of application to opposite ends respectively of a steam-engine cylinder, each valve-casing having a chamber which is closed at one end thereof and at said end has a steam-inlet adapted to be placed in communication with the steam-chest on said cylinder, which valve-casing is provided with a passageway which extends through the valve-casing at the opposite end of said chamber, the passageway in one valve-casing being adapted to be placed at one end thereof in communication with said cylinder at one end of the cylinder and the passageway in the other valve-casing being adapted to be placed at one end thereof in communication with said cylinder at the opposite end of the cylinder; a normally open valve in each valve-casing, which valve in its closed position interrupts communication through the passageway in said valve-casing; a piston arranged within and movable endwise of the aforesaid chamber in each valve-casing and operatively connected with the valve in said valve-casing, and a spring within each valve-casing, which spring acts to retain the valve in said valve-casing open, of a pipe-line connecting the two valve-casings together and communicating with the passageway in each valve-casing at the other end of said passageway, said pipe-line being provided intermediate the valve-casings with an outlet which leads to the external atmosphere.

2. In a by-pass and relief valve-device for a steam-engine, a valve-casing provided interiorly with a circular chamber closed at one end thereof and at said end having a steam-inlet; a passageway extending through the valve-casing at the opposite end of said chamber, which passageway has one end-portion thereof arranged substantially in line endwise with said chamber and has its other end-portion extending laterally of said chamber; a valve-seat extending around the inner end of the first-mentioned end-portion of said passageway and facing in the direction of said chamber; a normally open valve which in its closed position seats on said valve-seat and interrupts communication through the said passage-way, which valve has a hollow body provided centrally with a bore extending from the forward end of the valve inwardly, which body terminates in a piston arranged within and movable endwise of said chamber; a spiral spring housed within said body and arranged longitudinally of said bore, which spring acts to retain the valve open, and an abutment for the outer end of the spring, which abutment is pivoted to the valve-casing substantially at a right angle to the line of movement of the piston.



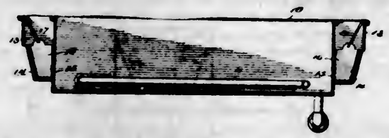
1,039,524. EXHAUST-STAND. ANDREW JACKSON HALL, Clinton, Ill. Filed Mar. 4, 1911. Serial No. 612,231. (Cl. 110—152.)



In an exhaust stand of the kind described, a base having a pair of inlet ports separated by a diaphragm, said base further having a passage leading laterally through said diaphragm to the center thereof and extending upward therefrom, the upper end of said passage being threaded, a vertical draw pipe screwed into said base and provided with threads at its upper end, a frusto conical nozzle having a frusto conical interior located on said base, and a valve of double frusto-conical shape, said valve having its greatest diameter centrally, said valve being provided with a threaded opening and being screwed on to the upper end of the draw pipe whereby the height of the draw pipe may be varied and the position of the valve on the draw pipe be also varied independently one of the other.

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1,039,525. EVAPORATOR. ROBERT B. HALL, Madison, Ga., assignor of one-half to Sherwood Atkinson, Madison, Ga. Filed Apr. 2, 1912. Serial No. 688,015. (Cl. 127—9.)



1. In an evaporator, a reservoir, a trough arranged around the reservoir, sumps formed at opposite ends of the reservoir and sunken below the bottom of the trough, and strainers removably placed in the sumps.

2. In an evaporator, a reservoir, a trough extending around the reservoir and having its upper edge approximately level with the upper edge of the reservoir, sumps formed in the trough extending downwardly from the bottom of the trough adjacent the bottom of the reservoir and communicating therewith by an opening and perforate buckets inserted in the sumps and adapted to serve as strainers.

3. In an evaporator, a reservoir, a trough formed about the reservoir and having its upper edge substantially level with the upper edge of the reservoir, sumps formed in the trough extending below the bottom of the trough and adjacent the bottom of the reservoir and communicating therewith by an opening, and perforate buckets disposed in the sumps and adapted to contain a filtering material.

4. In an evaporator, a reservoir, a trough formed about the reservoir and having its bottom raised above the bottom of the reservoir, sumps formed in the trough extending below the bottom of the trough and adjacent the bottom of the reservoir and communicating therewith by openings, bagasse disposed in the troughs and positioned to receive the overflow from the reservoir and filtering material removably inserted in the sumps.

5. In an evaporator, a reservoir, a trough formed about the reservoir and having its bottom above the level of the bottom of the reservoir, sumps formed in the trough and extending downwardly from the bottom of the trough adjacent the bottom of the reservoir and communicating therewith by openings, bagasse disposed in the trough and positioned to receive overflow from the reservoir, perforate buckets removably inserted in the sumps, and filtering material removably carried by the buckets.

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1,039,526. AUTOMATIC CUSHION TONGUE-SUPPORT. THOMAS S. HALL, Sullivan, Ill., assignor of one-half to Stonewall Johnson, Sullivan, Ill. Filed June 29, 1912. Serial No. 706,709. (Cl. 21—63.)



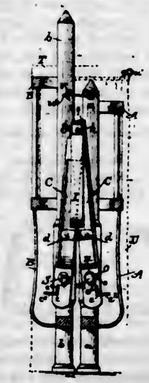
1. A tongue support including a lever, means for mounting the lever upon the tongue, an axle bracket, a thrust rod connected to the lever and loosely engaging the axle bracket, yielding means carried by the thrust rod and engaging the axle bracket, and cushion means yieldingly resisting the forward movement of the lever.

2. A cushion tongue support including a lever, means for mounting the lever upon the tongue, an axle bracket, a main thrust rod connected to the lever and slidably engaging the axle bracket, yielding means carried by the thrust rod and engaging the axle bracket, a rebounding rod connected to the lever and extending forwardly along the tongue, and yielding means resisting the forward movement of the rebounding rod.

3. A cushion tongue support including a lever, means for securing the lever to a vehicle tongue, an axle bracket, a thrust rod having the forward end thereof pivotally connected to the lever while the rear end thereof slidably engages the axle bracket, a spring carried by the thrust rod and bearing against the axle bracket, a wing projecting downwardly from the tongue, a rebounding rod slidably engaging the wing and pivotally connected to the lever, and a spring carried by the rebounding rod and engaging the wing.

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1,039,527. DETACHABLE FOLDING BEDSTEAD. SAMUEL L. HARMAN, Dayton, Ohio. Filed May 7, 1912. Serial No. 695,672. (Cl. 5—9.)



1. In a folding bedstead the combination,—of detachable side pieces adapted to break or fold; a detachable foot-portion having an automatic locking connection with the ends of said side-pieces; a detachable head-portion having a hinged connection with the opposite ends of said side pieces; and a curtain-support provided with curtains for inclosing said bedstead when folded; all substantially as and for the purposes described.

2. The combination in a folding bedstead,—of detachable side pieces provided with a hinged bearing joint; a detachable foot-portion having a locking connection with the foot ends of said side pieces; a locking-support constituting a hinged connection between said foot portion and said foot ends of said side pieces; a detachable head-portion having a hinged connection with the head ends of the side pieces; a connecting-support constituting a hinged connection between said head-portion and said head ends of the side pieces; and an inclosing means for said bedstead supported from said head portion; all substantially as described.

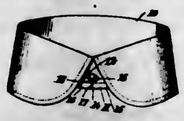
3. A detachable folding bedstead comprising,—side pieces each having a folding bearing hinge provided with a leg; a foot-portion having a hinged automatic locking connection with one of the ends of each of said side pieces; removable locking supports connecting said ends of the side pieces and said foot portion; a head-portion having a hinged connection with the opposite end of said side pieces; removable connecting supports forming said hinged connection between said side pieces and said head-portion; and a curtain support and curtains for inclosing said bedstead; all substantially as described.

4. A folding bedstead comprising,—detachable side pieces formed in folding sections and provided with a movable leg; a detachable foot-portion provided with posts and extending outward; a hinged locking support between one of the ends of each of said side pieces and each of the posts of said foot-portion; a detachable head-portion provided with posts and extending outward; a hinged connecting support between the other end of each of said side pieces and each of the posts of said head-portion; and a detachable curtain support and curtains extending from said head-portion; all substantially as described.

5. In a detachable folding bedstead,—detachable folding side bars having the foot ends provided with an eye formed with a peripheral groove, and the head ends formed with an opening and an eye; a detachable foot-portion the posts of which are formed with a cutaway and a wedge-shaped concaved recess; a locking-support having a wedge shaped convexed leg adapted to pass through said cutaway and rest in said recess of each of said posts, said locking supports further provided with a ribbed-arm adapted to rest in said eye and its peripheral groove in said foot-ends of the side bars; a detachable head portion the posts of which are formed with a cutaway and a wedge shaped concaved recess; a connecting support having a wedge shaped convexed leg adapted to pass through said cutaway and rest in said recess of each post of said head-portion, said connecting supports further provided with an arm having an eye therein and adapted to rest in said opening in the head ends of said side bars; a locking-pin adapted to enter and rest in said eye of each of said head ends of the side bars and said eye in said arm of each of the connecting supports; and an inclosing means for said bedstead; substantially as described.

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1,039,528. COLLAR. SARAH HARRIS, (now by marriage Sarah Rosentover,) New York, N. Y. Filed Jan. 29, 1909. Serial No. 475,085. (Cl. 2—69.)

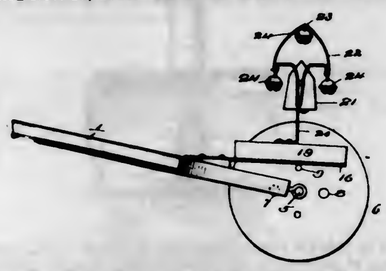


1. A collar having a band and overlapping end tabs with substantially straight button shank receiving holes therein, elongated longitudinally of the band, and a passage in one of said tabs formed by a slit extending from the said button shank receiving hole to the lower edge of the tab at a point removed from the end of the tab.

2. A collar having a band and overlapping end tabs with substantially straight button shank receiving holes therein elongated longitudinally of the band and a passage in one of said tabs formed by a slit extending from the inner end of the shank receiving hole to the lower edge of the tab at a point removed from the end of the tab, said slit having closely contiguous substantially straight edges.

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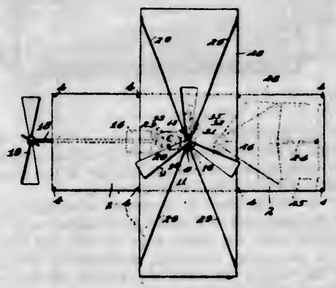
1,039,529. TOY. THOMAS H. HARRIS, Scranton, Pa. Filed Nov. 12, 1910. Serial No. 592,119. (Cl. 46—47.)



In a toy, a handle or stick having one end thereof enlarged and bifurcated, brackets secured to the ends of the arms thereof, a ground wheel mounted in the brackets, laterally extending pins carried by said wheel in proximity to the axle thereof, resilient springs carried by the yoke formed on said handle by the enlarged and bifurcated end, said springs extending sufficiently far as to engage said pins upon rotation of said wheel in either direction, a rigid and weight member secured to said springs from the ends thereof to nearly where said springs are secured to the handle to cause a continued oscillation of said spring arm, a second spring secured to each of said rigid members and a bracket carrying a plurality of harmonious sounding devices secured to the free end of said second mentioned springs.

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1,039,530. FLYING-MACHINE. AUBREY C. HARRY, Portsmouth, Ohio. Filed Mar. 5, 1912. Serial No. 681,695. (Cl. 244—15.)



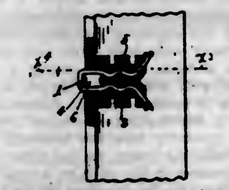
1. A flying machine comprising a frame, a fixed supporting surface extending lengthwise parallel with the line of flight, a mast extending upwardly through said fixed supporting surface, an adjustable supporting surface revoluble upon the mast through an arc of 90° so as to extend parallel with or at right angles to the fixed supporting surface, means for adjusting said revoluble main supporting surface, and coacting means between said revoluble main supporting surface and the mast for arresting said supporting surface when it reaches the respective limits of motion thereof.

2. A flying machine comprising a frame, a fixed supporting surface, a hollow mast extending upwardly through said supporting surface, a shaft projecting through said mast and carrying a lifting propeller, a driving propeller, suitable means for operating the propellers, an adjustable supporting surface revolubly mounted upon the hollow mast above the fixed supporting surface for movement in an arc of 90° so as to extend parallel with or at right angles to said supporting surface, means for adjusting said adjustable supporting surface, a collar upon the mast provided with pairs of notches arranged at right angles to each other, and spring dogs upon the adjustable supporting surface and adapted to engage said notches to limit the reverse rotary motions of the adjustable supporting surface.



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1,039,531. WIRE-FASTENER FOR METALLIC FENCE-POSTS. HIRAM L. HARTLEY, Duluth, Minn. Filed Mar. 17, 1911. Serial No. 615,114. (Cl. 39—12.)



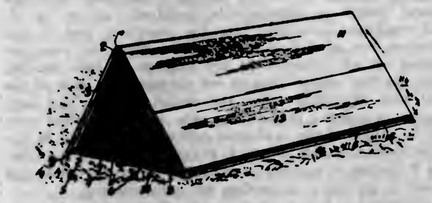
1. The combination with a metal fence post provided with a projecting flange having slots through which the prongs and into which the crowns of staples may be driven, of separately formed anchoring lugs held to said post and provided with zigzag channels alined with the said slots and through which the prongs of said staples may be driven to secure fence wires to said post with portions of said wires kinked within said slots.

2. The combination with a metal fence post constructed from commercial angle iron or steel and provided in its outer flange with slots through which staples may be passed, of separately formed anchoring lugs held to the inturned flange of said post, and provided with zigzag channels alined with said slots and through which the prongs of staples may be driven to secure fence wires to said post, and which zigzag channels, at their outer extremities, diverge rapidly from each other, substantially as described.

3. A fence post of angle metal combined with an anchor block held within the angle of the post, the said block having in one side, facing the inner surface of one of the post wings, sinuous or zig zag grooves which open laterally toward said wing and longitudinally toward the other wing, the latter wing having a slot alining with the sinuous grooves of the block, substantially as set forth.

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1,039,532. CHICKEN-COOP. CASWELL V. HAYS, Dillon, S. C. Filed Nov. 25, 1911. Serial No. 662,877. (Cl. 119—19.)

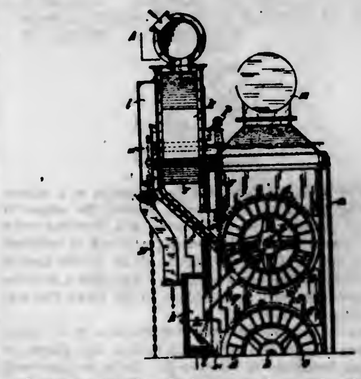


A chicken coop comprising a frame consisting of a ridge pole, a pair of end members pivoted to each end of the ridge pole, spreader members hinged in the center and hinged at their ends to the end members, a dividing pole forming a pintle for the center hinge of the spreader members, and being hingedly connected to the ridge pole, an open mesh fabric covering the frame, together with a folding top connected to the ridge pole.

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1,039,533. MEANS FOR HEATING BRIQUETS AND THE LIKE. PAUL HEIM, Essen-Ruettenscheid, Germany, assignor to Diamant Brikett-Werke, G. M. B. H., Berlin, Germany. Filed July 21, 1911. Serial No. 639,862. (Cl. 202—9.)

1. Apparatus for drying, roasting or coking briquets, and the like, comprising a plurality of superposed rotary drums having perforated walls and peripherical compartments adapted to receive the material to be treated, and a common chute, both for conveying the material from a higher drum to the next lower drum and for discharging the material from any and all of the drums at will.



2. Apparatus for drying, roasting and coking briquets and the like, comprising a plurality of superposed rotary drums having perforated walls and peripherical compartments, adapted to receive the material to be treated, a chute both for conveying the material from a higher drum to the next lower drum and for discharging the material from any and all of the drums at will, and traps for establishing communication between a drum and either the said chute or with the inlet of the next lower drum.

3. Apparatus for drying, roasting and coking briquets and the like, comprising a plurality of superposed rotary drums having perforated walls and peripherical compartments adapted to receive the material to be treated, a chute both for conveying the material from a higher drum to the next lower drum and for discharging the material from any and all of the drums at will, traps for establishing communication between a drum and either the said chute or the inlet of the next drum, and guide plates located in said chute below the said traps.

4. Apparatus for drying, roasting and coking briquets and the like, comprising a plurality of superposed rotary drums having perforated walls and peripherical compartments adapted to receive the material to be treated, a guide wall extending over part of the periphery of each drum, and a single chute both for conveying the material from a higher drum to the next lower drum and for discharging the material from any and all of the drums at will.

5. Apparatus for drying, roasting and coking briquets and the like, comprising a plurality of superposed rotary drums having perforated walls and peripherical compartments adapted to receive the material to be treated, a single chute both for conveying the briquets from a higher drum to the next lower drum and for discharging the material from any and all of the compartments at will, and rollers for supporting each drum.

[Claims 6 to 11 not printed in the Gazette.]

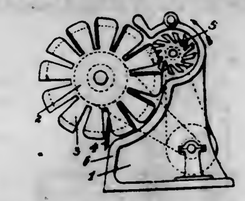
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1,039,534. SCALLOPING-MACHINE. PETER HELMANN, Frankfort-on-the-Main, Germany, assignor to Corporation of Maschinenfabrik Moenus A. G., Frankfort-on-the-Main-Bockenheim, Germany. Filed Mar. 13, 1911. Serial No. 613,960. (Cl. 164—64.)

1. In a scalloping machine, the combination of a rotary carrier having radially arranged blades between which the pieces of material are freely set, and from which they are freely discharged, and a scalloping tool coöperating with said carrier adjacent the peripheral portion thereof.

2. In a scalloping machine, the combination of a rotary carrier having a plurality of radial blades, the edges of which, at the periphery of the carrier, are provided with notches, the pieces of material being freely set in between

the blades so that each piece is positioned on a side face of one blade, overlying the notches of the blade, and a relatively fixed cutting tool arranged at the periphery of the carrier and entering the notches of the several blades.

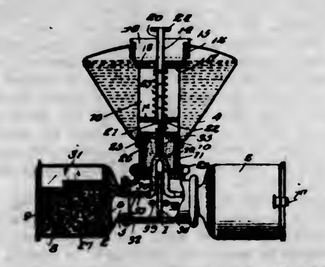


3. In a scalloping machine, the combination of a rotary carrier having a plurality of radial blades, the edges of which, at the periphery of the carrier, are provided with notches, the pieces of material being freely set in between the blades so that each piece is positioned on a side face of one blade, overlying the notches of the blade, and a scalloping tool coöperating with the notches to cut away the material overlying said notches.

4. In a scalloping machine the combination of a rotary carrier having a plurality of radial blades, the pieces of material being freely set in between the blades so that each piece is positioned on a side face of one blade, and a scalloping tool coöperating with said carrier to scallop the material.

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1,039,535. ACETYLENE-LAMP. JOHN MILTON HIGGINS, Caseyville, Ill. Filed Feb. 3, 1911. Serial No. 606,292. (Cl. 48—28.)



1. A lamp of the character specified, comprising a T, a substantially cylindrical casing for each end of the T, each casing having a reduced end threaded into the end of the T, a substantially semi-cylindrical carbid holder slidable in the casing and having a cover for the end thereof, means for holding the cover in place, a disk of porous material at the inner end of the casing, a feed tube having a substantially U-shaped portion at its center arranged in the T, the said portion extending upwardly into the lateral branch of the T, and the ends of the tube extending through the porous disk at each end of the tube and above the carbid in the holder, each end of the tube being closed, and having a spraying opening in its upper side, a valve for controlling each tube, a partition extending transversely of the T between the arms of the U-shaped portion of the tube, the T having an opening for the gas on each side of the opening, a burner having a connection for each opening, means connected with the lateral branch of the T for supplying water to the U-shaped portion of the tube, and means for permitting the air to vent from the tube.

2. A lamp of the character specified, comprising a T, a substantially cylindrical casing for each end of the T, each casing having a reduced end threaded into the end of the T, a substantially semi-cylindrical carbid holder slidable in the casing and having a cover for the end thereof, means for holding the cover in place, a disk of porous material at the inner end of the casing, a feed tube having a substantially U-shaped portion at its center arranged in the T, the said portion extending upwardly into the lateral branch of the T, and the ends of the tube extend through the porous disk at each end of the tube and above the carbid in the holder, each end of the tube having its end closed, and having a spraying opening in its upper side, a valve for controlling each tube, a partition extending transversely of the T between the arms of the U-shaped portion of the tube, the T having an opening for the gas on each side of the opening, a burner having a connection for each opening, and means connected with the lateral branch of the T for supplying water to the U-shaped portion of the tube.

3. A lamp of the character specified, comprising a T, a casing detachably connected with each end of the T, a carbid holder slidable in each casing, a reservoir for water connected with the lateral branch of the T, said reservoir having a central passage registering with the lateral branch, a substantially U-shaped tube in the T, and extending upwardly into the reservoir, and having openings for admitting water to the tube, the reservoir having an air chamber in the passage, a tube leading from the first named tube to the chamber, the ends of the feed tube extending above the carbid holders and each having an opening in its upper side, a valve between each of the ends and the U-shaped portion, a partition in the T between the arms of the U-shaped portion of the tube, the T having an opening on each side of the portion, a burner having a connection for each opening, a vent tube for the air chamber, and a valve for controlling the tube.

4. A lamp of the character specified, comprising a T, a casing detachably connected with each end of the T, a carbid holder slidable in each casing, a reservoir for water connected with the lateral branch of the T, said reservoir having a central passage registering with the lateral branch, a substantially U-shaped tube in the T and extending upwardly into the reservoir, and having openings for admitting water to the tube, the reservoir having an air chamber in the passage, a tube leading from the first named tube to the chamber, the ends of the feed tube extending above the carbid holder, and each having an opening in its upper side, a valve between each of the ends and the U-shaped portion, a partition in the T between the arms of the U-shaped portion of the tube, the T having an opening on each side of the partition, a burner having a connection for each opening, and means for venting the air from the air chamber.

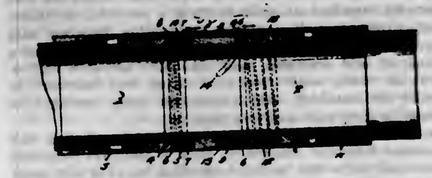
5. A lamp of the character specified, comprising a T, a casing detachably connected with each end of the T, a carbid holder slidable in each casing, a reservoir for water connected with the lateral branch of the T, said reservoir having a central passage registering with the lateral branch, a substantially U-shaped tube in the T, and extending upwardly into the reservoir, and having openings for admitting water to the tube, the reservoir having an air chamber in the passage, a tube leading from the first named tube to the chamber, the ends of the feed tube extending above the carbid holders, and each having an opening in its upper side, a valve between each of the ends and the U-shaped portion, a partition in the T between the arms of the U-shaped portion of the tube, the T having an opening on each side of the partition, and a burner having a connection for each opening.

[Claims 6 to 8 not printed in the Gazette.]

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1,039,536. HOSE-COUPLING. CHARLES HILL, Mullan, Idaho. Filed Jan. 31, 1911. Serial No. 606,704. (Cl. 137—28.)

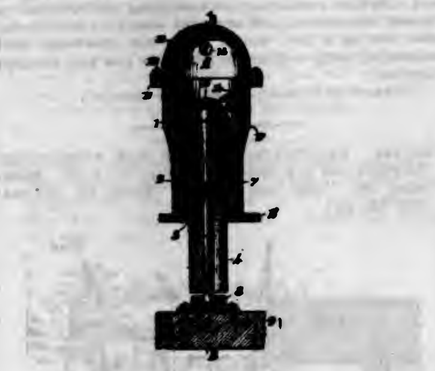
A coupling comprising a member having bayonet slots in its outer side and having the opening enlarged at its outer end and having said outer end formed with an annular recess, a packing fitted in said annular recess, a second member having its outer end reduced to enter the enlarged opening of the first member and formed with bayonet projections spaced from the said reduced end portion and having openings adjacent and at one side of the bayonet projections, a collar mounted upon the said second member to slide longitudinally thereon and having fingers to pass through the openings thereof and enter the bayonet slots, said collar having an inclined slot, a sleeve rotatable upon the second member, a pin projecting from the sleeve and extending into the inclined slot



of the said collar, and an expansible helical spring encircling the second member and exerting an outward pressure upon the collar, said collar and spring being inclosed by the said sleeve.

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1,039,537. PNEUMATIC CUSHION. JOSEF HOFMANN, Baumaroche, Switzerland. Filed Sept. 6, 1911. Serial No. 647,945. (Cl. 21—50.)



1. In a pneumatic spring, the combination with an air cushion formed between oppositely movable members of said spring, and whose effective area varies directly with the load when the members move relatively to one another in either direction from their normal positions of a closed air chamber communicating with the air space between said members and into which the air between said members is displaced as they move toward one another thereby maintaining the pressure of air between the members substantially constant under all conditions of operation.

2. In a pneumatic spring, a cylinder member, a piston member movable longitudinally in either direction from its normal position and a diaphragm between the members, the effective area of the diaphragm increasing with the increase of the load as the two members approach one another, and means to maintain the air pressure per unit area of the diaphragm approximately constant.

3. In a pneumatic spring, a cylinder member, a similar piston member and a flexible diaphragm extending across the cylinder member, and both members having tapered walls diverging from one another toward the interior of the cylinder member.

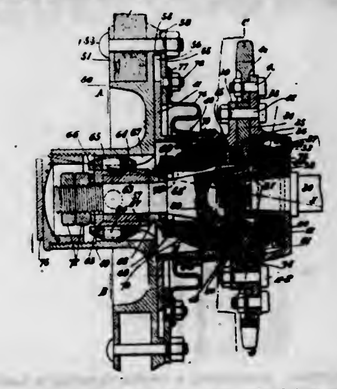
4. In a pneumatic spring, a cylinder member, a similar piston member and a flexible diaphragm extending across the cylinder member and both members having tapered walls diverging from one another toward the interior of the cylinder member, and means to maintain the pneumatic pressure per unit area approximately constant.

5. In a pneumatic spring, the combination with a cylinder member, a piston member and a flexible diaphragm between the members, of a supporting rod for the piston member, and a support for the rod, the ends of said rod being free to rock in any direction with respect to piston member and the support.

[Claims 6 to 11 not printed in the Gazette.]

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1,039,538. ELASTIC WHEEL. LINARD ALPHONSE HUMBRY, Troyes, France. Filed Sept. 30, 1909. Serial No. 520,332. (Cl. 152—52.)



1. In combination, an axle and a wheel box, a cup on said axle and provided with a vertically disposed flange, recessed guiding means on said box slidably engaging said flange to permit relative movement of the box and cup only in the plane of the wheel, a secondary axle having a flange engaging in said cup so as to permit oscillation of said secondary axle, an elastic element interposed between said flange and said cup, and means slidably connecting the free end of said axle with said box.

2. In combination, an axle and a wheel box, a cup carried by the axle, means slidably connecting said cup and box to permit relative movement thereof only in the plane of the wheel, a hollow secondary axle provided with a flange engaging said cup, said cup having a washer for retaining said axle flange in said cup, an elastic member interposed between said axle flange and the cup, adjustable means for closing the outer end of said secondary axle, a spring interposed between said adjustable closing means and said cup, and means slidably connecting the free end of said secondary axle with said box.

3. In combination, an axle and a wheel box, a cup carried by the axle, means slidably connecting said cup and box to permit relative movement thereof only in the plane of the wheel, a secondary axle provided with a flange projecting into said cup, said cup having a washer engaging the flange of said secondary axle to retain the same, an elastic element between said cup and the flange of said secondary axle, and means slidably connecting the free end of said secondary axle with said box.

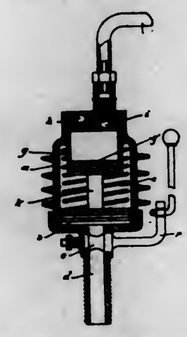
4. In combination, an axle, a cup mounted on said axle and provided with an inwardly extended flange and an outwardly extended end flange, a secondary axle resiliently mounted in the cup and adapted to move in any direction with reference to the first mentioned axle, a wheel box formed with a recess to receive the outwardly extended end flange on the cup, said wheel box having guides, and pivotally mounted blocks mounted on the secondary axle and fitting in the guides in the axle box, whereby to permit said blocks to slide in direction of the first mentioned axle.

5. In combination, an axle, a cup mounted on said axle, said cup having an internal flange and an outwardly extending end flange, a secondary axle, a resilient connection between the end of the secondary axle and one wall of the cup, a wheel box having a recess to receive the end flange on the cup, said wheel box having a centrally disposed sleeve provided with longitudinal guides, blocks mounted on the secondary axle and fitting in the guides and resilient means exerting its tension in direc-

tion of the first mentioned axle and coöperating with the before mentioned resilient connection to retain the first mentioned axle and the secondary axle in substantial alinement.

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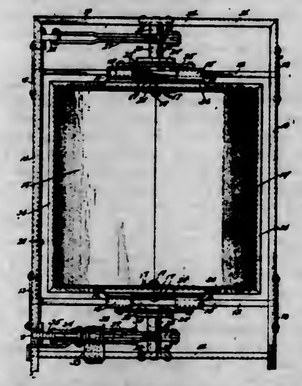
1,039,539. AUTOMATIC COMPRESSOR-PUMP. ALFRED JAEKEL, Paris, France. Filed Mar. 16, 1912. Serial No. 684,208. (Cl. 230—27.)



A compressor comprising a casing forming a main cylinder and having an integral and inwardly disposed annular flange forming the compressing chamber, and an annular surrounding recess, said chamber located wholly within said casing; a piston operable in said main cylinder; a piston operable in said compressing chamber; a piston rod connecting said pistons; a spiral spring seated within said annular surrounding recess and disposed against the first named piston; inlet and outlet controlling valves for said compressor; and means for connecting the compressor with an engine cylinder, substantially as described.

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1,039,540. MATERIAL CONTAINING AND DEPOSITING DEVICE. VICTOR D. JOHNSON, Aurora, Ill. Filed July 21, 1911. Serial No. 639,775. (Cl. 21—20.)



1. In a dump wagon, a body formed of two separable members constituting when together a material container, a lost motion connection between the upper adjacent corners of said members, said connection permitting a bodily transverse separation and a tilting of said members for dumping the load.

2. A dump wagon, comprising a body formed of two separable members constituting when together a material container, means connecting said two body members together at their upper adjacent corners, said means permitting an initial transverse separation and a tilting of said body members to dump the load of material, and manually operable means for actuating said body members.

3. A dump wagon, the body of which comprises two separable members adapted to form a material container when together, a lost motion connection between said members permitting a bodily transverse separation and a tilting of said members, and manually operable mechanism for bodily separating and tilting said members to deposit the material, said mechanism being arranged to releasably lock said members together.

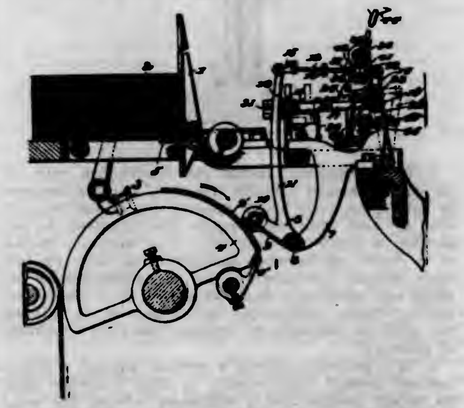
4. A dump wagon, the body of which comprises two separable members adapted to form a material container when together, a lost motion connection between said members permitting a bodily transverse separation and a tilting movement of said members, mechanism for separating said members to deposit the material, and manually operated means for actuating said mechanism, said actuating means having also a lost motion connection with said mechanism.

5. A dump wagon, the body of which comprises two separable members adapted to form a material container when together, a lost motion connection between the upper adjacent corners of said members, said connection permitting a bodily transverse separation and a tilting of said members, mechanism for separating said members to deposit the material, and actuating means for said mechanism having a lost motion connection therewith, said mechanism being arranged to releasably lock said members together.

[Claims 6 to 25 not printed in the Gazette.]

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1,039,541. CALIPERING DEVICE FOR SIGNATURE-GATHERING MACHINES. EDWARD R. KAST, Baltimore, Md. Filed Dec. 7, 1910. Serial No. 596,014. (Cl. 11—25.)



1. In a signature-gathering machine, the combination of means for controlling the application of power to operate the machine, a calipering device, a movable member for supporting and releasing said calipering device and means releasable from said member for actuating said controlling means and controlled by said calipering device through said movable member.

2. In a signature-gathering machine, the combination of means controlling the application of power to operate the machine, a calipering device, a slide adapted to support and release said device, means releasable from and imparting movement to said slide and adapted to be shifted into engagement with said power-controlling means to cut-off power upon the arrest of movement of the slide by said calipering device.

3. In a signature-gathering machine, the combination of a revolving signature-carrier, means delivering signatures one at a time to said carrier, means controlling the application of power to the machine, connections for operating said controlling means to disconnect the power from the machine, a slide, means for operating said slide and releasable into engagement with said connections to operate the latter, a calipering device in operative relation with said carrier and controlling the release and engagement of said operating means through said slide by the improper delivery of signatures on said carrier.

4. In a signature-gathering machine, the combination of a revolving signature-carrier, means delivering signatures one at a time to said carrier, a pivoted lever having one arm in operative engagement with the signature on said carrier, a slide operated by a moving part of the machine through a yielding connection, a stop for said slide controlled by said lever, means controlling the application of power to the machine, and means actuated by said yielding connection to shift said controlling means when said stop engages said slide, whereby power is cut off from the machine.

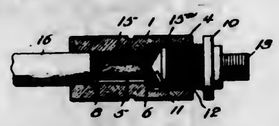
5. In a signature-gathering machine, the combination of a signature-carrier and means for delivering signatures one at a time to said carrier, with means controlling the application of power to the machine, a pivoted lever having one arm engaging the signature on the carrier, means for actuating said controlling means but normally out of operative relation therewith, and connections from said pivoted lever for shifting said actuating means into operative position when more or less than one signature is delivered to said carrier, whereby said power-controlling means is actuated to disconnect the power upon the abnormal or improper delivery of signatures to the carrier.

[Claims 6 to 9 not printed in the Gazette.]



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1,039,542. ELECTRICAL CONNECTOR. WILLIAM O. KENNINGTON, Bloomfield, N. J., assignor to The Simms Magneto Co., Inc., New York, N. Y., a Corporation of New York. Filed Oct. 10, 1911. Serial No. 653,971. (Cl. 173—269.)



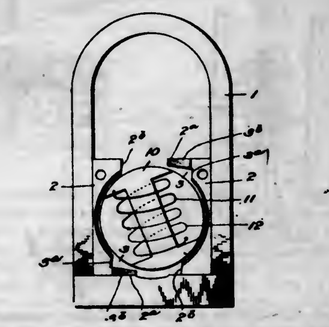
1. An electrical connector comprising a sleeve having a longitudinal aperture therethrough of a size to accommodate the conductor and its insulating coating, and provided with an interior seat, a detachable nipple having an internal diameter of a size to accommodate the conductor, located within said sleeve and provided with an outwardly extending flange to engage said seat, and a terminal plug having a threaded engagement with said sleeve and having a clamping portion adjacent to the flange portion of said nipple, for clamping portions of the conductor against said flange and the flange against said seat.

2. An electric connector comprising a sleeve, provided with a longitudinal aperture therethrough, to accommodate the conductor and its insulating covering, said aperture being enlarged at one end of the sleeve, and threaded, and forming a conical seat within the sleeve, a tubular nipple located within the sleeve, but separable therefrom, said nipple having at one end a flange to engage the seat of said sleeve, provided with a conical seat on its outer surface, and having its bore at its opposite end enlarged to pevent injury to the conductor, and a terminal plug having a conical tip adjacent to the seat of the nipple, a threaded portion for engaging the interiorly threaded portion of the sleeve, and means for securing the plug to a stationary part.

3. An electric connector comprising a sleeve, having a longitudinal aperture of a diameter sufficient to accommodate the conductor and its insulating covering, and having a threaded portion at one end, a removable nipple within said sleeve adapted to fit over the conductor, and having an outwardly extending flange at one end, means for preventing the nipple from being drawn through the sleeve in one direction, and a screw plug having a clamping part adjacent to the flanged portion of the nipple, and a threaded portion for engaging the threaded portion of the sleeve.

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1,039,543. HIGH-TENSION MAGNETO-ELECTRIC MACHINE. WILLIAM O. KENNINGTON, Bloomfield, N. J., assignor to The Simms Magneto Co., Inc., New York, N. Y., a Corporation of New York. Filed Oct. 10, 1911. Serial No. 653,974. (Cl. 171—209.)



1. In a magneto electric machine, the combination with the magnet thereof, of a pole shoe for the magnet having one extremity extended in a direction around the armature beyond the other extremity, the inner face of said pole shoe being provided adjacent to the extended extremity thereof with a transversely extending recess, to enable the armature coils to cut substantially the greatest number of lines of force at two different positions in each revolution thereof, while passing said shoe.

2. In a magneto electric machine, the combination with the magnet thereof, of a pole shoe for the magnet having one extremity extended in a direction around the armature beyond the other extremity, the inner face of said pole shoe being provided adjacent to the extended extremity thereof with a transversely extending recess, to enable the armature coils to cut substantially the greatest number of lines of force at two different positions in each revolution thereof, and also with means for causing a greater reluctance to the magnetic flux in one of said positions than in the other.

3. In a magneto electric machine, the combination with the magnet thereof, of a pole shoe for the magnet having one extremity extended in a direction around the armature beyond the other extremity, the inner face of said pole shoe being provided adjacent to the extended extremity thereof with a transversely extending recess, to enable the armature coils to cut substantially the greatest number of lines of force at two different positions in each revolution thereof, portions of the extended extremity of the pole shoe being cut away to cause a greater reluctance to the magnetic flow at high speed.

4. In a magneto electric machine the combination with the magnet thereof, of a pole shoe for said magnet having the extremity which is last passed by the armature coils, during the rotation thereof extended beyond the other extremity of the shoe, and having a transverse recess in the inner face of said shoe adjacent to the said extended extremity whereby the armature will be given two sparking positions.

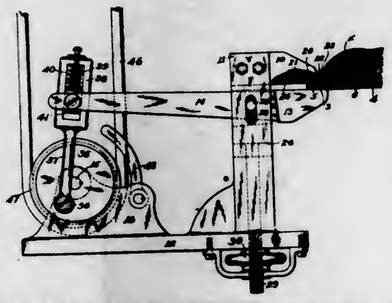
5. In a magneto electric machine the combination with the magnet thereof, of a pole shoe for said magnet having the extremity which is last passed by the armature coils, during the rotation thereof extended beyond the other extremity of the shoe, and having a transverse recess in the inner face of said shoe, adjacent to the said extended extremity whereby the armature will be given two sparking positions, the said extended extremity of the shoe being of greatest length centrally of the shoe and diminishing in length toward each lateral end thereof, whereby a

greater reluctance to the magnet flux at one position is caused at high speed, than at the other position.

[Claims 6 to 9 not printed in the Gazette.]

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1,039,544. SHOE-LASTING-PINCER MECHANISM. ALBERT H. KLINE, Reading, Pa., assignor to Curtis and Jones Company, Reading, Pa., a Corporation of Pennsylvania. Filed Feb. 15, 1911. Serial No. 608,742. (Cl. 12—7.)



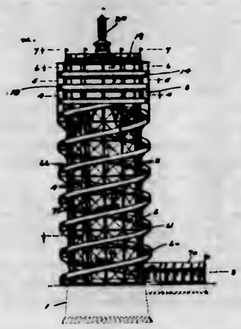
1. A shoe-lasting pincer mechanism comprising a pair of jaws, one of which is provided with a roller having one face thereof opposed to the other jaw and its periphery extending beyond the extremity of one jaw but lying within the extremity of the other jaw.

2. In a shoe-lasting pincer mechanism the combination with a fixed jaw and a pivoted jaw, said jaws being relatively adjustable and said pivoted jaw having an operating extension, of a crank shaft and a slotted connecting rod at one end to said crank shaft and provided with a spring pressed pivot connection to said extension.

3. A shoe-lasting pincer mechanism comprising a fixed jaw, a coöperating movable jaw adjustably pivoted relative to the fixed jaw and having an operating extension, a crank shaft, and a slotted connecting rod connected at one end to said crank shaft and provided with a spring-pressed pivot connection to said extension.

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1,039,545. RECREATION-TOWER. CLAUDE H. KNIGHT, Cleveland, Ohio. Filed Apr. 17, 1911. Serial No. 621,467. (Cl. 104—111.)



1. In a recreation tower, the combination of a sub-structure consisting of an open frame circular in cross section, an inclosed structure mounted at the top of said sub-structure and a pair of concentric spiral runways supported externally on said sub-structure and encircling the same.

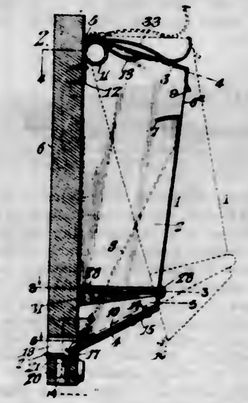
2. In a recreation tower, the combination of a sub-structure consisting of an open frame circular in cross section, a main structure mounted at the top of said sub-structure, a balcony arranged around the main structure and secured thereto, said balcony being provided with a movable floor, a circular rack mounted on the under side of said floor, a series of gear wheels mounted to mesh with said rack, a series of electric motors mounted on the sub-structure and means operatively connecting said motors with the said gears so that the operation of said motors will cause the said floor to rotate around the main structure.

3. In a recreation tower, the combination of a sub-structure consisting of an open frame circular in cross section, a main structure mounted at the top of said sub-structure and consisting of a pavilion ocmprising three stories, a pair of concentric spiral runways supported externally on said sub-structure and encircling the same and extending from the base of said structure to the first floor of the main structure and tracks for cars arranged on said runways.

4. In a recreation tower, the combination of a sub-structure consisting of an open frame circular in cross-section, a main structure mounted on said sub-structure at the top thereof and consisting of a three story pavilion, a pair of concentric parallel spiral runways supported externally on said sub-structure and encircling the same and extending from the base of said sub-structure to the first story of the main structure, said runways terminating at their lower ends in a passenger station, tracks extending from said station up both runways and along the floor of the first story of the main structure and means for shifting cars from one track to the other track in the said station and from one track to the other track on the floor of the pavilion.

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1,039,546. MAIL-BOX. EUGENE V. KNIGHT and CLARENCE E. CASSATT, New Albany, Ind. Filed June 7, 1911. Serial No. 631,850. (Cl. 232—53.)



1. A mail box including a fixed back, and a body open at the rear and composed of a front wall and top, bottom and side walls and hinged at the rear edge of its top wall to the said back and adapted to swing outwardly and inwardly to open and close the mail box, and means for securing the mail box in its closed position.

2. A mail box including a fixed back, and a body open at the rear and composed of a front wall and top, bottom and side walls and hinged at the rear edge of its top wall to the said back and adapted to swing outwardly and inwardly to open and close the mail box, spaced springs located within the mail box and mounted on the fixed back adjacent to the inner face of the said top wall and having outwardly extending arms bearing against the same to swing the body of the mail box outwardly and upwardly, and means for securing the mail box in its closed position.

3. A mail box including a fixed back, and a body open at the rear and composed of a front wall and top, bottom and side walls and hinged at the rear edge of its top wall to the said back and adapted to swing outwardly and inwardly to open and close the mail box, a catch mounted on the bottom wall of the mail box and engaging the fixed back, and a button located beneath the catch and extending upwardly from the lower edge of the fixed back and movable vertically to release the catch.

4. A mail box including a fixed back, and a body open at the rear and composed of a front wall and top, bottom and side walls and hinged at the rear edge of its top wall to the said back and adapted to swing outwardly and inwardly to open and close the mail box, a catch mounted on the bottom wall of the mail box and engaging the fixed back, a button located beneath the catch and extending upwardly from the lower edge of the fixed back and movable vertically to release the catch, and key controlled means mounted on the fixed back below the body portion of the mail box for holding the button against upward movement.

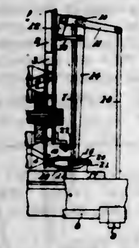
5. A mail box including a fixed back, and a body open at the rear and composed of a front wall and top, bottom and side walls and hinged at the rear edge of its top wall to the said back and adapted to swing outwardly and inwardly to open and close the mail box, a catch mounted on the bottom wall of the mail box and engaging the fixed back, a button located beneath the catch and extending upwardly from the lower edge of the fixed back and movable vertically to release the catch, said button being provided at one side with a recess forming a shoulder, and key controlled locking mechanism mounted on the fixed back at one side of the button and provided with a projecting engaging member arranged to extend into the recess of the button to hold the same against upward movement.

[Claims 6 to 10 not printed in the Gazette.]



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1,039,547. AUTOMATIC SPOOL-CHANGING APPARATUS FOR LOOMS. ALBERT GEORG KOECHLIN, Steinen, Germany, assignor to Spinnerei und Weberei Steinen A. G., Steinen, Germany. Filed Apr. 25, 1910. Serial No. 557,565. (Cl. 139—85.)

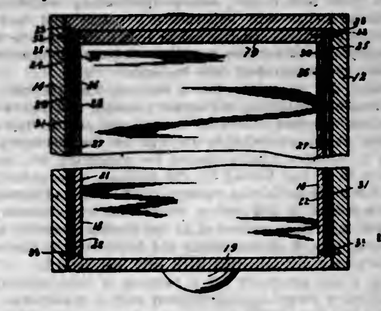


1. In automatic spool changing apparatus for looms, the combination with a spool magazine having a step by step rotation and a spool changing shaft, of positively actuated apparatus for drawing the threading-in thread off the spool, comprising means, extending longitudinally with the axis of the spool, and serving to grip the thread-end wound on the nose of the spool tube or of the spool spindle, immediately prior to transference of the spool, means which draw the thread-end off the spool and hold it fast until it has been threaded into the shuttle.

2. In automatic spool changing apparatus for looms, the combination with a spool magazine having a step by step rotation and a spool changing shaft, of apparatus for automatically drawing the threading-in thread off the spool comprising a bell crank lever, a rod connected thereto, an arm attached to said rod and the spool-changing shaft, a first lever arm jointed to said bell crank lever, and a second lever arm rotatable on the same pin as the first lever arm, a gripper and a pin fixed on the lower end of said second lever arm, the end of the said first lever arm being slidable on the second pin mentioned, whereby the gripper is swung out and in, and the gripper jaws are closed and opened while the changing shaft rocks once to-and-fro and produces a similar rocking of the said first lever arm when a fresh supply of weft thread is required.

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1,039,548. SLIDING DRAWER. KAROLY KRAL, New York, N. Y. Filed Apr. 20, 1912. Serial No. 692,124. (Cl. 45—77.)

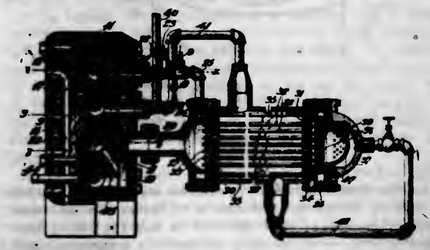


1. The combination with a compartment, of longitudinally arranged parallel channel-bars upon two parallel walls thereof, a drawer, channel-bars fastened to the sides of said drawer in sliding engagement with the channel-bars upon the walls of said compartment, stationary stops upon the front ends of the channel-bars upon the walls of said compartment, the channel-bars upon said drawer being provided with slots near to their inner ends, and the sections of the walls of the drawer in rear of the slotted portions of said bars having recesses, leaf springs arranged in said recesses, and stops carried by said springs projecting through said slots, substantially as and for the purpose specified.

2. The combination with a compartment, of longitudinally arranged parallel channel-bars upon two parallel walls thereof, a drawer, channel-bars fastened to the sides of said drawer in sliding engagement with the channel-bars upon the walls of said compartment, stationary stops upon the front ends of the channel-bars upon the walls of said compartment, the channel-bars upon said drawer being provided with slots near to their inner ends, and the sections of the walls of the drawer in rear of the slotted portions of said bars having recesses, leaf springs arranged in said recesses, stops carried by said springs projecting through said slots, and push buttons upon said springs for forcing said stops upon said springs into said recesses, substantially as and for the purpose specified.

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1,039,549. GAS-GENERATOR. CHARLES A. KUENZEL, Buena Vista, Colo. Filed Aug. 26, 1911. Serial No. 646,258. (Cl. 158—5.)



1. In a gas generator for a furnace, a vaporizing retort heated by the furnace, an atomiser discharging into such retort and having means for supplying air and liquid fuel under pressure, a chamber heated by the furnace and having means for supplying it with air under pressure, and a comminuting and mixing device having a plurality of restricted passages and connected to said retort and chamber.

2. In a gas generator for a furnace, a vaporizing retort, an atomiser discharging into said retort and having means for supplying it with oil and air under pressure, a cham-

ber having means for supplying it with air under pressure, a comminuting and mixing device connected to said retort and chamber, a superheating retort connected to the discharge from said device, and a distributing retort communicating with said superheating retort and having burners, said retorts constructed to be supported in the fire-door opening of a furnace to be heated from the same and have the burners project into the same.

3. In a gas generator for a furnace, an atomizer for atomizing and mingling air under pressure and liquid hydrocarbon, a retort heated by the furnace and having the atomizer discharging into it to vaporize the mixture produced, a chamber having means for supplying air under pressure to it and heated by the furnace, a comminuting and mixing device having a plurality of restricted passages and connected to the vapor retort and air chamber, a superheating retort connected to the discharge end of said comminuting and mixing means and heated by the furnace, and burners communicating with said last retort.

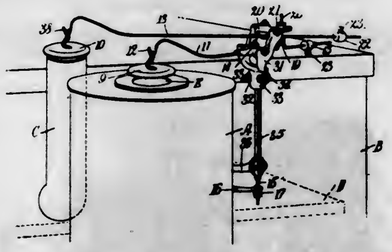
4. In a gas generator for a furnace, a retort-structure comprising a retort casting formed with a transverse vaporizing chamber, transverse air heating, superheating and distributing retort chambers, a face plate having passages communicating with said chambers, an inner plate secured to the casting and spaced therefrom, and a filling of non-heat conducting material in said space, said retort structure being adapted to be supported in the fire-door opening of a furnace in combination with means for connecting said chambers with each other.

5. In an apparatus of the character stated, a comminuting and mixing device comprising a casing having an inlet and an outlet, a cap at one end of said casing formed with an annular channel connected to receive heated oil vapor and air and with a domed chamber having a discharge neck, a domed cap at the opposite end of the casing formed with an annular channel having a narrow annular slot opening into the interior of said cap, a domed and perforated comminuting plate within the cap, a flat perforated mixer plate in the cap, heads at the ends of the casing, tubes connecting the annular channels in the caps, tubes supported at their ends in the heads, and a pipe connection from the outlet of the casing to the domed cap.

[Claims 6 and 7 not printed in the Gazette.]

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1,039,550. REGULATOR FOR CHICKEN-INCUBATORS. GEORGE HOWARD LEE, Omaha, Nebr. Filed Aug. 15, 1911. Serial No. 644,134. (Cl. 236—5.)

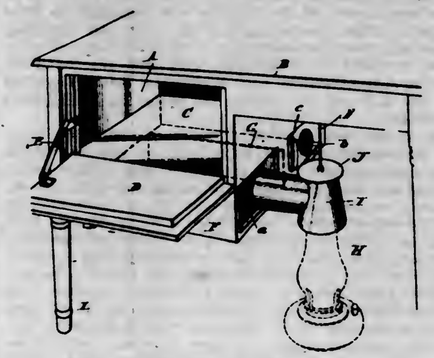


1. In a regulator of the character set forth, a plurality of rocking members; a plurality of levers one adjustably mounted on each of said members; a bolt for fixedly securing the said levers on said members; a counterbalancing weight adjustably mounted on said levers; a bracket having seats for said members progressively arranged and superposed; a member operatively connecting said levers and adjustable to vary the swing thereof; and heat-controlled operating mechanism to rock said members.

2. In a regulator of the character set forth, a plurality of rocking members; a plurality of levers one adjustably mounted on each of said members; a bolt for fixedly securing the said levers on said members; a counterbalancing weight adjustably mounted on said levers; a bracket having seats for said members progressively arranged and superposed; a member operatively connecting said levers and adjustable to vary the swing thereof; means for varying and fixing the angular disposition of said levers; and heat-controlled operating mechanism to rock said members.

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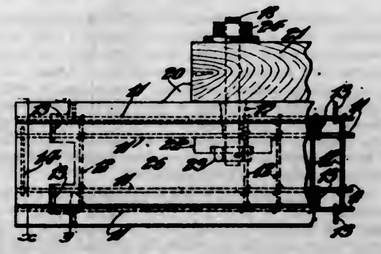
1,039,551. DOUGH-RAISER. FRANK T. LEMBKE, Grand Forks, N. D. Filed Feb. 8, 1912. Serial No. 675,327. (Cl. 236—6.)



The combination of a body having a chamber and an opening in one wall of the chamber, a lamp for heating the chamber, an open frame arranged within the chamber and surrounding said opening, a hollow expansible member opposed to the inner side of said frame and adapted to contain an agent that will expand when subjected to heat, a bar fixed against the opposite side of of the expansible member, with reference to the open frame, a tube fixed to the outer wall of the expansible member and disposed in the opening in the wall of the chamber, a suitably supported bell crank, a connection extending through the said opening and between one arm of the bell crank and the tube on the outer wall of the expansible member, and means connected with the other arm of the bell-crank for controlling the heating of the chamber by the lamp.

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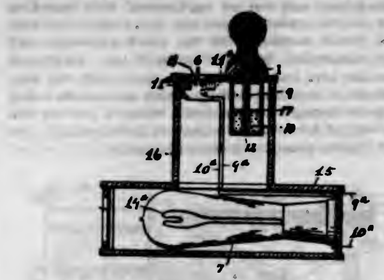
1,039,552. METHOD OF MAKING HOLLOW REINFORCED-CONCRETE TIES. HENRY R. LEONARD, Wayne, Pa. Filed Sept. 27, 1911. Serial No. 651,561. (Cl. 25—155.)



The method of making a hollow concrete tie, which consists in forming a mold with two recesses near each end to form rail chair spacing lugs, placing reinforcements within the mold and spacing them from the inner walls thereof, securing to such reinforcements additional reinforcing elements extending at each end across the top of the aperture to be formed, placing a concrete mixture in the mold, rotating the mold, arresting the rotation of the mold, and lastly removing the concrete tie thus formed from the mold.



1,039,553. ELECTRIC CIGAR-LIGHTER. JOSEPH LEVEEN and MUFFLIN L. ASHBAUGH, Anderson, Ind. Filed Feb. 16, 1912. Serial No. 677,951. (Cl. 175—296.)



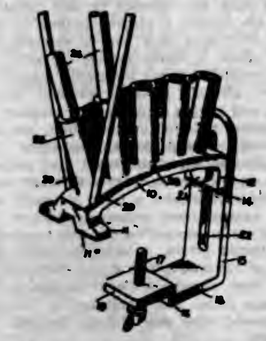
1. An electric cigar lighter, comprising an electric circuit, a dip, a pair of contact plates having downward bent converging serrated edge portions separated by a wedge form interval of greater width at the top than at the bottom thereof, the serrations of said edge portions forming a guideway for sliding movement of the dip in a straight path, the wedge form interval allowing free movement of the dip downward into contact with and upward away from the serrations at the start and finish of the sliding movement.

2. An electric cigar lighter, comprising an electric circuit, a dip, a pair of contact plates having downward bent converging serrated edge portions separated by a wedge form interval of greater width at the top than at the bottom thereof, the serrations of said edge portions forming a guideway for sliding movement of the dip in a straight path, the wedge form interval allowing free movement of the dip downward into contact with and upward away from the serrations at the start and finish of the sliding movement, said dip having a wedge form head for close contact with said projections.

3. In an electric cigar lighter, a dip having a hollow wedge form head, provided with lateral openings, and a wick within said head and behind said openings.

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1,039,554. FLAG-HOLDER FOR AUTOMOBILES. EDWARD H. B. LINDHORST, Butte, Mont. Filed May 23, 1912. Serial No. 699,162. (Cl. 248—37.)



1. A flag-support, comprising an arched base having a depending foot at each end, said base being formed with flag sockets following the arched line of the base and adapted to receive flagstaffs; and a clamp comprising a vertical arm and a bottom plate, the vertical arm being slotted and one of the feet of the base carrying a bolt and provided with a clamping nut, the said bolt extending through the slot of the vertical arm of the clamp, the base being adapted to rock on said bolt and be secured in adjusted position at different points on the clamp arm, the bottom plate of the clamp having a depression adjacent to the vertical arm and having its outer free end offset, said free end carrying a clamp screw located about midway between the depending feet of the base of the flag support.

2. A flag support, comprising a base having feet at the under side and series of flag sockets at the upper side, and a clamp having a vertical arm formed with a slot, the adjacent foot of the base having a bolt provided with a nut, the bolt working in the said slot, said clamp having a bottom plate provided with a screw located below the feet of the base and in line with a point about midway between said feet.

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1,039,555. DASH-POT. ARTHUR C. LIVERMORE, Edgewood Park, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed June 13, 1911. Serial No. 632,881. (Cl. 74—69.)



1. A buffing device comprising a cylinder and a piston having relative movement, the said movement in one direction being retarded throughout an entire stroke by the compression of air on one side of the piston and through a portion of the said stroke by a partial vacuum created on the other side of the piston by the said movement.

2. A buffing device comprising a cylinder and a piston having relative movement, the said movement in one direction being retarded throughout the stroke by the compression of air on one side of the piston and through a portion of the stroke by the partial vacuum created on the other side of the piston by the said movement, and means for relieving the partial vacuum during the remainder of the said stroke.

3. A buffing device comprising a cylinder and a piston having relative movements, the cylinder being closed at both ends to permit the relative movement to create a partial vacuum on one side of the piston during a portion of a stroke and a compression of air on the other side of the piston during the entire stroke, and means for opening the cylinder on the vacuum side of the piston to atmosphere after the said portion of the said stroke has been completed.

4. A buffing device comprising a cylinder and a piston having relative movements, the cylinder being closed at both ends to permit the relative movement in one direction to create a partial vacuum on one side of the piston during a portion of a stroke and a compression of air on the other side of the piston during the entire stroke, means for opening the cylinder on the vacuum side of the piston to atmosphere after the said portion of the said stroke has been completed, and check valves in each end of the cylinder to permit a free relative movement in the opposite direction.

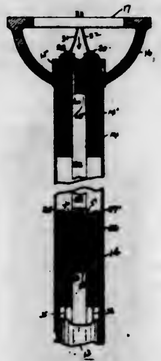
5. A buffing device comprising a cylinder and a piston having relative movements, the cylinder being closed at both ends to permit the relative movement in one direction to create a partial vacuum on one side of the piston during a portion of a stroke and a compression

of air on the other side of the piston during the entire stroke, means for opening the cylinder on the vacuum side of the piston to atmosphere after the said portion of the said stroke has been completed, and a release valve in the cylinder on the compression side of the piston to permit a slow outflow of air during the movement in the said direction.

[Claims 6 to 17 not printed in the Gazette.]

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1,039,556. ELECTRIC FIXTURE. ARTHUR R. LOCKWOOD, Spokane, Wash. Filed Dec. 18, 1911. Serial No. 665,483. (Cl. 240—70.)



In a chandelier of the class described, the combination with a supporting member, of a telescopic member slidably mounted in relation to said supporting member, a stationary bar of non-conductive material within the supporting member said bar being oppositely recessed, longitudinal conductor strips arranged in the recessed portion of said bar, a tubular body of insulation carried by the upper end of the telescopic member, springs mounted in this insulating body providing a non-holding electric slidable contact with the conductor strips set within the recessed portions of the stationary bar, and means for maintaining the supporting and telescopic members in adjusted positions.

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1,039,557. DRAWER-STOP. VALENTINE C. LUPPERT, Williamsport, Pa. Filed Dec. 13, 1911. Serial No. 665,516. (Cl. 45—7.)



1. An adjustable drawer stop, consisting of a bendable metal plate having a curved body portion and two prongs, one on each side of the curved body.

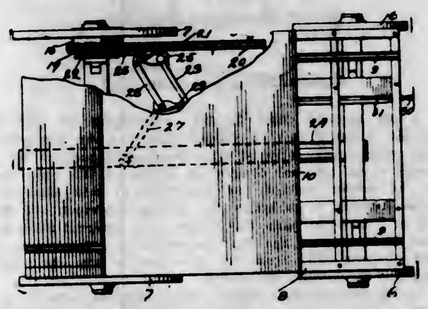
2. An adjustable drawer stop consisting of a bendable metal plate, the body portion of which has flat sides and is transversely curved between its flat sides, and is provided with two prongs, one on each side of the curved body.

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1,039,558. HAY-LOADER. CASSIUS HOMER LYONS, Portland, Ind. Filed May 20, 1912. Serial No. 698,531. (Cl. 214—2.)

1. A hay loader comprising a wheeled frame, a truck movably mounted upon said frame, gearing connecting one of the wheels of the frame and said truck, and means operated by said truck to release said gearing from operation when the truck reaches the extremity of its forward movement.

2. A hay loader comprising a frame mounted on wheels, a truck movably mounted on said frame, a clutch member secured to one of said wheels, a clutch member adapted to be moved into and out of engagement with the first mentioned clutch member, gearing connecting the last mentioned clutch member with the truck aforesaid, and operating mechanism for moving said last mentioned clutch member into and out of engagement with the first mentioned clutch member, said operating mechanism being adapted to be engaged by the truck when it reaches the extremity of its forward movement to automatically release said clutch members from engagement.



3. A hay loader comprising a frame mounted on wheels, a truck movably mounted on said frame, a rack bar secured to said truck, a shaft journaled on the frame, a pinion mounted on the shaft and meshing with said rack bar, a clutch member secured to one of the wheels of the frame, another clutch member slidably mounted relatively to the first mentioned clutch member and adapted to engage therewith at times, said last mentioned clutch member being geared to the shaft aforesaid, and operating mechanism to move the last mentioned clutch member into and out of engagement with the first mentioned clutch member, said operating mechanism being adapted to be engaged by the truck when reaching the extremity of its movement in one direction and automatically release said clutch members from engagement with one another.

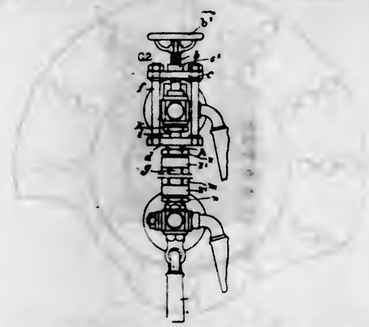
4. In combination with a wagon frame, axles secured to said frame, wheels journaled on said axles, and a reach rod connecting said axles, a truck movably mounted on said frame, a rack bar secured to said truck, a shaft journaled on the frame, a pinion secured to said shaft and meshing with said rack bar, a sprocket wheel secured to said shaft, a clutch member secured to one of the wheels aforesaid, a sleeve extending inwardly of said wheel, a sleeve slidably mounted on said inwardly extending sleeve and having a clutch face adapted to engage the clutch member mounted on the wheel, sprocket teeth extending radially of said sleeve, a sprocket chain connecting the sprocket wheel aforesaid and geared to the sprocket teeth on the sleeve, a lever suitably secured and loosely engaging said sleeve, a lever pivotally secured to the reach rod, another lever secured to the first mentioned lever, a rod pivotally secured to the free terminals of the last two mentioned levers, a lever pivotally secured to the front end of the wagon frame and pivotally engaging said rod, the last mentioned lever extending upwardly above the wagon frame and positioned to be engaged by the truck aforesaid when reaching the forward extremity of its movement.

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4,039,559. GAGE-GLASS FOR BOILERS AND THE LIKE. THEODOR MAAS, Berlin-Grunewald, Germany. Filed Oct. 11, 1909. Serial No. 522,152. (Cl. 73—54.)

1. In a device of the character described, the combination of a pair of gage cocks, a gage-glass-bearing-member fixed in one of said cocks, said member being longitudinally bored and presenting a curved bearing surface, a threaded stem revoluble in the other cock and in axial alinement with both said cocks, means by which said stem may be revolved, a frame independent of the cock having the fixed gage-glass-bearing-member and having a portion embracing said stem whereby the frame may be raised and lowered by revolution of said stem, said frame having its lower bar formed as a curved gage-glass-bearing-member provided with a bored elongation projecting into the steam chamber of the cock with which it is associated, a stuffing box carried by said last named cock and through which the said elongation is adapted to extend, and a second frame adapted to carry a gage glass and designed to be clamped between and removed as an entirety from the said gage-glass-bearing-members.

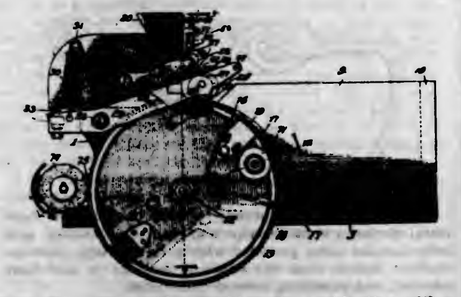




2. In a device of the character described, the combination of an upper and a lower gage cock, a bar by which said cocks are connected, a gage-glass-bearing-member fixed in the lower cock, said member being longitudinally bored to afford communication with the inner chamber of the cock and presenting a curved bearing surface, a threaded stem revoluble in the upper cock and in axial alinement with both cocks, means by which said stem may be revolved, a frame independent of the lower cock and having a portion embracing said stem whereby the frame may be raised and lowered by revolution of said stem, the lower bar of said frame being formed as a curved gage-glass-bearing-member in alinement with the member fixed in the lower cock, said bearing-member in the upper cock being longitudinally bored and provided with a bored elongation projecting into the steam chamber of the cock with which it is associated, a stuffing box carried by said last named cock and through which the said elongation is adapted to extend, a second frame adapted to carry a gage glass and designed to be clamped between and removed as an entirety from the said gage-glass-bearing members, and a stuffing-box at each end of said last named frame wherein the gage-glass is held.

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1,039,560. POSTMARKING-MACHINE. PATRICK J. MADIGAN and JAMES REHAK, Chicago, Ill. Filed June 5, 1911. Serial No. 631,408. (Cl. 101—81.)



1. In a post-marking machine, the combination with a wheel mounted upon a horizontal axis, said wheel having a marking die upon its periphery and a projecting frictional feeding surface adjacent thereto, of a spring-pressed roller arranged to contact with said feeding surface, means for supporting said mail-pieces flatwise with the forward end of the lowermost piece in contact with said feeding surface, separating mechanism, a timing stop in advance of said separating mechanism, means upon said wheel for removing said stop at a predetermined interval, an eccentric mounted upon a horizontal axis above the portion of said wheel upon which said die is located, an impression roller mounted upon said eccentric, yielding means for rearwardly tilting said eccentric and a trip-finger connected with said eccentric and arranged to extend into the mail-piece path.

2. In a post-marking machine, the combination with a wheel mounted upon a horizontal axis, said wheel having a marking die upon its periphery and a projecting frictional feeding surface adjacent thereto separated therefrom by a longitudinal groove, of a spring-pressed roller arranged in the plane of the feeding portion of said wheel, means for supporting mail-pieces above said wheel with the lowermost piece in contact with the frictional surface of its periphery, an eccentric mounted upon a horizontal axis above the die portion of said wheel, yielding means for normally holding said eccentric with its high point in the rear of its axis, a finger rigidly attached to said eccentric with its free end projecting into said longitudinal groove and an impression roller mounted upon said eccentric.

3. In a post-marking machine, the combination with a wheel having a horizontal axis, said wheel being divided in a plane transverse to its axis into feeding and marking portions respectively one having a frictional feeding surface, and the other a die, a spring-pressed roller arranged to bear against said feeding portion, means for supporting mail-pieces to be fed to the upper surface of said wheel, a vertically movable spring-pressed separator bent forwardly at its lower end at an angle to its plane of movement, a timing stop held normally in the mail-piece path in advance of said separator, a pivoted spring-pressed arm arranged adjacent to said die wheel, an eccentric pivotally mounted upon said arm above said wheel, means for yieldingly holding the same with its high point of eccentricity in the rear of its axis, an impression roller mounted on said eccentric and a trip-finger attached to said eccentric and extending downwardly into the mail-piece path.

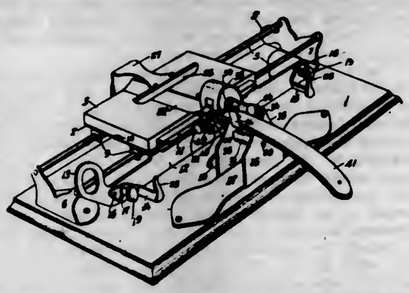
4. In a post-marking machine, the combination with a wheel arranged to rotate in a vertical plane, said wheel being divided in the plane of its rotation into adjacent feeding and marking portions, one having a frictional feeding surface and the other a die, of a spring-pressed roller arranged to bear against the former, an impression roller arranged to co-act with said die portion, means for normally holding the same out of contact therewith, a trip-finger in position to be actuated by a mail-piece for bringing said impression roller into contact with a mail-piece to press it against the die, a gravity timing stop preceding said spring pressed roller and means actuated by said wheel for lifting said stop to release a mail-piece when the die is presented opposite to the impression roller.

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1,039,561. MACHINE FOR HONING AND STROPPING RAZORS AND RAZOR-BLADES. CHARLES A. MANN, Cincinnati, Ohio. Filed Dec. 7, 1911. Serial No. 664,348. (Cl. 51—16.)

1. A machine for honing and stropping razors comprising a base, supports thereon, rods upon said supports, a carrier slidably mounted on said rods, a sharpening member on said carrier, a pressure bar adjustably mounted above said sharpening member, an auxiliary pressure bar on said carrier at one side of said sharpening member, a razor holder and means on said razor holder adapted to engage said auxiliary bar and draw the edge of the razor blade into engagement with the sharpening member when said sharpening member is reciprocated relatively to said razor blade, substantially as set forth and for the purpose specified.

2. A machine for honing and stropping razors comprising a base, a longitudinally reciprocating carrier, a sharpening member mounted thereon, a pressure bar disposed above said sharpening member, a razor holder mounted adjacent said carrier, an auxiliary pressure bar on said carrier at one side of said sharpening member and spring mounted bearings on said razor holder adapted to engage said auxiliary pressure bar and hold the razor blade in engagement with the sharpening member, substantially as set forth and for the purpose specified.



3. A machine for honing and stropping razors comprising a longitudinally reciprocating carrier, a sharpening member mounted thereon, a pressure bar disposed above said sharpening member, a razor holder mounted adjacent said carrier and adapted to hold a razor blade in contact with said sharpening member, a gear fixed adjacent said razor holder, a rack adapted to engage and actuate said gear and adjustable fingers upon said carrier adapted to engage said rack to give said holder an alternating reciprocating motion whereby the razor blade is turned at the end of each reciprocating movement of the sharpening member ready for the next operation, substantially as set forth and for the purposes specified.

4. A machine for honing and stropping razors comprising a longitudinally reciprocating carrier, a honing stone mounted thereon, a pressure bar disposed above said sharpening member, a razor holder mounted adjacent said carrier and adapted to hold a razor blade in contact with said stone, a rack engaging said holder and fingers upon said carrier adapted to engage said rack to throw said holder in alternating rotary motions at the end of each stroke and an auxiliary pressure bar to hold it in such position during said stroke whereby the razor blade is held in contact with the sharpening member during its reciprocations, substantially as set forth and for the purposes specified.

5. A machine for honing and stropping razors comprising a longitudinally reciprocating carrier, a sharpening member mounted thereon, a handle for holding said machine in fixed position while being operated, a pressure bar disposed above said sharpening member, an auxiliary pressure bar at one side of said sharpening member, a pivotally mounted razor holder, means for giving said holder an alternating rotary motion and means for holding said razor holder in fixed position during the movements of the carrier back and forth, substantially as set forth and for the purposes specified.

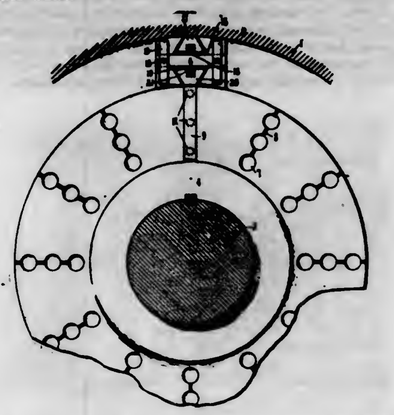
[Claims 6 to 17 not printed in the Gazette.]

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1,039,562. ROTARY ENGINE. ROBERT H. MARTIN, Newark, N. J., assignor to William De L. Walbridge, New York, N. Y. Filed Apr. 15, 1911. Serial No. 621,380. (Cl. 121—70.)

1. In a rotary engine, a cylinder, a rotary piston comprising a web and a head, said web having a plurality of series of radially disposed motive fluid receiving pockets and ducts in its opposite side walls for supplying a film of fluid between the side walls of the web and adjacent walls of the cylinder.

2. In a rotary engine, a cylinder, a rotary piston comprising a web and a head, said web having a plurality of series of radially disposed motive fluid receiving pockets and ducts in its opposite side walls for supplying a film of fluid between the side walls of the web and adjacent walls of the cylinder, and radially arranged spring pressed packing strips projecting through the opposite sides of the web into engagement with said adjacent cylinder walls.



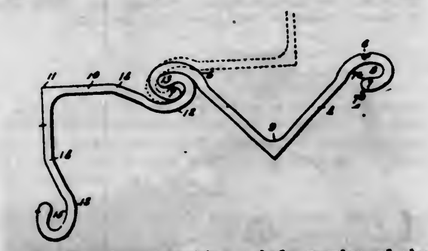
3. In a rotary engine, an annular piston chamber, a piston having its head fitted to the cross sectional shape of the chamber, said head having dove-tailed recesses in its inner and outer walls and spring pressed wedge shaped packing strips located in said recesses.

4. In a rotary engine, an annular piston chamber, a piston having its head fitted to the cross sectional shape of the chamber, said head having dove-tailed recesses in its inner and outer walls, spring pressed wedge shaped packing strips located in said recesses, the walls of the packing strips and the walls of the recesses co-acting to hold the strips in their adjusted position during the movement of the piston and for releasing said strips when the piston stops.

5. In a rotary engine, an annular piston chamber, rectangular in cross section, a piston having its head fitted to the cross sectional shape of the chamber, spring pressed packing strips for the outer and inner walls of the piston head, and a pair of spring pressed packing strips for each end wall of the piston head, said last-named packing strips being located upon opposite sides of the outer and inner packing strips.

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1,039,563. PILING-BAR. DAVID W. MATHIAS, Pottsville, Pa. Filed Jan. 31, 1912. Serial No. 674,593. (Cl. 61—52.)



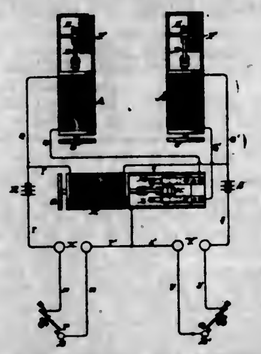
1. A piling bar comprising a body member of sheet metal having a substantially V-shaped cross section, said body member being provided with reverting edge portions slightly thicker than the adjacent portions of said body member, and extending toward each other.

2. A piling bar comprising a body member of sheet metal bent along a central line extending lengthwise of said body member so as to form a continuous corner line, said body member being further provided with an arcuate concave surface disposed opposite said corner line, so that the portion of said body member between said corner line and said concave surface is thicker than adjacent portions of said body member, said body member being provided with thickened edges bent toward each other.



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1,039,564. SPEED-COMPARING DEVICE. JOHN V. MATTHEWS and ELMER L. KYLE, Philadelphia, Pa. Filed May 25, 1912. Serial No. 699,661. (Cl. 235—92.)



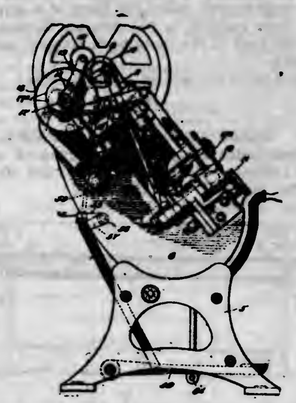
1. In an instrument for comparing speeds of two machines, the combination of two sources of electric energy, two electrically actuated indicating devices for respectively indicating the impulses imparted to them by the respective sources of electric energy, separate electric circuits for each source of electric energy and each including one of the electrically actuated indicating devices, a separate intermittently acting circuit closing means for each electric circuit and said means respectively operated by the two machines whose speeds or velocities are to be compared, a commutator for each of the electric circuits for simultaneously opening or closing said electric circuits, and an electrically actuated means for intermittently operating the commutators energised by the two sources of electric energy whenever the two circuit closing means of the two circuits are simultaneously closed.

2. In an instrument for comparing speeds of two machines, the combination of two sources of electric energy, two electrically actuated indicating devices for respectively indicating the impulses imparted to them by the respective sources of electric energy, separate electric circuits for each source of electric energy and each including one of the electrically actuated indicating devices, a separate intermittently acting circuit closing means for each electric circuit and said means respectively operated by the two machines whose speeds or velocities are to be compared, a commutator for each of the electric circuits for simultaneously opening or closing said electric circuits, and an electrically actuated means comprising an electro-magnet and a branch circuit therefor having its terminals in circuit with the poles of the sources of electric energy which connect with the electrically actuated indicating devices for intermittently operating the commutators energised by the two sources of electric energy whenever the two circuit closing means of the two circuits are simultaneously closed.

3. In an instrument for comparing speeds of two machines, the combination of two sources of electric energy, two electrically actuated indicating devices for respectively indicating the impulses imparted to them by the respective sources of electric energy, separate electric circuits for each source of electric energy and each including one of the electrically actuated indicating devices, a separate intermittently acting circuit closing means for each electric circuit and said means respectively operated by the two machines whose speeds or velocities are to be compared, and devices for simultaneously closing both of the separate electric circuits through the respective sources of electric energy whenever the circuit closing means operated by the two machines whose velocities are to be compared are simultaneously closed.

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1,039,565. METAL-WORKING MACHINE. CHARLES D. MCDONALD, Chicago, Ill., assignor to McDonald Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 24, 1911. Serial No. 656,891. (Cl. 113—38.)



1. In a machine of the class described, the combination of delivery and discharge mechanisms for the work, die press mechanism, a drive shaft, a driven shaft, an operative connection between the driven shaft and the delivery and discharge mechanisms, one end of one of said shafts being arranged to permit of the positioning thereon of different sized gears, the size of said gear timing the movements of said delivery and discharge mechanisms, a gear on the other of said shafts, a shiftable gear connecting the gears of the drive shaft and the driven shaft, and an operative connection between the drive shaft and die press mechanism, substantially as described.

2. In a machine of the class described, the combination of delivery and discharge mechanisms for the work, driving, driven, and interchangeable gears, an operative connection between said gears and mechanisms, mountings for said gears, one of said mountings being arranged to permit of the positioning of different sized gears thereon, means for adjusting the mounting of at least one of said gears to bring all of the gears to mesh, the size of said positioned gear determining the timing of the delivery and discharge mechanisms, die mechanism, and means operatively connected for actuating said die mechanism, substantially as described.

3. In a machine of the class described, the combination of delivery and discharge mechanisms for the work, die press mechanism, a drive shaft, a driven shaft, an operative connection between said driven shaft and the delivery and discharge mechanisms, one end of one of said shafts being arranged to permit of the positioning of different sized gears to vary the timing of the movements of the delivery and discharge mechanisms, a gear connecting the gears on the drive and driven shafts, a swinging arm carrying said connecting gear, means for locking said arm in position to bring said connecting gear into mesh with the gears of the drive and driven shafts, and an operative connection between the drive shaft and die mechanisms, substantially as described.

4. In a machine of the class described, the combination of delivery and discharge mechanisms for the work, die press mechanism, a drive shaft, a driven shaft, operative connections between said shafts and mechanisms, gears

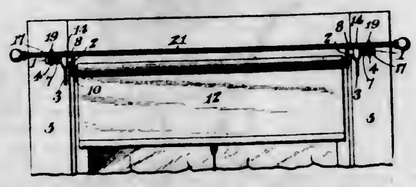
on the ends of said shafts, one end of one of said shafts being arranged to permit of the positioning of different sized gears thereon, whereby the timing of the movements of the delivery and discharge mechanisms may be varied, a gear connecting the gears of the drive and driven shafts, a swinging arm carrying said connecting gear, a stationary support, and a slot and bolt connection between said arm and support, substantially as described.

5. In a machine of the class described, the combination of feed mechanism and discharge mechanism for the work, die press mechanism, means for operating said mechanisms, and connecting means between the feed mechanism and its operating means, adapted to be forced from operative engagement under the force of a strain greater than the force incident to the ordinary feeding operation, whereby the feed of the machine is stopped, substantially as described.

[Claims 6 to 28 not printed in the Gazette.]

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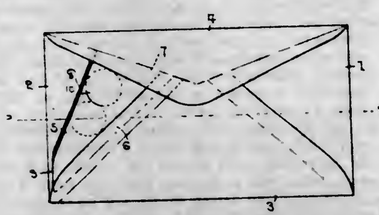
1,039,566. SHADE AND CURTAIN HANGER. CHARLEY MCDONNER, Manitowoc, Wis., assignor of one-half to George Lambries, Manitowoc, Wis. Filed May 9, 1912. Serial No. 696,171. (Cl. 156—24.)



A shade and curtain hanger including an approximately L-shaped supporting member adapted to fit the corner of a window frame or casing and provided at its outer portion with a vertical eye or bearing, an inner adjustable bracket provided at the top with a hook to engage over the inner portion of the supporting member and depending therefrom and provided with an opening adapted to support one end of a shade when the same is arranged between the sides of a window frame or casing, an outer adjustable bracket also provided at the top with a hook to engage over the outer portion of the supporting member and provided at its lower portion with an opening for supporting one end of the shade roller when the same is arranged at the face of the window frame or casing, said outer bracket being provided with an intermediate outwardly extending portion to space the shade from the window frame or casing, and a pole supporting bracket provided at its inner end with a depending pivot to fit in the vertical socket or bearing of the supporting member and having an outer upwardly extending arm for engaging a curtain pole.

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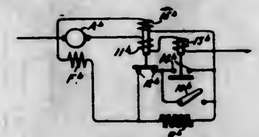
1,039,567. ENVELOP. ALBERT W. MCGUIRE, Carmel, Me. Filed Nov. 29, 1911. Serial No. 663,126. (Cl. 229—72.)



In a device of the class described, the combination with an envelop comprising end flaps, and top and bottom flaps having the edges thereof sealed over the edges of said end flaps; of a substantially triangular shaped pocket member having two long edges and one short edge, one long edge and one short edge being secured between the flaps of the envelop, the remaining edge being folded inwardly upon itself to form the mouth of said pocket and a retaining means for a coin, one end of the folded edge of the pocket being secured in folded position under the adjacent flap of the envelop and the opposite end of said folded edge being cut away to form an opening between the envelop and the pocket member.

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1,039,568. MOTOR CONTROL. ROBERT H. MCLAIN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Sept. 17, 1910. Serial No. 582,502. (Cl. 172—288.)



1. The combination with an electric motor, of means for varying the speed thereof comprising a resistance for the field circuit of the motor and an overload relay responsive to variations in current due to the effect of said resistance which continuously opens and closes a short circuit on said resistance until the motor reaches a speed corresponding to the predetermined field strength.

2. The combination with an electric motor, of means for varying the speed thereof comprising a resistance for the field circuit of the motor, and a normally open relay for short circuiting said resistance when closed, said relay being responsive to variations in current due to the effect of said resistance so as to vibrate until the motor reaches a speed corresponding to the field strength established by said resistance.

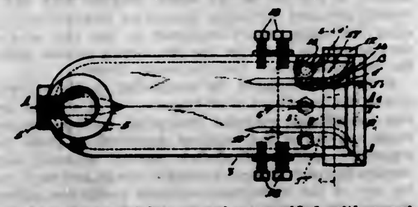
3. The combination with an electric motor, of means for varying the speed thereof comprising a resistance for the field circuit of the motor, a switch for controlling said resistance, and a relay for automatically opening and closing a short circuit on said resistance to bring the motor to a speed corresponding to the strength of the field as established by said switch.

4. The combination with an electric motor, of means for varying the speed thereof comprising a resistance for the field circuit of the motor, and means controlled by variations in the motor current due to the effect of said resistance for continuously opening and closing a short circuit on said resistance until the motor reaches a speed corresponding to the predetermined field strength.

5. The combination with an electric motor, of means for varying the speed thereof comprising a resistance for the field circuit of the motor, a switch in shunt to said resistance, and a pair of relays, one of which operates to automatically open and close a short circuit on said resistance to increase the speed of the motor when said switch is open, while the other operates to open and close a short circuit on said resistance to decrease the speed of the motor when said switch is closed.

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1,039,569. OIL-BURNER. WILLIAM J. MCLEAN and JOHN L. MCCAULEY, Bellingham, Wash. Filed Mar. 27, 1911. Serial No. 617,222. (Cl. 158—75.)



1. A burner comprising a casing provided with a pair of passages having discharge mouths, said mouths having



open side portions, and longitudinal partitions in the passages of said casing having end portions turned outwardly to deflect fluid through the side portions of said discharge mouths.

2. In a burner, a casing provided with a fluid passage having a discharge end, longitudinal partitions in said passage of the casing spaced to provide outer and intermediate channels, the portions of said partitions adjacent the discharge end of the passage being disposed to deflect the fluid in a lateral direction, and valve means in said casing for controlling the flow of fluid through the outer of said channels.

3. In a burner, a casing provided with a fluid passage, longitudinal partitions in said passage of the casing spaced to provide outer and intermediate channels, end portions of said partitions being angularly disposed to deflect the fluid in a lateral direction, and valves in the outer of said channels.

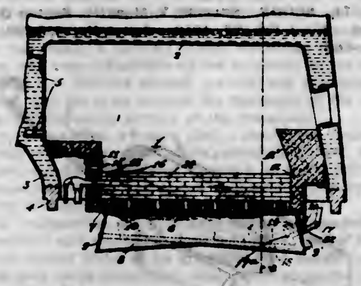
4. A burner comprising a casing having a top, bottom, spaced side walls and a discharge end, a horizontal longitudinal partition in said casing between the side walls, dividing the same into a pair of passages, the end portion of said partition at the discharge end of the casing being offset to provide a deflecting flange, and a plate removably secured to the bottom of said casing and projecting forwardly beneath the flange of said partition and providing in conjunction therewith a narrow discharge mouth for the adjacent passage.

5. A burner, comprising a casing, a horizontal partition in said casing dividing the same into a pair of passages, one of the end portions of said partition being offset to provide a deflecting flange, a plate projecting forwardly beneath the flange of said partition, said plate being provided with a shoulder abutting the end of the casing, and means removably securing said plate to said casing for permitting the adjustment of its said shoulder thereon, for the purpose specified.

[Claims 6 to 8 not printed in the Gazette.]

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1,039,570. OIL-BURNING STEAM-BOILER. WILLIAM J. MCLEAN and JOHN L. MCCAULEY, Bellingham, Wash. Filed Apr. 27, 1911. Serial No. 623,745. (Cl. 158—8.)



1. In a structure of the character set forth, the combination with a furnace having an air inlet and a burner for projecting a flame into said furnace, of means for supplying air to the inlet comprising a conduit having opposite intake openings, and a bottom that inclines downwardly in opposite directions from an intermediate point toward said intake openings.

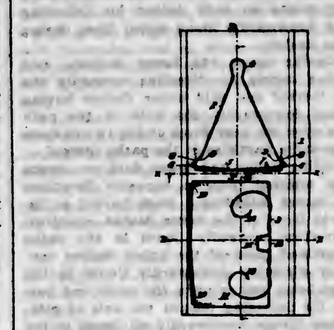
2. In a structure of the character set forth, the combination with a furnace having an air inlet and a burner for introducing a flame into said furnace, of means for supplying air to said inlet, comprising a conduit having a plurality of openings, valves controlling the openings, and common means for actuating the valves and causing one to move a greater distance than the other.

3. In a structure of the character set forth, the combination with a furnace having an air inlet and a burner for introducing a flame into said furnace, of means for supplying air to said inlet, comprising a conduit having a plurality of openings, valves controlling the openings, and common means for actuating the valves and causing the valve of the opening that is farther from the burner to move to a more open position than the valve nearer the said burner.

[Claims 4 to 8 not printed in the Gazette.]

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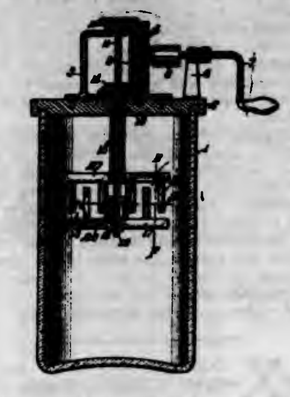
1,039,571. SLIP-HOLDER. DONALD H. MCPHERSON, Le Roy, N. Y., assignor to Superior Register Company, Canisteo, N. Y., a Corporation of New York. Filed Apr. 28, 1911. Serial No. 623,671. (Cl. 24—66.)



1. The combination, with a backing, of a slip holder of the character described comprising a loop of wire provided with oppositely extending and overlapping portions each having its end bent substantially at right angles thereto in the direction of said loop, the extremities of said bent ends being inserted through perforations in the backing, each of said bends engaging the surface of said backing while the portion of each bent end between the bend proper and the perforation through which its extremity is inserted is arched over the other overlapping and oppositely extending portion thereby securing the same in pivotal position on said backing for the purpose specified.

2. The combination, with a backing, of a slip holder of the character described comprising a loop of wire provided with oppositely extending and overlapping portions each having its end bent substantially at right angles thereto in the direction of said loop, the extremities of said bent ends being inserted through perforations in the backing, each of said bends engaging the surface of said backing while the portion of each bent end between the bend proper and the perforation through which its extremity is inserted is arched over the other overlapping and oppositely extending portion thereby securing the same in pivotal position on said backing, said loop having its lateral portions bent outwardly away from the backing and sharply toward one another adjacent to and extending inward past the declining parts of said arches where they enter said perforations, thereby limiting the downward movement of said loop and preventing said oppositely extending portions from being displaced from below said arches.

1,039,572. CHURN. JOHN W. MILLER, Todds Point, Ill., assignor of one-half to J. D. Martin, Todds Point, Ill. Filed Feb. 17, 1912. Serial No. 678,204. (Cl. 31—43.)



1. A churn including upper and lower dashers, means for rotating the dashers in opposite directions, said dashers coöperating to direct currents of fluid toward each other, there being means on each dasher for deflecting fluid inwardly and downwardly along spiral lines during the rotation of the dasher.

2. A churn including upper and lower dashers, said lower dasher having means for directing upwardly the fluid in the path thereof and said upper dasher having means for directing downwardly the fluid in the path thereof, and means upon the near faces of the two dashers for directing downwardly particles in the paths thereof.

3. A churn including upper and lower dashers, means for simultaneously rotating them in opposite directions respectively, each dasher including a blade having an inclined face, the said faces of the lower dasher constituting means for directing upwardly liquid in the paths thereof and the inclined faces of the upper dasher constituting means for directing downwardly liquid in the paths thereof, there being means upon the outer end portion of each blade for deflecting toward the axis of rotation of the blade and thence downwardly all liquid in the path of said means.

4. A churn including upper and lower dashers, each dasher including radially disposed blades, each blade of the lower dasher having inclined upper faces and each blade of the upper dasher having inclined lower faces, all of said faces constituting means for directing currents of liquid from the respective dashers toward each other, and an angularly disposed shoulder upon each blade adjacent the outer end of the inclined face thereon, said shoulder constituting means for directing liquid inwardly toward the center of the dasher.

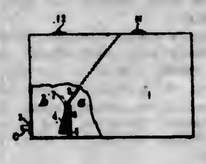
5. A churn including upper and lower oppositely rotating dashers, separate means upon the lower dasher for directing a current of fluid inwardly toward the axis of rotation of the dasher and thence upwardly, separate means upon the upper dasher for directing a current of fluid inwardly toward the axis of rotation and thence downwardly, and means carried by the two dashers for directing downwardly all particles in the path of said means.

[Claim 6 not printed in the Gazette.]

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1,039,573. FUEL-RESERVOIR. WILLIAM H. MORAN, New York, N. Y. Filed Aug. 19, 1911. Serial No. 645,034. (Cl. 158—46.5.)

1. In an apparatus of the character described, in combination, a reservoir comprising a discharge opening, and automatic means whereby as the reservoir is tilted fluid will flow toward the discharge opening and provide a discharge head of liquid adjacent the opening greater than the head otherwise provided by the reservoir for the same amount of fluid.



2. In an apparatus of the character described, in combination, an oil reservoir comprising a main chamber, an auxiliary chamber having an outlet, and automatic means adapted to provide in the auxiliary chamber a greater head than the main chamber for the same amount of oil.

3. In an apparatus of the character described, in combination, an oil reservoir comprising a main chamber, an auxiliary chamber having an outlet, and automatic means adapted to provide in the auxiliary chamber a greater head than the main chamber for the same amount of oil, comprising a swinging valve adapted to permit the flow of oil from the main chamber to the auxiliary chamber and obstruct its return.

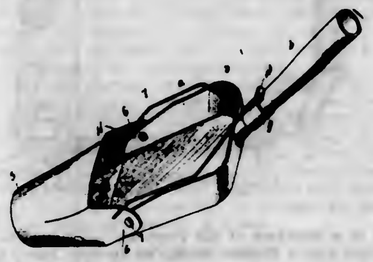
4. In an apparatus of the character described, in combination, an oil reservoir comprising a main chamber, an auxiliary chamber having an outlet, and automatic means adapted to provide in the auxiliary chamber a greater head than the main chamber for the same amount of oil, comprising a pivotal weighted valve adapted to permit the flow of oil from the main chamber to the auxiliary chamber and obstruct its return.

5. In an apparatus of the character described, in combination, a reservoir providing connected main and auxiliary chambers, automatic means whereby as the reservoir is tilted in one direction fluid will flow from the main to the auxiliary chamber, and a discharge head of liquid provided in the auxiliary chamber greater than the head in the main chamber.

[Claims 6 to 8 not printed in the Gazette.]

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1,039,574. SCOOP. STANLEY V. MORRILL, Benton Harbor, Mich. Filed Feb. 27, 1912. Serial No. 680,290. (Cl. 65—36.)



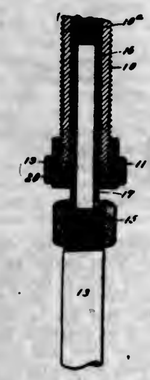
1. The combination with a scoop, of a funnel pivotally connected thereto and including side, top and bottom walls, the connection between the scoop and funnel causing the bottom wall of the funnel to underlie the bottom of the scoop when the parts are in operative position.

2. The combination with a scoop, of a funnel pivotally connected thereto, and means for elevating the funnel with relation to the scoop, said means serving to limit the operative movement of the funnel with relation to the scoop to position the latter in discharging relation to the scoop.

3. The combination with a scoop, of a funnel pivotally connected thereto, a yoke connected to the funnel, and means for moving the yoke to adjust the funnel with relation to the scoop, a portion of the yoke serving as a stop to limit the operative movement of the funnel with relation to the scoop.



1,039,575. ADJUSTABLE SCREW-JOINT COUPLING FOR SUPPLY-PIPES. PHILIP MUELLER, Decatur, Ill., assignor to H. Mueller Manufacturing Company, Decatur, Ill., a Corporation of Illinois. Filed Mar. 24, 1911. Serial No. 616,694. (Cl. 137—28.)



1. The combination with a faucet shank having external and internal threads extending from its extremity inward, and a service pipe, of a supply pipe adjustably fitting in one end of the service pipe and having threads at its opposite end, an extension member threaded upon the threaded end of the supply pipe and having a reduced portion with a threaded extremity engaging adjustably in the threaded faucet shank, a gasket fitting about the reduced portion and against the extremity of the faucet shank, and a cap engaging over the extremity of the faucet shank and about the reduced portion to bind the gasket against the reduced portion and the shank.

2. In combination with a supply pipe and a shank interiorly and exteriorly threaded from its extremity inward, an extension member on the supply pipe and having a reduced and smooth portion and provided at the end of the smooth portion with threads for adjustable engagement within the shank, a packing gasket encircling the smooth portion, and a cap adjustable on the extremity of the shank and about the reduced smooth portion and engaging the gasket to bind the same against the extremity of the shank and about the smooth portion of the extension.

3. In combination, a supply pipe, a shank, and means for positively connecting said parts adjustably, said means including a reduced extension threaded on the supply pipe and engaging within the shank in threaded relation adjustably throughout the length of the shank.

4. In combination, a supply pipe having a threaded end, an interiorly and exteriorly threaded shank having the inner wall thereof flared at its extremity, and means for connecting said parts adjustably, said means including an extension threaded upon the supply pipe and having a reduced smooth portion and a portion therebeyond with threads engaging in threaded relation within the shank and adapted for adjustment throughout the entire length of the same, a gasket carried about the smooth portion of the extension, and a cap fitting about the smooth portion of the extension over the gasket and engaging in threaded relation over the extremity of the shank, said cap being adapted to compress the gasket into the flared extremity of the shank and against the smooth portion of the extension.

5. As a new article of manufacture a supply pipe comprising an elongated portion, a reduced extension mounted on the elongated portion and having a smooth exterior face throughout nearly its length and an externally threaded and slightly enlarged outer end adapted to extend into an internally threaded faucet spud and engaging with the threads of the same, a packing carried about the smooth surface of the extension, and a packing nut engaging over the end of the spud and about the smooth surface of the extension adapted to compress the packing against the spud and against the smooth exterior surface of the extension.

[Claim 6 not printed in the Gazette.]

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1,039,576. SEAL FOR PIPE-COUPLINGS. PHILIP MUELLER and ANTON C. SCHUERMANN, Decatur, Ill., assignors to H. Mueller Manufacturing Company, Decatur, Ill., a Corporation of Illinois. Filed June 28, 1910. Serial No. 569,378. (Cl. 137—28.)



1. A seal for couplings comprising two incasing members, one of which is provided with a depression in a portion of its periphery, a frangible sealing member which embraces said incasing members and is partly seated in said depression, and an irremovable means for fastening said sealing member around the incasing members.

2. A seal for couplings comprising two incasing members one of which members has a depression in a portion of its outer surface, a continuous sealing member of frangible material provided with a weakened portion which member embraces said incasing members and holds them together, a part of the body of said sealing member being seated in said depression, and an irremovable means associated with said sealing member and adapted to bear on the other of said members to retain the sealing member in said depression.

3. A seal for couplings comprising two incasing members, and a continuous, substantially annular sealing member which embraces them, said sealing member being provided with a weakened portion.

4. A seal for couplings comprising two incasing members, and a sealing member which embraces them, said sealing member having a sinuous portion of reduced cross section.

5. A sealing member comprising an unbroken rigid band of frangible metal having a weakened portion, and means for locking the same about the members to be sealed together.

[Claims 6 to 10 not printed in the Gazette.]

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1,039,577. SELF-COOLED TRANSFORMER. JAMES J. MULLEN, St. Louis, Mo., assignor to Moloney Electric Company, St. Louis, Mo., a Corporation of Missouri. Filed Aug. 21, 1911. Serial No. 645,051. (Cl. 171—126.)



1. A self-cooled transformer consisting of a casing that is adapted to contain a liquid, a transformer arranged inside of said casing, and vertically disposed air conduits arranged inside of said casing adjacent the side walls of same and having their upper and lower ends communicating with the atmosphere so that currents of air will travel through said conduits.

2. A self-cooled transformer consisting of a casing that is adapted to contain a liquid, a transformer arranged inside of said casing, vertically disposed air conduits arranged inside of said casing adjacent the side walls of same

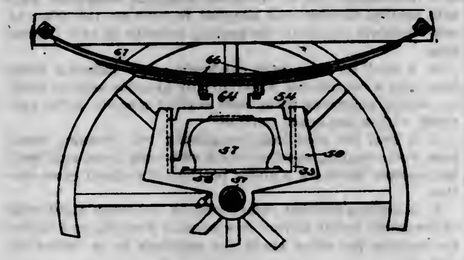
and having their upper and lower ends communicating with the atmosphere so that currents of air will travel through said conduits, and means for holding the bottom of the casing far enough away from the support on which the casing rests to permit air to enter the lower ends of said conduits.

3. A casing or tank for self-cooled transformers consisting of a cast metal shell whose bottom and side walls are integrally connected together, vertically disposed air conduits arranged inside of said shell and integrally connected to the bottom of the shell, the upper ends of said conduits communicating with the atmosphere so as to permit currents of air to circulate through said conduits, and a removable top or cover for said shell.

4. A casing or tank for self-cooled transformers consisting of a cast metal shell whose bottom and side walls are integrally connected together, vertically disposed air conduits arranged inside of said shell and integrally connected to the bottom of the shell, the upper ends of said conduits communicating with the atmosphere so as to permit currents of air to circulate through said conduits, a removable top or cover for said shell, and depending flanges on the bottom of the shell which hold same a sufficient distance from the support on which the casing rests to permit air to enter the lower ends of said conduits.

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1,039,576. PNEUMATIC SPRING. THOMAS J. MULLEN and THOMAS F. BRENNAN, New Brighton, N. Y. Filed Nov. 19, 1909. Serial No. 528,987. Renewed Feb. 24, 1912. Serial No. 679,769. (Cl. 21—50.)



1. In a device of the class described, a bracket provided with a depression, a pneumatic bag provided with a base proportioned to be positioned in the depression, a removable collar adapted to be secured to the bracket and maintain the base of the bag in the depression, and means supported upon the bag adapted for connection with a vehicle body.

2. In a device of the class described, a bracket adapted to be secured to the running gear of a vehicle and provided with a depression, a pneumatic bag provided with a base proportioned to be inserted in the depression, a removable keeper adapted to be attached to the bracket and to maintain the base of the bag in the depression, and means to support a vehicle body on the bag.

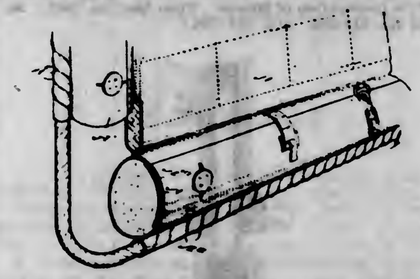
3. In a device of the class described, a bracket provided with a depression, a pneumatic bag having a base embodying outwardly extending flanges all proportioned to be positioned in the depression, and a collar adapted to surround the bag and to be secured to the bracket and maintain the bag with the base within the depression.

4. In a device of the class described, a bracket adapted to be connected with the running gear of a vehicle, and provided with a pneumatic-bag receiving depression, and a removable bag-retaining collar carried by the bracket and extending inwardly beyond the lines of the depression.

5. In a device of the class described, a bracket adapted to be secured to the running gear of a vehicle and provided with a pneumatic-bag receiving depression, and a bag-retaining collar formed in separable parts adapted to be secured to the bracket and extend inwardly beyond the lines of the depression.

[Claim 6 not printed in the Gazette.]

1,039,578. LEAK-STOP FOR LEVEES, DIKES, &c. MADISON M. NIMMO, Vacherie, La. Filed May 28, 1912. Serial No. 700,176. (Cl. 61—36.)



1. A protecting cover for levees, dikes and the like, composed of a flexible cover having an edge extension or flap folded back over the body of the cover, and fastenings for securing said extension or flap detachably to the body of the cover, the said flap or extension forming a pocket for the reception of weighting material, and ropes leading from the flexible cover and adapted to facilitate the manipulation thereof, substantially as set forth.

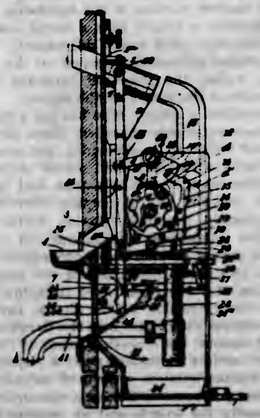
2. A protecting cover for levees, dikes and the like, composed of a flexible cover having an edge flap or extension returned over and secured to the body of the cover and adapted to form a pocket for the reception of weighting material, substantially as set forth.

3. A protecting cover for levees, dikes, etc., composed of a flexible cover having an edge extension or flap returned over the body of the cover and fastenings for detachably securing the flap or extension to the body of the cover, substantially as set forth.

4. A protecting cover for levees, dikes and the like, composed of a flexible cover having an edge extension or flap folded back over the body of the cover and an underlying flap projecting in a reverse direction from said extension below the same, and fastenings securing said underlying flap to the extension flap, substantially as set forth.

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1,039,580. VENDING-MACHINE. LUDWIG NEUMAYER, Strassburg, Germany. Filed Dec. 19, 1911. Serial No. 666,781. (Cl. 194—38.)



1. In a vending machine, the combination of a rotating shaft, a disk mounted on the shaft and formed on its periphery with a series of coin seats, a chute formed with a branch chute to direct a coin to the coin seats, a coin holding lever having a pin which extends into the coin chute to temporarily support a coin so that upon the introduction of a subsequent coin it will strike the one previously introduced and will be directed to the branch chute, a crank lever having a roller located adjacent the periphery of the disk and operatively connected to the coin holding lever, a setting lever pivoted to the crank lever, a lug extending from the setting lever, a pivoted arm having a roller normally held away from the periphery of the disk, a spring for rocking the arm into the path of the lug when the setting lever is elevated, a dispensing device and a connection from the setting lever and the dispensing device for operating the latter when a coin is caught in one of the seats and rocks the crank lever, the said coin in the seat subsequently operating the arm and releasing the setting lever.

2. In a vending machine, the combination of a rotating disk formed on its periphery with coin seats, a chute formed with a branch to direct a coin to the coin seats, a pivoted coin holding lever having pins which extend into the chute below the branch thereof, a pivoted crank lever coöperatively connected to the coin holding lever, a roller extending from the crank lever adjacent the periphery of the disk, a setting lever pivoted to an arm of the crank lever, a lug extending from the setting lever, a pivoted arm having a roller normally held away from the periphery of the disk, the upper end of said arm being held by the lug when the setting lever is raised, a spring connecting the arm and the coin holding lever, said spring serving to normally hold the coin holding lever in position to locate the upper pin in the path of a coin introduced in the chute and support the same, dispensing means, a lever between the setting lever and the dispensing means to operate the latter when the former is raised, the coin previously introduced in the chute acting as a guide to direct a subsequent coin to one of the coin seats, the said coin acting on the crank lever to operate the dispensing means and release the coin on the pin and subsequently acting on the roller on the arm to reset the parts.

3. In a vending machine the combination of a rotating disk formed with coin seats, a chute having a branch to direct a coin to one of the seats in the disk, means for temporarily supporting a coin in the chute on which a subsequently introduced coin falls and is directed to the branch in said chute, dispensing mechanism, means operated by the coin in the seat for operating the dispensing mechanism and means with which said coin operates to subsequently release the temporarily supported coin.

4. In a vending machine, the combination of a rotating disk formed with coin seats in its periphery, a chute formed with a branch, means including a pivoted lever and pins extending therefrom to temporarily support a coin adjacent the branch in the chute and subsequently catch and hold the coin for a definite period after having been released from its temporary position, a dispensing device, means including pivoted levers operable by a coin held in one of the seats for operating the dispensing device and releasing the temporarily supported coin, and means subsequently operated upon by said coin for finally releasing the coin.

5. In a vending machine, the combination of a rotating disk formed on its periphery with a series of coin seats, a chute formed with a branch to direct a coin to one of the coin seats, means for temporarily supporting a coin in the chute adjacent the branch therein, a dispensing device, a pivoted lever coöperating with the same to release the said device, and means including a pivoted lever with which a coin held in one of the seats operates to rock the pivoted lever to operate the dispensing device, the said coin in the coin seat coöperating to release the parts and to permit the latter to assume their normal position.

[Claims 6 to 10 not printed in the Gazette.]

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1,039,581. PLOW. WILLIAM NEWSOME, Richmond, Va. Filed May 22, 1912. Serial No. 698,939. (Cl. 97—32.)

1. The combination of a plow including a beam, a plow body, and handles, with a sub-soiler attachment comprising a bracket secured at its upper end to the beam and at its lower end between the mold board and land side of the plow body, a blade-carrying supplemental beam having its front end adjustably attached to the bracket, an operating lever mounted on the handles, a link connecting the lever with the rear portion of the supplemental beam, and a device for holding the lever in different positions for controlling the depth of penetration of the sub-soiler.



2. The combination of a plow including a beam, a plow body, and handles, with a sub-soiler attachment including front and rear supporting devices, and a supplemental beam adjustably carried by both of said devices, the front supporting device comprising a bracket having a hook at its upper end engaging the said plow beam and provided with a portion extending downwardly between the mold board and landside of the plow body, means for securing the lower end rigidly with respect to the plow body, and means for adjusting the position of attachment of the supplemental beam to the bracket.

3. The combination of a plow including a beam, a plow body, and handles, with a sub-soiler attachment including front and rear supporting devices, and a supplemental beam adjustably carried by both of said devices, said rear supporting device comprising a lever fulcrumed on the handles above the rear portion of the supplemental beam, a link connecting the lever with the rear portion of the supplemental beam, and means carried by the handle for holding the lever in different positions of adjustment.

4. The combination of a plow including a beam, a plow body, and handles, with a sub-soiler attachment including front and rear supporting devices, and a supplemental beam adjustably carried by both of said devices, said rear supporting device comprising a pair of bars extending from one handle to the other and secured thereto, a bracket secured to the bars, a lever mounted on the bracket, a connection between the lever and the rear portion of the supplemental beam, a toothed sector carried by the said bars, and means on the lever for engagement with the sector.

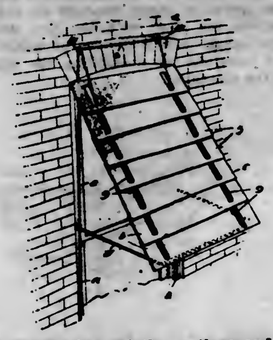
5. The combination of a beam, a standard, a plow body on the standard, handle bars connected with the plow body, and a bolt extending through the lower ends of the handle bars, in combination with a hander or bracket, means for securing the upper end of the bracket to the beam, said bracket having its lower end fastened to the said bolt, a sub-soiler beam having a vertically-adjustable point of adjustment with the bracket, and means for supporting the rear portion of the sub-soiler beam on the handles in operative or inoperative position, said latter means coöperating with the said bracket for permitting the set of the sub-soiler beam to be adjusted both at its front and rear ends.

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1,039,582. FOLDING STEEL AWNING. GILBERT E. OSGOOD, Norfolk, Va., assignor of one-third to John E. Frissell, Norfolk, Va. Filed Oct. 3, 1911. Serial No. 652,509. (Cl. 160—42.)

A window awning comprising a body secured at one of its ends and made up of a plurality of metallic sections provided with spaced openings, flexible means connected to one side of said sections and serving to bend of over-lapping of said sections and the closing of the openings thereof when the body is projected, a pivotally mounted awning frame forming a support for the body

when the body and frame are in one position, flexible operating elements supported above the body and pass-



ing through the openings of the sections and connected to the awning frame.

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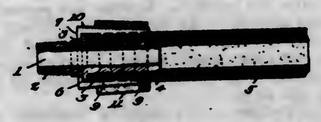
1,039,583. ROOT-DIGGER. MALVIN B. PARKER, Waterville, Me. Filed Feb. 29, 1912. Serial No. 680,631. (Cl. 55—139.)



A digger comprising a share having spaced points with a gutter extending rearwardly from between the points and terminating at one side of the share, and a series of spaced rods located at the opposite side of the share and disposed approximately over said gutter.

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1,039,584. HOSE-COUPLING. CHARLES PARSONS, Cleveland, Ohio. Filed June 1, 1912. Serial No. 700,925. (Cl. 137—28.)



1. A coupling of the character specified, comprising in combination with the hose and the nipple having one end threaded and the other provided with annular shoulders spaced apart from each other and facing the threaded end, said nipple having an external annular rib between the threaded surface and the shouldered surface for engagement by the end of the hose, of a clamping device comprising clamping jaws, each being semi-circular in cross section and having at one end an internal rib for engaging the opposite face of the rib of the nipple from the hose, said sections being frusto-conical externally, the large end being at the rib, said sections being threaded externally, and each having a plurality of transverse ribs on its inner face, and a frusto-conical internally threaded sleeve for engaging the sections to clamp them together on the hose.

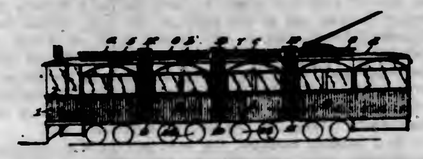
2. A coupling of the character specified, comprising in combination with the hose and the nipple having one end threaded and the other provided with annular shoulders spaced apart from each other and facing the threaded end, said nipple having an external annular rib between the threaded surface and the shouldered surface for engagement by the end of the hose, of a clamping device comprising clamping jaws, each being semi-circular in cross section and having at one end an internal rib for engaging the opposite face of the rib of the nipple from the hose, said sections being frusto-conical externally, the large end being at the rib, said sections being externally threaded and each having an internal roughened surface for engaging the hose, and a frusto-conical internally threaded sleeve for clamping the sections together on the hose.

3. A coupling of the character specified, comprising in combination with the hose, and the nipple having one end externally roughened, and having a stop at the inner end of the roughened surface for engagement by the end of the hose, of a clamping device comprising clamping jaws, each semi-circular in cross section, the said jaws being frusto-conical externally, and each jaw having at the large end a stop for engaging the opposite face of the stop on the nipple from the hose, said sections being externally threaded and each having its internal surface roughened, and a frusto-conical internally threaded sleeve for engaging the sections to clamp them together on the hose.

4. A coupling of the character specified, comprising in combination with the hose, and the nipple having one end externally roughened, and having a stop at the inner end of the roughened surface for engagement by the end of the hose, of a clamping device for engagement by the end of the hose, said clamping device comprising clamping jaws each semi-circular in cross section, the said jaws being frusto-conical externally, and each jaw having at the large end a stop for engaging the opposite face of the stop on the nipple from the hose, and a frusto-conical sleeve movable longitudinally of the sections for clamping them on the hose.

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1,039,585. RAILWAY-CAR. ISRAEL PASCAL, Montreal, Quebec, Canada, assignor of one-half to Morias Rossler, Montreal, Quebec, Canada. Filed Aug. 17, 1911. Serial No. 644,671. (Cl. 105—19.)



1. A railway car comprising a plurality of sections, the floors of said sections articulating at the ends with an arc whose diameter is equal to the width of the car, means for pivotally joining said sections at the center of the arc, and running gear disposed beneath the extreme forward point of each section.

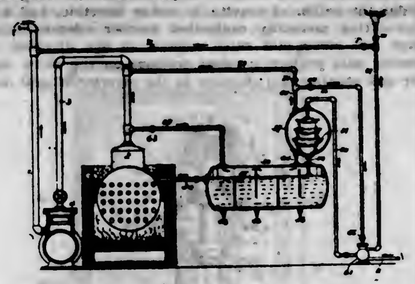
2. A railway car comprising a plurality of sections pivotally connected together at their ends, the floorings at said ends having over-lapped joints formed in an arc spanning the entire width of the car flooring and having meeting convex roof ends and extensible joint members connecting each two sections and forming continuations of the car wall and roof, whereby said car is made continuous from end to end.

3. In a railway car, a car body comprising a plurality of pivotally connected sections having articulated floor ends meeting in an arc spanning the width of the car body and seating arranged in transverse rows and covering the major portion of each section, terminating at one end at a distance from the car wall, providing a side aisle, and a curved seat arranged parallel to the curved front end of the car flooring.

4. In railway cars, the combination with the car body comprising a plurality of sections, the flooring of one section articulating with the next section in an arc spanning the width of the car, and means for pivotally joining said flooring at the center of the arc, of a circular track secured to one section only beneath the car body to break joint between the two sections, and running gear having a circular portion of its frame engaging said circular track.



1,039,588. PURIFICATION OF WATER. JOHN PATERS, Baltimore, Md. Filed Aug. 19, 1906. Serial No. 330,909. (Cl. 60—38.)

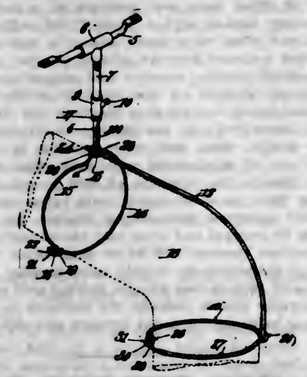


1. The combination of a closed chamber, means for discharging water thereinto, means associated with said closed chamber for subjecting water flowing through the same, to the action of live steam for removing corroding gases from the water, pipes connected with said closed chamber for discharging said gases mixed with steam to the atmosphere, and means in the circuit of said pipes for utilising said gases and steam to do work.

2. The combination of a closed container, a pump, a pipe connecting said pump with the closed container for forcing water to the latter, means associated with the closed container for conveying live steam through the water in the same, a pipe communicating with the upper portion of the closed container to receive mixed steam and gases, said pipe being connected with the motor portion of the pump, and a pipe connected with the exhaust of said motor portion of the pump and open to the atmosphere.

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1,039,587. STOVEPIPE ATTACHMENT. CHARLES D. PEARCE, Canton, Mo. Filed July 11, 1910. Serial No. 571,407. (Cl. 248—31.)

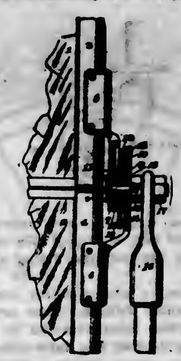


In a device of the class described, a hanger; a flexible rod extended therethrough and adapted to be bent to conform to the curvature of the elbow; a pipe-engaging ring connected with one end of the rod; segmental members pivoted upon the other end of the rod adjacent to the hanger, one segmental member being provided adjacent the hanger, with an inwardly extended, pipe-engaging bend; and means for connecting the free ends of the segmental members.

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1,039,596. WIND-SHIELD HINGE. WILLIS A. PEARSON, Troy, Ohio. Filed Sept. 16, 1911. Serial No. 649,758. (Cl. 21—81.)

A hinge for the purpose set forth comprising a pair of members, each being provided with offset extensions, each of the said extensions being provided with registering openings, a boss upon one of the members surrounding its opening, a resilient disk removably connected with the boss, said disk being formed with a plurality of symmetrically arranged spaced substantially cone-shaped openings, a disk



tion washer upon the pivot and arranged between the disk and the offset extension of the second section of the hinge, and the said second hinge section being provided with cone-shaped projections which are arranged in register with and adapted to engage within the cone-shaped openings of the disk.

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1,039,589. TROLLEY-WHEEL. JOHN W. PENNELL, Youngstown, Ohio. Filed Aug. 24, 1910. Serial No. 578,614. (Cl. 191—39.)



The combination with a trolley wheel of a replacing wheel on each side thereof mounted on a common axis, said replacing wheels having the same diameter as the trolley wheel, each being mounted eccentrically on the axis, each of said replacing wheels having a peripheral groove extending from the median line at the short side thereof and merging at the longer side into the face adjacent the trolley wheel, at a point flush with the periphery of the latter.

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1,039,590. CASTER. OSCAR PITTACK and ANDREW B. WARMAN, Scranton, Pa. Filed Apr. 22, 1912. Serial No. 692,397. (Cl. 16—4.)

1. In combination, a caster wheel embodying a hub and providing annular recesses, disks having openings arranged around the hub and in the annular recesses, said disks supporting ribs to encircle said openings and forming recesses, yoke arms incased in said recesses, and the walls of the ribs and openings being in partial alinement.

2. In combination, a caster wheel embodying a hub and providing annular recesses, disks having openings arranged around the hub and in the annular recesses, said disks

supporting ribs to encircle said openings and forming recesses, yoke arms inserted in said recesses, and means for providing a minimum frictional surface upon the disks, said means comprising shoulders formed by annular apertures, said shoulders revolving in the annular recesses.

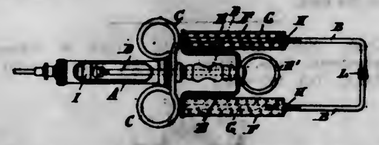


3. In combination, a caster wheel, provided with a hub, disks embracing said hub, U-shaped ribs on said disks and yoke arms carrying the hub and fitting snugly with said ribs.

4. In combination, a caster wheel comprising a hub provided with annular flanges, disks provided with U-shaped ribs, said disks being retained by the flanges and yoke arms carrying the hub and surrounded by the ribs.

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1,039,591. HYPODERMIC OR OTHER SYRINGE. WILLIAM DE COURCY PRIDEAUX, Weymouth, England. Filed July 7, 1910. Serial No. 570,842. (Cl. 128—26.)



1. In a hypodermic syringe, a cylinder having a piston and piston rod movable therein and also provided with two finger holders fixed to the rear end thereof, a frame extending rearwardly from the finger holders, a thumb hold associated with the rear projecting extremity of the piston rod to draw the latter and the piston backwardly while the cylinder is held by the finger holders, and spring containing cylinder means movably associated with the said frame and with the said thumb hold.

2. In a hypodermic syringe, a cylinder having a piston and piston rod movable therein and also provided with two finger holders fixed to the rear end thereof, a thumb hold associated with the rear projecting extremity of the piston rod to draw the latter and the piston backwardly while the cylinder is held by the finger holders, a frame projecting rearwardly from the finger holders, and spring containing cylinders movably associated with the frame and connected to the thumb hold.

3. In a hypodermic syringe, a cylinder having a piston and piston rod movable therein and also provided with two finger holders fixed to the rear end thereof, a thumb hold associated with the rear projecting extremity of the piston rod to draw the latter and the piston backwardly while the cylinder is held by the finger holders, a frame extending rearwardly from the finger holders, spring containing cylinder means operatively associated with the thumb hold and frame, and locking means attached to the rear extremity of the frame to engage the thumb hold.

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1,039,592. BOTTLE-STOPPER. HENRY TOMEY RAY, Hudson, N. Y. Filed Mar. 1, 1912. Serial No. 680,280. (Cl. 215—15.)

1. In a device of the class described, the combination with a receptacle formed with a neck portion having a plurality of offsets therein, of a reciprocating valve member arranged in said neck portion, said valve member having a plurality of offset projections fitting into said offset portions of said neck, said valve member being formed with a reduced portion centrally, a upward annular guiding member whereby a chamber is provided in said thick portion, said valve member being adapted to reciprocate under the action of gravity in either direction, and a reciprocating manually controlled member adapted to engage and move said valve member in one direction for seating said projecting offset portions on the valve member and opening said chamber to the exterior of said neck.



2. In a combined valve member and measuring device, a housing formed with a chamber having a plurality of valve seats, a reciprocating valve member formed substantially spool-shaped and with projections for fitting into said valve seats simultaneously, a discharge cap structure formed with a socket portion, a washer formed with apertures extending therethrough arranged on one end of said valve member and designed to be moved into said socket portion when said projections are moved out of contact with said valve seats whereby liquid may flow into said chamber, and manually operated means for forcing said valve member back so that said projection will fit on said seat and said washer will be forced out of said socket for opening a passageway for the fluid in said chamber to pass out of said discharge cap.

3. In a device of the character described, the combination with a receptacle formed with a neck portion having a plurality of offset valve seat portions, of a reciprocating valve member formed with a plurality of projections fitting into said offset valve seat portions, a central reduced portion, and a spaced annular guiding member at the end of said reduced portion opposite said projections, a perforated washer mounted on said annular guiding member, said washer being formed as a sleeve, a cap fitting over said neck formed with an annular groove for accommodating said washer when said valve member is completely open and out of engagement with said offset valve seat portions whereby the contents of said receptacle cannot go farther than the space around said valve member, and a manually operated knob-shaped stopper for said cap adapted to be engaged and move said valve member so that the projections thereon will fit on said offset valve seat portions on the movement of said valve member under the action of said knob-shaped stopper moving said washer out of said annular groove whereby the contents in the space around said valve may flow out through said cap.

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1,039,593. AWNING. CONYDON RICHARDS, Harvard, Ill. Filed Aug. 26, 1911. Serial No. 646,141. (Cl. 156—44.)

1. The combination with a support having an opening extending between its outer and inner sides, of supporting brackets on the outer side of said support, one of said brackets having a slot in line with said opening, guide pulleys upon the slotted bracket and inner side of the support, an awning frame pivotally mounted upon the outer side of the support, a stationary shaft mounted upon the supporting brackets, a spring-actuated roller mounted on said shaft, a canopy attached to the awning frame and roller, the motor spring of the roller being of sufficient strength to raise the frame and rewind the canopy, an operating sheave attached to the end of the roller adjacent the slotted bracket, a cord extending through said opening in the support and over said guide pulleys and wound upon the sheave, whereby the roller may be turned to unwind the canopy and tension the spring, and a holder on the inner side of the support with which said cord is adapted to be engaged to hold the awning in lowered position against the action of the motor spring.



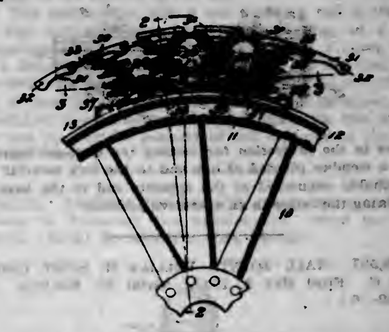
2. The combination with a support having an opening extending between its outer and inner sides, of supporting brackets on the outer side of said support, each of said brackets being provided with outwardly extending arms having non-circular openings, and one of said brackets having a shorter arm and a slot between its arms and in line with said openings, guide pulleys upon the inner side of the support and the slotted bracket, the last-named pulley being journaled between the arms of said bracket, an awning frame pivotally mounted upon the outer side of the support, a stationary shaft having non-circular ends fitted in the non-circular openings of the brackets, a roller mounted upon said shaft between the brackets and provided with end and intermediate apertured heads turning on the shaft, springs inclosing the ends of the shaft within the roller and terminally fixed to the shaft and roller, said springs forming a motor to raise the frame and rewind the canopy, an operating sheave attached to the end of the roller adjacent the slotted brackets, a cord extending through said opening in the support, over said guide pulleys and through the slot in the bracket and wound upon the sheave, whereby the roller may be turned to unwind the canopy and tension the spring, and a holder on the inner side of the support with which said cord is adapted to be engaged to hold the awning in lowered position against the action of the motor springs.

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1,039,594. RESILIENT WHEEL. SAMUEL K. ROSECROW, Atlanta, Ga. Filed June 21, 1911. Serial No. 634,411. (Cl. 152—8.)

1. A device of the class described comprising a rim formed on the felly of a vehicle wheel, inwardly curved flanges on the said rim, a rim band for engagement with the rim, clamp bars positioned on the said rim and partially overlapped by the flanges thereof, spring seats secured to the said rim band, lugs on the said clamp bars and extending between the said spring seats, springs disposed in depressions in the said spring seats, caps engaging the upper ends of the said springs, means for rigidly connecting the springs to the caps, links pivotally connecting adjacent caps, tread members secured to the said caps, and chains connected with the said caps and the said clamp bars.

2. A device of the class described comprising a rim formed on the felly of a vehicle wheel, a rim band secured to the said rim, clamp bars positioned on the said rim and partially overlapped by the flanges thereof, spring seats pivoted to the said rim band, helical springs having the lower ends disposed in depressions in the said spring seat, caps secured to the upper end of the said springs, means for pivotally connecting the said caps, tread members secured to the said clamp bars, and chains tangentially positioned to connect the said caps with the said clamp bars.



3. A device of the class described comprising a rim formed on the felly of a vehicle wheel, curved flanges integrally formed on the said rim, clamp bars positioned on said rim in recesses formed by the flanges on the rim, spring seats engaging the said rim and rigidly positioned between the said clamp bars, springs mounted in depressions in the said seats, caps secured to the said springs, means pivotally connecting adjacent caps, and chains connecting the said caps and the said clamp bars.

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1,039,595. CLUTCH. HIRAM B. SAVAGE, Spokane, Wash. Filed Oct. 24, 1911. Serial No. 656,428. (Cl. 192—18.)



1. The combination with a shaft and a flange secured thereto and having a pin arranged transversely in its periphery, of a divided spring ring having a radial elongated opening in its central portion to receive said pin, and a spring attachment applied at that point and serving to hold the ring retracted or normally out of contact with the adjacent pulley rim, and means for expanding the ring, substantially as described.

2. The combination with a shaft and a clutch flange secured thereto, of a pin arranged transversely at a point on its periphery, a divided spring ring through which passes the said pin passes, a pin projecting radially inward from the ring at that point, a spring applied to the pin and serving to draw the ring inward and thus restrict centrifugal action, and means for expanding the ring, substantially as described.

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1,039,596. PIPE-MOLD. THEODORE J. SCHNEIDER, St. Francis, Kans. Filed Dec. 18, 1911. Serial No. 666,228. (Cl. 25—118.)

1. A mold of the class set forth comprising a core, a casing, means for securing said casing about said core, a base member, and means operable by the aforesaid means for locking said base in an operative position.

2. A mold of the class set forth comprising a base, a plurality of sections mounted on the base, a handle carried by

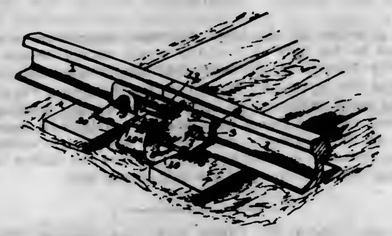
one section and provided with an opening therein, a recessed projection carried by an adjacent section and adapted to protrude through the opening in the handle, a lock member pivoted in the handle and adapted to move into the



recess in the projection for locking the sections together, and a member pivoted at one end to the lock member and detachably connected at the opposite end to the base for retaining the latter in an operative position.

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1,089,597. RAIL-JOINT. William M. Scott, Central, S. C. Filed May 8, 1912. Serial No. 695,005. (Cl. 239—6.)



1. In combination, a pair of rails, fish plates adjacent the joint of said rails, a clamp extending under the rails and provided at its ends with inturned hooks which fit over the fish plates, one of said hook ends having a horizontally inclined groove, a key having a vertical portion and a downwardly inclined flange, the vertical portion and flange fitting between the inner and under surface of the hook end and the fish plate, the vertical portion having an outwardly extended wedge shape flange which fits in the incline groove on the hook end of the clamp, and means for holding the key in position.

2. In combination, two abutting rails, fish plates extending across the joint formed by the abutting rails, each of said fish plates having an enlarged portion at its center, bolts for securing the fish plates to the rail, a clamp having a horizontal portion extending under the rail and provided at its edges with hooks which engage over the lower edges of the fish plates, the inner surface of one of the hooks having a groove which inclines horizontally, a key having a vertical base and a downwardly inclined flange, the vertical base and flange fitting between the inner and lower surfaces of the grooved hook, a wedge extending outwardly from the vertical base, said latter wedge being horizontally inclined and fitting in the groove, and means for locking the key in position.

3. In combination, a pair of abutting rails formed with openings, fish plates on opposite sides of the rails, one of said fish plates having seats, the other fish plate having lugs which pass through the openings in the rails and fit in the seats, the central portions of the fish plates being enlarged and having downwardly inclined base flanges, one of said flanges having a clamp seat, bolts for securing the fish plates to the rails, a clamp having a horizontal portion fitting under the rails in a plane with the joint, the ends of the horizontal portion having inturned hooks one of which fits in the seat and the other being reduced in width and formed on its inner surface with a groove which inclines horizontally, a key inserted between the end of the hook with the groove and the adjacent enlarged portion of the fish plate, said key comprising a vertical portion and a downwardly inclined flange which fits between the grooved hook and one of the fish plates, the vertical portion having a wedge which inclines horizontally and which fits in the groove, and a lock for securing the key in position.

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1,089,598. STEEL CROSS-TIE. William M. Scott, Central, S. C. Filed June 6, 1912. Serial No. 702,049. (Cl. 238—8.)



1. In a metal tie, the combination of two sections, each of which is formed with a channel and is tapered on the sides at the inner end portion, a prong extending from one of the sections and fitting in the channel portion of the other section, the tongue and the side walls of the section receiving the same having wedge seats which taper in opposite directions, and wedges driven in the wedge seats, the side walls of the outer ends of the sections having abutments, U chairs secured in the channel portions of the sections and fastened to the latter, each chair having a flange which is in alinement with the abutments on the section and against which a rail bears, the sections and chairs having spike openings.

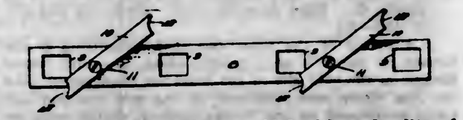
2. In a metal railroad tie, the combination of two channel sections one of said sections having a tongue which fits in the channel of the adjacent section, means for securing the two sections together at substantially the central portions thereof, and U-shape chairs in the channel portions of the sections, each chair having a thickened portion at its outer upper end and formed with a flange, the chairs and the sections having spike openings, with wood plugs therein.

3. In a metal rail road tie, the combination of a body portion formed with depressions and having inwardly tapering side walls, the ends of the body portions having abutments, U-shape chairs fastened in the depressions in the body portion, each chair having an enlargement at its outer end which forms a rail flange in alinement with the abutments on the body portion, the chairs and body portion having spike openings.

4. In a rail road tie, the combination of two channel sections, one of which is formed with a central tongue which fits in the channel of the adjacent section, the tongue and the side walls of the section receiving said tongue having horizontal oppositely inclined wedge seats, oppositely inclined wedges fitting in said wedge seats to adjust the length of the tie, and means at the ends of the tie for supporting and securing rails.

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1,089,599. NUT-LOCK. George W. Shank, Moncure, N. C. Filed July 6, 1911. Serial No. 637,188. (Cl. 151—65.)



1. In a nut lock, a plate provided with a plurality of openings to receive nuts, the nuts having shoulders thereon, and locking members pivotally secured to said plate and adapted to engage the shoulders on the nuts to hold the plate from displacement.

2. In a nut lock, a plate having a plurality of openings therein, nuts engaging said opening and provided with shoulders, and locking members pivotally secured to said plate and adapted to engage the shoulders on the nuts, said locking members being pivotally mounted nearer to one end of said locking members than to the other.

3. In a nut lock, the combination with a plate having rectangular apertures formed therein, bolts adapted to project through said apertures, rectangular nuts adapted to operate on the terminals of said bolts and be retained by said apertures, and inwardly extending tubular extensions formed on the inner faces of said nuts, and latches pivotally mounted on said plate and provided with quadrantal depressions in the terminals thereof, adapted to engage said tubular extensions.

4. In a nut lock, a plate having a plurality of openings, nuts adapted to engage said openings and having reduced cylindrical portions thereon, and latch bars pivotally secured to said plate and having segmental notches in their ends to engage the cylindrical portions on said nuts and to prevent lateral displacement of the plate.

5. In a nut lock the combination with a plate having apertures formed therein, of bolts projecting through said apertures, nuts rotatably mounted upon said bolts, said nuts being constructed in two sections, one of said sections to be retained within the apertures of said plates and the opposite section adapted to project through said plates, and means pivotally mounted on said plates, adapted to engage said projecting sections of said nuts to retain said plate in coöperation with said nuts.

[Claim 6 not printed in the Gazette.]

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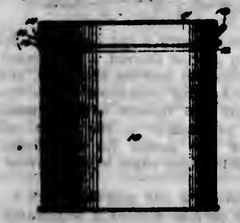
1,089,600. SAFETY-SWITCH. Harry B. Shreve, Chicago, Ill., assignor, by direct and mesne assignments, to Lewis B. Jenks, Chicago, Ill. Filed May 26, 1910. Serial No. 563,593. (Cl. 177—208.)



In a self-opening safety switch the combination of a base member, a surrounding wall on the same, insulating material on that portion of the base included within such wall, a stationary insulating block within the inclosing wall, a pair of stationary contacts secured to said block and each provided with a down-turned contact finger lying on the edge of the insulating block, a plunger arm having its ends journaled in opposite sides of the inclosing wall, a contacting head on one end of said arm and adapted to project beyond the inclosing wall, an insulating block secured to the arm, a spring contact secured to said insulating block and having a pair of spring fingers extending toward the stationary insulating block and mounted in position to engage the down-turned contact fingers when the plunger arm is forced inward for purposes of closing the circuit, a spring on the plunger arm for projecting the same in one direction to thereby move its insulating block and spring contacts sidewise for opening the circuit, a cover plate adapted to be held in position against the upper edge of the inclosing wall, and insulating material on the inner face of said cover plate, substantially as described.

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1,089,601. CAN-SEAL. Charles J. Sinn, Baltimore, Md. Filed Apr. 26, 1910. Serial No. 557,805. (Cl. 220—60.)



1. The combination with a can having a rim at its upper edge forming a complete ring, of a loop upstanding along the rim upon its exterior, and a cover having a flange proportioned to embrace the rim and loop and proportioned to completely cover said loop and also provided with a slot proportioned to permit the looped end to pass therethrough and be exposed upon the exterior of the flange with the slot positioned to prevent access from the exterior to the interior of the can.

2. The combination with a can having a rim at its upper edge forming a complete imperforate ring, of a loop upstanding along the rim upon its exterior, a cover having a flange proportioned to embrace the rim and loop and provided with a slot intermediate its edges to permit the loop to pass therethrough and presenting at its upper edge a sufficient portion of said flange to cover the rim of the can and prevent the passage of the contents of the can through the slot.

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1,089,602. SAW-FILING DEVICE. John Slingsby and John W. Slingsby, Los Angeles, Cal. Filed Apr. 12, 1912. Serial No. 690,290. (Cl. 76—36.)



1. A saw filing device comprising a member adapted to receive and hold a file, a casing mounted on said member and rotatable with respect thereto, means for maintaining the casing and said member against relative movement, arms connected with said casing and movable with respect thereto, and means for maintaining the arms in an adjusted position.

2. A saw filing device comprising a member adapted to receive and hold a file, a casing mounted on said member and rotatable with respect thereto, means for maintaining the casing and said member against relative movement after they have been moved to their relative adjusted positions, a pair of arms pivotally connected with said casing and capable of outward spreading movement with respect thereto, and means for maintaining the arms in an adjusted position.

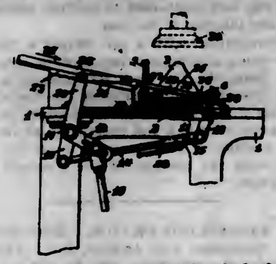
3. A saw filing device comprising a member adapted to receive and hold a file, a casing mounted on said member and rotatable with respect thereto, means for maintaining the casing and said member against relative movement, a pair of arms connected with said casing and capable of outward spreading movement with respect to the casing, means for maintaining the arms in an adjusted position, and a swinging frame pivoted to the casing and adapted to be held in an inclined position with respect thereto.

4. In a saw filing device, a body portion having means for receiving and holding a file, a casing rotatably mounted on said body portion, means for maintaining the casing in an adjusted position, arms connected with said casing, and means for spreading said arms.

5. In a saw filing device, a body portion having means for receiving and holding a file, a casing rotatably mounted on said body portion, means for maintaining the casing in an adjusted position, a pair of arms capable of outward spreading movement with respect to the casing, a hand movable on the casing and having connections with said arms for outwardly spreading the same, and a swinging frame pivoted on said casing and movable in a vertical plane with respect thereto.

[Claims 6 to 11 not printed in the Gazette.]

**1,039,603. ENVELOP-MACHINE.** GEORGE W. SMITH and FRANK P. PLAGE, Worcester, Mass. Filed Feb. 19, 1909. Serial No. 478,760. (Cl. 93—72.)



1. The combination with the folding bed of an envelop machine, rocking flap folders connected therewith, of a movable lifting track for supporting the envelop out of contact with said bed, arranged to hold the envelop in an inclined position with relation to said bed, a reciprocating pusher arranged to reciprocate through openings in the back flap folder above its axis of rotation, engaging the envelop on said track and carrying it positively off from said track beneath the axis of rotation of the seal flap folder, means for lifting said track, and means for reciprocating said pusher.

2. An envelop machine having a folding bed, rocking flap folders connected therewith, and means for transferring the folded envelop therefrom, comprising supporting means for holding the envelop in an inclined position at an angle to said bed, arranged to bring said envelop in alinement with openings below the axis of the seal flap folder and above the axis of the back flap folder, a reciprocating pusher mounted at the same angle and arranged to pass through the openings in the back flap folder and deliver the envelop through the opening beneath the axis of the seal flap folder, and means for lifting said supporting means and operating said pusher.

3. In an envelop machine, the combination with a folding bed, of lifting blades for raising the folded envelop from the bed, means for imparting a limited movement to said blades, a pusher for pushing the raised envelop from said blades, means for imparting a reciprocating motion to said pusher, and a yielding connection between said pusher and said blades, whereby said blades are raised in advance of the final movement of said pusher.

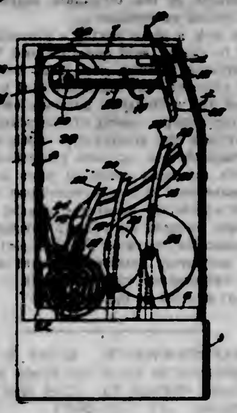
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**1,039,604. COIN-DISTRIBUTING APPARATUS.** HENRY ALEXANDER SMITH, Atlanta, Ga., assignor, by direct and mesne assignments, of one-fourth to Charles Clifford Hudson, East Point, Ga., and one-sixth to A. I. V. Wilson, Atlanta, Ga. Filed Apr. 20, 1909. Serial No. 491,094. (Cl. 133—3.)

1. A receptacle arranged for coin reception, a plurality of chutes arranged in the receptacle to receive coins of different values, a movable sectional coin holder to receive the coins delivered to the receptacle, and means whereby the sections of said holder are automatically operated to permit the passage therethrough of the specific coin corresponding with the particular chute when said holder is in position to deliver said coin to said chute.

2. A receptacle arranged for coin reception, a plurality of different coin chutes arranged within the receptacle, a sectional coin holder operated by the coin and adapted to coöperate with each chute in succession, and means whereby the sections of said holder are operated to permit the passage therethrough of a particular coin when the holder is in position to deliver said coin to the chute arranged therefor.

3. A receptacle arranged for coin reception, a plurality of different coin chutes therein, a sectional coin holder to receive the coins delivered to the receptacle, said holder being formed with a coin passage normally adapted to support the coins within the holder, and means whereby the sections of the holder are operated to adjust the size of the passage to permit the delivery of predetermined coins therethrough when the holder is in position above the chute adapted for the reception of such coins.



4. A receptacle adapted to receive coins of different values, an independent chute for each respective coin value, and a coin holder to receive all the coins delivered to the receptacle and movable to coöperate with the successive chutes, said holder being formed with a coin passage normally arranged to prevent the travel of coins therethrough, and means whereby said passage is automatically varied in size to permit the passage therethrough of a particular coin when the holder is in coöperative relation with the chute designed to receive the particular coin.

5. A receptacle adapted to receive coins of different values, an independent chute for each respective coin, a holder to receive all the coins delivered to the receptacle, said holder being capable of movement for coöperation with the respective chutes in succession, and means whereby the holder upon the reception of the coin will move to a position above the chute adapted for the reception of said coin and deliver said coin thereto, the delivery of the coin permitting the return of the chute to normal position and wholly beyond the position to coöperate with any chute.

[Claims 6 to 21 not printed in the Gazette.]

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**1,039,605. VENTILATED HAT.** JOHN E. SMITH, Laurel, and WILLIAM F. SULT, Gilman, Iowa. Filed Nov. 18, 1911. Serial No. 661,166. (Cl. 2—114.)



1. In combination with a hat having an opening in the crown at the top portion thereof, a reticulated crown piece of larger size than the opening aforesaid, and a plurality of standards detachably connected to the crown piece at their upper ends and formed with projections at their lower ends for attachment to the crown, said standards constituting the sole means for supporting the crown piece tightly against the edges of said across the opening aforesaid.

2. In combination, a hat provided with a crown opening at the upper portion thereof, a reticulated crown piece of larger size than said opening and arranged with its edges overlapped by the edge portions of the hat surrounding the opening, a sweat band, a ventilating member connected to the sweat band and interposed between the latter and the adjacent wall portions of the hat, and a plurality of standards detachably connected at their upper ends with the edge portions of the crown piece and comprising means at their lower ends adapted to pass through the ventilating member and the wall portions of the hat to thereby support the crown piece against the crown of the hat at the opening aforesaid.

3. In combination, a hat having an opening in the crown at the upper portion thereof, a reticulated crown piece of larger size than said opening and arranged with its edges overlapped by the edge portions of the hat surrounding the opening, a sweat band, a crimped ventilating member connected with the sweat band, and a plurality of standards having their upper ends interlocked with the edge portions of the crown piece and having their lower ends passing between the sweat band and ventilating member, and formed with projections extending outwardly through the crimped member and the material of the hat to connect the standards with said hat and support the crown piece tightly against the edges of the hat surrounding the opening aforesaid.



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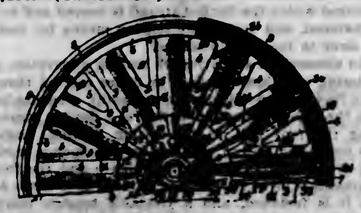
**1,039,606. CURTAIN-BRACKET.** JOHN F. SOVRANKO, Albia, Iowa. Filed May 12, 1911. Serial No. 626,899. (Cl. 156—28.)



In combination with a slitted pole constructed of resilient material, of a support for the purpose set forth, said support being formed of a single strip of wire and having a looped portion which surrounds and tightly engages with the slitted resilient pole, the loop being extended adjacent the lower portion of the pole to provide a short arm which terminates in an eye, the opposite terminal of the loop being twisted around the arm at its juncture with the loop and extended upwardly and outwardly above the arm, but in a plane parallel therewith, the said outwardly extending portion being of a greater length than the arms and having its extremity curved.

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**1,039,607. VEHICLE-WHEEL.** HERBERT VANCE SOUSSENS, Bakersfield, Cal. Filed Nov. 29, 1911. Serial No. 663,100. (Cl. 152—52.)



1. A vehicle wheel comprising a body member provided with a felly and with radial cylindrical sockets extending from the felly and opening toward the center of the wheel, a hub, spokes each having one extremity pivotally connected directly to the hub and the other extremity laterally expanded and there entering and freely movable lengthwise of a respective socket, and springs within the sockets between the expanded ends of the spokes and the ends of said sockets remote from the hub and constituting the sole elastic elements of the wheel.

2. A vehicle wheel comprising a body portion provided with a felly and radial cylindrical sockets extending from the felly toward the center of the wheel, a hub, tapered spokes each having the smaller end pivotally connected to the hub and the larger end entering the inner end of a corresponding socket and movable lengthwise of said socket, said larger ends being of substantially the same diameter as the interior diameter of the sockets and the latter being freely open at their inner ends, and a spring in each socket between the larger end of the respective spoke and the end of the socket remote from the hub, said springs constituting the sole elastic elements of the wheel.

3. A vehicle wheel comprising a body portion having radial sockets therein, a hub, tapered spokes having the larger ends entering the sockets and the smaller ends pivotally connected to the hub, said spokes having shoulders for limiting the movement of the spokes on their pivots, and springs in the sockets between the larger ends of the spokes and those ends of the sockets remote from the hub.

4. A vehicle wheel comprising a body portion having radial sockets, a hub having curved recesses with terminal circular extensions, taper spokes with smaller ends adapted to the recesses in the hub and with the larger ends entering the sockets in the body portion of the wheel, the said smaller ends of the spokes each having a passage therethrough transverse to the longitudinal axis of the spoke, a pivot pin for each spoke traversing said passage and carried by the hub, and springs within the sockets between the larger ends of the spokes and those ends of the sockets remote from the hub.

5. A vehicle wheel comprising a body portion having radial sockets, a hub provided with axial recesses of substantially semi-circular form with terminal circular portions, taper spokes having their larger ends extending into the sockets of the body of the wheel and the smaller ends rounded to fit the semicircular recesses and provided with circular extensions adapted to the circular extensions of the recesses in the hub, said spokes being also provided with shoulders on opposite sides of the rounded extremities to engage the hub to limit movement of the spokes with relation to the hub, and springs housed in the sockets in the body of the wheel between the larger ends of the spokes and the outer ends of the sockets.

[Claims 6 and 7 not printed in the Gazette.]

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**1,039,608. DEVICE FOR USE IN CLEANING OR STRIPPING PAPER SHEETS IN SORTING OR SIMILAR MACHINES.** GEORG SPIESS, Leipzig-Reudnitz, Germany. Filed Mar. 1, 1912. Serial No. 680,910. (Cl. 101—29.)



In combination with a paper sorting or similar machine, a device for the removal of rags or other adhering matter from paper sheets comprising an endless chain conveyer, means for feeding the paper sheets onto said conveyer, gripping means carried by said conveyer, means for automatically opening and closing said gripping means, rag dislodging devices past which the conveyer carries said paper sheets, and means for receiving any rags or adhering matter arranged below said dislodging devices, substantially as described.

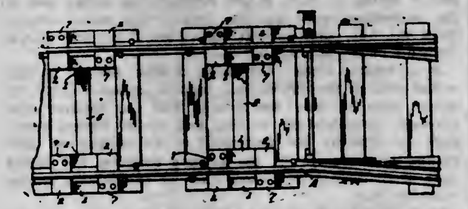
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**1,039,609. RAIL-BRACE.** JOSEPH D. SPRATT, Wolf Creek, Tenn. Filed July 16, 1912. Serial No. 709,898. (Cl. 238—8.)

1. In a rail brace, blocks having integral cleats mounted thereon on opposite corners thereof and provided with undercut portions adapted to engage the base flanges of a rail, other cleats removably secured to said blocks, and means to connect said blocks.

2. In a rail brace, blocks having integral cleats formed on opposite corners thereof and provided with undercut

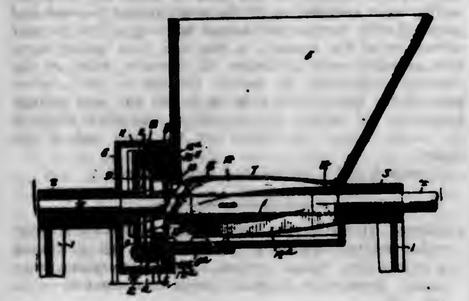
portions adapted to engage the base flanges of the rail, other cleats removably secured to said block and also provided with undercut portions adapted to engage the base flanges of the rail, and a bar of rigid material connecting said blocks and secured thereto.



3. A rail brace comprising blocks having integral cleats mounted on opposite corners thereof and provided with undercut portions adapted to engage the base flanges of a rail, other cleats removably secured to the other corners of said blocks, said blocks being provided with T-shaped grooves intersecting their under surfaces, bars extending from said blocks and opposite the parallel sides of said grooves, and a T-shaped bar engaging the T-shaped grooves in the blocks and secured to the bars on the blocks.

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1,039,610. FEEDING DEVICE FOR GRINDING-MILLS. AMBROSE W. STRAUB, Philadelphia, Pa. Filed Dec. 9, 1910. Serial No. 596,525. (Cl. 83—14.)



1. The combination of a hopper; a feeding cutter mounted therein, said cutter having a body provided with an integral blade formed with a cutting portion and a conveying portion continuous therewith; and means for turning said feeding cutter, there being two independent series of teeth in the hopper placed to coöperate respectively with said two portions of the cutter.

2. The combination of a hopper; a feeding cutter therein formed with a body portion, an integral blade having an elongated cutting portion inclined at a relatively slight angle to the line of the body, and a relatively short conveying portion extending abruptly from one end of the cutting portion; with means for turning the cutter.

3. The combination of a hopper; a feeding cutter therein formed with a substantially cylindrical body having a plurality of integral blades, each of said blades having a relatively elongated sharp edged portion and a relatively short conveying portion extending at an abrupt angle to the first portion; with means for turning said cutter.

4. The combination of a hopper; a feeding cutter rotatably mounted therein formed with an elongated substantially cylindrical body having an integral blade made in two helical portions; one of said portions having a relatively sharp cutting edge and a plane advancing face, and the other portion extending at an abrupt angle to and forming a continuation of one end of the cutting portion to constitute a conveyer; with means for turning said cutter.

5. A new article of manufacture; a feeding cutter consisting of a substantially cylindrical body portion with an integral blade mounted thereon; said blade consisting of a relatively sharp edged cutting portion extending at a relatively slight angle to the general line of the body and having a relatively short conveying portion extending at a relatively abrupt angle to the cutting portion from one end thereof.

[Claim 6 not printed in the Gazette.]

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1,039,611. AMUSEMENT AND STRENGTH-TESTING APPARATUS. CHARLES SPRATT and FRANCIS J. SHERTON, London, England. Filed Apr. 15, 1912. Serial No. 690,776. (Cl. 73—15.)



1. In amusement and strength testing apparatus, a base or pedestal, a hollow standard or figure thereon, a captive foot ball on said pedestal, a spring balance in the hollow standard or figure, indicating means connected to and operated by the spring balance and visible exterior to the standard, a flexible strand connecting the foot ball to the spring balance, and a spring drum between the foot ball and balance and around which the strand is wound and to which it is fastened.

2. In amusement and strength testing apparatus, a base or pedestal, a hollow standard or figure erected thereon a captive foot ball on said base or pedestal a spring balance within the hollow standard or figure a flexible strand connecting the foot ball to the spring balance, indicating means connected to and actuated by the spring balance, a spring drum between the spring balance and the foot ball and around which the flexible strand is wound and to which it is fastened, and a yieldable tension means for maintaining a slack in the flexible strand.

3. In amusement and strength testing apparatus, a base or pedestal, a hollow standard or figure erected thereon, a captive foot ball on said base or pedestal, a spring balance within the hollow standard or figure, a flexible strand connecting the foot ball to the spring balance, indicating means connected to and actuated by the spring balance, a spring drum between the spring balance and the foot ball and around which the flexible strand is wound and to which it is fastened, and a yieldable tension means for maintaining a slack in the flexible strand, said tension means comprising a spring controlled pulley and a connection therefrom to the strand.

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1,039,612. GAS-IGNITER. OTTO STRULLER, New York, N. Y. Filed July 12, 1911. Serial No. 638,112. (Cl. 67—19.)

1. A gas-igniter comprising a holder having an arm formed with a hook and another arm formed with notches, a perforated ignition-pill positioned with said hook extending into its perforation, and a series of ignition-wires connected to said pill and individually led to said notches on said other arm.



2. A gas-igniter comprising a holder having an arm formed with a hook and another arm formed with notches, a perforated ignition-pill positioned with said hook extending into its perforation, a series of ignition-wires connected to one side of said pill and individually led to said notches on said other arm, and a wire led from the other side of said pill and connected to the holder.



3. In a gas-igniter, a nipple substantially cylindrical in shape, having an annular flange at its base, a flattened lateral surface, and a lateral projection opposed to said annular flange, in combination with a substantially cylindrical holder having arms thereon brought approximately end to end and seated against said flattened surface of the nipple between the flange and projection thereon.

4. A holder for the ignition pill and wires of a gas-igniter having at one end a wire-holding arm, an arm intermediate the ends of the holder having thereon a pill-engaging hook, said latter arm extending across an opening in the body of the holder, and there being a notch on the edge of said opening in alinement with said hook, and a tongue at the end of the holder opposite to said wire-holding arm having an edge in alinement with said pill-engaging hook and said notch.

5. A holder for the ignition pill and wires of a gas-igniter comprising a pill-holding arm having a portion shorter than the thickness of the pill and arranged to extend thereinto to hold the same, and another arm for connection with wires strung from said pill.

[Claim 6 not printed in the Gazette.]

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1,039,613. POST-HOLE DIGGER. ELMER L. TITTSWORTH, New Canton, Ill. Filed Oct. 18, 1911. Serial No. 655,257. (Cl. 55—66.)



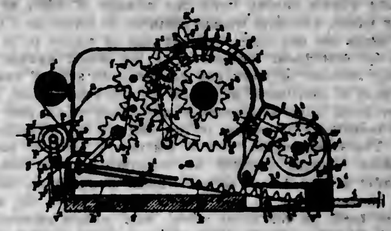
1. In a post hole digger comprising a pair of digging elements adapted to be driven independently into the ground, a hook member carried by one of the said elements and arranged at a right angle thereto, a second hook member carried by the other element and arranged at a right angle thereto, said second hook member being adapted to interlock with the first named hook member after the said second element is driven.

2. In a post hole digger comprising a pair of digging elements adapted to be driven independently into the ground, hook members carried by each of the said elements and disposed at right angles thereto, one of the said hook members being adapted to removably engage the other hook member when the second element has been driven in a relative position with the first element.

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1,039,614. CALCULATING-MACHINE. FRANZ TRINKS, Brunswick, Germany. Filed Apr. 25, 1912. Serial No. 693,181. (Cl. 235—58.)

1. In a calculating machine, the combination with the setting mechanism, and the registering mechanism, of printing mechanism coöperating with the setting mechanism, and means to establish an actuating connection between said registering mechanism and printing mechanism and operative either from the setting mechanism or from the registering mechanism.



2. In a calculating machine, the combination with the setting mechanism, and the registering mechanism, of printing mechanism coöperating with the setting mechanism, and means to establish an operative connection between said registering mechanism and printing mechanism, said connection being independent of the operation of the printing mechanism by the setting mechanism.

3. In a calculating machine, the combination with the setting mechanism, and the registering mechanism, of printing mechanism coöperating with the setting mechanism and disconnected therefrom in the zero position of the setting mechanism, and means to establish an operative connection between said registering mechanism and printing mechanism.

4. In a calculating machine, the combination with the setting mechanism, and the registering mechanism, of printing mechanism coöperating with the setting mechanism, and means to establish an operative connection between said registering mechanism and printing mechanism, said connection comprising a coupling member which is inoperative for transmitting movement from the printing mechanism to said connection.

5. In a calculating machine the combination with the setting mechanism, and the registering mechanism, of printing mechanism comprising a rocking type carrier, a connection operative when setting the setting mechanism between the setting mechanism and type carrier, and normally inoperative means to transmit resetting movement from the registering mechanism to the type carrier, said means being independent of the movement of the type carrier when set by the setting mechanism.

[Claim 6 not printed in the Gazette.]

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1,039,615. AUTOMATIC DETENT MECHANISM FOR SLIDING BOLTS AND THE LIKE. GIACINTO TUA, Turin, Italy. Filed Mar. 8, 1911. Serial No. 613,179. (Cl. 16—64.)



1. The combination with a stationary element and a movable element capable of reciprocating in relation thereto; of a pair of toothed wheels mounted on one of said elements, one of said wheels having twice the number of teeth on the other wheel, said wheels secured together to rotate as a unit and stops on the other element, one of which is adapted to be engaged by the wheel having the greater number of teeth and two others adapted

to be engaged by the wheel having the lesser number of teeth.

2. The combination with a stationary element and a movable element in slidable relation thereto; of a pair of toothed wheels mounted on one of the elements, one of said wheels having twice the number of teeth as the other wheel, and said wheels mounted to rotate as a unit, and stops on the other element one of which is in the path of rectilinear movement of the wheel having the greater number of teeth and one on each side of and in the path of rectilinear movement of the other wheel, said latter stops adapted to engage said other wheel and prevent rectilinear movement of the parts in one direction.

3. The combination with a stationary element and a movable element capable of reciprocating in relation thereto; of a pair of toothed wheels mounted on one of said elements, one of said wheels having twice the number of teeth as the other wheel, said wheels secured together to rotate as a unit and three stops on the other element, one of which is adapted to be engaged by the wheel having the greater number of teeth and the two others on opposite sides of and adapted to be engaged by the wheel having the lesser number of teeth, one of said stops in advance of the other.

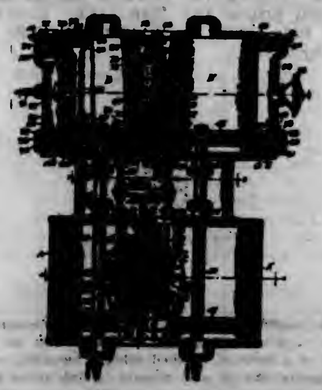
4. The combination with a stationary element and a movable element in slidable relation thereto; of a pair of wheels on one of the elements having respectively four and two teeth, and rotatable as a unit, three stops on the other element one of which is adapted to be engaged by the wheel having the greater number of teeth and the two others adapted to be engaged by the wheel having the lesser number of teeth, and auxiliary stops engaged by the wheel having the greater number of teeth when the movable element is in one of its end positions.

5. The combination with a stationary element and a movable element capable of reciprocating in relation thereto; of a pair of toothed wheels mounted on one of said elements, one of said wheels having twice the number of teeth on the other wheel, said wheels secured together to rotate as a unit, and stops on the other element, one of which is adapted to be engaged by the wheel having the greater number of teeth and two others adapted to be engaged by the wheel having the lesser number of teeth, and means engaging the wheels to prevent the overriding of the latter.

[Claim 6 not printed in the Gazette.]

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1,039,616. COMPOUND PUMP. FRANK TUMA, Buffalo, N. Y., assignor of one-half to James C. Currie, Jersey City, N. J. Original application filed Mar. 3, 1910, Serial No. 547,077. Divided and this application filed Apr. 8, 1912. Serial No. 689,262. (Cl. 230—82.)



1. In an apparatus of the class specified, the combination, with high and low pressure compression cylinders in communication with each other and provided each with a fluid intake, of a delivery chamber in valve-controlled port communication with said cylinders, a piston working in each cylinder for compressing the fluid contained therein and discharging the same simultaneously from both cylinders into said delivery chamber when the controlling valves are open, and for discharging the compressed fluid from one cylinder into the other cylinder to exert its energy on the piston in said other cylinder, and means for operating said pistons.

2. In an apparatus of the class specified, the combination, with high and low pressure compression cylinders having communicating valve-controlled passages leading from the top of each cylinder to the bottom of the other cylinder, of a delivery chamber in valve-controlled port communication with said cylinders, a piston working in each cylinder for compressing the fluid contained therein and discharging the same simultaneously from both cylinders into said delivery chamber and for discharging the compressed fluid from one cylinder into the other cylinder to exert its energy on the piston in said other chamber, and means for operating said pistons.

3. In an apparatus of the class specified, the combination of high and low pressure cylinders each having an intake chamber provided with an inlet and with valve-controlled ports opening into the opposite ends of the adjacent cylinder, a delivery chamber in valve-controlled port communication with said cylinders, a piston working in each cylinder for compressing the fluid contained therein and discharging it simultaneously from both chambers into said delivery chamber, and means for operating said piston.

4. In an apparatus of the class specified, the combination, with high and low pressure compression cylinders provided each with a valve-controlled passage leading from the top thereof to the bottom of the other cylinder, and with an intake, of a delivery chamber in valve-controlled port communication with said cylinders, a piston working in each cylinder for compressing the fluid contained therein and delivering it simultaneously from said cylinders into said delivery chamber, and means for operating said pistons.

5. In an apparatus of the class specified, the combination with high and low pressure compression cylinders provided each with an intake, of a delivery chamber communicating with said cylinders, a piston working in each cylinder for compressing the fluid contained therein and discharging it simultaneously from said cylinders into said delivery chamber; and means for operating said pistons in unison and in the same direction.

[Claims 6 to 11 not printed in the Gazette.]

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1,039,617. TOY. PARSON BENTLEY TYLER, Butterfield, Minn. Filed June 4, 1912. Serial No. 701,508. (Cl. 46—48.)



1. A toy, comprising a spherical rotary body; a circular disk removably mounted on said spherical body; means for securing said disk on said body; and means for rotating said body and said disk.

2. A toy, comprising a hollow spherical body; a disk, having a diameter differing from the diameter of said spherical body; means for removably securing said disk on said body; and a driving mechanism mounted within said spherical body, to rotate the same.

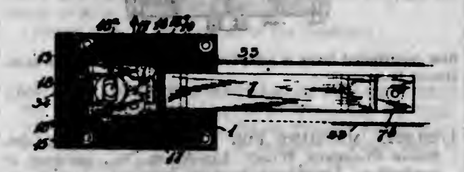
3. A toy, comprising a hollow spherical body; a disk, having a diameter differing from the diameter of said spherical body; means for removably securing said disk on said body; and a spring-actuated mechanism mounted within said body to rotate the same.

4. A toy, comprising a hollow spherical body; a disk, having a diameter differing from the diameter of said spherical body; means for removably securing said disk on said body; a coiled spring mounted within and engaging said body; a rotary shaft mounted in said body and operatively engaging said spring to wind the same; and a weight controlling said shaft to prevent the rotation thereof.

5. A toy, comprising a hollow spherical body; a disk, having a diameter differing from the diameter of said spherical body; means for removably securing said disk on said body; and a weight chamber fixedly mounted upon said shaft to prevent the rotation thereof.

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1,039,618. FLOOR-HINGE. HENRY G. VOIGHT, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed Apr. 12, 1912. Serial No. 690,583. (Cl. 16—25.)



1. In a device of the character described, in combination, a floor pivot, a guide carried thereby, a door journaled on said pivot, a part carried by said door bearing upon said pivot guide, means carried by said guide cooperating with said bearing part to releasably lock said door in opened position, means whereby said door is automatically returned to closed position when released from open locked position or when partly opened, said guide and bearing part coöperating to check the closing movement of said door and to centrally position the same when closed.

2. In a device of the character described, in combination, a floor pivot, a guide plate carried thereby, a door journaled on said pivot, a spring pressed bracket guided in and carried by said door, a bearing part carried by said bracket and held thereby in engagement with said guide plate, locking means carried by said plate adapted to coöperate with said bearing part to lock said door in opened position, a cam surface on said guide plate adapted to coöperate with said spring pressed bearing part to automatically return said door to closed position when released from open locked position or when partly opened, and means for moving said guide plate transversely of its pivot to thereby adjust said door relative to its line of central closure.

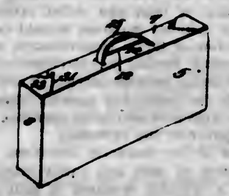
3. In a device of the character described, in combination, a floor pivot, a guide plate carried thereby, a protuberance centrally of said guide plate, cam surfaces on said guide plate on either side of said protuberance, a door journaled on said pivot, a spring pressed bearing bracket carried by said door having complemental anti-friction rollers engaging said cam surfaces and normally spanning said protuberance, and means carried by said guide plate at opposite ends thereof adapted to engage said anti-friction bearings as the door is swung open in either direction, and releasably lock said door opened, said cam surfaces coöperating with said anti-friction rollers to automatically return said door to closed position when released from open locked position or when partly opened in either direction and said protuberance engaging said rollers and acting to check the closing movement of the door and to centrally position the same.

4. In a device of the character described, in combination, a floor pivot, a guide plate carried thereby, a protuberance formed centrally of one side of said guide plate, cam surfaces formed on said guide plate on either side of said protuberance, a door journaled on said pivot, a spring pressed bearing bracket carried by said door having anti-friction bearings engaging said cam surfaces, locking recesses formed in said plate at opposite ends thereof adapted to engage an anti-friction bearing as the door is swung open in either direction and releasably lock said door opened, said cam surfaces coöperating with said anti-friction rollers to automatically return said door to closed position when released from open locked position or when partly opened in either direction, and said protuberance coöperating with said anti-friction bearings to check the closing movement of the door and centrally position the same.

[Claims 6 to 11 not printed in the Gazette.]

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1,039,619. BOX. HARRY E. WEBB, Tonawanda, N. Y. Filed Nov. 25, 1911. Serial No. 662,513. (Cl. 229—52.)



1. A box comprising a body and a cover having overlapped tongues, and a handle comprising a grip-portion extending over said tongues, and terminal portions engaging beneath the said tongues.

2. A box comprising a body and a cover having overlapped tongues, and a handle comprising a grip-portion having broadened terminal portions, the said terminal portions engaging beneath the ends of the tongues and the said grip portion extending over the said tongues.

3. A box comprising a body and a cover having overlapped oppositely projecting tongues, and a handle comprising a grip-portion having broadened terminal portions slit to form ears at opposite ends of the grip portion, the said ears being engaged beneath the overlapped tongues and the said grip-portion extending above the said overlapped tongues.

4. A box comprising a body and a cover telescopically fitted, corresponding sides of the body and cover being slit to form tongues projecting toward the free edges of the respective sides, the said tongues being overlapped, and a handle comprising a grip portion having terminal ears engaged beneath the tongues, the said grip-portion extending above the tongues.

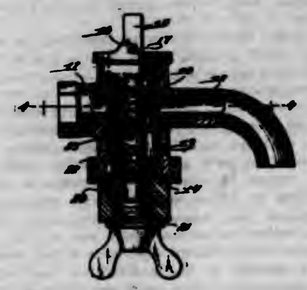
5. A box comprising a body and a cover telescopically fitted, corresponding sides of the body and cover being formed each with a slit extending parallel to the free edge thereof and with terminal slits extending at right

angles to the first mentioned slit, the said slits in each of the said sides forming a tongue extending in the direction of the free edge of the said side, the said tongues being overlapped, and a handle comprising a grip-portion of substantially the same width as the terminal slits and having broadened terminal portions engaged beneath the ends of the said tongues, the said grip-portions extending above the tongues.

[Claims 6 and 7 not printed in the Gazette.]

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1,039,620. FLUSH-TANK REGULATOR. GEORGE L. WELLER, Elyria, Ohio. Filed Dec. 2, 1911. Serial No. 663,627. (Cl. 182—8.)



1. In a device of the character described, the combination with a casing, of inlet and outlet extensions formed on said casing, a cylinder mounted in said casing adapted to regulate the flow of liquid therethrough, a closure carried by said casing having a restricted opening therethrough, and a tubular member carried by said closure and communicating with said opening in the closure.

2. In a device of the character described, the combination with a casing, of inlet and outlet extensions formed on said casing, a cylinder mounted in said casing adapted to regulate the flow of liquid therethrough, a closure carried by said casing having a restricted opening therethrough, and a tubular member carried by said closure communicating with the restricted opening therein and said tubular member also provided with openings communicating with the interior of the cylinder.

3. In a device of the character described, the combination with a casing, of inlet and outlet extensions formed on said casing, a cylinder mounted in said casing adapted to regulate the flow of liquid therethrough, a closure carried by said casing having a restricted opening therein, and a tubular member carried by said closure communicating with the restricted opening therein, said tubular member being provided with a plurality of oppositely disposed transverse slots providing communication between the interior of said tubular member and the cylinder aforesaid.

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1,039,621. STEAM-TRAP. JOHN D. WESTCOTT, Union City, Pa. Filed Sept. 16, 1911. Serial No. 649,509. (Cl. 137—103.)

1. In a steam trap, a valve seat, guides, a tube for moving in the guides, a float secured to the tube, a valve for coöperating with the valve seat and having a stem disposed in the tube, a collar on the valve stem, a lever having an arm disposed below the tube and having an opening in which the valve stem is disposed, the arm engaging the collar for moving the valve stem, a lever having an arm disposed above the tube to be operated thereby, and a rod connecting the second-mentioned lever with the first-mentioned lever for operating the latter.

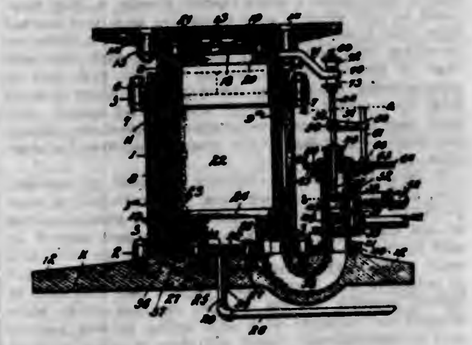
2. In a steam trap, a valve seat, guides, a vertically disposed tube for moving in the guides, a float secured to the tube, a valve for coöperating with the valve seat and having a stem disposed in the tube, a lever having an arm resting on the top of the tube, a second lever having an arm engaging a member on the valve stem below the tube for moving the valve stem, and means by which the



first mentioned lever is adapted to operate the second mentioned lever.

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1,039,622. MACHINE FOR JARRING SAND MOLDS. EDGAR CLARENCE WILEY, Lynchburg, Va., assignor of one-half to Lynchburg Foundry Company, Lynchburg, Va. Filed June 24, 1910. Serial No. 568,735. (Cl. 121—19.)



1. In a jarring machine, the combination of a vertical cylinder, a piston, means for maintaining a constant pressure on the piston to partially balance the same, means for introducing a separate pressure into the cylinder, said separate pressure coöperating with the constant pressure to produce a combined pressure sufficient to lift the piston, and means for exhausting the said separate pressure to cause the piston to drop.

2. In a jarring machine, the combination of a vertical cylinder, a piston having an interior pressure chamber open at the bottom, means for maintaining a constant fluid pressure within the same to partially balance the piston, means for introducing a separate fluid pressure into the cylinder to lift the piston, and means for exhausting the latter fluid pressure to cause the piston to drop.

3. In a jarring machine, the combination of a cylinder, a hollow piston open at the lower end to form a pressure chamber, a combined guiding and sealing device fitting in the lower end of the piston, means for maintaining a constant pressure within the piston to partially balance the same, means for introducing a separate pressure into the cylinder, said separate pressure coöperating with the constant pressure to produce a combined pressure sufficient to lift the piston, and means for exhausting the said separate pressure to cause the piston to drop.

4. In a jarring machine, the combination of a cylinder, a hollow piston operating within the cylinder and open at its lower end to form an interior pressure chamber, a combined guiding and sealing device of annular form fitting within the lower end of the piston and arranged in spaced relation with the cylinder, means for maintaining a constant pressure within the piston to partially balance the same, means for introducing pressure into the space between the combined guiding and sealing device and the cylinder to lift the latter, and means for exhausting the latter pressure to cause the piston to drop.

5. In a jarring machine, the combination of a vertical cylinder, a hollow piston operating within the cylinder and open at its lower end to form a pressure chamber, a combined guiding and sealing device consisting of a plate, and a vertical annular wall fitting within the lower end of the piston and arranged in spaced relation with the cylinder, means for maintaining a constant pressure within the piston to partially counterbalance the same, and means for introducing pressure into the space between the cylinder and the combined guiding and sealing device to lift the piston and for exhausting the latter pressure to cause the piston to drop.

[Claims 6 to 14 not printed in the Gazette.]

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1,039,623. ADJUSTING MECHANISM FOR CRUSHERS OR PULVERIZERS. MILTON F. WILLIAMS, St. Louis, Mo., assignor to Williams Patent Crusher & Pulverizer Company, a Corporation of Missouri. Filed Aug. 4, 1911. Serial No. 642,289. (Cl. 74—14.)



1. In a machine of the character described, the combination of a framing having slots in its side walls, a rod slidingly mounted in said slots, a movable member, links pivotally connected to said movable member and to said rod, threaded members carried by said rod, worm gears with which said last mentioned members have threaded engagement, a gear housing for said worm gears, and means for rotating said worm gears.

2. In an article of the class described, in combination a casing provided with guide slots, a shaft slidingly mounted in said slots, a movable member, links pivotally connecting the ends of the shaft with the movable member, the disposal of said slots being such as to form bearing surfaces for said shaft when pressure is applied to said movable member.

3. In a device of the class described, walls provided with guide slots, a movable member, a shaft slidably mounted in said guide slots, pivoted links connecting said shaft with said movable member, a screw threaded member mounted in said shaft, a screw threaded wheel coöperating with said screw threaded member, a casing abutting both sides of said wheel, and means for rotating said wheel to shift said screw threaded member longitudinally and oscillate said movable member.

4. In a device of the class described, supports provided with guiding slots, a movable member, a shaft slidably mounted in said guiding slots, pivoted links connecting said shaft and said movable member, a threaded rod for moving said shaft in said slots, the disposal of said slots being such that pressure upon the movable member forces the shaft against the side of the slots.



1,039,624. REDUCING-MACHINE CASING. MILTON S. WILLIAMS, St. Louis, Mo., assignor to Williams Patent Crusher & Pulverizer Company, St. Louis, Mo., a Corporation of Missouri. Filed Aug. 28, 1911. Serial No. 646,529. (Cl. 83—11.)



1. In a device of the class described in combination a rotary pulverizer member, a casing for said pulverizer member, said casing being formed with a chamber in the upper part thereof, conduit pipes leading from said chamber to the eye portion of said rotary pulverizer, and a receptacle in said chamber for extraneous matter.

2. In a device of the class described in combination, a rotary pulverizer member, a casing for said pulverizer said casing being provided with a chamber having an opening extending into the interior of said casing, a trough member arranged in said chamber above said opening, conduit pipes leading from said chamber in the proximity of said trough to the eye portion of said pulverizer.

3. In a device of the class described in combination a rotary pulverizer member, a casing for said member, said casing having a removable portion formed with a chamber in the upper part thereof, conduit pipes leading from said chamber to the axial portion of said removable portion, and a receptacle for extraneous matter in said chamber.

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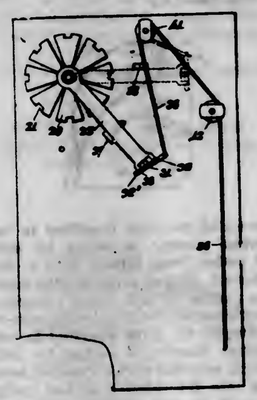
1,039,625. FLYING-MACHINE. FRANK D. WILLIS, Burlington, Vt. Filed Aug. 9, 1911. Serial No. 643,101. (Cl. 244—29.)



1. In a flying machine, the combination of a main frame, a rod or shaft mounted upon and extending transversely of and beyond the sides of said frame, a supporting plane longitudinally curved between its fore and aft edges, said plane comprising frame bars, curved ribs extending longitudinally between the front and rear frame bars, a covering secured to the frame bars and ribs, and rods arranged beneath the hollow of the wing between the front and rear frame bars thereof, brackets carried by said rods and pivotally engaging the transverse rod or shaft, said brackets being arranged substantially in the camber line of the plane, said plane being continuous between its lateral margins in advance of said lines and bifurcated centrally and longitudinally in rear of said lines, an aviator's seat upon the main frame below the pivotal point of the plane, a transverse shaft journaled on the main frame and provided with drums, arranged at opposite sides thereof, front and rear pairs of guide pulleys at opposite sides of the frame in advance and in rear of said seat, cables attached to the rods of the supporting plane in advance and in rear of its pivotal point and extending around said pulleys and wound reversely about the drums, and means for operating said drum shaft.

2. In a flying machine, a turn-table mounted upon the tail portion of the frame, a vertical rudder comprising a box-shaped body and a rudder-vane projecting between the planes of the body and extending rearwardly therefrom, and means connected with said turn-table for adjusting said rudder.

1,039,626. STREET OR STATION INDICATOR. DOCTUS SMITH WISSHART, Decatur, Ill. Filed Aug. 22, 1911. Serial No. 645,606. (Cl. 40—86.)



1. An indicator comprising a housing, winding rollers for a roll of display tape mounted in said housing, guiding rollers for unwinding the tape from one of the rollers, a shaft supporting one of the guiding rollers means for causing the tape to be wound upon the other roller, a driving gear wheel on the shaft of one of the guiding rollers, an actuating lever mounted on said shaft on the outside of said casing, a dog slidably mounted on the actuating lever and normally disengaged from the said gear wheel, controlling means for the dog for moving the same into engagement with the gear wheel, an extension carried by said lever and extending within said casing, a spring engaging said extension for normally holding said actuating lever in neutral position.

2. An indicator comprising a display tape, winding rollers therefor, guiding rollers for the tape, a shaft supporting one of the guiding rollers, a gear wheel on the shaft, an actuating lever movable on the shaft and provided with an ear, a dog slidably engaged with the lever and normally disengaged from the gear wheel, a spring engaging the lever to hold the same yieldingly against movement in one direction, a dog controlling member carried by the actuating lever and an actuating element operating to simultaneously move the actuating lever and to move the dog to an engaged position with said gear wheel, said actuating element being adapted for an interchangeable connection with said ear.

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1,039,627. PROCESS FOR MAKING BUTTER. ADOLF WILHELM KARL WITTE, Hamburg, Germany. Filed Nov. 10, 1909. Serial No. 528,848. (Cl. 31—66.)

1. The herein described process of treating milk, cream, and the like for producing an increased yield in butter, which consists in cooling the material to be treated down to a temperature of from somewhat above freezing point to 2° C., maintaining it at this temperature for about 24 hours, quickly warming it to a temperature of 18° to 20° C., adding a souring generator or "starter", and immediately churning the material thus treated, when it is ripe.

2. The process of making butter, which comprises cooling the milk, cream, and the like to be treated to a temperature slightly above freezing point and maintaining it at such low temperature for about 24 hours, then quickly raising the temperature to between 18° and 20° C., adding starter, maintaining the said raised temperature for about four to six hours, again adding starter, then cooling the temperature to between 10° to 13° C., ripening the material thus treated at this temperature for about 18 to 20 hours, and churning it about 48 hours after the beginning of the cooling.

3. The herein described process of treating milk, cream, and the like, which consists in pasteurizing the material to be treated, subsequently cooling it down to a temperature of from somewhat above freezing point to 2° C., maintaining it at this temperature for a period of not less than about 24 hours, quickly heating it to a temperature of about 18° to 20° C., adding to it at intervals portions of starter, and churning the milk when it is ripe.

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1,039,628. INVISIBLE HINGE. EMIL ZUCKERMAN, Yonkers, N. Y. Filed Jan. 4, 1912. Serial No. 669,802. (Cl. 16—165.)



1. A hinge, comprising attaching members arranged one for attachment to a fixed part and the other to a movable part of the device on which the hinge is to be used, and a connection for connecting the said attaching members with each other, the said connection consisting of links slidable one on the other and pivotally connected with and guided by the said attaching members.

2. A hinge comprising box members, and links slidable one on the other, each being pivotally connected with one box member and guided on the other box member.

3. A hinge comprising attaching members arranged for attachment to fixed and movable parts of the device on which the hinge is to be used, the said attaching members having guideways, and links mounted to slide one on the other in the direction of the length of the links, the links being journaled in the said attaching members and guided in the said guideways.

4. A hinge comprising attaching members arranged for attachment to fixed and movable parts of the device on which the hinge is to be used, the said attaching members having guideways, and links mounted to slide one on the other in the direction of the length of the links, the said links being provided with pivots journaled in the said attaching members and the said links having lugs engaging the said guideways.

5. A hinge comprising attaching members arranged for attachment to fixed and movable parts of the device on which the hinge is to be used, the said attaching members being box shape and provided with segmental guideways, and links mounted to slide one on the other in the direction of the length of the links, the links having pivots journaled in the open entrance ends of the said attaching members and eccentric to the said guideways, and the said links being provided with lugs engaging the said guideways.

[Claims 6 to 9 not printed in the Gazette.]

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1,039,629. JOURNAL-BOX OIL-CUP. COLWELL HYMAN ALEXANDER, Beaumont, Tex. Filed Oct. 12, 1910. Serial No. 586,781. (Cl. 64—24.)

The combination with a car axle box having an aperture in its top, of an oiling attachment comprising a vertical feed pipe having internal and external threads on its inner end and passed through the perforation in the top of said box, nuts engaging the external threads and working against the inner and outer faces of the top of the box for the fastening of the feed pipe thereon, a feed cup carried at the outer end of the said pipe, a hollow sector-shaped spraying head having discharge orifices at intervals in the inner wall thereof, said head having an upwardly extending boss formed medially thereof, and



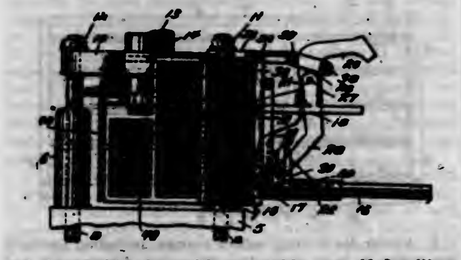
detachably engaging the internal threads of the said feed pipe, the downwardly extending ends of said head



being provided with threaded apertures, and plugs removably fitted in said apertures.

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1,039,630. ATTACHMENT FOR BOTTLING-MACHINES. ARTHUR F. ATWOOD, Attleboro, Mass. Filed Mar. 1, 1910. Serial No. 546,674. (Cl. 226—9.)



1. In combination with a machine provided with a bottle receiving space and a movable element forming the upper wall of said space; of a plurality of guards adapted to form sides and an end wall of said space with the movable element in one position, one of said guards being connected directly to the movable element, and a connection between the other of said guards, and a second movable element adapted for moving the second named guards synchronously with said first-named movable element toward the first-named guard when the first-named movable element is moved in one direction and away from the first-named guard when said first-named movable element is moving to an opposite position.

2. In combination with a machine provided with a filling space and a vertical reciprocating filling head having vertical guide rods connected thereto, a cylinder, an arm projecting from the cylinder, a longitudinally sliding sleeve upon the arm, screens carried by the latter, and mechanism connecting the head with the longitudinally sliding sleeve.

3. In combination with a machine provided with a bottle receiving space and a vertically reciprocating head having vertical guide rods connected thereto, a cylinder loosely mounted upon one of the guide rods, an arm projecting horizontally from the said cylinder, a longitudinally sliding sleeve upon the arm, a plurality of screens carried by the latter, and mechanism connecting the reciprocating head with the sliding sleeve to move the screens to seal and unseal the bottle receiving space upon each reciprocation of the filling head.

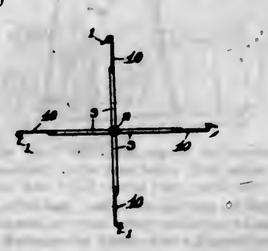
4. The combination with a machine provided with a bottle receiving space and a vertically movable head having vertical guide rods connected thereto, a cylinder loosely mounted upon one of the guide rods, an arm projecting horizontally from said cylinder, a longitudinally sliding sleeve upon the arm, a plurality of screens carried by the latter, a bracket supported by said arm, a lever pivoted in said bracket and connected to the reciprocating head, whereby the screens will be moved to seal and unseal the bottle receiving space upon the reciprocation of the head.

5. The combination with a machine provided with a bottle receiving space and a vertically movable head having vertical guide rods connected thereto, a cylinder loosely mounted upon one of the guide rods, an arm connected to said cylinder and projecting horizontally therefrom, a longitudinally sliding sleeve upon said arm, said sleeve being provided with an upstanding guide, screens carried by said sleeve, a bracket supported by said arm and extending in a plane above the latter, a lever medially pivoted in the bracket, and having one end connected with the guide upon the sliding sleeve, a link connection between the opposite end of the lever and the reciprocating head, whereby the screens will be moved to seal and unseal the bottle receiving space upon each reciprocation of the head.

[Claims 6 to 8 not printed in the Gazette.]

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1,039,631. HARVESTER-REEL. FRANCIS M. BAKER, Viroqua, Wis. Filed May 29, 1912. Serial No. 700,437. (Cl. 56—22.)



1. In a harvester reel, radial arms extending outward from the reel shaft, an attachment plate for the outer end of each arm, an inner hinge member carried by said plate and having a front guard portion and rearward turned lugs, a branched outer hinge member having a central stem extension, a hinge bolt connecting the branches of the outer member and said lugs, said inner member having a stop extension of its front guard portion engaging said stem, and a spring for normally maintaining the engagement of stop extension and stem to keep said stem and said plate attachment normally in alinement.

2. In a harvester reel, radial arms extending outward from the reel shaft, an attachment plate for the outer end of each arm, an inner hinge member carried by said plate and having a front guard portion and rearward turned lugs, a branched outer hinge member having a central stem, a hinge bolt connecting the branches of the outer member and said lugs, said inner member having a stop extension of its front guard portion engaging said stem, a spring for normally maintaining the engagement of stop extension and stem, a forward bent outer portion of said stem provided with a terminal eye, a reel bat, shouldered eye bolts carried by said bat and having each pivotal engagement with said eye, the shoulder of the eye bolt having stop engagement with said eye to limit the pivotal movement of the bat in one direction, and the edge of the bat having stop engagement with said stem to limit the movement of the bat in the opposite direction.

3. In a harvester reel, radial arms extending outward from the reel shaft, an attachment plate for the outer end of each arm, an inner hinge member carried by said plate and having a front guard portion and rearward turned lugs, a branched outer hinge member having a central stem, a hinge bolt connecting the branches of the outer member and said lugs, said inner member having a stop extension of its front guard portion engaging said stem, a spring for normally maintaining the engagement of stop extension and stem, a forward bent outer portion of said stem provided with a terminal eye, a reel bat, double shouldered eye

bolts carried by said bat and having each normal pivotal engagement with said eye, an angle plate between one of the eye bolt shoulders and said bat, the other eye bolt shoulder having stop engagement with said eye, and the angle plate having engagement with said stem to maintain the bat in full acting position.

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1,039,632. WOMAN'S REVERSIBLE-FRONT HOUSE-DRESS. WILLIAM C. P. BALDWIN, Holyoke, Mass., assignor to Baldwin Garment Company, Holyoke, Mass., a Corporation of Massachusetts. Filed Apr. 27, 1912. Serial No. 693,665. (Cl. 2—54.)



1. A reversible house dress the body of which at the front is made with waist and skirt portions, one continuous with the other, and either skirt and waist portion being adapted to overlap the other, and said garment at the waist line at opposite sides thereof having slitted openings therethrough, and a short tab secured to the garment adjacent each slitted opening, and adapted to be positioned either outside of the garment body, or by insertion through the slitted opening inside of such body, fastening means, coöperative between the said tabs and the edge portions of the reversible front portions for securing the overlapping front portion to an externally positioned tab, and for securing the inwardly disposed front portion to the other, and internally positioned tab.

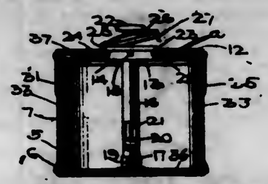
2. A reversible house dress the body of which at the front is made with waist and skirt portions, one continuous with the other and adapted for overlapping relations and said garment at the waist line, at opposite sides of the body portion, having slitted openings therethrough, a belt band at the rear of the garment having opposite portions thereof stitched to the garment body adjacent the said slitted openings and having comparatively short tabs extending beyond said stitched portions and adapted to be positioned either outside of the garment body or by insertion through the slitted openings inside of such body, said tabs and the reversible front forming portions near their free edges having buttonholes therein, belt forming bands stitched to the garment body adjacent but forward of said slitted openings and having buttonholes therein to match with those of the reversible garment front portions and studs engageable through the button holes in the said tabs and in the edge portions of the reversible front portions and in the belt bands for the purpose set forth.

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1,039,633. MINNOW-PAIL. LEN A. BANTA, Ligonier, Ind. Filed Aug. 20, 1909. Serial No. 513,784. (Cl. 43—28.)

1. A minnow pail comprising a vessel having a perforated top with a central opening skirted by an upstanding flange, a fabric covering said vessel, and wicks extending from said vessel and contacting with said fabric.

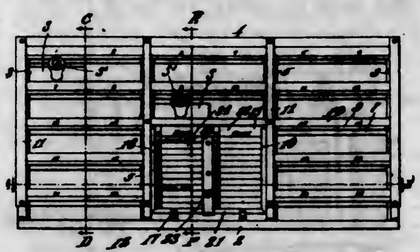
2. A minnow pail comprising a vessel having a perforated top, with a central opening skirted by an upstanding flange, a fabric covering said vessel, wicks extending from said vessel, and contacting with said fabric, and a lid carried by said flange.



3. A minnow pail having in combination, a perforated top having a centrally positioned opening skirted by an upstanding flange, a collar carried by said flange, said perforated top being positioned below the upper edge of said vessel, a fabric covering said vessel and held between said flange and collar, a plurality of wicks protruding from said vessel and contacting with said fabric, and an air pump projected from the bottom of said vessel with means to operate the same.

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1,039,634. RACK FOR RUBBER STAMPS. GEORGE W. BARNETT, Chicago, Ill. Filed July 14, 1911. Serial No. 638,544. (Cl. 101—188.)



1. A rack for holding rubber stamps, including upstanding strips, a back connecting the same, downwardly and rearwardly inclined shelves detachably and adjustably connected to the strips and spaced from the back, a depending flange at the front edge of each shelf, and means connected to the upstanding strips and lapping the flanges for holding the shelves against displacement relative to the strips.

2. A rack for holding rubber stamps, including upstanding strips, shelves detachably and adjustably supported thereby and forming stamp receiving pockets therebetween, a flange depending from the front edge of each shelf, an indicating element supported by each flange, and an index detachably mounted between two of the strips, said index including a back plate, parallel retaining means thereon, separate columns of separate cards between the retaining devices, each of said cards having data thereon corresponding with the data upon the elements, and means for holding the cards against displacement relative to the plate.

3. The combination with a rack for holding rubber stamps, said rack including a plurality of separate pockets and a designating character adjacent each pocket, of an index including a plate, parallel retaining devices on the plate and having spaced columns therebetween, a series of cards within each column and engaged by the retaining devices, said cards having data thereon corresponding with the pocket designations, there being data on each card corresponding with the data to be printed by the stamp in the designated pocket, means for detachably securing the cards to the plate, and means for detachably securing the plate to the rack.

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1,039,635. MOLDING-MACHINE. ALBERT JAMES BEMBE, East Brunswick, Victoria, Australia. Filed July 3, 1911. Serial No. 636,557. (Cl. 22—58.)

1. In a mold forming apparatus, the combination with a support and flask for holding the mold forming material; of a sectional pattern; means swingingly mounted on said support; one of said pattern sections secured to said swingingly mounted means, and the other of said pattern sections movably mounted on said means; and devices mounted on said support for engaging with the second named pattern section and holding the pattern sections together within the flask, substantially as described.





2. In a mold forming apparatus, the combination with a support and flask for holding the mold forming material; of a pattern comprising a sectional bar; devices swingingly mounted at either end of said support; one of said pattern sections secured at either end to said swingingly mounted devices, and the other of said pattern sections mounted to have independent movement on said swingingly mounted devices; and latches mounted on said support and adapted to engage with the second named pattern section and hold the same in engagement with the first named pattern section within the flask; said second named pattern section adapted to be independently released to initially strip the pattern, and the first named pattern section adapted to be stripped from the molded material through the swinging movement of said supporting devices, substantially as described.

3. In a mold forming apparatus, the combination with a support and flask for holding the mold forming material; of a sectional pattern; plates pivotally mounted to said support at either end thereof and having rigid connection with one of said pattern sections; said pivotally mounted plates provided with slots having slidably mounted therein the ends of the other of said pattern sections; and latches swingingly mounted on said support and adapted to engage with the ends of the movably mounted pattern section and hold the pattern sections assembled and within the flask; said movable pattern section adapted to move the extent of said slots whereby to initially strip the pattern, and the first named pattern section adapted to be stripped from the molded material through the swinging movement of said supporting devices, substantially as described.

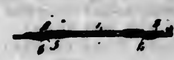
4. In a mold forming apparatus, the combination of a support comprising end members and a longitudinally disposed base; a flask movably mounted on said base; a separable pattern swingingly mounted on the end members of said support and adapted to be moved between the sections of said base; each section of said base provided with a recess; and plates removably secured in said recesses and constructed complementary with the surface of said pattern for engaging therewith; said plates adapted to support the mold form when the pattern is stripped therefrom, substantially as described.

5. In a mold forming apparatus, the combination of a support comprising end sections and a longitudinally divided base; a flask movably supported on said base; means for centering the flask on the base; plates pivotally mounted on the end members of said support; a sectional pattern having one member thereof secured to said pivotally mounted plates, and the other member thereof movably mounted on said plates; devices for engaging with said movably mounted pattern section and holding the pattern sections assembled and within the flask; and plates removably mounted on the sections of said base and having their adjacent edges constructed complementary to the adjacent surfaces of the pattern whereby to close spaces therebetween; said plates adapted to support the molded form when the pattern has been stripped therefrom, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

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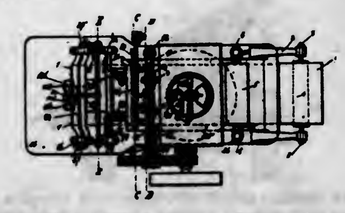
1,039,636. UMBRELLA. THOMAS K. BERRYSON, Washington, D. C., assignor of one-fourth to William A. Kimmel, Washington, D. C. Filed Mar. 2, 1912. Serial No. 681,093. (Cl. 135—35.)



As an article of manufacture, a transparent section for an umbrella cover, comprising a transparent strip having a fabric section embedded in the marginal edge thereof in the formation of such strip, said fabric section extending throughout and projecting outwardly beyond said marginal edge.

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1,039,637. PACKING-MACHINE. SALVATORE BERTI, Rimini, Italy, assignor to The Firm of Eredi Meini, Milan, Italy. Filed Feb. 19, 1910. Serial No. 544,939. (Cl. 93—3.)



1. In a packet forming mechanism, the combination of a support for a sheet of paper; means for feeding said sheet along said support; means for clamping said sheet in position upon said support; means operated by said feeding means for holding said clamping means in inoperative position during the feeding operation; and separate mechanisms for folding said sheet longitudinally upon itself, folding the longitudinal edges of said sheet over upon the upper of the two portions produced by the first folding operation, and subsequently folding said sheet laterally.

2. In a packet-forming mechanism, the combination of a support for a sheet of paper; means for feeding said sheet along said support; means for clamping said sheet in position upon said support; means for holding said clamping means in inoperative position during the feeding movement comprising a lever connected to said clamping means and a cam connected to said feeding means and operative upon said lever for actuating the latter, to move the clamping means away from said support; and folding means operative upon said sheet while the sheet is held by said clamping means.

3. In a packet-forming mechanism, the combination of a support for a sheet of paper; means for feeding said sheet along said support; means for clamping said sheet in position upon said support; means for holding said clamping means in inoperative position during the feeding movement comprising a lever connected to said clamping means and a cam connected to said feeding means and operative upon said lever for actuating the latter, to move the clamping means away from said support; and separate mechanism for folding said sheet longitudinally upon itself, folding the longitudinal edges of said sheet over upon the upper of the two portions produced by the first folding operation, and subsequently folding said sheet laterally, while the sheet is held by said clamping means.

4. In a packet-forming mechanism, the combination of a support for a sheet of paper; means for feeding the sheet along said support; spring-controlled fingers for clamping said sheet in position upon said support; means for raising said fingers into inoperative position and for holding them in such position during the feeding movement;

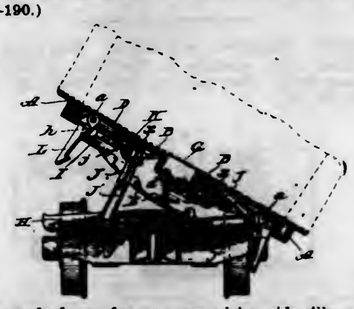
and folding means operative upon said sheet while the same is held by said fingers.

5. In a packet-forming mechanism, the combination of a support for a sheet of paper; means for feeding the sheet along said support; spring-controlled fingers for clamping said sheet in position upon said support; means for raising said fingers into inoperative position and for holding them in such position during the feed movement comprising a lever with which the fingers are connected and a cam connected to said feeding means and operative upon said lever; and folding means operative upon said sheet while the same is held by said fingers.

[Claim 6 not printed in the Gazette.]

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1,039,638. UNDERFRAME FOR DUMPING-CARS. WILLIAM P. BETTENDORF, Bettendorf, Iowa; J. W. Bettendorf administrator of said William P. Bettendorf, deceased. Filed Mar. 5, 1910. Serial No. 547,569. (Cl. 105—190.)



1. An underframe for cars comprising side-sills, center-sill, end-sills, integral bolsters extending from side-sill to side-sill having a depression in their upper central portions, and their undersides curved like a rocker, and a horizontally disposed channeled cradle in which said bolster is seated.

2. An underframe for cars comprising side-sills, center-sill, end-sills, integral bolsters supported by said side-sills having their undersides curved like a rocker, and transverse horizontally disposed channeled cradles in which said bolsters are seated, each having a center-bearing plate on its underside.

3. The combination with a suitable truck-bolster of an underframe for cars comprising side-sills, center-sill, end-sills, integral bolsters having their undersides curved like a rocker, and transversely disposed integral flat cradles in which said bolsters are seated, having integral center bearing plates on their undersides.

4. An underframe for cars comprising side-sills, center-sill, end-sills, integral bolsters each having their undersides curved like a rocker, and transversely disposed channeled cradles in which said bolsters are seated, each having a center bearing plate on their undersides.

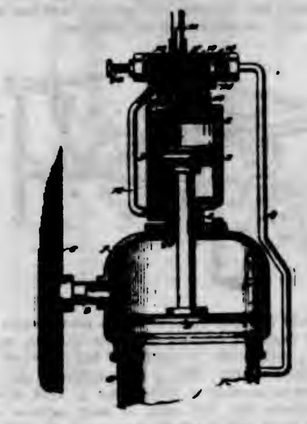
5. An underframe for cars comprising side-sills, center-sill, end-sills, integral bolsters extending from side-sill to side-sill and having their upper central portions recessed to permit the passage of the center-sill, and having their undersides curved like a rocker, and integral cradles each having a flat longitudinal surface and center-bearing depending from the underside thereof, in combination with a car-truck and bolsters thereof having bearings with which said center-bearings engage.

[Claims 6 to 22 not printed in the Gazette.]

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1,039,639. FLUID-PRESSURE REGULATOR. JOHN J. BODWIN, McKeesport, Pa. Filed Jan. 27, 1911. Serial No. 605,051. (Cl. 50—11.)

1. In a fluid pressure regulator, the combination with a cylinder, a piston therein, a valve carried by the piston, and a fluid pressure pipe controlled by said valve, of a distributing valve chamber, a port leading from said chamber to the cylinder, a live steam intake discharging into said chamber, an automatic valve operating in said chamber and having means for controlling the supply and discharge of live and exhaust steam to and from the cylinder, and a by-pass leading from the fluid pressure pipe to said chamber.



2. In a fluid pressure regulator, the combination with a cylinder, a piston therein, a valve carried by the piston, and a fluid pressure pipe controlled by said valve, of a distributing valve chamber, a port leading from said chamber to the cylinder, a live steam intake discharging into said chamber, an automatic valve operating in said chamber and having means for controlling the supply and discharge of live and exhaust steam to and from the cylinder, a spring for normally forcing the said valve in one direction, means for regulating the tension of the spring, and a by-pass leading from the fluid pressure pipe to said chamber.

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1,039,640. FRUIT-PICKER. JOHN F. BOOKWALTER, Palestine, Ill. Filed Apr. 4, 1912. Serial No. 688,475. (Cl. 56—99.)



The herein described fruit picker comprising a pole, a tubular head of rectangular cross section carried by the pole and having its end walls extended beyond its side walls, a tube depending from the lower end of said head, curved jaws hinged to the side walls and having blades at their free edges engaging each other when the jaws are closed, the jaws shaped to co-act at this time with the end walls of the head to practically close the latter, two contractile springs, each connected at one end to the inside of one jaw and at the other end to the inside of the opposite side wall of the head, the two springs standing adjacent and inside of the end walls of said head so as to leave the latter clear internally for the passage of fruit, guide pulleys pivotally supported on the outside of the side walls of the head, a ring, a cord connected to the outside of one jaw and passing through the ring to the other jaw, and an operating cord connected with said ring and leading down the pole.

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1,039,641. RAIL-JOINT. THOMAS BREWER, Homestead, Fla. Filed Apr. 30, 1912. Serial No. 694,054. Cl. 239—12.)



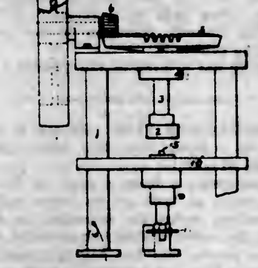
1. In a rail joint, the combination with two rail ends, of splice bars at opposite sides of the joint, and a double turn-buckle embodying two U-shaped threaded bolts inserted through the splice bars and rail ends, and nuts at opposite sides of the joint connecting the adjacent threaded ends of the bolts.

2. In a rail joint, the combination with two rail ends, of splice bars at opposite sides of the joint, straight bolts passing through the splice bars and rail ends, and a double turn-buckle embodying two U-shaped threaded bolts inserted through the splice bars and rail ends and extending under the projecting ends of the straight bolts, and nuts at opposite sides of the joint connecting the adjacent threaded ends of the bolts.

3. In a rail joint, the combination with two rail ends, of splice bars at opposite sides of the joint, straight bolts extending transverse of the rail ends, and a double turn-buckle embodying two U-shaped threaded bolts inserted through the splice bars and rail ends, and nuts at opposite sides of the joint connecting the adjacent threaded ends of the U-shaped bolts.

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1,039,642. POWER-WRENCH. CHARLES L. BRINK, Lansing, Mich., assignor to W. K. Pradden and Company, Lansing, Mich., a Corporation of Michigan. Filed May 21, 1910, Serial No. 562,755. Renewed Aug. 22, 1912. Serial No. 716,564. (Cl. 81—56.)

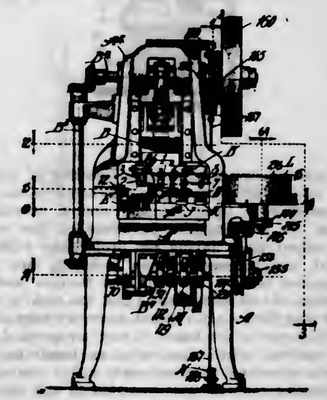


1. A machine for the purpose set forth, comprising a main frame, a wheel press mounted to slide vertically on said frame at the lower part thereof to support a wheel in a flat horizontal position, a centering pin extending vertically from the upper surface of the wheel press to enter the opening in the center of a wheel hub, a shaft mounted for rotation on the main frame above the wheel press in vertical alinement with said centering pin and provided with a wrench at its lower extremity, means for giving motion to said shaft, stop pins projecting from the upper surface of the wheel press to enter between the spokes of a wheel and retain the wheel in fixed position, and means for raising and lowering said wheel press.

2. A machine for the purpose set forth comprising a main frame, a wheel press mounted to slide vertically on said frame at the lower part thereof to support a wheel in a flat horizontal position, a centering pin extending vertically from the upper surface of the wheel press to enter the opening in the center of a wheel hub, a shaft mounted for rotation on the main frame above the wheel press in vertical alinement with said centering pin, said shaft being provided with a wrench at its lower extremity and a driving gear at the upper end thereof, and said shaft being fixed with respect to vertical movement, means for transmitting motion to said shaft comprising a rotary horizontal shaft mounted at the top of the main frame at one side thereof, a pinion on said horizontal shaft to mesh with the gear on the vertical shaft, and a heavy fly wheel on the other end of the shaft, and means for raising and lowering the wheel press.

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1,039,643. STOPPER-MAKING MACHINE. HARRY MELVILLE BROWN, Brooklyn, N. Y., assignor to Richard A. Canfield, Providence, R. I. Filed Sept. 19, 1911. Serial No. 650,296. (Cl. 113—80.)



1. In a machine of the character set forth, the combination of a rotary member, means co-acting therewith for forming a cap and means for surmounting a retaining-ring thereon, a secondary rotary member, means for effecting transfer of a blank from said first-named rotary member to said secondary member, and means co-acting with said secondary rotary member for inserting and securing a seal-disk in the cap.

2. In a machine of the character set forth, the combination of a blanking-die, an intermittently-actuated rotary die-plate moving beneath the blanking-die and equipped with a series of annularly arranged dies, a rotary carrier overlapping said die-plate, co-acting means for operating upon blanks in various stages of formation, and means for effecting transfer of the blanks from the rotary die-plate to the carrier.

3. In a machine of the character set forth, the combination of a rotary die-plate equipped with an annular series of dies, an oppositely rotating carrier, means for punching blanks and delivering the same in succession to said dies, coöperating means adapted to co-act with said dies to transform the blank into a cap and surmounting retainer ring, means for effecting the transfer of the blanks in succession, after such transformation, from said dies to said carrier, and means coöperating with the carrier for introducing and securing seal-disks in the caps of said blanks.

4. In a machine of the character set forth, the combination of a rotary die-plate equipped with a series of dies, means for severing double-disk blanks and delivering

them to said dies, a folder co-acting with said dies and adapted to surmount one disk of a blank on the other disk thereof, a rotary carrier, means for effecting transfer of the blanks from said dies to said carrier, and means co-acting with the carrier for applying seal-disks to the blanks.

5. In a machine of the character set forth, the combination of a rotary die-plate equipped with a series of dies, co-acting means for producing a down-flanged cap and surmounting a retainer-ring thereon, a rotary carrier, means for effecting transfer of the blanks to said carrier, and means co-acting with said carrier for applying seal-disks to the blanks.

[Claims 6 to 49 not printed in the Gazette.]

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1,039,644. ELECTRIC PUSH-BUTTON SWITCH. JOSEPH BRUNNER, Oelenburg, near Lutterbach, Germany. Filed Sept. 11, 1911. Serial No. 648,611. (Cl. 175—282.)



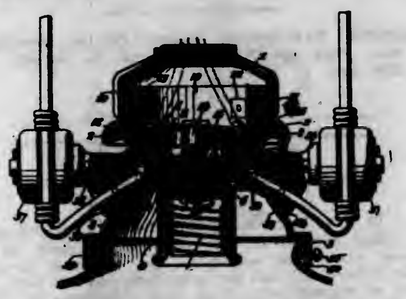
1. An electric switch comprising a casing of insulating material formed with two separated compartments which receive mercury, a cover on said casing, terminals on said cover for securing the terminals of line wires, a rocking contact piece having end projections which operate in the compartments, means including two buttons and a pivoted element between said buttons and a device between one of said buttons and the rocking contact piece for operating said contact piece whereby to raise or lower the ends of the latter to make or break a circuit.

2. An electric switch comprising an insulating casing having two separated compartments which contain mercury, a rocking contact piece mounted in the casing and having its ends operating in the compartments, a lug extending from the contact piece, two buttons for operating the contact piece, means between the two buttons to reversely move same when one or the other is operated, and a pin on one of the buttons, said pin coöperating with the lug on the contact piece to control the movement of the latter when the buttons are operated.

3. An electric switch comprising an insulating casing formed with two separated compartments which receive mercury, a contact piece mounted to move in the casing, the ends of the contact piece being in the compartments, a lug on the contact piece, a button having a notch and a pin, said notch and said pin coöperating with the lug to control the movement of the contact piece, a second push button, and a pivoted lever between the two buttons, whereby when one button is forced inwardly in the casing the other will be forced outwardly.

4. An electric switch comprising a casing provided with two separated compartments, which receive mercury, a substantially U-shape contact piece mounted in the casing and having its ends operating in the compartments, a lug extending from the central portion of the U-shape contact piece, a push button formed with a notch and having a pin, said notch and said pin located under the lug and adapted to cooperate with the same to control the movement of the contact piece when said push button is operated, a second push button in the casing, and a pivoted lever between the two push buttons, whereby when one of said buttons is forced inwardly the other will be forced outwardly.

1,039,645. SERIES LAMP-FIXTURE. CLIFTON L. BUNDY, Philadelphia, Pa., assignor to Philadelphia Electrical and Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 9, 1912. Serial No. 676,636. (Cl. 240—78.)



1. The combination of a base member having a bottom recess provided with an internally threaded shell, a canopy support connected directly to said base member and disposed above the same, and a shade holder connected directly to said base member and disposed below the same.

2. The combination of a base member provided with an internally threaded shell, a canopy support connected to said base member and disposed above and overlying the same, and a shade holder connected to said base member and disposed below the same, said base member having an outwardly extending flange protecting the portion of the shade holder engaging the base.

3. The combination of a canopy support, a base member connected thereto, said base having recesses, nuts adapted to said recesses, and threaded elements passing through the canopy support and entering said nuts whereby said canopy support is held to the base.

4. The combination of a canopy support, a base member connected thereto, said base having a central outwardly extending portion and reduced upper and lower flanged portions integral therewith and provided with recesses, a shade holding element depending from said base member, nuts adapted to said recesses, and threaded elements passing through apertures in the canopy support and shade holding element and said nuts.

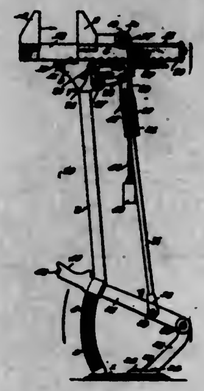
5. The combination of a canopy support, a base member connected thereto, said base having recesses, nuts adapted to said recesses, pins passing through the base member for securing said nuts thereto, and threaded elements passing through apertures in the canopy support and entering said nuts.

[Claims 6 to 12 not printed in the Gazette.]

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1,039,646. FOOT-POWER VISE. GEORGE E. CALLAWAY, Jonesboro, La. Filed Oct. 26, 1911. Serial No. 656,848. (Cl. 81—30.)

1. A vise comprising a base, a post on the base provided with a series of teeth at its lower end, a sleeve having a depending socket for engaging the top of the post, a jaw on the sleeve, a slide bar provided with a jaw movable in the sleeve, said bar having a series of gear teeth on its upper face and a series of teeth on its lower face, a shaft journaled in the sleeve above the bar, a pinion on the shaft engaging the teeth on the upper face of the bar, a pulley on the shaft, a strap winding on the pulley, a counterweight for the slide bar connected to the strap and arranged to rotate the shaft to move the slide bar jaw away from the other jaw, an elbow lever pivoted on the sleeve, a pawl pivoted to one arm of the lever and engaging the teeth on the lower face of the slide bar, a counterweight for holding the pawl in engagement with the teeth, a bracket on the base, a lever pivoted at one end to the bracket and provided with a counterbalance on the opposite side of the bracket, a foot plate on the free end of the lever, a pawl pivoted to the foot plate and engaging the teeth of the post, a link pivoted at one end to the lever, a frame pivoted to the other arm of the elbow lever, and a spring connecting the link to the frame.



2. A vise comprising a base, a post on the base provided with a series of teeth at its lower end, a sleeve having a depending socket for engaging the top of the post, a jaw on the sleeve, a slide bar provided with a jaw movable in the sleeve, said bar having a series of gear teeth on its upper face and a series of teeth on its lower face, a shaft journaled in the sleeve above the bar, a pinion on the shaft engaging the teeth on the upper face of the bar, a pulley on the shaft, a strap winding on the pulley, a counterweight for the slide bar connected to the strap and arranged to rotate the shaft to move the slide bar jaw away from the other jaw, an elbow lever pivoted on the sleeve, a pawl pivoted to one arm of the lever and engaging the teeth on the lower face of the slide bar, a counterweight for holding the pawl in engagement with the teeth, a bracket on the base, a lever pivoted at one end to the bracket and provided with a counterbalance on the opposite side of the bracket, a foot plate on the free end of the lever, a pawl pivoted to the foot plate and engaging the teeth of the post, and a yielding connection between the lever and the other arm of the elbow lever.

3. A vise comprising a base, a post on the base provided with a series of teeth at its lower end, a sleeve having a depending socket for engaging the top of the post, a jaw on the sleeve, a slide bar provided with a jaw movable in the sleeve, said bar having a series of gear teeth on its upper face, and a series of teeth on its lower face, a shaft journaled in the sleeve above the bar, a pinion on the shaft engaging the teeth on the upper face of the bar, a pulley on the shaft, a strap winding on the pulley, a counterweight for the slide bar connected to the strap and arranged to rotate the shaft to move the slide bar jaw away from the other jaw, an elbow lever pivoted on the sleeve, a pawl pivoted to one arm of the lever and engaging the teeth on the lower face of the slide bar, a counterweight for holding the pawl in engagement with the teeth, a lever pivoted to the base, a pawl on the lever for engaging the teeth of the post, and a yielding connection between the lever and the other arm of the elbow lever.

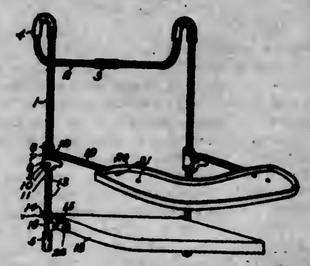
4. A vise comprising a base, a post on the base, a sleeve having a depending socket for engaging the top of the post, a jaw on the sleeve, a slide bar provided with a jaw movable in the sleeve, said bar having a series of gear teeth on its upper face and a series of teeth on its lower face, a shaft journaled in the sleeve above the bar, a pinion on the shaft engaging the teeth on the upper face of the bar, a pulley on the shaft, a strap winding on the pulley, a counterweight for the slide bar connected to the strap and arranged to rotate the shaft to move the slide bar jaw away from the other jaw, an elbow lever pivoted on the sleeve, a pawl on one arm of the lever engaging the teeth on the lower face of the slide bar, a lever on the base, means for holding the lever in adjusted position, and a yielding connection between said lever and the other arm of the elbow lever.

5. A vise comprising a base, a post on the base, a sleeve having a depending socket for engaging the top of the post, a jaw on the sleeve, a slide bar provided with a jaw movable in the sleeve, means normally acting to move the slide bar to separate the jaws, an elbow lever pivoted on the sleeve, a pawl on one arm of the lever, said bar having teeth for engagement by the pawl, and means engaging the other arm of the elbow lever to move the slide bar in the opposite direction, said means comprising a lever pivoted to the base and provided with a counterbalance, a yielding connection between the lever and the said elbow arm of the elbow lever, and means for holding the lever in adjusted position.

[Claims 6 and 7 not printed in the Gazette.]

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1,039,647. NURSERY-CHAIR. WILLIAM L. CARSON, Waterloo, Iowa, assignor to Waterloo Register Company, Waterloo, Iowa. Filed May 17, 1911, Serial No. 627,797. Renewed June 8, 1912. Serial No. 702,618. (Cl. 155—26.)

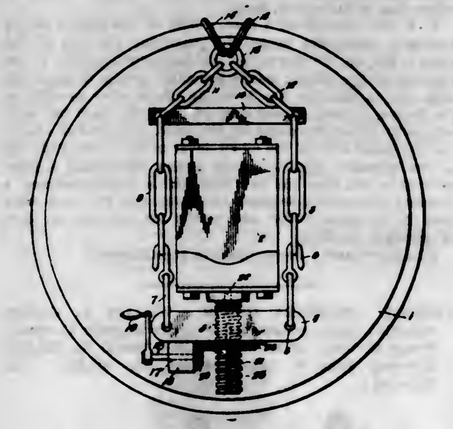


1. In a nursery chair, spaced apart connected rods, bearing-bodies slidable on said rods, a tray having spaced apart arms turned down at an angle at their ends and pivoted at their angles to said bodies, laterally directed studs on the turned-down parts of said arms, and clips pivoted to said bodies and adapted to detachably engage said studs to hold said tray in an outwardly-extended position.

2. In a nursery chair, spaced apart connected rods, bearing-bodies slidable on said rods, a tray having spaced apart arms turned down at an angle at their ends and pivotally connected at their angles to said bodies, laterally-directed studs on the turned-down parts of said arms, clips pivoted to said bodies and adapted to detachably engage said studs to hold said tray locked in an outwardly-extended position, said rods having a plurality of oppositely-located orifices, a seat, brackets secured on said seat having studs removably and pivotally seated in certain of said orifices, and means for limiting the amount of movement of said seat to and from said rods.

3. In a nursery chair, spaced apart connected rod-members, bearing-bodies slidably mounted on said members opposite each other and having spaced apart lugs, a tray having spaced apart arms turned down at an angle at their ends and pivoted at their angles to the lugs on said slidable bodies, clips pivotally connected to said slidable bodies, laterally-directed studs on the down-turned ends of said arms, said clips being adapted to detachably engage said studs to lock the downturned ends of the arms to hold said tray in an outwardly-extended position, said rods having a plurality of oppositely-arranged orifices, a seat, brackets on said seat having laterally-directed studs adapted to be detachably and pivotally mounted in certain of said orifices adjustably along said rods, and means for limiting the movement of said seat up or down relatively to said rods, the connecting part between said rod-members being recurved to adapt it to be suspended from a support.

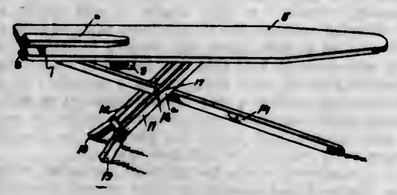
**1,039,648. JOURNAL-JACK.** GEORGE C. CLINE, North Baltimore, Ohio. Filed Feb. 2, 1912. Serial No. 674,870. (Cl. 57—119.)



In a journal jack, a member provided with a centrally arranged threaded bore, a threaded element having a swiveled head engaging the bore, said threaded element being provided with a longitudinally extending depression, a beveled toothed wheel having a bore provided with a stud surrounding the threaded element and having its said stud engaging within the depression, the member being further provided with a depending portion providing a journal for a shaft, a shaft within the journal and being provided with a beveled toothed wheel which engages with the first-named beveled toothed wheel, a handle for the shaft, chain members including hooks connected with the member, a bar connecting the chains, auxiliary chain members also connected with the bar and arranged at an angle to the bar, a ring connecting the auxiliary chain members, and wheel engaging hooks connecting the ring, all substantially as and for the purpose set forth.

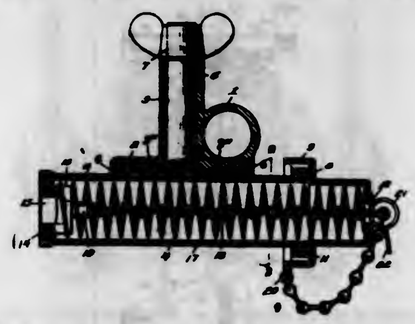
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**1,039,649. IRONING-BOARD.** NATHANIEL T. COFFEY, Niagara Falls, N. Y. Filed Sept. 20, 1911. Serial No. 650,849. (Cl. 68—10.)



A foldable tripod support for ironing boards, having two legs spaced apart and hinged at one end to the central portion of the board so as to swing longitudinally thereof, and a third leg extending longitudinally of the board and through the space between the first-named legs and hinged at one end to one end portion of the board, a cross pin carried by the said third leg and pins projecting from the first-named legs and arranged so as to form abutments for the end portions of the cross pin, when all of said legs are swung outwardly from the board, and an element connecting the first-named legs and forming a support for the free end portion of the third leg during the outward movement of the latter and when all of said legs are folded onto the board.

**1,039,650. WHEEL-FLANGE LUBRICATOR.** PHILIP CONNEY, Washington, D. C., assignor, by direct and mesne assignments, to The Collins Metallic Packing Company, Philadelphia, Pa., a Corporation. Filed Mar. 22, 1911. Serial No. 616,067. (Cl. 184—3.)



1. In a wheel-flange lubricator, the combination of a holder adapted to contain a solid bar of lubricant, said holder being open at its opposite ends, a detachable closure for the rear end of the holder, said closure having an opening therein, a follower within the holder for feeding the bar of lubricant through the open front end of the holder, a coiled spring for forcing the follower forward, said spring being arranged within the holder between said follower and closure and extending rearwardly through the spring and outwardly through the opening in the closure, a pull connection attached to the follower and movable through the opening in the closure, whereby the follower may be retracted and the spring collapsed and the two held nested against the closure for withdrawal therewith, and means adapted for coaction with said pull connection and closure to hold the follower and spring retracted and in fixed relation to the closure.

2. In a wheel-flange lubricator, the combination of a holder adapted to contain a solid bar of lubricant, said holder being open at its opposite ends, a detachable closure for the rear end of the holder, said closure having an opening therein, a follower within the holder for feeding the bar of lubricant through the open front end of the holder, a coiled spring for forcing the follower forward, said spring being arranged within the holder between said closure and follower, a flexible pull connection attached to the follower and extending rearwardly through the spring and outwardly through the opening in the closure, a finger piece connected with the exteriorly projecting portion of the pull connection and adapted to abut against the closure to limit the forward movement of the follower and whereby said follower may be retracted and the spring collapsed and the two held nested against the closure for withdrawal therewith, and means carried by said finger piece and engageable with said pull connection to hold the follower and spring retracted and in fixed relation to the closure.

3. In a wheel-flange lubricator, the combination of a holder adapted to contain a solid bar of lubricant, said holder being open at its opposite ends, a closure cap having a detachable bayonet-joint connection with the rear end of the holder, said closure cap having an opening therein, a follower within the holder for feeding the bar of lubricant through the open front end of the holder, a coiled spring for forcing the follower forward, said spring being arranged within the holder between said closure cap and follower, a retracting chain attached to the follower and extending rearwardly through the spring and outwardly through the opening in the closure whereby the follower may be retracted and the spring collapsed and the two held nested against the closure cap for withdrawal therewith and means engageable with a link of the chain and adapted to rest against the closure cap to hold the follower and spring retracted and in fixed relation to said closure cap.

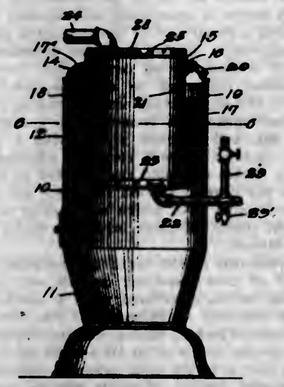


4. In a wheel-flange lubricator, the combination of a holder adapted to contain a solid bar of lubricant, said holder being open at its opposite ends, a detachable cap for closing the rear end of the holder, said cap having an opening thereon, a follower within the holder for feeding the bar of lubricant through the open front end of the holder, a coiled spring for forcing the follower forward, said spring being arranged within the holder between said closure cap and follower, a retracting chain attached to the follower and extending rearwardly through the spring and outwardly through the opening in the closure, a finger ring attached to the projecting portion of the chain whereby the follower may be retracted and the spring collapsed and said follower and spring held nested against the cap for withdrawal therewith, said ring being arranged to abut against the cap and limit the extent of forward movement of the follower, and a pin or projection carried by said ring and engageable with a link of the chain to hold the follower and spring retracted and in fixed relation to the cap.

5. In a wheel-flange lubricator, the combination of a holder adapted to contain a solid bar of lubricant, said holder being open at its opposite ends, a chambered closure cap having a detachable bayonet-joint connection with the rear end of the holder and provided with an opening in its rear wall, a follower within the holder for feeding the bar of lubricant through the open front end of the holder, said follower being provided with a reduced portion of a size to enter the chamber of the cap, a coiled spring for forcing the follower forward, said spring being seated at its rear end in the cap chamber and having its forward end surrounding the reduced portion of the follower, a retracting chain connected with said reduced portion of the follower and extending rearwardly through the spring and outwardly through the opening in the rear wall of the cap, whereby the follower may be drawn rearwardly and the spring compressed and the reduced portion of said follower and the compressed spring held within the cap chamber, a finger ring connected with the projecting end of the chain and adapted to abut against the cap to limit the forward movement of the follower, and a pin or projection carried by said ring for engagement with a link of the chain to hold the follower and spring retracted and in fixed relation to the cap.

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**1,039,651. WATER-HEATER.** JOHN T. CULLEN, Jr., Clinton, Iowa. Filed Aug. 19, 1911. Serial No. 644,980. (Cl. 122—4.)



A water heater consisting of a tank extended within a furnace, a heat retaining jacket, the walls of said jacket being spaced from the tank, said jacket being provided with a reduced annular extension embracing said tank, a baffle plate, said plate being formed with a flange, said flange being secured to the wall of said furnace, the edge of said plate remote from said flange contacting with said tank, said jacket being cut away adjacent said baffle plate, and a flange formed integral with said jacket and secured to said plate.

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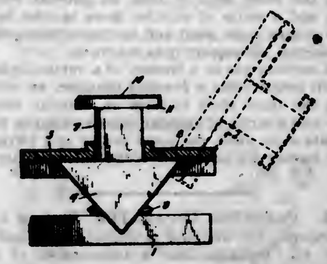
**1,039,652. GAGE-COCK.** LOUIS W. DANIELS, Marlette, Mich. Filed Mar. 25, 1912. Serial No. 686,101. (Cl. 136—3.)



A gage cock comprising a casing having a threaded reduced end and a centrally disposed bore extending the entire length thereof, the lower end of the bore terminating in a tapered valve seat, a valve stem slidably and revolubly arranged in the bore of the casing, a conical shaped valve forming the lower end of the stem and projecting below the lower end of the casing, said valve having a notch formed in its edge and adapted for registry with an opening in the valve seat, a discharge nipple projecting from one side of the casing and in communication with a vertical passage formed in one side of the casing and notch in the valve, the upper inclined notched portion of the valve providing means for removing scales or other accumulations from the valve seat, an adjustable disk secured to the upper reduced end of the valve stem, a coiled spring encircling the stem and disposed between the upper end of the casing and disk, an operating arm mounted upon the stem and in binding contact with the disk, whereby the latter is locked in an adjusted position, and means attached to the bar for turning the valve stem for the purpose set forth.

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**1,039,653. FEED-TROUGH.** JAMES H. DAVIS, Fort Worth, Tex. Filed Nov. 18, 1911. Serial No. 661,011. (Cl. 119—61.)



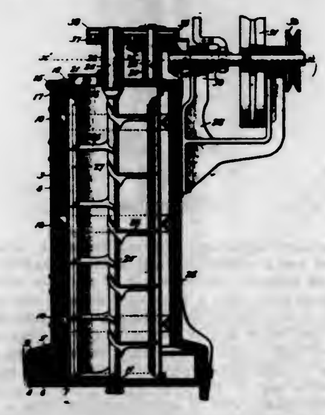
1. A feed trough comprising a stand supporting a tray, and a top movably fitted to the stand and comprising end pieces and longitudinal plates, each of the end pieces comprising a cross piece and an upright, the plates secured to the end portions of the cross pieces constituting platforms, and the plates secured to the uprights forming a cover, the edge portions of which project so as to overlap the inner edge portions of the platforms.

2. A feed trough comprising a stand supporting a tray, a top movably fitted to the stand and comprising end pieces and longitudinal plates, each of the end pieces comprising a cross piece and an upright, the plates secured to end portions of the cross pieces constituting platforms, and the

plates secured to the uprights forming a cover, the edge portions of which project so as to overlap the inner edge portions of the platforms, said platforms having upwardly extending stops along their inner edges, and a cover having pending portions along their outer edges.

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1,039,654. FREEZER. GEORGE F. DICKSON, Chicago, Ill., assignor to Confectioners and Bakers Supply Co., Chicago, Ill., a Corporation of Illinois. Filed Feb. 7, 1912. Serial No. 676,141. (Cl. 62—4.)



1. The combination in a freezer, of a vertically arranged inner shell constituting a freezing chamber and an outer shell inclosing the inner shell to form an annular refrigerant chamber, the lower end of said refrigerant chamber having an expanded form, substantially as set forth.

2. The combination in a freezer, of a vertically arranged inner shell constituting a freezing chamber, an outer shell inclosing the inner shell to form an annular refrigerant chamber, and a series of annular dams secured to the inner face of said outer shell, and having a width less than the width of the annular chamber, substantially as set forth.

3. The combination in a freezer, of a vertically arranged inner shell constituting a freezing chamber, an outer shell inclosing the inner shell to form an annular refrigerant chamber, and a series of annular dams secured to the inner face of said outer shell and having a triangular form in cross section, substantially as set forth.

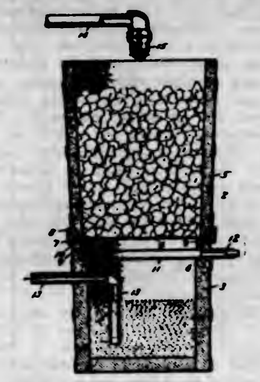
4. The combination in a freezer, of a vertically arranged inner shell constituting a freezing chamber, an outer shell inclosing the inner shell to form an annular refrigerant chamber, and a series of annular dams secured to the inner face of said outer shell, the lower end of said refrigerating chamber having an expanded form, substantially as set forth.

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1,039,655. FREEZING APPARATUS. GEORGE F. DICKSON, Chicago, Ill., assignor to Confectioners and Bakers Supply Co., Chicago, Ill., a Corporation of Illinois. Filed Feb. 7, 1912. Serial No. 676,142. (Cl. 62—6.)

1. In a freezing apparatus of the type herein described, a brine cooling tub comprising a lower open top tray formed with an annular shoulder in its upper margin, a strainer plate resting upon said shoulder, and an upper shell formed with a foraminous bottom fitting within the upper margin of the tray above said strainer plate, substantially as set forth.

2. In a freezing apparatus of the type herein described, a brine cooling tub comprising a lower open top tray formed with an annular shoulder in its upper margin, a strainer plate resting upon said shoulder, an upper shell having a foraminous bottom, and a hoop encircling the bottom of said shell and formed with an outer upwardly projecting flange, an inner downwardly projecting flange fitting within the upper margin of the tray and a horizontal web connecting said flanges, substantially as set forth.



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1,039,656. CORDLESS JACK-BOX. ELLIS EUGENE DILDINE and JAMES A. RUGH, St. Paul, Minn., assignors to Sandwich Electric Company, Sandwich, Ill. Filed Apr. 12, 1910. Serial No. 555,096. (Cl. 179—63.)



1. An apparatus of the character described having a plurality of interconnecting devices each having contact making means connected to an independent incoming line circuit, and each having contact making means all of which second means are connected to a central station set, and a single plug having a plurality of concentric annular contact elements adapted for insertion in any device aforesaid and adapted by its insertion to connect the central station set to the particular line circuit with which said device is associated, said annular contact element forming a serial part of the completed circuit.

2. An apparatus of the character described having a plurality of interconnecting devices each having contact making means connected to an independent incoming line circuit, and each having contact making means all of which second means are connected to a central station telephone set, and a single plug having a plurality of concentric annular contact elements adapted for insertion in any device aforesaid and adapted by its insertion to connect the central station telephone set to the particular line circuit with which said device is associated, said annular contact element forming a serial part of the completed circuit.

3. An apparatus of the character described comprising a plurality of interconnecting devices each having contact making means associated with a central telephone set, a like plurality of independent line circuits terminating in contact making means, one line circuit associated with each device by virtue of its associated contact making means and a single plug having a plurality of concentric annular contact elements adapted for insertion in any device to thereby connect its associated line circuit with the central telephone set, said annular contact element forming a serial part of the completed circuit.

4. A device of the character described comprising a plurality of jacks each having a plurality of contact making means, an independent line circuit connected with certain contact making means of each jack, the remaining contact making means associated with each jack connecting same to a central telephone set, and a single plug having a plurality of concentric annular contact elements adapted, when inserted in any jack to connect the line circuit associated with said jack to the central telephone set, said annular contact element forming a serial part of the completed circuit.

5. A device of the character described comprising a plurality of jacks each having a plurality of contact making means, an independent line circuit connected with certain contact making means of each jack, the remaining contact making means associated with each jack connecting same to a central telephone set, and a single plug having a plurality of concentric annular contact elements adapted, when inserted in any jack to connect the line circuit associated with said jack to the central telephone set, said plug having metallic portions for making the interconnections aforesaid, said metallic portions serially forming part of the completed circuit.

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1,039,657. APPARATUS FOR WINDING THE FILAMENTS OF INCANDESCENT ELECTRIC LAMPS ON THEIR SUPPORTS. GAËTAN DOBKEVITCH, Paris, France, assignor to Société Internationale De La Lampe Electrique O. R., Paris, France. Filed Apr. 30, 1912. Serial No. 694,231. (Cl. 176—8.)



1. An apparatus for winding and mounting the filaments of incandescent electric lamps on their supports, comprising a central shaft adapted to hold the filament support, means for supporting and rotating said said central shaft, a plurality of arms around which the filament is bent during the winding disposed about said central shaft, and movable toward and away from the same, means for connecting said arms to the central shaft in such a manner that they may be held at a given regulatable distance therefrom so as to give to the sections of the filament between two consecutive points of attachment on the arms of the filament support the desired length, and means for simultaneously approaching the said arms toward the central shaft to enable the support with the mounted filament to be removed.

2. An apparatus for winding and mounting the filaments of incandescent electric lamps on their supports, comprising a central shaft for holding the filament support, means for supporting and rotating said central shaft, a plurality of arms disposed about the said central shaft, parallel thereto and movable toward and away from the same, links jointed respectively to the said arms and central shaft, and forming therewith the sides of jointed parallelograms or trapeziums, means tending to hold the movable arms away from the central shaft and spaced apart from each other, and means for simultaneously approaching the said arms toward the central shaft.

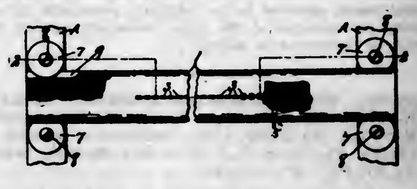
3. An apparatus for winding the filaments of incandescent electric lamps on their supports, comprising a central shaft having an axial bore at one end to receive the filament support, longitudinal slots in said shaft for giving passage to the arms or hooks of the filament support, means for securing the said support in the bore of the said shaft, means for supporting and rotating the said central shaft, a plurality of movable arms disposed about the said central shaft and movable toward and away from the same, means for connecting the said arms to the central shaft in such a manner that they may be held at a given regulatable distance therefrom, and means for simultaneously approaching the said arms toward the central shaft.

4. An apparatus for winding the filaments of incandescent electric lamps on their supports, comprising a central shaft adapted to hold the filament support, means for supporting and rotating said said central shaft, a plurality of arms disposed about said central shaft and movable toward and away from the same, links jointed respectively to the arms and central shaft and forming therewith the sides of jointed parallelograms or trapeziums, means tending to hold the movable arms away from the central shaft and spaced apart from each other, and means for simultaneously approaching the said arms toward the central shaft comprising a sleeve adapted to slide on the central shaft and connected by jointed links to the said arms.

5. An apparatus for winding the filaments of incandescent lamps on their supports, comprising a central shaft for holding the filament support, means for supporting and rotating said central shaft, a plurality of arms disposed about said central shaft and movable toward and away from the same, jointed links connecting the said arms to the central shaft, springs for holding the movable arms away from the central shaft and spaced from each other, a sleeve adapted to slide longitudinally of the central shaft and connected to the movable arms by jointed links, and adjustable means in connection with said sleeve for regulating its movement in one direction on the central shaft.

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1,039,658. TRACKER-BAR FOR SELF-PLAYING MUSICAL INSTRUMENTS. LEWIS B. DOMAN, Elbridge, N. Y. Filed Sept. 4, 1906. Serial No. 333,213. (Cl. 84—165.)

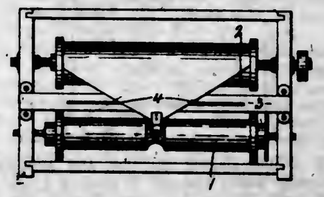


1. In combination, a one-piece metal tracker bar having slots in its opposite edges, fastening disks inserted in said slots to hold the bar in place and supports for the disks.

2. A tracker-bar having its opposite edges provided with lengthwise grooves, supporting disks entering said grooves to permit longitudinal movement of and to guide said tracker-bar and supports for the disks.

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1,039,659. TRACKER-BAR. LEWIS B. DOMAN, Elbridge, N. Y. Filed Nov. 28, 1908. Serial No. 464,986. (Cl. 84—165.)



1. A one-piece metal tracker bar having parallel note ducts and intervening parallel partitions, the outer edges of said partitions being wedge-shape, and the corresponding portions of all of the note ducts flaring lengthwise of the bar.

2. A one-piece tracker bar having parallel note ducts and interposed partitions, the rear ends of all of the note ducts being circular and their front ends contracted transversely of the bar, the front ends of the partitions being wedge-shape, and the corresponding ends of all of the note ducts flaring lengthwise of the bar.

1,039,660. TEMPO-GOVERNING DEVICE FOR SELF-PLAYING MUSICAL INSTRUMENTS. LEWIS B. DOMAN, Syracuse, N. Y. Filed Jan. 18, 1912. Serial No. 671,872. (Cl. 200—36.)

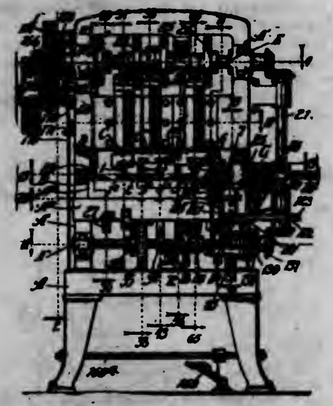


1. The combination with a tempo-governing pneumatic of a self-playing musical instrument and a spring resistor opposing its collapse and operated thereby to increase its resistance as the pneumatic tends to such collapse, and a pneumatic canister aiding such collapse during the increasing resistance of the spring.

2. In combination with a tempo-governing pneumatic of a self-playing musical instrument and yielding means resisting the collapse of said pneumatic, additional means including a pneumatic for assisting such collapse against the action of the resistance.

3. A tempo-governing device for self-playing musical instruments comprising a main governing pneumatic and a smaller auxiliary pneumatic, means including a spring resisting the collapse of the main pneumatic, and additional means operated by the auxiliary pneumatic for assisting the collapse of the main pneumatic against the action of the resistance spring.

1,039,661. STOPPER-MAKING MACHINE. WILLIAM SAMUEL DOBMAN, Brooklyn, N. Y., and ROBERT CYRUS MANVILLE, Waterbury, Conn., assignors to Richard A. Canfield, Providence, R. I. Filed Sept. 19, 1911. Serial No. 650,132. (Cl. 113—80.)



1. In a stopper-making machine, the combination of blank-punching means adapted to produce a pair of web-connected disks, means for down-flanging one disk to afford a cup, means for ring-piercing the other disk to produce an expansible retainer-ring, and means for surmounting said retainer-ring snugly upon said cup.

2. In a stopper-making machine, the combination of means for punching and forming a cup and expansible retainer-ring, including means for down-flanging said cup, and coöperating means for surmounting said retainer-ring snugly upon said cup.

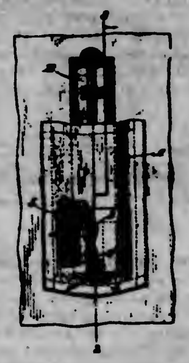
3. In a stopper-making machine, the combination of means for punching a blank comprising a pair of disks and a connecting web, means for flanging one disk to produce a cup, means for perforating the other disk to produce a retainer-ring, means for folding said retainer-ring, while flat, upon the top of the cup, and means for flanging the retainer-ring after such folding operation.

4. In a stopper-making machine, the combination of means for punching and forming a cup and retainer-ring, coöperating means for folding the retainer-ring on the cup, and means for introducing a sealing-disk in said cup.

5. In a stopper-making machine, the combination of means for punching and forming a cup and retainer-ring, including means for flanging said cup, coöperating means for folding the retainer-ring on the cup before the cup-flanging operation, means for introducing a sealing-disk in said cup, and means for thereafter flanging the cup-flange on the sealing-disk.

[Claims 6 to 42 not printed in the Gazette.]

1,039,662. LOSS-PREVENTING DEVICE. JOHN R. DOUGLASS, Logansport, Ind. Filed Apr. 22, 1910. Serial No. 557,181. (Cl. 24—3.)



A rule holder comprising a pocket having a button hole in its wall located near the lower end thereof, a U-shaped gripping member having T-shaped terminals disposed within the pocket and the bend of the U engaging the bottom portion thereof, and a button secured to one leg of the U-shaped member and extended through the button hole of the pocket wall to hold said U-shaped member in a central position in the pocket, said U-shaped member being adapted to limit the downward movement of a rule inserted in the pocket and the T-shaped terminals being bent outwardly to normally hold the pocket open to receive a rule.

1,039,663. CAR-SEAL. ALEXANDER DUBWEKE, Detroit, Mich. Filed Sept. 30, 1911. Serial No. 652,028. (Cl. 70—69.)



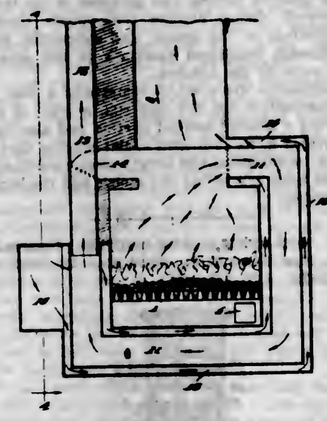
1. A car seal comprising a strip of resilient metal, a hook formed at one end thereof, an open-ended housing formed in the opposite end thereof, means formed on certain walls of the housing to prevent collapse of the top thereof, a spring tongue forming a continuation of the top of the housing and projecting into the housing to be engaged by the hook on the free end of the strip, and means carried by the tongue and engaged with the housing to prevent disengagement of said tongue from the hook.

2. A car seal comprising a strip of resilient metal, a hook formed at one end thereof, an open-ended housing formed in the opposite end thereof, means formed on certain walls of the housing to prevent collapse of the top thereof, a spring tongue forming a continuation of the top of the housing and projecting therefrom to be engaged by the hook on the free end of the strip, and a rib bent up from the tongue and adapted to engage the top of the housing to prevent the same from being raised in the housing.

3. A car seal comprising a strip of resilient metal, a hook formed at one end thereof, the opposite end of the strip being bent back upon itself to provide one wall and a top of a housing, lateral wings formed on the strip, said wings being bent up and over the top to form the side walls and retaining parts of the strip, spurs projecting from said side walls beneath the top to prevent collapse from the same, a tongue formed on the top and projecting into the housing for engagement with the hook, and a rib raised from the tongue and arranged substantially in engagement with the top to prevent raising of the tongue and consequent disengagement of the same from the hook.



1,039,664. HEATING AND VENTILATING APPARATUS. CLARENCE WILLIAM EDGAR, Los Angeles, Cal. Filed Jan. 6, 1912. Serial No. 669,760. (Cl. 126—123.)



1. In a heating and ventilating device, a grate provided with conducting side walls and having a transparent air-tight covering, a pipe for supplying air underneath the grate, a damper for regulating the air supply, an exit pipe communicating with the top of the grate and extending down one side thereof, underneath and up on the other side of the grate, an air passage surrounding said exit pipe and the conducting side walls and having its intake on the side of the grate opposite the point of communication of the exit pipe with the top of the grate, and a hot air flue communicating with said air passage and being provided with registers for permitting the exit of hot air.

2. In a heating and ventilating device, a grate provided with conducting side walls, an exit pipe communicating with the top of the grate and extending down one side thereof, underneath, and up on the other side of the grate, an air passage surrounding said exit pipe and the conducting side walls and having an inlet and an outlet, the outlet being above the point of communication of the exit pipe with said grate, and the inlet being below said point of communication, thereby causing a current of heated air to flow in the opposite direction to the products of combustion.

3. In a heating and ventilating device, a grate provided with conducting side walls, an exit pipe communicating with said grate and extending down on one side thereof, underneath, and up on the other side of the grate, and a hot air pipe surrounding said exit pipe and the conducting side walls and provided with an inlet for fresh air and a register for the heated air.



1,039,665. TIRE-PROTECTOR. ANDREW G. EDLUND and ANDREW LEAPHEBT, Axtell, Nebr. Filed July 6, 1911. Serial No. 637,057. (Cl. 152—24.)



As an article of manufacture, a device for securing tire protector sleeves to wheels comprising a single, continuous yoke member, formed at opposite sides with shoulder portions to bear against a wheel rim and hold said member spaced from the felly, said yoke member having its ends bent to form hooks to engage the protector sleeve.

1,039,666. ADJUSTABLE WINDOW-SHADE BRACKET. THOMAS H. EDWARDS, Buffalo, N. Y. Filed Feb. 4, 1911. Serial No. 606,561. (Cl. 156—24.)



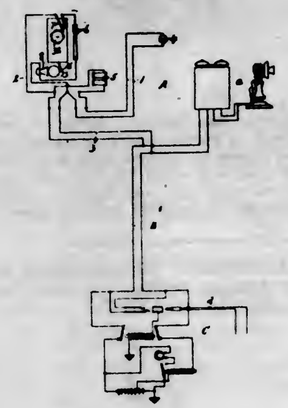
In a device for the purpose set forth, a wall plate member having a right angular portion having side flanges, the central portion of said member being provided with a right angularly extending offset, the said offset being centrally formed with an opening and having side flanges to provide a housing for a nut, an angular sliding plate for the wall plate member, one of the angular portions of the said plate being provided with an eye or opening, the second angular portion of the plate having its side flanges and its body provided with an elongated slot, the flanges of the said member being adapted to overlie and engage with the flanges provided upon the offset portion of the first named right angular portion of the bracket, and a bolt extending through the elongated slot and engaging the nut which is positioned within the pocket of the offset portion of the wall plate member.

1,039,667. EMERGENCY SIGNALING DEVICE FOR TELEPHONE-EXCHANGE SYSTEMS. IRVING D. ELLOWS, Syracuse, N. Y., assignor of one-half to James H. McCartney, Rochester, N. Y. Filed Feb. 25, 1911. Serial No. 610,770. (Cl. 179—5.)

1. In combination with a normally open subscriber's line circuit of a telephone exchange system, a subscriber's branch circuit connected across the line circuit, a manually operated circuit closer in the branch circuit, an additional branch circuit connected across the first named branch circuit, a motor-actuated circuit closer connected in said additional branch circuit for impressing current impulses upon the line circuit to operate a central signal, the motor, means normally holding the motor against operation, and additional means actuated by the energizing of the first named branch circuit through the medium of the manually operated circuit closer for releasing said holding means to permit the operation of the motor.

2. In combination with a normally open subscriber's line circuit of a telephone exchange system, a subscriber's branch circuit connected across the line circuit, a manually operated circuit closer in the branch circuit, an additional branch circuit connected across the first named branch circuit, a motor-actuated circuit closer connected in said additional branch circuit for impressing current impulses upon the line circuit to operate a central signal,

the motor, means normally holding the motor against operation, additional means actuated by the energising of the first named branch circuit through the medium of the manually operated circuit closer for releasing said holding means to permit the operation of the motor, a transmitter connected in the additional circuit, and a sound producing device actuated by the motor for operating said transmitter to transmit such sound over the line circuit.



3. In combination with a normally open subscriber's line circuit of a telephone exchange system, a subscriber's branch circuit connected across the line circuit, a manually operated circuit closer in the branch circuit, an additional branch circuit connected across the first named branch circuit, a motor-actuated circuit closer connected in said additional branch circuit for impressing current impulses upon the line circuit to operate a central signal, the motor, means normally holding the motor against operation, additional means actuated by the energising of the first named branch circuit through the medium of the manually operated circuit closer for releasing said holding means to permit the operation of the motor, and means actuated by the motor for automatically restoring the holding means to its holding position to stop the motor.

4. In combination with a normally open subscriber's line circuit having the usual signals, transmitters and receivers connected therein, a subscriber's branch circuit connected across the main line circuit, a manually operated circuit closer in the branch circuit, an electromagnet also connected in the branch circuit, an additional branch circuit connected across the first named branch circuit between the electromagnet and points of connection with the first named branch circuit with the line circuit, a separate transmitter connected in the additional branch circuit, a spring motor, a sound producing device actuated by the spring motor for operating the last named transmitter to transmit such sound to the line circuit, means controlled by the electromagnet for normally holding the motor against operation and adapted to be operated by the energising of the magnet caused by the closing of the circuit closer, and additional means actuated by the motor for restoring the holding means to its holding position to stop the motor.

5. In combination with a normally open subscriber's line circuit of a telephone exchange system having the usual signals, transmitters and receivers connected therein, a branch circuit connected across the line circuit, a normally open manually operated circuit closer in the branch circuit, a transmitter connected to the branch circuit, a sound producing device for operating the transmitter, and means brought into action by the closing of the circuit closer for operating the sound producing device.

[Claims 6 to 8 not printed in the Gazette.]

1,039,668. LOCOMOTIVE DRIVE-WHEEL. JOHN F. FRANKLIN, Yellow Pine, Ala. Filed May 28, 1912. Serial No. 700,228. (Cl. 105—222.)



1. A locomotive drive wheel, comprising a hub, a rim, spokes intermediate the hub and the rim and having intermediate portions of dovetail form, a gear, of annular form, having a beveled toothed portion, and also having a flange separated from said toothed portion by a circumferentially grooved portion and provided in its face with radial dovetail shaped notches that snugly receive the dovetail portions of the spokes, and connecting bolts extending through registered apertures in the spokes and the back walls of the notches.

2. A locomotive drive wheel comprising a hub, a rim, spokes intermediate the hub and rim, a gear, of annular form, having a beveled toothed portion and also having a flange provided in its face with radial notches that extend throughout its thickness and snugly receive portions of the spokes, and bolts connecting the spokes and the back walls of said notches.

1,039,669. NON-REFILLABLE BOTTLE. JOSEPH FROHNHOLZER, New York, N. Y. Filed Mar. 22, 1912. Serial No. 685,472. (Cl. 215—62.)



1. The combination with the main neck of a bottle, of a supplemental neck irremovably attached thereto, a horizontal partition arranged a substantial distance below the outer end of said supplemental neck provided with passages extending therethrough, an annular flange below said partition having a downwardly extending rim, a perforated disk below said flange having an upwardly extending rim, a sleeve engaging the rims of said flange and disk and adapted to revolve thereon around its longitudinal axis, the wall of said sleeve being upon one of its sides enlarged in thickness, a valve seat formed in said sleeve, a valve disk pivoted to said sleeve at a point opposite to the portion of the same which is enlarged in thickness, said valve disk being provided with an extension beyond its pivot, and a weight attached to said extension, said weight being normally arranged above the upper face of said valve disk.

2. The combination with the neck of a bottle, of a horizontal partition arranged a substantial distance below the outer end thereof provided with passages extending therethrough, a sleeve mounted below said wall adapted to rotate around its longitudinal axis, the wall of said sleeve being upon one of its sides enlarged in thickness, a valve



seat formed in said sleeve, a valve disk pivoted to said sleeve at a point opposite to the portion of the same which is enlarged in thickness, said valve disk being provided with an extension beyond its pivot, and a weight attached to said extension, said weight being normally arranged above the upper face of said valve disk.

1,039,670. ELECTRICAL ROSETTE. WILLIAM J. GAGNON, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed June 25, 1908. Serial No. 440,328. (Cl. 173—322.)



1. An electrical rosette, having a cap carrying terminal and having a central aperture with two strain-relieving abutments formed on the inner face of the cap for each wire between the terminal and the aperture.

2. An electrical rosette, having a cap provided with wire terminals and a central aperture and having formed on its inner face strain-relieving abutments forming open grooves to receive and hold the wires in S-bends.

3. In an article of the character described, the combination, with a body portion provided with a central opening, two wire terminals and two vertical studs, of an electric lamp-cord extending through said central opening, and having its inner end portion coiled around said studs and connected to said wire terminals.

4. In an article of the character described, the combination, with a body portion provided with a central opening, two wire terminals and two vertical studs, of an electric lamp-cord extending through said central opening and having its inner end portion coiled around said studs and connected to said wire terminals, and means for holding the coils in position upon said studs.

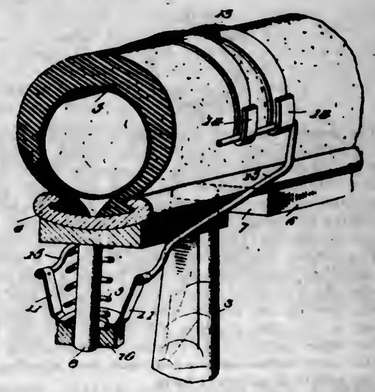
5. In an article of the character described, the combination, with a body portion comprising a base and a removable cap portion, each provided with a pair of wire terminals, and means for connecting the wire terminals upon the base portion with the wire terminals upon the cap portion when said cap portion is secured to the base, of a central opening in said cap portion, two vertical studs formed upon said cap portion and an electric lamp-cord extending through said central opening and having its inner end portion coiled around said studs and connected to said wire terminals.

[Claim 6 not printed in the Gazette.]

1,039,671. TIRE-SHIELD. CHARLES R. RAGSDALE, St. Louis, Mo., assignor, by direct and mesne assignments, of three-fourths to Gertrude Crewdson Ragsdale and one-eighth to Idella M. Ragsdale, St. Louis, Mo., and one-eighth to D. I. Smith, Paducah, Ky. Filed Aug. 16, 1910, Serial No. 577,403. Renewed Mar. 14, 1912. Serial No. 683,705. (Cl. 152—16.)

1. A tire protector comprising a plurality of protector sections, each composed of a plurality of relatively small shields adapted to cover and protect the tread of a pneumatic tire, a plurality of independent springs mounted inside the felly of the wheel, pairs of oppositely disposed rigid loops, a pair for each section of the protector, said loops being engaged with the opposite ends of the shields of the section and with said springs.

2. A tire protector comprising a plurality of protector sections, each section being composed of a plurality of laterally curved shields, the extremities of the shields being formed with hooks, a plurality of inwardly extending posts mounted inside the felly of the wheel, a spring surrounding each of said posts, a sleeve slidable on the post and urged inward by the spring, said sleeve being formed with oppositely disposed arms, and rigid triangular loops disposed on either side of the wheel, said loops being engaged with the arms on the sleeves and with the shields of each section of the protector.



3. The combination with a wheel having a plurality of inwardly extending posts, springs surrounding the posts and sleeves slidably mounted on the posts and having oppositely disposed arms extending toward the tire of the wheel, of oppositely disposed triangular rigid loops, the apices of the loops being engaged with the arms on the sleeves, and a plurality of shields, each laterally curved to conform to the curvature of the pneumatic tire, each shield being independent of the adjacent shields and being formed with outwardly extending hooks adapted to engage over the said rigid loops.

4. A tire protector comprising a plurality of independent protector sections, each composed of a plurality of parallel laterally-curved relatively small arcuate shields extending transversely, said shields being independent of each other, and independent means for each protector section for resiliently drawing the shields of said section radially toward the hub of the wheel and into engagement with the tread surface of the tire, said means permitting the independent movement of each of said shields and permitting the shields to be detached from engagement therewith.

1,039,672. COMPOUND OR COMPOSITION OF MATTER AND METHOD OF PRODUCING SAME. AUGUSTE J. ROSSI and WILLIAM F. MEREDITH, Niagara Falls, N. Y., assignors to The Titanium Alloy Manufacturing Company, New York, N. Y., a Corporation of Maine. Filed Apr. 17, 1912. Serial No. 691,515. (Cl. 75—1.)

1. As a new article metal containing therewith intimately mixed not less than 5 per cent. and not more than 80 per cent. of carbid of titanium.

2. As a new article iron containing therewith intimately mixed not less than 5 per cent. and not more than 80 per cent. of carbid of titanium.

1,039,673. PROCESS OF MAKING HOLLOW METALLIC BALLS. JOHN W. SCHATZ, Poughkeepsie, N. Y., assignor of one-half to Herman A. Schatz, Poughkeepsie, N. Y. Filed July 11, 1911. Serial No. 637,862. (Cl. 29—148.)

1. The method described consisting in taking a substantially spherical hollow metallic body having a hole in one side, applying a suitable metallic closure larger than the hole upon the hole, heating the closure and the metal of the body adjacent to the hole and then pressing the closure into the hole.

2. The method described consisting in taking a substantially spherical hollow metallic body having a hole in one side, applying a suitable metallic closure larger than the hole upon the hole, heating the closure and the metal of the body adjacent to the hole, pressing the closure into the hole and grinding the resulting ball into substantially accurate spherical form.



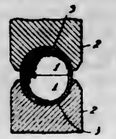
3. The method described consisting in taking a substantially spherical hollow metallic body having greater diameter in one direction than in the opposite direction and having a hole in the axis of the longer dimension, applying a suitable metallic closure larger than the hole upon the hole, welding the same therein and swaging the body into more nearly spherical form by the aid of heat and pressure.

4. The method described consisting in taking a substantially spherical hollow metallic body having a hole in one side, applying a suitable closure larger than the hole upon the hole, heating the closure and the metal of the body adjacent to the hole, pressing the closure into the body until the outer surface of the closure is substantially even with the outer surface of the body and then grinding the resulting article in spherical form.

5. The method described consisting in taking a substantially spherical hollow metallic body having a hole in one side, applying a suitable closure larger than the hole upon the hole, heating the closure and the metal of the body adjacent to the hole, and pressing the closure into the body until the outer surface of the closure is substantially even with the outer surface of the body.

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1,039,674. METHOD OF MAKING HOLLOW METALLIC BALLS. JOHN W. SCHATZ, Poughkeepsie, N. Y., assignor of one-half to Herman A. Schatz, Poughkeepsie, N. Y. Filed Mar. 21, 1912. Serial No. 685,227. (Cl. 29—148.)

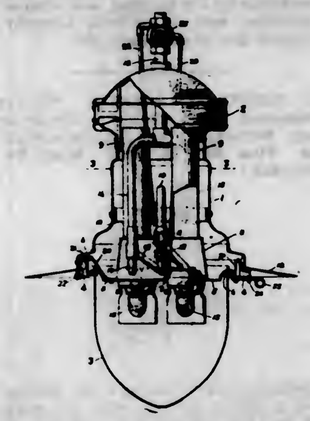


The described process consisting in supporting two substantially semi-spherical hollow blanks in recesses slightly less than semi-spheres made in suitable dies, bringing their rims together, heating the rims to welding heat and the other parts of the blanks to lower degrees of heat and then forcing the dies toward each other, so that the blanks are welded together and given a spherical shape.

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1,039,675. INVERTED INCANDESCENT GAS-LIGHT. VICTOR H. SLINACK, Philadelphia, Pa., assignor to The Pennsylvania Globe Gas Light Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 29, 1911. Serial No. 635,975. (Cl. 67—94.)

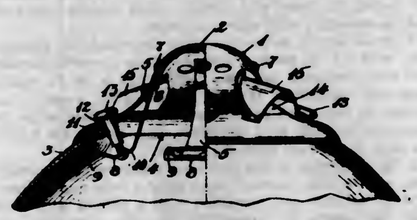
An inverted incandescent gas light comprising the combination of a casing having a globe at its bottom and air inlets arranged at the top of the globe, a solid deck between the globe and casing and having space between its rim and the casing for the passage of air and provided with burner openings, a box mounted on the deck and of less cross section than the deck to afford space between the box and the rim of the deck for the circulation of air and covering the burner openings to receive combustion products, funnels for the box, an inverted U-shape mixing tube having one of its arms outside the box in the air space provided between the outside of the box and the rim of the deck and provided with a gas regulator and the other arm arranged in the box and provided with incandescent burners depending through the openings,



and a gas pipe in the space between the rim of the deck and the box and communicating with the gas regulator, substantially as described.

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1,039,676. SHADE-HOLDER. JAMES STODDART, Newark, N. J., assignor to Edward J. Schroeder and Charles A. Schroeder, Jersey City, N. J., Copartners. Filed May 29, 1912. Serial No. 700,877. (Cl. 240—115.)



1. A shade holder comprising a supporting member adapted to engage the outer surface of the shade and having a plurality of shade holding arms adapted to engage the inner surface of the shade, and coöperating means carried by said member and holding arms for collapsing said arms to introduce them within the shade and for expanding them to holding position within the shade.

2. A shade holder comprising a shell or frame adapted to engage the outer surface of the shade and having a plurality of adjustable shade holding arms attached to its inner side adapted to engage the inner surface of the shade, and coöperating means carried by said shell and holding arms for adjusting said holding arms to position them for insertion within the shade and for drawing them to holding position against the inner surface of the shade.

3. A shade holder for shades having a single opening, comprising a hollow shell having an edge adapted to engage the outer surface of the shade adjacent said opening and having a plurality of adjustable shade supporting arms attached to its inner surface adapted to extend beyond the edge of said shell when said arms are in operative position, and coöperating means carried by said shell and supporting arms for adjusting said arms to engage the inner surface of the shade to support said shade in engagement with the edge of said shell.

4. A shade holder for shades having a single opening, comprising a member adapted to engage the outer surface of the shade adjacent said opening and a plurality of adjustable arms attached to said member and adapted to engage the inner surface of the shade adjacent said opening, and coöperating means carried by said member and by said arms operable to adjust said arms to and from shade holding position.

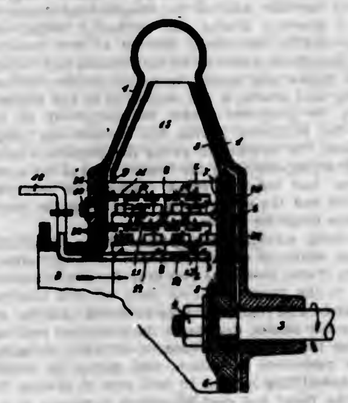
5. A shade holder for shades having a single opening, comprising a member adapted to engage the outer surface of the shade adjacent said opening and having a plurality of shade supporting arms adapted to engage the inner surface of the shade adjacent said opening and at points beyond the points of engagement of said shade by said member, and coöperating screw and nut means carried by said member and supporting arms for collapsing said supporting arms to adapt the same for insertion within said opening and for drawing said arms into engagement with the inner surface of said shade to support the same in contact with said member.

[Claim 6 not printed in the Gazette.]



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1,039,677. APPARATUS FOR CLEANING, COOLING, AND MIXING GASES. HANS EDUARD THEISEN, Munich, Germany. Filed Jan. 6, 1912. Serial No. 669,827. (Cl. 48—141.)



1. An apparatus for the purpose specified, embodying therein a casing, an annular disk removably secured to one wall of said casing, a series of concentric disintegrator members fixed to said disk, a second disk rotatably mounted within said casing adjacent and parallel to the wall of the casing opposite that carrying the fixed disintegrator members, a series of disintegrator members removably carried by said second disk and extending into said casing in alternation with the fixed disintegrator members, and a fan blade carried by said second disk and adapted to rotate in a path surrounding the series of disintegrator members.

2. An apparatus for the purpose specified, embodying therein a casing formed of walls parallel for a part of their extent and inclined to each other another part of their extent, an annular disk countersunk in one wall of said casing, disintegrator members extending transversely within the casing from said countersunk disk, a second disk rotatably mounted within said casing immediately adjacent one of said walls, said second disk being shaped to conform to the shape of the wall and having a series of disintegrator members parallel to those carried by the first named disk, and a fan blade carried by said second disk and adapted to revolve about the disintegrator members in the path formed by said inclined walls.

3. An apparatus for the purpose specified, embodying therein a casing, a disk countersunk in one wall of the casing, a series of concentric apertured disintegrator members fixed to said disk, said members having projections formed near the apertures therein, a second disk rotatably mounted within said casing adjacent and parallel to the wall of the casing opposite that carrying the fixed disintegrator members, a series of apertured disintegrator members carried by said second disk and extending into said casing in alternation with the fixed disintegrator members, the disintegrator members carried by the second disk having projections near the apertures therein, and a fan blade carried by said second disk and adapted to rotate in a path surrounding the series of disintegrator members.

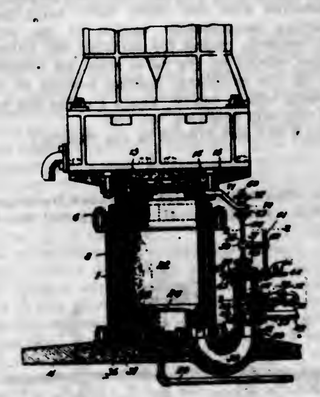
4. An apparatus for the purpose specified, embodying therein a casing having a chamber with parallel walls and a second chamber with inclined walls, a disk countersunk in one of the said parallel walls, a series of fixed disintegrator members removably carried by said disk, a second disk within said casing arranged at one end of the series of disintegrator members, a second series of disintegrator members carried by said second disk and a fan blade carried by said second disk and adapted to revolve about the disintegrator members in the chamber having the inclined walls.

5. An apparatus for the purpose specified, embodying therein a casing, a disk countersunk in one wall of the casing, fixed apertured disintegrators carried by said disk, an inclined projection adjacent each aperture in said disintegrator, revoluble apertured disintegrators, and an inclined projection adjacent each aperture in said revoluble disintegrators.

[Claims 6 to 12 not printed in the Gazette.]

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1,039,678. VALVE MECHANISM FOR JARRING-MACHINES. EDGAR C. WILEY, Lynchburg, Va., assignor of one-half to Lynchburg Foundry Co., Lynchburg, Va., a Corporation of Virginia. Original application filed June 24, 1910, Serial No. 568,735. Divided and this application filed Oct. 29, 1910. Serial No. 589,822. (Cl. 136—2.)



1. A jarring machine comprising a cylinder, a piston operating within the cylinder, a valve casing communicating with the cylinder, a reciprocatory valve mounted for rotary adjustment within the valve casing, said valve casing and valve being provided with ports adapted to be varied in size by the said rotary adjustment, valve actuating mechanism for imparting reciprocatory motion to the valve, manually operable means for rotating the valve, and means for securing the latter means in its adjustment so as to provide a predetermined fixed adjustment of the valve and allow a continuous operation of the piston under such adjustment.

2. A jarring machine comprising a cylinder, a piston operating within the cylinder, a valve casing communicating with the cylinder, a reciprocatory valve mounted for rotary adjustment within the valve casing, said valve casing and valve being provided with ports adapted to be varied in size by the said rotary adjustment, valve

actuating means for imparting reciprocatory motion to the valve, manually operable means mounted on the valve casing for rotating the valve to adjust the same, and means for securing the latter means in its adjustment so as to provide a predetermined fixed adjustment of the valve and allow a continuous operation of the piston under such adjustment.

3. A jarring machine comprising a cylinder, a piston operating within the cylinder, a valve casing communicating with the cylinder, a reciprocatory valve mounted for rotary adjustment within the valve casing and provided with a stem, said valve casing and valve being also provided with ports adapted to be varied in size by the said rotary adjustment, valve actuating means for imparting reciprocatory motion to the valve, and manually operable means for rotating the valve including an arm extending from the valve stem, a guide receiving the arm, and an adjusting ring mounted on the valve casing and carrying the guide.

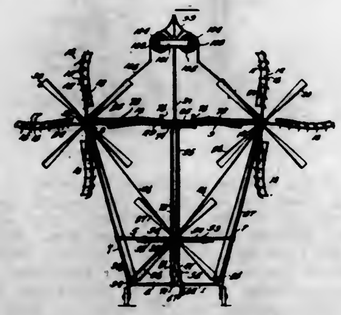
4. A jarring machine comprising a cylinder, a valve casing communicating with the cylinder, a reciprocatory valve mounted for rotary adjustment within the valve casing and provided with a stem, said valve casing and valve being also provided with ports adapted to be varied in size through the said rotary adjustment, valve actuating mechanism for imparting reciprocatory motion to the valve, and manually operable means for rotating the valve including an arm extending from the valve stem, an adjusting ring mounted on the valve casing, a guiding member carried by the ring and receiving the arm of the valve stem, and means for securing the ring in its adjustment.

5. A jarring machine comprising a cylinder, a valve casing communicating with the cylinder and provided with a head having a peripheral bearing portion, a valve mounted for rotary adjustment within the valve casing, said valve and casing being provided with ports adapted to be varied in size by the said rotary adjustment, a valve stem connected with the valve, valve actuating means for imparting reciprocatory motion to the valve, and manually operable means for rotating the valve including an arm carried by the valve stem, an adjusting ring mounted on the peripheral bearing portion of the head and provided with a handle, and a guiding rod connected with the ring and receiving the arm.

[Claims 6 to 9 not printed in the Gazette.]

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1,039,679. FLYING-MACHINE. HARRY HARDGRAVE, Dalhart, Tex. Filed Nov. 17, 1910. Serial No. 592,873. (Cl. 244—11.)



1. A flying machine including a frame provided with bearings, hollow shafts journaled in said bearings on opposite sides of the longitudinal center of the frame, beating and sustaining wings mounted upon said hollow shafts, each wing comprising a series of blades having feathering vanes, other shafts extending through said hollow shafts, driving propellers mounted thereon, means for transmitting motion to said shafts, means for feathering the vanes of the blades, and means for adjusting said propellers at different angles with relation to the wings.

2. A flying machine embodying a frame, longitudinal shafts at opposite sides of the longitudinal center of the frame, rotating beating and sustaining wings mounted on said shafts, propeller shafts universally jointed to said longitudinal shafts, a vertically swinging and laterally slidable bracket supported by the frame, means for swinging and sliding said bracket, propellers mounted on the propeller shafts, and connections between the bracket and propeller shafts for adjusting said shafts in unison with each other and with said bracket.

3. A flying machine embodying a frame, upper propeller shafts arranged on opposite sides of the longitudinal center of the frame and universally mounted to swing vertically and laterally, a lower propeller shaft arranged in line with the longitudinal center of the frame and correspondingly mounted, propellers mounted upon said shafts, pivotal connections between the upper and lower propeller shafts, means connected with the lower series of propellers vertically through said connections, a vertically swinging and laterally sliding bracket connected with the upper propellers, and means for sliding said bracket to swing the propellers laterally.

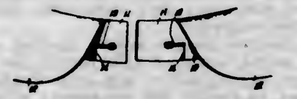
4. A flying machine embodying a frame, longitudinal shafts at opposite sides of the longitudinal center of the frame, a laterally sliding and vertically tilting bracket, propeller shafts universally jointed to said longitudinal shafts, propellers mounted on said shafts and having adjustable blades and means, including sliding sleeves, for adjusting said blades, a rod supported by the bracket and coupling the propeller shafts for movement in unison, devices for vertically tilting the bracket and propellers and sliding the bracket to swing the propellers laterally, a rock shaft supported by the bracket, means for actuating the same, and rod and crank connections between said rock shaft and the said sleeves for shifting the sleeves to adjust the propeller blades.

5. A flying machine embodying a frame, longitudinally extending shafts at opposite sides of the longitudinal center of the frame, front and rear propeller shafts universally jointed to the front and rear ends of said longitudinal shafts, front and rear propellers mounted upon the respective propeller shafts, devices at the front and rear ends of the frame for vertically tilting or laterally swinging the adjacent propellers in unison, and means for simultaneously transmitting motion to said sets of devices for adjusting the front and rear propellers in unison in a common direction.

[Claims 6 to 12 not printed in the Gazette.]

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1,039,680. COLLAR. SARAH HARRIS, (now by marriage Sarah Rosentover), New York, N. Y. Original application filed Jan. 29, 1909, Serial No. 475,035. Divided and this application filed Mar. 19, 1910. Serial No. 550,402. (Cl. 2—69.)



1. In a collar, a band, an attached turn-over top, the band provided with an underlapping extension at one end and a button shank receiving hole with a substantially straight vertical passage having closely contiguous sides and extending from the hole through the lower edge of the band.

2. In a collar, a band, an attached turn-over top, the band provided with a flap extension at one end adapted to underlap the top at the other end of the band and to be held down thereby, said extension having a button shank receiving hole therein, with a vertical passage having closely contiguous sides and extending from the hole through the lower edge of the band, the corners at the entrance to said passage being cut away.



1,039,681. GARMENT-CEMENTING MACHINE. SAMUEL LIPSON, Saugus, Mass., assignor of one-third to Harry Rosenburg and one-third to Jacob Rosenburg, Boston, Mass. Filed Sept. 8, 1911. Serial No. 648,413. (Cl. 91—30.)



1. In a cementing machine having work feeding means, a cement-delivering nozzle having a foot pivotally mounted on the lower end thereof to swing about an axis disposed transversely of the feed, adjacent the middle of the delivery end of the nozzle, said foot having a work-engaging face on its under side and a deflecting means at its front end, substantially as described.

2. In a cementing machine having work feeding means, a cement delivering nozzle having a foot pivotally mounted on the lower end thereof to swing about an axis disposed transversely of the feed, said foot having a work-engaging face on its under side and a deflecting means at its front end, and a cement spreader mounted on said foot in the rear of its delivery opening, and comprising a yielding tongue, having a transversely extending, work-engaging end portion, substantially as described.

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# REISSUES.

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13,467. WELL MECHANISM. MAHLON E. LAYNE, Houston, Tex. Filed May 17, 1912. Serial No. 698,083. Original No. 957,974, dated May 17, 1910, Serial No. 378,342. (Cl. 103—48.)



1. In combination with a centrifugal pump having inner and outer casing members, a discharge casing secured to and supporting the outer casing member, a laterally opening outlet casing thereon provided with a supporting socket, a shaft casing coupled to the socket portion and to the inner casing member, a drive shaft having a thrust bearing in the socket and extending through the shaft casing to the pump, and means for supporting the outlet casing.

2. In combination with a centrifugal pump having inner and outer casing members, a laterally opening outlet casing thereon provided with a supporting socket, a shaft casing coupled to the inner casing member and having an adjustable connection with the socket, a drive shaft having a thrust bearing in the socket and extending through the shaft casing to the pump, and means for supporting the outlet casing.

3. In combination with a centrifugal pump having inner and outer casing members, a laterally opening outlet casing provided with a supporting socket, a discharge casing secured to the outlet casing and to the outer casing member, a shaft casing coupled to the supporting socket and to the inner casing member, a drive shaft having a thrust bearing in the socket and extending through the shaft casing to the pump, and means for supporting the outlet casing.

4. In combination, a discharge casing, a laterally opening outlet casing thereon provided with a downwardly extending socket portion provided with an inwardly extending flange at its lower end, a shaft casing extending through the flange and threaded at its upper end, a nut engaging the thread end, packing between the flange and nut, a bearing block mounted in the socket portion, and means for supporting the outlet casing.

5. The combination with a discharge T having a downwardly extending socket portion, of a drive shaft extending through the socket portion and having a thrust bearing member, a bearing block mounted in the socket portion and constituting a journal for the shaft and a thrust bearing for opposing the thrust bearing member and having an oil passage extending from its upper surface to a point adjacent the journal surface, and an admission tube mounted in the upper end of the oil passage whereby the oil in the socket is maintained at a level above the thrust bearing.

6. The combination with a discharge T having a downwardly extending socket portion, of a drive shaft extending through the socket portion and having a thrust bearing member, a bearing block mounted in the socket portion and constituting a journal for the shaft and a thrust bearing for opposing the thrust bearing member and having an oil passage extending from its upper surface to a point adjacent the journal surface, packing means for the shaft adjacent the upper end of the bearing block, and an admission tube mounted in the upper end of the oil passage, whereby the oil in the socket is maintained at the level of the top of the tube.

7. The combination with a discharge casing, a shaft casing therein, and a drive shaft in the shaft casing, of a laterally opening outlet casing at the upper end of the discharge casing provided with a socket portion extending down into the body of the casing whereby such socket is surrounded by water during the discharge, a bearing for the shaft mounted in such socket, a cap secured to the outlet casing and provided with a bearing for the upper end of the drive shaft and a pulley mounted upon such shaft.

8. The combination with a discharge casing and a shaft casing, of a supporting spider comprising a pair of hinged members for encircling the shaft casing, one of which is provided with means for engaging the interior of the discharge casing, and the other of which is provided with a radially projecting set screw for engaging the interior of the discharge casing.

9. The combination with a discharge casing and a shaft casing, of a supporting spider comprising a pair of hinged members for encircling the shaft casing, one of which is provided with a pair of radial arms for engaging the interior of the discharge casing, and the other of which is provided with a radially projecting set screw for engaging the interior of the discharge casing.

10. In combination in a well mechanism, a well pit casing, a rotary pump in the well pit casing, a drive shaft therefor, substantially concentric shaft and discharge casings secured to the pump at their lower ends and supported from the well pit casing at their upper portions, and means

whereby the shaft and discharge casings may be adjusted relatively in a vertical direction to place the shaft casing under tension and maintain it in vertical alinement.

11. In combination in well mechanism for use in a vertical pit, a rotary pump comprising a casing and blades or runners, a drive shaft carrying the said blades or runners of the pump and extending upward therefrom, shaft and discharge casings placed one inside the other and secured to the pump casing at their lower ends, the said shaft casing being sectional and provided with bearing means engaging the said shaft, supporting means for the upper ends of the two casings for maintaining them in relatively fixed positions during the operation of the mechanism, and means whereby the shaft and discharge casing may be adjusted relatively in a vertical direction to place the shaft casing under tension and maintain it in vertical alinement.

12. In combination, a pump, a drive shaft therefor, a series of bearings for the shaft, a shaft casing inclosing the shaft and supporting the bearings and preventing access of the fluid while being pumped to such shaft and bearings, and a discharge casing inclosing the shaft casing whereby the fluid from the pump is carried upward in contact with the exterior of the shaft casing.

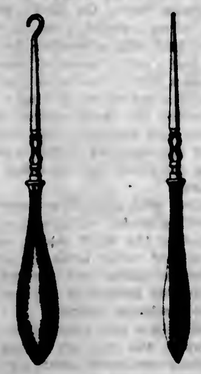
# DESIGNS.

43,030. GARMENT-SUPPORTER. AGNES S. ADAM, Washington, D. C. Filed May 14, 1912. Serial No. 697,338. Term of patent 7 years.



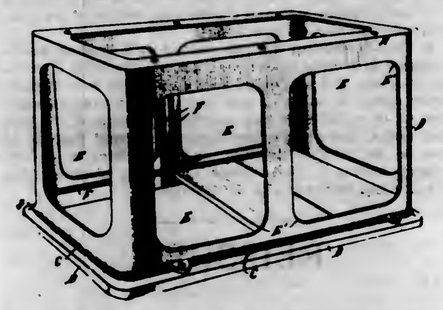
The ornamental design for a garment supporter, as shown.

43,031. HANDLE OF BUTTON-HOOKS OR SIMILAR ARTICLES. THEODORE BENDER, Providence, R. I., assignor to Gorham Manufacturing Company, Providence, R. I., a Corporation of Rhode Island. Filed June 24, 1912. Serial No. 705,668. Term of patent 7 years.



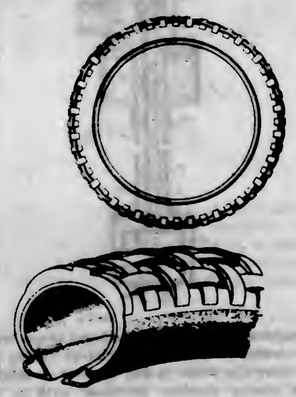
The ornamental design for a handle of a button hook or similar article, as shown.

43,032. PUMP AND ENGINE BASE. XENOPHON CAVERNO, Kewanee, Ill. Filed May 29, 1911. Serial No. 630,227. Term of patent 14 years.



The ornamental design for a pump and engine base as shown and described.

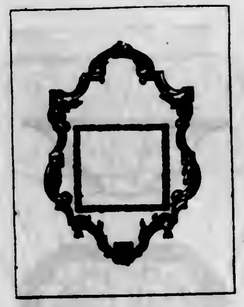
43,033. AUTOMOBILE-TIRE. THEODORE P. CLARK, Akron, Ohio. Filed May 31, 1912. Serial No. 700,854. Term of patent 3½ years.



The ornamental design for an automobile tire, as shown.



43,034. PLAQUE. CHARLES J. DIBBEN, New York, N. Y. Filed July 22, 1912. Serial No. 710,994. Term of patent 7 years.



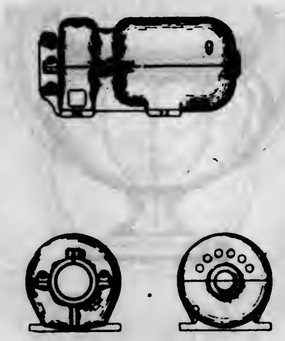
The ornamental design for a plaque, as shown.

43,035. CARPET. WILLIAM A. ELLIOT, Yonkers, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Aug. 8, 1912. Serial No. 714,139. Term of patent 7 years.



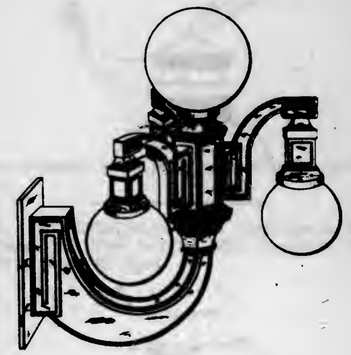
The ornamental design for a carpet, as shown.

43,036. CASING FOR DYNAMOS AND REGULATORS. WILLIAM GRAY, Amesbury, Mass. Filed Nov. 3, 1911. Serial No. 658,449. Term of patent 7 years.



The ornamental design for a casing for dynamos and regulators, as shown.

43,037. POST-BRACKET. CHARLES EDWARD GRIMM, Portland, Oreg. Filed May 20, 1912. Serial No. 700,531. Term of patent 7 years.



The ornamental design for a post bracket, as shown.

43,038. SPONGE-HOLDER. ANNA C. GUESKE, Omaha, Nebr. Filed July 31, 1912. Serial No. 712,567. Term of patent 7 years.



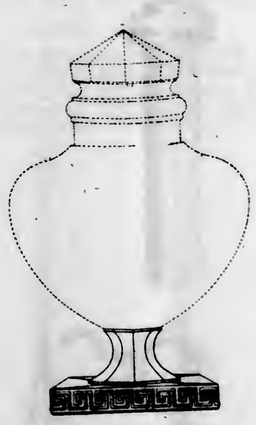
The ornamental design for a sponge-holder, as shown.

43,039. NECK AND STOPPER FOR GLASS ARTICLES. REUBEN HALEY, Beaver, Pa., assignor to United States Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 22, 1912. Serial No. 710,984. Term of patent 7 years.



The ornamental design for a neck and stopper for glass articles, as shown.

43,040. FOOT FOR GLASS ARTICLES. REUBEN HALEY, Beaver, Pa., assignor to United States Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 22, 1912. Serial No. 710,985. Term of patent 7 years.



The ornamental design for a foot for glass articles, as shown.

43,041. GLASS DISH. REUBEN HALEY, Beaver, Pa., assignor to United States Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 22, 1912. Serial No. 710,986. Term of patent 7 years.



The ornamental design for a glass dish, as shown.

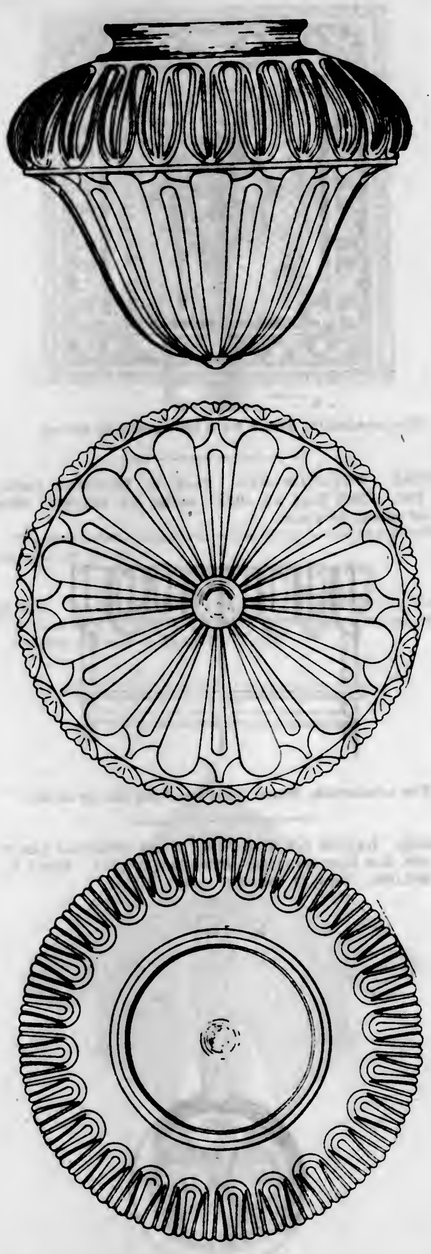
43,042. GLASS VESSEL. REUBEN HALEY, Beaver, Pa., assignor to United States Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 22, 1912. Serial No. 710,987. Term of patent 7 years.



The ornamental design for a glass vessel, as shown.



43,043. LAMP-SHADE. WILLIAM FRANK M. HAWS and HOWARD S. EVANS, Pittsburgh, Pa., assignors to Macbeth-Evans Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Sept. 30, 1911. Serial No. 652,198. Term of patent 14 years.



The ornamental design for a lamp shade, as shown.

43,044. COMBINED KNIFE AND FORK. MOSCALANUS S. HEWITT, Georgetown, Tex. Filed Mar. 25, 1912. Serial No. 686,169. Term of patent 14 years.



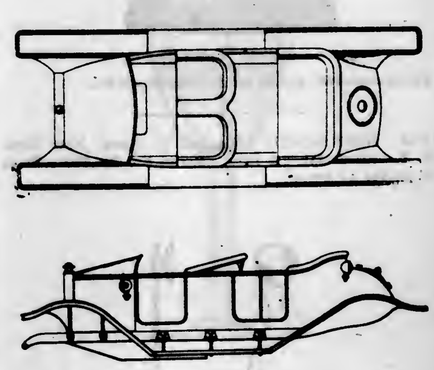
The ornamental design for a combined knife and fork as shown.

43,045. ADVERTISING-TABLET. CHARLES F. HILDEN, Oakland, Cal. Filed July 25, 1912. Serial No. 711,570. Term of patent 3½ years.



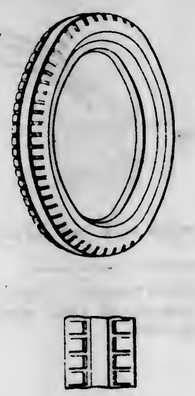
The ornamental design for an advertising tablet, as shown.

43,046. AUTOMOBILE-BODY. CHARLES F. HUFFMAN, Mason City, Iowa. Filed May 13, 1912. Serial No. 697,038. Term of patent 7 years.



The ornamental design for an automobile body, as shown.

43,047. ELASTIC TIRE FOR VEHICLES. FREDERICK H. JONES, Andover, Mass. Filed May 15, 1912. Serial No. 697,558. Term of patent 14 years.



The ornamental design for an elastic tire for vehicles, as shown.

43,048. CAP. WASHINGTON H. KILBOURN, Greenfield, Mass. Filed Mar. 29, 1912. Serial No. 687,236. Term of patent 3½ years.



The ornamental design for the cap as shown.

43,049. NOSE-GUARD. WALTER G. KING, New York, N. Y. Filed Mar. 22, 1912. Serial No. 686,590. Term of patent 14 years.



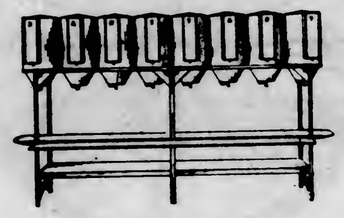
The ornamental design for a nose guard as shown.

43,050. BEDSPREAD. GEORGE B. LACKEY, New York, N. Y., assignor to International Lace Co., New York, N. Y., a Corporation of New York. Filed July 18, 1912. Serial No. 710,262. Term of patent 3½ years.



The ornamental design for a bed spread as shown.

43,051. WEIGHING-BIN. PAUL W. LAWTHER, Dallas, Tex. Filed June 11, 1912. Serial No. 703,080. Term of patent 14 years.



The ornamental design for a weighing bin, as shown.

43,052. BADGE OR EMBLEM. MARK MELVILLE LEICHTER, San Francisco, Cal. Filed Feb. 6, 1911. Serial No. 607,006. Term of patent 7 years.




The ornamental design for a badge or emblem, as shown.

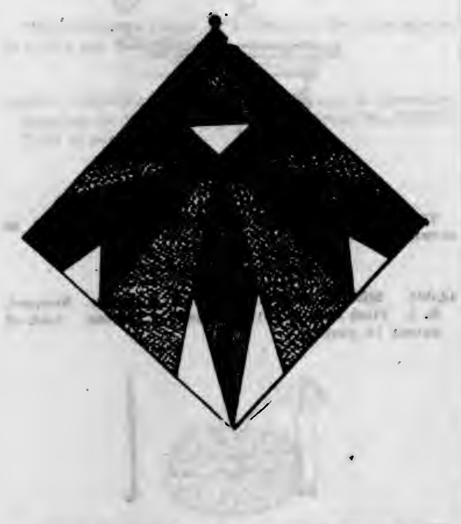


43,053. SIGNALING DEVICE AND BRACKET THEREFOR. RAY H. MASSON, Elyria, Ohio, assignor to The Dean Electric Company, Elyria, Ohio, a Corporation of Ohio. Filed Oct. 9, 1911. Serial No. 653,718. Term of patent 7 years.



The ornamental design for a signaling device and bracket therefor, as shown.

43,054. GAME-BOARD. ELMER J. MCMURTRY, New Brunswick, N. J. Filed Mar. 18, 1912. Serial No. 684,624. Term of patent 7 years.



The ornamental design for a game board, as shown.

43,055. TOILET-POWDER DISPENSER. RASMUS GRONBECK, New York, N. Y. Filed Apr. 3, 1912. Serial No. 688,306. Term of patent 7 years.



The ornamental design for a toilet powder dispenser, as shown.

43,056. GOBLET. ALBERT PICK, Chicago, Ill. Filed July 22, 1912. Serial No. 710,988. Term of patent 14 years.



The ornamental design for a goblet as shown.

43,057. GOBLET. ALBERT PICK, Chicago, Ill. Filed July 22, 1912. Serial No. 710,989. Term of patent 14 years.



The ornamental design for a goblet as shown.

43,058. GOBLET. ALBERT PICK, Chicago, Ill. Filed July 22, 1912. Serial No. 710,990. Term of patent 14 years.



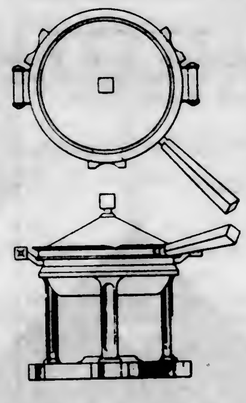
The ornamental design for a goblet as shown.

43,059. GOBLET. ALBERT PICK, Chicago, Ill. Filed July 22, 1912. Serial No. 710,991. Term of patent 14 years.



The ornamental design for a goblet as shown.

43,060. CHAFING-DISH AND STAND. CHARLES M. PRIOR and CHARLES NELSON, New York, N. Y., assignors to S. Sternau & Company, Brooklyn, N. Y., a Copartnership. Filed June 2, 1911. Serial No. 630,906. Term of patent 7 years.



The ornamental design for chafing-dish and stand, as shown and described.

43,061. METAL HOOK. ANDREW ROBINSON, Newport, R. I. Filed June 8, 1912. Serial No. 702,565. Term of patent 14 years.



The ornamental design for a metal hook, as shown and described.

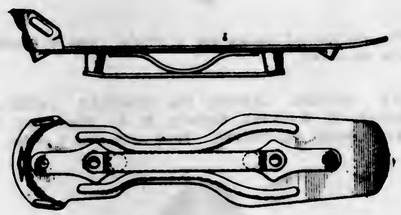


43,062. AQUARIUM. FRANCIS A. RONNEBURG, Chicago, Ill. Filed July 5, 1912. Serial No. 707,912. Term of patent 14 years.



The ornamental design for an aquarium, as shown.

43,063. FOOT-PLATE FOR ROLLER-SKATES. HOY RUNION, Springfield, Mo., assignor to Richardson Ball Bearing Skate Company, Chicago, Ill., a Corporation of Illinois. Filed June 10, 1912. Serial No. 702,895. Term of patent 7 years.



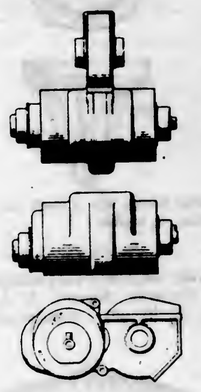
The ornamental design for a foot-plate for roller-skates, as shown and described.

43,064. VEGETABLE-MASHER. NELSON R. STEBBINS, Syracuse, N. Y. Filed July 12, 1912. Serial No. 709,074. Term of patent 7 years.



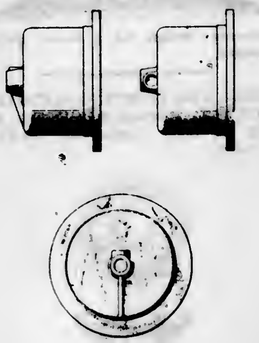
The ornamental design for a vegetable masher as shown.

43,065. ELECTRIC-HOIST CASING. HERBERT S. VALENTINE, Reading, Pa., assignor to Reading Crane & Hoist Works, Reading, Pa. Filed June 28, 1912. Serial No. 706,495. Term of patent 14 years.



The ornamental design for an electric hoist casing, as shown.

43,066. MOTOR-CASING FOR ELECTRIC HOISTS. HERBERT S. VALENTINE, Reading, Pa., assignor to Reading Crane & Hoist Works, Reading, Pa. Filed June 28, 1912. Serial No. 706,496. Term of patent 14 years.



The ornamental design for a motor casing for electric hoists, as shown.

43,067. SHELL FOR LIGHTING-FIXTURES OR SIMILAR ARTICLES. HOWARD E. WATKINS, Summit, N. J. Filed July 2, 1912. Serial No. 707,859. Term of patent 7 years.



The ornamental design for a shell for lighting fixtures or similar articles, as shown.

43,068. SHADE, GLOBE, OR SIMILAR ARTICLE. HOWARD E. WATKINS, Summit, N. J. Filed July 6, 1912. Serial No. 708,052. Term of patent 7 years.



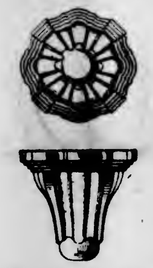
The ornamental design for a shade, globe or similar article, as shown.

43,069. SHADE, GLOBE, OR SIMILAR ARTICLE. HOWARD E. WATKINS, Summit, N. J. Filed July 6, 1912. Serial No. 708,053. Term of patent 7 years.



The ornamental design for a shade, globe or similar article, as shown.

43,070. SHELL FOR LIGHTING-FIXTURES OR SIMILAR ARTICLES. HOWARD E. WATKINS, Summit, N. J. Filed July 11, 1912. Serial No. 708,883. Term of patent 7 years.



The ornamental design for a shell for lighting fixtures or similar articles, as shown.

43,071. GLOBE OR SIMILAR ARTICLE. HOWARD E. WATKINS, Summit, N. J. Filed July 11, 1912. Serial No. 708,884. Term of patent 7 years.



The ornamental design for a globe or similar article, as shown.

43,072. SHADE, GLOBE, OR SIMILAR ARTICLE. HOWARD E. WATKINS, Summit, N. J. Filed July 11, 1912. Serial No. 708,885. Term of patent 7 years.



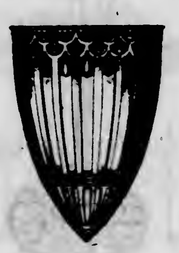
The ornamental design for a shade, globe or similar article, as shown.

43,073. SHADE, GLOBE, OR SIMILAR ARTICLE. HOWARD E. WATKINS, Summit, N. J. Filed July 11, 1912. Serial No. 708,886. Term of patent 7 years.



The ornamental design for a shade, globe or similar article, as shown.

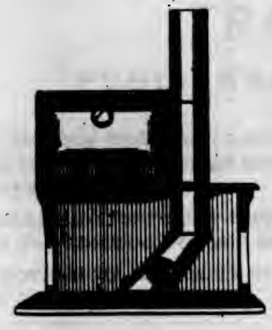
43,074. GLOBE OR SIMILAR ARTICLE. HOWARD E. WATKINS, Summit, N. J. Filed July 11, 1912. Serial No. 708,887. Term of patent 7 years.



The ornamental design for a globe or similar article, as shown.

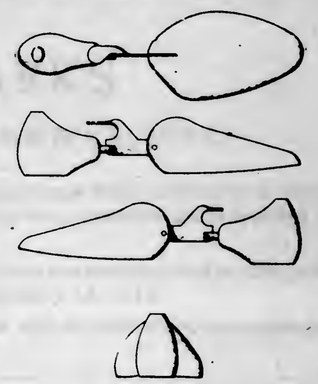


43,075. TOP FOR COAL-RANGES. FREDERICK WILL and HUGO BECKER, Rochester, N. Y., assignors to Sill Stove Works, Rochester, N. Y., a Corporation of New York. Filed May 16, 1912. Serial No. 697,804. Term of patent 14 years.



The ornamental design for a top for coal ranges, as shown.

43,076. SHOE-TREE OR SIMILAR ARTICLE. JAMES H. WOODBURY, Boston, Mass. Filed May 28, 1912. Serial No. 700,828. Term of patent 14 years.



The ornamental design for a shoe tree or similar article as shown.

# TRADE-MARKS

## PUBLISHED SEPTEMBER 24, 1912.

**The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.**

**Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.**

**As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.**

Ser. No. 34,552. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DWINELL-WRIGHT COMPANY, Boston, Mass. Filed May 2, 1908.

EXCELSIOR

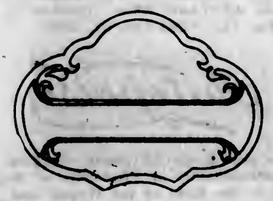
*Particular description of goods.*—Coffee.
*Claims use* since prior to 1872.

Ser. No. 35,479. (CLASS 37. PAPER AND STATIONERY.) J. C. BLAIR COMPANY, Huntingdon, Pa. Filed June 17, 1908.

DUOFOLD

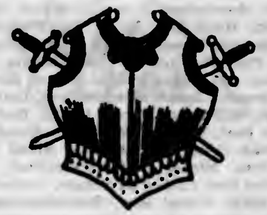
*Particular description of goods.*—Paper for Writing and Printing Purposes, Drawing-Paper, Pencil-Paper, Envelops, Writing-Tablets, Pencil-Tablets, Drawing-Tablets, Spelling-Tablets, and Blank Books.
*Claims use* since Mar. 7, 1906.

Ser. No. 37,571. (CLASS 48. MALT EXTRACTS AND LIQUORS.) EAST GRAND FORKS BWG. CO., East Grand Forks, Minn. Filed Sept. 24, 1908.



*Particular description of goods.*—Beer.
*Claims use* since August, 1902.

Ser. No. 38,362. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) VULCAN ASBESTOS MFG. CO., New York, N. Y. Filed Oct. 30, 1908.



*Particular description of goods.*—Cotton, Canvas, Flax, Asbestos Packing, and Packing Made from Admixtures Thereof.
*Claims use* since Sept. 1, 1907.

Ser. No. 39,755. (CLASS 12. CONSTRUCTION MATERIALS.) SOUTHERN WHITE LIME CO., Rogers, Ark. Filed Jan. 7, 1909.




No claim being made to the words "Southern White Lime Company," and no claim being made to the word "Brand."
*Particular description of goods.*—Lime.
*Claims use* since Apr. 1, 1908.

Ser. No. 47,879. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHEESE-A-BIT COMPANY, Oswego, N. Y. Filed Feb. 17, 1910.

CHEESE-A-BIT

*Particular description of goods.*—A Preparation for Making Welsh Rarebits.
*Claims use* since November, 1909.

Ser. No. 50,659. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MORRIS AND COMPANY, Chicago, Ill. Filed July 1, 1910. Under ten-year proviso.

SUPREME

*Particular description of goods.*—Boiled Ham, Sugar-Cured Bacon, Hams and Bacon, Sliced Bacon, Deviled Ham, Compressed Boneless Pigs' Feet, Spiced Boneless Pigs' Feet, Pigs' Feet Jellied, Lamb-Tongues, Roast Mutton Parboiled and Steam-Roasted, Roast Beef Parboiled and Steam-Roasted, Beefsteak and Onions, Beef-Loaf, Hamburger Steak, Onions and Cereal Added; Beef-Tenderloin, Sliced Dried Beef, Chipped Dried Beef, Sliced Dried Beef Insides, Sliced Dried Beef Outsides, Sliced Dried Beef, Beef-Ham Sets, Minced Beef, Brisket-Beef, Compressed Cooked Corned Beef, Cooked Ox-Tongue, Corned-Beef Hash, Roast-Beef Hash, Potted Beef, Beef-Sweetbreads, Calves' Sweetbreads, Extract of Beef, Ham and Beef Loaf, Veal, Beef, and Pork Loaf, Deviled Meat, Tongue Flavor; Meat Products and Cereal Added, Deviled Meat, Beef-Ham Flavor; Meat Products and Cereal Added, Potted Meat, Beef-Ham Flavor; Meat Products and Cereal Added, Compressed Cooked Head-Cheese, Tamale, Mexican Style; Chilli-Con-Carne, Chilli-Con-Carne Without Beans, Stewed Kidneys, Family-Tripe, Barbecue-Hash, Minced Collops, Irish-Style Stew, Picnic-Loaf, Sausage, Cereal Added; Pork Sausage, Cereal Added; Breakfast-Sausage, Cereal Added; Oxford-Style Sausage, Vienna-Style Sausage, Cereal Added, with Tomato Sauce; Picnic-Tongues, Cooked Lunch-Tongue, Deviled Tongue, Potted Tongue, Pure Lard, Shortening—Refined Cotton-Seed Oil and Beef-Stearin; Process-Butter, Eggs, Candied Eggs.
*Claims use* since January, 1890.

Ser. No. 52,087. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE DENTISTS' SUPPLY COMPANY, New York, N. Y. Filed Sept. 20, 1910.



*Particular description of goods.*—Artificial Teeth.
*Claims use* since Sept. 15, 1910.

Ser. No. 52,270. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE VITRO MANUFACTURING COMPANY, Pittsburgh, Pa. Filed Oct. 14, 1910.



*Particular description of goods.*—Oxid of Tin and other Metallic Oxids, Enameling and Ceramic Colors, Ready-Prepared Enamels, and Ingredients for Enamels and Glazes.
*Claims use* since Feb. 2, 1906.

Ser. No. 52,703. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) THE LONG GRATE BAR COMPANY, Buffalo, N. Y. Filed Nov. 10, 1910.




The words and numerals "2 Grates in 1," appearing on the face of the triangular figure, being disclaimed.
*Particular description of goods.*—Furnace and Stove Grates.
*Claims use* since July 15, 1910.

Ser. No. 53,435. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THOMAS C. JACKSON, Philadelphia, Pa. Filed Dec. 22, 1910.

Autopoise

*Particular description of goods.*—Surgical Appliance Operating Independently of Electricity or Magnetism, to be Attached to the Body of the Wearer and Adapted to Open the Pores of His Skin and other Organs to Increase the Supply of Oxygen in the Body.
*Claims use* since Oct. 1, 1910.





Ser. No. 54,019. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE FORT SCOTT SORGHUM SYRUP CO., Fort Scott, Kans. Filed Jan. 23, 1911.




No claim being made to the words "Honey" and "Bee."
*Particular description of goods.*—Honey.
*Claims use* since Sept. 25, 1905.

Ser. No. 54,147. (CLASS 37. PAPER AND STATIONERY.) PIERCE BROS., Chicago, Ill. Filed Jan. 27, 1911.



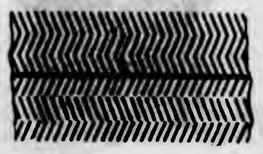
*Particular description of goods.*—Wrapping-Paper.
*Claims use* since Dec. 22, 1910.

Ser. No. 55,363. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) JOHN R. LENFESTEY, Chicago, Ill. Filed Mar. 27, 1911.

Advertypes

No claim being made to the word "Types."
*Particular description of goods.*—Printing-Plates.
*Claims use* since Mar. 1, 1911.

Ser. No. 56,175. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) CONTINENTAL RUBBER WORKS, Erie, Pa. Filed May 4, 1911.



*Particular description of goods.*—Single-Tube Rubber Tires.
*Claims use* since July 1, 1904.

Ser. No. 57,459. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) THE P. & M. CO., Chicago, Ill. Filed July 3, 1911.

P & M

*Particular description of goods.*—Metal Rail-Anchors, Anticreepers, Tie-Plate, Splice-Bar, Guard-Rail Clamps, and Rail-Bonds.
*Claims use* since 1906.

Ser. No. 57,467. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) WM. ENDERS MANUFACTURING COMPANY, Walden, N. Y., and St. Louis, Mo. Filed July 5, 1911.

OAK LEAF

*Particular description of goods.*—Shingling-Gages, Marking-Gages, Butt-Gages, Bit-Gages, Panel-Gages, Trammel-Points, Wire-Gages, Screw-Pitch Gages, Bevel-Protractors, Combination-Squares, Speed-Indicators, Umpire-Indicators, Scale-Beams, Plumbs and Levels, Boxwood Rules, Folding Rules, Ivory Rules, Board and Log Rules, Squares, Sliding T-Bevels, Tape-Lines, Pencil-Compasses, Dividers, Calipers, Lengthening Bars, Ruling-Pens, Rules, Triangles, Protractors, Scales, Spring-Balances, and Scale-Beam Poises.
*Claims use* since May 26, 1911.

Ser. No. 57,577. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) MILLARD F. WINDSOR, Buffalo, N. Y. Filed July 11, 1911.

BISON



*Particular description of goods.*—Soap Powders.
*Claims use* since May, 1911.

Ser. No. 57,602. (CLASS 2. BAGGAGE, HORSE EQUIPMENT, PORTFOLIOS, AND POCKET-BOOKS.) HENRY LIKLY & COMPANY, Rochester, N. Y. Filed July 12, 1911.



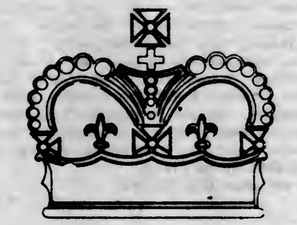
*Particular description of goods.*—Trunks, Traveling-Bags, Suit-Cases, Portfolios, Pocket-Books, and Traveling-Cases.
*Claims use* since Jan. 1, 1904.

Ser No. 58,141. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JAY V. DANIELS, Chicago, Ill. Filed Aug. 11, 1911.

**Mercolized**

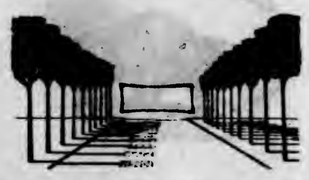
*Particular description of goods.*—An Ointment or Cream for the Complexion.
*Claims use* since Apr. 1, 1911.

Ser. No. 58,491. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) PAGE BELTING COMPANY, Concord, N. H. Filed Aug. 31, 1911.



*Particular description of goods.*—Leather Belting, Rawhide Belting, Round Leather Belting, Rawhide Round Belting, Rubber Belting, Rawhide Rope Belting, Canvas Belting, Leather Fillet, Rubber Hose, Rubber Steam-Packing, and Rubber Sheet-Packing.
*Claims use* since January, 1889.

Ser. No. 58,773. (CLASS 37. PAPER AND STATIONERY.) SALUBRA WALL-COVER COMPANY BASLE, Basel, Switzerland. Filed Sept. 21, 1911.



*Particular description of goods.*—Wall-Coverings of Paper.
*Claims use* since Apr. 11, 1902.

Ser. No. 59,076. (CLASS 24. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) THE HAWTHORNE MANUFACTURING COMPANY, INCORPORATED, Bridgeport, Conn. Filed Oct. 9, 1911.

**OLD SOL**

*Particular description of goods.*—Bicycle, Motor-Cycle, Automobile, and Carriage Acetylene-Lamps.
*Claims use* since Oct. 1, 1910.

Ser. No. 60,024. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) OUTCAULT ADVERTISING CO., Chicago, Ill. Filed Dec. 1, 1911.



*Particular description of goods.*—Fresh Apples.
*Claims use* since Nov. 1, 1911.

Ser. No. 60,312. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE STAR RUBBER CO., Akron, Ohio. Filed Dec. 18, 1911.



*Particular description of goods.*—Foot-Ball Bladders, Toy Balloons, and Punching-Bag Bladders.
*Claims use* since 1908.

Ser. No. 60,534. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALLEN J. DOWNEY, San Gabriel, Cal. Filed Jan. 2, 1912.



*Particular description of goods.*—Remedies for Rheumatism.
*Claims use* since Dec. 18, 1911.





Ser. No. 60,676. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) AKTIESELSKABET DE DANSKE SPRITFABRIKKER, Copenhagen, Denmark. Filed Jan. 8, 1912.




Applicant disclaims the words "Medailler for Sprit Akvavit og Brændevin, Rectificeret Fuselfri Filtreret Taffel Akvavit Actieselskabet De Danske Spritfabrikker Aalborg" as being part of the trade-mark.
*Particular description of goods.*—Brandy Known as "Aqua-Vitæ."
*Claims use* since Aug. 9, 1881.

Ser. No. 60,693. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) BISSELL VACUUM VIBRATOR COMPANY, Seattle, Wash. Filed Jan. 9, 1912.



A fanciful picture of a woman, in nurse's costume, standing near a pedestal-lavatory, holding a vibrator in her hands.
*Particular description of goods.*—Massage Apparatus and Mechanical Appliances for Producing Vibrations and Vacuum.
*Claims use* since Dec. 1, 1911.

Ser. No. 60,772. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) VICTOR MILLING CO., Victor, N. Y. Filed Jan. 12, 1912.



*Particular description of goods.*—Wheat-Flour.
*Claims use* since Nov. 24, 1911.

Ser. No. 60,880. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) CALVIN FROELY, Pottstown, Pa. Filed Jan. 18, 1912.

**Red Rock**

*Particular description of goods.*—Natural Spring-Water.
*Claims use* since Aug. 25, 1905.

Ser. No. 60,984. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) THE GUM TRAGASOL SUPPLY COMPANY LIMITED, Hooton, County of Chester, England. Filed Jan. 23, 1912.

**CUTILOID**

*Particular description of goods.*—Sizing, Dressing, and Finishing Fabrics and Materials, a Mucilaginous Product of Vegetable Origin.
*Claims use* since about June 20, 1910.

Ser. No. 61,116. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HOWARD BROS. CHEMICAL CO., Buffalo, N. Y. Filed Jan. 29, 1912. Under ten-year proviso.




*Particular description of goods.*—Eye-Salve.
*Claims use* since Jan. 1, 1847.

Ser. No. 61,245. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) O. MUSTAD & SÖN, Cristiania, Norway. Filed Feb. 3, 1912.




The word "Brand" and the representations of the nails being disclaimed.

*Particular description of goods.*—Horseshoe-Nails.
*Claims use* since Nov. 7, 1911.

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Ser. No. 61,273. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) VEREINIGTE CHININFABRIKEN ZIMMER & CO. GES. MIT BESCHRÄNKTER HAFTUNG, Frankfort-on-the-Main, Germany. Filed Feb. 5, 1912.

Aponal

*Particular description of goods.*—A Soporific Preparation.
*Claims use* since Aug. 21, 1911.

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Ser. No. 61,447. (CLASS 38. PRINTS AND PUBLICATIONS.) ARTHUR ARNOLD ARMINGTON, Providence, R. I. Filed Feb. 12, 1912.



*Particular description of goods.*—Designs, Drawings, Illustrations, Circulars, Catalogues, Posters, and Advertising-Placards.
*Claims use* since Feb. 21, 1902.

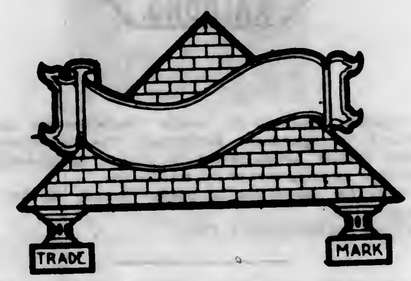
Ser. No. 61,606. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) JÖNKÖPING OCH VULCANS TÄNDSTICKSFABRIKSAKTIEBOLAG, Jönköping, Sweden. Filed Feb. 23, 1912.




*Particular description of goods.*—Matches.
*Claims use* since June 27, 1898.

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Ser. No. 61,718. (CLASS 12. CONSTRUCTION MATERIALS.) BANGOR SLATE ASSOCIATION, INC., Bangor, Pa. Filed Feb. 26, 1912.




No claim being made to the words "Genuine Bangor" and "Trade Mark."

*Particular description of goods.*—Roofing and Structural Slate.
*Claims use* since Feb. 19, 1912.

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Ser. No. 61,770. (CLASS 30. CROCKERY, EARTHENWARE, AND PORCELAIN.) HOMER LAUGHLIN CHINA CO., Newell, W. Va. Filed Feb. 27, 1912. Under ten-year proviso.




*Particular description of goods.*—Chinaware.
*Claims use* since 1879.

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Ser. No. 61,813. (CLASS 38. PRINTS AND PUBLICATIONS.) WILLIAM L. DEMING, Salem, Ohio. Filed Feb. 29, 1912.

KUMBAK

*Particular description of goods.*—Identification-Tags.
*Claims use* since about Feb. 15, 1912.





Ser. No. 61,824. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MICHAEL J. DUNN, Pottsville, Pa. Filed Feb. 29, 1912.

MARVELOUS CLEANER



The words "Marvelous Cleaner" being disclaimed.

*Particular description of goods.*—A Disinfectant and Cleaner for Carpets, Clothing, Upholstered Furniture, Harness, Dogs, Cattle, and as a Vermin-Destroyer.
*Claims use* since January, 1912.

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Ser. No. 62,105. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) GAUDEL & THOMPSON, Kansas City, Mo. Filed Mar. 11, 1912.




*Particular description of goods.*—Furniture and Woodwork Polishes.
*Claims use* since Mar. 1, 1912.

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Ser. No. 62,231. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HOWARD BROS. CHEMICAL CO., Buffalo, N. Y. Filed Mar. 18, 1912. Under ten-year proviso.




*Particular description of goods.*—Pile Remedy.
*Claims use* since Jan. 18, 1889.

Ser. No. 62,297. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HOWARD BROS. CHEMICAL CO., Buffalo, N. Y. Filed Mar. 20, 1912. Under ten-year proviso.



*Particular description of goods*—Eye-Salve.
*Claims use* since 1878.

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Ser. No. 62,555. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AMERICAN TABLET CO., New York, N. Y. Filed Apr. 1, 1912.

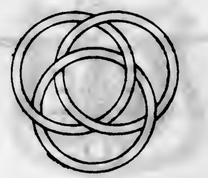


The panels being red and green, as shown, exclusive use of the word "Pastillas" being disclaimed.

*Particular description of goods.*—A Remedy for Simple, Remittent, and Intermittent Fevers, Coughs, Colds, Catarrh, Influenza, Headache, Malaria, and Sore Throat.
*Claims use* since June 15, 1909.

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Ser. No. 62,659. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE CUNARD MOTOR AND CARRIAGE COMPANY LIMITED, London, England. Filed Apr. 4, 1912.



*Particular description of goods.*—Motor-Cars, Motor-Car Bodies of Wood, and Motor-Car Bodies of Metal.
*Claims use* since August, 1911.

Ser. No. 62,851. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) FLORENCE IRON WORKS, Florence, N. J. Filed Apr. 11, 1912.

"REDUCED"

*Particular description of goods.*—Pipe-Fittings Embracing T's, Crosses, Bends, Sleeves, Caps, and Eccentric-Couplings.
*Claims use* since June 20, 1911.

Ser. No. 63,025. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HARGIN MFG. COMPANY, Minneapolis, Minn. Filed Apr. 20, 1912.

HARGIN

No claim being made to the words "Is Health."
*Particular description of goods.*—A Kidney Remedy.
*Claims use* since Apr. 1, 1912.

Ser. No. 63,040. (CLASS 17. TOBACCO PRODUCTS.) THE INTER-STATE NEWS COMPANY, Portland, Me., and New York, N. Y. Filed Apr. 22, 1912.

QUALITY THE I-S.N.CO. SERVICE

No claim being made to the words "Quality" and "Service."
*Particular description of goods.*—Cigars, Cigarettes, and Smoking-Tobaccos.
*Claims use* since Nov. 1, 1911.

Ser. No. 63,136. (CLASS 37. PAPER AND STATIONERY.) WESTERN ENGRAVING & EMBOSSING CO., Chicago, Ill. Filed Apr. 25, 1912.

E E C

*Particular description of goods.*—Correspondence-Paper, Envelops, and Calling-Cards and Paper-Lace Doilies.
*Claims use* since Mar. 1, 1912.

Ser. No. 63,151. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) COLGATE & Co., Jersey City, N. J., and New York, N. Y. Filed Apr. 26, 1912.

SPLENDOR

*Particular description of goods*—Liquid and Powdered Perfumes.
*Claims use* since Apr. 17, 1912.

Ser. No. 63,270. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) OGNA & Co., Milan, Italy. Filed May 8, 1912.




*Particular description of goods.*—Non-Alcoholic Beverages Flavored, Respectively, with Peppermint, Mandarin, Chincona, Chartreuse, Anisette, and Felsina Bitter.
*Claims use* since Feb. 14, 1912.

Ser. No. 63,385. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ABEL & ASHER CO., Shreveport, La. Filed May 7, 1912.

DERRICK

*Particular description of goods.*—Coffee.
*Claims use* since Apr. 16, 1912.

Ser. No. 63,395. (CLASS 38. PRINTS AND PUBLICATIONS.) INTERNATIONAL CATHOLIC TRUTH SOCIETY, Brooklyn and New York, N. Y. Filed May 7, 1912.

TRUTH

*Particular description of goods.*—Religious Periodicals or Newspapers.
*Claims use* since August, 1897.





Ser. No. 63,504. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) HOOD RUBBER CO., Boston, Mass. Filed May 13, 1912.

ARROW

*Particular description of goods.*—Rubber or Cushion Tires for Vehicles.
*Claims use* since Apr. 10, 1896.

Ser. No. 63,641. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JAMES C. BOURLAND, Houston, Tex. Filed May 20, 1912.



Consisting of the portrait and facsimile signature of the applicant.
*Particular description of goods.*—Medicated-Salt Blocks for Stock Use.
*Claims use* since May 11, 1912.

Ser. No. 63,737. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JENNIE HENDERSON, Springfield, Ill. Filed May 23, 1912.




*Particular description of goods.*—A Remedy for Asthma.
*Claims use* since Apr. 27, 1912.

Ser. No. 63,848. (CLASS 37. PAPER AND STATIONERY.) THE CUSHMAN & DENISON MANUFACTURING COMPANY, New York, N. Y. Filed May 28, 1912.

CROWN

*Particular description of goods.*—Paper-Fasteners.
*Claims use* since June 18, 1907.

Ser. No. 63,896. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) Q. R. S. COMPANY, Chicago, Ill. Filed May 31, 1912.

Mastrol

*Particular description of goods.*—Perforated Note-Sheets for Automatic Musical Instruments.
*Claims use* since Feb. 9, 1912.

Ser. No. 63,897. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) Q. R. S. COMPANY, Chicago, Ill. Filed May 31, 1912.

Artistograph

*Particular description of goods.*—Perforated Note-Sheets for Automatic Musical Instruments
*Claims use* since Feb. 9, 1912.

Ser. No. 63,899. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) Q. R. S. COMPANY, Chicago, Ill. Filed May 31, 1912.

Mastergraph

*Particular description of goods.*—Perforated Note-Sheets for Automatic Musical Instruments.
*Claims use* since Feb. 9, 1912.

Ser. No. 63,962. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) ALFRED E. NORRIS, Philadelphia, Pa. Filed June 4, 1912. Under ten-year proviso.

GARRICK CLUB

*Particular description of goods*—A Blend of Whiskies.
*Claims use* since Nov. 11, 1886.

Ser. No. 64,022. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) AMERICAN IRON AND STEEL MANUFACTURING COMPANY, Lebanon, Pa. Filed June 6, 1912.

A

*Particular description of goods.*—Structural Forgings, Bar-Iron, and Bar-Steel.
*Claims use* since August, 1911.

Ser. No. 64,061. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WARSHAW BROTHERS, New York, N. Y. Filed June 6, 1912.

MIKADO

*Particular description of goods*—Hair-Tonic.
*Claims use* since Jan. 1, 1912.

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Ser. No. 64,078. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ONOLA COMPANY, New York, N. Y. Filed June 8, 1912.




The portrait shown being that of Virginia Heynen.
*Particular description of goods.*—Products of Oil or Preparations Containing Such Products for Use in the Treatment of Mucous Membrane, Nasal and Laryngeal Affections, and as an Application to Inflamed Surfaces and for Chafing, Sunburn, Chapped or Fissured Surfaces, Cuts, and Bruises.
*Claims use* since May 4, 1912.

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Ser. No. 64,115. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) E. WERTHEIMER & CIE., Paris, France. Filed June 11, 1912. Under ten-year proviso.




*Particular description of goods.*—Toilet Powders.
*Claims use* since Jan. 3, 1879.

Ser. No. 64,126. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE UTRECHT BEDDING CY, "GRIENDT BROTHERS," LTD., Utrecht, Netherlands. Filed June 11, 1912.



*Particular description of goods.*—Artificial Butter, (Oleomargarin.)
*Claims use* since June, 1907.

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Ser. No. 64,131. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PETER A JOYCE, Detroit, Mich. Filed June 12, 1912.

P. A. J.

*Particular description of goods.*—Salves for Sores, Cuts, Bruises, Burns, and All Diseases of the Skin.
*Claims use* since Feb. 26, 1909.

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Ser. No. 64,200. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) NEWMAN ICE & COAL CO., Helena, Ark. Filed June 15, 1912.



Disclaiming the word "Coal."
*Particular description of goods.*—Coal.
*Claims use* since Feb. 1, 1906.

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Ser. No. 64,221. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WM. H. BROWN & BRO. CO., Baltimore, Md. Filed June 15, 1912.

JAP-O-NITA

*Particular description of goods.*—Talcum Powder, Sachet-Powders, Cold-Creams, and Perfumes.
*Claims use* since May, 1909.





Ser. No. 64,220. (CLASS 32. FURNITURE AND UPHOLSTERY.) RAMSEY, ALTON MANUFACTURING COMPANY, Portland, Mich. Filed June 17, 1912.




The words "Oak Craft" and Ramsey-Alton Mfg. Co." being expressly disclaimed as forming no part of said trade-mark.
*Particular description of goods.*—Morris Chairs, Rockers, Arm-Chairs, Dining-Tables, Davenports, and Footstools.
*Claims use* since Jan. 1, 1912.

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Ser. No. 64,238. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JOSEPH R. LESSON, Newton, Mass. Filed June 20, 1912.

Lesson

Which consists of the name "Lesson," being a part of the signature of and in the handwriting of Joseph R. Lesson.
*Particular description of goods.*—Winding-Machines for Winding Yarn and Thread in Cones, Cops, Bobbins, and Packages.
*Claims use* since June 12, 1912.

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Ser. No. 64,269. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) SEDGWICK MACHINE WORKS, New York, N. Y. Filed June 21, 1912. Under ten-year proviso.

SEDGWICK

*Particular description of goods.*—Freight and Passenger Elevators, Hoists, Cranes, Lifts, Dumb-Waiters, and Cars, Hoisting-Gear, Counterweights, and Guide-Rods for the Same.
*Claims use* since about 1892.

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Ser. No. 64,436. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) AEOLIAN COMPANY, Meriden, Conn.; Garwood, N. J., and New York, N. Y. Filed June 27, 1912.

VOTOGRAPHIC

*Particular description of goods.*—Perforated Music-Rolls.
*Claims use* since Dec. 24, 1911.

Ser. No. 64,443. (CLASS 37. PAPER AND STATIONERY.) EAGLE PENCIL COMPANY, New York, N. Y. Filed June 27, 1912.

SNAP SHOT

*Particular description of goods.*—Lead-Pencils and Fountain-Pens.
*Claims use* since May 27, 1912.

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Ser. No. 64,502. (CLASS 27. HOROLOGICAL INSTRUMENTS.) ROBT. H. INGERSOLL & BRO., New York, N. Y. Filed July 1, 1912.

JUNIOR

*Particular description of goods.*—Watches and Clocks.
*Claims use* since March, 1908.

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Ser. No. 64,503. (CLASS 27. HOROLOGICAL INSTRUMENTS.) ROBT. H. INGERSOLL & BRO., New York, N. Y. Filed July 1, 1912.

YANKEE

*Particular description of goods.*—Watches and Clocks.
*Claims use* since 1896.

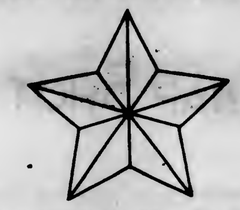
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Ser. No. 64,530. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MASO BROTHERS, Washington, D. C. Filed July 2, 1912.




*Particular description of goods.*—Coffee.
*Claims use* since Apr. 27, 1912.

Ser. No. 64,561. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) KNUPPEL & BEEBE COMPANY, Hoboken, N. J. Filed July 3, 1912.



*Particular description of goods.*—Draftsman's Tools—Namely, Triangles, Straight-Edges, T-Squares, Curves, Rules, Scales, Drawing-Boards, Protractors, and Pantographs.
*Claims use* since December, 1903.

Ser. No. 64,601. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) GOODELL-PRATT COMPANY, Greenfield, Mass. Filed July 6, 1912. Under ten-year proviso.




*Particular description of goods.*—Spirit-Levels.
*Claims use* since 1869.

Ser. No. 64,610. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) FRITZ GÜNTTLER, Frankfort-on-the-Main, Germany. Filed July 8, 1912.




*Particular description of goods.*—Paper-Comminuting Machines.
*Claims use* since Apr. 1, 1912.

Ser. No. 64,643. (CLASS 28. JEWELRY AND PRECIOUS METAL WARE.) JOSEPH H. MEYER BROS., New York, N. Y. Filed July 10, 1912.

Richelieu

*Particular description of goods.*—Artificial Pearls.
*Claims use* since Apr. 15, 1911.

Ser. No. 64,696. (CLASS 26. MUSICAL INSTRUMENTS AND SUPPLIES.) COLUMBIA PHONOGRAPH COMPANY GENERAL, Washington, D. C. Filed July 12, 1912.



*Particular description of goods.*—Machines for Recording Dictation, Machines for Reproducing Dictation or other Sounds from Sound-Records Thereof, and Machines for Shaving Sound-Records.
*Claims use* since June 7, 1912.

Ser. No. 64,696. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) A. COMA, INC., San Francisco, Cal. Filed July 12, 1912.




No claim being made to the flag.
*Particular description of goods.*—Blended Whisky.
*Claims use* since Apr. 1, 1910.

Ser. No. 64,725. (CLASS 26. MUSICAL INSTRUMENTS AND SUPPLIES.) THE BALDWIN COMPANY, Cincinnati, Ohio. Filed July 15, 1912.

St. Regis

*Particular description of goods.*—Pianos and Player-Pianos.
*Claims use* since Apr. 1, 1912.

Ser. No. 64,726. (CLASS 26. MUSICAL INSTRUMENTS AND SUPPLIES.) THE BALDWIN COMPANY, Cincinnati, Ohio. Filed July 15, 1912.

Kremlin

*Particular description of goods.*—Pianos and Player-Pianos.
*Claims use* since May 23, 1912.





Ser. No. 64,757. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CHEMICAL FIRE EXTINGUISHER CO., Newark, N. J. Filed July 16, 1912.

Red Devil

*Particular description of goods.*—Fire-Extinguishers.
*Claims use* since August, 1911.

Ser. No. 64,801. (CLASS 37. PAPER AND STATIONERY.) GEO. W. WHEELWRIGHT PAPER COMPANY, Boston, Mass. Filed July 18, 1912.

BPF

*Particular description of goods.*—Writing and Printing Paper and Bristol-Board.
*Claims use* since Apr. 25, 1912.

Ser. No. 64,837. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE LUNKENHEIMER COMPANY, Cincinnati, Ohio. Filed July 20, 1912. Under ten-year proviso.



*Particular description of goods.*—Pressure-Regulators, Water-Columns, Cocks, Nozzles, Valves, and Unions.
*Claims use* since Feb. 20, 1905.

Ser. No. 64,916. (CLASS 15. OILS AND GREASES.) GUSTAVE F. SCHMIDT, Chicago, Ill. Filed July 25, 1912.

Vacogen

*Particular description of goods.*—A Certain Kind of Oil Made Out of Natural Gas by Condensation and Refrigeration, Embodying a Secret Process, Which Oil Has All the Properties of High-Grade Gasolene for Use in Gasolene-Gas-Generating Machines, Carburetors, and the Like.
*Claims use* since early in the fall of 1911.

Ser. No. 64,939. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) THE FRUIT JUICE COMPANY, LTD., New York, N. Y. Filed July 26, 1912.



*Particular description of goods.*—Fruit-Juices and Potable Derivatives from Fruit.
*Claims use* since May 31, 1912.

Ser. No. 64,941. (CLASS 37. PAPER AND STATIONERY.) TOWER MANUFACTURING & NOVELTY CO., New York, N. Y. Filed July 26, 1912.

TEMCO

*Particular description of goods.*—Pencils, Fountain-Pens, Writing-Pens, Penholders, Envelops, Rubber Bands, and Pencil-Sharpening Machines.
*Claims use* since June 1, 1912.

Ser. No. 64,942. (CLASS 37. PAPER AND STATIONERY.) TOWER MANUFACTURING & NOVELTY CO., New York, N. Y. Filed July 26, 1912.

REWOT

*Particular description of goods.*—Fountain-Pens, Pencils, Writing-Pens, Envelops, and Rubber Bands.
*Claims use* since June 20, 1912.

Ser. No. 64,965. (CLASS 15. OILS AND GREASES.) STANDARD OIL COMPANY OF NEW YORK, New York, N. Y. Filed July 27, 1912.

SPIRITAX

*Particular description of goods.*—Benzin, Naphtha, and Gasolene.
*Claims use* since July 16, 1912.

Ser. No. 64,968. (CLASS 37. PAPER AND STATIONERY.) EBERHARD FABER, West New Brighton and New York, N. Y. Filed July 27, 1912.

SANITA

*Particular description of goods.*—Lead-Pencils.
*Claims use* since May 10, 1912.

Ser. No. 64,970. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) U. H. DUDLEY & COMPANY, New York, N. Y. Filed July 27, 1912.

OSTRICH



*Particular description of goods.*—Dates.
*Claims use* since July 15, 1912.

Ser. No. 65,113. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) ELLIOTT PERRY, Philadelphia, Pa. Filed Aug. 5, 1912.

Thinolene

*Particular description of goods.*—Reducers or Thinners for Paints and Varnishes.
*Claims use* since July 1, 1912.

Ser. No. 65,159. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) JOHN CHATILLON & SONS, New York, N. Y. Filed Aug. 8, 1912.

APPROVED TYPE 33 SERIAL H NEW YORK CITY

The words "Approved Type, New York City, Serial," the letter "H," and the numeral "33," shown on the drawing, being disclaimed.
*Particular description of goods.*—Weighing-Scales.
*Claims use* since May 15, 1912.

Ser. No. 65,169. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) JOHN CHATILLON & SONS, New York, N. Y. Filed Aug. 8, 1912.

APPROVED TYPE · SERIAL · NEW YORK CITY

The words "Approved Type, New York City, Serial," the letter "H," and the numeral "33," shown on the drawing, being disclaimed.
*Particular description of goods.*—Weighing-Scales.
*Claims use* since May 15, 1912.

Ser. No. 65,170. (CLASS 28. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) SAMUEL M. JENKINS, Louisville, Ky. Filed Aug. 9, 1912.

GR

*Particular description of goods.*—Lubricating Apparatus.
*Claims use* since Apr. 15, 1912.

Ser. No. 65,201. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) SOCIETE FRANCAISE DES FILMS ET CINEMATOGRAPHS ECLAIR, New York, N. Y. Filed Aug. 12, 1912.

*UNIVERSAL*

*Particular description of goods.*—Moving-Picture Films.
*Claims use* since July 1, 1912.

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# TRADE-MARKS

## REGISTERED SEPTEMBER 24, 1912.

88,441. PRESSURE-GAGES. THE ALLEN AUTO SPECIALTY CO., New York, N. Y.
Filed May 13, 1911. Serial No. 56,345. PUBLISHED JULY 23, 1912.

88,442. VACUUM CLEANING APPARATUS. AMERICAN RADIATOR COMPANY, Chicago, Ill.
Filed May 31, 1912. Serial No. 63,919. PUBLISHED JULY 23, 1912.

88,443. STAMP AND TICKET VENDING MACHINES. AMERICAN STAMP & TICKET VENDING MACHINE CO., Worcester, Mass.
Filed May 31, 1912. Serial No. 63,907. PUBLISHED JULY 23, 1912.

88,444. SUGAR. THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J.
Filed January 12, 1912. Serial No. 60,751. PUBLISHED JULY 23, 1912.

88,445. CONCENTRATED FRESH FRUITS AND FRUIT-JUICES FOR FLAVORING PURPOSES. THE ANGELUS COMPANY, Pasadena, Cal.
Filed January 29, 1912. Serial No. 61,129. PUBLISHED JULY 23, 1912.

88,446. CANNED SALMON. ASTORIA & PUGET SOUND CANNING CO., Bellingham, Wash.
Filed June 3, 1912. Serial No. 63,943. PUBLISHED JULY 23, 1912.

88,447. CANNED SALMON. ASTORIA & PUGET SOUND CANNING CO., Bellingham, Wash.
Filed June 3, 1912. Serial No. 63,946. PUBLISHED JULY 23, 1912.

88,448. MATTRESSES. ATHENS MATTRESS AND SPRING BED CO., Athens, Ga.
Filed June 1, 1912. Serial No. 63,937. PUBLISHED JULY 16, 1912.

88,449. RAZORS, BLADES, KNIVES, FILES, AND SCISSORS. AUTO STROP SAFETY RAZOR CO., New York, N. Y.
Filed June 19, 1912. Serial No. 64,270. PUBLISHED JULY 23, 1912.

88,450. TALCUM POWDER. A. P. BABCOCK COMPANY, New York, N. Y.
Filed April 5, 1912. Serial No. 62,665. PUBLISHED JULY 23, 1912.

88,451. COLLAR-BUTTONS. BACK-RACK COLLAR BUTTON CO., Providence, R. I.
Filed May 11, 1912. Serial No. 63,475. PUBLISHED JULY 23, 1912.

88,452. SPECIALLY-PREPARED PITCH FOR CERTAIN NAMED CONSTRUCTION PURPOSES. BARRETT MANUFACTURING COMPANY, New York, N. Y.
Filed August 23, 1911. Serial No. 58,243. PUBLISHED JULY 23, 1912.

88,453. ODOMETERS. FRITZ BAUMGARTNER, Cleveland, Ohio.
Filed June 1, 1912. Serial No. 63,931. PUBLISHED JULY 23, 1912.

88,454. SALVE FOR DERMATOLOGICAL PURPOSES. DR. BAYER & ZIESS, Budapest, Austria-Hungary.
Filed January 3, 1912. Serial No. 60,587. PUBLISHED JULY 16, 1912.

88,455. CHEWING-GUM. THE BEE BEE CONFECTION CO., Dayton, Ohio.
Filed May 17, 1912. Serial No. 63,609. PUBLISHED JULY 23, 1912.

88,456. SOAPS. ALLEN BELL & COMPANY, Knoxville, Tenn.
Filed January 31, 1912. Serial No. 61,162. PUBLISHED JULY 9, 1912.

88,457. PIANOS AND PIANO-PLAYERS. GEO. P. BENT COMPANY, Chicago, Ill.
Filed December 20, 1909. Serial No. 46,621. PUBLISHED JULY 23, 1912.

88,458. OINTMENT. BIG SPRING MFG. CO., Mewville, Pa.
Filed March 21, 1912. Serial No. 62,316. PUBLISHED JULY 16, 1912.

88,459. PAPER, ENVELOPS, TABLETS, AND BLANK BOOKS. J. C. BLAIR COMPANY, Huntingdon, Pa.
Filed June 15, 1911. Serial No. 57,047. PUBLISHED JULY 23, 1912.

88,460. PAPER, ENVELOPS, TABLETS, AND BLANK BOOKS. J. C. BLAIR COMPANY, Huntingdon, Pa.
Filed June 15, 1911. Serial No. 57,049. PUBLISHED JULY 23, 1912.

88,461. PAPER, ENVELOPS, TABLETS, AND BLANK BOOKS. J. C. BLAIR COMPANY, Huntingdon, Pa.
Filed June 15, 1911. Serial No. 57,052. PUBLISHED JULY 23, 1912.

88,462. PAPER, ENVELOPS, TABLETS, AND BLANK BOOKS. J. C. BLAIR COMPANY, Huntingdon, Pa.
Filed June 15, 1911. Serial No. 57,053. PUBLISHED JULY 23, 1912.

88,463. PAPER, ENVELOPS, TABLETS, AND BLANK BOOKS. J. C. BLAIR COMPANY, Huntingdon, Pa.
Filed March 30, 1912. Serial No. 62,522. PUBLISHED JULY 23, 1912.

88,464. REMEDY FOR INFECTIOUS DISEASES. HEINRICH BLU-MEYERS, Los Angeles, Cal.
Filed April 9, 1912. Serial No. 62,768. PUBLISHED JULY 23, 1912.

88,465. CERTAIN PARTS OF HARNESS AND SADDLERY HARDWARE. AUGUST BUERMANN MANUFACTURING CO., Newark, N. J.
Filed February 10, 1912. Serial No. 61,406. PUBLISHED JULY 23, 1912.

88,466. WRITING-PAPER. J. W. BUTLER PAPER COMPANY, Chicago, Ill.
Filed February 24, 1912. Serial No. 61,717. PUBLISHED JULY 23, 1912.

88,467. HORSESHOE-CALKS. CHALLONER COMPANY, Oshkosh, Wis.
Filed May 16, 1912. Serial No. 63,578. PUBLISHED JULY 16, 1912.

88,468. ELECTRICALLY-SELF-PROPELLED MOTOR-VEHICLES, RUNNING-GEARS, AND CHASSIS. COLONIAL ELECTRIC CAR CO., Detroit, Mich.
Filed September 18, 1911. Serial No. 58,703. PUBLISHED JULY 23, 1912.

88,469. SWEEPING COMPOUND. HERBERT R. COOK, Peabody, Mass.
Filed April 10, 1912. Serial No. 62,820. PUBLISHED JULY 9, 1912.

88,470. REMEDY FOR TUBERCULOSIS. EDWIN F. DAVIS, Revere and Boston, Mass.
Filed February 21, 1912. Serial No. 61,659. PUBLISHED JULY 16, 1912.

88,471. DYNAMO-ELECTRIC MACHINES. THE DEAN ELECTRIC COMPANY, Elyria, Ohio.
Filed June 7, 1912. Serial No. 64,043. PUBLISHED JULY 23, 1912.

88,472. COFFEE SUBSTITUTE. DWINELL-WRIGHT COMPANY, Boston, Mass.
Filed May 2, 1908. Serial No. 34,551. PUBLISHED JUNE 29, 1909.

88,473. GLUE. H. EHRLICH & SONS MFG. CO., St. Joseph, Mo.
Filed May 21, 1912. Serial No. 63,680. PUBLISHED JULY 16, 1912.

88,474. RUBBER HOSE. ELECTRIC HOSE & RUBBER CO., Wilmington, Del.
Filed May 9, 1912. Serial No. 63,443. PUBLISHED JULY 9, 1912.

88,475. WATCHCASES. ELGIN GIANT WATCH CASE CO., Elgin, Ill.
Filed May 4, 1912. Serial No. 63,353. PUBLISHED JULY 23, 1912.

88,476. TYPE-WRITING MACHINES, COMBINED WRITING-ADDING MACHINES, AND PLATENS. ELLIOTT-FISHER COMPANY, Harrisburg, Pa.
Filed December 10, 1910. Serial No. 53,215. PUBLISHED JUNE 18, 1912.

88,477. PARCHMENT-TISSUE. FRANZ EULER & CO., New York, N. Y.
Filed May 11, 1912. Serial No. 63,472. PUBLISHED JULY 23, 1912.

88,478. ANTIPYRETIC, ANTINEURALGIC, AND SEDATIVE. FARBWERKE VORM. MEISTER LUCIUS & BRÜNING, Höchst-on-the-Main, Germany.
Filed April 4, 1912. Serial No. 62,638. PUBLISHED JULY 23, 1912.

88,479. REMEDY FOR RHEUMATISM, INTESTINAL INDIGESTION, TOXEMIA, AND HARDENED ARTERIES. FELL DRUG CO., Hornell, N. Y.
Filed April 3, 1912. Serial No. 62,629. PUBLISHED JULY 23, 1912.

88,480. CANNED VEGETABLES. THE FOREST CITY CANNING CO., Forest City, Iowa.
Filed February 15, 1912. Serial No. 61,524. PUBLISHED JULY 23, 1912.

88,481. TOOL-STEEL, STEEL IN CERTAIN FORMS, AND CASTINGS AND FORGINGS. W. T. FLATHER LIMITED, Sheffield, England.
Filed June 7, 1912. Serial No. 64,032. PUBLISHED JULY 23, 1912.

88,482. CAST-STEEL. W. T. FLATHER LIMITED, Sheffield, England.
Filed June 7, 1912. Serial No. 64,033. PUBLISHED JULY 23, 1912.

88,483. CERTAIN NAMED TOILET PREPARATIONS. HENRIETTE GABILLA, Paris, France.
Filed June 15, 1911. Serial No. 57,063. PUBLISHED JULY 16, 1912.

88,484. WHISKY. W. A. GAINES & COMPANY, Frankfort, Ky.
Filed February 19, 1912. Serial No. 61,607. Renewal of No. 9,278, April 11, 1882. PUBLISHED JULY 16, 1912.

88,485. AEROPLANE-CLOTH. THE B. F. GOODRICH COMPANY, Akron, Ohio.
Filed May 1, 1912. Serial No. 63,242. PUBLISHED JULY 9, 1912.

88,486. MATCHES. HALDENS TAENDSTIKFABRIK, Fredrikshald, Norway.
Filed December 6, 1910. Serial No. 53,145. PUBLISHED APRIL 25, 1911.

88,487. CORNETS, TRUMPETS, AND DRUMS. HAWKES & SON, London, England.
Filed February 8, 1912. Serial No. 61,360. PUBLISHED JULY 23, 1912.

88,488. CIGARS, SMOKING AND CHEWING TOBACCO, AND CIGARETTES. THE HEMMETER CIGAR COMPANY, Detroit, Mich.
Filed May 18, 1912. Serial No. 63,633. PUBLISHED JULY 9, 1912.

88,489. PREPARATION FOR USE IN REMOVING PRINTERS' INK. HENKEL & CIE., Dusseldorf, Germany.
Filed May 14, 1912. Serial No. 63,530. PUBLISHED JULY 9, 1912.

88,490. FACE-LOTION. MARY HIGGINS, Indianapolis, Ind.
Filed May 29, 1911. Serial No. 56,688. PUBLISHED JULY 23, 1912.

88,491. GLASS REFLECTORS AND SHADES. HOLOPHANE GLASS COMPANY, New York, N. Y.
Filed July 9, 1906. Serial No. 36,023. PUBLISHED JULY 16, 1912.

88,492. INKS COMMONLY KNOWN AS INK SOLIDS, IN GRANULAR FORM. HOWARD CHEMICAL & MANUFACTURING COMPANY, Minneapolis, Minn.
Filed April 18, 1912. Serial No. 62,968. PUBLISHED JULY 23, 1912.

88,493. PRECIOUS STONES AND PEARLS AND CERTAIN NAMED JEWELRY. EDOUARD HUSSON, Paris, France.
Filed June 3, 1911. Serial No. 56,812. PUBLISHED JULY 23, 1912.

88,494. ABSORBENT COTTON. HYGIENIC FIBRE COMPANY, New York, N. Y.
Filed April 4, 1912. Serial No. 62,641. PUBLISHED JULY 9, 1912.

88,495. AUTOMOBILE-CURTAINS. JIFFY AUTO CURTAIN CO., Chicago, Ill.
Filed March 1, 1912. Serial No. 61,847. PUBLISHED JULY 16, 1912.

88,496. REMEDY FOR LIVER ILLS. JAMES L. JOHNSON, Plymouth, Mich.
Filed April 9, 1912. Serial No. 62,777. PUBLISHED JULY 23, 1912.

88,497. MATCHES. JÖNKÖPINGS OCH VULCANS TÄNDSTICKSFABRIKSAKTIEBOLAG, Jönköping, Sweden.
Filed February 23, 1912. Serial No. 61,687. PUBLISHED JULY 16, 1912.

88,498. MATCHES. JÖNKÖPINGS OCH VULCANS TÄNDSTICKSFABRIKSAKTIEBOLAG, Jönköping, Sweden.
Filed February 23, 1912. Serial No. 61,688. PUBLISHED JULY 16, 1912.

88,499. CRUSHED STONE. LAKE SHORE STONE COMPANY, Milwaukee, Wis.
Filed May 7, 1912. Serial No. 63,401. PUBLISHED JULY 16, 1912.

88,500. INSECTICIDES, COMPRISING LIME, SULFUR, ARSENATE OF LEAD, AND BORDEAUX MIXTURE. LANCASTER INSECTICIDE CO., Lancaster, Pa.
Filed January 19, 1912. Serial No. 60,921. PUBLISHED JULY 16, 1912.

88,501. CERTAIN NAMED MEDICAL AND SURGICAL APPLIANCES. LANMAN & KEMP, New York, N. Y.
Filed January 6, 1912. Serial No. 60,663. PUBLISHED APRIL 2, 1912.

88,502. HAIR-ERADICATOR. BERTHE B. LEVY, New York, N. Y.
Filed April 20, 1912. Serial No. 63,033. PUBLISHED JULY 23, 1912.

88,503. UNLEAVENED BREAD. MEYER LONDON, New York, N. Y.
Filed May 20, 1912. Serial No. 63,652. PUBLISHED JULY 23, 1912.

88,504. ALL KINDS OF TOBACCO, CIGARS, CIGARETTES, AND SNUFF. EDWARD JOHN LUSBY, London, England.
Filed January 2, 1912. Serial No. 60,579. PUBLISHED JULY 9, 1912.



88,505. CERTAIN NAMED PHARMACEUTICAL PREPARATIONS. FREDERICK AUGUST LUTTIES, St. Louis, Mo., assignor to Luyties Pharmacy Co., St. Louis, Mo.
Filed March 23, 1911. Serial No. 55,265. PUBLISHED JULY 23, 1912.

88,506. CERTAIN MUSICAL INSTRUMENTS. LYON & HEALY, Chicago, Ill.
Filed March 11, 1912. Serial No. 62,107. PUBLISHED JULY 23, 1912.

88,507. KEROSENE AND ALCOHOL MANTLE-BURNERS AND MANTLES AND MICA CHIMNEYS. THE MANTLE LAMP COMPANY OF AMERICA, Chicago, Ill.
Filed November 13, 1908. Serial No. 38,624. PUBLISHED JANUARY 12, 1909.

88,508. CERTAIN NAMED SPORTING GOODS AND TOYS. C. M. MCCLUNG & CO., Knoxville, Tenn.
Filed November 4, 1911. Serial No. 59,548. PUBLISHED JULY 23, 1912.

88,509. CERTAIN NAMED FURNITURE. MICHIGAN SEATING CO., Jackson, Mich.
Filed May 4, 1912. Serial No. 63,343. PUBLISHED JULY 23, 1912.

88,510. LEATHER ENAMEL AND POLISHES. MULLEN BROTHERS, Brockton, Mass.
Filed May 11, 1912. Serial No. 63,484. PUBLISHED JULY 9, 1912.

88,511. STRINGS FOR MUSICAL INSTRUMENTS. NATIONAL MUSICAL STRING COMPANY, New Brunswick, N. J.
Filed June 27, 1911. Serial No. 57,339. PUBLISHED JULY 23, 1912.

88,512. WATER AND OTHER FLUID METERS AND PARTS THEREOF. NEPTUNE METER COMPANY, Jersey City, N. J., and New York, N. Y.
Filed May 31, 1912. Serial No. 63,901. PUBLISHED JULY 23, 1912.

88,513. WEEKLY MAGAZINES. NEW CENTURY CORPORATION, Point Loma, Cal.
Filed January 30, 1911. Serial No. 54,178. PUBLISHED JULY 23, 1912.

88,514. POULTRY FEED. NICKEL PLATE ELEVATOR CO., Cleveland, Ohio.
Filed April 18, 1912. Serial No. 62,979. PUBLISHED JULY 23, 1912.

88,515. WRAPPING-PAPER. BERNARD A. NIENHAUSER, St. Paul, Minn.
Filed April 1, 1912. Serial No. 62,570. PUBLISHED JULY 23, 1912.

88,516. TIRE-FILLING RUBBER COMPOUND. THE NO-AIR TIRE COMPOUND CO., Kansas City, Mo.
Filed April 29, 1911. Serial No. 56,042. PUBLISHED JULY 16, 1912.

88,517. TOILET SOAP. NORDDEUTSCHE WOLLKÄMMEREI & KAMMGARNSPINNEREI, Bremen and Delmenhorst, Germany.
Filed December 21, 1910. Serial No. 53,396. PUBLISHED JULY 9, 1912.

88,518. TOY GOLF GAMES. THE PEG GOLF COMPANY, New York, N. Y.
Filed May 3, 1912. Serial No. 63,277. PUBLISHED JULY 16, 1912.

88,519. PERFUMERY, TOILET WATER, AND FACE-POWDERS. PENINSULAR CHEMICAL CO., Detroit, Mich.
Filed April 9, 1912. Serial No. 62,769. PUBLISHED JULY 23, 1912.

88,520. WHEAT-FLOUR. THE PORTLAND FLOURING MILLS COMPANY, Portland, Oreg.
Filed May 17, 1912. Serial No. 63,611. PUBLISHED JULY 23, 1912.

88,521. SHADES FOR ILLUMINATING-FIXTURES AND LIGHT-FILTERS USED THEREWITH. LLEWELLYN REECH, New York, N. Y.
Filed April 16, 1912. Serial No. 62,933. PUBLISHED JULY 9, 1912.

88,522. SALT. SAN FRANCISCO SALT REFINERY, San Francisco, Cal.
Filed October 26, 1911. Serial No. 59,367. PUBLISHED JULY 16, 1912.

88,523. SARDINES. SEACOAST CANNING CO., Eastport, Me.
Filed May 4, 1912. Serial No. 63,325. PUBLISHED JUNE 25, 1912.

88,524. PILLS FOR BILIOUS AND LIVER COMPLAINTS. DR. J. H. SCHENCK & SON, Philadelphia, Pa.
Filed April 13, 1912. Serial No. 62,869. PUBLISHED JULY 23, 1912.

88,525. WRITING-PAPER, ENVELOPS, BLANK NOTE-BOOKS, AND WRITING-TABLETS. HARRY SHARP, Omaha, Nebr.
Filed December 1, 1911. Serial No. 60,010. PUBLISHED JULY 23, 1912.

88,526. BLANK BOOKS, CERTAIN BLANK AND PRINTED FORMS, AND ADHESIVE STAMPS. THE SIPHON CREDIT SYSTEM COMPANY, Cleveland, Ohio.
Filed March 27, 1912. Serial No. 62,455. PUBLISHED JULY 16, 1912.

88,527. MACARONI. SKINNER MFG. CO., Omaha, Nebr.
Filed February 2, 1912. Serial No. 61,206. PUBLISHED JULY 23, 1912.

88,528. OLIVE-OIL. EMMANUEL G. SOPHOS, Lowell, Mass.
Filed February 29, 1912. Serial No. 61,822. PUBLISHED JULY 23, 1912.

88,529. ILLUMINATING-OILS. STANDARD OIL CO. OF NEW YORK, New York, N. Y.
Filed May 26, 1911. Serial No. 56,599. PUBLISHED JUNE 18, 1912.

88,530. TOILET SOAP. JOHN T. STANLEY, New York, N. Y.
Filed April 29, 1911. Serial No. 56,044. PUBLISHED JULY 9, 1912.

88,531. SOAP. THE STORK COMPANY, Boston, Mass.
Filed March 15, 1911. Serial No. 55,086. PUBLISHED JULY 9, 1912.

88,532. CERTAIN NAMED PAPER AND STATIONERY. TOWER MANUFACTURING & NOVELTY CO., New York, N. Y.
Filed November 17, 1911. Serial No. 59,766. PUBLISHED JULY 23, 1912.

88,533. CERTAIN NAMED RECEPTACLES. TOWER MANUFACTURING & NOVELTY CO., New York, N. Y.
Filed February 6, 1912. Serial No. 61,280. PUBLISHED JULY 16, 1912.

88,534. DENTAL BROACHES. THE O. H. TRACY CO., INC., Washington, D. C.
Filed April 8, 1912. Serial No. 62,617. PUBLISHED JULY 16, 1912.

88,535. METALLIC PACKING FOR ALL GENERAL PURPOSES. UNIVERSAL FLEXIBLE PACKING CO., Pittsburgh, Pa.
Filed September 19, 1910. Serial No. 51,874. PUBLISHED JULY 18, 1911.

88,536. EVAPORATED MILK. THE VAN CAMP PACKING CO., Indianapolis, Ind.
Filed April 11, 1912. Serial No. 62,828. PUBLISHED JULY 23, 1912.

88,537. MEDICINAL TONIC PREPARATION. THE VITALIS CO., New York, N. Y.
Filed November 28, 1911. Serial No. 59,988. PUBLISHED JULY 23, 1912.

88,538. SHEET-GLASS. EDWARD J. WALSH, St. Louis, Mo.
Filed March 29, 1912. Serial No. 62,494. PUBLISHED JULY 9, 1912.

88,539. ROPES MADE PARTLY OF WIRE AND PARTLY OF FIBER. WATERBURY COMPANY, New York, N. Y.
Filed June 14, 1912. Serial No. 64,183. PUBLISHED JULY 23, 1912.

88,540. TOILET PERFUMES, FACE-POWDER, AND REMEDY FOR CHAPPED SKIN. E. WERTHEIMER & CIE., Paris, France.
Filed February 15, 1912. Serial No. 61,520. PUBLISHED JULY 16, 1912.

88,541. PHONOGRAPHS AND PARTS THEREOF AND APPURTENANCES THERETO. INTERNATIONAL PHONOGRAPH COMPANY, Newark, N. J.
Filed November 17, 1911. Serial No. 59,775. PUBLISHED JULY 16, 1912.

88,542. CHEMICAL BLEACHING-POWDER FOR LAUNDRY PURPOSES. THE MCWHIRTER CHEMICAL COMPANY, Trenton, N. J., and New York, N. Y.
Filed February 10, 1912. Serial No. 61,398. PUBLISHED JULY 16, 1912.

88,543. BENZIN, NAPHTHA, AND GASOLENE. WEST INDIA OIL COMPANY, Bayonne, N. J.
Filed June 4, 1912. Serial No. 62,958. PUBLISHED JULY 23, 1912.

88,544. PERFUMERY. ALFRED WRIGHT PERFUMER INC., Philadelphia, Pa.
Filed April 23, 1912. Serial No. 63,063. PUBLISHED JULY 23, 1912.

88,545. PERFUMERY. ALFRED WRIGHT PERFUMER INC., Philadelphia, Pa.
Filed April 23, 1912. Serial No. 63,064. PUBLISHED JULY 23, 1912.



# DECISIONS

## CONCERNING TRADE-MARKS

# LABELS

## REGISTERED SEPTEMBER 24, 1912.

16,566.—*Title:* "THE BULL MOOSE HAT." (For Hats.) ELLOR HARTLEY CO., East Orange, N. J. Filed August 17, 1912.

# DECISIONS

OF THE

# COMMISSIONER OF PATENTS

AND OF

# UNITED STATES COURTS IN PATENT CASES.

## COMMISSIONER'S DECISIONS.

### EX PARTE MILLER.

*Decided August 9, 1912.*

APPLICATION—PROSECUTION—STATUTORY PERIOD EXPIRING ON SUNDAY.

Where the year within which action could be taken expires on Sunday, *Held* that in order to save the case from abandonment amendment should be filed on the preceding day.

ON PETITION.

COMPOSITION OF MATTER TO BE USED AS FUEL.

*Mr. Emlen Hare Miller pro se.*

MOORE, *Commissioner:*

This is a petition that the application be held not abandoned.

The Examiner's last action on the merits was made March 31, 1911. No action was taken thereafter by the applicant until April 1, 1912, at which time a letter was received complaining of the manner in which the Office had treated the case; but no attempt was made to respond to the Examiner's action of May 31, 1911.

The year within which action could be taken expired on Sunday. The applicant states that he was unaware of the ruling that in such cases the response must be filed on the day preceding. No other excuse has been offered for his failure to prosecute the case within the year allowed by law. His ignorance of the practice of the Office cannot be held to render the delay unavoidable within the meaning of the statute. Furthermore, the letter which was received on April 1 was in no sense a proper response, and if filed within one year would not have saved the case from abandonment.

The petition is denied.

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### EX PARTE TILDEN.

*Decided October 9, 1911.*

1. APPLICATION—REISSUE—DELAY.

It is well settled that a patent will not be reissued with enlarged claims upon an application filed more than two years after the grant of the original patent unless unusual circumstances are shown to excuse the delay.

2. SAME—SAME—SAME.

A reissue to correct manifest errors in the specification and to more fully describe the construction illustrated in the drawing rests upon a different footing from a reissue to include enlarged claims, and a showing in excuse of the delay which would be sufficient in the first case may not necessarily be so in the second.

3. SAME—SAME—SAME.

Where an application for a second reissue of a patent was filed more than three years after the grant of the original patent, *Held* that the statement that applicant relied upon his attorney and the latter omitted to claim the invention as broadly as possible and that applicant did not discover the omission at the time the patent issued, is insufficient to justify the grant of the reissue.

APPEAL from Examiners-in-Chief.

FLUSH-TANK-OPERATING DEVICE.

*Mr. Harry De Wallace* and *Mr. Wm. G. Henderson* for the applicant.

MOORE, *Commissioner:*

This is an appeal from the decision of the Examiners-in-Chief affirming the rejection by the Primary Examiner of the following claims:

6. In combination, a flush tank, a flush valve within said tank, a flush-valve lever pivoted between its ends and connected at one end with the flush valve, a spindle piercing the wall of the tank, a lever carried by the spindle, and a pending gravitating handle fixed on the spindle, for actuating the flush-valve lever, the said handle being adapted to gravitate to its normal pendent position after movement thereof, in restoration of the flush-valve lever to its normal position.

7. In combination, a flush tank, a flush-valve mounted in said tank, a flush-valve lever pivoted between its ends and connected at one end with the flush valve, a spindle disposed in a perforation in the wall of the tank, a pendent gravitating handle fixed on the outer end of said spindle, the said spindle provided with an extremity positioned inside the tank adapted for actuating said flush-valve lever for raising the flush valve when the handle is swung either to the right or to the left, and means within the tank for permitting free gravitation of the handle to normal pendent position after each raising of the flush valve.

8. In combination, a flush-tank, a flush-valve, a pivoted flush-valve lever, a rocking spindle extending through the side of the tank and having a gravitating handle connected to its outer end and a lever at its inner end operatively disposed with relation to the pivoted flush-valve lever to actuate said lever to open the valve on movement of the handle in either direction.

9. In combination a flush-tank, a flush-valve including an operating rod, a rocking spindle extending through the side of the tank and having a gravitating handle connected to its outer end and a lever at its inner end operatively connected with the operating rod of the flush valve to open the valve on movement of the handle in either direction.

The decision of the Examiners-in-Chief is based upon the ground that applicant was guilty of laches in filing his reissue application and that said laches is not satisfactorily excused.

The record shows that appellant's original patent was granted May 22, 1906, and that a reissue thereof was granted January 12, 1909. The present No. 4

application is for a second reissue of said patent. This application was filed January 24, 1910, some three years and eight months after the issue of the original patent. By the appealed claims appellant seeks to add broader claims relating to the gravitating handle and the levers operated thereby.

It is well settled that a patent will not be reissued with enlarged claims upon an application filed more than two years after the original patent issued unless unusual circumstances are shown to excuse the delay. The Court of Appeals of the District of Columbia in *in re Starkey* (104 O. G., 2150; 21 App. D. C., 519) laid down the rule as follows:

> The cases of *Miller* v. *Brass Co.*, (104 U. S., 350;) *Mahn* v. *Harwood*, (112 U. S., 354;) *Wollensak* v. *Reiher*, (115 U. S., 96;) *Brown* v. *Davis*, (116 U. S., 237;) *White* v. *Dunbar*, (119 U. S., 47;) *Leggett* v. *Standard Oil Co.*, (149 U. S., 288;) *Topliff* v. *Topliff*, (145 U. S., 156;) *Huber* v. *Manufacturing Co.*, (148 U. S., 270;) *Dunham* v. *Manufacturing Co.*, (154 U. S., 103,) and various other cases that might be cited, are decisive of the question; and we must now regard the law as well settled by the Supreme Court of the United States, that, after the lapse of two years after the issue of a patent, a reissue which seeks to enlarge the claims of the original patent will not be granted, or if granted will be held invalid, unless special circumstances are shown to excuse the delay.

The same court in *in re* Ams (127 O. G., 3644; 29 App. D. C., 91) stated:

> No good purpose will be subserved by a reiteration of the well established rules applicable to such a case as this. Suffice it to say that a delay of two years in filing an application for a reissue of a patent with broader claims will usually be treated as an abandonment to the public of everything not claimed in the original. This rule is based upon the analogy between a reissue application and the case of an inventor who fails to apply for a patent of his invention within two years from the date of its public use or sale, which the statute ordains is conclusive evidence of its abandonment. (See *in re Starkey*, 104 O. G., 2150; 21 App. D. C., 519, and cases cited therein.)
>
> The facts relied upon by the patentee do not, in our opinion, constitute a sufficient excuse for his lack of diligence. As above stated, his invention is a simple one, and his patent as issued clearly and definitely described it. The real object, therefore, of this application is to secure something not originally claimed, or, if claimed, not pressed or abandoned. In such a case unusual circumstances must be present, or the delay will be fatal.

The question presented is, therefore, whether this case presents such special or unusual circumstances as will excuse the delay of nearly four years in filing the reissue application. In his affidavit appellant states that he is not familiar with the practice of the Patent Office or with the reading of patent drawings, specifications, and claims, and for this reason relied entirely upon his attorney to properly present and protect his invention, and that his attorney failed to comprehend his invention in its entirety; that he was not aware of the errors in his reissued patent until about December 1, 1909, when he had an opportunity to personally confer with his attorney concerning said patent, and that immediately upon learning of said defects and inaccuracies therein he instructed his attorney to prepare a reissue application. In a second affidavit filed at the hearing on this appeal appellant states that between January 12, 1909, the date of the reissued patent, and December, 1909, his residence and place of business was New York city, but that he was absent on business trips of protracted duration and for that reason had no opportunity prior to December 1, 1909, for a personal conference with his attorney, and that immediately upon learning of these defects and inaccuracies in his reissued patent he instructed his attorney to prepare the present reissue application.

The excuse of reliance upon his attorney and omission upon the part of the latter to claim the invention as broadly as was possible and the failure of the applicant to discover the omission at the time the patent issued or until his attention was particularly called thereto at a later date is substantially the same excuse as was made by appellant in the oath of his first reissue application and is that commonly made when a reissue application is filed for broader claims. This excuse is not believed to show such unusual or special circumstances as the Court of Appeals of the District of Columbia in the decisions cited above held was necessary to warrant a reissue with enlarged claims years after the date of the original patent.

In the present case there is less excuse for the laches of appellant, since his attention was directly called to the fact that his invention was insufficiently described and claimed in the original patent at the time he filed his first reissue application. He attempts in his present oath to excuse his failure to make the desired correction in that application by stating that after discovering the errors in his original patent he employed a new attorney to obtain a reissue thereof and that when he signed his first reissue application papers he failed to observe the omissions specified in the present application. It is noted that in the oath to his first reissue application appellant stated—

> that the accompanying amended specification and drawings have been fully and carefully examined by him, and that they are correct and accurately disclose his invention as it was originally made and which it was deponent's purpose to have disclosed and protected by the original patent.

It would seem that in the prosecution of his original application for patent and of his first reissue application, in which three broader claims were allowed, appellant had ample time to secure all the claims to which he is fairly entitled. Certainly the reasons offered for his failure to do so do not satisfactorily excuse his delay of nearly four years in presenting the enlarged claims of the present application.

It is contended by appellant that if the excuse offered for failure to earlier observe the first five errors specified in his oath justifies a reissue to correct the same, as held by the Examiner, the same excuse warrants a reissue to correct the sixth specification of error.

The first three errors specified relate to the failure to fully describe in the specification a connection between certain parts, illustrated in the drawing, and the failure to fully describe the coaction, operation, and purpose of the same. The fourth specification of error relates to the obviously erroneous use of the term "rocking lever" in two instances in place of the term "valve-lever" in claim 3. The fifth error specifies a departure from the original record in the printing of claim 5. The sixth specification of error is alleged to be the omission to present the appealed claims.





It is well settled that a reissue to correct manifest errors in the specification and to more fully describe the construction illustrated in the drawing rests upon a different footing from a reissue to include enlarged claims and that a showing in excuse for the delay which would be sufficient in the first case may not be so necessarily in the second. This distinction is clearly set forth by the Supreme Court of the United States in the case of *Miller* v. *Bridgeport Brass Company*, (21 O. G., 201; 104 U. S., 305,) where the Court said:

> Now, while, as before stated, we do not deny that a claim may be enlarged in a reissued patent, we are of opinion that this can only be done when an actual mistake has occurred, not from a mere error of judgment (for that may be rectified by appeal), but a real *bona fide* mistake, inadvertently committed, such as a court of chancery, in cases within its ordinary jurisdiction, would correct. Reissues for the enlargement of claims should be the exception and not the rule; and when, if a claim is too narrow—that is, if it does not contain all that the patentee is entitled to—the defect is apparent on the face of the patent and can be discovered as soon as that document is taken out of its envelop and opened, there can be no valid excuse for delay in asking to have it corrected. Every independent inventor, every mechanic, every citizen, is affected by such delay, and by the issue of a new patent with a broader and more comprehensive claim. The granting of a reissue for such a purpose after an unreasonable delay is clearly an abuse of the power to grant reissues, and may justly be declared illegal and void. It will not do for the patentee to wait until other inventors have produced new forms of improvement, and then, with the new light thus acquired, under pretense of inadvertence and mistake, apply for such an enlargement of his claims as to make it embrace these new forms. Such a process of expansion, carried on indefinitely, without regard to lapse of time, would operate most unjustly against the public, and is totally unauthorized by the law. In such a case, even he who has rights and sleeps upon them justly loses them.
>
> The correction of a patent by means of a reissue where it is invalid or inoperative for want of a full and clear description of the invention cannot be attended with such injurious results as follow from the enlargement of the claims; and hence a reissue may be proper in such cases, though a longer period has elapsed since the issue of the original patent. But in reference to reissues made for the purpose of enlarging the scope of the patent, the rule of laches should be strictly applied, and no one should be relieved who has slept upon his rights, and has thus led the public to rely on the implied disclaimer involved in the terms of the original patent; and when this is a matter apparent on the face of the instrument upon a mere comparison of the original patent with the reissue, it is competent for the courts to decide whether the delay was unreasonable and whether the reissue was therefore contrary to law and void.

See also *ex parte Matthews and Race*, (26 O. G., 823;) *Conroy* v. *Penn. Electrical & Mfg. Co.*, (173 Fed. Rep., 269;) *Sirocco Engineering Co.* v. *B. F. Sturtevant Co.*, (173 Fed. Rep., 878;) *Steiner & Voegtly Hdwe. Co.* v. *Tabor Sash Co.*, (173 Fed. Rep., 881.)

The Examiners-in-Chief state in their decision that it is significant that the applicant in his oath has not averred that he is unaware of the manufacture or use by others of devices which would be infringed by the appealed claims. For the purpose of meeting this criticism appellant filed at the hearing on this appeal an affidavit in which he alleges that when the present application was filed affiant had no knowledge that any other person had a right or claimed to have the right to make the device expressed in the claims of this application and that the purpose of the reissue is not to cover features which any other person had the right to use. Concerning a similar allegation, the Court of Appeals of the District of Columbia in the case of *in re Ams*, *supra*, said:

> We note his statement that he "knows of no one who is practising or using said invention without his consent or whose business would be dominated by the reissue of said Letters Patent to protect said invention," but this statement would not justify us in overruling the tribunals of the Patent Office and granting him a patent that might affect the business of those of whom appellant has no present information. Moreover, we believe applications for reissue filed long after the date of the patent, and which have for their object the enlargement of the claims, should be discouraged, and should be countenanced only in exceptional cases.

Likewise in the present case the statement made in the supplemental affidavit does not justify overruling the holding of the Examiners-in-Chief, which is believed to be justified upon the other grounds stated in their decision.

The decision of the Examiners-in-Chief is affirmed.

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## SEACOMBE *v.* BURKS.

*Decided July 29, 1912.*

1. INTERFERENCE—MOTION TO DISSOLVE—ALLEGED IRREGULARITY IN DECLARATION—BASED ON INOPERATIVENESS—NO APPEAL FROM DENIAL OF MOTION.

No appeal lies from the decision of the Primary Examiner denying a motion to dissolve the interference on the ground of irregularity in the declaration thereof when such irregularity is based on the alleged inoperativeness of the opposing party's structure.

2. SAME—SAME—RIGHT TO MAKE THE CLAIMS—NOT DEPENDENT UPON AMENDMENT.

The question of a party's right to make claims corresponding to the issue of an interference does not depend upon whether an amendment is subsequently made. The sole question to be considered is whether the specification and drawing of the application are sufficient to justify the allowance of the claims in question.

APPEAL on motion.

ON PETITION.

MAGNETO-ELECTRIC MASSAGING-MACHINE.

*Messrs. Dodge & Sons* for Seacombe.

*Mr. William Wallace White* for Burks.

BILLINGS, *First Assistant Commissioner:*

This case comes up on appeal by Seacombe from the decision of the Primary Examiner refusing to dissolve the interference on the ground of irregularity and on petitions by Seacombe that the appeal be entertained under the supervisory authority of the Commissioner and that the Primary Examiner be instructed how to proceed therein.

The alleged irregularity was in the action of the Examiner suggesting the claims of Seacombe to Burks when Burks's apparatus as shown was, as Seacombe contends, inoperative. The question of the operativeness of Burks's structure is a question which relates to his right to make the claims, rather than irregularity in the declaration of the interference, and is, in fact, the basis of another part of Seacombe's motion to dissolve alleging that Burks has no right to make the claims. If before the declaration of the interference the Primary Examiner were clearly of the opinion that a party could not make the claims because his device was inoperative, it would be improper for him to suggest to that party claims of another applicant or to declare an interference under such circumstances. It does not appear, however, from the decision of the Examiner, taken as a whole, whether even at this time he considers Burks's disclosure insufficient to support the claims. The alleged irregu-

larity is therefore a question of right to make the claims, and the appeal from the decision will therefore be dismissed and the petition to entertain it denied for reasons hereinafter stated.

As to the sufficiency of Burks's disclosure to support the claims in issue the Examiner held as follows:

If the structure and operation of Burks' device are to be ascertained solely from his specification, it is thought that the device is apparently inoperative because the description is inadequate and in some respects misleading. The showing in Figure 4 of the drawing which purports to disclose diagrammatically the wiring of the device was admitted at the hearing to be insufficient for the purpose of showing an operative arrangement. The Examiner, however, from an inspection of Figs. 1, 2 and 3 of Burks' drawing was led to believe prior to the declaration of the interference that the device was operative, and that any one of ordinary electrical skill could construct the device without any exercise of inventive effort. * * * Since the apparent inoperativeness arises from the lack of proper description and not from any serious inherent defect in the apparatus the specification may be revised to disclose more clearly and accurately the functions of the structure provided there be no change in the structure.

This holding, which is in substance that the disclosure as it stands is insufficient to support the claims, but that it may be amended in such a way that it will support them, is clearly inconsistent on its face. If the disclosure in the case as filed is insufficient, no amendment could be properly admitted to make it sufficient. If the disclosure is there, but poorly expressed, it might be amended to improve the expression; but under such circumstances it should be held that the party has a right to make the claims whether or not such an amendment is subsequently made, and the amendment, if made, would be purely a matter of form. The case must stand or fall upon its disclosure when filed. The sole question for the Examiner to consider on a motion of this kind is whether the disclosure in the specification and drawing of Burks's application is sufficient as it stands to justify the allowance of the claims in question in that application. The case will therefore be sent back to the Primary Examiner with instructions to set aside the decision rendered upon Seacombe's motion to dissolve and to render another decision on the question of Burks's right to make the claims not inconsistent with the principles above stated.

The appeal is dismissed, the petition to entertain the appeal is denied, and the petition for the exercise of the Commissioner's supervisory authority is granted to the extent above indicated.

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EX PARTE GOLDBERG, BOWEN & CO.

*Decided August 1, 1912.*

TRADE-MARKS—"GOLDEN STATE"—GEOGRAPHICAL.

The words "Golden State" *Held* not registrable as a technical trade-mark, since they constitute a name applied to California and are therefore geographical.

ON APPEAL.

TRADE-MARK FOR TEA, COFFEE, PRESERVES, OLIVES, BUTTER, ETC.

*Messrs. Mason, Fenwick & Lawrence* for the applicant.

BILLINGS, *First Assistant Commissioner:*

This is an appeal from the decision of the Examiner of Trade-Marks refusing to register the words "Golden State" as a trade-mark for certain named foods.

The ground of rejection is that the words "Golden State" designate the State of California, in which the applicant is located, and the mark is therefore a geographical name or term whose registration is prohibited by the Trade-Mark Act.

The words "Golden State" constitute a name which is applied to California, (*Century Cyclopedia of Names*, p. 448; *Nelson's Encyclopedia*, vol. 2, p. 448,) and registration was therefore properly refused. (*Columbia Mill Co.* v. *Alcorn et al.*, 150 U. S., 460; 65 O. G., 1916.)

As noted by the Examiner, a similar ruling was made in the case of *ex parte Bay State Optical Company*, (97 MS. Dec., 315,) in which registration of the words "Bay State" was refused on the ground that these words indicated the State of Massachusetts.

The decision of the Examiner of Trade-Marks is affirmed.

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EX PARTE BOTH.

*Decided September 11, 1912.*

APPLICATION—PROSECUTION—REQUIREMENT FOR REDUCTION OF THE NUMBER OF CLAIMS—ACTION ON MERITS.

Where the Examiner required applicant to diminish the number of claims and grouped the same in accordance with the practice in *ex parte Kadow*, *Held* that he should also have acted upon the merits of each group of claims.

ON PETITION.

MECHANICAL MOVEMENT AND ELECTRIC-LIGHT SOCKET.

*Mr. Alan M. Johnson* for the applicant.

TENNANT, *Acting Commissioner:*

This is a petition from the action of the Examiner refusing to examine the application upon the question of patentability until compliance by applicant with his requirement that the number of claims be diminished. The Examiner has grouped the claims which in his opinion did not differ from one another, in accordance with the practice set forth in *ex parte Kadow* (154 O. G., 1412) and *ex parte Chapman*, (120 O. G., 446,) stating in connection therewith:

No action on the merits of the claims in this case with respect to the prior art will be given until the applicant has reduced the claims to a reasonable number. The distinctions between the claims must be substantial and not mere colorable, fanciful, nebulous and fulginous distinctions that merely tend to embarrass the inventor and mislead the public.

It is urged in behalf of the applicant that action upon the patentability of the claims should be given in order to avoid piecemeal actions, and attention is directed to Rule 64, which provides that—

where the specification and claims are such that the invention may be readily understood, the examination of a complete application and the action thereon will be directed throughout to the merits; but in each letter the Examiner shall state or refer to all his objections.

Reference is made to Rule 134, which relates to appeals and which contains the following provision:

There must have been two rejections of the claims as originally filed, or, if amended in matter of substance, of the amended claims, and all the claims must have been passed upon, and except in cases of division all preliminary and intermediate questions relating to matters





not affecting the merits of the invention settled, before the case can be appealed to the Examiners-in-Chief.

The Examiner's letter, dated June 28, 1912, states:

As this requirement is analogous to a requirement for division as stated in *ex parte Chapman*, of record, it followed that our determination on the merits is not in order before an appeal is taken to the Board of Examiners-in-Chief.

The statement contained in *ex parte Chapman* referred to is as follows:

The requirement for the elimination of a part of the claims because of needless duplication is to be regarded as a rejection for the same reason that a requirement for division is a rejection. This applicant's remedy, therefore, is an appeal to the Examiners-in-Chief and not an interlocutory petition.

While the action of the Examiner in this case is substantially in accordance with the practice set forth in *ex parte Chapman* and *ex parte Kadow*, *supra*, it is believed that the business of the Office would be expedited if action upon the novelty of the invention were also given by the Examiner. As pointed out in *ex parte Chapman:*

It is clearly the duty of this Office to see that patents do not issue with claims so multiplied as to embarrass and confuse the public. It should allow sufficient claims to amply protect the real invention but should not permit needless repetition.

In cases of this character it is believed that in addition to grouping the claims action upon the merits of each group should be given, in order that the applicant may be in a position to consider the advisability of eliminating such claims or groups of claims as are anticipated by the prior art, as well as the question of restricting the number of the claims to one of each group. By following this course of action strict compliance will be had with the rules and the full benefit of the practice announced by *ex parte Chapman* and *ex parte Kadow* will be obtained, since by repetition of the requirement that each group be restricted to one claim the case will be placed in final action in respect to this ground of rejection in the same manner in which final action is reached by repetition of rejections in view of references.

The petition is granted to the extent indicated.

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## DECISIONS OF THE U. S. COURTS.

### Court of Appeals of the District of Columbia.

BOLIN *v.* SLINGLUFF.

*Decided May 20, 1912.*

1. APPLICATION—DISCLOSURE—AMENDMENT TO DRAWING.

Where in an application for patent on an apparatus for drawing glass the specification stated that any suitable drawing mechanism might be employed, the drawing being performed by the usual or any desired form of bait and the air or other fluid supplied to the article through the body, but no blowpipe construction was shown in the drawing, *Held* that the Examiner properly allowed an amendment to the drawing to show a conventional construction of bait or blowpipe and operating mechanism.

2. INTERFERENCE—PRIORITY—RIGHT TO MAKE THE CLAIM.

The claim in issue *Held* to properly read upon the construction of both parties and when so read not unpatentable in view of the prior art.

*Mr. H. A. Seymour* and *Mr. A. W. Bright* for the appellant.

*Mr. Paul Synnestvedt* and *Mr. J. C. Bradley* for the appellee.

VAN ORSDEL, *J.:*

This is an appeal from the decision of the Commissioner of Patents in an interference proceeding.

The tribunals below were unanimous in awarding judgment of priority to appellee.

The invention in issue relates to means for drawing glass cylinders in the art of producing window or other sheet glass. It is defined in the following count, which originated in appellant's application:

Apparatus for drawing glass articles from a mass of molten glass, comprising a glass tank containing said molten glass, a refractory body having an opening through, mechanism supporting said body [illegible] with relation to the body of the glass in said tank, a blow pipe, mechanism constructed and arranged to support said lower said blow pipe into the body of the molten glass in said tank through said opening in said refractory body, and to draw said blow pipe upward therefrom in the drawing process, and means to supply a blast of air through said blow pipe during the drawing process.

On August 12, 1907, appellant filed his application here in interference, upon which a patent was issued May 4, 1909. Appellee is the junior party, not having filed his application until December 8, 1907. It will be seen that appellant's patent was issued inadvertently, since the two applications were copending; hence, no additional burden is cast upon appellee by reason of such issuance. Appellee took testimony to establish conception and reduction to practice prior to appellant's filing date, upon which he alone relies.

Appellee's testimony shows that in the apparatus which he claims constituted a reduction to practice the cylinders were drawn from extensions or supplementary tanks, and not from the main body of the molten glass, as is contemplated in the applications before us. It is contended by counsel for appellant that, if the issue be construed to embrace this alleged reduction to practice, it is unpatentable in view of the prior art, and, therefore, it should be limited to the construction shown in the interfering applications. We cannot agree with this contention. In the earlier processes, the cylinders were drawn from shallow pots or pans containing but a small quantity of glass, usually just enough for a single drawing, the glass for each drawing being ladled from the melting-furnace and poured into the pot. These pots were commonly called "dog-houses." Great difficulty was experienced in maintaining the glass in these shallow pools at the proper temperature, and the purpose of the invention in issue is to obviate this difficulty. It does so by drawing the cylinders from the main body of the molten glass, while appellee, in the device upon which he relies for reduction to practice, drew from side extensions of the main tank. These extensions, however, were of the same depth as the main tank, and were so connected with it as to utilize the heat therein in maintaining the glass in the extensions at the proper temperature. The result accomplished is the same in both devices. The issue merely requires that the cylinder be drawn from the "body of the molten glass." We have been cited to nothing in the prior art which limits this expression to the specific construction shown in the applications, since the prior patents all disclose no more than means for drawing from a shallow pan. The tribunals below were correct in holding that appellee's earlier device was substantially the same as that disclosed in his application, and, therefore, comes within the terms of the issue.

Appellant's second contention is that appellee's proofs show that the apparatus upon which he relies for reduction to practice is one disclosed by an earlier patent granted to him, and not by the application here in controversy. After a careful review of the testimony we believe that appellee has fully proved his right to the award of priority, especially in view of the unanimous decisions of the tribunals below in his favor. While it is true that some of the witnesses speak of the use of "dog-houses," it is but fair to assume, when considering the testimony as a whole, that they referred to the extensions above described, and not to the shallow pans which were old in the art.

Appellant also contends that appellee has no right to make the claim in interference, for the reason that the drawings in his application, as originally filed, failed to show—

a blow pipe, mechanism constructed and arranged to support and lower said blow pipe in the body of the molten glass in said tank.

Appellee's application, however, contained the following statement:

In Figure 4 I have indicated the lower portion of a cylinder being drawn from the glass within the ring, it being understood that any suitable drawing mechanism may be employed, the drawing being performed by the usual or any desired form of bait, and air or other fluid supplied to the article through the bait or in any other suitable way.

The Primary Examiner permitted appellee, by amendment, to show a conventional construction of bait or blowpipe and operating mechanism. No particular type of blowpipe and operating mechanism is called for by the issue; hence, this disclosure is sufficient to warrant the insertion of the amendment.

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

Affirmed.

## ADJUDICATED PATENTS.

(U. S. D. C.) The Ransome patent, No. 694,580, for a reinforced-concrete floor, *Held* valid and infringed. *Ransome Concrete Co.* v. *German American Button Co.*, 197 Fed. Rep., 172.

(U. S. D. C.) The Piper patent, No. 700,816, for a binding-machine, claims 2 and 5 *Held* valid and infringed. *National Binding Mach. Co.* v. *Bisler*, 197 Fed. Rep., 175.

(U. S. D. C.) The Davey patent, No. 890,968, for a process of treating and dressing a bruise or wound in the trunk or branch of a live tree, *Held* valid and infringed. *Davey* v. *Cutler*, 197 Fed. Rep., 178.

## Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D C., September 11, 1912.*

*J. A. Meierdiercks & Sons, their assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Otto L. Kuehn Co., 125–135 Detroit street, Milwaukee, Wis., for registration of a trade-mark and trade-mark registered October 14, 1890, No. 16,536, by J. A. Meierdiercks & Sons, 710 Water street and 36 Harrison street, New York, N. Y., and a notice of such declaration sent by registered mail to the said J. A. Meierdiercks & Sons at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said J. A. Meierdiercks & Sons, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

FREDERICK A. TENNANT, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., September 5, 1912.*

*Meyer & Dickinson, their assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of the Mioech Manufacturing Company, corner Leslie and Cortrland streets, Peterson, N. J., for registration of a trade-mark and trade-mark No. 27,173, registered November 8, 1898, to Meyer & Dickinson, 80 Green street, New York, N. Y., and 237 Chestnut street, Philadelphia, Pa., and a notice of such declaration sent by registered mail to said Meyer & Dickinson at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Meyer & Dickinson, their assigns or legal representatives, shall within thirty days from the date of first publication of this order enter an appearance therein the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

## Citation of Decisions.

UNITED STATES PATENT OFFICE,
*Washington, D. C., September 16, 1912.*

Citation of decisions of the Court of Appeals of the District of Columbia rendered between December 4, 1911, and April 22, 1912, published in the OFFICIAL GAZETTE and in volume 38, *Appeal Cases of the District of Columbia:*

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# DIGEST

OF THE

# DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

## SEPTEMBER, 1912.

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ABANDONMENT OF APPLICATIONS.

See Priority of Invention, 2; Prosecution of Applications, 2.

PROSECUTION OF APPLICATION.

Where no action was taken within one year from a decision of the Examiners-in-Chief affirming the action of the Examiner save the presentation of a petition that the case be reopened, which was denied, *Held* that the application is abandoned for lack of responsive prosecution. [*Ex parte* Brensinger, 509.

ACTION BY THE EXAMINER.

See Drawings; Prosecution of Applications, 1, 3.

AFFIDAVITS.

See Affidavits under Rule 75; Motion to Dissolve Interference, 2.

AFFIDAVITS UNDER RULE 75.

QUESTION OF SUFFICIENCY NOT REVIEWED ON PETITION.

The question of the sufficiency of affidavits presented under Rule 75 is reviewable by the Examiners-in-Chief in the first instance. [*Ex parte* Hamby, 511.

ALLEGATIONS.

See Motion to Dissolve Interference, 2; Trade-Marks, 9.

AMENDMENTS.

See Drawings; Prosecution of Applications, 2; Right to Make Claims, 2.

APPEAL.

See Affidavits under Rule 75; Motion to Dissolve Interference, 3; Trade-Marks, 1.

APPLICATIONS.

See Abandonment of Applications; Affidavits under Rule 75; Claims; Drawings; Prosecution of Applications; Reissue.

ATTORNEYS.

See Reissue, 3.

BURDEN OF PROOF.

See Priority of Invention, 1.

CLAIMS.

See Construction of Claims; Motion to Dissolve Interference, 1; Prosecution of Applications, 1, 3; Reissue; Right to Make Claims.

REFERENCE TO PARTS OF THE STRUCTURE NOT COVERED THEREBY.

Where claims are clear as to the elements intended to be covered thereby and the structure is such that it can only be described with clearness by referring to other parts of the device, there is no objection to wording the claims in this way. [*Ex parte* Compos, 719.

CONCEALMENT OF INVENTION.

See Priority of Invention, 2.

CONCEPTION OF INVENTION.

See Priority of Invention, 5.

CONSTRUCTION OF CLAIMS.

See Claims; Prosecution of Applications, 1.

CONDUIT FOR ELECTRIC WIRES.

Claims for an iron or steel conduit-pipe having an outer coating composed of an inner layer of copper applied directly to the surface of the pipe and an outer layer of zinc *Held* unpatentable in view of the prior art. [*In re* Hodkinson, 261.

CONSTRUCTION OF TRADE-MARK STATUTES.

See Trade-Marks, 6.

DECLARATION OF INTERFERENCE.

See Motion to Dissolve Interference, 3; Trade-Marks, 1.

DELAY IN FILING APPLICATION.

See Priority of Invention, 2, 3.

DELAY IN FILING APPLICATION FOR REISSUE.

See Reissue.

DESCRIPTIVE TERMS.

See Trade-Marks, 6.

DISCLOSURE OF INVENTION.

See Right to Make Claims, 1.

DISCRETION OF THE EXAMINER OF TRADE-MARKS.

See Trade-Marks, 1.

DRAWINGS.

See Reissue, 2; Right to Make Claims, 1, 2.

AMENDMENT TO.

Where in an application for patent on an apparatus for drawing glass the specification stated that any suitable drawing mechanism might be employed, the drawing being performed by the mouth or any desired form of bait and the air or other fluid supplied to the article through the body, but no blowpipe construction was shown in the drawing, *Held* that the Examiner properly allowed an amendment to the drawing to show a conventional construction of bait or blowpipe and operating mechanism.
[*Bolin v. Slingluff, 975.

EQUIVALENTS.

See Trade-Marks, 5.

ESTOPPEL.

See Priority of Invention, 3.

EVIDENCE.

See Priority of Invention, 1, 4, 5.

EXAMINERS-IN-CHIEF.

See Abandonment; Affidavits under Rule 75.

FINAL REJECTION OF CLAIMS.

See Prosecution of Applications, 1.

FORMER DECISIONS CITED.

See Motion to Dissolve Interference, 2; Priority of Invention, 2; Prosecution of Applications, 3; Trade-Marks, 8.

GEOGRAPHICAL TERMS.

See Trade-Marks, 10.

GOODS OF THE SAME DESCRIPTIVE PROPERTIES.

See Trade-Marks, 3, 4, 9.

INDEFINITENESS.

See Motion to Dissolve Interference, 1.

INOPERATIVENESS.

See Motion to Dissolve Interference, 2, 3.

INTERFERENCE.

See Claims; Construction of Claims; Motion to Dissolve Interference; Patentability; Priority of Invention; Right to Make Claims; Trade-Marks, 1.

PRIORITY—CONSTRUCTION OF THE ISSUE.

"While it is true that the issue will not be strained to cover an invention to which it does not naturally apply and that in case of doubt or ambiguity the issue will be read in the light of the specification in which it first appeared, real and not artificial distinctions must be found in the involved applications or, obviously, there will be no room for the application of the familiar rule."
[*Western Electric Co., assignee of McQuarrie and Bullard, v. Martin, 723.

ISSUE IN INTERFERENCE.

See Interference; Right to Make Claims, 2.

LACHES.

See Priority of Invention, 2.

LIMIT OF TIME.

See Prosecution of Application, 2; Reissue.

MERITS OF THE CASE.

See Prosecution of Applications, 3.

MOTION TO DISSOLVE INTERFERENCE.

1. TRANSMISSION OF—WHERE INDEFINITE.

Where the motion to dissolve is based upon the ground that the claim is not patentable to the adverse party, but contains no such clear statement of the reasons why the claim is not patentable as is required by the rules and practice of the Office, *Held* that the Examiner of Interferences properly refused to transmit the motion, for the reason that the same is indefinite.
[Keyes and Kraus *v.* Yunck, 343.

2. SAME—RIGHT TO MAKE THE CLAIM—AFFIDAVITS.

"The decision of the Examiner of Interferences in so far as transmission is refused upon the ground that the motion is based upon affidavits is also right, since it is obvious from the reading of the motion papers that the allegation of inoperativeness is mainly based upon the facts set forth in the affidavits referred to, and it is well settled that such affidavits should not be transmitted for consideration upon a motion for dissolution, for reasons fully set forth in the case of *Horton* v. *Leonard*, (155 O. G., 398.)"
[Id.

3. ALLEGED IRREGULARITY IN DECLARATION—BASED ON INOPERATIVENESS—NO APPEAL FROM DENIAL OF MOTION.

No appeal lies from the decision of the Primary Examiner denying a motion to dissolve the interference on the ground of irregularity in the declaration thereof when such irregularity is based on the alleged inoperativeness of the opposing party's structure.
[Seacombe *v.* Burks, 973.

OPPOSITION TO REGISTRATION.

See Trade-Marks, 8, 9.

PATENTABILITY.

See Construction of Claims; Motion to Dissolve Interference, 1; Right to Make Claims, 3.

ARTICLE—SUPERIORITY OF PROCESS IMMATERIAL.

In considering the question of the patentability of an article "made by whatever process one may choose to employ" the superiority of the process by which it is actually made is immaterial.
[*In re Hodkinson, 261.

PRIOR REGISTRATION.

See Trade-Marks, 5.

PRIORITY OF INVENTION.

See Interference; Right to Make Claims, 1, 3.

1. AWARD—EVIDENCE.

Evidence reviewed and *Held* that O. had not sustained the burden of proof on him as junior party and that he derived his knowledge of the invention from P., to whom priority should be awarded.
[*Poffenbarger *v.* Olson, 249.

2. REDUCTION TO PRACTICE—CONCEALMENT.

"The principle governing *Mason* v. *Hepburn*, and cases following it, applies where the facts and circumstances of inaction show an intention to abandon, suppress, or conceal the knowledge of the invention, until notice of the entry of a subsequent inventor on the unoccupied field induces activity; and that mere delay, not induced by such facts and circumstances, may be explained and accounted for in accordance with the general principles governing the equitable doctrine of laches." [*Lederer *v.* Walker, 511.

3. SAME—SAME.

"As Walker's application was not stimulated by knowledge of Lederer's subsequent invention, we are of the opinion that his delay in making the same, under all the facts and circumstances stated, was not so inexcusable as to estop him from claiming the reward of his earlier invention." [*Id.

4. AWARD—EVIDENCE.

Evidence reviewed and *Held* to establish that S. reduced the invention to practice prior to the earliest date to which B. is entitled, and priority *Held* properly awarded the former.
[Slingluff *v.* Bolin, 720.

5. SAME—SAME.

M. *Held* entitled to make the claims in issue and the evidence *Held* to establish conception and reduction to practice by him prior to the earliest date to which McQ. and B. are entitled or at least prior conception followed by diligence and priority properly awarded him.
[*Western Electric Co., assignee of McQuarrie and Bullard, *v.* Martin, 723.

PROSECUTION OF APPLICATIONS.

See Abandonment; Affidavit under Rule 75; Claims; Drawings.



1. FINAL REJECTION.

A final rejection *Held* not premature where the only change made in the claims was in stating that the supporting-chain is "secured to" the vessel instead of referring to it as a "suspending-chain" or as "adapted to sustain" the vessel.
[*Ex parte* Kaufman, 719.

2. STATUTORY PERIOD EXPIRING ON SUNDAY.

Where the year within which action could be taken expires on Sunday, *Held* that in order to save the case from abandonment amendment should be filed on the preceding day.
[*Ex parte* Miller, 971.

3. REQUIREMENT FOR REDUCTION OF THE NUMBER OF CLAIMS—ACTION ON MERITS.

Where the Examiner required applicant to diminish the number of claims and grouped the same in accordance with the practice in *ex parte Kedow*, *Held* that he should also have acted upon the merits of each group of claims. [*Ex parte* Both, 974.

REDUCTION TO PRACTICE.

See Priority of Invention, 2, 3, 4, 5.

REGISTRABILITY.

See Trade-Marks, 2, 4, 5, 7, 10.

REISSUE.

1. APPLICATION—DELAY.

It is well settled that a patent will not be reissued with enlarged claims upon an application filed more than two years after the grant of the original patent unless unusual circumstances are shown to excuse the delay. [*Ex parte* Tilden, 971.

2. SAME—SAME.

A reissue to correct manifest errors in the specification and to more fully describe the construction illustrated in the drawing rests upon a different footing from a reissue to include enlarged claims, and a showing in excuse of the delay which would be sufficient in the first case may not necessarily be so in the second. [Id.

3. SAME—SAME.

Where an application for a second reissue of a patent was filed more than three years after the grant of the original patent, *Held* that the statement that applicant relied upon his attorney and the latter omitted to claim the invention as broadly as possible and that applicant did not discover the omission at the time the patent issued, is insufficient to justify the grant of the reissue. [Id.

REOPENING OF DECIDED CASES.

See Abandonment.

RESPONSIVE ACTION BY THE APPLICANT.

See Abandonment; Prosecution of Applications.

RIGHT TO MAKE CLAIMS.

See Motion to Dissolve Interference, 2; Priority of Invention, 5.

1. INTERFERENCE—PRIORITY.

The disclosure in S.'s application *Held* sufficient basis for a claim including a blowpipe notwithstanding the fact that in his application as originally filed no blowpipe construction was shown in the drawing. [Slingluff *v.* Bolin, 720.

2. NOT DEPENDENT UPON AMENDMENT.

The question of a party's right to make claims corresponding to the issue of an interference does not depend upon whether an amendment is subsequently made. The sole question to be considered is whether the specification and drawing of the application are sufficient to justify the allowance of the claims in question.
[Seacombe *v.* Burks, 973.

3. INTERFERENCE—PRIORITY.

The claim in issue *Held* to properly read upon the construction of both parties and when so read not unpatentable in view of the prior art. [*Bolin *v.* Slingluff, 975.

SECOND REISSUE APPLICATION.

See Reissue, 3.

SIMILARITY OF MARKS.

See Trade-Marks, 2, 4, 7, 8.

SPECIFICATIONS.

See Drawings; Interference; Reissue; Right to Make Claims, 2.



STATE OF THE ART.

See Construction of Claims; Right to Make Claims, 3.

SUNDAYS.

See Prosecution of Applications, 2.

TECHNICAL TRADE-MARKS.

See Trade-Marks, 10.

TRADE-MARKS.

1. INTERFERENCE—DECLARATION—DISCRETION OF THE EXAMINER—APPEAL.

The declaration of an interference between two trade-marks is a matter within the discretion of the Examiner of Trade-Marks, and his decision refusing to declare an interference will not be reviewed on appeal, except where it appears that such discretion has been abused. [Blanke Tea & Coffee Company *v.* Hirsh, 347.

2. SIMILARITY.

The mark "Tika" *Held* unregistrable because of its similarity to the registered mark "Swastika."
[*Ex parte* J. C. Blair Company, 347.

3. GOODS OF SAME DESCRIPTIVE PROPERTIES—"BEER" AND "BREWED BEVERAGE CONTAINING LESS THAN ONE-HALF OF ONE PER CENT. OF ALCOHOL."

A beverage composed of malt and containing less than one-half of one per cent. of alcohol *Held* to constitute goods of the same descriptive properties as beer.
[*In re Independent Breweries Company, 261.

4. SIMILARITY—"AMBER BEAD" AND "AMBER."

The mark "Amber Bead" *Held* properly refused registration in view of the prior registration of "Amber" as a trade-mark for goods of the same descriptive properties. [*Id.

5. "RED MAN" THE EQUIVALENT OF "INDIAN."

The words "Red Man" have come to be understood as the equivalent of "Indian" and the registration of these words *Held* properly refused in view of certain prior registrations in each of which the picture of an Indian is a predominating feature.
[*Ex parte* Revere Rubber Company, 509.

6. "AUTOMOBILE TRADE DIRECTORY"—NOT DESCRIPTIVE.

The words "The Automobile Trade Directory" as applied to applicant's publication must be *Held* to constitute a valid trade-mark, these words not being so wholly descriptive of applicant's publication as to fall within the prohibition of the statute.
[Chilton Printing Co. *v.* The Class Journal Co., 510.

7. SIMILARITY.

The title "The Automobile Trade Directory" as applied to a publication *Held* not so similar to the title "The Cycle and Automobile Trade Journal" as applied to a publication of the same class as to be likely to cause confusion in the mind of the public.
[Id.

8. OPPOSITION.

Where an opposer used neither the mark sought to be registered by the applicant nor one so similar thereto as to be liable to cause confusion in the mind of the public, he has no standing in the opposition proceedings, (citing *Underwood Typewriter Co.* v. *A. B. Dick Co.*, 183 O. G., 730; 36 App. D. C., 178.) [Id.

9. DISTILLED WATER AND PEROXID OF HYDROGEN—NOT GOODS OF THE SAME DESCRIPTIVE PROPERTIES.

Where a notice of opposition was filed to the registration of a mark as a trade-mark for peroxid of hydrogen, alleging use of the mark first upon artificial ice and subsequently upon distilled water, ginger-ale, metal coolers, and peroxid of hydrogen, but the mark was not used upon peroxid of hydrogen until after its use by applicant, *Held* that the opposition was properly dismissed, since peroxid of hydrogen does not constitute goods of the same descriptive properties as distilled water nor merchandise of such character as to come within the natural expansion of the previous business of the opposer.
[Consumers Company *v.* Hydrox Chemical Co., 721.

10. "GOLDEN STATE"—GEOGRAPHICAL.

The words "Golden State" *Held* not registrable as a technical trade-mark, since they constitute a name applied to California and are therefore geographical.
[*Ex parte* Goldberg, Bowen & Co., 974.

TRANSMISSION OF MOTIONS.

See Motion to Dissolve Interference, 1, 2.

VALID TRADE-MARK.

See Trade-Marks, 6.

# ALPHABETICAL LIST OF PATENTEES

TO WHOM

## PATENTS WERE ISSUED DURING THE MONTH OF SEPTEMBER, 1912.

Abbreviations: "Sp."=Monthly Volume of Specifications; "Gaz."=Official Gazette.]

A. Kimball Company. (See Edwards, John C., assignor.)
A. E. Hill Manufacturing Company. (See Hill, Albert E., assignor.)
A. F. Meisselbach & Brother. (See Catucci, Pliny, assignor.)
A. J. Ellis, Inc. (See Ellis, Alfred J., assignor.)
A. J. Ellis, Inc. (See Ellis and Nellis, assignors.)
Abbott, Augustus, assignor to Abbott Coin Counter Company, New York, N. Y. Coin counting and packaging device. No. 1,037,405; Sept. 3; Gaz. vol. 182; p. 76.
Abbott Coin Counter Company. (See Abbott, Augustus, assignor.)
Abernethy, Robert, Port Moody, British Columbia, assignor of one-half to R. Hamilton, Vancouver, Canada. Drying-kiln. No. 1,038,709; Sept. 17; Gaz. vol. 182; p. 886.
Ackermann, Hugo, Dinslaken, Germany. Step-by-step rolling-mill. No. 1,038,710; Sept. 17; Gaz. vol. 182; p. 587.
Ackley, David S., Grand Rapids, Mich. Saw-guard. No. 1,037,843; Sept. 10; Gaz. vol. 182; p. 255.
Ackroyd, John H., Elizabeth, N. J. Cloth-board for winding fabrics thereon. No. 1,038,061; Sept. 10; Gaz. vol. 182; p. 330.
Actien Gesellschaft für Anilin Fabrikation. (See Hersberg and Scharfenberg, assignors.)
Adams, Arthur J., assignor to Fulton Manufacturing Company, Chicago, Ill. Baby-carriage or go-cart. No. 1,037,572; Sept. 3; Gaz. vol. 182; p. 184.
Adams, Edwin L., assignor of one-half to N. A. Linstrom and F. A. Westering, Edgar, Nebr. Automatic grain-weigher. No. 1,039,471; Sept. 24; Gaz. vol. 182; p. 865.
Adams & Westlake Company, The. (See Douglas, Harry A., assignor.)
Adams & Westlake Company, The. (See Glese, James A., assignor.)
Adams & Westlake Company, The. (See Hamm, William S., assignor.)
Adams & Westlake Company, The. (See Warder, Walter J., Jr., assignor.)
Adamson, Alexander, Akron, Ohio. Vulcanizing-mold. No. 1,037,147; Sept. 3; Gaz. vol. 182; p. 3.
Addograph Manufacturing Company. (See Hopkins, Hubert, assignor.)
Adkins, Marian F., Ranger, W. Va. Framing-tool. No. 1,039,076; Sept. 24; Gaz. vol. 182; p. 727.
Adriance, Benjamin, and A. Calleson, Brooklyn, N. Y.; said Calleson assignor to said Adriance. Machine for forming sheet-metal articles. No. 1,037,844; Sept. 10; Gaz. vol. 182; p. 255.
Adt, Leo F., Albany, N. Y. Nose-guard for eyeglasses. No. 1,038,711; Sept. 17; Gaz. vol. 182; p. 587.
Adt, Leo F., Albany, N. Y. Eyeglass-mounting. (Reissue.) No. 13,466; Sept. 17; Gaz. vol. 182; p. 707.
Ahlden, Alfred, Northport, Wash. Sew-set. No. 1,037,711; Sept. 3; Gaz. vol. 182; p. 180.
Aiken, Edward L., East Orange, assignor, by mesne assignments, to Thomas A. Edison, Incorporated, West Orange, N. J. Moving-picture apparatus. No. 1,037,188; Sept. 3; Gaz. vol. 182; p. 3.
Air Friction Carburetor Company, The. (See Raymond, John W., assignor.)
Ajax Forge Company. (See Elfborg, Henry G., assignor.)
Albee, Asa N., assignor to The Shredded Wheat Company, Niagara Falls, N. Y. Carton-sealing machine. No. 1,037,845; Sept. 10; Gaz. vol. 182; p. 256.
Albers, Johann W., Harburg, Germany. Sealing device for foot-ball bladders and the like. No. 1,037,406; Sept. 3; Gaz. vol. 182; p. 77.
Albert, Babetta, Rixdorf, Germany. Game apparatus. No. 1,038,062; Sept. 10; Gaz. vol. 182; p. 331.
Alexander, Colwell H., Beaumont, Tex. Journal-box oil-cup. No. 1,039,629; Sept. 24; Gaz. vol. 182; p. 920.
Alexander, Jesse, New York, assignor of one-half to T. A. Reed and one-half to W. G. Ridgway, Brooklyn, N. Y. Type-writer key and type-bar mechanism. No. 1,039,472; Sept. 24; Gaz. vol. 182; p. 865.
Alexander, Jesse, New York, assignor of one-half to T. A. Reed and one-half to W. G. Ridgway, Brooklyn, N. Y. Type-writer ribbon mechanism. No. 1,039,473; Sept. 24; Gaz. vol. 182; p. 866.
Alexander, John R., Mount Sidney, Va. Loading apparatus. No. 1,039,007; Sept. 17; Gaz. vol. 182; p. 688.
Alexander, Joseph F. and W. G., Seattle, Wash. Casting device for dental purposes. No. 1,038,063; Sept. 10; Gaz. vol. 182; p. 331.
Alexander, William E., Jefferson township, Boone county, Ind. Manure-spreader. No. 1,038,814; Sept. 17; Gaz. vol. 182; p. 623.
Alexander, William G. (See Alexander, Joseph F. and W. G.)
Alfvegren, Frederick A., Birch Lake, Wis. Grapple. No. 1,037,712; Sept. 3; Gaz. vol. 182; p. 180.
Alborn, Wilhelm, Berlin, Germany. Converter for continuous current. No. 1,038,064; Sept. 10; Gaz. vol. 182; p. 331.
Allen, Charles H., assignor to Troy Laundry Machinery Company, Limited, Chicago, Ill. Electric heater. No. 1,037,573; Sept. 3; Gaz. vol. 182; p. 184.
Allen, David B., Newport, R. I. Adjustable bed. No. 1,038,472; Sept. 10; Gaz. vol. 182; p. 470.
Allen, Edward B., Bridgeport, Conn., assignor to The Singer Manufacturing Company, Cord-laying device for sewing-machines. No. 1,039,241; Sept. 24; Gaz. vol. 182; p. 785.
Allen, George H. (See Kelley, Charles C., assignor.)
Allen, Guy L., Boulder, Colo. Cement-tile machine. No. 1,037,189; Sept. 3; Gaz. vol. 182; p. 3.
Allen, Lynn L., Atlanta, Ga. Device for making designs. No. 1,039,474; Sept. 24; Gaz. vol. 182; p. 866.
Allen, Thomas B., assignor to The Carborundum Company, Niagara Falls, N. Y. Making silicon articles. No. 1,037,713; Sept. 3; Gaz. vol. 182; p. 180.
Allfree, James B., assignor to The Hobart-Allfree Company, Chicago, Ill. Steam-engine or the like. No. 1,038,261; Sept. 10; Gaz. vol. 182; p. 397.
Allis-Chalmers Company. (See Hirt, Jules H., assignor.)
Alma Manufacturing Company of Baltimore City. (See Keragood, Herman, assignor.)
Alsburg, Julius, New York, N. Y. Insulator. No. 1,038,473; Sept. 10; Gaz. vol. 182; p. 471.
Alsfasser, Joseph, Chicago, Ill. Fushia link. No. 1,039,077; Sept. 24; Gaz. vol. 182; p. 727.
Alwin Manufacturing Company. (See Beier, Frank J., assignor.)
American Box Ball Co., The. (See Shaw, Claude, assignor.)
American Cigar Company. (See Weiss, Nathan, assignor.)
American Electrical Heater Company. (See Kuhn and Shailor, assignors.)
American Engineering & Manufacturing Company. (See MacIndoe, John F., assignor.)
American Ever Ready Company. (See Hammond, William P., assignor.)
American Finishing Machinery Company. (See Hayward, Melville P., assignor.)
American Hardware Corporation, The. (See Voight, Henry G., assignor.)
American Key Can Company. (See McColl, Francis P., assignor.)
American Mailing System Co. (See Exline, Marcus P., assignor.)
American Multigraph Company, The. (See Gammeter, Harry C., assignor.)
American Optical Company. (See Baker, Nelson M., assignor.)
American Optical Company. (See Poston, Lawrence, assignor.)
American Optical Company. (See Styll, Harry H., assignor.)
American Patent Manufacturing Company. (See Bryant, Henry E., assignor.)
American Sheet & Tin Plate Company. (See Gibson, William, Sr., assignor.)
American Steel Foundries. (See Kinne, Edmund P., assignor.)
American Stove Company. (See Nicolaus, Frederic G., assignor.)
American Stove Company. (See Roy, Joseph, assignor.)
American Tag Company. (See Swett and La Batt, assignors.).

American Vimograph Company. (See Duhem, Victor L., assignor.)
Amerman, Dorr, near Longmont, Colo. Spring-wheel. No. 1,037,574; Sept. 3; Gaz. vol. 182; p. 134.
Andersen, Alfred E., Copenhagen, Denmark, assignor to F. L. Smidth & Co., New York, N. Y. Cooler. No. 1,038,511; Sept. 17; Gaz. vol. 182; p. 517.
Andersen, George I., San Francisco, Cal. Device for denoting expansion of dough. No. 1,037,714; Sept. 3; Gaz. vol. 182; p. 180.
Andersen, Lauritz W., assignor to The Plume and Atwood Manufacturing Company, Waterbury, Conn. Flexible chain for lighting-fixtures. No. 1,037,575; Sept. 3; Gaz. vol. 182; p. 135.
Andersen, Wilford E., Emmett, Idaho. Pilot-lamp-operating mechanism. No. 1,037,816; Sept. 3; Gaz. vol. 182; p. 212.
Anderson, Anders G., New York, N. Y. Lock. No. 1,038,512; Sept. 17; Gaz. vol. 182; p. 517.
Anderson-Barngrover Manufacturing Company. (See Thompson, Albert R., assignor.)
Anderson, Charles A., Chicago, Ill. Carbon-dioxid engine. No. 1,037,190; Sept. 3; Gaz. vol. 182; p. 4.
Anderson, David F. (See Grove and Anderson.)
Anderson, Hamilton E., Wichita, Kans. Apparatus for separating smoke-suspended matter. No. 1,038,513; Sept. 17; Gaz. vol. 182; p. 517.
Anderson, Henry A., Missoula, Mont. Curtain-pole. No. 1,037,846; Sept. 10; Gaz. vol. 182; p. 256.
Anderson, John. (See Proctor, Loftus, and Anderson.)
Anderson, John W., Jr., Woodland, Ill. Gravity-conveyer. No. 1,038,514; Sept. 17; Gaz. vol. 182; p. 518.
Anderson, Lawrence, Chicago, Ill. Dust-separator. No. 1,039,008; Sept. 17; Gaz. vol. 182; p. 689.
Anderson, Newton J., Coffeyville, Kans. Oxygen-generator. No. 1,038,065; Sept. 10; Gaz. vol. 182; p. 331.
Anderson, Olaf, Chicago, Ill. Center-bearing for railway-cars. No. 1,037,576; Sept. 3; Gaz. vol. 182; p. 135.
Anderson, Roy F. (See Hatsake and Anderson.)
Angerer, Victor, Ridley Park, assignor to William Wharton, Jr., & Company, Incorporated, Philadelphia, Pa. Switch structure. No. 1,037,817; Sept. 3; Gaz. vol. 182; p. 213.
Anglo-American Cabinet Co. (See Dewar, William H., assignor.)
Anita Safety Match Company. (See Smith, Charles F., assignor.)
Ansco Company. (See Bornmann, Carl, assignor.)
Ansco Company. (See Bornmann and Toplitt, assignors.)
Anstice, Mortimer R., Rochester, N. Y. Carbureter. No. 1,038,262; Sept. 10; Gaz. vol. 182; p. 397.
Anthony, Noel L., Cranston, R. I. Lock for car-doors. No. 1,038,815; Sept. 17; Gaz. vol. 182; p. 624.
Arcade Manufacturing Company. (See Tscherning, Henry, assignor.)
Armstead, Frank C., assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa. Furnace. No. 1,037,715; Sept. 3; Gaz. vol. 182; p. 181.
Armstrong, John D., *et al.* (See Halliday, George, assignor.)
Arnold, Charles L., Bardstown, Ky. Shipping-box. No. 1,038,816; Sept. 17; Gaz. vol. 182; p. 624.
Arnold, Gilbert J., Torquay, England. Wheel having detachable rim. No. 1,039,348; Sept. 24; Gaz. vol. 182; p. 822.
Arnold, Joseph M., Brussels-Kockelberg, Belgium. Combined collapsible chair and bag. No. 1,039,078; Sept. 24; Gaz. vol. 182; p. 727.
Arnold, William, New York, N. Y. Vehicle-wheel. No. 1,037,847; Sept. 10; Gaz. vol. 182; p. 256.
Arragg, George M., Lawrence, Mass. Device for handling broken ends. No. 1,039,349; Sept. 24; Gaz. vol. 182; p. 823.
Ashbaugh, Mifflin L. (See Leveen and Ashbaugh.)
Ashton, John H., Providence, R. I. Sanitary drinking-fountain. No. 1,038,817; Sept. 17; Gaz. vol. 182; p. 625.
Asland, Knute S., Chicago, Ill. Music-leaf turner and holder. No. 1,038,818; Sept. 17; Gaz. vol. 182; p. 625.
Aston, Taggart, San Francisco, Cal. Curbing for railway-tracks running along or across streets or roads. No. 1,037,716; Sept. 3; Gaz. vol. 182; p. 181.
Astrom, Carl P., East Orange, N. J., assignor to M. H. Treadwell Company. Dumping-car. No. 1,037,848; Sept. 10; Gaz. vol. 182; p. 256.
Athol Machine Company. (See French and Bates, assignors.)
Atkinson, Sherwood. (See Hall, Robert B., assignor.)
Atlantic National Bank. (See Cummings, Henry H., assignor.)
Atwood, Arthur F., Attleboro, Mass. Attachment for bottling-machines. No. 1,039,630; Sept. 24; Gaz. vol. 182; p. 921.
Atwood, Ray S., Plymouth, Pa. Winding-spindle. No. 1,038,263; Sept. 10; Gaz. vol. 182; p. 397.
Auble, James H. and J. L., assignors of one-third to H. A. Barrett. Cincinnati, Ohio. Lawn-mower. No. 1,039,475; Sept. 24; Gaz. vol. 182; p. 866.
Auble, James L. (See Auble, James H. and J. L.)
Audley, Francis H., New York, N. Y. Pistol-holster carrier. No. 1,037,717; Sept. 3; Gaz. vol. 182; p. 181.
Aulsebrook, Thomas R., Louisville, Ky. Liquid-fuel burner. No. 1,038,712; Sept. 17; Gaz. vol. 182; p. 587.
Austin, Archibald J., Los Angeles, Cal. Aerial illuminating mechanism. No. 1,039,476; Sept. 24; Gaz. vol. 182; p. 867.
Austin, De Roy, Omaha, Nebr. Legging. No. 1,037,407; Sept. 3; Gaz. vol. 182; p. 77.
Austin, Frederick C. (See Bunnell, Morton G., assignor.)
Authier, Edward C. (See Ottenheimer and Authier.)
Auto Strop Company. (See Galsman, Henry J., assignor.)
Averheck, Henry J., Covington, Ky. Shaper. No. 1,039,079; Sept. 24; Gaz. vol. 182; p. 728.
Averill, Carrie B., Fort Wayne, Ind. Baby-carrier. No. 1,039,009; Sept. 17; Gaz. vol. 182; p. 689.
Avery Company. (See Chubbock, Orlo P., assignor.)
Aydelott, Halstead T., Birmingham, Ala. Attachment for steam-locomotives. No. 1,038,515; Sept. 17; Gaz. vol. 182; p. 518.
B. F. Sturtevant Company. (See Foss, Benjamin S., assignor.)
B. F. Sturtevant Company. (See Sanders, Thomas R., assignor.)
Babcock, Frank A., assignor of one-half to J. E. Maloney, Syracuse, N. Y. Transmission-gearing. No. 1,037,718; Sept. 3; Gaz. vol. 182; p. 182.
Babcock, Fred A., assignor of one-half to C. C. Peck, Wyndmoor, Pa. Tool with radially-movable blades for circular cutting. No. 1,038,819; Sept. 17; Gaz. vol. 182; p. 626.
Back, Arthur D., Juneau, Alaska. Bag-holder. No. 1,038,474; Sept. 10; Gaz. vol. 182; p. 471.
Backman, Carl, Jamestown, N. Y. Bread-cutter. No. 1,038,820; Sept. 17; Gaz. vol. 182; p. 626.
Bader, Gustav A., Rochester, N. Y. Eyeglass-mounting. No. 1,037,849; Sept. 10; Gaz. vol. 182; p. 257.
Bader, Gustav A., Rochester, N. Y. Eyeglass-mounting. No. 1,038,516; Sept. 17; Gaz. vol. 182; p. 519.
Badische Anilin & Soda Fabrik. (See Bally, Oscar, assignor.)
Baekeland, Leo H., Yonkers, assignor to General Bakelite Company, New York, N. Y. Varnish. No. 1,037,719; Sept. 3; Gaz. vol. 182; p. 182.
Baekeland, Leo H., Yonkers, assignor to General Bakelite Company, New York, N. Y. Making insoluble bodies derived from phenol alcohols. No. 1,038,475; Sept. 10; Gaz. vol. 182; p. 471.
Bagar, Franz, Vienna, Austria-Hungary, assignor to Josef Inwald Glass Co., New York, N. Y. Bottle-closing device. No. 1,038,476; Sept. 10; Gaz. vol. 182; p. 471.
Bailey, Frank, and F. H. Jackson, London, England. Apparatus for straining liquids. No. 1,038,066; Sept. 10; Gaz. vol. 182; p. 332.
Bailey, John J., Ubly, Mich. Portable rack. No. 1,039,080; Sept. 24; Gaz. vol. 182; p. 728.
Bailey, Joseph, assignor of one-half to C. K. Curtis, Jersey City, N. J. Bottle-stopper. No. 1,038,067; Sept. 10; Gaz. vol. 182; p. 332.
Bailey, Theodorus S., Quincy, Mass., assignor to Electric Boat Company, New York, N. Y. Conning mechanism for submarine boats. No. 1,037,191; Sept. 3; Gaz. vol. 182; p. 5.
Baker, Adolph A., Butte, Mont. Snow-shoe. No. 1,038,264; Sept. 10; Gaz. vol. 182; p. 398.
Baker, Allen J., Stewartstown, Pa. Means for fastening the movements of watches in the cases. No. 1,037,577; Sept. 3; Gaz. vol. 182; p. 135.
Baker, Dexter C., and H. F. Hansen, San Jose, Cal. Rotary pump. No. 1,038,477; Sept. 10; Gaz. vol. 182; p. 472.
Baker, Donald C., Canal Dover, Ohio. Envelop-moistening device. No. 1,038,265; Sept. 10; Gaz. vol. 182; p. 398.
Baker, Francis M., Viroqua, Wis. Harvester-reel. No. 1,039,631; Sept. 24; Gaz. vol. 182; p. 921.
Baker, Frank S., Chicago, Ill. Rack for tracings. No. 1,037,408; Sept. 3; Gaz. vol. 182; p. 78.
Baker, George M., Bath, N. Y. Band-brake. No. 1,038,478; Sept. 10; Gaz. vol. 182; p. 472.
Baker, Horace W., Dayton, Ohio. Machine for etching plates. No. 1,039,242; Sept. 24; Gaz. vol. 182; p. 786.
Baker, Nelson M., assignor to American Optical Company, Southbridge, Mass. Eyeglasses. No. 1,039,069; Sept. 17; Gaz. vol. 182; p. 705.
Baker, Reuben C., Coalings, Cal. Packer for oil or Artesian wells. No. 1,037,850; Sept. 10; Gaz. vol. 182; p. 257.
Baldwin Garment Company. (See Baldwin, William C. P., assignor.)
Baldwin, William A., Haiku, Maui, Hawaii. Treating pineapples for canning. No. 1,039,350; Sept. 24; Gaz. vol. 182; p. 823.
Baldwin, William C. P., assignor to Baldwin Garment Company, Holyoke, Mass. Reversible and adjustable garment. No. 1,038,821; Sept. 17; Gaz. vol. 182; p. 626.
Baldwin, William C. P., assignor to Baldwin Garment Company, Holyoke, Mass. Woman's reversible-front house-dress. No. 1,039,632; Sept. 24; Gaz. vol. 182; p. 922.
Baldwin, William D., Hummelstown, Pa. Railway-switch. No. 1,037,409; Sept. 3; Gaz. vol. 182; p. 78.
Ball, Samuel C., Chicago, Ill. Tool for vacuum-cleaners. No. 1,038,517; Sept. 17; Gaz. vol. 182; p. 519.
Bally, Oscar, Mannheim, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Anthracene dye and making same. No. 1,037,410; Sept. 3; Gaz. vol. 182; p. 78.
Bamberger, Alfred F., New Cumberland, and G. Porter, New Market, Pa. Stocking-turner. No. 1,039,477; Sept. 24; Gaz. vol. 182; p. 867.
Banker, Frank E. (See Guyon and Banker.)
Banta, Len A., Ligonier, Ind. Minnow-pail. No. 1,039,633; Sept. 24; Gaz. vol. 182; p. 922.



Barbee, John, *et al.* (See Lamar, Alexis L., assignor.)
Barbee, William, *et al.* (See Lamar, Alexis L., assignor.)
Barber, John C., assignor to Standard Car Truck Company, Chicago, Ill. Roller-bearing center plate. No. 1,038,822; Sept. 17; Gaz. vol. 182; p. 626.
Barbey, Francis A., *et al.* (See McManama, John W., assignor.)
Barbour, James G., assignor to The Metropolitan Paving Brick Company, Canton, Ohio. Brick. No. 1,038,823; Sept. 17; Gaz. vol. 182; p. 627.
Bardo, Fred J., Buffalo, N. Y. Check-valve. No. 1,038,518; Sept. 17; Gaz. vol. 182; p. 519.
Bardsley, James, Akron, Ohio. Devulcanising apparatus. No. 1,039,010; Sept. 17; Gaz. vol. 182; p. 689.
Barger, Levi S. (See Phillips and Barger.)
Barker, England J., Morgan Park, Ill. Autographic register. No. 1,038,824; Sept. 17; Gaz. vol. 182; p. 627.
Barkstrom, Charles E., Chicago, Ill. Dust-proof reed-pipe. No. 1,037,578; Sept. 3; Gaz. vol. 182; p. 135.
Barlow Company. (See Gill, George C., assignor.)
Barnes, Erastus H., and E. C. Thorschmidt, New York, N. Y. Machine for corrugating, cutting up, and driving strips of metal into wood. No. 1,039,478; Sept. 24; Gaz. vol. 182; p. 868.
Barnes, Nathan M., Minneapolis, Minn. Window-ventilator. No. 1,038,825; Sept. 17; Gaz. vol. 182; p. 627.
Barnett, George W., Chicago, Ill. Rack for rubber stamps. No. 1,039,634; Sept. 24; Gaz. vol. 182; p. 922.
Barnewolt, Ora A. (See Schmidgall and Barnewolt.)
Barney, William H., Albuquerque, N. Mex. Train-order-pad holder. No. 1,038,713; Sept. 17; Gaz. vol. 182; p. 588.
Barnstead, Robert P., Boston, Mass. Sterilizer. No. 1,039,243; Sept. 24; Gaz. vol. 182; p. 786.
Barnum, Dana D., Worcester, Mass. Generating gas. No. 1,039,479; Sept. 24; Gaz. vol. 182; p. 868.
Baron, Morris, Boston, Mass. Table. No. 1,039,070; Sept. 17; Gaz. vol. 182; p. 706.
Barrett, George F., Ridgefield Park, N. J. Fountain-pen. No. 1,038,068; Sept. 10; Gaz. vol. 182; p. 332.
Barrett, H. A. (See Auble, James H. and J. L., assignors.)
Bart, Henri, Paris, France. Nut-lock. No. 1,038,479; Sept. 10; Gaz. vol. 182; p. 472.
Bartholomew, James H. S., Occidental, and E. F. Heath, Santa Rosa, Cal. Aeroplane. No. 1,037,411; Sept. 3; Gaz. vol. 182; p. 79.
Bartholomew, William, assignor to Troy Laundry Machinery Company, Limited, Chicago, Ill. Machine for making scoop washing-cylinders. No. 1,038,714; Sept. 17; Gaz. vol. 182; p. 588.
Bartlett, Harry O., Caldwell, Ohio. Tire. No. 1,037,412; Sept. 3; Gaz. vol. 182; p. 79.
Bartlett, Kent W., Madison, Wis., assignor to Northern Water Softener Company. Liquid-measuring apparatus. No. 1,037,413; Sept. 3; Gaz. vol. 182; p. 79.
Bartlett, Walter J. R., San Francisco, Cal. Production of intaglio printing-surfaces for lithographic or aluminum printing. No. 1,038,266; Sept. 10; Gaz. vol. 182; p. 398.
Barton, Delbert E., deceased, Milwaukee, Wis.; J. H. Spence, administrator. Fleet-cutting trolley. No. 1,038,508; Sept. 10; Gaz. vol. 182; p. 482.
Baschkin, Johann, Kolomna, Moscow, Russia. Injector. No. 1,038,826; Sept. 17; Gaz. vol. 182; p. 628.
Bassett, Frank P., Lawrence, N. Y. Radiator-shield. No. 1,039,480; Sept. 24; Gaz. vol. 182; p. 868.
Basting, Wilhelm A., Erbach, Germany. Violin-piano. No. 1,039,481; Sept. 24; Gaz. vol. 182; p. 869.
Bates, Dresser T. (See French and Bates.)
Bates, Francis C., San Jose, Cal. Wave-motor. No. 1,039,061; Sept. 24; Gaz. vol. 182; p. 728.
Bathurst, Thomas T., Kansas City, Mo. Fuel-feeding system for steam-boiler furnaces. No. 1,038,069; Sept. 10; Gaz. vol. 182; p. 332.
Battershall, Fletcher W., Albany, N. Y. Making photographs. No. 1,037,192; Sept. 3; Gaz. vol. 182; p. 5.
Bauer, Christopher, Clara City, Minn. Combination-tool. No. 1,039,482; Sept. 24; Gaz. vol. 182; p. 869.
Bauer, William L., Covington, Ky. Tire-fastening device. No. 1,037,414; Sept. 3; Gaz. vol. 182; p. 80.
Baugh, Ansel M., Omaha, Nebr. Steam-vulcaniser. No. 1,038,519; Sept. 17; Gaz. vol. 182; p. 520.
Baumruk, Joseph, Chicago, Ill. Weather-strip. No. 1,037,720; Sept. 3; Gaz. vol. 182; p. 182.
Bayler, Charles A., York, Pa. Wheeled tray. No. 1,038,267; Sept. 10; Gaz. vol. 182; p. 399.
Baylis, Everest A., Madera, Mexico. Protective covering for concentrator-tables and applying the same. No. 1,037,579; Sept. 3; Gaz. vol. 182; p. 136.
Beacon Falls Rubber Shoe Company, The. (See Crowley, John T., assignor.)
Beadle, George W., Bayonne, N. J., assignor to Single Service Package Corporation of America, New York, N. Y. Roller spinning-disk for crimping-machines. No. 1,038,715; Sept. 17; Gaz. vol. 182; p. 588.
Beaird, Daniel H. (See Portner and Beaird.)
Beall, Albert E., Clinton, Iowa, assignor to R. N. Howes and H. U. Crockett. Paper-baler. No. 1,039,244; Sept. 24; Gaz. vol. 182; p. 786.
Beam, Charles W., assignor to H. C. Fry Glass Company, Rochester, Pa. Polishing-machine. No. 1,037,851; Sept. 10; Gaz. vol. 182; p. 257.
Beam, Charles W., assignor to H. C. Fry Glass Company, Rochester, Pa. Polishing-machine. No. 1,037,852; Sept. 10; Gaz. vol. 182; p. 257.
Beaver, Cornelius, Spangler, Pa. Nut-lock. No. 1,039,483; Sept. 24; Gaz. vol. 182; p. 870.
Bechoff, Ferdinand, Schenectady, N. Y., assignor to General Electric Company. Circuit-controlling mechanism. No. 1,037,580; Sept. 3; Gaz. vol. 182; p. 136.
Beck, Edgar S., Treichlers, Pa. Current-interrupter. No. 1,039,011; Sept. 17; Gaz. vol. 182; p. 690.
Beck, Harry J., Indiana, Pa. Valve-remover. No. 1,038,520; Sept. 17; Gaz. vol. 182; p. 520.
Becket, Frederick M. assignor to Electro Metallurgical Company, Niagara Falls, N. Y. Refractory article and making it. No. 1,038,827; Sept. 17; Gaz. vol. 182; p. 628.
Bedell, Orlando W., New York, N. Y., assignor to Hy-Norris Safe Company, Perth Amboy, N. J. Lock. No. 1,038,268; Sept. 10; Gaz. vol. 182; p. 399.
Bedell, Orlando W., New York, N. Y., assignor to Hy-Norris Safe Company, Perth Amboy, N. J. Safe. No. 1,038,269; Sept. 10; Gaz. vol. 182; p. 399.
Beecher, Julius M., Sr., Belleville, Kans. Portable poultry-perch. No. 1,037,581; Sept. 3; Gaz. vol. 182; p. 136.
Beeman, Marcus M., Meadville, Pa., assignor to The Spirella Company. Garment-stay. No. 1,038,828; Sept. 17; Gaz. vol. 182; p. 628.
Beers, Albert J., East Brunswick, Victoria, Australia. Molding-machine. No. 1,039,635; Sept. 24; Gaz. vol. 182; p. 922.
Behr, Hans C., Johannesburg, Transvaal. Pneumatic ore-stamp. No. 1,038,521; Sept. 17; Gaz. vol. 182; p. 520.
Behrendt, Carl J. (See Behrendt, Fred W. and C. J.)
Behrendt, Fred W. and C. J., Zanesville, Ohio. Weeding device. No. 1,039,012; Sept. 17; Gaz. vol. 182; p. 690.
Beler, Frank J., Elkhart, Ind., assignor to Alwin Manufacturing Company, Chicago, Ill. Folding perambulator or baby-carriage. No. 1,038,829; Sept. 17; Gaz. vol. 182; p. 629.
Bellstein, William, assignor of one-half to C. Krans, Berlin, Ontario, Canada. Sleigh attachment. No. 1,038,716; Sept. 17; Gaz. vol. 182; p. 589.
Belin, Emile J., Newark, N. J. Joining abrasive sheets. No. 1,037,582; Sept. 3; Gaz. vol. 182; p. 136.
Belden, Hawley T., Toledo, Ohio. Friction-clutch for loose pulleys. No. 1,037,193; Sept. 3; Gaz. vol. 182; p. 5.
Bell, Harvey H., Rochester, Minn. Fence-post. No. 1,037,415; Sept. 3; Gaz. vol. 182; p. 80.
Bell & Howell Co. (See Howell, Albert S., assignor.)
Bellem, Louis H. L., and G. J. B. Brégéras, Neuilly-sur-Seine, France. Internal-combustion engine. No. 1,038,830; Sept. 17; Gaz. vol. 182; p. 629.
Bellingham, John (See Yourelle and Bellingham.)
Belt, Francis A., Cincinnati, Ohio. Sack-cleaning machine. No. 1,039,082; Sept. 24; Gaz. vol. 182; p. 728.
Benbow, C. A. (See Merrill, Ira J., assignor.)
BeninCasa, Nicholas, Pittsburgh, Pa. Smoke-diluter. No. 1,038,270; Sept. 10; Gaz. vol. 182; p. 400.
Benjamin Electric Manufacturing Company. (See Benjamin, Reuben B., assignor.)
Benjamin, George H., New York, N. Y. Treating metal ingots. No. 1,038,271; Sept. 10; Gaz. vol. 182; p. 400.
Benjamin, Reuben B., Chicago, Ill. Reflector-shade. No. 1,038,072; Sept. 10; Gaz. vol. 182; p. 333.
Benjamin, Reuben B., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill. Adjustable extension-socket. No. 1,038,070; Sept. 10; Gaz. vol. 182; p. 333.
Benjamin, Reuben B., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill. Portable protected lamp-holder. No. 1,038,071; Sept. 10; Gaz. vol. 182; p. 333.
Bennett, Arthur E., and H. Thompson, Coventry, England. Feed mechanism of turning mills, lathes, or like machines. No. 1,039,484; Sept. 24; Gaz. vol. 182; p. 870.
Bennett, Erastus S., New York, N. Y. Aeroplane. No. 1,037,853; Sept. 10; Gaz. vol. 182; p. 258.
Bennett, George B., Denver, Colo. Vehicle-wheel. No. 1,038,522; Sept. 17; Gaz. vol. 182; p. 521.
Bennett, Judson A., Clovis, N. Mex. Wind-wheel. No. 1,037,854; Sept. 10; Gaz. vol. 182; p. 258.
Benny, Joseph, Newark, N. J. Shock-absorber. No. 1,037,583; Sept. 3; Gaz. vol. 182; p. 137.
Benoist, Marie E., administratrix. (See Benoist, Sanguinet H.)
Benoist, Sanguinet H., deceased, Los Angeles, Cal.; M. E. Benoist, administratrix. Flying-machine. No. 1,038,078; Sept. 10; Gaz. vol. 182; p. 334.
Benton, William F., Birmingham, Ala. Fire-plug. No. 1,038,523; Sept. 17; Gaz. vol. 182; p. 521.
Berbecker & Rowland Manufacturing Company. (See Laun, Christian F., assignor.)
Berger, Alfred R., H. Reymond, and F. P. A. Horn, Springfield, Mass. Life-net. No. 1,038,717; Sept. 17; Gaz. vol. 182; p. 589.
Berger, Johann F. T., Mount Clemens, Mich. Road-scraper. No. 1,037,194; Sept. 3; Gaz. vol. 182; p. 6.
Berger Manufacturing Company, The. (See Smead, George W., assignor.)
Bergeron, Jay P., Tiskilwa, Ill. Advertising device. No. 1,037,855; Sept. 10; Gaz. vol. 182; p. 258.
Bergmann, Emil, assignor to A. J. Gulick, Los Angeles, Cal. Water-purifier. No. 1,038,480; Sept. 10; Gaz. vol. 182; p. 473.
Bergmark, Gustaf, Chicago, Ill. Clutch. No. 1,039,861; Sept. 24; Gaz. vol. 182; p. 828.
Berman, Philip. (See Cohn and Berman.)
Bernhard, John B., New York, N. Y. Sectional boiler. No. 1,038,718; Sept. 17; Gaz. vol. 182; p. 589.

Bernick, Ernst, Riga, Russia, assignor to Optische Anstalt C. P. Goers Aktiengesellschaft, Friedenau, near Berlin, German. Distance-measuring instrument of the coincident-image type. No. 1,038,831; Sept. 17; Gas. vol. 182; p. 630.

Bernotowicz, Dominik I., Chicago, Ill. Ash device for stoves. No. 1,039,352; Sept. 24; Gas. vol. 182; p. 823.

Berntson, Thomas K., assignor of one-fourth to W. A. Kimmel, Washington, D. C. Umbrella. No. 1,039,636; Sept. 24; Gas. vol. 182; p. 923.

Berrenberg, Reinold, Boston, Mass. Power-whistle. No. 1,038,074; Sept. 10; Gas. vol. 182; p. 334.

Berrenberg, Reinold, Boston, Mass. Vacuum-pump apparatus. No. 1,038,075; Sept. 10; Gas. vol. 182; p. 334.

Berrenberg, Reinold, Boston, Mass. Incandescent electric lamp and renewing the same. No. 1,038,076; Sept. 10; Gas. vol. 182; p. 335.

Berry, Daniel A. (See Brown and Berry.)

Berry, Jacob W. F., and J. Macon, St. Louis, Mo. Oiling device. No. 1,039,083; Sept. 24; Gas. vol. 182; p. 729.

Berryman, Robert J., Annapolis, Md. Apparatus for manufacturing ice. No. 1,039,013; Sept. 17; Gas. vol. 182; p. 690.

Berti, Salvatore, Rimini, assignor to The Firm of E. Meisl, Milan, Italy. Packing-machine. No. 1,039,637; Sept. 24; Gas. vol. 182; p. 923.

Bettendorf, J. W., administrator. (See Bettendorf, William P.)

Bettendorf, William P., deceased, Bettendorf, Iowa; J. W. Bettendorf, administrator. Underframe for dumping-cars. No. 1,039,638; Sept. 24; Gas. vol. 182; p. 924.

Betz, William G., Chicago Heights, assignor to Steger & Sons Piano Manufacturing Company, Chicago, Ill. Hammer-rail construction for pneumatic pianos. No. 1,037,584; Sept. 3; Gas. vol. 182; p. 137.

Beverstock, Charles W., Los Angeles, Cal. Concrete construction. No. 1,037,416; Sept. 3; Gas. vol. 182; p. 80.

Beyrle, Robert, Los Angeles, Cal. Gold saving and amalgamating machine. No. 1,037,195; Sept. 3; Gas. vol. 182; p. 6.

Bickford, Elbridge S., Bristol, N. H. Sprinkling device. No. 1,039,084; Sept. 24; Gas. vol. 182; p. 729.

Bidwell, Frank S. (See Tyler, Aaron J., assignor.)

Biertuempfel, Albert H., Newark, N. J. Machine for splitting cork-bark. No. 1,038,272; Sept. 10; Gas. vol. 182; p. 400.

Biggar, James G., New York, N. Y. Counter. No. 1,039,485; Sept. 24; Gas. vol. 182; p. 870.

Biggers, Dennis D., May, Okla. Railway-telephone. No. 1,038,832; Sept. 17; Gas. vol. 182; p. 630.

Billiter, Jean, Vienna, Austria-Hungary. Electrolysis of liquids. No. 1,037,585; Sept. 3; Gas. vol. 182; p. 137.

Bilyeu, Alfred A., Granby, Mo. Rotary steam-engine. No. 1,039,353; Sept. 24; Gas. vol. 182; p. 824.

Bing, Leon E., Indianapolis, Ind. Jeweler's appliance. No. 1,037,196; Sept. 3; Gas. vol. 182; p. 6.

Bingham, Charles, London, England. Gas-generator. No. 1,038,077; Sept. 10; Gas. vol. 182; p. 335.

Birawer, Ernst, Berlin, Germany. Apparatus for compressing air and other fluids. No. 1,037,586; Sept. 3; Gas. vol. 182; p. 138.

Bishop, Clarence A., New York, N. Y. Calculating instrument. No. 1,039,245; Sept. 24; Gas. vol. 182; p. 787.

Bissell Carpet Sweeper Co. (See Mason and Shanahan, assignors.)

Bissell, Joseph E., Pittsburgh, Pa. Power-transmitting mechanism. No. 1,038,833; Sept. 17; Gas. vol. 182; p. 630.

Bittel, Emmett A. (See Bonney, Bick R., assignor.)

Bittorf, Louis A., assignor to National Manufacturing Company, Sterling, Ill. Door-hanger. No. 1,039,246; Sept. 24; Gas. vol. 182; p. 788.

Björgum, Nils, Asker, near Christiania, Norway. Cartridge-feed belt. No. 1,038,078; Sept. 10; Gas. vol. 182; p. 336.

Black, Charles A., *et al.* (See Halliday, George, assignor.)

Black, Joe W., Gomes, Tex. Currycomb. No. 1,038,273; Sept. 10; Gas. vol. 182; p. 401.

Blair, Thomas P. (See Toma and Blair.)

Blair, William E., assignor to Buffalo Gasolene Motor Company, Buffalo, N. Y. Valve-stem housing. No. 1,037,856; Sept. 10; Gas. vol. 182; p. 259.

Blake, Charles C., Brookline, assignor to Blake Signal and Manufacturing Co., Boston, Mass. Electric signal. No. 1,039,247; Sept. 24; Gas. vol. 182; p. 788.

Blake, Henry W., Rail Ground, Ga. Car-truck. No. 1,038,481; Sept. 10; Gas. vol. 182; p. 473.

Blake, Roy, and C. W. College, Hopewell, Pa. Can-opener. No. 1,039,015; Sept. 17; Gas. vol. 182; p. 691.

Blake Signal and Manufacturing Co. (See Blake, Charles C., assignor.)

Blanchard, William C., *et al.* (See Leonard, Marshal L., assignor.)

Bliss, William L., Milwaukee, Wis., assignor to The United States Light & Heating Company, New York, N. Y. Junction-box. No. 1,039,248; Sept. 24; Gas. vol. 182; p. 789.

Blocki, Frank A. (See Blocki, Franz and F. A.)

Blocki, Franz and F. A., Sheboygan, Wis. Windrower. No. 1,037,418; Sept. 3; Gas. vol. 182; p. 81.

Bloom, Edgar J., Tiffin, Ohio. Packing. No. 1,038,834; Sept. 17; Gas. vol. 182; p. 631.

Bloomfield, William J., Antioch, Cal. Bean-cleaner. No. 1,039,249; Sept. 24; Gas. vol. 182; p. 789.

Blosser, J. W. (See Rives, James D., assignor.)

Blumenstein, Frans, London, England. Regenerative gas-burner. No. 1,038,274; Sept. 10; Gas. vol. 182; p. 401.

Blumer, Emil, St. Jacob, Ill. Silo-mold. No. 1,039,085; Sept. 24; Gas. vol. 182; p. 729.

Bocorselski, Frank E. (See Lassiter and Bocorselski.)

Bodkin, John A., New York, N. Y. Insulated rail-joint. No. 1,037,197; Sept. 3; Gas. vol. 182; p. 7.

Bodwin, John J., McKeesport, Pa. Fluid-pressure regulator. No. 1,039,639; Sept. 24; Gas. vol. 182; p. 924.

Bohaček, Paul, assignor to Maschinenfabrik Moenus A. G., Frankfort-on-the-Main, Germany. Staking-machine. No. 1,039,016; Sept. 17; Gas. vol. 182; p. 691.

Bolduc, George H., Detroit, Mich. Car-fender and wheel-guard. No. 1,039,086; Sept. 24; Gas. vol. 182; p. 730.

Bonadio, Pasquale, Watertown, N. Y. Hose-coupling. No. 1,039,354; Sept. 24; Gas. vol. 182; p. 824.

Bond Foundry & Machine Company. (See Streeper, Charles W., assignor.)

Bonness, William F., Madison, Wis. Nut-lock. No. 1,039,017; Sept. 17; Gas. vol. 182; p. 691.

Bonney, Bick R., assignor to E. A. Bittel, Kansas City, Mo. Poultry-perch. No. 1,038,079; Sept. 10; Gas. vol. 182; p. 336.

Booe, Lex P., and R. Davis, Chanute, Kans. Gas-well packer. No. 1,038,080; Sept. 10; Gas. vol. 182; p. 336.

Bookwalter, John F., Palestine, Ill. Fruit-picker. No. 1,039,640; Sept. 24; Gas. vol. 182; p. 924.

Booth, Oscar D., assignor to Ideal Development Company, Everett, Wash. Current-motor. No. 1,039,087; Sept. 24; Gas. vol. 182; p. 730.

Borden, Bradford, Toronto, Ontario, Canada, assignor to The Borden Company, Warren, Ohio. Pipe-threading die. No. 1,038,482; Sept. 10; Gas. vol. 182; p. 473.

Borden Company, The. (See Borden, Bradford, assignor.)

Borg, Charles W., Moline, Ill. Feed and pressure mechanism for woodworking-machines. No. 1,038,483; Sept. 10; Gas. vol. 182; p. 473.

Bornander, John. (See Ripper and Bornander.)

Bornmann, Carl, assignor to Ansco Company, Binghamton, N. Y. Photographic camera. No. 1,037,722; Sept. 3; Gas. vol. 182; p. 183.

Bornmann, Carl, assignor to Ansco Company, Binghamton, N. Y. Photographic camera. No. 1,039,088; Sept. 24; Gas. vol. 182; p. 730.

Bornmann, Carl, and G. W. Topliff, assignors to Ansco Company, Binghamton, N. Y. Photographic camera. No. 1,037,721; Sept. 3; Gas. vol. 182; p. 183.

Borrusch, John, Maryville, Mo. Silo. No. 1,039,089; Sept. 24; Gas. vol. 182; p. 731.

Boruff, Daniel C., Kansas City, Mo. Acetylene-gas generator. No. 1,038,081; Sept. 10; Gas. vol. 182; p. 336.

Bosanko, William J., New York, assignor of one-half to E. L. Stock, Brooklyn, N. Y. Bed. No. 1,037,419; Sept. 3; Gas. vol. 182; p. 81.

Boss, William, St. Paul, Minn. Grass-collector for lawn-mowers. No. 1,039,355; Sept. 24; Gas. vol. 182; p. 826.

Bossert, Albert T., assignor of one-half to Smith & Sons Manufacturing Company, Kansas City, Mo. Generator of hydraulic power for presses, &c. No. 1,038,524; Sept. 17; Gas. vol. 182; p. 521.

Bost, William H., *et al.* (See Jernigan, Lee H., assignor.)

Bostaph, Harvey P., Windsor, Ontario, Canada. Explosive. No. 1,038,275; Sept. 10; Gas. vol. 182; p. 402.

Boswell, George G. F., assignor of one-half to H. W. Boswell, Indianapolis, Ind. Coin-controlled lock. No. 1,039,090; Sept. 24; Gas. vol. 182; p. 731.

Boswell, Ralph W. (See Boswell, George G. F., assignor.)

Böttcher, Anton F. C., and L. W. Lehmann, assignors to Firm of H. Maihak, Hamburg, Germany. Counting apparatus for the indicated output of piston-engines. No. 1,039,250; Sept. 24; Gas. vol. 182; p. 789.

Bouska, Joseph, assignor to Superior Tree Protector Manufacturing Co., Bridgeport, Wash. Tree-protector. No. 1,039,018; Sept. 17; Gas. vol. 182; p. 691.

Bouton, Georges. (See Dion and Bouton.)

Boutte, John G., Raceland, La. Music-turner for pianos. No. 1,037,723; Sept. 3; Gas. vol. 182; p. 183.

Bovee, Ransom Y., assignor to Hydro Engine, Power and Irrigation Company, Denver, Colo. Duplex hydraulic ram. No. 1,038,719; Sept. 17; Gas. vol. 182; p. 500.

Bovey, Peter, Oregon, Ill. Oiler for windmills. No. 1,037,420; Sept. 3; Gas. vol. 182; p. 82.

Bower, Samuel M., Chicago, Ill. Traction-wheel. No. 1,038,835; Sept. 17; Gas. vol. 182; p. 631.

Bowers, Willie R., Tuscaloosa, Ala. Car-brake. No. 1,037,587; Sept. 3; Gas. vol. 182; p. 138.

Bowman, Frederick V., and W. S. Hunn, New Haven, Conn. Package for gas-mantles. No. 1,039,486; Sept. 24; Gas. vol. 182; p. 870.

Bowser, James Y., Kittanning, Pa. Whip-socket. No. 1,038,276; Sept. 10; Gas. vol. 182; p. 402.

Boyce, William A., and S. Fisher, Gas City, Ind. Cement reservoir. No. 1,039,091; Sept. 24; Gas. vol. 182; p. 731.

Boyd, Robert L., Plainfield, N. J. Printing device. No. 1,037,198; Sept. 3; Gas. vol. 182; p. 7.





Boye, James H., assignor to The Boye Needle Company, Chicago, Ill. Knife-sharpener. No. 1,038,484; Sept. 10; Gas. vol. 182; p. 474.

Boye Needle Company, The. (See Boye, James H., assignor.)

Boyce, Warren L., Kingston, N. Y. Protecting device for electric-railway plows. No. 1,037,421; Sept. 3; Gas. vol. 182; p. 82.

Boyts, Porter & Co. (See Stoner, Cyrus M., assignor.)

Brackett, Frederick, Washington, D. C. Air-craft. No. 1,039,092; Sept. 24; Gas. vol. 182; p. 732.

Brackett, Frederick, Washington, D. C. Air-craft. No. 1,039,251; Sept. 24; Gas. vol. 182; p. 789.

Bradford, Joseph P., Jasper, Mo. Planter attachment for cultivators. No. 1,037,724; Sept. 3; Gas. vol. 182; p. 183.

Bradley, William J., assignor to Monarch Steam Blower Company, Troy, N. Y. Soot-cleaner for steam-boilers. No. 1,037,422; Sept. 3; Gas. vol. 182; p. 83.

Brady, William C., Akron, Ohio. Portable refrigerating apparatus. No. 1,037,423; Sept. 3; Gas. vol. 182; p. 83.

Braemer, William G. R., Buffalo, N. Y., assignor to Warren Webster & Company. Apparatus for purifying air. No. 1,037,424; Sept. 3; Gas. vol. 182; p. 84.

Braly, Hugh L., Shamrock, Tex. Valve for water-tanks. No. 1,038,836; Sept. 17; Gas. vol. 182; p. 632.

Bramberry, William A., Norfolk, assignor of one-fourth to L. M. Jones, Portsmouth, Va. Self-locking seal. No. 1,038,485; Sept. 10; Gas. vol. 182; p. 474.

Brand, John S., Fairhaven, Mass., assignor of one-third to F. A. Johnson, South Orange, N. J., and one-third to W. E. Brand, Boston, Mass. Multiple-writing machine. No. 1,038,486; Sept. 10; Gas. vol. 182; p. 474.

Brand, William E., *et al.* (See Brand, John S., assignor.)

Brandl, Frank J. (See Johnson, Christ J., assignor.)

Brandt, Samuel A., Tremont, Ill. Electric mail-carrier. No. 1,039,019; Sept. 17; Gas. vol. 182; p. 692.

Brünnlich, Fritz, Brüan, Austria-Hungary. Making anhydrous tetrachlorid of tin from dioxid of tin. No. 1,039,356; Sept. 24; Gas. vol. 182; p. 825.

Bréghras, Gaston J. B. (See Bellem and Bréghras.)

Breitung, Edward N., Marquette, Mich. Wheel. No. 1,037,199; Sept. 3; Gas. vol. 182; p. 7.

Brenenstul, Henry M., Bellevue, Ohio. Rotary tooth-brush. No. 1,038,525; Sept. 17; Gas. vol. 182; p. 522.

Brennan, James M. (See Parks, George A., assignor.)

Brennan, Thomas F. (See Mullen and Brennan.)

Bretz, Alfred. (See Clontz and Bretz.)

Brewer, Thomas, Homestead, Fla. Rail-joint. No. 1,039,641; Sept. 24; Gas. vol. 182; p. 925.

Brewer, William F., and A. Knobel, Louisville, Ky. Feed-guide for printing-presses. No. 1,038,487; Sept. 10; Gas. vol. 182; p. 475.

Bridgman, Harry E., Barada, Nebr. Three-horse double-tree. No. 1,039,020; Sept. 17; Gas. vol. 182; p. 692.

Briggs, Frank, Caro, Mich., assignor of one-half to C. E. Kenyon, Spokane, Wash. Engine-starter. No. 1,039,357; Sept. 24; Gas. vol. 182; p. 825.

Briggs, Stephen F., assignor to Briggs & Stratton Company, Milwaukee, Wis. Transformer attachment for spark-plugs. No. 1,038,277; Sept. 10; Gas. vol. 182; p. 402.

Briggs & Stratton Company. (See Briggs, Stephen F., assignor.)

Bright, Warren H., Minneapolis, Minn. Tank-heater. No. 1,037,725; Sept. 3; Gas. vol. 182; p. 184.

Brinckerhoff, Francis M., New York, N. Y., assignor to National Pneumatic Company, Chicago, Ill. Combined door operating and locking device. No. 1,038,837; Sept. 17; Gas. vol. 182; p. 632.

Brinckerhoff, Frank M., assignor to The Elicon Company, New York, N. Y. Holding-sleeve for conduits. No. 1,037,200; Sept. 3; Gas. vol. 182; p. 8.

Brink, Charles L., assignor to W. K. Prudden and Company, Lansing, Mich. Wheelwright-machine. No. 1,038,838; Sept. 17; Gas. vol. 182; p. 632.

Brink, Charles L., assignor to W. K. Prudden and Company, Lansing, Mich. Power-wrench. No. 1,039,642; Sept. 24; Gas. vol. 182; p. 926.

Briscoe Manufacturing Company. (See Wood, Clarence S., assignor.)

Bristol Company, The. (See Bristol, William H., assignor.)

Bristol, William H., New York, N. Y., assignor to The Bristol Company, Waterbury, Conn. Differential-pressure recorder. No. 1,038,526; Sept. 17; Gas. vol. 182; p. 522.

Brockway, Herbert L., assignor to M. D. Knowlton Company, Rochester, N. Y. Stay-strip wiper for box-staying machines. No. 1,038,839; Sept. 17; Gas. vol. 182; p. 633.

Brode, Johannes. (See Schönherr and Brode.)

Brogden, Fay A. (See Morey and Brogden.)

Brokaw-Eden Mfg. Co. (See Eden, Harold W., assignor.)

Brookfield, Theodore, Kamloops, British Columbia, Canada. Hose-pipe coupling. No. 1,038,840; Sept. 17; Gas. vol. 182; p. 633.

Brooks, Edward J., East Orange, N. J. Soap-seal. No. 1,038,662; Sept. 10; Gas. vol. 182; p. 337.

Brooks, Joseph L., New York, N. Y. Hair-tonic and compounding same. No. 1,037,425; Sept. 3; Gas. vol. 182; p. 84.

Brooks, Robert W., Louisville, Ky., assignor to R. A. Wendling, Marco, Ill. Cider-mill. No. 1,037,726; Sept. 3; Gas. vol. 182; p. 184.

Brooks, Winfred M., East Orange, N. J., assignor to E. J. Brooks & Co., New York, N. Y. Soap-seal. No. 1,039,358; Sept. 24; Gas. vol. 182; p. 826.

Brown, Charles T. (See Hennerty, James J., assignor.)

Brown, Claude, Attica, Ind. Springless door-lock. No. 1,037,588; Sept. 3; Gas. vol. 182; p. 138.

Brown, Frank S., Baltimore, Md. Oil-cup. No. 1,038,488; Sept. 10; Gas. vol. 182; p. 475.

Brown, Harry M., Brooklyn, N. Y., assignor to R. A. Canfield, Providence, R. I. Stopper-making machine. No. 1,039,643; Sept. 24; Gas. vol. 182; p. 926.

Brown, Henry C., Philadelphia, Pa. Cabinet for holding talking-machine records. No. 1,038,841; Sept. 17; Gas. vol. 182; p. 633.

Brown, James D., and W. A. Stubbs, New York, N. Y., assignors to said Stubbs. Box-toe for boots and shoes. No. 1,037,426; Sept. 3; Gas. vol. 182; p. 84.

Brown, James H., St. Charles, assignor to J. G. Wurtele, Chicago, Ill. Corn-rack. No. 1,039,359; Sept. 24; Gas. vol. 182; p. 826.

Brown, Joseph H., and D. A. Berry, assignors to Bostik Limited, Northampton, England. Overshoe. No. 1,037,201; Sept. 3; Gas. vol. 182; p. 8.

Brown, Louis O., Toledo, Ohio, assignor to The Metallic Barrel Company, Chicago, Ill. Metallic vessel. No. 1,037,202; Sept. 3; Gas. vol. 182; p. 8.

Brown, Walter W., Schenectady, N. Y., assignor, by mesne assignments, to The Union Switch and Signal Company, Semaphore-signal. No. 1,038,278; Sept. 10; Gas. vol. 182; p. 402.

Brown, William H., Cleveland, Ohio. Vibration-recorder. No. 1,039,093; Sept. 24; Gas. vol. 182; p. 732.

Brown, William J., Boulder, Colo. Electric time-switch. No. 1,037,818; Sept. 3; Gas. vol. 182; p. 213.

Browne, William A. (See Moore and Browne.)

Browning, Charles, Jr., Sacramento, Cal. Plunge-tester. No. 1,037,857; Sept. 10; Gas. vol. 182; p. 260.

Browning, George P., Flint Hill, Va. Clevis. No. 1,037,589; Sept. 3; Gas. vol. 182; p. 139.

Bruce, Charles R., Kansas City, Mo. Disappearing bed. No. 1,037,858; Sept. 10; Gas. vol. 182; p. 260.

Brunner, Joseph, Oelenburg, near Lutterbach, Germany. Electric push-button switch. No. 1,039,644; Sept. 24; Gas. vol. 182; p. 926.

Brush, George H., assignor of one-third to W. G. Michels, Chicago Heights, Ill. Universal joint. No. 1,037,437; Sept. 3; Gas. vol. 182; p. 84.

Bryant Electric Company, The. (See Gagnon, William, assignor.)

Bryant, Henry E., assignor to American Patent Manufacturing Company, Jacksonville, Fla. Vessel-closure. No. 1,038,279; Sept. 10; Gas. vol. 182; p. 403.

Bryant, Virgil C., Berkeley, Cal. Bean-harvester. No. 1,038,720; Sept. 17; Gas. vol. 182; p. 501.

Buck, Herman J., Minneapolis, assignor to Mathews Gravity Carrier Company, St. Paul, Minn. Coupling device for carrier-sections. No. 1,038,842; Sept. 17; Gas. vol. 182; p. 633.

Buckham, George T. (See Dawson and Buckham.)

Buda Foundry & Manufacturing Company. (See Place and Cross, assignors.)

Buffalo Gasolene Motor Company. (See Blair, William E., assignor.)

Buffalo Shoe Co. (See Coupal, Arthur E., assignor.)

Bullock, Edward T., Ridley Park, assignor of one-third to E. W. Twaddell, Devon, Pa. Hedge-trimming machine. No. 1,039,021; Sept. 17; Gas. vol. 182; p. 692.

Bullock, H. E. and J. E. (See Houghton, Orley C., assignor.)

Bundy, Clifton L., assignor to Philadelphia Electrical and Manufacturing Company, Philadelphia, Pa. Series lamp-fixture. No. 1,039,645; Sept. 24; Gas. vol. 182; p. 926.

Bunn, Benjamin H. and R. N., Chicago, Ill. Parcel-tier. No. 1,038,843; Sept. 17; Gas. vol. 182; p. 634.

Bunn, Romanso N. (See Bunn, Benjamin H. and R. N.)

Bunnell, Morton G., assignor to F. C. Austin, Chicago, Ill. Wheel-support. No. 1,037,428; Sept. 3; Gas. vol. 182; p. 85.

Bunnell, Morton G., assignor to F. C. Austin, Chicago, Ill. Excavator. No. 1,037,429; Sept. 3; Gas. vol. 182; p. 85.

Buress, George. (See Long and Buress.)

Burger, Charles E., Springfield, Mass. Advertising device. No. 1,038,844; Sept. 17; Gas. vol. 182; p. 634.

Burgess, Lysle P. (See Daniels and Burgess.)

Burk, Frederick E., Bay City, assignor to E. C. Ewen, Saginaw, Mich. Cylinder-core. No. 1,037,859; Sept. 10; Gas. vol. 182; p. 260.

Burke, William J., New York, N. Y. Spectacular illusion apparatus. No. 1,037,430; Sept. 3; Gas. vol. 182; p. 85.

Burks, Edgar, Eldorado, Ill. Stretching device. No. 1,039,022; Sept. 17; Gas. vol. 182; p. 692.

Burleson, James R., McGregor, Tex. Horse-releaser. No. 1,037,860; Sept. 10; Gas. vol. 182; p. 261.

Burnett, James R., Richmond, Wash. Book-holder. No. 1,038,260; Sept. 10; Gas. vol. 182; p. 403.

Burpee, Frank W. (See Burpee, John H. and F. W.)

Burpee, John H. and F. W., Bellingham, Wash. Corn-filling machine. No. 1,038,280; Sept. 24; Gas. vol. 182; p. 826.

Burrowes, E. T. (See Davis, George H., assignor.)

Burton, James M., Long Island City, assignor to Neptune Meter Company, New York, N. Y. Water-meter. No. 1,037,431; Sept. 3; Gas. vol. 182; p. 86.

Bury, Thomas J. (See Grubb and Bury.)

Buschman, Edward L., East Orange, N. J. Bag-cleaner. No. 1,038,281; Sept. 10; Gas. vol. 182; p. 403.

Bush, Justus W., Indian Wells, Ariz. Hoe. No. 1,037,590; Sept. 3; Gaz. vol. 182; p. 139.

Butler, Henry G., Wellington, Kans. Concrete-making and aggregate-handling device. No. 1,037,861; Sept. 10; Gaz. vol. 182; p. 261.

Butler, Vincent, Washington, D. C. Alarm device. No. 1,037,482; Sept. 3; Gaz. vol. 182; p. 86.

Butler, William J., Auckland, New Zealand. Take-up for sewing-machines. No. 1,038,282; Sept. 10; Gaz. vol. 182; p. 404.

Butte Engineering & Electric Co. (See Hughes, Joseph, assignor.)

Buttner, Hans, Buffalo, N. Y. Igniter. No. 1,038,283; Sept. 10; Gaz. vol. 182; p. 404.

Butts, Charles W., Sag Harbor, assignor to Joseph Fabys & Co., New York, N. Y. Making Swiss bows. No. 1,038,845; Sept. 17; Gaz. vol. 182; p. 635.

Byrd, Samuel C. (See Pierce and Byrd.)

Bystrom, John, assignor to J. H. McElroy, Chicago, Ill. Locking device for automobiles. No. 1,037,203; Sept. 3; Gaz. vol. 182; p. 8.

C. T. Patterson Company. (See Cornwall, Frederick R., assignor.)

Cabler, Albert M., *et al.* (See Jernigan, Lee H., assignor.)

Cadman, Addi B. (See Warner and Cadman.)

Cadman, Addi B., assignor to Warner Instrument Company, Beloit, Wis. Speed-indicating equipment for railway-cars. No. 1,037,862; Sept. 10; Gaz. vol. 182; p. 261.

Cahen, Hermann, assignor to Hartmann & Braun A.-G., Frankfort-on-the-Main, Germany. Push-button electric switch. No. 1,038,284; Sept. 10; Gaz. vol. 182; p. 404.

Calahan, Delona L., Centralia, Wash. Centering-tool for lathes. No. 1,038,721; Sept. 17; Gaz. vol. 182; p. 591.

Caldwell, Benjamin B., assignor of one-half to W. B. Keller, Culdesac, Idaho. Wrench. No. 1,038,846; Sept. 17; Gaz. vol. 182; p. 635.

Caldwell Manufacturing Company. (See Hodgkinson, Percy W., assignor.)

Caldwell, Mira E., Lynn, Mass. Safety-envelop. No. 1,039,252; Sept. 24; Gaz. vol. 182; p. 790.

Calef, Robert S., Keene, N. H. Chair. No. 1,038,083; Sept. 10; Gaz. vol. 182; p. 337.

Calkins, James, and F. Rice, Port Huron, Mich. Intermittent-grip device. No. 1,039,023; Sept. 17; Gaz. vol. 182; p. 693.

Callanan, Cornelius M., Buffalo, N. Y. Cigarette-form retainer and holder. No. 1,037,863; Sept. 10; Gaz. vol. 182; p. 262.

Callaway, George E., Jonesboro, La. Foot-power vise. No. 1,039,646; Sept. 24; Gaz. vol. 182; p. 926.

Calleson, Amos. (See Adriance and Calleson.)

Cameron, William W., assignor to La Crosse Plow Company, La Crosse, Wis. Draft-equalizer. No. 1,039,253; Sept. 24; Gaz. vol. 182; p. 790.

Campbell, Emil E., Tacoma, Wash. Car attachment. No. 1,039,361; Sept. 24; Gaz. vol. 182; p. 827.

Campbell, Robert H., Edmonton, England. Capsule or container for compressed or liquefied gases. No. 1,038,285; Sept. 10; Gaz. vol. 182; p. 404.

Campbell's Automatic Safety Gas Burner Co. (See Debley, Edward F., assignor.)

Candland, Arthur C., Provo, Utah. Automatic rail-fastener. No. 1,039,362; Sept. 24; Gaz. vol. 182; p. 827.

Canfield, Richard A. (See Brown, Harry M., assignor.)

Canfield, Richard A. (See Dorman and Manville, assignors.)

Carborundum Company, The. (See Allen, Thomas B., assignor.)

Card, Edward M., Bridgeport, Conn. Engine-starter. No. 1,038,286; Sept. 10; Gaz. vol. 182; p. 405.

Cardinet, Albert D., Oakland, Cal., assignor to Cardinet Fountain Brush Company. Stencil-brush. No. 1,039,094; Sept. 24; Gaz. vol. 182; p. 732.

Cardinet Fountain Brush Company. (See Cardinet, Albert D., assignor.)

Carichoff, Eugene R., Schenectady, N. Y., assignor to General Electric Company. Motor-control system. No. 1,037,433; Sept. 3; Gaz. vol. 182; p. 87.

Carl James, New York, N. Y. Universal clutch. No. 1,037,819; Sept. 3; Gaz. vol. 182; p. 213.

Carlin Calculator Company. (See Hopkins, Francis A., assignor.)

Carlson, Charles G., Chicago, Ill. Curtain-stretcher. No. 1,039,095; Sept. 24; Gaz. vol. 182; p. 733.

Carlson, John C., and O. G. Saxton, Eaton, Colo. Surgical-needle holder. No. 1,037,864; Sept. 10; Gaz. vol. 182; p. 262.

Carlson, Oscar B., Månsbo, Avesta, assignor to O. F. Carlson, Stockholm, Sweden. Producing explosives containing common resin. No. 1,038,847; Sept. 17; Gaz. vol. 182; p. 635.

Carlson, Oscar F. (See Carlson, Oscar B., assignor.)

Caron, Napoleon, Nashua, N. H., assignor of one-half to N. Rodier, Lowell, Mass. Eyeglasses. No. 1,039,024; Sept. 17; Gaz. vol. 182; p. 693.

Carpenter, Benjamin F., Summit, N. J. Roll-top balanced hood. No. 1,038,287; Sept. 10; Gaz. vol. 182; p. 405.

Carpenter, Eugene H., *et al.* (See Jernigan, Lee H., assignor.)

Carpenter, John C., Houston Heights, Tex. Speed-regulating mechanism. No. 1,038,848; Sept. 17; Gaz. vol. 182; p. 635.

Carr Fastener Company. (See Carr, Fred S., assignor.)

Carr, Fred S., Brookline, assignor to Carr Fastener Company, Boston, Mass. Stud-and-socket fastener. No. 1,038,288; Sept. 10; Gaz. vol. 182; p. 406.

Carr, Granville M., *et al.* (See Hestand and Dayton, assignors.)

Carr & Sons, James. (See White, Charles E., assignor.)

Carroll, Frank C., Cleveland, Ohio. Apparatus for treating soil. No. 1,038,084; Sept. 10; Gaz. vol. 182; p. 338.

Carroll, Philip F., Joliet, Ill. Long-loaf-molding machine. No. 1,037,820; Sept. 3; Gaz. vol. 182; p. 214.

Carroll, Ralph, Simmonsville, R. I. Ventilating apparatus. No. 1,039,025; Sept. 17; Gaz. vol. 182; p. 693.

Carruthers, Willis P., Oberlin, Ohio. Base-ball scoring device. No. 1,039,289; Sept. 10; Gaz. vol. 182; p. 404.

Carter, George B., Detroit, Mich., assignor to The H. Wetter Manufacturing Company, Memphis, Tenn. Gas-stove. No. 1,038,849; Sept. 17; Gaz. vol. 182; p. 636.

Carter, James H., Chicago, Ill. Folding carton. No. 1,039,026; Sept. 17; Gaz. vol. 182; p. 693.

Carter, James M., Pendleton, Oreg. Gold-washing machine. No. 1,037,434; Sept. 3; Gaz. vol. 182; p. 87.

Carter, Percy H., H. H. Shackleton, and T. E. Grafton, Rome, Ga. Making aluminum sulfate. No. 1,037,591; Sept. 3; Gaz. vol. 182; p. 139.

Carter, William L., assignor to Waterloo Register Company, Waterloo, Iowa. Nursery-chair. No. 1,039,647; Sept. 24; Gaz. vol. 182; p. 927.

Carteron, Charles P. J., Sevran-Livry, France. Submarine mine. No. 1,039,254; Sept. 24; Gaz. vol. 182; p. 790.

Casad, Roland C., Los Angeles, Cal. Gas-generating oil-burner. No. 1,038,290; Sept. 10; Gaz. vol. 182; p. 406.

Case, Frank E., Schenectady, N. Y., assignor to General Electric Company. Motor-control system. No. 1,037,435; Sept. 3; Gaz. vol. 182; p. 88.

Casebolt, Charles H., assignor of fifty-five one-hundredths to Williams Patent Crusher & Pulverizer Company, St. Louis, Mo. Abrasive. No. 1,039,487; Sept. 24; Gaz. vol. 182; p. 871.

Cassatt, Clarence E. (See Knight and Cassatt.)

Cassell, Oscar R., New York, N. Y. Angle-indicator. No. 1,038,291; Sept. 10; Gaz. vol. 182; p. 407.

Castholm, Milo, Kansas City, Mo. Key-holder. No. 1,038,722; Sept. 17; Gaz. vol. 182; p. 591.

Catucci, Pliny, Newark, N. J., assignor to A. F. Meisselbach & Brother. Mechanical movement. No. 1,037,436; Sept. 3; Gaz. vol. 182; p. 88.

Caven, Marcus E. (See Murray and Caven.)

Celpek, Norbert, Vienna, Austria-Hungary. Safety explosive. No. 1,038,292; Sept. 10; Gaz. vol. 182; p. 407.

Chambers, Henry C., Cincinnati, Ohio. Hydraulic motor. No. 1,037,865; Sept. 10; Gaz. vol. 182; p. 263.

Chambers, James A., Allegheny, Pa. Glass-handling apparatus. No. 1,037,592; Sept. 3; Gaz. vol. 182; p. 139.

Chambersburg Engineering Company. (See Derbyshire, Henry E., assignor.)

Chapin, William G., assignor to The Thompson & Norris Company, Brooklyn, N. Y. Compound stay for paper boxes. No. 1,039,363; Sept. 24; Gaz. vol. 182; p. 828.

Charbonneau, Arthur A. and L. A., Montreal, Quebec, Canada. Fire-extinguisher. No. 1,038,850; Sept. 17; Gaz. vol. 182; p. 636.

Charbonneau, Leo A. (See Charbonneau, Arthur A. and L. A.)

Charlton, Thomas E., *et al.* (See Hogan, Thomas G., assignor.)

Charlton, William, Marinette, Wis. Combined wrench and clamp. No. 1,039,027; Sept. 17; Gaz. vol. 182; p. 694.

Chase, Arthur W., Newport News, Va. Chocolate compound and preparing the same. No. 1,038,723; Sept. 17; Gaz. vol. 182; p. 591.

Chase, Aurin M., Syracuse, N. Y. Internal-combustion engine. No. 1,037,437; Sept. 3; Gaz. vol. 182; p. 88.

Chatfield, Franklin, assignor to Northwestern Knitting Company, Minneapolis, Minn. Sewing-machine. No. 1,038,851; Sept. 17; Gaz. vol. 182; p. 637.

Cheley, Delbert I., Carnduff, Saskatchewan, Canada. Seed-drill. No. 1,038,852; Sept. 17; Gaz. vol. 182; p. 637.

Chelsea Clock Company. (See Menns, Walter K., assignor.)

Chicago Flexible Shaft Company. (See La Chance, Leander H., assignor.)

Chicago Railway Equipment Company. (See Harrison, Philip B., assignor.)

Chiger, Siegmund, Berlin, Germany. Apparatus for sorting and testing coins. No. 1,038,293; Sept. 10; Gaz. vol. 182; p. 407.

Chilton, Edwin J., Kuripuni, Masterton, assignor to Chilton Flusher Company Limited, Auckland, New Zealand. Sanitary flushing apparatus. No. 1,038,294; Sept. 10; Gaz. vol. 182; p. 407.

Chilton Flusher Company Limited. (See Chilton, Edwin J., assignor.)

Christensen, George, New York, N. Y., assignor to H. W. Johns-Manville Company. Machine for attaching hose-clamps. No. 1,039,096; Sept. 24; Gaz. vol. 182; p. 733.

Christiansen, Carl, Vancouver, British Columbia, Canada. Annunciator. No. 1,038,724; Sept. 17; Gaz. vol. 182; p. 592.

Christiansen, Ludwig, Lynn, Mass. Door-guard for elevators. No. 1,039,097; Sept. 24; Gaz. vol. 182; p. 734.

Chubbock, Orlo P., assignor to Avery Company, Peoria, Ill. Set-screw guard. No. 1,038,085; Sept. 10; Gaz. vol. 182; p. 338.





Churchill-Shaan, Montague H., county of Surrey, England. Turbine. No. 1,038,295; Sept. 10; Gaz. vol. 182; p. 406.

Clapp, Albert L., Braintree, assignor, by mesne assignments, to A. L. Cutler, Boston, Mass. Puffed paper imitating felt and making the same. No. 1,038,085; Sept. 10; Gaz. vol. 182; p. 338.

Clark, Albert B., Hamburg, N. Y. Caster-wheel. No. 1,037,866; Sept. 10; Gaz. vol. 182; p. 263.

Clark, Arba G., Schenectady, N. Y., assignor, by mesne assignments, to The Union Switch and Signal Company, Signal. No. 1,038,296; Sept. 10; Gaz. vol. 182; p. 408.

Clark, Charles F. (See Klessig, Oscar, assignor.)

Clark, Edwyn. (See Russell and Clark.)

Clark, James, and G. Irwin, assignors to S. R. Dresser Manufacturing Company, Bradford, Pa. Repair-clamp for pipe-joints of the bell and spigot type. No. 1,039,488; Sept. 24; Gaz. vol. 182; p. 871.

Clark, James J. (See Shelton, James, assignor.)

Clark, Norris E., Plainville, Conn. Slitting-machine. No. 1,037,204; Sept. 3; Gaz. vol. 182; p. 9.

Clark, Peter T., Roxbury, Mass. Protective shield for beer-casks. No. 1,039,364; Sept. 24; Gaz. vol. 182; p. 828.

Clark Printing Press Company. (See Clark, William M., assignor.)

Clark, Sawyer D., Boulder, Colo. Trap attachment for fly-screens. No. 1,037,727; Sept. 3; Gaz. vol. 182; p. 184.

Clark, William E., and H. I. Stevenson, Boise, Idaho. Fish-screen. No. 1,038,087; Sept. 10; Gaz. vol. 182; p. 338.

Clark, William M., assignor to Clark Printing Press Company, Philadelphia, Pa. Printing-press. No. 1,038,088; Sept. 10; Gaz. vol. 182; p. 338.

Clark, William T., Yonkers, N. Y. Shock-absorber for gearing. No. 1,037,205; Sept. 3; Gaz. vol. 182; p. 9.

Clarke, Ferdinand T., Finley, Wash. Rotary pump. No. 1,039,028; Sept. 17; Gaz. vol. 182; p. 694.

Clarke, John Q., assignor to The J. Q. Clarke Tank Co., Incorporated, Crawfordsville, Ind. Farrowing-house. No. 1,039,255; Sept. 24; Gaz. vol. 182; p. 791.

Clausen, Bernhard, assignor to Firm of L. Heisse, Dortmund, Germany. Aerial track. No. 1,038,089; Sept. 10; Gaz. vol. 182; p. 339.

Clawson, Clement C., Flagtown, N. J., assignor, by mesne assignments, to United States Mortgage & Trust Company, trustee, New York, N. Y. Speed-recorder and analogous apparatus. No. 1,038,297; Sept. 10; Gaz. vol. 182; p. 409.

Clement, Edward E., Washington, D. C. Telephone-exchange system. No. 1,037,438; Sept. 3; Gaz. vol. 182; p. 88.

Cleveland Rock Drill Company, The. (See Richards, Charles B., assignor.)

Clifford, William T., Randwick, near Sydney, New South Wales, Australia. Overall-garment. No. 1,037,206; Sept. 3; Gaz. vol. 182; p. 10.

Clifton, Harry, Canal Dover, Ohio. Steam-generator. No. 1,039,256; Sept. 24; Gaz. vol. 182; p. 791.

Cline, Asel. (See McFarlin and Cline.)

Cline, George C., North Baltimore, Ohio. Journal-jack. No. 1,039,648; Sept. 24; Gaz. vol. 182; p. 928.

Clisbe, Charles E., Amsterdam, N. Y. Music-rack and leaf-turner. No. 1,037,207; Sept. 3; Gaz. vol. 182; p. 10.

Clontz, Joseph, and A. Bretz, Youngstown, Ohio. Cold-air machine. No. 1,037,728; Sept. 3; Gaz. vol. 182; p. 185.

Cluett, Peabody & Company. (See Schaller, Johannes H., assignor.)

Coalter, C. C., *et al.* (See Hogan, Thomas G., assignor.)

Coe, Charles E., assignor to W. F. Morrison, St. Louis, Mo. Automatic machine for cutting and forming belt-fasteners. No. 1,037,867; Sept. 10; Gaz. vol. 182; p. 263.

Coffee, Robert W., Richmond, Va., assignor to L. M. Keiser, Baltimore, Md. Internal-combustion engine. No. 1,037,868; Sept. 10; Gaz. vol. 182; p. 264.

Coffey, Nathaniel T., Niagara Falls, N. Y. Ironing-board. No. 1,039,649; Sept. 24; Gaz. vol. 182; p. 928.

Coffin, Antoinette A., Cleveland, Ohio. Door-stop. No. 1,037,439; Sept. 3; Gaz. vol. 182; p. 89.

Coffin, Howard E., Detroit, Mich. Tank for motor-vehicles. No. 1,039,098; Sept. 24; Gaz. vol. 182; p. 734.

Cohn, Herman, and P. Berman, New York, N. Y. Handbag. No. 1,039,489; Sept. 24; Gaz. vol. 182; p. 871.

Coldwell, William H., Newburgh, N. Y. Lawn-mower. No. 1,039,490; Sept. 24; Gaz. vol. 182; p. 871.

Cole, Dwight E., Grand Rapids, Mich. Turbine. No. 1,037,440; Sept. 3; Gaz. vol. 182; p. 89.

Cole, Franklin, Pontiac, Mich. Antirattler for automobile-doors, &c. No. 1,037,593; Sept. 3; Gaz. vol. 182; p. 140.

Cole, Robert C., assignor to The Johns-Pratt Company, Hartford, Conn. Fused disconnecting-switch. No. 1,039,257; Sept. 24; Gaz. vol. 182; p. 791.

Coleman, Clyde J., assignor to C. Hubert, New York, N. Y. Needle-valve. No. 1,038,527; Sept. 17; Gaz. vol. 182; p. 523.

Coleman, Clyde J., assignor to M. P. Hall, New York, N. Y. Sewing-machine. No. 1,038,853; Sept. 17; Gaz. vol. 182; p. 637.

Coleridge Commercial Car Company. (See Coleridge, John G., assignor.)

Coleridge, John G., assignor to Coleridge Commercial Car Company, Detroit, Mich. Transmission mechanism. No. 1,037,869; Sept. 10; Gaz. vol. 182; p. 264.

College, Clarence W. (See Blake and College.)

Collins, Harry, New York, N. Y. Rail. No. 1,039,629; Sept. 17; Gaz. vol. 182; p. 694.

Collins Metallic Packing Company, The. (See Connit, Philip, assignor.)

Collins, Robert J., Sioux City, Iowa. Spring. No. 1,037,729; Sept. 3; Gaz. vol. 182; p. 185.

Collins, Stephen O. H., and H. V. Pearce, London, England. Means for indicating the striking force of golf-clubs or similar instruments. No. 1,039,491; Sept. 24; Gaz. vol. 182; p. 872.

Collis, Henry J., Taunton, Mass. Ankle support and protector. No. 1,037,441; Sept. 3; Gaz. vol. 182; p. 90.

Colonial Trust Company, The, trustee. (See Armstead, Frank C., assignor.)

Colonial Trust Company, The, trustee. (See Crist and Walls, assignors.)

Colonial Trust Company, The, trustee. (See Hodgkinson, Francis, assignor.)

Colt, Frank, assignor of one-half to B. O. Skonnard, Wallace, Idaho. Shoe-lace guard. No. 1,038,090; Sept. 17; Gaz. vol. 182; p. 695.

Columbia Postal Supply Company. (See Ielfield, Fred C., assignor.)

Comptograph Company. (See Rotter, William A., assignor.)

Condon, Henry F., De Kalb, Ill. Mop-holder. No. 1,038,090; Sept. 10; Gaz. vol. 182; p. 339.

Conduit Threading Device Co. (See Crawford, Frank, assignor.)

Cone, Lewis W., Crosland, Ga. Garden implement. No. 1,037,870; Sept. 10; Gaz. vol. 182; p. 265.

Coneby, William H., assignor of one-fourth to J. F. Robb, Washington, D. C. Combined information and advertising device. No. 1,038,298; Sept. 10; Gaz. vol. 182; p. 409.

Confectioners and Bakers Supply Co. (See Dickson, George F., assignor.)

Conkell, Elias W. (See Sanor and Conkell.)

Connable, Frank L. (See Williams, David T., assignor.)

Connit, Philip, Washington, D. C., assignor to The Collins Metallic Packing Company, Philadelphia, Pa. Wheel-flange lubricator. No. 1,039,650; Sept. 24; Gaz. vol. 182; p. 928.

Continental Gin Company. (See Ligon, Harry W., assignor.)

Continental Water Purifying Corporation. (See Hagg, Virgil B., assignor.)

Continuous Rail Company. (See Rhodes, Edgar, assignor.)

Conwell, Samuel H., Tarentum, Pa., assignor to W. P. Murphy, Chicago, Ill. Bracket for release-rigging. No. 1,037,442; Sept. 3; Gaz. vol. 182; p. 90.

Cook, Darwin H., and E. J. Wilson, Lansford, N. D. Blower-fan. No. 1,039,099; Sept. 24; Gaz. vol. 182; p. 734.

Cook, Eugene, Kalamazoo, Mich. Gearing. No. 1,039,258; Sept. 24; Gaz. vol. 182; p. 792.

Cook, John A., Marinetta, Wis. Holder for box-partitions. No. 1,037,594; Sept. 3; Gaz. vol. 182; p. 140.

Cook Railway Signal Company, The. (See Cook, William J., assignor.)

Cook, William J., assignor to The Cook Railway Signal Company, Denver, Colo. Railway signaling mechanism. No. 1,037,871; Sept. 10; Gaz. vol. 182; p. 265.

Cookerley, Josiah, South Milford, Ind. Nut-locking washer. No. 1,038,528; Sept. 17; Gaz. vol. 182; p. 523.

Coombs, Charles B., Nashua, Fla. Match-box. No. 1,039,259; Sept. 24; Gaz. vol. 182; p. 792.

Cooper, Alfred J., Duryea, Pa. Pipe-wrench. No. 1,037,872; Sept. 10; Gaz. vol. 182; p. 265.

Cooper, James E., Perry, assignor to Robeson Cutlery Company, Rochester, N. Y. Combination pocket implement. No. 1,039,260; Sept. 24; Gaz. vol. 182; p. 792.

Cooper, John M., Lewiston, W. Va. Rail-joint. No. 1,037,595; Sept. 3; Gaz. vol. 182; p. 140.

Copp, John. (See Hein, Max L., assignor.)

Coppage, Benjamin D., Wilmington, Del. Testing instrument. No. 1,037,596; Sept. 3; Gaz. vol. 182; p. 140.

Coppage, Benjamin D., Wilmington, Del. Screening-machine for paper-pulp. No. 1,037,597; Sept. 3; Gaz. vol. 182; p. 141.

Coppins, Scott E., Princeton, Ill. Top. No. 1,038,299; Sept. 10; Gaz. vol. 182; p. 410.

Corcoran, James J., Adrian, Mich. Farm-gate. No. 1,038,554; Sept. 17; Gaz. vol. 182; p. 637.

Corcoran, Theresa A., New York, N. Y. Window-cleaning device. No. 1,038,529; Sept. 17; Gaz. vol. 182; p. 524.

Corcos, Joseph, New York, N. Y. Hat-fastening device. No. 1,039,100; Sept. 24; Gaz. vol. 182; p. 735.

Corliss Carbon Company. (See Corliss, Frank F., assignor.)

Corliss, Frank F., Bradford, Pa., assignor to Corliss Carbon Company. Furnace. No. 1,039,101; Sept. 24; Gaz. vol. 182; p. 735.

Cormode, John P., Chatham township, Kent county, Ontario, Canada. Evener. No. 1,038,725; Sept. 17; Gaz. vol. 182; p. 592.

Cornelius, Benjamin L. (See Greenert, John A., assignor.)

Cornwall, Frederick R., St. Louis, Mo., assignor to C. T. Patterson Company, Ltd., New Orleans, La. Chain conveyer. No. 1,038,726; Sept. 17; Gaz. vol. 182; p. 592.

Cornwall, Frederick R., assignor to Williams Patent Crusher and Pulverizer Company, St. Louis, Mo. Pulverizer. No. 1,039,102; Sept. 24; Gaz. vol. 182; p. 735.

Cornwell, Claude C., Toledo, Ohio. Corn-popper with detachable handle and lid. No. 1,039,261; Sept. 24; Gas. vol. 182; p. 793.
Cornwell, Frank L., *et al.* (See Leggett, Ross M., assignor.)
Corrington, Murray, New York, N. Y., assignor, by mesne assignments, to The Westinghouse Air Brake Company, Pittsburgh, Pa. Automatic valve device for air-brakes. No. 1,037,443; Sept. 3; Gas. vol. 182; p. 90.
Corrington, Murray, New York, N. Y., assignor, by mesne assignments, to The Westinghouse Air Brake Company, Pittsburgh, Pa. Maintaining device for air-brakes. No. 1,037,444; Sept. 3; Gas. vol. 182; p. 91.
Corrington, Murray, New York, N. Y., assignor, by mesne assignments, to The Westinghouse Air Brake Company, Pittsburgh, Pa. Fluid-pressure-brake apparatus. No. 1,037,445; Sept. 3; Gas. vol. 182; p. 91.
Corrugated Bar Company. (See Johnson, Albert L., assignor.)
Cosmo Contracting Syndicate Limited. (See Greaves, Wallace M., assignor.)
Costello, George J., Philadelphia, Pa. Key-seating machine. No. 1,038,855; Sept. 17; Gas. vol. 182; p. 638.
Coulter, Thomas H., Cleveland, Ohio, assignor of one-half to J. T. Schleifenheimer. Metallic resilient wheel. No. 1,037,446; Sept. 3; Gas. vol. 182; p. 92.
Coulter, William B., Seattle, Wash. Liquid-sprayer. No. 1,039,365; Sept. 24; Gas. vol. 182; p. 828.
Coupal, Arthur E., South Boston, Mass., assignor to Buffalo Shoe Co., Buffalo, N. Y. Staple. No. 1,039,103; Sept. 24; Gas. vol. 182; p. 736.
Courson, Cornelius F., assignor of one-half to P. Lensi, Memphis, Tenn. Combined rail-joint and securing device. No. 1,039,031; Sept. 17; Gas. vol. 182; p. 695.
Courson, Cornelius F., assignor of one-half to P. Lensi, Memphis, Tenn. Device for securing railway-rails to ties. No. 1,039,032; Sept. 17; Gas. vol. 182; p. 695.
Courtney, Louise M. (See Courtney, William T., assignor.)
Courtney, William T., assignor of one-half to L. M. Courtney, Chicago, Ill. Cleaner for abrading-rolls. No. 1,039,262; Sept. 24; Gas. vol. 182; p. 793.
Courtwright, Edgar D. (See Courtwright, Elmer L. and E. D.)
Courtwright, Elmer L. and E. D., Tacoma, Wash. Internal-combustion engine and the like. No. 1,039,492; Sept. 24; Gas. vol. 182; p. 872.
Couson, William B. (See Wilson and Couson.)
Cowey, Leonard E., Kew Gardens, England. Road-vehicle suspension arrangement. No. 1,037,730; Sept. 3; Gas. vol. 182; p. 185.
Cowling, James, Galena, Ill. Thermometer. No. 1,038,530; Sept. 17; Gas. vol. 182; p. 523.
Cox, Howard R., and W. Schmidt, New York, N. Y. Safety gas-valve. No. 1,037,208; Sept. 3; Gas. vol. 182; p. 10.
Cox Multi-Mailer Company. (See Cox, Sandford C., assignor.)
Cox, Sandford C., Brookline, Mass., assignor to Cox Multi-Mailer Company, Augusta, Me. Automatic bundling-machine. No. 1,039,366; Sept. 24; Gas. vol. 182; p. 828.
Coyle, James W., Carterville, and D. E. Lynch, Webb City, assignors of one-half to W. A. Cristy, Joplin, Mo. Interlocking anvil and swage-block. No. 1,037,209; Sept. 3; Gas. vol. 182; p. 11.
Cozins, William W., Cochranton, Pa. Acetylene-gas generator. No. 1,038,856; Sept. 17; Gas. vol. 182; p. 638.
Crabb, Charles L., Millington, N. J., assignor to Topping Brothers, New York, N. Y. Machine for transparentizing sheets of paper or other material. No. 1,037,873; Sept. 10; Gas. vol. 182; p. 266.
Crabb, Charles L., Peapack, N. J., assignor to Topping Brothers, New York, N. Y. Lifting-jack. No. 1,037,874; Sept. 10; Gas. vol. 182; p. 266.
Cracroft, James R., Hartford, Kans. Harness-tug fastener. No. 1,038,091; Sept. 10; Gas. vol. 182; p. 339.
Craig, Andrew B., Tarkio, Mo. Cooling device for pneumatic tires. No. 1,038,002; Sept. 10; Gas. vol. 182; p. 340.
Craig, Edward, Albion, Ill. Side-board lock. No. 1,038,531; Sept. 17; Gas. vol. 182; p. 524.
Craig, Lee D., San Francisco, Cal., assignor to National Trenching Machine Company, Washington, D. C. Road-cutter and the like. No. 1,037,875; Sept. 10; Gas. vol. 182; p. 267.
Crain, Rudolf E., Oberursel-on-the-Taunus, and H. L. Heckmann, Offenbach-on-the-Main, assignors to Moenus Machine Company, Frankfort-on-the-Main, Germany. Rotatable tool for beating uppers on lasts. No. 1,039,033; Sept. 17; Gas. vol. 182; p. 696.
Cramer, Anthony F., Detroit, Mich. Can guide and support for ice-tanks. No. 1,037,731; Sept. 3; Gas. vol. 182; p. 186.
Crane, Newton, Boston, Mass., assignor, by mesne assignments, to Self-Sharpening Pencil Company, Providence, R. I. Self-sharpening pencil. No. 1,038,857; Sept. 17; Gas. vol. 182; p. 638.
Crank, Orlando, Salt Lake City, Utah. Mortising-auger. No. 1,038,727; Sept. 17; Gas. vol. 182; p. 592.
Crawford, Frank, assignor to Conduit Threading Device Co., Pasadena, Cal. Conduit fish-wire machine. No. 1,038,093; Sept. 10; Gas. vol. 182; p. 340.
Crawford, Henry D., and W. B. Knight, assignors to R. E. Funston Dried Fruit & Nut Company, St. Louis, Mo. Nut-cracking machine. No. 1,037,566; Sept. 3; Gas. vol. 182; p. 141.
Creusbaur, Carrie, *et al.*, executors. (See Creusbaur, Robert.)
Creusbaur, Helen M., *et al.*, executors. (See Creusbaur, Robert.)
Creusbaur, Robert, deceased, New York; H. M. and C. Creusbaur, Brooklyn, and G. C. Nichols, New York, N. Y., executors. Motor. No. 1,037,842; Sept. 3; Gas. vol. 182; p. 221.
Crist, Mark B., Pittsburgh, and M. R. Wells, Wilkinsburg, assignors, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa. Non-vibrator ignition apparatus for internal-combustion engines. No. 1,037,732; Sept. 3; Gas. vol. 182; p. 186.
Cristy, W. A. (See Coyle and Lynch, assignors.)
Croasdale, Robert, *et al.* (See Mitchell, George R., assignor.)
Crocco, Gaetano A., and O. Ricaldoni, Rome, Italy. Elastically-connected surfaces for insuring the stability of airships, aeroplanes, and submarine boats. No. 1,038,507; Sept. 10; Gas. vol. 182; p. 481.
Crocker, Thomas F., Dayton, Ohio. Electrical apparatus. No. 1,037,447; Sept. 3; Gas. vol. 182; p. 92.
Crockett, H. U., *et al.* (See Beall, Albert E., assignor.)
Crompton & Knowles Loom Works. (See Crossland, George, assignor.)
Crone, Francis G., Buffalo, N. Y. Combined vaporizer and priming-pump. No. 1,038,300; Sept. 10; Gas. vol. 182; p. 410.
Crosble, T. S. (See Hudson, Alexander S., assignor.)
Crosby, Leonard G., and J. C. Slaughenhaupt, Ouray, Colo. Wrench. No. 1,039,493; Sept. 24; Gas. vol. 182; p. 872.
Cross, Garrett P. S. (See Place and Cross.)
Crossland, George, Long Island City, N. Y., assignor to Crompton & Knowles Loom Works. Woven pile fabric. No. 1,038,532; Sept. 17; Gas. vol. 182; p. 524.
Crouch, Walker L., Cleveland, Ohio. Valve and valve-gear. No. 1,038,533; Sept. 17; Gas. vol. 182; p. 524.
Crowley, John T., assignor to The Beacon Falls Rubber Shoe Company, Beacon Falls, Conn. Rubber boot. No. 1,037,448; Sept. 3; Gas. vol. 182; p. 93.
Crowmer, Harvey L., Indianapolis, Ind. Wire-splicing tool. No. 1,039,104; Sept. 24; Gas. vol. 182; p. 736.
Crum, H. B. (See Hollingsworth, Rea, assignor.)
Crump, Robert B., and W. M. Robertson, New York, N. Y. Drill. No. 1,037,449; Sept. 3; Gas. vol. 182; p. 93.
Cullen, John T., Jr., Clinton, Iowa. Water-heater. No. 1,039,051; Sept. 24; Gas. vol. 182; p. 929.
Culter & Proctor Stove Co. (See Genthner, Charles M., assignor.)
Cuming, Mari A., New York, N. Y. Press. No. 1,037,841; Sept. 3; Gas. vol. 182; p. 221.
Cummings, Alexander L., *et al.* (See Haselip, Edwin, assignor.)
Cummings, Henry H., Newton, Mass., assignor, by mesne assignments, to Atlantic National Bank, Providence, R. I. Target-practice apparatus. No. 1,038,728; Sept. 17; Gas. vol. 182; p. 592.
Cunis, John H., Hoboken, N. J. Telephone and telegraph relay or repeater. No. 1,038,861; Sept. 10; Gas. vol. 182; p. 410.
Curphey, John M., and J. W. Pence, Dayton, Ohio. Device for testing the temperature of tobacco. No. 1,037,210; Sept. 3; Gas. vol. 182; p. 11.
Currie, James C. (See Tuma, Frank, assignor.)
Currin, Sydney A., Bristol, England. Hub for wire wheels. No. 1,037,733; Sept. 3; Gas. vol. 182; p. 186.
Curry, John. (See Reinach, Louis, assignor.)
Curtain Supply Company, The. (See Forsyth, William H., assignor.)
Curtis, Charles K. (See Bailey, Joseph, assignor.)
Curtis and Jones Company. (See Kline, Albert H., assignor.)
Curtiss, George W., Gallitzin, Pa. Railway cross-tie. No. 1,037,509; Sept. 3; Gas. vol. 182; p. 141.
Cusic, Dennis H., Chicago Heights, assignor to Morden Frog & Crossing Works, Chicago, Ill. Guard-rail. No. 1,039,494; Sept. 24; Gas. vol. 182; p. 873.
Custer, Peter A., Woodriver, assignor of one-tenth to R. G. Meriwether, Alton, and four-tenths to M. Heller, Granite City, Ill. Seed-planter. No. 1,039,105; Sept. 24; Gas. vol. 182; p. 736.
Cutler, A. Leon. (See Clapp, Albert L., assignor.)
Cutler-Hammer Mfg. Co., The. (See Klein, Charles J., assignor.)
Cutler-Hammer Mfg. Co., The. (See Wiegand, Henry J., assignor.)
Cutler Mail Chute Company. (See Smith and Kumming, assignors.)
Daimler Motoren-Gesellschaft. (See Daimler, Paul, assignor.)
Daimler, Paul, assignor to Daimler Motoren-Gesellschaft, Untertürkheim, near Stuttgart, Germany. Clutch-actuating mechanism. No. 1,039,495; Sept. 24; Gas. vol. 182; p. 873.
Dake, Charles W., assignor to Pyle National Electric Headlight Company, Chicago, Ill. Steam-turbine. No. 1,038,534; Sept. 17; Gas. vol. 182; p. 525.
Dale, Andrew, Funkley, Minn. Berry-picker. No. 1,038,802; Sept. 10; Gas. vol. 182; p. 411.
Dame, Walter R. (See McCarty, Eugene J., assignor.)
Daniels, Daniel, and L. P. Burgess, Los Angeles, Cal. Expanding sleeve for standing valves. No. 1,039,496; Sept. 24; Gas. vol. 182; p. 874.
Daniels, Johann J., New Rochelle, N. Y. Airship. No. 1,037,450; Sept. 3; Gas. vol. 182; p. 94.





Daniels, Louis W., Manistee, Mich. Gage-cock. No. 1,039,462; Sept. 24; Gas. vol. 182; p. 929.
Daniels, W. H. (See Dempsey, James T., assignor.)
Darby, Thomas C., Wickford, England. Implement for cultivating or plowing land. No. 1,038,856; Sept. 17; Gas. vol. 182; p. 639.
Daugherty, Reil, Harrisburg, Pa. Adjustable support for chandeliers. No. 1,039,106; Sept. 24; Gas. vol. 182; p. 736.
Davenport, Harry W., Chicago, Ill. Tobacco-pipe. No. 1,038,303; Sept. 10; Gas. vol. 182; p. 411.
Davenport Washing Machine Company. (See Wahle, Adolph, assignor.)
Davies, Jonah, Hazleton, Pa. Clothes-wringer. No. 1,038,304; Sept. 10; Gas. vol. 182; p. 411.
Davis, Edward, Urbana, Ill. Combination tie and rail-fastener. No. 1,037,060; Sept. 3; Gas. vol. 182; p. 142.
Davis, Emry, New York, N. Y. Gun-sight. No. 1,037,451; Sept. 3; Gas. vol. 182; p. 94.
Davis, George H., assignor to E. T. Burrowes, Portland, Me. Paper carpet. No. 1,038,094; Sept. 10; Gas. vol. 182; p. 341.
Davis, George H., assignor to E. T. Burrowes, Portland, Me. Paper carpet. No. 1,038,095; Sept. 10; Gas. vol. 182; p. 341.
Davis, Harris M., Leetsdale, Pa. Window. No. 1,039,363; Sept. 24; Gas. vol. 183; p. 793.
Davis, James H., Fort Worth, Tex. Feed-trough. No. 1,039,653; Sept. 24; Gas. vol. 182; p. 929.
Davis, Ray. (See Booe and Davis.)
Davis, Robert W., Jr., assignor to Pennsylvania Salt Manufacturing Company, Wyandotte, Mich. Manufacturing electrodes. No. 1,039,094; Sept. 17; Gas. vol. 182; p. 696.
Davis, Robert W., Jr., Wyandotte, Mich., assignor to Pennsylvania Salt Manufacturing Company, Philadelphia, Pa. Manufacturing metallic-oxid electrodes. No. 1,039,071; Sept. 17; Gas. vol. 183; p. 706.
Davis, Roy P. M., Lock Haven, Pa. Rock-measuring apparatus. No. 1,038,305; Sept. 10; Gas. vol. 182; p. 412.
Davis, William J. N., Chicago, Ill. Means for locking automobile starting-cranks. No. 1,037,601; Sept. 3; Gas. vol. 182; p. 142.
Davison, Dorsette A., Richmond, Va. Aeroplane. No. 1,038,306; Sept. 10; Gas. vol. 182; p. 412.
Dawson, Arthur T., and G. T. Buckham, Westminster, London, assignors to Vickers Limited, Westminster, England. Electrical apparatus for transmitting and receiving signals. No. 1,037,452; Sept. 3; Gas. vol. 182; p. 94.
Dayton, Charles F. (See Hestand and Dayton.)
Dayton, Clyde W., Chatsworth, Cal. Making a beverage from honey. No. 1,038,307; Sept. 10; Gas. vol. 182; p. 412.
Dayton Engineering Laboratories Co., The. (See Kettering, Charles F., assignor.)
De Bogory, Alexander. (See De Bogory, Progor and A.)
De Bogory, Progor and A., Cocoanut Grove, Fla. Spring-wheel. No. 1,037,602; Sept. 3; Gas. vol. 183; p. 142.
De Haven, Thomas H., Bellingham, Wash. Auxiliary spade-handle. No. 1,037,734; Sept. 3; Gas. vol. 182; p. 187.
De Smith, Henry, assignor to M. D. Knowlton Company, Rochester, N. Y. Sheet-cutting machine. No. 1,038,860; Sept. 17; Gas. vol. 182; p. 639.
De Valdes, Elena M., New York, N. Y. Non-refillable-bottle stopper. No. 1,038,311; Sept. 10; Gas. vol. 182; p. 413.
De Vault, Ralph P., Battle Creek, Mich. Pen. No. 1,037,215; Sept. 3; Gas. vol. 182; p. 13.
De Vito, John A., Boston, Mass. Roundabout. No. 1,037,453; Sept. 3; Gas. vol. 182; p. 95.
De Young, Tennis, Jr., South Holland, Ill. Supplementary seat for two-wheel vehicles. No. 1,037,216; Sept. 3; Gas. vol. 182; p. 13.
Dean, Charles J., Blandell, N. Y. Spring-wheel. No. 1,038,535; Sept. 17; Gas. vol. 182; p. 525.
Dean Electric Company, The. (See Dean, William W., assignor.)
Dean Electric Company, The. (See Kennedy, James, assignor.)
Dean Electric Company, The. (See Manson, Ray H., assignor.)
Dean, Samuel, Wellington, Mich. Spirit-level. No. 1,038,536; Sept. 17; Gas. vol. 182; p. 526.
Dean, William W., North Ridgeville, assignor to The Dean Electric Company, Elyria, Ohio. Governing device. No. 1,039,107; Sept. 24; Gas. vol. 182; p. 737.
Debley, Edward F., assignor to Campbell's Automatic Safety Gas Burner Co., Portland, Oreg. Safety gas-burner. No. 1,038,090; Sept. 10; Gas. vol. 182; p. 341.
Debley, Edward F., assignor to Campbell's Automatic Safety Gas Burner Co., Portland, Oreg. Automatic cut-off valve for fluid-hydrocarbon burners. No. 1,038,091; Sept. 10; Gas. vol. 182; p. 342.
Deckebach, Henry E., Cincinnati, Ohio. Stop-cock. No. 1,038,808; Sept. 10; Gas. vol. 182; p. 412.
Decker, Theodore A., Chicago, Ill. Food or condiment holder. No. 1,038,092; Sept. 10; Gas. vol. 182; p. 342.
Dedanco Machine Works. (See Hanlon, George A., assignor.)
Dehn, Martin, Buffalo, N. Y. Hook for hanging pictures and the like. No. 1,039,397; Sept. 24; Gas. vol. 182; p. 829.
Deister, William F., Fort Wayne, Ind. Slime-concentrator. No. 1,037,212; Sept. 3; Gas. vol. 182; p. 12.
Delamater, Cyrille, Bridgeport, Conn. Acetylene-generator. No. 1,038,489; Sept. 10; Gas. vol. 182; p. 478.
Dellamore, Albert, Los Angeles, Cal. Automobile turntable. No. 1,038,309; Sept. 10; Gas. vol. 182; p. 413.
Deming Company, The. (See Deming, William L., assignor.)
Deming, William L., assignor to The Deming Company, Salem, Ohio. Fire-extinguishing apparatus. No. 1,038,859; Sept. 17; Gas. vol. 182; p. 639.
Dempsey, James T., assignor of one-half to W. H. Daniels, Kansas City, Kans. Non-refillable bottle. No. 1,038,496; Sept. 10; Gas. vol. 182; p. 477.
Dempsey, James T., assignor of one-half to W. H. Daniels, Kansas City, Kans. Non-refillable bottle. No. 1,038,497; Sept. 10; Gas. vol. 182; p. 478.
Dénes, Aladár, assignor to M. Eisner, Berlin, Germany. Instrument for castering purposes. No. 1,038,735; Sept. 17; Gas. vol. 182; p. 593.
Denham, Charles. (See Vise and Denham.)
Denief, George W. (See Howard and Denief.)
Dennis, Edward T., Richmond, Va. Picker for coupons, labels, and the like. No. 1,039,109; Sept. 24; Gas. vol. 183; p. 738.
Denny, Dock T., Hartsville, S. C. Holder for fob-ribbons. No. 1,039,497; Sept. 24; Gas. vol. 182; p. 874.
Derain, Louis G., Boulogne-sur-Seine, near Paris, France. Extrusion-press. No. 1,037,213; Sept. 3; Gas. vol. 183; p. 12.
Derbyshire, Henry E., assignor to Chambersburg Engineering Company, Chambersburg, Pa. Safety-latch for board drop-hammers. No. 1,037,735; Sept. 3; Gas. vol. 182; p. 187.
Desaya, Anthelme, Clifton, N. J. Monoplane. No. 1,037,214; Sept. 3; Gas. vol. 182; p. 12.
Desenfants, Charles E. (See Desenfants, Edward W., assignor.)
Desenfants, Edward W., assignor of one-half to C. E. Desenfants, Chicago, Ill. Bucking automobile. No. 1,039,035; Sept. 17; Gas. vol. 182; p. 696.
Deslauriers Column Mold Company. (See Deslauriers, Philippe A. and L. P., assignors.)
Deslauriers, Louis P. (See Deslauriers, Philippe A. and L. P.)
Deslauriers, Philippe A. and L. P., assignors, by mesne assignments, to Deslauriers Column Mold Company, St. Paul, Minn. Column-mold. No. 1,039,498; Sept. 24; Gas. vol. 182; p. 874.
Detroit Can Company. (See Harbeck and Ford, assignors.)
Detroyes, Théodore, Villeneuve-sur-Yonne, France. Device for fixing caps to billiard-cues. No. 1,038,310; Sept. 10; Gas. vol. 182; p. 413.
Deutsche Telephonwerke G. m. b. H. (See Settegast, Bernhard, assignor.)
Dewar, William H., Philadelphia, Pa., assignor to Anglo-American Cabinet Co., Seattle, Wash. Phonograph-disk-record cabinet. No. 1,038,099; Sept. 10; Gas. vol. 182; p. 342.
Dewson, Edward H., New York, N. Y., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Automatic cut-out for trip-valves. No. 1,037,454; Sept. 3; Gas. vol. 182; p. 95.
Dewson, Edward H., New York, N. Y., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Pneumatic blow-out for electric switches. No. 1,039,294; Sept. 24; Gas. vol. 182; p. 794.
Dexter, Albert J., Indian Orchard, Mass. Gas-engine. No. 1,038,537; Sept. 17; Gas. vol. 182; p. 526.
Di Bella, Morris. (See Martin, Frank, assignor.)
Diamant Brikett-Werke G. m. b. H. (See Hein, Paul, assignor.)
Dichmann, William, assignor of one-half to C. A. Wahlman, Oshkosh, Wis. Machine for forming conical-necked wrappers. No. 1,039,108; Sept. 24; Gas. vol. 182; p. 737.
Dick, Edward W., Albert Lea, Minn. Safety eyeglass-holder. No. 1,039,265; Sept. 24; Gas. vol. 182; p. 794.
Dick, James A., and J. P. Sinclair, Vancouver, British Columbia, Canada. Hat-pin guard. No. 1,038,312; Sept. 10; Gas. vol. 182; p. 413.
Dicks, Hallie R., Grey Eagle, Minn. Electrical musical instrument. No. 1,037,603; Sept. 3; Gas. vol. 182; p. 143.
Dickson, George F., assignor to Confectioners and Bakers Supply Co., Chicago, Ill. Freezer. No. 1,038,854; Sept. 24; Gas. vol. 182; p. 930.
Dickson, George F., assignor to Confectioners and Bakers Supply Co., Chicago, Ill. Freezing apparatus. No. 1,039,355; Sept. 24; Gas. vol. 182; p. 930.
Dickson, William F., *et al.* (See Stewart, James D., assignor.)
Diefenderfer, Victor J., Allentown, assignor of one-half to C. E. Lehr, Bethlehem, Pa. Air-compressor. No. 1,037,455; Sept. 3; Gas. vol. 182; p. 95.
Diefenbach, Otto, Darmstadt, Germany. Diaphragm for electrolysis. No. 1,039,266; Sept. 24; Gas. vol. 182; p. 795.
Diehl, Frederick, Elizabeth, N. J., assignor to Diehl Manufacturing Company. Lubricating device. No. 1,037,217; Sept. 3; Gas. vol. 182; p. 13.
Diehl Manufacturing Company. (See Diehl, Frederick, assignor.)

Dildine, E. E., and J. A. Bugh, St. Paul, Minn., assignors to Sandwich Electric Company, Sandwich, Ill. Cordless jack-box. No. 1,039,656; Sept. 24; Gas. vol. 182; p. 930.

Dilg, Charles H. J., and J. O. Fowler, Jr., New York, N. Y., assignors to Granulator Soap Company. Soap-supplier. No. 1,037,456; Sept. 3; Gas. vol. 182; p. 96.

Dilg, Charles H. J., and J. O. Fowler, New York, N. Y., assignors to Granulator Soap Company. Soap-dispensing machine. No. 1,037,821; Sept. 3; Gas. vol. 182; p. 214.

Dillon, Albert, Aitch, Ohio. Combined rail-joint and tie-fastener. No. 1,038,318; Sept. 10; Gas. vol. 182; p. 413.

Dion, Albert de, and G. Bouton, Puteaux, France. Connecting-rod coupling. No. 1,037,211; Sept. 3; Gas. vol. 182; p. 11.

Dippel, Henry, San Francisco, Cal. Hat-fastener. No. 1,037,736; Sept. 3; Gas. vol. 182; p. 187.

Dirnberger, Clarence H., Buffalo, N. Y. Wrapping merchandise or the like. No. 1,037,218; Sept. 3; Gas. vol. 182; p. 14.

Disbrow, Reuben B., Owatonna, Minn. Friction-clutch. No. 1,037,876; Sept. 10; Gas. vol. 182; p. 267.

Dixfield Toothpick Co. (See Stanley, George P., assignor.)

Dobkevitch, Gaëtan, assignor to Société Internationale De La Lampe Electrique O. R., Paris, France. Apparatus for winding the filaments of incandescent electric lamps on their supports. No. 1,039,657; Sept. 24; Gas. vol. 182; p. 931.

Doble, May E. (See Doble, William A., assignor.)

Doble, William A., San Francisco, assignor to M. E. Doble, Alameda, Cal. Impact water-motor. No. 1,038,538; Sept. 17; Gas. vol. 182; p. 527.

Dodge, Irvin G., San Francisco, Cal. Door-securing device. No. 1,037,457; Sept. 3; Gas. vol. 182; p. 96.

Doerr, William G., Secane, Pa. Game. No. 1,037,877; Sept. 10; Gas. vol. 182; p. 267.

Doherty, Frank, and W. J. Robbins, Wellington, New Zealand. Pneumatic tire. No. 1,038,314; Sept. 10; Gas. vol. 182; p. 414.

Doherty, Henry L., New York, N. Y. Purifying gases. No. 1,038,315; Sept. 10; Gas. vol. 182; p. 414.

Doinikoff, Wladimir, Karlsruhe, Germany. Alternating-current commutator dynamo-electric machine. No. 1,038,861; Sept. 17; Gas. vol. 182; p. 640.

Dokkenwadel, Frederick G., Coshocton, Ohio. Insecticidal-fertiliser cartridge. No. 1,038,316; Sept. 10; Gas. vol. 182; p. 415.

Dolan, Felix J., Riverside, Cal. Fruit-clippers. No. 1,037,737; Sept. 3; Gas. vol. 182; p. 188.

Dolan, Thomas F., Cando, N. D. Bridle-bit. No. 1,037,878; Sept. 10; Gas. vol. 182; p. 268.

Doman, Lewis B., Elbridge, N. Y. Self-playing musical instrument. No. 1,038,498; Sept. 10; Gas. vol. 182; p. 478.

Doman, Lewis B., Elbridge, N. Y. Tracker-bar for self-playing musical instruments. No. 1,039,658; Sept. 24; Gas. vol. 182; p. 931.

Doman, Lewis B., Elbridge, N. Y. Tracker-bar. No. 1,039,659; Sept. 24; Gas. vol. 182; p. 931.

Doman, Lewis B., Syracuse, N. Y. Tempo-governing device for self-playing musical instruments. No. 1,039,660; Sept. 24; Gas. vol. 182; p. 932.

Domestic Appliances Company. (See Flynt, Louis W. G., assignor.)

Domogalla, Vincent, Salem, Oreg. Rail-joint. No. 1,038,862; Sept. 17; Gas. vol. 182; p. 640.

Donald, Percy G., and M. H. Matthews, London, England. Elevator or conveyer. No. 1,039,499; Sept. 24; Gas. vol. 182; p. 875.

Donner, Frederick G., Pittsburgh, Pa. Plane for aeroplanes. No. 1,038,317; Sept. 10; Gas. vol. 182; p. 415.

Dorman, William S., Brooklyn, N. Y., and R. C. Manville, Waterbury, Conn., assignors to R. A. Canfield, Providence, R. I. Stopper-making machine. No. 1,039,661; Sept. 24; Gas. vol. 182; p. 932.

Dorner, Béla, Budapest, Austria-Hungary. Utilising Indian-corn straw. No. 1,038,730; Sept. 17; Gas. vol. 182; p. 594.

Double Body Bolster Company. (See Frede and Westlake, assignors.)

Double Body Bolster Company. (See Howard and Pfinger, assignors.)

Doud, Arthur N., Cleveland, Ohio. Dumping-car. No. 1,038,318; Sept. 10; Gas. vol. 182; p. 415.

Douglas, Charles H., Quincy, Mich. Wrench. No. 1,038,539; Sept. 17; Gas. vol. 182; p. 527.

Douglas, Harry A., Chicago, Ill., assignor to The Adams & Westlake Company. Wind-shield. No. 1,037,604; Sept. 3; Gas. vol. 182; p. 143.

Douglass, John R., Logansport, Ind. Loss-preventing device. No. 1,039,662; Sept. 24; Gas. vol. 182; p. 932.

Dowd, Daniel, Portland, Oreg. Sash-lock. No. 1,037,219; Sept. 3; Gas. vol. 182; p. 14.

Dowd, Daniel, Los Angeles, Cal. Stud for use in building construction. No. 1,037,738; Sept. 3; Gas. vol. 182; p. 188.

Dowell, George W., Jr., Athens, Tex. Cotton-chopper. No. 1,038,540; Sept. 17; Gas. vol. 182; p. 527.

Doxford, Arthur, Sunderland, England. Apparatus for opening out multiple-wire cable or the like applicable to the formation of blocks on such cable. No. 1,039,663; Sept. 24; Gas. vol. 182; p. 929.

Draper Company. (See Hollins, Denis M., assignor.)

Draper Company. (See Rhoades, Alonzo E., assignor.)

Draper Company. (See Stansfield, Charles, assignor.)

Draper Company. (See Stimpson, Edward S., assignor.)

Dreger, Oscar, Huntsville, Ala. Nut-lock. No. 1,037,739; Sept. 3; Gas. vol. 182; p. 188.

Dressel Railway Lamp Works, The. (See Eklund, Gustav, assignor.)

Drobniak, Franz. (See Pianecki and Drobniak.)

Droste, George A., Seattle, Wash. Apparatus for games. No. 1,039,500; Sept. 24; Gas. vol. 182; p. 875.

Du Pont, Kleuthere P., Montchanin, Del. Rotary valve for internal-combustion engines. No. 1,038,319; Sept. 10; Gas. vol. 182; p. 416.

Ducker, Orlando, Washington, D. C. Explosive-engine. No. 1,038,541; Sept. 17; Gas. vol. 182; p. 528.

Duckham, Arthur M., county of Surrey, England. Vertical retort for the carbonisation of coal or the like. No. 1,037,822; Sept. 3; Gas. vol. 182; p. 215.

Dudley, William W., assignor to Hamilton Watch Company, Lancaster, Pa. Center wheel for watches. No. 1,037,740; Sept. 3; Gas. vol. 182; p. 188.

Dudley, William W., assignor to Hamilton Watch Company, Lancaster, Pa. Balance-cock. No. 1,037,741; Sept. 3; Gas. vol. 182; p. 188.

Dudley, William W., assignor to Hamilton Watch Company, Lancaster, Pa. Hair-spring-stud-holding means No. 1,037,742; Sept. 3; Gas. vol. 182; p. 189.

Duenseer, George, Guttenberg, N. J. Covering or recovering surfaces. No. 1,037,743; Sept. 3; Gas. vol. 182; p. 189.

Dueweke, Alexander, Detroit, Mich. Car-seal. No. 1,039,663; Sept. 24; Gas. vol. 182; p. 932.

Duffie, George M., and W. A. Preston, Detroit, Mich. Centrifugal separator. No. 1,038,731; Sept. 17; Gas. vol. 182; p. 594.

Duffy, James W., Chicago, Ill., assignor to The Fuller Manufacturing Company, New Haven, Conn. Table-operating device for paper-feeding mechanism. No. 1,037,220; Sept. 3; Gas. vol. 182; p. 14.

Dubem, Victor L., Oakland, Cal., assignor to American Vimograph Company. Moving-picture camera and projection-machine. No. 1,039,501; Sept. 24; Gas. vol. 182; p. 876.

Dull, Raymond W., Aurora, Ill. Distributer for screening apparatus. No. 1,037,221; Sept. 3; Gas. vol. 182; p. 15.

Duncan, Charles B. (See Levien and Duncan.)

Duncan, Francis M., Los Angeles, and W. S. Eisenberg, Alhambra; said Duncan assignor of one-fourth to E. H. Foedick, Los Angeles, Cal. Apparatus for fumigation. No. 1,037,744; Sept. 3; Gas. vol. 182; p. 189.

Dunham Company, The. (See Dunham, Wiley J., assignor.)

Dunham, Melbourne K., Brookline, Mass. Blowpipe. No. 1,039,036; Sept. 17; Gas. vol. 182; p. 606.

Dunham, Wiley J., assignor to The Dunham Company, Berea, Ohio. Implement-handle. No. 1,038,732; Sept. 17; Gas. vol. 182; p. 594.

Dunlop, Robert R., Columbus, Ohio, assignor to The Jeffrey Manufacturing Company. Trolley-retriever. No. 1,039,502; Sept. 24; Gas. vol. 182; p. 876.

Dunn, Edward L., Worcester, Mass., assignor to Standard Plunger Elevator Company, New York, N. Y. Pumping system. No. 1,037,879; Sept. 10; Gas. vol. 182; p. 268.

Dupré, Wilfred, Worcester, Mass. Combined scrubber and mop. No. 1,038,542; Sept. 17; Gas. vol. 182; p. 528.

Durbin, James F. and V. S., Fort Scott, Kans. Railway-car coupling. No. 1,037,458; Sept. 3; Gas. vol. 182; p. 96.

Durbin, James F., Denver, Colo., and V. S. Durbin, St. Louis, Mo. Car-coupling. No. 1,037,459; Sept. 3; Gas. vol. 182; p. 97.

Durbin, Votaw S. (See Durbin, James F. and V. S.)

Durran, William, Percy township, Ontario, Canada. Traction-engine. No. 1,037,222; Sept. 3; Gas. vol. 182; p. 15.

Durstewitz, Otto, Parral, Chihuahua, Mexico, assignor of one-half to F. Reichmann, Chicago, Ill. Feeding apparatus. No. 1,038,733; Sept. 17; Gas. vol. 182; p. 595.

Dusinberre, George B., Cleveland, Ohio. Electric controller. No. 1,038,320; Sept. 10; Gas. vol. 182; p. 416.

Dymock, John, Stockport, England. Twine. No. 1,038,490; Sept. 10; Gas. vol. 182; p. 476.

E. Ingraham Co., The. (See Simmons, Charles B., assignor.)

E. H. Huenefeld Co., The. (See Huenefeld, Walter H., assignor.)

E. I. du Pont de Nemours Powder Company. (See Pier, Mathias, assignor.)

E. I. du Pont de Nemours Powder Company. (See Sokolowski, Ernst, assignor.)

E. J. Brooks & Co. (See Brooks, Winfred M., assignor.)

Eames, Gardner T., assignor to The G. T. Eames Company, Kalamazoo, Mich. Arbor press or ram. No. 1,038,543; Sept. 17; Gas. vol. 182; p. 528.

Easterling, George M., Blanket, Tex. Harrow and seeder. No. 1,038,100; Sept. 10; Gas. vol. 182; p. 348.

Eastwood, John W., Carleton Place, Ontario, Canada. Attachment for wire-mesh bed-springs or the like. No. 1,038,963; Sept. 17; Gas. vol. 182; p. 640.

Eaton, James F. (See Eaton, John H., assignor.)

Eaton, John H., assignor of one-third to J. F. Eaton, Rochester, N. Y. Internal-combustion engine. No. 1,037,606; Sept. 3; Gas. vol. 182; p. 143.

Eaton, Owen H., Merced, Cal. Rotary steam-engine. No. 1,038,321; Sept. 10; Gas. vol. 182; p. 416.





Eaton, Robert, and G. L. Keith, assignors to Gillett & Eaton, Lake City, Minn. Independent inside valve-drive for steam-engines. No. 1,039,067; Sept 17; Gas. vol. 182; p. 606.

Ebbert, Albert E., Greencastle, Pa. Corn harvester and shocker. No. 1,037,745; Sept. 3; Gas. vol. 182; p. 189.

Eden, Harold W., Hinsdale, assignor to Brokaw-Eden Mfg. Co., Chicago, Ill. Gearing. No. 1,037,746; Sept. 3; Gas. vol. 182; p. 189.

Edgar, Clarence W., Los Angeles, Cal. Heating and ventilating apparatus. No. 1,039,664; Sept. 24; Gas. vol. 182; p. 933.

Edge, Walter S., New York, N. Y. Automatic flood-gate. No. 1,039,072; Sept. 17; Gas. vol. 182; p. 706.

Edick, George, Albuquerque, N. Mex. Rail-joint. No. 1,039,038; Sept. 17; Gas. vol. 182; p. 697.

Edison, Thomas A. (See Aiken, Edward, assignor.)

Edlund, Andrew G., and A. Lenfgren, Axtell, Nebr. Tire-protector. No. 1,039,665; Sept. 24; Gas. vol. 182; p. 933.

Edwards, John C., Brookline, Mass., assignor to A. Kimball Company, New York, N. Y. Marking-ticket. No. 1,037,823; Sept. 3; Gas. vol. 182; p. 215.

Edwards, Thomas H., Buffalo, N. Y. Adjustable window-shade bracket. No. 1,039,666; Sept. 24; Gas. vol. 182; p. 933.

Effenbeck, Otis J., Stockton, Cal. Hydrocarbon-burner. No. 1,038,734; Sept. 17; Gas. vol. 182; p. 595.

Egge, Frederick, assignor to The Smith & Egge Mfg. Co., Bridgeport, Conn. Lock. No. 1,038,864; Sept. 17; Gas. vol. 182; p. 641.

Eggers, Henry, assignor to The Mine & Smelter Supply Company, Denver, Colo. Head-motion for ore-concentrators. No. 1,038,322; Sept. 10; Gas. vol. 182; p. 417.

Eichholtz, William B., New Orleans, La. Push-button. No. 1,039,039; Sept. 17; Gas. vol. 182; p. 607.

Eichler, Albert B., Sacramento, Cal. Cushion-head for concrete piles. No. 1,039,369; Sept. 24; Gas. vol. 182; p. 829.

Eisenberg, William S. (See Duncan and Eisenberg.)

Eisner, Max. (See Dénes, Aladár, assignor.)

Eklund, Gustav, New York, N. Y., assignor to The Dressel Railway Lamp Works. Lamp-burner. No. 1,038,323; Sept. 10; Gas. vol. 182; p. 417.

El Arco Radiator Company. (See Gildersleeve, Raleigh C., assignor.)

Elder, Herbert, St. Louis, Mo. Key-ring holder. No. 1,039,040; Sept. 17; Gas. vol. 182; p. 697.

Eldred, George S., Chicago, Ill. Cigar-lighter. No. 1,038,735; Sept. 17; Gas. vol. 182; p. 596.

Eldridge, Hilliary. (See Rockey and Eldridge.)

Electrelle Company. (See Smith, Irving B., assignor.)

Electric Bank Protection Company. (See Jurulck, Maximilian F., assignor.)

Electric Boat Company. (See Bailey, Theodorus S., assignor.)

Electric Meat Curing Company, The. (See Lincoln, John C., assignor.)

Electro Metallurgical Company. (See Becket, Frederick M., assignor.)

Electro Surgical Instrument Co. (See Snell, Albert C., assignor.)

Elektromotoren-Werke Hermann Gradenwitz. (See Gradenwitz, Vollbrecht, and Levsow, assignors.)

Elfborg, Henry G., assignor to Ajax Forge Company, Chicago, Ill. Railway-frog. No. 1,037,880; Sept. 10; Gas. vol. 182; p. 268.

Ellcon Company, The. (See Brinckerhoff, Frank M., assignor.)

Ellenburg, Joseph N., and A. Nelson; said Nelson assignor to G. F. Thompson, McKinney, Tex. Cotton elevator and distributer. No. 1,037,223; Sept. 3; Gas. vol. 182; p. 16.

Eller Manufacturing Company, The. (See Faulhaber, John L., assignor.)

Elliott, Claude, and C. Kelly, deceased, (O. A. Fritzel, administrator,) Grundy Center, Iowa. Means of removing the carbon from the cylinders, valves, and rings of gasolene-engines. No. 1,038,324; Sept. 10; Gas. vol. 182; p. 417.

Elliott-Fisher Company. (See Smiley, George H., assignor.)

Elliott-Fisher Company. (See Smith, John A., assignor.)

Elliott, William S., Pittsburgh, Pa. Fastening device for doors, covers, &c. No. 1,037,747; Sept. 3; Gas. vol. 182; p. 190.

Ellis, Alfred J., Woodcliff-on-Hudson, N. J., assignor to A. J. Ellis, Inc. Hollow metal door and the like. No. 1,039,371; Sept. 24; Gas. vol. 182; p. 830.

Ellis, Alfred J., Woodcliff-on-Hudson, N. J., and C. B. Nellis, New York, N. Y., assignors to A. J. Ellis, Inc. Hollow metal door. No. 1,039,370; Sept. 24; Gas. vol. 182; p. 830.

Ellis, Carleton, Montclair, N. J. Edible oil product. No. 1,037,881; Sept. 10; Gas. vol. 182; p. 268.

Ellis, Carleton, Montclair, N. J. Hydrogenated butter substitute. No. 1,038,545; Sept. 17; Gas. vol. 182; p. 529.

Ely-Norris Safe Company. (See Bedell, Orlando W., assignor.)

Emerson Electric Manufacturing Company. (See Finch, Herbert L., assignor.)

Emert, John H., Peoria, assignor to Emert Manufacturing Company, Pleasant Hill, Ill. Track for agricultural implements. No. 1,038,325; Sept. 10; Gas. vol. 182; p. 417.

Emert, John H., Peoria, assignor to Emert Manufacturing Company, Pleasant Hill, Ill. Equaliser. No. 1,038,326; Sept. 10; Gas. vol. 182; p. 418.

Emert Manufacturing Company. (See Emert, John H., assignor.)

Emringer, Jules, Paris, France. Means for producing and exhibiting luminous signs. No. 1,038,736; Sept. 17; Gas. vol. 182; p. 596.

Engelmann, Max, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. 2-alkoxy-5-dimethylated barbituric acids. No. 1,038,101; Sept. 10; Gas. vol. 182; p. 348.

Engelmann, Max, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. 2-alkoxy-5-monomethylated barbituric acids. No. 1,038,102; Sept. 10; Gas. vol. 182; p. 348.

Englebright, William F., Nevada City, Cal. Water-meter. No. 1,038,327; Sept. 10; Gas. vol. 182; p. 418.

Ensign, George A., assignor to Defiance Machine Works, Defiance, Ohio. Wheel-rim-jointing machine. No. 1,037,748; Sept. 3; Gas. vol. 182; p. 190.

Ensign, George A., assignor to Defiance Machine Works, Defiance, Ohio. Tension device for band-saws. No. 1,038,328; Sept. 10; Gas. vol. 182; p. 419.

Ensign, George A., assignor to Defiance Machine Works, Defiance, Ohio. Wheel-rim equalising and truing machine. No. 1,038,544; Sept. 17; Gas. vol. 182; p. 529.

Ensign, George A., assignor to Defiance Machine Works, Defiance, Ohio. Wheel boring and facing machine. No. 1,039,503; Sept. 24; Gas. vol. 182; p. 876.

Enterprise Optical Mfg. Company, The. (See Roebuck, Alvah C., assignor.)

Erbes, Louis C., St. Paul, Minn. Wheel-tread. No. 1,038,103; Sept. 10; Gas. vol. 182; p. 348.

Erickson, Edward, Beverly, Mass. Holding device. No. 1,037,882; Sept. 10; Gas. vol. 182; p. 269.

Ermentrout, William H., Reading, Pa. Drying mechanism for hosiery. No. 1,037,224; Sept. 3; Gas. vol. 182; p. 16.

Ernst, Charles K., Buffalo, N. Y. Hoisting apparatus. No. 1,038,329; Sept. 10; Gas. vol. 182; p. 419.

Ettl, John, Leonia, N. J. Pantographic apparatus for use of sculptors. No. 1,037,460; Sept. 3; Gas. vol. 182; p. 97.

Evans, George W., and C. E. Logan, Connelsville, Mo. Vending-machine. No. 1,038,330; Sept. 10; Gas. vol. 182; p. 419.

Evans, Robert, Cravens, La. Mattress-rack. No. 1,038,365; Sept. 17; Gas. vol. 182; p. 641.

Evensen, Samuel, Capron, Ill. Milking-stool. No. 1,037,225; Sept. 3; Gas. vol. 182; p. 16.

Every, Ernest D., Mason, Mich. Electrical contact for railway-crossing bells. No. 1,037,606; Sept. 3; Gas. vol. 182; p. 144.

Ewen, Edward C. (See Burk, Frederick E., assignor.)

Exline, Marcus P., Dallas, Tex., assignor to American Mailing System Co., Chicago, Ill. Filing-cabinet unit. No. 1,038,331; Sept. 10; Gas. vol. 182; p. 420.

Exsell, J. C. (See Jones, Emery C., assignor.)

F. B. Zieg Manufacturing Company, The. (See Zieg, Frank B., assignor.)

F. L. Smidth & Co. (See Andersen, Alfred E., assignor.)

F. L. Smidth & Co. (See Fasting, Johan S., assignor.)

Fahys & Co., Joseph. (See Butts, Charles W., assignor.)

Fairchild, D. L., et al., administrators. (See Oxias, Albert N.)

Falter, Benjamin F., and G. J. Lederer, Chicago, Ill. Tape-shrinking machine. No. 1,038,104; Sept. 10; Gas. vol. 182; p. 348.

Fanning, Sam H., assignor of one-half to H. Frady, Dallas, Tex. Educational device. No. 1,038,332; Sept. 10; Gas. vol. 182; p. 420.

Farbenfabriken vorm. Friedr. Bayer & Co. (See Engelmann, Max, assignor.)

Farbenfabriken vorm. Friedr. Bayer & Co. (See Harries, Carl, assignor.)

Farbenfabriken vorm. Fried. Bayer & Co. (See Jacobi, Andreas, assignor.)

Farbenfabriken vorm. Friedr. Bayer & Co. (See Schweitzer and Zart, assignors.)

Farbwerke vorm. Meister Lucius & Brüning. (See Ruppel, Wilhelm, assignor.)

Farbwerke vorm. Meister Lucius & Brüning. (See Schmidt and Kränslein, assignors.)

Farnum, William C., Fitchburg, Mass., assignor to U. S. Bobbin & Shuttle Company, Providence, R. I. Bobbin-turning machine. No. 1,038,499; Sept. 10; Gas. vol. 182; p. 478.

Fasting, Johan S., Frederiksberg, near Copenhagen, Denmark, assignor to F. L. Smidth & Co., New York, N. Y. Apparatus for filling bags with cement, &c. No. 1,037,824; Sept. 3; Gas. vol. 182; p. 215.

Faulhaber, John L., Elwood, Ind., assignor to The Eller Manufacturing Company, Canton, Ohio. Sheet-metal roofing. No. 1,039,267; Sept. 24; Gas. vol. 182; p. 795.

Favorite, William T. (See Walton and Favorite.)

Feall, Alexy, Los Angeles, Cal. Aeroplane. No. 1,037,749; Sept. 3; Gas. vol. 182; p. 191.

Fedder, Meyer, Baltimore, Md. Box-lid lifter. No. 1,038,333; Sept. 10; Gas. vol. 182; p. 420.

Feeney, Martin, St. Paul, Minn. Rail-loader. No. 1,037,226; Sept. 3; Gas. vol. 182; p. 16.

Feller, Albert. (See Warner and Feller.)

Feiner, Eugene J. (See Hamann, Richard W., assignor.)

Follows, Irving D., Syracuse, assignor of one-half to J. H. McCartney, Rochester, N. Y. Emergency signaling device for telephone-exchange systems. No. 1,039,067; Sept. 24; Gaz. vol. 182; p. 933.

Fernekes, Gustave, Pittsburgh, assignor to J. A. Snee, West Elizabeth, Pa. Apparatus for producing formaldehyde. No. 1,038,546; Sept. 17; Gaz. vol. 182; p. 530.

Fernekes, Gustave, assignor to J. A. Snee, West Elizabeth, Pa. Producing formaldehyde. No. 1,038,547; Sept. 17; Gaz. vol. 182; p. 530.

Fietz, Adolf W., Martins Ferry, Ohio. Scrubbing apparatus. No. 1,038,548; Sept. 17; Gaz. vol. 182; p. 530.

Fifer, Victoria E., Kansas City, Mo. Hat-fastening device. No. 1,038,105; Sept. 10; Gaz. vol. 182; p. 344.

Fincato, Paolino, Milan, Italy. Apparatus for cleansing, washing, or dyeing woolen, cotton, and other yarns. No. 1,037,461; Sept. 3; Gaz. vol. 182; p. 97.

Finch, Herbert L., assignor to Emerson Electric Manufacturing Company, St. Louis, Mo. Electric motor. No. 1,039,110; Sept. 24; Gaz. vol. 182; p. 738.

Findura, Stephen A., McKeesport, Pa. Trolley-wheel retainer. No. 1,037,825; Sept. 3; Gaz. vol. 182; p. 216.

Fink, Francis, and L. F. Rex, Lansford, Pa. Crossover-switch. No. 1,039,041; Sept. 17; Gaz. vol. 182; p. 697.

Finking, Ernst, Leipsic, Germany. Antiskidding device. No. 1,038,737; Sept. 17; Gaz. vol. 182; p. 596.

Firban, Stanislav, and J. Milicinsky, Chicago, Ill. Barrel-tapping device. No. 1,039,372; Sept. 24; Gaz. vol. 182; p. 831.

Fischer, Carl, Barmen, Germany. Keyboard for pianos. No. 1,038,540; Sept. 17; Gaz. vol. 182; p. 531.

Fisher, Edward C., Lincoln, Ill. Combined couch and folding bed. No. 1,037,227; Sept. 3; Gaz. vol. 182; p. 17.

Fisher, Edward F., San Diego, Cal., assignor of one-third to R. L. Fisher, Raymond, Wash. Airship. No. 1,038,106; Sept. 10; Gaz. vol. 182; p. 344.

Fisher, Henry W., assignor to Standard Underground Cable Company, Pittsburgh, Pa. Waterproof cable. No. 1,037,883; Sept. 10; Gaz. vol. 182; p. 269.

Fisher, R. L. (See Fisher, Edward F., assignor.)

Fisher, Samuel. (See Boyce and Fisher.)

Fisher, William C., assignor to The Russell Manufacturing Company, Middletown, Conn. Buckle. No. 1,039,042; Sept. 17; Gaz. vol. 182; p. 698.

Fitts, James L., Merchantville, N. J., assignor to Warren Webster and Company. Steam trap or valve. No. 1,037,228; Sept. 3; Gaz. vol. 182; p. 17.

Fitzgerald, James J., assignor of one-third to D. Rawstrom and one-third to H. Rawstrom, Chicago, Ill. Interest-calculating device. No. 1,039,373; Sept. 24; Gaz. vol. 182; p. 831.

Fitzroy Tanning Company Limited. (See Lindström, Gustaf H., assignor.)

Fiveashilling, Albert D. (See Reed and Fiveashilling.)

Flade, George F. (See Reith and Flade.)

Flagg, Fred F. (See Smith and Flagg.)

Flanagan, Mark T. (See Roberts and Flanagan.)

Flechsing, William H., Victoria, British Columbia, Canada. Corset-stay. No. 1,038,107; Sept. 10; Gaz. vol. 182; p. 344.

Fleck, Herman, Golden, assignor to The National Onion Salt Company, Denver, Colo. Seasoning material and making same. No. 1,038,334; Sept. 10; Gaz. vol. 182; p. 421.

Fleischmann, Joseph, and P. Wolf, Marshfield, Wis. Governor-controlled igniter. No. 1,037,462; Sept. 3; Gaz. vol. 182; p. 98.

Fleming, Clarence G., Phillips, Nebr. Harvesting and husking machine. No. 1,037,826; Sept. 3; Gaz. vol 182; p. 216.

Fletcher, Mordecai H., Cincinnati, Ohio, Core. No. 1,038,550; Sept. 17; Gaz. vol. 182; p. 531.

Fletcher, Roland R., *et al.* (See Jernigan, Lee H., assignor.)

Flickinger, Joseph M. (See Gustafson and Flickinger.)

Flora, Ellsworth E., Chicago, Ill. Joining metal-strap ends. No. 1,038,108; Sept. 10; Gaz. vol. 182; p. 345.

Flora, Ellsworth E., Chicago, Ill. Tool for use in fastening metal strips. No. 1,038,109; Sept. 10; Gaz. vol. 182; p. 345.

Flory, Llewellyn H., Ashley, Pa. Shears. No. 1,037,827; Sept. 3; Gaz. vol. 182; p. 217.

Floto, Matthew W., Chicago, Ill. Desk-pad. No. 1,037,607; Sept. 3; Gaz. vol. 182; p. 144.

Flour City Ornamental Iron Works. (See Murphy, John F., assignor.)

Flyvt, Louis W. G., Rochester, N. Y., assignor to Domestic Appliances Company. Steam-boiler. No. 1,037,884; Sept. 10; Gaz. vol. 182; p. 269.

Fogarty, James H., New York, N. Y., assignor of fifty-one one-hundredths to E. J. Méténié, East Orange, N. J. Cane-mill. No. 1,037,885; Sept. 10; Gaz. vol. 182; p. 270.

Foley, Hugh B., and J. F. Tracey, assignors to The Foley-Wardwell Manufacturing Company, Cleveland, Ohio. Portable grinding device for sharpening knives of jointing or planing machines. No. 1,038,500; Sept. 10; Gaz. vol. 182; p. 479.

Foley-Wardwell Manufacturing Company, The. (See Foley and Tracey, assignors.)

Ford, Ben K. (See Harbeck and Ford.)

Ford, Louis M., New Haven, Conn., assignor to The Greist Manufacturing Company. Tuck-creaser or tucker for sewing-machines. No. 1,037,608; Sept. 3; Gaz. vol. 182; p. 144.

Fordyce, John R., Little Rock, Ark. Cotton-gin. No. 1,039,111; Sept. 24; Gaz. vol. 182; p. 738.

Fore River Ship Building Company. (See Rice, Walter F., assignor.)

Forgrove Machinery Company Limited, The. (See Grover, Frederick, assignor.)

Fornfinne, William F., Brooklyn, N. Y. Chip-holder. No. 1,039,112; Sept. 24; Gaz. vol. 182; p. 739.

Forster, John, St. Helens, England. Machine for blowing glass cylinders. No. 1,038,535; Sept. 10; Gaz. vol. 182; p. 421.

Forsyth, William D., Youngstown, Ohio. Fireproof floor system. No. 1,038,551; Sept. 17; Gaz. vol. 182; p. 531.

Forsyth, William H., Chicago, Ill., assignor to The Curtain Supply Company, Newark, N. J. Reinforced curtain-roller. No. 1,037,836; Sept. 10; Gaz. vol. 182; p. 270.

Fosdick, Eugene H. (See Duncan and Eisenberg, assignors.)

Foss, Benjamin F., Portland, Me. Safety door-bolt. No. 1,038,111; Sept. 10; Gaz. vol. 182; p. 345.

Foss, Benjamin S., assignor to B. F. Sturtevant Company, Boston, Mass. Centrifugal fan-wheel. No. 1,038,110; Sept. 10; Gaz. vol. 182; p. 345.

Foss, Walter D., Wooster, Ohio. Brush. No. 1,038,552; Sept. 17; Gaz. vol. 182; p. 531.

Foster, George H. (See Foster, William L. and G. H.)

Foster, William L. and G. H., Kansas City, Mo. Resilient mounting for wheels. No. 1,037,229; Sept. 3; Gaz. vol. 182; p. 18.

Fouquier, Paul J., Paris, France. Pen and the like. No. 1,038,758; Sept. 17; Gaz. vol. 182; p. 597.

Fowler, Jonathan O., Jr. (See Dilg and Fowler.)

Fowler, Lewis D., Oklahoma, Okla., Poultry-coop. No. 1,039,113; Sept. 24; Gaz. vol. 182; p. 739.

Fox, Joseph P., assignor of one-half to O. Reimann, Chemnitz, Germany. Dirigible headlight. No. 1,038,739; Sept. 17; Gaz. vol. 182; p. 597.

Fox, Walter H., Lathrop, Mo. Fender-adjuster for cultivators. No. 1,037,609; Sept. 3; Gaz. vol. 182; p. 144.

Frady, Homer. (See Fanning, Sam H., assignor.)

Frame, Robert E., Chicago, Ill. Car-roof. No. 1,037,230; Sept. 3; Gaz. vol. 182; p. 18.

Francis, John M., assignor to Parke, Davis & Company, Detroit, Mich. Package. No. 1,039,114; Sept. 24; Gaz. vol. 183; p. 739.

Francisco, George T., assignor of one-half to C. M. Hill, Highland, Cal. Meat-clamping device. No. 1,038,396; Sept. 10; Gaz. vol. 182; p. 421.

Frankfurter Musikwerke-Fabrik J. D. Philippe & Söhne Akt. Ges. (See Philippe, August, assignor.)

Franklin, John F., Yellow Pine, Ala. Locomotive drive-wheel. No. 1,039,668; Sept. 24; Gaz. vol. 182; p. 934.

Franklin, Milton W., Schenectady, N. Y., assignor to General Electric Company. Plating metals. No. 1,037,887; Sept. 10; Gaz. vol. 182; p. 271.

Franklin, William H., Creswell, N. C. Rail-fastening. No. 1,039,274; Sept. 24; Gaz. vol. 182; p. 852.

Fraschini, Oresta, Milan, Italy. Starting device for internal-combustion engines. No. 1,039,504; Sept. 24; Gaz. vol. 182; p. 877.

Fraser, John, Hackensack, N. J. Machine for making pipes. No. 1,037,888; Sept. 10; Gaz. vol. 182; p. 271.

Fraser, John, Hackensack, N. J. Press for making pipes. No. 1,037,889; Sept. 10; Gaz. vol. 182; p. 271.

Fred H. Knapp Company, The. (See Knapp, Frederick H., assignor.)

Frede, Charles F., and C. T. Westlake, assignors to Double Body Bolster Company, St. Louis, Mo. Car construction. No. 1,039,045; Sept. 17; Gaz. vol. 183; p. 698.

Frederickson, Clayton E., San Francisco, assignor of one-half to W. H. Stenger, Berkeley, Cal. Transmission-gear mechanism. No. 1,038,553; Sept. 17; Gaz. vol. 182; p. 532.

Freeland, Stephen B., Saginaw, Mich. Split gear. No. 1,039,375; Sept. 24; Gaz. vol. 183; p. 852.

Freeman, William A. (See Parsons and Freeman.)

Freeman, William E., and C. C. Worth, New York, N. Y. Coupon-strip type-writing machine. No. 1,037,465; Sept. 3; Gaz. vol. 182; p. 98.

French, Stephen, and D. T. Bates, Orange, assignors to Athol Machine Company, Athol, Mass. Vise. No. 1,037,231; Sept. 3; Gaz. vol. 182; p. 19.

French, Thomas. (See Locke, Nathaniel C., assignor.)

Freudenthal, Heinrich P. C., Hamburg, Germany. Superphosphate-chamber. No. 1,037,464; Sept. 3; Gaz. vol. 182; p. 98.

Frey, Sigmund. (See Toms and Blair, assignors.)

Fricker, Frederick A., Scranton, Pa. Pencil-sharpener. No. 1,038,112; Sept. 10; Gaz. vol. 182; p. 346.

Fricker, Edward H., assignor to Williams Patent Crusher and Pulverizer Company, St. Louis, Mo. Pulverizer. No. 1,037,332; Sept. 3; Gaz. vol. 182; p. 19.

Friedman, Sigmund, Gorgona, Canal Zone. Railway-tie. No. 1,037,750; Sept. 3; Gaz. vol. 182; p. 191.

Frisbie, Joseph P., Bridgeport, Conn. Machine for trimming and rimming pies. No. 1,039,505; Sept. 24; Gaz. vol. 183; p. 877.

Frissell, Frank H., assignor to The Russell Manufacturing Co., Middletown, Conn. Reel for vending elastic webbing. No. 1,037,466; Sept. 3; Gaz. vol. 183; p. 99.



Fritsch, Emil, Weiler, near Schlettstadt, Germany. Apparatus for drawing the thread end into cops. No. 1,038,554; Sept. 17; Gaz. vol. 182; p. 532.

Fritsche, John, assignor of one-third to J. V. Horn and one-third to F. Hardart, Philadelphia, Pa. Container for retaining articles in a chilled or frozen condition. No. 1,039,506; Sept. 24; Gaz. vol. 183; p. 878.

Fritsche, John, assignor of one-third to J. V. Horn and one-third to F. Hardart, Philadelphia, Pa. Container for retaining articles in a heated condition. No. 1,039,507; Sept. 24; Gaz. vol. 182; p. 878.

Fritsche, John, assignor of one-third to J. V. Horn and one-third to F. Hardart, Philadelphia, Pa. Check or coin controlled vending apparatus. No. 1,039,508; Sept. 24; Gaz. vol. 182; p. 879.

Fritz, Michael J., *et al.* (See Leggett, Rose M., assignor.)

Fritzel, Oscar A., administrator. (See Elliott and Kelly.)

Fris, Clyde N., Baltimore, Md. Automatic vehicle-jack. No. 1,037,610; Sept. 3; Gaz. vol. 182; p. 145.

Frissell, John B. (See Osgood, Gilbert R., assignor.)

Froelich, Joseph, *et al.* (See Wiese, Theodore L., assignor.)

Froelich, Russell H., St. Louis, Mo. Flying-machine. No. 1,039,115; Sept. 24; Gaz. vol. 182; p. 739.

Frohbieter, August F., Evansville, Ind. Safety whip-socket. No. 1,039,376; Sept. 24; Gaz. vol. 182; p. 833.

Frohnholzer, Joseph, New York, N. Y. Non-refillable bottle. No. 1,039,669; Sept. 24; Gaz. vol. 182; p. 934.

Frommer, Rudolf, Budapest, Austria-Hungary. Automatic firearm. No. 1,038,555; Sept. 17; Gaz. vol. 182; p. 532.

Fry, Elwood. (See Hubert and Fry.)

Frye, Harry. (See Tilford, Charley R., assignor.)

Fuhrman, Samuel J., Scranton, Pa. Collapsible bucket. No. 1,039,044; Sept. 17; Gaz. vol. 182; p. 698.

Fuller, Albert. (See Hiering and Fuller.)

Fuller, Erwin W., Chicago, Ill. Machine for deciphering and deciphering messages. No. 1,038,556; Sept. 17; Gaz. vol. 182; p. 533.

Fuller, James J., assignor to Hamilton and Hamilton, Jr., Providence, R. I. Watch-protector. No. 1,038,740; Sept. 17; Gaz. vol. 182; p. 597.

Fuller, James H., and A. Miller, Moberly, Mo. Fishing device. No. 1,038,866; Sept. 17; Gaz. vol. 182; p. 641.

Fuller Manufacturing Company, The. (See Duffy, James W., assignor.)

Fuller, Milo S., Oneonta, N. Y. Fastening device. No. 1,039,045; Sept. 17; Gaz. vol. 182; p. 698.

Fulton Manufacturing Company. (See Adams, Arthur J., assignor.)

Furrow, Grace O., Hood River, Oreg. Adjustable music-desk for pianofortes. No. 1,037,233; Sept. 3; Gaz. vol. 182; p. 20.

Furtaw, Charles A., assignor to Furtaw-McKay Monoplane Company, Philadelphia, Pa. Airship. No. 1,039,116; Sept. 24; Gaz. vol. 182; p. 740.

Furtaw-McKay Monoplane Company. (See Furtaw, Charles A., assignor.)

Fynn, Valère A., Blackheath, England. Alternate-current motor. No. 1,038,337; Sept. 10; Gaz. vol. 182; p. 422.

Fynn, Valère A., London, England. Alternate-current motor. No. 1,038,338; Sept. 10; Gaz. vol. 182; p. 422.

G. T. Eames Company, The. (See Eames, Gardner T., assignor.)

Gabbett-Fairfax, Hugh W., Westminster, London, England. Decorticating-machine. No. 1,038,339; Sept. 10; Gaz. vol. 182; p. 422.

Gadue, William G., Burlington, Vt. Bottle-stopper. No. 1,039,268; Sept. 24; Gaz. vol. 182; p. 795.

Gage, Edward E., Kaboka, Mo. Can-filling machine. No. 1,038,557; Sept. 17; Gaz. vol. 182; p. 533.

Gagnon, William, assignor to The Bryant Electric Company, Bridgeport, Conn. Electrical rosette. No. 1,039,670; Sept. 24; Gaz. vol. 182; p. 935.

Gall, George W., Jr., Baltimore, Md. Sleeping-bag. No. 1,039,509; Sept. 24; Gaz. vol. 182; p. 879.

Galler, William H., Saratoga Springs, N. Y. Road-oiler. No. 1,038,340; Sept. 10; Gaz. vol. 182; p. 423.

Gaisman, Henry J., assignor to Auto Strop Company, New York, N. Y. Razor. No. 1,039,377; Sept. 24; Gaz. vol. 182; p. 833.

Gaither, William H., Thomas, W. Va. Rail-joint. No. 1,039,510; Sept. 24; Gaz. vol. 182; p. 880.

Gale, Anson, Decatur, Ill. Engine stop device. No. 1,038,867; Sept. 17; Gaz. vol. 182; p. 641.

Galion Iron Works Company. (See Gledhill, Edward C., assignor.)

Gamble, Joseph W., Carpentersville, Ill. Equaliser connection. No. 1,039,378; Sept. 24; Gaz. vol. 182; p. 833.

Gammeter, Harry C., Bratenahl, assignor to The American Multigraph Company, Cleveland, Ohio. Address-plate. No. 1,038,868; Sept. 17; Gaz. vol. 182; p. 642.

Gantner, Frederick G., San Francisco, Cal. Office paper-file. No. 1,038,341; Sept. 10; Gaz. vol. 182; p. 423.

Gardner, Alexander R., Memphis, Tenn. Bottle. No. 1,037,751; Sept. 3; Gaz. vol. 182; p. 192.

Gardner, Alfred F., Leicester, England. Tea and coffee pot and the like. No. 1,038,558; Sept. 17; Gaz. vol. 182; p. 534.

Gardner, Delamere B., Chicago, Ill. Starter for explosion-engines and self-propelled vehicles. No. 1,037,466; Sept. 3; Gaz. vol. 182; p. 99.

Garland, Thomas H., Chicago, Ill. Ventilator. No. 1,037,890; Sept. 10; Gaz. vol. 183; p. 271.

Garland, Thomas H., Chicago, Ill. Closing device for refrigerator-car doors. No. 1,037,891; Sept. 10; Gaz. vol. 182; p. 272.

Garland, Thomas H., Chicago, Ill. Closing and opening device for refrigerator-car doors. No. 1,037,892; Sept. 10; Gaz. vol. 182; p. 272.

Garland, Thomas H., Chicago, Ill. Door operator and lock. No. 1,037,893; Sept. 10; Gaz. vol. 182; p. 273.

Garner, John H., Kingwood, W. Va. Hot-air heater. No. 1,037,894; Sept. 10; Gaz. vol. 182; p. 273.

Garrard, Willey G., Snyder, Tex. Stovepipe water-heater. No. 1,038,113; Sept. 10; Gaz. vol. 182; p. 346.

Garrigus, Jeptha C., Banks, Oreg. Swingletree. No. 1,037,895; Sept. 10; Gaz. vol. 182; p. 274.

Garrison, Green B., Myrtle, Mo. Agricultural implement. No. 1,039,269; Sept. 24; Gaz. vol. 182; p. 795.

Garst, Stephen H., Moline, Ill. Corn-planter. No. 1,038,559; Sept. 17; Gaz. vol. 182; p. 534.

Gavin, John E., Buffalo, N. Y. Non-refillable bottle. No. 1,037,011; Sept. 3; Gaz. vol. 182; p. 145.

Gay, Joseph H., Newark, N. J. Leather splitting machine. No. 1,038,560; Sept. 17; Gaz. vol. 182; p. 534.

Gay, Joseph H., Newark, N. J. Leather-splitting machine. No. 1,038,561; Sept. 17; Gaz. vol. 182; p. 535.

Gayle, Walter W., Montgomery, Ala. Preserved cotton-boll. No. 1,038,562; Sept. 17; Gaz. vol. 182; p. 535.

Gaylord, Charles H., Chicago, Ill. Adjustable automatic rheostat. No. 1,038,342; Sept. 10; Gaz. vol. 182; p. 423.

Gaynor, James C., assignor to Helvetia Silk Mills, Paterson, N. J. Weave. No. 1,037,752; Sept. 3; Gaz. vol. 182; p. 192.

Ge Bert Jay Dell, Onalaska, Tex. Bracing compound. No. 1,037,234; Sept. 3; Gaz. vol. 182; p. 20.

Geiger, John. (See Schwartz and Geiger.)

Geish, Christ. (See Wilker, Henry J., assignor.)

Geissler Starting Device Co. (See Munts, Raymond H., assignor.)

Gelder, Joseph E., New York, N. Y. Pocket-humidor. No. 1,038,563; Sept. 17; Gaz. vol. 182; p. 535.

Gell, John, London, England. Apparatus for perforating tape for automatic telegraph instruments, &c. No. 1,038,343; Sept. 10; Gaz. vol. 182; p. 424.

Gemsunder, Frederick J., Philadelphia, Pa. Shield or protector for stop-cocks. No. 1,037,612; Sept. 3; Gaz. vol. 182; p. 145.

General Bakelite Company. (See Baekeland, Leo H., assignor.)

General Chemical Company. (See Strickler, Emerson H., assignor.)

General Electric Company. (See Bechoff, Ferdinand, assignor.)

General Electric Company. (See Carichoff, Eugene R., assignor.)

General Electric Company. (See Case, Frank E., assignor.)

General Electric Company. (See Franklin, Milton W., assignor.)

General Electric Company. (See Guay, Emile J., assignor.)

General Electric Company. (See Hansen, Charles A., assignor.)

General Electric Company. (See Hewlett, Edward M., assignor.)

General Electric Company. (See Kužel, Hans, assignor.)

General Electric Company. (See McLain, Robert H., assignor.)

General Electric Company. (See Moore, Daniel M., assignor.)

General Electric Company. (See Steinmetz, Charles P., assignor.)

General Electric Company. (See Thomson, Elihu, assignor.)

General Electric Company. (See Weintraub, Ezechiel, assignor.)

General Electric Company. (See Wright, Gilbert, assignor.)

General Fire Extinguisher Company. (See Grinnell, Russell, assignor.)

General Specialty Company. (See Gregg, Robert E., assignor.)

Genthner, Charles M., assignor to Culter & Proctor Stove Co., Peoria, Ill. Cook stove or range. No. 1,039,511; Sept. 24; Gaz. vol. 182; p. 880.

Gentle, Cuthbert, Dorchester, Mass. Canaling device. No. 1,038,869; Sept. 17; Gaz. vol. 182; p. 642.

Geo. Borgfeldt & Co. (See Schönbers, Isaak, assignor.)

Georg, Otto, Ilsenhausen, Germany. Plow. No. 1,038,870; Sept. 17; Gaz. vol. 182; p. 642.

Gerber, Emanuel, Kansas City, Mo. Flying-tent. No. 1,039,117; Sept. 24; Gaz. vol. 182; p. 740.

Gerhart, John A., Marietta, Ohio. Vehicle wheel-tire. No. 1,037,753; Sept. 3; Gaz. vol. 182; p. 192.

Gerli, Paul, New York, N. Y. Steam-engine. No. 1,037,467; Sept. 3; Gaz. vol. 182; p. 99.

Germonpres, John A., assignor of one-third to J. L. Schneider and one-third to W. J. Wirts, Detroit, Mich. Engine-starter. No. 1,039,118; Sept. 24; Gaz. vol. 182; p. 741.

Getz, Noah R. and R., Manheim township, Lancaster county, Pa. Traction-engine. No. 1,038,114; Sept. 10; Gaz. vol. 182; p. 346.

Getz, Robert. (See Getz, Noah R. and R.)

Geverin, Frank J., *et al.* (See Linch, Jacob J., assignor.)

Gibbons, Michael F., Philadelphia, Pa. Automatic spring-damper. No. 1,039,512; Sept. 24; Gas. vol. 182; p. 880.
Gibson, Calder C., Buffalo, N. Y. Cutting and stamping machine. No. 1,038,741; Sept. 17; Gas. vol. 182; p. 598.
Gibson, Calder C., Buffalo, N. Y. Rubber-stamp cabinet. No. 1,038,742; Sept. 17; Gas. vol. 182; p. 598.
Gibson, William, Sr., Vandergrift, assignor to American Sheet & Tin Plate Company, Pittsburgh, Pa. Apparatus for coating metal. No. 1,037,235; Sept. 3; Gas. vol. 182; p. 20.
Giese, James A., Chicago, Ill., assignor to The Adams & Westlake Company. Padlock. No. 1,039,119; Sept. 24; Gas. vol. 182; p. 741.
Giesseman, William, Dayton, Ohio. Sanitary paper bottle. No. 1,039,379; Sept. 24; Gas. vol. 182; p. 834.
Gilbert, Horace, Drummoyne, New South Wales, Australia. Fountain or self-feeding pen. No. 1,038,743; Sept. 17; Gas. vol. 182; p. 599.
Gilbert, Howard W. (See Wolfe and Gilbert.)
Gilbert, Webster D., Johnstown, N. Y. Boot-holder. No. 1,038,344; Sept. 10; Gas. vol. 182; p. 424.
Gildersleeve, Raleigh C., assignor to El Arco Radiator Company, New York, N. Y. Cooler. No. 1,037,754; Sept. 3; Gas. vol. 182; p. 193.
Gilfillan, Emma, executrix. (See Gilfillan, Essington N.)
Gilfillan, Essington N., deceased; E. Gilfillan, Skaneateles, executrix, assignor of fifty-one one-hundredths to J. Hunter, Fulton, N. Y. Machine for forming covers for cigars. No. 1,039,046; Sept. 17; Gas. vol. 182; p. 698.
Gill, Fred A., Culebra, Canal Zone. Dies and dolly. No. 1,039,380; Sept. 24; Gas. vol. 182; p. 834.
Gill, George C., assignor to Barlow Company, Holyoke, Mass. Burner. No. 1,039,513; Sept. 24; Gas. vol. 182; p. 881.
Gillett & Eaton. (See Eaton and Keith, assignors.)
Gillette, Walter A., assignor to Petrolithic Pavement Company, Los Angeles, Cal. Scarifier. No. 1,037,755; Sept. 3; Gas. vol. 182; p. 193.
Gillies, Alfred and W., Weston, Ontario, Canada. Manufacture of artificial stone. No. 1,038,115; Sept. 10; Gas. vol. 182; p. 347.
Gillies, William. (See Gillies, Alfred and W.)
Gilman, Don E., *et al.* (See Jernigan, Lee H., assignor.)
Gilman, George S. (See Upton and Gilman.)
Ginn, Percy E. (See Upton and Gilman, assignors.)
Gipe, Emanuel C., Toronto, Ontario, Canada. Store-service apparatus. No. 1,037,236; Sept. 3; Gas. vol. 182; p. 20.
Girvin, Harold. (See Myles and Girvin.)
Giugliano, Gennaro, West Hoboken, N. J. Holder for a paper of pins. No. 1,038,345; Sept. 10; Gas. vol. 182; p. 425.
Gizzi, Benjamin, Delmont, Pa. Hitching-strap. No. 1,037,613; Sept. 3; Gas. vol. 182; p. 146.
Gladhill, Harvey W., Chambersburg, Pa. Means for driving suspended structures, such as sifters. No. 1,039,514; Sept. 24; Gas. vol. 182; p. 881.
Glaser, Bernhard, assignor of one-half to A. B. Seelenfreund, Chicago, Ill. Loose-leaf binder. No. 1,039,047; Sept. 17; Gas. vol. 182; p. 699.
Glass, George A., Newark, N. J. Gas-cock lock. No. 1,039,048; Sept. 17; Gas. vol. 182; p. 699.
Glass, Pearl P., Anadarko, Okla. Wrench. No. 1,039,515; Sept. 24; Gas. vol. 182; p. 882.
Glassbrook, Clarence I., Salt Lake City, Utah. Ore-concentrator. No. 1,038,871; Sept. 17; Gas. vol. 182; p. 648.
Gleason, William L., Newport News, Va. Combined cigarette and match box. No. 1,037,237; Sept. 3; Gas. vol. 182; p. 21.
Gleason, William P., Gary, Ind. Safety device for metal-mixers. No. 1,038,872; Sept. 17; Gas vol. 182; p. 643.
Glebe, August, Pforsheim, Germany. Manufacture of jointless rings. No. 1,038,346; Sept. 10; Gas. vol. 182; p. 425.
Gledhill, Edward C., assignor to Gallon Iron Works Company, Gallon, Ohio. Drag attachment. No. 1,039,381; Sept. 24; Gas. vol. 182; p. 834.
Glossinger, John, assignor to Manhattan Briar Pipe Company, New York, N. Y. Smoking-pipe. No. 1,038,564; Sept. 17; Gas. vol. 182; p. 535.
Glover, Frederick J., Silvis, Ill. Pipe-coupling. No. 1,037,238; Sept. 3; Gas. vol. 182; p. 21.
Goddard, Arthur L., Rockford, Ill. Metal-working punch. No. 1,037,896; Sept. 10; Gas. vol. 182; p. 274.
Godding, Milton O., Portland, Oreg. Safety appliance. No. 1,039,517; Sept. 24; Gas. vol. 182; p. 882.
Godsal, Philip T., Flintshire, near Whitchurch, England. Rifle. No. 1,037,468; Sept. 3; Gas. vol. 182; p. 100.
Goedeke, Fred W. (See Northall, William H., assignor.)
Goetz, Henry F., assignor to Waterbury Mfg. Co., Waterbury, Conn. Jewel-cup. No. 1,039,516; Sept. 24; Gas. vol. 182; p. 882.
Gohmann, Arthur, assignor to Stettiner Chamotte-Fabrik Actien-Gesellschaft vorm. Didier, Stettin, Germany. Regenerative gas-producing oven. No. 1,039,270; Sept. 24; Gas. vol. 182; p. 795.
Goldau, Hugo, Zillichau, Germany. Apparatus for flushing water-closets and the like. No. 1,038,847; Sept. 10; Gas. vol. 182; p. 425.
Goldberg, Hyman E., Chicago, Ill. Metallizing electrotype-molds. No. 1,037,469; Sept. 3; Gas. vol. 182; p. 100.
Golden, Daniel J., Randolph, Mass. Sporting-shoe. No. 1,039,518; Sept. 24; Gas. vol. 182; p. 883.
Goldner, George E., Fort Dodge, Iowa. Brick-carrier. No. 1,039,382; Sept. 24; Gas. vol. 182; p. 834.
Goldstraw, Robert S., Camperdown, Victoria, Australia. Teat-cup support to facilitate milking. No. 1,037,897; Sept. 10; Gas. vol. 182; p. 274.
Golek, Mike, Crosby, Wyo. Nut-cracking device. No. 1,038,573; Sept. 17; Gas. vol. 182; p. 643.
Gompf, Rudolf, Berlin, Germany. Machine for numbering sheets. No. 1,038,343; Sept. 10; Gas. vol. 182; p. 423.
Goodfriend, Henry, Yonkers, N. Y. Shade-holder. No. 1,039,519; Sept. 24; Gas. vol. 182; p. 883.
Goodier, James H. (See Howe, Clarence B., assignor.)
Goodnow, Earle W., assignor to The "New-Way" Motor Company, Lansing, Mich. Lubricator for explosion-engines. No. 1,037,239; Sept. 3; Gas. vol. 182; p. 21.
Goodpasture, Robert W., Celina, Tenn. Eyelet for engaging the bails of vessels. No. 1,039,371; Sept. 24; Gas. vol. 182; p. 796.
Goodrich, Emory W., Boston, Mass. Projection apparatus. No. 1,038,349; Sept. 10; Gas. vol. 182; p. 425.
Goodsir, George, Jr., New York, N. Y., assignor to Ideal Coated Paper Co., Brookfield, Mass. Veneering-tape. No. 1,038,574; Sept. 17; Gas. vol. 182; p. 644.
Goodspeed, Leland F., Wilkinsburg, Pa. Spark-timing device. No. 1,037,828; Sept. 3; Gas. vol. 182; p. 217.
Goss-Acrey Calculator Company. (See Goss, George W., assignor.)
Goss, George W., assignor to Goss-Acrey Calculator Company, St. Louis, Mo. Calculating-machine. No. 1,038,350; Sept. 10; Gas. vol. 182; p. 426.
Goughnour, Charles L., assignor to The United Electric Company, Canton, Ohio. Suction-nozzle. No. 1,039,383; Sept. 24; Gas. vol. 182; p. 835.
Gould Coupler Company. (See Jepson, John W., assignor.)
Gould & Eberhardt. (See Zimmermann, William F., assignor.)
Gowdy, Harold K., Pittsburgh, Pa. Boiler feed-water regulator. No. 1,037,240; Sept. 3; Gas. vol. 182; p. 21.
Grabler, Peter, Cleveland, Ohio. Handle for receptacles. No. 1,038,116; Sept. 10; Gas. vol. 182; p. 347.
Gradenwitz, Hermann, W. Vollbrecht, and H. Levzow, assignors to Elektromotoren-Werke Hermann Gradenwitz, Berlin, Germany. System for controlling electric motors and the like from a distance. No. 1,039,272; Sept. 24; Gas. vol. 182; p. 796.
Graefs, Max, Berlin, Germany. Regulating-nozzle for incandescent gas-lamps. No. 1,039,520; Sept. 24; Gas. vol. 182; p. 883.
Grafton, Thomas E. (See Carter, Shackleton, and Grafton.)
Graham, Andrew W., assignor of twenty-four and three-fourths one-hundredths to R. G. Landon and twenty-four and three-fourths one-hundredths to J. C. McCrea, Bradford, Pa. Spark-arrester. No. 1,037,898; Sept. 10; Gas. vol. 182; p. 275.
Graham, Frederick C., New York, N. Y. Electric annunciator and signaling system. No. 1,038,117; Sept. 10; Gas. vol. 182; p. 347.
Graham, Stanley W., Hemet, Cal. Universal joint. No. 1,037,614; Sept. 3; Gas. vol. 182; p. 146.
Graham, William J., Brooklyn, N. Y. Waterproof bag. No. 1,038,351; Sept. 10; Gas. vol. 182; p. 426.
Grahl, Gustav de, Zehlendorf, near Berlin, Germany. Apparatus for controlling the admission of steam to the auxiliary blast of boiler-furnaces. No. 1,039,273; Sept. 24; Gas. vol. 182; p. 797.
Grame, Robert D., Richmond, Va. Tobacco-pipe. No. 1,039,049; Sept. 17; Gas. vol. 182; p. 700.
Granulator Soap Company. (See Dilg and Fowler, assignors.)
Granulator Soap Company. (See Shaver, George F., assignor.)
Granville, Bernard, New York, N. Y., assignor to National Fibre Products Company. Manufacture of paper from peat. No. 1,038,565; Sept. 17; Gas. vol. 182; p. 536.
Graw, Heinrich, Charlottenburg, Germany. Horseshoe. No. 1,038,118; Sept. 10; Gas. vol. 182; p. 347.
Grayson, William, Jr., St. Louis, Mo. Car-seal. No. 1,038,744; Sept. 17; Gas. vol. 182; p. 599.
Greaves, John S., Negley, Ohio. Non-refillable bottle. No. 1,038,566; Sept. 17; Gas. vol. 182; p. 536.
Greaves, Wallace M., Manchester, assignor to Cosmo Contracting Syndicate Limited, London, England. Boiler-insert. No. 1,037,241; Sept. 3; Gas. vol. 182; p. 22.
Green, Harry B., Woodbury, N. J. Sheet separating, registering, and feeding apparatus. No. 1,039,521; Sept. 24; Gas. vol. 182; p. 884.
Green, William L., Monroe City, assignor of one-half to G. F. Jasper, Hannibal, Mo. Aerodrome. No. 1,039,384; Sept. 24; Gas. vol. 182; p. 835.
Greene, Charles S., and L. W. Norton, New York, N. Y. Hen's nest. No. 1,037,756; Sept. 3; Gas. vol. 182; p. 103.
Greene, Edwin, Roswell, N. Mex. Reserve supply-tank. No. 1,038,119; Sept. 10; Gas. vol. 182; p. 347.
Greene, Russell D., Nichols, Fla. Drier. No. 1,039,385; Sept. 24; Gas. vol. 182; p. 835.
Greenert, John A., assignor to B. L. Cornelius, Hutchinson, Kans. Combination oil and gas burner. No. 1,038,120; Sept. 10; Gas. vol. 182; p. 348.
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Gregg, Robert E., assignor to General Specialty Company, Indianapolis, Ind. Parallel-jaw pliers. No. 1,038,745; Sept. 17; Gas. vol. 182; p. 599.





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Greiner, Ernst W., Williamsburg, Pa. Nut-lock. No. 1,039,274; Sept. 24; Gas. vol. 182; p. 797.
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Grenier, Cyprien, Coaticook, Quebec, Canada. Stretching implement. No. 1,037,615; Sept. 3; Gas. vol. 182; p. 146.
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Grindle, Monroe W., Santa Rosa, Cal. Mail-box alarm. No. 1,037,470; Sept. 3; Gas. vol. 182; p. 100.
Grinnell, Russell, Providence, R. I., assignor to General Fire Extinguisher Company, New York, N. Y. Insert-support. No. 1,037,342; Sept. 3; Gas. vol. 182; p. 22.
Grimsom, Louis W., Durham, N. C. Auger. No. 1,037,616; Sept. 3; Gas. vol. 182; p. 147.
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Groebli, Joseph A., assignor, by mesne assignments, to A. H. Kurzbeatt, New York, N. Y. Safety mechanism for embroidering-machines. No. 1,037,471; Sept. 3; Gas. vol. 182; p. 101.
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Grove, August W., and D. F. Anderson, Chicago, Ill. Gas-cock. No. 1,039,386; Sept. 24; Gas. vol. 182; p. 836.
Grover, Charles A., assignor of one-half to L. T. Price, Markleeville, Cal. Field cooking outfit. No. 1,038,121; Sept. 10; Gas. vol. 182; p. 348.
Grover, Fred V., Park Rapids, Minn. Attachment for automobile-wheels. No. 1,038,569; Sept. 17; Gas. vol. 182; p. 537.
Grover, Frederick, assignor to The Forgrove Machinery Company Limited, Leeds, England. Wrapping-machine No. 1,037,617; Sept. 3; Gas. vol. 182; p. 147.
Groves, James A., Jacksonville, Ill. Score-board. No. 1,038,575; Sept. 17; Gas. vol. 182; p. 644.
Grubb, Albert E., and T. J. Bury, Enid, Okla. Sanitary garbage-can. No. 1,039,050; Sept. 17; Gas. vol. 182; p. 700.
Grubbs, Lewis E., Logansport, Ind. Electric sad-iron. No. 1,039,120; Sept. 24; Gas. vol. 182; p. 741.
Gruenberger, Hermann, New York, N. Y. Toy eye-mask. No. 1,037,473; Sept. 3; Gas. vol. 182; p. 102.
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Gulck, August J. (See Bergmann, Emil, assignor.)
Gulland, Frederick W., Stonewall, Manitoba, Canada. Match-box. No. 1,038,570; Sept. 17; Gas. vol. 182; p. 537.
Gunton, Edward von, Akron, Ohio. Combined door check and lock. No. 1,037,377; Sept. 3; Gas. vol. 182; p. 67.
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Guy, Albert E., Trenton, N. J. Centrifugal pump. No. 1,037,244; Sept. 3; Gas. vol. 182; p. 23.
Guyor, Oliver, and F. E. Banker, Sumas, Wash. Device for raising sunken vessels. No. 1,039,276; Sept. 24; Gas. vol. 182; p. 798.
Gyr, Karl H., assignor to Landes and Gyr, Zug, Switzerland. Alternating-current meter. No. 1,039,387; Sept. 24; Gas. vol. 182; p. 836.
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H. Wetter Manufacturing Company, The. (See Carter, George B., assignor.)
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H. D. Berger & Winterbauer Company. (See Kalthoff, Albrecht, assignor.)
H. H. Franklin Manufacturing Company. (See Wilkinson, John, assignor.)
H. W. Johns-Manville Company. (See Christenson, George, assignor.)
H. W. Johns-Manville Company. (See Seigle, William R., assignor.)
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Hass, Frank J., Rocklake, N. D. Adjustable car-step. No. 1,037,475; Sept. 3; Gas. vol. 182; p. 102.
Hasse, Herman G., Minneapolis, Minn. Milling attachment for metal-lathes. No. 1,038,571; Sept. 17; Gas. vol. 182; p. 537.
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Haeske, Charles M., and R. F. Anderson, South Bend, Ind. Winding mechanism for dump-wagons. No. 1,039,121; Sept. 24; Gas. vol. 182; p. 742.
Hagberg, Jan E., Chicago, Ill. Sailing vessel. No. 1,039,122; Sept. 24; Gas. vol. 182; p. 742.
Hagg, Virgil B., assignor to Continental Water Purifying Corporation, Los Angeles, Cal. Electrolytic water-purifier. No. 1,038,122; Sept. 10; Gas. vol. 182; p. 348.
Hagg, Virgil B., assignor to Continental Water Purifying Corporation, Los Angeles, Cal. Water-purifier. No. 1,038,343; Sept. 10; Gas. vol. 182; p. 427.
Hagman, William J., Philadelphia, Pa., assignor to Nilson-Bement-Pond Company, Jersey City, N. J. Hammer-press. No. 1,039,277; Sept. 24; Gas. vol. 182; p. 798.
Hagstrom, Carl J., Glen Cove, N. Y. Fastening device for shutters and the like. No. 1,039,388; Sept. 24; Gas. vol. 182; p. 836.
Hahn, Jacob. (See Quick, Frank J., assignor.)
Haight, Hiram H., Clarinda, Iowa. Portable well boring and drilling machine. No. 1,038,877; Sept. 17; Gas. vol. 182; p. 645.
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Hainer, Whitfield J., assignor to Hainer Bookkeeping Machine Company, Providence, R. I. Account-file. No. 1,037,476; Sept. 3; Gas. vol. 182; p. 102.
Haines, Lewis A., Mount Vernon, Ohio, assignor to Haines Thermo Dynamic Motor Company, Pittsburgh, Pa. Thermodynamic motor. No. 1,037,757; Sept. 3; Gas. vol. 182; p. 194.
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Hale, David C., Jr., Cincinnati, Ohio. Clothes-pressing machine. No. 1,037,899; Sept. 10; Gas. vol. 182; p. 275.
Hale, David C., Jr., Cincinnati, Ohio. Pressing garments. No. 1,038,128; Sept. 10; Gas. vol. 182; p. 349.
Hall, Allen E., Merion, Pa. Motor-vehicle spring. No. 1,037,477; Sept. 3; Gas. vol. 182; p. 103.
Hall, Andrew J., Clinton, Ill. Exhaust-stand. No. 1,039,524; Sept. 24; Gas. vol. 182; p. 885.
Hall, Frank A., Okemos, Mich. Lamp No. 1,038,354; Sept. 10; Gas. vol. 182; p. 427.
Hall, Melville P. (See Coleman, Clyde J., assignor.)
Hall, Robert B., assignor of one-half to S. Atkinson, Madison, Ga. Evaporator. No. 1,039,525; Sept. 24; Gas. vol. 182; p. 885.
Hall, Thomas S., assignor of one-half to S. Johnson, Sullivan, Ill. Automatic cushion tongue-support. No. 1,039,526; Sept. 24; Gas. vol. 182; p. 885.
Halladey, William H., Bemidji, Minn. Autosleigh. No. 1,039,278; Sept. 24; Gas. vol. 182; p. 799.
Hallett, William E., Bucyrus, Ohio. Gas-engine valve. No. 1,038,878; Sept. 17; Gas. vol. 182; p. 645.
Halliday, George, assignor of one-third to J. D. Armstrong, Tacoma, Wash., and one-third to C. A. Black, Oakland, Cal. Sieve-bolter. No. 1,038,124; Sept. 10; Gas. vol. 182; p. 349.
Hallman, William, Greenville, Ky. Wheel. No. 1,038,501; Sept. 10; Gas. vol. 182; p. 479.
Hamann, Richard W., assignor to E. J. Feiner, St. Louis, Mo. Boiler-tube cleaner. No. 1,037,245; Sept. 3; Gas. vol. 182; p. 24.
Hamilton, Abram S., Nanaimo, British Columbia, Canada. Detonator-magazine. No. 1,038,355; Sept. 10; Gas. vol. 182; p. 427.
Hamilton and Hamilton, Jr. (See Fuller, James A., assignor.)
Hamilton, Robert. (See Abernethy, Robert, assignor.)
Hamilton, Robert J., Browning, Mont. Trip-coupling. No. 1,038,356; Sept. 10; Gas. vol. 182; p. 428.
Hamilton Watch Company. (See Dudley, William W., assignor.)
Hamm, Frank, Wichita, Kans. Draft-equalizer. No. 1,037,618; Sept. 3; Gas. vol. 182; p. 147.
Hamm, William S., Hubbard Woods, Ill., assignor to The Adams & Westlake Company. Signal-lamp. No. 1,039,123; Sept. 24; Gas. vol. 182; p. 742.
Hammond, Edwin, Crescent Mills, Cal. Stovepipe-joint. No. 1,038,357; Sept. 10; Gas. vol. 182; p. 428.
Hammond, William P., Rockport, assignor to Triumph Couch Bed Co., Boston, Mass. Couch-bed. No. 1,038,879; Sept. 17; Gas. vol. 182; p. 646.
Hammond, William P., Passaic, N. J., assignor to American Ever Ready Company. Connector. No. 1,039,279; Sept. 24; Gas. vol. 182; p. 799.
Hanchett Swage Works. (See Hedstrom, John P., assignor.)
Hanhart, Louis J., assignor to J. A. Fay & Egan Company, Cincinnati, Ohio. Band sawing-machine. No. 1,037,900; Sept. 10; Gas. vol. 182; p. 276.
Hannegan, Thomas P., Clear Lake, Wis. Pump-operating mechanism. No. 1,039,389; Sept. 24; Gas. vol. 182; p. 837.
Hanneriy, James J., assignor, by mesne assignments, to C. T. Brown, Chicago, Ill. Easel. No. 1,038,126; Sept. 10; Gas. vol. 182; p. 350.
Hansen, Charles A., Schenectady, N. Y., assignor to General Electric Company. Carbon article. No. 1,037,901; Sept. 10; Gas. vol. 182; p. 276.
Hansen, Harvey F. (See Baker and Hansen.)
Hansen, Ole M., Brooklyn, N. Y. Mooring device. No. 1,038,746; Sept. 17; Gas. vol. 182; p. 600.
Hansen, William C. T., Seattle, Wash. Trunk. No. 1,038,880; Sept. 17; Gas. vol. 182; p. 646.
Hansmann, Paul, Long Prairie, Minn. Adjustable tongue. No. 1,039,051; Sept. 17; Gas. vol. 182; p. 700.
Harbaugh, Joseph D. (See Pomeroy and Harbaugh.)

Harbaugh, Losh O., Piqua, Ohio. Railway-crossing. No. 1,038,358; Sept. 10; Gas. vol. 182; p. 429.
Harbeck, Jervis R., and B. K. Ford, assignors, by mesne assignments, to Detroit Can Company, Detroit, Mich. Tube-forming machine. No. 1,037,246; Sept. 3; Gas. vol. 182; p. 24.
Harbrecht, William F., assignor to Hinde & Dauch Paper Company, Sandusky, Ohio. Paper feed and cut-off. No. 1,039,124; Sept. 24; Gas. vol. 182; p. 742.
Hardart, Frank, et al. (See Fritsche, John, assignor.)
Hardgrave, Harry, Dalhart, Tex. Flying-machine. No. 1,039,679; Sept. 24; Gas. vol. 182; p. 938.
Hardy, William J., assignor to Taylor Iron & Steel Company, High Bridge, N. J. Frictional driving device. No. 1,039,125; Sept. 24; Gas. vol. 182; p. 743.
Harer, Grant, Long Creek, Oreg. Horse-detacher. No. 1,038,572; Sept. 17; Gas. vol. 182; p. 538.
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Harman, William S., Riverside, Ill. Sickle-grinder. No. 1,037,002; Sept. 10; Gas. vol. 182; p. 276.
Harms, Henry J., Orange, and G. E. Small, West Orange, N. J., assignors to Monogram Construction Company. Producing concrete. No. 1,038,125; Sept. 10; Gas. vol. 182; p. 350.
Harney, John W., Lynn, Mass. Machine for making box-toes. No. 1,039,052; Sept. 17; Gas. vol. 182; p. 701.
Harper, Nan G., Altoona, Pa. Curtain-stretcher. No. 1,039,053; Sept. 17; Gas. vol. 182; p. 701.
Harries, Carl, Kiel, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Producing erythrene. No. 1,038,359; Sept. 10; Gas. vol. 182; p. 428.
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Harris, Clarence H., Cheyenne, assignor to Harris-Brown Table Co., Rawlins, Wyo. Extensible table. No. 1,037,758; Sept. 3; Gas. vol. 182; p. 194.
Harris, Rhoda C., Pittsburgh, Pa. Tire-protector. No. 1,038,360; Sept. 10; Gas. vol. 182; p. 429.
Harris, Sarah, (now by marriage Sarah Rosentover,) New York, N. Y. Collar. No. 1,039,528; Sept. 24; Gas. vol. 182; p. 886.
Harris, Sarah, (now by marriage Sarah Rosentover,) New York, N. Y. Collar. No. 1,039,680; Sept. 24; Gas. vol. 182; p. 938.
Harris, Thomas H., Scranton, Pa. Toy. No. 1,039,529; Sept. 24; Gas. vol. 182; p. 886.
Harrison, Abraham C., Grand Rapids, Ohio. Fence-post. No. 1,038,573; Sept. 17; Gas. vol. 182; p. 538.
Harrison, George W., assignor of one-half to F. Warner, Indianapolis, Ind. Shoe-jack. No. 1,037,619; Sept. 3; Gas. vol. 182; p. 148.
Harrison, Philip B., assignor to Chicago Railway Equipment Company, Chicago, Ill. Reversible strut for brake-beams. No. 1,037,903; Sept. 10; Gas. vol. 182; p. 277.
Harry, Aubrey C., Portsmouth, Ohio. Flying-machine. No. 1,039,530; Sept. 24; Gas. vol. 182; p. 886.
Hart, Frederick, Poughkeepsie, N. Y. Machine for wrapping coins. No. 1,038,361; Sept. 10; Gas. vol. 182; p. 429.
Hartley, Heber L., Duluth, Minn. Wire-fastener for metallic fence-posts. No. 1,039,531; Sept. 24; Gas. vol. 182; p. 887.
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Hartmann Trunk Company, The. (See Wheary, George H., assignor.)
Hartsell, Herbert C., Los Angeles, Cal. Cutter-holder for cutter-heads. No. 1,039,054; Sept. 17; Gas. vol. 182; p. 701.
Harvey, Roy A., Mullan, Idaho. Comb-cleaner. No. 1,038,862; Sept. 10; Gas. vol. 182; p. 429.
Haskins, Milo J., Springfield, Mass. Tool-handle. No. 1,037,759; Sept. 3; Gas. vol. 182; p. 195.
Hastings, Herbert, Rochester, N. Y. Fluid-gage. No. 1,039,280; Sept. 24; Gas. vol. 182; p. 790.
Hatch, Freeman C., Springfield, Mass. Burglar-alarm. No. 1,039,126; Sept. 24; Gas. vol. 182; p. 743.
Hatton, Delbert M., Burnetts Creek, Ind. Pipe-reamer. No. 1,038,881; Sept. 17; Gas. vol. 182; p. 647.
Hauk, Joseph, Jr., assignor to Twentieth Century Machinery Company, Incorporated, Milwaukee, Wis. Sterilizing apparatus. No. 1,037,247; Sept. 3; Gas. vol. 182; p. 24.
Hauttain, Herbert E. T., Toronto, Ontario, Canada, and E. S. Wiard, Denver, Colo. Weighing apparatus. No. 1,038,863; Sept. 10; Gas. vol. 182; p. 429.
Hawes, Joel D., assignor to Waterloo Threshing Machine Company, Waterloo, Iowa. Band-cutter and feeder. No. 1,038,747; Sept. 17; Gas. vol. 182; p. 600.
Hawkins, Laurence A., Schenectady, N. Y., assignor, by mesne assignments, to The Union Switch and Signal Company. Block-signal system. No. 1,038,364; Sept. 10; Gas. vol. 182; p. 430.
Hawkins, Laurence A., Schenectady, N. Y., assignor, by mesne assignments, to The Union Switch and Signal Company. Indicator. No. 1,038,365; Sept. 10; Gas. vol. 182; p. 431.
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Hawver, Charles B., Syracuse, N. Y. Window-shelf. No. 1,037,904; Sept. 10; Gas. vol. 182; p. 277.
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Hayden, George W., assignor to The Pratt & Cady Company, Hartford, Conn. Hydrant. No. 1,038,748; Sept. 17; Gas. vol. 182; p. 601.
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Hayes, Fay C., Altamont, N. Y. Portable hot-water system. No. 1,037,905; Sept. 10; Gas. vol. 182; p. 276.
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Hays, Caswell V., Dillon, S. C. Chicken-coop. No. 1,039,532; Sept. 24; Gas. vol. 182; p. 887.
Hays, Charles O. (See Knause, John, assignor.)
Hays, John, Uniontown, Pa. Mechanical movement. No. 1,039,390; Sept. 24; Gas. vol. 182; p. 837.
Hayward, Melville P., Quincy, assignor to American Finishing Machinery Company, Boston, Mass. Cloth-stretching machine. No. 1,039,281; Sept. 24; Gas. vol. 182; p. 800.
Hazelip, Edwin, assignor of one-fourth to T. B. Trimble, Baltimore, and one-half to A. L. Cummings, Melvale, Md. Valve. No. 1,039,391; Sept. 24; Gas. vol. 182; p. 837.
Hazen, Henry L., Fort Lee, N. J. Dumping-wagon. No. 1,038,491; Sept. 10; Gas. vol. 182; p. 476.
Heaslet, Harvey B., New Brighton, Pa. Sand-blasting apparatus. No. 1,037,760; Sept. 3; Gas. vol. 182; p. 195.
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Heath, Samuel, Roxboro, Pa. Smoke and carbon consumer. No. 1,038,882; Sept. 17; Gas. vol. 182; p. 647.
Hebb, Edward T., Caldwell, Kans. Railway-switch-operating device. No. 1,038,574; Sept. 17; Gas. vol. 182; p. 539.
Heckmann, Hetarich L. (See Crain and Heckmann.)
Hedrich, Charles, Grapite City, Ill. Extension-table. No. 1,039,128; Sept. 24; Gas. vol. 182; p. 744.
Hedstrom, John P., assignor, to Hanchett Swage Works, Big Rapids, Mich. Stretcher-rolls. No. 1,038,127; Sept. 10; Gas. vol. 182; p. 350.
Heide, John F. H., Chicago, Ill. Watch-securing device. No. 1,038,575; Sept. 17; Gas. vol. 182; p. 539.
Heiden, Will A., Guthrie, Okla. Grain-door for cars. No. 1,037,761; Sept. 3; Gas. vol. 182; p. 195.
Heimlich, Ferencz, San Francisco, Cal. Shoemaker's jack. No. 1,038,128; Sept. 10; Gas. vol. 182; p. 350.
Hein, Max L., Moosee Ponds, Victoria, assignor of one-half to J. Copp, Oakleigh, Australia. Electric railway signaling system. No. 1,038,129; Sept. 10; Gas. vol. 182; p. 351.
Hein, Paul, Essen-Ruettenscheid, assignor to Diamant Brikett-Werke G. m. b. H., Berlin, Germany. Apparatus for coking briquets. No. 1,037,479; Sept. 3; Gas. vol. 182; p. 104.
Hein, Paul, Essen-Ruettenscheid, assignor to Diamant Brikett-Werke G. m. b. H., Berlin, Germany. Means for heating briquets and the like. No. 1,039,533; Sept. 24; Gas. vol. 182; p. 887.
Heinss, Christian F., Cincinnati, Ohio. Spring vehicle-wheel. No. 1,038,576; Sept. 17; Gas. vol. 182; p. 539.
Heinz, Paul, Janesville, Wis. Grain-separator. No. 1,037,248; Sept. 3; Gas. vol. 182; p. 25.
Heinze, John O., Jr., Lowell, Mass. Lock-snap contact for making electrical connections. No. 1,039,292; Sept. 24; Gas. vol. 182; p. 838.
Heisler, Charles L., Schenectady, N. Y. Locomotive-engine. No. 1,038,577; Sept. 17; Gas. vol. 182; p. 540.
Heiss, Firm of Ludw. (See Clausen, Bernhard, assignor.)
Held, Siegfried, Chicago, Ill. Apparatus for producing ozone. No. 1,038,130; Sept. 10; Gas. vol. 182; p. 351.
Heldmann, Peter, Frankfort-on-the-Main, assignor to Corporation Maschinenfabrik Moenus A. G., Frankfort-on-the-Main-Bockenheim, Germany. Scalloping-machine. No. 1,039,534; Sept. 24; Gas. vol. 182; p. 887.
Helfrich, George J., Cincinnati, Ohio. Clamp for horse-shoe-calks. No. 1,038,883; Sept. 17; Gas. vol. 182; p. 647.
Hellberg, William F., McGregor, Iowa. Can. No. 1,037,620; Sept. 3; Gas. vol. 182; p. 148.
Heller, Martin, et al. (See Custer, Peter A., assignor.)
Helmich, Carl, Detroit, Mich. Curtain-pole. No. 1,037,906; Sept. 10; Gas. vol. 182; p. 278.
Heltsel, John N., Streator, Ill. Curb and gutter form. No. 1,037,907; Sept. 10; Gas. vol. 182; p. 278.
Helvetia Silk Mills. (See Gaynor, James C., assignor.)
Helwig, Nicholas, Middletown, Ohio. Marking-gage. No. 1,039,085; Sept. 17; Gas. vol. 182; p. 702.
Hemmer, Mathew, Syracuse, N. Y. Adjustable bearing for boat-shafts. No. 1,037,621; Sept. 3; Gas. vol. 182; p. 148.
Hemming, Victor, New York, N. Y., assignor to H. Krantz Manufacturing Company. Magnetic clutch. No. 1,038,131; Sept. 10; Gas. vol. 182; p. 352.
Henberger, John, North Chillicothe, Ill. Tie-plate. No. 1,038,578; Sept. 17; Gas. vol. 182; p. 540.
Henderson, Elias H., assignor, by mesne assignments, to Henderson Scaffold Hoist Company, Chicago, Ill. Scaffold-supporting mechanism. No. 1,038,579; Sept. 17; Gas. vol. 182; p. 540.
Henderson, John C., San Francisco, Cal. Starter for engines. No. 1,038,132; Sept. 10; Gas. vol. 182; p. 352.
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Henn, Edwin C., assignor to The National Acme Manufacturing Co., Cleveland, Ohio. Die and carrier. No. 1,038,580; Sept. 17; Gas. vol. 182; p. 541.
Hennig, Gustav K., Wahren, near Leipzig, assignor to Ludwig Hupfeld Aktiengesellschaft, Leipzig, Germany. Means to assist tuning pneumatically-operated musical instruments. No. 1,038,581; Sept. 17; Gas. vol. 182; p. 541.
Henry, Beulah L., assignor of one-half to W. T. Woodley, Charlotte, N. C. Ice-cream freezer. No. 1,037,762; Sept. 3; Gas. vol. 182; p. 196.
Henry, Charles A., Chicago, Ill. Adjustable metallic frame for screens and the like. No. 1,038,367; Sept. 10; Gas. vol. 182; p. 451.
Henry, George J., Jr., San Francisco, Cal. Governor-controlled mechanism for hydraulic nozzles. No. 1,038,133; Sept. 10; Gas. vol. 182; p. 352.
Henson, Edward F., trustee. (See Reith and Fiale, assignors.)
Herman, Charles H., Medford, Oreg. Attachment for vehicles. No. 1,037,906; Sept. 10; Gas. vol. 182; p. 279.
Herman, Jacob A., New York, N. Y. Skirt. No. 1,038,134; Sept. 10; Gas. vol. 182; p. 353.
Herman, Karl L., Chicago, Ill. Machine for creasing and cutting box-blanks. No. 1,037,909; Sept. 10; Gas. vol. 182; p. 279.
Heron, Thomas J., Pittsburgh, Pa. Door-operating mechanism. No. 1,039,393; Sept. 24; Gas. vol. 182; p. 888.
Heroy, Walter W. (See Pages, Paul H., assignor.)
Herricht, John, New York, N. Y. Photographing-machine. No. 1,038,135; Sept. 10; Gas. vol. 182; p. 354.
Herz, Alfred, Chicago, Ill. Carrier for pneumatic tubes. No. 1,039,394; Sept. 24; Gas. vol. 182; p. 838.
Hersberg, Wilhelm, and O. Scharfenberg, Schöneberg, near Berlin, assignors to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Azo dye. No. 1,038,884; Sept. 17; Gas. vol. 182; p. 647.
Hess, Julius J., St. Louis, Mo. Weeding-hook. No. 1,039,086; Sept. 17; Gas. vol. 182; p. 702.
Hessberger. (See Schönherr and Hessberger.)
Heustand, Hardy, and C. F. Dayton, assignors to G. M. Carr and R. H. Jones, Chickasha, Okla. Band-sawfiling machine. No. 1,038,885; Sept. 17; Gas. vol. 182; p. 648.
Hewitt, Henry, Jr. (See Lodwick, Wayne D., assignor.)
Hewlett, Edward M., Schenectady, N. Y., assignor to General Electric Company. Expulsion-switch. No. 1,039,395; Sept. 24; Gas. vol. 182; p. 839.
Hibberd, Charles R., Westminster, London, England. Coin-freed mechanism. No. 1,038,136; Sept. 10; Gas. vol. 182; p. 354.
Hickey, James A., North Hadley, Mass. Truck. No. 1,038,137; Sept. 10; Gas. vol. 182; p. 354.
Hicks, Calvin, Auburn, Pa. Blast-furnace. No. 1,039,282; Sept. 24; Gas. vol. 182; p. 800.
Hiering, Christian, and A. Fuller, assignors to The J. E. Mergott Company, Newark, N. J. Bag-frame. No. 1,038,749; Sept. 17; Gas. vol. 182; p. 601.
Higgins, John M., Caseyville, Ill. Acetylene-lamp. No. 1,039,536; Sept. 24; Gas. vol. 182; p. 888.
Hikes, Mirko, St. Louis, Mo. Combined window sash and screen. No. 1,038,138; Sept. 10; Gas. vol. 182; p. 355.
Hildker, William F., Jay county, Ind. Automatic grain-weigher. No. 1,037,249; Sept. 3; Gas. vol. 182; p. 25.
Hilgert, Mathew, New York, N. Y. Shoe. No. 1,039,396; Sept. 24; Gas. vol. 182; p. 839.
Hill, Albert E., Atlanta, Ga., assignor to A. E. Hill Manufacturing Company. Machine for sharpening blades of safety-razors. No. 1,037,763; Sept. 3; Gas. vol. 182; p. 196.
Hill, Charles, Phoenix, British Columbia, Canada. Drawing instrument. No. 1,039,057; Sept. 17; Gas. vol. 182; p. 702.
Hill, Charles, Mullan, Idaho. Hose-coupling. No. 1,039,536; Sept. 24; Gas. vol. 182; p. 888.
Hill, Claudius M. (See Francisco, George T., assignor.)
Hill, Eugene W., San Francisco, Cal. Watch-holder. No. 1,038,750; Sept. 17; Gas. vol. 182; p. 601.
Hill, Josiah, assignor of one-half to E. Miller, Pasadena, Cal. Safety device for elevators. No. 1,039,283; Sept. 24; Gas. vol. 182; p. 801.
Hill, Josiah, assignor of one-half to E. Miller, Pasadena, Cal. Brake for elevators. No. 1,039,284; Sept. 24; Gas. vol. 182; p. 801.
Hill, Roy, et al. (See Reames, Charles H., assignor.)
Hillier, Richard C., and D. W. Wade, Cleveland, Ohio. Starting device for gas-engines. No. 1,037,622; Sept. 3; Gas. vol. 182; p. 149.
Hinde & Dauch Paper Company. (See Harbrecht, William F., assignor.)
Hinde & Dauch Paper Company, The. (See Morton, Lawrence D., assignor.) (Reissue.)
Hinman, Robert M., assignor of one-half to F. Nolte, Akron, Ohio. Making cores for manufacturing tire-shoes. No. 1,037,250; Sept. 3; Gas. vol. 182; p. 26.
Hinsky, Frans A., Hoboken, N. J. Insect-destroyer. No. 1,037,623; Sept. 3; Gas. vol. 182; p. 149.
Hinspeter, Alfred, Munich, Germany. Automatic exhibition device. No. 1,039,397; Sept. 24; Gas. vol. 182; p. 839.
Hirt, Jules H., Sewickley, Pa., assignor, by mesne assignments, to Allis-Chalmers Company, Milwaukee, Wis. Apparatus for making gas. No. 1,037,764; Sept. 3; Gas. vol. 182; p. 196.
Hirt, Jules H., El Paso, Tex., assignor, by mesne assignments, to Allis-Chalmers Company, Milwaukee, Wis. Gas-producer. No. 1,038,582; Sept. 17; Gas. vol. 182; p. 542.
Hirt, Jules H., El Paso, Tex., assignor, by mesne assignments, to Allis-Chalmers Company, Milwaukee, Wis. Pulveriser. No. 1,038,886; Sept. 17; Gas. vol. 182; p. 648.
Hirt, Jules H., El Paso, Tex., assignor, by mesne assignments, to Allis-Chalmers Company, Milwaukee, Wis. Producing gas. No. 1,039,398; Sept. 24; Gas. vol. 182; p. 840.
Hiser, George W., Detroit, Mich. Removable ceiling for enameling-ovens. No. 1,037,910; Sept. 10; Gas. vol. 182; p. 279.
Hoadley, Joseph H., New York, N. Y. Transporting and utilizing fuel. No. 1,039,399; Sept. 24; Gas. vol. 182; p. 840.
Hobart-Allfree Company, The. (See Allfree, James R., assignor.)
Hodge, Leonard M., San Jose, Cal. Attachment for squares. No. 1,038,363; Sept. 10; Gas. vol. 182; p. 432.
Hodgkinson, Francis, Edgewood Park, assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa. Regenerator. No. 1,037,765; Sept. 3; Gas. vol. 182; p. 197.
Hodgkinson, Percy W., assignor to Caldwell Manufacturing Company, Rochester, N. Y. Locking receptacle. No. 1,038,583; Sept. 17; Gas. vol. 182; p. 542.
Hoeffel, Charles I., Defiance, Ohio. Barrel. No. 1,039,058; Sept. 17; Gas. vol. 182; p. 703.
Hoerr, Max, Berlin, Germany. Tachometer. No. 1,038,751; Sept. 17; Gas. vol. 182; p. 602.
Hoeller, Wilhelm, Cologne-Ehrenfeld, Germany. Charging device for furnaces or gas-generators. No. 1,037,480; Sept. 3; Gas. vol. 182; p. 104.
Hoeller, Wilhelm, Cologne-Ehrenfeld, Germany. Gas-generator. No. 1,037,481; Sept. 3; Gas. vol. 182; p. 104.
Hofbauer, Frank X., East Orange, N. J. Safety-bolt for doors. No. 1,038,752; Sept. 17; Gas. vol. 182; p. 602.
Hofer, Louis, Pittsburgh, Pa. Churn. No. 1,037,624; Sept. 3; Gas. vol. 182; p. 149.
Hofer, Louis, Pittsburgh, Pa. Sanitary receptacle. No. 1,037,625; Sept. 3; Gas. vol. 182; p. 149.
Hofman, John J., New Kensington, assignor to P. H. Murphy, Pittsburgh, Pa. Outside metal car-roof. No. 1,039,400; Sept. 24; Gas. vol. 182; p. 840.
Hofman, John J., New Kensington, assignor to P. H. Murphy, Pittsburgh, Pa. Car-roof. No. 1,039,401; Sept. 24; Gas. vol. 182; p. 841.
Hofmann, Josef, Baumaroche, Switzerland. Pneumatic cushion. No. 1,039,537; Sept. 24; Gas. vol. 182; p. 888.
Hogan, Thomas G., assignor of one-half to T. E. Charlton and one-half to C. C. Coalter, Hinton, W. Va. Maple-flavored sugar and making same. No. 1,037,766; Sept. 3; Gas. vol. 182; p. 197.
Hoge, Solomon, Waynesburg, Pa. Alarm. No. 1,037,767; Sept. 3; Gas. vol. 182; p. 197.
Hogle, Martin, Fitzgerald, Ga. Vise. No. 1,037,626; Sept. 3; Gas. vol. 182; p. 150.
Hohmann, Edmund, assignor to Stettiner Chamotte-Fabrik Actien-Gesellschaft vorm. Didier, Stettin, Germany. Air-blast heater. No. 1,038,887; Sept. 17; Gas. vol. 182; p. 648.
Holland, Samuel, Colorado Springs, and H. H. Wister, Colorado City, Colo. Vending-bottle. No. 1,038,584; Sept. 17; Gas. vol. 182; p. 542.
Holley, Albert B., Virginia, Minn. Sad-iron heater. No. 1,037,251; Sept. 3; Gas. vol. 182; p. 26.
Hollingsworth, Rea, Grant Park, assignor of one-third to H. B. Crum, Chicago, Ill. Car-unloading shovel. No. 1,038,585; Sept. 17; Gas. vol. 182; p. 543.
Hollins, Denis M., Blackburn, England, assignor to Draper Company, Hopedale, Mass. Automatic weft-replenishing loom. No. 1,038,888; Sept. 17; Gas. vol. 182; p. 649.
Holmes, Glenn E., Chicago, Ill. Foot-scraper. No. 1,037,252; Sept. 3; Gas. vol. 182; p. 26.
Holmes, Millan H., and W. A. Matheson, Chicago, Ill. Wall-bed. No. 1,037,911; Sept. 10; Gas. vol. 182; p. 279.
Holtz, George F. (See Wilk and Holtz.)
Holzapfel, William J., Eddystone, Pa. Melting-furnace. No. 1,037,768; Sept. 3; Gas. vol. 182; p. 197.
Homer Roberts Telephone Co. (See Roberts, Homer J., assignor.)
Honest, Charles, New York, N. Y. Clothes-hanging attachment for bedsteads. No. 1,037,253; Sept. 3; Gas. vol. 182; p. 26.
Hoofer, Charles F., Spokane, Wash. Oil-feeding device. No. 1,038,889; Sept. 17; Gas. vol. 182; p. 649.
Hook, Carnealus, Vigo, Ohio. Kiln. No. 1,037,769; Sept. 3; Gas. vol. 182; p. 198.
Hooker, Duncan C., Farmington, assignor to The Johns-Pratt Company, Hartford, Conn. Disconnecting electrical switch. No. 1,039,129; Sept. 24; Gas. vol. 182; p. 744.
Hopewell, Charles F., Newton, Mass. Tire-case. No. 1,037,482; Sept. 3; Gas. vol. 182; p. 105.
Hopkins, Francis A., assignor to Carlin Calculator Company, Chicago, Ill. Calculating-machine. No. 1,038,890; Sept. 17; Gas. vol. 182; p. 650.
Hopkins, Henry S., Brooklyn, N. Y. Drying apparatus. No. 1,037,254; Sept. 3; Gas. vol. 182; p. 27.

Hopkins, Hubert, St. Louis, Mo., assignor to Addograph Manufacturing Company. Adding and writing machine. No. 1,039,130; Sept. 24; Gas. vol. 182; p. 745.
Horn, Fredrick P. A. (See Berger, Reymond, and Horn.)
Horn, Joseph V., *et al.* (See Fritsche, John, assignor.)
Horton Manufacturing Company. (See Van Wormer, Arba, assignor.)
Hostetter, Abram B. (See Stevens, Sylvester G., assignor.)
Houghton, Lewis T. Worcester, Mass. Thread guide and clearer. No. 1,039,285; Sept. 24; Gas. vol. 182; p. 801.
Houghton, Orley C., assignor to H. E. and J. E. Bullock, Chicago, Ill. Machine for removing leaves and trash from seed-cotton. No. 1,039,402; Sept. 24; Gas. vol. 182; p. 841.
Houghton, Philip S. (See Mulloy, Patrick J., assignor.)
Howard, Alfred A., and A. H. Lobsitz, Perry, Okla. Heat-regulator for incubators. No. 1,038,139; Sept. 10; Gas. vol. 182; p. 355.
Howard, Clarence H., assignor to Locomotive Tender Frame Company, St. Louis, Mo. Cast-steel underframe for cars. No. 1,038,753; Sept. 17; Gas. vol. 182; p. 602.
Howard, Clarence H., assignor to Locomotive Tender Frame Company, St. Louis, Mo. Cast-steel underframe for cars. No. 1,039,403; Sept. 24; Gas. vol. 182; p. 842.
Howard, Clarence H., and H. M. Pflager, assignors to Double Body Bolster Company, St. Louis, Mo. Car-truck. No. 1,039,404; Sept. 24; Gas. vol. 182; p. 842.
Howard, Frederick, Dayton, Ohio. Filing device. No. 1,037,912; Sept. 10; Gas. vol. 182; p. 280.
Howard, Guy C., Everett, Wash. Apparatus for the production of mechanical wood-pulp. No. 1,039,286; Sept. 24; Gas. vol. 182; p. 802.
Howard, John J., assignor to Jas. H. Matthews & Co., Pittsburgh, Pa. Changeable type-blocks. No. 1,039,131; Sept. 24; Gaz. vol. 182; p. 745.
Howard, Lansing B., San Diego, Cal. Guide for key-holes. No. 1,038,754; Sept. 17; Gas. vol. 182; p. 603.
Howard, Laurence B., and G. W. Denlef, Lynn, Mass. Valve or cut-off. No. 1,039,059; Sept. 17; Gas. vol. 182; p. 703.
Howe, Clarence B., assignor of one-half to J. H. Goodier, Utica, N. Y. Tire for vehicle-wheels. No. 1,037,829; Sept. 3; Gas. vol. 182; p. 217.
Howe, Leon S., New York, N. Y. Plural-strap dispenser No. 1,038,369; Sept. 10; Gas. vol. 182; p. 432.
Howell, Albert S., assignor to Bell & Howell Co., Chicago, Ill. Motion-picture machine. No. 1,038,586; Sept. 17; Gas. vol. 182; p. 543.
Howell, J. R. (See Paris and Millward, assignors.)
Howell, Sylvester S., assignor to The Underfeed Stoker Company of America, Chicago, Ill. Automatic stoker. No. 1,037,913; Sept. 10; Gas. vol. 182; p. 280.
Howes, Claude L., Boston, Mass. Street fire-hydrant. No. 1,037,914; Sept. 10; Gas. vol. 182; p. 281.
Howes, R. N., *et al.* (See Beall, Albert E., assignor.)
Howland, Winfred C., Watertown, Wis. Current-motor. No. 1,037,255; Sept. 3; Gas. vol. 182; p. 27.
Howser, William E., and A. M. Wolfe, Greensboro, N. C. Tire-filler. No. 1,038,891; Sept. 17; Gas. vol. 182; p. 650.
Hubbard, Leslie H., Clinton, N. C. Seat-fastener. No. 1,038,892; Sept. 17; Gas. vol. 182; p. 650.
Hubbell, Henry S., Ashburnham, Mass. Chuck. No. 1,038,755; Sept. 17; Gas. vol. 182; p. 603.
Hubert, Conrad. (See Coleman, Clyde J., assignor.)
Hubert, Henry, and E. Fry, New York, N. Y. Beer-pipe cleaner. No. 1,039,405; Sept. 24; Gas. vol. 182; p. 842.
Hubert, Lily E. G., executrix. (See Hubert, Philip G.)
Hubert, Linard A., Troyes, France. Elastic wheel. No. 1,039,538; Sept. 24; Gas. vol. 182; p. 889.
Hubert, Philip G., deceased, Los Angeles, Cal.; L. E. G. Hubert, executrix, assignor to L. E. G. Hubert. Instantaneous water-heater. No. 1,038,140; Sept. 10; Gas. vol. 182; p. 355.
Hubner, Robert, Elizabeth, N. J. Briqueting fine-dust and the article of manufacture produced thereby. No. 1,038,370; Sept. 10; Gas. vol. 182; p. 433.
Hudson, Alexander S., assignor of one-half to T. S. Crosbie, Sourlake, Tex. Spring-wheel. No. 1,039,287; Sept. 24; Gas. vol. 182; p. 802.
Hudson, Charles C., *et al.* (See Smith, Henry A., assignor.)
Huenefeld, Walter E., Cincinnati, Ohio. Hand-reel for clothes-lines. No. 1,039,288; Sept. 24; Gas. vol. 182; p. 802.
Huenefeld, Walter E., Cincinnati, Ohio. Oven-door. No. 1,039,289; Sept. 24; Gas. vol. 182; p. 803.
Huenefeld, Walter E., Cincinnati, Ohio. Portable oven. No. 1,039,290; Sept. 24; Gas. vol. 182; p. 803.
Huenefeld, Walter E., assignor to The E. H. Huenefeld Co., Cincinnati, Ohio. Portable knockdown oven. No. 1,037,770; Sept. 3; Gas. vol. 182; p. 198.
Hughes, Benjamin A., Colorado Springs, Colo. Machine for sizing and separating granular material. No. 1,039,132; Sept. 24; Gas. vol. 182; p. 745.
Hughes, Joseph, assignor of one-half to Butte Engineering & Electric Co., San Francisco, Cal. Food-carrier. No. 1,037,771; Sept. 3; Gas. vol. 182; p. 198.
Hughes, Michael E., Manteno, Ill. Box for seed-planters. No. 1,039,060; Sept. 17; Gas. vol. 182; p. 703.
Hughes, Schuyler G., Mineral, W. Va. Adjustable hold-back. No. 1,038,141; Sept. 10; Gas. vol. 182; p. 355.
Hull, Charles, Bloomville, Ohio. Reversible two-cycle engine. No. 1,038,571; Sept. 10; Gas. vol. 182; p. 433.
Hulse, Edwin M., Columbus, Ohio. Upholsterers' spring-work. No. 1,037,256; Sept. 3; Gas. vol. 182; p. 27.
Humphrey, Robert E., *et al.* (See Spink, Edward J., assignor.)
Humphrey, William, and T. R. Stewart, Auburn, Nebr. Hydrocarbon-burner. No. 1,038,142; Sept. 10; Gas. vol. 182; p. 356.
Hundriesser, Hans, Halensee, near Berlin, Germany. Sculptor's copying-machine. No. 1,039,406; Sept. 24; Gas. vol. 182; p. 842.
Hunn, Wilbur S. (See Bowman and Hunn.)
Hunter, James S., Boston, Mass. Type-writer desk. No. 1,037,627; Sept. 3; Gas. vol. 182; p. 150.
Hunter, John. (See Gilfillan, Huntington N., assignor.)
Hutchinson, George W., Walton, Waikato, Auckland, New Zealand. Automatic notch-finder. No. 1,037,257; Sept. 3; Gas. vol. 182; p. 28.
Hutchinson, George W., Walton, Auckland, New Zealand. Sparking-regulator for internal-combustion engines. No. 1,039,407; Sept. 24; Gas. vol. 182; p. 843.
Hutchison, Miller R., Summit, N. J. Clencher-tire and securing-lug therefor. No. 1,038,143; Sept. 10; Gas. vol. 182; p. 356.
Hutchison, Miller R., Summit, N. J. Rim and tire for vehicle-wheels. No. 1,038,144; Sept. 10; Gas. vol. 182; p. 356.
Hutchison, Miller R., Summit, N. J. Detachable rim for vehicle-wheels. No. 1,038,372; Sept. 10; Gas. vol. 182; p. 433.
Huttenlocher, Friedrich, Charlottenburg, Germany. Safety device for gas-lamps. No. 1,038,893; Sept. 17; Gas. vol. 182; p. 651.
Hutton, Joseph C., Louisville, Ky. Game apparatus. No. 1,039,133; Sept. 24; Gas. vol. 182; p. 746.
Hutzel, Titus F., *et al.* (See Leggett, Rosa M., assignor.)
Hyde, Benjamin T. B., New York, N. Y. Adjustable bracket for supporting shelving. No. 1,037,915; Sept. 10; Gas. vol. 182; p. 281.
Hyde, Benjamin T. B., New York, N. Y. Game apparatus. No. 1,038,756; Sept. 17; Gas. vol. 182; p. 603.
Hydro Engine, Power and Irrigation Company. (See Bovee, Ransom Y., assignor.)
Ideal Coated Paper Co. (See Goodsir, George, Jr., assignor.)
Ideal Development Company. (See Booth, Oscar D., assignor.)
Ielfield, Fred C., assignor to Columbia Postal Supply Company, Silver Creek, N. Y. Mail-marking machine. No. 1,038,587; Sept. 17; Gas. vol. 182; p. 543.
Iler, Franklin M., Denver, Colo. Disk pulverizer. No. 1,037,772; Sept. 3; Gas. vol. 182; p. 198.
Improved Paper Machinery Company. (See Parker, Howard, assignor.)
Independent Harvester Company. (See Nichols, Winfield S., assignor.)
Ingersoll Milling Machine Company, The. (See Smith, George W., assignor.)
Inman, Harry A., Amsterdam, N. Y. Machine for forming and balling paper pails. No. 1,038,145; Sept. 10; Gas. vol. 182; p. 357.
International Mail Equipment Co. (See Lanier, James S., assignor.)
International Manufacturing Company. (See King, William C., assignor.)
International Rotations-Maschinen-Gesellschaft m. b. H. (See Lehne, Josef, assignor.)
International Voting Machine Company. (See Swaren, William A., assignor.)
Irons, Archie E., Pittsburgh, Pa. Sealing device. No. 1,038,373; Sept. 10; Gas. vol. 182; p. 434.
Irving, Adam H., Spokane, Wash. Saw tension device for band-saw mills. No. 1,037,916; Sept. 10; Gas. vol. 182; p. 281.
Irwin, Guy. (See Clark and Irwin.)
Isbell, John, Washington, Mo. Railway chair and plate. No. 1,037,483; Sept. 3; Gas. vol. 182; p. 105.
Iverson, Michael S., New York, N. Y. Apparatus for coaling ships. No. 1,038,588; Sept. 17; Gas. vol. 182; p. 544.
J. Stone & Company Limited. (See Pike and Neville, assignors.)
J. A. Fay & Egan Company. (See Hanhart, Louis J., assignor.)
J. A. Fay & Egan Company. (See Reed, Jerry M., assignor.)
J. E. Mergott Company, The. (See Hiering and Fuller, assignors.)
J. P. Seeburg Piano Company. (See Nelson, Oscar, assignor.)
J. Q. Clarke Tank Co., The. (See Clarke, John Q., assignor.)
Jaburg, Firm of John and H. (See Biggs, Edward, assignor.)
Jack, Greville K. F., Clifton, Colo. Horse-hitching device. No. 1,038,894; Sept. 17; Gas. vol. 182; p. 651.
Jäckle, Bartholomäus, Locherhof, Germany. Fastener for blind-slats. No. 1,039,291; Sept. 24; Gas. vol. 182; p. 803.
Jackson, Frederick H. (See Bailey and Jackson.)
Jackson, George A., Newton, assignor to M. McCabe, Boston, Mass. Mechanically-operated fan. No. 1,037,258; Sept. 3; Gas. vol. 182; p. 28.



Jackson, Herbert F., Indianapolis, Ind. Screen-wire cloth. No. 1,038,895; Sept. 17; Gas. vol. 182; p. 651.
Jackson, John T., El Reno, Okla. Meter-box. No. 1,038,148; Sept. 10; Gas. vol. 182; p. 357.
Jackson, Joseph D., Washington, Pa. Combined air-compressor and shock-absorber. No. 1,038,374; Sept. 10; Gas. vol. 182; p. 434.
Jacob, Max, Berlin, Germany, assignor to The National Cash Register Company, Dayton, Ohio. Signaling device for cash-registers. No. 1,037,917; Sept. 10; Gas. vol. 182; p. 282.
Jacobi, Andreas, Leverkusen, near Cologne, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Anthracene dye. No. 1,038,589; Sept. 17; Gas. vol. 182; p. 544.
Jacobs, Henry W. (See Lanning, Howard H., assignor.)
Jacobs, Henry W., Topeka, Kans. Riveter. No. 1,037,918; Sept. 10; Gas. vol. 182; p. 282.
Jacobson, Emil, and A. Wolff, San Francisco, Cal. Means for heating water. No. 1,038,375; Sept. 10; Gas. vol. 182; p. 435.
Jacobson, Herman S. (See Woods, George E., assignor.)
Jackel, Alfred, Paris, France. Automatic compressor-pump. No. 1,039,539; Sept. 24; Gas. vol. 182; p. 890.
Jaeschke, Alfred, San Diego, Cal. Self-feeding paint-brush. No. 1,038,376; Sept. 10; Gas. vol. 182; p. 435.
Jagenberg, Emil, Dusseldorf, Germany. Pasting-machine for box-blanks. No. 1,038,377; Sept. 10; Gas. vol. 182; p. 435.
Jahn, Frederick L., assignor to Watson & McDaniel Company, Philadelphia, Pa. Pump-governor. No. 1,037,773; Sept. 3; Gas. vol. 182; p. 199.
James, David W., Desmet, Idaho. Rail-joint. No. 1,037,774; Sept. 3; Gas. vol. 182; p. 199.
Jameson, Stewart W., Oskaloosa, Iowa. Flexible coupling. No. 1,038,757; Sept. 17; Gas. vol. 182; p. 603.
Jas. H. Matthews & Co. (See Howard, John J., assignor.)
Jasper, George F. (See Green, William L., assignor.)
Jaubert, George F., Paris, France. Manufacturing hydrogen. No. 1,037,919; Sept. 10; Gas. vol. 182; p. 282.
Jaubert, George F., Paris, France. Compound containing active oxygen and making it. No. 1,039,408; Sept. 24; Gas. vol. 182; p. 843.
Jeavons, William E., Cleveland, Ohio. Door. No. 1,038,590; Sept. 17; Gas. vol. 182; p. 544.
Jeffcott, Lewis B., New York, N. Y. Folding bed. No. 1,037,259; Sept. 3; Gas. vol. 182; p. 28.
Jefferies, Ebenezer A. W., assignor to Morgan Construction Company, Worcester, Mass. Conduit for gas fuel. No. 1,037,920; Sept. 10; Gas. vol. 182; p. 283.
Jeffrey Manufacturing Company, The. (See Dunlop, Robert R., assignor.)
Jenczyk, Andrew, Chicago, Ill. Resilient heel for shoes. No. 1,039,409; Sept. 24; Gas. vol. 182; p. 843.
Jenkins, James L. E., Kansas City, Mo. Pedestal. No. 1,039,134; Sept. 24; Gas. vol. 182; p. 746.
Jenks, Lewis B. (See Shreve, Harry B., assignor.)
Jennings, Joseph W., Quinton, Okla. Cultivator. No. 1,037,484; Sept. 3; Gas. vol. 182; p. 105.
Jensen, Jens P., Chicago, Ill. Gearing. No. 1,037,921; Sept. 10; Gas. vol. 182; p. 283.
Jentzsch, Richard, Chicago, Ill. Self-retaining uterine tube. No. 1,039,061; Sept. 17; Gas. vol. 182; p. 703.
Jepson, John W., Depew, N. Y., assignor, by mesne assignments, to Gould Coupler Company. Electrical appliance for gas-engines. No. 1,037,485; Sept. 3; Gas. vol. 182; p. 105.
Jeremias, Charles, Fremont, Ohio. Razor-sharpener. No. 1,038,378; Sept. 10; Gas. vol. 182; p. 436.
Jernigan, Lee H., assignor of seven one-hundredths to E. H. Carpenter, seven one-hundredths to W. H. Bost, seven one-hundredths to W. E. Weaver, seven one-hundredths to A. M. Cabler, seven one-hundredths to R. R. Fletcher, seven one-hundredths to D. E. Gliman, and seven one-hundredths to R. E. Trickle, Sacramento, Cal. Telegraphic instrument. No. 1,039,410; Sept. 24; Gas. vol. 182; p. 843.
Jess, Marx, Stickney, S. D. Traction-engine. No. 1,038,379; Sept. 10; Gas. vol. 182; p. 436.
Johanson, Gustaf E., Sundsvall, Sweden. Automatic recording apparatus for long saws or similar machines. No. 1,038,380; Sept. 10; Gas. vol. 182; p. 436.
Johns-Pratt Company, The. (See Cole, Robert C., assignor.)
Johns-Pratt Company, The. (See Hooker, Duncan C., assignor.)
Johnson, Albert L., Hamburg, N. Y. Electric welding. No. 1,039,135; Sept. 24; Gas. vol. 182; p. 746.
Johnson, Albert L., Hamburg, N. Y. Electric welding. No. 1,039,137; Sept. 24; Gas. vol. 182; p. 747.
Johnson, Albert L., Hamburg, N. Y. Electric welding. No. 1,039,138; Sept. 24; Gas. vol. 182; p. 747.
Johnson, Albert L., Hamburg, N. Y., assignor to Corrugated Bar Company, St. Louis, Mo. Securing-clip for wall structures. No. 1,039,136; Sept. 24; Gas. vol. 182; p. 747.
Johnson, Alpha, Nokomis, assignor of one-half to C. Zimmermann, Ohlman, Ill. Cover. No. 1,038,591; Sept. 17; Gas. vol. 182; p. 545.
Johnson, Andrew, Jamestown, N. Y. Sheet-metal door and the like. No. 1,039,292; Sept. 24; Gas. vol. 182; p. 803.
Johnson, Carl E., assignor of one-half to C. E. Payne, Los Angeles, Cal. Magneto. No. 1,038,592; Sept. 17; Gas. vol. 182; p. 545.
Johnson, Carl O. (See Newcomer and Johnson.)
Johnson, Charles, Dent, Minn. Detachable fence-post point. No. 1,038,147; Sept. 10; Gas. vol. 182; p. 356.
Johnson, Charles E., Havelock, Nebr. Blowpipe. No. 1,038,381; Sept. 10; Gas. vol. 182; p. 437.
Johnson, Charles I., Leshara, Nebr. Wagon end-gate. No. 1,037,628; Sept. 3; Gas. vol. 182; p. 151.
Johnson, Christ J., assignor of one-half to F. J. Brandt, Clear Lake, Wis. Grain-car door. No. 1,038,149; Sept. 10; Gas. vol. 182; p. 358.
Johnson, F. Amos, *et al.* (See Brand, John S., assignor.)
Johnson, George A., assignor to W. H. Miner, Chicago, Ill. Draft-yoke for railway-car draft-rigging. No. 1,038,758; Sept. 17; Gas. vol. 182; p. 603.
Johnson, John N., Albuquerque, N. Mex. Delivering apparatus. No. 1,037,629; Sept. 3; Gas. vol. 182; p. 151.
Johnson & Johnson. (See Marcus, Martin H., assignor.)
Johnson, Richard P., New York, N. Y. Filter. No. 1,038,382; Sept. 10; Gas. vol. 182; p. 437.
Johnson, Robert H., Washington, D. C. Reversible driving mechanism. No. 1,037,922; Sept. 10; Gas. vol. 182; p. 284.
Johnson, Stonewall. (See Hall, Thomas S., assignor.)
Johnson, Thomas C., assignor to Winchester Repeating Arms Co., New Haven, Conn. Wooden fore-arm for automatic firearms. No. 1,037,486; Sept. 3; Gas. vol. 182; p. 106.
Johnson, Victor D., Aurora, Ill. Material containing and depositing device. No. 1,039,540; Sept. 24; Gas. vol. 182; p. 890.
Johnson, Victor J., Worcester, Mass. Pneumatic motor. No. 1,037,775; Sept. 3; Gas. vol. 182; p. 200.
Johnston, Albert W., *et al.* (See Jones, John B., assignor.)
Johnston, Harry B., Salt Lake City, Utah, assignor to Model Manufacturing Company, Power-wheel. No. 1,037,260; Sept. 3; Gas. vol. 182; p. 29.
Johnston, John. (See Potter and Johnston.)
Joleen, Nels, Chicago, Ill. Sectional service-board. No. 1,039,139; Sept. 24; Gas. vol. 182; p. 748.
Jolly, Rowland W., New York, N. Y. Cutting device. No. 1,038,896; Sept. 17; Gas. vol. 182; p. 652.
Jones, David D., San Francisco, Cal. Clothes-hanger. No. 1,037,487; Sept. 3; Gas. vol. 182; p. 106.
Jones, Emery C., assignor of one-half to J. C. Russell, Rock Mart, Ga. Throttle-valve. No. 1,037,630; Sept. 3; Gas. vol. 182; p. 151.
Jones, George C., Philadelphia, Pa. Inverted-mantle lamp. No. 1,037,488; Sept. 3; Gas. vol. 182; p. 106.
Jones, Irving W., Ogden, Utah. Window-screen. No. 1,039,411; Sept. 24; Gas. vol. 182; p. 844.
Jones, John B., Connesaut, assignor of one-fourth to E. A. Miller and one-fourth to A. W. Johnston, Cleveland, Ohio. Slot-closing device. No. 1,037,631; Sept. 3; Gas. vol. 182; p. 151.
Jones, Leon M. (See Bramberry, William A., assignor.)
Jones, Louis C., D. A. Morton, and G. N. Terziev, assignors to Semet-Solvay Company, Syracuse, N. Y. Oxidizing ammonia. No. 1,037,261; Sept. 3; Gas. vol. 182; p. 30.
Jones, Robert G., *et al.* (See Messick, John C., assignor.)
Jones, Rodolphus H., *et al.* (See Hestand and Dayton, assignors.)
Jones, William F., *et al.* (See Messick, John C., assignor.)
Jones, William H., Cleveland, Ohio. Folding mattress-support. No. 1,038,593; Sept. 17; Gas. vol. 182; p. 545.
Jones, William T., Spokane, Wash. Brush for vacuum-cleaners. No. 1,038,383; Sept. 10; Gas. vol. 182; p. 437.
Jordan, Alexander M., Ogden, Kans. Automatic loader. No. 1,037,632; Sept. 3; Gas. vol. 182; p. 152.
Jorgensen, George. (See Kummer and Jorgensen.)
Josef Inwald Glass Co. (See Bagar, Franz, assignor.)
Joseph Mayer & Bros. (See Kuhn, Joseph, assignor.)
Joyner, Miles D., Savannah, Ga. Cross-head. No. 1,037,633; Sept. 3; Gas. vol. 182; p. 152.
Judd, Arthur C., New York, N. Y. Flexible packing for engine piston-rods and the like. No. 1,038,759; Sept. 17; Gas. vol. 182; p. 604.
Juruick, Maximilian F., New York, N. Y., assignor, by mesne assignments, to Electric Bank Protection Company, Burglar-alarm system. No. 1,038,594; Sept. 17; Gas. vol. 182; p. 546.
Kaefer, John, Hamilton, Ohio. Expanding reamer. No. 1,038,384; Sept. 10; Gas. vol. 182; p. 438.
Kallor, John N., assignor to Reeves & Company, Columbus, Ind. Corn-sheller feeder. No. 1,039,293; Sept. 24; Gas. vol. 182; p. 804.
Kaiser, Henry, New Holstein, Wis. Fruit-jar-cap sealer. No. 1,038,760; Sept. 17; Gas. vol. 182; p. 604.
Kalthoff, Albrecht, assignor to H. D. Berner & Winterbauer Company, New York, N. Y. Liquid-dispensing apparatus. No. 1,038,595; Sept. 17; Gas. vol. 182; p. 546.
Kampfe, Otto, New York, N. Y. Cover for vessels. No. 1,039,140; Sept. 24; Gaz. vol. 182; p. 748.
Karcher, Otto, Canton, Ohio. Lawn-trimmer. No. 1,037,634; Sept. 3; Gas. vol. 182; p. 153.
Kast, Edward R., Baltimore, Md. Calipering device for signature-gathering machines. No. 1,039,541; Sept. 24; Gas. vol. 182; p. 890.
Kastner, Macarius M., and C. Katz, London, England; said Katz assignor to said Kastner. Pneumatic piano-player and the like. No. 1,038,761; Sept. 17; Gas. vol. 182; p. 604.
Katz, Conrad. (See Kastner and Katz.)
Kavcewich, Charles. (See Stefanowitch, Lazar, assignor.)

Keagy, Martin L., Canton, Ohio. Embroidery-hoop. No. 1,039,141; Sept. 24; Gaz. vol. 182; p. 749.

Keanleyside, Thomas W., Bisbee, Ariz. Electric burglar-alarm. No. 1,039,142; Sept. 24; Gaz. vol. 182; p. 749.

Keans, John, Brooklyn, N. Y. Package-elevator. No. 1,037,835; Sept. 3; Gaz. vol. 182; p. 153.

Keith, George L. (See Eaton and Keith.)

Keiser, Lewis M. (See Coffee, Robert W., assignee.)

Keller, William B. (See Caldwell, Benjamin E., assignor.)

Kelley, Charles C., assignor by mesne assignments, to G. H. Allen, Los Angeles, Cal. Advertising device. No. 1,038,149; Sept. 10; Gaz. vol. 182; p. 288.

Kellogg, George W., assignor to Kellogg Manufacturing Company, Rochester, N. Y. Pressure-gage. No. 1,038,325; Sept. 10; Gaz. vol. 182; p. 438.

Kellogg, John K., Oakland, Cal. Glove-former. No. 1,038,596; Sept. 17; Gaz. vol. 182; p. 546.

Kellogg, Luke L., Fredonia, N. Y. Lock. No. 1,038,597; Sept. 17; Gaz. vol. 182; p. 547.

Kellogg Manufacturing Company. (See Kellogg, George W., assignor.)

Kellogg Switchboard & Supply Company. (See Webster, Harry G., assignor.)

Kells, Charles R., Jr., New Orleans, La. Lubricator No. 1,037,923; Sept. 10; Gaz. vol. 182; p. 284.

Kells, Charles R., Jr., New Orleans, La. Automobile-jack. No. 1,037,924; Sept. 10; Gaz. vol. 182; p. 284.

Kellum, Orlando E., Los Angeles, Cal. Valve mechanism for automobile-engines and the like. No. 1,038,598; Sept. 17; Gaz. vol. 182; p. 547.

Kelly, Charles. (See Elliott and Kelly.)

Kelly, James, Tula, Mich. Door-securing device. No. 1,038,227; Sept. 17; Gaz. vol. 182; p. 552.

Kelsey, Mark, Los Angeles, Cal. Producing patterns for castings, &c. No. 1,037,489; Sept. 3; Gaz. vol. 182; p. 102.

Kelso, Joseph, assignor to The McConway & Torley Company, Pittsburgh, Pa. Car-coupling. No. 1,037,490; Sept. 3; Gaz. vol. 182; p. 107.

Kennedy, George C., Waterloo, Iowa. Marble-gun. No. 1,037,362; Sept. 3; Gaz. vol. 182; p. 29.

Kennedy, James, St. Louis, Mo., assignor to The Dean Electric Company, Elyria, Ohio. Telephone system. No. 1,037,686; Sept. 3; Gaz. vol. 182; p. 154.

Kennon, Michael F., Newport, Ky. Steam-boiler. No. 1,037,770; Sept. 3; Gaz. vol. 182; p. 200.

Kenney, Thomas F. (See Matear, Kenney, and Woodhouse.)

Kennington, William O., Bloomfield, N. J., assignor to The Simms Magneto Co., Inc., New York, N. Y. Electrical connector. No. 1,039,542; Sept. 24; Gaz. vol. 183; p. 891.

Kennington, William O., Bloomfield, N. J., assignor to The Simms Magneto Co., Inc., New York, N. Y. High-tension magneto-electric machine. No. 1,039,543; Sept. 24; Gaz. vol. 182; p. 891.

Kent, Dana S., and W. A. Wercklé, Peoria, Ill. Nut-lock. No. 1,038,286; Sept. 10; Gaz. vol. 182; p. 439.

Kenyon, Clyde M. (See Briggs, Frank, assignor.)

Keragood, Herman, assignor to Alma Manufacturing Company of Baltimore City, Baltimore, Md. Snap-fastener cap. No. 1,037,268; Sept. 3; Gaz. vol. 182; p. 30.

Kessler, Richard Y., Morrisonville, Ill. Ditching-machine. No. 1,039,412; Sept. 24; Gaz. vol. 182; p. 844.

Ketchum, Seremus D., *et al.* (See Pickett, John B., assignor.)

Kettering, Charles F., Dayton, Ohio, assignor to The Dayton Engineering Laboratories Co. Ignition apparatus for explosive-motors. No. 1,037,491; Sept. 3; Gaz. vol. 182; p. 107.

Kettering, Charles F., Dayton, Ohio, assignor to The Dayton Engineering Laboratories Co. Ignition system. No. 1,037,492; Sept. 3; Gaz. vol. 182; p. 106.

Kettle River Company, The. (See Newton, Harold M., assignor.)

Keystone Furnace Construction Company. (See Knox, Luther L., assignor.)

Kibler, Walter, Indianapolis, Ind. Making lime-sulfur solution. No. 1,038,387; Sept. 10; Gaz. vol. 182; p. 439.

Kienker, William H., Richmond, Ind. Electrically-operable open-at-will elevator-gate mechanism. No. 1,037,637; Sept. 3; Gaz. vol. 182; p. 154.

Kiesig, Harry E., Sacramento, Cal. Closet attachment. No. 1,038,388; Sept. 10; Gaz. vol. 182; p. 439.

Kiesig, Oscar, assignor of one-half to C. F. Clark, Chicago, Ill. Tobacco-pipe. No. 1,037,493; Sept. 3; Gaz. vol. 182; p. 106.

Kilpatrick & Hotz Company, The. (See Peet, Wilbur G., assignor.)

Klipper, Rudolph, Houston, Tex. Hat-pouncing machine. No. 1,037,925; Sept. 10; Gaz. vol. 182; p. 285.

Kimmel, Frank W., Altoona, Pa. Combined pass-book and bill-file. No. 1,037,264; Sept. 3; Gaz. vol. 182; p. 30.

Kimmel, William A. (See Bernstrom, Thomas K., assignor.)

King, Eugene W., assignor to Semet-Solvay Company, Syracuse, N. Y. Retort-coke-oven system. No. 1,038,762; Sept. 17; Gaz. vol. 182; p. 605.

King, Jacob H., assignor to C. B. Miller, Piqua, Ohio. Roll-paper holder and cutter. No. 1,038,150; Sept. 10; Gaz. vol. 182; p. 289.

King, Mary H., executrix. (See King, Tom C.)

King, Tom C., deceased, East Orange, N. J.; M. H. King, executrix. Apparatus for heating and utilizing hydrochloric acid. No. 1,038,389; Sept. 10; Gaz. vol. 182; p. 440.

King, William C., assignor to International Manufacturing Company, Phillips, Me. Knife for cutting toothpicks. No. 1,037,494; Sept. 3; Gaz. vol. 182; p. 106.

King, William J., Grand Blanc, Mich. Bevel-protractor. No. 1,038,390; Sept. 10; Gaz. vol. 182; p. 440.

Kingman, James B., and H. J. Hopkins, Minneapolis, Minn. Piston-valve. No. 1,037,777; Sept. 3; Gaz. vol. 182; p. 200.

Kinne, Edmund P., Allianee, Ohio, assignor to American Steel Foundries, New York, N. Y. Car-axle coupling. No. 1,037,839; Sept. 10; Gaz. vol. 182; p. 288.

Kinnell, George B., Pittsfield, Mass. Overshoe. No. 1,038,391; Sept. 10; Gaz. vol. 182; p. 440.

Kirk-Latty Manufacturing Company, The. (See Stefel, William J., assignor.)

Kirkpatrick, Chas. D. (See Sheaffer, Oliver, assignor.)

Kirkpatrick, Clifford F. (See Kirkpatrick, Robbins, and Kirkpatrick.)

Kirkpatrick, Orville C., Dallas City, Ill. Bag-holder. No. 1,037,265; Sept. 3; Gaz. vol. 182; p. 30.

Kirkpatrick, William A., J. E. Robbins, and C. F. Kirkpatrick, Greensburg, Ind. Piano-bench. No. 1,037,266; Sept. 3; Gaz. vol. 182; p. 30.

Kirschner, Carl A., Solingen, Germany. Support for work-pieces for grinding helical concave surfaces in blades. No. 1,039,294; Sept. 24; Gaz. vol. 182; p. 804.

Kitsee, Isidor, assignor of one-half to W. J. Latta, Philadelphia, Pa. Telegraphy. No. 1,037,927; Sept. 10; Gaz. vol. 182; p. 285.

Kivell, Edward J., Newton, Mass. Ball-cock. No. 1,037,638; Sept. 3; Gaz. vol. 182; p. 155.

Kleber, Moritz. (See Lauf and Kleber.)

Klee, Heinrich, Klausthal, Germany. Manufacture of plates from fibrous substances like asbestos and hydraulic binding substances. No. 1,039,413; Sept. 24; Gaz. vol. 183; p. 845.

Kleemann, Georg, Stuttgart, Germany. Machine for making brushes. No. 1,038,763; Sept. 17; Gaz. vol. 183; p. 605.

Klein, Adolph. (See Willis, Donald R., assignor.)

Klein, Charles J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Lamp-socket. No. 1,038,151; Sept. 10; Gaz. vol. 182; p. 289.

Kleinewefers, Johannes, assignor to J. Kleinewefers Söhne, Krefeld, Germany. Revolver cotton-mercerizing machine. No. 1,038,152; Sept. 10; Gaz. vol. 182; p. 289.

Kleinewefers Söhne, Joh. (See Kleinewefers, Johannes, assignor.)

Kline, Albert H., assignor to Curtis and Jones Company, Reading, Pa. Shoe-lasting-pincer mechanism. No. 1,039,544; Sept. 24; Gaz. vol. 182; p. 892.

Kling, Louis A. (See Senter and Kling.)

Klusmeyer, Frederick C. W., assignor of one-half to L. Mayer, Mankato, Minn. Life-preserver. No. 1,037,495; Sept. 3; Gaz. vol. 182; p. 106.

Knapp, Frederick H., assignor to The Fred H. Knapp Company, Westminster, Md. Machine for applying labels to cans or the like. No. 1,038,153; Sept. 10; Gaz. vol. 182; p. 289.

Knapp, William J., Newburg, assignor to The Ohio Varnish Company, Cleveland, Ohio. Graining-tool. No. 1,037,639; Sept. 3; Gaz. vol. 182; p. 155.

Knause, John, assignor of one-half to C. O. Hays, Locust Corner, Ohio. Computing-table. No. 1,037,640; Sept. 3; Gaz. vol. 182; p. 156.

Knauss, Frank V., Portsmouth, Ohio. Rack-support. No. 1,037,928; Sept. 10; Gaz. vol. 183; p. 286.

Knight, Claude B., Cleveland, Ohio. Recreation-tower. No. 1,039,545; Sept. 24; Gaz. vol. 182; p. 892.

Knight, Eugene V., and C. B. Cassatt, New Albany, Ind. Mail-box. No. 1,039,546; Sept. 24; Gaz. vol. 182; p. 892.

Knight, Frank, New Haven, Conn. Door opening and closing mechanism. No. 1,037,267; Sept. 3; Gaz. vol. 182; p. 30.

Knight, Joel D., Lombardy, Miss. Spring-wheel. No. 1,038,764; Sept. 17; Gaz. vol. 182; p. 606.

Knight, John J. (See Straub, William B., assignor.)

Knight, William B. (See Crawford and Knight.)

Knobel, Abraham. (See Brewer and Knobel.)

Knoll and Company. (See Tambach, Rudolf, assignor.)

Knopp, Otto A., Oakland, assignor to Pacific Gas & Electric Company, San Francisco, Cal. Timing device. No. 1,038,596; Sept. 17; Gaz. vol. 182; p. 546.

Knox, Luther L., Avalon, Pa., assignor to The Knox Pressed & Welded Steel Company, Niles, Ohio. Furnace-door. No. 1,037,778; Sept. 3; Gaz. vol. 182; p. 201.

Knox, Luther L., Avalon, assignor to Keystone Furnace Construction Company, Pittsburgh, Pa. Regenerative reversing-furnace. No. 1,038,154; Sept. 10; Gaz. vol. 182; p. 861.

Knox Pressed & Welded Steel Company, The. (See Knox, Luther L., assignor.)

Knudsen, Jacob B., Chicago, Ill. Air-brake valve. No. 1,037,929; Sept. 10; Gaz. vol. 182; p. 286.

Koch, Gustav, New York, N. Y. Bottle-cap. No. 1,037,496; Sept. 3; Gaz. vol. 182; p. 109.

Koch, John, Jr., Brookline, Mass. Door-check. No. 1,037,641; Sept. 3; Gaz. vol. 182; p. 156.

Koechlin, Albert G., assignor to Spinnerei und Weberei Steinen A. G., Steinen, Germany. Automatic spool-changing apparatus for looms. No. 1,038,392; Sept. 17; Gaz. vol. 182; p. 552.



Koechlin, Albert G., assignor to Spinnerei und Weberei Steinen A. G., Steinen, Germany. Automatic spool-changing apparatus for looms. No. 1,039,547; Sept. 24; Gaz. vol. 182; p. 893.

Koehler, Gustave, Jr., Cincinnati, Ohio. Fluid-circulating indicator. No. 1,038,155; Sept. 10; Gaz. vol. 182; p. 861.

Kohn, Edmund P., Newark, N. J. Safety-catch for jewelry. No. 1,038,393; Sept. 10; Gaz. vol. 182; p. 441.

Kolko, Kibel, assignor to K. Takahashi, Seattle, Wash. Display apparatus. No. 1,038,899; Sept. 17; Gaz. vol. 182; p. 662.

Koken, Walter F., St. Louis, Mo. Head-rest lock. No. 1,039,414; Sept. 24; Gaz. vol. 182; p. 845.

Koller, Gustav, Forest Gate, England. Organic-chlorocompound soaps and cleansing compositions. No. 1,038,900; Sept. 17; Gaz. vol. 182; p. 663.

Kolsky, George, New York, N. Y. Oxidising or reducing chemical substances by way of electrolysis. No. 1,039,415; Sept. 24; Gaz. vol. 182; p. 845.

Koopman, Charles J., Middletown, Cal. Resilient tire. No. 1,037,642; Sept. 3; Gaz. vol. 182; p. 157.

Koppmann, Julius, Groveland township, Tazewell county, Ill. Cooker. No. 1,038,893; Sept. 10; Gaz. vol. 182; p. 441.

Kowalsky, Andrew, Chicago, Ill. Molding-machine. No. 1,039,143; Sept. 24; Gaz. vol. 182; p. 749.

Kraemer, William, Ripley, Ohio. Apparatus for delivering and receiving mail. No. 1,038,600; Sept. 17; Gaz. vol. 182; p. 548.

Krall Károly, New York, N. Y. Sliding drawer. No. 1,039,548; Sept. 24; Gaz. vol. 182; p. 893.

Krangnes, Nels E., assignor of one-half to O. Miller, Porter, Minn. Draft-equalizer. No. 1,037,930; Sept. 10; Gaz. vol. 182; p. 287.

Kranich, Helene B. (See Kranich, Victor, assignor.)

Kranich, Victor, assignor to H. B. Kranich, New York, N. Y. Pneumatic piano-action. No. 1,038,601; Sept. 17; Gaz. vol. 182; p. 548.

Kranz, Carl. (See Beilstein, William, assignor.)

Kranzberg, Benjamin. (See Lyles and Kranzberg.)

Kränzlein, Georg. (See Schmidt and Kränzlein.)

Kratofil, John, Chicago, Ill. Safety device for air-craft. No. 1,039,295; Sept. 24; Gaz. vol. 182; p. 804.

Kreidler, Anton, Stuttgart, Germany. Device for annealing metallic articles. No. 1,038,901; Sept. 17; Gaz. vol. 182; p. 654.

Kremer, Caroline, Gulfport, Miss. Shirt. No. 1,039,144; Sept. 24; Gaz. vol. 182; p. 750.

Krucsynski, Mike, Elyria, Ohio. Electric rat-trap. No. 1,038,902; Sept. 17; Gaz. vol. 182; p. 654.

Krumming, Reinhold, Milwaukee, Wis. Binder or holder for sheets or pads. No. 1,039,296; Sept. 24; Gaz. vol. 182; p. 805.

Kruse, John F., Denver, Colo. Portable vapor-bath cabinet. No. 1,038,394; Sept. 10; Gaz. vol. 182; p. 441.

Krutsch, Willis W., assignor of one-fourth to C. O. Ross and one-fourth to M. S. Shuffin, Coffeyville, Kans. Vehicle-wheel. No. 1,037,931; Sept. 10; Gaz. vol. 182; p. 287.

Kuensel, Charles A., Buena Vista, Colo. Airship. No. 1,038,602; Sept. 17; Gaz. vol. 182; p. 549.

Kuensel, Charles A., Buena Vista, Colo. Gas-generator. No. 1,039,549; Sept. 24; Gaz. vol. 182; p. 893.

Kuhl, Albert F., Van Wert, Ohio. Mechanical toy. No. 1,038,603; Sept. 17; Gaz. vol. 182; p. 549.

Kuhn, Frank, and F. E. Shailor, assignors to American Electrical Heater Company, Detroit, Mich. Electric heater. No. 1,037,932; Sept. 10; Gaz. vol. 182; p. 287.

Kuhn, Joseph, assignor to Joseph Mayer & Bros., Seattle, Wash. Driving mechanism for clocks. No. 1,037,643; Sept. 3; Gaz. vol. 182; p. 157.

Kuhn, Max, and R. Netter, New York, N. Y.; said Netter assignor to said Kuhn. Taximeter. No. 1,039,416; Sept. 24; Gaz. vol. 182; p. 845.

Kummer, John W., and G. Jorgensen, Vancouver, British Columbia, Canada. Means for securing rails to ties. No. 1,039,417; Sept. 24; Gaz. vol. 182; p. 846.

Kumming, Emil A. (See Smith and Kumming.)

Kunkel, Albert R., Palestine, Tex. Apparatus for burning fuel-oil. No. 1,039,297; Sept. 24; Gaz. vol. 182; p. 805.

Kurda, Karl, Charlottenburg, assignor to Siemens-Schuckert Werke G. m. b. H., Berlin, Germany. Step-by-step insulation for electric conductors or the like. No. 1,039,298; Sept. 24; Gaz. vol. 182; p. 806.

Kurre, August, Brooklyn, N. Y. Egg-marking attachment for hens. No. 1,037,644; Sept. 3; Gaz. vol. 182; p. 157.

Kurshеedt, Alphonse H. (See Groebl, Joseph A., assignor.)

Kurszewskey, Albert, Nanticoke, Pa. Rail-joint. No. 1,038,156; Sept. 10; Gaz. vol. 182; p. 861.

Kuschauch, Anton, Pittsburgh, Pa., assignor to Nernst Lamp Company, Means for holding globes. No. 1,037,779; Sept. 3; Gaz. vol. 182; p. 201.

Kuhel, Hans, Baden near Vienna, Austria-Hungary, assignor to General Electric Company, Manufacturing incandescence bodies. No. 1,037,283; Sept. 3; Gaz. vol. 182; p. 31.

Kyle, Elmer L. (See Matthews and Kyle.)

La Batt, William D. (See Swett and La Batt.)

La Chance, Leander H., assignor to Chicago Flexible Shaft Company, Chicago, Ill. Animal-shears. No. 1,037,933; Sept. 10; Gaz. vol. 182; p. 288.

La Cour, Carl, Hubbard, Iowa. Resilient metal wheel-rim. No. 1,038,903; Sept. 17; Gaz. vol. 182; p. 654.

La Crosse Plow Company. (See Cameron, William W., assignor.)

Labecki, Leopold, Perth Amboy, N. J. Trap. No. 1,039,299; Sept. 24; Gaz. vol. 182; p. 806.

Lachman, Laurence S., New York, assignor to Universal Electric Welding Company, Long Island City, N. Y. Electric welding. No. 1,038,604; Sept. 17; Gaz. vol. 182; p. 549.

Lackner, Frederick, assignor to Neely Nut and Bolt Company, Pittsburgh, Pa. Nut-machine. No. 1,039,145; Sept. 24; Gaz. vol. 182; p. 750.

Ladesman, Otto T., Milwaukee, Wis., assignor to Railway Telephone & Electric Company, Chicago, Ill. Composite system. No. 1,038,605; Sept. 17; Gaz. vol. 182; p. 549.

Lafreniere, Edward, Lynn, Mass. Protecting-cover for shoes. No. 1,038,395; Sept. 10; Gaz. vol. 182; p. 442.

Lake, Golladay, Cleveland, Ohio. Gas-heater. No. 1,038,157; Sept. 10; Gaz. vol. 182; p. 862.

Lake Torpedo Boat Company, The. (See Peacock, Edward L., assignor.)

Lamar, Alexis L., assignor to W. and J. Barbee, Pittsburg, Kans. Baling-press. No. 1,038,904; Sept. 17; Gaz. vol. 182; p. 655.

Lamb, Charles C., Joliet, assignor of forty-nine one-hundredths to W. M. McEwen, Chicago, Ill. Attachment for cameras. No. 1,037,934; Sept. 10; Gaz. vol. 182; p. 288.

Lambie, Frank D. (See Stretch, Joseph, assignor.)

Lambrias, George. (See McDonner, Charley, assignor.)

Lamfrom, Leon B., *et al.* (See Wiese, Theodore L., assignor.)

Landgren, Frank L., New York, N. Y. Coffee-urn. No. 1,037,280; Sept. 3; Gaz. vol. 182; p. 31.

Landers, Emmet I., Troutville, Va. Scalding apparatus. No. 1,039,300; Sept. 24; Gaz. vol. 182; p. 807.

Landes and Gyr. (See Gyr, Karl H., assignor.)

Landon, Ransom G., *et al.* (See Graham, Andrew W., assignor.)

Lange, Herman H., Mason City, Ill. Railway-splice. No. 1,038,905; Sept. 17; Gaz. vol. 182; p. 655.

Langford, James M., Mulberry, Fla. Pipe-coupling. No. 1,038,396; Sept. 10; Gaz. vol. 182; p. 442.

Lanier, James S., West Point, Ga., assignor, by mesne assignments, to International Mail Equipment Co. Mail receiving and delivering apparatus. No. 1,037,497; Sept. 3; Gaz. vol. 182; p. 109.

Lanier, James S., West Point, Ga., assignor, by mesne assignments, to International Mail Equipment Co. Mail receiving and delivering apparatus. No. 1,037,498; Sept. 3; Gaz. vol. 182; p. 110.

Laning, Carl E., assignor of one-half to B. Thurber, Gloversville, N. Y. Non-refillable bottle. No. 1,039,146; Sept. 24; Gaz. vol. 182; p. 750.

Lanning, Howard H., assignor of one-half to H. W. Jacobs, Topeka, Kans. Welding-burner. No. 1,038,765; Sept. 17; Gaz. vol. 182; p. 606.

Lassiter, Columbus K., and F. E. Boccorselski, Richmond, Va. Tool-holder. No. 1,038,158; Sept. 10; Gaz. vol. 182; p. 862.

Latta, Emmit G., assignor of one-half to H. A. Moyer, Syracuse, N. Y. Type-writing machine. No. 1,038,606; Sept. 17; Gaz. vol. 182; p. 655.

Latta, Emmit G., assignor of one-half to H. A. Moyer, Syracuse, N. Y. Type-writing machine No. 1,038,607; Sept. 17; Gaz. vol. 182; p. 656.

Latta, William J. (See Kitsee, Isidor, assignor.)

Laudig, Oscar O., *et al.* (See Stewart, James D., assignor.)

Lauf, Hans, and M. Kleber, Magdeburg, Germany; said Kleber assignor to said Lauf. Turret-lathe. No. 1,037,935; Sept. 10; Gaz. vol. 182; p. 288.

Laun, Christian F., assignor to Berbecker & Rowland Manufacturing Company, Waterville, Conn. Curtain-support. No. 1,037,936; Sept. 10; Gaz. vol. 182; p. 288.

Lant, George. (See Miller, George R., assignor.)

Lawlor, Michael W., Needham Heights, Mass. Poultry-feeder. No. 1,038,766; Sept. 17; Gaz. vol. 182; p. 606.

Lawrence, George R., assignor to The W. W. Sly Manufacturing Company, Cleveland, Ohio. Machine for circling metal blanks. No. 1,038,606; Sept. 17; Gaz. vol. 182; p. 550.

Lawrence Manufacturing Company. (See Paquette, Exilias, assignor.)

Lawson, Lindley S., assignor to Lawson Manufacturing Company, Homestead, Pa. Thermostatic valve. No. 1,038,159; Sept. 10; Gaz. vol. 182; p. 862.

Lawson Manufacturing Company. (See Lawson, Lindley S., assignor.)

Lawson, Welcome H., Poughkepsie, N. Y. Centrifugal separator. No. 1,038,607; Sept. 17; Gaz. vol. 182; p. 550.

Lawyer, Frank G., assignor of one-half to W. A. Wheeler, Iola, Kans. Elevator-bucket. No. 1,038,608; Sept. 17; Gaz. vol. 182; p. 551.

Laycock, Arthur M., Detroit, Mich. Internal-combustion engine. No. 1,038,767; Sept. 17; Gaz. vol. 182; p. 606.

Layne, Mahlon F., Houston, Tex. Well mechanism. (Reissue.) No. 13,467; Sept. 24; Gaz. vol. 182; p. 893.

Le Compte Company, The. (See Le Compte, Louis and J., assignors.)

Le Compte, Joseph. (See Le Compte, Louis and J.)

Le Compte, Louis and J., Aurora, assignors, by mesne assignments, to The Le Compte Company, Chicago, Ill. Car, hose, and electric-wire coupling. No. 1,039,147; Sept. 24; Gas. vol. 182; p. 750.

Leafgren, Andrew. (See Edlund and Leafgren.)

Leahy, Michael J., Waterville, Me. Builder for ring-spinning frames. No. 1,037,645; Sept. 3; Gas. vol. 182; p. 157.

Leaver, James M., Longbeach, Cal. Dry-kiln for lumber. No. 1,039,301; Sept. 24; Gas. vol. 182; p. 807.

Leaver, James M., Longbeach, Cal. Dry-kiln for lumber. No. 1,039,302; Sept. 24; Gas. vol. 182; p. 807.

Lebherz, Christian, Oberstenfeid, Germany. Regulating device for automobiles. No. 1,037,937; Sept. 10; Gas. vol. 182; p. 289.

Lechtenberg, Henry, Quincy, Ill. Crusher. No. 1,039,062; Sept. 17; Gas. vol. 182; p. 704.

Lecoutre, Auguste J., Worcester, Mass., assignor to Royal Worcester Corset Company. Front steels on corsets. No. 1,037,499; Sept. 3; Gas. vol. 182; p. 110.

Lederer, George J. (See Falter and Lederer.)

Ledoux, John W., Swarthmore, Pa. Fluid-meter. No. 1,038,768; Sept. 17; Gas. vol. 182; p. 607.

Lee, George H., Omaha, Nebr. Regulator for chicken-incubators. No. 1,039,550; Sept. 24; Gas. vol. 182; p. 894.

Lefkowitz, Isaac, New York, N. Y. Lady's dress. No. 1,037,270; Sept. 3; Gas. vol. 182; p. 31.

Leggett, Rose M., assignor of one-fourth to M. J. Fritz, one-fourth to F. I. Cornwell, and one-fourth to T. F. Hutsel, Ann Arbor, Mich. Osoniser. No. 1,037,500; Sept. 3; Gas. vol. 182; p. 110.

Lehmann, Ludwig W. (See Böttcher and Lehmann.)

Lehne, Josef, Charlottenburg, assignor to Internationale Rotations-Maschinen-Gesellschaft m. b. H., Berlin, Germany. Rotary pump. No. 1,038,769; Sept. 17; Gas. vol. 182; p. 606.

Lehr, Charles E. (See Diefenderfer, Victor J., assignor.)

Leibson, Israel B., New York, N. Y. Actuating device. No. 1,037,271; Sept. 3; Gas. vol. 182; p. 31.

Leinert, Charles H., Chicago, Ill. Apparatus for refrigerating and drying gases. No. 1,039,148; Sept. 24; Gas. vol. 182; p. 751.

Leinert, Charles H., Chicago, Ill. Refrigerating and drying gases. No. 1,039,149; Sept. 24; Gas. vol. 182; p. 751.

Lembke, Frank T., Grand Forks, N. D. Dough-raiser. No. 1,039,551; Sept. 24; Gas. vol. 182; p. 894.

Lemieux, George, Washburn, Wis. Sawmill-carriage. No. 1,038,609; Sept. 17; Gas. vol. 182; p. 551.

Lenahan, Michael. (See Miller, Cornelius, assignor.)

Lend, John, assignor, by mesne assignments, to S. C. McKnight, Chicago, Ill. Armored pneumatic tire. No. 1,039,063; Sept. 17; Gas. vol. 182; p. 704.

Lenst, Paul. (See Courson, Cornelius F., assignor.)

Leonard, Elof R., Woodcliff, N. J. Metal window-frame. No. 1,038,160; Sept. 10; Gas. vol. 182; p. 363.

Leonard, Henry R., Wayne, Pa. Making hollow reinforced-concrete ties. No. 1,039,552; Sept. 24; Gas. vol. 182; p. 894.

Leonard, Marshal L., assignor of one-sixth to G. W. Stephens and one-sixth to W. C. Blanchard, Nida, Okla. Rail-joint. No. 1,038,908; Sept. 17; Gas. vol. 182; p. 656.

Lessing, John F., St. Joseph, Mich. Folding blind. No. 1,037,938; Sept. 10; Gas. vol. 182; p. 280.

Leukart, Jacob, Columbus, Ohio. Mortising-machine. No. 1,037,939; Sept. 10; Gas. vol. 182; p. 289

Leveen, Joseph, and M. L. Ashbaugh, Anderson, Ind. Electric cigar-lighter. No. 1,039,553; Sept. 24; Gaz. vol. 182; p. 895.

Levien, Louis, New York, N. Y., and C. B. Duncan, Neshanic Station, N. J.; said Duncan assignor to said Levien. Apparatus for fire-polishing glassware. No. 1,038,909; Sept. 17; Gas. vol. 182; p. 656.

Levings, William S., Minneapolis, Minn. Lamp. No. 1,038,161; Sept. 10; Gas. vol. 182; p. 363.

Levy, Solomon J., San Francisco, Cal. Low-hung motor-truck. No. 1,038,162; Sept. 10; Gas. vol. 182; p. 363.

Levsow, Hans. (See Gradenwitz, Vollbrecht, and Levsow.)

Lewis, Benjamin F. and J. W., Hartland, Kans. Pusher attachment for hay-rakes. No. 1,038,163; Sept. 10; Gas. vol. 182; p. 364.

Lewis, George T., St. Louis, Mo. Safe. No. 1,037,940; Sept. 10; Gas. vol. 182; p. 290.

Lewis, John W. (See Lewis, Benjamin F. and J. W.)

Lewis, Rudolph, and J. Straka, Kansas City, Mo. Pencil-holder. No. 1,037,646; Sept. 3; Gas. vol. 182; p. 158.

Lewis, William M. (See Bigsby and Lewis.)

Lieben, Robert von, and E. Reisz, assignors of one-third to S. Strauss, Vienna, Austria-Hungary. Relay for undulatory currents. No. 1,038,910; Sept. 17; Gas. vol. 182; p. 657.

Ligon, Harry W., Atlanta, Ga., assignor to Continental Gin Company, Birmingham, Ala. Metal spacer for gin-saws. No. 1,038,911; Sept. 17; Gas. vol. 182; p. 657.

Lillie, Samuel M., Philadelphia, Pa. Apparatus for the continuous conversion of starch into glucose and other derivatives. No. 1,038,397; Sept. 10; Gas. vol. 182; p. 442.

Lincoln Architectural Iron Company. (See Rothrock, Samuel W., assignor.)

Lincoln, John C., East Cleveland, assignor to The Electric Meat Curing Company, Cleveland, Ohio. Apparatus for curing meat. No. 1,037,941; Sept. 10; Gas. vol. 182; p. 291.

Lindeburg, Fredrick G. (See Schmidgall and Barnewolt, assignors.)

Lindenberg, Herman, West Hoboken, N. J. Rotary engine. No. 1,038,396; Sept. 10; Gas. vol. 182; p. 448.

Lindhorst, Edward H. B., Butte, Mont. Flag-holder for automobiles. No. 1,039,554; Sept. 24; Gas. vol. 182; p. 895.

Lindley, Frederick R., Corsicana, Tex. Removable mouthpiece for smoking-pipes. No. 1,037,780; Sept. 3; Gas. vol. 182; p. 201.

Lindquist, David L., Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Electromagnet. No. 1,038,610; Sept. 17; Gas. vol. 182; p. 551.

Lindsay, Thomas E., Jackson, Tenn. Drinking-fountain. No. 1,038,399; Sept. 10; Gas. vol. 182; p. 443.

Lindsay, William G., New York, N. Y. Bottle. No. 1,037,272; Sept. 3; Gas. vol. 182; p. 32.

Lindström, Gustaf H., assignor to Pitkroy Tanning Company Limited, New Plymouth, New Zealand. Tanning. No. 1,039,150; Sept. 24; Gas. vol. 182; p. 752.

Linsmeyer, Johann A., Vienna, Austria-Hungary. Aerial torpedo. No. 1,038,400; Sept. 10; Gas. vol. 182; p. 444.

Linstrom, Nicholas A., *et al.* (See Adams, Edwin L., assignor.)

Lippert, Henry, Clairton, Pa. Rail-joint. No. 1,037,501; Sept. 3; Gas. vol. 182; p. 111.

Lipscomb, David T. and G. F., Junior, W. Va.; said G. F. Lipscomb assignor to said David T. Lipscomb. Ashpan. No. 1,037,273; Sept. 3; Gas. vol. 182; p. 32.

Lipscomb, Gilbert F. (See Lipscomb, David T. and G. F.)

Lipson, Samuel, Saugus, assignor of one-third to H. Rosenburg and one-third to J. Rosenburg, Boston, Mass. Garment-cementing machine. No. 1,039,681; Sept. 24; Gas. vol. 182; p. 939.

Lisch, Jacob J., assignor of one-half to F. J. Geverts and one-half to K. McCann, Bellevue, Ky. Governor. No. 1,039,151; Sept. 24; Gas. vol. 182; p. 752.

Livermore, Arthur C., Edgewood Park, assignor to The Union Switch & Signal Company, Swissvale, Pa. Apparatus for controlling the passage of vehicles along a railway. No. 1,039,418; Sept. 24; Gas. vol. 182; p. 847.

Livermore, Arthur C., Edgewood Park, assignor to The Union Switch & Signal Company, Swissvale, Pa. Dashpot. No. 1,039,555; Sept. 24; Gas. vol. 182; p. 895.

Livingston, Henry S. (See Lynch, Thomas J., assignor.)

Lobb, Una, Philadelphia, Pa. Device for removing eyes from potatoes, pineapples, &c. No. 1,038,164; Sept. 10; Gas. vol. 182; p. 364.

Lobsitz, Albert H. (See Howard and Lobsitz.)

Locke, Nathaniel C., Salem, Mass., assignor of two-thirds to T. French, Rumford, Me. Indicator. No. 1,038,770; Sept. 17; Gas. vol. 182; p. 606.

Lockwood, Arthur R., Spokane, Wash. Electric fixture. No. 1,039,556; Sept. 24; Gaz. vol. 182; p. 896.

Locomotive Tender Frame Company. (See Howard, Clarence H., assignor.)

Loe, Syver, Minneapolis, Minn., assignor of two-thirds to J. W. Walker, Pittsburgh, Pa. Multiplex voting-machine. No. 1,039,419; Sept. 24; Gas. vol. 182; p. 847.

Loerke, Anthony B., Menasha, Wis. Sausage-case turner. No. 1,038,912; Sept. 17; Gas. vol. 182; p. 658.

Loftus, Nicholas. (See Proctor, Loftus, and Anderson.)

Logan, Charles E. (See Evans and Logan.)

Loiseau, Edmond and G., Paris, France. Spring-link for bracelets or extensible chains. No. 1,037,274; Sept. 3; Gas. vol. 182; p. 32.

Loiseau, Georges. (See Loiseau, Edmond and G.)

London, William J. A., assignor to The Terry Steam Turbine Company, Hartford, Conn. Steam-turbine packing-gland. No. 1,037,647; Sept. 3; Gas. vol. 182; p. 158.

Long, John R., East Akron, Ohio. Pipe-reamer. No. 1,038,913; Sept. 17; Gas. vol. 182; p. 658.

Long, John R., East Akron, Ohio. Pipe-reaming machine. No. 1,038,914; Sept. 17; Gas. vol. 182; p. 658.

Long, Robert W., and G. Buress, Indianapolis, Ind.; said Buress assignor to said Long. Starting device for internal-combustion engines. No. 1,038,401; Sept. 10; Gas. vol. 182; p. 444.

Long, Williard O., Mansfield, Ohio, assignor to Stoughton Wagon Company, Stoughton, Wis. Harrow attachment. No. 1,039,152; Sept. 24; Gas. vol. 182; p. 752.

Longdon, Alexander P., Pittsburgh, assignor of one-fourth to A. A. Sloane and one-fourth to E. Longdon, Allegheny county, Pa. Broom-bundling machine. No. 1,037,781; Sept. 3; Gas. vol. 182; p. 202.

Longdon, Mary E., *et al.* (See Longdon, Alexander P., assignor.)

Lorey, Joseph, San Quentin, assignor of one-half to L. Mordaunt, Los Angeles, Cal. Handcuff. No. 1,038,492; Sept. 10; Gas. vol. 182; p. 476.

Lotridge, Clinton A., West Point, Ark. Mail-bag deliverer. No. 1,037,942; Sept. 10; Gas. vol. 182; p. 291.

Loughran, Thomas F., *et al.* (See Penfield, James C. and J. N., assignors.)

Loving, Roy E., Center, Tex. Photographic-printing machine. No. 1,038,771; Sept. 17; Gas. vol. 182; p. 608.

Lowe, Wallace W., Byron, Ga. Planter. No. 1,038,611; Sept. 17; Gas. vol. 182; p. 552.

Lowell, Joseph B., Everett, Mass. Apparatus for locking car-doors. No. 1,037,502; Sept. 3; Gas. vol. 182; p. 111.





Lowry, George A., Pawtucket, R. I. Engine. No. 1,038,612; Sept. 17; Gas. vol. 182; p. 552.

Lowry, Wade H., Jacksonville, Fla. Aero safety device. No. 1,037,943; Sept. 10; Gas. vol. 182; p. 291.

Lowy, Otto, Newark, N. J. Safety gas-burner. No. 1,038,772; Sept. 17; Gas. vol. 182; p. 609.

Loyd, George, Fort Wayne, Ind. Adjustable measure. No. 1,039,153; Sept. 24; Gas. vol. 182; p. 752.

Lucas, Charles O., Dayton, Ohio. Pump construction. No. 1,039,154; Sept. 24; Gas. vol. 182; p. 753.

Lucas, George W., Newport, Ark. Water-jacket spark finder and extinguisher. No. 1,037,944; Sept. 10; Gas. vol. 182; p. 292.

Lucas, Valentine. (See Puckett and Lucas.)

Lüdecke, Georg, assignor to Wolfram Lampen Aktien-Gesellschaft, Augsburg, Germany. Metal-filament incandescent lamp. No. 1,038,613; Sept. 17; Gas. vol. 182; p. 552.

Ludwick, Wayne D., near Tacoma, assignor of fifty-one one-hundredths to H. Hewitt, Jr., Tacoma, Wash. Electric melting-furnace. No. 1,038,614; Sept. 17; Gas. vol. 182; p. 553.

Ludwig Hupfeld Aktiengesellschaft. (See Hennig, Gustav K., assignor.)

Luecke, Paul W., Roselle, Ill. Hitching-strap. No. 1,037,782; Sept. 3; Gas. vol. 182; p. 202.

Lumiere, Louis, Lyon, France. Acoustical instrument. No. 1,039,155; Sept. 24; Gas. vol. 182; p. 753.

Luppert, Valentine C., Williamsport, Pa. Drawer-stop. No. 1,039,557; Sept. 24; Gas. vol. 182; p. 896.

Lutters, Frederick A., New York, N. Y. Mellowing compound for liquors. No. 1,037,783; Sept. 3; Gas. vol. 182; p. 202.

Lyback, Peter J., Chicago, Ill. Ditching-machine. No. 1,038,915; Sept. 17; Gas. vol. 182; p. 658.

Lyles, Henry M., and B. Kransberg, St. Louis, Mo. Manufacture of clothing. No. 1,037,945; Sept. 10; Gas. vol. 182; p. 292.

Lynch, Daniel E. (See Coyle and Lynch.)

Lynch, Thomas J., assignor of one-half to himself and one-half to H. S. Livingston, New York, N. Y. Dandruff remedy. No. 1,039,064; Sept. 17; Gas. vol. 182; p. 704.

Lynchburg Foundry Company. (See Wiley, Edgar C., assignor.)

Lyng, John J., assignor to Western Electric Company, New York, N. Y. Plug-switch. No. 1,039,156; Sept. 24; Gas. vol. 182; p. 753.

Lyon, Gustave F., Paris, France. Harp. No. 1,039,303; Sept. 24; Gas. vol. 182; p. 808.

Lyons, Cassius H., Portland, Ind. Hay-loader. No. 1,039,558; Sept. 24; Gas. vol. 182; p. 896.

M. D. Knowlton Company. (See Brockway, Herbert L., assignor.)

M. D. Knowlton Company. (See De Smith, Henry, assignor.)

M. H. Treadwell Company. (See Astrom, Carl P., assignor.)

Maas, Theodor, Berlin-Grunewald, Germany. Gage-glass for boilers and the like. No. 1,039,559; Sept. 24; Gas. vol. 182; p. 896.

MacDonald, James A., Boston, Mass. Angle attachment for dental handpieces. No. 1,039,420; Sept. 24; Gaz. vol. 182; p. 847.

MacEwan, Norman E. (See Natt, Charles A., assignor.)

MacIndoe, John F., Philadelphia, Pa., assignor to American Engineering & Manufacturing Company. Device for lubricating elevator guide-rails. No. 1,038,165; Sept. 10; Gas. vol. 182; p. 364.

MacLachlan, John C., Chicago, Ill. Desiccating apparatus. No. 1,038,773; Sept. 17; Gas. vol. 182; p. 609.

MacLeod, Donald M. (See Riddick and MacLeod.)

MacPhee, Anderson, New York, N. Y. Temperature-controlling apparatus. No. 1,038,402; Sept. 10; Gas. vol. 182; p. 444.

MacWilliam, James F., Hubbardston, Mass. Picker-operating device. No. 1,038,166; Sept. 10; Gas. vol. 182; p. 364.

Mackintosh, John, Paisley, Scotland. Telemotor-gear. No. 1,039,157; Sept. 24; Gas. vol. 182; p. 753.

Macon, John. (See Berry and Macon.)

Macrae, Roderick, Chicago, Ill. Electric vehicle. No. 1,038,616; Sept. 17; Gas. vol. 182; p. 553.

Madden, Patrick J., Chicago, Ill. Drinking-fountain. No. 1,038,916; Sept. 17; Gas. vol. 182; p. 659.

Maddox, William T., Alexandria, La. Buggy or wagon greaser. No. 1,038,917; Sept. 17; Gas. vol. 182; p. 659.

Madigan, Patrick J., and J. Rehak, Chicago, Ill. Post-marking-machine. No. 1,039,560; Sept. 24; Gas. vol. 182; p. 897.

Maertens, Emile, Providence, R. I. Making metal tubes and similar articles. No. 1,039,005; Sept. 17; Gas. vol. 182; p. 704.

Mahieu, Hilaire, New York, N. Y. Glove. No. 1,037,946; Sept. 10; Gas. vol. 182; p. 292.

Maihak, Firm of H. (See Böttcher and Lehmann, assignors.)

Maitland, George, Detroit, Mich. Vacuum-cleaner. No. 1,038,167; Sept. 10; Gas. vol. 182; p. 364.

Malacina, Maciej. (See Olas, Blasej, assignor.)

Mallory, Dwight F., *et al.* (See Vogt, Jesse S., assignor.)

Maloney, John R. (See Babcock, Frank A., assignor.)

Mancini, Vincenzo, Schenectady, N. Y. Detachable horseshoe. No. 1,037,947; Sept. 10; Gas. vol. 182; p. 292.

Mangin, Edward C., Colorado Springs, Colo. Miner's lamp. No. 1,037,948; Sept. 10; Gas. vol. 182; p. 293.

Mangold, Peter C., Carrolltown, Pa. Lock. No. 1,039,156; Sept. 24; Gas. vol. 182; p. 754.

Manhattan Briar Pipe Company. (See Glossinger, John, assignee.)

Manierre, George, assignor to Tichnor-Manierre Company, Milwaukee, Wis. Loading-machine. No. 1,037,784; Sept. 3; Gas. vol. 182; p. 202.

Mankey, Vernon H., Aberdeen, S. D. Head-rest. No. 1,038,403; Sept. 10; Gas. vol. 182; p. 445.

Mann, Albert H., Sundance, Wyo. Stilt. No. 1,037,508; Sept. 3; Gas. vol. 182; p. 111.

Mann, Charles A., Cincinnati, Ohio. Machine for honing and stropping razors and razor-blades. No. 1,039,561; Sept. 24; Gas. vol. 182; p. 897.

Manny, Fred L., Benton Harbor, Mich., assignor to Metal Sectional Furniture Company, Portland, Me. Binder-frame. No. 1,038,616; Sept. 17; Gas. vol. 182; p. 554.

Manny, Fred L., Benton Harbor, Mich., assignor of one-half to C. W. Haas, Chicago, Ill. Computing-machine. No. 1,038,774; Sept. 17; Gas. vol. 182; p. 610.

Manson, Ray H., assignor to The Dean Electric Company, Elyria, Ohio. Telephone-exchange system. No. 1,038,617; Sept. 17; Gas. vol. 182; p. 554.

Manville, Robert C. (See Dorman and Manville.)

Marble, George W., Chicago, Ill., assignor to Stephenson Motor Truck Company, Milwaukee, Wis. Power-transmission device. No. 1,038,918; Sept. 17; Gas. vol. 182; p. 660.

Marcus, Martin H., Yonkers, N. Y., assignor to Johnson & Johnson, New Brunswick, N. J. Apparatus for making sanitary napkins. No. 1,038,493; Sept. 10; Gas. vol. 182; p. 476.

Marguet, Lucien, Rioupéroux, Isère, France. Construction and means of operation of pulp-straining drums for paper-making machines. No. 1,038,919; Sept. 17; Gas. vol. 182; p. 660.

Marin, Eric G., Syracuse, N. Y. Automatic cut-off for gas. No. 1,037,275; Sept. 3; Gas. vol. 182; p. 33.

Markham, Charles F., Providence, R. I. Pin. No. 1,038,618; Sept. 17; Gas. vol. 182; p. 555.

Maroni, Joseph F., Montpelier, Vt. Polishing-machine. No. 1,038,404; Sept. 10; Gas. vol. 182; p. 446.

Marris, Clarence O., Akron, Ohio. Globe-holder. No. 1,037,276; Sept. 3; Gas. vol. 182; p. 33.

Marschall, Adolf J., Madison, Wis. Bonnet-package and making same. No. 1,038,920; Sept. 17; Gas. vol. 182; p. 661.

Marshall, James E., New York, N. Y. Flying-machine. No. 1,038,168; Sept. 10; Gas. vol. 182; p. 365.

Marshall, John B., San Francisco, Cal. Sprayer for fire-hose and the like. No. 1,037,785; Sept. 3; Gas. vol. 182; p. 203.

Martin, Andrew, Moosic, Pa. Hanger-support. No. 1,037,277; Sept. 3; Gas. vol. 182; p. 33.

Martin, Charles E., Hammond, Ind. Tufting-machine. No. 1,037,786; Sept. 3; Gas. vol. 182; p. 203.

Martin, Frank, assignor of one-half to M. Di Bella, Renova, Pa. Locomotive. No. 1,039,304; Sept. 24; Gas. vol. 182; p. 808.

Martin, George C., Los Angeles, Cal. Shock-absorber. No. 1,039,305; Sept. 24; Gaz. vol. 182; p. 809.

Martin, J. D. (See Miller, John W., assignor.)

Martin, John R., St. Louis, Mo. Aeroplane. No. 1,037,278; Sept. 3; Gas. vol. 182; p. 34.

Martin, Robert H., Newark, N. J., assignor to W. D. Walbridge, New York, N. Y. Rotary engine. No. 1,039,562; Sept. 24; Gas. vol. 182; p. 898.

Martin, William E., Stamford, England. Carbureter. No. 1,038,921; Sept. 17; Gas. vol. 182; p. 661.

Martino, Natale, New York, N. Y. Life-preserver. No. 1,037,279; Sept. 3; Gas. vol. 182; p. 34.

Marvel James, New Bedford, Mass. Loom-temple. No. 1,038,169; Sept. 10; Gas. vol. 182; p. 365.

Marzak, Frank, College Point, N. Y. Knife. No. 1,037,648; Sept. 3; Gas. vol. 182; p. 158.

Maschinenfabrik Moenus A. G. (See Bohacek, Paul, assignor.)

Maschinenfabrik Moenus A. G. (See Heldmann, Peter, assignor.)

Mason, Francis C., and J. W. Shanahan, assignors to Bissell Carpet Sweeper Co., Grand Rapids, Mich. Brush adjustment for carpet-sweepers. No. 1,038,170; Sept. 10; Gas. vol. 182; p. 365.

Matear, Huon A. T. F. Kenney, and H. Woodhouse, Liverpool, England. Recording and indicating the working of hydraulic and electric lifts or hoists. No. 1,038,922; Sept. 17; Gas. vol. 182; p. 661.

Matheson, William A. (See Holmes and Matheson.)

Mathews, Amos A., Bowling Green, Mo. Necktie-holder. No. 1,037,787; Sept. 3; Gas. vol. 182; p. 203.

Mathews Gravity Carrier Company. (See Buck, Herman J., assignor.)

Mathias, David W., Pottsville, Pa. Piling-bar. No. 1,039,563; Sept. 24; Gas. vol. 182; p. 898.

Mathiesen, Marius, San Antonio, Tex. Resilient wheel. No. 1,037,949; Sept. 10; Gas. vol. 182; p. 293.

Mathy, Joseph, Washington, D. C. Crate-corner lock. No. 1,038,923; Sept. 17; Gas. vol. 182; p. 662.

Matoushek, Frank, Witten, S. D. Wire barb. No. 1,039,159; Sept. 24; Gas. vol. 182; p. 754.

Matter, Julius, Leacken, near Barmen, Germany. Apparatus for removing lye from fabrics. No. 1,037,280; Sept. 3; Gas. vol. 182; p. 34.

Mattes, Francis H., Newton Falls, Ohio. Fruit-jar attachment. No. 1,037,649; Sept. 3; Gas. vol. 182; p. 159.

Matteson, Walter C., San Jose, Cal. Band-tightener for flexible band-wheels. No. 1,039,421; Sept. 24; Gas. vol. 182; p. 848.

Matthews, James T., San Antonio, Tex. Transplanter. No. 1,038,924; Sept. 17; Gas. vol. 182; p. 662.

Matthews, John V., and E. L. Kyle, Philadelphia, Pa. Speed-comparing device. No. 1,039,564; Sept. 24; Gas. vol. 182; p. 899.

Matthews, Matthew H. (See Donald and Matthews.)

Mattson, Ernst H., Chicago, Ill. Airship. No. 1,039,160; Sept. 24; Gas. vol. 182; p. 754.

Mattson, Julius G., Plumb, Minn. Loader. No. 1,038,405; Sept. 10; Gas. vol. 182; p. 446.

Maupin, James W., Stuarts Draft, Va. Rural-carrier's routing device. No. 1,037,788; Sept. 3; Gas. vol. 182; p. 204.

Maurer, Herman A. (See Maurer, William and H. A.)

Maurer, William and H. A., Rockiyn, Wash. Beet-top cutter. No. 1,039,161; Sept. 24; Gas. vol. 182; p. 755.

Maves, Christian, Davenport, Iowa. Road-grading machine. No. 1,037,281; Sept. 3; Gas. vol. 182; p. 34.

Maxi Company. (See Weiss, Arthur J., assignor.)

Maxim, Hosea F., assignor of one-half to O. Wells, Norfolk, Va. Connector for electric conductors. No. 1,039,422; Sept. 24; Gas. vol. 182; p. 848.

Maxim, Hosea F., assignor of one-half to O. Wells, Norfolk, Va. Connector for electric conductors. No. 1,039,423; Sept. 24; Gas. vol. 182; p. 848.

Maxim, Hosea F., assignor of one-half to O. Wells, Norfolk, Va. Connector for electric conductors. No. 1,039,424; Sept. 24; Gas. vol. 182; p. 848.

Maxwell, George S., Newark, N. J. Transmission-gearing. No. 1,039,425; Sept. 24; Gas. vol. 182; p. 849.

Maxwell, Marion D., Henderson, Iowa. Reel. No. 1,037,950; Sept. 10; Gas. vol. 182; p. 293.

May, Henry W., *et al.* (See Roberts, Henry P., assignor.)

Mayer, Louis. (See Klussmeyer, Frederick C. W., assignor.)

Maytag, Fred L. (See Snyder, Howard F., assignor.)

McAdam, Etta S., Drummond, Mich. Photographic-printing frame. No. 1,038,171; Sept. 10; Gas. vol. 182; p. 366.

McAllister, Angeline A. H., Cedarview, Utah. Undergarment. No. 1,038,620; Sept. 17; Gas. vol. 182; p. 555.

McArdle, Robert B. (See McArdle, William H. and R. B.)

McArdle, William H. and R. B., Camden, N. J. Envelop, card, and sheet feeder for type-writers. No. 1,038,406; Sept. 10; Gas. vol. 182; p. 446.

McBride-Frasier Arc Lamp Company, The. (See McBride, Lewis M., assignor.)

McBride, Lewis M., assignor to The McBride-Frasier Arc Lamp Company, Denver, Colo. Electric-arc lamp. No. 1,039,162; Sept. 24; Gas. vol. 182; p. 755.

McCabe, James T., New York, N. Y. Door-hanger. No. 1,038,502; Sept. 10; Gas. vol. 182; p. 480.

McCabe, Myles. (See Jackson, George A., assignor.)

McCallum, Joseph A., Crestline, Ohio. Automatic lubricator for journal-bearings. No. 1,039,426; Sept. 24; Gas. vol. 182; p. 849.

McCann, Kerney, *et al.* (See Lisch, Jacob J., assignor.)

McCarthy, John J., Yardley, Pa. Cigar-box cabinet. No. 1,039,163; Sept. 24; Gas. vol. 182; p. 755.

McCartney, James H. (See Fellows, Irving D., assignor.)

McCarty, Eugene J., assignor to W. R. Dame, trustee, Clinton, Mass. Vehicle-tire. No. 1,039,427; Sept. 24; Gas. vol. 182; p. 850.

McCauley, John L. (See McLean and McCauley.)

McClellon, James M., Everett, Mass. Superheater. No. 1,038,172; Sept. 10; Gas. vol. 182; p. 366.

McClure, Ora D., Ishpeming, Mich. Guide for elevator cars or cages. No. 1,037,282; Sept. 3; Gas. vol. 182; p. 34.

McCoig, Franklin P., Durant, Okla., assignor of one-half to A. F. Ninke, Inglewood, Cal. Cotton-picker. No. 1,038,925; Sept. 17; Gas. vol. 182; p. 663.

McColl, Francis P., St. Andrews, New Brunswick, Canada, assignor to American Key Can Company, Chicago, Ill. Roll-top can. No. 1,039,164; Sept. 24; Gas. vol. 182; p. 756.

McCollum, Burton, Washington, D. C. Induction-motor. No. 1,038,775; Sept. 17; Gas. vol. 182; p. 610.

McConnell, David A., Thornton township, Buffalo county, Nebr. Closure for threshing-machines. No. 1,038,926; Sept. 17; Gas. vol. 182; p. 663.

McConnell, John, assignor to The United Steel Company, Canton, Ohio. Making steel. No. 1,039,428; Sept. 24; Gas. vol. 182; p. 850.

McConway & Torley Company, The. (See Kelso, Joseph, assignor.)

McCormick, John H., New Orleans, La. Cotton-seed-delinting drum. No. 1,038,927; Sept. 17; Gas. vol. 182; p. 663.

McCrea, Frederick E. (See McCue and McCrea.)

McCrea, John C., *et al.* (See Graham, Andrew W., assignor.)

McCue, Frank, New York, and F. E. McCrea, Troy, N. Y. Railway-rail coupling. No. 1,039,429; Sept. 24; Gas. vol. 182; p. 850.

McCulloch, Harry G., assignor to The Stover Manufacturing Company, Freeport, Ill. Feed-mill. No. 1,037,951; Sept. 10; Gas. vol. 182; p. 294.

McDonald, Amanda, Central City, S. D. Detachable rubber heel. No. 1,039,206; Sept. 24; Gas. vol. 182; p. 809.

McDonald, Charles D., assignor to McDonald Machine Company, Chicago, Ill. Metal-working machine. No. 1,039,565; Sept. 24; Gas. vol. 182; p. 899.

McDonald Machine Company. (See McDonald, Charles D., assignor.)

McDonner, Charley, assignor of one-half to G. Lambries, Manitowoc, Wis. Shade and curtain hanger. No. 1,039,566; Sept. 24; Gas. vol. 182; p. 900.

McElroy, James F., Albany, assignor, by mesne assignments, to The United States Light & Heating Company, New York, N. Y. Armature-winding. No. 1,039,307; Sept. 24; Gas. vol. 182; p. 809.

McElroy, John H. (See Bystrom, John, assignor.)

McElroy, John H. (See Weiss, George, assignor.)

McEwen, Willard M. (See Lamb, Charles C., assignor.)

McFarlin, Enco, and A. Cline, Doniphan, Mo. Apparatus for sprouting grain. No. 1,038,407; Sept. 10; Gas. vol. 182; p. 447.

McGlaughlin, George G. (See Slaback and McGlaughlin.)

McGrath, John T., Battle Creek, Mich. Flue-expander. No. 1,037,780; Sept. 3; Gas. vol. 182; p. 204.

McGraw, Edwin C., assignor to McGraw Tire & Rubber Company, East Palestine, Ohio. Vulcanizer. No. 1,039,308; Sept. 24; Gas. vol. 182; p. 810.

McGraw, Edwin C., assignor to McGraw Tire & Rubber Company, East Palestine, Ohio. Vulcanizer. No. 1,039,309; Sept. 24; Gas. vol. 182; p. 810.

McGraw Tire & Rubber Company. (See McGraw, Edwin C., assignor.)

McGugan, Archibald, and H. Spragg, Hamilton, Ontario, Canada. Clock. No. 1,039,165; Sept. 24; Gas. vol. 182; p. 756.

McGuire, Albert W., Carmel, Me. Envelop. No. 1,039,567; Sept. 24; Gas. vol. 182; p. 900.

McKelvey, James W., Lawrenceville, Ga. Automatic train-stop. No. 1,037,504; Sept. 3; Gas. vol. 182; p. 112.

McKnight, Alexander, Brooklyn, N. Y. Extensible bed No. 1,037,283; Sept. 3; Gas. vol. 182; p. 35.

McKnight, Sanford C. (See Lend, John, assignor.)

McLain, Robert H., Schenectady, N. Y., assignor to General Electric Company. Motor control. No. 1,039,568; Sept. 24; Gas. vol. 182; p. 900.

McLarn, Ernest S., New York, N. Y., assignor to Western Electric Company, Chicago, Ill. Plunger-switch. No. 1,038,776; Sept. 17; Gas. vol. 182; p. 610.

McLean, William J., and J. L. McCauley, Bellingham, Wash. Oil-burner. No. 1,039,569; Sept. 24; Gas. vol. 182; p. 900.

McLean, William J., and J. L. McCauley, Bellingham, Wash. Oil-burning steam-boiler. No. 1,039,570; Sept. 24; Gas. vol. 182; p. 901.

McManama, John W., Waltham, assignor of one-third to S. W. Simonds, Somerville, and one-third to F. A. Barbey, Cambridge, Mass. Railway-track curve. No. 1,039,430; Sept. 24; Gas. vol. 182; p. 850.

McManis, John V., and W. L. Sherwood, Kirksville, Mo.; said Sherwood assignor to said McManis. Osteopathic table. No. 1,038,619; Sept. 17; Gas. vol. 182; p. 555.

McMillan, Hugh P., assignor to Wm. A. Tottle & Co., Baltimore, Md. Machine for cementing brush-bristles. No. 1,037,830; Sept. 3; Gas. vol. 182; p. 217.

McMullen, Etta, Oskaloosa, Iowa. Waist-form and skirt-frame. No. 1,037,650; Sept. 3; Gas. vol. 182; p. 159.

McMullen, Robert, Fremantle, Western Australia, Australia. Automatic-balancing aeroplane. No. 1,037,651; Sept. 3; Gas. vol. 182; p. 159.

McNulty, Harry B., East Cleveland, assignor, by mesne assignments, to The United States Phonograph Company, Cleveland, Ohio. Phonograph. No. 1,038,621; Sept. 17; Gas. vol. 182; p. 556.

McPherson, Donald H., Le Roy, assignor to Superior Register Company, Canisteo, N. Y. Slip-holder. No. 1,039,571; Sept. 24; Gas. vol. 182; p. 901.

Meade, Henry K., assignor of one-half to W. F. Shedd, Los Angeles, Cal. Cyanid-cylinder. No. 1,038,173; Sept. 10; Gas. vol. 182; p. 366.

Mearkle, Louis K., Philadelphia, Pa. Vending-machine. No. 1,038,622; Sept. 17; Gas. vol. 182; p. 556.

Meckbach, Georg, Schöneberg, near Berlin, Germany. Binocular telescope. No. 1,037,505; Sept. 3; Gas. vol. 182; p. 112.

Mefort, Gustave, assignor to The Simple Account Sales-book Company, Fremont, Ohio. Manifold sales-book. No. 1,039,166; Sept. 24; Gas. vol. 182; p. 756.

Meginness, John C., Wolsey, S. D. Car-coupling. No. 1,037,790; Sept. 3; Gas. vol. 182; p. 204.

Meier, Albert J., Glendale, and W. L. Sullivan, assignors to The Temco Manufacturing Company, St. Louis, Mo. Ticket vending and registering machine. No. 1,039,167; Sept. 24; Gas. vol. 182; p. 757.

Meigs, Curtis C., Woodbury, N. J. Ore-burner. No. 1,038,408; Sept. 10; Gas. vol. 182; p. 447.

Meisel, Francis, assignor to Meisel Press & Manufacturing Company, Boston, Mass. Machine for making toilet paper rolls. No. 1,037,284; Sept. 3; Gas. vol. 182 p. 35.

Meisel Press & Manufacturing Company. (See Meisel, Francis, assignor.)

Mellinger, Franklin C., Avon, Pa. Railway-tie. No. 1,037,506; Sept. 3; Gas. vol. 182; p. 112.

Melton, Robert A., Stockton, Cal. Counting-machine. No. 1,039,168; Sept. 24; Gas. vol. 182; p. 757.



Melzi, Firm of Bredi. (See Berti, Salvatore, assignor.)

Mengel Box Company. (See Schleicher, John W., assignor.)

Mennenga, Onko J., Renville, Minn. Basket for passenger-cars. No. 1,039,310; Sept. 24; Gas. vol. 182; p. 810.

Menne, Walter K., Malden, assignor to Chelsea Clock Company, Boston, Mass. Speed indicating and recording device. No. 1,037,952; Sept. 10; Gas. vol. 182; p. 294.

Menuskin, Simon, Chattanooga, Tenn. Vertically-adjustable window-shade fixture. No. 1,037,285; Sept. 3; Gas. vol. 182; p. 35.

Mensel, Christian L., Nobby, Queensland, Australia. Boat. No. 1,038,928; Sept. 17; Gas. vol. 182; p. 664.

Merchant, Woodson T., Louisville, Ky. Hospital-bed. No. 1,038,623; Sept. 17; Gas. vol. 182; p. 557.

Meredith, William F. (See Rossi and Meredith.)

Meriwether, Edward G., *et al.* (See Custer, Peter A., assignor.)

Merrill, Ira J., assignor of one-half to C. A. Benbow, Portland, Oreg. Spring-wheel. No. 1,039,311; Sept. 24; Gas. vol. 182; p. 810.

Merrill, Robert T., Milwaukee, Wis. Ventilator and chimney-cap. No. 1,037,286; Sept. 3; Gas. vol. 182; p. 35.

Merwin, George H., Milford, Conn. Lubricating-trolley. No. 1,037,507; Sept. 3; Gas. vol. 182; p. 113.

Mesinger, Henry, New York, N. Y. Saddle for motor-cycles. No. 1,037,287; Sept. 3; Gas. vol. 182; p. 35.

Messick, John C., assignor of one-third to R. G. Jones and one-third to W. F. Jones, San Rafael, Cal. Pneumatic door-lock. No. 1,038,624; Sept. 17; Gas. vol. 182; p. 557.

Metal Sectional Furniture Company. (See Manny, Fred L., assignor.)

Metallic Barrel Company, The. (See Brown, Louis O., assignor.)

Metallurgical Research Company. (See Rockey and Eldridge, assignors.)

Méteré, Emile J. (See Fogarty, James H., assignor.)

Metropolitan Electric Mfg. Co. (See Newton, William J., assignor.)

Metropolitan Paving Brick Company, The. (See Barbour, James G., assignor.)

Metz, Silas W., Beaver Falls, Pa. Miner's lamp. No. 1,038,930; Sept. 17; Gas. vol. 182; p. 664.

Meyer, Adolph, assignor of one-half to P. Weidemann, St. Louis, Mo. Combination trap and fixture. No. 1,039,169; Sept. 24; Gas. vol. 182; p. 757.

Michaelson, Joseph M., Minneapolis, Minn. Muffler. No. 1,038,931; Sept. 17; Gas. vol. 182; p. 664.

Michaud, Elmer J., Willimantic, Conn. Lathe-dog. No. 1,038,409; Sept. 10; Gas. vol. 182; p. 448.

Michener, Eugene S., New Castle, Pa. Internal-combustion engine. No. 1,037,933; Sept. 10; Gas. vol. 182; p. 296.

Michigan Metal Products Company. (See Vaughan, Thomas M., assignor.)

Mies, Frank P., Chicago, Ill. Ventilating device. No. 1,038,625; Sept. 17; Gas. vol. 182; p. 558.

Mies, Frank P., Chicago, Ill., assignor to Plural System Ventilator Co., Electric heater. No. 1,038,410; Sept. 10; Gas. vol. 182; p. 448.

Milcinsky, Joseph. (See Firbas and Milcinsky.)

Miles Mfg. Co., The. (See Whitney and Van Leuven, assignors.)

Miles, William C., Seattle, Wash. Combined shingle sawing and jointing machine. No. 1,039,312; Sept. 24; Gas. vol. 182; p. 811.

Miller, Austin. (See Fuller and Miller.)

Miller, Benjamin F., Jr. (See Tanner, Traugotte A., assignor.)

Miller, Clyde R. (See King, Jacob H., assignor.)

Miller, Cornelius, assignor to M. Lenahan, Providence, R. I. Device for threading shuttles. No. 1,038,777; Sept. 17; Gas. vol. 182; p. 611.

Miller, Edwin, assignor to Miller Lighting Company, Inc., Detroit, Mich. Reserve carbid-receptacle. No. 1,038,932; Sept. 17; Gas. vol. 182; p. 664.

Miller, Eli A., *et al.* (See Jones, John B., assignor.)

Miller, Estella. (See Hill, Josiah, assignor.)

Miller, Francis, Bellevue, Ky. Tire-puncture finder No 1,037,954; Sept. 10; Gas. vol. 182; p. 295.

Miller, Francis, Bellevue, Ky. Tire-puncture finder No. 1,037,955; Sept. 10; Gas. vol. 182; p. 295.

Miller, Frederick W. (See Miller, John A. and F. W.)

Miller, George B., assignor of one-half to G. Faut, Eau Claire, Wis. Ice-scraper. No. 1,037,956; Sept. 10; Gas vol. 182; p. 296.

Miller, Henry C., Waterford, N. Y. Buttonhole-machine. No. 1,038,411; Sept. 10; Gas. vol. 182, p. 448.

Miller, James E., Braddock, assignor of one-half to J. J. Sixsmith, Homestead, Pa. Trousers-pressing device. No. 1,038,778; Sept. 17; Gas. vol. 182; p. 611.

Miller, John A., Homewood Ill. Handle-bar mechanism for pleasure-railways. No. 1,037,957; Sept. 10; Gas. vol. 182; p. 296.

Miller, John A., Homewood, Ill. Pleasure-railway. No. 1,037,958; Sept. 10; Gas. vol. 182; p. 296.

Miller, John A., Homewood, Ill. Pleasure-railway structure. No. 1,038,174; Sept. 10; Gas. vol. 182; p. 367.

Miller, John A., Homewood Ill. Handle-bar mechanism for pleasure-railways. No. 1,038,175; Sept 10; Gas. vol. 182; p. 367.

Miller, John A. and F. W., Carrick, Pa. Mortising-machine. No. 1,037,288; Sept. 3; Gas. vol. 182; p. 36.

Miller, John C., Canton, Ohio. Bottle-case. No. 1,038,626; Sept. 17; Gas. vol. 182; p. 558.

Miller, John F., and W. V. Turner, Edgewood, Pa. Electric controller device. No. 1,039,170; Sept. 24; Gas. vol. 182; p. 757.

Miller, John W., Bernharts, Pa. Hammer. No. 1,037,289; Sept. 3; Gas. vol. 182; p. 37.

Miller, John W., assignor of one-half to J. D. Martin, Todds Point, Ill. Churn. No. 1,039,573; Sept. 24; Gas. vol. 182; p. 902.

Miller, Joseph A., *et al.* (See Spink, Edward J., assignor.)

Miller, Lee, Chicago, Ill. Parachute device. No. 1,037,959; Sept. 10; Gas. vol. 182; p. 297.

Miller Lighting Company. (See Miller, Edwin, assignor.)

Miller Lock Co. (See Boley, Frank, assignor.)

Miller, Oscar. (See Krangnaes, Nels B., assignor.)

Miller, Richard, Appleton, Wis. Car-mover shoe. No. 1,037,960; Sept. 10; Gas vol. 182; p. 298.

Miller, Samuel F., South Orange, N. J., assignor to Pacific Flush Tank Company, Chicago, Ill. Adjustable vent for siphons. No. 1,037,791; Sept. 3; Gas. vol. 182; p. 204.

Miller, Thomas D., St. Louis, Mo. Closure for retorts. No. 1,038,933; Sept. 17; Gas. vol. 182; p. 665.

Miller, Thomas S., South Orange, N. J. Rope-engine for marine transfers. No. 1,037,508; Sept. 3; Gas. vol. 182; p. 113.

Millican, Frederick S., Vancouver, British Columbia, Canada. Boat. No. 1,038,176; Sept. 10; Gas. vol. 182; p. 367.

Milliren, John E., Falls Creek, Pa. Glass-handling apparatus. No. 1,038,177; Sept. 10; Gas. vol. 182; p. 368.

Mills, Herbert S., Oak Park, Ill. Vending-machine. No. 1,038,178; Sept. 10; Gas. vol. 182; p. 368.

Millward, Thomas. (See Faris and Millward.)

Milton, John L., Louisville, Ky. Electric ignition system for internal-combustion engines. No. 1,039,171; Sept. 24; Gas. vol. 182; p. 758.

Mine & Smelter Supply Company, The. (See Eggers, Henry, assignor.)

Miner, William H. (See Johnson, George A., assignor.)

Minetty, George A., Davenport, Iowa. Locking device. No. 1,038,412; Sept. 10; Gas. vol. 182; p. 449.

Minhinnett, George F., Blooming Grove, Tex. Reversible automobile-lamp. No. 1,037,961; Sept. 10; Gas. vol. 182; p. 298.

Missouri Lamp & Mfg. Co. (See Schaefer, Edward, assignor.)

Mitchell, George R., assignor of one-third to J. W. Smith and one-third to R. Croasdale, Syracuse, N. Y. Pulverizer. No. 1,038,779; Sept. 17; Gas. vol. 182; p. 611.

Mitchell, John, Ponsonby, New Zealand. Construction of building-walls. No. 1,039,313; Sept. 24; Gas. vol. 182; p. 811.

Mitchell, Thomas E., Meaderville, Mont. Dust-receptacle. No. 1,038,413; Sept. 10; Gas. vol. 182; p. 449.

Mittendorff, Louis W., York, Nebr. Nest. No. 1,038,627; Sept. 17; Gas. vol. 182; p. 558.

Mittineague Paper Company. (See Speed, James, assignor.)

Mobberly, John. (See Mobberly, Ora, assignor.)

Mobberly, Ora, assignor of one-third to J. Mobberly, Corbin, Ky. Wheel. No. 1,037,652; Sept. 3; Gas. vol. 182; p. 159.

Mode, Marshall M., Cameron, Tex. Cotton-compress. No. 1,038,934; Sept. 17; Gas. vol. 182; p. 665.

Model Manufacturing Company. (See Johnston, Harry B., assignor.)

Moenus Machine Company. (See Crain and Heckmann, assignors.)

Moll, Bernhard C., Chicago, Ill. Dental mold. No. 1,037,962; Sept. 10; Gas. vol. 182; p. 298.

Moloney Electric Company. (See Mullen, James J., assignor.)

Monarch Steam Blower Company. (See Bradley, William J., assignor.)

Moudry, Peter, Amsterdam, N. Y. Portable grist-mill. No. 1,038,935; Sept. 17; Gas. vol. 182; p. 665.

Monogram Construction Company. (See Harms and Small, assignors.)

Monroe, Henry A., Astoria, Oreg. Fish-net reel. No. 1,038,414; Sept. 10; Gas. vol. 182; p. 449.

Moody, William O., Chicago, Ill. Relief-valve. No. 1,037,509; Sept. 3; Gas. vol. 182; p. 113.

Moore, Daniel M., Newark, N. J., assignor to General Electric Company. Vacuum-tube lighting. No. 1,037,290; Sept. 3; Gas. vol. 182; p. 37.

Moore, Ernest K., Hattiesburg, Miss. Cotton-chopper. No. 1,039,431; Sept. 24; Gas. vol. 182; p. 851.

Moore, John W., and W. A. Browne, Columbus, Ohio. Engine. No. 1,038,780; Sept. 17; Gas. vol. 162; p. 612.

Moore, Joseph M., Unadilla, N. Y. Door for silos. No. 1,037,963; Sept. 10; Gas. vol. 182; p. 298.

Moore, Moses M., Chicago, Ill., assignor to T. W. Snow Construction Company. Stand-pipe. No. 1,038,179; Sept. 10; Gas. vol. 182; p. 368.

Moore, Thomas N., Coleman, Okla. Vehicle-brake. No. 1,037,291; Sept. 3; Gas. vol. 182; p. 37.

Moran, William H., New York, N. Y. Fuel-reservoir. No. 1,039,573; Sept. 24; Gas. vol. 182; p. 902.

Morawiecki, Michal, Pittsburgh, Pa. Bottle closure or stopper. No. 1,037,792; Sept. 3; Gas. vol. 182; p. 205.

Mordaunt, Leonard. (See Lorey, Joseph, assignor.)

Morden Frog & Crossing Works. (See Cusic, Dennis H., assignor.)
Morden, Lucena M., Waterbury, Conn. Loose-leaf binder. No. 1,037,292; Sept. 3; Gaz. vol. 182; p. 38.
Morden, Lucena M., Waterbury, Conn. Loose-leaf binder. No. 1,037,293; Sept. 3; Gaz. vol. 182; p. 38.
Moreland, Frank T., assignor of one-half to P. H. Petersen, Oakland, Cal. Electric-light socket. No. 1,038,415; Sept. 10; Gaz. vol. 182; p. 450.
Moreland, William C., Clay Center, Kans. Plaster-pointing-up device. No. 1,038,190; Sept. 10; Gaz. vol. 182; p. 368.
Morey, Harry J., and F. A. Bregden, Syracuse, N. Y. Electric switch. No. 1,037,964; Sept. 10; Gaz. vol. 182; p. 299.
Morford, William L., Maitland, Mo. Plow. No. 1,039,314; Sept. 24; Gaz. vol. 182; p. 811.
Morgan Construction Company. (See Jefferies, Ebenezer A. W., assignor.)
Morgan, Henry W., Rochester, N. Y. Nailing-machine. No. 1,039,172; Sept. 24; Gaz. vol. 182; p. 758.
Morrill, Stanley V., Benton Harbor, Mich. Scoop. No. 1,039,574; Sept. 24; Gaz. vol. 182; p. 902.
Morris, Albert W. (See Wetherill and Morris.)
Morris, Albert W., assignor to Wetherill Finished Castings Company, Philadelphia, Pa. Pressure casting apparatus. No. 1,039,173; Sept. 24; Gaz. vol. 182; p. 759.
Morris, Daniel W. (See Hammerfeld and Morris.)
Morrison, William F. (See Coe, Charles E., assignor.)
Morrow, James L., Antioch, Tenn. Strap-clutch. No. 1,038,628; Sept. 17; Gaz. vol. 182; p. 559.
Mortimer, Charles H., assignor of one-half to C. P. Sould, Chicago, Ill. Method and means for treating paper on a printing-press. No. 1,037,965; Sept. 10; Gaz. vol. 182; p. 299.
Morton, Albert H., Lowell, Mass. Spindle-support for spinning, twisting, and the like machines. No. 1,039,432; Sept. 24; Gaz. vol. 182; p. 851.
Morton, Albert H., Lowell, Mass. Spindle for spinning, twisting, and the like machines. No. 1,039,433; Sept. 24; Gaz. vol. 182; p. 851.
Morton, Albert H., Lowell, Mass. Spinning-spindle. No. 1,039,434; Sept. 24; Gaz. vol. 182; p. 852.
Morton, Darwin A. (See Jones, Morton, and Tershey.)
Morton, Lawrence D., assignor to The Hinde & Dauch Paper Company, Sandusky, Ohio. Packing-case. (Reissue.) No. 13,465; Sept. 3; Gaz. vol. 182; p. 222.
Moser, Frank W., Chicago, Ill., assignor to Woldert Grocery Company, Tyler, Tex. Nutcracker. No. 1,037,966; Sept. 10; Gaz. vol. 182; p. 299.
Mosman, Ernest. (See Subers and Mosman.)
Moss, Ernest, Dallington, Christchurch, New Zealand. Thermostat. No. 1,039,174; Sept. 24; Gaz. vol. 182; p. 759.
Mossberg, Axel E., Westpoint, Nebr. Spring attachment for oil-cans. No. 1,038,181; Sept. 10; Gaz. vol. 182; p. 309.
Moyer, Frank P., Utica, N. Y. Window-screen. No. 1,038,936; Sept. 17; Gaz. vol. 182; p. 666.
Moyer, Harvey A. (See Latta, Emmit G., assignor.)
Mueller, Adolph, *et al.*, executors. (See Mueller, Henry.)
Mueller, Henry, deceased; O. B. and A. Mueller, executors, assignors to H. Mueller Manufacturing Company, Decatur, Ill. Box-flange for pipe-couplings. No. 1,039,315; Sept. 24; Gaz. vol. 182; p. 811.
Mueller, Ora B., *et al.*, executors. (See Mueller, Henry.)
Mueller, Philip, assignor to H. Mueller Manufacturing Company, Decatur, Ill. Fluid-meter tester. No. 1,038,182; Sept. 10; Gaz. vol. 182; p. 309.
Mueller, Philip, assignor to H. Mueller Manufacturing Company, Decatur, Ill. Seal for service-cocks. No. 1,038,183; Sept. 10; Gaz. vol. 182; p. 309.
Mueller, Philip, assignor to H. Mueller Manufacturing Company, Decatur, Ill. Adjustable screw-joint coupling for supply-pipes. No. 1,039,575; Sept. 24; Gaz. vol. 182; p. 903.
Mueller, Philip, and A. C. Schuermann, assignors to H. Mueller Manufacturing Company, Decatur, Ill. Seal for pipe-couplings. No. 1,039,576; Sept. 24; Gaz. vol. 182; p. 903.
Mueller, William, Dubuque, Iowa. Drinking-fountain. No. 1,038,937; Sept. 17; Gaz. vol. 182; p. 666.
Mulholland, Hugh, Cincinnati, Ohio. Illuminated sign. No. 1,037,294; Sept. 3; Gaz. vol. 182; p. 38.
Mulholland, Hugh, New York, N. Y., and C. G. West, Greenwich, Conn., assignors, by mesne assignments, to G. M. Potter, New York, N. Y. Illuminated sign. No. 1,039,175; Sept. 24; Gaz. vol. 182; p. 759.
Mullaly, Thomas W., Fort Worth, Tex. Theatrical schedule and advertising-cabinet. No. 1,038,416; Sept. 10; Gaz. vol. 182; p. 450.
Mullen, James J., assignor to Moloney Electric Company, St. Louis, Mo. Self-cooled transformer. No. 1,039,577; Sept. 24; Gaz. vol. 182; p. 903.
Mullen, Thomas J., and T. F. Brennan, New Brighton, N. Y. Pneumatic spring. No. 1,039,578; Sept. 24; Gaz. vol. 182; p. 904.
Mullennix, John S., Bradford, Ohio. Filter. No. 1,038,417; Sept. 10; Gaz. vol. 182; p. 451.
Mulloy, Patrick J., assignor of one-half to P. S. Houghton, Grand Forks, N. D. Grain-loader. No. 1,037,793; Sept. 3; Gaz. vol. 182; p. 205.
Munger, Vernon D., Antwerp, assignor to The Munger Wire Basket Company, Massillon, Ohio. Twister-head for wire-basket-making machines. No. 1,038,629; Sept. 17; Gaz. vol. 182; p. 559.
Munger Wire Basket Company, The. (See Munger, Vernon D., assignor.)
Munts, Raymond H., Greenville, Pa., assignor to Geissler Starting Device Co., New York, N. Y. Starting device for internal-combustion engines. No. 1,037,655; Sept. 3; Gaz. vol. 182; p. 100.
Murphey, William W., Louisville, Ky. Combination bath and toilet cabinet. No. 1,038,630; Sept. 17; Gaz. vol. 182; p. 560.
Murphy, John F., assignor to Fleur City Ornamental Iron Works, Minneapolis, Minn. Door-hanger. No. 1,038,938; Sept. 17; Gaz. vol. 182; p. 666.
Murphy, Michael T., Grand Rapids, Mich. Yarn-cone. No. 1,037,295; Sept. 3; Gaz. vol. 182; p. 39.
Murphy, Peter H. (See Hoffman, John J., assignor.)
Murphy, Walter P. (See Cornwell, Samuel H., assignor.)
Murray, John B., and M. E. Caven, Ellwood City, Pa. Overshoe-fastener. No. 1,038,939; Sept. 17; Gaz. vol. 182; p. 667.
Mumy, William H., assignor, by mesne assignments, to The National Cash Register Company, Dayton, Ohio. Cash-register. No. 1,037,967; Sept. 10; Gaz. vol. 182; p. 300.
Myers, Louis B. (See Wood, Montraville M., assignor.)
Myles, James C., and H. Girvin, San Francisco, Cal. Sand-blast. No. 1,038,781; Sept. 17; Gaz. vol. 182; p. 612.
Naruusky, Solomon, Baltimore, Md. Square-rule. No. 1,038,184; Sept. 10; Gaz. vol. 182; p. 370.
National Acme Manufacturing Co., The. (See Hess, Edwin C., assignor.)
National-Acme Manufacturing Company, The. (See Rindfleisch, Benjamin F., assignor.)
National Acme Manufacturing Company, The. (See Smith, Oscar A., assignor.)
National Aerial Navigation & Equipment Co. (See Schaufler, Fred L., assignor.)
National Cash Register Company, The. (See Jacob, Max, assignor.)
National Cash Register Company, The. (See Mumy, William H., assignor.)
National Dump Car Company. (See Zimmerman, Robert M., assignor.)
National Fibre Products Company. (See Granville, Bernard, assignor.)
National Manufacturing Company. (See Bittorf, Louis A., assignor.)
National Onion Salt Company, The. (See Fleck, Herman, assignor.)
National Pneumatic Company. (See Brinckerhoff, Francis M., assignor.)
National Trenching Machine Company. (See Craig, Lee D., assignor.)
National Tube Company. (See Simpson, James, assignor.)
Natt, Charles A., assignor of one-half to N. E. MacEwan, Rochester, N. Y. Bottle-stopper. No. 1,039,176; Sept. 24; Gaz. vol. 182; p. 760.
Neames, Maurice M., Vacherie, La. Leak-stop for levees, dikes, &c. No. 1,039,579; Sept. 24; Gaz. vol. 182; p. 904.
Near-Side Car Company, The. (See Senter and Kling, assignors.)
Neely Nut and Bolt Company. (See Lackner, Frederick, assignor.)
Nellis, Charles E. (See Ellis and Nellis.)
Nelson, Alexander. (See Ellenburg and Nelson.)
Nelson, Lewis W., Philadelphia, Pa. Dynamo-electric machine. No. 1,038,494; Sept. 10; Gaz. vol. 182; p. 477.
Nelson, Oscar, assignor to J. P. Seeburg Piano Company, Chicago, Ill. Adjusting mechanism for rolls or spools for perforated music-sheets. No. 1,039,066; Sept. 17; Gaz. vol. 182; p. 704.
Nelson, Philip, Watrous, N. Mex. Nut-splitter. No. 1,037,968; Sept. 10; Gaz. vol. 182; p. 300.
Nelson, William H. S., Capon Springs, W. Va. Insulator. No. 1,038,418; Sept. 10; Gaz. vol. 182; p. 451.
Neptune Meter Company. (See Burton, James M., assignor.)
Nernst Lamp Company. (See Kusebauch, Anton, assignor.)
Nesom, Thomas, Indianapolis, Ind. Power-transmission attachment for automobiles. No. 1,039,177; Sept. 24; Gaz. vol. 182; p. 760.
Netter, Raphael. (See Kuhn and Netter.)
Neuhauser, John H., Shelby, Ohio. Clipping-file. No. 1,037,296; Sept. 3; Gaz. vol. 182; p. 39.
Neumayer, Ludwig, Strassburg, Germany. Vending-machine. No. 1,039,580; Sept. 24; Gaz. vol. 182; p. 904.
Neveu, Alfred, assignor to Société Anonyme Francaise Dite: Banque du Radium, Paris, France. Apparatus for sterilizing liquids by means of ultraviolet rays. No. 1,038,631; Sept. 17; Gaz. vol. 182; p. 560.
Neville, Herbert. (See Pike and Neville.)
Nevin, Roy C., Oakland, Cal. Telephone calling device. No. 1,038,419; Sept. 10; Gaz. vol. 182; p. 451.
New Haven Clock Co. (See Porter, Wilson E., assignor.)
"New-Way" Motor Company, The. (See Goodnow, Earle W., assignor.)
"New Way" Motor Company, The. (See Newbrough, William H., assignor.)
New York Adding Typewriter Company. (See Pike, William H., Jr., assignor.)
Newbrough, William H., assignor to The "New-Way" Motor Company, Lansing, Mich. Multiple-cylinder pump. No. 1,037,297; Sept. 3; Gaz. vol. 182; p. 39.





Newcomer, Nathan B., and C. O. Johnson, Paonia, Colo. Orchard-heater. No. 1,038,420; Sept. 10; Gaz. vol. 182; p. 452.
Newmann, Hermann, New York, N. Y. Turret attachment for engine-lathes. No. 1,037,296; Sept. 3; Gaz. vol. 182; p. 40.
Newmann, John, Brooklyn, N. Y. Split roller-bearing. No. 1,037,510; Sept. 3; Gaz. vol. 182; p. 114.
Newsome, William, Richmond, Va. Plow. No. 1,039,581; Sept. 24; Gaz. vol. 182; p. 905.
Newton, Harold M., St. Louis, Mo., assignor, by mesne assignments, to The Kettle River Company. Preserved wood. No. 1,037,831; Sept. 3; Gaz. vol. 182; p. 218.
Newton, Harold M., St. Louis, Mo., assignor, by mesne assignments, to The Kettle River Company. Preserved wood. No. 1,037,832; Sept. 3; Gaz. vol. 182; p. 218.
Newton, Wallace, Huron, S. D. Measuring vessel. No. 1,037,794; Sept. 3; Gaz. vol. 182; p. 206.
Newton, William J., Lynbrook, N. Y., assignor to Metropolitan Electric Mfg. Co. Combined switch and tap-off. No. 1,038,940; Sept. 17; Gaz. vol. 182; p. 667.
Nichols, Grace C., *et al.*, executors. (See Crenshaw, Robert.)
Nichols, Wesley G. (See Brush, George H., assignor.)
Nichols, Winfield S., assignor to Independent Harvester Company, Plano, Ill. Draft-equalizer. No. 1,038,632; Sept. 17; Gaz. vol. 182; p. 560.
Nickerson, Albert B., Chicago, Ill. Cleaning system. No. 1,038,185; Sept. 10; Gaz. vol. 182; p. 370.
Nicolaus, Frederic G., Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo. Gas-valve. No. 1,038,941; Sept. 17; Gaz. vol. 182; p. 667.
Niemi, Sakarias K., Tower, Minn. Saw-setting device. No. 1,038,186; Sept. 10; Gaz. vol. 182; p. 371.
Nier, Ernst, Belerfeld, Germany. Producing horns for gramophones and the like. No. 1,038,942; Sept. 17; Gaz. vol. 182; p. 668.
Niles-Bement-Pond Company. (See Hagman, William J., assignor.)
Ninke, Albert F. (See McCoig, Franklin P., assignor.)
Nisbet, David F., Crafton, Pa. Rolling-mill appliance. No. 1,038,421; Sept. 10; Gaz. vol. 182; p. 452.
Noack, Max, Friedenau, near Berlin, Germany. Rendering the joints of the casemated port-holes of war-ships water-tight. No. 1,039,316; Sept. 24; Gaz. vol. 182; p. 811.
Nolan, Frank J., assignor to Shur-On Trolley Guard Company, Buffalo, N. Y. Trolley-guard. No. 1,037,969; Sept. 10; Gaz. vol. 182; p. 300.
Nolan, John J., Linton, Ind. Resistance element. No. 1,038,422; Sept. 10; Gaz. vol. 182; p. 452.
Nolte, Frank. (See Hinnman, Robert M., assignor.)
Norberg, Andrew, Bowbells, N. D. Lock. No. 1,037,970; Sept. 10; Gaz. vol. 182; p. 301.
Norell, Per E. M., Chicago, Ill. Side bearing for cars. No. 1,037,511; Sept. 3; Gaz. vol. 182; p. 114.
Norman, John. (See Wilson, John M., assignor.)
Norman, William W., Huntersville, Mo. Apparatus for impregnating wood. No. 1,038,423; Sept. 10; Gaz. vol. 182; p. 456.
Norsk Hydro-Elektrisk Kvaelstofaktieselskab. (See Schönherr and Brode, assignors.)
Norsk Hydro-Electrisk Kvaelstofaktieselskab. (See Schönherr and Hesseberger, assignors.)
Northall, William H., assignor of one-half to F. W. Goedeke, Evansville, Ind. Seal for box-cars, &c. No. 1,038,782; Sept. 17; Gaz. vol. 182; p. 612.
Northern Water Softener Company. (See Bartlett, Kent W., assignor.)
Northrup, Elmer C., San Francisco, Cal. Box-nailing machine. No. 1,037,299; Sept. 3; Gaz. vol. 182; p. 40.
Northwestern Knitting Company. (See Chatfield, Franklin, assignor.)
Norton Company. (See Saunders, Lewis E., assignor.)
Norton, Lionel W. (See Greene and Norton.)
Novy, Joseph M., St. Louis, Mo. Rotary explosive-engine. No. 1,038,424; Sept. 10; Gaz. vol. 182; p. 453.
Nowak, Carl A., assignor to A. G. Wackenreuter, Chicago, Ill. Cleaning compound. No. 1,038,783; Sept. 17; Gaz. vol. 182; p. 613.
Noyes, Edward P., Winchester, Mass. Automatic regulation for carburetors. No. 1,037,833; Sept. 3; Gaz. vol. 182; p. 218.
Nunn, John W. (See Roberts and Nunn.)
O'Brien, James F., Chicago, Ill. Explosive. No. 1,037,300; Sept. 3; Gaz. vol. 182; p. 41.
O'Brien, James F., Chicago, Ill. Explosive. No. 1,038,187; Sept. 10; Gaz. vol. 182; p. 371.
O'Brien, James F., Chicago, Ill. Explosive. No. 1,038,188; Sept. 10; Gaz. vol. 182; p. 371.
O'Bryan, Gory, Louisville, Ky. Flying-machine. No. 1,038,633; Sept. 17; Gaz. vol. 182; p. 561.
O'Connor, Jennie M., Chicago, Ill., and I. G. Wier, Pittsburgh, Pa. Sanitary protecting-skirt. No. 1,037,514; Sept. 3; Gaz. vol. 182; p. 115.
O'Rourke, John F., New York, N. Y. Constructing foundations. No. 1,038,635; Sept. 17; Gaz. vol. 182; p. 561.
O'Shea, Jeremiah, Philadelphia, Pa. Anticreeping device for ties. No. 1,038,975; Sept. 17; Gaz. vol. 182; p. 678.
Oakley, Clifford H., Trenton, N. J. Matting. No. 1,037,512; Sept. 3; Gaz. vol. 182; p. 115.
Oberg, Carl J., Christiania, Norway. Sewing-machine for leather. No. 1,037,513; Sept. 3; Gaz. vol. 182; p. 115.
Oehrle Brothers Company. (See Oehrle, Franklin W., assignor.)
Oehrle, Franklin W., assignor to Oehrle Brothers Company, Philadelphia, Pa. Turf. No. 1,038,943; Sept. 17; Gaz. vol. 182; p. 668.
Oelke, Theodore G., Anadarko, Okla. Combined tie and rail-fastener. No. 1,038,944; Sept. 17; Gaz. vol. 182; p. 668.
Oeser, Ernst, Berlin, Germany. Bronze foil. No. 1,037,515; Sept. 3; Gaz. vol. 182; p. 115.
Ohio Cultivator Company, The. (See Griffith, Richard H., assignor.)
Ohio Varnish Company, The. (See Knapp, William J., assignor.)
Ohlson, Olof, Newton, assignor to Waltham Watch Company, Waltham, Mass. Winding-indicator for time-pieces. No. 1,038,634; Sept. 17; Gaz. vol. 182; p. 561.
Ohlson, Charles H., New York, N. Y. Labeling-machine. No. 1,037,971; Sept. 10; Gaz. vol. 182; p. 301.
Olas, Blatej, assignor of one-half to M. Malacina, Chicago, Ill. Hat-pin-point protector. No. 1,038,945; Sept. 17; Gaz. vol. 182; p. 668.
Olivier, Edmond, Ottawa, Ontario, Canada. Water-wheel. No. 1,038,189; Sept. 10; Gaz. vol. 182; p. 371.
Olson, Christian, Soldier, Iowa. Fruit-picker. No. 1,038,425; Sept. 10; Gaz. vol. 182; p. 454.
Olson, Linda M., *et al.* (See Penfield, James C. and J. N., assignors.)
Olson, Waldemar J. P., Brooklyn, N. Y. Puzzle or toy. No. 1,038,190; Sept. 10; Gaz. vol. 182; p. 371.
Olson, Christian, Everett, Wash. Shifting attachment for type-writers. No. 1,039,178; Sept. 24; Gaz. vol. 182; p. 761.
Olson, Samuel, Chicago, Ill. Bread-proofing apparatus. No. 1,038,784; Sept. 17; Gaz. vol. 182; p. 613.
Optische Anstalt C. P. Goers Aktiengesellschaft. (See Berwick, Ernst, assignor.)
Orand, John L. (See Schaffer, William A., assignor.)
Orling, Axel, Tooting, assignor to Orling's Telegraph Instruments Syndicate Limited, London, England. Electrocapillary instrument for detecting and recording the passage of electric impulses. No. 1,037,972; Sept. 10; Gaz. vol. 182; p. 302.
Orling's Telegraph Instruments Syndicate Limited. (See Orling, Axel, assignor.)
Ormesby, Volney V., Chaney, Okla. Window-frame fastening. No. 1,038,946; Sept. 17; Gaz. vol. 182; p. 668.
Orton, Daniel J., Sac City, Iowa. Cultivator-fender. No. 1,037,654; Sept. 3; Gaz. vol. 182; p. 100.
Osborn, Arthur E. (See Wilkinson and Osborn.)
Osborne, John H., Anderson, Ind. Computing cheese-cutter. No. 1,039,179; Sept. 24; Gaz. vol. 182; p. 761.
Osgood, Gilbert E., assignor of one-third to J. B. Frizzell, Norfolk, Va. Folding steel awning. No. 1,039,563; Sept. 24; Gaz. vol. 182; p. 905.
Otis Elevator Company. (See Lindquist, David L., assignor.)
Ottenheimer, Edward H., and E. C. Authier, Willimantic, Conn. Weaving-shuttle. No. 1,039,435; Sept. 24; Gaz. vol. 182; p. 852.
Ouren, John B., Hanska, Minn. Corn-harvester. No. 1,039,180; Sept. 24; Gaz. vol. 182; p. 762.
Owen, Hillery O., Corpus Christi, Tex. Weed-killing composition. No. 1,039,317; Sept. 24; Gaz. vol. 182; p. 812.
Oxnard, Henry E., Newton, Mass. Expansible chamber. No. 1,038,636; Sept. 17; Gaz. vol. 182; p. 562.
Ozias, Albert N., deceased, Minneapolis; E. V. L. Haxby and D. L. Fairchild, Hennepin county, Minn., administrators. Temperature-indicating instrument. No. 1,038,426; Sept. 10; Gaz. vol. 182; p. 454.
Pacific Flush Tank Company. (See Miller, Samuel F., assignor.)
Pacific Gas & Electric Company. (See Knopp, Otto A., assignor.)
Pagee, Paul H., assignor of three-twentieths to W. W. Heroy, New York, N. Y. Aeroplane suspension-railway. No. 1,037,973; Sept. 10; Gaz. vol. 182; p. 302.
Paine, Julia A., administratrix. (See Paine, Timothy J.)
Paine, Timothy J., deceased; J. A. Paine, administratrix, Watertown, Mass. Shaft-straightening machine. No. 1,037,301; Sept. 3; Gaz. vol. 182; p. 41.
Palmer, Roy M., Washington, D. C. Aerostructural balance. No. 1,039,181; Sept. 24; Gaz. vol. 182; p. 762.
Pangburn, James O., Hector, N. Y. Knotter for grain-binders. No. 1,038,637; Sept. 17; Gaz. vol. 182; p. 562.
Paquette, Exilias, assignor to Lawrence Manufacturing Company, Lowell, Mass. Knitting-machine. No. 1,038,638; Sept. 17; Gaz. vol. 182; p. 562.
Paraskovich, Tadeus, Vienna, Austria-Hungary. Powder-packing machine. No. 1,037,974; Sept. 10; Gaz. vol. 182; p. 302.
Parent, Jules F., Plainfield, N. J. Sash-fastener. No. 1,037,302; Sept. 3; Gaz. vol. 182; p. 41.
Paris, Leon C., and T. Millward, assignors of one-third to J. R. Howell, San Francisco, Cal. Machine for carbonating beverages. No. 1,038,191; Sept. 10; Gaz. vol. 182; p. 372.
Parke, Davis & Company. (See Francis, John M., assignor.)
Parker, George W., St. Louis, Mo. Constructing a retort-setting. No. 1,037,516; Sept. 3; Gaz. vol. 182; p. 115.
Parker, Howard, assignor to Improved Paper Machinery Company, Nashua, N. H. Roll. No. 1,039,067; Sept. 17; Gaz. vol. 182; p. 705.
Parker, Malvin B., Waterville, Me. Root-digger. No. 1,039,583; Sept. 24; Gaz. vol. 182; p. 906.

Parks, Cyril G., Minneapolis, Minn. Package-clasp. No. 1,038,785; Sept. 17; Gas. vol. 182; p. 613.

Parks, George A., assignor of one-half to J. M. Brennan, Upland, Cal. Resurfacing device. No. 1,038,947; Sept. 17; Gas. vol. 182; p. 669.

Parsons, Bert S., and W. A. Freeman, Harrisonville, Mo. Magazine-firearm. No. 1,039,182; Sept. 24; Gas. vol. 182; p. 762.

Parsons, Charles, Cleveland, Ohio. Hose-coupling. No. 1,039,584; Sept. 24; Gas. vol. 182; p. 906.

Pascal, Israel, assignor of one-half to M. Bessler, Montreal, Quebec, Canada. Railway-car. No. 1,039,585; Sept. 24; Gas. vol. 182; p. 906.

Paschka, Max, Vienna, Austria-Hungary. Apparatus for impregnating liquids with gases. No. 1,037,517; Sept. 3; Gas. vol. 182; p. 116.

Pastor, Fritz, Krefeld, Germany. Figuring velvet. No. 1,037,975; Sept. 10; Gas. vol. 182; p. 303.

Patrick, William E., Newport, R. I. Hose-coupling and hose-fastener. No. 1,038,948; Sept. 17; Gas. vol. 182; p. 669.

Patten, John, Baltimore, Md. Purification of water. No. 1,039,586; Sept. 24; Gas. vol. 182; p. 907.

Patterson, Paul H. (See Toso, Marcellino, assignor.)

Patterson, Peter, Pittsburgh, Pa. Regenerative furnace. No. 1,038,640; Sept. 17; Gas. vol. 182; p. 563.

Patterson, William J., Denver, Colo. Brake mechanism for talking-machines. No. 1,037,976; Sept. 10; Gas. vol. 182; p. 303.

Pattison, Clarence A., and L. E. Roby, Peoria, Ill. Grain-drill. No. 1,037,803; Sept. 3; Gas. vol. 182; p. 42.

Paulero, Alfonso M., Richmond, Va. Seal. No. 1,038,689; Sept. 17; Gas. vol. 182; p. 563.

Pauling, Harry, assignor to Salpetersäure-Industrie-Gesellschaft, G. m. b. H., Gelsenkirchen, Germany. Absorbing nitrous gases. No. 1,037,977; Sept. 10; Gas. vol. 182; p. 303.

Paull, Samuel, New York, N. Y. Skirt-weight. No. 1,037,518; Sept. 3; Gas. vol. 182; p. 116.

Payne, Chas. E. (See Johnson, Carl E., assignor.)

Payne Manufacturing Company. (See Son, Anthony, assignor.)

Peacock, Edward L., assignor to The Lake Torpedo Boat Company, Bridgeport, Conn. Submarine or submergible boat. No. 1,037,519; Sept. 3; Gas. vol. 182; p. 116.

Pearce, Charles D., Canton, Mo. Stovepipe attachment. No. 1,039,587; Sept. 24; Gas. vol. 182; p. 907.

Pearce, Harold V. (See Collins and Pearce.)

Pearse, Alfred, Hampstead Heath, London, England. Advertising device. No. 1,037,978; Sept. 10; Gas. vol. 182; p. 304.

Pearson, Willis A., Troy, Ohio. Wind-shield hinge. No. 1,039,588; Sept. 24; Gas. vol. 182; p. 907.

Pecard, Phillip, Lena, Wis. Swingle or double tree. No. 1,039,318; Sept. 24; Gas. vol. 182; p. 812.

Peck, Carlos C. (See Babcock, Fred A., assignor.)

Peckham, John H., Fraser, Idaho. Lantern attachment. No. 1,038,427; Sept. 10; Gas. vol. 182; p. 454.

Pederson, Charles S., Grantsburg, Wis. Portable fireproof safe. No. 1,038,428; Sept. 10; Gas. vol. 182; p. 455.

Peet, Wilbur G., assignor of one-half to The Kilpatrick & Hots Company, Bridgeport, Conn. Socket-switch. No. 1,037,304; Sept. 3; Gas. vol. 182; p. 42.

Peigler, Commodore T., Greenville, S. C. Rotary engine. No. 1,037,655; Sept. 3; Gas. vol. 182; p. 161.

Pendexter, Edward F., Milford, Mass. Car-coupling. No. 1,038,786; Sept. 17; Gas. vol. 182; p. 614.

Penfield, James C. and J. N., assignors of two-sixths to T. F. Loughran, three-sixths to W. W. Richards, and one-sixth to L. M. Olsen, Grand Junction, Colo. Prorating-weir. No. 1,037,656; Sept. 3; Gas. vol. 182; p. 161.

Penfield, John N. (See Penfield, James C. and J. N.)

Penn, Frederick W., Petaluma, Cal. Oil-burner. No. 1,039,319; Sept. 24; Gas. vol. 182; p. 812.

Penn Yan Flexible Conduit Company. (See Wheeler and Ramsey, assignors.)

Pennell, John W., Youngstown, Ohio. Trolley-wheel. No. 1,039,589; Sept. 24; Gas. vol. 182; p. 907.

Pennsylvania Globe Gas Light Company, The. (See Slinack, Victor H., assignor.)

Pennsylvania Salt Manufacturing Company. (See Davis, Robert W., Jr., assignor.)

Penny, Herbert T., Saugus, Mass. Game-stick. No. 1,038,429; Sept. 10; Gas. vol. 182; p. 455.

Penry, Wilbert W., Echo, Oreg. Water-carrier. No. 1,038,641; Sept. 17; Gas. vol. 182; p. 563.

Perkins Electric Switch Manufacturing Company, The. (See Wallbillich, Anthony F., assignor.)

Perkins, Frank C., Buffalo, N. Y. Process and apparatus for welding. No. 1,037,979; Sept. 10; Gas. vol. 182; p. 304.

Perkins, Herbert E., Des Moines, Iowa. Bed or berth attachment. No. 1,037,805; Sept. 3; Gas. vol. 182; p. 42.

Perkins, Thomas G., Seattle, Wash. Ice-cream-cone machine. No. 1,039,183; Sept. 24; Gas. vol. 182; p. 763.

Perley, Edgar J., Emerson, Iowa. Safety-rack. No. 1,037,520; Sept. 3; Gas. vol. 182; p. 117.

Perry, Edward L., Jr., Paterson, N. J. Washer for glass gages, &c. No. 1,038,642; Sept. 17; Gas. vol. 182; p. 563.

Peterson, Peter H. (See Moreland, Frank T., assignor.)

Peterson, Charles E., Littlestown, Pa. Mowing-machine. No. 1,039,436; Sept. 24; Gas. vol. 182; p. 852.

Peterson, Charles F., New York, N. Y. Heating-drum. No. 1,037,306; Sept. 3; Gas. vol. 182; p. 43.

Peterson, Thomas, Duluth, Minn. Mop-wringer. No. 1,038,192; Sept. 10; Gas. vol. 182; p. 272.

Petrolithic Pavement Company. (See Gillette, Walter A., assignor.)

Petrucci, Albert E., New York, N. Y. Aeroplane. No. 1,037,557; Sept. 3; Gas. vol. 182; p. 161.

Pfeiffer, Adolph, New York, N. Y. Mechanism for operating toy derricks. No. 1,038,949; Sept. 17; Gas. vol. 182; p. 670.

Pfeifer, John W., *et al.* (See Pickett, John B., assignor.)

Pflager, Harry M. (See Howard and Pflager.)

Pfleumer, Fritz, Dresden, Germany. Manufacturing hot vulcanized froth from india-rubber, gutta-percha, and balata. No. 1,038,950; Sept. 17; Gas. vol. 182; p. 670.

Phelps, Frank, Little Rock, Ark. Cotton-compress. No. 1,038,430; Sept. 10; Gas. vol. 182; p. 455.

Philadelphia Electrical and Manufacturing Company. (See Bundy, Clifton L., assignor.)

Philippine Hemp Machine Company. (See Wilson, Roy A., assignor.)

Philippa, August, assignor to Frankfurter Musikwerke-Fabrik J. D. Philippa & Söhne Akt. Ges., Frankfort-on-the-Main, Germany. Piano-violin. No. 1,038,643; Sept. 17; Gas. vol. 182; p. 563.

Philippa, August and O., Frankfort-on-the-Main, Bockenheim, Germany. Tracker-board. No. 1,038,193; Sept. 10; Gas. vol. 182; p. 273.

Philippa, Oswald. (See Philippa, August and O.)

Phillips, Charles P., and L. S. Barger, McGehee, Ark. Feed-water regulator. No. 1,037,980; Sept. 10; Gas. vol. 182; p. 304.

Phillis, Clarence L., Mount Lebanon, Pa. Device for indicating liquid measure. No. 1,038,951; Sept. 17; Gas. vol. 182; p. 670.

Philo, Edgar W., Elmira, N. Y. Heaterless incubator and brooder. No. 1,038,431; Sept. 10; Gas. vol. 182; p. 455.

Phin, John A., Toronto, Ontario, Canada. Divisional receptacle. No. 1,038,644; Sept. 17; Gas. vol. 182; p. 564.

Pickett, John B., Grand Rapids, assignor of one-fourth to E. M. Vroman, one-eighth to J. W. Pfeifer, and one-eighth to S. D. Ketchum, Edmore, Mich. Type-writer. No. 1,037,961; Sept. 10; Gas. vol. 182; p. 304.

Pier, Mathias, Schlachtensee, near Berlin, Germany, assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Preparing halogen-oxygen compounds by electrolysis. No. 1,038,194; Sept. 10; Gas. vol. 182; p. 273.

Pierce, Annie E., *et al.* (See Pierce, John G., assignor.)

Pierce, Charles F., Cartersville, and S. C. Byrd, Webb City, Mo. Grate-cleaner. No. 1,039,184; Sept. 24; Gas. vol. 182; p. 763.

Pierce, George L., New York, N. Y. Antislip-cleat. No. 1,038,645; Sept. 17; Gas. vol. 182; p. 564.

Pierce, George L., Brooklyn, N. Y. Shoe. No. 1,039,437; Sept. 24; Gas. vol. 182; p. 852.

Pierce, Harry H., Indianapolis, Ind. Block-making machine. No. 1,038,646; Sept. 17; Gas. vol. 182; p. 564.

Pierce, John G., assignor of seven-sixteenths to K. Thomas, seven-sixteenths to A. E. Pierce, and two-sixteenths to J. G. Pierce, Salt Lake City, Utah. Drier. No. 1,038,952; Sept. 17; Gas. vol. 182; p. 671.

Pierrel, Anthony S., Washington, La. Spark-plug. No. 1,037,307; Sept. 3; Gas. vol. 182; p. 43.

Pike, Frederic J., Beckenham, and H. Neville, Forest Hill, assignors to J. Stone & Company Limited, Deptford, England. Fluid-pressure apparatus for operating bulkhead and other doors. No. 1,039,185; Sept. 24; Gas. vol. 182; p. 764.

Pike, William H., Jr., assignor to New York Adding Typewriter Company, Orange, N. J. Combined type-writing and adding machine. No. 1,037,521; Sept. 3; Gas. vol. 182; p. 117.

Pindtershofen, Victor P. von, Wiener-Neustadt, Austria-Hungary. Electric cable. No. 1,037,522; Sept. 3; Gas. vol. 182; p. 117.

Pinkston, William P., St. Louis, Mo. Combined registering and feeding magazine for guns. No. 1,037,308; Sept. 3; Gas. vol. 182; p. 43.

Pintsch Compressing Company. (See Vuilleumier, Rodolph, assignor.)

Piotrowski, Julian. (See Wichrowski and Piotrowski.)

Piovesan, Joseph E., Glassport, Pa. Water-protector for oil-bearings. No. 1,038,953; Sept. 17; Gas. vol. 182; p. 671.

Pitt, Ethelberht D., Niagara Falls, Ontario, Canada. Concrete reinforcement. No. 1,037,523; Sept. 3; Gas. vol. 182; p. 118.

Pitt, William J., Bodmin, Cornwall, England. Carving-dish. No. 1,038,647; Sept. 17; Gas. vol. 182; p. 564.

Pittack, Oscar, and A. B. Warman, Scranton, Pa. Caster. No. 1,039,590; Sept. 24; Gas. vol. 182; p. 907.

Place, Frederick E., Chicago, and G. P. S. Cross, Harvey, assignors to Buda Foundry & Manufacturing Company, Chicago, Ill. Lifting-jack. No. 1,039,438; Sept. 24; Gas. vol. 182; p. 853.

Planecki, Johann, Krakau, and F. Drobniak, Jawiszowice, Austria-Hungary. Cash issuing, indicating, and registering apparatus. No. 1,038,432; Sept. 10; Gas. vol. 182; p. 456.

Planetary Machinery Company. (See Prindle, Henry U., assignor.)

Plato, George J., San Francisco, Cal. Shock-absorber. No. 1,037,524; Sept. 3; Gas. vol. 182; p. 118.





Platt, Clarence D., Bridgeport, Conn. Rotary contact for snap-switches. No. 1,037,525; Sept. 3; Gas. vol. 182; p. 118.

Pleoger, George, Antigo, Wis. Vending-machine. No. 1,038,648; Sept. 17; Gas. vol. 182; p. 565.

Plume and Atwood Manufacturing Company, The. (See Andersen, Lauritz W., assignor.)

Plural System Ventilator Co. (See Mies, Frank P., assignor.)

Pechyia, Adolph A., West, Tex. Gate-fastener. No. 1,038,594; Sept. 17; Gas. vol. 182; p. 671.

Podlesak, Henry J., Chicago, Ill. Explosive-engine. No. 1,037,526; Sept. 3; Gas. vol. 182; p. 119.

Poeton, Lawrence, assignor to American Optical Company, Southbridge, Mass. Eyeglasses. No. 1,038,649; Sept. 17; Gas. vol. 182; p. 565.

Pogue, Robert H., New Westminster, British Columbia, Canada. Car-fender. No. 1,038,955; Sept. 17; Gas. vol. 182; p. 671.

Poince, John W. (See Curphey and Poince.)

Polo, Joseph B., Clear Lake, S. D. Tire-alarm. No. 1,038,433; Sept. 10; Gas. vol. 182; p. 456.

Pomeroy, Frederick E., and J. D. Harbaugh, Muncie, Ind. Gear-generating machine. No. 1,038,650; Sept. 17; Gas. vol. 182; p. 565.

Poore, John C., Chicago, Ill. Nursing-bottle. No. 1,037,309; Sept. 3; Gas. vol. 182; p. 43.

Poppe, Leopold, Berlin, Germany. Regrinding and polishing perforated diamonds. No. 1,039,186; Sept. 24; Gas. vol. 182; p. 764.

Porter, George. (See Bamberger and Porter.)

Porter, Wilson E., assignor to New Haven Clock Co., New Haven, Conn. Clock. No. 1,037,527; Sept. 3; Gas. vol. 182; p. 119.

Porter, Wilson E., assignor to New Haven Clock Co., New Haven, Conn. Case for marine clocks. No. 1,039,439; Sept. 24; Gas. vol. 182; p. 853.

Portner, William H., and D. H. Beaird, Gadsden, Ala. Loom-shuttle. No. 1,037,528; Sept. 3; Gas. vol. 182; p. 119.

Post, John H., Flanagan, Ill. Four-horse equalizer. No. 1,037,310; Sept. 3; Gas. vol. 182; p. 44.

Potter, George M. (See Mulholland and West, assignors.)

Potter, James C., Pawtucket, R. I. Gearing for lathe-spindles. No. 1,038,787; Sept. 17; Gas. vol. 182; p. 614.

Potter, James C., and J. Johnston, assignors to Potter and Johnston Machine Company, Pawtucket, R. I. Metal-working machine. No. 1,038,434; Sept. 10; Gas. vol. 182; p. 457.

Potter and Johnston Machine Company. (See Potter and Johnston, assignors.)

Powell, Frank, Los Angeles, Cal. Splice-bar. No. 1,037,795; Sept. 3; Gas. vol. 182; p. 206.

Powell, Homer B., Palmer, W. Va. Wire-stretcher. No. 1,037,529; Sept. 3; Gas. vol. 182; p. 119.

Powell, Leighton, U. S. Army. Sign. No. 1,039,187; Sept. 24; Gas. vol. 182; p. 764.

Powell, Thomas H., New York, N. Y. Harness-saddle. No. 1,037,962; Sept. 10; Gas. vol. 182; p. 305.

Power and Mining Machinery Company. (See Wintzer, Rudolf, assignor.)

Prahar, Lester L., New York, N. Y. Bag-jaw fastener. No. 1,039,188; Sept. 24; Gas. vol. 182; p. 765.

Prahar, Louis B., Massapequa, N. Y. Bag-fastener. No. 1,039,189; Sept. 24; Gas. vol. 182; p. 765.

Pratt & Cady Company, The (See Hayden, George W., assignor.)

Pratt, Philip W., Boston, Mass. Elastic tire. No. 1,037,311; Sept. 3; Gas. vol. 182; p. 44.

Pratt, Sedgwick, Piedmont, Cal. Developing apparatus. No. 1,039,190; Sept. 24; Gas. vol. 182; p. 766.

Pratt, Sedgwick, Piedmont, Cal. Photo-exposure meter. No. 1,039,191; Sept. 24; Gas. vol. 182; p. 766.

Prescott, De Witt C., Chicago, Ill. Sawmill setting and receding mechanism. No. 1,038,785; Sept. 17; Gas. vol. 182; p. 614.

Pressey, Burt J., Newport News, Va. Aeroplane. No. 1,038,435; Sept. 10; Gas. vol. 182; p. 457.

Preston, William A. (See Duffie and Preston.)

Price, Alfred J. (See Richards and Price.)

Price, Lester T. (See Grover, Charles A., assignor.)

Priddle, Arthur, San Francisco, Cal. Corner-protector. No. 1,038,196; Sept. 10; Gas. vol. 182; p. 273.

Prideaux, William D., Weymouth, England. Hypodermic or other syringe. No. 1,039,591; Sept. 24; Gas. vol. 182; p. 908.

Priester, Charles. (See Roemer, George W., assignor.)

Primm, John Q., Lincoln, Ill. Automobile-truck. No. 1,037,312; Sept. 3; Gas. vol. 182; p. 44.

Primrose, John, New York, N. Y. Steam-superheating apparatus for locomotives. No. 1,037,313; Sept. 3; Gas. vol. 182; p. 45.

Prindle, Henry U., assignor to Planetary Machinery Company, Incorporated, San Francisco, Cal. Mixing-machine. No. 1,039,192; Sept. 24; Gas. vol. 182; p. 766.

Prior, Matthew, Watertown, Mass. Cotton picker or harvester. No. 1,038,956; Sept. 17; Gas. vol. 182; p. 672.

Pritchett, Horace E., Miamitc, Ill. Distributing-hopper. No. 1,038,957; Sept. 17; Gas. vol. 182; p. 672.

Probst, Alfred H., Chicago, Ill., assignor to B. H. Van Auken. Valve. No. 1,039,008; Sept. 17; Gas. vol. 182; p. 705.

Proctor, Charles S., N. Lottus, and J. Anderson, Beckley, W. Va. Core retainer or lifter. No. 1,038,436; Sept. 10; Gas. vol. 182; p. 458.

Procunier, William L., Chicago, Ill. Bit and tap and die chuck. No. 1,037,796; Sept. 3; Gas. vol. 182; p. 206.

Proudfit, William S., Jr., Chicago, Ill. Loose-leaf binder. No. 1,037,314; Sept. 3; Gas. vol. 182; p. 45.

Proudfit, William S., Jr., Chicago, Ill. Loose-leaf binder. No. 1,037,315; Sept. 3; Gas. vol. 182; p. 45.

Prudden and Company, W. K. (See Brink, Charles L., assignor.)

Puckett, Hugh J., and V. Lucas, Kansas City, Mo. Grain-drying apparatus. No. 1,039,440; Sept. 24; Gas. vol. 182; p. 853.

Putman, Charles H. (See Shupe, Joseph J., assignor.)

Pyle National Electric Headlight Company. (See Dake, Charles W., assignor.)

Quick, Frank J., Cranston, assignor of one-third to J. Hahn, Providence, R. I. Automatic fire-extinguisher. No. 1,038,958; Sept. 17; Gas. vol. 182; p. 672.

Quigg, John G., Pittsburgh, Pa. Safety device for lying machines. No. 1,038,196; Sept. 10; Gas. vol. 182; p. 273.

Quinlan, Michael J., Bristol, Vt. Stone-boat. No. 1,038,959; Sept. 17; Gas. vol. 182; p. 673.

R. E. Funsten Dried Fruit & Nut Company. (See Crawford and Knight, assignors.)

Rabbitt, James A., Yokohama, Japan. Aeroplane. No. 1,037,658; Sept. 3; Gas. vol. 182; p. 162.

Rabbitt, James A., Yokohama, Japan. Talking-machine. No. 1,037,983; Sept. 10; Gas. vol. 182; p. 305.

Racine-Sattley Company. (See Weaver, Ira A., assignor.)

Raddatz, Richard, Milwaukee, Wis. Wheelbarrow. No. 1,038,197; Sept. 10; Gas. vol. 182; p. 274.

Ragsdale, Charles R., assignor of three-fourths to G. C. Ragsdale, one-eighth to I. M. Ragsdale, St. Louis, Mo., and one-eighth to D. I. Smith, Paducah, Ky. Tire-shield. No. 1,039,671; Sept. 24; Gas. vol. 182; p. 935.

Ragsdale, Gertrude C., *et al.* (See Ragsdale, Charles R., assignor.)

Ragsdale, Idella M., *et al.* (See Ragsdale, Charles R., assignor.)

Rail Joint Company, The. (See Wolhaupter, Benjamin, assignor.)

Rail Laying Machine Company. (See Reinehr, John, assignor.)

Railway Telephone & Electric Company. (See Lademan, Otto T., assignor.)

Ramsey, Edia R. (See Wheeler and Ramsey.)

Randall, Herbert K., and S. C. Thompson, Manistee, Mich. Rack. No. 1,038,198; Sept. 10; Gas. vol. 182; p. 274.

Rasmussen, Harald H. (See Williams and Rasmussen.)

Rast, Marcus J. D., St. Louis, Mo. Combined sash-fastener and antirattling device. No. 1,038,199; Sept. 10; Gas. vol. 182; p. 274.

Ratcliff, William A., Seattle, Wash. Lock. No. 1,037,531; Sept. 3; Gas. vol. 182; p. 120.

Rateau, Auguste C. E., Paris, France. Means for cooling turbo-compressors or blowers. No. 1,038,200; Sept. 10; Gas. vol. 182; p. 274.

Rateau, Auguste C. E., Paris, France. Means for increasing the height of suction of pumps. No. 1,038,201; Sept. 10; Gas. vol. 182; p. 275.

Rawstrom, Donald, *et al.* (See Fitzgerald, James J., assignor.)

Rawstrom, Henry, *et al.* (See Fitzgerald, James J., assignor.)

Ray, Albert D., and C. N. Russell, Cleveland, Ohio. Sanitary bottle-closure. No. 1,038,651; Sept. 17; Gas. vol. 182; p. 566.

Ray, Carry S., Dublin, Tex. Wheel-straightener. No. 1,039,193; Sept. 24; Gas. vol. 182; p. 767.

Ray, Henry T., Hudson, N. Y. Bottle-stopper. No. 1,039,592; Sept. 24; Gas. vol. 182; p. 908.

Ray, Joshua B. and T., Manistee, Mich. Chipping-machine. No. 1,039,441; Sept. 24; Gas. vol. 182; p. 854.

Ray, Thomas. (See Ray, Joshua B. and T.)

Raymond, Ed B., and C. R. Watson, Wichita, Kans. Fluid-hydrocarbon burner. No. 1,039,194; Sept. 24; Gas. vol. 182; p. 767.

Raymond, John W., assignor to The Air Friction Carburetor Company, Dayton, Ohio. Carburetor. No. 1,037,834; Sept. 3; Gas. vol. 182; p. 219.

Reagan, John C. (See Shepherd, James H., assignor.)

Reames, Charles H., assignor of one-fourth to D. Tubbs and one-fourth to R. Hill, Fort Worth, Tex. Trolley-catcher. No. 1,038,437; Sept. 10; Gas. vol. 182; p. 458.

Recktenwald, John, assignor of one-half to H. H. Streckmeyer, Nashville, Ill. Spring-motor. No. 1,037,316; Sept. 3; Gas. vol. 182; p. 46.

Rector, Harry W., Washington, D. C. Lamp-lock. No. 1,037,317; Sept. 3; Gas. vol. 182; p. 46.

Redlich, Alexander E., Chicago, Ill. Toy telephone. No. 1,037,532; Sept. 3; Gas. vol. 182; p. 120.

Redman, Edward E., Hampton, N. H. Double-soled turned shoe. No. 1,039,442; Sept. 24; Gas. vol. 182; p. 854.

Reed, Jerry M., Fort Thomas, Ky., assignor to J. A. Day & Bean Company, Cincinnati, Ohio. Board-support for sawing-machines. No. 1,037,535; Sept. 3; Gas. vol. 182; p. 216.

Reed, Roy, and A. D. Fiveshilling, Buffalo, N. Y. Wire twisting or splicing machine. No. 1,038,780; Sept. 17; Gas. vol. 182; p. 614.

Reed, Theodore A., *et al.* (See Alexander, Jesse, assignor.)

Reese, Clarence K., assignor to The Reese & Crittenden Co., Cleveland, Ohio. Combined mailing-card and frame. No. 1,038,652; Sept. 17; Gas. vol. 182; p. 566.

Reese & Crittenden Co., The. (See Reese, Clarence K., assignor.)
Reeves & Company. (See Kallor, John N., assignor.)
Rehak, James. (See Madigan and Rehak.)
Reichmann, Frank. (See Darstewitz, Otto, assignor.)
Reid, Harry, Clinton, Ind. Thill-coupling. No. 1,037,523; Sept. 3; Gas. vol. 182; p. 121.
Reid, Robert, Victoria, British Columbia, Canada. Guide-map. No. 1,037,984; Sept. 10; Gas. vol. 182; p. 305.
Reimann, Otto. (See Fox, Joseph P., assignor.)
Reinach, Louis, assignor of one-third to J. Curry, New York, N. Y. Overshoe for horses. No. 1,037,534; Sept. 3; Gas. vol. 182; p. 121.
Reinehr, John, Savanna, assignor to Rail Laying Machine Company, Chicago, Ill. Rail-laying apparatus. No. 1,038,654; Sept. 17; Gas. vol. 182; p. 566.
Reiss, Eugen. (See Lieben and Reiss.)
Reith, George C., and G. F. Fiade, assignors to E. F. Henson, trustee, Philadelphia, Pa. Coin-selector. No. 1,038,655; Sept. 17; Gas. vol. 182; p. 567.
Rembert, Samuel, Memphis, Tenn. Exhaust-fan. No. 1,037,659; Sept. 3; Gas. vol. 182; p. 162.
Renaud, Felix D., Chicago, Ill. Flashing-block. No. 1,039,320; Sept. 24; Gas. vol. 182; p. 812.
Rengstorf, Herman F., Waterloo, Ill. Collapsible drinking-cup. No. 1,037,985; Sept. 10; Gas. vol. 182; p. 306.
Resilia Limited. (See Brown and Berry, assignors.)
Ressler, Moriss. (See Pascal, Israel, assignor.)
Rettmann, Charles H., Chicago, Ill. Electroresponsive vibrator movement. No. 1,038,438; Sept. 10; Gas. vol. 182; p. 458.
Reuter, Jean G. F., Waterbury, Conn. Spray-vibrator. No. 1,038,656; Sept. 17; Gas. vol. 182; p. 567.
Revis, James, Raton, N. Mex. Railway-rail joint. No. 1,037,986; Sept. 10; Gas. vol. 182; p. 306.
Rex, Lewis F. (See Fink and Rex.)
Reymond, Henry. (See Berger, Reymond, and Horn.)
Reynolds, John C., Derrick City, Pa. Safety-pin. No. 1,038,202; Sept. 10; Gas. vol. 182; p. 375.
Rheinische Metallwaaren- und Maschinenfabrik. (See Steinhart, Eugen, assignor.)
Rhett, James M., Beaufort, S. C. Safety starting device for internal-combustion engines. No. 1,039,321; Sept. 24; Gas. vol. 182; p. 813.
Rhoades, Alonso E., assignor to Draper Company, Hopedale, Mass. Yarn-spinning apparatus. No. 1,037,518; Sept. 3; Gas. vol. 182; p. 46.
Rhodes, Edgar, Leeds, England, assignor to Continuous Rail Company, Wilmington, Del. Compound-rail construction. No. 1,038,459; Sept. 10; Gas. vol. 182; p. 459.
Rhodes, Ernest R., Fulton, N. Y. Bow-coupling for carriage-tops. No. 1,039,195; Sept. 24; Gas. vol. 182; p. 768.
Rhodes, John K., Brooklyn, assignor to K. M. Turner, Jamaica, N. Y. Telephonic transmitting appliance. No. 1,039,443; Sept. 24; Gas. vol. 182; p. 855.
Rhone, George M., Brownwood, Tex. Syringe. No. 1,038,960; Sept. 17; Gas. vol. 182; p. 673.
Riblet, George E., Erie, Pa. Heater. No. 1,037,987; Sept. 10; Gas. vol. 182; p. 306.
Ricaldoni, Ottavio. (See Crocco and Ricaldoni.)
Rice, Frank. (See Calkins and Rice.)
Rice, Walter F., Quincy, Mass., assignor to Fore River Ship Building Company. Planing apparatus. No. 1,038,790; Sept. 17; Gas. vol. 182; p. 615.
Richard, Raphael D., Westchester Lake, Nova Scotia, Canada. Windmill. No. 1,038,657; Sept. 17; Gas. vol. 182; p. 567.
Richards, Charles B., assignor, by mesne assignments, to The Cleveland Rock Drill Company, Cleveland, Ohio. Fluid-operated tool. No. 1,037,535; Sept. 3; Gas. vol. 182; p. 121.
Richards, Corydon, Harvard, Ill. Awning. No. 1,039,593; Sept. 24; Gas. vol. 182; p. 908.
Richards, Ernst B., assignor to Sears, Roebuck and Co., Chicago, Ill. Core-chuck. No. 1,037,988; Sept. 10; Gas. vol. 182; p. 307.
Richards, George A., and A. J. Price, Watertown, Wis. Socket-cover for light-fixtures. No. 1,037,989; Sept. 10; Gas. vol. 182; p. 307.
Richards, John W., Jr., Flint, Mich. Fly-fan. No. 1,039,196; Sept. 25; Gas. vol. 182; p. 768.
Richards, Joseph W., South Bethlehem, Pa. Treatment of molten steel. No. 1,037,536; Sept. 3; Gas. vol. 182; p. 122.
Richards, William W., *et al.* (See Penfield, James C. and J. N., assignors.)
Richardson, Henry B., Attleboro, Mass. Tumbling and polishing machine. No. 1,038,791; Sept. 17; Gas. vol. 182; p. 615.
Ricketts, John A., Rochester, N. Y. Fish-line reel. No. 1,038,203; Sept. 10; Gas. vol. 182; p. 375.
Riddick, Edgar L., and D. M. MacLeod, Lake Charles, La. Valve. No. 1,038,653; Sept. 17; Gas. vol. 182; p. 566.
Ridgway, William G., *et al.* (See Alexander, Jesse, assignor.)
Riemann, Otto, Hamburg, Germany. Press. No. 1,039,444; Sept. 24; Gas. vol. 182; p. 855.
Riesenberg, Felix, New York, N. Y. Fountain-pen. No. 1,037,660; Sept. 3; Gas. vol. 182; p. 163.
Riggs, Addison H., Belmar, N. J. Outrigger-thwart for canoes. No. 1,037,990; Sept. 10; Gas. vol. 182; p. 307.
Riley, Enoch T., Ozark, Ala. Grain-dropper. No. 1,037,319; Sept. 3; Gas. vol. 182; p. 47.
Rindall, Joel, assignor of one-half to H. N. Segerstrom, Rhinelander, Wis. Guide-chart. No. 1,039,322; Sept. 24; Gas. vol. 182; p. 813.
Rindfleisch, Benjamin F., assignor to The National-Acme Manufacturing Company, Cleveland, Ohio. Mechanism for feeding angular-formed blanks. No. 1,037,320; Sept. 3; Gas. vol. 182; p. 47.
Ripken, Hugo F. (See Klagan and Ripken.)
Ripper, John J., and J. Bornander, Fellows, Cal. Automatic engine control. No. 1,037,661; Sept. 3; Gas. vol. 182; p. 163.
Rivera, Philip J., New Rochelle, N. Y. Safety-elevator. No. 1,038,961; Sept. 17; Gas. vol. 182; p. 673.
Rivera, Philip J., New Rochelle, N. Y. Car-axle. No. 1,038,962; Sept. 17; Gas. vol. 182; p. 674.
Rives, James D., assignor of one-fourth to J. W. Blosser, Atlanta, Ga. Building construction. No. 1,037,321; Sept. 3; Gas. vol. 182; p. 48.
Robb, John F. (See Cosgby, William H., assignor.)
Robbins, John E. (See Kirkpatrick, Robbins, and Kirkpatrick.)
Robbins, William J. (See Doherty and Robbins.)
Roberts, George B., New York, and M. T. Flanagan, North Tarrytown, N. Y. Window-lock. No. 1,037,663; Sept. 3; Gas. vol. 182; p. 163.
Roberts, George H., Thomas, Okla. Whiffletree-hook. No. 1,037,322; Sept. 3; Gas. vol. 182; p. 48.
Roberts, Griffith D., Columbus, Wis. Pneumatic hammer. No. 1,037,323; Sept. 3; Gas. vol. 182; p. 48.
Roberts, Henry P., assignor of two-thirds to H. W. May, Somerville, and H. S. Warner, Boston, Mass. Beating and mixing device. No. 1,038,204; Sept. 10; Gas. vol. 182; p. 376.
Roberts, Homer J., Evanston, Ill., assignor, by mesne assignments, to Homer Roberts Telephone Co. Ringer for telephones, &c. No. 1,037,537; Sept. 3; Gas. vol. 182; p. 122.
Roberts, James O., and J. W. Nunn, Granger, Tex. Starting device for engines. No. 1,037,663; Sept. 3; Gas. vol. 182; p. 164.
Robertson, Walter M. (See Crump and Robertson.)
Robertson, William, Cleveland, Ohio. Labeling-machine. No. 1,038,658; Sept. 17; Gas. vol. 182; p. 568.
Robeson Cutlery Company. (See Cooper, James B., assignor.)
Robinson, Earle T., University, assignor to Robinson Fire Apparatus Manufacturing Company, St. Louis, Mo. Piston. No. 1,038,510; Sept. 10; Gas. vol. 182; p. 483.
Robinson Fire Apparatus Manufacturing Company. (See Robinson, Earle T., assignor.)
Robinson, Herbert E., Providence, R. I. Fastener. No. 1,037,991; Sept. 10; Gas. vol. 182; p. 307.
Robinson, Isabella E. (See Trossin, Otto, assignor.)
Robinson, Roy H., Chicago, Ill. Composite building-frame structure. No. 1,038,440; Sept. 10; Gas. vol. 182; p. 459.
Robinson, William E. G. (See Robinson, William L. and W. E. G.)
Robinson, William L. and W. E. G., Concord, N. C. Spindle. No. 1,037,324; Sept. 3; Gas. vol. 182; p. 49.
Roby, Luther H. (See Pattison and Roby.)
Rockey, Walter S., and H. Eldridge, New York, N. Y., assignors to Metallurgical Research Company. Refining copper. No. 1,037,538; Sept. 3; Gas. vol. 182; p. 122.
Rockwell, Frederick C., Hamilton, Ill. Distributing-valve for bath-tubs. No. 1,037,664; Sept. 3; Gas. vol. 182; p. 164.
Rockwell, Walter S., New York, N. Y. Furnace for annealing, &c. No. 1,037,665; Sept. 3; Gas. vol. 182; p. 164.
Rodgers, Richard P., Spartanburg, S. C. Wire basket. No. 1,037,539; Sept. 3; Gas. vol. 182; p. 122.
Rodibaugh, Albert C., Frank, Pa. Razor-stropping device. No. 1,039,445; Sept. 24; Gas. vol. 182; p. 855.
Rodier, Napoleon. (See Caron, Napoleon, assignor.)
Roe, Howard B., Pittsburgh, Pa. Cover for electric switch-boxes. No. 1,038,963; Sept. 17; Gas. vol. 182; p. 674.
Roebuck, Alvah C., assignor to The Enterprise Optical Mfg. Company, Chicago, Ill. Kinetoscope. No. 1,037,325; Sept. 3; Gas. vol. 182; p. 49.
Roemer, George W., assignor of one-third to C. Priester, Chicago, Ill. Rail-support. No. 1,037,540; Sept. 3; Gas. vol. 182; p. 123.
Roether, Nicholas J., Mineral Point, Wis. Spark-arrester. No. 1,037,326; Sept. 3; Gas. vol. 182; p. 49.
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Rogers, Charles T., assignor of one-half to J. W. Rogers, Newton, Ala. Flying-machine. No. 1,038,964; Sept. 17; Gas. vol. 182; p. 674.
Rogers, John W. (See Rogers, Charles T., assignor.)
Rogers, Mildred M., Katrine, Va. Shield attachment for sleeves. No. 1,037,666; Sept. 3; Gas. vol. 182; p. 165.
Rogers, Walter K., Kansas City, Mo. Lens-grinding machine. No. 1,037,992; Sept. 10; Gas. vol. 182; p. 308.
Roitzheim, Carl, Cologne, Germany. Heater for zinc-reducing furnaces. No. 1,038,209; Sept. 10; Gas. vol. 182; p. 376.
Roller, Frank W., East Orange, N. J. Electric metering apparatus. No. 1,038,669; Sept. 17; Gas. vol. 182; p. 568.
Romans, George W., Los Angeles, Cal. Carburetor. No. 1,037,993; Sept. 10; Gas. vol. 182; p. 308.
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Rook, Paul A., assignor of one-half to B. J. Rook, Seattle, Wash. Can-closing appliance. No. 1,037,541; Sept. 3; Gas. vol. 182; p. 123.
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Rook, William H., Jr., Akron, Ohio. Sewer-pipe section for sewer-building. No. 1,037,329; Sept. 3; Gas. vol. 182; p. 50.
Rooney, John J., Cleveland, Ohio. Drawer-slide. No. 1,037,542; Sept. 3; Gas. vol. 182; p. 124.
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Rosenburg, Jacob, *et al.* (See Lipson, Samuel, assignor.)
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Ross, William J., Silverton, Colo. Bed. No. 1,037,995; Sept. 10; Gas. vol. 182; p. 308.
Rossi, Auguste J., and W. F. Meredith, Niagara Falls, assignors to The Titanium Alloy Manufacturing Company, New York, N. Y. Compound or composition of matter and producing same. No. 1,039,672; Sept. 24; Gas. vol. 182; p. 935.
Rossignol, Samuel K., Atlanta, Ga. Resilient wheel. No. 1,039,594; Sept. 24; Gas. vol. 182; p. 909.
Rossiter, Ernest, Port Edwards, Wis. Sulfur-burner. No. 1,038,442; Sept. 10; Gas. vol. 182; p. 460.
Roth, Charles H., and W. J. Warder, Jr., Chicago, Ill. Variable-speed electric generator. No. 1,039,197; Sept. 24; Gas. vol. 182; p. 769.
Rothrock, Samuel W., New York, N. Y., assignor to Lincoln Architectural Iron Company. Post-cap. No. 1,037,996; Sept. 10; Gas. vol. 182; p. 309.
Rotter, William A., Chicago, Ill., assignor to Comptograph Company. Ribbon-spool for adding-machines. No. 1,038,660; Sept. 17; Gas. vol. 182; p. 569.
Roussillon, Philippe, Argenteuil, assignor to Société A. Oller & Cie., Clermont-Ferrand, France. Apparatus for vulcanising tires. No. 1,039,323; Sept. 24; Gas. vol. 182; p. 814.
Rowe, Alvin V., Galesburg, Ill. Gate. No. 1,038,443; Sept. 10; Gas. vol. 182; p. 461.
Roy, Eli, Lewiston, Me. Cement compound and making the same. No. 1,037,836; Sept. 3; Gas. vol. 182; p. 219.
Roy, Joseph, Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo. Gas-burner. No. 1,038,965; Sept. 17; Gas. vol. 182; p. 675.
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Ruffin, Henry M., Memphis, Tenn. Dough-rounding machine. No. 1,037,797; Sept. 3; Gas. vol. 182; p. 207.
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Rumpf, Charles, Napoleonville, La. System of clarification. No. 1,037,798; Sept. 3; Gas. vol. 182; p. 207.
Ruppel, Wilhelm, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Producing a remedy for tuberculosis. No. 1,037,997; Sept. 10; Gas. vol. 182; p. 309.
Russell, Charles A., Providence, R. I. Vehicle-wheel. No. 1,038,661; Sept. 17; Gas. vol. 182; p. 569.
Russell, Charles N. (See Ray and Russell.)
Russell, Duncan M., Picton, Colo. Combined lock and latch. No. 1,037,543; Sept. 3; Gas. vol. 182; p. 124.
Russell, Frank N., and E. Clark, Chicago, Ill. Mitering device. No. 1,038,966; Sept. 17; Gas. vol. 182; p. 675.
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Russell, Whitman, Greenfield, Mass. Tap-wrench. No. 1,038,967; Sept. 17; Gas. vol. 182; p. 675.
Ruth, Max, Jersey City, N. J. Clothes-line support. No. 1,038,968; Sept. 17; Gas. vol. 182; p. 675.
Ryan, Michael, Somerville, N. J. Guard-rail. No. 1,038,969; Sept. 17; Gas. vol. 182; p. 676.
Ryan, Michael J., Perth Amboy, N. J. Music-sheet turner. No. 1,038,662; Sept. 17; Gas. vol. 182; p. 570.
Rydberg, John T., Garwood, N. J. Engine construction. No. 1,038,970; Sept. 17; Gas. vol. 182; p. 676.
Ryden, Claes, Providence, R. I., assignor to Universal Winding Company, Portland, Me. Cop or bobbin. No. 1,038,971; Sept. 17; Gas. vol. 182; p. 677.
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S. S. White Dental Manufacturing Company, The. (See Wiggins, Harry G., assignor.)
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Sager, Albert C., Savanna, Ill. Car-door. No. 1,039,446; Sept. 24; Gas. vol. 182; p. 856.
Sahmer, Gustav, Strassburg, Germany. Door-lock. No. 1,038,663; Sept. 17; Gas. vol. 182; p. 570.
Salisbury, Edgar R., assignor to Signalphone Alarm Company, Milwaukee, Wis. Signal. No. 1,038,206; Sept. 10; Gas. vol. 182; p. 376.
Salpetersäure-Industrie-Gesellschaft, G. m. b. H. (See Pauling, Harry, assignor.)
Sanders, Thomas R., Hyde Park, assignor to B. F. Sturtevant Company, Boston, Mass. Elastic-fluid turbine. No. 1,038,972; Sept. 17; Gas. vol. 182; p. 677.
Sandfield, Michael, Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company. Coil-forming apparatus. No. 1,037,998; Sept. 10; Gas. vol. 182; p. 309.
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Sandwich Electric Company. (See Rugh, Harry O., assignor.)
Sanor, John H., and E. W. Cosbell, Canton, Ohio; said Cosbell assignor to said Sanor. Electric signal and train control. No. 1,039,324; Sept. 24; Gas. vol. 183; p. 814.
Sarres, William J., *et al.* (See Wiese, Theodore L., assignor.)
Sätterström, Algot, Grillby, assignor to Grillby Metallfabrik, Stockholm, Sweden. Distributing apparatus for liquids. No. 1,038,444; Sept. 10; Gas. vol. 182; p. 461.
Saunders, Lewis E., Niagara Falls, N. Y., assignor to Norton Company, Worcester, Mass. Article of alumina and making same. No. 1,037,999; Sept. 10; Gas. vol. 182; p. 310.
Savage, Hiram B., Spokane, Wash. Clutch. No. 1,039,595; Sept. 24; Gas. vol. 182; p. 909.
Savage, Lillian M., Baltimore, Md. Skirt. No. 1,037,331; Sept. 3; Gas. vol. 182; p. 51.
Savy, Emile L. A., Paris, France. Apparatus for treating pasty materials, such as chocolate. No. 1,037,545; Sept. 3; Gas. vol. 182; p. 125.
Saxton, Oliver G. (See Carlson and Saxton.)
Schaefer, Edward, assignor to Missouri Lamp & Mfg. Co., St. Louis, Mo. Fire-extinguisher holder. No. 1,038,000; Sept. 10; Gas. vol. 182; p. 310.
Schäfer, Wilhelm, Cologne, Germany. Releasing mechanism for boring-tools. No. 1,037,799; Sept. 3; Gas. vol. 182; p. 207.
Schaff, William. (See Wurst and Schaff.)
Schaffer, Jacob, New York, N. Y. Combined protective shield and attaching device for receptacle-covers. No. 1,038,001; Sept. 10; Gas. vol. 182; p. 310.
Schaffer, William A., assignor of one-fourth to J. L. Orand, Waco, Tex. Explosive-engine. No. 1,037,667; Sept. 3; Gas. vol. 182; p. 165.
Schaller, Carl. (See Trinks and Schaller.)
Schaller, Johannes H., assignor to Cluett, Peabody & Company, Troy, N. Y. Fabric-drying apparatus. No. 1,038,002; Sept. 10; Gas. vol. 182; p. 311.
Schalscha, Max, Summit, N. J. Lubricating device for steam-hammers. No. 1,037,332; Sept. 3; Gas. vol. 182; p. 51.
Scharfenberg, Oswald. (See Hersberg and Scharfenberg.)
Schatz, Herman A. (See Schatz, John W., assignor.)
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Schatz, John W., assignor of one-half to H. A. Schatz, Poughkeepsie, N. Y. Making hollow metallic balls. No. 1,039,674; Sept. 24; Gas. vol. 182; p. 936.
Schauffer, Fred L., Mattoon, Ill., assignor to National Aerial Navigation & Equipment Co., Cullman, Ala. Flying-machine. No. 1,037,800; Sept. 3; Gas. vol. 182; p. 208.
Schell, Natalie, New York, N. Y. Bolt and locking device therefor. No. 1,038,664; Sept. 17; Gas. vol. 182; p. 570.
Schermack, Joseph J., Detroit, Mich. Stamp-handling machine. No. 1,037,546; Sept. 3; Gas. vol. 182; p. 126.
Scheuer, Joseph F., Two Creeks, Wis. Fire-escape apparatus. No. 1,037,333; Sept. 3; Gas. vol. 182; p. 51.
Schiller, Morris, St. Louis, Mo. Sanitary portable water-closet. No. 1,038,665; Sept. 17; Gas. vol. 182; p. 570.
Schimmel, Franz, Montrouge, near Paris, France. Machine for setting and casting from lines of type-matrices. No. 1,038,445; Sept. 10; Gas. vol. 182; p. 461.
Schleicher, John W., St. Louis, Mo., assignor to Mengel Box Company, Louisville, Ky. Packing-box. No. 1,039,447; Sept. 24; Gas. vol. 182; p. 856.
Schleifenheimer, John T. (See Coulter, Thomas H., assignor.)
Schlosser, John, New York, N. Y. Apparatus for stretching the armholes of coats. No. 1,038,792; Sept. 17; Gas. vol. 182; p. 616.
Schmidgall, Carl H., and O. A. Barnewolt; said Barnewolt assignor to F. G. Lindeburg, Peoria, Ill. Hinge-holding device. No. 1,037,547; Sept. 3; Gas. vol. 182; p. 126.
Schmidt, Albrecht, and G. Krünsiein, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Pure β-anthraquinonyl-urea-chlorid and making same. No. 1,038,003; Sept. 10; Gas. vol. 182; p. 311.
Schmidt, Charles L. (See Stevens, William P., assignee.)
Schmidt, John L., Jeffersonville, N. Y. Nail-set. No. 1,038,207; Sept. 10; Gas. vol. 182; p. 377.
Schmidt, William. (See Cox and Schmidt.)
Schmitt, Joseph, Minneapolis, Minn. Combination brush and comb. No. 1,038,793; Sept. 17; Gas. vol. 183; p. 616.
Schmucker, William G., Bea Avon, Pa. Shade-holder. No. 1,039,198; Sept. 24; Gas. vol. 182; p. 769.
Schneider, Anna M., Los Angeles, Cal. Hook and eye. No. 1,037,334; Sept. 3; Gas. vol. 182; p. 52.

Schneider, Eugène, Le Creusot, France. Explosive projectile. No. 1,039,199; Sept. 24; Gaz. vol. 182; p. 769.
Schneider, John L., *et al.* (See Germeaprez, John A., assignor.)
Schnyder, Adolf P., Peoa, Ill. Sand-well casing and apparatus for sinking the same. No. 1,038,973; Sept. 17; Gaz. vol. 182; p. 677.
Schoen, Charles T., Media, Pa. Shock-absorber for vehicles. No. 1,038,446; Sept. 10; Gaz. vol. 182; p. 423.
Schols, Ida, Altona, Germany. Apparatus for drying hair. No. 1,037,548; Sept. 3; Gaz. vol. 182; p. 126.
Schönberr, Otto, and J. Hesseberger, Fiskaa, assignors, by mesne assignments, to Norsk Hydro-Electrisk Kvaelstof-aktieselskab, Christiania, Norway. Electrode. No. 1,038,208; Sept. 10; Gaz. vol. 182; p. 377.
Schönherr, Otto, Christiania, and J. Broda, Christiansand, assignors, by mesne assignments, to Norsk Hydro-Elektrisk Kvaelstofaktieselskab, Christiania, Norway. Making nitrates and nitric acid. No. 1,039,326; Sept. 24; Gaz. vol. 182; p. 815.
Schönherr, Isaak, Vienna, Austria-Hungary, assignor to Geo. Borgfeldt & Co. Paper toy. No. 1,037,335; Sept. 3; Gaz. vol. 182; p. 52.
Schroeder, Adam, Barton, Wis. Attrition-mill. No. 1,039,326; Sept. 24; Gaz. vol. 182; p. 815.
Schroeder, Edward J. and C. A. (See Stoddart, James, assignor.)
Schu, Frank J., Wayland, N. Y. Window-shade fixture. No. 1,037,549; Sept. 3; Gaz. vol. 182; p. 126.
Schubert, Charles W., Cottonwood, Iowa. Support for motor-cars. No. 1,037,336; Sept. 3; Gaz. vol. 182; p. 52.
Schuermann, Anton C. (See Mueller and Schuermann.)
Schulz, Christian F., Chicago, Ill. Combination table and desk. No. 1,038,974; Sept. 17; Gaz. vol. 182; p. 678.
Schuricht, Theodore J., St. Francis, Kans. Pipe-mold. No. 1,039,596; Sept. 24; Gaz. vol. 182; p. 909.
Schwabach, Georg, Charlottenburg, Germany. Regulating device for gas-supply plants. No. 1,037,337; Sept. 3; Gaz. vol. 182; p. 52.
Schwartz, Andrew G. L., and J. Geiger, Pittsburgh, Pa. Combined cupboard and ironing-board. No. 1,038,447; Sept. 10; Gaz. vol. 182; p. 462.
Schwarz, Karl, Nuremberg, Germany. Lubricating device. No. 1,039,448; Sept. 24; Gaz. vol. 182; p. 856.
Schweitzer, Hugo, and A. Zart, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Polyazo dyes. No. 1,038,209; Sept. 10; Gaz. vol. 182; p. 377.
Schweitzer, Hugo, and A. Zart, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Azo dyes. No. 1,038,210; Sept. 10; Gaz. vol. 182; p. 378.
Schwerin, Oswald, Chicago, Ill. Scaffold. No. 1,038,211; Sept. 10; Gaz. vol. 182; p. 378.
Schwickart, Philip, New York, N. Y. Building light and ventilator. No. 1,037,668; Sept. 3; Gaz. vol. 182; p. 166.
Scipioux, Wilson, Lagan, La. Pruning-knife. No. 1,038,448; Sept. 10; Gaz. vol. 182; p. 463.
Scoop Folding Box Company. (See Smith, Abraham L., assignor.)
Scott, Allen T., South Bellingham, Wash. Concrete railway-tie. No. 1,038,212; Sept. 10; Gaz. vol. 182; p. 379.
Scott, George E., Chicago, Ill. Drier. No. 1,039,449; Sept. 24; Gaz. vol. 182; p. 857.
Scott, Oscar F., Gainesville, Tex. Stalk-chopper. No. 1,039,327; Sept. 24; Gaz. vol. 182; p. 815.
Scott, Robert W., Leeds Point, assignor to Scott & Williams, Incorporated, Camden, N. J. Hosiery. No. 1,037,669; Sept. 3; Gaz. vol. 182; p. 166.
Scott, Robert W., Leeds Point, assignor to Scott & Williams, Incorporated, Camden, N. J. Latch-needle for knitting-machines. No. 1,039,450; Sept. 24; Gaz. vol. 182; p. 857.
Scott, William H., Kalamazoo, Mich. Gate-valve. No. 1,037,338; Sept. 3; Gaz. vol. 182; p. 53.
Scott, William M., Central, S. C. Rail-joint. No. 1,039,597; Sept. 24; Gaz. vol. 182; p. 910.
Scott, William M., Central, S. C. Steel cross-tie. No. 1,039,598; Sept. 24; Gaz. vol. 182; p. 910.
Scott & Williams. (See Scott, Robert W., assignor.)
Scurfield, George G., Carlisle, England. Filter for oil, grease, and other substances. No. 1,039,451; Sept. 24; Gaz. vol. 182; p. 857.
Sears, Roebuck and Co. (See Richards, Ernst R., assignor.)
Secor, Jerome B., Derby, Conn. Type-bar key-action. No. 1,037,339; Sept. 3; Gaz. vol. 182; p. 53.
Seddon, Charles W., Proctor, Minn. Boiler. No. 1,038,004; Sept. 10; Gaz. vol. 182; p. 311.
Sedgwick, Richard, Richmond, Ind. Traction-wheel. No. 1,039,200; Sept. 24; Gaz. vol. 182; p. 769.
Seelenfreund, Alexander B. (See Glaser, Bernhard, assignor.)
Segerstrom, Henry N. (See Rindall, Joel, assignor.)
Seigle, William R., Nashua, N. H. Machine for winding pulp tubes. No. 1,037,671; Sept. 3; Gaz. vol. 182; p. 167.
Seigle, William R., Nashua, N. H., assignor to H. W. Johns-Manville Company, New York, N. Y. Pulp-tube machine. No. 1,037,670; Sept. 3; Gaz. vol. 182; p. 166.
Self-Sharpening Pencil Company. (See Crane, Newton, assignor.)
Selick, Henry P., Steubenville, Ohio. Scraper for condensers. No. 1,037,672; Sept. 3; Gaz. vol. 182; p. 167.
Semet-Solvay Company. (See Jones, Morton, and Tarsiev, assignors.)
Semet-Solvay Company. (See King, Eugene W., assignor.)
Sentner, Ralph T., Buffalo, N. Y., and L. A. Kling, Elmabeth, N. J., assignors, by mesne assignments, to The Near-Side Car Company, New York, N. Y. Ventilator. No. 1,039,201; Sept. 24; Gaz. vol. 182; p. 770.
Service, John A. New Orleans, La. Safety-razor. No. 1,038,666; Sept. 17; Gaz. vol. 182; p. 571.
Settegast, Bernhard, Karlshorst, near Berlin, assignor to Deutsche Telephonwerke G. m. b. H., Berlin, Germany. Selector for automatic telephone-exchanges. No. 1,038,213; Sept. 10; Gaz. vol. 182; p. 379.
Settersberg, Albert, Denver, Colo. Deer-fan. No. 1,038,667; Sept. 17; Gaz. vol. 182; p. 571.
Seymour, William, Grand Rapids, Mich. Pressure-indicator. No. 1,037,550; Sept. 3; Gaz. vol. 182; p. 127.
Shackleton, Harry H. (See Carter, Shackleton, and Grafton.)
Shaft, Willis S., Faribault, Minn. Window-shade. No. 1,038,003; Sept. 10; Gaz. vol. 182; p. 311.
Shallor, Frank E. (See Kuhn and Shallor.)
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Sharp, Isaac M., San Francisco, Cal. Coin-receptacle. No. 1,037,551; Sept. 3; Gaz. vol. 182; p. 127.
Sharp, Pearl W. Bowbells, N. D. Grain-shocker. No. 1,038,449; Sept. 10; Gaz. vol. 182; p. 463.
Shaughnessy, John W., Charlotte, N. C. Apparatus for reclaiming waste cotton. No. 1,037,340; Sept. 3; Gaz. vol. 182; p. 53.
Shaver, George F., assignor, by mesne assignments, to Granulator Soap Company, New York, N. Y. Soap-dispensing machine. No. 1,038,214; Sept. 10; Gaz. vol. 182; p. 379.
Shaw, Charles D., Detroit, Mich. Self-tightening bearing. No. 1,038,006; Sept. 10; Gaz. vol. 182; p. 312.
Shaw, Claude, assignor of one-half to The American Box Ball Co., Indianapolis, Ind. Rip-saw machine. No. 1,038,215; Sept. 10; Gaz. vol. 182; p. 380.
Shaw, Daniel W., Postoria, Kans. End-gate. No. 1,037,341; Sept. 3; Gaz. vol. 182; p. 54.
Shea, John J., Beverly, Mass. Coin-controlled vending-machine. No. 1,037,552; Sept. 3; Gaz. vol. 182; p. 127.
Sheaffer, Oliver, assignor of one-half to C. D. Kirkpatrick, Manitou, Okla. Vehicle running-gear. No. 1,038,216; Sept. 10; Gaz. vol. 182; p. 380.
Sheafd, William F. (See Meade, Henry B., assignor.)
Sheehan, Nicholas L. Lakewood, Ohio. Vending-machine. No. 1,038,668; Sept. 17; Gaz. vol. 182; p. 571.
Shelton, James, Knoxville, assignor of one-third to J. J. Clark, Nashville, Tenn. Boiler-stud connection. No. 1,037,553; Sept. 3; Gaz. vol. 182; p. 128.
Shenton, Francis J. (See Spratt and Shenton.)
Shepard, Melmar, Holly, Mich. Foldable shipping-crate. No. 1,039,452; Sept. 24; Gaz. vol. 182; p. 858.
Shepherd, James H., Denver, assignor of one-half to J. C. Reagan, Whitepine, Colo. Pipe-coupling. No. 1,038,669; Sept. 17; Gaz. vol. 182; p. 572.
Sherman, Clifton W., Buffalo, N. Y. Tie-plate. No. 1,039,453; Sept. 24; Gaz. vol. 182; p. 858.
Sherman, Harry E. (See Sherman, Louie A. and H. E.)
Sherman, Louie A. and H. E., Kansas City, Mo. Car-bridge-shell. No. 1,038,007; Sept. 10; Gaz. vol. 182; p. 312.
Sherwood, Walker L. (See McManis and Sherwood.)
Shindel, Frank D., Huntingdon, Pa. Automatic train-controlling system. No. 1,037,673; Sept. 3; Gaz. vol. 182; p. 167.
Shoemaker, William H., Canton, Ohio. Sectional tank. No. 1,037,554; Sept. 3; Gaz. vol. 182; p. 128.
Sholl, Jacob M., Milwaukee, Wis. Crushing-machine. No. 1,038,794; Sept. 17; Gaz. vol. 182; p. 616.
Shortill, William J., Markdale, Ontario, Canada. Lever-escapement. No. 1,037,342; Sept. 3; Gaz. vol. 182; p. 54.
Shotts, Theodore M., New Richmond, Ind. Carriage. No. 1,038,976; Sept. 17; Gaz. vol. 182; p. 678.
Shotwell, Marcus A. K., New Paltz, N. Y. Square. No. 1,038,008; Sept. 10; Gaz. vol. 182; p. 312.
Showalter, Roy C., Altoona, Pa. Signal. No. 1,038,450; Sept. 10; Gaz. vol. 182; p. 463.
Shredded Wheat Company, The. (See Albee, Asa N., assignor.)
Shreve, Harry B., assignor to L. B. Jenks, Chicago, Ill. Safety-switch. No. 1,039,600; Sept. 24; Gaz. vol. 182; p. 911.
Shumlin, Michael B., *et al.* (See Krutsch, Willis W., assignor.)
Shupe, Joseph J., assignor of one-half to C. H. Putman, Detroit, Mich. Dough-rounding machine. No. 1,037,343; Sept. 3; Gaz. vol. 182; p. 54.
Shur-On Trolley Guard Company. (See Nolan, Frank J., assignor.)
Siegrist, Hermann, Aarau, Switzerland. Apparatus for automatically beating fried or roast meat. No. 1,038,217; Sept. 10; Gaz. vol. 182; p. 380.
Siemens-Schuckert Werke G. m. b. H. (See Kurda, Karl, assignor.)
Signalphone Alarm Company. (See Salisbury, Edgar E., assignor.)
Silverson, Nathan, New York, N. Y. Door-lock and signal. No. 1,037,674; Sept. 3; Gaz. vol. 182; p. 168.
Simmons, Charles B., assignor to The H. Ingraham Co., Bristol, Conn. Clock-work for clock-movements. No. 1,037,555; Sept. 3; Gaz. vol. 182; p. 128.





Simmons, William A., Kirkwood, Mo. Trunk-tray. No. 1,038,669; Sept. 10; Gaz. vol. 182; p. 513.
Simms, Frederick R., Kilburn, London, England, assignor to Simms Magneto Company, New York, N. Y. Magneto-electric machine. No. 1,038,454; Sept. 24; Gaz. vol. 182; p. 859.
Simms Magneto Co., The. (See Kennington, William O., assignor.)
Simms Magneto Company. (See Simms, Frederick R., assignor.)
Simonds, Samuel W., *et al.* (See McManama, John W., assignor.)
Simple Account Salesbook Company, The. (See Mafort, Gustave, assignor.)
Simpson, James McKeesport, assignor to National Tube Company, Pittsburgh, Pa. Automatic tying shears. No. 1,037,675; Sept. 3; Gaz. vol. 182; p. 168.
Simpson, Lee L., Seattle, Wash. Annunciator. No. 1,038,795; Sept. 17; Gaz. vol. 182; p. 617.
Sinclair, John J., Upper Montclair, N. J. Controlling device for electric motors. No. 1,037,344; Sept. 3; Gaz. vol. 182; p. 54.
Sinclair, John P. (See Dick and Sinclair.)
Singer Manufacturing Company, The. (See Allen, Edward B., assignor.)
Single Service Package Corporation of America. (See Beadle, George W., assignor.)
Single Service Package Corporation of America. (See Starr, Allen E., assignor.)
Singrün, Henri A., assignor to Société des Etablissements Singrün, Epinal, France. Regulating device for reaction-turbines. No. 1,038,977; Sept. 17; Gaz. vol. 182; p. 678.
Sinn, Charles J., Baltimore, Md. Can-seal. No. 1,039,601; Sept. 24; Gaz. vol. 182; p. 911.
Sinnmith, John J. (See Miller, James E., assignor.)
Sinnmond, B. O. (See Colt, Frank, assignor.)
Slabach, Lawrence, Silverton, and G. G. McGlaughlin, Cincinnati, Ohio. Fence-post. No. 1,037,345; Sept. 3; Gaz. vol. 182; p. 54.
Slaughenhaupt, Jacob C. (See Crosby and Slaughenhaupt.)
Sledzl, William J., assignor to The Kirk-Latty Manufacturing Company, Cleveland, Ohio. Spring-seat for bicycles. No. 1,039,328; Sept. 24; Gaz. vol. 182; p. 816.
Sleight, William H., St. Louis, Mo. Calculating apparatus. No. 1,039,455; Sept. 24; Gaz. vol. 182; p. 858.
Slinack, Victor H., assignor to The Pennsylvania Globe Gas Light Company, Philadelphia, Pa. Inverted incandescent gas-light. No. 1,039,675; Sept. 24; Gaz. vol. 182; p. 956.
Slingsby, John and J. W., Los Angeles, Cal. Saw-filing device. No. 1,039,602; Sept. 24; Gaz. vol. 182; p. 911.
Slingsby, John W. (See Slingsby, John and J. W.)
Sloane, Alida A., *et al.* (See Longdon, Alexander P., assignor.)
Small, George H. (See Harms and Small.)
Smead, George W., assignor to The Berger Manufacturing Company, Canton, Ohio. Sheet-coiling machine. No. 1,039,207; Sept. 24; Gaz. vol. 182; p. 770.
Smiar, Nicholas, Braddock, Pa. Rail-joint. No. 1,037,801; Sept. 3; Gaz. vol. 182; p. 206.
Smiley, Alfred M., Franklin, Pa. Stereopticon. No. 1,037,346; Sept. 3; Gaz. vol. 182; p. 55.
Smiley, George H., assignor to Elliott-Fisher Company, Harrisburg, Pa. Alarm for type-writers. No. 1,038,218; Sept. 10; Gaz. vol. 182; p. 380.
Smith, Abraham L., assignor to Scoop Folding Box Company, New York, N. Y. Lock scoop-box. No. 1,037,347; Sept. 3; Gaz. vol. 182; p. 56.
Smith, Alfred C., Mullen, Nebr. Lancet. No. 1,037,802; Sept. 3; Gaz. vol. 182; p. 206.
Smith, Arthur K., and E. A. Kumming, St. Louis, Mo., assignors to Cutler Mail Chute Company, Rochester, N. Y. Mail-chute. No. 1,037,348; Sept. 3; Gaz. vol. 182; p. 56.
Smith, Arthur P., Springfield, Mass. Hand-stamp. No. 1,038,219; Sept. 10; Gaz. vol. 182; p. 381.
Smith, Burdsey W., Oroville, Cal. Automatic locking device. No. 1,037,803; Sept. 3; Gaz. vol. 182; p. 206.
Smith, Charles F., Bridgeport, Conn., assignor to Anita Safety Match Company. Packaging-machine. No. 1,038,010; Sept. 10; Gaz. vol. 182; p. 313.
Smith, Cullen R., Perris, Cal. Stalk-puller. No. 1,038,978; Sept. 17; Gaz. vol. 182; p. 679.
Smith, D. L., *et al.* (See Ragsdale, Charles R., assignor.)
Smith, Daniel C., Milford, Conn., assignor to Smith Refrigerating Company, New Orleans, La. Refrigeration. No. 1,038,220; Sept. 10; Gaz. vol. 182; p. 381.
Smith, Daniel C., Milford, Conn., assignor to Smith Refrigerating Company, New Orleans, La. Refrigerating-machine. No. 1,038,221; Sept. 10; Gaz. vol. 182; p. 381.
Smith, Edward, Montmorenci, Ind. Garbage-incinerating furnace. No. 1,037,676; Sept. 3; Gaz. vol. 182; p. 169.
Smith, Edward R. and W. H., and J. J. Weier, Birmingham, Mich. Frame suspension for motor-vehicles. No. 1,039,329; Sept. 24; Gaz. vol. 182; p. 816.
Smith & Hoge Mfg. Co., The. (See Hoge, Frederick, assignor.)
Smith, George, Richmond, Va. Machine for charging and discharging ovens. No. 1,038,503; Sept. 10; Gaz. vol. 182; p. 480.
Smith, George P. R., Mitcham, England. Aeroplane, flying-machine, and the like. No. 1,039,454; Sept. 24; Gaz. vol. 182; p. 858.





Smith, George W., assignor to The Ingersoll Milling Machine Company, Rockford, Ill. Face-mill grinder. No. 1,039,076; Sept. 17; Gaz. vol. 182; p. 707.
Smith, George W., and F. P. Fleming, Worcester, Mass., assignors to Norton Company, Worcester, Mass. Abrasive-wheel. No. 1,039,603; Sept. 24; Gaz. vol. 182; p. 912.
Smith, Henry A., Atlanta, assignor of one-fourth to C. C. Erdman, West Point, and one-sixth to A. Perry, Wilson, Atlanta, Ga. Coin-distributing apparatus. No. 1,038,634; Sept. 24; Gaz. vol. 182; p. 813.
Smith, Irving B., assignor, by mesne assignments, to Mantrelle Company, Philadelphia, Pa. Electric piano. No. 1,037,349; Sept. 3; Gaz. vol. 182; p. 56.
Smith, James M., assignor of one-half to W. D. C. Wright, Philadelphia, Pa. Current distributer and timer. No. 1,038,451; Sept. 10; Gaz. vol. 182; p. 463.
Smith, John A., Harrisburg, Pa., assignor to Elliott-Fisher Company, New York, N. Y. Combined type-writing, adding, and subtracting machine. No. 1,037,350; Sept. 3; Gaz. vol. 182; p. 57.
Smith, John H., Laurel, and W. F. Sult, Gilman, Iowa. Ventilated hat. No. 1,039,605; Sept. 24; Gaz. vol. 182; p. 912.
Smith, John R., Flagstaff, Ariz. Tire-armor. No. 1,037,977; Sept. 3; Gaz. vol. 182; p. 169.
Smith, John W., *et al.* (See Mitchell, George R., assignor.)
Smith, Joseph H., Decoto, Cal. Spring unit. No. 1,037,556; Sept. 3; Gaz. vol. 182; p. 128.
Smith, O. Douglas, *et al.* (See Tessmer, Herman G., assignor.)
Smith, Oscar A., assignor to The National-Acme Manufacturing Company, Cleveland, Ohio. Threading-die. No. 1,038,670; Sept. 17; Gaz. vol. 182; p. 572.
Smith, Owen P., Houston, Tex. Lure-conveyor. No. 1,038,504; Sept. 10; Gaz. vol. 182; p. 480.
Smith Refrigerating Company. (See Smith, Daniel C., assignor.)
Smith, Robert R., Philadelphia, Pa. Pump for vacuum-cleaners. No. 1,038,222; Sept. 10; Gaz. vol. 182; p. 381.
Smith, Robert R., Philadelphia, Pa. Dust-separator for vacuum-cleaners. No. 1,038,223; Sept. 10; Gaz. vol. 182; p. 382.
Smith & Sons Manufacturing Company. (See Bennett, Albert T., assignor.)
Smith, Thomas N., San Angelo, Tex. Flying-machine. No. 1,039,457; Sept. 24; Gaz. vol. 182; p. 860.
Smith & Wesson. (See Wesson, Joseph H., assignee.)
Smith, William C., Kearney, Mo. Cornstalk-cutter. No. 1,038,979; Sept. 17; Gaz. vol. 182; p. 679.
Smith, William H. (See Smith and Weier.)
Smith, William H., Beach, N. D. Broom-bridle. No. 1,039,203; Sept. 24; Gaz. vol. 182; p. 771.
Smoe, John A. (See Fernekes, Gustave, assignee.)
Snell, Albert C., assignor to Electro Surgical Instrument Co., Rochester, N. Y. Tool-holder. No. 1,038,011; Sept. 10; Gaz. vol. 182; p. 313.
Snyder, Craig C. (See Snyder, Ralph M., assignor.)
Snyder, Fred J., Tucson, Ariz. Anchor-bolt. No. 1,037,978; Sept. 3; Gaz. vol. 182; p. 169.
Snyder, Harry L., Denver, Colo. Paper-bag holder. No. 1,038,980; Sept. 17; Gaz. vol. 182; p. 679.
Snyder, Howard F., assignor to F. L. Maytag, Newton, Iowa. Dumping-wagon. No. 1,038,796; Sept. 17; Gaz. vol. 182; p. 617.
Snyder, Peter F., Duquesne, Pa. Flushing apparatus. No. 1,037,679; Sept. 3; Gaz. vol. 182; p. 169.
Snyder, Ralph M., Hawthorne, assignor of one-half to C. C. Snyder, New Bethlehem, Pa. Wrench. No. 1,039,458; Sept. 24; Gaz. vol. 182; p. 860.
Sobey, Albert, Syracuse, N. Y. Combined sampling rail clamp. No. 1,038,012; Sept. 10; Gaz. vol. 182; p. 314.
Société A. Oller & Cie. (See Roussillon, Philippe, assignee.)
Société Anonyme Française Dite: Banque du Rachum. (See Neveu, Alfred, assignor.)
Société des Etablissements Singrün. (See Singrün, Henri A., assignor.)
Société Internationale De La Lampe Electrique O. K. (See Dobkevitch, Gaëtan, assignor.)
Society of Chemical Industry in Basle. (See Strauss, David, assignor.)
Sofranko, John F., Albia, Iowa. Curtain-bracket. No. 1,039,604; Sept. 24; Gaz. vol. 182; p. 913.
Sokolowski, Ernst, Hamburg, Germany, assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Placing containers in projectiles. No. 1,039,304; Sept. 24; Gaz. vol. 182; p. 771.
Sokolowski, Ernst, Hamburg, Germany, assignor to E. I. du pont de Nemours Powder Company, Wilmington, Del. Placing containers in projectiles. No. 1,039,459; Sept. 24; Gaz. vol. 182; p. 861.
Soley, Frank, assignor to Miller Lock Co., Philadelphia, Pa. Trunk-lock. No. 1,038,981; Sept. 17; Gaz. vol. 182; p. 680.
Sommerfield, William O., East Peoria, and D. W. Merry, Peoria, Ill. Rope-measuring device. No. 1,038,797; Sept. 17; Gaz. vol. 182; p. 618.
Son, Anthony, assignor to Payne Manufacturing Company, Boston, Mass. Alarm for automobiles, &c. No. 1,037,351; Sept. 3; Gaz. vol. 182; p. 57.
Sonders, Herbert V., Bakersfield, Cal. Vehicle-wheel. No. 1,039,607; Sept. 24; Gaz. vol. 182; p. 913.

Soule, Arthur C., assignor to Soule Reversible Window Co., San Francisco, Cal. Window. No. 1,038,234; Sept. 10; Gaz. vol. 182; p. 282.

Sould, Charles P. (See Mortimer, Charles H., assignor.)

Soule Reversible Window Co. (See Soule, Arthur C., assignor.)

Sourek, Joseph S., Bath township, Summit county, Ohio. Device for handling rope and the like. No. 1,038,013; Sept. 10; Gaz. vol. 182; p. 214.

Southgate Machinery Co. (See Upham, Burt F., assignor.)

Speed, James, assignor to Mittineague Paper Company, Mittineague, Mass. Roll for paper-surface-finishing machines. No. 1,038,805; Sept. 10; Gaz. vol. 182; p. 481.

Speer, Robert G., St. Louis, Mo. Smoke-consumer. No. 1,039,205; Sept. 24; Gaz. vol. 182; p. 771.

Spence, James H., administrator. (See Barton, Delbert H.)

Spiegel, Emil, Warnsdorf, Austria-Hungary. Apparatus for making leather tires. No. 1,037,252; Sept. 3; Gaz. vol. 182; p. 58.

Spiegel, William G., New York, N. Y. Apparatus for aerial signaling and similar purposes. No. 1,038,506; Sept. 10; Gaz. vol. 182; p. 481.

Spiess, Georg, Leipsig-Reudnitz, Germany. Device for use in cleaning or stripping paper sheets in sorting or similar machines. No. 1,039,606; Sept. 24; Gaz. vol. 182; p. 913.

Spiker, John M., Aurora, Ill. Time-book. No. 1,038,452; Sept. 10; Gaz. vol. 182; p. 464.

Spink, Edward J., assignor of one-third to J. A. Miller and one-third to R. B. Humphrey, Council Bluffs, Iowa. Pipe-wrench. No. 1,038,671; Sept. 17; Gaz. vol. 182; p. 573.

Spinnerei und Weberei Steinen A. G. (See Koechlin, Albert G., assignor.)

Spirella Company, The. (See Beeman, Marcus M., assignor.)

Spitzenberg, Philip, New York, N. Y. Siphon-head. No. 1,037,680; Sept. 3; Gaz. vol. 182; p. 170.

Splitdorf Electrical Co. (See Wilson, James M., assignor.)

Spragg, Henry. (See McGugan and Spragg.)

Sprague, Horace M., Denver, Colo. Hat-trap. No. 1,038,672; Sept. 17; Gaz. vol. 182; p. 573.

Spratt, Charles, and F. J. Shenton, London, England. Amusement and strength-testing apparatus. No. 1,039,611; Sept. 24; Gaz. vol. 182; p. 914.

Spratt, George A., assignor of one-half to B. F. Young, Coatesville, Pa. Dispensing apparatus. No. 1,037,681; Sept. 3; Gaz. vol. 182; p. 170.

Spratt, Joseph D., Wolf Creek, Tenn. Rail-brace. No. 1,039,609; Sept. 24; Gaz. vol. 182; p. 912.

Springstead, Abram H., Kalamazoo, Mich. Heavier-than-air flying-machine. No. 1,037,353; Sept. 3; Gaz. vol. 182; p. 58.

Sprinkle, John J., assignor of one-half to N. W. Waddle, Webb City, Mo. Paper-roll printer and holder. No. 1,038,678; Sept. 17; Gaz. vol. 182; p. 574.

Squire, Arnold M., Cleveland, Ohio. Steering-wheel device. No. 1,037,354; Sept. 3; Gaz. vol. 182; p. 59.

Squire, Edwin, Claremont, Cal. Oil-burning furnace. No. 1,039,460; Sept. 24; Gaz. vol. 182; p. 861.

Stack, Elmer R., Somerville, Mass. Ball-cock. No. 1,038,014; Sept. 10; Gaz. vol. 182; p. 215.

Stack, Patrick P., Salt Lake City, Utah. Automatic beer-regulating lawn-sprinkler and adjustable support. No. 1,037,557; Sept. 3; Gaz. vol. 182; p. 129.

Standard Car Truck Company. (See Barber, John C., assignor.)

Standard Plunger Elevator Company. (See Dunn, Edward L., assignor.)

Standard Underground Cable Company. (See Fisher, Henry W., assignor.)

Stanhope, Philip R., Denver, Colo. Dumping-lever for ore-cars and the like. No. 1,038,674; Sept. 17; Gaz. vol. 182; p. 574.

Stanley, George H., assignor to Sands Limited, Johannesburg, Transvaal. Classifying or grading apparatus. No. 1,039,206; Sept. 24; Gaz. vol. 182; p. 772.

Stanley, George P., assignor to Dixfield Toothpick Co., Dixfield, Me. Combination-knife for cutting toothpicks. No. 1,038,786; Sept. 17; Gaz. vol. 182; p. 618.

Stansfield, Charles, Jamestown, N. Y., assignor to Draper Company, Hopedale, Mass. Twister stop-motion. No. 1,039,230; Sept. 24; Gaz. vol. 182; p. 816.

Stanton, Eldridge, Toronto, Ontario, Canada. Loose-leaf binder. No. 1,039,207; Sept. 24; Gaz. vol. 182; p. 772.

Stanton, Frederick W., Chicago, Ill. Door-stop. No. 1,039,461; Sept. 24; Gaz. vol. 182; p. 861.

Stanss, John P., Eaton, Ohio. Cultivator-shovel. No. 1,037,355; Sept. 3; Gaz. vol. 182; p. 59.

Star Seal Company. (See Stone, William F., assignor.)

Starke, Paul, Berlin, Germany. Tramway-track. No. 1,038,962; Sept. 17; Gaz. vol. 182; p. 630.

Starr, Alden B., assignor to Single Service Package Corporation of America, New York, N. Y. Machine for affixing closures to vessels. No. 1,038,963; Sept. 17; Gaz. vol. 182; p. 630.

Stefanowitch, Lazar, assignor of one-half to C. Kavacevich, Chicago, Ill. Calendar-pen. No. 1,037,356; Sept. 3; Gaz. vol. 182; p. 60.

Steger & Sons Piano Manufacturing Company. (See Betz, William G., assignor.)

Stehlin, Joseph, New York, N. Y. Producing stock food. No. 1,037,557; Sept. 3; Gaz. vol. 182; p. 60.

Stein, Albert, Kansas City, Mo. Silencing attachment for planos. No. 1,038,015; Sept. 10; Gaz. vol. 182; p. 215.

Steinert, Rudolph, New Haven, Conn. Phonograph-needle. No. 1,039,207; Sept. 24; Gaz. vol. 182; p. 772.

Steinhart, Eugen, Duesseldorf, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Duesseldorf-Derendorf, Germany. Ammunition-wagon. No. 1,038,663; Sept. 10; Gaz. vol. 182; p. 465.

Steinmetz, Charles P., Schenectady, N. Y., assignor to General Electric Company. Alternating-current rectifier. No. 1,037,565; Sept. 3; Gaz. vol. 182; p. 130.

Stellwagen, Benjamin J., Chicago, Ill. Recording and indicating device for multiple payments. No. 1,038,325; Sept. 10; Gaz. vol. 182; p. 382.

Stenger, William H. (See Frederickson, Clayton R., assignor.)

Stephenson, Geo. W., et al. (See Leonard, Marshal L., assignor.)

Stephenson Motor Truck Company. See Marble, George W., assignor.)

Stettiner Chamotte-Fabrik Actien-Gesellschaft vorm. Didier. (See Gohsmann, Arthur, assignor.)

Stettiner Chamotte-Fabrik Actien-Gesellschaft vorm. Didier. (See Hohmann, Edmund, assignor.)

Stevens, Frederick A., Providence, R. I. Spectacles. No. 1,038,676; Sept. 17; Gaz. vol. 182; p. 574.

Stevens, Sylvester G., assignor of one-half to A. B. Hostetter, Duluth, Minn. Motor-driven hand-cultivator. No. 1,038,484; Sept. 10; Gaz. vol. 182; p. 495.

Stevens, William P., Indianapolis, Ind., assignor of one-fifth to C. L. Schmidt. Pivotilla jointing and steering mechanism. No. 1,038,676; Sept. 17; Gaz. vol. 182; p. 574.

Stevenson, Henry I. (See Clark and Stevenson.)

Stewart, James D., assignor of one-third to O. O. Landig and one-third to W. F. Dickson, Chicago, Ill. Furnace. No. 1,038,677; Sept. 17; Gaz. vol. 182; p. 575.

Stewart, John K., Chicago, Ill. Magnetic speedometer. No. 1,038,010; Sept. 10; Gaz. vol. 182; p. 215.

Stewart, Thomas R. (See Humphrey and Stewart.)

Stiehl, Otto M., East St. Louis, Ill. Knockdown receptacle. No. 1,038,017; Sept. 10; Gaz. vol. 182; p. 216.

Stilson, Minott A. C., Waterbury, Conn. Railway-tie. No. 1,037,550; Sept. 3; Gaz. vol. 182; p. 129.

Stimpson, Edward S., assignor to Draper Company, Hopedale, Mass. Loom-temple. No. 1,037,386; Sept. 3; Gaz. vol. 182; p. 60.

Stimpson, Edward S., assignor to Draper Company, Hopedale, Mass. Magazine-stop for weft-replenishing looms. No. 1,038,678; Sept. 17; Gaz. vol. 182; p. 575.

Stimpson, Edward S., assignor to Draper Company, Hopedale, Mass. Magazine-stop for weft-replenishing looms. No. 1,038,679; Sept. 17; Gaz. vol. 182; p. 575.

Stock, Eleanor L. (See Boomsko, William J., assignor.)

Stockall, Alfred H., Bath, England. Printer's galley for use with the mono or other type-casting machines. No. 1,038,018; Sept. 10; Gaz. vol. 182; p. 216.

Stoddart, James, Newark, assignor to E. J. and C. A. Schroeder, Jersey City, N. J. Shade-holder. No. 1,039,676; Sept. 24; Gaz. vol. 182; p. 906.

Stone, William F., Woodbury, N. J., assignor to Star Seal Company. Bottle-sealing machine. No. 1,037,380; Sept. 3; Gaz. vol. 182; p. 60.

Stoner, Cyrus M., assignor to Beyts, Porter & Co., Connellsville, Pa. Valve. No. 1,038,455; Sept. 10; Gaz. vol. 182; p. 465.

Stoppel, William, New Galle, Wis. Road-drag. No. 1,039,456; Sept. 10; Gaz. vol. 182; p. 462.

Stoughton Wagon Company. (See Long, Willard O., assignor.)

Stovel, Charles J., San Francisco, Cal. Pneumatic support for vehicles. No. 1,037,360; Sept. 3; Gaz. vol. 182; p. 61.

Stover Manufacturing Company, The. (See McCulloch, Harry G., assignor.)

Straka, John. (See Lewis and Straka.)

Straub, Ambrose W., Philadelphia, Pa. Feeding device for grinding-mills. No. 1,039,610; Sept. 24; Gaz. vol. 182; p. 914.

Straub, Louis, Denver, Colo. Towel-rack. No. 1,038,984; Sept. 17; Gaz. vol. 182; p. 631.

Straub, William R., Oakland, assignor of one-half to J. J. Knight, Alameda, Cal. Stamp-mill. No. 1,038,619; Sept. 10; Gaz. vol. 182; p. 516.

Straus, David, assignor to Society of Chemical Industry in Basle, Basel, Switzerland. Manufacture of exalates. No. 1,038,986; Sept. 17; Gaz. vol. 182; p. 631.

Strauss, Joseph B., Chicago, Ill. Bridge. No. 1,038,236; Sept. 10; Gaz. vol. 182; p. 382.

Strauss, Siegmund. (See Lisbon and Boles, assignees.)

Streeper, Charles W., Manheim, assignor to Reed Foundry & Machine Company, Philadelphia, Pa. Compression-coupling for shafts. No. 1,037,662; Sept. 3; Gaz. vol. 182; p. 171.

Stretch, Joseph, Freeport, N. Y., assignor to F. D. Lambie, Manhasset, N. J. Mold for concrete buildings. No. 1,038,986; Sept. 17; Gaz. vol. 182; p. 631.

Strickler, Maureen H., assignor to General Chemical Company, New York, N. Y. Making tri-calcium phosphate. No. 1,037,357; Sept. 3; Gaz. vol. 182; p. 226.

Strobel, Frank P., Chicago, Ill. Adjustable mattress rest or support. No. 1,037,561; Sept. 3; Gaz. vol. 182; p. 61.

Struckmeyer, Edward H. (See Reckenswald, John, assignor.)

Struller, Otto, New York, N. Y. Gas-igniter. No. 1,039,212; Sept. 24; Gaz. vol. 182; p. 914.

Stubbs, William A. (See Brown and Stubbs.)





Stuber, Howard, Shawnee, Okla. Vacuum cistern-cleaner. No. 1,038,209; Sept. 24; Gaz. vol. 182; p. 773.

Stuart, Hendrik, Rotterdam, Netherlands, assignor to U. S. Slicing Machine Company, Chicago, Ill. Sharpening device for knives of meat-slicing machines. No. 1,038,210; Sept. 24; Gaz. vol. 182; p. 773.

Sturm, Charles A., Portland, Oreg. Elevator. No. 1,038,630; Sept. 10; Gaz. vol. 182; p. 217.

Stutz, Charles C., Norwood, Ohio. Process and apparatus for withdrawing glass from a container. No. 1,037,363; Sept. 3; Gaz. vol. 182; p. 61.

Stutz, Charles C., Norwood, Ohio. Machine for gathering glass. No. 1,037,363; Sept. 3; Gaz. vol. 182; p. 62.

Stutz, Charles C., Norwood, Ohio. Manufacture of glass articles. No. 1,037,364; Sept. 3; Gaz. vol. 182; p. 62.

Stutz, Charles C., Norwood, Ohio. Manufacture of glass articles. No. 1,037,365; Sept. 3; Gaz. vol. 182; p. 62.

Stutz, Charles C., Norwood, Ohio. Apparatus for the manufacture of glass articles. No. 1,037,366; Sept. 3; Gaz. vol. 182; p. 63.

Stutzman, Thomas M., Sedalia, Mo. Dust-cap for vehicle-wheels. No. 1,039,231; Sept. 24; Gaz. vol. 182; p. 816.

Styll, Harry H., assignor to American Optical Company, Southbridge, Mass. Eyeglasses. No. 1,039,462; Sept. 24; Gaz. vol. 182; p. 862.

Subera, Lawrence A., and R. Mosman, Cleveland, Ohio; said Mosman assignor to said Subera. Automatically-acting machine for making a twisted cord or thread and for reeling the same. No. 1,039,211; Sept. 24; Gaz. vol. 182; p. 772.

Sullivan, William L. (See Meier and Sullivan.)

Sullivan, William L., Ferguson, assignor to The Temco Manufacturing Company, St. Louis, Mo. Ticket-machine. No. 1,039,212; Sept. 24; Gaz. vol. 182; p. 774.

Suit, William F. (See Smith and Suit.)

Sulzberger, Mathan, New York, N. Y. Chewing-gum containing pharmaceutical preparations. No. 1,038,227; Sept. 10; Gaz. vol. 182; p. 224.

Summers, Archibald Paterson, N. J. Flushing apparatus. No. 1,039,222; Sept. 24; Gaz. vol. 182; p. 817.

Summers, Arthur E., Mount Vernon, Ill. Sanitary drinking-fountain. No. 1,038,021; Sept. 10; Gaz. vol. 182; p. 217.

Summers, Edgar W., Pittsburgh, Pa. Door arrangement for dumping-cars. No. 1,038,228; Sept. 10; Gaz. vol. 182; p. 224.

Sumner, William, Liverpool, England. Current-regulating device or resistance applicable for electric lighting or heating. No. 1,037,681; Sept. 3; Gaz. vol. 182; p. 171.

Sundstrom, Herman T., Houston, Tex. Pneumatic cooling device. No. 1,038,022; Sept. 10; Gaz. vol. 182; p. 218.

Superior Register Company. (See McPherson, Donald H., assignee.)

Superior Tree Protector Manufacturing Co. (See Bouska, Joseph, assignor.)

Sutherland, John W., Sydney, Nova Scotia, Canada. Collapsible barrel. No. 1,037,684; Sept. 3; Gaz. vol. 182; p. 171.

Suzzi, Taddeo C., Chicago, Ill. Feed mechanism for nut-cracking machines. No. 1,038,229; Sept. 10; Gaz. vol. 182; p. 224.

Swanson, Elizabeth M., Melbourne, Victoria, Australia. Brushing and polishing device. No. 1,039,223; Sept. 24; Gaz. vol. 182; p. 817.

Swaren, William A., Chicago, assignor, by mesne assignments, to International Voting Machine Company, Elgin, Ill. Voting-machine. No. 1,038,680; Sept. 17; Gaz. vol. 182; p. 576.

Swartz, Joseph A., Fort Wayne, Ind. Locomotive sand-pan. No. 1,038,367; Sept. 17; Gaz. vol. 182; p. 632.

Swett, Arthur H., and W. D. Le Batt, assignors to American Tag Company, Chicago, Ill. Tag-machine. No. 1,037,367; Sept. 3; Gaz. vol. 182; p. 62.

Swift, Willard E., Worcester, Mass. Transparent panel for envelops. No. 1,038,469; Sept. 10; Gaz. vol. 182; p. 466.

Swift, Willard E., Worcester, assignor to United States Envelope Company, Springfield, Mass. Toilet-paper package. No. 1,038,457; Sept. 10; Gaz. vol. 182; p. 466.

Swift, Willard E., Worcester, assignor to United States Envelope Company, Springfield, Mass. Cabinet for toilet-paper. No. 1,038,458; Sept. 10; Gaz. vol. 182; p. 466.

Switzer, Maurice, New York, N. Y., assignor, by mesne assignments, to The Wilson Distilling Company, Jersey City, N. J. Closure and protecting device for bottles. No. 1,038,023; Sept. 10; Gaz. vol. 182; p. 218.

Sywrey, George E., Seattle, Wash. Washbasin. No. 1,038,790; Sept. 17; Gaz. vol. 182; p. 618.

Symons, Edgar B., Milwaukee, Wis. Vacuum-cleaner. No. 1,037,362; Sept. 3; Gaz. vol. 182; p. 64.

T. W. Snow Construction Company. (See Moore, Moses M., assignor.)

Takahashi, Kenichi. (See Kolbe and Takahashi.)

Talbot, Paul A., Seattle, Wash. Steam-generator. No. 1,038,024; Sept. 10; Gaz. vol. 182; p. 218.

Talley, Thomas F., Maryville, Mo. Windlass for hay-derks. No. 1,038,980; Sept. 17; Gaz. vol. 182; p. 618.

Tambach, Rudolf, assignor to Knoll and Company, Ludwigshafen-on-the-Rhine, Germany. Casein derivatives and manufacture of the same. No. 1,037,688; Sept. 3; Gaz. vol. 183; p. 172.

Tanner, Felix, Sydney, New South Wales, Australia. Means for the prevention of racing of marine engines. No. 1,038,466; Sept. 10; Gaz. vol. 182; p. 467.

Tanner, Trangotte A., assignor of one-half to R. F. Miller, Jr., Flint, Mich. Flying-machine. No. 1,037,554; Sept. 3; Gaz. vol. 182; p. 129.

Tansill, Charles R., New York, N. Y. Loading and discharging wagon-body. No. 1,039,220; Sept. 10; Gaz. vol. 182; p. 225.

Tate, Earl H., Los Angeles, Cal. Incandescent electric lamp. No. 1,038,681; Sept. 17; Gaz. vol. 182; p. 577.

Tattersall, Alfred R., London, England. Apparatus for making flour and meal. No. 1,037,565; Sept. 3; Gaz. vol. 182; p. 209.

Tattersall, Alfred R., London, England. Roll-adjusting device for roller grinding-mills. No. 1,037,566; Sept. 3; Gaz. vol. 182; p. 220.

Tattersall, Alfred R., London, England. Centrifugal dresser. No. 1,037,589; Sept. 3; Gaz. vol. 182; p. 225.

Taylor, Charles H., Pittsburgh, and A. C. Wolfe, Aldie, Pa. Cleaning and wiping device. No. 1,038,231; Sept. 10; Gaz. vol. 182; p. 225.

Taylor, Eugene H., Hyde Park, Mass. Scouring-machine. No. 1,038,232; Sept. 10; Gaz. vol. 182; p. 226.

Taylor Iron & Steel Company. (See Hardy, William J., assignor.)

Taylor, Ridley F., Los Angeles, Cal. Concrete-pouring system. No. 1,039,218; Sept. 24; Gaz. vol. 182; p. 774.

Temco Manufacturing Company, The. (See Meier and Sullivan, assignors.)

Temco Manufacturing Company, The. (See Sullivan, William L., assignor.)

Terry Steam Turbine Company, The. (See London, William J. A., assignor.)

Tersiev, George N. (See Jones, Morton, and Tersiev.)

Tesch, August W., Chicago, Ill. Self-feeding sprinkler for clothes. No. 1,038,025; Sept. 10; Gaz. vol. 182; p. 219.

Tessmer, Herman G., assignor of three-tenths to O. D. Smith and three-tenths to C. G. Weathers, Pittsburg, Kans. Safety device for elevators. No. 1,039,615; Sept. 17; Gaz. vol. 182; p. 706.

Thaison, John, Elogrande, Tex. Baby-basket. No. 1,038,233; Sept. 10; Gaz. vol. 182; p. 226.

Thalmann, Hans R., Munich, Germany. Apparatus for cleaning, cooling, and mixing gases. No. 1,039,617; Sept. 24; Gaz. vol. 182; p. 937.

Thomas, Frederick, Tooting, London, England. Double-jaw friction-grip clamp. No. 1,037,560; Sept. 3; Gaz. vol. 182; p. 130.

Thomas, James A., Allisonia, Va. Clamp for wire-stretchers. No. 1,039,214; Sept. 24; Gaz. vol. 182; p. 775.

Thomas, Jesse B., Boston, Mass. Fire-extinguisher. No. 1,038,026; Sept. 10; Gaz. vol. 182; p. 219.

Thomas, Kate, et al. (See Pierce, John G., assignee.)

Thomas, Leander H., Bloomington, Ill. Ventilating window-lock. No. 1,038,461; Sept. 10; Gaz. vol. 182; p. 467.

Thompson, Albert R., assignor to Anderson-Barngrover Manufacturing Company, San Jose, Cal. Making corrugating-rolls for raising-cookers. No. 1,038,683; Sept. 17; Gaz. vol. 182; p. 577.

Thompson, George F. (See Blomberg and Nelson, assignors.)

Thompson, Harry. (See Bennett and Thompson.)

Thompson, Henry W., Oak Park, Ill. Razor-handle. No. 1,039,215; Sept. 24; Gaz. vol. 182; p. 775.

Thompson, Jacob M., Fond du Lac, Wis. Beer-keg mold. No. 1,038,982; Sept. 17; Gaz. vol. 182; p. 577.

Thompson, John S., Chicago, Ill. Type setting and justifying machine. No. 1,038,234; Sept. 10; Gaz. vol. 182; p. 226.

Thompson, Joseph S., Mill Valley, Cal. Electrically-heated steam-radiator. No. 1,037,360; Sept. 3; Gaz. vol. 182; p. 64.

Thompson & Norris Company, The. (See Chapin, William G., assignor.)

Thompson, Stacy O. (See Randall and Thompson.)

Thompson, Wallace S., Smyrna, Ga. Valve for rotary gas-engines. No. 1,038,462; Sept. 10; Gaz. vol. 182; p. 467.

Thomson, Elihu, Swampscott, Mass., assignor to General Electric Company. Electrical resistance. No. 1,039,463; Sept. 24; Gaz. vol. 182; p. 862.

Thornton, Corinne B. and M., Los Angeles, Cal. Bandage and hat fastener. No. 1,037,800; Sept. 3; Gaz. vol. 182; p. 200.

Thornton, Marie. (See Thornton, Corinne B. and M.)

Thorschmidt, Ernest C. (See Barnes and Thorschmidt.)

Thorson, Carl O., Bancroft, Iowa. Evener attachment. No. 1,038,468; Sept. 10; Gaz. vol. 182; p. 468.

Thron, Heinrich, assignor to Vereinigte Chininfabriken Zimmer & Co., G. m. b. H., Frankfort-on-the-Main, Germany. Manufacture of hydroquinin. No. 1,038,027; Sept. 10; Gaz. vol. 182; p. 219.

Thurber, Edward. (See Laning, Carl H., assignee.)

Thurber, George B., Lincoln, Nebr. Hinge. No. 1,037,207; Sept. 3; Gaz. vol. 182; p. 210.

Tichner-Manierre Company. (See Manierre, George, assignor.)

Ticonderoga Machine Works. (See Warren, Thomas H., assignor.)

Tilford, Charley R., assignor of one-third to H. Frye, Tullahoma, Tenn. Shock-tying device. No. 1,038,235; Sept. 17; Gaz. vol. 182; p. 633.

Tilley, Swan J., Chappell, Nebr. Wagon end-gate. No. 1,038,980; Sept. 17; Gaz. vol. 182; p. 633.

Tindall, Job S., Pueblo, Colo. Excavating and loading mechanism. No. 1,038,686; Sept. 17; Gaz. vol. 182; p. 578.

Titanium Alloy Manufacturing Company, The. (See Rossi and Meredith, assignors.)

Tittsworth, Elmer L., New Canton, Ill. Post-hole digger. No. 1,039,619; Sept. 24; Gaz. vol. 182; p. 915.

Titus, Albert R. (See Titus, Albert T. and A. R.)

Titus, Albert T. and A. R., Robbinsdale, Minn. Exhaust for gas-engines. No. 1,038,685; Sept. 17; Gaz. vol. 182; p. 578.

Todd, Charles, St. Louis, Mo. Garment-pressing machine. No. 1,038,686; Sept. 17; Gaz. vol. 182; p. 579.

Tompkins, John D., Valatie, N. Y. Drying and bleaching. No. 1,037,370; Sept. 3; Gaz. vol. 182; p. 64.

Toms, George E., and T. P. Blair, San Diego, assignors of one-third to S. Frey, Los Angeles, Cal. Gravity-hinge. No. 1,039,216; Sept. 24; Gaz. vol. 182; p. 775.

Toomey, Thomas, Scranton, Pa. Tire. No. 1,037,686; Sept. 3; Gaz. vol. 182; p. 172.

Topliff, George W. (See Bornmann and Topliff.)

Topping Brothers. (See Crabb, Charles L., assignor.)

Torney, Wellington A., Seattle, Wash. Fence-post. No. 1,037,687; Sept. 3; Gaz. vol. 182; p. 172.

Toso, Marcellino, San Bruno, assignor of forty one-hundredths to P. H. Patterson, San Francisco, Cal. Tire. No. 1,038,326; Sept. 10; Gaz. vol. 182; p. 327.

Tottle & Co., Wm. A. (See McMillan, Hugh P., assignor.)

Tracey, Jeremiah F. (See Foley and Tracey.)

Traylor, Bruce W., New York, N. Y. Filter. No. 1,037,561; Sept. 3; Gaz. vol. 182; p. 130.

Treadgold, George H., Port Huron, Mich. Pneumatic wheel. No. 1,038,687; Sept. 17; Gaz. vol. 182; p. 579.

Treat, Francis H., Cleveland, Ohio. Means for indicating the deflation of pneumatic tires. No. 1,038,501; Sept. 17; Gaz. vol. 182; p. 619.

Trefry, Fredrick W., Pittsburgh, Pa. Switch for alternating-current machines. No. 1,038,990; Sept. 17; Gaz. vol. 182; p. 683.

Tremper, Louise M., St. Louis, Mo. Orchard-heater. No. 1,038,023; Sept. 10; Gaz. vol. 182; p. 319.

Trick, William C., Mount Vernon, Ohio. Bath-cushion. No. 1,039,334; Sept. 24; Gaz. vol. 182; p. 817.

Trickle, Ralph E., *et al.* (See Jernigan, Lee H., assignor.)

Trimble, Thomas B., *et al.* (See Hazelip, Edwin, assignor.)

Trinks, Franz, Brunswick, Germany. Calculating-machine. No. 1,039,614; Sept. 24; Gaz. vol. 182; p. 915.

Trinks, Franz, and C. Schaller, Brunswick, Germany. Calculating-machine. No. 1,038,464; Sept. 10; Gaz. vol. 182; p. 468.

Triumph Couch Bed Co. (See Hammond, William P., assignor.)

Troesin, Otto, Hamburg, Germany, assignor to I. E. Robinson, London, England. Furnace. No. 1,039,217; Sept. 24; Gaz. vol. 182; p. 776.

Trost, Otto A., Chicago, Ill. Garbage-receptacle and the like. No. 1,037,562; Sept. 3; Gaz. vol. 182; p. 130.

Troth, Lorado, San Diego, Cal. Insect trapping and cremating device. No. 1,037,688; Sept. 3; Gaz. vol. 182; p. 172.

Trowbridge, Kenneth, Atlanta, Ga. Planetary gearing. No. 1,037,806; Sept. 3; Gaz. vol. 182; p. 210.

Troy Laundry Machinery Company. (See Allen, Charles E., assignor.)

Troy Laundry Machinery Company. (See Bartholomew, William, assignor.)

Tscherning, Henry, assignor to Arcade Manufacturing Company, Freeport, Ill. Sand-sifter. No. 1,037,371; Sept. 3; Gaz. vol. 182; p. 65.

Tua, Giacinto, Turin, Italy. Automatic detent mechanism for sliding bolts and the like. No. 1,039,615; Sept. 24; Gaz. vol. 182; p. 915.

Tubbs, Dan, *et al.* (See Reames, Charles H., assignor.)

Tubergen, George J., Grand Rapids, Mich. Vending-machine. No. 1,038,236; Sept. 10; Gaz. vol. 182; p. 327.

Tully, Joseph J., Chicago, Ill. Fly-guard. No. 1,038,688; Sept. 17; Gaz. vol. 182; p. 579.

Tuma, Frank, Buffalo, N. Y., assignor of one-half to J. C. Currie, Jersey City, N. J. Compound pump. No. 1,039,218; Sept. 24; Gaz. vol. 182; p. 776.

Tuma, Frank, Buffalo, N. Y., assignor of one-half to J. C. Currie, Jersey City, N. J. Compound pump. No. 1,039,616; Sept. 24; Gaz. vol. 182; p. 916.

Tumey, Thomas H., Austin, Tex. Mail-box. No. 1,038,237; Sept. 10; Gaz. vol. 182; p. 368.

Turner, Kelley M. (See Rhodes, John K., assignor.)

Turner, Walter V. (See Miller and Turner.)

Turner, Walter V., Wilkinsburg, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Retarded-release valve. No. 1,039,219; Sept. 24; Gaz. vol. 182; p. 776.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Lead-brake device. No. 1,039,220; Sept. 24; Gaz. vol. 182; p. 777.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Locomotive-brake. No. 1,039,221; Sept. 24; Gaz. vol. 182; p. 777.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Brake-valve device. No. 1,039,222; Sept. 24; Gaz. vol. 182; p. 778.

Turney, Harry L., Portland, Oreg. Logging-engine. No. 1,038,029; Sept. 10; Gaz. vol. 182; p. 320.

Tuttle, Washington L., Baltimore, Md. Box. No. 1,038,689; Sept. 10; Gaz. vol. 182; p. 328.

Twaddell, B. W. (See Bullock, Edward T., assignor.)

Twentieth Century Machinery Company. (See Hauk, Joseph, Jr., assignor.)

Twombly Motors Company. (See Twombly, Willard L., assignor.)

Twombly, Willard L., assignor, by mesne assignments, to Twombly Motors Company, New York, N. Y. Variable-speed power-transmission mechanism. No. 1,038,690; Sept. 17; Gaz. vol. 182; p. 580.

Twombly, Willard L., assignor to Twombly Motors Company, New York, N. Y. Means to drive fans of motor-vehicles. No. 1,039,223; Sept. 24; Gaz. vol. 182; p. 778.

Tyler, Aaron J., Rochester, assignor to F. S. Bidwell, Shortsville, N. Y. Automatic spraying apparatus. No. 1,039,235; Sept. 24; Gaz. vol. 182; p. 817.

Tyler, Aaron J., Rochester, assignor to F. S. Bidwell, Shortsville, N. Y. Force-pump. No. 1,039,236; Sept. 24; Gaz. vol. 182; p. 818.

Tyler, Pardon B., Butterfield, Minn. Toy. No. 1,039,617; Sept. 24; Gaz. vol. 182; p. 916.

U. S. Bobbin & Shuttle Company. (See Farnum, William C., assignor.)

U. S. Slicing Machine Company. (See Stuhart, Hendrik, assignor.)

Ulbrich, Georg, Broken Hill, New South Wales, Australia. Magnetic separator. No. 1,037,563; Sept. 3; Gaz. vol. 182; p. 131.

Ulrich, William H., Detroit, Mich. Metallic-sash-glazing clip. No. 1,039,224; Sept. 24; Gaz. vol. 182; p. 779.

Underfeed Stoker Company of America, The. (See Howell, Sylvester S., assignor.)

Union Switch and Signal Company, The. (See Brown, Walter W., assignor.)

Union Switch and Signal Company, The. (See Clark, Arba G., assignor.)

Union Switch and Signal Company, The. (See Hawkins, Laurence A., assignor.)

Union Switch & Signal Company, The. (See Livermore, Arthur C., assignor.)

United Electric Company, The. (See Goughnour, Charles L., assignor.)

United States Envelope Company. (See Swift, Willard H., assignor.)

United States Light & Heating Company, The. (See Bliss, William L., assignor.)

United States Light & Heating Company, The. (See McElroy, James F., assignor.)

United States Mortgage & Trust Company, trustee. (See Clawson, Clement C., assignor.)

United States Phonograph Company, The. (See McNulty, Harry B., assignor.)

United Steel Company, The. (See McConnell, John, assignor.)

Universal Electric Welding Company. (See Lachman, Laurence S., assignor.)

Universal Winding Company. (See Ryden, Claes, assignor.)

Upchurch, Walter M., Hurley, N. Mex. Cylinder and piston construction for internal-combustion engines. No. 1,038,238; Sept. 10; Gaz. vol. 182; p. 328.

Upham, Burt P., assignor to Southgate Machinery Co., Boston, Mass. Bending printing-surfaces. No. 1,038,991; Sept. 17; Gaz. vol. 182; p. 683.

Upton, Charles T., and G. S. Gilman, Lowell, assignors to P. E. Gilman, Winchester, Mass. Paper-box machine. No. 1,037,372; Sept. 3; Gaz. vol. 182; p. 65.

Urgelles, Jose M., Baracoa, Cuba. Machine for removing pulp from coffee-berries. No. 1,038,031; Sept. 10; Gaz. vol. 182; p. 320.

Urgelles, Jose M., Baracoa, Cuba. Treating coffee-berries. No. 1,038,032; Sept. 10; Gaz. vol. 182; p. 321.

Van Auken, Byron R. (See Probst, Alfred H., assignor.)

Van Cleave, John O., Sidney, Colo. Hay-stacker. No. 1,038,992; Sept. 17; Gaz. vol. 183; p. 683.

Van der Meersch, Oscar, Richmond, Va. Mixing-machine. No. 1,037,810; Sept. 3; Gaz. vol. 182; p. 210.

Van Eyck, Henry E., Holland, Mich. Stone-catcher for flumes. No. 1,037,400; Sept. 3; Gaz. vol. 182; p. 210.

Van Leuven, Edward C. (See Whitney and Van Leuven.)

Van Wieren, Pieter, Cologne, Germany. Suction and pressure dredger. No. 1,038,040; Sept. 10; Gaz. vol. 182; p. 320.

Van Wormer, Arba, assignor to Horton Manufacturing Company, Fort Wayne, Ind. Gearing. No. 1,038,239; Sept. 10; Gaz. vol. 182; p. 328.

Van Zandt, Nelson L., St. Louis, Mo. Water-heater. No. 1,038,802; Sept. 17; Gaz. vol. 182; p. 619.

Vanderbeck, Abraham, Hartford, Conn. Vise. No. 1,039,337; Sept. 24; Gaz. vol. 182; p. 819.

Vanderveer, Jean J., Concord, Mass. Packing-case. No. 1,039,225; Sept. 24; Gaz. vol. 182; p. 779.

Vary, Elmer A., Middleport, N. Y. Hand fruit-pitter. No. 1,038,903; Sept. 17; Gaz. vol. 183; p. 684.

Vaughan, John F., Wellesley Hills, Mass. Flow-indicator. No. 1,038,803; Sept. 17; Gaz. vol. 183; p. 619.

Vaughan, Marshal, Welland, Ontario, Canada. Garment-rack. No. 1,039,226; Sept. 24; Gaz. vol. 182; p. 779.

Vaughan, Thomas M., Lawton, assignor to Michigan Metal Products Company, Battle Creek, Mich. Continuous tablet. No. 1,037,778; Sept. 3; Gaz. vol. 182; p. 66.

Veeder, Curtis H., assignor to Veeder Manufacturing Company, Hartford, Conn. Counter. No. 1,038,227; Sept. 24; Gaz. vol. 183; p. 779.

Veeder Manufacturing Company. (See Veeder, Curtis H., assignor.)

Vetti, Albert, Deadwood, S. D. Sod-pulverizer and weed-destroyer. No. 1,038,240; Sept. 10; Gaz. vol. 182; p. 328.

Vereinigte Chinisfabriken Zimmer & Co. G. m. b. H. (See Thron, Heinrich, assignor.)

Vernier, Charles P., Cedar Rapids, Iowa. Door-frame. No. 1,038,904; Sept. 17; Gaz. vol. 182; p. 684.

Vickers Limited. (See Dawson and Buckham, assignors.)

Vincent, Edwin B., Lima, Mont. Door-securer. No. 1,038,690; Sept. 17; Gaz. vol. 182; p. 580.

Viry, Henri, Bamberville, France. Pocket type-writer. No. 1,037,564; Sept. 3; Gaz. vol. 182; p. 131.

Vise, Elmer L., and C. Dunham, West Terre Haute, Ind. Coal-distributer. No. 1,038,241; Sept. 10; Gaz. vol. 182; p. 329.

Vogel, Paul, Cologne-Deutz, Germany. Turret. No. 1,038,242; Sept. 10; Gaz. vol. 183; p. 329.

Vogt, Jesse S., Long Green, assignor of one-third to D. F. Mallory, Roland Park, and one-third to I. O. Wright, Baltimore, Md. Automatic balancing mechanism for aeroplanes. No. 1,039,228; Sept. 24; Gaz. vol. 182; p. 780.

Voight, Henry G., assignor to The American Hardware Corporation, New Britain, Conn. Floor-hinge. No. 1,039,618; Sept. 24; Gaz. vol. 182; p. 917.

Volgt, Traugott, Milwaukee, Wis. Horse-collar clamp. No. 1,037,374; Sept. 3; Gaz. vol. 182; p. 66.

Voland, William, Garnet, Wis. Road-scraper. No. 1,037,375; Sept. 3; Gaz. vol. 182; p. 66.

Volkmar Auto Starter Company. (See Volkmar, Bernhard, assignor.)

Volkmar, Bernhard, New York, N. Y., assignor to Volkmar Auto Starter Company, Starter for internal-combustion engines. No. 1,037,376; Sept. 3; Gaz. vol. 182; p. 67.

Vollbrecht, Wilhelm. (See Gradenwitz, Vollbrecht, and Loewow.)

Voller, Karl, Dusseldorf, Germany. Automatically-operating key for setting the timing-rings of fuses for shells or the like. No. 1,037,811; Sept. 3; Gaz. vol. 182; p. 211.

Voller, Karl, Dusseldorf, Germany. Wheel. No. 1,037,812; Sept. 3; Gaz. vol. 182; p. 211.

Vroman, Ernest M., *et al.* (See Pickett, John B., assignor.)

Vuilleumier, Rudolph, New Rochelle, assignor to Pintsch Compressing Company, New York, N. Y. Apparatus for generating high-pressure oil-gas. No. 1,038,691; Sept. 17; Gaz. vol. 183; p. 580.

W. & E. T. Fitch Co., The. (See Wright, Louis W., assignor.)

W. E. Preddon and Company. (See Brink, Charles L., assignor.)

W. W. Sly Manufacturing Company, The. (See Lawrence, George E., assignor.)

Wachsmeister, A. G. (See Nowak, Carl A., assignor.)

Waddle, Norman W. (See Sprinkle, John J., assignor.)

Wade, David W. (See Hiller and Wade.)

Wagenlander, Charles, assignor of one-half to R. Wagenlander, Pittsburgh, Pa. Foldable rule. No. 1,037,569; Sept. 3; Gaz. vol. 182; p. 173.

Wagenlander, Edward. (See Wagenlander, Charles, assignor.)

Wagner, Warren, Petrolia, Tex. Underreamer. No. 1,038,243; Sept. 10; Gaz. vol. 182; p. 330.

Wagner, Warren, Petrolia, Tex. Shut-off head for casings and the like. No. 1,038,244; Sept. 10; Gaz. vol. 182; p. 330.

Wahle, Adolph, assignor to Davenport Washing Machine Company, Davenport, Iowa. Gearing. No. 1,037,690; Sept. 3; Gaz. vol. 182; p. 173.

Wakeman, Charles A. (See Dichmann, William, assignor.)

Walbridge, William D. (See Martin, Robert H., assignor.)

Waldeck, Charles A., Catonsville, Md. Flash-light apparatus. No. 1,038,245; Sept. 10; Gaz. vol. 182; p. 331.

Walker, Edwin, Erie, Pa. Making corkscrews. No. 1,038,902; Sept. 17; Gaz. vol. 182; p. 581.

Walker, Frank H., Laporte, Ind. Carburetor. No. 1,039,229; Sept. 24; Gaz. vol. 182; p. 780.

Walker, Jesse W. (See Lee, Syver, assignor.)

Wallace, James, St. Louis, Mo. Tree-felling machine. No. 1,039,338; Sept. 24; Gaz. vol. 183; p. 819.

Wallbillich, Anthony F., assignor to The Perkins Electric Switch Manufacturing Company, Bridgeport, Conn. Electric switch. No. 1,038,905; Sept. 17; Gaz. vol. 183; p. 684.

Walters, George W., Wildwood, Pa. Animal-trap. No. 1,038,246; Sept. 10; Gaz. vol. 182; p. 331.

Waltham Watch Company. (See Ohlsen, Olof, assignor.)

Walther, Adolph F., Oakland, Cal. Clutch. No. 1,038,033; Sept. 10; Gaz. vol. 183; p. 321.

Walton, Jerrold F., and W. T. Favorite, Sturgis, Mich.; said Favorite assignor to said Walton. Adjustable chair. No. 1,037,565; Sept. 3; Gaz. vol. 182; p. 131.

Wannemaker, Seth, Hanover, N. J. Device for facilitating the removal of valves. No. 1,037,691; Sept. 3; Gaz. vol. 182; p. 173.

Ward, George C., St. Louis, Mo. Cut-out for mufflers. No. 1,037,378; Sept. 3; Gaz. vol. 183; p. 66.

Warder, Walter J., Jr. (See Roth and Warder.)

Warder, Walter J., Jr., Chicago, Ill., assignor to The Adams & Westlake Company. Electric signal-lamp. No. 1,037,906; Sept. 3; Gaz. vol. 183; p. 183.

Waring, Walter R., Waverly, Kans. Loading-machine. No. 1,039,339; Sept. 24; Gaz. vol. 182; p. 819.

Warman, Andrew B. (See Pittock and Warman.)

Warner, Albion L. (See Warner, Charles A., assignor.)

Warner, Arthur P., and A. B. Cadman, assignors to Warner Instrument Company, Beloit, Wis. Speed-measuring equipment for railway or other cars. No. 1,038,500; Sept. 10; Gaz. vol. 182; p. 468.

Warner, Charles A., assignor to A. L. Warner, New York, N. Y. Sofa or chair bedstead. No. 1,038,906; Sept. 17; Gaz. vol. 182; p. 581.

Warner, Frederick. (See Harrison, George W., assignor.)

Warner, Henry S., *et al.* (See Roberts, Henry P., assignor.)

Warner Instrument Company. (See Cadman, Adel B., assignor.)

Warner Instrument Company. (See Warner and Cadman, assignors.)

Warner, James, Philadelphia, Pa. Arch construction. No. 1,038,906; Sept. 17; Gaz. vol. 182; p. 686.

Warner, William J., and A. Feller, New York, N. Y. Stopper for bottles. No. 1,038,465; Sept. 10; Gaz. vol. 182; p. 468.

Warren, Joseph D., Providence, R. I. Carburetor. No. 1,038,504; Sept. 17; Gaz. vol. 183; p. 620.

Warren, Thomas H., assignor to Ticonderoga Machine Works, Ticonderoga, N. Y. Bar for drawing grain-boxes. No. 1,037,692; Sept. 3; Gaz. vol. 183; p. 174.

Warren Webster & Company. (See Brenner, William G. R., assignor.)

Warren Webster and Company. (See Fitts, James L., assignor.)

Washburn, Thomas E., Coalinga, Cal. Sprinkling-gate valve. No. 1,038,466; Sept. 10; Gaz. vol. 183; p. 469.

Watanabe, Totsusaburo, New York, N. Y. Fountain-pen. No. 1,038,034; Sept. 10; Gaz. vol. 183; p. 321.

Waterbury Mfg. Co. (See Goetz, Henry F., assignor.)

Waterlee Register Company. (See Carter, William L., assignor.)

Waterloo Threshing Machine Company. (See Hawes, Joel D., assignor.)

Watkins, Owen H., Corvallis, Oreg. Hay-shocker. No. 1,039,230; Sept. 24; Gaz. vol. 182; p. 781.

Watson, Claude R. (See Raymond and Watson.)

Watson, Edward L., Dallas, S. D. Veterinarian's castrating-knife. No. 1,037,696; Sept. 3; Gaz. vol. 183; p. 174.

Watson & McDaniel Company. (See Jahn, Frederick L., assignor.)

Watts, Seaborn P., Abbeville, La. Rail joint and fastener. No. 1,038,035; Sept. 10; Gaz. vol. 183; p. 322.

Wawrzeniecki, Stanislaw, Elizabeth, Pa. Feed-bag. No. 1,037,694; Sept. 3; Gaz. vol. 182; p. 174.

Weathers, Claude G., *et al.* (See Tessmer, Herman G., assignor.)

Weaver, Ira A., assignor to Racine-Sattley Company, Springfield, Ill. Plow. No. 1,038,036; Sept. 10; Gaz. vol. 182; p. 322.

Weaver, Willis R., *et al.* (See Jernigan, Lee H., assignor.)

Webb, Harry R., Tonawanda, N. Y. Box. No. 1,039,619; Sept. 24; Gaz. vol. 182; p. 917.

Webb, Robert D. (See Webb, Samuel J.)

Webb, Samuel J.; R. D. Webb, Minden, La., by inheritance and by mesne assignments owner of entire title. Hot-air engine. No. 1,038,905; Sept. 17; Gaz. vol. 183; p. 685.

Webster, Harry G., Chicago, Ill., assignor, by mesne assignments, to Kellogg Switchboard & Supply Company. Telephone system. No. 1,038,037; Sept. 10; Gaz. vol. 182; p. 322.

Webster, Harry G., Chicago, Ill., assignor, by mesne assignments, to Kellogg Switchboard & Supply Company. Telephone system. No. 1,038,907; Sept. 17; Gaz. vol. 182; p. 685.

Webster, Harry S., Toledo, Ohio. Polishing-cloth. No. 1,038,694; Sept. 17; Gaz. vol. 182; p. 581.

Wedge, Utley, Ardmore, Pa. Treating furnace-gases. No. 1,038,464; Sept. 24; Gaz. vol. 182; p. 922.

Wege, Peter M., assignor to The Safe Cabinet Company, Marietta, Ohio. Combined shelf and partition. No. 1,038,038; Sept. 10; Gaz. vol. 182; p. 323.

Wegner, Franz, Halle-on-the-Saale, Germany. Hand-rammer. No. 1,038,039; Sept. 10; Gaz. vol. 183; p. 323.

Wegerich, Karl, Dingelstadt, Germany. Frame for dressing millstones, mills, and the like. No. 1,037,813; Sept. 3; Gaz. vol. 182; p. 211.

Weidemann, Paulina. (See Meyer, Adolph, assignor.)

Weidmann, Gottfried, Zollikon, near Zürich, Switzerland. Nozzle for apparatus for exhausting, propelling, and inducing currents in fluids. No. 1,039,231; Sept. 24; Gaz. vol. 182; p. 781.

Weier, John J. (See Smith and Weier.)

Weinerth, George S., Reading, Pa. Floating-thread cutter. No. 1,038,695; Sept. 17; Gaz. vol. 182; p. 581.

Weintraub, Ezechiel, Lynn, Mass., assignor to General Electric Company. Vacuum apparatus. No. 1,037,379; Sept. 3; Gaz. vol. 183; p. 66.

Weiss, Arthur J., West Orange, N. J., assignor, by mesne assignments, to Mail Company. Carburetor. No. 1,038,040; Sept. 10; Gaz. vol. 182; p. 324.

Weiss, George, assignor of one-third to J. H. McElroy, Chicago, Ill. Bottle-cleansing machine. No. 1,037,905; Sept. 3; Gaz. vol. 182; p. 68.

Weiss, Nathan, assignor to American Cigar Company, New York, N. Y. Cigar-bunching machine. No. 1,038,041; Sept. 10; Gas. vol. 182; p. 323.

Weitzel, George, Chicago, Ill. Wagon-box. No. 1,038,347; Sept. 10; Gas. vol. 182; p. 391.

Weitzel, Harry H., Hacupelma, Semora, Mexico. Gate-valve. No. 1,039,240; Sept. 24; Gas. vol. 182; p. 930.

Welcher, Rudolph, Yonkers, N. Y. Apparatus for handling concrete. No. 1,038,806; Sept. 17; Gas. vol. 182; p. 630.

Weld, Bertom L., Cleveland, N. D. Oil-cup. No. 1,037,567; Sept. 3; Gas. vol. 182; p. 182.

Weller, George L., Elyria, Ohio. Flush-tank regulator. No. 1,039,620; Sept. 24; Gas. vol. 182; p. 918.

Wells, Merritt R. (See Crist and Wells.)

Wells, Otto. (See Maxim, Hosea F., assignor.)

Wendling, Rheda A. (See Brooks, Robert W., assignor.)

Wener, Louis, New York, N. Y. Hat-protector. No. 1,038,042; Sept. 10; Gas. vol. 182; p. 324.

Wennerstrom, August, Ashtabula, Ohio. Strap-retaining attachment. No. 1,037,881; Sept. 3; Gas. vol. 182; p. 60.

Wentworth, William W., Preston, Iowa. Curing and preserving seed-corn. No. 1,037,382; Sept. 3; Gas. vol. 182; p. 60.

Wenselmann, Gustave, Galesburg, Ill. Baling-press. No. 1,038,248; Sept. 10; Gas. vol. 182; p. 392.

Wereke, William A. (See Kent and Wereke.)

Wernicke, Otto H. L., Grand Rapids, Mich. Lubricating device. No. 1,037,383; Sept. 3; Gas. vol. 182; p. 60.

Wessell, Bert, Johnstown, N. Y., assignor to Wessell Knitting Company. Knitting. No. 1,038,043; Sept. 10; Gas. vol. 182; p. 324.

Wessell, Bert, Johnstown, N. Y., assignor to Wessell Knitting Company. Knitting-machine. No. 1,038,044; Sept. 10; Gas. vol. 182; p. 324.

Wessell Knitting Company. (See Wessell, Bert, assignor.)

Wessinger, Henry J., Duluth, Minn. Side-dump car. No. 1,038,045; Sept. 10; Gas. vol. 182; p. 325.

Wesson, Joseph H., Springfield, Mass., assignor to Smith & Wesson, Incorporated. Automatic pistol. No. 1,039,232; Sept. 24; Gas. vol. 182; p. 781.

West, Charles G. (See Mulholland and West.)

West, John W., East Braintree, Mass. Protector for tube-thread. No. 1,038,249; Sept. 10; Gas. vol. 182; p. 392.

West, Thomas W. A., Ocotlan, Oaxaca, Mexico. Ore-concentrator. No. 1,038,046; Sept. 10; Gas. vol. 182; p. 325.

Westcott, John D., Union City, Pa. Steam-trap. No. 1,039,621; Sept. 24; Gas. vol. 182; p. 918.

Westendorf, August, Buffalo, Iowa. Building construction. No. 1,038,467; Sept. 10; Gas. vol. 182; p. 469.

Westering, Frank A., *et al.* (See Adams, Edwin L., assignor.)

Western Electric Company. (See Lyng, John J., assignor.)

Western Electric Company. (See McLarn, Ernest S., assignor.)

Western, Harry R., Portsmouth, England. Pattern for coat-collars. No. 1,039,233; Sept. 24; Gas. vol. 182; p. 782.

Westfelt, Axel U., Stockholm, Sweden. Sorting apparatus for coins. No. 1,037,568; Sept. 3; Gas. vol. 182; p. 132.

Westinghouse Air Brake Company, The. (See Corrington, Murray, assignor.)

Westinghouse Air Brake Company. (See Dewson, Edward H., assignor.)

Westinghouse Air Brake Company, The. (See Turner, Walter V., assignor.)

Westinghouse Electric & Manufacturing Company. (See Sandfield, Michael, assignor.)

Westinghouse, George. (See Wetherbee, Charles P., assignor.)

Westlake, Charles T. (See Frede and Westlake.)

Westover, Henry J., New York, N. Y. Means for collecting average samples of gas. No. 1,037,666; Sept. 3; Gas. vol. 182; p. 174.

Wetherbee, Charles P., Bath, Me., assignor to G. Westinghouse, Pittsburgh, Pa. Multiple-disk gearing. No. 1,038,047; Sept. 10; Gas. vol. 182; p. 325.

Wetherill Finished Castings Company. (See Morris, Albert W., assignor.)

Wetherill Finished Castings Company. (See Wetherill and Morris, assignors.)

Wetherill, Samuel P., Jr., and A. W. Morris, assignors to Wetherill Finished Castings Company, Philadelphia, Pa. Pressure casting apparatus. No. 1,039,224; Sept. 24; Gas. vol. 182; p. 782.

Wetzel, John, Seattle, Wash. Floor-scraper. No. 1,038,307; Sept. 17; Gas. vol. 182; p. 621.

Weyman, Frederick W., Hartford, Conn. Shock-absorber. No. 1,038,308; Sept. 17; Gas. vol. 182; p. 621.

Whalen, Catharine L., administratrix. (See Whalen, John W.)

Whalen, John W., deceased, Graymont, Ill.; C. L. Whalen, administratrix, Cambridge, Mass. Drawing instrument. No. 1,038,906; Sept. 17; Gas. vol. 182; p. 568.

Wheary, George H., assignor to The Hartmann Trunk Company, Racine, Wis., Trunk. No. 1,037,686; Sept. 3; Gas. vol. 182; p. 176.

Wheeler, Jerome H., and B. R. Ramsey, assignors to Penn Yan Flexible Conduit Company, Penn Yan, N. Y. Conduit-machine. No. 1,039,541; Sept. 24; Gas. vol. 182; p. 820.

Wheeler, William A. (See Lawyer, Frank G., assignor.)

Wheelock, Etta W., Arlington, Mass. Coupling for rotary tools. No. 1,038,242; Sept. 24; Gas. vol. 182; p. 831.

Wherry, Joseph P., Everett, Wash. Brush. No. 1,037,697; Sept. 3; Gas. vol. 182; p. 176.

White, Arthur H., New Kensington, Pa. Nut-lock. No. 1,037,324; Sept. 3; Gas. vol. 182; p. 70.

White, Arthur M., assignor to S. R. White's Sons, Norfolk, Va. Handle-mount for plows. No. 1,039,074; Sept. 17; Gas. vol. 182; p. 707.

White, Charles D., assignor to J. Carr & Sons, Manchester, England. Means for hanging curtains or the like. No. 1,039,343; Sept. 24; Gas. vol. 182; p. 821.

White, Charles W., East St. Louis, Ill. Grain-door. No. 1,038,696; Sept. 17; Gas. vol. 182; p. 583.

White, Edward Y. San Antonio, Tex. Dry-cleaning apparatus. No. 1,038,463; Sept. 10; Gas. vol. 182; p. 410.

White, Walter W., Dawson, N. D. Draft attachment. No. 1,038,697; Sept. 17; Gas. vol. 182; p. 582.

White's Sons, S. R. (See White, Arthur M., assignor.)

Whitney, Calvin M., and B. C. Van Leuven, assignors to The Miles Manf'g. Co. Inc., Jackson, Mich. Concrete-mixer. No. 1,038,698; Sept. 17; Gas. vol. 182; p. 582.

Whitney, Francis, Hopkinton, N. Y. Hub-cap. No. 1,037,814; Sept. 3; Gas. vol. 182; p. 212.

Whitton, Lucius E., New London, Conn. Chuck. No. 1,037,228; Sept. 3; Gas. vol. 182; p. 70.

Wiard, Edward S. (See Haultain and Wiard.)

Wichrowski, Ignacy, and J. Piotrowski, New York, N. Y. Steam-generator. No. 1,038,250; Sept. 10; Gas. vol. 182; p. 393.

Wideman, Edmund C., Wilkes-Barre, Pa. Soap-powder sprayer. No. 1,038,251; Sept. 10; Gas. vol. 182; p. 393.

Widmer, Adolph, and S., deceased, Paterson, N. J.; A. Widmer, executor. Shuttle for looms. No. 1,038,048; Sept. 10; Gas. vol. 182; p. 326.

Widmer, Samuel. (See Widmer, Adolph and S.)

Wiegand, Henry J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Reinforced grid resistance. No. 1,038,252; Sept. 10; Gas. vol. 182; p. 394.

Wier, Inez G. (See O'Connor and Wier.)

Wiese, Theodore L., assignor of one-fourth to J. Froelich, one-fourth to W. J. Barres, and one-fourth to L. B. Lamfrom, Milwaukee, Wis. Gas-stove lighter. No. 1,039,465; Sept. 24; Gas. vol. 182; p. 863.

Wiggins, Harry G., Denver, Colo., assignor to The S. S. White Dental Manufacturing Company, Philadelphia, Pa. Forte-polisher. No. 1,039,235; Sept. 24; Gas. vol. 182; p. 782.

Wilder, James H., Randall, Kans. Target-trap. No. 1,038,700; Sept. 17; Gas. vol. 182; p. 583.

Wildman, Holland R., York, Nebr. Illuminated license-number and signal for vehicles. No. 1,037,896; Sept. 3; Gas. vol. 182; p. 70.

Wiley, Edgar C., assignor of one-half to Lynchburg Foundry Company, Lynchburg, Va. Machine for jarring sand molds. No. 1,039,623; Sept. 24; Gas. vol. 182; p. 918.

Wiley, Edgar C., assignor of one-half to Lynchburg Foundry Co., Lynchburg, Va. Valve mechanism for jarring machines. No. 1,039,678; Sept. 24; Gas. vol. 182; p. 937.

Wilk, Charles J., and G. F. Holtz, Rochester, N. Y. Multicompartment shaker. No. 1,039,236; Sept. 24; Gas. vol. 182; p. 783.

Wilker, Henry J., assignor of one-half to C. Geish, Pittsburgh, Pa. Wrench. No. 1,039,466; Sept. 24; Gas. vol. 182; p. 863.

Wilkinson, Glenn A., and A. E. Osborn, Marion, Ind. Wrapping-paper cabinet. No. 1,039,344; Sept. 24; Gas. vol. 182; p. 821.

Wilkinson, John, assignor to H. H. Franklin Manufacturing Company, Syracuse, N. Y. Carburetor. No. 1,038,699; Sept. 17; Gas. vol. 182; p. 583.

Wilkinson, William S., Aurora, S. D. Pipe-wrench. No. 1,037,257; Sept. 3; Gas. vol. 182; p. 70.

Willey, John A., Waterloo, Iowa. Power-hammer. No. 1,038,900; Sept. 17; Gas. vol. 182; p. 626.

William Wharton, Jr., & Company. (See Angerer, Victor, assignor.)

Williams, Charles W., New York, N. Y. Gas-stove. No. 1,038,253; Sept. 10; Gas. vol. 182; p. 394.

Williams, Clarence A., Chicago, Ill. Truck. No. 1,038,809; Sept. 17; Gas. vol. 182; p. 622.

Williams, David T., Paterson, N. J., assignor of one-half to F. L. Constable, Wilmington, Del. Feed-water heater. No. 1,039,000; Sept. 17; Gas. vol. 182; p. 697.

Williams, Elliott, Kansas City, Mo. Starting device for gas-engines. No. 1,039,237; Sept. 24; Gas. vol. 182; p. 784.

Williams, Harry B., Saranac Lake, N. Y. Paint-brush. No. 1,037,666; Sept. 3; Gas. vol. 182; p. 176.

Williams, Milton F., St. Louis, Mo., assignor to Williams Patent Crusher & Pulverizer Company. Adjusting mechanism for crushers or pulverizers. No. 1,038,833; Sept. 24; Gas. vol. 182; p. 619.

Williams, Milton F., assignor to Williams Patent Crusher & Pulverizer Company, St. Louis, Mo. Reducing-machine casting. No. 1,039,624; Sept. 24; Gas. vol. 182; p. 919.

Williams Patent Crusher & Pulverizer Company. (See Casebolt, Charles H., assignor.)

Williams Patent Crusher and Pulverizer Company. (See Carswell, Frederick R., assignor.)

Williams Patent Crusher and Pulverizer Company. (See Pricket, Edward H., assignor.)

Williams Patent Crusher & Pulverizer Company. (See Williams, Milton F., assignor.)

Williams, Wynant J., Albany, and H. H. Rasmussen, Troy, N. Y. Phenephotoscope. No. 1,037,590; Sept. 3; Gas. vol. 182; p. 120.

Willis Electric Meter Company. (See Willis, George M., assignor.)

Willis, Frank D., Burlington, Vt. Flying-machine. No. 1,039,625; Sept. 24; Gas. vol. 182; p. 919.

Willis, George M., assignor to Willis Electric Meter Company, Chicago, Ill. Electricity-meter. No. 1,039,467; Sept. 24; Gas. vol. 182; p. 863.

Willis, Prior F., St. Louis, Mo. Oxyacetylene-torch. No. 1,039,228; Sept. 24; Gas. vol. 182; p. 784.

Willis, Prior F., St. Louis, Mo. Acetylene-gas generator. No. 1,039,229; Sept. 24; Gas. vol. 182; p. 785.

Willmann, Joseph, Derby, Conn. Horsegeaiser. No. 1,037,815; Sept. 3; Gas. vol. 182; p. 212.

Wills, Donald E., assignor of one-half to A. Klein, Cincinnati, Ohio. Carburetor. No. 1,038,050; Sept. 10; Gas vol. 182; p. 326.

Wilmot, John F., Detroit, Mich. Wheel. No. 1,037,899; Sept. 3; Gas. vol. 182; p. 176.

Wilson, A. I. V., *et al.* (See Smith, Henry A., assignor.)

Wilson, Burton "J." and W. B. Couson, Santa Cruz, Cal. Sanitary cuspidor and the like. No. 1,037,700; Sept. 3; Gas. vol. 182; p. 176.

Wilson Distilling Company, The. (See Switzer, Maurice, assignor.)

Wilson, Erven J. (See Cook and Wilson.)

Wilson, Frederick W., Upper Marlboro, Md. Letter-carrier's portfolio. No. 1,037,388; Sept. 3; Gas. vol. 182; p. 71.

Wilson, George W., Vineland, N. J. Mail-bag catcher and deliverer. No. 1,038,051; Sept. 10; Gas. vol. 182; p. 327.

Wilson, James C., Washington, D. C. Voting-machine. No. 1,038,810; Sept. 17; Gas. vol. 182; p. 622.

Wilson, James M., New York, N. Y., assignor, by mesne assignments, to Splitdorf Electrical Co., Newark, N. J. Electric-current generator. No. 1,038,254; Sept. 10; Gas. vol. 182; p. 394.

Wilson, John M., assignor of one-half to J. Norman, Wichita, Kans. Baling-press. No. 1,038,255; Sept. 10; Gas. vol. 182; p. 395.

Wilson, Roy A., Cavita, assignor to Philippine Hemp Machine Company, Manila, Philippine Islands. Deabrating-machine. No. 1,037,389; Sept. 3; Gas. vol. 182; p. 71.

Winchester Repeating Arms Co. (See Johnson, Thomas C., assignor.)

Winkler, Joseph F., Dollar Bay, Mich. Animal-trap. No. 1,039,001; Sept. 17; Gas. vol. 182; p. 687.

Winslow, Marion H., Terre Haute, Ind. Recording device for scales. No. 1,037,701; Sept. 3; Gas. vol. 182; p. 176.

Winston, Clarence L., Boston, Mass. Horseshoe. No. 1,039,002; Sept. 17; Gas. vol. 182; p. 687.

Winterros, Claes R., Takoma Park, D. C. Aeroplane flying-machine. No. 1,039,345; Sept. 24; Gas. vol. 182; p. 821.

Wintrode, Alfred H., administrator. (See Wintrode, Edward B.)

Wintrode, Edward B., deceased; A. H. Wintrode, administrator, Los Angeles, Cal. Trolley-pole retriever. No. 1,039,346; Sept. 24; Gas. vol. 182; p. 822.

Wintner, Rudolf, Milwaukee, Wis., assignor to Power and Mining Machinery Company, New York, N. Y. Reciprocating engine. No. 1,037,840; Sept. 3; Gas. vol. 182; p. 220.

Wirt, Reuben D., Haines City, Fla. Wave-motor. No. 1,037,390; Sept. 3; Gas. vol. 182; p. 71.

Wirts, Stephen M., Detroit, Mich. Drawer-support. No. 1,037,702; Sept. 3; Gas. vol. 182; p. 177.

Wirts, William J., *et al.* (See Germonprez, John A., assignor.)

Wise, Edward W., Centralia, Wash. Boiler. No. 1,037,391; Sept. 3; Gas. vol. 182; p. 72.

Wiseheart, Doctor S., Decatur, Ill. Street or station indicator. No. 1,039,226; Sept. 24; Gas. vol. 182; p. 920.

Wister, Harry H. (See Holland and Wister.)

Witwell, Arthur M., Hutchinson, Kans. Rope-measurer. No. 1,039,468; Sept. 24; Gas. vol. 182; p. 864.

Witt, Louise, San Leandro, Cal. Hospital-bed appliance. No. 1,037,392; Sept. 3; Gas. vol. 182; p. 72.

Witte, Adolf W. K., Hamburg, Germany. Making butter. No. 1,039,227; Sept. 24; Gas. vol. 182; p. 920.

Witter, William S., Julesburg, Colo. Spark-plug. No. 1,038,701; Sept. 17; Gas. vol. 182; p. 584.

Woldert Grocery Company. (See Moser, Frank W., assignor.)

Wolf, Charles K., near Xenia, Ohio. Wire-working appliance. No. 1,038,052; Sept. 10; Gas. vol. 182; p. 327.

Wolf, Charles K., near Xenia, Ohio. Harvester attachment. No. 1,039,033; Sept. 10; Gas. vol. 182; p. 327.

Wolf, Lewis McNabb, Ill. Harp-action. No. 1,037,569; Sept. 3; Gas. vol. 182; p. 132.

Wolf, Lewis McNabb, Ill. Automobile vehicle. No. 1,039,034; Sept. 10; Gas. vol. 182; p. 328.

Wolf, Philip. (See Fleischmann and Wolf.)

Wolf, Rudolf, Magdeburg-Buckau, Germany. Shaft-governor for engines. No. 1,038,045; Sept. 10; Gas. vol. 182; p. 324.

Wolf, Sidney L. J., assignor to Wolf's Music Time Blocks Limited, Dunedin, New Zealand. Musical blocks. No. 1,039,347; Sept. 24; Gas. vol. 182; p. 822.

Wolfe, Alfred C. (See Taylor and Wolfe.)

Wolfe, Elvin A., and H. W. Gilbert, Nazareth, Pa. Driving connection. No. 1,037,393; Sept. 3; Gas. vol. 182; p. 72.

Wolf, Aaron. (See Jacobson and Wolf.)

Wolfram Lampen Aktien-Gesellschaft. (See Lédenbe, Georg, assignor.)

Wolf's Music Time Blocks Limited. (See Wolf, Sidney L. J., assignor.)

Wolhaupter, Benjamin, New Rochelle, assignor to The Rail Joint Company, New York, N. Y. Track-fastening for rail-joints. No. 1,038,811; Sept. 17; Gas. vol. 182; p. 622.

Wolhaupter, David P., Washington, D. C. Anti-creeper tie-plate. No. 1,038,702; Sept. 17; Gas. vol. 182; p. 584.

Wolter, Ferdinand R., Minneapolis, Minn. Mop-holder. No. 1,037,703; Sept. 3; Gas. vol. 182; p. 177.

Wolts, Albert M. (See Howser and Wolts.)

Wood, Clarence S., assignor to Briscoe Manufacturing Company, Detroit, Mich. Hood for automobiles. No. 1,037,394; Sept. 3; Gas. vol. 182; p. 72.

Wood, Clarence S., assignor to Briscoe Manufacturing Company, Detroit, Mich. Automobile-hood. No. 1,037,395; Sept. 3; Gas. vol. 182; p. 73.

Wood, Frank W., New York, N. Y. Boiler-tiling device. No. 1,038,495; Sept. 10; Gas. vol. 182; p. 477.

Wood, Montraville M., Berwyn, assignor to L. E. Myers, Chicago, Ill. Automatic canal system. No. 1,037,396; Sept. 3; Gas. vol. 182; p. 73.

Wood, Peter S., Burton, Wash. Shortening-mixer. No. 1,038,469; Sept. 10; Gas. vol. 182; p. 470.

Wood, Richard W., New York, N. Y. File-cabinet. No. 1,038,703; Sept. 17; Gas. vol. 182; p. 584.

Woodford, Hibert J., Candor, N. Y. Portable fence. No. 1,038,470; Sept. 10; Gas. vol. 182; p. 470.

Woodhouse, Henry. (See Matear, Kenney, and Woodhouse.)

Woodley, William T. (See Henry, Beulah L., assignor.)

Woods, Charles E. (See Wren, Charles F., assignor.)

Woods, George E., assignor of one-half to H. S. Jacobson, Pittsburgh, Pa. Guard-rail and rail-joint. No. 1,039,003; Sept. 17; Gas. vol. 182; p. 687.

Woods, James A., Jr., Ogden, Utah. Fruit-grader. No. 1,038,056; Sept. 10; Gas. vol. 182; p. 328.

Workman, Walter C., Loudonville, Ohio. Splice-bar. No. 1,038,471; Sept. 10; Gas. vol. 182; p. 470.

Worth, Charles C. (See Freeman and Worth.)

Wren, Charles F., Prescott, Ariz., assignor, by mesne assignments, to C. E. Woods, Liberal, Kans. Spring-tire. No. 1,039,460; Sept. 24; Gas. vol. 182; p. 864.

Wright, George W., Akron, Ohio. Splice-holder. No. 1,038,704; Sept. 17; Gas. vol. 182; p. 585.

Wright, Gilbert, Schenectady, N. Y., assignor to General Electric Company. Inclosed fuse. No. 1,037,397; Sept. 3; Gas. vol. 182; p. 73.

Wright, Ira O., *et al.* (See Vogt, Jesse S., assignor.)

Wright, Louis W., assignor to The W. & E. T. Fitch Co., New Haven, Conn. Buckle. No. 1,038,356; Sept. 10; Gas. vol. 182; p. 395.

Wright, Wilson D. C. (See Smith, James M., assignor.)

Wurst, Charles F., and W. Schaf, Hudson Heights, N. J. Hacksaw. No. 1,039,470; Sept. 24; Gas. vol. 182; p. 864.

Wurtele, J. G. (See Brown, James H., assignor.)

Wylie, Thomas B., Osborne, Pa. Gas-burner. No. 1,037,398; Sept. 3; Gas. vol. 182; p. 74.

Yantis, Benjamin F., Hollis, Okla. Plumb-level. No. 1,038,705; Sept. 17; Gas. vol. 182; p. 585.

Yarrington, Samuel S., Wilmington, Del. Aeroplane. No. 1,037,704; Sept. 3; Gas. vol. 182; p. 177.

Yarrow, Alfred F., Scotland, New Brunswick, Canada. Water-tube boiler. No. 1,038,812; Sept. 17; Gas. vol. 182; p. 622.

Yeakel, Abraham M., assignor of one-half to W. L. Yeakel, Perkasie, Pa. Clock. No. 1,037,705; Sept. 3; Gas. vol. 182; p. 178.

Yeakel, Wilson L. (See Yeakel, Abraham M., assignor.)

Yelf, Henry H., Southsea, England. Locking device for type-writing machines. No. 1,037,399; Sept. 3; Gas. vol. 182; p. 74.

Yeoman, John L., Chehalis, Wash. Universal joint and four-wheel drive. No. 1,038,706; Sept. 17; Gas. vol. 182; p. 585.

Yeomans, Wallace C., Pe Ell, Wash. Spark-arrester. No. 1,038,707; Sept. 17; Gas. vol. 182; p. 586.

Young, Benjamin F. (See Spratt, George A., assignor.)

Young, Carl J., Seattle, Wash. Clam-shell bucket. No. 1,037,570; Sept. 3; Gas. vol. 182; p. 133.

Young, Chester and H. G., Livermore, Cal. Adjustable seat for sidehill implements. No. 1,039,004; Sept. 17; Gas. vol. 182; p. 688.

Young, Edwin G. (See Young, Chester and H. G.)

Young, Eugene, Princeton, Ky. Combined rail-fastener and tie. No. 1,037,706; Sept. 3; Gas. vol. 182; p. 178.

Young, George W., Swampscott, Mass. Sheet-support. No. 1,038,613; Sept. 17; Gas. vol. 182; p. 622.

Younger, William E., Seattle, Wash. Advertising device. No. 1,038,057; Sept. 10; Gas. vol. 182; p. 328.

Youngren, Albert E., Kewanee, Ill. Internal-combustion engine. No. 1,037,400; Sept. 3; Gas. vol. 182; p. 74.

Youngren, Albert E., Kewanee, Ill. Timer for gas-engines. No. 1,037,401; Sept. 3; Gas. vol. 182; p. 74.

Yount, Jesse M., San Francisco, Cal. Welded rail-bond and fish-plate. No. 1,037,707; Sept. 3; Gas. vol. 182; p. 179.

Yourelle, Thomas L., and J. Bellingham, Wellington, New Zealand. Ferroconcrete construction of buildings. No. 1,038,257; Sept. 10; Gaz. vol. 182; p. 395.
Zabawa, Ludwik, Baltimore, Md. Rail-chair. No. 1,037,706; Sept. 3; Gaz. vol. 182; p. 179.
Zander, John L., Irvington, N. J. Pyrometer or thermo-battery. No. 1,038,286; Sept. 10; Gaz. vol. 182; p. 396.
Zart, Arthur. (See Schweitzer and Zart.)
Zehendner, August J., Huntington, Ind. Headlight blind or shutter. No. 1,037,402; Sept. 3; Gaz. vol. 182; p. 75.
Zeller, Fritz, Renton, Wash. Steel tie and rail-fastener. No. 1,037,403; Sept. 3; Gaz. vol. 182; p. 76.
Zeppelin, Arsene, Brookline, Mass. Shock-absorber. No. 1,037,404; Sept. 3; Gaz. vol. 182; p. 76.
Zieg, Frank B., assignor to The F. B. Zieg Manufacturing Company, Fredericktown, Ohio. Culvert-pipe. No. 1,037,709; Sept. 3; Gaz. vol. 182; p. 179.
Zielinski, Franciszek, Warsaw, Russia. Brush-back blank. No. 1,039,005; Sept. 17; Gaz. vol. 182; p. 688.
Zielinski, Hipolit, Chelsea, Mass. Wrench. No. 1,038,708; Sept. 17; Gaz. vol. 182; p. 586.
Ziller, Robert L., Austin, Tex. Protector for the safety devices of oil-containers. No. 1,039,006; Sept. 17; Gaz. vol. 182; p. 688.
Zimmermann, Robert M., Montreal, Quebec, Canada, assignor to National Dump Car Company, Chicago, Ill. Door. No. 1,038,658; Sept. 10; Gaz. vol. 182; p. 530.
Zimmermann, Thomas A., Swissvale, Pa. Clock-controlled switch. No. 1,037,710; Sept. 3; Gaz. vol. 182; p. 180.
Zimmermann, Charles. (See Johnson, Alpha, assignor.)
Zimmermann, William F., assignor to Gould & Eberhardt, Newark, N. J. Cutting helical gear-wheels. No. 1,037,571; Sept. 3; Gaz. vol. 182; p. 132.
Zimmermann, William F., assignor to Gould & Eberhardt, Newark, N. J. Shaping-machine. No. 1,038,260; Sept. 10; Gaz. vol. 182; p. 396.
Zink, Lucian, Detroit, Mich. Brake-shoe control. No. 1,038,059; Sept. 10; Gaz. vol. 182; p. 339.
Zint, George, Wapakoneta, Ohio. Automatic sprinkler. No. 1,038,660; Sept. 10; Gaz. vol. 182; p. 530.
Zobel, Bruno, Chicago, Ill. Aerometer. No. 1,039,240; Sept. 24; Gaz. vol. 182; p. 786.
Zsuzsitz, Vincenz, Aurora, Ill. Closure for bottles. No. 1,038,260; Sept. 10; Gaz. vol. 182; p. 396.
Zuckerman, Emil, Yonkers, N. Y. Invisible hinge. No. 1,039,628; Sept. 24; Gaz. vol. 182; p. 930.

# ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

Adam, Agnes S., Washington, D. C. Garment-supporter. No. 43,030; Sept. 24; Gaz. vol. 182; p. 940.
Allmo, Louis, Brooklyn, N. Y. Ash-tray. No. 42,925; Sept. 17; Gaz. vol. 182; p. 710.
Allen, Genevieve M., assignor to Oneida Community, Limited, Oneida, N. Y. Handle for spoons, forks, or similar articles. No. 42,963; Sept. 10; Gaz. vol. 182; p. 484.
American Sanitary Works. (See Tilden, Bert O., assignor.)
Becker, Hugo. (See Will and Becker.)
Bell, Walter J., Los Angeles, Cal. Electric switchboard. No. 43,036; Sept. 17; Gaz. vol. 182; p. 710.
Bender, Theodore, assignor to Gorham Manufacturing Company, Providence, R. I. Handle of a button-hook or similar article. No. 43,031; Sept. 24; Gaz. vol. 182; p. 940.
Bergland, Carl, Mont Ormage, assignor to Lauter Company, Newark, N. J. Player-piano lever. No. 42,969; Sept. 10; Gaz. vol. 182; p. 484.
Bigelow Carpet Company. (See Elliott, William A., assignor.)
Bromley & Sons, John. (See Petzold, Adolph, assignor.)
Brown, Frank A., Wilmette, Ill. Jar. No. 43,000; Sept. 10; Gaz. vol. 182; p. 484.
Carpenter, Charles U., New York, N. Y. Handle for document-files. No. 42,961; Sept. 10; Gaz. vol. 182; p. 484.
Carpenter, Charles U., New York, N. Y. Card-holder. No. 42,962; Sept. 10; Gaz. vol. 182; p. 484.
Casey, Charles L., Cambridge, Ohio. Teapot. No. 42,967; Sept. 3; Gaz. vol. 182; p. 222.
Caverno, Xenophon, Keweenaw, Ill. Pump and engine base. No. 43,033; Sept. 24; Gaz. vol. 182; p. 940.
Chapin, Jay, Edgewood borough, assignor to Jas. H. Matthews & Co., Pittsburgh, Pa. Sign. No. 42,956; Sept. 3; Gaz. vol. 182; p. 222.
Clark, Theodore P., Akron, Ohio. Automobile-tire. No. 43,028; Sept. 24; Gaz. vol. 182; p. 940.
Codman, William C., assignor to Gorham Manufacturing Company, Providence, R. I. Handle for spoons, forks, or similar articles. No. 42,966; Sept. 10; Gaz. vol. 182; p. 485.
Cordley, Henry G., Glen Ridge, N. J. Liquid cooler and dispenser. No. 43,029; Sept. 3; Gaz. vol. 182; p. 223.
D'Olier, Henry, Jr., Philadelphia, Pa., assignor, by mesne assignments, to General Electric Company. Reflector and attachment. No. 42,961; Sept. 3; Gaz. vol. 182; p. 223.
Dean Electric Company, The. (See Manson, Ray H., assignor.)
Degen, Charles J., New York, N. Y. Plaque. No. 43,034; Sept. 24; Gaz. vol. 182; p. 941.
Disston, Henry, assignor to Henry Disston & Sons, Incorporated, Philadelphia, Pa. Saw-handle. No. 42,960; Sept. 3; Gaz. vol. 182; p. 222.
E. Ingraham Co., The. (See Stockton, Elmer R., assignor.)
Eastern Bottlers Supply Company. (See Sean, Edwin J., assignor.)
Edens, Henry N., assignor to The John Lauson Manufacturing Company, New Holstein, Wis. Gas-engine casing. No. 42,962; Sept. 3; Gaz. vol. 182; p. 223.
Elliott, William A., Yonkers, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 43,035; Sept. 24; Gaz. vol. 182; p. 941.
Estate Stove Company, The. (See Kahn, Lazard, assignor.)
Evans, Howard S. (See Hawe and Evans.)
Finlay, Dicks & Co. (See Guidry, Ambrose J., assignor.)
Gehrke, Frederick W., West Collingswood, N. J., assignor to The Horn and Brannen Manufacturing Company, Philadelphia, Pa. Shell for gas or electric-light fixtures. No. 42,968; Sept. 3; Gaz. vol. 182; p. 223.
General Electric Company. (See D'Olier, Henry, Jr., assignor.)
General Gas Light Company. (See Humphrey, Alfred H., assignor.)
Gensler, Mervin A., York, Pa. Comb-cleaner. No. 42,964; Sept. 3; Gaz. vol. 182; p. 222.
Gorham Manufacturing Company. (See Bender, Theodore, assignor.)
Gorham Manufacturing Company. (See Codman, William C., assignor.)
Gray, William, Amesbury, Mass. Casing for dynamos and regulators. No. 43,032; Sept. 24; Gaz. vol. 182; p. 941.
Grelle, Charles B., Portland, Oreg. Post-bracket. No. 43,027; Sept. 24; Gaz. vol. 182; p. 941.
Guidry, Ambrose J., assignor to Finlay, Dicks & Co. Ltd., New Orleans, La. Lock-jar. No. 42,965; Sept. 3; Gaz. vol. 182; p. 224.
Gunthel, Alfred B., Sea Cliff, N. Y. Drinking vessel. No. 42,954; Sept. 10; Gaz. vol. 182; p. 485.
Gunthel, Alfred B., Sea Cliff, N. Y. Goblet or similar article. Nos. 42,955-42,959; Sept. 10; Gaz. vol. 182; pp. 485-6.
Gurske, Anna C., Omaha, Nebr. Sponge-holder. No. 43,035; Sept. 24; Gaz. vol. 182; p. 941.
Haley, Reuben, Beaver, assignor to United States Glass Company, Pittsburgh, Pa. Neck and stopper for glass articles. No. 43,039; Sept. 24; Gaz. vol. 182; p. 942.
Haley, Reuben, Beaver, assignor to United States Glass Company, Pittsburgh, Pa. Foot for glass articles. No. 43,040; Sept. 24; Gaz. vol. 182; p. 942.
Haley, Reuben, Beaver, assignor to United States Glass Company, Pittsburgh, Pa. Glass dish. No. 43,041; Sept. 24; Gaz. vol. 182; p. 942.
Haley, Reuben, Beaver, assignor to United States Glass Company, Pittsburgh, Pa. Glass vessel. No. 43,043; Sept. 24; Gaz. vol. 182; p. 942.
Hawe, William F. M., and H. S. Evans, assignors to Macbeth-Evans Glass Company, Pittsburgh, Pa. Lamp-shade. No. 43,043; Sept. 24; Gaz. vol. 182; p. 943.
Henry Disston & Sons. (See Disston, Henry, assignor.)
Hewitt, Mosmalasus S., Georgetown, Tex. Combined knife and fork. No. 43,044; Sept. 24; Gaz. vol. 182; p. 943.
Hilden, Charles F., Oakland, Cal. Advertising-tablet. No. 43,045; Sept. 24; Gaz. vol. 182; p. 943.
Hilborn, Henrik, assignor to R. Wallace & Sons Mfg. Co., Wallingford, Conn. Spoon, fork, or similar article. No. 42,958; Sept. 3; Gaz. vol. 182; p. 224.
Hebrecht, Joseph C., Sacramento, Cal. Lamp-post. No. 42,967; Sept. 3; Gaz. vol. 182; p. 224.
Horn and Brannen Manufacturing Company, The. (See Gensler, Frederick W., assignor.)
Huffman, Charles F., Mason City, Iowa. Automobile-body. No. 43,046; Sept. 24; Gaz. vol. 182; p. 943.
Humphrey, Alfred H., New York, N. Y., assignor to General Gas Light Company, Kalamazoo, Mich. Gas-lamp. No. 43,001; Sept. 10; Gaz. vol. 182; p. 487.
International Lace Co. (See Lackey, George E., assignor.)
International Silver Co. (See Schnier, Richard, assignor.)
International Silver Company. (See Kintz, Alfred G., assignor.)
Jas. H. Matthews & Co. (See Chapin, Jay, assignor.)
John Lauson Manufacturing Company, The. (See Edens, Henry N., assignor.)
Jones, Frederick H., Andover, Mass. Elastic tire for vehicles. No. 43,047; Sept. 24; Gaz. vol. 182; p. 944.
Kahn, Lazard, assignor to The Estate Stove Company, Hamilton, Ohio. Stove. No. 43,002; Sept. 10; Gaz. vol. 182; p. 487.
Ketcham & McDougall. (See Seybold, Lorenzo M., assignor.)
Kiefer, Eugene T., Philadelphia, Pa., assignor to Victor Talking Machine Company. Cabinet for talking-machines. Nos. 43,002-3; Sept. 10; Gaz. vol. 182; pp. 487-8.
Kilbourn, Washington H., Greenfield, Mass. Cap. No. 43,048; Sept. 24; Gaz. vol. 182; p. 944.
King, Walter G., New York, N. Y. Nose-guard. No. 43,049; Sept. 24; Gaz. vol. 182; p. 944.
Kintz, Alfred G., Wallingford, assignor to International Silver Company, Meriden, Conn. Spoon, fork, or similar article. No. 42,968; Sept. 3; Gaz. vol. 182; p. 224.
Kintz, Robert G., assignor to International Silver Co., Meriden, Conn. Spoon, fork, or similar article. No. 42,969; Sept. 3; Gaz. vol. 182; p. 224.
Lackey, George E., assignor to International Lace Co., New York, N. Y. Bedspread. No. 43,050; Sept. 24; Gaz. vol. 182; p. 944.
Larsson, Ivan A. M., Stockholm, Sweden. Picture-book or similar article. No. 42,970; Sept. 3; Gaz. vol. 182; p. 225.
Lauter Company. (See Bergland, Carl, assignor.)
Lawther, Paul W., Dallas, Tex. Weighing-bin. No. 43,051; Sept. 24; Gaz. vol. 182; p. 944.
Leichter, Mark M., San Francisco, Cal. Badge or emblem. No. 43,052; Sept. 24; Gaz. vol. 182; p. 944.
Macbeth-Evans Glass Company. (See Hawe and Evans, assignors.)
Manson, Ray H., assignor to The Dean Electric Company, Elyria, Ohio. Automobile-horn. Nos. 42,971-2; Sept. 3; Gaz. vol. 182; p. 225.
Manson, Ray H., assignor to The Dean Electric Company, Elyria, Ohio. Signaling device and bracket therefor. No. 43,053; Sept. 24; Gaz. vol. 182; p. 945.
McMurtry, Elmer J., New Brunswick, N. J. Game-board. No. 43,054; Sept. 24; Gaz. vol. 182; p. 945.
Melville, David G., Medford, assignor to Bentley Carpet Company, Boston, Mass. Rug. Nos. 43,007-8; Sept. 10; Gaz. vol. 182; p. 488.
Moore, Asahel B. T., Cedar Rapids, Iowa. Button. No. 43,009; Sept. 10; Gaz. vol. 182; p. 488.

Morrow, James. (See Morrow, Richard H. and J.)
Morrow, Richard H. and J., Waukegan, Ill. Electric-vacuum-cleaner casing or similar article. No. 42,978; Sept. 3; Gaz. vol. 182; p. 225.
Nahuis, George W., Cleveland, Ohio. Combined bubbling and draft fountain. No. 43,010; Sept. 10; Gaz. vol. 182; p. 488.
Nelson, Charles. (See Prior and Nelson.)
Nelson, Charles, New York, assignor to S. Sternau & Co., Brooklyn, N. Y. Crumb-tray. No. 42,974; Sept. 3; Gaz. vol. 182; p. 226.
Oldenbusch, Ernest, New York, N. Y. Toilet powder and dispenser. No. 43,005; Sept. 24; Gaz. vol. 182; p. 945.
Oneida Community. (See Allen, Grosvenor N., assignor.)
Owen, Ralph T., Springfield, Ill. Vacuum-cleaner frame. No. 43,011; Sept. 10; Gaz. vol. 182; p. 489.
Pelouse Manufacturing Company, The. (See Schwartz, Edward, assignor.)
Petzold, Adolph, assignor to J. Bromley & Sons, Philadelphia, Pa. Rug. Nos. 43,012–14; Sept. 10; Gaz. vol. 182; p. 489.
Pick, Albert, Chicago, Ill. Goblet. Nos. 43,056–9; Sept. 24; Gaz. vol. 182; pp. 945–6.
Porsche, Ferdinand, Wiener-Neustadt, Austria-Hungary. Automobile-hood. No. 43,015; Sept. 10; Gaz. vol. 182; p. 489.
Prior, Charles M., and C. Nelson, New York, assignors to S. Sternau and Company, Brooklyn, N. Y. Chafing-dish and stand. No. 43,060; Sept. 24; Gaz. vol. 182; p. 946.
R. Wallace & Sons Mfg. Co. (See Hillbom, Henrik, assignor.)
Reading Crane & Hoist Works. (See Valentine, Herbert S., assignor.)
Ream, Harry M., assignor to Ream-McBee Company, Mansfield, Ohio. Monument. No. 42,975; Sept. 3; Gaz. vol. 182; p. 226.
Ream-McBee Company. (See Ream, Harry M., assignor.)
Rees, Leon, London, England, assignor to M. M. Schwarzschild, New York, N. Y. Toy dog. No. 43,016; Sept. 10; Gaz. vol. 182; p. 490.
Rees, Leon, London, England, assignor to M. M. Schwarzschild, New York, N. Y. Toy cat. No. 43,017; Sept. 10; Gaz. vol. 182; p. 490.
Rees, Leon, London, England, assignor to M. M. Schwarzschild, New York, N. Y. Toy dog. Nos. 43,018–19; Sept. 10; Gaz. vol. 182; p. 490.
Richardson Ball Bearing Skate Company. (See Runion, Hoy, assignor.)
Rieger, Salomon, New York, N. Y. Combined razor-strop and mirror. No. 43,020; Sept. 10; Gaz. vol. 182; p. 490.
Riggs, Elwood, Omaha, Nebr. Nose-guard. No. 42,976; Sept. 3; Gaz. vol. 182; p. 226.
Robeson, Andrew, Newport, R. I. Metal hook. No. 43,061; Sept. 24; Gaz. vol. 182; p. 946.
Ronneburg, Francis A., Chicago, Ill. Aquarium. No. 43,062; Sept. 24; Gaz. vol. 182; p. 947.
Roxbury Carpet Company. (See Melville, David G., assignor.)
Runion, Hoy, Springfield, Mo., assignor to Richardson Ball Bearing Skate Company, Chicago, Ill. Foot-plate for roller-skates. No. 43,063; Sept. 24; Gaz. vol. 182; p. 947.
S. Sternau & Co. (See Nelson, Charles, assignor.)
Saart, William H., Attleboro, Mass., assignor to The W. H. Saart Company. Back for brushes, mirrors, or similar articles. No. 43,021; Sept. 10; Gaz. vol. 182; p. 491.
Schulze, Richard, Wallingford, Conn., assignor to International Silver Co., Meriden, Conn. Spoon, fork, or similar article. No. 42,977; Sept. 3; Gaz. vol. 182; p. 226.
Schulze, Richard, Wallingford, assignor to International Silver Co., Meriden, Conn. Spoon, fork, or similar article. No. 43,023; Sept. 10; Gaz. vol. 182; p. 491.
Schwartz, Edward, assignor to The Pelouse Manufacturing Company, Chicago, Ill. Electrically-heated toaster. No. 43,023; Sept. 10; Gaz. vol. 182; p. 491.
Schwarzschild, Mearce M. (See Rees, Leon, assignor.)
Seybold, Loretta M., assignor to Ketcham & McDougall, New York, N. Y. Sewing-thimble. Nos. 42,978–80; Sept. 3; Gaz. vol. 182; p. 226.
Sill Stove Works. (See Will and Becker, assignors.)
Sommer, William H., Peoria, Ill. Stay or picket for fences or gates. No. 42,981; Sept. 3; Gaz. vol. 182; p. 227.
Sommer, William H., Peoria, Ill. Fence. No. 42,982; Sept. 3; Gaz. vol. 182; p. 227.
Sonn, Edwin J., Newark, N. J., assignor to Eastern Bottlers Supply Company, New York, N. Y. Label-blank. Nos. 43,027–9; Sept. 17; Gaz. vol. 182; pp. 710–11.
Sternau and Company, S. (See Prior and Nelson, assignors.)
Stockton, Elmer E., assignor to The E. Ingraham Co., Bristol, Conn. Ring-head for alarm-clocks. No. 42,983; Sept. 3; Gaz. vol. 182; p. 227.
Streeter, Nelson R., Syracuse, N. Y. Vegetable-masher. No. 43,030; Sept. 24; Gaz. vol. 182; p. 947.
Theiss Co., Frank. (See Theiss, Frank, assignor.)
Theiss, Frank, Irvington, assignor to F. Theiss Co., Newark, N. J. Musical-instrument case. No. 42,984; Sept. 3; Gaz. vol. 182; p. 227.
Tilden, Bert O., assignor to American Sanitary Works, New York, N. Y. Water-closet seat and cover. No. 42,985; Sept. 3; Gaz. vol. 182; p. 227.
United States Glass Company. (See Haley, Reuben, assignor.)
Valentine, Herbert S., assignor to Reading Crane & Hoist Works, Reading, Pa. Electric-hoist casing. No. 43,065; Sept. 24; Gaz. vol. 182; p. 947.
Valentine, Herbert S., assignor to Reading Crane & Hoist Works, Reading, Pa. Motor-casing for electric hoists. No. 43,066; Sept. 24; Gaz. vol. 182; p. 947.
Van Deusen, Albert H., Washington, D. C. Badge. No. 42,986; Sept. 3; Gaz. vol. 182; p. 227.
Victor Talking Machine Company. (See Kieffer, Eugene T. assignor.)
W. H. Saart Company. (See Saart, William H., assignor.)
Wardwell, Simeon W., Providence, R. I. Round braid. No. 43,024; Sept. 10; Gaz. vol. 182; p. 491.
Watkins, Howard E., Summit, N. J. Shell for lighting-fixtures or similar articles. No. 43,067; Sept. 24; Gaz. vol. 182; p. 948.
Watkins, Howard E., Summit, N. J. Shade, globe, or similar article. Nos. 43,068–9; Sept. 24; Gaz. vol. 182; p. 948.
Watkins, Howard E., Summit, N. J. Shell for lighting-fixtures or similar articles. No. 43,070; Sept. 24; Gaz. vol. 182; p. 948.
Watkins, Howard E., Summit, N. J. Globe or similar article. No. 43,071; Sept. 24; Gaz. vol. 182; p. 948.
Watkins, Howard E., Summit, N. J. Shade, globe, or similar article. Nos. 43,072–3; Sept. 24; Gaz. vol. 182; p. 948.
Watkins, Howard E., Summit, N. J. Globe or similar article. No. 43,074; Sept. 24; Gaz. vol. 182; p. 948.
Will, Frederick, and H. Becker, assignors to Sill Stove Works, Rochester, N. Y. Top for coal-ranges. No. 43,075; Sept. 24; Gaz. vol. 182; p. 949.
Williams, Louis, Denver, Colo. Lock-hook. No. 42,987; Sept. 3; Gaz. vol. 182; p. 227.
Woodbury, James H., Boston, Mass. Shoe-tree or similar article. No. 43,076; Sept. 24; Gaz. vol. 182; p. 949.

# ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

A. H. Thomas Paint Company, The, Waverly, N. Y. Certain kinds of paint and painters' materials. No. 88,396; Sept. 10; Gaz. vol. 182; p. 507.
A. P. Babcock Company, New York, N. Y. Talcum powder. No. 88,430; Sept. 24; Gaz. vol. 182; p. 965.
Abel & Asher Co., Shreveport, La. Coffee compound. No. 88,146; Sept. 3; Gaz. vol. 182; p. 243.
Ahrens and Co., M. J., New York, N. Y. Cigarettes. No. 88,147; Sept. 3; Gaz. vol. 182; p. 243.
Albert Trostel & Sons Company, Milwaukee, Wis. Leather in the piece. No. 88,431; Sept. 17; Gaz. vol. 182; p. 718.
Alfred Wright Perfumer, Inc., Philadelphia, Pa. Perfumery. Nos. 88,544–5; Sept. 24; Gaz. vol. 182; p. 968.
Allen Auto Specialty Co., New York, N. Y. Pressure-gages. No. 88,441; Sept. 24; Gaz. vol. 182; p. 965.
American Agricultural Chemical Company, New York, N. Y. Fertilizers. No. 88,224; Sept. 10; Gaz. vol. 182; p. 503.
American Bag Company, Memphis, Tenn. Cotton and burlap bags. No. 88,225; Sept. 10; Gaz. vol. 182; p. 503.
American Candy Mfg. Co., Selma, Ala. Candy. No. 88,226; Sept. 10; Gaz. vol. 182; p. 503.
American Conduit Manufacturing Co., The, Pittsburgh, Pa. Conduits for electrical purposes. No. 88,227; Sept. 10; Gaz. vol. 182; p. 503.
American Fish & Oyster Company, The, Stockton, Cal. Fresh oysters. No. 88,148; Sept. 3; Gaz. vol. 182; p. 243.
American Lady Corset Co., Detroit, Mich. Corsets. No. 88,228; Sept. 10; Gaz. vol. 182; p. 503.
American Radiator Company, Chicago, Ill. Vacuum cleaning apparatus. No. 88,442; Sept. 24; Gaz. vol. 182; p. 965.
American Rice & Cereal Co., Keokuk, Iowa. Rolled oats. No. 88,395; Sept. 17; Gaz. vol. 182; p. 717.
American Stamp & Ticket Vending Machine Co., Worcester, Mass. Stamp and ticket vending machines. No. 88,443; Sept. 24; Gaz. vol. 182; p. 965.
American Steel & Wire Company of New Jersey, Hoboken, N. J., and Worcester, Mass. Wire for electrical purposes. No. 88,149; Sept. 3; Gaz. vol. 182; p. 243.
American Sugar Refining Company, The, New York, N. Y. Sugar. No. 88,229; Sept. 10; Gaz. vol. 182; p. 503.
American Sugar Refining Company, Jersey City, N. J. Sugar. No. 88,444; Sept. 24; Gaz. vol. 182; p. 965.
Ammon & Pérron, Jersey City, N. J. Oleomargarin. Nos. 88,150–2; Sept. 3; Gaz. vol. 182; p. 243.
Angelus Company, Pasadena, Cal. Concentrating fresh fruit and fruit-juices for flavoring purposes. No. 88,445; Sept. 24; Gaz. vol. 182; p. 965.
Anson, Charles, Stockton, Cal. Furniture-polish. No. 88,230; Sept. 10; Gaz. vol. 182; p. 503.
Armstrong, Thomas, Washington, D. C. Non-alcoholic tonic beverage and soda-water. No. 88,153; Sept. 3; Gaz. vol. 182; p. 243.
Astoria & Puget Sound Canning Co., Bellingham, Wash. Canned salmon. Nos. 88,446–7; Sept. 24; Gaz. vol. 182; p. 965.
Athens Mattress and Spring Bed Co., Athens, Ga. Mattresses. No. 88,448; Sept. 24; Gaz. vol. 182; p. 965.
Atlas Tack Company, Fairhaven, N. J. Wear-resisting slugs for boot and shoe heels. No. 88,231; Sept. 10; Gaz. vol. 182; p. 503.
August Buermann Manufacturing Co., Newark, N. J. Bits, spurs, stirrups, harness, &c. No. 88,465; Sept. 24; Gaz. vol. 182; p. 965.
Auto Strop Safety Razor Co., New York, N. Y. Razors, blades, knives, files, and scissors. No. 88,449; Sept. 24; Gaz. vol. 182; p. 965.
B. F. Goodrich Company, Akron, Ohio. Aeroplane-cloth. No. 88,496; Sept. 24; Gaz. vol. 182; p. 966.
B. T. Babbitt, Jersey City, N. J., and New York, N. Y. Soap. No. 88,155; Sept. 3; Gaz. vol. 182; p. 243.
Back-Rack Collar Button Co., Providence, R. I. Collar-buttons. No. 88,451; Sept. 24; Gaz. vol. 182; p. 965.
Baer Bros., New York, N. Y. Brazen and bronzing liquids. No. 88,232; Sept. 10; Gaz. vol. 182; p. 503.
Barrett Manufacturing Company, New York, N. Y. Pitch. No. 88,452; Sept. 24; Gaz. vol. 182; p. 966.
Bass, Ratcliff & Gretton, Limited, Burton-upon-Trent, England. Certain named stouts, beer, porter, wines, and ales. Nos. 88,364–6; Sept. 10; Gaz. vol. 182; p. 504.
Bass, Ratcliff & Gretton, Limited, Burton-upon-Trent, England. Pale ale and beer. No. 88,206; Sept. 10; Gaz. vol. 182; p. 504.
Bass, Ratcliff & Gretton, Limited, Burton-upon-Trent, England. Certain named stouts, beer, porter, wines, and ales. No. 88,367; Sept. 10; Gaz. vol. 182; p. 504.
Bauer, Ludwig, Niederlössnitz, near Dresden, Germany. Remedy against biliary and renal calculus. No. 88,154; Sept. 3; Gaz. vol. 182; p. 243.
Baumgaertner, Fritz, Cleveland, Ohio. Odometers. No. 88,453; Sept. 24; Gaz. vol. 182; p. 965.
Bee Bee Confection Co., Dayton, Ohio. Chewing-gum. No. 88,455; Sept. 24; Gaz. vol. 182; p. 965.
Bell & Company, Allen, Knoxville, Tenn. Soaps. No. 88,456; Sept. 24; Gaz. vol. 182; p. 965.
Big Spring Mfg. Co., Newville, Pa. Ointment. No. 88,458; Sept. 24; Gaz. vol. 182; p. 965.
Blaufuss, John, Riverside, N. J. Syrups for beverages. No. 88,158; Sept. 3; Gaz. vol. 182; p. 243.
Bliss Milling Company, The, Seymour, Ind. Wheat-flour. No. 88,396; Sept. 17; Gaz. vol. 182; p. 717.
Blu-Meyers, Heinrich, Los Angeles, Cal. Remedy for infectious diseases. No. 88,464; Sept. 24; Gaz. vol. 182; p. 965.
Bluff City Manufacturing Co., Memphis, Tenn. Carbonated beverage. No. 88,159; Sept. 3; Gaz. vol. 182; p. 243.
Bonnell Manufacturing Co., The, Cleveland, Ohio. Electrical junction-box. No. 88,160; Sept. 3; Gaz. vol. 182; p. 243.
Boston Food Products Company, East Boston, Mass. Codfish-balls. No. 88,162; Sept. 3; Gaz. vol. 182; p. 243.
Bovio Bros. & D. Donne, New York, N. Y. Ladies' hats. No. 88,235; Sept. 10; Gaz. vol. 182; p. 503.
Brady, Hugh J., Orange, N. J. Photographic papers, cameras, and parts therefor. No. 88,163; Sept. 3; Gaz. vol. 182; p. 243.
Brasler Brothers Company, Helena, Mont. Candies. No. 88,236; Sept. 10; Gaz. vol. 182; p. 503.
Brubaker, Oram D., Bird-in-Hand, Pa. Cream-pudding. No. 88,237; Sept. 10; Gaz. vol. 182; p. 503.
Buck, George E., Palmer and Worcester, Mass. Certain named oils and greases. No. 88,238; Sept. 10; Gaz. vol. 182; p. 503.
C. Kurtzmann & Company, Buffalo, N. Y. Pianos. No. 88,311; Sept. 10; Gaz. vol. 182; p. 505.
C. I. Hood Co., Lowell, Mass. Tonic for the stomach. No. 88,294; Sept. 10; Gaz. vol. 182; p. 506.
C. M. McClung & Co., Knoxville, Tenn. Axes, hammers, shears, gasolene-engines, &c. No. 88,193; Sept. 3; Gaz. vol. 182; p. 244.
C. M. McClung & Co., Knoxville, Tenn. Certain hardware and plumbing supplies. No. 88,331; Sept. 10; Gaz. vol. 182; p. 506.
C. M. McClung & Co., Knoxville, Tenn. Certain named sporting goods and toys. No. 88,508; Sept. 24; Gaz. vol. 182; p. 967.
Calmon Asbestos & Rubber Works of America, New York, N. Y. Asbestos packing. No. 88,239; Sept. 10; Gaz. vol. 182; p. 503.
Canton Culvert Company, The, Canton, Ohio. Nestable corrugated culverts. No. 88,240; Sept. 10; Gaz. vol. 182; p. 503.
Centennial Mill Co., Spokane and Seattle, Wash. Wheat-flour. No. 88,397; Sept. 17; Gaz. vol. 182; p. 717.
Challoner Company, Oshkosh, Wis. Horseshoe-calks. No. 88,467; Sept. 24; Gaz. vol. 182; p. 965.
Check Game Company, The, Hiram, Ohio. Playing-cards. No. 88,241; Sept. 10; Gaz. vol. 182; p. 503.
Chemische Fabrik auf Actien (vorm. E. Schering), Berlin, Germany. Purgatives. No. 88,242; Sept. 10; Gaz. vol. 182; p. 503.
Chevalier, Ada F., New York, N. Y. Candy. No. 88,398; Sept. 17; Gaz. vol. 182; p. 717.
Cleveland Provision Co., The, Cleveland, Ohio. Lard. No. 88,399; Sept. 17; Gaz. vol. 182; p. 717.
Collins Company, The, Collinsville, Conn. Certain named cutlery and tools. No. 88,164; Sept. 3; Gaz. vol. 182; p. 243.
Colonial Electric Car Co., Detroit, Mich. Motor-vehicles, running-gears, and chassis. No. 88,468; Sept. 24; Gaz. vol. 182; p. 965.
Compagnie Fermière de L'Etablissement Thermal de Vichy, Paris, France. Natural mineral waters. No. 88,244; Sept. 10; Gaz. vol. 182; p. 503.
Cook, Herbert B., Peabody, Mass. Sweeping compound. No. 88,469; Sept. 24; Gaz. vol. 182; p. 965.
Cookson and Company Limited, Newcastle-upon-Tyne, England. Massicot, litharge, lead, and type-metal. No. 88,245; Sept. 10; Gaz. vol. 182; p. 503.
Courtney, Robert A., Baltimore, Md. Pile remedy. No. 88,246; Sept. 10; Gaz. vol. 182; p. 503.
Coyne, Joseph P., Grangeville, Idaho. Cigars. No. 88,165; Sept. 3; Gaz. vol. 182; p. 243.
Crane, Clarence A., Cleveland, Ohio. Candy. No. 88,243; Sept. 10; Gaz. vol. 182; p. 503.

Crescent Forgings Company, Oakmont, Pa. Wrenches. No. 88,166; Sept. 3; Gaz. vol. 182; p. 243.
Crump, Lawrence M., Indianapolis, Ind. Cigars. No. 88,167; Sept. 3; Gaz. vol. 182; p. 243.
Curtis's & Harvey, Limited, London, England. Gunpowder. No. 88,247; Sept. 10; Gaz. vol. 182; p. 503.
D. P. McDonald & Sons, Limited, Fort William, Scotland. Whisky. No. 88,332; Sept. 10; Gaz. vol. 182; p. 506.
Davidson, Archibald, New York, N. Y. Tea, coffee, and cocoa. No. 88,401; Sept. 17; Gaz. vol. 182; p. 717.
Davis, Edwin F., Revere and Boston, Mass. Remedy for tuberculosis. No. 88,470; Sept. 24; Gaz. vol. 182; p. 965.
Dean Electric Company, The, Elyria, Ohio. Electric relays. No. 88,168; Sept. 3; Gaz. vol. 182; p. 243.
Dean Electric Company, The, Elyria, Ohio. Dynamo-electric machines. No. 88,471; Sept. 24; Gaz. vol. 182; p. 966.
Deere & Company, Moline, Ill. Certain named machines and implements and windmills. No. 88,248; Sept. 10; Gaz. vol. 182; p. 503.
Deere & Company, Moline, Ill. Certain agricultural machines and implements and windmills. No. 88,249; Sept. 10; Gaz. vol. 182; p. 503.
Denver Macaroni & Noodle Co., The, Denver, Colo. Macaroni, spaghetti, vermicelli, and noodles. No. 88,250; Sept. 10; Gaz. vol. 182; p. 503.
Detroit Can Company, Detroit, Mich. Metal and paper cans. No. 88,251; Sept. 10; Gaz. vol. 182; p. 503.
Detroit Insulated Wire Company, Detroit, Mich. Insulated electric wires. No. 88,252; Sept. 10; Gaz. vol. 182; p. 504.
Dillon Plow & Novelty Works, Dillon, S. C. Guano-distributers. No. 88,253; Sept. 10; Gaz. vol. 182; p. 504.
Dodson, James G., Americus, Ga. Remedy for diseases of the liver. No. 88,254; Sept. 10; Gaz. vol. 182; p. 504.
Dr. Bayer & társa, Budapest, Hungary. Salve. No. 88,454; Sept. 24; Gaz. vol. 182; p. 965.
Duluth-Superior Milling Company, Duluth, Minn. Wheat-flour. No. 88,255; Sept. 10; Gaz. vol. 182; p. 504.
Durham Duplex Razor Company, New York, N. Y. Razors, razor-blades and holders. No. 88,170; Sept. 3; Gaz. vol. 182; p. 243.
Dwinell-Wright Company, Boston, Mass. Coffee substitute. No. 88,472; Sept. 24; Gaz. vol. 182; p. 966.
E. Wertheimer & Cie., Paris, France. Toilet perfumes, face-powder, &c. No. 88,540; Sept. 24; Gaz. vol. 182; p. 968.
Eclair Film Company, Fort Lee, N. J. Moving-picture films. No. 88,171; Sept. 3; Gaz. vol. 182; p. 243.
Elder-Harrison Company, Baltimore, Md. Cocktails. No. 88,256; Sept. 10; Gaz. vol. 182; p. 504.
Electric Hose & Rubber Co., Wilmington, Del. Rubber hose. No. 88,474; Sept. 24; Gaz. vol. 182; p. 966.
Elgin Giant Watch Case Co., Elgin, Ill. Watchcases. No. 88,475; Sept. 24; Gaz. vol. 182; p. 966.
Elgin National Watch Company, Elgin, Ill. Watch-movements. No. 88,257; Sept. 10; Gaz. vol. 182; p. 504.
Elliott-Fisher Company, Harrisburg, Pa. Type-writing machines, combined writing-adding machines, and platens. No. 88,476; Sept. 24; Gaz. vol. 182; p. 966.
Empire Tire Company, Trenton and Newark, N. J.; Philadelphia, Pa.; Chicago, Ill.; Detroit, Mich.; Indianapolis, Ind.; Kansas City, Mo.; New York, N. Y., and Atlanta, Ga. Brake-liners. Nos. 88,172–3; Sept. 3; Gaz. vol. 182; p. 243.
Eppinger, Louis J., Detroit, Mich. Games, toys, fishing-lines, &c. No. 88,174; Sept. 3; Gaz. vol. 182; p. 243.
Euler & Co., Frans, New York, N. Y. Parchment-tissue. No. 88,477; Sept. 24; Gaz. vol. 182; p. 966.
F. H. Messenger Co., Auburn, N. Y. Oil paints, varnishes, and stains. No. 88,322; Sept. 10; Gaz. vol. 182; p. 505.
F. H. Messenger Co., Auburn, N. Y. Varnishes and stains. No. 88,323; Sept. 10; Gaz. vol. 182; p. 506.
Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Artificially-digested meat. No. 88,403; Sept. 17; Gaz. vol. 182; p. 717.
Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Antipyretic, antineuralgic, and sedative. No. 88,478; Sept. 24; Gaz. vol. 182; p. 966.
Faria, Joao D., Funchal, Madeira. Embroideries. No. 88,176; Sept. 3; Gaz. vol. 182; p. 244.
Fell Drug Co., Hornell, N. Y. Remedy for rheumatism, indigestion, &c. No. 88,479; Sept. 24; Gaz. vol. 182; p. 966.
Fisher Flouring Mills Company, Seattle, Wash. Wheat-flour. Nos. 88,258–61; Sept. 10; Gaz. vol. 182; p. 504.
Fisher Flouring Mills Company, Seattle, Wash. Wheat-flour. No. 88,404; Sept. 17; Gaz. vol. 182; p. 717.
Flash Chemical Co., Boston, Mass. Furniture-finish. No. 88,262; Sept. 10; Gaz. vol. 182; p. 504.
Flint and Walling Manufacturing Co., Kendallville, Ind. Windmill and other towers and parts thereof. No. 88,177; Sept. 3; Gaz. vol. 182; p. 244.
Forest City Canning Co., Forest City, Iowa. Canned vegetables. No. 88,480; Sept. 24; Gaz. vol. 182; p. 966.
Frasier Packing Company, The, Elwood, Ind. Tomato catsup and chilli sauce. No. 88,263; Sept. 10; Gaz. vol. 182; p. 504.
Fresno Fruit Growers Company, East Fresno, Cal. Fresh deciduous fruits. No. 88,406; Sept. 17; Gaz. vol. 182; p. 717.
G. I. Sellers & Sons Company, Elwood, Ind. Kitchen-cabinets, cupboards, closets, and tables. No. 88,374; Sept. 10; Gaz. vol. 182; p. 507.
Gabilla, Henriette, Paris, France. Certain named toilet preparations. No. 88,483; Sept. 24; Gaz. vol. 182; p. 966.
Garner Print Works & Bleachery, West Haverstraw, Wappingers Falls, and New York, N. Y. Cotton piece goods. No. 88,178; Sept. 3; Gaz. vol. 182; p. 244.
General Electric Company, Schenectady, N. Y. Metals and alloys having high electrical resistance. No. 88,260; Sept. 10; Gaz. vol. 182; p. 504.
General Motors Truck Co., Detroit, Mich. Motor-trucks. No. 88,270; Sept. 10; Gaz. vol. 182; p. 504.
Gea, Boegbidt & Co., New York, N. Y. Dolls. No. 88,161; Sept. 3; Gaz. vol. 182; p. 243.
George & Barker Co., The, Point Roberts, Wash. Certain canned fish. No. 88,271; Sept. 10; Gaz. vol. 182; p. 504.
Geo. P. Beat Company, Chicago, Ill. Pianos and piano-players. No. 88,457; Sept. 24; Gaz. vol. 182; p. 965.
Gibson and Company, William, Kinghorn, Scotland. Golf clocks, irons, and clubs. No. 88,272; Sept. 10; Gaz. vol. 182; p. 504.
Gifford-Hobbs Co., Fresno, Cal. Dried fruits and raisins. No. 88,273; Sept. 10; Gaz. vol. 182; p. 504.
Ginseng Syrup Company, The, Grand Rapids, Mich. Flavoring-syrups used in compound ginseng beverages. No. 88,408; Sept. 17; Gaz. vol. 182; p. 717.
Gisholt Machine Company, Madison, Wis. Time-recorders. No. 88,274; Sept. 10; Gaz. vol. 182; p. 504.
Graham, Blakley & Co., New York, N. Y. Cocoa-beans. No. 88,275; Sept. 10; Gaz. vol. 182; p. 504.
Great Western Smelting & Refining Co., Chicago, Ill. Babbitt and antifriction metals. No. 88,276; Sept. 10; Gaz. vol. 182; p. 504.
Griggs, Cooper & Company, St. Paul, Minn. Tea. No. 88,407; Sept. 17; Gaz. vol. 182; p. 717.
H. Ehrlich & Sons Mfg. Co., St. Joseph, Mo. Glue. No. 88,473; Sept. 24; Gaz. vol. 182; p. 966.
H. Mueller Manufacturing Co., Decatur, Ill. Cocks or faucets. No. 88,328; Sept. 10; Gaz. vol. 182; p. 506.
Haiku Fruit & Packing Co., Ltd., Haiku, Maui, Hawaii. Canned pineapples. No. 88,408; Sept. 17; Gaz. vol. 182; p. 717.
Hainer Bookkeeping Machine Co., Providence, R. I. Autographic registers. No. 88,277; Sept. 10; Gaz. vol. 182; p. 504.
Haldens Tændstikfabrik, Fredrikshald, Norway. Matches. No. 88,496; Sept. 24; Gaz. vol. 183; p. 966.
Hale Specialty Co., Chicago, Ill. Calendar-pads, files, and paper-weights. No. 88,278; Sept. 10; Gaz. vol. 182; p. 504.
Hamilton Woolen Company, Boston, Mass. Serge. No. 88,179; Sept. 3; Gaz. vol. 182; p. 244.
Hansen, Christian, Copenhagen, Denmark, and Little Falls, N. Y. Pudding-powder. No. 88,409; Sept. 17; Gaz. vol. 182; p. 717.
Harper, Herbert, New Bedford, Mass. Lemon-pie-filling preparation. No. 88,279; Sept. 10; Gaz. vol. 182; p. 504.
Hart & Howell, Brooklyn, Mich. Popcorn. No. 88,180; Sept. 3; Gaz. vol. 182; p. 244.
Hastings Brewing Co., Hastings, Nebr. Lager-beer. No. 88,181; Sept. 3; Gaz. vol. 182; p. 244.
Hawkes & Son, London, England. Corsets, trumpets, and drums. No. 88,487; Sept. 24; Gaz. vol. 182; p. 966.
Heekin Spice Co., Cincinnati, Ohio. Baking-powder. No. 88,282; Sept. 10; Gaz. vol. 182; p. 504.
Heller & Co., B., Chicago, Ill. Food-preservative. No. 88,284; Sept. 10; Gaz. vol. 182; p. 504.
Heller & Lesg, New York, N. Y. Handkerchiefs. No. 88,283; Sept. 10; Gaz. vol. 182; p. 504.
Helvetia Milk Condensing Company, Highland, Ill. Evaporated milk. No. 88,285; Sept. 10; Gaz. vol. 182; p. 504.
Hemmeter Cigar Company, Detroit, Mich. Cigars, tobacco, and cigarettes. No. 88,488; Sept. 24; Gaz. vol. 182; p. 966.
Hemphill & Christensen, Fullerton, Cal. Cassabas. No. 88,182; Sept. 3; Gaz. vol. 182; p. 244.
Henke Manufacturing Co., New York, N. Y. Dry paints. No. 88,289; Sept. 10; Gaz. vol. 182; p. 505.
Henkel & Cie., Duesseldorf, Germany. Preparation for removing printers' ink from paper, &c. No. 88,490; Sept. 24; Gaz. vol. 182; p. 966.
Higgins, Mary, Indianapolis, Ind. Face-lotion. No. 88,490; Sept. 24; Gaz. vol. 182; p. 966.
Hildebrandt, John J., Logansport, Ind. Spoon and trolling hooks. No. 88,290; Sept. 10; Gaz. vol. 182; p. 505.
Hines Milling Company, La Crosse, Wis. Wheat-flour. No. 88,291; Sept. 10; Gaz. vol. 182; p. 505.
Hohner, Firm of M., New York, N. Y. Harmonicas. Nos. 88,292–3; Sept. 10; Gaz. vol. 182; p. 505.
Holophane Glass Company, New York, N. Y. Glass reflectors and shades. No. 88,491; Sept. 24; Gaz. vol. 182; p. 966.
Howard Chemical & Manufacturing Company, Minneapolis, Minn. Inks. No. 88,492; Sept. 24; Gaz. vol. 182; p. 966.
Hudson, Joseph, Birmingham, England. Whistle-calls. No. 88,184; Sept. 3; Gaz. vol. 182; p. 244.
Hunt, Hatch & Co., Oakland, Cal. Oranges and lemons. Nos. 88,295–6; Sept. 10; Gaz. vol. 182; p. 505.



Hussan, Edouard, Paris, France. Precious stones, pearls, pendants, medals, &c. No. 88,493; Sept. 24; Gaz. vol. 182; p. 966.
Hutchinson, Job, New York, N. Y. Egg-beaters, cream-whippers, &c. No. 88,297; Sept. 10; Gaz. vol. 182; p. 505.
Hydrex Felt & Engineering Company, Portland, Me.; New York, N. Y., and Rahway, N. J. Building, sheathing, roofing, &c., papers. No. 88,298; Sept. 10; Gaz. vol. 182; p. 505.
Hygienic Fibre Company, New York, N. Y. Napkins. Nos. 88,299–301; Sept. 10; Gaz. vol. 182; p. 505.
Hygienic Fibre Company, New York, N. Y. Absorbent cotton. No. 88,494; Sept. 24; Gaz. vol. 183; p. 966.
Illinois Canning Company, The, Hoopeston, Ill. Canned kidney-beans. No. 88,302; Sept. 10; Gaz. vol. 182; p. 505.
International Phonograph Company, Newark, N. J. Phonographs and parts thereof, &c. No. 88,541; Sept. 24; Gaz. vol. 182; p. 968.
Invincible Aluminum Company, New York, N. Y. Aluminum ware. No. 88,303; Sept. 10; Gaz. vol. 182; p. 505.
Ironsides Company, Columbus, Ohio. Paints, varnishes, and paint-oils. No. 88,304; Sept. 10; Gaz. vol. 182; p. 505.
Ironsides Company, Columbus, Ohio. Lubricating oils, greases, and compounds. No. 88,305; Sept. 10; Gaz. vol. 182; p. 505.
J. A. Henckels, New York, N. Y. Razors. Nos. 88,286–8; Sept. 10; Gaz. vol. 182; pp. 504–5.
J. C. Blair Company, Huntingdon, Pa. Paper, envelops, tablets, and blank books. Nos. 88,283–4; Sept. 10; Gaz. vol. 182; p. 503.
J. C. Blair Company, Huntingdon, Pa. Paper, envelops, tablets, and blank books. Nos. 88,450–63; Sept. 24; Gaz. vol. 182; p. 965.
J. G. Peppard Seed Co., Kansas City, Mo. Poultry food. No. 88,305; Sept. 10; Gaz. vol. 182; p. 505.
J. M. Paver Company, The, Chicago, Ill. Canned Lima beans, asparagus beets, hominy, &c. No. 88,419; Sept. 17; Gaz. vol. 182; p. 717.
J. W. Butler Paper Company, Chicago, Ill. Writing-paper. No. 88,466; Sept. 24; Gaz. vol. 182; p. 965.
James Van Dyk Company, New York, N. Y. Coffee. No. 88,434; Sept. 17; Gaz. vol. 182; p. 718.
James A. Blanchard Company, The, New York, N. Y., and St. Joseph, Mich. Disinfectants, insecticides, and pharmaceutical preparations. No. 88,157; Sept. 3; Gaz. vol. 182; p. 243.
Jiffy Auto Curtain Co., Chicago, Ill. Automobile-curtains. No. 88,495; Sept. 24; Gaz. vol. 182; p. 966.
Johnson, James L., Plymouth, Mich. Remedy for liver ills. No. 88,496; Sept. 24; Gaz. vol. 182; p. 966.
Jönköpings och Vulcans Tändsticksfabriksaktiebolag, Jönköping, Sweden. Matches. Nos. 88,497–8; Sept. 24; Gaz. vol. 182; p. 966.
Juneform Company, Philadelphia, Pa. Bust-reducers or flexible brassieres. No. 88,306; Sept. 10; Gaz. vol. 182; p. 505.
Kelley-Clarke Co., Seattle, Wash. Canned salmon. No. 88,307; Sept. 10; Gaz. vol. 182; p. 505.
Klauber Wangenheim Co., San Diego, Cal. Dried fruits and canned vegetables. No. 88,410; Sept. 17; Gaz. vol. 182; p. 717.
Kolberger Anstalten für Exterikultur Wilh. Anhalt G. m. b. H., Ostseebad Kolberg, Germany. Remedy for coughs, colds, hoarseness, and catarrh. No. 88,308; Sept. 10; Gaz. vol. 182; p. 505.
Krohnberg & Krohnberg, New York, N. Y. Dress and shirt waists. No. 88,309; Sept. 10; Gaz. vol. 182; p. 506.
Krueger, Darsie & Co., Liverpool, England. Wheat-flour. No. 88,310; Sept. 10; Gaz. vol. 182; p. 505.
L. and I. J. White Company, The, Jersey City, N. J., and Buffalo, N. Y. Certain named tools and machines. No. 88,393; Sept. 10; Gaz. vol. 182; p. 507.
L. S. Starrett Co., Athol, Mass. Certain measuring and scientific appliances. No. 88,215; Sept. 3; Gaz. vol. 182; p. 245.
Lake Shore Stone Company, Milwaukee, Wis. Crushed stone. No. 88,409; Sept. 24; Gaz. vol. 182; p. 966.
Lancaster Insecticide Co., Lancaster, Pa. Insecticides. No. 88,500; Sept. 24; Gaz. vol. 182; p. 966.
Lanman & Kemp, New York, N. Y. Certain named medical and surgical appliances. No. 88,501; Sept. 24; Gaz. vol. 182; p. 966.
Lapointe Machine Tool Co., Hudson, Mass. Certain named machine-tools. No. 88,312; Sept. 10; Gaz. vol. 182; p. 505.
Lapointe Machine Tool Co., Hudson, Mass. Broaching-machines, planers, boring-machines, &c. No. 88,313; Sept. 10; Gaz. vol. 182; p. 505.
Leas & McVitty, Inc., Philadelphia, Pa. Tap-soles. No. 88,314; Sept. 10; Gaz. vol. 182; p. 505.
Leff, Ruby, Gloversville, N. Y. Leather gloves. No. 88,315; Sept. 10; Gaz. vol. 182; p. 505.
Levy, Berthe E., New York, N. Y. Hair-eradicator. No. 88,502; Sept. 24; Gaz. vol. 182; p. 966.
Libby, McNeill & Libby, Portland, Me.; Chicago, Ill., and Sunnyvale, Cal. Canned and preserved fruits. No. 88,316; Sept. 10; Gaz. vol. 182; p. 505.
Limona Citrus Growers' Association, Limona, Fla. Oranges. No. 88,185; Sept. 3; Gaz. vol. 182; p. 244.
Lingual Surface Tooth Brush Company, Memphis, Tenn. Tooth-brushes. No. 88,186; Sept. 3; Gaz. vol. 182; p. 244.
Listman Mill Company, La Crosse, Wis. Wheat-flour. No. 88,187; Sept. 3; Gaz. vol. 182; p. 244.
London, Meyer, New York, N. Y. Unleavened bread. No. 88,503; Sept. 24; Gaz. vol. 182; p. 966.
Long's Market Creamery, San Francisco, Cal. Butter. No. 88,317; Sept. 10; Gaz. vol. 182; p. 505.
Lortex Company, New York, N. Y., and Pawtucket, R. I. Cotton piece goods. No. 88,188; Sept. 3; Gaz. vol. 182; p. 244.
Louis Pfaelzer & Sons, Chicago, Ill. Hams, bacon, and sausage. No. 88,420; Sept. 17; Gaz. vol. 183; p. 717.
Lowry Coffee Co., Philadelphia, Pa. Blended coffee. No. 88,319; Sept. 10; Gaz. vol. 182; p. 506.
Lusby, Edward J., London, England. Tobacco, cigars, cigarettes, and snuff. No. 88,504; Sept. 24; Gaz. vol. 182; p. 966.
Luyties, Frederick A., assignor to Luyties Pharmacy Co., St. Louis, Mo. Certain named pharmaceutical preparations. No. 88,505; Sept. 24; Gaz. vol. 183; p. 967.
Lyon & Healy, Chicago, Ill. Certain musical instruments. No. 88,506; Sept. 24; Gaz. vol. 182; p. 967.
Maine Manufacturing Company, Nashua, N. H. Refrigerators. No. 88,320; Sept. 10; Gaz. vol. 182; p. 506.
Malloch Knitting Company, Grand Rapids, Mich. Certain named clothing. No. 88,321; Sept. 10; Gaz. vol. 182; p. 505.
Mantle Lamp Company of America, The, Chicago, Ill. Kerosene and alcohol mantle-burners and mantles and mica chimneys. No. 88,507; Sept. 24; Gaz. vol. 183; p. 967.
McWhirter Chemical Company, Trenton, N. J., and New York, N. Y. Bleaching-powder. No. 88,542; Sept. 24; Gaz. vol. 182; p. 968.
Mamel & Co., New York, N. Y. Cheese. No. 88,411; Sept. 17; Gaz. vol. 182; p. 717.
Merchants Syndicate, St. Louis, Mo. Certain internal and external remedies. No. 88,189; Sept. 3; Gaz. vol. 182; p. 244.
Meyer, Pitts & Co., Baltimore, Md. Corn whisky. No. 88,324; Sept. 10; Gaz. vol. 182; p. 506.
Mica Insulator Company, New York, N. Y. Electrical insulators. No. 88,325; Sept. 10; Gaz. vol. 182; p. 506.
Michigan Seating Co., Jackson, Mich. Certain named furniture. No. 88,509; Sept. 24; Gaz. vol. 183; p. 967.
Mill & Mine Supply Co., Seattle, Wash. Iron. No. 88,326; Sept. 10; Gaz. vol. 182; p. 506.
Modiano, Firm of Saul D., Trieste, Austria-Hungary. Cigarette-papers. No. 88,327; Sept. 10; Gaz. vol. 182; p. 506.
Moeckel, John J., Lebanon, Pa. Cigars. No. 88,190; Sept. 3; Gaz. vol. 182; p. 244.
Moreda y Deben, Bernardo, Habana, Cuba. Cigars. No. 88,169; Sept. 3; Gaz. vol. 182; p. 243.
Morrow-Lawton Company, New York, N. Y., and Milwaukee, Wis. Rolled oats. No. 88,191; Sept. 3; Gaz. vol. 182; p. 244.
Moss, Milton E., Hartford, Conn. Games. No. 88,192; Sept. 3; Gaz. vol. 182; p. 244.
Mullen Brothers, Brockton, Mass. Leather enamel and polishes. No. 88,510; Sept. 24; Gaz. vol. 182; p. 967.
Mullen, Matthias J., Pittsburgh, Pa. Leather boots and shoes. No. 88,329; Sept. 10; Gaz. vol. 182; p. 506.
Murray Drug Co., The, Columbia, S. C. Spices. No. 88,412; Sept. 17; Gaz. vol. 182; p. 717.
Myers Gas Generator Company, Buffalo, N. Y. Gaseous liquid for combustion, illuminating, &c. No. 88,330; Sept. 10; Gaz. vol. 182; p. 506.
N. Erlanger, Blumgart & Co., New York, N. Y. Corduroy and velvet piece goods. No. 88,175; Sept. 3; Gaz. vol. 182; p. 243.
N. K. Fairbank Company, The, Chicago, Ill. Cotton-seed oil. No. 88,402; Sept. 17; Gaz. vol. 182; p. 717.
Nao, Shigetaro. (See Seizi, Shinohara, assignor.)
National Biscuit Company, Jersey City, N. J., and New York, N. Y. Biscuit and sugar-wafers. No. 88,363; Sept. 10; Gaz. vol. 182; p. 506.
National Biscuit Company, Jersey City, N. J., and New York, N. Y. Biscuit. Nos. 88,334–9; Sept. 10; Gaz. vol. 182; p. 506.
National Biscuit Company, New York, N. Y. Biscuit. No. 88,340; Sept. 10; Gaz. vol. 182; p. 506.
National Biscuit Company, Jersey City, N. J., and New York, N. Y. Biscuit. Nos. 88,413–14; Sept. 17; Gaz. vol. 182; p. 717.
National Carbon Company, Cleveland, Ohio. Dry cells. Nos. 88,194–5; Sept. 3; Gaz. vol. 182; p. 244.
National Carbon Company, Cleveland, Ohio. Dry cells. No. 88,341; Sept. 10; Gaz. vol. 182; p. 506.
National Musical String Company, New Brunswick, N. J. Musical-instrument strings. No. 88,511; Sept. 24; Gaz. vol. 182; p. 967.
Neptune Meter Company, Jersey City, N. J., and New York, N. Y. Water and other fluid meters and parts thereof. No. 88,512; Sept. 24; Gaz. vol. 182; p. 967.
Neumond, K. & E., New Orleans, La. Stock feed. No. 88,440; Sept. 17; Gaz. vol. 183; p. 718.
New Century Corporation, Point Loma, Cal. Weekly magazines. No. 88,513; Sept. 24; Gaz. vol. 182; p. 967.
New Failsworth Hat Manufacturing Company, Limited, Failsworth, near Manchester, England. Hats, hatsetts, caps, and bonnets. No. 88,342; Sept. 10; Gaz. vol. 182; p. 506.
New Idea Spreader Co., Coldwater, Ohio. Certain agricultural machines and implements. No. 88,343; Sept. 10; Gaz. vol. 182; p. 506.

New London Ship & Engine Company, The, Groton, Conn. Internal-combustion engines. No. 88,244; Sept. 10; Gaz. vol. 182; p. 506.
New York Mattress Co., Boston, Mass. Mattresses. No. 88,245; Sept. 10; Gaz. vol. 182; p. 506.
New York Stamping Company, Brooklyn, N. Y. Pulleys. No. 88,196; Sept. 3; Gaz. vol. 182; p. 244.
Nickel Plate Elevator Co., Cleveland, Ohio. Poultry feed. No. 88,514; Sept. 24; Gaz. vol. 182; p. 967.
Nienhauser, Bernard A., St. Paul, Minn. Wrapping-paper. No. 88,515; Sept. 24; Gaz. vol. 182; p. 967.
Niese Grocer Company, St. Louis, Mo. Certain named foods. No. 88,415; Sept. 17; Gaz. vol. 182; p. 717.
No-Air Tire Compound Co., Kansas City, Mo. Tire-filling rubber compound. No. 88,516; Sept. 24; Gaz. vol. 182; p. 967.
Norddeutsche Wollkämmerei & Kammgarnspinnerei, Bremen and Delmenhorst, Germany. Toilet soap. No. 88,517; Sept. 24; Gaz. vol. 182; p. 967.
Norman Company Inc., The, New York, N. Y. Whiskies and gin. No. 88,416; Sept. 17; Gaz. vol. 182; p. 717.
North American Mercantile Co., San Francisco, Cal. Canned crabs, shrimps, and abalone. Nos. 88,417–18; Sept. 17; Gaz. vol. 182; p. 717.
Northern Pickle Co., Tacoma, Wash. Tomato catsup and vinegar. No. 88,347; Sept. 10; Gaz. vol. 182; p. 506.
O. Newman Company, The, Los Angeles, Cal. Games. No. 88,246; Sept. 10; Gaz. vol. 182; p. 506.
O. H. Tracy Co., Inc., Washington, D. C. Dental broaches. No. 88,534; Sept. 24; Gaz. vol. 182; p. 967.
Ochiltree, William H., Pittsburgh, Pa. Electric lamps, motors, switchboards, &c. No. 88,197; Sept. 3; Gaz. vol. 182; p. 244.
Old Dominion Distilling Co., The, Richmond, Va. Whisky. Nos. 88,348–9; Sept. 10; Gaz. vol. 182; p. 506.
Orion Knitting Mills, Kinston, N. C. Hosiery. No. 88,350; Sept. 10; Gaz. vol. 182; p. 506.
Patapsco Guano Co., Baltimore, Md. Fertilisers. Nos. 88,351–4; Sept. 10; Gaz. vol. 182; p. 506.
Peg Golf Company, New York, N. Y. Toy golf games. No. 88,518; Sept. 24; Gaz. vol. 182; p. 967.
Peninsular Chemical Co., Detroit, Mich. Perfumery, toilet water, and face-powders. No. 88,519; Sept. 24; Gaz. vol. 182; p. 967.
Pepsi-Cola Co., The, Newbern, N. C. Certain non-alcoholic beverage. No. 88,356; Sept. 10; Gaz. vol. 182; p. 506.
Pillsbury Flour Mills Company, Minneapolis, Minn. Wheat-flour. No. 88,421; Sept. 17; Gaz. vol. 182; p. 717.
Plumb, Chas. L., New York, N. Y. Wheat-flour. Nos. 88,199–200; Sept. 3; Gaz. vol. 182; p. 244.
Portland Flouring Mills Company, The, Portland, Oreg. Wheat-flour. Nos. 88,357–9; Sept. 10; Gaz. vol. 182; p. 506.
Portland Flouring Mills Company, Portland, Oreg. Wheat-flour. No. 88,520; Sept. 24; Gaz. vol. 182; p. 967.
Potts Powder Company, The, Reynolds, Pa., and New York, N. Y. Dynamite. No. 88,201; Sept. 3; Gaz. vol. 182; p. 244.
Putnam, Edwin C., Millbury, Mass. Flavoring for beverages. No. 88,422; Sept. 17; Gaz. vol. 182; p. 717.
Ransing, Edward A., Lancaster, Pa. Cider. No. 88,202; Sept. 3; Gaz. vol. 182; p. 244.
Redelheim, Firm of Jacob, New York, N. Y. Cane-sugar. No. 88,203; Sept. 3; Gaz. vol. 182; p. 244.
Redfield, Lydia A., Auburndale, Fla. Oranges. No. 88,360; Sept. 10; Gaz. vol. 182; p. 507.
Redfield, Lydia A., Auburndale, Fla. Grape-fruits and oranges. No. 88,361; Sept. 10; Gaz. vol. 182; p. 507.
Reece, Llewellyn, New York, N. Y. Shades for illuminating-fixtures and light-filters used therewith. No. 88,521; Sept. 24; Gaz. vol. 182; p. 967.
Reynolds & Reynolds Company, The, Dayton, Ohio. Paper tablets and note-books. No. 88,362; Sept. 10; Gaz. vol. 182; p. 507.
Richard Hudnut, New York, N. Y. Perfumes, toilet waters, and sachets. No. 88,183; Sept. 3; Gaz. vol. 182; p. 244.
Richheimer & Co., Chicago, Ill. Coffees. No. 88,423; Sept. 17; Gaz. vol. 182; p. 717.
Riedel, Actiengesellschaft, J. D., Berlin, Germany. Chemicals, medicines, and pharmaceutical preparations. No. 88,204; Sept. 3; Gaz. vol. 182; p. 244.
Roach, Tisdale & Co., Minneapolis, Minn. Candy. No. 88,363; Sept. 10; Gaz. vol. 182; p. 507.
Robert Heath & Sons Limited, Stoke-upon-Trent, England. Iron and steel sheets, plates, bars, and rods. No. 88,281; Sept. 10; Gaz. vol. 182; p. 504.
Rode & Brand, Inc., New York, N. Y. Cigars, cigarettes, and tobacco. No. 88,205; Sept. 3; Gaz. vol. 182; p. 244.
Rogers, Lunt & Bowlen Co., Greenfield, Mass. Silver knives, forks, spoons, tongs, &c. No. 88,364; Sept. 10; Gaz. vol. 182; p. 507.
Rohling, L. C., St. Louis, Mo. Remedies for colds, grip, and headache. No. 88,365; Sept. 10; Gaz. vol. 182; p. 507.
Rotospeed Company, The, New York, N. Y. Stencil-printing machines. No. 88,206; Sept. 3; Gaz. vol. 182; p. 244.
Roundy, Peckham & Dexter Co., Milwaukee, Wis. Certain named foods. No. 88,424; Sept. 17; Gaz. vol. 182; p. 717.
Rowe Calk Company, The, Hartford, Conn. Taps, drills, wrenches, &c. No. 88,207; Sept. 3; Gaz. vol. 182; p. 244.
Rowe Calk Company, The, Hartford, Conn. Horseshoes. No. 88,366; Sept. 10; Gaz. vol. 182; p. 507.
Rowe Patent Calk Company, The, Hartford, Conn. Horse-shoe-calks. Nos. 88,366–7; Sept. 10; Gaz. vol. 182; p. 507.
Rowe Patent Calk Company, The, Hartford, Conn. Horse-shoe-calks. Nos. 88,366–70; Sept. 10; Gaz. vol. 182; p. 507.
Royal Marble Co., Knoxville, Tenn. Quarried and prepared marble. No. 88,425; Sept. 17; Gaz. vol. 182; p. 717.
S. E. Loveless Advertising Service Inc., New York, N. Y. Bread. No. 88,318; Sept. 10; Gaz. vol. 182; p. 506.
S. S. Pierce Company, Boston, Mass. Cigars. No. 88,196; Sept. 3; Gaz. vol. 182; p. 244.
Samstag & Hilder Bros., New York, N. Y. Toys. No. 88,208; Sept. 3; Gaz. vol. 182; p. 244.
San Antonio Macaroni Factory, San Antonio, Tex. Alimentary paste. No. 88,371; Sept. 10; Gaz. vol. 182; p. 507.
San Francisco Salt Refinery, San Francisco, Cal. Salt. No. 88,522; Sept. 24; Gaz. vol. 182; p. 967.
Schenck & Son, Dr. J. H., Philadelphia, Pa. Pills for bilious and liver complaints. No. 88,524; Sept. 24; Gaz. vol. 182; p. 967.
Schulze Baking Company, Chicago, Ill. Bread. No. 88,426; Sept. 17; Gaz. vol. 182; p. 718.
Seacoast Canning Co., Eastport, Me. Sardines. Nos. 88,209–11; Sept. 3; Gaz. vol. 182; p. 244.
Seacoast Canning Co., Eastport, Me. Sardines. No. 88,523; Sept. 24; Gaz. vol. 182; p. 967.
Sears, Roebuck and Co., Chicago, Ill. Children's shoes. No. 88,372; Sept. 10; Gaz. vol. 182; p. 507.
Seizi, Shinobara, Tokyo, Japan, assignor to S. Nao, San Francisco, Cal. Remedy for cuts and bruises. No. 88,373; Sept. 10; Gaz. vol. 182; p. 507.
Sharp, Harry, Omaha, Nebr. Writing-paper, envelops, blank books, and tablets. No. 88,525; Sept. 24; Gaz. vol. 182; p. 967.
Simpson Sons & Co., Wm., Philadelphia, Pa.; New York, N. Y.; Baltimore, Md.; Chicago, Ill., and St. Louis, Mo. Dyed or printed satteens. No. 88,375; Sept. 10; Gaz. vol. 182; p. 507.
Siphon Credit System Company, Cleveland, Ohio. Blank books, blank and printed forms, and adhesive stamps. No. 88,526; Sept. 24; Gaz. vol. 182; p. 967.
Skinner Mfg. Co., Omaha, Nebr. Macaroni. No. 88,527; Sept. 24; Gaz. vol. 182; p. 967.
Smith, Author M., Minneapolis, Minn. Whisky and brandy. No. 88,427; Sept. 17; Gaz. vol. 182; p. 718.
Smith, Author M., Minneapolis, Minn. Port and sherry wines. No. 88,428; Sept. 17; Gaz. vol. 182; p. 718.
Société Chimique Des Usines Du Rhône, Anct. Gilliard, P. Monnet & Cartier, Paris, France. Certain acids and pharmaceutical preparations. No. 88,212; Sept. 3; Gaz. vol. 182; p. 245.
Society of Chemical Industry in Basle, Basel, Switzerland. Certain named pharmaceutical product. No. 88,376; Sept. 10; Gaz. vol. 182; p. 507.
Society of Chemical Industry in Basle, Basel, Switzerland. Coal-tar colors. No. 88,377; Sept. 10; Gaz. vol. 182; p. 507.
Soltmann, Edward G., New York, N. Y. Envelops. No. 88,378; Sept. 10; Gaz. vol. 182; p. 507.
Sophos, Emmanuel G., Lowell, Mass. Olive-oil. No. 88,528; Sept. 24; Gaz. vol. 182; p. 967.
Sossidi frères de Constantinople, Hamburg, Germany. Tobacco, cigarettes, and cigars. No. 88,213; Sept. 3; Gaz. vol. 182; p. 245.
Southwestern Milling Company, The, Jersey City, N. J., and Kansas City, Mo. Wheat-flour. No. 88,379; Sept. 10; Gaz. vol. 182; p. 507.
Soyer, Nicolas, London, England. Cooking-paper. No. 88,380; Sept. 10; Gaz. vol. 182; p. 507.
Sprague Electric Company, Bloomfield, N. J., and New York, N. Y. Electric fans. No. 88,214; Sept. 3; Gaz. vol. 182; p. 245.
St. Louis Coffee & Spice Mills, St. Louis, Mo. Blended coffee. Nos. 88,381–2; Sept. 10; Gaz. vol. 182; p. 507.
Standard Oil Co. of New York, New York, N. Y. Illuminating-oils. No. 88,529; Sept. 24; Gaz. vol. 182; p. 967.
Stanley, John T., New York, N. Y. Toilet soap. No. 88,530; Sept. 24; Gaz. vol. 182; p. 967.
Sterling Chocolate Company, The, Cincinnati, Ohio. Candies. Nos. 88,216–17; Sept. 3; Gaz. vol. 182; p. 245.
Sterling Health Food Company, Sterling, Ill. Laxative breakfast food. No. 88,429; Sept. 17; Gaz. vol. 182; p. 718.
Stiefel, Albert F., Pittsburgh, Pa. Remedy for sore throat. No. 88,383; Sept. 10; Gaz. vol. 182; p. 507.
Stork Company, Boston, Mass. Soap. No. 88,531; Sept. 24; Gaz. vol. 182; p. 967.
Studebaker Corporation, The, South Bend, Ind. Automobiles. No. 88,218; Sept. 3; Gaz. vol. 182; p. 245.
Sultana Mfg. Company, Cincinnati, Ohio. Slippers. No. 88,384; Sept. 10; Gaz. vol. 182; p. 507.
Tee Harbor Packing Co., Port Blakeley, Wash. Canned salmon. No. 88,385; Sept. 10; Gaz. vol. 182; p. 507.
Thomasphosphatfabriken Gesellschaft mit beschränkter Haftung, Berlin, Germany. Thomasphosphat. No. 88,387; Sept. 10; Gaz. vol. 182; p. 507.
Tower Manufacturing & Novelty Co., New York, N. Y. Certain measuring and draftsmen's instruments. No. 88,221; Sept. 3; Gaz. vol. 182; p. 245.



Tower Manufacturing & Novelty Co., New York, N. Y. Certain named paper and stationery. No. 88,532; Sept. 24; Gaz. vol. 182; p. 967.
Tower Manufacturing & Novelty Co., New York, N. Y. Certain named receptacles. No. 88,533; Sept. 24; Gaz. vol. 182; p. 967.
Towle Manufacturing Company, The, Newburyport, Mass. Chests and cabinets. No. 88,223; Sept. 3; Gaz. vol. 182; p. 245.
Trenton Milling Company, Trenton, Ill. Wheat-flour. No. 88,430; Sept. 17; Gaz. vol. 182; p. 718.
Tryat Cigarette Co., New York, N. Y. Cigarettes. No. 88,219; Sept. 3; Gaz. vol. 182; p. 245.
U. S. Slicing Machine Company, Chicago, Ill. Meat-slicing machines and meat-slicers. No. 88,220; Sept. 3; Gaz. vol. 182; p. 245.
Union Well Supply Co., Los Angeles, Cal. Lubricating-oil. No. 88,536; Sept. 10; Gaz. vol. 182; p. 507.
United Shoe Machinery Company, Paterson, N. J., and Boston, Mass. Certain named machines. No. 88,432; Sept. 17; Gaz. vol. 182; p. 718.
Universal Flexible Packing Co., Pittsburgh, Pa. Metallic packing. No. 88,535; Sept. 24; Gaz. vol. 182; p. 967.
Vacumit-Gesellschaft m. b. H., Vienna, Austria-Hungary. Substitute for rubber. No. 88,433; Sept. 17; Gaz. vol. 182; p. 718.
Van Camp Packing Co., Indianapolis, Ind. Evaporated milk. No. 88,536; Sept. 24; Gaz. vol. 182; p. 967.
Vanderhoef & Company, New York, N. Y. Hats. Nos. 88,389–90; Sept. 10; Gaz. vol. 182; p. 507.
Victor Talking Machine Company, Camden, N. J. Sound-recording machines and parts thereof. No. 88,391; Sept. 10; Gaz. vol. 182; p. 507.
Vitalis Co., New York, N. Y. Medicinal tonic preparation. No. 88,537; Sept. 24; Gaz. vol. 182; p. 967.
W. A. Gaines & Company, Frankfort, Ky. Whisky. No. 88,434; Sept. 24; Gaz. vol. 182; p. 968.
W. H. Harris Grocery Co., Richmond, Va. Canned fruits and vegetables. No. 88,280; Sept. 10; Gaz. vol. 182; p. 504.
W. T. Flather Limited, Sheffield, England. Steel, steel castings and forgings. No. 88,481; Sept. 24; Gaz. vol. 182; p. 966.
W. T. Flather Limited, Sheffield, England. Cast-steel. No. 88,482; Sept. 24; Gaz. vol. 182; p. 966.
Wagner Baking Co., Detroit, Mich. Bread. No. 88,435; Sept. 17; Gaz. vol. 182; p. 718.
Waite Thresher Company, Providence, R. I. Thimbles made of plated or precious metal. No. 88,436; Sept. 17; Gaz. vol. 182; p. 718.
Walsh, Edward J., St. Louis, Mo. Sheet-glass. No. 88,538; Sept. 24; Gaz. vol. 182; p. 967.
Waterbury Company, New York, N. Y. Insulated wire. No. 88,225; Sept. 3; Gaz. vol. 182; p. 245.
Waterbury Company, New York, N. Y. Ropes. No. 88,539; Sept. 24; Gaz. vol. 182; p. 967.
West India Oil Company, Bayonne, N. J. Refined petroleum. No. 88,392; Sept. 10; Gaz. vol. 182; p. 507.
West India Oil Company, Bayonne, N. J. Benzin, naphtha, and gasolene. No. 88,543; Sept. 24; Gaz. vol. 182; p. 968.
Wieland Bros., San Francisco, Cal. Pimentos. Nos. 88,437–8; Sept. 17; Gaz. vol. 182; p. 718.
William A. Force & Company, Inc., New York, N. Y. Numbering and dating machines. No. 88,393; Sept. 10; Gaz. vol. 182; p. 504.
Williams, John C., Chicago, Ill. Insoles for footwear. No. 88,394; Sept. 10; Gaz. vol. 182; p. 507.
Wm. Corry & Co., Limited, Belfast, Ireland. Non-alcoholic beverage. No. 88,400; Sept. 17; Gaz. vol. 182; p. 717.
Yardley Mills Company, Yardley, Pa. Wheat-flour. No. 88,439; Sept. 17; Gaz. vol. 182; p. 718.

## ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

Alden Mineral Water Company, Buffalo and Alden, N. Y. "Aldena Water." (For Water.) No. 16,561; Sept. 10; Gaz. vol. 182; p. 508.

Canale & Co., D., Memphis, Tenn. "Dominick Special Rye." (For Whisky.) No. 16,554; Sept. 3; Gaz. vol. 182; p. 246.

De Marco, John B., Brooklyn, N. Y. "De Marco's Piano Polish—De Marco's Furniture Polish." (For Piano and Furniture Polish.) No. 16,555; Sept. 3; Gaz. vol. 182; p. 246.

Drummond & Co., John, Glasgow, Scotland. "Drummond's Royal Liqueur." (For Scotch Whisky.) No. 16,563; Sept. 10; Gaz. vol. 182; p. 508.

Ellor Hartley Co., East Orange, N. J. "The Bull Moose Hat." (For Hats.) No. 16,566; Sept. 24; Gaz. vol. 182; p. 969.

Friedberg, S., Norfolk, Va. "South Pole Whiskey." (For Whisky.) No. 16,562; Sept. 10; Gaz. vol. 182; p. 508.

H. Hackfeld & Co. Ltd., Honolulu, Hawaii. "H. H. Brand." (For Canned Salmon.) Nos. 16,556–7; Sept. 3; Gaz. vol. 182; p. 246.

Julius Blen Company, New York, N. Y. "Svabelle." (For Cigars.) No. 16,544; Sept. 10; Gaz. vol. 182; p. 508.

Liberty Garter Manufacturing Company, New York, N. Y. "Arrow Pad Garter." (For Garters.) No. 16,565; Sept. 10; Gaz. vol. 182; p. 508.

Mahany, Rowland B., Buffalo, N. Y. "Pied Piper Paste, Rat and Roach Exterminator, Effective Chemical Co. 'We Do The Work.'" (For a Preparation for the Destruction of Rats and Roaches.) No. 16,558; Sept. 3; Gaz. vol. 182; p. 246.

Perry, Belle A., Oshkosh, Wis. "Perry's Beau-A-Mi-Derm Toilet Cream." (For Toilet Cream.) No. 16,559; Sept. 3; Gaz. vol. 182; p. 246.

Ruy Lopez Co., New York, N. Y. "Contentar." (For Cigars.) No. 16,560; Sept. 3; Gaz. vol. 182; p. 246.

## PRINTS.

American Tobacco Co., The, New York, N. Y. "Mecca." (For Cigarettes.) No. 3,095; Sept. 10; Gaz. vol. 182; p. 508.

Beehler, William H., Baltimore, Md. "Beehler Umbrellas Fold and Fit the Suit-case." (For Umbrellas and Parasols.) No. 3,090; Sept. 3; Gaz. vol. 182; p. 246.

Cahn, Belt & Co., Baltimore, Md. "The Man With The Decanter." (For Distilled Alcoholic Liquors.) No. 3,096; Sept. 10; Gaz. vol. 182; p. 508.

Guy G. Major Company, The, Toledo, Ohio. "O C O Tasteless Castor Oil." (For Castor-Oil.) No. 3,092; Sept. 3; Gaz. vol. 182; p. 246.

Kampfe Brothers, New York, N. Y. "Star Safety Razor." (For Star Safety-Razors.) No. 3,091; Sept. 3; Gaz. vol. 182; p. 246.

National Starch Company, New York, N. Y. "Kingsford's Oswego Corn Starch." (For Corn-Starch.) No. 3,097; Sept. 10; Gaz. vol. 182; p. 508.

Philo Hay Specialties Co., Newark, N. J. "Hebe Bath Powder." (For Hebe Bath-Powder.) No. 3,094; Sept. 3; Gaz. vol. 182; p. 246.

Samuel W. Peck & Co., New York, N. Y. "Correct Posture Suit." (For Boys' Clothing.) No. 3,093; Sept. 3; Gaz. vol. 182; p. 246.

Wm. Simpson, Sons & Co., Philadelphia, Pa.; New York, N. Y.; Baltimore, Md.; Chicago, Ill., and St. Louis, Mo. "Berlin." (For Cotton Piece Goods.) No. 3,098; Sept. 10; Gaz. vol. 182; p. 508.

## DISCLAIMERS.

Griffith, William, Pittsburgh, Pa.; disclaimer filed by executor, William Johns. Plating metals. No. 936,713; disclaimer filed Aug. 26, 1912; Gaz. vol. 182; p. 1.



# ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

## PATENTS WERE ISSUED DURING THE MONTH OF SEPTEMBER, 1912.

[Abbreviations: "Sp."=Monthly Volume of Specifications; "Gaz."=Official Gazette.]

Abrading-roll cleaner. W. T. Courtney. No. 1,039,262; Sept. 24; Gaz. vol. 182; p. 793.

Abrasive. C. H. Cambolt. No. 1,039,487; Sept. 24; Gaz. vol. 182; p. 971.

Abrasive sheets, Joining. E. J. Bein. No. 1,037,582; Sept. 3; Gaz. vol. 182; p. 136.

Acetylene-generator. C. Delcampe. No. 1,038,489; Sept. 10; Gaz. vol. 182; p. 475.

Acid, Apparatus for heating and utilizing hydrochloric. T. C. King. No. 1,038,589; Sept. 10; Gaz. vol. 182; p. 440.

Acids, 2-alkoxy-5-disubstituted barbituric. M. Engelmann. No. 1,038,101; Sept. 10; Gaz. vol. 182; p. 442.

Acids, 2-alkoxy-5-monosubstituted barbituric. M. Engelmann. No. 1,038,102; Sept. 10; Gaz. vol. 182; p. 443.

Acoustical instrument. L. Lemiere. No. 1,039,165; Sept. 24; Gaz. vol. 182; p. 753.

Actuating device. I. B. Leibson. No. 1,037,271; Sept. 3; Gaz. vol. 182; p. 31.

Adding and writing machine. H. Hopkins. No. 1,039,180; Sept. 24; Gaz. vol. 182; p. 745.

Adding-machine ribbon-spool. W. A. Rotter. No. 1,038,660; Sept. 17; Gaz. vol. 182; p. 569.

Address-plate. H. C. Gammeter. No. 1,038,868; Sept. 17; Gaz. vol. 182; p. 642.

Adjustable chair. J. F. Walton and W. T. Favorite. No. 1,037,565; Sept. 3; Gaz. vol. 182; p. 131.

Adjustable seat for sidehill implements. C. and R. G. Young. No. 1,039,004; Sept. 17; Gaz. vol. 182; p. 688.

Advertising device. J. P. Bergeron. No. 1,037,855; Sept. 10; Gaz. vol. 182; p. 258.

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Aeromotor. B. Zobel. No. 1,039,240; Sept. 24; Gaz. vol. 182; p. 785.

Aeroplane. J. R. Martin. No. 1,037,278; Sept. 3; Gaz. vol. 182; p. 84.

Aeroplane. J. H. S. Bartholomew and E. F. Heath. No. 1,037,411; Sept. 3; Gaz. vol. 182; p. 79.

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Aeroplane. J. A. Rabbitt. No. 1,037,658; Sept. 3; Gaz. vol. 182; p. 162.

Aeroplane. S. S. Yarrington. No. 1,037,704; Sept. 3; Gaz. vol. 182; p. 177.

Aeroplane. A. Feall. No. 1,037,749; Sept. 3; Gaz. vol. 182; p. 191.

Aeroplane. E. S. Bennett. No. 1,037,853; Sept. 10; Gaz. vol. 182; p. 253.

Aeroplane. D. A. Davison. No. 1,038,306; Sept. 10; Gaz. vol. 182; p. 412.

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Aeroplane, Automatic-balancing. R. McMullen. No. 1,037,651; Sept. 3; Gaz. vol. 182; p. 159.

Aeroplane flying-machine. C. E. Winterrea. No. 1,039,345; Sept. 24; Gaz. vol. 182; p. 821.

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Aeroplane-plane. F. G. Donner. No. 1,038,517; Sept. 10; Gaz. vol. 182; p. 415.

Aeroplane suspension-railway. P. H. Pages. No. 1,037,973; Sept. 10; Gaz. vol. 182; p. 302.

Aeroplanes, Automatic balancing mechanism for. J. S. Vogt. No. 1,039,228; Sept. 24; Gaz. vol. 182; p. 780.

Agricultural implement. G. B. Garrison. No. 1,039,269; Sept. 24; Gaz. vol. 182; p. 795.

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Air-blast heater. E. Hohmann. No. 1,038,537; Sept. 17; Gaz. vol. 182; p. 646.

Air-brake automatic valve device. M. Corrington. No. 1,037,443; Sept. 3; Gaz. vol. 182; p. 90.

Air-brake-maintaining device. M. Corrington. No. 1,037,444; Sept. 3; Gaz. vol. 182; p. 91.

Air-compressor. V. J. Diefenderfer. No. 1,037,455; Sept. 3; Gaz. vol. 182; p. 95.

Air-compressor and shock-absorber, Combined. J. D. Jackson. No. 1,038,374; Sept. 10; Gaz. vol. 182; p. 434.

Air-craft. F. Brackett. No. 1,039,092; Sept. 24; Gaz. vol. 182; p. 782.

Air-craft. F. Brackett. No. 1,039,251; Sept. 24; Gaz. vol. 182; p. 789.

Air-craft safety device. J. Kratedil. No. 1,039,205; Sept. 24; Gaz. vol. 182; p. 804.

Air machine, Cold-. J. Cloats and A. Breta. No. 1,037,723; Sept. 3; Gaz. vol. 182; p. 185.

Air-purifying apparatus. W. G. E. Braemer. No. 1,037,424; Sept. 3; Gaz. vol. 182; p. 84.

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Airship. E. F. Fisher. No. 1,038,106; Sept. 10; Gaz. vol. 182; p. 344.

Airship. C. A. Kuensel. No. 1,038,602; Sept. 17; Gaz. vol. 182; p. 549.

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Airship. E. H. Mattson. No. 1,039,160; Sept. 24; Gaz. vol. 182; p. 754.

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Alarm: *See* Automobile, &c., alarm; Burglar-alarm; Mail-box alarm; Tire-alarm; Type-writer alarm.

Alarm. S. Hoge. No. 1,037,767; Sept. 3; Gaz. vol. 182; p. 197.

Alarm device. V. Butler. No. 1,037,432; Sept. 3; Gaz. vol. 182; p. 86.

Alumina and making same, Article of. L. E. Saunders. No. 1,037,999; Sept. 10; Gaz. vol. 182; p. 310.

Aluminum sulfate, Making. P. H. Carter, H. H. Shackleton, and T. E. Grafton. No. 1,037,591; Sept. 3; Gaz. vol. 182; p. 139.

Ammonia, Oxidizing. L. C. Jones, D. A. Morton, and G. N. Terziev. No. 1,037,261; Sept. 3; Gaz. vol. 182; p. 29.

Amusement and strength-testing apparatus. C. Spratt and F. J. Shenton. No. 1,039,611; Sept. 24; Gaz. vol. 182; p. 914.

Amusement apparatus. J. Gunzendorfer. No. 1,037,474; Sept. 3; Gaz. vol. 182; p. 102.

Anchor-bolt. F. J. Snyder. No. 1,037,678; Sept. 3; Gaz. vol. 182; p. 169.

Angle-indicator. O. R. Cassell. No. 1,038,291; Sept. 10; Gaz. vol. 182; p. 407.

Animal-shears. L. H. La Chance. No. 1,037,933; Sept. 10; Gaz. vol. 182; p. 288.

Animal-trap. G. W. Walters. No. 1,038,246; Sept. 10; Gaz. vol. 182; p. 391.

Animal-trap. J. F. Winkler. No. 1,039,001; Sept. 17; Gaz. vol. 182; p. 687.

Ankle support and protector. H. J. Collis. No. 1,037,441; Sept. 3; Gaz. vol. 182; p. 90.

Annealing, &c., furnace. W. S. Rockwell. No. 1,037,665; Sept. 3; Gaz. vol. 182; p. 164.

Annealing metallic articles, Device for. A. Kreidler. No. 1,038,901; Sept. 17; Gaz. vol. 182; p. 554.

Annunciator. C. Christiansen. No. 1,038,724; Sept. 17; Gaz. vol. 182; p. 592.

Annunciator. L. L. Simpson. No. 1,038,795; Sept. 17; Gaz. vol. 182; p. 617.

Annunciator and signaling system, Electric. F. C. Graham. No. 1,038,117; Sept. 10; Gaz. vol. 182; p. 347.

Antiskidding device. E. Finking. No. 1,038,737; Sept. 17; Gaz. vol. 182; p. 596.

Anvil and swage block, Interlocking. J. W. Coyle and D. E. Lynch. No. 1,037,200; Sept. 3; Gaz. vol. 182; p. 11.
Arbor press or ram. G. T. Eames. No. 1,038,543; Sept. 17; Gaz. vol. 182; p. 528.
Arch construction. J. Warner. No. 1,038,906; Sept. 17; Gaz. vol. 182; p. 685.
Armature-winding. J. F. McElroy. No. 1,038,807; Sept. 24; Gaz. vol. 182; p. 809.
Ash-pan. D. T. and C. F. Lipscomb. No. 1,037,273; Sept. 3; Gaz. vol. 182; p. 32.
Attrition-mill. A. Schroeder. No. 1,039,326; Sept. 24; Gaz. vol. 182; p. 815.
Auger. L. W. Grissom. No. 1,037,616; Sept. 3; Gaz. vol. 182; p. 147.
Auger, Mortising-. O. Crank. No. 1,038,727; Sept. 17; Gaz. vol. 182; p. 592.
Autographic register. E. J. Barker. No. 1,038,824; Sept. 17; Gaz. vol. 182; p. 627.
Automatic sprinkler. G. Zint. No. 1,038,060; Sept. 10; Gaz. vol. 182; p. 330.
Automobile, &c., alarm. A. Son. No. 1,037,351; Sept. 3; Gaz. vol. 182; p. 57.
Automobile, Bucking. E. W. Desenfants. No. 1,039,035; Sept. 17; Gaz. vol. 182; p. 906.
Automobile-doors, &c., Antirattler for. F. Cole. No. 1,037,503; Sept. 3; Gaz. vol. 182; p. 140.
Automobile flag-holder. E. H. B. Lindhorst. No. 1,039,554; Sept. 24; Gaz. vol. 182; p. 895.
Automobile-hood. C. S. Wood. No. 1,037,394; Sept. 3; Gaz. vol. 182; p. 73.
Automobile-hood. C. S. Wood. No. 1,037,395; Sept. 3; Gaz. vol. 182; p. 73.
Automobile-jack. C. E. Kells, Jr. No. 1,037,924; Sept. 10; Gaz. vol. 182; p. 284.
Automobile locking device. J. Bystrom. No. 1,037,203; Sept. 3; Gaz. vol. 182; p. 8.
Automobile power-transmission attachment. T. Nesom. No. 1,039,177; Sept. 24; Gaz. vol. 182; p. 760.
Automobile regulating device. C. Lebbers. No. 1,037,987; Sept. 10; Gaz. vol. 182; p. 289.
Automobile starting-crank, Means for locking. W. J. N. Davis. No. 1,037,001; Sept. 3; Gaz. vol. 182; p. 142.
Automobile turn-table. A. Dallamore. No. 1,038,509; Sept. 10; Gaz. vol. 182; p. 412.
Automobile vehicle. L. Wolf. No. 1,038,054; Sept. 10; Gaz. vol. 182; p. 328.
Automobile wheel attachment. F. V. Grover. No. 1,038,569; Sept. 17; Gaz. vol. 182; p. 537.
Autosleigh. W. H. Halladey. No. 1,039,278; Sept. 24; Gaz. vol. 182; p. 799.
Awning. C. Richards. No. 1,039,593; Sept. 24; Gaz. vol. 182; p. 908.
Awning, Folding steel. G. E. Osgood. No. 1,039,582; Sept. 24; Gaz. vol. 182; p. 905.
Axle, Car-. P. J. Rivers. No. 1,038,962; Sept. 17; Gaz. vol. 182; p. 674.
β-anthraquinonyl-urea-chlorid and making same, Pure. A. Schmidt and G. Krönstein. No. 1,038,003; Sept. 10; Gaz. vol. 182; p. 311.
Baby-carrier. C. B. Averill. No. 1,039,009; Sept. 17; Gaz. vol. 182; p. 689.
Bag: *See* Feed-bag; Hand-bag; Sleeping-bag; Waterproof bag.
Bag-cleaner. E. L. Buschman. No. 1,038,281; Sept. 10; Gaz. vol. 182; p. 403.
Bag-fastener. L. B. Prahar. No. 1,039,189; Sept. 24; Gaz. vol. 182; p. 765.
Bag-frame. C. Hiering and A. Fuller. No. 1,038,749; Sept. 17; Gaz. vol. 182; p. 601.
Bag-holder. O. C. Kirkpatrick. No. 1,037,265; Sept. 3; Gaz. vol. 182; p. 30.
Bag-holder. A. D. Back. No. 1,038,474; Sept. 10; Gaz. vol. 182; p. 471.
Bag-jaw fastener. L. L. Prahar. No. 1,039,188; Sept. 24; Gaz. vol. 182; p. 765.
Bails of vessels, Eyelet for engaging the. R. W. Goodpasture. No. 1,039,271; Sept. 24; Gaz. vol. 182; p. 796.
Balance, Aerostructural. R. M. Palmer. No. 1,039,181; Sept. 24; Gaz. vol. 182; p. 762.
Baler, Paper-. A. E. Beall. No. 1,039,244; Sept. 24; Gaz. vol. 182; p. 786.
Baling-press. G. Wenzelmann. No. 1,038,248; Sept. 10; Gaz. vol. 182; p. 392.
Baling-press. J. M. Wilson. No. 1,038,255; Sept. 10; Gaz. vol. 182; p. 395.
Baling-press. A. L. Lamar. No. 1,038,904; Sept. 17; Gaz. vol. 182; p. 685.
Ball scoring device, Base-. W. P. Carruthers. No. 1,038,289; Sept. 10; Gaz. vol. 182; p. 404.
Balls, Making hollow metallic. J. W. Schatz. No. 1,039,673; Sept. 24; Gaz. vol. 182; p. 935.
Balls, Making hollow metallic. J. W. Schatz. No. 1,039,674; Sept. 24; Gaz. vol. 182; p. 936.
Band-brake. G. M. Baker. No. 1,038,478; Sept. 10; Gaz. vol. 182; p. 472.
Band-cutter and feeder. J. D. Hawes. No. 1,038,747; Sept. 17; Gaz. vol. 182; p. 600.
Bandeau and hat fastener. C. E. and M. Thornton. No. 1,037,806; Sept. 3; Gaz. vol. 182; p. 209.
Bar: *See* Piling-bar; Splice-bar; Tracker-bar.
Barrel. C. I. Hoefel. No. 1,039,058; Sept. 17; Gaz. vol. 182; p. 703.
Barrel, Collapsible. J. W. Sutherland. No. 1,037,634; Sept. 3; Gaz. vol. 182; p. 171.
Basket, Baby-. J. Thaison. No. 1,038,283; Sept. 10; Gaz. vol. 182; p. 396.
Basket-making machine, Twister-head for wire-. V. D. Munger. No. 1,038,629; Sept. 17; Gaz. vol. 182; p. 559.
Basket, Wire. E. P. Rodgers. No. 1,037,539; Sept. 3; Gaz. vol. 182; p. 123.
Bath and toilet cabinet, Combination. W. W. Murphey. No. 1,038,630; Sept. 17; Gaz. vol. 182; p. 560.
Bath cabinet, Portable vapor. J. F. Kraus. No. 1,038,324; Sept. 10; Gaz. vol. 182; p. 441.
Bath-cushion. W. C. Trick. No. 1,039,334; Sept. 24; Gaz. vol. 182; p. 817.
Bath-tub distributing-valve. F. C. Rockwell. No. 1,037,664; Sept. 3; Gaz. vol. 182; p. 164.
Battery: *See* Pyrometer or thermo-battery.
Bean-cleaner. W. J. Bloomfield. No. 1,039,249; Sept. 24; Gaz. vol. 182; p. 789.
Bearing, Center plate, Roller-. J. C. Barber. No. 1,038,822; Sept. 17; Gaz. vol. 182; p. 626.
Bearing, Self-tightening. C. D. Shaw. No. 1,038,006; Sept. 10; Gaz. vol. 182; p. 312.
Bearing, Split roller-. J. Newmann. No. 1,037,510; Sept. 3; Gaz. vol. 182; p. 114.
Bearings, Water-protector for oil-. J. E. Plovesan. No. 1,038,953; Sept. 17; Gaz. vol. 182; p. 671.
Beating and mixing device. H. P. Roberts. No. 1,038,204; Sept. 10; Gaz. vol. 182; p. 376.
Bed. W. J. Bozanko. No. 1,037,419; Sept. 3; Gaz. vol. 182; p. 81.
Bed. W. J. Rees. No. 1,037,995; Sept. 10; Gaz. vol. 182; p. 308.
Bed, Adjustable. D. B. Allen. No. 1,038,472; Sept. 10; Gaz. vol. 182; p. 470.
Bed appliance, Hospital-. L. Witt. No. 1,037,393; Sept. 3; Gaz. vol. 182; p. 72.
Bed, Couch-. W. F. Hammond. No. 1,038,879; Sept. 17; Gaz. vol. 182; p. 646.
Bed, Disappearing. C. E. Bruce. No. 1,037,858; Sept. 10; Gaz. vol. 182; p. 290.
Bed, Extensible. A. McKnight. No. 1,037,283; Sept. 3; Gaz. vol. 182; p. 35.
Bed, Folding. L. B. Jeffcott. No. 1,037,259; Sept. 3; Gaz. vol. 182; p. 28.
Bed, Hospital-. W. T. Marchant. No. 1,038,623; Sept. 17; Gaz. vol. 182; p. 557.
Bed or berth attachment. H. E. Perkins. No. 1,037,305; Sept. 3; Gaz. vol. 182; p. 42.
Bed-springs or the like, Attachment for wire-mesh. J. N. Eastwood. No. 1,038,863; Sept. 17; Gaz. vol. 182; p. 640.
Bed, Wall-. M. H. Holmes and W. A. Matheson. No. 1,037,911; Sept. 10; Gaz. vol. 182; p. 279.
Bedstead, Detachable folding. S. L. Harman. No. 1,039,527; Sept. 24; Gaz. vol. 182; p. 888.
Bedstead, Sofa or chair. C. A. Warner. No. 1,038,693; Sept. 17; Gaz. vol. 182; p. 581.
Bedsteads, Clothes-hanging attachment for. C. Hensel. No. 1,037,253; Sept. 3; Gaz. vol. 182; p. 26.
Beer-cases, Protective shield for. P. T. Clark. No. 1,039,564; Sept. 24; Gaz. vol. 182; p. 896.
Beer-keg mold. J. M. Thompson. No. 1,038,683; Sept. 17; Gaz. vol. 182; p. 577.
Beer-pipe cleaner. H. Hubert and E. Fry. No. 1,039,405; Sept. 24; Gaz. vol. 182; p. 842.
Beet-top cutter. W. and H. A. Maurer. No. 1,039,161; Sept. 24; Gaz. vol. 182; p. 755.
Belt-fasteners, Automatic machine for cutting and forming. C. E. Coe. No. 1,037,867; Sept. 10; Gaz. vol. 182; p. 263.
Bench: *See* Piano-bench.
Berry-picker. A. Dale. No. 1,038,302; Sept. 10; Gaz. vol. 182; p. 411.
Beverage-carbonating machine. L. C. Paris and T. Millward. No. 1,038,191; Sept. 10; Gaz. vol. 182; p. 372.
Beverage from honey, Making a. C. W. Dayton. No. 1,038,307; Sept. 10; Gaz. vol. 182; p. 412.
Bicycle spring-seat. W. J. Sieffel. No. 1,039,328; Sept. 24; Gaz. vol. 182; p. 816.
Billiard-cues, Device for fixing caps to. T. Detroyes. No. 1,038,310; Sept. 10; Gaz. vol. 182; p. 412.
Binder-frame. F. L. Manny. No. 1,038,616; Sept. 17; Gaz. vol. 182; p. 554.
Binder, Loose-leaf. L. M. Morden. No. 1,037,292; Sept. 3; Gaz. vol. 182; p. 38.
Binder, Loose-leaf. L. M. Morden. No. 1,037,293; Sept. 3; Gaz. vol. 182; p. 38.
Binder, Loose-leaf. W. S. Proudfit, Jr. No. 1,037,314; Sept. 3; Gaz. vol. 182; p. 45.
Binder, Loose-leaf. W. S. Proudfit, Jr. No. 1,037,315; Sept. 3; Gaz. vol. 182; p. 45.
Binder, Loose-leaf. B. Glaser. No. 1,039,047; Sept. 17; Gaz. vol. 182; p. 699.
Binder, Loose-leaf. E. Stanton. No. 1,039,207; Sept. 24; Gaz. vol. 182; p. 772.
Binder or holder for sheets or pads. R. Krumming. No. 1,039,398; Sept. 24; Gaz. vol. 182; p. 805.
Bit: *See* Bridle-bit.
Bit and tap and die chuck. W. L. Precunier. No. 1,037,795; Sept. 3; Gaz. vol. 182; p. 204.
Blanks, Mechanism for feeding angular-formed. E. F. Rindfleisch. No. 1,037,320; Sept. 3; Gaz. vol. 182; p. 47.
Blast-furnace. C. Hicks. No. 1,039,282; Sept. 24; Gaz. vol. 182; p. 800.



Blind, Folding. J. F. Lansing. No. 1,037,988; Sept. 10; Gaz. vol. 182; p. 289.
Blind-slat fastener. S. Jickle. No. 1,039,291; Sept. 24; Gaz. vol. 182; p. 803.
Block: *See* Anvil and swage block; Flashing-block; Type-block.
Block-making machine. H. H. Pierce. No. 1,038,648; Sept. 17; Gaz. vol. 182; p. 564.
Block-channel guide-rail. L. A. Hawkins. No. 1,038,264; Sept. 10; Gaz. vol. 182; p. 430.
Blowpipe. C. E. Johnson. No. 1,038,281; Sept. 10; Gaz. vol. 182; p. 437.
Blowpipe. M. K. Dunham. No. 1,039,686; Sept. 17; Gaz. vol. 182; p. 694.
Board: *See* Cloth-board; Ironing-board; Score-board; Service-board; Tracker-board.
Boat. F. S. Milligan. No. 1,038,176; Sept. 10; Gaz. vol. 182; p. 367.
Boat. C. L. Mansel. No. 1,038,926; Sept. 17; Gaz. vol. 182; p. 684.
Boat-shafts, Adjustable bearing for. M. Hemmer. No. 1,037,621; Sept. 3; Gaz. vol. 182; p. 148.
Boat, Stone-. M. J. Quinlan. No. 1,038,989; Sept. 17; Gaz. vol. 182; p. 678.
Boat, Submarine or submergible. E. L. Peacock. No. 1,037,519; Sept. 3; Gaz. vol. 182; p. 116.
Boats, Coaming mechanism for submarine. T. S. Bailey. No. 1,037,191; Sept. 3; Gaz. vol. 182; p. 5.
Bobbin-turning machine. W. C. Farnum. No. 1,038,490; Sept. 10; Gaz. vol. 182; p. 478.
Boiler: *See* Sectional boiler; Steam-boiler; Water-tube boiler.
Boiler. E. W. Wise. No. 1,037,291; Sept. 3; Gaz. vol. 182; p. 72.
Boiler. C. W. Seddon. No. 1,038,004; Sept. 10; Gaz. vol. 182; p. 311.
Boiler-insert. W. M. Greaves. No. 1,037,241; Sept. 3; Gaz. vol. 182; p. 22.
Boiler-stud connection. J. Shelton. No. 1,037,553; Sept. 3; Gaz. vol. 182; p. 128.
Boiler-timing device. F. W. Wood. No. 1,038,495; Sept. 10; Gaz. vol. 182; p. 477.
Boiler-tube cleaner. R. W. Hamann. No. 1,037,245; Sept. 3; Gaz. vol. 182; p. 24.
Boilers, Soot-cleaner for steam-. W. J. Bradley. No. 1,037,422; Sept. 3; Gaz. vol. 182; p. 82.
Bolt: *See* Anchor-bolt; Door-bolt; Door safety-bolt.
Bolt and locking device therefor. N. Schell. No. 1,038,694; Sept. 17; Gaz. vol. 182; p. 570.
Bolts, &c., Automatic detent mechanism for sliding. F. G. Tuss. No. 1,039,616; Sept. 24; Gaz. vol. 182; p. 915.
Book and bill-file, Combined pass-. F. W. Kimmel. No. 1,037,394; Sept. 3; Gaz. vol. 182; p. 80.
Book-holder. J. E. Burnett. No. 1,038,280; Sept. 10; Gaz. vol. 182; p. 403.
Book, Manifold sales-. G. Mafort. No. 1,039,166; Sept. 24; Gaz. vol. 182; p. 756.
Book, Time-. J. M. Spiker. No. 1,038,452; Sept. 10; Gaz. vol. 182; p. 464.
Boot and shoe box-toe. J. D. Brown and W. A. Stubbs. No. 1,037,426; Sept. 3; Gaz. vol. 182; p. 84.
Boot-holder. W. D. Gilbert. No. 1,038,344; Sept. 10; Gaz. vol. 182; p. 424.
Boring-tools, Releasing mechanism for. W. Schlifer. No. 1,037,799; Sept. 3; Gaz. vol. 182; p. 207.
Bottle. W. G. Lindsay. No. 1,037,272; Sept. 3; Gaz. vol. 182; p. 32.
Bottle. A. B. Gardner. No. 1,037,751; Sept. 3; Gaz. vol. 182; p. 192.
Bottle-cap. G. Koch. No. 1,037,496; Sept. 3; Gaz. vol. 182; p. 100.
Bottle-cap. J. C. Miller. No. 1,038,626; Sept. 17; Gaz. vol. 182; p. 558.
Bottle-cleaning machine. G. Weiss. No. 1,037,880; Sept. 3; Gaz. vol. 182; p. 68.
Bottle-closing device. F. Bagar. No. 1,038,476; Sept. 10; Gaz. vol. 182; p. 471.
Bottle-closure. V. Zemmits. No. 1,038,260; Sept. 10; Gaz. vol. 182; p. 396.
Bottle closure and protecting device. M. Switzer. No. 1,038,623; Sept. 10; Gaz. vol. 182; p. 318.
Bottle closure or stopper. M. Morawiecki. No. 1,037,792; Sept. 3; Gaz. vol. 182; p. 205.
Bottle-closure, Sanitary. A. D. Ray and C. N. Russell. No. 1,038,661; Sept. 17; Gaz. vol. 182; p. 566.
Bottle, Non-refillable. J. E. Gavin. No. 1,037,611; Sept. 3; Gaz. vol. 182; p. 145.
Bottle, Non-refillable. R. W. Hawkins. No. 1,038,266; Sept. 10; Gaz. vol. 182; p. 421.
Bottle, Non-refillable. J. T. Dempsey. No. 1,038,496; Sept. 10; Gaz. vol. 182; p. 477.
Bottle, Non-refillable. J. T. Dempsey. No. 1,038,497; Sept. 10; Gaz. vol. 182; p. 478.
Bottle, Non-refillable. J. B. Greaves. No. 1,038,566; Sept. 17; Gaz. vol. 182; p. 536.
Bottle, Non-refillable. C. E. Laning. No. 1,039,146; Sept. 24; Gaz. vol. 182; p. 750.
Bottle, Non-refillable. J. Prohaboiser. No. 1,039,669; Sept. 24; Gaz. vol. 182; p. 934.
Bottle, Nursing-. J. C. Poure. No. 1,037,300; Sept. 3; Gaz. vol. 182; p. 48.
Bottle-stopper. J. Bailey. No. 1,038,097; Sept. 10; Gaz. vol. 182; p. 323.
Bottle-stopper. W. J. Warner and A. Fuller. No. 1,038,465; Sept. 10; Gaz. vol. 182; p. 468.
Bottle-stopper. C. A. Natt. No. 1,039,178; Sept. 24; Gaz. vol. 182; p. 760.
Bottle-stopper. W. G. Gadus. No. 1,039,266; Sept. 24; Gaz. vol. 182; p. 795.
Bottle-stopper. H. T. Ray. No. 1,039,268; Sept. 24; Gaz. vol. 182; p. 906.
Bottle stopper, Non-refillable. R. M. De Valles. No. 1,038,311; Sept. 10; Gaz. vol. 182; p. 413.
Bottling-machine attachment. A. F. Atwood. No. 1,038,230; Sept. 24; Gaz. vol. 182; p. 821.
Bowls, Making Swiss. C. W. Batts. No. 1,038,865; Sept. 17; Gaz. vol. 182; p. 638.
Box: *See* Jack-box; Junction-box; Mail-box; Match-box; Meter-box; Packing-box; Scoop-box; Shipping-box; Wagon-box.
Box. W. I. Tuttle. No. 1,038,680; Sept. 10; Gaz. vol. 182; p. 330.
Box. H. E. Webb. No. 1,039,619; Sept. 24; Gaz. vol. 182; p. 917.
Box-blank creasing and cutting machine. K. I. Herman. No. 1,037,909; Sept. 10; Gaz. vol. 182; p. 279.
Box-blank-pasting machine. H. Jagenberg. No. 1,038,577; Sept. 10; Gaz. vol. 182; p. 495.
Box-lid lifter. M. Fodder. No. 1,038,332; Sept. 10; Gaz. vol. 182; p. 420.
Box-partition holder. J. A. Cook. No. 1,037,504; Sept. 3; Gaz. vol. 182; p. 140.
Box-staying machine, Stay-strip wiper for. H. L. Brockway. No. 1,038,520; Sept. 17; Gaz. vol. 182; p. 488.
Box-toe-making machine. J. W. Harney. No. 1,039,062; Sept. 17; Gaz. vol. 182; p. 701.
Brace: *See* Rail-brace.
Bracelets or extensible chains, Spring-link for. E. and G. Loiseau. No. 1,037,274; Sept. 3; Gaz. vol. 182; p. 32.
Bracket: *See* Curtain-bracket; Rigging-bracket; Shade-bracket; Shelving-bracket.
Brake: *See* Band-brake; Car-brake; Elevator-brake; Locomotive-brake; Vehicle-brake.
Brake-beams, Reversible strut for. P. B. Harrison. No. 1,037,903; Sept. 10; Gaz. vol. 182; p. 277.
Brake device, Load. W. V. Turner. No. 1,039,220; Sept. 24; Gaz. vol. 182; p. 777.
Brake-shoe control. L. Zink. No. 1,038,059; Sept. 10; Gaz. vol. 182; p. 329.
Brazing compound. J. D. Ge Bett. No. 1,037,234; Sept. 3; Gaz. vol. 182; p. 20.
Bread-cutter. C. Barkman. No. 1,038,320; Sept. 17; Gaz. vol. 182; p. 626.
Bread-proofing apparatus. S. Olson. No. 1,038,784; Sept. 17; Gaz. vol. 182; p. 612.
Bread-proving closet. E. Biggs. No. 1,037,417; Sept. 3; Gaz. vol. 182; p. 81.
Brick. J. G. Barbour. No. 1,038,523; Sept. 17; Gaz. vol. 182; p. 627.
Brick and block machine. J. A. Gustafson and J. M. Flickinger. No. 1,038,676; Sept. 17; Gaz. vol. 182; p. 645.
Brick-carrier. G. B. Goldner. No. 1,039,332; Sept. 24; Gaz. vol. 182; p. 824.
Bridge. J. B. Strauss. No. 1,038,226; Sept. 10; Gaz. vol. 182; p. 383.
Bridle-bit. T. F. Dolan. No. 1,037,878; Sept. 10; Gaz. vol. 182; p. 268.
Broom-bridle. W. H. Smith. No. 1,039,208; Sept. 24; Gaz. vol. 182; p. 771.
Broom-bundling machine. A. P. Longdon. No. 1,037,781; Sept. 3; Gaz. vol. 182; p. 202.
Brush. J. P. Wherry. No. 1,037,607; Sept. 3; Gaz. vol. 182; p. 175.
Brush. W. D. Foss. No. 1,038,552; Sept. 17; Gaz. vol. 182; p. 521.
Brush and comb, Combination. J. Schmitt. No. 1,038,792; Sept. 17; Gaz. vol. 182; p. 616.
Brush-back blank. F. Zbitnski. No. 1,039,005; Sept. 17; Gaz. vol. 182; p. 688.
Brush-bristles, Machine for cementing. H. P. McMillan. No. 1,037,830; Sept. 3; Gaz. vol. 182; p. 217.
Brush for vacuum-cleaners. W. T. Jones. No. 1,038,383; Sept. 10; Gaz. vol. 182; p. 471.
Brush-making machine. G. Kleemann. No. 1,038,763; Sept. 17; Gaz. vol. 182; p. 605.
Brush, Paint-. H. B. Williams. No. 1,037,698; Sept. 3; Gaz. vol. 182; p. 176.
Brush, Rotary tooth-. H. M. Brenenstul. No. 1,038,525; Sept. 17; Gaz. vol. 182; p. 522.
Brush, Self-feeding paint-. A. Jaeschke. No. 1,038,376; Sept. 10; Gaz. vol. 182; p. 435.
Brush, Stencil-. A. D. Cardinet. No. 1,039,094; Sept. 24; Gaz. vol. 182; p. 732.
Brushing and polishing device. E. M. Swanson. No. 1,039,333; Sept. 24; Gaz. vol. 182; p. 817.
Bucket, Clam-shell. C. J. Young. No. 1,037,570; Sept. 3; Gaz. vol. 182; p. 135.
Bucket, Collapsible. S. J. Fuhrman. No. 1,039,044; Sept. 17; Gaz. vol. 182; p. 696.
Buckle. L. W. Wright. No. 1,038,256; Sept. 10; Gaz. vol. 182; p. 396.
Buckle. W. C. Fisher. No. 1,039,042; Sept. 17; Gaz. vol. 182; p. 696.
Building construction. J. D. Rives. No. 1,037,321; Sept. 3; Gaz. vol. 182; p. 48.
Building construction. A. Westendorf. No. 1,038,467; Sept. 10; Gaz. vol. 182; p. 469.
Building-frame structure, Composite. R. H. Robinson. No. 1,038,440; Sept. 10; Gaz. vol. 182; p. 459.

Building, light and ventilator. P. Schwichart. No. 1,037,668; Sept. 3; Gaz. vol. 182; p. 106.
Buildings, Ferroconcrete construction of. T. R. Yourelle and J. Bellingham. No. 1,038,257; Sept. 10; Gaz. vol. 182; p. 295.
Bundling-machine, Automatic. S. C. Cox. No. 1,039,266; Sept. 24; Gaz. vol. 182; p. 828.
Burglar-alarm. F. C. Hatch. No. 1,039,126; Sept. 24; Gaz. vol. 182; p. 743.
Burglar-alarm, Electric. T. W. Keenleyside. No. 1,039,142; Sept. 24; Gaz. vol. 182; p. 749.
Burglar-alarm system. M. F. Juruick. No. 1,038,594; Sept. 17; Gaz. vol. 182; p. 546.
Burner: *See* Gas-burner; Hydrocarbon-burner; Lamp-burner; Liquid-fuel burner; Oil-burner; Oil and gas-burner; Ore-burner; Sulfur-burner; Welding-burner.
Burner. G. C. Gill. No. 1,039,513; Sept. 24; Gaz. vol. 182; p. 881.
Butter, Making. A. W. K. Witte. No. 1,039,627; Sept. 24; Gaz. vol. 182; p. 920.
Butter substitute, Hydrogenated. C. Ellis. No. 1,038,545; Sept. 17; Gaz. vol. 182; p. 539.
Buttonhole-machine. H. C. Miller. No. 1,038,411; Sept. 10; Gaz. vol. 182; p. 449.
Cabinet, Cigar-box. J. J. McCarthy. No. 1,039,163; Sept. 24; Gaz. vol. 182; p. 755.
Cabinet for holding talking-machine records. H. C. Brown. No. 1,038,841; Sept. 17; Gaz. vol. 182; p. 695.
Cabinet, Rubber-stamp. C. C. Gibson. No. 1,038,742; Sept. 17; Gaz. vol. 182; p. 598.
Cabinet, Theatrical schedule and advertising. T. W. Mullaly. No. 1,038,416; Sept. 10; Gaz. vol. 182; p. 450.
Cabinet, Toilet-paper. W. E. Swift. No. 1,038,468; Sept. 10; Gaz. vol. 182; p. 466.
Cabinet, Wrapping-paper. G. A. Wilkinson and A. E. Osborn. No. 1,039,344; Sept. 24; Gaz. vol. 182; p. 821.
Cable, Electric. V. P. von Pinditershofen. No. 1,037,522; Sept. 3; Gaz. vol. 182; p. 117.
Cable or the like applicable to the formation of blocks on such cable, Apparatus for opening out multiple-wire. A. Dorford. No. 1,039,368; Sept. 24; Gaz. vol. 182; p. 829.
Cable, Waterproof. H. W. Fisher. No. 1,037,883; Sept. 10; Gaz. vol. 182; p. 269.
Calculating apparatus. W. H. Sleight. No. 1,039,455; Sept. 24; Gaz. vol. 182; p. 859.
Calculating device, Interest-. J. J. Fitzgerald. No. 1,039,373; Sept. 24; Gaz. vol. 182; p. 831.
Calculating instrument. C. A. Bishop. No. 1,039,245; Sept. 24; Gaz. vol. 182; p. 787.
Calculating-machine. G. W. Goss. No. 1,038,350; Sept. 10; Gaz. vol. 182; p. 426.
Calculating-machine. F. Trinks and C. Schaller. No. 1,038,464; Sept. 10; Gaz. vol. 182; p. 466.
Calculating-machine. P. A. Hopkins. No. 1,038,890; Sept. 17; Gaz. vol. 182; p. 650.
Calculating-machine. F. Trinks. No. 1,039,614; Sept. 24; Gaz. vol. 182; p. 915.
Camera and projection-machine, Moving-picture. V. L. Dubem. No. 1,039,501; Sept. 24; Gaz. vol. 182; p. 876.
Camera attachment. C. C. Lamb. No. 1,037,934; Sept. 10; Gaz. vol. 182; p. 288.
Camera, Photographic. C. Bornmann and G. W. Topliff. No. 1,037,721; Sept. 3; Gaz. vol. 182; p. 183.
Camera, Photographic. C. Bornmann. No. 1,037,722; Sept. 3; Gaz. vol. 182; p. 183.
Camera, Photographic. C. Bornmann. No. 1,039,088; Sept. 24; Gaz. vol. 182; p. 730.
Can: *See* Garbage-can; Roll-top can.
Can. W. F. Hellberg. No. 1,037,620; Sept. 3; Gaz. vol. 182; p. 148.
Can-closing appliance. P. A. Rock. No. 1,037,541; Sept. 3; Gaz. vol. 182; p. 123.
Can-filling machine. E. R. Gage. No. 1,038,557; Sept. 17; Gaz. vol. 182; p. 533.
Can-filling machine. J. H. and F. W. Burpee. No. 1,039,360; Sept. 24; Gaz. vol. 182; p. 826.
Can-opener. E. Blake and C. W. College. No. 1,039,015; Sept. 17; Gaz. vol. 182; p. 691.
Cans, Spring attachment for oil-. A. E. Mossberg. No. 1,038,181; Sept. 10; Gaz. vol. 182; p. 369.
Canal system, Automatic. M. M. Wood. No. 1,037,396; Sept. 3; Gaz. vol. 182; p. 73.
Cane-mill. J. H. Fogarty. No. 1,037,885; Sept. 10; Gaz. vol. 182; p. 270.
Canoes, Outrigger-thwart for. A. H. Riggs. No. 1,037,990; Sept. 10; Gaz. vol. 182; p. 307.
Capsule or container for compressed or liquefied gases. R. H. Campbell. No. 1,038,285; Sept. 10; Gaz. vol. 182; p. 404.
Capsuling device. C. Gentle. No. 1,038,869; Sept. 17; Gaz. vol. 182; p. 642.
Car attachment. E. E. Campbell. No. 1,039,361; Sept. 24; Gaz. vol. 182; p. 827.
Car-brake. W. E. Bowers. No. 1,037,587; Sept. 3; Gaz. vol. 182; p. 138.
Car cast-steel underframe. C. H. Howard. No. 1,038,753; Sept. 17; Gaz. vol. 182; p. 602.
Car cast-steel underframe. C. H. Howard. No. 1,039,403; Sept. 24; Gaz. vol. 182; p. 842.
Car center-bearing, Railway-. O. Anderson. No. 1,037,876; Sept. 3; Gaz. vol. 182; p. 135.
Car construction. C. F. Frede and C. T. Westlake. No. 1,039,043; Sept. 17; Gaz. vol. 182; p. 698.
Car-coupling. J. F. and V. S. Durbin. No. 1,037,489; Sept. 3; Gaz. vol. 182; p. 97.
Car-coupling. J. Kaine. No. 1,037,490; Sept. 3; Gaz. vol. 182; p. 107.
Car-coupling. J. C. Meginness. No. 1,037,790; Sept. 3; Gaz. vol. 182; p. 204.
Car-coupling. H. P. Pendexter. No. 1,038,780; Sept. 17; Gaz. vol. 182; p. 614.
Car couplings, Railway-. J. F. and V. S. Durbin. No. 1,037,459; Sept. 3; Gaz. vol. 182; p. 96.
Car-door. A. C. Sager. No. 1,039,446; Sept. 24; Gaz. vol. 182; p. 854.
Car door arrangement, Dumping-. E. W. Summers. No. 1,038,228; Sept. 10; Gaz. vol. 182; p. 284.
Car door, Grain-. C. J. Johnson. No. 1,038,148; Sept. 10; Gaz. vol. 182; p. 359.
Car-door lock. N. L. Antheny. No. 1,038,815; Sept. 17; Gaz. vol. 182; p. 624.
Car-door-locking apparatus. J. B. Lowell. No. 1,037,902; Sept. 3; Gaz. vol. 182; p. 111.
Car draft-rigging, Draft-yoke for railway-. G. A. Johnson. No. 1,038,758; Sept. 17; Gaz. vol. 182; p. 606.
Car, Dumping-. C. P. Astrom. No. 1,037,848; Sept. 10; Gaz. vol. 182; p. 256.
Car, Dumping-. A. N. Doud. No. 1,038,818; Sept. 10; Gaz. vol. 182; p. 415.
Car-fender. R. H. Pogue. No. 1,038,985; Sept. 17; Gaz. vol. 182; p. 671.
Car-fender and wheel-guard. G. H. Beldue. No. 1,039,066; Sept. 24; Gaz. vol. 182; p. 730.
Car grain-door. W. A. Helden. No. 1,037,761; Sept. 3; Gaz. vol. 182; p. 195.
Car, hose, and electric-wire coupling. L. and J. Le Compte. No. 1,039,147; Sept. 24; Gaz. vol. 182; p. 750.
Car-mover shoe. R. Miller. No. 1,037,969; Sept. 10; Gaz. vol. 182; p. 296.
Car, Railway-. J. Pascal. No. 1,039,585; Sept. 24; Gaz. vol. 182; p. 906.
Car-roof. R. H. Frame. No. 1,037,280; Sept. 3; Gaz. vol. 182; p. 18.
Car-roof. J. J. Hoffman. No. 1,039,401; Sept. 24; Gaz. vol. 182; p. 841.
Car-roof, Outside metal. J. J. Hoffman. No. 1,039,400; Sept. 24; Gaz. vol. 182; p. 840.
Car side bearing. P. E. M. Nerell. No. 1,037,511; Sept. 3; Gaz. vol. 182; p. 114.
Car, Side-dump. H. J. Westinger. No. 1,038,045; Sept. 10; Gaz. vol. 182; p. 335.
Car-step, Adjustable. F. J. Haas. No. 1,037,475; Sept. 3; Gaz. vol. 182; p. 102.
Car support, Motor-. C. W. Schubert. No. 1,037,236; Sept. 3; Gaz. vol. 182; p. 52.
Car underframe, Dumping-. W. P. Bettendorf. No. 1,039,638; Sept. 24; Gaz. vol. 182; p. 924.
Car-unloading shovel. R. Hollingsworth. No. 1,038,586; Sept. 17; Gaz. vol. 182; p. 543.
Cars and the like, Dumping-lever for ore-. P. R. Stanhope. No. 1,038,674; Sept. 17; Gaz. vol. 182; p. 574.
Cars, Basket for passenger-. O. J. Messenger. No. 1,039,310; Sept. 24; Gaz. vol. 182; p. 810.
Cars, Speed-indicating equipment for railway-. A. B. Cadman. No. 1,037,962; Sept. 10; Gaz. vol. 182; p. 261.
Cars, Speed-measuring equipment for railway or other. A. P. Warner and A. B. Cadman. No. 1,038,509; Sept. 10; Gaz. vol. 182; p. 483.
Carbid-receptacle, Reserve. E. Miller. No. 1,038,982; Sept. 17; Gaz. vol. 182; p. 664.
Carbon article. C. A. Hansen. No. 1,037,901; Sept. 10; Gaz. vol. 182; p. 276.
Carbon-dioxid engine. C. A. Anderson. No. 1,037,190; Sept. 3; Gaz. vol. 182; p. 4.
Carburetor. J. W. Raymond. No. 1,037,824; Sept. 3; Gaz. vol. 182; p. 219.
Carburetor. G. W. Romans. No. 1,037,993; Sept. 10; Gaz. vol. 182; p. 306.
Carburetor. A. J. Weiss. No. 1,038,040; Sept. 10; Gaz. vol. 182; p. 322.
Carburetor. D. R. Wills. No. 1,038,050; Sept. 10; Gaz. vol. 182; p. 326.
Carburetor. M. R. Anstice. No. 1,038,362; Sept. 10; Gaz. vol. 182; p. 397.
Carburetor. J. Wilkinson. No. 1,038,660; Sept. 17; Gaz. vol. 182; p. 583.
Carburetor. J. D. Warren. No. 1,038,804; Sept. 17; Gaz. vol. 182; p. 620.
Carburetor. W. M. Martin. No. 1,038,921; Sept. 17; Gaz. vol. 182; p. 661.
Carburetor. F. H. Walker. No. 1,039,229; Sept. 24; Gaz. vol. 182; p. 790.
Carburetors, Automatic regulation for. E. P. Noyes. No. 1,037,833; Sept. 3; Gaz. vol. 182; p. 218.
Card-punching machine, Jacquard-. J. A. Groebli. No. 1,037,472; Sept. 3; Gaz. vol. 182; p. 101.
Carpet-sweeper brush adjustment. F. C. Mason and J. W. Shanahan. No. 1,038,170; Sept. 10; Gaz. vol. 182; p. 365.
Carriage. T. M. Shotts. No. 1,038,976; Sept. 17; Gaz. vol. 182; p. 673.
Carriage or go-cart, Baby-. A. J. Adams. No. 1,037,572; Sept. 3; Gaz. vol. 182; p. 134.
Carriage-top bow-coupling. E. R. Rhodes. No. 1,039,195; Sept. 24; Gaz. vol. 182; p. 766.
Carrier: *See* Baby-carrier; Brick-carrier; Feed-carrier; Mail-carrier; Pistol-holster carrier; Tube-carrier; Water-carrier.





Carrier-sections, Coupling device for. H. J. Buck. No. 1,038,542; Sept. 17; Gaz. vol. 182; p. 633.
Carrier's routing device, Rural-. J. W. Maupin. No. 1,037,782; Sept. 3; Gaz. vol. 182; p. 204.
Cartan, Folding. J. H. Carter. No. 1,039,036; Sept. 17; Gaz. vol. 182; p. 693.
Cartridge-feed belt. H. Bilgrum. No. 1,038,078; Sept. 10; Gaz. vol. 182; p. 336.
Cartridge-shell. L. A. and H. B. Sherman. No. 1,038,007; Sept. 10; Gaz. vol. 182; p. 312.
Case: *See* Bottle-case; Clock-case; Packing-case; Tire-case.
Casein derivatives and manufacture of same. R. Tambach. No. 1,037,695; Sept. 3; Gaz. vol. 182; p. 172.
Cash issuing, indicating, and registering apparatus. J. Planecki and F. Drobnink. No. 1,038,452; Sept. 10; Gaz. vol. 182; p. 456.
Cash-register. W. H. Muzzy. No. 1,037,967; Sept. 10; Gaz. vol. 182; p. 300.
Cash-register signaling device. M. Jacob. No. 1,037,917; Sept. 10; Gaz. vol. 182; p. 282.
Castings and the like, Shut-off head for. W. Wagner. No. 1,038,244; Sept. 10; Gaz. vol. 182; p. 390.
Caster. O. Pittack and A. B. Warman. No. 1,039,500; Sept. 24; Gaz. vol. 182; p. 907.
Caster-wheel. A. R. Clark. No. 1,037,866; Sept. 10; Gaz. vol. 182; p. 263.
Casting apparatus, Pressure. A. W. Morris. No. 1,038,173; Sept. 24; Gaz. vol. 182; p. 750.
Casting apparatus, Pressure. S. P. Wetherill, Jr., and A. W. Morris. No. 1,039,284; Sept. 24; Gaz. vol. 182; p. 782.
Castings, &c., Producing patterns for. M. Kelsey. No. 1,037,459; Sept. 3; Gaz. vol. 182; p. 106.
Cement, &c., Apparatus for filling bags with. J. S. Fasting. No. 1,037,824; Sept. 3; Gaz. vol. 182; p. 215.
Cement compound and making the same. E. Roy. No. 1,037,836; Sept. 3; Gaz. vol. 182; p. 219.
Cement reservoir. W. A. Boyce and S. Fisher. No. 1,039,091; Sept. 24; Gaz. vol. 182; p. 731.
Centering instrument. A. Dines. No. 1,038,729; Sept. 17; Gaz. vol. 182; p. 593.
Centrifugal dresser. A. R. Tattersall. No. 1,037,839; Sept. 3; Gaz. vol. 182; p. 220.
Centrifugal separator. W. H. Lawson. No. 1,038,097; Sept. 17; Gaz. vol. 182; p. 550.
Centrifugal separator. G. M. Duffle and W. A. Pruston. No. 1,038,731; Sept. 17; Gaz. vol. 182; p. 594.
Chair: *See* Adjustable chair; Collapsible chair; Nursery-chair; Rail-chair; Railway-chair.
Chair. R. S. Calef. No. 1,038,083; Sept. 10; Gaz. vol. 182; p. 337.
Chamber, Expansible. H. E. Oxnard. No. 1,038,686; Sept. 17; Gaz. vol. 182; p. 562.
Chandelier-support, Adjustable. R. Daugherty. No. 1,039,106; Sept. 24; Gaz. vol. 182; p. 726.
Chart, Guide-. J. Kindall. No. 1,039,822; Sept. 24; Gaz. vol. 182; p. 813.
Cheese-cutter, Computing. J. H. Osborne. No. 1,039,179; Sept. 24; Gaz. vol. 182; p. 761.
Chip-holder. W. P. Fernihme. No. 1,039,112; Sept. 24; Gaz. vol. 182; p. 729.
Chipping-machine. J. E. and T. Ray. No. 1,039,441; Sept. 24; Gaz. vol. 182; p. 854.
Chocolate compound and preparing the same. A. W. Chase. No. 1,038,723; Sept. 17; Gaz. vol. 182; p. 591.
Chopper: *See* Cotton-chopper; Stalk-chopper.
Chuck. L. E. Whiton. No. 1,037,385; Sept. 3; Gaz. vol. 182; p. 70.
Chuck. H. S. Hubbell. No. 1,038,755; Sept. 17; Gaz. vol. 182; p. 606.
Chuck, Core-. E. E. Richards. No. 1,037,988; Sept. 10; Gaz. vol. 182; p. 307.
Churn. L. Hofer. No. 1,037,624; Sept. 3; Gaz. vol. 182; p. 149.
Churn. J. W. Miller. No. 1,039,572; Sept. 24; Gaz. vol. 182; p. 902.
Cider-mill. E. W. Brooks. No. 1,037,736; Sept. 3; Gaz. vol. 182; p. 184.
Cigar-bunching machine. N. Weiss. No. 1,038,041; Sept. 10; Gaz. vol. 182; p. 323.
Cigar-lighter. G. S. Eldred. No. 1,038,735; Sept. 17; Gaz. vol. 182; p. 596.
Cigar-lighter, Electric. J. Leveen and M. L. Ashbaugh. No. 1,039,553; Sept. 24; Gaz. vol. 182; p. 895.
Cigars, Machine for forming covers for. E. N. Gilfillan. No. 1,039,046; Sept. 17; Gaz. vol. 182; p. 696.
Cigarette and match box, Combined. W. L. Gleason. No. 1,037,237; Sept. 3; Gaz. vol. 182; p. 21.
Cigarette-form retainer and holder. C. M. Callanan. No. 1,037,262; Sept. 10; Gaz. vol. 182; p. 262.
Circuit-controlling mechanism. F. Bechoff. No. 1,037,580; Sept. 3; Gaz. vol. 182; p. 136.
Cistern-cleaner, Vacuum. H. Stuchar. No. 1,039,209; Sept. 24; Gaz. vol. 182; p. 772.
Clamp: *See* Collar-clamp; Horseshoe-calk clamp; Wire-stretcher clamp.
Clarification system. C. Rumpf. No. 1,037,798; Sept. 3; Gaz. vol. 182; p. 207.
Clasp: *See* Package-clasp.
Classifying or grading apparatus. G. H. Stanley. No. 1,039,209; Sept. 24; Gaz. vol. 182; p. 772.
Cleaner: *See* Abrading-roll cleaner; Bag-cleaner; Bean-cleaner; Boar-pipe cleaner; Boiler-tube cleaner; Cistern-cleaner; Comb-cleaner; Grate-cleaner; Vacuum-cleaner.
Cleaning apparatus, Dry-. E. Y. White. No. 1,038,466; Sept. 10; Gaz. vol. 182; p. 470.
Cleaning compound. C. A. Nowak. No. 1,038,788; Sept. 17; Gaz. vol. 183; p. 613.
Cleaning system. A. B. Nicherson. No. 1,038,126; Sept. 10; Gaz. vol. 182; p. 376.
Cleaning and wiping device. C. E. Taylor and A. C. Webb. No. 1,038,231; Sept. 10; Gaz. vol. 182; p. 385.
Cleat, Antiskip. G. L. Pierce. No. 1,038,045; Sept. 17; Gaz. vol. 182; p. 564.
Clevis. G. P. Browning. No. 1,037,530; Sept. 3; Gaz. vol. 182; p. 139.
Clevis, Coupling-. H. P. Kinne. No. 1,037,926; Sept. 10; Gaz. vol. 182; p. 285.
Clip: *See* Sash-glazing clip.
Clock. W. H. Porter. No. 1,037,527; Sept. 3; Gaz. vol. 182; p. 119.
Clock. A. M. Yeakel. No. 1,037,705; Sept. 3; Gaz. vol. 182; p. 178.
Clock. A. McGugan and H. Spragg. No. 1,039,165; Sept. 24; Gaz. vol. 182; p. 756.
Clock case, Marine-. W. E. Porter. No. 1,039,439; Sept. 24; Gaz. vol. 182; p. 853.
Clock-controlled switch. T. A. Zimmerman. No. 1,037,710; Sept. 3; Gaz. vol. 182; p. 180.
Clock driving mechanism. J. Kuhn. No. 1,037,843; Sept. 3; Gaz. vol. 182; p. 157.
Clock-movements, Lock-work for. C. R. Simmons. No. 1,037,555; Sept. 3; Gaz. vol. 182; p. 128.
Closet: *See* Bread-proving closet; Water-closet.
Closet attachment. H. R. Klemig. No. 1,038,385; Sept. 10; Gaz. vol. 182; p. 439.
Cloth-board for winding fabrics thereon. J. H. Ackroyd. No. 1,038,061; Sept. 10; Gaz. vol. 182; p. 330.
Cloth-stretching machine. M. P. Hayward. No. 1,039,281; Sept. 24; Gaz. vol. 182; p. 800.
Clothes-hanger. D. D. Jones. No. 1,037,487; Sept. 3; Gaz. vol. 182; p. 106.
Clothes-line hand-reel. W. E. Hunsenid. No. 1,039,288; Sept. 24; Gaz. vol. 182; p. 802.
Clothes-line support. M. Ruth. No. 1,038,968; Sept. 17; Gaz. vol. 182; p. 675.
Clothes-pressing machine. D. C. Hale, Jr. No. 1,037,899; Sept. 10; Gaz. vol. 182; p. 275.
Clothes-sprinkler, Self-feeding. A. W. Tesch. No. 1,038,025; Sept. 10; Gaz. vol. 182; p. 319.
Clothes-wringer. J. Davies. No. 1,038,804; Sept. 10; Gaz. vol. 182; p. 411.
Clothing, Manufacture of. H. M. Lyles and B. Kranzberg. No. 1,037,945; Sept. 10; Gaz. vol. 182; p. 292.
Clutch. A. F. Walther. No. 1,038,083; Sept. 10; Gaz. vol. 182; p. 321.
Clutch. G. Bergmark. No. 1,039,351; Sept. 24; Gaz. vol. 182; p. 823.
Clutch. H. B. Savage. No. 1,039,595; Sept. 24; Gaz. vol. 182; p. 909.
Clutch-actuating mechanism. P. Daimler. No. 1,039,465; Sept. 24; Gaz. vol. 182; p. 873.
Clutch for loose pulleys, Friction-. H. T. Belden. No. 1,037,193; Sept. 3; Gaz. vol. 182; p. 5.
Clutch, Friction-. E. B. Disbrow. No. 1,037,876; Sept. 10; Gaz. vol. 182; p. 267.
Clutch, Magnetic. V. Hemming. No. 1,038,131; Sept. 10; Gaz. vol. 182; p. 352.
Clutch, Strap-. J. L. Morrow. No. 1,038,628; Sept. 17; Gaz. vol. 182; p. 559.
Clutch, Universal. J. Carl. No. 1,037,819; Sept. 3; Gaz. vol. 182; p. 213.
Coal-distributer. E. L. Vise and C. Denham. No. 1,038,241; Sept. 10; Gaz. vol. 182; p. 389.
Coat-armholes, Apparatus for stretching. J. Schlosser. No. 1,038,792; Sept. 17; Gaz. vol. 182; p. 616.
Coat-collar pattern. H. E. Western. No. 1,039,223; Sept. 24; Gaz. vol. 182; p. 782.
Cock, Balance-. W. W. Dudley. No. 1,037,741; Sept. 3; Gaz. vol. 182; p. 183.
Cock, Ball-. E. J. Kivell. No. 1,037,638; Sept. 3; Gaz. vol. 182; p. 155.
Cock, Ball-. E. S. Stack. No. 1,038,014; Sept. 10; Gaz. vol. 182; p. 315.
Cock, Gage-. L. W. Daniels. No. 1,039,652; Sept. 24; Gaz. vol. 182; p. 929.
Cock, Gas-. A. W. Grove and D. F. Andersen. No. 1,039,386; Sept. 24; Gaz. vol. 182; p. 836.
Cock lock, Gas-. G. A. Glass. No. 1,039,049; Sept. 17; Gaz. vol. 182; p. 699.
Cock, Stop-. H. E. Deckebach. No. 1,038,908; Sept. 10; Gaz. vol. 182; p. 412.
Cocks, Shield or protector for stop-. F. J. Gemunder. No. 1,037,612; Sept. 3; Gaz. vol. 182; p. 145.
Coffee-berries, Machine for removing pulp from. J. M. Urgellés. No. 1,038,081; Sept. 10; Gaz. vol. 182; p. 329.
Coffee-berries, Treating. J. M. Urgellés. No. 1,038,082; Sept. 10; Gaz. vol. 182; p. 331.
Coil-forming apparatus. M. Sandfield. No. 1,037,906; Sept. 10; Gaz. vol. 182; p. 309.
Coin-controlled lock. G. G. F. Boswell. No. 1,039,660; Sept. 24; Gaz. vol. 182; p. 731.
Coin counting and packaging device. A. Abbott. No. 1,037,405; Sept. 3; Gaz. vol. 182; p. 76.
Coin-distributing apparatus. H. A. Smith. No. 1,039,604; Sept. 24; Gaz. vol. 182; p. 912.
Coin-freed mechanism. C. E. Hibberd. No. 1,038,136; Sept. 10; Gaz. vol. 182; p. 354.

Coin-receptacle. I. M. Sharp. No. 1,037,551; Sept. 3; Gaz. vol. 182; p. 127.
Coin-selector. G. C. Reith and G. F. Finde. No. 1,038,055; Sept. 17; Gaz. vol. 182; p. 567.
Coin sorting and testing apparatus. S. Chigar. No. 1,038,202; Sept. 10; Gaz. vol. 182; p. 407.
Coin-sorting apparatus. A. U. Westfeldt. No. 1,037,568; Sept. 3; Gaz. vol. 182; p. 182.
Coin-wrapping machine. F. Hart. No. 1,038,261; Sept. 10; Gaz. vol. 182; p. 429.
Coke-oven system, Beehive. H. W. King. No. 1,038,762; Sept. 17; Gaz. vol. 182; p. 605.
Coking briquets, Apparatus for. P. Hein. No. 1,037,479; Sept. 3; Gaz. vol. 182; p. 104.
Collapsible chair and bag, Combined. J. M. Arnold. No. 1,039,078; Sept. 24; Gaz. vol. 182; p. 727.
Collar. S. Harris. No. 1,039,328; Sept. 24; Gaz. vol. 182; p. 806.
Collar. S. Harris. No. 1,039,680; Sept. 24; Gaz. vol. 182; p. 858.
Collar clamp, Horse-. T. Voigt. No. 1,037,574; Sept. 3; Gaz. vol. 182; p. 66.
Column-mold. P. A. and L. P. Dantanarica. No. 1,039,496; Sept. 24; Gaz. vol. 182; p. 874.
Comb: *See* Curry-comb.
Comb-cleaner. E. A. Harvey. No. 1,038,362; Sept. 10; Gaz. vol. 182; p. 429.
Combination-knife for cutting toothpicks. G. P. Stanley. No. 1,038,796; Sept. 17; Gaz. vol. 182; p. 618.
Composite system. O. T. Lademan. No. 1,038,005; Sept. 17; Gaz. vol. 182; p. 550.
Compound containing active oxygen and making same. G. F. Jaubert. No. 1,039,408; Sept. 24; Gaz. vol. 182; p. 843.
Compound or composition of matter and producing same. A. J. Rossi and W. F. Meredith. No. 1,039,672; Sept. 24; Gaz. vol. 182; p. 935.
Computing-machine. F. L. Manny. No. 1,038,774; Sept. 17; Gaz. vol. 182; p. 610.
Computing-table. J. J. Krause. No. 1,037,640; Sept. 3; Gaz. vol. 182; p. 156.
Concentrator. Slime-. W. F. Deister. No. 1,037,212; Sept. 3; Gaz. vol. 182; p. 12.
Concentrator-tables and applying the same, Protective covering for. E. A. Bayha. No. 1,037,579; Sept. 3; Gaz. vol. 182; p. 136.
Concrete-building mold. J. Stretch. No. 1,038,966; Sept. 17; Gaz. vol. 182; p. 681.
Concrete construction. C. W. Beverstock. No. 1,037,416; Sept. 3; Gaz. vol. 182; p. 80.
Concrete-handling apparatus. R. Welcher. No. 1,038,806; Sept. 17; Gaz. vol. 182; p. 620.
Concrete-making and aggregate-handling device. H. G. Butler. No. 1,037,861; Sept. 10; Gaz. vol. 182; p. 261.
Concrete-mixer. C. M. Whitney and H. C. Van Leuven. No. 1,038,698; Sept. 17; Gaz. vol. 182; p. 582.
Concrete piles, Cushion-head for. A. E. Eichler. No. 1,039,369; Sept. 24; Gaz. vol. 182; p. 829.
Concrete-pouring system. R. F. Taylor. No. 1,039,213; Sept. 24; Gaz. vol. 182; p. 774.
Concrete, Producing. H. J. Harms and G. E. Small. No. 1,038,125; Sept. 10; Gaz. vol. 182; p. 350.
Concrete railway-tie. A. T. Scott. No. 1,038,212; Sept. 10; Gaz. vol. 182; p. 379.
Concrete reinforcement. E. D. Pitt. No. 1,037,523; Sept. 3; Gaz. vol. 182; p. 118.
Concrete ties, Making hollow reinforced-. H. B. Leonard. No. 1,039,552; Sept. 24; Gaz. vol. 182; p. 894.
Condenser-scraper. H. P. Selick. No. 1,037,672; Sept. 3; Gaz. vol. 182; p. 167.
Conduit fish-wire machine. F. Crawford. No. 1,038,093; Sept. 10; Gaz. vol. 182; p. 340.
Conduit-machine. J. S. Wheeler and E. R. Ramsey. No. 1,039,341; Sept. 24; Gaz. vol. 182; p. 820.
Conduits, Holding-sleeve for. F. M. Brinckerhoff. No. 1,037,200; Sept. 3; Gaz. vol. 182; p. 3.
Connector. W. P. Hammond. No. 1,039,279; Sept. 24; Gaz. vol. 182; p. 799.
Container for retaining articles in a chilled or frozen condition. J. Fritsche. No. 1,039,506; Sept. 24; Gaz. vol. 182; p. 878.
Container for retaining articles in a heated condition. J. Fritsche. No. 1,039,507; Sept. 24; Gaz. vol. 182; p. 878.
Conveyer, Chain. F. R. Cornwall. No. 1,038,726; Sept. 17; Gaz. vol. 182; p. 592.
Conveyer, Gravity-. J. W. Anderson, Jr. No. 1,038,514; Sept. 17; Gaz. vol. 182; p. 518.
Conveyer, Lure-. O. P. Smith. No. 1,038,504; Sept. 10; Gaz. vol. 182; p. 480.
Cooker. J. Koppmann. No. 1,038,393; Sept. 10; Gaz. vol. 182; p. 441.
Cooking outfit, Field. C. A. Grover. No. 1,038,121; Sept. 10. Gaz. vol. 182; p. 348.
Cooler. R. C. Gildersleeve. No. 1,037,754; Sept. 3; Gaz. vol. 182; p. 193.
Cooler. A. E. Andersen. No. 1,038,511; Sept. 17; Gaz. vol. 182; p. 517.
Cooling device, Pneumatic. H. T. Sandstrom. No. 1,038,023; Sept. 10; Gaz. vol. 182; p. 318.
Coop, Chicken-. C. V. Hays. No. 1,038,552; Sept. 24; Gaz. vol. 182; p. 867.
Coop, Poultry-. L. D. Fowler. No. 1,039,113; Sept. 24; Gaz. vol. 182; p. 730.
Cop or bobbin. C. Ryden. No. 1,038,971; Sept. 17; Gaz. vol. 182; p. 677.
Copper Bushing. W. S. Rodney and H. Eldridge. No. 1,037,520; Sept. 3; Gaz. vol. 182; p. 122.
Copyholder-bracket, Bookrest- H. Sunderland. No. 1,039,466; Sept. 24; Gaz. vol. 182; p. 842.
Core. M. H. Fletcher. No. 1,038,630; Sept. 17; Gaz. vol. 182; p. 631.
Core, Cylinder-. F. H. Burt. No. 1,037,930; Sept. 10; Gaz. vol. 182; p. 269.
Core retainer or lifter. C. S. Proctor, N. Lifton, and J. Anderson. No. 1,038,436; Sept. 10; Gaz. vol. 182; p. 458.
Cork-bark-splitting machine. A. H. Blankenspiel. No. 1,038,372; Sept. 10; Gaz. vol. 182; p. 400.
Corkscrew, Mining-. R. Walker. No. 1,038,602; Sept. 17; Gaz. vol. 182; p. 561.
Corn, Curing and preserving sweet-. W. W. Wentworth. No. 1,037,823; Sept. 3; Gaz. vol. 182; p. 93.
Corn-pepper with detachable handle and lid. C. C. Cornwell. No. 1,039,261; Sept. 24; Gaz. vol. 182; p. 796.
Corn-rack. J. H. Brown. No. 1,039,209; Sept. 24; Gaz. vol. 182; p. 776.
Corn-sheller feeder. J. N. Kaffor. No. 1,039,203; Sept. 24; Gaz. vol. 182; p. 804.
Corner-protector. A. Priddle. No. 1,038,195; Sept. 10; Gaz. vol. 182; p. 373.
Cornstalk-cutter. W. C. Smith. No. 1,038,979; Sept. 17; Gaz. vol. 182; p. 679.
Corset-stay. W. H. Flaching. No. 1,038,107; Sept. 10; Gaz. vol. 182; p. 344.
Corsets, Front steels on. A. J. Locoutre. No. 1,037,490; Sept. 3; Gaz. vol. 182; p. 110.
Cotton, Apparatus for reclaiming waste. J. W. Shaughnessy. No. 1,037,240; Sept. 3; Gaz. vol. 182; p. 32.
Cotton-bell, Preserved. W. W. Gayle. No. 1,038,562; Sept. 17; Gaz. vol. 182; p. 595.
Cotton-chopper. G. W. Dowell, Jr. No. 1,038,540; Sept. 17; Gaz. vol. 182; p. 537.
Cotton-chopper. E. K. Moore. No. 1,039,431; Sept. 24; Gaz. vol. 182; p. 851.
Cotton-compress. F. Phelps. No. 1,038,420; Sept. 10; Gaz. vol. 182; p. 455.
Cotton-compress. M. M. Moda. No. 1,038,984; Sept. 17; Gaz. vol. 182; p. 668.
Cotton elevator and distributer. J. N. Blumburg and A. Nelson. No. 1,037,228; Sept. 3; Gaz. vol. 182; p. 14.
Cotton-gin. J. R. Purdyce. No. 1,038,111; Sept. 24; Gaz. vol. 182; p. 732.
Cotton, Machine for removing leaves and trash from seed-. O. C. Houghton. No. 1,039,402; Sept. 24; Gaz. vol. 182; p. 841.
Cotton-mercerizing machine, Revolver. J. Kleinewefers. No. 1,038,152; Sept. 10; Gaz. vol. 182; p. 369.
Cotton-picker. P. P. McCoig. No. 1,038,525; Sept. 17; Gaz. vol. 182; p. 663.
Cotton picker or harvester. M. Prior. No. 1,038,956; Sept. 17; Gaz. vol. 182; p. 672.
Couch and folding bed, Combined. E. C. Fisher. No. 1,037,227; Sept. 3; Gaz. vol. 182; p. 17.
Counter. C. H. Veeder. No. 1,038,227; Sept. 24; Gaz. vol. 182; p. 779.
Counter. J. G. Biggar. No. 1,039,485; Sept. 24; Gaz. vol. 182; p. 870.
Counting-machine. R. A. Melton. No. 1,039,166; Sept. 24; Gaz. vol. 182; p. 757.
Coupling: *See* Car-coupling; Carriage-top bow-coupling; Flexible coupling; Hose-coupling; Hose-pipe coupling; Pipe-coupling; Railway-rail coupling; Rod-coupling; Shaft-coupling; Thill-coupling; Tool-coupling; Trip-coupling.
Coupling and clamp, Combined. A. Sobey. No. 1,038,012; Sept. 10; Gaz. vol. 182; p. 314.
Cover. A. Johnson. No. 1,038,591; Sept. 17; Gaz. vol. 182; p. 545.
Cover, Vessel-. O. Kampfe. No. 1,039,140; Sept. 24; Gaz. vol. 182; p. 748.
Covers, Combined protective shield and attaching device for receptacle-. J. Schaffer. No. 1,038,001; Sept. 10; Gaz. vol. 182; p. 310.
Covering or re-covering surfaces. G. Dunmore. No. 1,037,743; Sept. 3; Gaz. vol. 182; p. 189.
Crate-corner lock. J. Mathy. No. 1,038,928; Sept. 17; Gaz. vol. 182; p. 662.
Crate, Foldable shipping-. M. Shepard. No. 1,039,452; Sept. 24; Gaz. vol. 182; p. 856.
Crimping-machines, Roller spinning-disk for. G. W. Randle. No. 1,038,715; Sept. 17; Gaz. vol. 182; p. 590.
Cross-head. M. D. Joyner. No. 1,037,833; Sept. 3; Gaz. vol. 182; p. 183.
Cross-tie, Steel-. W. M. Scott. No. 1,039,566; Sept. 24; Gaz. vol. 182; p. 910.
Crossover-switch. F. Fink and L. F. Rez. No. 1,039,041; Sept. 17; Gaz. vol. 182; p. 697.
Crusher. H. Lechtenberg. No. 1,039,062; Sept. 17; Gaz. vol. 182; p. 704.
Crusher or pulverizer adjusting mechanism. M. F. Williams. No. 1,039,623; Sept. 24; Gaz. vol. 182; p. 919.
Crushing-machine. J. M. Sholl. No. 1,038,794; Sept. 17; Gaz. vol. 182; p. 616.
Cultivating or plowing land, Implement for. T. C. Darby. No. 1,039,098; Sept. 17; Gaz. vol. 182; p. 699.
Cultivator. J. W. Jennings. No. 1,037,484; Sept. 3; Gaz. vol. 182; p. 103.





Cultivator-fender. D. J. Orton. No. 1,037,554; Sept. 3; Gaz. vol. 182; p. 129.
Cultivator-fender adjuster. W. H. Fox. No. 1,037,599; Sept. 3; Gaz. vol. 182; p. 144.
Cultivator, Motor-driven hand-. S. G. Stevens. No. 1,038,424; Sept. 10; Gaz. vol. 182; p. 455.
Cultivator, planter attachment. J. F. Bradford. No. 1,037,736; Sept. 3; Gaz. vol. 182; p. 183.
Cultivator-shovel. J. P. Stamm. No. 1,037,935; Sept. 3; Gaz. vol. 182; p. 59.
Culvert-pipe. F. R. Hay. No. 1,037,709; Sept. 3; Gaz. vol. 182; p. 179.
Cup: *See* Drinking-cup; Jewel-cup; Oil-cup.
Cupboard and ironing-board, Combined. A. G. L. Schwartz and J. Geiger. No. 1,038,447; Sept. 10; Gaz. vol. 182; p. 462.
Curb and gutter form. J. H. Heitzel. No. 1,037,897; Sept. 10; Gaz. vol. 182; p. 279.
Current converter, Continuous-. W. Alberg. No. 1,038,664; Sept. 10; Gaz. vol. 182; p. 821.
Current distributer and timer. J. M. Smith. No. 1,038,451; Sept. 10; Gaz. vol. 182; p. 463.
Current-interrupter. E. S. Beck. No. 1,039,611; Sept. 17; Gaz. vol. 182; p. 699.
Current motor, Alternating-. K. H. Gyr. No. 1,039,267; Sept. 24; Gaz. vol. 182; p. 836.
Current-motor. W. C. Howland. No. 1,037,255; Sept. 3; Gaz. vol. 182; p. 27.
Current-motor. O. D. Booth. No. 1,039,667; Sept. 24; Gaz. vol. 182; p. 730.
Current motor, Alternating-. V. A. Fynn. No. 1,038,237; Sept. 10; Gaz. vol. 182; p. 422.
Current motor, Alternating-. V. A. Fynn. No. 1,038,238; Sept. 10; Gaz. vol. 182; p. 422.
Current rectifier, Alternating-. C. P. Steinmetz. No. 1,037,550; Sept. 3; Gaz. vol. 182; p. 120.
Curry-comb. J. W. Black. No. 1,038,273; Sept. 10; Gaz. vol. 182; p. 401.
Curtain-bracket. J. F. Sofranko. No. 1,039,006; Sept. 24; Gaz. vol. 182; p. 918.
Curtain-pole. H. A. Anderson. No. 1,037,946; Sept. 10; Gaz. vol. 182; p. 286.
Curtain-pole. C. Hellmich. No. 1,037,996; Sept. 10; Gaz. vol. 182; p. 278.
Curtain-roller, Reinforced. W. H. Forsyth. No. 1,037,896; Sept. 10; Gaz. vol. 182; p. 270.
Curtain-stretcher. N. G. Harper. No. 1,039,053; Sept. 17; Gaz. vol. 182; p. 701.
Curtain-stretcher. C. G. Carlson. No. 1,039,095; Sept. 24; Gaz. vol. 182; p. 732.
Curtain-support. C. F. Laun. No. 1,037,936; Sept. 10; Gaz. vol. 182; p. 286.
Curtains or the like, Means for hanging. C. B. White. No. 1,038,243; Sept. 24; Gaz. vol. 182; p. 821.
Cushion: *See* Bath-cushion; Pneumatic cushion.
Cuspidor and the like, Sanitary. B. "J" Wilson and W. B. Cowan. No. 1,037,700; Sept. 3; Gaz. vol. 182; p. 176.
Cutter: *See* Band-cutter; Boot-top cutter; Bread-cutter; Cheese-cutter; Cornstalk-cutter; Rod-cutter; Thread-cutter.
Cutter-holder for cutter-heads. H. C. Hartzell. No. 1,039,054; Sept. 17; Gaz. vol. 182; p. 701.
Cutting and stamping machine. C. C. Gibson. No. 1,038,741; Sept. 17; Gaz. vol. 182; p. 598.
Cutting device. R. W. Jolly. No. 1,038,896; Sept. 17; Gaz. vol. 182; p. 652.
Cutting, Tool for radially-movable blades for circular. F. A. Babcock. No. 1,038,819; Sept. 17; Gaz. vol. 182; p. 626.
Cyanid-cylinder. H. B. Meade. No. 1,038,173; Sept. 10; Gaz. vol. 182; p. 364.
Cycle saddle, Motor-. H. Messinger. No. 1,037,287; Sept. 3; Gaz. vol. 182; p. 36.
Damper, Automatic spring-. M. F. Gibbons. No. 1,039,512; Sept. 24; Gaz. vol. 182; p. 880.
Dash-pot. A. C. Livermore. No. 1,039,585; Sept. 24; Gaz. vol. 182; p. 895.
Decorticating-machine. H. W. Gabbett-Fairfax. No. 1,038,339; Sept. 10; Gaz. vol. 182; p. 422.
Defibrating-machine. R. A. Wilson. No. 1,037,389; Sept. 3; Gaz. vol. 182; p. 71.
Delivering apparatus. J. N. Johnson. No. 1,037,629; Sept. 3; Gaz. vol. 182; p. 151.
Dental handpieces, Angle attachment for. J. A. MacDonald. No. 1,039,420; Sept. 24; Gaz. vol. 182; p. 847.
Dental mold. R. C. Moll. No. 1,037,963; Sept. 10; Gaz. vol. 182; p. 292.
Dental porcelain. Casting device for. J. F. and W. G. Alexander. No. 1,038,062; Sept. 10; Gaz. vol. 182; p. 321.
Desiccating apparatus. J. C. MacLachlan. No. 1,038,773; Sept. 17; Gaz. vol. 182; p. 600.
Designs, Device for making. L. L. Allen. No. 1,039,474; Sept. 24; Gaz. vol. 182; p. 866.
Desk-pad. M. W. Plate. No. 1,037,697; Sept. 3; Gaz. vol. 182; p. 144.
Detective-apparatus. A. G. Hamilton. No. 1,038,295; Sept. 10; Gaz. vol. 182; p. 417.
Developing apparatus. S. Pratt. No. 1,039,190; Sept. 24; Gaz. vol. 182; p. 766.
Development apparatus. J. Bardsley. No. 1,039,010; Sept. 17; Gaz. vol. 182; p. 690.
Diamonds, Boring-die and polishing perforated. L. Poppe. No. 1,038,182; Sept. 24; Gaz. vol. 182; p. 764.
Die: *See* Pipe-threading die; Threading-die.
Die and casting. E. C. Hoan. No. 1,038,320; Sept. 17; Gaz. vol. 182; p. 541.
Dies and dolly. F. A. Gill. No. 1,039,280; Sept. 24; Gaz. vol. 182; p. 824.
Digger: *See* Post-hole digger; Root-digger.
Disk, Carving-. W. J. Fitz. No. 1,037,947; Sept. 17; Gaz. vol. 182; p. 664.
Dispensing apparatus. G. A. Spratt. No. 1,037,931; Sept. 3; Gaz. vol. 182; p. 170.
Display apparatus. E. Kohn. No. 1,038,930; Sept. 17; Gaz. vol. 182; p. 663.
Ditching-machine. P. J. Lybeck. No. 1,038,915; Sept. 17; Gaz. vol. 182; p. 658.
Ditching-machine. E. Y. Kessler. No. 1,039,612; Sept. 24; Gaz. vol. 182; p. 844.
Ditch. R. M. Zimmerman. No. 1,038,668; Sept. 10; Gaz. vol. 182; p. 329.
Ditch, W. B. Pearson. No. 1,038,590; Sept. 17; Gaz. vol. 182; p. 544.
Door and the like, Hollow metal. A. J. Hills. No. 1,038,271; Sept. 24; Gaz. vol. 182; p. 830.
Door and the like, Sheet-metal. A. Johnson. No. 1,038,292; Sept. 24; Gaz. vol. 182; p. 806.
Door-bolt, Safety. B. F. Foss. No. 1,038,111; Sept. 10; Gaz. vol. 182; p. 345.
Door-check. J. Koch, Jr. No. 1,037,641; Sept. 3; Gaz. vol. 182; p. 156.
Door check and lock, Combined. E. von Gunten. No. 1,037,577; Sept. 3; Gaz. vol. 182; p. 67.
Door-frame. C. P. Vernier. No. 1,038,994; Sept. 17; Gaz. vol. 182; p. 684.
Door, Grain-. C. W. White. No. 1,038,606; Sept. 17; Gaz. vol. 182; p. 562.
Door-hanger. J. T. McCabe. No. 1,038,802; Sept. 10; Gaz. vol. 182; p. 436.
Door-hanger. J. F. Murphy. No. 1,038,938; Sept. 17; Gaz. vol. 182; p. 664.
Door-hanger. L. A. Bittorf. No. 1,039,246; Sept. 24; Gaz. vol. 182; p. 788.
Door, Hollow metal. A. J. Hills and C. B. Nellis. No. 1,038,270; Sept. 24; Gaz. vol. 182; p. 830.
Door-lock. G. Sahmer. No. 1,038,662; Sept. 17; Gaz. vol. 182; p. 570.
Door lock and signal. N. Stiverson. No. 1,037,674; Sept. 3; Gaz. vol. 182; p. 168.
Door-lock, Pneumatic. J. C. Maestick. No. 1,038,684; Sept. 17; Gaz. vol. 182; p. 587.
Door-lock, Springless. C. Brown. No. 1,037,588; Sept. 3; Gaz. vol. 182; p. 118.
Door opening and closing mechanism. F. Knight. No. 1,037,267; Sept. 3; Gaz. vol. 182; p. 30.
Door operating and locking device, Combined. F. M. Brinckerhoff. No. 1,038,837; Sept. 17; Gaz. vol. 182; p. 622.
Door-operating mechanism. T. J. Heron. No. 1,039,393; Sept. 24; Gaz. vol. 182; p. 838.
Door operator and lock. T. H. Garland. No. 1,037,393; Sept. 10; Gaz. vol. 182; p. 272.
Door safety-bolt. F. X. Hofbauer. No. 1,038,752; Sept. 17; Gaz. vol. 182; p. 602.
Door-securer. B. F. Vincent. No. 1,038,690; Sept. 17; Gaz. vol. 182; p. 580.
Door-securing device. I. G. Dodge. No. 1,037,457; Sept. 3; Gaz. vol. 182; p. 66.
Door-securing device. J. Kelly. No. 1,038,897; Sept. 17; Gaz. vol. 182; p. 652.
Door, Silo-. J. M. Moore. No. 1,037,963; Sept. 10; Gaz. vol. 182; p. 298.
Door-stop. A. A. Coffin. No. 1,037,439; Sept. 3; Gaz. vol. 182; p. 89.
Door-stop. F. W. Stanton. No. 1,039,461; Sept. 24; Gaz. vol. 182; p. 861.
Doors, Fluid-pressure apparatus for operating bulkhead and other. F. J. Pike and H. Neville. No. 1,039,155; Sept. 24; Gaz. vol. 182; p. 764.
Double-jaw friction-grip clamp. F. Thomas. No. 1,037,560; Sept. 3; Gaz. vol. 182; p. 130.
Doubletree, Three-horse. H. E. Bridgman. No. 1,038,630; Sept. 17; Gaz. vol. 182; p. 602.
Dough, Device for denoting expansion of. G. I. Anderson. No. 1,037,714; Sept. 3; Gaz. vol. 182; p. 180.
Dough-raiser. F. T. Lambke. No. 1,039,551; Sept. 24; Gaz. vol. 182; p. 884.
Dough-rounding machine. J. J. Shupe. No. 1,037,343; Sept. 3; Gaz. vol. 182; p. 54.
Dough-rounding machine. H. M. Ruffin. No. 1,037,797; Sept. 3; Gaz. vol. 182; p. 207.
Draft attachment. W. W. White. No. 1,038,607; Sept. 17; Gaz. vol. 182; p. 562.
Draft-equalizer. F. Hamm. No. 1,037,618; Sept. 3; Gaz. vol. 182; p. 147.
Draft-equalizer. N. B. Krangness. No. 1,037,980; Sept. 10; Gaz. vol. 182; p. 287.
Draft-equalizer. W. S. Nichols. No. 1,038,632; Sept. 17; Gaz. vol. 182; p. 560.
Draft-equalizer. W. W. Cameron. No. 1,039,258; Sept. 24; Gaz. vol. 182; p. 790.
Drag attachment. E. C. Gledhill. No. 1,039,261; Sept. 24; Gaz. vol. 182; p. 854.
Drag, Road-. W. Stoops. No. 1,038,456; Sept. 10; Gaz. vol. 182; p. 462.
Drawer-slide. J. J. Rooney. No. 1,037,542; Sept. 3; Gaz. vol. 182; p. 124.
Drawer, Sliding. K. Kral. No. 1,039,548; Sept. 24; Gaz. vol. 182; p. 883.

Drawer-stop. V. C. Luppert. No. 1,039,557; Sept. 24; Gaz. vol. 182; p. 895.
Drawer-support. E. M. Wirts. No. 1,037,762; Sept. 3; Gaz. vol. 182; p. 177.
Drawing instrument. J. W. Whalen. No. 1,038,998; Sept. 17; Gaz. vol. 182; p. 692.
Drawing instrument. C. Hill. No. 1,039,037; Sept. 17; Gaz. vol. 182; p. 702.
Dredger, Suction and pressure. P. Van Wieren. No. 1,038,049; Sept. 10; Gaz. vol. 182; p. 328.
Dress, Lady's. I. Lefkowitz. No. 1,037,270; Sept. 3; Gaz. vol. 182; p. 31.
Dress, Woman's reversible-front house. W. C. P. Baldwin. No. 1,039,632; Sept. 24; Gaz. vol. 182; p. 922.
Drier. J. G. Pierce. No. 1,038,952; Sept. 17; Gaz. vol. 182; p. 671.
Drier. R. D. Greene. No. 1,039,335; Sept. 24; Gaz. vol. 182; p. 835.
Drier. G. E. Scott. No. 1,039,449; Sept. 24; Gaz. vol 182; p. 857.
Dry-kiln for lumber. J. M. Leaver. No. 1,039,301; Sept. 24; Gaz. vol. 182; p. 807.
Dry-kiln for lumber. J. M. Leaver. No. 1,039,302; Sept. 24; Gaz. vol. 182; p. 807.
Drying and bleaching. J. D. Tompkins. No. 1,037,370; Sept. 3; Gaz. vol. 182; p. 64.
Drying apparatus. H. S. Hopkins. No. 1,037,254; Sept. 3; Gaz. vol. 182; p. 27.
Drying-kiln. E. Abernethy. No. 1,038,709; Sept. 17; Gaz. vol. 182; p. 586.
Drill: *See* Grain-drill; Seed-drill.
Drill. R. B. Crump and W. M. Robertson. No. 1,037,449; Sept. 3; Gaz. vol. 182; p. 93.
Drinking-cup, Collapsible. H. F. Remgstorf. No. 1,037,935; Sept. 10; Gaz. vol. 182; p. 306.
Drinking-fountain. T. E. Lindsay. No. 1,038,899; Sept. 10; Gaz. vol. 182; p. 443.
Drinking-fountain. P. J. Madden. No. 1,038,916; Sept. 17; Gaz. vol. 182; p. 659.
Drinking-fountain. W. Mueller. No. 1,038,937; Sept. 17; Gaz. vol. 182; p. 666.
Drinking-fountain, Sanitary. A. E. Summers. No. 1,038,021; Sept. 10; Gaz. vol. 182; p. 317.
Drinking-fountain, Sanitary. J. H. Ashton. No. 1,038,817; Sept. 17; Gaz. vol. 182; p. 625.
Driving connection. E. A. Wolfe and H. W. Gilbert. No. 1,037,898; Sept. 3; Gaz. vol. 182; p. 72.
Driving device, Frictional. W. J. Hardy. No. 1,039,125; Sept. 24; Gaz. vol. 182; p. 743.
Driving mechanism, Reversible. R. H. Johnson. No. 1,037,922; Sept. 10; Gaz. vol. 182; p. 284.
Dropper: *See* Grain-dropper.
Drum, Heating-. C. F. Peterson. No. 1,037,306; Sept. 3; Gaz. vol. 182; p. 43.
Dust-receptacle. T. B. Mitchell. No. 1,038,413; Sept. 10; Gaz. vol. 182; p. 449.
Dust-separator. L. Andersen. No. 1,039,006; Sept. 17; Gaz. vol. 182; p. 689.
Dust-separator for vacuum-cleaners. R. E. Smith. No. 1,038,223; Sept. 10; Gaz. vol. 182; p. 352.
Dye and making same, Anthracene. O. Bally. No. 1,037,410; Sept. 3; Gaz. vol. 182; p. 78.
Dye, Anthracene. A. Jacobi. No. 1,038,589; Sept. 17; Gaz. vol. 182; p. 544.
Dye, Azo. W. Herzberg and O. Scharfenberg. No. 1,038,884; Sept. 17; Gaz. vol. 182; p. 647.
Dyes, Azo. H. Schweitzer and A. Zart. No. 1,038,210; Sept. 10; Gaz. vol. 182; p. 378.
Dyes, Polyazo. H. Schweitzer and A. Zart. No. 1,038,209; Sept. 10; Gaz. vol. 182; p. 377.
Easel. J. J. Hannerty. No. 1,038,126; Sept. 10; Gaz. vol. 182; p. 350.
Educational device. S. H. Fanning. No. 1,038,832; Sept. 10; Gaz. vol. 182; p. 420.
Egg-marking attachment for hens. A. Kurre. No. 1,037,644; Sept. 3; Gaz. vol. 182; p. 157.
Elastic wheel. L. A. Hubert. No. 1,039,558; Sept. 24; Gaz. vol. 182; p. 889.
Electric-conductor connector. H. F. Maxim. No. 1,039,422; Sept. 24; Gaz. vol. 182; p. 848.
Electric-conductor connector. H. F. Maxim. No. 1,039,423; Sept. 24; Gaz. vol. 182; p. 848.
Electric-conductor connector. H. F. Maxim. No. 1,039,424; Sept. 24; Gaz. vol. 182; p. 848.
Electric controller. G. B. Dusinberre. No. 1,038,320; Sept. 10; Gaz. vol. 182; p. 416.
Electric-controller device. J. F. Miller and W. V. Turner. No. 1,039,170; Sept. 24; Gaz. vol. 182; p. 757.
Electric-current generator. J. M. Wilson. No. 1,038,254; Sept. 10; Gaz. vol. 182; p. 394.
Electric fixture. A. R. Lockwood. No. 1,039,556; Sept. 24; Gaz. vol. 182; p. 896.
Electric generator, Variable-speed. C. H. Roth and W. J. Warder, Jr. No. 1,039,197; Sept. 24; Gaz. vol. 182; p. 769.
Electric heater. C. H. Allen. No. 1,037,573; Sept. 3; Gaz. vol. 182; p. 154.
Electric heater. F. Kuhn and F. E. Shailor. No. 1,037,982; Sept. 10; Gaz. vol. 182; p. 227.
Electric heater. F. P. Mies. No. 1,038,410; Sept. 10; Gaz. vol. 182; p. 449.
Electric impulses, Electrocapillary instrument for detecting and recording the passage of. J. Oring. No. 1,037,972; Sept. 10; Gaz. vol. 182; p. 3[illegible].
Electric-light socket. F. T. Moreland and P. H. Peterson. No. 1,038,415; Sept. 10; Gaz. vol. 182; p. 450.
Electric lighting or heating. Current-regulating device or resistance applicable for. W. Sumner. No. 1,037,885; Sept. 3; Gaz. vol. 182; p. 171.
Electric machine, Alternating-current commutator dynamo-. W. Rudolfsky. No. 1,038,661; Sept. 17; Gaz. vol. 182; p. 640.
Electric machine, Dynamo-. L. W. Nelson. No. 1,038,494; Sept. 10; Gaz. vol. 182; p. 477.
Electric machine, High-tension magneto-. W. O. Kennington. No. 1,039,543; Sept. 24; Gaz. vol. 182; p. 891.
Electric melting-furnace. W. D. Ledwick. No. 1,038,614; Sept. 17; Gaz. vol. 182; p. 552.
Electric metering apparatus. F. W. Roller. No. 1,038,659; Sept. 17; Gaz. vol. 182; p. 566.
Electric motor. H. I. Finch. No. 1,039,110; Sept. 24; Gaz. vol. 182; p. 758.
Electric push-button switch. J. Brunner. No. 1,039,644; Sept. 24; Gaz. vol. 182; p. 926.
Electric signal. C. C. Blake. No. 1,039,247; Sept. 24; Gaz. vol. 182; p. 788.
Electric signal and train control. J. H. Saner and H. W. Cambell. No. 1,039,234; Sept. 24; Gaz. vol. 182; p. 614.
Electric switch. H. J. Morey and F. A. Bregden. No. 1,037,994; Sept. 10; Gaz. vol. 182; p. 290.
Electric switch. A. F. Wallbillich. No. 1,038,996; Sept. 17; Gaz. vol. 182; p. 695.
Electric switch, Push-button. H. Caben. No. 1,038,264; Sept. 10; Gaz. vol. 182; p. 404.
Electric switches, Pneumatic blow-out for. E. H. Dawson. No. 1,039,264; Sept. 24; Gaz. vol. 182; p. 794.
Electric time-switch. W. J. Brown. No. 1,037,818; Sept. 3; Gaz. vol. 182; p. 213.
Electrical apparatus. T. F. Croker. No. 1,037,447; Sept. 3; Gaz. vol. 182; p. 92.
Electrical connections, Lock-snap contact for making. J. O. Heinze, Jr. No. 1,039,352; Sept. 24; Gaz. vol. 182; p. 833.
Electrical connector. W. O. Kennington. No. 1,039,542; Sept. 24; Gaz. vol. 182; p. 891.
Electrical resistance. E. Thomson. No. 1,039,463; Sept. 24; Gaz. vol. 182; p. 862.
Electrical rosette. W. J. Gagnon. No. 1,038,670; Sept. 24; Gaz. vol. 182; p. 939.
Electrical switch. M. D. Greengard. No. 1,038,567; Sept. 17; Gaz. vol. 182; p. 596.
Electrical switch, Disconnecting. D. C. Hosher. No. 1,039,129; Sept. 24; Gaz. vol. 182; p. 744.
Electricity-meter. G. M. Willis. No. 1,038,467; Sept. 24; Gaz. vol. 182; p. 863.
Electrode. O. Schlababer and J. Hemberger. No. 1,038,208; Sept. 10; Gaz. vol. 182; p. 377.
Electrode, Arc-light. E. J. Guay. No. 1,038,522; Sept. 24; Gaz. vol. 182; p. 884.
Electrodes, Manufacturing. R. W. Davis, Jr. No. 1,039,034; Sept. 17; Gaz. vol. 182; p. 696.
Electrodes, Manufacturing metallic-oxid. R. W. Davis, Jr. No. 1,039,071; Sept. 17; Gaz. vol. 182; p. 706.
Electrolysis, Diaphragm for. O. Diefenbach. No. 1,039,266; Sept. 24; Gaz. vol. 182; p. 795.
Electrolysis of liquids. J. Billiter. No. 1,037,885; Sept. 3; Gaz. vol. 182; p. 127.
Electromagnet. D. L. Lindquist. No. 1,038,610; Sept. 17; Gaz. vol. 182; p. 551.
Electrotype-molds, Metallizing. H. B. Goldberg. No. 1,037,499; Sept. 3; Gaz. vol. 182; p. 100.
Elevator: *See* Cotton-elevator; Package-elevator; Safety-elevator.
Elevator. C. A. Sturm. No. 1,038,020; Sept. 10; Gaz. vol. 182; p. 317.
Elevator-brake. J. Hill. No. 1,039,284; Sept. 24; Gaz. vol. 182; p. 801.
Elevator-bucket. F. G. Lawyer. No. 1,038,606; Sept. 17; Gaz. vol. 182; p. 551.
Elevator cars or cages, Guide for. O. D. McClure. No. 1,037,282; Sept. 3; Gaz. vol. 182; p. 34.
Elevator-door guard. L. Christiansen. No. 1,039,007; Sept. 24; Gaz. vol. 182; p. 734.
Elevator-gate mechanism, Electrically-operable open-at-will. W. H. Kienker. No. 1,037,687; Sept. 3; Gaz. vol. 182; p. 154.
Elevator guide-rails, Device for lubricating. J. F. MacIndoe. No. 1,038,166; Sept. 10; Gaz. vol. 182; p. 364.
Elevator or conveyer. P. G. Donald and M. H. Matthews. No. 1,039,499; Sept. 24; Gaz. vol. 182; p. 878.
Elevator safety device. H. G. Tessmer. No. 1,039,073; Sept. 17; Gaz. vol. 182; p. 706.
Elevator safety device. J. Hill. No. 1,039,283; Sept. 24; Gaz. vol. 182; p. 801.
Embroidering-machine safety mechanism. J. A. Grosbli. No. 1,037,471; Sept. 3; Gaz. vol. 182; p. 101.
Embroidery-hoop. M. L. Keagy. No. 1,038,141; Sept. 24; Gaz. vol. 182; p. 749.
Enciphering and deciphering messages, Machine for. R. W. Fuller. No. 1,038,556; Sept. 17; Gaz. vol. 182; p. 588.
End-gate. D. W. Shaw. No. 1,037,241; Sept. 3; Gaz. vol. 182; p. 54.
End-gate, Wagon. C. I. Johnson. No. 1,037,628; Sept. 3; Gaz. vol. 182; p. 131.
End-gate, Wagon. A. J. Tilley. No. 1,038,969; Sept. 17; Gaz. vol. 182; p. 683.





Engine: *See* Carbon-dioxid engine; Explosive-engine; Gas-engine; Hot-air engine; Internal-combustion engine; Locomotive-engine; Logging-engine; Reciprocating engine; Reversible two-cycle rotary engine; Rope-engine; Rotary engine; Rotary explosive-engine; Rotary steam-engine; Steam-engine; Traction-engine.
Engine. G. A. Lowry. No. 1,038,812; Sept. 17; Gaz. vol. 182; p. 552.
Engine. J. W. Moore and W. A. Browne. No. 1,038,789; Sept. 17; Gaz. vol. 182; p. 613.
Engine construction. J. T. Rydberg. No. 1,038,970; Sept. 17; Gaz. vol. 182; p. 676.
Engine control, Automatic. J. J. Ripper and J. Hernandez. No. 1,037,661; Sept. 3; Gaz. vol. 182; p. 162.
Engine cylinder, Gas-. A. T. and A. B. Titus. No. 1,038,695; Sept. 17; Gaz. vol. 182; p. 573.
Engine indicator, Explosive-. H. W. Goodnow. No. 1,037,230; Sept. 3; Gaz. vol. 182; p. 21.
Engine safety starting device, Internal-combustion-. J. M. Rhett. No. 1,038,321; Sept. 24; Gaz. vol. 182; p. 818.
Engine sparking-regulator, Internal-combustion-. C. W. Hutchinson. No. 1,040,407; Sept. 24; Gaz. vol. 182; p. 943.
Engine-starter. J. C. Henderson. No. 1,038,132; Sept. 10; Gaz. vol. 182; p. 352.
Engine-starter. E. M. Card. No. 1,038,284; Sept. 10; Gaz. vol. 182; p. 405.
Engine-starter, J. A. Germeaprez. No. 1,038,118; Sept. 24; Gaz. vol. 182; p. 741.
Engine-starter. F. Briggs. No. 1,039,267; Sept. 24; Gaz. vol. 182; p. 825.
Engine starter, Internal-combustion-. B. Velkmar. No. 1,037,376; Sept. 3; Gaz. vol. 182; p. 67.
Engine-starting device. J. O. Roberts and J. W. Munn. No. 1,037,063; Sept. 3; Gaz. vol. 182; p. 164.
Engine starting device. Explosive-. P. C. Hayes. No. 1,039,127; Sept. 24; Gaz. vol. 182; p. 749.
Engine-starting device, Gas-. R. C. Hiller and D. W. Wade. No. 1,037,632; Sept. 3; Gaz. vol. 182; p. 149.
Engine-starting device, Gas-. H. Williams. No. 1,039,237; Sept. 24; Gaz. vol. 182; p. 784.
Engine-starting device, Internal-combustion-. B. H. Muntz. No. 1,037,643; Sept. 3; Gaz. vol. 182; p. 160.
Engine-starting device, Internal-combustion-. R. W. Long and G. Burens. No. 1,038,491; Sept. 10; Gaz. vol. 182; p. 444.
Engine-starting device, Internal-combustion-. O. Freschmi. No. 1,039,804; Sept. 24; Gaz. vol. 182; p. 877.
Engine warp device. A. Gale. No. 1,038,287; Sept. 17; Gaz. vol. 182; p. 641.
Engine timer, Explosive-. A. B. Youngren. No. 1,037,401; Sept. 3; Gaz. vol. 182; p. 75.
Engines and self-propelled vehicles, Starter for explosive-. D. B Gardner. No. 1,037,466; Sept. 3; Gaz. vol. 182; p. 96.
Engines, Counting apparatus for the indicated output of pistons-. A. F. C. Böttcher and L. W. Lehmann. No. 1,039,599; Sept. 24; Gaz. vol. 182; p. 780.
Engines, Cylinder and piston construction for internal-combustion. W. M. Upchurch. No. 1,038,236; Sept. 10; Gaz. vol. 182; p. 388.
Engines, Electric ignition system for internal-combustion. J. L. Milton. No. 1,039,171; Sept. 24; Gaz. vol. 182; p. 758.
Engines, Electrical appliance for gas-. J. W. Jepson. No. 1,037,495; Sept. 3; Gaz. vol. 182; p. 105.
Engines, Means for the prevention of racing of marine. F. Tanner. No. 1,038,460; Sept. 10; Gaz. vol. 182; p. 467.
Engines, Means of removing the carbon from the cylinders, valves, and rings of gasolene-. C. Elliott and C. Kelly. No. 1,040,224; Sept. 10; Gaz. vol. 182; p. 417.
Engines, Non-vibrator ignition apparatus for internal-combustion. M. R. Crist and M. R. Wells. No. 1,037,782; Sept. 3; Gaz. vol. 182; p. 186.
Envelop, A. W. McGuire. No. 1,039,567; Sept. 24; Gaz. vol. 182; p. 900.
Envelop-machine. G. W. Smith and F. F. Flagg. No. 1,038,042; Sept. 24; Gaz. vol. 182; p. 912.
Envelop, Safety-. M. B. Caldwell. No. 1,039,253; Sept. 24; Gaz. vol. 182; p. 796.
Envelops, Transparent panel for. W. E. Swift. No. 1,038,450; Sept. 10; Gaz. vol. 182; p. 466.
Equalizer, J. H. Smart. No. 1,038,526; Sept. 10; Gaz. vol. 182; p. 418.
Equalizer connection. J. W. Gamble. No. 1,039,278; Sept. 24; Gaz. vol. 182; p. 883.
Equalizer, Four-horse. J. H. Post. No. 1,037,310; Sept. 3; Gaz. vol. 182; p. 44.
Erythrasma, Producing. C. Harries. No. 1,038,359; Sept. 10; Gaz. vol. 182; p. 423.
Etching machine, Fire-. E. W. Baker. No. 1,039,243; Sept. 24; Gaz. vol. 182; p. 796.
Evaporator. R. H. Hall. No. 1,039,525; Sept. 24; Gaz. vol. 182; p. 886.
Evener. J. P. Cormode. No. 1,038,725; Sept. 17; Gaz. vol. 182; p. 662.
Evener attachment. C. O. Thorsen. No. 1,038,463; Sept. 10; Gaz. vol. 182; p. 466.
Excavating and loading mechanism. J. S. Tisdall. No. 1,038,554; Sept. 17; Gaz. vol. 182; p. 573.
Excavator. M. G. Bunnell. No. 1,037,429; Sept. 3; Gaz. vol. 182; p. 85.
Exhaust-stand. A. J. Hall. No. 1,039,524; Sept. 24; Gaz. vol. 182; p. 885.
Exhibition device, Automatic. A. Hampston. No. 1,038,897; Sept. 24; Gaz. vol. 182; p. 626.
Explosive. J. F. O'Brien. No. 1,038,500; Sept. 3; Gaz. vol. 182; p. 43.
Explosive. J. F. O'Brien. No. 1,038,187; Sept. 10; Gaz. vol. 182; p. 371.
Explosive. J. F. O'Brien. No. 1,038,188; Sept. 10; Gaz. vol. 182; p. 371.
Explosive. H. F. Bostaph. No. 1,038,875; Sept. 10; Gaz. vol. 182; p. 402.
Explosive-engine. H. J. Podlesak. No. 1,037,536; Sept. 3; Gaz. vol. 182; p. 119.
Explosive-engine. W. A. Schaffer. No. 1,037,697; Sept. 3; Gaz. vol. 182; p. 165.
Explosive-engine. O. Ducker. No. 1,038,541; Sept. 17; Gaz. vol. 182; p. 528.
Explosive, Safety. N. Culpek. No. 1,038,326; Sept. 10; Gaz. vol. 182; p. 407.
Explosives containing common resin, Producing. O. E. Carlson. No. 1,038,247; Sept. 17; Gaz. vol. 182; p. 535.
Extension-switch. H. M. Hewlett. No. 1,039,295; Sept. 24; Gaz. vol. 182; p. 839.
Extensible table. C. H. Harris. No. 1,037,788; Sept. 3; Gaz. vol. 182; p. 194.
Extension-table. C. Siedrich. No. 1,039,126; Sept. 24; Gaz. vol. 182; p. 744.
Extension-press. L. G. Derain. No. 1,037,218; Sept. 3; Gaz. vol. 182; p. 12.
Eyeglass-holder, Safety. E. W. Dick. No. 1,039,269; Sept. 24; Gaz. vol. 182; p. 794.
Eyeglass-mounting. G. A. Bader. No. 1,037,649; Sept. 10; Gaz. vol. 182; p. 257.
Eyeglass-mounting. G. A. Bader. No. 1,038,510; Sept. 17; Gaz. vol. 182; p. 610.
Eyeglass-mounting. L. F. Adt. (Reissue.) No. 12,469; Sept. 17; Gaz. vol. 182; p. 707.
Eyeglass nose-guard. L. F. Adt. No. 1,038,711; Sept. 17; Gaz. vol. 182; p. 587.
Eyeglasses. L. Poston. No. 1,038,649; Sept. 17; Gaz. vol. 182; p. 565.
Eyeglasses. N. Carey. No. 1,039,024; Sept. 17; Gaz. vol. 182; p. 693.
Eyeglasses. N. M. Baker. No. 1,039,699; Sept. 17; Gaz. vol. 182; p. 705.
Eyeglasses. H. H. Styll. No. 1,039,462; Sept. 24; Gaz. vol. 182; p. 862.
Fabric: *See* Pile fabric.
Fabric-drying apparatus. J. H. Schaller. No. 1,038,602; Sept. 10; Gaz. vol. 182; p. 311.
Fan, Blower-. D. H. Cook and H. J. Wilson. No. 1,039,099; Sept. 24; Gaz. vol. 182; p. 734.
Fan, Door-. A. Bettenberg. No. 1,038,697; Sept. 17; Gaz. vol. 182; p. 571.
Fan, Exhaust-. S. Rembert. No. 1,037,659; Sept. 3; Gaz. vol. 182; p. 152.
Fan, Fly-. J. W. Richards, Jr. No. 1,039,196; Sept. 24; Gaz. vol. 182; p. 768.
Fan, Mechanically-operated. G. A. Jackson. No. 1,037,256; Sept. 3; Gaz. vol. 182; p. 28.
Fan-wheel, Centrifugal. B. S. Fuss. No. 1,038,110; Sept. 10; Gaz. vol. 182; p. 344.
Fans of motor-vehicles, Means to drive. W. I. Twombly. No. 1,039,236; Sept. 24; Gaz. vol. 182; p. 778.
Farm-gate. J. J. Corcoran. No. 1,038,854; Sept. 17; Gaz. vol. 182; p. 637.
Farrowing-house. J. Q. Clarke. No. 1,039,255; Sept. 24; Gaz. vol. 182; p. 791.
Fastener. H. E. Robinson. No. 1,037,991; Sept. 10; Gaz. vol. 182; p. 307.
Fastener cap, Snap-. H. Kerngood. No. 1,037,363; Sept. 3; Gaz. vol. 182; p. 90.
Fastening device. M. S. Fuller. No. 1,039,045; Sept. 17; Gaz. vol. 183; p. 699.
Fastening device for doors, covers, &c. W. S. Elliott. No. 1,037,747; Sept. 3; Gaz. vol. 182; p. 190.
Feed-bag. A. Wawrzeniecki. No. 1,037,894; Sept. 3; Gaz. vol. 182; p. 174.
Feed-mill. H. G. McCulloch. No. 1,037,951; Sept. 10; Gaz. vol. 182; p. 294.
Feed-trough. J. H. Davis. No. 1,039,653; Sept. 24; Gaz. vol. 182; p. 928.
Feed-water heater. D. T. Williams. No. 1,038,600; Sept. 17; Gaz. vol. 182; p. 687.
Feed-water regulator. C. F. Phillips and L. S. Burgess. No. 1,037,960; Sept. 10; Gaz. vol. 182; p. 304.
Feed-water regulator, Boiler. H. E. Gowdy. No. 1,037,240; Sept. 3; Gaz. vol. 182; p. 21.
Feeder, Poultry-. M. W. Lawlor. No. 1,038,706; Sept. 17; Gaz. vol. 182; p. 606.
Feeding apparatus. O. Durstewitz. No. 1,038,733; Sept. 17; Gaz. vol. 182; p. 595.
Fence, Portable. E. J. Woodard. No. 1,038,479; Sept. 10; Gaz. vol. 182; p. 470.
Fence-post. L. Slabach and G. C. McNaughtin. No. 1,037,245; Sept. 3; Gaz. vol. 182; p. 55.
Fence-post. H. H. Bell. No. 1,037,416; Sept. 3; Gaz. vol. 182; p. 80.
Fence-post. W. A. Torney. No. 1,037,697; Sept. 3; Gaz. vol. 182; p. 172.
Fence-post. A. C. Harrison. No. 1,038,573; Sept. 17; Gaz. vol. 182; p. 538.

Fence-post point, Detachable. C. Johnson. No. 1,036,147; Sept. 10; Gaz. vol. 182; p. 358.
Fence-posts, Wire-fastener for metallic. H. L. Hartley. No. 1,039,521; Sept. 24; Gaz. vol. 182; p. 867.
Fender: *See* Car-fender; Cultivator-fender.
Fibrous substances, like asbestos, and hydraulic binding substances, Manufacture of plates from. H. Klee. No. 1,039,413; Sept. 24; Gaz. vol. 182; p. 848.
Filaments of incandescent electric lamps on their supports, Apparatus for winding the. G. Dobkevitch. No. 1,036,557; Sept. 24; Gaz. vol. 182; p. 861.
File, Account. W. J. Halmer. No. 1,037,276; Sept. 3; Gaz. vol. 182; p. 102.
File-cabinet. R. F. Wood. No. 1,038,768; Sept. 17; Gaz. vol. 182; p. 584.
File, Clipping. J. H. Neuhauser. No. 1,037,206; Sept. 3; Gaz. vol. 182; p. 89.
File, Office paper-. F. G. Gantner. No. 1,038,841; Sept. 10; Gaz. vol. 182; p. 423.
Filing-cabinet unit. M. P. Helms. No. 1,038,231; Sept. 10; Gaz. vol. 182; p. 420.
Filing device. F. Howard. No. 1,037,912; Sept. 10; Gaz. vol. 182; p. 280.
Filter. E. W. Traylor. No. 1,037,561; Sept. 3; Gaz. vol. 182; p. 130.
Filter. R. F. Johnson. No. 1,038,282; Sept. 10; Gaz. vol. 182; p. 437.
Filter. J. S. Mullenaix. No. 1,038,417; Sept. 10; Gaz. vol. 182; p. 451.
Filter for oil, grease, and other substances. G. G. Scurfield. No. 1,039,481; Sept. 24; Gaz. vol. 182; p. 857.
Fire-escape apparatus. J. F. Schoner. No. 1,037,233; Sept. 3; Gaz. vol. 182; p. 51.
Fire-extinguisher. J. R. Thomas. No. 1,038,026; Sept. 10; Gaz. vol. 182; p. 319.
Fire-extinguisher. A. A. and L. A. Charbonneau. No. 1,038,850; Sept. 17; Gaz. vol. 182; p. 626.
Fire-extinguisher, Automatic. F. J. Quick. No. 1,038,958; Sept. 17; Gaz. vol. 182; p. 673.
Fire-extinguisher holder. R. Schaefer. No. 1,038,600; Sept. 10; Gaz. vol. 183; p. 310.
Fire-extinguishing apparatus. W. L. Deming. No. 1,038,850; Sept. 17; Gaz. vol. 182; p. 639.
Fire-hydrant, Street. C. L. Howes. No. 1,037,914; Sept. 10; Gaz. vol. 182; p. 281.
Fire-plug. W. F. Benton. No. 1,036,528; Sept. 17; Gaz. vol. 182; p. 521.
Firearm, Automatic. R. Frommer. No. 1,038,555; Sept. 17; Gaz. vol. 182; p. 532.
Firearm, Magazine-. B. S. Parsons and W. A. Freeman. No. 1,039,162; Sept. 24; Gaz. vol. 182; p. 762.
Firearm safety attachment. F. T. Russell. No. 1,037,544; Sept. 3; Gaz. vol. 182; p. 125.
Firearms, Wooden fore-arm for automatic. T. C. Johnson. No. 1,037,486; Sept. 3; Gaz. vol. 182; p. 106.
Fireproof floor system. W. D. Forsyth. No. 1,038,551; Sept. 17; Gaz. vol. 182; p. 531.
Fish-line reel. J. A. Ricketts. No. 1,038,208; Sept. 10; Gaz. vol. 182; p. 375.
Fish-net reel. H. A. Mearce. No. 1,038,414; Sept. 10; Gaz. vol. 182; p. 449.
Fish-screen. W. E. Clark and H. I. Stevenson. No. 1,038,087; Sept. 10; Gaz. vol. 182; p. 333.
Fishing device. J. H. Fuller and A. Miller. No. 1,038,866; Sept. 17; Gaz. vol. 182; p. 641.
Flange-tester. C. Browning, Jr. No. 1,037,857; Sept. 10; Gaz. vol. 182; p. 360.
Flash-light apparatus. C. A. Waldeck. No. 1,038,245; Sept. 10; Gaz. vol. 182; p. 391.
Flashing-block. F. D. Renaud. No. 1,039,320; Sept. 24; Gaz. vol. 182; p. 812.
Flexible coupling. S. W. Jameson. No. 1,038,757; Sept. 17; Gaz. vol. 182; p. 603.
Flood-gate, Automatic. W. S. Edge. No. 1,039,072; Sept. 17; Gaz. vol. 182; p. 706.
Floor-scraper. J. Wetsue. No. 1,038,807; Sept. 17; Gaz. vol. 182; p. 621.
Flotilla joining and steering mechanism. W. P. Stevens. No. 1,038,678; Sept. 17; Gaz. vol. 182; p. 574.
Flour and meal making apparatus. A. E. Tattersall. No. 1,037,806; Sept. 3; Gaz. vol. 182; p. 209.
Flow-indicator. J. F. Vaughan. No. 1,038,803; Sept. 17; Gaz. vol. 182; p. 619.
Flue-dust and the article of manufacture produced thereby, Briqueting. R. Hubner. No. 1,038,270; Sept. 10; Gaz. vol. 182; p. 433.
Flue-expander. J. T. McGrath. No. 1,037,789; Sept. 3; Gaz. vol. 182; p. 204.
Fluid-circulating indicator. G. Koehler, Jr. No. 1,038,155; Sept. 10; Gaz. vol. 182; p. 361.
Fluid-gage. H. Hastings. No. 1,039,250; Sept. 24; Gaz. vol. 182; p. 799.
Fluid-meter. J. W. Ledoux. No. 1,038,768; Sept. 17; Gaz. vol. 182; p. 607.
Fluid-pressure-brake apparatus. M. Corrington. No. 1,037,445; Sept. 3; Gaz. vol. 182; p. 91.
Fluid-pressure regulator. J. J. Bodwin. No. 1,039,639; Sept. 24; Gaz. vol. 183; p. 924.
Flumes, Stone-catcher for. H. E. Van Eyck. No. 1,037,809; Sept. 3; Gaz. vol. 182; p. 210.
Flush-tank regulator. G. L. Weller. No. 1,039,630; Sept. 24; Gaz. vol. 182; p. 918.
Flushing apparatus. P. F. Snyder. No. 1,037,079; Sept. 3; Gaz. vol. 182; p. 169.
Flushing apparatus. A. Simmons. No. 1,039,582; Sept. 24; Gaz. vol. 182; p. 917.
Flushing apparatus, Sanitary. E. J. Chilton. No. 1,038,304; Sept. 10; Gaz. vol. 182; p. 407.
Flushing water-closets and the like, Apparatus for. H. Golden. No. 1,038,247; Sept. 10; Gaz. vol. 182; p. 428.
Fly-guard. J. J. Tully. No. 1,038,022; Sept. 17; Gaz. vol. 182; p. 579.
Flying-machine. F. L. Schaufler. No. 1,037,500; Sept. 3; Gaz. vol. 182; p. 166.
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Flying-machine. J. R. Marshall. No. 1,038,168; Sept. 10; Gaz. vol. 182; p. 365.
Flying-machine. G. O'Bryan. No. 1,038,603; Sept. 17; Gaz. vol. 182; p. 549.
Flying-machine. C. T. Segura. No. 1,038,904; Sept. 17; Gaz. vol. 182; p. 674.
Flying-machine. R. H. Froelich. No. 1,039,115; Sept. 24; Gaz. vol. 182; p. 720.
Flying-machine. T. H. Smith. No. 1,039,457; Sept. 24; Gaz. vol. 182; p. 860.
Flying-machine. A. C. Harry. No. 1,039,530; Sept. 24; Gaz. vol. 182; p. 886.
Flying-machine. F. D. Willis. No. 1,039,635; Sept. 24; Gaz. vol. 183; p. 910.
Flying-machine. H. Hardgrave. No. 1,039,679; Sept. 24; Gaz. vol. 182; p. 933.
Flying-machine, Heavier-than-air. A. B. Springstead. No. 1,037,853; Sept. 3; Gaz. vol. 182; p. 58.
Flying-machine safety device. J. G. Quigg. No. 1,038,196; Sept. 10; Gaz. vol. 183; p. 372.
Flying shears, Automatic. J. Simpson. No. 1,037,675; Sept. 3; Gaz. vol. 182; p. 160.
Flying-tent. E. Garber. No. 1,039,117; Sept. 24; Gaz. vol. 182; p. 740.
Fob-ribbon holder. D. T. Denny. No. 1,039,497; Sept. 24; Gaz. vol. 182; p. 874.
Foil, Bronze. E. Omer. No. 1,037,515; Sept. 3; Gaz. vol. 182; p. 115.
Food-carrier. J. Hughes. No. 1,037,771; Sept. 3; Gaz. vol. 182; p. 196.
Food or condiment holder. T. A. Decker. No. 1,038,096; Sept. 10; Gaz. vol. 182; p. 342.
Food, Producing stock. J. Stahlin. No. 1,037,267; Sept. 3; Gaz. vol. 182; p. 60.
Form and shirt-frame, Waist-. E. McMullen. No. 1,037,850; Sept. 3; Gaz. vol. 182; p. 159.
Formaldehyde, Producing. G. Fernekes. No. 1,038,547; Sept. 17; Gaz. vol. 182; p. 530.
Formaldehyde-producing apparatus. G. Fernekes. No. 1,038,548; Sept. 17; Gaz. vol. 182; p. 530.
Foundations, Constructing. J. F. O'Rourke. No. 1,038,635; Sept. 17; Gaz. vol. 182; p. 561.
Fountain: *See* Drinking-fountain.
Frame: *See* Bag-frame; Binder-frame; Door-frame; Photographic-printing frame; Window-frame.
Framing-tool. M. F. Adkins. No. 1,039,076; Sept. 24; Gaz. vol. 182; p. 727.
Freezer. G. F. Dickson. No. 1,039,654; Sept. 24; Gaz. vol. 182; p. 930.
Freezing apparatus. G. F. Dickson. No. 1,039,655; Sept. 24; Gaz. vol. 182; p. 930.
Fruit-clippers. F. J. Dolan. No. 1,037,757; Sept. 3; Gaz. vol. 182; p. 188.
Fruit-grader. J. A. Woods, Jr. No. 1,038,056; Sept. 10; Gaz. vol. 182; p. 328.
Fruit-picker. C. Olsen. No. 1,038,425; Sept. 10; Gaz. vol. 183; p. 454.
Fruit-picker. J. F. Bookwalter. No. 1,039,640; Sept. 24; Gaz. vol. 182; p. 924.
Fruit-pitter, Hand. E. A. Vary. No. 1,038,993; Sept. 17; Gaz. vol. 182; p. 684.
Fuel-reservoir. W. H. Moran. No. 1,039,573; Sept. 24; Gaz. vol. 182; p. 902.
Fuel, Transporting and utilizing. J. H. Headley. No. 1,039,399; Sept. 24; Gaz. vol. 182; p. 840.
Fumigation apparatus. F. M. Duncan and W. S. Blasenberg. No. 1,037,744; Sept. 3; Gaz. vol. 182; p. 189.
Furnace: *See* Annealing, &c., furnace; Blast-furnace; Electric melting-furnace; Garbage-incinerating furnace; Melting-furnace; Oil-burning furnace; Regenerative furnace; Regenerative reversing-furnace.
Furnace. F. C. Armstead. No. 1,037,715; Sept. 3; Gaz. vol. 182; p. 181.
Furnace. J. D. Stewart. No. 1,038,677; Sept. 17; Gaz. vol. 182; p. 575.
Furnace. F. F. Corliss. No. 1,039,101; Sept. 24; Gaz. vol. 182; p. 735.
Furnace. O. Troesta. No. 1,039,217; Sept. 24; Gaz. vol. 182; p. 776.
Furnace-door. L. L. Knox. No. 1,037,779; Sept. 3; Gaz. vol. 182; p. 201.
Furnaces, Apparatus for controlling the admission of steam to the auxiliary blast of boiler-. G. De Grahl. No. 1,038,278; Sept. 24; Gaz. vol. 182; p. 797.
Furnaces, Fuel-feeding system for steam-boiler. T. T. Bathurst. No. 1,038,699; Sept. 10; Gaz. vol. 182; p. 352.
Furnaces, Heater for zinc-reducing. C. Reitzheim. No. 1,038,206; Sept. 10; Gaz. vol. 182; p. 373.





Furnaces or gas-generators, Charging device for. W. Hoehler. No. 1,037,480; Sept. 3; Gaz. vol. 182; p. 101.
Fuse, Inclosed. G. Wright. No. 1,037,327; Sept. 3; Gaz. vol. 182; p. 73.
Fuses for shells or the like, Automatically-operating key for setting the timing-rings of. K. Voller. No. 1,037,211; Sept. 3; Gaz. vol. 182; p. 211.
Fused disconnecting-switch. R. C. Cole. No. 1,039,257; Sept. 24; Gaz. vol. 182; p. 791.
Gage: *See* Fluid-gage; Marking-gage; Pressure-gage.
Gage-plate for boilers and the like. T. Main. No. 1,039,559; Sept. 24; Gaz. vol. 182; p. 890.
Game. W. L. Doerr. No. 1,037,577; Sept. 10; Gaz. vol. 182; p. 207.
Game apparatus. B. Albert. No. 1,038,962; Sept. 10; Gaz. vol. 182; p. 331.
Game apparatus. B. T. B. Hyde. No. 1,038,756; Sept. 17; Gaz. vol. 182; p. 602.
Game apparatus. J. C. Hatton. No. 1,039,186; Sept. 24; Gaz. vol. 182; p. 748.
Game apparatus. G. A. Dreste. No. 1,039,899; Sept. 24; Gaz. vol. 182; p. 875.
Game-stick. H. T. Penny. No. 1,038,420; Sept. 10; Gaz. vol. 182; p. 450.
Garbage-can, Sanitary. A. R. Grubb and T. J. Barr. No. 1,039,029; Sept. 17; Gaz. vol. 183; p. 702.
Garbage-incinerating furnace. R. Smith. No. 1,037,976; Sept. 3; Gaz. vol. 182; p. 160.
Garbage-receptacle and the like. O. A. Trent. No. 1,037,492; Sept. 3; Gaz. vol. 182; p. 120.
Garden implement. L. W. Cone. No. 1,037,870; Sept. 10; Gaz. vol. 182; p. 265.
Garment-connecting machine. S. Lipson. No. 1,039,681; Sept. 24; Gaz. vol. 182; p. 869.
Garment, Overall-. W. T. Clifford. No. 1,037,206; Sept. 3; Gaz. vol. 182; p. 10.
Garment-rack. M. Vaughan. No. 1,039,226; Sept. 24; Gaz. vol. 182; p. 778.
Garment, Reversible and adjustable. W. C. P. Baldwin. No. 1,038,821; Sept. 17; Gaz. vol. 182; p. 630.
Gas, Apparatus for generating high-pressure oil-. R. Vuilleumier. No. 1,038,691; Sept. 17; Gaz. vol. 182; p. 580.
Gas-burner. T. B. Wylie. No. 1,037,298; Sept. 3; Gaz. vol. 182; p. 74.
Gas-burner. J. Bay. No. 1,038,965; Sept. 17; Gaz. vol. 182; p. 675.
Gas-burner, Regenerative. F. Ehrenstein. No. 1,038,274; Sept. 10; Gaz. vol. 182; p. 401.
Gas-burner, Safety-. H. F. Dubby. No. 1,038,036; Sept. 10; Gaz. vol. 183; p. 341.
Gas-burner, Safety-. O. Levy. No. 1,039,772; Sept. 17; Gaz. vol. 182; p. 660.
Gas cut-off, Automatic. E. G. Marks. No. 1,037,275; Sept. 3; Gaz. vol. 182; p. 83.
Gas-engine. A. J. Dexter. No. 1,038,537; Sept. 17; Gaz. vol. 182; p. 526.
Gas-fuel conduit. B. A. W. Jefferies. No. 1,037,920; Sept. 10; Gaz. vol. 182; p. 283.
Gas, Generating. D. D. Barnum. No. 1,039,479; Sept. 24; Gaz. vol. 182; p. 903.
Gas-generator. W. Hoehler. No. 1,037,481; Sept. 3; Gaz. vol. 182; p. 104.
Gas-generator. C. Bingham. No. 1,038,077; Sept. 10; Gaz. vol. 182; p. 335.
Gas-generator. C. A. Kuenzel. No. 1,039,549; Sept. 24; Gaz. vol. 182; p. 893.
Gas generator, Acetylene-. D. C. Boruff. No. 1,038,061; Sept. 10; Gaz. vol. 182; p. 336.
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Gas-heater. G. Lake. No. 1,038,157; Sept. 10; Gaz. vol. 182; p. 362.
Gas-igniter. O. Struller. No. 1,039,612; Sept. 24; Gaz. vol. 182; p. 914.
Gas-light, Inverted incandescent. V. H. Silmack. No. 1,039,675; Sept. 24; Gaz. vol. 182; p. 926.
Gas-making apparatus. J. H. Hirt. No. 1,037,764; Sept. 3; Gaz. vol. 182; p. 196.
Gas-mantles, Package for. F. V. Bowman and W. S. Hunn. No. 1,039,486; Sept. 24; Gaz. vol. 182; p. 870.
Gas, Means for collecting average samples of. H. J. Westover. No. 1,037,326; Sept. 3; Gaz. vol. 182; p. 174.
Gas-producer. J. H. Hirt. No. 1,038,563; Sept. 17; Gaz. vol. 182; p. 542.
Gas, Producing. J. H. Hirt. No. 1,039,396; Sept. 24; Gaz. vol. 182; p. 840.
Gas-producing oven, Regenerative. A. Gohmann. No. 1,038,270; Sept. 24; Gaz. vol. 182; p. 796.
Gas refrigerating and drying apparatus. C. H. Leinert. No. 1,039,148; Sept. 24; Gaz. vol. 182; p. 751.
Gas-regulating device, Manifolding device for. G. Schwabach. No. 1,037,257; Sept. 3; Gaz. vol. 182; p. 52.
Gases, Absorbing nitrous. H. Pauling. No. 1,037,977; Sept. 10; Gaz. vol. 183; p. 303.
Gases, Apparatus for cleaning, cooling, and mixing. H. E. Thiegen. No. 1,039,677; Sept. 24; Gaz. vol. 182; p. 927.
Gases, Purifying. H. L. Doherty. No. 1,038,815; Sept. 10; Gaz. vol. 183; p. 414.
Gases, Refrigerating and drying. C. H. Leinert. No. 1,039,149; Sept. 24; Gaz. vol. 182; p. 751.
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Gate. A. V. Rowe. No. 1,038,443; Sept. 10; Gaz. vol. 182; p. 461.
Gate-fastener. A. A. Prokyta. No. 1,038,894; Sept. 17; Gaz. vol. 182; p. 671.
Gate-operating machine. F. R. Pomeroy and J. D. Burbaugh. No. 1,038,650; Sept. 17; Gaz. vol. 182; p. 566.
Gear mechanism, Transmission-. C. E. Fredericson. No. 1,038,525; Sept. 17; Gaz. vol. 182; p. 530.
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Gearing. A. Wahle. No. 1,037,906; Sept. 3; Gaz. vol. 182; p. 173.
Gearing. H. W. Bibo. No. 1,037,740; Sept. 3; Gaz. vol. 182; p. 186.
Gearing. J. P. Jensen. No. 1,037,921; Sept. 10; Gaz. vol. 183; p. 283.
Gearing. A. Van Wormer. No. 1,039,220; Sept. 10; Gaz. vol. 182; p. 363.
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Gearing, Transmission-. G. S. Maxwell. No. 1,039,425; Sept. 24; Gaz. vol. 182; p. 849.
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Glass-gathering machine. C. C. Stutz. No. 1,037,262; Sept. 3; Gaz. vol. 182; p. 62.
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Glassware fire-polishing apparatus. L. Levien and C. E. Duncan. No. 1,038,909; Sept. 17; Gaz. vol. 183; p. 686.
Globe-holder. C. O. Marris. No. 1,037,270; Sept. 3; Gaz. vol. 182; p. 33.
Globes, Means for holding. A. Kuesbauch. No. 1,037,779; Sept. 3; Gaz. vol. 182; p. 201.
Glove. H. Mahler. No. 1,037,946; Sept. 10; Gaz. vol. 182; p. 292.
Glove-former. J. K. Kellogg. No. 1,038,396; Sept. 17; Gaz. vol. 182; p. 546.
Gold saving and amalgamating machine. R. Beyrle. No. 1,037,195; Sept. 3; Gaz. vol. 182; p. 6.
Gold-washing machine. J. M. Carter. No. 1,037,494; Sept. 3; Gaz. vol. 182; p. 87.
Golf-clubs or similar instruments, Means for indicating the striking force of. S. O. H. Collins and H. V. Pearce. No. 1,039,461; Sept. 24; Gaz. vol. 182; p. 873.
Governing device. W. W. Dean. No. 1,039,107; Sept. 24; Gaz. vol. 182; p. 737.
Governor. J. J. Lisch. No. 1,039,151; Sept. 24; Gaz. vol. 183; p. 752.
Governor for engines, Shaft-. R. Wolf. No. 1,038,055; Sept. 10; Gaz. vol. 182; p. 328.
Grading machine, Road-. C. Maves. No. 1,037,281; Sept. 3; Gaz. vol. 182; p. 34.
Grain-binder knotter. J. O. Pangburn. No. 1,038,627; Sept. 17; Gaz. vol. 182; p. 562.
Grain-drill. C. A. Pattison and L. E. Boby. No. 1,037,306; Sept. 3; Gaz. vol. 182; p. 42.
Grain-dropper. E. T. Riley. No. 1,037,219; Sept. 3; Gaz. vol. 182; p. 47.
Grain-drying apparatus. H. J. Puckett and V. Lucas. No. 1,039,440; Sept. 24; Gaz. vol. 182; p. 863.
Grain-loader. P. J. Malloy. No. 1,037,793; Sept. 3; Gaz. vol. 183; p. 206.
Grain-separator. P. Heins. No. 1,037,348; Sept. 3; Gaz. vol. 183; p. 22.
Grain-shocker. I. W. Sharp. No. 1,038,449; Sept. 10; Gaz. vol. 182; p. 463.
Grain-sprouting apparatus. E. McFarlin and A. Cline. No. 1,038,407; Sept. 10; Gaz. vol. 182; p. 447.
Graining-tool. W. J. Knapp. No. 1,037,220; Sept. 3; Gaz. vol. 182; p. 155.
Gramophones, &c., Producing horns for. H. Nier. No. 1,038,942; Sept. 17; Gaz. vol. 182; p. 668.

Granular material, Machine for sizing and separating. B. A. Hughes. No. 1,039,132; Sept. 24; Gaz. vol. 182; p. 745.
Grapple. F. A. Alvegren. No. 1,037,712; Sept. 3; Gaz. vol. 182; p. 180.
Grate-cleaner. C. F. Pierce and S. C. Byrd. No. 1,039,184; Sept. 24; Gaz. vol. 182; p. 763.
Greaser, Buggy or wagon. W. T. Maddox. No. 1,038,917; Sept. 17; Gaz. vol. 182; p. 650.
Grid resistance, Reinforced. H. J. Wiegand. No. 1,038,252; Sept. 10; Gaz. vol. 182; p. 304.
Grinder, Face-mill. G. W. Smith. No. 1,039,078; Sept. 17; Gaz. vol. 182; p. 707.
Grinder, Sickle-. W. S. Harman. No. 1,037,968; Sept. 10; Gaz. vol. 182; p. 276.
Grinding device for sharpening knives of jointing or planing machines, Portable. H. B. Foley and J. F. Tracy. No. 1,038,509; Sept. 10; Gaz. vol. 182; p. 479.
Grinding helical concave surfaces in blades, Support for work-pieces for. C. A. Kirschner. No. 1,039,294; Sept. 24; Gaz. vol. 182; p. 804.
Grinding-mill feeding device. A. W. Straub. No. 1,039,610; Sept. 24; Gaz. vol. 182; p. 914.
Grinding-mills, Roll-adjusting device for roller. A. B. Tattersall. No. 1,037,858; Sept. 3; Gaz. vol. 182; p. 220.
Grinding-stones, Bar for dressing. T. B. Warren. No. 1,037,692; Sept. 3; Gaz. vol. 182; p. 174.
Grip device, Intermittent-. J. Calkins and F. Rice. No. 1,039,023; Sept. 17; Gaz. vol. 182; p. 693.
Grist-mill, Portable. F. Mondry. No. 1,038,935; Sept. 17; Gaz. vol. 182; p. 666.
Gum containing pharmaceutical preparations, Chewing-. N. Solsberger. No. 1,038,227; Sept. 10; Gaz. vol. 182; p. 284.
Gun, Marble-. G. C. Kennedy. No. 1,037,262; Sept. 3; Gaz. vol. 182; p. 29.
Gun-sight. E. Davis. No. 1,037,451; Sept. 3; Gaz. vol. 182; p. 94.
Guns, Combined registering and feeding magazine for. W. P. Pinkston. No. 1,037,308; Sept. 3; Gaz. vol. 182; p. 43.
Hacksaw. C. F. Wurst and W. Schaff. No. 1,039,470; Sept. 24; Gaz. vol. 182; p. 864.
Hair-drying apparatus. I. Scholz. No. 1,037,548; Sept. 3; Gaz. vol. 182; p. 126.
Hair-spring-stud-holding means. W. W. Dudley. No. 1,037,742; Sept. 3; Gaz. vol. 182; p. 189.
Hair-tonic and compounding same. J. L. Brooks. No. 1,037,425; Sept. 3; Gaz. vol. 182; p. 84.
Halogen-oxygen compounds by electrolysis, Preparing. M. Pier. No. 1,038,194; Sept. 10; Gaz. vol. 182; p. 373.
Hammer. J. W. Miller. No. 1,037,239; Sept. 3; Gaz. vol. 182; p. 37.
Hammer lubricating device, Steam-. M. Schalscha. No. 1,037,332; Sept. 3; Gaz. vol. 182; p. 51.
Hammer, Pneumatic. G. D. Roberts. No. 1,037,323; Sept. 3; Gaz. vol. 182; p. 48.
Hammer, Power-. J. A. Willey. No. 1,038,909; Sept. 17; Gaz. vol. 182; p. 686.
Hammer-press. W. J. Hagman. No. 1,039,277; Sept. 24; Gaz. vol. 182; p. 798.
Hand-bag. H. Cohn and P. Berman. No. 1,039,489; Sept. 24; Gaz. vol. 182; p. 871.
Handcuff. J. Lorey. No. 1,038,462; Sept. 10; Gaz. vol. 182; p. 476.
Handle: *See* Implement-handle; Razor-handle; Receptacle-handle; Spade-handle; Tool-handle.
Handling broken ends, Device for. G. M. Arragg. No. 1,039,349; Sept. 24; Gaz. vol. 182; p. 823.
Hanger: *See* Clothes-hanger; Door-hanger; Shade and curtain hanger.
Hanger-support. A. Martin. No. 1,037,277; Sept. 3; Gaz. vol. 182; p. 33.
Harp. G. F. Lyon. No. 1,039,308; Sept. 24; Gaz. vol. 182; p. 808.
Harp-action. L. Wolf. No. 1,037,569; Sept. 3; Gaz. vol. 182; p. 132.
Harrow and seeder. G. M. Easterling. No. 1,038,100; Sept. 10; Gaz. vol. 182; p. 343.
Harrow attachment. W. O. Long. No. 1,039,152; Sept. 24; Gaz. vol. 182; p. 752.
Harvester and shocker, Corn. A. E. Ebbert. No. 1,037,745; Sept. 3; Gaz. vol. 182; p. 189.
Harvester attachment. C. K. Wolf. No. 1,038,053; Sept. 10; Gaz. vol. 182; p. 337.
Harvester, Bean-. V. C. Bryant. No. 1,038,720; Sept. 17; Gaz. vol. 182; p. 591.
Harvester, Corn-. J. B. Ouren. No. 1,039,180; Sept. 24; Gaz. vol. 182; p. 762.
Harvester-reel. F. M. Baker. No. 1,039,631; Sept. 24; Gaz. vol. 182; p. 921.
Harvesting and husking machine. C. G. Fleming. No. 1,037,826; Sept. 3; Gaz. vol. 182; p. 216.
Hat-fastener. H. Dippel. No. 1,037,736; Sept. 3; Gaz. vol. 182; p. 187.
Hat-fastening device. V. B. Fifer. No. 1,038,105; Sept. 10; Gaz. vol. 182; p. 344.
Hat-fastening device. J. Corcos. No. 1,039,100; Sept. 24; Gaz. vol. 182; p. 735.
Hat-pin guard. J. A. Dick and J. P. Sinclair. No. 1,038,812; Sept. 10; Gaz. vol. 182; p. 413.
Hat-pin-point protector. B. Olas. No. 1,038,945; Sept. 17; Gaz. vol. 182; p. 668.
Hat-pouncing machine. R. Klipper. No. 1,037,925; Sept. 10; Gaz. vol. 182; p. 286.
Hat-protector. L. Wenz. No. 1,038,042; Sept. 10; Gaz. vol. 182; p. 294.
Hat, Ventilated. J. H. Smith and W. F. Smit. No. 1,038,695; Sept. 24; Gaz. vol. 182; p. 912.
Hay-loader. C. H. Lyons. No. 1,038,858; Sept. 24; Gaz. vol. 182; p. 894.
Hay-shocker. O. H. Watkins. No. 1,039,290; Sept. 24; Gaz. vol. 182; p. 781.
Head-rest. V. H. Manley. No. 1,038,498; Sept. 10; Gaz. vol. 182; p. 445.
Head-rest lock. W. F. Kehoe. No. 1,039,414; Sept. 24; Gaz. vol. 182; p. 845.
Headlight blind or shutter. A. J. Zehendner. No. 1,037,402; Sept. 3; Gaz. vol. 182; p. 75.
Headlight, Dirigible. J. P. Fox. No. 1,038,720; Sept. 17; Gaz. vol. 182; p. 597.
Heater: *See* Air-blast heater; Electric heater; Feed-water heater; Gas-heater; Hot-air heater; Orchard-heater; Sad-iron heater; Tank-heater; Water-heater.
Heater. G. H. Elliott. No. 1,037,987; Sept. 10; Gaz. vol. 182; p. 296.
Heating and ventilating apparatus. C. W. Edgar. No. 1,038,664; Sept. 24; Gaz. vol. 182; p. 903.
Heating briquets, &c., Means for. P. Hein. No. 1,039,533; Sept. 24; Gaz. vol. 182; p. 857.
Hedge-trimming machine. H. T. Bullock. No. 1,039,021; Sept. 17; Gaz. vol. 182; p. 692.
Heel, Detachable rubber. A. McDonald. No. 1,039,296; Sept. 24; Gaz. vol. 182; p. 809.
Heel for shoes, Resilient. A. Jeszcyk. No. 1,039,409; Sept. 24; Gaz. vol. 182; p. 842.
Hinge. G. B. Thurber. No. 1,037,907; Sept. 3; Gaz. vol. 182; p. 210.
Hinge, Floor-. H. G. Voight. No. 1,039,618; Sept. 24; Gaz. vol. 182; p. 917.
Hinge, Gravity-. G. E. Toms and T. P. Blair. No. 1,039,216; Sept. 24; Gaz. vol. 182; p. 775.
Hinge-holding device. C. H. Schmidgall and O. A. Barnewolt. No. 1,037,547; Sept. 3; Gaz. vol. 182; p. 126.
Hinge, Invisible. E. Zacherman. No. 1,038,636; Sept. 24; Gaz. vol. 182; p. 920.
Hinge, Wind-shield. W. A. Pearson. No. 1,039,588; Sept. 24; Gaz. vol. 182; p. 907.
Hitching-strap. B. Gissi. No. 1,037,613; Sept. 3; Gaz. vol. 182; p. 146.
Hitching-strap. P. W. Laecke. No. 1,037,782; Sept. 3; Gaz. vol. 182; p. 202.
Hoe. J. W. Bush. No. 1,037,590; Sept. 3; Gaz. vol. 182; p. 130.
Hoisting apparatus. C. K. Ernst. No. 1,038,339; Sept. 10; Gaz. vol. 182; p. 419.
Holdback, Adjustable. S. G. Hughes. No. 1,038,141; Sept. 10; Gaz. vol. 182; p. 355.
Holding device. B. Strickson. No. 1,037,862; Sept. 10; Gaz. vol. 182; p. 240.
Homogeniser. J. Williamson. No. 1,037,815; Sept. 3; Gaz. vol. 182; p. 212.
Hood, Roll-top balanced. B. F. Carpenter. No. 1,038,287; Sept. 10; Gaz. vol. 182; p. 405.
Hook: *See* Weeding-hook; Whalebone-hook.
Hook and eye. A. M. Schneider. No. 1,037,334; Sept. 3; Gaz. vol. 182; p. 52.
Hook for hanging pictures and the like. M. Dehn. No. 1,039,307; Sept. 24; Gaz. vol. 182; p. 829.
Hoop: *See* Embroidery-hoop.
Hopper, Distributing-. H. B. Pritchett. No. 1,038,957; Sept. 17; Gaz. vol. 182; p. 672.
Horse-detacher. G. Harer. No. 1,038,572; Sept. 17; Gaz. vol. 182; p. 538.
Horse-hitching device. G. K. F. Jack. No. 1,038,894; Sept. 17; Gaz. vol. 182; p. 651.
Horse-overshoe. L. Belmaca. No. 1,037,534; Sept. 3; Gaz. vol. 182; p. 121.
Horse-rakeaser. J. R. Burleson. No. 1,037,860; Sept. 10; Gaz. vol. 182; p. 261.
Horseshoe. H. Graw. No. 1,038,118; Sept. 10; Gaz. vol. 182; p. 347.
Horseshoe. C. L. Winston. No. 1,039,002; Sept. 17; Gaz. vol. 182; p. 687.
Horseshoe-calk clamp. G. J. Helfrich. No. 1,038,883; Sept. 17; Gaz. vol. 182; p. 647.
Horseshoe, Detachable. V. Mancini. No. 1,037,947; Sept. 10; Gaz. vol. 182; p. 292.
Hose-clamps, Machine for attaching. G. Christensen. No. 1,039,066; Sept. 24; Gaz. vol. 182; p. 733.
Hose-coupling. P. Benedic. No. 1,039,354; Sept. 24; Gaz. vol. 182; p. 824.
Hose-coupling. C. Hill. No. 1,039,536; Sept. 24; Gaz. vol. 182; p. 860.
Hose-coupling. C. Parsons. No. 1,039,584; Sept. 24; Gaz. vol. 182; p. 906.
Hose-coupling and hose-fastener. W. E. Patrick. No. 1,038,648; Sept. 17; Gaz. vol. 182; p. 660.
Hose-pipe coupling. T. Brookfield. No. 1,038,840; Sept. 17; Gaz. vol. 182; p. 632.
Hosiery. E. W. Scott. No. 1,037,669; Sept. 3; Gaz. vol. 182; p. 196.
Hosiery-drying mechanism. W. H. Brunstrout. No. 1,037,224; Sept. 3; Gaz. vol. 182; p. 16.
Hot-air engine. E. J. Webb. No. 1,038,905; Sept. 17; Gaz. vol. 182; p. 650.
Hot-air heater. J. H. Garner. No. 1,037,894; Sept. 10; Gaz. vol. 182; p. 272.
Hot-water system, Portable. F. C. Hayes. No. 1,037,905; Sept. 10; Gaz. vol. 182; p. 276.





House: *See* Furrowing-house.
Hub-cap. P. Whitney. No. 1,037,314; Sept. 3; Gaz. vol. 182; p. 212.
Hub for vehicle-wheels, Spring-. H. B. Bigsby and W. M. Lewis. No. 1,038,014; Sept. 17; Gaz. vol. 182; p. 696.
Hub for wire wheels. S. A. Currin. No. 1,037,735; Sept. 3; Gaz. vol. 182; p. 188.
Humidor, Pocket-. J. B. Gelder. No. 1,038,823; Sept. 17; Gaz. vol. 182; p. 625.
Hydrant. G. W. Hayden. No. 1,038,749; Sept. 17; Gaz. vol. 182; p. 601.
Hydraulic motor. H. C. Chambers. No. 1,037,935; Sept. 10; Gaz. vol. 182; p. 288.
Hydrocarbon-burner. W. Humphrey and T. R. Stewart. No. 1,038,142; Sept. 10; Gaz. vol. 182; p. 356.
Hydrocarbon-burner. O. J. Edlenbeck. No. 1,038,734; Sept. 17; Gaz. vol. 182; p. 596.
Hydrocarbon burner, Fluid-. B. B. Raymond and C. R. Whitson. No. 1,039,194; Sept. 24; Gaz. vol. 182; p. 767.
Hydrogen, Manufacturing. G. F. Jaubert. No. 1,037,919; Sept. 10; Gaz. vol. 182; p. 282.
Hydroquinin, Manufacture of. E. Throm. No. 1,038,027; Sept. 10; Gaz. vol. 182; p. 340.
Ice-cream-cone machine. T. G. Perkins. No. 1,039,183; Sept. 24; Gaz. vol. 182; p. 763.
Ice-cream freezer. B. L. Geary. No. 1,037,762; Sept. 3; Gaz. vol. 182; p. 196.
Ice-manufacturing apparatus. R. J. Berryman. No. 1,038,613; Sept. 17; Gaz. vol. 182; p. 600.
Ice-scraper. G. B. Miller. No. 1,037,956; Sept. 10; Gaz. vol. 182; p. 298.
Igniter. H. Buttner. No. 1,038,233; Sept. 10; Gaz. vol. 182; p. 404.
Igniter, Governor-controlled. J. Fleischmann and P. Wolf. No. 1,037,402; Sept. 3; Gaz. vol. 182; p. 98.
Ignition system. C. F. Kettering. No. 1,037,492; Sept. 3; Gaz. vol. 182; p. 106.
Illusion apparatus, Spectacular. W. J. Burke. No. 1,037,420; Sept. 3; Gaz. vol. 182; p. 85.
Implement, Combination pocket-. H. Cooper. No. 1,039,290; Sept. 24; Gaz. vol. 182; p. 783.
Implement-handle. W. J. Dunham. No. 1,038,732; Sept. 17; Gaz. vol. 182; p. 594.
Incandescence Bodies, Manufacturing. H. Kuhl. No. 1,037,365; Sept. 3; Gaz. vol. 182; p. 81.
Incubator and brooder, Hemterian. E. W. Philo. No. 1,038,421; Sept. 10; Gaz. vol. 182; p. 455.
Incubator heat-regulator. A. A. Howard and A. H. Lobsitz. No. 1,038,130; Sept. 10; Gaz. vol. 182; p. 355.
Incubator regulator, Chicken-. G. H. Lee. No. 1,039,550; Sept. 24; Gaz. vol. 182; p. 894.
Indicator: *See* Angle-indicator; Flow-indicator; Fluid-circulating indicator; Pressure-indicator; Street or station indicator; Timepiece winding-indicator.
Indicator. L. A. Hawkins. No. 1,038,905; Sept. 10; Gaz. vol. 182; p. 431.
Indicator. H. C. Locke. No. 1,038,770; Sept. 17; Gaz. vol. 182; p. 606.
Induction-motor. B. McCollum. No. 1,038,775; Sept. 17; Gaz. vol. 182; p. 610.
Information and advertising device, Combined. W. H. Conety. No. 1,038,298; Sept. 10; Gaz. vol. 182; p. 409.
Ingots, Treating metal. G. H. Benjamin. No. 1,038,271; Sept. 10; Gaz. vol. 182; p. 400.
Injector. J. Bamblkin. No. 1,038,826; Sept. 17; Gaz. vol. 182; p. 628.
Insect-destroyer. F. A. Hinsky. No. 1,037,623; Sept. 3; Gaz. vol. 182; p. 149.
Insect trapping and cremating device. L. Troth. No. 1,037,669; Sept. 3; Gaz. vol. 182; p. 172.
Insecticidal-fertilizer cartridge. F. G. Dokkenwadel. No. 1,038,316; Sept. 10; Gaz. vol. 182; p. 415.
Insert-support. R. Grinnell. No. 1,037,342; Sept. 3; Gaz. vol. 182; p. 22.
Insolubic bodies derived from phenol alcohols, Making. L. H. Backeland. No. 1,038,475; Sept. 10; Gaz. vol. 182; p. 471.
Insulation for electric conductors or the like, Step-by-step. K. Kurda. No. 1,039,206; Sept. 24; Gaz. vol. 182; p. 806.
Insulator. W. H. S. Nelson. No. 1,038,416; Sept. 10; Gaz. vol. 182; p. 451.
Insulator. J. Alsberg. No. 1,038,473; Sept. 10; Gaz. vol. 182; p. 471.
Internal-combustion engine. A. E. Youngren. No. 1,037,490; Sept. 3; Gaz. vol. 182; p. 74.
Internal-combustion engine. A. M. Chase. No. 1,037,457; Sept. 3; Gaz. vol. 182; p. 98.
Internal-combustion engine. E. O. Hayes. No. 1,037,478; Sept. 3; Gaz. vol. 182; p. 102.
Internal-combustion engine. J. H. Eaton. No. 1,037,605; Sept. 3; Gaz. vol. 182; p. 142.
Internal-combustion engine. B. W. Coffee. No. 1,037,866; Sept. 10; Gaz. vol. 182; p. 264.
Internal-combustion engine. R. S. Michener. No. 1,037,883; Sept. 10; Gaz. vol. 182; p. 265.
Internal-combustion engine. M. Laycock. No. 1,038,707; Sept. 17; Gaz. vol. 182; p. 588.
Internal-combustion engine. L. H. L. Dellem and G. J. B. Brédeau. No. 1,038,830; Sept. 17; Gaz. vol. 182; p. 626.
Internal-combustion engine and the like. H. L. and E. D. Courtwright. No. 1,039,462; Sept. 24; Gaz. vol. 182; p. 872.
Iron: *See* Sad-iron.
Ironing-board. N. T. Coffey. No. 1,039,649; Sept. 24; Gaz. vol. 182; p. 928.
Jack: *See* Automobile-jack; Journal-jack; Lifting-jack; Shoe-jack; Shoemaker's jack; Vehicle-jack.
Jack-bed Corddma. B. B. Dildine and J. A. Bugh. No. 1,039,556; Sept. 24; Gaz. vol. 182; p. 860.
Jar attachment, Fruit-. F. H. Mattes. No. 1,037,669; Sept. 3; Gaz. vol. 182; p. 196.
Jewel-cup. E. F. Goetz. No. 1,039,516; Sept. 24; Gaz. vol. 182; p. 852.
Jeweler's appliance. L. E. Bing. No. 1,037,195; Sept. 3; Gaz. vol. 182; p. 6.
Jewelry safety-catch. E. P. Kohn. No. 1,038,893; Sept. 10; Gaz. vol. 182; p. 441.
Joint: *See* Rail-joint; Railway-rail joint; Stovepipe-joint; Universal joint.
Journal-bearing automatic lubricator. J. A. McCallum. No. 1,039,426; Sept. 24; Gaz. vol. 182; p. 840.
Journal-jack. G. C. Cline. No. 1,039,648; Sept. 24; Gaz. vol. 182; p. 928.
Junction-box. W. L. Bliss. No. 1,039,248; Sept. 24; Gaz. vol. 182; p. 789.
Key-holder. M. Castholm. No. 1,038,722; Sept. 17; Gaz. vol. 182; p. 591.
Key-ring holder. H. Elder. No. 1,039,040; Sept. 17; Gaz. vol. 182; p. 697.
Key-seating machine. G. J. Costello. No. 1,038,895; Sept. 17; Gaz. vol. 182; p. 653.
Keyhole-guard. L. B. Howard. No. 1,038,754; Sept. 17; Gaz. vol. 182; p. 603.
Kiln: *See* Dry-kiln; Drying-kiln.
Kiln. C. Hook. No. 1,037,760; Sept. 3; Gaz. vol. 182; p. 196.
Kinetoscope. A. C. Roebuck. No. 1,037,328; Sept. 3; Gaz. vol. 182; p. 49.
Knife: *See* Combination-knife; Pruning-knife; Toothpick-cutting knife.
Knife. F. Marzak. No. 1,037,648; Sept. 3; Gaz. vol. 182; p. 186.
Knitting. B. Wessell. No. 1,038,043; Sept. 10; Gaz. vol. 182; p. 294.
Knitting-machine. B. Wessell. No. 1,038,044; Sept. 10; Gaz. vol. 182; p. 324.
Knitting-machine. E. Paquette. No. 1,038,638; Sept. 17; Gaz. vol. 182; p. 562.
Knitting-machine latch-needle. R. W. Scott. No. 1,039,480; Sept. 24; Gaz. vol. 182; p. 857.
Labeling-machine. C. H. Oakeson. No. 1,037,971; Sept. 10; Gaz. vol. 182; p. 301.
Labeling-machine. W. Robertson. No. 1,038,658; Sept. 17; Gaz. vol. 182; p. 568.
Labels to cans or the like, Machine for applying. F. H. Knapp. No. 1,038,158; Sept. 10; Gaz. vol. 182; p. 360.
Lace guard, Shoe-. F. Celt. No. 1,039,050; Sept. 17; Gaz. vol. 182; p. 695.
Lamp. W. S. Levings. No. 1,038,161; Sept. 10; Gaz. vol. 182; p. 363.
Lamp. F. A. Hall. No. 1,038,354; Sept. 10; Gaz. vol. 182; p. 427.
Lamp, Acetylene-. J. M. Higgins. No. 1,039,585; Sept. 24; Gaz. vol. 182; p. 888.
Lamp and renewing the same, Incandescent electric. R. Perrenberg. No. 1,038,076; Sept. 10; Gaz. vol. 182; p. 335.
Lamp-burner. G. Ekiund. No. 1,038,323; Sept. 10; Gaz. vol. 182; p. 417.
Lamp, Electric-arc. L. M. McBride. No. 1,039,162; Sept. 24; Gaz. vol. 182; p. 755.
Lamp, Electric signal-. W. J. Warder, Jr. No. 1,037,366; Sept. 3; Gaz. vol. 182; p. 132.
Lamp-fixture, Series. C. L. Bundy. No. 1,039,645; Sept. 24; Gaz. vol. 182; p. 926.
Lamp-holder, Portable protected. R. B. Benjamin. No. 1,038,071; Sept. 10; Gaz. vol. 182; p. 332.
Lamp, Incandescent electric. E. H. Tate. No. 1,038,661; Sept. 17; Gaz. vol. 182; p. 577.
Lamp, Inverted-mantle. G. G. Jones. No. 1,037,488; Sept. 3; Gaz. vol. 182; p. 106.
Lamp-lock. H. W. Rector. No. 1,037,317; Sept. 3; Gaz. vol. 182; p. 46.
Lamp, Metal-filament incandescent. G. Lidecka. No. 1,038,613; Sept. 17; Gaz. vol. 182; p. 552.
Lamp, Miner's. E. C. Mangin. No. 1,037,948; Sept. 10; Gaz. vol. 182; p. 293.
Lamp, Miner's. S. W. Metz. No. 1,038,930; Sept. 17; Gaz. vol. 182; p. 664.
Lamp-operating mechanism, Pilot-. W. E. Anderson. No. 1,037,816; Sept. 3; Gaz. vol. 182; p. 212.
Lamp, Reversible automobile-. G. F. Mahlmeett. No. 1,037,961; Sept. 10; Gaz. vol. 182; p. 296.
Lamp, Signal-. W. S. Hamm. No. 1,039,128; Sept. 24; Gaz. vol. 182; p. 742.
Lamp-socket. C. J. Klein. No. 1,038,151; Sept. 10; Gaz. vol. 182; p. 359.
Lamp socket, Incandescent-electric-. J. J. Mooney. No. 1,037,994; Sept. 10; Gaz. vol. 182; p. 308.
Lamps, Regulating-nozzle for incandescent gas-. M. Graetz. No. 1,038,520; Sept. 24; Gaz vol. 182; p. 833.
Lamps, Safety device for gas-. F. Huttenlocher. No. 1,038,998; Sept. 17; Gaz. vol. 182; p. 651.
Lancet. A. C. Smith. No. 1,037,802; Sept. 3; Gaz. vol. 182; p. 206.
Lantern attachment. J. H. Packham. No. 1,038,437; Sept. 10; Gaz. vol. 182; p. 454.

Lapping-machine. B. M. Rogers. No. 1,037,227; Sept. 3; Gaz. vol. 182; p. 50.
Lasting-jack. Mechanism, Shoe. A. H. Kline. No. 1,038,544; Sept. 24; Gaz. vol. 183; p. 662.
Lasts, Rotatable tool for beating uppers on. S. B. Crain and H. L. Heckmann. No. 1,038,063; Sept. 17; Gaz. vol. 182; p. 604.
Latch for board drop-hammers, Safety-. H. B. Derbyshire. No. 1,037,735; Sept. 3; Gaz. vol. 182; p. 157.
Lathe centering-tool. D. L. Calahan. No. 1,038,721; Sept. 17; Gaz. vol. 182; p. 661.
Lathe-dog. E. J. Michaud. No. 1,038,409; Sept. 10; Gaz. vol. 182; p. 448.
Lathe-spindle gearing. J. C. Potter. No. 1,038,737; Sept. 17; Gaz. vol. 182; p. 614.
Lathe, Turret-. H. Lauf and M. Kleber. No. 1,037,986; Sept. 10; Gaz. vol. 182; p. 259.
Lathe turret attachment. Engine-. H. Newmann. No. 1,037,296; Sept. 3; Gaz. vol. 182; p. 40.
Lathes, Milling attachment for metal-. H. G. Haase. No. 1,038,571; Sept. 17; Gaz. vol. 182; p. 537.
Lawn-sprinkler and adjustable support, Automatic hose-regulating. P. P. Stack. No. 1,037,557; Sept. 3; Gaz. vol. 182; p. 129.
Lawn-trimmer. O. Karcher. No. 1,037,634; Sept. 3; Gaz. vol. 182; p. 153.
Leather-splitting machine. J. H. Gay. No. 1,038,560; Sept. 17; Gaz. vol. 183; p. 584.
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Legging. D. Austin. No. 1,037,407; Sept. 3; Gaz. vol. 182; p. 77.
Lens-grinding machine. W. K. Rogers. No. 1,037,992; Sept. 10; Gaz. vol. 182; p. 306.
Levees, dikes, &c., Leak-stop for. M. M. Neames. No. 1,039,579; Sept. 24; Gaz. vol. 182; p. 904.
Level. W. E. Grotevant. No. 1,038,502; Sept. 10; Gaz. vol. 182; p. 427.
Level, Plumb-. B. F. Yantis. No. 1,038,705; Sept. 17; Gaz. vol. 182; p. 585.
Level, Spirit-. S. Dean. No. 1,038,536; Sept. 17; Gaz. vol. 182; p. 526.
Lever-escapement. W. J. Shortill. No. 1,037,242; Sept. 3; Gaz. vol. 182; p. 54.
Life-net. A. R. Berger, H. Reymond, and F. P. A. Horn. No. 1,038,717; Sept. 17; Gaz. vol. 183; p. 590.
Life-preserver. N. Martine. No. 1,037,279; Sept. 3; Gaz. vol. 182; p. 84.
Life-preserver. F. C. W. Klusmeyer. No. 1,037,495; Sept. 3; Gaz. vol. 182; p. 109.
Lifter: *See* Box-lid lifter.
Lifting-jack. C. L. Crabb. No. 1,037,374; Sept. 10; Gaz. vol. 182; p. 266.
Lifting-jack. F. B. Place and G. P. S. Cress. No. 1,039,438; Sept. 24; Gaz. vol. 183; p. 853.
Lifts or hoists, Recording and indicating the working of hydraulic and electric. H. A. Matear, T. F. Kenney, and H. Woodhouse. No. 1,038,922; Sept. 17; Gaz. vol. 182; p. 661.
Light: *See* Building-light; Gas-light.
Light-fixtures, Socket-cover for. G. A. Richards and A. J. Price. No. 1,037,969; Sept. 10; Gaz. vol. 182; p. 207.
Lighting-fixtures, Flexible chain for. L. W. Anderson. No. 1,037,575; Sept. 3; Gaz. vol. 183; p. 185.
Lighting, Vacuum-tube. D. M. Moore. No. 1,037,290; Sept. 3; Gaz. vol. 182; p. 37.
Link, Fusible. J. Alafassor. No. 1,039,077; Sept. 24; Gaz. vol. 182; p. 727.
Liquid-dispensing apparatus. A. Kalthoff. No. 1,038,595; Sept. 17; Gaz. vol. 182; p. 546.
Liquid-distributing apparatus. A. Sätterström. No. 1,038,444; Sept. 10; Gaz. vol. 183; p. 461.
Liquid-fuel burner. T. E. Aulesbrook. No. 1,038,712; Sept. 17; Gaz. vol. 182; p. 587.
Liquids with gases, Apparatus for impregnating. M. Paschka. No. 1,037,517; Sept. 3; Gaz. vol. 182; p. 116.
Liquor-mellowing compound. F. A. Lutters. No. 1,037,783; Sept. 3; Gaz. vol. 182; p. 202.
Loader. J. G. Mattson. No. 1,038,405; Sept. 10; Gaz. vol. 182; p. 446.
Loader, Automatic. A. M. Jordan. No. 1,037,632; Sept. 3; Gaz. vol. 182; p. 152.
Loading apparatus. J. R. Alexander. No. 1,039,007; Sept. 17; Gaz. vol. 182; p. 688.
Loading-machine. G. Manierre. No. 1,037,784; Sept. 3; Gaz. vol. 182; p. 202.
Loading-machine. W. R. Waring. No. 1,039,239; Sept. 24; Gaz. vol. 182; p. 819.
Loaf-molding machine, Long-. P. F. Carroll. No. 1,037,820; Sept. 3; Gaz. vol. 182; p. 214.
Lock: *See* Car-door lock; Cock-lock; Coin-controlled lock; Crate-corner lock; Door-lock; Head-rest lock; Lamp-lock; Nut-lock; Sash-lock; Side-board lock; Trunk-lock; Window-lock.
Lock. W. A. Ratcliff. No. 1,037,531; Sept. 3; Gaz. vol. 182; p. 120.
Lock. A. Norberg. No. 1,037,970; Sept. 10; Gaz. vol. 182; p. 301.
Lock. O. W. Bedell. No. 1,038,268; Sept. 10; Gaz. vol. 182; p. 399.
Lock. A. G. Anderson. No. 1,038,512; Sept. 17; Gaz. vol. 182; p. 517.
Lock. L. L. Kellogg. No. 1,038,597; Sept. 17; Gaz. vol. 182; p. 547.
Lock. F. Hugo. No. 1,038,804; Sept. 17; Gaz. vol. 183; p. 641.
Lock. P. C. Mangold. No. 1,038,150; Sept. 24; Gaz. vol. 183; p. 776.
Lock and latch, Combined. R. M. Bennett. No. 1,037,543; Sept. 3; Gaz. vol. 183; p. 124.
Locking device. C. A. Bennett. No. 1,038,412; Sept. 10; Gaz. vol. 183; p. 442.
Locking device, Automatic. R. W. Smith. No. 1,038,208; Sept. 3; Gaz. vol. 182; p. 242.
Locomotive. F. Martin. No. 1,039,204; Sept. 24; Gaz. vol. 182; p. 880.
Locomotive sub-car. J. A. Swartz. No. 1,038,037; Sept. 17; Gaz. vol. 182; p. 492.
Locomotive attachment. Steam-. H. T. Aydelott. No. 1,038,615; Sept. 17; Gaz. vol. 183; p. 618.
Locomotive-brake. W. Turner. No. 1,038,221; Sept. 24; Gaz. vol. 182; p. 777.
Locomotive drive-wheel. J. F. Franklin. No. 1,039,068; Sept. 24; Gaz. vol. 182; p. 824.
Locomotive-engine. C. L. Hidaker. No. 1,038,577; Sept. 17; Gaz. vol. 182; p. 540.
Locomotives, Steam-superheating apparatus for. J. Primrose. No. 1,037,812; Sept. 3; Gaz. vol. 182; p. 48.
Logging-engine. H. L. Turney. No. 1,039,039; Sept. 10; Gaz. vol. 182; p. 320.
Loom, Automatic weft-replenishing. D. M. Hollins. No. 1,038,988; Sept. 17; Gaz. vol. 183; p. 649.
Loom-shuttle. W. H. Portner and D. H. Baird. No. 1,037,538; Sept. 3; Gaz. vol. 182; p. 119.
Loom-shuttle. A. and S. Widmer. No. 1,038,048; Sept. 10; Gaz. vol. 182; p. 329.
Loom-temple. E. S. Stimpson. No. 1,037,258; Sept. 3; Gaz. vol. 182; p. 69.
Loom-temple. J. Marvel. No. 1,038,109; Sept. 10; Gaz. vol. 182; p. 365.
Looms, Automatic spool-changing apparatus for. A. G. Koechlin. No. 1,038,286; Sept. 17; Gaz. vol. 182; p. 462.
Looms, Automatic spool-changing apparatus for. A. G. Koechlin. No. 1,039,547; Sept. 24; Gaz. vol. 183; p. 866.
Looms, Magazine-stop for weft-replenishing. E. S. Stimpson. No. 1,038,675; Sept. 17; Gaz. vol. 182; p. 573.
Looms, Magazine-stop for weft-replenishing. E. S. Stimpson. No. 1,038,677; Sept. 17; Gaz. vol. 182; p. 574.
Loss-preventing device. J. R. Douglass. No. 1,038,662; Sept. 24; Gaz. vol. 182; p. 932.
Lubricating device. F. Diehl. No. 1,037,217; Sept. 3; Gaz. vol. 182; p. 13.
Lubricating device. O. H. L. Wernicke. No. 1,037,323; Sept. 3; Gaz. vol. 182; p. 66.
Lubricating device. K. Schwarz. No. 1,038,448; Sept. 24; Gaz. vol. 182; p. 856.
Lubricator: *See* Engine-lubricator; Journal-bearing automatic lubricator; Wheel-flange lubricator.
Lubricator. C. H. Kells, Jr. No. 1,037,928; Sept. 10; Gaz. vol. 182; p. 284.
Lye from fabrics, Apparatus for removing. J. Matter. No. 1,037,280; Sept. 3; Gaz. vol. 183; p. 84.
Magnetic separator. G. Ullrich. No. 1,037,868; Sept. 3; Gaz. vol. 182; p. 181.
Magneto. C. E. Johnson. No. 1,038,803; Sept. 17; Gaz. vol. 182; p. 543.
Magneto-electric machine. F. R. Simms. No. 1,039,464; Sept. 24; Gaz. vol. 182; p. 859.
Mail-bag catcher and deliverer. G. W. Wilson. No. 1,038,061; Sept. 10; Gaz. vol. 182; p. 237.
Mail-bag deliverer. C. A. Letrigge. No. 1,037,942; Sept. 10; Gaz. vol. 182; p. 291.
Mail-box. T. H. Tuney. No. 1,038,237; Sept. 10; Gaz. vol. 182; p. 362.
Mail-box. R. V. Knight and C. B. Cassatt. No. 1,039,546; Sept. 24; Gaz. vol. 183; p. 862.
Mail-box alarm. M. W. Grindle. No. 1,037,470; Sept. 3; Gaz. vol. 182; p. 100.
Mail-carrier, Electric. S. A. Brandt. No. 1,039,019; Sept. 17; Gaz. vol. 183; p. 662.
Mail-chute. A. K. Booth and R. A. Kumming. No. 1,037,348; Sept. 3; Gaz. vol. 183; p. 58.
Mail delivering and receiving apparatus. W. Kraemer. No. 1,038,000; Sept. 17; Gaz. vol. 182; p. 548.
Mail-marking machine. P. C. Ickleid. No. 1,038,567; Sept. 17; Gaz. vol. 182; p. 542.
Mail receiving and delivering apparatus. J. S. Lanier. No. 1,037,497; Sept. 3; Gaz. vol. 183; p. 109.
Mail receiving and delivering apparatus. J. S. Lanier. No. 1,037,498; Sept. 3; Gaz. vol. 183; p. 110.
Mailing-card and frame, Combined. C. K. Reese. No. 1,038,683; Sept. 17; Gaz. vol. 183; p. 566.
Manure-spreader. W. M. Alexander. No. 1,039,614; Sept. 17; Gaz. vol. 182; p. 622.
Map, Guide-. R. Reid. No. 1,037,994; Sept. 10; Gaz. vol. 182; p. 305.
Marking-gage. H. Helwig. No. 1,039,055; Sept. 17; Gaz. vol. 183; p. 702.
Match-box. P. W. Gulland. No. 1,038,570; Sept. 17; Gaz. vol. 182; p. 537.
Match-box. C. E. Coombs. No. 1,039,289; Sept. 24; Gaz. vol. 183; p. 702.
Material containing and depositing device. V. D. Johnson. No. 1,038,540; Sept. 24; Gaz. vol. 183; p. 864.
Matting. C. H. Oakley. No. 1,037,512; Sept. 3; Gaz. vol. 182; p. 115.





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Mattress rest or support, Adjustable. F. P. Strobel. No. 1,037,951; Sept. 3; Gaz. vol. 182; p. 61.
Mattress-support, Folding. W. H. Jones. No. 1,038,599; Sept. 17; Gaz. vol. 183; p. 545.
Measure, Adjustable. G. Loyd. No. 1,039,153; Sept. 24; Gaz. vol. 182; p. 752.
Measure, Device for indicating liquid. C. L. Phillis. No. 1,038,561; Sept. 17; Gaz. vol. 183; p. 670.
Measure, Hose-. A. M. Wiswell. No. 1,039,446; Sept. 24; Gaz. vol. 182; p. 864.
Measuring apparatus, Liquid-. K. W. Bartlett. No. 1,037,412; Sept. 3; Gaz. vol. 182; p. 79.
Measuring apparatus, Rock-. R. F. M. Davis. No. 1,038,986; Sept. 10; Gaz. vol. 183; p. 412.
Measuring device, Rope-. W. O. Summerfield and D. W. Morris. No. 1,038,797; Sept. 17; Gaz. vol. 183; p. 618.
Measuring instrument of the coincident-image type, Distance-. H. Bernick. No. 1,038,831; Sept. 17; Gaz. vol. 183; p. 630.
Measuring vessel. W. Newton. No. 1,037,794; Sept. 3; Gaz. vol. 183; p. 206.
Meat, Apparatus for automatically basting fried or roast. H. Siegrist. No. 1,038,217; Sept. 10; Gaz. vol. 183; p. 330.
Meat-clamping device. G. T. Francisco. No. 1,038,896; Sept. 10; Gaz. vol. 183; p. 421.
Meat-curing apparatus. J. C. Lincoln. No. 1,037,941; Sept. 10; Gaz. vol. 182; p. 291.
Mechanical movement. P. Catneci. No. 1,037,436; Sept. 3; Gaz. vol. 182; p. 86.
Mechanical movement. J. Haya. No. 1,039,280; Sept. 24; Gaz. vol. 182; p. 837.
Melting-furnace. W. J. Holzapfel. No. 1,037,768; Sept. 3; Gaz. vol. 183; p. 197.
Metal blanks, Machine for circling. G. R. Lawrence. No. 1,038,006; Sept. 17; Gaz. vol. 183; p. 550.
Metal-coating apparatus. W. Gibson, Sr. No. 1,037,225; Sept. 3; Gaz. vol. 182; p. 20.
Metal into wood, Machine for corrugating, cutting up, and driving strips of. H. H. Barnes and E. C. Thorschmidt. No. 1,039,476; Sept. 24; Gaz. vol. 183; p. 868.
Metal-mixers, Safety device for. W. P. Gleason. No. 1,038,572; Sept. 17; Gaz. vol. 182; p. 542.
Metal-strap ends, Joining. H. H. Flora. No. 1,038,168; Sept. 10; Gaz. vol. 183; p. 345.
Metal straps, Tool for use in fastening. H. H. Flora. No. 1,038,169; Sept. 10; Gaz. vol. 182; p. 345.
Metal-tubes, &c., Making. H. Maertens. No. 1,039,065; Sept. 17; Gaz. vol. 182; p. 704.
Metal-working machine. J. C. Potter and J. Johnston. No. 1,038,434; Sept. 10; Gaz. vol. 182; p. 457.
Metal-working machine. C. D. McDonald. No. 1,039,565; Sept. 24; Gaz. vol. 182; p. 890.
Meter: *See* Current-meter; Electricity-meter; Fluid-meter; Photo-exposure meter; Water-meter.
Meter-box. J. T. Jackson. No. 1,038,148; Sept. 10; Gaz. vol. 182; p. 337.
Meter tester, Fluid-. P. Mueller. No. 1,038,182; Sept. 10; Gaz. vol. 182; p. 360.
Milking. Teat-cup support to facilitate. R. S. Goldstraw. No. 1,037,297; Sept. 10; Gaz. vol. 182; p. 274.
Mill: *See* Attrition-mill; Cane-mill; Cider-mill; Feed-mill; Grist-mill; Rolling-mill; Stamp-mill; Windmill.
Millstones, mills, and the like, Frame for sets of. K. Wegerich. No. 1,037,513; Sept. 3; Gaz. vol. 182; p. 211.
Mine, Submarine. C. P. J. Carteron. No. 1,039,234; Sept. 24; Gaz. vol. 182; p. 790.
Mitering device. F. N. Russell and H. Clark. No. 1,038,906; Sept. 17; Gaz. vol. 182; p. 575.
Mixer: *See* Concrete-mixer; Shortening-mixer.
Mixing-machine. O. Van der Meersch. No. 1,037,810; Sept. 3; Gaz. vol. 182; p. 210.
Mixing-machine. H. U. Prindle. No. 1,039,193; Sept. 24; Gaz. vol. 182; p. 766.
Moistening device, Envelope-. D. C. Baker. No. 1,038,265; Sept. 10; Gaz. vol. 182; p. 396.
Mold: *See* Beer-keg mold; Column-mold; Concrete-building mold; Dental mold; Pipe-mold; Silo-mold; Vulcanizing-mold.
Molding-machine. A. Kowalsky. No. 1,039,143; Sept. 24; Gaz. vol. 182; p. 749.
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Monoplane. A. Damye. No. 1,037,214; Sept. 3; Gaz. vol. 182; p. 12.
Mooring device. O. H. Hansen. No. 1,038,746; Sept. 17; Gaz. vol. 183; p. 600.
Mop-holder. F. E. Wolter. No. 1,037,703; Sept. 3; Gaz. vol. 182; p. 177.
Mop-holder. H. F. Condon. No. 1,038,099; Sept. 10; Gaz. vol. 183; p. 359.
Mop-wringer. T. Peterson. No. 1,038,192; Sept. 10; Gaz. vol. 183; p. 372.
Mortising-machine. J. A. and F. W. Miller. No. 1,037,238; Sept. 3; Gaz. vol. 182; p. 24.
Mortising-machine. J. Lenhart. No. 1,037,930; Sept. 10; Gaz. vol. 183; p. 288.
Motor: *See* Current-motor; Electric motor; Hydraulic motor; Induction-motor; Pneumatic motor; Spring-motor; Thermodynamic motor; Water-motor; Wave-motor.
Motor. R. Crenshaw. No. 1,037,847; Sept. 3; Gaz. vol. 183; p. 221.
Motor control. R. H. McLain. No. 1,039,503; Sept. 24; Gaz. vol. 182; p. 900.
Motor-control system. H. S. Carlisle. No. 1,037,432; Sept. 3; Gaz. vol. 182; p. 87.
Motor-control system. J. R. Cass. No. 1,037,435; Sept. 3; Gaz. vol. 182; p. 86.
Motor-cranking device, Electric. J. J. Sinclair. No. 1,037,244; Sept. 3; Gaz. vol. 182; p. 55.
Motors and the like from a distance, System for controlling electric. H. Grabenwitz, W. Fallbrandt, and H. Lawsow. No. 1,039,272; Sept. 24; Gaz. vol. 183; p. 796.
Motors, Ignition apparatus for explosive. C. F. Kettering. No. 1,037,491; Sept. 3; Gaz. vol. 182; p. 107.
Mower, Lawn-. J. H. and J. L. Ambs. No. 1,038,676; Sept. 24; Gaz. vol. 182; p. 849.
Mower, Lawn-. W. H. Caldwell. No. 1,039,420; Sept. 24; Gaz. vol. 182; p. 871.
Mowers, Grass-collector for lawn-. W. Ross. No. 1,039,356; Sept. 24; Gaz. vol. 182; p. 823.
Moving-machine. C. E. Peterson. No. 1,039,436; Sept. 24; Gaz. vol. 182; p. 852.
Muffler. J. M. Michaelson. No. 1,038,861; Sept. 17; Gaz. vol. 182; p. 564.
Muffliers, Cut-out for. G. C. Ward. No. 1,037,378; Sept. 3; Gaz. vol. 182; p. 68.
Music-leaf turner and holder. K. S. Adsmd. No. 1,038,518; Sept. 17; Gaz. vol. 182; p. 525.
Music-rack and leaf-turner. C. S. Clabe. No. 1,037,897; Sept. 3; Gaz. vol. 182; p. 10.
Music-sheet turner. M. J. Ryan. No. 1,038,662; Sept. 17; Gaz. vol. 182; p. 570.
Music-sheets, Adjusting mechanism for rolls or spools for perforated. O. Nelson. No. 1,039,009; Sept. 17; Gaz. vol. 182; p. 704.
Musical blocks. S. I. J. Wolf. No. 1,039,847; Sept. 24; Gaz. vol. 182; p. 822.
Musical instrument, Electrical. H. E. Dicks. No. 1,037,603; Sept. 3; Gaz. vol. 182; p. 142.
Musical instrument, Self-playing. L. B. Domau. No. 1,038,460; Sept. 10; Gaz. vol. 182; p. 478.
Musical instruments, Means to assist tuning pneumatically-operated. G. K. Heanig. No. 1,038,541; Sept. 17; Gaz. vol. 182; p. 541.
Musical instruments, Tempo-governing device for self-playing. L. B. Domau. No. 1,039,490; Sept. 24; Gaz. vol. 182; p. 882.
Musical instruments, Tracker-bar for self-playing. L. B. Domau. No. 1,039,558; Sept. 24; Gaz. vol. 182; p. 891.
Nail-set. J. L. Schmidt. No. 1,038,207; Sept. 10; Gaz. vol. 182; p. 377.
Nailing-machine. H. W. Morgan. No. 1,039,172; Sept. 24; Gaz. vol. 182; p. 758.
Nailing machine, Box-. E. C. Northrup. No. 1,037,320; Sept. 3; Gaz. vol. 182; p. 40.
Napkins, Apparatus for making sanitary. M. H. Mayers. No. 1,038,188; Sept. 10; Gaz. vol. 183; p. 476.
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Nest. L. W. Mittendorf. No. 1,038,627; Sept. 17; Gaz. vol. 182; p. 558.
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Notch-finder, Automatic. G. W. Hutchinson. No. 1,037,257; Sept. 3; Gaz. vol. 182; p. 28.
Nozzle for apparatus for exhausting, propelling, and inducing currents in fluids. G. Weidmann. No. 1,039,231; Sept. 24; Gaz. vol. 182; p. 781.
Nozzle, Suction-. C. L. Goughnour. No. 1,039,383; Sept. 24; Gaz. vol. 182; p. 835.
Nozzles, Governor-controlled mechanism for hydraulic. G. J. Henry, Jr. No. 1,038,133; Sept. 10; Gaz. vol. 182; p. 353.
Nursery-chair. W. L. Carter. No. 1,039,647; Sept. 24; Gaz. vol. 182; p. 927.
Nut-cracking device. M. Golek. No. 1,038,873; Sept. 17; Gaz. vol. 182; p. 645.
Nut-cracking machine. H. D. Crawford and W. R. Knight. No. 1,037,596; Sept. 3; Gaz. vol. 182; p. 141.
Nut-cracking machines, Feed mechanism for. T. C. Sneed. No. 1,038,229; Sept. 10; Gaz. vol. 183; p. 334.
Nut-lock. A. H. White. No. 1,037,384; Sept. 3; Gaz. vol. 182; p. 70.
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Nut-lock. W. F. Bouness. No. 1,039,017; Sept. 17; Gaz. vol. 183; p. 691.
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Nut-machine. F. Lackner. No. 1,039,145; Sept. 24; Gaz. vol. 182; p. 750.

Nut-splitter. P. Nelson. No. 1,037,966; Sept. 10; Gaz. vol. 182; p. 300.
Nutcracker. F. W. Meser. No. 1,037,965; Sept. 10; Gaz. vol. 182; p. 299.
Oil and gas burner, Combination. J. A. Grosnert. No. 1,038,120; Sept. 10; Gaz. vol. 182; p. 348.
Oil-burner. F. W. Penn. No. 1,039,119; Sept. 24; Gaz. vol. 182; p. 812.
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Oil-cup, Journal-box. C. H. Alexander. No. 1,039,629; Sept. 24; Gaz. vol. 182; p. 930.
Oil-feeding device. C. F. Heeder. No. 1,038,289; Sept. 17; Gaz. vol. 182; p. 649.
Oil product, Edible. C. Mills. No. 1,037,961; Sept. 10; Gaz. vol. 182; p. 266.
Oiler, Bench-. W. H. Gaffer. No. 1,038,240; Sept. 10; Gaz. vol. 182; p. 428.
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Oiling device. J. W. F. Berry and J. Macon. No. 1,039,063; Sept. 24; Gaz. vol. 182; p. 729.
Orchard-heater. L. M. Thamper. No. 1,038,036; Sept. 10; Gaz. vol. 182; p. 310.
Orchard-heater. N. B. Newcomer and C. O. Johnson. No. 1,038,420; Sept. 10; Gaz. vol. 182; p. 462.
Ore-burner. C. C. Meigs. No. 1,038,466; Sept. 10; Gaz. vol. 182; p. 447.
Ore-concentrator. T. W. A. West. No. 1,038,046; Sept. 10; Gaz. vol. 182; p. 326.
Ore-concentrator. C. L. Glassbrook. No. 1,038,871; Sept. 17; Gaz. vol. 182; p. 649.
Ore-concentrators, Head-motion for. H. Eggers. No. 1,038,822; Sept. 10; Gaz. vol. 182; p. 417.
Osteopathic table. J. V. McManis and W. L. Sherwood. No. 1,038,610; Sept. 17; Gaz. vol. 182; p. 555.
Oven-door. W. H. Huesefeld. No. 1,038,290; Sept. 24; Gaz. vol. 182; p. 803.
Oven, Portable. W. H. Huesefeld. No. 1,039,290; dept. 24; Gaz. vol. 182; p. 803.
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Ovens, Machine for charging and discharging. G. Smith. No. 1,038,503; Sept. 10; Gaz. vol. 182; p. 480.
Ovens, Removable ceiling for enameling. G. W. Ellser. No. 1,037,910; Sept. 10; Gaz. vol. 182; p. 279.
Overshoe. J. H. Brown and D. A. Berry. No. 1,037,201; Sept. 3; Gaz. vol. 182; p. 8.
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Oxalates, Manufacture of. D. Strauss. No. 1,038,965; Sept. 17; Gaz. vol. 182; p. 681.
Oxidising or reducing chemical substances by way of electrolysis. G. Kolaky. No. 1,039,415; Sept. 24; Gaz. vol. 182; p. 845.
Oxygen-generator. N. J. Anderson. No. 1,038,065; Sept. 10; Gaz. vol. 182; p. 331.
Ozone-producing apparatus. S. Held. No. 1,038,130; Sept. 10; Gaz. vol. 182; p. 351.
Ozonizer. R. M. Leggett. No. 1,037,500; Sept. 3; Gaz. vol. 182; p. 110.
Package. J. M. Francis. No. 1,039,114; Sept. 24; Gaz. vol. 182; p. 739.
Package-clasp. C. G. Parks. No. 1,038,785; Sept. 17; Gaz. vol. 182; p. 613.
Package-elevator. J. Keers. No. 1,037,635; Sept. 3; Gaz. vol. 182; p. 153.
Packaging-machine. C. F. Smith. No. 1,038,010; Sept. 10; Gaz. vol. 182; p. 313.
Packing. E. J. Bloom. No. 1,038,834; Sept. 17; Gaz. vol. 182; p. 681.
Packing-box. J. W. Schleicher. No. 1,039,447; Sept. 24; Gaz. vol. 182; p. 856.
Packing-case. L. D. Morton. (Reissue.) No. 12,466; Sept. 3; Gaz. vol. 182; p. 222.
Packing-case. J. J. Vanderveer. No. 1,039,225; Sept. 24; Gaz. vol. 182; p. 779.
Packing for engine piston-rods and the like, Flexible. A. C. Judd. No. 1,038,759; Sept. 17; Gaz. vol. 182; p. 604.
Packing-machine. S. Berti. No. 1,039,637; Sept. 24; Gaz. vol. 182; p. 923.
Pad: *See* Desk-pad.
Padlock. J. A. Giese. No. 1,039,119; Sept. 24; Gaz. vol. 182; p. 741.
Pail, Minnow-. L. A. Banta. No. 1,039,633; Sept. 24; Gaz. vol. 182; p. 922.
Pan: *See* Ash-pan; Locomotive ash-pan.
Pantographic apparatus for use of sculptors. J. Ettl. No. 1,037,460; Sept. 3; Gaz. vol. 182; p. 97.
Paper-bag holder. H. L. Snyder. No. 1,038,699; Sept. 17; Gaz. vol. 182; p. 672.
Paper bottle, Sanitary. W. Glassman. No. 1,039,579; Sept. 24; Gaz. vol. 182; p. 824.
Paper-box machine. C. T. Upton and G. S. Gilman. No. 1,037,372; Sept. 3; Gaz. vol. 182; p. 65.
Paper-box play, Compressed. W. G. Chapin. No. 1,039,068; Sept. 24; Gaz. vol. 182; p. 838.
Paper carpet. G. H. Davis. No. 1,038,094; Sept. 10; Gaz. vol. 182; p. 342.
Paper carpet. G. H. Davis. No. 1,038,095; Sept. 10; Gaz. vol. 182; p. 341.
Paper feed and cut-off. W. P. Harbrecht. No. 1,039,124; Sept. 24; Gaz. vol. 182; p. 742.
Paper-feeding mechanism, Tube-operating device for. F. W. Duffy. No. 1,037,230; Sept. 3; Gaz. vol. 182; p. 14.
Paper from pulp, Manufacture of. E. Granville. No. 1,038,425; Sept. 17; Gaz. vol. 182; p. 536.
Paper holder and cutter, Roll-. J. H. King and C. R. Miller. No. 1,038,130; Sept. 10; Gaz. vol. 182; p. 349.
Paper imitating felt and making the same, Perforated. A. L. Clapp. No. 1,038,086; Sept. 10; Gaz. vol. 182; p. 338.
Paper-making machines, Construction and means of operation of pulp-straining drums for. L. Margnet. No. 1,038,919; Sept. 17; Gaz. vol. 182; p. 660.
Paper or other material, Machine for transparentizing sheets of. C. L. Crabb. No. 1,037,573; Sept. 10; Gaz. vol. 182; p. 260.
Paper package, Toilet-. W. B. Swift. No. 1,038,457; Sept. 10; Gaz. vol. 182; p. 466.
Paper pails, Machine for forming and bailing. H. A. Inman. No. 1,038,145; Sept. 10; Gaz. vol. 182; p. 357.
Paper-pulp-screening machine. R. D. Coppage. No. 1,037,697; Sept. 3; Gaz. vol. 182; p. 141.
Paper-roll-making machine, Toilet-. F. Meisel. No. 1,037,594; Sept. 3; Gaz. vol. 182; p. 35.
Paper sheets in sorting or similar machines, Device for cleaning or stripping. G. Spiess. No. 1,039,668; Sept. 24; Gaz. vol. 182; p. 912.
Paper-surface-finishing machines, Roll for. J. Speed. No. 1,038,505; Sept. 10; Gaz. vol. 182; p. 481.
Parachute device. L. Miller. No. 1,037,969; Sept. 10; Gaz. vol. 182; p. 297.
Parcel-tier. B. H. and R. N. Bunn. No. 1,038,843; Sept. 17; Gaz. vol. 182; p. 684.
Pasty materials, such as chocolate, Apparatus for treating. H. L. A. Savy. No. 1,037,545; Sept. 3; Gaz. vol. 182; p. 126.
Pattern: *See* Coat-collar pattern.
Pedestal. J. L. H. Jenkins. No. 1,039,124; Sept. 24; Gaz. vol. 182; p. 742.
Pen. E. P. De Vault. No. 1,037,215; Sept. 3; Gaz. vol. 182; p. 13.
Pen and the like, P. J. Fouquier. No. 1,038,788; Sept. 17; Gaz. vol. 182; p. 597.
Pen, Calender-. L. Stefanowitch. No. 1,037,356; Sept. 3; Gaz. vol. 182; p. 60.
Pen, Fountain-. P. Bloemberg. No. 1,037,660; Sept. 3; Gaz. vol. 182; p. 168.
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Pen, Fountain-. O. F. Barrett. No. 1,038,068; Sept. 10; Gaz. vol. 182; p. 332.
Pen, Fountain or self-feeding. H. Gilbert. No. 1,038,743; Sept. 17; Gaz. vol. 182; p. 599.
Pencil-holder. H. Lewis and J. Straka. No. 1,037,646; Sept. 3; Gaz. vol. 182; p. 158.
Pencil, Self-sharpening. M. Crane. No. 1,038,887; Sept. 17; Gaz. vol. 182; p. 638.
Pencil-sharpener. F. A. Fricker. No. 1,038,112; Sept. 10; Gaz. vol. 182; p. 344.
Perambulator or baby-carriage, Folding. F. J. Beier. No. 1,038,829; Sept. 17; Gaz. vol. 182; p. 630.
Perch, Portable poultry-. J. M. Beecher, Sr. No. 1,037,551; Sept. 3; Gaz. vol. 182; p. 126.
Perch, Poultry-. B. R. Dunney. No. 1,038,979; Sept. 10; Gaz. vol. 182; p. 356.
Phonograph. H. B. McNulty. No. 1,038,631; Sept. 17; Gaz. vol. 182; p. 556.
Phonograph-disk-record cabinet. W. H. Dewar. No. 1,038,060; Sept. 10; Gaz. vol. 182; p. 342.
Phonograph-needle. R. Steinert. No. 1,038,206; Sept. 24; Gaz. vol. 182; p. 772.
Phonophotoscope. W. J. Williams and H. H. Rasmussen. No. 1,037,530; Sept. 3; Gaz. vol. 182; p. 120.
Phosphate, Making tri-alkali. R. H. Strickler. No. 1,037,837; Sept. 3; Gaz. vol. 182; p. 220.
Photo-exposure meter. S. Pratt. No. 1,039,191; Sept. 24; Gaz. vol. 182; p. 766.
Photographic-printing frame. E. S. McAdam. No. 1,038,171; Sept. 10; Gaz. vol. 182; p. 366.
Photographic-printing machine. E. E. Loving. No. 1,038,771; Sept. 17; Gaz. vol. 182; p. 606.
Photographing-machine. J. Herriott. No. 1,038,186; Sept. 10; Gaz. vol. 182; p. 354.
Photographs, Making. F. W. Buttershall. No. 1,037,192; Sept. 3; Gaz. vol. 182; p. 5.
Piano-action, Pneumatic. V. Kranich. No. 1,038,601; Sept. 17; Gaz. vol. 182; p. 548.
Piano-bench. W. A. Kirkpatrick, J. B. Robbins, and C. P. Kirkpatrick. No. 1,037,266; Sept. 3; Gaz. vol. 182; p. 20.
Piano, Electric. I. B. Smith. No. 1,037,849; Sept. 3; Gaz. vol. 182; p. 86.





Piano-keyboard. C. Fischer. No. 1,038,549; Sept. 17; Gaz. vol. 182; p. 531.
Piano-player and the like, Pneumatic. M. M. Kastner and C. Katz. No. 1,038,761; Sept. 17; Gaz. vol. 182; p. 604.
Piano-silencing attachment. A. Stein. No. 1,038,015; Sept. 10; Gaz. vol. 182; p. 315.
Piano-violin. A. Philippe. No. 1,038,643; Sept. 17; Gaz. vol. 182; p. 563.
Piano, Violin-. W. A. Basting. No. 1,039,461; Sept. 24; Gaz. vol. 182; p. 869.
Pianos, Hammer-rail construction for pneumatic. W. G. Betz. No. 1,037,534; Sept. 3; Gaz. vol. 182; p. 127.
Pianos, Music-turner for. J. G. Boutte. No. 1,037,723; Sept. 3; Gaz. vol. 182; p. 192.
Pianoforte, Adjustable music-desk for. G. C. Farrow. No. 1,037,233; Sept. 3; Gaz. vol. 182; p. 20.
Picker: *See* Berry-picker; Cotton-picker; Fruit-picker.
Picker for coupons, labels, &c. H. T. Dennis. No. 1,039,100; Sept. 24; Gaz. vol. 182; p. 732.
Picker-operating device. J. F. MacWilliam. No. 1,038,186; Sept. 10; Gaz. vol. 182; p. 364.
Picture apparatus, Moving. E. L. Aiken. No. 1,037,188; Sept. 3; Gaz. vol. 182; p. 3.
Picture machine, Moving. A. S. Howell. No. 1,038,586; Sept. 17; Gaz. vol. 182; p. 543.
Pie trimming and rimming machine. J. P. Friede. No. 1,039,506; Sept. 24; Gaz. vol. 182; p. 877.
Pile fabric, Woven. G. Crossland. No. 1,038,832; Sept. 17; Gaz. vol. 182; p. 534.
Piling-bar. D. W. Mathias. No. 1,039,563; Sept. 24; Gaz. vol. 182; p. 866.
Pin: *See* Safety-pin.
Pin. C. F. Markham. No. 1,038,618; Sept. 17; Gaz. vol. 182; p. 555.
Pins, Holder for a paper of. G. Giugliano. No. 1,038,845; Sept. 10; Gaz. vol. 182; p. 426.
Pineapples, Coring, Treating, W. A. Baldwin. No. 1,039,350; Sept. 24; Gaz. vol. 182; p. 822.
Pipe: *See* Blowpipe; Culvert-pipe; Reed-pipe; Smoking-pipe; Stand-pipe; Tobacco-pipe.
Pipe-coupling. F. J. Glover. No. 1,037,223; Sept. 3; Gaz. vol. 182; p. 21.
Pipe-coupling. J. M. Langford. No. 1,038,396; Sept. 10; Gaz. vol. 182; p. 442.
Pipe-coupling. J. H. Shepherd. No. 1,038,669; Sept. 17; Gaz. vol. 182; p. 572.
Pipe-coupling box-flange. H. Mueller. No. 1,039,515; Sept. 24; Gaz. vol. 182; p. 811.
Pipe-joints of the ball and spigot type, Repair-clamp for. J. Clark and G. Irwin. No. 1,039,488; Sept. 24; Gaz. vol. 182; p. 871.
Pipe-making machine. J. Fraser. No. 1,037,888; Sept. 10; Gaz. vol. 182; p. 271.
Pipe-making press. J. Fraser. No. 1,037,889; Sept. 10; Gaz. vol. 182; p. 271.
Pipe-mold. T. J. Schuricht. No. 1,039,506; Sept. 24; Gaz. vol. 182; p. 900.
Pipe-reamer. D. M. Hatton. No. 1,038,861; Sept. 17; Gaz. vol. 182; p. 647.
Pipe-reamer. J. R. Long. No. 1,038,913; Sept. 17; Gaz. vol. 182; p. 658.
Pipe-reaming machine. J. R. Long. No. 1,038,914; Sept. 17; Gaz. vol. 182; p. 658.
Pipe-threading die. E. Borden. No. 1,038,482; Sept. 10; Gaz. vol. 182; p. 472.
Pipe-wrench. W. R. Wilkinson. No. 1,037,287; Sept. 3; Gaz. vol. 182; p. 70.
Pipe-wrench. A. J. Cooper. No. 1,037,872; Sept. 10; Gaz. vol. 182; p. 295.
Pipe-wrench. E. J. Spink. No. 1,038,671; Sept. 17; Gaz. vol. 182; p. 572.
Pipes, Adjustable screw-joint coupling for supply-. P. Mueller. No. 1,039,575; Sept. 24; Gaz. vol. 182; p. 903.
Pipes, Removable mouthpiece for smoking-. F. R. Lindley. No. 1,037,780; Sept. 3; Gaz. vol. 182; p. 201.
Pistol, Automatic. J. H. Wesson. No. 1,039,232; Sept. 24; Gaz. vol. 182; p. 781.
Pistol-holster carrier. F. H. Audley. No. 1,037,717; Sept. 3; Gaz. vol. 182; p. 181.
Piston. E. T. Robinson. No. 1,038,510; Sept. 10; Gaz. vol. 182; p. 482.
Planing apparatus. W. F. Rice. No. 1,038,790; Sept. 17; Gaz. vol. 182; p. 615.
Planter. W. W. Lowe. No. 1,038,611; Sept. 17; Gaz. vol. 182; p. 552.
Planter. H. H. Griffith. No. 1,039,275; Sept. 24; Gaz. vol. 182; p. 795.
Planter, Corn-. S. H. Garst. No. 1,038,559; Sept. 17; Gaz. vol. 182; p. 534.
Planter, Seed-. P. A. Custer. No. 1,039,105; Sept. 24; Gaz. vol. 182; p. 736.
Planters, Box for seed-. M. E. Hughes. No. 1,039,660; Sept. 17; Gaz. vol. 182; p. 703.
Plaster-pointing-up device. W. C. Moreland. No. 1,038,180; Sept. 10; Gaz. vol. 182; p. 366.
Plating metals. M. W. Franklin. No. 1,037,887; Sept. 10; Gaz. vol. 182; p. 271.
Pliers, Parallel-jaw. E. E. Gregg. No. 1,038,745; Sept. 17; Gaz. vol. 182; p. 599.
Plow. I. A. Weaver. No. 1,038,066; Sept. 10; Gaz. vol. 182; p. 322.
Plow. O. Georg. No. 1,038,870; Sept. 17; Gaz. vol. 182; p. 642.
Plow. W. L. Morford. No. 1,039,314; Sept. 24; Gaz. vol. 182; p. 811.
Plow. W. Newsome. No. 1,039,581; Sept. 24; Gaz. vol. 182; p. 905.
Plow-handle mount. A. M. White. No. 1,039,074; Sept. 17; Gaz. vol. 182; p. 707.
Plug-switch. J. J. Lyng. No. 1,039,156; Sept. 24; Gaz. vol. 182; p. 753.
Plunger-switch. E. S. McLara. No. 1,038,776; Sept. 17; Gaz. vol. 182; p. 610.
Pneumatic cushion. J. Hofmann. No. 1,039,537; Sept. 24; Gaz. vol. 182; p. 880.
Pneumatic motor. V. J. Johnson. No. 1,037,775; Sept. 3; Gaz. vol. 182; p. 200.
Pneumatic spring. T. J. Mullen and T. F. Brennan. No. 1,038,576; Sept. 24; Gaz. vol. 182; p. 904.
Pneumatic wheel. G. H. Treadgold. No. 1,038,687; Sept. 17; Gaz. vol. 182; p. 579.
Polishing-cloth. E. S. Webster. No. 1,038,604; Sept. 17; Gaz. vol. 182; p. 581.
Polishing-machine. C. W. Beam. No. 1,037,851; Sept. 10; Gaz. vol. 182; p. 257.
Polishing-machine. C. W. Beam. No. 1,037,852; Sept. 10; Gaz. vol. 182; p. 257.
Polishing-machine. J. F. Maroni. No. 1,038,404; Sept. 10; Gaz. vol. 182; p. 445.
Portable rack. J. J. Bailey. No. 1,039,080; Sept. 24; Gaz. vol. 182; p. 728.
Porte-polisher. H. G. Wiggins. No. 1,039,285; Sept. 24; Gaz. vol. 182; p. 783.
Portfolio, Letter-carrier's. F. W. Wilson. No. 1,037,286; Sept. 3; Gaz. vol. 182; p. 71.
Post: *See* Fence-post.
Post-cap. S. W. Rothrock. No. 1,037,996; Sept. 10; Gaz. vol. 182; p. 300.
Post-hole digger. E. L. Tittsworth. No. 1,039,613; Sept. 24; Gaz. vol. 182; p. 915.
Postmarking-machine. P. Madigan and J. Rehak. No. 1,039,560; Sept. 24; Gaz. vol. 182; p. 897.
Pot: *See* Dash-pot; Tea and coffee pot.
Potatoes, pineapples, &c., Device for removing eyes from. U. Lobb. No. 1,038,164; Sept. 10; Gaz. vol. 182; p. 361.
Powder-packing machine. T. Paraskovich. No. 1,037,974; Sept. 10; Gaz. vol. 182; p. 302.
Power for presses, &c., Generator of hydraulic. A. T. Bossert. No. 1,038,524; Sept. 17; Gaz. vol. 182; p. 521.
Power-transmission device. G. W. Marble. No. 1,038,918; Sept. 17; Gaz. vol. 182; p. 660.
Power-transmission mechanism, Variable-speed. W. I. Twombly. No. 1,038,669; Sept. 17; Gaz. vol. 182; p. 590.
Power-transmitting mechanism. J. E. Bissell. No. 1,038,823; Sept. 17; Gaz. vol. 182; p. 630.
Power-wheel. H. B. Johnston. No. 1,037,260; Sept. 3; Gaz. vol. 182; p. 29.
Power-wrench. C. L. Brink. No. 1,039,642; Sept. 24; Gaz. vol. 182; p. 925.
Press: *See* Arbor-press; Bailing-press; Extrusion-press; Hammer-press; Pipe-making press; Printing-press.
Press. M. A. Cuming. No. 1,037,841; Sept. 3; Gaz. vol. 182; p. 221.
Press. O. Riemann. No. 1,039,444; Sept. 24; Gaz. vol. 182; p. 855.
Pressing garments. D. C. Hale, Jr. No. 1,038,123; Sept. 10; Gaz. vol. 182; p. 349.
Pressing machine, Garment-. C. Tedd. No. 1,038,686; Sept. 17; Gaz. vol. 182; p. 579.
Pressure-gage. G. W. Kellogg. No. 1,038,885; Sept. 10; Gaz. vol. 182; p. 488.
Pressure-indicator. W. Seymour. No. 1,037,550; Sept. 3; Gaz. vol. 182; p. 127.
Pressure recorder, Differential-. W. H. Bristol. No. 1,038,528; Sept. 17; Gaz. vol. 182; p. 522.
Printer and holder, Paper-roll. J. J. Sprinkle. No. 1,038,673; Sept. 17; Gaz. vol. 182; p. 574.
Printer's galley for use with the mono or other type casting machines. A. H. Stockall. No. 1,038,018; Sept. 10; Gaz. vol. 182; p. 316.
Printing device. E. L. Boyd. No. 1,037,198; Sept. 3; Gaz. vol. 182; p. 7.
Printing-press. W. M. Clark. No. 1,038,088; Sept. 10; Gaz. vol. 182; p. 338.
Printing-press feed-guide. W. F. Brewer and A. Knobel. No. 1,038,487; Sept. 10; Gaz. vol. 182; p. 475.
Printing-presses, Means for treating paper on. C. H. Mortimer. No. 1,037,065; Sept. 10; Gaz. vol. 182; p. 290.
Printing-surfaces, Bending. B. F. Upham. No. 1,038,901; Sept. 17; Gaz. vol. 182; p. 653.
Printing-surfaces for lithographic or aluminum printing, Production of intaglio. W. J. E. Bartleff. No. 1,038,206; Sept. 10; Gaz. vol. 182; p. 398.
Projectile, Explosive. E. Schneider. No. 1,039,199; Sept. 24; Gaz. vol. 182; p. 760.
Projectiles, Placing containers in. E. Sokolowski. No. 1,039,204; Sept. 24; Gaz. vol. 182; p. 771.
Projectiles, Placing containers in. E. Sokolowski. No. 1,039,490; Sept. 24; Gaz. vol. 182; p. 861.
Projection apparatus. E. W. Goodrich. No. 1,038,849; Sept. 10; Gaz. vol. 182; p. 425.
Pruning-knife. W. Scioneaux. No. 1,038,448; Sept. 10; Gaz. vol. 182; p. 463.
Puller: *See* Stalk-puller.
Pulp, Apparatus for the production of mechanical wood-. G. C. Howard. No. 1,039,286; Sept. 24; Gaz. vol. 182; p. 802.

Pulp-tube machine. W. R. Seigle. No. 1,037,670; Sept. 3; Gaz. vol. 182; p. 166.
Pulp-tube-winding machine. W. R. Seigle. No. 1,037,671; Sept. 3; Gaz. vol. 182; p. 167.
Pulverizer. E. H. Frichny. No. 1,037,232; Sept. 3; Gaz. vol. 182; p. 19.
Pulverizer. G. R. Mitchell. No. 1,038,779; Sept. 17; Gaz. vol. 182; p. 611.
Pulverizer. J. H. Hirt. No. 1,038,886; Sept. 17; Gaz. vol. 182; p. 648.
Pulverizer. F. R. Cornwall. No. 1,039,102; Sept. 24; Gaz. vol. 182; p. 725.
Pulverizer and weed-destroyer, Sod-. A. Veitl. No. 1,038,240; Sept. 10; Gaz. vol. 182; p. 389.
Pulverizer, Disk. F. M. Iler. No. 1,037,772; Sept. 3; Gaz. vol. 182; p. 198.
Pump. W. S. Gregg. No. 1,038,568; Sept. 17; Gaz. vol. 182; p. 536.
Pump apparatus, Vacuum-. R. Berrenberg. No. 1,038,075; Sept. 10; Gaz. vol. 182; p. 334.
Pump, Automatic compressor-. A. Jaekel. No. 1,039,530; Sept. 24; Gaz. vol. 182; p. 890.
Pump, Centrifugal. A. E. Guy. No. 1,037,243; Sept. 3; Gaz. vol. 182; p. 22.
Pump, Centrifugal. A. E. Guy. No. 1,037,244; Sept. 3; Gaz. vol. 162; p. 23.
Pump, Compound. F. Tuma. No. 1,039,218; Sept. 24; Gaz. vol. 182; p. 776.
Pump, Compound. F. Tuma. No. 1,039,616; Sept. 24; Gaz. vol. 182; p. 916.
Pump construction. C. O. Lucas. No. 1,039,154; Sept. 24; Gaz. vol. 182; p. 753.
Pump for vacuum-cleaners. R. R. Smith. No. 1,038,222; Sept. 10; Gaz. vol. 182; p. 382.
Pump, Force-. A. J. Tyler. No. 1,039,336; Sept. 24; Gaz. vol. 182; p. 818.
Pump-governor. F. L. Jahn. No. 1,037,773; Sept. 3; Gaz. vol. 182; p. 199.
Pump, Multiple-cylinder. W. H. Newbrough. No. 1,037,297; Sept. 3; Gaz. vol. 182; p. 39.
Pump-operating mechanism. T. P. Hannegan. No. 1,039,589; Sept. 24; Gaz. vol. 182; p. 837.
Pump, Rotary. D. C. Baker and H. F. Hansen. No. 1,038,477; Sept. 10; Gaz. vol. 182; p. 472.
Pump, Rotary. J. Lehne. No. 1,038,769; Sept. 17; Gaz. vol. 182; p. 608.
Pump, Rotary. F. T. Clarke. No. 1,039,028; Sept. 17; Gaz. vol. 182; p. 694.
Pumps, Means for increasing the height of suction of. A. C. E. Rateau. No. 1,038,201; Sept. 10; Gaz. vol. 182; p. 375.
Pumping system. E. L. Dunn. No. 1,037,879; Sept. 10; Gaz. vol. 182; p. 268.
Punch, Metal-working. A. L. Goddard. No. 1,037,896; Sept. 10; Gaz. vol. 182; p. 274.
Push-button. W. B. Eichholtz. No. 1,039,039; Sept. 17; Gaz. vol. 182; p. 697.
Puzzle or toy. W. J. P. Olson. No. 1,038,190; Sept. 10; Gaz. vol. 182; p. 371.
Pyrometer or thermo-battery. J. L. Zander. No. 1,038,258; Sept. 10; Gaz. vol. 182; p. 396.
Rack: *See* Corn-rack; Garment-rack; Mattress-rack; Music-rack; Portable rack; Safety-rack; Stamp-rack; Towel-rack.
Rack. H. K. Randall and S. C. Thompson. No. 1,038,198; Sept. 10; Gaz. vol. 182; p. 374.
Rack-support. F. V. Knauss. No. 1,037,928; Sept. 10; Gaz. vol. 182; p. 286.
Radiator, Electrically-heated steam-. J. S. Thompson. No. 1,037,369; Sept. 3; Gaz. vol. 182; p. 64.
Radiator-shield. F. F. Bassett. No. 1,039,480; Sept. 24; Gaz. vol. 182; p. 868.
Rail. H. Collins. No. 1,039,029; Sept. 17; Gaz. vol. 182; p. 694.
Rail and rail-joint, Guard-. G. E. Woods. No. 1,039,003; Sept. 17; Gaz. vol. 182; p. 687.
Rail-bond and fish-plate, Welded. J. M. Yount. No. 1,037,707; Sept. 3; Gaz. vol. 182; p. 179.
Rail-brace. J. D. Spratt. No. 1,039,609; Sept. 24; Gaz. vol. 182; p. 913.
Rail-chair. L. Zabawa. No. 1,037,708; Sept. 3; Gaz. vol. 182; p. 179.
Rail construction, Compound-. E. Rhodes. No. 1,038,430; Sept. 10; Gaz. vol. 182; p. 459.
Rail fastener and tie, Combined. E. Young. No. 1,037,706; Sept. 3; Gaz. vol. 182; p. 178.
Rail-fastener, Automatic. A. C. Candland. No. 1,039,362; Sept. 24; Gaz. vol. 182; p. 827.
Rail-fastening. W. E. Franklin. No. 1,039,374; Sept. 24; Gaz. vol. 182; p. 832.
Rail, Guard-. M. Ryan. No. 1,038,969; Sept. 17; Gaz. vol. 182; p. 676.
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Rail-joint. H. Lippert. No. 1,037,501; Sept. 3; Gaz. vol. 182; p. 111.
Rail-joint. J. M. Cooper. No. 1,037,595; Sept. 3; Gaz. vol. 182; p. 140.
Rail-joint. D. W. James. No. 1,037,774; Sept. 3; Gaz. vol. 182; p. 199.
Rail-joint. N. Smiar. No. 1,037,801; Sept. 3; Gaz. vol. 182; p. 208.
Rail-joint. A. Kurzawskey. No. 1,038,156; Sept. 10; Gaz. vol. 182; p. 361.
Rail-joint. V. Demegalle. No. 1,038,362; Sept. 17; Gaz. vol. 182; p. 540.
Rail-joint. M. L. Leonard. No. 1,038,906; Sept. 17; Gaz. vol. 182; p. 654.
Rail-joint. G. Rolick. No. 1,039,038; Sept. 17; Gaz. vol. 182; p. 697.
Rail-joint. W. H. Gaither. No. 1,039,510; Sept. 24; Gaz. vol. 182; p. 850.
Rail-joint. W. M. Scott. No. 1,039,597; Sept. 24; Gaz. vol. 182; p. 910.
Rail-joint. T. Brewer. No. 1,039,641; Sept. 24; Gaz. vol. 182; p. 926.
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Rail-joint and securing device, Combined. C. F. Courson. No. 1,039,031; Sept. 17; Gaz. vol. 182; p. 696.
Rail-joint and tie-fastener, Combined. A. Dillon. No. 1,038,312; Sept. 10; Gaz. vol. 182; p. 413.
Rail-joint, Insulated. J. A. Bodkin. No. 1,037,197; Sept. 3; Gaz. vol. 182; p. 7.
Rail-joints, Track-fastening for. B. Welhaupter. No. 1,038,611; Sept. 17; Gaz. vol. 182; p. 622.
Rail-laying apparatus. J. Reinehr. No. 1,038,864; Sept. 17; Gaz. vol. 182; p. 566.
Rail-loader. M. Feeney. No. 1,037,226; Sept. 3; Gaz. vol. 182; p. 16.
Rail-support. G. W. Roemer. No. 1,037,540; Sept. 3; Gaz. vol. 182; p. 123.
Rails to ties, Means for securing. J. W. Kummer and G. Jorgensen. No. 1,039,417; Sept. 24; Gaz. vol. 182; p. 849.
Railway, Apparatus for controlling the passage of vehicles along a. A. C. Livermore. No. 1,039,418; Sept. 24; Gaz. vol. 182; p. 847.
Railway chair and plate. J. Isbell. No. 1,037,483; Sept. 3; Gaz. vol. 182; p. 106.
Railway cross-tie. G. W. Curtiss. No. 1,037,509; Sept. 3; Gaz. vol. 182; p. 141.
Railway-crossing. L. O. Harbaugh. No. 1,038,358; Sept. 10; Gaz. vol. 182; p. 429.
Railway-crossing bells, Electrical contact for. E. D. Every. No. 1,037,606; Sept. 3; Gaz. vol. 182; p. 144.
Railway-frog. H. G. Elfborg. No. 1,037,880; Sept. 10; Gaz. vol. 182; p. 268.
Railway, Pleasure-. J. A. Miller. No. 1,037,968; Sept. 10; Gaz. vol. 182; p. 296.
Railway plows, Protecting device for electric-. W. L. Boyer. No. 1,037,421; Sept. 3; Gaz. vol. 182; p. 82.
Railway-rail coupling. F. McCue and F. E. McCrea. No. 1,039,429; Sept. 24; Gaz. vol. 182; p. 850.
Railway-rail joint. J. Revis. No. 1,037,986; Sept. 10; Gaz. vol. 182; p. 306.
Railway-rails to ties, Device for securing. C. F. Courson. No. 1,039,032; Sept. 17; Gaz. vol. 182; p. 696.
Railway signaling mechanism. W. J. Cook. No. 1,037,871; Sept. 10; Gaz. vol. 182; p. 265.
Railway signaling system, Electric. M. L. Hein. No. 1,038,129; Sept. 10; Gaz. vol. 182; p. 351.
Railway-spike. H. H. Lange. No. 1,038,905; Sept. 17; Gaz. vol. 182; p. 655.
Railway structure, Pleasure-. J. A. Miller. No. 1,038,174; Sept. 10; Gaz. vol. 182; p. 367.
Railway-switch. W. D. Baldwin. No. 1,037,409; Sept. 3; Gaz. vol. 182; p. 78.
Railway-switch-operating device. E. T. Hebb. No. 1,038,574; Sept. 17; Gaz. vol. 182; p. 539.
Railway-tie. F. C. Mellinger. No. 1,037,506; Sept. 3; Gaz. vol. 182; p. 112.
Railway-tie. M. A. O. Stilson. No. 1,037,559; Sept. 3; Gaz. vol. 162; p. 129.
Railway-tie. S. Friedman. No. 1,037,780; Sept. 3; Gaz. vol. 182; p. 191.
Railway-track curve. J. W. McManama. No. 1,039,430; Sept. 24; Gaz. vol. 182; p. 850.
Railway-tracks running along or across streets or roads Curbing for. T. Aston. No. 1,037,716; Sept. 3; Gaz. vol. 182; p. 181.
Railways, Handle-bar mechanism for pleasure-. J. A. Miller. No. 1,037,957; Sept. 10; Gaz. vol. 182; p. 296.
Railways, Handle-bar mechanism for pleasure-. J. A. Miller. No. 1,038,175; Sept. 10; Gaz. vol. 182; p. 367.
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Rake support attachment, Hay-. B. F. and J. W. Lewis. No. 1,038,163; Sept. 10; Gaz. vol. 182; p. 364.
Ram, Duplex hydraulic. R. Y. Bovee. No. 1,038,719; Sept. 17; Gaz. vol. 182; p. 590.
Rammer, Hand-. F. Wegener. No. 1,038,039; Sept. 10; Gaz. vol. 182; p. 323.
Rat-trap. H. M. Sprague. No. 1,038,672; Sept. 17; Gaz. vol. 182; p. 573.
Rat-trap, Electric. M. Kruczynski. No. 1,038,902; Sept. 17; Gaz. vol. 182; p. 654.
Razor. H. J. Gatsman. No. 1,039,377; Sept. 24; Gaz. vol. 182; p. 832.
Razor-handle. H. W. Thompson. No. 1,039,215; Sept. 24; Gaz. vol. 182; p. 775.
Razor, Safety-. J. A. Service. No. 1,038,666; Sept. 17; Gaz. vol. 182; p. 571.
Razor-stropping device. A. C. Rodibaugh. No. 1,039,445; Sept. 24; Gaz. vol. 182; p. 853.
Razors and razor-blades, Machine for honing and stropping. C. A. Mann. No. 1,039,561; Sept. 24; Gaz. vol. 182; p. 897.



Reamer, Expanding. J. Kaefer. No. 1,038,384; Sept. 10; Gaz. vol. 182; p. 438.
Receptacle, Divisional. J. A. Phin. No. 1,038,644; Sept. 17; Gaz. vol. 182; p. 564.
Receptacle-handle. P. Grabler. No. 1,038,116; Sept. 10; Gaz. vol. 182; p. 347.
Receptacle, Knockdown. O. M. Stiehl. No. 1,038,017; Sept. 10; Gaz. vol. 182; p. 316.
Receptacle, Locking-. P. W. Hodgkinson. No. 1,038,583; Sept. 17; Gaz. vol. 182; p. 542.
Receptacle, Sanitary. L. Hofer. No. 1,037,025; Sept. 3; Gaz. vol. 182; p. 149.
Reciprocating engine. E. Wintser. No. 1,037,840; Sept. 3; Gaz. vol. 182; p. 220.
Recoil-arrester. W. J. King. No. 1,038,890; Sept. 10; Gaz. vol. 182; p. 440.
Recorder: *See* Pressure-recorder; Speed-recorder; Vibration-recorder.
Recording and indicating device for multiple payments. B. J. Stellwagen. No. 1,038,225; Sept. 10; Gaz. vol. 182; p. 383.
Reducing-machine casing. M. F. Williams. No. 1,039,624; Sept. 24; Gaz. vol. 182; p. 919.
Reed-pipe, Dust-proof. C. E. Barkstrom. No. 1,037,578; Sept. 3; Gaz. vol. 182; p. 135.
Reel: *See* Clothes-line hand-reel; Fish-line reel; Fish-net reel; Harvester-reel.
Reel. M. D. Maxwell. No. 1,037,950; Sept. 10; Gaz. vol. 182; p. 293.
Reflector-shade. R. B. Benjamin. No. 1,038,072; Sept. 10; Gaz. vol. 182; p. 333.
Refractory article and making it. F. M. Becket. No. 1,038,827; Sept. 17; Gaz. vol. 182; p. 628.
Refrigerating apparatus, Portable. W. C. Brady. No. 1,037,421; Sept. 3; Gaz. vol. 182; p. 83.
Refrigerating-machine. D. C. Smith. No. 1,038,221; Sept. 10; Gaz. vol. 182; p. 381.
Refrigeration. D. C. Smith. No. 1,038,220; Sept. 10; Gaz. vol. 182; p. 381.
Refrigerator-car-door closing and opening device. T. H. Garland. No. 1,037,892; Sept. 10; Gaz. vol. 182; p. 272.
Refrigerator-car-door-closing device. T. H. Garland. No. 1,037,891; Sept. 10; Gaz. vol. 182; p. 272.
Regenerative furnace. P. Patterson. No. 1,038,640; Sept. 17; Gaz. vol. 182; p. 563.
Regenerative reversing-furnace. L. L. Knox. No. 1,038,154; Sept. 10; Gaz. vol. 182; p. 361.
Regenerator. F. Hodgkinson. No. 1,037,765; Sept. 3; Gaz. vol. 182; p. 197.
Register: *See* Autographic register; Cash-register.
Regulator: *See* Feed-water regulator; Fluid-pressure regulator; Flush-tank regulator; Incubator-regulator; Incubator heat-regulator.
Relay for undulatory currents. B. von Lieben and E. Reisz. No. 1,038,910; Sept. 17; Gaz. vol. 182; p. 657.
Remedy, Dandruff. T. J. Lynch. No. 1,039,064; Sept. 17; Gaz. vol. 182; p. 704.
Remedy for tuberculosis, Producing a. W. Ruppel. No. 1,037,997; Sept. 10; Gaz. vol. 182; p. 309.
Rennet-package and making same. A. J. Marschall. No. 1,038,020; Sept. 17; Gaz. vol. 182; p. 661.
Resilient wheel. M. Mathiesen. No. 1,037,949; Sept. 10; Gaz. vol. 182; p. 293.
Resilient wheel. S. K. Rossignol. No. 1,039,594; Sept. 24; Gaz. vol. 182; p. 909.
Resilient wheel, Metallic. T. H. Coulter. No. 1,037,446; Sept. 3; Gaz. vol. 182; p. 92.
Resistance element. J. J. Nolan. No. 1,038,422; Sept. 10; Gaz. vol. 182; p. 352.
Resurfacing device. G. A. Parks. No. 1,038,947; Sept. 17; Gaz. vol. 182; p. 669.
Retort-closure. T. D. Miller. No. 1,038,933; Sept. 17; Gaz. vol. 162; p. 665.
Retort for the carbonization of coal or the like, Vertical. A. M. Duckham. No. 1,037,822; Sept. 3; Gaz. vol. 182; p. 215.
Retort-setting, Constructing a. G. W. Parker. No. 1,037,516; Sept. 3; Gaz. vol. 182; p. 115.
Reversible two-cycle engine. C. Hull. No. 1,038,371; Sept. 10; Gaz. vol. 182; p. 433.
Rheostat, Adjustable automatic. C. H. Gaylord. No. 1,038,342; Sept. 10; Gaz. vol. 182; p. 423.
Rifle. P. T. Godsal. No. 1,037,468; Sept. 3; Gaz. vol. 182; p. 100.
Rigging bracket, Release-. S. H. Conwell. No. 1,037,442; Sept. 3; Gaz. vol. 182; p. 90.
Rings, Manufacture of jointless. A. Glebe. No. 1,038,346; Sept. 10; Gaz. vol. 182; p. 425.
Riveter. H. W. Jacobs. No. 1,037,918; Sept. 10; Gaz. vol. 182; p. 292.
Road-cutter and the like. L. D. Craig. No. 1,037,875; Sept. 10; Gaz. vol. 182; p. 267.
Rod coupling, Connecting-. A. De Dion and G. Bouton. No. 1,037,211; Sept. 3; Gaz. vol. 182; p. 11.
Roll. H. Parker. No. 1,039,067; Sept. 17; Gaz. vol. 182; p. 705.
Roll-top can. F. P. McColl. No. 1,039,164; Sept. 24; Gaz. vol. 162; p. 756.
Roller: *See* Curtain-roller.
Rolling-mill appliance. D. F. Niebet. No. 1,038,421; Sept. 10; Gaz. vol. 182; p. 452.
Rolling-mill, Step-by-step. H. Ackermann. No. 1,038,710; Sept. 17; Gaz. vol. 182; p. 587.
Roofing, Sheet-metal. J. L. Faulhaber. No. 1,039,267; Sept. 24; Gaz. vol. 182; p. 795.
Root-digger. M. B. Parker. No. 1,039,583; Sept. 24; Gaz. vol. 182; p. 906.
Rope and the like, Device for handling. J. S. Sourk. No. 1,038,013; Sept. 10; Gaz. vol. 182; p. 314.
Rope-engine for marine transfers. T. S. Miller. No. 1,037,508; Sept. 3; Gaz. vol. 182; p. 113.
Rotary engine. C. T. Peigler. No. 1,037,655; Sept. 3; Gaz. vol. 182; p. 161.
Rotary engine. H. Lindenberg. No. 1,038,896; Sept. 10; Gaz. vol. 182; p. 443.
Rotary engine. R. H. Martin. No. 1,039,562; Sept. 24; Gaz. vol. 182; p. 898.
Rotary explosive-engine. J. M. Novy. No. 1,038,634; Sept. 10; Gaz. vol. 182; p. 453.
Rotary steam-engine. O. H. Eaton. No. 1,038,321; Sept. 10; Gaz. vol. 182; p. 416.
Rotary steam-engine. A. A. Bilyeu. No. 1,039,353; Sept. 24; Gaz. vol. 182; p. 824.
Roundabout. J. A. De Vito. No. 1,037,453; Sept. 3; Gaz. vol. 182; p. 95.
Rubber boot. J. T. Crowley. No. 1,037,448; Sept. 3; Gaz. vol. 182; p. 93.
Rule, Foldable. C. Wagenlander. No. 1,037,889; Sept. 3; Gaz. vol. 182; p. 173.
Rule, Square-. S. Naransky. No. 1,038,184; Sept. 10; Gaz. vol. 182; p. 370.
Sack-cleaning machine. F. A. Belt. No. 1,039,082; Sept. 24; Gaz. vol. 182; p. 728.
Sad-iron, Electric. L. E. Grubbs. No. 1,039,120; Sept. 24; Gaz. vol. 182; p. 741.
Sad-iron heater. A. B. Holley. No. 1,037,251; Sept. 3; Gaz. vol. 182; p. 26.
Saddle, Harness-. T. H. Powell. No. 1,037,982; Sept. 10; Gaz. vol. 182; p. 305.
Safe. G. T. Lewis. No. 1,037,940; Sept. 10; Gaz. vol. 182; p. 290.
Safe. O. W. Bedell. No. 1,038,269; Sept. 10; Gaz. vol. 182; p. 390.
Safe, Portable fireproof. C. S. Pederson. No. 1,038,428; Sept. 10; Gaz. vol. 182; p. 455.
Safety appliance. M. O. Godding. No. 1,039,517; Sept. 24; Gaz. vol. 182; p. 882.
Safety-elevator. P. J. Rivers. No. 1,038,961; Sept. 17; Gaz. vol. 182; p. 673.
Safety-pin. J. C. Reynolds. No. 1,038,202; Sept. 10; Gaz. vol. 182; p. 375.
Safety-rack. E. J. Perley. No. 1,037,520; Sept. 3; Gaz. vol. 182; p. 117.
Safety-switch. H. B. Shreve. No. 1,039,600; Sept. 24; Gaz. vol. 182; p. 911.
Sand-blast. J. C. Myles and H. Girvin. No. 1,038,781; Sept. 17; Gaz. vol. 182; p. 612.
Sand-blast apparatus. H. E. Heaslet. No. 1,037,760; Sept. 3; Gaz. vol. 182; p. 195.
Sand-mold-jarring machine. E. C. Wiley. No. 1,039,622; Sept. 24; Gaz. vol. 182; p. 918.
Sash and screen, Combined window. M. Hikes. No. 1,038,188; Sept. 10; Gaz. vol. 182; p. 355.
Sash-fastener. J. F. Parent. No. 1,037,302; Sept. 3; Gaz. vol. 182; p. 41.
Sash-fastener and antirattling device, Combined. M. J. D. Rast. No. 1,038,199; Sept. 10; Gaz. vol. 182; p. 374.
Sash-glazing clip, Metallic-. W. E. Ulrich. No. 1,039,224; Sept. 24; Gaz. vol. 182; p. 779.
Sash-lock. D. Dowd. No. 1,037,219; Sept. 3; Gaz. vol. 182; p. 14.
Sausage-case turner. A. B. Loerke. No. 1,038,912; Sept. 17; Gaz. vol. 182; p. 658.
Saw-filing device. J. and J. W. Slingsby. No. 1,039,602; Sept. 24; Gaz. vol. 182; p. 911.
Saw-filing machine, Band-. H. Heatand and C. F. Dayton. No. 1,038,885; Sept. 17; Gaz. vol. 182; p. 648.
Saw-guard. D. S. Ackley. No. 1,037,843; Sept. 10; Gaz. vol. 182; p. 255.
Saw machine, Rip-. C. Shaw. No. 1,038,215; Sept. 10; Gaz. vol. 182; p. 380.
Saw-set. A. Ahlden. No. 1,037,711; Sept. 3; Gaz. vol. 182; p. 180.
Saw-setting device. S. K. Niemi. No. 1,038,186; Sept. 10; Gaz. vol. 182; p. 371.
Saw tension device, Band-. G. A. Ensign. No. 1,038,328; Sept. 10; Gaz. vol. 182; p. 419.
Saw tension device for band-saw mills. A. H. Irving. No. 1,037,916; Sept. 10; Gaz. vol. 182; p. 281.
Saws or similar machines, Automatic recording apparatus for long. G. E. Johanson. No. 1,038,380; Sept. 10; Gaz. vol. 182; p. 436.
Sawing-machine, Band. L. J. Hanhart. No. 1,037,900; Sept. 10; Gaz. vol. 182; p. 276.
Sawing-machines, Board-support for. J. M. Reed. No. 1,037,835; Sept. 3; Gaz. vol. 182; p. 219.
Sawmill-carriage. G. Lemieux. No. 1,038,609; Sept. 17; Gaz. vol. 182; p. 551.
Sawmill setting and receding mechanism. D. C. Prescott. No. 1,038,788; Sept. 17; Gaz. vol. 182; p. 614.
Scaffold. O. Schwerin. No. 1,038,211; Sept. 10; Gaz. vol. 182; p. 378.
Scaffold-supporting mechanism. E. H. Henderson. No. 1,038,579; Sept. 17; Gaz. vol. 182; p. 540.
Scalding apparatus. E. I. Landers. No. 1,039,300; Sept. 24; Gaz. vol. 182; p. 807.
Scale-recording device. M. H. Winslow. No. 1,037,701; Sept. 3; Gaz. vol. 182; p. 176.

Scalloping-machine. P. Heidmann. No. 1,039,534; Sept. 24; Gaz. vol. 182; p. 887.
Scarifier. W. A. Gillette. No. 1,037,755; Sept. 3; Gaz. vol. 182; p. 193.
Scoop. S. V. Morrill. No. 1,039,574; Sept. 24; Gaz. vol. 182; p. 902.
Scoop-box, Lock. A. L. Smith. No. 1,037,347; Sept. 3; Gaz. vol. 182; p. 56.
Scoop washing-cylinders, Machine for making. W. Bartholomew. No. 1,038,714; Sept. 17; Gaz. vol. 182; p. 588.
Score-board. J. A. Groves. No. 1,038,875; Sept. 17; Gaz. vol. 182; p. 644.
Scoring-machine. E. H. Taylor. No. 1,038,232; Sept. 10; Gaz. vol. 182; p. 386.
Scraper, Foot-. G. E. Holmes. No. 1,037,252; Sept. 3; Gaz. vol. 182; p. 26.
Scraper, Road-. J. F. T. Berger. No. 1,037,194; Sept. 3; Gaz. vol. 182; p. 6.
Scraper, Road-. W. Voland. No. 1,037,375; Sept. 3; Gaz. vol. 182; p. 66.
Screen: *See* Fish-screen; Window-screen; Wire-cloth screen.
Screens and the like, Adjustable metallic frame for. C. A. Henry. No. 1,038,867; Sept. 10; Gaz. vol. 182; p. 431.
Screens, Trap attachment for fly-. S. D. Clark. No. 1,037,727; Sept. 3; Gaz. vol. 182; p. 184.
Screening-apparatus distributer. R. W. Dull. No. 1,037,221; Sept. 3; Gaz. vol. 182; p. 15.
Screw guard, Bet-. O. P. Chubbock. No. 1,038,065; Sept. 10; Gaz. vol. 182; p. 338.
Scrubber and mop, Combined. W. Dupré. No. 1,038,542; Sept. 17; Gaz. vol. 182; p. 528.
Scrubbing apparatus. A. W. Fietz. No. 1,038,548; Sept. 17; Gaz. vol. 182; p. 530.
Seal. A. M. Paulero. No. 1,038,639; Sept. 17; Gaz. vol. 182; p. 563.
Seal, Can-. C. J. Sinn. No. 1,039,601; Sept. 24; Gaz. vol. 182; p. 911.
Seal, Car-. W. Grayson, Jr. No. 1,038,744; Sept. 17; Gaz. vol. 182; p. 599.
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Seal for box-cars, &c. W. H. Northall. No. 1,038,782; Sept. 17; Gaz. vol. 182; p. 612.
Seal for service-coche. P. Mueller. No. 1,038,183; Sept. 10; Gaz. vol. 182; p. 309.
Seal, Pipe-coupling. P. Mueller and A. C. Schuermann. No. 1,039,876; Sept. 24; Gaz. vol. 182; p. 903.
Seal, Self-locking. W. A. Bramberry. No. 1,038,485; Sept. 10; Gaz. vol. 182; p. 474.
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Seal, Snap-. W. M. Brooks. No. 1,039,358; Sept. 24; Gaz. vol. 182; p. 826.
Sealer, Fruit-jar-cap. H. Kaiser. No. 1,038,760; Sept. 17; Gaz. vol. 182; p. 604.
Sealing device. A. E. Irons. No. 1,038,873; Sept. 10; Gaz. vol. 182; p. 434.
Sealing device for foot-ball bladders, &c. J. W. Albers. No. 1,037,406; Sept. 3; Gaz. vol. 182; p. 77.
Sealing machine, Bottle-. W. F. Stone. No. 1,037,359; Sept. 3; Gaz. vol. 182; p. 60.
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Seasoning material and making same. H. Fleck. No. 1,038,334; Sept. 10; Gaz. vol. 182; p. 421.
Seat: *See* Adjustable seat; Bicycle spring-seat.
Seat-fastener. L. H. Hubbard. No. 1,038,892; Sept. 17; Gaz. vol. 182; p. 650.
Sectional boiler. J. B. Bernhard. No. 1,038,718; Sept. 17; Gaz. vol. 182; p. 589.
Sectional tank. W. E. Shoemaker. No. 1,037,554; Sept. 3; Gaz. vol. 182; p. 128.
Seed-delinting drum, Cotton-. J. H. McCormick. No. 1,038,927; Sept. 17; Gaz. vol. 182; p. 663.
Seed-drill. D. I. Cheley. No. 1,038,852; Sept. 17; Gaz. vol. 182; p. 637.
Semaphore-signal. W. W. Brown. No. 1,038,278; Sept. 10; Gaz. vol. 182; p. 402.
Separator: *See* Centrifugal separator; Dust-separator; Grain-separator; Magnetic separator.
Service-board, Sectional. N. Joseen. No. 1,039,139; Sept. 24; Gaz. vol. 182; p. 748.
Sewer-pipe section for sewer-building. W. H. Rook, Jr. No. 1,037,328; Sept. 3; Gaz. vol. 182; p. 50.
Sewer-pipe section for sewer-building. W. H. Rook, Jr. No. 1,037,329; Sept. 3; Gaz. vol. 182; p. 50.
Sewing-machine. F. Chatfield. No. 1,038,851; Sept. 17; Gaz. vol. 182; p. 637.
Sewing-machine. C. J. Coleman. No. 1,038,853; Sept. 17; Gaz. vol. 182; p. 637.
Sewing-machine cord-laying device. E. B. Allen. No. 1,039,241; Sept. 24; Gaz. vol. 182; p. 785.
Sewing-machine for leather. C. J. Oberg. No. 1,037,513; Sept. 3; Gaz. vol. 182; p. 115.
Sewing-machine take-up. W. J. Butler. No. 1,038,282; Sept. 10; Gaz. vol. 182; p. 404.
Sewing-machine tuck-creaser or tucker. L. M. Ford. No. 1,037,608; Sept. 3; Gaz. vol. 182; p. 144.
Shade and curtain hanger. C. McDonner. No. 1,039,566; Sept. 24; Gaz. vol. 182; p. 900.
Shade bracket, Adjustable window-. T. H. Edwards. No. 1,039,666; Sept. 24; Gaz. vol. 182; p. 933.
Shade fixture, Vertically-adjustable window-. S. Menuskin. No. 1,037,235; Sept. 3; Gaz. vol. 182; p. 36.
Shade fixture, Window-. F. J. Schu. No. 1,037,549; Sept. 3; Gaz. vol. 182; p. 126.
Shade-holder. W. G. Schaucker. No. 1,039,198; Sept. 24; Gaz. vol. 182; p. 769.
Shade-holder. H. Goodfriend. No. 1,039,519; Sept. 24; Gaz. vol. 182; p. 883.
Shade-holder. J. Stoddart. No. 1,039,676; Sept. 24; Gaz. vol. 182; p. 936.
Shade, Window-. W. S. Shaft. No. 1,038,005; Sept. 10; Gaz. vol. 182; p. 311.
Shaft-coupling, Compression. C. W. Streeper. No. 1,037,682; Sept. 3; Gaz. vol. 182; p. 171.
Shaft-straightening machine. T. J. Paine. No. 1,037,301; Sept. 3; Gaz. vol. 182; p. 41.
Shaker, Multicompartment. C. J. Wilk and G. F. Holtz. No. 1,039,236; Sept. 24; Gaz. vol. 182; p. 783.
Shaper. H. J. Averbeck. No. 1,039,079; Sept. 24; Gaz. vol. 182; p. 728.
Shaping-machine. W. F. Zimmermann. No. 1,038,259; Sept. 10; Gaz. vol. 182; p. 396.
Sharpener, Knife-. J. H. Boye. No. 1,038,484; Sept. 10; Gaz. vol. 182; p. 474.
Sharpener, Razor-. C. Jeremias. No. 1,038,378; Sept. 10; Gaz. vol. 182; p. 436.
Sharpening device for knives of meat-slicing machines. H. Stukart. No. 1,039,210; Sept. 24; Gaz. vol. 182; p. 773.
Sharpening safety-razors, Machine for. A. E. Hill. No. 1,037,763; Sept. 3; Gaz. vol. 182; p. 196.
Shears: *See* Animal-shears; Flying-shears.
Shears, L. H. Flory. No. 1,037,827; Sept. 3; Gaz. vol. 182; p. 217.
Sheet-cooling machine. G. W. Smead. No. 1,039,202; Sept. 24; Gaz. vol. 182; p. 770.
Sheet-cutting machine. H. De Smith. No. 1,038,860; Sept. 17; Gaz. vol. 182; p. 639.
Sheet-metal articles, Machine for forming. B. Adriance and A. Calleson. No. 1,037,844; Sept. 10; Gaz. vol. 182; p. 255.
Sheet-numbering machine. R. Gompf. No. 1,038,348; Sept. 10; Gaz. vol. 182; p. 425.
Sheet separating, registering, and feeding apparatus. H. B. Green. No. 1,039,521; Sept. 24; Gaz. vol. 182; p. 884.
Shelf and partition, Combined. P. M. Wege. No. 1,038,038; Sept. 10; Gaz. vol. 182; p. 323.
Shelf-support. G. W. Young. No. 1,038,813; Sept. 17; Gaz. vol. 182; p. 623.
Shelf, Window-. C. B. Hawver. No. 1,037,904; Sept. 10; Gaz. vol. 182; p. 277.
Shelving-bracket, Adjustable. B. T. B. Hyde. No. 1,037,916; Sept. 10; Gaz. vol. 182; p. 281.
Shingle sawing and jointing machine. W. C. Miles. No. 1,039,312; Sept. 24; Gaz. vol. 182; p. 811.
Ship-coaling apparatus. M. S. Iverson. No. 1,038,588; Sept. 17; Gaz. vol. 182; p. 544.
Shipping-box. C. L. Arnold. No. 1,038,816; Sept. 17; Gaz. vol. 182; p. 624.
Shirt. C. Kremer. No. 1,039,144; Sept. 24; Gaz. vol. 182; p. 750.
Shock-absorber. A. Zeppelin. No. 1,037,404; Sept. 3; Gaz. vol. 182; p. 76.
Shock-absorber. G. J. Plato. No. 1,037,524; Sept. 3; Gaz. vol. 182; p. 118.
Shock-absorber. J. Benny. No. 1,037,583; Sept. 3; Gaz. vol. 182; p. 137.
Shock-absorber. F. W. Weyman. No. 1,038,806; Sept. 17; Gaz. vol. 182; p. 621.
Shock-absorber. G. C. Martin. No. 1,039,305; Sept. 24; Gaz. vol. 182; p. 800.
Shock-absorber for gearing. W. T. Clark. No. 1,037,205; Sept. 3; Gaz. vol. 182; p. 9.
Shock-tying device. C. R. Tilford. No. 1,038,988; Sept. 17; Gaz. vol. 182; p. 680.
Shoe. M. Hilgert. No. 1,039,306; Sept. 24; Gaz. vol. 182; p. 839.
Shoe. G. L. Pierce. No. 1,039,437; Sept. 24; Gaz. vol. 182; p. 852.
Shoe, Double-soled turned. E. E. Redman. No. 1,039,442; Sept. 24; Gaz. vol. 182; p. 854.
Shoe-jack. G. W. Harrison. No. 1,037,619; Sept. 3; Gaz. vol. 182; p. 148.
Shoe-protecting cover. E. Lafrenière. No. 1,038,395; Sept. 10; Gaz. vol. 182; p. 442.
Shoe, Snow-. A. A. Baker. No. 1,038,264; Sept. 10; Gaz. vol. 182; p. 398.
Shoe, Sporting-. D. J. Golden. No. 1,039,518; Sept. 24; Gaz. vol. 182; p. 883.
Shoemaker's jack. F. Helmlich. No. 1,038,128; Sept. 10; Gaz. vol. 182; p. 350.
Shortening-mixer. P. S. Wood. No. 1,038,469; Sept. 10; Gaz. vol. 182; p. 470.
Shovel: *See* Car-unloading shovel; Cultivator-shovel.
Shutters and the like, Fastening device for. C. J. Hagstrom. No. 1,039,833; Sept. 24; Gaz. vol. 182; p. 836.
Shuttle-threading device. C. Miller. No. 1,038,777; Sept. 17; Gaz. vol. 182; p. 611.
Shuttle, Weaving-. E. H. Ottenheimer and E. C. Authier. No. 1,039,435; Sept. 24; Gaz. vol. 182; p. 852.
Side-board lock. R. Craig. No. 1,038,831; Sept. 17; Gaz. vol. 182; p. 624.
Sieve-bolter. G. Halliday. No. 1,038,124; Sept. 10; Gaz. vol. 182; p. 349.





Sifter, Sand-. H. Techerning. No. 1,037,371; Sept. 3; Gaz. vol. 182; p. 65.
Sifters, Means for driving suspended structures, such as. H. W. Gladhill. No. 1,039,514; Sept. 24; Gaz. vol. 182; p. 881.
Sign. L. Powell. No. 1,039,187; Sept. 24; Gaz. vol. 182; p. 764.
Sign, Illuminated. H. Mulholland. No. 1,037,294; Sept. 3; Gaz. vol. 182; p. 36.
Sign, Illuminated. H. Mulholland and C. G. West. No. 1,039,175; Sept. 24; Gaz. vol. 182; p. 750.
Signs, Means for producing and exhibiting luminous. J. Emringer. No. 1,038,736; Sept. 17; Gaz. vol. 182; p. 596.
Signal: *See* Electric signal; Semaphore-signal.
Signal. E. E. Salisbury. No. 1,038,206; Sept. 10; Gaz. vol. 182; p. 376.
Signal. A. G. Clark. No. 1,038,296; Sept. 10; Gaz. vol. 182; p. 409.
Signal. R. C. Showalter. No. 1,038,450; Sept. 10; Gaz. vol. 182; p. 463.
Signals, Electrical apparatus for transmitting and receiving. A. T. Dawson and G. T. Buckham. No. 1,037,452; Sept. 3; Gaz. vol. 182; p. 94.
Signaling and similar purposes, Apparatus for aerial. W. G. Spiegel. No. 1,038,506; Sept. 10; Gaz. vol. 182; p. 481.
Signaling system. H. O. Rugh. No. 1,037,330; Sept. 3; Gaz. vol. 182; p. 50.
Signature-gathering machines, Calipering device for. E. R. Kast. No. 1,039,541; Sept. 24; Gaz. vol. 182; p. 890.
Silicon articles, Making. T. B. Allen. No. 1,037,712; Sept. 3; Gaz. vol. 182; p. 180.
Silo. J. Borrasch. No. 1,039,089; Sept. 24; Gaz. vol. 182; p. 731.
Silo-mold. E. Blumer. No. 1,039,065; Sept. 24; Gaz. vol. 182; p. 729.
Siphon-head. P. Spitzenberg. No. 1,037,680; Sept. 3; Gaz. vol. 182; p. 170.
Siphons, Adjustable vent for. S. F. Miller. No. 1,037,791; Sept. 3; Gaz. vol. 182; p. 204.
Skirt. L. M. Savage. No. 1,037,331; Sept. 3; Gaz. vol. 182; p. 51.
Skirt. J. A. Herman. No. 1,038,134; Sept. 10; Gaz. vol. 182; p. 353.
Skirt, Sanitary protecting-. J. M. O'Connor and I. G. Wier. No. 1,037,514; Sept. 3; Gaz. vol. 182; p. 116.
Skirt-weight. S. Paull. No. 1,037,516; Sept. 3; Gaz. vol. 182; p. 116.
Sleeping-bag. G. W. Gail, Jr. No. 1,039,509; Sept. 24; Gaz. vol. 182; p. 879.
Sleeves, Shield attachment for. M. M. Rogers. No. 1,037,666; Sept. 3; Gaz. vol. 182; p. 165.
Sleigh attachment. W. Beilstein. No. 1,038,716; Sept. 17; Gaz. vol. 182; p. 589.
Slip-holder. D. H. McPherson. No. 1,039,571; Sept. 24; Gaz. vol. 182; p. 901.
Slitting-machine. N. E. Clark. No. 1,037,204; Sept. 3; Gaz. vol. 182; p. 9.
Slot-closing device. J. B. Jones. No. 1,037,631; Sept. 3; Gaz. vol. 182; p. 151.
Smoke and carbon consumer. S. Heath. No. 1,038,882; Sept. 17; Gaz. vol. 182; p. 647.
Smoke-consumer. R. G. Speer. No. 1,039,205; Sept. 24; Gaz. vol. 182; p. 771.
Smoke-diluter. N. Beninca sa. No. 1,038,270; Sept. 10; Gaz. vol. 182; p. 400.
Smoke-suspended matter, Apparatus for separating. H. E. Andersen. No. 1,038,513; Sept. 17; Gaz. vol. 182; p. 617.
Smoking-pipe. J. Glomsinger. No. 1,038,564; Sept. 17; Gaz. vol. 182; p. 535.
Soap-dispensing machine. C. H. J. Dilg and J. O. Fowler. No. 1,037,621; Sept. 3; Gaz. vol. 182; p. 214.
Soap-dispensing machine. G. F. Shaver. No. 1,038,214; Sept. 10; Gaz. vol. 182; p. 379.
Soap-supplier. C. H. J. Dilg and J. O. Fowler, Jr. No. 1,037,456; Sept. 3; Gaz. vol. 182; p. 96.
Soaps and cleansing compositions, Organic-chloro-compound. G. Keller. No. 1,038,900; Sept. 17; Gaz. vol. 182; p. 653.
Socket, Adjustable extension-. R. B. Benjamin. No. 1,038,070; Sept. 10; Gaz. vol. 182; p. 333.
Socket-switch. W. G. Peet. No. 1,037,804; Sept. 3; Gaz. vol. 182; p. 42.
Soil-treating apparatus. F. C. Carroll. No. 1,038,084; Sept. 10; Gaz. vol. 182; p. 338.
Spade-handle, Auxiliary. T. H. De Haven. No. 1,037,734; Sept. 3; Gaz. vol. 182; p. 187.
Spark-arrester. N. J. Soether. No. 1,037,326; Sept. 3; Gaz. vol. 182; p. 49.
Spark-arrester. A. W. Graham. No. 1,037,898; Sept. 10; Gaz. vol. 182; p. 275.
Spark-arrester. W. C. Yeomans. No. 1,038,707; Sept. 17; Gaz. vol. 182; p. 586.
Spark-lighter and extinguisher, Water-jacket for. G. W. Lucas. No. 1,037,944; Sept. 10; Gaz. vol. 182; p. 292.
Spark-plug. A. S. Pierrel. No. 1,037,907; Sept. 3; Gaz. vol. 182; p. 43.
Spark-plug. W. S. Witter. No. 1,038,701; Sept. 17; Gaz. vol. 182; p. 584.
Spark-plug, Transformer attachment for. S. F. Briggs. No. 1,038,377; Sept. 10; Gaz. vol. 182; p. 402.
Spark-timing device. L. P. Goodspeed. No. 1,037,828; Sept. 3; Gaz. vol. 182; p. 217.
Spectacles. F. A. Stevens. No. 1,038,675; Sept. 17; Gaz. vol. 182; p. 574.
Speed-comparing device. J. V. Matthews and E. L. Kyle. No. 1,039,564; Sept. 24; Gaz. vol. 182; p. 899.
Speed indicating and recording device. W. K. Means. No. 1,037,952; Sept. 10; Gaz. vol. 182; p. 294.
Speed-recorder and analogous apparatus. C. C. Clawson. No. 1,038,297; Sept. 10; Gaz. vol. 182; p. 406.
Speed-regulating mechanism. J. C. Carpenter. No. 1,038,848; Sept. 17; Gaz. vol. 182; p. 635.
Speedometer, Magnetic. J. K. Stewart. No. 1,038,616; Sept. 10; Gaz. vol. 182; p. 515.
Spike-holder. G. W. Wright. No. 1,038,704; Sept. 17; Gaz. vol. 182; p. 585.
Spindle: *See* Spinning-spindle; Winding-spindle.
Spindle. W. L. and W. E. G. Robinson. No. 1,037,234; Sept. 3; Gaz. vol. 182; p. 49.
Spinning apparatus, Yarn-. A. E. Rhoades. No. 1,037,318; Sept. 3; Gaz. vol. 182; p. 46.
Spinning frames, Builder for ring-. M. J. Leahy. No. 1,037,845; Sept. 3; Gaz. vol. 182; p. 187.
Spinning-spindle. A. H. Morton. No. 1,039,434; Sept. 24; Gaz. vol. 182; p. 852.
Spinning, twisting, and like machines, Spindle for. A. H. Morton. No. 1,039,433; Sept. 24; Gaz. vol. 182; p. 851.
Spinning, twisting, and like machines, Spindle-support for. A. H. Morton. No. 1,039,432; Sept. 24; Gaz. vol. 182; p. 851.
Splice-bar. F. Powell. No. 1,037,795; Sept. 3; Gaz. vol. 182; p. 206.
Splice-bar. W. C. Workman. No. 1,038,471; Sept. 10; Gaz. vol. 182; p. 470.
Sprayer for fire-hose and the like. J. B. Marshall. No. 1,037,785; Sept. 3; Gaz. vol. 182; p. 203.
Sprayer, Liquid-. W. B. Coulter. No. 1,039,365; Sept. 24; Gaz. vol. 182; p. 828.
Sprayer, Soap-powder. E. C. Wideman. No. 1,038,261; Sept. 10; Gaz. vol. 182; p. 393.
Spraying apparatus, Automatic. A. J. Tyler. No. 1,039,335; Sept. 24; Gaz. vol. 182; p. 817.
Spring: *See* Pneumatic spring; Vehicle-spring.
Spring. R. J. Collins. No. 1,037,729; Sept. 3; Gaz. vol. 182; p. 185.
Spring-motor. J. Recktenwald. No. 1,037,316; Sept. 3; Gaz. vol. 182; p. 46.
Spring-wheel. D. Amerman. No. 1,037,574; Sept. 3; Gaz. vol. 182; p. 134.
Spring-wheel. P. and A. De Bogory. No. 1,037,602; Sept. 3; Gaz. vol. 182; p. 142.
Spring-wheel. C. J. Dean. No. 1,038,535; Sept. 17; Gaz. vol. 182; p. 525.
Spring-wheel. J. D. Knight. No. 1,038,764; Sept. 17; Gaz. vol. 182; p. 605.
Spring-wheel. A. S. Hudson. No. 1,039,287; Sept. 24; Gaz. vol. 182; p. 802.
Spring-wheel. I. J. Merrill. No. 1,039,311; Sept. 24; Gaz. vol. 182; p. 810.
Sprinkler: *See* Automatic sprinkler; Clothes-sprinkler; Lawn-sprinkler.
Sprinkling device. E. S. Bickford. No. 1,039,064; Sept. 24; Gaz. vol. 182; p. 729.
Square. M. A. K. Shotwell. No. 1,038,006; Sept. 10; Gaz. vol. 182; p. 312.
Square attachment. L. M. Hodge. No. 1,038,368; Sept. 10; Gaz. vol. 182; p. 432.
Stacker, Hay-. J. O. Van Cleave. No. 1,038,992; Sept. 17; Gaz. vol. 182; p. 683.
Staking-machine. P. Bobaček. No. 1,039,016; Sept. 17; Gaz. vol. 182; p. 691.
Stalk-chopper. O. F. Scott. No. 1,039,327; Sept. 24; Gaz. vol. 182; p. 815.
Stalk-puller. C. R. Smith. No. 1,038,978; Sept. 17; Gaz. vol. 182; p. 679.
Stamp, Hand-. A. P. Smith. No. 1,038,219; Sept. 10; Gaz. vol. 182; p. 381.
Stamp-handling machine. J. J. Schermack. No. 1,037,546; Sept. 3; Gaz. vol. 182; p. 125.
Stamp-mill. W. B. Straub. No. 1,038,019; Sept. 10; Gaz. vol. 182; p. 316.
Stamp, Pneumatic ore-. H. C. Behr. No. 1,038,521; Sept. 17; Gaz. vol. 182; p. 520.
Stamp rack, Rubber-. G. W. Barnett. No. 1,039,634; Sept. 24; Gaz. vol. 182; p. 922.
Stand: *See* Exhaust-stand.
Stand-pipe. M. M. Moore. No. 1,038,179; Sept. 10; Gaz. vol. 182; p. 368.
Staple. A. E. Coupal. No. 1,039,103; Sept. 24; Gaz. vol. 182; p. 736.
Starch into glucose, &c., Apparatus for the continuous conversion of. S. M. Lillie. No. 1,038,897; Sept. 10; Gaz. vol. 182; p. 442.
Stay, Garment-. M. M. Beeman. No. 1,038,828; Sept. 17; Gaz. vol. 182; p. 628.
Steam-boiler. M. F. Kennea. No. 1,037,776; Sept. 3; Gaz. vol. 182; p. 200.
Steam-boiler. L. W. G. Flynt. No. 1,037,834; Sept. 10; Gaz. vol. 182; p. 269.
Steam-boiler, Oil-burning. W. J. McLean and J. L. McCauley. No. 1,039,570; Sept. 24; Gaz. vol. 182; p. 901.
Steam-engine. P. Gerli. No. 1,037,467; Sept. 3; Gaz. vol. 182; p. 99.
Steam-engine or the like. J. E. Allfree. No. 1,038,261; Sept. 10; Gaz. vol. 182; p. 397.

Steam-generator. F. A. Talbot. No. 1,038,024; Sept. 10; Gaz. vol. 182; p. 318.
Steam-generator. I. Wichrowski and J. Piotrowski. No. 1,038,250; Sept. 10; Gaz. vol. 182; p. 393.
Steam-generator. H. Clifton. No. 1,039,250; Sept. 24; Gaz. vol. 182; p. 791.
Steam-trap. J. D. Westcott. No. 1,039,621; Sept. 24; Gaz. vol. 182; p. 918.
Steam trap or valve. J. L. Fitts. No. 1,037,228; Sept. 3; Gaz. vol. 182; p. 17.
Steel, Making. J. McConnell. No. 1,039,428; Sept. 24; Gaz. vol. 182; p. 850.
Steel tie and rail-fastener. F. Zeller. No. 1,037,403; Sept. 3; Gaz. vol. 182; p. 76.
Steel, Treatment of molten. J. W. Richards. No. 1,037,536; Sept. 3; Gaz. vol. 182; p. 122.
Steering-wheel device. A. M. Squire. No. 1,037,354; Sept. 3; Gaz. vol. 182; p. 59.
Stereopticon. A. M. Smiley. No. 1,037,346; Sept. 3; Gaz. vol. 182; p. 55.
Sterilizer. R. P. Barnstead. No. 1,039,243; Sept. 24; Gaz. vol. 182; p. 786.
Sterilising apparatus. J. Hauk, Jr. No. 1,037,247; Sept. 3; Gaz. vol. 182; p. 24.
Sterilising liquids by means of ultraviolet rays, Apparatus for. A. Neveu. No. 1,038,631; Sept. 17; Gaz. vol. 182; p. 560.
Stilt. A. H. Mann. No. 1,037,503; Sept. 3; Gaz. vol. 182; p. 111.
Stocking-turner. A. P. Bamberger and G. Porter. No. 1,039,477; Sept. 24; Gaz. vol. 182; p. 867.
Stoker, Automatic. S. S. Howell. No. 1,037,913; Sept. 10; Gaz. vol. 182; p. 280.
Stone, Manufacture of artificial. A. and W. Gillies. No. 1,038,115; Sept. 10; Gaz. vol. 182; p. 347.
Stool, Milking-. S. Evensen. No. 1,037,225; Sept. 3; Gaz. vol. 182; p. 16.
Stop-motion, Twister. C. Stansfield. No. 1,039,330; Sept. 24; Gaz. vol. 182; p. 816.
Stopper: *See* Bottle-stopper.
Stopper-making machine. H. M. Brown. No. 1,039,643; Sept. 24; Gaz. vol. 182; p. 925.
Stopper-making machine. W. S. Dorman and R. C. Manville. No. 1,039,661; Sept. 24; Gaz. vol. 182; p. 932.
Store-service apparatus. E. C. Gipe. No. 1,037,236; Sept. 3; Gaz. vol. 182; p. 20.
Stove, Gas-. C. W. Williams. No. 1,038,253; Sept. 10; Gaz. vol. 182; p. 394.
Stove, Gas-. G. B. Carter. No. 1,038,849; Sept. 17; Gaz. vol. 182; p. 636.
Stove lighter, Gas-. T. L. Wiese. No. 1,039,465; Sept. 24; Gaz. vol. 182; p. 863.
Stove or range, Cook. C. M. Genthner. No. 1,039,511; Sept. 24; Gaz. vol. 182; p. 880.
Stoves, Ash device for. D. I. Bernotowicz. No. 1,039,852; Sept. 24; Gaz. vol. 182; p. 823.
Stovepipe attachment. C. D. Pearce. No. 1,039,587; Sept. 24; Gaz. vol. 182; p. 907.
Stovepipe-joint. E. Hammond. No. 1,038,357; Sept. 10; Gaz. vol. 182; p. 428.
Straining apparatus, Liquid-. F. Bailey and F. H. Jackson. No. 1,038,066; Sept. 10; Gaz. vol. 182; p. 382.
Strap: *See* Hitching-strap.
Strap dispenser, Plural-. L. S. Howe. No. 1,038,300; Sept. 10; Gaz. vol. 182; p. 432.
Strap-retaining attachment. A. Wennerstrom. No. 1,037,381; Sept. 3; Gaz. vol. 182; p. 69.
Straw, Utilising Indian-corn. B. Dorner. No. 1,038,730; Sept. 17; Gaz. vol. 182; p. 594.
Street or station indicator. D. S. Wisehart. No. 1,039,626; Sept. 24; Gaz. vol. 182; p. 920.
Stretcher-rolls. J. P. Hedstrom. No. 1,038,127; Sept. 10; Gaz. vol. 182; p. 350.
Stretching device. E. Burks. No. 1,039,022; Sept. 17; Gaz. vol. 182; p. 692.
Stretching implement. C. Grenier. No. 1,037,615; Sept. 3; Gaz. vol. 182; p. 146.
Stud-and-socket fastener. F. S. Carr. No. 1,038,288; Sept. 10; Gaz. vol. 182; p. 406.
Stud for use in building construction. D. Dowd. No. 1,037,738; Sept. 3; Gaz. vol. 182; p. 188.
Sugar and making same, Maple-flavored. T. G. Hogan. No. 1,037,766; Sept. 3; Gaz. vol. 182; p. 197.
Sulfur-burner. E. Ecsaiter. No. 1,038,442; Sept. 10; Gaz. vol. 182; p. 460.
Sulfur solution, Making lime-. W. Kibler. No. 1,038,387; Sept. 10; Gaz. vol. 182; p. 439.
Superheater. J. M. McClellon. No. 1,038,172; Sept. 10; Gaz. vol. 182; p. 366.
Superphosphate-chamber. H. P. C. Freudenthal. No. 1,037,464; Sept. 3; Gaz. vol. 182; p. 98.
Supply-tank, Reserve. E. Greene. No. 1,038,119; Sept. 10; Gaz. vol. 182; p. 347.
Surgical-needle holder. J. C. Carlson and O. G. Saxton. No. 1,037,864; Sept. 10; Gaz. vol. 182; p. 262.
Swingle or double tree. P. Pecard. No. 1,039,318; Sept. 24; Gaz. vol. 182; p. 812.
Swingletree. J. C. Garrigus. No. 1,037,895; Sept. 10; Gaz. vol. 182; p. 274.
Switch: *See* Clock-controlled switch; Crossover-switch; Electric switch; Electric push-button switch; Electric time-switch; Electrical switch; Expulsion-switch; Fused disconnecting-switch; Plug-switch; Plunger-switch; Railway-switch; Safety-switch; Socket-switch.
Switch and tap-off, Combined. W. J. Newton. No. 1,038,940; Sept. 17; Gaz. vol. 182; p. 667.
Switch-boxes, Cover for electric. H. R. Bee. No. 1,038,963; Sept. 17; Gaz. vol. 182; p. 674.
Switch for alternating-current machines. F. W. Trufry. No. 1,038,960; Sept. 17; Gaz. vol. 182; p. 668.
Switch structure. V. Angerer. No. 1,037,817; Sept. 3; Gaz. vol. 182; p. 213.
Switches, Rotary contact for snap-. C. D. Platt. No. 1,037,526; Sept. 3; Gaz. vol. 182; p. 118.
Syringe. G. M. Rhone. No. 1,038,060; Sept. 17; Gaz. vol. 182; p. 673.
Syringe, Hypodermic or other. W. D. Prideaux. No. 1,039,591; Sept. 24; Gaz. vol. 182; p. 908.
Table: *See* Computing-table; Extensible table; Extension-table; Osteopathic table.
Table, M. Baron. No. 1,039,070; Sept. 17; Gaz. vol. 182; p. 706.
Table and desk, Combination. C. F. Schuh. No. 1,038,974; Sept. 17; Gaz. vol. 182; p. 678.
Tablet, Continuous. T. M. Vaughan. No. 1,037,373; Sept 3; Gaz. vol. 182; p. 66.
Tachometer. M. Hoeft. No. 1,038,751; Sept. 17; Gaz vol. 182; p. 602.
Tag-machine. A. H. Swett and W. D. La Batt. No. 1,037,367; Sept 3; Gaz. vol. 182; p. 63.
Talking-machine. J. A. Rabbitt. No. 1,037,983; Sept. 10; Gaz. vol. 182; p. 306.
Talking-machine brake mechanism. W. J. Patterson. No. 1,037,976; Sept. 10; Gaz. vol. 182; p. 303.
Tank: *See* Sectional tank; Supply-tank; Vehicle-tank.
Tank-heater. W. H. Bright. No. 1,037,725; Sept. 3; Gaz. vol. 182; p. 184.
Tanks, Can guide and support for ice-. A. F. Cramer. No. 1,037,731; Sept. 3; Gaz. vol. 182; p. 186.
Tanning. G. H. Lindström. No. 1,039,150; Sept. 24; Gaz. vol. 182; p. 752.
Tap-wrench. W. Russell. No. 1,038,967; Sept. 17; Gaz. vol. 182; p. 675.
Tapping device, Barrel-. S. Firbas and J. Milcinsky. No. 1,039,372; Sept. 24; Gaz. vol. 182; p. 831.
Tape-shrinking machine. B. F. Falter and G. J. Lederer. No. 1,038,104; Sept. 10; Gaz. vol. 182; p. 343.
Target-practice apparatus. H. H. Cummings. No. 1,038,728; Sept. 17; Gaz. vol. 182; p. 593.
Target-trap. J. H. Wilder. No. 1,038,700; Sept. 17; Gaz. vol. 182; p. 583.
Taximeter. M. Kuba and R. Netter. No. 1,039,416; Sept. 24; Gaz. vol. 182; p. 845.
Tea and coffee pot and the like. A. F. Gardner. No. 1,038,558; Sept. 17; Gaz. vol. 182; p. 534.
Telegraph instruments, &c., Apparatus for perforating tape for automatic. J. Gell. No. 1,038,343; Sept. 10; Gaz. vol. 182; p. 424.
Telegraphic instrument. L. H. Jernigan. No. 1,039,410; Sept. 24; Gaz. vol. 182; p. 843.
Telegraphy. I. Kitsee. No. 1,037,927; Sept. 10; Gaz. vol. 182; p. 285.
Telemotor-gear. J. Mackintosh. No. 1,039,157; Sept. 24; Gaz. vol. 182; p. 758.
Telephone and telegraph relay or repeater. J. H. Cunts. No. 1,038,301; Sept. 10; Gaz. vol. 182; p. 410.
Telephone calling device. R. C. Nevin. No. 1,038,419; Sept. 10; Gaz. vol. 182; p. 451.
Telephone-exchange system. E. E. Clement. No. 1,037,438; Sept. 3; Gaz. vol. 182; p. 89.
Telephone-exchange system. R. H. Manson. No. 1,038,617; Sept. 17; Gaz. vol. 182; p. 554.
Telephone-exchange systems, Emergency signaling device for. I. D. Fellows. No. 1,039,667; Sept. 24; Gaz. vol. 182; p. 933.
Telephone-exchanges, Selector for automatic. B. Settegast. 1,038,213; Sept. 10; Gaz. vol. 182; p. 379.
Telephone, Railway-. D. D. Biggers. No. 1,038,882; Sept. 17; Gaz. vol. 182; p. 630.
Telephone system. J. Kennedy. No. 1,037,636; Sept. 3; Gaz. vol. 182; p. 154.
Telephone system. H. G. Webster. No. 1,038,037; Sept. 10; Gaz. vol. 182; p. 322.
Telephone system. H. G. Webster. No. 1,038,907; Sept. 17; Gaz. vol. 182; p. 685.
Telephones, &c., Ringer for. H. J. Roberts. No. 1,037,537; Sept. 3; Gaz. vol. 182; p. 122.
Telephonic transmitting appliance. J. K. Rhodes. No. 1,039,443; Sept. 24; Gaz. vol. 182; p. 855.
Telescope, Binocular. G. Meckbach. No. 1,037,506; Sept. 3; Gaz. vol. 182; p. 112.
Temperature-controlling apparatus. A. MacPhee. No. 1,038,402; Sept. 10; Gaz. vol. 182; p. 444.
Temperature-indicating instrument. A. N. Ozias. No. 1,038,426; Sept. 10; Gaz. vol. 182; p. 454.
Testing instrument. B. D. Coppage. No. 1,037,596; Sept. 3; Gaz. vol. 182; p. 140.
Thermodynamic motor. L. A. Haines. No. 1,037,757; Sept. 3; Gaz. vol. 182; p. 194.
Thermometer. J. Cowling. No. 1,038,530; Sept. 17; Gaz. vol. 182; p. 523.
Thermostat. E. Moss. No. 1,039,174; Sept. 24; Gaz. vol. 182; p. 759.
Thill-coupling. H. Reid. No. 1,037,533; Sept. 3; Gaz. vol. 182; p. 121.
Thread cutter, Floating-. G. S. Weinerth. No. 1,038,896; Sept. 17; Gaz. vol. 182; p. 581.
Thread end into cops, Apparatus for drawing the. E. Fritsch. No. 1,038,554; Sept. 17; Gaz. vol. 182; p. 532.





Thread guide and clearer. L. T. Houghton. No. 1,038,235; Sept. 24; Gaz. vol. 182; p. 801.
Threading-die. O. A. Smith. No. 1,038,670; Sept. 17; Gaz. vol. 182; p. 572.
Threshing-machine closure. D. A. McConnell. No. 1,038,926; Sept. 17; Gaz. vol. 182; p. 662.
Ticket-machine. W. L. Sullivan. No. 1,039,212; Sept. 24; Gaz. vol. 182; p. 774.
Ticket, Marking-. J. C. Edwards. No. 1,037,823; Sept. 3; Gaz. vol. 182; p. 215.
Tie: *See* Concrete railway-tie; Cross-tie; Railway-tie; Railway cross-tie; Steel tie.
Tie and rail-fastener, Combination. H. Davis. No. 1,037,600; Sept. 3; Gaz. vol. 182; p. 142.
Tie and rail-fastener, Combined. T. Q. Oelke. No. 1,038,944; Sept. 17; Gaz. vol. 182; p. 668.
Tie anticreeping device. J. O'Shea. No. 1,038,975; Sept. 17; Gaz. vol. 182; p. 678.
Tie-plate. J. Henberger. No. 1,038,578; Sept. 17; Gaz. vol. 182; p. 540.
Tie-plate. C. W. Sherman. No. 1,039,483; Sept. 24; Gaz. vol. 182; p. 858.
Tie-plate, Anticreeper. D. P. Welhaupter. No. 1,038,702; Sept. 17; Gaz. vol. 182; p. 584.
Tile machine, Cement-. G. L. Allen. No. 1,037,189; Sept. 3; Gaz. vol. 182; p. 3.
Timepiece winding-indicator. O. Ohlsen. No. 1,038,634; Sept. 17; Gaz. vol. 182; p. 561.
Timing device. O. A. Knopp. No. 1,038,899; Sept. 17; Gaz. vol. 182; p. 648.
Tin from chlorid of tin, Making anhydrous tetrachlorid of. F. Brünnlich. No. 1,039,358; Sept. 24; Gaz. vol. 182; p. 825.
Tire. H. O. Bartlett. No. 1,037,412; Sept. 3; Gaz. vol. 182; p. 79.
Tire. T. Toomey. No. 1,037,686; Sept. 3; Gaz. vol. 182; p. 172.
Tire. M. Toso. No. 1,038,235; Sept. 10; Gaz. vol. 182; p. 387.
Tire-alarm. J. B. Polo. No. 1,038,433; Sept. 10; Gaz. vol. 182; p. 456.
Tire and securing-lug therefor, Clincher-. M. B. Hutchison. No. 1,038,145; Sept. 10; Gaz. vol. 182; p. 356.
Tire-armor. J. R. Smith. No. 1,037,677; Sept. 3; Gaz. vol. 182; p. 169.
Tire, Armored pneumatic. J. Land. No. 1,039,063; Sept. 17; Gaz. vol. 182; p. 704.
Tire-case. C. F. Hopewell. No. 1,037,482; Sept. 3; Gaz. vol. 182; p. 105.
Tire-cooling device, Pneumatic-. A. B. Craig. No. 1,038,087; Sept. 10; Gaz. vol. 182; p. 340.
Tire, Elastic. F. W. Pratt. No. 1,037,311; Sept. 3; Gaz. vol. 182; p. 44.
Tire-fastening device. W. L. Bauer. No. 1,037,414; Sept. 3; Gaz. vol. 182; p. 80.
Tire-filler. W. R. Howser and A. M. Welts. No. 1,038,501; Sept. 10; Gaz. vol. 182; p. 650.
Tire-making apparatus, Leather-. E. Spiegel. No. 1,037,382; Sept. 3; Gaz. vol. 182; p. 58.
Tire, Pneumatic. F. Doherty and W. J. Robbins. No. 1,038,314; Sept. 10; Gaz. vol. 182; p. 414.
Tire-protector. E. C. Harris. No. 1,038,360; Sept. 10; Gaz. vol. 182; p. 429.
Tire-protector. A. G. Edlund and A. Leafgren. No. 1,039,065; Sept. 24; Gaz. vol. 182; p. 933.
Tire-puncture finder. F. Miller. No. 1,037,954; Sept. 10; Gaz. vol. 182; p. 295.
Tire-puncture finder. F. Miller. No. 1,037,955; Sept. 10; Gaz. vol. 182; p. 295.
Tire, Resilient. C. J. Koopman. No. 1,037,642; Sept. 3; Gaz. vol. 182; p. 157.
Tire-shield. C. E. Ragsdale. No. 1,039,671; Sept. 24; Gaz. vol. 182; p. 935.
Tire-shoes, Making cores for manufacturing. R. M. Hinman. No. 1,037,250; Sept. 3; Gaz. vol. 182; p. 26.
Tire, Spring-. C. F. Wren. No. 1,039,469; Sept. 24; Gaz. vol. 182; p. 864.
Tire, Vehicle-. H. J. McCarty. No. 1,039,427; Sept. 24; Gaz. vol. 182; p. 850.
Tire, Vehicle wheel-. J. A. Gerhart. No. 1,037,753; Sept. 3; Gaz. vol. 182; p. 192.
Tire, Vehicle wheel-. C. B. Howe. No. 1,037,829; Sept. 3; Gaz. vol. 182; p. 217.
Tire, Vehicle wheel-. F. Rose. No. 1,038,441; Sept. 10; Gaz. vol. 182; p. 460.
Tire-vulcanizing apparatus. P. Beaudillon. No. 1,039,328; Sept. 24; Gaz. vol. 182; p. 814.
Tires, Means for indicating the deflation of pneumatic. F. H. Treat. No. 1,038,501; Sept. 17; Gaz. vol. 182; p. 619.
Tobacco, Device for testing the temperature of. J. M. Curphey and J. W. Pollock. No. 1,037,210; Sept. 3; Gaz. vol. 182; p. 11.
Tobacco-pipe. O. Klausig. No. 1,037,466; Sept. 3; Gaz. vol. 182; p. 101.
Tobacco-pipe. H. W. Davenport. No. 1,038,208; Sept. 10; Gaz. vol. 182; p. 411.
Tobacco-pipe. R. D. Grame. No. 1,039,649; Sept. 17; Gaz. vol. 182; p. 700.
Tongue, Adjustable. P. Hansmann. No. 1,039,051; Sept. 17; Gaz. vol. 182; p. 700.
Tongue-support, Automatic cushion. T. S. Hall. No. 1,039,530; Sept. 24; Gaz. vol. 182; p. 885.
Tool, Combination-. C. Bauer. No. 1,039,422; Sept. 24; Gaz. vol. 182; p. 869.
Tool-coupling, Rotary. E. W. Wheelock. No. 1,039,242; Sept. 24; Gaz. vol. 182; p. 621.
Tool, Fluid-operated. C. E. Richards. No. 1,037,885; Sept. 3; Gaz. vol. 182; p. 121.
Tool-handle. M. J. Hastins. No. 1,037,759; Sept. 3; Gaz. vol. 182; p. 195.
Tool-holder. A. C. Snell. No. 1,038,011; Sept. 10; Gaz. vol. 182; p. 313.
Tool-holder. C. K. Lassiter and F. H. Boczowski. No. 1,038,159; Sept. 10; Gaz. vol. 182; p. 362.
Toothpick-cutting knife. W. C. King. No. 1,037,494; Sept. 3; Gaz. vol. 182; p. 106.
Top. S. E. Coppins. No. 1,038,299; Sept. 10; Gaz. vol. 182; p. 410.
Torch, Oxyacetylene-. P. F. Willis. No. 1,039,238; Sept. 24; Gaz. vol. 182; p. 784.
Torpedo, Aerial. J. A. Linsmeyer. No. 1,038,460; Sept. 10; Gaz. vol. 182; p. 444.
Towel-rack. L. Straub. No. 1,038,984; Sept. 17; Gaz. vol. 182; p. 681.
Tower, Recreation-. C. H. Knight. No. 1,039,545; Sept. 24; Gaz. vol. 182; p. 892.
Toy. T. H. Harris. No. 1,039,529; Sept. 24; Gaz. vol. 182; p. 886.
Toy. P. B. Tyler. No. 1,039,617; Sept. 24; Gaz. vol. 182; p. 916.
Toy-derrick-operating mechanism. A. Pfeiffer. No. 1,038,949; Sept. 17; Gaz. vol. 182; p. 670.
Toy eye-mask. H. Gruemberger. No. 1,037,473; Sept. 3; Gaz. vol. 182; p. 102.
Toy, Mechanical. A. F. Kuhl. No. 1,038,603; Sept. 17; Gaz. vol. 182; p. 549.
Toy, Paper. I. Schönherr. No. 1,037,335; Sept. 3; Gaz. vol. 182; p. 52.
Toy telephone. A. E. Redlich. No. 1,037,532; Sept. 3; Gaz. vol. 182; p. 120.
Tracings, Rack for. F. S. Baker. No. 1,037,408; Sept. 3; Gaz. vol. 182; p. 76.
Tracker-bar. L. B. Doman. No. 1,039,659; Sept. 24; Gaz. vol. 182; p. 931.
Tracker-board. A. and O. Philippa. No. 1,038,193; Sept. 10; Gaz. vol. 182; p. 373.
Traction-engine. W. Durran. No. 1,037,222; Sept. 3; Gaz. vol. 182; p. 15.
Traction-engine. N. R. and R. Getz. No. 1,038,114; Sept. 10; Gaz. vol. 182; p. 346.
Traction-engine. M. Jess. No. 1,038,379; Sept. 10; Gaz. vol. 182; p. 436.
Traction-wheel. S. M. Bower. No. 1,038,835; Sept. 17; Gaz. vol. 182; p. 631.
Traction-wheel. R. Sedgwick. No. 1,039,200; Sept. 24; Gaz. vol. 182; p. 769.
Train-controlling system, Automatic. F. D. Shindel. No. 1,037,675; Sept. 3; Gaz. vol. 182; p. 167.
Train-order-pad holder. W. H. Barney. No. 1,038,713; Sept. 17; Gaz. vol. 182; p. 582.
Train-stop, Automatic. J. W. McKelvey. No. 1,037,504; Sept. 3; Gaz. vol. 182; p. 112.
Tramway-track. P. Starke. No. 1,038,982; Sept. 17; Gaz. vol. 182; p. 680.
Transformer, Self-cooled. J. J. Mullen. No. 1,039,577; Sept. 24; Gaz. vol. 182; p. 903.
Transmission mechanism. J. G. Coleridge. No. 1,037,869; Sept. 10; Gaz. vol. 182; p. 264.
Transplanter. J. T. Matthews. No. 1,038,924; Sept. 17; Gaz. vol. 182; p. 662.
Trap: *See* Animal-trap; Rat-trap; Steam-trap; Target-trap.
Trap. L. Labecki. No. 1,039,299; Sept. 24; Gaz. vol. 182; p. 806.
Trap and fixture, Combination. A. Meyer. No. 1,039,169; Sept. 24; Gaz. vol. 182; p. 757.
Tray, Wheeled. C. A. Bayler. No. 1,038,267; Sept. 10; Gaz. vol. 182; p. 390.
Tree: *See* Swingle or double tree.
Tree-felling machine. J. Wallace. No. 1,039,338; Sept. 24; Gaz. vol. 182; p. 819.
Tree-protector. J. Bouska. No. 1,039,018; Sept. 17; Gaz. vol. 182; p. 691.
Trimmer: *See* Lawn-trimmer.
Trip-coupling. R. J. Hamilton. No. 1,038,356; Sept. 10; Gaz. vol. 182; p. 428.
Trolley-catcher. C. H. Beames. No. 1,038,437; Sept. 10; Gaz. vol. 182; p. 458.
Trolley-guard. F. J. Nolan. No. 1,037,969; Sept. 10; Gaz. vol. 182; p. 300.
Trolley, Lubricating-. G. H. Merwin. No. 1,037,507; Sept. 3; Gaz. vol. 182; p. 113.
Trolley-pole retriever. E. B. Wintrode. No. 1,039,346; Sept. 24; Gaz. vol. 182; p. 822.
Trolley-retriever. E. R. Dunlop. No. 1,039,503; Sept. 24; Gaz. vol. 182; p. 876.
Trolley, Sleet-cutting. D. E. Barton. No. 1,038,806; Sept. 10; Gaz. vol. 182; p. 482.
Trolley-wheel. J. W. Pennell. No. 1,039,530; Sept. 24; Gaz. vol. 182; p. 907.
Trolley-wheel retainer. S. A. Pindura. No. 1,037,328; Sept. 3; Gaz. vol. 182; p. 216.
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Trousers-pressing device. J. E. Miller. No. 1,038,778; Sept. 17; Gaz. vol. 182; p. 611.
Truck. J. A. Hickey. No. 1,038,127; Sept. 10; Gaz. vol. 182; p. 364.
Truck. C. A. Williams. No. 1,038,809; Sept. 17; Gaz. vol. 182; p. 622.

Truck, Automobile-. J. Q. Primm. No. 1,037,312; Sept. 3; Gas. vol. 182; p. 44.
Truck, Car-. H. W. Blake. No. 1,038,481; Sept. 10; Gas. vol. 182; p. 473.
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Truck for agricultural implements. J. H. Ernert. No. 1,038,325; Sept. 10; Gas. vol. 182; p. 417.
Truck, Low-hung motor-. S. J. Levy. No. 1,038,162; Sept. 10; Gas. vol. 182; p. 362.
Trunk. G. H. Wheary. No. 1,037,696; Sept. 3; Gas. vol. 182; p. 175.
Trunk. W. C. T. Hansen. No. 1,038,880; Sept. 17; Gas. vol. 182; p. 646.
Trunk-lock. F. Soley. No. 1,038,981; Sept. 17; Gas. vol. 182; p. 680.
Trunk-tray. W. A. Simmons. No. 1,038,009; Sept. 10; Gas. vol. 182; p. 313.
Tube: *See* Uterine tube.
Tube carrier, Pneumatic-. A. Hers. No. 1,039,894; Sept. 24; Gas. vol. 182; p. 838.
Tube-forming machine. J. R. Harbeck and B. K. Ford. No. 1,037,246; Sept. 3; Gas. vol. 182; p. 24.
Tube-thread protector. J. W. West. No. 1,038,249; Sept. 10; Gas. vol. 182; p. 392.
Tuft. F. W. Oehrle. No. 1,038,943; Sept. 17; Gas. vol. 182; p. 668.
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Tug fastener, Harness-. J. R. Craeroft. No. 1,038,091; Sept. 10; Gas. vol. 182; p. 339.
Tumbling and polishing machine. H. B. Richardson. No. 1,038,791; Sept. 17; Gas. vol. 182; p. 615.
Turbine. D. S. Cole. No. 1,037,440; Sept. 3; Gas. vol. 182; p. 80.
Turbine. M. H. Churchill-Shann. No. 1,038,295; Sept. 10; Gas. vol. 182; p. 408.
Turbine, Elastic-fluid. T. R. Sanders. No. 1,038,972; Sept. 17; Gas. vol. 182; p. 677.
Turbine packing-gland, Steam-. W. J. A. London. No. 1,037,647; Sept. 3; Gas. vol. 182; p. 153.
Turbine-regulating device, Reaction-. H. A. Singrün. No. 1,038,977; Sept. 17; Gas. vol. 182; p. 678.
Turbine, Steam-. C. W. Dake. No. 1,038,534; Sept. 17; Gas. vol. 182; p. 525.
Turbo-compressors or blowers, Means for cooling. A. C. E. Rateau. No. 1,038,200; Sept. 10; Gas. vol. 182; p. 374.
Turning mills, lathes, or like machines, Feed mechanism of. A. E. Bennett and H. Thompson. No. 1,039,484; Sept. 24; Gas. vol. 182; p. 870.
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Twine. J. Dymock. No. 1,038,490; Sept. 10; Gas. vol. 182; p. 476.
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Type-bar key-action. J. B. Secor. No. 1,037,339; Sept. 3; Gas. vol. 182; p. 53.
Type-blocks, Changeable. J. J. Howard. No. 1,039,131; Sept. 24; Gas. vol. 182; p. 745.
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Type setting and justifying machine. J. S. Thompson. No. 1,038,234; Sept. 10; Gas. vol. 182; p. 356.
Type-writer. J. B. Pickett. No. 1,037,981; Sept. 10; Gas. vol. 182; p. 304.
Type-writer alarm. G. H. Smiley. No. 1,038,218; Sept. 10; Gas. vol. 182; p. 330.
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Type-writer ribbon mechanism. J. Alexander. No. 1,039,473; Sept. 24; Gas. vol. 182; p. 866.
Type-writer shifting attachment. C. Olson. No. 1,039,178; Sept. 24; Gas. vol. 182; p. 761.
Type-writers, Envelop, card, and sheet feeder for. W. H. and E. B. McArdle. No. 1,038,406; Sept. 10; Gas. vol. 182; p. 446.
Type-writing, adding, and subtracting machine, Combined. J. A. Smith. No. 1,037,350; Sept. 3; Gas. vol. 182; p. 67.
Type-writing and adding machine. W. H. Pike, Jr. No. 1,037,521; Sept. 3; Gas. vol. 182; p. 117.
Type-writing machine. E. G. Latta. No. 1,038,906; Sept. 17; Gas. vol. 182; p. 655.
Type-writing machine. E. G. Latta. No. 1,038,907; Sept. 17; Gas. vol. 182; p. 656.
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Umbrella. T. K. Berntson. No. 1,039,638; Sept. 24; Gas. vol. 182; p. 928.
Undergarment. A. A. H. McAllister. No. 1,038,620; Sept. 17; Gas. vol. 182; p. 558.
Underreamer. W. Wagner. No. 1,038,243; Sept. 10; Gas. vol. 182; p. 390.
Unit, Spring. J. H. Smith. No. 1,037,556; Sept. 3; Gas. vol. 182; p. 128.
Universal joint. G. H. Brush. No. 1,037,427; Sept. 3; Gas. vol. 182; p. 84.
Universal joint. R. W. Graham. No. 1,037,614; Sept. 3; Gas. vol. 182; p. 146.
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Upholstering springwork. R. M. Hulse. No. 1,037,356; Sept. 3; Gas. vol. 182; p. 27.
Urn, Coffee-. F. L. Landergren. No. 1,037,269; Sept. 3; Gas. vol. 182; p. 51.
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Valve. E. L. Biddick and D. M. MacLeod. No. 1,038,653; Sept. 17; Gas. vol. 182; p. 566.
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Wrapping-machine. F. Grover. No. 1,037,617; Sept. 3; Gas. vol. 182; p. 147.
Wrapping merchandise, &c. C. H. Dirnberger. No. 1,037,218; Sept. 3; Gas. vol. 182; p. 14.
Wrench: *See* Pipe-wrench; Power-wrench; Tap-wrench.
Wrench. C. H. Douglas. No. 1,038,539; Sept. 17; Gas. vol. 182; p. 527.
Wrench. H. Zielinski. No. 1,038,706; Sept. 17; Gas. vol. 182; p. 586.
Wrench. B. B. Caldwell. No. 1,038,846; Sept. 17; Gas. vol. 182; p. 635.
Wrench. R. M. Snyder. No. 1,039,458; Sept. 24; Gas. vol. 182; p. 860.
Wrench. H. J. Wilker. No. 1,039,466; Sept. 24; Gas. vol. 182; p. 863.
Wrench. L. G. Crosby and J. C. Slaughenhaupt. No. 1,039,498; Sept. 24; Gas. vol. 182; p. 872.
Wrench. P. P. Glass. No. 1,039,515; Sept. 24; Gas. vol. 182; p. 882.
Wrench and clamp, Combined. W. Charlton. No. 1,039,027; Sept. 17; Gas. vol. 182; p. 604.
Wringer: *See* Clothes-wringer; Mop-wringer.
Writing machine, Multiple-. J. S. Brand. No. 1,038,486; Sept. 10; Gas. vol. 182; p. 474.
Yarn-cone. M. T. Murphy. No. 1,037,295; Sept. 3; Gas. vol. 182; p. 39.
Yarns, Apparatus for cleansing, washing, or dyeing woolen, cotton, and other. P. Fincato. No. 1,037,461; Sept. 3; Gas. vol. 182; p. 97.

# ALPHABETICAL LIST OF DESIGNS.

Advertising-tablet. C. F. Hilden. No. 43,045; Sept. 24; Gas. vol. 182; p. 943.
Aquarium. F. A. Ronneburg. No. 43,062; Sept. 24; Gas. vol. 182; p. 947.
Ash-tray. L. Albino. No. 43,025; Sept. 17; Gas. vol. 182; p. 710.
Automobile-body. C. F. Huffman. No. 43,046; Sept. 24; Gas. vol. 182; p. 943.
Automobile-hood. F. Porsche. No. 43,015; Sept. 10; Gas. vol. 182; p. 489.
Automobile-horn. R. H. Manson. Nos. 42,971–2; Sept. 3; Gas. vol. 182; p. 225.
Badge. A. H. Van Deusen. No. 42,986; Sept. 3; Gas. vol. 182; p. 227.
Badge or emblem. M. M. Leichter. No. 43,052; Sept. 24; Gas. vol. 182; p. 944.
Bedspread. G. E. Lackey. No. 43,050; Sept. 24; Gas. vol. 182; p. 944.
Braid, Round. S. W. Wardwell. No. 43,024; Sept. 10; Gas. vol. 182; p. 491.
Brushes, mirrors, or similar articles, Back for. W. H. Saart. No. 43,021; Sept. 10; Gas. vol. 182; p. 491.
Button. A. B. T. Moore. No. 43,009; Sept. 10; Gas. vol. 182; p. 488.
Button-hook or similar article, Handle of a. T. Bender. No. 43,031; Sept. 24; Gas. vol. 182; p. 940.
Cap. W. H. Kilbourn. No. 43,048; Sept. 24; Gas. vol. 182; p. 944.
Card-holder. C. U. Carpenter. No. 42,992; Sept. 10; Gas. vol. 182; p. 484.
Carpet. W. A. Elliott. No. 43,035; Sept. 24; Gas. vol. 182; p. 941.
Chafing-dish and stand. C. M. Prior and C. Nelson. No. 43,060; Sept. 24; Gas. vol. 182; p. 946.
Clocks, Ring-head for alarm-. E. E. Stockton. No. 42,983; Sept. 3; Gas. vol. 182; p. 227.
Comb-cleaner. M. A. Gensler. No. 42,964; Sept. 3; Gas. vol. 182; p. 223.
Drinking vessel. A. B. Gunthel. No. 42,994; Sept. 10; Gas. vol. 182; p. 485.
Dynamo and regulator casing. W. Gray. No. 43,036; Sept. 24; Gas. vol. 182; p. 941.
Electric switchboard. W. J. Bell. No. 43,026; Sept. 17; Gas. vol. 182; p. 710.
Engine casing, Gas-. H. N. Edens. No. 42,962; Sept. 3; Gas. vol. 182; p. 223.
Fence. W. H. Sommer. No. 42,982; Sept. 3; Gas. vol. 182; p. 227.
Fence or gate stay or picket. W. H. Sommer. No. 42,981; Sept. 3; Gas. vol. 182; p. 227.
File handle, Document-. C. U. Carpenter. No. 42,991; Sept. 10; Gas. vol. 182; p. 484.
Fountain, Combined bubbling and draft. G. W. Nahuis. No. 43,010; Sept. 10; Gas. vol. 182; p. 488.
Game-board. E. J. McMurtry. No. 43,054; Sept. 24; Gas. vol. 182; p. 945.
Garment-supporter. A. S. Adam. No. 43,030; Sept. 24; Gas. vol. 182; p. 940.
Gas or electric-light fixtures, Shell for. F. W. Gehrke. No. 42,963; Sept. 3; Gas. vol. 182; p. 223.
Glass articles, Foot for. R. Haley. No. 43,040; Sept. 24; Gas. vol. 182; p. 942.
Glass articles, Neck and stopper for. R. Haley. No. 43,039; Sept. 24; Gas. vol. 182; p. 942.
Glass dish. R. Haley. No. 43,041; Sept. 24; Gas. vol. 182; p. 942.
Glass vessel. R. Haley. No. 43,042; Sept. 24; Gas. vol. 182; p. 942.
Globe or similar article. H. E. Watkins. No. 43,071; Sept. 24; Gas. vol. 182; p. 948.
Globe or similar article. H. E. Watkins. No. 43,074; Sept. 24; Gas. vol. 182; p. 948.
Goblet. A. Pick. Nos. 43,056–9; Sept. 24; Gas. vol. 182; pp. 945–6.
Goblet or similar article. A. B. Gunthal. Nos. 42,995–43,000; Sept. 10; Gas. vol. 182; pp. 485–6.
Hoist casing, Electric-. H. S. Valentine. No. 43,065; Sept. 24; Gas. vol. 182; p. 947.
Hoists, Motor-casing for electric. H. S. Valentine. No. 43,066; Sept. 24; Gas. vol. 182; p. 947.
Hook, Metal. A. Robeson. No. 43,061; Sept. 24; Gas. vol. 182; p. 946.
Jar. F. A. Brown. No. 42,990; Sept. 10; Gas. vol. 182; p. 484.
Knife and fork, Combined. M. S. Hewitt. No. 43,044; Sept. 24; Gas. vol. 182; p. 942.
Label-blank. E. J. Sloan. Nos. 43,027–9; Sept. 17; Gas. vol. 182; pp. 710–11.
Lamp, Gas-. A. H. Humphrey. No. 43,001; Sept. 10; Gas. vol. 182; p. 487.
Lamp-post. J. C. Hobrecht. No. 42,967; Sept. 3; Gas. vol. 182; p. 224.
Lamp-shade. F. M. Hawe and H. S. Evans. No. 43,043; Sept. 24; Gas. vol. 182; p. 943.
Lighting-fixtures or similar articles, Shell for. H. E. Watkins. No. 43,067; Sept. 24; Gas. vol. 182; p. 948.
Lighting-fixtures or similar articles, Shell for. H. E. Watkins. No. 43,070; Sept. 24; Gas. vol. 182; p. 948.
Liquid cooler and dispenser. H. G. Cordley. No. 42,959; Sept. 3; Gas. vol. 182; p. 223.
Lock-hook. L. Williams. No. 42,987; Sept. 3; Gas. vol. 182; p. 227.
Lock-jar. A. J. Guidry. No. 42,965; Sept. 3; Gas. vol. 182; p. 224.
Masher, Vegetable-. N. R. Streeter. No. 43,064; Sept. 24; Gas. vol. 182; p. 947.
Monument. H. M. Ream. No. 42,975; Sept. 3; Gas. vol. 182; p. 226.
Musical-instrument case. F. Theiss. No. 42,984; Sept. 3; Gas. vol. 182; p. 227.
Nose-guard. E. Riggs. No. 42,976; Sept. 3; Gas. vol. 182; p. 226.
Nose-guard. W. G. King. No. 43,049; Sept. 24; Gas. vol. 182; p. 944.
Piano lever, Player-. C. Bergland. No. 42,989; Sept. 10; Gas. vol. 182; p. 484.
Picture-hook or similar article. I. A. M. Larsson. No. 42,970; Sept. 3; Gas. vol. 182; p. 225.
Plaque. C. J. Dieges. No. 43,034; Sept. 24; Gas. vol. 182; p. 941.
Post-bracket. C. E. Grelle. No. 43,037; Sept. 24; Gas. vol. 182; p. 941.
Powder and dispenser, Toilet. E. Oldenbusch. No. 43,055; Sept. 24; Gas. vol. 182; p. 945.
Pump and engine base. X. Caverno. No. 43,032; Sept. 24; Gas. vol. 182; p. 940.
Range top, Coal-. F. Will and H. Becker. No. 43,075; Sept. 24; Gas. vol. 182; p. 949.
Razor-strop and mirror, Combined. S. Rieger. No. 43,020; Sept. 10; Gas. vol. 182; p. 490.
Reflector and attachment. H. D'Olier, Jr. No. 42,961; Sept. 3; Gas. vol. 182; p. 223.
Rug. D. G. Melville. Nos. 43,007–8; Sept. 10; Gas. vol. 182; p. 488.
Rug. A. Petzold. Nos. 43,012–14; Sept. 10; Gas. vol. 182; p. 489.
Saw-handle. H. Disston. No. 42,960; Sept. 3; Gas. vol. 182; p. 223.
Shade, globe, or similar article. H. E. Watkins. Nos. 43,068–9; Sept. 24; Gas. vol. 182; p. 948.
Shade, globe, or similar article. H. E. Watkins. Nos. 43,072–3; Sept. 24; Gas. vol. 182; p. 948.
Shoe-tree or similar article. J. H. Woodbury. No. 43,076; Sept. 24; Gas. vol. 182; p. 949.
Sign. J. Chapin. No. 42,968; Sept. 3; Gas. vol. 182; p. 222.
Signaling device and bracket therefor. R. H. Manson. No. 43,053; Sept. 24; Gas. vol. 182; p. 945.
Skate foot-plate, Roller-. H. Runion. No. 43,063; Sept. 24; Gas. vol. 182; p. 947.
Sponge-holder. A. C. Gurske. No. 43,038; Sept. 24; Gas. vol. 182; p. 941.
Spoon, fork, or similar article. H. Hillbom. No. 42,966; Sept. 3; Gas. vol. 182; p. 224.
Spoon, fork, or similar article. A. G. Kints. No. 42,968; Sept. 3; Gas. vol. 182; p. 224.
Spoon, fork, or similar article. R. R. Kints. No. 42,969; Sept. 3; Gas. vol. 182; p. 224.
Spoon, fork, or similar article. R. Schulze. No. 42,977; Sept. 3; Gas. vol. 182; p. 226.
Spoon, fork or similar article. R. Schulze. No. 43,022; Sept. 10; Gas. vol. 182; p. 491.
Spoons, forks, or similar articles, Handle for. G. N. Allen. No. 42,988; Sept. 10; Gas. vol. 182; p. 484.
Spoons, forks, or similar articles, Handle for. W. C. Codman. No. 42,993; Sept. 10; Gas. vol. 182; p. 486.
Stove. L. Kahn. No. 43,002; Sept. 10; Gas. vol. 182; p. 487.
Talking-machine cabinet. E. T. Kieffer. Nos. 43,003–6; Sept. 10; Gaz. vol. 182; pp. 487–8.
Teapot. C. L. Casey. No. 42,957; Sept. 3; Gas. vol. 182; p. 222.
Thimble, Sewing-. L. M. Seybold. Nos. 42,978–80; Sept. 3; Gas. vol. 182; p. 226.
Tire, Automobile-. T. P. Clark. No. 43,033; Sept. 24; Gas. vol. 182; p. 940.
Tire for vehicles, Elastic. F. H. Jones. No. 43,047; Sept. 24; Gas. vol. 182; p. 944.
Toaster, Electrically-heated. E. Schwartz. No. 43,023; Sept. 10; Gas. vol. 182; p. 491.

Toy cat. L. Rees. No. 43,017; Sept. 10; Gaz. vol. 182; p. 490.

Toy dog. L. Rees. No. 43,016; Sept. 10; Gaz. vol. 182; p. 490.

Toy dog. L. Rees. Nos. 43,018–19; Sept. 10; Gaz. vol. 182; p. 490.

Tray, Crumb-. C. Nelson. No. 42,974; Sept. 3; Gaz. vol. 182; p. 226.

Vacuum-cleaner casing or similar article, Electric-. R. H. and J. Morrow. No. 42,973; Sept. 3; Gaz. vol. 182; p. 226.

Vacuum-cleaner frame. R. T. Owen. No. 43,011; Sept. 10; Gaz. vol. 182; p. 489.

Water-closet seat and cover. B. O. Tilden. No. 42,985; Sept. 3; Gaz. vol. 182; p. 227.

Weighing-bin. P. W. Lawther. No. 43,051; Sept. 24; Gaz. vol. 182; p. 944.

# ALPHABETICAL LIST OF TRADE-MARKS.

Acids and pharmaceutical preparations, Certain. Société Chimique Des Usines Du Rhône, Anct. Gilliard, P. Monnet & Cartier. No. 88,212; Sept. 3; Gaz. vol. 182; p. 245.

Aeroplane-cloth. The B. F. Goodrich Company. No. 88,485; Sept. 24; Gaz. vol. 182; p. 966.

Agricultural machines and implements, Certain. New Idea Spreader Co. No. 88,343; Sept. 10; Gaz. vol. 182; p. 506.

Ale and beer. Bass, Ratcliff & Gretton. No. 88,266; Sept. 10; Gaz. vol. 182; p. 504.

Alimentary paste. San Antonio Macaroni Factory. No. 88,371; Sept. 10; Gaz. vol. 182; p. 507.

Aluminium ware. Invincible Aluminum Company. No. 88,303; Sept. 10; Gaz. vol. 182; p. 505.

Antipyretic, antineuralgic, and sedative. Farbwerke vorm. Meister Lucius & Brüning. No. 88,478; Sept. 24; Gaz. vol. 182; p. 966.

Automobile-curtains. Jiffy Auto Curtain Co. No. 88,495; Sept. 24; Gaz. vol. 182; p. 966.

Automobiles. The Studebaker Corporation. No. 88,218; Sept. 3; Gaz. vol. 182; p. 245.

Bags, Cotton and burlap. American Bag Company. No. 88,228; Sept. 10; Gaz. vol. 182; p. 503.

Baking-powder. Hieckin Spice Co. No. 88,282; Sept. 10; Gaz. vol. 182; p. 504.

Beer, Lager-. Hastings Brewing Co. No. 88,181; Sept. 3; Gaz. vol. 182; p. 244.

Benzin, naphtha, and gasolene. West India Oil Company. No. 88,543; Sept. 24; Gaz. vol. 182; p. 968.

Beverage, Carbonated. Bluff City Manufacturing Co. No. 88,159; Sept. 3; Gaz. vol. 182; p. 243.

Beverage, Certain non-alcoholic. The Pepsi-Cola Co. No. 88,356; Sept. 10; Gaz. vol. 182; p. 506.

Beverage, Non-alcoholic. Wm. Corry & Co. No. 88,400; Sept. 17; Gaz. vol. 182; p. 717.

Biscuit. National Biscuit Company. Nos. 88,334–40; Sept. 10; Gaz. vol. 182; p. 506.

Biscuit. National Biscuit Company. Nos. 88,413–14; Sept. 17; Gaz. vol. 182; p. 717.

Biscuit and sugar wafers. National Biscuit Company. No. 88,333; Sept. 10; Gaz. vol. 182; p. 506.

Bleaching-powder for laundry purposes. The McWhirter Chemical Company. No. 88,542; Sept. 24; Gaz. vol. 182; p. 968.

Books, forms, certificates, drafts, &c., Blank. The Siphon Credit System Company. No. 88,526; Sept. 24; Gaz. vol. 182; p. 967.

Boot and shoe heel wear-resisting slugs. Atlas Tack Company. No. 88,231; Sept. 10; Gaz. vol. 182; p. 503.

Boots and shoes, Leather. M. J. Mullen. No. 88,329; Sept. 10; Gaz. vol. 182; p. 506.

Brake-liners. Empire Tire Company. Nos. 88,172–3; Sept. 3; Gaz. vol. 182; p. 243.

Bread. S. E. Loveless Advertising Service. No. 88,318; Sept. 10; Gaz. vol. 182; p. 505.

Bread. Schulze Baking Company. No. 88,426; Sept. 17; Gaz. vol. 182; p. 718.

Bread. Wagner Baking Co. No. 88,435; Sept. 17; Gaz. vol. 182; p. 718.

Bread, Unleavened. M. London. No. 88,503; Sept. 24; Gaz. vol. 182; p. 966.

Broaching-machines, planers, boring-machines, &c. Lapointe Machine Tool Co. No. 88,313; Sept. 10; Gaz. vol. 182; p. 505.

Bronze and bronzing liquids. Baer Bros. No. 88,232; Sept. 10; Gaz. vol. 182; p. 503.

Brushes, Tooth-. Lingual Surface Tooth Brush Company. No. 88,186; Sept. 3; Gaz. vol. 182; p. 244.

Bust-reducer or flexible brassières. The Jumoforma Company. No. 88,306; Sept. 10; Gaz. vol. 182; p. 505.

Butter. Lowe's Market Creamery. No. 88,317; Sept. 10; Gaz. vol. 182; p. 505.

Buttons, Collar-. Back-Rack Collar Button Co. No. 88,461; Sept. 24; Gaz. vol. 182; p. 965.

Cabinets, cupboards, closets, and tables, Kitchen-. G. I. Sellers & Sons Company. No. 88,374; Sept. 10; Gaz. vol. 182; p. 507.

Calendar-pads, files, and paper-weights. Hale Specialty Co. No. 88,278; Sept. 10; Gaz. vol. 182; p. 504.

Candies. The Sterling Chocolate Company. Nos. 88,216–17; Sept. 3; Gaz. vol. 182; p. 243.

Candies. Brazier Brothers Company. No. 88,236; Sept. 10; Gaz. vol. 182; p. 503.

Candy. American Candy Mfg. Co. No. 88,226; Sept. 10; Gaz. vol. 182; p. 503.

Candy. C. A. Crane. No. 88,248; Sept. 10; Gaz. vol. 182; p. 503.

Candy. Roach, Tisdale & Co. No. 88,363; Sept. 10; Gaz. vol. 182; p. 507.

Candy. A. F. Chevalier. No. 88,396; Sept. 17; Gaz. vol. 182; p. 717.

Canned and preserved fruits. Libby, McNeill & Libby. No. 88,316; Sept. 10; Gaz. vol. 182; p. 505.

Canned crabs, shrimps, and abalone. North American Mercantile Co. Nos. 88,417–18; Sept. 17; Gaz. vol. 182; p. 717.

Canned fish, Certain named. The George & Barker Co. No. 88,271; Sept. 10; Gaz. vol. 182; p. 504.

Canned fruits and vegetables. W. H. Harris Grocery Co. No. 88,280; Sept. 10; Gaz. vol. 182; p. 504.

Canned goods, Certain named. The J. M. Paver Company. No. 88,419; Sept. 17; Gaz. vol. 182; p. 717.

Canned kidney-beans. The Illinois Canning Company. No. 88,302; Sept. 10; Gaz. vol. 182; p. 505.

Canned pineapples. Haiku Fruit & Packing Co. No. 88,406; Sept. 17; Gaz. vol. 182; p. 717.

Canned salmon. Kelley-Clarke Co. No. 88,307; Sept. 10; Gaz. vol. 182; p. 505.

Canned salmon. Tee Harbor Packing Co. No. 88,335; Sept. 10; Gaz. vol. 182; p. 507.

Canned salmon. Astoria & Puget Sound Canning Co. Nos. 88,446–7; Sept. 24; Gaz. vol. 182; p. 965.

Canned vegetables. The Forest City Canning Co. No. 88,480; Sept. 24; Gaz. vol. 182; p. 966.

Cans, Metal and paper. Detroit Can Company. No. 88,251; Sept. 10; Gaz. vol. 182; p. 503.

Cards, Playing-. The Check Game Company. No. 88,341; Sept. 10; Gaz. vol. 182; p. 503.

Cassabas. Hemphill & Christensen. No. 88,182; Sept. 3; Gaz. vol. 182; p. 244.

Catsup and chilli sauce, Tomato. The Frazier Packing Company. No. 88,263; Sept. 10; Gaz. vol. 182; p. 504.

Catsup and vinegar, Tomato. Northern Pickle Co. No. 88,347; Sept. 10; Gaz. vol. 182; p. 506.

Cheese. Mensel & Co. No. 88,411; Sept. 17; Gaz. vol. 182; p. 717.

Chemicals, medicines, and pharmaceutical preparations. J. D. Riedel, Actiengesellschaft. No. 88,204; Sept. 3; Gaz. vol. 182; p. 244.

Chests and cabinets. Towle Manufacturing Company. No. 88,222; Sept. 3; Gaz. vol. 182; p. 245.

Cider. E. A. Ransing. No. 88,202; Sept. 3; Gaz. vol. 182; p. 244.

Cigarette-paper S. D. Mediano. No. 88,327; Sept. 10; Gaz. vol. 182; p. 506.

Cigarettes. M. J. Abrens and Co. No. 88,147; Sept. 3; Gaz. vol. 182; p. 243.

Cigarettes. The Tryst Cigarette Co. No. 88,219; Sept. 3; Gaz. vol. 182; p. 245.

Cigars. J. P. Coyne. No. 88,165; Sept. 3; Gaz. vol. 182; p. 243.

Cigars. L. M. Crump. No. 88,167; Sept. 3; Gaz. vol. 182; p. 243.

Cigars. B. Moreda y Deben. No. 88,169; Sept. 3; Gaz. vol. 182; p. 243.

Cigars. J. J. Moeckel. No. 88,190; Sept. 3; Gaz. vol. 182; p. 244.

Cigars. S. S. Pierce Company. No. 88,198; Sept. 3; Gaz. vol. 182; p. 244.

Cigars, cigarettes, tobacco, and snuff. Rode & Brand. No. 88,205; Sept. 3; Gaz. vol. 182; p. 244.

Cigars, tobacco, and cigarettes. The Hemmeter Cigar Company. No. 88,488; Sept. 24; Gaz. vol. 182; p. 966.

Cleaning apparatus, Vacuum. American Radiator Company. No. 88,442; Sept. 24; Gaz. vol. 182; p. 965.

Clothing, Certain named. Malloch Knitting Company. No. 88,321; Sept. 10; Gaz. vol. 182; p. 505.

Cocks or faucets. H. Mueller Manufacturing Co. No. 88,328; Sept. 10; Gaz. vol. 182; p. 506.

Cocktails. Elder-Harrison Company. No. 88,256; Sept. 10; Gaz. vol. 182; p. 504.

Cocoa-beans. Graham, Hinkley & Co. No. 88,275; Sept. 10; Gaz. vol. 182; p. 504.

Codfish-balls. Boston Food Products Company. No. 88,162; Sept. 3; Gaz. vol. 182; p. 243.

Coffee. James Van Dyk Company. No. 88,424; Sept. 17; Gaz. vol. 182; p. 718.

Coffee, Blended. The Lowry Coffee Co. No. 88,319; Sept. 10; Gaz. vol. 182; p. 505.

Coffee, Blended. St. Louis Coffee & Spice Mills. Nos. 88,361–2; Sept. 10; Gaz. vol. 182; p. 507.

Coffee compound. Abel & Asher Co. No. 88,146; Sept. 3; Gaz. vol. 182; p. 243.

Coffee substitute. Dwinell-Wright Company. No. 88,472; Sept. 24; Gaz. vol. 182; p. 966.

Coffees. Richheimer & Co. No. 88,423; Sept. 17; Gaz. vol. 182; p. 717.

Colors, Coal-tar. Society of Chemical Industry in Basle. No. 88,377; Sept. 10; Gaz. vol. 182; p. 507.

Corduroy and velvet piece goods. N. Eringer, Blumgart & Co. No. 88,175; Sept. 3; Gaz. vol. 182; p. 243.

Cornets, trumpets, and drums. Hawkes & Son. No. 88,487; Sept. 24; Gaz. vol. 182; p. 966.
Corsets. American Lady Corset Company. No. 88,228; Sept. 10; Gaz. vol. 182; p. 503.
Cotton, Absorbent. Hygienic Fibre Company. No. 88,494; Sept. 24; Gaz. vol. 182; p. 966.
Cotton piece goods. Garner Print Works & Bleachery. No. 88,178; Sept. 3; Gaz. vol. 182; p. 244.
Cotton piece goods. Lortex Company. No. 88,188; Sept. 3; Gaz. vol. 182; p. 244.
Culverts, Nestable corrugated. The Canton Culvert Company. No. 88,240; Sept. 10; Gaz. vol. 182; p. 503.
Cutlery and tools, Certain named. The Collins Company. No. 88,164; Sept. 3; Gaz. vol. 182; p. 243.
Cutlery, machinery, and tools, Certain named. C. M. McClung & Co. No. 88,193; Sept. 3; Gaz. vol. 182; p. 244.
Dental broaches. The O. H. Tracy Co. No. 88,534; Sept. 24; Gaz. vol. 182; p. 967.
Disinfectants, insecticides, and pharmaceutical preparations. The James Blanchard Company. No. 88,157; Sept. 3; Gaz. vol. 182; p. 243.
Dolls. Geo. Borgfeldt & Co. No. 88,161; Sept. 3; Gaz. vol. 182; p. 243.
Dress and shirt waists. Krohnberg & Krohnberg. No. 88,309; Sept. 10; Gaz. vol. 182; p. 505.
Dry cells. National Carbon Company. Nos. 88,194–5; Sept. 3; Gaz. vol. 182; p. 244.
Dry cells. National Carbon Company. No. 88,341; Sept. 10; Gaz. vol. 182; p. 506.
Dynamite. The Potts Powder Company. No. 88,201; Sept. 3; Gaz. vol. 182; p. 244.
Egg-beaters, cream-whippers, &c. J. Hutchinson. No. 88,297; Sept. 10; Gaz. vol. 182; p. 505.
Electric machines, Dynamo-. The Dean Electric Company. No. 88,471; Sept. 24; Gaz. vol. 182; p. 966.
Electric relays. The Dean Electric Company. No. 88,168; Sept. 3; Gaz. vol. 182; p. 243.
Electrical junction-boxes. The Bonnell Manufacturing Co. No. 88,160; Sept. 3; Gaz. vol. 182; p. 243.
Electrical purposes, Conduits for. The American Conduit Manufacturing Co. No. 88,227; Sept. 10; Gaz. vol. 182; p. 503.
Electrical purposes, Wire for. The American Steel & Wire Company of New Jersey. No. 88,149; Sept. 3; Gaz. vol. 182; p. 243.
Embroideries. J. D. Faris. No. 88,176; Sept. 3; Gaz. vol. 182; p. 244.
Engines, Internal-combustion. The New London Ship & Engine Company. No. 88,344; Sept. 10; Gaz. vol. 182; p. 506.
Envelops. E. G. Soltmann. No. 88,378; Sept. 10; Gaz. vol. 182; p. 507.
Fans, Electric. Sprague Electric Company. No. 88,214; Sept. 3; Gaz. vol. 182; p. 245.
Feed, Poultry. Nickel Plate Elevator Co. No. 88,514; Sept. 24; Gaz. vol. 182; p. 967.
Feed, Stock. K. & E. Neumond. No. 88,440; Sept. 17; Gaz. vol. 182; p. 718.
Fertilizers. American Agricultural Chemical Company. No. 88,224; Sept. 10; Gaz. vol. 182; p. 503.
Fertilizers. Patapsco Guano Co. Nos. 88,351–4; Sept. 10; Gaz. vol. 182; p. 506.
Flavoring, Beverage-. E. C. Putnam. No. 88,422; Sept. 17; Gaz. vol. 182; p. 717.
Flavoring-syrups used in ginseng beverages. Gingseng Syrup Company. No. 88,406; Sept. 17; Gaz. vol. 182, p. 717.
Flour, Wheat-. Listman Mill Company. No. 88,187; Sept. 3; Gaz. vol. 182; p. 244.
Flour, Wheat-. C. L. Plumb. Nos. 88,199–200; Sept. 3; Gaz. vol. 182; p. 244.
Flour, Wheat-. Duluth-Superior Milling Company. No. 88,255; Sept. 10; Gaz. vol. 182; p. 504.
Flour, Wheat-. Fisher Flouring Mills Company. Nos. 88,258–61; Sept. 10; Gaz. vol. 182; p. 504.
Flour, Wheat-. Hixon Milling Company. No. 88,291; Sept. 10; Gaz. vol. 182; p. 505.
Flour, Wheat-. Kruger, Darsie & Co. No. 88,310; Sept. 10; Gaz. vol. 182; p. 506.
Flour, Wheat-. The Portland Flouring Mills Company. Nos. 88,357–9; Sept. 10; Gaz. vol. 182; p. 506.
Flour, Wheat-. The Southwestern Milling Company. No. 88,379; Sept. 10; Gaz. vol. 182; p. 507.
Flour, Wheat-. The Bilsh Milling Company. No. 88,396; Sept. 17; Gaz. vol. 182; p. 717.
Flour, Wheat-. Centennial Mill Co. No. 88,397; Sept. 17; Gaz. vol. 182; p. 717.
Flour, Wheat-. Fisher Flouring Mills Company. No. 88,404; Sept. 17; Gaz. vol. 182; p. 717.
Flour, Wheat-. Pillsbury Flour Mills Company. No. 88,421; Sept. 17; Gaz. vol. 182; p. 717.
Flour, Wheat-. Trenton Milling Company. No. 88,430; Sept. 17; Gaz. vol. 182; p. 718.
Flour, Wheat-. Yardley Mills Company. No. 88,439; Sept. 17; Gaz. vol. 182; p. 718.
Flour, Wheat-. The Portland Flouring Mills Company. No. 88,520; Sept. 24; Gaz. vol. 182; p. 967.
Food, Laxative breakfast. Sterling Health Food Company. No. 88,429; Sept. 17; Gaz. vol. 182; p. 718.
Food, Poultry. J. G. Peppard Seed Co. No. 88,355; Sept. 10; Gaz. vol. 182; p. 506.
Food-preservative. B. Heller & Co. No. 88,284; Sept. 10; Gaz. vol. 182; p. 504.
Foods, Certain named. Niese Grocer Company. No. 88,415; Sept. 17; Gaz. vol. 182; p. 717.
Foods, Certain named. Roundy, Peckham & Dexter Co. No. 88,424; Sept. 17; Gaz. vol. 182; p. 717.
Fruits and canned vegetables, Dried. Klauber Wangenheim Co. No. 88,410; Sept. 17; Gaz. vol. 182; p. 717.
Fruits and fruit-juices for flavoring purposes, Concentrated. The Angelus Company. No. 88,445; Sept. 24; Gaz. vol. 182; p. 966.
Fruits and raisins, Dried. Giffen-Hobbs Co. No. 88,273; Sept. 10; Gaz. vol. 182; p. 504.
Fruits, Fresh deciduous. Fresno Fruit Growers Company. No. 88,405; Sept. 17; Gaz. vol. 182; p. 717.
Furniture, Certain named. Michigan Seating Co. No. 88,509; Sept. 24; Gaz. vol. 182; p. 967.
Furniture-finish. Flash Chemical Co. No. 88,262; Sept. 10; Gaz. vol. 182; p. 504.
Furniture-polish. C. Anson. No. 88,230; Sept. 10; Gaz. vol. 182; p. 503.
Games. M. E. Moss. No. 88,192; Sept. 3; Gaz. vol. 182; p. 244.
Games. The O. Newman Company. No. 88,246; Sept. 10; Gaz. vol. 182; p. 506.
Games, toys, and fishing-tackle. L. J. Eppinger. No. 88,174; Sept. 3; Gaz. vol. 182; p. 243.
Gaseous liquid for combustion, illuminating, &c. Myers Gas Generator Company. No. 88,330; Sept. 10; Gaz. vol. 182; p. 506.
Glass reflectors and shades. Holophane Glass Company. No. 88,491; Sept. 24; Gaz. vol. 182; p. 966.
Glass, Sheet-. E. J. Walsh. No. 88,538; Sept. 24; Gaz. vol. 182; p. 967.
Gloves, Leather. R. Lefi. No. 88,315; Sept. 10; Gaz. vol. 182; p. 505.
Glue. H. Ehrlich & Sons Mfg. Co. No. 88,473; Sept. 24; Gaz. vol. 182; p. 966.
Golf cleeks, Irons, and clubs. W. Gibson and Company. No. 88,272; Sept. 10; Gaz. vol. 182; p. 504.
Grape-fruits and oranges. L. A. Redfield. No. 88,361; Sept. 10; Gaz. vol. 182; p. 507.
Guano-distributers. Dillon Plow & Novelty Works. No. 88,253; Sept. 10; Gaz. vol. 182; p. 504.
Gum, Chewing-. The Bee Bee Confection Co. No. 88,455; Sept. 24; Gaz. vol. 182; p. 965.
Hair-eradicator. B. E. Levy. No. 88,502; Sept. 24; Gaz. vol. 182; p. 966.
Hams, bacon, and sausage. Louis Pfaelzer & Sons. No. 88,420; Sept. 17; Gaz. vol. 182; p. 717.
Handkerchiefs. Heller & Long. No. 88,283; Sept. 10; Gaz. vol. 182; p. 504.
Hardware and plumbing supplies, Certain. C. M. McClung & Co. No. 88,331; Sept. 10; Gaz. vol. 182; p. 506.
Harmonicas. M. Hohner. Nos. 88,292–3; Sept. 10; Gaz. vol. 182; p. 505.
Harness and saddlery hardware, Certain parts of. August Buermann Manufacturing Co. No. 88,465; Sept. 24; Gaz. vol. 182; p. 965.
Hats. Vanderhoef & Company. Nos. 88,389–90; Sept. 10; Gaz. vol. 182; p. 507.
Hats, helmets, caps, and bonnets. New Failsworth Hat Manufacturing Company. No. 88,342; Sept. 10; Gaz. vol. 182; p. 506.
Hats, Ladies'. Bovio Bros. & D. Donne. No. 88,235; Sept. 10; Gaz. vol. 182; p. 503.
Horseshoe-calks. The Rowe Patent Calk Company. Nos. 88,366–70; Sept. 10; Gaz. vol. 182; p. 507.
Horseshoe-calks. Challoner Company. No. 88,467; Sept. 24; Gaz. vol. 182; p. 965.
Hosiery. Orion Knitting Mills. No. 88,350; Sept. 10; Gaz. vol. 182; p. 506.
Ink, Preparation for removing printers'. Henkel & Cie. No. 88,480; Sept. 24; Gaz. vol. 182; p. 966.
Inks. Howard Chemical & Manufacturing Company. No. 88,492; Sept. 24; Gaz. vol. 182; p. 966.
Insecticides. Lancaster Insecticide Co. No. 88,500; Sept. 24; Gaz. vol. 182; p. 966.
Insoles for footwear. J. C. Williams. No. 88,394; Sept. 10; Gaz. vol. 182; p. 507.
Insulated electric wires. Detroit Insulated Wire Company. No. 88,252; Sept. 10; Gaz. vol. 182; p. 504.
Insulated wire. Waterbury Company. No. 88,223; Sept. 3; Gaz. vol. 182; p. 245.
Insulators, Electrical. Mica Insulator Company. No. 88,325; Sept. 10; Gaz. vol. 182; p. 506.
Iron. Mill & Mine Supply Co. No. 88,326; Sept. 10; Gaz. vol. 182; p. 506.
Iron and steel sheets, plates, bars, and rods. Robert Heath & Sons. No. 88,281; Sept. 10; Gaz. vol. 182; p. 504.
Lamps, motors, switchboards, &c., Electric. W. H. Ochiltree. No. 88,197; Sept. 3; Gaz. vol. 182; p. 244.
Lard. The Cleveland Provision Co. No. 88,399; Sept. 17; Gaz. vol. 182; p. 717.
Leather enamel and polishes. Mullen Brothers. No. 88,510; Sept. 24; Gaz. vol. 182; p. 967.
Leather in the piece. Albert Trostel & Sons Company. No. 88,431; Sept. 17; Gaz. vol. 182; p. 718.
Lotion, Face-. M. Higgins. No. 88,490; Sept. 24; Gaz. vol. 182; p. 966.
Macaroni. Skinner Mfg. Co. No. 88,527; Sept. 24; Gaz. vol. 182; p. 967.
Macaroni, spaghetti, vermicelli, and noodles. The Denver Macaroni & Noodle Co. No. 88,250; Sept. 10; Gaz. vol. 182; p. 503.



Machine-tools, Certain named. The Lapointe Machine Tool Co. No. 88,312; Sept. 10; Gaz. vol. 182; p. 505.
Machines and implements and windmills, Certain named. Deere & Company. Nos. 88,248–9; Sept. 10; Gaz. vol. 182; p. 503.
Machines, Certain named. United Shoe Machinery Company. No. 88,432; Sept. 17; Gaz. vol. 182; p. 718.
Magazines, Weekly. New Century Corporation. No. 88,518; Sept. 24; Gaz. vol. 182; p. 967.
Mantle-burners and mantles and mica chimneys, Kerosene and alcohol. The Mantle Lamp Company of America. No. 88,507; Sept. 24; Gaz. vol. 182; p. 967.
Marble, Quarried and prepared. Royal Marble Co. No. 88,425; Sept. 17; Gaz. vol. 182; p. 717.
Massicot, litharge, lead, and type-metal. Cookson and Company. No. 88,245; Sept. 10; Gaz. vol. 182; p. 503.
Matches. Haldens Tændstikfabrik. No. 88,486; Sept. 24; Gaz. vol. 182; p. 966.
Matches. Jönköpings och Vulcans Tändsticksfabriksaktiebolag. Nos. 88,497–8; Sept. 24; Gaz. vol. 182; p. 966.
Mattresses. New York Mattress Co. No. 88,345; Sept. 10; Gaz. vol. 182; p. 506.
Mattresses. Athens Mattress and Spring Bed Co. No. 88,448; Sept. 24; Gaz. vol. 182; p. 965.
Measuring and draftsmen's instruments, Certain. Tower Manufacturing & Novelty Co. No. 88,221; Sept. 3; Gaz. vol. 182; p. 245.
Measuring and scientific appliances, Certain. L. S. Starrett Co. No. 88,215; Sept. 3; Gaz. vol. 182; p. 245.
Meat, Artificially-digested. Farbwerke vorm. Meister Lucius & Brüning. No. 88,403; Sept. 17; Gaz. vol. 182; p. 717.
Medical and surgical appliances, Certain named. Lanman & Kemp. No. 88,501; Sept. 24; Gaz. vol. 182; p. 966.
Medicinal tonic. The Vitalis Co. No. 88,537; Sept. 24; Gaz. vol. 182; p. 967.
Metals and alloys having high electrical resistance. General Electric Company. No. 88,269; Sept. 10; Gaz. vol. 182; p. 504.
Metals, Babbitt and antifriction. Great Western Smelting & Refining Co. No. 88,270; Sept. 10; Gaz. vol. 182; p. 504.
Meters and parts thereof, Water and other fluid. Neptune Meter Company. No. 88,512; Sept. 24; Gaz. vol. 182; p. 967.
Milk, Evaporated. Helvetia Milk Condensing Company. No. 88,285; Sept. 10; Gaz. vol. 182; p. 504.
Milk, Evaporated. The Van Camp Packing Co. No. 88,536; Sept. 24; Gaz. vol. 182; p. 967.
Musical-instrument strings. National Musical String Company. No. 88,511; Sept. 24; Gaz. vol. 182; p. 967.
Musical instruments, Certain. Lyon & Healy. No. 88,506; Sept. 24; Gaz. vol. 182; p. 967.
Napkins, Sanitary. Hygienic Fibre Company. Nos. 88,299–301; Sept. 10; Gaz. vol. 182; p. 505.
Numbering and dating machines. William A. Force & Company. No. 88,268; Sept. 10; Gaz. vol. 182; p. 504.
Odometers. L. Baumgaertner. No. 88,453; Sept. 24; Gaz. vol. 182; p. 965.
Oil, Cotton-seed. The N. K. Fairbank Company. No. 88,402; Sept. 17; Gaz. vol. 182; p. 717.
Oil, Lubricating-. Union Well Supply Co. No. 88,388; Sept. 10; Gaz. vol. 182; p. 507.
Oil, Olive-. E. G. Sophos. No. 88,528; Sept. 24; Gaz. vol. 182; p. 967.
Oils and greases, Certain named. G. B. Buck. No. 88,238; Sept. 10; Gaz. vol. 182; p. 503.
Oils, greases, and compounds, Lubricating. The Ironsides Company. No. 88,205; Sept. 10; Gaz. vol. 182; p. 505.
Oils, Illuminating-. Standard Oil Co. of New York. No. 88,529; Sept. 24; Gaz. vol. 182; p. 967.
Ointment. Big Spring Mfg. Co. No. 88,458; Sept. 24; Gaz. vol. 182; p. 965.
Oleomargarin. Ammon & Person. Nos. 88,150–2; Sept. 3; Gaz. vol. 182; p. 243.
Oranges. Limona Citrus Growers' Association. No. 88,185; Sept. 3; Gaz. vol. 182; p. 244.
Oranges. L. A. Redfield. No. 88,360; Sept. 10; Gaz. vol. 182; p. 507.
Oranges and lemons. Hunt, Hatch & Co. Nos. 88,295–6; Sept. 10; Gaz. vol. 182; p. 506.
Oysters, Fresh. The American Fish & Oyster Company. No. 88,146; Sept. 3; Gaz. vol. 182; p. 243.
Packing, Asbestus. Calmon Asbestos & Rubber Works of America. No. 88,239; Sept. 10; Gaz. vol. 182; p. 503.
Packing for general purposes, Metallic. Universal Flexible Packing Co. No. 88,535; Sept. 24; Gaz. vol. 182; p. 967.
Paint and painters' materials, Certain kinds of. The A. H. Thomas Paint Company. No. 88,386; Sept. 10; Gaz. vol. 182; p. 507.
Paints, Dry. Henke Manufacturing Co. No. 88,289; Sept. 10; Gaz. vol. 182; p. 505.
Paints, varnishes, and paint-oils, Ready-mixed. Ironsides Company. No. 88,304; Sept. 10; Gaz. vol. 182; p. 505.
Paints, varnishes, and stains, Oil-. F. H. Messenger Co. No. 88,322; Sept. 10; Gaz. vol. 182; p. 505.
Paper and stationery, Certain named. Tower Manufacturing & Novelty Co. No. 88,552; Sept. 24; Gaz. vol. 182; p. 967.
Paper, Cooking-. N. Soyer. No. 88,380; Sept. 10; Gaz. vol. 182; p. 507.
Paper, envelops, blank books, and tablets, Writing-. H. Sharp. No. 88,525; Sept. 24; Gaz. vol. 182; p. 967.
Paper, envelops, tablets, and blank books. J. C. Blair Company. Nos. 88,233–4; Sept. 10; Gaz. vol. 182; p. 503.
Paper, envelops, tablets, and blank books. J. C. Blair Company. Nos. 88,459–63; Sept. 24; Gaz. vol. 182; p. 965.
Paper, tablets, and note-books. The Reynolds & Reynolds Company. No. 88,362; Sept. 10; Gaz. vol. 182; p. 507.
Paper, Wrapping-. B. A. Nienhauser. No. 88,516; Sept. 24; Gaz. vol. 182; p. 967.
Paper, Writing-. J. W. Butler Paper Company. No. 88,466; Sept. 24; Gaz. vol. 182; p. 965.
Papers, Building, roofing, sheathing, &c. The Hydrex Felt & Engineering Company. No. 88,298; Sept. 10; Gaz. vol. 182; p. 505.
Parchment-tissue. F. Euler & Co. No. 88,477; Sept. 24; Gaz. vol. 182; p. 966.
Perfumery. Alfred Wright Perfumer. Nos. 88,544–5; Sept. 24; Gaz. vol. 182; p. 968.
Perfumery, toilet water, and face-powders. Peninsular Chemical Co. No. 88,519; Sept. 24; Gaz. vol. 182; p. 967.
Perfumes, face-powder, and remedy for chapped skin. E. Wertheimer & Cie. No. 88,540; Sept. 24; Gaz. vol. 182; p. 968.
Perfumes, toilet waters, and sachets. Richard Hudnut. No. 88,183; Sept. 3; Gaz. vol. 182; p. 244.
Petroleum, Refined. West India Oil Company. No. 88,392; Sept. 10; Gaz. vol. 182; p. 507.
Pharmaceutical preparations, Certain named. F. A. Luyties. No. 88,505; Sept. 24; Gaz. vol. 182; p. 967.
Pharmaceutical product, Certain named. Society of Chemical Industry in Basle. No. 88,376; Sept. 10; Gaz. vol. 182; p. 507.
Phonographs and parts thereof and appurtenances thereto. International Phonograph Company. No. 88,541; Sept. 24; Gaz. vol. 182; p. 968.
Photographic materials and supplies. H. J. Brady. No. 88,163; Sept. 3; Gaz. vol. 182; p. 243.
Pianos. C. Kurtsmann & Company. No. 88,311; Sept. 10; Gaz. vol. 182; p. 505.
Pianos and piano-players. Geo. P. Bent Company. No. 88,457; Sept. 24; Gaz. vol. 182; p. 965.
Picture films, Moving-. Eclair Film Company. No. 88,171; Sept. 3; Gaz. vol. 182; p. 243.
Pie-filling preparation, Lemon-. H. Harper. No. 88,279; Sept. 10; Gaz. vol. 182; p. 504.
Pills. Dr. J. H. Schenck & Son. No. 88,524; Sept. 24; Gaz. vol. 182; p. 967.
Pimentos. Wieland Bros. Nos. 88,437–8; Sept. 17; Gaz. vol. 182; p. 718.
Pitch. Barrett Manufacturing Company. No. 88,462; Sept. 24; Gaz. vol. 182; p. 965.
Popcorn. Hart & Howell. No. 88,180; Sept. 3; Gaz. vol. 182; p. 244.
Powder, Gun-. Curtis & Harvey. No. 88,247; Sept. 10; Gaz. vol. 182; p. 503.
Powder, Talcum. A. P. Babcock Company. No. 88,450; Sept. 24; Gaz. vol. 182; p. 965.
Precious stones, pearls, pendants, &c. E. Husson. No. 88,493; Sept. 24; Gaz. vol. 182; p. 966.
Pressure-gages. The Allen Auto Specialty Co. No. 88,441; Sept. 24; Gaz. vol. 182; p. 965.
Printing machines, Stencil-. The Rotospeed Company. No. 88,206; Sept. 3; Gaz. vol. 182; p. 244.
Pudding, Cream-. O. D. Brubaker. No. 88,287; Sept. 10; Gaz. vol. 182; p. 503.
Pudding-powder. C. Hansen. No. 88,409; Sept. 17; Gaz. vol. 182; p. 717.
Pulleys. New York Stamping Company. No. 88,196; Sept. 3; Gaz. vol. 182; p. 244.
Purgatives. Chemische Fabrik auf Actien (vorm. E. Schering). No. 88,242; Sept. 10; Gaz. vol. 182; p. 503.
Razors. J. A. Henckels. Nos. 88,286–8; Sept. 10; Gaz. vol. 182; pp. 504–5.
Razors, blades, knives, files, and scissors. Auto Strop Safety Razor Co. No. 88,449; Sept. 24; Gaz. vol. 182; p. 965.
Razors, razor-blades and holders. Durham Duplex Razor Company. No. 88,170; Sept. 3; Gaz. vol. 182; p. 243.
Receptacles, Certain named. Tower Manufacturing Company. No. 88,533; Sept. 24; Gaz. vol. 182; p. 967.
Refrigerators. Maine Manufacturing Company. No. 88,320; Sept. 10; Gaz. vol. 182; p. 505.
Registers, Autographic. Hainer Bookkeeping Machine Co. No. 88,277; Sept. 10; Gaz. vol. 182; p. 504.
Remedies, Certain internal and external. Merchants Syndicate. No. 88,189; Sept. 3; Gaz. vol. 182; p. 244.
Remedies for colds, grippe, and headache. L. C. Rohling. No. 88,365; Sept. 10; Gaz. vol. 182; p. 507.
Remedy against biliary and renal calculus. L. Bauer. No. 88,156; Sept. 3; Gaz. vol. 182; p. 243.
Remedy for coughs, colds, hoarseness, and catarrh. Kolberger Anstalten für Exterikultur Wilh. Anhalt G. m. b. H. No. 88,308; Sept. 10; Gaz. vol. 182; p. 505.
Remedy for cuts and bruises. S. Seisi. No. 88,373; Sept. 10; Gaz. vol. 182; p. 507.
Remedy for diseases of the liver. J. G. Dodson. No. 88,254; Sept. 10; Gaz. vol. 182; p. 504.
Remedy for infectious diseases. H. Biu-Meyers. No. 88,464; Sept. 24; Gaz. vol. 182; p. 965.
Remedy for liver ills. J. L. Johnson. No. 88,496; Sept. 24; Gaz. vol. 182; p. 966.

Remedy for rheumatism, indigestion, &c. Fell Drug Co. No. 88,479; Sept. 24; Gaz. vol. 182; p. 966.
Remedy for sore throat. A. F. Stiefel. No. 88,383; Sept. 10; Gaz. vol. 182; p. 507.
Remedy for tuberculosis. E. F. Davis. No. 88,470; Sept. 24; Gaz. vol. 182; p. 965.
Remedy, Pile. R. A. Courtney. No. 88,246; Sept. 10; Gaz. vol. 182; p. 503.
Rolled oats. Morrow-Lawton Company. No. 88,191; Sept. 3; Gaz. vol. 182; p. 244.
Rolled oats. American Rice & Cereal Co. No. 88,395; Sept. 17; Gaz. vol. 182; p. 717.
Ropes. Waterbury Company. No. 88,539; Sept. 24; Gaz. vol. 182; p. 967.
Rubber hose. Electric Hose & Rubber Co. No. 88,474; Sept. 24; Gaz. vol. 182; p. 966.
Rubber substitute. Vacumit-Gesellschaft m. b. H. No. 88,433; Sept. 17; Gaz. vol. 182; p. 718.
Salt. San Francisco Salt Refinery. No. 88,522; Sept. 24; Gaz. vol. 182; p. 967.
Salves. Dr. Bayer & társa. No. 88,454; Sept. 24; Gaz. vol. 182; p. 965.
Sardines. Seacoast Canning Co. Nos. 88,209–11; Sept. 3; Gaz. vol. 182; p. 244.
Sardines. Seacoast Canning Co. No. 88,523; Sept. 24; Gaz. vol. 182; p. 967.
Satteens, Dyed or printed. Wm. Simpson Sons & Co. No. 88,375; Sept. 10; Gaz. vol. 182; p. 507.
Serge. Hamilton Woolen Company. No. 88,179; Sept. 3; Gaz. vol. 182; p. 244.
Shades and light-filters used therewith. L. Reece. No. 88,521; Sept. 24; Gaz. vol. 182; p. 967.
Shoes, Children's. Sears, Roebuck and Co. No. 88,372; Sept. 10; Gaz. vol 182; p. 507.
Silver and silver-mounted tableware, jewelry, &c., Sterling. Rogers, Lunt & Bowlen Co. No. 88,364; Sept. 10; Gaz. vol. 182; p. 507.
Slicing machines and slicers, Meat. U. S. Slicing Machine Company. No. 88,220; Sept. 3; Gaz. vol. 182; p. 245.
Slippers. Sultana Mfg. Company. No. 88,384; Sept. 10; Gaz. vol. 182; p. 507.
Soap. B. T. Babbitt. No. 88,155; Sept. 3; Gaz. vol. 182; p. 243.
Soap. The Stork Company. No. 88,531; Sept. 24; Gaz. vol. 182; p. 967.
Soap, Toilet. Norddeutsche Wollkämmerei & Kammgarn spinnerei. No. 88,517; Sept. 24; Gaz. vol. 182; p. 967.
Soap, Toilet. J. T. Stanley. No. 88,530; Sept. 24; Gaz. vol. 182; p. 967.
Soaps. A. Bell & Company. No. 88,450; Sept. 24; Gaz. vol. 182; p. 965.
Soles, Tap-. Lees & McVitty. No. 88,314; Sept. 10; Gaz. vol. 182; p. 505.
Sound recording and reproducing machines and parts thereof. Victor Talking Machine Company. No. 88,391; Sept. 10; Gaz. vol. 182; p. 507.
Spices. The Murray Drug Co. No. 88,412; Sept. 17; Gaz. vol. 182; p. 717.
Spoon and trolling hooks. J. J. Hildebrandt. No. 88,200; Sept. 10; Gaz. vol. 182; p. 505.
Sporting goods and toys. Certain named. C. M. McClung & Co. No. 88,508; Sept. 24; Gaz. vol. 182; p. 967.
Steel, Cast-. W. T. Flather Limited. No. 88,482; Sept. 24; Gaz. vol. 182; p. 966.
Steel, steel castings and forgings. W. T. Flather Limited. No. 88,481; Sept. 24; Gaz. vol. 182; p. 966.
Stone, Crushed. Lake Shore Stone Company. No. 88,409; Sept. 24; Gaz. vol. 182; p. 966.
Stout, beer, porter, wine, &c. Bass, Ratcliff & Gretton. Nos. 88,264–5; Sept. 10; Gaz. vol. 182; p. 504.
Stout, beer, porter, wine, &c. Bass, Ratcliff & Gretton. No. 88,267; Sept. 10; Gaz. vol. 182; p. 504.
Sugar. The American Sugar Refining Company. No. 88,229; Sept. 10; Gaz. vol. 182; p. 503.
Sugar. The American Sugar Refining Company. No. 88,444; Sept. 24; Gaz. vol. 182; p. 965.
Sugar, Cane-. J. Redelheim. No. 88,203; Sept. 3; Gaz. vol. 182; p. 244.
Sweeping compound. H. R. Cook. No. 88,469; Sept. 24; Gaz. vol. 182; p. 965.
Syrups for beverages. J. Blaufuss. No. 88,188; Sept. 3; Gaz. vol. 182; p. 243.
Taps, drills, wrenches, &c. Rowe Calk Company. No. 88,207; Sept. 3; Gaz. vol. 182; p. 244.
Tea. Griggs, Cooper & Company. No. 88,407; Sept. 17; Gaz. vol. 182; p. 717.
Tea, coffee, and cocoa. A. Davidson. No. 88,401; Sept. 17; Gaz. vol. 182; p. 717.
Thimbles made of plated or precious metal. Waite, Thresher Company. No. 88,436; Sept. 17; Gaz. vol. 182; p. 718.
Thomasphosphat. Thomasphosphatfabriken Gesellschaft mit beschränkter Haftung. No. 88,387; Sept. 10; Gaz. vol. 182; p. 507.
Time-recorders. Gisholt Machine Company. No. 88,274; Sept. 10; Gaz. vol. 182; p. 504.
Tire-filling rubber compound. The No-Air Tire Company Co. No. 88,510; Sept. 24; Gaz. vol. 182; p. 967.
Tobacco, cigars, cigarettes, and snuff. E. J. Lusby. No. 88,504; Sept. 21; Gaz. vol. 182; p. 966.
Tobaccos, cigarettes, and cigars. Rossidi frères de Constantinople. No. 88,213; Sept. 3; Gaz. vol. 182; p. 245.
Toilet preparations. Certain named. H. Gabilla. No. 88,481; Sept. 24; Gaz. vol. 182; p. 966.
Tonic beverage and soda-water. T. Armstrong. No. 88,153; Sept. 3; Gaz. vol. 182; p. 243.
Tonic for the stomach. C. I. Hood Co. No. 88,294; Sept. 10; Gaz. vol. 182; p. 505.
Tools and machines. Certain named. The L. and L. J. White Company. No. 88,393; Sept. 10; Gaz. vol. 182; p. 507.
Toy golf games. The Peg Golf Company. No. 88,518; Sept. 24; Gaz. vol. 182; p. 967.
Toys. Samstag & Hilder Bros. No. 88,206; Sept. 3; Gaz. vol. 182; p. 244.
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Waters, Natural mineral. Compagnie Fermière de L'Etablissement Thermal de Vichy. No. 88,244; Sept. 10; Gaz. vol. 182; p. 503.
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"Aldena Water." (For Water.) Alden Mineral Water Company. No. 16,561; Sept. 10; Gaz. vol. 182; p. 508.
"Arrow Pad Garter." (For Garters.) Liberty Garter Manufacturing Company. No. 16,565; Sept. 10; Gaz. vol. 182; p. 508.
"Contentar." (For Cigars.) Ruy Lopes Ca. No. 16,560; Sept. 3; Gaz. vol. 182; p. 246.
"De Marco's Piano Polish—De Marco's Furniture Polish." (For Piano and Furniture Polish.) J. B. De Marco. No. 16,555; Sept. 3; Gaz. vol. 182; p. 246.
"Dominick Special Rye." (For Whisky.) D. Canale & Co. No. 16,554; Sept. 3; Gaz. vol. 182; p. 246.
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"Perry's Beau-A-Mi-Derm Toilet Cream." (For Toilet Cream.) B. A. Perry. No. 16,559; Sept. 3; Gaz. vol. 182; p. 246.
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"Beehler Umbrellas Fold and Fit the Suit-case." (For Umbrellas and Parasols.) W. H. Beehler. No. 3,090; Sept. 3; Gaz. vol. 182; p. 246.
"Berlin." (For Cotton Piece Goods.) Wm. Simpson, Sons & Co. No. 3,098; Sept. 10; Gaz. vol. 182; p. 508.
"Correct Posture Suit." (For Boys' Clothing.) Samuel W. Peck & Co. No. 3,093; Sept. 3; Gaz. vol. 182; p. 246.
"Hebe Bath Powder." (For Hebe Bath-Powder.) Philo Hay Specialties Co. No. 3,094; Sept. 3; Gaz. vol. 182; p. 246.
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"O C O Tasteless Castor Oil." (For Castor-Oil.) The Guy G. Major Company. No. 3,092; Sept. 3; Gaz. vol. 182; p. 246.
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# ERRATA.

**1,040,494,** page 306, first claim, line 2, before the word "single" insert the article *a*.
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TO CITIZENS OF

Changes in Classification.
(Order No. 2,764.)
DEPARTMENT OF THE INTERIOR,
United States Patent Office,
Washington, D. C., September 24, 1912.

It is hereby ordered that Class 111, Grain and Seed Cleaning, be transferred from Division VII to Division XIII, to take effect immediately.

EDWARD B. MOORE,
Commissioner.

Notice of Disbarment.
(Order No. 2,765.)
DEPARTMENT OF THE INTERIOR,
United States Patent Office,
Washington, D. C., September 24, 1912.

Pursuant to the provisions of section 483 of the Revised Statutes, and with the approval of the Secretary of the Interior, Wilbur C. Butler, of Kansas City, Mo., is disbarred from practice before the United States Patent Office for gross misconduct.

EDWARD B. MOORE,
Commissioner.

Published Contracts.

## APPLICATIONS UNDER EXAMINATION.

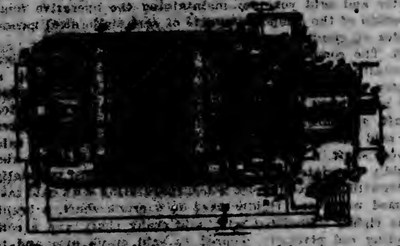
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| 395 | 172. Fuel Burning Furnaces: | | | 448 | 177. Electrical Receiving Systems: | | |
| 396 | 173. Fuel Burning Devices: | | | 449 | 178. Electrical Transmitting and Receiving Systems: | | |
| 397 | 174. Fuel Feeding: | | | 450 | 179. Electrical Translating Devices: | | |
| 398 | 175. Air Cleaning, Cooling, Ventilating, and Heating Devices: | | | 451 | 180. Electrical Conductors: | | |
| 399 | 176. Liquid Purification: | | | 452 | 181. Electrical Generators: | | |
| 400 | 177. Refrigeration: | | | 453 | 182. Electrical Motors: | | |
| 401 | 178. Valves and Valve Gearing: | | | 454 | 183. Electrical Dynamic Transmission: | | |
| 402 | 179. Fluid Pressure Regulators: | | | 455 | 184. Electrical Measuring Instruments: | | |
| 403 | 180. Fluid Sprinkling: | | | 456 | 185. Electrical Recording Instruments: | | |
| 404 | 181. Fluid Pressure Brakes: | | | 457 | 186. Electrical Transmitting Systems: | | |
| 405 | 182. Fuel Burning Furnaces: | | | 458 | 187. Electrical Receiving Systems: | | |
| 406 | 183. Fuel Burning Devices: | | | 459 | 188. Electrical Transmitting and Receiving Systems: | | |
| 407 | 184. Fuel Feeding: | | | 460 | 189. Electrical Translating Devices: | | |
| 408 | 185. Air Cleaning, Cooling, Ventilating, and Heating Devices: | | | 461 | 190. Electrical Conductors: | | |
| 409 | 186. Liquid Purification: | | | 462 | 191. Electrical Generators: | | |
| 410 | 187. Refrigeration: | | | 463 | 192. Electrical Motors: | | |
| 411 | 188. Valves and Valve Gearing: | | | 464 | 193. Electrical Dynamic Transmission: | | |
| 412 | 189. Fluid Pressure Regulators: | | | 465 | 194. Electrical Measuring Instruments: | | |
| 413 | 190. Fluid Sprinkling: | | | 466 | 195. Electrical Recording Instruments: | | |
| 414 | 191. Fluid Pressure Brakes: | | | 467 | 196. Electrical Transmitting Systems: | | |
| 415 | 192. Fuel Burning Furnaces: | | | 468 | 197. Electrical Receiving Systems: | | |
| 416 | 193. Fuel Burning Devices: | | | 469 | 198. Electrical Transmitting and Receiving Systems: | | |
| 417 | 194. Fuel Feeding: | | | 470 | 199. Electrical Translating Devices: | | |
| 418 | 195. Air Cleaning, Cooling, Ventilating, and Heating Devices: | | | 471 | 200. Electrical Conductors: | | |
| 419 | 196. Liquid Purification: | | | 472 | 201. Electrical Generators: | | |
| 420 | 197. Refrigeration: | | | 473 | 202. Electrical Motors: | | |
| 421 | 198. Valves and Valve Gearing: | | | 474 | 203. Electrical Dynamic Transmission: | | |
| 422 | 199. Fluid Pressure Regulators: | | | 475 | 204. Electrical Measuring Instruments: | | |
| 423 | 200. Fluid Sprinkling: | | | 476 | 205. Electrical Recording Instruments: | | |
| 424 | 201. Fluid Pressure Brakes: | | | 477 | 206. Electrical Transmitting Systems: | | |
| 425 | 202. Fuel Burning Furnaces: | | | 478 | 207. Electrical Receiving Systems: | | |
| 426 | 203. Fuel Burning Devices: | | | 479 | 208. Electrical Transmitting and Receiving Systems: | | |
| 427 | 204. Fuel Feeding: | | | 480 | 209. Electrical Translating Devices: | | |
| 428 | 205. Air Cleaning, Cooling, Ventilating, and Heating Devices: | | | 481 | 210. Electrical Conductors: | | |
| 429 | 206. Liquid Purification: | | | 482 | 211. Electrical Generators: | | |
| 430 | 207. Refrigeration: | | | 483 | 212. Electrical Motors: | | |
| 431 | 208. Valves and Valve Gearing: | | | 484 | 213. Electrical Dynamic Transmission: | | |
| 432 | 209. Fluid Pressure Regulators: | | | 485 | 214. Electrical Measuring Instruments: | | |
| 433 | 210. Fluid Sprinkling: | | | 486 | 215. Electrical Recording Instruments: | | |
| 434 | 211. Fluid Pressure Brakes: | | | 487 | 216. Electrical Transmitting Systems: | | |
| 435 | 212. Fuel Burning Furnaces: | | | 488 | 217. Electrical Receiving Systems: | | |
| 436 | 213. Fuel Burning Devices: | | | 489 | 218. Electrical Transmitting and Receiving Systems: | | |
| 437 | 214. Fuel Feeding: | | | 490 | 219. Electrical Translating Devices: | | |
| 438 | 215. Air Cleaning, Cooling, Ventilating, and Heating Devices: | | | 491 | 220. Electrical Conductors: | | |
| 439 | 216. Liquid Purification: | | | 492 | 221. Electrical Generators: | | |
| 440 | 217. Refrigeration: | | | 493 | 222. Electrical Motors: | | |
| 441 | 218. Valves and Valve Gearing: | | | 494 | 223. Electrical Dynamic Transmission: | | |
| 442 | 219. Fluid Pressure Regulators: | | | 495 | 224. Electrical Measuring Instruments: | | |
| 443 | 220. Fluid Sprinkling: | | | 496 | 225. Electrical Recording Instruments: | | |
| 444 | 221. Fluid Pressure Brakes: | | | 497 | 226. Electrical Transmitting Systems: | | |
| 445 | 222. Fuel Burning Furnaces: | | | 498 | 227. Electrical Receiving Systems: | | |
| 446 | 223. Fuel Burning Devices: | | | 499 | 228. Electrical Transmitting and Receiving Systems: | | |
| 447 | 224. Fuel Feeding: | | | 500 | 229. Electrical Translating Devices: | | |
| 448 | 225. Air Cleaning, Cooling, Ventilating, and Heating Devices: | | | 501 | 230. Electrical Conductors: | | |
| 449 | 226. Liquid Purification: | | | 502 | 231. Electrical Generators: | | |
| 450 | 227. Refrigeration: | | | 503 | 232. Electrical Motors: | | |
| 451 | 228. Valves and Valve Gearing: | | | 504 | 233. Electrical Dynamic Transmission: | | |
| 452 | 229. Fluid Pressure Regulators: | | | 505 | 234. Electrical Measuring Instruments: | | |
| 453 | 230. Fluid Sprinkling: | | | 506 | 235. Electrical Recording Instruments: | | |
| 454 | 231. Fluid Pressure Brakes: | | | 507 | 236. Electrical Transmitting Systems: | | |
| 455 | 232. Fuel Burning Furnaces: | | | 508 | 237. Electrical Receiving Systems: | | |
| 456 | 233. Fuel Burning Devices: | | | 509 | 238. Electrical Transmitting and Receiving Systems: | | |
| 457 | 234. Fuel Feeding: | | | 510 | 239. Electrical Translating Devices: | | |
| 458 | 235. Air Cleaning, Cooling, Ventilating, and Heating Devices: | | | 511 | 240. Electrical Conductors: | | |
| 459 | 236. Liquid Purification: | | | 512 | 241. Electrical Generators: | | |
| 460 | 237. Refrigeration: | | | 513 | 242. Electrical Motors: | | |
| 461 | 238. Valves and Valve Gearing: | | | 514 | 243. Electrical Dynamic Transmission: | | |
| 462 | 239. Fluid Pressure Regulators: | | | 515 | 244. Electrical Measuring Instruments: | | |
| 463 | 240. Fluid Sprinkling: | | | 516 | 245. Electrical Recording Instruments: | | |
| 464 | 241. Fluid Pressure Brakes: | | | 517 | 246. Electrical Transmitting Systems: | | |
| 465 | 242. Fuel Burning Furnaces: | | | 518 | 247. Electrical Receiving Systems: | | |
| 466 | 243. Fuel Burning Devices: | | | 519 | 248. Electrical Transmitting and Receiving Systems: | | |
| 467 | 244. Fuel Feeding: | | | 520 | 249. Electrical Translating Devices: | | |
| 468 | 245. Air Cleaning, Cooling, Ventilating, and Heating Devices: | | | 521 | 250. Electrical Conductors: | | |
| 469 | 246. Liquid Purification: | | | 522 | 251. Electrical Generators: | | |
| 470 | 247. Refrigeration: | | | 523 | 252. Electrical Motors: | | |
| 471 | 248. Valves and Valve Gearing: | | | 524 | 253. Electrical Dynamic Transmission: | | |
| 472 | 249. Fluid Pressure Regulators: | | | 525 | 254. Electrical Measuring Instruments: | | |
| 473 | 250. Fluid Sprinkling: | | | 526 | 255. Electrical Recording Instruments: | | |
| 474 | 251. Fluid Pressure Brakes: | | | 527 | 256. Electrical Transmitting Systems: | | |
| 475 | 252. Fuel Burning Furnaces: | | | 528 | 257. Electrical Receiving Systems: | | |
| 476 | 253. Fuel Burning Devices: | | | 529 | 258. Electrical Transmitting and Receiving Systems: | | |
| 477 | 254. Fuel Feeding: | | | 530 | 259. Electrical Translating Devices: | | |
| 478 | 255. Air Cleaning, Cooling, Ventilating, and Heating Devices: | | | 531 | 260. Electrical Conductors: | | |
| 479 | 256. Liquid Purification: | | | 532 | 261. Electrical Generators: | | |
| 480 | 257. Refrigeration: | | | 533 | 262. Electrical Motors: | | |
| 481 | 258. Valves and Valve Gearing: | | | 534 | 263. Electrical Dynamic Transmission: | | |
| 482 | 259. Fluid Pressure Regulators: | | | 535 | 264. Electrical Measuring Instruments: | | |
| 483 | 260. Fluid Sprinkling: | | | 536 | 265. Electrical Recording Instruments: | | |
| 484 | 261. Fluid Pressure Brakes: | | | 537 | 266. Electrical Transmitting Systems: | | |
| 485 | 262. Fuel Burning Furnaces: | | | 538 | 267. Electrical Receiving Systems: | | |
| 486 | 263. Fuel Burning Devices: | | | 539 | 268. Electrical Transmitting and Receiving Systems: | | |
| 487 | 264. Fuel Feeding: | | | 540 | 269. Electrical Translating Devices: | | |
| 488 | 265. Air Cleaning, Cooling, Ventilating, and Heating Devices: | | | 541 | 270. Electrical Conductors: | | |
| 489 | 266. Liquid Purification: | | | 542 | 271. Electrical Generators: | | |
| 490 | 267. Refrigeration: | | | 543 | 272. Electrical Motors: | | |
| 491 | 268. Valves and Valve Gearing: | | | 544 | 273. Electrical Dynamic Transmission: | | |
| 492 | 269. Fluid Pressure Regulators: | | | 545 | 274. Electrical Measuring Instruments: | | |
| 493 | 270. Fluid Sprinkling: | | | 546 | 275. Electrical Recording Instruments: | | |
| 494 | 271. Fluid Pressure Brakes: | | | 547 | 276. Electrical Transmitting Systems: | | |
| 495 | 272. Fuel Burning Furnaces: | | | 548 | 277. Electrical Receiving Systems: | | |
| 496 | 273. Fuel Burning Devices: | | | 549 | 278. Electrical Transmitting and Receiving Systems: | | |
| 497 | 274. Fuel Feeding: | | | 550 | 279. Electrical Translating Devices: | | |
| 498 | 275. Air Cleaning, Cooling, Ventilating, and Heating Devices: | | | 551 | 280. Electrical Conductors: | | |
| 499 | 276. Liquid Purification: | | | 552 | 281. Electrical Generators: | | |
| 500 | 277. Refrigeration: | | | 553 | 282. Electrical Motors: | | |
| 501 | 278. Valves and Valve Gearing: | | | 554 | 283. Electrical Dynamic Transmission: | | |
| 502 | 279. Fluid Pressure Regulators: | | | 555 | 284. Electrical Measuring Instruments: | | |
| 503 | 280. Fluid Sprinkling: | | | 556 | 285. Electrical Recording Instruments: | | |
| 504 | 281. Fluid Pressure Brakes: | | | 557 | 286. Electrical Transmitting Systems: | | |
| 505 | 282. Fuel Burning Furnaces: | | | 558 | 287. Electrical Receiving Systems: | | |
| 506 | 283. Fuel Burning Devices: | | | 559 | 288. Electrical Transmitting and Receiving Systems: | | |
| 507 | 284. Fuel Feeding: | | | 560 | 289. Electrical Translating Devices: | | |
| 508 | 285. Air Cleaning, Cooling, Ventilating, and Heating Devices: | | | 561 | 290. Electrical Conductors: | | |
| 509 | 286. Liquid Purification: | | | 562 | 291. Electrical Generators: | | |
| 510 | 287. Refrigeration: | | | 563 | 292. Electrical Motors: | | |
| 511 | 288. Valves and Valve Gearing: | | | 564 | 293. Electrical Dynamic Transmission: | | |
| 512 | 289. Fluid Pressure Regulators: | | | 565 | 294. Electrical Measuring Instruments: | | |
| 513 | 290. Fluid Sprinkling: | | | 566 | 295. Electrical Recording Instruments: | | |
| 514 | 291. Fluid Pressure Brakes: | | | 567 | 296. Electrical Transmitting Systems: | | |
| 515 | 292. Fuel Burning Furnaces: | | | 568 | 297. Electrical Receiving Systems: | | |
| 516 | 293. Fuel Burning Devices: | | | 569 | 298. Electrical Transmitting and Receiving Systems: | | |
| 517 | 294. Fuel Feeding: | | | 570 | 299. Electrical Translating Devices: | | |
| 518 | 295. Air Cleaning, Cooling, Ventilating, and Heating Devices: | | | 571 | 300. Electrical Conductors: | | |
| 519 | 296. Liquid Purification: | | | 572 | 301. Electrical Generators: | | |
| 520 | 297. Refrigeration: | | | 573 | 302. Electrical Motors: | | |
| 521 | 298. Valves and Valve Gearing: | | | 574 | 303. Electrical Dynamic Transmission: | | |
| 522 | 299. Fluid Pressure Regulators: | | | 575 | 304. Electrical Measuring Instruments: | | |
| 523 | 300. Fluid Sprinkling: | | | 576 | 305. Electrical Recording Instruments: | | |
| 524 | 301. Fluid Pressure Brakes: | | | 577 | 306. Electrical Transmitting Systems: | | |
| 525 | 302. Fuel Burning Furnaces: | | | 578 | 307. Electrical Receiving Systems: | | |
| 526 | 303. Fuel Burning Devices: | | | 579 | 308. Electrical Transmitting and Receiving Systems: | | |
| 527 | 304. Fuel Feeding: | | | 580 | 309. Electrical Translating Devices: | | |
| 528 | 305. Air Cleaning, Cooling, Ventilating, and Heating Devices: | | | 581 | 310. Electrical Conductors: | | |
| 529 | 306. Liquid Purification: | | | 582 | 311. Electrical Generators: | | |
| 530 | 307. Refrigeration: | | | 583 | 312. Electrical Motors: | | |
| 531 | 308. Valves and Valve Gearing: | | | 584 | 313. Electrical Dynamic Transmission: | | |
| 532 | 309. Fluid Pressure Regulators: | | | 585 | 314. Electrical Measuring Instruments: | | |
| 533 | 310. Fluid Sprinkling: | | | 586 | 315. Electrical Recording Instruments: | | |
| 534 | 311. Fluid Pressure Brakes: | | | 587 | 316. Electrical Transmitting Systems: | | |
| 535 | 312. Fuel Burning Furnaces: | | | 588 | 317. Electrical Receiving Systems: | | |
| 536 | 313. Fuel Burning Devices: | | | 589 | 318. Electrical Transmitting and Receiving Systems: | | |
| 537 | 314. Fuel Feeding: | | | 590 | 319. Electrical Translating Devices: | | |
| 538 | 315. Air Cleaning, Cooling, Ventilating, and Heating Devices: | | | 591 | 320. Electrical Conductors: | | |
| 539 | 316. Liquid Purification: | | | 592 | 321. Electrical Generators: | | |
| 540 | 317. Refrigeration: | | | 593 | 322. Electrical Motors: | | |
| 541 | 318. Valves and Valve Gearing: | | | 594 | 323. Electrical Dynamic Transmission: | | |
| 542 | 319. Fluid Pressure Regulators: | | | 595 | 324. Electrical Measuring Instruments: | | |
| 543 | 320. Fluid Sprinkling: | | | 596 | 325. Electrical Recording Instruments: | | |
| 544 | 321. Fluid Pressure Brakes: | | | 597 | 326. Electrical Transmitting Systems: | | |
| 545 | 322. Fuel Burning Furnaces: | | | 598 | 327. Electrical Receiving Systems: | | |
| 546 | 323. Fuel Burning Devices: | | | 599 | 328. Electrical Transmitting and Receiving Systems: | | |
| 547 | 324. Fuel Feeding: | | | 600 | 329. Electrical Translating Devices: | | |
| 548 | 325. Air Cleaning, Cooling, Ventilating, and Heating Devices: | | | 601 | 330. Electrical Conductors: | | |
| 549 | 326. Liquid Purification: | | | 602 | 331. Electrical Generators: | | |
| 550 | 327. Refrigeration: | | | 603 | 332. Electrical Motors: | | |
| 551 | 328. Valves and Valve Gearing: | | | 604 | 333. Electrical Dynamic Transmission: | | |
| 552 | 329. Fluid Pressure Regulators: | | | 605 | 334. Electrical Measuring Instruments: | | |
| 553 | 330. Fluid Sprinkling: | | | 606 | 335. Electrical Recording Instruments: | | |
| 554 | 331. Fluid Pressure Brakes: | | | 607 | 336. Electrical Transmitting Systems: | | |
| 555 | 332. Fuel Burning Furnaces: | | | 608 | 337. Electrical Receiving Systems: | | |
| 556 | 333. Fuel Burning Devices: | | | 609 | 338. Electrical Transmitting and Receiving Systems: | | |
| 557 | 334. Fuel Feeding: | | | 610 | 339. Electrical Translating Devices: | | |
| 558 | 335. Air Cleaning, Cooling, Ventilating, and Heating Devices: | | | 611 | 340. Electrical Conductors: | | |
| 559 | 336. Liquid Purification: | | | 612 | 341. Electrical Generators: | | |
| 560 | 337. Refrigeration: | | | 613 | 342. Electrical Motors: | | |
| 561 | 338. Valves and Valve Gearing: | | | 614 | 343. Elect

2. In a vehicle, the combination of a frame; a cast support thereof; a crank hanger mounted on said frame in fixed relation to said cast support; a rear frame member pivotally connected to said frame adjacent to and in front of said hanger, said member being looped adjacent to said crank hanger to provide an opening through which the crank may extend without preventing rotative movement of said rear frame member and crank hanger; and a fulcrum member interposed between said frame and rear frame member and adapted to yieldingly resist the pivotal movement of said rear frame member.

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1,000,000. POWER-TRANSMISSION DEVICE. Vincent de Ajuria, Dayton, Ohio. Filed Dec. 26, 1911. Serial No. 667,671. (Cl. 74—750.)



1. Power-transmitting means comprising two rotatable elements, an intermediate rotating clutch parts of magnetically susceptible material carried by one element thereof and movable relatively to engage or to disengage the other element, and means to create a magnetic field relative to which the rotatable elements and said clutch parts form a path for magnetic flux, to cause the successive drag incident to movement of one of the clutch elements relative to the other to cause the positive clutch parts to be progressively engaged.

2. Power transmitting means comprising two rotatable elements to be connected, rolling wedge clutch parts of magnetically susceptible material interposed between said two rotatable elements, instrumentalities to create a magnetic field including therein a said clutch part, thereby to influence the action of said clutch part, in response to rotation of one of said rotatable elements.

3. Power transmitting means comprising two rotatable elements to be connected, rolling wedge clutch parts of magnetically susceptible material, instrumentalities to create a magnetic field including therein said rotatable elements and said clutch parts, thereby to cause said clutch parts as a result of magnetic drag incident to rotation of one of said rotatable elements to effect rolling wedge engagement between said elements.

4. In power transmitting devices, the combination of three rotatable elements successively disposed, rolling wedge clutch parts interposed between said three elements to cause the intermediate member to be driven by one of the opposed elements and to drive the other of the opposed elements, instrumentalities to create a magnetic field including therein said clutch parts and said three elements, and means to cause the successive drag incident to rotation of one of said elements relative to the other to cause the positive clutch parts to be progressively engaged.

5. In power transmitting devices, the combination of three rotatable elements successively disposed, rolling wedge clutch parts interposed between said three elements to cause the intermediate member to be driven by one of the opposed elements and to drive the other of the opposed elements, instrumentalities to create a magnetic field including therein said clutch parts and said three elements, and means to cause the successive drag incident to rotation of one of said elements relative to the other to cause the positive clutch parts to be progressively engaged.

[Claims 6 to 13 not printed in the Gazette.]

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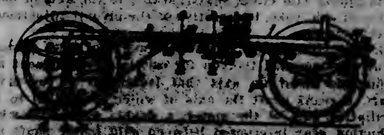
1,000,000. [illegible]. [illegible] Filed Dec. 26, 1911. Serial No. [illegible]. (Cl. [illegible].)



[Claims 1 to 7 not printed in the Gazette.]

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1,000,000. [illegible]. [illegible] Filed Dec. 26, 1911. Serial No. [illegible]. (Cl. 74—[illegible].)



1. A [illegible] on axle and wheels on said axle, [illegible] engaging the [illegible] and means for [illegible] to engage the ground, means for [illegible] having a [illegible] by a forward movement thereof, [illegible] adapted to actuate said [illegible] in unison and means, and means [illegible] to [illegible] by a forward movement.

2. A [illegible] on axle and wheels on said axle, means for [illegible] engaging the [illegible] of said body, [illegible] with said [illegible], a foot-plate, [illegible] said body, [illegible] said foot-plate, said foot-plate having a [illegible] by a forward movement of said foot-plate, [illegible] adapted to actuate said [illegible] in unison with said foot-plate, and means [illegible] to [illegible] by a forward movement.

3. A [illegible] on axle and wheels on said axle, means for [illegible] engaging the [illegible] of said body, [illegible] with said [illegible], a foot-plate, [illegible] said body, [illegible] said foot-plate, said foot-plate having a [illegible] by a forward movement of said foot-plate, [illegible] adapted to actuate said [illegible] in unison with said foot-plate, and means [illegible] to [illegible] by a forward movement.

4. A [illegible] on axle and wheels on said axle, [illegible] engaging the [illegible] of said body, [illegible] with said [illegible], a foot-plate, [illegible] said body, [illegible] said foot-plate, said foot-plate having a [illegible] by a forward movement of said foot-plate, [illegible] adapted to actuate said [illegible] in unison with said foot-plate, and means [illegible] to [illegible] by a forward movement.

5. A [illegible] on axle and wheels on said axle, [illegible] engaging the [illegible] of said body, [illegible] with said [illegible], a foot-plate, [illegible] said body, [illegible] said foot-plate, said foot-plate having a [illegible] by a forward movement of said foot-plate, [illegible] adapted to actuate said [illegible] in unison with said foot-plate, and means [illegible] to [illegible] by a forward movement.

[Claims 6 not printed in the Gazette.]

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1,000,000. [illegible]. Oscar Berman, Colorado, Tex. Filed June 5, 1912. Serial No. 701,042. (Cl. 210—[illegible].)



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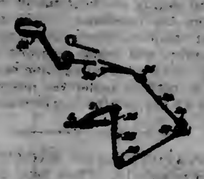
1,000,000. POTATO-PEELING MACHINE. Gustave S. Blakeslee, Chicago, Ill. Filed Sept. 26, 1911. Serial No. 651,102. (Cl. 146—14.)



1. A peeling machine, comprising a [illegible] having a [illegible] and adapted to [illegible] a [illegible] and [illegible] a [illegible] and [illegible] a [illegible] and

[Claims 2 to 10 unreported by the Examiner.]

1,038,694. [illegible] FOR HARVESTING-MACHINES. Cyrus O. Baker, Ogden, N. D. Filed Oct. 18, 1909. Serial No. 523,303. (Cl. 56—139.)



1. In a harvesting machine, a rock lever projecting into the path of the sheaf of grain and adapted by its depression to cause the operation of the ejector mechanism of the machine, a detachable bar rigidly secured upon the rock lever adjacent to the point thereof engaged by the sheaf to be discharged, but projecting from the opposite side of said lever, said bar being adjustable upon the rock lever to and from the pivotal point thereof, and means connected to said bar and extending adjacent to the station of the operator whereby the rock lever may be manually operated.

2. In a harvesting machine, a rock lever projecting into the path of the sheaf of grain and adapted by its depression to cause the operation of the ejector mechanism of the machine, a pendent bar following the outer side of the rock lever adjacent to the point thereof engaged by the sheaf, oppositely disposed jaws carried by the pendent bar adapted to engage the opposite edges of the rock lever, means for causing the jaws to grip the rock lever, actuating means for the rock lever attached to the bar and extending rearward to the station of the operator.

3. In a harvesting machine, a rock lever projecting into the path of the sheaf of grain and adapted by its depression to cause the operation of the ejector mechanism of the machine, a pendent bar following the outer side of the rock lever adjacent to the point thereof engaged by the sheaf, oppositely disposed jaws carried by the pendent bar adapted to engage the opposite edges of the rock lever, means for causing the jaws to grip the rock lever, actuating means for the rock lever attached to the bar and extending rearward to the station of the operator, said means comprising a double armed lever fulcrumed between its arms upon the main frame of the machine, and connections between said lever and the pendent bar whereby the latter is moved in the direction of the sheaf, said connections including a double armed lever fulcrumed upon the pendent bar, the rock lever being disengaged at the outer end, and



1. A [illegible]

2. A [illegible]

4. A [illegible]

1,039,[illegible]. [illegible] (Cl. [illegible])

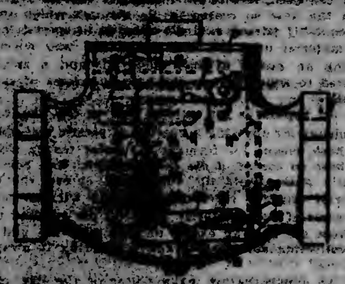


1. A [illegible]

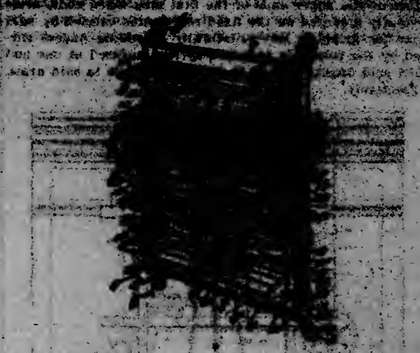
2. A [illegible]

3. A [illegible]

1,039,[illegible]. [illegible]

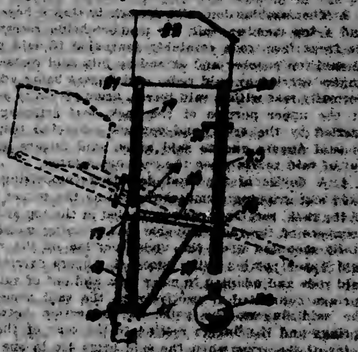


5. [illegible]



of the shelves and terminating in hooks adapted to engage the wire rods.

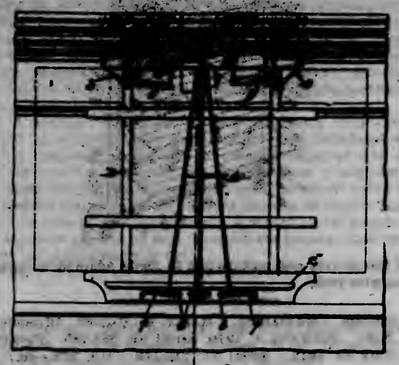
1,039,[illegible]. [illegible], Kansas City, Mo., Filed Oct. 4, 1910. Serial No. [illegible]. Renewed July 30, 1912. Serial No. [illegible]. (Cl. [illegible])



1,039,[illegible]. [illegible], Conn., Rock Hill, N. Y. Filed Oct. 23, 1911. Serial No. [illegible]. (Cl. [illegible])

1. A [illegible]

...ator of the kind described comprising rotatable vertically disposed rods, a vertical fixed rod arranged adjacent the upper ends of the first mentioned rods, arms pivotally mounted on the fixed rod, means carried by said arms for gripping leaves, laterally extending fingers carried by the rotatable rods and springs secured at one end upon said fingers and at their opposite ends to said arms, respectively.

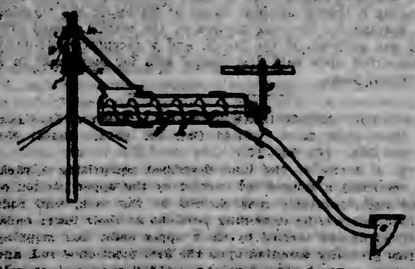


3. The combination with a rack having a base portion and a top member, said top member being recessed upon its front face, rods rotatably journaled in said base and in said top member and extending into said recess, curved fingers carried by said rods, said fingers being adapted to normally rest within said recess, arms pivotally supported at the upper portion of the rack, leaf gripping devices carried by the arms, and springs connected respectively to said fingers and to said arms, said fingers projecting out of said recess when the rods are rotated.

4. A device of the kind described comprising a rack, fixed leaf gripping members carried by the corner portions of the rack, rotatable rods journaled in the top and bottom members of the rack, movable leaf gripping members pivotally mounted upon the upper portion of the rack, the said upper portion being recessed, fingers carried by the said rods and adapted to move into and out of said recess, springs connected respectively to the said arms and to the said fingers, the point of connection between the springs and the fingers resting to the rear of the pivotal point of the arms when the said arms are in one position and being in advance of said pivotal point when the arms are thrown in their other positions, said means carried by the lower ends of said rods and projecting outwardly by which they may be rotated.

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1,038,997. MACHINE FOR COATING HOSE. Elmer E. Cook, Chelsea, Mass. Filed Sept. 20, 1911. Serial No. 649,908. (Cl. 196—6.)



1. An apparatus for making hose or the like, comprising means for applying a coating of plastic material upon the hose, means for forming a tubular textile web upon the hose so coated, a die through which the hose subsequently passes, said die adapted to spread the coating material over the exterior of the web without removing an excess of such material, and a second die adapted to wipe off from the hose an excess of such material.

2. An apparatus for making hose or the like, comprising means for applying a coating of plastic material upon the hose, means for forming a tubular textile web upon the hose so coated, a die through which the hose subsequently passes, said die adapted to spread the coating material over the exterior of the web without removing an excess of such material, a second die adapted to wipe off from the hose an excess of such material, and means for collecting such excess and conducting it away from said die.

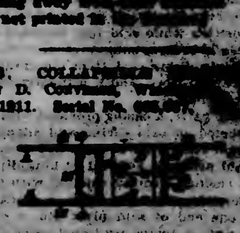
4. An apparatus for making hose or the like, comprising means for applying a coating of plastic material upon the hose, means for forming a tubular textile web upon the hose so coated, a wiping die adapted to subsequently remove the excess of such material from the hose, and means for collecting [illegible] excess from said die.

5. An apparatus for making hose or the like, comprising means for applying a coating of plastic material upon the hose, means for forming a tubular textile web upon the hose so coated, a wiping die adapted to subsequently remove the excess of such material from the hose, means for conducting away such excess [illegible] and a conduit leading away from said wiping die.

[Claim 6 not printed in the Gazette.]

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1,039,098. COLLAPSIBLE [illegible]
Appointor D. Corviniti, [illegible]
June 28, 1911. Serial No. [illegible]



1. In a device of the class described, the combination of [illegible] side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

2. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

4. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

5. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

6. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

7. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

8. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

9. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

10. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

11. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

12. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

13. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

14. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

15. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

16. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

17. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

18. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

19. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

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21. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

22. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

23. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

24. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

25. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

26. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

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28. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

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30. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

31. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

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81. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

82. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

83. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

84. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

85. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

86. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

87. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

88. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

89. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

90. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

91. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

92. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

93. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

94. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

95. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

96. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

97. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

98. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

99. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

100. In a device of the class described, the combination of two side members; an extension hinged to each side member and provided with pockets adapted to receive the ends of the [illegible] members; a spring connected to each extension; and a spring provided at each end with [illegible] adapted to [illegible] to simultaneously [illegible] the [illegible] members.

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...with said extensions; and means for [illegible] said extensions.

2. In a device of the class described, the combination of two side members; an extension hinged between said side members and adapted to be moved outwardly against the inner face thereof; a spring connected to said extension; and a [illegible] adapted to be interposed between said extension and locked thereto to prevent the inward movement thereof.

[Claims 3 to 5 not printed in the Gazette.]

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1,038,998. ROCKER-BRACKET. Appointor D. Corviniti, Winchendon, Mass. Filed May 27, 1912. Serial No. 700,110. (Cl. 46—82.)



1. A rocking bench comprising two like side members having rockers and pivoted together at or near the top; a middle member pivoted with a downward extension adapted for insertion between said side members to retain them separated; and means for preventing further separation of said members.

2. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; and means for preventing further separation of said members.

3. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

4. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

5. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

6. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

7. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

8. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

9. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

10. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

11. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

12. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

13. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

14. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

15. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

16. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

17. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

18. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

19. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

20. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

21. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

22. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

23. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

24. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

25. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

26. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

27. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

28. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

29. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

30. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

31. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

32. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

33. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

34. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

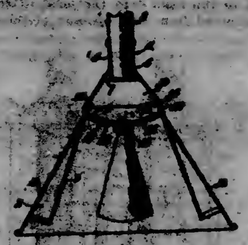
35. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

36. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

37. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivoted to said side members; and means for preventing further separation of said members.

38. A rocking bench comprising two like side members having rockers pivoted together at or near the top; a middle member pivoted between the upper portions of said side members; a downward extension adapted for insertion between said side members to retain them separated; a [illegible] pivo

body having a circular cross-section thereby, and a cap adapted to engage the said rim to form a cap receptacle.



3. A clothes-pounder comprising an approximately conical body, a handle passing through the open end of said body, said body having a flange and thread thereon adjacent the open end thereof, a cap having a plurality of perforations therein, and a clothes hook on said cap adapted to engage in the clothes rest in said conical body.

4. A clothes-pounder comprising an approximately conical body, a handle passing through the apex of said body, said handle having a flange and threaded thereon, a plurality of corrugations and perforations therein, in the lower side of said corrugations, a plurality of vertically disposed rib elements on the conical body, each of a series of perforations each passing through one of said elements, and a clothes hook on said cap adapted to engage in the clothes rest in said conical body, said cap adapted to engage the open end of said body.

1,000,702. METHOD OF TREATING PYROXYLIN-COATINGS. John L. Cramer, Greenfield, and Homer H. Benedict, Wakefield, Mass., assignors to Watertown Machine and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 9, 1909. Serial No. 477,228. (Cl. 134—36.)



1. The process of preparing pyroxylin coatings which consists in impregnating the same with a dissolved combustible resin solvent and ignition, after drying and softening the same and finally baking and compressing the same.

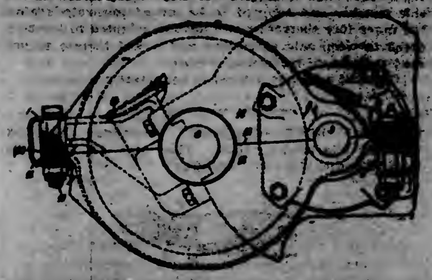
2. The process of preparing pyroxylin coatings which consists in impregnating the same with a dissolved combustible resin solvent and ignition, after drying and softening the same and finally baking and compressing them by a confined pressure.

3. The process of preparing pyroxylin coatings which consists in coating the same in a warm suspended condition with linseed oil and pigment, then drying and finally baking the same and finally drying and compressing them by a confined pressure.

4. The process of preparing pyroxylin coatings which consists in coating the same with linseed oil containing copal, glycerin and pumpkin at a temperature of from 50° to 65° C., then drying and finishing the same, and finally heating and compressing them by a confined pressure.

5. The process of preparing pyroxylin coatings which consists in impregnating porous bodies with a dissolved combustible resin solvent and ignition, drying and softening them and finally subjecting them to heat and pressure in confined spaces.

1,000,703. [illegible]. John L. Cramer, Greenfield, and Homer H. Benedict, Wakefield, Mass., assignors to Watertown Machine and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 9, 1909. Serial No. 477,229. (Cl. 134—36.)



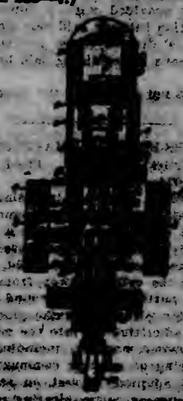
1. The combination with a pyroxylin coating, of a combustible resin solvent and ignition, drying and softening the same and finally baking and compressing the same.

2. The combination with a pyroxylin coating of a combustible resin solvent and ignition, drying and softening the same and finally baking and compressing the same by a confined pressure.

3. The combination with a pyroxylin coating of linseed oil and pigment, drying and finishing the same and finally baking and compressing the same.

4. The combination with a pyroxylin coating of linseed oil containing copal, glycerin and pumpkin, drying and finishing the same and finally baking and compressing the same by a confined pressure.

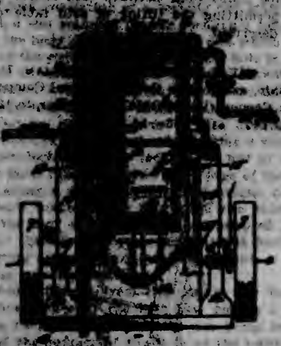
1,000,704. [illegible]. W. Curtis, Whitwell, N. Y., and Levi Carpenter, Jr., and [illegible], Whitwell, N. Y. Filed March 29, 1910. Serial No. 552,202. (Cl. 230—7.)



1. In an [illegible]



1,000,705. COMPOSITION-HEATER. John Dat, San Francisco, Cal. Filed Dec. 27, 1911. Serial No. 668,694. (Cl. 126—9.)



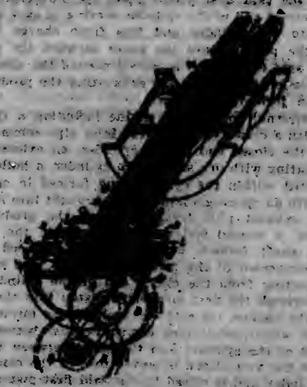
1. In an [illegible]

4. The method of agglomerating or absorbing finely divided material, which consists in forming the material into a layer, supporting the layer, and applying heat to the exposed surface to agglomerate the material for a part only of its depth from the heated surface.

5. The method of agglomerating or absorbing finely divided material, which consists in forming the material into a layer, supporting the material around a source of heat to agglomerate it for a part only of its depth from the heated surface, and then progressively moving the material away from the source of heat to cool the material.

[Claims 6 to 10 not printed in the Gazette.]

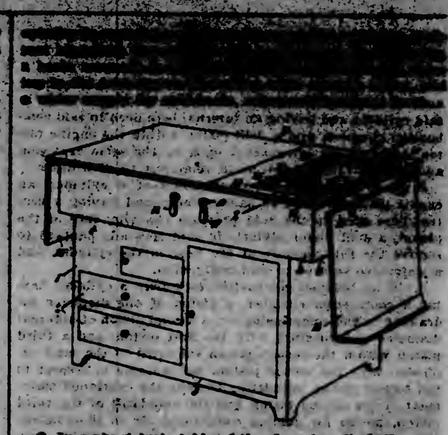
1,000,707. MACHINE OR APPARATUS FOR FORMING SCREW-THREADS OR WIRE BY ROLLING. Mark Thomas Davis, Rushden, Northampton, England. Filed Oct. 5, 1907. Serial No. 396,599. (Cl. 80—10.)



In a machine having other dies for forming screw-threads on wire by rolling, means to entrain said dies around the wire while rotating thereon and means to retain said dies on said wire when at a speed greater than that necessary to produce rolling contact of their peripheries with the wire.

1,000,708. SWITCHBOARD CABLE. Frank A. Dodge, Long Island City, N. Y. Filed June 14, 1910. Serial No. 566,837. (Cl. 174—36.)

1. In a switchboard cable, the duct described, the combination of a cable-tie supporting thread adapted to be adjusted relatively to the horizontal, a top mounted on said lifting thread and adapted to receive the subject and provided at one end with an opening substantially the height of the cable-tie (my sheet designates bottom) and substantially the width of the cable-tie, a detachable cover for said opening and on which the thickness of the subject may rest when in substantially a sitting position on said cable-tie, a part of said cable-tie in the rear of said opening being bent and adapted to receive and support as a stud the backside of the subject when the cover of said opening is removed, an adjustable upwardly-diverging back-rest hinged at the rear of said fixed part of the cable-tie, a handle mounted on said lifting thread, beneath said opening in the cable-tie and provided with a ripple cutter, a faucet for said basin, a water supply-pipe and flexible pipe connections between said faucet and supply-pipe for permitting the tilting of said cable-tie substantially as described.



2. In a physician's table of the class described, the combination of a tilting top-supporting frame adapted to be adjusted relatively to the horizontal, a top mounted on said tilting frame and adapted to receive the subject and provided at one end with an opening substantially the height of a person (my sheet designates bottom) and substantially the width of the table-top, a detachable cover for said opening and on which the thighs of the subject may rest when in substantially a sitting position on said table-top, a part of said table-top in the rear of said opening being bent and adapted to receive and support as a stud the backside of the subject when the cover of said opening is removed, an adjustable upwardly-diverging back-rest hinged at the rear of said fixed part of the table-top, a basin mounted on said tilting frame, beneath said opening in the table-top and provided with a ripple cutter, a faucet for said basin, a water supply-pipe and flexible pipe connections between said faucet and supply-pipe for permitting the tilting of said table-top substantially as described.

1,000,709. BEVALOIDS CHAIR. Abraham Dodge, Toledo, Ohio, assignor to The Gendron Wheel Company, Toledo, Ohio, a Corporation of Ohio. Filed Mar. 9, 1912. Serial No. 682,787. (Cl. 155—11.)



1. In a chair, the combination of a detachable supporting frame comprising the longitudinal members of said chair, supporting the seat thereof and provided with detachably connected rear standards and front legs, the detachable connection between said rear standards and said longitudinal members comprising a pivot-pin and a locking-pin, and a seat pivotally mounted on said frame.

2. In a chair, the combination of a detachable supporting frame comprising the longitudinal members of said chair, supporting the seat thereof and provided with detachably connected rear standards and front legs, the detachable connection between said rear standards and said longitudinal members comprising a pivot-pin and a locking-pin, and a seat pivotally mounted on said frame, said seat comprising a pair of side-bars, a front cross-bar and a rear cross-bar, the latter being pivotally mounted on said pivot-pin.



4. In a chair, the combination with a collapsible parallelogram frame comprising a rear vertically extending member of substantially channel form, the upper portion and other side-bar of which did the lower ends thereof projected downwardly and rearward, a horizontal stabilizer forming a portion of said frame having rearward and downward extending channel rear supporting legs and in the folded position extending forward of the center of gravity, said stabilizer legs and rearward extensions of the vertical frame members constituting a suitable support for the folded chair.

1,000,710. NUT-LOCK. Edwin A. Dorr, Albany, N. Y. Filed Jan. 19, 1912. Serial No. 672,217. (Cl. 151—90.)

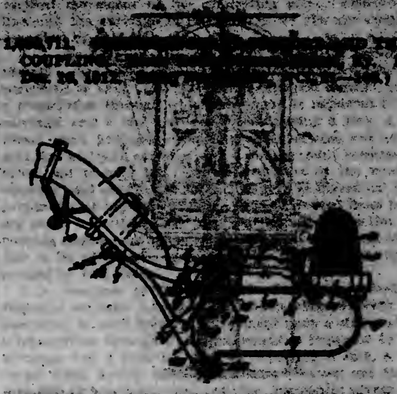


1. A nut-lock washer consisting of a [illegible] nut stamped from sheet metal, a [illegible] projecting a tongue at an angle with the [illegible] and which with the inner edge of the [illegible] bolt hole is arranged and adapted to engage the upper surface on the bolt and when the locked position with a spring pressure, and the opposite side of said locking nut on the side thereof, substantially as and for the purpose set forth.

2. In a combined plate-like locking nut and lock-washer and finished thereon [illegible] bolt hole and [illegible] of integral formed by said [illegible] from the plane of the surface of the [illegible] and approximately adapted to follow between the [illegible] and opposite side of the bolt when locking nut is applied thereto, substantially as and for the purpose set forth.

3. In a combined plate-like locking nut and lock-washer and finished thereon [illegible] bolt hole and [illegible] of integral formed by said [illegible] from the plane of the surface of the [illegible] and approximately adapted to follow between the [illegible] and opposite side of the bolt when locking nut is applied thereto, substantially as and for the purpose set forth.

4. In a chair, the combination with a collapsible parallelogram frame comprising a rear vertically extending member of substantially channel form, the upper portion and other side-bar of which did the lower ends thereof projected downwardly and rearward, a horizontal stabilizer forming a portion of said frame having rearward and downward extending channel rear supporting legs and in the folded position extending forward of the center of gravity, said stabilizer legs and rearward extensions of the vertical frame members constituting a suitable support for the folded chair.



1. In combination, a tie-plate, a [illegible] thereto and provided with L-shaped [illegible] pivoted to the tie-plate and [illegible] of its free end, leaf springs connected to the [illegible] and curved upon themselves and disposed opposite the tie-plate, a locking lever pivoted to the [illegible] springs, and a U-shaped link pivoted to the [illegible] beyond its pivot with the springs at the [illegible] the upper ends of the U-shaped links [illegible] the L-shaped ends of the locks, the locks [illegible] shaped, their connected ends [illegible] and [illegible] supporting the locked member while [illegible] pivoted to a shaft.

2. In combination, a tie-plate, a [illegible] thereto and provided with L-shaped [illegible] pivoted to the tie-plate and [illegible] of its free end, leaf springs connected to the [illegible] and curved upon themselves and disposed opposite the tie-plate, a locking lever pivoted to the [illegible] springs, and a U-shaped link pivoted to the [illegible] beyond its pivot with the springs at the [illegible] the upper ends of the U-shaped links [illegible] the L-shaped ends of the locks, the locks [illegible] shaped, their connected ends [illegible] and [illegible] supporting the locked member while [illegible] pivoted to a shaft, the locking lever [illegible] of the springs, the locked member [illegible] by the [illegible] of the springs, substantially as and for the purpose set forth.

3. In combination, a tie-plate, a [illegible] thereto and provided with L-shaped [illegible] pivoted to the tie-plate and [illegible] of its free end, leaf springs connected to the [illegible] and curved upon themselves and disposed opposite the tie-plate, a locking lever pivoted to the [illegible] springs, and a U-shaped link pivoted to the [illegible] beyond its pivot with the springs at the [illegible] the upper ends of the U-shaped links [illegible] the L-shaped ends of the locks, the locks [illegible] shaped, their connected ends [illegible] and [illegible] supporting the locked member while [illegible] pivoted to a shaft, the locking lever [illegible] of the springs, the locked member [illegible] by the [illegible] of the springs, the upper ends of the U-shaped links [illegible] the L-shaped ends of the locks, the locks [illegible] shaped, their connected ends [illegible] and [illegible] supporting the locked member while [illegible] pivoted to a shaft, the locking lever [illegible] of the springs, the locked member [illegible] by the [illegible] of the springs, substantially as and for the purpose set forth.



1. In an engraving machine, a work bed universally movable in a single plane, a pattern support, a stylus arm, a transmitter lever system, a universal connection between one end of said transmitter lever system and said work bed, a pivotal connection between the other end thereof and said stylus arm, a universal pivotal bearing for said lever intermediate their ends, and a tool head adapted to be adjusted relative to said work bed to regulate the depth of cut of the tool.

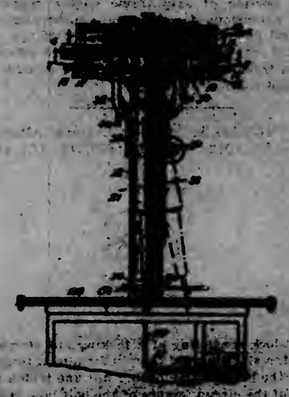
2. In an engraving machine, a work bed universally movable in a single plane, a pattern support, a stylus arm, a transmitter lever system, a universal connection between one end of said transmitter lever system and said work bed, a pivotal connection between the other end thereof and said stylus arm, a universal pivotal bearing for said lever intermediate their ends, means adjusting said bearing lengthwise of said lever to vary the ratio of transmission, and a tool head adapted to be adjusted relative to said work bed to regulate the depth of cut of the tool.

3. In an engraving machine, a work bed universally movable in a single plane, a pattern support, a stylus arm, a transmitter lever system, a universal connection between one end of said transmitter lever system and said work bed, a pivotal connection between the other end thereof and said stylus arm, a universal pivotal bearing for said lever intermediate their ends, a tool head adapted to be adjusted relative to said work bed to regulate the depth of cut of the tool, a plurality of supplemental pivotal bearings for said lever, and means for shifting said lever from one of said bearings to another.

4. In an engraving machine, a pantograph of supplemental levers, universally movable vibrator and stylus arm connected thereto, a transmitter lever system, a universal connection between one end of said transmitter lever system and said vibrator, a pivotal connection between the other end thereof and said stylus arm, a universal pivotal bearing for said lever intermediate their ends, and a tool head adapted to be adjusted relative to said vibrator to regulate the depth of cut of the tool.

[Claims 5 to 24 not printed in the Gazette.]

1,008,712. ENGRAVING-MACHINE. William S. Rogers, Bay Shore, N. Y. Filed Oct. 20, 1910. Serial No. 588,207. (Cl. 130—7.)



1. In a machine of the character described, a work bed, a pattern support, a stylus arm, a transmitter lever system, a universal connection between one end of said transmitter lever system and said work bed, a pivotal connection between the other end thereof and said stylus arm, a universal pivotal bearing for said lever intermediate their ends, and a tool head adapted to be adjusted relative to said work bed to regulate the depth of cut of the tool.

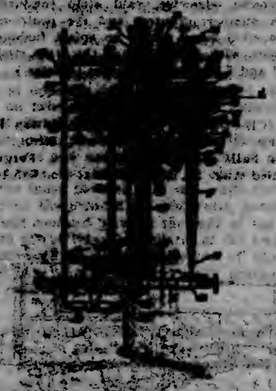
2. In a machine of the character described, a work bed, a pattern support, a stylus arm, a transmitter lever system, a universal connection between one end of said transmitter lever system and said work bed, a pivotal connection between the other end thereof and said stylus arm, a universal pivotal bearing for said lever intermediate their ends, means adjusting said bearing lengthwise of said lever to vary the ratio of transmission, and a tool head adapted to be adjusted relative to said work bed to regulate the depth of cut of the tool.

3. In a machine of the character described, a work bed, a pattern support, a stylus arm, a transmitter lever system, a universal connection between one end of said transmitter lever system and said work bed, a pivotal connection between the other end thereof and said stylus arm, a universal pivotal bearing for said lever intermediate their ends, a tool head adapted to be adjusted relative to said work bed to regulate the depth of cut of the tool, a plurality of supplemental pivotal bearings for said lever, and means for shifting said lever from one of said bearings to another.

4. In a machine of the character described, a pantograph of supplemental levers, universally movable vibrator and stylus arm connected thereto, a transmitter lever system, a universal connection between one end of said transmitter lever system and said vibrator, a pivotal connection between the other end thereof and said stylus arm, a universal pivotal bearing for said lever intermediate their ends, and a tool head adapted to be adjusted relative to said vibrator to regulate the depth of cut of the tool.

[Claims 5 to 24 not printed in the Gazette.]

1,010,[illegible]. [illegible] AND MOTTLER MACHINE. [illegible] Filed [illegible], 1911. Serial No. [illegible]. (Cl. 130—7.)



1. A machine of the character described, embodying [illegible]



[illegible]

[Claims 2 to 25 not printed in the Gazette.]

1,010,[illegible]. [illegible] Filed [illegible], 1911. Serial No. [illegible]. (Cl. 130—7.)

1. A machine of the character described, embodying [illegible]

2. A machine of the character described, embodying [illegible]

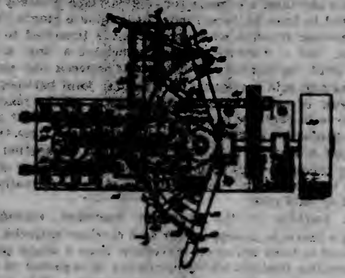
3. A machine of the character described, embodying [illegible]

4. A machine of the character described, embodying [illegible]

5. A machine of the character described, embodying [illegible]

same over the center of said object to push the paste thereinto and to coin off the surplus.

4. A packing machine comprising a support for the object to be packed, means for advancing paste toward said object, means adapted to push the paste into said object and trim off the surplus and means for moving said object relatively to said support.

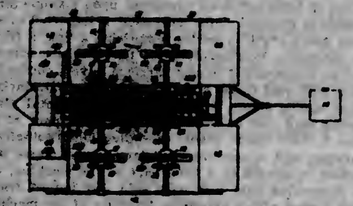


5. In a machine for applying paste, means for containing the paste, and means within said containing means for forcing the paste therefrom onto the object to be pasted simultaneously from opposite sides of said object.

[Claims 6 to 37 not printed in the Gazette.]

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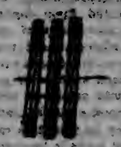
1,009,710. AEROPLANE. Gustaf H. Fellan, Duluth City, Minn. Filed Mar. 14, 1912. Serial No. 683,770. (Cl. 244—23.)



1. In an aeroplane of the character described, the combination of a buildable frame, a motor carried by the frame, with propellers located at the rear and the front of the frame, rocking planes located at the front and the rear of the propellers, means for moving said planes in unison or independently, vertical planes located beneath said rocking planes and in planes intermediate the ends of said rocking planes, and an independent horizontal plane located at the rear of said planes, a vertical plane located beneath said horizontal plane, and a housing carried upon the forward extremity of said frame.

2. In an aeroplane of the character described, the combination of a frame, a motor carried by said frame, propellers operated by said motor, planes located at the rear and the front of said frame and at opposite sides thereof, said planes mounted upon rock shafts, connecting links pivotally attached to said planes, rock bars located below the planes and the connecting links pivotally connected thereto, and means for rocking the planes, said means consisting of a rock shaft, a rock lever located upon said shaft, bell crank levers located upon said shaft and formed integral therewith, a rock lever located upon said shaft below the latter, a central pair of bell crank levers located around said first-mentioned bell crank levers located upon said second pair of bell crank levers, means connecting said rock shafts to said rock bars, and means for moving each rock shaft independently.

1,009,711. [illegible] MACHINE, Thomas H. Fuller, Boston, Mass., assignor to Fuller-Lehigh Coal Pulverizer Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Sept. 7, 1911. Serial No. 648,001. (Cl. [illegible].)



1. A coil for high frequency currents formed of a strip conductor wound edgewise, said strip conductor being formed of a number of wires and the position of said wires in the strip being varied with the length of the strip.

2. A coil for high frequency currents formed of a strip conductor wound edgewise, said strip conductor being formed of a number of wires and the position of said wires in the strip being successively varied with the length of the strip.

3. A coil for high frequency currents formed of a strip conductor wound edgewise, said strip conductor being formed of a number of wires and the position of said wires in the strip being varied in spiral fashion with the length of the strip.

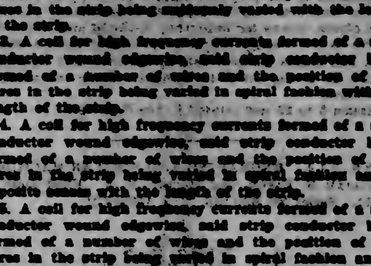
4. A coil for high frequency currents formed of a strip conductor wound edgewise, said strip conductor being formed of a number of wires and the position of said wires in the strip being varied in spiral fashion and in opposite senses with the length of the strip.

5. A coil for high frequency currents formed of a strip conductor wound edgewise, said strip conductor being formed of a number of wires and the position of said wires in the strip being varied in spiral fashion and in opposite senses, with the length of the strip, and plaited.

[Claims 6 and 7 not printed in the Gazette.]

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1,009,718. ICE-CUTTING MACHINE. James H. Finch and Joseph C. Bauer, Fergus Falls, Minn., assignors to Fergus Falls Refuse Ice Floe Co., Fergus Falls, Minn. Filed Aug. 21, 1911. Serial No. 645,168. (Cl. 62—8.)



1. In an ice cutting machine, a divided main frame, a rotary saw journaled therein, a vertically reciprocating saw having its free end overhanging adjacent to the depressed edge of the saw, an axle upon one side of the saw, a shaft mounted in the free end of the last axle, a friction wheel mounted upon said shaft, a rock-shaft driven said shaft, a spring connected to the saw and to the main frame for resiliently holding the latter wheel normally in the curve traversed, normally operated means for regulating the movement of the latter wheel toward the former wheel, a rock shaft journaled transversely of the frame above the former wheel, means connecting said rock shaft for the saw, said transversely extended rock-shaft connected to the rock shaft for elevating the saw, an inclined [illegible] the downward movement of the saw, a [illegible] rotary saw journaled therein, two vertically reciprocating



saws having their free ends overhanging adjacent to the downward edge of the saw, an axle upon each side of the saw, a frame wheel mounted upon each shaft, a spring connected to each frame with which one carries, operating to hold the latter wheel normally in the curve traversed, normally operated means for regulating the movement of each wheel toward the former, a rock shaft journaled transversely of the frame above the former wheels, means connecting each rock shaft for the saw, said transversely extended rock-shaft connected to the rock shaft for elevating the saw, an inclined [illegible] the downward movement of the saw, a [illegible] rotary saw journaled therein, two vertically reciprocating saws having their free ends overhanging adjacent to the depressed

ber within which said fins project, a recess through which the pulverized material is delivered by the fins to a discharge opening, and a flat circular valve disk in communication with the discharge opening from the disk, and a flat counterbalance within said hood the combining said disk consisting of a series of blades tangent at their inner ends to a common circle, said blades being inclined outwardly and outwardly to a point beyond the inlet for the air from the upper chamber, and being provided beyond that point with a cover plate; substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

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1,009,722. KNOCK-OUT CLOSURE IN WALL-BOXES. James M. G. Fuleman, Pittsburgh, Pa. Filed Dec. 2, 1910. Serial No. 595,508. (Cl. 247—7.)



1. A knock-out closure in metallic boxes for electric conductors, comprising a piece punched out of the wall of a box of less size than the opening from which it has been removed, the said wall having serrations, and the said segregated piece having series of serrations differing in size and corresponding to the serrations in the wall, the larger serrations on the segregated portion being secured in the smaller serrations in the wall by cold welding.

2. A knock-out closure in metallic boxes for electric conductors, comprising a piece completely segregated from the wall of the box of less diameter than the opening from which it was removed, the said wall having indentations and the said segregated portion having corresponding arms, the larger of said arms being adapted to be secured in the smaller indentations in the walls of the opening by cold welding.

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1,009,726. PAPER DRINKING-CUP. Charles M. Case, Jr., East Pepperell, Mass. Filed Mar. 30, 1912. Serial No. 687,988. (Cl. 229—3.)



An [illegible] comprising a [illegible] body having at one end a permanently [illegible] bottom, the other end of the body being [illegible] a continuous thickened and [illegible] the [illegible] being [illegible] with [illegible] the [illegible] arm [illegible] a [illegible] and [illegible] said [illegible] a portion of the [illegible] exterior and [illegible], thereby [illegible] the edge of the cup at its open end.

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1,009,[illegible]. [illegible] MILEAGE REGISTERING AND [illegible] APPARATUS. James T. Gallagher, [illegible], [illegible]. Filed Aug. 28, 1911. Serial No. [illegible].

[illegible] [illegible]; [illegible] [illegible]; [illegible] [illegible] [illegible]

[illegible] being smooth externally so as to closely nestle at the engagement and disengagement of the parts and adapted to be lifted, a bolt passing by the lower end of said depending member at the point, the said bolt-head adapted to open upwardly and within limited ends, on which the adjacent rear and right edges for limiting the downward movements of the locking member, said ears supported in position to sustain the load resting thereon.

[Claims 4 to 9 not printed in the Gazette.]

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1,030,720. DENTAL APPARATUS. JOHN M. GILMORE, Chicago, Ill. Filed July 15, 1911. Serial No. 638,648. (Cl. 32—30.)



1. The combination with the hand-piece of a dental-engine provided with a rotatable tool-element, of a liquid-supply conduit having an outlet through which the liquid is discharged upon the tool-element before the liquid passes the extreme outer end of the conduit, for the purpose set forth.

2. A liquid-tube for delivering liquid to a rotating tool-element with its outlet-end bevelled similar to the end of a quill-pen and with the outlet in a side-wall thereof.

3. The combination with the hand-piece of a dental-engine provided with a rotatable tool-element, of a liquid-supply conduit having its outlet-end extending lengthwise of said tool-element, with its outlet restricted relative to the conduit-proper and located in the side-wall of said outlet-end adjacent to the tool-element, whereby a jetting action is produced.

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1,030,729. CONDIMENT-HOLDER. JACOB GOTTLIEB, New York, N. Y. Filed Jan. 18, 1912. Serial No. 671,268. (Cl. 66—45.)



1. In a condiment holder, the combination with a container, a partition to form compartments therein for the substances, and a perforated top for sifting the substances therethrough, of an inclined wall movably mounted to maintain a fixed angular position being adapted to revolve horizontally for shutting one of said compartments to maintain all the substances therein and simultaneously exposing the substances of the other compartment to sift outward, and a finger-piece for revolving said inclined wall.

2. In a condiment holder, the combination with a container, a partition to form compartments therein for the substances, and a perforated top for sifting the substances therethrough, of an inclined wall movably mounted to maintain a fixed angular position being adapted to revolve horizontally for shutting one of said compartments to maintain all of the substances therein and simultaneously exposing the substances of the other compartment to sift outward, a finger-piece for revolving said inclined wall, and a ring for supporting and revolving said inclined wall.

3. In a condiment holder, the combination with a container, a partition to form compartments therein for the substances, and a perforated top for sifting the substances therethrough, of an inclined wall movably mounted to maintain a fixed angular position being adapted to revolve horizontally for shutting one of said compartments to maintain all of the substances therein and simultaneously exposing the substances of the other compartment to sift outward, a finger-piece for revolving said inclined wall, and a ring for supporting and revolving said inclined wall, said container having a slot to allow said finger-piece to extend outward therethrough.

4. In a condiment holder, the combination with a container, a partition to form compartments therein for the substances, and a perforated top for sifting the substances therethrough, of an inclined wall movably mounted to maintain a fixed angular position being adapted to revolve horizontally for shutting one of said compartments to maintain all of the substances therein and simultaneously exposing the substances of the other compartment to sift outward, a finger-piece for revolving said inclined wall, a ring for supporting and revolving said inclined wall, said container having a slot to allow said finger-piece to extend outward therethrough, and a flange on said ring to adjust said wall.

5. In a condiment holder, the combination with a container, a partition to form compartments therein for the substances, and a perforated top for sifting the substances therethrough, of an inclined wall movably mounted to maintain a fixed angular position being adapted to revolve horizontally for shutting one of said compartments to maintain all of the substances therein and simultaneously exposing the substances of the other compartment to sift outward, a finger-piece for revolving said inclined wall, a ring for supporting and revolving said inclined wall, said container having a slot to allow said finger-piece to extend outward therethrough, and a flange on said ring to adjust said wall, said ring having a plurality of perforations to receive said finger-piece.

[Claims 6 to 24 not printed in the Gazette.]

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1,030,730. CONVEYER. WILLIS GERMAN, New Orleans, La. Filed Oct. 22, 1909. Serial No. 523,552. (Cl. 214—14.)



1. In a device of the class described, the combination with a support, of a conveyer-frame pivoted thereto, a pulley mounted on said support, a cable passing around said pulley, one end of said cable being connected to said conveyer-frame, a counterweight connected to the other end of said cable, and means for moving said conveyer-frame about its pivot.

2. In a device of the class described, the combination with a support, of a conveyer-frame pivoted thereto, a pulley mounted on said support, a cable passing around said pulley, one end of said cable being connected to said conveyer-frame, a counterweight connected to the other end of said cable, and means for moving said conveyer-frame about its pivot, said means comprising a rack-bar connected to said conveyer-frame, a pinion meshing with said rack-bar, and means for rotating said pinion.

3. In a device of the class described, the combination with a support, of a conveyer-frame pivoted thereto, a pulley mounted on said support, a cable passing around said pulley, one end of said cable being connected to said conveyer-frame, a counterweight connected to the other end of said cable, and means for moving said conveyer-frame about its pivot, said means comprising a rack-bar connected to said conveyer-frame, a pinion meshing with said rack-bar, and means for rotating said pinion, said means comprising a hand-wheel and a worm-gear connecting said hand-wheel with said pinion.

4. In a device of the class described, the combination with a cable, of a conveyer-frame for holding one end of said cable, a carriage provided with horizontal and vertical rollers, the latter of which bear against said cable to support said carriage thereon, and upon which said carriage is adapted to travel, and means for moving said carriage to and from said conveyer-frame.

5. In a device of the class described, the combination with a cable, of a conveyer-frame for holding one end of said cable, a carriage provided with horizontal and vertical rollers, the latter of which bear against said cable to support said carriage thereon, and upon which said carriage is adapted to travel, and means for moving said carriage to and from said conveyer-frame, said means comprising a rack-bar connected to said conveyer-frame, a pinion meshing with said rack-bar, and means for rotating said pinion.

6. In a device of the class described, the combination with a cable, of a conveyer-frame for holding one end of said cable, a carriage provided with horizontal and vertical rollers, the latter of which bear against said cable to support said carriage thereon, and upon which said carriage is adapted to travel, and means for moving said carriage to and from said conveyer-frame, said means comprising a rack-bar connected to said conveyer-frame, a pinion meshing with said rack-bar, and means for rotating said pinion, said means comprising a hand-wheel and a worm-gear connecting said hand-wheel with said pinion, said worm-gear and pinion being inclosed in a casing.

[Claims 7 to 14 not printed in the Gazette.]

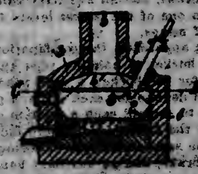
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[illegible] rocking of one member on the other.

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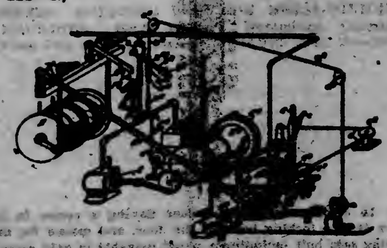
1,030,731. ELECTRIC FURNACE. [illegible] GOLDWALD, Aix-la-Chapelle, [illegible] RAIN, Ludwigshafen, Germany. Filed [illegible] No. 595,253. (Cl. 13—8.)



The combination in an electric furnace, [illegible] smelting oven of a furnace chamber, which [illegible] is provided with means for introducing the charge to be treated and so formed that one or more free spaces always will exist between the upper part of the [illegible] of the furnace chamber and the charge, [illegible] and into the same, with electrodes [illegible] through the oven at the [illegible] and free spaces into the charge [illegible].

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1,030,732. HOISTING APPARATUS. JOHN W. HAMMOND, Taunton, and JOSEPH F. DONAHUE, Raynham, Mass., assignors to Mead Morrison Mfg. Co., Boothbay, Maine, a Corporation of Maine. Original application filed Nov. 8, 1907, Serial No. 401,[illegible]. Divided and this application filed Mar. 24, 1911. Serial No. 616,899. (Cl. 214—4.)



2. In a hoisting apparatus, the combination with a trolley carrying engine, of a controlling device for it with standing drum, a traveling nut and trolley rollers all mounted under the trolley engine drum, and a reel valve and stop trolley rollers arranged to [illegible] with said drum, substantially as described.

3. In a hoisting apparatus, the combination with a trolley with wheels, a traveling nut for opening and closing pipe for the boiler, a reel rotating nut for said nut, [illegible] between the said drums, a pair of bevel gearings formed to connect said drums, a reel valve mounted under the trolley, a pressure fluid engine [illegible] to drive the drums, suitable reel valves for the [illegible] drum engine, a brake for the trolley drum, and manual means for control of the valves controlling operation

[illegible] and means for operating said locks and [illegible]

4. In a building construction, the combination with a body of a push or hauling rope and an opening and closing rope for the sashes, a rope winding drum for each rope, frictional devices for each drum, a pair of levers controlling levers to control each friction device, a rope winding drum for the sashes, a reversible field engine connected to drive the drums against the resistance of said engine, a lever and an auxiliary hand lever pivotally mounted upon one of the basket levers for controlling the pressure relief means and the brake.

[Claims 5 to 10 not printed in the Gazette.]

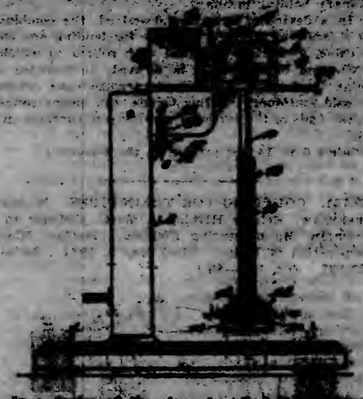
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1,008,752. EMERGENCY-EXIT-DOOR LOCK. RALPH C. HANSEN, Winona, and HARRY A. HANSEN, Centerville, N. Y.; HARRY A. HANSEN and LOUIS R. THOMSEN administrators of said HARRY A. HANSEN, deceased. Filed June 8, 1908. Serial No. 437,902. (Cl. 70—120.)



1. In combination with a door having a recess in its inner face, a locking bolt for the door, and means for withdrawing said bolt including a guard movable in said recess, and projections for holding the guard in a plane parallel with said face while in any of its adjacent positions.

2. In combination with a door having a recess in its inner face, a locking bolt for the door, and means for withdrawing said bolt including a guard movable in said recess and projections for holding the guard in a plane parallel with said face while in any of its adjacent positions, and [illegible]



1. In a [illegible] with a [illegible] and a [illegible] of a [illegible] and [illegible] and [illegible] [illegible] [illegible]

4. A metal cutting disk comprising a body portion having flat parallel sides and a transversely continuously disk-shaped peripheral portion, said disk having sharp cutting edges projecting laterally of the body portion and parallel with the axis of said disk and extending radially substantially from said face, substantially as described.

5. A metal cutting disk comprising a body portion having a periphery free which is cylindrical and transversely flat continuously about the disk, said disk having sharp cutting edges projecting laterally of the body portion and parallel with the axis of said disk and extending radially outwardly from said face, substantially as described.

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1,029,739. PROCESS OF PRODUCING PINACONES. FRITZ HOFMANN, KONRAD DELBRÜCK, and KURT MEISENBURG, Elberfeld, Germany, assignors to the Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Feb. 28, 1911. Serial No. 611,274. (Cl. 23—34.)

1. Process of producing a pinacone from a ketone which comprises treating such ketone with magnesium amalgam in the presence of a non-reactive diluent, and decomposing the organic magnesium compound thus produced, substantially as described.

2. Process of producing a pinacone from a ketone which comprises treating such ketone with magnesium amalgam in the presence of an aromatic hydrocarbon as a non-reactive diluent, and decomposing the organic magnesium compound thus produced, substantially as described.

3. Process of producing a pinacone from a ketone which comprises treating such ketone with magnesium amalgam in the presence of coal tar benzene as a non-reactive diluent, and decomposing the organic magnesium compound thus produced, substantially as described.

4. Process of producing pinacone from acetone which comprises treating acetone with magnesium amalgam in the presence of a non-reactive diluent, and decomposing the organic magnesium compound thus produced, substantially as described.

5. Process of producing pinacone from acetone which comprises treating acetone with magnesium amalgam in the presence of an aromatic hydrocarbon as a non-reactive diluent, and decomposing the organic magnesium compound thus produced, substantially as described.

6. Process of producing pinacone from acetone which comprises treating acetone with magnesium amalgam in the presence of coal tar benzene as a non-reactive diluent, and decomposing the organic magnesium compound thus produced, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

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1,029,740. PROCESS OF PRODUCING PINACONES. FRITZ HOFMANN and KONRAD DELBRÜCK, Elberfeld, and KURT MEISENBURG, Leverkusen, near Cologne, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Original application filed Feb. 28, 1911, Serial No. 611,274. Divided and this application filed June 1, 1911. Serial No. 630,627. (Cl. 23—34.)

1. Process of producing a pinacone from a ketone which comprises treating such ketone with magnesium amalgam in the presence of toluene as a non-reactive diluent.

2. Process of producing a pinacone from acetone which comprises treating acetone with magnesium amalgam in the presence of toluene as a non-reactive diluent.

3. Process of producing a pinacone from a ketone which comprises treating such ketone with mercuric chlorid and metallic magnesium in the presence of toluene as a non-reactive diluent.

4. Process of producing pinacone from acetone which comprises treating acetone with mercuric chlorid and metallic magnesium in the presence of toluene as a non-reactive diluent.

5. Process of producing pinacone from acetone which consists in treating 2 molecules of acetone with mercuric chlorid and 1 molecule of magnesium in the presence of toluene as a non-reactive diluent, decomposing the organic magnesium compound thus produced and finally isolating the pinacone, substantially as described.

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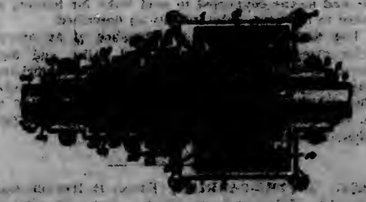
1,029,741. TEA AND COFFEE POT STRAINER. WILLIAM H. HOLDEN, Redfield, Ia., filed Jan. 4, 1912. Serial No. 669,891. (Cl. 53—3.)



A tea or coffee pot provided with an outlet opening, a rest located below the opening and formed with a groove and a recess, a projection located above the opening and formed with a recess, a removable strainer plate located in the groove of the rest, a rod connected with the strainer plate having one end located in the recess formed in the rest and the other end located in the recess of the projection, and a ball attached to the upper portion of the rod.

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1,029,742. CHANGE-SPEED GEARING. ERNST PETER HOLLIDAY and ERNST HOLLIDAY, New York, N. Y. Filed Apr. 30, 1910. Serial No. 558,028. (Cl. 74—34.)



1. A change speed gearing comprising, in combination with a driving shaft and a driven shaft, an intermediate rotary element, gear trains connected to rotate continuously with said intermediate rotary element and also having a separate rotary movement on their own axes, gear rings provided with gear faces, and means for causing the gear faces to engage over the gear disks and to cause them so doing.

2. In a change speed gearing, the combination with a driving shaft and a driven shaft, of an intermediate shaft section, a bevel gear connected to rotate with the driving shaft, bevel gears engaged with the beveled gear on the driving shaft and connected to rotate simultaneously with the intermediate shaft section and also having a separate rotary movement on their own axes, gear rings provided with gear faces, and means for causing the gear faces to engage over the gear disks and to cause them so doing, one of the last mentioned gear wheels engaging the intermediate gearing, means for holding one of the last mentioned gear wheels against rotation, and gears connected with the other gear wheel for the purpose of giving continuous rotation to the driven shaft, substantially as described.

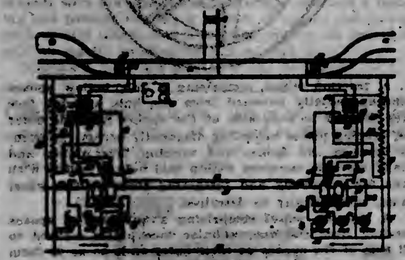
3. In a change speed gearing, the combination with a driving shaft and a driven shaft, of an intermediate shaft section, bevel gears connected to rotate with the driving shaft, beveled gears engaged with the beveled gears on the



driving shaft and connected to rotate with the intermediate shaft section, beveled gears connected to rotate with the driving shaft, beveled gears engaged with the beveled gears on the driving shaft and connected to rotate with and to rotate independently of the intermediate shaft section; two bevel gear wheels connected to the intermediate gearing, means for holding one of the last mentioned gear wheels against rotation, and a clutch mechanism for engaging the driven shaft with the intermediate shaft section, or with one of the beveled gear wheels which is engaged with the intermediate gearing, or with that one which engages the driven shaft with the intermediate shaft section.

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1,029,744. RAILWAY SIGNALING. JOHN B. HOLLIDAY, Williamsport, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed May 6, 1912. Serial No. 696,865. (Cl. 246—63.)



1. In combination, a stretch of single track over which trains move in both directions, signals adjacent each end of the stretch each comprising a signal element controlled by the polarized armature of a signal relay, and each relay for the control of the caution indication of each signal each including a contact controlled by the polarized armature of the corresponding signal relay, and a circuit for the control of the caution indication of each signal each including a contact controlled by the polarized armature of the corresponding signal relay, and a circuit for the control of the stop indication of each signal each including a contact controlled by the polarized armature of the corresponding signal relay, and a circuit for the control of the caution indication of each signal each including a contact controlled by the polarized armature of the corresponding signal relay, and each relay for the control of the stop indication of each signal each including a contact controlled by the polarized armature of the corresponding signal relay, and a circuit for the field winding of each relay, a non-polarized armature controlled by the polarized armature, circuits for the control of the caution indications of each signal each including a contact controlled by the non-polarized armature of the corresponding signal relay, a circuit for the control of the stop indication of each signal each including a contact controlled by the polarized armature of the corresponding signal relay, a circuit for the field winding of each relay, a non-polarized armature controlled by the polarized armature, means for governing the caution indication and means controlled by the armature of a train at each end of the stretch at either end for preventing the control of the signal at that end from causing the caution indication to be displayed at that end and for disconnecting the field winding of the relay at that end, whereby a train entering the stop indication to be displayed at that end.

2. In combination, a stretch of single track over which trains move in both directions, signals adjacent each end of the stretch each comprising a signal element controlled by the polarized armature of a signal relay, and each relay for the control of the caution indication of each signal each including a contact controlled by the polarized armature of the corresponding signal relay, and each relay for the control of the stop indication of each signal each including a contact controlled by the polarized armature of the corresponding signal relay, a non-polarized armature controlled by the polarized armature, means for governing the caution indication and means controlled by the armature of a train at each end of the stretch at either end for preventing the control of the signal at that end from causing the caution indication to be displayed at that end and for disconnecting the field winding of the relay at that end, whereby a train entering the stop indication to be displayed at that end.

[Claims 3 to 18 not printed in the Gazette.]

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1,029,745. CHANGE-SPEED GEARING. ERNST HOLLIDAY and ERNST PETER HOLLIDAY, New York, N. Y. Filed Apr. 30, 1910. Serial No. 558,029. (Cl. 74—34.)



1. In a change speed gearing, the combination with a driving shaft and a driven shaft, a gear secured upon each shaft, an outside ring-gear, of an intermediate re-

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...ning, a thereto-fixed sleeve surrounding said jaws and sliding and locking the jaws and blade in the adjusted position by the operator.

2. In a device for the combination of a handle, a blade fastened rigidly in one handle, notched near the inner end of said blade, an opening completely through said handle, spring jaws passing through said opening, a threaded sleeve surrounding said jaws and blade, coiled springs at the upper and lower ends of said handle and surrounding said jaws so that the jaws will operate to hold the screw to be inserted or engage the notches in the blade.

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1,039,782. METHOD AND APPARATUS FOR BURNING FUEL-OIL. Amanda T. Jones, Junction City, Kans. Filed July 20, 1909. Serial No. 508,609. (Cl. 158—1.)



1. The herein described method of burning fuel oil in furnaces, which consists in first meeting the oil, conducting the atomized oil to a space above the combustion chamber, dividing the oil into a multiplicity of drops or globules throughout an area substantially equal to that of the combustion chamber and permitting said drops or globules to drip into the combustion chamber, and introducing a current of air over an approximately equal area in the lower portion of the combustion chamber, substantially as described.

2. The herein described method of burning fuel oil which consists in first meeting the oil, feeding the atomized oil in the form of drops or globules, by gravity, into the upper portion of the combustion chamber, inducing a current of air to support combustion into the lower portion of the combustion chamber, and supplementing the induced draft by means of forced draft delivered into the combustion chamber adjacent to the front of the furnace, substantially as described.

3. An oil-burning furnace, having an open top flue arranged in the furnace front, said flue having a chamber or pocket communicating therewith and extending laterally over the combustion space of the furnace, and means for supplying oil to said chamber or pocket, substantially as described.

4. In an oil-burning furnace, an open top flue located in the furnace front and having a lateral chamber or cul-de-sac extending over the combustion space, an oil-distributer located in said chamber, a perforated partition between the combustion chamber and said distributer, and means for introducing oil to said distributer, substantially as described.

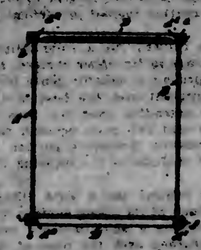
5. In an oil burning furnace a flue arranged in the front wall of said furnace and having a lateral chamber extending over the combustion space, and a lower leg below said lateral chamber, a series of open top distributers or conduits arranged within said chamber, a supply conduit or header arranged within the flue, means for introducing oil into said header, and a series of twyers communicating with the lower extension of the flue and with the combustion space, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

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1,039,783. CLOSURE FOR HERMETICALLY-SEALED FOOD-PRESERVING CANS. Baldwin H. Kannenberg, Maywood, Ill., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed May 15, 1909. Serial No. 496,906. (Cl. 220—24.)

1. As an article of manufacture, a can head having its curled retaining flange provided on its inner face with a ...



2. As an article of manufacture, a can head having its retaining flange provided on its inner face with a firmly adherent, thin, hard, dry, flexible, slightly elastic, fibrous, paper pulp coating, the inner face of said coating ...

3. As an article of manufacture, a can head having its retaining flange provided on its inner face with a firmly adherent, thin, hard, dry, flexible, slightly elastic, fibrous, paper pulp coating consisting of substances of such a character as to render it more firmly adherent and give it greater strength and body, the inner face of said coating corresponding to the adjacent face of the cover and horizontally united thereto, substantially as specified.

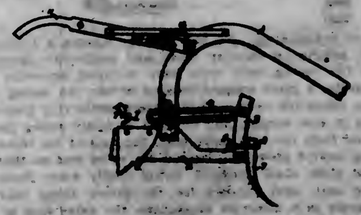
4. A head for double seamed cans having a seaming flange coated on its inner face with a durable paper pulp packing applied thereto in a liquid state and dried thereon, said packing being a thin, hard, dry, slightly elastic film and firmly adherent to the metal surface of the seaming flange, substantially as specified.

5. A head for double seamed cans, having a seaming flange coated on its inner face with a durable paper pulp packing applied thereto in a liquid state and dried thereon, said packing being a thin, hard, dry, slightly elastic film and firmly adherent to the metal surface of the seaming flange, the seaming flange of said head having an outer curled edge to protect the packing when dried and to confine it while drying, substantially as specified.

[Claims 6 to 8 not printed in the Gazette.]

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1,039,784. PLOW. Reuben L. Kilpatrick, Hempstead, Tex., assignor of one-fourth to W. C. Rollins and one-fourth to C. H. Walker, Prairie View, Tex. Filed Apr. 30, 1912. Serial No. 694,078. (Cl. 97—50.)



1. A device of the character described, comprised of a plow beam and a runner rigidly secured thereto, a stock pivoted at its lower end to the forward end of said runner, a suitable adjustment bar pivoted to the upper end of said stock and having a slidable engagement with the beam, a means for retaining said adjustment bar against movement relative to the beam, an adjustable share mounted on the lower end of the stock, and a guide blade secured to the runner and projecting downwardly therefrom.

2. A device of the character described, comprised of a plow beam having a downwardly extending lug, and a ...



...ending downwardly and rearwardly therefrom, a stock pivoted at its lower end to the forward end of said runner, a suitable adjustment bar pivoted to the upper end of said stock and having a slidable engagement with the beam, a means for retaining said adjustment bar against movement relative to the beam, an adjustable share mounted on the lower end of the stock, and a guide blade secured to the runner and projecting downwardly therefrom.

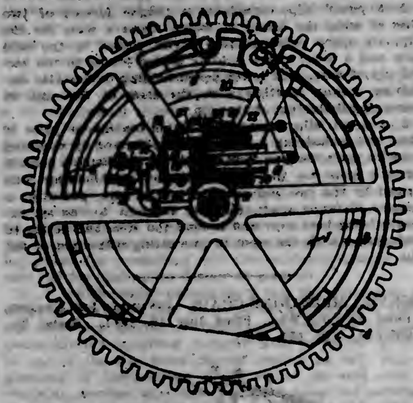
3. A device of the character described, comprised of a plow beam having a downwardly extending lug, one end of which is provided with a socket, a runner rigidly secured to the beam and having a stock connected to the front end thereof, a bar pivoted at its lower end in the socket of the lug and having its upper end slidably engaged with the beam, a share mounted on the lower end of the stock, and a guide blade secured to the runner and projecting downwardly therefrom.

4. A device of the character described, comprised of a plow beam having a downwardly extending lug, one end of which is provided with a socket, a runner rigidly secured to the beam and having a stock connected to the front end thereof, a bar pivoted at its lower end in the socket of the lug and having its upper end slidably engaged with the beam, a share mounted on the lower end of the stock, a guide blade secured to the runner and projecting downwardly therefrom, a bolt passing through the upper end of said bar, and a nut engaging said bolt and adapted to be screwed thereon to secure the bar in its adjusted position.

5. A device of the character described, comprised of a plow beam having a downwardly extending lug, one end of which is provided with a socket, a runner rigidly secured to the beam and having a stock connected to the front end thereof, a bar pivoted at its lower end in the socket of the lug and having its upper end slidably engaged with the beam, a share mounted on the lower end of the stock, a guide blade secured to the runner and projecting downwardly therefrom, a bolt passing through the upper end of said bar, and a nut engaging said bolt and adapted to be screwed thereon to secure the bar in its adjusted position, a clevis and a bolt extending through the upper end thereof, the said bolt passing through the upper beam, the said clevis, and engaging a nut mounted on said bolt and securing the same in said stock, said bolt and clevis being vertically adjustable relative to the stock, and a guide blade secured to the rear end of the runner and extending downwardly therefrom.

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1,039,785. OPERATING MECHANISM FOR FRICTION-CLUTCHES. Charles B. Kinn and Clarence B. Warren, Marion, Ohio, assignors to The Marion Steam Shovel Company, Marion, Ohio, a Corporation of Ohio. Filed May 25, 1912. Serial No. 699,265. (Cl. 192—14.)



1. The combination, with a rotary power transmitting member, a clutch member carried thereby, and an arm operatively connected with said clutch member, of a cylinder mounted on said power transmitting member having one end open, a piston mounted in said cylinder and comprising a head having a cylindrical extension, a piston rod pivotally connected to said piston at one end and connected at its other end with said arm, means for admitting fluid to said cylinder at the [illegible] and thereby separating parts connected with said [illegible] and said arm, respectively, to positively limit the [illegible] movement of said piston, and means to retain [illegible]

2. The [illegible] with a rotary power transmitting [illegible] carried thereby, and an arm [illegible]

3. The combination, with a rotary member, a clutch member mounted thereon, and an arm operatively connected with said clutch member, of a cylinder mounted on said rotary member and having one end open, a piston slidable in said cylinder, a piston rod connecting said piston to said operating arm, means to positively limit the outward movement of said piston, a fluid supply pipe connected with the closed end of said cylinder, a drain port communicating with said cylinder through a portion of said supply pipe, whereby the rotation of said rotary member will cause said cylinder into a position to cause it to drain through its supply pipe.

[Claim 4 not printed in the Gazette.]

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1,039,786. DISPENSING-CONTAINER. William A. Kirkpatrick and Charles R. Poorman, Abbyville, Kans. Filed Apr. 18, 1912. Serial No. 691,542. (Cl. 211—8.)



1. In an apparatus as described, a container having a ... provided with a ...

the said container outwardly from the holder, a locally held element which enters into the central opening of the container between the engaging a cutter to hold it when the container is moved into the holder, said container having a bottom wall provided with a central outlet for the passage of the straw both by the cutter, and a flexible retaining for the passage stated to allow the straw to frictionally pass therethrough.

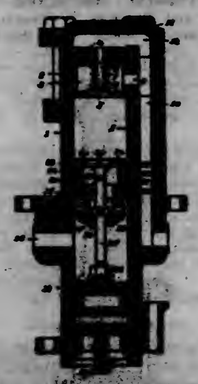
3. In an appliance of the character described, a container having an outlet in the upper end and a dished bottom to the said outlet, and a dished bottom, the said bottom having a central opening; a holder for the container, a plunger having a central rod that normally rests in the central opening in the dished bottom of the container and spring connections that join the holder and the container for normally extending the container to its outermost position, said holder having laterally projecting chambered portions for receiving said spring connections and forming a bearing therefor.

4. In a dispensing appliance of the character stated, a container having means at the bottom for directing the lower ends of the drinking tubes to the center of the bottom, said bottom having a central passage, the container having an outlet at the upper end, said means for directing the straws to be ejected toward the outlet, means over the outlet for frictionally engaging the projected straws, a fixed ejecting finger that projects into the passage in the bottom of the container and engages the lower ends of the lower end of the central straw, a holder for the container into which the latter is pluggable, and means connected with the holder and the container for normally thrusting the container to its outermost position.

5. In an appliance of the character stated, a holder, a container pluggable into the holder, means coacting with the container for ejecting articles therefrom when it is forced down into the holder, other means for normally moving the container to its outermost position, said means comprising vertically disposed pockets in the holder, said pockets each being longitudinally slotted and having their upper ends formed with inwardly bent hooks, cover studs that pass through the slots and engage the tops of the container and coiled springs that ride in the pockets and have one end secured to the cover studs and the other end to the hooks on the holder.

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1,000,767. COMPRESSOR. John C. Kinnon, Elgin, Ill. Filed Dec. 11, 1909, Serial No. 532,810. Renewed Feb. 26, 1912. Serial No. 680,600. (Cl. 230—61.)



1. In a compressor of the class herein described, the combination with the compressor cylinder and its outlet valve, of a working piston and a hollow piston having valves, a piston connecting rod connected with the working piston, a crank connected to said rod, and connecting thereto by a spider, a piston stroker, detachably secured to said crank, substantially as described.

2. In a compressor of the class herein described, the combination with the compressor cylinder and its outlet valve, of a working piston and a hollow piston having valves, a piston connecting rod connected with the working piston, a crank connected to said rod, and connecting thereto by a spider, a piston stroker, detachably secured to said crank, substantially as described.

3. In a compressor of the class herein described, the combination with the compressor cylinder and its outlet valve, of a working piston and a hollow piston having valves, a piston connecting rod connected with the working piston, a crank connected to said rod, and connecting thereto by a spider, a piston stroker, detachably secured to said crank, substantially as described.

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1,000,793. PENCIL AND PEN CLIP. Rose J. Simon, New York, N. Y. Filed Aug. 24, 1911. Serial No. 645,781. (Cl. 24—11.)



1. A pencil clip, embodying a tongue formed of two plies of wire, the longer of which forms a stem for the clip, an upper pencil-holding device joined to the said stem and a lower pencil-holding device joined to the second ply of wire, said lower pencil-holding device also embodying means connecting with the stem of the clip, in preventing separation of the clip.

2. A pencil clip formed of a single continuous piece of wire, and embodying a construction adapted by clasping the wire upon itself at one point to form a pencil-holding portion formed a stem for the clip, a pencil-holding portion formed by the two end portions of the wire, placed at a suitable distance apart, and with reference to the spring-tongue lying bent over and toward the said stem lying in conjunction with the same in preventing disengagement of the clip.

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1,000,799. MESSENGER-CHAIR. Jonathan Lee Kinney, Fond du Lac, Wis. Filed July 10, 1911. Serial No. 638,188. (Cl. 182—32.)



1. A [illegible] chair embodying a rim, an outwardly-projecting and circumferentially-extending element having a circumferential groove in one of the side faces thereof carried by said rim, a plurality of tire-forming blocks carried on said rim, each of said tire-forming blocks consisting of an outwardly-projecting tread portion and a laterally-projecting base portion, a retaining member operating to retain the tread portion of said tire-forming blocks and adjusted thereto on the base portions thereof, one side face of said member adapted to engage in said groove, thereby overlapping the opposite side portion of said members to retain them.

2. A vehicle wheel embodying a rim, an outwardly-projecting and circumferentially-extending element having a circumferential groove in one of the side faces thereof carried by said rim, a plurality of tire-forming blocks consisting each of an outwardly-projecting tread portion and a laterally-projecting base portion, a retaining member operating to retain the tread portion of said tire-forming blocks and adjusted thereto on the base portions thereof, one side face of said member adapted to engage in said groove, thereby overlapping the opposite side portion of said members to retain them, and means connecting said retaining member with the rim.

3. A vehicle wheel embodying a rim, an outwardly-projecting and circumferentially-extending element having a circumferential groove in one of the side faces thereof carried by said rim, a plurality of tire-forming blocks consisting each of an outwardly-projecting tread portion and a laterally-projecting base portion, a retaining member operating to retain the tread portion of said tire-forming blocks and adjusted thereto on the base portions thereof, one side face of said member adapted to engage in said groove, thereby overlapping the opposite side portion of said members to retain them, and means connecting said retaining member with the rim for compressing the base portion of said tire-forming blocks.

[Claims 4 to 8 not printed in the Gazette.]

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1,000,976. VEHICLE TIRE AND RIM. Howard H. Kerns, Akron, Ohio. Filed Jan. 27, 1911, Serial No. 605,110. Renewed Sept. 9, 1912. Serial No. 721,230. (Cl. 152—9.)



1. A rubber tread embodying a rim, an outwardly-projecting and circumferentially-extending element having a circumferential groove in one of the side faces thereof carried by said rim, a plurality of tire-forming blocks carried on said rim, each of said tire-forming blocks consisting each of an outwardly-projecting tread portion and a laterally-projecting base portion, a retaining member operating to retain the tread portion of said tire-forming blocks and adjusted thereto on the base portions thereof, one side face of said member adapted to engage in said groove, thereby overlapping the opposite side portion of said members to retain them.

2. A vehicle wheel embodying a rim, an outwardly-projecting and circumferentially-extending element having a circumferential groove in one of the side faces thereof carried by said rim, a plurality of tire-forming blocks consisting each of an outwardly-projecting tread portion and a laterally-projecting base portion, a retaining member operating to retain the tread portion of said tire-forming blocks and adjusted thereto on the base portions thereof, one side face of said member adapted to engage in said groove, thereby overlapping the opposite side portion of said members to retain them, and means connecting said retaining member with the rim for compressing the base portion of said tire-forming blocks.

3. A vehicle wheel embodying a rim, an outwardly-projecting and circumferentially-extending element having a circumferential groove in one of the side faces thereof carried by said rim, a plurality of tire-forming blocks consisting each of an outwardly-projecting tread portion and a laterally-projecting base portion, a retaining member operating to retain the tread portion of said tire-forming blocks and adjusted thereto on the base portions thereof, one side face of said member adapted to engage in said groove, thereby overlapping the opposite side portion of said members to retain them, and means connecting said retaining member with the rim for compressing the base portion of said tire-forming blocks.

[Claims 4 to 8 not printed in the Gazette.]

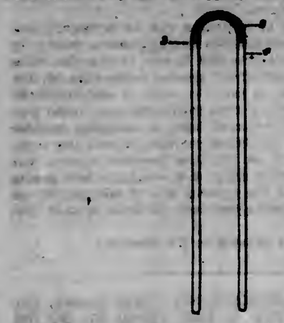
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1,000,781. COUNTING-MACHINE. Frank Lawton, Chicago, Ill. Filed June 9, 1909. Serial No. 501,566. (Cl. 120—6.)



1. In a machine of the character described, a main carrier having coin-pockets of approximately varying size, the bottoms of said pockets being yieldingly pressed to position the smallest coin-pocket at the top, a plurality of pivoted coin-gates, each of which is adapted to engage in said pockets and means connecting the gates with the main carrier and means connecting the gates with the main carrier and means connecting the gates with the main carrier

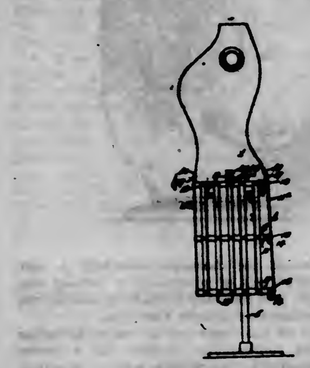
and joined to the shank, a shoulder at the junction of the neck and shank, and a wrapping of hair around the neck



fitting against the shoulder and filling up the neck to form a hair pin top of the desired size

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1,039,762. GARMENT-FORM. ISAAC LEVIN, New York, N. Y. Filed Dec. 30, 1911. Serial No. 668,705. (Cl. 223—18.)



In a garment form, a bust portion, an adjustable skirt portion, plates pivotally secured, at one end thereof, to said bust portion, and means carried by said plates adapted to releasably engage said skirt portion.

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1,039,764. COLLAPSIBLE GARMENT-FORM. ISAAC LEVIN, New York, N. Y. Filed May 16, 1912. Serial No. 697,624. (Cl. 223—18.)

1. A garment form comprising a bust portion and a skirt portion, said skirt portion comprising an upper band member secured to said bust portion, a lower band member, an intermediate band member and flat resilient strips pivotally connected to said band members, the lower end of said skirt portion being adapted for a partial rotation, whereby said strips can be partially rotated about their upper pivotal points and bowed intermediate the upper and lower pivotal points to cause said strips to assume a helical formation, so that said band members can be forced toward each other.

2. A garment form comprising a bust portion and a skirt portion, plates pivotally secured at one end thereof to said bust portion, a skirt portion comprising an upper band member pivotally mounted to the free end of each of said plates, a lower band member, an intermediate band member and flat resilient strips pivotally connected to said band members, the lower end of said skirt portion being adapted for a partial rotation, whereby said strips can be partially rotated about their upper pivotal points and bowed intermediate the upper and lower pivotal points to cause the strips to assume a helical formation so that the band-members can be forced toward each other.



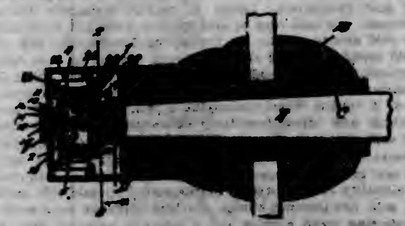
3. A garment form comprising a bust portion and a skirt portion, said skirt portion comprising a plurality of band members and a plurality of resilient strip members pivotally connected thereto, one of said band members being secured to said bust portion, the lower end of said skirt portion being adapted to have imparted to it a twisting movement, whereby said skirt portion can be collapsed, and means for preventing the rotation of said bust form during the twisting of said skirt portion.

4. A garment form comprising a support, a bust portion rotatably mounted thereupon, a plate provided with openings secured to the upper end of said form, a plate provided with lugs adapted to engage the openings in said plate, a spring adapted to keep said lugs in engagement with the openings in said plate and a bushing for said spring carried by said support.

5. A garment-form comprising a bust-portion and a skirt-portion, the skirt-portion comprising a plurality of horizontally disposed band-members and vertically disposed resilient strips pivotally connected to said bust-portion and said band-members, the lower end of said skirt-portion being adapted for a partial rotation whereby said strips can be partially rotated about their upper pivotal points and bowed intermediate the upper and lower pivotal points to cause the strips to assume a helical formation so that the band-members can be forced toward each other.

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1,039,765. HUB-WRENCH. CORNAN C. LEWIS, Portland, Me. Filed May 11, 1912. Serial No. 696,508. (Cl. 21—30.)



1. In a nut removing apparatus for wheel hubs, the combination with a nut provided with a lug or projection, a wrench mounted in the wheel hub, and a stop pivotally mounted in one of the jaws of the wrench and adapted to engage the lug on the nut.



...the first-mentioned supporting the wheel hub; the nut provided with a projection, a wrench pivotally connected to the wheel hub, a spring mounted on one of the jaws of the wrench, a stop pivotally mounted on said strap and adapted to engage said lug or projection.

3. A nut removing apparatus for wheel hubs comprising in combination with a [illegible] having a casing secured to its outer end, angular guide members secured to said casing, a plate having notches in its edges slidably engaging said guide members, a nut-engaging wrench casing formed integral with said plate and having its free margin beveled inwardly, the hub casing and plate being provided with aligned openings, the opening in the plate being threaded, a shaft rotatably mounted in the opening in the casing and threaded to engage the threaded opening in the plate, a knurled wheel connected to the outer terminal of said threaded shaft and adapted to rotate it, and means mounted on said wrench casing to engage a nut to indicate the proper relative positions of said wrench casing and nut to permit said wrench casing to engage the nut.

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1,039,766. MANIFOLDING SALESMAN'S CHECK. EDWARD E. LEWIS, Chicago, Ill., assignor to The General Manifold and Printing Company, Franklin, Pa., a Corporation of Pennsylvania. Filed Dec. 12, 1910. Serial No. 596,923. (Cl. 11—22.)



1. A manifolding salesman's check comprising, in combination with a suitable backer and one or more detachable duplicate check forms, a composite check consisting of a single piece of paper folded to form an outer original check section and [illegible] check section lying beneath said original check section, and a carbon sheet interfolded with said check forming sheet, having one section located between said original and record check sections, and a second section located beneath said record check section, the parts of said composite check being permanently stitched together at the top and bottom thereof, and means for securing said checks to said backer.

2. A manifolding salesman's check comprising, in combination with a suitable backer and one or more detachable duplicate check forms, a composite check consisting of a single piece of paper folded to form an outer original check section and a record check section lying beneath said original check section, and a carbon sheet interfolded with said check forming sheet, having one section located between said original and record check sections, and a second section located beneath said record check section, the parts of said composite check being permanently stitched together at the top and bottom thereof, and along the side margin formed by the free edges of said sheet.

3. A composite manifold check comprising a sheet of paper folded in two sections, an original check section and a record check section, and a carbon sheet folded in two sections, said sheet of paper and carbon sheet being interfolded with a carbon section between said original and record sections and a carbon section under said record check section, the parts of said composite check being permanently [illegible] at the top and bottom thereof.

4. A composite manifold check comprising a sheet of paper folded in two sections, an original check section and a

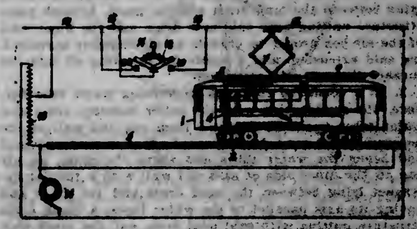


...check sheet, a carbon sheet interfolded between the said original and record check sections, and a carbon sheet interfolded between said record check section and said backer, said sheets of paper and carbon sheets being folded with the carbon sheets between the paper sheets, and said sheets of paper and carbon sheets being permanently stitched together at the top and bottom and along the side margin formed by the free edges of said sheet.

5. A manifolding salesman's check comprising, in combination, a suitable backer and one or more detachable duplicate check forms, a composite check consisting of a single piece of paper folded to form an outer original check section and a record check section lying beneath said original check section, and a carbon sheet interfolded between said original and record check sections, and a second section located beneath said record check section, the parts of said composite check being permanently stitched together at the top and bottom and along the side margin formed by the free edges of said folded sheet, and means for securing said checks to said backer.

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1,039,767. SYSTEM OF ELECTRICAL DISTRIBUTION. PAUL M. LINCOLN, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 5, 1909. Serial No. 472,452. (Cl. 191—41.)



1. A system of distribution comprising a plurality of line sections, means for supplying energy of different character to the respective sections, normally energized intervening sections, and means for connecting the same to the one or the other of the adjacent sections.

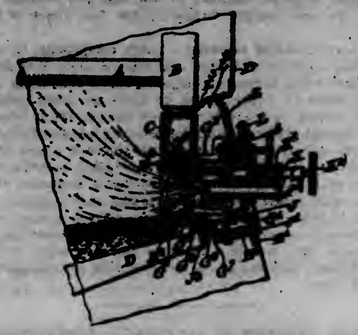
2. A system of distribution comprising a plurality of line sections, means for supplying energy of different character thereto, normally deenergized intervening sections, and means for connecting the intervening sections to the one or the other of the adjacent energized sections.

3. A system of distribution comprising a plurality of line sections, means for supplying energy of different character to the respective sections, normally deenergized intervening sections that are inserted from the main sections, and means for connecting the intervening sections to the one or the other of the adjacent energized sections.

4. The combination with a system of distribution comprising a plurality of normally energized line sections, means for supplying energy of different character to the respective sections, and normally deenergized intervening sections, of a vehicle supplied from the system, and means for connecting the intervening sections to the one or the other of the adjacent energized sections so as to enable the vehicle to pass from the intervening deenergized sections.

5. The combination with a system of distribution comprising line sections, means for supplying energy of different character to the respective sections, a normally deenergized intervening section, and means for connecting the normally deenergized section to [illegible] of the adjacent sections, of transformers [illegible] and means between the [illegible] devices for controlling the [illegible] devices.

1,029,764. OIL-BURNING APPARATUS FOR BOILER-FURNACES. Lemuel S. Lovett, Philadelphia, Pa., assignor to Schmidt and Heating Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 11, 1911. Serial No. 607,841. (Cl. 122—274.)



1. In a combined coal and oil burning furnace, the combination with the boiler housing, grate, water tubes, and mud drum adjacent one end wall of the housing and below the water tubes and above the grate, of an air box on the inner side of said end wall with a tubular extension lying between the mud drum and the grate, a cheek plate structure uniting with said mud drum and the inner wall of the air box proper to provide an air chamber surrounding said extension, and a nozzle for injecting oil into the furnace through said extension.

2. In a combined coal and oil burning water tube furnace, the combination with the boiler housing, grate and water tubes upwardly inclined from one end wall of the housing, and a mud drum located adjacent said end wall and below the water tubes and above the grate, an air box on the inner side of said end wall with a tubular extension lying between the mud drum and the grate and having its axis parallel to the water tubes, a cheek plate structure uniting with said mud drum and the inner wall of the air box to provide an air chamber surrounding said extension, and a nozzle for injecting oil into the furnace through said extension.

3. In a combined coal and oil burning water tube furnace, the combination with the boiler housing, having coal firing doorways formed in one end wall, grate, and water tubes, an air box on the inner side of said end wall between an adjacent pair of doorways and formed with a tubular extension at its inner side, above the grate and below the tubes, provisions for injecting oil through said tubular portion and provisions for regulating the flow of air through said air box into the furnace.

4. In a combined coal and oil burning water tube furnace, the combination with the boiler housing having coal firing doorways formed in one end wall, grate, and water tubes, an air box on the inner side of said end wall between an adjacent pair of doorways and formed with a tubular extension at its inner side, above the grate and below the tubes, provisions for regulating the flow of air through said air box into the furnace, provisions for forcing an air chamber surrounding said tubular extension.

5. In a combined coal and oil burning water tube boiler furnace, the combination with the boiler housing having doorways for coal firing formed in one end wall, grate, and water tubes, of an air box mounted on said end wall on the inner side thereof between an adjacent pair of doorways, a tubular air nozzle connecting through the inner wall of said air box and wall of the furnace with the combustion chamber of the furnace, said air box and projecting portion of the nozzle surrounding the grate, and oil burning means for delivering oil through said nozzle, and means for regulating the flow of air from said air box through said air nozzle into the combustion chamber of the furnace.

[Claims 6 to 9 not printed in the Gazette.]

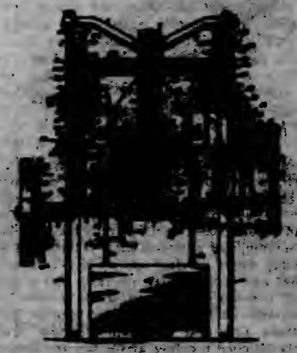
1,029,765. [illegible]
W. [illegible]
[illegible]
(Cl. 126—42.)



1. A self contained portable heater comprising a mesh guard, a supply pipe interwoven with said guard and forming a support for the side wall thereof and having a base, said supply pipe extending inwardly at the upper portion of said heater to the center, and a burner mounted upon said inwardly extending portion.

2. A heater comprising a mesh inclosing guard, a supply pipe extending around a portion of the lower end of said guard, in position to form a base for said guard, said supply pipe being intimately associated with the sides of said guard and a burner provided on said supply pipe.

1,029,770. MACHINE FOR SEALING CANS. Adolph Malmquist, Chicago, Ill., assignor to Perfect Vacuum Can Co., Chicago, Ill., a Corporation. Filed Oct. 20, 1911. Serial No. 655,209. (Cl. 153—54.)



1. In a machine for sealing cans in vacuum, the combination with a movable frame and a plurality of sealing chambers carried thereby, of a valve having two chambers, a single connecting means communicating with each of said chambers, and means for successively [illegible] chambers successively with each of said [illegible]

2. In a machine for sealing cans in vacuum, the combination with a revolving frame and a [illegible] a hood [illegible] with [illegible] valve [illegible] latter, [illegible] valve [illegible] latter [illegible]

3. In a machine for sealing cans in vacuum, the combination with a [illegible] and a [illegible] [illegible] and [illegible] [illegible] [illegible]

circuit devices supported thereon, a series of line circuits connected to said devices, respectively, and means carried by said sections for removably uniting said printing unit sections in operation.

3. In a telephone switchboard a foundation having electrical communicating apparatus located thereon with electric circuit connections thereto, in combination with a plurality of unit sections, a series of substation circuit terminals, a series of line circuit devices, one for each such terminal, arranged upon base pieces of substantially uniform dimensions and appearance forming part of said unit sections, and means, carried by said base pieces, for removably retaining said unit sections in superposed relation.

4. In a telephone switchboard a foundation having electrical communicating apparatus located thereon with electric circuit connections therefor, in combination with a series of independently removable unit sections of substantially uniform dimensions and appearance, each section having electro-responsive line indicating devices arranged thereon, and means, carried by said section, for removably uniting said section with an adjacent section.

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1,039,774. LUBRICATING PROJECTILE. August W. Melander, San Francisco, Cal. Filed Jan. 31, 1912. Serial No. 674,082. (Cl. 102—31.)



1. A projectile provided with a reduced shank, a disk carried by the shank and spaced from the projectile and being approximately of the same diameter as the projectile, said disk having openings which are located beyond the periphery of the shank, and a lubricating member carried upon the shank between the projectile and the disk.

2. A projectile having a reduced shank, a disk carried by the shank and provided with openings located beyond the periphery of the shank, a lubricating member mounted upon the shank between the projectile and the disk, and a plate slidably mounted upon the shank between the lubricating member and the disk.

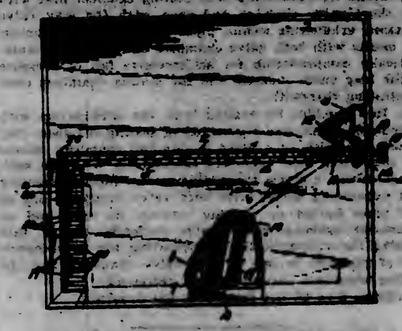
3. A projectile having a reduced shank, a disk carried by the shank and having openings located beyond the periphery of the shank and provided with a forward concaved face, and a lubricating member mounted upon the shank between the disk and the projectile.

4. A projectile having a reduced shank, a disk carried by the shank and provided with openings located beyond the periphery of the shank, said disk having a forward concaved face, a lubricating member located upon the shank between the projectile and the disk, and a plate slidably mounted upon the shank between the lubricating member and the disk.

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1,039,775. CALCULATOR. Henry A. Hopkins, Rochester, N. Y. Filed Nov. 2, 1911. Serial No. 658,177. (Cl. 235—60.)

1. In a calculator, the combination of a flat casing having a view slot in the top thereof, a tubular slide mounted within the casing so as to have various portions thereof brought under the view slot, an operating lever pivotally mounted within the casing and provided at one end thereof with a segmental rack, a pinion engaging the rack, a shaft carrying the pinion and extending through one side of the casing, a finger piece applied to the outer end of the shaft, and a link loosely connecting the opposite end of the lever to the slide.



2. In a calculator, the combination of a flat casing having a slot in the top thereof and provided at its sides with inwardly projecting ribs, a button applied to the bottom of the casing and provided at the top thereof with a rib, a tubular slide having the ends thereof resting upon the ribs at the sides of the casing and provided with a pair of downwardly projecting ribs dating upon opposite sides of the rib upon the button, the said tubular slide being movable to bring different portions thereof under the view slot, a rack, operating lever pivoted between its ends upon the bottom of the casing and provided at one end thereof with a segmental rack, a pinion engaging the said rack, a shaft rigid with the pinion and passing through the casing, a finger piece applied to the outer end of the shaft, and a link loosely connecting the opposite end of the lever to the slide.

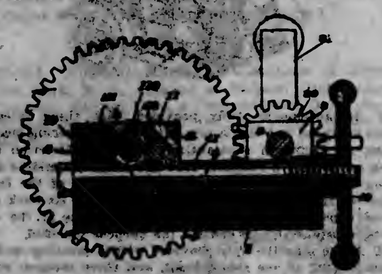
3. In a device for calculating the number of square feet in a piece of timber, the combination of a flat casing having a slot in the top thereof and provided at its sides with inwardly projecting ribs, a scale arranged at one edge of the view slot and having characters thereon adapted to indicate the width of the piece of timber in inches, a slide mounted within the casing and mounted upon the before mentioned ribs, the said slide being provided at one end thereof with a transverse series of characters adapted to indicate the length of the piece of timber in feet and arranged to be brought successively under the view slot as the slide is moved, the said slide being formed with a longitudinal scale for each dimension of the said transverse series of characters, the longitudinal scales being brought under the view slot simultaneously with the characters of the transverse series and cooperating with the scale at one end of the view slot to indicate the square feet contained by a piece of timber having the length in feet indicated by that one of the characters of the transverse series which is visible and the width indicated by the scale at the edge of the slot, an operating lever pivoted at its ends upon the bottom of the casing and provided at one end thereof with a segmental rack, a pinion engaging the rack, a finger piece rigid with the pinion, said finger piece projecting upon the outside of the casing, and a link loosely connecting the end of the lever to the slide.

4. A device for calculating the number of square feet in a piece of timber, the combination of a flat casing having a slot in the top thereof and provided at its sides with inwardly projecting ribs, a scale arranged at one edge of the view slot and having characters thereon adapted to indicate the width of the piece of timber in inches, a slide mounted within the casing and mounted upon the before mentioned ribs, the said slide being provided at one end thereof with a transverse series of characters adapted to indicate the length of the piece of timber in feet and arranged to be brought successively under the view slot as the slide is moved, the said slide being formed with a longitudinal scale for each dimension of the said transverse series of characters, the longitudinal scales being brought under the view slot simultaneously with the characters of the transverse series and cooperating with the scale at one end of the view slot to indicate the square feet contained by a piece of timber having the length in feet indicated by that one of the characters of the transverse series which is visible and the width indicated by the scale at the edge of the slot, an operating lever pivoted at its ends upon the bottom of the casing and provided at one end thereof with a segmental rack, a pinion engaging the rack, a finger piece rigid with the pinion, said finger piece projecting upon the outside of the casing, and a link loosely connecting the end of the lever to the slide.



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1,039,776. SHEET-METAL HEADING MACHINE. Herman Mees and Reinhold F. Seemann, Clinton, Ill. Filed Aug. 11, 1910. Serial No. 576,788. (Cl. 153—42.)



1. In combination, in a heading machine, a base provided with an upwardly extending longitudinal fixed die member, a movable die member parallel therewith and adapted to slide upon the top face of said base toward and from the fixed member and vertically thereto, said movable die member having portions overlapping the portion of the fixed member having vertical movement of said movable die member toward and from said fixed die member, means for moving said movable die member toward and from said fixed die member, and means for clamping the material therebetween, the fixed member to form a head through said material when clamped by said dies and having end portions projecting beyond the movable die member, a reciprocable header rod arranged in the trough and having end pieces normally in reach with said fixed parts and of such transverse width as to enter the space between said fixed parts when said header rod is moved toward the movable die member, substantially as described.

2. In a heading machine, in combination, a base provided with a fixed die member, a movable die member parallel with said fixed member and movable laterally toward and from the same and vertically fixed with respect thereto, means for reciprocating and oscillating said movable die member toward and from the fixed die member, the adjacent longitudinal portions of said members being longitudinally recessed to constitute a head-forming trough having a contracted tangential entrance throat when said members are secured together in clamping relation, one of said members having its said recess tangentially curved and forming the remaining portion of the trough with a longitudinal overhanging projecting toward said vertical fixed die member, the opposite wall of said throat and at the entire curved inner side thereof of the trough, and means for drawing the work down said vertical fixed die member in said trough and up under said overhanging [illegible] substantially as described.

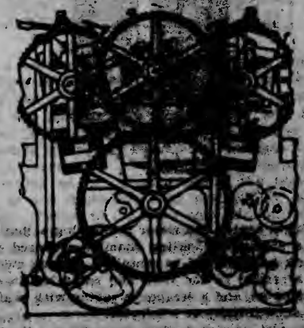
3. In a heading machine, in combination, a base provided with a fixed die member, a movable die member parallel with said fixed member and movable laterally toward and from the same and vertically fixed with respect thereto, means for reciprocating and oscillating said movable die member toward and from the fixed die member, the adjacent longitudinal portions of said members being longitudinally recessed to constitute a head-forming trough having a contracted tangential entrance throat when said members are secured together in clamping relation, one of said members having its said recess tangentially curved and forming the remaining portion of the trough with a longitudinal overhanging projecting toward said vertical fixed die member, the opposite wall of said throat and at the entire curved inner side thereof of the trough, and means for drawing the work down said vertical fixed die member in said trough and up under said overhanging [illegible] substantially as described.

4. A heading machine forming trough provided with a contracted top entrance throat [illegible] in one side of the longitudinal center of the trough having a vertical tangential work-gripping wall [illegible] at the receiving side of the trough and generally opposite said throat part of the trough, and with a permanent top overhanging part of the work-receiving side and over the longitudinal center of the trough and fixed with respect to said wall, in combination with a longitudinally-removable header rod in said trough and under said overhang.

5. In a heading machine, in combination, a base provided with a fixed die member forming a head-forming trough [illegible] radially removable header rod mounted [illegible] said trough and provided with end gears, at least one of said gears being removable from said rod, an [illegible] shaft carried by said base and parallel with said rod and having gears adapted to mesh with the gears of said rod and provided with a radial stop arm projecting from the side face thereof and rigid therewith and adapted to engage the outer face of one of said header rod gears for the purpose substantially as described.

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1,039,777. MULTICOLOR PRINTING PRESS. Rudolf Mierzinski, Chicago, Ill., assignor to Mierzinski Printing Press and Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 29, 1912. Serial No. 673,478. (Cl. 101—111.)



1. In a multi-cylinder printing press, the combination with the impression cylinder, of a [illegible] cylinder [illegible] with said impression cylinder, a [illegible] cylinder [illegible] with said impression cylinder, a [illegible] cylinder [illegible] with said impression cylinder,

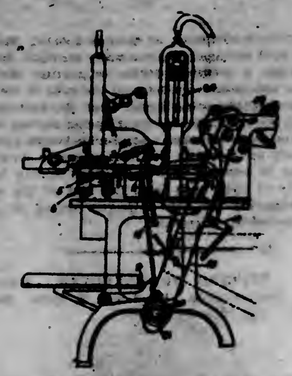


A [illegible] device for [illegible] consisting of a [illegible] [illegible] [illegible]

[illegible] for said blank, as and for the purposes set forth; and, finally, in the combination with the above mentioned instrumentalities, of means for the device including means to reciprocate said number and said rubber frame lengthwise of the trough and to simultaneously raise and lower the rubber frame.

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1,030,758. ENVELOP-MACHINE. ABRAHAM NOVICK, Brooklyn, N. Y., assignor, by mesne assignments, to Bright Envelope Company, a Corporation of South Dakota. Filed Jan. 23, 1911. Serial No. 604,012. (Cl. 93—26.)



1. In an envelop machine, means for holding an envelop blank, means for folding a lap flap and an inspection strip on said blank, and means for placing and securing a guard strip between the body of the envelop blank and said inspection strip.

2. In an envelop machine, means for holding an envelop blank, means for folding a lap flap and an inspection strip on said blank, and means for placing a guard strip between the body of said blank and said inspection strip, means for folding and securing side flaps on the said inspection strip and means for holding said guard strip stationary while the side flaps are being folded.

3. In an envelop machine, means for holding an envelop blank, means for folding a lap flap and an inspection strip on said blank, means for placing a guard strip between said inspection strip and body of the blank, and means for folding side flaps upon said guard strip and securing said side flaps to said guard strip.

4. In an envelop machine, means for holding an envelop blank, means for folding an inspection strip on said blank, means for placing a guard strip between the said inspection strip and the body of the blank, and means for folding side flaps upon said guard strip and securing said side flaps to said guard strip.

5. In an envelop machine, a folding formation, a gluing device for gluing an envelop blank thereto, a knife shaped retaining member pivotally related to the folding formation for placing an envelop blank thereon, a knife shaped retaining member pivotally and positively related to the first retaining member and adapted to enter the slot in the former on folding the blank on the formation, and means for closing the envelop blank while being retained by said knife shaped members.

[Claims 6 to 9 not printed in the Gazette.]

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1,030,759. CURTAIN-POLE. HARRY B. NELSON, Bloomington, Ill. Filed June 5, 1912. Serial No. 701,525. (Cl. 160—35.)

1. A curtain pole, comprising a longitudinally slotted tubular member, curtain attaching hooks each formed of a single piece of wire and having a curved enlargement intermediate its ends arranged within said tubular member



normally extending through said slot, and a curtain attaching member adjustable in the hollow member and having a plurality of curtain attaching projections, the said projections extending into slots of the said tubular member, and said projections being so relatively proportioned upon said attaching member and thereof being provided with a downwardly projecting spur.



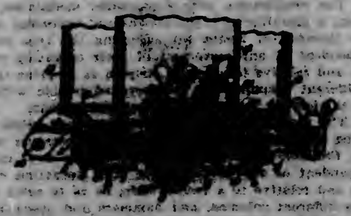
2. A curtain pole comprising telescopically engaged tubular members, said members being provided with coinciding longitudinal slots, and curtain attaching members adjustable in the lower pole section said hooks and portions extended through said slots and adapted to oppositely engage the walls thereof to positively engage and hold said pole sections against relative longitudinal movement, said members being provided upon their ends with curtain attaching spurs.

3. A curtain pole comprising telescopically engaged extensible tubular sections, said sections being provided with coinciding longitudinal slots, and curtain attaching members adjustable within the lower pole section and entering an opposite groove on the walls thereof on opposite sides of said slot, said members being extended from the circular portion through the slots in said pole sections and having its said portions disposed in opposite directions upon the periphery of the outer section, said members being provided upon each extremity with a curtain attaching spur.

4. A curtain pole comprising telescopically engaged extensible tubular sections provided with coinciding longitudinal slots, curtain attaching members arranged within the lower section and having upon the walls thereof on opposite sides of the slot to exert an outward pressure and frictionally contact the inner and outer pole sections to prevent their casual relative longitudinal movement, said curtain attaching members extending through the slots in the pole sections and having downwardly extending and pointed bearing spurs for other pole sections or provided upon their extremities with curtain attaching spurs.

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1,030,760. SEWING-MACHINE. FRANK E. FASSMAN, Springfield, Ohio, assignor to The American Reading Machine Company, Springfield, Ohio, a Corporation of Ohio. Filed Feb. 25, 1910. Serial No. 546,216. (Cl. 111—6.)



In a sewing machine comprising a main support, an [illegible] support, [illegible] and [illegible] said support, [illegible] said [illegible] and [illegible] said [illegible] and [illegible] said [illegible] and

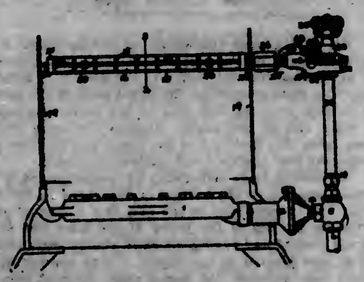
a plurality of type wheels mounted for independent rotation on said axle, means carried by the casing for holding the type wheels in adjusted position, and means engaging the spindle for securing the type wheels in the casing and the cover on the open end of the latter.



2. In a hand stamp, an open-ended cylindrical casing having a flattened portion on one side, said flattened portion having a transverse slot, a pair of inwardly-extending ridges on the inner face of the casing opposite the transverse slot, a spindle mounted in the casing, a hollow axle sleeved onto said spindle, a plurality of type wheels mounted on the axle for independent rotatable adjustment thereon and having radially disposed teeth bearing type characters, a tooth of each wheel being received in the space between said ridges whereby the wheels are held in adjusted position, a cover for the open end of said casing through which the spindle and hollow axle extends, means engaging the spindle for securing the cover to the casing and the type wheels within the casing, and a fixed rubber stamp carried by the flattened portion of the casing in line with said slot.

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1,089,798. CUT-OFF DEVICE FOR FLUID-FUEL BURNERS. JULIUS W. PIETZNICKI, Erie, Pa., assignor to Security Savings and Trust Co., trustee, Erie, Pa., a Corporation of Pennsylvania. Filed Jan. 17, 1910, Serial No. 538,291. Renewed Feb. 19, 1912. Serial No. 678,747. (Cl. 67—117.)



1. The combination of a burner, a valve which controls the flow of fluid to the burner, a motor for closing the valve, means automatically actuated for locking the valve against movement through the energy of the motor, a thermostatic element that is subjected to the heat from the burner and a device actuated by the movement of the thermostatic element from variations in temperature in either direction to unlock the valve to shut off the flow of the fluid.

2. The combination of a burner, a manually operative valve controlling the flow of fluid to the burner, a thermostatic element which is subjected to the heat from the burner, a motor for closing the valve, a pawl for locking the valve against closing, devices acting with a movement of the thermostatic element through variations in temperature in either direction to withdraw the pawl to release the valve and to shut off the flow of the fluid.

3. The combination of a fluid controlling valve, a thermostatic element, a motor for operating the valve, a pawl for locking the valve in an open position, devices connecting the pawl with the thermostatic element, comprising a reversing mechanism which will operate the movement of the thermostatic element to the pawl and reverse the direction of the movement, and a connection connecting the thermostatic element with the pawl whereby it will move the pawl in the direction of the movement of the thermostatic element.

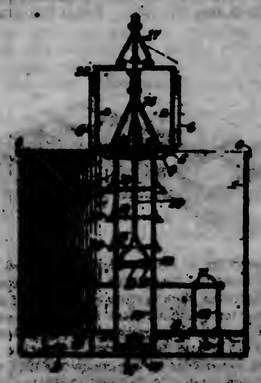
4. The combination of a burner, a valve controlling the flow of fluid to the burner, a thermostatic element that is subjected to heat from the burner, a device for closing the valve, a pawl for locking the valve in open position, devices actuated by the thermostatic element for conveying the action of the thermostatic element to the pawl to withdraw the pawl with a movement of the thermostatic element in either direction, said devices being initially disconnected and being thrown into connection by the action of the thermostatic element under normal heat from the burner, and acting on the pawl to move the pawl to a position to unlock the valve to shut off the flow of fluid on the temperature of the thermostatic element in either direction from the normal only with a pre-determined low temperature of the element.

5. The combination of a fuel controlling valve, a motor for actuating said valve, a locking plate connected and moving with the valve, a cam on the locking plate, a locking pawl acting on the locking plate to hold the valve in different positions varying the opening of the valve, a thermostatic element, a connecting pawl between the locking pawl and the thermostatic element for conveying the movement of the thermostatic element in one direction to the locking pawl, said connecting pawl being adapted to be thrown out of engagement with said locking pawl by said cam on the controlling valve in closed, and devices acting upon the locking pawl and actuated by the thermostatic element for releasing the locking pawl when the thermostatic element moves in the opposite direction.

[Claims 6 to 8 not printed in the Gazette.]

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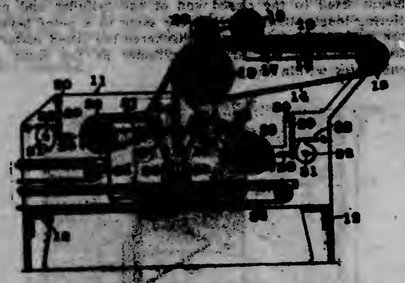
1,089,794. DISH-WASHING MACHINE. LOUIS F. FRANK, North Tonawanda, and ULYSSES J. ROMAN, Tonawanda, N. Y., assignors to The Kitchenette Company, Buffalo, N. Y., a Corporation of New York. Filed June 19, 1911. Serial No. 633,603. (Cl. 141—5.)



A dish washing machine comprising a tank, a cover for said tank having a normally fixed section extending substantially across the top of the tank and two vertically swinging sections pivoted on opposite sides of the fixed section, a pump cylinder arranged in the tank, a piston arranged in the cylinder, a rod connected with the piston, a lever normally supported on the fixed cover section, and a link connecting said rod and lever and projecting through the fixed cover section and adapted to be engaged by the swinging cover sections to move said rod and lever and piston in one direction.



1,089,801. MACHINE FOR DIVIDING DOUGH AND THE LIKE. OTTO H. FRIEDRICH, St. Louis, Mo. Filed Oct. 6, 1911. Serial No. 653,603. (Cl. 107—5.)



1. In a machine for cutting dough and the like, the combination with a main conveyer, of means for cutting the dough into strips, a pair of secondary conveyers each adapted to receive alternate strips from said main conveyer, and means cooperating with each of said secondary conveyers for moving the strips transversely.

2. In a machine for cutting dough and the like, the combination with a main conveyer, of means for cutting dough thereon into strips, a pair of secondary conveyers each adapted to receive alternate strips from said main conveyer, means cooperating with each of said secondary conveyers for moving the strips transversely, and a transverse conveyer for removing the trimmed edges of the dough.

3. In a machine for cutting dough and the like, the combination with a main conveyer, means for cutting dough into strips, a pair of secondary conveyers each adapted to receive alternate strips from said main conveyer, means cooperating with each of said secondary conveyers for moving said strips transversely, and a transverse conveyer arranged between said secondary conveyers for receiving the removed edges of the dough.

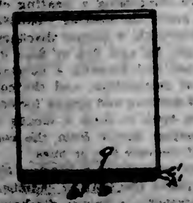
4. In a machine for cutting dough and the like, the combination with a main conveyer, of means for cutting the dough into strips, a pair of secondary conveyers each adapted to receive alternate strips from said main conveyer, means for transversely dividing said strips, and a pair of conveyer sections each above the other and adapted to receive the severed pieces from said secondary conveyers.

5. In a machine for cutting dough and the like, the combination with a main conveyer, of means for cutting the dough into strips, a pair of secondary conveyers arranged below and at approximately right angles to the point of discharge of said main conveyer and adapted to receive alternate strips therefrom, means for transversely dividing the strips, and conveyers for conveying the severed pieces from said receiving conveyers.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,796. COUNTER-VENDING. JOHN ALEXANDER PEEL, Toronto, Ontario, Canada. Filed Dec. 22, 1911. Serial No. 667,515. (Cl. 220—137.)



In a counter vending box, the combination with a receptacle having a [illegible] provided with [illegible]

[illegible] of a pad located at the bottom thereof and [illegible] said pad, said [illegible] and said [illegible] and a covering [illegible] said [illegible] completely enclosing said [illegible] a unitary article.

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1,089,797. COMBINED CAN-TOP HOLDER AND MARKER. AUGUST POHLMAN, Akron, Ohio. Filed June 6, 1912. Serial No. 702,961. (Cl. 101—36.)



1. A can top marker comprising a spindle, marking elements carried thereby and composed of [illegible] having adjusting members adjustably connected with said [illegible] and means for engagement by said adjusting members for locking said marking elements in [illegible] or inoperative position.

2. A can top marker comprising a hollow spindle having a hollow head at one end thereof, a plurality of marking elements operative longitudinally in said spindle and adapted to be projected beyond the said spindle, the [illegible] carrying the[m], both-shaped members [illegible] of the [illegible] at one end of said elements and [illegible] means on said head for engagement by [illegible] members for locking said elements in adjusted [illegible].

3. A combined can top holder and marker [illegible] a hollow spindle having a plurality of marking [illegible] longitudinally movable therein and adapted to be projected beyond one end thereof, [illegible] members at the other end of said spindle and [illegible] for holding the [illegible] in projected or withdrawn [illegible].

4. A combined can top holder and marker [illegible] a hollow spindle having a plurality of marking elements longitudinally movable therein and adapted to be projected beyond one end thereof, hook-shaped members having inwardly extending [illegible] adapted to be projected beyond the said [illegible] and [illegible] with said marking elements, and a plurality of longitudinally spaced apertures in said [illegible] for engagement by said hooked-shaped members to lock said marking elements in projected or withdrawn [illegible].

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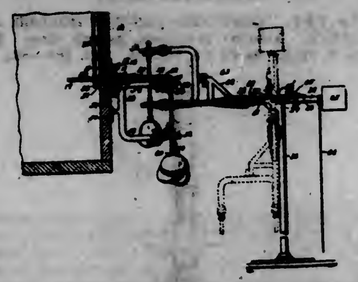
1,089,799. MAIL-BAG CATCHER AND DELIVERER. GEORGE W. PEABODY, Lambertville, Ind. Filed Dec. 21, 1912. Serial No. [illegible]. (Cl. [illegible].)

1. In a mail-bag catcher and deliverer, a mail-bag receiver adapted upon an arm adapted to swing from a horizontal, a second mail-bag receiver located upon the outer extremity and thereof transversely to the former, means of mail bag, a latch upon the arm to hold the [illegible] in folded position, and tripping means upon the second receiver adapted to release the latch upon the interception of a mail bag between the members to trip the same.

2. In a mail-bag catcher and deliverer, a receiver [illegible] adapted upon an arm adapted to swing from a horizontal position, a second mail-bag receiver located upon the outer extremity and thereof transversely to the former, means of mail bag, a latch upon the arm to hold the [illegible] in folded position, and tripping means upon the second receiver adapted to release the latch upon the interception of a mail bag between the members to trip the same.

3. In a mail-bag catcher and deliverer, a receiver [illegible] adapted upon an arm adapted to swing from a horizontal position to a vertical having a fixed prong adapted to swing down against the side of the bar, the fixed prong provided with a movable prong having projection against the fixed prong and adapted for move-

spond therewith; a latch upon the car for holding the fork in projected extended position, and a tripping cam slotted upon the movable prong for engagement with the latch to release the fork upon the reception of a mail bag between the prongs.



3. In a mail bag catcher and deliverer, a catching fork, having two prongs, one of which is fixed and the other of which is movable, the free end of the movable prong being adjacent the fixed end of the fixed prong, and the said fork having extended and retracted positions, a latch for holding said fork in extended position, and operating means for the latch positioned to be engaged by the free end of the movable prong of the fork.

4. In a mail bag catcher and deliverer, a pivoted fork adapted for engagement against a car and to swing down against the side thereof, a latch associated with the fork to hold the same in a raised extended position, and releasing means carried upon the fork for engagement with the latch upon the receipt of a mail bag within the fork.

5. In a mail-bag catcher and deliverer, a hinged fork adapted for engagement across the door of a car, a catch upon the car for engagement with the fork to hold the same in extended position from the door of the car, and releasing means carried upon the fork for engagement with the catch upon the receipt of a mail bag within the fork, whereby the fork moves down through the door of the car.

[Claims 6 to 15 not printed in the Gazette.]

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1,039,790. SUSPENSION-CHAIN FOR HIGH-PRESSURE ELECTRIC TRANSMISSION-LINES. CHARLES MARIE EDOUARD PRIESTLEY, Paris, France, assignee to Società Volsovolti, Priestley et Compagnie, Paris, France. Filed Dec. 20, 1910. Serial No. 598,645. (Cl. 173—326.)



In a suspension insulator, a link comprising a pair of saddles disposed at right angles to each other, each saddle having a diametrically located opening therethrough, said openings adapted to receive loops for securing the links together, and a continuous flange, or wing extending around each end of each opening in each saddle, said flange being substantially straight in transverse section and of uniform cross-section throughout, that part of the flange adjacent one opening serving as a guide shed to protect the loop passing through the other opening.

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1,039,866. VEGETABLE-SLICER. ANTONIO PIZZINI, Chicago, Ohio. Filed May 4, 1912. Serial No. 695,207. (Cl. 146—61.)

1. In a vegetable cutter, the combination with a frame having a hopper, of a cylinder rotatably mounted in the frame within the hopper, and having a series of longitudinal slots, a series of knives each disposed in one of said slots and having a cutting edge projecting beyond the periphery of the cylinder, and means for holding the knives in said slots.

2. In a vegetable slicer the combination with a frame having openings in its end walls and provided with a hopper, of a cylinder rotatably mounted in said openings, means on the frame to removably retain the cylinder in position, said cylinder being closed at one end and open at its other end, and provided in its exterior wall with a plurality of cutting knives and slots adjacent thereto through which the cut material passes into the cylinder, means fixed to the closed end of the cylinder to discharge the communicating material from the open end thereof, and a crank fixed to the closed end of the cylinder whereby the same may be rotated.

3. In a vegetable slicer the combination with a frame having openings in its opposed walls and one member flange extending into one of said openings, said frame being also provided with a hopper and an inclined discharge lip extending downwardly from one of said openings, of a rotary cylinder mounted in the openings of the frame, pivoted plates mounted upon one of the frame walls to engage said cylinder and removably retain the same in the frame, said cylinder being closed at one end and open at the other end and also having a plurality of cutting knives in its exterior wall, and slots adjacent said knives through which the cut material passed into the cylinder, and a crank on the closed end of the cylinder to rotate the same, and a discharging cam fixed to the closed end of the cylinder to discharge the communicating material from the open end of the cylinder over the lip of the frame and into a receptacle arranged beneath the same.

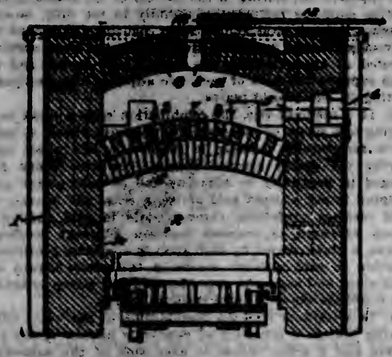


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1,039,891. FURNACE. WILLIS S. QUIGLEY, Rockaway Park, N. Y. Filed June 3, 1912. Serial No. 702,634. (Cl. 75—40.)

1. A furnace comprising a heating chamber, a combustion chamber above the heating chamber and in free communication therewith, a burner discharging into the combustion chamber, an exit flue or flues extending from the heating chamber and forming a normal means of escape for products of combustion, and the combustion chamber having a relief opening and means for controlling the same arranged when open to form a means of escape of products of combustion direct from the combustion chamber independent of the exit flue or flues.

2. A furnace comprising a heating chamber, a combustion chamber above the heating chamber and in free communication therewith, a burner discharging into the combustion chamber, [illegible] with the heating chamber [illegible] exterior of the furnace during the [illegible] with means of escape from the furnace of products of combustion, the combustion chamber having a relief opening in the top thereof arranged to form a means of escape for products of combustion direct from the combustion chamber and wholly apart and independent of the escape afforded by the exit flues, and an adjustable closure to the said relief opening.



3. A furnace comprising a heating chamber, a combustion chamber above the heating chamber, a burner discharging into the combustion chamber, a wall between the combustion chamber and heating chamber provided with openings to permit the products of combustion from the burner to pass all down into the heating chamber, the combustion chamber being provided with a relief opening in the top thereof arranged when open to permit the heat in the combustion chamber to escape direct through the roof of said chamber, and an adjustable closure controlling the said relief opening.

4. A furnace comprising a heating chamber, a combustion chamber above the heating chamber, a burner discharging in through the side of the combustion chamber, a wall between the combustion chamber and heating chamber provided with passes therein, to permit heat in the combustion chamber to pass on down into the heating chamber, an arched roof to the combustion chamber provided with a relief opening therein substantially at the highest point of the arch arrangement when open to permit free escape of the heat in the combustion chamber, and an adjustable closure to the said relief opening.

5. A furnace body having a heating chamber in the lower part thereof, and a combustion chamber above the heating chamber in free communication with the same, a burner discharging laterally through the side of the combustion chamber, the combustion chamber having an arched roof for directing the heat down into the heating chamber, said roof having a relief opening therein substantially at the top of the arch arranged to provide free escape for the heat in the combustion chamber when the same is open, and an adjustable closure for said relief opening.

[Claim 6 not printed in the Gazette.]

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1,039,902. PRESERVING FOOD. FRANK L. RAMSEY, Brooklyn, N. Y. Filed May 2, 1912. Serial No. 694,582. (Cl. 99—8.)

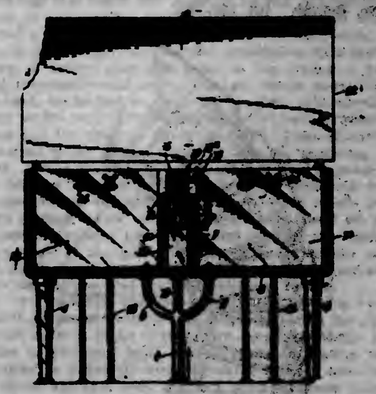


1. In the preserving of food by sterilization in closed containers, the process which [illegible] containing food to be preserved at a given temperature, applying a cap having a gas-escaping [illegible] to said surface a layer of heated [illegible] vulcanizable rubber, a volatile solvent and a [illegible] agent, the proportion of raw rubber to vulcanizing agent being such as will give an inert and permanent unvulcanized rubber at said temperature, and driving off the solvent by a gentle, non-vulcanizing heat to form a vulcanizable sealing layer, closing the can by applying said cap and heating the assemblage to said temperature to sterilize the food and vulcanize said sealing layer.

2. In the preservation of food by sterilization in closed containers, the process which comprises [illegible] a can bottom and can top having gas [illegible] surfaces by applying to said surfaces layers of a heated composition comprising volatile rubber solvent, inert gases and sufficient vulcanizing agent to vulcanize such rubber in the subsequent sterilization, driving off said rubber solvent by a gentle non-vulcanizing heat to form sealing vulcanizable layers, applying the can body or the bottom, filling the can with the food, applying the top and heating the assemblage to a temperature sufficient to sterilize the food and vulcanize the sealing layers.

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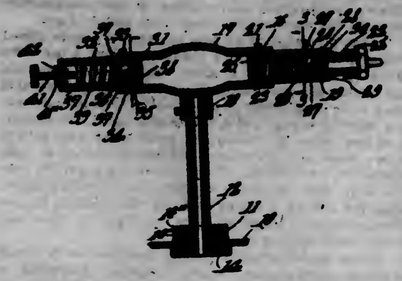
1,039,903. WASHTUB. JOSEPH J. HELLEY, Newark, N. J. Filed June 29, 1911. Serial No. 635,927. (Cl. 68—21.)



1. The combination of a tub, a pair of partitions mounted therein and suitably spaced apart, each partition being provided with a gap, the space between the partitions being adapted to receive a wringer, the bottom of the said gaps being disposed below the upper edge of the said tub whereby material may pass through the wringer from one side of the tub to the other, together with a drain pipe communicating with the said space and the said sides of the tub.

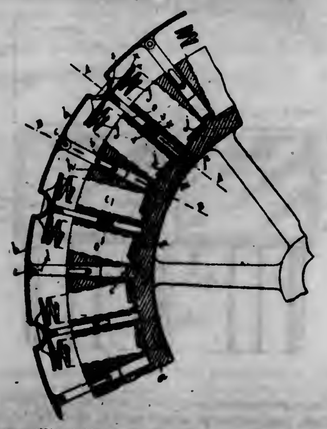
2. The combination of a tub, a pair of partitions within the tub, the partitions being suitably spaced apart, the space between the partitions being adapted to receive a wringer, the said space being provided with a drain pipe whereby, when the wringer is operated, the water dripping therefrom may be collected in the space between the partitions, the drain pipe emptying out the said water.

1,039,694. VALVE. Gideon B. Richards, Indianapolis, Ind. Filed Oct. 20, 1911. Serial No. 655,202. (Cl. 152—12.)



A valve for air cushions consisting of a casing, a connection between said casing and said cushion, said casing being formed with extensions, a tube removably positioned within each of said extensions, an escape valve positioned within one of said tubes, an apertured plate arranged at each end of said tubes, an apertured plate movable within one of said tubes, said plate being formed with a plurality of fingers, a ball embraced by said fingers, said ball forming a closure for the apertures in one end of the tube and a coiled spring interposed between the movable plate and the apertured end wall of the tube remote from that with which the ball contacts.

1,039,805. RESILIENT TIRE. Emile Ribaillo, Neuilly-sur-Seine, France. Filed May 15, 1909. Serial No. 496,286. (Cl. 152—8.)



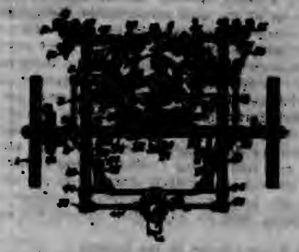
1. In a resilient tire, the combination of the wheel felly having therein a plurality of relatively narrow radial recesses and a wider recess at each side of the narrower recesses, a stem reciprocable in each of said narrower recesses, a plate carried at one end of each of said stems, a spring in each of said wider recesses, each of said springs having one end thereof abutting against said plate and the opposite end resting in the bottom of the recess, tread-section supports reciprocable radially in the felly, and a tread section pivotally supported at approximately its central part at one end of each support, the ends of each two adjacent tread sections resting on one of said plates, said tread sections being capable of free movement about their points of pivotal support.

2. In a resilient tire, the combination of the wheel felly having therein a plurality of relatively narrow radial recesses and a wider recess at each side of the narrower recesses, a stem reciprocable in each of said narrower recesses, a plate carried at one end of each of said stems, a spring in each of said wider recesses, each of said springs having one end thereof abutting against said plate and the opposite end resting in the bottom of the recess, tread-section supports reciprocable radially in the felly, means passing through said supports for limiting the extent of movement thereof in either direction, and a tread section pivoted at approximately its central part to one end of each support, the ends of each two adjacent tread sections resting on one of said plates.

3. In a resilient tire, the combination with a tread consisting of a series of independent consecutive plates, of supports reciprocable radially in recesses in the wheel and having the plates pivoted thereto, resilient means arranged in proximity to adjacent end of said plates and adapted to act against said plates, a cross bar in each of said recesses projecting through slots in said supports, stems arranged in recesses between adjacent resilient means, a plate carried by each stem in operative positional relation to said resilient means, a tail piece formed on each stem, and segments engaging said tail pieces to brake the recoil movement of said resilient means.

4. In a resilient tire, the combination of the wheel felly having therein a plurality of relatively narrow radial recesses and a wider recess at each side of the narrower recesses, a stem reciprocable in each of said narrower recesses, a tail piece attached to one end of said stem, an annular segment in each of said narrower recesses in co-operative relation with said tail piece, a plate at the end of each stem opposite that to which the tail piece is attached, a spring in each of the wider recesses, said springs having one end thereof bearing against said plates, tread section supports reciprocable radially in said felly, a tubular cross bar passing through each of said supports and adapted to limit the extent of movement of the latter in either direction, and a tread section pivoted at approximately its central part to one end of each support, the ends of each two adjacent tread sections resting on one of said plates.

1,039,893. SEED-PLANTER. Henry W. Rogers, Arlington, Tex. Filed Sept. 30, 1911. Serial No. 652,653. (Cl. 111—6.)

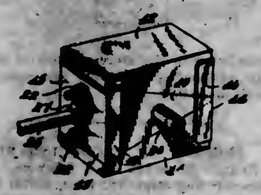


1. A feeding device for a seed planter, comprising a hopper with a plurality of apertures in its bottom, a revolving plate held contiguous to the under side of said hopper, the plate being supplied with a plurality of apertures, which correspond in size and position to those in the bottom of the hopper, an auxiliary plate that may be interposed between the revolving plate and the bottom of the hopper, and a plurality of flexible chutes leading from the underside of the hopper, and adjacent to the apertures thereof.

2. A feeding-device for a seed planter, comprising a hopper with a plurality of apertures in its bottom, a revolving plate held contiguous to the under side of the hopper, the plate being supplied with a plurality of apertures, which correspond in size and position to those in the bottom of the hopper, a series of flexible chutes leading from the underside of the hopper, a beam, a shaft journaled in the beam, a plurality of arms carried by said shaft, means to rotate said shaft, a bar mounted upon the lower side of the beam, and adjacent to each chute, and spring actuated ejectors mounted in each bar, the lower end of said ejectors communicating with the apertures in the revolving plate as the latter is revolved.



1,039,897. SLIDING BLOCK. John W. Rogers, Austin, Wash. Filed Jan. 12, 1912. Serial No. 671,111. (Cl. 121—98.)



1. A block of the character described comprising a plurality of sections, longitudinally extending bolts adjustably connecting said sections, and plates mounted adjacent the ends of said bolts and provided with side flanges extending along the sides of said block to limit the transverse movement of said sections.

2. A block of the character described comprising a central section having an isosceles triangular shape in longitudinal section, upper and lower sections fitting upon said central section and each having a right triangular shape in longitudinal section, bolts passing through said sections, a plate at each end of said block mounted upon said bolts, and provided with side flanges extending along the sides of said block.

3. A block of the character described comprising a central section having an isosceles triangular shape in longitudinal section, upper and lower sections fitting upon said central section and each having a right triangular shape in longitudinal section, bolts passing through said sections, a plate at one end of said block mounted upon said bolts, and provided with a transversely extending slot through which the point of said central section is adapted to pass, and a plate at the opposite end of said block mounted upon said bolts, said plates being provided with side flanges extending along the sides of said block.

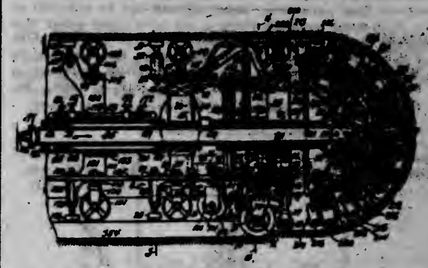
4. A block comprising a plurality of sections, one of said sections being provided with a transversely extending opening and with a longitudinally extending opening, means for adjustably connecting said sections together to limit the longitudinal movement thereof, and means for limiting the transverse movement of said sections.

1,039,906. REVERSIBLE PLOW. William J. Rogers, Bonville, Tex. Filed July 26, 1911. Serial No. 640,606. (Cl. 97—37.)



In a device of the class described, a beam; a standard pivotally upon the beam; beams for holding the standard against lateral movement extended with bevels on their adjacent ends; a shaft journaled in the standard; laterally extending handles on the shaft; a pivoted bar connecting the handles; a pivoted bar connecting the adjacent ends of the said beams for lateral swinging movement; and a flexible connection between the free ends of the extensions; each extension extending approximately at right angles to its supporting said beam; while the other extension is alined with its supporting said beam, whereby the angularly disposed extension will act as a brace for the other extension.

1,039,909. TUNNELING-MACHINE. Lawrence H. Rogers, New York, N. Y., assignor to Cole Tunnel & Engineering Company, a Corporation of Arizona. Filed Feb. 3, 1911. Serial No. 606,582. (Cl. 125—14.)



1. In a tunneling machine the combination of a central frame, a hollow shaft journaled in the frame, means to conduct a fluid to the interior of said shaft, a front head fastened to said shaft, grinding wheels journaled on said head, motors connected to the wheels carried on the head, means to conduct the fluid from said shaft to said motors, a rear frame slidably connected to the shaft, a cylinder encircling said shaft and fastened to the rear frame, a piston in the cylinder connected to said shaft and means to load a compressed fluid on either side of the piston.

2. In a tunneling machine the combination of a central frame, a hollow shaft journaled in the frame, a front head fastened to said shaft, grinding wheels journaled to the head, air motors on the head to rotate said wheels, a motor on the central frame, gearing interposed between the motor and the shaft to rotate the latter, gulps adjustably connected to the central frame, a cylinder encircling the shaft, a rear frame supporting the cylinder, a piston in the cylinder fastened to the shaft, gulps extending from the rear frame, supporting rollers and guide-rollers journaled in each frame, means to inject compressed air into the shaft, means to load compressed air into the cylinder on one side of the piston thereof to longitudinally move said shaft and on the other side thereof to longitudinally move the cylinder and therewith the rear frame.

3. In a tunneling machine the combination of a frame, a shaft journaled in the frame, means to rotate the shaft, a front head fastened to the shaft, spindles slidably supported in the front head, journal frames extending from the spindles, a flexible medium located between each journal frame and said head, a motor carried on each journal frame, a grinding wheel for each motor journaled in said frame, the axis of each grinding wheel laterally distant from the spindle of its journal frame.

4. In a tunneling machine, the combination of a frame, a shaft journaled in the frame, means to move the shaft in the direction of its longitudinal axis, means to rotate the shaft while it is moving in the direction of its longitudinal axis, a front-head fastened to the shaft, a semi-spherical crown formed with the head, spindles slidably supported in the said crown, journal frames extending from said spindles, a grinding wheel journaled in each frame with its axis laterally distant from the axis of its corresponding spindle, the radial of the grinding wheels corresponding with those that diverge for said grinding wheels.

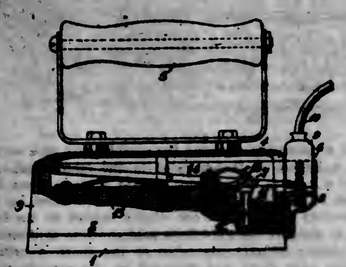
5. In a tunneling machine the combination of a frame, a shaft journaled in the frame, means to move the shaft in the direction of

its longitudinal axis; means to rotate the shaft, a front head fastened to the shaft, a semi-spherical crown formed with the head, spindles slidably supported in said crown, journal frames extending from said spindles, a spring surrounding each spindle bearing between the said crown and the journal frame, a nut engaging a threaded end on each spindle, a grinding wheel journaled in each journal frame, an air motor extending from each journal frame and connected to its accompanying grinding wheel, stop valves extending from openings in said hollow shaft, conduits connecting said valves with the air motors, and means to feed a fluid into said hollow shaft.

[Claims 6 and 7 not printed in the Gazette.]

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1,008,810. CUT-OUT FOR ELECTRIC HEATING DEVICES. Edward H. Rosa, Swissvale, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 8, 1909. Serial No. 526,822. (Cl. 175—275.)



1. In an electric heating device, the combination with a circuit-interrupting device, and means for actuating said device, of a reciprocatory plunger and a body of fusible material for locking and releasing said actuating means, and automatic means for returning the plunger to its embedded position in said fusible material as soon as the circuit is interrupted.

2. In an electric heating device, the combination with a resistance element, a circuit interrupting device, a spring-actuated member for operating said interrupting device, a stationary plunger normally set in fusible material, and a latch pivotally secured to the plunger and adapted to hold the spring-actuated member in retracted position, of means for returning the plunger to its original position after it has been displaced and the spring-actuated member released.

3. In an electric and from, the combination with a resistance element, a body of fusible material adapted to be influenced by the temperature of the iron, a plunger set in said body of fusible material, a latch pivotally secured to said plunger, and a spring-actuated lever normally held in retracted position by the latch, of a circuit interrupting device comprising a relatively movable member actuated by the lever to open the circuit when the fusible material is softened, and means for returning the plunger to its original position after the lever is operated.

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1,008,811. GAME-COUNTER. Frank Rosewater, New York, N. Y. Filed May 27, 1912. Serial No. 699,894. (Cl. 235—136.)

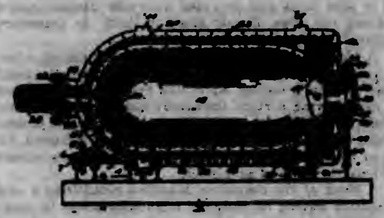
1. In a game counter, calender or analogous device, the combination of the casing A together with the detached sliding and revolving disk B, each respectively faced with a series of numerals or other characters located with relation to each other as herein described, all as set forth.

4. In a game counter, calender or analogous device, the combination of a row of numerals or other indicating characters on the face of a stationary plate or frame together with a series of circularly arranged numerals or other indicating characters on the face of a disk capable of being revolved and eventually slid in a groove or slot in a direction parallel with the aforesaid row of numerals, all located with relation to each other and operating in the manner herein described.



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1,008,812. PROCESS OF PRODUCING SULFUR DIOXID. Ernest Rossiter, Port Edwards, Wis. Original application filed Sept. 15, 1910, Serial No. 582,161. Divided and this application filed Dec. 9, 1910. Serial No. 596,427. (Cl. 23—1.)



1. The process of producing sulfur dioxid, which consists in burning sulfur in a substantially closed compartment, thoroughly agitating the burning sulfur in contact with air whereby sulfur dioxid gas is formed, drawing from said compartment the sulfur gas as it is formed, utilizing substantially all the heat radiated by said compartment walls to further heat the drawn-off sulfur gas, and supplying to the gas during such further heating thereof air in amount sufficient to completely burn all the contained vaporized sulfur.

2. The process of producing sulfur dioxid, which consists in burning sulfur in a substantially closed compartment, thoroughly agitating the burning sulfur and supplying air thereto whereby sulfur dioxid gas is formed, drawing from said compartment the sulfur gas as it is formed, utilizing substantially all of the heat generated by the burning sulfur to further heat the drawn-off sulfur gas, and supplying to the gas during such further heating thereof air in amount sufficient to completely burn all the contained vaporized sulfur.

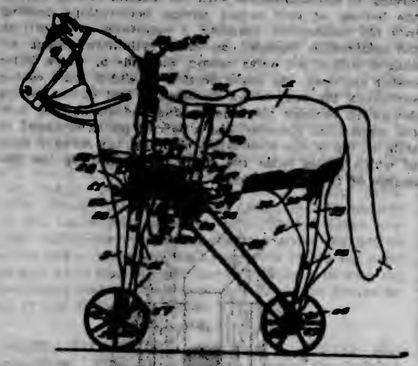
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1,008,813. VELOCIPEDE. Lauren Ruse, Doland, S. D. Filed May 19, 1910. Serial No. 562,287. (Cl. 280—42.)

In a velocipede, a body having front legs, a plate fixedly secured to said body, an auxiliary plate carried below said first-mentioned plate, depending arms secured to the under face of said last-mentioned plate and being fixedly secured thereto, said front legs being fixedly secured to said depending arms, a guiding member passing through said body and engaging said last-mentioned plate, said last-mentioned plate being provided with a squared aperture, a squared portion formed upon said guiding member and fitting in said squared aperture of said last-mentioned plate, means engaging the lower end of said guiding member and engaging said last-mentioned plate for allowing the last-



mentioned plate to be firmly locked in engagement with said first-mentioned plate, and also holding said squared



portion of said guiding portion in engagement with said squared aperture.

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1,008,814. TOY [illegible]. Victor Silva Sacavem, New York, N. Y. Filed Apr. 20, 1912. Serial No. 690,785. (Cl. 46—16.)



1. A device as described consisting of a plurality of musical members, a bellows for connecting said members and means for holding said members normally expanded.

2. A musical toy consisting of a whistling member having a bellows connected therewith, a spring adapted to hold said bellows normally expanded, and an additional whistle on the opposing end of said bellows.

3. A musical toy consisting of a whistling member having a bellows connected therewith, a spring adapted to hold said bellows normally expanded, an additional whistle on the opposing end of said bellows, and said whistling members having projecting flanges by means of which said bellows is connected thereto.

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1,008,815. [illegible] FOR WATER-TUBE BOILERS. Rufus S. Gaffney, Barberton, Ohio, assignor to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed Nov. 21, 1911. Serial No. 661,462. (Cl. 122—356.)



1. A [illegible] on the face thereof a [illegible] tube holes the center [illegible] right and left [illegible] face of the header.

2. A [illegible] on the face thereof a [illegible] tube holes the center lines [illegible] right and left to a plane [illegible] header and intersecting the

122 O. G.—4

5. A tube tube header having on the face thereof a series of bosses inclined alternately at a slight angle to right and to left, all in planes perpendicular to the face of the header, said bosses having a tube hole the center line of which is perpendicular to the surface of the boss.

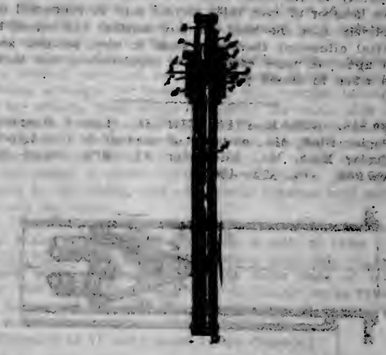
6. In a water tube boiler the combination of two headers, tubes connecting said headers, said tubes being bent a short distance from each end so as to straggle the straight portions of the tubes relative to the vertical center line of the header.

8. In a water tube boiler the combination of two headers each having a series of bosses in the face thereof, said bosses having tube holes the center lines of which are inclined alternately right and left to a plane perpendicular to the face of the header, tubes connecting said headers, said tubes being bent for a short distance from each end to correspond with the center line of the hole through which the tube passes, and the straight portions of the tubes staggered variably with relation to the vertical center line of the header.

[Claim 9 not printed in the Gazette.]

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1,008,816. LIQUID-RULE. Thomas A. Sammons, Dayton, Ohio. Filed May 9, 1912. Serial No. 696,695. (Cl. 73—139.)



1. A liquid gage adapted to be inserted in a container to ascertain the quantity of liquid therein, and consisting of a transparent tube provided on its outer surface with a suitable graduated scale to indicate the quantity of liquid in the container, a valve casing on the outer end of said tube providing two chambers, one of which communicates directly with the tube and the other of which communicates with the atmosphere, a valve in said casing controlling the communication between said chambers, and by means of which the liquid is permitted to enter said tube and to be retained therein.

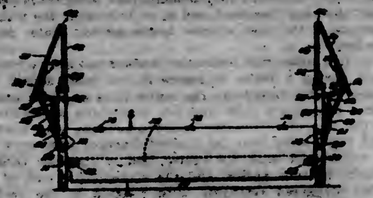
2. The combination in a liquid rule, of a transparent tubular member provided with a scale indicating quantities of liquid in a container, said tube being enlarged in diameter at one end, a casing secured to said enlarged end, an apertured member having an air port secured to said casing and providing a valve chamber adapted to communicate with the atmosphere through said air port and with the opening in said tubular member, a valve controlling the communication between said chamber and the opening in said tubular member, a stem secured to said valve and extended through said apertured member, said stem having two diameters, adapted to open and close said air port, and a spring normally holding said valve seated, substantially as described.

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1,008,817. COMBINED BEDSTEAD AND TABLE. Gustave A. Sandine, Bellingham, Wash. Filed Jan. 20, 1912. Serial No. 672,400. (Cl. 5—17.)

1. The combination with a bedstead including head and foot members, of table sections each formed of another

members hingedly united, and means for hingedly uniting the outer member of each section respectively to the head and foot members, the existing members being so proportioned that the inner member of each section will bear upon the head and foot members and extend in vertical alinement therewith when in open position.



2. The combination with a bolsterd including head and foot members and side rails, supplemental side members hingedly united to the side rails and adapted to swing into vertical alinement with the same, table sections each formed of casting members hingedly united, and means for hingedly uniting the outer member of each section respectively to the head and foot members, whereby the inner member of each table section may be supported respectively upon the head and foot member and extend in vertical alinement therewith when in open position and bear upon the upper edges of the supplemental side members when in closed position.

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1,089,818. STEAM-PIPE SHIELD. Marion Sanders, Poplar Bluff, Mo., assignor of one-half to Gus Lynch, Poplar Bluff, Mo. Filed Apr. 11, 1912. Serial No. 689,962. (Cl. 122—468.)



1. A protecting shield for the return bends of superheating steam pipes, comprising a cone shaped body having a concaved seat for receiving the outer end of the return bend, and a socket, the said outer end of the return bend having a lug for engaging with the said socket.

2. A protecting shield for the return bends of superheating steam pipes, comprising a cone-shaped body that includes a head portion of not greater thickness and width than that of the return bend to which it is applied, the said head portion of the shield having a concaved seat for receiving the outer end of the return bend and a socket, the said outer end of the return bend having a lug for engaging with the socket.

3. A shield for the return bends of superheating steam pipes in boiler tubes, comprising a substantially conical shaped body including a spear-like said head having means for fitting onto the outer end of the return end of the return bend of the pipe, and for removably holding it on said bend, said means including resilient members adapted to be sprung over the return bend for engaging with the grooves between the parallel ends of said bend, said spear-like head tapering from said return bend and outwardly a distance beyond the same greater than the length of the bend.

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1,089,819. CAR-HEATER. David E. Hammond, Columbus, Miss. Filed Sept. 22, 1911. Serial No. 651,218. (Cl. 237—1.)

In a car heater, the combination with an outer cylindrical casing communicating at its upper end with the interior of the car and having a closed bottom, of a combustion chamber formed in the lower portion of the casing, having no communication with the interior of said casing, the bottom of said casing having perforations opening into the combustion chamber, a perforated grate supported within the combustion chamber above the bottom of the casing, a fuel chute leading downwardly through the center of the outer casing and discharging into the perforated grate within the combustion chamber, a pair of oppositely disposed plates arranged for sliding movement on top of the bottom, the inner ends of which plates are notched and project into the lower end of the fuel chute for controlling the passage of fuel therethrough, and a cylindrical wall supported within the outer casing so as to form annular spaces between said wall, the outer casing and the fuel chute.

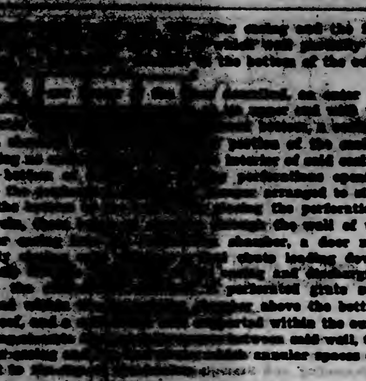
4. In a car heater of the class described, the combination with an outer cylindrical casing communicating at its upper end with the interior of the car and having a closed bottom, of a combustion chamber formed in the lower portion of the casing, having no communication with the interior of said casing, the bottom of said casing having perforations opening into the combustion chamber, a fuel chute leading downwardly through the center of the outer casing and discharging into the combustion chamber, a pair of oppositely disposed plates arranged for sliding movement on top of the bottom, the inner ends of which plates are notched and project into the lower end of the fuel chute for controlling the passage of fuel therethrough, a perforated grate supported within the outer casing above the bottom of the combustion chamber, and a cylindrical wall supported within the outer casing so as to form annular spaces between said wall, the outer casing and the fuel chute.



2. In a car heater of the class described, the combination with an outer cylindrical casing communicating at its upper end with the interior of the car and having a closed bottom, of a combustion chamber formed in the lower portion of said casing and having no communication with the interior of said casing, the bottom of said casing having perforations opening into the combustion chamber, a fuel chute leading downwardly through the center of the outer casing and discharging into the combustion chamber, a pair of oppositely disposed plates arranged for sliding movement on top of the combustion chamber above the bottom of the casing, a fuel chute leading downwardly through the center of the outer casing and discharging into the perforated grate within the combustion chamber, a pair of oppositely disposed plates arranged for sliding movement on top of the bottom, the inner ends of which plate are notched and project into the lower end of the fuel chute for controlling the passage of fuel therethrough, and a cylindrical wall supported within the outer casing so as to form annular spaces between said wall, the outer casing and the fuel chute.

4. In a car heater of the class described, the combination with an outer cylindrical casing communicating at its upper end with the interior of the car and having a closed bottom, of a combustion chamber formed in the lower portion of the casing, having no communication with the interior of said casing, the bottom of said casing having perforations opening into the combustion chamber, a fuel chute leading downwardly through the center of the outer casing and discharging into the combustion chamber, a pair of oppositely disposed plates arranged for sliding movement on top of the bottom, the inner ends of which plates are notched and project into the lower end of the fuel chute for controlling the passage of fuel therethrough, a perforated grate supported within the outer casing above the bottom of the combustion chamber, and a cylindrical wall supported within the outer casing so as to form annular spaces between said wall, the outer casing and the fuel chute.





1,089,820. TWINE-REEL. Alexander R. Sawyer, Malden, Mass. Filed [illegible]. Serial No. 577,017. (Cl. 242—118.)

1. A twine reel, comprising a screw-threaded spindle having a shoulder near each end, a pair of flanges having tapped bore mounted on said spindle, said flanges having wings on their outer faces for rotating them and having plane inner faces to engage substantially the entire end faces of a tube of twine, whereby the reel is adapted to hold various assorted sizes of twine, and the twine, in unreeling, is prevented from catching between the ends of the tube and said flanges, and means for frictionally engaging the flanges with said spindle to arrest the rotation of said spindle when the user ceases to pull the twine.

2. A twine [illegible] having a U-shaped standard, the arms of which [illegible] and are provided with alined apertures, a [illegible] spindle having its end portions journaled [illegible] and provided with shoulders which [illegible] engaged by the resilient arms of the [illegible] flanges each having a screw threaded [illegible] the outer faces for rotating the same to [illegible] outward and away from each other, [illegible] of various lengths and diameters [illegible] securely clamped between said flanges [illegible] in unreeling, from catching between the [illegible] of the tube and the flanges, the frictional engagement [illegible] the standard with said shoulders causing the reel to [illegible] when the user ceases to pull the [illegible].

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1,089,821. [illegible] FOR RAILROAD-CARS. [illegible], Mo., assignor of one-[illegible] to [illegible], St. Louis, Mo. Filed May [illegible]. 1911. Serial No. [illegible]. (Cl. 189—34.)

1. In a [illegible] chair described, the combination [illegible] of a pair of wings [illegible] carried by the [illegible] and [illegible] of the [illegible] the [illegible] [illegible] carried by the [illegible] on the [illegible] of [illegible] [illegible] [illegible]

lower end, means for acting upon said shade engaging means, allowing rotation of the said member with respect the operating means so as to support a shade.

3. A lighting fixture having in combination a member adapted to support a lamp socket; a member having shade engaging means at its lower end, said member having a threaded portion above said shade engaging means; and an internally threaded member cooperating with said threaded portion and capable of rotating thereon, said latter member having at its lower end on its inner surface means cooperating with the shade engaging means to cause the latter to support a shade.

3. A lighting fixture having in combination means for surrounding and supporting a lamp socket; a member surrounding said supporting means and the socket and secured to said supporting means at one extremity; said member being provided at the opposite extremity with shade engaging fingers and between the latter and its other extremity with a threaded portion; and an internally threaded actuating member cooperating with said threaded portion and capable of rotating thereon and having means at its lower end adapted to operate the shade engaging fingers.

4. A lighting fixture having in combination a supporting member; a shade supporting member secured to the supporting member and having its lower end formed into a plurality of resilient fingers; an actuating member surrounding said shade supporting member, said two members having cooperating means enabling one to rotate on and move longitudinally of the other; and said actuating member having at its lower end a single wedge-shaped portion for cooperation with the resilient fingers and adapted to simultaneously compress the same to engage and support a shade.

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1,039,823. WORKING PROCESS FOR INTERNAL-COMBUSTION ENGINES. Georg Schimming, Berlin, Germany. Filed Feb. 3, 1910. Serial No. 541,561. (Cl. 123—27.)

1. The method of operating internal combustion engines consisting in reducing the exhaust pressure in the cylinder at the end of the expansion stroke and admitting fresh air to the exhaust gases that are being compressed during the following compression stroke, said air being admitted in such quantity as to attain the ignition temperature for the in-rushing fuel and for creating the pressure necessary in the compression chamber during the compression of the mixture of exhaust gases and air.

2. The method of regulating the compression temperature in internal combustion engines in which waste gases are compressed consisting in introducing air to the waste gases in such quantity that the ignition temperature is safely attained and at the same time creating such pressure by compression that same is as nearly equal as possible to the admission pressure.

3. The method of regulating the ignition temperature in internal combustion engines and creating at the same time a pressure by compression as nearly equal to the admission pressure as possible consisting in admitting fresh air to the exhaust gases of reduced pressure in the cylinder during the compression stroke in such quantity as to attain safely the ignition temperature for the in-rushing fuel and creating at the same time a pressure in the compression chamber during the compression of the mixture of exhaust gases and air which is nearly equal to the admission pressure.

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1,039,824. METHOD OF PROTECTING WOOD IN SALT WATER. Gronow Schumacher, Vancouver, British Columbia, Canada. Filed Dec. 14, 1911. Serial No. 665,708. (Cl. 69—12.)

1. A method of protecting wooden articles in salt water which consists in delivering to a point adjacent to the lower end of said article chlorin gas in association with a medium specifically lighter than the water, and which will not unite with the chlorin or readily dissolve in or unite with the water.

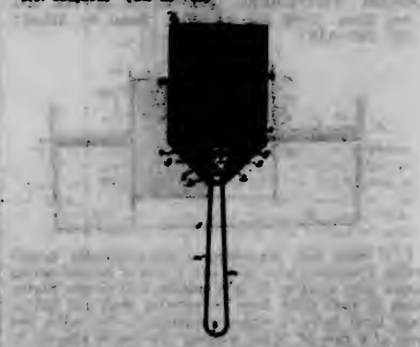
2. A method for protecting wooden articles in salt water which consists in delivering to a point adjacent to



the lower end of said article beneath the surface of the water, compressed air mixed with chlorin gas.

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1,039,825. INSECT-DESTROYER. Edward H. Schwarzhoff, Milwaukee, Wis., assignor to National Enameling and Stamping Company, Baltimore, Md., a Corporation of New Jersey. Filed Mar. 2, 1912. Serial No. 681,201. (Cl. 43—1.)



An insect killer consisting of a woven wire fabric body with triangular folded-back opposite corners at one end whereby to turn the greater part of the cut-edges of the fabric upwardly adjacent to the longitudinal center of the body; a wire handle having a strand laid against one of the triangular folded corners and another strand laid against the other of the said triangular folded corners; a plate of sufficient width to extend over and onto both triangular folded corners of the wire fabric and said plate being grooved at its inner side to receive the wire strands which are in contact with the said two triangular folded corners; another plate on the opposite side of the body of the wire fabric and in register with the plate on the folded corners and means extending through the fabric body, and engaging the two plates at opposite sides thereof to clamp the wire handle against the folded corners and to cover the cut edges of the wire fabric.

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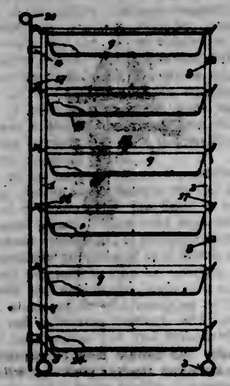
1,039,826. GRAIN-SPROUTER. Edward H. Schwarzhoff, Milwaukee, Wis., assignor to National Enameling and Stamping Company, a Corporation of New Jersey. Filed Apr. 24, 1912. Serial No. 693,214. (Cl. 47—20.)

1. In a grain sprouter the combination of an open-side supporting rack having horizontal bars that form sideways; a series of open top pans that are slidable on said sideways, each pan having loop-shaped handles, and a vertical bar loose on the said rack and movable up and down and provided with a number of fingers which engage the said loop-shaped handles.

2. In a grain sprouter the combination of an open-side supporting rack having a vertical guide or keeper; a vertical bar movable up and down in said keeper and having in its side a notch that may engage with one of the keepers when said bar has been moved upward and provided with laterally-projecting fingers; a series of sprouting pans slidable horizontally into and out of said supporting rack and one end of each pan engaging a lateral finger on said vertically movable bar.



3. In a grain sprouter the combination of an open-side supporting rack having a vertical guide or keeper; a vertical bar slidable up and down in said keeper and having in its side a notch that may engage with one of the keepers when said bar has been moved upward and provided with laterally-projecting fingers; a series of sprouting pans slidable horizontally into and out of said supporting rack and one end of each pan engaging a lateral finger on said vertically movable bar.



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1,039,827. APPLIANCE FOR TAPPING WATER-MAINS. Frank P. Sharp, Oakland, Cal. Filed Nov. 30, 1908. Serial No. 465,168. (Cl. 77—40.)



4. In an appliance for tapping pipes carrying fluids under pressure, the combination of a casing having a laterally extending valve chamber on one side, a slidable valve adapted to be moved in said chamber and when closed to separate the casing into an upper compartment and a lower compartment, the said lower compartment communicating at all times with the said valve chamber, a valve seat for establishing said arranged between the said valve chamber and the said upper compartment of the casing and comprising the additional portion of the wall of the casing bounding the valve chamber, the said valve chamber, the said

plaster surfaces, and removing the backing layers from the glass plate before the latter is deposited.

2. A process for producing glass plates which consists in applying and spreading over a glass plate, between retaining flanges, surfaces and simultaneously pouring intervening layers which absorb little heat between the glass plate and the surrounding surfaces, and removing the backing layers from the glass plate before the latter is deposited.

3. A process for producing glass plates which consists of gilding and spreading over a glass plate between rollers and simultaneously pouring intervening layers backing materials which absorb little heat between the glass plate and the rollers, and removing the backing material from the glass plate before the latter is deposited.

4. A process for producing glass plates which consists of gilding and spreading over a glass plate between rollers and simultaneously pouring intervening layers of backing materials which absorb little heat between the glass plate and the rollers, and removing the sheet metal covered with supported fluent material from the glass plate before the latter is deposited.

[Claim 5 not printed in the Gazette.]

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1,788,886. DOOR AND WINDOW STRUCTURE. JOHN T. SIMPSON, Newark, N. J. Filed Sept. 6, 1910. Serial No. 581,934. (Cl. 189—46.)



1. A door or window having a stile or rail formed of a sheet metal body, the edges of which are bent to form gutters, and a member with a web and flanges, the edges of the web being bent into the gutters, said gutters resting against the flanges.

2. A door or window having a stile or rail formed of a sheet metal body, and a member formed of a web and flanges, the edges of the web being rolled into engagement with the edges of the body, holding the latter against the flanges.

3. A door or window having a stile or rail formed of a sheet metal body, the edges of which are bent to form gutters, and a member with a web having projections to receive and hold panels of metal or glass, said web having outer and inner pairs of flanges, the inner flanges forming seats to support and allow the gutter portion of the stile or rail, and the outer flanges being adapted to be bent over and into the gutters, locking the stile and member securely together.

4. A member for covering hollow stiles or rails for a door or window, with a web having projections to receive and hold panels of metal or glass, said web having outer and inner pairs of flanges, the inner flanges forming seats to support and allow the gutter portion of the stile or rail, and the outer flanges being adapted to be bent over and into the gutters, locking the stile and member securely together.

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1,789,831. WORK-CLAMP. JAMES G. SIMSON, Athol, Mass. Filed Dec. 28, 1911. Serial No. 668,268. (Cl. 81—16.)

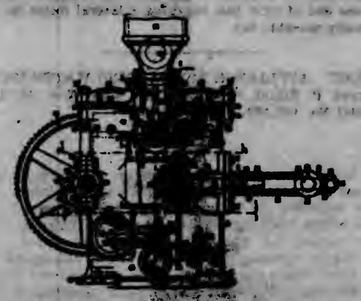
A work clamp comprising movable and stationary jaws, adjustable connecting shafts between the same, a sleeve having A-shape threaded axial openings, bifold connecting shafts connecting [illegible] between the sleeve and connecting jaws, opposite ends with sleeve being so adapted to engage different engaging positions with relation to said shafts, jaws and with remote permanently connected thereto, a handle, and a fulcrum pivotally connected with the handle intermediate its ends and in the screw-threaded axial opening for alternating engagement



the pin, whereby the handle may be securely locked in adjustment at different angular positions with relation to the stationary jaw.

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1,789,882. DOUBLE-ACTING COMPACT POWER-PUMP. SIMEON S. SMITH, Saxon Falls, N. Y., assignor to The Goulds Manufacturing Company, Saxon Falls, N. Y., a Corporation of New York. Filed Apr. 6, 1910. Serial No. 554,745. (Cl. 103—38.)



1. A pump of the motor-contained comprising, in combination, a horizontal cylinder, integral upright passageways arranged at the outer end of said cylinder, a piston in said cylinder and having a piston-rod projecting outwardly thereof, a piston shaft rotatably disposed above said cylinder intermediate said passageways, and operative connections intervening between the piston shaft and the piston-rod to actuate the latter.

2. A pump of the motor-contained comprising, in combination, a horizontal pumping cylinder, upright passageways arranged at the outer discharge end thereof, a piston in said cylinder having a projecting piston-rod, an inverted journal box section cast integral with the body portion of said pump and arranged above said cylinder, a detachable journal box section cooperating to said fixed overhanging section and connected to extend in an axial direction at one side thereof, an intermediate shaft journaled in said journal box, and operative connections between said connecting shaft and the piston-rod.

3. A pump of the motor-contained comprising, in combination, a horizontal pumping cylinder, upright passageways arranged at the outer discharge end thereof, a piston in said cylinder and having a projecting piston-rod, an inverted journal box section cast integral with the body portion of said pump and arranged above said cylinder, a detachable journal box section cooperating to said fixed overhanging section and connected to extend in an axial direction at one side thereof, an intermediate shaft journaled in said journal box, and operative connections between said connecting shaft and the piston-rod, said connections comprising a pivoted [illegible] connecting with the piston-rod, a [illegible] connecting with the pivoted [illegible] and with the intermediate shaft, and

and a movable portion capable of reciprocation within said stationary portion and having at its lower end a threaded socket for the reception of the lamp plug, lamp contacts associated with said socket, contact fingers associated with said lamp contacts and normally in spaced relation thereto, means carried by the stationary portion for forcing said contact fingers into engagement with their respective lamp contacts upon the reciprocation of said movable portion, pressure actuated means for maintaining said contact fingers in their engaged position for a predetermined period, and means for controlling the actuation of said pressure actuated means.



3. In an electric light circuit having a lamp and plug, the combination of a casing comprising a stationary portion and a movable portion capable of reciprocation within said stationary portion and having at its lower end a threaded socket for the reception of the lamp plug, a barrel rotatably mounted within said stationary portion and on which said movable portion reciprocates, lamp contacts associated with said socket, contact fingers associated with said lamp contacts and normally in spaced relation thereto, means projecting from said barrel for forcing said contact fingers into engagement with their respective lamp contacts upon the reciprocation of said movable portion, pressure actuated means for maintaining said contact fingers in their engaged position, and means controllable upon the rotation of said barrel for timing the operation of said pressure actuated means.

4. In an electric light circuit having a lamp and plug, the combination of a casing comprising a stationary portion and a movable portion capable of reciprocation within said stationary portion and having at its lower end a threaded socket for the reception of the lamp plug, a barrel rotatably mounted within said stationary portion and on which said movable portion reciprocates, lamp contacts associated with said socket, contact fingers associated with said lamp contacts and normally in spaced relation thereto, means projecting from said barrel for forcing said contact fingers into engagement with their respective lamp contacts upon the reciprocation of said movable portion, and a pressure actuated piston mounted within said barrel and connected to said movable portion for maintaining said contact fingers in their engaged position for a predetermined period.

5. In an electric light circuit having a lamp and plug, the combination of a casing comprising a stationary portion and a movable portion capable of reciprocation within said stationary portion and having at its lower end a threaded socket for the reception of the lamp plug, a barrel rotatably mounted within said stationary portion and on which said movable portion reciprocates, lamp contacts associated with said socket, contact fingers associated with said lamp contacts and normally in spaced relation thereto, means projecting from said barrel for forcing said contact fingers into engagement with their respective lamp contacts upon the reciprocation of said movable portion, a pressure actuated piston mounted within said barrel and connected to said movable portion for maintaining said contact fingers in their engaged position for a predetermined period, and means controllable upon the rotation of said barrel for timing the operation of said pressure actuated means.

[Claims 6 to 8 not printed in the Gazette.]

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1,009,896. STEAM-SEPARATOR. Edward E. Sanford, Detroit, Mich., assignor to Standard Paper Specialty Company, Detroit, Mich., a Corporation. Filed Jan. 16, 1911. Serial No. 602,894. (Cl. 55—96.)



1. In a steam separator, the combination of a separating chamber having a steam passage leading therein and a drainage port therefrom, and a single valve for controlling the steam passage and drainage port.

2. In a steam separator, the combination of a bowl forming the separating chamber, a steam inlet passage extending across the bottom of the bowl and up to the top of the bowl, the bowl having a drainage port at the bottom, and a single means for controlling the steam passage and drainage port.

3. In a steam separator, the combination of a bowl having an inlet passage opening into one side thereof near the top, a diaphragm centrally positioned within the bowl above the plane of the inlet opening and spaced from the sides of the bowl, a curved deflector extending above the inlet opening and overlapping a wall of the bowl, an inwardly projecting central nipple in the top of the bowl, forming an inverted trough-shaped steam passage, annular steps or corrugations in the wall of said trough-shaped passage, and a central drainage tube depending from said diaphragm to substantially the bottom of said bowl.

4. In a steam separator, the combination of a bowl having an inlet passage opening into one side thereof near the top, a diaphragm centrally positioned within the bowl above the plane of the inlet opening and spaced from the sides of the bowl, and a central drainage tube depending from said diaphragm to substantially the bottom of said bowl.

5. A steam separator, comprising a casing having an inlet passage at the side opening into the casing adjacent the top thereof, and a curved deflector positioned at the upper end of the inlet passage and extending above the opening in the casing and beyond the inner wall of the passage.

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1,009,897. WIRE-NAIL-FORMING MACHINE. Charles Seaman, Chicago, Ill. Filed Nov. 24, 1909. Serial No. 529,272. (Cl. 140—93.)

1. In a machine of the class described, a frame, a top slasher thereto having a central depending thread, guide secured to the top slasher, a plate supporting the guide, a die member secured to the plate and normally closed from into the opening in the top slasher, means whereby the die member is adapted to be moved laterally, means adapted to feed the wire intermittently, a horizontally disposed guide having a curved depending arm adapted to direct the wire around the die member, a knife for severing the curved



wire into loops, said wire forming loops on the ends of the nails while on the mandrel.



2. A machine for making wire nails, comprising a curved die member, coacting grooved rollers for intermittently feeding the wire, a horizontally disposed grooved roller for directing the wire to engage around the curved die member, and a knife for severing the wire in suitable lengths for the nails.

3. In a nail making machine, coacting feed rollers feeding the wire, a semi-cylindric form, an adjustable horizontally disposed roller adapted to curve the wire on a less radius than the radius of the form to pass around the form and clear thereby, a knife for severing the wire into nails with the ends of the nails projecting from the form, and means for engaging and bending the projecting ends of the nails to form hooks.

4. In a device of the class described, a curved form or die member, coacting grooved rollers for intermittently feeding wire, an adjustable roller for carving the wire to fit around the form, a knife for severing the wire into nails after the wire is curved around the form, a clamp for holding the nail on the form, and means for bending the ends of the nail.

5. In a device of the class described, a curved form or die member, coacting rollers for intermittently feeding wire, a horizontally disposed adjustable roller for carving the wire to fit around the form, a knife for severing the wire into nails after the wire is curved around the form, a clamp for holding the nail on the form, bending fingers for bending the ends of the nail, and reciprocating members for forcing the nails longitudinally of the form and from the form.

[Claims 6 to 40 not printed in the Gazette.]

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1,009,898. MOTOR-CYCLE STAND. Samuel T. Schuppert, Peoria, Ill. Filed July 1, 1911. Serial No. 636,525. (Cl. 21—98.)



1. In a motor cycle stand, in combination, telescoping frame parts, a shoe connected with the frame and formed with an incline at its front end, means for connecting the telescoping parts in a yielding relation, comprising a piston provided with piston head and connected with the rear of frame parts, a primary and secondary cylinder, the former adapted to be filled with liquid below the cylinder head, the latter adapted to receive the liquid from the former above the cylinder head, a duct connecting the lower portion of the primary cylinder with the upper portion of the secondary cylinder above the piston head and a valve in the duct to control the flow of liquid from one cylinder to the other.

2. In a motor cycle stand, in combination, telescoping sections, a shoe, means for connecting the stand sections in a yielding compressible relation, comprising a pair of pistons, a primary and a secondary cylinder, the former adapted to be filled with liquid below the piston head and the latter adapted to receive the liquid that is expelled under compression from the primary cylinder, a duct communicating with the lower portion of the primary cylinder and with the secondary cylinder above the piston head, a valve for controlling the flow between the cylinders and springs compressible and expansible with the telescoping movement of the sections of the stand, whereby as the motor cycle wheel moves in the contact with the shoe, the springs will be compressed and when the stand is relieved from the weight of the rider, the springs will expand and throw the stand to the limit of its extended position.

3. In a motor cycle stand adapted for physical connection with a motor cycle body, in combination, telescoping frame parts, a shoe connected with the frame and formed with an incline at its front end, means for connecting the telescoping parts in a yielding relation under the weight of the rider and means for fixing said parts relatively against telescoping movement, whereby the motor cycle frame may be supported by the rider and the telescoping parts being fixed relatively with respect to a portion of the motor cycle frame and the ring in a fixed position, while the motor is being started, thus by releasing the connection between the telescoping parts the weight of the rider will cause the wheel to be gradually depressed until it contacts with the shoe and the turning of the wheel will move the motor cycle forward until it is disengaged from the support.

[Claims 4 to 8 not printed in the Gazette.]

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1,009,899. PAPER-SHELL CARTRIDGE. Charles E. Shepherd, New Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed June 21, 1910. Serial No. 567,971. (Cl. 102—16.)



1. In a cartridge, the combination of a paper shell having a portion of reduced exterior diameter and a head of greater diameter than the body of the shell, and having a flange at the rear of the head, a metallic head having a flange adapted to lap over the flange of the shell head, and a metallic cup-shaped base member adapted to fit over the head of the shell and the flange thereof, and having a flange adapted to lap over the flange of the shell head, substantially as described.

2. In a cartridge, the combination of a paper shell having a portion of reduced exterior diameter and a head of greater diameter than the body of the shell, and having a flange at the rear of the head, a metallic head having a flange adapted to lap over the flange of the shell head, and a metallic cup-shaped base member adapted to fit over the head of the shell and the flange thereof, and having a flange adapted to lap over the flange of the shell head, the flanges of the shell head and the base member being of substantially the same diameter, substantially as described.

1,000,839. SAND-BLAST MACHINE. John J. Hopkins, Chicago, Ill. Filed Oct. 25, 1910. Serial No. 588,504. (Cl. 51—12.)



1. The combination of a reservoir for comminuted material, a substantially horizontal tubular member for the outward flow of the comminuted material, said tubular member being arranged at the lower part of the reservoir and having an opening to the outside air and also an opening within the reservoir for the admission of the comminuted material, said last mentioned opening being on the under side of said tubular member whereby it is prevented from being choked by the material within the reservoir.

2. In a device of the class described in combination, a mixing reservoir, a tube consisting of two integral portions connected with each other, but the axes of said portions being offset from each other, one of said tubular portions connecting with the atmosphere exterior to the reservoir, the other of said portions connecting with a tube exterior to the reservoir and having its interior connecting with the interior of the reservoir, the axis of the first mentioned portion entering the mixing reservoir is prevented from choking said aperture.

3. In a sand blast device in combination, a sand reservoir, a nozzle, means for supplying air to said nozzle, a conduit for carrying sand from said reservoir to said nozzle and a device for introducing air and said into said conduit, said device comprising a pair of horizontal intermixing tubes, the axes of said tubes being at different elevations, the lower of said tubes opening into said reservoir at its lower portion and into the upper of said tubes at its upper portion, said upper tube communicating with the atmosphere at one end and being open to the reservoir at its other end.

4. In an air blast apparatus in combination, a reservoir having a downwardly tapering lower portion, a cylindrical portion depending from said tapering portion, a pair of integral tubes extending through the walls of said cylindrical portion, said tubes having their longitudinal axes in the same vertical plane but said tubes intersecting each other for a portion of their length, the lower of said tubes opening into the upper end and also into the reservoir, the upper of said tubes being closed to the reservoir except through the lower tube, said tubes being open at their outer end.

5. The combination of a reservoir for comminuted material, a tubular member for the outward flow of the comminuted material, said tubular member being arranged at the lower part of the reservoir and having within the reservoir an opening for the admission of outside air and also an opening for the admission of comminuted material, said air opening being above said comminuted material opening.

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1,000,861. DRYING APPARATUS. Umetaro Suzuki, Tokyo, Japan. Filed Jan. 17, 1910. Serial No. 537,666. (Cl. 34—32.)

1. In a drying apparatus, the combination, with a chamber [illegible] and means for conveying the materials treated therethrough, of a delivering means disposed transversely of the current flow, comprising said conveying means and the interior of said chamber, with its opposite adjacent said conveying means, inclined, to the current flow, substantially as and for the purposes set forth.

2. In a drying apparatus the combination of a chamber having [illegible] and means for conveying the materials treated therethrough, of delivering means disposed transversely of the current flow, comprising said conveying means and the interior of said chamber, with its opposite adjacent said conveying means, inclined, to the current flow, substantially as and for the purposes set forth.



3. In a drying apparatus, the combination with a drying chamber and a delivering chamber separated by a wall having a plurality of openings, of conveying means for passing said openings into the lower portion of said delivering chamber, and a plurality of delivering plates disposed slidably adjacent the lower portion of the said apertures therein, through alternately one disposed in correspondent upward open relation to each other over the said openings of said conveying means, substantially as and for the purposes set forth.

4. In a drying apparatus, the combination of two housings disposed in substantially parallel relation to each other, each housing including a distributing chamber at one end, an exhaust chamber at the other end, with a drying chamber intermediate said distributing and said exhaust chambers, the chamber of each housing disposed in correspondent upward open relation to each other over the said openings of said conveying means, substantially plates projecting beyond the said adjacent plates, substantially as and for the purposes set forth.

5. In a drying apparatus, the combination of two housings disposed in substantially parallel relation to each other, each housing including a distributing chamber at one end, an exhaust chamber at the other end, with a drying chamber intermediate said distributing and said exhaust chambers, the said chambers of said housings disposed in correspondent upward open relation to each other over the said openings of said conveying means, substantially plates projecting beyond the said adjacent plates, substantially as and for the purposes set forth.

6. In a drying apparatus, the combination of two housings disposed in substantially parallel relation to each other, each housing including a distributing chamber at one end, an exhaust chamber at the other end, with a drying chamber intermediate said distributing and said exhaust chambers, the said chambers of said housings disposed in correspondent upward open relation to each other over the said openings of said conveying means, substantially plates projecting beyond the said adjacent plates, substantially as and for the purposes set forth.

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1,000,843. PNEUMATIC PUMP. Martin S. Swanson, Chicago, Ill. Filed June 23, 1910. Serial No. 568,488. (Cl. 103—3.)

1. In a submerged pump, two chambers provided with inlet and outlet openings for air and water, valves for said openings, [illegible] the valves for the air inlets so that they will operate simultaneously, a supplementary chamber within which said connections are located, a float and valve linking device in each of the first named chambers, connections from each float to its corresponding valve, the arrangement being such that when the water rises in one chamber the float therein will open the air inlet valve for said chamber and the water inlet valve for the other chamber, and when the water falls in one chamber the float therein will close the air inlet valve for said chamber and the water inlet valve for the other chamber, substantially as and for the purposes set forth.

2. In a submerged pump, two chambers provided with inlet and outlet valves for air, a float and valve linking device in each chamber means by which the valves are operated by movements of the floats in one direction and the [illegible] operated by movements in the opposite direction, connections by which the alternating movement of the floats operates the valve opening movement of the [illegible] means by which said actuating movement is [illegible].

3. In a submerged pump, two chambers provided with inlet and outlet valves for air, a float and valve linking device in each chamber, means by which the valves are operated by movements of the floats in one direction and the [illegible] operated by movements in the opposite direction, connections by which the alternating movement of the floats operates the valve opening movement of the [illegible] means by which said actuating movement is [illegible].

4. In a submerged pump, two chambers provided with inlet and outlet valves for air, a float and valve linking device in each chamber, means by which the valves are operated by movements of the floats in one direction and the [illegible] operated by movements in the opposite direction, connections by which the alternating movement of the floats operates the valve opening movement of the [illegible] means by which said actuating movement is [illegible].

5. In a submerged pump, two chambers provided with inlet and outlet valves for air, a float and valve linking device in each chamber, means by which the valves are operated by movements of the floats in one direction and the [illegible] operated by movements in the opposite direction, connections by which the alternating movement of the floats operates the valve opening movement of the [illegible] means by which said actuating movement is [illegible].

6. In a submerged pump, two chambers provided with inlet and outlet valves for air, a float and valve linking device in each chamber, means by which the valves are operated by movements of the floats in one direction and the [illegible] operated by movements in the opposite direction, connections by which the alternating movement of the floats operates the valve opening movement of the [illegible] means by which said actuating movement is [illegible].



7. In a submerged pump, two chambers provided with inlet and outlet valves for air, a float and valve linking device in each chamber, means by which the valves are operated by movements of the floats in one direction and the [illegible] operated by movements in the opposite direction, connections by which the alternating movement of the floats operates the valve opening movement of the [illegible] means by which said actuating movement is [illegible].

8. A package device of the class described, comprising a cup-shaped member and a receptacle having a neck adapted to be closed after said receptacle is filled, the neck portion of said receptacle being inserted into the cup-shaped member with powdered [illegible] and receptacle [illegible] filled, and the neck sealed.

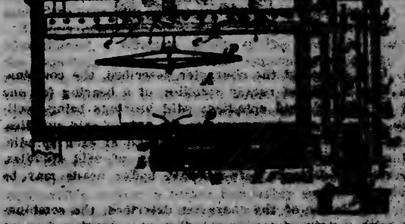
9. A package device of the class described, comprising a suitable receptacle having a [illegible] and a dispensing receptacle having a neck portion adapted to be sealed and inserted into said receptacle.

10. A package comprising a cup shaped member having a [illegible] dispensing receptacle provided with [illegible] adapted to be sealed and inserted into said [illegible].

[Claims 6 and 7 not printed in the Gazette.]

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1,000,854. DUPLICATOR. Thomas F. Sullivan, Hoboken, N. J., assignor of [illegible] Duplicator Company, Brooklyn, N. Y., a Corporation of New Jersey. Filed Apr. 20, 1910. Serial No. 556,641. (Cl. 197—32.)



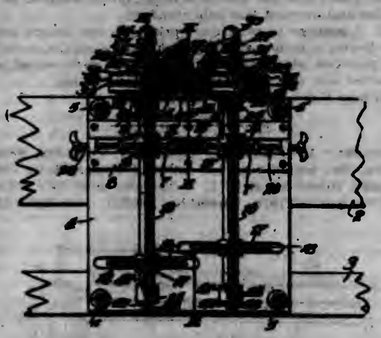
6. An incubator comprising a heater having an air-heating passage, a humidifying conduit controlling moisture through which conducts the air down to said heating passage, the incubating chamber having a passage for discharging spent air therefrom, said latter passage and the humidifying conduit and incubating chamber being arranged in juxtaposition whereby to warm the air in said conduit by heat from the incubating chamber, whereby the air is uniformly warmed and saturated with a determined amount of moisture and then heated and discharged into the incubating chamber.

8. An incubator comprising an air conduit, means for uniformly warming said conduit by heat from the incubating chamber, a source of moisture in contact with the circulating air, a heater receiving the moistened air from said conduit, and a conduit conducting the moistened air from said heater and discharging it into the incubating chamber.

[Claims 6 to 10 not printed in the Gazette.]

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1,029,648. HEAT-POLISHING MACHINE. Ernst Fredolf Thomas, St. Louis, Mo., assignor of one-half to Emil H. Lenz, Clayton, Mo. Filed Aug. 4, 1911. Serial No. 642,209. (Cl. 51—8.)



1. In a device of the character described, the combination with a pair of rotary spindles, of a bearing for one end of each of said spindles; said bearings being oscillable about an axis transverse to the axis of said spindles, a buffer head mounted on the other end of each spindle, and a slidable bearing block for each of said spindles, whereby the distance between said buffer heads may be regulated.

2. In a device of the character described, the combination with a pair of rotary spindles, of a bearing for one end of each of said spindles, said bearings being oscillable about an axis transverse to the axis of said spindles, a buffer head mounted on the other end of each spindle, and a slidable bearing block for each of said spindles whereby the distance between said buffer heads may be regulated; said slidable bearing blocks being resiliently held apart, and means for adjusting said bearing blocks upward and away from each other.

3. In a device of the character described, the combination with a platen, of a plate resiliently mounted above said platen, a presser roller carried by said plate, and a pair of buffing elements with their peripheries grooved to a plane intermediate of said presser roller and platen.

4. In a device of the character described, the combination with a pair of rotary spindles, of a bearing for one end of each of said spindles, said bearings being oscillable about an axis transverse to the axis of said spindles, a buffer head mounted on the other end of each spindle, and a slidable bearing block for each of said spindles, said bearing blocks being interposed between the oscillable bearing and said buffer head.

1,029,540. FLOOR-CONSTRUCTION. Thomas W. Stockbridge, Boston, Mass., assignor to F. W. Wirth Manufacturing Company, Boston, Mass., a Corporation of New Jersey. Filed Jan. 6, 1912. Serial No. 669,966. (Cl. 137—64.)



1. The improved floor construction comprising the soil pipe, a collar on the soil pipe, a gasket, a gasket between the soil pipe and the collar, and the base of the fixture, and a shield extending from the edge of the soil pipe over the collar and under the edge of the base of the fixture.

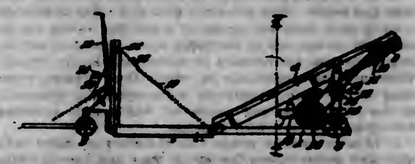
2. The combination, with a fixture of a soil pipe, a collar thereon, a shield extending from the soil pipe over the collar, and under the edge of the base of the fixture, and a gasket interposed between the pipe and the base of the fixture contacting with the said shield.

3. In combination with a recessed fixture, a screw threaded drain pipe extending upwardly in the recess in the fixture; a collar on the screw threaded portion of the drain pipe, a shield over said collar and extending under the fixture, a gasket between the drain pipe and the fixture and resting on the shield, means for drawing the fixture down onto the gasket to compress the same into the space between the pipe and the fixture.

4. The combination with a fixture having a recessed base of a drain pipe, a collar thereon, a shield extending from the edge of the drain pipe over the collar and under the edge of the base of the fixture, said fixture having a hole therein to permit the escape of water accumulating under the recessed fixture.

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1,029,547. LOADER. Levi Thompson, Glyndon, Minn. Filed Feb. 18, 1911. Serial No. 608,860. (Cl. 214—8.)



In a loading apparatus, a frame, an elevator mounted at one end thereof, a platform hingedly mounted upon the frame with the delivery end adjacent the receiving end of the elevator and adapted for the passage of scoops laterally thereover to dump material thereon, a raising mechanism at the other end of the frame connected with the free end of the said platform, and said boards hingedly attached to the sides of the frame at the edges of the said platform to swing against the ground.

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1,029,565. AUTOMATIC ROAD-MAP FOR AUTOMOBILES. Henry L. Tetzner, Fort Wayne, Ind. Filed June 20, 1911. Serial No. 634,070. (Cl. 40—42.)

A map carrier for vehicles comprising a casing of longitudinal partition dividing the casing into two compartments, rollers in each of said compartments, a web connected to said rollers to wind from one to the other, a train of gearing in the other compartment, connections whereby said gearing will actuate the rollers, a driving shaft connecting the same adjacent one end part of the train of gearing, a yoke slidably mounted in the open end carrying said shaft, a spring-bearing on said yoke to normally move toward the gearing and hold the shaft normally in operative engagement with the gearing, a contact on the end of the shaft, an abutment in the case adjacent the end of





the shaft, and an angle lever having an arm projecting through the case, an arm pivoted to the swivel, a pin and slot connection with the case and a cam edge bearing against the abutment.

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1,029,570. FOOD PRODUCT AND PROCESS OF OBTAINING THE SAME. François Xavier Ovide Thomas, Montreal, Quebec, Canada. Filed June 6, 1912. Serial No. 702,981. (Cl. 99—11.)

1. A process for preparing a food product which consists in taking absolutely good, pure milk showing not more than eighteen degrees of acidity, filtering said milk, adding fatty matter, about two pounds of butter fat corresponding to the milks test and two pounds of sugar to every one hundred pounds of milk treated, pasteurizing at a temperature of one hundred and forty to one hundred and ninety degrees Fahrenheit, homogenizing and cooling, and sterilizing under pressure at a temperature of two hundred and twenty-six (226°) to two hundred and thirty (230°) degrees Fahrenheit.

2. A process for preparing a food product which consists in taking milk showing not more than eighteen degrees of acidity, filtering said milk, adding about two pounds of butter fat corresponding to the milks test and two pounds of sugar to every one hundred pounds of milk treated, pasteurizing at a temperature of one hundred and forty to one hundred and ninety degrees Fahrenheit, homogenizing and cooling and sterilizing under pressure at a temperature of two hundred and twenty-six to two hundred and thirty degrees Fahrenheit.

3. A process of preparing a food product which consists in taking milk showing not over eighteen degrees of acidity, filtering said milk, adding butter fat and sugar thereto in sufficient proportion to the quantity under treatment to give it approximately the constituents of human milk; pasteurizing at a temperature of one hundred and forty to one hundred and ninety degrees Fahrenheit; homogenizing and cooling, bottling and sealing air tight, and sterilizing under pressure at a temperature of two hundred and twenty-six to two hundred and thirty degrees Fahrenheit.

4. A food product consisting of pure milk of low acidity which has been thoroughly filtered, to which butter fat and sugar have been added to make it approximately identical in known milk in its composition, structure and digestibility; said milk and the added elements having been pasteurized at a temperature of one hundred and forty to one hundred and ninety degrees Fahrenheit and then homogenized, cooled and further sterilized under pressure at a temperature of two hundred and twenty-six degrees to two hundred and thirty degrees Fahrenheit.

5. A food product consisting of pure milk of not over eighteen degrees of acidity, which has been thoroughly filtered, and to which for every one hundred pounds of milk there has been added fifty pounds of water, about two pounds of butter fat corresponding to the milks test, and two pounds sugar, said milk, with the new elements added thereto having been pasteurized at a temperature of one hundred and forty to one hundred and ninety degrees Fahrenheit and then homogenized and cooled and further sterilized under pressure at a temperature of two hundred and twenty-six degrees to two hundred and thirty degrees Fahrenheit.

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1,029,580. Artillery-Projectile. Karl Fillinger, Dusseldorf, Germany, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Sommerfeld-Dusseldorf, Germany. Filed Mar. 13, 1909. Serial No. 484,513. (Cl. 102—39.)



1. In a projectile, a shrapnel charge and a rocket charge, and means to simultaneously expel the charges and to ignite the rocket charge.

2. In a projectile, a shrapnel charge, comprising shot embedded in a combustible matrix, and a rocket charge in advance of the shrapnel charge and arranged to emit flame to the rear, and means to simultaneously expel the two charges and ignite the rocket charge.

3. In a projectile, a shrapnel charge, comprising shot embedded in a slow-burning matrix, and a rocket charge in advance of the shrapnel charge and arranged to emit flame to the rear on diverging lines, an expelling charge to expel the two charges, and a time fuse to simultaneously ignite the expelling charge and the rocket charge.

4. In a projectile, a casing, an expelling charge in the rear thereof, a shrapnel charge in the casing in front of the expelling charge, a rocket removably seated in the casing in advance of the shrapnel charge, said rocket containing a chamber filled with a flame-producing charge and open to the rear through channels, and means to simultaneously ignite the expelling charge and the rocket charge.

5. In a projectile, a casing, an expelling charge in the rear thereof, a shrapnel charge in the casing in front of the expelling charge and comprising shot embedded in a combustible matrix, a rocket removably seated in the casing in advance of the shrapnel charge and comprising a body containing a confined charge with outlet to the rear, and a time fuse arranged to simultaneously ignite the expelling charge and the rocket charge.

[Claims 6 to 8 not printed in the Gazette.]

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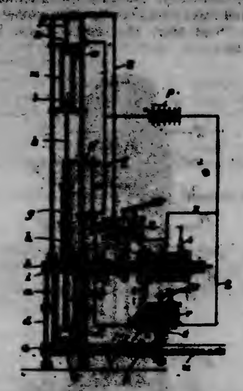
1,029,761. METHOD AND APPARATUS FOR THE CARRYING OUT OF GAS REACTIONS BY MEANS OF AN ELECTRIC ARC. Goerge Wagner, Schlebusch-Manfort, Germany, assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Nov. 22, 1911. Serial No. 661,761. (Cl. 204—34.)

1. The method of carrying out gas reactions which consists in bringing a definite volume of compressed gas in confinement under the influence of an electric arc, and while checking of further ingress of gas, maintaining the same under the influence of the arc and thereby continuously heating the same until a maximum pressure is reached, and then permitting the reaction mixture to suddenly expand and cool.

3. The method of carrying out gas reactions which consists in bringing a volume of compressed gas under the influence of an electric arc, shutting off further ingress of gas, drawing out the arc, and permitting the reaction mixture to suddenly expand.

4. The method of carrying out gas reactions which consists in bringing a volume of compressed gas under the influence of an electric arc, shutting off further ingress of gas, drawing out the arc and chilling rapidly the gases while passing, whereby the temperature of the arc and chilling substantially during the period of maximum pressure is reached, and then permitting the reaction mixture to suddenly expand.

[Claims 5 to 10 not printed in the Gazette.]

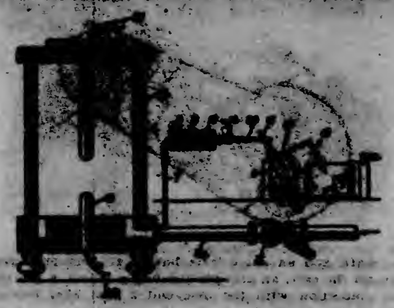


1,029,851. METHOD OF AND APPARATUS FOR CARRYING OUT GAS REACTIONS BY THE USE OF AN ELECTRIC ARC. Gomay Wagenaar, Saskatoon-Manitoba, Canada, assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Nov. 22, 1911. Serial No. 661,722. (Cl. 204—31.)

1. The method of carrying out gas reactions by the electric arc, which consists in admitting the gas comparatively slowly into the receptacle to permit the same to be positioned before the arc is formed, and when the desired pressure is reached, forming the electric arc.

2. The method of carrying out gas reactions by the electric arc, which consists in admitting the gas into the receptacle, and when the desired volume and pressure are reached, forming the electric arc.

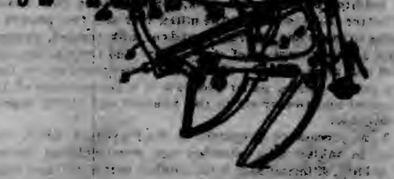
3. The method of carrying out gas reactions by the electric arc, which consists in admitting the gas comparatively slowly into the receptacle to permit the same to be positioned before the arc is formed, and when the desired pressure is reached, forming the electric arc, and then permitting the reaction mixture to suddenly expand and cool.



5. The method of carrying out gas reactions by the electric arc, which consists in admitting the gas comparatively slowly into the receptacle to permit the same to be positioned before the arc is formed, and when the desired pressure is reached, forming the electric arc, and then permitting the reaction mixture to suddenly expand and cool.

[Claims 6 to 17 not printed in the Gazette.]

1,029,854. RIDING-HEAD FOR HARVESTERS. Jeremy L. Wade, St. Paul, Minn., assignor to Wisconsin Harvester Co., Minneapolis, Minn., a Corporation of South Dakota. Filed May 1, 1909. Serial No. 493,295. (Cl. 56—24.)

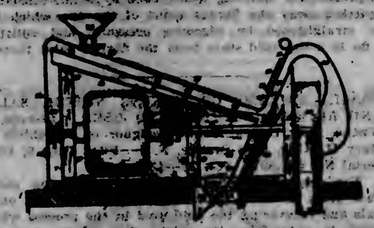


1. The combination, with a dash, of a seat holder adapted to slide end of a rod, means for holding the rod at the front end of the dash against rear vertical and for a vertical rear portion of the rod engaged by said holder, means for clamping the portions of the rod together, and means for locking the rod against rearward movement.

2. In a seat holder, a rod holder, means for holding together the portions of the rod to be clamped, jaws between which the clamp is formed, a throat being provided contiguous to said jaws and holder and in which the portions of the rod to be clamped together lie, and a covering knife movable to clear said throat preliminary to the clamping operation.

[Claims 3 to 17 not printed in the Gazette.]

1,029,855. COPPER REFINER AND GRADER. Frank F. Weir, San Francisco, Cal. Filed Dec. 6, 1911. Serial No. 664,945. (Cl. 136—17.)





1,029,856. LAVATORY. Henry M. Weyer, Hartford, Conn. Filed Jan. 14, 1911. Serial No. 602,670. Renewed July 31, 1912. Serial No. 712,557. (Cl. 4—65.)





1. In a cultivator, a supporting frame comprising a beam, a stem bar secured to the rear end of said beam, a trash-collecting disk pivotally secured to the forward end of said beam and having a series of radially disposed bolt holes, a plurality of teeth bars slidably engaged with said stem bar, teeth on said teeth bars, bolts in the radial bolt holes to pivotally connect the forward ends of said teeth bars therewith, and means to fasten said disk for holding the teeth bars in adjusted position.

2. In a cultivator of the character described, a supporting frame comprising a beam, stem bars secured to the rear end of said beam, a trash collecting disk pivotally secured to the forward end of said beam, said disk having therein series of radially disposed bolt holes, and a series of depending teeth bars slidably engaged with said stem bars, bolts in the radial bolt holes to pivotally connect the forward ends of said teeth bars therewith, and means to fasten said disk for holding the teeth bars in adjusted position.

3. In a cultivator of the character described, a supporting frame comprising a beam, stem bars secured to the rear end of said beam, a trash collecting disk pivotally secured to the forward end of said beam, said disk having therein series of radially disposed bolt holes, and a series of depending teeth bars slidably engaged with said stem bars, bolts in the radial bolt holes to pivotally connect the forward ends of said teeth bars therewith, and means to fasten said disk for holding the teeth bars in adjusted position, said teeth bars having their lower ends curved in the direction of travel of the cultivator.

4. In a cultivator of the character described, a supporting frame comprising a beam, stem bars secured to the rear end of said beam, a trash collecting disk pivotally secured to the forward end of said beam, said disk having therein series of radially disposed bolt holes, and a series of depending teeth bars slidably engaged with said stem bars, bolts in the radial bolt holes to pivotally connect the forward ends of said teeth bars therewith, and means to fasten said disk for holding the teeth bars in adjusted position, said teeth bars having their lower ends curved in the direction of travel of the cultivator, and provided with removable points.

1,029,858. ADJUSTABLE CULTIVATOR. James E. Wiseman, Clinton, Ala. Filed Feb. 6, 1912. Serial No. 675,855. (Cl. 97—54.)



ches, crossing clips extending around said felly, and fastening bolts securing the contiguous members to the inner rim and disposed through alined apertures in the rim, the band and said clips.



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1,009,898. PROCESS FOR PRODUCING CONDENSATION PRODUCTS FROM PHENOLS WITH FORMIC ALDEHYDE. Anton Wehmer, Leverkusen, near Cologne, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Jan. 21, 1911. Serial No. 603,807. (Cl. 106—22.)

1. Process for the production of phenol-aldehyde condensation products which comprises intermixing a chlorhydrin with the aldehyde and phenol, and heating the resulting mixture until separation of the condensation products takes place.

2. Process for the production of phenol-aldehyde condensation products which comprises intermixing a monochlorhydrin with the aldehyde and phenol, and heating the resulting mixture until separation of the condensation product takes place.

3. Process for the production of condensation products of phenol and formaldehyde which comprises intermixing a chlorhydrin with the phenol and formaldehyde, and heating the resulting mixture until separation of the condensation product takes place.

4. Process for the production of condensation products of phenol and formaldehyde which comprises intermixing a mono-chlorhydrin with the phenol and formaldehyde, and heating the resulting mixture until separation of the condensation product takes place.

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1,009,899. PROCESS OF PRODUCING CONDENSATION PRODUCTS FROM PHENOLS WITH FORMIC ALDEHYDE. Anton Wehmer, Leverkusen, near Cologne, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Jan. 21, 1911. Serial No. 603,808. (Cl. 106—22.)

1. In the production of phenol-aldehyde condensation products the process which comprises arresting or retarding the condensation reaction by adding to the reaction mass a salt of a sulfur acid which contains sulfur in a lower state of oxidation than in sulfurous acid.

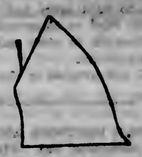
2. In the production of phenol-aldehyde condensation products the process which comprises arresting or retarding the condensation reaction by adding to the reaction mass a salt of hydrosulfurous acid.

3. The process of producing phenol-aldehyde condensation products which comprises condensing a phenol and an aldehyde by heating in the presence of an agent preventing the condensation reaction until the separation of the condensation product takes place, adding a salt of a sulfur acid which contains sulfur in a lower state of oxidation than the sulfurous acid, and isolating the resulting product of condensation, substantially as described.

4. The process of producing phenol-aldehyde condensation products which comprises condensing a phenol and an aldehyde by heating in the presence of an agent preventing the condensation reaction until the separation of the condensation product takes place, adding a salt of hydrosulfurous acid, and isolating the resulting product of condensation, substantially as described.

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1,009,900. PROCESS FOR SPLITTING WHALEBONE BY HAND. Moritz Wehrlich, Berlin, Germany. Filed Apr. 26, 1910. Serial No. 557,715. (Cl. 144—309.)



A process for splitting whalebone by hand, consisting in cutting away the fibrous point of the fin which has been straightened by edgewise pressure, and splitting the fin in a dry cold state from the fibrous point thereof.

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1,009,901. PROCESS OF MAKING NICKEL SALTS AND RECOVERING THE ACID USED. Horace L. Wells, New Haven, Conn., Assignor of two-thirds to Mary H. King, East Orange, N. J. Filed June 8, 1911. Serial No. 631,807. (Cl. 23—12.)

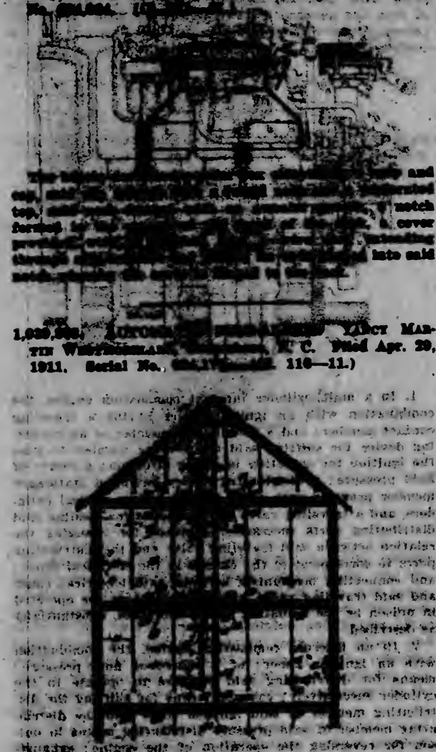
1. The herein described method of producing nickel sulfate from a matte containing nickel iron and other metals and recovering the acid used in the process which consists in pulverizing the matte, then boiling and agitating the same in hydrochloric acid having a greater solvent action on the nickel and iron than on the other metals in the matte, then by adding to the solution obtained an oxidizing agent and in any suitable manner precipitating the iron from said solution, adding to the solution obtained sufficient sulfuric acid to react with the chlorid present and sufficient ammonium sulfate to form the double nickel ammonium sulfate, recovering the sulfate as crystals and utilizing the mother liquor obtained to dissolve fresh matte.

2. The herein described method of producing nickel sulfate from a matte containing nickel iron and other metals, which comprises treating pulverized matte with hydrochloric acid, adding to the solution thus obtained an oxidizing agent and in any suitable manner precipitating any iron from the solution, adding sufficient sulfuric acid to act with the chlorid present and sufficient ammonium sulfate to form the double nickel ammonium sulfate, and recovering the said double nickel ammonium sulfate as crystals.

3. The herein described process of producing double nickel ammonium sulfate from a matte containing nickel iron and other metals, consisting [illegible] pulverized matte with [illegible] acid, treating the solution thus obtained with fresh matte and sulfureted hydrogen, boiling to expel the sulfureted hydrogen, adding an oxidizing agent and in any suitable manner precipitating any iron from the solution, adding sufficient sulfuric acid to react with the chlorid present and sufficient ammonium sulfate to form the double nickel ammonium sulfate, and recovering the said double nickel ammonium sulfate.

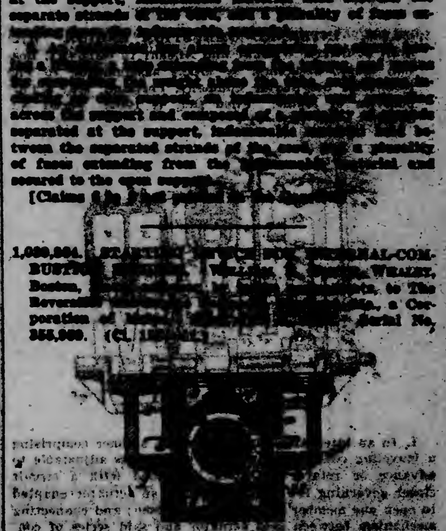
4. The herein described method of producing double nickel ammonium sulfate from a matte containing nickel iron and other metals, which comprises treating pulverized matte with dilute hydrochloric acid, treating the solution thus produced with fresh matte and sulfureted



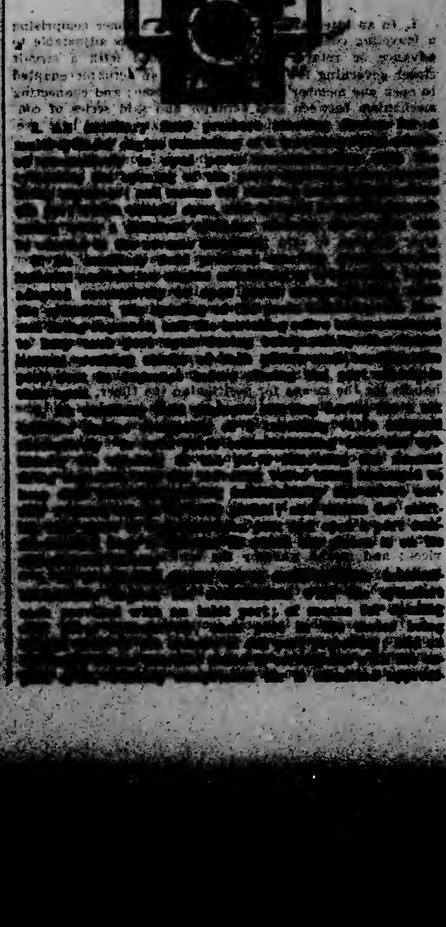


1,009,902. [illegible] Vincent Martin Westerlund, [illegible], N. C. Filed Apr. 29, 1911. Serial No. [illegible]. (Cl. 116—11.)





1,009,904. [illegible] Burton [illegible] Wheatley, Boston, [illegible], to The Revere [illegible] Corporation of [illegible], a Corporation of [illegible]. Filed [illegible], Serial No. 355,989. (Cl. 116—11.)



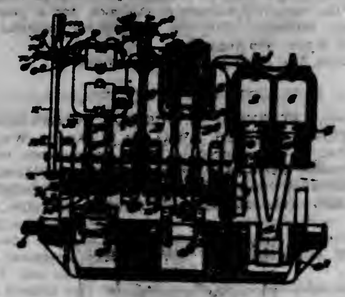
mainly at the time a charge would be exploded in the normal operation of the engine, and exhausted by the normal opening of the exhaust port at the end of the working stroke.

5. A fluid controlling valve comprising a casing having an air inlet, and being provided with a series of outlet ports; a rotary valve in said casing having two openings in different planes; and means for moving the valve in the casing to cause one or the other opening therein to come with the outlet ports; and means for rotating said valve.

(Claims 6 to 10 not printed in the Gazette.)

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1,000,965. INTERNAL-COMBUSTION ENGINE. WILLIAM B. SMITH WHANEY and ALBERT L. GALVERA, Boston, Mass., assignors, by mesne assignments, to The Reversible Gas-Engine Company, Portland, Me., a Corporation of Maine. Filed Oct. 7, 1907. Serial No. 396,589. (Cl. 123—41.)



1. In an internal combustion engine, a timer comprising a traveling contact and a series of contacts adjustable to advance or retard the spark, combined with a circuit closer governing the ignition circuit; an actuator adapted to open one member of said circuit closer; and connecting mechanism between said actuator and said series of contacts whereby said series of contacts are placed in a predetermined position prior to the closing of the circuit.

2. The combination with an internal combustion engine of valve controlling devices; means for shifting said valve controlling devices to time the valves for the operation of the engine in either direction; an ignition circuit; a circuit breaker included in the ignition circuit; an actuating lever common to said valve shifting means and said circuit breaker; and means whereby said circuit breaker must be operated prior to the movement of the actuating lever which operates the valve shifting means.

3. The combination with a multi-cylinder internal combustion engine; of an ignition timer; means for positioning the timer for ahead or reverse operation; means for controlling the operation of the cylinder valves; a circuit closer for the ignition circuit; and a common actuating handle for the means for positioning the timer, the means for controlling the operation of the cylinder valves and one member of the circuit closer, the relation of the circuit closing member operated by the handle to the other member of the circuit closer being such that the circuit can be closed or opened only by a manual operation of the controlling handle to and from a predetermined position.

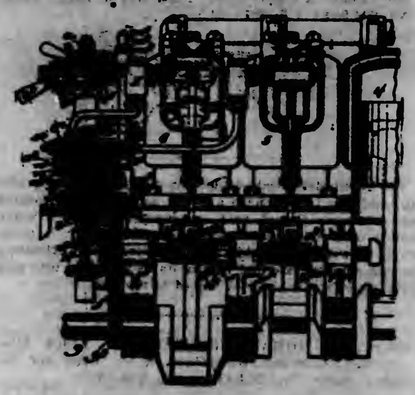
4. In a reversible internal combustion engine, the combination with a valve gear, timer and shifting mechanism common to the said valve gear and timer; of igniting devices; and means whereby the igniting devices are controlled by said shifting mechanism so that an ignition can take place prior to the complete shifting of the valve gear and timer.

5. In a reversible internal combustion engine, the combination with a valve gear, timer and shifting mechanism common to said valve gear and timer; of a circuit closer governing the ignition circuit and controlled by said shifting mechanism whereby the ignition circuit can be closed only after the shifting movement of the shifting mechanism has been completed.

(Claims 6 to 10 not printed in the Gazette.)

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1,000,966. INTERNAL-COMBUSTION ENGINE. WILLIAM BURNSTEIN SMITH WHANEY, Newton, and EDWARD P. RICHARDS, Malden, Mass., assignors to Reversible Gas-Engine Company, a Corporation of Maine. Filed Aug. 20, 1908. Serial No. 449,697. (Cl. 123—41.)



1. In a multi-cylinder internal combustion engine, the combination with an ignition timer having a traveling contact member; and a distributing member of an actuating device for shifting said distributing member to time the ignition for operation in either direction; a source of fluid pressure; a distributing device having a stationary member provided with ports leading to the several cylinders, and a traveling valve having means for opening said distributing ports successively; means for changing the relation between said traveling valve and the distributing ports to correspond to the change in the electrical timer; and connecting mechanism between said electrical timer and said traveling valve whereby said ports are operated in unison by the actuating device aforesaid, substantially as described.

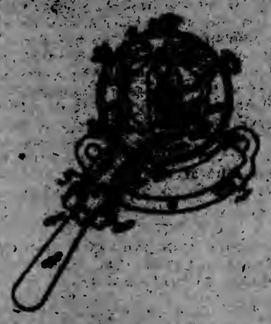
2. In an internal combustion engine, the combination with an ignition timer; of a source of fluid pressure; means for distributing said pressure to operate in the cylinder successively; common means for shifting the distributing member of said ignition timer and the distributing member of said pressure distributing means in unison for reversing the operation of the engine; exhaust-valves; means for opening said exhaust valves substantially at the end of the stroke during which the ignition timer and the pressure distributing means have operated; and shifting devices for the exhaust valve operating means actuated by the means for shifting the distributing members aforesaid.

3. In an internal combustion engine, the combination with an ignition timer; of an actuating member for the distributing device of the ignition timer whereby said distributing member can be set to start the engine ahead, or in a reverse direction; a source of fluid pressure; a traveling valve; a stationary distributing member of opening member connected with the distributing member of the ignition timer so as to be operated in unison therewith; and means whereby said traveling member of the ignition timer and the traveling valve also operate in unison, substantially as described.

4. The combination with the ignition timer having a traveling contact and stationary contact, distributing contacts; of a source of fluid pressure; a distributing valve operating in unison with the traveling member of the ignition

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1,000,967. REVERSING ENGINE. WILLIAM B. SMITH WHANEY, Newton, and EDWARD P. RICHARDS, Malden, Mass., assignors to Reversible Gas-Engine Company, a Corporation of Maine. Filed Nov. 25, 1905. Serial No. 288,606. (Cl. 123—41.)



1. An ignition timer provided with a traveling contact member having two distinct paths of movement, and distributing contacts insulated from each other, but extending across both paths of the movement of the traveling contact member, and having other parts which are normally out of the said paths, and which lie in the paths of movement of the traveling contact member, in combination with a distributing contact member adapted to move in both paths of movement to the other.

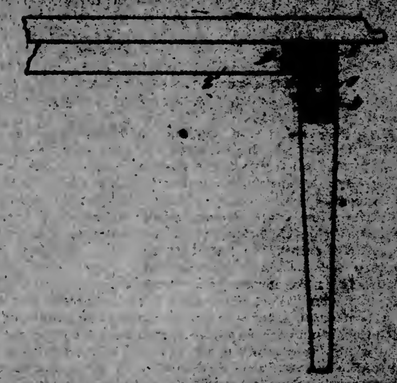
2. In an [illegible] with the traveling contact member [illegible] contact member; [illegible] valves; means for opening said exhaust valves substantially at the end of the stroke during which the ignition timer and the pressure distributing means have operated; and shifting devices for the exhaust valve operating means actuated by the means for shifting the distributing members aforesaid.

3. In [illegible] with an ignition timer; of an actuating member for the distributing device of the ignition timer whereby said distributing member can be set to start the engine ahead, or in a reverse direction; a source of fluid pressure; a traveling valve; a stationary distributing member of opening member connected with the distributing member of the ignition timer so as to be operated in unison therewith; and means whereby said traveling member of the ignition timer and the traveling valve also operate in unison, substantially as described.

4. The combination with the ignition timer having a traveling contact and stationary contact, distributing contacts; of a source of fluid pressure; a distributing valve operating in unison with the traveling member of the ignit-

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1,000,968. [illegible] Virginia, assignor of [illegible] Virginia, Va. Filed Jan. 14, 1908. Serial No. 410,844. (Cl. 48—11.)



The combination with a [illegible] and [illegible] and [illegible] and

said gun-barrel, and spring-arranged to yieldingly substitute movement thereof in a direction substantially parallel to the bore-line of said gun-barrel upon movement to other dimensions, of a recoil-brake arranged to act on the barrel, elevating-means for simultaneously adjusting the cradle and gun-barrel in elevation, said means acting only during recoil and return and including the gun-barrel and cradle in elevation during both recoil and return.

3. In a field gun, the combination, with a carriage, a cradle mounted thereon, and a gun barrel slidable on said cradle, of an upper and a lower guiding device and means carried by the barrel and arranged to engage one guiding device during recoil in one position of the gun barrel and another guiding device in another position of the gun barrel whereby the gun barrel is swung in elevation during recoil.

4. In a field gun, the combination, with a carriage, a cradle mounted on the carriage and arranged to swing in elevation, a barrel sliding directly on the cradle in a line always substantially parallel to the axis of the barrel, a curved guide for the barrel arranged to oscillate the barrel and cradle during recoil to bring the barrel from the firing elevation to a basic elevation, means to automatically return the barrel to battery at the former firing elevation.

5. In a field gun, the combination, with a carriage, a cradle mounted on the carriage and arranged to swing in elevation, a barrel sliding directly on the cradle in a line always substantially parallel to the axis of the barrel, a curved guide for the barrel arranged to oscillate the barrel and cradle during recoil to bring the barrel from the firing elevation to a basic elevation, means to temporarily detain the barrel at the basic elevation for loading, and means to automatically return the barrel to battery at the former firing elevation.

6. In a gun having a recoiling barrel, a cradle pivoted on a horizontal axis, a barrel sliding on the cradle in a right line, a pin carried by the barrel, a fixed curved guide for the pin, said guide being widened in its initial portion and narrowed in its final portion to divert the barrel during recoil from any firing elevation to a basic elevation at the end of recoil, said automatic means to return the barrel to battery and simultaneously to the firing position.

[Claims 7 to 8 not printed in the Gazette.]

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**1,029,870. BURNING FUSE FOR PROJECTILES.** KARL WIMMER, Breslau, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-an-der-Ruhr, Germany. Filed Feb. 2, 1912. Serial No. 675,295. (Cl. 102—30.)



A burning fuse for projectiles having two fire-ducts, of which the one leads to the bursting charge and the other to a smoke charge, a fuse plate, and a ignitable composition piece lying above the fuse plate, and having a composition ring arranged between said fire-ducts.

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**1,029,871. CHEST-EXPANDER.** ANNIE ELIZABETH WILLIAMS, Gleichen, Alberta, Canada. Filed Oct. 18, 1911. Serial No. 654,621. (Cl. 2—126.)

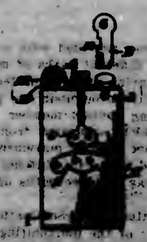
1. An chest-expander comprising, a set of plates having slots in pairs all continuously closed openings therein, said plates being arranged to the interior of the chest, one at a considerable distance from the other, diagonally disposed elastic bands, each having flexible connection with the chest, at the end of each connecting the plates and looped through the openings therein, said end being fastened at the lower side of the chest and having the loops thereof projecting through the slots in the outer plate, and a cord, connecting the end between the plates, said cord being fastened to the lower side of the chest, as and for the purposes specified.



2. The combination with a chest provided with the usual seams, of an elevator comprising a set of thin metallic plates sewn to the inner side of the chest at the side seams adjoining the back seam and one at a considerable distance from the other diagonally, said plates being provided each with a pair of openings which appear within the seams, a cord sewn and connecting the plates and located at the bottom of the chest, said cord being looped through the openings aforesaid in the plates and having the loops appearing within the seam and accessible from the exterior of the chest, and a ring sewn to the inside of the chest at the back seam and receiving the cord midway between the plates, as and for the purposes specified.

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**1,030,872. COIN-CONTROLLED LOCKING-HOOK.** LOUIS WILLIAMS, Denver, Colo. Filed Nov. 20, 1911. Serial No. 662,670. (Cl. 194—52.)



The combination with a casing of a [illegible] slide within the casing, said slide [illegible] coin-controlling mechanism, [illegible] projecting from the casing, a [illegible] a part normally projecting into [illegible] to said guard [illegible] of movement [illegible] by the [illegible] slide [illegible] [illegible] [illegible] [illegible]

**1,030,873. [illegible].** [illegible] Filed [illegible] 672,502. (Cl. 96—[illegible])

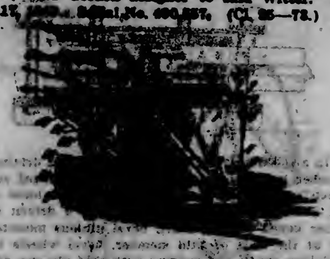
[illegible]

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[illegible] 204.60, iron thiocyanide [illegible] potassium ferrocyanide 70.20, sodium chloride [illegible] sodium sulfate 18.20.

**1,030,[illegible]. [illegible] MACHINE.** ALFRED S. WITTER and OTTO [illegible], Waterville, Wash.; said Gordon assignor to said Witter. Filed Apr. 12, 1909. Serial No. 489,287. (Cl. 25—73.)



1. A device of the class described comprising a base, a casing having [illegible] supported on the base, shutters hinged to one end of the casing and normally closing the same, a frame at the other end of the casing, a transparent plate [illegible] frame, means for [illegible] securing the frame in place, a bracket in connection with the frame for supporting a negative in contact with the plate, [illegible] means arranged to the base on each side of the casing, guides journaled between the same, a link connecting the lower end of the plates with the base, a shaft [illegible] transversely of the base, and journaled [illegible] thereon, crank arms on the shaft, links connecting the crank arms with the swinging arms, a lever pivoted to the casing and having one end connected to the shaft, a connection between the shutters and the other end of the lever, and a lever rigid with the shaft for oscillating the same.

2. A device of the class described comprising a base, a casing having [illegible] supported on the base, shutters hinged to one end of the casing and normally closing the same, a frame at the other end of the casing, a transparent plate [illegible] frame, means for [illegible] securing the frame in place, a bracket in connection with the frame for supporting a negative in contact with the plate, [illegible] means arranged to the base on each side of the casing, guides journaled between the same, a link connecting the lower end of the plates with the base, a shaft [illegible] transversely of the base, and journaled [illegible] thereon, crank arms on the shaft, links connecting the crank arms with the swinging arms, a lever pivoted to the casing and having one end connected to the shaft, a connection between the shutters and the other end of the lever, and a lever rigid with the shaft for oscillating the same.

3. A device of the class described comprising a base, a casing having [illegible] supported on the base, shutters hinged to one end of the casing and normally closing the same, a frame at the other end of the casing, a transparent plate [illegible] frame, means for [illegible] securing the frame in place, a bracket in connection with the frame for supporting a negative in contact with the plate, [illegible] means arranged to the base on each side of the casing, guides journaled between the same, a link connecting the lower end of the plates with the base, a shaft [illegible] transversely of the base, and journaled [illegible] thereon, crank arms on the shaft, links connecting the crank arms with the swinging arms, a lever pivoted to the casing and having one end connected to the shaft, a connection between the shutters and the other end of the lever, and a lever rigid with the shaft for oscillating the same.

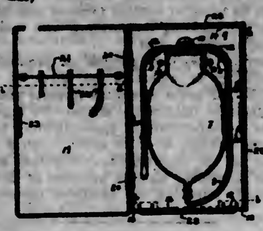
4. In a [illegible] [illegible] [illegible]

and the spindle-driving means, and gearing between the second-mentioned bevel gear and the frame-driving means.

3. A rotating machine comprising a rotatable frame, a hollow shaft carrying the frame, rotatable spindles carried by the frame, gears on the spindles for driving the same in the opposite direction from the shaft, a shaft mounted in the hollow shaft and carrying a gear which is in mesh with the spindle gears, a drive gear, and means for connecting said drive gear with the aforesaid driving means of the spindle and the frame, said connecting means comprising a hollow shaft having a longitudinal slot, a stem slidably mounted in the bore of said shaft, a key on the stem, said key projecting through the aforesaid slot, a gear in mesh with the drive gear and loosely mounted on the last-mentioned hollow shaft, and having a key-way for the key, a second loose gear on the hollow shaft, said gear also having a key-way for the key, and gearing between the two hollow shafts, and between the second-mentioned loose gear and the shaft which is mounted in the first-mentioned hollow shaft.

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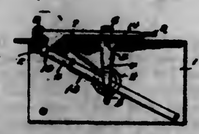
1,029,877. COMBINATION SYRINGE CASE AND SUPPORTER. Joseph W. Allan, Omaha, Nebr. Filed Aug. 28, 1911. Serial No. 646,464. (Cl. 206—69.) (Cl. 48—21.)



A syringe case comprising an elongated receptacle having a hinged cover, and provided near one of its ends with a holder-member, its opposite end having a passageway with inwardly-projecting stops; a closure-member adapted to open inwardly from said passageway and to swing outwardly for engagement with said stops; means for securing the elongated receptacle in an upright position, the passageway being disposed in the vertical plane of said holder-member.

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1,029,878. ANIMAL-TRAP. Elias B. Andersson, Rock Falls, Ill. Filed Dec. 14, 1911. Serial No. 665,710. (Cl. 43—21.)



1. A trap comprising a body, a hook pivotally supported at the upper portion thereof and having at its upper edge an eye, a striking member pivoted in the body, a spring engaging said striking member and adapted to force one end thereof in a downward direction, a bar pivoted upon the body and having a free end portion passing through the eye upon said hook, said bar in turn being provided with a hook adapted to engage the striking member.

2. A trap comprising a body, a hook pivotally supported at the upper portion thereof and provided at its upper end with an eye and having shoulders located at the sides of the eye, a striking member pivoted in the body, a spring engaging the striking member and adapted to force one end thereof in a downward direction, and a bar pivoted upon the body and having a free end portion passing through the eye and adapted to be engaged by the shoulders upon the hook, said bar having a hook adapted to engage the striking member.

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1,030,070. VARIABLE-SPEED GEARING. Judd Ashburn Ashbrook, Gibsonia, Pennsylvania, Peace Railroad. Filed July 26, 1911. Serial No. 641,121. (Cl. 74—24.)



1. In a speed gearing, the combination of a driving shaft, a member keyed thereto, bevel gearing mounted rotatably at each end of said member, bevel wheels loose on said shaft gearing with said bevel gearing, a driven shaft, a member keyed to said shaft, bevel pinions mounted rotatably at the ends of said member, bevel wheels loose on said driven shaft, and gearing with said pinions, and gearing intermeshing the bevel wheels on the driving and driven shafts and brakes operating upon the bevel wheels on said shafts.

2. In a speed gearing, the combination of a driving shaft, a member keyed thereto, bevel pinions mounted rotatably at each end of said member, bevel wheels loose on said shaft gearing with said bevel pinions, a driven shaft, a member keyed to said shaft, bevel pinions mounted rotatably at the ends of said member, bevel wheels loose on said driven shaft, and gearing with said pinions, gearing intermeshing the bevel wheels on the driving and driven shafts, and a brake operating upon one of the bevel wheels on said shafts.

3. In a speed gearing the combination of a casing, two shafts journaled in said casing, two bevoled wheels mounted loosely upon each of said shafts, a member connected to each of said shafts between said two bevel wheels, bevel pinions rotatively mounted at the ends of said members, gearing with said two bevel wheels, and gearing connecting bevel wheels on said two shafts, and a brake operating upon one of the bevel wheels on said shafts.

4. In a speed gearing, the combination of a driving shaft, a member keyed thereto, bevel pinions mounted rotatably at each end of said member, bevel wheels loose on said shaft gearing with said bevel pinions, a driven shaft, a member keyed to said shaft, bevel pinions mounted rotatably at the ends of said member, bevel wheels loose on said driven shaft, and gearing with said pinions, gearing intermeshing the bevel wheels on the driving and driven shafts, a brake drum fixed on and bearing one of the bevel wheels on said shafts, and a brake band encircling and operating upon said brake drum.

5. In a speed gearing, the combination of a driving shaft, a member keyed thereto, bevel pinions mounted rotatably at each end of said member, bevel wheels loose on said shaft gearing with said bevel shaft, a driven shaft, a member keyed to said shaft, bevel pinions mounted rotatably at the ends of said member, bevel wheels loose on said driven shaft and gearing with said pinions, gearing intermeshing the bevel wheels on the driving and driven shafts, a brake drum fixed on and bearing one of the bevel wheels on said shafts, a brake band encircling and operating upon said brake drum and a brake lever pivoted to said casing said lever with ends of said brake band attached thereto, and having a tail piece adapted to engage with said tightened said brake band upon depression of said brake lever.

[Claims 6 to 14 not printed in the Gazette.]

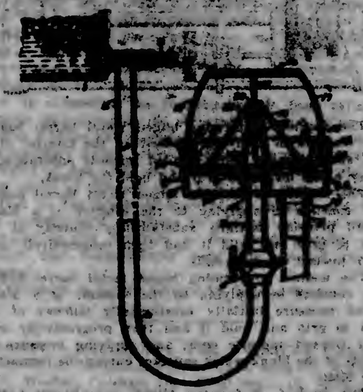
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1,030,080. SANITARY DRINKING-FOUNTAIN. Charles Dudley Avery, Cheyenne, Wyo. Filed Nov. 17, 1911. Serial No. 660,880. (Cl. 137—11.)

1. The combination in a drinking fountain of an inner hollow cone open at its upper end base having a cup-like



outer chamber thereby formed to receive the base of said inner cone, an outer cone supported above said inner cone having an open upper end adapted to be engaged with the upper opening of said outer chamber of the inner cone, and the open upper end of the outer cone adapted to fit upon the open end of the inner cone, with a guard ring supported adjacent and above the upper end of the outer cone.

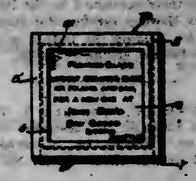


2. The combination in a drinking fountain of the hollow outer cone open at its upper end having a rolling flange at its base with a reverse flange on said rolling flange, the inner hollow cone having an open upper end adapted to fit against the inside wall of the outer cone above the rolling flange, said inner cone having a flange at its base adapted to support the outer cone, said inner cone having a pipe-like chamber open at its upper end intermediate of its base and having an outside disk flange on its base, said disk flange being designed vertically forming a cup-like outer chamber, an outlet in the base of said cup-like outer chamber, an outer cone supported above said inner cone having an open upper end corresponding with the open upper end of the inner cone, said outer cone having a rolling flange at its base with flanges on the outer chamber of the inner cone, a guard ring supported upon the flange of the outer cone above and adjacent to the open upper end of the outer cone, substantially as described.

4. The combination in a drinking fountain of a hollow funnel cone open at its upper end and adapted for connection to a pipe at its lower end, said inner cone being [illegible] the base forming a cup-like outer chamber, an outlet in the base of said outer cone open at its upper end adapted to fit over the inner cone with its upper open end corresponding with the open upper end of the inner cone, said outer cone having a rolling flange at its base [illegible] said rolling flange having a reverse flange adapted to travel upon the side of the cup-like outer chamber of the inner cone, a guard ring supported above said adjacent to the open upper end of the outer cone by supports attached to the flange of the outer cone substantially as described.

5. In a drinking fountain a water pipe with a control valve therein, said water supporting an inner cone having an inner chamber forming a cup, an outlet in the base of said inner cone, said outlet connecting with the opening in the upper end of the water pipe, an outer cone having an outside flange on its base, said outer cone supported upon said inner cone with its upper open end adapted to fit upon the upper end of the inner cone, said outer cone having a rolling flange at its base, said rolling flange having a reverse flange adapted to travel upon the side of the cup-like outer chamber of the inner cone, a guard ring supported above said adjacent to the open upper end of the outer cone by supports attached to the flange of the outer cone substantially as described.

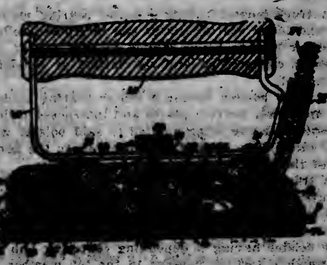
1,030,082. FRAME FOR MIRRORS AND THE LIKE. Jesse W. Barker, Seattle, Wash., assignor of one-half to Charles J. Orton, Seattle, Wash. Filed Nov. 20, 1911. Serial No. 661,021. (Cl. 40—13.)



A frame for mirrors and the like formed of wood having a central opening therein, a bar extending through said frame, a mirror or the like placed in said frame and retained therein by the compressed outer ends of said frame.

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1,030,092. ELECTRICALLY-HEATED FLAT-IRON. Raymond W. Bakes, Newark, N. J., assignor to Walker-Clark Electric Company, Newark, N. J., a Corporation of New Jersey. Filed Apr. 20, 1912. Serial No. 694,058. (Cl. 219—25.)



1. A flat-iron having a chambered portion, a heater fitting within the chamber and in actual contact with the bottom thereof, the heater being composed of material which is a good conductor of heat and a poor conductor of electricity when hot, heating elements in filament form supported within the heater, and electric connections for the heating elements.

2. A flat-iron having a chambered portion, a heater fitting within the chamber, heating elements in filament form contained within the heater, a top portion of electric non-conducting material secured to the chambered portion, and electric connections carried in the top portion and connecting with the heating elements in the heater.

3. A flat-iron comprising a chambered body portion, a face-plate secured to the body portion, a heater supported between the face-plate and the body portion and in contact with the face plate, the heater being composed of material which is a good conductor of heat and a poor conductor of electricity when hot, heating elements in filament form in the heater, a top portion secured to the body portion, and electric connections carried in the top portion and connecting with the heating elements.

4. A flat-iron comprising a chambered body portion, a face plate secured to the body portion, a heater removably supported between the face plate and the body portion and in contact with the entire inner surface of the face-plate, a plurality of heating elements in filament form supported within the heater, a top portion of insulating material secured to the body portion, spring actuated [illegible] on the top portion and engaging the terminals of said heating elements with means supported in the top portion for connecting one or more of the heating elements with the [illegible] circuit.

5. An electric flat-iron having a body portion, a chamber near and parallel with the face, a [illegible]



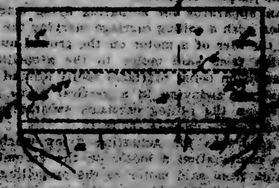
1. A [illegible] comprising a [illegible] cut [illegible]



1. In a device of the class described, a hollow stationary die member, and an expanding head comprising a central support, and [illegible] connected thereto by a pair of pivoted links and normally inward and away from the central support.

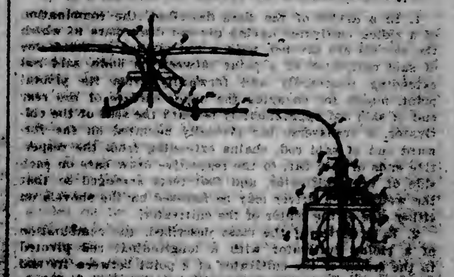
2. In a device of the class described, a hollow stationary die member, and an expanding head consisting of a central support, a series of [illegible] each connected thereto by a pair of pivoted links and extending beyond the central support when in collapsed position and adapted to be swung outward by pressure upon their projecting ends.

3. In a device of the class described, a hollow stationary die member, an expanding head comprising a central support, a series of intermediate die members mounted upon and movable toward and away from the same and an outer series of die members [illegible] and mounted upon the intermediate members and movable relatively [illegible] with their outer ends adapted to be [illegible]



1. In combination, a garment cuff formed with a pocket closed at one end and open at the other, also formed with button holes near both ends, a non-inherent elastic resilient stiffener bifurcated at one [illegible] to straddle the button hole near the closed end of the cuff and [illegible] to [illegible] therein in part coinciding [illegible] button holes near the open end of the cuff when the stiffener is inserted in the cuff with its bifurcated [illegible] against the closed end of the cuff, and an auxiliary [illegible] adapted to fold [illegible] of the pocket and [illegible] with [illegible] button [illegible] with those in said pocketed cuff, for the purpose and substantially in the manner described.

1,020,220. APPARATUS FOR ACTUATING FLYING-MACHINES. LUCIEN BELLENS, Paris, France. Filed Nov. 14, 1910. Serial No. 592,015. (Cl. 244—1.)



whether being rotatable bodily around the motor, substantially as described and for the purpose set forth.

3. An apparatus for actuating flying machines comprising in combination a motor on the ground, a flexible transmission from said motor to the propelling means of the flying machine, the guiding member of said transmission being rotatable bodily around the motor, a rigid tube containing said transmission, said rigid tube being rotatable bodily around the motor and capable also of swinging in a vertical plane, substantially as described and for the purpose set forth.

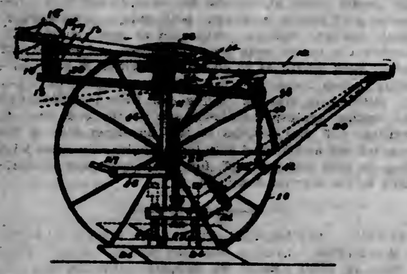
4. In an apparatus for actuating flying machines, the combination with a rolling carriage carrying the propelling means of the flier of a motor on the ground and a power transmission from said motor to the propelling means, said transmission being rotatable bodily around the motor and capable of swinging in a vertical plane and being also guided on the rolling carriage, substantially as described and for the purpose set forth.

5. An apparatus for actuating flying machines comprising in combination a motor on the ground, a power transmission from said motor to the propelling means of the flying machines, said transmission being rotatable bodily around the motor and capable of swinging in a vertical plane, and means capable of imparting movements to some parts of the flying machine while flying, substantially as described and for the purpose set forth.

[Claims 6 and 7 not printed in the Gazette.]

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1,039,880. ATTACHMENT FOR CULTIVATORS. WALTER W. BUBOLTZ, Manson, Iowa. Filed May 26, 1912. Serial No. 700,497. (Cl. 97—96.)



1. In a device of the class described, the combination of a riding cultivator having pivoted draw bars to which the shovels are pivoted, with a rod pivoted to the frame of said cultivator at a point between its ends, said rod extending rearwardly and forwardly from its pivotal point, means for engaging the upper surface of the rear end of said rod approximately beneath the seat of the cultivator, a transverse bar pivotally mounted on the forward end of said rod, chains extending from the respective ends of said bar, to the respective draw bars on each side of said cultivator, and foot rests arranged so that the weight of a driver may be imposed on the shovels on either side of the center of the cultivator.

2. In a device of the class described, the combination of a riding cultivator with a longitudinal rod pivoted to the frame of the cultivator at a point between its end and adjustable longitudinally with relation to said frame, draw bars mounted on said cultivator and capable of vertical and lateral pivotal movement, adjustable means whereby one end of said rod supports the said draw bars in various risen or move laterally with relation to said rod, vertically adjustable means for supporting the rear side of said rod at a point below the seat and foot rests arranged so that the weight of a driver may be imposed on the seat or on either or both shovels.

3. In a device of the class described, the combination of a riding cultivator with a rod pivoted to the frame of said cultivator at a point between its ends, said rod extending rearwardly and forwardly from its pivotal point, and being longitudinally adjustable with relation to its pivotal point, means for engaging the upper surface of the rear end of said rod approximately beneath the seat of the cultivator, a transverse bar pivotally mounted on the forward end of said rod, chains extending from the respective ends of said bar, to the respective draw bars on each side of said cultivator, and foot rests arranged so that the weight of a driver may be imposed on either side of the center of the cultivator.

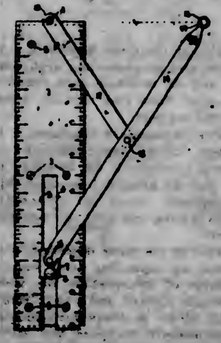
4. In a device of the class described, the combination of a riding cultivator with a rod pivoted to the frame of said cultivator at a point between its ends, said rod extending rearwardly and forwardly from its pivotal point, means for engaging the upper surface of the rear end of said rod approximately beneath the seat of the cultivator, said means comprising a grooved roller, a transverse bar pivotally mounted on the forward end of said rod, chains extending from the respective ends of said bar, to the respective draw bars on each side of said cultivator, and foot rests arranged so that the weight of a driver may be imposed on the shovels on either side of the center of the cultivator.

5. In a device of the class described, the combination of a riding cultivator, with a rod pivoted to the frame of said cultivator at a point between its ends, said rod extending rearwardly and forwardly from its pivotal point, means for engaging the upper surface of the rear end of said rod approximately beneath the seat of the cultivator, said means comprising a grooved roller capable of some lateral movement, a transverse bar pivotally mounted on the forward end of said rod, chains extending from the respective draw bars on each side of said cultivator, and foot rests arranged so that the weight of a driver may be imposed on the shovels on either side of the center of the cultivator.

[Claims 6 and 7 not printed in the Gazette.]

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1,039,881. COMBINED BEVEL AND SQUARE. WILLIAM R. BUCHANAN, Carrsville, Ky. Filed Dec. 14, 1911. Serial No. 665,777. (Cl. 33—108.)



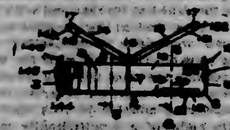
1. In an instrument of the class described, the combination with a stock having a longitudinal central groove along its upper face, and a bolt rod carried thereby and having a longitudinal slot overlying said bolt-receiving groove, of a blade having a longitudinal slot and overlying said stock, a pivot bolt passing said slot and bolt rod and connecting said blade and stock at one end, a thumb nut on the outer end of said bolt rod, a plate having a pivotal connection with said pivot bolt and having a slot in its outer end, a thumb nut on the outer end of said bolt rod and engaging said slot, a pivot bolt passing through said blade and stock at the end of the latter opposite the first mentioned pivot bolt, and a plate pivotally connected with said last mentioned pivot bolt and having a slot in its outer end, a thumb nut on the outer end of said bolt rod and engaging said slot, substantially as described.

2. In an instrument of the class described, the combination with a stock having a longitudinal central groove along its upper face, and a bolt rod carried thereby and having a longitudinal slot overlying said groove, of a blade having a longitudinal slot and overlying said stock, a pivot bolt passing said slot and bolt rod and connecting said blade and stock at one end, a thumb nut on the outer end of said bolt rod, a plate having a pivotal connection with said pivot bolt and having a slot in its outer end, a thumb nut on the outer end of said bolt rod and engaging said slot, a pivot bolt passing through said blade and stock at the end of the latter opposite the first mentioned pivot bolt, and a plate pivotally connected with said last mentioned pivot bolt and having a slot in its outer end, a thumb nut on the outer end of said bolt rod and engaging said slot, substantially as described.



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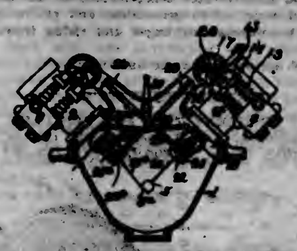
1,039,882. COMBINATION PIPE AND TOBACCO CASE. OSCAR A. VON H. BOSCOW, Newark, N. J. Filed Aug. 16, 1910. Serial No. 577,498. (Cl. 206—38.)



The herein-described new or helpful, comprising a channeled body portion which is bored and has one end which is capped or rounded outwardly of the plane of the body portion, said body portion having an aperture in its bored bottom closely adjacent to the capped or said tapered or rounded end, a tube adjustably longitudinally of the body portion upon the inside of its bottom the closing said aperture, means for operating said tube through said aperture from the outside of the body portion, said means for closing the top of said body portion, whereby the case held between the palm of the hand will discharge its contents through said aperture and the said tube may be operated by one of the digits and the stream of tobacco from said aperture thus guided into a pipe held by the same said digit.

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1,039,883. DISTRIBUTING-VALVE OPERATING AND REVERSING MECHANISM FOR MOTORS WORKED BY EXPANSIBLE MOTIVE FLUIDS. ADOLPHE SOMMER, Paris, France. Filed Feb. 9, 1909. Serial No. 477,609. (Cl. 121—82.)

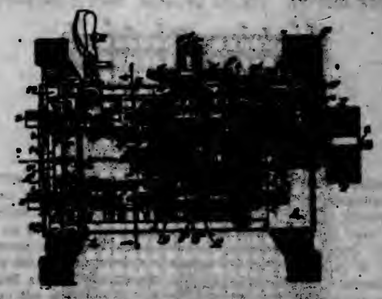


1. In a steam motor comprising two cylinders placed perpendicularly to one another, a crank shaft, two eccentrics on the said shaft placed at an angle of 180° the one with respect to the other, two eccentric levers, two swinging guide ways for the said levers, valves on the said cylinders, means governed by the two eccentric levers for moving the valves of the two respective cylinders, each swinging guide-way corresponding to a cylinder being placed between the other cylinder and the crank shaft, and means to make the two guide-ways to swing at one and the same time.

2. A steam motor comprising two cylinders placed perpendicularly to one another, a crank shaft, two eccentrics on the said shaft placed at an angle of 180° the one with respect to the other two eccentric levers, two swinging guide ways for the said levers, valves on the said cylinders, means governed by the said two eccentric levers to move the valves of the two respective cylinders, each swinging guide way corresponding to a cylinder being placed between the other cylinder and the crank shaft, a block slidably engaging the edges of said slot, a pitch rule pivoted at one end upon said block and having a socket at its other end for carrying a point or pencil, and a link pivotally connecting said rod with a point in the pitch rule which is distant from the pencil point the same as the length of said link, the two points set forth.

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1,039,884. MACHINE FOR BENDING THE CROSS-HEADS AND EYES OF WIRE BALE-TIES. HENRY VON BULTZINGSLOWEN, New York, N. Y., Assignor to The Bruce Works, New York, N. Y., a Corporation of New York. Filed Dec. 19, 1911. Serial No. 666,690. (Cl. 140—72.)



1. In a machine for bending the crossheads and eyes of wire bale-ties, the combination, with the crosshead and eye-bending devices and their shafts, of sliding-sleeves on said shafts, actuating means between the sliding-sleeves and the bending-devices, a reciprocating slide-plate, and a power-shifting mechanism interposed between the slide-plate and the sliding-sleeves for imparting alternately reciprocating motion to the sliding-sleeves for actuating the cross head or eye-bending devices.

2. In a machine for bending the crossheads and eyes of wire bale-ties, the combination, with separate crosshead and eye-bending devices and their shafts, of sliding-sleeves on said shafts, means connecting said sleeves with the bending-devices for actuating the same, a reciprocating slide-plate, means between said slide-plate and the sliding-sleeves for actuating the latter by the forward and backward movement of the slide-plate, and a power-shifting mechanism operated by the slide-plate for actuating alternately the sliding-sleeves of the crosshead or eye-bending devices.

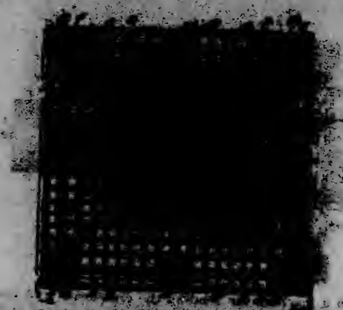
3. In a machine for bending the crossheads and eyes of wire bale-ties, the combination, with separate crosshead and eye-bending devices and their shafts, of sliding-sleeves on said shafts, means for connecting said sleeves with the bending-devices, laterally-shiftable heads engaging alternately the sliding-sleeves of the crosshead or eye-bending devices, a reciprocating slide-plate, means on the slide-plate for guiding said heads, and a power-shifting mechanism connected with the slide-plate for actuating the laterally-shifting heads.

4. In a machine for bending the crossheads and eyes of wire bale-ties, the combination, with separate crosshead and eye-bending devices and their shafts, of sliding-sleeves mounted on the shafts, means for connecting said sleeves with the bending-devices, laterally-shiftable heads adapted to engage alternately one or the other of the sliding-sleeves, a shifting lever connected with said shiftable heads, a reciprocating slide-plate, means on the forward end of said slide-plate for guiding the shiftable heads, a power-shifting lever, and means located at the rear-end of said slide-plate for intermittently actuating said shifting lever and moving the shiftable heads into connection with one or the other sliding-sleeve.

5. In a machine for bending the crossheads and eyes of wire bale-ties, the combination, with separate crosshead and eye-bending devices and their shafts, of sliding-sleeves mounted on the shafts, means for connecting said sleeves with the bending-devices, laterally-shiftable heads, a reciprocating slide-plate, a fixed shifting lever [illegible]

[Claims 6 to 20 not printed in the Gazette.]

1,039,495. CONCRETE PANEL CONSTRUCTION. WILLIAM H. HUNT, St. Louis, Mo., assignor to Concrete Bar Company, of St. Louis, Mo., a Corporation of Missouri. Filed June 17, 1910. Serial No. 567,648. (Cl. 72—66.)



1. In a system of floor construction, diagonals arranged to divide the floor into panels and a supporting tile and concrete slab resting thereon, said slab comprising series of intersecting reinforced concrete beams of different widths crossing the floor panels diagonally in opposite directions, the wider beams being disposed adjacent to the margins of the panels.

2. A monolithic reinforced concrete building construction comprising columns and a plurality of floor panels supported thereby, each panel having a plurality of groups of parallel beams crossing it from intersecting series, said beams being all of substantially even depth and each of said series comprising beams of different widths, the beams crossing the middle portion of the panel being narrower than the marginal beams.

3. A rectangular floor panel comprising a series of reinforced concrete beams parallel with one of its sides and a second series of reinforced concrete beams intersecting those of the first series at right angles, each of said beams being of uniform depth and width but the width of some beams differing from the width of other beams of the same series, the wider beams of each series being arranged near the margins of the panel.

4. In a building construction, floor panels and supports therefor, said panels comprising series of intersecting reinforced concrete beams of even depth, the beams decreasing respectively in width approximately from the marginal edges toward the middle of the panel.

5. A system of floor construction, supporting columns and rectangular panels, each of said panels comprising a series of reinforced concrete beams crossing the panel intermediate said columns and panels, with five of the sides, said beams being of substantially even depth but the beams adjacent to the margins of the panel being wider than the inner beams.

[Claims 6 to 17 not printed in the Gazette.]

1,039,496. HEAD REST FOR AUTOMOBILES. Thomas H. Hutchinson, Hyde Park, Mass., assignor to Wheeler Reflecting Arms Co., New Haven, Conn., a Corporation of West Virginia. Filed Sept. 6, 1910. Serial No. 580,871. (Cl. 155—11.)

[illegible]

[Claims 6 to 20 not printed in the Gazette.]

1,039,497. [illegible] FOR VEHICLES. Hugh A. Carmichael, [illegible], Calgary, Canada. Filed Feb. 1, 1911. Serial No. 606,272. (Cl. 152—6.)



[illegible]

[Claims 6 to 8 not printed in the Gazette.]

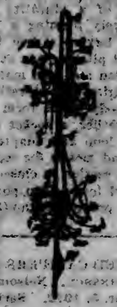
1,039,498. CONVERTIBLE THREAD WHEEL. Harold W. Clapp, Berkeley, and Blanchard Collins Bogue, San Francisco, Cal.; said Bogue assignor to said Clapp. Filed May 20, 1911. Serial No. 628,102. (Cl. 152—9.)



[illegible]

[Claims 6 to 8 not printed in the Gazette.]

1,039,499. SAP-SPOUT. Henry James Collins, Taunton, Mass. Filed July 20, 1911. Serial No. 639,648. (Cl. 47—6.)



1. An improved tap strap, comprising a pliable body in strip form, said pliable body constituting a terminal tap loop portion having a free end and also constituting a main portion extending downwardly from said tap loop and [illegible] a plurality of sections of said pliable body [illegible] having a bottom loop portion, and a [illegible] for attaching the free end of said tap [illegible] with said main portion of the body, [illegible] of the pliable body which [illegible] together with the bottom loop and [illegible] together with the free end of the tap loop [illegible] for the purpose set forth.

2. An improved tap strap, comprising a pliable body in strip form, said pliable body constituting a terminal

...ing, in combination with said body portion, a flexible tip strip, one end of which is secured to the body portion at the top thereof, and the other end of which is free, said tip strip having a portion adapted to be engaged by said retaining means at the free end of said tip strip and projecting at the base of said pliable body.

3. An improved fish strap, comprising a pliable body in strip form, said pliable body constituting a terminal tip loop portion having a free end and also constituting a main portion extending downwardly from said tip loop, a stud device carried by said main portion of said pliable body at the base of said tip loop and having disks between which the body strip is clamped and from which projects a stud, fastening means carried by the free end of said tip loop for engaging said stud, and a safety device secured between the disk of the stud device and the body strip and projecting at the rear of said pliable body.

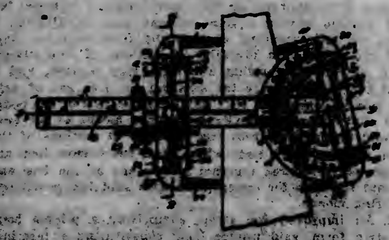
4. An improved fish strap, comprising a pliable body in strip form, said pliable body constituting a terminal tip loop portion having a free end and also constituting a main portion extending downwardly from said tip loop and consisting of a plurality of sections of said pliable body collectively forming a bottom loop portion, a stud device carried by said pliable body at a point intermediate of said tip loop portion and said main lower loop portion, said stud device securing the plurality of sections of the main portion of the body which form the bottom loop portion permanently together, a socket device carried by the free end of said tip loop and adapted to engage said securing stud device, and means for closing the lower loop portion above its terminal lower end whereby a suspended device is retained in position.

5. An improved fish strap, comprising a pliable body in strip form, said pliable body constituting a terminal tip loop portion having a free end and also constituting a main portion extending downwardly from said tip loop and consisting of a plurality of sections of said pliable body collectively forming a bottom loop portion, one of said sections having a free terminal end, a stud device carried by said pliable body at a point intermediate of said tip loop portion and said main lower loop portion, said stud device securing the plurality of sections of the main portion of the body which form the bottom loop portion permanently together, a socket device carried by the free end of said tip loop and adapted to engage said securing stud device, and means for securing the free terminal end of said lower section in closed connection with the other sections of said lower loop portion.

[Claims 6 to 8 not printed in the Gazette.]

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1,009,901. COMBINED CALIPERS AND PROTRACTOR. VASILE CONSTANTINESCU, Nelson, British Columbia, Canada. Filed Mar. 5, 1912. Serial No. 681,780. (Cl. 73—190.)



1. In a device of the character described, a caliper comprising a base plate, each corner portion of which is provided with a pair of spaced ears, a caliper blade pivotally connected between each pair of ears, a plate, means to clamp the caliper blade to the protractor plate, means to clamp the caliper blade to the base plate, a graduated arc carried by the protractor plate, a pointer carried by the caliper blade and operating adjacent said arc, and a graduated scale carried by the caliper blade and operating adjacent the base plate.

2. In a device of the character described, a protractor plate provided with a scale, a caliper blade pivotally connected with the protractor plate and provided with a scale, a carriage mounted upon the caliper blade to be moved longitudinally thereof, and caliper legs adjustably mounted upon the carriage to be moved thereon toward and away from each other.

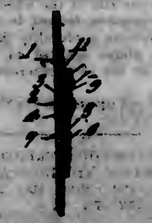
3. In a device of the character described, a protractor plate provided with a scale, a caliper blade pivotally connected with the protractor plate and provided with a scale, a carriage mounted upon the caliper blade to be moved longitudinally thereof, and caliper legs adjustably mounted upon the carriage to be moved thereon toward and away from each other, a caliper blade pivotally connected with the protractor plate and provided with a scale, a carriage adjustably mounted upon the caliper blade to be moved longitudinally thereof, and caliper legs adjustably mounted upon the carriage and adapted to be interchanged.

4. In a device of the character described, a protractor plate provided with a scale, a caliper blade pivotally connected with the protractor plate and provided with a scale, a carriage adjustably mounted upon the caliper blade to be moved longitudinally thereof, and caliper legs adjustably mounted upon the carriage to be moved thereon toward and away from each other, a caliper blade pivotally connected with the protractor plate and provided with a scale, a carriage adjustably mounted upon the caliper blade to be moved longitudinally thereof, and caliper legs adjustably mounted upon the carriage and adapted to be interchanged, a caliper blade pivotally connected with the protractor plate and provided with a scale, a carriage adjustably mounted upon the caliper blade to be moved longitudinally of the same, said curved caliper legs, removably mounted upon the carriage and adapted to be interchanged.

[Claims 6 to 9 not printed in the Gazette.]

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1,009,902. NAME-HOLDER. HUGH BURTON COOK, Brunswick, Ga. Filed Sept. 27, 1911. Serial No. 651,856. (Cl. 40—16.)



The combination with a receptacle, said wall having an opening [illegible] slidably fastened along its edge portions [illegible] of the wall and across the opening [illegible] to apertures in the face plate [illegible] are exposed within the opening [illegible] slidably secured along these sides [illegible] forming a card receiving pocket, [illegible] slidably mounted within the pocket [illegible] in the face strip, a tab [illegible] and lower ends of the wall of the receptacle [illegible] A [illegible] removed from the opening in said wall [illegible] and a flexible connecting [illegible] the pocket plate [illegible] and its tab [illegible] from the pocket plate [illegible] and its tab [illegible] from the pocket plate [illegible] and its tab [illegible] from

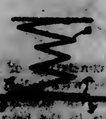
1,029,567. SECONDARY BATTERY. Arthur Henry Reeves, Blackheath, England. Filed Feb. 12, 1910. Serial No. 543,497. (Cl. [illegible]—20.)



1. A secondary battery comprising in combination a cell; positive plates; negative plates; two supports common to plates of one polarity and insulated from each side of said cell; insulating supports common to plates of the opposite polarity and fixed midway between the two supports, said supports being each provided with a single central lug on its lower edge adapted to stand on the intermediate support and a recess on its lower edge on each side of said central lug adapted to engage the two supports.

2. A secondary battery cell formed with a central depending lug upon the inner side and a recess on each side of the lug, said plate having a thickened edge or rim the upper edge of which is defined by this rim being filled in so that the rim is thickest at the corners, said plate being formed of gradually increasing thickness from top to bottom.

1,029,602. UPHOLSTERY-SPRING-ATTACHING DEVICE. James A. Davis, Amesbury, Mass., assignor, by mesne assignments, to The Clarke Wing Company, Amesbury, Mass., a Corporation of Massachusetts. Filed July 10, 1911. Serial No. 637,602. (Cl. 5—20.)



[illegible]

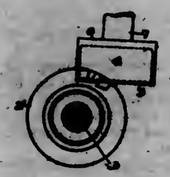
[illegible]

[illegible]

seated to the said bracket, and a fluid pressure pipe coupled to the other end of the cylinder and communicating with the interior thereof, the said bar and piston rod being at a slight angle with respect to each other.

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1,039,915. MANUFACTURE OF TURBINE-WHEELS. FRANK M. FARMS, Pittsburgh, Pa., assignor to W. S. Hiltt, Pittsburgh, Pa. Filed Jan. 2, 1906, Serial No. 157,457. Renewed Jan. 22, 1907. Serial No. 353,524. (Cl. 29—23.5.)



1. The herein described method of forming a vane on turbine wheels which consists in making a cut across the periphery of a wheel blank extending from edge to edge thereof by a thin tool, and then shifting the tool and blank angularly relatively to each other to make another similar cut to widen the cut first made; substantially as described.

2. The herein described method of forming a vane on turbine wheels which consists in making a curved cut across the periphery of a wheel blank extending from edge to edge thereof by a thin tool and then shifting the tool and blank angularly relatively to each other to make another similar cut to widen the cut first made; substantially as described.

3. The herein described method of forming a vane on a turbine wheel, which consists in making a curved cut across the periphery of a wheel blank extending from edge to edge thereof by a thin hollow-cylindrical end-cutting tool, the blank and tool being relatively so placed that one element of the cylindrical surface of said tool is radial to the axis of the blank at one point, and then shifting the tool and blank angularly relatively to each other to make another similar cut to widen the cut first made; substantially as described.

4. The herein described method of forming a vane on turbine wheels which consists in making a cut across the periphery of a wheel blank extending from edge to edge thereof by a thin circular tool, and then shifting the tool and blank angularly relatively to each other to make another cut to widen at least a portion of the cut first made; substantially as described.

5. The herein described method of forming a vane on a turbine wheel, which consists in rotating a cutting tool in cutting engagement with the periphery of the blank and in a curved path to form a narrow cut across the periphery of the blank, the axis of the cutting tool being directed obliquely to the axis of the blank, and then shifting the blank and tool angularly relatively to each other to widen the cut first formed by another and similar cut, the tool having a thin cutting edge to minimize the variations due to changes in the cutting angle at different portions of the slot; substantially as described.

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1,039,916. LOCK-NUT. JOHN J. FARRELL, Ardmore, Pa. Filed June 18, 1910. Serial No. 567,593. (Cl. 151—21.)

1. A lock nut formed as a single integral element and having a threaded opening and having its lower surface inclined with reference to said opening, and having also a slit located in its thicker portion and extending from the side of the nut into said threaded opening, the walls of the outer portion of said slit being inclined with reference to one another and said slit being widest at its outer end.

2. A lock nut formed as a single integral element and having a threaded opening and having its lower surface inclined with reference to said opening, and having also an inclined slit located in its thicker portion and extending from the side of the nut into said threaded opening, the walls of the outer portion of said slit being inclined with reference to one another and said slit being widest at its outer end.



3. A lock nut formed as a single integral element and having a threaded opening, and having its lower surface inclined with reference to said opening, and having also an inclined slit located in its thicker portion and extending into said threaded opening, the walls of the outer portion of said slit being inclined with reference to one another and said slit being widest at its outer end.

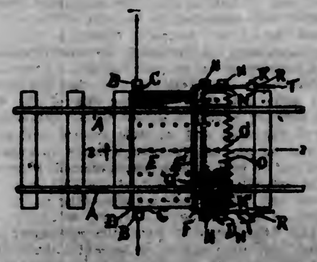
4. A lock nut formed as a single integral element and having a threaded opening and having its lower surface inclined with reference to said opening, and having also an upwardly inclined slit located in its thicker portion and extending from the side of the nut into said threaded opening, the walls of the outer portion of said slit being inclined with reference to one another and said slit being widest at its outer end.

5. A lock nut formed as a single integral element and having a threaded opening, and having its lower surface inclined with reference to said opening, and having also a slit located in the lower part of its thicker portion and extending from the side of the nut into said threaded opening, the walls of the outer portion of said slit being inclined with reference to one another and said slit being widest at its outer end.

[Claim 6 not printed in the Gazette.]

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1,039,917. CATTLE-GUARD. CICERO ABERNATHY FEWELL, Glenwood, Ark. Filed Feb. 13, 1912. Serial No. 677,239. (Cl. 20—42.)



A cattle guard comprising oppositely disposed posts, hangers having angled ends pivotally mounted in said posts, a shaft adapted to be supported by the hangers beneath the rails of the railway, a platform resting at one edge upon said shaft, pivoted weighted levers, pawls upon which the levers are mounted, the edge of said platform opposite the one supported by said shaft being rounded, a shaft journaled in projections upon the rounded edge of the platform, disks connecting the ends of said shaft which is carried by the platform with the ends of said weighted levers, a plurality of bars and chain connecting the same in sequence, said bars having bifurcated projections upon one edge which are pivotally connected to the shaft connecting said projections, said bars being pressed to horizontal and transverse alignment, the ends, pivotal connections and lateral projections on the outer depending bars being adapted to suspend said parts in working alignment, a bracket and spring, the long portion of the spring forming a combination fastener, and a bracket to said spring, the bow the lower bracket.

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1,039,919. RIBBON EXCHANGING AND FEEDING MECHANISM FOR TYPE-WRITING [illegible]. Assignor to [illegible] Corporation of Delaware. Filed Feb. 3, 1911. Serial No. 606,529. (Cl. 197—[illegible].)



1. The combination with a platen and printing mechanism, of ribbon spools, a shaft supported to be rotated by the printing mechanism during the operation of the latter, arms extended from the shaft, gears carried by the arms, and ratchets secured to the spools and arranged to be engaged by the gears.

2. The combination with a platen and printing mechanism, of ribbon spools, and spool operating mechanism including a rock shaft rocked by the printing mechanism to operate a spool during the retraction of the printing mechanism and shiftable endwise to determine the spool to be operated.

3. The combination with a platen and printing mechanism, of two ribbon spools, two pawl and ratchet devices each arranged to rotate one of the spools, a rock shaft movably shiftable to bring either pawl and ratchet device operative, and means automatically controlled during the retraction thereof to rock the shaft and actuate the effective pawl and ratchet mechanism.

4. The combination with a platen and printing mechanism, of a pair of ribbon spools, and spool operating mechanism including pawl and ratchet devices, a shaft shiftable endwise to determine which of said devices is to operate, a bracket extended from the shaft to facilitate the shifting thereof, and an arm extended from the shaft and cooperating with the printing mechanism to rock the shaft and thereby operate the selected ratchet device.

5. The combination with a supporting plate, and a platen and printing mechanism, of ribbon mechanism carried exclusively by the plate and including a shaft, rocked by the printing mechanism to cause a feed of the ribbon and shiftable endwise to reverse the direction of the feed.

[Claims 6 to 15 not printed in the Gazette.]

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1,039,920. CANDLE-HOLDER. CHARLES A. FOSS, Chicago, Ill. Filed Mar. 11, 1912. Serial No. 682,918. (Cl. 240—56.)



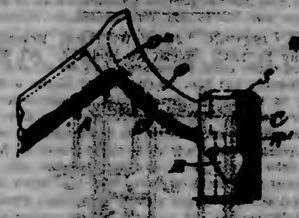
1. A candle holder comprising a bowl having a slot passing through the bottom thereof; a supporting member passing through said slot; a candle support detachably connected to said member within said bowl; and means for supporting said supporting member, substantially as



of upon the rounded edge of the platform, said pawls being mounted to allow pawls thereof to engage an edge plate of the handle, as set forth.

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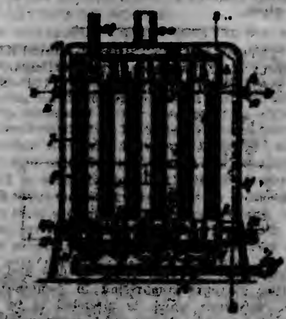
1,039,918. TROLLEY-WHEEL. [illegible], Assignor to [illegible] Trolley Co., Cleveland, Ohio. Filed Sept. 28, 1911. Serial No. 651,257. (Cl. 295—[illegible].)



A device for preventing trolley wheels from leaving trolley wires, comprising a horn having a hollow bearing member with its upper end flanged and having an annular shoulder upon the lower portion thereof, a trolley head having an upwardly projecting shank having a bearing upon the bearing end of the bearing portion of the hanger and a shank portion with a shoulder adapted to rest upon said shoulder formed upon the lower portion of the bearing portion of the hanger and the lower end thereof, said bearing portion provided with an angular-outlined opening in the wall thereof, said outlined part of the shank portion of the trolley head having a transverse aperture therein, a pin mounted in said aperture and extending into the opening in the wall of the bearing member, said pin being fitted in a threaded hole formed in the lower end of said unthreaded part of the shank portion and supporting said pin, as set forth.

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1,039,919. GAS WATER-HEATER. ALEXANDER W. FERNANDEZ, Detroit, Mich., assignor of one-half to Theodore Eckardt, Toledo, Ohio, and one-fourth to Robert C. Sturgeon, Clifton, Canada. Filed Nov. 16, 1908. Serial No. 462,882. (Cl. 126—360.)



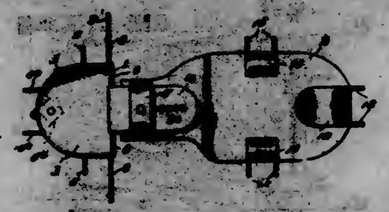
In a water heater, the combination of burner tubes [illegible] [illegible] [illegible]

[illegible]

[illegible]

[illegible]

1,009,892. CLIMBING DEVICE FOR ROOF-WORKERS. SYLVESTER E. CRAIG, Chilmarkhill, Ohio. Filed May 19, 1910. Serial No. 561,201. (Cl. 56—62.)



1. The herein described climbing-device for roof-workers, comprising heel and toed-portions, the heel-portion having a pocket with a surrounding flange provided with outwardly disposed doubling spurs and substantially triangular roof-wings terminating in spurs, and the toed-portion provided at its front with a toe-embracing guard having at each side outwardly disposed doubling spurs, and opposite standards rising from the heel-portion and provided with doubling spurs; together with attaching-straps secured to the upper ends of said standards and to the front upper corners of the heel-embracing flange.

2. The herein described climbing-device for roof-workers, the same comprising a heel-portion having a heel-embracing flange the front vertical edges of which are laterally disposed or extended at an angle thereto and cut away on their under sides to form reats.

3. The herein described climbing-device for roof-workers, the same comprising a heel-portion having a heel-embracing flange the front vertical edges of which are laterally disposed or extended at an angle thereto and have their under sides cut away to form inclined rests which latter terminate at their under ends in spurs.

4. The herein described climbing-device for roof-workers, the same having outwardly extending from the sides thereof vertically disposed triangular-shaped rests having engaging spurs.

5. The herein described climbing-device for roof-workers, having a heel-embracing flange provided at each side of its rear with upper and lower rests of oppositely disposed spurs, at its sides with outwardly and downwardly disposed spurs, and in advance of the latter with substantially triangular-shaped anchoring roof-wings disposed at an angle to the heel-embracing flange.

[Claims 6 to 9 not printed in the Gazette.]

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1,009,929. EMBROIDERING-MACHINE. BRUNO GRUTTER, Kreuzlingen, Switzerland. Filed Nov. 14, 1911. Serial No. 660,263. (Cl. 112—7.)



2. A work holder for embroidery-machines, comprising two right-angled triangular frames, the sides of the base-frames having U-shaped cross-section, the upper frame being flat, the connected to the sides of the upper frame at right angles to the plane of the upper frame so as to press the cloth into the grooves of the base-frames when both frames are joined with said cloth between them, spring-actuated triangular bars arranged in the grooves of the base-frames so as to snap into grooves in said ribs when the frames are thus joined, and means for securing the base-frames to an embroidery-machine, substantially as set forth.

3. A work holder for embroidery-machines, comprising two right-angled triangular frames, the sides of the base-frames having U-shaped cross-section, the upper frame being flat, the connected to the sides of the upper frame at right angles to the plane of the upper frame so as to press the cloth into the grooves of the base-frames when both frames are joined with said cloth between them, hooked pins slidably fitted in the outer web at each side of the base-frames, triangular bars arranged in the grooves at each side of the frames and secured to the ends of said pins, elastic springs interposed between the base and the outer webs so as to cause the bars to snap into grooves in said ribs when the frames are joined and hold them connected, an actuating handle on the upper frame, and means for securing the base-frames to an embroidery-machine, substantially as set forth.

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1,009,990. METHOD OF ATTACHING A COLLAR TO THE END OF A PIPE. PAUL H. GRIMM, Glen Cove, N. Y., assignor to Charles G. Cornell, Jr., Greenwich, Conn. Filed Apr. 3, 1911. Serial No. 618,818. (Cl. 113—112.)



1. The method of making a flanged pipe by uniting a collar to the end of a pipe, which comprises supporting the collar on the edge of the end of the pipe by means of a small lip on said collar so that the inner periphery of said collar rests on and projects from the end of the pipe, melting and fusing the metal at the contiguous end of the pipe and inner periphery of the collar and adding metal in a fused state during the said melting and fusing of the end of the pipe and inner periphery of the collar.

2. The method of making a pipe having a flanged end, which comprises supporting a collar on the edge of the end of the pipe by means of a small lip on said collar so that the inner periphery of said collar rests on and projects from the end of the pipe, melting and fusing the metal at the contiguous end of the pipe and inner periphery of the collar and adding metal in a fused state during the said melting and fusing of the end of the pipe and inner periphery of the collar sufficient to fill up the angular pocket between the end of the pipe and inner periphery of the collar.

3. The method of making a pipe having a flanged end, which comprises supporting a collar on the edge of the end of the pipe by means of a small lip on said collar so that the inner periphery of said collar rests on and projects from the end of the pipe, heating the end of the pipe and collar to a red heat by a torch, melting and fusing the metal at the contiguous end of the pipe and inner periphery of the collar by means of superheated steam directed upon the end of the pipe and inner periphery of the collar, and adding metal to a fused state during the said melting and fusing of the end of the pipe and inner periphery of the collar sufficient to fill up the angular pocket between the end of the pipe and inner periphery of the collar.

4. The method of flanging a flanged pipe by uniting a collar to the end of a pipe, which comprises supporting the collar in a substantially vertical position on the edge of the end of the pipe supported in a horizontal position so that the inner periphery of said collar rests on and projects from the end of the pipe, slowly rotating said pipe and collar, melting and fusing the metal at the lowest section of the contiguous end of the pipe and inner periphery of the collar during the rotation of said pipe and collar, and adding metal in a fused state during the said melting, fusing and rotation of the end of the pipe and inner periphery of the collar.

5. The method of making a flanged pipe by uniting a collar to the end of a pipe, which comprises supporting the collar in a substantially vertical position on the edge of the end of the pipe supported in a horizontal position so that the inner periphery of said collar rests on and projects from the end of the pipe, slowly rotating said pipe and collar, melting and fusing the metal at the lowest section of the contiguous end of the pipe and inner periphery of the collar during the rotation of said pipe and collar, and adding metal in a fused state during the said melting, fusing and rotation of the end of the pipe and inner periphery of the collar sufficient to fill up the angular pocket between the end of the pipe and inner periphery of the collar.

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1,009,991. MEANS FOR SECURING RAILWAY-RAILS. LUDWIG GUBA, Dejvitz, near Prague, Austria-Hungary. Filed Feb. 10, 1911. Serial No. 607,815. (Cl. 238—4.)



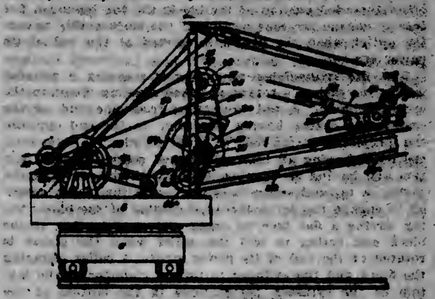
1. A clamping device for railway rails comprising a member adapted to coöperate with the bottom of the head of the rail, another member adapted to rest on the rail foot and on the sleeper which fastens the rail to the tie, the said members being adjustable with reference to one another for different distances between the rail top and foot.

2. A clamping device for securing railway rails, comprising an upper part bearing against the head of the rail, a lower part bearing against the rail foot and against the means for fastening the rail to the sleeper, the said device having notches therein to accommodate the said fastening means, and means for adjusting the said upper and lower parts relatively to each other so as to adapt them to exert a pressing and wedging action between the rail and the fastening means, with different distances between the top and foot.

3. A clamping device for securing railway rails, comprising an upper part bearing against the head of the rail, a lower part bearing both against the rail foot and the spikes and screw-threaded bolts having notches in the lower edge thereof to receive the heads of the rail spikes, said upper and main adapted to force apart the said upper and lower parts so as to produce a pressing and wedging action between the rail and the spikes and threaded bolts with different distances between the rail top and foot.

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2,009,992. BORING-MACHINE. WILLIAM M. HALL, Charleston, S. C. Filed May 16, 1910. Serial No. 561,661. (Cl. 57—11.)



4. In a digging machine, the combination of a standard, a crank mounted thereon, means to swing the latter, a boom pivotally connected at its inner end to the crank, whereby it may be moved lengthwise by the crank, a rotary digger at the outer end of the boom, means connected between the outer end of the boom and the top of the standard to raise and lower the boom, and means to rotate the digger.

5. In a digging machine, the combination of a standard, a crank mounted at the lower part thereof, means to swing the crank, a boom pivotally connected at its inner end to the crank, whereby it may be moved lengthwise by the crank, a rotary digger at the outer end of the boom, a hoisting cable connected to the outer end of the boom to lift and lower the same, and means to rotate the digger including a shaft located at the pivotal connection between the crank and boom.

6. In a digging machine, the combination of a standard, a boom the inner end of which is pivotally connected to the lower part of the standard, hoisting devices connected between the outer end of the boom and the top of the standard to raise or lower the boom, mechanism adapted to advance or retract the boom lengthwise, a rotary digger at the outer end of the boom, and means to rotate the digger independent of the movement of the boom.

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1,009,993. FIRE-EXTINGUISHER. GEORGE J. HAUSMANN, Newark, N. J. Filed July 25, 1911. Serial No. 640,488. (Cl. 169—17.)



1. A fire-extinguisher consisting of a casing, a cylinder within the casing, a rotary and reciprocating piston in the cylinder having a rod projecting from one end of the cylinder, the casing having an outlet on the end opposite the projected piston-rod, a block forming a valve-seat, the

block having an internal screw-threaded portion and having communication with the outlet of the casing, and a screw-threaded leg on the piston adapted to engage the screw-threaded portion of the block, the leg having a flat face to engage the seat portion of the block acting to seal the outlet when the piston is rotated at the end of its power stroke.

2. A fire-extinguisher consisting of a casing, a cylinder within the casing, a rotary and reciprocating piston in the cylinder having a rod projecting from one end of the casing, the casing having communication at the end opposite the projecting piston-rod with the interior of the cylinder, the block having an internal screw-threaded portion and having communication with the outlet of the casing, a tapered screw-threaded leg on the piston adapted to engage the screw-threaded portion of the block, the leg having a flat face to engage the seat portion of the block and acting to seal the outlet when the piston is rotated at the end of its power stroke, a collar engaging the block and the cylinder to form a chamber at the bottom of the cylinder, perforations in the bottom of the casing, and yieldingly opening flap-valves over the openings in the collar to permit the flow of fluid from the casing to the cylinder.

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1,009,904. MEANS FOR FACILITATING THE REMOVAL OF COVERS OF CANS AND BOXES. Seth-mas M. Hamlin and George N. Hamlin, Canton, Mass., assignors to Eugene L. Tousey, Stoughton, Mass. Filed Dec. 19, 1911. Serial No. 666,775. (Cl. 220—6.)



1. A box or the like comprising a body and a cover therefor, fitting together the one over the other, the said parts respectively having studs extending outward therefrom, disposed vertically and located substantially as described, adapted to receive between them a thin flat article or implement, by turning which the cover may be forced from the body.

2. A box or the like comprising a body and a cover therefor, fitting together the one over the other, the said parts respectively having studs extending outward therefrom, disposed vertically and located substantially as described, adapted to receive between them a thin flat article or implement, by turning which the cover may be forced from the body, and means for insuring proper register or working relations of said projections with respect to each other.

3. The combination with the box-body having an outward projection 3, of a cover therefor having an outward projection 4, the said projections adapted to receive between them a thin article or implement by turning which the cover may be forced from the body, and one of the parts having a notch which receives the projection of the other part and insures proper register or working relations of the projections with respect to each other.

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1,009,935. VEHICLE [illegible] APPLIANCE. Charles V. Hanson, Fall City, Wash. Filed Mar. 18, 1912. Serial No. 684,830. (Cl. 32[illegible]—1.)

1. In a machine of the class described, the combination with a stationary rack, of a body frame comprising a pair of vertically-disposed parallel frames consisting of upper and lower horizontal members, an inclined trough connecting the forward ends of said horizontal members, an elevating chain traveling in said trough, and gearing between the rack and chain for operating the latter as the body moves [illegible]

[illegible]

[illegible] main head [illegible]

[illegible] through walls of said [illegible] and elevating shafts journaled in said [illegible] and provided with [illegible] and [illegible] with said [illegible] and [illegible] with said [illegible] and [illegible] and [illegible] and

3. In combination with a receptacle for chemically treating waste material, a pair of rollers arranged beneath said receptacle, a flat nozzle arranged between and slightly above the plane of engagement of said rollers to feed material between said rollers, said nozzle extending nearly the entire length of said rollers, a passage-way connecting said receptacle and said nozzle, a centrifugal machine located beneath said rollers, and means of communication for the material from said rollers to said centrifugal machine.



4. In combination with a receptacle for chemically treating waste material, a tank arranged beneath said receptacle, a pair of engaging rollers arranged in said tank, a flat nozzle arranged between and slightly above the plane of engagement of said rollers to feed material between said rollers, said nozzle extending nearly the entire length of said rollers, a passage-way connecting said receptacle and said nozzle, a centrifugal machine located beneath said tank, and a pipe connecting the bottom of said tank and said centrifugal machine and discharging into the upper part of the latter.

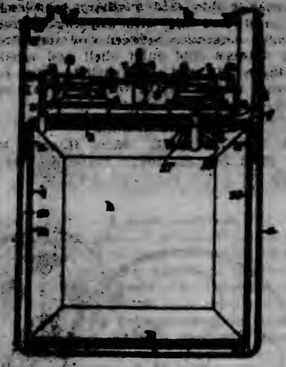
5. In combination with a receptacle for chemically treating waste material, a pair of engaging rollers arranged beneath said receptacle, a flat nozzle arranged between and slightly above the plane of engagement of said rollers to feed material between said rollers, said nozzle extending nearly the entire length of said rollers, a passage-way connecting said receptacle and said nozzle, a centrifugal machine located beneath said rollers comprising an outer casing, an inner casing having perforated walls, means for rotating said inner casing, a rube depending within said inner casing and a member carrying a plurality of brushes fixed to said rube said brushes cooperating with the walls of the said inner casing, and means of communication for the material from said rollers to said centrifugal machine.

[Claims 6 not printed in the Gazette.]

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1,008,642. GAS-METER. Charles H. Hammon, Westminster, London, England. Filed Apr. 2, 1910. Serial No. 553,161. (Cl. 73—1.)

1. In a dry gas meter in combination a gas distributing valve, a valve gallery, means for operating said valve, a valve seat detachable from said gallery and coacting with the admission valve and detachable without disturbance of the operating mechanism and means.



2. In a dry gas meter in combination a gas distributing valve, means for operating said valve, a platform bearing said operating means and aforesaid valve, and a valve seat supported upon said platform and independently removable therefrom without disturbance of the operating mechanism; as set forth.

3. In a dry gas meter in combination a ported mechanism supporting plate, a valve seat adapted to coact with a port on said plate, clamping means clamping said seat to aforesaid plate, a valve coöperating with said seat and valve operating means; as set forth.

4. In a dry gas meter in combination a ported mechanism supporting plate, a valve seat having a lug thereon disposed about a port on said plate, screw clamping means connecting said lug to the aforesaid plate, a valve coöperating with said seat, and valve operating means; as set forth.

5. In a dry gas meter in combination a valve seat, a valve movable on said seat, valve operating means, slotted lugs upon said valve and a fixed guide rail disposed parallel to the line of motion of said valve and co-acting with the slots in the same; as set forth.

[Claims 6 to 8 not printed in the Gazette.]

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1,008,643. MOTOR-CYCLE. Edwin O. Hines, Albion, Ind. Original application filed Aug. 6, 1910, Serial No. 575,997. Divided and this application filed Mar. 11, 1911. Serial No. 613,780. (Cl. 21—90.)



1. In a motor-cycle, a main frame having side bars provided with upwardly-bent portions, a seat supporting frame lying in the angle between said bent portions of said side bars and the up-curved rear portions thereof, and horizontally disposed semi-elliptic springs extending rearwardly from the main frame, and having their front ends secured to the seat supporting frame, and also to the up-turned rear end portions of the side bars of the main frame.

2. In a motor-cycle, a main frame having side bars provided with upwardly-curved forwardly and upwardly extending, and downwardly coöperating front portions; a head having lower arms and upper arms extending rearwardly therefrom, the lower arms of the head being attached to the front ends of the side bars and bosses bent rearwardly



to the up-turned portions of the side bars, forming thereby fixed rods extended by the upper arms of the head, their intermediate portions attached to the up-turned portions of said side bars, and their forward ends indistinct to said side bars at points to support the up-turned front end portions thereof.

1,008,644. HAMMER. Herman L. Hoffman, Philadelphia, Pa. Filed Dec. 30, 1911. Serial No. 668,668. (Cl. 8—28.)



1. A hammock cradle, comprising a flexible bottom wall, flexible side walls and flexible end walls secured to said bottom wall and extending upwardly therefrom, and a comparatively rigid rectangular frame secured to the inner margins of said side walls and said end walls for holding said margins in position.

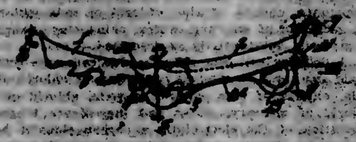
2. A hammock cradle, comprising a flexible bottom wall, flexible side walls and flexible end walls secured to said bottom wall and extending upwardly therefrom, a continuous comparatively rigid rectangular frame secured to the upper margins of said side walls and said end walls for holding said margins in position, and means for suspending said flexible connected or said frame.

3. A hammock cradle, comprising a flexible bottom wall, a continuous rectangular frame marginally connected to said bottom wall to hold the margins of said wall in position, flexible side walls and flexible end walls extending upwardly from said bottom wall, and a continuous comparatively rigid rectangular frame secured to the upper margins of said side walls and said end walls for holding said margins in position.

4. A hammock cradle, comprising a flexible bottom wall provided with a longitudinal pocket, a continuous comparatively rigid frame formed of telescoping members arranged in said pocket, flexible side walls and flexible end walls secured to and extending upwardly from said bottom wall, the upper marginal portions of said side walls and said end walls being secured to said longitudinal pocket, and a continuous comparatively rigid frame comprising telescopic members arranged in said last-mentioned pocket, said flexible walls arranged to be expanded and contracted longitudinally to vary the length of said cradle.

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1,008,645. HAMMER-ADJUSTER. Fred H. Hoyt and Maurice D. Hoyt, Wilkinson, Pa. Filed Oct. 6, 1911. Serial No. 653,436. (Cl. 20—37.)



1. A device of the character described, including a hame-attached member, an opposite hame-attached member of general bifurcated outline, between the arms of which bifurcated hame attached member is received the notched hame-attached member, said bifurcated hame attached member having a pin adapted to engage the notches of said notched hame attached member, and a lever member having a slot receiving said transverse pin, said lever having a salient point adapted to engage the apertures in the bottom surface of the U-shaped hame attached member, said lever having a hooked terminal, and said bifurcated hame attached member having an additional pin adapted to be engaged by said hooked terminal.

2. A device of the character described, including a hame-attached member approximately U-shaped in transverse section, the bottom of the U being provided with apertures, the free longitudinal edges of the arms of the U being notched, an opposite hame attached member of general bifurcated outline, between the arms of which bifurcated hame attached member is received the notched hame-attached member, said bifurcated hame attached member having a pin adapted to engage the notches of said notched hame attached member, and a lever member having a slot receiving said transverse pin, said lever having a salient point adapted to engage the apertures in the bottom surface of the U-shaped hame attached member, said lever having a hooked terminal, and said bifurcated hame attached member having an additional pin adapted to be engaged by said hooked terminal.

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1,008,646. ROLL FOR COTTON-GINS AND MACHINES FOR BURRING WOOL. Grabel H. U. Huckaby, Houston, Tex. Filed Jan. 18, 1912. Serial No. 671,894. (Cl. 19—20.)



1. A roll for machines for ginning cotton or burring wool, comprising an arbor, and a covering therefor, said covering consisting of alternate layers of rubber and a woven fabric formed of the fibers of the cocoanut husk, all vulcanized together.

2. A roll for machines for ginning cotton or burring wool comprising an arbor, and a covering therefor, said covering consisting of a series of members each formed of a plurality of alternate layers of rubber and fibers of the cocoanut husk, all vulcanized together.

3. A roll for machines for ginning cotton or burring wool, comprising an arbor, and a covering therefor, said covering consisting of a series of members each formed of a plurality of alternate layers of rubber and woven fabric formed of the fibers of the cocoanut husk, said rubber and fabric being vulcanized together.

4. A roll for machines for ginning cotton or burring wool, comprising an arbor, and a covering therefor, said covering consisting of a series of members each formed of a plurality of alternate layers of rubber and fibers of the cocoanut husk, all vulcanized together, said layers being arranged radially.

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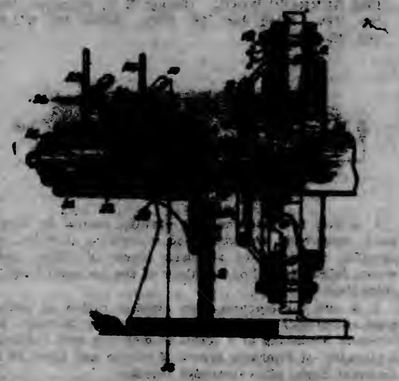
1,008,647. PUNCH. Sanford W. Hunt, Colorado, Tex. Filed July 26, 1911. Serial No. 640,448. (Cl. 81—56.)

A punch of the class described, comprising a handle having a reduced neck at one end, a guide head formed on the neck in alinement with the handle, a punch slidable in the said head, said handle having a central bore, a punch having a central aperture for receiving the punch



and a set screw passing through said slot and being engaged in the handle.

1,030,943. PIPE-FLANGING MACHINE. Reuben H. Hunter, Philadelphia, Pa., assignor to Patterson-Allen Engineering Company, a Corporation of New York. Filed Feb. 3, 1910. Serial No. 541,253. (Cl. 153—66.)



2. In a pipe flanging machine, the combination of a holder for the pipe flange, an expanding annular die, a tapered arbor for expanding the die, a hydraulic cylinder, a plunger within the hydraulic cylinder for applying pressure to the annular die for one direction, a piston or plunger for moving the tapered arbor in the opposite direction, means for supplying fluid under pressure between the two plungers or sections of the casing when necessary, and means by which the direction of movement of the plunger or piston and the tapered arbor may be reversed when the pressure is relieved between the two plungers and when the plunger for applying pressure to the annular die is stationary, and [illegible] of movement of said [illegible] prevented to remove [illegible] die the time of [illegible] mentioned plungers [illegible] arbor whereby after [illegible] arbor in first moved [illegible] collapse and then the [illegible] hold it to the work to [illegible]

4. In a pipe [illegible] machine, the combination of means for holding a pipe flange, with an annular expanding die thereof of sections having a laterally projecting flange to [illegible] the pipe flange, an expanding tapered arbor [illegible] the pipe flange, an expanding annular die [illegible] through the tapered arbor, the die [illegible] a tapered [illegible] to expand within the work without expanding the [illegible] other engaging [illegible] and the pressure [illegible] to expand within the work without expanding the [illegible] other engaging [illegible] and the pressure-applying device [illegible] to expand within the work without expanding the [illegible] other engaging [illegible] and the pressure-applying device [illegible]

5. In a pipe flanging machine, the combination of means for holding a pipe flange, an expanding annular die [illegible] the [illegible] of annular flanges, an expanding tapered arbor [illegible] the [illegible] of the annular die, a hydraulic cylinder, a plunger [illegible] the hydraulic cylinder for applying pressure to the annular die for one direction, a piston or plunger for moving the tapered arbor in the opposite direction, means for supplying fluid under pressure between the two plungers or sections of the casing when necessary, and means by which the direction of movement of the plunger or piston and the tapered arbor may be reversed when the pressure is relieved between the two plungers, and when the plunger for applying pressure to the annular die is stationary, and [illegible] of movement of said [illegible] prevented to remove [illegible] die the time of [illegible] mentioned plungers [illegible] arbor whereby after [illegible] arbor in first moved [illegible] collapse and then the [illegible] hold it to the work to [illegible]

6. In a pipe [illegible] machine, the combination of means for holding a pipe flange, with an annular expanding die thereof of sections having a laterally projecting flange to [illegible] the pipe flange, an expanding tapered arbor [illegible] the pipe flange, an expanding annular die [illegible] through the tapered arbor, the die [illegible] a tapered [illegible] to expand within the work without expanding the [illegible] other engaging [illegible] and the pressure [illegible] to expand within the work without expanding the [illegible] other engaging [illegible] and the pressure-applying device [illegible] to expand within the work without expanding the [illegible] other engaging [illegible] and the pressure-applying device [illegible]

[Claims 3, 7, 8, 9, 10 not printed in the Gazette.]

1,030,958. [illegible] CHUCK. Carl Lorenz and Thomas Lorenz, Los Angeles, Cal. Filed Mar. 8, 1912. Serial No. 682,607. (Cl. [illegible])

1. In a [illegible] chuck, [illegible] provided with a [illegible] [illegible] [illegible] [illegible] [illegible] loading from the [illegible] [illegible] the [illegible] of said carbon chucks, [illegible] [illegible] provided with a [illegible] [illegible] [illegible] [illegible] [illegible]

4. In a folding door in combination, a plurality of leaves adapted to move one over the other, a plate mounted on the inner of said doors, a catch plate in the frame of said door, a catching plate having a plurality of teeth fastened to said plate, and means carried by one of said leaves for engaging said plate.



5. In a folding door in combination, two leaves constructed to move one over the face of the other, means for locking the outer of said leaves to an exterior support, and a device carried on the inner of said leaves for releasing said locking means.

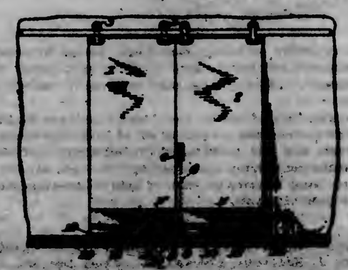
6. In a folding door in combination, two leaves constructed to move one over the face of the other mounted upon an exterior support, one of said leaves having a cover plate thereon, a ratchet plate mounted on said support, a pivoted lever provided with a lug for engaging said ratchet plate mounted beneath said cover plate, a second lever pivotally mounted beneath said cover plate for operating said first mentioned lever, a ratchet plate carried on the exterior of said cover plate, a reciprocating rod mounted upon the second of said leaves provided with three projections, one of said projections engaging said second mentioned lever, a second projection engaging said second mentioned ratchet plate, and means carried upon said second leaf for operating said rod by means of said third projection.

7. In a folding door in combination, a plurality of leaves constructed to move one across the face of the other, a handle carried by one of said leaves, a rod provided with a plurality of projections mounted upon the same leaf as the handle, and a ratchet plate mounted upon another of said leaves, one of said projections engaging said handle and another of said projections engaging said plate.

[Claims 8 to 9 not printed in the Gazette.]

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1,009,963. LOCKING DEVICE FOR FOLDING DOORS. JOSEF J. KALIVODA, Chicago, Ill. Filed Dec. 26, 1911. Serial No. 667,917. (Cl. 70—102.)



1. In a folding door in combination, a pair of leaves

[redacted]

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1,009,964. PROCESS FOR FORMING RIBBED LATH. THOMAS [illegible] KANE, Tonawanda, Assignor to [illegible] Company, Tonawanda, Minn., a Corporation of Michigan. Filed June 24, 1911. Serial No. 635,139. (Cl. 154—2.5.)



The process of forming ribbed [illegible] which consists in [illegible] previously ribbed and [illegible] ribs [illegible] the [illegible] (thus preventing the expansion of the ribs adjacent the fitted portion).

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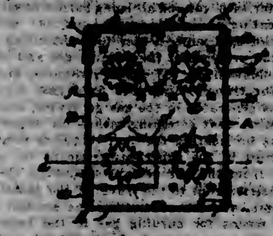
1,009,[illegible]. [illegible] Patented Nov. 28, 1911.

[redacted]

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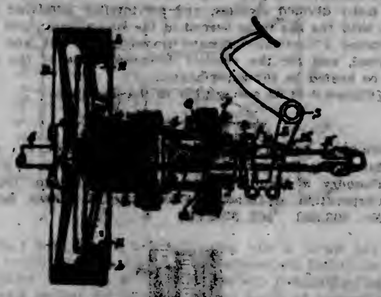
3. An [illegible] comprising, in combination with a [illegible] and having two [illegible] projections extending [illegible] one of said parts, a universal joint joining said shaft to said part, a sleeve surrounding said shaft and [illegible] with an enlarged end rotatively engaging in one of said parts, so as to prevent relative longitudinal [illegible] of said third part and the part with which it engages, and means for reciprocating said third part to engage or disengage the other two parts.



4. An [illegible] having [illegible] and having two sets of projections extending [illegible] said opening, one set extending further [illegible] opening than the other set and being relatively more yielding than the other set.

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1,009,966. TRANSMISSION-GEAR. WILLIAM KELLY, Detroit, Mich. Filed Mar. 4, 1911. Serial No. 612,176. (Cl. 192—8.)



1. Two rotary parts [illegible] to engage when forced toward each other, and to disengage when separated, a third part extending into one of said two parts and relatively engaging therein so as to prevent relative longitudinal movement of said third part and the part with which it engages, said means for reciprocating said third part to engage or disengage the other two parts.

2. Two rotary parts adapted to engage when forced toward each other, and disengaged when separated, one of said parts being adapted to form a receptacle for lubricating oil, a third part extending into one of said parts and rotatively engaging therein so as to prevent relative longitudinal movement of said third part and the part with which it engages, means for reciprocating said third part to engage or disengage the other two parts and conduits for supplying lubricating material communicating with said receptacle and with the engaging surfaces of said third part.

3. Two rotary parts adapted to engage when forced toward each other, and to disengage when separated, one of said parts being adapted to form a receptacle for lubricating oil, a third part provided with an enlarged and extending [illegible] of said parts and [illegible] chamber therein, an oil [illegible] [illegible] communicating with the interior of said third part, [illegible] [illegible] provided with [illegible] and adapted to [illegible] said enlarged [illegible] [illegible] and [illegible] communicating with said receptacle and with the engaging surfaces of said third part, and means for reciprocating said third part to engage or disengage the other two parts.

4. Two rotary parts adapted to engage when forced toward each other and to disengage when separated, a third connecting [illegible] one of said parts, a universal joint joining said shaft to said part, a sleeve surrounding said shaft and [illegible] with an enlarged and rotatively engaging in one of said parts, so as to prevent relative longitudinal movement of said third part and the part with which it engages, and means for reciprocating said third part to engage or disengage said two parts.

5. Two rotary parts adapted to engage when forced toward each other, and to disengage when separated, one of said parts being adapted to form a reservoir for the lubricating oil, a third part extending into one of said parts, a universal joint joining said third part to said part, a sleeve surrounding said shaft and [illegible] with an enlarged and rotatively engaging in one of said parts, so as to prevent relative longitudinal movement of said third part and the part with which it engages, and an outwardly extending conduit communicating with the interior of said reservoir, and with the engaging surfaces of said part and said sleeve, and means for reciprocating said sleeve.

[Claim 6 not printed in the Gazette.]

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1,009,967. LOGGING-CHAIN HOOK. WALLACE BYRNES EMERSON, Coquille, Ore. Filed July 20, 1911. Serial No. 639,695. (Cl. 24—241.)



A logging chain hook comprising two members pivotally connected intermediately of their ends and having co-acting jaws at one end and their other ends spaced apart when in operative position, a [illegible] element connected at one end with the other ends of said members whereby said jaws are forced apart when a pull is exerted on said element, said means [illegible] between the opposed ends of said members [illegible] to hold them spaced and thereby lock the jaws of the members against opening, the strain exerted by the log engaging element tending to draw said spaced ends toward each other and into closer engagement with the jaw locking means, thereby preventing accidental revolving of said means.

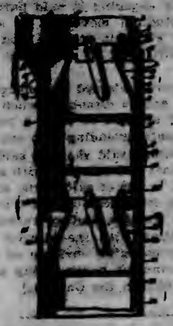
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1,009,968. AIR-LIFT. FRANK J. KIENZLE, Los Angeles, Cal. Filed Nov. 8, 1911. Serial No. 659,427. (Cl. 103—54.)

1. An air-lift comprising, in combination with a well casing, a tubular pump head connected to the lower end of said casing, and provided with an air chamber, means for supplying compressed air to said chamber, such chamber having an [illegible] extending upwardly from said chamber and opening at their lower ends into said chamber and opening at their upper ends into the interior of the pump head at different levels.

2. An air-lift comprising, in combination with a well casing, a tubular pump head connected to the lower end of said casing, and provided with an air chamber, means for supplying compressed air to said chamber, and a plu-

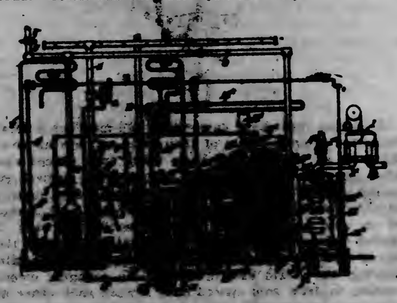
ating of whether communicating with said chamber and opening into the interior of the vacuum pump head on diametric lines, the lower end of said air chamber being open.



3. In an air lift, the combination with a well casing, of a tubular pump head connected to the lower end of said casing, and provided with an annular air chamber extending around the internal passage of the pump head, means for supplying compressed air to said chamber and a plurality of lugs extending from the wall of said pump head into said internal passage, said lugs being inclined and being formed with obliquely extending nozzles communicating with said air chamber and with said internal passage whereby a whirling motion is imparted to the water by the deflecting action of said lugs and by the oblique motion of the air blasts from said nozzles.

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1,009,969. GAS-MAKING APPARATUS. JOSEPH MOSES WARD KITCHEN, East Orange, N. J. Filed Apr. 22, 1911. Serial No. 622,067. (Cl. 48—75.)



1. The combination of, (1) a gas generator, and (2) a superheater for highly heating the gas produced and for transforming tarry or other vapors in said gas into fixed gas, said superheater comprising means for accurately estimating the degree of heat used in transforming said vapors, means for superheating the gas and for undecomposed air and for admixing the superheated gas and air in desired proportions and the burning said admixed gas and air in the flue of travel given to the gas produced and highly heated, said burning of the gas and air heating said superheater and consequently burning the gas produced.

2. The combination of, (1) means for generating gas, (2) a superheater for highly heating said tarry or other vapors in the gas, said superheater being heated by fuel gases from the gas generator, and (3) means for automatically regulating the supply of said fuel gases to the superheater whereby the temperature of said superheater is maintained at a substantially constant degree.

3. The combination of, (1) a gas generator, (2) a superheater for highly heating the gas produced, (3) means for automatically regulating the temperature of gas from the generator to the superheater, and (4) means for admixing, and superheating having direction for causing the introduction into the superheater of the air disappersed in many divided streams, and for forcibly admixing the air with the gas to be burned in the superheater, and for securing a vertically upward travel of the gas and air burned, and for the vertical downward flow of the gas to be heated in the superheater.

[Claims 4 to 20 not printed in the Gazette.]

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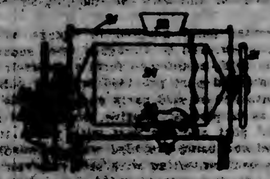
1,009,970. [illegible] Baltimore, Md., and [illegible] Foundry & Machine Company, Chicago, Ill., a Corporation of Illinois. Filed June 15, 1909. Serial No. 502,502. (Cl. 37—34.)



In a lifting jack, the combination of a post provided at its upper end with a step collar, a shell fitting over the post relatively movable with respect thereto and being internally threaded at one portion, an externally threaded collar engaging the threaded portion of the shell and adapted to rotate thereon, the said collar having a portion for abutting the upper end of the shell and means for moving the shell with respect to the post.

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1,009,992. PROCESS OF DECAFFEINATING COFFEE-BEANS. Ludwig Roselius, Bremen, Germany. Filed Oct. 6, 1910. Serial No. 585,814. (Cl. 99—71.)



[illegible] which consists in subjecting the beans to the action

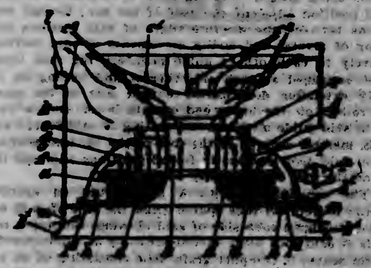


of diluted alkali solutions, separately applying caffein-solvents to the beans, which consists in subjecting the beans to the action of alkali solutions capable of dissolving caffein until the beans swell up, drying them, repeating the operations as required, washing the caffein, until thus treating it, substantially as set forth.

[Claim 4 not printed in the Gazette.]

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1,009,993. HOT-AIR BATH. ALFRED KLOTZ, Munich, Germany. Filed Dec. 4, 1907. Serial No. 405,287. (Cl. 4—12.)



1. In a hot air bath, in combination with a burner having a central air tube, a hollow cone-shaped air distributing and flame deflector fitted said burner, communicating with said central air tube and having series of apertures directed, toward the top portion, substantially as and for the purpose set forth.

2. In a hot air bath, a burner, comprising a supply having air inlet ports, a fuel reservoir, an air tube through the middle of said reservoir, a mixer fitted on said latter; a vertical chamber above said mixer cover, surrounding the projecting part of said central air tube; a dome-shaped wall, partly extending said roof over said reservoir to the upper side of said vertical sleeve; means for controlling the ingress of fresh air between said chamber wall and said roof; a perforated, hollow, conical air distributor, placed over said mixer, being said central air tube and communicating with it; a burner, the said burner in combination with a perforated, hollow, conical air distributing the hot air discharged by said mixer into the upper part of said vertical chamber; said mixer, tube, burner, and air distributor being arranged to operate substantially as and for the purposes set forth.

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1,009,998. POWER-TRANSMISSION MECHANISM. MARTIN C. [illegible] Brooklyn, N. Y. Filed Feb. 24, 1908. Serial No. 417,645. (Cl. 192—8.)

1. In a [illegible] power transmission mechanism, a revolvable driving-shaft, the circumference of said wheel obliquely on [illegible] and [illegible] adapted for connecting motion to different portions of an inclosed liquid mass in a [illegible]

[illegible] and adapted to move the liquid mass in a direction substantially opposite to the motion produced by said outer blades.



2. In a hydraulic power transmission mechanism, in combination, within a containing case, a revolvable, wheel constructed and arranged to drive adjacent fluid in one direction substantially at its rim and in the opposite direction interiorly of said rim; a separate channel terminating against said rim and separating the fluid driven in one direction from fluid driven in the opposite direction; a hollow, stationary switch-head; a switch-tube fitted adjustably at one end in said switch-head and impinging adjustably with its other end against a web dividing a partition in said container-case—the said funnel, switch-head and switch-tube, jointly, forming a continuous conduit from said rim of the driving-wheel to said web; two ports in said web, each port adapted to register with the opening of said switch-tube, accordingly to the position given said tube, and said ports in such mutual relation that the opening, or mouth, of said tube may cover either port wholly or both ports in part; beyond said ports a motor supply which fills fluid in the mechanism may act substantially as described.

3. In a hydraulic power transmission mechanism, a hollow, revolvable driving wheel, a blade obliquely disposed upon the outer periphery thereof adapted to move an inclosed liquid mass in a direction substantially parallel with the axis of said wheel, another blade upon the inner periphery of the wheel obliquely disposed thereon in a direction opposite to the inclination of said first blade and adapted to move the liquid mass in a direction substantially opposite to the motion produced by said outer blades.

4. In a hydraulic power transmission mechanism, a driving shaft, a hollow revolvable driving wheel, an inclosing casing therefor filled with a liquid, a plurality of blades obliquely disposed upon the outer periphery of said wheel adapted to move the inclosed liquid in a direction substantially parallel with said shaft, a plurality of other blades upon the inner periphery of the wheel obliquely disposed thereon in a direction opposite to the inclination of said first blades and adapted to move the liquid in a direction substantially opposite to the motion produced by said outer blades, a bearing for the shaft at one end of the casing, said bearing comprising a ball bearing, a hanger therefor affixed to the casing inclosing said ball bearing and arranged to form a lubricant pocket adjacent to said ball bearing, an annular member affixed to the hanger, another annular member affixed to the shaft, said annular members having spaced surfaces facing each other, and a packing between said annular members, said annular members and packing separating the ball bearing from the inside of the casing.

[Claim 5 not printed in the Gazette.]

1,039,084. HAND-THREADING SHUTTLE. JOSEPH LACOSTE, Fall River, Mass., assignor to The Double Spring Shuttle Company, New Bedford, Mass., a Corporation of Massachusetts. Filed July 24, 1911. Serial No. 640,206. (Cl. 139—46.)



1. In combination with a shuttle having a slot leading from the bobbin cavity to the slotted delivery eye, a horizontally disposed pin extending transversely across the shuttle and having an end thereof turned downwardly and flattened to provide a plate-like member which has its free end pointed and extending across the slot of the delivery eye so that the thread in threading of the shuttle will first engage the side of said plate-like member adjacent to said shuttle slot then pass under said pointed end thereof and finally ride-up on the opposite side of said member.

2. In a shuttle, a friction member therefor consisting of a base plate and a pair of wings thereon arranged at opposite sides and opposite ends of the plate, said wings being spaced apart.

3. In a shuttle, a friction member therefor consisting of a base plate having an integral perforated web depending therefrom, and means passing through the perforation of the web for securing the friction member to the shuttle, said plate having a pair of spaced oppositely disposed elements on its upper face.

4. In a shuttle, a friction member therefor including a base plate, a pair of wings of plate-form secured to opposite sides of the base plate and having their opposite ends curved, said base plate being secured to the shuttle so that the wings extend transverse to the longitudinal axis of the latter.

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1,039,085. FOUNTAIN-BRUSH. ZACHÉE LAPLAIN, Montreal, Quebec, Canada. Filed Dec. 18, 1911. Serial No. 666,494. (Cl. 15—61.)



In combination, brush heads, brackets connecting said heads in spaced relation and provided with grooves in their backs, a reservoir mounted between said heads and provided with dove tail runners adapted to slide freely in said grooves, and means for holding said reservoir in place.

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1,039,093. GRAIN-DOOR FOR CARS. LEUWIS I. LARSEN, Chicago, Ill. Filed Mar. 8, 1911. Serial No. 613,103. (Cl. 20—33.)

1. The combination with a car, of a two-part grain door consisting of upper and lower sections, the upper of said sections being permanently hinged to swing from a vertical to a horizontal position adjacent the roof of said car; a flexible connection between the meeting edges of said sections permitting of pivotal and bodily movements of said sections relatively to each other; guide members for said lower section arranged at each side thereof and having an inwardly extending downwardly curved seat at its upper end; rollers on the lower end of said lower section running in said guide members and resting in said seats; and a hook member secured to the roof of the car and adapted to hold said door sections in folded positions adjacent the roof of the car, substantially as described.

2. The combination with a car having an opening therein; of vertical rods spaced from the side of said car and located upon each side of said opening, the upper terminals of said rods being curved inwardly and downwardly to form seats; a two-part grain door consisting of an upper and a lower section; a flexible connection between said sections; rollers carried by the bottom section for engagement with the rods aforesaid and adapted to rest in the inwardly curved and downwardly extending seats formed in said rods when said door is raised; and vertical rods or bars secured to the vertical sides of the upper section and constituting a permanent pivot adjacent to the top of said opening, said upper section adapted to swing adjacent to the roof of the car and said lower section adapted to be raised and rest in spaced relation thereto.

3. A grain door comprising upper and lower sheet metal sections having metallic reinforcements on the edges thereof, a pair of chains for attaching the lower edge of the upper section to the upper edge of the lower section, a pair of arms extending upwardly from the ends of said upper section and pivotally mounted on the side of the car so as to permit of the upper section swinging from a vertical to a horizontal position, a pair of pulleys mounted at the lower corners of said lower section and projecting laterally therefrom, a pair of vertical guide-rods on which said rollers are adapted to travel, said sections being adapted to assume adjacent horizontal positions under the roof of the car, and a hook engaging the lower section for locking both of said sections in the horizontal or elevated positions, substantially as described.



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1,039,097. DRAFT-BEARING BED AND HOUSING THEREFOR. WILLIAM WALLACE LAVAUWAY and GEORGE ANDREW REUPS, San Francisco, Cal. Filed May 4, 1912. Serial No. 695,218. (Cl. 9—4.)

1. The combination with a floor having an opening therein and a pair of trap doors hinged at opposite sides of said opening by chain connections, of means for holding said doors in vertical position, a bed bottom movably through the opening and means for supporting the bed bottom, at its ends, on said doors, when the bed bottom is raised.

2. The combination with a floor having an opening, doors for closing said opening and a bed bottom movable through the opening, of means for automatically moving said doors to open position, independent means for automatically raising said bed bottom through the opening, and means on said doors for supporting the bed bottom in raised position.



3. The combination with a floor having an opening and a closure for said opening, of a bed bottom movable through the opening, means for locking said bed bottom in position below the floor, and means for automatically raising said bed bottom through the opening when unlocked.

4. The combination with a floor having an opening therein and a pair of trap doors hinged at opposite edges of said opening, of means for locking the doors in closed position, means for automatically raising the doors to vertical position when unlocked, a bed bottom adjustable vertically through said opening and means upon said doors for supporting the bed bottom when the doors are in vertical position.

5. The combination with a floor having an opening therein and a pair of trap doors hinged at opposite edges of said opening, of means for locking the doors in closed position, means for automatically raising the doors to vertical position when unlocked, a bed bottom adjustable vertically through said opening, means for locking said bed bottom in position beneath the floor, and means for automatically raising said bed bottom to a position above the floor when the bed bottom is unlocked.

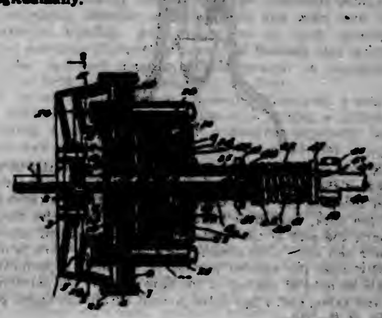
[Claims 6 to 12 not printed in the Gazette.]

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1,039,098. COMBINED FLY-WHEEL AND TRANSMISSION-GEARING. CHARLES M. LEACH, Lima, Ohio. Filed Aug. 28, 1911. Serial No. 646,992. (Cl. 74—94.)

1. In a device of the character described, a driving disk, an annular gear connected with the driving disk, a longitudinally movable shaft, a friction disk carried thereby and movable into and out of engagement with said driving disk, a stationary bearing for the longitudinally movable shaft, a rotatable casing, planetary pinions and pinions carried by the casing, an interior gear connected with said friction disk, said planetary gears and pinions engaging respectively the first and second named annular gears, a third annular gear engaging the planetary pinions, and means to hold said third annular gear and said interior casing against rotation.

2. In a device of the character described, a driving shaft, a fly wheel disk connected therewith, a stationary bearing, a main clutch disk disposed near said fly-wheel disk, a main shaft rotatably and longitudinally movably mounted in said stationary bearing, a casing rotatably mounted about said main shaft, stub shafts carried by the casing, planetary gears and pinions carried by the stub shafts, an outer annular gear connected with the fly-wheel disk and engaged by the planetary gears, an inner annular gear engaged by said planetary gears, a third annular gear connected with the main clutch disk and engaged by said planetary pinions, a ratchet wheel disposed within the inner annular gear, rollers disposed between the teeth of said ratchet wheel and said inner annular gear, means to prevent the rotation of the ratchet wheel, and the casing, and means to move the main shaft longitudinally.



3. In a device of the character described, a fly-wheel disk, a stationary bearing, a main shaft longitudinally movably and rotatably mounted in the stationary bearing, a main clutch disk rigidly connected with the main shaft for movement into and out of engagement with the fly-wheel disk upon the movement of said main shaft, a ratchet wheel rotatably mounted upon the stationary bearing, a clutch disk rigidly connected with said ratchet wheel, rollers disposed upon the ratchet wheel, an inner annular gear disposed upon the rollers, a casing rotatably mounted upon the last named clutch disk, stub shafts carried by said casing, an outer annular gear connected with the fly-wheel disk, planetary gears carried by the stub shafts and engaging the outer and inner annular gears, a third annular gear connected with the main clutch disk, pinions carried by the stub shaft and engaging said third annular gear, a disk splined upon the stationary bearing and movable into and out of engagement with the third named disk, a disk splined upon the stationary bearing and movable into and out of engagement with a portion of said casing, and means to move the two last named disks.

4. In a device of the character described, a fly-wheel disk, a stationary bearing, a main shaft longitudinally movably and rotatably mounted in the stationary bearing, a main clutch disk rigidly connected with the main shaft, a ratchet wheel rotatably mounted upon the stationary bearing, a forward brake member rigidly connected with said ratchet wheel, rollers mounted upon the ratchet wheel, an inner annular gear mounted upon the rollers, an outer annular gear connected with the fly-wheel disk, planetary gears disposed between the inner and outer annular gears, a third annular gear having connection with the main clutch disk, planetary pinions connected with the planetary gears and engaging the third named annular gear, an element for holding the forward brake member against rotation, and means for preventing said gears and pinions from partaking of a planetary movement and causing the same to rotate on their axes.

5. In a device of the character described, a stationary bearing, rotatable elements mounted about the same, brake members mounted between the rotatable elements and splined upon the stationary bearing, a spring disposed between said brake members, and means for moving each of the brake members to cause the same through the medium of the spring to move the other brake member.

[Claims 6 to 10 not printed in the Gazette.]

1,038,849. NON-REFILLABLE BOTTLE. Gustave H. Lehman, New York, N. Y. Filed Feb 15, 1912. Serial No. 677,600. (Cl. 215—68.)



A non-refillable bottle comprising a tube located in the neck of the bottle, a cork connected to the body of the tube and fitted in the neck, means for preventing withdrawal of the cork, said tube terminating at a point with its mouth facing the wall of the bottle and having a tapered tubular lower end with a contiguous flare opposed, a valve to normally close the tapered portion of the tube, a perforated plate secured at the top of the flare to limit the movement of the valve, and a flap valve pivoted within the upper portion of the tube.

1,038,970. COIN-CONTROLLED VENDING-MACHINE. Rudolph O. Lenz, Chicago, Ill., assignor to Illinois Vending Company, a Corporation of Illinois. Filed Feb. 17, 1912. Serial No. 678,390. (Cl. 194—48.)

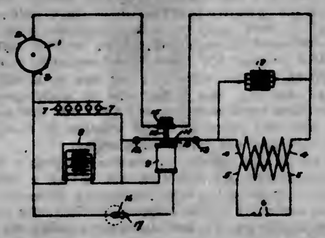


In a coin controlled vending machine, the combination with a casing having in its front portion near one of its sides an opening, of a vertically disposed guideway supported in said casing, a shaft transversely journaled below the guideway, means on said shaft to rotate therewith and receive and deliver packages from said guideway, a spring retracted chute having a passageway for coins and extended forwardly and upwardly through said opening in the casing, said chute having rearwardly extended and spaced apart plates on its lower portion loosely mounted on said shaft and provided at its front lower portion with a downwardly projected extension, said chute also having within its passageway at the upper portion of the left hand extension an inwardly extended angular shoulder, a pivoted wheel rigidly mounted on said shaft between said plates of the chute, and a spring actuated dog pivotally mounted on the casing and having a pointed or angular portion to project between the rear portion of said plates of the chute and to engage the pointed wheel.

1,038,972. DOWN-HOLE HAMMER-DRILLING-ENGINE. James Duncan Lawson, Denver, Colo., assignor to The J. D. Lee Patent Engineering Works Company, Littleton, Colo., a Corporation of Colorado. Filed Mar. 10, 1911. Serial No. 613,955. (Cl. 121—91.)

1. A down-hole rock-drilling engine comprising a cooperative rock-drilling engine comprising a cylinder provided with a piston, a drill-chuck, a rock-drill supported in said chuck, and a hollow drill-shank, a rock-drill supporting member, a fluid-inlet in said rock-drill supporting member, a fluid-inlet passage in said drill-shank, a fluid-passage in said rock-drill, a fluid-passage in said piston, a fluid-passage in said cylinder, a fluid-inlet passage in said cylinder, having a port adapted to register with said fluid-inlet passage in said rock-drill supporting member, and provided with an intermittently operating valve for controlling said port, a fluid-passage in said cylinder, having a port adapted to register with said fluid-passage in said piston

1,039,974. COMBINED IGNITION AND WORKING SYSTEMS. ERWIN S. LINCOLN, Brookline, Mass., assignor to Electric Goods Manufacturing Company, a Corporation of Maine. Filed May 5, 1910, Serial No. 559,223. Renewed Feb. 27, 1912. Serial No. 680,168. (Cl. 123—148.)



1. In an ignition system, in combination, a source of electric energy, a circuit breaker having normally engaged separable contacts, a vibratorless induction coil, a working circuit, a circuit connecting the source of energy in energizing relation with the working circuit through the separable contacts, a circuit interconnecting said separable contacts through the induction coil, and means for separating said contacts at the moment of ignition.

2. In an ignition system, in combination, an electric generator, a circuit breaker having normally engaged separable contacts, a vibratorless induction coil, a working circuit, a circuit connecting the generator in energizing relation with the working circuit through the separable contacts, a circuit interconnecting said separable contacts through the induction coil, and means for separating said contacts at the moment of ignition.

3. In an ignition system, in combination, an electric generator, a circuit breaker having normally engaged separable contacts and an electro-magnet for causing said contacts to disengage, a vibratorless induction coil, a working circuit, a circuit connecting the generator in energizing relation with the working circuit through the separable contacts, a circuit interconnecting said separable contacts through the induction coil, and means connecting the source of energy in energizing relation with the electro-magnet at the moment of ignition.

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1,039,975. TROLLEY. CHARLES A. LEWSENNE, Bradford, Pa. Filed Aug. 7, 1911. Serial No. 642,698. (Cl. 191—39.)



1. A wheel support comprising arms formed with bearing sockets having grooves, the arms having recesses communicating with said sockets, a wheel supporting spindle insertible through said recesses into said sockets, and bearings insertible into the sockets and formed with peripheral lugs adapted to enter the grooves, whereby to lock the bearings in the sockets.

2. A wheel support formed with bearing sockets, a wheel supporting spindle insertible in said sockets, the outermost walls of said sockets being formed with grooves and with diametrically disposed recesses opening into the grooves, bearings insertible in said sockets to engage the ends of the spindle and formed with peripheral lugs adapted to pass through the recesses and into said grooves, whereby to lock the bearings in the sockets, and members connected to the support and adapted to extend across the ends of the spindle and the bearings and to fit in said recesses to hold the spindle and bearings in place.

3. A wheel support embodying arms formed with bearing sockets, a wheel supporting spindle insertible in said sockets, the walls of said sockets being formed with grooves and with diametrically disposed recesses intersecting said grooves, bearings also insertible in said sockets to engage the spindle and formed on their outer faces with lugs, and members secured at one end to said arms, arranged to enter the recesses in the bearings.

4. A wheel support embodying arms provided with bearing sockets, a wheel supporting spindle insertible in said sockets, the walls of said sockets being formed with grooves and with diametrically disposed recesses intersecting said grooves, bearings also insertible in said sockets to engage the spindle and formed with lugs, and members secured to one end of the arms and being formed with lugs adapted to enter the sockets in the arms.

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1,039,976. PORTABLE STEAM OR HOT-WATER RADIATOR. ANDREW R. LITTLE, Stockton, Cal. Filed July 5, 1910. Serial No. 570,231. (Cl. 219—33.)



1. A device of the character described comprising a portable base, a receptacle bolted thereto, such receptacle having an outer corrugated surface on its side wall a convex surface on its upper end, an auxiliary receptacle having a convex surface fitting into said convex surface on said first named receptacle, a pipe connecting the lower end of said auxiliary receptacle with the lower end of said first named receptacle, and intake for heating said first named receptacle, as described.

2. A device of the character described comprising a portable base having a central orifice, a drum located in said base, a conical embankment on the bottom of said drum projecting into said orifice, a plate bolted to said embankment, a combustible wire projecting through said embankment into said plate and destroy fragments therefrom, a drum on the upper end of said first named drum, and a pipe connecting the lower end of said auxiliary drum with the lower end of said first named drum, as described.

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1,039,977. FOLDING UMBRELLA. WILLIAM A. LITTLE, Creston, Pa. Filed Feb. 12, 1912. Serial No. 677,019. (Cl. 135—25.)



A foldable umbrella frame having a stick, channeled ribs pivotally connected to the stick and constructed in jointed sections, sleeves formed with slots slidably mounted on the sections and adapted to overlap the joints, stretchers connected to said sleeves, transversely extending pins carried by the upper sections of the ribs at the lower ends thereof, hook shaped lugs formed on the stretchers at the outer ends thereof and adapted to project through the slots in said sleeves and engage said pins for the purpose specified and the said sleeves being formed with integrally extending tongues adapted to engage the channels in said ribs, whereby axial movement of the sleeves is prevented.

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1,039,978. PERMEATING PROTECTIVE FOR IRON AND STEEL ARTICLES. HERMAN J. LOHMANN, Jersey City, N. J., assignor to The Firm of H. J. Lohmann & Co. Filed Oct. 5, 1910. Serial No. 585,982. (Cl. 29—181.)



1. An article of iron or steel having a coating of a metal of the lead-group deposited upon its surface, and also a penetration of such coating metal into the substance of the article to a material and measurable depth and forming a chemical union therewith, such permeating portion of the coating operating to protect the article from corrosion independently of the surface coating.

2. An article of iron or steel having a coating of an alloy containing at least one metal of the lead-group anchored in the substance of the article by permeation into the pores of the same and chemical union therewith, and such permeating portion operating to protect the article from corrosion independently of the surface coating.

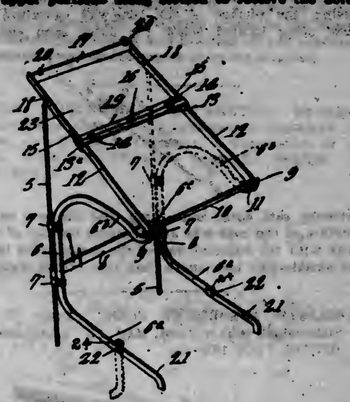
3. An article of iron or steel having a coating of alloy composed of lead, zinc and tin, with the said alloy permeating the substance of the metal and in chemical union therewith, and such permeating portion adapted to protect the article from atmospheric corrosion, wherever the surface coating may be removed.

4. A boiler-tube of iron or steel having a coating of an alloy of metals of the lead-group deposited upon its surface, and also a portion of such alloy permeating the pores of the metal below its surface and forming a chemical union therewith, such permeating metal being adapted to protect the article from corrosion independently of the surface-coating, and such surface-coating preventing adhesion of scale to the tube.

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1,039,979. STENOGRAPHER'S DESK. JAMES C. LOUD, Goldthwaite, Tex. Filed July 12, 1911. Serial No. 638,177. (Cl. 129—62.)

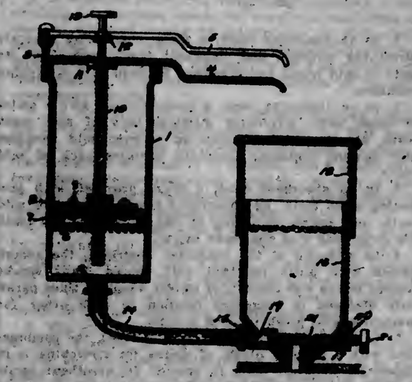
A desk comprising a table, rear legs pivoted thereto, bolts mounted in the downward end of the table, bars pivoted on the legs having their upper and lower portions bent forwardly, the lower portions forming forward legs, and the upper portions being slotted to receive the bolts



to clamp the ends of the said portions and support the front end of the table.

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1,039,980. GREASE-CUP. THOMAS LOWE, Garfield, Wash. Filed Apr. 20, 1911. Serial No. 624,184. (Cl. 137—21.)



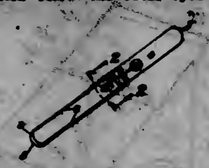
A cup, comprising a body having an inlet opening and an outlet opening, said openings entering the body of the cup at angles to each other, a valve threaded in the lower portion of the cup and adapted to move across the bottom of the same and being in alinement with the inlet opening, and lying transversely across the outlet opening, said valve consisting of end portions of uniform diameter and a reduced portion intermediate said end portions.

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1,039,981. RECEPTACLE. CLARENCE DE WITT LOMBARD, St. Louis, Mo., assignor to C. De Witt Lombard Surgical Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 28, 1911. Serial No. 624,004. (Cl. 206—63.2.)

A fume-cure package which consists of a glass outer casing sealed at both of its ends, and a compressible tube of substantially uniform diameter throughout containing hydrofluoric acid placed in said outer casing, said tube having its base end closed and its outer end open, said

outer enlarged bulbous terminus free of projecting fluid to increase electrostatic capacity at the height of said outlet, the surface of the bone-wax contained in said tube being located below the outer open end thereof



whereby said outer end of the tube projects beyond the surface of the bone-wax and prevents contact of the bone-wax with the adjacent end of the casing, said tube being of considerably less length than that of the casing.

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1,029,962. ABSORBENT COMB. Fred W. Malby, Bakersfield, Cal. Filed May 27, 1911. Serial No. 627,746. (Cl. 132—3.)



1. In an absorbent comb, a frame comprising separate stretching members and absorbent fabric secured at its ends to said frame and stretched between said stretching members.

2. In an absorbent comb, a frame formed with a series of comb teeth, stretching members back of said comb teeth, absorbent fabric stretched between said members and forming opposing absorbent surfaces back of said teeth.

3. In an absorbent comb, a frame provided with projecting comb teeth, and absorbent fabric back of said teeth; and means projecting at right angles to the teeth for stretching said absorbent fabric.

4. In a device of the character described, the combination with plush provided with spaced blank spaces formed in the web thereof, of rigidly mounted fibers parallelly disposed in staggered relation to each other for stretching said plush to form a comb.

5. In a device of the character described, the combination with a strip of plush, of means for stretching it in oppositely disposed folds to provide an absorbent comb, said plush being provided with parallel blank spaces in the web thereof, extending lengthwise of said strip.

[Claims 6 to 9 not printed in the Gazette.]

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1,029,989. MACHINE FOR SURFACING WOOD FLOORS. Arthur J. Hazlett and Hermann C. Doerrie, Williamsport, Conn., assignors of three-fourths to said Hazlett and one-fourth to said Doerrie. Filed June 10, 1912. Serial No. 702,752. (Cl. 51—13.)

1. A machine for surfacing wood floors comprising a frame, a pair of rollers operated in said frame, a gear connected to said rollers, a pair of pinions with which the said gear meshed, a horizontal shaft driven by said pinions, a forked support carried by said shaft, a vertically arranged shaft having a beveled pinion at its upper end with which the said beveled gear meshed, and a disk connected with the lower end of said shaft.

2. A machine for surfacing wood floors comprising a frame, a pair of rollers journaled in said frame, a gear wheel upon one of said rollers, a pinion meshing with said gear wheel, a horizontal shaft carrying said pinion, a forked support carried by said shaft, a vertical gear carried by said shaft, a beveled gear meshing with said vertical gear, a vertical shaft carrying said beveled gear, a disk connected with the lower end of said vertical shaft, and means for adjusting said disk vertically.



3. A barrel, abrasive rollers, shafts, which the barrel and rollers said rotatably connected, gears, formed with a flexible, a spring in said flexible, and a rod connected with a flexible said rotatable rollers, means for rotating the shaft with the said gears, and means for connecting a surfacing material with the said disk.

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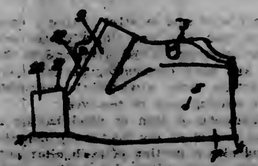
1,029,994. FLY-TRAP. Edgar L. Masterson, Peoria, Ill. Filed Oct. 11, 1911. Serial No. 653,908. (Cl. 43—62.)



A fly trap comprising a [illegible] portion having a bottom formed with an opening, flanges and a single notch adjoining said opening, an entrapping member seated in the opening, a pair of lugs at one side of the member, one of them overhanging and spaced from the other and adapted to be inserted through said opening so that said lugs engage opposite sides of the bottom, and a pair of lugs on the member substantially opposite the first pair, one of them adapted to pass through the notch and engage the bottom, the other engaging the opposite side of the bottom and adapted to enter the notch when the member is turned into its locked position.

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1,029,995. TUBE-TOP. Eugene W. McIlhenny, Cleveland, Ohio. Filed June 21, 1912. Serial No. 704,688. (Cl. 111—18.)



2. A tube-top, comprising a plurality of tube portions uniting to form a single discharge tube portion, the said entire tube being constructed of a single piece of sheet metal, substantially as described.

3. A tube-top, comprising a plurality of tube portions uniting to form a single discharge tube portion, the said entire tube being constructed of a single piece of sheet metal bent upon itself substantially midway between its ends, substantially as described.





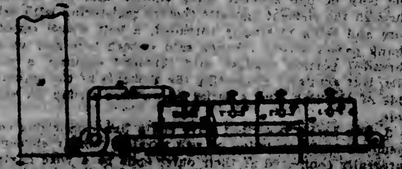
1. A joint for tubular fixtures, said joint including two abutting tubes, one of which has an open end, a flat tongue fixed to the other tube overlapping into the closed end, and adjustable therein, said tongue having a slot, and a pin fixed in first-mentioned tube upon which it is movable, and the upper end of the tongue having a clearing engagement on the under side of the pin.

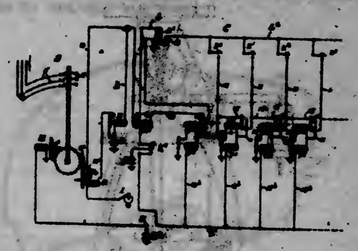
2. A joint for tubular fixtures, comprising an open ended tube of equal diameter adapted to abut against each other, and one of said tubes having a slot formed in one end, a tongue fixed in the opposing tube, one portion of which tongue is slidably [illegible] in said slot, the other portion having a [illegible] end, said tongue having a [illegible] through which a pin passes, said pin being fixed in the tube having the slot, said tongue having a notch therein to fit the said pin and engage with the slot of the tube when the parts are turned at right angles with each other.

3. A joint, comprising two tubular members provided at one end with a slot, a pin in said tubular members, a tongue of said slot, a second tongue on one of said members provided with a [illegible] slot engaging said pin, said [illegible] tongue engaging the [illegible] said tongue having a notch therein to fit the pin and hold the two members at a given angle to each other.

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1,029,997. TOBACCO-DRYING AND PACKING APPARATUS. Thomas Hayden Hutchcraft, Louisville, Ky., assignor to Hutchcraft Tobacco Plant Co., Louisville, Ky., a Corporation of New Jersey. Filed June 1, 1907. Serial No. 376,978. (Cl. 24—32.)





1. Controlling apparatus comprising a series of successively cooperating electromechanisms, means for supplying current impulses thereto, means for determining the first electromechanism to be energized by the current impulses, and circuit controlling means operable upon the energization of one of the electromechanisms.

2. An apparatus for counting current impulses comprising a series of electromechanisms, means for supplying current impulses thereto, means for determining the first electromechanism to be energized, said electromechanisms being operable upon the energization of a preceding electromechanism to energize a succeeding electromechanism, a terminal electromechanism of the series, and circuit connections.

3. An apparatus for counting current impulses comprising a series of electromechanisms, means for first operating one or another of the electromechanisms according to the number of impulses to be counted, said electromechanisms being operable through a train of preceding electromechanisms in the order first operated and a circuit controlled thereby.

4. The combination with a vibrating apparatus, of keys for governing its movement, a controlling circuit for the vibrating apparatus, and a series of relays, the energization of said relays being determined by the keys and the last of the series being provided with means whereby the operation of the controlling circuit is changed.

5. The combination with a vibrating apparatus, of a set of keys, a series of relays, [illegible] whereby the particular key actuated determines the first relay to be energized in the series, the [illegible] thereafter being energized along the series [illegible] relay last energized having means for controlling the movement of the selecting [illegible].

[Claims 6 to 11 not printed in the Gazette.]

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1,030,008. CONTROLLING APPARATUS. Edgar C. Molina, East Orange, N. J., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Sept. 26, 1911. Serial No. 650,866. (Cl. 179—27.)



1. Controlling apparatus comprising a series of successively cooperating electromechanisms, means for supplying current impulses thereto, means for determining the first electromechanism to be energized by the current impulses, and circuit controlling means operable upon the energization of one of the electromechanisms.

2. An apparatus for counting current impulses comprising a series of electromechanisms, means for first operating one or another of the electromechanisms according to the number of impulses to be counted, said electromechanisms being operable through a train of preceding electromechanisms in the order first operated and a circuit controlled thereby.

4. The combination with a vibrating apparatus, of keys for governing its movement, a controlling circuit for the vibrating apparatus, and a series of relays, the energization of said relays being determined by the keys and the last of the series being provided with means whereby the operation of the controlling circuit is changed.

5. The combination with a vibrating apparatus, of a set of keys, a series of relays, [illegible] whereby the particular key actuated determines the first relay to be energized in the series, the [illegible] thereafter being energized along the series [illegible] relay last energized having means for controlling the movement of the selecting [illegible].

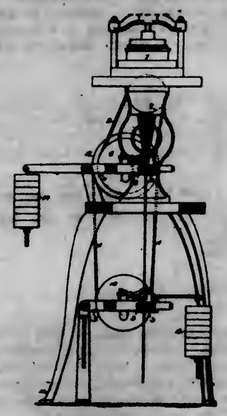
[Claims 6 to 11 not printed in the Gazette.]

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1,030,009. TELEGRAPH MECHANISM FOR EMITTING TELEGRAPHIC [illegible]. Julius D. Edison, Utica, N. Y., assignor by mesne assignments, to Sloper & Williams, Inc., Englewood, Camden, N. J., a Corporation of New Jersey. Filed Oct. 6, 1909. Serial No. 521,502. (Cl. 178—27.)

7. In telegraphy, a motion having intervals of [illegible] and [illegible] consisting primarily and exclusively of [illegible] and [illegible] and [illegible] for the [illegible] of [illegible] [illegible] [illegible]

2. A knitting machine having take-up mechanism comprising primary and secondary members, each having one or more take-up rolls carried by a movable frame, the frame of the secondary member being weighted and the frame of the primary member being counterweighted in order to relieve the same from a portion of the weight of the secondary member.



4. A knitting machine having take-up mechanism comprising primary and secondary members acting in succession upon the web delivered by the needles of the machine, and means whereby the primary member is caused to exert a pull upon the web between said primary member and the needles and the secondary member is caused to exert a stronger pull upon the web between the primary and secondary members.

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1,038,999. RIB-KNITTING MACHINE. JOSEPH D. MONLEY, Utica, N. Y., assignor, by mesne assignments, to Scott & Williams, Incorporated, Camden, N. J., a Corporation of New Jersey. Filed Aug. 2, 1909. Serial No. 510,781. (Cl. 66—86.)



1. A rib knitting machine in which are combined two sets of needles, means for projecting and retracting the needles of one set in advance of the projection and retraction of the needles of the other set, a set of loop receivers, means for feeding the knitting yarn to said loop receivers and to the first projected set of needles, prior to the projection of the needles of the other set, and means for transferring the loops from said loop receivers to said other set of needles after the same have been projected.

2. A rib knitting machine in which are combined two sets of needles, means for projecting and retracting the needles of one set in advance of the projection and retraction of the needles of the other set, a set of loop receivers, means for feeding the knitting yarn to said loop receivers and to the first projected set of needles, prior to the projection of the needles of the other set, and means for transferring the loops from said loop receivers to said other set of needles by movement of one in respect to the other, after said needles have been projected.

3. A rib knitting machine in which are combined two sets of needles, means for projecting and retracting the needles of one set in advance of the projection and retraction of the needles of the other set, a set of loop receivers, means for feeding the knitting yarn to said loop receivers, and to the first projected set of needles, prior to the projection of the needles of the other set, and means for moving the loop receivers in a direction parallel with the movement of the needles of one set to transfer their loops to the second projected set of needles, after said needles have been projected.

4. A rib knitting machine in which are combined two sets of needles, means for projecting and retracting the needles of one set in advance of the projection and retraction of the needles of the other set, a set of loop receivers, means for feeding the knitting yarn to said loop receivers, and to the first projected set of needles, prior to the projection of the needles of the other set, and means for moving the loop receivers in directions parallel with and transversely to the direction of movement of the other set of needles to transfer their loops to the latter, after said needles have been projected.

[Claims 6 to 12 not printed in the Gazette.]

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1,039,991. DRIVING-CHAIN. WALTER S. MORTON, Portsmouth, Ohio. Filed Oct. 10, 1911. Serial No. 653,916. (Cl. 74—22.)



1. The herein described drive chain link comprising two members each consisting of two tubular elements connected by a yoke, the bores in the elements of one member being smooth and constituting eyes and those in the elements of the other member being threaded and constituting nuts, bolts whose shanks pass loosely through said eyes and whose threaded portions engage the nuts and project beyond the elements containing the latter, nuts on the projecting ends of the bolts, and a series of washers interposed between the inner ends of the allied elements and strung on the bolts.

2. The herein described drive chain link comprising two members each consisting of two parallel tubular elements integrally connected at their outer ends by a yoke having its inner face curved longitudinally and laterally, the bore of one element being smooth and the opening through the element opposite thereto registering with said bore and being internally threaded, a bolt whose smooth shank passes loosely through said smooth bore and whose threaded portion engages said threaded opening, a parallel bolt similarly connecting the elements at the opposite side of the link, and a series of washers strung on each bolt.

3. The herein described drive chain link comprising two members each consisting of two parallel tubular elements integrally connected at their outer ends by a yoke having its inner face curved longitudinally and laterally, the bore of one element being smooth and the opening through the element opposite thereto registering with said bore and being internally threaded at its outer end and smooth at its inner end, a bolt whose smooth shank passes loosely through said smooth bore and its threaded end passes through the smooth portion of said opening and engages



the threaded portion, a parallel bolt similarly connecting the elements at the opposite side of the link, and a series of washers of variable thickness strung on each bolt.

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1,039,992. SHAFTING MACHINERY. WALTER J. MUNCASTER, Cumberland, Md. Filed June 27, 1908, Serial No. 440,702. Renewed Mar. 9, 1912. Serial No. 682,755. (Cl. 90—1.)



1. In combination with a suitable frame-work having a housing adapted to receive a circular head, a circular head seated in said housing and adapted to be turned a limited distance therein, said head being provided with guideways tangential to a circle concentric with its axis; a second housing secured to the main frame and having guideways arranged tangentially to a circle concentric with the axis of the housing, but inclined in a direction the reverse of that of the guideways of the circular head; journal boxes carried in the respective guideways; rolls grooved about the axis of the bearings and having their journals carried in said journal boxes; and screws passing through threaded openings in the first-mentioned housing and bearing on opposite sides of a lug on said circular head, said screws both to circularly adjust, and to hold at any desired adjustment, the said head.

2. In combination with a housing having guideways tangential to a circle concentric with its axis; a second housing; a head swiveled in the second housing and provided with guideways of similar tangential arrangement but reversed as to their inclination; journal boxes mounted in the several guideways; rolls having their journals mounted in said boxes; and screws carried by the second housing and arranged to bear against opposite faces of a lug on the swiveled head, whereby they are adapted to serve as gages for adjustment of the head, to move said head, and to hold it at any desired adjustment.

3. In combination with two housings, one having guideways tangential to a circle concentric with the common axis of the two bearings; a head swiveled in the other housing and provided with like guideways, the inclination of one set of guideways being the reverse of that of the guideways of the other set; journal boxes carried in said guideways; rolls having their journals mounted in said boxes; cam rings having a cam for and arranged to bear upon each journal box and adapted to be caused to move said boxes in their guideways, one of said cam rings being mounted upon and rotatable with the swiveled head and provided on its periphery with gear teeth; and a rack bar carried upon the fixed frame of the machine for rotating said cam ring, adapted to be engaged and disengaged with and from the teeth of the ring to permit said ring to rotate with the swiveled head without affecting the radial adjustment of the boxes carried by said head.

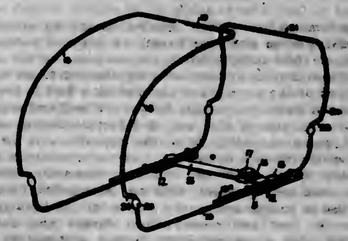
4. In combination with housing B provided with guideways, journal boxes K mounted in said guideways; cam ring L arranged to bear upon and adjust said boxes; fixed or stationary housing O; swivel head M mounted in said housing, and provided with guideways; journal boxes K mounted in said guideways; cam ring L arranged to bear upon and adjust said boxes; said screws carried by the housing O and arranged to bear against opposite faces of lug N of the head M, for locating the same.

5. In combination with housings P and O and swivel head M mounted in housing O, housing P and head M being both provided with guideways; journal boxes mounted in said guideways; cam rings L carried by the housings and arranged to act upon and adjust the boxes; rack-bars meshing with teeth of the cam rings; a lever having arms on opposite sides of its fulcrum; connections between the respective rack-bars and the lever-arms; and a motor connected with and serving to oscillate said lever.

[Claims 6 to 8 not printed in the Gazette.]

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1,039,993. ATTACHMENT FOR BABY-CARRIAGES. JOHN T. MURPHY, New York, N. Y. Filed Apr. 20, 1912. Serial No. 692,801. (Cl. 5—34.)



1. An attachment for baby carriages, comprising a bottom frame adjustable longitudinally and transversely, and comprising side bars and a cross bar, end frames integral with the side frames and consisting of side bars and cross bars, the said end frames curving toward each other to overhang at the top, and one end frame being of greater length than the other and thus overhanging to a greater degree, the end frames being formed with outwardly extending offset portions a distance above the bottom frames and having protuberances adjacent to said offsets, and a canopy formed of netting in the shape of a hood and having a retaining strand extending around the hood near the bottom to engage the end frames between the offset portions and the protuberances.

2. A canopy support for baby carriages, comprising a bottom frame and end frames that overhang the bottom at the upper ends; the bottom frame comprising overlapping members and means for adjusting the said members, and a cross bar comprising slidably connected members.

3. An attachment for baby carriages, comprising a bottom frame and end frames, the bottom frame being adjustable longitudinally and transversely to suit carriage bodies of different sizes, and the end frames extending at the top toward each other, the inner ends of the said end frames being spaced apart.

4. A canopy support for baby carriages, comprising a bottom frame adjustable longitudinally and transversely, and end frames integral with the side bars of the bottom frame and comprising upwardly and inwardly extending side bars and top cross bars, said end frames being formed of spring wire and yielding to the transverse adjustment of the bottom frame.

5. An attachment for baby carriages, comprising a bottom frame comprising side bars and a cross bar, said side bars each consisting of overlapping members and a coupling plate, said plate having vertical flanges through which the overlapped end members pass, a binding screw for holding said members against the plate, the said cross bar comprising overlapped sliding members, means for holding said members in adjusted position, end frames integral with the overlapping members of the side bars of the bottom frame and extending inwardly to overhang at the top, the end frame being formed of spring wire and having outwardly extending offset portions between the top and bottom, and a canopy in the form of a hood having an elastic cord near the bottom, said hood fitting the end frames and the elastic strand engaging said frames below the offset portions thereof.

1,029,884. BUNG AND BUSHING THEREFOR. Henry Hampson, Louisville, Ky. Filed June 1, 1912. Serial No. 700,859. (Cl. 217—107.)



The combination with a bushing having an exteriorly threaded portion and also having an outwardly directed flange, of right-angle form in cross-section, at the outer end of said portion and an inwardly directed flange at the inner end of the portion and also having a kerf in the second-named flange and a stop behind the kerf and a guard at the outer side of the same and further having an inclined plane extending from the opposite side of the kerf, with reference to the stop; of an imperforate bung provided at its outer end with an outwardly directed flange and also provided with an intermediate portion of a size to snugly occupy the portion of the bushing between the first and second-named flanges and further provided with a reduced inner portion designed to rest snugly in the second-named flange and equipped with a radial lug adapted to pass through the kerf in the latter flange and cooperate with the inclined plane thereof, and a gasket surrounding the lug and interposed between the flange thereof and the right angle flange of the bushing and adapted to be entirely inclosed by said flanges.

1,029,905. GARMENT-SUPPORTER. Harry F. Nilan, Chicago, Ill., assignor of one-half to Thomas A. Schlich, Chicago, Ill. Filed May 11, 1911. Serial No. 626,428. (Cl. 24f—9.)



In a belt slide of the character described, a safety pin for engagement with the waistband of trousers having a back bar bent to form an angular portion; a pair of flexible springs for supporting said pin having their ends connected by a yoke which is bent to form a similar angular portion; and a metal clip for imbedding said yoke and the back bar of said safety pin at opposite sides of the bend thereto.

1,029,906. SIGNALING-MEANS FOR FIRE-ALARMS. Carl Magg, Charlottenburg, Germany, assignor to Siemens & Halske, A. G., Berlin, Germany, a Corporation of Germany. Filed July 14, 1909. Serial No. 507,608. (Cl. 177—66.)

1. In a system of the character described, the combination with a plurality of signal box mechanisms, circuit controlling devices actuated automatically upon said signal box mechanisms, and a plurality of receiving devices adapted to be actuated by said circuit controlling devices and circuit connections for said devices; of a shaft carrying an armature, and a plurality of levers adapted, when said shaft is rotated, to replace said circuit controlling devices into their normal positions after said devices have been actuated, a replacing electromagnet for rotating said armature on said shaft, a source of current and rotating means connected with said circuit connections and adapted to connect said electromagnet in circuit with said source of current.

3. In a system of the character described, the combination with lamp boards, a spring pressed switching device for connecting said lamp boards in circuit, a plurality of signal box mechanisms adapted to automatically actuate said spring-pressed switching device, and a dog for holding said switching device in its operative position; of an electromagnet and circuit connections for said switching device, a shaft carrying the armature of said magnet, a source of current, devices connected with said circuit connections and adapted to connect said electromagnet in circuit with said source of current to rotate said armature on said shaft, and a lever on said shaft adapted to release said dog from said switching device.

4. In a system of the character described, the combination with a switching device, lamp boards adapted to be connected in circuit by said switching device, a plurality of signal box mechanisms adapted to automatically actuate said switching device, and a contact in the circuit of said lamp boards; of an electromagnetically operated lever for breaking the circuit of said lamp boards at said contact, and a replacing relay for actuating said lever.

5. In a system of the character described, the combination with circuit controlling devices, a plurality of receiving devices actuated by said controlling devices, a plurality of signal box mechanisms adapted to automatically actuate said circuit controlling devices, controlling devices for disconnecting said lamps, an electromagnet adapted to actuate said disconnecting devices after they have been operated, and circuit connections for connecting said switching devices and said electromagnet; of a contact in the circuit of said electromagnet, a lever for closing said contact, said electromagnet being electrically connected for operating said lever to cause the replacing of said switching devices when said contact is closed.

[Claims 2 to 10 not printed in the Gazette.]



1,029,907. RAIL-JOINT. Thomas H. Thompson, Newark, N. J. Filed June 10, 1912. Serial No. 703,202. (Cl. 238—348.)



1. A rail joint connecting plate, comprising a body portion having a base flange and an upright web, and a centrally disposed reinforcing extension thereon, said body portion integral with said base flange and web, having a marginal portion adapted to lie between against said web.

2. A rail joint connecting plate, comprising a body portion having a base flange and an upright web, and a reinforcing extension thereon, said body portion integral with said base flange and web and adapted to lie between against said web, and a rib.

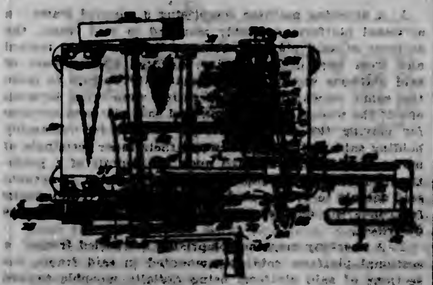
3. A rail joint connecting plate, comprising a body portion having a base flange, an upright web and a head with an outboard projection, and a reinforcing extension of less length than the body portion integral with said base flange and having its marginal portion adapted to lie between against said web with its top in engagement with said projection of the head.

4. In a rail joint, the combination of meeting rail ends, a connecting plate body portion having a base flange and an upright web, said web having opposite the meeting point of the rail ends a recess at its upper side of less length than the web, a reinforcing member seated in said recess, and extending portion projecting transversely through said rail ends, connecting plate body, and reinforcing member.

5. A rail joint connecting plate, comprising in combination a body portion having a base flange and an upright web, and a reinforcing extension thereon, said body portion integral with said base flange, web and marginal portion adapted to lie between against said web.

[Claims 6 and 7 not printed in the Gazette.]

1,029,908. APPLE-PARING MACHINE. William A. C. Gunn, Reading, Pa. Filed May 18, 1912. Serial No. 697,611. (Cl. 146—8.)



1. In a machine for paring fruit, the combination with a plurality of fruit holding devices, rotatable centrally supporting said fruit holding devices, supporting devices, continuously rotating means arranged to effect the rotation of said fruit holding devices, means arranged to effect the intermittent rotation of said fruit supporting means at predetermined intervals, also supporting rotating said fruit holding devices toward the continuously rotating means for paring the fruit, a reciprocating member seated in said rocker, and connecting portion extending transversely through said rail ends, connecting plate body, and reinforcing member.

3. In a machine for paring fruit, the combination with a rotatable fork carrying reel, a pair of forks extended oppositely therefrom and having their shafts rotatably mounted therein in parallel relation, pinions on said shafts local to said forks, a gear mounted to rotate in a plane slightly oblique to the plane of said reel, on an axis disposed between said shafts, and having teeth disposed tangential to a circle whose diameter is equal to the distance between the axes of said shafts, and means arranged to intermittently rotate said reel with said gear, the rotation of which effects the engagement of one pinion simultaneously with the disengagement of the other pinion while traveling together in the same general direction.

4. In a machine for paring fruit, the combination with a rotatable fork carrying reel, a pair of forks extended oppositely therefrom and having their shafts rotatably mounted therein in parallel relation, pinions on said shafts local to said forks, a gear mounted to rotate in a plane slightly oblique to the plane of said reel, on an axis disposed between said shafts, and having teeth disposed tangential to a circle whose diameter is equal to the distance between the axes of said shafts, means arranged to intermittently rotate said reel with said gear, the rotation of which effects the engagement of one pinion simultaneously with the disengagement of the other pinion while traveling together in the same general direction, and means to stop said reel to effect the rotation of the fork whose pinion is thus engaged with said gear.

5. A machine for paring fruit, comprising fruit rotating means, a rock shaft, means carried thereby and provided with a socket, and a knife bar having a ball loosely engaged in removable relation in said socket and carrying a knife in operative relation to the fruit rotating means.

[Claims 6 and 7 not printed in the Gazette.]

1,029,909. PROCESS OF MAINTAINING THE VITALITY OF DRIED YEAST. Peter Diedrich Heinrich Christian, Stade, Germany. Filed Aug. 24, 1911. Serial No. 645,530. (Cl. 99—10.)

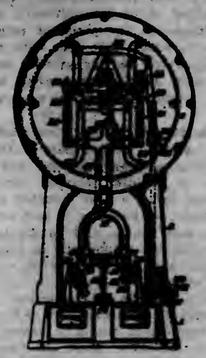
1. The herein described process of maintaining the vitality of dried yeast, which consists in maintaining the thoroughly dried yeast and a hygroscopic substance out of contact within an air-tight receptacle for removing the hygroscopically-retained moisture gradually given up by the thoroughly dried yeast to the air within such receptacle.

2. The herein described process of maintaining the vitality of dried yeast, which consists in maintaining the thoroughly dried yeast and a hygroscopic substance separately out of contact within an air-tight receptacle for removing the hygroscopically-retained moisture gradually given up by the thoroughly dried yeast to the air within such receptacle.

1,029,910. AUTOMATIC COMPUTING AND WEIGHING-SCALE. John H. Gehman, Denver Hills, Pa., assignor to National Scale Company, Chicago, Ills., Manufacturing Corporation of Massachusetts. Filed Aug. 15, 1908. Serial No. 448,607. (Cl. 73—43.)

In computing and weighing scale, the combination of a frame, a dial frame mounted on said frame, indicating mechanism carried by said dial frame, a dial rod, a balance-lever supported in said base and connected at a point intermediate its ends to said dial rod, a pendulum

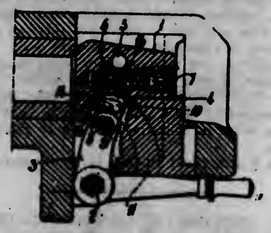
the indicators, means directly connected with said draft rod for preventing the oscillation of the indicators after



the completion of the weighing operation, and means for adjusting the indicators to zero and for taking tare.

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1,040,001. BREECH-LOADING MECHANISM FOR ARTILLERY-GUNS. EMIL OLSSON, Bofors, Sweden, assignor to Aktiebolaget Bofors-Gullespång, Bofors, Sweden. Filed Mar. 23, 1909. Serial No. 485,275. (Cl. 89—24.)



1. In breech-loading guns in combination, a barrel, a breech-block adapted to be moved relatively thereto, and mechanism for moving said block to and from its closed position, said mechanism comprising a lever pivoted to said barrel and a second lever pivoted to said block, a connection between said levers permitting them to be movable through a certain angle while the breech-block is at rest in its closed position and co-acting supporting members carried by one of said levers and said barrel for supporting the block when in its closed position.

2. In breech-loading guns, in combination, a barrel, a breech-block adapted to be moved relatively thereto, a mechanism for moving said block to and from its closed position, said mechanism comprising a lever pivoted to said barrel and a second lever pivoted to said block, said levers being connected together by means of a pin and a hole of greater cross-sectional area than the pin and co-acting supporting members carried by one of said levers and said barrel for supporting the block when in its closed position; for the purpose of permitting the levers to move through a certain angle while the breech-block is at rest in its said closed position.

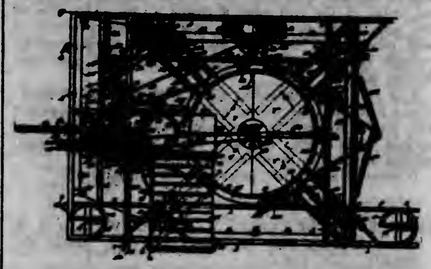
3. In breech-loading guns, in combination, a barrel, a breech-block adapted to be moved with respect thereto, a lever pivotally mounted upon said barrel, a second lever pivotally mounted upon said block, said levers being connected to one another and co-acting supporting members carried by one of said levers and said barrel for supporting the block in its closed position, said members being provided with co-acting curved faces.

4. In breech-loading guns, in combination, a barrel, a breech-block adapted to be moved with respect thereto, a lever pivotally mounted upon said barrel, a second lever pivotally mounted upon said block, said levers being connected together by means of a pin and a hole of greater cross-sectional area than the pin and co-acting supporting members carried by one of said levers and said barrel for supporting the block when in its closed position, the connection between said levers permitting them to be movable through a certain angle while the breech-block is at rest in its said closed position, the curvature of said members being formed on arcs of circles the center of which is the pivot of the lever which is mounted upon said block.

5. In breech-loading guns, in combination, a breech-block, adapted to be moved relatively to the barrel of the gun, means comprising two pivotally connected levers for moving said breech-block to its closed position, the connection between said levers permitting them to be movable through a certain angle while the breech-block is supported in its closed position by means of co-acting supporting members carried by one of said levers and said barrel, a firing-pin movably carried by said block, a projection upon said firing-pin and movable means controlled by the movement of the levers adapted to engage said projection, said movable means being moved out of the path of said projection during the final movement of the levers in closing direction and causing the withdrawal of the firing-pin from the detonator during the initial movement of the levers in opening direction.

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1,040,002. SHOCKING-MACHINE. CARL OHMARR, Wheelock, N. D., assignor of one-fifth to Albert G. J. Anderson, Tioga, N. D. Filed Jan. 19, 1912. Serial No. 672,163. (Cl. 86—121.)



1. A shocking machine comprising a wheeled frame; a sectional platform rotatably mounted in said frame, the sections of said platform being radially movable toward and from each other; means, adapted upon release of said platform sections, to automatically operate to move the same outwardly; an operative connection between one of the wheels of said frame and said platform sections for moving the same inwardly; detents for releasably holding said platform sections at their inner terminals of movement; means, adapted upon the deposit of a predetermined number of bundles upon said platform, to actuate said detents to release said platform sections; and means for conveying bundles to said platform, substantially as described.

2. A shocking machine comprising a wheeled frame; a sectional platform rotatably mounted in said frame, the sections of said platform being radially movable toward and from each other; resilient means, adapted upon the release of said platform sections, to automatically operate to move the same outwardly; an operative connection between one of the wheels of said frame and said platform sections for moving the same inwardly; detents for releasably holding said platform sections at their inner terminals of movement; means, adapted upon the deposit of a predetermined number of bundles upon said platform, to actuate said detents to release said platform sections; and means for conveying bundles to said platform, substantially as described.

3. A shocking machine comprising a wheeled frame; a sectional platform rotatably mounted in said frame, the sections of said platform being radially movable toward and from each other; means, adapted upon release of said platform sections, to automatically operate to move the same outwardly; an operative connection between one of the wheels of said frame and said platform sections for moving the same inwardly; detents for releasably holding said platform sections at their inner terminals of movement; gearing, adapted upon the deposit of a predetermined number of bundles upon said platform, to effect the actuation of said detents to release said platform sections; and means for conveying bundles to said platform, substantially as described.

[Claims 4 to 24 not printed in Gazette.]



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1,040,003. SHOCKING-MACHINE. CARL OHMARR, Wheelock, N. D., assignor of one-fifth to Albert G. J. Anderson, Tioga, N. D. Filed Jan. 19, 1912. Serial No. 672,164. (Cl. 86—121.)

1. A shocking machine comprising a wheeled frame; a sectional platform rotatably mounted in said frame, the sections of said platform being radially movable toward and from each other; means, adapted upon release of said platform sections, to automatically operate to move the same outwardly; an operative connection between one of the wheels of said frame and said platform sections for moving the same inwardly; detents for releasably holding said platform sections at their inner terminals of movement; means, adapted upon the deposit of a predetermined number of bundles upon said platform, to actuate said detents to release said platform sections; and means for conveying bundles to said platform, substantially as described.

2. A shocking machine comprising a wheeled frame; a sectional platform rotatably mounted in said frame, the sections of said platform being radially movable toward and from each other; resilient means, adapted upon the release of said platform sections, to automatically operate to move the same outwardly; an operative connection between one of the wheels of said frame and said platform sections for moving the same inwardly; detents for releasably holding said platform sections at their inner terminals of movement; means, adapted upon the deposit of a predetermined number of bundles upon said platform, to actuate said detents to release said platform sections; and means for conveying bundles to said platform, substantially as described.

3. A shocking machine comprising a wheeled frame; a sectional platform rotatably mounted in said frame, the sections of said platform being radially movable toward and from each other; means, adapted upon release of said platform sections, to automatically operate to move the same outwardly; an operative connection between one of the wheels of said frame and said platform sections for moving the same inwardly; detents for releasably holding said platform sections at their inner terminals of movement; gearing, adapted upon the deposit of a predetermined number of bundles upon said platform, to effect the actuation of said detents to release said platform sections; and means for conveying bundles to said platform, substantially as described.

4. A shocking machine comprising a wheeled frame; a sectional platform rotatably mounted in said frame, the sections of said platform being radially movable toward and from each other; levers and springs cooperating therewith adapted upon release of said platform sections to automatically operate to move the same outwardly; an operative connection between one of the wheels of said frame and said platform sections for moving the same inwardly; detents for releasably holding said platform sections at their inner terminals of movement; means, adapted upon the deposit of a predetermined number of bundles upon said platform, to actuate said detents to release said platform sections; and means for conveying bundles to said platform, substantially as described.

5. A shocking machine comprising a wheeled frame; a sectional platform rotatably mounted in said frame, the sections of said platform being movable toward and from each other; means, adapted upon the release of said platform sections, to automatically operate to move the same outwardly; an operative connection between one of the wheels of said frame and said platform sections for moving the same inwardly; detents for releasably holding said platform sections at their inner terminals of movement; gearing, adapted upon the deposit of a predetermined number of bundles upon said platform, to effect the actuation of said detents to release said platform sections; and means for conveying bundles to said platform, substantially as described.

[Claims 6 to 24 not printed in Gazette.]

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1,040,005. DOUBLE-KNIFE BOX FOR SHEET-BOOT-SLICING MACHINES. MAX PASCHKE, Kitzken, Germany. Filed July 8, 1911. Serial No. 637,497. (Cl. 146—7.)



1. In a double knife box for slicing machines, in combination, a supporting web, a front knife carried by said web in a fixed, slightly inclined position, a rear knife, a guide bar for said rear knife, said guide bar disposed on said front knife, and means for adjusting the edge of the guide bar adjacent the rear knife by tilting said guide bar about its opposite edge.

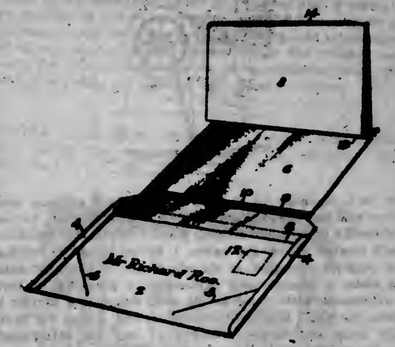
2. In a double knife box for slicing machines, in combination, a supporting web, a front knife carried by said web in a fixed, slightly inclined position, a rear knife, a guide bar for said rear knife, said guide bar disposed on said front knife, and a wedge disposed below the rear edge of said guide bar, to raise said edge.

3. In a double knife box for slicing machines, in combination, a supporting web, a front knife carried by said web in a fixed, slightly inclined position, a rear knife, a guide bar for said rear knife, said guide bar disposed on said front knife, a wedge disposed below the rear edge of said guide bar, to raise said edge, and means for adjusting said web, front knife and guide bar in adjusted positions.

4. In a double knife box for slicing machines, in combination, a supporting web, a front knife carried by said web, displaceable longitudinally with reference to said web, a rear knife, a guide bar for said rear knife, said guide bar disposed on said front knife, and a wedge disposed below the rear edge of said guide bar to raise said edge.

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1,040,004. ENVELOP AND ADVERTISING DEVICE. JOHN G. PATTON, Philadelphia, Pa. Filed June 22, 1911. Serial No. 634,706. (Cl. 229—72.)




An envelop and advertising device, consisting of a blank of material separated into a plurality of envelop and tab sections, one envelop section being secured to an adjoining section, whereby a complete envelop is formed, one side of said envelop being provided with an aperture with which the tab sections interlock when folded to form the flap of the primary envelop for the sender, the tab section nearest said envelop having a weakened line and a strip of adhesive in proximity to said line, whereby when the tab sections are separated along the weakened line, a return envelop is formed for the sender available as first or second class matter, and the portion left of said tab forming the flap of the return envelop.

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1,040,006. BUCKET CONVEYER. AUGUSTUS T. PERKINS, Chicago, Ill. Filed June 18, 1900. Serial No. 569,882. (Cl. 198—17.)



1. In a conveyer, the combination of a plurality of endless conveyer chains, a series of buckets spaced apart and pivotally suspended from said conveyer chains, spindles loosely secured at each end to the conveyer chains between adjacent buckets, and cylindrical deflectors of larger diameter than the spindles loosely suspended from said spindles to seal the space between the buckets and prevent the escape of material therebetween.

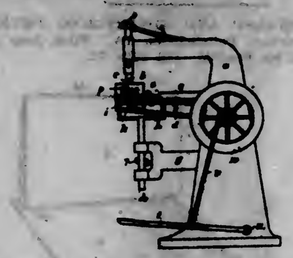
2. In a conveyer, the combination of endless conveyer chains, a plurality of buckets pivotally suspended from said chains, a spindle extending transversely of the buckets and secured at each end to a chain intermediate the pivotal attachment thereto of the adjacent buckets, and a deflector loosely mounted upon each of said spindles, said deflector being of larger diameter than the spindles.

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1,040,008. WEB-CUTTING MECHANISM. HUGO PASCHMEIER, Cederan, Germany. Filed Jan. 7, 1911. Serial No. 601,449. (Cl. 164—68.)

1. In a machine for posting cardboard-box coupons, both sheets and the like, in combination, a work-support having

a plurality of parallel vertical slots, a notchable shaft mounted horizontally below the same, a spring-actuated cutting-disk slidably mounted on the shaft and adapted to enter the slots, a presser-head presenting a plurality of slots in alinement with those in the work-support, a carrier in which the shaft is slidably mounted, and means for vertically reciprocating the presser-head and the cutter-shaft with counter motion.



2. In a machine for pasting cardboard box corners, book covers and the like, in combination, a work-support having a plurality of parallel vertical slots, a horizontal rotatable shaft located below the same, a spring-actuated cutting-disk slidably mounted on the shaft and adapted to enter the slots, a presser-head presenting a plurality of slots in alinement with those in the work-support, a carrier in which the shaft is slidably mounted, and means for vertically reciprocating the presser-head and the cutter-shaft simultaneously with counter motion.

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1,040,697. GRAIN-SHOCKING DEVICE. Edward Fickbohm, Willow City, N. D. Filed Apr. 11, 1911. Serial No. 620,537. (Cl. 56—121.)



1. In a grain shocker, a receiving compartment having a downwardly and rearwardly inclined front wall, an endless carrier supported adjacent the said front wall to engage the butt ends of sheaves delivered into the compartment, an endless carrier supported adjacent to the bottom of the compartment to receive the butts of sheaves from the inclined conveyer, and rearwardly converging resilient arms supported upon the inner faces of the side walls of the compartment to support the heads of the sheaves while being upended by the action of the inclined conveyer.

2. In a grain shocker, a receiving compartment having side walls, rearwardly converging resilient members supported upon the side walls to engage the heads of sheaves delivered into the compartment, and an endless carrier supported in an inclined position to engage the butt ends of sheaves delivered into the compartment to upend the same.

3. In a grain shocker, a receiving compartment having side walls, rearwardly converging resilient members supported adjustably upon the inner faces of the side walls to engage the heads of sheaves delivered into the compartment, an endless carrier supported in an inclined position in the compartment to engage the butt ends of sheaves delivered therein, and an endless carrier supported adjacent to the bottom of the compartment to receive the sheaves, standing, in a rearwardly direction.

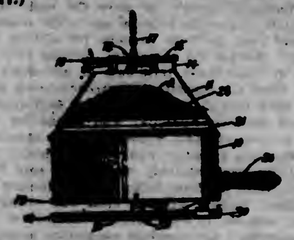
4. In a grain shocker, a receiving compartment having side walls, elastic resilient members pivoted upon the inner faces of the side walls, downwardly and rearwardly converging guides, fall members movable upon said guides and normally projecting inwardly toward the middle portion of the compartment, and means for moving the latter in unison the resilient members to adjusted positions to engage the heads of sheaves delivered into the compartment.

5. In a grain shocker, a receiving compartment having side walls, resilient arms pivoted upon the inner faces of the side walls, blocks mounted on the inner faces of the side walls and having downwardly and rearwardly converging faces and means for supporting the resilient arms adjustably with reference to the downwardly and rearwardly converging faces of the blocks.

[Claims 6 to 10 not printed in the Gazette.]

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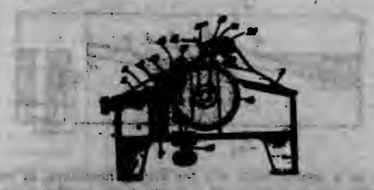
1,040,866. REFLECTOR. Andrew H. Fike, Longbeach, Cal. Filed July 17, 1911. Serial No. 639,008. (Cl. 174—177.)



A reflector comprising a tubular member having a cylindrical lower portion and a tapering upper portion and a screening device suspended from the lower end of said cylindrical portion in spaced relation thereto, said screening device comprising a plate having a central opening, guide rails secured to the under side of said plate adjacent the opening, and a plurality of glass strips removably mounted in said guide rails and closing the opening of said plate.

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1,040,909. MACHINE FOR APPLYING PASTE TO LABELS, &c. Andrew Petrovits, Brooklyn, N. Y., assignor to Petrovits Machine Company, Brooklyn, N. Y., a Corporation of New York. Filed Aug. 12, 1910. Serial No. 576,898. (Cl. 91—51.)



1. In an apparatus for applying adhesive substance to labels, &c., the combination with a receptacle, and a rotatable roll therein, of a pair of rollers mounted adjacent said roll in advance of the axis thereof and in different horizontal planes, the lower of said rollers serving to feed the labels to said roll and the upper roller serving to hold the labels in contact with the periphery of the roll, and means arranged in rear of said rollers and over the top of said roll for delivering the labels upwardly and forwardly from the roll after application of the adhesive substance to the labels.

2. In an apparatus for applying adhesive substance to labels, &c., the combination with a receptacle, and a rotatable roll therein, of a pair of rollers mounted adjacent said roll in advance of the axis thereof and in different horizontal planes, the lower of said rollers serving to feed the labels to said roll and the upper roller serving to hold the labels in contact with the periphery of the roll, and means arranged in rear of said rollers and over the top of said roll for delivering the labels upwardly and forwardly from the roll after application of the adhesive substance to the labels, whereby the labels are delivered toward the front of the apparatus with the gummed face up.



being "pulled" toward the operator by the action of said roll, the combination of a receptacle, a roll therein, and means arranged in rear of said roll and over the top of said roll for delivering the labels upwardly and forwardly from the roll after application of the adhesive substance to the labels.

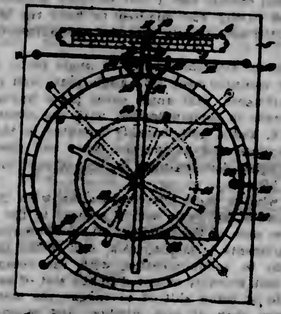
3. In an apparatus for applying adhesive substance to labels, &c., the combination with a receptacle, and a rotatable roll therein, of a pair of rollers mounted adjacent said roll in advance of the axis thereof and in different horizontal planes, the lower of said rollers serving to feed the labels to said roll and the upper roller serving to hold the labels in contact with the periphery of the roll, and a guide of substantially crescent shape mounted over the top of said roll and adjacent the periphery thereof and provided with upstanding forward portions adapted to bear pivotingly upon the top of said roll.

4. In an apparatus for applying adhesive substance to labels, &c., the combination with a receptacle, and an adhesive-applying roll mounted therewith, of means for feeding the labels to said roll, and a member supported adjacent the roll and provided with means for delivering the labels upwardly and forwardly from the roll after application of the adhesive substance to the labels, whereby the labels are delivered toward the front of the apparatus with the gummed face up.

5. In an apparatus for applying adhesive substance to labels, &c., the combination with a receptacle, and an adhesive-applying roll mounted therewith, of means for feeding the labels to said roll, and a finger mounted adjacent the periphery of the roll and having a label contact portion extending upwardly from the roll and adapted to deflect the labels upwardly and forwardly after application of the adhesive substance to the labels, whereby the labels are delivered toward the front of the apparatus with the gummed face up.

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1,040,910. DRAWING-BOARD. Enos Joseph Potvin, Moosup, Conn. Filed Jan. 31, 1912. Serial No. 674,585. (Cl. 33—15.)



1. A drawing board embodying a main board, a rotatable auxiliary board thereto, a straight edge slidably and pivotally mounted upon the main board to be slidable over the auxiliary board and to be swingable to and from same, a scale on the main board, and a member longitudinally connected to the pivoted end of the straight edge and having a pointer cooperating with the said scale.

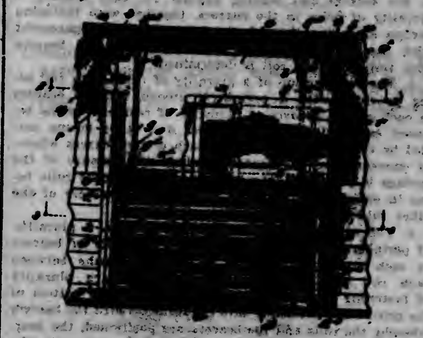
2. A drawing board embodying a main board having a circular opening, a rotatable circular auxiliary board disposed in the said opening, a rod on the main board, a bracket sidewise and pivotally connected on the said rod a straight edge carried by the bracket to be slidable over and to be pivotally to and from the auxiliary board, a scale on the main board having a plurality of graduations, and a member hinged to the bracket and having pointers to cooperate with the respective graduations.

3. A drawing board, embodying a main board having a circular opening, a rotatable circular auxiliary board disposed in the said opening, a rod on the main board, a bracket sidewise and pivotally connected on the said rod a straight edge carried by the bracket to be slidable over and to be pivotally to and from the auxiliary board, a scale on the main board having a plurality of graduations, and a member hinged to the bracket and having pointers to cooperate with the respective graduations.

4. A drawing board embodying a main board, a rotatable auxiliary board thereto, a rod on the main board, a member slidably and pivotally connected on the said rod, a straight edge carried by the bracket to be slidable over said to be swingable to and from the auxiliary board, and a U-shaped leaf spring secured at its extremities to the bracket and having its intermediate portion in engagement with the said rod to retain the straight edge in any position.

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1,040,911. CAR-DOOR. Herman C. Pfeiffer, Blue Island, Ill. Filed May 11, 1910. Serial No. 560,852. (Cl. 20—34.)



A car structure including a car body having a door opening; a door therefor; a substantially rigid suspension device for the door swingingly connected with the top portion of the door upon its front side and swingingly mounted near the top margin of the door opening and including a crank connection with the top margin of the door whereby the door may be initially raised; a supporting device s for receiving the top margin of the door when it is swung inwardly and is placed in a substantially horizontal position; and a second supporting device s for holding the bottom portion of the door when the door has been placed in a substantially horizontal position at the upper part of the car.

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1,040,912. ADJUSTABLE SPRING-BEARER. Frederick H. Raabe, New York, N. Y. Filed June 3, 1911. Serial No. 631,050. (Cl. 101—98.)



1. The combination with a roll having a tapering outer shell thickened at longitudinally-spaced intervals, with

circumferential grooves located in the surface thereof at the thickened portions, annular sections movably mounted in said grooves, said annular sections having openings therein, screws passing through said openings and finally secured to said roll so as to permit a limited relative movement of said sections with respect to said roll, said roll having sockets therein, said springs in said sockets, bearing against the inner surfaces of said sections so as to tend to normally press said sections outwardly.

2. The combination of a roll provided with a peripheral groove, bearers of permanent arcuate form positioned within the said groove, a plurality of springs positioned between the bearers and the said roll, together with means secured to the roll and engaging the said bearers whereby the said bearers may be moved adjacent the roll, thereby compressing the springs, movement of the bearers in the opposite direction being determined by the said means.

3. The combination of a roll provided with a peripheral groove, bearers of arcuate form positioned within the groove, the said bearers together forming a structure concentric with the roll, a plurality of sockets in the roll and communicating with the groove, springs located within the sockets and bearing against the said bearers, a plurality of holes in the bearers, together with fastening devices extending through the holes and into engagement with the roll whereby the position of the said bearers with respect to the roll is determined.

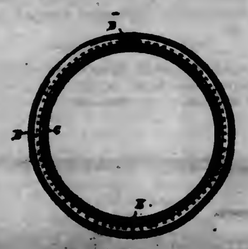
4. The combination of a plurality of rolls, each roll being provided with a peripheral groove, arcuate bearers in each of the grooves, a plurality of resilient means between each roll and each bearer, and other means carried by each roll and engaging each of the bearers whereby movement of the bearers against the pressure of the springs is permitted, the bearers on each of the rolls being in engagement with the corresponding bearers of the other roll.

5. The combination of a plurality of rolls, a plurality of peripheral grooves in each roll, a plurality of bearers in each groove, a plurality of resilient means between each roll and each bearer, together with a plurality of fastening means carried by each roll at the bottom of the groove and extending into engagement with the bearers whereby the rolls and the bearers are positioned, the bearers in one roll being in contact with the bearers in the other roll whereby material passed between the rolls will be engaged between the bearers.

[Claims 6 to 8 not printed in the Gazette.]

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1,040,012. STEERING-WHEEL RIM. WILLIAM C. RASTETTER, Fort Wayne, Ind. Filed Mar. 14, 1912. Serial No. 683,857. (Cl. 74—33.)



The method of making a steering wheel rim which consists in forming a stock of two bent wood rings, the ends being jointed, the outer face of one rim being beveled and the inner face of the other rim being correspondingly beveled, the two rims being secured together with a glued joint, the inner rim being pressed within the outer rim, and subsequently shaping the stock by a finishing operation.

1,040,014. GARBAGE-RECEPTACLE. WARREN H. RAWSON, Gloversville, N. Y. Filed Aug. 18, 1911. Serial No. 644,584. (Cl. 220—21.)



1. In a garbage receptacle, a can comprising a cylindrical wall, a semi-globular bottom member having a circumferential edge in immediate contact with said wall, and a brace member having an annular flange secured to the bottom portion of said wall and a centrally apertured conical portion supporting said bottom member.

2. In a garbage receptacle, a can, a semi-globular inner bottom in the can, the outer wall of the can extending below the semi-globular member, and a frusto-conical member surrounding the lower portion of the semi-globular member and secured to the lower portion of the can.

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1,040,015. WINDOW-LOCK. JAMES W. RILEY, Pittsburgh, Pa. Filed Feb. 27, 1912. Serial No. 680,225. (Cl. 16—119.)



1. A window lock comprising an angle casing providing two compartments, said angle casing having a slot formed in the angle thereof in communication with the compartments of said casing, and a bolt movably mounted in the slot of said casing and adapted to have the inner end thereof shifted successively into the compartments of said casing.

2. A window lock comprising an angle plate, an angle cover plate mounted over said angle plate and providing two compartments, said angle cover plate having a slot formed therein in communication with the compartments of said lock, and a bolt movably mounted in the slot of said cover plate and having the inner end thereof provided with studs for retaining the end of said bolt within said cover plate.

3. In a window lock, the combination with the sashes of a window, of an angle casing secured to the side rail of the upper sash of the window, said angle casing having two compartments formed therein, said casing having the slot therein in communication with the compartments thereof, a bolt movably mounted in the slot of said casing and capable of being shifted to engage the meeting rail of the lower sash of said window, and means carried by said bolt for retaining the inner end thereof in said casing.

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1,040,016. BANANA PACK-SADDLE. ASHTON E. ROBBINS, Cuba, Spanish Honduras. Filed Dec. 22, 1911. Serial No. 667,290. (Cl. 224—43.)

1. A banana pack saddle comprising a back pad substantially as described having at its opposite sides projecting staples, a cover fitting on said pad and having eyes through which the staples project, the ends of the cover being provided with hooks for engagement with said staples when such ends are returned to form side pockets, flaps projecting upwardly from the said side pockets, intermediate pads arranged above the side pockets, and a sheet secured at its ends to the upwardly projecting flaps of the cover and forming a top pocket whose opposite sides are the intermediate pads.



2. A banana pack saddle comprising a back pad, side pockets, pads above the side pockets, and a detachable sheet above the back pad and forming a top pocket whose opposite sides are the intermediate pads.



3. A banana pack saddle comprising a top pocket, side pockets below the top pocket at the opposite sides of the latter, and intermediate pads between the side and top pockets, said pads being secured at their inner ends and free at their outer ends, whereby they will be retained in position at said inner ends and are capable of movement at their outer ends to permit the adjustment of the pockets as to size.

4. A banana pack saddle having independent spaced apart side pockets, a base connection between said side pockets, a sheet extended between said side pockets and forming a top pocket between the same and means detachably securing said sheet.

5. A cover for banana pack saddles having its ends returned to form side pockets and having detachable fastenings, a top sheet extending between the side pockets to form a top pocket, and pads forming partitions between the side pockets and the top pocket.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,017. THROTTLE-CONTROLLING DEVICE FOR INTERNAL-COMBUSTION ENGINES. EDWARD P. ROBINSON, Malden, Mass., assignor to Reversible Gas-Engine Company, a Corporation of Maine. Filed Mar. 22, 1909. Serial No. 485,041. (Cl. 123—179.)



1. A throttle controlling device for internal combustion engines, consisting of a traveling member; a starting device adapted to cooperate with said traveling member; means for operating the ignition mechanism, said means also being operated by said traveling member; and means whereby the throttle is acted upon by said traveling member and moved thereby to a predetermined position during that movement of said traveling member which finally causes the ignition mechanism to operate.

2. In an internal combustion engine, the combination with the throttle provided with an actuating member having a service handle; of a switch controlling the ignition, said switch having stationary and movable members; an auxiliary throttle controlling device connected with the movable member of said switch; and means whereby the movement of said auxiliary throttle controlling device in either direction is arranged to move the throttle to a definite predetermined position, substantially as described.

3. The combination with the throttle controlling member provided with engaging projections; of a transversely movable member having inclined surfaces to engage said projections and thereby to move the throttle controlling member in one direction or the other; and means for controlling the ignition also carried by said transversely movable member.

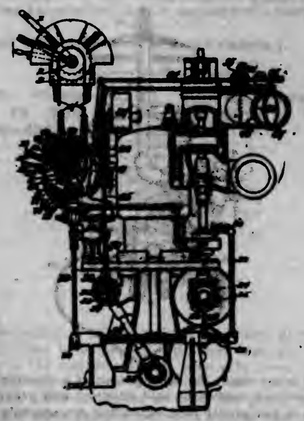
4. In an internal combustion engine, the combination with a starting device adapted to control the ignition; of a starting means operated by said starting device for moving the throttle to a definite predetermined position; and means whereby said throttle is released and left free for independent operation while the engine is running.

5. The combination with ignition devices; of means for controlling the operation of said ignition devices; a starting lever cooperating with said controlling means; a throttle; and means for connecting said starting lever with the throttle, whereby the throttle is under the control of said starting lever during the movement thereof which starts or stops the engine.

[Claims 6 to 9 not printed in the Gazette.]

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1,040,018. INTERNAL-COMBUSTION ENGINE. EDWARD P. ROBINSON, Malden, Mass., assignor to Reversible Gas-Engine Company, a Corporation of Maine. Filed June 9, 1911. Serial No. 632,180. (Cl. 123—41.)



1. In an internal combustion engine, the combination with regulating devices to control the quantity of fuel, the time of ignition, and the reversing mechanism, of means for making preliminary adjustments of the said regulating devices prior to starting the engine; a master controller having stopped and running positions; and connecting mechanism whereby said means for making preliminary adjustments are operated solely by said master controller during the movement of the controller from one of its positions to the other.

2. In an internal combustion engine, the combination with regulating devices to control the quantity of fuel, the time of ignition, and the reversing mechanism; of means for making preliminary adjustments of the said regulating devices prior to starting the engine; a master controller having stopped and running positions; connecting mechanism whereby said means for making preliminary adjustments are operated solely by said master controller during the movement of the controller from one of its positions to the other; and means whereby said regulating devices are disconnected from said master controller for independent operation when said controller is in the running position.

...5. In an internal combustion engine, the combination with a fuel regulating device provided with a manually operated extender, of a motor controller adapted to operate said fuel regulating device only while the engine is being started or stopped; and means operated by said motor controller for preventing said fuel regulating device from being moved by its extender to a position to cut off wholly the supply of fuel while the engine is running.

6. In an internal combustion engine, the combination with ignition mechanism; of means cooperating with said ignition mechanism for timing the ignition; a motor controller having stopped and running positions, and adapted to be operated only during the starting and stopping of the engine; and means for connecting the ignition timing means with said controller, whereby the ignition is timed solely by the operation of said controller except when said controller is in running position.

[Claims 6 to 24 not printed in Gazette.]

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1,040,619. GAS-LAMP. HARRY RUSSE, New York, N. Y. Filed Jan. 24, 1912. Serial No. 673,612. (Cl. 67—64.)



1. In a gas lamp, the combination of a chimney, a valve casing located outside of said chimney and provided with a valve, a gas supply pipe extending downwardly into the chimney and passing laterally through the side thereof and connected with said valve casing upon the exterior of the chimney, a burner and a gas delivery pipe connected with said burner and passing through the side of said chimney and connected with said valve casing to the exterior of the chimney, and a bracket secured to the interior of said chimney and provided with means engaging said gas supply and delivery pipes respectively, substantially as described.

2. In a gas lamp, the combination of a chimney, a valve casing located outside of said chimney and provided with a valve, a gas supply pipe extending into the upper end of said chimney and passing through the side thereof and connected with said valve casing, a burner and a gas delivery pipe connected with said burner and passing through the side of said chimney and connected with said valve casing and being arranged in said chimney at the point thereof where said pipes pass through the chimney, and a bracket secured upon the interior of said chimney and connected to said gas delivery pipe and being so bent as to hold the connected pipes engaged, substantially as described.

3. In a gas lamp, the combination of a chimney, a valve casing located outside of said chimney and provided with a valve, a gas supply pipe extending into the upper end of said chimney and passing through the side thereof and connected with said valve casing, a burner and a gas delivery pipe connected with said burner and passing through the side of said chimney and connected with said valve casing and being arranged in said chimney at the point thereof where said pipes pass through the chimney, and a bracket secured upon the interior of said chimney and connected to said gas delivery pipe and being so bent as to hold the connected pipes engaged, and a projection upon said gas delivery pipe exterior to said chimney and bearing against the outside thereof, and a [illegible] the interior of said chimney, [illegible] upon the gas supply and [illegible] and provided [illegible] gas supply and delivery pipes together, [illegible].

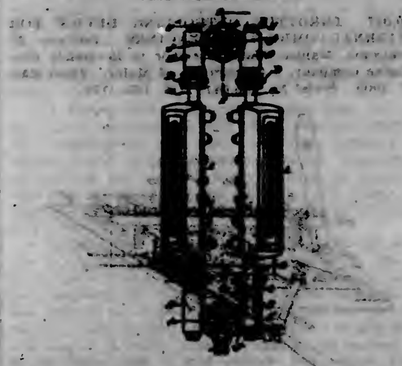
4. In a [illegible] combination [illegible] valve casing, a gas supply [illegible] and provided with a valve [illegible] a gas [illegible] and pivoted [illegible] a handle, a spring [illegible] said gas supply pipe having a bearing upon said [illegible] and provided with a perforation, a threaded [illegible] mounted on said valve casing and projecting through the perforation in said washer, a threaded stop mounted on said pin and bearing upon said washer to regulate the tension thereon, the handle [illegible] said pin, [illegible] to change said stop to adjust the tension [illegible] thereof, substantially as described.

5. In a gas lamp, the combination of a chimney, a gas supply pipe extending into said chimney, a valve casing connected with said gas pipe and provided with a valve, a bracket and a depending gas delivery pipe connected with and supporting said burner below said gas supply pipe, the said gas delivery pipe being connected with said valve casing, and a supporting member secured within said chimney and provided with arms for engaging said gas supply and delivery pipes, respectively, and supporting said chimney, substantially as described.

[Claims 6 to 12 not printed in Gazette.]

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1,040,620. DUPLEX WATER-GAGE. JOHN J. RYAN, Houston, Tex. Filed June 15, 1911. Serial No. 633,365. (Cl. 73—54.)



The herein described duplex water gage, comprising gages arranged side by side and each having a tubular extension at the upper end, and a tubular extension at its lower end; an upper coupling member having a valve casing containing a [illegible] and also having a threaded projection extending from the lower end of the casing and further having lateral openings adapted and arranged to be communication with the [illegible] of said gages, [illegible] a lower coupling member having a valve casing [illegible] and also having a threaded projection [illegible] the lower end of which has [illegible] openings [illegible] a valve [illegible] and a supporting bracket secured within said chimney and provided with arms for engaging said gas supply and delivery pipes, respectively, and supporting said chimney, substantially as described.

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1,040,621. DISH-CLEANER. [illegible] Gilmour and Angus K. Macdonald, Portland, Me. Filed May 10, 1910. Serial No. 561,583. (Cl. 141—8.)



1. In a dish container, a tank provided with a spindle in the bottom thereof, a dish container provided with a hub adapted to engage and rotate upon said spindle and with depressions in the top edge spaced apart at frequent intervals, and a shaft provided with radial arms having their outer ends adapted to fit into said depressions and impart rotation to said container.

2. In a dish cleaner, a tank provided with a spindle in the bottom thereof, a dish container centrally positioned and provided with a hub adapted to engage and rotate upon said spindle, and with depressions in the top edge spaced apart at frequent intervals, a shaft provided with radial arms having their outer ends adapted to fit into said depressions and impart rotation to said container, and a [illegible] adapted to take loosely into said depressions and impart rotation to said container and provided with longitudinally curved centering devices on their free ends adapted to engage the container at a plurality of points to center it relative to the spindle.

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1,040,622. DEVICE FOR CUTTING SCREW-THREADS. JOHN R. TAYLOR, Pottstown, Pa. Filed Apr. 11, 1912. Serial No. 690,105. (Cl. 10—121.)



1. The [illegible] device for cutting [illegible] threads, of a [illegible] a series of chasers [illegible] [illegible] [illegible]

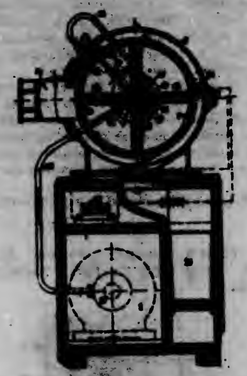
arranged above said tank in the plane of said platform, and a single endless apron passing over said rollers and above said tank in the plane of said platform, whereby the



rug fastened to said endless apron may be viewed as it travels outside of said tank substantially throughout the width of the latter toward said platform.

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1,040,026. SHEET-HANDLING MECHANISM. Gustav Schlesinger, Berlin-Wilmersdorf, Germany. Filed Aug. 2, 1910. Serial No. 575,291. (Cl. 101—41.)



1. A sheet handling mechanism comprising a casing, a rotary drum in said casing and having a series of suction chambers or slots on its periphery and two sets of channels communicating with the suction chambers, a pump having communication with one set of said channels and exhausting the air from said chambers or slots, a valve cooperating with and opening and closing said channels by the movement of the rotary drum, and controlling the communication of the pump with one set of said chambers or slots; while the other set of channels is connected or disconnected with the outside air, a stationary hollow body provided with suction openings adjacent to the periphery of the rotary drum and in communication with the suction pump, a slide valve controlling the communication of the pump with said hollow body, and means for actuating said slide valve when more than one ticket is held by the suction chambers.

2. A sheet handling mechanism comprising a casing, a rotary drum in said casing and having a series of suction chambers or slots on its periphery, and two sets of channels communicating with the suction chambers, a pump having communication with one set of said channels and exhausting the air from said chambers or slots, a valve cooperating with and opening or closing said channels by the movement of the rotary drum, and controlling the communication of the pump with one set of said chambers or slots, while the other set of channels is connected or disconnected with the outside air, a stationary hollow body provided with suction openings and a groove adjacent to the periphery of the rotary drum and in communication with the suction pump, a lever in said groove pivoted to the hollow body and resting on the drum, a sliding bar connected to said lever, an oscillating lever controlling the position of the valve and adapted to be engaged by the lever in said groove when more than one ticket is engaged or carried by said chambers.

3. A sheet handling mechanism comprising a casing, a rotary drum in said casing and having a series of suction chambers or slots on its periphery and two sets of radial channels communicating with the suction chambers, a pump having communication with one set of said channels, and exhausting the air from said chambers or slots, a valve cooperating with and opening and closing said chambers by the movement of the rotary drum, and controlling the communication of the pump with one set of said chambers or slots, a cylinder, one end of which communicates with the outside air and the other end with the suction end of the pump, a piston in said cylinder, and means connected with said piston for disconnecting the motive power from said drum when the feeding of sheets to said drum terminates.

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1,040,033. COLLAR-SUPPORTER. Joseph William Schloss, New York, N. Y. Filed Nov. 1, 1911. Serial No. 657,966. (Cl. 2—91.)



A garment stiffener comprising an elongated resilient body having an eye at each end, and relatively thick cushions of textile material loosely wound around portions of the supporting eyes, the cushions extending radially beyond said eyes and being appreciably thicker in the plane of the body than in any other plane.

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1,040,027. ALLOY OF COPPER AND ZINC. Alfred Schmid, Zürich, Switzerland. Filed Dec. 23, 1911. Serial No. 667,475. (Cl. 75—1.)

1. An alloy of copper, zinc, tin and silicon containing 58 to 62 per cent. of copper.

2. An alloy of 58–62% copper, 35.3–36.6% zinc, 0.2–1.5% silicon and 0.5–1.5% tin, substantially as set forth.

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1,040,028. EXTENSION-TABLE. Emil W. Schulze, Watertown, Wis., assignor of one-half to Max H. Goebler, Waupetown, Wis. Filed July 28, 1910. Serial No. 574,265. (Cl. 45—128.)



1. The combination in an extension table of table provided with grooves in their thickness, parts to be rigidly secured to said tables and against the latter thereof provided with split grooves and means for spreading said sides said parts, said split grooves being adapted for the purpose of strengthening.

2. The combination in an extension table of movable sides and a leaf slightly tapered thereto, said movable



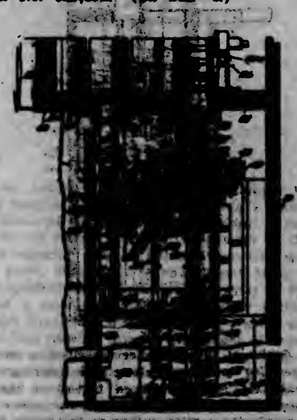
sides being provided with holes substantially throughout adapted to receive dowels and with longitudinal grooves in the upper faces thereof, dowels with leaf into which grooves said holes open, and tapered in said holes and engaged with said leaf to clamp said leaf and sides together.

3. The combination in an extension table of fixed sides and a bridge piece, said fixed sides being provided with longitudinal grooves in the faces thereof extending with said bridge piece and said bridge piece being provided with holes adapted to receive screws, said holes opening into said grooves.

4. A movable table for an extension table provided with holes therethrough adapted to receive screws and with a longitudinal groove in a face thereof into which said holes open and against which does a part is to be rigidly secured by said screws.

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1,040,029. AUTOMATIC PHONOGRAPH. Harry T. Scott and Lee J. Patterson, Los Angeles, Cal.; said Patterson assignor to said Scott. Filed May 27, 1911. Serial No. 629,698. (Cl. 181—4.)



2. A device of the character described, comprising a record support, a record carrier rotatable about and movable along a longitudinal axis, means for rotating the carrier, means for causing the longitudinal movement of the carrier by virtue of its own rotation, a movable reproducer mechanism into proximity with which a record is moved by the longitudinal movement of the record carrier, a feed lever arranged parallel to the carrier and rotatively connected therewith, a feed member engageable with the screw threads of the feed screw and with the carrier to be moved longitudinally by the rotation of the feed screw, and a mechanism controlled by the position of the feed member and adapted to disengage the feed member with the feed screw and the carrier and to move the reproducer mechanism relatively to a record carried by the carrier.

3. A device of the character described, comprising a record support, a record carrier rotatable about and movable along a longitudinal vertical axis, means for rotating the carrier, means for causing the longitudinal movement of the carrier by virtue of its own rotation, a reproducer mechanism into proximity with which a record is moved by the vertical movement of the carrier, a feed lever arranged parallel to the carrier and rotatively connected therewith, a feed member engageable with the screw threads of the feed screw and with the carrier to be moved downwardly by the rotation of the feed screw, a movable reproducer mechanism into proximity with which a record is moved by the vertical movement of the carrier, mechanism controlled by the position of the feed member and adapted to disengage the feed member with the feed screw and the carrier and adapted to move the reproducer to disengage the record on the carrier, means for moving the feed member upwardly when disengaged from the feed screw and the carrier, and mechanism controlled by the position of the carrier and adapted to automatically move the movable record support.

4. A device of the character described, comprising a record support, a record carrier rotatable about and movable along a longitudinal axis, means for rotating the carrier, means for causing the longitudinal movement of the carrier by virtue of its own rotation, a feed lever arranged parallel to the carrier, a feed member engageable with the screw threads of the feed screw and with the carrier to be moved longitudinally, mechanism for disengaging the feed member controlled by the longitudinal position of said member, mechanism for controlling the means for causing a longitudinal movement of the carrier and controlled by the longitudinal position of the carrier, and mechanism controlled by the rotation of the carrier for controlling the movement of the carrier to one of its extreme positions.

[Claims 5 to 24 not printed in the Gazette.]

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1,040,030. REPRODUCER FOR PHONOGRAPHS. Harry T. Scott and Lee J. Patterson, Los Angeles, Cal.; said Patterson assignor to said Scott. Filed June 14, 1911. Serial No. 633,127. (Cl. 181—16.)



1. A device of the character described, comprising a relatively stationary sound box having a diaphragm

[illegible] a stylus plate pivotally mounted on the sound box, to have pivotal movement in horizontal and vertical planes, the center of gravity of the stylus plate being arranged below the pivotal point of the stylus plate on the sound box, pivoted means for holding the stylus plate horizontally away from the sound box, means for limiting the movement of the stylus plate away from the sound box, and a stylus movably mounted on the stylus plate and projecting horizontally therefrom, and connected with the diaphragm in the sound box, said stylus being arranged and moving on the stylus plate approximately in the horizontal plane passing through the pivotal point of the stylus plate on the sound box.

2. A device of the character described, comprising a relatively stationary sound box having a diaphragm therein, a stylus plate pivotally mounted on the sound box to have pivotal movement in horizontal and vertical planes, the center of gravity of the stylus plate being arranged below the pivotal point of the stylus plate on the sound box, pivoted means for holding the stylus plate horizontally away from the sound box, means for limiting the movement of the stylus plate away from the sound box, and a stylus movably mounted on the stylus plate and projecting horizontally therefrom, and connected with the diaphragm in the sound box, said stylus being arranged and moving on the stylus plate approximately in the horizontal plane passing through the pivotal point of the stylus plate on the sound box.

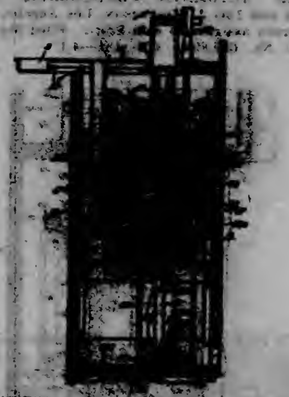
3. A device of the character described, comprising a relatively stationary sound box having a diaphragm therein, a pivot block supported on a horizontal axis on the sound box, said horizontal axis extending at right angles to the plane of the diaphragm in the sound box, a stylus plate arranged in a vertical plane adjacent the sound box, pivot members arranged along a vertical axis on the stylus plate and engaging the pivot block to allow the stylus plate a movement relative to the sound box about both a horizontal and a vertical axis, the stylus plate being arranged on one side of said pivot block, a weighted extension of the stylus plate extending on the other side of said pivot block, the arrangement being such that the center of gravity of the stylus plate and its extension falls approximately directly beneath the horizontal pivot of the pivot block on the sound box, a spring attached to the sound box and to the extension of the stylus plate and tending to rotate the stylus plate about its vertical axis and to move it away from the sound box, a link loosely engaging with the stylus plate and connected with the sound box and arranged in the horizontal plane determined by the horizontal axis of the stylus plate and adapted to limit the movement of the stylus plate away from the sound box, a stylus lever pivotally connected on the stylus plate, a stylus carried on one end of the stylus lever, and connecting means between the other end of the stylus lever and the diaphragm in sound box.

4. In combination a reproducer comprising a relatively stationary sound box having a diaphragm therein, a pivot block supported on a horizontal axis on the sound box, said horizontal axis extending at right angles to the plane of the diaphragm in the sound box, a stylus plate arranged in a vertical plane adjacent the sound box, pivot members arranged along a vertical axis on the stylus plate and engaging the pivot block to allow the stylus plate a movement relative to the sound box about both a horizontal and a vertical axis, the stylus plate being arranged on one side of said pivot block, a weighted extension of the stylus plate extending on the other side of said pivot block, the arrangement being such that the center of gravity of the stylus plate and its extension falls approximately directly beneath the horizontal pivot of the pivot block on the sound box, a spring attached to the sound box and to the extension of the stylus plate and tending to rotate the stylus plate about its vertical axis and to move it away from the sound box, a link loosely engaging with the stylus plate and connected with the sound box and arranged in the horizontal plane determined by the horizontal axis of the stylus plate and adapted to limit the movement of the stylus plate away from the sound box, a stylus lever pivotally mounted on shoulder-plate, a stylus carried on one end of the stylus lever, connecting means between the

[illegible]

(Claims 6 to 10 not printed in the Gazette.)

1,049,681. AUTOMATIC PHONOGRAPH. Harry T. Scott and Leo J. Patterson, Los Angeles, Cal.; said Patterson assignor to said Scott. Filed Aug. 15, 1911. Serial No. 644,281. (Cl. 181—4.)



1. In a device of the character described, a record carrier adapted for movement along and rotation about a longitudinal axis, a helical screw thread on the record carrier about the axis, a nut engaging the screw thread, means to rotate the carrier, means to rotate the nut, and mechanism controlled by the position of the carrier to control the carrier rotating means and the nut rotating means.

2. In a device of the character described, a record carrier adapted for movement along and rotation about a longitudinal axis, a helical screw thread on the record carrier, a rotating member engaging the screw thread, means to rotate the carrier, means to rotate said member, and mechanism controlled by the position of the carrier to control the said member rotating means.

3. In a device of the character described, a record carrier adapted for movement along and rotation about a longitudinal axis, a helical screw thread on the record carrier, a rotating member engaging the screw thread, means to rotate the carrier, means to rotate said member, and mechanism controlled by the position of the carrier to control the carrier rotating means.

4. In a device of the character described, a record carrier adapted for movement along and rotation about a longitudinal axis, a helical screw thread on the carrier with its ends connected together, a reversible nut engaging the screw thread, means to rotate the carrier, means to rotate the nut at a speed differing from that of the carrier, and mechanism controlled by the position of the carrier to control the carrier and nut rotating means.

5. In a device of the character described, a record carrier adapted for movement along and rotation about a longitudinal axis, a helical screw thread on the carrier with its ends connected together, a reversible nut engaging the screw thread, means to rotate the carrier, means to rotate the nut at a speed differing from that of the carrier, and mechanism controlled by the position of the carrier to control the carrier and nut rotating means.



thereon and connected to the vibrating member, a supporting member on the frame, a supporting member on the stylus plate and engaging the first named supporting member at a single point, said point of engagement being approximately coincident with the center of gravity of the stylus plate, and a tube and tracing member acting downwardly and rearwardly on the stylus plate along and about a vertical line through said point of engagement.

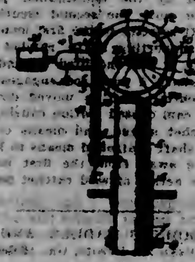
2. In an [illegible] mechanism, a stationary frame, a vibrating member thereon, a stylus plate, a stylus thereon and connected to the vibrating member, a supporting member on the frame, a supporting member on the stylus plate and engaging the first named supporting member at a single point, said point of engagement being approximately coincident with the center of gravity of the stylus plate, and a tube and tracing member acting downwardly and rearwardly on the stylus plate along and about the said line determined by the center of gravity.

3. In an acoustic mechanism, a stylus plate, mounting comprising a stationary member, and a supporting member on the stylus plate engaging the stationary member at a single point, said point of engagement being approximately coincident with the center of gravity of the stylus plate.

4. In an acoustic mechanism, a stylus plate mounting comprising a stationary member, a supporting member on the stylus plate engaging the stationary member at a single point, said point of engagement being approximately coincident with the center of gravity of the stylus plate, and a tube and tracing member acting downwardly and rearwardly on the stylus plate along and about the said line determined by the center of gravity.

(Claims 5 to 10 not printed in the Gazette.)

1,049,682. PHONOGRAPH-REPRODUCER. Harry T. Scott, Los Angeles, Cal. Filed Nov. 21, 1911. Serial No. 661,282. (Cl. 181—4.)



1. In an acoustic mechanism, a stationary frame, a vibrating member thereon, a stylus plate, a stylus thereon and connected to the vibrating member, a supporting member on the frame, a supporting member on the stylus plate and engaging the first named supporting member at a single point, said point of engagement being approximately coincident with the center of gravity of the stylus plate, and a tube and tracing member acting downwardly and rearwardly on the stylus plate along and about a vertical line through said point of engagement.

2. In an [illegible] mechanism, a stationary frame, a vibrating member thereon, a stylus plate, a stylus thereon and connected to the vibrating member, a supporting member on the frame, a supporting member on the stylus plate and engaging the first named supporting member at a single point, said point of engagement being approximately coincident with the center of gravity of the stylus plate, and a tube and tracing member acting downwardly and rearwardly on the stylus plate along and about the said line determined by the center of gravity.

3. In an acoustic mechanism, a stylus plate, mounting comprising a stationary member, and a supporting member on the stylus plate engaging the stationary member at a single point, said point of engagement being approximately coincident with the center of gravity of the stylus plate.

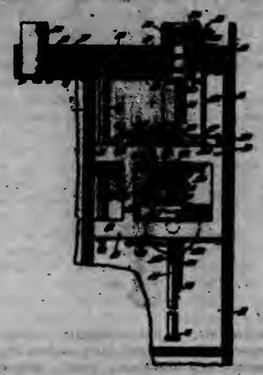
4. In an acoustic mechanism, a stylus plate mounting comprising a stationary member, a supporting member on the stylus plate engaging the stationary member at a single point, said point of engagement being approximately coincident with the center of gravity of the stylus plate, and a tube and tracing member acting downwardly and rearwardly on the stylus plate along and about the said line determined by the center of gravity.

(Claims 5 to 10 not printed in the Gazette.)

1,049,683. AUTOMATIC PHONOGRAPH. Harry T. Scott and Leo J. Patterson, Los Angeles, Cal.; said Patterson assignor to said Scott. Filed Apr. 11, 1910. Serial No. 555,116. (Cl. 181—4.)

1. In a device of the character described, a shaft, rotatable and longitudinally translatable, a screw thread on the shaft, a rotatable gear fastened and engaging the screw thread, a rotating gear fastened and engaging loosely around the shaft, another gear keyed to the shaft to slide thereon, intermediate gears on the shaft to selectively connect them differential gear connections between the first mentioned gears and the said rotatable gear, a differential shaft connected to said first named shaft, gears rotatably mounted on said shaft and meshing with the gear teeth of the said first named gears, connecting rods connected to the longitudinal portion of said

sleeve intermediate said differential shaft and adapted to move the differential shaft and sleeve upon longitudinally to disengage said gear from the gear teeth normally meshing therewith, and means conditioned by the longitudinal position of said first mentioned shaft to move said second mentioned sleeve on said shaft relatively to the first mentioned sleeve.



2. In a device of the character described, a vertical mandrel shaft rotatable and longitudinally translatable, a screw thread on the shaft, a rotatable gear toothed nut engaging the screw thread, a rotating gear toothed sleeve loosely mounted around the mandrel shaft, another sleeve keyed to the shaft to rotate therewith and slide thereon, inter-engaging means on the sleeves to rotatively connect them together, differential gear connection between the first mentioned sleeve and the nut comprising a differential shaft parallel to the mandrel shaft, two gears rigidly affixed one at the upper and one at the lower end of the differential shaft, the upper gear normally engaging the gear teeth of the nut and the lower engaging the gear teeth of the sleeve, a spring normally holding the shaft and gears upwardly, means actuated by the downward movement of the mandrel shaft to move the differential shaft and gears downwardly to disengage the upper differential gear from the gear teeth of the nut, and means controlled by the longitudinal position of the mandrel shaft to move the second named sleeve on the mandrel shaft relative to the first mentioned sleeve.

3. In a device of the character described, a vertical mandrel shaft rotatable and longitudinally translatable, a screw thread on the shaft, a rotatable gear toothed nut engaging the screw thread, a rotating gear toothed sleeve loosely mounted around the mandrel shaft, another sleeve keyed to the shaft to rotate therewith and slide thereon, inter-engaging means on the sleeves to rotatively connect them together, differential gear connection between the first mentioned sleeve and the nut comprising a differential shaft parallel to the mandrel shaft, two gears rigidly affixed one at the upper and one at the lower end of the differential shaft, the upper gear normally engaging the gear teeth of the nut and the lower engaging the gear teeth of the sleeve, a spring normally holding the shaft and gears upwardly, means actuated by the downward movement of the mandrel shaft to move the differential shaft and gears downwardly to disengage the upper differential gear from the gear teeth of the nut, means controlled by the longitudinal position of the mandrel shaft to move the second mentioned sleeve on the mandrel shaft relative to the first mentioned sleeve, a vertical record supporting shaft, ratchet means for rotating said shaft, a cam mounted on said shaft and movable with the differential shaft, a push rod engageable by the cam when the differential shaft is moved downwardly, said push rod by its cam engaging portion causing the operation of the said ratchet means, and means cooperating with said last named shaft controlled means to hold said second mentioned sleeve away from the first mentioned sleeve releasable by the action of said ratchet means.

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1,040,035. COMBINED SADDLE AND BACK-BAND. William J. Hunnicutt, Dixonia, Ga. Filed Jan. 30, 1911. Serial No. 606,869. (Cl. 54—4.)



In a device of the nature described, a combination of a saddle consisting of a sheet of metal having a central portion rising above the plane of an ordinal and curved extensions formed thereon and conforming in shape to the sides of the animal and adapted to rest thereagainst, flexible bands connected to the said curved extensions of the saddle, said bands adapted to swing forward and backward and hooks located upon the bands to normally support traces or the like substantially as and for the purposes set forth.

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1,040,036. PROCESS FOR PRODUCING PHOTOGRAPHIC BACKGROUNDS. Harry Barnes Shamper, Altoona, Pa. Filed Aug. 29, 1909. Serial No. 515,253. (Cl. 95—74.)

1. A process of producing a photograph background consisting in printing the background in suitable ink on transparent waterproof material and then wiping out a portion of the background printing.

2. A process of producing a photograph background consisting in printing a background design in suitable ink on transparent waterproof material and then wiping out portions of the background.

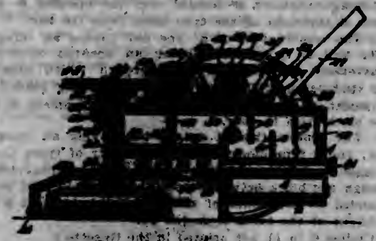
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1,040,037. MINERS' COMBINATION TAMPING-TOOL. Sr. Irvin Shannon and Abram W. Sanders, Tampa, Fla. Filed Feb. 4, 1911. Serial No. 606,886. (Cl. 91—32.)

A miner's tool comprising a handle made up of two sections, one of which is provided with two steel rods and the other with interior threads, and a tool adapted to be fixed in said socket portion and adapted to bear against the end of the telescoping section upon which the union is held, as shown and described.

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1,040,038. CLEANER. William T. Shannon, Hyattan, Wyo. Filed May 17, 1911. Serial No. 627,802. (Cl. 15—98.)



1. In a cleaning machine, the combination with a casing having a transverse partition with a dust-receptacle in rear of it, a hood extending forward from the casing and leaving the front portion of the bottom of the latter open, a rotary brush disposed within the open portion of said bottom, and an upright shaft to which the brush is secured; of a fan located within the casing forward of said partition, an upright shaft on which it is fast, and means for rotating said shafts.

2. In a cleaning machine, the combination with a casing having an [illegible] portion, a dust-receptacle in rear of said partition, a hood extending forward from the casing and leaving the front portion of the bottom of the latter open, a rotary brush disposed within the open portion of said bottom, and an upright shaft to which the brush is secured; of a fan located within the casing forward of said partition, an upright shaft on which it is fast, a gear on the fan shaft meshing with the gear on the brush-shaft, and means for driving one of said gears.

3. In a [illegible] machine, the combination with a casing having a transverse partition with a dust-receptacle in rear of it, a hood extending forward from the casing and leaving the front portion of the bottom of the latter open, a rotary brush disposed within the open portion of said bottom, and an upright shaft to which the brush is secured; of a fan located within the casing forward of said partition, an upright shaft on which it is fast, a gear on the fan shaft meshing with the gear on the brush-shaft, and means for driving one of said gears, consisting of a pulley on the fan-shaft, a pulley on the brush-shaft, and a belt connecting the pulleys.

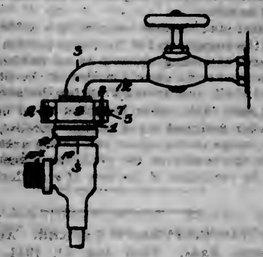
4. In a cleaning machine, the combination with a casing, a dust-receptacle in its rear portion, and a nose projecting forward from the front of the casing; of a brush disposed beneath said nose, an upright shaft journaled through said nose and connected at its lower end with said brush, a bracket on the casing in which said shaft is journaled, a bolt in this bracket, a gear fast on the upper end of the shaft, an L-shaped plate whereof one member surrounds the shaft beneath the hub of the gear and the other is provided with a slot in which said bolt is adjustable, and means for driving said gear.

5. In a cleaning machine, the combination with a casing, a dust-receptacle in its rear portion, a rotary fan disposed in its front portion, and a nose projecting forward from the front of the casing; of a brush disposed beneath said nose, an upright shaft journaled through said nose and connected at its lower end with said brush, a bracket on the casing in which said shaft is journaled, a bolt in this bracket, a gear fast on the upper end of the shaft, an L-shaped plate whereof one member surrounds the shaft beneath the hub of the gear and the other is provided with a vertical slot in which said bolt is adjustable, a gear on the fan shaft meshing with the gear on the brush-shaft, and means for driving one of said gears.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,039. CONNECTION FOR WATER DISTRIBUTION. Benjamin F. Shapro, San Francisco, Cal. Filed Aug. 31, 1911. Serial No. 646,961. (Cl. 137—28.)



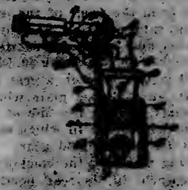
1. The combination of a base provided with a wall on one side, and a tubular projection on the opposite side, a clamping member hinged at one end to the wall and adapted to pass over the base, means for detachably clamping said wall and clamping member together, said base having a laterally projecting hub between the wall and clamping member, and a tubular resilient ring receiving said hub and fitted between said wall and clamping member.

2. The combination of a base provided with a wall on one side, and a tubular projection on the opposite side, a clamping member hinged at one end to the wall and adapted to pass over the base, means for detachably clamping said wall and clamping member together, said base having a laterally projecting hub, a tubular resilient ring receiving said hub and fitted between said wall and clamping member, said hub being provided with a flat inner end and having a bore of less diameter than the hub projecting laterally therefrom, and a flexible ring fitted within the outer end and receiving said bore, said hub and bore being through the wall and clamping member.

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1,040,040. LOCKING ATTACHMENT FOR FAUCETS. William A. Shepherd, Westbrook, Wis. Filed May 20, 1912. Serial No. 698,190. (Cl. 137—7.)

A faucet-plug handle comprising a [illegible] having [illegible] for the engagement of the [illegible] portion of a



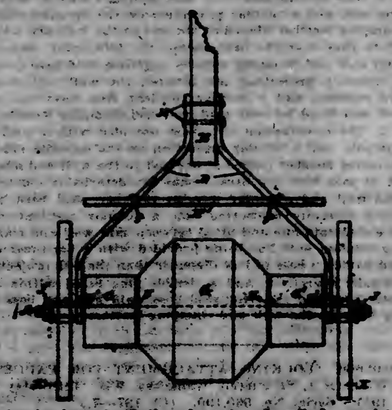
2. A faucet-plug shutter comprising a stiffened box-like socket for the engagement of the lower portion of a faucet-shell, an arm extending upwardly at an inclination from a wall of the socket to clear the rim of the plug-cock portion of said shell, and having trunnion-bearings to be bent in against said shell, and a pair of parallel wings at the upper end of the arm with which to straddle the handle of the plug, the wings being apertured for the reception of the bow of a padlock above said handle.

3. A faucet-plug shutter comprising a stiffened box-like socket for the engagement of the lower portion of a faucet-shell, an arm extending upward at an inclination from a wall of the socket to clear the rim of the plug-cock portion of said shell, trunnion-bearings designed to be bent in against said shell, other trunnions of an opposite wall of said socket designed for a similar purpose, and a pair of parallel wings at the upper end of the arm with which to straddle the handle of the plug, the wings being apertured for the reception of the bow of a padlock above said handle.

4. A faucet-plug shutter comprising a stiffened box-like socket for the engagement of the lower portion of a faucet-shell, an arm extending upward at an inclination from a wall of the socket to clear the rim of the plug-cock portion of said shell, contriving trunnion designed to be bent in against said shell, other trunnions of an opposite wall of said socket designed for a similar purpose, and a pair of parallel wings at the upper end of the arm with which to straddle the handle of the plug, the wings being apertured for the reception of the bow of a padlock above said handle.

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**1,040,041. LISTED-FURROW PACKER.** August Slonszi, Hagye, Kans. Filed Aug. 31, 1911. Serial No. 647,122. (Cl. 55—46.)



An implement of the character described, consisting of a large cylindrical corrugated roller, an axle upon which said

**1,040,042. TYPE-WRITING MACHINE.** Andrew W. Smith, New York, N. Y., assignor, by mesne assignments, to Union Typewriter Company, Jersey City, N. J., a Corporation of New Jersey. Filed Jan. 16, 1912. Serial No. 671,488. (Cl. 197—88.)



1. The combination of a type bar; and a type block, the body of the type block bearing against the body of the type bar and one of said members having an opening therethrough and the other member having an integral part that extends through said opening and is enlarged at the mouth of the opening to form an interlocking engagement between the type bar and the type block.

2. The combination of a type bar; and a type block, the body of the type block bearing against the body of the type bar and one of said members having an opening therethrough and the other member having an integral part that extends through said opening and is enlarged at the mouth of the opening to form an interlocking engagement between the type bar and the type block.

3. The combination of a type bar; and a type block having an opening therethrough and through which a part of the type bar extends, the said part of the type bar being expanded or headed over the opening to prevent a detachment of the type block from the bar.

4. The combination with a type bar having an integral stud; and a type block having an opening extending transversely [illegible] which opening said stud [illegible] headed at the [illegible] to prevent a detachment of the type block from the bar.

5. The combination with a type bar having an integral stud; and a type block having a pair of types thereon and an opening extending transversely through the [illegible] being expanded or headed over the opening to prevent a detachment of the type block from the bar.

[Claims 6 to 11 not printed in the Gazette.]

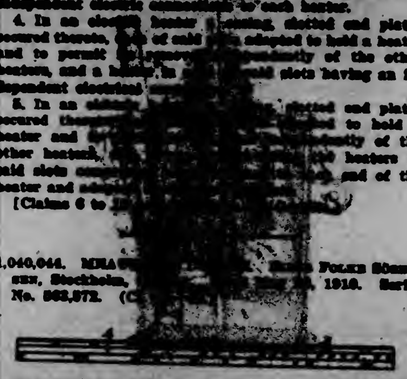
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**1,040,043. [illegible].** Thomas H. Sexton, Trenton, N. J., assignor, by mesne assignments, to Gold Dust Printing & Lithographing Company, New York, N. Y., a Corporation of New York. Filed May 10, 1910. Serial No. 560,960. (Cl. 312—71.)



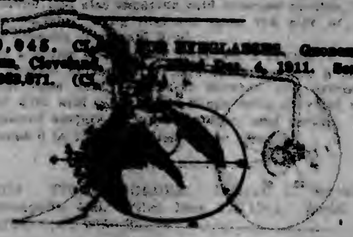
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**1,040,044. MEA[illegible].** Folke Stenersen, Stockholm, Sweden. Filed Dec. 5, 1910. Serial No. 592,972. (Cl. [illegible].)



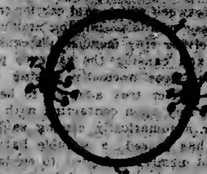
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**1,040,045. Cl[illegible] Attachment.** George A. Severn, Cleveland, Ohio. Filed Jan. 4, 1911. Serial No. 600,671. (Cl. [illegible].)



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**1,040,046. CULVERT.** William E. Schrader, Wilkes-Barre, Pa. Filed June 5, 1911. Serial No. 631,261. (Cl. 61—6.)



2. A culvert comprising [illegible]

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**1,040,047. [illegible].** Richard Carl U. S. [illegible] 1912. Serial No. 680,514. (Cl. [illegible].)



meeting members, between which said carrier tray members are adapted to pass; means for raising said carrier tray and causing the same to pick up said ammunition; a flexible latch tray provided with inclined members adapted to contact with the rising ammunition and to be moved out of the way of the same; and means for causing said latch tray to automatically close under said ammunition after it has passed, substantially as described.

2. In an ammunition hoisting apparatus, the combination of a carrier tray provided with spaced supporting members; a receiving tray also provided with spaced supporting members, between which said carrier tray members are adapted to pass; means presenting ammunition to be placed on said receiving tray members; means for raising said carrier tray and causing the same to pick up said ammunition; a flap door normally closing the passage traversed by said carrier tray adapted to be moved out of the way of said tray upon contacting with said ammunition; means for automatically closing said door after said carrier tray has passed; a flexible latch tray provided with inclined members adapted to contact with the rising ammunition to be moved out of the way of the same; and means for causing said latch tray to automatically close under said ammunition after it has passed, substantially as described.

3. In an ammunition hoisting apparatus, the combination of a latch tray provided with spaced supporting members, some of which are adjustable with relation to the others; a carrier tray also provided with spaced supporting members adapted to pass up and down between said supporting members on the latch tray when in their normally closed positions, but to contact in their upward movements with said adjustable members after they have been moved into their adjusted positions; said means to move said carrier tray; substantially as described.

4. In an ammunition hoisting apparatus, the combination of a slidably movable latch tray provided with spaced supporting members, some of which are adjustable with relation to the others; means to normally keep said tray in its closed position; a carrier tray also provided with spaced supporting members adapted to pass up and down between said supporting members on the latch tray when in their normally closed positions, but to contact in their upward movements with said adjustable members after they have been moved into their adjusted positions; and means to move said carrier tray, substantially as described.

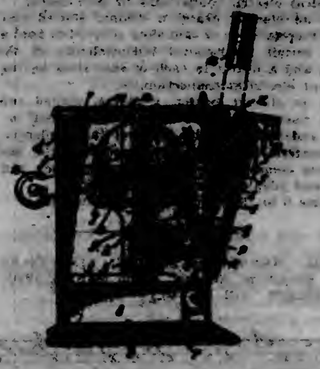
5. In an ammunition hoisting apparatus, the combination of a pair of slidably movable latch tray members, each provided with spaced supporting members, some of said supporting members being adjustable with relation to the other supporting members; a carrier tray provided with spaced supporting members adapted to pass freely up and down between said spaced supporting members on the latch tray when said latter members are in their normal or nonadjusted positions, but to contact with said latch tray supporting members when the latter are in their adjusted positions and thereby force the latch tray open; and flanges carried by said carrier tray members adapted to contact with and to hold said latch tray open, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,048. PENCIL-SHARPENER. Joseph D. Stassart, Portland, Oreg. Filed Dec. 29, 1911. Serial No. 668,495. (Cl. 120—24.)

1. In a device of the character described, a casing, a vertical stud fixed in said casing, a frame slidably mounted on said stud, a cutter support adjustably fixed on said frame, a cutter clamped on said support and adjustable laterally, fixed supporting means for supporting said cutter comprising, a disk journaled in the casing and provided with a depending pin, and a bevel gear detachably secured to said disk, said depending pin seated in an elongated perforation of said disk, an inclined pencil receptacle, and means supporting said disk for rotating the pencil.



pin engaging an elongated perforation of said sliding frame, an inclined pencil receptacle, a disc wheel journaled on said stud and rotated by a cog on the driving member, a sleeve rotatably seated in said receptacle, a second shouldered shaft on said sleeve and meshing with said disc wheel, a coil spring operating to prevent overthrow of said wheels, and indicator shows secured to said sleeve and adapted to bear against the sides of the pencil, whereby the pencil is caused to rotate with the sleeve.

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1,040,068. FLOW ATTACHMENT. William J. Sumer, Sterling, Kans. Filed Oct. 5, 1911. Serial No. 653,013. (Cl. 111—6.)



The combination with a listor plow beam having a share mounted thereon, of a bearing mounted upon said beam, a pair of forwardly U-shaped members each having one arm adjustably mounted in said bearing, means for locking said members in adjusted position, a bearing adjustably mounted on the other arm of each member, means for locking said bearing in adjustment, and disks each provided with a hub journaled in said bearings respectively.

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1,040,069. HIGH-POTENTIAL, INSULATOR. Louis Gerstenberg, New York, N. Y. Filed June 6, 1910. Serial No. 565,637. (Cl. 175—362.)

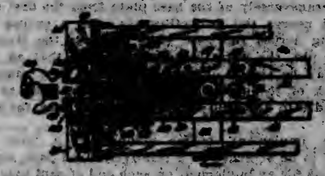
1. In a device of the class described, a spindle, with a cylindrical member extending through said spindle and provided with a head and flange, a sleeve surrounding said spindle, a flange on said sleeve, a cylindrical member being further provided with an enlarged portion extending through said flange, and an annular member engaging said barrier and also engaging said enlarged portion, said annular member being pressed upon the side of said barrier opposite from said head.

2. In a device of the class described, a barrier, a cylindrical member extending through the same, and a flange mounted upon said cylindrical member and extending parallel with said barrier, said flange being provided with a roughened surface facing away from said barrier.

[Claims 3 to 12 not printed in the Gazette.]

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1,040,082. DRAFT-REGULATING FOR GRATE. William H. Strauss, Chicago, Ill. Filed Oct. 26, 1911. Serial No. 656,012. (Cl. 219—32.)



1. In a structure of the character set forth, the combination with an end sill having a socket, of a coupler having a shank slidably passing through the socket, said springs located in the socket and resisting the movement of the coupler.

2. In a structure of the character set forth, the combination with an end sill having a socket, of a coupler having a shank slidably passing through the socket, said springs located in the socket on opposite sides of the shank and operating against the coupler.

3. In a structure of the character set forth, the combination with an end sill having a socket, of a coupler having a shank slidably passing through the socket, said coupler also having oppositely extending horns in line with the portions of the socket on opposite sides of the shank, said springs located in said portions of the socket and operating against the horns.

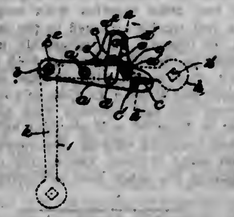
4. In a structure of the character set forth, the combination with an end sill comprising a tubular shell and having diametrically opposed width openings, of a coupler having a shank slidably passing through the socket and having oppositely extending horns, and socket springs located in the socket and operating against the rear sides of the horns.

5. In a structure of the character set forth, the combination with an end sill having a socket, of a coupler having a shank extending through the socket, springs located in the socket on opposite sides of the shank, and horns projecting from opposite sides of the coupler and operating against the springs.

[Claims 6 to 10 not printed in the Gazette.]

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1,040,083. IMPLEMENT-HOLDER. Ray Baker Taft, Hingham, Mass. Filed June 30, 1910. Serial No. 569,230. (Cl. 294—20.)



1. An implement holder comprising a base plate increasing in thickness from one end to the other, supporting means for an implement on each end of said base plate, and a spring finger intermediate said supporting means adapted to bear on said implement and hold it in place.

2. An implement holder comprising a base plate adapted to be attached to a relatively fixed support, a projecting pin on one end of said base, a pair of spaced legs fastened on both sides on the opposite end of the





2. An insulator, comprising a tubular member of insulating material, a cylindrical member of insulating material encircling the same, a gasket engaging said tubular member and said cylindrical member, and a cap engaging said gasket and said tubular member, said cap having a head extending partially along said cylindrical member for protecting the same from moisture.

4. In a device of the class described, a barrier, provided with an aperture, a cylindrical member provided with a head and flange, provided with a large flange disposed on one side of said barrier and partially separated therefrom by an air space, said cylindrical member being further provided with an enlarged portion extending through said opening, and an annular member engaging said barrier and also engaging said enlarged portion, said annular member being pressed upon the side of said barrier opposite from said head.

5. In a device of the class described, a barrier, a cylindrical member extending through the same, and a flange mounted upon said cylindrical member and extending parallel with said barrier, said flange being provided with a roughened surface facing away from said barrier.

[Claims 6 to 12 not printed in the Gazette.]

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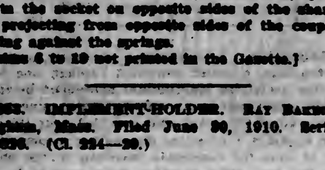
1,040,084. TICKET-HOLDER. Harvey B. Swihart, Indianapolis, Ind. Filed June 22, 1911. Serial No. 634,718. (Cl. 206—20.)



In a ticket-holder, a box having an open end, a slot formed therein, the opposite end of the box being enlarged at opposite sides and having one side formed with a depression, said depression into the enlarged portions and communicating with a central longitudinal slot in one side of the box, the edge of the end wall of the box at the slot being rounded, a spring fixed within the box and extending through the slot and into the enlarged portions and a head spring secured at one end to the opposite side of the box slot having the free end adapted to engage the tickets at the forward end of the box.

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1,040,092. BRAKE-SHOE. William A. Wilson, Chicago, Ill. Filed Jan. 29, 1912. Serial No. 673,442. (Cl. 188—251.)



1. A brake shoe comprising a body portion, a head thereon, a lug on the back of the head, a bolt hole through the lug, a bolt hole through the body portion, a bolt in the bolt holes, a nut on the bolt, a key slot in the bolt, a key in the key slot, a lug on the back of the body portion, a bolt hole through the lug, a bolt in the bolt hole

In combination, a supporting structure comprising spaced bearings, a shaft journaled through one bearing and having restricted longitudinal movement in addition to the free rotary movement, a disk rigidly connected with the inner end of the shaft and provided near its periphery with openings, a co-acting disk having a corresponding number of pins for removable insertion in the openings to lock the two disks together with respect to rotary movement, a rod rigidly attached to the last named disk and having its opposite end universally mounted in an opening formed in the supporting, said rod being provided at such opposite end with an offset opening extending at its inner end against a shoulder of the rod, a clamping rod having one end provided with an inwardly extending hook to fit below said shoulder and with an outwardly curved engaging element, the opposite end of the clamping rod being reduced, and a ring connected with the rod adjacent the inner disk to receive such reduced end.

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1,640,654. PATENT. Peter A. Thomsen, Chicago, Ill., assignor to Mack and Nelson Engineering Co., Chicago, Ill., a Corporation of Illinois. Filed Jan. 13, 1922. Serial No. 528,844. (Cl. 74—10.)

1. A rotary [illegible]



[illegible] a threaded portion, a second sleeve provided with a threaded portion mating with threaded portion of said first mentioned sleeve, a ring provided with a portion fitting said second mentioned sleeve, a lock element by said ring, and means for locking said ring and said first mentioned sleeve together.

2. An electric lamp comprising a sleeve, a ring connected therewith and provided with a threaded portion, a second sleeve, a ring carried thereby and provided with a threaded portion mating with said threaded portion, a flange on said second mentioned sleeve, and means for locking said rings together to retain said flange between [illegible] said mentioned ring.

3. In a lamp, the combination of a sleeve, a second sleeve fitting said first [illegible] a ring carried by said second mentioned sleeve, a lamp terminal by said ring and means for locking said ring and said first mentioned sleeve together [illegible]



1. In a lamp, the combination of a sleeve provided with a threaded portion, a second sleeve provided with a threaded portion mating with threaded portion of said first mentioned sleeve, a ring provided with a portion fitting said second mentioned sleeve, a lamp terminal by said ring, and means for locking said ring and said first mentioned sleeve together.

2. An electric lamp comprising a sleeve, a ring connected therewith and provided with a threaded portion, a second sleeve, a ring carried thereby and provided with a threaded portion mating with said threaded portion, a flange on said second mentioned sleeve, a lamp terminal by said ring, and means for locking said rings together to retain said flange between said ring and said lamp terminal.

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1,640,655. PUMP. Alva M. Thompson and Edwin Carmont Bishop, Oil City, Pennsylvania, assignors to Thompson-Bishop Pump Co., Oil City, Pa., a Corporation of Pennsylvania. Filed Jan. 13, 1922. Serial No. 529,208. (Cl. 230—12.)

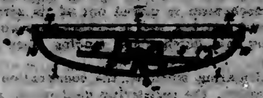


1. In a pump, the combination of a sleeve provided with a threaded portion, a second sleeve provided with a threaded portion mating with threaded portion of said first mentioned sleeve, a ring provided with a portion fitting said second mentioned sleeve, a lamp terminal by said ring, and means for locking said ring and said first mentioned sleeve together.

2. An electric lamp comprising a sleeve, a ring connected therewith and provided with a threaded portion, a second sleeve, a ring carried thereby and provided with a threaded portion mating with said threaded portion, a flange on said second mentioned sleeve, a lamp terminal by said ring, and means for locking said rings together to retain said flange between said ring and said lamp terminal.

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1,640,656. PUMP. Francis H. Trefts, Shelbyville, N. Y. Filed Jan. 28, 1922. Serial No. 532,689. (Cl. 92—11.)



1. The within described toy consisting of a saucer shaped disk with transparent cover forming a casing, a centrally pivoted and tilting platform thereon and a series of balls which are free to travel in a raceway formed in part by the platform and in part by the dished side of the disk, said tilting platform having upon it a central inclosure with entrance thereto at the side.

2. A toy comprising a casing with transparent top, a centrally pivoted and tilting platform, and a series of balls, the tilting platform having a central inclosure with entrance thereto for the passage of the balls and the top of said inclosure bearing such relation to the transparent top of the casing as to prevent the tilting platform from riding from its pivot sufficiently to slip laterally therefrom.

3. A toy comprising a casing with transparent top, a centrally pivoted tilting platform in said casing, a series of balls, and a receptacle therefor on the platform, the casing having a central hollow lug struck-up therefrom and the platform having a central raised boss thereon, said lug constituting the pivot member of the casing and said boss the pivot member of the platform.

4. A toy comprising a casing consisting of a saucer shaped disk with transparent top, and a centrally pivoted tilting platform with central receptacle thereon, and a series of balls, the disk having a shoulder thereon upon which the transparent top is seated and said disk also having fingers bent down over the top so as to confine the same firmly to the shoulder.

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1,640,657. [illegible] Filed [illegible] Serial No. [illegible]



1. In a [illegible] the combination of a rotary pump, having a main casing provided with a centrally disposed cylindrical portion providing a lubricant carrying end shaft journaling chamber, a circulating chamber disposed concentrically about said lubricant chamber, a plurality of removably disposed pump cylinders in communication with the lubricant chamber exteriorly of the main casing and providing upon opposite sides thereof pedestal members to form a complete circulation with the circulating chamber of the casing, a piston mounted for reciprocation in each cylinder and connected from the outer end of each cylinder, a shaft mounted within the lubricant chamber, a plurality of piston rods connected to the shaft and to the pistons, a removable cap connected to the main casing and sealing the outer end of the respective pump cylinders, and an intake and exhaust check valve [illegible] in each cap for controlling the intake and exhaust of [illegible] to the reciprocation of the pistons.

2. A rotary pump, having a main casing provided with a centrally disposed cylindrical portion providing a lubricant carrying end shaft journaling chamber, a circulating chamber disposed concentrically about said lubricant chamber, a plurality of removably disposed pump cylinders in communication with the lubricant chamber exteriorly of the main casing and providing upon opposite sides thereof pedestal members to form a complete circulation with the circulating chamber of the casing, a piston mounted for reciprocation in each cylinder, and connected from the outer end of each cylinder, a shaft mounted within the lubricant chamber, a plurality of piston rods connected to the shaft and to the pistons, a removable cap connected to the main casing and sealing the outer end of the respective pump cylinders, said main casing being provided with [illegible] and exhaust check valves [illegible] in each cap for controlling the intake and exhaust of [illegible] to the reciprocation of the pistons, [illegible] and a [illegible] carried by the [illegible] for controlling the [illegible] and exhaust check valves carried by the [illegible]

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1,640,658. CALCULATING-MACHINE. Franz Trinks, Braunschweig, Germany. Filed May 22, 1922. Serial No. 562,977. (Cl. 235—61.)



1. In a calculating machine, the combination with the setting mechanism, the registering mechanism, a carriage supporting said registering mechanism, and reversing mechanism for the registering mechanism, of a latching element for the setting mechanism adapted to be thrown into locking position by the operation of the reversing mechanism, and means operative when shifting the carriage to lower said latching means into locking position.

2. In a calculating machine, the combination with the setting mechanism, the registering mechanism, a carriage supporting said registering mechanism, and reversing mechanism for the registering mechanism, of a latching element for the setting mechanism, means to move said latching element, means to move the carriage, operative in the normal or zero position of the setting mechanism and adapted to shift said latching element into locking position, and means on said reversing mechanism operative when the setting mechanism is out of its normal or zero position to lock said carriage.

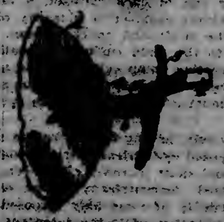
3. In a calculating machine, the combination with the setting mechanism, the registering mechanism, a carriage supporting said registering mechanism, said carriage [illegible]



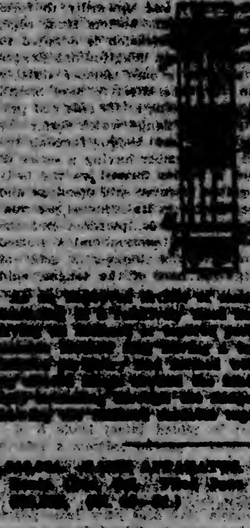
1,040,000. HAT-BOX. Thomas Dunn, New York, N. Y. Filed Sept. 5, 1911. Serial No. 647,854. (Cl. 220—8.)



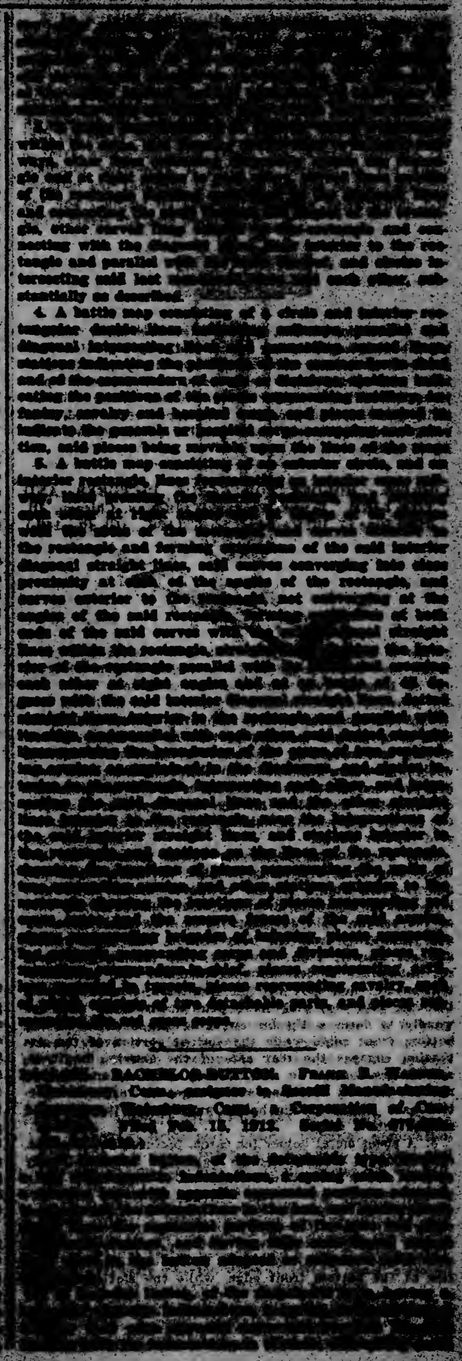
1,040,032. [illegible]. Ralph S. Van Dusen, Detroit, Mich., assignor to [illegible] Company, Detroit, Mich., a Corporation of New York. Filed Oct. 16, 1908. Serial No. [illegible]. (Cl. 55—32.)











sliding from the segmental portions of the body, and provided with notches, and having their ends flared, and a guide plate in the bottom adapted to engage with the flared ends, the bottom of the body and the base of the spring catch having slotted plate, combined with an adjusting medium having an elongated head adapted to pass through said slots and to engage the notches in the arms of the spring catch.



3. A bachelor button, of the detachable type, comprising a button head, having a hub, and a spring catch composed of a circular base having opposite segmental portions and spring arms rising from said segmental portions toward each other and extending thence substantially parallel, and provided with flared ends, said arms being notched between their parallel portions and their flared ends.

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1,040,066. HOLDER FOR CARDS, PICTURES, AND THE LIKE. James Murray Washburn, Chicago, Ill. Filed June 17, 1911. Serial No. 633,856. (Cl. 40—148.)



1. A sheet metal holder for cards, pictures and the like, comprising a holding portion at the front for receiving and sustaining the desired article in substantially upright position, and a horizontally extensible base member, provided at its rear end with a tubular flange turned downwardly, the holder having only two bearing points one at the front of the holding portion and the other on said tubular flange.

2. A sheet metal holder for cards, pictures and the like, comprising a holding member having a horizontal body section and a slotted extension which terminates in a tongue, a pair of shoulders being formed at the base of the tongue, said extension being first bent upwardly and rearwardly from the body section, then downwardly and rearwardly, then forwardly over the body section, and that said shoulders abut against the base of the extension at each side of the slot, said tongue passing through said slot and being bent downwardly and upwardly to form a lip for engaging the articles at the bottom front edge, while the slotted portion of the extension is adapted to engage the rear side of the article, longitudinal flanges formed on said holding member, and a base member slidably engaging said flanges to vary the effective base length of the holder and having its rear end adapted into a rail.

3. A sheet metal holder for cards, pictures and the like, comprising a holding member having a horizontal body section and a slotted extension which terminates in a tongue, said extension being first bent upwardly and rearwardly from the body section, then downwardly and rearwardly, then forwardly over the body section, said tongue passing through said slot and being bent downwardly and upwardly to form a lip for engaging the articles at the bottom front edge, while the slotted portion of the extension is adapted to engage the rear side of the article, longitudinal flanges formed on said holding member, a base member slidably engaging said flanges to vary the effective base length of the holder, said base member being at its rear end provided with a downwardly extend flange which forms the rear bearing point of the holder, said tongue forming the front bearing point, said body member having a series of openings or recesses, and a button formed on the body section of the holding member to enter said openings and frictionally hold the base member in its adjusted position.

5. A sheet metal holder for cards, pictures and the like, comprising a horizontal body section and a slotted extension which terminates in a tongue, a pair of shoulders being formed at the base of the tongue, said extension being first bent upwardly and rearwardly from the body section, then downwardly and rearwardly, then forwardly over the body section, so that said shoulders abut against the base of the extension at each side of the slot, said tongue passing through said slot and being bent downwardly and upwardly to form a lip for engaging the article at the bottom front edge, while the slotted portion of the extension is adapted to engage the rear side of the article.

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1,040,067. HOLDER FOR CARDS, PICTURES, AND THE LIKE. James Murray Washburn, Chicago, Ill. Filed June 17, 1911. Serial No. 633,857. (Cl. 40—148.)



1. A sheet metal holder of the class described, comprising a central member having a horizontal body section provided with longitudinal guide flanges on the bottom side, an upwardly projecting extension formed at the front end of the body section, the metal of the extension being first bent upwardly and rearwardly, then downwardly and rearwardly over the body section, a front member consisting of a flat bent section offset to form a bearing portion, and an extension slidably engaging said flanged rear base section, having an inturned lip at the front to engage the lower edge of the supported article, a rear member slidably engaging said flanges and provided at its rear end with a downwardly turned bearing flange upon which resting on the flat base portion of the front and the slide bearing flange at the rear.

2. A sheet metal holder of the class described, comprising a central member having an upright supporting extension formed at its front end, a front member in adjustable engagement with said central member, said front member being provided with an inturned lip which, with said upright extension, engages the desired article in substantially upright position, a base member slidably engaging said central member and provided at its rear with a downwardly turned flange which forms the rear bearing point of the holder, a body member adjustably engaging said central member and provided at its rear with a downwardly turned flange which forms the rear bearing point of the holder, a screw passing through said central member and the slot in the other member, and a nut at the end of said screw for clamping the front and rear members in adjusted position.

3. A sheet metal holder of the class described, comprising a central member having a horizontal body section provided with longitudinal guide flanges on the bottom side, an upwardly projecting extension formed at the front end of the body section, the metal of the extension being first bent upwardly and rearwardly, then downwardly and rearwardly over the body section, a front member consisting of a flat bent section offset to form a bearing portion, and an extension slidably engaging said flanged rear base section, having an inturned lip at the front to engage the lower edge of the supported article, a rear member slidably engaging said flanges and provided at its rear end with a downwardly turned bearing flange upon which resting on the flat base portion of the front and the slide bearing flange at the rear.

4. A sheet metal holder of the class described, comprising a central member having a horizontal body section provided with longitudinal guide flanges on the bottom side, an upwardly projecting extension formed at the front end of the body section, the metal of the extension being first bent upwardly and rearwardly, then downwardly and rearwardly over the body section, a front member consisting of a flat bent section offset to form a bearing portion, and an extension slidably engaging said flanged rear base section, having an inturned lip at the front to engage the lower edge of the supported article, a rear member slidably engaging said flanges and provided at its rear end with a downwardly turned bearing flange upon which resting on the flat base portion of the front and the slide bearing flange at the rear, a screw passing through said central member and the slot in the other member, and a nut at the end of said screw for clamping the front and rear members in adjusted position.



solid blocks of wood better suited to support the desired article in substantially upright position, a front member in adjustable engagement with said central member, said front member being provided with an inturned lip which, with said upright extension, engages the desired article in substantially upright position, said lip being adjustable toward and away from said extension to accommodate articles of different thicknesses and a clamping device for holding the second member in adjusted position.

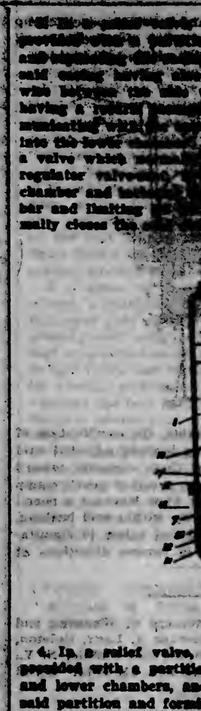
[Claims 6 to 10 not printed in the Gazette.]

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1,040,068. RELIEF-VALVE. John C. Watson, Terre Haute, Ind., assignor of one-half to David L. Watson, Terre Haute, Ind. Filed Jan. 12, 1912. Serial No. 670,921. (Cl. 137—115.)

1. In a relief valve, the combination, with a casing provided with a partition having a regulator valve-seat and separating the casing into upper and lower chambers, said casing having also a bypass extending downwardly between the side walls of the lower chamber and having a [illegible] communicating through it and communicating with the upper chamber and having an outlet into the lower chamber; of a regulator valve normally closing the [illegible] through the regulator valve-seat, and a relief valve normally closing the valve-seat of the bypass passage.

2. In a relief valve, the combination, with a casing provided with a partition having a regulator valve-seat and separating the casing into upper and lower chambers, said casing having also a bypass extending downwardly between the side walls of the lower chamber and having a [illegible] communicating through it and communicating with the upper chamber and having an outlet into the lower chamber; of a regulator valve normally closing the [illegible] through the regulator valve-seat, and a relief valve normally closing the valve-seat of the bypass passage, said relief valve comprising a [illegible] between the guides and the valve-seat of the bypass passage.



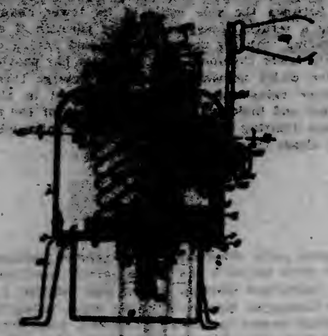
4. In a relief valve, the combination, with a casing provided with a partition which separates it into upper and lower chambers, and a tubular plug secured to the said partition and forming a communication between the said chambers and provided with a valve-seat and downwardly projecting guides; said casing having a by-pass passage connecting its chambers and provided with a valve-seat arranged under the [illegible] valve-seat; of a regulator valve which normally closes the valve-seat of the said plug, and a [illegible] valve working between the said guides and normally closing the valve-seat of the by-pass passage.

5. In a relief valve, the combination, with a casing provided with a partition which separates it into upper and lower chambers, and a tubular plug secured to the said partition and forming a communication between the said chambers and provided with a downwardly projecting stem and a valve-seat, said having downwardly projecting guides, said casing having a by-pass passage connecting its chambers and having a valve-seat arranged under the tubular plug; of a regulator valve which normally closes the valve-seat of the plug and which has guides which engage with the said stem, and a by-pass relief valve working between the guides on the said stem and normally closing the valve-seat of the by-pass passage.

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1,040,069. PENCIL-SHARPENING MACHINE. Bruce C. Wheeler, Bridgeport, Conn. Original application filed Apr. 14, 1911, Serial No. 621,076. Divided and this application filed May 29, 1912. Serial No. 699,040. (Cl. 120—86.)

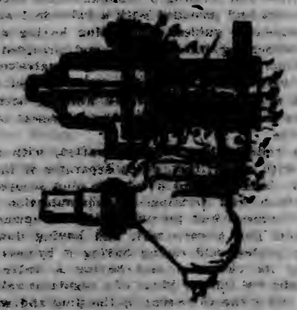
1. In a pencil sharpening machine, the combination of an inking cutter, a pencil receiving holding support with cutting [illegible] cutting end of the pencil extending toward the cutter and [illegible] pencil, and a pencil sliding frame supporting [illegible] pencil [illegible] and means for moving one of these [illegible]



2. In a pencil sharpening machine, the combination of a rotary cutter, a pencil feeding bushing adjacent said cutter, means for moving one of these elements toward the other at certain stated times, a rotary pencil clamp freely movable vertically whereby when elevated a pencil clamped therein will rest by gravity within said bushing, and means for causing said pencil and cutter to simultaneously and continuously travel in reverse directions at their point of contact.

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1,040,070. TRIPLE VALVE. Willis C. Wheeler and James I. Lacy, Detroit, and Howard A. Lacy, Galeton, Pa., assignors to Nichols Air Brake Co., Buffalo, N. Y., a Corporation of Arizona. Filed Feb. 21, 1911. Serial No. 610,022. (Cl. 188—15.)

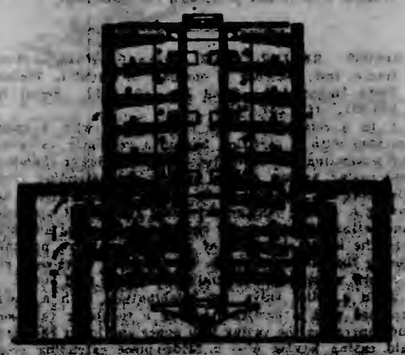


1. In a triple valve device, the combination of a triple valve chamber, a main piston, an auxiliary reservoir, and a brake cylinder, said valve including a main piston and a slide valve controlled thereby, a retaining valve connected with said slide valve, and means whereby the movement of said slide valve for the service position will open said retaining valve to brake cylinder and the main

2. In a triple valve device, comprising a triple valve chamber, a main piston, an auxiliary reservoir, and a brake cylinder, said valve including a main piston and a slide valve controlled thereby, a retaining valve connected with said slide valve, and means whereby the movement of said slide valve for the service position will open said retaining valve to brake cylinder and the main

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1,040,071. METALLURGICAL FURNACE. Henry Wilson, Ardmore, Pa., assignor to The Furnace Patent Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 14, 1911. Serial No. 608,626. (Cl. 75—148.)



1. A [illegible] [illegible] [illegible]

thereto upon the bars, and operable means for connecting the bars, plates and supporting members together.

3. A knock-down concrete form consisting of a series of superposed horizontally disposed bars provided with perforations, plates suspended from said bars, diagonal supporting members arranged between the bars and across the plates from bar to bar, and removable means for connecting the bars, plates and supporting members together, including perforated flanges on the plates, perforated sections on the supporting members and pins insertible in the perforations in the bars, flanges and plates when the perforations are in register.

4. A knock-down concrete form consisting of a series of superposed horizontally disposed bars provided with perforations, plates suspended from said bars, diagonal supporting members arranged between the bars and across the plates from bar to bar, and removable means for connecting the bars, plates and supporting members together, including perforated flanges on the plates, perforated sections on the supporting members, hooks arranged to engage the bar and supporting members, and provided with perforations, and pins insertible in the perforations in said plates, bars, supports and hooks, substantially as described.

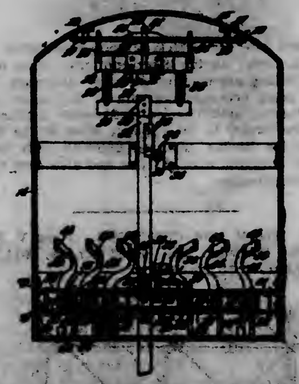
4. A knock-down concrete form consisting of a series of superposed horizontally disposed bars provided with perforations, plates suspended from said bars, diagonal supporting members arranged between the bars and across the plates from bar to bar, and removable means for connecting the bars, plates and supporting members together, including perforated flanges on the plates, perforated sections on the supporting members, hooks arranged to engage the bar and supporting members, and provided with perforations, and pins insertible in the perforations in said plates, bars, supports and hooks, tie members attachable to said bars, and notches formed in said plates to admit of the tie members passing therethrough.

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1,040,076. [WITHDRAWN.]

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1,040,077. COMBINED VENDING AND WEIGHING MACHINE. Paul Whitney Sherman, Kans. Filed Nov. 2, 1911. Serial No. 658,307. (Cl. 211—8.)



1. In a combined vending and weighing machine, a vending mechanism, a weighing device, a vertically movable scale beam, a horizontally movable member arranged to normally hold said scale beam against movement, and means carried by said vending mechanism for imparting movement to said horizontally movable member.

2. In a combined vending and weighing machine, a vending mechanism, a vending mechanism, an article chute, a vertically movable scale beam, said scale beam being yieldably held against movement, and means actuated by said vending mechanism to permit said beam to move vertically.

3. In a combined vending and weighing machine, a vending mechanism, a weighing device, a vertically movable scale beam, said scale beam being yieldably held against movement, and means actuated by the vending mechanism to permit the vertical movement of said beam.

4. In a combined vending and weighing machine, a vending apparatus, a weighing apparatus, and operating apparatus including a vertically movable scale beam, and means actuated by the vending apparatus to prevent the movement of said scale beam.

5. In a combined vending and weighing machine, a vending apparatus including a supporting plunger, a weighing apparatus including a vertically movable scale beam, a longitudinally movable member normally holding said scale beam against movement, said plunger when actuated imparting movement to said longitudinally movable member.

[Claims 6 to 18 not printed in the Gazette.]

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1,040,078. MARKING-GAGE. Ansuer H. Wixon, Beverly, Mass. Filed Aug. 18, 1911. Serial No. 643,742. (Cl. 73—146.)



In a marking gage, the combination of a toothed bar provided at one end with a marker, a head having a plurality of recesses and adapted to slide on the toothed bar, a worm pinion arranged in one of the recesses of the head and meshing with the teeth of the bar and having a toothed beveled surface, a screw screwed into the recess and confining the worm pinion therein, a grooved shaft journaled in another recess in the head and at right angles to the pinion and having a beveled surface provided with teeth meshing with the teeth of the pinion, and an adjusting screw received in the shaft and adapted to enter the groove of the shaft and hold the same against longitudinal movement and further adapted when turned in one direction to bind on the surface of the groove of the shaft, for the purpose set forth.

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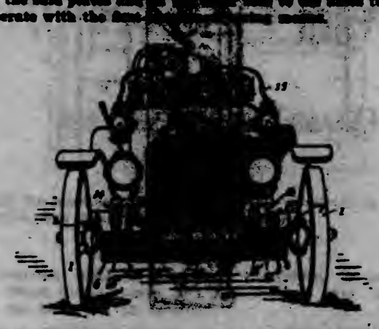
1,040,079. SUSPENSION DEVICE FOR AUTOMOBILES. Joseph Peter Weil, Jersey City, N. J. Filed Jan. 6, 1911. Serial No. 601,602. (Cl. 51—67.)

1. In a suspension device for vehicles, the combination of a dropped body axle, vertically yieldable spring means at each end of said axle and supported thereby, dropped body hangers supported by said spring means on either side of said axle, spring connections connected by said dropped body hangers and adapted to be connected to the body of the vehicle to be supported, and horizontally yieldable spring means connected to the said hangers on one side and to the frame of said vehicle on the other to cooperate with the said mentioned spring means.

2. A suspension device for vehicles, comprising a dropped body axle, vertically yieldable leaf spring means



suspended from the axle at either end thereof, and transversely connected with respect thereto, dropped body hangers carried by the ends of said axle, spring connections connected by said dropped body hangers and adapted to be connected to the body of the vehicle to be supported, said dropped body hangers at their centers, transverse suspension spring means carried by said hangers for connection at their ends to the body of the vehicle to be supported, and horizontally yieldable elliptical spring means connected to the one side to the said plates and to the other side to the axles to cooperate with the said transverse spring means.



3. A suspension device for vehicles, comprising a dropped body axle, leaf spring means supported by said axle at either end thereof and transversely connected with respect thereto, dropped body hangers supported by said leaf spring means, transverse suspension spring means carried by said hangers for connection at their ends to the body of the vehicle to be supported, horizontally yieldable elliptical spring means connected at one end to the said dropped body hangers and to the frame of said vehicle at the other end to cooperate with the said transverse spring means, and to permit said body to give slightly when encountering an obstruction.

4. In a suspension device for vehicles, the combination of an axle, vertically yieldable spring means supported at each end of said axle, transverse hangers pivotally connected to the ends of said spring means, vertically yieldable spring means carried by said hangers and designed to be connected at their ends to the body of the vehicle to support the weight of said body and having connecting rods adapted to said axle to maintain the connection of said hangers thereto, the ends of said vertically yieldable spring means having loops at the ends of said connecting rods.

5. In a suspension device for vehicles, the combination of an axle, vertically yieldable spring means supported at each end of said axle, vertically yieldable spring means transversely connected with respect to said axle means having the supporting plates provided with lugs, the said lugs being adapted to be connected to the body of the vehicle to be supported, said transversely yieldable spring means being adapted to be connected to the body of the vehicle to be supported, said transversely yieldable spring means being connected at one end to the said dropped body hangers and to the frame of said vehicle at the other end to cooperate with the said transverse spring means, and to permit said body to give slightly when encountering an obstruction, and means for limiting the movement of said body.

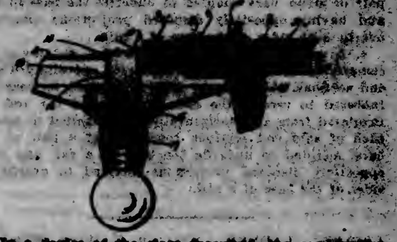
6. In a suspension device for vehicles, the combination of an axle, vertically yieldable spring means supported at each end of said axle, vertically yieldable spring means transversely connected with respect to said axle means having the supporting plates provided with lugs, the said lugs being adapted to be connected to the body of the vehicle to be supported, said transversely yieldable spring means being adapted to be connected to the body of the vehicle to be supported, and horizontally yieldable spring means connected at one end to the said dropped body hangers and to the frame of said vehicle at the other end to cooperate with the said transverse spring means, and to permit said body to give slightly when encountering an obstruction, and means for limiting the movement of said body, said means consisting of a pair of rods connected to the said axle and to said spaced vertically yieldable spring means on the other side.

[Claims 6 to 9 not printed in the Gazette.]

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1,040,080. HEMOSTATIC BELT AND SUPPORTING-BRACKET THEREFOR. Gustav Wilhelm, New Haven, Conn., assignor to The Hospital Specialty Co., New Haven, Conn., a Corporation. Filed Aug. 21, 1911. Serial No. 645,202. (Cl. 128—75.)

1. In a device of the character described, the combination with a belt, of a bracket having an opening through it, a detachable pin adjusted in the end of said bracket opposite which it projects and from which it is insulated, a lamp adapted with said pin and extending through said bracket, of a lamp adapted to be supported by said bracket, one pole of the lamp being through the body of the lamp and said bracket, and a contact insulated from the body and electrically connected with one pole of the lamp, said contact projecting upward in position to be engaged by the said contact pin when the lamp is engaged with the bracket.



2. In a device of the class described, the combination with a bracket having an opening through it, a detachable pin adjusted in the end of said bracket opposite which it projects and from which it is insulated, a lamp adapted with said pin and extending through said bracket, of a lamp adapted to be supported by said bracket, one pole of the lamp being through the body of the lamp and said bracket, and a contact insulated from the body and electrically connected with one pole of the lamp, said contact projecting upward in position to be engaged by the said contact pin when the lamp is engaged with the bracket.

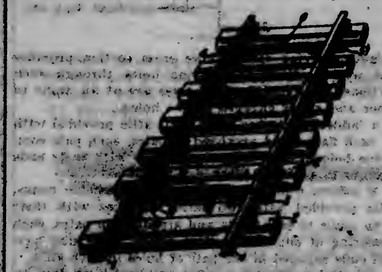
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1,040,081. METHOD OF DRYING MONOCALCIC PHOSPHATE AND THE LIKE. Thomas Leopold Willson and Maximilian Masterius Haff, Ottawa, Ontario, Canada; said Haff assignor to said Willson. Filed July 10, 1912. Serial No. 708,543. (Cl. 71—7.)

The herein described method of converting and drying a phosphate salt which has been prepared from natural phosphate rock by the addition of phosphoric acid which comprises introducing ammonia gas therein.

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1,040,082. TRACK CONSTRUCTION. William G. Wilson, West Brighton, N. Y. Filed Mar. 26, 1912. Serial No. 686,445. (Cl. 238—5.)



1. A railway track comprising a pair of rails, a series of supports for supporting the rails and resting upon the road bed, a series of rail spacing members underlying and engaging the rails and supported by the road bed, each of said spacing members being made up of rail engaging plates and a middle section horizontally bolted together, said middle section having projections overlying both flanges of the base of each rail.

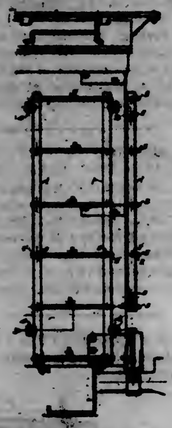
2. A railway track comprising a pair of rails, a plural of supports for supporting the rails and resting upon the road bed, a series of rail spacing members underlying and engaged by the rails and supported by the road bed, each of said spacing members being made up of rail engaging plates and a middle section horizontally bolted together, said middle section having projections overlying both flanges of the base of each rail, and a rail spacing member for the rails of a switching track comprising a right bar, and a pair of connecting diagonal

and shorter horizontally disposed rail to their ends of the right bar, ends of said rail sections consisting of a pair of slotted bars adapted to underlie the base of a rail and having opposite, inwardly projecting projections adapted to overlie both sides of a rail.

4. A [illegible] rails of a railway track comprising a pair of [illegible] of oppositely disposed rail sections, the adjacent ends of the rail sections being reduced in width to receive the ends of the rail bars located from said horizontally disposed rail bar, each of said rail sections consisting of a pair of slotted bars, adapted to underlie the base of a rail and having oppositely disposed projections adapted to overlie both sides of the base of a rail.

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1,040,988. LADDER. William H. Wise, Wilmington, N. C., assignor to The Wise Railway Appliance Company, a Corporation of Ohio. Filed Nov. 2, 1911. Serial No. 658,498. (Cl. 256—1.)



1. A ladder having stiles whose cross section provides divergent wall portions and having holes through such wall portions, the axes of which holes are at an angle to each other and rungs engaged in the holes.

2. In a ladder, angle bar stiles, each stile provided with holes in each flange and arranged in pairs, each pair comprising one hole in each flange and rungs with their ends each engaged in a [illegible] holes.

3. In a ladder, corresponding stiles and detachable rungs, each stile provided with two series of holes with their axes at an angle to each other and arranged in pairs, each pair consisting of one hole in each flange, each rung having offset ends engaged in one pair of holes in each stile.

4. In a ladder, corresponding stiles provided with two series of holes with their axes at an angle to each other and arranged in pairs, each pair consisting of one hole in each flange, each series of holes being equally inclined at an angle to the angle formed and engaged in one pair of holes in each stile.

5. A ladder having stiles whose cross section provides divergent wall portions and having holes through such wall portions, the axes of which holes lie at an angle to each other and rungs engaged in the holes, the line of [illegible] with the outer projecting [illegible] flange.

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1,040,989. [illegible]. William H. [illegible] Railway Appliance Company, a Corporation of Ohio. Filed [illegible]. Serial No. [illegible]. (Cl. 256—1.)

[illegible]

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[illegible] sides of [illegible] openings for the shutter, the upper [illegible] engaging the shutter to retain it in the open position, and means adapted to retain the shutter in engagement with the upper cross bar.

3. In a ventilator, a frame, two cross bars extending across the frame from side to side, having an opening between them, an inclined vane carried by the upper cross bar, a shutter mounted to swing on an axis to open and close the opening between the two cross bars, upwardly open bearings for the pivots of the shutter and a downwardly extending rib on the inclined vane engaging the shutter to retain its pivots in the open bearings.

4. In a ventilator, a frame, two cross bars extending across the frame from side to side having an opening between them, an inclined vane carried by the upper cross bar, a shutter mounted to swing on an axis below the inclined vane to open and close the opening between the bars, upwardly open bearings for the pivots of the shutter, a rib at the lower edge of the inclined vane engaging the shutter to retain the pivots in the open bearings and an opposing spring adapted to hold the shutter in engagement with the rib.

5. In a ventilator, a frame, two cross bars extending across the frame from side to side having an opening between them, a supported shutter pivoted to swing on an axis below it to open and close the opening between the bars, upwardly open bearings for the pivots of the shutter and a depressible projection on the upper cross bar engaging the shutter to retain its pivots in the open bearings.

[Claims 6 and 7 not printed in Gazette.]

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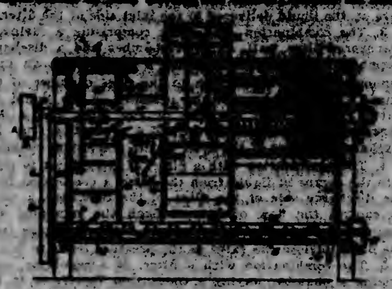
1,040,991. GRAIN-TREATING MACHINE. Adolphus [illegible], Chambersburg, Pa. Filed Mar. 6, 1909. Serial No. [illegible]. (Cl. [illegible].)

[illegible]

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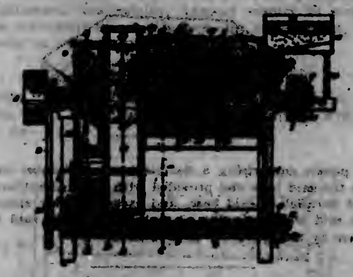
position and shaped to engage [illegible] the shutter engagement to [illegible] the [illegible] position.



ing the plate and the agitating device relatively to each other; and means for operating the latter.

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1,040,992. GRAIN-CLEANING MACHINE. Adolphus Weis, Chambersburg, Pa. Filed Sept. 29, 1910. Serial No. 584,054. (Cl. 98—30.)



1. The combination in a grain cleaning machine of a casing; a driving shaft; cleaning elements in said casing on the shaft provided with helical blades each having series of radially projecting teeth extended on their ends to form peripheral teeth.

2. The combination in a grain cleaning machine of a casing; a shaft therein; an shredding member in the casing; and a cleaning member mounted on the shaft adjacent said shredding member, said cleaning member consisting of a hub provided with a series of projections extending toward the shredding member; and a helical blade mounted on said hub.

3. The combination in a grain cleaning machine of a casing; a partition in the casing dividing it into compartments; a screen extending through said compartments and open at the top; flume-boxes on opposite sides of the partition adjacent said opening in the screen; a rotary flume-like partition opening; said grain cleaning means in the compartments.

4. The combination in a grain cleaning machine of a casing; a vertical partition in the casing dividing it into compartments; [illegible] screen extending through said compartments and open at the top; flume-boxes on opposite sides of the partition adjacent said opening in the screen; a rotary flume-like partition opening; said grain cleaning means in the compartments.

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1,040,993. [illegible]. Charles John Wagner and Ernest [illegible], Kelowna, British Columbia, Canada. Filed Oct. 19, 1911. Serial No. 654,784. (Cl. 98—34.)



1. In a device of the character described the combination of a plate provided with a plurality of [illegible] and a bar extending across said plate and movable longitudinally with respect thereto, said construction of the bar comprising a connection between the plate and the bar, and a set-screw for [illegible] the said bar in various positions.

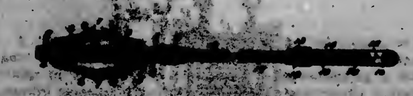
2. In a device of the character described the combination of a plate, a series of openings therein extending from one edge of the plate into its interior, a pair of plates secured to the first named plate adjacent to each opening and partly closing the same, said plates having beveled edges converging inwardly to form a tapering slot.

3. In a device of the character described the combination of a plate, a series of openings therein extending from one edge of the plate into its interior, a pair of plates secured to the first named plate adjacent to each opening and partly closing the same, said plates having beveled edges converging inwardly to form a tapering slot, and a bar movable with respect to and extending across the said plate.

4. In a device of the character described the combination of a plate adapted to be suitably mounted, provided with a series of openings therein extending inwardly from one edge thereof and substantially parallel with each other, a plurality of plates at the edge of each opening, said plates having beveled edges forming a tapering slot within the opening of the plate, and a bar extending across said plate, a screw-bolt mounted in the first named plate, a pin secured to the bar and receiving said screw bolt, a diagonal slot in the said plate through which said pin extends, the construction and arrangement being such that the rotation of the screw-bolt causes the pin to travel along said diagonal slot and impart movement to the bar longitudinally of the said tapering slots.

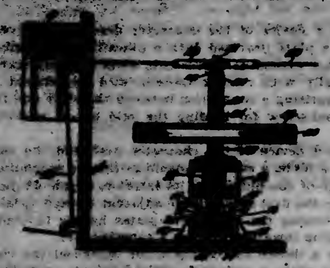
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1,040,994. BOILER-TUBE SCRAPER. Charles John Wagner and Ernest [illegible], Kelowna, British Columbia, Canada. Filed Oct. 19, 1911. Serial No. 654,784. (Cl. 98—34.)



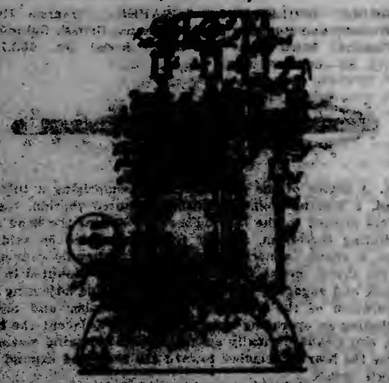
1. A device of the character described, comprising a tubular body, a [illegible] bearing slightly inverted thereto, [illegible] pivoted to the [illegible] member and to the head and [illegible] thereto, [illegible] members carried by said levers, a [illegible] connecting [illegible] a handle connected to the latter, [illegible] [illegible] [illegible]

[illegible] Machine. [illegible] Filed [illegible] Serial No. [illegible] (Cl. [illegible])



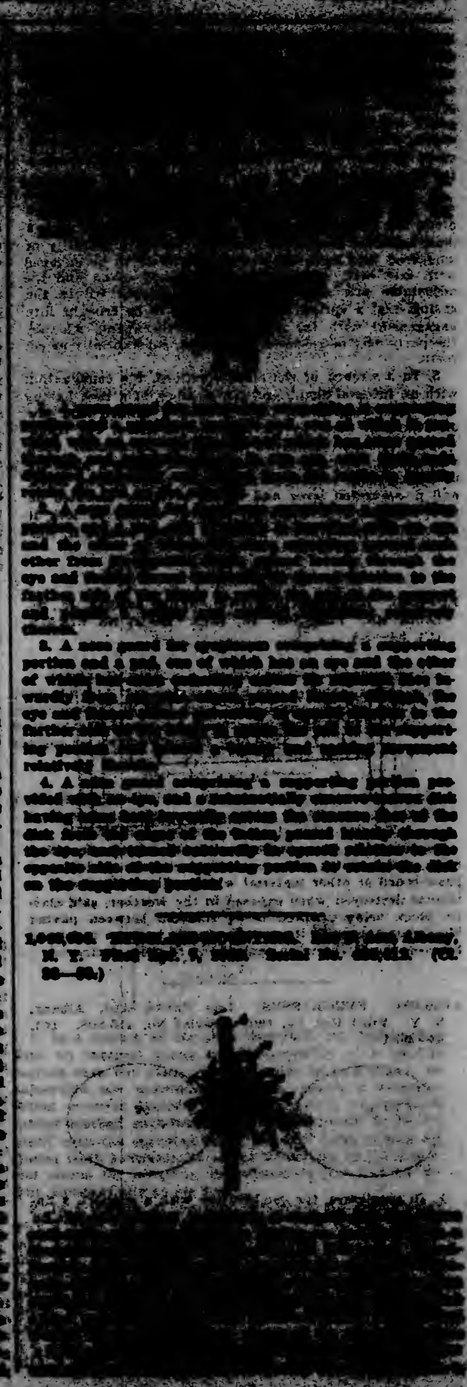
In a flying machine, the combination, with a gliding structure provided with lateral balancing elements, of a balancing member on said gliding structure, a bearing ball connected to the latter laterally to said balancing member, a vertical shaft journaled at its lower end in the ball and provided at its upper end with a bearing socket, a gyroscope wheel supported by said shaft, a casing inclosing the upper portion of the shaft and having an expanded portion inclosing said gyroscope wheel, an electric motor having its armature mounted on said shaft and its fields mounted within it, rigid connecting the lower end of the first-named casing with the ball, a head or cross piece, a balancing member connecting the upper end of the first-named casing with said cross piece and engaging the bearing recess in the shaft, and connections between said head and cross piece and the balancing elements.

1,040,690. FILTER. Howard Sauer, Buffalo, N. Y., assignor to Kahn Manufacturing Company, Buffalo, N. Y., a Corporation of New York. Filed Mar. 22, 1911. Serial No. 616,261. (Cl. 210—2.)



[illegible] [illegible] [illegible] [

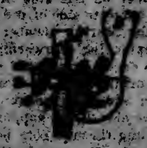












1. In an eyeglass mounting, the combination with a support for the lenses comprising a pair of members providing a pocket between them, of a nose guard mounted to swing on one side of said members, and a coil spring arranged between said members about an axis substantially the turning axis of the guard and having an arm extending forwardly and connected to the lever in front of the turning axis of the latter.

2. In an eyeglass mounting, the combination with a support for the lenses comprising a pair of members providing a pocket between them, of a nose guard mounted to swing to one side of said members, and a coil spring arranged between said members about an axis substantially the turning axis of the guard and having an arm extending forwardly and connected to the lever in front of the turning axis of the latter.

3. In an eyeglass mounting, the combination with a support for the lenses comprising a pair of members provided with a pocket between them, of a nose guard mounted to swing on the same side of said members, and a coil spring arranged between said members about an axis in rear of the turning axis of the guard and having an arm extending forwardly and connected, with the guard in front of

4. In an eyeglass mounting, the combination with a support for the lenses comprising a pair of members provided with a pocket between them, of a nose guard mounted to swing on the same side of said members, and a coil spring arranged between said members about an axis in rear of the turning axis of the guard and having an arm extending forwardly and connected, with the guard in front of the

[Claims 5 to 11 not printed in the Gazette.]

1,040,104. EYEGLASSES. [illegible] Albany, N. Y. Filed Jan. 7, 1911. Serial No. 601,502. (Cl. 88—36.)



1. In an eyeglass mounting, the combination with a support for the lenses comprising a pair of members providing a pocket between them, of a nose guard mounted to swing on one side of said members, and a coil spring arranged between said members about an axis substantially the turning axis of the guard and having an arm extending forwardly and connected to the lever in front of the turning axis of the latter.

2. In an eyeglass mounting, the combination with a support for the lenses comprising a pair of members providing a pocket between them, of a nose guard mounted to swing on the same side of said members, and a coil spring arranged between said members about an axis in rear of the turning axis of the guard and having an arm extending forwardly and connected, with the guard in front of

3. In an eyeglass mounting, the combination with a support for the lenses comprising a pair of members provided with a pocket between them, of a nose guard mounted to swing to one side of said members, and a coil spring arranged between said members about an axis substantially the turning axis of the guard and having an arm extending forwardly and connected to the lever in front of the turning axis of the latter.

4. In an eyeglass mounting, the combination with a lens attaching portion and a hinging portion opposite therefrom, of a leaf spring secured and pass together and extending into the lens attaching portion, a post on the latter lying transversely of the fastening, a rocked headed fastener passing through the post and a nose guard turning on the post [illegible] the head of such fastener and the [illegible] portion.

[Claims 5 and 7 not printed in the Gazette.]

1,040,105. EYEGLASSES. [illegible] F. Ave. Albany, N. Y. Filed Jan. 7, 1911. Serial No. 601,503. (Cl. 88—36.)



[illegible] Albany, N. Y. Filed Sept. 27, 1911. Serial No. [illegible] (Cl. 88—36.)



[illegible] for the lens-leaving a beaded portion constituting one of the bearing surfaces.

[Claims 6 to 11 not printed in the Gazette.]

1,040,106. [illegible] Albany, N. Y. Filed Sept. 27, 1911. Serial No. [illegible] (Cl. 88—36.)

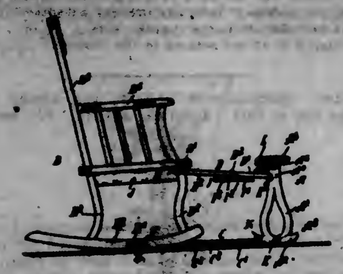


[illegible] Albany, N. Y. Filed Oct. 6, 1911. Serial No. [illegible] (Cl. 88—36.)



[Claims 5 to 10 not printed in the Gazette.]

other and with the supporting portion of the said leg rest, and a flexible connection normally connected at one end with the rocking arm bar of the rocking chair and connected at the other end with the middle of the bottom portion of the said rocking leg rest.



2. In combination, a rocking chair having a cross bar at the middle of the runners, rocking standards having top and bottom cross bars connecting the standards with each other, a rocking top plate, a rocking connection connected at one end to the rocking chair immediately below its seat and connected at the other end with the top cross bar of the said standards, and a spacing connection connected at one end with the said cross bar of the rocking chair and connected at its other end with the bottom cross bar of the said standards.

3. In combination, a rocking chair, a rocking leg rest, a spacing connection between the rocking chair and the leg rest, a rocking connection between the rocking chair and the leg rest, the said connections being made in foldable sections, and means on the rocking chair underneath its seat for receiving the said rocking leg rest and connections.

4. In combination, a rocking chair having a seat and bottom cross bar, a rocking leg rest having a bottom bar and a top bar, a spacing connection between the said bottom bars, and a rocking connection between the said rest and the said top bar.

5. In combination, a rocking chair having a seat; and a bottom cross bar connecting the runners with each other, longitudinal guideways on the under side of the said seat, a leg rest having standards provided with runners, a pivoted top plate and top and bottom cross bars, pins on the said standards adapted to engage the said guideways, a foldable bottom connection connecting the bottom cross bars of the rocking chair and leg rest with each other, and a foldable rocking connection connecting the said seat with the top cross bar of the leg rest.

[Claims 6 to 8 not printed in the Gazette.]

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1,040,107. CONNECTING-TERMINAL. Albert Jay Allen, New York, N. Y. Filed Aug. 19, 1911. Serial No. 644,730. (Cl. 173—268.)



1. A connecting terminal comprising a sleeve provided with an opening for receiving a wire end with an aperture extending substantially at right angles to the general direction of the sleeve designed to receive the end of said wire, and a fastening member projecting into said sleeve and clamping the end of said wire in said aperture, said fastening member forming a continuation of [illegible]

[illegible] electrical terminal, comprising a metallic sleeve, provided with two cylindrical portions, one of said cylindrical portions being [illegible]

[illegible] another cylindrical [illegible] and with [illegible] fastening member [illegible] and [illegible] and [illegible] and

[illegible] having a shutter arm, an alarm mechanism, a [illegible] operated thereby and adapted to sound [illegible], a reciprocating member for connecting the alarm to said water [illegible] positive means for connecting the alarm to said water [illegible] a pressure actuated device [illegible] water [illegible] to [illegible] [illegible] [illegible]

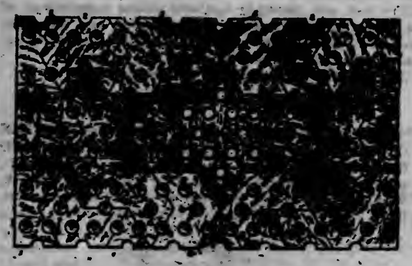
port on the base plate, electrical connections for the filament support, a circuit breaker in the electric connections to break the circuit when the current has reached a predetermined amount, and means for exhausting the jar and admitting gases thereto.

2. An apparatus of the kind described comprising a base plate, a flashing jar, a clamping device resiliently clamping the flashing jar to the base plate, a counter-balanced support for holding the flashing jar in an elevated position, a filament support on the base plate, electric connections for the filament support, a circuit breaker in the electric connections to break the circuit when the current has reached a predetermined amount, and means for exhausting the jar and admitting gases thereto.

[Claim 3 not printed in the Gazette.]

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1,040,117. SURFACE-COVERING. Edward T. Bates, Washington, D. C. Filed Dec. 29, 1911. Serial No. 668,997. (Cl. 72—35.)



1. Flexible tiling comprising units interlocked and united in the plane of the surface, said units being provided with adjacent and registering salient and reëntrant angular sides and a recess or recesses in the sides, and each recess in a salient angle registering with a similar recess in the side of an abutting reëntrant angle of a unit; in combination with keys, each key engaging two of said recesses, uniting the units and intercepting all lines of separation of units in the plane of the surface.

2. Flexible tiling having abutting edges provided with a recess or recesses extending through the tiling; in combination with separate keys having surrounding walls of greater density than the tiles and permanently attached fillings extending beyond the lower edge of the wall.

3. Flexible tiling comprising a plurality of units having abutting edges provided with registering recesses extending through the tiling; in combination with keys having walls of greater density than the tiles, provided with roughened outer surfaces and surrounding a flexible filling.

4. Flexible tiling comprising a plurality of units having perforations extending through the tiling; in combination with members having walls of greater density than the body of said members and filling said perforations.

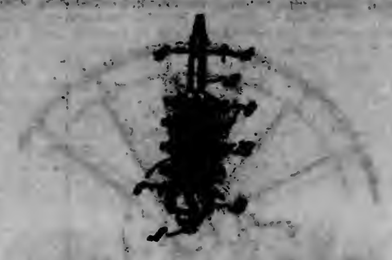
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1,040,118. PERFORATION-CLEANER FOR OIL-WELL PIPES. James William Batt, Maricopa, Cal. Filed May 31, 1912. Serial No. 700,220. (Cl. 166—2.)

1. A well cleaning device comprising a rod, a series of disks thereon, rings intermediate the disks, and a series of resilient fingers projecting from the rings, as set forth.

2. A well cleaning device comprising a rod, a series of disks thereon, rings intermediate the disks, a series of wires bent to form a coil through which the rings pass, the coils of the wires being resilient and adapted to engage the perforations in the tube to clean out any foreign matter contained therein, as set forth.

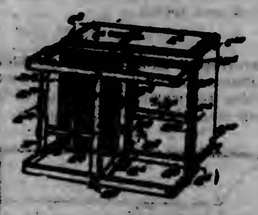
3. A well cleaning device comprising a rod, a series of disks having double beveled edges, rings mounted upon the rod intermediate the disks, wires bent up from upon the rings at the periphery of the disks, the ends of said wires being resilient and projecting beyond the disks and adapted to



engage the perforations to clean foreign matter therefrom, as set forth.

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1,040,119. COOKING APPARATUS. William Edwards Baxter, Louisville, Ky. Filed Sept. 20, 1910. Serial No. 582,373. (Cl. 126—9.)



1. A cooking apparatus comprising a stove proper, a combined crate and support adapted to support the stove proper in use and to inclose the stove proper when the parts are packed for carrying by hand, storage or shipment, said crate having means interlocking with cooperating parts on the stove when the latter is supported on the crate, and means carried by the crate for supporting an sub-pan below the stove when the latter is on the crate.

2. A cooking apparatus comprising a stove proper, a frame below and supporting the stove proper and interlocked therewith and a pan holder connected with the frame and crossing the crate in interlocked relation with the stove proper.

3. A cooking apparatus comprising a stove proper, a frame below and supporting the stove proper, interlocking means between the frame and stove proper, and a pan holder comprising a bar hooked at one end into engagement with the frame and connected at its other end with the interlocking means between the frame and the stove proper and crossing the frame in interlocked relation with the stove proper.

4. A cooking apparatus comprising a stove proper and a combined crate and supporting frame therefor having an upright side bar hinged at one end whereby it may be opened to permit the introduction and removal of the stove, and a lock at the other end of said bar for securing it in connection with the frame whereby the bar may operate as a retaining means for the stove when within the crate and as a means for stiffening the sides when the latter is utilized as a support for the stove.

5. A cooking apparatus comprising a stove proper, a crate adapted to receive the same and having a bar provided with an edge notch, a bail carried by the stove and engaging said notch and a pan holder engaging with said bail, substantially as set forth.

[Claims 6 to 10 not printed in the Gazette.]



1,040,120. CARRIAGE OR WINDLASS. Tait Haven, Wilsonville, Ill. Filed Mar. 28, 1910. Serial No. 551,502. (Cl. 97—32.)



1. In a windlass, the combination with a motor having a pinion on its shaft, and the motor frame; of a base mounted on the latter and having spaced legs riding from its front and rear ends, a block pivoted between the rearmost legs and having a bearing, a block slidably mounted between the forward legs and also having a bearing, means for raising and lowering this block at will, a drum, a shaft fast through the drum and journaled in both bearings, and a driven gear on its front end adapted to be engaged with said driving pinion.

2. In a windlass, the combination with a motor having a pinion on its shaft, and the motor frame; of a base mounted on the latter and having spaced legs riding from its front and rear ends, a block pivoted between the rearmost legs and having a bearing, a block slidably mounted between the forward legs and also having a bearing, a hook rising from this block, an arm passing over the block and under its hook, a link pivotally connecting one end of the arm with the [illegible] forward legs, a crank shaft journaled on the [illegible] having a handle at its rear end, a link connecting the crank with the other end of said arm, a drum, a shaft fast through this drum and journaled in both bearings, and a driven gear on its front end adapted to be engaged with said driving pinion.

3. In a windlass, the combination with a base having spaced legs riding from its rear [illegible] ends, and a power-driven shaft having a pinion thereon of and below the forward pair of legs; of a block slidably mounted between said forward legs and having a bearing, means for adjusting this block vertically, a second block loosely mounted between the rearmost pair of legs and having a bearing, set screws passing through these legs and with their tips loosely engaging the sides of this block, a pawl pivoted to the latter, a shaft journaled in the bearings in both blocks, a gear on its front end adapted to be thrown into mesh with said pinion, a drum fast on the shaft between the blocks, and ratchet teeth on the rear end of the drum adapted to be engaged by said pawl.

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1,040,121. MORTUARY CASKET. William L. Bear, Williamsport, Pa., assignor of one-third to John H. Kling and one-third to George P. Fryling. Filed May 14, 1912. Serial No. 697,171. (Cl. 27—3.)



1. In a mortuary casket, the combination of a body open at one end, a pivotally locking plate, permanent locking means thereon, sealing means therefor, a second sealing plate locking means therefor, and a dissimilarly packing interposed between the plates.

2. In a mortuary casket, the combination of a body open at one end and having a shoulder, a primary sealing plate located against the shoulder and having spring locks permanently engaging shoulder in the body, a substantially groove formed in the body and the plate adjacent the periphery of the latter, a gas-tight seal in said groove, the outer sealing plate and a dissimilarly packing interposed between the plates.

3. In a mortuary casket, the combination of a body, a primary locking plate, sealing means therefor, packing, a second sealing plate secured outside the packing, dowel pins securing the second plate and a compressed bolt passing through the body and second plate for locking the latter in position.

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1,040,122. LUBRICATOR. William H. Beaver, Birmingham, Ala., assignor to Calvin B. Wald, Birmingham, Ala. Filed June 9, 1910, Serial No. 565,675. Renewed Aug. 7, 1912. Serial No. 713,941. (Cl. 184—26.)



1. A lubricator provided with a condensing chamber, a feed chamber, a lubricating-material-chamber, and a tube traversing the latter said chamber, the said lubricator having ports and passages which connect the upper end of the condensing chamber with the said tube, the lower end of the said condensing chamber with the lower end of the said lubricating-chamber, and the said condensing chamber at a point intermediate thereof with the said feed chamber, the said feed chamber also having branch passages to the first said connection and to the upper end of the said lubricating chamber.

2. A lubricator comprising a casing, an upwardly extending tubular extension at the upper end thereof, a downwardly extending extension at the lower end thereof, and heads closing the ends of the said extensions, the said casing having a steam passage extending from one of the said extensions to the other, another passage also extending from one of the said extensions to the other, a feed chamber, branch passages from the said feed chamber to the said extensions, and to the first said passages, the first said passage connecting with the interior of the tubular extension, at a level therein higher than the level of the said branch passage connecting therein of a tube communicating the two, the second said passage connecting with the lower tubular extension near the bottom thereof, the said lubricator being provided with a tube traversing through the said lower extension, the first said passage being connected with the said tube.

3. A lubricator provided with a condensing chamber, a feed chamber, and a lubricating-material-containing chamber,

...ing provided with an inlet for steam connecting with the upper end of the condensing chamber, a connection between the lower end of the condensing chamber and the lower end of the first mentioned chamber, a connection between the upper end of the first mentioned chamber and the upper end of the lubricating material containing chamber, a connection between the lower end of the lubricating material containing chamber and the upper end of the condensing chamber, a connection from the upper end of the condensing chamber to the upper end of the lubricating material containing chamber, a connection from the upper end of the lubricating material containing chamber to the upper end of the condensing chamber, the said connections therewith, however, at a point beneath which the steam connection leaves the said condensing chamber, and a final passage connecting the upper end of the lubricating material containing chamber with the said feed chamber.

4. A lubricator provided with a condensing chamber, a plurality of feed chambers, a lubricating material chamber and a tube extending the latter feed chamber, the said lubricator having feed and passages which connect the upper end of the condensing chamber with the said tube, the lower end of the said condensing chamber with the lower end of the said lubricating chamber, and the said condensing chamber, at a level intermediate therein, with the said feed chambers respectively, the said feed chambers also having independent supply passages to the first said connection and to the upper end of the said lubricating chamber.

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1,040,123. OZONIZER. Thomas B. Sloan, Chicago, Ill. Filed July 25, 1911. Serial No. 640,272. (Cl. 204—32.)



1. In an ozonizer, a source of high-voltage electric current, a rotary fan adapted to maintain a continuous flow of air, a continuous electrode secured to the inner periphery of and adapted to revolve with said fan, a second continuous electrode, a thin dielectric interposed between said electrodes and in close proximity to one of them and extending over the entire area of discharge.

2. In an ozonizer, a source of high-voltage electric current, a rotary fan adapted to maintain a continuous flow of air, a continuous electrode secured to the inner periphery of and adapted to revolve with said fan, a stationary continuous electrode, a stationary thin dielectric interposed between said electrodes in close proximity to one of them and extending over the entire area of discharge.

3. In an ozonizer, a source of high-voltage electric current, a rotary fan adapted to maintain a continuous flow of air, a continuous electrode secured to the inner periphery of and adapted to revolve with said fan, a stationary continuous electrode, a stationary thin dielectric interposed between said electrodes in close proximity to one of them and extending over the entire area of discharge, a connection from the outer end of said stationary electrode and extending over the entire area of discharge.

[illegible] to 20 not printed in the Gazette.]

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1,040,126. METHOD OF AND APPARATUS FOR CONVERTING LIQUID HYDROCARBONS INTO GAS OR VAPOR. Elmer G. Bennett, New London, Conn., assignor to Hydrocarbon Converter Company, New York, N. Y., a Corporation of Delaware. Filed May 23, 1910. Serial No. 562,609. Renewed Feb. 24, 1912. Serial No. 679,767. (Cl. 48—102.)



1. The herein-described method of converting hydrocarbon into gas or vapor, which comprises passing such hydrocarbons along or through the pores of heated porous material and permitting the passage of an electric current through such hydrocarbons during such passage.

2. The herein-described method of converting hydrocarbons into gas or vapor, which comprises passing such hydrocarbons along or through the pores of heated porous material, and simultaneously passing through such hydrocarbons an electric current in excess of that due to the flow and decomposition of the hydrocarbons.

3. Apparatus for converting hydrocarbons into gas or vapor, comprising a porous body, means for heating same, means for passing hydrocarbons along or through the pores of such body, and means for passing an electric current through the hydrocarbons.

4. Apparatus for converting hydrocarbons into gas or vapor, comprising a porous body, means for heating same, means for passing hydrocarbons along or through the pores of such body, and means for passing an electric current through the hydrocarbons, [illegible] gas electric generator.

5. Apparatus for converting hydrocarbons into gas or vapor, comprising a porous body, means for heating same, and means for passing hydrocarbons along or through the pores of such body, and for passing an electric current through the hydrocarbons, comprising [illegible] plates on opposite sides of the porous body and electrically [illegible]

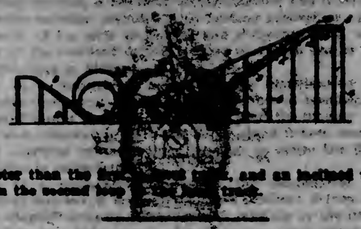


[illegible] electric current, a rotary fan [illegible] continuous flow of air, a [illegible] a continuous electrode [illegible] plate mounted on said frame and [illegible] said fan, a stationary continuous [illegible] thin dielectric interposed between [illegible] in close proximity to one of them and [illegible] over the entire area of discharge.

[Claims 6 to 20 not printed in the Gazette.]

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1,040,125. [illegible] Elmer G. Bennett, New London, Conn., assignor to Hydrocarbon Converter Company, New York, N. Y., a Corporation of Delaware. Filed Feb. 24, 1912. Serial No. 679,768. (Cl. 48—102.)



[illegible] meter than the [illegible] and an inclined tract from the second loop [illegible] trough.

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1,040,126. SUCTION APPARATUS FOR PAPER-MACHINES, &c. Arthur Preston Jones, South Manchester, Conn. Filed Feb. 10, 1912. Serial No. 676,852. (Cl. 92—54.)



1. In an apparatus of the character described, a main perforated cylinder, two opposed cylinders supporting rolls located interiorly thereof and [illegible] a stationary filler closing the [illegible] rolls and [illegible] a suction space between said rolls and [illegible] the cylinder therebetween and above the filler, a [illegible] passage extending longitudinally of said [illegible] communicating, with said suction space, [illegible] in communication with said [illegible]

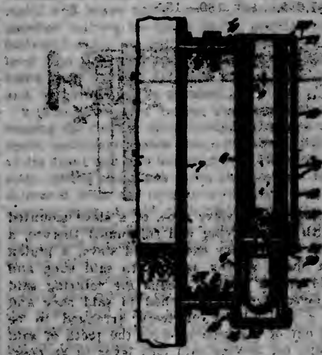
2. In an [illegible] described, a main perforated [illegible] cylinder supporting rolls [illegible] adapted to each other, a filler [illegible] between said rolls to form a suction space above said filler, between said rolls and underneath that [illegible] cylinder above said filler, a suction pipe [illegible] a passage formed in said filler portion communicating with said suction space above said.

3. In an apparatus of the [illegible] described, a main perforated cylinder, two opposed cylinders supporting rolls located interiorly thereof and [illegible] to each other and having a rotating frictional engagement with the [illegible] of said cylinder, a stationary filler closing the [illegible] rolls and [illegible] ally engaged therewith, forming a suction space between said rolls and [illegible] the cylinder therebetween and above the filler, a [illegible] passage extending longitudinally of said [illegible] communicating, with said suction space, [illegible] in communication with said [illegible]

4. In an [illegible] described, a main perforated [illegible] cylinder supporting rolls [illegible] adapted to each other, a filler [illegible] between said rolls to form a suction space above said filler, between said rolls and underneath that [illegible] cylinder above said filler, a suction pipe [illegible] a passage formed in said filler portion communicating with said suction space above said, and [illegible] apparatus, a water supply pipe, [illegible] of said [illegible]

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1,040,127. WATER-GAGE. Horace S. Bonesteel, Green Bay, Wis. Filed Sept. 26, 1911. Serial No. 651,297. (Cl. 73—32.)



1. In a water gage for steam boilers, the combination of a casing of non-magnetic metal having integral vertical guides formed on the inner surface and extending longitudinally thereof adapted to be connected in the steam and water spaces of the boiler, a float in the container, a magnet strapped to the upper end of the float and having one end arranged between the said vertical guides to prevent turning of the magnet and the float.

2. In a water gage for steam boilers, the combination of a container of non-magnetic metal having integral vertical guides formed on the inner [illegible] and extending longitudinally thereof and [illegible] to be connected to the steam and water spaces of the boiler, a float in the container, a hollow cylindrical magnet strapped to the upper end of the float and disposed in [illegible] relation thereto and having one end arranged between [illegible] guides to prevent turning of the magnet and the float.

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1,040,128. SUPERHEATER. Rhesa Thomas Baker, Glendale, N. C. Filed Feb. 20, 1912. Serial No. 678,844. (Cl. 122—32.)

[illegible] a water [illegible] and an opposite [illegible] downwardly [illegible]

[illegible] a transmitter movably supported by said last named bail, a receiver clasp, and means engaged by the



permanent fold for yieldingly connecting the drawer-tab to said strap.

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1,040,129. SIEVE-ADJUSTER FOR SIEVE-SHOES. Howard Bonsteel, Martell, Wis. Filed Oct. 30, 1911. Serial No. 657,616. (Cl. 130—18.)



The combination with a sieve shoe, of a sieve mounted in said shoe with its receiving end fulcrumed thereto, a shaft supporting the delivery end of said sieve, a pinion secured to said shaft, a rack secured to said shoe and with which said pinion meshes, means for rotating said pinion, a lock lever pivotally attached to said shoe and provided with a multiplicity of teeth arranged to be moved into and out of engagement with the teeth of said pinion, and means for locking said lock lever in an operative position.

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1,040,130. PIN-JOURNAL FOR PHOTOGRAPHIC CAMERAS. Carl Bornmann, Binghamton, N. Y., assignor to Anseo Company, Binghamton, N. Y. Filed Nov. 14, 1911. Serial No. 660,266. (Cl. 242—70.)



A pin journal for cameras embodying a plate having a centrally located and outwardly projecting hollow hub, a pin adapted to slide through the hollow hub and having radially spaced circumferential grooves, each having one vertical side and one inclined side, an enlarged head adapted to act as a handle for the manipulation of the pin and its under surface adapted to rest upon the outer end of the hollow hub and close the hole through it and a spring housed within a recess in the plate and adapted to enter the grooves in the pin, the grooves being so located that when the pin is pressed inwardly and held in with the head and consequently with the inner ends of the grooves and when the pin is released its spring will hold the inner surface of the head of the pin in contact with the outer end of the hollow hub and the inner ends of the grooves will engage the hub through the pin.

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1,040,131. ELECTRIC-LIGHT SOCKET. Thomas Arthur Cole, Bronx, New York, N. Y., assignor, by mesne assignments, to The Ree Socket and Mfg. Co., Boston, Mass., a Corporation of Massachusetts. Filed Dec. 2, 1911. Serial No. 663,542. (Cl. 173—322.)



1. The combination in an electric light socket of an insulating base, a screw shell, a separate screw shell support, and coöperating engaging surfaces on the base and separate screw shell support, adapted to hold together the base, the screw shell, and the screw shell support.

2. The combination in an electric light socket, of an insulating base, a screw shell, a separate center contact, and coöperating engaging surfaces on the base and center contact adapted to hold together the base, center contact and the screw shell.

3. The combination in an electric light socket of an insulating base, a screw shell, a support and coöperating locking surfaces on the support and the base adapted to hold the screw shell to the insulating base.

4. The combination in an electric light socket of an insulating base provided with locking surfaces, a screw shell, and a center contact provided with locking members to coöperate with the locking surfaces in the base to hold the screw shell to the base.

5. The combination in an electric light socket of an insulating base provided with one or more transverse slots to coöperate with a separate screw shell support, a screw shell, and a separate screw shell support provided with one or more wings to coöperate with the transverse slots.

[Claims 6 to 10 not printed in the Gazette.]

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1,040,132. MECHANICAL MOVEMENT AND ELECTRIC-LIGHT SOCKET. Thomas Arthur Carl Bond, New York, N. Y., assignor, by mesne assignments, to The Ree Socket and Mfg. Co., Boston, Mass., a Corporation of Massachusetts. Filed Dec. 30, 1911. Serial No. 668,682. (Cl. 172—248.)



1. In a mechanical movement the combination of a driving member, a separate mounted laterally movable driven



member adapted to move laterally with relation to the driving member, and independent pivoted means coöperating with the driving and driven members and actuated by the driving member to cause the driven member to move laterally.

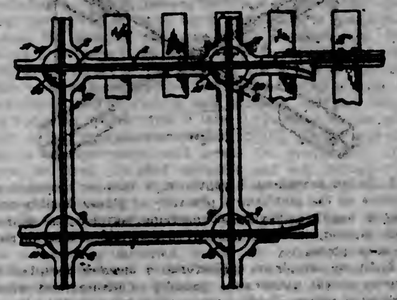
2. In a mechanical movement, the combination of a driving member, a laterally movable resilient driven member, and pivoted means mounted independently of the driving member and coöperating with the driving and driven members and actuated by the driving member to cause the driven member to move laterally.

3. In a mechanical movement, the combination of a driving member, a laterally movable resilient driven member adapted to move laterally with relation to the driving member, and independent pivoted means coöperating with the driving and driven members and actuated by the driving member to cause the driven member to move laterally.

[Claims 4 to 10 not printed in the Gazette.]

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1,040,133. RAILWAY-TRACK CONSTRUCTION. Walter Emerton and Owen H. Brown, Wilmington, Del. Filed Feb. 1, 1912. Serial No. 674,599. (Cl. [illegible]—69.)



1. A railway track structure comprising a base having a circular chamber and a rotatable circular insert fitting into said chamber, said base and insert having alined wheel flangeways, said base having an inwardly projecting flange and said insert having an outwardly projecting flange resting upon the flange of the base, and said insert and base having interlocking means below the flange engaging surfaces of the rail and insert.

2. A railway track structure comprising a base having a circular chamber and a rotatable circular insert fitting into said chamber, said base and insert having alined wheel flangeways, said base having an inwardly projecting flange and said insert having an outwardly projecting flange resting upon the flange of the base, and said insert and base having [illegible] below the flange engaging surfaces of the [illegible] insert, and said insert having an



inclined flange adapted to engage a lug thereon to limit the rotation of said insert.

3. In a railway track structure, a base having a circular chamber provided with an inwardly extending ring, and a rotatably mountable and rotatable circular insert fitting into said chamber and resting upon said ring, said insert having lugs and chamber and insert having interlocking lugs for holding the insert in position on the rotation thereof and also having alined wheel flangeways.

[Claims 4 to 10 not printed in the Gazette.]

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1,040,134. METHOD OF ROLLING TUBING. Richard B. Brown, Moorhead, Pa., assignor to Pittsburgh Steel Products Co., Pittsburgh, Pa., a Corporation. Filed Apr. 26, 1911. Serial No. 623,466. (Cl. 80—62.)



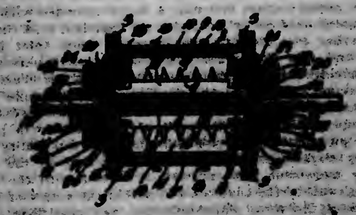
1. The method of rolling seamless tubing consisting in feeding the tubular blank through a pass of a mill having upper and lower passes onto a mandrel, withdrawing the mandrel leaving the blank in the position in which it was delivered from the rolls, moving the blank to a different level into line with another pass of said mill, passing the blank back through said last named pass onto a mandrel, and withdrawing the mandrel.

2. The method of rolling seamless tubing consisting in feeding the tubular blank through the pass of a mill having upper and lower passes onto a mandrel, rolling the mandrel at its front end and drawing it to the opposite side of the rolls, lifting the blank from the position in which it was delivered from the rolls to a different level into line with another pass of said mill, and passing the blank through said last named pass onto a mandrel, and withdrawing the last named mandrel through the pass to the opposite side of the rolls.

3. The method of rolling seamless tubing consisting in feeding the tubular blank through the pass of a mill having upper and lower passes onto a mandrel, withdrawing the mandrel through the rolls to the opposite side thereof, lifting the blank from the position in which it was delivered from the roll to a different level into line with another pass of said mill, returning said mandrel to its original position, passing said blank back through said last named pass onto another mandrel, and withdrawing said last named mandrel.

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1,040,135. ROTARY ENGINE. George Walker Brown, Latrobe, Pa. Filed Mar. 15, 1912. Serial No. 683,878. (Cl. 121—72.)



1. A rotary engine, including a stator having a cylindrical open-ended bodiless chamber provided with [illegible] circumferentially disposed steam inlet passages and [illegible]

...radially disposed exhaust passages, each having a...
...direct communication with said annular chamber...
...the walls of the cylinder, and each...
...having a portion of its...
...with the adjacent portion of the chamber...
...plate...
...the chamber, two partitions of the same...
...on the grooved portion of the rotor carried by the...
...and disposed between an inlet and an exhaust...
...to divide the chamber into two compartments, the...
...one of the partitions...
...with the grooved portion of the rotor, and...
...the passage of the plates as they...
...and have passed the partitions.

2. A rotary engine, including a stator, provided with a cylindrical open ended hexagon rotor chamber, said chamber having two diametrically disposed steam inlet passages and two diametrically disposed exhaust passages, two partitions, one disposed between each inlet and each exhaust passage and projecting into the chamber to divide said chamber at diametrical points into two steam compartments, a rotor provided with cylindrical ends fitted within the chamber of the stator, said cylindrical ends sealing the ends of and forming the body for the stator chamber, the intermediate portion of said rotor body of substantially the same length of the partitions being provided with circumferential grooves to form circumferentially parallel steam passages, the inner edge of each partition being fitted to correspond with the contour of the grooved portion of the rotor and to contact therewith, a plurality of radial blades slidably mounted in the body of the rotor and provided with reduced ends projecting beyond the cylindrical ends of the rotor, the outer edges of said blades being disposed to engage the inner peripheral wall of the rotor chamber, a fluid connected to the respective ends of the rotor and into which the reduced ends of the pistons project, a slidable rod in each reduced end of the pistons, mounted within said disk and projecting substantially therethrough and means operably connected to the outer ends of said rods for extending the rods to retract and project the pistons when passing and after having passed the partitions.

3. A rotary engine, including a stator provided with an open ended hexagon cylindrical rotor chamber, said chamber having two diametrically disposed steam inlet passages and two diametrically disposed exhaust passages, a cylindrical rotor [illegible] of either end of the chamber and having ends fitting and forming rotatable bends for the chamber and provided with an intermediate portion having a plurality of circumferential grooves, a plurality of pistons radially slidable on the body of the rotor for movement into and out of contact with the peripheral wall of the chamber, two partitions of substantially the same length as the grooved portion of the rotor, disposed at diametrically opposite points in the wall of the stator, adjusting means connected to said partitions for retaining the free ends of the partitions relatively to the grooved portion of the rotor, the inner edge of each partition conforming to and in contact with the grooved portion of the rotor, said means for retracting and projecting the pistons as they pass and have passed the partitions.

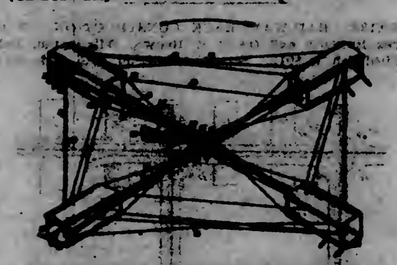
4. A rotary engine, including a stator provided with an open ended hexagon [illegible] rotor chamber, said chamber having two [illegible] steam inlet passages and one [illegible] exhaust passages, a cylindrical rotor [illegible] of either end of the chamber and having [illegible] ends fitting and forming rotatable heads for the chamber and provided with an intermediate portion having circumferential grooves to form [illegible] chamber to provide a [illegible] a plurality of radially slidable pistons [illegible] body of the rotor for movement into and out of contact with the peripheral wall of the chamber and within the spaces of the grooves of the rotor when retracted, two partitions disposed at diametrically opposite points in the wall of the stator, adjusting means connected to said partitions for retaining the same relatively to the grooved portion...

...adjusting means and means for operating the latter to retract and project the pistons as they pass and have passed the partitions.

[Claims 6 to 11 not printing in the Gazette.]

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1,040,288. GYROSCOPE. Max Hamm Brown, Grand Haven, Mich. Filed Aug. 8, 1911. Serial No. 643,770. (Cl. 244—10.)



1. In an aeroplane, a platform, a member mounted to revolve on the platform, a plurality of planes rigidly connected together, [illegible] between the planes and member, [illegible] supported by each plane.

2. In an aeroplane, a platform, a member mounted to revolve on the platform, a plurality of pivoted dual wheel supported planes, flexible connections between the planes, flexible connections between the planes and the revoluble member, and independent propelling means carried by each plane.

3. In an aeroplane, a platform, a member mounted to revolve on the platform, a plurality of rigidly connected biplanes, each rigidly connected with the said member, the planes of each biplane being spaced, propelling means in each biplane, means for tilting the biplanes forwardly, and means for tilting the planes of the biplanes [illegible]

4. In an aeroplane, a platform, a member mounted to revolve on the platform, a plurality of [illegible] connecting the platform and said member, propelling means in each biplane, means for tilting the biplanes with the platform [illegible] connecting the biplanes and said member with the connecting [illegible] and operated from the platform, the [illegible] tilting of the biplanes.

5. In an aeroplane, [illegible] a member mounted to revolve on the platform, [illegible] rigidly connected biplanes, each comprising upper and lower planes, propelling means in each biplane, [illegible] connecting the biplanes with the said member, [illegible] tilting the biplanes forwardly and rearwardly.

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1,040,289. GYROSCOPE. Max Hamm Brown, Grand Haven, Mich. Filed Aug. 8, 1911. Serial No. 643,771. (Cl. 244—10.)



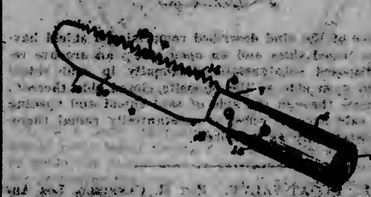
1. In a gyroscope, the combination with a frame, a gyrating head, a gyrating shaft, a slide upon which said shaft is carried, means for gyrating said shaft, a pivoted arm carrying said slide, a frame upon which said pivoted arm is mounted, a belt carried by said frame, said belt forming the pivot for the arm, a bifurcated extension on the pivoted arm, a circular way formed on the [illegible] extension, and means for [illegible] to move, the said extension and way [illegible] to that the cutting tool will be [illegible]

2. In a [illegible] pivoted arm, a cutting tool, a slide upon which [illegible] said tool, means for gyrating said shaft, a [illegible] frame upon which said slide is mounted, means for [illegible] pivoted arm, means for producing a relative [illegible] between the cutting tool and gear wheel, said teeth is completed, means for [illegible] predetermined distances after each tooth [illegible] is cut so as to prevent another part of the [illegible] by the action of the cutting tool, a bearing [illegible] and pivoted arm is mounted, a belt carried by said bearing, said belt forming the pivot for the arm, a flanged extension on the pivoted arm, a circular way formed on the [illegible] said engaging said extension, said means for [illegible] the pivoted arm [illegible] the cutting tool, and means for [illegible] proper intervals.

3. In a machine for operating upon blank plates of [illegible] blades, a slide upon which said plate is held, means for gyrating said shaft, a pivoted arm carrying said slide, a frame upon which said pivoted arm is mounted, a belt carried by said frame, said belt forming the pivot for the arm, a flanged extension on the pivoted arm, a circular way formed on the [illegible] said engaging said extension, said means for [illegible] the pivoted arm [illegible] the cutting tool, and means for [illegible] proper intervals.

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1,040,182. KNIFE. Samuel H. Buck, Spring Bay, Ontario, Canada. Filed June 16, 1911. Serial No. 633,539. (Cl. 30—[illegible])



A knife comprising a handle slotted to receive the shank of a knife blade, and a knife blade having a longitudinal cutting edge provided adjacent to the shank and handle with curvatures to form a gripping portion, said blade having the longitudinal edge opposite the cutting edge provided with a series of teeth, the free end of said blade being straight and provided with a series of relatively fine scraping teeth.

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1,040,190. HOOK-SUPPORTED SHARP. Delmar H. Bull, Bridgeport, Conn. Filed June 20, 1910. Serial No. 568,208. (Cl. 24—248.)



In a garment clasp the combination of a rear plate and a coöperating front plate, said rear plate being provided intermediate of its length, with an outstanding loop [illegible] having a curved shoulder on its underside, the [illegible] end of the said plate being turned upwardly to engage the lower edge of the front plate, a resilient [illegible] the upper end of the rear plate, passing behind said loop and around the upwardly turned lower portion thereof, said lower portion being bent and [illegible] the end of the resilient [illegible] being secured to the body of the rear plate, said plate being covered at its top to said resilient [illegible] a transverse slot therein, to receive the [illegible] of the garment, the lower edge of the [illegible] engaged in the lower [illegible] of the front plate, the [illegible] of the rear plate, that is downwardly [illegible] normally contacting with [illegible] of the front plate, [illegible] of the front plate [illegible] said rear plate, said [illegible] being adapted to contact with the [illegible] of the rear plate and the [illegible] being [illegible] the said rear plate, said [illegible] and [illegible] of the transverse slot of the front plate [illegible]

direction of the loop on the rear plate, when the plates are closed together, substantially as described.

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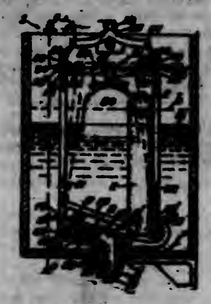
1,040,140. HEARING APPLIANCE. John Dunning, Chicago, Ill. Filed Mar. 13, 1912. Serial No. 683,422. (Cl. 128—866.)



A device of the kind described comprising a shield having three closed sides and an open side; an arcuate reflector disposed substantially diagonally in said shield from said open side to the opposite closed side thereof; air passages through the side of said shield and opening through said arcuate reflector substantially radial therewith, substantially as described.

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1,040,141. FLOAT-VALVE. Roy H. Canfield, Los Angeles, Cal. Filed May 26, 1911. Serial No. 629,809. Serial No. 630,809. (Cl. 137—104.)



1. The combination with a reservoir, of a supply valve body having a valve seat and an outlet, a valve ping to close the seat, two pivoted levers connected together one being connected with the valve ping, a float, and arms connecting the float with the levers to operate said levers, said arms being adapted to come into alinement with each other and said valve being arranged to close when the arms are alined.

2. The combination with a reservoir, of a supply valve body having a valve seat, a valve ping to close the seat, two pivoted levers connected together one being connected with the valve ping, a float, and lever arms and pivots connecting the float with said levers to operate the levers to open and close the valve; said arms being provided with bent steel having upright and horizontal arms for the pivots which construct the arms and their levers.

3. The combination with a supply valve, of two pivoted levers, one of which is connected below its fulcrum with the valve to open and close it, a connecting rod connecting one of the levers above its fulcrum with the other lever below its fulcrum; arms pivotally connected respectively with the levers above their fulcrums, a float, and means pivotally connecting the arms and the float between the pivots to draw the upper ends of the levers toward each other to open the valve by the float falls, and to close the valve on the upward movement of the float.

4. The combination with a reservoir, of a supply valve body having a valve seat, a valve ping to close the seat, two pivoted levers connected together, one of said levers being connected with the valve ping, a float, and connecting rods and arms connecting the float with the levers to operate said levers, said arms being adapted to come into alinement with each other and said valve being arranged to close when the arms are alined, substantially as described.

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1,040,142. LUBRICATOR. Parley H. Caraway, Watseka, Ill. Filed Mar. 5, 1912. Serial No. 681,745. (Cl. 184—66.)

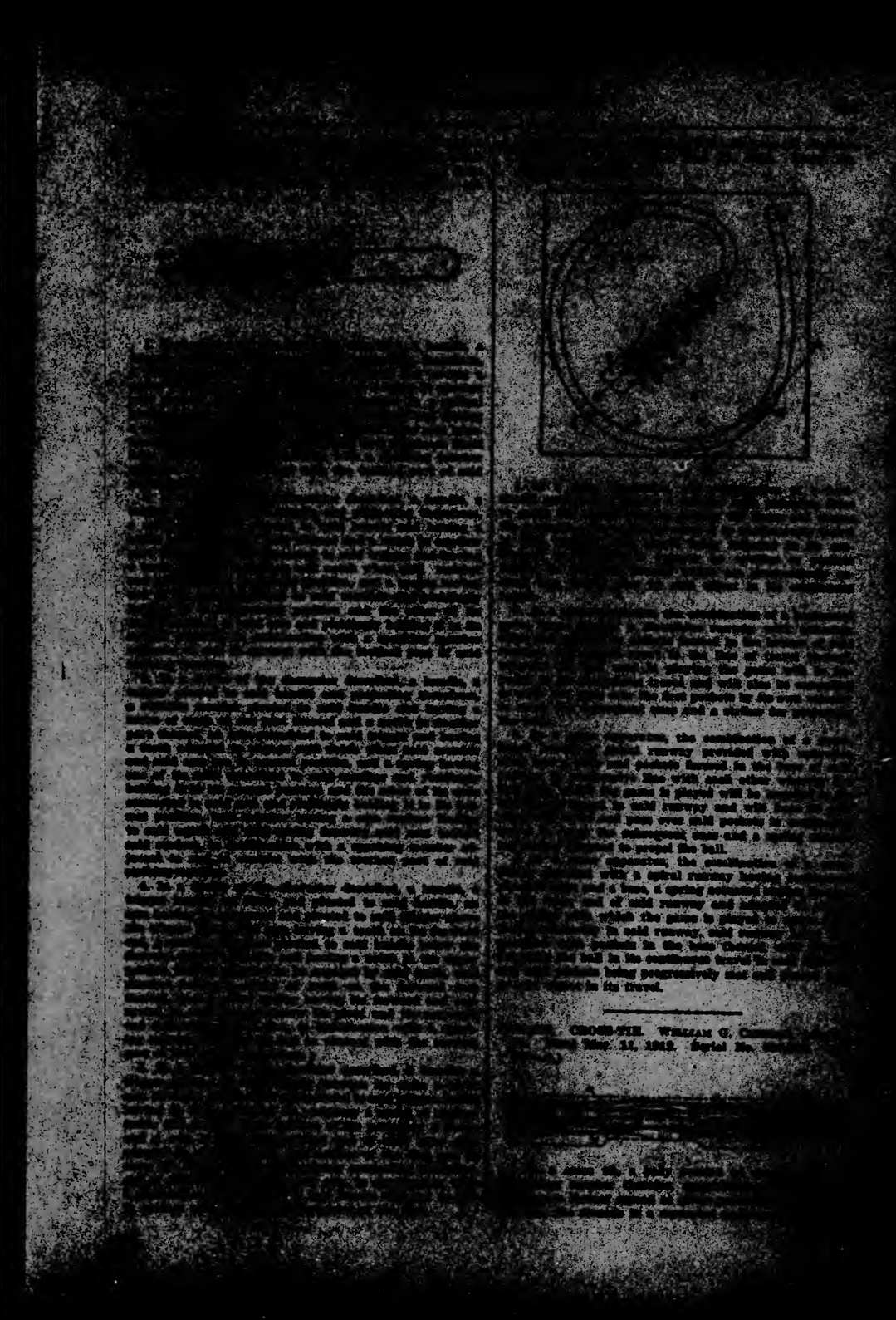


1. A lubricator comprising a reservoir formed of transparent material and adapted to contain a quantity of lubricating material, a sight tube within said reservoir, and a trap formed by the lower part of said reservoir.

2. A lubricator comprising a reservoir formed of transparent material and adapted to contain a quantity of lubricating material, a sight tube within said reservoir and in communication therewith, means controlling the communication between said sight tube and reservoir, and a trap formed by the lower portion of said reservoir adjacent the sight tube therein.

3. A lubricator comprising a transparent reservoir formed with a frusto-conical bottom portion and a cylindrical top portion, said top portion being provided with a centrally arranged opening, a neck projecting upwardly from said top portion concentrically of the opening therein, a valve tube arranged within the opening and depending into the reservoir, a valve within said tube and provided with a stem projecting outwardly of the reservoir, a hand-wheel upon the stem, a cover plate upon the stem and fastening the opening in the upper portion of the reservoir, a spring encircling the stem intermediate the hand wheel and cover plate, means carried by the said neck and in engagement with the hand wheel to prevent accidental turning movement thereof, and a sight tube within the reservoir and adapted to have communication therewith.

4. A lubricator comprising a reservoir, a valve within the reservoir, a sight tube within the reservoir and adapted to have communication therewith by means of said valve, a chamber within communication with the sight tube and projecting outwardly of the reservoir, a cap carried by said pipe and adapted to engage the lower portion of the reservoir, and a trap formed by the lower portion of said reservoir and the cap adjacent the sight tube.

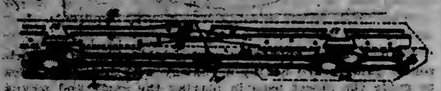


4. A [illegible] of a body portion of concrete, and a [illegible] having a chamber, supporting a plurality of tubes [illegible] for a portion of their length and embedded at [illegible] by a body of concrete formed [illegible] of the [illegible] of the tie.

4. A [illegible] comprising a cable the strands of which are spread at [illegible] and a body of porous material for retaining the strands in a separated position such material being inserted in a compressed condition.

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1,940,142. CROSS-TIE. William G. Chenery, Atlanta, Ga. Filed Mar. 12, 1912. Serial No. 683,264. (Cl. 238—8.)



2. Tie in order the, a body portion of concrete, and a reinforcing device therefor, said body portion being formed of [illegible] and embedding by the reinforcing device, and a casing for the reinforcing device, surrounding the latter at a point between the sections of the body portion and projecting into each of said sections, such casing being [illegible].

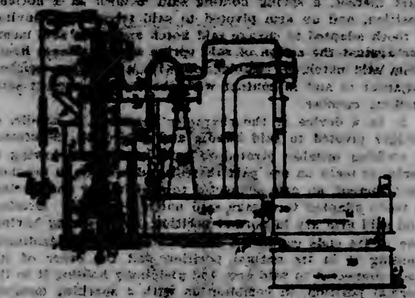
3. A tie comprising a body portion formed in sections, a plurality of transverse reinforcing members for connecting the sections, each of said members comprising a tubular body for retaining material and a body of concrete between the separated [illegible] thereby, and a tubular fabric member of non-corrosive material surrounding said tubes and having its adjacent ends embedded in adjacent ends of the tie sections.

4. A flexible joint for concrete reinforcement, comprising a member adapted to reinforce a plurality of bodies of concrete slightly separated from one another, and a flexible casing for the joint, formed of non-corrosive material the ends of the casing being embedded.

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1,940,247. SEWER FOR CLEANING EXPLOSIVE-ENGINE CYLINDERS. Andrew McClymont, Toledo, Ohio. Filed Nov. 13, 1911. Serial No. 660,240. (Cl. 123—182.)





1. The combination in a gas producer of a fuel valve; means for rotating the valve in a constant direction; means for allowing the valve to shift during the said rotary movement and means operable by the fuel and moved by the said rotating means for effecting a movement of the valve upwardly through the fuel.

2. The combination in a gas producer of a fuel valve; means for moving the valve in a constant direction to mix the fuel; means for allowing the valve to shift during the said rotary movement; and fluids moved by said movement moving means to raise the valve upwardly through the fuel.

3. The combination in a gas producer of a fuel valve; means for moving the valve in a constant direction to mix the fuel; means for allowing the valve to shift during the said rotary movement; and means carried by the said valve and moved by the said constant moving means to raise the said valve upwardly through the fuel.

4. The combination in a gas producer, of a fuel valve; means for imparting a rotary movement in a constant direction to the valve, said valve having a spiral groove; means for allowing the said valve to move upwardly during the said rotary movement; and means for moving the said valve upwardly through the fuel.

5. The combination in a gas producer of a fuel valve; means for rotating the valve in a constant direction; means for allowing the valve to shift during the said rotary movement; and means operable by the said rotary movement for moving the said valve upwardly through the fuel.

6. The combination in a gas producer of a fuel valve; means for rotating the valve in a constant direction; means for allowing the valve to shift during the said rotary movement; and means operable by the said rotary movement for moving the said valve upwardly through the fuel.





2. A circuit-[illegible] circuit-closing members, an op[illegible] rotatable actuating-member, [illegible] connecting [illegible] actuating-member, [illegible] ward to [illegible] the retarding [illegible] ward rotation [illegible] by the [illegible] so that [illegible] means for [illegible] sleeve, [illegible] when [illegible] device, substantially [illegible]

3. A circuit-closing device consisting of stationary members, an operating-device, [illegible] actuating-member, an actuating-connecting [illegible] device with [illegible] connection, means for moving the actuating-member [illegible] said spring, means to arrest the operating-device [illegible] said spring to be wound by the actuating-member, [illegible] to be moved by the operating-device to disengage [illegible] the actuating-member [illegible] the actuating-member [illegible] been moved forward [illegible] substantially as described.

4. A circuit-closing device consisting of [illegible] members, an operating-device, [illegible] actuating-member, an [illegible] connecting [illegible] device with [illegible] connection, means for moving the actuating-member [illegible] said spring, means to arrest the operating-device [illegible] said spring to be wound by the actuating-member, [illegible] to be moved by the operating-device to disengage [illegible] the actuating-member [illegible] the actuating-member [illegible] been moved forward [illegible] and means arranged on the operating-member to [illegible] said operating-device [illegible] of the operation, substantially as described.

5. A [illegible] comprising [illegible] members, an operating-device, [illegible] actuating-member, [illegible] connecting [illegible] device with [illegible] connection, means for moving the actuating-member [illegible] said spring, means to arrest the operating-device [illegible] said spring to be wound by the actuating-member, [illegible] to be moved by the operating-device to disengage [illegible] the actuating-member [illegible] the actuating-member [illegible] been moved forward [illegible] and means arranged on the operating-member to [illegible] said operating-device [illegible] of the operation, substantially as described.

6. A [illegible] comprising [illegible] members, an operating-device, [illegible] actuating-member, [illegible] connecting [illegible] device with [illegible] connection, means for moving the actuating-member [illegible] said spring, means to arrest the operating-device [illegible] said spring to be wound by the actuating-member, [illegible] to be moved by the operating-device to disengage [illegible] the actuating-member [illegible] the actuating-member [illegible] been moved forward [illegible] and means arranged on the operating-member to [illegible] said operating-device [illegible] of the operation, substantially as described.

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1. An [illegible] [illegible] casing with an opening through [illegible] closed outer [illegible] said opening, [illegible] interior of [illegible] opening so [illegible] a section of [illegible] wire passes across the exterior of the closet and of the outlet.

2. An [illegible] fuse having a tubular casing with an opening through one side, an [illegible] closed outer end formed from the [illegible] said opening, an [illegible] wire attaching [illegible] the interior of the casing and formed by said [illegible] into the opening to a position [illegible] said [illegible] of the closet and of the outlet, and [illegible] [illegible] through the [illegible] [illegible] located [illegible] [illegible] with the [illegible] [illegible] of the wire.

3. An [illegible] fuse having a tubular casing with an opening through one side, an outlet with a flared tubular edge [illegible] closed outer end forming a [illegible] opening through the side of the tube, and the [illegible] wire extending along the interior of the casing and over the [illegible] of the outlet.

4. An [illegible] fuse having a tubular casing with [illegible] opening through one side, an [illegible] outlet [illegible] along the interior and having its [illegible] [illegible] opening, and [illegible] [illegible] [illegible]

6. The combination of an insulating body provided with an integral transversely extending barrier and means for supporting the body, conducting terminals surrounding the walls of the body, means for clamping the ends of a fuse link to said terminals, and a fuse link clamped to said terminals.

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1,040,182. CIGAR-BOX. CHARLES M. CHRISTENSON, Richmond, Cal. Filed June 20, 1911. Serial No. 634,267. (Cl. 131—11.)



1. In combination with a cigar box adapted to contain cigars united by a band, a guard mounted in the said box adjacent to an opening therein, the said band being positioned between the said guard and the said opening.

2. In combination with a cigar box adapted to contain cigars united by a band, a guard mounted in the said box adjacent to an opening therein, the said band being positioned between the said guard and the said opening and means engaging with the under side of the box to close the opening therein.

3. In combination with a cigar box adapted to contain cigars united by a band, a guard mounted in the said box adjacent to an opening therein, the said band being positioned between the said guard and the said opening and a frangible seal secured to the under side of the box to close the said opening.

4. In combination with a cigar box provided with a slit normally closed by a frangible seal, the said box being adapted to contain cigars united by a band, a guard mounted in the said box adjacent the said opening, with the said band arranged to pass between the said opening and the said guard.

5. In a box provided with an opening and adapted to contain articles united by a reversible band, protecting means mounted adjacent the said opening and between the said articles and the said band.

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1,040,153. INTERNAL-COMBUSTION ENGINE. NORMAN H. CROTHERS, Chicago, Ill. Filed Jan. 20, 1912. Serial No. 674,284. (Cl. 123—65.)



In an internal-combustion engine, a working cylinder having an exhaust port, a pump-cylinder in axial alignment with the working-cylinder and having a fuel inlet, a plunger working in the pump-cylinder, the space on one side of the plunger being a fuel-mixture reservoir, a closure for the outer end of the pump cylinder, said closure having a cylindrical extension into the bore of the pump-cylinder, the diameter of said bore being greater than the bore of the working-cylinder, a piston in the working-cylinder, said piston having a hollow cylindrical extension into the pump-cylinder and fitting around the aforesaid closure-extension, said cylindrical extension carrying the aforesaid plunger, and having a port which passes the closure-extension at the end of the outward stroke of the piston and the plunger.

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1,040,154. CUSPIDOR. ELMER F. CRIAN, De Ridder, La. Filed Dec. 13, 1911. Serial No. 665,449. (Cl. 4—10.)



1. In flushing apparatus for cuspidors, a hollow member, a liner of frusto-conical shape having a notched upper edge and communicating with said hollow member, a gasket on said member and fitted beneath the liner, means for moving the member and the liner relatively to effect a liquid tight connection between the liner and the member, a waste pipe communicating with said member, and a water supply pipe entering the notched upper edge of said liner.

2. In flushing apparatus for cuspidors, a hollow member, a liner communicating with said hollow member, a gasket on said member and fitted beneath the liner, a waste pipe communicating with said member, a water supply pipe entering the liner, a casing embracing the liner, said means on the casing adjustable to engage against the liner to move the same and said member relatively to effect a liquid tight connection therebetween.

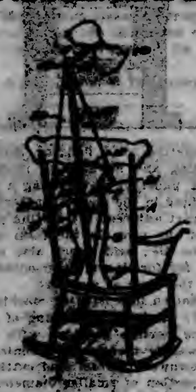
3. Flushing apparatus for cuspidors, comprising, a hollow member having a gasket seat, a gasket fitted to said seat, a liner seated at one end against the gasket, a waste pipe connected with said member, a supply pipe having a removable spray portion located within the liner, a casing and a guard overhanging said spray portion, the said guard bearing against the liner and adjustably connected with said casing whereby relative adjustments of the latter and said hollow member can be effected to form a liquid tight connection therebetween.

4. In a flushing apparatus for cuspidors, a hollow member, a liner having vertical slots in its upper edge, a spray pipe, a water supply pipe connected with said spray pipe, means carried by said spray pipe for entering the notches of the liner and supporting the spray pipe within said liner at the upper end thereof, a waste pipe connected with the said hollow member, and means for connecting the liner and the member together to effect a liquid tight connection therebetween, the said means including an annular guard embraced by the liner and extending over the said spray pipe.

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1,040,155. FAN ATTACHMENT FOR ROCKING-CHAIRS. JOSEPH CHAPMAN, Galveston, Tex. Filed June 10, 1912. Serial No. 702,402. (Cl. 230—3.)

The combination with a chair, of a vertically extending post secured to the back of said chair, a shaft rotatably journaled in the upper end of said post, a fan carried by said shaft, a horizontally disposed lever pivoted between the sections of the chair, a substantially bowed frame secured to the back of the chair and supporting a bell crank pivotally from the back and a substantially bowed frame secured to the rear ends of the latter and pivoted to the free ends of the latter, said bowed frame and having a portion thereof passing for pivoted connection of the semicircular bowed frame with the back of the chair



and rod and secured to their pivotal connection, with the opposite end in fast to one of the arms radiating from the hub of the frame, a spring tensioned cable connected to the rear of the latter and to the frame, a pulley at the end of the bar chair, and a drive belt connected to the axle of the bowed frame and trained over said pulley, to turn the fan in reverse direction according to the movement of the chair.

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1,040,156. WINDOW-SASH LOCK. WILLIAM CUNNINGHAM, New York, N. Y. Filed Oct. 9, 1911. Serial No. 653,257. (Cl. 16—112.)



1. A horizontal bolt having an eye at one end and adapted to be movably connected to a lever sash, a plate provided with a plurality of apertures and adapted to be connected to an upper sash in position for the apertures to be engaged one at a time with the horizontal bolt, and a bolt mounted for vertical movement in position to be engaged with the eye of the horizontal bolt.

2. A horizontal bolt having a threaded eye at one end and adapted to be movably connected to a lower sash, a plate provided with a plurality of apertures and adapted to be connected to an upper sash in position for the apertures to be engaged one at a time with the horizontal bolt, and a threaded bolt mounted for vertical movement in position to be engaged with the threaded eye of the horizontal bolt.

3. A locking attachment to be connected to a lower sash, a plate having a plurality of apertures and adapted to be connected to an upper sash, a horizontal bolt having a threaded eye and mounted in said locking and engaging the apertures of said plate one at a time, and a threaded vertical bolt adapted to be movably connected to a window frame and adapted to engage the threaded eye of the horizontal bolt.

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1,040,157. WHEEL FOR VEHICLES. WILLIAM DALTON, Schenectady, N. Y. Filed June 13, 1912. Serial No. 703,110. (Cl. 21—64.)



1. In a vehicle wheel, the combination of a hub, a wheel, a loosely mounted driving gear, and a plurality of radially disposed springs having end engagement with the hub and rim and intermediate engagement with the driving gear, to effect an elastic transmission of power from the driving gear to the wheel.

2. In a vehicle wheel, the combination of a hub, a rim, a loosely mounted driving gear, a plurality of radially disposed springs connected at their ends to the hub and rim of the wheel, and connections coupling the driving gear to the springs intermediate of their ends.

3. In a vehicle wheel, the combination of a hub, a rim, a driving gear mounted loosely on an extension of the hub, a plurality of centered seats on the hub, a plurality of radially disposed plate springs connected at their ends to the rim and said seats at their ends, and connections [illegible] the driving gear intermediate of their ends.

4. In a vehicle wheel, the combination of a hub, a rim, a drum fixed to and constituting an extension of the hub, a driving gear drum carrying a driving gear mounted loosely on the hub drum, a plurality of radially disposed plate springs connected at their ends to the hub and rim, and bands fitting said springs intermediate of their ends and engaging teeth on the exterior face of the driving gear drum.

(Claims 5 to 9 not printed in the Gazette.)

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1,040,158. SLUICE AND FLOOD-GATE. [illegible], Conways, Swalk, England. Filed [illegible], 1912. Serial No. 668,469. (Cl. 61—46.)

1. In combination, a dam sluice or flood gate and a [illegible] means responsive to rise of head water to cause the buoyancy of said gate to [illegible] movement thereof to open the same.

which the said member is connected, a sector fixed relatively to said sliding and rotary member, the sliding member to which is connected the indicator of the range finder, means for holding the latter in adjusted position, means for connecting said sliding member with the sector, and means whereby the sliding of the said member shall cause the said sector to move in the same or opposite direction.

3. In sighting apparatus for ordnance, the combination with a sight, means for setting the sight, and the pointer, of an electric motor mounted on a stationary part of the apparatus, means for connecting said motor with the pointer, and means whereby the setting of the sight causes the said pointer to move in the same or opposite direction.

4. In sighting apparatus for ordnance, the combination with a sight, means for setting the sight, and the pointer, of an electric motor mounted on a stationary part of the apparatus, means for connecting said motor with the pointer, a drum contiguous to which said pointer moves, and means whereby the setting of the sight causes the said drum and the pointer to be displaced to return the latter to its zero or starting position.

[Claims 5 to 9 not printed in Gazette.]

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1,040,162. SIGHTING APPARATUS FOR ORDNANCE. ARTHUR GEORGE BUCHANAN, Westminster, London, England, assignor, by mesne assignments, to Williams, Limited, Coventry, England. Original application filed Apr. 6, 1910, Serial No. 553,814. Divided and this application filed May 6, 1911. Serial No. 625,537. (Cl. 89—32.)



1. In sighting apparatus for ordnance, the combination with the sight, the means for setting the sight, and the pointer, of an electric motor mounted on a stationary part of the apparatus, means for connecting said motor with the pointer, and means whereby the setting of the sight causes the said pointer to move in the same or opposite direction.

2. In sighting apparatus for ordnance, the combination with the sight, the means for setting the sight, and the pointer, of an electric motor mounted on a stationary part of the apparatus, means for connecting said motor with the pointer, a drum contiguous to which said pointer moves, and means whereby the setting of the sight causes the said drum and the pointer to be displaced to return the latter to its zero or starting position.

3. In sighting apparatus for ordnance, the combination with the sight, the means for setting the sight, and the pointer, of an electric motor mounted on a stationary part of the apparatus, helical line connecting said motor with the pointer, a drum contiguous to which said pointer moves, and means whereby the setting of the sight causes the said drum and the pointer to be displaced to return the latter to its zero or starting position.

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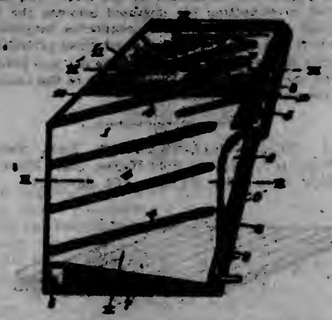
1,040,163. DRAFT ATTACHMENT. ARCHIBALD H. DU GROSS and CHESTER A. CHAMBERS, Pine River, Wis. Filed Mar. 20, 1912. Serial No. 685,180. (Cl. 55—97.)



A device of the character described, having an arched bar having a plurality of openings formed therein at each

end, lower diagonally spaced rods at each end, lower diagonally spaced rods at each end, lower diagonally spaced rods at each

fronted across the upper end, either overspill transverse of the longitudinality of the table, and a plateau having its surface above but substantially parallel with the plateau surface and arranged to intercept the flow of overspill so that the effectiveness of the table, the lower edge of the plateau constructed to protect a comparative straight wall to the onward movement of the material.



3. A concentrating table downwardly inclined from its head and upwardly inclined from its rear side, in combination with means for uniformly distributing material across the upper end of the table, a plateau having its surface above but substantially parallel with the general surface of the table and arranged intermediate the mineral discharge of the table and the normal line of separation of the gangue and minerals.

4. In a concentrating apparatus, a table having a downward inclination from its head and an upward inclination from its rear side, in combination with a plateau substantially parallel with the surface of the table, and arranged intermediate the head of the table and the mineral discharge edge and adjacent to the front side of the table, riffles extending transverse of the table from the rear side toward the plateau and mineral discharge edge, means for feeding material uniformly along the upper end of the table, and means for feeding water onto the plateau adjacent to its upper end.

5. In a concentrating apparatus, a table having a downward inclination from its head and an upward inclination from its rear side and having its mineral discharge edge sloping its front side and adjacent to its lower end, in combination with a plateau substantially parallel with the surface of the table and arranged intermediate the head of the table and the mineral discharge edge, riffles extending transverse of the table from the rear side toward the plateau and mineral discharge edge, portions of the surface both of the mineral discharge and the lower end of the table having a downward inclination toward each side and lower end respectively, means for feeding material uniformly along the upper end of the table and means for feeding water onto the plateau adjacent to the upper end.

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1,040,166. OVERSHOE FOR HORSES. CHARLES G. DELANO, Taunton, Mass. Filed Sept. 28, 1911. Serial No. 651,737. (Cl. 168—30.)

1. An overshoe of the character described, having a body portion shaped to conform with the ordinary horseshoe and provided at the toe portion thereof with a pocket for the toe-calk of the ordinary shoe, and with a standing flange disposed in line with said pocket to rest against the inner side of the horseshoe when the toe-calk thereof is deposited in said pocket; a loop adjustably mounted in the overshoe and shaped to confirm the toe portion of the heel of the horse-wearing the overshoe; a cross-bar adapted to rest upon said horseshoe and provided with recesses to receive the heel portions of said horseshoe, to prevent said cross-bar from moving forward; clamping means for connecting in engaged clamping relation with said horseshoe said overshoe and said cross-bar; and a bracket plate extending across the heel portion of said overshoe, said plate provided with an elongated slot to receive said clamping means, to permit adjustment thereof longitudinal said shoe.

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1,040,167. COMB. HERMAN L. DE MOSS, Philadelphia, Pa. Filed Jan. 19, 1912. Serial No. 672,067. (Cl. 34—26.)



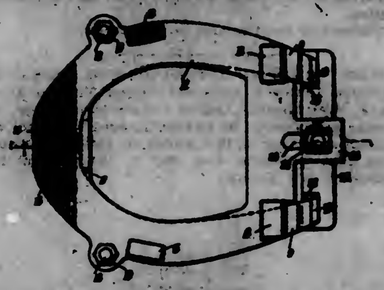
1. A device of the class described comprising a casing, a handle for the casing, a comb body secured to the casing, a heating member slidably mounted within the said casing and means for limiting the outward movement of the heating member.

2. A device of the class described comprising a casing, a handle for the casing, a comb body secured to the casing, a heating member slidably mounted within the said casing, means for limiting the outward movement of the heating member and means for grounding the said heating member in heated position within the casing.

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1,040,168. MEANS [illegible] MECHANISM FOR PAPER-MAKING [illegible]. ROBERT G. DEMMON and VINCENT GRANGE, Fond Rivers, N. Y., assignors to Demmon Fibber Company, Fond River, N. Y., a Corporation of New York. Filed Jan. 4, 1911. Serial No. 600,705. (Cl. 162—56.)

1. In a [illegible] of the character described, the combination of a sheet conveyer, a bracket fixed with relation



to said conveyer, [illegible] sheet registering gage mounted upon said bracket, with a sheet registering blade supported beneath the plane of feed of the conveyer and movable back and forth transversely of the line of feed, a rocking lever pivoted to said fixed bracket, a friction wheel journaled on said lever above said registering blade, and a movable stop finger adapted to periodically move into and out of engagement with said lever for limiting the initial movement of the wheel toward the registering blade and timing its engagement with [illegible] blade.



2. In a mechanism of the character described, the combination of a sheet conveyer, a bracket fixed with relation to said conveyer, and a sheet registering gage mounted upon said bracket, with a sheet registering blade supported beneath the plane of feed of the conveyer, a reciprocating bar supporting said blade, and movable back and forth transversely of the line of feed, a rocking lever journaled in said fixed bracket, a friction wheel journaled in said rocking arm and supported thereby above said registering blade, and a finger carried by said reciprocating bar adapted to impinge upon said lever to limit the movement of the wheel toward said blade.

3. In a mechanism of the character described, the combination of a sheet conveyer, a bracket fixed with relation to said conveyer, a registering gage upon said bracket, a reciprocatory bar mounted adjacent to said bracket and extending transversely of the conveyer, a sheet registering blade carried by said bar and supported beneath the plane of feed of sheets, a lever journaled in said bracket, an arm upon said lever, a friction wheel journaled in said lever and supported thereby above said registering blade, an arm projecting from said reciprocatory bar, and a link pivotally mounted upon one of said arms and having pin and slot connection [illegible] said other arm.

4. In a mechanism of the character described, the combination of a sheet conveyer, a registering gage upon said bracket, a reciprocatory bar mounted adjacent to said bracket and extending transversely of the conveyer, a sheet registering blade [illegible] by said bar and supported beneath the plane of feed of sheets, a lever journaled in said bracket, a friction wheel journaled in said lever and supported thereby above said registering blade, a post projecting from said reciprocatory bar, and a link pivotally mounted upon said post and having pin and slot connection with said lever arm.

5. In a mechanism of the character described, the combination of a sheet conveyer, a bracket fixed with relation to said conveyer, a registering gage upon said bracket, a reciprocatory bar mounted adjacent to said bracket and extending transversely of the conveyer, a sheet registering blade carried by said bar and supported beneath the plane of feed of sheets, a lever journaled in said bracket, a friction wheel journaled in said lever and supported thereby above said registering blade, a post projecting from said reciprocatory bar, means operating upon said bar for rocking said lever, a finger carried by said bar, and a projection upon said lever adapted to be periodically engaged by said finger for limiting the movement of said lever in one direction.

[Claims 6 to 8 not printed in Gazette.]

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1,040,169. SAND-[illegible]. [illegible] B. DUNNAVANT, Enid, Okla. Filed Dec. 29, 1913. Serial No. 808,666. (Cl. 166—224.)

1. The combination of a boiling chamber including a hinged top, a presser head arranged in said chamber,



gravity means connected to the presser head to normally position the same in the upper end of the chamber, means connected to the presser head to force the same downwardly in said chamber upon the material to be baled, and means secured to the under side of said top to maintain said presser head to the top whereby the head is moved out of the baling chamber when the top is moved to its open position.



2. The combination of a baling chamber having a hinged top, a presser head in said chamber, gravity means suspended from the top of the baling chamber and connected to said presser head to normally position the same in the upper end of the chamber, manually operable means connected to the presser head to force the same downwardly in said chamber upon the material to be baled, and means secured to the under side of said top to maintain said presser head to the top whereby the head is moved out of the baling chamber when the top is moved to its open position.

3. The combination of a baling chamber including a hinged top, a presser head in said chamber, gravity means connected to the presser head to normally maintain the same in the upper portion of the chamber, a shaft, a flexible connection between the shaft and the presser head, means for rotating said shaft to move the presser head downwardly in the chamber and compress the material therein, and means carried by said top to engage said flexible connection at its point of attachment to the presser head whereby the presser head is moved out of the baling chamber when the top is lifted to its open position.

4. The combination of a baling chamber including a hinged top, a presser head arranged in said chamber, gravity means mounted upon said top and connected to the presser head to normally position said head in the upper portion of the chamber, manually operable means and a connection between the same and the presser head to move the presser head downwardly upon the material to be baled, a movable door arranged in said top, and means carried by said door to engage the connection between the operating means and the presser head whereby said presser head is moved out of the baling chamber when the top is lifted to its open position.

5. The combination of a baling chamber including a hinged top, a presser head in said chamber, gravity means mounted upon the top and connected to said presser head to normally position said head in the upper portion of the chamber, a shaft, drums thereon, a flexible connection between said drums and the presser head, means for rotating the shaft in [illegible] the presser head downwardly upon the material to be baled, a movable door arranged in said top, and a hook fixed to the [illegible] side of the door to engage said flexible connection between the drum shaft and the presser head, whereby said presser head is moved out of the baling chamber when the top is lifted to its open position.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,170. INK-DISTRIBUTING ROLLER FOR PRINTING-PRESSES. WILLIAM DURRICK, Chicago, Ill. Filed July 12, 1906. Serial No. 326,141. (Cl. 101—[illegible].)



1. In a device of the class described, a [illegible], a shaft considerably smaller in diameter than the diameter of

said roller secured against rotation and longitudinal movement extending concentrically through said roller with its ends extending beyond the ends of the roller, bearings rigidly secured in the ends of said roller, forming a closed internal recess or cavity within said roller and about said shaft, means within said recess or cavity to move the roller longitudinally when it is rotated, a transverse slot in said shaft near each of its ends, brackets mounted on the ink roller, yokes provided with a wide and narrow connecting slot mounted on said brackets, the slotted portions of said shaft entering the narrow slots and the unslotted extremities of said shaft entering the wide slots, so as to hold said shaft against rotation and longitudinal movement, and springs to press against said shaft ends.

2. In a device of the class described, a roller mounted to move longitudinally when rotated, a shaft extending through said roller with its ends extending beyond the ends of the roller, a transverse slot in said shaft near each of its ends, brackets mounted on the ink roller, yokes provided with a wide and narrow connecting slot, the slotted portion of said shaft entering the narrow slot and the unslotted extremity of said shaft entering the wide slot, so as to hold said shaft against rotation and longitudinal movement, and a spring pressed rod in said brackets to press against said shaft ends.

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1,040,171. STOVEPIPE AND COLLAR HOLDER. FLOYD S. DIVAN, Newark, Ohio. Filed Sept. 21, 1911. Serial No. 650,496. (Cl. 126—316.)



1. In a device of the class described, the combination with a stove pipe section whose extremity is adapted to pass into a hole in a wall, and a dished collar surrounding said section over the outer end of said hole; of a holder made of strap iron and adapted to extend through the hole and having its inner end bent into a hook resting against the inner face of the wall, means on its body for engaging the inner extremity of said pipe section, and its outer end bent downward at right angles within said collar into a foot, thence toward the wall at right angles, and thence again downward into a toe resting against the outer face of the wall, a nut held from rotation within the angular space behind said foot, and a screw member passing through said collar and foot and engaging said nut for the purpose set forth.

2. In a device of the class described, the combination with a stove pipe section whose extremity is adapted to pass into a hole in a wall and is bent inward into a lip at one point, and a dished collar surrounding said section over the outer end of said hole; of a holder made of strap iron and adapted to extend through the hole alongside the section and having its inner end bent into a hook resting against the inner face of the wall, the holder having a tongue struck from its body and bent upward thence forward and downward into a lip adapted to engage that on the section, and the holder also having its outer end bent downward into a foot and thence inward at right angles to the foot and into contact with the outer face of the wall, the foot resting within said collar at this time, and a screw member connecting the foot and collar, for the purpose set forth.

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1,040,172. SCRUBBING-MACHINE. JOHN M. DOMPERT, Munson, Alberta, Canada. Filed Jan. 20, 1911. Serial No. 604,564. (Cl. 15—14.)

1. In a scrubbing machine, a reciprocating rod, a bracket having a transverse orifice loosely receiving said rod, and fingers provided with a vertically disposed orifice, a broom having a stem fitting in the last named orifice, and set screws adjustably securing said bracket to said rod and said stem to said bracket.



2. In a scrubbing machine, a hollow side bar equipped with a vertically disposed closed box, a driving shaft having a disk within said box, a pinion on said disk, a reciprocating rod connected to said pinion and extending at a right angle to said side bar, a rotatable bracket on said rod, a broom having a stem loosely fitting in said bracket, and set screws adjustably securing said bracket to said rod, and said stem to said bracket.

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1,040,173. RESILIENT WHEEL. GEORGE DOSTER, Oakland, Cal. Filed Mar. 11, 1911. Serial No. 613,694. (Cl. 152—33.)



1. A resilient wheel, comprising a hub provided with spokes and radial projections between the spokes, a ring surrounding the hub and provided with apertures through which the spokes loosely extend and with projections on its inner face opposite the projections of the hub, rubber plugs interposed between the projections, spiral springs into which the said projections extend and encircling the rubber plugs, a second ring surrounding the first ring and to which the spokes are secured, said ring being apertured and provided with radial projections on its outer face, a rim provided with projections on its inner face opposite the projections of the second ring, rubber plugs interposed between the projections, spiral springs into which the said projections extend and surrounding the plugs, and spokes secured to the rim and the first named ring, said spokes extending loosely through the apertures of the second ring.

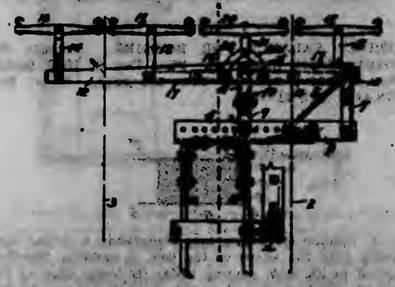
2. A resilient wheel, comprising a hub provided with spokes, a ring surrounding the hub and provided with sockets and apertures through which the spokes loosely project, rubber plugs interposed between the hub and the ring at points opposite the sockets of the ring, spiral springs surrounding the plugs, a second ring surrounding the first ring and to which the spokes are secured, said ring being apertured between the points of attachment of the spokes thereto, spokes secured in the sockets of the first ring, passed loosely through the apertures of the second ring and secured to the rim, rubber plugs interposed between the second ring and the rim between the



last named spokes, and spiral springs surrounding said plugs.

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1,040,174. DRAW-SCRAPER. GEORGE S. DOWNS, Kewanee, Ill. Filed July 20, 1911. Serial No. 639,697. (Cl. 37—102.)



The combination with a clevis bar rigidly secured to the forward ends of a plurality of plow beams and a bracket rigidly secured to one end of the clevis bar, of a vertical lever pivotally connected with the clevis bar at a point in line with the plow beam nearest the furrow wheel, a lever pivoted intermediate its ends to the upper end of said vertical lever and having its short arm pivoted to said bracket, said lever having its short arm provided with its long arm, and a flexible tree pivoted to the lower arm of said vertical lever, and three swingle trees connected with said flexible tree.

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1,040,175. ADJUSTABLE FIXTURE-STUD FOR ELECTRIC-CONDUIT OUTLET-BOXES. WILLIAM G. BARNARD, Denver, Colo. Filed Oct. 10, 1910. Serial No. 652,879. (Cl. 248—68.)



1. In combination, an outlet box having an apertured and threaded stud having a central head seated in the aperture, a shoulder formed on the stud, a cruciformed plate mounted on the stud, a retaining coupling adapted to hold the plate against said shoulder, and screw threaded into each end of the plate and adapted to engage the box and hold the stud in adjusted angular position with relation to the box.

2. An adjustable fixture stud consisting of a hanger plate, a member having a universal connection with said plate, a second plate having a plurality of angularly disposed arms secured to said member with the arms radiating therefrom and screws threaded through the ends of said arms and engaging the first plate to adjustably hold said first member against movement on said plate.

3. An adjustable fixture stud comprising a hanger plate having a central opening, a headed member disposed in the opening of said hanger plate and having a portion [illegible] said hanger plate, a second plate having a plurality of angularly disposed arms secured to said headed member with the arms radiating therefrom and screws threaded through the ends of said arms and engaging the first plate to adjustably hold said first member against movement on said plate.

4. In [illegible] plate, a headed member having a [illegible] said hanger plate, a second plate having a plurality of angularly disposed arms secured to said headed member with the arms radiating therefrom and screws threaded through the ends of said arms and engaging the first plate to adjustably hold said first member against movement on said plate, and a [illegible] to the hanger plate.

5. In combination, a hanger plate having the opening therein of irregular boundary, a headed member substantially complementary to said opening and projecting through said opening, a fixture mounted on said member, and means carried by said fixture and adapted to hold said member in various adjusted positions on said hanger plate.

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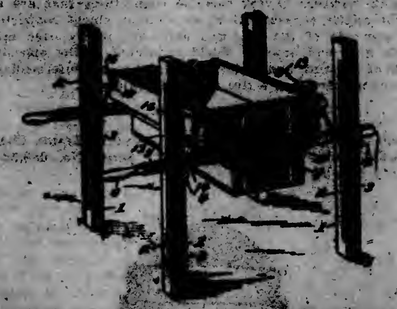
1,040,176. DUSTER FOR VACUUM-CLEANERS. CHARLES L. EUCHER, Pittsburgh, Pa. Filed Jan. 5, 1911. Serial No. 600,958. (Cl. 15—98.)



A duster including a hollow handle having one end portion enlarged for engagement with a vacuum cleaning mechanism, a substantially globular rubberized protector formed of intersecting circles of wire, a hollow stem attached to said protector and removably engaged in the bore of said handle, and a duster sleeve surrounding said handle and having a flexible dusting element surrounding and projecting considerably beyond said protector.

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1,040,177. APPARATUS FOR HANDLING WAGON-BODIES. JOHN M. BYRIAN, Mapleton, N. D. Filed Sept. 25, 1911. Serial No. 651,239. (Cl. 97—70.)



1. Apparatus of the class described comprising a pair of parallel uprights, of posts carried with pin-receiving holes, plan connecting beams of said holes, a body, supporting means on said beams supporting said body from said beams adapted for support on said plan, transom carried on said beam, transom on opposite ends of the [illegible] said transom by [illegible] adapted to be [illegible] transom on [illegible]

[illegible] of said uprights, a member [illegible] of said uprights, [illegible] said [illegible] said [illegible] to the [illegible] said [illegible] said [illegible] said

upper surrounded with said posts extending across the space between the posts, and pulley blocks on said upper provided with transom depending eyes or rings.

1,040,172. VEHICLE-WHEEL. FRANCIS C. SUMAN and CARL P. SARNEY, Kansas City, Mo. Filed June 8, 1911. Serial No. 631,310. (Cl. 152—46.)



1. In combination with a hub and rim and a pneumatic tube therebetween, a clutch consisting of three elements, one of said elements being rigidly connected to the hub, another of said elements being rigidly connected to the rim, and the third of said elements being located between the first two, two of said elements having elongated slots, the slots of one of said last named elements being disposed at right angles to the slots of the other of said last named elements, and a stub shaft carried by the third element and having a pair of antifriction rollers thereon arranged in side by side relation that engage in each of the respective adjacent slots of said slotted elements.

2. In combination with a hub, a disk mounted on the hub, and formed with a peripheral seat, a pneumatic tire in said seat, a ring encircling the tire, a clutch member mounted on the hub and abutting said disk, means to rigidly connect the disk and clutch member to the hub, an intermediate clutch member mounted on the hub, a third clutch member mounted on the hub and engaging the intermediate clutch member, said third and intermediate clutch members having movable connections that are at right angles to each other, an annular shield connected to one side of the ring and extending partly over said disk, a second annular shield connected to the opposite side of the ring and rigidly connected to the intermediate clutch member, and a tire carried by said ring.

1,040,179. COFFEE-STRAINER. ANNA B. EVANS, Cheswold, Del. Filed Apr. 4, 1912. Serial No. 688,587. (Cl. 53—3.)



A coffee strainer, comprising rotatable members cooperating in forming a hollow ball, each member comprising a wire mesh element and a head having a rigid interlocking hook engagement with said element, the element being edges of both heads being rolled back and forming substantially tubular, overlapping bearings, those lying parallel with, formed at diametrically opposite points for the hook-like flange of one of the heads with the material therebetween straightened out and terminally rolled back to form hooks adapted to hookingly engage with the hook-like flange of the other head, and there being provided slits formed at diametrically opposite points in the hook-like flange of the last named head with the material straightened out and forming straight tabs adapted to engage the inner surface of the first-named head.

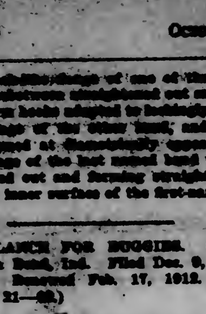
1,040,180. VALANCE FOR BUGGIES. CHARLES W. FRANKS, South Bend, Ind. Filed Dec. 9, 1910, Serial No. 596,204. Renewed Feb. 17, 1912. Serial No. 678,412. (Cl. 21—62.)



1. A valance for buggy tops comprising a filling conforming with the shape of the bow, a covering therefor attached to its back, passing under its lower edge up its face and over its upper edge, and projecting thence to the rear into a hood to overlie the buggy top, plates secured to the rear of the filling with their upper ends bent to the rear within said hood and their lower ends having notches, and tabs in the front of the bow with which said notches engage.

2. A valance for buggy tops, comprising a filling conforming with the shape of the bow, a covering therefor attached to its back passing under its lower edge, up its face and over its upper edge, and projecting thence to the rear into a hood to overlie the buggy top, plates secured to the rear of the filling with their upper ends bent to the rear within said hood and their lower ends having notches opening downwardly and their lower extremities formed into tongs taking through the covering into the filling, and tabs in the front of the bow with which said notches engage.

1,040,181. GARMENT-HANGER. LEROY R. FRANE, Bangor, Me. Filed Mar. 22, 1912. Serial No. 685,456. (Cl. 45—12.)

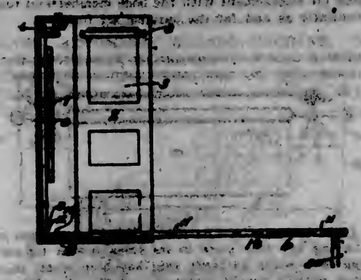


1. In a garment hanger the combination with a hanger member provided with a plurality of slots, of rods inserted to slidingly engage through the said slots, hooks formed on the said rods for retaining the rods in engagement with the said hanger member, a locking rod connected to swing on one of the said rods and a link on the other rod and adapted to be engaged by the said locking rod.

2. In a garment hanger, the combination with a hanger member provided with a plurality of slots, of rods inserted to slidingly engage through the said slots, hooks formed on the said rods for retaining the rods in engagement with the said hanger member, a locking rod pivoted to swing on one of the said rods and a link on the other rod and adapted to be engaged by the said locking rod, and a spring normally pressing against the said locking rod and tending to hold the latter out of the said link.



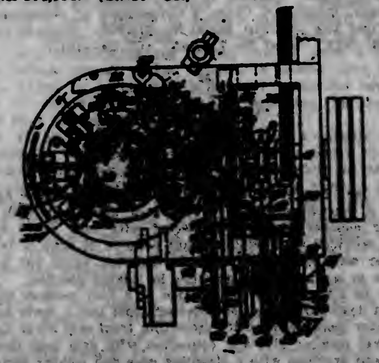
1,040,182. IRONING-BOARD-CABINET. ANDREW BRANCH and BERT J. GOOD, Collins, N. Y. Filed Oct. 30, 1911. Serial No. 657,858. (Cl. 69—34.)



1. In combination, a support, a supporting table removably carried thereby, an ironing board comprising sections, one of said sections being movable into engagement with the supporting table for locating the latter on said support, and a latch member carried by the engaging section of the ironing board for engagement with said support to prevent the disengagement of said section from said supporting table.

2. In combination, a cabinet, a supporting member mounted therein, pivotable means engaging said member adjacent to one terminal of the latter, an ironing board movably mounted on said cabinet for engagement with the opposite terminal of said member, and means for locking the ironing board against movement.

1,040,183. CIRCULAR-KNITTING MACHINE. AUGUSTUS GLADU, Central Falls, and JOHN W. SHAW, Pawtucket, R. I., assignors to Blackstone Stocking Company, a Corporation of Rhode Island. Filed Aug. 8, 1910. Serial No. 576,006. (Cl. 66—34.)



1. In a knitting machine, the combination with a needle cylinder provided with a set of long butt needles and a set of short butt needles; of a cam ring; means for producing a rotary and reciprocating movement of said cam ring; a main cam fixed with relation to said ring and having at one side a stitch forming cam surface, and at the opposite side a cam surface; means for changing the level of one set of needles with relation to that of the other when the machine is changed from rotary to reciprocating movement; a supplemental cam corresponding to said main cam and having its stitch forming cam surface opposedly disposed with relation thereto; means for moving said supplemental cam into operative relation with the cylinder at the beginning of the reciprocating movement; and means for changing the level of one set of needles with relation to that of the other at the same time.

2. In a knitting machine, the combination with the needle cylinder provided with a set of long butt needles and a set of short butt needles; of a cam ring; a main knitting cam fixed with relation to said cam ring and having a stitch forming cam surface in the path of the butts of all the needles; two switch cam surfaces at the opposite sides of said main cam on different levels; means for changing the level of the long butt needles with relation to that of the short butt needles when the movement of the cam ring is changed from rotary to reciprocating, whereby the switch cam surfaces operate selectively on the long and short butt needles; a supplemental cam corresponding to said main cam and having its stitch forming and switch cam surfaces oppositely disposed; and another switch cam located between the main and supplemental cams adapted to be moved into the path of the long butt needles only, whereby the short butt needles cross the face of said switch cam and the long butt needles are brought down into engagement with the stitch forming surfaces of said main and supplemental cams.

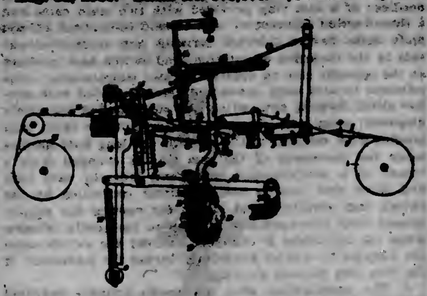
3. The combination with the needle cylinder provided with a set of long butt needles and a set of short butt needles; of a cam ring provided with two main cams fixed with relation to the cylinder, the said cams having stitch forming surfaces at the same side in the direction of rotation adapted to engage all the needles; switch cam surfaces on each of said main cams at the side opposite the stitch forming cam surfaces adapted to engage and lift the long butt needles; an inclined switch cam surface on one of said cams only to admit of the passage of the short butt needles across the face of said cam without changing their level; a switch cam surface on the other main cam adapted to raise the short butt needles above the point of contact with the stitch forming cam surfaces; supplemental cams corresponding to said main cams and having their stitch forming surfaces and their switch cam surfaces oppositely disposed with relation thereto; means for moving said supplemental cams into operative relation with the cylinder at the beginning of the reciprocating movement; and means for changing the level of one set of needles with relation to that of the other at the same time.

4. In a knitting machine, the combination with the needle cylinder provided with sets of long and short butt needles; of a cam ring; a main knitting cam fixed with relation to said cam ring and having a stitch forming cam surface in the path of the butts of all the needles; two switch cam surfaces at the opposite sides of said main cam on different levels; means for changing the level of the long butt needles with relation to that of the short butt needles when the movement of the cam ring is changed from rotary to reciprocating, whereby the switch cam surfaces operate selectively on the long and short butt needles; a supplemental cam corresponding to said main cam and having its stitch forming and switch cam surfaces oppositely disposed; and another switch cam located between the main and supplemental cams adapted to be moved into the path of the long butt needles only, whereby the short butt needles cross the face of said switch cam and the long butt needles are brought down into engagement with the stitch forming surfaces of said main and supplemental cams.

5. The combination with the needle cylinder provided with a set of long butt needles and a set of short butt needles; of a main knitting cam having a [illegible] short butt needles at one side and an [illegible] that [illegible] and a rotary having [illegible] elevating cam surface; means for [illegible] the long butt needles with relation to that of the short butt needles; a supplemental cam having [illegible] of the main cam, but with its stitch [illegible] long butt needles oppositely disposed; and means for moving said supplemental cam and the [illegible] into operative relation with the needles [illegible] the needles [illegible] to be moved to [illegible] only, whereby the short butt needles cross the face of said [illegible] and the long butt needles are brought down into engagement with the stitch forming surfaces of said main and supplemental cams.

[illegible] 6. In the combination [illegible] to be moved [illegible]

KNITTING-MACHINE NEEDLE. Samuel Mc Cann, Hazleton, Pa., assignor to Dayton Hill Company, Hazleton, Pa., a Corporation of Pennsylvania. Filed Aug. 26, 1910. Serial No. 579,008. (Cl. 139—64.)



1. In combination, a needle rod comprising needle dents and plain dents, fixed vertical guides for said rod, means for positively imparting to said rod vertical reciprocations, said means comprising a rotary cam and adjustable connecting devices between said cam and said rod, a fixed rod located in parallel relation to the needle rod and between said needle rod and the warp beam, means for positively imparting to said fixed rod horizontal lateral reciprocations, said means comprising a cam and adjustable connections between said cam and said fixed rod, and a bone bar beneath the fixed rod, the operating means imparting a lateral movement to the fixed rod at the time of the downward movement of the needle rod and before it begins its upward movement.

2. In combination, a needle rod, comprising needle dents and plain dents, fixed vertical guides for said rod, a fixed rod located in parallel relation to the needle rod, a cam shaft, eccentrics cams thereon, a pivoted lever operated by one of said cams and pivotally connected to the needle rod to impart thereto vertical reciprocations, means for adjustably connecting the said lever and the needle rod, a vertically moving rod operated by the other of said cams, a bell crank lever to which said rod is adjustably connected, a link adjustably connected to said bell crank lever and pivotally connected to the fixing rod, the whole combined and arranged to operate the needle rod and fixing rods with relation to each other and to adjust the movements thereof.

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1,068,155. THREAD-BRAKE FOR FIRST-COMBING MACHINES. Jehann Gebrueder, Lódz, Russia. Filed Apr. 9, 1912. Serial No. 690,854. (Cl. 26—30.)



1. In a thread brake for combination with a bell, of a [illegible] opening in the bell [illegible] the lateral width [illegible] the bottom, [illegible] thread carried [illegible] thereby the [illegible] substantially.

[illegible] PRINTING-PRESS. Edmund [illegible] Germany. Filed [illegible] 1912. Serial No. [illegible] (Cl. [illegible])

1. [illegible] a hay-knife bar [illegible] a hay knife bar [illegible] said bar, [illegible] hay knife bars in the other, and a tongue extending [illegible] adjacent said hay knife bars, in combination with a guiding member, capable of holding one end of a blade under the tongue of [illegible] said bar, [illegible] said blade [illegible] said bar and to be in [illegible] hay knife bars.

2. In a blade carrier [illegible] a knife bar member, having hay knife slots in the other, and a tongue extending [illegible] adjacent said hay knife slots, in combination with a guiding member, capable of holding one end of a blade under the tongue of [illegible] said bar, [illegible] said blade [illegible] said bar and to be in [illegible] hay knife bars, and a clamp having [illegible] of said guiding member [illegible] slots.

3. In a blade carrier [illegible], a knife bar member, having hay knife slots in the other, and a tongue adapted to [illegible] said slots, and a member adapted to [illegible] said tongue to a point between said hay knife slots and [illegible] behind them, in combination with a guiding member, having a [illegible] formed with [illegible] to [illegible] said bar and for the reception of a certain part [illegible] said bar, and [illegible] with a series of special teeth extending longitudinally of the slots and adapted to pass through said hay knife slots, and engage said tongue and sides of the knife member when the stem is turned through a certain arc in said slots.

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1,068,157. BUCKLE. William Evans Graham, Bridgeport, Conn., assignor to The Warner Brothers Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Aug. 21, 1912. Serial No. 716,068. Renewed July 24, 1913. Serial No. 780,865. (Cl. 24—231.)



1. In a buckle the combination of a loop member having a downwardly bent or inclined tongue bar with a lever member pivotally connected with said upper bar and provided with locking edges adapted to snap or take under said [illegible] bar, [illegible] upper bar and to be in [illegible] locking position.

2. In a [illegible] a loop member having a downwardly [illegible] upper bar, a lower bar, a finger [illegible] connecting [illegible] said lower bar, a lever member pivotally connected with said loop member and provided with a clamping edge and locking means for said lever member [illegible] said upper bar and [illegible] said lower bar and [illegible] upper bar and [illegible] locking position.

3. In a [illegible] a loop member having a downwardly [illegible] upper bar, a lower bar, a finger [illegible] connecting [illegible] said lower bar, a lever member pivotally connected with said loop member and provided with a clamping edge and locking means for said lever member [illegible] said upper bar and [illegible] said lower bar and [illegible] upper bar and [illegible] locking position, and [illegible] said lever member [illegible] said loop member.

4. In a [illegible] a loop member having a downwardly [illegible] upper bar, a lower bar, a finger [illegible] connecting [illegible] said lower bar, a lever member pivotally connected with said loop member and provided with a clamping edge and locking means for said lever member [illegible] said upper bar and [illegible] said lower bar and [illegible] upper bar and [illegible] locking position, and [illegible] said lever member [illegible] said loop member, and [illegible] said lever member [illegible] said loop member.

5. In a [illegible] a loop member having a downwardly [illegible] upper bar, a lower bar, a finger [illegible] connecting [illegible] said lower bar, a lever member pivotally connected with said loop member and provided with a clamping edge and locking means for said lever member [illegible] said upper bar and [illegible] said lower bar and [illegible] upper bar and [illegible] locking position, and [illegible] said lever member [illegible] said loop member, and [illegible] said lever member [illegible] said loop member.



1,068,[illegible]. [illegible] Ernest [illegible], Chicago, Ill., a Firm [illegible] Filed [illegible] 1913. Serial No. 774,202. (Cl. 242—54.)



[illegible]

[illegible]

[illegible]

centrally therefrom and notched on their under sides, parallel vertical and horizontal blocks intermeshing with the notched horizontal arms and providing downward foot-forming extensions, said horizontal bar blocks terminating parallel with said notched arms and interlocking with the said vertical and horizontal blocks.

5. The combination of a bottom member having a top surface formed with a succession of downward depressions, and a succession of block-formed units raised from the bottom and constituting a wall, each unit consisting of an upright arm notched transversely with its lower end entered in one of the bottom depressions, two pairs of notched blocks disposed at right angles to and interlocking with each other and with the upright arm with the blocks of one pair entered in the arm notches, the interlocking blocks being notched in direction parallel with the upright arm to receive a bar, and a bar paralleling the arm and entered in said bar notches.

[Claim 6 not printed in the Gazette.]

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1,040,191. COUPLING FOR PIPES. HARRY H. HALE, Columbus, Ohio. Filed July 20, 1911. Serial No. 639,066. (Cl. 137—96.)



1. A pipe coupling comprising a coupling head consisting of two sockets joined by a relatively short and thick portion having a bore therethrough and two ball sections having bores adapted to be flush with the bore in the joining portion of the coupling head.

2. A pipe coupling consisting of a malleable cast iron coupling head formed in a single piece and provided with two sockets joined by a relatively short thickened bore portion, in combination, with two pipe sections each provided with a hollow head the exterior walls of which are curved to fit the curved interior walls of the coupling head, the outer ends of the coupling head being compressed over the hollow heads and securing the latter in place, said hollow heads having bores adapted to be flush with the bore of the joining portion of the coupling head.

3. A pipe coupling consisting of a malleable cast iron coupling head formed in a single piece and provided with two sockets joined by a relatively short thickened bored portion, each socket having interiorly curved walls, and a packing ring inserted near the outer end of the inner wall of each socket, in combination with two pipe sections, each provided with a hollow head, the exterior walls of which are curved to fit the curved interior walls of the coupling head, the outer ends of the coupling head being compressed over the hollow heads of the pipe sections and serving to secure the latter in place, said hollow heads having bores adapted to be flush with the bore of the joining portion of the coupling head.

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1,040,192. BOOK AND BUNDLE RACK FOR BICYCLES. WILLIAM R. HALL, Warner, N. H. Filed Nov. 18, 1911. Serial No. 660,472. (Cl. 280—45.)

1. In a luggage carrier, the combination with a vehicle, of means for attaching said carrier to the same, the carrier comprising a main supporting frame therefor, a foldable receptacle carried thereby, an auxiliary supporting frame mounted on the main frame aforesaid, and means cooperating with the auxiliary frame to lock and hold the receptacle in operative and inoperative position.

2. In a luggage carrier, the combination with a vehicle, of means for attaching said carrier to the same, the carrier comprising a main supporting frame therefor, a collapsible receptacle carried thereby, an auxiliary supporting frame mounted on the main frame aforesaid, and means on the pivot for the auxiliary frame to lock the latter in extended position when the receptacle is in open operative position and adapted to hold the same in vertical position to hold said receptacle in a closed inoperative position.



3. In a luggage carrier, the combination with a vehicle, of means for attaching said carrier to the same, the carrier comprising a main supporting frame therefor, a collapsible receptacle carried thereby, a locking rod having its bearings in the main frame, an auxiliary supporting frame pivotally mounted on the locking rod, said main and auxiliary supporting frames having corresponding slots therein adjacent the locking rod, and lugs projecting from the said rod to engage in the slots aforesaid to hold the auxiliary frame in extended position when the receptacle is in open operative position and adapted to rest the auxiliary frame in vertical position when the receptacle is in closed inoperative position.

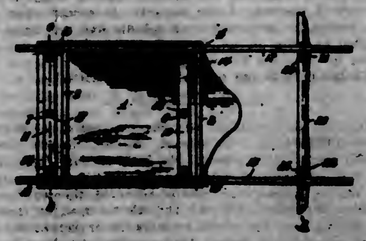
4. In a luggage carrier, the combination with a vehicle, of means for attaching said carrier to the same, the carrier comprising a main supporting frame, a [illegible] comprising a collapsible receptacle and adapted to be folded up against the main frame when in inoperative position, an auxiliary supporting frame mounted on the main frame, other auxiliary extension frames reversibly mounted on the auxiliary supporting frame aforesaid and adapted to be held in extended operative position when the receptacle is folded in inoperative position, and means for locking the auxiliary supporting frame in extended operative position.

5. In a luggage carrier, the combination with a vehicle, of means for attaching said carrier to the same, the carrier comprising a main supporting frame therefor, a receptacle comprising a collapsible structure carried by the main supporting frame, an auxiliary supporting frame mounted on the main frame, reversible extension frames mounted on the auxiliary supporting frames aforesaid and adapted to be held in folded position when the receptacle aforesaid is in open operative position, and means for locking the auxiliary supporting frame in extended operative position when the receptacle is extended and adapted to hold the same in vertical position to hold said receptacle in a closed inoperative position.

[Claim 6 not printed in the Gazette.]

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1,040,193. FOLDING SLED. DAVID G. HAMMOND, Whitinsville, Mass. Filed Mar. 5, 1912. Serial No. 681,768. (Cl. 21—94.)



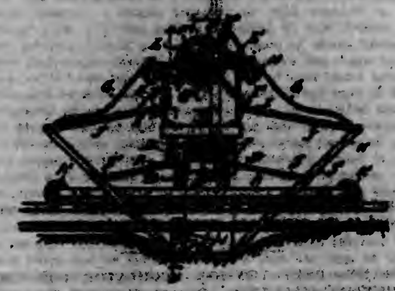
A sled including a top, centrally pivoted bars normally arranged transversely of the top, runners, rods connecting the runners and bars, and means for locking the runners and bars in position with the top, substantially as described.



members for the runners and members being formed with offset arms and being pivotally connected with the opposite ends of the transverse bars and a foot bar pivoted to each of the runners and having its ends extended beyond its pivots and beyond the sides of the runners.

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1,040,194. TAMPING-MACHINE. HENRY HANCOCK, Baraboo, Wis. Filed July 7, 1912. Serial No. 707,655. (Cl. 104—172.)



1. An apparatus for tamping railway ties, etc., comprising a truck, means for supporting the same over a tie, tamping members pivotally mounted upon the truck, a crank shaft journaled in suitable bearings upon the truck, tamping members disposed at substantially to each other and pivotally connected to said frames, and eccentrics fastened to said tamping members and to said crank shaft, as set forth.

2. An apparatus for tamping railway ties, comprising a truck with wheels and adapted to move over the rails of a railway, bearings at right angles to the length of said truck upward apart, a second truck with wheels mounted upon said bearings, tamping members fixed to the second referred to truck at right angles to each other, and means for raising the tamping members which are allowed to fall by gravity to tamp material upon the opposite sides of the tie, as set forth.

3. An apparatus for tamping railway ties, comprising a truck with wheels and adapted to move over the rails of a railway, bearings at right angles to the length of said truck upward apart, a second truck with wheels mounted upon said bearings, a flange upon said second referred to truck, a double crank shaft journaled upon said frame, pulleys upon the shaft, tamping members having pivotal rod connections between the tamping members and the frame and frame carrying truck, a swiveled collar fixed to each crank of said shaft, a rod fastened to the upper end of each tamping member, passing about one of said pulleys and fastened to one of said swiveled collars, as set forth.

4. An apparatus for tamping railway ties comprising a truck with wheels and adapted to move over the rails of a railway, bearings at right angles to the length of said truck upward apart, a second truck with wheels mounted upon said bearings, a flange upon said second referred to truck, a double crank shaft journaled upon said frame, pulleys upon the shaft, tamping members having pivotal rod connections between the tamping members and the frame and frame carrying truck, a swiveled collar fixed to each crank of said shaft, a rod fastened to the upper end of each tamping member, passing about one of said pulleys and fastened to one of said swiveled collars, as set forth.

5. An apparatus for tamping railway ties comprising a truck, a double crank shaft journaled thereon, tamping members pivoted to the truck, rigid connecting rods having adjustable joints, one of said rods engaging with the crank shaft, angled fingers connecting with the latter, and a handle adapted to be fastened to the shaft and disconnected against said fingers, as set forth.



1. A device of the character described comprising two end members, one of said end members being provided with an eye and an elongated loop, the other of said end members being provided with a recessed face on each side thereof, a central longitudinal partition on said last mentioned end member, said last mentioned end member being provided with a longitudinal groove on each side of said partition, an elongated link adapted to lie in the recessed face on one side of said last mentioned end member and to lie in the said longitudinal groove on either side of said longitudinal partition, said longitudinal partition entering between the bars of the said elongated link to maintain the link rigidly against movement, a spring having means for connection with the first mentioned end member and having one end adapted to lie in a recessed face on one side of the last mentioned end member, a strap adapted to be received by said recessed face in the second mentioned end member, and a transverse fastening passing through said strap, the bolster mentioned end member and through said spring to fasten all of the parts together substantially as described and for the purposes set forth.

2. A device of the character described comprising an end member having an elongated loop, a second end member having two recessed faces, an elongated link adapted to lie in one of said recessed faces, said second mentioned end member being provided with a longitudinal partition which enters between the bars of the said elongated link to maintain the same against movement, a spring for connecting the two members together, one end of the said spring being adapted to lie in one recessed face of the second mentioned end member, a strap adapted to lie in the recessed faces of the second mentioned end member, and a transverse fastening adapted to pass through the said strap, the said link, the second mentioned end member and through the said spring to tie and fasten the parts together, substantially as described and for the purposes set forth.

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1,040,195. CENTERBOARD-SPRING. Samson H. Hazen, Wabash, Ind. Filed Feb. 20, 1912. Serial No. 678,220. (Cl. 74—97.)



1. A device of the character described comprising two end members, one of said end members being provided with an eye and an elongated loop, the other of said end members being provided with a recessed face on each side thereof, a central longitudinal partition on said last mentioned end member, said last mentioned end member being provided with a longitudinal groove on each side of said partition, an elongated link adapted to lie in the recessed face on one side of said last mentioned end member and to lie in the said longitudinal groove on either side of said longitudinal partition, said longitudinal partition entering between the bars of the said elongated link to maintain the link rigidly against movement, a spring having means for connection with the first mentioned end member and having one end adapted to lie in a recessed face on one side of the last mentioned end member, a strap adapted to be received by said recessed face in the second mentioned end member, and a transverse fastening passing through said strap, the bolster mentioned end member and through said spring to fasten all of the parts together substantially as described and for the purposes set forth.

2. A device of the character described comprising an end member having an elongated loop, a second end member having two recessed faces, an elongated link adapted to lie in one of said recessed faces, said second mentioned end member being provided with a longitudinal partition which enters between the bars of the said elongated link to maintain the same against movement, a spring for connecting the two members together, one end of the said spring being adapted to lie in one recessed face of the second mentioned end member, a strap adapted to lie in the recessed faces of the second mentioned end member, and a transverse fastening adapted to pass through the said strap, the said link, the second mentioned end member and through the said spring to tie and fasten the parts together, substantially as described and for the purposes set forth.

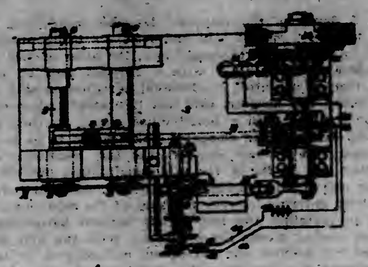
3. A device of the character described comprising an end member having an elongated loop, a second end member having two recessed faces, an elongated link engaging with said elongated loop on the first mentioned end member, one end of said elongated link being adapted to lie in one of the recessed faces of the second mentioned end member, a spring for connecting the two members together, one end of said spring being adapted to lie in one of the recessed faces in the second mentioned end member, a strap adapted to lie in the recessed faces of the said second mentioned end member, and a transverse fastening adapted to pass through the said strap, the said link, the second mentioned end member and through the said spring to tie and fasten the parts together, substantially as described and for the purposes set forth.

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1,040,196. MECHANISM FOR COILING AND CUTTING WIRE SPRINGS. NOAH S. HAZEN, Washington, Ill., assignor to American Steel and Wire Company of New Jersey, Hoboken, N. J., a Corporation of New Jersey. Filed Dec. 18, 1908. Serial No. 468,224. (Cl. 140—92.)

1. In a helical spring coiling machine, the combination of mechanism for forming a helix having a plurality of coils, coiling mechanism for severing the helix from the unwound wire stock, means for actuating the coil forming mechanism and means arranged to successively render the application of the coil forming mechanism effective when the severing mechanism is being actuated to sever the helices from the wire.

3. In a helical spring coiling machine the combination with mechanism for forming a helix having a plurality of coils and a cutting mechanism to sever the formed helices from the wire, of friction delivery rollers to feed the wire to the coiling mechanism, and means for temporarily releasing the pressure of the friction delivery rollers on the wire while the cutting mechanism is being actuated to sever the formed helices from the wire.



3. In a helical spring coiling machine the combination with mechanism for forming a helix having a plurality of coils, cutting mechanism for severing the formed helices from the wire stock, and means for actuating the coiling and cutting mechanisms, of a plurality of pairs of feed rollers, one roller of each pair being movable toward and away from its opposing roller, mechanically operated pressure means for normally holding said movable rollers in feeding relation to the wire, and mechanism operated by the means actuating the cutting and coiling mechanisms for releasing the pressure means at intervals, said means being adjustable to vary the length of said intervals.

4. In a helical spring coiling machine the combination with wire coiling mechanism for forming a helix having a plurality of coils and means for intermittently operating said coiling mechanism, of a cutting tool, a shaft for actuating said tool, a constantly driven member loosely mounted on said shaft, clutch means for intermittently connecting the member and shaft, and an electromagnet for controlling the clutch mechanism, and a stop located in the path of movement of the helical spring being coiled, said stop having a contact arranged to control the circuit of said magnet and being actuated by pressure of the end of the coil being formed to complete the circuit of said magnet.

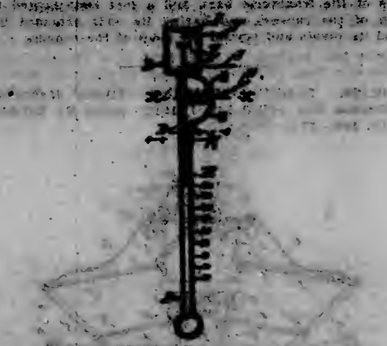
5. In a helical spring coiling machine the combination with mechanism for forming a helix having a plurality of coils and means for intermittently operating said coil forming mechanism, of a cutting-off tool, a shaft for actuating said tool, a constantly driven member loosely mounted on said shaft, clutch means for connecting the member and shaft, an electromagnet for controlling the clutch mechanism, a circuit controlling device mounted on said shaft, and a second circuit controlling device having means actuated by the formed helix for controlling the action of the second circuit controlling device.

[Claim 6 not printed in the Gazette.]

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1,040,197. ALARM. James Hartley, Philadelphia, Pa. Filed July 20, 1905. Serial No. 270,608. (Cl. 177—368.)

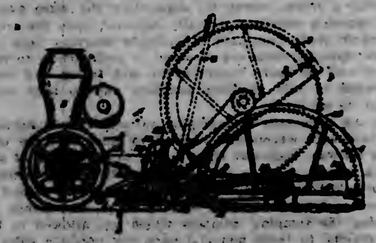
An article of manufacture, a thermometric capillary tube, a bulb at the lower end thereof adapted to contain a quantity of mercury, a bead formed integral with said tube at the upper end thereof, an offset portion formed in one wall of said tube adjacent the upper end thereof, a portion of the fourth wall of said tube beneath the offset portion diverging upwardly whereby a groove is formed leading from the lower portion of the offset portion, contact strips fixed to said tube to form in the offset portion, contact strips fixed to said tube to form in said tube, a rod connected to said float, a contact disk on the upper end of said rod operating in said bead and adapted to engage the contact strips to close said circuit, and means for moving said rod which, during the rise of the mercury in the tube, will allow the contact disk to engage the contact strips to close said circuit, and which, during the fall of the mercury in the tube, will cause the contact disk to break said circuit.



mined helix connected to said rod, and circuit wires connected to the spring and contact strips.

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1,040,198. BELT-TENSION REGULATOR FOR ICE-CUTTING MACHINES. Charles Hartman, Chadwick, Ill. Filed Jan. 23, 1909. Serial No. 474,773. (Cl. 64—5.)



1. The combination of a support, a driving pulley journaled thereon, a frame mounted on said support on a pivotal axis, a driven pulley journaled on said frame, a belt connecting said pulleys, and a pair of idlers having their peripheries bearing respectively upon the upper surfaces of the two legs of said belt, said idlers being journaled on said support and thereby maintained at a fixed distance apart during the movement of said frame on its pivotal axis, said idlers being movable to and from each other and to said pivotal axis that the sum of the two tangents extending between the peripheries of said idlers and the periphery of the driven pulley along each lap of the belt, when said pulley is in the lowered position, is approximately the same as the sum of the corresponding tangents when said pulley is in the raised position, plus the length of the two arcs which lie between the tangent points on the idlers when said driven pulley is down and the tangent points thereon when said pulley is raised, whereby a driving tension on said belt is maintained during the movement of said frame, substantially as described.

2. The combination of a support, a driving pulley journaled thereon, a frame mounted on said support on a pivotal axis, a shaft journaled in said frame parallel with the pivotal axis thereof, a driven pulley on said shaft, a belt connecting said pulleys, and a pair of idlers having their peripheries bearing respectively upon the upper surfaces of the two legs of said belt, said idlers being journaled on said support and thereby maintained at a fixed distance apart during the movement of said frame on its pivotal axis and of each portion with relation to each other and to said pivotal axis that the sum of the two tangents extending between the peripheries of said idlers and the periphery of the driven pulley along each lap of the belt, when said pulley is in the lowered position, is approximately the same as the sum of the corresponding tangents when said pulley is in the raised position, plus the length of the two arcs which lie between the tangent points on the idlers when said driven pulley is down and the tangent points thereon when said pulley is raised, whereby a driving tension on said belt is maintained during the movement of said frame, substantially as described.



3. The combination of a support, a driving pulley journaled thereon, a frame mounted on said support on a pivotal axis, a driven pulley journaled on said frame, a belt connecting said pulleys, and a pair of idlers having their peripheries bearing respectively upon the upper surfaces of the two legs of said belt, said idlers being journaled on said support and thereby maintained at a fixed distance apart during the movement of said frame on its pivotal axis, said idlers being movable to and from each other and to said pivotal axis that the sum of the two tangents extending between the peripheries of said idlers and the periphery of the driven pulley along each lap of the belt, when said pulley is in the lowered position, is approximately the same as the sum of the corresponding tangents when said pulley is in the raised position, plus the length of the two arcs which lie between the tangent points on the idlers when said driven pulley is down and the tangent points thereon when said pulley is raised, whereby a driving tension on said belt is maintained during the movement of said frame, substantially as described.

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1,040,199. [illegible]. Chas. S. Hein, New Washington, Ohio. Filed Aug. 5, 1911. Serial No. 642,621. (Cl. 261—83.)

1. A device substantially as described comprising a casing, a chamber within the casing, a wheel in the chamber, the interior of the casing being substantially circular in outline, one side of the said chamber being provided with a pocket, said quarter of the wheel being provided with a plurality of pockets, diametrical points of the wheel being adapted for engagement with the inside of the said chamber, whereby the wheel being divided into four quarters, each quarter being provided with a plurality of pockets, opposite quarter points of the wheel being spaced apart a distance substantially equal to the diameter of the chamber whereby some of the quarter points always engage the inside of the said chamber as the wheel turns through a certain angle, that portion of the wheel opposite the pocket in the chamber being in communication with the said outlet whereby gases or vapors entering therein may engage the sections on substantially one-half of the wheel.

2. A device of the class described comprising a casing, a chamber within the casing, the chamber being substantially circular in outline, one side of the chamber being provided with a pocket, an outlet communicating with the chamber, a wheel within the chamber and rotatably mounted in position, the wheel being divided into four quarters, each quarter being provided with a plurality of pockets, opposite quarter points of the wheel being spaced apart a distance substantially equal to the diameter of the chamber whereby some of the quarter points always engage the inside of the said chamber as the wheel turns through a certain angle, that portion of the wheel opposite the pocket in the chamber being in communication with the said outlet whereby gases or vapors entering therein may engage the sections on substantially one-half of the wheel, means for rotating the wheel, and a plurality of pockets on the wheel adjacent the outlet and the said pocket of the chamber.

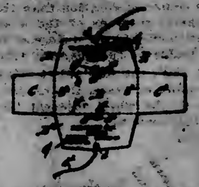


3. A device of the class described comprising a casing, a chamber within the casing, a wheel in the chamber, the casing being substantially circular in outline, one side of the said chamber being provided with a pocket, said quarter of the wheel being provided with a plurality of pockets, diametrical points of the wheel being adapted for engagement with the inside of the said chamber, whereby the wheel being divided into four quarters, each quarter being provided with a plurality of pockets, opposite quarter points of the wheel being spaced apart a distance substantially equal to the diameter of the chamber whereby some of the quarter points always engage the inside of the said chamber as the wheel turns through a certain angle, that portion of the wheel opposite the pocket in the chamber being in communication with the said outlet whereby gases or vapors entering therein may engage the sections on substantially one-half of the wheel, means for rotating the wheel, a plurality of pockets on the wheel adjacent the outlet and the said pocket of the chamber, means of the pockets being at greater distances from the center of rotation than the other pockets, the outer peripheral portions of the wheel adjacent the pockets lying of said greater distances being in engagement with the inside of the chamber through a distance of substantially 180°, the said outlet being adapted to receive suitable vapors or gases, the vapors or gases engaging the pockets on the wheel adjacent the outlet and the said pocket of the chamber.

4. A device of the class described comprising a casing, a chamber within the casing, the chamber being substantially circular in outline, one side of the chamber being provided with a pocket, an outlet communicating with the chamber, a wheel within the chamber and rotatably mounted in position, the wheel being divided into four quarters, each quarter being provided with a plurality of pockets, opposite quarter points of the wheel being spaced apart a distance substantially equal to the diameter of the chamber whereby some of the quarter points always engage the inside of the said chamber as the wheel turns through a certain angle, that portion of the wheel opposite the pocket in the chamber being in communication with the said outlet whereby gases or vapors entering therein may engage the sections on substantially one-half of the wheel, means for rotating the wheel, a plurality of pockets on the wheel adjacent the outlet and the said pocket of the chamber, means of the pockets being at greater distances from the center of rotation than the other pockets, the outer peripheral portions of the wheel adjacent the pockets lying of said greater distances being in engagement with the inside of the chamber through a distance of substantially 180°, the said outlet being adapted to receive suitable vapors or gases, the vapors or gases engaging the pockets on the wheel adjacent the outlet and the said pocket of the chamber, and means for supplying steam to the said chamber.

5. A device of the class described comprising a casing, a cylindrical cavity, a wheel centrally mounted within the cavity, the interior of the casing on one side thereof being provided with a pocket which extends through substantially 90°, the said wheel being provided with a plurality of projections on its periphery, the projections included within each 90° of the wheel being outwardly spaced from the center thereof, the said projections lying at the 90° points being in engagement with the inside of the casing as the wheel turns through an angle of substantially 180°, the said pocket in the casing communicating with the space included between the projections lying therein and the inside of the casing, an outlet offset by the casing and communicating with the space adjacent the said pocket whereby gases may engage substantially one-half of the projections on the said wheel and turn the same.

[Claim 6 not printed in the Gazette.]



1. An envelop comprising a pocket open at opposite sides and a flap projecting from each of said open sides and either adapted to overlap the other when folded, a tie-cord secured to each flap, and a retainer fixed on each flap to which the closed end of the other flap may be connected, thereby providing means for preventing removal of the contents from one of the pockets by the other.

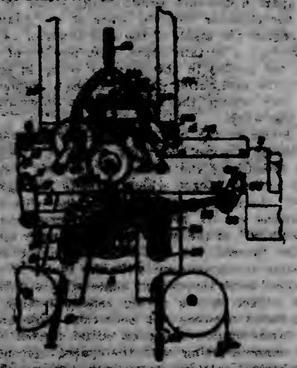
2. An envelop comprising a pocket open at opposite sides and a flap hinged to each of said open sides and either adapted to overlap the other when folded, a tie-cord fastened to the free end of each of said flaps, and cord retainers formed integrally with each of said flaps, and cord retainer devices formed integrally with the open side of said pocket, the cord retainer on each flap being fastened to the envelop adjacent the open flap when the latter is in open or closed position.

3. An envelop comprising a pocket open at opposite sides and a flap hinged thereto each of said sides and either adapted to overlap the other when folded, a tie-cord fastened to the free end of each of said flaps, and cord retainer devices formed integrally with the open side of said pocket, the cord retainer on each flap being fastened to the envelop adjacent the open side of the pocket to which the flap is hinged, and the cord of the under flap fastened to the retainer device of the upper flap.

4. An envelop comprising a pocket open at opposite sides and a flap hinged thereto each of said open sides and either adapted to overlap the other when folded, a tie-cord secured to each flap and adapted to engage the other so as to provide a double lock, thereby preventing removal of the contents by withdrawal through one of said flaps in open position.

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1,028,881. WRAPPING-MACHINE. George I. Hood, [illegible], N. J., assignor to Hood Wrapping Machine Corporation of New Jersey. Filed Jan. 17, 1912. Serial No. 671,604. (Cl. 53—4.)



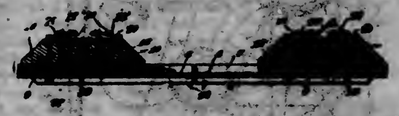
[illegible] a wrapping machine, a rotary wrapping channel provided with a [illegible] receiving opening at one [illegible] and having opening at one [illegible] a rotating [illegible] and having opening at one [illegible] a rotating [illegible] [illegible] [illegible]

...combustion, metals of the third...ing agent, magnesium, aluminium, or beryllium, and a substance capable of liberating water at the temperature of the combustion and kindling the mixture in a closed vessel.

...ydrogen by autocombustion, which consists in forming an alloy...with a metal of a powdered metal, an oxygenated salt capable of liberating oxygen and of supporting combustion of the metal, and a substance capable of liberating water at the temperature of the combustion; and kindling the mixture in a closed vessel.

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1,040,926. RAILWAY-TIE. Erwin C. Jenkins, Beloit, Wis. Filed Feb. 27, 1912. Serial No. 680,268. (Cl. 238—6.)



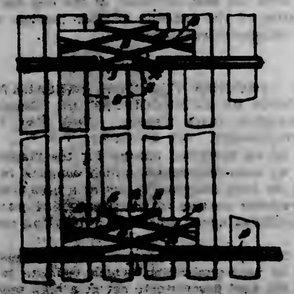
1. A rail tie, comprising a trough-like base, supporting blocks arranged in the hollow of the base, resilient means interposed between said blocks and the base, bolt members passed through the blocks, said resilient means and the base, nuts engaging said bolt members, and rail clamps detachably connected with the said blocks and having notches receiving the nuts of said bolts.

2. A rail tie, comprising a trough-like base, supporting blocks arranged in the hollow of the base, resilient means interposed between said blocks and the base, bolt members passed through the first named members, said resilient means and the base, nuts engaging said bolt members, rail clamps detachably connected with the said first named members and having notches receiving the nuts of said bolts, and means detachably securing the said rail clamps on the first named members.

3. A rail tie, comprising a trough-like base, supporting blocks arranged in the hollow of the base, resilient means interposed between said blocks and the base, bolt members passed through the blocks, said resilient means and the base, nuts engaging said bolt members, rail clamps detachably connected with the said blocks and having notches receiving the nuts of said bolts, means detachably securing the said rail clamps on the blocks, and a fin depending from the bottom of said base.

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1,040,266. REVERSIBLE CAR-REPLACER. Andrew N. Johnson, Cantonville, Tenn. Filed Mar. 27, 1912. Serial No. 686,473. (Cl. 104—168.)



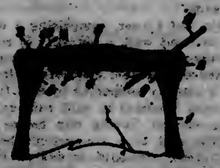
A car replacer comprising a body of substantially rectangular shape and having a hollow in its bottom and a curved runner [illegible] projecting laterally from opposite sides of the said body, movably disposed and having grooves in their under sides for receiving the track portions of railway rails, wheel-edges formed at intervals on the bottom of said body on opposite sides of the hollow [illegible] projecting from the bottom of the body [illegible] grooves, and [illegible] being pivoted to the body and [illegible] and extending through the side flanges [illegible] the said grooves will open through the ends of the flanges and the ends of the body.



1,040,[illegible] JAR-[illegible]
III, [illegible]
218—[illegible]

1. In a device of the character described, a [illegible] having a [illegible] of a [illegible] pressure, a [illegible] chamber, a [illegible] pressure for the piston, a [illegible] valve mounted on the piston, means to hold the piston and valve open, the piston [illegible] a [illegible] chamber, a [illegible] between the [illegible] chamber and the [illegible] chamber, [illegible] between the [illegible] chamber and the [illegible] chamber, [illegible] chamber and the [illegible] chamber, [illegible] chamber and the [illegible] chamber,

1,046,211. JAR-FILLER. Charles E. Kinnie, Riverside, Ill. Filed Apr. 6, 1911. Serial No. 619,604. (Cl. 215—66.)



1. A jar having a gasket supporting portion, a cover of less diameter at its inner than the mouth of the jar, said cover being adapted when applied to form an annular space or chamber between the cover and said gasket supporting portion for the reception of a duplex sealing medium, and a gasket extending thereon between said bearing upon the opposing surfaces of said gasket supporting portion and cover, said gasket projecting inwardly beyond the mouth of the jar and disposing the opposing surfaces of the jar and cover in such manner as to provide an intervening passage leading directly to the bore of the jar, whereby an excessive pour may be vented at an angle against the rim of the jar and poured downward through the sealing medium and gasket so as to be brought beneath the cover to adapt the latter to be lifted by a rocking motion of such pour on the rim as a fulcrum.

2. A jar having a gasket supporting portion, a cover of less diameter at its inner than the mouth of the jar, and a gasket resting upon said supporting portion and bearing at its inner edge against the cover, whereby an annular chamber is formed between the jar rim and cover for the reception of a sealing medium, the gasket resting portions of the jar and cover being spaced to expose a portion of the gasket in a plane at an angle to the vertical plane of the jar, whereby an extending tool may be inserted downward through the sealing material and gasket and, between said portion of the jar and cover and exposed to be rocked upon the rim of the jar to enable the cover to be lifted and

3. A jar having its rim portion cut away to form an outwardly and inwardly curved or inclined pick face, and a horizontal annular chamber at the base of said rim thereby forming a thin projecting tongue, the mouth of the jar having a gasket supporting tongue and a horizontal flange extending for more than one-half of the circumference, the remaining portion being supported solely by the curved projecting tongue with the outer edge of the annular flange spaced from the outer edge of the first mentioned tongue, in combination with a cover of less diameter at its inner than the mouth of the jar, a flexible sealing medium and a gasket extending thereon between said bearing upon the opposing surfaces of said gasket supporting portion and cover, said gasket projecting inwardly beyond the mouth of the jar and disposing the opposing surfaces of the jar and cover in such manner as to provide an intervening passage leading directly to the bore of the jar, whereby an excessive pour may be vented at an angle against the rim of the jar and poured downward through the sealing medium and gasket so as to be brought beneath the cover to adapt the latter to be lifted by a rocking motion of such pour on the rim as a fulcrum.



operably connecting curve, and means to change the point of contact of the connecting device upon substantially an

1,046,212. PHOTOGRAPHIC [illegible], Helsingfors, Finland. [illegible], Jr. Filed [illegible], 1911. Serial No. [illegible]. (Cl. 181—2.)



1. The method of reproducing sound, which consists in supporting a [illegible] under pressure against a photographic diaphragm, a flexible sheet each of which is exposed to the motion of said jet, and causing said jet to change across the exposed side of said diaphragm under the influence of [illegible] a sound record, thereby by [illegible] of the medium upon the diaphragm varying pleat at intervals to cause said diaphragm to vibrate in harmony with the vibratory [illegible] of the record.

2. The method of reproducing sound, which consists in causing a continuously flowing gaseous jet to be deflected in accordance with the vibratory [illegible] of a sound record, and receiving the jet upon the surface of a photographic diaphragm to produce corrugations of which in response to the action of said jet, the crests of depressions of said corrugations greater than the exposed area of the diaphragm, thereby actual impingement is established only when the jet is moving across said exposed area in following the lines of the sound record.

3. The method of [illegible] sound, which consists in exposing a [illegible] photographic diaphragm, discharging a jet of [illegible] gaseous medium in the direction of the [illegible] of said diaphragm, and [illegible] of a sound record [illegible] of said diaphragm [illegible] to vibrate in accordance with the vibratory lines of the record.

4. The method of reproducing sound, which consists in impinging a jet of a [illegible] under pressure against a photographic diaphragm, a flexible sheet each of which is exposed to the [illegible] of said jet, and causing said jet to change across the exposed side of said diaphragm under the influence of a sound record, thereby by [illegible] of the medium upon the diaphragm varying pleat at intervals to cause said diaphragm to vibrate in harmony with the vibratory lines of the record.

1,046,213. [illegible]. Lewis D. Kinnie, Alliance, Ohio, assignor to Alfred V. Schneider, Alliance, Ohio. Filed [illegible], 1912. Serial No. 677,946. (Cl. 151—8.)



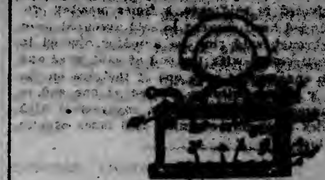
1. In a mud [illegible]



2. A [illegible] and pillow-carrier including a [illegible] and blade connected together for angular adjustment, a pair of arms arranged pivotally connected on the inner end of the tongue and diagonally from a plane disposed at right angles to the plane of the tongue and transversely of the blade, and means for locking said arms in various adjustments.



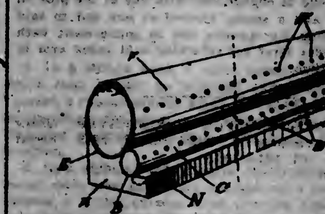
1,046,214. CRUDE-OIL BURNER. Samuel D. Kinnier, Caldwell, Idaho, assignor to Volney A. Corringer, Caldwell, Idaho. Filed June 20, 1912. Serial No. 704,048. (Cl. 126—95.)



1. A mud [illegible] comprising in combination, a [illegible] body provided with an ash discharge opening and a grate above the bottom wall of said body having grate openings therein, said bottom wall having [illegible] heat transmitting studs projecting into the grate openings and slightly above the grate to ignite [illegible] said studs being within reach of the [illegible] said discharge opening, substantially as [illegible].

2. A mud iron comprising in combination, a [illegible] body and a grate above the bottom wall of said body having grate openings therein, said bottom wall having heat transmitting studs projecting into the grate openings and entering the fuel mass therein, substantially as described.

1,046,217. CRUDE-OIL BURNER. Samuel D. Kinnier, Caldwell, Idaho, assignor to Volney A. Corringer, Caldwell, Idaho. Filed June 20, 1912. Serial No. 704,049. (Cl. 126—95.)



A [illegible] oil burner comprising a [illegible] having [illegible] provided [illegible] with an [illegible] chamber in [illegible] communication [illegible] with the [illegible] chamber, the [illegible] of the [illegible] chamber, a [illegible] chamber, a perforated, [illegible] plate [illegible] the [illegible] of the [illegible], and a [illegible] fuel [illegible] [illegible] in the [illegible] chamber and fuel [illegible] [illegible] projecting over the [illegible] [illegible], as set [illegible].

1,046,218. PROCESS OF PUMPING CRUDE OIL. [illegible] Lake, Birmingham, [illegible], Pennsylvania [illegible] Company, a [illegible] [illegible] [illegible]

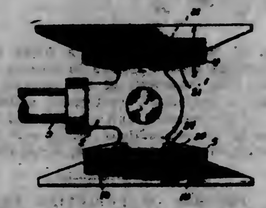
provided with a slot, a screw adapted to fit within said slotted arm, an index arm pivoted centrally thereon to operate therewith through said slot, said index arm being provided with a pin at each side of the pivot, an actuated lever pivoted in said case, a feeler member provided with a rounded head secured to said actuated lever and projecting through said rim, an actuator pivoted in said casing to engagement with the end of said lever and having its end in engagement with one of the pins on the index arm, and a spring centrally secured at one end to said case and having its opposite end in engagement with a pin on the index lever for returning said index arm to its normal position.



2. In combination in an indicator, a casing having a wall with a slot therein, an index arm pivoted centrally within the casing and having a pin on each side of its pivot, an actuated lever pivoted in said case, a feeler member provided with a head and secured to said actuated lever and projecting through said slot, an actuator pivoted in said casing in engagement with the end of said lever and having its end in engagement with one of the pins on the index arm, and a spring secured at one end to said casing and having its opposite end in engagement with a pin on the index lever for returning said index arm to its normal position.

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1,040,220. CROSS-HEAD FOR LOCOMOTIVES. John D. Lewis, Harrisburg, Pa. Filed June 2, 1912. Serial No. 700,978. (Cl. 121—168.)



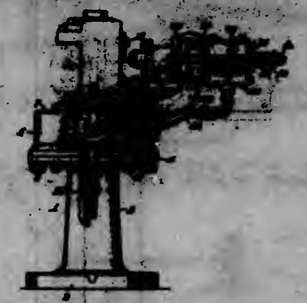
A cross head having a hollow body portion and having its upper and lower faces reduced, the said faces being provided with transverse depressions having their lower walls inclined, wedge blocks within the depressions, cross head shoes having depending walls adapted to engage with the reduced faces of the cross head, the shoes of the said shoe being provided with transversely arranged depressions which register with the transverse depressions in the faces of the cross head, adjusting means contacting with the opposite faces of the cross head shoes and connected with the wedge blocks, the shoes as well as the face portions of the cross heads being provided with vertical openings, the shoes being provided with angular engagements without communicating with said openings, fitted shafts, the angular shafts and designing the walls provided thereby, and headed threaded elements passing through the openings and engaging with the said shoe at adjustability as and for the purpose set forth.

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1,040,222. [WITHDRAWN.]

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1,040,232. DRILL-STEEL FORGING AND SHARPENING MACHINE. Oscar E. Apsit, Duluth, Minn. Filed Oct. 28, 1911. Serial No. 656,887. (Cl. 76—5.)



1. A drill-steel forming and sharpening machine comprising a vise adapted to grip and hold drill steel, a cylinder, a hammer piston reciprocally mounted in said cylinder, a dolly supporting bearing a tubular spiral guard, a dolly arranged in the apertured lug of said guard and adapted to engage the drill-steel, gear mechanism for rotating the tubular guard, and means for reciprocating said dolly, substantially as described.

2. A drill-steel forming and sharpening machine comprising a vise, a cylinder, a hammer-piston reciprocally mounted in said cylinder, a dolly arranged to be struck by said piston and thrust against the drill-steel, a dolly-support, supporting-means for the cylinder, gear mechanism, and means for rotatably actuating the dolly-support, cylinder, and said supporting-means together.

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1,040,232. AIR-BRAKE MECHANISM FOR LOGGING-TRAINS. George H. Jones and Harry L. Turney, Portland, Oreg. Filed May 29, 1911. Serial No. 630,553. (Cl. 188—1.)



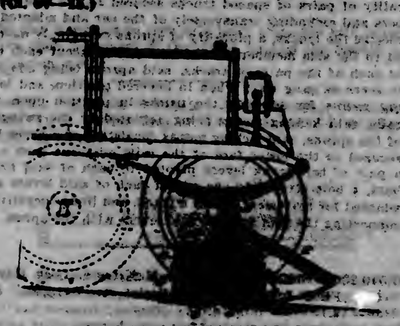
1. In a logging train, the combination with a pair of wheel-trucks, each truck provided with an axle-bolt, and with means for supporting a load of logs, of bolsters for assembly interconnecting said axle-bolts of the two trucks, in order that said trucks may be spaced at predetermined the length of the logs; stop-lugs on the outer ends of the bolsters, a brake-supported longitudinally movable on said platform of one of said trucks so as to abut the stop-lug of said bolster, and means for moving said brake-shoe, substantially as described.

2. In a logging train, the combination with a pair of wheel-trucks, each truck provided with an axle-bolt, and with means for supporting a load of logs, of bolsters adjustably interconnecting the two trucks at the axle-bolts, said bolsters comprising a leading right an rear bolster, a tongue rotatably hung on said leading right an rear bolster, a cable fastened to said tongue and adapted to wind thereon, and brake-shoes mounted on said truck, a cable-drum operatively connected with said cable and adapted to wind said cable on its shaft, and means for connecting said drum-shaft with the brake mechanism of the leading truck.

3. In a logging train, the combination with a pair of wheel-trucks, each truck provided with an axle-bolt, and with means for supporting a load of logs; of a tongue-plate rotatably hung on the platform of said truck, a cable fastened to said tongue and adapted to wind thereon, a brake-shoe mounted on said truck, a cable-drum operatively connected with said cable and adapted to wind said cable on its shaft, and means for connecting said drum-shaft with the brake mechanism of the leading truck.

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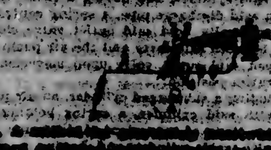
1,040,234. VEHICLE-JACK. Benjamin H. Lemon, Corinth, Miss. Filed Dec. 29, 1911. Serial No. 668,204. (Cl. 69—13.)



1. In a [illegible] jack, the combination with a body portion formed of parallel side portions and interposed front and rear [illegible] connecting and supporting bar pivoted between the front [illegible] adapted to swing rearward and back and having a triangular plate secured to its rear side and adapted to engage the rear axle plate, [illegible]

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1,040,236. PROCESS FOR THE PREVENTION OF SCORING OF THREADS AND DETERIORATION IN SURFACES OF [illegible]. Frank Ellis, [illegible]. Filed [illegible], 1911. Serial No. [illegible]. (Cl. [illegible].)



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1,040,237. [WITHDRAWN.]

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1,040,238. SWIVEL-HEAD. Charles H. Lyttleton, West Barre, N. Y. Filed Sept. 13, 1911. Patent No. 1,040,238. Renewed Apr. 21, 1912. Serial No. 691,676. (Cl. 218—116.)



1. In a swivel head, a valve construction including a valve stem having an enlarged valve head at one end thereof, a packing member fitted over the head, and a packing nut on the stem and engaging the packing member to compress, thereby serving to fix the parts in position.

2. In a swivel head, a valve construction including a valve stem having an enlarged valve head at one end thereof, a packing member fitted over the head, and a split packing nut surrounding the stem and engaging the packing member to compress, thereby serving to fix the parts in position.

3. In a swivel head, a valve construction including a valve stem having an enlarged valve head at one end thereof, a packing member fitted over the head, and a split packing nut surrounding the stem and engaging the packing member to compress, thereby serving to fix the parts in position, and a spring secured upon the stem and engaging one of the faces which is distant from the valve head.

4. In a swivel head, a valve construction including a valve stem having an enlarged valve head at one end thereof, a packing member having a groove adjacent the valve head, a split packing nut fitted over the head, a sleeve surrounding the stem and serving to press the edge portion of the packing member into the groove, and a nut threaded upon the stem and engaging that end of the sleeve which is distant from the valve head.

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1,040,241. LOAD-CARRIER. George W. Mowbray, Webster Mines, Minn. Filed June 27, 1912. Serial No. 706,262. (Cl. 97—8.)

2. A load carrier comprising a bar having a downturned [illegible] at the opposite end [illegible] a bar [illegible] a [illegible] bar [illegible] a [illegible] [illegible] [illegible]

1. In a shirt and blouse grip, the combination of a main plate having lugs at its ends whereby it may be attached by a bolt to the back of the waist outside the blouse, a second plate which is hinged to the main plate and extends the width of the main plate to grip the blouse, one plate having a pair of spaced openings and the other plate having a pair of spaced studs adapted to project through said openings, and means carried by the main plate for securing said studs in various positions relatively to said holes.

2. In a shirt and blouse grip, the combination of a main plate having lugs at its ends whereby it may be attached by a bolt to the back of the waist outside the blouse, a second plate which is hinged to the main plate and extends the width of the main plate to grip the blouse, one plate having a pair of spaced openings and the other plate having a pair of spaced studs adapted to project through said openings, a connecting clip, spring actuated pins carried by the ends of the clip and adapted for engagement with the openings in the plates, and means carried by the main plate for securing said studs in various positions relatively to said holes.

1,040,[illegible]. [illegible] AND BLOUSE GRIP. [illegible], Pittsburgh, Pennsylvania. Filed Apr. 15, 1911. Serial No. [illegible]. (Cl. 24—20.)



1. In a shirt and blouse grip, the combination of a main plate having lugs at its ends whereby it may be attached by a bolt to the back of the waist outside the blouse, a second plate which is hinged to the main plate and extends the width of the main plate to grip the blouse, one plate having a pair of spaced openings and the other plate having a pair of spaced studs adapted to project through said openings, and means carried by the main plate for securing said studs in various positions relatively to said holes.

2. In a shirt and blouse grip, the combination of a main plate having lugs at its ends whereby it may be attached by a bolt to the back of the waist outside the blouse, a second plate which is hinged to the main plate and extends the width of the main plate to grip the blouse, one plate having a pair of spaced openings and the other plate having a pair of spaced studs adapted to project through said openings, a connecting clip, spring actuated pins carried by the ends of the clip and adapted for engagement with the openings in the plates, and means carried by the main plate for securing said studs in various positions relatively to said holes.

1,040,[illegible]. [illegible] MARKING SYSTEM. William [illegible], Minneapolis, Minn. Filed Jan. 2, 1912. Serial [illegible]. (Cl. [illegible]—[illegible].)



1,040,[illegible]. [illegible] Beckmann, Lock Haven, Pa. Filed [illegible]. Serial No. 661,900. (Cl. 30—18.)





1,040,[illegible]. [illegible], Jersey City, New York. Filed [illegible]. Serial No. [illegible]. (Cl. [illegible].)



ing said cutter bars in opposite directions relative to each other.

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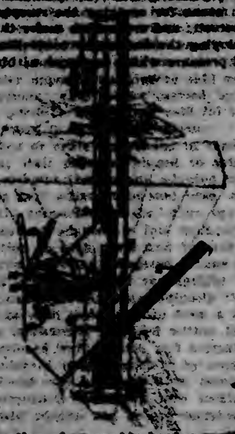
1,040,226. SUPPORTING AND LIFTING AND ADJUSTING DEVICE FOR BEAMS-MILLS. Edward H. Moyle, Los Angeles, Cal., assignor to Edward Moyle, Green Valley, Cal. Filed Sept. 9, 1908. Serial No. 452,613. (Cl. 83—57.)



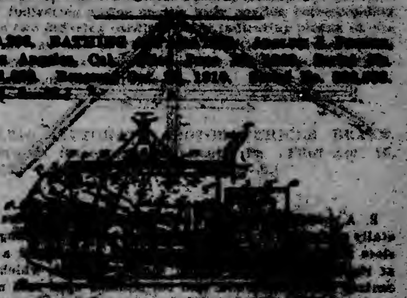


1,040,227. [illegible] Homer H. Moyle, New York, [illegible] Mar. 19, 1911. Serial No. 614,151. (Cl. [illegible])

[illegible]



1. The combination of an ore-bin having vertical lateral



[Claims 2 and 3 not printed in the Gazette.]

1,040,228. BASKETS [illegible], Los Angeles, Cal., assignor of [illegible], Los Angeles, Cal. [illegible], 1910. Serial No. 591,859. (Cl. [illegible])

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1,040,240. RECORDING OR INDICATING. Frank Rose and Warren Bergmann, Fall, Col. Filed Jan. 22, 1912. Serial No. 672,057. (Cl. 324—16.)





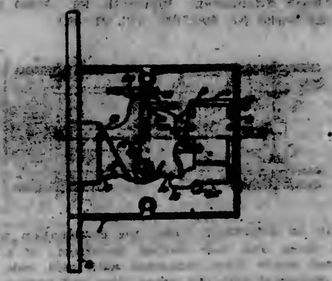




1,040,244. AUTOMATIC MOTOR-VEHICLE BRAKE. Clement Hallowell, Plymouth, Pa. Filed Sept. 28, 1912. Serial No. 722,752. (Cl. 188—5.)



LOCK. WILLIAM H. [illegible] and GEORGE F. [illegible], New Haven, Conn., assignors to Eagle Lock Company, New Haven, Conn., a Corporation of Connecticut. Filed Apr. 30, 1900. Serial No. 462,218. (Cl. 70—71.)

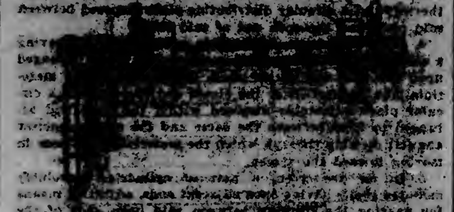


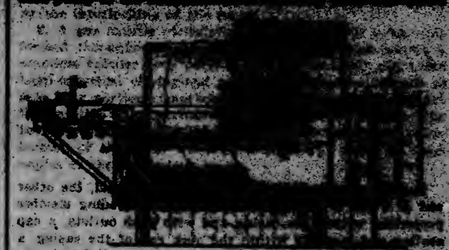
1. The combination in a lock of that type wherein the bolt is operated by either a key or a master key, and the lift of the operating key is in contact with the rear in said bolt and the tumblers at one and the same time; of a bolt having a rear flange; a movable tumbler projecting into the path of the key lift and in part over the said rear; a second tumbler mounted so as not to project into the path of said key lift and formed with a rear shoulder; and means, operated when said second tumbler is in a predetermined position, to release said bolt and permit movement thereof by the key lift, said predetermined position being that in which the said tumblers are moved by the key being inserted into the operating key or by the master key, said bolt remaining locked in position when said bolt cannot be withdrawn by either the key or master key without movement of both of said tumblers.

2. The combination in a lock of that type wherein the bolt is operated by either a key or a master key, and the lift of the operating key is in contact with the rear in said bolt and the tumblers at one and the same time; of a bolt having a rear flange; a movable tumbler projecting into the path of the key lift and in part over the rear in said bolt; a second tumbler mounted so as not to project into the path of said key lift and formed with a rear shoulder; and means, operated when said second tumbler is in a predetermined position, to release said bolt and permit movement thereof by the key lift, said predetermined position being that in which the said tumblers are moved by the key being inserted into the operating key or by the master key, said bolt remaining locked in position when said bolt cannot be withdrawn by either the key or master key without movement of both of said tumblers, and means to prevent movement of said second tumbler when said bolt is withdrawn.

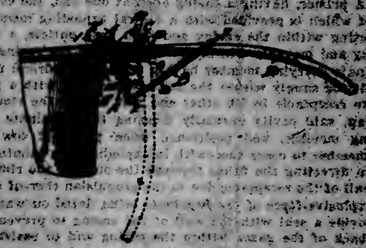
[illegible] Filed Nov. 30, 1926. Serial No. 151,864. (Cl. [illegible])







[illegible] Filed June 22, 1922. Serial No. [illegible]. (Cl. 31—14.)



and the projection of the member to seat the casing and direct the flash to the powder charge.



2. A primer, having a casing open at one end, the other end of which is provided with a central exploding member projecting within the casing and with flash outlets, a cap sealing and movable within the open end of the casing, a fulminate carrying member having a solid cylindrical portion fitting snugly within the cap and provided with a fulminate receptacle in its other end, said cavity normally incasing the fulminate exploding member, and positioned when propelled toward said member to coact therewith in exploding the fulminate and to have its rim flared outwardly to engage the walls of the casing to assist in directing the flashes through the outlets.

3. A primer, having a casing open at one end, the other end of which is provided with a central exploding member projecting within the casing and with flash outlets, a cap sealing and movable within the open end of the casing, a fulminate carrying member having a solid cylindrical portion fitting snugly within the cap and provided with a fulminate receptacle in its other end and beyond the rim of the cap, said cavity normally incasing the fulminate exploding member, and positioned when propelled toward said member to coact therewith in exploding the fulminate and in directing the flashes through the outlets, the rim of the wall of the receptacle due to the propulsion thereof and the explosive force of the fulminate being flared outwardly to provide a seal with the wall of the casing to prevent a flare-back of the gases within the casing and to assist in the directing of the flash.

4. A primer, having a casing, a sealing cap of lesser length than the cavity of the casing fitting in one end of the casing, a firing pin disposed in the other end thereof, and a fulminate carrying member having a solid cylindrical portion fitting within the sealing cap with its other end within the casing and beyond the rim of the cap to protect the firing pin and fulminate and to prevent a flare back of the gases through the sealing cap.

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1,940,261. ORE-SCREEN. CHARLES O. MICHAELSEN, Omaha, Nebr. Filed May 20, 1911. Serial No. 628,574. (Cl. 83—54.)



1. In an ore-screen, a pair of cylindrical shells revolubly mounted in axial alignment with each other, a cylindrical screen connecting the adjacent ends of the shells, means for varying the distance between the ends of the shells, and means for feeding materials into one of the shells.

2. In an ore-screen, a pair of cylindrical shells, a revolubly inclined tubular shaft on which the shells are mounted, means for varying the distance between the adjacent ends of the shells, a cylindrical screen fitting slidably on said adjacent ends of the shells, and means for feeding materials into the tubular shaft, there being ports to admit the materials from the shaft into one of the shells, and openings in the other shell for the discharge of the materials which pass across the screen.

3. In an ore-screen, a pair of cylindrical shells revolubly mounted in axial alignment with each other, adjusting means for varying the distance between said open ends of the shells, a cylindrical screen fitting slidably over the shells and bridging the space between the open ends thereof, means for feeding materials into one of the shells, means for distributing said materials before the same pass onto the screen, there being discharge ports in the other shell, and means for varying the area of said ports.

[Claims 4 to 9 not printed in the Gazette.]

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1,940,262. WELL-CASING MACHINE. EDWARD J. PRENTPACKER, Los Angeles, Cal., assignor to Baker Iron Works, Los Angeles, Cal., a Corporation of California. Filed Mar. 9, 1909. Serial No. 482,410. (Cl. 79—81.)



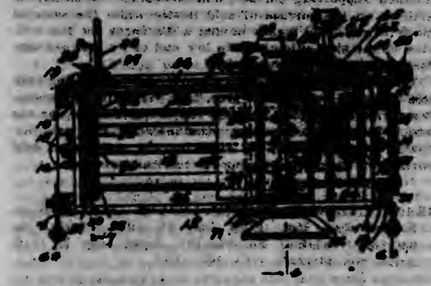
1. A truck provided with rails having flanges, a carriage provided with wheels running on said track and provided with wheels running under the flanges of said track, said carriage also being provided with an abutment, a rack extending along the track, a pawl on said carriage to engage said rack, and a cam to telescope joints of pipe when held by said abutment.

2. In a well casing machine, a track formed of two I-beams spaced apart, one frame, one of which is movable along the track toward and from the other, wheels for the movable frame to run on flanges of the I-beams, wheels for the movable frame to run under flanges of the I-beams, a rack in fixed relation to the track, a pawl on the movable frame to engage the rack, a cam on axle of said frame, an abutment on the other frame, and means to operate the cam.

3. A pipe machine comprising a frame; a frame mounted on the base and provided with an abutment and with a pipe section supporting socks on the same side of the frame; a mounted frame supported on the base; said frames extending up from the base and being in movable relation to each other; a cylinder mounted on the mounted frame; a piston in the cylinder; the cylinder on the mounted frame being opposite to the free end of the other; a piston in the cylinder and a rod on the piston projecting between the frames toward said first plate and abutment; the space above the horizontal between the frames being open and unobstructed; means to supply fluid to the cylinder to operate the piston, and means to temporarily hold the frames in stationary relation to each other.



1,940,263. PLASTERING-MACHINE. Edward J. Six, Lakeside, Ohio, Assignor of one-half to Thomas H. Hunt, Cincinnati, Ohio. Filed June 21, 1909. Serial No. 503,261. (Cl. 72—233.)



1. In a plastering machine, a supporting frame, a carriage vertically movable thereon in one direction, a carrier movable on the carriage in another direction, plastering mechanism mounted on the carrier, driving means mounted on the supporting frame, and automatic operating means for the plastering mechanism, actuated by the driving means and effecting the movement of said plastering mechanism irrespective of the position of the carrier.

2. In a plastering machine, the combination with a support, of a carriage movable thereon in one direction, a carrier movable on the carriage in another direction, driving means mounted on the support, automatic mechanism actuated by said driving means for effecting the movement of the carriage and also the movement of the carrier, plastering mechanism carried on the carrier, and operating means for the plastering mechanism driven by the driving means irrespective of the position of said plastering mechanism.

3. In a plastering machine, a supporting frame, a carriage movable thereon, a motor journaled in the carriage, a carrier movably mounted on the carriage and engaged with the motor, driving connections between the motor and the frame for driving the carriage, plastering mechanism carried on the carrier.

4. In a plastering machine, a supporting frame, a carriage transversely thereon, slotted journals in the carriage, oppositely driven wheels rotatable with respect to the screws, means for shifting either wheel to or out of the slotted journals under bearing a threaded engagement with the screws, and plastering mechanism mounted on the carrier.

5. In a plastering machine, a supporting frame, a carriage movably mounted thereon, screws journaled in the carriage, gearing connecting the screws for moving them simultaneously in the same direction, oppositely revolving wheels loosely mounted on the screws, means for shifting the wheels, means for shifting either wheel to or from a corresponding screw having threaded engagement with the screws, and plastering mechanism mounted on the carrier.

[Claims 6 to 20 not printed in the Gazette.]

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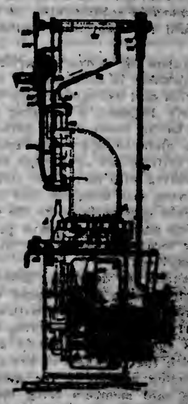
1,940,264. INCANDESCENT MANTLE. JOHN H. MAYER, Philadelphia, Pa. Filed Sept. 7, 1911. Serial No. 648,845. (Cl. 67—24.)



1. A gas consumer including a slotted chain comprising flanged chain-plates held together by transverse channel connections, a mantle holder fully pivoted and a centrally supported hand-operated wheel engaged with the same between the said

# REISSUES.

12,668. BOTTLE-CAPPING MACHINE. Baldwin Ambrose and Alex Calhoun, Brooklyn, N. Y.; said Calhoun assignor to said Ambrose. Filed Feb. 23, 1909, Serial No. 479,417. Original No. 940,522, dated Nov. 23, 1909, Serial No. 447,803. (Cl. 226—2.)



1. In a machine for affixing the closure part to one part of a container, the combination of an affixing instrument for affixing the movement of said parts relatively to each other, supporting mechanism for said instrument normally operative during the affixing operation for longitudinal movement of the instrument relatively to said parts, automatically-operative means for disengaging said instrument from said parts, and means for operating said instrument during the working thrust to effect disengagement of the instrument from said parts, substantially as described.

2. In a machine for attaching the top part of a container to the closed bottom part thereof, the combination of an affixing instrument for affixing the movement of said parts relatively to each other, supporting mechanism for said instrument normally operative during the working thrust to effect longitudinal movement of the instrument relatively to said parts, automatically-operative means for disengaging said instrument from said parts, and means for operating said instrument during the working thrust to effect disengagement of the instrument from said parts, substantially as described.

3. In a machine for attaching the top part of a container to the closed bottom part thereof, the combination of an affixing instrument for affixing the movement of said parts relatively to each other, supporting mechanism for said instrument normally operative during the working thrust to effect longitudinal movement of the instrument relatively to said parts, automatically-operative means for disengaging said instrument from said parts, and means for operating said instrument during the working thrust to effect disengagement of the instrument from said parts, substantially as described.

4. In a machine for attaching the top part of a container to the closed bottom part thereof, the combination of an affixing instrument for affixing the movement of said parts relatively to each other, supporting mechanism for said instrument normally operative during the working thrust to effect longitudinal movement of the instrument relatively to said parts, automatically-operative means for disengaging said instrument from said parts, and means for operating said instrument during the working thrust to effect disengagement of the instrument from said parts, substantially as described.

5. In a machine for attaching the top part of a container, the combination of an affixing instrument, a support, and a slip-friction connection between the support and the affixing instrument, said connection being normally operative during the working thrust to oppose the longitudinal movement of the instrument relatively to said parts, substantially as described.

6. In a machine for attaching the top part of a container to the closed bottom part thereof, the combination of an affixing instrument, a support, and a slip-friction connection between the support and the affixing instrument, said connection being normally operative during the working thrust to oppose the longitudinal movement of the instrument relatively to said parts, substantially as described.

7. In a machine for attaching the top part of a container to the closed bottom part thereof, the combination of an affixing instrument for affixing the movement of said parts relatively to each other, supporting mechanism for said instrument normally operative during the working thrust to effect longitudinal movement of the instrument relatively to said parts, automatically-operative means for disengaging said instrument from said parts, and means for operating said instrument during the working thrust to effect disengagement of the instrument from said parts, substantially as described.

8. In combination, a support, a head mounted on the support, moving means adapted to engage the head and to move comprising members

...through at the opposite end having the slot in slightly...
...ally on the other, substantially as described.

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with levers for transmitting rotation with respect to the cylinder-supporting arms, a rotatable cylinder journaled with said arms between the cylinder and provided with an opening, a reciprocating cylinder-holding means, and means for holding said cylinder pressed against the former with the cylinder-opening arm, said for causing said holding-arm to move in opposition to the rotation of the cylinder, said opening opposite said hook-arm and for successively tripping said holding means from engagement with said lever to permit the latter to return to operative relation with respect to the cylinder-supporting arms.

13. In a cylinder printing press, the combination of a printing roller, a cylinder geared to said roller, yielding means holding the cylinder in the plane of movement of the printing surface of the roller, oscillatory arms supporting the cylinder, rock-arms pivotally carried by said cylinder-supporting arms and held with their free ends pressed yieldingly therefrom, levers pivotally carried by said rock-arms, means holding said levers fingerstive with respect to the cylinder-supporting arms, means rotatable with the said roller for imparting oscillate movement to said levers toward the cylinder-supporting arms, means to throw said levers to operative position after said holding means is tripped, means to swing said rock-arms toward the cylinder-supporting arms to cause said levers after being tripped, to swing the cylinder-supporting arms and withdraw the cylinder from the plane of movement of the printing surface of said roller without throwing said roller and cylinder out of gear, means for restoring said levers to inoperative relation with respect to the cylinder supporting arms, a circular flange rotatable with and concentric of the cylinder and provided with a pair of openings, a hook-arm rigid with said holding means, means for holding said hook-arm pressed against the inner side of said circular flange and for drawing said hook-arm outwardly through one of said openings as the rotation of the cylinder disposes said opening opposite said hook-arm and for simultaneously tripping said holding means from engagement with said lever to permit the latter to return to operative relation with respect to the cylinder-supporting arms, means to limit the outward movement of said hook-arm, and a lip projecting from the rear wall of the other opening of said flange and forward with respect to the direction of rotation of the cylinder, to engage said hook-arm and return it through said second opening to the inner side of said flange.

12. In a cylinder printing press, a driven printing roller and an impression cylinder suitably driven, combined means for moving the cylinder from the path of the printing surface of the roller without interrupting the rotation of the cylinder or roller, means for periodically disposing the cylinder-moving means in inoperative relation to the cams, means for holding said cylinder-moving means in such inoperative position, yielding means tending to take said holding means from the path of the cylinder-moving means, means for causing said holding means to hold the cylinder-moving means in inoperative relation to the cylinder at cams, and means carried and rotatable with the cylinder for maintaining said holding means in its holding position for a predetermined time.

13. In a printing press, a suitable frame, a plate carried thereby, a rotatable cylinder normally journaled beyond the front end of said plate and provided with a longitudinal groove in its periphery, a rod of elongated form mounted by the cylinder, a rock-shaft above said plate and provided with a crank arm, yielding means to rock said shaft forward at such times and positions as the front end of said plate, yielding means towards the front end of the said plate, yielding means towards said rock-shaft and provided with a hook-arm, said hook-arm normally depressed into the path of said rod, means for moving said cylinder from the plane of movement of the printing surface of said plate, means for causing one of said cams to move said cylinder from the plane of movement of the printing surface of said plate without interrupting the rotation of the cylinder or roller, means for periodically disposing the cylinder-moving means in inoperative relation to the cams, means for holding said cylinder-moving means in such inoperative position, yielding means tending to take said holding means from the path of the cylinder-moving means, means for causing said holding means to hold the cylinder-moving means in inoperative relation to the cylinder at cams, and means carried and rotatable with the cylinder for maintaining said holding means in its holding position for a predetermined time.

14. In a printing press, a suitable frame, a plate carried thereby, a rotatable cylinder normally journaled beyond the front end of said plate and provided with a longitudinal groove in its periphery, a rod of elongated form mounted by the cylinder, a rock-shaft above said plate and provided with a crank arm, yielding means to rock said shaft forward at such times and positions as the front end of the said plate, yielding means towards the front end of said plate, yielding means towards said rock-shaft and provided with a hook-arm, said hook-arm normally depressed into the path of said rod, means for moving said cylinder from the plane of movement of the printing surface of said plate, means for causing one of said cams to move said cylinder from the plane of movement of the printing surface of said plate without interrupting the rotation of the cylinder or roller, means for periodically disposing the cylinder-moving means in inoperative relation to the cams, means for holding said cylinder-moving means in such inoperative position, yielding means tending to take said holding means from the path of the cylinder-moving means, means for causing said holding means to hold the cylinder-moving means in inoperative relation to the cylinder at cams, and means carried and rotatable with the cylinder for maintaining said holding means in its holding position for a predetermined time.

15. In a printing press, a rotating printing roller, a rotating impression cylinder movable toward and from said roller, a plate, a gripper-mechanism rotatable with the cylinder, a yieldingly-depressed arm in the path of an envelop or sheet on said plate, means to cause the gripper-mechanism to successively seize said arm and grip said envelop or sheet and draw it around with the cylinder, means tending to effect movement of the cylinder from the printing roller, and means actuated by the envelop or sheet extending from the plate to the gripper mechanism, to prevent the action of the means for effecting movement of the cylinder from the roller.

16. In a printing press, a rotating printing roller, a rotating impression cylinder, movable toward and from said roller, a plate, a gripper-mechanism rotatable with the cylinder, a yieldingly-depressed arm in the path of an envelop or sheet on said plate, means to cause the gripper-mechanism to successively seize said arm and grip said envelop or sheet and draw it around with the cylinder, means tending to effect movement of the cylinder from the printing roller, and means actuated by the envelop or sheet extending from the plate to the gripper mechanism, to prevent the action of the means for effecting movement of the cylinder from the roller.

17. In a printing press, a rotating printing roller, a rotating impression cylinder movable toward and from said roller, a plate, a gripper-mechanism rotatable with the cylinder, a yieldingly-depressed arm in the path of an envelop or sheet on said plate, means to cause the gripper-mechanism to successively seize said arm and grip said envelop or sheet and draw it around with the cylinder, means tending to effect movement of the cylinder from the printing roller, and means actuated by the envelop or sheet extending from the plate to the gripper mechanism, to prevent the action of the means for effecting such movement of the cylinder for a part of a revolution of the cams, after the means actuated by the envelop or sheet has ceased to be operative.

18. In a printing press, a rotating printing roller, a rotating impression cylinder movable toward and from said roller, a plate, a gripper-mechanism rotatable with the cylinder, a yieldingly-depressed arm in the path of an envelop or sheet on said plate, means to cause the gripper-mechanism to successively seize said arm and grip said envelop or sheet and draw it around with the cylinder, means tending to effect movement of the cylinder from the printing roller, and means actuated by the envelop or sheet extending from the plate to the gripper mechanism, to prevent the action of the means for effecting such movement of the cylinder for a part of a revolution of the cams, after the means actuated by the envelop or sheet has ceased to be operative, and means to restore the cylinder-moving means to inoperative position after it has caused the cylinder to move away from the roller.

19. In a printing press, a rotating printing roller, a rotating impression cylinder movable toward and from said roller, a plate, a gripper-mechanism rotatable with the cylinder and adapted to pick up an envelop or sheet in the event that such envelop or sheet is properly positioned on said plate, a rock-shaft above said plate, provided at one end with an upwardly-projecting crank-arm having an upwardly-projecting step and a notch at the front side of said step, a spring tending to hold said rock-shaft with its crank-arm at its forward limit of movement, an arm projecting from the rock-shaft and held normally depressed by the latter below the front end of said plate and in the path of the gripper-mechanism, a vertically movable hook forward of said step and above the notch of the crank-arm when the latter occupies its advanced position, means rotatable with the cylinder for normally holding said hook above said notch and adapted at a certain period in its revolution to permit said plate to be moved downward, means holding the cylinder pressed yieldingly toward the roller, reciprocating means for moving the cylinder away from the roller, means normally holding the reciprocating means inoperative with respect to the cylinder, means for tripping said holding means and drawing said hook down into said notch, means whereby the holding means is tripped, for positioning the reciprocating means to move the cylinder away from the roller, and yielding means for holding the arm depressed which projects beyond said plate.

20. In a printing press, a rotating printing roller, a rotating impression cylinder movable toward and from the said roller, a plate, gripping-mechanism rotatable with the cylinder and adapted to pick up an envelop or sheet in the event that such envelop or sheet is properly positioned on said plate, a rock-shaft above said plate provided at one end with an upwardly-projecting crank-arm having an upwardly-projecting step and a notch at the front side of said step, a spring tending to hold said rock-shaft with its crank-arm at its forward limit of movement, an arm projecting from the rock-shaft and held normally depressed by the latter below the front end of said plate and in the path of the gripper-mechanism, a vertically movable hook forward of said step and above the notch of the crank-arm when the latter occupies its advanced position, means rotatable with the cylinder for normally holding said hook above said notch and adapted at a certain period in its revolution to permit said plate to be moved downward, means holding the cylinder pressed yieldingly toward the roller, reciprocating means for moving the cylinder away from the roller, means normally holding the reciprocating means inoperative with respect to the cylinder, means for tripping said holding means and drawing said hook down into said notch, means whereby the holding means is tripped, for positioning the reciprocating means to move the cylinder away from the roller, and yielding means for holding the arm depressed which projects beyond said plate, and means projecting from the means movable with the cylinder, for raising the said hook out of the notch of said crank-arm once in each revolution of the cylinder.

21. In a printing press, a rotating printing roller, a rotating impression cylinder movable toward and from the said roller, a plate, gripping-mechanism rotatable with the cylinder and adapted to pick up an envelop or sheet in the event that such envelop or sheet is properly positioned on said plate, a rock-shaft above said plate, provided at one end with an upwardly-projecting crank-arm having an upwardly-projecting step and a notch at the front side of said step, a spring tending to hold said rock-shaft with its crank-arm at its forward limit of movement, an arm projecting from the rock-shaft and held normally depressed by the latter below the front end of said plate and in the path of the gripper-mechanism, a vertically movable hook forward of said step and above the notch of the crank-arm when the latter occupies its advanced position, means rotatable with the cylinder for normally holding said hook above said notch and adapted at a certain period in its revolution to permit said plate to be moved downward, means holding the cylinder pressed yieldingly toward the roller, reciprocating means for moving the cylinder away from the roller, means normally holding the reciprocating means inoperative with respect to the cylinder, means for tripping said holding means and drawing said hook down into said notch, means whereby the holding means is tripped, for positioning the reciprocating means to move the cylinder away from the roller, and yielding means for holding the arm depressed which projects beyond said plate, and means projecting from the means movable with the cylinder, for raising the said hook out of the notch of said crank-arm once in each revolution of the cylinder from the roller, means for causing one of said cams to move said cylinder from the plane of movement of the printing surface of said roller without interrupting the rotation of the cylinder or roller, means for periodically disposing the cylinder-moving means in inoperative relation to the cams, means for holding said cylinder-moving means in such inoperative position, yielding means tending to take said holding means from the path of the cylinder-moving means, means for causing said holding means to hold the cylinder-moving means in inoperative relation to the cylinder at cams, and means carried and rotatable with the cylinder for maintaining said holding means in its holding position for a predetermined time.



means when disposing means to support the positioning the reciprocating means to move the cylinder away from the roller.

22. In a printing press, a rotating printing roller, a rotating impression cylinder movable toward and from the said roller, a plate, gripping-mechanism rotatable with the cylinder and adapted to pick up an envelop or sheet in the event that such envelop or sheet is properly positioned on said plate, a rock-shaft above said plate provided at one end with an upwardly-projecting crank-arm having an upwardly-projecting step and a notch at the front side of said step, a spring tending to hold said rock-shaft with its crank-arm at its forward limit of movement, an arm projecting from the rock-shaft and held normally depressed by the latter below the front end of said plate and in the path of the gripper-mechanism, a vertically movable hook forward of said step and above the notch of the crank-arm when the latter occupies its advanced position, means rotatable with the cylinder for normally holding said hook above said notch and adapted at a certain period in its revolution to permit said plate to be moved downward, means holding the cylinder pressed yieldingly toward the roller, reciprocating means for moving the cylinder away from the roller, means normally holding the reciprocating means inoperative with respect to the cylinder, means for tripping said holding means and drawing said hook down into said notch, means whereby the holding means is tripped, for positioning the reciprocating means to move the cylinder away from the roller, and yielding means for holding the arm depressed which projects beyond said plate, means projecting from the means movable with the cylinder, for raising the said hook out of the notch of said crank-arm once in each revolution of the cylinder, means for causing one of said cams to move said cylinder from the plane of movement of the printing surface of said roller without interrupting the rotation of the cylinder or roller, means for periodically disposing the cylinder-moving means in inoperative relation to the cams, means for holding said cylinder-moving means in such inoperative position, yielding means tending to take said holding means from the path of the cylinder-moving means, means for causing said holding means to hold the cylinder-moving means in inoperative relation to the cylinder at cams, and means carried and rotatable with the cylinder for maintaining said holding means in its holding position for a predetermined time.

23. In a printing press, a printing couple, one member of said couple having a plurality of impression surfaces, and mechanism whereby the impression is thrown off automatically if a sheet is not properly fed to any impression surface of said member only during the time when such sheet should have been printed and without affecting the operation of another impression surface.

24. In a printing press, a printing surface carrier and an impression cylinder co-acting therewith, having a plurality of impression surfaces; and means for automatically throwing off impression if a sheet is not properly fed to any impression surface of said cylinder only, during the time that such sheet should have been printed and without affecting the printing of sheets on the other impression surface.

25. In combination, a plate cylinder, an impression cylinder co-acting therewith having a plurality of impression surfaces; and means for automatically throwing the impression cylinder off impression if a sheet is not properly fed to any impression surface thereof only during the time that such sheet should have been printed.

26. In a printing press, the combination of a plurality of printing surfaces; an impression cylinder having a plurality of impression surfaces; and means for automatically throwing off impression without stopping the press to prevent the printing operation of any impression surface to which a sheet is not fed, without interrupting the printing operation of another impression surface to which sheets are fed.

27. In a printing press, a printing couple, one member of said couple having a plurality of impression surfaces; and mechanism whereby the impression is thrown off automatically if a sheet is not properly fed to an impression surface of said member during that part of the rotary movement of said member wherein such sheet should have been printed, and is automatically thrown on to permit the operation of another impression surface, substantially as described.

28. In a printing press, the combination of a printing couple, one member of said couple having a pair of impression surfaces and mechanism for automatically throwing said printing impression, whether all impression if a sheet is not properly fed to any impression surface thereof during that portion of the rotation of said member wherein such sheet should have been printed, and for throwing said member on impression during the remainder of the rotation to enable another impression surface to print properly fed sheets.

29. In combination, a plate cylinder, an impression cylinder co-acting therewith having a plurality of impression surfaces; and means for automatically throwing the cylinder off impression if a sheet is not properly fed to any impression surface thereof during that portion of the rotation wherein such sheet should have been printed and for throwing said cylinder on impression during the remainder of its rotation to print properly fed sheets.

30. In a printing press, an impression cylinder having a plurality of impression surfaces, and mechanism for automatically throwing said cylinder off impression for part of its rota-

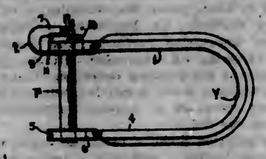
tained for under to prevent the printing operation of any impression surface to which a sheet is not fed and for throwing said cylinder out impression for the remainder of the revolution to permit the printing operation of that impression surface to which sheets are properly fed.

30. In a printing press an impression cylinder having two impression surfaces, means for feeding sheets thereto, an independent detector device for each impression surface, and means controlled by said detector means for automatically throwing said cylinder out of impression for such part or parts of its revolution as will prevent the printing operation of either impression surface if it fails to receive a sheet, and for throwing said cylinder out impression for such part or parts of its revolution as will permit the cylinder to print a sheet taken by the other impression surface, whereby the failure of one impression surface to print does not affect the operation of the other impression surface.

31. In a printing press, the combination of an impression cylinder having two impression surfaces; means for feeding sheets thereto; and independent mechanism whereby if a sheet is not properly fed to either impression surface of the cylinder the impression is thrown off during that part of the revolution of such cylinder in which such sheet should have been printed; and is automatically thrown on for the remainder of its revolution or that a sheet properly fed to the other impression surface of the cylinder will be printed; the throw-off mechanism being independently electrated by devices related to the respective surfaces of the impression cylinder whereby the failure of one impression surface to print does not affect the operation of the other impression surface.

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12,470. CLEVIS. Mirsson A. Nelson, Fowler, Colo. Filed Mar. 14, 1912. Serial No. 683,599. Original No. 1,009,882, dated Nov. 21, 1911, Serial No. 660,472. (Cl. 97—4.)



1. In a clevis, the combination with a yoke having openings in its upper and lower arms, the uppermost opening being elongated longitudinally of the arm, and an integral lip rising from the rear end of this arm and projecting forward and having a notch in its extremity; of a pin whose shank fits said openings loosely and whose head comprises a circular flange portruding around the shank and a tongue radially wider than the flange, both adapted to pass under the lip and prevent the rise of the pin save when its shank stands in the forward end of the uppermost opening and said tongue is alined with said notch.

2. In a clevis, the combination with a yoke having slots in its upper and lower arms, and a lip rising from the upper arm and projecting toward the slot therein and having a notch in its extremity; of a pin whose shank fits movably in said slots and whose head comprises a circular flange extending half-way around the shank and a tongue radially wider than the flange, both adapted to pass under said lip and prevent the rise of the pin save when its shank stands in the forward ends of said slots and said tongue is alined with said notch.

3. In a clevis, the combination with a yoke having longitudinally disposed slots in the upper and lower arms, and an integral lip rising from the rear end of the upper arm and projecting toward the slot therein, the lip overhanging a transverse shoulder and having a V-shaped notch in its extremity; of a pin whose shank fits movably in said slots and whose head comprises a circular flange portruding around the shank and a tongue radially wider than the flange, both adapted to pass under said lip and prevent the rise of the pin save when its shank stands in the forward ends of said slots and said tongue is alined with said notch.

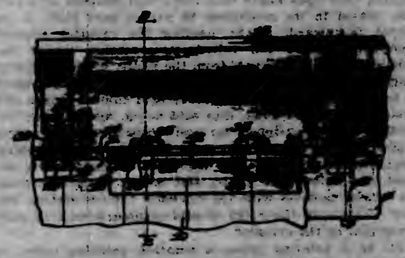
4. In a clevis, the combination with a yoke having openings in its upper and lower arms, the uppermost opening being elongated longitudinally of the arm, and an integral lip rising from the rear end of this arm and projecting forward and having a notch in its extremity; of a pin whose shank fits said openings loosely and whose head comprises a circular flange portruding around the shank and a tongue radially wider than the flange, both adapted to pass under the lip and prevent the rise of the pin save when its shank stands in the forward end of the uppermost opening and said tongue is alined with said notch.

5. In a clevis, the combination with a yoke having slots in its upper and lower arms, and a lip rising from the upper arm and projecting toward the slot therein and having a notch in its extremity; of a pin whose shank fits movably in said slots and whose head comprises a circular flange extending half-way around the shank and a tongue radially wider than the flange, both adapted to pass under said lip and prevent the rise of the pin save when its shank stands in the forward ends of said slots and said tongue is alined with said notch.

6. In a clevis, the combination with a yoke having slots in its arms, and a lip rising from the upper arm and projecting toward the slot therein and having a notch in its extremity; of a pin whose shank fits movably in said slots and whose head comprises a circular flange portruding under said lip when the pin stands in the front ends of said slots and a tongue wider than said flange but adapted to pass through the notch in the lip and a contiguous shoulder adapted to engage said tongue when the pin stands in the rear ends of said slots.

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13,471. CAR-ROOF. John Pearson, Chicago, Ill. Filed Apr. 19, 1912. Serial No. 692,282. Original No. 949,826, dated Nov. 19, 1909, Serial No. 529,659. (Cl. 105—5.)



1. In a car roof, a ridge-pole, diagonal brace extending from the sides of the car to the ridge-pole, a series of cariines extending the width of the car above the pole and braces and united to the braces and pole and supporting the sheet-iron roof panels between the cariines.

2. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the ridge-pole, a series of cariines extending the width of the car above the pole and braces and seated in the braces and pole, and supporting the sheet-iron roof panels between the cariines.

3. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the ridge-pole, a series of cariines extending the width of the car above the pole and braces and clasped into the braces and pole, and roof-panels between the cariines.

4. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, means to clamp the cariines to the purlins, and roof-panels between the cariines.

5. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, means to clamp the cariines to the purlins, and roof-panels between the cariines.

6. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, means to clamp the cariines to the purlins, and roof-panels between the cariines.

7. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

8. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

9. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

10. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

11. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

12. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

13. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

14. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

15. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

16. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

17. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

18. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

19. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

20. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

21. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

22. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

23. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

24. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

25. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

26. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

27. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

28. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

29. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

30. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

31. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

32. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

33. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

34. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

35. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

36. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

37. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

38. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

39. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

40. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

41. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

42. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

43. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

44. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

45. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

46. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

47. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

48. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

49. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

50. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the pole, purlins and braces, said cariines having their ends notched to receive the purlins, and means to clamp the cariines to the purlins, and roof-panels between the cariines.

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the cariines to the purlins, and roof-panels between the cariines.

4. In a car-roof, a ridge-pole, diagonal braces extending from the sides of the car to the pole, a series of purlins, a series of cariines extending the width of the car above the purlins, braces and pole, cups interlocking with the cariines and having external objects lying adjacent the cariines, and cups on the cariines receiving the edges of adjacent panels, the cups having their sides turned down over the ends of the abutting cariines.

5. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, and a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines.

6. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of purlins, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

7. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

8. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

9. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

10. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

11. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

12. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

13. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

14. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

15. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

16. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

17. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

18. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

19. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

20. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

21. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

22. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

23. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

24. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

25. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

26. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

27. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

28. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

29. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

30. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

31. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

32. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

33. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

34. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

35. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

36. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

37. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

38. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

39. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

40. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

41. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

42. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

43. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

44. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

45. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

46. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

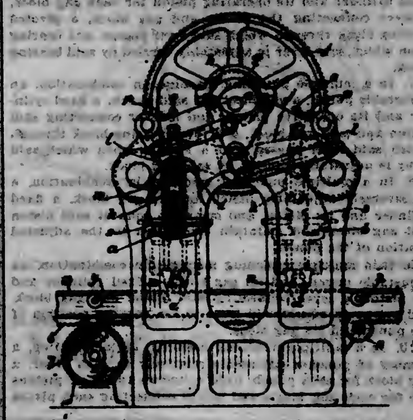
47. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

48. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

49. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

50. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, a series of cariines occupying the width of the car above the pole, braces and purlins, said cariines having their ends turned down over the ends of the abutting cariines, and means to secure the cariines to the purlins and to the braces at their intersections therewith.

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1. In a multiple punching machine, in combination, a plurality of punch bars, each extending transversely to the path of the stock carrier across the punching machine, and located one behind the other longitudinally to the path of the stock carrier, punches in alinement with each other on each punch bar, each punch being independently adjusted along its punch bar, means to simultaneously reciprocate said punch bars, and means to independently and automatically control the operation of each punch.

2. In a multiple punching machine, in combination, a plurality of punch bars, each extending transversely to the path of the stock carrier across the punching machine, and located one behind the other longitudinally to the path of the stock carrier, punches in linear alinement with each other on each punch bar, each punch being independently adjusted along its punch bar, means to simultaneously reciprocate said punch bars, and means to independently and automatically control the operation of each punch.

3. In a multiple punching machine, in combination, a plurality of punch bars each extending transversely to the path of the stock carrier across the punching machine, and located one behind the other longitudinally to the path of the stock carrier, a plurality of rows of punches for each punch bar, the punches of each row being in alinement with each other and the successive rows being located one behind the other, each punch being independently adjustable along its punch bar, means to simultaneously reciprocate said punch bars, and means to independently and automatically control the operation of each punch.

4. In a multiple punching machine, in combination, a plurality of punch bars each extending transversely to the path of the stock carrier, across the punching machine, and located one behind the other longitudinally to the path of the stock carrier, a plurality of rows of punches for each punch bar, the punches of each row being in alinement with each other and the successive rows being located one behind the other, each punch being independently adjustable longitudinally of the punch bar, means to simultaneously reciprocate said punch bars, and means to independently and automatically control the operation of each punch.

5. In a multiple punching machine, in combination, a plurality of rows of punches, each row extending transversely to the path of the stock carrier across the punching machine, and located one behind the other longitudinally to the path of the stock carrier, punches in alinement with each other on each punch bar, each punch being independently adjusted along its punch bar, means to simultaneously reciprocate said punch bars, and means to independently and automatically control the operation of each punch.

6. In a multiple punching machine, in combination, a plurality of rows of punches, each row extending transversely to the path of the stock carrier across the punching machine, and located one behind the other longitudinally to the path of the stock carrier, punches in linear alinement with each other on each punch bar, each punch being independently adjustable longitudinally of the punch bar, means to simultaneously reciprocate said punch bars, and means to independently and automatically control the operation of each punch.

7. In a multiple punching machine, in combination, a plurality of rows of punches, each row extending transversely to the path of the stock carrier across the punching machine, and located one behind the other longitudinally to the path of the stock carrier, punches in alinement with each other on each punch bar, each punch being independently adjusted along its punch bar, means to simultaneously reciprocate said punch bars, and means to independently and automatically control the operation of each punch.

punch being independently adjustable transversely of the machine, means to simultaneously reciprocate said rows of punches, and means to independently and automatically control the operation of each punch.

6. In a multiple punching machine, in combination, a plurality of rows of punches, a gag block for each punch, a fixed cylinder and its opposing piston for each gag block, a lever connecting the piston and gag block, a pivoted bearing block through which said lever passes, and bearing upon which said lever is adjustably carried by said bearing block.

7. In a multiple punching machine, in combination, an adjustable punch, a gag block for said punch, a fixed cylinder and its oppositive piston, and a lever connecting said piston and said gag block, a pivoted bearing block through which said lever passes, and a bearing upon which said lever is adjustably carried by said gag block.

8. In a multiple punching machine, in combination, a transversely adjustable punch and its gag block, a fixed cylinder and its piston, and means to connect said piston and gag block and maintain connection in the adjusted position of the punch.

9. In a multiple punching machine, in combination, an adjustable punch, and its gag block, a fixed cylinder and its piston, a lever connecting said piston and gag block, and means to adjust said lever to the varying position of the punch and its gag block.

10. In a multiple punching machine, in combination, a number of punches adjustable relatively to each other, a gag block for each punch, fixed cylinders and their pistons one for each gag block, and means connecting each piston with its oppositive gag block and adapted to maintain connection in the adjusted position of the corresponding punch.

11. In a multiple punching machine, the combination with the punches and their mounting dies, of a movable member beyond the line of said punches, cylinders and their pistons carried by said movable member, a changing device connected with each of said pistons adapted, when the piston is moved, to connect the piston to be punched with the movable member.

12. In a multiple punching machine, the combination with the punches and their mounting dies, of a movable member, cylinders and their pistons carried by said movable member, a changing device connected with each of said pistons adapted, when the piston is moved, to connect the piston to be punched with the movable member.

13. In a multiple punching machine, in combination, a plurality of rows of punches, a stripping member between each punch of one row and the adjacent punch of a contiguous row of pairs of rows of punches, means to reciprocate the punches, means to reciprocate the stripping member in one direction before and the other direction after the movement of the punches, and means to independently control the operation of each punch.

14. In a multiple punching machine, in combination, a plurality of rows of punches, a stripping member between contiguous rows of punches, means to reciprocate the punches, means to reciprocate the stripping member in one direction before and in the other direction after the movement of the punches, and means to independently control the operation of each punch.

# DESIGNS.

42,077. MOTOR-CHAIR. HORACE W. ANDREWS, Portland, Oreg. Filed Aug. 4, 1911. Serial No. 642,417. Term of patent 7 years.



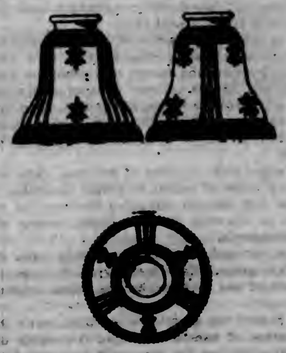
The ornamental design for a motor chair, as shown.

42,078. RAILWAY-CAR BODY. WILLIAM P. BETTENDORF, deceased, Bettendorf, Iowa, by Joseph W. Bettendorf, administrator, Bettendorf, Iowa. Filed July 31, 1912. Serial No. 712,569. Term of patent 14 years.



The ornamental design for a railway car-body, as shown and described.

42,079. ARTIFICIAL-LIGHT SHADE. KRAFT BOOTH, Philadelphia, Pa., assignor to Gillinder & Sons, Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 2, 1912. Serial No. 712,006. Term of patent 14 years.



The ornamental design for an artificial light shade, as shown.



42,080. RACK. EDMUND T. DE ANGELA, Glen Ridge, N. J. Filed July 15, 1912. Serial No. 710,209. Term of patent 14 years.



The ornamental design for a rack, as shown.

42,081. AUTOMOBILE-HORN. GULIAN V. P. LANSING, Chicago, Ill., assignor to Ashmore Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed July 29, 1912. Serial No. 712,188. Term of patent 7 years.



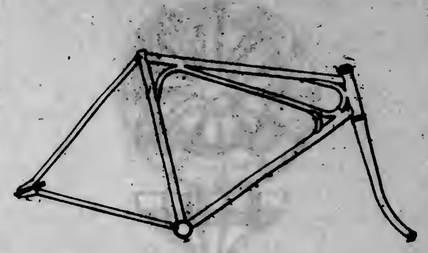
The ornamental design for an automobile horn, as shown and described.

42,082. BLADE FOR SAFETY-RAZORS. JAMES W. LESLIE, Chelsea, Mass., assignor to Leslie Manufacturing Company, Canton, Mass., a Corporation of Maine. Filed May 31, 1911. Serial No. 630,493. Term of patent 14 years.



The ornamental design for a safety razor blade, as shown and described.

42,083. BICYCLE-FRAME. EDWARD JULIUS LOUIS, La Porte, Ind., assignor to Grant Western Manufacturing Co., Laporte, Ind., a Corporation of Illinois. Filed July 16, 1912. Serial No. 709,836. Term of patent 14 years.



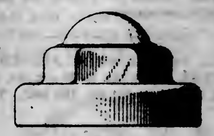
The ornamental design for a bicycle-frame, as shown.

42,084. BINNACLE. WILLIAM M. ROUNTREE, New York, N. Y. Filed Feb. 19, 1912. Serial No. 678,799. Term of patent 3½ years.



The ornamental design for a binnacle, as shown.

42,085. CAP FOR WHEEL-HUBS. JOHN L. SCOTSON, Buffalo, N. Y., assignor to H. H. Thomas Motor Car Company, Buffalo, N. Y., a Corporation of New York. Filed Aug. 18, 1911. Serial No. 644,880. Term of patent 7 years.





The ornamental design for a cap for wheel hubs, as shown.

[illegible] SHELL FOR LIGHTING-FIXTURES OR SIMILAR ARTICLES. [illegible], Summit, N. J. Filed July 2, 1912. Serial No. 707,[illegible]. Term of patent 7 years.



The ornamental design for a shell for lighting fixtures or similar articles as shown.

43,067. SHELL FOR LIGHTING-FIXTURES OR SIMILAR ARTICLES. Howard B. Watkins, Summit, N. J. Filed July 2, 1912. Serial No. 707,861. Term of patent 7 years.



The ornamental design for a shell for lighting fixtures or similar articles, as shown.

43,068. SHELL FOR LIGHTING-FIXTURES OR SIMILAR ARTICLES. Howard B. Watkins, Summit, N. J. [illegible] July 2, 1912. Serial No. 707,862. Term of patent 7 years.



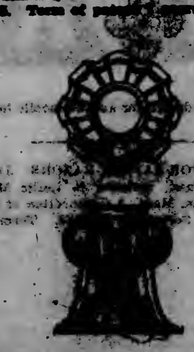
[illegible] ornamental design for a shell for lighting fixtures or similar articles, as shown.

43,069. GLOBE OR SIMILAR ARTICLE. Howard B. Watkins, Summit, N. J. Filed July 2, 1912. Serial No. 707,864. Term of patent 7 years.



The ornamental design for a globe or similar article, as shown.

43,070. GLOBE OR SIMILAR ARTICLE. Howard B. Watkins, Summit, N. J. Filed July 2, 1912. Serial No. 707,865. Term of patent 7 years.



[illegible] ornamental design for a globe or similar article, as shown.





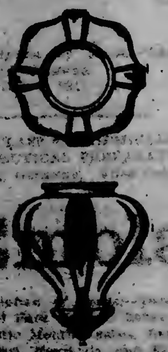
The ornamental design for a globe or similar article as shown.

43,063. GLOBE OR SIMILAR ARTICLE. Howard B. Watkins, Summit, N. J. Filed July 2, 1912. Serial No. 707,867. Term of patent 7 years.



The ornamental design for a globe or similar article, as shown.

43,064. GLOBE OR SIMILAR ARTICLE. Howard B. Watkins, Summit, N. J. Filed July 2, 1912. Serial No. 707,868. Term of patent 7 years.

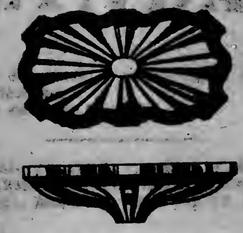


The ornamental design for a globe or similar article, as shown.



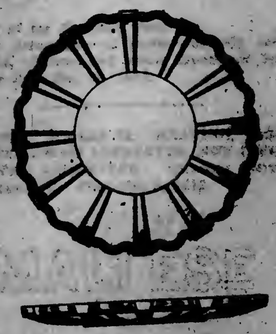
The ornamental design for a shell or similar article, as shown.

43,066. SHELL FOR LIGHTING-FIXTURES OR SIMILAR ARTICLES. Howard B. Watkins, Summit, N. J. Filed July 2, 1912. Serial No. 707,870. Term of patent 7 years.



The ornamental design for a shell for lighting fixtures or similar articles, as shown.

43,067. SHELL FOR LIGHTING-FIXTURES OR SIMILAR ARTICLES. Howard B. Watkins, Summit, N. J. Filed July 2, 1912. Serial No. 707,871. Term of patent 7 years.



The ornamental design for a shell for lighting fixtures or similar articles, as shown.

49,866. GLOBE OR SIMILAR ARTICLE. Howard E. Watermin, Oakville, N. J. Filed July 2, 1912. Serial No. 707,972. Term of patent 7 years.



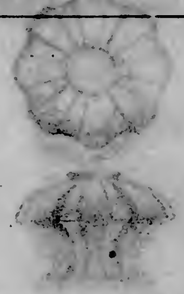
The ornamental design for a globe or similar article as shown.

49,868. SHELL OR SIMILAR ARTICLE FOR LIGHTING APPARATUS. Edward H. Sheldon, Waverly, N. J. Filed July 2, 1912. Serial No. 707,976. Term of patent 7 years.



The ornamental design for a shell for lighting fixtures or similar articles, as shown.











# TRADE-MARKS

## PUBLISHED OCTOBER 1, 1912.

The following trade-marks are published in compliance with section 9 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of the date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 57,970. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) Ella Bauer Pearl, Cisco, Tex. Filed Aug. 2, 1911.

WAWHEE

*Particular description of goods.*—Liniment.
*Claims use since* May 1, 1910.

Ser. No. 58,714. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) James F. Kane, Pittston, Pa. Filed Sept. 18, 1911.

HO KA

*Particular description of goods.*—Laundry Tablets, Used in Washing and Cleansing.
*Claims use since* Oct. 1, 1911.

Ser. No. 59,022. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) Heinrich Schlifke, Berlin, Germany. Filed Oct. 18, 1911.

Embla

*Particular description of goods.*—Deodorants, Disinfectants, Tablets, Pill Hard Medicine, Dental Tooth-Powder, Perfumery, Antiseptic Mouth-Washes, Remedial Preparations for Rheumatism, Neuralgia, and Skin Eruptions.
*Claims use since* May 5, 1911.

Ser. No. 60,630. (CLASS 17. TOBACCO PRODUCTS.) Rose & Bruhn, New York, N. Y. Filed Jan. 4, 1912.

ZINDA

*Particular description of goods.*—Cigars, Smoking Tobacco, and Cigarettes.
*Claims use since* Dec. 26, 1911.

Ser. No. 60,681. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) Green D. Mitchell, Eaton, Ind. Filed Jan. 23, 1912.

O. Strickbein

Consisting of my facsimile signature.
*Particular description of goods.*—Remedy for Bowel Cramps, Colds, Chalera, and Bowel Troubles of Horses.
*Claims use since* Jan. 20, 1912.

Ser. No. 61,262. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT EMBRACING ELECTRICAL APPARATUS.) Charles Smith Company, Chicago, Ill. Filed Feb. 5, 1912.

MALTESE

*Particular description of goods.*—Water-Heaters.
*Claims use since* Jan. 1, 1898.

Ser. No. 62,154. (CLASS 6. BEVERAGES, NON-ALCOHOLIC.) Frank C. Goodale, Lowell, Mass. Filed Mar. 18, 1912.

GOODALE'S
F
DANDELIO
C
LOWELL, MASS.

No claim being made for the words "Goodale's," "Lowell, Mass.," or for the capital "C."

*Particular description of goods.*—Concentrated Beverages and Beverage Containing Extracts of Roots.

*Claims use since* Feb. 1, 1912.

Ser. No. 62,502. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) Beardsley Chandelier Manufacturing Company, Chicago, Ill. Filed Mar. 29, 1912.

*Particular description of goods.*—Gas-Brackets, Pendants, Domes, Portables, Chandeliers, Gas, Electric, and Combination, and Globe Forming a Part of said Chandeliers.

*Claims use since* Aug. 1, 1911.

Ser. No. 62,571. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) The Tens Rheumatic Co., New York, N. Y. Filed Apr. 5, 1912.

LYKOS

*Particular description of goods.*—A Medicated Salve for External and Internal Use.

*Claims use since* Mar. 28, 1912.

Ser. No. 62,767. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) H. C. Weiss Co., North Bennington, Vt. Filed Apr. 9, 1912.

*Particular description of goods.*—Photographic Picture-Enlarging Apparatus, Photographic Enlarging Lenses

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Ser. No. 62,[illegible]. (CLASS 26. SURVEYING, NAVIGATING, AND MEASURING INSTRUMENTS.) [illegible] Co., Pittsburgh, Pa., and [illegible], Ohio. Filed Apr. 24, 1912.

[illegible]

The registration of the mark herein [illegible].

*Claims use since* Aug. 12, 1911.

Ser. No. 62,703. (CLASS 46. BEVERAGES, NON-ALCOHOLIC.) Thomas H. McGraw, Bay City, Mich. Filed May 16, 1912.

OGEMAW

*Particular description of goods.*—Spring Water.

*Claims use for five years prior to the date hereof.*

Ser. No. 62,705. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) Pascal C. Kenny, Toccoa, Ga. Filed May 16, 1912.

*Particular description of goods.*—[illegible]

*Claims use since* Feb. 1, 1912.

Ser. No. 62,[illegible]. (CLASS 26. SURVEYING INSTRUMENTS AND [illegible].) [illegible] Co., New York, N. Y. Filed June 14, 1912.

[illegible]

*Particular description of goods.*—[illegible]

*Claims use since about* [illegible]

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*Particular description of goods.*—Wrapping-Paper.

*Claims use since* August, 1909.

Ser. No. 62,[illegible]. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) Baldwin, Tuttle, & Hanson, Grand Rapids, Mich. Filed June 15, 1912.

THE

LINE

*Particular description of goods.*—[illegible] Compounds and Finish.

*Claims use since* Feb. 1, 1912.

Ser. No. 64,[illegible]. (CLASS 23. VEHICLES, HUSH, MACHINERY PACKING, AND NON-METALLIC TIRES.) The Manhattan Rubber Mfg. Co., New York, N. Y. Filed June 17, 1912.

CONDOR

*Particular description of goods.*—[illegible] Made Partly of Fabric and Partly of Rubber.

*Claims use since* 1903.

Ser. No. 64,[illegible]. (CLASS 23. CUTLERY, MACHINERY, AND SUNDRIES, AND PARTS THEREOF.) Charles S. [illegible], Bowen, [illegible]. Filed [illegible].

[illegible]

*Particular description of goods.*—[illegible]

*Claims use since* [illegible]

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Ser. No. 64,[illegible]. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) [illegible], Ohio. Filed June 20, 1912. Under ten-year proviso.

GLUCINUM PEN

Ser. No. 64,[illegible]. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) [illegible], Ohio. Filed June 20, 1912.

CA[illegible]OL

*Particular description of goods.*—[illegible] Salve to Treat Skin Diseases.

*Claims use since* Apr. 1, 1911.

Ser. No. 64,[illegible]. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) Columbia Cutlery Company, Geneva, N. Y. Filed June 24, 1912.

OLD DUTCH

No claim being made to the words "Old Dutch."

*Particular description of goods.*—Razors and Parts [illegible].

*Claimed use since* Mar. 1, 1912.

Ser. No. 64,[illegible]. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) [illegible], Ohio. Filed June 20, 1912.

Rationelle

*Particular description of goods.*—[illegible] Thyroid, and Stomach Glands, Gastric Juice, Pepsin, Lecithin, and Protein.

*Claims use since* Feb. 1, 1912.

Ser. No. 64,469. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) Geneve D. Adams, Cleveland, Ohio. Filed June 22, 1912.

"HEMPAQA"

*Particular description of goods.*—[illegible]

*Claims use since* Oct. 1[illegible]

Ser. No. 64,533. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) Pierce A. Gant, Kansas City, Mo. Filed July 1, 1912.

**BARBO**

*Particular description of goods.*—Hair Remedies.
*Claims use since about Mar. 15, 1912.*

Ser. No. 64,534. (CLASS 3. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) Baetis Bros. Grocery Co., Wheeling, W. Va. Filed July 2, 1912.



*Particular description of goods.*—Matches.
*Claims use since Aug. 18, 1906.*

Ser. No. 64,606. (CLASS 17. TOBACCO PRODUCTS.) Hensel-Duke Mercantile Co., Pueblo, Colo. Filed July 8, 1912.

**YES**

*Particular description of goods.*—Cigars, Smoking-Tobacco, Chewing-Tobacco, and Cigarettes.
*Claims use since about Dec. 5, 1911.*

Ser. No. 64,654. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) Edward C. Wage, Chicago, Ill. Filed July 10, 1912.

**Tenderfoot**

Which trade-mark consists of the word "Tenderfoot."
*Particular description of goods.*—Foot-Powders.
*Claims use since Sept. 20, 1911.*

Ser. No. 64,674. (CLASS 24. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) Dehnel Linen Mesh System Company, San Francisco, Cal. Filed July 11, 1912.

**"DEIMELIN"**

*Particular description of goods.*—Suspensories, Abdominal Bandages, and Medical Bandages.
*Claims use since Dec. 15, 1910.*

Ser. No. 64,705. (CLASS 11. [illegible] Iron and Steel Wire, and Manufactures of Iron and Steel.) Keystone Wire Fence Company, Peoria, Ill., and Marion, New York, N. Y. Filed July 15, 1912.



**EL CAMINO**

*Particular description of goods.*—Barbed Fence-Wire.
*Claims use since [illegible].*

Ser. No. 64,709. (CLASS 26. PAINTS AND PAINTERS' MATERIALS.) John Lucas & Co., Philadelphia, Pa. Filed July 16, 1912. Under ten-year proviso.

**ITALIAN VILLA**

*Particular description of goods.*—Ready-Mixed Paints.
*Claims use since [illegible].*

Ser. No. 64,710. (CLASS 26. PAINTS AND PAINTERS' MATERIALS.) [illegible], Philadelphia, Pa. Filed July 16, 1912. Under ten-year proviso.

**BARN, BRIDGE and ROOF PAINT**

*Particular description of goods.*—Ready-Mixed Paints.
*Claims use since June, 1909.*

Ser. No. 64,726. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) Joseph Ehrtzel, [illegible], 1912.

**"DOMO"**

*Particular description of goods.*—A Medical Remedy for Lung and Stomach Diseases.
*Claims use since June 15, 1912.*

Ser. No. 64,809. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) [illegible], London, England. Filed July 22, 1912.

**[illegible]**

*Particular description of goods.*—[illegible] and Tablet Purgatives and Tablets for Stomach Troubles.
*Claims use since September, 1909.*





Ser. No. 64,824. (CLASS 2. RECEPTACLES.) Nürnberger Metall- und Lackierwarenfabrik vormals Gebrüder Bing Aktiengesellschaft, Nuremberg, Germany, and New York, N. Y. Filed July 22, 1912.



*Particular description of goods.*—Spice-Cabinets, Canisters, Knife and Fork Boxes, Bread-Boxes, Cake-Boxes, Meat-Boxes, Coal-Plates, Coal-Scuttles, Wood-Boxes, Ash-Pails, Ash-Cans, Soap-Boxes, Wooden Soap-Trays, Caskets, Bird-Cages, Aquariums, Tea-Trays, and Liquid-Coolers.
*Claims use since Sept. 21, 1904.*

Ser. No. 64,894. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) John Wyeth & Brother, Incorporated, Philadelphia, Pa. Filed July 24, 1912.

**DYETHOL**

*Particular description of goods.*—A Solution of Hydrogen Peroxid Used as an Incoherous and Harmless Antiseptic and Disinfectant for Internal and External Use.
*Claims use since the 15th of July, 1912.*

Ser. No. 65,011. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) Charles A. Dayne, Philadelphia, Pa. Filed July 31, 1912.

**QUAKER**

The portrait being a beautiful representation of a Quaker.
*Particular description of goods.*—Rubber Tires and Pneumatic Tires.
*Claims use since Apr. 26, 1912.*

Ser. No. 65,206. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) J. A. Hencke, New York, N. Y. Filed Aug. 16, 1912.




*Particular description of goods.*—Razors.
*Claims use since July 23, 1912.*

Ser. No. 65,279. (CLASS 42. BEVERAGES, NON-ALCOHOLIC.) The W. Rossen Company, Jersey City, N. J. Filed Aug. 17, 1912.

**White Cap**

*Particular description of goods.*—Carbonated Beverages.
*Claims use since June 25, 1912.*

Ser. No. 65,337. (CLASS 24. MEASURING AND SCIENTIFIC APPLIANCES.) American Optical Company, Southbridge, Mass. Filed Aug. 19, 1912.



*Particular description of goods.*—Eyeglasses, Spectacles, Lenses, Nose-Guards, Frames, Bridges, Mountings, Cases, Eye-Testing Instruments, Magnifying Instruments, Lens-Testing Instruments, Goggles.
*Claims use since Apr. 1, 1890.*

Ser. No. 65,362. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) Buffalo Grain Roller Company, Buffalo, N. Y. Filed Aug. 20, 1912. Under ten-year proviso.

**BUFFALO PITTS**

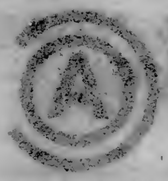
*Particular description of goods.*—Self-Propelling Rollers for Use on Streets, Roads, Highways, Walks, Trail, and Embankments.
*Claims use since 1906.*

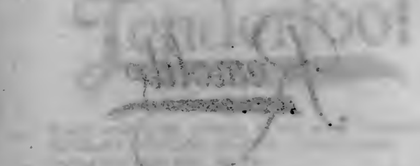
Ser. No. 65,472. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) Rendall-Morse Co., Inc., San Francisco, Cal. Filed Aug. 26, 1912.

**Remolite**

*Particular description of goods.*—Preservative Paints.
*Claims use since July 1, 1912.*







# TRADE-MARKS

## REGISTERED OCTOBER 1, 1912.

**68,546.** CHEMICAL COMPOSITION FOR USE IN [illegible]. Forest Soap Products Co., New York, N. Y. Filed April 26, 1912. Serial No. 68,162. PUBLISHED JULY 30, 1912.

**68,547.** [illegible] AND COMfort, Chicago, [illegible]. Filed May 6, 1912. Serial No. 68,644. PUBLISHED JULY 30, 1912.

**68,548.** SCOURING-SOAP. Bon Ami Company, New York, N. Y. Filed January 24, 1912. Serial No. 66,902. PUBLISHED JULY 30, 1912.

**68,549.** REMEDY FOR DYSPEPSIA. [illegible], Evansville, Ind. Filed April 6, 1912. Serial No. 68,000. PUBLISHED JULY 30, 1912.

**68,550.** REMEDY FOR CHILLS AND MALARIA AND AS A GENERAL TONIC. James H. Bronson, Huntsville, Ala. Filed April 24, 1912. Serial No. 68,095. PUBLISHED JULY 30, 1912.

**68,551.** BLOOD-PURIFIER AND A REMEDY FOR CERTAIN DISEASES. Charles Carter, New Brunswick, N. J. Filed May 25, 1912. Serial No. 68,504. PUBLISHED JULY 30, 1912.

**68,552.** CERTAIN NAMED HEATERS AND STOVES. The Chapman-Dover Co., Cleveland, Ohio. Filed March 24, 1911. Serial No. 58,326. PUBLISHED NOVEMBER 14, 1911.

**68,553.** REMEDIES FOR HOG AND CHICKEN [illegible]. Coffee Extract Co., Toledo, Ohio. Filed April 8th, 1912. Serial No. 68,020. PUBLISHED JULY 30, 1912.

**68,554.** ATOMIZERS, NEBULIZERS, AND POWDER-BLOWERS. The De Vilbiss Manufacturing Company, Toledo, Ohio. Filed July 20, 1912. Serial No. 64,403. PUBLISHED JULY 30, 1912.

**68,555.** WRITING, PRINTING, AND TISSUE PAPER. C. H. Dalton & Sons, Windsor Locks, Conn. Filed August 4, 1908. Serial No. 36,472. PUBLISHED OCTOBER 27, 1908.

**68,556.** WRITING, PRINTING, AND TISSUE PAPER. C. H. Dalton & Sons, Windsor Locks, Conn. Filed August 4, 1908. Serial No. 36,473. PUBLISHED OCTOBER 27, 1908.

**68,557.** CHEWING-TOBACCO, SMOKING-TOBACCO, CIGARS, AND CIGARETTES. Johnson & Read, Inc., Richmond, Va. Filed May 1, 1906. Serial No. 3,900. PUBLISHED DECEMBER 25, 1906.

**68,558.** FIRELESS COOKERS. The Dreese Manufacturing Company, Findlay, Ohio. Filed August 28, 1909. Serial No. 44,408. PUBLISHED SEPTEMBER 13, 1911.

**68,559.** SILVER-SAND ASH-RECEIVERS. Dover Stamping and Manufacturing Company, Cambridge, Mass. Filed May 23, 1912. Serial No. 68,398. PUBLISHED JULY 30, 1912.

**68,560.** LAUNDRY WASHING-MACHINES. [illegible], Kalamazoo, Mich. Filed July 14, 1911. Serial No. 57,626. PUBLISHED SEPTEMBER 26, 1911.

**68,561.** LUBRICATING-GREASE. [illegible] Oil Co., Dubois, Miss. Filed April 17, 1912. Serial No. 68,044. PUBLISHED JULY 30, 1912.

**68,562.** ANTIPYRETIC, ANTINEURALGIC, AND ANTIATIVE. Farbwerke vorm. Meister, Lucius & Bruning, Hochst-on-the-Main, Germany. Filed April 4, 1912. Serial No. 67,997. PUBLISHED JULY 30, 1912.

**68,563.** ANTIPYRETIC, ANTINEURALGIC, AND ANTIATIVE. Farbwerke vorm. Meister, Lucius & Bruning, Hochst-on-the-Main, Germany. Filed April 4, 1912. Serial No. 67,998. PUBLISHED JULY 30, 1912.

**68,564.** ANTIPYRETIC, ANTINEURALGIC, AND ANTIATIVE. Farbwerke vorm. Meister, Lucius & Bruning, Hochst-on-the-Main, Germany. Filed April 4, 1912. Serial No. 68,040. PUBLISHED JULY 30, 1912.

**68,565.** REMEDY FOR BLIND, BLEEDING, ITCHING, AND PROTRUDING PILES. [illegible] Co., Hornell, N. Y. Filed April 3, 1912. Serial No. 67,982. PUBLISHED JULY 30, 1912.

**68,566.** NEW REMEDY FOR GALL-STONES. [illegible], Crefeld-Uerdingen, Germany. Filed February 3, 1912. Serial No. 67,847. PUBLISHED JULY 30, 1912.

**68,567.** ARGYE-SOLAR. W. Layton Greenwell, Bayonne, N. J. Filed January 11, 1912. Serial No. 64,789. PUBLISHED JULY 30, 1912.

**68,568.** SOAP FOR TOILET AND BATH PURPOSES. Gowan Medical Company, Durham, N. C. Filed November 25, 1910. Serial No. 62,582. PUBLISHED JULY 30, 1912.

**68,569.** REMEDY FOR CANCER. Geo. W. [illegible], Gallman, Ala. Filed June 27, 1911. Serial No. 57,548. PUBLISHED MARCH 26, 1912.

**68,570.** CERTAIN NAMED MEDICINES. [illegible] Hess, New York, N. Y. Filed November 18, 1911. Serial No. 59,104. PUBLISHED JULY 16, 1912.

**68,571.** MEDICINE USED FOR THE TREATMENT OF CONSUMPTION. The L. M. Hayes Co., Pasadena, Cal. Filed April 20, 1912. Serial No. 68,129. PUBLISHED JULY 30, 1912.

**68,572.** ANTISEPTIC AND DEODORANT. [illegible] Hoag, Rutland, Vt. Filed April 29, 1912. Serial No. 68,196. PUBLISHED JULY 30, 1912.

83,573. HORSE-NAILS. HOOPESTON HORSE NAIL COMPANY, Hoopeston, Ill.
Filed April 29, 1912. Serial No. 63,196. PUBLISHED JULY 30, 1912.

83,574. CABLE AND ROPE FILLERS. THE IRONSIDES COMPANY, Columbus, Ohio.
Filed March 2, 1912. Serial No. 61,966. PUBLISHED JULY 30, 1912.

83,575. CABLE AND ROPE FILLERS. THE IRONSIDES COMPANY, Columbus, Ohio.
Filed March 2, 1912. Serial No. 61,967. PUBLISHED JULY 30, 1912.

83,576. MEDICINAL SOAPS. JOHN J. W. KILBURNE, New York, N. Y.
Filed May 17, 1912. Serial No. 63,806. PUBLISHED JULY 30, 1912.

83,577. ROACH AND VERMIN EXTERMINATORS. NORMAN R. LEVI, Detroit, Mich.
Filed April 13, 1912. Serial No. 63,378. PUBLISHED JULY 30, 1912.

83,578. GLOVES. LEWIS & LOCKE, New York, N. Y.
Filed April 10, 1912. Serial No. 63,009. PUBLISHED JULY 9, 1912.

83,579. INNER-TUBE SPLICERS. THE M. & M. MANUFACTURING COMPANY, Akron, Ohio.
Filed March 18, 1912. Serial No. 62,343. PUBLISHED JULY 30, 1912.

83,580. SPOONS AND FORKS OF OTHER THAN PRECIOUS METAL. METTMANNER BRITANNIAWARENFABRIK W. SIEBEL, Mettmann, Germany.
Filed March 4, 1912. Serial No. 61,917. PUBLISHED JULY 30, 1912.

83,581. ARCH-SUPPORTS, ANKLE-SUPPORTS, WRIST-STRAPS. NATHAN ANKLET SUPPORT CO., New York, N. Y.
Filed January 2, 1912. Serial No. 60,892. PUBLISHED JULY 2, 1912.

83,582. WRITING-PAPER AND ENVELOPS. NATIONAL PAPETERIE COMPANY, Springfield, Mass.
Filed September 26, 1911. Serial No. 58,855. PUBLISHED JULY 30, 1912.

83,583. TYPE-WRITER CARBON-PAPER AND TYPE-WRITER RIBBON. NIELD & PEACOCK, Chicago, Ill.
Filed April 8, 1912. Serial No. 62,754. PUBLISHED JULY 23, 1912.

83,584. CIGARS AND CIGARETTES. THE NORMAN COMPANY INC., New York, N. Y.
Filed January 26, 1912. Serial No. 61,656. PUBLISHED JULY 30, 1912.

83,585. CERTAIN KINDS OF HEATING AND COOKING STOVES. OLIVE STOVE WORKS, Rochester, Pa.
Filed April 19, 1912. Serial No. 63,092. PUBLISHED JULY 30, 1912.

83,586. TRAPS. JOSEPH OTTERUD, Madison, S. D.
Filed April 17, 1912. Serial No. 62,951. PUBLISHED JULY 2, 1912.

83,587. WASHTRAYS, BATH-TRAYS, AND BATH-TUBS. PIONEER PORCELAIN WARE TRAY CO., Perth Amboy, N. J.
Filed June 27, 1912. Serial No. 64,446. PUBLISHED JULY 30, 1912.

83,588. CIGARS. CARL J. PRINTZ, Toronto, Ontario, Canada.
Filed December 1, 1911. Serial No. 60,023. PUBLISHED APRIL 16, 1912.

83,589. CHAMOIS-SKINS. JAMES H. RHODES & COMPANY, Chicago, Ill., and New York, N. Y.
Filed February 8, 1912. Serial No. 61,872. PUBLISHED JULY 30, 1912.

83,590. CHAMOIS-SKINS. JAMES H. RHODES & COMPANY, Chicago, Ill., and New York, N. Y.
Filed February 8, 1912. Serial No. 61,873. PUBLISHED JULY 30, 1912.

83,591. GRANULAR OR COMMINUTED SWEEPING COMPOUNDS. ARTHUR BOSMAN, Barnesville, Ohio.
Filed January 31, 1911. Serial No. 54,210. PUBLISHED JUNE 6, 1911.

83,592. PHARMACEUTICAL PREPARATION FOR USE IN CERTAIN DISEASES. MAURICE ROSEN, Paris, France.
Filed January 25, 1912. Serial No. 61,620. PUBLISHED JULY 30, 1912.

83,593. FLOUR-MILLS, FEED-MILLS, CEREAL-MILLS, AND GRAIN-ELEVATING MACHINERY. ROBINSON MANUFACTURING COMPANY, Muncy, Pa.
Filed January 2, 1912. Serial No. 60,574. PUBLISHED JULY 30, 1912.

83,594. ALUMINUM KITCHEN-WARE. ROSENSCHILD, MEYERS & CO., New York, N. Y.
Filed April 18, 1912. Serial No. 62,964. PUBLISHED JULY 30, 1912.

83,595. TOOTH-POWDERS, TOOTH-POLISHES, GUM-TONICS, AND MOUTH-WASHES. JULES J. SARRASIN, New Orleans, La.
Filed April 20, 1912. Serial No. 63,217. PUBLISHED JULY 30, 1912.

83,596. TEATS FOR NURSING-BOTTLES. FREDERICK SCHUTZE, London, England.
Filed December 16, 1911. Serial No. 60,396. PUBLISHED JULY 30, 1912.

83,597. REMEDY FOR CERTAIN SKIN DISEASES. FRANCIS B. SHIELDS, Danville, Ill.
Filed January 2, 1912. Serial No. 60,582. PUBLISHED JULY 30, 1912.

83,598. WATER-PAINT. THE SILICATE PAINT COMPANY J. B. ORR AND COMPANY LIMITED, London, England.
Filed January 8, 1911. Serial No. 52,060. PUBLISHED JULY 30, 1912.

83,599. CAKE-MOLD. ANNA A. STEELE, Kansas City, Mo.
Filed May 15, 1912. Serial No. 63,546. PUBLISHED JULY 30, 1912.

83,600. CERTAIN ELECTRICAL APPARATUS AND SUPPLIES. THE SUMTER TELEPHONE MANUFACTURING CO., Sumter, S. C.
Filed March 16, 1912. Serial No. 62,206. PUBLISHED JULY 30, 1912.

83,601. GRAIN-FINISH LEATHER IN THE PIECE, EITHER VEGETABLE, MINERAL, OR OIL TANNED. ALBERT TROSTEL & SONS COMPANY, Milwaukee, Wis.
Filed March 11, 1912. Serial No. 62,113. PUBLISHED JULY 30, 1912.

83,602. WHITE LEATHER IN THE PIECE, VEGETABLE, MINERAL, OR OIL TANNED. ALBERT TROSTEL & SONS COMPANY, Milwaukee, Wis.
Filed March 11, 1912. Serial No. 62,115. PUBLISHED JULY 30, 1912.

83,603. CERTAIN PREPARATION FOR CLEANING AND RESTORING WALLS AND WALL-PAPER. WALCALINE COMPANY INC., New York, N. Y.
Filed April 26, 1912. Serial No. 63,153. PUBLISHED JULY 23, 1912.

83,604. TOILET POWDER. WALTER M. WILLEY, San Francisco, Cal.
Filed April 25, 1912. Serial No. 63,126. PUBLISHED JULY 30, 1912.

83,605. ANTISEPTIC TABLETS. WILLIAM R. WARNER AND COMPANY, Philadelphia, Pa.
Filed April 24, 1912. Serial No. 63,109. PUBLISHED JULY 30, 1912.

83,606. ALTERATIVE, DIURETIC, AND ANTACID. WILLIAM R. WARNER AND COMPANY, Philadelphia, Pa.
Filed April 25, 1912. Serial No. 63,127. PUBLISHED JULY 30, 1912.



83,607. GASOLENE, BENZIN, NAPHTHA, AND REFINED OIL FOR ILLUMINATING, HEATING, AND POWER PURPOSES. WEST INDIA OIL REFINING, Bayonne, N. J.
Filed March 12, 1912. Serial No. 62,124. PUBLISHED JULY 30, 1912.

83,608. STEEL. KRUPP'S STEEL WORKS COMPANY, Krupp, Germany, and New York, N. Y.
Filed August 1, 1910. Serial No. 51,300. PUBLISHED JULY 30, 1912.

## TRADE-MARKS CANCELED.

83,139. PNEUMATIC TIRES FOR AUTOMOBILES. MICHELIN TIRE COMPANY, Clermont-Ferrand, France, and Milltown, N. J.
Registered May 7, 1912. Canceled September 9, 1912.

# LABELS

## REGISTERED OCTOBER 1, 1912.

16,567.—*Title:* "ELEGANTES QUALITY CIGARS." (For Cigars.) AMERICAN LITHOGRAPHIC COMPANY, New York, N. Y. Filed July 22, 1912.

16,568.—*Title:* "CIGARS OF QUALITY FLOR FINA." (For Cigars.) AMERICAN LITHOGRAPHIC COMPANY, New York, N. Y. Filed July 22, 1912.

16,569.—*Title:* "QUALITY CIGARS." (For Cigars.) AMERICAN LITHOGRAPHIC COMPANY, New York, N. Y. Filed August 6, 1912.

16,570.—*Title:* "SUPERIOR CIGARS." (For Cigars.) AMERICAN LITHOGRAPHIC COMPANY, New York, N. Y. Filed August 6, 1912.

16,571.—*Title:* "C R C." (For a Remedy for Rheumatic Pains.) CARBON REMEDY COMPANY, Lawrence, Mass. Filed May 20, 1911.

16,572.—*Title:* "CEDAR-SWEEP." (For a Sweeping Compound.) THE CEDAR-SWEEP COMPANY, INCORPORATED, Los Angeles, Cal. Filed August 19, 1912.

16,573.—*Title:* "NA'-MON-O'-MA." (For Water.) DIXON SPRINGS HOTEL COMPANY, Dixon Springs, Ill. Filed August 7, 1912.

16,574.—*Title:* "FRANK'S QUALITY SAUSAGE MADE AS ONLY FRANK KNOWS HOW." (For Sausage.) L. FRANK & SON COMPANY, Milwaukee, Wis. Filed September 6, 1912.

16,575.—*Title:* "DIAMOND HEAD." (For Canned Salmon.) H. HACKFELD & Co., LTD., Honolulu, Territory of Hawaii. Filed August 12, 1912.

16,576.—*Title:* "KAMEHAMEHA." (For Canned Salmon.) H. HACKFELD & Co., LTD., Honolulu, Territory of Hawaii. Filed August 12, 1912.

16,577.—*Title:* "THE OLD MILL STREAM." (For Toilet-Paper.) THE JOHN HOSMER CO., Green Bay, Wis. Filed July 30, 1912.

16,578.—*Title:* "ORANGE-JULEP." (For Non-Intoxicating Beverage.) C. J. HOWNE, Fort Worth, Tex. Filed July 5, 1912.

16,579.—*Title:* "LACONIA SPRING WATER." (For Spring-Water.) Frank W. Hoyt, Jr., The Weirs, N. H. Filed July 17, 1912.

16,580.—*Title:* "PEPPERMINT TWIST." (For Peppermint-Twist.) HUYLER'S, New York, N. Y. Filed September 13, 1912.

16,581.—*Title:* "LAGMAN'S PANAMA BOUQUET." (For Cigars.) CHAS. LAGMAN, Mobile, Ala. Filed August 26, 1912.

16,582.—*Title:* "CHEESGOLD." (For Cheese.) [illegible] Co., Cincinnati, Ohio. Filed [illegible], 1912.

16,583.—*Title:* "HAVAKAN." (For Asparagus.) HENRY H. FRANKE, Co., New York, N. Y. Filed August 27, 1912.

16,584.—*Title:* "PURINA CHICKEN CHOWDER." (For Chicken Feed.) RALSTON PURINA COMPANY, St. Louis, Mo. Filed August 24, 1912.

16,585.—*Title:* "ROSENBERG'S PASSOVER SUGAR." (For Sugar.) J. ROSENBERG, New York, N. Y. Filed May 1, 1912.

16,586.—*Title:* "REIF NUVO FOUNDATIONS." (For Embroidery-Foundation Initials, and other Foundations for Embroidery.) G. REIF & BRO., New York, N. Y. Filed August 17, 1912.

16,587.—*Title:* "YANKEE GIRL POLISH." (For Polish for Metals, Glassware, &c.) HENRY B. RICE, Cameron, Mo. Filed August 8, 1912.

16,588.—*Title:* "LITTLE EGYPT." (For Cigars.) SCHEIBER & Co., New York, N. Y. Filed August 26, 1912.

16,589.—*Title:* "THE WALDORF TOWELS." (For Towels.) SCOTT PAPER COMPANY, Philadelphia, Pa. Filed August 12, 1912.

16,590.—*Title:* "ANENDA." (For Insect-Destroyer.) F. J. TUTEN, New York, N. Y. Filed April 16, 1912.

16,591.—*Title:* "KIDDO JACK KIDDO JILL." (For Bread.) THE UNITED ADVERTISING COMPANY, Cleveland, Ohio. Filed July 17, 1912.

16,592.—*Title:* "BERSAGLIERE BRAND." (For Cotton-Seed Oil.) THE YOUNGSTOWN MACARONI CO., Youngstown, Ohio. Filed August 16, 1912.

16,593.—*Title:* "PROVANA." (For Cigars.) WIRSHEIM-ST. LOUIS CIGAR BOX CO., St. Louis, Mo. Filed September 5, 1912.

16,594.—*Title:* "SOUTHERN FIBRE BATH MITTS-SETTLER." (For Bath-Mitts and Bath-Straps.) JOHN H. WOODCOCK & SON, Hot Springs, Ark. Filed August 15, 1912.

# PRINTS

## REGISTERED OCTOBER 1, 1912.

3,098.—*Title:* "MEADOW-GOLD BUTTER—SWEET AS THE MEADOW—PURE AS GOLD." (For Butter.) BEATRICE CREAMERY CO., Des Moines, Iowa, and Lincoln, Nebr. Filed July 10, 1912.

3,100.—*Title:* "THAT SETTLES IT." (For Wheat Breakfast Food.) CREAM OF WHEAT CO., Minneapolis, Minn. Filed August 31, 1912.

3,101.—*Title:* "DR. SPENCER'S SANITARY KNIT UNDERWEAR." (For a Combination Suit of Underwear.) CHEESEBROUGH KNITTING MILLS, Inc., Germantown, Pa. Filed July 12, 1912.

3,102.—*Title:* "DURHAM-DUPLEX SAFE RAZORS." (For Durham-Duplex Razors and Blades.) DURHAM DUPLEX RAZOR COMPANY, New York, N. Y. Filed August 31, 1912.

3,103.—*Title:* "SHIRLEY PRESIDENT SUSPENDER CALENDAR." (For Shirley President Suspenders.) THE C. A. EDGARTON MFG. CO., Shirley, Mass. Filed August 22, 1912.

3,104.—*Title:* "DELICIOUS SAUSAGE, HEART'S DELIGHT FARMS." (For Sausages.) W. H. MINER, Chazy, N. Y. Filed August 5, 1912.

3,105.—*Title:* "NYLO CHOCOLATES." (For Nylo Chocolates.) NEW YORK AND LONDON DRUG CO., New York, N. Y. Filed August 20, 1912.

3,106.—*Title:* "VESUVIO." (For Alimentary Pastes.) L. SERRATO SON & CO., San Francisco, Cal. Filed July 3, 1912.

3,107.—*Title:* "PENNSYLVANIA SUGAR CO'S. EXTRA FINE QUAKER BRAND GRANULATED SUGAR." (For Sugar.) PENNSYLVANIA SUGAR COMPANY, Philadelphia, Pa. Filed July 1, 1912.

3,108.—*Title:* "SWEATERSMITH." (For Knit Sweats.) KNITTING CO., La Crosse, Wis. Filed July 15, 1912.

3,109.—*Title:* "MAC AN' BONI." (For Macaroni.) THE UNCLE SAM'S MACARONI CO., Tecumseh, Mich. Filed September 7, 1912.

3,110.—*Title:* "HARMONY ROSE GLYCERINE SOAP." (For Soap.) UNITED DRUG CO., Boston, Mass. Filed August 28, 1912.

3,111.—*Title:* "VASO! FOR THAT SORENESS." (For Vaso.) THE VASO COMPANY, Henderson, Ky. Filed July 22, 1912.

# DECISIONS

## OF THE

# COMMISSIONER OF PATENTS

## AND OF

# UNITED STATES COURTS IN PATENT CASES.

with the expansion-chamber of the engine-cylinder *Held* unpatentable.

2. SAME—SAME.

Certain claims for a force-feed lubricator *Held* patentable over the prior art.

APPEAL from EXAMINERS-IN-CHIEF.

APPARATUS FOR LUBRICATING ENGINES.

*Messrs. Lisellouse, Bell & Fuller* for the applicants.

MOORE, *Commissioner:*

This is an appeal from the decision of the Examiners-in-Chief affirming the action of the Primary Examiner rejecting the following claims:

1. In a lubricator, the combination with a spray pipe, of a drop feed lubricator in communication with the pipe and including a casing and a dropping tube extending therethrough, a conduit leading from a source of fluid pressure into the casing in rear of the discharge end of the dropping tube, a valve in the conduit, and means for intermittently opening the valve.

2. The combination of an engine cylinder, a lubricator having a spray pipe communicating with the expansion chamber of the cylinder independent of the charge inlet, and means for supplying fluid pressure to the spray pipe for supplying the lubricant into the expansion chamber.

3. The combination with an engine cylinder of a spray pipe communicating with the expansion chamber of the cylinder independent of the charge inlet, a drop feeding lubricator communicating with the spray pipe, a conduit leading through the lubricator from a source of fluid pressure for supplying the spray pipe with pressure, a valve in the conduit, and means for intermittently opening the valve.

4. The combination with a gravity feed lubricator and its delivery connection, of a fluid pressure supply connected with the discharge of the lubricator, a valve controlling the pressure supply, and means for operating the valve at regular intervals.

5. The combination with a lubricator having inlet and discharge outlets of an independent fluid pressure supply delivered into the discharge connection of the lubricator, a valve for controlling the fluid pressure supply, and means for intermittently operating the valve to thereby permit the flow of fluid pressure to discharge the lubricant.

6. Apparatus for lubricating engine cylinders comprising means connecting a dropping tube with a source of liquid lubricant, a conduit into which said dropping tube discharges regulated quantities of the lubricant, said conduit leading into said engine cylinder, a fluid pressure supply connected with the conduit between the dropping tube and engine cylinder, a valve controlling the fluid pressure supply, and means for intermittently operating said valve to admit fluid pressure to the conduit and thereby force lubricant therein into the engine cylinder.

The references cited are the patents to Pielicke, 744,101, November 17, 1903; Carlsson *et al.*, 719,565, February 3, 1903.

Claim 1 is rejected on each of the references cited. The claim does not read upon the patent to Pielicke, because that patent does not show a valve in the conduit leading from the source of fluid-pressure into the casing in the rear of the discharge end of the dropping-tube, as called for by the claim. It does show a valve; but it is located in the dropping-tube (if it can be called such) and not in the fluid-pressure pipe. The claim may be also said to distinguish in calling for a spray-pipe, inasmuch as Pielicke discloses a graphite-lubricator, and graphite can hardly be said to form a spray. It is by no means clear that changing the position of the valve of Pielicke from the location he shows to that defined in the claims would not produce a materially-different result, and it is clear that to substitute oil for the graphite as a lubricator would require substantial changes in the structure. I am not prepared to say, therefore, that the structure defined by this claim is devoid of invention over the Pielicke reference.

The Examiners-in-Chief found, however, that this claim reads directly upon the patent to Carlsson et al. The difficulty of reading this claim upon the Carlsson patent is that the means for producing the fluid-pressure must also be read as the "means for intermittently opening the valve." The Examiners-in-Chief state that the "motion of the piston compressing air against the valve" is the means for intermittently opening it. It is obviously error, however, to construe a "motion" of the parts as answering to a physical element called for by the claim. It might be argued that inasmuch as the claim includes the motion of fluid-pressure only indirectly the cylinder and piston for producing this pressure in the Carlsson device may be used to anticipate the element defined in the claim as "means for intermittently opening the valve." Inasmuch, however, as the valve itself in this patent performs a wholly different function from applicants' valve, I am of the opinion that at best it requires a very strained construction to hold this claim anticipated by the Carlsson reference. It is believed that the claim should have been allowed over the art cited.

Claim 2 does not call for any valve as means for opening it and is fully met by the Carlsson reference, except that the spray-pipe does not communicate with the expansion-chamber of a cylinder, but with the cross-head pin of an engine which it is desired to lubricate. I see no invention, however, in applying the oiler to an engine-cylinder in the manner suggested. It must be held, therefore, that this claim fails to define any invention over the Carlsson reference.

Claim 3 is allowable for the same reasons as claim 1. Claims 4, 5, and 6 all specify as an element "a valve controlling the pressure-supply." The valve in Carlsson obviously does not control the fluid-pressure supply. It is a mere check-valve to prevent back-pressure upon the oil in the spray-pipe due to the suction caused by the receiving-piston *c*. The valve in Pielicke does not control the pressure-supply in the sense the expression is used in these claims, because the fluid-pressure is constantly exerted upon the supply of lubricant, the valve being located beyond the point at which the lubricant enters and merely serving to permit the passage of the lubricant under the influence of the constantly-supplied pressure. I am of the opinion, therefore, that neither of the references meet claims 4, 5, or 6, either in terms or spirit, and it is believed that they should have been allowed.

The decision of the Examiners-in-Chief is affirmed as to claim 2 and reversed as to claims 1, 3, 4, 5, and 6.

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EX PARTE HANNA AND HANNA.

*Decided June 22, 1912.*

APPLICATION—PROSECUTION—POSTPONEMENT.

The statements of a foreign attorney that he was under the impression that the case was being prosecuted by his associate, who had been instructed to keep the application pending, *Held* insufficient to overcome that the delay in the prosecution of the case was unavoidable, no showing being made why the associate attorney did not reply to the Office letter and no excuse being given for the delay in filing the petition after the foreign attorney learned that the amendment had not been filed within the year.

ON PETITION.

MANUFACTURE OF SCREWS OR HEADINGS FOR SHANKS, ETC.

*Mr. William Henry Taylor* and *Mr. Herbert W. T. Jenner* for the applicants.

BULLINGS, *First Assistant Commissioner:*

This is a petition that the above-entitled application be held not abandoned.

On May 29, 1909, applicants were informed that the title should be changed and that certain figures not specifically covered by the claims should be canceled.

An amendment was filed on June 17, 1911, which on June 24, 1911, the Examiner informed the applicants could not be entered, since it was not filed within the year, and the pretrial petition was filed June 9, 1912. The petition is accompanied by an affidavit of the foreign attorney, who states that he was under the impression that the case was being prosecuted by the associate attorney; that the filing of the divisional application was postponed pending the allowance of this application; that on May 23, 1910, the associate attorney was instructed "to keep the original application going;" that on April 5, 1911, a letter of inquiry regarding the original case was sent to the associate attorney, which it subsequently appeared was not received; that the divisional application papers were forwarded May 17, 1911, and that it was not until the receipt of a letter of June 13, 1911, that it was learned that this case had become abandoned.

The facts stated are clearly insufficient to show that the delay in the prosecution of the case was unavoidable within the meaning of section 4894, Revised Statutes. It does not appear why the associate attorney did not respond to the letter of May 10, 1910; nor is any excuse whatever given for the delay in filing this petition after the foreign attorney learned that no amendment had been filed within a year from that date.

The petition is denied.

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FISCHER & CO. *v.* JOHN BLAUL'S SONS COMPANY *v.* THE COLUMBIA HOOF PACKING CO., LTD.

*Decided July 25, 1912.*

TRADE-MARKS—IDENTITY—"KITCHEN QUEEN," "QUEEN," "QUEEN QUALITY."

Where a prior registration showed in the drawing the words "Queen Quality," and in the specification the latter word was disclaimed, *Held* that registration of a mark consisting of the words "Kitchen Queen," as applied to the same class of goods was properly refused, since a mark consisting of the word "Queen" or of the words "Queen Quality" is so similar to a mark consisting of the words "Kitchen Queen" that their simultaneous use would be likely to cause confusion in the mind of the public.

APPEAL on MOTION.

TRADE-MARK FOR BEER.

*Messrs. C. A. Snow & Co.* for B. Fischer & Co.

*Mr. Cyrus Keer* for John Blaul's Sons Company.

*The Columbia Hoof Packing Co., Ltd.*, *pro se.*

BULLINGS, *First Assistant Commissioner:*

This is an appeal by John Blaul's Sons Co. from the decision of the Examiner of Trade-Marks de-





nying the petition to dissolve the above-entitled interference.

The motion to dissolve is based on the ground that its entry that the mark of B. Fischer & Co. is not so similar as to be likely to cause confusion in the trade by reason of their simultaneous use upon goods of the same descriptive properties.

The mark of John Blaul's Sons Company consists of the words "Kitchen Queen." The mark of B. Fischer & Co. as set forth in its application as first consisted of the words "Queen Quality." The Examiner thereafter, under the authority of the decision in *Johnson v. Brewster*, (1909 C. D. 61, 138 App. D. C. 345,) required that the word "Quality," since it is descriptive, should either be disclaimed or removed from the drawing. The mark as shown in the application was then amended by inserting after the word "drawing" the words "as under lining made to the word 'Quality.'"

It is contended on behalf of John Blaul's Sons Company that the applicant had no right to thus change its mark, since the significance of the words "Queen" and "Queen Quality" is distinctly different, that the mark of B. Fischer & Co. as originally allowed to be "Queen Quality," and that this mark is not so similar to the mark consisting of the words "Kitchen Queen" as to be likely to cause confusion.

It is not necessary to decide whether under the circumstances of the case B. Fischer & Co. should be allowed to disclaim the word "Quality," since, in my opinion, whether the mark of B. Fischer & Co. be considered as consisting of the word "Queen" alone or the words "Queen Quality" it is so similar to the mark "Kitchen Queen" that their simultaneous use would be likely to cause confusion.

The decision of the Examiner of Trade-Marks is affirmed.

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READ & CARMICK *v.* WATERBURY CHEMICAL COMPANY.

*Decided August 1, 1912.*

1. CONFLICT—TESTIMONY—MOTION TO SUPPRESS.

It is well settled that no appeal lies from the decision of the Examiner of Interferences denying a motion to suppress testimony or postponing a consideration of such a motion to final hearing.

2. SAME—SAME—SAME—REFUSAL TO ANSWER QUESTIONS.

Where a witness refuses to answer questions and an application is made to the district court for an order requiring him to answer them, a decision on the question of suppressing the testimony will be postponed to final hearing.

APPEAL on motion.

TRADE-MARK FOR DISINFECTANTS.

*Messrs. Kiddle & Wendell* for Read & Catarick.

*Mr. Wallace R. Lane* for Waterbury Chemical Company.

BULLINGS, *First Assistant Commissioner:*

This is an appeal by Read & Carmick from a decision of the Examiner of Interferences denying a motion to require the Waterbury Chemical Company to recall one of its witnesses and direct that he answer certain cross-questions or, in the alternative, that his entire deposition be stricken from the record.

The practice in opposition proceedings follows that of the Federal equity practice. In the case of *H. Scherer & Co. et al. v. Hoover* (165 Fed. Rep. 823) the Court of Appeals for the Eighth Circuit, which is the circuit in which the present appellant was sued, says:

[illegible]

The appeal is dismissed.

## MR. PATENT EXAMINER.

[illegible]

[illegible]

[illegible]

by justified in issuing the certificate of correction requested.

Furthermore, not all of the parties interested in this invention are represented in the proceedings, as some persons, not named in appeal, have become the owners of such patents and have not been made parties to the proceedings.

The petition is denied.

## ABRIDGMENT OF PATENTS.

(U. S. C. C. A.) The Carlson patent, No. 797,555, for improvements in internal-combustion engines, claim 3 held valid and infringed. *Carlson Motor & Truck Co. v. Mitchell-Brisco Motor Co.*, 197 Fed. Rep., 888.

(U. S. C. C. A.) The Gilbert patent, No. 793,974, for envelops for half-tone printing plates, held void for lack of invention. *Gilbert, Hewitt & Co. v. Waterhouse*, 197 Fed. Rep., 818.

## Disclaimers.

[illegible]—Carleton Ellis, Montclair, N. J., assignor to [illegible], a corporation of Delaware. MANUFACTURE OF CEMENT. Patent dated September 24, 1907. Disclaimer filed September 27, 1912, by the assignee, *The Solid Portland Cement Company*.

Hereby disclaims to that part of the claim in said specification which is in the following words, to wit: [illegible] substantially as described.

[illegible]—Charles Fisher, Spandau-on-the-Havel, Germany. MANUFACTURE OF CEMENT. Patent dated September 24, 1907. Disclaimer filed September 27, 1912, by the assignee, *The Solid Portland Cement Company*.

Hereby disclaims to that part of the claim in said specification which is in the following words, to wit: [illegible] substantially as described.

[illegible]—Walter Hellmann, Berlin, Germany. PROCESS OF MAKING PORTLAND

## APPLICATIONS UNDER EXAMINATION

Abstract of Title of Invention Under Each.

| Room No. | Division and subjects of Inventions. | Claims and Drawings Completed. Date. | Amendments. Date. | Page. |
|---|---|---|---|---|
| 215 | 2. Fences, Gates and Supports; Fencing Machines. | Aug. 1 | July 22 | 695 |
| 120 | 3. Ship Building, Docks, Launching, Ways, Dry Docks, Pumps for Docks, Caulking, Scraping and Painting Ships, Ship Rudders, Ship Propellers, Ship Anchors, Ship Windlasses, Ship Capstans, Ship Rigging, Ship Masts, Ship Sails, Ship Spars, Ship Yards, Ship Blocks, Ship Tackle, Ship Boats, Ship Davits, Ship Oars, Ship Rowlocks, Ship Boat Hooks, Ship Boat Falls, Ship Boat Sails, Ship Boat Masts, Ship Boat Spars, Ship Boat Yards, Ship Boat Blocks, Ship Boat Tackle, Ship Boat Davits, Ship Boat Oars, Ship Boat

spirit from each other in their descent, substantially as described.

4. Annealing mechanism for web printing and folding machinery, comprising in combination a plurality of vertically superposed pairs of turning bars of right angles, adapted to turn the webs of the corresponding pairs laterally to right and left, means for returning the laterally diverted webs inwardly toward the vertical longitudinal mid-plane of the turning bars, and devices for deflecting the inwardly returned webs of each pair downward clear of each other webs and plate of the downwardly deflected pair next below and in planes located within the limits of the space bisected by the pair of turning bars that are next below, said turning-bars having rounded turning faces and being thereby adapted to throw the turned half-webs of paper off from the point of separation of the split web so as to provide a clearance for the downwardly led half-webs, said deflecting devices being so located that the various webs are apart from each other in their descent, substantially as described.

5. Annealing mechanism for web printing and folding machinery, comprising in combination a plurality of vertically superposed pairs of turning bars at right angles, adapted to turn the webs of the corresponding pairs laterally to right and left, means for returning the laterally diverted webs inwardly toward the vertical longitudinal mid-plane of the turning bars, and devices for deflecting the inwardly returned webs of each pair downward clear of each other webs and plate of the downwardly deflected pair next below and in planes located within the limits of the space bisected by the pair of turning bars that are next below, said turning-bars having rounded turning faces and being thereby adapted to throw the turned half-webs of paper off from the point of separation of the split web so as to provide a clearance for the downwardly led half-webs, said deflecting devices being so located that the various webs are apart from each other in their descent, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

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**1,040,297. INTERLOCKING TUBULAR CONSTRUCTION. Florence Sims, New York, N. Y. Filed Feb. 9, 1912. Serial No. 676,816. (Cl. 175—322.)**



1. The combination of an outer tubular member having a continuously rounded edge with a reverse-flange forming an interior ledge together with an inner tubular member having a reduced portion near the end and having a plurality of outer abutment shoulders, the one of which is adapted to engage the ledge to prevent longitudinal separation, and of said shoulders being carried by the smallest portion whereby the shoulder may be disengaged by pressing that portion of the inner member inward, the shoulders being so formed as to permit the ready insertion of the inner tubular member into the outer tubular member.

2. The combination of an outer tubular member having a reverse-turned edge with a reverse-flange forming an interior ledge together with an inner tubular member having a reduced portion near the end and having a plurality of outer abutment shoulders, the one of which is adapted to engage the ledge to prevent longitudinal separation, and of said shoulders being carried by the smallest portion whereby the shoulder may be disengaged by pressing that portion of the inner member inward, the shoulders being so formed as to permit the ready insertion of the inner tubular member into the outer tubular member, said engaging shoulder having a bevel and said smallest portion having a bevel adapted to ride upon said engaging shoulder when pressed to permit disengagement.

3. In combination an outer tubular member having an interior ledge with one or more notches between the ledge and the edge of the tubular member and an inner reduced tubular member having outstanding shoulders for engaging said ledge and an outstanding lug beneath one of said shoulders for engaging in a notch of the outer tubular member.

[Claims 4 to 9 not printed in the Gazette.]

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**1,040,298. TOOL HOLDER AND REST. Thomas Sawyer, Pittsburg, Penn. Filed Feb. 19, 1908. Serial No. 416,126. (Cl. 77—68.)**



A tool holder and rester comprising a body portion suitably apertured throughout its length to form a chuck, the aperture being tapered inwardly from one end to receive and hold a tapered tool shank, and an elastic pin mechanically united to the opposite end of the aperture and projecting through the chuck and provided with a combining operating or tool pressing disk whereby the tool may be held against rotation while supported in the chuck and be readily ejected therefrom by longitudinal pressure on the end of the ejector pin, and may be readily used as a tool-

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**1,040,299. FABRIC FASTENING. Cornelius H. Sawyer and Harry F. Sawyer, New York, N. Y. Filed Nov. 16, 1911. Serial No. 660,408. (Cl. 223—107.)**



1. As a new article of manufacture, a fabric fastener

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[illegible] As a new article of manufacture, a packing ring composed of a spiral [illegible] a covering for the coil, and spiral [illegible] substantially as described.

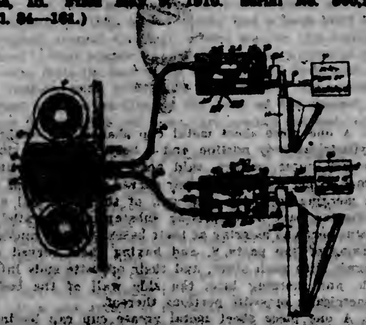
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**1,040,300. 2,5-DI[illegible]-ARSENIC ACID. Ludwig Benda, Frankfort-on-the-Main, Germany, assignor to Farbwerke, vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Feb. 8, 1912. Serial No. 676,182. (Cl. 23—84.)**

As a new product, the 2,5-[illegible]-arsenic acid, being a white crystalline compound, difficultly soluble in cold water and ethyl alcohol, readily soluble in hot water and diluted mineral acids, alkalis and sodium acetate, decomposing when heated to 210° C.

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**1,040,301. AUTOMATIC PLAYING ATTACHMENT FOR MUSICAL INSTRUMENTS. Homer J. Swenson, Moline, Ill. Filed May 9, 1910. Serial No. 560,201. (Cl. 84—16L.)**

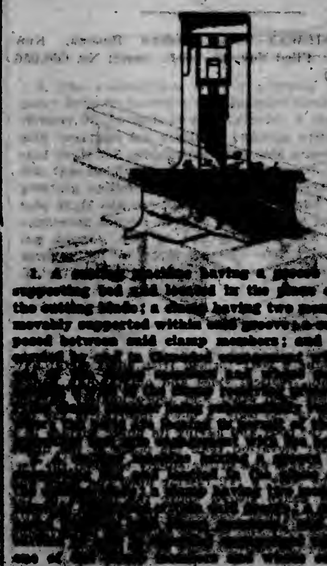


1. In the combination of the drum operating the combination of a rocking frame drum, a pedestal supporting said frame, a [illegible] of said drum, a [illegible] pivoted to said pedestal, a [illegible] connected with said drum and pivoted to said lever, a [illegible] pivoted to said lever, substantially as described.

2. In the combination of the drum operating the combination of a rocking frame drum, a pedestal supporting said frame, a [illegible] of said drum, a [illegible] pivoted to said pedestal, a [illegible] connected with said drum and pivoted to said lever, a [illegible] pivoted to said lever, substantially as described.

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**1,040,302. PAPER-CUTTING MACHINE. Gyro Thuald, Two Rivers, Wis., assignor to The Thuald Manufacturing Company, Two Rivers, Wis., a Corporation of Wisconsin. Filed Feb. 17, 1912. Serial No. 678,282. (Cl. 164—58.)**



2. A cutting machine having a guard in its material supporting bed and located in the plane of operation of the cutting blade; a clamp having two members, one being movably supported within said guard, a cutting edge disposed between said clamp members; and clamping bolts [illegible] [illegible] [illegible] [illegible] means for adjusting the air back from [illegible]

3. In an apparatus of the class described, the combination of [illegible] [illegible] for pneumatically [illegible] said ducts together to form a continuous passage [illegible] opening arranged to register with said ducts [illegible] [illegible] also having an air supply port [illegible] [illegible] in line with said ducts [illegible] [illegible] ing instrumentalities connected with and controlled by said ducts; and means for exhausting the air from said ducts.

[Claims 4 to 11 not printed in the Gazette.]

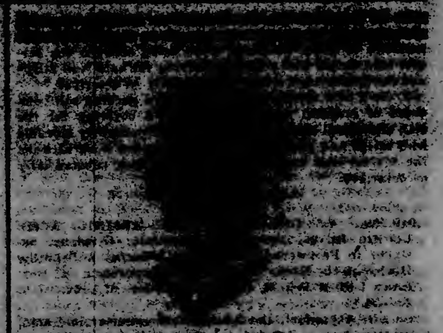
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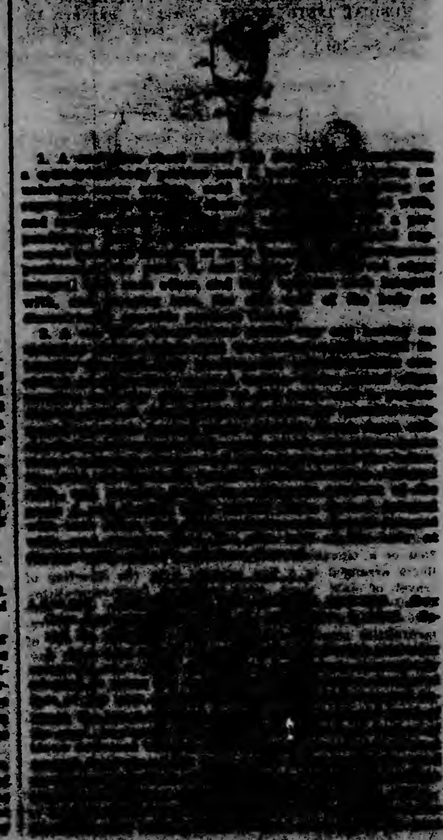
**1,040,303. [illegible] PROCESS. [illegible] Schmidt, Jena, Germany, assignor to [illegible] Jena, Germany, a Corporation of Germany. [illegible] (Cl. [illegible])**

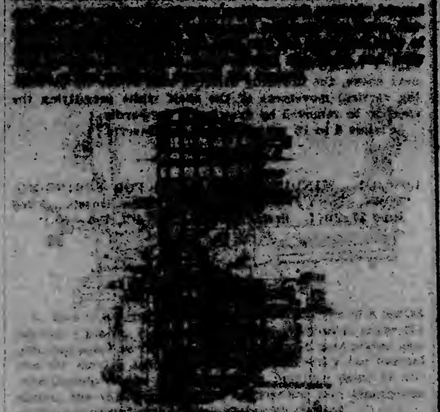


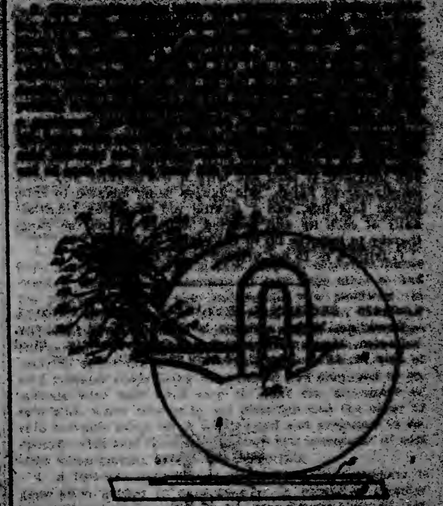
1,040,504. RAILWAY-TIE. Elmore Bowen, Kenilworth, Pa. Filed Nov. 13, 1911. Serial No. 660,402. (Cl. 238—5.)













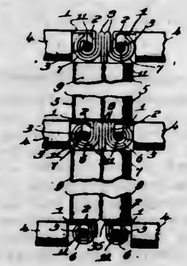
4. In a shelf or rack, the combination with two end supports, one of which has a laterally and upwardly-directed lip, of a sheet metal shelf sustained by said end supports and bent at one end to constitute a downwardly-directed flange to enter behind the upwardly-directed portion of the lip, and locking means extending longitudinally of the flange and lip and locking them together.

5. The combination with two brackets, each of which has a laterally and upwardly-directed lip with an inwardly-bent end, of a sheet metal shelf sustained by said brackets and provided at each end with a downwardly and backwardly-curved flange, said flanges being adapted to enter behind said lips, and a locking rod extending longitudinally of each lip and inserted between it and the flange thereby to lock the lip to the flange.

[Claims 6 to 15 not printed in the Gazette.]

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1,040,270. SECTIONAL SHELVING. PERCY L. BRYNING, Brookline, Mass., assignor to Bryning Shelf Company, Boston, Mass., a Corporation of Massachusetts. Filed July 22, 1911. Serial No. 639,898. (Cl. 211—27.)



1. In sectional shelving, the combination with a shelf section having at each end a downwardly directed flange, of upright sections each having at its lower edge a laterally and upwardly directed lip to receive the flange of the shelf, and at its upper edge a trough-like rest to receive the lip of the section next above.

2. In sectional shelving, the combination with a plurality of shelf sections each having at each end a downwardly directed flange, of a plurality of superposed upright sections, each upright section having at its lower edge a laterally and upwardly directed lip to receive the flange of a shelf, and at its upper edge a trough-like rest to receive the lip of the section next above.

3. In sectional shelving, the combination with a plurality of shelf sections each having at each end a downwardly directed flange, of a plurality of superposed upright sections, each upright section having at its lower edge a laterally and upwardly directed lip to receive the flange of a shelf, and at its upper edge a trough-like rest to receive the lip of the section next above, and corner fastenings embracing the edges of the shelf and of the upright sections where the shelf and sections meet.

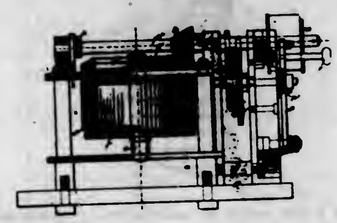
4. In sectional shelving, the combination with a plurality of shelf sections each having at each end a downwardly directed flange, of a plurality of superposed upright sections, each upright section having at its lower edge a laterally and upwardly directed lip to receive the flange of a shelf, and at its upper edge a trough-like rest to receive the lip of the section next above, corner fastenings embracing the edges of the shelf and of the upright sections where the shelf and sections meet, and locking rods extending transversely of the shelf and connected to the corner fastenings.

5. In sectional shelving the combination with a shelf section having at each end a downwardly extending flange provided with a laterally and upwardly directed portion, of a plurality of upright sections each having at its lower edge a laterally and upwardly directed lip, the edge of which is bent inwardly, which lip is adapted to receive the flange of the shelf, each upright section having at its upper edge a trough-like rest to receive the lip of the section next above, the inwardly directed edge of the lip preventing vertical movement of the shelf while permitting the shelf to be removed by drawing it outwardly.

[Claims 6 to 16 not printed in the Gazette.]

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1,040,271. WINDING MECHANISM FOR SPRING-MOTORS. TOWY J. BOUNIMOVITSCH, Wilna, Russia. Filed June 27, 1911. Serial No. 635,623. (Cl. 185—40.)



1. In a talking machine, the combination with a spring-motor; of an electric motor for winding the same; a manually-operable circuit-controlling switch-arm arranged to make the circuit of said electric motor; and a rotatable arm which is coupled to said spring-motor and is driven by said electric motor and which automatically throws said switch-arm into open position, when the spring of said spring-motor has attained a given tension.

2. In a talking machine, a record-spindle; a spring-motor for driving the same; an electric motor for winding up said spring-motor; a manually-operable switch-arm one end of which is in the circuit of said electric motor; a contact-plate which is in said circuit and which is arranged to engage said switch-arm to close the said circuit; and a device for throwing said switch-arm out of contact with said contact-plate, when a given tension of the spring of said spring-motor has been reached.

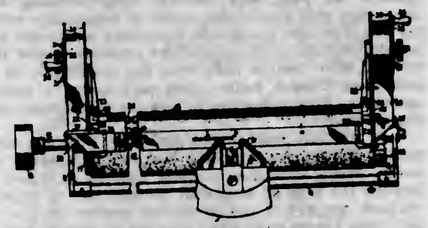
3. In a talking machine, a record spindle; a spring-motor for driving the same; an electric motor for winding up said spring-motor; a manually-operable switch-arm one end of which is in the circuit of said electric motor; a contact-plate which is in said circuit and which is arranged to engage said switch-arm to close the said circuit; a spring which is connected with said switch-arm and which tends to hold the latter out of contact with said contact-plate and to maintain said circuit interrupted; and an arm coupled with said spring-motor for throwing said switch-arm out of contact with said contact-plate, when a given tension of the spring of said spring motor has been reached.

4. In a talking machine, the combination with a spring-motor; of an electric motor for winding the same; a manually-operable circuit-controlling switch-arm arranged to make the circuit of said electric motor; and a rotatable arm which is coupled to said spring-motor and is driven by said electric motor and which automatically throws said switch-arm into open position, when the spring of said spring-motor has attained a given tension; said device being free to pass said switch-arm, after the latter is electrically disconnected from said contact-plate.

5. In a talking machine, the combination with a spring-motor; of an electric motor for winding the same; a bifurcated contact-plate in circuit with said electric motor; a manually-operable circuit-controlling switch arm arranged to be thrown by hand into interlocking engagement with the bifurcated part of said contact-plate, which grips and retains said switch-arm; and a rotatable arm which automatically throws said switch-arm out of engagement with said bifurcated part to open the circuit of said electric motor, when the spring of said spring-motor has attained a given tension.



1,040,272. TYPE-WRITING MACHINE. HERBERT A. CARHART, Syracuse, N. Y., assignor to The Smith Premier Typewriter Company, Syracuse, N. Y., a Corporation of New York. Filed Jan. 28, 1911. Serial No. 604,100. (Cl. 197—183.)



1. In a typewriting machine, the combination of a platen carrier, a platen, means for retaining a ribbon to cover the printing point on the platen, and means on said platen carrier for moving said retaining means to vary the normal relationship of the ribbon with the printing point on the platen, the variation being in a direction both lengthwise of the printing line and also crosswise thereof.

2. In a typewriting machine, the combination of a platen, a platen frame, means mounted on said platen frame for retaining a ribbon opposite the printing point, and means on said platen frame for varying the normal relationship between said retaining means and the printing point on the platen.

3. In a typewriting machine, the combination of a platen, a platen frame, devices mounted on said platen frame for retaining a ribbon opposite the printing point, and means for varying the normal relationship between said retaining devices and the printing point on the platen, said means being automatically operative independently of movement of said platen frame.

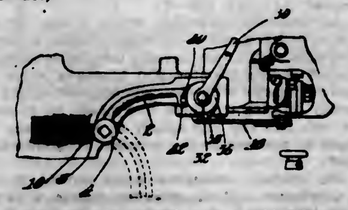
4. In a typewriting machine, the combination of a rotary platen, a platen frame, devices mounted on said platen frame for retaining a ribbon opposite the printing point, and means for varying the relationship between said devices and the printing point on the platen, said means operating automatically during turning movements of the platen.

5. In a typewriting machine, the combination of a platen, means for retaining the ribbon normally covering the printing point on the platen, and means for moving said retaining means bodily both transversely and lengthwise of the platen so as to vary in two directions the normal relationship between the ribbon and the printing point on the platen, said means operating independently of latter space and return movements of said platen.

[Claims 6 to 49 not printed in the Gazette.]

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1,040,273. GAGE. LOUIS A. CASGRAIN, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Oct. 24, 1898, Serial No. 694,881. Divided and this application filed May 20, 1910. Serial No. 562,498. (Cl. 1—19.)



1. A two-way gage comprising, in combination, a gage slide, eccentric means through which said slide may be moved to and fro longitudinally between limits determined by the eccentricity of said means, and means for determining other limits between which said slide may be freely moved, comprising coöperating stops one of which is fixed and the other of which is adjustable about the axis of turning of said eccentric means into different angular relations to said means to determine different limits for the effective free movement of said means.

2. A two-way gage comprising in combination a gage slide, eccentric means through which said slide may be moved to and fro longitudinally between two limits determined by the eccentricity of said means, a fixed stop and two movable stops coöperating with said fixed stop, said movable stops being carried by said eccentric means and being adjustable about the axis of turning of said means to vary the limits of free movement of said eccentric means and consequently of said slide.

3. A two-way gage comprising in combination a support, a gage slide guided in said support, eccentric means through which the movements of said gage slide to and fro between its first row and second row positions are effected, and means for determining different first row and second row positions comprising a fixed stop, and two movable stops carried by said eccentric means and adjustable about the axis of turning of said means, one of said movable stops being constructed and arranged to coöperate with said fixed stop to limit the movement of said slide when moving in one direction and the other of said movable stops being constructed and arranged to coöperate with said fixed stop to limit the movement of said slide when moving in the other direction.

4. A two-way gage having in combination, a support, a gage slide guided in said support, a rotatable member having bearings in said support, connections between said member and slide for causing the turning of said member to effect longitudinal movement of said slide to and fro between limits determined by said connections, and means for determining other limits of movement between said extreme limits comprising a fixed stop and a movable stop carried by said rotatable member and adjustable about the axis of turning of said member into any angular relation to said member, and means for securing said movable stop in its different adjusted relations to said member.

5. A two-way gage having in combination, a support, a gage slide guided in said support, a rotatable member having a pin and slot connection with said slide and adjustable means for providing two limits between which said slide can be moved without interference comprising a fixed stop and two movable stops connected to said rotatable member to turn therewith from a position in which one movable stop engages said fixed stop to a position in which the other movable stop engages said fixed stop, said movable stops being adjustable about the axis of rotation of said rotatable member into different angular relations to said pin and slot connection, and means for securing said stops in the different positions of adjustment.

[Claims 6 to 11 not printed in the Gazette.]

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1,040,274. METHOD OF MANUFACTURING BALL-RETAINERS. DAVID FRANKLIN CHAMBERS, Lancaster, Pa., assignor to The Star Ball Retainer Company, Lancaster, Pa., a Corporation of New Jersey. Filed Oct. 15, 1910. Serial No. 587,198. (Cl. 113—116.)



1. The herein described method of forming hat-shaped blanks for use in the manufacture of ball retainers for ball bearings, which consists in first partially cutting from a flat metal strip or plate a disk-like portion and simultaneously drawing out the central portion of the disk so as to form a substantially hat-shaped body having a crown of reduced thickness of metal and a rim integral with the strip, then removing the top of said crown, then drawing out and straightening the topless crown, and then severing its rim from the strip.

2. The herein described method of forming blanks for use in the manufacture of ball retainers for ball bearings, which consists in first cutting without severing from a strip of metal a disk-like portion and simultaneously drawing out the central portion of the disk so as to form a substantially hat-shaped body integral with the strip, then removing the top of the crown of said hat-shaped body, and then drawing out and straightening the topless crown of said partly formed body, and then severing it from the strip.

3. The herein described method of manufacturing ball retainers for ball bearings, which consists in partially cutting from a flat metal strip or plate a disk-like portion and drawing out the central portion of the disk so as to produce a substantially hat-shaped body having a crown of reduced thickness and a partially formed rim joined to the strip, then cutting out the top of the crown, then drawing out the remaining portion of the crown straight in cylindrical form and severing it from the strip with a rim of smaller diameter than the previously partly formed rim, and finally cutting and bending portions of the severed body so as to adapt the device to hold a circular series of balls in separated relation without preventing free rotation of the balls.

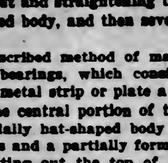
4. The herein described method of manufacturing ball retainers for ball bearings which consists in partially cutting from a flat metal strip or plate a disk-like portion and drawing out the central portion of the disk so as to produce a substantially hat-shaped body having a crown of reduced thickness, and a partially formed rim joined to the strip, then cutting out the top of the crown, then drawing out the remaining portion of the crown straight in cylindrical form and severing it from the strip with a rim of smaller diameter than the previously partly formed rim, and finally cutting and bending the crown of the severed body so as to form a series of standards extending from the inner edge of and overhanging a circular base and widened toward their free ends.

5. The herein described method of manufacturing ball retainers for ball bearings which consists in partially cutting from a flat metal strip or plate a disk-like portion and drawing out the central portion of the disk so as to produce a substantially hat-shaped body having a crown of reduced thickness and a partially formed rim joined to the strip, then cutting out the top of the crown, then drawing out the remaining portion of the crown straight in cylindrical form and severing it from the strip with a rim of smaller diameter than the previously partly formed rim, and finally cutting and bending the crown and rim of the severed body so as to form a series of standards extending from the inner edge of and overhanging a circular concave base and widened toward their free ends.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,275. DEMOUNTABLE RIM. JOHN CLARENCE COLE, Chicopee Falls, Mass., assignor to Fisk Rubber Company, Chicopee Falls, Mass., a Corporation. Filed Dec. 27, 1910. Serial No. 599,447. (Cl. 152—21.)



1. A rim for clencher and analogous tires circumferentially divided into two cylindrical parts having the same diameter and movable one toward the other into interlocking relation, one of said parts having dovetailed projections thereon located opposite dovetailed openings in the other part, and a movable part on said projections to temporarily reduce the length thereof to permit the entrance of the projections in the openings in the other part of the rim when the two parts are moved one toward the other.

2. A rim for clencher and analogous tires circumferentially divided into two parts, each rim part having projections on one part extending toward openings in the opposite rim part, said openings being normally narrower than said projections, means to temporarily reduce the length of said projections comprising a movable part constituting one of the ends of the projections, said part serving, when located flush with the projections, to restore their normal outline, said part having a bearing against the base of the tire to lock the part against easy displacement.

3. A rim for clencher and analogous tires circumferentially divided into two parts, each rim part having outwardly flaring dovetailed portions adapted to closely fit between the ends of dovetailed portions on the opposite rim-part, the end of the dove-tailed portion on one rim part being hinged to said part whereby an opening may be provided to admit the dovetailed portion of the opposite rim part, said hinged part constituting a locking device to hold the rim parts together when the said parts are located in operative relation one to the other.

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1,040,276. FORCE AND SUCTION PUMP. ALLAN J. COLEMAN, Pittsburgh, Pa. Filed June 22, 1911. Serial No. 634,839. (Cl. 4—1.)



1. An elastic suction cup for pumps, having its lower edge formed with a plurality of concentric suction grooves of varying depth, substantially as described.

2. An elastic suction cup for pumps, having the edge of its neck or smaller end formed with a plurality of concentric suction grooves, substantially as described.

3. An elastic suction cup for pumps, said cup being reversible and having both its upper and lower edges provided with a plurality of concentric suction grooves, substantially as described.

4. A reversible elastic suction cup for pumps, having both its upper and lower edges provided with three suction grooves, the central grooves being of greater depth than the grooves adjacent thereto, substantially as described.

5. An elastic suction cup for pumps, having a metallic thimble or bushing embedded within the neck portion thereof, and having both its upper and lower faces provided with a plurality of concentric grooves of varying depths, substantially as described.

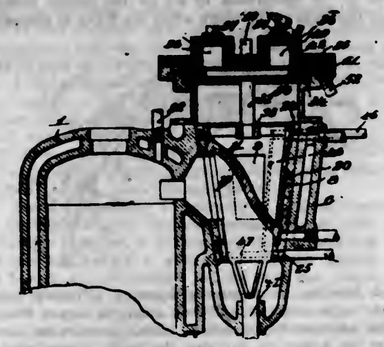
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1,040,277. INTERNAL-COMBUSTION MOTOR. GUY B. COLLINS, Kinderhook, N. Y. Filed Jan. 3, 1912. Serial No. 669,241. (Cl. 136—7.)

1. An internal combustion motor having, in combination, a cylinder, a piston operating therein, a valve chamber provided with a port opening into the cylinder, a valve supported in the chamber and having a valve port arranged to register with the cylinder port, means for continuously rotating the valve, and means for balancing the valve both laterally and axially in synchronism with the changes of pressure in the cylinder, substantially as described.

2. An internal combustion motor having, in combination, a cylinder, a piston operating therein, a valve chamber provided with a port opening into the cylinder, a continuously rotated valve supported in the chamber and having supply and exhaust ports arranged to register with the cylinder port and means for applying to the valve diametrically opposite the cylinder port a pressure which is equal and oppositely directed to the pressure applied to the valve through the cylinder port, substantially as described.





3. An internal combustion motor having, in combination, a cylinder, a piston operating therein, a valve chamber provided with a port opening into the cylinder, a valve supported in the chamber and having supply and exhaust ports arranged to register with the cylinder port, means for continuously rotating the valve and a plurality of pressure chambers connected with the cylinder and arranged to allow a free transmission of pressure from the cylinder to the chambers to secure a lateral balance of the valve, substantially as described.

4. An internal combustion motor having, in combination, a plurality of cylinders, a piston operating in each cylinder, a valve chamber provided with a port opening into each cylinder, a valve supported in the chamber and having a port arranged to successively register with the cylinder ports and means for applying to the valve diametrically opposite to each cylinder a pressure which is equal and oppositely directed to the pressure applied to the valve through each cylinder port, substantially as described.

5. An internal combustion motor having, in combination, a cylinder, a piston operating therein, a valve seat having a port opening into the cylinder and provided with a pair of pressure chambers formed in the upper and lower portion of the seat diametrically opposite to the cylinder port, connections between the chambers and the cylinder allowing a free transmission of pressure from the cylinder to the chambers, and a continuously rotated valve supported in the seat, substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

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1,040,278. AUTOMATIC BALING-MACHINE. ROY A. COLLINS, Gerster, Mo. Filed Jan. 11, 1912. Serial No. 670,723. (Cl. 100—20.)



1. In a baling machine, the combination of compression and receiving chambers arranged in superposed relation, a gate adapted to close communication between said chambers, a baling plunger operating in the compression chamber, and a compressor extending the full length of the receiving chamber and operating therein which is adapted to force the material from the receiving chamber into the compression chamber for subsequent compression by the baling plunger.

2. In a baling machine, the combination of compression and receiving chambers arranged in superposed relation and both of substantially the same length, a gate which closes communication between the said chambers and extends the full length thereof, a baling plunger operatable in the compression chamber below the gate, and a compressor extending the full length of the receiving chamber and operating therein which is adapted to force the material from the receiving chamber into the compression chamber for subsequent compression by the baling plunger.

3. In a baling machine, the combination with compression and receiving chambers, of a gate controlling communication between them, a baling plunger operating in the compression chamber, a feeder adapted to deliver the material to the receiving chamber, a compressor operating in the receiving chamber adapted to force the material therefrom into the compression chamber for subsequent compression and baling by the plunger, and automatically acting mechanisms coöperating with the plunger, gate, and compressor adapted to open the gate when a suitable quantity of material has been received in the receiving chamber, to thereupon operate the compressor to force the material into the compression chamber and to restore the gate and compressor to normal position and thereupon to operate the plunger to form the bale.

4. In a baling machine, the combination with compression and receiving chambers, of a gate controlling communication between them, a baling plunger operating in the compression chamber, a feeder adapted to deliver the material to the receiving chamber, a compressor operating in the receiving chamber adapted to force the material therefrom into the compression chamber for subsequent compression and baling by the plunger, and automatically acting mechanism cooperating with the plunger, gate, and compressor adapted to open the gate when a suitable quantity of material has been received in the receiving chamber, to thereupon operate the compressor to force the material into the compression chamber and to restore the gate and compressor to normal position and thereupon to operate the plunger to form the bale, together with an automatic feeder for delivering the material to the receiving chamber and operating mechanism for said feeder which renders said feeder inoperative to feed the material when the gate is open and the compressor is forcing the material from the receiving chamber into the compression chamber.

5. In a baling machine, the combination with a compression chamber, of a receiving chamber, said chambers being in communication, a gate controlling communication between the respective chambers, means for forcing the material from the receiving chamber into the compression chamber, a baling plunger operating in the compression chamber, and mechanism controlled by the pressure of the material in the receiving chamber which is adapted to open the gate, operate the compressor, and operate the plunger after the material has been forced by the compressor into the compression chamber.

[Claims 6 to 26 not printed in the Gazette.]

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1,040,279. ANKLE SUPPORT AND PROTECTOR. HENRY JAMES COLLIS, Taunton, Mass. Filed June 29, 1911. Serial No. 636,024. (Cl. 128—52.)



1. In an ankle support and protector comprising a pliable body having a main portion adapted to surround the ankle and terminating in edges at its respective ends constituting the open front of the device and a bottom portion adapted to pass under the instep, fastening means constituted by cross-straps respectively secured to said

front edges at the free terminal ends of the main portion of the body at the open front thereof and oppositely projecting from said respective edges, and fastening devices carried by said body respectively at opposite sides of the open front thereof and respectively engageable with said oppositely-projecting cross-straps.

2. In an ankle support and protector comprising a pliable body having a main portion adapted to surround the ankle and terminating in edges at its respective ends constituting the open front of the device and a bottom portion adapted to pass under the instep, fastening means constituted by cross-straps of approximately V-shape respectively having their divergent strips secured to said front edges at the free terminal ends of the main portion of the body, at the open front thereof and oppositely-projecting therefrom thus forming central openings in the respective cross-straps, and fastening devices carried by said body respectively at opposite sides of the open front thereof and respectively engageable with the portion of said oppositely-projecting cross-straps beyond said central openings therein.

3. In an ankle support and protector comprising a pliable body having a main portion adapted to surround the ankle and terminating in edges at its respective ends constituting the open front of the device and a bottom portion adapted to pass under the instep, fastening means constituted by cross-straps respectively secured to said front edges at the free terminal ends of the main portion of the body at the open front thereof and oppositely projecting therefrom, a stay strip secured to the outer surface of said respective front-edge portions, and fastening means carried by said body respectively at opposite sides of the open front thereof, said fastening means being covered and secured by said respective stay strips and having a portion projecting through the same and engageable with said oppositely-projecting cross-straps.

4. In an ankle support and protector comprising a pliable body having a main portion adapted to surround the ankle and terminating in edges at its respective ends constituting the open front of the device and a bottom portion adapted to pass under the instep, fastening means constituted by cross-straps respectively secured to said front edges at the free terminal ends of the main portion of the body at the open front thereof and oppositely projecting from said respective edges, a tongue having an extension inserted through the body from the inside near one of said front edges and secured in connection therewith, a stay strip secured to the outer surface of said respective front-edge portions, one of which stay-strips covers said tongue insertion, and fastening means carried by said body respectively at opposite sides of the open front thereof, said fastening means being covered and secured by said respective stay strips and having a portion projecting through the same and engageable with said oppositely-projecting cross-straps.

5. In an ankle support and protector comprising a pliable body having a main portion adapted to surround the ankle and terminating in edges at its respective ends constituting the open front of the device and a bottom portion adapted to pass under the instep, fastening means constituted by cross-straps respectively secured to said front edges at the free terminal ends of the main portion of the body at the open front thereof and oppositely projecting from said respective edges, brace strips extending on the longitudinal plane of said front edges at the respective free terminal ends of the main portion of said body at the open front thereof, and fastening devices carried by said body respectively at opposite sides of the open front thereof and respectively engageable with said oppositely-projecting cross-straps.

[Claims 6 to 12 not printed in the Gazette.]

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1,040,280. GLASSWARE-FORMING MECHANISM. ROBERT MACNEY COEL, Toledo, Ohio, assignor to The Mechanical Process Manufacturing Company, Toledo, Ohio, a Corporation of Ohio. Filed June 9, 1909. Serial No. 501,126. (Cl. 49—1.)

1. A tubular blank reforming mechanism, comprising a heater for a portion of the blank, a holder having on the under side thereof engaging means for suspending the blank, and mechanically controlled driving means coöperatively interconnected in the mechanism to expose the blank to the heater, said means including a former controlled by the mechanism to act on the heated blank to change the form of the blank while the blank is suspended.



2. A forming mechanism comprising a rotary holder having on the under side thereof engaging means for suspending an open ended tubular blank, a movable mounting for the holder for carrying the holder laterally of its axis of rotation, a heater for the blank, and mechanically controlled driving means coacting with the mounting to effect relative translation between the holder and heater.

3. A re-forming mechanism comprising a cycle of devices including a rotary blank holder, said holder comprising a clamp embodying relatively movable sections and concentric therewith a centering portion to engage a blank between the clamp and centering portion, a heater for the blank, and in sequence therewith an expanding device for the blank embodying a fluid duct, a valve for the duct, and a controller for the valve actuated by the mechanism.

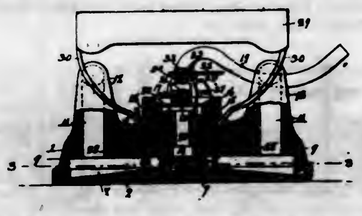
4. A glassware forming mechanism comprising a clamp holder for gripping the ware, an expanding device embodying a fluid duct discharging through the holder to the ware, said holder and a portion of said duct being relatively movable, a valve for the duct, and a valve controller graduating the supply of fluid to the duct, said controller connected to be actuated by relative movement of the holder to a portion of the duct.

5. A glassware forming mechanism comprising a clamp for gripping the ware, an expanding device embodying a fluid duct discharging through the clamp to the ware, and a trippable controller actuable by relative travel of a portion of the duct to the holder to permit a puff of fluid into the duct.

[Claims 6 to 36 not printed in the Gazette.]

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1,040,281. SAD-IRON. EVAN W. CORNELL, Adrian, Mich. Filed Nov. 2, 1910. Serial No. 590,284. (Cl. 158—23.1.)



1. A flame heated sad-iron having an internal combustion chamber, a burner depending centrally therein, the bottom of said chamber being provided with corrugations surrounding and radiating from said burner, and a disk of insulating material interposed between said burner and the bottom of said chamber at the point of convergence of said corrugations.

2. A flame heated sad-iron comprising an internal combustion chamber, a burner located centrally therein, the bottom of said chamber being provided with radially disposed corrugations, and the side walls of said chamber being provided with circumferential corrugations.

3. A flame heated sad-iron comprising an internal combustion chamber, a centrally disposed burner therein, the bottom of said chamber being provided with radially disposed corrugations leading from said burner, the side walls of said chamber being provided with circumferential corrugations, and the ceiling of said chamber being composed of heat insulating material surrounding said burner.

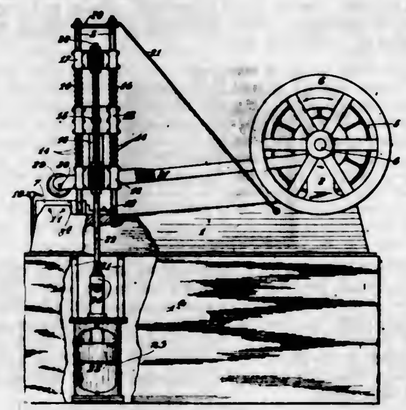
4. A flame heated sad-iron having an internal combustion chamber in the body thereof, the ceiling and bottom of said chamber being substantially parallel, a burner within said chamber depending through the ceiling, and a flat sheet of heat insulating material on the ceiling of said chamber surrounding and embracing said burner in proximity to the flame orifices therein.

5. A sad-iron having a combustion chamber therein, a top having a burner opening communicating with said combustion chamber, a fitting mounted on said top over said opening having a gas orifice formed therein and also having an air opening around said gas orifice, and a heat insulating element interposed between the top of the iron and said fitting, said insulating element wholly supporting and separating said fitting from the body of the iron.

[Claims 6 to 8 not printed in the Gazette.]

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1,040,282. METAL-DRAWING FORGE. CALVIN DEAN CRARY, Minneapolis, Minn. Filed Jan. 2, 1912. Serial No. 668,878. (Cl. 29—83.)



1. In a machine of the kind described, the combination with a suitable base, of a crank shaft journaled on said base, vertical columns on said base, a cross head movable on said columns and serving as a link support, a link pivoted to said cross head, a crank rod operated by said crank shaft and supported by said link, coöperating dies, one on said base and the other on the free end of said crank rod, and yielding means for moving said cross head.

2. In a machine of the kind described, the combination with a suitable relatively fixed die or block, of a spring-pressed link support mounted for straight line vertical movements, a vibratory link pivoted to said link support, a rod attached to said link near its free end, said rod having a die member for coöperation with said relatively fixed die, and means for reciprocating said rod to produce a coöperative action between the said two dies.

3. In a machine of the kind described, the combination with coöperating relatively fixed and movable dies, of a reciprocatory rod carrying said movable die, and a cylinder and piston with connections for adjusting said rod and holding said movable die for operative movements on different lines at varying distances from said fixed die.



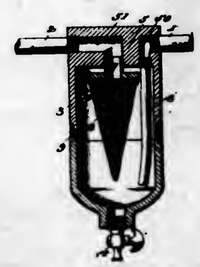
4. In a machine of the kind described, the combination with a suitable base, of a crank shaft journaled on said base, vertical columns on said base, a cross head movable on said columns and serving as a link support, a link pivoted to said cross head, a crank rod operated by said crank shaft and supported by said link, and coöperating dies, one on said base and the other on the free end of said crank rod.

5. In a machine of the kind described, the combination with a suitable base, of a crank shaft journaled on said base, vertical columns on said base, a cross head movable on said columns and serving as a link support, a link pivoted to said cross head, a crank rod operated by said crank shaft and supported by said link, coöperating dies, one on said base and the other on the free end of said crank rod, and a coöperating cylinder and piston, said piston having a connection to said cross head for moving the same.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,283. GASOLENE-FILTER. EMANUEL L. CRUM, Decatur, Ill. Filed Jan. 30, 1911. Serial No. 605,661. (Cl. 210—16.)



1. A filter for gasolene and the like, comprising a casing having a chamber and a head forming the top wall of said chamber, said head having an inlet duct opening through its under face and an outlet duct opening through its under face, a conical screen depending in said chamber with its apex in the lower portion of the chamber, a nipple secured to said screen and from which the same is suspended, said nipple being removably secured to and depending from said head and having a passage placing the space inclosed by said screen in communication with said outlet duct, and a discharge pipe arranged in said chamber at the exterior of said screen and having its discharge end in the lower portion of the chamber, said pipe removably screwing into the top wall of said chamber in continuation of said inlet duct.

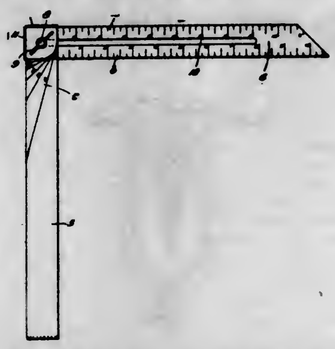
2. A filter for gasolene and the like, comprising a casing forming a chamber having a top outlet, a conical filtering screen depending in said chamber with the space inclosed by said screen in communication with said outlet, said screen provided with and carried by a top head having an upwardly extending nipple removably secured in the casing top in communication with said outlet and opening into the space within the screen, said nipple carrying said head, and a discharge pipe extending down beside said screen and opening into the lower part of said chamber.

3. A filter for gasolene and the like, comprising a casing having a top head and an interior chamber below said head, said casing comprising transverse sections removably united to permit access to parts within said chamber, said head having an inlet duct opening through the under face thereof and an outlet duct opening through the under face thereof, a filtering screen depending in said chamber and provided with and carried by a head having an upwardly extending nipple removably secured in said casing head in continuation of said outlet duct, said nipple carrying said screen head and opening therethrough, and a discharge pipe removably secured in said casing head in continuation of said supply duct and depending in said chamber to a point approximately below said screen.

4. A filter for gasolene and the like, comprising a casing having a chamber and a head forming the top wall of said chamber, said casing comprising transverse sections removably united below said head to permit access to parts within said chamber, said head having an inlet duct opening through its under face and a separate outlet duct also opening through its under face, a filter screen depending in said casing and provided with a holder from which said screen depends and to which its upper end is fixed, said holder being removably secured in said head and having a passage placing the space inclosed by the screen in communication with said outlet duct, and a discharge pipe depending in continuation of said inlet duct and discharging in the lower portion of said chamber below said screen.

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1,040,284. MECHANIC'S TOOL. GEORGE F. CUNNINGHAM, Knoxville borough, Pa. Filed Dec. 22, 1910. Serial No. 598,834. (Cl. 73—187.)



1. A mechanic's tool comprising a split handle, a slotted blade pivotally and extensibly mounted therein, a stop across the end of the blade adapted to engage the handle or the object to be measured and a scale on the blade, said handle having an end stop, whereby the tool has a scale and measuring gage both when it is alined with the handle and when it is at right angles with the handle.

2. A mechanic's tool comprising a split handle and a scaled, slotted, blade pivotally and extensibly mounted in said handle, both the handle and the blade being provided with end gage stops, whereby to measure by the stops when the blade is either in line with or at right angles to the handle.

3. A mechanic's tool comprising a split handle having a stop across the end thereof, a sliding blade pivotally mounted in said handle, and having an end stop thereon and one scale reading from said stop and another scale reading from the edge of the handle when the blade is at right angles to the handle, substantially as and for the purpose described.

4. A mechanic's tool comprising two pivoted members, one of which is slotted and pivoted and capable of being clamped on the other, said slotted member having two scales, reading respectively from the two sides of the other member, and the second or supporting member adapted to entirely contain the slotted member and having an angle scale thereon, whereby to simultaneously measure an angle, and the length of one of its sides.

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1,040,285. MANUFACTURE OF CHEWING-GUM. JAMES D. DARLING, Philadelphia, Pa. Filed Jan. 31, 1910. Serial No. 541,000. (Cl. 127—4.)

1. The process of manufacturing chewing gum, which consists in adding to a resene a suitable proportion of rubber to render it plastic.

2. The process of manufacturing chewing gum, which consists in removing from a resin, the acid component by means of an alkaline solution, with production of an insoluble resene and adding thereto a suitable proportion of rubber to render it plastic.

3. As a new article of manufacture, an odorless, tasteless chewing gum, plastic at the temperature of the mouth, and containing a large amount of resene, and from 1% to 15% of rubber.

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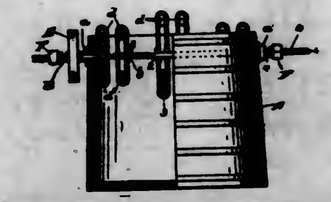
1,040,286. METALLIC WINDOW-FRAME. CLARENCE W. DAVOCK, Detroit, Mich., assignor to Detroit Steel Products Company, Detroit, Mich., a Corporation of Michigan. Filed Sept. 22, 1910. Serial No. 583,233. (Cl. 189—75.)



In a metallic window sash, a side bar having a shoulder or flange on one side thereof to receive the glass, and provided with separated hanges on the other side, of an anchor therefor, comprising an angle bar, one member of which is secured to and rests against the face of the side bar between the outside flanges, and the other member of which forms a complementary extension of one of the outside flanges and is notched or gained to receive such side bar flanges.

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1,040,287. EVAPORATING-PAN FOR DRIVING OFF ALCOHOL FROM MALT LIQUORS. HENRY H. DECKEBACH, Cincinnati, Ohio. Filed Jan. 2, 1909. Serial No. 470,452. (Cl. 127—9.)



In combination with a receptacle for liquids, a rotatable hollow shaft provided throughout its length with a plurality of obstructing diaphragms, U-shaped tubes mounted on said shaft, each tube subtending one of said diaphragms and communicating with the interior of said shaft on each side of the diaphragm so subtended, a paddle mounted on each tube, and means for delivering fluid to said shaft and said tubes.

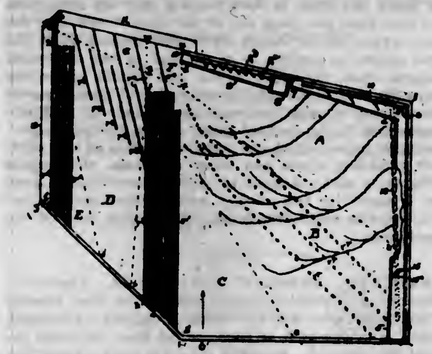
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1,040,288. ORE-CONCENTRATOR. EMIL DEISTER, Fort Wayne, Ind., assignor to The Deister Concentrator Company, Fort Wayne, Ind., a Corporation of Indiana. Filed Sept. 25, 1909. Serial No. 519,522. (Cl. 83—68.)

1. In combination a differentially reciprocating ore concentrating table having upon its working surface a series of coterminous concentrating sections with floors differing from one another in relative inclination and extending from its head to its foot over which material being treated will tend to flow successively by gravity from the portion receiving the pulp to the tailings discharge, and having also a cleaning space adjacent to the concentrates discharge coterminous with the series of concentrating sections aforesaid and coincident therewith in elevation upon their coterminal lines and receiving material for cleaning up from each of said concentrating sections.

2. In combination in a differentially reciprocable ore concentrator a table deck made as a single solid structure without capacity for flexure at any point, comprising a series of coterminous sections with floors or diverse relative inclinations having first in order at its highest point a section upon which the pulp to be treated is delivered which section is of such slope that the influence of gravity upon the mineral in the pulp passing over it in operation will predominate over the influence of the reciprocating movements; and next in order a section of such less slope toward the tailings discharge than the first that the influence of the reciprocating movements upon the mineral passing over it in operation will predominate over the influence of gravity; and next in order a third section having a dam along its lower border to create a pool above the dam.





3. In combination in a differentially reciprocable ore concentrator a table deck made as a single solid structure without joint or capacity for flexure at any point comprising a series of coterminous sections with floors of diverse relative inclinations having first in order at its highest point a section upon which the pulp to be treated is delivered which section is of such slope that the influence of gravity upon the mineral in the pulp passing over it in operation will predominate over the influence of the reciprocating movements; and next in order a section of such less slope toward the tailings discharge than the first that the influence of the reciprocating movements upon the mineral in the pulp passing over it will predominate over the influence of gravity; and next in order a third section having a dam along its lower border to create a pool above the dam with riffles submerged in the pool thereby created.

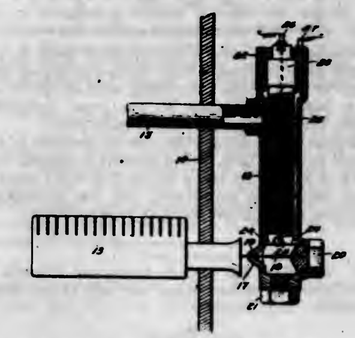
4. In combination in a differentially reciprocable ore concentrator a table deck made as a single solid structure without joint or capability of flexure at any point comprising a series of coterminous sections with floors of diverse relative inclination having first in order at its highest point a section upon which pulp is delivered for treatment which section is of such slope that the influence of gravity upon the mineral in the pulp passing over it in operation will predominate over the influence of the reciprocating movements; and next in order a section of such less slope than the first toward the tailings discharge that the influence of the reciprocating movements upon the mineral in the pulp passing over it will predominate over the influence of gravity; and next in order a third section having a dam along its lower border to create a pool above the dam with riffles submerged in the pool thereby created with a cleaning space into which mineral is conveyed from all of said sections and a concentrates discharge to which the mineral passes from said cleaning space with means to supply wash water to said cleaning space.

5. In an ore concentrating table a source of power and mechanism to produce transverse reciprocating movements of the table in combination with a series of coterminous sections of diverse relative inclinations, having first in order a section of such slope that the influence of gravity upon the mineral in the pulp passing over it in operation will predominate over the influence of the reciprocating movements; and next in order a section of such less slope than the first that the influence of the reciprocating movements upon the mineral passing over it in operation will predominate over the influence of gravity, troughs on the second section angularly disposed with respect to the line of reciprocation and extending toward the concentrates discharge, and a third section adjacent to the second section having a dam along its lower border to flood it with water in operation.

[Claims 6 to 12 not printed in the Gazette.]

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1,040,289. ELECTRIC PREHEATER FOR PILOT-BURNERS. ARNER DOBLE, Brookline, Mass., assignor to Helen A. Doble, Brookline, Mass. Filed June 1, 1912. Serial No. 701,104. (Cl. 158—31.)



1. In a device of the class described, the combination of a casing, a pipe for supplying fuel to one end of the casing, a nozzle at the opposite end of the casing, a plug secured in the casing, and a pre-heating coil secured to said plug and arranged in said casing and coöperating with the latter to form a restricted passage between the supply pipe and the nozzle.

2. In a device of the class described, the combination of a casing, a fuel supply pipe connected with the casing near one end thereof, a nozzle at the other end of the casing, a plug having screw-threaded engagement with the casing, a rod of insulating material secured to said plug and extending longitudinally of said casing and provided with laterally projecting lugs adapted to support the inner end thereof, and a preheating coil arranged on said rod and having one end thereof connected with the plug and the other end insulated from the plug.

3. In a device of the class described, the combination of a casing, a fuel supply pipe connected with the casing near one end thereof, a nozzle at the other end of the casing, a plug having a screw-threaded connection with the casing near said supply pipe, a rod of insulating material carried by said plug and extending longitudinally of said casing between the supply pipe and the nozzle, said rod projecting through said plug and being provided with a terminal on its outer end, and a resistance coil arranged on said rod and having one end connected with said plug and the other end with said terminal.

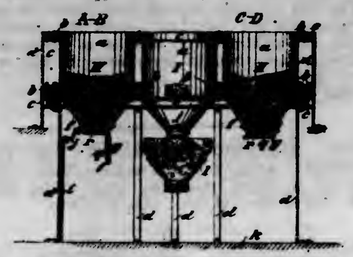
4. In a device of the class described, the combination of a casing, means for supplying fuel to one end of said casing, a nozzle at the other end of said casing, a preheating coil arranged in said casing between said supply means and said nozzle, a plug arranged in said casing adjacent said nozzle, and a wire secured to said plug and extending through said nozzle.

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1,040,290. PROCESS FOR THE TREATMENT OF GRAIN. JOHANN GEORG FERDINAND DOMBACH, Amsterdam, Netherlands. Filed Jan. 15, 1909. Serial No. 472,503. (Cl. 83—28.)

1. A process for treating grain low in proteids which consists in mixing with a quantity of washed, dried and cooled low grade grain, a sufficient quantity of like grain

previously germinated to a slight extent, but not sufficiently far to form malt, and then brushing and polishing the same.

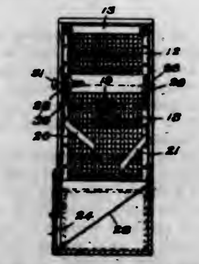



2. A process for treating a low grade of grain to produce a high grade of flour, which consists in mixing with a quantity of said grain after being washed, dried and cleaned a sufficient quantity of like grain incipiently germinated, but not sufficiently far to form malt.

3. A process for treating grain low in proteids to produce a high grade of flour, which consists in mixing with a quantity of said grain about one-half as much more of like grain incipiently germinated, but its germination stopped before reaching the stage to produce malt.

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1,040,291. **ASH-SIFTER.** JAMES DOWD and PATRICK T. GOGGIN, Whitman, Mass. Filed Apr. 27, 1912. Serial No. 693,570. (Cl. 83—60.)



1. A sifter comprising a casing, two inclined screens arranged therein one above the other in such relation that the substances passing from the lower edge of one screen will drop upon the other screen, an abutment extending transversely over the lower screen in position to be engaged by the substances dropping from the upper screen to the lower, the lower edge of said abutment being sufficiently above the lower screen to enable the substances to pass, said abutment being mounted so as to be capable of oscillatory movement about a transverse horizontal axis, and springs acting upon said abutment in opposite directions to position it rotatively with reference to its axis of movement.

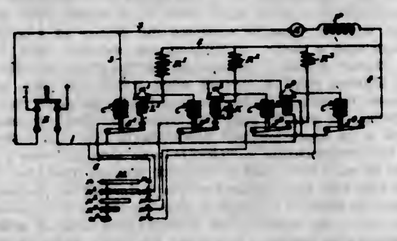
2. A sifter comprising a casing, two inclined screens arranged therein one above the other in such relation that the substances passing from the lower edge of one screen will drop upon the other screen, an abutment extending transversely over the lower screen in position to be engaged by the substances dropping from the upper screen to the lower, the lower edge of said abutment being sufficiently above the lower screen to enable the substances to pass, means for supporting said abutment so as to render it capable of oscillating movement about a transverse horizontal axis, said means including a stem extending through and beyond a wall of the casing whereby the abutment may be manually turned, and springs acting upon the abutment in opposite directions to position it rotatively with reference to said axis.

3. A sifter comprising two inclined screens arranged one above the other in such relation that the substances may drop from the lower end of the upper screen upon the lower screen, an oscillatory abutment disposed above the lower screen in position to be engaged by the substances dropping from the upper screen, and pivotal supporting means for said abutment, the axis of said pivotal means being horizontal and transverse to the path of said substances, the working surface of said abutment being nearly equally disposed with reference to opposite sides of said axis, and spring tension means for positioning said abutment about its axis so as to present said surface to the dropping substances.

4. A sifter comprising two inclined screens arranged one above the other in such relation that the substances may drop from the lower end of the upper screen upon the lower screen, an oscillatory abutment disposed above the lower screen in position to be engaged by the substances dropping from the upper screen, and pivotal supporting means for said abutment, the axis of said pivotal means being horizontal and transverse to the path of said substances and in the inclined plane of the substances traversing the upper screen, the working surface of said abutment extending above and below said axis, and springs acting upon said abutment in opposite directions to position it about its axis so that said working surface normally stands substantially at right angles to said inclined plane.

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1,040,292. **ELECTRIC CONTROLLER.** ARTHUR C. EASTWOOD, Cleveland, Ohio, assignor to The Electric Controller and Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Sept. 24, 1910, Serial No. 583,577. Renewed July 15, 1912. Serial No. 709,575. (Cl. 172—179.)



1. In an electric controller, the combination of a series of magnetically operated switches to be successively closed, the circuits of the actuating windings of the said magnetically operated switches being in shunt with or derived from the controlled circuit, and means for preventing further successive closure of said switches in case any one of said switches when closed fails to establish a circuit through its main contacts.

2. In combination, a series of magnetic switches each adapted to close a pair of main contacts, each of said switches having an actuating winding independent of the circuit controlled by said main contacts, and means for preventing the closure of a succeeding switch unless current flows through the main contacts of the switch which precedes in operation.

3. The combination, in an electric controller, of a series of switches each having main contacts and an actuating winding, relays associated with certain of said switches and having normally open contacts in the circuit of the winding of the switch next to close, said relays having windings arranged to be successively connected in the controlled circuit by the closure of the main contacts of the said switches and movable contacts on said relays actuated by the said windings to close the said normally open contacts.

4. In an electric controller, a series of magnetically-operated switches to be successively closed, means for inforcing said successive closure, said means comprising normally open contacts in the circuit of the winding of each of said switches except the first to operate, a relay for each of said normally open contacts, said relay being arranged to connect said contacts when its winding is energized, the winding of the relay controlling the contacts in the circuit of the winding of the second switch being included in the controlled circuit by the closure of the first switch, the winding of the relay controlling the circuit of the winding of the third switch being included in the controlled circuit by the closure of the second switch.

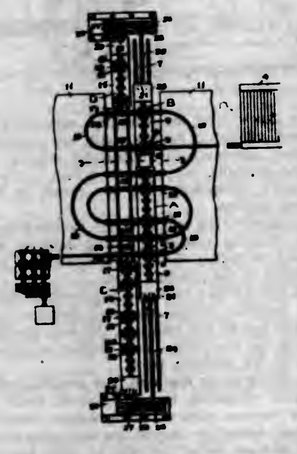
5. In an electric controller, a series of consecutively-acting magnetic switches, a relay adapted when energized to close the circuit through the actuating winding of each of said switches, except the first to close, each of said relays being included in the controlled circuit by the switch which precedes in operation.

[Claims 6 to 12 not printed in the Gazette.]



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1,040,293. **ROLLING-MILL.** VICTOR E. EDWARDS, Worcester, Mass., assignor to Morgan Construction Company, Worcester, Mass., a Corporation of Massachusetts. Filed Jan. 17, 1907. Serial No. 352,795. (Cl. 80—37.)



1. In a rolling mill, the combination with a series of pairs of rolls arranged for the reduction of a metal bar, of means for withdrawing a pair of rolls from said series, and means for guiding another pair of rolls into operative relation with said remaining rolls in said series.

2. In a rolling mill, the combination with a series of pairs of rolls arranged for the reduction of a metal bar, of means for withdrawing in a definite path a pair of rolls from said series, and means for the introduction in a definite path of another pair of rolls into similar operative relation with the remaining rolls of said series.

3. In a rolling mill, the combination with a series of pairs of rolls arranged for the reduction of a metal bar, of means for the withdrawal of a pair of rolls from operative relation with the remaining rolls of said series, and another pair of rolls arranged to be brought simultaneously into operative relation with the remaining rolls of said series.

4. In a rolling mill, the combination of a pair of parallel tracks, a train of rolls supported on each of said tracks and means for moving said trains on their respective tracks, whereby either of said trains is brought into or out of position for conjoint action with the remainder of the mill.

5. In a rolling mill, the combination with a pair of parallel tracks, of a train of rolls supported on each of said tracks, screws for moving said trains longitudinally on said tracks and means for simultaneously actuating said screws.

[Claims 6 to 9 not printed in the Gazette.]



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1,040,294. **DIAPHRAGM.** JAMES H. ELLIS, Milwaukee, and ALBERT J. HOFFMAN, Wauwatosa, Wis. Filed Oct. 11, 1911. Serial No. 654,113. (Cl. 181—10.)



1. A diaphragm having grooved arc shaped lines of varying depth therein arranged approximately radial.

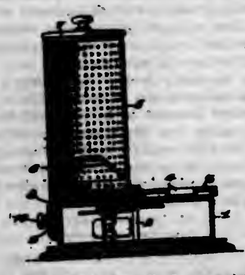
2. A diaphragm, comprising a disk having grooved arc shaped lines of varying depth formed therein approximately radial and tangent to a circle concentric with the disk.

3. A diaphragm, comprising a disk having arc shaped lines formed therein approximately radial and increasing in depth and width toward the edge of the disk.

4. A diaphragm, comprising a disk having grooved arc shaped lines of varying depth formed therein approximately radial, and supplemental arc shaped grooved lines of varying depth intermediate of the radial lines at the margin of the disk.

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1,040,295. **FLY-TRAP.** LOUIS EMERY, New York, N. Y. Filed May 23, 1912. Serial No. 699,273. (Cl. 43—82.)



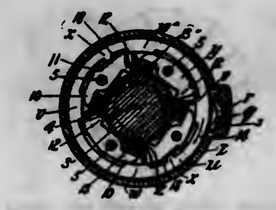
A fly trap of the class described comprising a base, a rotatable disk thereon, said disk being provided with an annular channel adapted to receive bait therein, a cylindrical receiver formed of foraminous material, the lower peripheral edge of which is cut-away a portion of its circumference, an integral depending tongue formed on the lower peripheral edge of said receiver, a keeper provided on the outer wall of said base and adapted to receive the tongue of said receiver, and means to adjustably and removably secure said tongue in the keeper whereby said receiver will be disposed in a predetermined position over said disk.

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1,040,296. **SAFETY DEVICE FOR CRANKING AUTOMOBILES.** ARTHUR A. ENGSTROM, Springfield, Mass. Filed Apr. 11, 1911. Serial No. 620,451. (Cl. 123—185.)

1. In a cranking device for internal combustion engines, the combination with a movable cam-ring, the inner surface of which is provided with stop projections and camming surfaces, a series of pawls having shoulders to engage the stop projections, a collar member in which the pawls are mounted, a cranking device proper, a locking engagement between the collar member and the cranking device, a shaft provided with teeth with which the pawls are adapted to engage, means for locking the cam-ring against reverse movement but permitting it to rotate forward in unison with the crank and shaft, whereby when the crank is moved forward the pawls will be

thrown into locking engagement with the shaft and will be disengaged therefrom upon the reverse movement of the shaft.



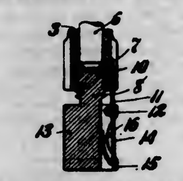
2. In a safety cranking device, a cam-ring, the inner surface of which is provided with cam shoulders and driving projections, a collar having locking pawls mounted therein, some of the pawls having driving shoulders to engage the projections on the cam-ring, and all of the pawls being forced into engagement with the drive-shaft during the cranking operation by the cam shoulders, said drive-shaft having teeth to receive the inwardly projecting ends of the pawls, means to hold the ring against reverse movements should the engine back-fire, and means for transmitting motion to the collar on which the pawls are mounted.

3. A safety cranking device comprising a cam ring member having cam shoulders on its inner surface, a shaft provided with teeth, locking pawls adapted to engage the teeth thereof and operable from said cam shoulders, a recessed collar member for supporting the pawls to move same into and out of engagement with the teeth of the shaft, and a pawl and ratchet device to operate the collar member, said shaft being adapted to move axially in said collar and said recess.

4. A safety cranking device comprising a shaft member, a collar member, means to operate the collar member, a cam-ring, pawls adapted to be operated from the cam-ring and to engage the shaft member for rotating the same, means to frictionally clamp the cam-ring against forward movement when the pawls are disengaged from their inoperative position, and means to prevent said ring from rotating in a reverse direction.

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1,040,297. SPINDLE-SUPPORT FOR SPINNING, TWISTING, AND LIKE MACHINES. GEORGE W. FARNHAM, Lowell, Mass., assignor to Lowell Machine Shop, Lowell, Mass., a Corporation of Massachusetts. Filed Feb. 7, 1912. Serial No. 676,131. (Cl. 118—19.)

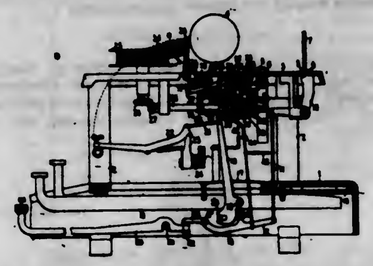


1. A spindle support for spinning, twisting and the like machines having, in combination, a bolster case, a bolster and step having a screw-threaded connection for relative adjustment, one of said latter two members being provided with a locking lever pivoted thereto and having a spring arm on one side of said pivot engaging such member and a locking arm on the other side of such pivot adapted to engage a recess in the other member for locking the two together, substantially as described.

2. A spindle support for spinning, twisting and the like machines having, in combination, a bolster case, a bolster and step having a screw-threaded connection for relative adjustment, the lower end of the bolster being provided with a notch and the step being provided with a pivoted spring lever having a locking end projecting into said notch and a spring arm projecting in the opposite direction and lying normally above the contiguous surface of the step so as thereby to be adapted to be engaged by a digit so as to be depressed to tip the lever about its pivot and lift the locking end out of the notch of the bolster, substantially as described.

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1,040,298. TYPE-WRITING MACHINE. JACOB FELSH, New York, N. Y., assignor, by mesne assignments, to Union Typewriter Company, Jersey City, N. J., a Corporation of New Jersey. Filed Feb. 28, 1911. Serial No. 610,143. (Cl. 197—157.)



1. In a typewriting machine, the combination of variable ribbon vibrating devices, and key actuated ribbon stop devices automatically adjustable during the operation of the machine, the variable action of the vibrating devices being independent of the arrest of the ribbon by the stop devices.

2. In a typewriting machine, the combination of printing keys, variable ribbon vibrating devices, and ribbon stop means including devices automatically settable by the operation of the printing keys.

3. In a typewriting machine, the combination of printing keys, variable ribbon vibrating devices, ribbon stop devices, and means for resetting the stop devices to vary their action on the ribbon, said means including devices operative by the printing keys.

4. In a typewriting machine, the combination of a ribbon vibrator, vibrating means therefor, hand controlled means for varying said vibrating means, settable ribbon stop devices, actuating devices for said stop devices, said actuating devices being settable by said hand operated means, and automatic means for operating said actuating devices to reset said stop devices.

5. In a typewriting machine, the combination of a ribbon vibrator, vibrating means therefor, hand controlled means for varying said vibrating means, settable ribbon stop devices, actuating devices for said stop devices, said actuating devices being settable by said hand operated means, printing keys, and means controlled by said printing keys for operating said actuating devices to reset said stop devices.

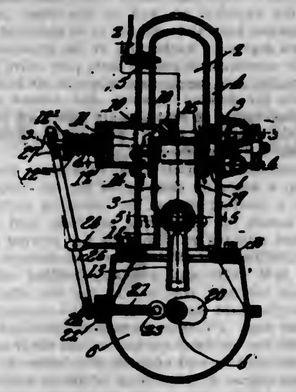
[Claims 6 to 39 not printed in the Gazette.]

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1,040,299. INTERNAL-COMBUSTION ENGINE. CEPHAS V. FITE, Charlotte, N. C. Filed Nov. 14, 1910. Serial No. 592,278. (Cl. 123—71.)

1. An internal combustion engine comprising a cylinder provided with a combustion chamber and a pumping chamber, said combustion chamber having an exhaust port and said pumping chamber having an induction port, a transfer passageway adapted to lead the mixture from the pumping chamber into the combustion chamber, a compression piston operatively mounted in said transfer passageway, a piston mounted for reciprocation in the cylinder and having a head operating in the combustion chamber and a head operating in the pumping chamber said piston being provided in its side with a by-pass which when in register with the induction port establishes communication between the said port and the pumping chamber, said piston also having in its side a by-pass which when in register with the transfer passage establishes communication between the said passage and the pumping chamber.

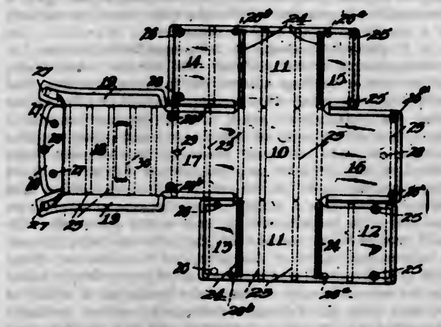




2. An internal combustion engine comprising a cylinder provided with a combustion chamber and a pumping chamber, said combustion chamber having an exhaust port, said pumping chamber having an induction port, a transfer passageway adapted to lead the mixture from the pumping chamber into the combustion chamber, a screen extending transversely across said transfer passage and through which the said mixture is compelled to pass in traveling through the said passage, a compression means mounted for operation in the transfer passageway, a piston mounted for reciprocation in the cylinder and provided with a head which operates in the combustion chamber and provided with a head which operates in the pumping chamber, said piston having a by-pass which when in register with the induction port establishes communication betwen said port and the interior of the pumping chamber, said piston also having a by-pass which when in register with the transfer passageway establishes communication between the said passageway and the interior of the pumping chamber.

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1,040,300. FOLDING HAT-BOX. ANNA T. FITZGERALD, Worcester, Mass. Filed Jan. 8, 1912. Serial No. 669,920. (Cl. 190—43.)



1. As an article of manufacture, a box consisting of a single piece of flexible material having portions which when assembled in certain relation to each other constitute the sides, ends, bottom and top of the box, and which can be spread out into a flat form, said sides, ends and bottom having strengthening ribs therein, all of said strengthening ribs terminating at the joints between said sides, ends, and bottom and being parallel with each other when spread out flat, whereby it can be folded and rolled up into small compass.

2. As an article of manufacture, a box or receptacle consisting of a sheet of flexible material having members integrally connected together and constituting the bottom, sides, and ends of the box, the sides being provided with flaps at their edges, those of one side being adapted to be removably secured to those of the other side in order to hold the sides in upright position, the ends being adapted to fold outside said flaps and to be temporarily secured to the flaps when in upright position, the sides having strengthening ribs where the flaps are connected to them.

3. As an article of manufacture, a box or receptacle consisting of a sheet of flexible material having members connected together and constituting the bottom, sides, and ends of the box, the sides being provided with flaps at their edges, those of one side being adapted to be removably secured to those of the other side in order to hold the sides in upright position, the ends being adapted to fold outside said flaps and to be secured to the flaps when in upright position, the sides and flaps being provided with strengthening ribs all in vertical position when the parts are assembled in the form of a box, and the ends being provided with strengthening ribs in horizontal position when so assembled, and a top piece integrally connected with one of said ends and provided with strengthening ribs arranged across the same from side to side, whereby when the parts are spread out flat all of said ribs will lie parallel with each other, said top being provided with downwardly extending sides and front end adapted to be spread out flat and having means for securing their edges together in position perpendicular to the top, whereby they constitute walls for covering the top edges of the sides and end.

4. An an article of manufacture, a box or receptacle consisting of a sheet of flexible material having members connected together and constituting the bottom sides, and ends of the box, the sides being provided with flaps at their edges, those of one side being adapted to be removably secured to those of the other side in order to hold the sides in upright position, the ends being adapted to fold outside said flaps and to be secured to the flaps when in upright position, the sides and flaps being provided with strengthening ribs at their meeting edges all in vertical position when the parts are assembled in the form of a box, and the ends being provided with strengthening ribs in horizontal position when so assembled and independent of the first named strengthening ribs; and a top piece integrally connected with one of said ends and provided with independent strengthening ribs arranged across the same from side to side, whereby when the parts are spread out flat all of said ribs will lie parallel with each other.

5. As an article of manufacture, a box or receptacle formed of a single sheet of material having arranged in a central line an end piece, a bottom, an end piece, and a top in the order specified, said bottom being provided at its side edges with a pair of integrally connected pieces constituting the sides of the box, said sides having flaps at their opposite ends, said flaps being free from the end pieces, and having temporary fastening means for connecting each flap to the oppositely located flap and to the end piece on the corresponding edge of the bottom when said flaps and end piece are brought to a position perpendicular to the bottom, said bottom and side piece being provided with strengthening ribs arranged end to end thereabout, but disconnected from each other at the points at which the bottom and sides are connected, whereby the sides can be folded flat on the bottom and the whole structure rolled up into small compass.

[Claims 6 and 7 not printed in the Gazette.]

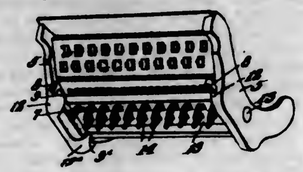
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1,040,301. THRESHER-CONCAVE. MICHAEL FLYNN, Minneapolis, Minn. Filed Aug. 4, 1911. Serial No. 642,268. (Cl. 130—27.)

1. In a thresher concave, side bearers therefor, a reversible bar rotatably mounted therein, and a member insertible against the inactive face of the said bar to retain either face thereof in active position.

2. In a thresher concave, side bearers therefor, and a reversible bar rotatably mounted therein, the said side

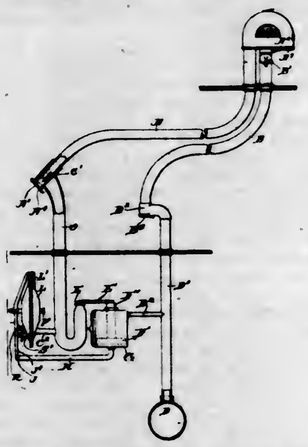
bearers being provided with means on their inner faces for the reception of a pin whereby the pins are insertible over the inactive face of the said bar to retain either face thereof in active position.



3. In a thresher concave, side bearers therefor, one of the bearers having spaced lugs on the inner face thereof, the said lugs having projecting lips, a rotatable bar mounted in the bearers, and a member insertible between the said lips and corresponding bearer to lock the rotatable bar in position.

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1,040,302. PNEUMATIC-DESPATCH-TUBE APPARATUS. EDMOND A. FORDYCE, Boston, Mass., assignor, by mesne assignments, to American Pneumatic Service Company, Boston, Mass., a Corporation of Delaware. Filed Jan. 24, 1907. Serial No. 353,781. Renewed May 17, 1912. Serial No. 698,076. (Cl. 243—15.)



1. A pneumatic despatch tube apparatus, having, in combination, a normally closed tube for the transmission of carriers, a sending station for inserting carriers into said tube, means for exhausting air from said tube, an air inlet port adapted to admit air for driving carriers, a valve controlling said air inlet port, mechanism adapted to operate said valve and normally holding said valve closed, a sub air inlet port controlling the admission of air for operating said mechanism, a valve controlling said sub air inlet port, and a diaphragm-motor communicating on one side with the external air and on the other side with said transmission tube and adapted to be operated through a determined degree of fluctuation of the pressure within said tube for opening said sub air inlet port valve to admit air for operating said mechanism whereby air is admitted to said tube for driving carriers, substantially as described.

2. A pneumatic despatch tube apparatus, having, in combination, a normally closed tube for the transmission of carriers, a sending station for inserting carriers into said tube, means for exhausting air from said tube, an air inlet port adapted to admit air for driving carriers, a valve controlling said air inlet port, mechanism adapted to operate said valve and normally holding said valve closed, a sub air inlet port controlling the admission of air for operating said mechanism, a valve controlling said sub air inlet port, a diaphragm-motor communicating on one side with the external air and on the other side with said transmission tube and adapted to be operated by a fluctuation of the pressure within said tube upon the despatching of a carrier for opening said sub inlet port to admit air for operating said mechanism whereby air is admitted to said tube for driving carriers, and means for controlling and limiting the opening of said sub inlet port valve and the operating of the mechanism upon a fluctuation of pressure within the tube upon the delivery of a carrier, substantially as described.

3. A pneumatic despatch tube apparatus, having, in combination, a normally closed tube for the transmission of carriers, a sending station for inserting carriers into said tube, means for exhausting air from said tube, an air inlet port adapted to admit air for driving carriers, a valve controlling said air inlet port, mechanism adapted to operate said valve and normally holding said valve closed, a sub air inlet port controlling the admission of air for operating said mechanism, a valve controlling said sub air inlet port, a diaphragm-motor communicating on one side with the external air and on the other side with said transmission tube and adapted to be operated through a determined degree of fluctuation of the pressure within said tube for opening said sub air inlet port valve to admit air for operating said mechanism whereby air is admitted to said tube for driving carriers, and means normally actuating the closing of said sub air inlet port valve for permitting the closure of the air inlet port by said mechanism, substantially as described.

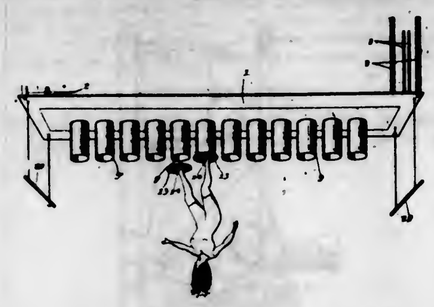
4. A pneumatic despatch tube apparatus, having, in combination, a normally closed tube for the transmission of carriers, a sending station for inserting carriers into said tube, means for exhausting air from said tube, an air inlet port adapted to admit air for driving carriers, a valve controlling said air inlet port, mechanism adapted to operate said valve and normally holding said valve closed, a sub air inlet port controlling the admission of air for operating said mechanism, a valve controlling said sub air inlet port, a diaphragm-motor communicating on one side with the external air and on the other side with said transmission tube and adapted to be operated by a fluctuation of the pressure within said tube upon the despatching of a carrier for opening said sub inlet port to admit air for operating said mechanism whereby air is admitted to said tube for driving carriers, and means for controlling and limiting the opening of said sub inlet port valve and the operating of the mechanism upon a fluctuation of pressure within the tube upon the delivery of a carrier, substantially as described.

5. A pneumatic despatch tube apparatus, having, in combination, a normally closed tube for the transmission of carriers, a sending station for inserting carriers into said tube, means for exhausting air from said tube, an air inlet port adapted to admit air for driving carriers, a valve controlling said air inlet port, mechanism adapted to operate said valve and normally holding said valve closed, a sub air inlet port controlling admission of air for operating said mechanism, a valve controlling said sub air inlet port, a diaphragm-motor communicating on one side with the external air and on the other side with said transmission tube and adapted to be operated through a determined degree of fluctuation of the pressure within said tube for opening said sub air inlet port valve to admit air for operating said mechanism whereby air is admitted to said tube for driving carriers, and means normally actuating the immediate closure of said sub air inlet port valve for permitting the closure of the air inlet port by said mechanism, substantially as described.

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1,040,303. THEATRICAL APPARATUS. JOHN W. FRAKES, Chicago, Ill. Filed Sept. 22, 1911. Serial No. 650,762. (Cl. 46—70.)

1. In a theatrical apparatus, a series of vacuum cups open at their bottoms; controllable means for exhausting air from said cups; controllable means for admitting air to said cups; closure plates for said cups; and means for securing said plates to the feet, substantially as described.



2. In a theatrical apparatus of the class described, an elevated air chamber, having air at atmospheric pressure therein; a series of vacuum cups depending from said chamber and having valved connection therewith, a suction pipe in valved connection with said cups, and electrical valve operating means for establishing communication between said chamber and cups and said pipe and cups alternately, substantially as described.

3. In a theatrical apparatus of the class described, an elevated elongated air chamber in open communication with atmosphere, a series of vacuum cups depending from said chamber and in valved communication therewith, a suction pipe provided in said chamber in valved connection with said cups, electrical means for opening the valves connecting said cups and chamber, and means coöperating with said last named means for simultaneously connecting said cups and suction pipe, substantially as described.

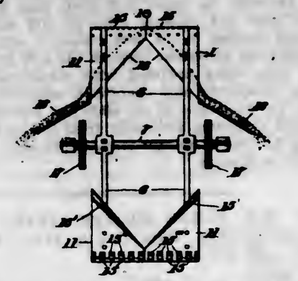
4. In a theatrical apparatus of the class described, an elongated horizontally disposed elevated air chamber, there being an air vent in said chamber to maintain atmospheric pressure therein, a series of vacuum cups depending from said chamber, the axes of which are vertically disposed, the lower ends of said cups being opened and the upper ends thereof in valved connection with said chamber; a closure disk adapted to close the lower end of any one of said cups; a suction pipe arranged in valved connection with said vacuum cups, and coöperative means for opening a valve connecting a cup with said suction pipe when the valve connecting said last named cup with said chamber is closed, substantially as described.

5. A theatrical apparatus of the class described, comprising an elongated air chamber, means for supporting said chamber in an elevated position, the pressure within said chamber being maintained at substantially atmospheric pressure, a series of vacuum cups depending from said chamber, the axes of which are vertical, a suction pipe extending through said chamber, branches leading from said pipe and arranged in valved connection with said vacuum cups, the lower end of the latter being normally open to atmosphere; a pair of closure plates adapted to close the lower ends of said vacuum cups, the latter being in valved connection with said chamber; an oscillatory valve lever fulcrumed at the upper end of each vacuum cup, one end of said lever being formed into a valve constituting the valved connection with said chamber, and the other end thereof being formed into a valve constituting the valved connection with said suction pipe, the arrangement of said valves being such that when communication is established between said chamber and any given cup that the communication of the latter with said suction pipe is cut-off; and electrical means for oscillating said valve lever in one direction, the movement in the other direction of said valve lever being effected by gravity and air suction, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]



1,040,304. EXCAVATOR. JOHN GALLAGHER, Madison, Wis. Filed May 2, 1911. Serial No. 624,666. (Cl. 37—17.)



In an excavator, a rotary shaft, a plurality of carrier blades on said shaft, said blades having open forward and outer side edges and straight inner abutting edges and provided with inclined flanges extending inwardly from said outer side edges connecting said inner and outer edges and forming a V shaped trough.

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1,040,305. PUMP-OPERATING DEVICE. SAMUEL M. GARD, Springfield, Ill. Filed Aug. 30, 1911. Serial No. 646,880. (Cl. 74—27.)



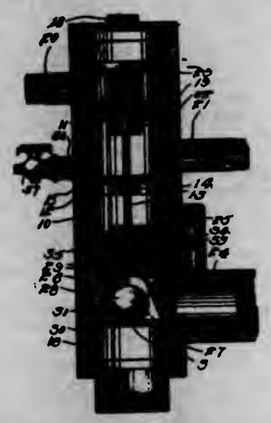
1. In combination with a supporting frame having an oblong central opening and oblong end openings provided with semi-circular ends, a bearing secured to one side of the frame and arranged opposite the central opening, a shaft mounted in said bearing, a gear on said shaft and in the center of the central opening, a reciprocating and laterally movable bar on the side of said frame opposite that to which the bearing is secured, rack pins projecting from one side of said bar into the central opening of the frame and for engagement by the gear, guide pins secured to the said bar and projecting into and operating in the end openings of the frame, connecting pins secured to the said bar near the upper and lower ends thereof and projecting from the opposite side of said bar, parallel guide stripe secured to the said frame, and a slide mounted for reciprocating movement between the said guide strips, the said slide being provided with transverse slots in which the connecting pins operate.

2. In combination with a supporting frame having an oblong central opening and oblong end openings provided with semi-circular ends, a bearing secured to one side of the frame and arranged opposite the central opening, a shaft mounted in said bearing, a gear on said shaft and in the center of the central opening, a reciprocating and laterally movable bar on the side of said frame opposite that to which the bearing is secured, rack pins projecting from one side of said bar into the central opening of the

frame and for engagement by the gear, guide pins secured to the said bar and projecting into and operating in the end openings of the frame, connecting pins secured to the said bar near the upper and lower ends thereof and projecting from the opposite sides of said bar, parallel guide strips secured to the said frame, a slide mounted for reciprocating movement between the said guide strips, the said slide being provided with transverse slots in which the connecting pins operate, a connecting bar arranged on the outer side of the slide and secured thereto, a stub shaft projecting outwardly from the center of said connecting bar and a plunger element pivotally connected to the said stub shaft.

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1,040,306. HOT-WATER-HEATER VALVE. MANIOUS GARL, Akron, Ohio. Filed Dec. 5, 1911. Serial No. 664,038. (Cl. 126—351.)

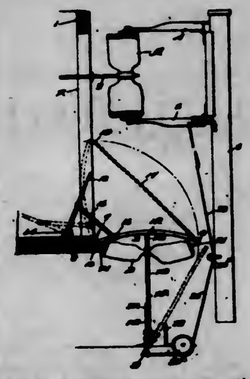


In a valve of the class described, a casing, a diaphragm extending across said casing and dividing the same into chambers, a water inlet communicating with one of the chambers, a water outlet leading from the water chamber with which the water inlet communicates, a gas inlet communicating with the second chamber, a gas outlet leading therefrom, a valve seat between the gas inlet and the gas outlet in the second chamber, a valve adapted to seat on said valve seat, a stem for said valve extending through said diaphragm, a water valve connected with the lower end of said stem and adapted to close the water inlet pipe, a by-pass leading from the water outlet and opening into the water chamber on the side of the water valve opposite the inlet, said water valve being provided with ports extending from the inlet side through the opposite side to afford communication between the inlet and the by-pass, and a valve controlling said ports, said water valve having a recess in the end adjacent the gas valve, said recess being threaded at its outer end, a cap fitted in the threaded portion of said recess and provided with an opening wherethrough said stem passes, and an enlarged end on said cap having less dimensions than the recess whereby sliding movement of the same through the cap is permitted.

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1,040,307. MAIL-BAG-RECEIVING APPARATUS. MARION N. GIBSON, Irondale, Ala., assignor to George Mail Device Company, Inc., Birmingham, Ala., a Corporation of Arizona. Original application filed Nov. 10, 1911, Serial No. 659,752. Divided and this application filed Feb. 5, 1912. Serial No. 675,556. (Cl. 105—231.)

1. In a mail bag catching apparatus, the combination of a support; a fulcrum bolster on which said support is mounted; a pair of straight arms secured to the upper end of said support; a pair of upwardly disposed arms secured to said support beneath said straight arms and providing means for holding mail bags; and means secured to said bolster for moving said support to operative position, substantially as described.

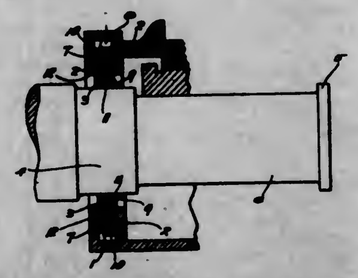


2. In a mail bag catching apparatus, the combination of a vertically disposed support; a fulcrumed bolster on which said support is adjustably mounted; a pair of straight arms secured to the upper end of said support; a pair of upwardly disposed arms secured to the support beneath said straight arms and providing therewith means for holding mail bags; means for limiting the swinging movements of said support; and automatically actuated means for effecting the movement of said support to operative and inoperative position, substantially as described.

3. In a mail bag catching apparatus, the combination of a vertically disposed support; a fulcrumed bolster on which said support is adjustably mounted; a pair of straight arms secured to the upper end of said support; a pair of upwardly disposed arms secured to the support beneath said straight arms and providing therewith means for holding mail bags; a vertically disposed yoke located on each side of said support and adapted to engage therewith and determine the extent of swinging movement of said support; and means for effecting the swinging movement of said support comprising, a swinging arm and a connection between said swinging arm and the bolster of said support, substantially as described.

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1,040,308. DUST-GUARD. GEORGE F. GODLEY, Philadelphia, Pa. Filed May 29, 1911. Serial No. 630,066. (Cl. 64—22.)

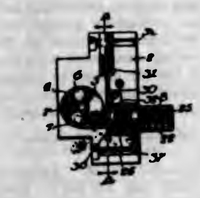


The combination with an axle of a dust guard comprising a comparatively thick pliable member having cut therein an axle opening which is a true circle and of a diameter smaller than the axle diameter said pliable member being capable of extension at its opening to form a rim or collar for closely hugging the axle, a continuous metallic ring surrounding said opening in the pliable member and a rigid member of sheet metal covering one face of the pliable member said rigid member having an axle opening therein of a diameter in excess of the axle diameter and having stamped therefrom a continuous rib or raised portion surrounding said axle opening said rigid member having stamped therefrom ears which extend outwardly, penetrating the pliable member and being clenched over said ring for securing the parts together.



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1,040,309. SWITCHING DEVICE. DAVID DAGOBERT GORDON, Chicago, Ill. Filed June 20, 1911. Serial No. 634,214. (Cl. 175—290.)



1. A device of the character described having contact terminals, of contact making balls and insulating balls adapted for alternate interposition between said terminals, a runway for said balls into which said terminals project, and automatically quick acting means for actuating said balls.

2. A device of the character described having contact terminals, of contact making balls and insulating balls adapted for alternate interposition between said terminals, a runway for said balls into which said terminals project, and an automatically quick acting push button for actuating said balls.

3. A device of the character described having contact terminals, a runway into which said terminals project, an individual contact making and an individual insulating element adapted for progressive movement about said runway to alternately close circuit or open circuit through said contact terminals, and automatically quick acting means for actuating said elements.

4. A device of the character described having contact terminals, a runway into which said terminals project, a contact making and an insulating element adapted for progressive movement about said runway to alternately close circuit or open circuit through said contact terminals, and automatically quick acting means for actuating said elements.

5. A device of the character described having contact terminals, a runway into which said terminals project, a contact making element, and an insulating element adapted for alternate interposition between said terminals and movable progressively forward about said runway, and automatically quick acting means to move said elements about said runway.

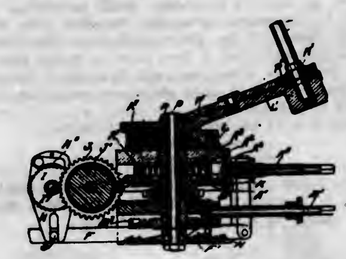
[Claim 6 not printed in the Gazette.]

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1,040,310. TELLURIAN-CLOCK. WILLIAM H. HALL, Cicero, Ill., assignor to Mattie A. Hall, Cicero, Ill. Filed May 20, 1910. Serial No. 562,553. (Cl. 58—44.)

1. In a tellurian clock, the combination with a clock movement, of a globe, a train of gears adapted to be operated by the clock movement to rotate the globe upon its own axis once every twenty-four hours, a ratchet wheel connected with said train of gears, two pawls engaging the teeth of the ratchet wheel alternately to impart to the train of gears and the globe an almost continuous motion, and means for operating said pawls from the clock movement, substantially as described.

2. In a tellurian clock, the combination with a clock movement and frame, of a screen having an opening to receive a globe and to conceal one half thereof from view, a globe having a diurnal rotation about its axis from left to right and an opposite annual rotation of its axis from right to left, an annual rotating inclined supporting arm turning about a vertical axis and provided with and carrying an axis for the globe, connecting gearing between the globe and the clock movement for imparting thereto its diurnal rotation about its own axis from and by the power of the clock movement, and an independent connecting gearing between the globe supporting arm and clock movement for imparting to the globe the annual revolution of its axis about said vertical axis, and a secondary spring independent of the clock movement to supply the power for imparting said annual movement to the globe axis and its supporting arm, substantially as specified.



3. In a tellurian clock, the combination with a clock movement and frame, of a screen having an opening to receive a globe and to conceal one half thereof from view, a globe having a diurnal rotation about its axis from left to right and an opposite annual rotation of its axis from right to left, an annual rotating inclined supporting arm turning about a vertical axis and provided with and carrying an axis for the globe, connecting gearing between the globe and the clock movement for imparting thereto its diurnal rotation about its own axis from and by the power of the clock movement, and an independent connecting gearing between the globe supporting arm and clock movement for imparting to the globe the annual revolution of its axis about said vertical axis, and a secondary spring independent of the clock movement to supply the power for imparting said annual movement to the globe axis and its supporting arm, a non-revolving, oscillating time band encircling the globe, substantially as specified.

4. In a tellurian clock, the combination with a clock movement and frame, of a screen having an opening to receive a globe and to conceal one half thereof from view, a globe having a diurnal rotation about its axis from left to right and an opposite annual rotation of its axis from right to left, an annual rotating inclined supporting arm turning about a vertical axis and provided with and carrying an axis for the globe, connecting gearing between the globe and the clock movement for imparting thereto its diurnal rotation about its own axis from and by the power of the clock movement, and an independent connecting gearing between the globe supporting arm and clock movement for imparting to the globe the annual revolution of its axis about said vertical axis, and a secondary spring independent of the clock movement to supply the power for imparting said annual movement to the globe axis and its supporting arm, and a non-revolving, oscillating time band encircling the globe, said time band being mounted upon said supporting arm, and having means connecting it with said screen to prevent its revolving, while permitting it to oscillate to correspond with the changing path of the equatorial band of the globe, substantially as specified.

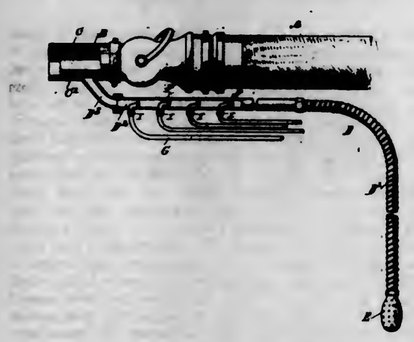
5. In a tellurian clock, the combination with a clock movement and frame, of a screen having an opening to receive a globe and to conceal one half thereof from view, a globe having a diurnal rotation about its axis from left to right and an opposite annual rotation of its axis

from right to left, an annually rotating, inclined supporting arm turning about a vertical axis and provided with and carrying an axis for the globe, connecting gearing between the globe and the clock movement for imparting thereto its diurnal rotation about its own axis from and by the power of the clock movement, and an independent connecting gearing between the globe supporting arm and clock movement for imparting to the globe the annual revolution of its axis about said vertical axis, and a secondary spring independent of the clock movement to supply the power for imparting said annual movement to the globe axis and its supporting arm, and a non-revolving, oscillating time band encircling the globe, said time band being mounted upon said supporting arm, and having means connecting it with said screen to prevent its revolving, while permitting it to oscillate to correspond with the changing path of the equatorial band of the globe, said time band having curved supporting arms, a base plate to which said supporting arms are attached, said base plate having a swivel connection with said globe supporting arm, substantially as specified.

[Claims 6 to 14 not printed in the Gazette.]

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1,040,311. AIR-SUPPLY DEVICE FOR FIREMEN. JAMES D. HALLORAN, New York, N. Y. Filed June 7, 1911. Serial No. 631,782. (Cl. 137—17.)



1. In an air supply device, the combination with fire hose having a nozzle, an air suction device exteriorly connected with the said nozzle at the discharge end thereof for drawing in air by the passage of the water through the nozzle, a main air supply pipe connected with the said suction device for drawing in air through the air supply pipe independent of the said fire hose, tapping means connected with the said main air supply pipe for tapping the latter for air, and distributing means connected with the said tapping means for distributing the tapped air to the firemen for breathing purposes.

2. In an air supply device, the combination of a fire hose having a nozzle, a suction nipple at the said nozzle and forming a suction chamber with the same, a main air supply pipe connected with the said suction chamber, funnels in the said main air supply pipe, branch air supply pipes connected with the said funnels, and breathing hoods connected with the said branch air supply pipes and adapted to be carried by the firemen to supply the latter with fresh air.

3. An air supply device for a fire hose, having a nozzle, comprising a suction nipple for attachment to the nozzle to form a suction chamber, a main air supply pipe connected with the said nipple and having a rigid and a flexible section, funnels extending rearwardly within the rigid section of the air supply pipe, a branch air pipe connected with each funnel, and a breathing hood on the end of each branch air pipe.

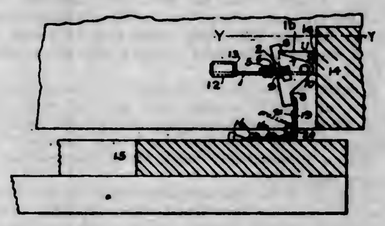
4. In combination with a fire hose having a nozzle, a suction nipple for attachment to the discharge end of the said nozzle to form a suction chamber, a main air supply pipe connected with the said nipple and having a rigid and a flexible section, funnels extending rearwardly within the rigid section of the air supply pipe, a branch air pipe connected with each funnel, and a breathing hood on the end of each branch air pipe, the said hood having means for supporting the hood on the fireman's face and having means for the escape of vitiated air.

5. In an air supply device, the combination with a fire hose having a nozzle, an air suction device exteriorly on the said nozzle for drawing in air by the passage of the water through the nozzle, a main air supply pipe connected with the said suction device and independent of the fire hose, a funnel extending within the said main air supply pipe for receiving a portion of the air drawn in, and distributing means connected with the said funnel to make a portion of the air drawn in through the said suction device available for breathing purposes.

[Claims 6 to 8 not printed in the Gazette.]

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1,040,312. BURGLAR-ALARM. THOMAS J. HALSTEAD, Dallas, Tex. Filed Aug. 16, 1911. Serial No. 644,472. (Cl. 116—42.)



In an alarm of the character described, a supporting member provided with means adapted to support a cartridge, a striker pivotally secured to said supporting member and provided with means adapted to engage a cartridge secured in the supporting member, said striker being provided with an arm extending downwardly therefrom, a horizontally disposed trigger pivotally secured to the lower portion of said supporting member and provided with a transverse opening therein adapted to receive the arm depending from the striker, said trigger being provided in the front edge thereof with a slot communicating with the opening therein intermediate the ends thereof, the side portions of said trigger being provided with laterally extending trip engaging portions.

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1,040,313. EXTENSION STEP-LADDER. BURT A. HANDY, South Bend, Ind., assignor, by mesne assignments, to Four in One Manufacturing Co., a Corporation of Indiana. Filed Mar. 4, 1912. Serial No. 681,487. (Cl. 228—19.)

1. An extension ladder comprising a base and an extensible section, a slidable connection between the sections consisting of inter-engaging cleats and grooves on the outer and inner sides respectively of the side bars of said sections, and swinging step members mounted on the main section, said cleats being spaced endwise to permit said step members to be swung between the side bars of said section and to rest on the upper ends thereof for the support of the same.

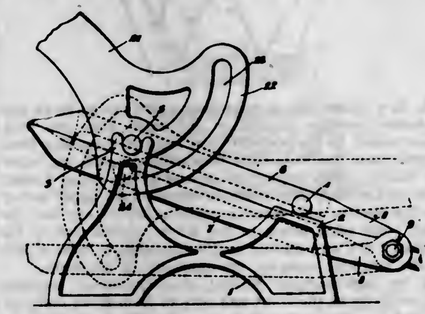
2. An extension ladder comprising two complete ladder sections, the side bars of the extensible section having longitudinal grooves formed in their outer sides, swinging step members mounted on the main section and adapted to be swung between its side bars, the latter having cleats on their inner sides and spaced endwise to permit said step members to swing between the bars and rest on the upper ends thereof, said cleats engaging the grooves in the extensible section to slidably support the latter.





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1,040,314. CASTING APPARATUS. WILLIAM T. HARDING, Raleigh, N. C. Filed Jan. 13, 1912. Serial No. 671,073. (Cl. 22—152.)



1. In a casting apparatus the combination of, a chair having supporting members of different heights, a separable mold comprising a pivotally connected upper and lower section, studs on said upper section resting on said supports and holding the mold on an incline, a lever mounted on the uppermost of said studs and having a slot eccentric to said stud, and a stud on the raised end of the lower section engaging with said slot, said lever operable through said slot and stud engagement to raise and lower said section to close and open the mold, substantially as described.

2. In a casting apparatus the combination of, a pair of separable hinged sections, means for holding said sections assembled, an angle iron secured to one end of each section, said angle irons provided each with a slot, a pair of die members movably mounted between said sections, a perforated rod secured to each of said die members, and bolts for adjustably securing said rods to said angle irons, said bolts passing through the slots in said angle irons and permitting of movement of said dies after the same are adjusted to position, substantially as described.

3. The combination with a mold comprising separable sections, of a die therefor, and means for adjustably positioning said die in the mold, said means comprising a pair of brackets secured to said mold sections and having each an elongated perforation, rods secured to said die and provided with perforations; and bolts passing through the elongated perforations in said brackets and engaging with perforations in said rods; said bolts and elongated perforations permitting of movement of said die after the same has been adjusted to position, substantially as described.

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1,040,315. GRAPHITE BRUSH. WILLIAM H. HANDMAN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed May 31, 1912. Serial No. 700,996. (Cl. 171—210.)

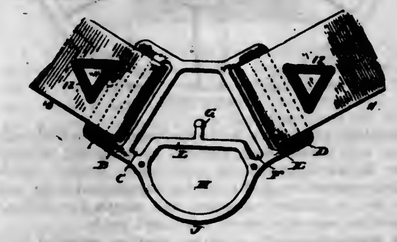



1. As an article of manufacture, a current collector consisting substantially of pure graphite and a small amount of abrasive.

2. As an article of manufacture, a current collector consisting of about ninety-eight per cent. (98%) graphite and about two per cent. (2%) carborundum.

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1,040,316. ADJUSTABLE RIGGING-PLATE. CHARLES A. HARRINGTON, Elko, Nev. Filed Mar. 4, 1912. Serial No. 681,602. (Cl. 54—46.)



1. In a device for connecting the rigging and girth of a saddle, the combination of front and back rigging straps and a plate having an upwardly and forwardly extending series of parallel slots for the front rigging strap, and having an upwardly and rearwardly extending series of parallel slots for the back rigging strap, and having means intermediate said two series of slots for the girth connection.

2. A device for connecting the rigging and girth of a saddle, comprising a plate having an upwardly and forwardly extending series of parallel slots for the front rigging strap, and having an upwardly and rearwardly extending series of parallel slots for the back rigging strap, and said plate having spaced members one above the other forming an eye, said eye being located between said two series of slots.

3. A device for connecting the rigging and girth of a saddle, comprising a plate having an upwardly and forwardly extending series of parallel slots for the front rigging strap, and having an upwardly and rearwardly extending series of parallel slots for the back rigging strap, said plate having spaced members one above the other forming an eye, said eye being located between said two series of slots, and a pin or tongue projecting from the said upper member.

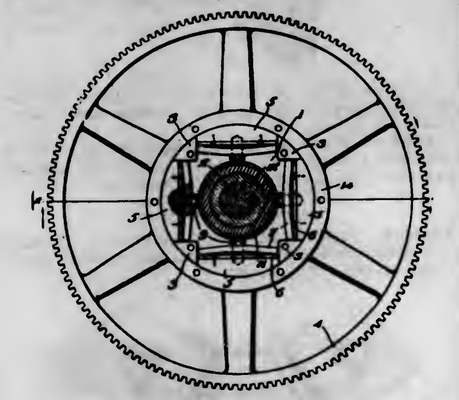
4. A device for connecting the rigging and girth of a saddle, comprising a plate having an upwardly and forwardly extending series of parallel slots for the front rigging strap, an upwardly and rearwardly extending series of parallel slots for the back rigging strap, said plate having spaced members one above the other forming an eye, said eye being located between said two series of slots, and a pin or tongue projecting upwardly from said upper member.

5. In a device for connecting the rigging and girth of a saddle, the combination of front and back rigging straps, a plate having two series of points of connection with the ends of said straps, the series for a strap extending in the

direction in which the strap extends, and the plate being shiftable with reference to the two straps, and means intermediate the two series of points of connection of the rigging straps with the plate, for the attachment of the girth connection.

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1,040,317. CLUTCH-COUPLING. MORRIS ALBERT HARRIS, Westfield, N. J., assignor of one-half to Lawrence A. Clark, Westfield, N. J. Filed Jan. 20, 1912. Serial No. 672,417. (Cl. 192—11.)



1. A clutch comprising a driven member provided with a hollow hub, a drive disk, resilient seats carried thereby, friction blocks supported by said seats, contact heads adjustably secured to said seats for engagement with said hollow hub, a shiftable member, and means for shifting said member into engagement with said heads.

2. A clutch comprising a driven member provided with a hollow hub, a drive disk, resilient seats slidably mounted thereon, friction blocks supported by said seats for engagement with said hollow hub, contact heads adjustably secured to said seats, a shiftable member, and means for shifting said member into engagement with said heads.

3. A clutch comprising a driven member provided with a hollow hub, a drive disk, radial guides thereon, resilient seats and friction blocks slidably mounted in said guides for engagement with said hollow hub, contact heads adjustably secured to said seats, a shiftable member, and means for shifting said member into engagement with said heads.

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1,040,318. TRAY FOR COOLING-TOWERS. BENJAMIN F. HART, Jr., Hoboken, N. J. Filed June 13, 1910. Serial No. 566,565. (Cl. 62—2.)



1. A tray for cooling towers comprising a trough section with closed ends and a supporting leg substantially under each edge of the trough section formed from a single blank of sheet metal.

2. A tray for cooling towers comprising a trough section with closed ends and a supporting leg substantially under each edge of the trough section, and spacing lugs formed from a single blank of sheet metal.

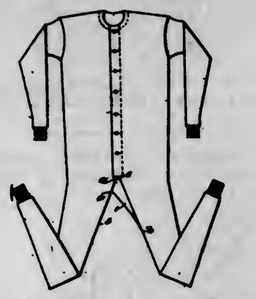
3. A tray for cooling towers comprising a trough with closed ends provided with combined reinforcing and supporting legs formed from a single blank of sheet metal.

4. A tray for cooling towers comprising a trough with closed ends provided with combined reinforcing and supporting legs, and spacing lugs, formed from a single blank of sheet metal.

5. A blank for forming a tray arcuate in cross-section and having combined reinforcing and supporting legs, comprising a central rectangular section forming the trough of the tray, a section on each end of the central section of a length corresponding to the maximum depth of the pan and of the same width as the central section and forming the end walls of the trough, and a section on each side of the central section adapted to be bent and folded at an angle with respect to the central section for forming the reinforcing and supporting legs.

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1,040,319. UNION UNDERGARMENT. ASA J. HARWOOD, Richmond, Ind., assignor to The Richmond Underwear Company, Richmond, Ind., a Corporation of Indiana. Filed Dec. 7, 1911. Serial No. 664,842. (Cl. 2—144.)



1. In a union suit, a main body piece having front and posterior openings formed on the same line, two back pieces sewed in the posterior opening and extending from a point near the waist line to a point in each leg below the crotch, respectively, one of said pieces being formed with an auxiliary flap which is sewed to the upper end of one leg portion and forms a continuation of one leg, the other piece being sewed to the other leg and also to the auxiliary flap and formed on its free edge to form a side of the posterior opening, substantially as set forth.

2. An undergarment formed of a cylindrical webbing cut centrally at the front and rear to form front and rear openings, and separate pieces sewed to the cut edge of the back of the garment and extending into the leg portions thereof, one of said parts being curved on its free edge to form a side of the rear opening and the other part being extended to overlap the first part and form a cover, said second part being also formed with an auxiliary portion adapted to be joined to the front and rear of one leg portion to form an enlarged continuation of the leg thereof and also joined to the perineum portion and to the other part to form a closed crotch with the enlarged portion at one side of the crotch, as set forth.

3. In a union suit, a closed crotch and posterior opening formed by inserting two pieces in the rear portion of the garment which is cut centrally, said parts being joined together at the top and bottom of said rear opening and also joined respectively to the leg seams, one of said parts being provided with an auxiliary flap to form a continuation of one leg which extends to one side from the center or crotch of the garment, as set forth.

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1,040,320. PHOTOGRAPH-HOLDER. SIGMUND HELLER, Chicago, Ill. Filed Mar. 20, 1912. Serial No. 685,111. (Cl. 40—156.)

1. A holder for displaying a photograph or like picture comprising a ground or body of textile fabric cut away to form a display opening, a front display facing or panel having a registering opening and secured to said ground by a line of stitching around its outer edge and a line of stitching around said display opening, and a rear piece or portion forming a pocket secured to said ground by a marginal line of stitching along its bottom and sides.



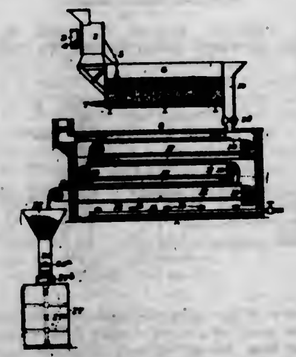
2. A holder for displaying a photograph or like picture comprising a ground or body of textile fabric cut away to form a display opening, a front display facing or panel having a registering opening and secured to said ground around said opening by a line of stitching, and a rear piece



or portion forming a pocket for the reception of the picture, said front panel and rear piece being secured along their margins to said ground by a line of stitching extending through all three of them along the bottom and both sides of said panel and extending only through said ground and panel along the top of the latter.

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1,040,321. FIBROUS COMPOSITION AND PROCESS OF MAKING THE SAME. GEORGE A. HENDERSON, Charleston, W. Va. Filed Apr. 8, 1911. Serial No. 619,888. (Cl. 106—31.)



1. A new composition of matter, comprising wood particles from which merely the juice, sap and water have been extracted, said particles being impregnated and coated with a preservative and united by a small quantity of heavy binder, the proportion of binder being merely large enough to coat the particles and bind them to each other; substantially as described.

2. The method of treating wood particles, consisting in extracting the juices, sap, etc., then drying the chips to extract all moisture, then impregnating the particles with a preservative, and then mixing with said particles a small quantity of heavy adhesive compound or preparation, the proportion of said compound being merely large enough to coat the particles and bind them to each other; substantially as described.

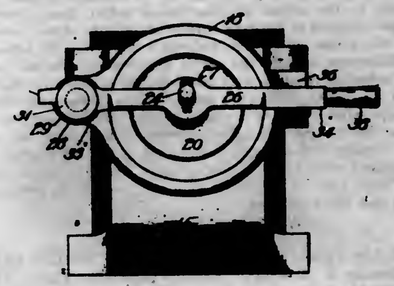
3. The method of manufacturing articles from wood particles, consisting in first extracting the juices from the particles, then drying the particles to remove all moisture, then filling the open pores of the particles with a preservative, then mixing the impregnated particles with a small quantity of heavy binder to coat the particles and bind them together, and then pressing the material into shape; substantially as described.

4. The method of manufacturing a composition from wood particles, consisting in first extracting the juices from the particles, then drying the particles to remove all moisture, then filling the open pores of the particles with a preservative, then drying the impregnated particles, and then mixing with the impregnated particles a small quantity of binder to completely coat the particles and bind them together; substantially as described.

5. As a new article of manufacture, particles of wood having the sap, juices and water extracted, the open pores of said particles from which the sap has been extracted being impregnated with a preservative and held together by a small quantity of heavy adhesive binder, there being sufficient binder to completely coat the particles and bind them to each other; substantially as described.

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1,040,322. JOURNAL-BOX. JOHN HERRON and HENRY BITTNER, Marquette, Mich. Filed Apr. 5, 1909. Serial No. 487,978. (Cl. 64—28.)



1. A journal box having an opening through the wall thereof in combination with a cover for said opening, a bar across the cover, means loosely connecting the bar and cover, a coil spring between the bar and the cover, and a pivotal support for the bar adjacent to the boundary of the opening, the axis of said pivotal support making an acute angle with the plane of said opening.

2. A journal box having an opening through the wall thereof, in combination with a cover for said opening, the plane of said cover being inclined from the vertical, a bar extending across said cover and attached to the same at an intermediate point, and a pivotal support for said bar at one end thereof upon the box adjacent to the opening, said pivotal support having its axis horizontal so that the bar shall swing in a vertical plane.

3. A journal box having an opening through the wall thereof in combination with a cover for said opening, the plane of said cover being inclined from the vertical, and a pivotal support for said cover at one of the two sides thereof, the axis of said pivot being horizontal and transverse to the plane of said opening.

4. A journal box having a circular opening with an outwardly flaring seat about said opening, in combination with a circular cover having its edge conformed to fit closely on said seat, and an arm pivoted at one end beside the said opening, the axis of the pivot making an acute angle with the plane of the said circular opening, and said arm having the said cover loosely attached thereto.

5. A journal box having an opening through the wall thereof, in combination with a cover for said opening, and a bar across the cover loosely attached to the cover at an intermediate point of the bar and at the center of the cover, said bar being pivoted at one end to the box and carrying the cover therewith by means of its loose attachment thereto, and the axis of the pivot making an acute angle with the plane of the said opening.

[Claims 6 to 8 not printed in the Gazette.]

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1,040,323. PROCESS OF PURIFYING MONOCHLORHYDRIN. FRIEDRICH CARL HEYER, Schlebusch-Manfort, Germany, assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed May 13, 1910. Serial No. 561,020. (Cl. 23—94.)

1. The process of purifying the chlorinated product obtained by the action of chlorinated sulfur upon glycerin, which consists in diluting the same with water, removing

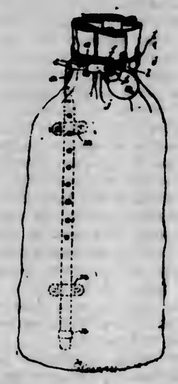
the sulfur and other material that may be removed by filtration, and then removing the water, hydrochloric acid and dichlorhydrin by subjecting the clear liquid thus obtained to prolonged heating in a vacuum at a temperature of between 40° and 100° C.

2. The process of purifying the chlorinated product obtained by the action of chlorinated sulfur upon glycerin, which consists in diluting the same with water, removing the sulfur and other materials that may be removed by filtration, decolorizing the clear liquid thus obtained and subjecting it to prolonged heating in a vacuum at a temperature of between 40° and 100° C.

3. The process of purifying the chlorinated product obtained by the action of chlorinated sulfur upon glycerin, which consists in diluting said product with water, removing the sulfur and other materials that may be removed by filtration, heating the sulfur and the chlorinated material adhering thereto to a temperature sufficiently high to melt the sulfur, removing the chlorinated material which is separated above the molten sulfur, and subjecting the clear liquid remaining after removal of the sulfur, and also the chlorinated material separated from the sulfur, to prolonged heating in a vacuum at a temperature between 40° and 100° C., thereby removing water, hydrochloric acid and dichlorhydrin.

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1,040,324. FASTENER FOR MAIL AND OTHER BAGS. EDWARD J. HILLMAN, Lookout Mountain, Tenn. Filed Aug. 11, 1910. Serial No. 576,770. (Cl. 150—15.)



In combination with a bag, of a strap having one end permanently attached to the bag and being long enough to entirely surround the mouth of the bag when the bag is open, means for slidingly confining the free end of the strap to the bag at the point where it overlaps the permanently fastened end, said means consisting of a plate carrying at one end a closed eye having an outwardly projecting staple on its front wall and at its other end a pivoted hasp, said hasp being provided with a pin which is adapted to enter holes in the strap, for the purpose set forth.

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1,040,325. WHEEL-HOE. HUGH R. HILTON, Port Allegany, Pa. Filed Jan. 6, 1912. Serial No. 669,808. (Cl. 97—42.)

1. A hoe comprising a head having in its lower side a transverse recess, arms pivoted to the head, means for swinging the arms and for holding the same in adjusted positions, a transverse bar located in the recess in the head, said bar having a recess, a bar secured to the head and lying in the recess of the first mentioned bar, and hoe blades carried by the bars.

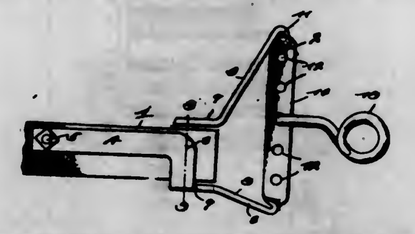
2. A hoe comprising a head provided in its sides with slots, arms arranged in pairs and pivoted one within the head and one against the outer sides of the head, a pin passing through the said slots and through all of the arms, means for adjusting the pin along the slots and for holding the same in an adjusted position, a wheel journaled between each pair of arms, and a blade carried by the head.



3. A hoe comprising a head provided with an upper hollow portion and having in its sides vertically disposed slots, a pair of arms pivoted within the head, a pair of arms pivoted against the outer sides of the head, the arms of each pair having overlapping end portions, a pin passing through the slots in the head and the overlapping portions of the arms, a block mounted upon the pin, a block having screw threaded engagement with the head and engaging the first mentioned block and adapted to move the same to adjust the inner ends of the arms, a wheel journaled between each pair of arms, and a hoe blade carried by the head.

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1,040,326. CLEVIS. SAMUEL T. HOBBS, Ty Ty, Ga. Filed Apr. 10, 1912. Serial No. 690,778. (Cl. 97—4.)



In a device of the character described, the combination with a plow beam, of a clevis formed from a single bar of heavy sheet iron, having its ends arranged parallel with and bolted to the top and bottom sides of the plow beam, said bar being bent in its length at right angles to the ends and disposed in opposite directions, offsets formed adjacent said bends and arranged upon the sides of said plow beam, a substantially horizontal portion extending outwardly from the offset on one side of said beam, an inclined portion extending outwardly from the offset on the other side of the plow beam, the intermediate portion of said bar being twisted and arranged in a plane at right angles to the outwardly extending portions, and said intermediate portion being provided with a series of openings to receive a whiffletree hook.

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1,040,327. STOP-COCK. MILES S. HOLLIS, New York, N. Y. Filed July 1, 1911. Serial No. 636,479. (Cl. 137—7.)

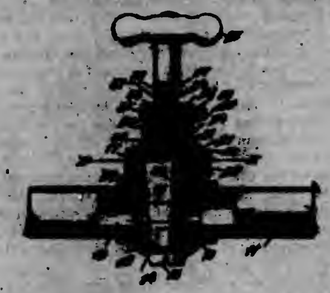
1. A device of the character described comprising a body having a passage therethrough, a shut-off element movably held in said body and provided with an elongated engaging portion, a tubular casing having two openings of relatively different sizes therethrough, a stem provided with a head arranged to rotate and to slide in said tubular casing and having means whereby the stem may be rotated, said head having a slot adapted to fit over the elongated portion of the shut-off element, a spring located within the stem, and a pin normally forced in one direction by the spring and having one end normally resting against the elongated portion of the shut-off element, whereby the head is normally held disengaged from said element.

2. A device of the character described comprising a body having a passage therethrough, a shut-off element movably held in said body and provided with an engaging portion, a tubular casing, a stem provided with a head arranged to rotate, said head being adapted to engage the engaging portion of the shut-off element, and a spring located within the stem and a pin normally forced in one direction by the spring and having one end normally resting against the engaging portion of the shut-off element, whereby the head is normally held disengaged from said element.

3. A device of the character described comprising a body having a passage therethrough, a shut-off element movably held in said body and provided with an elongated portion, a tubular casing having two openings of relatively different sizes therethrough, a stem provided with a head arranged to rotate and to slide in said tubular casing and having means whereby the stem may be rotated, said head having a slot adapted to fit over the elongated portion of the shut-off element, a spring located within the stem, means normally forced in one direction by the spring and normally resting against the elongated portion of the shut-off element, together with means whereby the stem may be positively held in either an engaged or disengaged position.



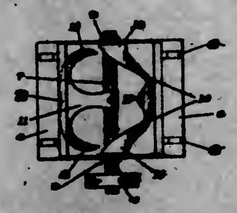
4. A device of the character described comprising a body having a passage therethrough, a shut-off element movably held in said body and provided with an elongated portion, a tubular casing having two openings of relatively different sizes therethrough, a stem provided with a head arranged to rotate and to slide in said tubular casing and having means whereby the stem may be rotated, said head having a slot adapted to fit over the elongated portion of the shut-off element, a spring located within the stem, means normally forced in one direction by the spring and normally resting against the elongated portion of the shut-off element, together with means whereby the stem may be positively held in either an engaged or disengaged position.



5. A device of the character described comprising a body having a passage therethrough, a shut-off element movably held in said body and provided with an engaging portion, a tubular casing, a stem provided with a head arranged to rotate, said head being adapted to engage the engaging portion of the shut-off element, and a spring located within the stem and a pin normally forced in one direction by the spring and having one end normally resting against the engaging portion of the shut-off element, whereby the head is normally held disengaged from said element.

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1,040,328. MIXING-MACHINE. NICHOLAS HOLMAN, Chicago, Ill. Filed Mar. 11, 1912. Serial No. 683,022. (Cl. 107—40.)



In a device of the kind described, the combination with a cylindrical case, and rotatable shaft therein, of a double winged blade affixed on the central portion of said shaft said wings being so curved that the outer edge forms a crescent and so much blade slightly fixed on the end portions of said shaft within said case, the axial portion of said blade forming a curved hook, and the end portions of said blade forming radial knives, said blades being adapted when said shaft is rotated to scrape the interior of said case, lift the material to be mixed from the bottom of said case to the top twice during each revolution of said shaft, and turn said material alternately from the center to the ends, and from the ends to the center by the curvature of said blades, during each revolution thereof, as described.

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1,040,329. ANIMAL-TRAP. BENJAMIN HOLE, Albion, N. Y. Filed Apr. 26, 1912. Serial No. 692,181. (Cl. 43—94.)



1. An animal trap comprising a dome shape cage having a lower rim edge and an opening in the top, a bottom detachably connectible with the said rim edge, and a tunnel that forms a passage for the animal, the said tunnel being pivotally and removably suspended in the opening in the top of the dome, the said tunnel being of such length whereby its exit is in close proximity to but not in touch with the bottom.

2. An animal trap comprising a cage having an entrance in the top, a tunnel pivotally suspended from the entrance and extending to a point near the bottom of the trap, and means for removably mounting the said tunnel in the entrance of the cage.

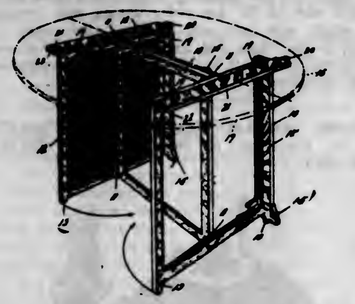
3. An animal trap comprising a cage having an entrance in the top, a tunnel pivotally suspended from the entrance and extending to a point near the bottom of the trap, means for removably mounting the said tunnel in the entrance of the cage, the said means consisting of oppositely disposed apertured ears on the cage and a flexible member carried on the upper end of the tunnel and having pintles, the said pintles being projectable into and movable out of said ears whereby to become disconnected from the apertured ears.

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1,040,330. FOLDING TABLE. WILLIAM C. HOLTON, Indianapolis, Ind., assignor to The Art Screen Table Company, New York, N. Y., a Corporation of New York. Filed June 5, 1911. Serial No. 631,411. (Cl. 45—116.)

1. A folding table comprising a main frame, a pair of end frames pivoted along an intermediate vertical line at the vertical edges of the main frame so as to be swung at an angle to or substantially parallel with the main frame, a table top comprising two members parted on a line parallel with the main frame one of said top members being hinged upon horizontal hinges at the upper edge of the main frame and the other of said top members hinged to the adjacent edge of the first mentioned top member whereby the last mentioned top member may be folded over upon the first mentioned top member and the two top members then folded down substantially parallel with the main frame, finishing boards carried by the outer vertical edges of the end frames so as to extend across the plane of the end frame when the parts are in folded position, and a finish board hinged to the upper edge of each end frame so as to swing over and cover the upper edges of all the parts when in folded position, said finish boards having their adjacent edges

formed to interlock when the end frames are folded upon the main frame.



2. A folding table comprising a main frame, a pair of end frames pivoted along an intermediate vertical line at the vertical edges of the main frame so as to be swung at an angle to or substantially parallel with the main frame, a table top comprising two members parted on a line parallel with the main frame one of said top members being hinged upon horizontal hinges at the upper edge of the main frame and the other of said top members hinged to the adjacent edge of the first mentioned top member whereby the last mentioned top member may be folded over upon the first mentioned top member and the two top members then folded down substantially parallel with the main frame, and a finish board hinged at the upper edge of each end frame so as to swing over and cover the upper edges of all the parts when in folded position, said finish boards having their adjacent edges formed to interlock when the end frames are folded upon the main frame.

3. A folding table comprising a main frame, a pair of end frames pivoted along an intermediate vertical line at the vertical edges of the main frame so as to be swung at an angle to or substantially parallel with the main frame, a table top comprising two members parted on a line parallel with the main frame one of said top members being hinged upon horizontal hinges at the upper edge of the main frame and the other of said top members hinged to the adjacent edge of the first mentioned top member whereby the last mentioned top member may be folded over upon the first mentioned top member and the two top members then folded down substantially parallel with the main frame, finishing boards carried by the outer vertical edges of the end frames so as to extend across the plane of the end frames when the parts are in folded position, and a finish board hinged at the upper edge of each end frame so as to swing over and cover the upper edges of all the parts when in folded position.

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1,040,331. DETACHABLY MOUNTING A FUSE FORMED WITH TERMINALS OR CONTACTS OF KNIFE-BLADE TYPE. BRYSON D. HOATON, Detroit, Mich. Filed June 25, 1912. Serial No. 705,686. (Cl. 175—273.)



1. A fuse-clip comprising a pair of integral spring-acting members, means adjustably mounted with respect to said members whereby the relative distance between them may be varied to accommodate variable thicknesses of fuse terminals, and means for positively retaining the fuse terminals when the adjustment is made.

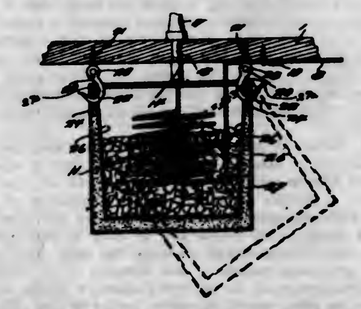
2. A fuse-clip comprising a pair of integral spring contact members, adjustable means for applying pressure to the members to regulate the relative distance between them, and a projection on one of said members adapted to engage and hold the fuse terminal in place.

3. The combination with an electric fuse having a relatively flat or knife-shaped terminal, a terminal clip cooperating therewith comprising a pair of slotted yieldable contact jaws and means for adjusting the jaws with respect to the fuse terminal, said means comprising a pair of compression plates bearing against the side of the jaws, said plates being provided with reduced end portions extending through the slots in the jaws, and a screw-threading adjusting bolt extending through the jaws.

4. The combination with an electric fuse having a relatively flat knife-shaped terminal, of a terminal clip formed of a single piece of metal having a supporting portion, a slotted, bowed spring portion, and free ends substantially parallel with each other forming contact jaws, means for adjusting the contact jaws with respect to the fuse terminal, said means comprising a pair of compression plates, one end of each plate being mounted in the slot of the bowed portion of the clip and the opposite end of each plate being inturned and in contact with a jaw of the clip, and means for tensioning the plates to adjust the jaws of the clip.

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1,040,332. FLUID-DISPENSING APPARATUS. THOMAS WALTER HOWARD, Birmingham, Ala. Filed Mar. 11, 1912. Serial No. 683,024. (Cl. 62—2.)



An ice box adapted to receive a cooling coil, and comprising inner and outer casings, with a filler of saw dust therebetween, the inner casing having inclined side walls inclining toward the upper portions of the side walls of the outer casing, and curved in contact therewith, the outer casing having its upper portion terminating in a peripheral flange to engage over the curved upper edge of the inner casing, the side walls of the inner and outer casings having registering openings adapted to receive pivoted hooks of a support, as specified.

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1,040,333. FILAMENT-SUPPORT. JOHN W. HOWELL, Newark, N. J., assignor to General Electric Company, a Corporation of New York. Filed Apr. 6, 1910. Serial No. 553,742. (Cl. 176—38.)



1. The method of joining a refractory filament to a supply wire, which consists in shaping one part of the supply wire into a sharp edge, gently pressing the filament against said edge, and passing between the filament and said wire current sufficient to soften and melt the edge of the wire so as to allow the filament to be forced into the same but not sufficient to fuse the filament.



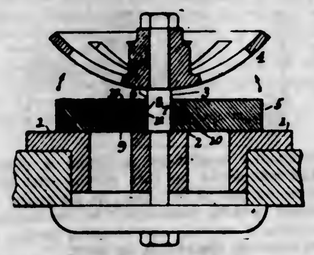
2. A method for securing lamp filament ends to their current leads after the latter have been secured in the lamp stem which consists in reducing the cross-section of the current leads and pressing together such reduced portions of the leads and the respective filament ends to which they are to be united and passing a suitable current from one filament end through the said leads in series to the other filament end so as to form a fused joint through the heating action of said current at each contact.

3. In an incandescent lamp, the combination of a support, having a sharp edge, and a filament welded thereto.

4. In an incandescent lamp, the combination of a knife-edged support, and a tungsten filament welded thereto.

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1,040,334. RUBBER VALVE FOR PUMPS AND THE LIKE. THOMAS HOWLAND, Mackay, Queensland, Australia. Filed Mar. 13, 1912. Serial No. 683,449. (Cl. 103—66.)



1. In rubber disk suction valves having a central hole to inclose a boss a deep narrow groove at or near the middle of the said hole, in combination with a ring having rounded inner and outer edges and of more durable material than rubber, and adapted to become worn by the said boss and to be renewed as indicated.

2. The combination of a rubber disk suction valve having a central hole therethrough with a comparatively deep narrow groove at or near the middle of said hole, with an annular ring of more durable material than rubber fitting within said hole, the inner diameter of said ring being slightly less than the diameter of the hole through the valve.

3. The combination with a rubber disk suction valve having a hole therethrough and having a relatively deep narrow groove at or near the middle of said hole, of a ring having substantially flat parallel sides with rounded inner and outer edges fitting within said groove.

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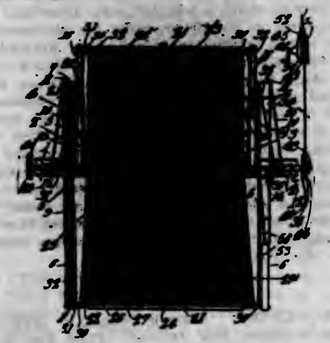
1,040,335. FENDER. JAMES FOREST HUNTER, Sioux Rapids, Iowa. Filed Apr. 26, 1911. Serial No. 623,410. (Cl. 105—33.)

1. In a device of the class described, a supporting structure; a net thereon which is spring-constrained to assume a tubular form to inclose an object projected thereon; and means for holding the net in flat form upon the supporting structure to receive the object.

2. In a device of the class described, a supporting structure; a tubular supplemental net thereon which is spring-constrained to assume a tubular form to inclose an object projected thereon; means upon the supporting structure to engage the net to hold the same in flat form upon the supporting structure to receive the object; and a device for flattening the supplemental net to engage with said means.

3. In a device of the class described, a main net; a supplemental net thereon which is spring-constrained to assume a tubular form; means for holding the supplemental net flattened out upon the main net; and means for rolling up both nets together.

4. In a device of the class described, a main net; a supplemental net thereon which is spring-constrained to assume a tubular form; means for maintaining the supplemental net in flattened out condition upon the main net; and telescoping means for elongating both nets.

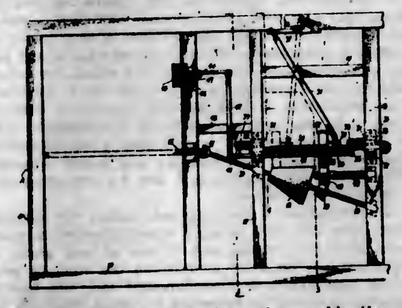


5. In a device of the class described, a main net; a supplemental net thereon which is spring constrained to assume a tubular form; means for holding the supplemental net in flattened out condition upon the main net; means for rolling up both nets together; and telescoping means for elongating both nets, to unroll the same.

[Claims 6 to 9 not printed in the Gazette.]

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1,040,336. POWER-TRANSMITTING MECHANISM. THED S. HUTCHINGS, Hilts, Cal. Filed Oct. 30, 1911. Serial No. 657,657. (Cl. 74—26.)

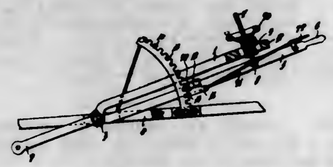


1. In a driving mechanism, the combination of a frame including spaced members, a driving shaft journaled between said spaced members, a friction cone fixed on said driving shaft, journal blocks slidably mounted in corresponding openings in said spaced members respectively, a driven shaft rotatably mounted in said journal blocks, a longitudinally adjustable friction wheel mounted on the driven shaft, springs disposed in the openings in said spaced members respectively and engaging one side of respective journal blocks to normally hold the latter and the driven shaft a sufficient distance from the driving shaft to prevent engagement between the friction wheel and the cone when the former is adjusted longitudinally of the driven shaft, a pair of vertical shafts rotatably supported from said frame one adjacent each of said spaced members an angular extension on the upper end of each of said vertical shafts, said extensions having their free ends disposed respectively in the openings in said spaced members for engagement with the opposite sides of respective journal blocks from those engaged by said springs, and a common means for rotating said vertical shafts simultaneously to force their angular extensions against respective journal blocks whereby said driven shaft is moved bodily toward the driving shaft against the influence of said springs to bring the friction wheel into engagement with the friction cone.

2. In a driving mechanism, the combination of a driving shaft, a driven shaft mounted for bodily movement toward and away from the driving shaft, a friction cone fixed on said driving shaft, a second friction cone fixed on said driving shaft, a longitudinally adjustable friction wheel mounted on the driven shaft for engagement with the first named friction cone, means for normally maintaining the driven shaft a sufficient distance from the driving shaft to prevent engagement between the friction wheel and cone when the former is adjusted longitudinally of the driven shaft, an idle friction wheel constantly in engagement with the second friction cone on the driving shaft and positioned to be engaged by the friction wheel on the driven shaft in one adjustment of the latter to reverse the rotation of said driven shaft, and means for moving said driven shaft bodily toward the driving shaft to bring the friction wheel thereon into engagement with the first named cone or into engagement with the idle friction wheel.

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1,040,337. LEVER. GEORGE WILLIAM HUTCHINSON, Walton, Waikato, New Zealand. Filed Apr. 30, 1912. Serial No. 694,252. (Cl. 74—39.)



1. In combination, a lever, an arm, means for roughly adjusting said arm and lever, a screw threaded member pivotally connected at one end to one of said parts, a nut rotatably mounted in the other of said parts and engaging said screw threaded member and means for rotating said nut for adjusting the lever relatively to the arm.

2. In combination, a lever, an arm, means for roughly adjusting said arm and lever, a screw threaded rod pivotally connected at one end to said arm, a nut rotatably mounted in said lever and engaging said screw threaded rod, and means for rotating said nut for adjusting the lever relatively to the arm.

3. In combination, a lever, an arm, means for roughly adjusting said arm and lever, a screw-threaded member pivotally connected at one end to one of said parts, a nut rotatably and pivotally mounted in the other of said parts and engaging said screw-threaded rod, and means for rotating said nut for adjusting the lever relatively to the arm.

4. In combination, a lever, an arm, pivoted on said lever, means for roughly adjusting said arm and lever, a screw-threaded rod pivotally connected at one end to said arm, a nut rotatably mounted in said lever and engaging said screw-threaded rod, and a hand wheel for rotating said nut for adjusting the lever relatively to the arm.

5. In combination, a lever, an arm, means for roughly adjusting said arm and lever, a screw-threaded member pivotally connected at one end to one of said parts, a block mounted on trunnions in the other of said parts, a nut rotatably mounted in said block and engaging said screw-threaded member and means for rotating said nut for adjusting the lever relatively to the arm.

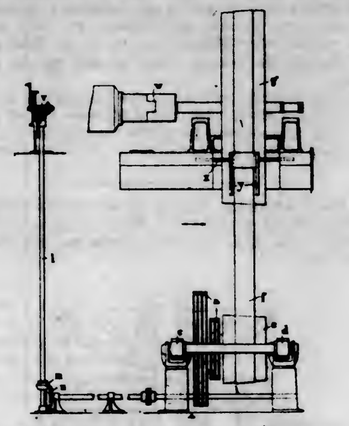
[Claims 6 to 8 not printed in the Gazette.]

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1,040,338. PAPER AND LIKE MACHINERY. ROBERT GIBB HUTCHISON, Sittingbourne, England, assignor of one-half to Edward Lloyd Limited, Sittingbourne, England. Filed July 19, 1911. Serial No. 639,266. (Cl. 92—38.)

1. In paper making machinery, a section drive comprising an arm, means for swinging the same, and a pulley mounted on the arm; as set forth.

2. In paper making machinery, a section drive comprising a lever with fulcrum therefor, rope pulleys mounted on said lever, and a belt pulley also mounted on said lever, together with means for swinging the lever about said fulcrum; as set forth.



3. Paper-making machinery including a plurality of sections and belt drives for each section with means for adjusting the tension of the belts; as set forth.

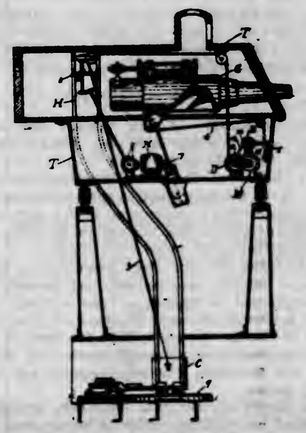
4. In paper making machinery, in combination with a section drive, a starting and stopping device, together with speed reducing means; as set forth.

5. In paper making machinery, a machine section, a driven shaft in connection therewith, a driving shaft, pulleys on said shafts, friction means directly connecting said pulleys, and means for varying the position in space of one of said shafts; as set forth.

[Claims 6 to 12 not printed in the Gazette.]

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1,040,339. MOTOR-CONTROLLING APPARATUS. JOHN D. IHLDER, New York, N. Y., and WILLIAM D. LUTZ, Allendale, N. J., assignors to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Feb. 12, 1910. Serial No. 543,601. (Cl. 89—46.)



1. In ordnance apparatus, the combination of an ammunition carrier, a motor for raising the carrier, a gun, a motor for raising or lowering the breech of the gun, and means for increasing the torque of the carrier motor when the other motor is operated to raise the breech of the gun.



2. In ordnance apparatus, the combination of an ammunition carrier, a motor for raising the carrier, a gun, a motor for raising or lowering the breech of the gun, and means for automatically increasing the torque of the carrier motor when the other motor is operated to raise the breech of the gun.

3. In ordnance apparatus, the combination of an ammunition carrier, a gun, a motor for raising the carrier, a motor for raising or lowering the breech of the gun, and means dependent upon the energization of the gun motor to raise the breech of the gun for increasing the torque of the carrier motor.

4. In ordnance apparatus, the combination of an ammunition carrier, a gun, a motor for raising the carrier, a motor for raising or lowering the breech of the gun, and means dependent upon the energization of the gun motor to raise the breech of the gun for automatically increasing the torque of the carrier motor.

5. In ordnance apparatus, the combination of an ammunition carrier, a gun, a motor for raising the carrier, a motor for raising or lowering the breech of the gun, mechanism for effecting said operations of the gun motor, means for automatically increasing the torque of the carrier motor when the said mechanism is operated to cause the gun motor to raise the breech of the gun, and means for automatically decreasing the torque of the carrier motor when said mechanism is operated to cause the gun motor to lower the breech of the gun.

[Claims 6 to 14 not printed in the Gazette.]

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1,040,340. LIFE-BOAT. CHARLES JENKINS and AMANDA A. JENKINS, Philadelphia, Pa. Filed May 6, 1912. Serial No. 695,360. (Cl. 9—3.)



1. The combination of a plurality of nested boats, each boat comprising a shell formed from a single sheet of metal, a keel integral with the boat, a portion of said keel V-shaped to receive the keel of another boat, longitudinal brace bars at the inner edge of each boat, and angle iron bars secured to the inner faces of the sides and bottom of each boat, each boat fitting into the next larger boat below, and supported on the bars therein, whereby a space is formed between the sides and bottoms of the boats, substantially as described.

2. The combination of a plurality of nested boats, each boat comprising a shell formed from a single sheet of metal, a keel integral with the boat, a portion of said keel V-shaped to receive the keel of another boat, the remaining portion of the keel formed of two thicknesses of metal bent back upon each other, longitudinal brace bars at the inner edge of each boat, and angle iron bars secured to the inner face of the sides and bottom of each boat, each boat fitting into the next larger boat below, and supported on the bars therein, for the accommodation of seats and oars, substantially as described.

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1,040,341. SUPPORTING DEVICE. FREDERICK JENSEN, Aldene, N. J., DAVID CONLAN, Jr., New York, N. Y., and LEONARD H. DYER, Greenwich, Conn., assignors, by direct and mesne assignments, to Elizabeth Conlan, Brooklyn, N. Y. Filed Apr. 8, 1908. Serial No. 425,822. (Cl. 85—8.)

1. A toggle bolt having a cross head which engages with the inside of a support, and a pliant stem pivoted to the head and passing through an opening in the support and distortable to engage with the supported object irrespective of its shape to hold it in engagement with the outside of the support.

2. A toggle bolt having a cross head and a pliant stem portion pivoted to the head, the pliant stem portion being formed of a plurality of parts distortable for attachment to the supported object irrespective of its shape.



3. A toggle bolt formed of a stem of two pliant strips and a toggle head pivoted at one end thereof, the strips being perforated, one of the said strips being narrower than the other and of less width than the perforations in such wider strip so as to be capable of entering the perforations.

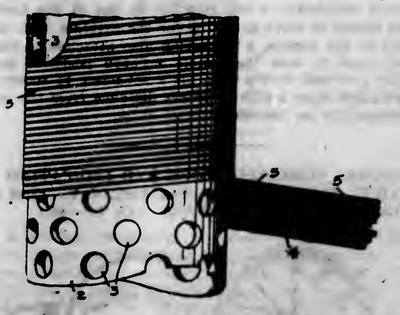
4. A toggle bolt which has a stem formed of two pliant strips which are pivoted adjacent to one of their ends to a swinging cross head, the said strips being perforated.

5. A toggle bolt which has a stem formed of two pliant strips pivoted adjacent to one of their ends to a swinging cross head, the said strips being distortable and mutually engageable to sustain the supported object.

[Claims 6 to 10 not printed in the Gazette.]

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1,040,342. WELL-SCREEN. EDWARD E. JOHNSON, St. Paul, Minn. Filed June 27, 1910. Serial No. 569,093. (Cl. 166—8.)



1. A strainer for well-screens comprising a flexible metal ribbon having a perforate outer shell, and means on said ribbon for engaging the walls of a pipe and spacing the perforations therefrom when the ribbon is wound on the pipe.

2. A strainer for well-screens comprising a flexible metal ribbon provided with a plurality of parallel openings extending inwardly from the surface thereof, and means on said ribbon intermediate said openings for engaging the walls of a pipe and spacing the openings therefrom when the ribbon is wound on the pipe.

3. A strainer for well-screens comprising a flexible metal ribbon having a smooth outer surface and provided with a plurality of parallel openings extending inwardly from said surface, and means on said ribbon intermediate pairs of said openings for engaging the walls of a pipe and spacing the openings therefrom when the ribbon is wound on the pipe.

4. A strainer for well-screens comprising a flexible metal ribbon having a perforate outer shell, and means on said ribbon for engaging the walls of a pipe in a plurality of separated places to space the perforations therefrom when the ribbon is wound on the pipe.

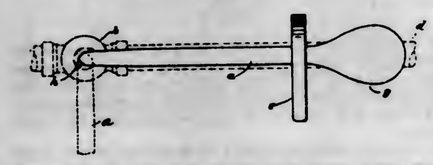
5. A strainer for well-screens comprising a flexible metal ribbon formed of a plurality of members secured together in parallel relation with openings between pairs thereof, and means on each of said members extending away from

the common surface formed by the members for engaging the walls of a pipe and spacing the openings therefrom when the ribbon is wound on the pipe.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,343. SHUT-OFF-VALVE-HANDLE SIGNAL AND LOCK-SPRING. ROLLIN B. JOHNSTON, Manchester, N. H. Filed Sept. 21, 1909, Serial No. 518,871. Renewed Feb. 19, 1912. Serial No. 678,725. (Cl. 137—7.)

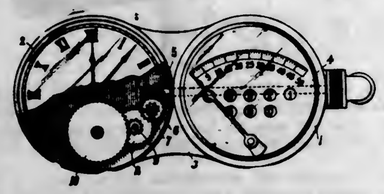


1. In combination with a shut-off valve, a lengthened handle provided with a broadly flattened outer end, and a spring-lock comprising a spring composed of one piece of metal intermediately bent upon itself in substantially U shape, and provided with means to limit the movement of the handle in said spring, and a collar provided with means for securing the spring lock upon a pipe for the purpose stated.

2. In combination with a shut-off valve of any ordinary type a long handle extended at its outer end into a broad, flat surface, and a spring lock consisting of a spring formed by bending intermediately a single piece of metal in substantially U shape, with each end slightly curved outwardly, a pin attached to one of the arms of said spring to serve as a stop for the extreme open movement of the handle, a projection also attached to one of said arms to hold the handle in open position, and a collar provided with a hole for a set-screw to secure the spring-lock upon a pipe at proper distance from the valve, substantially as described.

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1,040,344. COMBINED CLOCK AND INDICATING DEVICE. JOSEPH W. JONES, New York, N. Y. Filed May 12, 1909. Serial No. 495,422. (Cl. 58—46.)



1. The combination with a clock and an indicating-device, a revoluble shaft in said device extending into said clock and having a worm on its extremity, and a train of reduction-gearing connecting said worm and the clock-wind, of a slip-drive in said train comprising a shaft and spur, a worm gear fitting loosely on said shaft and having a circular wall surrounding the latter, a ball located in a cut-away portion of said wall, flutings or pockets in said shaft adjacent said ball, and means for forcing said ball into said pockets.

2. The combination with a clock-wind and the revoluble shaft of sh indicating-device driven from the vehicle, of connecting-means between the two containing a slip-drive comprising a driven-gear having a central aperture surrounded by a circular wall, a shaft fitting loosely in said aperture and having flutings or pockets opposite said wall and carrying a spur-gear, a plurality of balls seated in cut-away portions of said circular wall, and a bow-spring engaging said balls to force the same into said pockets.

1,040,345. COMBINED ROAD-MAP AND ODOMETER. JOSEPH W. JONES, New York, N. Y. Filed Aug. 6, 1909. Serial No. 511,578. (Cl. 40—44.)

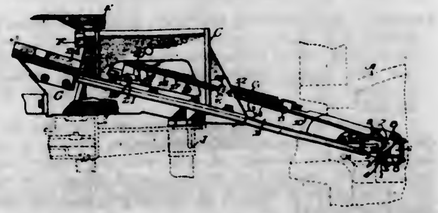


1. The combination of a casing; a turn-table mounted upon said casing; a map or chart in the form of a disk detachably mounted upon said turn-table; driving gearing or connections in said casing for rotating the turn-table and adapted to permit independent manual rotation of the turn-table in adjusting the position of the chart or map; power connections for actuating said driving gearing from the wheel of a vehicle; and a shaft for rotating said turn-table independently of said power connections to adjust the position of the map or chart, said shaft having at one end a clutch for making connection to the turn-table and at its other end means to be gripped to manually rotate the shaft.

2. The combination of a casing; a turn-table mounted upon said casing; a map or chart in the form of a disk detachably mounted upon said turn-table; driving gearing or connections in said casing for rotating the turn-table and adapted to permit independent manual rotation of the turn-table in adjusting the position of the chart or map; power connections for actuating said driving gearing from the wheel of a vehicle; a shaft for rotating said turn-table independently of said power connections to adjust the position of the map or chart, said shaft being movable and having at one end a clutch adapted by movement of the shaft to be brought into connection with the turn-table; means at the other end of the shaft adapted to be gripped to manually rotate the shaft; and a spring normally holding said shaft in position to render said clutch inactive.

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1,040,346. CUT-OFF DEVICE. AUGUST KADOW, Toledo, Ohio, assignor to The Westlake Machine Company, Toledo, Ohio, a Corporation of Ohio. Original application filed July 6, 1910, Serial No. 570,621. Divided and this application filed Apr. 12, 1911. Serial No. 620,555. (Cl. 49—62.)



1. The combination with gathering mechanism, comprising a ram and means for projecting the ram into a furnace, of a gathering device carried by said ram, a cut-off knife pivotally supported on said ram and arranged to swing in the arc of a circle across the inlet port of said gathering device, and means positively actuated by backward travel of the ram to swing the cut-off knife across the face of the gathering device to cut off the surplus metal.

2. The combination with gathering mechanism, comprising a ram and means for projecting the ram into a furnace, of a gathering device carried by said ram, a cut-off knife pivotally supported on said ram and arranged to swing in the arc of a circle across the inlet port of said gathering device, and means positively actuated by backward travel of the ram to swing the cut-off knife across the face of the gathering device to cut off the surplus metal, and spring actuated means for retaining the cut-off knife to its original position during the forward travel of the ram.

3. The combination with gathering mechanism, comprising a ram and means for moving the ram into and out of a furnace, of gathering means carried by said ram, a cut-off knife pivotally mounted upon said ram and arranged to swing across the face of said gathering means, and operating mechanism for said cut-off knife comprising rods and levers, a spring for normally holding the cut-off knife in one position, and an inclined plane arranged in the path of said operating means as the ram moves back to the furnace whereby said rods and levers will be operated to positively swing said cut-off knife against the action of said springs so as to cut off the surplus metal gathered by the gathering device.

4. The combination with a furnace, of gathering means, means for reciprocating said gathering means into and from said furnace, a cut-off knife carried by said gathering means, and means for actuating said cut-off knife to cut off the surplus gather, said means being adjustable so as to automatically operate the cut-off knife at any desired point between the gathering point and the exterior of the furnace.

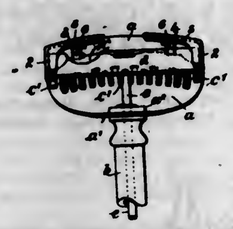
5. The combination with glass gathering apparatus, of a cut-off knife, means for operating said cut-off knife, said means comprising a yielding link in the connection between said cut-off knife and the positively actuated means of said operating mechanism.

[Claims 6 and 7 not printed in the Gazette.]



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1,040,347. SAFETY-RAZOR. OTTO KAMPFE, New York, N. Y., assignor to Kampfe Bros., a Corporation of New York. Filed Oct. 6, 1909. Serial No. 521,270. (Cl. 30—12.)

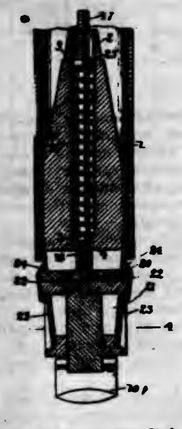


1. In a safety razor, the combination with a thin normally flat removable and resilient blade, of a body member adapted to receive and having edges to extend over and engage all edges except the cutting edge of the blade, a longitudinally curved guard comb coming against the under or opposite side of the blade to flex the same and said guard comb adapted for a uniform falling and rising movement equally away from all edges upon its release, providing for the ready insertion of the thin removable blade in its normally flat condition, said body member being provided with spaced apart vertically disposed slots of greater length than the extent of movement necessarily required for the guard comb and projecting members of the guard comb passing through such slots and movable therein and constructed for engagement therewith to prevent the accidental separation of the guard comb from the body, and means for applying tension to move the guard comb and blade bodily outward against the said edges of the body member and flex the blade.

2. In a safety razor, a longitudinally curved guard comb having hook-shaped lugs, a body member receiving the comb and having curved engaging surfaces, and having bayonet slots which in depth are placed at right angles to the plane of the lugs and receive said lugs, a thin normally flat removable resilient blade placed freely between said guard-comb and body member in its normally flat condition and means for moving the comb and blade bodily and so applying tension to bend and flex the blade and clamp the same ready for use between said parts, the release of which clamping means permits the resilient blade to straighten or return to its normally flat condition and in so doing move the guard comb.

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1,040,348. UNDERREAMER. WILLIAM M. KECK, Coalinga, Cal. Filed Sept. 13, 1911. Serial No. 649,074. (Cl. 166—6.)



1. A reamer comprising a mandrel, cutters pivoted thereto, a tapered expanding head arranged between the cutters, a spring for normally drawing the head into the mandrel for throwing the cutters to expanded position, a member carried by the head and projecting through opposite sides of the mandrel, and plates slidably mounted thereon and adapted to be engaged by a well casing, said mandrel provided with means to throw the plates out of engagement with the casing.

2. In a device of the class described, a mandrel having grooves on its sides which gradually increase in depth toward the forward end of the mandrel, cutters pivoted to the mandrel, a spring operated expanding head adapted to normally expand the cutters, plates slidably mounted in said channels, and means carried by the head and loosely engaged with the plates and connecting these parts.

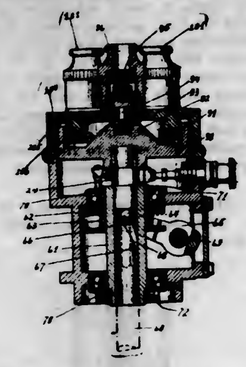
3. A reamer comprising a mandrel having channels formed in its sides with undercut walls, said channels gradually increasing in depth from nothing to the outer end of the mandrel, plates slidably mounted in said channels and having a depth less than the greatest depth of the channel, cutters pivoted to the mandrel, an expanding member normally actuated to expand the cutters, and a connection between the expanded member and the plates which is rigid with the expanding member and loose upon the plates.

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1,040,349. IGNITION SYSTEM. CHARLES F. KETTERING, Dayton, Ohio, assignor to The Dayton Engineering Laboratories Co., a Corporation of Ohio. Filed June 3, 1910. Serial No. 564,737. (Cl. 123—148.)

1. In an ignition distributer system, the combination with the engine and cylinders; an ignition device includ-

ing a spark coil, a secondary circuit for each of the several cylinders, and means for distributing the secondary current to the respective cylinders in the desired order; of means for dissipating the inductive current in the secondary circuit adjacent to the circuit of the cylinder fired by the distributing means.



2. In an ignition system, the combination with the engine and cylinders; an ignition device including sparking circuits for the various cylinders, and means for sending a spark producing current through said circuits in the desired order; of means for dissipating the inductive current in the secondary circuit adjacent to the directly energized spark circuit.

3. In an ignition distributer system, the combination with the engine and cylinders; an ignition device including a spark coil, a secondary circuit for each of the several cylinders, and means for distributing the secondary current to the respective cylinders in the desired order; of means connected with said distributing means for dissipating the inductive current in the secondary circuit adjacent to the circuit of the cylinder fired by the distributing means.

4. In an ignition distributer system, the combination with the engine and cylinders; an ignition device including a spark coil, a secondary circuit for each of the several cylinders, and a rotary distributer having a distributing conductor for closing the secondary circuits in the desired order; of means carried by said rotary distributer in advance of the distributing conductor for dissipating the inductive current in the adjacent secondary circuit.

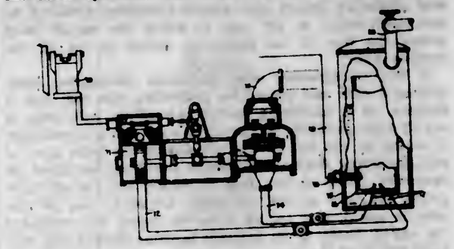
5. In an ignition distributer system, the combination with the engine and cylinders; an ignition device including a spark coil, an open grounded secondary circuit for each of the several cylinders, and a rotary distributer having a distributing conductor plate to close the various secondary circuits in turn; and a grounded conductor mounted on said rotary distributer in advance of the conductor plate in position to close the next adjacent secondary circuit and ground the same to dissipate any inductive effect therein.

[Claims 6 to 10 not printed in the Gazette.]

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1,040,350. APPARATUS FOR PRODUCING FLUID-PRESSURE. JOSEPH F. KEYS, Gypsum, Kans. Filed Oct. 25, 1911. Serial No. 656,593. (Cl. 60—31.)

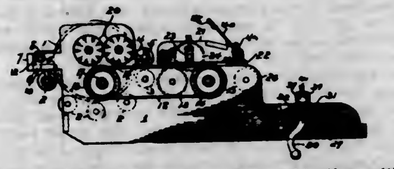
An apparatus for producing fluid pressure comprising in combination an air compressor, a hydro-carbon pump provided with a power cylinder and compressor cylinder, a pipe connecting said pump and air compressor, an exhaust pipe leading from the power cylinder of said pump, a delivery pipe leading from the compressor cylinder of said pump, adjacently located nozzles at the extremities of said pipes, an outer cylinder closed at both ends and provided with an outlet pipe adjacent its upper end, an inner cylinder having an open upper end in spaced relation to the walls of the outer cylinder whereby a fluid medium may surround said inner cylinder and be held by the outer cylinder, and a spark plug extending into the



inner cylinder, said nozzles also extending through both cylinders and terminating adjacent the closed end of the inner cylinder.

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1,040,351. MEASURING-MACHINE FOR ROLLED MATERIAL. GEORGE H. KING, Anderson, Ind., assignor to King Measuring Device Company, Anderson, Ind. Filed July 7, 1910. Serial No. 570,866. (Cl. 73—9.)

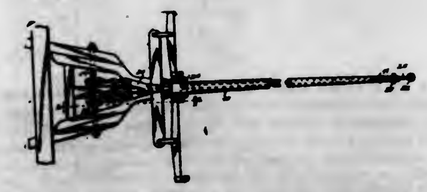


1. In a measuring machine, the combination with a frame, a cradle supported thereby for receiving a bolt of material, a winding reel, measuring means between the cradle and winding reel, and a guide roller between the measuring means and the winding reel, of arms hinged above said guide roller, a guide secured to and connecting said arms, said arms having sufficient length to dispose said guide on the material between the guide roller and winding reel and spaced from both, and means for normally retaining said arms and guide elevated.

2. In a measuring machine, the combination with a frame, a cradle supported thereby, a graduated bar at one end of the frame and means for withdrawing material from a roll in said cradle, of a rod mounted in the frame adjacent to the cradle, a disk to be disposed in the cradle, said disk having an arm loosely mounted on said rod, and said arm having a lateral extension to lie parallel with the graduated bar at the end of the frame.

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1,040,352. DRAFT-EQUALIZER. HENRY G. KLEIHAUER, Akron, Iowa. Filed May 8, 1912. Serial No. 695,887. (Cl. 21—76.)



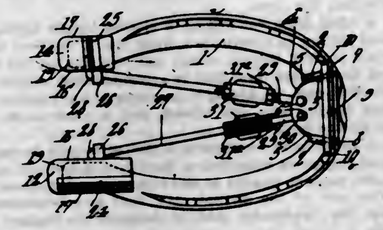
1. The combination of a four horse equalizer, a tongue, a rear double tree slidably mounted on said tongue, means for connecting said rear double tree to a front double tree, and means attached to the front end of said tongue, and adapted to hold said connecting means and a neck yoke in place, said means comprising a link designed to fit over the end of said tongue, a retaining member designed to be inserted in said link and provided with lugs on its under side and an outwardly and upwardly bent portion at one of its ends, both said lugs and bent portions being designed to engage said link, and a hooked member secured to said retaining member at one end and attached to said tongue at its opposite end.

2. The combination of a four horse equalizer comprising a tongue, a rear double tree slidably mounted on said tongue, means connecting with said rear double tree, and adapted to connect with a front double tree, and means provided at the outer end of said tongue, and adapted to hold said connecting means and a neck yoke in place, said means comprising a link designed to fit over the end of said tongue, a retaining member designed to be inserted through said link and provided with lugs on its under side, and an upwardly and outwardly bent portion at one of its ends, and a hooked member secured to said retaining member and attached to said tongue.

3. The combination of a four horse equalizer comprising a tongue, a rear double tree slidably mounted on said tongue, means connecting with said rear double tree and adapted to be connected to a front double tree, and means adapted to hold said connecting means and a neck yoke in place, said means comprising a link designed to fit over the end of said tongue, a retaining member designed to be inserted through said link and provided with lugs on its under side, and an upwardly and outwardly bent portion at one of its ends said lugs and bent portion being designed to engage said link and a hooked member secured to said retaining member at one end and attached to said tongue at its opposite end substantially as and for the purpose described.

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1,040,353. HORSESHOE. CORNELIUS A. KLEY, Greensburg, Pa. Filed June 22, 1912. Serial No. 705,289. (Cl. 168—30.)



1. A horse-shoe provided at its toe with converging ribs; a calk-carrying member having converging faces to engage the ribs; calk-carrying caps having recesses in which the extremities of the heels of the shoe are received; and independent, adjustable connections between each cap and the member.

2. A horse-shoe provided at its toe with converging ribs; a calk-carrying member having converging faces to engage the ribs; calk-carrying caps having recesses in which the extremities of the heels of the shoe are received; and a turn buckle structure connecting each cap with said member.

3. A horse-shoe provided at its toe with converging ribs; a calk-carrying member having converging faces to engage the ribs, calk-carrying caps having recesses in which the extremities of the heels of the shoe are received, the caps being provided with approaching lugs; turn buckle structures engaged in the lugs, the turn-buckle structures having hooks removably engaged with the calk-carrying member.

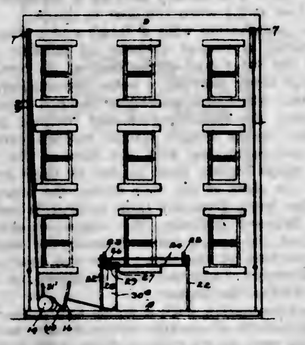
4. A horse-shoe having a transverse shoulder in its upper face adjacent its heel; a calk-carrying cap having a socket receiving the extremity of the heel, the cap having a top wall defining one side of the socket and constituting an abutment for the shoulder; an adjustable means connecting the cap with the toe of the shoe, for holding the shoulder and the top wall in abutment.

5. In a device of the class described, a calk-carrying cap comprising a bottom, side walls and a top, defining a socket, the top being shorter than the side walls; and a shoe, the heel of which is inserted into the socket, there being a shoulder in the heel, engaging the free edge of the top, the upper face of the top and the upper face of the shoe lying in a common plane; and adjustable means connecting the cap with the toe portion of the shoe.

[Claim 6 not printed in the Gazette.]

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1,040,354. FIRE-ESCAPE. JOHN M. KLOCKO, South Chicago, Ill. Filed Sept. 7, 1911. Serial No. 648,068. (Cl. 227—5.)

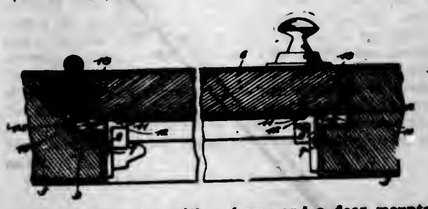


1. In a fire escape, the combination with a platform, of a support, rollers carried by the support, a platform, cables engaged with the platform and with the rollers, a drum rotatably mounted upon the platform, said cables being connected with the drums, means for rotating the drums, a brake arranged to control the free rotation of the drums, laterally extending members carried by the platform, wheels carried by the laterally extending members and arranged to engage the surface of a building with which the platform is connected, connections between the brake and one of said rollers for operation of the brake when the roller attains a predetermined speed.

2. In a fire escape the combination with a vertically movable platform, said platform being adaptable for attachment to a building, laterally extending members carried by the platform, wheels carried by the laterally extending members and arranged to engage the surface of a building with which the platform is connected, and means actuated by one set of said wheels for automatically controlling the descent of said platform.

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1,040,355. METALLIC WEATHER-STRIP. LEVI KNOTT, Altoona, Pa. Filed Dec. 9, 1911. Serial No. 664,871. (Cl. 20—69.)



1. The combination with a frame and a door mounted for swinging movement therein, of complementary metallic strips secured to the frame and to one face of the door respectively, said strips upon the door being rigidly secured thereto at one of their edges, the other edges of said strips being outwardly inclined from the face of the door and having flanges thereon, said flanges engaging the door whereby a substantially rigid projection

on the door face is formed, the complementary strips upon the door frame having unsecured resilient portions provided with flanges, the flanges on said latter strips being engaged by the flanges on the rigid inclined edge portions of the door strips when the door is closed and maintained in close engagement therewith by the resiliency of said frame strips.

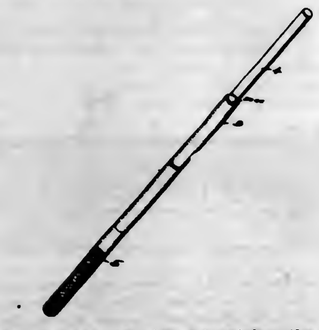
2. The combination with a frame and a door mounted for swinging movement therein, of complementary metallic strips secured to the door and its frame, the strips upon the door having outwardly inclined rigid portions provided with flanges on their edges extending inwardly and engaging the face of the door, the strips upon the door frame also having resilient inclined portions provided with flanges forming a yieldable abutment for the door strips when the door is closed.

3. The combination with a frame and a door mounted for swinging movement therein, of metallic strips secured to the outer face of the door at its vertical edges, said strips being bent at a point intermediate of their longitudinal edges and outwardly inclined from the face of the door, the free edges of said inclined portions of the strips having flanges formed thereon extending inwardly and contacting with the face of the door, and metallic strips rigidly fixed at one of their longitudinal edges to the sides of the door frame, the other edges of said strips being free and bent to provide resilient angularly disposed portions, the edges of said angular portions of the strips being flanged, the inclined and flanged portions of the strips upon the door and frame closely engaging when the door is moved to its closed position within the frame.

4. The combination with a frame and a door mounted to swing therein, of metallic strips secured to the outer face of the door at its vertical edges, said strips having outwardly inclined unattached portions provided with inwardly extending flanges engaging the face of the door at their edges, and metallic strips secured adjacent one of their longitudinal edges to the frame, the other edges of said strips being disposed at an acute angle with relation to the body of the plate and resiliently engageable upon the inclined portions of the strips upon said door, the acutely inclined portions of the strips on the frame also having flanges on their free edges to engage the flanges of the plates on the door whereby the co-engaged portions of said strips provide a tight joint between the door and its frame when the door is closed.

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1,040,356. APPARATUS FOR DETERMINING THE AMOUNT OF CARBON DIOXID IN THE AIR. LOUIS E. KNOTT, Boston, Mass., assignor to L. E. Knott Apparatus Company, Boston, Mass., a Corporation of Massachusetts. Filed Dec. 30, 1910. Serial No. 600,152. (Cl. 23—3.)

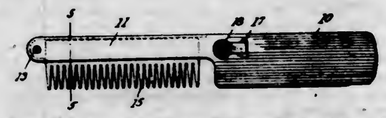


1. In an apparatus for determining the amount of carbon dioxid in the air, the combination with a test tube adapted to contain a predetermined quantity of test solution, of a rod or plunger having a diameter substantially equal to the interior diameter of the test tube whereby when the plunger is inserted into the test tube the air therein is expelled therefrom, said plunger having a graduation mark thereon to indicate the cubic volume of the portion of the rod between said graduation mark and the end whereby when said end of the rod is introduced into the test tube until the graduation mark registers with the end of the tube a certain known volume of air will be displaced from the tube.

2. In an apparatus for determining the amount of carbon dioxid in the air, the combination with a test tube of uniform diameter throughout and provided near its lower end with a graduation mark which shows the capacity of the tube below said mark, of a rod or plunger having a uniform diameter throughout its length and a diameter substantially equal to the interior diameter of the test tube whereby when the plunger is inserted into the test tube the air therein is expelled therefrom, said plunger having a plurality of graduation marks thereon, each indicating the cubic volume of the portion of the rod between said mark and the end.

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1,040,357. HAND-COMB. RUDOLF KRAUS, New York, N. Y. Filed Apr. 20, 1912. Serial No. 692,103. (Cl. 132—3.)



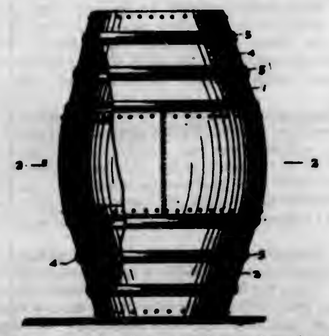
1. A comb comprising a handle provided with a fixed jaw that constitutes a longitudinal extension thereof, a movable jaw secured to the free end of the fixed jaw, a comb blade adapted to be received between the jaws and having teeth that project at right angles to the longitudinal axis of the handle and fixed jaw, and a catch for interlocking the jaws.

2. A hand comb comprising a slotted handle having a reduced section to constitute a fixed jaw, a resilient movable jaw secured thereto at one end, a shank on the free end of the movable jaw that is accommodated within the handle-slot and is adapted to engage the handle for holding the movable jaw closed, and a comb blade engaged by the jaws.

3. A hand comb comprising a slotted handle having a reduced section to constitute a fixed jaw, a resilient movable jaw secured thereto at one end, a serrated shank on the free end of the movable jaw that is accommodated within the handle-slot and is adapted to engage the handle, a finger piece at the end of the shank, and a comb blade removably engaged by the jaws.

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1,040,358. BILGE-BARREL. JOSEPH H. LA FAVE, Defiance, Ohio. Filed Jan. 3, 1911. Serial No. 600,376. (Cl. 220—2.)



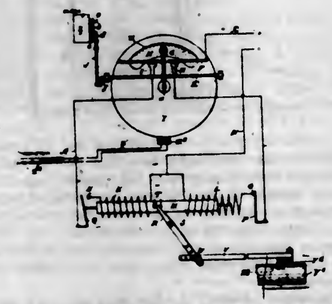
1. As a new article of manufacture a barrel, consisting of two conical end sections, each formed of a sheet metal plate having its ends riveted together and formed with annular corrugations, one adjacent to the larger end thereof, and a middle section formed of a sheet metal plate heavier than the plates of the end sections and having its ends riveted together, said middle section having a convex curvature to form a bilge and having its ends fitting upon and riveted to the larger ends of the end sections with each end thereof in engagement with a corrugation of an end section, the sections being arranged with their seams in staggered relation.

2. As a new article of manufacture, a barrel, comprising two conical sheet metal sections, each provided with annular corrugations, one adjacent to the larger end thereof, and a middle section formed of sheet metal heavier than that of the end sections and having a convex curvature to form a bilge, said middle section having its ends fitting upon and riveted to the larger ends of the end sections with each end thereof in engagement with a corrugation of an end section.



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1,040,359. ELECTRIC CONTROLLER. JAMES A. LATIMER, Youngstown, Ohio. Filed Mar. 2, 1911. Serial No. 611,758. (Cl. 236—4.)



1. An electro-magnet, an armature therefor, a movable element, an electric contact co-extensive with the range of the said movable element, a clamping element co-extensive with a portion only of the said range and arranged to press the movable element against the said contact and close the circuit of the electro-magnet, and means for actuating the clamping element toward and away from the movable element.

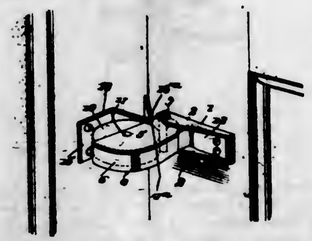
2. An electro-magnetic device having an armature, circuits connected thereto to cause the armature to move in opposite directions, an element movable in opposite direction from a medial position, an electric contact in the said circuit co-extensive with the range of movement of the said element, a clamping element at each side of the said medial position co-extensive with a portion only of the said range and arranged to press the movable element against the said contact and thereby close the circuit of the electro-magnet through the said contact and the movable element, when the movable element is between the contact and either of the clamping elements, and means for actuating the clamping element toward and away from the movable element.

3. An electro-magnet, an armature therefor, a circuit for the magnet, a movable indicator needle, a fixed contact co-extensive with the range of movement of the needle, said needle being out of contact with the said contact, a clamping element co-extensive with a portion only of the said range and located on the opposite side of the needle from the contact, and means for causing the clamping element to move intermittently across the path of the needle and to press the same against the contact whenever the needle comes between the contact and the clamping element, the circuit of the electro-magnet being completed through the contact and the clamped needle.

4. An electric circuit, a movable electric conducting element, electric contacts in the said circuit at opposite sides of the path of the movable element, one contact being coextensive with the range of movement of the movable element and the other being co-extensive with a portion only of the said range, and means for causing one of the contacts to move across the path of the movable element and to clamp the movable element between the contacts, when the movable element moves opposite the shorter contact, and thereby completing the said circuit.

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1,040,360. DOOR-HOLDER. FREDERICK J. LEE, Wichita, Kans. Filed Nov. 2, 1911. Serial No. 658,194. (Cl. 70—119.)



1. The combination with a door, and its frame, of a keeper secured on the frame and projecting into the path of movement of the door, a casing yieldingly mounted on the door and disposed to move in the plane of movement of the door, and a roller journaled in and protruding from said casing to ride over and engage behind the keeper.

2. The combination with a door and its frame, of a casing carried by the door and mounted to yield thereon rearwardly, the direction of the movement of the door being considered, and in a plane coincident with the plane of movement of the door, a protruding roller journaled in the casing, and a keeper secured to the frame and designed for engagement by said roller.

3. A device of the class described comprising an attaching plate, a casing pivotally connected thereto and spring pressed in one direction, the casing embodying a face member, sides, and a rear wall, the latter normally terminating in spaced relation to the attaching plate and designed to limit the backward movement of the casing, the casing being formed in its face with a slot, a roller journaled in said casing and having a portion of its periphery protruding from said slot, and a keeper designed to co-act with said roller.

4. The combination with a door and its frame, of an attaching plate secured to the door and formed with side flanges, a pintle rod secured to said flanges, a casing yieldingly and pivotally mounted between said flanges on said pintle, the casing being formed with a slot, a roller journaled in the casing and protruding from said slot, and a keeper secured to the frame and designed for engagement by said roller.

5. A device of the character described comprising an attaching plate formed with side flanges, a casing mounted between said flanges, a pintle pivotally connecting the casing to the flanges of the attaching plate, the casing being formed with a face member having a slot formed therein, springs coiled around said pintle and bearing against the rear wall of said face member, the side walls of said slot being formed with lugs designed to prevent the adjoining ends of said springs from protruding through slots, a roller journaled in the casing and protruding from said slot, and a keeper designed to co-act with said roller.

[Claim 6 not printed in the Gazette.]

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1,040,361. TOOL FOR REMOVING PACKING AND OTHER MATERIAL. JOHN H. LENK, Brooklyn, N. Y. Filed Mar. 15, 1912. Serial No. 684,044. (Cl. 81—3.)

1. A tool of the type described, comprising a plurality of stems, each provided with an offset end, said stems adapted to be turned relatively to each other and means for guiding the stems in their movements.

2. A tool of the type described, comprising a plurality of stems, each having an offset end, said ends adapted to be turned relatively to each other about axes coincident with the longitudinal axes of the stems and means for guiding the ends in their movements.



3. A tool of the type described, comprising a plurality of stems provided each with an end offset laterally and extending obliquely with reference to the axis of the stem, said ends adapted to be turned relatively to each other and means for guiding the ends in their movements.

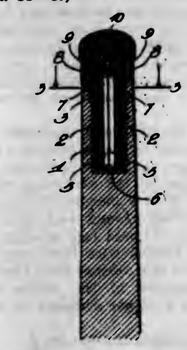
4. A tool of the type described, comprising a plurality of stems provided each with a curved offset end, said ends adapted to be turned relatively to each other and means for guiding the ends in their movements.

5. A tool of the type described, comprising a plurality of stems having each a curved offset end extending obliquely with relation to the axis of the stem, said ends being adapted to be turned relatively to each other and means for guiding the ends in their movements.

[Claims 6 to 11 not printed in the Gazette.]

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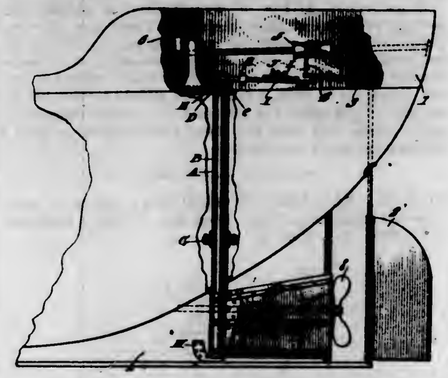
1,040,362. CUE-TIP HOLDER. WALTER H. LA FEVER, Baltimore, Md. Filed Aug. 21, 1911. Serial No. 645,188. (Cl. 46—9.)



The combination of a cue having a socket in its smaller end, an interiorly threaded tubular member arranged in said socket and having its outer end arranged flush with the small end of the cue, a tip holding member bent upon itself and having exteriorly threaded shank portions disposed in and engaged with the threaded tubular member and also having semicircular shoulders resting flat against the outer end of the tubular member and the small end of the cue and backed by the same and also having semi-circular flanges on said shoulders and flush with the side of the cue, and inwardly directed teeth on said flanges, and a tip resting against the shoulders and within the flanges of the tip holding member and receiving the teeth on the said flanges.

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1,040,363. EMERGENCY-RUDDER. DAVID T. LEWIS, Amherst, Nova Scotia, Canada. Filed Feb. 24, 1911. Serial No. 610,640. (Cl. 114—164.)



1. The combination with the hull and keel of a boat, of an emergency rudder suspended from the hull at each side of the keel, shafts extending from the rudders and into the hull, tubular casings within the hull, said shafts being extended through the casing, tillers upon the shafts, means detachably connecting the tillers for holding the rudders folded against the side of the keel, and means carried by the tillers for holding them apart with the rudders in operative positions.

2. The combination with the hull and keel of a boat, of an emergency rudder suspended from the hull at each side of the keel, shafts extending from the rudders and into the hull, tubular casings within the hull, said shafts being extended through the casings, tillers upon the shafts, means detachably connecting the tillers for holding the rudders folded against the sides of the keel, means carried by the tillers for holding them apart with the rudders in operative positions, and steering mechanism including a flexible element.

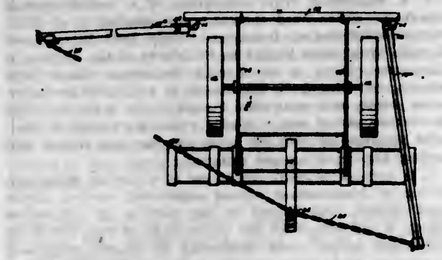
3. The combination with the hull and keel of a boat, a rudder mounted back of the keel, and mechanism for actuating the rudder, of emergency rudders below the hull and at opposite sides of the keel, means for holding the emergency rudders normally folded against the keel, and means for holding the rudders along lines diverging from the keel, said actuating mechanism being shiftable into position to actuate the emergency rudders.

4. The combination with the hull and keel of a boat, a rudder back of the keel, and mechanism for actuating the rudder, of shafts extending into the hull, emergency rudders at the lower ends of the shafts and at opposite sides of the keel, tillers extending from the shafts, means connecting the tillers for holding the emergency rudders normally folded against opposite sides of the keel, and means for holding the rudders along lines diverging from the keel, said actuating mechanism being shiftable into engagement with the tillers to actuate the emergency rudders.

5. The combination with the hull and keel of a boat, of tubular casings within the hull, shafts journaled within the castings, emergency rudders at the lower ends of the shafts and at opposite sides of the keel, tillers at the upper ends of the shafts, means connecting the tillers for holding the emergency rudders normally folded against opposite sides of keel, means connecting the tillers for holding the emergency rudders out of normal position and in parallel relation, and means for actuating the tillers.



1,040,364. MARKER FOR CORN-PLANTERS. LEROY J. LINDSAY, Seymour, Iowa. Filed July 19, 1911. Serial No. 639,352. (Cl. 111—24.)



1. In a device of the class described, the combination of a frame, a bracket pivoted to the frame, and a marker arm pivoted to the bracket and capable of detachment from the bracket when in a certain position of its movement relative to the bracket, and means for holding the marker arm from detachment with the bracket when in any other positions of its movement.

2. In a device of the class described, the combination of a frame, a bracket pivoted to the frame, a marker arm pivotally connected to the bracket, and a locking means designed to prevent detachment of the marker arm from the bracket when the marker arm is in certain positions of its movement and also designed to permit detachment of the marker arm from the bracket when the marker arm is in another position of its movement.

3. In a device of the class described, the combination of a frame, a substantially U-shaped bracket pivoted to the frame and having an opening at its upper portion and a slot at its lower portion, a marker arm, a journal carried thereby and designed to enter said opening and slot, and a locking plate fixed to the marker arm to engage the U-shaped bracket, for the purposes stated.

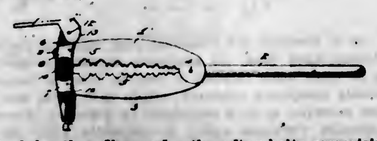
4. In a device of the class described, the combination of a frame, a substantially U-shaped bracket pivoted to the frame and having an opening at its upper portion, and a slot at its lower portion, a marker arm, a journal carried thereby and designed to enter said opening and slot, the lower portion of the U-shaped bracket being inclined downwardly and forwardly adjacent to the slot, and a locking plate fixed to the marker arm to engage the U-shaped bracket, for the purposes stated.

5. In a device of the class described, the combination of a cross piece, a bracket pivotally connected to the cross piece and designed to move in a vertical plane, a marker arm pivoted to the bracket, and means for adjustably limiting the pivotal movement of the bracket.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,365. SCREW-PLATE. HANS P. MADISON, Fort Smith, Ark. Filed Oct. 20, 1911. Serial No. 655,756. (Cl. 10—125.)



A tool for threading and rethreading bolts comprising a handle having a threading member rigidly connected, a pivoted member, said members being provided with screw threading recesses of varying sizes, a yoke spanning the ends of said members, an eccentric lever pivoted between the members of the yoke to bear upon the rigid threading member for closing the threading members together, a spring disposed between the ends of the threading members for separating the same, and a set screw mounted in the yoke for bearing against the pivoted threading member.

1,040,366. LAMP-LOCKING DEVICE. JOHN C. MANLEY, JOHN THULIN, and PETER J. SMITH, Chicago, Ill., assignors to Inventors Development Co., Chicago, Ill. Filed Dec. 14, 1911. Serial No. 665,796. (Cl. 173—356.)



1. A lamp socket having means to prevent the unauthorized withdrawal of a lamp having a thin metal band adapted for association with said socket, said means including an indenting member adapted to occupy the indentation made by it in the lamp band, an insulating support for said member with which said member has screw threaded engagement, and a hood fastened to the socket for holding said insulating support.

2. A lamp socket having means to prevent the unauthorized withdrawal of a lamp having a thin metal band adapted for association with said socket, said means including an indenting member adapted to occupy the indentation made by it in the lamp band, an insulating support for said member with which said member has screw threaded engagement, and a hood fastened to the socket for holding said insulating support, said indenting member having key controlled operating means.

3. A lamp socket having means to prevent the unauthorized withdrawal of a lamp having a thin metal band adapted for association with said socket, said means including an indenting member adapted to occupy the indentation made by it in the lamp band, an insulating support for said member with which said member has screw threaded engagement, and a hood fastened to the socket for holding said insulating support, said indenting member having key controlled operating means, said socket having an inner screw threaded shell provided with an aperture to accommodate said indenting member.

4. A lamp socket having means to prevent the unauthorized withdrawal of a lamp having a thin metal band adapted for association with said socket, said means including an indenting member adapted to occupy the indentation made by it in the lamp shell, an insulating support for said member with which said member has screw threaded engagement, a metallic shell fastened to the socket for holding said insulating support, and means on said shell to prevent withdrawal of said insulating material.

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1,040,367. LAMP-LOCKING DEVICE. JOHN C. MANLEY, JOHN THULIN, and PETER J. SMITH, Chicago, Ill., assignors to Inventors Development Co., Chicago, Ill. Filed Dec. 14, 1911. Serial No. 665,797. (Cl. 173—356.)

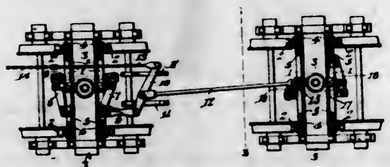


The combination with a socket having a body portion constructed of insulating material of a lamp adapted for

association with said socket, and locking means to prevent the unauthorised withdrawal of the lamp from said socket mounted within said insulating body portion, said locking means including a key controlled inclined indenting member adapted to indent the lamp shell when actuated and to occupy the indentation, a metallic element with which said indenting member has screw threaded engagement mounted within said body portion, and offsets provided in said insulating body portion to prevent withdrawal of said metallic element from without.

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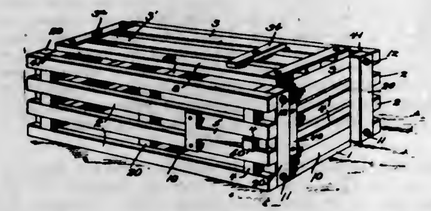
1,040,368. CAR-BRAKE. ROBERT FULTON MASSEY, Trussville, Ala., assignor of one-half to Phil S. Mabe, Trussville, Ala. Filed Aug. 31, 1910. Serial No. 579,910. (Cl. 188—24.)



A car brake including brake beams arranged in pairs, brake levers also arranged in pairs and mounted on the brake beams, the members of each pair being connected with each other at their lower ends, and the inner brake lever of one pair being angular and consisting of a laterally inclined lower portion, and a centrally arranged upright upper portion bent into line with the king bolt of the truck, a single floating lever connected at one end with the inner one of the brake levers of the other pair at one side of the central line of the car, operating mechanism connected with the other end of the floating lever, a centrally arranged brake rod connected at one end to and extending from the floating lever at a point intermediate of the ends thereof and connected at the other end to the upper end of the angular brake lever, whereby only a single floating lever is necessary, and means for connecting the upper ends of the outer brake levers of each pair with the trucks of the car.

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1,040,369. KNOCKDOWN SHIPPING-CRATE. CHARLES H. MATTHEWS, Clinton, Ill., assignor of one-half to Lewis Alexander, Clinton, Ill. Filed Dec. 28, 1911. Serial No. 668,385. (Cl. 217—15.)



1. A knock down crate comprising a bottom, sides hinged thereto to swing laterally, a top connecting the sides and hinged thereto by transverse pivots to move vertically therewith, ends hinged to the sides to swing outwardly between the top, bottom and sides and to operative position maintaining the crate set up and inwardly against the sides to inoperative position and to permit collapsing of the crate, and means for detachably locking the ends in operative position.

2. A knock down crate comprising a bottom, sides having vertical cleats at their lower ends hinged to the bottom by transverse pivots, a top connecting the sides and having transverse cleats at their outer ends hinged to the upper ends of the side cleats by transverse pivots, and laterally swingable crate ends hinged to the sides by a vertical pivot and adapted to swing outwardly against the cleats of the sides to operative position maintaining the crate against collapsing.

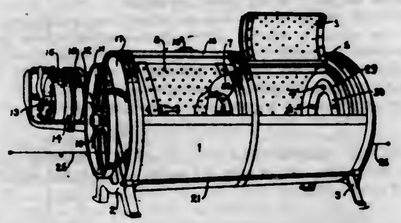
3. A collapsible crate consisting of a bottom having transverse cleats fixed thereto, sides consisting of longitudinal slats having transverse cleats fixed thereto and at their lower ends hinged to the cleats of the bottom by transverse pivots, a top having transverse cleats fixed thereto and hinged to the cleats of the sides by transverse pivots, and crate ends hinged to the crate to swing on vertical pivots and normally swing outwardly to operative position between the sides and top and bottom and holding the crate against collapsing.

4. A collapsible crate consisting of a bottom, sides consisting of longitudinal spaced slats and vertical cleats fixed thereto and hinged to the bottom by transverse pivots, a top hinged to the upper ends of said cleats by transverse pivots, ends consisting of spaced slats and transverse cleats fixed thereto, each end having its slats arranged between the slats of a side and hinged thereto by a vertical pivot, said end adapted to swing into parallelism with said sides with its slats between the slats of the sides, and spring catches adapted to engage the free ends of the ends and maintain them in operative position transversely of and between the sides and top and bottom and holding the crate against collapsing.

5. A collapsible crate comprising a bottom, sides at their lower longitudinal edge portions pivotally joined to the opposite longitudinal edge portions of the bottom, respectively, to swing laterally together in collapsing, a top at its opposite longitudinal edge portions pivotally joined to the upper longitudinal edge portions of said sides, respectively, to move therewith toward the bottom in collapsing, a pair of ends in operative position arranged transversely of the crate between said sides, bottom and top to maintain the crate set up, each end being at one edge hinged to a side to fold inwardly thereto to permit the crate being collapsed, said top having a longitudinal opening for filling and emptying the crate and being provided with a longitudinal door normally closing said opening, said door being longitudinally movable from said opening, and guide and stop means for said door.

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1,040,370. WASHING-MACHINE. PAUL MCDORMAN, Dayton, Ohio, assignor to The National Laundry Machinery Company, Dayton, Ohio, a Corporation of Ohio. Filed July 24, 1912. Serial No. 711,224. (Cl. 204—1.)



1. In a machine for cleansing and washing clothes, a fluid-containing tank, an electrode secured to the inner face of each head thereof to receive electric current, a revoluble receptacle mounted within said tank, and electrodes mounted in said receptacle in different planes and at suitable distances apart to coöperate with the first named electrodes in effecting a thorough circulation of the current through the fluid and increasing the number of electric poles from which the cleansing gases are given off, substantially as described.

2. In a machine for cleansing and washing clothes, a tank adapted to contain a fluid, an electrode secured to the inner face of each head of said tank to receive electric current, a revoluble cylinder mounted within said tank, a partition separating said cylinder into compartments, and electrodes secured to said partition and the cylinder heads to coöperate with the first named electrodes in effecting a thorough circulation of the current through the fluid and increasing the number of electric poles from which the cleansing gases are given off, substantially as described.



3. In a machine for cleansing and washing clothes, a tank adapted to contain a fluid, an electrode secured to the inner face of each head of said tank, in positions wholly within the fluid, a revoluble cylinder mounted within said tank, a partition separating said cylinder into compartments, and circumferential electrodes mounted on said partition and the cylinder heads to coöperate with the first named electrodes in effecting a thorough circulation of the current through the fluid, substantially as described.

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1,040,371. RAILWAY-TIE. GREGORY D. MCLEAN, Newtown, Mo. Filed Jan. 5, 1912. Serial No. 669,689. (Cl. 238—3.)



1. In a railway tie, a plurality of blocks some of which are separated at a point immediately beneath the rails and are provided with registering sockets, clamping members located within the sockets and provided with hooks adapted to hook over the flange of a rail and with noses positioned to support a rail and a clamping rod extending longitudinally through the tie and through the clamping members.

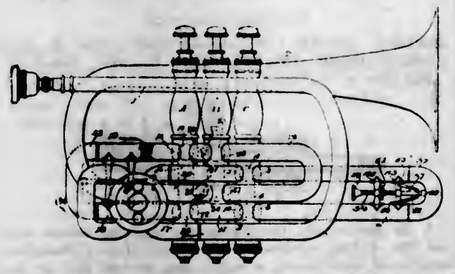
2. In a railway tie, a plurality of blocks, rail engaging means interposed between some of said blocks and adapted to grasp a rail by tension applied to the blocks and position the rail directly over the plane of separation between some of said blocks.

3. In a railway tie, a plurality of blocks, means for binding the blocks together to form a continuous tie member, sockets formed in the adjacent faces of some of said blocks, rail clamping means disposed in the sockets and adapted to be clamped together by the means for clamping the blocks, and means carried upon the clamping members for augumenting the gripping action upon the rail in proportion to weight exerted thereon.

4. In a railway tie, a plurality of blocks, a rod extending longitudinally through to clamp the blocks in a continuous tie structure, sockets formed in the adjacent faces of some of said blocks, rail clamping means carried upon the rod and hooks formed upon the rail clamping means adapted to engage the flange of a rail and to be clamped thereon by the clamping action of the rod forcing the blocks together.

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1,040,372. CORNET. Z. ALBERT MEREDITH, Marion, Ohio. Filed Dec. 12, 1906. Serial No. 347,421. (Cl. 84—8.)



1. In an instrument of the character described, the combination, with a mouth pipe, a bell, a valve casing connected thereto, a valve within the same, and a crook connected with said valve casing, of a tuning slide in said crook, a pair of stops mounted in longitudinal alinement on said crook, a rod slidably mounted in said stops and having one end in engagement with said tuning slide, and a projection carried by said rod and adapted to engage said stops to limit the movement of said rod in either direction, substantially as described.

2. In an instrument of the character described, the combination, with a mouth pipe, a bell, a valve casing connected thereto, a valve therein, and a crook connected with said valve casing, of a tuning slide for said crook, a pair of stops secured in longitudinal alinement between the arms of said crook, a rod slidably mounted in said stops and having one end in engagement with said slide, said rod having a threaded portion and a nut mounted on said threaded portion between said stops and adapted to engage the same to limit the movement of said rod in either direction, substantially as described.

3. In an instrument of the character described, the combination, with a mouth pipe, a bell, and a valve casing connected thereto, of a spring barrel removably mounted in the upper end of said casing and having guide slots in the opposite sides thereof, an inwardly extending flange at the lower end of said spring barrel, a piston valve mounted in said casing and terminating beneath said spring barrel, a valve stem carried by said piston valve and extending through said spring barrel, a collar carried by said valve stem, projections on said collar adapted to engage the guide slots in said spring barrel, and a spring confined between said collar and said flange adapted to normally hold said piston in its elevated position.

4. In an instrument of the character described, the combination, with a mouth pipe, a bell, and a valve casing connected thereto, of a spring barrel removably mounted in said casing and having recesses of different widths therein, slots connected with said recesses, a flange at the lower end of said barrel, a piston valve mounted in said casing beneath said spring barrel, a valve stem carried by said piston and extending through said spring barrel, a pin carried by said valve stem, a collar having a recess adapted to engage said pin to limit the movement thereof, projections of different widths carried by said collar and adapted to engage said recesses and move in said slots, a second collar screw-threaded on said valve stem and engaging said first-mentioned collar, and a spring confined between said first-mentioned collar and said flange, substantially as described.

5. In an instrument of the character described, the combination, with a mouth pipe, a bell, a valve casing connected thereto, a valve within the same, and a crook connected with said valve casing, of a tuning slide in said crook, a support carried by said crook, a rod slidably mounted in said support and having one end in engagement with said tuninig slide, and a spring engaging said rod to hold the same against vibration, substantially as described.

[Claim 6 not printed in the Gazette.]

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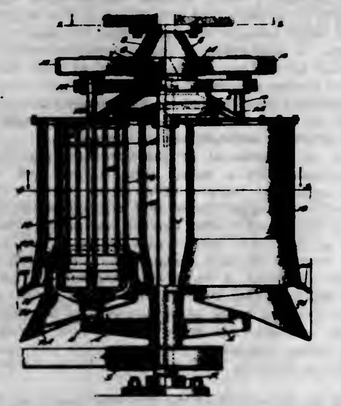
1,040,378. CENTRIFUGAL MACHINE. WALDEMAR MICHELSEN, Jatibonico, Cuba. Filed Jan. 27, 1912. Serial No. 673,909. (Cl. 127—3.)

1. In a centrifugal separator, the combination of a drive shaft, upper and lower members secured to said shaft, a series of screening receptacles journaled in said members, independent casings of imperforate material secured to said members about said several screening receptacles, and means carried by said several casings for discharging the materials acted upon by the inclosed screening receptacles.

2. In a centrifugal separator, the combination of a drive shaft, upper and lower members secured to said shaft, a series of screening receptacles journaled in said members, independent casings of imperforate material secured to said members about said several screening receptacles, and means carried by said several casings at different distances from said drive shaft for discharging the materials acted upon by the inclosed screening receptacles.

3. In a centrifugal separator, the combination of a drive shaft, upper and lower members secured to said shaft,

a series of open-bottom, cylindrical screening receptacles journaled in said member, an independent casing of imperforate material secured to said members about each of said screening receptacles and provided with a restraint cylindrical partition extending above the open bottom of said receptacle, and a shield secured to said receptacle for loosely inclosing the upper portion of said partition.



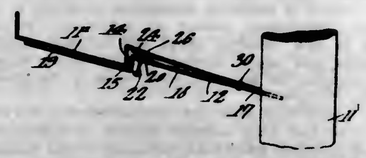
4. In a centrifugal separator, the combination of a drive shaft provided with a lower step bearing, a lower bracket and an upper hollow head secured to said shaft, a stationary feed hopper communicating with said hollow head, a step bearing for the upper end of said shaft rigidly supported within said hopper and provided with a downwardly diverging cap portion, spindles journaled in said bracket and head, cylindrical screening receptacles concentrically supported on said several spindles, independent casings of imperforate material secured to said bracket and hollow head about said several screening receptacles, and coöperating gears on said hopper and spindles for axially rotating said cylindrical receptacles.

5. In a centrifugal separator, the combination of a drive shaft, bearings rigidly carried thereby, a spindle journaled in said bearings, a screening receptacle provided with a perforated cylindrical wall supported concentrically on said spindle, internal ribs on said cylindrical wall, means for driving said shaft to revolve said screening receptacle thereabout, and means for simultaneously rotating said receptacle about its spindle to produce a centrifugal force at the ribbed cylindrical wall less than the minimum centrifugal force produced at said wall by the revolution of the latter about said shaft.

[Claim 6 not printed in the Gazette.]

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1,040,374. COAL-SEPARATOR. DAVID J. MIDDLETON, Kingston, ROBERT M. KEEFER, Edwardsville, and JOHN F. BALLAMY, Larksville, Pa. Filed Sept. 28, 1911. Serial No. 651,839. (Cl. 83—54.)

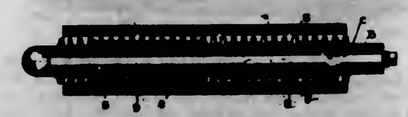


1. A coal separator consisting of a plurality of spirally arranged coal and slate chutes disposed in an inner and outer series, the coal chutes being arranged adjacent the outer edge of the slate chutes, said slate chutes being formed with downwardly extending flanges, said coal chutes being provided with upwardly extending flanges, a supporting post, supporting rods bent intermediate their ends and secured to said post, the inner and outer portions of said rods lying in different planes, and means supported by said rods for raising the outer edge of the slate chute.

2. A coal separator consisting of a plurality of spirally arranged coal and slate chutes disposed in an inner and outer series, the coal chutes being arranged adjacent the outer edge of the slate chute, said slate chutes being formed with downwardly extending flanges, said coal chute being formed with upwardly extending flanges, a supporting post, supporting rods bent intermediate their ends and secured to said post, the inner and outer portions of said rods lying in different planes, the slate chute being secured to said rods, a bracket supported by said chute, an apertured plate supported by said rods, and an adjusting screw passing through said plate and bracket to raise the flanged edge of said slate chute.

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1,040,375. BURNER FOR KITCHEN-RANGES. CARL H. MILLER, Cleveland, Ohio. Filed July 10, 1911. Serial No. 637,629. (Cl. 158—8.)



1. A burner for ovens having nipples in rows along the sides thereof and a support therefor having narrow elongated air discharge openings of different widths between its ends adjacent to said nipples, and said support being partially overlapped by said nipples.

2. A gas burner for oven ranges having a row of laterally-projecting nipples provided with gas orifices, and a base plate for said burner having an air-distributing channel lengthwise thereof and an elongated air-discharge opening arranged parallel with and adjacent to said nipples and placed inwardly in respect to the discharge end of the gas orifices.

3. A gas burner for ranges comprising a tubular member having gas orifices longitudinally at the side thereof and provided with an air-distributing chamber open lengthwise of said burner beneath said orifices and closed at one end and open at the other to promote draft lengthwise of the burner.

4. A gas burner for oven ranges having a row of laterally projecting nipples along each side and a support for said burner having elongated air inlets beneath said nipples of different areas and co-extensive with said nipples.

5. A gas burner for ranges comprising a tubular gas-distributing member having side orifices, in combination with a trough-shaped air-distributing member closed at one end and open at the other end and provided with air outlets along its top adjacent said gas orifices.

[Claim 6 not printed in the Gazette.]

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1,040,376. VALVE FOR GAS-RANGES. CARL H. MILLER, Cleveland, Ohio. Filed Feb. 6, 1912. Serial No. 675,861. (Cl. 158—120.)



1. In gas supply mechanism for cooking ranges and the like, a body provided with a bore of two diameters lengthwise and having a valve seat at the end of the larger bore, an inlet for gas next to said seat and a head at the outer end of the smaller bore having a lateral gas outlet at its base, in combination with a hand controlled valve stem having a valve adapted to close the said valve seat and provided with a needle projecting through said smaller bore and fitting closely in said head, and a cap adjustably mounted on the inner portion of said body about said head and provided with a central orifice penetrated by the said needle and larger than the needle.

2. In a valve mechanism for ranges, a body having a valve seat and an inlet for gas next to said seat and provided with a tubular extension externally threaded and having a head with lateral outlets for gas, in combination with a cap adjustably mounted on said extension over said head and having a central orifice, and a valve stem through said body having a valve to occupy said valve seat and a needle extension fitting closely in said head and extending centrally through said orifice out of contact with the wall thereof.



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1,040,377. LOOSE-LEAF BINDER. HENRY C. MILLER, Milwaukee, Wis. Filed Mar. 27, 1911. Serial No. 617,072. (Cl. 129—13.)



1. In a loose-leaf binder, a frame-bar constituting a box provided with a hinged cover, posts engaging the bar and having sections that fold within the same, and means for locking said cover in position to close said bar over the folding sections of said posts therein.

2. In a loose-leaf binder, a frame-bar constituting a box provided with a hinged cover, posts engaging the bar and having sections that fold within the same, guides within said bar, a keeper on the cover, and a guide supported sliding rod engageable with said keeper to hold said cover in position to close the aforesaid bar over the folding sections of said posts therein.

3. In a loose-leaf binder, a frame-bar constituting a box provided with a cover, posts having angular sections thereof that engage matching apertures in the bottom of the bar, other post-sections matching those aforesaid with which they are united to be swung down within said bar, and means for holding said cover in position to close the aforesaid bar over swung down post sections therein.

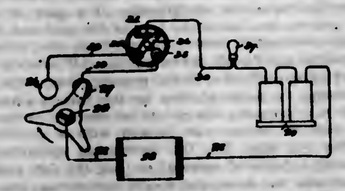
4. In a loose-leaf binder, a frame-bar constituting a box provided with a cover, posts having angular terminals engaging matching apertures in the bottom of the bar and stop-shoulders under the same, other post sections matching said terminals of those aforesaid with which they are united to be swung down within said bar, and means for holding said cover in position to close the aforesaid bar over swung-down post-sections therein.

5. In a loose-leaf binder, a frame-bar constituting a box, post sections engaging the bottom of the bar, and pointed post-sections articulated with those aforesaid to fold within said bar.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,378. ELECTRIC SIGNALING SYSTEM. WILLIAM L. MILLER, Madison, Wis., assignor to Gisholt Machine Company, Madison, Wis., a Corporation of Wisconsin. Filed June 16, 1911. Serial No. 633,479. (Cl. 177—311.)



1. In an electric signaling system for application to automatic machines, the combination of a switch comprising a rotary switch-blade actuated always in the same direction from a moving part of the machine and two contacts alternately engaged by said switch-blade, an electric circuit connected at one end to said switch-blade and connected at its other end, by alternately operative branches, to said contacts, respectively, a generator and a signal in said circuit, and a manually operable switch in said circuit adapted to render either of said contacts and branches operative in the circuit, substantially as described.

2. In an electric signaling system for application to automatic machines, the combination of a switch comprising a rotary switch-blade intermittently actuated always in the same direction from a moving part of the machine and two contacts alternately engaged by said switch-blade, a manually operable switch having two individual contacts and a common contact and a switch-blade shiftable to connect either of said individual contacts with said common contact, circuit wires connecting said first-named contacts with the individual contacts of said manually operable switch, respectively, a circuit wire connecting said common contact with said machine-actuated switch-blade, and a generator and signal operatively connected in said last named circuit wire, substantially as described.

3. In an electric signaling system for application to automatic machines, the combination with a movable member geared with, and movable in fixed relation to, a moving element of the machine, of a rotary shaft, coöperating means carried by said movable member and rotary shaft for imparting to the latter intermittent partial turning movements corresponding with successive movements of predetermined fixed extent of said movable member, an insulated switch-blade carried by said rotary shaft, two insulated contacts alternately engaged by said switch-blade, an electric circuit connected at one end to said switch-blade and connected at its other end, by alternately operative branches, to said insulated contacts, respectively, a generator and a signal in said circuit, and a manually operable switch in said circuit adapted to render either of said insulated contacts and branches operative in the circuit, substantially as described.

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1,040,379. PROCESS OF TREATING NITRIC ACID BY ELECTROLYSIS. MARTIN MORSE and RUDOLF MÜLLER VON EHRENECK, Höchst-on-the-Main, Germany, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed July 26, 1911. Serial No. 640,653. (Cl. 204—1.)

1. The process of electrolyzing nitric acid, which consists in passing an electric current through an electrolyte of nitric acid to a cathode of carbon.

2. The process of electrolyzing nitric acid, which consists in passing an electric current through an electrolyte of nitric acid to a cathode of graphite.

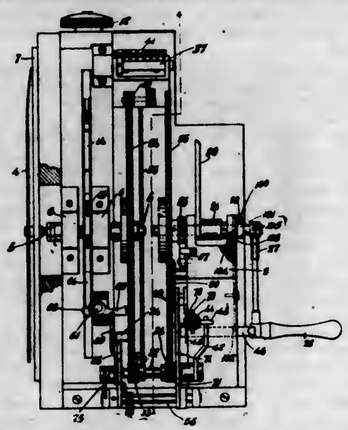
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1,040,380. TOTAL-ADDING WEIGHING-SCALE. WILLIAM B. MOON, Sandusky, Ohio. Filed May 16, 1911. Serial No. 628,000. (Cl. 235—91.)

1. In a device of the character specified, the combination with the weight indicating mechanism, of a supplemental re-setting mechanism normally inactive, means for positively coupling the supplemental resetting mechanism to the weight indicating mechanism when desired, a counting device and mechanism for actuating same, and means for connecting the counter actuating means with the weight indicating mechanism for indicating the amounts weighed when using the supplemental re-setting mechanism, with means for automatically releasing the re-setting mechanism when the weight indicating mechanism is reset.

2. In a device of the character specified, the combination with the pointer actuating mechanism, of a supplemental shaft normally inactive, means for positively coupling said shaft to the pointer actuating mechanism to

reset the pointer to zero, when desired, a counting device with mechanism for actuating same, means for connecting the counter actuating mechanism with the pointer actuating means, for indicating the return movement of the pointer, with means for automatically uncoupling the shaft and pointer when the pointer is reset to zero.



3. In a device of the character specified, the combination with a shaft carrying a pointer, of a supplemental shaft normally inactive, with means for positively coupling the two shafts to reset the pointer shaft to zero, a counting device with mechanism for actuating the same, and means for connecting the counter actuating means with the pointer shaft, to indicate the movement thereof, with means for automatically uncoupling the two shafts when the pointer shaft is reset.

4. In a device of the character specified, the combination with a shaft carrying a pointer, of a supplemental shaft normally inactive, with means for positively coupling the two shafts to reset the pointer to zero when desired, a counting device with a pinion for actuating same, and a gear secured on the pointer shaft normally out of engagement with the counter pinion, and means for bringing said gear and pinion into engagement with the coupling together of the pointer and supplemental shaft, with means for automatically uncoupling the two shafts when the pointer is reset to zero.

5. In a device of the character specified, the combination with a shaft carrying a pointer, of a supplemental shaft normally inactive, with means for positively coupling the two shafts to reset the pointer to zero when desired, a counting device with a pinion for actuating same, and a gear secured on the pointer shaft normally out of engagement with the counter pinion, a connecting bar intermediate the counting mechanism and the shaft coupling means, whereby the coupling of the two shafts will force the counter pinion into engagement with the gear.

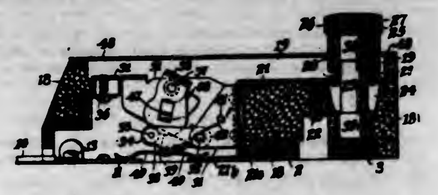
[Claims 6 to 16 not printed in the Gazette.]

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1,040,381. PANEL-BOARD CONSTRUCTION. EDWARD S. MORRELL, Philadelphia, Pa. Filed Jan. 16, 1912. Serial No. 671,431. (Cl. 175—292.)

1. The combination with a panel board, of bus bars thereon, consumption circuit terminals permanently secured thereon, a removable switch unit comprising contact members movable with respect thereto for connecting said bus bars with said consumption circuit terminals, a cover on said switch unit, members of said switch unit projecting through said cover, and a cover for said panel board, said cover having apertures with which said projections on said switch units register, said apertures having sufficient clearance around said projections for removal of said cover without removal of said projections.

2. In combination, a panel board, bus bars in engagement therewith throughout their length and secured thereto, consumption circuit terminals on said panel board, a container of insulating material adapted to be secured to said panel board, and a switch and a fuse within and carried by said container and removable therewith as a unit, said fuse being disposed at right angles to the plane of said panel board.



3. In combination, a panel board, bus bars in engagement therewith throughout their length and secured thereto, consumption circuit terminals on said panel board, a container of insulating material adapted to be secured to said panel board, and a switch and a fuse within and carried by said container and removable therewith as a unit, the movable element of said switch adapted to engage with a contact secured to said panel board.

4. In combination, a metal box, a panel board within the same, clamps for securing said panel board to said box and for permitting adjustment with relation thereto, bus bars upon said panel board, consumption circuit terminals upon said panel board, a plurality of independent members of insulating material disposed side by side and secured independently of each other to said panel board at a distance from a side of said box, whereby a gutter is formed between a side of said box and said members, and a fuse and a switch carried by each of said members and removable as a unit therewith.

5. In combination, a metal box, a panel board within the same, clamps for securing said panel board to said box and for permitting adjustment with relation thereto, bus bars upon said panel board, consumption circuit terminals upon said panel board, a plurality of independent members of insulating material disposed side by side and secured independently of each other to said panel board at a distance from a side of said box, whereby a gutter is formed between a side of said box and said members, a fuse and a switch carried by each of said members and removable as a unit therewith, a cover for each of said members, switch and fuse parts projecting through said cover, and a cover for said box having an aperture for each unit with which said switch and fuse parts of each unit register, said apertures in said cover having so great a clearance from said switch and fuse parts that said cover may be removed without disturbing said switch and fuse parts.

[Claims 6 to 15 not printed in the Gazette.]

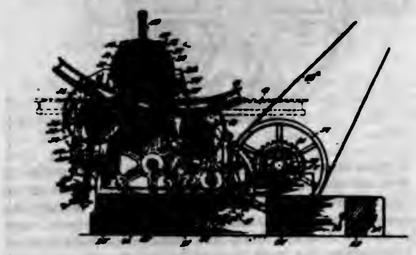
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1,040,382. MACHINE FOR BENDING T-SECTION RAILS. ALFRED D. MOSBY, Chicago, Ill., assignor to Marsh-Capron Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 23, 1911. Serial No. 610,153. (Cl. 153—56.)

1. In a machine for bending T- section railroad rails into circular form, the combination of a pair of rollers having grooves to receive the ball of the rail and flanges which are recessed to receive the rail base, said rollers being formed so as to guide the ball of the rail laterally without exerting any effective radial pressure during the bending operation, a roller bearing on the bottom surface of the rail base between the points of contact of the first named pair of rollers and formed with a groove into which the rail base fits, the mechanism operating said roller being capable of reversal to pass the rail back and forth between the same, and means for shifting the bearings of one of said rollers in the direction against the rail, substantially as described.



2. In a machine for bending T section railroad rails into circular form, the combination of a pair of rollers having grooves to receive the ball of the rail and flanges which are recessed to receive the rail base, said rollers being formed so as to guide the ball of the rail laterally without exerting any effective radial pressure during the bending operation, a roller bearing on the bottom surface of the rail base between the points of contact of the first named pair of rollers and formed with a groove into which the rail base fits, the mechanism operating said rollers being capable of reversal to pass the rail back and forth between the same, and means for shifting the bearings of one of said rollers in the direction against the rail, the flanges of the first named pair of rollers being formed with cylindrical surfaces so that the bending operation flattens the upper surfaces of the rail base at the edges, substantially as described.



3. In a machine for bending T section railroad rails into circular form, the combination of a pair of rollers having grooves to receive the ball of the rail and flanges on which the rail base bears, said rollers being formed so as to guide the ball of the rail laterally without exerting any effective radial pressure during the bending operation, a roller bearing on the bottom surface of the rail base, means for guiding the rail base and holding the same from lateral displacement, the mechanism operating said rollers being capable of reversal to pass the rail back and forth between the same, and means for shifting the bearings of one of said rollers in the direction against the rail.

4. In a machine for bending T section railroad rails into circular form, the combination of a pair of rollers having grooves to receive the ball of the rail and cylindrical flanges on which the rail base bears, said rollers being formed so as to guide the ball of the rail laterally without exerting any effective radial pressure during the bending operation, a roller bearing on the bottom surface of the rail base, means for guiding the rail base and holding the same from lateral displacement, the mechanism operating said rollers being capable of reversal to pass the rail back and forth between the same, and means for shifting the bearings of one of said rollers in the direction against the rail.

5. In a machine for bending T section railroad rails into circular form, the combination with a frame, of a lower pair of rollers having grooves to receive the ball of the rail, and flanges which are recessed to receive the rail base, said rollers being formed so as to guide the ball of the rail laterally without exerting any effective radial pressure during the bending operation, an upper grooved roller which fits over and bears upon the rail base between the points of contact of the lower rollers, a shaft on which the upper roller is mounted, semi-circular bearings on the frame for said shaft, slidable boxes adapted to hold the shaft in said bearings, blocks having threaded perforations, set screws extending through said perforations and bearing against said boxes, bolts attached to said blocks and removably secured to the frame, the mechanism operating said rollers being capable of driving the upper roller and one of the lower rollers reversibly to pass the rail backward and forward through said rollers, and means for shifting the bearings of the other of said lower rollers in the direction against the rail, substantially as described.

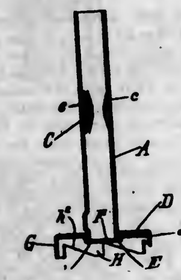
1,040,383. COAL-BORING BIT. GEORGE A. MOSS, Plymouth, Pa. Filed June 22, 1912. Serial No. 706,160. (Cl. 125—10.)



A boring bit of the class described, said bit being provided at its cutting end with a longitudinally adjustable and axially arranged cutter, and adjacent thereto with a side cutter which is also adjustable longitudinally, the shank of the side cutter being provided with diagonal notches or recesses adapted to receive a corner of the shank of the axial cutter, and the shank of the axial cutter being provided with transverse recesses adapted to receive a key pin passed through the stock of the bit.

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1,040,384. BRAIDER-SPOOL. FRANK MOSSBERG, Attleboro, Mass., assignor to Frank Mossberg Company, a Corporation of Rhode Island. Original application filed July 7, 1909, Serial No. 506,296. Divided and this application filed Feb. 21, 1911. Serial No. 609,953. (Cl. 242—121.)



1. In a spool of the type set forth, the combination of a metal tube provided with longitudinally disposed interspaced ribs upon its lower portion expressed from the material of the tube, of a disk provided with a central depression in which the extremity of the tube adjacent the ribs is seated and provided with an opening, a downwardly directed peripheral flange upon the disk, and teeth upon the lower edge of the flange.

2. In a spool of the type set forth, the combination with a tube, of a disk provided with a central depression in which the tube is seated and said depression having a bottom wall against which the end of the tube bears, said bottom wall provided with an opening, a flange upon the disk provided with teeth, and a ring fixed in the tube above said opening.

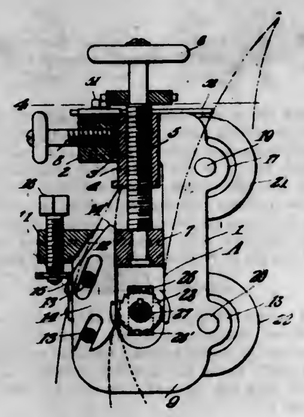
3. In a spool of the type set forth, a base comprising a disk with central circular depression having an opening and a tube-supporting portion, said base having an annular depending portion with teeth, and a tube having one end extended within the depression and resting upon said supporting portion and secured within said depression.

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1,040,385. SAW GUMMER AND SWAGER. WILLIAM H. MORRGO, Hurdland, Mo. Filed Aug. 15, 1911. Serial No. 644,232. (Cl. 76—44.)

1. In a device of this character, a frame adapted to straddle the cutting edge of a saw, a yoke slidably mounted in said frame, a shaft rotatably mounted in said yoke, a feed screw for imparting to the yoke and shaft a sliding movement toward and away from saw-engaging position, a rotary tool removably carried by the shaft, a lever carried by the yoke and operably connected to the shaft to receive a reciprocating movement therefrom, and co-acting means carried by the screw and operably connected to the

upper end of the lever for operating the screw to feed the yoke and tool toward the saw during the rotation of the shaft.



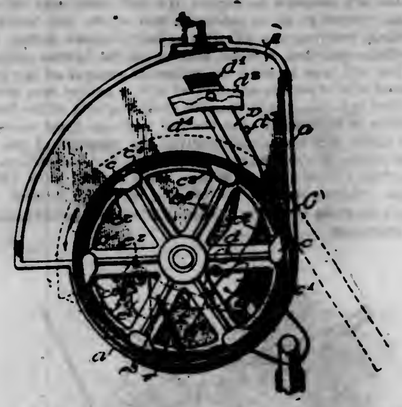
2. In a device of this character, a frame adapted to straddle the cutting edge of a saw, a yoke slidably mounted in said frame, a shaft rotatably mounted in said yoke, a feed screw for imparting to the yoke and shaft a sliding movement toward and away from saw-engaging position, a rotary tool removably carried by the shaft, a lever carried by the yoke and operably connected to the shaft to receive a reciprocating movement from the shaft, a crank shaft operably connected to the upper end of said lever, and co-acting means carried by the crank shaft and screw to impart to the screw a movement to feed the tool toward the saw while the shaft is being rotated.

3. In a device of this character, a frame adapted to straddle the cutting edge of a saw, a yoke slidably mounted in said frame, a shaft rotatably mounted in said yoke, a feed screw for imparting to the yoke and shaft a sliding movement toward and away from saw-engaging position, a rotary tool removably carried by the shaft, a lever carried by the yoke and operably connected to the shaft to receive a reciprocating movement from the shaft, a crank shaft operably connected to the upper end of the lever, a worm cam carried by said crank shaft, and a disk keyed to the shaft and having peripheral pins adapted to be engaged by the cam to rotate the feed screw simultaneously with the rotation of the shaft and tool.

4. In a device of this character, a frame adapted to straddle the cutting edge of a saw, a yoke slidably mounted in said frame, a shaft rotatably mounted in said yoke, a feed screw for imparting to the yoke and shaft a sliding movement toward and away from saw-engaging position, a rotary tool removably carried by the shaft, an eccentric mounted upon one end of said shaft, a lever having its lower end connected to the eccentric and pivoted intermediate of its ends to the yoke to receive a reciprocating movement when the shaft is rotated, and co-acting means carried by the screw and the upper end of the lever for imparting to the screw a rotary movement simultaneously with the rotation of the shaft and tool.

5. In a device of this character, a frame adapted to straddle the cutting edge of a saw, a yoke slidably mounted in said frame, a shaft rotatably mounted in said yoke, a feed screw for imparting to the yoke and shaft a sliding movement toward and away from saw-engaging position, a rotary tool removably carried by the shaft, an eccentric mounted upon one end of said shaft, a lever having its lower end connected to the eccentric and pivoted intermediate of its ends to the yoke to receive a reciprocating movement when the shaft is rotated, a toothed disk carried upon the upper end of the feed screw, and a rotatably mounted worm cam disposed in engagement with said disk and operably connected to the upper end of the lever.

**1,040,286. HOISTING DEVICE.** HOMER A. MYERS, Goshen, Ind. Filed Oct. 28, 1911. Serial No. 656,940. (Cl. 214—8.)



1. In a hoisting device, a sheave for the hoisting rope, a yoke that straddles the sheave, a shoe or clutch block on said yoke, adapted to engage the hoisting rope to hold the same and the sheave stationary, flanges on the yoke, lugs on the sheave for engaging said flanges, locking mechanism for holding the yoke in position to prevent said shoe or clutch block from engaging the said rope, and means on said sheave for controlling the said mechanism by the back and forth motion of said hoisting rope.

2. In a hoisting device, a sheave for the hoisting rope, a yoke that straddles the sheave, a shoe or clutch block on said yoke, adapted to engage the hoisting rope to hold the same and the sheave stationary, flanges on the yoke, lugs on the sheave for engaging said flanges, locking mechanism for holding the yoke in position to prevent said shoe or clutch block from engaging the said rope, means on said sheave for controlling the said mechanism by the back and forth motion of said hoisting rope, said mechanism comprising a pivoted dog, means on said yoke for engaging said dog to hold the said shoe or clutch block away from the hoisting rope, a pivoted element on said dog, which element is adapted to be engaged by said means on the sheave to disengage the dog from the yoke, and means on said yoke for preventing the dog from engaging the yoke while the sheave is rotating in one direction.

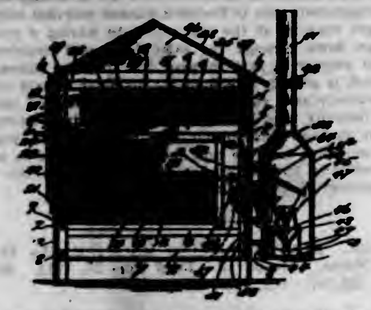
3. In a hoisting device, a sheave for the hoisting rope, a yoke that straddles the sheave, a shoe or clutch block on said yoke, adapted to engage the hoisting rope to hold the same and the sheave stationary, flanges on the yoke, lugs on the sheave for engaging said flanges, locking mechanism for holding the yoke in position to prevent said shoe or clutch block from engaging the said rope, means on said sheave for controlling the said mechanism by the back and forth motion of said hoisting rope, said lugs being so formed that they pass under the lower ends of said flanges when the sheave rotates in one direction, and said lugs being formed with beveled end portions which enable them to engage and ride upon the said flanges when the sheave rotates in the opposite direction.

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**1,040,287. FOWL-FUMIGATOR.** FRED M. HALL, Port Henry, N. Y. Filed July 3, 1911. Serial No. 636,792. (Cl. 119—160.)

1. In a fowl fumigating device, a main inclosure or receptacle including means whereby the fumes of the fumigating material may be directed thereinto, the receptacle or inclosure having a closure member movable relatively thereto provided with a wire wing holding member.

2. In a fowl fumigating device, a main inclosure or receptacle including means whereby the fumes of the fumigating material may be directed thereinto, the receptacle or inclosure having a closure member movable relatively thereto provided with a wire wing holding member, and means in the receptacle for regulating the intake of the fumigating material.



3. In combination, a main receptacle for the fowl having a supplemental receptacle adjacent thereto including means for generating fumigating material, guide rail in the main receptacle, a drawer closure for holding the fowl guided by the rails, the drawer closure having adjustable means for receiving the neck of the fowl, a mesh work basket above the drawer, and a top for the main receptacle, the basket adapted to hold the young, the drawer closure having a wire wing holding member, a shaft including a pinion, and a vertical slidable gate including a rack operated by the shaft and pinion.

4. In a fowl fumigating device, a main receptacle including means whereby fumes of fumigating material may be directed thereinto, the receptacle having guide rails, a drawer closure including a basket guided by the rails, a basket arranged on the interior of the receptacle to receive the young fowl, while the drawer closure receives the old fowl, the closure of the drawer and one side of the receptacle having means to receive the necks of the fowl.

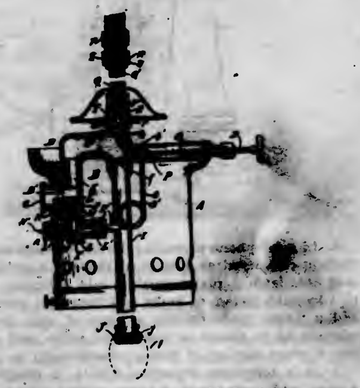
5. In a fowl fumigating device, a main receptacle including means whereby fumes of fumigating material may be directed thereinto, a receptacle having guide rails, a drawer closure including a basket guided by the rails, a basket receptacle arranged above the drawer to receive the young fowl, while the drawer closure receives the old fowl, the drawer having a wire wing-holding member, the closure of the drawer and one side of the receptacle having like adjustable means to receive the necks of the fowl.

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**1,040,288. VAPORIZING AND SUPERHEATING INCANDESCENT LAMP.** HANS Z. NELSON, Albert Lea, Minn., assignor to American Gas Machine Company, Albert Lea, Minn., a Corporation of Minnesota. Filed May 1, 1912. Serial No. 694,541. (Cl. 67—50.)

1. A casting provided with a vaporizing passage way and with a passage way for a needle valve, said passage ways provided with a valve seat at their intersection, said casting also provided with an air intake chamber, a vertical passage way and a mixing chamber, said vertical passage way communicating with the air intake chamber and with the mixing chamber, and said mixing chamber provided with a discharge passage way, and the said air intake chamber provided with an aperture concentric to the axial line of the vertical passage way, in combination with a superheating pipe provided with a nozzle, said superheating pipe and nozzle removably attachable to said casting so that the passage way in said pipe is in communication with the vaporizing passage way and the discharge opening of the nozzle is concentric to the axial line of said vertical passage way.

2. A casting provided with a vaporizing passage way and with a passage way for a needle valve, said passage ways provided with a valve seat at their intersection, said casting also provided with an air intake chamber, a vertical passageway communicating with the air intake chamber and with the mixing chamber, said mixing chamber provided with a discharge passage way, and the said air intake chamber provided with an aperture concentric to the axial line of the vertical passage way, in combination with a superheater comprising a hollow wire provided with a coil and a casting having a nozzle thereto and provided with a passage way therethrough, the said nozzle provided with a cylindrical portion fitting in the aperture in the air intake chamber, means to removably attach one end of said hollow wire to one of said castings and means to attach the other end of said hollow wire to the other of said castings, so that the passage way in said hollow wire is in communication with the passage ways in said castings.



3. A filter tube and a casting provided with a passage way therethrough communicating with the filter tube, and provided with a vertical passage way, and air intake chamber communicating with said vertical passage way and a mixing chamber into which said vertical passage way discharges, in combination with a superheater comprising a hollow wire provided with a coil and a casting having a nozzle thereto and provided with a passage way therethrough, the said nozzle provided with a cylindrical portion fitting in an aperture in the floor of the air intake chamber, means to removably attach one end of said hollow wire to one of said castings and means to attach the other end of said hollow wire to the other of said castings, so that the passage way in said hollow wire is in communication with the passage ways in said castings.

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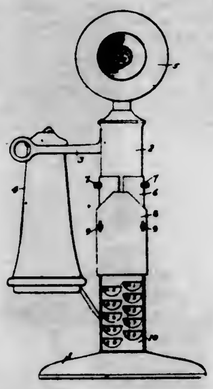
**1,040,289. ELECTRIC SIGNALING DEVICE.** ROY C. NEVIN, Berkeley, Cal. Filed Dec. 29, 1910. Serial No. 599,943. (Cl. 179—90.)

1. In an electric signaling device the combination of a telephone standard, an electric circuit, a cylinder within the telephone standard, a piston slidable therein, means connected with said piston to break said circuit a given number of times, means to permit the free upward movement of said piston, and means to regulate the speed of the downward movement of said piston, substantially as described.

2. In an electric signaling device the combination of a telephone standard, an electric circuit, a cylinder within the telephone standard, a piston therein, means connected with said piston to break said circuit a given number of times, a finger plate to raise said piston, means to permit the free upward movement of said piston, and means to regulate the downward movement thereof, substantially as described.

3. In an electric signaling device the combination of a telephone standard, an electric circuit, contact points connected with said electric circuit, a cylinder within the telephone standard, a piston slidable in said cylinder, means connected with said piston to separate said contact points a given number of times, means connected with

the piston to raise the same, means to permit the free upward movement of said piston, and means to regulate the downward movement thereof, substantially as described.

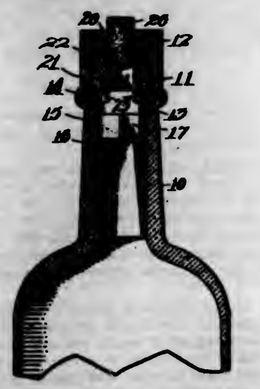


4. In a telephone signaling device, a telephone standard, electric circuit wires contained therein, a cylinder within said standard, a piston within said cylinder, means carried by said piston to make and break an electric circuit, and a finger plate on the outside of said standard and adapted to be raised to break and make said electric circuit a given number of times, substantially as described.

5. In a telephone signaling device, a telephone having a base, and a standard, electric circuit wires within said standard, a cylinder within the standard, a piston within the cylinder, circuit breaking means connected with said piston, a calling plate slidable on the outside of said standard, and means to regulate the downward movement of said piston, substantially as described.

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1,040,390. DOUBLE-NECK BOTTLE. NILS NILSON, Worcester, Mass. Filed June 17, 1912. Serial No. 704,029. (Cl. 215—60.)

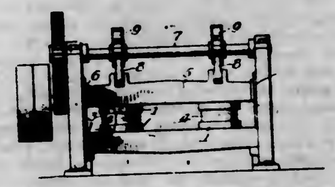


1. As an article of manufacture, a bottle having a passage in the neck thereof and provided with an enlarged cylindrical chamber at the top of said passage, a square stopper in said chamber, the diagonal dimension of which is slightly less than the diameter of said chamber, whereby said valve cannot shift laterally, and a stopper above said chamber having a central passage therethrough and provided with integral projections extending downwardly from the bottom thereof into the chamber to permit the valve to move longitudinally but to prevent it from covering the central passage of the stopper when the bottle is inverted.

2. As an article of manufacture, a bottle having an inner transparent tube in the neck thereof provided with an enlarged chamber at the top, said tube having a central passage down through the same from said chamber, a cubical stopper in said chamber, the diagonal dimension of which is slightly less than the diameter of said chamber, whereby said valve can turn in the tube but cannot shift laterally, and a stopper above said tube having a central passage therethrough and provided with projections extending into the tube to permit the valve to move longitudinally but to prevent it from covering the central passage of the stopper.

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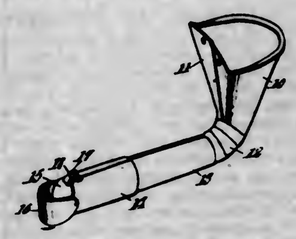
1,040,391. FLANGE-FORMING MACHINE. LA VERNE W. NORRIS, Chicago, Ill. Filed Apr. 25, 1911. Serial No. 623,307. (Cl. 153—48.)



A machine for forming annular dished flanges on cylinders including a forming element provided with an open annular dished groove conforming to the exterior surface of the flange to be formed; and a complemental forming element in the shape of a ring entering said groove and provided with a surface conforming to the interior surface of the flange to be formed and spaced apart from the groove surface to provide a space conforming to the shape of the flange to be formed and into which space an end of the cylinder may be pressed, said ring being provided with a shoulder serving to engage the free edge of the flange and thereby limit the depth of the flange dish.

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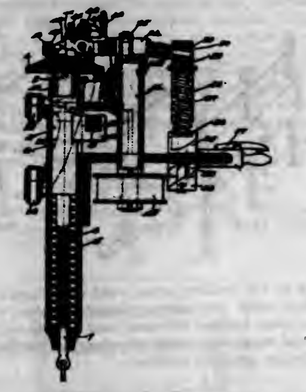
1,040,392. KITCHEN-SINK. THOMAS SCOTT OGLE and ROBERT F. POLANSKY, Lyons, Tex. Filed May 25, 1912. Serial No. 699,818. (Cl. 4—36.)



A kitchen sink embodying a semi-conical bowl whose back is designed to be secured to a wall, an elbow attached to the apex of the bowl and directed rearwardly therefrom, a sloping spout attached to the elbow, an extensible spout telescopically engaged with the free end of said spout and having its free end cut diagonally to provide an inclined seat, a loop secured to the top of the extensible spout adjacent its free end, a valve seatable against the free end of the extensible spout and having a lip projecting from its upper end engaging the said loop, and a U-shaped deflecting plate having its ends pivoted to the sides of the extensible spout adjacent its free end.



1,040,393. IMPRESSION OR IMITATION STITCH MACHINE. AUGUST OLSON, Philadelphia, Pa., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 11, 1906. Serial No. 316,904. (Cl. 12—32.)



1. An impression or imitation stitch machine, having, in combination, a work support, an indenting wheel, a carrier for the wheel adjustable toward and from the work support, a guard for the shoe upper, a carrier therefor mounted independently of the wheel carrier and movable therewith during its adjustment, and a spring to hold the guard carrier in contact with the wheel carrier.

2. An impression or imitation stitch machine, having, in combination, a work support, an indenting wheel, a spring for forcing the indenting wheel toward the work support, a stop to limit the movement of the wheel under the force of the spring and means for simultaneously adjusting the stop and spring for operation upon stock of different thicknesses.

3. An impression or imitation stitch machine, having, in combination, a work support, an indenting wheel, a lever upon which the wheel is mounted arranged to permit movement of the indenting wheel toward and from the work support, and means for oscillating the lever about an axis substantially perpendicular to the plane of the work and located in proximity to the outer end of the indenting wheel.

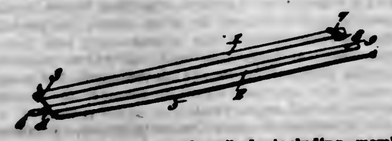
4. An impression or imitation stitch machine, having, in combination, a work support, an indenting wheel, a spring for forcing the wheel toward the work support, and means for adjusting the wheel toward and from the work support while maintaining the spring at a constant tension.

5. An impression or imitation stitch machine, having, in combination, a work support, an indenting wheel, a carrier upon which the wheel is yieldingly mounted to move toward and from the work support, and means for oscillating the carrier about an axis substantially perpendicular to the plane of the work and located in proximity to the outer end of the indenting wheel.

[Claims 6 and 7 not printed in the Gazette.]

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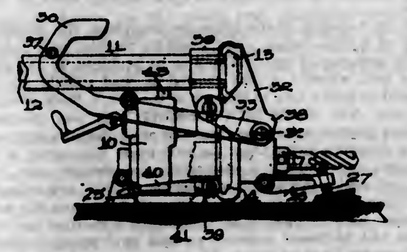
1,040,394. VETERINARY INSTRUMENT. SWINDA OLSON, Amboy, Minn. Filed Feb. 12, 1912. Serial No. 676,975. (Cl. 128—27.)



A device of the type described, including members having eyes therein, one of said members having a forwardly projecting portion beyond its eye, one of said members having a coupling member pivoted thereto and adapted to be engaged with the other member and a flexible member passed through said eyes, one end of said flexible member being held to one of the first-referred to members.

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1,040,395. COLLAPSIBLE DRILL. CHARLES H. OSLUND, Worcester, Mass., assignor to Duff Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Dec. 24, 1910. Serial No. 599,196. (Cl. 77—9.)



1. In a device of the character described, the combination of a power transmitting mechanism comprising a bevel gear, a casing for inclosing the power transmitting mechanism having a corner thereof cut away at an angle to the axis of the power transmitting mechanism adjacent to one edge of said bevel gear, a block pivoted on said casing and comprising walls which when closed in about the pivot substantially complete the casing, said block having supporting bearings therein, a driving shaft in said bearings having a bevel gear thereon adapted to mesh with the bevel gear in the casing when said block is closed in about its pivot, said block having projections extending down at the sides of the casing back of the pivot, and pivoted cams upon said casing for engaging said projections and locking the block in anch position that the bevel gears engage.

2. In a device of the character described, the combination of a power transmitting mechanism comprising a bevel gear, a casing for inclosing the power transmitting mechanism having a corner thereof cut away at an angle to the axis of the power transmitting mechanism adjacent to one edge of said bevel gear, a block pivoted on said casing and comprising walls which when closed in about the pivot substantially complete the casing, said block having supporting bearings therein, a driving shaft in said bearings having a bevel gear thereon adapted to mesh with the bevel gear in the casing when said block is closed in about its pivot, said block having projections extending down at the sides of the casing back of the pivot, and pivoted cams upon said casing for engaging said projections and locking the block in such position that the bevel gears engage, said block being adapted to swing about its pivot into a position in which the driving shaft carried thereby shall rest along the top of the casing substantially parallel with the axes of the driving mechanism, and rail holding hooks pivoted on said projections at the rear of said pivot and adapted to swing over into position in which they are supported by the block when the driving shaft is in horizontal position along the top of the casing.

3. In a device of the character described, the combination of a casing, a block pivoted near the top thereof and extending downwardly from the pivot, a driving shaft supported by the block and extending through the same into the casing, a drill spindle, means in the casing for transmitting power from the driving shaft when the block is in one position to the drill spindle, and means for locking the block in position on the casing, said locking means consisting of a lever mounted to turn on a pivot below said block, and a locking cam fixedly secured with respect to the lever in position to engage the downwardly extending portion of the block.

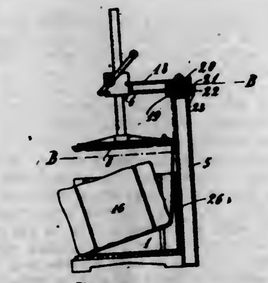
4. In a device of the character described, the combination of a drill casing, a drill spindle therein, said casing being constructed and adapted to be arranged at the side of a rail, whereby a drill carried by said spindle can be caused to drill a hole in the web of the rail, a block pivoted on said drill casing on a horizontal axis and provided with a portion extending from the pivot downwardly and in a direction away from the rail when the casing is in position for drilling, a clamping arm pivoted near the end of said downwardly extending portion and extending upwardly over the top of the rail to engage the web thereof on the opposite side, and means for exerting an upward and backward pressure on said downwardly extending portion of the block to fix said clamp to the rail.

5. In a device of the character described, the combination of a drill casing, a drill spindle therein, said casing being constructed and adapted to be arranged at the side of a rail, whereby a drill carried by said spindle can be caused to drill a hole in the web of the rail, a block pivoted on said drill casing on a horizontal axis and provided with a portion extending from the pivot downwardly and in a direction away from the rail when the casing is in position for drilling, a clamping arm pivoted near the end of said downwardly extending portion and extending upwardly over the top of the rail to engage the web thereof on the opposite side, means for exerting an upward and backward pressure on said downwardly extending portion of the block to fix said clamp to the rail, and a driving shaft for the drill spindle carried by said block and extending upwardly when the block is in operative position, whereby when the block is swung upwardly and rearwardly through an angle of about 90 degrees said shaft will be located parallel with the casing, and said clamp will be disengaged from the rail and can be swung back against the casing.

[Claim 6 not printed in the Gazette.]

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1,040,396. APPARATUS FOR BALING PAPER AND THE LIKE CUTTINGS. ALEXANDER PAAL, Osnabrück, Germany. Filed June 14, 1910. Serial No. 566,841. (Cl. 100—19.)

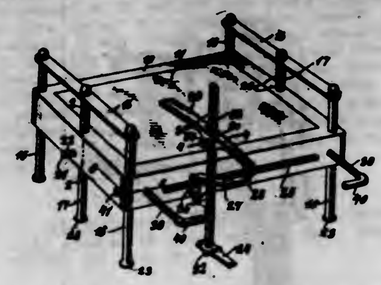


In apparatus for baling paper or the like cuttings, the combination of a press-receptacle with open front side, a press plate arranged above said receptacle and adapted to be raised or lowered, and a belt fixed at the middle of the front edge of the bottom of the receptacle and arranged to lead through the latter to the rear and with its free end designed, upon the press-plate being raised, to be fixed to the same, for the purpose set forth.

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1,040,397. PIANO-FOOTSTOOL. JOSEPH A. PACZYNSKI, Chicago, Ill. Filed June 7, 1912. Serial No. 702,218. (Cl. 84—97.)

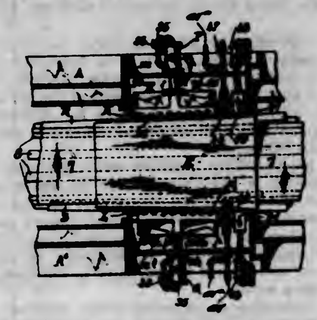
The combination of a foot-rest having a longitudinal slot on one side, standards on which the foot-rest is vertically adjustable, a bracket arm extending outward from the slotted side of the foot-rest and having a vertical opening, fastening means passing through the bracket arm into the slot, a pedal pivoted to the outer end of the bracket arm and extending rearward to a position above the foot-rest, said pedal having an opening, a vertically adjustable stem passing loosely through the pedal opening and through the



opening in the bracket arms, said stem having means cooperating with the last-mentioned opening whereby the stem is held against rotation, and means carried by the pedal and engageable with the stem for locking the latter in vertically adjusted position.

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1,040,398. MACHINE FOR UPSETTING METAL PLATES. CHARLES LESTER PARMELEE, Orange, N. J., assignor to The East Jersey Pipe Company, New York, N. Y., a Corporation of New Jersey. Filed Jan. 19, 1909. Serial No. 473,089. (Cl. 80—40.)



1. In a machine for upsetting metal plates, the combination of a support for the plate, a head carrying upsetting rollers, means for moving said head toward the plate to cause said rollers to bear on the edge of the plate, means carried by the plate-support to limit the movement of the head and rollers against the plate, and means for producing relative motion between the plate-support and the upsetting rollers, as set forth.

2. In a machine for upsetting metal plates, the combination of a side-frame, a plate-carriage movable longitudinally of the side-frame, a tool carrying head mounted in the side-frame and movable transversely therein, fluid-pressure operated means for advancing said head toward the plate-carriage, and means carried by the latter and cooperating with the movable head element for limiting the movement of the upsetting head, as set forth.

3. In a machine for upsetting metal plates, the combination of a support for the plate, upsetting means arranged to operate on the edge of the plate, means for producing relative motion between the plate-support and the upsetting means, and a longitudinally extending transversely adjustable gage carried by the plate-support and adapted to engage the upsetting means to regulate the upsetting operation thereof, as set forth.

4. In a machine for upsetting metal plates, the combination of a longitudinally movable plate-support, upsetting



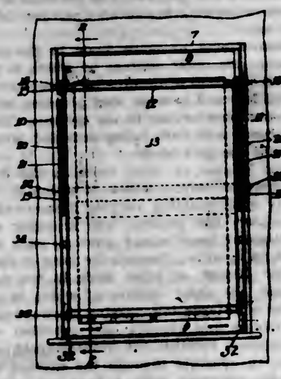
devices and fluid-pressure operated mechanism for advancing the same toward the plate-support, and a transversely adjustable gage carried by the plate-support and arranged to limit the approach of the upsetting devices relative to the plate-support, as set forth.

5. In a machine for upsetting metal plates, the combination of a side frame, a plate-support movable longitudinally thereof, a gage carried by the plate support, a fluid pressure member pivotally mounted in the side frame and having a piston, a head connected with the piston and movable thereby toward the plate support, one or more upsetting rollers carried by the head, and one or more anti-friction devices carried by the head in position to bear on the said gage, as set forth.

[Claims 6 to 13 not printed in the Gazette.]

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1,040,399. WINDOW-SHADE FIXTURE. WINSLOW R. PARSONS, Chicago, Ill. Filed Feb. 16, 1911. Serial No. 609,002. (Cl. 156—26.)



1. A window shade structure comprising in combination a shade, a supporting roller therefor, means for automatically winding said shade on said roller, guide rails opposing the end of said roller, pivots projecting from the lower end of said shade into said guide rails and edge flattened washers for maintaining said pivots against a tilting movement and accidental endwise disengagement from the guide rails, and whereby the shade is maintained in perfect alinement with its support throughout its several adjustments.

2. A window shade structure comprising in combination a shade, an automatically operating roller support therefor, hollow rails at each side of the window frame provided with a longitudinal slot, one of the opposing walls of which is straight and the other is provided with hook-like stops, pins projecting from the edges of the shade toward the bottom thereof through said slots, and edge flattened washers upon the ends of said pins bridging said slots throughout the adjustment of the shade and when locked in its various adjustments, and maintaining the shade against the sidewise movement tending to their accidental detachment from the rails or to injury of the shade.

3. A window shade structure comprising in combination a shade, a supporting roller therefor, means by which said shade may be wound and unwound upon said roller, a hollow bent sheet metal rail, the edges of which separate to form a longitudinal slot therein, curved hook-like stops in and upon but one of said edges, a strip extending transversely of and secured to the bottom end of said shade, pins projecting from the ends thereof, a washer upon the ends of said pins bridging said slot, limiting the endwise movement of the slat, and preventing the accidental escape of the shade from engagement with its locking devices.

4. A window shade structure comprising in combination a shade, a supporting roller, means whereby the shade is wound upon and unwound from said roller, a strip extending transversely of and secured to the bottom end of said shade, pins projecting from the ends of said roller and strip, means for supporting the roller and locking the strip in its adjustment and against accidental and sidewise movement, a hollow slotted rail attachable to a window frame into which rail said pins project, the slot in which rail being common to the pins of both the roller and the strip, whereby the roller and the shade are adjustable simultaneously with or independently of each other.

5. A window shade structure comprising in combination opposing longitudinally slotted rails, a window shade, a roller support therefor at one end and a slat at its other end, pins projecting from the ends of said roller and slat into the rail groove, a collar adjustable on the rail and bearings therein for the roller, pins projecting from the slat into the rail slot, washers upon the ends of said pins maintaining them against disengagement from said slot, hook-shaped stops adapted to be engaged by said slat pins, substantially as described.

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1,040,400. PRODUCTION OF LEATHER. ERNEST EDWARD MUNRO PAYNE, Aylesbury, England, assignor of one-half to William Henry Staynes, John Hardy Smith, and Walter Henry Sturges, Leicester, England. Original application filed Sept. 28, 1904, Serial No. 226,024. Divided and this application filed Feb. 5, 1907. Serial No. 355,945. (Cl. 149—4.)

1. Process for producing leather from skin which consists in first preparing the skin as for tanning and thereupon subjecting the prepared skin to the combined action of an alkali peat extract and a neutralising agent.

2. Process for producing leather from skin which consists in first preparing the skin as for tanning and thereupon soaking the prepared skin in an alkali peat extract and then treating the skin with a neutralising agent.

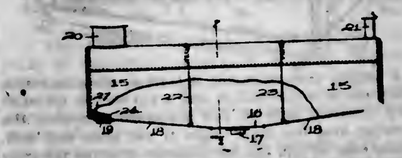
3. Process for producing leather from skin which consists in first preparing the skin as for tanning and thereupon soaking the prepared skin in an alkali peat extract and then treating the skin with an acid.

4. Process for producing leather from hides which consists in first preparing the hide as for tanning, impregnating the prepared hide in an alkali solution of peat and subjecting the hide to an acid solution, whereby the humus will be precipitated into the fibers of the leather.

5. Process for producing leather from hides which consists in preparing the hides as for tanning subjecting the prepared hides to the combined action of an alkali peat extract and neutralising acid, together with any leather producing agent.

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1,040,401. CAR-SPRINKLER TANK. EDWARD C. PERRY, Worcester, Mass., assignor to American Car Sprinkler Co., Worcester, Mass., a Corporation of Massachusetts. Filed May 21, 1910. Serial No. 562,595. (Cl. 220—125.)



A water tank for a street sprinkler car, made up of metal plates riveted together and provided with a plurality of rows of splash plates extending vertically from the bottom to the top and secured both to the bottom and top, said splash plates having vertical spaces between them, the splash plates of one set being located substantially opposite the spaces between the splash plates of the next set.

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1,040,402. STUMP-BURNER. VALENTINE H. PICKENS, Sierais, Ala. Filed Mar. 12, 1912. Serial No. 683,486. (Cl. 110—21.)

1. In a device of the character described, the combination with a blast pipe, of a draft pipe, the lower end of

said blast pipe being disposed below the lower end of the draft pipe, a dirt supporting plate through which said pipes pass, and flanges carried by said pipes for limiting the downward movement of said plate, said dirt supporting plate being adapted to cover and close a hole in the ground when said pipes are inserted therein.



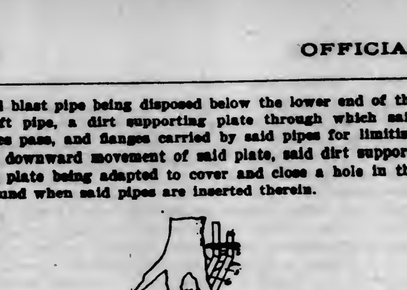
2. In a stump burner, the combination with a blast pipe and a draft pipe, of means for securing said pipes directly and rigidly together, said pipes lying side by side throughout the major portion of their length, the lower ends of said pipes being out-turned in the same direction and the lower end of the blast pipe lying in a substantially lower horizontal plane than the lower end of the draft pipe and the lower end of the blast pipe lying in substantially the same vertical plane as the lower end of the draft pipe, and a dirt supporting plate slidably mounted upon said pipes and adapted to cover the opening in the ground into which said pipes may be inserted.

3. In a device of the character described, the combination with a blast pipe, and a draft pipe, said pipes having outturned lower ends, the lower end of the blast pipe lying beneath the lower end of the draft pipe, of means for supporting said pipes in position in a hole formed in the ground, said means also sealing said hole.

4. A device of the character described comprising a blast pipe and a draft pipe, said pipes lying substantially parallel to each other and being secured directly and rigidly to each other, said pipes being substantially oval in cross section, and a dirt supporting plate through which said pipes pass.

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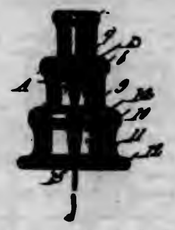
1,040,403. FOLDING CRATE. RUBEN L. PICKERING, Falling Spring, W. Va. Filed June 29, 1911. Serial No. 636,080. (Cl. 220—17.)



1. A folding crate including a bottom, sides, and ends hingedly united to the bottom, and a top bent at its edges into an upwardly directed and downwardly opening rim for bearing over the upper edges of the sides and ends, the lower edge of said rim being further directed inwardly and bearing against the sides and ends and forming a horizontally extending hand grip entirely around the top and directed outwardly therefrom.

2. A folding crate including a bottom, sides, and ends hingedly united to the bottom, a top bent at its edges into an upwardly directed and downwardly opening rim for bearing over the upper edges of the sides and ends, said rim and ends having registering apertures, bolts slidable upon said top and passing through said apertures, a lever pivoted to said top and likewise pivotally connected respectively to said bolts, and a guard connected to said top and bearing over said bolts, said guard being extended at the ends around the rim of the top and beneath the same to form hand supports for the top.

1,040,404. PILE-TRUSS. WILLIAM E. POINDEXTER, Sedalia, Mo. Filed Nov. 1, 1911. Serial No. 658,086. (Cl. 128—28.)



1. A rectum dilator or truss made in the form of a truncated cone, the outer surface of which is composed of a plurality of alternating varying diametered circumferential shoulders and grooves, and provided with a longitudinal groove terminating in an aperture through the base of the cone.

2. A rectum dilator or truss made in the form of a truncated cone, the outer surface of which is composed of a plurality of alternating varying diametered circumferential shoulders and grooves, and provided with a longitudinal groove terminating in an aperture through the base of the cone, said base being provided with a bore into which said aperture leads.

3. A rectum dilator or truss made in the form of a truncated cone, the outer surface of which is composed of a plurality of alternating varying diametered circumferential shoulders and grooves, and provided with diametrically disposed longitudinal grooves, each of which terminates in an aperture through the base of the cone.

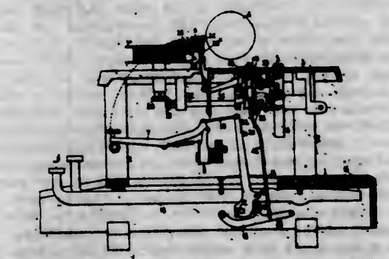
4. A rectum dilator, or truss made in the form of a truncated cone, the outer surface of which is composed of a plurality of alternating varying diametered circumferential shoulders and grooves, and provided with diametrically disposed longitudinal grooves, each of which terminates in an aperture through the base of the cone, said base being provided with a bore into which said aperture leads.

5. A rectum dilator or truss made in the form of a truncated conical member having two oppositely disposed conical bores in communication with each other and forming a bore the full length of the member, a cord passing through the bores and secured in one to form a means to withdraw the member from the rectum, the surface of the member being provided with a plurality of shouldered portions to be engaged by the walls of the rectum.

[Claim 6 not printed in the Gazette.]

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1,040,405. TYPE-WRITING MACHINE. MORRIS W. POOL, New York, N. Y., assignor, by mesne assignments, to Union Typewriter Company, Jersey City, N. J., a Corporation of New Jersey. Filed Feb. 20, 1911. Serial No. 609,611. (Cl. 197—157.)



1. In a typewriting machine, the combination with ribbon vibrating devices settable at will to give a plurality of different extents of vibration to the ribbon, of ribbon stop devices, certain of said stop devices coöperating with said vibrating devices for each extent of throw of the ribbon, the ribbon stops for a short throw of the ribbon being interposed to prevent by their prior co-action coöperative engagement between the ribbon stops for a longer throw.

2. In a typewriting machine, the combination with ribbon vibrating devices settable at will to give a plurality of different extents of vibration to the ribbon, of ribbon stop devices, certain of said stop devices coöperating with said vibrating devices for each extent of throw of the ribbon, the ribbon stops for a short throw of the ribbon being interposed to prevent coöperation between the ribbon stops for a longer throw and being settable independently of the stops for the longer throw.

3. In a typewriting machine, the combination of a ribbon vibrator, vibrator actuating devices settable to give different extents of throw to the vibrator, and a plurality of sets of stops for arresting the vibrator, said sets being independently settable.

4. In a typewriting machine, the combination of a ribbon vibrator, vibrator actuating devices settable to give different extents of throw to the vibrator, and plurality of sets of stops for arresting the vibrator, each set comprising two members that co-act to limit the throw of the vibrator to one of a plurality of predetermined extents.

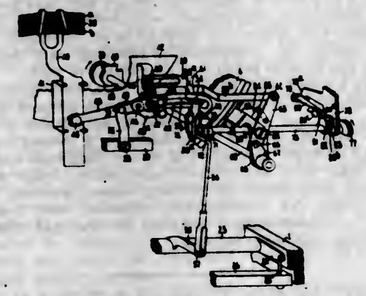
5. In a typewriting machine, the combination of a ribbon vibrator, vibrator actuating devices settable to give different extents of throw to the vibrator; and a plurality of sets of stops for arresting the vibrator, each set cooperating for one extent of throw, the members constituting one of said sets having at all times an unvarying normal relationship.

[Claims 6 to 27 not printed in the Gazette.]



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1,040,406. TYPE-WRITING MACHINE. MORRIS W. POOL, New York, N. Y., assignor, by mesne assignments, to Union Typewriter Company, Jersey City, N. J., a Corporation of New Jersey. Filed Feb. 20, 1911. Serial No. 609,612. (Cl. 197—155.)



1. In a typewriting machine, the combination of printing keys, variable ribbon vibrating devices, and key operated ribbon stop devices including a plurality of ribbon stops movable alternately into and out of operative position by a different key operation from that by which the vibrating devices are varied and in predetermined order in respect thereof.

2. In a typewriting machine, the combination of a ribbon vibrator, vibrator actuating devices settable to give different extents of throw to the vibrator, stop devices for said actuating devices, and means normally operative to prevent resetting of said actuating devices, said means being independent of the operation by which the actuating devices are set to vary the throw of the vibrator.

3. In a typewriting machine, the combination of a ribbon vibrator, vibrator actuating devices settable to give different extents of throw to the vibrator, stop devices for said actuating devices, and means connected to said stop devices and normally operative to prevent resetting of said actuating devices.

4. In a typewriting machine, the combination of a ribbon vibrator, actuating devices therefor, key controlled means for setting said actuating devices to give different extents of throw to the vibrator, stop devices settable by a separate key, and check means for said key controlled means, said check means being independent of the key of said key controlled means.

5. In a typewriting machine, the combination of a ribbon vibrator, actuating devices therefor, key controlled means for setting said actuating devices to give different extents of throw to the vibrator, stop devices settable by a separate key, and check means for said key controlled means, said check means being movable into and out of operative position by said separate key.

[Claims 6 to 29 not printed in the Gazette.]

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1,040,407. BRUSH. GEORGE D. PUARRE, Weston, Mass. Filed Dec. 23, 1910. Serial No. 599,018. (Cl. 15—36.)



1. A brush comprising a handle; bristles connected with the handle bunched around a central opening; and a liquid proof separator within the bunch of bristles and entirely covering that end of the opening which is toward the handle.

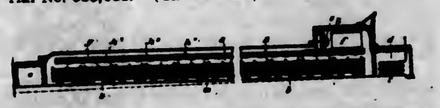
2. A brush comprising a bunch of bristles, and a separator within said bunch consisting of an outer layer of rubber and an inner layer of duck.

3. A brush comprising a bunch of bristles and a separator within said bunch consisting of a U-shaped layer of rubber and a U-shaped layer of duck within said layer of rubber, the ends of the layers being substantially flush with the ends of the roots of the bristles.

4. A brush comprising a bunch of bristles, a ferrule encircling the roots of said bunch; and a separator within said bunch, the ferrule being vulcanized to said roots and the roots to said separator, substantially as described.

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1,040,408. PROCESS FOR SWEATING CRUDE PARAFFIN-WAX OR LIKE MIXTURES (COMPOSITIONS) OF SUBSTANCES WHICH MELT AT DIFFERENT TEMPERATURES. DANIEL PFEIL, Balik Papan, Borneo, Dutch East India. Filed June 27, 1911. Serial No. 635,633. (Cl. 196—24.)



1. The process of sweating out paraffin wax and like mixtures of substances melting at different temperatures, which consists in moving the mass to be sweated in an opposite direction to that of a current of heated air of gradually increasing temperature so that fractional separation takes place.

2. The process of sweating out paraffin wax and like mixtures of substances melting at different temperatures, which consists in moving the mass to be sweated in an opposite direction to that of a current of heated air of gradually increasing temperature so that fractional separation takes place, and separately removing the separated fractions.

3. The process of sweating out paraffin wax and like mixtures of substances melting at different temperatures, which consists in continuously moving the mass to be sweated in an opposite direction to that of a current of heated air of gradually increasing temperature so that fractional separation takes place.

4. The process of sweating out paraffin wax and like mixtures of substances melting at different temperatures,

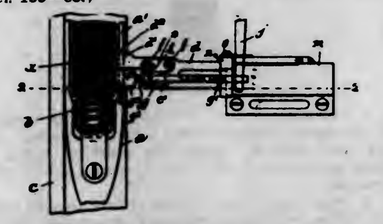
which consists in continuously moving the mass to be sweated in an opposite direction to that of a current of heated air of gradually increasing temperature so that fractional separation takes place, and separately removing the separated fractions.

5. The process of sweating out paraffin wax and like mixtures of substances melting at different temperatures, which consists in continuously moving the mass to be sweated in an opposite direction to that of a current of heated air of gradually increasing temperature so that fractional separation takes place, and reheating the air for further use.

[Claims 6 to 10 not printed in the Gazette.]

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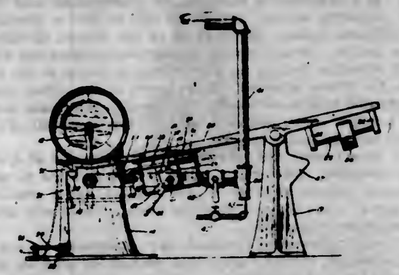
1,040,409. FEELER-MOTION FOR LOOMS. VICTOR RAINVILLE, Lawrence, Mass., assignor, by mesne assignments, to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed July 25, 1910. Serial No. 573,781. (Cl. 139—85.)



1. In a loom having filling-replenishing mechanism, a shuttle having a slotted side, and a bobbin in the shuttle having an abutment, in combination, a yieldingly sustained feeler-controller, a bunter-head on said controller to enter said slot and engage the abutment upon predetermined filling exhaustion, a lever mounted on said controller to swing vertically and comprising a horizontally disposed operating arm for the filling-replenishing mechanism, normally held by gravity in an operative position, a rigidly connected feeler arm depending from the axis, and a horizontally projecting feeler-head fixed on the feeler arm at one side of said bunter-head and normally sustained by gravity adjacent the level thereof in position to enter the slot in the shuttle and engage the filling at one side of said abutment, the filling-engaging face of the feeler-head being maintained by gravity normally in advance of the face of the bunter-head and movable downwardly as it is moved rearwardly by engagement with the filling, to swing said operating arm upwardly to inoperative position prior to actuation of the controller by engagement of the bunter-head with the filling in the shuttle until the filling is substantially exhausted.

2. In a loom having weft-replenishing mechanism, a shuttle, and a bobbin carried thereby having an abutment, the combination of a yieldingly sustained feeler-controller having a forwardly extending bunter-head provided with an abutment-engaging face, a longitudinally adjustable bracket on the controller having an upright ear, a vertically swinging lever pivotally mounted on the ear and comprising a horizontally extended operating arm for the weft-replenishing mechanism, normally held by gravity in an operative position, and a rigidly connected arm depending from said pivot and extended forward horizontally at its lower end to form a fixedly connected feeler-head, said extended head having a face to be engaged by the filling on the bobbin in the shuttle, normally to swing the operating arm to an inoperative position prior to movement of the controller in unison with the lay, and means to clamp the bracket in adjusted position on the controller, adjustment of the bracket varying the normal projection of the face of the feeler-head beyond the face of the bunter-head, the engagement of the latter with the abutment prior to engagement of the feeler-head with the filling effecting bodily movement of the controller while the operating arm thereon is in its operative position, to thereby operate the weft-replenishing mechanism.

1,040,410. APPARATUS FOR REMOVING PITCH FROM CASKS AND THE LIKE. HENRY RAUCH and HARRY B. RAUCH, Mount Vernon, N. Y. Filed Apr. 27, 1912. Serial No. 693,693. (Cl. 34—18.)



1. In an apparatus for removing pitch from casks and the like, the combination with a support adapted to receive a cask, and a burner adapted to project into a cask and to heat the interior of the same; of a rocking frame, one end of which is adapted to elevate said cask and remove same from said burner.

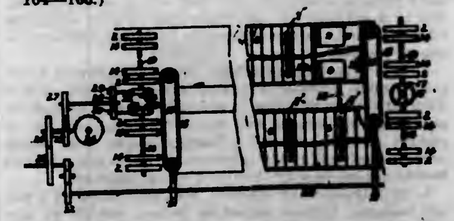
2. In an apparatus for removing pitch from casks and the like, the combination with a support adapted to receive a cask, and a burner adapted to project into a cask and to heat the interior of the same; of a rocking frame, one end of which is adapted to elevate said cask and remove same from said burner; said rocking frame being provided with means for holding same stationary and with means for releasing said holding means and thereby permitting said frame to rock.

3. In an apparatus for removing pitch from casks and the like, the combination with a support adapted to receive a cask, and a burner adapted to project into a cask and to heat the interior of the same; of a rocking frame, one end of which is adapted to elevate said cask and remove same from said burner; said rocking frame being provided with means for holding same stationary and with means for automatically releasing said holding means and thereby permitting said frame to rock.

4. In an apparatus for removing pitch from casks and the like, the combination with a support adapted to receive a cask, and a burner adapted to project into a cask and to heat the interior of the same; of a rocking frame, one end of which is adapted to elevate said cask and remove same from said burner; said rocking frame being provided with means for holding same stationary and with means for automatically releasing said holding means at predetermined intervals of time and thereby permitting said frame to rock.

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1,040,411. MOVING PLATFORM FOR THEATERS. JOSEPH ANTONIO HILAIRE RAYMOND, Montreal, Quebec, Canada. Filed June 9, 1911. Serial No. 632,215. (Cl. 104—166.)

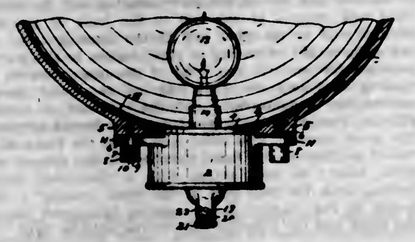


The above described system of platforms which consists in an endless platform supported on rollers and moving forward; the lower return part thereof also supported by rollers; another endless platform also supported by rollers similar to the first and moving backward; the two actuated by endless chains and sprocket wheels; each platform being composed of sets of slats hinged together so as to offer a smooth contact surface to the rollers, the center slat of each set bearing a projecting tongue; seats for the public fixed to separate and independent floorings, each having on its lower face a groove to fit the tongue of the center slat of the sets; rollers fixed under the floorings of the seats; endless chains to move the floorings, from end platform to the other; pins or sprockets fixed to the front and to the rear of the floorings, fitting the links of the endless chains; a main wheel 23 to actuate the wheel 24; a wheel 25 having cogs on one half of its circumference and acting intermittingly on wheel 27 to revolve in opposite directions the worm screws 31 and 32 which move the two platforms simultaneously in opposite direction and a miter gear to insure the regularity of the motion, for the purpose and in the manner hereinabove specified.



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1,040,412. LIGHT-REFLECTOR FOR AUTOMOBILE-LAMPS. CASPAR REICHL, Milwaukee, Wis. Filed Feb. 5, 1912. Serial No. 675,417. (Cl. 240—44.)



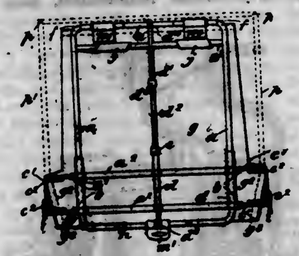
1. In a device of the described class, the combination of a light reflector, hub supporting means affixed to the rear exterior surface of said reflector, a detachable lamp supporting hub, a lamp adjustably supported from said hub, means for securing said lamp at any desired point of adjustment in said hub, means connected with said hub adapted to engage the supporting members of said reflector, and means for temporarily securing said hub to the rear surface of said reflector.

2. In a device of the described class, the combination of a light reflector, hub supporting means affixed to the rear exterior surface of said reflector, a detachable lamp supporting hub, a lamp adjustably supported from said hub, means for securing said lamp at any desired point of adjustment in said hub, means connected with said hub adapted to engage the supporting members of said reflector, and means for yieldingly retaining said hub engaging members in place.

3. In a device of the described class, the combination of a light reflector, a detachable lamp supporting hub, a plurality of laterally projecting lugs formed integrally with said hub, a plurality of hub supporting screws rigidly affixed at one end to said reflector and adapted to engage at their opposite ends in recesses provided therefor in said laterally projecting lugs, and means for yieldingly retaining the laterally projecting lugs of said hub in engagement with said hub supporting screws.

4. In a device of the described class, the combination of a light reflector, a detachable lamp supporting hub, a plurality of laterally projecting lugs formed integrally with said hub, a plurality of hub supporting screws rigidly affixed at one end to said reflector and adapted to engage at their opposite ends in recesses provided therefor in said laterally projecting lugs, a cap connected with the protruding end of each of said screws, a spiral spring interposed between the heads of said screws and the opposing converging end of said cap, said springs being adapted by their recoil to yieldingly retain said caps in binding contact with the opposing surfaces of said laterally projecting lugs, all substantially as and for the purpose specified.

1,040,413. KNAPSACK AND CARRIER THEREFOR. JOHN RENARD, London, England. Filed Aug. 31, 1911. Serial No. 647,661. (Cl. 224—12.)



1. In a support for a knapsack for military or other purposes, a frame, a broad flexible body designed to rest upon the back and attached at one end to the frame, adjustable members on said frame, and means connecting said adjustable members with the sides of the flexible body.

2. In a support for a knapsack for military or other purposes, a rectangular frame, means for securing said frame to the person, a second frame adjustably mounted upon the first frame and a broad flexible body designed to rest upon the back and connected at one end to the first frame, adjustable members on the second frame to which the other end of said flexible body is attached.

3. In a support for a knapsack for military or other purposes, a rectangular main frame, means for securing said frame to the person, a second frame adjustably mounted upon the first frame, a broad flexible body designed to rest upon the back stretched across the support and attached at one end to the main frame, adjustable spring members on the second frame to which the other end of the flexible body is attached.

4. In a support for a knapsack for military or other purposes, a rectangular main frame, a transverse member at the upper end of said frame, straps for securing the frame to the person, attached to said member, a second frame comprising transverse members slidably mounted on the side members of the main frame, a nut and screw on the second frame for adjustment, spring members adjustably supported by said second frame, a broad flexible body designed to rest upon the back stretched across the support and connected at its upper end to the top member of the main frame and at its lower sides to the spring members of the second frame.

5. In a support for a knapsack for military or other purposes, a rectangular main frame, a transverse member at the upper end of said frame, straps attached to said member for securing the frame to the person, a second frame comprising transverse tubular members slidably mounted in the side members of the main frame, spring members telescoping within the ends of the members of the second frame, a broad flexible body designed to rest upon the back stretched across the support, and attached at its upper end to the top of the main frame, and having its lower sides attached to the adjustable spring members of the sliding frame.

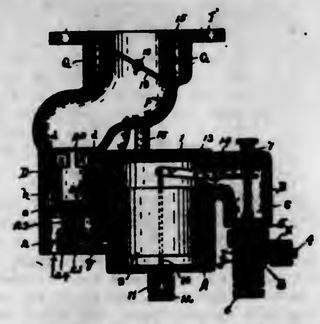
[Claims 6 and 7 not printed in the Gazette.]

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1,040,414. CARBURETER. GEORGE P. RITTIG, Richmond, Ind. Filed Sept. 7, 1910. Serial No. 580,921. (Cl. 48—155.2.)

A carbureter comprising a casing having a liquid fuel reservoir, said casing having an extension forming a carbureted fuel supply chamber and being of arc formation located concentric to the reservoir and adapted to be connected to the intake of an engine, said arc-shaped chamber being divided into a plurality of circular carbureting chambers each having independent air inlets and connections with the fuel reservoir and supply chamber, an independently operable oil nozzle in each circular

chamber, a controller in each of said chambers, each controller comprising an inverted cylinder with openings in its side walls adjacent the upper end and adapted to have vertical reciprocation, each cylinder



having an enlarged lower end and means whereby each of said cylinders will be progressively operated by the suction of the engine, each being adapted to operate at a different degree of suction.

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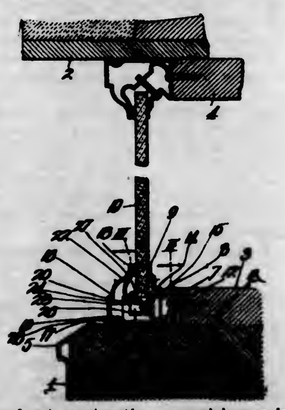
1,040,415. SAFETY SNAP-HOOK. SAMUEL W. REYNOLDS, West Toledo, Ohio. Filed Nov. 18, 1911. Serial No. 661,141. (Cl. 24—236.)



A safety snap-hook having its bill provided adjacent to its end with laterally spaced inwardly projecting lugs, the inner sides of which are currugated lengthwise of the hook, and a spring tongue adapted to seat at its free end between said lugs and be moved into engagement with the corrugations thereof when moved laterally from neutral position.

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1,040,416. STORE-FRONT CONSTRUCTION. EBBETT S. RHOADS and VERNON ROSS, Kansas City, Mo. Filed Feb. 8, 1911. Serial No. 607,442. (Cl. 189—78.)

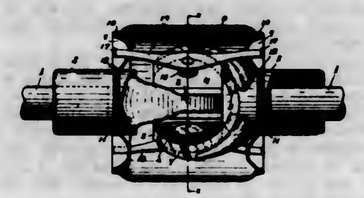


1. A store front construction, comprising an inner member provided with a wing to engage the inner face of a window light and an arm to project outward beyond the adjacent edge of the window light and terminating in a bowed portion, an outer member provided at one edge with an inturned bowed portion fitting under and interlocked with the bowed portion of the inner member and at its other edge with a hook for engagement with the outer face of the window light, a key arranged diagonally between the said arm of the inner member and the window light and secured at one end in the hook of the outer member and at its other end to the inner member, and fastening means extending at right angles to the key and securing the same to the wing of the inner member and tending to clamp the hook edge of the outer member against the window light and the inturned or opposite edge in interlocked engagement with the bowed portion of the inner member; said outer member in the plane of the bowed portion of the inner member having one or more drain holes.

2. A store front construction comprising an inner member provided with a wing to engage the inner face of a window light and an arm to project outward beyond the adjacent edge of the window light and terminating in a bowed portion, an outer member provided at one edge with an inturned bowed portion fitting under and interlocked with the bowed portion of the inner member and at its other edge with a hook for engagement with the outer face of the window light, a key arranged diagonally between the said arm of the inner member and the window light and secured at one end in the hook of the outer member and at its other end to the inner member, and fastening means extending at right angles to the key and securing the same to the wing of the inner member and tending to clamp the hook edge of the outer member against the window light and the inturned or opposite edge in interlocked engagement with the bowed portion of the inner member; said outer member in the plane of the bowed portion of the inner member having one or more drain holes; in combination with a channeled bracket resting upon the said arm of the inner member a block fitting in the channel and a cushion interposed between the block and the adjacent edge of the window light.

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1,040,417. UNIVERSAL JOINT. BERT O. RHODES, Kalamazoo, Mich. Filed Apr. 3, 1909. Serial No. 487,704. Renewed May 22, 1912. Serial No. 699,071. (Cl. 74—19.)



1. In a universal joint, the combination of a pair of shaft members each having a curved fork bearing, the arc of which exceeds a half circle; a coupling member therefor having curved groove-like bearings for said bearings of said shaft members, the radial plane of the bearings for one shaft member being at a right angle to the radial plane of the bearings for the other, the length of said coupling member being less than the distance between the ends of said shaft bearings whereby the same may be engaged with the coupling member bearings when presented radially thereto, said coupling member being chambered to form an oil reservoir and having an oil opening for each of its said bearings; a casing comprising a shell-like body portion, the flexible portions connected to each end thereof and to said shaft members; and supporting members for said casing mounted on said coupling member.

2. In a universal joint, the combination of a pair of shaft members each having a curved forked bearing, the arc of which exceeds a half circle; a coupling member therefor having curved groove-like bearings for said bearings of said shaft members, said coupling member being chambered to form an oil reservoir and having an oil opening for each of its said bearings; a casing comprising a shell-like body portion, and flexible portions connected to each end thereof and to said shaft members; and supporting members for said casing mounted on said coupling member.

3. In a universal joint, the combination of a pair of shaft members each having a curved forked bearing, the arc of which exceeds a half circle; a coupling member therefor having curved groove-like bearings for said bearings of said shaft members; a casing comprising a shell-like body portion, the flexible portions connected to each end thereof and to said shaft members; and supporting members for said casing mounted on said coupling member, said casing supporting members being independent of the bearings of the joint.

4. In a universal joint, the combination of a pair of shaft members each having a curved forked bearing, the arc of which exceeds a half circle; a coupling member therefor having curved groove-like bearings for said bearings of said shaft members; a casing comprising a shell-like body portion, and flexible portions connected to each end thereof and to said shaft members; and supporting members for said casing mounted on said coupling member to engage said body of said casing, said shell supporting member being independent of the bearings of the joint.

5. In a universal joint, the combination of a pair of shaft members each having a curved forked bearing, the arc of which exceeds a half circle; a coupling member therefor having curved groove-like bearings for said gearings of said shaft members; a casing; and spring supporting members for said casing mounted on said coupling member.

[Claims 6 and 7 not printed in the Gazette.]



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1,040,418. METHOD OF JOINING METALS. ADOLPH F. RIETZEL, Lynn, Mass., assignor, by mesne assignments, to Thomson Electric Welding Company, a Corporation of Massachusetts. Filed Oct. 2, 1906. Serial No. 337,136. (Cl. 219—10.)



1. The herein described method of joining or coupling two pieces of metal together, consisting in assembling the pieces to be joined in the desired juxtaposition between pressure and current supplying blocks or pieces and in engagement with a coupling piece bridging the line of division between the pieces to be joined and then passing heating electric current from one to the other of said blocks while localizing said current in portions of said coupling piece of limited area, and forcing the coupling piece and pieces of metal to be joined into intimate contact with one another over their opposite plane faces and welding the coupling piece to both the pieces to be joined at the same time by forcing the current supplying blocks toward one another and against the coupling piece.

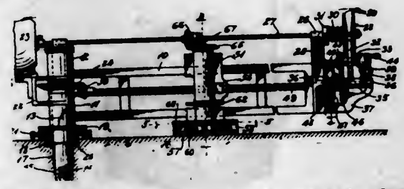
2. The herein described method of joining two pieces of sheet metal edge to edge, consisting in assembling the pieces in proper juxtaposition between two current supplying pressure blocks, placing a coupling piece having upturned edges on said sheets with the faces of the sheets engaged by the upturned edges and with the coupling piece bridging the line of division between said plates, passing heating electric current from one to the other of said pressure blocks and then forcing the pressure blocks toward one another and against the coupling piece to bring the parts into intimate contact over their whole plane faces and at the same time to effect a welded union of the coupling piece and pieces to be joined coinciding with the points of initial contact formed between the upturned edges and the plane faces of said pieces at opposite sides of the dividing line between them.

3. The herein described method of coupling two pieces of metal together consisting in assembling the pieces in the desired juxtaposition between two pressure blocks forming poles of an electric circuit for heating current and in engagement with a coupling piece bridging the line of division between the pieces and engaged with the same by a comparatively limited area of contact, passing a heating electric current from one to the other of said blocks and applying pressure through the same to weld the coupling piece to both pieces at the same time.

4. The herein described method of joining two pieces of sheet metal together, consisting in assembling the pieces in proper juxtaposition between two current supplying pressure blocks, placing a coupling piece provided with upturned edges on said sheets with the faces of the sheets engaged by the upturned edges of the coupling piece on opposite sides of the line of division between said plates, passing heating electric current from one to the other of said pressure blocks and then forcing the pressure blocks toward one another and against the coupling piece to bring the parts into intimate contact over their plane faces and at the same time to effect a welding union of the coupling piece and pieces to be joined, coinciding with the points of initial contact formed between the upturned edges and the plane faces of said pieces on opposite sides of the dividing line between them.

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1,040,419. SURFACING-MACHINE. JOHN E. RIGHTMIRE, Los Angeles, Cal. Filed June 19, 1911. Serial No. 633,942. (Cl. 144—118.)



1. A surfacing machine, comprising a pivot pin adapted to be mounted upon the material to be surfaced, an adjustable bracing means carried by said pin and having a bearing upon the said material to be surfaced, outside and around the pivot pin, the said pivot pin and bracing means forming the sole support for the machine, a frame pivoted upon said supporting pin and adapted to swing around the same, a rotatable cutter carried by said frame, and a motor also mounted on said frame and adapted to actuate said cutter.

2. A surfacing machine, comprising a pivot pin adapted to be set upon a surface to be planed, adjustable collars surrounding the said pivot pin, one of said collars being rigidly mounted upon the said surface while the other is adjustably carried by the said pivot pin, the collars cooperating to hold the pivot pin in properly adjusted vertical position, a frame journaled upon said pin and resting upon one of said collars, a motor mounted upon the said frame, means operated by the said motor for turning the frame upon the pin, and a cutter movably mounted on said frame and adapted to be operated by the said motor.

3. A surfacing machine, comprising a supporting post adapted to be held in vertical position upon a surface to be planed, an adjustable member carried by the said post and adapted to bear upon the said surface for bracing the post in vertical position, a frame journaled upon said post, gearing carried by the frame and connected with the post for swinging the frame around the same, a rotating cutter mounted upon said frame, gearing for operating the said cutter, and motive means carried by the frame for driving the cutter and moving the frame about the supporting post.

4. A surfacing machine for meat blocks, comprising a center post adapted to be fastened in a recess formed in a meat block, a collar surrounding said post, adjusting screws carried thereby for adjusting the said post to ver-

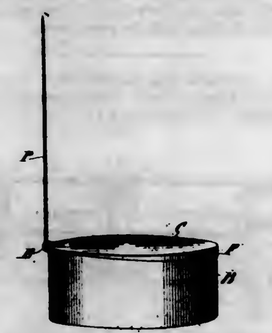
tical position, a frame journaled upon the said post, a gear fixed to the said post, gearing upon the said frame meshing with the gear of the post and means for actuating the said gearing for turning the frame about the said post, the said post constituting the sole support of said frame and a leveling device therefor.

5. A surfacing machine comprising a post, adapted to be secured upon the surface to be planed, a frame journaled upon said post and extending radially therefrom, a shaft journaled upon the said frame, gearing connecting the said shaft with the post, an actuating shaft also journaled upon said frame, a motor carried by the frame and operating the said actuating shaft, intermediate gearing interposed between the two shafts, a mechanism for controlling the speed communicated from one to the other, the actuating of the gearing and shafts by the motor operating to swing the frame about the post.

[Claims 6 to 12 not printed in the Gazette.]

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1,040,420. RECEPTACLE FOR CHEWING-GUM. WILLIAM DICKEY ROOP, Marion, Ind. Filed Nov. 25, 1911. Serial No. 662,522. (Cl. 206—37.)

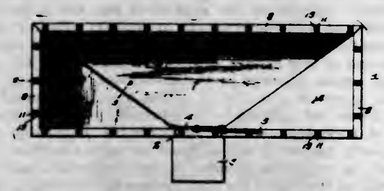


1. A box and a cover each having an opening and a pin having an eye looped through the openings to constitute a hinge member.

2. A box having an opening adjacent to its rim, a cover having a flange that gradually narrows in width toward one side and provided with an opening at the narrowest portion of the flange, and a pin having an eye looped through the openings.

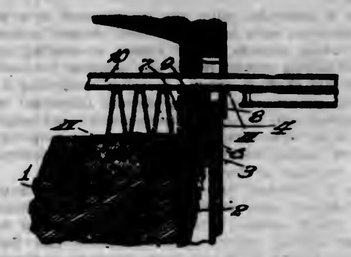
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1,040,421. UNLOADING-BARGE. NICHOLAS ROSE, New Rochelle, N. Y. Filed Oct. 25, 1911. Serial No. 656,649. (Cl. 114—36.)



A barge including a vessel of rectangular configuration, an angular plate straddling the top edges of the end, rear, and front walls and formed on their top face with upwardly extending stem portions, a discharge opening for said vessel, a sectional bottom hopper forming a part of the vessel and including angularly disposed walls, the said hopper having its discharge end rigidly in line with the opening, and flanges carried by each of the sections of the bottom and overlying the top of said angular plates and operatively receiving and connecting the said stems, and means for rigidly securing the same to said vessel.

1,040,422. WALL CONSTRUCTION FOR KILNS AND THE LIKE. HENRY RUSSELL, St. Louis, Mo. Filed July 8, 1911. Serial No. 637,521. (Cl. 75—142.)



1. In a wall for kilns and the like, the combination with spaced tiles enlarged outwardly, of an intermediate tile enlarged inwardly to interlock with said spaced tiles, and means for anchoring said spaced tiles.

2. In a wall for kilns and the like, the combination with a pair of spaced wedge-shaped tiles having enlarged edges disposed outwardly, of an intermediate wedge-shaped tile with its enlarged edge disposed inwardly, and means for anchoring said spaced tiles.

3. In a wall for kilns and the like, the combination with rigidly mounted beams, of tiles provided with recesses fitting the ends of said beams, said tiles being wedge-shaped to form an outwardly narrowed space, and a wedge-shaped tile fitting said space.

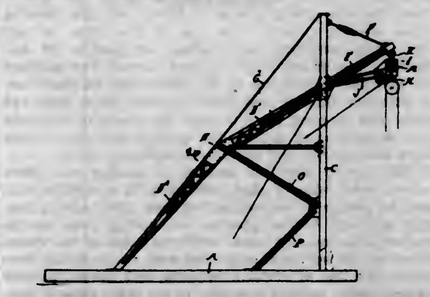
4. In a kiln or the like, the combination with a foundation, of vertically disposed beams having their lower ends embedded in said foundation, wedge-shaped tiles provided with recesses into which the upper ends of said beams project to retain said tiles against lateral displacement, and wedge-shaped tiles disposed intermediately of said recessed tiles.

5. In a kiln or the like, the combination with a foundation, of vertically disposed beams having their lower ends embedded in said foundations, wedge-shaped tiles provided with recesses into which the upper ends of said beams project to retain said tiles against lateral displacement, and wedge-shaped tiles disposed intermediately of said recessed tiles, said tiles being provided with brick retaining ledges.

[Claims 6 to 8 not printed in the Gazette.]

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1,040,423. LOGGING APPARATUS. CLINTON W. RUSSELL, Detroit, Mich. Filed July 23, 1910. Serial No. 573,423. (Cl. 212—14.)



1. In a logging apparatus, the combination with a base frame, of a tripod derrick mounted thereon, one of the members of said tripod extending forward beyond its point of connection to the other members, and a hauling block secured to said forwardly projecting portion.

2. In a logging apparatus, the combination with a base frame, of a tripod derrick mounted thereon comprising a forward A-frame and an inclined member secured to and crossing said A-frame below its apex to form a forwardly extending over-hanging portion, and a hauling block secured to said forwardly projecting over-hanging portion.

3. In a logging apparatus, the combination with a base frame, of a tripod derrick mounted thereon comprising a forward A-frame, an inclined member secured to and crossing said A-frame at a point below its apex to form an over-hanging portion, and a pivotal block supporting member depending from said over-hanging portion.

4. In a logging apparatus, the combination with a base frame, of a tripod derrick mounted thereon comprising a forward A-frame and an inclined member connected to and crossing said A-frame at a point below its apex constituting an over-hanging portion, and a guy extending from the end of said over-hanging portion to the apex of the A-frame.

5. In a logging apparatus, the combination with a base platform, of a tripod derrick mounted thereon comprising a forward A-frame and an inclined member connected to and projecting forward of said A-frame at a point below its apex, a guy connecting the projecting end of said inclined member with the apex of the A-frame and another guy connecting said apex and said inclined member on the opposite side of said A-frame.

[Claims 6 to 8 not printed in the Gazette.]



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1,040,424. DENTAL PLUGGER. WILLIAM AMBROSE SALE, Providence, R. I., assignor of one-half to Stephen H. Briggs, Providence, R. I. Filed Feb. 14, 1911. Serial No. 608,615. (Cl. 32—26.)



A dental plugger, comprising in combination, a two part chambered body member having a screw-threaded hole extending from the chamber through the forward end, a screw-threaded sleeve in the hole and having a knurled flanged outer end, a reciprocatory stem extending through the sleeve and having adjacent its outer end an annular groove, a ring in the annular groove, a circular head on the inner end of the reciprocatory stem and having an inclined radial V shaped notch in its face, and provided with a lug on its face, a coiled spring surrounding the reciprocatory stem and engaging the sleeve and the head on the stem, a rotatable shaft having a circular head on its inner end and a lug on the face of the head in a position to engage the lug on the head of the reciprocatory stem, a spring actuated controlling pin extending through the body and having an inverted cone shape inner end, adapted to enter and permanently engage the radial notch in the head of the reciprocatory stem, means for holding the reciprocatory stem against rotation, means for detachably securing the shaft to the grip in a dental hand piece, means for detachably securing the body to the dental hand piece and means for detachably securing a plugging tool to the outer end of the reciprocatory stem.

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1,040,425. TOUPEE. LEOPOLD S. SAMUEL, Newark, N. J. Filed Nov. 17, 1911. Serial No. 660,855. (Cl. 132—23.)



1. A toupee comprising a narrow strip for securing the toupee to the head of the wearer and having its upper surface simulating the skin of the wearer, a hair portion secured to the strip and extending in opposite directions therefrom, the hair having its major portion extending beyond the strip and resting on the head of the wearer, and means for securing the hair portion to the strip so that the hairs emerge therefrom in a substantially vertical direction.

2. A toupee comprising a narrow strip for securing the toupee to the head of the wearer and having its upper surface simulating the skin of the wearer, a hair portion secured to the strip and extending in opposite directions therefrom, the hair having its major portion extending beyond the strip and resting on the head of the wearer, and a raised element for securing the hair portion to the strip and causing the hair to emerge therefrom in a direction substantially perpendicular to the strip.

3. A toupee comprising a narrow strip for securing the toupee to the head of the wearer and having its upper surface simulating the skin of the wearer, a hair portion secured to the strip and extending in opposite directions therefrom, the hair having its major portion extending beyond the strip and resting on the head of the wearer, and substantially parallel raised strips on the first-mentioned strips to form the boundaries of the "part" and cause the raising of the hair portion on each side of the "part" and adjacent thereto.

4. A toupee comprising a body portion of hair, a sustaining strip to which the hair is secured, and binding means connecting the hairs of the lower strata of the hair portion to hold the lower strata approximately in its place, but permitting the unhindered movement of the upper strata.

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1,040,426. SPRING-WHEEL. LOUIS SANDERS, Cravens, La. Filed Feb. 10, 1912. Serial No. 676,764. (Cl. 152—44.)

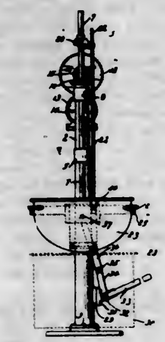


1. In a spring wheel, a hub, an axle thimble arranged within the hub and in spaced relation to the wall thereof, said thimble being provided with a plurality of longitudinally extending grooves gradually tapering from one end of the thimble, to the other, and a plurality of series of radially extending cushioning springs, the coils of each series of springs differing in diameter, one of the end coils of said springs being adapted for movement in the grooves of the thimble from the wider into the narrower ends of said grooves to bind against the side walls of the grooves, the other ends of said springs bearing against the inner wall of the wheel hub.

2. In a spring wheel, a hub, an axle thimble arranged within the hub and spaced from the wall thereof, said hub and thimble being provided in their opposed surfaces with a plurality of longitudinally extending grooves gradually tapering from one end to the other of the hub and thimble, and a plurality of series of radially extending cushioning springs having end coils of greater diameter than the intermediate coils and adapted to be fitted within the grooves of the hub and thimble respectively for binding engagement with the side walls thereof.

3. In a spring wheel, a hub, an axle thimble arranged within the hub in spaced relation thereto, said hub and thimble having a plurality of longitudinally opposed grooves, said grooves in the hub and thimble being correspondingly gradually reduced in width from the outer to the inner ends thereof and having undercut side walls, and a plurality of series of radially disposed cushioning springs having end coils of greater diameter than the intermediate coils and adapted to engage in the grooves of the hub and thimble and be moved into the same from the wider toward the narrower ends of said grooves and into binding engagement with the undercut side walls thereof.

1,040,427. CANDY-MAKING MACHINE. RICHARD J. SAVAGE and CHARLES E. SCHULTZ, Chicago, Ill. Filed Mar. 4, 1912. Serial No. 681,523. (Cl. 127—11.)



1. A candy-making machine, comprising a kettle, means adapted to support the same above the fire, and operating lever, and toggle arms intermediate said lever and said supporting means, whereby said lever is adapted to raise or lower said kettle.

2. A candy-making machine, comprising a kettle, means supporting the same above the fire, a shaft projecting into the kettle, means extending from said supporting means to said shaft, a lever, and a pair of toggle-arms intermediate said lever and said supporting means, whereby said lever is adapted to raise and lower said kettle and said shaft.

3. A candy-making machine, comprising a kettle, a yoke by which said kettle is supported, a base to which the arms of said yoke are united, a shaft, means intermediate said shaft and connected to said base, whereby rotation of said shaft causes movement of said base, and means for rotating said shaft.

4. A candy-making machine, comprising a kettle, a yoke supporting the same, a base to which the arms of said yoke are united, a guide in connection with which said yoke is adapted to slide, a shaft, toggle arms intermediate said shaft and connected to said base, and means for rocking said shaft.

5. A candy-making machine, comprising a kettle, a yoke supporting the same, a base to which the arms of said yoke are united, a rotating shaft, an arm adapted to raise or lower the same and connected to said kettle-supporting means, and means for reciprocating said kettle-supporting means.

[Claim 6 not printed in the Gazette.]

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1,040,428. DEVICE FOR AIDING THE HEARING. EUGENE W. SCHNEIDER, New York, N. Y., assignor to The Mears Ear Phone Company, New York, N. Y., a Corporation of New York. Filed May 18, 1908. Serial No. 433,402. (Cl. 179—107.)

1. In an apparatus for aiding the hearing, the combination of a telephonic transmitter, a pair of metal strips mounted on the back of the transmitter and constituting the electrical terminals thereof for connection with a source of current, binding devices carried by the transmitter for connecting in circuit therewith the conductors of a receiver, and means carried by one of the said transmitter terminals for clamping such conductors in fixed relation to the transmitter independently of the said binding devices.

2. In an apparatus for aiding the hearing, the combination of a telephonic transmitter, means for connecting the same with a battery, including a pair of terminals one of which is electrically connected with the transmitter casing and the other insulated therefrom, and a pair of binding devices extending through the back of the transmitter and insulated therefrom, and provided with binding screws for connecting to the transmitter the conductors of a receiver, one of said binding devices being electrically connected with the transmitter electrode and the other with the insulated transmitter-terminal.



3. In an apparatus for aiding the hearing, the combination of a telephonic transmitter, means for connecting the same with and supporting it upon a battery, and means for connecting the transmitter with a receiver, comprising binding devices hermetically sealed in the wall of the transmitter casing and provided with binding screws outside of the casing for securing the conductors of the receiver.

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1,040,429. DEVICE FOR AIDING THE HEARING. EUGENE W. SCHNEIDER, New York, N. Y. Filed Feb. 11, 1910. Serial No. 543,243. (Cl. 179—189.)



1. In an apparatus for aiding the hearing, in combination, a telephonic device having a casing provided with a removable cover, and a cover lock inclosed within the casing and operated by the movement of the cover in attempting to remove the same.

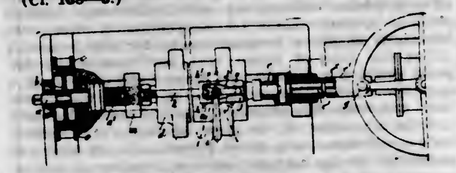
2. In an apparatus for aiding the hearing, in combination, a telephonic device having a casing provided with a removable cover, a cover lock inclosed within the casing and operated by the movement of the cover in attempting to remove the same, and means operable from outside the casing for controlling said lock.

3. In an apparatus for aiding the hearing, in combination, a telephonic device having a casing provided with a removable cover, a cover-lock inclosed within the casing, means operable from outside the casing to control the lock, and electrical terminals to connect the telephonic device with a source of current, said terminals carried by the casing and arranged to conceal said lock controlling means.

4. In an apparatus for aiding the hearing, in combination, a telephonic device having a casing provided with a screw-threaded removable cover, a lock inclosed within the casing and having a part extending into engagement with the cover whereby rotary movement of the cover will cause the said part to grip the cover and prevent removal of the same, and means operable from outside the casing for controlling the lock.



1,040,430. REGULATING DEVICE FOR HYDRAULIC TRANSMISSION. EUGÈNE SCHNEIDER, Le Creusot, France. Filed Nov. 29, 1911. Serial No. 663,084. (Cl. 188—3.)



1. In a regulating device for variable speed transmission means, the combination of variable speed transmission means and means operated by said transmission means for controlling the speed of starting and stopping said transmission means.

2. In a regulating device for variable speed transmission, the combination of variable speed transmission means, a regulator member for the same, and cam means operated by the transmission means for controlling the movement of said regulator member.

3. In a regulating device for variable speed transmission, the combination of variable speed transmission means, a regulator member for the same, a slide block provided with cam surfaces for engaging the regulator member and connections between the transmission means and said block to move said block to control the movement of said regulator member.

4. In a regulating device of variable speed transmission, the combination of variable speed transmission means, a shaft driven by said means, a slide block having a threaded connection with said shaft and provided with a cam having a plurality of speed governing cam surfaces, and a control lever for said transmission means having a stop which is adapted to engage said cam surface as the block moves by action of said shaft to control the movement of said lever and determine the speed of said shaft according to the cam surface engaged.

5. In a regulating device of variable speed transmission, the combination of variable speed transmission means, a shaft driven by said means, a slide block having a threaded connection with said shaft and provided with a cam having two symmetrically disposed cam surfaces presenting contours for effecting variable speeds of said shaft in each direction of its rotation, and a control lever for said transmission means provided with stops adapted to engage one or the other of said cam surfaces to limit the movements of said control lever.

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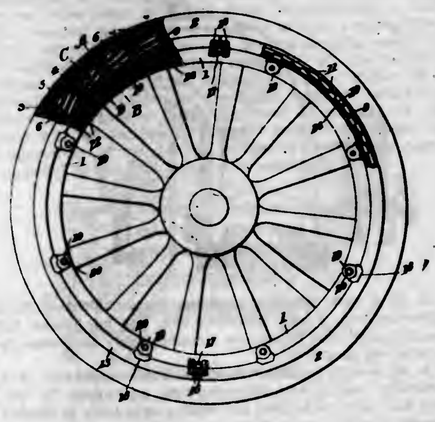
1,040,431. CUSHION-TIRE. PAUL SCHNEIDER, Webster Groves, Mo. Filed Feb. 12, 1912. Serial No. 677,183. (Cl. 152—8.)



1. A cushion tire comprising an outer casing and a core including an endless helical spring and an annular strut member extending around the middle of the spring and having seats in which the respective convolutions of the spring are seated at diametrically opposite sides in a horizontal plane.

2. A cushion tire comprising an endless helical spring and an annular strut member comprising a flat band extending around the interior of said spring, said strut member having serrated marginal portions engaging the respective convolutions of said spring.

1,040,432. RESILIENT TIRE. CHARLES T. SCHOUP, Media, Pa. Filed June 29, 1911. Serial No. 636,063. (Cl. 152—8.)



1. A resilient tire for vehicle wheels, having a resilient casing provided with integral individual open-ended cylindrical pockets having grooves in their walls adjacent to the open ends thereof, a tapering coil spring arranged in each of said pockets and having its smaller end engaging the bottom of the pocket and its larger terminal convolution engaging the groove at the opening in the pocket, and a band applied to the casing and covering said openings to hold the springs in place and adapt the casing for the application to a wheel.

2. A resilient tire for vehicle wheels, having a resilient casing provided with integral individual cylindrical pockets having a shouldered recess in their bottoms and a groove in their walls adjacent to the entrances thereto, a tapering coiled spring arranged in each of said pockets having its smaller end fitted in the shouldered recess at the bottom of its pocket and its larger end engaging the groove at the entrance to the pocket, and a band applied to the casing to hold the springs in place and adapt the casing for the application to a wheel.

3. A resilient tire for vehicle wheels, having a casing provided with integral individual cylindrical pockets having a reduced portion in their bottoms and grooves in their walls adjacent to the entrances thereto, a tapering coiled spring arranged in each of said pockets having its smaller end fitted in the reduced portion at the bottom of its pocket and its larger end engaging the groove at the entrance to the pocket, and its intermediate convolutions out of contact with the walls of the pocket, and a band applied to the casing to hold the springs in place and adapt the casing for application to a wheel.

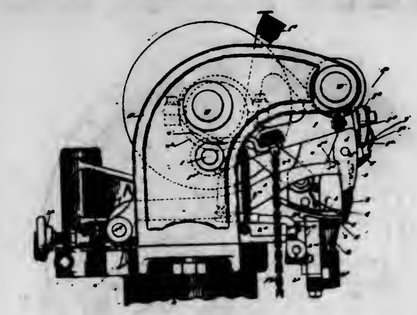
4. A resilient tire for vehicle wheels, having a casing provided with pockets, coiled springs mounted in said pockets, a sectional metallic base band applied to and carried by the casing for covering said pockets and holding said springs in place when the casing is removed from the wheel, spaced ears on said base band, and spaced cavities in the sides of the casing in transverse alinement with the pockets to receive said ears to hold the sections of said band in place upon the casing and prevent creeping of the casing, and means for fastening the tire to the rim of a wheel.

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1,040,433. ROUNDING-MACHINE. AUGUST R. SCHORNEY, Somerville, Mass., assignor to The Reece Shoe Machinery Company, Boston, Mass., a Corporation of Maine. Filed Apr. 10, 1912. Serial No. 689,925. (Cl. 12—18.)

1. In a shoe rounding machine, means for simultaneously and progressively trimming the sole edge and gut-

tering the welt top, and guiding means for guiding the shoe alternately by its crease and last during said operations.



2. In a shoe rounding machine, the combination of a trimming tool, a welt guttering tool, and mechanism for causing said tools to operate simultaneously progressively around the shoe.

3. In a shoe rounding machine, the combination of a trimming tool, a welt guttering tool, an outsole lip cutting tool, and mechanism for causing said tools to operate simultaneously progressively around the shoe.

4. In a shoe rounding machine, the combination of a trimming tool, a welt guttering tool, mechanism for causing said tools to operate simultaneously progressively around the shoe, and means for guiding the shoe alternately by its crease and last during said operations.

5. In a shoe rounding machine, the combination of a trimming tool, a welt guttering tool, mechanism for causing said tools to operate simultaneously progressively around the shoe, means for guiding the shoe alternately by its crease and last during said operations, and automatic means for throwing said guttering tool into operation when guiding by the last and out of operation when guiding by the crease.

[Claims 6 to 18 not printed in the Gazette.]

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1,040,434. AERIAL-VEHICLE STABILIZER. Laurence O. Schopp, St. Louis, Mo., assignor of one-half to Conrad L. Schopp, St. Louis, Mo. Filed Jan. 5, 1912. Serial No. 669,695. (Cl. 244—29.)



1. In a machine of the class described, the combination with a body, of a pair of longitudinally disposed shafts rotatably mounted on said body, a transversely disposed shaft rigidly fixed to each longitudinally disposed shaft, a pair of planes mounted on each transversely disposed shaft, a common means for simultaneously tilting the transverse shafts, and a common means for simultaneously tilting the pairs of planes upon said transversely disposed shafts.

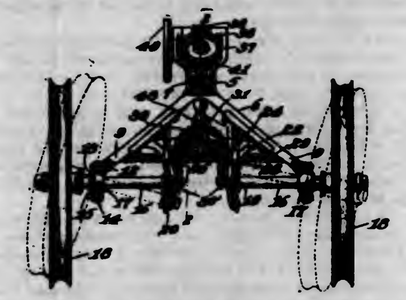
2. In a machine of the class described, the combination with a body, of a pair of longitudinally disposed shafts rotatably mounted on said body, a transversely disposed shaft rigidly fixed to each longitudinally disposed shaft, a pair of planes mounted on each transversely disposed shaft, a common means for simultaneously tilting the transverse shafts, a common means for simultaneously tilting the pairs of planes upon said transversely disposed shafts, a propeller at the forward end of the body, and a pair of vertically disposed rudders at the rear end of said body.

3. In a machine of the class described, the combination with a body, of a pair of longitudinally disposed shafts rotatably mounted on said body, a transversely disposed shaft rigidly fixed to each longitudinally disposed shaft, a pair of planes mounted on each transversely disposed shaft, a common means for simultaneously tilting the transverse shafts, a common means for simultaneously tilting the pairs of planes upon said transversely disposed shafts, a propeller at the forward end of the body, a pair of vertically disposed rudders at the rear end of said body, and means for swinging the pair of rudders laterally.

4. In a machine of the class described, an elongated, hollow, cylindrical body closed at both ends and having an opening in its top near its center, a propeller on the forward end of said body, a motor within the body for driving the propeller, steering means at the rear end of the body for steering the machine laterally during flight, a pair of longitudinally disposed shafts rotatably mounted on the body, a transversely disposed shaft rigidly fixed to each longitudinally disposed shaft, a pair of planes mounted on each transversely disposed shaft, a common means for simultaneously tilting the transverse shafts, and a common means for simultaneously tilting the pairs of planes upon the transversely disposed shafts.

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1,040,435. VEHICLE-TRUCK. Ernst G. Scherbier, Hammond, Ind. Filed Nov. 1, 1911. Serial No. 657,963. (Cl. 21—93.)



1. In a supporting truck for vehicles, an axle fulcrumed for universal movement, a carrying wheel mounted upon said axle, a means connected to one end of said axle to move the same in a vertical plane and dispose the wheel at an angle with relation to the longitudinal axis of the vehicle, and means with which said axle co-acts in its vertical movement to effect a positive movement thereof in a longitudinal plane with relation to the vehicle.

2. In a supporting truck for vehicles, an axle fulcrumed intermediate of its ends for universal movement, a carrying wheel mounted on one end of the axle, manually operable means connected to the other end of said axle to move the same in a vertical plane, means with which the latter end of the axle co-acts to positively move the axle in a longitudinal plane with relation to the vehicle during the vertical movement thereof, and means for adjusting said last named means to simultaneously vary the extent of vertical and longitudinal movement of the axle and in inverse relation.

3. A supporting truck for vehicles comprising truck wheels arranged on opposite sides of the vehicle and each having an axle fulcrumed intermediate of its ends for universal bodily movement, in combination with manually operable means for simultaneously moving the truck wheels to angularly position the same with relation to the longitudinal and transverse axes of the vehicle, and means for regulating the extent of such movement.

4. In a supporting truck for vehicles, opposed truck axles mounted for universal movement, carrying wheels mounted upon said axles, a power transmitting shaft, means connecting the adjacent ends of said axle to said shaft to move the axles in opposite vertical directions when the shaft is rotated, a guide member with which each of said axles co-acts in its vertical movement, said guide members positively moving the axles in a longitudinal plane with relation to the vehicle, and means for independently adjusting said guide members to vary the extent of longitudinal movement of one of the axles with relation to the other.

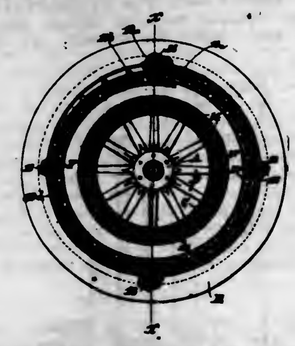
5. A supporting truck for vehicles comprising truck wheels mounted upon opposite sides of the vehicle and each having an inwardly extending axle journaled intermediate of its ends for universal movement, in combination with means connected to the inner ends of the axles to simultaneously move the same in opposite directions whereby the wheels are angularly disposed with relation to the transverse axis of the vehicle, and means with which the inner ends of said axles co-act to effect a longitudinal movement of the same whereby the wheels are also angularly disposed with relation to the longitudinal axis of the vehicle.

[Claims 6 to 10 not printed in the Gazette.]

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1,040,436. RESILIENT WHEEL. August Schmidt, Harvey, Ill. Filed Sept. 9, 1911. Serial No. 648,455. (Cl. 152—8.)



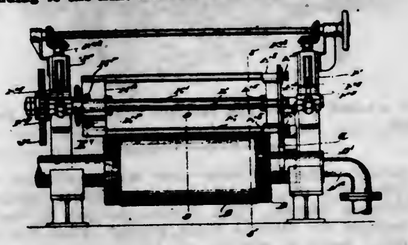
In a resilient wheel, means for resisting the movement of the tire, comprising, in combination, a resilient endless band constructed to bear against the inner surface of said tire, a helical spring surrounded by said endless band, said helical spring having coils of decreasing diameter as they approach the center of said wheel, there being in said helical spring convolutions having a series of perforations close to the margins of said spring, and further series of perforations closer together than the series at the margins, and convolutions that are non-perforated, the perforated and non-perforated convolutions alternating, and anti-friction means located in, and retained by, said perforations, the inner surface of said resilient band and both sides of the non-perforated convolutions of said helical spring affording tracks for the antifriction means.

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1,040,437. MACHINE FOR WINDING PAPER TUBES. William R. Seigle, Nashua, N. H. Filed June 2, 1911. Serial No. 630,922. (Cl. 93—66.)

1. In a tube winding machine, the combination with a web-former and web-deliverer, of a mandrel frame, a mandrel mounted thereon, movable bearings wherein the mandrel frame is rotatably mounted, disengageable devices to hold the mandrel frame with the mandrel in tube winding position, means to disengage said holding devices, controlled by the yielding movement of the mandrel frame in response to the growth of a tube wound upon the mandrel, and frictionally operating means to rotate the disengaged mandrel frame to carry the mandrel out of tube winding position.

2. In a tube winding machine, the combination with a web-former and web-deliverer, of a mandrel frame, a series of mandrels mounted thereon, movable bearings wherein the mandrel frame is rotatably mounted, a series of stops on the mandrel frame corresponding to the mandrels in number and disposition, disengageable devices coöperating with said stops in succession to hold the mandrel frame with a mandrel in tube winding position, means to disengage said holding devices, mediately controlled by the yielding movement of the mandrel frame in response to the growth of a tube wound on a mandrel, and frictionally operating means to rotate the disengaged mandrel frame to carry a mandrel out of tube winding position and into a succeeding position of engagement of the holding devices with the stop corresponding to the next mandrel in succession.



3. In a tube winding machine of the character described, the combination of a mandrel frame, movable bearings wherein the mandrel frame is rotatably mounted, mandrels mounted in the mandrel frame, a series of stops on the mandrel frame, and disengageable holding devices coöperating with said stops in succession, comprising a detent plate, yielding means to urge it normally toward position of engagement with said stops, a detent, a trip mounted on the detent plate, and a trip actuator in the path of movement of the trip to coöperate with the trip to disengage the detent from the mandrel frame.

4. In a tube winding machine of the character described, the combination of a mandrel frame, movable bearings wherein the mandrel frame is rotatably mounted, mandrels mounted in the mandrel frame, a series of stops on the mandrel frame, and disengageable holding devices coöperating with said stops in succession, comprising a detent plate and a detent thereon, yielding means to urge the detent plate normally toward position of engagement with said stops, a trip mounted on the detent plate and a trip actuator in the path of movement of the trip to coöperate with the trip to move the detent out of engagement with a mandrel frame stop, and means to adjust the detent plate and its yielding support as a whole toward or from the mandrel frame, to suit mandrels of different diameters.

5. In a tube winding machine of the character described, the combination of a mandrel frame, movable bearings wherein the mandrel frame is rotatably mounted, mandrels mounted in the mandrel frame, a series of stops on the mandrel frame, and disengageable holding devices coöperating with said stops in succession, comprising a detent plate with a detent thereon, yielding means to urge the detent plate normally toward position of engagement with said stops, a trip mounted on the detent plate, a trip actuator in the path of movement of the trip, to coöperate with the trip to disengage the detent from the mandrel frame, and means to adjust the positional relation of the trip and trip actuator.

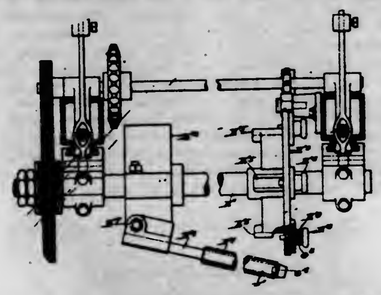
[Claims 6 to 10 not printed in the Gazette.]

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1,040,438. METHOD OF CONSTRUCTING WOUND PAPER TUBES. William R. Seigle, Nashua, N. H. Original application filed June 2, 1911, Serial No. 630,921. Divided and this application filed Oct. 9, 1911. Serial No. 653,579. (Cl. 92—66.)

The method of constructing wound paper tubes, which consists in winding a moist pulp-web spirally under pressure upon a mandrel, heating the mandrel with the paper-

tube thereon, thus expanding the mandrel and drying the moist pulp tube from the outside inwardly then allowing



the mandrel to cool and contract away from the paper tube.

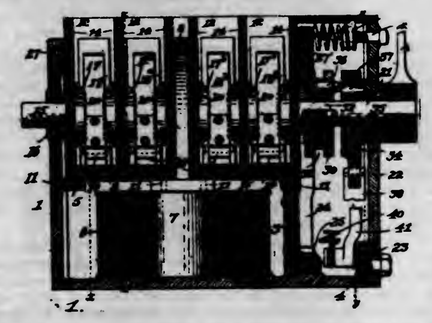
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1,040,439. PROCESS FOR THE MANUFACTURE OF AMMONIA BY MEANS OF ALUMINIUM NITRID. OTTOKAR SERPEK, Paris, France, assignor to Societe Generale des Nitrures, Paris, France. Filed May 14, 1912. Serial No. 697,255. (Cl. 23—21.)

As an improvement in the process of producing ammonia, subjecting aluminium nitrid to the action of a solution of aluminate of which the content in alkali is less than that which is necessary to render soluble the alumina resulting from the decomposition of the aluminium nitrid treated.

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1,040,440. BREAKER FOR ELECTRIC CIRCUITS. FRANK L. SESSIONS, Columbus, Ohio, assignor, by mesne assignments, to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Oct. 29, 1903. Serial No. 179,096. (Cl. 175—267.)



1. In a circuit breaker, the combination of the separable contacts, and the magnet having its poles disposed on opposite sides of said contacts so that the arcing space of the contacts lies in the magnetic air gap between said poles, one of said poles being movable toward and from the other under the action of the magnetic flux, substantially as set forth.

2. In a circuit breaker, the combination of the separable contacts, the magnet having its poles disposed on opposite sides of said contacts so that the arcing space of the contacts lies in the magnetic air gap between said poles, one of said poles being movable toward and from the other under the action of the magnetic flux, and the spring for controlling the movements of said movable pole, substantially as set forth.

3. In a circuit breaker, the combination of the separable contacts, the magnet having its poles disposed on opposite sides of said contacts so that the arcing space of the contacts lies in the magnetic air gap between said poles, one of said poles being movable toward and from the other under the action of the magnetic flux, a spring for controlling the movements of said movable pole, and means for varying the tension of the spring, substantially as set forth.

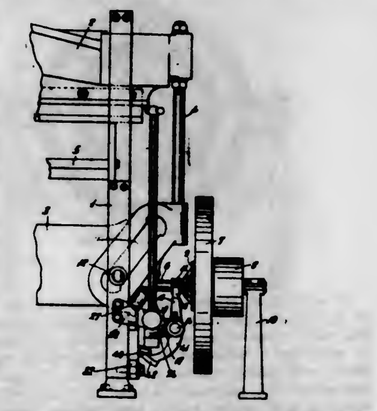
4. In a circuit breaker, the combination of the separable contacts, the magnet having its poles disposed on opposite sides of said contacts so that the arcing space of the contacts lies in the magnetic air gap between said poles, one of said poles being movable toward and from the other under the action of the magnetic flux, the motor for separating the contacts, and a lock for the motor connected to the movable pole, substantially as set forth.

5. In a circuit breaker, the combination of the separable contacts, the magnet having its poles disposed on opposite sides of said contacts so that the arcing space of the contacts lies in the magnetic air gap between said poles, one of said poles being movable toward and from the other under the action of the magnetic flux, manual means for setting the movable contact, and means connected with the said movable pole for rendering the manual means inoperative, substantially as set forth.

[Claims 6 to 14 not printed in the Gazette.]

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1,040,441. SAFETY-LOCK FOR PAPER-CUTTING MACHINES. CHARLES SEYBOLD, Dayton, Ohio. Filed Feb. 20, 1911. Serial No. 609,669. (Cl. 164—54.)



1. In a paper cutting machine, a driving shaft, operating mechanism for the knife, with clutch mechanism for connecting the same with the driving power, and a starting lever to operate said clutch, a separate lock lever normally lying in the pathway of the operating mechanism to lock said mechanism positively, with direct connection intermediate the starting lever and the separate lock lever to withdraw the lock lever under normal conditions upon the actuation of the starting lever, and means to prevent normal disengagement of the lock lever when the mechanism has been locked thereby.

2. In a paper cutting machine, a driving shaft, operating mechanism for the knife, with clutch mechanism for connecting the same with the driving power, and a starting lever to operate said clutch, a separate lock lever normally lying in the pathway of the operating mechanism to lock said mechanism positively, with direct connection intermediate the starting lever and the separate lock lever to withdraw the lock lever when not in engagement upon the actuation of the starting lever, and to prevent operation of the starting lever when the lock lever is in engagement with the operating mechanism, the lock lever being provided with a spring buffer contact block, to prevent jars when in operation, and to take up any rebound of the parts.

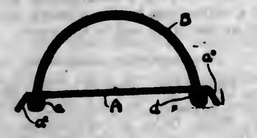
3. In a paper cutting machine, a driving shaft, operating mechanism for the knife, with clutch mechanism for connecting the same with the driving power, and a starting lever to operate said clutch, a separate lock lever lying normally in the pathway of the operating mechanism to lock said mechanism positively, with an arm on the starting lever in contact with the separate lock lever to withdraw the lock lever under normal conditions upon the actuation of the starting lever, and means to prevent normal disengagement of the lock lever when the mechanism has been locked thereby.

4. In a paper cutting machine, a driving shaft, operating mechanism for the knife, with clutch mechanism for connecting the same with the driving power, and a starting lever to operate said clutch, a separate lock lever normally lying in the pathway of the operating mechanism to lock said mechanism positively, with an arm on the starting lever in direct engagement with the separate lock lever to withdraw the lock lever when not in engagement upon the actuation of the starting lever, and to prevent operation of the starting lever when the lock lever is in engagement with the operating mechanism, the lock lever being provided with a spring buffer contact block, to prevent jars when in operation, and to take up any rebound of the parts.

5. In a paper cutting machine, a driving shaft, operating mechanism for the knife, with clutch mechanism for connecting the same with the driving power, and a starting lever to operate said clutch, a separate lock lever normally lying in the pathway of the operating mechanism to lock said mechanism positively, with direct connection intermediate the starting lever and the separate lock lever to withdraw the lock lever when not in engagement upon the actuation of the starting lever, and to prevent operation of the starting lever when the lock lever is in engagement with the operating mechanism, the lock lever being normally disposed in vertical position with a longitudinal socket in the outer end thereof, and a coiled spring seated in said socket, and a contact block with a depending stud bearing in said coiled spring, and a transverse pin on the stud engaging a recess in the lock lever to prevent displacement of the contact block while permitting movement thereof under spring tension.

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1,040,442. METAL CULVERT. WILLIAM T. SHANNON, Cincinnati, Ohio. Filed July 19, 1912. Serial No. 710,347. (Cl. 61—9.)



A culvert composed of sheet metal sections, each section consisting of an arched upper plate and a flat bottom plate, each bottom plate having near each edge a trough shaped groove with its outer wall terminating in a downturned flange, said grooves and flanges of adjacent bottom sections being fitted into one another to lock said bottom plates together, and the arched plates being seated in the grooves.

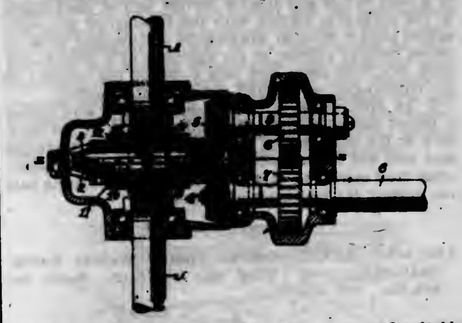
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1,040,443. MEANS FOR TRANSMITTING POWER. ALFRED J. SIGNOR, Elkhart, Ind. Filed Feb. 10, 1912. Serial No. 676,910. (Cl. 74—7.)

1. A power transmitting mechanism, comprising a driven shaft, a central hub fixed thereon, two gears held loosely thereon with limited movement, a driving shaft having a bevel pinion meshing directly with one gear, a counter shaft driven from said driving shaft, a gear on said counter shaft meshing with the other loose gear, and suitable bearings for said shafts.

2. A power transmitting mechanism, comprising a driven shaft, a central hub fixed thereon, having a flange, two gears held loosely thereon, an equalizing device connecting said flange and said gears, a driving shaft having a bevel pinion meshing directly with one gear, a counter shaft driven from said driving shaft, a gear on said counter shaft meshing with the other loose gear, and suitable bearings for said shafts.





1,040,444. STUD-PROTECTOR. MORRIS J. SILVERMAN, Kansas City, Mo. Filed Nov. 3, 1911. Serial No. 658,892. (Cl. 24—155.)

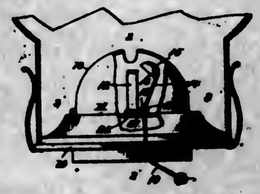


1. In combination with a circular clutch member having a circular recess in its inner face and also having a radial slot and a short slot at right angles to said radial slot, an elliptical clutch member superimposed and adapted to slide on said circular clutch member and having a radial slot and also having a short slot at right angles to the radial slot and located diametrically opposite to the short slot of the circular clutch member, a pin carried by the circular clutch member and passed through said short slot of the elliptical clutch member, a second pin carried by the elliptical clutch member and extending through the short slot of the circular clutch member, and an arc-shaped spring in said recess having its ends connected to said pins.

2. In combination with a clutch member radially slotted and also having a short slot at right angles to the radial slot, a second clutch member superimposed and adapted to slide on said first clutch member and having a radial slot and a short slot at right angles to the radial slot, a pin carried by the first clutch member and extending through the short slot of the second clutch member, a second pin carried by the second clutch member and extending through the short slot of the first clutch member, and a spring having its ends connected to said pins.

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1,040,445. LAMP-EXTINGUISHER. JACOB P. SIMONS, Herrick, S. D. Filed Feb. 14, 1912. Serial No. 677,424. (Cl. 67—78.)



1. A lamp extinguisher attachment for lamp burners comprising a plate having a lateral hood, a wire member including a horizontal body rigidly connected to the plate

and one portion directed downwardly and adapted to be inserted through one of the apertures of the desk portion of a lamp burner and another portion bent at right angles to the horizontal portion with the terminal of the right-angled portion directed downwardly and adapted to be directed through another of the apertures of a lamp burner dock, said wire being bent into a coil at the juncture of the right-angled portion and the horizontal portion.

2. An extinguisher for lamps comprising a wire having a lateral extension and coiled into a spring at the juncture of the wire and its extension, means for mounting said wire and its extension upon a lamp burner, a smothering hood carried by said wire, and means actuating said rod against the resistance of said spring.

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1,040,446. MANICURE-KIT. JOSEPH WALTER SMITH, Middletown, Ohio. Filed May 18, 1912. Serial No. 698,135. (Cl. 30—28.)



1. A manicure kit comprising, a cylindrical casing having bayonet-locking slots at its ends and adapted to contain manicure material, a cuticle-pusher having a cylindrical shank and projecting pin adapted to engage and lock in the end of the casing, a cylindrical shank and pin adapted to engage and lock into the opposite end of the casing, a cuticle-point projecting from one end of the last-mentioned shank, a cuticle-knife projecting from the other end of said shank, a chamois leather buff disposed at one side of the casing and extending lengthwise thereof, and locking means at the ends of the casing and buff for securing the buff removably to the casing, combined substantially as set forth.

2. A manicure kit comprising, a cylindrical casing having bayonet-locking slots at its ends and adapted to contain manicure material, a cuticle-pusher having a cylindrical shank and projecting pin adapted to engage and lock in the end of the casing, a cylindrical shank and pin adapted to engage and lock into the opposite end of the casing, a cuticle-point projecting from one end of the last-mentioned shank, a cuticle-knife projecting from the other end of said shank, a scabbard removably secured to the side of the casing, and a buff secured to said scabbard, combined substantially as set forth.

3. A manicure kit comprising, a cylindrical casing having a bayonet-locking slot at its end, a cylindrical shank provided with a pin adapted to engage and lock in the end of the casing, a manicure tool carried by said shank, and a clip having its heel secured to said tool and having its body extending alongside the casing when the shank is locked in the casing, combined substantially as set forth.

4. A manicure kit comprising, a flat scabbard adapted to contain a nail file, a chamois sleeve surrounding the scabbard, and a cushion interposed between sleeve and a flat face of the scabbard and secured to the sleeve, combined substantially as set forth.

5. A manicure kit comprising, a cylindrical sleeve, a pocket at one end of the outside of the casing, a turn-button projecting from the outside of the opposite end of the casing in line with said pocket, and a flat scabbard having at one end a prong to engage within said pocket and having at its opposite end a slotted shank to cooperate with said turn-button, combined substantially as set forth.

[Claims 6 to 9 not printed in the Gazette.]

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1,040,447. HYDRANT. OLLIE F. SMITH, Dallas, Tex. Filed Mar. 25, 1912. Serial No. 686,024. (Cl. 137—18.)

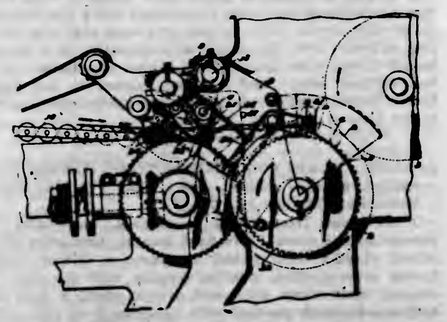


1. In a hydrant, the combination with a body-pipe having a spout carrying cap at one end, of a valve-casing secured to the other end of said body-pipe, said casing having three ports one of which is enlarged to form a valve-seat, a plug-valve positioned within the enlarged port and extending past the other ports, the plug-valve having a groove extending longitudinally thereof and means for turning said valve.

2. In a hydrant, the combination with a body-pipe having a spout carrying cap positioned on one end, of a cylindrical valve-casing secured to the other end of said body-pipe, having oppositely disposed ports in the wall thereof and a port at one end, which port is enlarged to form a valve seat, a valve positioned within the enlarged port having an elongated portion extending past the other ports, said valve having a longitudinal groove its entire length and a valve-stem having a crank handle at one end and secured at the other end to the valve.

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1,040,448. PRINTING-PRESS. WALTER H. SMITH, Niles, Ohio, assignor to The Harris Automatic Press Company, Niles, Ohio, a Corporation of Ohio. Filed Nov. 26, 1910. Serial No. 594,300. (Cl. 101—36.)



1. In a printing press, a rotary cylinder provided with stops on its periphery, means for feeding stock on said cylinder against said stops while the same is in motion, and adjustable means for imparting a gradually increasing speed to the last mentioned means.



2. In a printing press, a rotary cylinder provided with stops on its periphery, means for feeding stock on said cylinder against said stops while the same is in motion, comprising two sets of feed-rolls, and means for imparting a gradually increasing speed to said feed-rolls.

3. In a printing press, a rotary cylinder provided with stops on its periphery, means for feeding stock on said cylinder against said stops while the same is in motion, comprising two sets of feed-rolls, and means for imparting to said feed-rolls first a slow motion and then an accelerated motion.

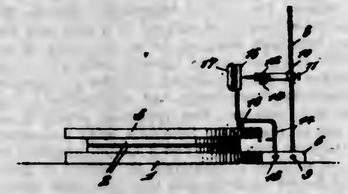
4. In a printing press, a rotary cylinder provided with stops on its periphery, means for feeding stock on said cylinder against said stops while the same is in motion, comprising two sets of feed-rolls, and adjustable means for imparting to said feed-rolls first a slow motion and then an accelerated motion.

5. In a printing press, a rotary cylinder provided with stops on its periphery, means for feeding stock on said cylinder against said stops while the same is in motion, comprising two sets of feed-rolls, shafts carrying said feed-rolls, a disk fast on the shaft of one set of rolls, a pawl for engaging said disk at a single point, a pawl-carrier loose on said latter shaft, and means for completely rotating said pawl member first in one direction and then in the other once in each cycle of operation of the feed rollers, said pawl effecting a complete revolution of said disk and the feed roller shaft upon which it is mounted.

[Claims 6 to 11 not printed in the Gazette.]

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1,040,449. SKIRT-MARKER. HENRY E. SNYDER, Elmira, N. Y. Filed Mar. 9, 1912. Serial No. 682,680. (Cl. 73—48.)



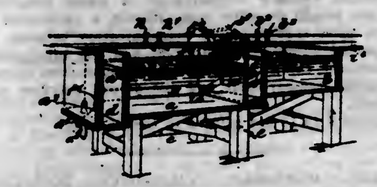
1. A device of the class described comprising a base plate, said base plate being provided with an extension thereon, an additional plate revolubly mounted on said base plate, a rod removably mounted in the extension of said base plate, a marking device adjustably mounted on said rod, an additional rod removably mounted in said extension, a backing plate adjustably mounted on said last mentioned rod, said backing plate having rollers mounted at the ends thereof, and supporting means for the last mentioned rod.

2. A device of the class described comprising a base plate having a lateral extension thereon, an additional plate revolubly mounted on said base plate, a vertical rod removably mounted in said extension, a marking device adjustably mounted on said rod, an angular rod removably mounted in said extension, a backing plate adjustably mounted on said angular rod, said backing plate being provided with rollers at the ends thereof, and an additional roller carried on said angular rod and contacting with the upper face of said additional plate to support said rod when pressure is placed thereagainst.

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1,040,450. DEVICE FOR WASHING CROCKERY AND THE LIKE. FRANK STAINER, London, England. Filed June 16, 1911. Serial No. 633,879. (Cl. 4—26.)

1. In a crockery washing device, a washing compartment, a rinsing compartment, an intermediate compartment separating said washing and rinsing compartments, a tap controlled communication between the rinsing and washing compartments, the wall between the washing and intermediate compartments having an overflow aperture, the wall between the rinsing and the intermediate compartments having an overflow aperture, a second overflow compartment, the wall of the latter having an overflow from the washing compartment into the second overflow compartment, a waste connection from the second overflow compartment, a communication between the said overflow compartment and the intermediate compartment, and a tap controlled communication between the rinsing compartment and the second overflow compartment.



2. In a crockery washing device, a washing compartment, a rinsing compartment, an intermediate compartment separating said washing and rinsing compartments, a valve controlled communication between the washing and rinsing compartments, entering said washing compartment above the water line, a tap controlled communication between the rinsing and washing compartments, the wall between the washing and intermediate compartments having an overflow aperture, the wall between the rinsing and the intermediate compartments having an overflow aperture, a second overflow compartment, the wall of the latter having an overflow from the washing compartment into the second overflow compartment, a waste connection from the second overflow compartment, a communication between the said second overflow compartment and the intermediate compartment, and a tap controlled communication between the rinsing compartment and the second overflow compartment.

3. In a crockery washing device, a washing compartment, a rinsing compartment, an intermediate compartment separating said washing and rinsing compartments, a valve controlled communication between the washing and rinsing compartments entering said washing compartment above the water line, a tap controlled communication between the rinsing and washing compartments, the wall between the washing and intermediate compartments having an overflow aperture, the wall between the rinsing and the intermediate compartments having an overflow aperture, a second overflow compartment, the wall of the latter having an overflow from the washing compartment into the second overflow compartment, a waste connection from the second overflow compartment, a communication between the said second overflow compartment and the intermediate compartment, a surface at the bottom of said intermediate compartment inclined toward the opening of the communication between the intermediate and second overflow compartment, and a tap controlled communication between the rinsing compartment and the second overflow compartment.

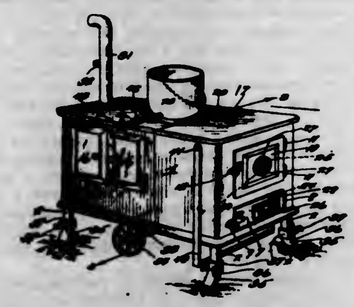
4. In a crockery washing device, a washing compartment, a rinsing compartment, an intermediate compartment separating said washing and rinsing compartments, a tap controlled communication between the rinsing and washing compartments, the wall between the washing and intermediate compartments having an overflow aperture, the wall between the rinsing and the intermediate compartments having an overflow aperture, a second overflow compartment, the wall of the latter having an overflow from the washing compartment into the second overflow compartment, a waste connection from the second overflow compartment, a perforated extension upon said waste, a communication between the said overflow compartment and the intermediate compartment, and a tap controlled communication between the rinsing compartment and the second overflow compartment.

5. In a crockery washing device, a washing compartment, a rinsing compartment, an intermediate compartment separating said washing and rinsing compartments, a valve controlled communication between the washing and rinsing compartments entering said washing compartment above the water line, a tap controlled communication between the rinsing and washing compartments, the wall between the washing and intermediate compartments having an overflow aperture, the wall between the rinsing and the intermediate compartments having an overflow aperture, a second overflow compartment, the wall of the latter having an overflow from the washing compartment into the second overflow compartment, a waste connection from the second overflow compartment, a perforated extension upon said waste, a communication between the said second overflow compartment and the intermediate compartment, and a tap controlled communication between the rinsing compartment and the second overflow compartment.

[Claims 6 to 15 not printed in the Gazette.]

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1,040,451. PORTABLE CAMP-STOVE, INCLUDING WASHING BOILER OR KETTLE. THOMAS R. STOCKTON and MARVIN STOCKTON, Dyer, Tenn. Filed June 1, 1912. Serial No. 701,041. (Cl. 126—1.)

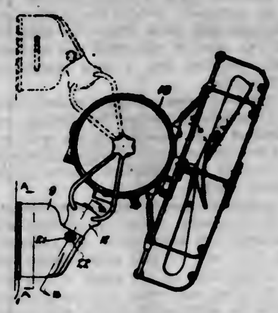


1. In combination, a portable camp stove having a fire box, an ash pit and an oven and constructed of sheet metal, stays for reinforcing the corners of the stove, the stays having extensions beyond the bottom of the stove, legs pivoted to the extensions of the stays, sleeves fitting about the joints between the legs and the extensions for holding the legs steady and erect, the sleeves adapted to be moved above the joints to permit the legs to be folded, and means carried by the sleeves to hold the legs folded, and wheels for supporting the stove when the legs are folded.

2. A portable camp cooking stove constructed of sheet metal having stays fixed in the corners of the stove, the stays having lower extensions, legs hinged to the extensions, sleeves fitting the hinged joints to hold the legs erect and steady, the sleeves adapted to be moved on the extensions above the hinged joints to permit the legs to be folded, means carried by the sleeve to hold the legs folded, and wheels on which the stove is mounted when the legs are folded.

3. A portable camp cooking stove constructed of sheet metal having a shaft journaled in bearings thereof, wheels mounted on the shaft, whereby the stove may be rolled or moved from place to place, stays secured in the corners of the stove for bracing the same and provided with lower extensions, legs hinged to the extensions and provided with shoulders, sleeves fitting about the hinged joints and supported by the shoulders, the sleeves adapted to be moved farther on the extensions above the hinged joints to permit the legs to be folded, the sleeves having clamps to receive the legs for holding them folded, and a bail-shaped handle member pivoted to the stove whereby the same may be pushed from place to place on the wheels when the legs are folded.

1,040,452. SUPPORT FOR ELECTRIC TRANSLATING DEVICES. BERNARD A. STOWE, Cleveland, Ohio, assignor to The Adams-Bagnall Electric Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 15, 1912. Serial No. 690,703. (Cl. 240—85.)



1. A support for electric translating devices, comprising a base designed to be secured to a wall and provided with two terminals designed to be connected in an electric circuit; a holder, said base and holder being provided at their opposite sides, one with a pin and extensible member and the other with apertures respectively and alternatively engaging said pin and member; two terminals provided on said holder, one of the holder terminals being connected with one of the base terminals; and a switch provided on said holder and adapted alternatively to connect or disconnect the other holder terminal and the other base terminal.

2. A support for electric translating devices, comprising a base designed to be secured to a wall and provided with two terminals designed to be connected in an electric circuit and provided at opposite sides with a pin and an extensible member; a holder provided at opposite sides with apertures respectively and alternatively engaging said pin and member; two terminals provided on said holder, one of the holder terminals being connected with one of the base terminals; and a switch provided on said holder and adapted alternatively to connect or disconnect the other holder terminal and the other base terminal.

3. A support for electric translating devices, comprising a base designed to be secured to a wall and provided with two terminals designed to be connected in an electric circuit, and provided at opposite sides with a pin and an extensible member; a holder provided at opposite sides with apertures respectively and alternatively engaging said pin and member, said holder having a socket opening through its outer face and angularly disposed relatively to the normal face; two terminals provided on said holder, one of the holder terminals being connected with one of the base terminals; and a switch provided on said holder and adapted alternatively to connect or disconnect the other holder terminal and the other base terminal.

4. A support for electric translating devices, comprising a base designed to be secured to a wall and provided with two terminals designed to be connected in an electric circuit; a holder designed to be detachably secured to said base, one of the foregoing members being provided at opposite sides with a fixed and an extensible element respectively, and the other thereof being provided with elements adapted to engage with the elements on said first-named member; and two terminals provided on said holder, said holder terminals being adapted to be connected with the respective base terminals.

5. A support for electric translating devices, comprising a base designed to be secured to a wall and provided with two terminals designed to be connected in an electric circuit; a holder designed to be detachably secured to said base, one of the foregoing members being provided at opposite sides with a fixed and an extensible element respectively, and the other thereof being provided with elements adapted respectively and alternatively to engage with the elements on said first-named member; and two terminals provided on said holder, said holder terminals being adapted to be connected with the respective base terminals in each of the opposite positions of said holder.

[Claims 6 to 10 not printed in the Gazette.]



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1,040,453. BOTTLE-CAPPER. GUSTAV STRANDT, Milwaukee, Wis. Filed Apr. 11, 1910. Serial No. 554,778. (Cl. 226—5.)



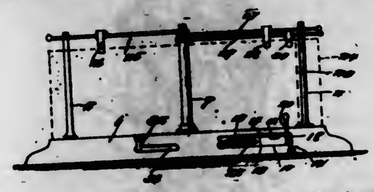
1. In a bottle capping machine of the described class, the combination of a stationary bottle supporting base member, a pair of brackets supported from said base member, a plunger slidably supported by suitable guide bearings in said brackets, a collar adapted to engage the mouth of a bottle supported from said guiding member, a cap supporting platform, a cap receptacle open at its lower end supported at a slight distance from said platform, a cap carrying slide supported on said platform, a reciprocating operating member connected with and adapted to support all of the movable members of the capper, means connected with said operating member dependent on the resistance of a bottle when the bottle is in place beneath said collar for moving said cap carrying slide back beneath the cap receptacle, preparatory to moving forward a cap as the preceding cap is being forced by the plunger into the mouth of a bottle, and means actuated by the reverse movement of said actuating member for carrying a cap forward above a bottle as said plunger is raised.

2. In a device of the described class, the combination of a stationary bottle supporting base member, a pair of stationary brackets supported from said base member, a cylinder slidably supported from said bracket, a collar adapted to engage the mouth of a bottle connected with said cylinder, a cap receptacle connected with the lower end of said cylinder, a cap supporting platform located at a slight distance below said receptacle, a cap carrying plate slidably supported on said platform, an actuating member, means for yieldingly connecting said cylinder, cap receptacle, platform and cap carrying plate with said actuating member, and means for communicating an intermittent movement from said actuating member to said cap carrying plate dependent on the resistance of a bottle when a bottle is in place beneath said collar, all substantially as and for the purpose specified.

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1,040,454. MUSIC-LEAF TURNER. WILLARD L. STRONG, La Center, Wash. Filed Oct. 18, 1911. Serial No. 655,367. (Cl. 84—17.)

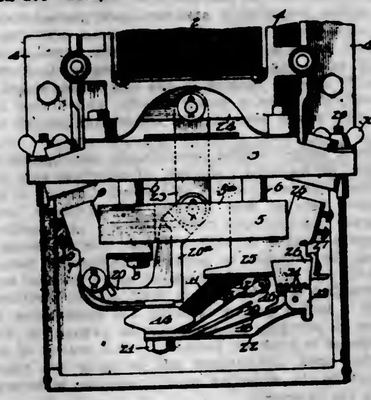
In combination, a base having a plurality of telescopically arranged partially rotatable members having leaf turning arms mounted in bearings of the base, three pinions one carried by each rotatable member, a slide bar having two sets of rack teeth, one in advance and below the other, adapted to first rotate one pinion and its rotatable member and upon further sliding movement, the second pinion and its rotatable member, a rack bar to be operated in the opposite direction to rotate the third pinion and its rotatable member for resetting the members through the coöperation of the leaf-turning arms, the base having an elongated slot provided with a member extending half the length of the slot, the slide bar having a projection extending through the slot for moving the bar to



impart movement to the pinions, the projection having an arm pivoted thereto and adapted to contact with the member of the slot to limit the slide bar substantially midway of its entire movement, the pivoted arm of the projection being adapted to be raised to move on the member of the slot to complete the entire movement of the slide bar.

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1,040,455. ELECTRIC-SWITCH CONTACT. LEWIS L. TATUM, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Aug. 27, 1907. Serial No. 390,299 (Cl. 175—282.)



1. A pair of coöperating switch contacts each having a rigid contact face with a plurality of grooves therein, the grooves in one contact extending angularly to the grooves in the other contact.

2. A pair of coöperating switch contacts each provided with a rigid contact face having a plurality of diagonally disposed grooves, the grooves in one contact being disposed to intersect the grooves in the other contact.

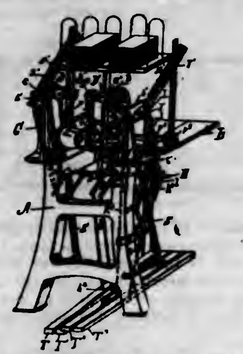
3. In an oil immersed switch, coöperating switch contacts, the engaging face of one of said contacts comprising a plurality of substantially parallel rigid ribs spaced to form open ended channels for conveying the oil away from the engaging faces of said contacts when brought together.

4. A pair of coöperating switch contacts the engaging surface of each contact comprising a plurality of rigid uninterrupted ribs spaced from one another throughout their entire length, the ribs of one contact extending at an angle to the ribs of the other contact.

5. In an oil immersed switch, coöperating contacts, one of said contacts having one or more grooves therein for conveying the oil away from the engaging faces of said contacts when the switch is operated.

[Claim 6 not printed in the Gazette.]

1,040,456. BASKET-NAILING MACHINE. ARTHUR M. TAYLOR, Keuka Park, N. Y., assignor to The Taylor Basket and Machine Company, Erie, Pa., a Corporation of New York. Filed Nov. 16, 1906. Serial No. 343,715. (Cl. 1—10.)



1. In a basket making machine, the combination of a magnetic hammer, a spindle, a standard and said spindle rigidly secured to the top thereof, a fixed pinion upon said spindle, a freely swinging arm journaled on said spindle a pinion journaled in said arm and adjacent the free end thereof, and said hammer secured to said pinion, an idler pinion journaled in said arm, said pinions meshing with each other, a cam piece secured to said arm and journaled on said spindle, and resilient means attached to said cam piece for normally positioning the hammer, a flexible member secured to the cam piece opposed to the resilient means, a power treadle, and a rock shaft connecting means between said treadle and flexible member.

2. In a basket making machine, the combination of a plurality of magnetic hammers, of spindles, and freely swinging arms journaled on said spindles, trains of gears positioned between said spindles and hammers, one of said gears being secured to each spindle and another of said gears secured to each hammer, treadle means for shifting the hammers to positions for driving fasteners at the top and bottom of the basket, and a resilient means for returning said hammers to their normal positions.

3. In a basket making machine, the combination of a hammer; a swinging mounting for the hammer on which the hammer is pivotally mounted; and a system of gears operating upon the hammer and swinging the hammer relatively to the mounting as the mounting is swung to operate the hammer.

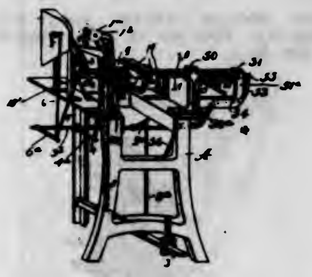
4. In a basket making machine, the combination of a hammer, and the mounting for the hammer, comprising a swinging arm on which the hammer is pivotally mounted, a fixed gear concentric with the arm, and gear fixed with the hammer, and an intermediate gear, said gears swinging the hammer relatively to the arm.

5. In a basket making machine, the combination of a nail feeding device; a hammer; a swinging mounting for the hammer adapted to carry the hammer from the feeding device to the work, said hammer being pivotally mounted on said mounting; and a system of gears for swinging the hammer relatively to the mounting to position the face of the hammer relatively to the feed device and to the work as the hammer is swung with the mounting.

[Claims 6 to 20 not printed in the Gazette.]

1,040,457. BASKET-MAKING MACHINE. ARTHUR M. TAYLOR, Keuka Park, N. Y., assignor to The Taylor Basket and Machine Company, Erie, Pa., a Corporation of New York. Filed July 14, 1908. Serial No. 443,554. (Cl. 147—47.)

1. In a machine for making baskets the combination with a former of a follower adapted to form a blank upon the former, said follower and former being movable and being provided with locking means for locking them in like angular relation and in relation to each other when separated.



2. In a basket machine the combination with a rotatable and slidable anvil former and a rotatable and slidable follower adapted to form a blank upon the anvil former, means for locking said former and follower in like angular relation to each other when said parts are separated.

3. In a basket machine of the type set forth the combination with an anvil former of a follower adapted to embrace said anvil former to form a blank upon said former, means for allowing said anvil former and follower to rotate and slide in unison and means for automatically locking said former and follower when separated in such a manner that the parts when thus separated will be in position to again co-act.

4. In a basket machine the combination with an anvil former and a follower, of spring pressed lock bars, means for operating said bars to allow engagement with the anvil former and the follower or disengagement therefrom for the purpose of locking and unlocking the same from rotation while allowing longitudinal movement thereof.

5. In a basket making machine the combination with a follower adapted to embrace a former, said follower being rotatably and slidably connected, of a slidable locking rod movable with said follower as said follower is moved, and adapted as said follower is removed from the former to lock said follower from revolving.

[Claims 6 to 28 not printed in the Gazette.]

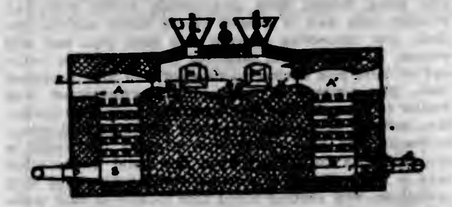
1,040,458. COLLAR-SUPPORTER. JAMES H. TAYLOR and ISORA TAYLOR, Philadelphia, Pa. Filed Jan. 3, 1912. Serial No. 669,191. (Cl. 2—91.)



A supporter of the kind specified, comprising a resilient supporting member, safety pins at the outer ends of said supporting member, said safety pins having inwardly extending points and being provided at their extremities with outwardly facing sockets.



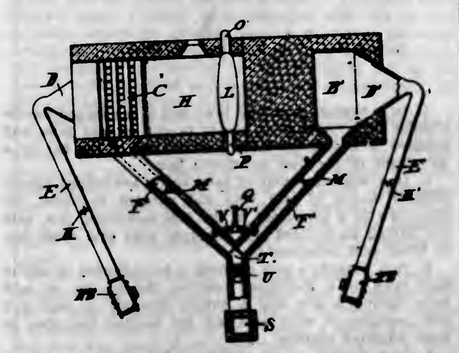
1,040,459. REGENERATIVE FURNACE. WILLIAM FREDERICK TAYLOR, Tacoma, Wash. Filed June 12, 1908. Serial No. 438,247. (Cl. 75—94.)



1. A regenerative furnace comprising hearths and a bullion well, superheating flues containing refractory material located at opposite sides of the hearths, combustion chambers at the top of the superheating flues, flues at the bottom of the superheating flues, externally located flues connecting the flues at the bottom of the superheating flues with a smoke stack, and a forced draft for each superheating flue and combustion chamber, consisting of flues opening directly into the flues at the bottom of the superheating flues independently of the flues leading from the bottom flue of the superheater flues to the smoke-stack, and means for forcing a regulated supply of air to the flues at the bottom of the superheating flues, substantially as described.

2. A regenerative furnace comprising hearths and a bullion well, superheating flues containing refractory material located at opposite sides of the hearths, combustion chambers at the top of the superheating flues, flues at the bottom of the superheating flues, a smoke stack and externally located valve controlled flues connecting it with the flues at the bottom of the superheating flues, air flues, independent of the flues communicating with the stack, opening directly into the flue beneath each superheating flue and substantially the width of said flue where it opens therein, and means for creating and supplying a regulated forced air draft through said flue, substantially as described.

1,040,460. FUME-ARRESTER FOR REGENERATIVE MATTING-FURNACES. WILLIAM FREDERICK TAYLOR, Tacoma, Wash. Original application filed June 12, 1908, Serial No. 438,247. Divided and this application filed Oct. 23, 1911. Serial No. 656,322. (Cl. 75—80.)



In a regenerative furnace having valve controlled flues leading from the lower part of the super-heating flues and merging into a smoke stack, means for injecting a spray of water into the escaping gases at a point between the bottom of the super-heating flues and the smoke stack for precipitating volatilized metals carried off from the smelting hearths, and a well in that portion of the flue opening into the smoke stack for receiving the precipitated metals, substantially as described.

1,040,461. HEAD-COVERING. GERTRUDE THORPE, Philadelphia, Pa., assignor of one-half to William Hogg, Philadelphia, Pa. Filed Nov. 27, 1911. Serial No. 662,669. (Cl. 2—167.)



1. A head covering of the character described composed of knitted material, front and rear flaps of knitted material on said head covering at its lower edge, both flaps adapted to be folded back against the body of the head covering, and buttons secured to the head covering and adapted to be projected through the knitted flaps, substantially as described.

2. A head covering of the character described comprising a body portion, integral front and rear flaps on said body portion at its lower edge, both flaps being adapted to be folded back against the body of the head covering, tabs on the ends of said rear flap adapted to be positioned across the throat when the said rear flap is lowered, and adapted to be positioned between said body portion and the ends of the front flaps when in raised position, buttons on the body of the head portion at the sides thereof adapted to be buttoned through the other tab when lowered, substantially as described.

1,040,462. DETACHABLE SUSPENSION-HOOK FOR PAINTERS. CHARLES F. THRUMAN, Pasadena, Cal. Filed Apr. 6, 1912. Serial No. 688,890. (Cl. 248—24.)



1. A detachable holder, comprising a base plate, the upper end of which is pointed or tapering, the lower end having a right-angled bend, and a swivel hook secured thereto, and a bracket arm hinged to said plate, and means for adjustably holding said bracket arm in various positions.

2. A detachable holder comprising a base plate, having a hook at its lower end, means for detachably securing same to an object, a notched segment on said base, a bracket arm hinged to said segment, a trigger for engaging the notches of the segment and a hook at the free end of said bracket arm.

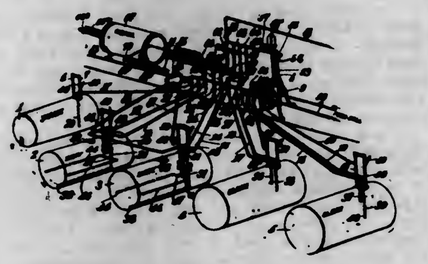
3. A holder, comprising a base having a tapering upper end, and a swiveled hook at its lower end, a pair of prongs

projecting rearwardly from said base, and a hinged, adjustable bracket arm on the front of said plate having a hook to suspend objects therefrom.

4. In a detachable holder for painters' use a base plate tapering at its upper end, and having a swiveled hook at its lower end a pair of rearwardly-projecting prongs on its rear side, a notched segment on its front side, a bracket arm hinged to said segment, having a hook at its outer end, a trigger alongside of the bracket arm, and in engagement with the notched segment, and means for normally keeping said trigger in engagement with the notched segment.

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1,040,463. NAPHTHA STORING AND PUMPING SYSTEM. JOHN J. TOKHEIM, Cedar Rapids, Iowa, assignor to The Tokheim Mfg. Company, Cedar Rapids, Iowa. Filed May 11, 1908. Serial No. 432,140. (Cl. 87—6.)



1. In a cleaning system, a washer, a pump, a liquid receiving tank, an outlet pipe extending within said tank and terminating above the bottom thereof, said pipe being provided with side perforations, pipe connection between said outlet pipe and the inlet of said pump, an inlet pipe located adjacent the wall of said tank, said inlet pipe being formed with perforations facing said wall whereby said wall is washed by the liquid entering the tank, pipe connection between said inlet pipe and said washer, and pipe connection between said washer and the outlet of said pump.

2. In a cleaning system, a washer, a pump, a liquid receiving tank, an outlet pipe extending within said tank and terminating above the bottom thereof, said pipe being provided with side perforations, pipe connection between said outlet pipe and the inlet of said pump, an inlet pipe located adjacent the wall of said tank, said inlet pipe being formed with perforations facing said wall whereby said wall is washed by the liquid entering the tank, pipe connection between said inlet pipe and said washer, a second liquid receiving tank having an outlet and an inlet pipe similar to those of said first-mentioned tank, pipe connections for said second-mentioned tank similar to those for said first-mentioned tank, pipe connection between said washer and the outlet of said pump, and valves in said pipe connections, whereby the liquid in one tank may be utilized while the liquid in the other pipe is being allowed to settle.

3. In a cleaning system, a washer, a pump, a liquid receiving tank, an outlet pipe extending within said tank and terminating above the bottom thereof, said pipe being provided with side perforations, pipe connection between said outlet pipe and the inlet of said pump, an inlet pipe located adjacent the wall of said tank, said inlet pipe being formed with perforations facing said wall whereby said wall is washed by the liquid entering the tank, pipe connection between said inlet pipe and said washer, a second outlet pipe in said tank for the withdrawal of dirty liquid and sediment, pipe connection between said second outlet pipe and the inlet of said pump, and pipe connection between said washer and the outlet of said pump.

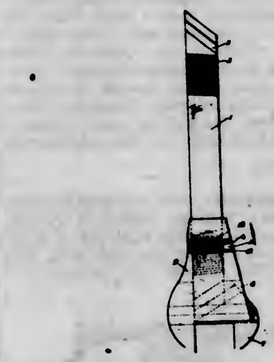
4. In a cleaning system, a washer, a pump, a liquid receiving tank, an outlet pipe extending within said tank and terminating above the bottom thereof, said pipe being provided with side perforations, pipe connection between said outlet pipe and the inlet of said pump, an inlet pipe located adjacent the wall of said tank, said inlet pipe being formed with perforations facing said wall whereby said wall is washed by the liquid entering the tank, pipe connection between said inlet pipe and said washer, a second liquid receiving tank having an outlet and an inlet pipe similar to those of said first-mentioned tank, pipe connections for said second-mentioned tank similar to those for said first-mentioned tank, pipe connection between said washer and the outlet of said pump, valves in said pipe connections, whereby the liquid in one tank may be utilized while the liquid in the other tank is being allowed to settle, a rectifier connected with said pump, and another outlet pipe in each of said tanks for the withdrawal of dirty liquid and sediment, said outlet pipes being connected to said pump.

5. In a cleaning system, a tank for receiving dirty liquid, and an inlet pipe for said tank, said pipe being provided with a portion extending longitudinally of the tank adjacent a wall thereof and being provided with a plurality of orifices facing said wall, whereby said wall is washed when liquid is admitted to the tank.

[Claims 6 to 10 not printed in the Gazette.]

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1,040,464. WRENCH. CHARLES ELMER TOWNSEND, Billings, Mont., assignor, by direct and mesne assignments, to said Townsend and O. L. Jarrell, trustees, Billings, Mont. Filed Mar. 15, 1911. Serial No. 614,626. (Cl. 81—120.)



1. In a wrench, a pair of jaws and a bar-shaped handle slidable in a rectangular socket in one of said jaws and adapted to adjust the other jaw relative to the bar by a movement in the first mentioned jaw.

2. In a wrench, a pair of jaws and a bar-shaped handle slidable in one of said jaws and adapted to adjust the other jaw by a movement in the first mentioned jaw, said bar having an inclined slot engaging with said other jaw to effect said adjustment.

3. In a wrench, a pair of jaws, a bar adapted to adjust said jaws by a movement relative thereto one of said jaws having a slot and a button movable in said slot into engagement with said bar for holding the jaws in their adjusted position.

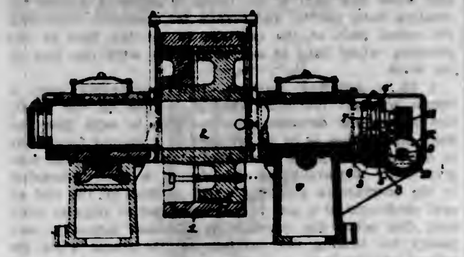
4. In a wrench, a pair of jaws, a bar adapted to adjust said jaws by a movement relative thereto, said bar having an inclined slot engaging with one of said jaws and a button for holding the jaws in their adjusted position.

5. In a wrench, a pair of jaws, a bar adapted to adjust said jaws by a movement relative thereto and a button for holding the jaws in their adjusted position, adapted to engage with a thread upon said bar.

[Claims 6 to 10 not printed in the Gazette.]



1,040,465. MECHANISM FOR RELATIVE RECIPROCATION OF ROTARY MEMBERS. BENCH W. TRAYLOR, New York, N. Y., assignor to Traylor Engineering and Manufacturing Co., a Corporation of Delaware. Filed Nov. 25, 1911. Serial No. 662,560. (Cl. 74—14.)



In combination with a pair of rotary members, means for giving one member a reciprocating movement axially, consisting of a worm on the said reciprocating member, two shafts extending transversely of the members and beneath the same, a worm wheel on one of the said transverse shafts engaging the worm, an eccentric on the other transverse shaft, a block operated by the eccentric and connected with the reciprocating member and gearing between the two transverse shafts, substantially as described.

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1,040,466. CLUTCH. GEORGE T. TRUNDLE, Cleveland, Ohio, assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 12, 1911. Serial No. 638,182. (Cl. 192—21.)



1. In a clutch, the combination of a driving member, a driven member, means for establishing a frictional drag between them, a clutch shoe connected with one of said members, means for causing the shoe to engage the other member, a rotatable member capable of independent rotative movement and having means adapted to act on the shoe to hold it out of engagement, and a controlling device for said rotatable member.

2. In a clutch, the combination of a driving member, a driven member, a spring maintaining constant friction between them, a clutch shoe connected with one of said members, a spring tending to cause it to engage with the other member, a rotatable member capable of independent rotative movement and having means normally acting on the shoe to hold it out of engagement, and means normally acting on the independent member to hold it against rotation.

3. In a friction clutch, the combination of a driving member, a driven member, a pivoted shoe connected with one of said members and adapted to frictionally engage a smooth surface of the other member, a spring acting on the shoe and tending to cause such engagement, a rotatable device having means acting on the heel of the shoe to swing it against the action of the spring to free the engaged member, and means for controlling the said rotatable device.

4. In a clutch, the combination of coaxial driving and driven members, a spring secured to one of said members and constantly bearing against the other to establish a frictional drag between them, a pivoted shoe connected with one of said members and adapted to engage the other member, a spring acting on the shoe and tending to cause such engagement, a coaxially rotatable disk having means acting on the heel of the shoe to swing it against the action of the spring to free the engaged member, and an arm adapted to engage a shoulder on the disk for controlling its rotation.

5. In a friction clutch, the combination of a rotatable member having a circular recess with a smooth wall, a second rotatable member, a shoe pivotally mounted on said second member, a spring between the second member and shoe tending to force the shoe into frictional engagement with the wall of the recess, and a third rotatable member capable of some rotation independently of the two members mentioned, a projection carried by the independent member and bearing against the heel of the shoe, and means for controlling the independent member.

[Claims 6 to 20 not printed in the Gazette.]

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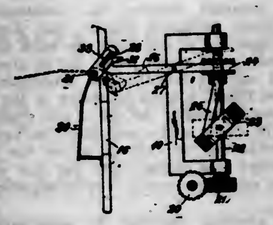
1,040,467. CLOTHES-LINE. JOSEPH B. TUTTLE and ROBERT P. ROBINSON, Asheville, N. C. Filed June 5, 1912. Serial No. 701,821. (Cl. 68—8.)



A link clothes line each link including a clothes supporting wire having terminal connecting eyes, a clamping wire twisted around the supporting wire, extended forwardly along the same and then upwardly to form an article receiving throat, the clamping wire being then looped across the supporting wire and extended backward a short distance and then looped forwardly again.

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1,040,468. AUTOMATIC SHUTTER FOR MOVING-PICTURE MACHINES. CHARLES R. UNSELMESSER, New York, N. Y., assignor to American Moving Picture Machine Company, New York, N. Y., a Corporation of New York. Filed Oct. 5, 1908. Serial No. 456,263. (Cl. 88—17.)



1. In a moving picture machine, a film driving mechanism, a self-closing protective shutter for the film having a cam member thereon, a tilting balance wheel, and mechanism operatively connecting said balance wheel and cam member arranged to cause the shutter to be automatically opened when the machine is in motion.

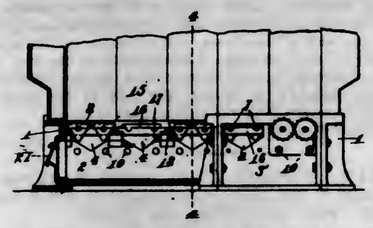
2. In a moving picture machine, a film driving mechanism, a tilting balance wheel driven by said film-driving mechanism, a protective shutter for the film having a projection provided with a cam slot, and connections between said cam slot and wheel, whereby the shutter is caused to be automatically opened when the machine is in motion.

3. In a moving picture machine, a film driving mechanism, a tilting balance wheel driven by said film-driving mechanism, a protective shutter for the film having

a projection provided with a cam slot, a lever having a pin engaging said cam slot, and connections between said lever and balance wheel, whereby the shutter is caused to open when the machine is in motion.

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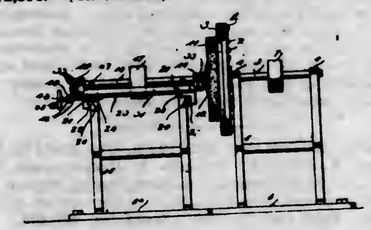
1,040,469. SECTIONAL HEATER-BASE. WALTER N. VAN FLEET, Beomton, N. J. Filed Feb. 24, 1911. Serial No. 610,488. (Cl. 126—176.)



In a heater base, a member having openings in the side, a lug carried by the member on each side of the opening and projecting upward to form a rest, a crossbar supported at its ends in said lugs, the bar having notches in the upper edge to receive the shaft ends of grate bars, and a plate secured on the base member on the opposite side from said lugs to close the said openings in the member, the plate having apertures registering with said notches to receive the grate shafts.

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1,040,470. GRINDING-MACHINE. WILLIAM VAN NOSTRAND, Dalton, N. Y. Filed Jan. 22, 1912. Serial No. 672,593. (Cl. 51—12.)



1. In a grinding machine, the combination with a frame, a shaft journaled therein, and means for detachably connecting to said shaft the work whose face is to be ground; of a second frame out of alinement with the first, a carriage laterally and longitudinally adjustable on this frame, a shaft journaled in the carriage, a grinding wheel carried by the end of said shaft, means for rotating both shafts in the same direction, and means for manually adjusting the carriage to set the face of the grinding wheel into contact with the face of the work or to move said faces wholly out of register with each other.

2. In a grinding machine, the combination with a frame, a shaft journaled therein, and means for detachably connecting to said shaft the work whose face is to be ground; of a second frame out of alinement with the first, a carriage made in two parts the lowermost of which is laterally adjustable on this frame and the uppermost of which is longitudinally adjustable on the first, a shaft journaled in the uppermost part, a grinding wheel carried by the end of said shaft, means for rotating both shafts in the same direction, and means for manually adjusting the upper part of the carriage to set the face of the grinding wheel into contact with the face of the work.

3. In a grinding machine, the combination with a frame, a shaft journaled therein, a disk on the shaft, and means for detachably connecting to said disk the work whose face is to be ground; of a second frame out of alinement with the first, a carriage made in two parts the lowermost of which is laterally adjustable on this frame and the uppermost of which is longitudinally adjustable on the first part, a shaft journaled in the uppermost part, a grinding wheel carried by the end of said shaft and of a size to be moved out of register with said disk when this part of the frame is adjusted, means for rotating both shafts, and means for manually adjusting the upper part of the carriage to set the face of the grinding wheel into or out of contact with the face of the work.

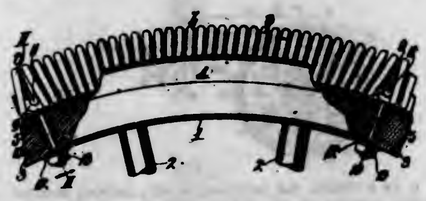
4. In a grinding machine, the combination with a frame, a shaft journaled therein, a disk on the shaft, and means for detachably connecting to said disk the work whose face is to be ground; of a second frame out of alinement with the first, a carriage laterally and longitudinally adjustable on this frame, a shaft journaled in the carriage, a grinding wheel carried by the end of said shaft and of a size to be moved out of register with said disk when the carriage is adjusted laterally, and means for locking the carriage on its frame after its lateral adjustment.

5. In a machine for grinding mill-wheel segments, the combination with a disk, means for rotating it in an upright plane, and means for attaching to its face the segments to be ground; of a grinding wheel, means for rotating it in an upright plane, means for adjusting the support for the wheel so that its plane shall be parallel with that of said disk, means for revolving the disk and the wheel in the same direction, and means for causing the former to lap the latter to a greater or less degree and to bear against the face of the work being ground.

[Claims 6 to 9 not printed in the Gazette.]

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1,040,471. VEHICLE WHEEL-TIRE. CHARLES VAN SMITH, Kansas City, Mo. Filed Sept. 8, 1910. Serial No. 580,445. (Cl. 152—8.)



The combination with a vehicle wheel of a channeled rim secured on the felly of the wheel and a coiled spring tire circumferentially surrounding and fitting in the channeled rim and consisting of a plurality of members arranged end to end and terminating at their adjacent ends in hooks, and fastening devices extending radially through the rim and felly between the adjacent hooks of contiguous spring members and provided with transverse heads fitting in the channel of the rim and bearing down upon said hooks, and means engaging the inner ends of said fastening devices to secure them in fixed relation to the rim and felly.

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1,040,472. GAS-ENGINE. CHARLES T. WADE, Annapolis, Md. Filed Sept. 1, 1910. Serial No. 580,073. (Cl. 123—57.)

1. In a gas engine, the combination of coaxially arranged compression and explosion cylinders, pistons in said cylinders, a hollow piston rod secured to said pistons and terminating at the outer face of said explosion piston in an open end communicating with the explosion cylinder, said piston rod being provided with means for establishing communication between said compression and explosion cylinders, and means for directing a current of cooling air through said hollow piston rod and the communicating explosion cylinder.

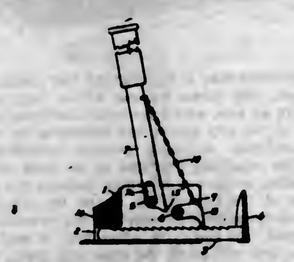
2. In a gas engine, the combination of a compressed cylinder, explosion cylinders supported co-axially on the respective heads of said compression cylinder and provided with open outer ends, pistons in said cylinders, a hollow piston rod secured to said several pistons and terminating in open ends at the outer faces of said explosion pistons, said piston rod being provided with means for establishing communication between said compression and explosion cylinders, and means for directing a current of cooling air through said hollow piston rod.



3. In a gas engine, the combination of a compression cylinder, explosion cylinders supported co-axially on the respective heads of said compression cylinder and provided with open outer ends, pistons in said cylinders, a hollow piston rod secured to said several pistons and terminating in open ends at the outer faces of said explosion pistons, said piston rod being provided with means for establishing communication between said compression and explosion cylinders, a casing extending from the open end of one of said explosion cylinders, and a fan in said casing for directing the current of cooling aid through said hollow piston rod.

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1,040,473. SHOE-STRETCHER. CARL H. WARTHON, Lincoln, Nebr. Filed Jan. 12, 1912. Serial No. 670,745. (Cl. 12—130.)



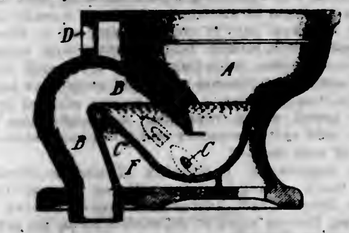
1. A stretcher for boots and shoes, comprising a main portion having a slot, a rack movable endwise in the slot, a pawl for the rack, a pivoted hand lever movable endwise in the slot and adapted to engage the rack, in combination with an operative connection whereby the hand lever may withdraw the pawl from the rack.

2. A stretcher for boots and shoes, comprising a main portion having a slot, a rack slidable endwise in the slot, a pawl for the rack, and a pivoted hand lever slidable endwise in the slot and adapted to engage the rack, in combination with a flexible connection between the hand lever and the pawl.

3. A shoe stretcher comprising a main portion having a slot, a rack reciprocable in the slot, a pawl for the rack, and a slotted and pivoted hand lever working endwise in the slot and adapted to engage the rack, in combination with a chain connecting the pawl and the hand lever; whereby the pawl may be disengaged from the rack by leverage of the hand lever.

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1,040,474. WATER-CLOSET. EARL G. WATROUS, Chicago, Ill. Filed July 22, 1910. Serial No. 573,191. (Cl. 4—22.)

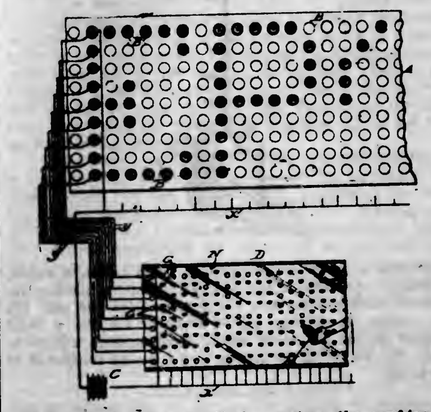


1. In a water-closet, the combination, with a discharge-passage leading upward and rearward from the bottom of the closet bowl, of a pair of opposed jet-openings formed in the lower portion of the bowl below and on opposite sides of the lower end or mouth of said discharge passage and directed upward and inward toward the longitudinal axis of said passage at such an angle as to cause the two streams of water issuing from them to come into contact and commingle with each other below the water level in said passage and force the body of water in said passage outward through the same; substantially as described.

2. In a water-closet, the combination, with a discharge-passage leading upward and rearward from the bottom of the closet bowl, of a pair of opposed jet-openings formed in the lower portion of the bowl below and on opposite sides of the lower end or mouth of said discharge passage and directed upward and inward toward the longitudinal axis of said passage at such an angle as to cause the two streams of water issuing from them to come into contact and commingle with each other below the water level in said passage, and a supplemental pair of similar jet-openings formed in the side walls of the discharge passage between the normal water level therein and the first mentioned pair of jet-openings; substantially as described.

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1,040,475. ELECTRIC-LIGHT DISPLAY SYSTEM. HOWARD E. WAY, Easton, Pa. Filed Apr. 29, 1911. Serial No. 624,097. (Cl. 177—346.)



1. In an electric lamp display system, the combination with electric circuits and lamps in said circuits of mechanism for controlling said circuits comprising an operating board provided with stationary contacts, movable contacts cooperating with said stationary contacts to close said electric circuits, said movable contacts being pro-

vided with armature members, a movable magnet adapted to coöperate with said armatures to cause said movable contacts to close said circuits, and a transparent insulating covering for said contacts interposed between said armatures and said movable magnet.

2. In a device of the class described, the combination of an operating board provided with a series of pairs of open contacts arranged in electrical circuits, a movable switch member for each pair of contacts adapted to close the same, said switch member being provided with a head of magnetic material, indicating means upon each of said switch members to indicate when said switch has been operated to close a circuit, a single magnet adapted to operate any switch, and a transparent non-combustible covering over said switch members and interposed between the same and said magnet.

3. In combination, a plurality of electric circuits, a switch board holding switches adapted to close the respective circuits, each switch including a pivoted member having thereon areas of different aspects, the arrangement of said areas being such that they are respectively visible and invisible when the switch is respectively opened or closed, a transparent covering for said switches, and means for opening and closing said switches.

4. In an electric display system, the combination with a plurality of electric circuits and lamps in said circuits, of an operating board, switches on the operating board one for each circuit and each of which switches includes a pivoted portion provided with areas of different aspects arranged with relation to the opened and closed positions of the switches whereby the design displayed in the lamps is also displayed on the switches, and means for operating the switches.

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1,040,476. OIL OR GREASE GUN. WILLIAM H. WEHRENBERG, West Salem, Wis. Filed June 1, 1912. Serial No. 700,937. (Cl. 221—48.)

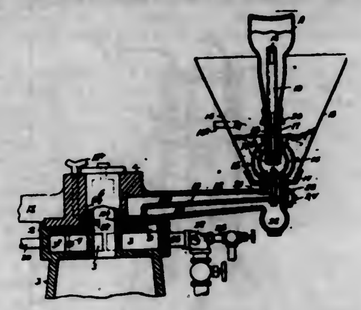


An oiler or grease gun comprising a can having a nozzle, a plunger operable in the can, an operating mechanism therefor having adjustable connections with the can, the can having an annular groove adjacent its top, a band slidable in the groove, a second band slidable annularly about the can below the groove, and a handle connected to the bands.

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1,040,477. CLEANING AND STERILIZING MACHINE. LEOPOLD WEISCOFF, New York, N. Y. Filed Feb. 3, 1910. Serial No. 541,916. (Cl. 141—7.)

In a washing machine for bottles or the like, a rotary spoked reel having a hollow hub and separate fluid channels in each of its spokes communicating with the hub, a chambered supporting water-head for the reel-hub, ports in said reel-hub adapted to communicate with the channels of each spoke, and inlet and discharge ports in the supporting water-head adapted to have communication with the reel-hub ports, hopper-carrying water-heads each in communication with one of the channels of a spoke, bottle holding



tubes extending from each water-head, injector nozzles in communication with the other spoke-channels and projecting through the water-heads, and inner tubes in the bottle holding tubes and each having its lower end in communication with and spaced from an injector nozzle.

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1,040,478. TRAP. LORAN J. WILSON, Jonesville, Va. Filed Apr. 25, 1912. Serial No. 693,103. (Cl. 43—26.)



1. A trap comprising a cage having two communicating compartments, trip plates secured within said cage each provided with an arm, said arms being continuances of the inner edge of the trip plates and extending in relatively opposite directions, a rotary member extending transversely of the cage and provided at its ends with oppositely extending arms, one of which engages the arm carried by one of the trip plates, means for rotating said member when the same is released by the operation of the aforementioned trip plate, the other arm of said member engaging the arm carried by the other trip plate, the operation of the latter trip plate releasing the member for rotation to again engage the same with the arm of the first mentioned trip plate, a door hinged to the trap, means for connecting the door to the rotary member to cause said door to open and close with each complete rotation of the said member, the operation of the first mentioned trip plate serving to close the door and the operation of the second trip plate serving to open the door, said latter trip plate also serving to prevent communication between the two compartments of the trap.

2. A trap comprising a cage, trip plates secured within said cage each provided with an arm, said arms extending beyond the sides of the trap in relatively opposite directions and having their end portions bent parallel to each other, a crank shaft positioned transversely of the cage and having oppositely extending arms, said arms alternately engaging the corresponding arms carried by the trip plates, means for rotating said crank shaft when released from engagement with the trip plates by the operation of the same, a door hinged to the top of the trap and actuated by the rotation of the crank shaft, and a hood projecting over one of the trip plates to divide the trap into two compartments.

3. A trap comprising a cage, trip plates secured by their inner edges to the base of the trap, said inner edges being extended in opposite directions beyond the edge of the trap and each provided with an arm, a crank shaft positioned transversely of the cage, above and intermediate the trip plates, the crank shaft being provided with parallel oppositely extending arms each having a hook formed on its extremity, said hooks alternately engaging the corresponding arms carried by the trip plates, spring mechanism for actuating said crank shaft when the hooks carried on the arms thereof are released from engagement with the trip plates by the operation of the same, a door hinged to the top of the cage and opened and closed by the rotation of the crank shaft, and a semi-conical hood arranged over one of the trip plates and co-acting with the same to divide the trap into two compartments.

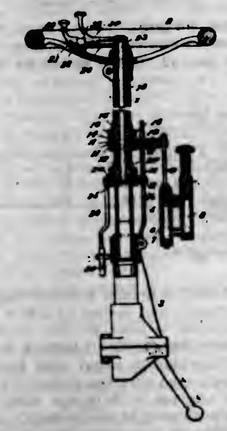
4. The combination with a trap having a front door and means for operating the same when released by an animal, of a swinging rear door, and means carried by said rear door for grasping an animal, said means serving to carry the animal from within the trap when the swinging rear door is opened.

5. The combination with a trap divided into two compartments, said trap having a front door and means for operating the same when released by an animal of a rear door hinged to the side of the trap and adapted to close the rear of the same, said door comprising a wire frame to which is secured an outwardly projecting conical hood, the mouth of the hood communicating with the interior of the trap, a pair of pivoted cross-levers secured at their pivotal point to the front edge of the door, said levers extending inwardly across the mouth of the hood and outwardly past the edge of the trap, and means for engaging the outwardly extended portions of said levers to hold the door closed.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,479. CONTROLLING MECHANISM. ALEXANDER WINTON, Cleveland, Ohio. Filed Dec. 5, 1904. Serial No. 235,487. (Cl. 74—39.)

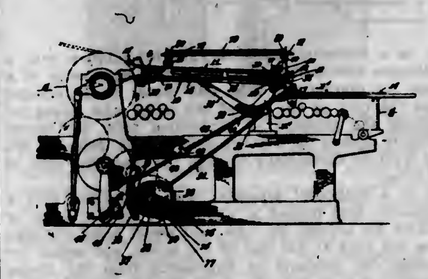


The combination of a steering tube, two independent spiral cams located in the tube, one above the other, a tube connected with the upper cam and extending through the steering tube and beyond the upper end thereof, a handle connected with the tube, a rod passing through the said tube and connected to the lower cam, the upper end of the rod extending beyond the said cam-tube, a handle connected with the extended end of the rod, longitudinally-movable sleeves surrounding the steering tube and operatively connected respectively with the said cam through the steering tube, two controllers and separate operative connections connecting the respective sleeves with the respective controllers.

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1,040,480. SHEET-DELIVERY MECHANISM. HENRY A. WISE WOOD, New York, N. Y., assignor, by mesne assignments, to The Autoplate Company of America, Jersey City, N. J., a Corporation of New Jersey. Filed May 31, 1905. Serial No. 262,005. (Cl. 101—31.)



1. In a sheet delivery mechanism, the combination of a reciprocating carriage, a set of tapes mounted therein, means for driving the tapes on the forward movement of the carriage, gripping mechanism for engaging the end of the sheet and moving and holding the same below the tapes so that as the tapes advance, as the carriage moves forward, the sheet will run on the tapes and be turned over.

2. In a sheet delivery mechanism, the combination of a reciprocating carriage, means for operating the carriage, a set of tapes arranged therein so that sheets will be delivered printed side up thereby, means for driving the tapes on the forward movement of the carriage, a seising or gripping mechanism mounted in front of the carriage, and means for throwing the same into operation so that the same will seise and hold the front edge of the sheet below the tapes, whereby as the carriage advances, the sheet will be run forward and turned over.

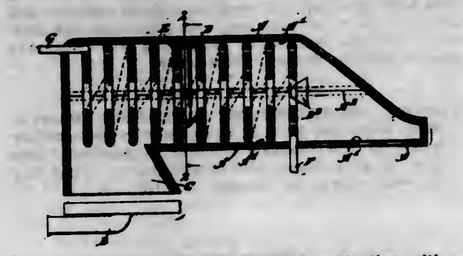
3. In a sheet delivery mechanism, the combination of a reciprocating carriage, a gripping or seising mechanism arranged independently of the carriage so as to come in front of the same, means for turning the gripping mechanism down out of the way of the carriage after it has engaged the sheet, directors arranged above the carriage and adapted to press the sheet into the bite of the grippers, and means for moving the directors out of the way as the carriage advances.

4. In a sheet delivery mechanism, the combination of a reciprocating sheet carrier, means for advancing the sheet beyond the edge of the carrier, a gripping and seising means independent of the carrier for engaging and holding the front edge of the sheet in front of and below the carrier, mechanism for operating the gripping and seising means capable of being disconnected from operation, and means for adjusting the advancing mechanism so that it can act to deliver the sheet upon the rearward movement of the carriage.

5. In a sheet delivery mechanism, the combination of a carrier having a set of tapes for advancing the sheet, means for driving the tapes on the forward movement of the carriage, a delivery table, and a gripping and seising means independent of the carrier located in position to hold the forward end of the sheet at the rear of the delivery table and below the carrier so that the forward movement of the carrier will advance the sheet relatively to the carrier and so that the sheet will be turned over for delivery.

[Claims 6 to 15 not printed in the Gazette.]

1,040,481. STEAM-GENERATOR. CHARLES C. WORTHINGTON, Dunnfield, N. J. Filed Jan. 27, 1909. Serial No. 474,585. (Cl. 121—248.)



1. In a horisontal generator, the combination with a continuous tube formed in a series of vertical coils, of a heater for heating the coils, said heater being arranged below the coils at one end of the series, and means for directing the products of combustion from the heater vertically against the adjacent coils and for deflecting the said products horisontally through the remaining coils of the series.

2. In a horisontal generator, the combination with a continuous tube formed in a series of vertical coils, of a heater for heating the coils, said heater being arranged below the coils at one end of the series, and means for directing the products of combustion from the heater vertically against the adjacent coils and for deflecting the said products horisontally through the remaining coils of the series, and in a direction opposed to the direction of flow of the fluid through the coils.

3. In a horisontal generator, the combination with a continuous tube formed in a series of parallel coils, each comprising a plurality of convolutions extending one above the other and in the same vertical plane, of a chamber surrounding the coils, and a heater adjacent the chamber, means for causing the products of combustion to rise from the chamber and vertically through the chamber to engage a portion of said series of coils and means for deflecting said products through the remaining portion of said series in a general direction contrary to the flow of the water and steam in said coils.

4. In a horisontal generator, the combination with a continuous tube formed in a series of vertical coils, said series having an inlet at one end of the series and an outlet at the other end, of a casing surrounding the coils, said casing being provided with an opening below the coils adjacent the outlet end of the series, and being provided with a depending tubular portion surrounding the opening, and a burner disposed below said tubular portion whereby the products of combustion will be directed into the casing and directly against the coils adjacent the outlet end of the series.

5. In a horisontal generator, the combination with a continuous tube formed in a series of vertical coils, said series having an inlet at one end of the series and an outlet at the other end, of a casing surrounding the coils, said casing being provided with an opening below the coils adjacent the outlet end of the series, and being provided with a depending tubular portion surrounding the opening, a burner disposed below said tubular portion whereby the products of combustion will be directed into the casing and directly against the coils adjacent the outlet end of the series, said casing serving to then deflect the products through the remaining coils in a direction opposed to the direction of flow of fluid through the coils.

[Claims 6 to 11 not printed in the Gazette.]

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1,040,482. RAIL, ESPECIALLY A TRAM-RAIL. ENLAND ZELL, Gottenborg, Sweden. Filed Oct. 28, 1911. Serial No. 657,214. (Cl. 239—14.)

1. A rail divided by slits into yielding parts or panels forming an angle to the vertical line.

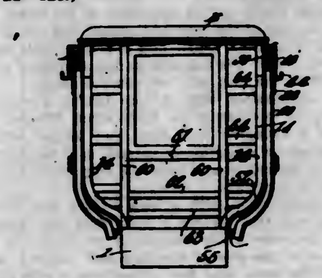
2. A rail having the web divided by slits into a series of yielding parts or panels forming an angle to the vertical line.



3. A rail having the web divided by oblique slits into a series of yielding parts or panels forming an angle to the vertical line.

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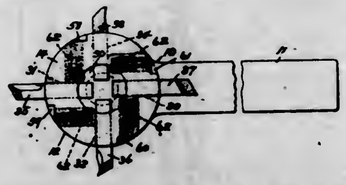
1,040,483. BUGGY-TOP. WALTER I. ZINKLE, Middletown, Ind. Filed Apr. 11, 1910. Serial No. 554,627. (Cl. 21—126.)



A vehicle top comprising a frame having forward and intermediate standards curved inward at their lower ends and arranged to be secured to the sides of the vehicle body, rear standards extending downward and arranged to be connected with a vehicle seat, side bars arranged to be connected with the vehicle seat and with the rear and intermediate standards, a covering for the framework, slidable doors having their lower ends curved inward to correspond substantially with the curvature of the framework, rods secured to the side bars of the doors, and eyes carried by the frame standards and engaging the rods, and friction rollers carried by the doors and working against the vehicle body to prevent binding between the rods and the eyes.

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1,040,484. TOOL-HOLDER. JACOB ZEAN, Mount Vernon, N. Y., assignor to Daniel J. Kaschansky, New Rochelle, N. Y. Filed Jan. 11, 1912. Serial No. 670,701. (Cl. 29—98.)



1. In a tool holder, a handle, a supporting member provided upon the handle and having an orifice therethrough, a rotatable adjusting member pivoted to the supporting member, said adjusting member having a passage therein for removably carrying a chisel and having a recess adapted to be registered with the orifice of the supporting member, means adapted to hold the chisel against displacement when positioned in the passage, a pin yieldingly held in the orifice of the supporting member and projecting outwardly of the orifice, and a plate rotatable upon the supporting member, said plate being adapted to be revolved so as to engage the pin for forcing it inwardly of the orifice and into the recess of the adjusting member when in an adjusted position whereby both members will be locked together.



2. In a tool holder, a handle, a supporting member provided upon the handle and having a plurality of orifices therethrough, a rotatable adjusting member pivoted to the supporting member, said adjusting member having a plurality of passages therein for removably carrying a like number of chisels and having a plurality of recesses, each adapted to be registered with one of the orifices of the supporting member, means adapted to hold each of the chisels against displacement when inserted in one of the passages, a plurality of pins, each yieldingly held in one of the orifices of the supporting member and projecting outwardly thereof, and a plate rotatable upon the supporting member, said plate being adapted to be revolved so as to engage all of the pins simultaneously for forcing the pins inwardly of the orifice and into the recesses of the adjusting member when in an adjusted position whereby both members will be locked together.

3. In a tool holder, a handle, a supporting plate provided upon the handle and having an orifice therethrough, a rotatable adjusting plate pivoted to the supporting plate, said adjusting plate having a passage therein for removably carrying a chisel and having a recess adapted to be registered with the orifice of the supporting member, means adapted to hold the chisel against displacement when positioned in the passage, a pin yieldingly held in the orifice of the supporting member and projecting outwardly of the orifice, and a plate rotatable upon the supporting member, said plate being adapted to be revolved so as to engage the pin for forcing it inwardly of the orifice and into the recess of the adjusting member when in an adjusted position whereby both members will be locked together.

4. In a tool holder, a handle, a supporting plate provided upon the handle and having a plurality of orifices therethrough, a rotatable adjusting plate pivoted to the supporting plate, said adjusting plate having a plurality of passages therein for removably carrying a like number of chisels, and having a plurality of recesses, each adapted to be registered with one of the orifices of the supporting plate, means adapted to hold each of the chisels against displacement when inserted in one of the passages, a plurality of pins, each yieldingly held in one of the orifices of the supporting plate and projecting outwardly thereof, and a plate rotatable upon the supporting plate, said plate being adapted to be revolved so as to engage all of the pins simultaneously for forcing the pins inwardly of the orifice and into the recesses of the adjusting plate when in an adjusted position whereby both members will be locked together.

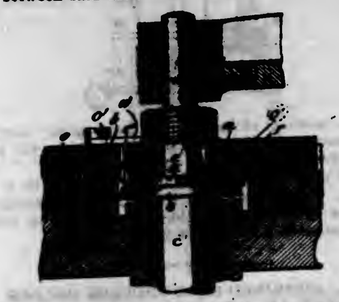
5. In a tool holder, a handle, a supporting member provided upon the handle and having an orifice therethrough, a rotatable adjusting member pivoted to the supporting member, said adjusting member having a passage therein for removably carrying a chisel and having a recess adapted to be registered with the orifice of the supporting member, a plurality of stops adapted to yieldingly hold the adjusting member when adjusted on the supporting member, means adapted to hold the chisel against displacement when positioned in the passage, a pin yieldingly held in the orifice of the supporting member and projecting outwardly of the orifice, and means provided upon the supporting member and adapted to force the pin inwardly of the orifice and into the recess of the adjusting member when in an adjusted position whereby both members will be locked together.

[Claims 6 to 8 not printed in the Gazette.]

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1,040,485. THREAD-ROLLING MACHINE. ARTHUR H. ADAMS, Oak Park, Ill., assignor to The Blake & Johnson Company, Waterbury, Conn., a Corporation. Filed Jan. 29, 1910. Serial No. 540,865. (Cl. 80—7.)

1. In a machine for rolling screw threads, the combination with two opposed suitably grooved dies constructed and arranged to have continuous relative movement, of a rotary shaft upon which one of said dies is secured, and an annular spacing device provided with a plurality of notches arranged at intervals corresponding to the distances which the screw blanks should properly be spaced from each other in their simultaneous passage between said dies, said spacing device being frictionally mounted upon said shaft and arranged to be automatically adjusted circumferentially of said shaft by a screw blank held between said dies.



2. In a machine for rolling screw threads, the combination with two opposed suitably grooved dies constructed and arranged to have continuous relative movement, of a spacing device for locating a plurality of screw blanks at definite intervals between said dies, said spacing device being frictionally held in coöperative relation to said dies and arranged to be rotatably adjusted in proper relation thereto by a screw blank held between said dies.

3. In a thread rolling machine, the combination with an inner die and an outer die, of a rotary shaft upon which said inner die is secured, and an annular spacing device surrounding said shaft, said spacing device being provided with a plurality of notches arranged at intervals corresponding to the distances which the screw blanks should properly be spaced from each other in their simultaneous passage between said dies, said spacing device being in frictional engagement with said shaft and arranged to be rotatably adjusted about said shaft by a screw blank held between said dies.

4. In a machine for simultaneously rolling threads on a plurality of screw blanks, two opposed grooved dies, means for imparting continuous relative motion to said dies, means permitting of a limited longitudinal movement of said dies relative to each other, and further means, acting upon screw blanks successively fed to said dies, for starting said blanks at proper intervals apart, said last mentioned means being arranged to be rotatably adjusted in proper relation to said dies by a screw blank held between said dies.

5. In a machine for simultaneously rolling threads on a plurality of screw blanks, the combination with two opposed suitably grooved dies and means for imparting to said dies continuous relative movement, of means for permitting said dies to have a limited longitudinal movement relative to each other, whereby a screw blank initially fed to said machine will cause said screw blank and the two dies to assume a correct mutual relation and a spacing device frictionally held in coöperative relation to said dies and arranged to be rotatably adjusted in proper relation thereto by a screw blank held between said dies, said spacing device being provided with a plurality of notches arranged at intervals corresponding to the distances the screw blanks should properly be spaced from each other in their simultaneous passage between said dies.

[Claims 6 to 9 not printed in the Gazette.]

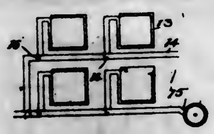
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1,040,486. METHOD OF DESICCATING. WILLIAM H. ALLEN, Cleveland, Ohio. Filed Nov. 4, 1911. Serial No. 658,483. (Cl. 99—5.)

1. The method of desiccating an organic substance which consists in subjecting the same to the action of a magnetic field.

2. The method of desiccating an organic substance which consists in subjecting the same to the action of a changing or alternating magnetic field.

3. The method of desiccating an organic substance which consists in subjecting the same to the action of a magnetic field in a dry atmosphere.

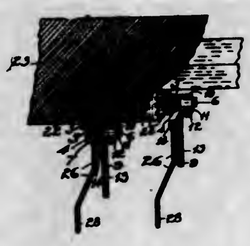


4. The method of desiccating an organic substance which consists in subjecting the substance to the action of a magnetic field in a cool dry atmosphere.

5. The method of desiccating a substance in a compartment, which consists in subjecting the substance to the action of a magnetic field, and maintaining through the compartment a circulation of cool dry air.

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1,040,487. COMBINED SHADE-ROLLER HOLDER AND CURTAIN-POLE BRACKET. GUSTAVUS W. ANDERSON and ANDREW J. ANDERSON, Galesburg, Ill. Filed Jan. 15, 1912. Serial No. 671,369. (Cl. 156—24.)



1. In a device of the character described, a pair of bases each of which is provided with an eye, a pair of shade-roller brackets engaged therewith and each having an eye, and a pair of curtain-rod supporting brackets adapted for engagements with said eyes as pairs.

2. In a device of the character described, a pair of bases each of which is provided with an eye, a pair of shade-roller brackets slidably engaged therewith and each having an eye, and a pair of curtain-rod supporting brackets adapted for engagements with said eyes as pairs.

3. In a device of the character described, a pair of bases each of which is provided with a spur and an eye, a pair of shade-roller brackets slidably engaged with said spur and each having an eye, and a pair of curtain-rod supporting brackets adapted for engagements with said eyes as pairs.

4. A device of the character described comprising a pair of bases, a shade-roller bracket slidably mounted on each thereof, and a curtain-supporting bracket adapted for engagements with either the bases or brackets.

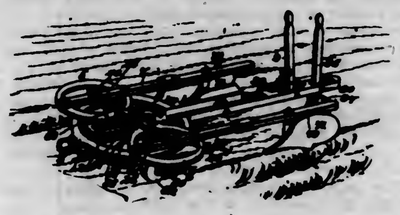
5. A device of the character described comprising base elements, shade-roller-supporting brackets adapted for selective positions thereon, and curtain-rod supporting brackets adapted for engagement with either said base elements or said brackets.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,488. PLOWING MECHANISM. CHARLES L. ARCHAMBEAU, Geyserville, Cal., assignor of one-half to Davenport Cozzens and William D. Williamson, Geyserville, Cal. Filed Mar. 2, 1912. Serial No. 681,161. (Cl. 97—10.)

1. A plowing mechanism comprising a central beam, a plow carrying beam at each side of and parallel with the central beam, a support on the forward end of the central beam, horizontally swingable levers mounted upon the said support, hinged connections that join the plow beams with the levers, and lever controlled means for simultaneously shifting the swingable levers to set the plows laterally to or from the central beam.



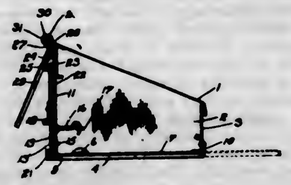
2. The combination with the central beam and the plow carrying beams located one to each side of and parallel with the central beam, of means mounted on the central beam, said means including pivotal connections with the plow beams for laterally shifting both plow beams in unison toward or from the central beam.

3. The combination with the central beam, the plow carrying beams located one to each side of and parallel with the central beam, a head frame mounted on the forward end of the central beam, a lever pivotally mounted on each side of the head beam to swing in the horizontal plane, hinged connections joining the said levers with the forward ends of the plow beams, and shiftable rack and gear devices connected with the swinging levers for swinging them upon their fulcrums whereby to set the plow laterally with respect to the central beam.

4. In a plowing mechanism of the character described, the combination with the central beam, an annular head plate mounted on the forward end thereof, a cross bar having pivot bolt connections with the head plate at the outer ends thereof, a lever mounted on each of the pivot bolts to swing in the horizontal plane, plow carrying beams pivotally connected with the said levers, a segmental rack connected with each of the said levers, having the pivot bolts as their axis, a double faced rack bar for engaging the two segmental racks, and means for actuating the rack bar.

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1,040,489. COOP. CHARLES R. BAKER, Abilene, Kans. Filed July 15, 1911. Serial No. 638,696. (Cl. 119—19.)



1. A coop comprising a body portion having a top provided with a roll at its front edge projecting in front of the body portion and having a conveyer flange spaced from its body, a hood having a conveyer flange slidably mounted on the roll flange, a hook on the end of said hood, eyes on one side of the coop adapted for receiving said hook, a member fixed to the coop body and covering the upper part of the front thereof, and a removable mesh front member adapted for closing the remainder of said opening.

2. A coop comprising a body member having an open front, and a front member for closing the body member, said front member hinged at its center part to form upper and lower portions, said lower portion adapted for attachment to the coop body and provided with a chick door, and a hook and eye on the body member and the upper portion for securing said upper portion in closed position.



3. A coop comprising a body member having a top provided with a roll at its front edge projecting in front of said body member, a mesh front member, hinged at its central part to form upper and lower portions, said lower portion provided with a chick door and attached to the body member, and a hood provided with a hooked upper portion adapted to be pivotally mounted within said roll of the body member.

4. A coop comprising a body portion, having a top provided with a roll at its front edge, the said roll formed integral with said top and projecting in front of the body portion, and having a conveyer flange spaced from its body, a hood having a conveyer flange, slidably mounted on the roll flange, and a removable mesh front, hinged at its central part to form an upper and lower portion, the said hood being adapted to swing over said upper portion and the lower portion secured to said body portion and provided with a chick door.

5. A coop comprising a body portion having an open front, a removable mesh member hinged at its central part to form upper and lower portions, said lower portion being provided with an opening and secured to the base of said body portion, a slide door adapted for covering said opening, a hanger roll disposed at the front of said body above said opening, a slide door pivotally mounted in said roll adapted for covering the said upper hinged portion.

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1,040,490. DENTAL FLOSS-PACKAGE. ALECK BAUER, Chicago, Ill., assignor to Bauer & Black, Chicago, Ill., a Corporation of Illinois. Filed Jan. 30, 1911. Serial No. 605,527. (Cl. 242—138.)



1. A dental floss package comprising a container adapted to hold a cop of floss and consisting of two sections open at their adjacent ends and closed at their outer ends, and means embracing said open adjacent ends for securing said sections together to form a single chamber within the container, said means being adapted to permit desired amounts of floss to be unwound from the cop and withdrawn from the container without relative movement between its parts.

2. A dental floss package comprising a container adapted to hold a cop of floss and consisting of two end sections open at their adjacent ends and closed at their outer ends, said sections being arranged with their open ends in juxtaposition and being reduced in diameter at and adjacent to said ends, and a hollow middle section seated on said reduced parts and connecting the end sections together to form a single chamber.

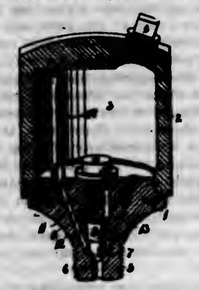
3. A dental floss package comprising a container adapted to hold a cop of floss and consisting of two end sections and a middle section connecting the end sections together, there being an opening in the middle section communicating with the interior of the container to permit the passage of floss therefrom.

4. A dental floss package comprising a container adapted to hold a cop of floss and consisting of two end sections and a middle section connecting the two end sections together, said end sections being closed at their outer ends and open at their inner ends and having their inner ends spaced apart, and said middle section having an opening registering with the space between the inner ends of said end sections to permit the passage of floss from the container.

5. A dental floss package comprising a container adapted to hold a cop of floss and having an opening in its side between its ends through which the floss passes and a sleeve surrounding the cop and provided with an opening through which the floss passes.

[Claim 6 not printed in the Gazette.]

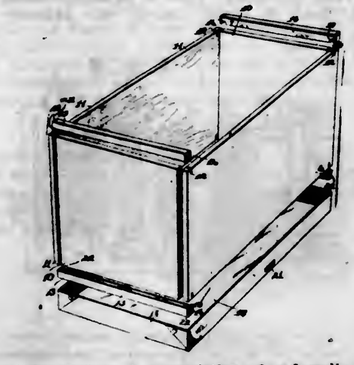
1,040,491. AUTOMATIC LUBRICATING APPARATUS. MALCOLM STEWART BEATON, JAMES EASON, and JOHN HAWTHORNE WILSON, Germiston, Transvaal. Filed Sept. 24, 1910. Serial No. 588,588. (Cl. 184—76.)



A lubricator adapted to be put into communication with a region of fluctuating fluid pressure to supply lubricant thereto, embodying an oil vessel provided with a base, said base being formed with an orifice affording the sole means of communication with the part to be lubricated and being also formed with a valve seat and valve chamber above said seat, and a spring closed valve working on said seat to control said orifice and closing outwardly from the oil vessel, there being also two holes extending separately from said valve chamber in the immediate proximity of the valve seat to the interior of the oil vessel one of said holes opening into the vessel adjacent to the base and the other opening into a distant part of said vessel.

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1,040,492. KNOCKDOWN BOX. BARNIM L. BEHRENDT, Newark, N. J. Filed Nov. 6, 1911. Serial No. 658,773. (Cl. 217—12.)



1. A knock-down box consisting of end walls and side walls, the side walls having transverse slots in their top and bottom edges near their ends, keys embracing the top and bottom edges of the end walls and entering the slots of the side walls, the keys and the side walls having co-acting means for holding the side walls to the keys, and top and bottom closures embracing the side and end walls at the outside on the top and bottom.

2. A knock-down box consisting of end walls and side walls, the side walls having transverse slots in their top and bottom edges near their ends, U-shaped keys having their channels arranged over the top and bottom edges of the end walls and having their ends fitting over the ends of the side walls at the top and bottom and also entering the slots of the side walls, and top and bottom closures having flanges to cover the keys and the top and bottom edges respectively, of the side and end walls.

3. A knock-down box consisting of end walls and side walls, the side walls having transverse slots in their top

and bottom edges near their ends, U-shaped keys having their channels arranged over the top and bottom edges of the end walls and having their ends fitting over the ends of the side walls at the top and bottom and also entering the slots of the side walls, top and bottom closures having flanges to cover the keys and the top and bottom edges respectively, of the side and end walls, a strap secured to and passing around the box, and fastening means on the strap for securing its ends together.

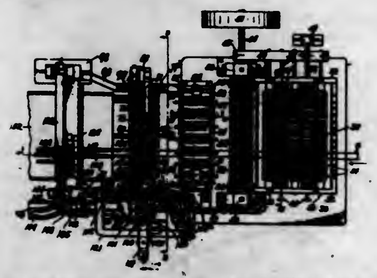
4. A knock-down box consisting of end walls and side walls, the side walls having transverse slots in their top and bottom edges near their ends, U shaped keys having their channels arranged over the top and bottom edges of the end walls and having their ends fitting over the ends of the side walls at the top and bottom and also entering the slots of the side walls, wings on the ends of the keys, said wings being bent over to bear on the outside edges of the side walls, and top and bottom closures having flanges to cover the keys and the top and bottom edges respectively.

5. A knock-down box consisting of end walls and side walls, the side walls having transverse slots in their top and bottom edges near their ends, U-shaped keys having their channels arranged over the top and bottom edges of the end walls and having their ends fitting over the ends of the side walls at the top and bottom and also entering the slots of the side walls, wings on the ends of the keys, said wings being bent over to bear on the outside edges of the side walls, top and bottom closures having flanges to cover the keys and the top and bottom edges respectively, the top and bottom closures having slots in the flanges near the bottom of said flanges, and a strap passing through the flanges and above and beneath the side walls and having means on its ends for securing the ends together.

[Claim 6 not printed in the Gazette.]

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1,040,493. WIRE STRAIGHTENING, CRIMPING, AND CUTTING MACHINE. OLIN W. BENSTER, Toledo, Ohio. Filed Nov. 23, 1908. Serial No. 464,130. (Cl. 140—140.)



1. In combination, continuous wire feeding means, wire cutting mechanism having reciprocatory movements longitudinally of the feed of the wire, and operative at predetermined points in such movements to sever a wire, means for guiding the feed of a wire and normally holding the same out of cutting position, and means for intermittently moving said guide means laterally of the wire feed to move the wire into cutting position.

2. In combination, a reciprocatory frame, shearing parts carried by the frame, means for reciprocating the frame, a cam-member coacting with one of said parts to impart shearing movements thereto when the frame is reciprocated, and means controlled by the movements of the frame for locking the cam-member in rigid operative position during the movement of the frame in one direction and permitting it to move during the movement of the frame in the other direction whereby the shearing-parts are relatively moved during the movement of the frame in one direction only.

3. In combination, continuous wire feeding means, wire cutting mechanism reciprocally movable longitudinally of the feed of the wire, cam means operative to intermittently impart relative shearing movements to the cutting parts of such mechanism, and mechanism operative to intermittently move the feeding wire laterally into position to be severed by the cutting mechanism.

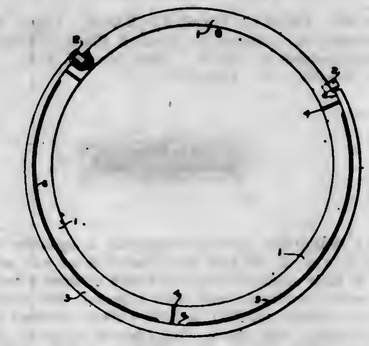
4. In combination, means for continuously feeding a plurality of wires, wire cutting means, means for intermittently actuating said cutting means, a plurality of relatively movable wire guides normally holding the wires out of cutting position, and means for moving the guides to successively place the different wires in position to be severed.

5. In combination, a pair of shearing-parts, wire-carrying members movable transversely of said parts, means for feeding wires through said members, means for successively moving different of said members to place the wires carried thereby in position to be severed by the shearing-parts, and means for imparting relative shearing movements to said parts.

[Claims 6 to 20 not printed in the Gazette.]

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1,040,494. PACKING FOR RECIPROCATING RODS. IRVING J. BENT, Chicago, Ill., assignor to Allis-Chalmers Company, Milwaukee, Wis., a Corporation of New Jersey. Filed June 23, 1910. Serial No. 568,424. (Cl. 121—109.)



1. In a metallic packing, a rod, a plurality of end to end sections coacting about said rod, single spring ring coacting about said sections and in contact therewith at points near the adjacent ends of said sections only, and means for preventing circumferential shifting of said ring.

2. In a metallic packing, a rod, a plurality of metallic sections coacting with said rod, a ring directly coacting with the sections only at points adjacent the ends of said sections, and means for preventing circumferential shifting of said ring.

3. In a metallic packing, a rod, a plurality of metallic sections coacting with said rod and having adjacent ends, an outwardly projecting portion on each of said sections, a ring directly coacting with said outwardly projecting portions only, said ring tending to retain said portions in coaction with said rod, and means for preventing circumferential shifting of said ring.

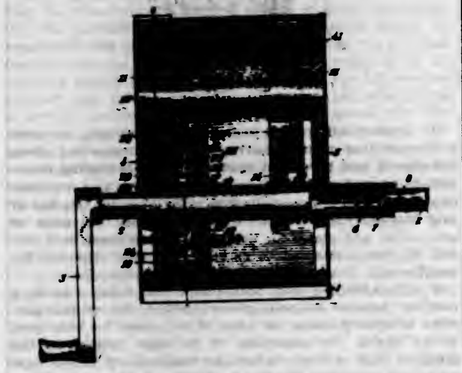
4. In a metallic packing, a rod, a plurality of end to end sections coacting with said rod, a ring surrounding said sections and spaced therefrom except at points adjacent the ends of said sections, said ring directly coacting with said sections at said points, and means for preventing circumferential shifting of said ring.

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1,040,495. EXPLOSIVE-ENGINE-CRANKING DEVICE. CHARLES E. BEST, Canton, Ohio. Filed Mar. 20, 1911. Serial No. 615,469. (Cl. 123—185.)

1. In an explosive engine cranking device, the combination of a suitable frame, a hollow shaft journaled in said frame, a crank shaft journaled in said frame, said crank shaft extended into the hollow shaft, a gear wheel loosely mounted upon the crank shaft and a gear wheel fixed to the hollow shaft, gear wheels adapted to mesh with the gear wheel loosely mounted upon the crank shaft and the gear wheel fixedly mounted upon the hollow shaft, a disk provided with a ring, said ring provided with ratchet teeth, said disk fixed to and rotatable with the hollow shaft, a cage located concentrically with the ring provided with the ratchet teeth, said cage provided with pawls, one of said pawls adapted for engagement with the ratchet teeth, disks provided with grooves, one of said disks loosely mounted upon the crank shaft and fixed to the gear loosely mounted upon the crank shaft and the other disk fixedly mounted to the crank shaft and one of the pawls carried by the cage adapted for engagement with the disks, said crank shaft and hollow shaft slidably mounted in the frame, substantially as and for the purpose specified.





2. In an explosive engine cranking device, the combination of a frame, a hollow shaft and a crank shaft telescopically connected together and rotatably and slidably mounted in the frame, clutch mechanism adapted to rotatably couple the hollow shaft to the engine shaft, said hollow shaft provided with a fixed gear wheel and a wheel having internal ratchet teeth, a gear wheel loosely mounted upon the crank shaft and gear wheels located intermediate the gear wheel fixed to the hollow shaft, and the loosely mounted gear wheel upon the crank shaft, a grooved disk fixed to and rotatable with the loosely mounted gear wheel upon the crank shaft, a disk fixedly mounted to said crank shaft, said disks provided with grooves upon the peripheries, said grooves adapted for alinement, a cage loosely mounted concentric with the crank shaft, a key pawl carried by said cage and adapted for engagement with the grooves in the disks and a releasing pawl adapted for engagement with the ratchet teeth of the wheel fixed to and rotatable with the hollow shaft, substantially as and for the purpose specified.

3. In an explosive engine, cranking shaft, the combination of a frame, a hollow shaft and a crank shaft telescopically connected together and rotatably and slidably mounted in the frame, clutch mechanism adapted to rotatably couple the hollow shaft to an engine shaft, said hollow shaft provided with a fixed gear wheel and a wheel having internal ratchet teeth, a gear wheel loosely mounted upon the crank shaft and gear wheels located intermediate the gear wheels fixed to the hollow shaft, and the loosely mounted gear wheel upon the crank shaft, a grooved disk rotatable with the loosely mounted gear wheel upon the crank shaft, a grooved disk fixedly mounted to said crank shaft, said disks provided with grooves upon their peripheries, said grooves adapted for alinement, a cage provided with internal teeth, pawls carried by said cage, one of said pawls adapted for engagement with the disks provided with the grooves and the other pawl adapted for engagement with the ratchet teeth of the wheel fixed to and rotatable with the hollow shaft and a spring adapted to normally hold the key pawl in engagement with the alined grooves of the disk and a releasing pawl carried by the disk fixed to the crank shaft, said releasing pawl adapted for engagement with the teeth of the cage, substantially as and for the purpose specified.

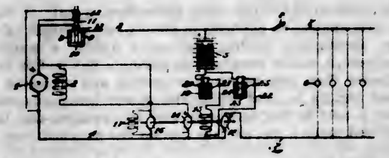
4. In an explosive engine cranking device, the combination of a frame, shafts rotatably and slidably mounted in the frame, one of said shafts provided with a crank, an engine shaft, and one of the sliding shafts adapted to be coupled to the engine shaft, means for imparting differential rotary movement between the crank shaft and the shaft adapted to be coupled to the engine shaft, a cage, said cage made up of spaced plates, one of the plates provided with inward extending teeth, a releasing pawl and a key pawl carried by said cage and rotatable therewith, notched disks, one on the crank shaft and one connected to the means for imparting differential rotary movement, located side by side and concentric with the crank shaft, said notched disks adapted to receive the key of the key pawl and means for holding the key pawl in engagement with the notches of the notched disks, substantially as and for the purpose specified.

5. In an explosive engine cranking device, the combination of a frame, shafts rotatably and slidably mounted in the frame, one of said shafts adapted to be coupled to an engine shaft and the other shaft provided with a crank, a gear wheel loosely mounted upon the shaft provided with a crank, a gear wheel fixed to the shaft adapted to be coupled to the engine shaft and gear wheels located intermediate the aforesaid gear wheels, a disk rotatable with the gear wheel loosely mounted upon the crank shaft, a disk fixed to and rotatable with the crank shaft, said disks provided with grooves located upon their peripheries, a wheel fixed to the crank shaft adapted to be connected to the engine shaft, said wheel provided with a lateral ring, the inner periphery of which is provided with ratchet teeth, a cage located concentrically with the disks provided with the groove and the ring provided with ratchet teeth, said cage provided with releasing and key pawls respectively, said key pawl adapted to rotatably couple the loosely mounted and fixedly mounted disks together and the releasing pawl adapted to disconnect the disks by a backward movement of the ring provided with the ratchet teeth, substantially as and for the purpose specified.

[Claims 6 to 9 not printed in the Gazette.]

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1,040,496. SYSTEM OF ELECTRICAL DISTRIBUTION. WILLIAM L. BLISS, New York, N. Y., assignor, by mesne assignments, to The United States Light and Heating Company, New York, N. Y., a Corporation of Maine. Filed Aug. 4, 1904. Serial No. 219,461. (Cl. 171—313.)



1. In a system of electrical distribution, in combination, a suitable source of electrical energy, a battery adapted to be charged from said source, translating devices adapted to be operated by said source or said battery, a counter electro-motive force device for modifying the electrical conditions in said system and having its field connected in the battery circuit, and an electrolytic valve arranged to keep the current from said battery from affecting the action of said counter electro-motive force device.

2. In combination, a suitable source of electrical energy, a battery adapted to be charged from said source, translating devices adapted to be operated either by said source or said battery, a counter electro-motive force device for regulating said source and having its field connected in the battery circuit, and an electrolytic valve arranged to keep current from said battery from affecting the action of said counter electro-motive force device.

3. In combination, a generator, a storage battery adapted to be charged thereby, translating devices adapted to be operated either by said generator or said storage battery, a counter electro-motive force device having a field or controlling magnet connected in the circuit of said battery, and an electrolytic valve arranged to prohibit current from said battery from flowing through said magnet.

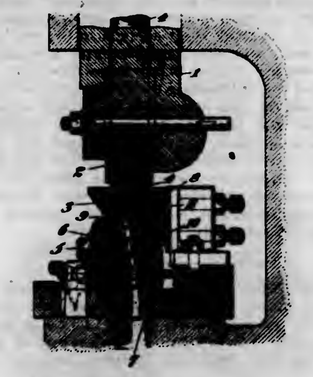
4. In combination, a generator, a main circuit extending therefrom and divided into two parallel branches, one including the storage battery and the other the translating devices, a regulator, an electromagnetic winding for controlling said regulator, said winding being arranged in said battery branch circuit, a shunt circuit extending around said winding, an electrolytic valve arranged in said shunt circuit and adapted to prevent current from said generator from flowing through said shunt circuit.

5. In combination, a generator, a storage battery adapted to be charged thereby, translating devices adapted to be operated either by said generator or said storage battery, a counter electro-motive force device for regulating said generator and having a field or controlling magnet connected in the circuit of said battery, a shunt extending around said magnet, and an electrolytic valve arranged to prohibit current from said generator from flowing through said shunt.

[Claims 6 to 23 not printed in the Gazette.]

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1,040,497. PUNCH. BENJAMIN E. BOSLER, Johnstown, Pa. Filed June 22, 1909. Serial No. 503,591. (Cl. 164—86.)



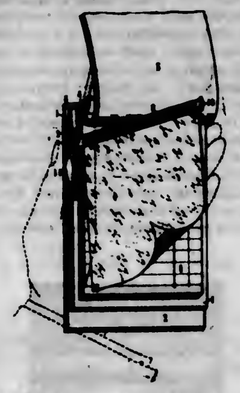
In apparatus for punching splice-bars, a pair of clamping dies shaped to conform to the rail-fit portions of said bars, means for holding the same firmly, a punch, a punch-stock, and a swaging-cap having a flat end of larger diameter than said punch surrounding and clamping said punch rigidly to said stock, the punch being adapted to make a hole in the splice-bar and the swaging-cap to indent and make a flat surface around the punched hole.

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1,040,498. MANIFOLDING SALES-BOOK. EDWARD KIRBY BOTTLE, Niagara Falls, N. Y., assignor to The Carter-Crume Company, Niagara Falls, N. Y., a Corporation of Ontario, Canada. Filed Nov. 9, 1909. Serial No. 526,961. (Cl. 11—23.)

1. A manifolding device comprising a cover, a resilient member having two portions, one of said portions extending along an edge of said cover, the other of said portions being journaled and extending transversely across said cover, and a clip disposed to rotate about the portion of said resilient member extending along the pad and to be raised upon rotation about said member.

2. A manifolding sales book holder comprising a cover, a wire bent to form two portions, one of said portions extending along the edge of said cover, the other of said portions extending transversely across said cover and journaled thereto, and a clip having a portion surrounding the portion of said resilient member extending along said cover and adapted to be raised upon rotation thereabout.



3. A manifolding sales book holder comprising a cover, a clip-carrying member having a portion extending along the edge of said cover and another portion extending transversely of said cover and journaled thereto, and a carbon clip comprising a sleeve adapted to fit over the portion of said clip-carrying member extending along the edge of said cover, and plates for holding a carbon sheet, said carbon clip being adapted to rotate about said clip-carrying member and to be raised upon rotation thereabout.

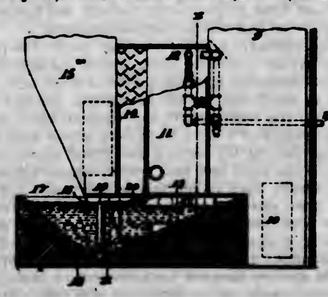
4. A manifolding sales book holder comprising a cover, a resilient member comprising two portions, one of said portions extending along the edge of the cover for only part of its length, the remainder of the edge being free, the other of said portions extending transversely across said cover and journaled thereto, a clip disposed to rotate about the portion of said resilient member extending along the edge of the cover, and means to raise said clip.

5. A manifolding sales book holder, comprising a member arranged parallel to a longitudinal edge thereof and having an offset portion extending substantially perpendicular to said edge, means journaling said offset portion to said holder, and a carbon clip pivoted on said member, said offset portion being provided with an eccentric portion adapted normally to press said clip down upon the leaves of a book supported by said holder.

[Claim 6 not printed in the Gazette.]

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1,040,499. AIR-PURIFYING APPARATUS. WILLIAM G. R. BRASMER, Camden, N. J., assignor to Warren Webster & Company, a Corporation of New Jersey. Filed July 19, 1911. Serial No. 639,257. (Cl. 98—43.)



1. In an air purifying apparatus, the combination of a closed conduit leading from a source of dust and particles and discharging into the atmosphere, a blower in the conduit, a separator in constant operative relation in the conduit for separating the heavier particles from the air, an air washer having a water spray for washing the finer particles of dust from the air immediately before the air escapes into the atmosphere, and means for directing the air leaving the separator directly into the atmosphere or causing it to pass through the conduit to the air washer.

2. In air purifying apparatus, the combination of a conduit for conveying air from a source of dust and delivering the purified air to the atmosphere, with means for separating the heavier particles of dust from the air passing through the conduit, said means consisting of an air washing chamber, an inclosed tank below the air washing chamber and having an inclined bottom, said tank having a portion opening laterally to the atmosphere and communicating at its bottom with the deepest part of the inclined bottom of the inclosed tank, and a water seal at the upper part of the tank and between the inclosed and open portions thereof.

3. In air purifying apparatus, the combination of a conduit for conveying air from a source of dust and delivering the purified air to the atmosphere, with means for separating the heavier particles of dust from the air passing through the conduit, said means consisting of an air washing chamber, an inclosed tank below the air washing chamber and having an inclined bottom, said tank having a portion opening laterally to the atmosphere and provided with an inclined bottom whose lowest portion communicates with the deepest part of the inclined bottom of the inclosed tank whereby the collected dirt may be readily raked out of the inclosed tank without interfering with the normal operation of the apparatus, and a water seal at the upper part of the tank and between the inclosed and open portions thereof.

4. In an air purifying apparatus, a water tank having an inclosed portion and a portion open to the atmosphere, the bottom of the tank being inclined and the inclination leading from below the inclosed portion thereof and extending in a sloping manner to the upper part of the open portion thereof, whereby the collected dust and dirt may be raked from the inclosed portion of the tank without interference with the continuity of the purifying operation upon the air, in combination with a water spray chamber above the inclosed portion of the tank, means for spraying water within the spray chamber above the inclosed portion of the tank, means for forcing air through the spray chamber and a conduit to lead the purified air to the place of discharge.

5. In an air purifying apparatus, a water tank having an inclosed portion and a portion open to the atmosphere, the bottom of the tank being inclined and the inclination leading from below the inclosed portion thereof and extending in a sloping manner to the upper part of the open portion thereof, whereby the collected dust and dirt may be raked from the inclosed portion of the tank without interference with the continuity of the purifying operation upon the air and said tank also having a lateral compartment open to the atmosphere, in combination with a water spray chamber above the inclosed portion of the tank, means for spraying water within the spray chamber above the inclosed portion of the tank, means for forcing air through the spray chamber and a conduit to lead the purified air to the place of discharge, means for automatically supplying fresh water to the lateral compartment of the tank, an overflow from the inclosed portion of the tank, and means for sucking the water from the lateral compartment of the tank and delivering it to the means for spraying the water.

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1,040,500. NON-REUSABLE BOTTLE. WILLIAM S. BROOKS, San Diego, Cal. Filed May 3, 1911, Serial No. 624,705. Renewed Aug. 26, 1912. Serial No. 717,193. (Cl. 215—72.)

1. In a non-reusable bottle, a neck integral with the bottle, having transverse and longitudinal slots on the inner side, a stopper loosely fitting the neck and having transverse and longitudinal slots upon the exterior thereof, and locking springs, adapted to engage with the slots on the stopper and on the inner side of the neck, substantially as set forth.



2. In a non-reusable bottle, a neck integral with the bottle having an opening in the side thereof, a stopper which loosely fits the neck, an inner flange at the union of the neck with the body of the bottle, an annular packing ring supported by the inner flange, a tapered end on the stopper engaging with the packing ring, and springs operating in slots in the stopper and neck of the bottle to hold the stopper in a closed position in engagement with the packing ring, and in an open position away from the packing ring, substantially as set forth.

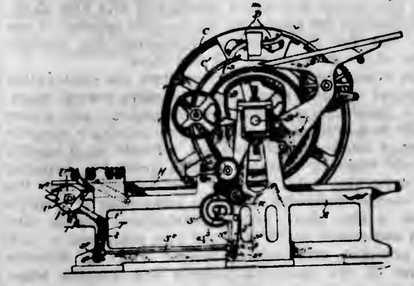


3. In a non-reusable bottle, a neck integral with the bottle having an opening in the side thereof, a stopper which loosely fits the neck, and locking springs engaging with corresponding slots in the stopper and neck, one spring arranged transversely of the axis of the stopper to limit the outward movement of the same, and the other spring arranged longitudinally of the axis of the stopper to limit the rotation of the same, substantially as set forth.

4. The combination in a non-reusable bottle, of a slotted neck having two transverse and one longitudinal slots on the inner side, an inner flange below the slots, a packing ring supported thereby, a rotatable stopper having a tapered end to compress the packing ring, and a corresponding transverse and longitudinal slot, and locking springs engaging with the slots in the neck and the slots on the stopper.

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1,040,501. PRINTING-PRESS. ABRAHAM T. H. BROWER, Chicago, Ill. Original application filed Oct. 25, 1905, Serial No. 284,277. Divided and this application filed Jan. 9, 1911. Serial No. 601,564. (Cl. 101—4.)



1. In a printing press, the combination with the frame, a reciprocating bed and the oppositely driven bed rack pinion shaft geared to said reciprocating bed, of an ink fountain-roll at one end of the frame, an oscillating clutch mechanism for imparting one way revolution to said fountain roll, a spiral cam geared to the bed rack pinion shaft to rotate in opposite directions therewith, an actuating member for said clutch mechanism engaging and driven by said spiral cam, and connections between said member and said clutch mechanism, substantially as described.

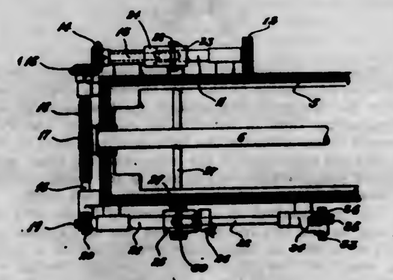
2. In a printing press, the combination with the frame, a reciprocating bed and the reversely driven bed rack pinion shaft geared to said reciprocating bed, of an ink fountain-roll at one end of the frame, an oscillating pinion and clutch mechanism for rotating said fountain-roll in one direction, a segment rack engaging said pinion, a spiral cam directly geared to the bed rack pinion shaft to rotate in opposite directions therewith, a rocking lever engaging

said spiral cam, and a connecting link between said rocking lever and said segment rack, substantially as described.

3. In a printing press, the combination with the frame, a reciprocating bed and the oppositely driven bed rack pinion shaft geared to said bed, of an ink fountain-roll at one end of the frame, an oscillating clutch device for driving said fountain roll in one direction, a spiral cam geared to said bed rack pinion shaft to rotate in opposite directions therewith, a rocking lever engaging said spiral cam, and adjustable connections between said rocking lever and said clutch mechanism, whereby the throw of the latter may be varied, substantially as described.

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1,040,502. GEARING. ROBERT S. BROWN, New Britain, Conn., assignor to The New Britain Machine Company, New Britain, Conn., a Corporation of Connecticut. Filed July 3, 1912. Serial No. 707,437. (Cl. 74—7.)

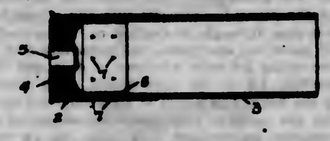


1. In a machine of the class described, the combination of a power operable shaft, a second shaft coaxial therewith, a clutch for clutching and unclutching said power operable and said coaxial shaft and comprising a movable member, a manually operable shaft, a fourth shaft coaxial with said manually operable shaft, a clutch for clutching and unclutching said manually operable shaft and the shaft coaxial therewith and also comprising a movable member, a fifth shaft, driving connections between said second and fourth shafts and said fifth shaft, and mechanism for advancing the movable member of one clutch and for simultaneously retracting the movable member of the other clutch and vice versa.

2. In a machine of the class described, the combination of a power operable shaft, a second shaft coaxial therewith, a clutch for clutching and unclutching said power operable and said coaxial shaft and comprising a movable member, a manually operable shaft, a fourth shaft coaxial with said manually operable shaft, a clutch for clutching and unclutching said manually operable shaft and the shaft coaxial therewith and also comprising a movable member, a fifth shaft, driving connections between said second and fourth shafts and said fifth shaft, and a rock shaft provided with forks connected with the movable members of the respective clutches and adapted when turned in one direction to advance one of said movable members and to simultaneously retract the other movable member and adapted when turned in the opposite direction to reverse said operation.

3. In a machine of the class described, the combination of a bed, a cam shaft extending longitudinally of said bed, a second shaft extending transversely of the bed and operatively connected with the cam shaft for rotating the same, a third shaft and a fourth shaft both operatively connected with said transversely extending shaft, a power operable shaft coaxial with the third shaft, a manually operable shaft coaxial with the fourth shaft, a clutch between the power operable shaft and the third shaft, a second clutch between the manually operable shaft and the fourth shaft, each of said clutches comprising a movable member, and mechanism for advancing one of the movable clutch members and for simultaneously retracting the other movable clutch member and for also reversing said operation.

1,040,503. SHOTGUN-SHELL. WILLIAM P. BROWN, Minneapolis, Minn. Filed Nov. 7, 1910. Serial No. 591,143. (Cl. 102—17.)



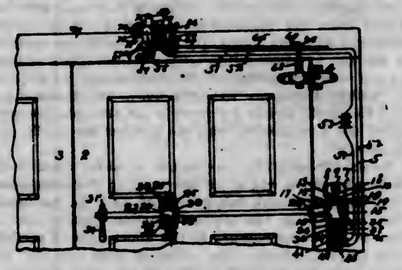
1. A shot gun shell comprising an outer cylindrical portion, a paper cylinder fitting therein, an inner metallic sleeve forming a lining for said paper cylinder and having an outer roughened surface between which roughened surface and said outer cylindrical portion the paper cylinder is held, said roughened surface comprising projections or points having inner, substantially square, faces, and outer inclined faces.

2. A shot gun shell comprising an outer cylindrical portion, a paper cylinder fitting therein, an inner metallic lining, said outer cylinder and said sleeve having opposing roughened surfaces between which the paper cylinder is gripped and held.

3. A shot gun shell comprising an outer cylinder, a paper cylinder fitting therein, a metallic lining for said paper cylinder, said metallic lining having a series of diagonally arranged ribs formed in its outer surface between which and said outer cylinder said paper cylinder is gripped and held.

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1,040,504. DOOR OPENING AND CLOSING DEVICE. HENRY C. BUNDY, Watertown, N. Y., assignor of two-thirds to Fred Morrison and Ernst Pinsonneault, Watertown, N. Y. Filed May 6, 1912. Serial No. 695,518. (Cl. 20—95.)



1. A door opening and closing device, comprising a main-spring normally wound and set for closing a door, means for manually setting and rewinding said spring for opening the door, and means for automatically reversing said spring for allowing it to close the door.

2. A door opening and closing device, comprising a main-spring normally wound and set for closing a door, means for manually setting and increasing the tension of said spring for opening the door, and a motor carried by the door adapted for reversing said spring for allowing it to automatically close the door.

3. A door opening and closing device, comprising a main-spring normally wound and set for closing a door, means for manually setting and increasing the tension of said main-spring for opening the door, means for automatically reversing said main-spring for allowing it to close the door, and a timing mechanism for measuring the interval between the opening and the closing of the door.

4. A door opening and closing device, comprising a single main-spring normally wound and set for closing a door, means for inverting said main-spring and for giving it an extra tension for opening the door, a motor carrier by the door adapted for restoring said main-spring to its normal position for allowing it to close the door, and a timing mechanism adapted to permit or prevent the operation of said main-spring by said motor.

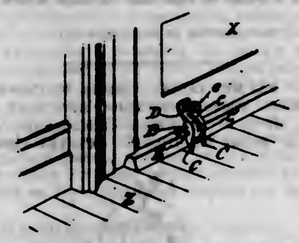


5. A door opening and closing device, comprising a single main-spring mounted near a door, a casing for said spring, a rotatable support for said casing, a lever carried by said casing, means for yieldingly connecting said lever to the door, means for rotating said main-spring a part of a turn for setting it for opening the door, and means for rotating said spring back to the first position for closing the door.

[Claims 6 to 9 not printed in the Gazette.]

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1,040,505. BURGLAR-PROOF DOOR-FASTENER. FREDERICK BUNKIAK, New York, N. Y. Filed Feb. 26, 1912. Serial No. 680,043. (Cl. 16—154.)



1. A door fastener consisting of a member having impaling means and a free end adapted to be engaged by the door, and a second member pivoted to said other member intermediate the said free end and the impaling means.

2. A door fastener embodying a base member, a second member pivoted thereto, said second member being provided with impaling means, and an adjusting device operable to spread the members when the fastener is applied to a door.

3. A door fastener embodying a base member, a second member pivoted thereto, said second member being provided with impaling means, a spring positioned to normally move the members to a spread position, and an adjusting device carried by the second member and positioned for engagement with a door.

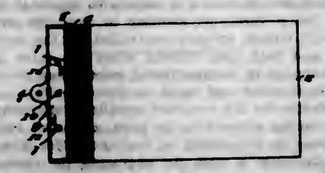
4. A door fastener embodying a base member, a second member pivoted thereto, said second member being provided with impaling means, and an adjusting screw supported in the second member in a position for contact with a door when the fastener is applied thereto.

5. A door fastener embodying a base member, provided with a rib, a flanged and ribbed second member provided with impaling prongs, a pivot connecting the two members, a coil spring acting against the members, and an adjusting screw carried by the second member.

[Claim 6 not printed in the Gazette.]

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1,040,506. PAPER-BINDER. JAMES A. BYRON, Fort Worth, Tex. Filed June 21, 1912. Serial No. 706,005. (Cl. 129—12.)



1. A binder comprising upper and lower frame pieces and boards hingedly connected to said frame pieces, notched studs riveted in the lower frame piece and projected up through the upper frame piece, and a clamp pivotally connected to said upper frame piece and having a tongue struck up from each end thereof adjacent to each stud and on opposite sides of the clamp and recesses formed in the cut-outs for engaging the notches in said studs, the upper edges of said notches forming shoulders for engaging said clamp and the lower edges of the notches being cut deeper for causing the studs to be broken flush with the lower wall of the notches when the binder is formed into a permanent binder.

2. A binder for papers comprising upper and lower boards, notched studs riveted in the lower board and projecting upwardly through the upper board, and a clamp pivotally connected to said upper board and having a tongue struck from opposite sides thereof near each end to form a cut-out or an entrance for each stud and having a recess in each cut-out for receiving each stud, the upper shoulders in said notches engaging the upper surface of said clamp, said tongues standing out of the path of said studs when used as a temporary binder but adapted to be bent down to close said cut-outs and lock the clamp on said studs when a permanent binder is to be formed.

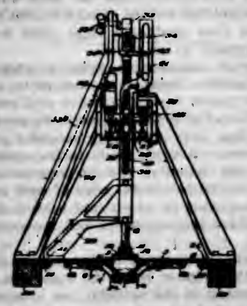
3. A binder for papers comprising upper and lower boards, notched studs riveted to said lower board and projecting upwardly through the upper board, and a clamp pivotally connected to said upper board and having tongues struck from opposite sides thereof and having recesses for engaging said studs in the notches thereof, said tongues standing out of the paths of said studs while the binder is used as a temporary binder but adapted to be bent down and lock said clamp on said studs when a permanent binder is to be formed.

4. A binder for papers comprising upper and lower boards, notched studs secured to the lower board and projecting loosely through the upper board, a clamp pivotally connected to the upper board and having recesses in opposite sides thereof for receiving the reduced portions of said studs whereby said upper board is held in place while the binder is used as a temporary binder, and means locking said clamp on said studs when a permanent binder is to be formed, said studs being adapted to be broken off in the notches next above the clamp when the permanent binder is formed.

5. A binder for papers comprising upper and lower boards, studs secured to the lower board and projecting loosely through the upper board, a clamp pivotally connected to the upper board and having recesses in opposite sides for receiving said studs, and said studs having notches in each side oppositely disposed to engage said clamp in said recesses and having shoulders at the upper edges of the notches to engage the upper surface of said clamp and having the notches cut deeper at the lower edges thereby adapting the studs to be broken off in line with the lower shoulders of the notches to form heads for a permanent binder.

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1,040,507. FRUIT-PEELING MACHINE. JOHN W. CARNOCHAN, Rochester, N. Y., assignor of one-half to Harry Walters and one-half to Frederick H. Damon, Rochester, N. Y. Filed Dec. 24, 1908. Serial No. 469,048. (Cl. 146—14.)



1. The combination of a fruit skin removing device having yielding portions mounted to support the fruit prior to the removal of the skin, with means for forcing the fruit through said device to effect the removal of the skin.

2. The combination of a fruit skin removing device having yielding wipers mounted to support the fruit prior

to the removal of the skin and to coöperate with the latter at a plurality of points about the same when it is forced through the wipers, with means for forcing the fruit through the wipers to effect the removal of the skin.

3. The combination with a fruit skin removing device having yielding portions adapted to frictionally contact with fruit at a plurality of points about the same, of means coöperating with the fruit and having a movement on one side of the skin removing device toward the same to effect the removal of the skin and a movement on the same side of the skin removing device away from the latter after the skin has been removed.

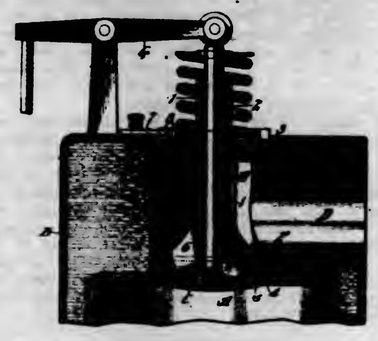
4. The combination with a fruit skin removing device having yielding portions adapted to frictionally contact with the fruit at a plurality of points about the same, of reciprocal means coöperating with the fruit to force it through the skin removing device.

5. The combination with a fruit skin removing device having yielding portions adapted to frictionally contact with fruit at a plurality of points about the same, of a reciprocal plunger to force the fruit through the skin removing device.

[Claims 6 to 37 not printed in the Gazette.]

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1,040,508. INTERNAL-COMBUSTION ENGINE. WILLIAM C. CARTER, St. Louis, Mo., assignor of one-half to Charles Otto Baxter, St. Louis, Mo. Filed Mar. 20, 1911. Serial No. 615,505. (Cl. 136—6.)



1. An internal combustion engine having a cylinder provided in one of its walls with an opening of uniform diameter throughout its entire length, a valve cage for an inwardly opening valve having a portion that projects into said opening, and an expansible packing device arranged between said portion and the side walls of said opening so as to provide for the expansion and contraction of the cage and thus produce a tight joint between the cage and the cylinder at all times.

2. In an internal combustion engine, a cylinder having an opening of uniform diameter formed in its inner wall, a valve cage arranged in the cylinder and connected at its outer end to the cylinder, an inwardly opening valve seated in said cage, said cage being provided at its inner end with a portion which fits freely in the opening in the inner wall of the cylinder, and an expansible packing arranged between the peripheral edge of said portion and the edge of the opening in which said portion is arranged so as to provide for the expansion and contraction of the cage.

3. In an internal combustion engine, a cylinder, a valve cage provided at its inner end with a portion which fits freely in an opening in the cylinder, an expansible packing arranged between the peripheral edge of said portion and the edge of the opening in the cylinder in which said portion is arranged so as to provide for the expansion and contraction of the cage, and an inwardly opening valve mounted in said cage.

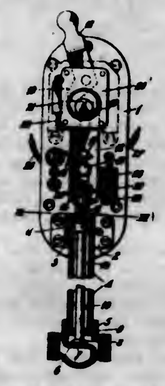
4. In an internal combustion engine, a cylinder, a valve cage provided at its inner end with a sleeve portion which fits freely in an opening in the cylinder, an expansible packing arranged between the peripheral edge of said sleeve portion and the edge of the opening in the cylinder in which said portion is arranged so as to provide for the expansion and contraction of the cage, and an inwardly opening valve seated in said sleeve portion.

5. In an internal combustion engine, a cylinder, a valve cage provided at its inner end with a sleeve portion which fits freely in an opening in the cylinder, an expansible packing arranged between the peripheral edge of said sleeve portion and the edge of the opening in the cylinder in which said portion is arranged so as to provide for the expansion and contraction of the cage, an inwardly opening valve seated in said sleeve portion, a stem on said valve, and a guide on said cage through which said stem passes.

[Claim 6 not printed in the Gazette.]

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1,040,509. SAFETY-LOCK. GROVER E. CLEVELAND, Detroit, Mich., assignor to Capitol Auto Lock Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 26, 1912. Serial No. 679,848. (Cl. 123—196.)



1. A device for the purposes specified comprising a fuel controlling valve, a reciprocable member connected to the valve to yieldingly close the latter, manually operable means for moving the reciprocable member and valve into closed position, an electric circuit breaker adapted to be held open by the reciprocable member when the valve is closed, and means automatically returning the reciprocable member and valve to open position when released by the lock.

2. A device for the purposes specified comprising a base, a valve casing secured to the base, a closure coöperating with a seat in the casing to seal the latter when moved in one direction, a stem for operating the closure, a reciprocable member adapted to yieldingly operate the stem to close the valve, a manually operable lever for moving the reciprocable member to close the valve, and an electric circuit breaker controlled by the reciprocable member and held open thereby when the valve is closed, a lock adapted to automatically engage and hold the reciprocable member and valve in closed position.

3. A device for the purposes specified comprising a base, a valve casing secured to the base, a closure coöperating with a seat in the casing to seal the latter when moved in one direction, a stem for operating the closure, a reciprocable member adapted to yieldingly operate the stem to close the valve, a manually operable lever for moving the reciprocable member to close the valve, a lock adapted to automatically engage and hold the reciprocable member and valve in closed position, and an electric circuit breaker controlled by the reciprocable member and held open thereby when the valve is closed.

4. A device for the purposes specified comprising a valve casing, an annular valve seat therein, a guide aperture in the casing, a tubular extension from the casing in alinement with the aperture and seat, a stem reciprocable through the tube and aperture, a closure on the stem adapted to seal the seat when moved in one direction and to close the guide opening when thrown in the other direction, a reciprocable member in longitudinal alinement with the stem, means for yieldingly connecting the stem and member for operating the stem, a lever for moving the reciprocable member, stem and closure into closed position, a lock engaging the reciprocable member when the latter is in closed position, and a circuit breaker operated by the reciprocable member and held open by the latter when the valve is closed.

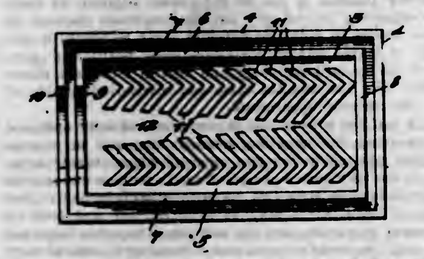
5. A device for the purposes specified comprising a base, a member longitudinally reciprocable thereon, a lever oscillatory on the base for moving the member in one direction, a lock adapted to automatically engage and hold the member when moved in that direction by the lever, means for automatically returning the member to initial position when released by the lock, a tubular extension in substantial alinement longitudinally with the member, a valve stem reciprocable through the tube adapted to be yieldingly projected by the member when the latter is projected, a valve casing on the tubular extension having a guide aperture loosely engaged by the stem, a valve seat in the casing, a closure for the seat and guide aperture mounted on the stem, and a housing for the mechanism.

[Claims 6 to 10 not printed in the Gazette.]



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1,040,510. STEAM-GENERATOR. CHESTER W. CLIFF and HARRY T. MASS, Anderson, Ind. Filed Oct. 7. 1911. Serial No. 653,302. (Cl. 122—367.)

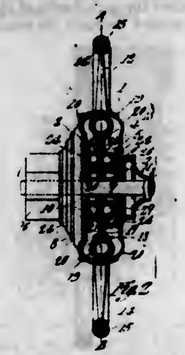


A steam generator of the character described comprising a tank having a bottom and side and end walls extending below the bottom, a heat retainer comprising side and end walls extending downwardly from the bottom and depending therefrom, the bottom being closed, and two sets of V-shaped integral projections extending downwardly from the bottom and terminating short of the lower edges of the heat retainer, the two sets of projections being spaced from each other at the front and gradually converging toward the rear, and the front wall of the device and the front wall of the heat retainer being formed with registering openings leading into the space between the two sets of projections.

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1,040,511. AUTOMOBILE-WHEEL. HENRY B. COATS, Veedersburg, Ind. Filed Aug. 29, 1911. Serial No. 646,092. (Cl. 152—46.)

1. A wheel comprising a supporting member adapted to be secured to an axle; an inclosing structure about the supporting member and adapted to have movement transversely of an axle; resilient means for limiting the movement of the inclosing structure transversely of the axle; a series of rotatable anti-friction elements bearing upon spaced parts of the inclosing structure, said parts of the inclosing structure constituting means for maintaining the anti-friction elements in contact with each other transversely of the wheel; and means in the supporting member for holding the anti-friction elements against movement transversely of the wheel, whereby the anti-friction elements will prevent lateral movement of the inclosing structure with respect to the supporting member.



2. A wheel comprising a supporting member adapted to be secured to an axle; an inclosing structure surrounding the supporting member and adapted to have movement transversely of an axle; ball cages comprising separable parts threaded into the supporting member at their inner, meeting ends, and extended through the supporting member transversely of the same; balls in the ball cages, the ball cages being contracted at their ends to prevent the balls from moving transversely of the supporting member, the balls engaging the inclosing structure on both sides of the median plane of the wheel; and a pneumatic tire carried by the periphery of the supporting member and engaging the inclosing structure.

3. A wheel comprising a supporting member adapted to be secured to an axle; an inclosing structure surrounding the supporting member and adapted to have movement transversely of an axle; securing elements uniting opposite points on the inclosing structure, the securing elements being movable in enlarged openings in the supporting member; ball cages mounted in the supporting member transversely of the same and comprising separable parts the meeting ends of which are threaded into the supporting member; nuts upon the ball cages and engaging the supporting member to reinforce the same between the openings and to hold the parts of the cages against rotation in the supporting member; balls in the ball cages, the ends of the ball cages being contracted to prevent the balls from moving longitudinally in the ball cages, the balls being adapted to engage the inclosing structure upon opposite sides of the median plane of the wheel and to engage each other adjacent the median plane of the wheel; and a tire carried by the periphery of the supporting member and engaging the inclosing structure.

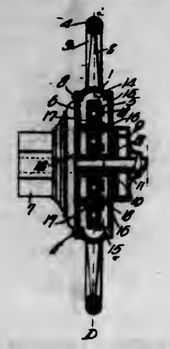
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1,040,512. SPRING-WHEEL. HENRY B. COATS, Veedersburg, Ind. Filed Nov. 4, 1911. Serial No. 658,567. (Cl. 152—41.)

1. In a device of the class described, an axle structure; a supporting member secured to the axle structure and provided with openings; a casing inclosing the supporting member and adapted to have movement transversely of the axle; shafts terminally connected with the casing and extended through the openings; resilient means interposed between the shafts and the periphery of the openings; separable ball cages extended through the supporting member; means for retaining the ball cages in the supporting member; and balls held in the ball cages, the balls being adapted to bear against the casing upon both sides of the supporting member, and to bear against each other adjacent the median plane of the device.

2. In a device of the class described, an axle structure; a supporting member secured to the axle structure and provided with openings; a casing inclosing the supporting member and adapted to have movement transversely of the axle; shafts terminally connected with the casing and ex-

tended through the openings; wheels upon the shafts; pneumatic tires carried by the peripheries of the wheels and adapted to bear against the peripheries of the openings; separable ball cages extended through the supporting member;



means for maintaining the ball cages in the supporting member; and balls held in the ball cages, the balls being adapted to bear against the casing upon both sides of the supporting member, and to bear against each other adjacent the median plane of the device.

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1,040,513. GREASE-GUN. HENRY HERBERT COLSON, Everett, Mass. Filed Oct. 31, 1911. Serial No. 657,822. (Cl. 221—78.)

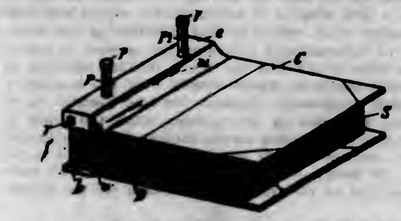


1. In a grease gun, the combination of a cylinder having a discharge, a reciprocatory piston disposed in the cylinder and having a stem extending outside the cylinder, whereby the piston may be drawn by hand in a direction away from the discharge, means for introducing fluid under pressure into the cylinder at the opposite side of the piston to the discharge, and a valved conduit communicating at its inner end with the interior of the cylinder at said side of the piston and communicating at its outer end with the atmosphere, whereby when the valve of the conduit is open the piston can be easily drawn in a direction away from the discharge.

2. A grease gun comprising a cylinder, a head closing one end thereof and having a nipple and also having a valved conduit communicating at its inner end with the interior of the cylinder and at its outer end with the atmosphere, a band located at the opposite end of the cylinder and having a nipple provided with a by-pass, a head detachably secured on said band and having a discharge and adapted to be detachably connected to an oil pipe, a reciprocatory piston disposed in said cylinder and having a stem extending in a direction away from said discharge and outside the cylinder, a pipe connecting the nipples together and communicating at its upper end with the interior of the cylinder, a cylinder fixed to the band and to the head at the opposite end of the first-named cylinder, a passage between the lower ends of the second-named cylinder and the pipe, a non-return valve in said passage, and a reciprocatory piston in the second-named cylinder and having a stem extending outside the same.

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1,040,514. LOOSE-LEAF BINDER AND LEAF THEREFOR. WILLIAM H. COOLEY, Brockport, N. Y. Filed May 6, 1911, Serial No. 625,571. Renewed Jan. 26, 1912. Serial No. 673,986. (Cl. 129—12.)



1. In a loose leaf binder, in combination with a cover member carrying impaling members, a second cover member adapted to engage over and movable on the impaling members to accommodate varying quantities of leaves between the cover members, such impaling members disposed in unsymmetrical relation to the two opposite edges of leaves adapted to use in the binder adjacent to their back edges and two of such impaling members disposed in a line oblique to such two opposite edges to permit a plurality of leaves having correspondingly positioned openings to be inserted thereover and held in alinement thereby with only one and the same and corresponding side of each one thereof uppermost.

2. A leaf for a loose leaf binder provided with openings for receiving the impaling members disposed in unsymmetrical relation to the two opposite edges thereof adjacent to the back edge and two of such openings disposed in a line oblique to such two opposite edges whereby a plurality of such leaves may be inserted over and held in alinement by correspondingly positioned impaling members with only one and the same and corresponding side of each one thereof uppermost.

3. In a loose leaf binder, in combination with a cover member carrying impaling members, a second cover member adapted to engage over and movable on the impaling members to accommodate varying quantities of leaves between the cover members, such impaling members disposed in unsymmetrical relation to the two opposite edges of leaves adapted to use in the binder adjacent to their back edges and two of such impaling members disposed in a line oblique to such two opposite edges and leaves for such binder each provided with openings correspondingly positioned and adapted to be inserted over and held in alinement by such impaling members with only one and the same and corresponding side of each one thereof uppermost.

4. In a loose leaf binder, in combination with a cover member carrying impaling members, a second cover member adapted to engage over and movable on the impaling members to accommodate varying quantities of leaves between the cover members, two of such impaling members disposed in a line oblique to the two opposite edges of leaves adapted to use in the binder adjacent to their back edges to permit a plurality of leaves having correspondingly positioned openings to be inserted thereover and held in alinement thereby with only one and the same and corresponding side of each one thereof uppermost.

5. A leaf for a loose leaf binder provided with at least two openings disposed in a line oblique to the two opposite edges thereof adjacent to the back edge to permit a plurality of such leaves to be inserted over and held in alinement by correspondingly positioned impaling members with only one and the same and corresponding side of each one thereof uppermost.

[Claims 6 to 14 not printed in the Gazette.]

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1,040,515. BRAKE FOR VEHICLES. WILLIAM C. COOPER, Springfield, Ill. Filed July 17, 1911. Serial No. 638,983. (Cl. 21—8.)



1. In combination, a brake drum, inner and outer pivotal shoes having eccentric bearing or grinding surfaces and intermeshing segmental gears, and suitable actuating mechanism.

2. In combination a brake drum, inner and outer shoes having eccentric bearing or friction surfaces, said shoes being in the form of sectors provided edgewise with intermeshing teeth whereby the shoes are mutually responsive, and suitable actuating mechanism.

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1,040,516. NUT-LOCK. JAMES COYLE, Tremont, Pa. Filed May 21, 1912. Serial No. 698,749. (Cl. 151—11.)



1. The combination with a threaded bolt, of a nut adapted to work thereupon, said nut having an annular recess surrounding the bolt opening and having a slot leading from said recess to the outer face of one side of the nut and having a shoulder therein, a spring secured in said recess and having an end bent to engage the bolt threads, and a pull member having one end secured to said pawl and the other end bent back upon said pull member, said pull member projecting through the said slot and adapted to be brought into engagement with said shoulder for the purpose of holding the pawl out of engagement with the bolt.

2. A nut lock comprising a threaded bolt, a nut having one face recessed, a spring seated in said recess, said spring partially encircling said bolt, and having one end bent to form a pawl of sufficient width to always engage a thread of the bolt, said nut having a slot opening through one side of the nut and communicating with said recess and a pull member working through said slot and secured to said pawl.

3. The combination with a threaded bolt of a nut recessed upon one face, and having a slot extending through one side of the nut into said recess, said slot communicating with a pocket, a beveled shoulder forming one side of said pocket, a spring secured in the recess and having an angled end portion adapted to engage the threads of the bolt, and a pull member connected at one end to said pawl said pull member extending through said slot and being adapted to move into said pocket and to engage said shoulder, said pull member when in engagement with the shoulder drawing the pawl away from the bolt.

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1,040,517. PROCESS FOR CASTING MOLTEN METAL IN MOLDS. CLAY CRAWFORD, Toledo, Ohio, assignor to O. S. Brigham, Toledo, Ohio. Filed June 14, 1909. Serial No. 502,150. (Cl. 22—200.)

1. The process of casting, which consists in introducing the metal into a mold, causing the metal to cool more rapidly in one part of the mold than in the others and simultaneously causing the particles of the unsolidified metal to move with respect to each other and to the solidified metal during the cooling.



2. The process of casting, which consists in introducing the metal into a mold, cooling the mold progressively from one end toward the opposite end thereof and simultaneously causing the particles of the unsolidified metal to move with respect to each other and to the solidified metal during the cooling.

3. The process of casting which consists in rotating a body of molten metal within a mold, throughout a succession of time periods, the velocity of rotation of the mold varying during each time period.

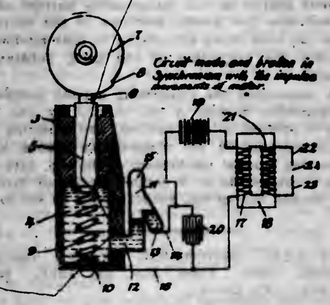
4. The process of casting, which consists in introducing the metal into a mold, subjecting the mold to rotary motion so that the same moves with unequal velocities in equal intervals of time and simultaneously cooling one portion of the mold more rapidly than the other portions.

5. The process of casting, which consists in moving the body of metal with unequal velocities in equal intervals of time and simultaneously preventing the radiation of heat from a certain portion of the metal and cooling another portion of the metal.

[Claim 6 not printed in the Gazette.]

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1,040,518. IGNITION APPARATUS FOR INTERNAL-COMBUSTION ENGINES. MARK B. CRIST, Pittsburgh, and MERRITT R. WELLS, Wilkinsburg, Pa., assignors, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Feb. 15, 1906. Serial No. 301,224. (Cl. 123—168.)

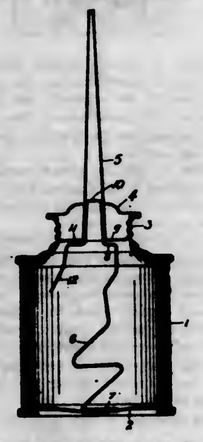



1. In an ignition apparatus, means for making and breaking an electric circuit in synchronism with the impulse movements of an explosion engine, said means comprising a sealed chamber containing mercury which constitutes a terminal for the circuit, an insulating tube separate from but communicating with said chamber and containing a body of mercury which constitutes a second terminal for the circuit, and a cam reciprocated plunger operated within said chamber to bring the mercury in the chamber into and out of contact with the mercury in the tube and thereby make and break the circuit.

2. In an ignition apparatus, means for making and breaking an electric circuit in synchronism with the impulse movements of the engine, comprising a sealed chamber containing mercury constituting a terminal for the circuit, an insulating tube provided with an arm communicating with said chamber and containing mercury which comprises a second terminal in said circuit, and a cam-reciprocated plunger operating in said chamber to reciprocate the mercury contained therein and to thereby raise and lower the level of the mercury in said tube above and below the mercury in the arm to make and break the circuit.

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1,040,519. DISPENSING-CAN. ARCHIBALD C. DAVIS, Omaha, Nebr., assignor to Carr Manufacturing Company, Kansas City, Mo., a Corporation of Missouri. Filed Dec. 21, 1911. Serial No. 667,104. (Cl. 221—34.)



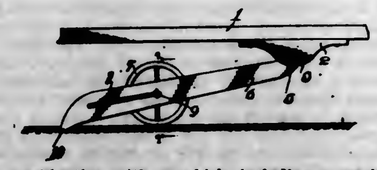
1. A dispensing can comprising a body, having a compressible bottom, a nozzle carried by the body, and a spring having a seat on the compressible bottom and having a neck projected into said nozzle and adapted for retaining the spring in functional position.

2. A dispensing can comprising a body, having a compressible bottom, a cap on the body having a nozzle opening into the interior thereof, and a spring having a base head seated on the compressible bottom and a neck projected into the nozzle, portions of the spring at the base of the neck being shouldered to bear against the cap and limit the projection of the neck, substantially as set forth.

3. A dispensing can comprising a body portion, having a compressible bottom, a cap carried by the body and having a covered bottom portion, and a spring having a base head seated on the compressible bottom and shoulders bearing against the bottom of the cap, said shoulders having a connecting neck portion projected into the nozzle to anchor the spring, substantially as set forth.

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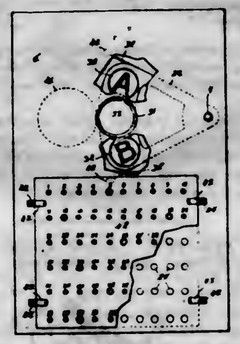
1,040,520. AUTOMATIC BRAKE. OSCAR DAVIS, Stewart, Ohio. Filed Nov. 24, 1911. Serial No. 662,201. (Cl. 21—8.)



In combination with a vehicle including a reach bar, a block secured to said bar and provided with a pair of oppositely disposed ears, a bar having its inner end pivotally connected between said ears, the outer end of said bar being bifurcated and provided with a pair of longitudinally arranged slots, a wheel having an axle the opposite ends of which are slidably mounted in said slots, points formed upon the extreme outer end of said bar, said points being adapted to engage the ground when the vehicle is moved backwardly and the axle of said wheel travels forwardly in said slots.

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1,040,521. GAME APPARATUS. IRVING A. DELINE, Denver, Colo. Filed Jan. 8, 1912. Serial No. 669,971. (Cl. 46—56.)



1. In game apparatus, the combination with a suitable casing, of a block spindle journaled therein and equipped with crank arms, the face of the casing being provided with perforations, the crank arms normally projecting into alinement with certain of the perforations, a plate mounted to oscillate, a spring for normally retaining the plate in a predetermined position, an operative connection between the rock spindle and the plate for oscillating the latter, the front wall of the casing being equipped with an opening and the plate normally extending on opposite sides of the said opening whereby, as the rock spindle is actuated and the plate oscillated, portions of the plate, normally concealed, will be brought into register with the said opening in the casing, substantially as described.

2. The combination with a suitable casing, of a support applied to the inner face of the front wall of the casing, in which support the rock spindle is journaled, the front wall of the casing being provided with relatively small perforations arranged in rows on opposite sides of the rock spindle, the crank arms of the rock spindle projecting into alinement with certain of the said perforations on opposite sides of the spindle, a plate pivotally connected with the front wall of the casing and arranged to oscillate, an operative connection between the rock spindle and the said plate for oscillating the latter when a partial rotary movement is imparted to the spindle, the front wall of the casing being equipped with a relatively large opening upon opposite sides of which portions of the oscillatory plate normally extend, a spring connected with the said plate for normally maintaining it in a predetermined position, a gong also located within the casing, the plate being equipped on opposite sides with hammers, in the path of which the gong lies as the plate is oscillated to its limit of movement in either direction, substantially as described.

3. The combination with a casing, of a number of rock spindles located therein, separated supports secured to the inner surface of the front wall of the casing, in which supports the said rock spindles are journaled, the rock spindles being equipped with crank arms extending in opposite directions therefrom, the front wall of the casing being provided with rows of perforations arranged on opposite sides of each rock spindle, the perforations being so arranged that the crank arms normally occupy positions directly in the rear of certain of the perforations, an instrument adapted to enter the perforations to actuate the rock spindles by engaging a crank arm, the rock spindles being connected to operate simultaneously when any crank arm is actuated, and a plate movably mounted in the casing and connected in operative relation with the rock spindles, the front wall of the casing being provided with a relatively large perforation, upon opposite sides of which portions of the movable plate are normally concealed, the said portions being adapted to be exposed as the plate is actuated by the movement of a rock spindle, substantially as described.

4. The combination with a casing, of supports secured to the inner surface of the front wall of the casing, a number of rock spindles journaled in said supports, the rock spindles being equipped with crank arms, a rod pivotally connected with the crank arms of all of the spindles to cause the latter to operate in unison when any rock spindle is actuated, each rock spindle being equipped with a number of crank arms, perforations formed in the front wall of the casing and arranged in rows on opposite sides of each rock spindle, the crank arms of the rock spindle normally projecting into the path of an instrument inserted in certain of the perforations, a plate movably mounted in the casing and connected in operative relation with one of the rock spindles, whereby, as any rock spindle is actuated, the plate will be shifted, and means for normally retaining the plate and rock spindles in a predetermined position, substantially as described.

5. The combination with a casing, whose front wall is equipped on its inner surface with separated angle-iron members, rock spindles journaled in the inwardly-projecting flanges of the said members, the said spindles being connected to operate in unison and equipped with crank arms projecting in opposite directions from each spindle, the front wall of the casing being provided with rows of perforations located on opposite sides of each spindle, the crank arms of each spindle projecting into alinement with certain of the perforations, a plate mounted to oscillate in the casing, an operative connection between the said plate and one of the rock spindles, a spring for normally retaining the plate and the rock spindles in a predetermined position, a gong also mounted in the casing, the said plate being equipped with spring hammers arranged on opposite sides thereof and adapted to strike the gong as the plate is moved to its limit in either direction, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,522. SPEED-REGULATOR FOR SOUND RECORDING AND REPRODUCING MACHINES. WILBUR N. DENNISON, Merchantville, N. J., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed Feb. 1, 1907. Serial No. 355,218. (Cl. 74—45.)



1. A speed regulator comprising a governor, a fixed member, a rotatable actuating member carried by said fixed member upon a fixed axis, coincident with the geometrical axis of said rotatable member, and fixed in position longitudinally of its axis of rotation, and means mounted upon and rotated by said rotatable member and adjustable thereon for regulating the speed of the governor.

2. A speed regulator, comprising a governor, a fixed member, a rotatable actuating member carried by said fixed member upon a fixed axis, coincident with the geometrical axis of said rotatable member and fixed in position longitudinally of its axis of rotation, and a cam mounted upon and rotated by said rotatable member and adjustable thereon for regulating the speed of the governor.

3. A speed regulator, comprising a governor, a fixed member, a rotatable actuating member carried by said fixed member upon a fixed axis, coincident with the geometrical axis of said rotatable member, and fixed in position longitudinally of its axis of rotation, and a cam mounted upon said rotatable member and actuated thereby and adjustable longitudinally of the axis of rotation thereof for regulating the speed of the governor.

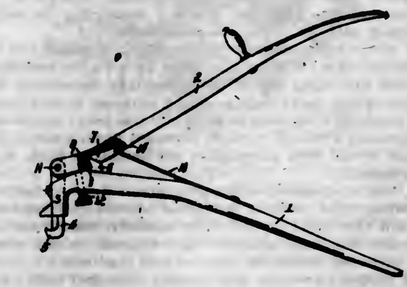
4. A speed regulator, comprising a governor, a fixed member, a rotatable member carried by said fixed member, a cam carried by said rotatable member and adjustable and slidable longitudinally of the axis of rotation thereof, and a key sliding in a keyway provided therefor between said cam and said rotatable member to hold said cam slidably in position for regulating the speed of the governor.

5. A speed regulator, comprising a governor, a fixed member, a rotatable member carried by said fixed member, a cam carried by said rotatable member, and means for adjusting said cam longitudinally with respect to the axis of said rotatable member, said means comprising a screw and a spring.

[Claims 6 to 24 not printed in the Gazette.]

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1,040,523. BONE-FORCEPS OR THE LIKE. ALLEN DE VILBISS, Toledo, Ohio. Filed Jan. 19, 1912. Serial No. 672,228. (Cl. 128—28.)



1. In a bone forceps, a pair of coöperating levers one having a slotted part projecting from its inner surface adjacent to the fulcrum point and the other having a pin working in such slot, said levers having parts which coact to form a fulcrum which changes lengthwise of the instrument upon a working stroke of the levers.

2. In a bone forceps, a pair of operating levers having a rolling fulcrum connection which is changeable lengthwise of the levers upon a working stroke thereof, and means for adjusting the stroke of the levers.

3. In a bone forceps, a pair of operating levers having laterally movable pivotal connection adjacent their fulcrum point and having portions which coact upon a working stroke of the levers to decrease the leverage action thereof during such stroke, and means adjustable to change the length of stroke of the levers and to make the fulcrum constant or changeable.

4. In a bone forceps, a pair of operating levers having laterally movable pivotal connection and having parts in rolling contact and operable upon a working stroke of the levers to change the fulcrum point thereof lengthwise of the levers, and an adjusting screw threaded through one of the levers in advance of its point of connection with the other lever and being adjustable to coact with the other lever to provide a constant fulcrum therefor or to permit said levers to have a changing fulcrum.

5. In a bone forceps, a pair of levers having their forward ends in rolling contact to effect a gradual decreasing of the leverage action when the handle portions of the

levers are moved toward each other, one lever having a cutter head and the other having a cutting plunger for cooperating with the head to cut matter when the lever handles are moved toward each other, and loose connection between the rolling portions of said levers for limiting and guiding their rolling movements.

[Claim 6 not printed in the Gazette.]

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1,040,524. HARROW. EDMUND B. DIKEMAN, Chicago, Ill. Filed May 27, 1912. Serial No. 699,920. (Cl. 55—108.)



1. The combination with a plurality of tine bars and cooperating tines; of links pivotally connected to the terminals of said tine bars; yokes medially connecting the alternate tine bars; and means coöperative with said yokes for imparting a simultaneous adjustment to the angle of the tines to the horizontal plane.

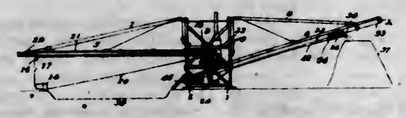
2. The combination with a plurality of tine bars and cooperating tines; of links pivotally connected to the terminals of said tine bars; yokes medially connecting the alternate tine bars; and links medially interposed between said tine bars and pivotally connecting the same arranged adjacent to the yokes aforesaid.

3. The combination with a plurality of tine bars and cooperating tines; of links interposed between the terminals of said tine bars; arched yokes medially connecting the alternate tine bars; links arranged adjacent to said yokes and pivotally interposed between said tine bars; and means coöperating with said medially arranged links, whereby the angles of the tines aforesaid to the horizontal plane may be adjusted.

4. The combination with a plurality of tine bars and cooperating tines; of links interposed between the terminals of said tine bars; arched yokes medially connecting the alternate tine bars; links arranged adjacent to said yokes and pivotally interposed between said tine bars; a quadrant formed on one of said medially arranged links; and a lever rigidly secured to the bar adjacent to said quadrant and coöperating therewith for simultaneously adjusting the angle of the tines to the horizontal plane.

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1,040,525. COMBINED EXCAVATING AND LEVEE-BUILDING MACHINE. CHARLES H. DISHMAN, Henderson, Ky. Filed Feb. 21, 1912. Serial No. 678,992. (Cl. 37—39.)



1. In an excavating and levee building machine, the combination with oppositely extending booms, of an excavating device carried by one of said booms, means for operating said excavating device, a car carried by and movable along the other boom, and means for operating said car, said excavating device and car being adapted for the transferring of the earth from one to the other.

2. In an excavating and levee building machine, the combination with oppositely extending booms, of an excavating device carried by one of said booms, means for operating said excavating device, a car carried by and movable along the other boom, and means for operating said car, and a traveling carrier positioned and adapted to receive the excavating device and guide it to a position where it may discharge its contents into the car.

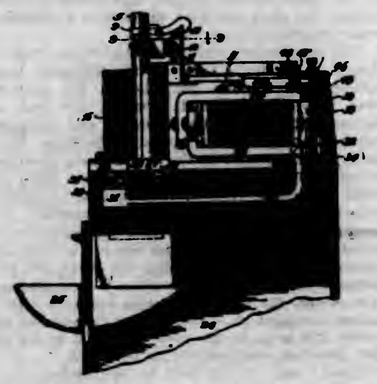
3. In an excavating and levee building machine, the combination with an excavating device and means for operating said excavating device, of a car, means for operating the car, and a traveling guide and carrier adapted to position the excavating device so that it may discharge its contents into the car.

4. In an excavating and levee building machine, the combination with a traveling excavating device, of an inclined traveling carrier and guide, a car adapted for positioning adjacent the inclined carrier, and means for operating said car, said guide and carrier being adapted to guide and position the traveling and excavating device so that it may discharge its contents into the car.

5. In an excavating and levee building machine, the combination with an excavating device and means for operating said excavating device, of a transferring device, and a traveling guide and carrier adapted to position the excavating device so that it may discharge its contents onto the transferring device.

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1,040,526. COIN-COLLECTOR. AMOS F. DIXON, New York, N. Y., assignor to Western Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 7, 1909. Serial No. 471,145. (Cl. 179—7.)



1. In a toll-mechanism for a telephone system, the combination with a lever arranged to be operated in initiating a call, contacts controlled by said lever, an electromagnet and a circuit therefor controlled by said contacts, an armature for said electromagnet, means for impressing on said circuit a current adapted to operate said armature, a second armature for said electromagnet responsive upon the operation of the first-named armature, a lever operated by said second armature, and means actuated by said lever for controlling the charging of the call.

2. In a toll-mechanism for a telephone system, the combination with a lever arranged to be operated in initiating a call, contacts controlled by said lever, an electromagnet and a circuit therefor controlled by said contacts, a polarized armature for said electromagnet, means for impressing on said circuit a current of either positive or negative polarity, contacts controlled by said armature for short circuiting one or the other of said coils according to the direction in which said armature moves in response to said current, a non-polarized armature mounted in position to be operated by said electromagnet when one of the coils thereof is short circuited, and means actuated by said non-polarized armature for controlling the charging of the call.

3. In a toll-mechanism for a telephone system, the combination with a lever arranged to be operated in initiating a call, contacts controlled by said lever, a polarized electromagnet and a circuit therefor controlled by said contacts, an armature mounted in proximity to the permanent magnet of said electromagnet, means for impressing on said circuit a current of either positive or negative po-



larity, as desired, a second armature for said electromagnet mounted out of the active field of the permanent magnet, means controlled by the actuation of said first-mentioned armature for increasing the pull in the one or the other direction of said second armature, and means actuated by said second armature in its movement in the one or the other direction for controlling the charging of the call.

4. In a toll-mechanism for a telephone system, the combination with a lever arranged to be operated in initiating a call, contacts controlled by said lever, a polarized electromagnet and a circuit therefor controlled by said contacts, an armature mounted in proximity to the permanent magnet of said electromagnet, means for impressing on said circuit a current of either positive or negative polarity, contacts controlled by said armature for short circuiting one or the other of said coils according to the direction in which said armature moves in response to said current, a second armature for said electromagnet mounted out of the active field of the permanent magnet, and means actuated by said second armature in its movement in the one or the other direction for controlling the charging of the call.

5. In a toll-mechanism for a telephone system, the combination with a lever arranged to be operated in initiating a call, contacts controlled by said lever, a polarized electromagnet and a circuit therefor, said electromagnet consisting of two parallel, coil wound cores connected by a yoke and having a permanent magnet secured to the yoke and extending to the forward end of the cores, a centrally pivoted armature mounted in proximity to the end of the permanent magnet, a second centrally pivoted armature for said electromagnet, said latter armature being mounted out of the active field of the permanent magnet, contacts arranged to be actuated by the first-named armature to short circuit one or the other of the coils of said electromagnet, means for impressing on said circuit a current of either positive or negative polarity to actuate the armature which is under the influence of the permanent magnet, and thus to bring about the actuation of said other armature, a lever actuated by said latter armature, and means actuated by said lever for controlling the charging of the call.

[Claims 6 to 10 not printed in the Gazette.]

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1,040,527. TURPENTINE-BOX. FREDERICK WILLIAM DOCK, Wilmington, N. C. Filed June 20, 1911. Serial No. 634,820. (Cl. 47—40.)



1. A turpentine extractor, comprising a closure for a collecting receptacle, a spout connected to said closure, a cap connected to said spout having a slot in the upper portion thereof to receive the turpentine from chipped surfaces on a tree.

2. A sap extractor comprising a closed receptacle, a cap adapted to enter a recess formed in a tree, and means for connecting the receptacle and cap, said cap provided with an inlet orifice in its upper marginal portion through which the sap from chipped surfaces flows.

3. A sap and gum extractor comprising a cap adapted to fit in a hole in a tree, a spout connected thereto, and a closed receptacle connected to the spout, said cap provided with a slot in the upper portion through which the sap flows from chipped surfaces, and flanges engaging the slot of the cap in either end thereof and fixed to the lower portion of the chipped surfaces to deflect the gum exuding therefrom into the collecting receptacle.

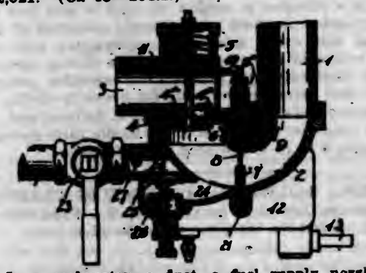
4. In a turpentine vessel, a cap for said vessel adapted to enter a perforation in a tree and provided with a slot in the upper portion thereof through which the turpentine flows into the vessel from chipped surfaces, and flanges connected to the lower part of the chipped surface and having a portion engaging the slot of the cap to deflect the gums into said receptacle, substantially as described.

5. A turpentine extractor comprising a closed receptacle, and conducting means connected at one end to said receptacle the other end of which enters a recess in a tree, said means having a perforation in the upper marginal portion of the part which enters the tree through which the sap and gum enters from a scarred surface on the tree above the said means.

[Claims 6 to 8 not printed in the Gazette.]

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1,040,528. CARBURETER. HERMAN DOCK, Westerly, R. I., assignor, by mesne assignments, to Alfred A. Whitman, New York, N. Y. Filed Nov. 24, 1908, Serial No. 464,246. Renewed June 8, 1911. Serial No. 632,021. (Cl. 48—154.1.)



1. In a carbureter, a duct, a fuel supply nozzle projecting into the passage of said duct, two separate and independent air inlets entering said duct at one side of said fuel nozzle, a check valve for each inlet, a fuel reservoir, means for maintaining fuel therein at a substantially constant level, a fuel pipe connecting said fuel reservoir with said fuel nozzle, a by-pass connecting the interior of said fuel reservoir with the interior of one of said inlets back of the check valve therein, an air vent in said fuel reservoir, and a back pressure valve therefor to close said reservoir to the entrance of air when pressure within the same is in excess of atmosphere.

2. In a carbureter, a duct, a valved fuel nozzle therein, an air inlet for said duct opening to the atmosphere, another independent air inlet for said duct opening to a compressed air line, a manually controllable valve for the latter, means for automatically closing the first mentioned inlet when said valve in the compressed air line is open, and means for maintaining a substantially uniform level of fuel in the fuel nozzle whether air is being supplied to said duct from the atmosphere or from the compressed air line.

3. In a carbureter, a duct, a valved fuel nozzle therein, an air inlet for said duct opening to the atmosphere, another and independent air inlet for said duct opening to a compressed air line, a manually controllable valve for the latter, means for automatically closing the first mentioned inlet when the said valve in the compressed air line is open, and means for maintaining a substantially uniform level of fuel in the fuel nozzle whether air is being supplied to said duct from the atmosphere or from the compressed air line, said means comprising a fuel reservoir connected with said fuel nozzle, a fuel supply pipe leading into said reservoir, a valve therefor, a float operated by the level of fuel within the reservoir for controlling said valve, a by-pass for air connecting the compressed air line, at a point between the valve and the fuel nozzle, with the interior of the fuel reservoir for maintain-

ing an equilibrium of pressure upon the fuel in the reservoir and the fuel in the nozzle while air is being admitted through the compressed air line.

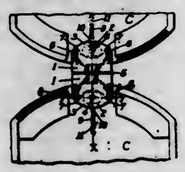
4. In a carburetor, a duct, a valved fuel nozzle therein, an inlet for said duct opening to the atmosphere, another and independent air inlet for said duct opening to a compressed air line, a manually controllable valve for the latter, means for automatically closing the first mentioned inlet when the valve in the compressed air line is open, and means for maintaining a substantially uniform level of fuel in the fuel nozzle whether air is being supplied to said duct from the atmosphere or from the compressed air line, said means comprising a fuel reservoir connected with said fuel nozzle, a fuel supply pipe leading into said reservoir, a valve therefor, a float operated by the level of fuel within the reservoir for controlling said valve, a by-pass for air connecting the compressed air line, at a point between the valve and the fuel nozzle, with the interior of the fuel reservoir for maintaining an equilibrium of pressure upon the fuel in the reservoir and the fuel in the nozzle while air is being admitted through the compressed air line, and a back pressure valve in said compressed air inlet between the point of connection of said by-pass and said fuel nozzle.

5. In a carbureter, a duct, a fuel nozzle therein, a valve therefor, a spring for normally exerting a pressure on said valve in a direction to open it, an inlet to said duct from the atmosphere, a check valve therein, restricted air ducts through said check valve means connecting said check valve with said fuel valve whereby the closing movement of said check valve will impart a corresponding movement to said fuel valve, and a spring for normally closing said check valve and of sufficient strength to perform said work and to overcome the tension of the needle valve spring.

[Claims 6 to 11 not printed in the Gazette.]

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1,040,529. RAILWAY-CAR-CONNECTING PLATFORM. THEODORE DOUGLAS, Scarboro, N. Y. Filed July 24, 1912. Serial No. 711,272. (Cl. 105—21.)



1. The combination of a rigid car platform at the end of a car, a floating auxiliary platform extending out beyond the end of the rigid platform, an opening in the rigid platform below the floating platform, a circular boss extending downward from the floating platform, as a part thereof, through this opening in the rigid platform, and a plate of greater area than the opening in the rigid platform, means for rigidly connecting the plate on the under side of the opening to the floating platform, through the boss member, in such a manner as to permit of a sliding motion of the floating platform, both longitudinal, circular and transverse, within the limits of the boss movements in the opening, and a plurality of tension springs connected at one of their ends to the plate and at their opposite ends to the rigid platform, in such a manner as to permit of longitudinal, transverse and circular motions in the floating platform when acted upon by a corresponding platform held in a floating position by corresponding springs on an adjoining car, and the said springs being so designed and adjusted as to keep the two platforms in contact, and yet to permit of extreme transverse and vertical movements along their contact faces, and when the two floating platforms are in contact to present a continuous tread or safety-bridge joining the two cars, and when released from the influence of the adjoining platform and the movements of the car end, to return the floating platform to its normal position with reference to the rigid platform, substantially as described.

2. An appliance for use with moving vehicles constituting a platform, or bridge, connecting them and consisting of a plate attached to each vehicle and held in a position of contact with a corresponding plate on the adjoining vehicle by means of springs so arranged as to permit of longitudinal and transverse motions of the plates and circular motions without fixed centers, substantially as described.

3. An appliance for use on railway cars consisting of plates extending beyond the ends of the cars and which, when the cars are coupled, surface with each other and are held in their surfaced position by means of springs which permit longitudinal, transverse and circular movements of the plates to compensate the irregular motions of the ends of the cars and to constantly form a bridge, or platform, connecting between them over which the passengers may walk, substantially as described.

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1,040,530. PROCESS OF MAKING SOAP POWDERS. CARLETON ELLIS, Larchmont, N. Y., assignor to Ellis-Foster Company, a Corporation of New Jersey. Filed Mar. 13, 1908. Serial No. 420,765. (Cl. 87—16.)

1. The process of making a soap product which comprises mingling a free fatty acid with dry soda ash and water in amount sufficient to institute a reaction while insufficient for the solution of said soda ash, said mingling being done at ordinary temperatures, allowing the mixture to heat spontaneously until a self-disintegrating product is obtained and to cool undisturbed, and comminuting the product.

2. The process of making a soap product which comprises mingling about 2 parts of red oil, about 5 parts of dry soda ash and about 3 parts of water, said mingling being done at ordinary temperatures, allowing the mixture to heat spontaneously until a self-disintegrating product is obtained and to cool undisturbed, and comminuting the product.

3. The process of making a soap product which comprises mingling a free fatty acid with an alkaline composition capable of developing heat on hydration, mixing with water in amount sufficient to develop such heat while insufficient to dissolve such alkaline composition, said mixing being done at ordinary temperatures, and allowing the mixture to heat spontaneously until a self-disintegrating product is obtained and to cool undisturbed.

4. The process of making a soap product which comprises mixing a fatty acid with a dry carbonate of soda, and thereafter admixing water in amount insufficient to dissolve such carbonate, allowing the mixture to heat spontaneously until a self-disintegrating product is obtained and allowing the mixture to cool undisturbed, said admixture being performed at ordinary temperatures.

5. The process of making a soap product which comprises admixing red oil with a dry carbonate of soda, thereafter adding water in amount insufficient to dissolve such carbonate, allowing the mixture to heat spontaneously until a self-disintegrating product is obtained and allowing the mixture to cool undisturbed, said addition and admixture being performed at ordinary temperatures.

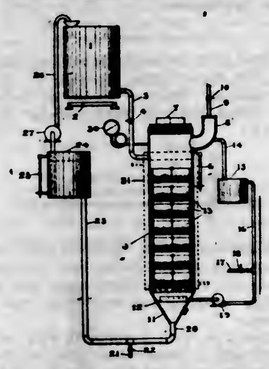
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1,040,531. PROCESS OF HYDROGENATION. CARLETON ELLIS, Montclair, N. J. Filed Apr. 24, 1912. Serial No. 692,902. (Cl. 87—12.)

1. The process of treating oily material comprising unsaturated bodies which comprises moving a column of said oily material in a heated condition and in a liquid state and as a substantially traveling stream through a plurality of beds of porous solid material comprising a catalytic body, in simultaneously passing a counter-current of a hydrogen-containing gas substantially uniformly through said beds of porous solid material and said oily material, in removing the excess of hydrogen, in causing said excess to again become a part of said counter-current, in removing the oil and in causing at least a portion of it to again become a part of said column.

2. The process of treating oily material comprising unsaturated bodies which comprises moving a column of said oily material in a heated condition and in a liquid state and as a substantially traveling stream through a plurality of beds of porous solid material comprising a catalytic body, in simultaneously passing a counter-current of hydrogen under pressure and substantially uniformly through said beds of porous solid material and said oil material, in removing the excess of hydrogen, in causing said excess to again become a part of said counter-current, in removing the oil and in causing at least a portion of it to again become a part of said column.





3. The process of treating oily material comprising unsaturated bodies which comprises moving a column of said oily material in a liquid state and heated to a temperature of between 150° C. and 200° C. and as a substantially traveling stream through a plurality of beds of porous solid material comprising a catalytic body of a metallic character, in simultaneously passing a counter-current of hydrogen under a pressure of at least 10 pounds per square inch and substantially uniformly through said beds of porous solid material and said oily material, in removing the excess of hydrogen and purifying same, in causing the purified excess to again become a part of said counter-current, in removing the oil and in causing at least a portion of it to again become a part of said column.

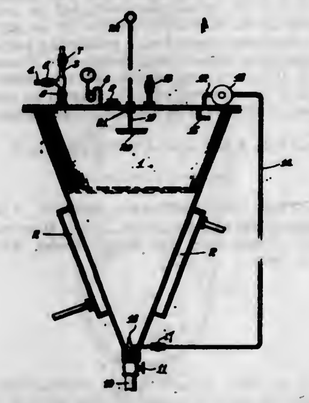
4. The process of treating oily material comprising unsaturated bodies which comprises moving a column of said oily material in a liquid state and heated to a temperature of between 160° and 200° C. and as a substantially traveling stream through a plurality of separate beds of porous solid material comprising a catalytic body of a metallic character, in simultaneously passing a counter-current of hydrogen under a pressure of at least 10 pounds per square inch and substantially uniformly through said beds of porous solid material and said oily material, in removing the excess of hydrogen and purifying same, in causing the purified excess to again become a part of said counter-current, in removing the oil and in causing at least a portion of it to again become a part of said column.

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1,040,532. PROCESS OF HYDROGENATING OILY MATERIAL. CARLETON ELLIS, Montclair, N. J. Filed July 23, 1912. Serial No. 711,089. (Cl. 87—12.)

1. The process of hydrogenating oily material containing unsaturated bodies which comprises repeatedly and continuously bubbling a strong current of hydrogen through a pool of said oily material carrying a catalyser and maintained under thermal conditions adapted to the absorption of hydrogen, in collecting the unabsorbed portion of the hydrogen in a space above said pool and out of essential and substantial contact with the oily material, in rapidly withdrawing the gas from said space; whereby any substantial accession of pressure in said space is prevented, in again and repeatedly bubbling the hydrogen through said pool; whereby unsaturated bodies are saturated by absorption of hydrogen; and in substantially removing the oily product from the seat of said pool without substantial removal of said catalyser.

2. The process of hydrogenating oily material containing unsaturated bodies which comprises repeatedly bubbling a strong current of hydrogen-containing gas through a pool of said oily material carrying a catalyser, in collecting the unabsorbed portion of the gas in a space above said pool and out of substantial contact with the oily material, in rapidly withdrawing the gas from said space; whereby any substantial accession of pressure in said space is prevented in again and repeatedly bubbling the body of gas through said pool; whereby unsaturated bodies are saturated by absorption of hydrogen; and in substantially removing the oily product from the seat of said pool without substantial removal of said catalyser.

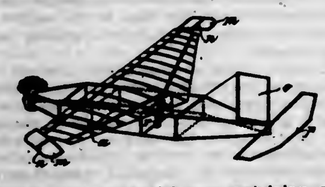


3. The process of hydrogenating oily material containing unsaturated bodies which comprises repeatedly bubbling a strong current of a hydrogen-containing gas through a pool of said oily material carrying a catalyser, in collecting the unabsorbed portion of the gas in a space above said pool and out of substantial contact with the oily material, in rapidly withdrawing the gas from said space; whereby any substantial accession of pressure in said space is prevented and in again bubbling the gas through said pool.

4. The process of hydrogenating oily material containing unsaturated bodies which comprises repeatedly bubbling a strong current of hydrogen through a pool of said oily material carrying a catalyser and maintained under thermal conditions adapted to the absorption of hydrogen, in collecting the unabsorbed portion of the gas in a space above said pool and out of substantial contact with the oily material, in rapidly withdrawing the gas from said space; whereby any substantial accession of pressure in said space is prevented, and in again and repeatedly bubbling the gas through said pool.

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1,040,533. AEROPLANE. ROBERT ESNAULT-PELTERIE, Billancourt, France. Filed Oct. 19, 1909. Serial No. 523,528. (Cl. 244—14.)



1. An aeroplane comprising a sustaining surface, a shaft transverse to the aeroplane on which the said surface is mounted at its front part to turn, a spring connected at one end with the chassis of the aeroplane and at the other end with the center of the rear part of the said surface.

2. An aeroplane comprising a sustaining surface, a shaft transverse to the aeroplane on which the said sur-

face is mounted at its front part to turn, a lever, and a spring connected at one end with the chassis of the aeroplane and connected at the other end, through said lever, with the rear portion of the said surface.

3. An aeroplane comprising an elastically mounted sustaining surface, a rudder controlling the height of flight and a transmission system adapted to transmit the movements of the sustaining surface to the rudder.

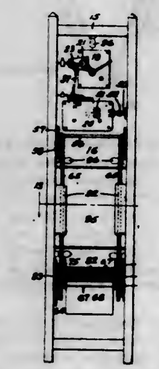
4. An aeroplane comprising an elastically mounted sustaining surface, a forward rudder controlling the height of flight, a rear rudder controlling the height of flight and a system of transmission adapted to transmit the movements of the sustaining surface to the said rudders.

5 An aeroplane comprising a sustaining surface, a rudder, a system of transmission adapted to transmit movements of the sustaining surface to the rudder, a hand lever and a transmitting system adapted to transmit the movements of said lever to the first-named system of transmission.

[Claims 6 to 8 not printed in the Gazette.]

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1,040,534. ADVERTISING DEVICE. CARLETON K. FOTHERINGHAM and ARCHIE R. LAING, Montreal, Quebec, Canada. Filed Apr. 15, 1910. Serial No. 555,701. (Cl. 40—36.)



1. In a device of the class described, a clock, a motor, clock controlled mechanism for releasing said motor, an endless advertisement carrier driven by the motor, saddles on said carrier adapted to support advertisements, and a gravity actuated switch for transferring the advertisements from one edge of the saddle to the other when the saddle is inverted.

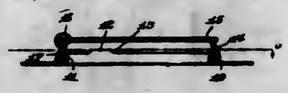
2. In a device of the class described, a clock, a motor connected thereto, an endless advertisement carrier driven by the motor, saddles on said carrier adapted to support advertisements, wheels supporting the top of said carrier having a recess in the periphery thereof, and a switch in said recess adapted to register with the saddles and transfer advertisements from one edge of the saddle to the other when the saddle is inverted in passing over the supporting wheels.

3. In a device of the class described, a motor, a clock controlling same, an advertisement carrier, an advertisement magazine comprising a pair of inclined bars flared at the upper ends to receive advertisements, the lower of said bars being hooked at the lower end to hold advertisements for delivery to the carrier, an advertisement aligning plate parallel with the magazine, flared therefrom at the top and recessed toward the bottom, a pivoted gate operating in the recess of the aligning plate adapted to allow the advertisements to escape singly to the carrier, and means actuated by the carrier for operating said gate.

4. In a device of the class described, a motor, a clock, an advertisement magazine, a carrier driven by the motor and adapted to remove advertisements from the magazine and to return the same to the magazine in rotation, a pin wheel in the clock movement, a trip lever engaging the pin wheel, a trigger mechanism on the motor, a trip bar connecting the trip lever and trigger mechanism, a retractor bar for withdrawing the trip bar from the trigger mechanism when the motor is in motion and for releasing the trip bar when the motor stops, means for operating said retractor bar, and a motor stop mechanism operated by the trigger mechanism.

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1,040,535. HOLDER FOR SPINNING-RINGS. BICKNELL HALL, Taunton, Mass., assignor to Rotary Ring Spinning Company, Boston, Mass., a Corporation of Delaware. Filed Jan. 17, 1912. Serial No. 671,542. (Cl. 118—11.)



1. The combination with a spinning ring, of a holder therefor, comprising a sheet-metal base having a flange extending upwardly from its inner edge, and a plurality of lips extending upwardly and outwardly from the upper end of said flange.

2. The combination with a spinning ring, of a holder therefor, comprising a sheet-metal base having a flange extending upwardly from its inner edge, and a plurality of lips extending upwardly and outwardly from the upper end of said flange, the edges of said lips curving into the edge of said flange to avoid angles.

3. The combination with a spinning ring, of a holder therefor, comprising a sheet-metal base having a flange extending upwardly from its inner edge, and a plurality of lips extending upwardly from the upper end of said flange, said lips being bowed outwardly at their upper edges to engage the interior of the ring.

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1,040,536. COLLAPSIBLE MANDREL. HAROLD B. HANSEN, Somerville, Mass., assignor to Standard Fibre Company, Somerville, Mass., a Corporation of Massachusetts. Filed June 21, 1909. Serial No. 503,316. (Cl. 242—115.)



1. In a device of the character specified, the combination of a split mandrel, a mounting therefor, fixtures connecting with said mandrel on one side of the split therein for rigidly holding said portion of the mandrel, a shaft extending inside said mandrel and operable from outside the same, and means connecting with said mandrel on the other side of the split therein and with said shaft to turn therewith, whereby said mandrel may be wound inwardly upon itself by said shaft as the same is turned.

2. In a device of the character specified, the combination of a split mandrel, a shaft inside said mandrel, a cam on said shaft and operated thereby as the shaft is turned, means influenced by the turning of said cam upon turning said shaft for drawing inwardly said mandrel at the point of the split edge thereof, and means whereby as said cam is further turned by the turning of said shaft said mandrel may be wound inwardly upon itself for contracting the same.

3. In a device of the character specified, the combination of a split mandrel, a shaft, a cam on said shaft, a cam ring connecting with the mandrel, a lug on said cam ring, and an arm on said cam arranged to engage said lug as said cam is turned, substantially as and for the purposes set forth.

4. In a device of the character specified, the combination of a split mandrel, trunnions supporting said mandrel, a shaft extending through said mandrel and arranged to turn in said trunnions, means connecting said trunnions with said mandrel for holding the mandrel on one side of the split therein, and means interposed between said shaft and said mandrel on the other side of the split therein whereby said mandrel may be wound inwardly upon itself upon turning said shaft in said trunnions.

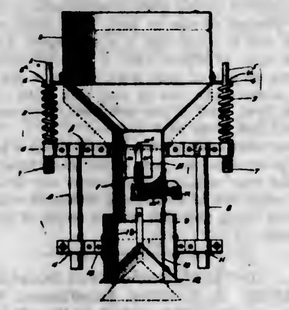
5. In a device of the character specified, the combination of a split mandrel, trunnions supporting said mandrel, a flanged head carried by one of said trunnions and embracing one end of said mandrel, said head fixedly connecting also with said mandrel on one side of the split therein, and a flanged head embracing the other end of said mandrel and detachably connecting with the other of said trunnions.

[Claim 6 not printed in the Gazette.]



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1,040,537. DEVICE FOR MEASURING GRANULAR MATERIAL. OLIVER D. HAVARD, Scranton, Pa. Filed Nov. 29, 1910. Serial No. 594,802. (Cl. 73—37.)



1. In a mechanism for measuring granular material, the combination with an upright conduit for the material and a meter having vanes within the conduit, of means, associated with the conduit, for maintaining a column of said material constantly in engagement with the meter vanes, said means comprising an element controlled by the weight of the granular material.

2. In a mechanism for measuring granular material, the combination with an upright conduit for the material and a meter having vanes within the conduit, of a valve controlled by the weight of the granular material for regulating the flow of material through the conduit, and means, coöperating with said conduit and valve, for maintaining a column of said material in engagement with the meter vanes.

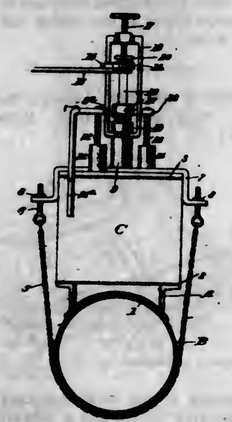
3. In a mechanism for measuring granular material, the combination with yieldingly supported upright material conducting means, and a meter having vanes within said means, of means, associated with the first named means for maintaining a column of said material constantly in engagement with the meter vanes, said means comprising an element controlled by the weight of the granular material in the conducting means.

4. In a mechanism for measuring granular material, the combination with a hopper, a conduit suspended therefrom and a meter, provided with vanes, arranged within the conduit, of means for yieldingly supporting the hopper and conduit, a stationary pipe-section at the lower end of the conduit and forming an extension thereof, and a valve connected to the hopper and conduit and adapted to seat against the lower end of said pipe section.

5. In a mechanism for measuring granular material, the combination with a hopper, a conduit suspended therefrom and a meter, provided with vanes, arranged within and secured to the conduit, of springs for supporting the hopper and conduit, a stationary pipe-section adjustably supported at the lower end of the conduit and forming an extension thereof, and a valve connected to the hopper and conduit and adapted to seat against the lower end of said pipe-section.

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1,040,538. DEVICE FOR REMOVING AND INSERTING TAPS AND PLUGS IN WATER-MAINS. WILLIAM HEARNS, Washington, D. C. Filed June 24, 1911. Serial No. 635,220. (Cl. 77—39.)




1. The combination with a casing, open at its lower side, and a tapping tool extending through the top of the casing, said tool being longitudinally movable, of a holder within the casing and means external to the casing for moving said holder into and out of line with the tool, said holder having a smooth bore or opening therethrough, a fitting for said opening adapted to be driven endwise out of the opening by the longitudinal movement of the tool, said fitting having a socket to receive the tool and having shoulders within the socket for engaging the ends of the wings of the tool but not the central part or point of the tool, and said fitting having also a socket for receiving a plug and shoulders within said latter socket for engaging the end of the plug.

2. The combination with a casing, open at its lower side, and a tapping tool extending through the top of the casing, said tool being longitudinally movable, of a holder within the casing and means external to the casing for moving said holder into and out of line with the tool, said holder having a smooth bore or opening therethrough, a fitting for said opening adapted to be driven endwise out of the opening by the longitudinal reciprocation of the tool, said fitting having a socket to receive the tool and a socket to receive a plug, the first mentioned socket having inclined portions forming shoulders adapted to be engaged by the cutting end of the tool, and the other socket having shoulders for engaging the plug.

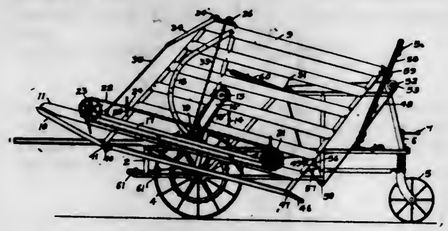
3. The combination with a casing, open at its lower side, and a tapping tool extending through the top of the casing, said tool being longitudinally movable and rotatable, of two shoulders within the casing and means external to the casing for moving said holders into and out of line with the tool, one of said holders having a smooth bore or opening therethrough, a fitting for said opening adapted to be driven endwise out of the opening by the longitudinal reciprocation of the tool, said fitting having a socket to receive the tool and a socket to receive a plug, the first mentioned socket having inclined shoulders adapted to be engaged by the end of the tool, and the other socket having shoulders for engaging the plug, the other of said holders having a threaded opening therethrough and a fitting for said latter holder having an exterior thread for engaging the thread in the opening and having a socket for receiving the tool and an angular socket for receiving a plug.

4. The combination with a casing open at its lower side, of a tool extending through the top of the casing, said tool

being longitudinally movable and rotatable, a plurality of longitudinally movable and rotatable rods extending through the top of the casing, said rods having laterally projecting arms within the casing and holders connected to said arms, each holder having a vertical opening therethrough, and means connected with each rod, outside of the casing, for swinging the holder thereon to bring its opening into axial alinement with the tool, said means comprising a lever and an arm attached to the lever and adapted to engage a side of the casing, the latter forming a stop for the arm.

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1,040,539. SHOCK-LOADER. HENRY HENDERSON, Halstad, Minn. Filed Mar. 19, 1910. Serial No. 550,371. (Cl. 56—61.)



1. An apparatus of the class described comprising a rack having carrying wheels and a gathering mechanism, a rake arranged within said rack, crank arms journaled in said rack and pivotally connected with the middle portion of said rake and means for swinging said crank arms to raise and lower said rake bodily into the upper part of said rack or to a point near the floor thereof.

2. The combination, with a rack having carrying wheels and a gathering mechanism, of arms mounted on the side walls of said rack, a rake pivotally supported on said arms near its middle portion, means for swinging said arms on their pivots to raise or lower said rake bodily and move it lengthwise in said rack, said rake in its forward movement overhanging said gathering mechanism to direct the material into said rack and said rake when moved lengthwise to the rear end of said rack operating to feed the material from said rack out of the rear end thereof.

3. The combination, with a rack and a gathering mechanism, of arms pivoted in said rack, a rake pivoted near its middle portion on said arms, said rake having a combined lengthwise movement on the pivotal supports of said arms and a rotary movement on its own pivots above and below the pivots of said arms.

4. An apparatus of the class described comprising a rack having carrying wheels and a gathering mechanism, a rake frame pivotally supported within said rack, means for raising and lowering said frame bodily in said rack, said frame being capable of adjustment close to the bottom of said rack at an elevation above the supports of said rake frame in said rack, and means for tilting said frame.

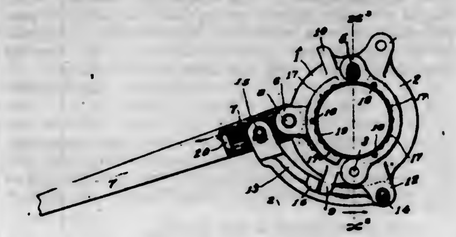
5. An apparatus of the class described comprising a tilting rack having carrying wheels and pick-up fingers, shafts mounted on each side of said rack, arms secured thereon, a rake frame pivoted on said arms and having belts and rake fingers, means for raising and lowering said arms to change the vertical adjustment of said frame, said frame being vertically movable above and below the pivots of said arms.

[Claims 6 to 16 not printed in the Gazette.]

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1,040,540. REVERSIBLE CASING-WRENCH. FRANK HENDRICKS, Los Angeles, Cal. Filed Oct. 31, 1911. Serial No. 657,856. (Cl. 81—66.)

1. A reversible casing wrench comprising a pair of jaws, a handle pivoted to one jaw, a link detachably pivoted to said handle near one end, and means for detachably pivoting the other end of the link to either of said jaws.



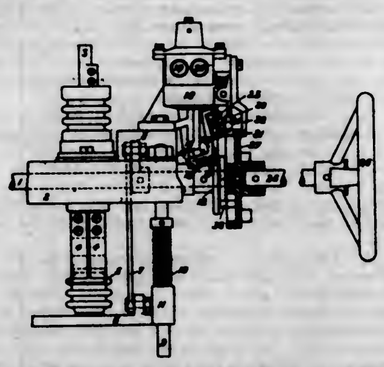
2. A reversible casing wrench comprising a pair of jaws, a handle pivoted to one jaw, a link detachably pivoted to said handle near one end, means for detachably pivoting the other end of the link to either of said jaws, an abutment on each jaw, and a lug on said link forming a stop adapted to strike either of said abutments.

3. A reversible casing wrench comprising a pair of jaws, a handle pivoted to one of said jaws, each of said jaws having an eye at each end, a pin adapted to couple the associated eyes at either end, a pair of outwardly projecting eyes on one of said jaws, a link, a pin adapted to pivotally connect one end of said link with either of the two latter eyes, and a pin adapted to secure the other end of said link with said handle.

4. A reversible casing wrench comprising a pair of jaws, a handle pivoted to one jaw, a link detachably pivoted to said handle near one end, and means for detachably pivoting the other end of the link to either of said jaws, each of said jaws being provided with a series of inwardly projecting teeth.

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1,040,541. COUPLING FOR NON-CLOSABLE CIRCUIT-BREAKERS. KARL HÖHN, Schaffhausen, Switzerland. Filed Jan. 24, 1911. Serial No. 604,297. (Cl. 175—267.)



In a non closable automatic electric circuit breaker or the like the combination with the actuating spindle of an operating spindle, a coupling member fastened to one of the spindles, a spring fastened on the one hand to the one of the spindles and on the other hand to the coupling member, a recess in the latter having the form of a trapezoid, a journaled lever pivoted crosswise to the one of the spindles, a curved piece on the one arm of the lever, a spring, adapted to force the other arm of the lever into the recess of the coupling member in order to couple the actuating spindle with the operating spindle, an electric device which can actuate the curved piece in order to force the one arm out of the recess when predetermined currents pass the circuit breaker, a latching mechanism adapted to hold the one arm of the lever fast when the current is switched on, all substantially as described.



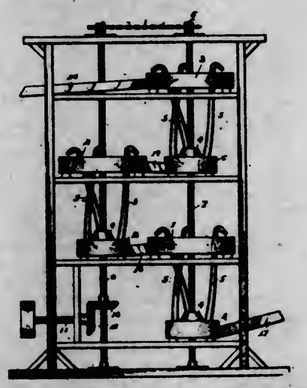
1,040,542. CLOTHES-PIN. JOHN A. HOSTETTLER, Hartford, Conn. Filed Apr. 12, 1912. Serial No. 690,280. (Cl. 24—138.)



A wooden clothes pin comprising a solid cylindrical body with a central longitudinal bore extending substantially one-half the length thereof and opening at one end, the walls of said bore being of uniform thickness throughout and the bore terminating in a concaved internal socket uniformly semi-circular in cross-section, and two tines formed by said bored portion of the body being slotted upon its longitudinal axis to a point slightly removed from said socket, said tines being oppositely arranged and each having two broad bearing edges.

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1,040,543. CENTRIFUGAL PUMP. WILLIAM EDGAR HUGHES, Glenwood Springs, Colo. Filed June 21, 1911. Serial No. 634,504. (Cl. 103—48.)



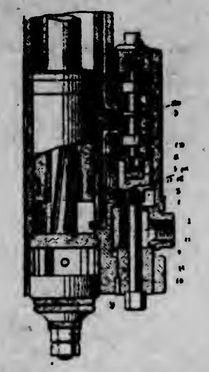
1. In a centrifugal pump, the combination with two series of tanks and troughs alternately arranged and means for conducting the liquid from the troughs to the tanks, of hollow rotary pistons mounted in the tanks, shafts upon which the pistons are mounted, means for driving the shafts, inclined buckets extending through the bottom of the pistons for scooping the water from the tanks into the pistons, and pipes connected to the pistons for conducting the water to the troughs.

2. In a centrifugal pump, the combination with two series of tanks and troughs alternately arranged, the tank of one series being connected to a trough of the other series, whereby the water from the trough will be conducted to the tank, of hollow rotary pistons mounted in the tanks, means for conducting the water from the tanks into the hollow pistons, and pipes connected to the hollow pistons for conducting the water into the troughs.

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1,040,544. ROCK-DRILL. CHARLES A. HULTQUIST, Los Angeles, Cal. Filed Feb. 19, 1912. Serial No. 678,700. (Cl. 121—16.)

1. In a rock drill, valve mechanism therefor, means for introducing air to said valve mechanism comprising a swivel, a bracket on the drill, means supported by the bracket for revolubly supporting one end of the swivel, and means on the drill for revolubly supporting the other end of the swivel.



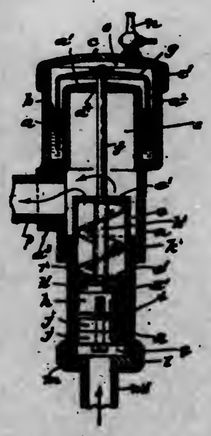
2. In a rock drill, valve mechanism therefor, means for introducing air to said valve mechanism comprising a swivel, a bracket on the drill, means supported by the bracket for revolubly supporting one end of the swivel, and means on the drill for revolubly supporting the other end of the swivel, the swivel having a perforated wall through which the fluid passes to the valve mechanism.

3. In a rock drill, valve mechanism, a swivel for admitting air to the valve mechanism, means on the rock drill revolubly supporting one end of the swivel, a bracket on the drill, a bushing screwed in the bracket, a screw extending through the bushing, a block in the bracket against which the screw bears, said block revolubly supporting the other end of the swivel.

4. In a rock drill, valve mechanism, a swivel for admitting air to the valve mechanism, means on the rock drill revolubly supporting one end of the swivel, a bracket on the drill, a bushing screwed in the bracket, a screw extending through the bushing, a non-revoluble block in the bracket against which the screw bears, said block revolubly supporting the other end of the swivel.

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1,040,545. GAS-GOVERNOR. GEORGE A. HYDE, Lonsdale, R. I. Filed Mar. 4, 1910, Serial No. 547,324. Renewed Mar. 18, 1912. Serial No. 684,535. (Cl. 50—30.)



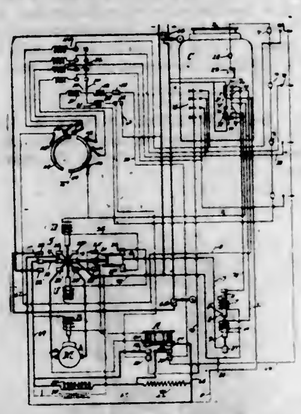
1. In a device of the character described, the combination of a vertical tubular casing provided with a side

outlet and having a top, a cup-shaped receptacle carried by said casing adapted to contain mercury, a cap secured on the receptacle and provided with a vent, a vertical tubular member having its upper end secured in the lower end of said casing, said member having a beveled valve-seat surrounding a port, a valve rod extending loosely through the top of said casing and through the port in said tubular member, a bell secured on the upper end of said rod between the cap and the top of the casing and having its sides submerged in the mercury in said receptacle, a valve secured on the lower end of said rod and having a beveled face to contact with said beveled valve seat, a weight suspended from said valve, a gas inlet pipe in open communication with the lower end of said tubular member, and pressure reducing means in said casing through which said rod extends.

2. In a device of the character described, the combination with a vertical tubular casing provided with an outlet intermediate its ends and having a top, a cup-shaped receptacle carried by and surrounding the upper portion of said casing and adapted to contain mercury, a cap secured on the receptacle and provided with a vent, a vertical tubular member having its upper end secured in the lower end of said casing and provided intermediate its ends with a valve seat surrounding a port in said member, a valve rod extending through the top of said casing and through the port in said tubular member, a bell secured on the upper end of said rod between the top of said casing and the cap on said receptacle and having its sides submerged in the mercury in said receptacle, a valve secured to the lower end of said rod to close the port in said tubular member, a weight suspended from the valve, and pressure reducing means arranged within the casing and tubular member above the port in the latter.

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1,040,546. ELEVATOR CONTROL. JOHN D. IHLDER, New York, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Oct. 31, 1908. Serial No. 460,525. (Cl. 172—152.)



1. In an elevator system, the combination with a car, of automatically controlled apparatus for bringing the car to any desired floor landing, and automatic means for effecting a small additional movement or movements of the car.

2. In an elevator system, the combination with a car, of a motor, apparatus for operating the motor to bring the car to rest at or near any desired floor landing, and means for effecting a short additional movement of the motor in either direction.

3. In an elevator system, the combination with a car, of an electric motor, controlling mechanism for automatically effecting the travel of the car through a predetermined distance, and manually operable means for controlling the motor circuits to effect a small additional movement or movements of the car.

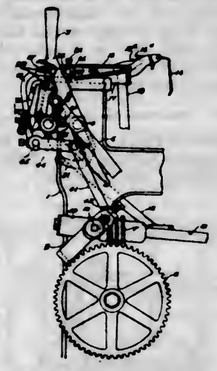
4. The combination with an electric motor, of controlling circuits and mechanism for effecting the operation of the motor through comparatively long ranges of movement, and additional circuits and connections for effecting successive movements of the motor through short distances only.

5. The combination with an electric motor, of controlling circuits and mechanism for automatically effecting the normal operation of the motor, and automatic means for effecting step-by-step movements of the motor.

[Claims 6 to 16 not printed in the Gazette.]

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1,040,547. PICK-FINDER DEVICE FOR LOOMS. SIMEON SCHOON JACKSON, Readville, Mass., assignor to The Stafford Company, Readville, Mass., a Corporation of New Jersey. Filed June 10, 1909. Serial No. 501,316. (Cl. 139—85.)



1. In a loom, in combination, weft-detector devices detecting for picks to the respective sides of the loom, a dog which is advanced by the said devices when the latter find weft-deficiency on the pick in one direction, a member which when engaged by the advancing dog is actuated to bring about the required result in the working of the loom, and means normally acting to prevent such engagement but actuated by the weft-detector devices to permit the dog to engage when the said devices find weft-deficiency on the pick in the other direction.

2. In a loom, in combination, weft-detector devices detecting for picks to the respective sides of the loom, a dog which is advanced by the said devices when the latter find weft-deficiency on the pick in one direction, a member having a shoulder to be engaged by the said dog, and which, when such shoulder is thus engaged, is actuated by the dog to bring about the derired result in the working of the loom, and means normally acting to prevent the dog from engaging the shoulder, but actuated by the weft-detector devices to permit the dog to engage when the said devices find weft-deficiency on the pick in the other direction.

3. In a loom, in combination, weft-forks respectively detecting for picks in the respective directions, a dog which is advanced when one of such weft-forks detects failure of weft on the pick in one direction, a member which when engaged by the advancing dog is actuated to bring about the required result in the working of the loom, and means normally acting to prevent such engagement but actuated under control of the other weft-fork when the latter detects failure of weft on the pick in the other direction to permit the engagement to occur.

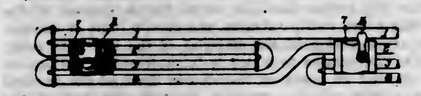
4. In a loom, in combination, weft-forks respectively detecting for picks in the respective directions, weft-fork carriers, a dog operatively connected with one of such carriers and actuated by the movement of the latter when the corresponding fork detects weft-failure on the pick in one direction, a member which when engaged by the advancing dog is actuated to bring about the required result in the working of the loom, dog-controlling means operatively combined with the other weft-fork carrier, by which engagement of said dog and said member is prevented normally, and operated by such carrier to permit such engagement when the corresponding weft-fork detects weft-failure on the pick in the opposite direction.

5. In a loom, in combination, weft-detectors respectively detecting for picks in the respective directions, slides with which such detectors are combined, a dog operatively connected with one of such slides and actuated by movement of the latter taking place when the corresponding detector detects weft-failure on the pick in one direction, a member which when engaged by the advancing dog is actuated to bring about the required result in the working of the loom, a rockshaft extending transversely of the loom, operatively combined with the said dog to control its engagement with the said member, and operated by the slide of the other weft-detector to permit such engagement when the latter weft-detector detects weft-failure on the pick in the opposite direction.

[Claims 6 to 41 not printed in the Gazette.]

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1,040,548. HEATING SYSTEM. WILLIAM H. JONES, Chicago, Ill. Filed Apr. 2, 1907. Serial No. 365,925. (Cl. 237—12.)



1. The combination with a circulating system and the heating pipes 2 and 3 communicating therewith, of a valve mechanism for cutting said heating pipes out of service comprising a casing having through passages communicating with both of said pipes and said system, and a port forming a communication between said passages, and a double seating valve normally closing said port to cause circulation through said pipes 2 and 3 but arranged to close the outlet end of the passage communicating with pipe 2 and simultaneously open such port without closing the pipe 3 or cutting off its communication with the system.

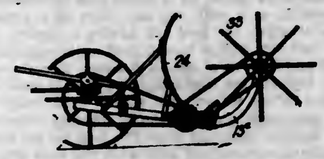
2. The combination with a circulating system and the heating pipes 2 and 3 communicating therewith, of a valve mechanism for cutting said heating pipes out of service comprising a casing having through passages communicating with both of said pipes and said system, and a port forming a communication between said passages, and a swinging valve 11 normally closing said port but arranged to be swung to a position to close the outlet end of the passage communicating with the pipe 2 and to thereby open the port, a rock shaft and arm in the casing on which said valve is mounted, and a handle for operating the shaft.

3. The combination with a circulating system and the heating pipes 2 and 3 communicating therewith, of a valve mechanism for cutting said heating pipes out of service comprising a casing having through passages communicating with both of said pipes and said system, and a port forming a communication between said passages, and a double seating valve normally closing said port to cause circulation through said pipes 2 and 3 but arranged to close the outlet end of the passage communicating with pipe 2 and simultaneously open such port, said casing having a depending flange 19 arranged below said port and pointing in the direction of the flow of the heating fluid.

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1,040,549. GRASSHOPPER-EXTERMINATOR. DANIEL R. KINNEY, Greeley, Colo., assignor of one-fourth to Frederick Herb, Denver, Colo. Filed Jan. 20, 1911. Serial No. 603,661. (Cl. 43—1.)

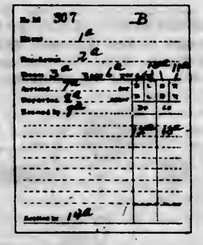
A grasshopper exterminator comprising a carriage including a wheeled axle, a forwardly extending frame pivoted on said axle in spaced relation to the surface of the ground upon which said carriage is supported, contracting rollers revolubly mounted on said frame, means for transforming a movement of said axle into movements of said rollers in opposite directions, a curved shield on said frame, rearward of the line of contact of said rollers for deflecting insects flying in the path of the carriage onto




the said rollers, a deflector of lesser height than said shield extending longitudinally with relation to said rollers forward of their line of contact to intercept insects deflected by said shield and direct them onto said rollers, and means for facing the larger shield in different directions by adjustment of the frame about its pivotal axis.

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1,040,550. HOTEL-RECORD-CARD SYSTEM. PETER KLEIN, Erie, Pa. Filed Feb. 8, 1909. Serial No. 476,586. (Cl. 11—11.)




1. In a hotel record consisting of a printed rack slip with a designated space for a name and information for use temporarily as a rack slip and later as a permanent index to the ledger, the said slip having a number identifying the rack slip with a second card used temporarily as a day card and later as a page of a ledger, the said number serving to indicate the ledger page when said card is used as an index to the ledger, said second card being larger than the first card and detachably secured thereto and having a number identical with the number on the rack slip identifying said second card with the rack slip while used temporarily as the daily record of the guest and finally as the page of the ledger, said second card having an appropriately designated space registering with the name space on the rack slip when the slip and card are superimposed for the name and residence and having rulings and designations to serve as a page of a ledger, the slip and card being superimposed one upon the other and adapted to receive a carbon sheet therebetween to transfer the impression made upon the uppermost one to the other.

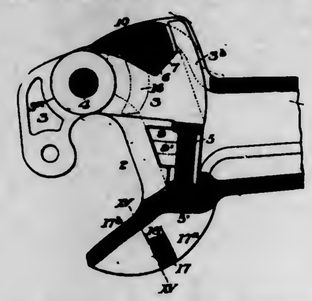
2. In a hotel record consisting of a printed rack slip with a designated space for a name and information for use temporarily as a rack slip and mail forwarding directions and later as a permanent index to the ledger, the said slip having a number identifying the rack slip with a second card used temporarily as a day card and later as a page of a ledger, the said number serving to indicate the ledger page when said card is used as an index to the ledger, said second card being larger than the first card and detachably secured thereto and having a number identical with the number on the rack slip identifying said second card with the rack slip while used temporarily as the daily record of the guest and finally as the page of the ledger, said second card having an appropriately designated space registering with the name space on the rack slip when the slip and card are superimposed for the

name and residence and having rulings and designations to serve as a page of a ledger, the slip and card being superimposed one upon the other and adapted to receive a carbon sheet therebetween to transfer the impression made upon the uppermost one to the other.

3. In a hotel record consisting of a printed rack slip with a designated space for a name and information for use temporarily as a rack slip and later as a permanent index to the ledger, the said slip having a number identifying the rack slip with a second card used temporarily as a day card and later as a page of a ledger, the said number serving to indicate the ledger page when said card is used as an index to the ledger, said second card being larger than the first card and detachably secured thereto and having a number identical with the number on the rack slip identifying said second card with the rack slip while used temporarily as the daily record of the guest and finally as the page of the ledger, said second card having an appropriately designated space registering with the name space on the rack slip when the slip and card are superimposed for the name and residence and having rulings and designations to serve as a page of a ledger, the slip and card being superimposed one upon the other and adapted to receive a carbon sheet therebetween to transfer the impression made upon the uppermost one to the other, the back of said second card being provided with rulings and designations forming a detailed record of services corresponding to a day book.

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1,040,551. CAR-COUPLING. HARRY T. KRAKAU, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed June 1, 1908. Serial No. 435,956. (Cl. 213—10.)



1. In a car coupler, a coupler head, a knuckle having a tail, a pivot pin and a lock, said head being provided with a bearing surface coöperating with a bearing surface on the knuckle to limit the rearward movement thereof when it has been moved to such a position as to take the strain off the pivot pin, and means for so moving said knuckle and maintaining it in such position in spite of looseness or wear of said bearings and irrespective of the amount of looseness or wear at the other points, such means consisting of a rearwardly-extending outwardly-inclined bearing in the head to the rear of the pivot pin, a correspondingly inclined face on the knuckle tail free when in locked position to coöperate at all times with said bearing in the head, the lock having wedging surfaces engaging wedging surfaces on the coupler head and on the front face of the knuckle tail to maintain said knuckle tail tight against the inclined bearing of its face against the head and thus to draw the knuckle tightly against the bearings limiting its rearward movement, and provision whereby the lock may automatically move from initial locking position to compensate for looseness or wear of the parts.

2. In a car coupler, a coupler head, a knuckle, a loosely fitting pivot pin for the knuckle, said head being provided with a bearing surface acting at all times when the parts are in locked position to limit the rearward movement of the knuckle, and means to cause such rearward movement consisting of a rearwardly-extending outwardly-inclined surface in the head with which a corresponding surface on the knuckle tail is adapted to coöperate at all times irrespective of the relative wear or initial variation of any of the parts or surfaces, and a freely moving gravity lock of wedge shape in vertical cross-section engaging the coupler head and the front face of the knuckle tail.

3. In a car coupler, a coupler head, a knuckle, said head being provided with a bearing surface acting at all times, and irrespective of wear and of relative amounts of wear of the various parts, to limit the rearward movement of the knuckle when the parts are in locked position, and provided also with a rearwardly-extending outwardly-inclined bearing adapted, at all times when the parts are in locked position, and irrespective of wear and the relative amount of wear of the various parts, to coöperate with a corresponding bearing on the knuckle tail, and means for tightening both of said bearings and keeping them tight, such means consisting of a freely moving gravity lock of wedge shape in vertical cross section engaging the coupler head and the front face of the knuckle tail.

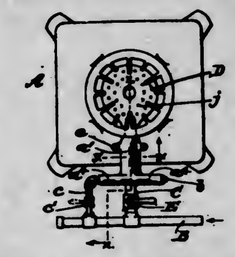
4. A car coupler having a vertically movable lock, a knuckle, an opening member extending over the knuckle, and a lock adapted to lockset on the opening member, said lock and member having engaging portions which coact to move the lock laterally into lockset position when said surfaces are brought into engagement by the lifting movement of the lock.

5. A coupler knuckle, having a tail with a bearing surface to engage the lock, and another bearing surface to engage the coupler-head to resist the movement of the knuckle under pulling strains, the elastic limit of the vertical cross section of the material of the tail with reference to the strains to which it is subjected in pulling being at least as great as the elastic limit of the vertical cross section of the material through the hub of the knuckle with reference to the strains to which it is subjected in pulling.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,552. AUXILIARY BURNER FOR GAS-STOVES. GEORGE E. LAGUE, North Attleboro, Mass. Filed Mar. 25, 1912. Serial No. 686,057. (Cl. 158—115.)

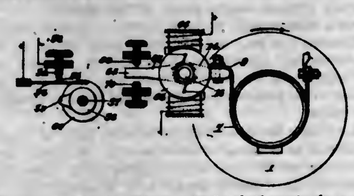


The combination with a gas stove having a burner and a supply pipe communicating therewith, said burner having gas exit orifices on the top thereof, of a T-shaped hollow casting, the central branch of said casting formed with a gas-jet orifice at its outer end and also formed with a concave recess to fit the upper portion of the supply pipe, a coiled spring, the ends of said spring attached to the sides of said central branch and passed under said pipe, a plug closing one end of the cross branch of said casting, a pipe connection from the other end of the cross branch to supply gas to the interior of said casting, and a cock in the pipe connection to regulate the supply of gas to the said casting and gas-jet orifice.

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1,040,553. MEANS FOR CONTROLLING THE STRAINER-DRUMS OF PAPER-MAKING MACHINES. MARCEL LAMORT, Vitry-le-François, France. Filed Aug. 22, 1911. Serial No. 645,509. (Cl. 92—95.)

1. In a system for the control of the strainer drums in paper-making machines, a drum, two belts supporting said drum, one of the ends of each of said belts being fixed, means for transmitting a rapid shaking or shogging movement to the free end of each of said belts, said means comprising electro-magnetic mechanism, and means for intermittently energizing said mechanism.



2. In a system for the control of the strainer drums in paper-making machines, a drum, two belts supporting said drum, one of the ends of each of said belts being fixed, means for transmitting a rapid shaking or shogging movement to the free ends of said belts, said means comprising an electro-magnetic device having a movable member operatively connected to the free ends of said belts, means for making and breaking the circuit of said electro-magnetic device, means for varying the rate of the make and break, and means for limiting the movement of said movable member.

3. In a system for the control of the strainer drums in paper-making machines, a drum, two belts supporting said drum, one of the ends of each of said belts being fixed, means for transmitting a rapid shaking or shogging movement to the free end of each of said supporting belts, said means comprising two arms connected to the free ends of the supporting belts, a shaft to which said arms are keyed, an electric motor having an armature keyed to the shaft, a second shaft, a cam carried thereby, means actuated by the cam for making and breaking the motor circuit, and means for varying the speed of rotation of said second shaft.

4. In a system for the control of the strainer drums in paper-making machines, a drum, two belts supporting said drum, one of the ends of each of said belts being fixed, means for transmitting a rapid shaking or shogging movement to the free end of each of said supporting belts, said means comprising two arms connected to the free ends of the supporting belts, a shaft to which said arms are keyed, an electric motor having an armature keyed to the shaft, a second shaft, a cam carried thereby, means actuated by the cam for making and breaking the motor circuit, means for varying the speed of rotation of said second shaft, a lever keyed to said first shaft, and set screws co-acting with said lever to limit the oscillating movement of said first-named shaft.

5. In a system for the control of the strainer drums in paper-making machines, a drum, a shaft therefor, two belts supporting said drum, one of the ends of each of said belts being fixed, means for transmitting a rapid shaking or shogging movement to the free end of each of said supporting belts, said means comprising two electro-magnets, cores operatively associated with said magnets and attached to the free ends of said supporting belts, a second shaft, a cam carried thereby, means actuated by the cam for making and breaking the circuits of the magnets, and means for varying the speed of rotation of said second shaft.

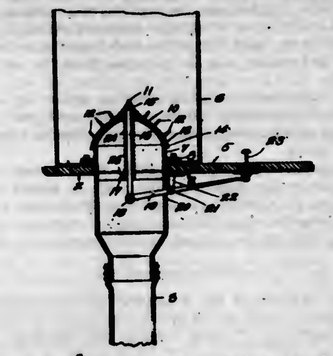
[Claim 6 not printed in the Gazette.]

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1,040,554. TRACK-SANDING DEVICE. BENJAMIN C. LORING, Providence, R. I., assignor to James Tillinghast, Providence, R. I. Filed Nov. 29, 1911. Serial No. 663,145. (Cl. 105—179.)

1. A track sanding device comprising a sand receptacle having an outlet, a vertically movable rod in said outlet, a cone-shaped cap for closing the outlet, said cap being free to oscillate on the upper end of said rod, and means for lifting said rod.

2. A track sanding device comprising a sand receptacle having an outlet, a vertically movable rod in said outlet, a cap for closing said outlet, said cap being free to oscillate on the upper end of said rod and having a pointed sand-spreading tip, the cap also having projections for agitating the sand, and means for lifting said rod.



3. A track sanding device comprising a sand receptacle having a tubular outlet, a cone-shaped cap having its base normally resting on the top of the outlet and having a lip surrounding the upper end of the outlet and means for lifting said cap.

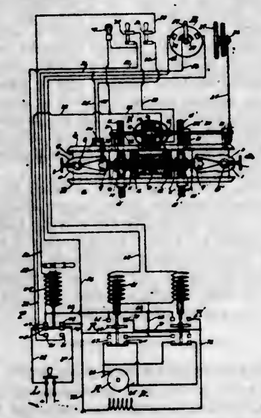
4. A track sanding device comprising a sand receptacle having an outlet, a cone-shaped cap having an interior central socket, a rod loosely entering said socket, and means for lifting said rod.

5. A track sanding device comprising a sand receptacle having an outlet, a guide located in said outlet, a rod vertically movable in said guide, means for lifting said rod, a cone-shaped cap mounted on the upper end of said rod and supported solely thereby when raised, the base of said cap being adapted to normally rest upon the top of the outlet, and a spring connecting the cap and guide.

[Claim 6 not printed in the Gazette.]

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1,040,555. ELECTRIC-MOTOR MECHANISM FOR OPERATING ELEVATOR-SAFETIES. AXEL MAGNUSON, New York, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed May 19, 1908. Serial No. 433,780. (Cl. 187—91.)



1. In an elevator, the combination of an elevator car, a car brake comprising brake members carried by the car and coöperating stationary brake members, a rotary electric motor carried by the car, and positively driven operating connections between the motor and the said first-named members.

2. In brake mechanism, the combination with gripping jaws, of a screw-threaded rod, a cam carried by the rod, a pinion mounted on the rod, an electric motor, and gearing between the motor and said pinion.

3. In brake mechanism, the combination with gripping jaws, of a rotary electric motor, a rack and pinion operated by the motor to apply the brake, and mechanism between the rack and pinion and the gripping jaws for operating the latter.

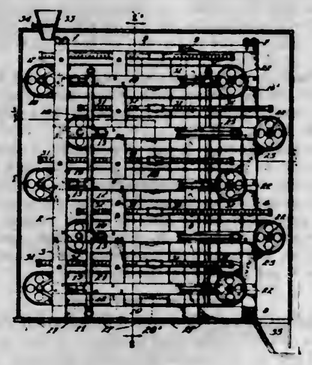
4. The combination with a gripping device, of a rack bar, power-transmitting means between said parts, and an electric motor for operating the rack bar to apply the gripping device.

5. The combination with a brake, of an automatically operable device for operating the brake, a second device for effecting an additional operation of the brake, and an electric motor for operating said second device.

[Claims 6 to 14 not printed in the Gazette.]

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1,040,556. PROCESS OF DRYING AND APPARATUS THEREFOR. GEORGE WHITMAN MCMULLEN, Chicago, Ill. Filed Apr. 7, 1908. Serial No. 425,614. (Cl. 34—12.)



1. The method of drying which consists in disposing the material to be dried in a plurality of superposed longitudinally off-set spaced-apart relatively thin sheets or layers and within a closed drying chamber, continuously supplying relatively dry air to said chamber so that it flows to all parts of the material to be dried, continuously and directly heating said air beneath and in close proximity to each of the several layers or sheets of material, and continuously separating and removing the moisture-laden air from the replenishing supply of air in the immediate locality where it becomes moisture laden and substantially as fast as it becomes so laden.

2. An apparatus for drying which consists in a plurality of superimposed endless belts longitudinally off-set relative to each other, of means for driving said belts, a closed heating system for locally heating each of said belts, a plurality of inter-connected perforated pipes for removing the moisture laden air in the immediate locality where it becomes moisture laden, and an exhaust pump connected to the air pipe system.

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1,040,557. SUGAR-PRODUCING PRODUCT GEORGE BARRETT MCMULLEN, Chicago, Ill., assignor, by mesne assignments, to Zalmon G. Simmons, Kenosha, Wis., Andrew W. Preston, Swampscott, Mass., and Bradley W. Palmer, Boston, Mass., trustees. Filed June 7, 1909. Serial No. 500,497. (Cl. 127—17.)

1. As a new article of manufacture, finely divided pith of sugar-cane containing its natural sugar content and separated or concentrated with reference to the woody fibrous constituents of the plant.

2. As a new article of manufacture, finely divided pith of sugar-cane dried to a condition containing less than thirty per cent. of moisture, containing substantially its full natural sugar content in uninverted or crystallizable form and separated or concentrated with reference to the woody fibrous constituents of the plant.

3. As a new article of manufacture, pith of sugar-cane disintegrated to fine sawdust-like form dried to atmospheric dryness, containing substantially its full natural sugar content in uninverted form and separated or concentrated with reference to the woody fibrous constituents of the plant.

4. As a new article of manufacture, pith of sugarcane, comminuted to a mass of sawdust-like particles, dried to permanently stable condition, impregnated with sugar in its natural uninverted state and substantially uncontaminated by chemically inverted sugar, said pith being very largely physically dissociated and separated from the woody fibrous constituents of the cane.

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1,040,558. SUGAR-PRODUCING PRODUCT. GEORGE BARRETT MCMULLEN, Chicago, Ill., assignor, by mesne assignments, to Zalmon G. Simmons, Kenosha, Wis., Andrew W. Preston, Swampscott, Mass., and Bradley W. Palmer, Boston, Mass., trustees. Filed June 7, 1909. Serial No. 500,498. (Cl. 127—17.)

1. As a new article of manufacture, the woody fibrous constituents of sugar-cane containing its natural sugar content and mechanically shredded into relatively fine filamentary form and separated or concentrated with reference to the pith portions of the plant.

2. As a new article of manufacture, the woody fibrous constituents of sugar-cane containing substantially its full natural sugar content in uninverted or crystallizable form and separated or concentrated with reference to the pith portions of the plant.

3. As a new article of manufacture, the woody fibrous constituents of sugar-cane, shredded and containing substantially its full natural sugar content, dried to a condition containing less than thirty per cent. of moisture and separated or concentrated with reference to the pith portions of the plant.

4. As a new article of manufacture, the woody fibrous constituents of sugar cane, comminuted and reduced to a mass consisting chiefly of fine excelsior-like filaments and particles, dried to permanently stable condition, impregnated with sugar in its natural uninverted state and practically uncontaminated by chemically inverted sugar, said woody fibrous constituents being very largely physically dissociated and separated from the pith constituents of the cane.

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1,040,559. PROCESS OF SEPARATING SUGAR-CANE INTO ITS TWO CHIEF STRUCTURAL PARTS. GEORGE BARRETT MCMULLEN, Chicago, Ill., assignor, by mesne assignments, to Zalmon G. Simmons, Kenosha, Wis., Andrew W. Preston, Swampscott, Mass., and Bradley W. Palmer, Boston, Mass., trustees. Filed June 7, 1909. Serial No. 500,499. (Cl. 127—17.)

1. The process of separating undried sugar-cane into its two chief structural parts viz. the pith and the woody fibers, which consists in mechanically reducing the plant to fine shreds and then completing the separation by a screening or shifting operation and separately collecting the two parts.

2. The process of separating sugar-cane undried and containing its natural sugar juices into its two chief structural parts viz. the pith and the woody fibers, which consists in shredding the plant mechanically to a mass composed of pith particles and fine filaments of woody fiber, then completing the separation by screening, and separating that which goes through the screen from that which goes over or is retained upon the screen.

3. The process of separating matured sugar-cane into its two chief structural parts viz. the pith and the woody fibers, which consists in passing the stalks through shredders whereby they are reduced to a mass in which the pith exists in sawdust-like particles and the woody fiber exists in fine filamentary shreds, then completing the separation by passing the mixture through and over a series of graded screens, and separately collecting the two parts, the sugar cane still retaining its natural sugar content after the separation.

4. The improved process of converting sugar cane, which consists in first shredding the cane into a condition in which the pith is reduced to relatively fine sawdust-like particles and the woody constituents to relatively fine excelsior-like filaments and particles, both of which cane constituents retain their sugar contents in the uninverted and uncontaminated condition of nature, thereafter both drying to a permanently stable condition and separating the two constituents, the drying being effected artificially under controlled conditions which preclude any substantial inversion of sugar and reduces the products to a stably dry condition and the separation being accomplished by sifting, whereby two separated products are produced, each stably dry, each impregnated with sugar in its natural uncontaminated condition and each concentrated with reference to the plant structural parts characteristic of the other product.

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1,040,560. PROCESS OF MAKING SUGAR AND BY-PRODUCTS FROM SUGAR-CANE. GEORGE W. MCMULLEN and GEORGE BARRETT MCMULLEN, Picton, Ontario, Canada, assignors, by mesne assignments, to Zalmon G. Simmons, Kenosha, Wis., Andrew W. Preston, Swampscott, Mass., and Bradley W. Palmer, Boston, Mass., trustees. Filed Jan. 9, 1911. Serial No. 601,560. (Cl. 127—17.)

1. The process of making sugar and by-products from sugar-cane which consists in shredding sugar-cane to a condition in which the pith is torn free from the woody fiber and fibro-vascular filaments so that the pith may be substantially segregated, either simultaneously or in any order of sequence, extracting the sugar by dissolving it out from the respective fractions with a suitable solvent and then recovering the sugar from the solvent.

2. The process of making sugar and by-products from sugar-cane, which consists in shredding the sugar-cane to a condition in which the pith is torn free from the woody fiber and fibro-vascular filaments so that the pith may be substantially segregated, drying the shredded mass and thereafter concentrating the pith and fiber constituents thereof, extracting the sugar by dissolving it out from the respective fractions with a suitable solvent, and then recovering the sugar from the solvent.

3. The process of making sugar and by-products from sugar-cane which consists in shredding sugar-cane to a condition in which the pith is torn free from the woody fiber and fibro-vascular filaments, so that the pith may be substantially segregated by screening, thereafter effecting the drying and separation by screening, either simultaneously or in any order of sequence, and finally extracting the sugar from the said separated parts by subjecting the dry products to the action of water in a suitable vessel and recovering the sugar from the solution.

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1,040,561. SUGAR-MAKING PRODUCT. GEORGE W. MCMULLEN, Picton, Ontario, Canada, assignor, by mesne assignments, to Zalmon G. Simmons, Kenosha, Wis., Andrew W. Preston, Swampscott, Mass., and Bradley W. Palmer, Boston, Mass., trustees. Filed Nov. 24, 1911. Serial No. 662,662. (Cl. 127—17.)

1. Disintegrated sugar-cane, dried to a condition of chemical stability, having its sugar content substantially uninverted, and comprising a mixture of granular pithy matter with filamentary shreds of woody fiber.

2. Disintegrated sugar-cane, dried to a condition of chemical stability, having its sugar content substantially uninverted and comprising a dense, compacted mixture of granular pithy matter with filamentary shreds of woody fiber.

3. Disintegrated sugar-cane, dried to a condition of chemical stability and having its sugar content substantially uninverted and compacted to a state of substantial impermeability to atmospheric moisture.

4. As a new sugar-producing product, disintegrated sugar-cane, stably dry, having its sugar content substantially uninverted and comprising a mixture of the pith and woody constituents, the pith, to within a relatively small percentage of the whole, structurally dissociated from the woody constituents and reduced to sawdust-like form, and the woody constituents, to within a relatively small percentage of the whole, structurally dissociated from the pith and in the form of excelsior-like filaments varying in length from several inches down to fractions of an inch.

5. A dense block or bale substantially weatherproof in and of itself and consisting of disintegrated sugar-cane, stably dry, having its sugar content substantially uninverted and comprising a mixture of the pith and woody constituents, the pith, to within a relatively small percentage of the whole, structurally dissociated from the woody constituents and reduced to sawdust-like form and the woody constituents, to within a relatively small percentage of the whole, structurally dissociated from the pith and in the form of excelsior-like filaments varying in length from several inches down to fractions of an inch.

[Claims 6 to 8 not printed in the Gazette.]

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1,040,562. METHOD OF TREATING SUGAR-CANE. JOHN H. ROBBINS, Chicago, Ill., assignor, by mesne assignments, to Zalmon G. Simmons, Kenosha, Wis., Andrew W. Preston, Swampscott, Mass., and Bradley W. Palmer, Boston, Mass., trustees. Filed Nov. 24, 1911. Serial No. 662,127. (Cl. 127—17.)

1. The method of simultaneously drying sugar-cane and concentrating the structural portions thereof, which consists in subdividing the cane in such manner as to dissociate the fibrous and pithy portions, drying the material in a current of heated gas having sufficient velocity to transport the lighter portions, and separately collecting said lighter portions.

2. The method of treating sugar-cane, which consists in subdividing the cane, drying the subdivided cane in a current of gas having sufficient velocity to transport the lighter portions thereof, and thereafter effecting a further concentration of the fibrous and pithy portions of the cane.

3. The method of simultaneously drying sugar-cane and concentrating the structural portions thereof, which consists in subdividing the cane in such manner as to dissociate the fibrous and pithy portions, drying the material in a current of heated gas having sufficient velocity to transport the lighter portions, separately collecting said lighter portions, and thereafter further concentrating the fibrous portion of the cane.

4. The method of treating sugar-cane, which consists in shredding the cane under conditions to dissociate the bulk of the pith from the fibrous material, then subjecting the commingled mass to a tumbling operation in a current of heated gas having velocity sufficient to transport the lighter portions.

5. The method of treating sugar-cane, which consists in subdividing the cane, drying the material in a current of heated gas and controlling the gas current to remove the smaller particles from the drying chamber by the said current while they yet contain sufficient moisture to protect the sugar contents thereof.

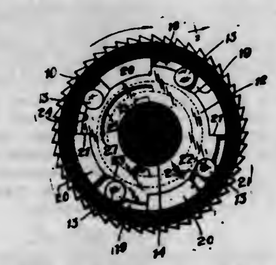
[Claims 6 to 9 not printed in the Gazette.]

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1,040,563. SHAFT DRIVING AND RELEASING MECHANISM. HUBERT MEREDITH-JONES, New York, N. Y., assignor to Columbia Nut and Bolt Company, Incorporated, Bridgeport, Conn., a Corporation of New York. Filed Mar. 11, 1912. Serial No. 682,860. (Cl. 123—185.)

1. Mechanism of the character described, comprising a driving hub having an inner peripheral wall, a driven hub having flange sections, a locking disk having peripheral shoulders adapted to be engaged by the flange sections and peripheral recesses deepest at one end and providing in-

cline and rollers between the inclines and the wall of the driving hub, rotary movement of the driving hub causing the rollers to travel up the inclines and lock the disk to the driving hub and the rollers to engage the flange sections and communicate motion to the driven hub, increased motion of the driven hub causing the flange sections to engage the shoulders on the disk and carry the latter forward so that the rollers will pass into the deep portions of the recesses leaving the driving hub disconnected, and backward movement of the driving hub causing the flange sections to force the rollers down the inclines into the deep portions of the recesses disconnecting the driving hub as before.



2. Mechanism of the character described, comprising a driving hub having a recess in its face leaving a peripheral wall, a driven hub having flange sections lying in said recess, a locking disk having peripheral shoulders adapted to be engaged by the flange sections and peripheral recesses deepest at one end and providing inclines and rollers between said inclines and wall, substantially as described, for the purpose specified.

3. Mechanism of the character described, comprising a driving hub having an inner peripheral wall, a driven hub having flange sections, a locking disk having peripheral shoulders adapted to be engaged by the flange sections and peripheral recesses deepest at one end and providing inclines and rollers between the inclines and the wall of the driving hub, and a spring for retaining the driven hub and locking disk in their normal position.

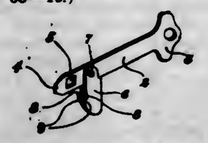
4. Mechanism of the character described, comprising a driving hub having an inner peripheral wall, a driven hub having flange sections, a locking disk having peripheral shoulders adapted to be engaged by the flange sections, peripheral recesses deepest at one end and providing inclines, and a groove in its face, rollers between the inclines and the wall of the driving hub and a spring in the groove, one end of which is connected to the disk and the other to the driven hub, substantially as described, for the purpose specified.

5. The combination with a shaft and a driven hub secured thereto and provided with flange sections, of a driving hub loose on the shaft and provided with an inner peripheral wall, a locking disk loose on the shaft and having peripheral shoulders and peripheral recesses deepest at one end, and providing inclines, and rollers between the inclines and the peripheral wall, whereby motion of the driving hub is communicated to the other parts and when the shaft turns faster than the driving hub or turns backward the driving hub is released.

[Claim 6 not printed in the Gazette.]

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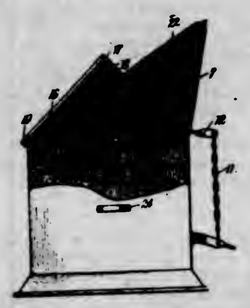
1,040,564. COMPOUND TOOL. ARTHUR H. MERRILL, Hartford, Conn. Filed Dec. 19, 1910. Serial No. 598,089. (Cl. 65—46.)



A device of the class described comprising a shank and a sheath-like member, the sides of which are pivoted to the shank between the ends thereof, the sides of said sheath-like member when the latter is closed being adapted to frictionally engage the shank and to overlie the forward end of the shank, said sides being notched to fit a bottle cap and said forward end serving as a fulcrum when the said sheath-like member is employed to remove such cap.

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1,040,565. REFUSE-RECEPTACLE. SIMON MEYROWITZ, New York, N. Y. Filed July 13, 1911. Serial No. 638,389. (Cl. 220—115.)



1. A receptacle having an open top, the intermediate portion of each end of the receptacle projecting above the sides thereof whereby the edge portions of the said ends are inclined, a cover pivotally mounted on the receptacle and closing a portion of the said open top, another cover slidably mounted adjacent the top of the said ends for closing the other portion of the said top, means for retaining the pivoted cover in closed position, the slidable cover being movable into open position in engagement with the pivotally mounted cover whereby the interior of the receptacle is accessible, movement of the pivotally mounted cover bringing it out of engagement with the slidably mounted cover whereby the said slidably mounted cover will move into closed position.

2. A receptacle having an open top, the intermediate portions of the ends of the receptacle being at a higher elevation than the sides, a cover pivotally mounted on the receptacle for closing substantially one-half of the said open top, means for retaining it in closed position, a second cover for closing the other half of the open top, means whereby the second cover is slidably and pivotally mounted in position, means for securing the second cover in closed position, movement of the second cover to open position bringing it into engagement with the first cover, movement of the first cover to open position releasing the engagement thereof with the second cover whereby the second cover will return to closed position.

3. A receptacle having an open top, the intermediate portions of the ends thereof being at a higher elevation than the sides, a cover pivotally mounted on the receptacle for closing a portion of the said open top, means for retaining the cover in closed position, a second cover for closing the remaining portion of the open top, pivotal means in engagement with the second cover and adjacent the tops of the said ends whereby the second cover may be pivotally moved, the second cover being slidably mounted on the said pivotal means whereby it may be retained in open position by engagement with the first cover, movement of the first cover to open position disengaging the second cover therefrom whereby it returns to closed position.

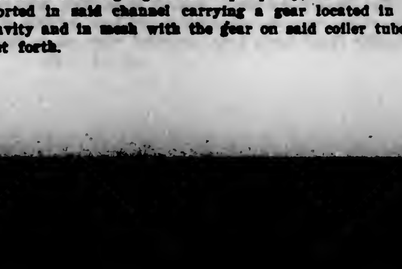
4. A receptacle having an open top, the intermediate portions of the ends thereof being at a higher elevation than the sides, a cover pivotally mounted in position for closing a portion of the said open top, a rod extending longitudinally of the receptacle, a second cover being in engagement with the rod, means carried by the second cover whereby it may be moved along the rod into engagement with the first cover, movement of the first cover to open position bringing it out of engagement with the second cover whereby the second cover returns to closed position.

5. A receptacle having an open top, the intermediate portions of the ends being at a higher elevation than the sides thereof, a cover pivotally mounted in position for closing a portion of the open top, means for retaining the cover in closed position, a rod extending longitudinally of the receptacle, means carried by the second cover in engagement with the rod whereby it may be moved about the rod as a center and also moved to different positions with respect to the rod, the second cover being adapted to be brought into engagement with the first cover whereby the second cover is held in open position, means carried by the first cover for engagement with the second cover whereby opening the first cover moves the second cover and permits it to return to closed position.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,566. COILER-TUBE. CHARLES MILLS, Newton, Mass., assignor, by mesne assignments, to Saco-Pettee Company, Newton, Mass., a Corporation of Massachusetts. Filed July 8, 1909. Serial No. 506,513. (Cl. 19—5.)



1. In a drawing frame, a coiler plate, a coiler tube rotatably mounted on said coiler plate and having a skew gear on its periphery, a shaft running lengthwise of said coiler plate and carrying a skew gear meshing with said coiler tube gear, each of said skew gears being provided with teeth arranged at angles of substantially 45° to their respective axes, and a bearing for said shaft located on said coiler plate and engaging said shaft adjacent the gear thereon.

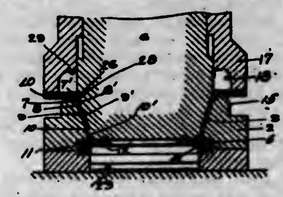
2. In a drawing frame, a coiler plate of substantially uniform thickness having a channel running lengthwise of said plate near its rear edge, in combination with a coiler tube carrying a spiral gear on its periphery and a shaft carrying a spiral gear in mesh with said coiler tube gear, said shaft being located in said channel and said channel being enlarged opposite the axis of said coiler tube to receive said gear.

3. In a drawing frame, a coiler plate having a channel running lengthwise thereof, a shaft bearing attached to the upper surface of said plate and projecting outward into said channel, a shaft supported by said bearing in said channel, a spiral gear on said shaft, said channel being recessed to receive said gear, and a coiler tube carrying a peripheral gear in mesh with said spiral gear, said coiler tube being mounted to turn in said plate.

4. In a drawing frame, a coiler plate of substantially uniform thickness having a channel running lengthwise of said coiler plate near its rear edge whereby said coiler plate is stiffened, and a cavity therein provided with a dust-clearing opening, in combination with a rotatable coiler tube having a gear on its periphery, and a shaft supported in said channel carrying a gear located in said cavity and in mesh with the gear on said coiler tube, as set forth.



1,040,567. METHOD OF FORMING SAFE-FRAMES. THOMAS BARNES NEWELL, Wilkinsburg, Pa. Filed Apr. 4, 1911. Serial No. 618,951. (Cl. 113—51.)



1. The herein described method of forming a wrought metal door jamb frame, consisting in pressing a plate metal blank to form a series of steps, and in said operation forming the corner portions of the outer steps carved or rounded, continuing the pressing to form the corner portions of the inner step angular and punching out the mid-portion of the blank to form the door opening.

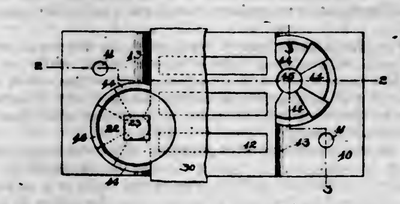
2. The herein-described method of forming an integral combined body and door-jamb safe frame, consisting in pressing from a single metal plate a stepped door-jamb frame and pressing the outer portion of said plate to form the flange of the body frame, and shearing out the bottom portion of the pan so formed while the blank is confined by the pressing dies.

3. The herein-described method of forming an integral combined body and door-jamb frame, consisting in pressing from a single metal plate a stepped door-jamb frame, and by a separate stroke pressing the outer portion of said plate to form the flange of the body frame, and advancing the pressing dies together to finish the front face of the combined frame.

4. The herein-described method of forming an integral stepped door-jamb frame, consisting in pressing from a single metal plate a pan-shaped blank and shearing out the bottom portion of said blank, and continuing the pressing operation to force the stepped portions of said blank into the stepped seats of the dies.

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1,040,568. RAIL-FASTENING DEVICE. WALTER S. NEWHALL, Cleveland, Ohio, assignor to The Cleveland Railway Supply Company, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 22, 1909. Serial No. 529,209. (Cl. 238—4.)



1. In a fastening device, the combination of a tie plate having an opening through it and separated raised plane surfaces adjacent to the opening, said surfaces being inclined complementarily to the inclination of the rail base with which said plate coöperates, and a screw spike adapted to screw into the tie through said opening and having a head, the under surface of which is provided with a plurality of plane inclined surfaces adapted to have a surface engagement with the rail and tie plate respectively.

2. In a fastening device, the combination of a tie plate on which a rail may rest, said plate having an opening therethrough, a plurality of bosses arranged about the opening and each having an upper surface presenting substantially the same angle to the axis of the opening that the top of the rail base presents, and a screw spike adapted to screw into the tie through said opening and having a head on the under surface of which are inclined portions

arranged at an angle to the shank of the spike corresponding to the angle of the faces of the bosses, the number of such portions on the spike head being at least one more than the number of bosses.

3. In a fastening device, the combination of a tie plate on which a rail may rest, said plate having an opening therethrough, three bosses arranged at right angles about the opening, the two bosses which are diametrically opposite having their inner edges adapted to abut against the edge of the rail base, and a spike adapted to be passed into the tie through said opening and having on its under side four projections adapted to engage the three bosses and the rail base respectively.

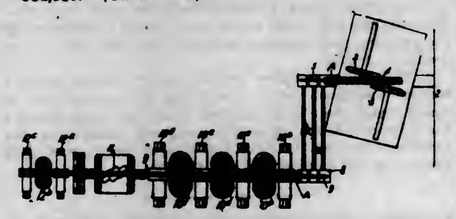
4. A tie plate for railway rails, comprising a base portion having a seat for the rail and an adjacent spike opening, and a plurality of discontinuous raised surfaces arranged about such opening, said surfaces being plane and presenting substantially the same angle to the axis of the opening.

5. A tie plate having three upwardly extending bosses arranged about an opening through the plate, two of the bosses being diametrically opposite and having inner edges parallel with the edge of the rail base adapted to rest on the plate.

[Claims 6 to 18 not printed in the Gazette.]

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1,040,569. METHOD OF MAKING SEAMLESS TUBES. JOHN W. OFFUTT, Ellwood City, Pa., assignor to The Shelby Steel Tube Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Sept. 28, 1910. Serial No. 584,389. (Cl. 80—62.)



1. In the manufacture of seamless tubes the steps consisting in subjecting a heated tubular blank while on a mandrel successively and simultaneously to the action of the rolls of a rolling mill and a reeling machine to thereby form the tubes in a manner affording a continuous operation.

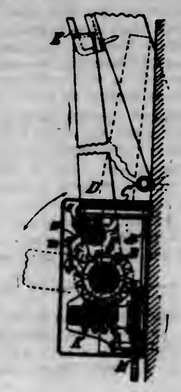
2. In the manufacture of seamless tubes the steps consisting in subjecting a heated tubular blank while on a mandrel successively and simultaneously to the action of the rolls of a rolling mill, a reeling machine and of sizing rolls to thereby form the tubes in a manner affording a continuous operation.

3. In the manufacture of seamless tubes the steps consisting in subjecting a heated tubular blank while on a mandrel successively to the action of the rolls of a rolling mill, a reeling machine and of sizing rolls, the action of the reeling and of the sizing rolls being simultaneous to thereby form the tubes in a manner affording a continuous operation.

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1,040,570. TRANSOM-LIFTER. HUMAN OSBORNE, Springfield, Mass. Filed May 24, 1911. Serial No. 629,106. (Cl. 16—28.)

1. In a transom operating device, the combination with a supporting frame, and a shaft, rotatively mounted therein, having a portion thereof screw threaded, and having a transom operating arm affixed on the end thereof, of a worm-wheel having a central screw threaded opening, and screw engaged on the threaded portion of the shaft, whereby the shaft is rotatively adjustable within the worm-wheel for varying the direction of the extension of the arm, means for confining the screw engaged worm-wheel and shaft in their adjustments, a worm mounted in the frame and in engagement with the worm-wheel, and means for rotating the worm.



2. In a transom operating device, the combination with a supporting frame, and a shaft, rotatively mounted therein, having the middle portion thereof screw threaded, having opposite end portions thereof provided with right and left screw threads, and having a transom operating arm affixed on the end thereof, of a worm-wheel having a central screw threaded opening, and screw engaged on the threaded middle portion of the shaft whereby the shaft is rotatively adjustable within the worm-wheel, nuts screw engaging on the right and left threaded portions of the shaft and operative to lock the screw engaged worm-wheel and shaft in their adjustments, a worm mounted in the frame, and in mesh with the worm-wheel, and means for rotating the worm.

3. In a transom operating device, in combination, a supporting frame, and a shaft rotatably mounted therein, having a transom operating element affixed on the end thereof, carrying a radial arm at a portion thereof in the frame, and having a worm-wheel thereon, a worm in mesh with the worm-wheel, and a means for rotating it, a spring supported in the frame, and a link connecting said spring and said arm.

4. In a transom operating device, the combination with a supporting frame, and a shaft rotatably mounted therein, having a transom operating element affixed on the end thereof, carrying a radial arm at a portion thereof within the frame, and having a worm-wheel thereon, a worm in mesh with the worm-wheel, and a means for rotating it, a spring supported in the frame, a link connecting said spring with said arm, and means for varying the tension of the spring.

5. In a transom operating device, in combination, a supporting frame, and a shaft, rotatably mounted therein, having opposite end portions thereof provided with right and left screw threads, and having a transom operating member affixed on the end thereof, a worm-wheel engaged on the middle portion of the shaft, a pair of arms having apertured shanks, embracing the shaft at opposite sides of the worm-wheel, nuts screw engaged on the right and left threaded portions of the shaft and binding the shanks of said arms facewise against the worm-wheel, a pair of springs supported in the frame, links connecting the springs with said arms, a worm mounted in the frame in mesh with the worm-wheel, and means for turning it.

[Claims 6 to 12 not printed in the Gazette.]

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1,040,571. ARTIFICAL TOOTH AND METHOD OF MAKING THE SAME. HENRY P. OSMUN, Bayonne, N. J. Filed May 10, 1910. Serial No. 560,535. (Cl. 32—9.)

1. The herein described method of making artificial teeth, which comprises applying to the front surface of a previously baked tooth body, provided with one or more anchor holes extending from the front surface of such tooth backward, a coating of enamel of a materially lower melting temperature than the melting temperature of the material of said tooth body, and fusing the said enamel on said tooth body, thereby closing, on the front side of the tooth, the said anchor hole or holes.



2. The herein described method of making artificial teeth, which consists in forming a baked tooth body provided with one or more anchor holes extending from the front of the tooth body backward, truing that surface of such tooth body which is to fit against a backing, inserting an anchor or anchors in said hole or holes, and applying to the front surface of said tooth body an enamel which covers the said anchor or anchors, and baking said enamel on said tooth body at a temperature materially lower than the melting temperature of the material of the tooth body.

3. The herein described method of making artificial teeth, which consists in forming a tooth body provided with one or more anchor holes extending from the front of the tooth body backward, inserting into said hole or holes one or more anchors extending beyond said anchor holes at both ends, applying to the front surface of said tooth body enamel which covers said anchor or anchors and in which same are embedded, and baking said enamel on said tooth body at a temperature materially lower than the melting temperature of the material of the tooth body.

4. The herein described method of making artificial teeth, which comprises forming a tooth body provided with one or more anchor holes extending from the front of the tooth body backward clear through said body, and applying to the front surface of said tooth body an enamel which covers the front end or ends of said anchor hole or holes, and baking said enamel on said tooth body at a temperature materially lower than the melting temperature of the material of the tooth body.

5. A tooth body having a plurality of anchor holes extending therethrough from front to rear, said holes connected, at their front ends, by a recess adapted to receive the back of a staple the legs of which are located in said holes.

[Claims 6 to 11 not printed in the Gazette.]

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1,040,572. RAILWAY-CAR CONSTRUCTION. OSCAR OTTESSON, Butler, Pa. Filed Feb. 26, 1912. Serial No. 680,001. (Cl. 189—78.)



1. In a construction of the character described, the combination of a frame provided with a panel seat and a channel, a panel having portions engaging said seat, and a bead arranged to hold the panel to its seat and having one portion projecting into said channel and another free portion projecting under the edge of said panel to prevent removal of the bead from the frame, said bead also having a portion resting on an exposed outer face of the frame and arranged to permit the insertion of a suitable tool between the frame and bead to remove the bead, said free portion of the bead being resilient and adapted to yield under edgewise movement of the panel.





2. In a construction of the character described, the combination of a frame, provided with an abutment and with an offset forming a groove therebetween, a panel having a portion engaging said abutment, and a panel retainer comprising a strip bent longitudinally and having one edge provided with a flange arranged to engage said panel and hold the same to its abutment, said retainer being also formed with an indented locking member having a flat portion resting against an outer flat face of said offset and another portion projecting into said channel to thereby hold said retainer in place, said panel retainer being also provided with a resilient keeper member in said groove and projecting under the edge of said panel and arranged to prevent displacement of said panel retainer, said keeper member being free at one edge and arranged to yield under edgewise movement of said panel.

3. In a construction of the character described, the combination of a frame having a channel and an abutment and provided with an offset spaced from said abutment, a panel having a portion resting against said abutment, and a panel retainer comprising a metal strip bent longitudinally and having a flange at one edge bearing against said panel to hold it to said abutment, and at the other edge being provided with a locking portion arranged to engage said offset, one of the edges of said strip being provided with a free keeper member located in said channel and projecting under the edge of said panel and arranged to prevent displacement of said retainer and to yield under edgewise movement of said panel.

4. In a construction of the character described, the combination of a frame having a channel and an abutment and provided with an offset spaced from said abutment, a panel having a portion resting against said abutment, and a panel retainer having one edge provided with a flange arranged to bear against said panel and hold the same to its abutment and a locking portion spaced therefrom and arranged to engage said offset, and a yielding keeper member on said panel retainer, said member being engaged in said channel and projecting under the edge of said panel and arranged to prevent displacement of said retainer from its place, said locking portion connecting said keeper member to said retainer.

5. In a construction of the character described, the combination of a frame having a channel and an abutment and provided with an offset spaced from said abutment, a panel having a portion resting against said abutment and a panel retainer having one edge provided with a flange arranged to bear against said panel and hold the same to its abutment and a locking portion spaced therefrom and arranged to engage said offset, and a yielding keeper member on said panel retainer, said member being engaged in said channel and projecting under the edge of said panel and arranged to prevent displacement of said retainer from its place, said locking portion connecting said keeper member to said retainer and having a flat face resting against the outer exposed face of said offset to permit the insertion of a retainer removing tool or implement.

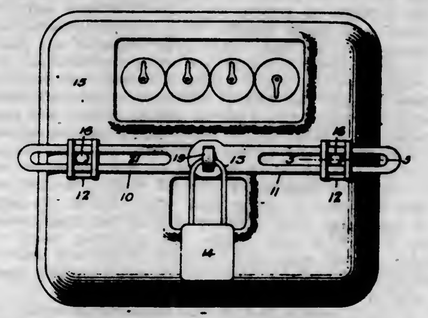
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1,040,573. LOCKING DEVICE. GRANVILLE E. PALMER, Brookline, Mass. Filed May 10, 1912. Serial No. 696,451. (Cl. 70—80.)

1. A device for locking a cover upon a meter or the like, comprising two detachable threaded members for engaging complemental threaded members of the meter to hold the cover on the meter, and two detachable coupling members, said coupling members and detachable threaded members being separable and having interlocking parts for preventing relative rotation of the latter members, said coupling members having complemental portions whereby they are adapted to be coupled with each other while interlocked with said detachable threaded members, the coupling portion of one coupling member having provision for the reception of a sealing device to seal the coupling members in coupled relation.

2. A device for locking a cover upon a meter or the like, comprising two detachable threaded members for en-

gaging complemental threaded members of the meter to hold the cover on the meter, and two detachable coupling members, said coupling members and detachable threaded members having interlocking parts for preventing relative rotation of the latter members, said interlocking parts being adapted to enable the coupling members to slide toward and from each other, said coupling members having portions whereby they are adapted to be coupled with each other while interlocked with said detachable threaded members, the coupling portion of one coupling member having provisions for the reception of a sealing device to seal the coupling members in coupled relation.



3. A device for locking a cover upon a meter or the like, comprising two threaded members for holding the cover on the meter, and two detachable coupling members for preventing rotation of said threaded members, said threaded members having slots for the reception of said coupling members whereby the coupling members are interlocked respectively with the threaded members and whereby the coupling members are enabled to be adjusted toward and from each other, one of said coupling members having a projecting portion and the other having an opening through which said portion may be inserted, said portion having an opening through which a sealing device may be passed to seal the coupling members in coupled relation.

4. A device of the character described comprising two detachable threaded members for engaging complemental threaded members, and two coupling members for preventing rotation of said detachable threaded members, said coupling members and detachable threaded members having coactive connecting portions adapted to permit relative sliding movement, and said coupling members having coactive coupling portions adapted to support them between said threaded members without sagging, one of said coupling members having provisions for receiving a sealing device for sealing the coupling members in coupled relation.

5. A device for locking a cover upon a meter or the like, comprising two detachable threaded members for engaging complemental threaded members of the meter to hold the cover on the meter, and two detachable coupling members, said coupling members and detachable threaded members being separable and consisting of ductile sheet metal, said detachable threaded members having wings and slots for the reception of said coupling members whereby the coupling members are capable of adjustment and whereby the detachable threaded members are held against rotation, one of said coupling members having a loop for the reception of a sealing device, and the other coupling member having an opening for the reception of said loop.

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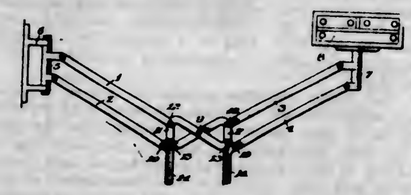
1,040,574. RECEPTACLE. JOHN F. PATTERSON, St. Louis, Mo. Filed Jan. 29, 1912. Serial No. 674,057. (Cl. 206—39.)

An article of the character described comprising a receptacle, a cover-member adapted to move within said receptacle, means for securing said member over the entrance to said receptacle, mechanism for automatically raising said member, and devices adapted to lift a portion of the receptacle-contents upon operation of said mechanism.



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1,040,575. EXTENSIBLE BRACKET. ALPHONSE F. PIERPE, Rochester, N. Y. Filed Mar. 4, 1912. Serial No. 681,885. (Cl. 248—3.)



1. In an extensible bracket, the combination with an inner section including a pair of pivotally mounted arms having parallel movement, of an outer section pivotally connected to the inner section and adapted to support an object at its outer end, vertically disposed members connected to the adjacent ends of the inner and outer sections, and means arranged on the inner and outer sections movable on the vertically disposed members for causing equal movements of the sections at each side of their point of connection.

2. In an extensible bracket, the combination with an inner section including a pair of pivotally mounted arms having parallel movement, of an outer section pivotally connected to the inner section and adapted to support an object at its outer end, and vertically disposed guiding members connected to the inner and outer sections, the upper arms of the sections being pivotally connected and having their ends movably attached to said guiding members.

3. In an extensible bracket, the combination with an inner section including a pair of pivotally mounted arms having parallel movement, of an outer section pivotally connected to the inner section and adapted to support an object at its outer end, and members having vertically disposed guides thereon and connected to the inner and outer sections, the upper arms of the sections being pivotally connected together and having their ends movably connected to said guides.

4. In an extensible bracket, the combination with an inner section including a pair of pivotally mounted arms having parallel movement, of an outer section pivotally connected to the inner section and adapted to support an object at its outer end, vertically disposed members connected to the inner and outer sections at their proximate ends, and sliding connections between the inner section and the vertical member of the outer section and between the outer section and the vertical member of the inner section.

5. In an extensible bracket, the combination with an inner section and an outer section each composed of upper and lower arms, the upper arms of both sections having end portions overlapping and a pivot connecting them, of members connecting the arms of each section for parallel movement, the members located adjacent the pivotal connection of the sections having guides thereon cooperating with the end portions of the arms beyond said pivot.



1,040,576. DENTAL ENGINE. OSCAR H. PIERPE and ALPHONSE F. PIERPE, Rochester, N. Y. Filed Mar. 2, 1910. Serial No. 546,768. (Cl. 32—14.)



1. In a dental engine, the combination with a frame mounted to turn about a vertical axis, of a supporting arm mounted to turn on the frame about a horizontal axis, a hand piece carried by the supporting arm, a counterbalance mounted in said frame, means carried by the counter-balance having positive engagement with the supporting arm, and means for guiding the counter-balance vertically in the frame.

2. In a dental engine, the combination with a frame mounted to turn about a vertical axis, of a supporting arm mounted to turn about a horizontal axis on the frame, a hand piece on the arm, a counterbalance mounted in the frame, means guiding the counter-balance vertically on the frame, a sector-shaped rack on the arm concentric with the axis of the latter, and a straight rack on the counterbalance meshing with the sector-shaped rack.

3. In a dental engine, the combination with a frame mounted to turn about a vertical axis and provided with vertical guideways, of a supporting arm mounted to turn about a horizontal axis on the frame, a hand piece on the arm, a motor for driving the hand piece, guide projections resiliently carried by the motor and operating in the vertical guideways of the frame, driving connection between the motor and the hand piece, and means operatively connecting the motor and the arm whereby the latter is counterbalanced by the former.

4. In a dental engine, the combination with a frame mounted to turn about a vertical axis, of a supporting arm mounted to swing about a horizontal axis on the frame, a hand piece supported by the arm, a motor vertically movable on the frame for driving the hand piece, a sector-shaped rack on the arm concentric with the axis of turning of the latter, a straight rack resiliently connected to the motor, and a driving connection leading from the motor and connected to the hand piece.

5. In a dental engine, the combination with a yoked frame having guideways on its arms and mounted to turn about a vertical axis, of an arm mounted to swing on the frame about a horizontal axis, a hand piece supported by the arm, a motor for driving the hand piece mounted in said frame, guide projections resiliently carried by opposite sides of the motor and cooperating with the guideways on the frame so that the motor is alined with the axis of turning of the frame, a sector-shaped rack on the arm, a straight rack on the motor resiliently connected to the latter, and a driving connection leading from the motor and connected to the hand piece.

[Claims 6 to 13 not printed in the Gazette.]

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1,040,577. DENTAL ENGINE. OSCAR H. PIERPE and ALPHONSE F. PIERPE, Rochester, N. Y. Filed Mar. 6, 1911. Serial No. 612,559. (Cl. 32—14.)

1. In a dental engine, the combination with a frame mounted to turn about a vertical axis, of a supporting arm mounted to turn on the frame about a horizontal axis, a hand piece carried by the supporting arm, a counter-balance comprising a motor, driving connections leading from the motor to the hand piece, means having frictional engagement with said supporting arm and connecting the latter with the counter-balance whereby sliding action is permitted between the supporting arm and the frictional engaging means, and means for guiding the counter-balance vertically on the frame.



2. In a dental engine, the combination with a frame mounted to turn about a vertical axis, of a supporting arm mounted to turn about a horizontal axis, a hand piece carried by the supporting arm, a counter-balance, and means having frictional and sliding engagement with the supporting arm and operatively connecting the latter with the counter-balance.

3. In a dental engine, the combination with a frame mounted to turn about a vertical axis, of a supporting arm mounted to turn on the frame about a horizontal axis, a hand piece carried by the supporting arm, a counter-balance comprising a motor, driving connections leading from the motor to the hand piece, and means operatively connecting the counter-balance with the supporting arm comprising a lever on one of the parts cooperating frictionally and slidably with the other part and capable of movement independently thereof.

4. In a dental engine, the combination with a frame mounted to turn about a vertical axis, of a supporting arm mounted to turn on the frame about a horizontal axis, a hand piece carried by the supporting arm, a counter-balance, and means operatively connecting the counter-balance with the supporting arm, said means having frictionally engaging surfaces adapted to allow sliding action between the surfaces.

5. In a dental engine, the combination with a frame mounted to turn about a vertical axis, of a supporting arm mounted to turn on the frame about a horizontal axis, a hand piece carried by the supporting arm, a counter-balance, means operatively connecting the counter-balance with the supporting arm consisting of a cam carried by one of the parts having frictional and slidable engagement with a surface on the other part, and means for guiding the counter-balance vertically on the frame.

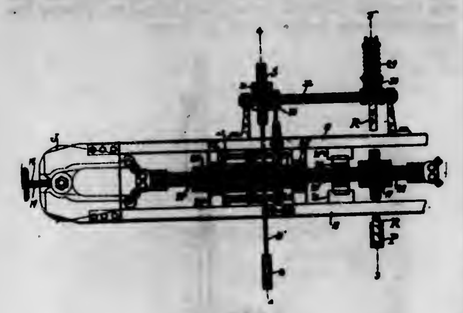
[Claims 6 to 12 not printed in the Gazette.]

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1,040,578. QUICK-ACTING SAFETY DEVICE. CHARLES R. PRATT, Montclair, N. J., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Apr. 28, 1910. Serial No. 557,285. (Cl. 187—91.)

1. In an elevator safety device, the combination of retarding means, right and left screws initially to apply the retarding means, and a differential screw in addition to said right and left screws and operable automatically completely to apply the said retarding means.

2. In an elevator safety device, the combination of retarding means, right and left screws operative initially and lightly to apply the retarding means, and differential means in addition to said screws, and operable automatically when said screws have operated more powerfully to apply the retarding means.



3. In an elevator safety device comprising rail gripping jaws, the combination of a right and left screw device to bring the jaws quickly to the rails, and in addition thereto a differential device operable automatically to effect the application of the jaws to the rails.

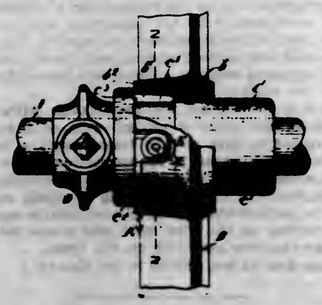
4. In an elevator safety device comprising rail gripping jaws, the combination of a right and left screw device automatically to bring the jaws quickly to the rails, and in addition to said right and left screw devices a differential device operable to effect the application of the jaws to the rails.

5. In an elevator safety device comprising rail gripping jaws, the combination of a right and left screw device to bring the jaws quickly to the rails, and in addition thereto a differential device automatically to effect the application of the jaws to the rails.

[Claims 6 to 33 not printed in the Gazette.]

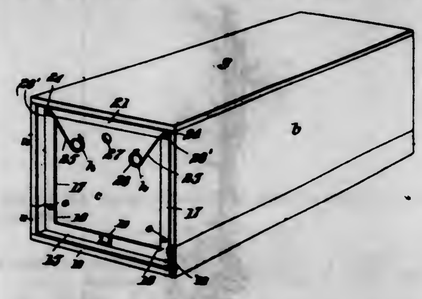
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1,040,579. **SHAFT-BUSHING.** ALEXANDER RANKEILLOR, Saco, Me., assignor, by mesne assignments, to Saco-Pettee Company, Newton, Mass., a Corporation of Massachusetts. Filed Dec. 17, 1909. Serial No. 533,535. (Cl. 64—10.)



The bushing above described having a bearing section, a clearance and a stop section, said clearance being located between said bearing section and said stop section, in combination with a support having a portion engaging the bearing section of said bushing and an exterior surface engaging the stop section of said bushing, and means for holding said bushing from endwise movement with relation to said support, said means comprising a shaft and a collar located thereon.

1,040,592. **CRATE.** HARRISON M. ROUNSEVELL, Westford, N. Y. Filed June 14, 1911. Serial No. 633,212. (Cl. 217—15.)



1. A folding crate comprising a bottom and hinged side and end members, angle irons secured to the inner faces of the side members at the ends of the latter to form stops to limit outward swinging movement of the end members, said angle irons each having a slot at its upper end, a top member having a cleat at each end adapted to overlap the opposite end members when the crate is set up, each cleat of the top having a slot at each end adapted to alline with the corresponding aforesaid slots at the upper ends of the aforesaid angle irons, the end members having eyes adapted for passage through the registering slots of the top member cleats and said angle irons, and hooks carried by the ends members and adapted to extend through said eyes after the latter have been passed through said slots to lock the top on the crate when the latter is set up.

2. A folding crate comprising a bottom and sides and ends hingedly secured to the bottom, each end carrying a lip and each side having an opening at each end, the openings at each end being adapted for registration when the crate is folded and also adapted to aline with said lips, a top member, an arm secured to the top member and adapted for passage through the registering openings of the side members for connection with the corresponding lips to lock the crate in its folded condition, said openings in the side members preventing accidental disconnection of said fastening members from engagement with said lips.

3. A folding crate comprising a bottom, side and end cleats rigidly secured to the bottom, end members, angle irons secured to the inner faces of the end members and the inner faces of the corresponding cleats with the angle irons of the end members and the end cleats hingedly connected together so that the end members may be swung on the end cleats, said angle irons also strengthening the sides of the end members, a metallic plate secured to the outer face of each end cleat and provided with a lip, angle irons secured to the inner faces of the side members at the ends of the latter to strengthen the side members, angle irons secured to the inner faces of the said cleats at the ends of the latter and alining with and hingedly connected to the angle irons of the side members so that the latter may swing on the side cleats, the side members having openings at their ends with the openings at the ends of one member adapted to register with the openings at the ends of the other side member when the crate is folded, a top member having a cleat on its under side at each end and including a depending portion disposed within the end edges of the top member and adapted to overlap the opposite end pieces of the crate when the crate is set up, means for locking the top of the crate when the latter is set up, hooked arms secured to the depending portions of the cleats of the top member and adapted for passage through the registering openings of the side members when the crate is folded and adapted to engage the aforesaid lips to lock the parts of the crate against accidental displacement when the crate is folded, said openings in the side members preventing accidental



disconnection of said fastening members from engagement with said lips and said hooked members being confined within the end edges of the top, bottom and side members.

4. A folding crate comprising a bottom and side and end cleats secured thereto, end members, angle irons secured to the inner faces of the end members and the inner faces of the corresponding cleats with the angle irons hingedly connected together so that the end members may swing on the end cleats, a metallic plate secured to the outer face of each end cleat and provided with a lip, angle irons secured to the inner faces of the side members at the ends of the latter, angle irons secured to the inner faces of the side cleats at the ends of the latter and pivotally connected to the angle irons of the side members so that the latter may swing on the side cleats, the side members having openings at their ends with the openings at the ends of one side member adapted to register with the openings at the ends of the other side member when the crate is folded, a top member having a cleat at each end adapted to overlap the opposite end pieces when the crate is set up, means for locking the top of the crate when the latter is set up, arms pivotally secured to the cleats of the top and adapted for passage through the registering openings of the side members when the crate is folded and adapted to engage the aforesaid lips to lock the parts of the crate against displacement when the crate is folded and adapted to engage the aforesaid lips to lock the parts of the crate against displacement when the crate is folded.

5. A folding crate comprising a bottom and side and end cleats secured thereto, end members, angle irons secured to the inner faces of the end members and the inner faces of the corresponding cleats with the angle irons hingedly connected together so that the end members may swing on the end cleats, a metallic plate secured to the outer face of each end cleat and provided with a lip, angle irons secured to the inner faces of the side members at the ends of the latter, angle irons secured to the inner faces of the side cleats at the ends of the latter and pivotally connected to the angle irons of the side members so that the latter may swing on the side cleats, the side members having openings at their ends with the openings at the ends of one side member adapted to register with the openings at the ends of the other side member when the crate is folded, a top member having a cleat at each end adapted to overlap the opposite end pieces when the crate is set up, means for locking the top of the crate when the latter is up, arms pivotally secured to the cleats of the top and adapted for passage through the registering openings of the side members when the crate is folded and adapted to engage the aforesaid lips to lock the parts of the crate against displacement when the crate is folded, guide members secured to the inner faces of the side members and to the inner faces of the side cleats, said guides embodying hinged parts, and a partition adapted for removable engagement in said guides.

[Claim 6 not printed in the Gazette.]

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1,040,881. **TIRE FOR AUTOMOBILES, VEHICLES, OR THE LIKE.** ANDREW W. ROWE, Philadelphia, Pa. Filed Feb. 8, 1911. Serial No. 607,280. (Cl. 152—1.)



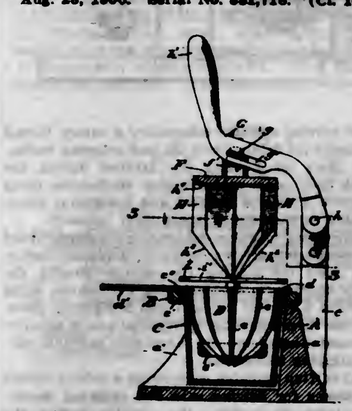
1. A tire comprising a rubber body portion having a chamber formed therein; a truss located in said chamber, said truss being curved transversely and having its outer edges rounded; a central rib projecting outwardly from said truss member, the wall in said chamber having an inwardly projecting rib engaging the rib on said truss whereby the load pressure on the truss is conveyed through said central rib and the outer portions of said truss to the central portion of the supporting rim.

2. A tire comprising a rubber body portion having a chamber formed therein; a truss located in said chamber, said truss being curved transversely and having its outer edges rounded; a central rib projecting outwardly from said truss member, the wall of said chamber having an inwardly projecting rib engaging the rib on said truss whereby the load pressure on the truss is conveyed through said central rib and the outer portions of said truss to the central portion of the supporting rim; and a second chamber located centrally of the tire and between said first named chamber and the tread of the tire.

3. The combination of a rim having outwardly projecting flanges; a tire located between said flanges; means for preventing the tire from creeping on the rim, said tire comprising a solid rubber portion having a chamber formed therein; a truss located within said chamber, said truss being curved transversely and having the outer curved surface thereof engaging the inner wall of said chamber, the outer edges of said truss engaging the outer wall of said chamber and engaging said rib on the truss, said tire having a second chamber formed therein between the first chamber and the tread of the tire, said second chamber forming columns in said tire which are located between the central rib and the outer edges of the truss.

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1,040,582. **FRUIT AND VEGETABLE SLICER.** CHARLES E. ROTH and AUGUST A. EICKERT, Erie, Pa. Filed Aug. 23, 1906. Serial No. 331,718. (Cl. 146—7.)



1. In a device of the class described, means provided with radial slots, for holding the material to be severed; and reciprocating cutting mechanism comprising radial blades coöperating with said holding means and the slots therein and adapted to divide the material while retaining its shape.

2. In a device of the class described, a receptacle for holding and embracing the material to be operated upon, said receptacle being provided with knife slots, reciprocating cutting mechanism provided with radially inclined knives which are adapted to enter said receptacle and traverse the slots therein, whereby the material may be severed while retaining its shape.

3. In a device of the class described, a frame, a receptacle provided with slots for holding the material to be severed, a lever pivoted to the frame, movable cutting mechanism operated by said lever and having a slidable connection therewith, said cutting mechanism having a plurality of cutting edges which diverge from a common center and enter the slots in said receptacle.

4. In a device of the class described, a receptacle for holding the material to be severed, said receptacle being provided with slots radiating from a common center, movable cutting mechanism provided with radially arranged knives, the cutting edges of which diverge from a common center, said knives being adapted to traverse

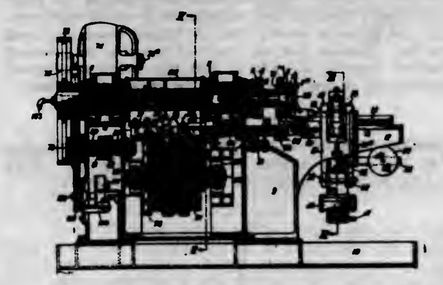
said slots, and a juice receiver cooperating with the holding receptacle for receiving juice therefrom.

5. In a device of the class described, a cross head movable in a rectilinear path, a plurality of knives carried by said cross head, means for operating said cross head, a receptacle having openings therein to permit the escape of liquid for holding the material to be severed, and an imperforate receptacle surrounding and supporting said perforated receptacle, for receiving juice therefrom.

[Claims 6 to 12 not printed in the Gazette.]

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1,040,583. THREAD-CUTTING MACHINE. AUGUSTUS M. SAUNDERS and OLIVER M. MOWAT, McKeesport, Pa., assignors to National Tube Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Aug. 4, 1911. Serial No. 642,388. (Cl. 10—95.)



1. A thread cutting machine comprising a rotary thread cutting die, means for driving said die and gripping mechanism having jaws for holding the articles during the thread cutting operations, said gripping mechanism being arranged to have a limited vertical and horisontal movement during the thread cutting operations.

2. A thread cutting machine comprising a rotary thread cutting die, means for driving said die, gripping mechanism having jaws for holding the articles during the thread cutting operations, said gripping mechanism being arranged to have a limited vertical and horisontal movement during the thread cutting operations, and a counterweight for counter-balancing the vertically movable portions of the gripping mechanism.

3. A thread cutting machine comprising a rotary thread cutting die, means for driving said die, gripping mechanism having jaws for holding the articles during the thread cutting operations and a lever for determining the length of thread cut upon the articles arranged to move into and out of the path of movement of the articles being threaded, said die driving means while in operation being arranged to mechanically actuate the die, gripping mechanism and lever in pre-arranged sequence.

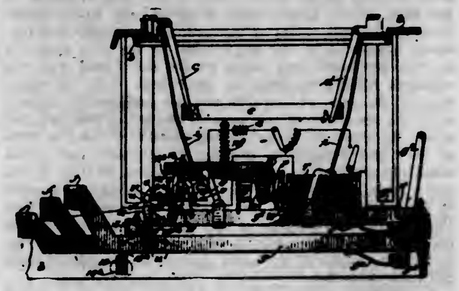
4. A thread cutting machine comprising a rotary thread cutting die, means for driving said die, gripping mechanism having jaws for holding the articles during the thread cutting operations, a lever forming a stop arranged to move into and out of the path of movement of the articles being threaded to determine the length of thread cut upon the articles threaded, and means operatively connecting the gripping mechanism with said lever by which said lever is moved into and out of operative position, said die driving means while in operation being arranged to mechanically actuate the die, gripping mechanism and lever in pre-arranged sequence.

5. A thread cutting machine comprising a rotary thread cutting die, means for driving said die, gripping mechanism having jaws for holding the articles during the thread cutting operations and a lever arranged to move into and out of the path of movement of the articles being threaded to determine the length of thread cut upon the articles threaded, said lever being adjustable to vary the length of said threads, said die driving means while in operation being arranged to mechanically actuate the die, gripping mechanism and lever in pre-arranged sequence.

[Claims 6 to 8 not printed in the Gazette.]

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1,040,584. TYPE-WRITER AND OTHER KEY-CONTROLLED MACHINE. JOHN T. SCHAAFF, Washington, D. C. Filed Sept. 4, 1902, Serial No. 122,078. Renewed Sept. 20, 1904. Serial No. 225,368. (Cl. 197—14.)



1. In a key controlled mechanism, the combination of a key and an operated part, a normally inactive motor, means controlled by the key for causing the motor to be actuated, means movable independently of the movement of the key, operated by the motor, for actuating the operated part and means for actuating the operated part directly by the key.

2. In a typewriting machine, the combination of a key and a type bar, a normally inactive motor, means controlled by the key for causing the motor to be actuated, means movable independently of the movement of the key, operated by the motor, for actuating the type bar and means for actuating the type bar directly by the key.

3. In a key controlled mechanism, the combination of a key and an operated part, a normally inactive motor comprising a fixed and a reciprocating part, means controlled by the key for causing the motor to be actuated to effect movement of the reciprocating part, means movable independently of the movement of the key, operated by the motor, for actuating the operated part and means for actuating the operated part directly by the key.

4. In a typewriting machine, the combination of a key, and a type bar, a normally inactive motor comprising a fixed and a reciprocating part, means controlled by the key for causing the motor to be actuated to effect movement of the reciprocating part, means movable independently of the movement of the key, operated by the motor, for actuating the type bar, and means for actuating the type bar directly by the key.

5. In a key controlled mechanism, the combination of a key and an operated part, a normally inactive motor, means normally controlled by the key for causing the motor to be actuated, means movable independently of the movement of the key, operated by the motor, for actuating the operated part, means for disconnecting the motor controlling means from the key and means for actuating the operated part directly by the key.

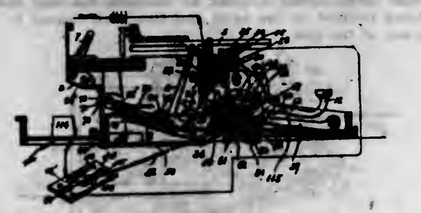
[Claims 6 to 80 not printed in the Gazette.]

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1,040,585. TYPE-WRITING AND OTHER KEY-ACTUATED MACHINE. JOHN T. SCHAAFF, Washington, D. C. Filed Sept. 20, 1904. Serial No. 225,365. (Cl. 197—14.)

1. In a key-controlled machine, the combination of an operated part and a key, power mechanism adapted, when actuated, to actuate the operated part independently of the key, and mechanism intermediate the operated part and key adapted, when in one position to serve to actuate the power mechanism on the depression of the key, and when in another position, to prevent the actuation of the power mechanism and to transmit the movement of the key directly to the operated part, and a single lever adapted by its movement to shift said intermediate mechanism from one position to the other at will.





2. In a typewriting machine, the combination of a type-bar and a key, power mechanism adapted, when actuated, to actuate the typebar independently of the key, and mechanism intermediate the typebar and key adapted, when in one position to serve to actuate the power mechanism on the depression of the key, and, when in another position, to prevent the actuation of the power mechanism and to transmit the movement of the key directly to the typebar, and a single lever adapted by its movement to shift said intermediate mechanism from one position to the other at will.

3. In a key-controlled mechanism, the combination of an operated part and a key, a normally inactive motor adapted, when actuated, to actuate the operated part independently of the key, and mechanism intermediate the operated part and key adapted, when in one position, to serve to actuate the motor on the depression of the key, and, when in another position, to prevent the actuation of the power mechanism and to serve to transmit the movement of the key directly to the operated part, and a single lever adapted by its movement to shift said intermediate mechanism from one position to the other at will.

4. In a typewriting machine, the combination of a type-bar and a key, a normally inactive motor adapted, when actuated, to actuate the typebar independently of the key, and mechanism intermediate the typebar and key adapted, when in one position, to serve to actuate the motor on the depression of a key, and when in another position, to prevent the actuation of the power mechanism and to serve to transmit the movement of the key directly to the typebar, and a single lever adapted by its movement to shift said intermediate mechanism from one position to the other.

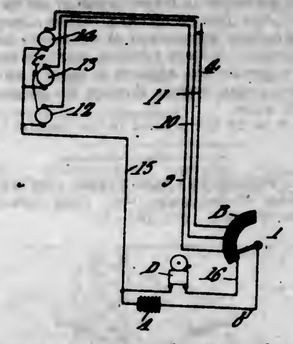
5. In a key-controlled mechanism, the combination of an operated part, a key lever, an auxiliary lever, and means connecting the auxiliary lever with the operated part, of power mechanism adapted, when actuated, to operate the auxiliary lever, means controlling the power mechanism, a connecting bar having engagement with the key lever and adapted, when in one position, to operate the controlling means on the depression of the key and when in another position, to serve as a mechanical connection between the key lever and the auxiliary lever, and means for shifting the connecting bar from one position to the other.

[Claims 6 to 75 not printed in the Gazette.]

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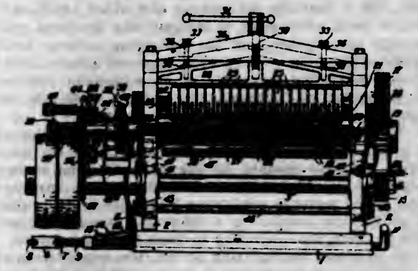
1,040,586. AUTOMATIC ELECTRIC SPEED-REGULATOR. METELLUS D. SELDEN and RICHMOND L. GRAVES, Memphis, Tenn. Filed Feb. 28, 1911. Serial No. 611,422. (Cl. 177—337.)

In an automatic speed indicator and alarm, the combination with a speedometer, of a segment of insulation disposed in circumferential relation to the pointer arbor thereof, a plurality of contact plates mounted in electrically insulated relation in one wall of said segment, a plurality of contact points disposed at right angles to the plate also carried by said segment of insulation, one point to each of the plates and disposed to have a lesser contact surface than the plate, a contact arm carried by the pointer arbor and provided with a T-shaped head to engage the contact plate and the contact points of the segment, a battery, a conductor wire connected to the battery and the contact arm, an audible signal connected to the contact points and to the other side of the battery, a plurality of conductors one to each contact plate, a visual signal to each contact plate connected to its respective conductor, and a single conductor common to all of said visual signals and connected to the battery.



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1,040,587. MACHINE FOR CUTTING CLOTH, LEATHER, AND SIMILAR MATERIALS. FREDERICK W. STORK, Boston, Mass., assignor, by mesne assignments, to Excel Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed May 11, 1908. Serial No. 432,104. (Cl. 164—65.)



1. A cutting machine comprising a frame; a roll or platen rotatively mounted in said frame; means for rotating the roll or platen; rotary cutters; holders forming bearings and guides for said cutters, adjustable transversely in said frame and arranged so that they will cause the cutting edges of the rotary cutters to come in cutting contact on the roll or platen; means for exerting a cutting pressure on said cutters; and means for positively rotating said cutters.

2. In a machine for cutting cloth, a frame; a roll or platen rotatively mounted in bearings in said frame; means for rotating said roll or platen; rotary cutters, holders for said cutters, a shaft on which said holders are adjustable transversely, and means for positively rotating said cutters.

3. A cutting machine for cloth, leather and similar materials, comprising a frame; a roll or platen rotatively mounted in said frame; rotary cutters, holders which constitute bearings for said rotary cutters and guide the same laterally; and means for separately rotating the rotary cutters.

4. In a rotary cutting machine, a frame; a roll or platen rotatively mounted in said frame; rotary cutters, in cutting contact with the roll or platen; holders forming bearings for the rotary cutters and guides for guiding them laterally; means for adjusting said holders laterally; means for exerting a cutting pressure through the medium

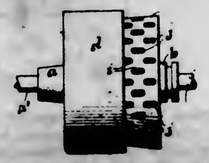
of said holders upon said rotary cutters, and means for separately driving the said cutters.

5. In a rotary cutting machine for cutting cloth, leather and similar materials; a frame; a roll or platen rotatively mounted in said frame; rotating cutters; means for rotating said cutters independent of the means furnishing a bearing therefor; holders forming bearings for the cutters; and a presser bar adapted to exert a cutting pressure on the rotary cutters through the holders forming bearings for same.

[Claims 6 to 27 not printed in the Gazette.]

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1,040,588. POWER-TRANSMITTING DEVICE. Julius Stromeyer, Philadelphia, Pa. Filed Feb. 12, 1912. Serial No. 677,207. (Cl. 192—1.)



1. In a power transmitting device, the combination of a moving driving part and a movable part adapted to be driven by frictional contact with the driving part, the contacting surfaces of said parts being provided with pockets filled with hardened plastic gritty material containing magnesite or an equivalent pulverulent producing a frictional film spread uniformly between the contacting surfaces.

2. In a power transmitting device, the combination of a driving shaft and a driven shaft, a member on one of said shafts and a movable member on the other shaft, said members being adapted to be brought into frictional relation with one another, and the contacting surfaces being provided with pockets filled with hardened plastic gritty material containing magnesite or an equivalent pulverulent producing a frictional film spread uniformly between the contacting surfaces on said members.

3. In a power transmitting device, the combination of two rotary members adapted to be brought into frictional relation with one another, having the contacting surface or surfaces provided with pockets filled with hardened plastic gritty material containing magnesite or an equivalent pulverulent producing a frictional film spread uniformly between the contacting surfaces on said members.

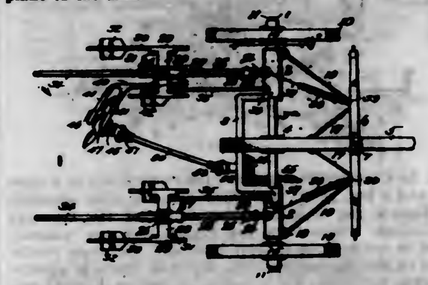
4. In a power transmitting device, the combination of two rotary members adapted to be brought into frictional relation with one another, and a plurality of small pieces of gritty material disposed between the contacting surface or surfaces, and containing magnesite or an equivalent pulverulent, producing a frictional film spread uniformly between the contacting surfaces.

5. In a power transmitting device, the combination of a shaft, a member fast on said shaft, a rotary member movable to or from the fast member, frictional surfaces between said members provided with a filling of hardened plastic gritty material containing magnesite or an equivalent pulverulent, producing a frictional film spread evenly between the contacting surfaces when the movable member is shifted to make a driving connection.

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1,040,589. HOEING-MACHINE. Wilbur R. Stubgiss, Arcadia, Kans. Filed Sept. 1, 1911. Serial No. 647,194. (Cl. 97—46.)

1. A machine of the character specified, comprising a frame, wheels for supporting the frame, a plow beam connected with the frame at each side thereof, a plurality of plows supported by each beam, a cutting device for thinning the plants connected with one of the beams, said device comprising a yoke consisting of a body and spaced arms inclined with respect to the body, means for adjustably connecting the yoke body to the beam, a stub shaft journaled in the ends of the arms, a cutting wheel on the shaft between the arms, and a driving connection between one end of the shaft and a wheel, the cutting wheel comprising a disk having spaced substantially radial slots dividing the periphery of the disk into a plurality of blades, each blade having a point at one end, the said blades being inclined in the same direction with respect to the plane of the disk.



2. A machine of the character specified, comprising a frame, wheels for supporting the frame, a plow beam connected with the frame at each side thereof, a plurality of plows supported by each beam, a cutting device for thinning the plants connected with one of the beams, said device comprising a yoke consisting of a body and spaced arms inclined with respect to the body, means for adjustably connecting the yoke body to the beam, a stub shaft journaled in the ends of the arms, a cutting wheel on the shaft between the arms, and a driving connection between one end of the shaft and a wheel, the cutting wheel comprising a disk having spaced substantially radial slots dividing the periphery of the disk into a plurality of blades.

3. A machine of the character specified, comprising a frame, wheels for supporting the frame, a plow beam connected with the frame at each side thereof, a plurality of plows supported by each beam, a cutting device for thinning the plants connected with one of the beams, said device comprising a yoke consisting of a body and spaced arms inclined with respect to the body, means for adjustably connecting the yoke body to the beam, a disk journaled between the arms, and a driving connection between the disks and one of the wheels, said disk having a plurality of substantially radial slots dividing the periphery thereof into a plurality of blades.

4. A machine of the character specified, comprising a frame, wheels for supporting the frame, a plow beam connected with the frame at each side thereof, a plurality of plows supported by each beam, a cutting device for thinning the plants connected with one of the beams, said device comprising a yoke consisting of a body and spaced arms inclined with respect to the body, and means for adjustably connecting the yoke body to the beam.

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1,040,590. BASKET-MAKING MACHINE. Arthur M. Taylor, Keuka Park, N. Y., assignor to The Taylor Basket & Machine Company, Erie, Pa., a Corporation of New York. Original application filed Nov. 16, 1906, Serial No. 343,715. Divided and this application filed Sept. 1, 1910. Serial No. 580,039. (Cl. 1—15.)

1. In a basket making machine, the combination of a rotatable form; a plunger for holding a basket part against the form; a mounting for the plunger; and a latch yielding with pressure on the plunger for locking the plunger in position.

2. In a basket making machine, the combination of a rotatable form having a vertical face for holding a basket part; a plunger operable to hold the basket part in place on the vertical face; and a movable gage adapted to be swung into gaging position at the bottom of the vertical face on the form to position a basket part on the vertical face prior to the movement of the plunger against the part on the face, said gage being adapted to be swung out of gaging position independently of the plunger to permit rotation of the form.



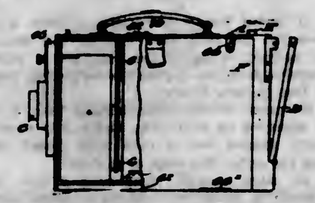
3. In a basket making machine, the combination of a rotatable form having a vertical face for holding a basket part; a plunger operable to hold the basket part in place on the vertical face; a movable gage adapted to be swung into gaging position at the bottom of the vertical face on



the form to position a basket part on the vertical face prior to the movement of the plunger against the part on the face, said gage being adapted to be swung out of gaging position independently of the plunger to permit rotation of the form; and a pedal for actuating said gage.

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1,040,591. APPARATUS FOR TAKING KINEMATOGRAPHIC (OR OTHER) PHOTOGRAPHS AND PROJECTING SAME. George Charles Thomas, Liscard, England. Filed Sept. 8, 1910. Serial No. 580,360. (Cl. 95—11.)



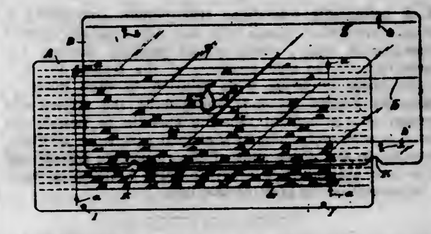
1. Apparatus for taking kinematographic and ordinary photographic pictures, comprising in combination, a casing or box having a light aperture at one end thereof; a removable means for carrying sensitised photographic media for receiving a light impressed picture, at the opposite end of said casing; and a kinematographic medium moving mechanism disposed intermediate the said aperture and the means at the opposite end, adapted to be readily placed within the casing, and withdrawn therefrom, and adapted to be used for passing a photographic film between the light aperture and the said removable means; substantially as set forth.

2. In apparatus for taking kinematographic and ordinary photographic pictures, a camera box or casing; a movable mechanism for intermittently moving a film placed intermediate the front and back walls of the camera box, and adapted to be readily removed therefrom, and introduced into position; a door on one side of the box adapted to enable the said mechanism to be introduced and removed; a door at the back end of the camera box or casing; and a removable sensitive photographic medium carrier at the back part of the casing; substantially as set forth.

3. In apparatus for taking kinematographic and ordinary photographic pictures, a camera box or casing; a movable mechanism serving for moving a film, and having sprocket wheels, gearing and spindles, and disposed intermediate the front and back walls of the camera box or casing; means for carrying sensitive media at the rear of the camera box or casing; casing walls having grooves therein for enabling the said mechanism to be removably fitted in the casing; means for imparting motion to the spindles; a wall with apertures therein enabling the means for imparting motion to the spindles to be connected with one of the spindles from the outside of the casing; means for closing the said apertures and making the casing light tight; and a door for enabling the mechanism to be fitted in and removed from the casing; substantially as described.

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1,040,592. COMPUTING DEVICE. Harold Allen Thomas, Terre Haute, Ind. Filed Dec. 23, 1911. Serial No. 667,542. (Cl. 235—70.)



1. A computing device comprising two superposed sheets, the lower one being provided with a scale equal parts of which are arranged on parallel lines and the upper one being transparent and provided with one or more index points and being movable relatively to the lower one both longitudinally and transversely of said parallel lines, and a pointer movable both with and independently of the transparent sheet.

2. A computing device comprising two superposed sheets movable relatively to each other, the lower one being provided with a scale and the upper one being transparent and provided with one or more index points, and a pointer carried by the transparent sheet and adjustable in position thereon.

3. A logarithmic computing device comprising a member bearing a logarithmic scale equal parts of which are placed on a plurality of parallel lines, a scaleless member movable relatively to said scale and having one or more index points which by such movement may be brought into coincidence with any point on the scale, and a pointer which may be moved relatively to said movable member but is also movable therewith.

4. A logarithmic computing device, comprising a sheet having a logarithmic scale arranged on a plurality of parallel lines of equal length, a transparent sheet provided with one or more index points and movable relatively to the first sheet both longitudinally and transversely, means whereby said two sheets may be maintained in parallelism, and a pointer which may be placed anywhere on the transparent sheet and is movable therewith.

5. A logarithmic computing device, comprising a sheet having a logarithmic scale, a transparent sheet provided with one or more index points and movable relatively to the first sheet, means whereby said two sheets may be maintained in parallelism, and a pointer which may be placed anywhere on the transparent sheet and is carried thereby.

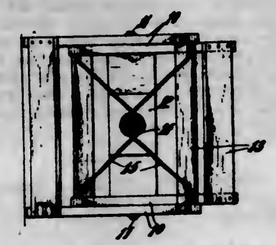
[Claims 6 to 22 not printed in the Gazette.]

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1,040,886. CHRISTMAS-TREE HOLDER. Hugo Thilling, Sheboygan, Wis. Filed Oct. 2, 1911. Serial No. 652,884. (Cl. 248—38.)

1. A Christmas tree holder or the like, comprising a pair of frames with their side members crossing each other and pivoted together, a centerpiece extending between the pivotal connections and provided with a socket to receive the stem of a tree, and overlapping loops se-

cured to the upper ends of the respective frames for engaging the stem of the tree.



2. A collapsible Christmas tree holder, comprising a pair of rectangular frames with the side members thereof crossing each other, pivot screws passing through the intersection of the side members of the frames for permitting them to swing with relation to each other, a centerpiece having its ends engaged by the screws and provided with a central tapering opening to receive the stem of a tree, and a pair of V-shaped wire loops pivotally connected to the upper ends of the respective frames and adapted to overlap each other to form a clamping band for surrounding the stem of the tree.

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1,040,594. PROCESS OF MAKING PRECIPITATED BARIUM SULFATE. JOHN P. WALKER, Rolla, Mo. Filed Aug. 17, 1911. Serial No. 644,629. (Cl. 134—58.)

1. The process of making precipitated barium sulfate, which consists in subjecting mineral barytes to the action of strong sulfuric acid, thereby producing a barytic and sulfuric acid solution, and then precipitating the barium sulfate in such solution by diluting the solution with water.

2. The process of making precipitated barium sulfate, which consists in subjecting mineral barytes to the action of sulfuric acid of a strength above ninety-six per cent., thereby producing a barytic and sulfuric acid solution, and then precipitating the barium sulfate in such solution by diluting the solution with water.

3. The process of making precipitated barium sulfate, which consists in subjecting mineral barytes to the action of strong sulfuric acid, thereby producing a barytic and sulfuric acid solution, heating said solution, and then precipitating the barium in the solution by diluting the solution with water.

4. The process of making precipitated barium sulfate, which consists in subjecting mineral barytes to the action of strong sulfuric acid in a suitable receptacle, then removing said solution to another receptacle to separate it from matter foreign to the barytic and sulfuric acid elements, deposited in said vessel, and then causing precipitation of the barium in the solution by diluting the solution with water.

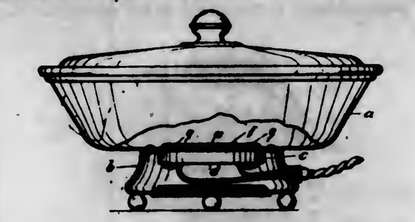
5. The process of making precipitated barium sulfate, which consists in subjecting mineral barytes to the action of strong sulfuric acid, thereby producing a barytic and sulfuric acid solution, then precipitating the barium sulfate in such solution by diluting the solution with water, and then withdrawing the diluted sulfuric acid from the precipitated barium sulfate.

[Claim 6 not printed in the Gazette.]

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1,040,595. ELECTRICALLY-HEATED UTENSIL. ALONZO A. WARNER, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation of Connecticut. Filed Feb. 1, 1912. Serial No. 674,793. (Cl. 219—43.)

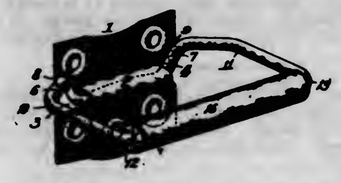
1. In a device of the character described the combination with a receptacle and an apertured base on which it is supported, of an inverted cup-shaped member located in the aperture in the base against the underside of the receptacle, a heating element closely fitting within said cup-shaped member, a plate located within said receptacle, and means secured in said plate, passing through the abutting walls of the receptacle and cup-shaped member and engaging said heating unit.



2. In an electrically heated utensil an electrical heating unit, a holder therefor, and means anchored in the receptacle and passing through the base of said holder to engage the heating unit to secure said unit and holder in operative position with respect to said utensil.

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1,040,596. HANDLE. EDWARD L. WATROUS, Des Moines, Iowa, assignor to David B. Gann, Chicago, Ill. Filed Dec. 1, 1911. Serial No. 663,272. (Cl. 16—10.)



1. An all metal handle comprising a base, a bail pivotally mounted on said base and having shoulders to limit the upward swing of the bail, and a sheet metal grip of tubular form enveloping the outer free ends of the bail, and free to turn thereon.

2. An all metal handle comprising a base, a wire bail pivotally mounted on said base, and a grip consisting of sheet metal shaped into a tube with closed ends, and enveloping the outer free ends of said bail.

3. An all metal handle comprising a base having a tubular socket, a metal bail passing through said socket, and having its ends projecting outward therefrom, said bail having shoulders for contacting with said base to limit the upward swinging of the bail, and a metal plate shaped into a cylindrical grip and having its ends turned inward to engage the outer free ends of said bail.

4. An all metal handle comprising a sheet metal base having notches at each side and a raised portion forming a tubular socket between said notches, a metal bail passing through said socket and having both ends projected outward, said bail having at each side thereof a shoulder arranged to strike against said base when said bail has been raised to position for use in lifting, the outer free ends of said bail having reverse bends, and inturned lugs, a sheet metal plate shaped into a tubular grip, and having its ends swaged inward to engage said bail at said reverse bends, leaving the grip free to rotate about the said inturned lugs.

5. A metal grip consisting of a sheet metal blank rolled up into a tube with the integral ends swaged inward to form closures for the tube and to serve as pivotal bearings for the grip.

[Claims 6 to 13 not printed in the Gazette.]

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1,040,597. INSOLE. VICTOR WEIL, Chicago, Ill. Filed Mar. 24, 1911. Serial No. 616,729. (Cl. 36—44.)

1. An insole comprising two pieces of skin with the hair left thereon placed back to back, said skins being tanned so as to be immune to moisture.



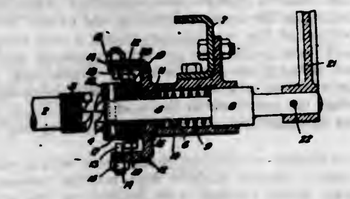
2. An insole comprising two pieces of sheepskin with the wool left thereon placed back to back, said sheepskins being vegetable or chrome tanned so as to render them immune to moisture.



3. An insole comprising a layer of stiffening material, and two pieces of sheepskin with the hair left thereon, said sheep-skins being vegetable or chrome tanned to render them immune to moisture, one piece having its skin side secured to one face of the stiffening layer and the other piece being similarly secured to the other side of said stiffening layer.

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1,040,598. SAFETY STARTING-CRANK FOR EXPLOSIVE-ENGINES. JOSEPH T. WEINZIRL and JULIUS STUBTEVANT, New Kensington, Pa. Filed Dec. 19, 1910. Serial No. 598,058. (Cl. 123—185.)



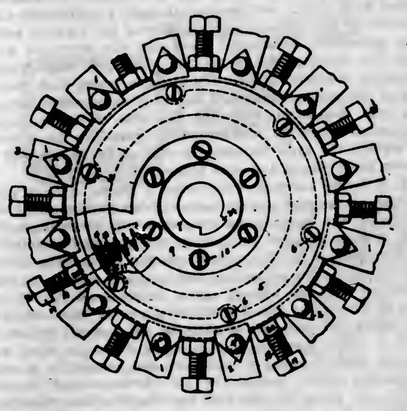
1. The combination with an engine shaft provided with a clutch coupling; of a fixed housing having an inner abutting surface and an outer cylindrical shaft receiving cavity, a crank shaft rotatably mounted in the housing having a limited range of longitudinal movement therein and provided with a clutch for engagement with the engine shaft clutch, a spring within the housing adapted to hold the crank shaft and clutch in normal inoperative position away from the engine shaft clutch, inwardly extending stationary abutments supported by arms extending outwardly and backwardly from the inner end of said housing, a sleeve fixedly secured to the inner end of the crank shaft, a sleeve loosely mounted around said sleeve having an annular series of inclined abutments for engagement with the first named abutments, and means between said sleeves for effecting interlocking engagement of said parts upon reverse movement of the shaft, substantially as set forth.

2. The combination with an engine shaft provided with a clutch coupling; of a fixed housing having an inner abutting surface and an outer cylindrical shaft receiving cavity, a crank shaft rotatably mounted in the housing having a limited range of longitudinal movement therein and provided with a clutch for engagement with the engine shaft clutch, a spring within the housing adapted to hold the crank shaft and clutch in normal inoperative position away from the engine shaft clutch, inwardly extending stationary abutments supported by arms extending outwardly and backwardly from the inner end of said housing, a sleeve fixedly secured to the inner end of the crank shaft, a sleeve loosely mounted around said sleeve having an annular series of inclined abutments for engagement with the first named abutments, said outer sleeve having in its interior one or more wedging surfaces, and rolling locking devices interposed between the fixedly secured sleeve and the surfaces of said outer sleeve for effecting interlocking engagement between said parts upon reverse movement of the shaft, substantially as set forth.

3. The combination with an engine shaft provided with a clutch coupling; of a fixed housing having a shaft receiving cavity in longitudinal alinement with the engine shaft provided at its end adjacent to the clutch coupling thereof with a bearing face and outwardly and backwardly projecting arms carrying fixed inwardly extending abutment pins, a crank shaft rotatably mounted in the housing having a limited range of longitudinal movement therein and provided with a terminal clutch adapted for engagement with the clutch of the engine shaft, a spring within the housing adapted to hold the crank shaft and clutch in a normal inoperative position, a crank secured to the outer end of the crank shaft, a sleeve fixedly secured to the inner end of the crank shaft, a sleeve loosely mounted around said sleeve provided with an annular series of inclined abutments for engagement with said pin abutments and having on its interior one or more wedging surfaces, and interlocking rolling devices between the fixed sleeve and said loosely mounted sleeve for effecting interlocking engagement of said parts upon reverse movement of the shaft, substantially as set forth.

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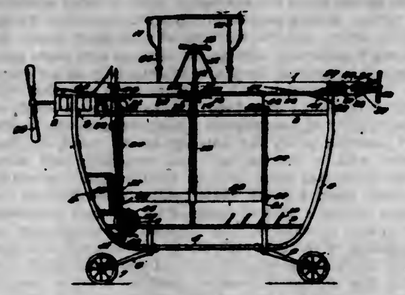
1,040,599. RESILIENT HUB FOR WHEELS. CHARLES A. WHITE and FRANK MCLAUGHLIN, London, Ontario, Canada. Filed Mar. 9, 1912. Serial No. 682,694. (Cl. 152—45.)



1. In a vehicle wheel, the combination of a drum formed with projections to position the inner ends of the spokes and with inwardly extending rings, a hub having a radial web extending between said rings said web having a series of pockets in its periphery, springs mounted in pockets in said web and engaging the inner face of the drum, sleeves pivoted on said drum in pairs at their outer ends, thimbles slidable on the free ends of the sleeves, springs within the sleeves and thimbles, a driving member concentric with the hub and having arms, each ending between and engaged by a pair of said thimbles.

2. In a vehicle wheel, the combination of a drum formed with inwardly extending rings, a hub having a flange extending between said rings, springs mounted between the hub and drum, sleeves pivoted on said drum in pairs at their outer ends, thimbles slidable on the free ends of the sleeves, springs within the sleeves and thimbles, and a driving member having arms extending between and each engaged by a pair of said thimbles.

**1,040,000. FLYING-MACHINE.** Valerian Wojciechowski, Brockton, Mass. Filed Oct. 31, 1911. Serial No. 657,880. (Cl. 244—18.)



1. A flying machine comprising a frame, a fixed sustaining plane carried at the rear portion of the frame, a movable sustaining plane carried at the forward portion of the frame, and foldable wings carried by the frame and located between the forward and rear planes.

2. A flying machine comprising a frame, a fixed sustaining plane carried at the rear portion of the frame, a pivoted sustaining plane carried at the forward portion of the frame, means for swinging the last mentioned plane vertically, wings hingedly mounted at the sides of the frame, rolled curtains carried by the wings, means for extending the wings between the forward and rear planes, and means for unrolling the curtains to stretch the same between the ribs of the wings.

3. A flying machine comprising a frame, a sustaining plane fixed at the rear portion thereof, a sustaining plane pivoted at the forward portion thereof for vertical swinging movement, means for swinging the foremost plane and for holding the same at a desired angle, wings hingedly mounted at the sides of the frame and consisting of ribs spaced from each other, curtains rolled between the ribs, means for swinging the ribs to approximately horizontal positions, and means for unrolling the curtains to stretch the same beneath the ribs of the wings and between the forward and rear planes.

4. A flying machine comprising a frame, a fixed plane carried at the rear end thereof, a pivoted sustaining plane carried at the forward end thereof, means for swinging the last mentioned plane vertically, wings hingedly attached to the sides of the frame between the inner edges of the planes, means for extending said wings in horizontal positions between the planes, and a foldable parachute carried by the frame and located between the inner edges of the wings and between the adjacent edges of the planes.

5. A flying machine comprising a frame, a fixed sustaining plane located at the rear end thereof, a pivoted sustaining plane located at the forward end thereof, means for swinging the last mentioned plane vertically, foldable wings hingedly mounted at the sides of the frame, means for extending the said wings in the space between the adjacent edges of the planes, a foldable parachute carried at the top of the frame between the inner edges of the wings and between the adjacent edges of the planes, and means for extending said parachute over the frame.

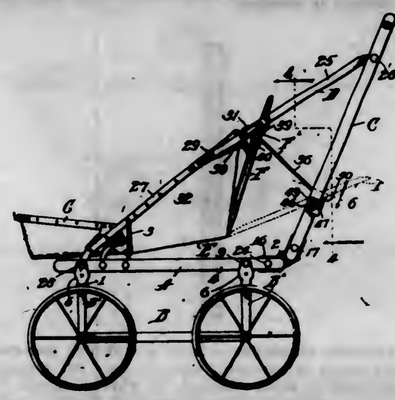
[Claims 6 and 7 not printed in the Gazette.]

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**1,040,601. GO-CART OR PERAMBULATOR.** Arthur J. Adams, Chicago, Ill., assignor to Fulton Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 2, 1910. Serial No. 546,928. (Cl. 21—63.)

1. The combination of a running-gear frame, a handle, side arms, a seat, guide members connecting said side-arms and said handle, and a seat-back having slidable connections with said guide-members.

2. The combination of a running-gear frame, a handle, seat-supporting members, a seat suspended therefrom, guide members connecting said seat-supporting members and said handle, bearings at the front and rear ends of said guide members, and a seat-back provided at its lateral edge portions with guide-engaging members.



3. In a folding go-cart, the combination of a running-gear frame, a handle foldable with relation to the running-gear frame, side-arms foldable with relation to the running-gear frame, a seat, guide-rods pivotally connected with said side-arms and slidably connected with the handle-bars, and a seat-back equipped at its lateral edges with members adapted to slide with relation to said guide-rods.

4. In a folding go-cart, the combination of a running-gear frame, a handle foldable with relation to the running-gear frame, a foldable seat-supporting handle-bracing bar connecting the upper portion of the handle with the front portion of the running-gear frame, a seat suspended from said bars, guide-rods pivotally connected with said bars and slidably connected with the handle-bars, means being provided at the front ends of said guide-rods for supporting the seat-back in the standing position, and a seat-back equipped laterally with eyes engaging said guide-rods.

5. In a folding go-cart, the combination with a running-gear frame, a handle foldable with relation thereto, seat supporting means foldable with relation to the running-gear frame, a seat carried thereby, a back flexibly connected with the rear portion of said seat and equipped at its lateral edges some distance beneath its upper end with guide-engaging members, and guide-rods foldably connected with said seat-supporting means and slidably connected with the handle-bars and co-acting with said guide-engaging means.

[Claims 6 to 12 not printed in the Gazette.]

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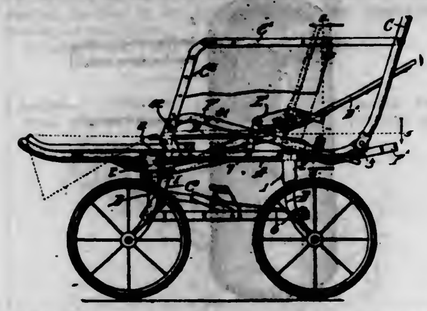
**1,040,602. GO-CART OR PERAMBULATOR.** Arthur J. Adams, Chicago, Ill., assignor to Fulton Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 6, 1910. Serial No. 580,407. (Cl. 21—63.)

1. In a structure of the character set forth, the combination of a running-gear frame, a collapsible superstructure including a handle, a pivoted back, and back folding and adjusting mechanism comprising a pair of levers connected to fold in the operation of folding the superstructure, a bail connected with said levers and actuated thereby, and connections between the back and bail permitting the back to be adjusted with relation thereto in any of three positions.

2. In a structure of the character set forth, the combination of a running-gear frame, a folding superstructure, a seat, a pivoted back, a bodily shiftable bail, connections between the back and bail whereby the back may be adjusted in any of three positions with relation to the bail, and actuating means for said bail connected with and actuated by the folding superstructure.



3. In a structure of the character set forth, the combination of a running-gear frame, a seat, a folding superstructure, bearings carried by the seat, a bail slidably mounted on said bearings and having engagement with the back, and actuating means for said bail connected with the folding superstructure.



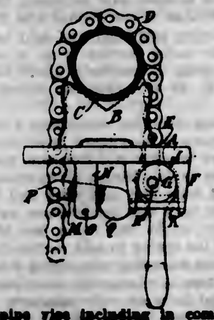
4. In a structure of the character set forth, the combination of a running-gear frame, a seat, a back pivoted on the seat, a bail shiftably mounted on the seat and having adjustable engagement with said back, a folding superstructure, and connections between the folding superstructure and said bail.

5. In a structure of the character set forth, the combination of a running-gear frame, a handle adapted to fold forwardly thereon, a seat, a pivoted back, a bodily shiftable bail, connections between said bail and handle whereby the bail will be shifted in the operation of folding the handle, and connections between the bail and back whereby the back may be adjusted with relation to the bail.

[Claims 6 to 13 not printed in the Gazette.]

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**1,040,603. CHAIN PIPE-VISE OR THE LIKE.** George Amborn, Chapinville, Conn., assignor to J. H. Williams & Co., Brooklyn, N. Y., a Corporation of New York. Filed Dec. 27, 1911. Serial No. 668,669. (Cl. 81—10.)



1. A chain pipe vise including in combination a jaw adapted to engage the under side of the pipe and to support the same, a chain having one end adapted to be held fast at one side of the pipe and the other end free and adapted to be passed over the pipe and locked at the other side thereof at determined intervals in the length of the chain, so as to embrace pipes of different diameters, means for quickly taking up the slack of said chain after its free end is locked, and additional means for finally slowly tightening the chain.

2. A chain pipe vise including in combination a jaw adapted to engage the under side of the pipe and to support the same, a chain having one end adapted to be held fast at one side of the pipe and the other end free and adapted to be passed over the pipe and locked at the other side thereof at determined intervals in the length of the chain, so as to embrace pipes of different diameters, means for quickly taking up the slack of said chain after its free end is locked, and additional means for finally slowly tightening the chain, and quick taking-up means and said slow tightening means acting respectively on opposite ends of the chain.

3. A chain pipe vise including in combination a jaw adapted to engage the under side of the pipe and to support the same, a chain having one end adapted to be held fast at one side of the pipe and the other end free and adapted to be passed over the pipe and locked at the other side thereof at determined intervals in the length of the chain, so as to embrace pipes of different diameters, locking means for said free end of the chain, means in engagement with said locking means for quickly taking up the slack of said chain after said free end is locked, and additional means for finally slowly tightening the chain.

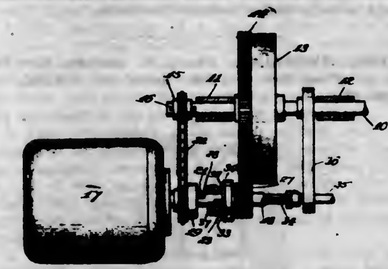
4. In a chain pipe vise or the like, a jaw, a movable lock, a chain adapted to engage the lock at determined intervals in the length of the chain, and means for tightening the chain.

5. In a chain pipe vise or the like, a jaw, a chain, a movable lock adapted to engage the rear end of the chain and to be moved downwardly to take up the slack in the latter, and a take-up mechanism for tightening the chain.

[Claims 6 to 8 not printed in the Gazette.]

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**1,040,604. POWER-TRANSMISSION GEARING.** Vincent G. Apple, Dayton, Ohio. Filed June 15, 1911. Serial No. 633,394. (Cl. 74—59.)



1. In a power transmission gearing, the combination with a dynamo shaft and an engine shaft, of normally effective gear-and-pinion connections between said shafts, a member of said connections being movable to disconnect said shafts, a sprocket wheel upon each of said shafts, one of said sprocket wheels being loosely mounted upon its shaft, a chain connecting said sprocket wheels, normally disengaged means of connection between said loosely mounted sprocket and its shaft, adapted and arranged to make effective connection between said sprocket and shaft upon movement of the movable part of said gear-and-pinion connections, and speed-responsive means automatically operable to move said movable part of said gear-and-pinion connections.

2. In a power transmission gearing, the combination with a dynamo shaft and an engine shaft, of gearing connections between said shafts comprising a pinion upon one of said shafts rotatable therewith and longitudinally slidable thereon to a position out of effective engagement with the coacting gear wheel, and yielding means normally to hold said slidable pinion in effective engaging position; other connections to connect said shafts for rotation in a different speed relation, including a member loosely mounted upon the shaft which supports the slidable pinion, having connections for rotation from the other shaft; and clutch means between said loosely mounted member and the slidable pinion, normally disengaged and adapted and arranged for effective engagement upon disengagement of pinion from the gear wheel.

3. In a power transmission gearing, a dynamo shaft, a gearing member mounted for rotation with respect to, but longitudinally fixed upon, said shaft; a gearing member mounted for longitudinal movement, but rotatably fixed,

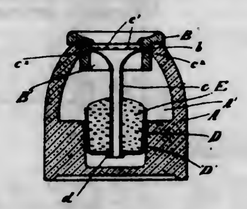
upon said shaft; a clutch member upon each of said gearing members arranged to be out of engagement when the longitudinally movable member is in one position and to engage when said movable member is in another position; an engine shaft; and gearing members thereon, coacting respectively with the longitudinally movable and fixed gearing members of the dynamo shaft, the longitudinal movement of said movable gearing member to clutch-engaging position disengaging said gearing member from its coacting member upon the engine shaft.

4. In a gearing mechanism, the combination with an engine shaft and a dynamo shaft, of gearing members fixed upon the engine shaft; coacting gearing members upon the dynamo shaft, respectively mounted to be longitudinally fixed and rotatably loose and to be longitudinally shiftable and rotatably fixed, upon said shaft; clutch means between said rotatably fixed and rotatably loose gearing members; and speed responsive means adapted and arranged to move said rotatably fixed member out of engagement with its coacting gearing member and into engagement with said rotatably loose member.

5. In a gearing mechanism, the combination with an engine shaft and a dynamo shaft, of gear-and-pinion connections between said shafts, the pinion being longitudinally movable out of engagement with the coacting gear wheel, a spring normally holding said movable pinion in position of engagement with said gear, speed responsive means for moving said pinion out of engagement therewith, and other connections between said shafts arranged to be normally ineffective and made effective by coaction of said movable pinion member therewith.

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1,040,605. INKSTAND. FRANK M. ASHLEY, New York, N. Y. Filed Nov. 6, 1909. Serial No. 526,482. (Cl. 120—61.)



1. A float comprising a dip cup having upwardly extending projections on its top and of limited area for the purpose specified, and a tube extending from the dip cup to the bottom of the float, a cup shaped buoyant portion connected to said tube having a filling material which is embraced by the outer wall of said buoyant portion and embraces the lower end of said tube.

2. In an inkstand, a dip-cup and a tube extending therefrom, a float, comprising a cup opening upward and attached to the lower end of the tube, said cup being formed of impervious material, and a buoyant ponderable filling within the cup and rendered non absorbent by impregnation with a non absorbent material.

3. An inkstand comprising a reservoir having a tapering wall, a dip-cup and a tube extending therefrom, and a float consisting of a cup opening upward and attached to the lower end of the tube and a buoyant ponderable filling within the cup, said cup having a tapering exterior surface to coöperate with the tapering reservoir, said buoyant material being confined in said cup and prevented from expanding downward, thus maintaining undisturbed the relation between the tapering exterior wall of the cup and the tapering interior wall of the reservoir.

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1,040,606. METHOD OF WELDING SOFT-METAL TO HARD-METAL BODIES. JOHN A. AUTH, Colonial, Pa., assignor of one-half to George H. Auth, Pittsburgh, Pa. Filed Dec. 21, 1911. Serial No. 667,260. (Cl. 78—98.)

A method of welding hard and soft metal bodies together consisting of driving a cold metallic sheath tightly upon a cold metallic body to snugly fit said body and to completely inclose the same to form a composite bar, then contracting each of the ends of the sheath while cold by compression, then applying a sealing composition against the joints at the tapered ends of the bar to prevent entrance of



air between the bodies to overcome oxidation, then heating the bar while the joints remain sealed, and then rolling the bar under pressure while hot and while the joints remain sealed thereby completing the weld and reducing the diameter of the bar.

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1,040,607. EYEGLASS-MOUNTING. GUSTAV A. BAUER, Rochester, N. Y. Filed June 20, 1910. Serial No. 568,006. (Cl. 88—50.)



1. An eye-glass mounting comprising a body having two separated members, a nose-guard lever embraced and pivotally supported between said members, one of said members being perforated at the pivotal axis of the lever, and a spring connecting said body and said lever and having an intermediate coiled portion lying in said perforation and bent ends lying, respectively, above and below one of said members so as to secure the spring in said perforation.

2. An eye-glass mounting comprising a body having two separated members, a nose-guard lever embraced and pivotally supported between said members, the lever and one of said members having alining perforations, and a spring connecting said body and said lever and having a coiled portion lying in both said perforations and bent ends lying, respectively, above and below one of said members so as to secure the spring in said perforations.

3. An eye-glass mounting comprising a body having two separated members, a nose-guard lever embraced and pivotally supported between said members, the lever and both of said members having alining perforations, and a spring connected with said body and said lever at its ends and having a coiled portion extending through all of said perforations.

4. An eye-glass mounting comprising a body having two separated members, a nose-guard lever embraced and pivotally supported between said members, the lever and both of said members having alining perforations, a spring connecting said body and said lever and having a coiled portion extending through all of said perforations and bent ends lying, respectively, above and below said members, and a bearing-sleeve loosely surrounding said coiled portion of the spring and affording a pivotal bearing for the nose-guard lever.

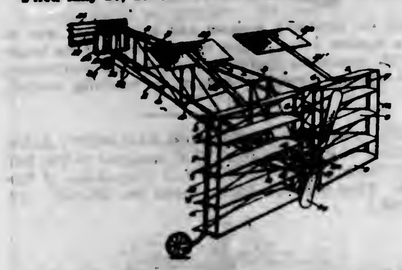
5. An eyeglass-mounting comprising a body having two separated members, a nose-guard lever embraced and pivotally supported between said members, one of the members having a spring-receiving opening concentric with the pivotal axis of the lever; and a spring connecting said body and lever, the spring having an intermediate coiled portion lying in said opening, an end extending from the outer end of the opening into operative engagement with the lever, and another end engaging the body adjacent the opening so as to retain the coiled portion normally against rotation in the opening and against longitudinal movement therefrom.

[Claims 6 and 7 not printed in the Gazette.]



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1,040,608. AIRSHIP. HORACE G. BAKER, Harlan, Iowa. Filed May 27, 1911. Serial No. 629,994. (Cl. 244—29.)



1. In an airship, tiltable sustaining planes, and vanes carried by the planes and inclined upwardly and rearwardly with respect thereto.

2. In an airship, tiltable sustaining planes, an arm extending upwardly and rearwardly from each plane, and a vane carried by each arm.

3. In an airship, a sustaining plane, and a vane carried by the plane and inclined upwardly and rearwardly with respect thereto.

4. In an airship, a tiltable sustaining plane, and an upwardly and rearwardly inclined vane and direct connection between the vane and plane.

5. In an airship, tiltable sustaining planes arranged for corresponding and reverse movement, and a vane carried by each plane and inclined upwardly and rearwardly with respect thereto.

[Claims 6 to 15 not printed in the Gazette.]

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1,040,609. NUT-LOCK. WILLIAM REES BEVAN, Belvedere, and DANIEL THOMAS MORLEY, Welling, England. Filed July 31, 1909. Serial No. 510,601. (Cl. 151—25.)



1. In a nut lock, the combination with a male screw, a nut provided with a longitudinal slot and a locking device in said slot, of a separate curved blade-spring provided with a lateral projection or foot to take under the locking device, the central portion of which engages the locking device and presses it into engagement with the thread of the said screw.

2. In a nut lock, the combination with a male screw, a nut provided with a longitudinal slot, a locking device in said slot and a curved blade spring mounted in said slot, of a disk in the face of the nut having a ledge or projection adapted to retain the locking device and the spring in position.

3. In a nut lock, the combination with a male screw, a nut provided with a longitudinal slot, a locking device in said slot and a curved blade spring mounted in said slot and provided with a lateral projection or foot to take under the locking device, of a disk in the face of the nut having a ledge or projection adapted to retain the locking device and the spring in position.

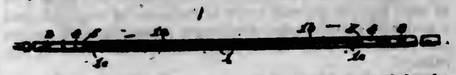
4. In a nut lock, the combination with a male screw, a nut provided with a longitudinal slot, a locking device in said slot and a curved blade spring mounted in said slot and provided with a lateral projection or foot to take under the locking device, of a perforated disk in the face of the nut having a ledge or projection adapted to retain the locking device and the spring in position.

5. In a nut lock, the combination with a male screw, a nut provided with a longitudinal slot, a locking device having ends of smaller diameter than the central portion thereof, and a curved blade spring mounted in said slot and provided with a lateral projection or foot to take under the locking device, of a perforated disk in the face of the nut having a ledge or projection adapted to retain the locking device and the spring in position.

[Claim 6 not printed in the Gazette.]

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1,040,610. TAP AND REAMER. FRANK E. BOCOBENAKI, Richmond, Va. Filed Aug. 5, 1912. Serial No. 713,207. (Cl. 10—141.)



1. The combination, with a metal cutting tool having peripheral cutting members on its body, of a stem longitudinally engaging one end of the body of the tool, and connected detachably thereto by a slip joint.

2. The combination of a metal cutting tool having peripheral cutting members on its body, a stem longitudinally engaging one end of the body, means for preventing independent rotary movement of the stem, relatively to the body, and means for preventing accidental longitudinal movement of the stem, relatively to the body.

3. The combination of a metal cutting tool having peripheral cutting members on its body, a stem longitudinally engaging one end of the body, a transverse pin fixed in one of said engaged members and fitting open ended longitudinal slots in the other, and means for preventing accidental relative longitudinal movement of said engaged members.

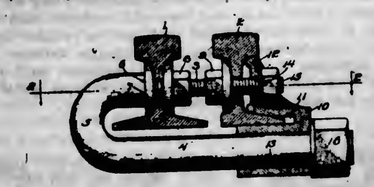
4. The combination of a metal cutting tool having peripheral cutting members on its body, a stem longitudinally engaging one end of the body, means for preventing independent rotary movement of said engaged members, and a yielding spring catch mechanism interposed between the body and stem for preventing accidental relative longitudinal movement of said engaged members.

5. The combination of a metal cutting tool having peripheral cutting members on its body, a stem longitudinally engaging one end of the body, a transverse pin fixed in one of said engaged members and fitting open ended longitudinal slots in the other, and a yielding spring catch mechanism interposed between said engaged members for preventing accidental relative longitudinal movement thereof.

[Claim 6 not printed in the Gazette.]

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1,040,611. GUARD-RAIL CLAMP. JOHN A. BODKIN, New York, N. Y. Filed May 27, 1911. Serial No. 629,900. (Cl. 289—18.)



1. In a guard rail clamp, a U-shaped member having one arm adapted to pass through the webs of a traffic rail

and a guard rail and having its other arm adapted to pass beneath the bases of said rails.

3. In a guard rail clamp, a U-shaped member having one arm adapted to pass through the webs of a traffic rail and a guard rail, the aforesaid arm being screw-threaded throughout substantially its entire length, and the other arm of said member having screw-threads at its free end.

4. In a guard rail clamp, a U-shaped member having screw threads on both of its arms, one of said arms being long enough to pass through the webs of a traffic rail and a guard rail, and the other arm being long enough to extend across the bases of both rails.

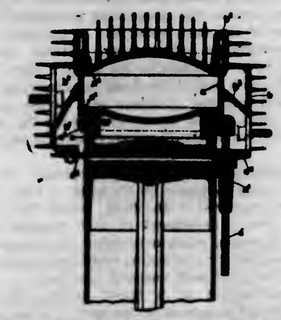
4. In a guard rail clamp, a U-shaped member having one arm adapted to pass through the webs of a traffic rail and a guard rail and having its other arm adapted to pass beneath the bases of said rails, and relatively adjustable abutments on the first mentioned arm for engaging with the sides of the webs of the rails, some of said abutments being detachable.

5. In a guard rail clamp, a U-shaped member having one arm adapted to pass through the webs of a traffic rail and a guard rail, the aforesaid arm being screw-threaded throughout substantially its entire length, the other arm of said member having screw-threads at its free end, and a series of rail-engaging abutments screw threaded on the arm which is adapted to pass through the webs of the rails.

[Claims 6 to 10 not printed in the Gazette.]

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1,040,612. VALVE FOR INTERNAL-COMBUSTION ENGINES. ERNEST WINDSOR BOWEN, London, England. Filed Nov. 25, 1911. Serial No. 662,371. (Cl. 123—188.)



1. The combination with an open-ended cylinder of an internal combustion engine, of a removable cylinder head inclosing the open end of the cylinder and having admission and exhaust ports, such ports communicating with the cylinder, a partition in said removable cylinder head dividing it to form an admission belt and an exhaust belt, and means for controlling said ports, said means being inclosed within the removable cylinder head and operating around the open cylinder end.

2. The combination with an open-ended cylinder of an internal combustion engine, of a removable cylinder head inclosing the open end of the cylinder and having admission and exhaust ports, such ports communicating with the cylinder, a partition in said removable cylinder head dividing it to form an admission belt and an exhaust belt, a sleeve valve inclosed within the removable cylinder head and encircling the open end of the cylinder, said sleeve valve controlling the admission and exhaust ports and means for operating said valve.

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1,040,613. MILK-PAIL. CLINTON B. BRADFORD, Augusta, Wis. Filed Dec. 26, 1911. Serial No. 667,682. (Cl. 21—14.)

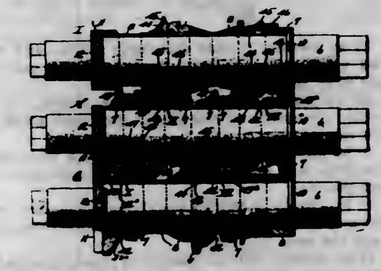
A milk pail cover having an eccentrically located opening formed therein, said opening being elliptical with its shorter axis coincident with the diameter of the cover, an upstanding flange surrounding said opening, and a removable cloth retaining member of a shape to fit snugly around said flange, whereby to frictionally hold a straining cloth



between the retaining member and said flange, said retaining member being formed on both sides of its longer axis with upstanding oppositely disposed and overhanging flanges tapering toward the ends of the retaining member.

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1,040,614. PROCESS OF SHAPING RAIL-JOINT BARS. WILLIAM J. BRADLEY, Troy, N. Y., assignor to The Rail Joint Company, New York, N. Y., a Corporation of New York. Filed Sept. 24, 1906. Serial No. 454,550. (Cl. 80—66.)



1. The process of shaping rail joint bars consisting in passing a bar blank through a roll pass to produce laterally projecting portions and an enlarged waist joint projecting at both sides, and then subjecting it to a series of passes which force the metal of the waist portion to one side, forming a substantially flat face on one side having a compensating depression therein and an enlarged portion on the other side.

2. The process of shaping rail joint bars consisting in passing a bar blank through a roll pass to produce laterally projecting portions, and an enlarged waist portion projecting at both sides, then subjecting it to a series of passes which force the metal of the waist portion to one side forming a substantially flat face on one side with a depression therein and an enlarged portion on the other side and then subjecting it to a pass which eliminates said depression and simultaneously narrows the said enlarged portion at one side of the blank.

3. The process of shaping rail joint bars consisting in passing a bar blank through a roll pass to produce laterally projecting portions, and an enlarged waist portion projecting at both sides, and then subjecting it to a series of passes which force the metal of the waist portion to one side, and to other passes which develop an entrant groove in the side opposite the enlargement at said waist portion.

4. The process of shaping rail joint bars consisting in passing a bar blank through a roll pass to produce laterally projecting portions and an enlarged waist portion projecting at both sides, then subjecting it to a series of passes which force the metal of the waist portion to one side forming an enlarged portion thereat, and then subjecting it to other passes which develop an entrant groove in the side opposite the enlargement at the waist portion, and form a flat thinned section spread from one of said laterally projecting portions.

5. The process of shaping rail joint bars consisting in passing a bar blank through a roll pass to produce laterally projecting portions, and a waist portion projecting at both sides, then subjecting it to a series of passes which force the metal of the waist portion to one side, and then subjecting it to other passes which develop an entrant groove in the side opposite the projection at the waist portion and to form a flat thinned section spread from one of the laterally projecting portions, and a thicker member shaped from the other of said laterally projecting portions.

[Claim 6 not printed in the Gazette.]

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1,040,615. STOPPERING OR SEAL-APPLYING MACHINE. HARRY M. BROWN, Brooklyn, N. Y., assignor to Richard A. Canfield, Providence, R. I. Filed Nov. 7, 1911. Serial No. 659,067. (Cl. 226—5.)



1. In a machine of the character set forth, the combination of a bottle-support, a vertically reciprocating cross-head, a tool-head revolubly mounted thereon and equipped with a plurality of seal-applying tools, means carried with said cross-heads for delivering seals to said tools, and means for delivering seals to said last-named means when the cross-head is in the elevated position.

2. In a machine of the character set forth, the combination of a bottle-support, a vertically reciprocable slide, a revoluble tool-head mounted thereon and equipped with a plurality of seal-applying tools, means for feeding seals to the tools, and tool-head rotating and locking means mounted on said slide.

3. In a machine of the character set forth, the combination of a frame, a vertically reciprocable cross-head mounted thereon, a tool-head rotatably mounted on said cross-head, a shaft journaled in said cross-head, means for communicating motion from said shaft to said tool-head, a rack serving to actuate said shaft, a seal-feeding device mounted on the cross-head, and a stationarily mounted device for feeding seals to said first-named seal-feeding device.

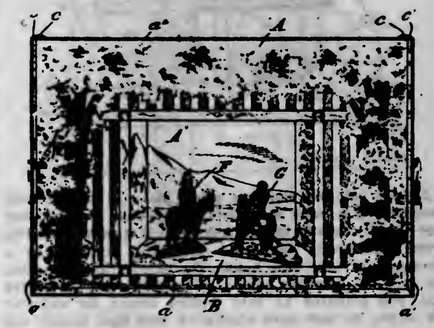
4. In a machine of the character set forth, the combination of a frame, a vertically reciprocable cross-head formed with a housing, a rotary tool-head mounted in said housing and equipped with a plurality of seal-applying tools, means for reciprocating the cross-head, a device for feeding seals to the tools, means operative to hold the tool-head locked during its descent and to rotate it during its ascent, and bottle-supporting means.

5. In a machine of the character set forth, the combination of a frame, a bottle-support, a reciprocable cross-head formed with a housing, a revoluble tool-head mounted in said housing and equipped with seal-applying tools, tool-head rotating and locking means within the housing, means carried by the frame for actuating the tool-head rotating means, seal-feeding means mounted on the cross-head and equipped with an actuating lever, a stationary cam co-acting with said lever, and means for delivering seals to said seal-feeding device when the cross-head is in its elevated position.

[Claims 6 to 23 not printed in the Gazette.]

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1,040,616. TOY THEATRICAL DEVICE. WILLIAM J. BURKE, New York, N. Y. Filed Sept. 16, 1908. Serial No. 453,216. (Cl. 46—37.)



1. In a toy theatrical device, a proscenium, a boxlike stage, and means coöperating with said boxlike stage and with the proscenium for retaining said stage in operative relation to the proscenium, said means operating to permit the stage to be moved bodily in a horizontal direction relative to the proscenium, whereby the front edge of said stage is adapted to have abutting engagement with the proscenium.

2. In a toy theatrical device, a proscenium, a boxlike stage, and retaining devices operatively connecting said boxlike stage with the proscenium, said retaining devices operating to permit a relative movement between the stage and the proscenium, whereby the front of the stage is adapted to be positioned into abutting engagement with the proscenium.

3. In a toy theatrical device, a proscenium, a boxlike stage, and retaining devices for connecting said stage and the proscenium, said devices retaining the stage in detachable relation to the proscenium, said devices operating to permit both a foldable movement of the stage relative to the proscenium and bodily movement of the stage in a horizontal direction relative to the proscenium, whereby the front edge of the stage is adapted to be positioned into abutting engagement with the proscenium.

4. A toy theatrical device embodying a proscenium, a boxlike stage separate from said proscenium, retaining devices operatively connecting the stage and the proscenium, said retaining devices permitting the stage to be folded relative to the proscenium, and members extending forwardly of, and foldable relative to, said stage and the proscenium.

5. A toy theatrical device embodying a proscenium, a boxlike stage separate from said proscenium, retaining devices operatively connecting the stage and the proscenium, said retaining devices permitting the stage to be folded relative to the proscenium, foldable members extending forwardly with reference to said proscenium, and means for retaining said foldable members in their extended positions.

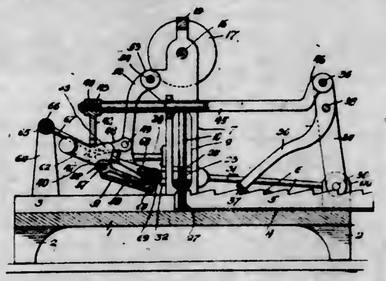
[Claims 6 to 10 not printed in the Gazette.]

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1,040,617. MACHINE FOR MARKING STAMPS. CHARLES FRANKLIN BUSH, Erie, Pa. Filed Dec. 14, 1911. Serial No. 665,769. (Cl. 101—18.)

1. In a printing machine, a bed plate, a tray movably mounted upon said bed plate, a vertical reciprocatory type holder movable to and from said tray, a tray feeding device operatively connected with and actuated by a movement of said type holder and detachably engaging with the tray for intermittently feeding it, and a

movable inking pad operatively connected with and actuated by said feeding device for applying ink at the up and down strokes of said type holder.



2. In a printing machine, a bed plate, a tray movably mounted upon said bed plate, a vertical reciprocatory type holder movable to and from said tray, a tray feeding device operatively connected with and actuated by a movement of said type holder for intermittently feeding the tray, a movable inking pad operatively connected with and actuated by said feeding device for applying ink at the up and down strokes of said type holder, and an inking roller adapted to move back and forth upon said pad during a movement of said pad as the pad is shifted toward and from the type holder.

3. In a stamp printing machine, a bed plate, a stamp tray adapted to be intermittently moved upon said bed plate, a vertical reciprocatory type holder adapted to mark the stamps within said tray during a cessation in the movement of said tray, mechanism operatively connected with and actuated by said type holder and detachably engaging with said tray for intermittently shifting it through the reciprocatory movement of the type holder and means including an inking pad and roller adapted to be shifted simultaneous with the movement of said tray and by the means for shifting the tray for applying ink to the type of said type holder.

4. A printing machine comprising a bed plate, a tray movable thereon, standards carried by said bed plate, a vertical reciprocatory type holder movable between said standards, means for operating said type holder, means actuated by a movement of said type holder for feeding said tray upon said bed plate, a pivoted inking pad actuated by the last mentioned means for applying ink to said type holder during the upward stroke thereof, and an inking roller movably supported by said bed plate upon said inking pad and adapted traverse said inking pad during the movement thereof.

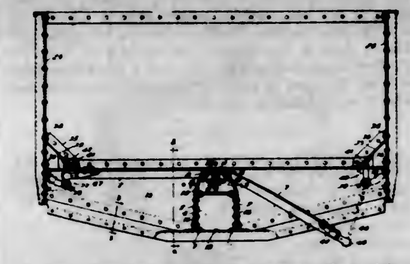
5. In a stamp printing machine, a bed plate, a stamp feeding tray mounted upon said plate, means carried by said bed plate and engaging with said tray for intermittently feeding the same, a reciprocatory type holder for marking the stamps fed by said tray, an operative connection between said type holder and said means for operating the latter, an inking mechanism capable of applying ink to the type of said holder during the up and down strokes of the holder, and an operative connection between said means and said mechanism for operating the latter simultaneously with the shifting of the said tray.

[Claims 6 to 9 not printed in the Gazette.]

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1,040,618. DUMP OR DROP-BOTTOM CAR. ARGYLE CAMPBELL, Chicago, Ill., assignor to Enterprise Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 5, 1910. Serial No. 595,624. (Cl. 105—14.)

1. In a drop bottom dump car, the combination with a pair of center sills spaced apart, of connecting saddles secured on top of said center sills and doors hinged at their inner longitudinal edges to said saddles, and an I-beam between the hinged edges of the doors and secured to said saddles, said saddles having slots to receive said I-beam, substantially as specified.



2. In a drop bottom car, the combination with a pair of center sills spaced apart, of connecting saddles secured on top of said center sills and doors hinged at their inner longitudinal edges to said saddles, said saddles having upwardly and inwardly inclined outer faces to bring the hinged edges of the doors closer together than the center sills, and an I-beam fitting between and secured to said saddles and having its upper flange flush with the doors, said saddles having slots to receive the lower flange of said I-beam, substantially as specified.

3. In a drop bottom dump car, the combination with a fixed floor extending over the trucks, of hinge doors extending between the trucks and upright side sheets having downwardly projecting extensions below the floor line at the ends of the car, said extensions sloping upwardly to the floor line at their inner ends and serving to strengthen the car body, substantially as specified.

4. In a drop bottom dump car, the combination with a fixed floor extending over the trucks, of hinge doors extending between the trucks and upright side sheets having downwardly projecting extensions below the floor line at the ends of the car, said extensions sloping upwardly to the floor line at their inner ends and serving to strengthen the car body, said extensions having inturned flanges at their lower edges, substantially as specified.

5. In a drop bottom dump car, the combination with the floor and hinged doors and upright car sides, of transversely extending diaphragms between the doors comprising each a vertical plate furnished with an angle flange at its lower portion, a supplemental diaphragm member riveted thereto and having an angle flange at its lower portion to prevent lodgment of material on the diaphragm and to give strength to the diaphragm, said flanges being diverging and sloping downwardly, substantially as specified.

[Claims 6 to 9 not printed in the Gazette.]

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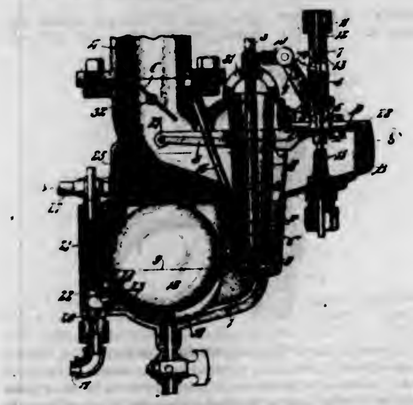
1,040,619. CARBURETER. WILLIAM C. CANTER, St. Louis, Mo. Filed Nov. 8, 1909. Serial No. 526,828. (Cl. 44—155.2.)

1. In a carbureter, a mixing chamber having a portion in which the heavy particles of the fuel tend to collect, a throttle valve, and a conduit leading from said portion and terminating at a point between the throttle valve and the cylinder of the motor so as to prevent the heavy particles of the fuel from collecting and remaining in the mixing chamber when the motor is throttled down.

2. In a carbureter, a mixing chamber having a contracted portion and tapered walls which terminate at the upper edge of said contracted portion, a throttle valve arranged adjacent the upper end of said mixing chamber, a multiple jet tube projecting upwardly through the contracted portion of the mixing chamber, an air pipe surrounding said jet tube and terminating above the bottom of the contracted portion of the mixing chamber, and a conduit having its lower end terminating inside of the mixing chamber and its upper end terminating at a point between the throttle valve and the cylinder of the motor.

3. In a carbureter, a mixing chamber having a contracted portion, an air pipe projecting into said contracted portion and spaced away from the walls thereof, means for introducing fuel inside of said air pipe, and a conduit having one end terminating adjacent the passageway between said air pipe and contracted portion of the mixing chamber and its opposite end terminating at a point between the throttle valve and the cylinders of the engine.

4. In a carbureter, a vertically disposed multiple jet tube having its upper end closed and its lower end communicating with a supply of liquid fuel, and an open-ended air pipe surrounding said jet tube and tapering inwardly from its upper toward its lower end.

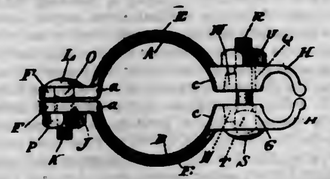


5. In a carbureter, a jet tube having its upper end closed and its lower end communicating with a supply of liquid fuel, a member which surrounds said jet tube to form an air passageway, the upper end of said member being open to the atmosphere and of greater diameter than the lower end of same, and a mixing chamber communicating with the lower end of said member, the suction in said mixing chamber causing air to be drawn downwardly through said member.

[Claims 6 to 8 not printed in the Gazette.]

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1,040,620. INSULATOR-CLAMP. WALTER G. CLARK, New York, N. Y. Filed Nov. 21, 1911. Serial No. 661,476. (Cl. 173—313.)

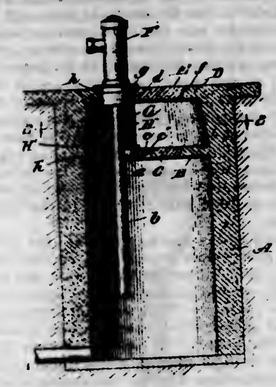


An insulator clamp comprising two coöperating clamping members each having a bowed body member, a securing member at one end, and a jaw portion at the other end provided with an aperture intermediate the jaw and body member, the securing member and jaw portion being wider than the connecting body member and having beveled shoulders at the junctions of the body member with said securing member and jaw portion.

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1,040,621. FIRE-HYDRANT CATCH-BASIN. MICHAEL CLARKSON, Chicago, Ill. Filed Apr. 24, 1909. Serial No. 492,046. (Cl. 72—9.)

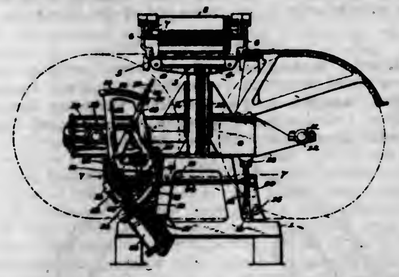
A hydrant basin comprising side-walls, a platform between its upper and lower ends that divides the basin into an upper and lower chamber, a cover for the top of said basin having an opening therein, an opening in said platform aliming with said first-mentioned opening through both of which the depending hydrant pipe passes, a cylindrical casing connecting said openings and surrounding



said pipe, a filling of non-conducting material inclosed in said casing and surrounding said pipe in the upper chamber, and means for closing the ends of said casing.

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1,040,622. SAWMILL. CHARLES E. CLEVELAND, Fond du Lac, Wis. Filed May 31, 1910. Serial No. 564,095. (Cl. 143—19.)



1. In a resawing band sawmill, the combination of a support for the lumber to be cut; a pair of fixed guides arranged in parallel relation to each other; a saw-carrying frame mounted and movable upon said guides; means for applying power to the opposite ends of said frame and upon opposite sides of the guides to cause an even movement of the frame; a power cylinder for operating said means; and an adjustable set-quadrant for limiting the movement of said cylinder.

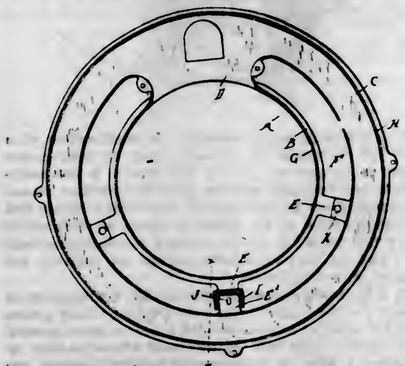
2. In a band-saw resawing machine, the combination of a support for the lumber to be cut; a pair of fixed guides arranged in parallel relation to each other; a frame mounted and movable upon said guides; band-wheels carried by said frame, a pair of rocker-shafts located beneath the frame; connections between said shafts and the frame to raise and lower the frame as the shafts are oscillated; connections between said shafts to cause them to move in unison; an oscillating power cylinder; an arm rigidly secured to one of the rocker-shafts aforesaid, the opposite end of the arm being pivotally connected to the outer end of the piston-rod of the power cylinder; a yoke-shaped frame swiveled upon the support upon which the cylinder is mounted; a series of stops carried by said frame; and means for swinging the frame to bring one or another of said stops into operative relation with the piston-rod, whereby the outward movement of the piston-rod may be limited and the upward movement of the saw-carrying frame arrested.

3. In a band saw resawing machine, the combination of a support for the lumber to be cut; fixed guides; a frame mounted and movable upon said guides; band wheels carried by said frame; a pair of rocker-shafts; connections between said shafts and the frame to raise and lower the frame as the shafts are oscillated; connections between the shafts to cause them to move in unison; a fixed support; a power cylinder fulcrumed at its lower end upon said support; an arm rigidly secured to one of the rocker-shafts and pivotally connected at its opposite end to the piston-rod of the power cylinder; a yoke-shaped frame likewise swiveled at its lower end upon the fixed support; a series of adjustable screws mounted in the upper end of said yoke-shaped frame; and means for swinging said yoke-shaped frame to bring one or another of said screws into operative position with reference to the upper end of the piston-rod.

4. In a band saw resawing machine, the combination of a pair of fixed guides arranged in parallel relation to each other; a fixed support mounted upon and secured to the upper ends of said guides and over which the lumber to be sawed is passed; a frame mounted between and movable upon said guides; band wheels carried by said frame; a pair of rocker shafts; connections between said shafts and the frame to raise and lower the frame as the shafts are rocked; connections between the shafts to cause them to move in unison; a fixed support; a power cylinder fulcrumed at its lower end upon said support; an arm rigidly secured to one of the rocker shafts and pivotally connected at its opposite end to the piston-rod of the power cylinder; a yoke-shaped frame likewise swiveled at its lower end upon the fixed support; a series of adjustable stop members mounted in the upper end of said yoke-shaped frame; and means for swinging said yoke-shaped frame to bring one or another of said stop members into operative position with relation to the upper end of the piston-rod.

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1,040,623. EXPANSION-JOINT FOR INTEGRALLY-CAST STRUCTURES. CHRISTOPHER F. CODA, Detroit, Mich., assignor to The Art Stove Company, Detroit, Mich., a Corporation of Michigan. Filed Sept. 11, 1911. Serial No. 648,627. (Cl. 126—114.)



1. An integral casting formed with spaced portions with overlapping portions connecting said spaced portions, and clamping means for said overlapping portions.

2. An integral casting formed with spaced portions, and overlapping ears projecting oppositely from the respective spaced portions, and clamping means for securing said ears, permitting a relative longitudinal adjustment thereof.

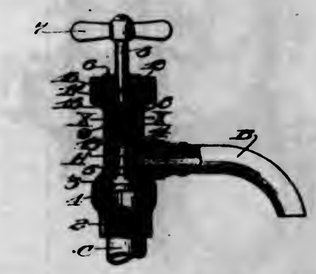
3. An integral casting formed with spaced portions, and overlapping ears projecting respectively from said spaced portions and provided with registering elongated apertures therethrough, and a clamping bolt engaging said apertures and securing said ears together.

4. An integral casting formed with spaced inner and outer portions, and an expansible connection between said spaced outer and inner portions comprising overlapping ears having registering bored apertures therein, and a clamping bolt passing through said apertures and securing said ears together.

5. A furnace ring formed with an inner annular portion and an integral outer annular portion spaced from each other, and an expansible cross-connection between said spaced portions comprising overlapping ears, and clamping means for securing said ears to each other providing for independent longitudinal movement.

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1,040,624. FAUCET. ADONIRAM J. COLLAR, Yreka, Cal. Filed Nov. 15, 1911. Serial No. 660,331. (Cl. 137—4.)



1. A faucet comprising a casing, a downwardly diverging valve seat therein, a conical valve seated therein, a stem on which said valve is mounted, threads on said stem a portion of its length, a sleeve reciprocally mounted in the casing and threaded to receive said stem, means for preventing the sleeve from rotating, said sleeve being also capable of being forced down by pressure to allow the valve to be opened by direct pressure, and a packing ring surrounding the stem above the sleeve.

2. A faucet comprising a casing, a downwardly diverging valve seat therein, a conical valve seated therein, a stem on which said valve is mounted, threads on said stem a portion of its length, a sleeve reciprocally mounted in the casing and threaded to receive said stem, means for preventing the sleeve from rotating, said sleeve being also capable of being forced down by pressure to allow the valve to be opened by direct pressure, a packing ring surrounding the stem above the sleeve, and resilient means for normally retaining the sleeve in its uppermost position.

3. A faucet comprising a casing, a downwardly diverging valve seat therein, a conical valve seated therein, a stem on which said valve is mounted, threads on said stem a portion of its length, a sleeve reciprocally mounted in the casing and threaded to receive said stem, means for preventing the sleeve from rotating, said sleeve being also capable of being forced down by pressure to allow the valve to be opened by direct pressure, a packing ring surrounding the stem above the sleeve, and resilient means for normally retaining the sleeve in its uppermost position, comprising a helical spring surrounding the stem and bearing between the sleeve and a shoulder on the casing.

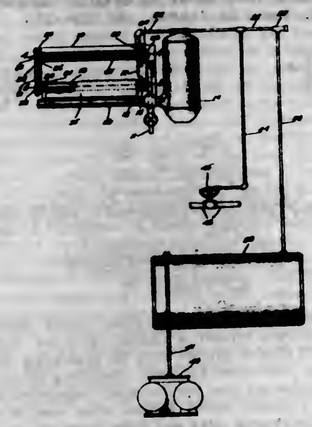
4. A water controlling valve comprising a valve opening downwardly from its seat against the current flow, and a guided threaded sleeve normally held up by a spring, through which the valve stem is turnable, said sleeve being also capable of being forced down by pressure to allow the valve to be opened by direct pressure.

5. A water controlling valve comprising a valve opening downwardly from its seat against the current flow, a guided threaded sleeve normally held up by a spring, through which the valve stem is turnable, said sleeve being also capable of being forced down by pressure to allow the valve to be opened by direct pressure, and a ring or washer approximately fitting the casing and having an opening around the valve stem to allow a slow passage of water when the valve stem is forced down or up by direct pressure to prevent sudden closing of the valve.

[Claim 6 not printed in the Gazette.]



1,040,625. THERMOSTATIC REGULATING DEVICE. HOWARD W. CONPOST, Chicago, Ill. Filed Oct. 10, 1910. Serial No. 586,149. (Cl. 98—39.)



1. A regulating device of the nature described comprising a thermostatic element, a closure operated thereby in one direction by the expansion of said element, a pressure escape outlet member coöperating with said closure, and a second thermostatic element in operative relation to said outlet member to positively move said member in two directions respectively under expansion and contraction.

2. A regulating device of the nature described comprising a tubular wet bulb thermostatic element having an outlet member, a dry bulb thermostatic element, and a closure for said outlet member pivotally mounted and operated in one direction solely by said dry bulb element.

3. A regulating device of the nature described comprising a tubular thermostatic element supported at one end and having an outlet, a closure pivotally mounted and coöperating with said outlet, and a second thermostatic element in operative relation to said closure.

4. A regulating device of the nature described comprising a tubular thermostatic member fixed against movement and having an outlet member, a closure for said outlet pivotally mounted and furnished with a lever arm, and a second thermostatic member coöperating with said arm to move said closure.

5. A regulating device of the nature described comprising a tubular thermostatic element having an outlet, a closure for said outlet pivotally mounted, an arm for operating said closure, and a second thermostatic member having an adjustable screw in engagement with said arm.

[Claim 6 not printed in the Gazette.]

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1,040,626. EGG-TESTER. DAVID B. CONWAY, Fort Dodge, Iowa. Filed May 23, 1910. Serial No. 562,953. (Cl. 99—6.)

1. In an egg tester, an electric battery lamp device having an electric battery and lamp means to which current from said battery is supplied, egg receptacle means above the lamp means, means to detachably connect the receptacle to the electric battery lamp device, a base member and means to detachably connect the base member to the electric battery lamp device, substantially as described.

2. In an egg tester, an electric battery lamp device comprising an electric battery, lamp means to which current is supplied from said battery, a battery inclosing member, and a make and break circuit device for the lamp means on the exterior of the battery inclosing member, egg receptacle means above the lamp means, means to detachably connect the receptacle means to the battery inclosing member, a base member, and means to detachably connect the base member to the battery inclosing member, substantially as described.

3. In an egg tester, an electric battery lamp device comprising an electric battery, lamp means to which current is supplied from said battery, a battery inclosing member and a make and break circuit device on the exterior of the inclosing member, an egg receptacle in alinement with the lamp means, a member supporting the receptacle, and screw thread means connecting the supporting member and the battery lamp device, substantially as described.



4. In an egg tester, an electric battery lamp device comprising an electric battery, a lamp to which current is supplied from said battery, a battery inclosing tube of non-conducting material and a make and break circuit device on the exterior of the tube, a ring secured to said tube at one end provided with exterior screw threads, an egg receptacle in alinement with the lamp and provided with openings in its bottom, a supporting member for said receptacle having screw threads engaging the ring, a base member, and means to detachably connect the base member to the tube, substantially as described.

5. In an egg tester, an electric battery lamp device comprising an electric battery, an inclosing tube of non-conducting material, a make and break circuit device on the exterior of the tube having a fixed contact and a spring finger to engage the fixed contact, a cup device secured in said tube at one end, a lamp receiving current from the battery supported in the cup, a ring secured to the tube at said cup end provided with exterior screw threads, an egg receptacle above the lamp provided with opening in its bottom, a hood for said receptacle, a supporting member beneath the receptacle provided with screw threads to detachably engage the ring, screw threads on the base member at the end of the tube opposite the cup end, and a base member having screw threads to detachably engage said screw threads of the tube, substantially as described.

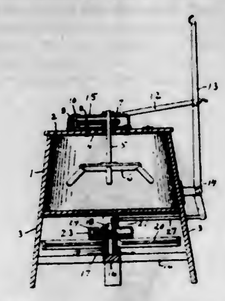
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1,040,627. GEARING FOR WASHING-MACHINES. ARTHUR B. COOLING, Sterling, Ill. Filed Feb. 26, 1912. Serial No. 679,871. (Cl. 74—7.)

1. Gearing for washing machines, comprising in combination with the machine frame a hand-lever fulcrumed to said frame so as to be vertically reciprocable; a balance-wheel horizontally supported in said frame; a pinion rotatable with said balance wheel; an internal gear-wheel concentric with said balance-wheel; an idler pinion interposed between said internal gear-wheel and said balance-wheel pinion; and means for imparting the movement of the lower end of said hand-lever to said internal gear-wheel to cause the rotation thereof.

2. In gearing for washing machines the combination with the frame of the machine, of a hand-lever fulcrumed on said frame so as to be vertically reciprocable; a cross-frame supported in the machine frame; a stationary shaft mounted on said cross-frame centrally thereof; a balance-wheel rotatable on said shaft; an idler pinion connected with said balance wheel; an internal gear-wheel rotatable on

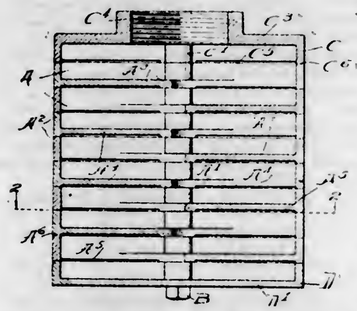
said shaft; an arm fixed on said shaft within said internal gear-wheel; an idler pinion supported by said arm and adapted to impart the movement of said internal gear-



wheel to said balance-wheel pinion; and a pitman connecting the short end of the hand-lever with said gear-wheel to cause the rotation thereof upon the operation of said lever.

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1,040,628. MUFFLER. GEORGE CORMACK, Plano, Ill., assignor to Independent Harvester Company, Plano, Ill., a Corporation of Maine. Filed Feb. 2, 1912. Serial No. 675,057. (Cl. 121—116.)



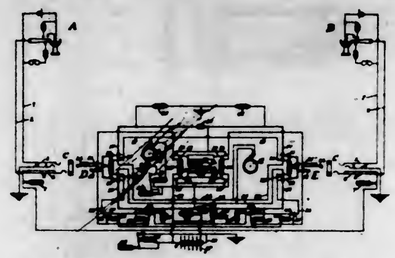
1. A muffler comprising a chamber having an inlet at one end, a series of baffle-plates extending alternately from either side of the chamber, and outlet openings in the side walls between the positions of said baffle-plates.

2. A muffler comprising a chamber having an inlet at one end, a series of baffle-plates extending alternately from either side of the chamber and past the middle of its width, and outlet openings in the side walls between the positions of said baffle-plates.

3. A muffler comprising a chamber made up of sections, including end sections and intermediate sections, each intermediate section comprising a peripheral wall and a transverse web extending over a portion of the area within said peripheral wall, one of the end sections having an inlet opening, the intermediate sections being slightly spaced apart from one another to form outlet openings between them and assembled with successive web portions at opposite sides of the central axis of the muffler chamber and means securing the sections in place.

4. A muffler comprising a chamber made up of a series of sections, including end sections and intermediate sections, said intermediate sections each comprising a peripheral wall, a transverse web extending over a portion only of the area within said wall, and spacing lugs formed on one edge of the wall for spacing apart the successive sections to form outlet crevices, the sections being assembled with successive web portions at opposite sides of the central axis of the muffler chamber, and one end section having an inlet opening.

1,040,629. TELEPHONE SYSTEM. ELMER R. CORWIN, Chicago, Ill., assignor to Corwin Telephone Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 3, 1908, Serial No. 414,078. Renewed Aug. 14, 1911. Serial No. 644,042. (Cl. 179—72.)



1. A telephone line, a connecting circuit therefor, a source of ringing current, a ringing relay for connecting the source of ringing current with the connecting circuit, a second relay associated with the connecting circuit to be operated by current over the line when connection is made therewith, a single wound locking relay controlling the circuit of the ringing relay and being under control of the said second relay, means whereby the said second relay energizes the locking relay with current over a line connection when the said second relay is operated, and means whereby the said locking relay closes its own circuit when operated and thereby locks itself in operated position until the connecting circuit is disconnected from the line.

2. A telephone line, a connecting circuit therefor, a source of ringing current associated with the connecting circuit, a ringing relay for connecting the source of ringing current with the connecting circuit, a single wound locking relay controlling the circuit of the ringing relay, means for energizing the locking relay with current over a line connection when connection is made with the line, to operate the locking relay, and means whereby the locking relay closes its own circuit through a line connection, when operated, whereby it locks itself in operated position until the connecting circuit is disconnected from the line.

3. A metallic telephone line extending to a connection terminal at a central station, a metallic connecting circuit for the line, a source of ringing current associated with the connecting circuit, a ringing relay for connecting the source of ringing current in circuit with the metallic connecting circuit, a third conductor in the connecting circuit and a third contact-member in the line connection terminal coöperating to supply the ringing relay with current over a line connection to operate the said relay, an intermittent circuit-closer in circuit with the ringing relay for operating the latter intermittently, a supervisory relay connected with the metallic connecting circuit to be operated by current over the metallic line, a single wound locking relay controlling the circuit of the ringing relay, a supervisory signal under control of the supervisory relay, means whereby the locking relay is initially under the control of the supervisory relay, means whereby the supervisory relay when operated energizes the locking relay with current over the said third line connection for operating the locking relay, the latter said relay being provided with means for closing its own circuit through the said third line connection when operated whereby it locks itself in operated position until the connecting circuit is disconnected from the line.

4. A plurality of telephone lines, a connecting circuit for the lines, said connecting circuit terminating in a pair of connecting plugs adapted to be connected with the lines, an operator's telephone set normally connected with the connecting circuit, an operator's disconnect relay for each connecting plug through which the operator's telephone set is connected, in multiple, with the connecting circuit, and means whereby the said relays are supplied with current over respective line connections, for operating the said relays, when connection is made between the corresponding connecting plugs and the lines, whereby the operator's telephone set is disconnected from the connecting circuit when both of the said relays are operated.

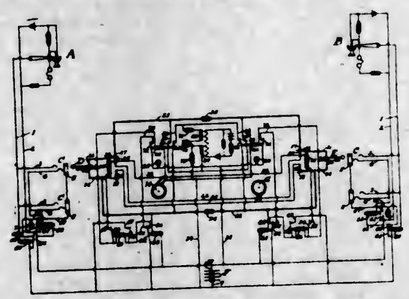
5. A plurality of telephone lines, a connecting circuit for the lines, said connecting circuit having a metallic talking circuit extending therethrough and terminating in a pair of connecting plugs adapted to be connected with the lines, an operator's telephone set normally bridged across the metallic talking circuit of the connecting circuit, a pair of operator's disconnect relays associated with the respective connecting plugs and through which the operator's telephone set is bridged, in multiple, across the metallic talking circuit of the connecting circuit, a third conductor in each connecting plug and a third contact-member for each line coöperating with the said third conductors of the connecting plugs, the said operator's relays being connected in circuit with the respective third conductors of the connecting plugs whereby the said relays are supplied with current over the respective said third-conductor connections between the corresponding connecting plugs and the lines, when connection is made with the lines, for operating the said relays whereby the operator's telephone set is entirely disconnected from both strands of the metallic talking circuit of the connecting circuit when both of the connecting plugs are connected with respective lines.

[Claims 6 to 15 not printed in the Gazette.]

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1,040,630. TELEPHONE SYSTEM. ELMER R. CORWIN, Chicago, Ill., assignor to Corwin Telephone Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 20, 1908, Serial No. 416,856. Renewed May 4, 1911. Serial No. 625,088. (Cl. 179—58.)



1. A telephone line extending to a connection terminal at a central station, a relay associated with the line for controlling a signal, a suitable signal to be controlled, a connecting circuit for the line, a source of ringing current associated with the connecting circuit, a ringing relay associated with the connecting circuit for connecting the said source of ringing current in circuit with a portion of the connecting circuit and the line when connection is made with the line, a supervisory relay associated with the connecting circuit and adapted to be operated by current over the line when connection is made with the line and the latter is in use, a locking relay under control of the supervisory relay, a contact in circuit with the ringing relay and controlled by the locking relay, and means for supplying the ringing relay with current over a line connection through the first mentioned relay and the said contact of the locking relay, for operating the ringing relay, when connection is made with the line, the said relay being rendered incapable of operation by the locking relay when the latter is energized by the operation of the supervisory relay which is in turn energized by current over the line when connection is made with the line and the latter is in use.

2. A telephone line extending to a plurality of connection terminals at a central station, a relay associated with the line for controlling a signal, a suitable signal to be controlled, a connecting circuit for the line, a source of ringing current associated with the connecting circuit, a ringing relay associated with the connecting circuit for connecting the said source of ringing current in circuit with a portion of the connecting circuit and the line when connection is made with the line, a supervisory relay associated with the connecting circuit and adapted to be operated by current over the line when connection is made with the line and the latter is in use, a locking relay under control of the supervisory relay, a contact in circuit with the ringing relay and controlled by the locking relay, and means for supplying the ringing relay with current over a line connection through the first mentioned relay and the said contact of the locking relay, for operating the ringing relay, when connection is made with any one of the said line connection terminals, the ringing relay being rendered incapable of operation by the locking relay when the latter is energized by the operation of the supervisory relay which is in turn energized by current over the line when connection is made with the line and the latter is in use.

3. A telephone line extending to a connection terminal at a central station, a relay associated with the line for controlling a signal, a suitable signal to be controlled, a connecting circuit for the line, a source of ringing current associated with the connecting circuit, a ringing relay associated with the connecting circuit for connecting the said source of ringing current in circuit with a portion of the said connecting circuit and the line when connection is made with the line, a source of direct current and an intermittent circuit-closer in circuit with the ringing relay, a supervisory relay associated with the connecting circuit and adapted to be operated by current over the line when connection is made with the line and the latter is in use, a locking relay under control of the supervisory relay, a contact in circuit with the ringing relay and controlled by the locking relay, and means for supplying the ringing relay with current over a line connection through the first mentioned relay and the said contact of the locking relay, for operating the ringing relay, when connection is made with the line, the said intermittent circuit-closer operating the ringing relay intermittently, the ringing relay being rendered incapable of operation by the locking relay when the latter is energized by the operation of the supervisory relay which is in turn energized by current over the line when connection is made with the line and the latter is in use.

4. A telephone line extending to a plurality of connection terminals at a central station, a relay associated with the line for controlling a signal, a suitable signal to be controlled, a connecting circuit for the line, a source of ringing current associated with the connecting circuit, a ringing relay associated with the connecting circuit for connecting the said source of ringing current in circuit with a portion of the connecting circuit and the line when connection is made with the line, a source of direct current and an intermittent circuit-closer in circuit with the ringing relay, a supervisory relay associated with the connecting circuit and adapted to be operated by current over the line when connection is made with the line and the latter is in use, a locking relay under control of the supervisory relay, a contact in circuit with the ringing relay and controlled by the locking relay, and means for supplying the ringing relay with current over a line connection through the first mentioned relay and the said contact of the locking relay, for operating the ringing relay, when connection is made with any one of the said line connection terminals, the said intermittent circuit-closer operating the ringing relay intermittently, the ringing relay being rendered incapable of operation by the locking relay when the latter is energized by the operation of the supervisory relay which is in turn energized by current over the line when connection is made with the line and the latter is in use.

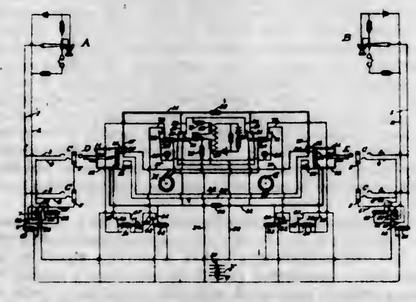
5. A metallic telephone line extending to a connection terminal at the central station, a relay associated with the line for controlling a signal, a suitable signal to be controlled, a connecting circuit for the line, said connecting circuit having a metallic talking circuit extending therethrough and adapted to be connected in circuit with the

metallic line, a source of ringing current associated with the connecting circuit, a ringing relay associated with the connecting circuit for connecting the said source of ringing current in circuit with a portion of the said metallic talking circuit and the metallic line when connection is made with the line, a supervisory relay connected to a strand of the said metallic talking circuit and adapted to be operated by current over the line when connection is madet with the line and the latter is in use, a locking relay under control of the supervisory relay, a contact in circuit with the ringing relay and controlled by the locking relay, a third strand in the connecting circuit connected in circuit with the said contact of the locking relay and the ringing relay, and a third contact-member associated with the line connection terminal whereby the ringing relay is supplied with current through the first mentioned relay, the said third strand of the connecting circuit and the said contact of the locking relay, to operate the first mentioned relay and the ringing relay, when connection is made with the line, the ringing relay being rendered incapable of operation by the locking relay when the latter is energized by the operation of the supervisory relay which is in turn operated by current over the line when connection is made with the line and the latter is in use.

[Claims 6 to 19 not printed in the Gazette.]

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1,040,631. BUSY-TEST FOR TELEPHONE SYSTEMS. ELMER R. CORWIN, Chicago, Ill., assignor to Corwin Telephone Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 20, 1908, Serial No. 416,857. Renewed Nov. 2, 1910. Serial No. 590,384. (Cl. 179—58.)



1. In a telephone system having lines, a plug-cord connecting circuit for the lines, an operator's telephone set including a receiver, normally connected with the plug-cord circuit, a relay associated with each of the connecting plugs of a pair for disconnecting the operator's telephone set from the respective connecting plugs when the latter are connected with respective lines, and an impedance coil connected from the operator's telephone receiver to a source of electricity, whereby a busy-test circuit is normally established from a conductor of either said connecting plug through contacts of the respective said relays, the operator's telephone receiver, and the said impedance coil, for purposes substantially as described.

2. A telephone system having lines, a plug-cord connecting circuit for the lines, a source of electricity, a plurality of connection terminals for each of the lines, each connection terminal having a test contact, the test contacts for each of the lines being connected together and normally disconnected from the said source of electricity, an operator's telephone set normally connected with the plug-cord connecting circuit, a relay for disconnecting the operator's telephone set from a connecting plug when the latter is connected with a line, and an impedance coil connected from the operator's telephone receiver to the said source of electricity, whereby a test circuit is normally established from a conductor of a connecting cord and plug through a contact of the said relay, the operator's telephone receiver, and the said impedance coil, the said test circuit coöperating with the line test contacts for purposes substantially as described, and means for changing the potential of the said line test contacts when connection is made with the line.

3. A telephone system having lines, a plug-cord connecting circuit for the lines, a source of electricity, a plurality of connection terminals for each of the lines, each connection terminal having a test contact, the test contacts for each of the lines being connected together and normally disconnected from the said source of electricity, an operator's telephone set including a receiver, normally connected with the connecting plugs of the plug-cord connecting circuit, a pair of relays associated with the respective connecting plugs of a pair, said relays being adapted to disconnect the operator's telephone set from the respective connecting plugs when the latter are connected with respective lines, and an impedance coil connected from the operator's telephone receiver to the source of electricity, whereby a test circuit is normally established from a conductor of either connecting cord and plug of the pair through contacts of the respective said relays, the operator's telephone receiver, and the said impedance coil, said test circuit coöperating with the test contacts of the lines for purposes substantially as described, and means for connecting the said test contacts of the lines with the said source of electricity when connection is made with the lines.

4. In a telephone system having lines, a plug-cord connecting circuit for the lines, an operator's telephone set normally connected with a connecting plug of the connecting circuit, a ringing relay associated with the said connecting plug and arranged to automatically send a ringing current over a line when connection is made therewith, an operator's disconnect relay associated with the said connecting plug and adapted to disconnect the operator's telephone set from the said plug when connection is made with a line, and an impedance coil connected from the operator's telephone receiver to a source of electricity, whereby a test circuit is normally established from a conductor of the said connecting plug through a contact of the ringing relay, a contact of the operator's disconnect relay, the operator's telephone receiver, and the said impedance coil, to coöperate with the lines for purposes substantially as described.

5. In a telephone system having lines, a plug-cord connecting circuit for the lines, the said connecting circuit terminating in a pair of connecting plugs, an operator's telephone set normally connected with the connecting circuit, a ringing relay associated with each of the said connecting plugs for automatically sending a ringing current over a line when connection is made between either of the said connecting plugs and a line, a pair of operator's disconnect relays associated with the said connecting plugs and adapted to disconnect the operator's telephone set from the plug-cord connecting circuit when the said plugs are connected with respective lines, and an impedance coil connected from the operator's telephone receiver to a source of electricity, whereby a test circuit is normally established from a conductor of either connecting plug of a pair through contacts of the respective ringing relays, contacts of the respective operator's disconnect relays, the operator's telephone receiver, and the said impedance coil, the said test circuit coöperating with the lines for purposes substantially as described.

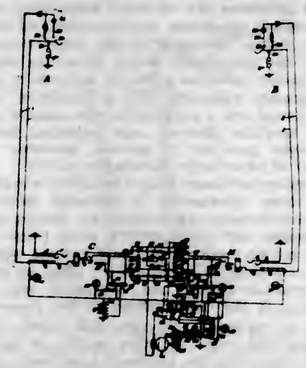
[Claims 6 to 13 not printed in the Gazette.]

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1,040,632. TELEPHONE SYSTEM. ELMER R. CORWIN, Chicago, Ill., assignor to Corwin Telephone Manufacturing Company, Chicago, Ill. Filed Aug. 7, 1908, Serial No. 447,897. Renewed May 11, 1911. Serial No. 626,622. (Cl. 179—72.)

1. The combination with a telephone system having lines, of a connecting circuit therefor, a motor associated with the connecting circuit, switching mechanism under control of the motor for sending a ringing current over a line when connection is made therewith, a relay for closing the circuit of the motor when connection is made with an idle line, to start the motor, and a relay for opening the circuit of the motor when the circuit of the line is closed while connection is made therewith, to stop the motor, the last mentioned relay closing its own circuit when operated whereby it remains energised until connection is disestablished with the line.





2. The combination with a telephone system having lines, of a connecting circuit therefor, a motor associated with the connecting circuit, switching mechanism under control of the motor for sending a ringing current over a line when connection is made therewith, a cam controlled by the motor for operating the switching mechanism intermittently to send the ringing current over the line intermittently, a relay for closing the circuit of the motor when connection is made with an idle line, to start the motor, and a relay for opening the circuit of the motor when the circuit of the line is closed while connection is made therewith, to stop the motor, the last mentioned relay closing its own circuit when operated whereby it remains energised until connection is disestablished with the line.

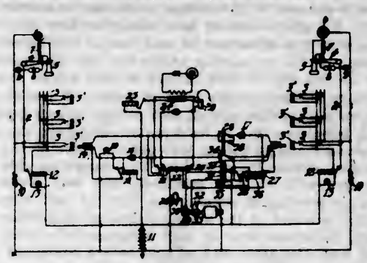
3. The combination with a telephone system having lines, of a plurality of connecting circuits for the lines, a motor associated with the connecting circuits and common thereto, switching mechanism controlled by the motor for supplying the lines with ringing current when connection is made therewith, means whereby the motor operates the switching mechanism intermittently to send ringing current over the lines intermittently, means for starting the motor when connection is made with a line, and means for stopping the motor when the circuit of the line is closed while connection is made therewith.

4. The combination with telephone lines and connecting circuits therefor, of substations on the lines, a motor associated with the connecting circuits and common thereto, switching mechanism under control of the motor, means whereby the motor causes the switching mechanism to be operated intermittently to send a ringing current over a line intermittently when connection is made therewith, means for starting the motor when connection is made with a line, and means for stopping the motor when the party at the called substation answers his call.

5. The combination with telephone lines and connecting circuits therefor, of substations on the lines, a motor associated with the connecting circuits and common thereto, switching mechanism under control of the motor, means whereby the motor causes the switching mechanism to be operated intermittently to send a ringing current over a line intermittently when connection is made therewith, means for starting the motor when connection is made with a line, means for stopping the motor when the party at the called substation answers his call, and means for preventing the motor from again sending ringing current over the line when the party at the substation hangs his receiver upon the switch hook.

[Claims 6 to 19 not printed in the Gazette.]

1,040,633. TELEPHONE SYSTEM. ELMER R. CORWIN, Chicago, Ill., assignor to Corwin Telephone Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 18, 1909, Serial No. 472,860. Renewed May 4, 1911. Serial No. 625,089. (Cl. 179—56.)



1. A common battery telephone exchange system including telephone lines extending from sub-stations to an exchange, connecting apparatus at the exchange for uniting lines in conversation, a common battery adapted for inclusion in bridges of the telephone lines, said connecting apparatus serving to connect one terminal of the battery with one limb of each telephone line, the other terminal of said battery being connected with the remaining limb of each telephone line independently of said connecting apparatus, and impedance devices in the battery bridges between which the battery is disposed, the portions of the battery bridges that are connected with the limbs of the telephone lines through the agency of the connecting apparatus including as impedance, relays that enter into the exchange equipment and are in parallel.

2. A common battery telephone exchange system including telephone lines extending from sub-stations to an exchange, connecting apparatus at the exchange for uniting lines in conversation, a common battery adapted for inclusion in bridges of the telephone lines, said connecting apparatus serving to connect one terminal of the battery with one limb of each telephone line, the other terminal of said battery being connected with the remaining limb of each telephone line independently of said connecting apparatus, and impedance devices in the battery bridges between which the battery is disposed, the portions of the battery bridges that are connected with the limbs of the telephone lines through the agency of the connecting apparatus including as impedance, relays that enter into the exchange equipment and are in parallel, one of the relays being connected with the connecting apparatus and the other of the relays being connected with a jack switch of the associated line, the jack switch and connecting apparatus having contacts adapted for engagement to make and break the parallel connection between said relays.

3. A common battery telephone exchange system including telephone lines extending from sub-stations to an exchange, connecting apparatus at the exchange for uniting lines in conversation, a common battery adapted for inclusion in bridges of the telephone lines, said connecting apparatus serving to connect one terminal of the battery with one limb of each telephone line, the other terminal of said battery being connected with the remaining limb of each telephone line independently of said connecting apparatus, and impedance devices in the battery bridges between which the battery is disposed, the portions of the battery bridges that are connected with the limbs of the telephone lines through the agency of the connecting apparatus including as impedance, relays that are in parallel, one of the relays in one of the bridges being connected with the connecting apparatus and entering into the control of a clearing-out signal and the other of the relays being connected with a jack switch of the associated line and constituting a cut-off relay for such line, the jack switch and connecting apparatus having contacts adapted for engagement to make and break the parallel connection between said relays.

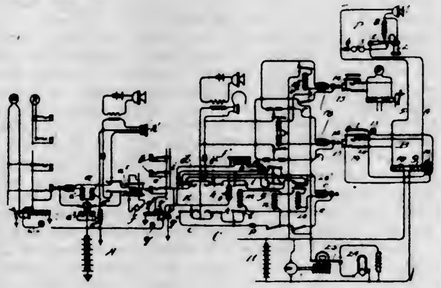
4. A telephone line, a battery for supplying the same with current and in bridge between the sides of the telephone line, connecting apparatus for connecting said telephone line with another telephone line, said connecting apparatus serving to connect one limb of said telephone line with one end of the bridge conductor containing said battery, the other limb of said telephone line being connected with the other end of said bridge conductor independently of the connecting apparatus, and an impedance device on one side of said battery in said bridge and two impedance devices, in the form of relays, in multiple relation, upon the other side of said battery in said bridge.

5. A telephone line, a battery for supplying the same with current and in bridge between the sides of the telephone line, connecting apparatus for connecting said telephone line with another telephone line, said connecting apparatus serving to connect one limb of said telephone line with one end of the bridge conductor containing said battery, the other limb of said telephone line being connected with the other end of said bridge conductor independently of the connecting apparaus, and an impedance device on one side of said battery in said bridge and two impedance devices, in the form of relays that enter into the exchange equipment and are, in multiple relation, upon the other side of said battery in said bridge, one of the relays being connected with the connecting apparatus and the other of the relays being connected with a jack switch of the associated line, the jack switch and connecting apparatus having contacts adapted for engagement, to make and break the parallel connection between said relays.

[Claims 6 to 18 not printed in the Gazette.]

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1,040,634. TELEPHONE-EXCHANGE SYSTEM. ELMER B. CORWIN, Chicago, Ill., assignor to Corwin Telephone Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 17, 1909. Serial No. 483,927. (Cl. 179—49.)



1. A telephone exchange system including telephone lines extending from sub-stations to different exchanges, a voice-current-conveying two-way trunk circuit for uniting said lines in conversation, said trunk circuit being formed in sections that are un-united metallically but are united telephonically, clearing-out or supervisory signaling apparatus at one exchange adapted for association with one of said sections of the trunk circuit in the process of establishing a connection through said latter exchange, means associated with the other section of said trunk circuit for governing the aforesaid supervisory or clearing-out signaling apparatus, and operator-controlled switching mechanism associated with the section of the trunk circuit that is not metallically connected with the supervisory or disconnect signaling apparatus, for preventing false operation of said clearing-out or supervisory signaling apparatus.

2. A telephone exchange system including telephone lines extending from sub-stations to different exchanges, a voice-current-conveying trunk circuit for uniting said lines in conversation, said trunk circuit being formed in sections that are un-united metallically but are united telephonically, clearing-out or supervisory signaling apparatus at one exchange adapted for association with one of said sections of the trunk circuit in the process of establishing a connection through said latter exchange, means associated with the other section of said trunk circuit for governing the aforesaid supervisory or clearing-out signaling apparatus, operator-controlled switching mechanism jointly controlled by the terminal-connecting element of the link circuit, which connecting element is not metallically connected with the supervisory or clearing-out signaling apparatus and is associated with the aforesaid means, and a switching device adapted to co-act with said terminal element, said switching mechanism serving, when operated, to prevent operation of said clearing-out or supervisory signaling apparatus.

3. A telephone exchange system including telephone lines extending from sub-stations to different exchanges, a voice-current-conveying trunk circuit for uniting said lines in conversation, said trunk circuit being formed in sections that are un-united metallically but are united telephonically, clearing-out or supervisory signaling apparatus at one exchange adapted for association with one of said sections of the trunk circuit in the process of establishing a connection through said latter exchange, means associated with the other section of said trunk circuit for governing the aforesaid supervisory or clearing-out signaling apparatus, a source of ringing current, subscriber controlled switching mechanism for including the same in circuit relation with the called station that is connected with the section of the link circuit in association with the aforesaid means, and which said section of the link circuit is not metallically connected with the supervisory or disconnect signaling apparatus, said switching mechanism, when including the source of ringing current in circuit, serving to prevent the operation of the aforesaid means, to prevent false operation of said clearing-out or supervisory signaling apparatus.

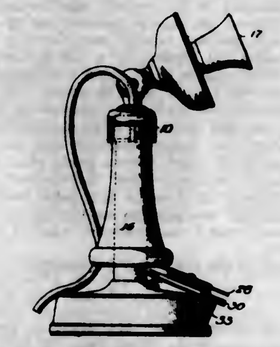
4. A telephone exchange system including telephone lines extending from sub-stations to different exchanges, a voice-current-conveying trunk circuit for uniting said lines in conversation, said trunk circuit being formed in sections that are un-united metallically but are united telephonically, clearing-out or supervisory signaling apparatus at one exchange adapted for association with one of said sections of the trunk circuit in the process of establishing a connection through said latter exchange, means associated with the other section of said trunk circuit for governing the aforesaid supervisory or clearing-out signaling apparatus, a signal device associated with the trunk circuit and operable from the exchange to which the trunk circuit extends, and relay mechanism at the trunk circuit station for dissociating said signal device, said relay mechanism including a switching device that serves to permit the operation of the aforesaid means to avoid false operation of said clearing-out or disconnect signaling apparatus.

5. A telephone exchange system including telephone lines extending from sub-stations to different exchanges, a voice-current-conveying trunk circuit for uniting said lines in conversation, said trunk circuit being formed in sections that are un-united metallically but are united telephonically, clearing-out or supervisory signaling apparatus at one exchange adapted for association with one of said sections of the trunk circuit in the process of establishing a connection through said latter exchange, means associated with the other section of said trunk circuit for governing the aforesaid supervisory or clearing-out signaling apparatus, an operator's telephone equipment adapted for connection with the section of the trunk circuit which is metallically connected with said supervisory or disconnect signaling apparatus, and electro-magnetic mechanism governed by a trunk circuit apparatus, for dissociating said operator's telephone from the trunk circuit, said electro-magnetic mechanism including a switching device that serves to prevent the operation of the aforesaid means, to prevent false operation of said clearing-out or supervisory signaling apparatus.

[Claims 6 to 21 not printed in the Gazette.]



1,040,635. TELEPHONY. CHARLES A. BALS, Chicago, Ill., assignor to Corwin Telephone Manufacturing Company, a Corporation of Illinois. Filed May 22, 1911. Serial No. 628,749. (Cl. 179—90.)

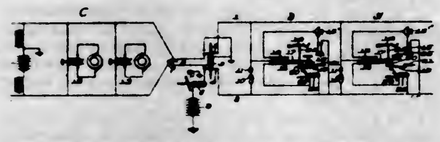


1. Apparatus for automatically effecting extension of telephone lines which includes switching mechanism for governing the circuit of the selecting mechanism that is to effect the line extension; engaging contacts for establishing the circuit relation of said switching mechanism, these contacts being carried by separably engaged mountings, the switching mechanism being carried by one of said mountings; and a mounting plate for the contact carried by the other mounting separably secured to said other mounting a contact carried by the mounting plate having a line conductor connected therewith which is bodily movable with the contact and the mounting plate for the contact.

2. Apparatus for automatically effecting extension of telephone lines which includes switching mechanism for governing the circuit of the selecting mechanism that is to effect the line extension; engaging contacts for establishing the circuit relation of said switching mechanism and one of which is a spring contact, these contacts being carried by separably engaged mountings, the switching mechanism being carried by one of said mountings; and a mounting plate for the contact carried by the other mounting separably secured to said other mounting a contact carried by the mounting plate having a line conductor connected therewith which is bodily movable with the contact and the mounting plate for the contact.

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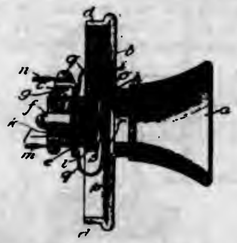
1,040,636. TELEPHONY. CHARLES A. BALS, Chicago, Ill., assignor to Corwin Telephone Manufacturing Company, a Corporation of Illinois. Filed May 22, 1911. Serial No. 628,750. (Cl. 179—31.)



A plurality of telephone stations connected with the same line; a normally open high resistance bridge at each station including an electro-magnet; a second and normally open low resistance bridge conductor at each station including the telephone thereat; switching mechanism at each station for completing the magnet bridge thereat and thereafter the telephone bridge thereat, there being present a source of current for inclusion in circuit with the magnet when its bridge is established whereby the associate switching mechanism is permitted to operate to establish the associate telephone bridge; and means at a telephone station for including sufficient resistance in the telephone bridge thereat when this station has taken the line for use to permit the electro-magnet at another station upon the same line to be operated in order to permit the closure of the telephone bridge at said other station and thereby enable the establishment of telephonic connection between two stations upon the same line, this means being adapted for operation by the switching mechanism associated therewith when actuated to establish the telephone bridge at the same station therewith, whereby said means is constituted a busy test signal.

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1,040,637. TELEPHONE-TRANSMITTER. ROSCOE ROYAL, Chicago, Ill., assignor to Corwin Telephone Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 11, 1911. Serial No. 643,596. (Cl. 179—126.)



1. A telephone transmitter including a stationary cup having a flexible closure; transmitter electrodes presented to the interior of the cup, one of these electrodes being carried by the flexible closure so as to be movable; comminuted current conducting material within the cup and interposed between the electrodes for electrically connecting the same in the transmitter circuit; a speaking diaphragm; and a medium for conducting vibrations interposed between the electrode carried by the flexible closure and a portion of the speaking diaphragm laterally disposed with respect to said electrode; such interposition of said medium between the electrode carried by the flexible closure and the speaking diaphragm being independent of the aforesaid stationary cup; and a spring structure for pressing said medium into engagement with the speaking diaphragm where it engages the same.

2. A telephone transmitter including a stationary cup having a flexible closure; transmitter electrodes presented to the interior of the cup, one of these electrodes being carried by the flexible closure so as to be movable; comminuted current conducting material within the cup and interposed between the electrodes for electrically connecting the same in the transmitter circuit; a speaking diaphragm; and a medium for conducting vibrations interposed between the electrode carried by the flexible closure and a portion of the speaking diaphragm laterally disposed with respect to said electrode, such interposition of said medium between the electrode carried by the flexible closure and the speaking diaphragm being independent of the aforesaid stationary cup; and a spring structure mechanically constituting a continuation of said medium and serving to press said medium into engagement with the diaphragm.

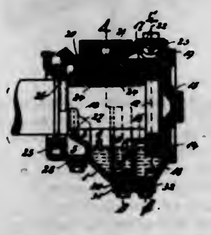
3. A telephone transmitter including a stationary cup having a flexible closure; transmitter electrodes presented to the interior of the cup, one of these electrodes being carried by the flexible closure so as to be movable; comminuted current conducting material within the cup and interposed between the electrodes for electrically connecting the same in the transmitter circuit; a speaking diaphragm; and a substantially rigid medium for conducting vibrations interposed between the electrode carried by the flexible closure and a portion of the speaking diaphragm laterally disposed with respect to said electrode, such interposition of said medium between the electrode carried by the flexible closure and the speaking diaphragm being independent of the aforesaid stationary cup; and a spring structure for pressing said medium

into engagement with the speaking diaphragm where it engages the same.

4. A telephone transmitter including a stationary cup having a flexible closure; transmitter electrodes presented to the interior of the cup, one of these electrodes being carried by the flexible closure so as to be movable; comminuted current conducting material within the cup and interposed between the electrodes for electrically connecting the same in the transmitter circuit; a speaking diaphragm; and a substantially rigid medium for conducting vibrations interposed between the electrode carried by the flexible closure and a portion of the speaking diaphragm laterally disposed with respect to said electrode, such interposition of said medium between the electrode carried by the flexible closure and the speaking diaphragm being independent of the aforesaid stationary cup; and a spring structure mechanically constituting a continuation of said medium and serving to press said medium into engagement with the diaphragm.

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1,040,638. AXLE-BOX FOR RAILROAD-CARS. GEORGES C. COSMOVICI, Bucharest, Roumania. Filed Aug. 12, 1908. Serial No. 448,145. (Cl. 64—32.)



1. In an axle box for railway cars and the like, the combination, with the journal, of a box surrounding the same and divided beneath the journal into intercommunicating oil settling and supply chambers, the settling chambers arranged to receive the surplus oil from the journal after use and deliver it after clarification to the supply chamber, the supply chamber being completely shut off above the journal, and means to feed the clarified oil from the supply chamber to the journal, said means forming the closure between the supply chamber and the journal.

2. In an axle box for railway cars and the like, the combination, with the journal, of a box surrounding the same and divided beneath the journal into intercommunicating oil settling and supply chambers, the settling chambers arranged to receive the surplus oil from the journal after use and deliver it after clarification to the supply chamber, the supply chamber being completely shut off above from the journal, means to feed the clarified oil from the supply chamber to a point above the journal, said means forming the closure between the supply chamber and the journal, and a distributer to conduct the oil to the journal.

3. In an axle box for railway cars and the like, the combination, with the journal, of a box surrounding the same and divided beneath the journal into intercommunicating oil settling and supply chambers, the settling chambers arranged to receive the surplus oil from the journal after use and deliver it after clarification to the supply chamber, the supply chamber being completely shut off above from the journal, and a collecter ring secured against axial movement and arranged to seal the supply chamber, carried by the journal and dipping into the sealed supply chamber to feed the clarified oil therefrom to the journal, said collecter ring forming the closure between the supply chamber and the journal.

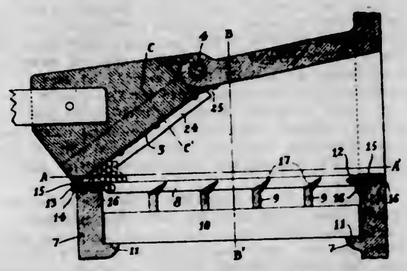
4. In an axle box for railway cars and the like, the combination, with the journal, of a box surrounding the same and divided beneath the journal into intercommunicating oil settling and supply chambers, the settling chambers arranged to receive the surplus oil from the journal after use and deliver it after clarification to the supply chamber, the supply chamber and the settling chamber immediately prior thereto being shut off above from the journal, and means to feed the clarified oil from the supply chamber to the journal, said means forming the closure between the supply chamber and the journal.

5. In an axle box for railway cars and the like, the combination, with the journal, of a box surrounding the same and divided beneath the journal into intercommunicating oil settling and supply chambers, the settling chambers arranged to receive the surplus oil from the journal after use and deliver it after clarification to the supply chamber, the supply chamber and the settling chamber immediately prior thereto being shut off above from the journal, means to feed the clarified oil from the supply chamber to a point above the journal, said means forming the closure between the supply chamber and the journal, and a distributer to conduct the same to the journal.

[Claims 6 to 18 not printed in the Gazette.]

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1,040,639. CLAY-SIEVING MACHINE. ALFRED H. COWLES, Sewaren, N. J. Filed Mar. 16, 1911. Serial No. 614,875. (Cl. 83—56.)



1. A device for separating clay from the foreign solid material contained therein, consisting of a frame, and comprising a base formed of longitudinally extending, laterally spaced bars, a top portion inclined to the base, an automatic valve pivoted to the frame, in combination with means for forcing the clay forward along the bars, and means for regulating the pressure under which the valve is to act.

2. In a clay sieving device, a casing, a base composed of a series of longitudinally extending, laterally spaced screening blades, in combination with a series of transverse shaving knives disposed below the upper edge of said blades, adapted to direct the plastic material downward between the blades.

3. In a clay sieving device, a series of longitudinally extending laterally spaced screening blades, in combination with a series of transverse shearing knives said knives lying below the upper edge of the screening blades and having their upper edges inclined forward toward the entrance of the device.

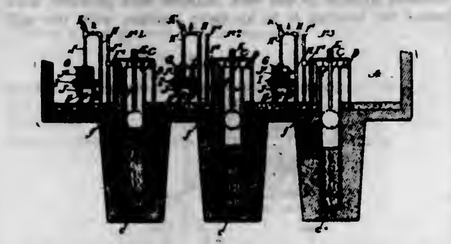
4. In a clay sieving device a series of longitudinally extending laterally spaced screening blades, in combination with a series of transverse shearing knives having their upper ends inclined forward toward the entrance of the device, the inclined cutting surfaces being adapted to be removed.

5. In a clay sieving device, a metal casing, a base comprising a series of detachable longitudinally extending and laterally spaced blades, transverse shearing knives cooperating with said blades and disposed in a plane below the upper edges of said blades, an automatic valve pivoted to the top of the casing, in combination with means adapted to force the material under treatment between the transverse shearing knives and slide the coarser material along the screening blades.

[Claim 6 not printed in the Gazette.]



1,040,640. ALTERNATING SIPHON. JAMES W. COX, Wilmette, Ill., assignor to Pacific Flush Tank Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 29, 1912. Serial No. 693,810. (Cl. 210—18.)



1. An apparatus for the purpose set forth comprising a tank, a plurality of trapped siphons, a blow-off trap communicating with the air space of each siphon above the seal thereof, a constantly sealed starting bell for each siphon, the air space of which bell is connected with the blow-off trap of said siphon, and means associated with the starting bell of each siphon operated by the rise of liquid in the tank and acting each time the liquid rises in the tank to deliver to said starting bell a quantity of air less than that required to give therein a pressure sufficient to break the seal of its associated blow-off trap.

2. An apparatus for the purpose set forth, comprising a tank, a plurality of trapped siphons, a blow-off trap for each siphon connected with the air space of said siphon above its trap, a constantly sealed starting bell for each siphon connected with the blow-off trap thereof, and an air compression bell for each siphon adapted for the discharge of air into its associated starting bell.

3. An apparatus for the purpose set forth, comprising a tank, a plurality of trapped siphons, a blow-off trap for each siphon communicating with the air space of the same above its trap, a starting bell for each siphon, provided with a cup adapted to contain liquid for sealing the bell, said bell being connected with its associated blow-off trap, and an air compressing bell for each siphon adapted for the discharge of air into its associated starting bell.

4. An apparatus for the purpose set forth, comprising a tank, a plurality of trapped siphons, a blow-off trap for each siphon communicating with the air space of the same above its trap, a starting bell for each siphon provided with a cup adapted to contain liquid for sealing the bell, said bell being connected with its associated blow-off trap, and an air compressing bell for each siphon adapted for the discharge of air into its associated starting bell, one or more of said starting bells being provided with a valved vent opening therefrom between its top and bottom.

5. An apparatus for the purpose set forth, comprising a tank, a plurality of trapped siphons, a blow-off trap for each siphon communicating with the air space of the same above its trap, a starting bell for each siphon provided with a cup adapted to contain liquid for sealing the bell, said bell being connected with its associated blow-off trap, and an air compressing bell for each siphon adapted for the discharge of air into its associated starting bell, all but one of said starting bells being provided with valved vents opening from the same between its top and bottom at points spaced vertically to correspond with the number of main siphons in the apparatus.

[Claims 6 to 12 not printed in the Gazette.]

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1,040,641. VACUUM-CREATING APPARATUS. MARK F. COYLE, Corry, Pa. Filed Mar. 15, 1911. Serial No. 614,725. (Cl. 230—13.)

1. A vacuum creating device comprising a chambered member adapted to be secured to a supply pipe and having a relatively large inlet on one side, a septum extending across said member in the plane of the upper side of the air-inlet opening, said septum having a nozzle formed on its under side and being provided with a central passage for the flow of fluid from the supply pipe, the upper portion of said passage being flared and the lower portion thereof being cylindrical and extending through the nozzle, means for imparting a rotary motion to the fluid as it enters the said flared upper portion of the passage, and a suction tube secured in the bottom of the chambered member and depending therefrom, said tube being flared downwardly and being contracted intermediate its ends.

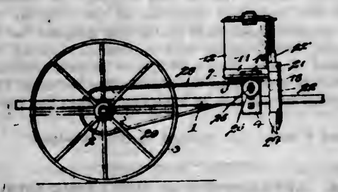


2. A vacuum creating device including a relatively large member adapted to be connected at one end to a supply pipe and having a relatively large air inlet opening at one side, a septum extending across the upper end of the chamber and provided with a passage downwardly tapered for a portion of its length and then having a uniform diameter, a disk disposed above the septum and resting thereon, having a plurality of openings located out of alinement with the axis of the discharge passage in the septum, the walls of said opening being inclined to the face of the plate, whereby to produce rotary motion in the liquid passing through the chamber, and a screw pin passing through the center of the plate and extending into the conical passage, said pin being adjustable through the plate to control the discharge through the passage.

3. A vacuum creating device including a relatively large chamber having a nozzle disposed in its upper portion of relatively small diameter, the side wall of the chamber being formed with a relatively large inlet air opening, a discharge pipe depending from said chamber, and downwardly expanded for a portion of its length, then contracted, and then again downwardly expanded the lower end of the discharge pipe being greater in diameter than the upper end thereof, the upper end of the discharge pipe being less in diameter than the chamber, but larger than the nozzle, and means located above the nozzle for imparting a whirl to the liquid passing through the nozzle.

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1,040,642. FERTILIZER-DISTRIBUTING ATTACHMENT. WILLIAM A. DALTON, Patton, Mo. Filed May 11, 1912. Serial No. 696,706. (Cl. 111—6.)



1. In a device of the character described, the combination of a frame, angular plates secured to said frame, hoppers mounted upon said plates and adapted for lateral adjustment, rotary disks mounted within said hoppers,

said disk being provided with a plurality of radially projecting grooves, said hoppers each having an opening formed on one side thereof, discharged spouts communicating with said openings, a shaft mounted in the vertical portions of said plates, and means mounted upon said shaft adapted to communicate motion to the disks to discharge fertilizer through the openings in the side of the hoppers into the discharge spout.

2. In a device of the character described, the combination of a frame, angular plates mounted upon the frame having a plurality of openings formed in their horizontal portions, an elongated connecting plate having a plurality of openings formed therein and adapted to connect the ends of the horizontal portions of the first plates, hoppers mounted upon said plates, rotary fertilizer disks mounted in said hoppers having a plurality of radially disposed grooves therein, pins formed upon the lower side of said disks and adapted to project through the bottom of the hoppers, gears mounted upon the lower ends of said pins, said hoppers each having an opening in one side thereof, discharge spouts communicating with said openings, a shaft mounted in the vertical portions of the angular plates, gears mounted upon said shaft and adapted to mesh with the gears on the lower ends of said pins, and means for rotating said shaft to revolve the fertilizer disks and distribute the fertilizer through the openings in the sides of the hoppers into the discharge spouts.

3. In a device of the character described, the combination of a frame, angular plates mounted upon the frame, securing plates mounted upon said angular plates and adjustably secured thereto, said securing plates having their outer ends provided with a circular enlargement, having a similar shaped opening formed therein, rings hingedly secured to the outer ends of said securing plates, cross strips arranged in said rings at right angles to each other, hoppers having their lower ends disposed within said rings and rigidly secured thereto, downwardly extending sleeves formed on the lower side of the cross strips, rotary distributing disks mounted in said hoppers, having a plurality of radially disposed grooves formed therein, centrally arranged pins formed on the lower side of said disks and disposed within said sleeves, gears mounted upon the lower ends of said pins, said hoppers each having an opening in one side thereof, discharge spouts communicating with said openings, a shaft mounted in the vertical portions of the angular plates, gears mounted upon said shaft and adapted to mesh with the gears on the lower ends of the pins, and means for rotating said shaft to revolve the distributing disks and distribute the fertilizer through the openings in the sides of the hopper into the discharge spouts.

4. In a device of the character described, the combination of a frame, angular plates secured to said frame, hoppers mounted upon the plates and adapted for lateral adjustment, said hoppers each having an opening formed in one side thereof, discharge spouts communication with said openings and means for discharging fertilizer through the openings in the side of the hopper into the discharge spouts.

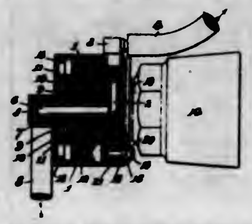
5. In a device of the character described, the combination of a frame, angular plates mounted upon the frame having a plurality of openings formed in their horizontal portion, an elongated connecting plate having a plurality of openings formed therein and adapted to connect the ends of the horizontal portions of the angular plates, hoppers mounted upon said plates and adapted for lateral adjustment, said hoppers each having an opening formed in one side thereof, discharge spouts communicating with said openings, and means for discharging fertilizer through the openings in the side of the hoppers into the discharge spouts.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,643. APPARATUS FOR INFLATING ROTATING TIRES. RICHARD E. DARNLEY, Huddersfield, England. Filed Jan. 30, 1912. Serial No. 674,358. (Cl. 152—11.)

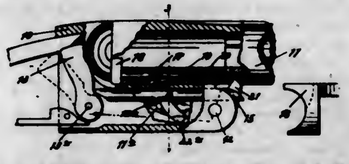
The combination, with a wheel hub, of a casing secured to the hub and provided with a chamber arranged axially in line with the hub, said casing having an air outlet at one end for connection with the wheel tire, and having also an annular recess and a removable cover at its other end, an air inlet tube projecting through the said cover and mounted axially in the said chamber and provided with means for holding it in air-tight relation with the said



outlet, an outer ball race secured in the said recess inside the casing, an inner ball race secured on the said tube inside the casing, and balls running in the said ball races, the said cover being arranged to bear against the inner ball race and thereby prevent it and the air inlet tube from sliding longitudinally in the casing.

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1,040,644. BREAKDOWN GUN. WALTON C. DAVENPORT, Norwich, Conn. Filed Dec. 1, 1911. Serial No. 663,328. (Cl. 42—47.)



1. In a break-down gun, in combination a spring-actuated ejector rod and means vertically slidable in the barrel lug for normally restraining the same, a longitudinally-movable cocking rod, and means coöperating with said restraining means and operated by said cocking rod for releasing the said restraining means upon the breaking down of the barrels.

2. In a break-down gun, the combination of a spring actuated ejector rod having its front end reduced in diameter, a collar in which said reduced end is received, a spring abutting said collar to force the collar and extractor rod rearward, means engaging said collar for restraining such movement of the ejector rod, and a longitudinally movable cocking rod coöperating with said restraining means.

3. In a break-down gun, the combination of a spring actuated ejector rod having its front end reduced in diameter, a collar in which said reduced end is received, a spring abutting said collar to force the collar and extractor rod rearward, means engaging said collar for restraining such movement of the ejector rod, said restraining means having an offset portion, and a longitudinally movable cocking rod having a radial projection for coöperation therewith.

4. In a break-down gun, the combination of a spring actuated ejector rod having its front end reduced in diameter, a collar in which said reduced end is received, a spring abutting said collar to force the collar and extractor rod rearward, means engaging said collar for restraining such movement of the ejector rod, said restraining means having an offset portion, and a longitudinally movable cocking rod having a radial projection for coöperation therewith, said restraining means being mounted for vertical sliding movement in ways on the barrel lug.

5. In a break-down gun, the combination of a spring actuated ejector rod having its front end reduced in diameter, a collar in which said reduced end is received, a spring abutting said collar to force the collar and extractor rod rearward, means engaging said collar for restraining such movement of the ejector rod, said restraining means having an offset portion, a longitudinally movable cocking rod having a radial projection for coöperation therewith, the frame, and a fixed horn thereon, said ejector rod projecting forwardly beyond the barrel lug to engage said horn.

[Claim 6 not printed in the Gazette.]



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1,040,645. NOZZLE-HOLDER. GEORGE S. DAVIS, Worcester, Mass., assignor to Parker Wire Goods Company, Worcester, Mass., a Corporation of Massachusetts. Filed June 2, 1909. Serial No. 499,694. (Cl. 248—29.)



In a device of the class described, the combination of a nozzle holder comprising a single piece of wire bent to form a plurality of loops in alinement to receive the nozzle and having its extremities bent to form eyelets, a supporting standard adapted to have its lower extremity forced into the ground, and having its upper extremity forming an eyelet, and a bolt passing through the eyelets on the holder and the standard to lock these parts together.

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1,040,646. SAFETY WHIP-HOLDER. LUCKEY C. DAVIS, Thyatira, Miss. Filed Dec. 4, 1911. Serial No. 663,848. (Cl. 21—180.)



1. A whip socket embodying a casing, having a base, upstanding resilient arms secured to the base, an inwardly tapered collar disposed between the upper ends of the arms and the casing, a wedging member interposed between the collar and one of the arms and adapted to move upwardly against the tapered face of the collar and force said arm inwardly against a whip, and means for locking the wedge in adjusted position.

2. A whip socket embodying a casing, upstanding resilient arms disposed within the casing, a collar beveled on its lower inner face and disposed between the upper ends of the arms and said casing, a wedging bar interposed between one of the arms and the casing and having one end bearing against the beveled face of the collar and provided with a laterally disposed lug on its lower inner face adapted to engage a longitudinal guiding slot formed in the arm, and an operating button upon the bar extending through the wall of the casing.

3. A whip socket including a casing, upstanding resilient arms disposed therein, a wedging bar slidably interposed between one of the arms and the casing, teeth formed on the wedging bar, and a spring depressed pawl mounted on the arm and adapted to engage the teeth and hold the wedge in adjusted position, said pawl being adapted to be disengaged by the action of a key.

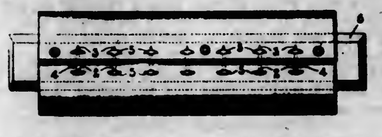
4. A whip socket including a casing, having a base, an upstanding resilient arm secured to the base, a wedging bar mounted for longitudinal movement and disposed between the said arm and the casing, the wedging bar being provided with teeth, a key released, spring pressed pawl mounted on the arm and engaging the teeth of the bar, and a spring operatively connected to the bar and the base and adapted to lower said bar when the latter is released from engagement with the pawl.

5. A whip socket embodying a casing, a collar disposed at the one end of the casing and having an inclined face, coacting resilient arms rigidly mounted within the casing and having their upper ends concavo-convex and the terminals thereof bent inwardly to form coacting gripping portions, and means interposed between one of the arms and the casing and adapted to be moved to a position between the inclined face of the collar and the adjacent gripping portion to force the latter into engagement with a whip.

[Claim 6 not printed in the Gazette.]

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1,040,647. PNEUMATIC TIRE. MARK A. DEAS, Pascagoula, Miss., assignor to American Tire Company, St. Louis, Mo., a Corporation of Missouri. Filed Feb. 1, 1911. Serial No. 605,884. (Cl. 152—24.)



1. A jacket of the character described having longitudinal edges, and double headed connecting devices having rods bent at their longitudinal centers and arranged in the jacket adjacent to its edges whereby said edges are held from separation; said jacket being provided with perforations adjacent to one of its edges within which the rods are closely fitted, and elongated inwardly tapered apertures adjacent its other edge through which the heads of the connecting devices may be passed after the latter are arranged in the jacket adjacent to the first mentioned edge.

2. In a pneumatic tire, an outer casing provided with beads, an inner tube within said outer casing, a jacket between said outer casing and inner tube, the said jacket having separable edges, headed connecting rods uniting the separable edges of said jacket and bearing against the beads of said outer casing, and a flap carried by said jacket interposed between said inner tube and said connecting rods.

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1,040,648. SOUND-BOX FOR TALKING-MACHINES AND OTHER ACOUSTICAL INSTRUMENTS. ERNEST DE LA RUE, London, England. Filed Apr. 21, 1911. Serial No. 622,581. (Cl. 181—11.)

1. In a sound box for acoustical instruments, a diaphragm having a substantially rigid central portion and

supported at its periphery upon a single resilient support of circular section at one side of the diaphragm and exercising upon said support an oblique thrust relatively to the direction of reciprocation of the diaphragm, a stylus bar and an adjustable tie between the diaphragm and stylus bar adapted to draw the diaphragm against the resilient support.



2. In a sound box for acoustical instruments, a diaphragm having a dished central portion, and supported at its periphery upon a single resilient support of circular section at one side of the diaphragm and exercising upon said support an oblique thrust relatively to the direction of reciprocation of the diaphragm, a stylus bar and an adjustable tie between the diaphragm and stylus bar adapted to draw the diaphragm against the resilient support.

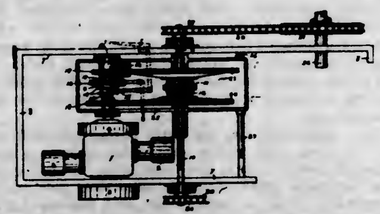
3. In a sound box for acoustical instruments, a diaphragm having a substantially rigid central portion, and a peripheral corrugation supported at one side by a resilient support of circular section and exercising upon said support an oblique thrust relatively to the direction of reciprocation of the diaphragm, a stylus bar and an adjustable tie between the diaphragm and stylus bar adapted to draw the diaphragm against the resilient support.

4. In a sound box for acoustical instruments, a diaphragm having a peripheral corrugation with which it rests upon a resilient support of circular section at one side of the diaphragm and exercising upon said support an oblique thrust relatively to the direction of reciprocation of the diaphragm, a stylus bar and an adjustable tie between the diaphragm and stylus bar adapted to draw the diaphragm against the resilient support.

5. In a sound box for acoustical instruments, a diaphragm having a peripheral corrugation of substantially U section with which it rests upon a resilient support of circular section at one side of the diaphragm and exercising upon said support an oblique thrust relatively to the direction of reciprocation of the diaphragm, a stylus bar and an adjustable tie between the diaphragm and stylus bar adapted to draw the diaphragm against the resilient support.

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1,040,649. TRANSMISSION-GEARING. JOHN DEMMLER, Grove City, Pa. Filed May 15, 1912. Serial No. 697,382. (Cl. 74—58.)



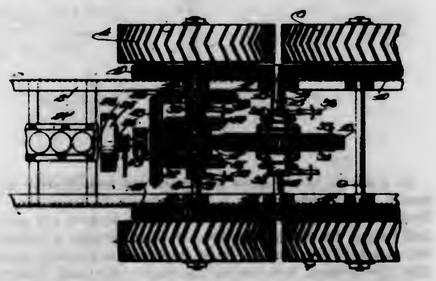
1. In a transmission gearing, the combination of a main shaft, means to drive the same, a sleeve slidable thereon and revoluble therewith, said sleeve formed with clutch member at each end and a spur gear, a pinion loosely mounted on said shaft at each end of the sleeve, driven gears meshing with said pinions, a small gear in mesh with one of the driven gears, and means to cause the small gear to move into and out of mesh with the gear on the sleeve.

2. In a transmission gearing, the combination of a shaft, means to drive the same, a sleeve slidable thereon and revoluble therewith and provided with a clutch member at one end, a pinion revoluble on said shaft and having a clutch member adapted to be engaged by the clutch on the sleeve, a driven gear meshing with said pinion, a pinion formed on said sleeve, a small gear meshing with the driven gear and means to move the same into engagement with the pinion on the sleeve.

3. In a transmission gearing, the combination of a main shaft and means to drive the same, a sleeve slidable thereon and revoluble therewith, said sleeve formed with a clutch member at each end and a spur gear, pinions of different sizes loosely mounted on said shaft, one at each end of the sleeve, and provided with clutch members adapted to be engaged by the clutch member on the adjacent end of the sleeve, driven gears meshing with said pinions, a small gear mounted adjacent one of said driven gears, and means to cause said small gear to connect said driven gear and the gear on said sleeve, and means to slide the sleeve longitudinally to cause it to drive either pinion at will.

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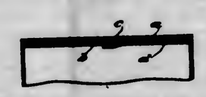
1,040,650. TRACTION-ENGINE. RICHARD C. DE WITT, Sutter, Cal. Filed Nov. 15, 1911. Serial No. 660,391. (Cl. 21—114.)



An engine comprising a frame, two pairs of driving wheels and a steering wheel, gears upon each end of the driving wheel shafts, and intermediate pinions, one of which is mounted on a countershaft and the other upon a sleeve turnable upon said shaft, a gear wheel loose upon the countershaft, a pinion engaging therewith upon one of the driving wheel shafts, a motor with its shaft journaled at right angles with the wheel and countershaft, a bevel pinion upon the motor shaft, bevel gears upon each side of the pinion upon the wheel shaft with which the bevel pinion engages, a bevel gear of larger diameter than the pinion and a coacting gear upon the wheel shaft, clutches upon the wheel shaft to engage either of the bevel gears on said shaft, and other independent clutches upon the countershaft and its sleeve to engage the countershaft gear.

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1,040,651. CARTON. WILLIAM H. DOBLE, Quincy, Mass., assignor to Pneumatic Scale Corporation, Limited, Quincy, Mass., a Corporation of Maine. Filed June 14, 1912. Serial No. 703,629. (Cl. 229—17.)



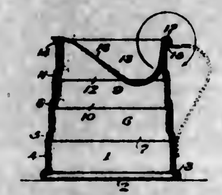
1. A carton having a plurality of overlapping end closing flaps, each of which has a portion outlined by a broken line of cuts to enable said portion to be readily detached, the said detachable portions being located in alinement with each other, the detachable portions being of diminishing sizes from the innermost to the outermost.



2. A carton having a plurality of overlapping end closing flaps, each of which has a portion outlined by a broken line of cuts to enable said portion to be readily detached, the said detachable portions being located in alinement with each other, the detachable portions being of diminishing sizes from the innermost to the outermost, the sides of each detachable portion being parallel with the corresponding sides of the other detachable portions.

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1,040,652. COLLAPSIBLE DRINKING VESSEL. EDWIN RUST DOUGLAS, Abington, Pa., assignor to The Hero Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Oct. 9, 1911. Serial No. 653,472. (Cl. 65—58.)



1. A collapsible drinking vessel, comprising a closed base member, a plurality of cylindrical sections of different diameters admitting of one section nesting within an adjoining section, a smaller diameter section having an edge-portion conically expanded and a larger diameter section having an edge-portion correspondingly conically contracted to frictionally and expansively engage said flaring edge portion when the sections are distended, and said conical edge-portions being of substantially the same thickness as the cylindrical portions.

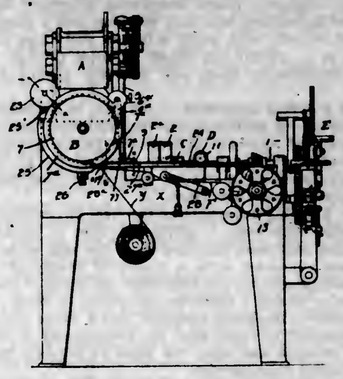
2. A collapsible drinking vessel, comprising a base member having a cylindrical ring of uniform diameter projecting upward therefrom, the upper portion of said base member being beveled inwardly, a second section having its intermediate portion formed of a cylindrical ring of uniform diameter throughout, and provided with a lower outwardly beveled portion of the same thickness as said cylindrical portion said outward bevel conforming to the upper bevel of said base member, the top of said second section above said cylindrical portion being beveled inwardly, and a third section having its intermediate portion composed of a cylindrical ring of uniform diameter, and provided with a lower outwardly beveled portion of the same thickness as said cylindrical portion and beveled outwardly at the same angle as the top inward bevel of said second section, said cylindrical portions being of varying diameters, and the juxtaposed beveled portions when the vessel is expanded being beveled on the same angle and in intimate frictional contact with each other.

3. A collapsible drinking vessel, comprising a base member, having straight cylindrical sides, and an inwardly contracted upper portion 5, a second section 6 having its body portion of uniformly cylindrical contour, and of an outside diameter equal to the inside diameter of said contracted portion 5, the lower portion 7 of said second section being of the same thickness as said cylindrical body portion and being outwardly flared to snugly fit the inner periphery of said contracted portion 5, the upper portion 8 being inwardly contracted, and an upper section 9 having an intermediate straight cylindrical body portion of the same external diameter as the inside diameter of said beveled portion 8, the lower portion 10 of said section 9 being beveled to fit within said beveled portion 8, and being of the same thickness as said cylindrical body portion.

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1,040,653. CONTINUOUS CIGARETTE-MACHINE. NAPOLEON DU BAUL, Cincinnati, Ohio. Filed May 14, 1910. Serial No. 561,508. (Cl. 131—43.)

1. A cigarette machine having a traveling conveying trough for tobacco, a wrapping mechanism, a belt constituting the bottom surface of said trough forming a bridging wall between said trough and said wrapping mechanism and comprising a tongue extending tangentially from said rope forming mechanism.



2. A cigarette machine having a traveling conveying trough for tobacco and a belt constituting the bottom surface of said trough and moving with the tobacco therein and stripping the tobacco therefrom, a wrapper paper feeding means and a paper guide adapted to hold wrapper paper in position constituting a closure for the trough and moving with the tobacco therein.

3. In a cigarette machine, a rotary conveying trough receiving tobacco and forming it into a rope, a wrapping mechanism and a belt constituting the bottom surface of said trough and extending from the trough in the direction of the tobacco's movement to strip the tobacco tangentially from the trough and forming a bridging wall between said trough and said wrapping mechanism.

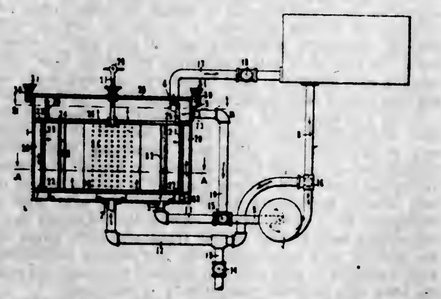
4. In a cigarette machine, a rotary conveying trough, a paper guide conforming thereto, means feeding tobacco thereto, a belt forming the bottom surface of said trough and extending therefrom tangentially at the point of departure of the tobacco and a packing and driving wheel entering the trough and condensing the tobacco therein.

5. In a cigarette machine, a tube through which the tobacco passes having a belt forming a top surface therein traveling with the tobacco and a paper guide supporting a paper in position to provide a counterpart surface in said tube, likewise traveling with the tobacco.

[Claims 6 to 42 not printed in the Gazette.]

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1,040,654. DYEING-MACHINE. WILLIAM SACKETT DUBLL, Amsterdam, N. Y., assignor to Klauder-Weldon Dyeing Machine Company, Amsterdam, N. Y., a Corporation of New York. Filed Sept. 3, 1910. Serial No. 580,418. (Cl. 8—18.)



1. In a dyeing apparatus or the like, in combination, material confining means comprising a base and alternate

imperforate and foraminous wall portions, a cover having a discharge opening therein and means for circulating a liquid through said apparatus.

2. In a dyeing apparatus or the like, in combination, material confining means comprising alternate imperforate and foraminous side wall portions, and a foraminous top and bottom, said parts being so positioned and arranged as to permit dye liquor to enter through a plurality of inclosing faces and converge toward another face.

3. In a dyeing apparatus or the like, in combination, a tank, perforated partitions coacting with the walls of said tank at spaced intervals thereabout to form a material confining receptacle, and a movable cover having an opening and valve portions, the latter adapted to close and open perforations in the partitions.

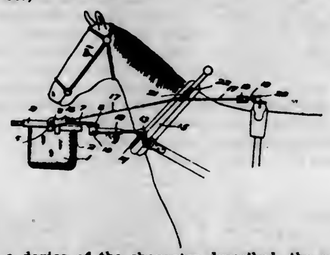
4. In a dyeing apparatus or the like, in combination, a receptacle comprising a perforated base, a plurality of perforated partitions arranged about the side walls of the tank and connected with a source of supply of dyeing fluid, said partitions coacting with the walls of the tank to form a material confining receptacle, a cover having a plurality of discharge openings, and a flange about said cover adapted to coact with the perforations in the partitions to close and open the same to regulate the flow of dye liquor therethrough.

5. In a dyeing apparatus or the like, in combination, a cylindrical tank having a perforated false bottom, a plurality of partitions having perforations therein arranged about the side walls of the tank, the space behind the partitions being in communication with the space beneath the false bottom whereby the dye liquor from a common source of supply may flow through said perforations, and a perforated cover therein coacting with the side walls of the tank and the partitions to close and open the perforations in the partitions thereby regulating the flow of dye liquor therethrough.

[Claims 6 to 18 not printed in the Gazette.]

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1,040,655. FEED-BAG. JOHN DULKOWSKI, Philadelphia, Pa. Filed May 27, 1911. Serial No. 629,796. (Cl. 119—67.)



1. In a device of the character described, the combination with a feed bag, metal frames secured to the open end of the feed bag, pivot pins connecting said metal frames, means on one frame adapted to engage the other frame for locking the frames together, a handle on one of said frames, rearwardly projecting bars on said pins, a transverse bar secured to said rearwardly projecting bars, telescoping rods pivoted to said transverse bar, and hooks on the ends of said telescoping rods, substantially as described.

2. In a device of the character described, the combination with a feed bag, metal frames secured to the open end of the feed bag, pivot pins connecting said metal frames, means on one frame adapted to engage the other frame for locking the frames together, a handle on one of said frames, rearwardly projecting bars on said pins, a transverse bar secured to said rearwardly projecting bars, telescoping rods pivoted to said transverse bars, hooks on the ends of said telescoping rods, and flexible connecting means secured to said pins and adapted to engage the saddle hook of a harness, substantially as described.

3. In a device of the character described, the combination with a feed bag, metal frames secured to the open end of the feed bag, pivot pins connecting said metal frames, means on one frame adapted to engage the other frame for locking the frames together, a handle on one of said frames, rearwardly projecting bars on said pins, a transverse bar secured to said rearwardly projecting bars, telescoping rods pivoted to said transverse bar, hooks on the ends of said telescoping rods, flexible connecting means secured to said pins and adapted to engage the saddle hook of a harness, metal brackets secured on said pivot pins, and inwardly projecting fingers on said brackets adapted to be engaged by said frames when the latter are in a horizontal or open position, substantially as described.

4. In a device of the character described, the combination with a feed bag, metal frames secured to the open end of the feed bag, pivot pins connecting said metal frames, means on one frame adapted to engage the other frame for locking the frames together, a handle on one of said frames, rearwardly projecting bars on said pins, a transverse bar secured to said rearwardly projecting bars, telescoping rods pivoted to said transverse bar, and hooks on the ends of said telescoping rods, metal brackets secured on said pivot pins, and inwardly projecting fingers on said brackets adapted to be engaged by said frames when the latter are in a horizontal or open position, substantially as described.

5. In a device of the character described, the combination with a feed bag, metal frames secured to the open end of the feed bag, pivot pins connecting said metal frames, means on one frame adapted to engage the other frame for locking the frames together, a handle on one of said frames, rearwardly projecting bars on said pins, a transverse bar secured to said rearwardly projecting bars, telescoping rods pivoted to said transverse bar, hooks on the ends of said telescoping rods, flexible connecting means secured to said pins and adapted to engage the saddle hook of a harness, metal brackets secured on said pivot pins, and inwardly projecting fingers on said brackets adapted to be engaged by said frames when the latter are in a horizontal or open position, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,656. CONCRETE-SUPPLYING APPARATUS. CHARLES W. EATON, Chicago, Ill. Filed Dec. 19, 1910. Serial No. 598,237. (Cl. 214—12.)



1. The combination with a suitable track, of a tower-like carriage arranged for movement along said track, a frame mounted upon the carriage to rotate about a vertical axis, a concrete mixer mounted upon said frame to rotate about its own horizontal axis, a mixer-actuating motor supported by and rotating with said frame, and means for at will rotating said frame through any desired angle with respect to the carriage.

2. The combination with a non-rotating, tower-like support, of a frame mounted upon said support for rotary adjustment about a vertical axis; a concrete mixer arranged for rotation about its own horizontal axis, a hopper for supplying solid materials to the mixer, a tank for supplying water to the mixer, and a motor for actuating the mixer, said mixer, hopper, tank and motor all being mounted upon said frame; means carried by the support for delivering solid materials and water in said hopper and tank, respectively; and means for at will rotating the frame about said vertical axis.

3. The combination with a tower-like support, of a frame mounted upon said support for rotation about a vertical axis, a concrete mixer mounted on said frame, a motor carried by said frame and arranged to rotate the mixer upon its horizontal axis, a hopper carried by said frame, in the line of said axis, above the mixer and discharging into the same, a tank carried by said frame in the line of said axis, above the mixer and discharging into the same, and means carried by said support and free from said frame, for supplying materials, in the line of said axis, to said hopper and tank.

4. The combination with a suitable carriage, of a horizontal gear fixed to the top of the carriage, a horizontal platform revolubly mounted above the gear, a pinion revolubly mounted upon the platform and engaging said gear, and means for at will rotating the pinion and thereby compelling the platform to rotate, a concrete mixer fixed to the platform, and means for operating the mixer.

5. The combination with a rotary supporting structure rotatable about a vertical axis and a concrete mixer fixed thereto, of a charging hopper rotating with said structure and discharging into the mixer, means for supplying dry concrete material to said hopper, a water tank rotating with said structure discharging into said mixer, means for supplying water to said tank, and means for controlling both discharges.

[Claims 6 and 7 not printed in the Gazette.]



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1,040,657. ANIMAL-TRAP. THOMAS J. ELLISON, Terrill, Ky. Filed May 15, 1912. Serial No. 697,453. (Cl. 43—27.)



1. An animal trap comprising a pair of spring-arms, means for locking the arms against spreading, a chain having one of its ends fastened to one of the spring-arms and formed into a noose, an anchoring device for the other end of the chain, a housing on the other spring-arm through which housing the chain passes, the noose being located outside the housing, pawls in the housing for holding the chain from slipping in one direction, and a detent for holding and releasing the locking means, said detent extending into the noose.

2. An animal trap comprising a pair of spring-arms, a chain having one of its ends fastened to one of the spring-arms and formed into a noose, an anchoring device for the other end of the chain, a housing on the other spring-arm through which housing the chain passes, the noose being located outside the housing, pawls in the housing for holding the chain from slipping in one direction, a trigger carried by the first mentioned spring-arm, a pin on the housing engageable by the trigger, and a detent for holding and releasing the trigger, said detent extending into the noose.

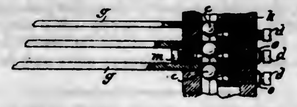
3. An animal trap comprising a pair of spring-arms, means for locking the arms against spreading, a chain having one of its ends fastened to one of the spring-arms and formed into a noose, an anchoring device for the other end of the chain, releasable means for locking the last-mentioned end of the chain to the spring-arm to which its other end is fastened, a housing on the other spring-arm through which housing the chain passes, pawls in the housing for holding the chain from slipping in one direction, and a detent for holding and releasing the locking means, said detent extending into the noose.

4. An animal trap comprising a pair of spring-arms, a chain having one of its ends fastened to one of the spring-arms and formed into a noose, an anchoring device for the other end of the chain, releasable means for locking the last-mentioned end of the chain to the spring-arm to which its other end is fastened, a housing on the other spring-arm through which housing the chain passes, pawls in the housing for holding the chain from slipping in one direction, a trigger carried by one of the spring-arms, a pin on the other spring-arm engageable by the trigger, and a detent for holding and releasing the trigger, said detent extending into the noose.

5. An animal trap comprising a pair of spring-arms, means for locking the arms against spreading, a chain having one of its ends fastened to one of the spring-arms and formed into a noose, said spring-arm having a loop through which the other end of the chain loosely passes, an anchoring device for the last-mentioned end of the chain, a pin carried by said spring-arm and releasably engaging said end of the chain, a housing on the other spring-arm through which housing the chain passes, pawls in the housing for holding the chain from slipping in one direction, and a detent for holding and releasing the locking means, said detent extending into the noose.

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1,040,658. TYPE-BAR PIVOT. HUBERT ENDEMANN, Vienna, Austria-Hungary. Filed Apr. 2, 1912. Serial No. 687,990. (Cl. 197—39.)



1 In a type-bar pivot, the combination of a segment having a recess formed in each side thereof; a type-bar to engage in the segment and having a conical recess in the face thereof opposite the segment recess; a body loosely engaging in said segment recess and having a circular projection to engage in the conical recess in the type-bar; and adjustable means to wedge said body toward the type bar, substantially as and for the purpose specified.

2. In a type-bar pivot, the combination of a segment having a recess formed in each side thereof; a type-bar to engage in the segment and having a conical pivot hole in the face thereof opposite the segment recess; a ball loosely engaging in the segment recess; and adjustable means to wedge the ball toward the type-bar, substantially as and for the purpose specified.

3. In a type-bar pivot, the combination of a segment having a recess formed in one side thereof; a type bar to engage in said segment having a conical recess in the face thereof opposite the recess in the segment; a body loosely engaging in the segment recess and having a semi-spherical portion to engage in the recess in the type-bar; and a screw having a conical point, said screw being movable parallel to the type-bar, and the conical point being in contact with the outer end of the body engaging in the recess, substantially as and for the purpose specified.

4. In a type-bar pivot, the combination of a segment having a recess formed in each side thereof; a type-bar to engage in said segment having a conical pivot hole in the face thereof opposite the segment recess; a ball loosely engaging in the segment recess; and a screw in the segment having a conical point, said screw being movable parallel to the plane of the bar, and the conical point of the screw being in contact with the outer half of the ball, substantially as and for the purpose specified.

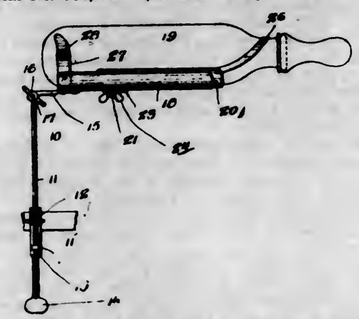
5. In a typewriting machine, the combination of a support having a slot and a bore transversely to the slot and

extending through one side wall of the slot; a type bar to engage in the slot in the support, said type-bar having a conical recess in one face thereof; and means to engage in the bore in the support and in the type-bar recess to releasably maintain the type-bar in the support.

[Claims 6 to 10 not printed in the Gazette.]

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1,040,659. NURSING-BOTTLE HOLDER. FRANCIS H. ESCHBRICH, Washington, D. C. Filed May 29, 1912. Serial No. 700,485. (Cl. 215—116.)



In a nursing bottle, the combination with a standard, of a clamp rotatable and slidable thereon, means for rendering the clamp rigid upon the standard, an arm pivoted to the stardard, means for rendering said arm rigid relative to the standard, a plate secured to said arm, a second plate adjustable upon the first plate, means for rendering said plates rigid, a yoke carried by one plate, and a spring clamp secured to the other plate, said clamp comprising a pair of curved spring arms adapted to be parted by the pressure of a bottle therebetween to grasp the bottle and engage the opposite sides and end thereof.

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1,040,660. METHOD OF MAKING BREAD. EDWARD FARWELL, Weymouth, England. Filed Feb. 26, 1912. Serial No. 680,024. (Cl. 99—10.)

1. The improved method of making bread which consists in reducing to a crumb-like or granular state a material similar to ordinary bread, which granulated material is then re-baked and the product added in suitable proportion to the sponge or straight dough of the bread.

2. The improved method of making bread which consists in baking a mixture in suitable proportions of flour, water, salt, malt flour and yeast, which is then ground or broken up into a crumb-like or granular state and re-baked until hard or crisp and the product added to the sponge or straight dough as required substantially as set forth.

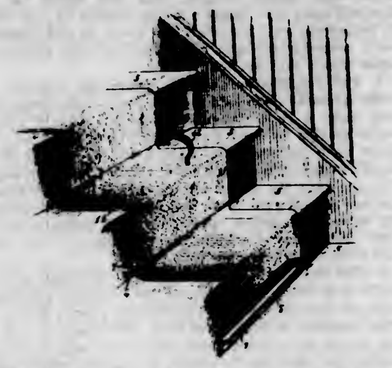
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1,040,661. STAIR-CARPET FASTENER. JOSEPH D. GALLAGHER, Glen Ridge, N. J. Filed June 26, 1911. Serial No. 635,391. (Cl. 16—26.)

1. A stair carpet fastener comprising a clasping member having a long narrow slot through which a fold of the carpet may be passed, and a flexible securing member adapted to lie within the fold of the carpet and back of said slot, whereby the securing member may be used in box stairs or in a limited space.

2. The combination with a clasping member having a long narrow slot and an enlarged internal recess, of a flexible securing member greater in diameter than the width of said slot and adapted to lie within said internal recess, whereby the securing member may be used in box stairs or in a limited space.

3. A stair carpet fastener comprising two clips having projecting clasping portions arranged adjacent one another, the free ends of which provide a long narrow slot through which a fold of the carpet may be passed, and a flexible securing member adapted to lie within the fold of the carpet between said clips to thereby retain the loop of the carpet in place, whereby the securing member may be used in box stairs or in a limited space.



4. The combination with a clasping member formed from two clips separate from one another and each comprising a base portion and a curved clasping portion, said curved clasping portions being arranged adjacent one another to thereby provide an enlarged internal recess, the free ends of which clasping portions provide a long narrow slot; of a flexible securing member greater in diameter than the width of said slot, and adapted to lie within said internal recess, whereby the securing member may be used in box stairs or in a limited space.

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1,040,662. METHOD OF MAKING TIPPED LACINGS. ERNEST A. GALLISON, Everett, Mass., assignor to Colonial Fast Color Tipping Company, Boston, Mass., a Corporation of Maine. Original application filed Feb. 20, 1912, Serial No. 678,917. Divided and this application filed Apr. 2, 1912. Serial No. 688,074. (Cl. 18—59.)

1. The method of making tipped lacings, consisting in wrapping a blank of sheet celluloid around a portion of a length of ribbon while subjected to the action of heat and a solvent, and subjecting the blank and the inclosed ribbon to pressure to compress or condense the ribbon and intimately unite the inner surface of the celluloid with the surface fibers of the ribbon.

2. The method of making tipped lacings, consisting in wrapping a blank of sheet celluloid around a portion of a length of ribbon with the edges of the blank overlapping while subjected to the action of heat and a solvent, and subjecting the blank and the inclosed ribbon to pressure to compress or condense the ribbon and intimately unite the inner surface of the celluloid with the surface fibers of the ribbon.

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1,040,663. CORN-HUSKING MACHINE. JAMES E. GOODHUE, St. Charles, Ill. Filed May 25, 1912. Serial No. 699,637. (Cl. 130—21.)

1. In a machine of the character set forth, the combination of a perforated support for the material from which the loose kernels of corn are to be separated, a chute below said support, air-blast-producing means for blowing air into said chute, and an endless conveyer for moving said material along said support, supported to extend intermediate said blast-producing means and said chute and traverse the path of said air-blast.

2. In a machine of the character set forth, the combination of a support for receiving the husks, a perforated support beyond said first-named support for receiving the pieces of stalks, a chute below said perforated support, air-blast-producing means for blowing air into said chute, and an endless conveyer supported to extend intermediate said blast-producing means and said chute and traverse the path of said air-blast, for conveying the husks along said first-named support to said perforated support and moving the husks and pieces of stalks with loose kernels of corn mixed therein, over said perforated support.

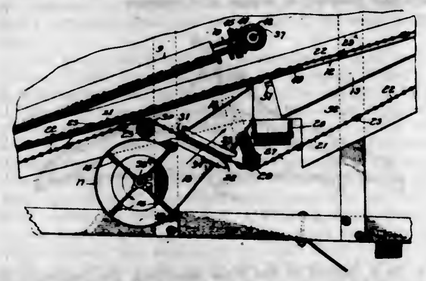


3. In a machine of the character set forth, the combination of a support for receiving the husks, a perforated support beyond said first-named support for receiving the pieces of stalks, a chute below said perforated support, air-blast-producing means for blowing air into said chute, an endless conveyer for feeding the husks along said first-named support to said perforated support and moving the husks and pieces of stalks, with loose kernels of corn mixed therein, over said perforated support, and means engaging with said conveyer against the under and upper sides thereof above and below said chute, respectively, for deflecting said conveyer transversely through said air-blast, for the purpose set forth.

4. In a machine of the character set forth, the combination of a support for receiving the husks, a perforated support beyond said first-named support for receiving the pieces of stalks, a chute below said perforated support, air-blast-producing means, a conduit communicating with said air-blast-producing means and arranged to discharge an air-blast into said chute, and an endless conveyer supported to extend intermediate said blast-producing means and said chute and traverse the path of said air-blast, for conveying the husks along said first-named support to said perforated support and moving the husks and pieces of stalks with loose kernels of corn mixed therein, over said perforated support.

5. In a machine of the character set forth, the combination of a support for receiving the husks, a perforated support beyond said first-named support for receiving the pieces of stalks, a chute below said perforated support, air-blast-producing means, a conduit communicating with said air-blast-producing means and arranged to discharge an air-blast into said chute, and an endless conveyer supported to extend through said conduit and traverse the path of said air-blast, for conveying the husks along said first-named support to said perforated support and moving the husks and pieces of stalks with loose kernels of corn mixed therein, over said perforated support, the cross-sectional area of said conduit at the opening through which said conveyer extends and beyond said conveyer being greater than the cross-sectional area of the conduit at the opposite side of said opening.

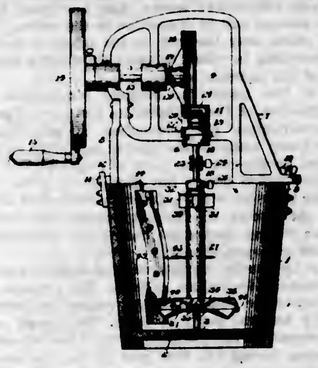
[Claim 6 not printed in the Gazette.]



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1,040,664. CHURN. BENJAMIN M. GRIFFITH and WILLIAM T. MCCULLOUGH, Pittsburgh, Pa. Filed Apr. 24, 1912. Serial No. 692,873. (Cl. 31—42.)

A churn apparatus including an aerating and agitating head comprising an upper and a lower circular plate, said upper plate having radially disposed depressed portions alternating with plane portions and said lower plate also having radially-disposed depressed portions alternating with plane portions, the depressed portions in the upper plate being of greater width than the depressed portions in the lower plate and the depressed portions in each plate being disposed opposite the plane portions in the other plate, spacing-members interposed between the outer termini of the depressed portions of the upper plate and plane portions of the lower plate, and means



securing said spacing-members in position and connecting the two plates together.

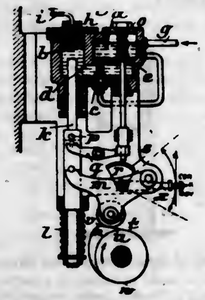
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1,040,665. MANUFACTURE OF A STABLE PREPARATION FROM HYDROGEN PEROXID AND UREA. REINHOLD GRÖTZA and HEINRICH POHL, Charlottenburg, Germany. Filed Sept. 12, 1911. Serial No. 648,995. (Cl. 23—13.)

The process herein described of producing a stable double compound of hydrogen peroxid and urea, which comprises dissolving urea in hydrogen peroxid in excess and adding a small quantity of a substance having an acid reaction and then crystallising the double salt of urea and hydrogen peroxid from the solution.

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1,040,666. FUEL-PUMP FOR COMBUSTION-ENGINES OF THE INJECTION TYPE. JACOB GUNTHER, Bergisch Gladbach, near Cologne, Germany. Filed Jan. 21, 1911. Serial No. 603,845. (Cl. 123—139.)



1. In a fuel pump for internal combustion engines, the combination of a cylinder, its plunger, a fuel-supply, a valve controlling the connection of said fuel-supply with the pump cylinder, mechanical means operating in unison with the plunger for holding said valve open during the first part of the plunger's pressure stroke, mechanical means, also operating in unison with the plunger, for opening said valve near the end of said pressure stroke, and means for closing said valve during the intervening portion of the pressure stroke.

2. In a fuel pump for internal combustion engines, the combination of the cylinder, its plunger, a fuel-supply, a valve controlling the connection of said fuel-supply with the pump cylinder, a spring having a tendency to close

said valve, mechanical means operating in unison with the plunger and in opposition to said spring, for holding the valve open during the first part of the plunger's pressure stroke, and mechanical means, also operating in unison with the plunger and in opposition to the spring, for opening said valve near the end of the pressure stroke, said spring operating to close the valve during the intervening portion of the pressure stroke.

3. In a fuel pump for internal combustion engines, the combination of the cylinder, its plunger, a fuel-supply, a valve-controlling the connection of said fuel-supply with the pump cylinder, mechanical means for holding said valve open during the first part of the plunger's pressure stroke, mechanical means for opening the valve near the end of the pressure stroke, governor-controlled means for varying the timing of the last-named mechanism, and means for closing said valve during the intervening portion of the pressure stroke.

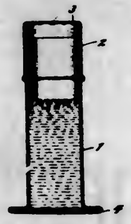
4. In a fuel pump for internal combustion engines, the combination of the pump cylinder, its plunger, a fuel-supply, means for controlling the connection between the fuel-supply and the pump cylinder, mechanism operating on said means during the plunger's suction stroke and to keep it open during the first part of the pressure stroke, mechanism operating on said means near the end of the plunger's pressure stroke to again open communication between the cylinder and the fuel-supply, and a device for keeping said controlling means, during the intervening portion of the pressure stroke, in a position in which said means interrupts the connection between the fuel-supply and the pump cylinder.

5. In a fuel pump for internal combustion engines, the combination of the pump cylinder, its plunger, a fuel-supply, a valve controlling the connection between the fuel-supply and the pump cylinder, a lever operating to open said valve during the suction stroke and to keep it open during the first part of the pressure stroke, another lever operating to open said valve near the end of the plunger's pressure stroke, and means for closing said valve during the intervening portion of the pressure stroke.

[Claims 6 to 8 not printed in the Gazette.]

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1,040,667. ENVELOP-MOISTENER. JOHN FRANK HAMBLY, Oleander, Cal. Filed Jan. 3 1911. Serial No. 600,391. (Cl. 120—6.)

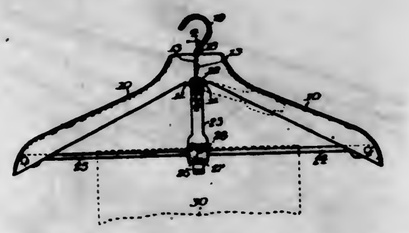


As a new article of manufacture, an envelop moistener consisting of a hollow body adapted to receive a moistening fluid and comprising a drawn tube closed at one end and having the closed end enlarged and of greater cross-sectional area, forming a hollow base, the outer surface of which is rounded to form a smoothing device, said base being resilient to yield slightly in the smoothing operation, and a cap applied to the other or open end of the body, and apertured at its outermost portion to permit escape of the moistening fluid.

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1,040,668. COLLAPSIBLE SUIT-HANGER. JAMES W. HAMILTON, Chicago, Ill. Filed Mar. 7, 1912. Serial No. 682,161. (Cl. 211—13.)

1. In a hanger of the class described, the combination with a pair of main supporting members pivotally connected together at one of their ends and each having at said ends a longitudinally extended slot each provided with a lateral recess, of a hook loosely mounted on the pivot of said members and having its shank extended through said slots and adapted to engage said recesses.

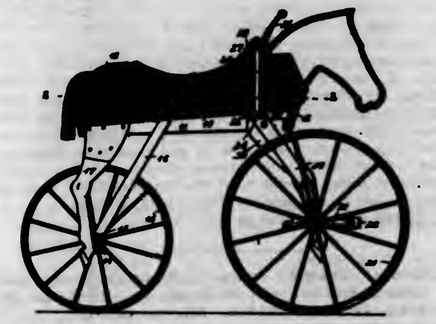


2. In a hanger of the class described, the combination with a pair of channeled main supporting members pivotally connected together at one of their ends and each having at said ends a longitudinally extended slot each provided with a lateral recess to register with one another, of a hook having on the lower portion of its stem a spring surrounding the pivot of said members and having its shank or stem extended through said slots and adapted to engage said recesses, and a brace rod consisting of two sections each having its outer end pivotally connected to the lower portion of one of the main supporting members within the channel thereof and their other ends pivotally connected together and provided with locking means when they are alined.

3. In a hanger of the class described, the combination with a pair of main supporting members pivotally connected together at one of their ends, one of said members having at its pivoted end a longitudinally extended slot, of a hook loosely mounted on the pivot of said members and adapted to be turned into said slot, a brace rod consisting of two sections each having its outer end pivotally connected to the lower portion of one of the main supporting members and their inner ends pivotally connected together, and a depending spring pivotally secured at one of its ends to the pivot of the first named members and normally extended alongside the middle portion of the brace rod.

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1,040,669. VELOCIPEDE. ERNST J. HANSEN, Harlan, Iowa. Filed Dec. 20, 1911. Serial No. 666,951. (Cl. 208—42.)



1. An improved velocipede, comprising a main frame member having an opening near its forward portion, a sheet metal body having its central portion shaped to form an operator's seat and being connected to and supported by the main frame member at the front, rear and top, the lower portion thereof being open and being extended below the main frame member, rear wheels supported by the main frame member, the supports therefor being extended between the sides of the sheet metal body and the main



frame member, a steering fork, a steering wheel therein, a cross head for the fork, a steering stem extended upwardly through the opening in the said frame member, a handle bar fixed to the upper end thereof, there being front leg members on the sides of the steering fork and extended upwardly above the lower edge of the sheet metal body.

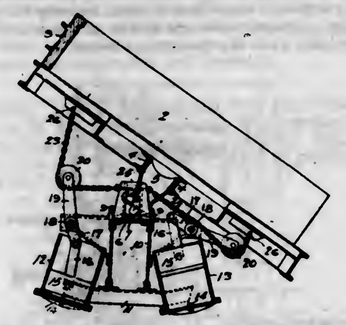
2. An improved velocipede, comprising a main frame member having an opening near its forward portion, a sheet metal body having its central portion shaped to form an operator's seat and being connected to and supported by the main frame member at the front, rear and top, the lower portion thereof being open and being extended below the main frame member, rear wheels supported by the main frame member, the supports therefor being extended between the sides of the sheet metal body and the main frame member, a steering fork, a steering wheel therein, a cross head for the fork, a steering stem extended upwardly through the opening in the said frame member, a handle bar fixed to the upper end thereof, and front leg members fixed to the sides of the steering fork and extended upwardly above the lower edge of the sheet metal body, the upper ends of the front legs and the adjacent portions of the sheet metal body being both curved on lines substantially concentric to the steering stem so that the legs substantially fit the contour of the sheet metal body when the steering wheel is extended to any angle relative to the body.

3. An improved velocipede, comprising a main frame member having an opening near its forward portion, a sheet metal body having its central portion shaped to form an operator's seat and being connected to and supported by the main frame member at the front, rear and top, the lower portion thereof being open and being extended below the main frame member, rear wheels supported by the main frame member, the supports therefor being extended between the sides of the sheet metal body and the main frame member, a steering fork, a steering wheel therein, a cross head for the fork, a steering stem extended upwardly through the opening in the said frame member, a handle bar fixed to the upper end thereof and front leg members fixed to the sides of the steering fork and extended upwardly above the lower edge of the sheet metal body, and a lug fixed in position on the cross head and extended upwardly and designed to engage the sides of the main frame to limit the rotary movement of the steering stem.

4. In a velocipede, the combination of a wooden main frame having a substantially vertical opening extended through its forward portion, a two-part sheet metal body shaped to simulate an animal, the central portion of the body being also shaped to form a suitable operator's seat, the parts of the sheet metal body being supported by the wooden frame and secured thereto at the front, rear and top, said sheet metal body being also provided with an opening in line with the opening in the wooden frame and with a flat portion surrounding said opening to form a bearing, the lower edges of the sheet metal body being extended below the lower edge of the wooden frame, rear legs fixed to the wooden frame and extended downwardly between it and the adjacent portions of the sheet metal body, a rear axle, means for connecting the lower ends of the rear legs to the rear axle, braces fixed to the rear axle extended forwardly and upwardly between the sides of the sheet metal body and the wooden frame and being fixed to the wooden frame, a front axle, pedals thereon, a steering fork connected to the front axle, a cross head at the top of the steering fork, a steering stem at the top of the cross head extended upwardly through the opening in the wooden frame to a point above the sheet metal body, a handle bar detachably mounted thereon and resting upon said bearing portion in the sheet metal body and forward leg members fixed to the outer surfaces of the steering forks, extended upwardly to a point above the lower edge of the sheet metal body and to a point below the lower edge of the wooden frame, the outer surfaces of the upper portion of the front legs and the adjacent portions of the sheet metal body being rounded in a manner substantially concentric to the steering stem, for the purposes stated.

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1,040,670. CAR-DUMPING MECHANISM. KARL H. HANSEN, Pittsburgh, Pa., assignor to Orenstein-Arthur Koppel Co., a Corporation. Filed Oct. 30, 1911. Serial No. 657,691. (Cl. 105—191.)



1. In a dump-car, the combination of the tilting car-body, an underframe supporting said tilting car-body, chains connected at one of their ends to the car-body and at their opposite ends to the underframe, members movably engaging said chains, and mechanism for operating said members to tilt said car-body.

2. In a dump-car, the combination of a tilting car-body, an underframe supporting same, chains connected at one of their ends to said underframe and at their opposite ends to the car-body, movable members, sheaves on said movable members engaging said chains, and means for moving said members to dump said car.

3. In a dump-car, the combination of a tilting car-body, an underframe supporting same, chains connected at one of their ends to said underframe and at their opposite ends to the car-body, pivotally mounted lever arms, sheaves on said arms engaging said chains, and mechanism for moving said arms to tilt said car.

4. In a dump-car, the combination of a tilting car-body, an underframe supporting same, chains connected at one of their ends to said underframe and at their opposite ends to the car-body, members movably engaging said chain, a fluid operated cylinder, and connections between said members and said cylinder for operating said members to dump said car-body.

5. In a dump-car, the combination of a tilting body, an underframe supporting same, chains connected at one of their ends to said underframe and at their opposite ends to the car-body, pivotally mounted lever arms, sheaves on said arms engaging with said chain, a fluid operated cylinder, and connections between said arms and said cylinder for moving the arms.

[Claims 6 to 8 not printed in the Gazette.]

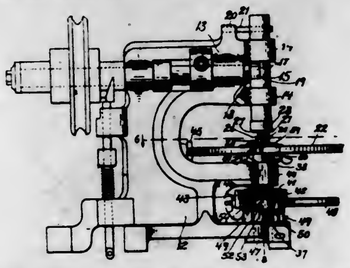
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1,040,671. SNIPPING-MACHINE. THOMAS F. HART, Lynn, Mass. Filed Mar. 12, 1912. Serial No. 683,397. (Cl. 164—50.)

1. In a snipping machine, in combination, a cutting-bed, a reciprocating carrier movable toward and from the bed, a cutter-head engaged with the carrier and having a series of diverging knives, and a gage movably engaged with the cutter-head and normally depressed yieldingly below the knives, whereby the gage is adapted to bear without movement on the bed while the cutter-head is moving.

2. In a snipping machine, in combination, a cutting bed, a reciprocating carrier movable toward and from the bed, a cutter-head having a shank engaged with the carrier and provided with a central socket and with a series of diverging knives, and a gage having a shank slidingly engaged with said socket, the gage being normally depressed yieldingly below the knives, whereby it is adapted to bear on the bed while the cutter-head is moving.

3. In a snipping machine, in combination, a cutting bed, a reciprocating carrier movable toward and from the bed, a cutter-head having a shank engaged with the carrier and provided with a central socket and with a series of diverging knives, a gage having a shank slidingly engaged with said socket, and a spring whereby the gage is normally depressed below the knives and held in contact with the bed while the cutter-head moves.



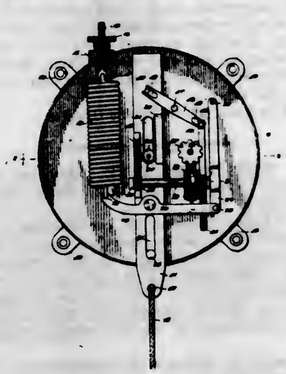
4. In a snipping machine, in combination, a cutting bed, a reciprocating carrier movable toward and from the bed, and having a shank-receiving socket and shank-securing means, a cutter head having a shank detachably secured in said socket and a series of diverging knives, and a gage movably engaged with the cutter head and adapted to bear without movement on the bed while the cutter is moving, the cutter head and gage being loosely connected and applicable to and removable from the carrier as a single part.

5. In a snipping machine, in combination, a reciprocating carrier, a cutter head detachably secured to the carrier and provided with a series of diverging knives, a gage movably engaged with the cutter head and normally depressed yieldingly below the knives, a cutting bed movable toward and from the carrier, and bed-supporting mechanism having means for shifting the bed from a raised operative position to a depressed inoperative position, the cutter head and gage being removable from the carrier when the bed is depressed.

[Claims 6 to 16 not printed in the Gazette.]

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1,040,672. REGISTERING PHYSICAL-EXERCISING MACHINE. ARTHUR E. HARTIG, Chicago, Ill. Filed Mar. 4, 1911. Serial No. 612,221. (Cl. 73—46.)



1. A registering physical exercising machine, having a comptometer and means for operating the same; comprising a worm and gear wheel; a double rack and pinion driving mechanism for said worm arranged to rotate the same in one direction only; and manually operated reciprocating means for operating said driving mechanism.

2. A registering physical exercising machine, having a reciprocating member; flexible means connected with said member for moving the same manually in one direction; a resilient member operatively connected with said reciprocating member for returning said reciprocating member to its normal position; a comptometer for registering the extent of the double movement of said reciprocating member; and a transmission mechanism operatively connecting said reciprocating mechanism and said comptometer, said mechanism embodying a worm wheel, a plurality of ratchet wheels opposed adjacent said worm wheel, a plurality of pawls mounted on said worm wheel to engage said ratchet wheels in opposite directions, a plurality of pinions driving said ratchet wheels, a plurality of racks each operatively engaging one of said pinions one of said racks being rigidly mounted on said reciprocating member, and a rocking lever connecting said reciprocating member and the other of said racks to move the said other rack in a direction opposite that traveled by said reciprocating member, whereby the worm wheel is moved the same direction by each of said racks and in equal proportion for the outward and inward movement of said reciprocating member.

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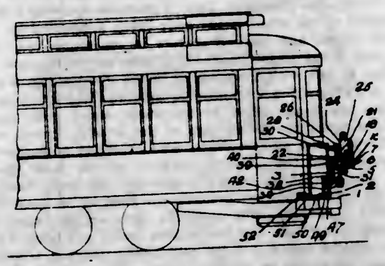
1,040,673. WRENCH. JOHN HELSTROM, Morristown, N. J. Filed Apr. 19, 1912. Serial No. 691,885. (Cl. 81—169.)



A wrench comprising a handle member having a jaw, said handle member being provided with an opening extending through the length of the same, a shank slidably mounted in said opening and restrained against rotation therein, a head carried by said shank, said handle member having a groove, a grip journaled upon the handle member, a ferrule mounted upon the grip and having an edge portion located in said groove, and a nut fixed to the grip and having a threaded sleeve which engages the thread upon the shank.

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1,040,674. HEADLIGHT FOR STREET-CARS, AUTOMOBILES, AND OTHER VEHICLES. IRWIN S. HERSHBERGER, Johnstown, Pa. Filed June 5, 1912. Serial No. 701,919. (Cl. 240—61.)



1. A lamp shifting mechanism comprising a platform, a base carried thereby, a head revolubly mounted in said base, a holder carried by said head and adapted to support a lamp, an upright carried by said holder, a yoke carried by said upright, a pendulum rod extending into said yoke and under said platform, a bearing carried by said platform and supporting said pendulum rod, a coupling member carried by said rod, an actuating rod loosely arranged in said coupling member, and means including rock shafts, cranks and a treadle for actuating said rod.

2. A lamp shifting mechanism comprising a platform, a head revolubly supported by said platform, a holder carried by said head and adapted to support a lamp, an upright carried by said holder, a yoke connected to the upper end of said upright, a pendulum rod movably supported by the underneath side of said platform and provided with a pendulum, an actuating rod loosely connected to said pendulum rod, and means including a treadle adapted to actuate said rod to swing said lamp holder in a horizontal plane.

3. A lamp shifting mechanism for vehicles, comprising a portable platform, a lamp holder revolubly supported above said platform, an upright carried by said holder, a yoke connected to said upright, a pendulum rod attached to the underside of said platform and extending into said yoke, an actuating rod loosely connected to said pendulum rod, and means including rock shafts and a treadle for actuating said rod.

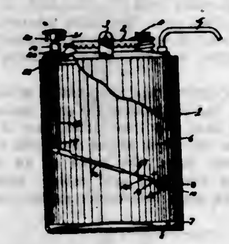
4. In a lamp shifting mechanism for vehicles, a portable platform, a lamp holder revolubly mounted upon said platform and adapted to support a lamp, a yoke supported from said holder, a pendulum rod having a goose neck movably supported below said platform with the upper end of said rod extending into said yoke, coupling member carried by said rod, an actuating rod loosely connected to said coupling member, and means including a treadle for actuating said rod.

5. The combination with a street car, and a platform detachably connected thereto, of a lamp holder revolubly mounted upon said platform, a yoke supported from said holder, a pendulum rod having a goose neck movably supported by the underneath side of said platform and provided with a pendulum, said rod extending into said yoke, an actuating rod loosely connected to said pendulum rod, and means including rock shafts and a treadle carried by said car for actuating said rod to move said pendulum rod and said lamp holder.

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1,040,675. INDICATING DEVICE FOR CANS. CHAUNCEY A. HERTENSTEIN and WILLIAM F. PROBST, Chillicothe, Ohio. Original application filed Aug. 11, 1911, Serial No. 643,542. Divided and this application filed Sept. 30, 1911. Serial No. 652,169. (Cl. 73—82.)



1. A dispensing can comprising a tank, an indicator movable through the jacket of said tank, a float, a guide for said float, and an automatically extensible lever pivotally supported at one end and connected to said float at its other end, said indicator being secured to said lever intermediate its ends.

2. A dispensing can comprising a tank, an indicator vertically movable into view from within said tank, a float, a guide for said float, and an automatically and longitudinally collapsing leverage mechanism secured to said indicator intermediate its ends, said leverage mechanism being pivotally supported at one end and connected to said float at its other end.

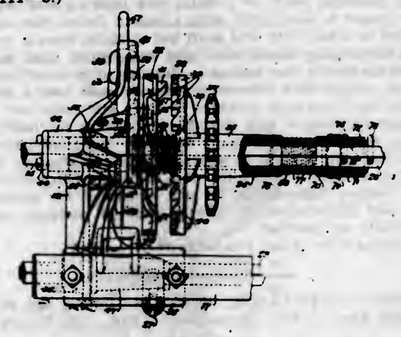
3. A dispensing can comprising a tank, an indicator vertically movable into view from within said tank, a float, a guide for said float, and an automatically and longitudinally telescoping lever connected to said indicator intermediate the ends of said lever, said lever having one end pivotally supported and its other end connected to said float.

4. A dispensing can comprising a tank, an indicator movable into view from within said tank, a discharge pipe extending from a point within said tank, a float slidable vertically on said pipe, and a longitudinally collapsing leverage mechanism secured intermediate its ends to said indicator and having one end pivotally supported and its other end secured to said float.

5. A dispensing can comprising an indicator, a float, a guide on which said float slides vertically and an intermediate collapsible lever between said float and said indicator and controlling said indicator.

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1,040,676. DRIVE MECHANISM FOR PLANTERS. EDWARD M. HEYLMAN, Janesville, Wis., assignor to The Janesville Machine Company, Janesville, Wis., a Corporation. Filed Apr. 8, 1909. Serial No. 488,559. (Cl. 111—5.)



1. In drive mechanism for planters, the combination with a shaft, of a pair of clutch members on said shaft, one of which is movable into and out of engagement with the other, said shiftable clutch member having a plurality of rows of seats in its outer face with a different number in each row, a normally fixed abutment arranged to enter said seats and to engage the face of said shiftable clutch member for holding it in engaged position, said abutment being adjustable into line with any one of said rows of seats, and devices independent of said abutment for moving said shiftable clutch member to engaged position, substantially as described.

2. In drive mechanism for corn planters, the combination with a shaft, of a pair of clutch members on said shaft, one of which is movable into and out of engagement with the other, said shiftable clutch member having a plurality of rows of seats in its outer face with a different number in each row, a pivoted arm having a lug thereon arranged to enter said seats and to engage the face of said shiftable clutch member for holding it in engaged position, means for adjustably locking said arm in position with said lug in line with any one of said rows of seats, a spring normally holding said shiftable clutch member in disengaged position, and devices independent of said adjustable arm for moving said shiftable clutch member to engaged position, substantially as described.

3. In drive mechanism for planters, the combination with a shaft, of a pair of clutch members on said shaft, one of which is movable into and out of engagement with the other, said shiftable clutch member having a plurality of rows of seats in its outer face with a different number in each row, a normally fixed abutment arranged to enter said seats, and to engage the face of said shiftable clutch member to hold it in engaged position, said abutment being adjustable into line with any one of said rows of seats, a spring for holding said shiftable clutch member in disengaged position, a shoulder on said shaft, a spring for yieldingly holding the other clutch member against said shoulder, and devices independent of said abutment for positively moving said shiftable clutch member to engaged position, substantially as described.

4. In drive mechanism for planters, the combination with a shaft, a pair of clutch members on said shaft, one of which is movable into and out of engagement

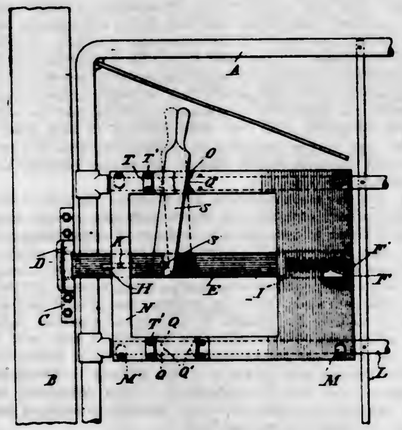
with the other, said shiftable clutch member having a plurality of rows of seats in its outer face with a different number in each row, a pivoted arm having a lug thereon arranged to enter said seats and to engage the face to said shiftable clutch member for holding it in engaged position, means for adjustably locking said arm in position with said lug in line with any one of said rows of seats, a shoulder on said shaft, a spring for holding said shiftable clutch member in disengaged position, a spring for yieldingly holding the other clutch member in position, a cam on said shaft and independent of said pivoted arm for positively moving said shiftable clutch member to engaged position, and devices for operating said cam, substantially as described.

5. In drive mechanism for planters, the combination with operating shaft, of a clutch disk loose on said shaft and geared to said wheel axle, a second clutch disk connected to rotate with said shaft but shiftable thereon into and out of engagement with said loose clutch disk, said shiftable clutch disk having a plurality of rows of seats on its face with a different number in each row, a normally fixed abutment arranged to enter said seats and to engage the face of said shiftable clutch disk for holding it in engaged position, said abutment being adjustable into line with any one of said rows of seats, a spring for holding said shiftable clutch disk in disengaged position, and devices independent of said abutment for moving the said shiftable clutch disk to engaged position, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

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1,040,677. GATE-LATCH. HOWARD S. HIGDON, Jay, Fla. Filed July 1, 1912. Serial No. 707,016. (Cl. 70—28.)



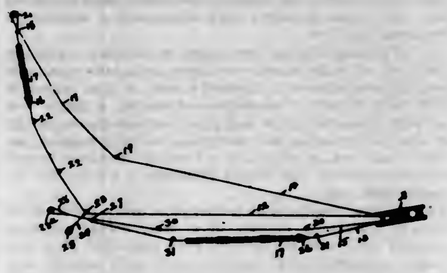
1. A gate latch comprising, in combination with a gate, a keeper for attachment to the gate post, a plate, means for holding the same to the gate, a longitudinally movable latch mounted upon the plate, the latter having a recess, a lever pivoted to the latch and passing through said recess, each opposite inclined wall of the recess tapering to an apex against which one or the other edges of the lever is adapted to fulcrum, as set forth.

2. A gate latch comprising, in combination with a gate, a keeper for attachment to the gate post, a plate, means for holding the same to the gate, a longitudinally movable latch mounted upon the plate, the latter having a recess, a lever pivoted to the latch and passing through said recess, each opposite inclined wall of the recess tapering to an apex against which one or the other edges of the lever is adapted to fulcrum, and means for holding the lever in said recess, as set forth.

3. A gate latch comprising, in combination with a gate and post, a keeper upon the latter, a plate, means for fastening the same to the gate, a spring-pressed latch provided with a slot, a pin upon the plate engaging said slot, a lever pivoted to the latch, said gate having a recess against the marginal inclined walls of which the lever is adapted to fulcrum as the latter is tilted to move the latch, as set forth.

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1,040,678. LOGGING SYSTEM. THOMAS W. HINE, Eureka, Cal. Filed Oct. 31, 1911. Serial No. 657,798. (Cl. 214—14.)



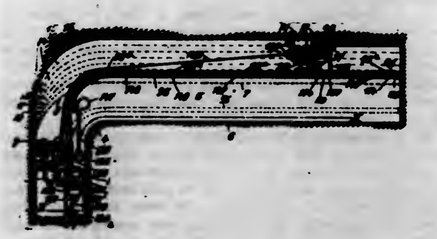
1. In a logging system, the combination of two main line cables; a trip line cable for each main line, one trip line cable being arranged to bring its main line cable to a point in the path of the other main line cable whereby logs may be transferred from one main line cable to the other; and means for operating the cables separately.

2. In a logging system, the combination of a first and a second main line cable; first and second trip line cables operating said first and second main line cables respectively; a block arranged intermediately on the road of the first main line cable around which said first main line cable is deflected; an outer block for the second trip line cable arranged to carry said trip line cable to the deflecting block of the first main line cable whereby the second main line cable may be brought to said deflecting block as a point of transfer; and means for operating said cables separately.

3. In a logging system, the combination of two main line cables; two trip line cables, one for each main line cable; outer blocks for said trip line cables, one of said blocks being arranged to carry one of the main line cables in the path of the other main line cable at an intermediate point; drums for actuating said cables; and means for locking one of the main line cables against return movement.

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1,040,679. METHOD OF MINING COAL AND OTHER MINERALS. JOSEPH H. HOADLEY, New York, N. Y., and WALTER H. KNIGHT, Portsmouth, R. I. Filed Dec. 9, 1910. Serial No. 596,495. (Cl. 37—51.)



1. The method of mining coal and other minerals, which consists in comminuting the said mineral in the act of taking it from its bed, depositing the product in the path of a swiftly moving body of air, drawing the said product through the agency of said air into a closed conduit, wetting the product, conveying it while in this condition to a separating chamber, withdrawing the air from the wetted product, and then permitting the mineral to separate from the water by the operation of gravity.

2. The method of mining coal, which consists in comminuting the mineral in the act of removing it from its bed, collecting the product by the movement of air, introducing it to a column of running water, conveying it to a distant point by the operation of said water, and then trapping out the product.

3. The continuous method herein described of mining coal and other minerals, which consists in comminuting the mineral as it is taken from the vein, precipitating it, and then wetting it, and finally in employing the same water as an instrumentality for conveying the mineral from the mine.

4. The continuous method herein described of first automatically reducing coal to a powdered form in the act of its removal from the vein, then drawing the powdered coal by means of a continuously moving fluid agency to, and mixing it with, a body of flowing water, then employing that water for conveying the product to any desired point, and finally removing a portion of the moisture to form a commercial product.

5. The continuous method of mining coal, which consists in reducing the mineral to powdered form by mechanical means in the act of separating it from its bed, drawing the powdered coal by means of a continuously moving agency to, and mixing it with, a body of flowing water and bringing the mixture substantially to an emulsion, conveying the mixture to settling areas, then permitting the mineral to separate from the water by gravity.

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1,040,680. TROLLEY-WHEEL. HENRY HOLLAND, Cleveland, Ohio. Filed Nov. 20, 1911. Serial No. 661,257. (Cl. 191—39.)



1. A trolley wheel having a central hub and three several substantially flat sided arms supporting said hub having holes through their outer portions, rings mounted on said hubs and helical springs having one end portion mounted in said rings and the other ends engaged through the holes in said arms, said ends bent twice at right angles and having their extremities locked against the opposite sides of said arms.

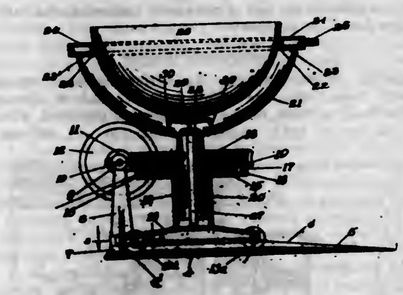
2. A trolley wheel having a central hub and radially disposed arms supporting the same having relatively wide substantially flat sides and provided with holes through their outer portions and independent lugs on said hub midway between the bases of said arms, said hub having tubular portions at both sides outside of said arms.

3. A trolley wheel having radial arms and a hub in the center provided with independent outward projections midway between said arms and holes through the outer portions of the arms, in combination with a ring mounted on each end of the hub having fingers extending between said arms and said outward projections and a spirally coiled spring having a flat uniform bearing against the inside of each ring and its outer ends extended through one of said holes and locked therein against accidental displacement.

4. A trolley wheel having a hub and radial projections therefrom, a harp in which said wheel is mounted, electric current conducting rings about said hub at each side of the wheel, helical springs about said hub between said rings and the said radial projections, and means to positively secure the said springs to said wheel to prevent lateral displacement and disconnection thereof as the said rings become worn.

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1,040,681. FURNACE FOR COOKING AND MIXING CANDY. NICHOLAS HOLMAN, Chicago, Ill. Filed Jan. 27, 1912. Serial No. 673,858. (Cl. 126—345.)



1. In a device of the kind described the combination with a stationary structure consisting of a platform having side guides and stop blocks, and a shaft having a worm and pulley, said shaft being supported on said platform; of a portable furnace having a wheel supported base adapted to be moved on to said platform between said guide walls into contact with said stops; a flanged cylinder fixed on said base, bearing balls movable in an annular groove in said flange, a worm gear adapted to mesh with said worm, having an annular groove for said bearing balls, a central vertical tube fixed in said gear extending downward into said flanged cylinder, a kettle-holder fixed on said tube above said gear, said kettle holder being provided with an apertured flange, a burner supported in said kettle holder, a supply pipe extending from the outside through said cylinder, up said tube to said burner, a deflector over said burner in said kettle-holder and a hollow ring fixed on said flange of said kettle-holder, as described.

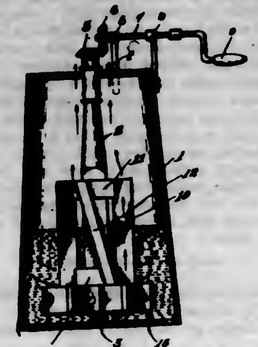
2. In a device of the kind described, the combination with a fixed platform, having guides and stops thereon and a worm shaft rotatably secured thereon; of a portable rotary furnace adapted to be moved on and off said platform and adjusted thereon by means of said guides and stops, a worm gear on said furnace adapted to be placed in mesh with said worm, by means of said platform, guides, and stops in position to be rotated, means for supporting a kettle in said furnace, means for supplying heat in said furnace, means for distributing the heat in said furnace to a kettle supported therein, and means for the disposal of waste products of heat from said furnace as described.

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1,040,682. CHURN-DASHER. LEWIS HUBERTY, Canton, Ohio. Filed June 20, 1912. Serial No. 704,842. (Cl. 31—42.)

A churn having a dasher and shaft to which the same is fixed, said shaft having an angular outlined shank portion, a second dasher having angular outlined openings in the upper and lower ends thereof adapted to receive the

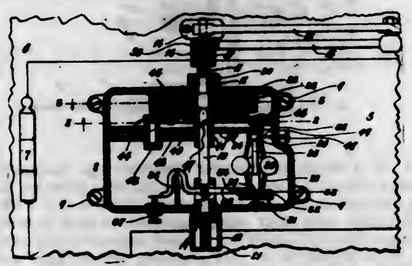
angular shank portion of said shaft upon which it is loosely mounted and its lower end resting upon the dasher



which is fixed to the end of the shaft, and means for rotating the latter, as set forth.

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1,040,683. DOOR-CLOSER. JOHN D. HUMPHREY, Waterbury, Conn., assignor of one-half to John M. Brady, New Britain, Conn., and E. C. Halliday, Hartford, Conn. Filed Jan. 8, 1912. Serial No. 669,926. (Cl. 16—46.)



1. A door closer comprising a power operable door closing arbor, a governor, means for transferring the effect of the arbor to the governor on a predetermined movement of the door to thereby operate the governor, a brake member, a pair of brake members for engaging the companion brake member at different points, and a movably mounted member rigidly carrying said pair of brake members, and means whereby said pair of brake members will be caused to engage the companion brake member when the governor moves at a predetermined speed.

2. A door-closer comprising a power-operable door-closing arbor, a governor, means for transferring the effect of the arbor to the governor on a predetermined movement of the door to thereby operate the governor, a brake member connected with the governor for movement therewith, a pair of brake members for engaging the companion brake member at approximately-diametrically opposite points, an annular member carrying said pair of brake members at substantially diametrically-opposite points, and means for pivotally supporting said annular member.

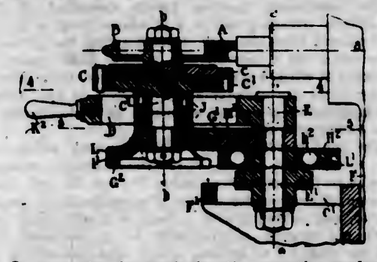
3. A door-closer comprising a power-operable door-closing arbor, a governor, means for transferring the effect of said arbor to said governor on a predetermined movement of the door to thereby operate said governor, a brake member connected with and movable by the governor, an annular member, a pair of brake members carried by said annular member and adapted to engage the first mentioned brake member at substantially diametrically opposite points, and when said first mentioned brake member has moved a certain distance, a lever having a fork between the branches of which said annular member is pivotally supported, and means acting against said lever to hold said pair of brake members in position to engage the companion brake member.

4. A door-closer comprising an arbor, means for positively rotating said arbor, means for checking the rotation of said arbor during the closing of the door, and a link connected with said arbor said link and arbor being constructed for relative movement about each other, one of said last-mentioned parts being provided with means for limiting the movement of the link in the direction of the axis of rotation of said arbor.

5. A door-closer comprising a power-operable door-closing arbor having a threaded extremity, and a link having a correspondingly-threaded portion to receive said threaded extremity.

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1,040,684. APPARATUS FOR MAKING TOOTHED GEARING. FRANK HUMPHRIS, Barton Peveril, Eastleigh, England, assignor to The Humphris Engineering Syndicate Limited, London, England. Filed June 18, 1910. Serial No. 567,582. (Cl. 90—9.)



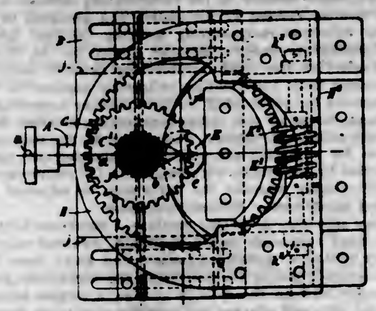
1. In apparatus for producing the operative surface of a motion transmitting element in one member of peg and hole gearing by the generative action of a rotary cutter member having an effective profile which represents the operative surface of the coacting element in the other member of the gearing, the combination with means for communicating to one of the said members, the entire movement required to produce an effect equivalent to that of the proper relative motion with the predetermined velocity ratio between the respective members of the gearing, each regarded as a whole, of means whereby further relative movement between the work and the cutter, each regarded as a whole, may be produced in a direction corresponding to that of the perpendicular to the common tangent plane to the pitch surfaces of both members of the gearing, the common axis of symmetry and of rotation of the cutter being also perpendicular to said common tangent plane when the prolongation of said common axis intersects the axis of rotation of the work, substantially as set forth.

2. In apparatus for producing the operative surface of a motion transmitting element in one member of peg and hole external spur gearing by the generative action of a rotary cutter having an effective profile which represents the operative surface of the coacting element in the other member of the gearing, the combination with means for communicating to the work alone, the entire movement required to produce an effect equivalent to that of the proper relative motion with the predetermined velocity ratio between the respective members of the gearing, each regarded as a whole, of means for producing further movement of the cutter toward the work in a direction corresponding to that of the perpendicular to the common tangent plane to the pitch surfaces of both members of the gearing, the common axis of symmetry and of rotation of the cutter being also perpendicular to said common tangent plane when the prolongation of said common axis intersects the axis of rotation of the work, substantially as set forth.

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1,040,685. TOOTHED GEARING. FRANK HUMPHRIS, Barton Peveril, Eastleigh, England. Filed Sept. 21, 1911. Serial No. 650,502. (Cl. 90—2.)

In apparatus for producing the operative surface of a motion transmitting element in one member of peg and hole internal spur gearing by the generative action of a rotary cutter having an effective profile which represents the operative surface of the coacting element in the other member of the gearing, the combination with means for communicating to the work alone, the entire movement required to produce an effect equivalent to that of the proper relative motion with the predetermined velocity ratio between the respective members of the gearing,



each regarded as a whole, of means for producing further movement of the cutter toward the work in a direction corresponding to that of the perpendicular to the common tangent plane to the pitch surfaces of both members of the gearing, the common axis of symmetry and of rotation of the cutter being also perpendicular to said common tangent plane when the prolongation of said common axis intersects the axis of rotation of the work substantially as set forth.

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1,040,686. ATTACHMENT FOR BATH-TUBS. MANO JEFFERSON, Hartford, Conn. Filed Sept. 15, 1911. Serial No. 649,496. (Cl. 4—26.)



1. In a bath tub attachment, clips removably secured to the edge of the tub, loops flexibly secured to said clips, straps secured to said loops, a supporting bar held by said straps, a sleeve slidable upon said bar, a spout supported by said sleeve, and a connection between said spout and the supply to the tub.

2. In a bath tub attachment, a supporting bar extending lengthwise of the tub, a sleeve slidable longitudinally upon said bar, a holder movably mounted on the sleeve, a spout supported by said holder, and a connection between the spout and the supply to the tub.

3. An attachment for a bath tub including a supporting bar extending lengthwise of the tub, a sleeve slidable longitudinally upon said bar, a holder longitudinally movable upon the sleeve, a spout supported by the holder, and a connection between the spout and the supply to the tub.

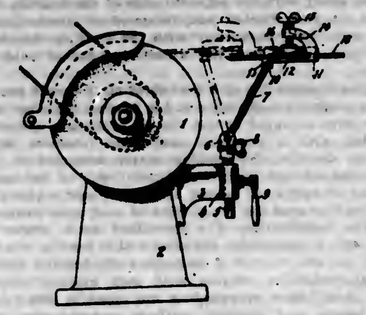
4. A bath tub attachment including a bar, a sleeve mounted upon the bar, a neck projecting from the sleeve, a holder extending into said neck and movable longitudinally therein, a spout supported by said holder, and a connection between said spout and the supply to the tub.

5. A bath tub attachment including a bar, a sleeve slidably mounted upon the bar, a neck projecting from the sleeve, a holder extending into said neck and movable longitudinally therein, a spout supported by said holder, and a connection between said spout and the supply to the tub.

[Claims 6 to 11 not printed in the Gazette.]



1,040,697. GRINDING-GAGE. JOHN A. JOHNSON, Portland, Oreg. Filed Apr. 17, 1912. Serial No. 691,521. (Cl. 51—7.)



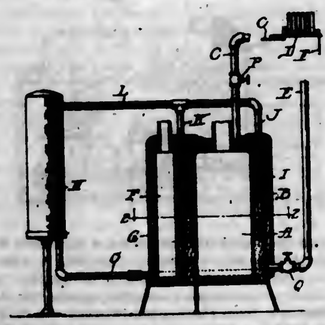
1. In a grinding attachment, the combination with a grinding wheel and a support for said wheel, and a support frame adjustable vertically, horizontally and circumferentially; of an independent tool-holder provided with means for clamping the tool to be ground in position; and means on said tool-holder and coöperating with said support frame for guiding said tool-holder during the grinding operation.

2. In a grinding attachment, in combination, an adjustable support mechanism having a horizontal guide rail, an independent tool frame made with a transverse groove for engagement with said guide rail, a yoke on said tool frame, a clamping member mounted for vertical movement in said yoke, and a screw mounted in the yoke for operating said clamping member.

3. In a grinding machine, the combination with a supporting swing bracket having a horizontal track; of an independent tool holder comprising a base having on the front edge a pendent groove adapted for engagement with said track, a yoke on the rear of said base, a clamping screw mounted in said yoke, said yoke offset so as to position said screw substantially in the center of the base, all for the purpose set forth.

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1,040,688. HEATER. WILLIAM H. JONES, Chicago, Ill. Filed May 21, 1910. Serial No. 562,670. (Cl. 122—37.)



1. Heating apparatus comprising a combustion chamber, a water-heating chamber arranged to be heated by said combustion chamber, a second combustion chamber, a second water-heating chamber arranged in effective heat-conductive relation to produce secondary heating effect with said first mentioned water-heating chamber and arranged to be independently heated by said second combustion chamber, and independent circulating systems and connections in communication respectively with said two water-heating chambers.

2. The combination of a main heater provided with a combustion chamber and a heating chamber, a tank heater

arranged at one side of said main heater and provided with a combustion chamber and a water chamber having a wall in effective heat-conductive relation to produce secondary heating effect with the adjacent side of the heating chamber of the main heater, and independent circulating systems connected respectively with the heating chamber of said main heater and the water chamber of said tank heater.

3. The combination of a four-sided main heater provided with a combustion chamber and a heating chamber, and a tank heater arranged at one side of said main heater and provided with a separate combustion chamber and a separate chamber for heating water arranged in heat-conductive relation with the adjacent side of the heating chamber of said main heater, the top of said water chamber extending over the top portion of said main heater.

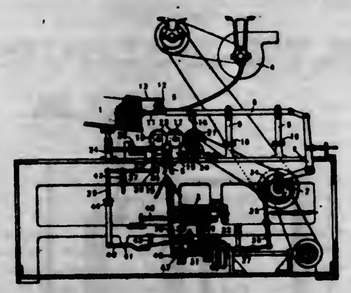
4. The combination of a four-sided main heater provided with a combustion chamber and a heating chamber, and at one side thereof of an outer-water-heating chamber in heat-conductive relation with said heating chamber, and a tank heater arranged at the opposite side of said main heater and provided with a separate combustion chamber and a separate chamber for heating water having the wall adjacent said heating chamber of said main heater arranged in heat-conductive relation with said heating chamber, the top of said water chamber of the tank heater and the top of said outer water heating chamber of the main heater extending inwardly over the top of the heating chamber of said main heater.

5. The combination of a main heater provided with a combustion chamber and a heating chamber, and at one side thereof an outer water-heating chamber in heat-conductive relation with said heating chamber, and a tank heater arranged at the opposite side of said main heater and provided with a separate combustion chamber and a separate water-heating chamber, which latter is arranged adjacent and in heat-conductive relation with the heating chamber of the main heater.

[Claims 6 to 12 not printed in the Gazette.]

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1,040,689. SIGNATURE-GATHERING MACHINE. CHARLES A. JUENGST, Croton Falls, N. Y. Filed Dec. 16, 1908. Serial No. 467,738. (Cl. 11—25.)



1. In a signature gathering machine, a signature hopper, a relatively stationary calipering member, a yieldingly mounted calipering member having a movement toward and away from the stationary member, means for delivering the signatures from the hopper between the calipering members, a carrier, a switch located below the calipering members and adapted to direct the signatures toward or away from the carrier, a reciprocating member, a rigid detector member carried thereby, a coöperating detector member carried by the switch, connections from the movable calipering member to the detector member carried by the switch for positioning said detector member according to the thickness of the signature between the calipering members, and means for adjusting the said connections to shift the said detector member with respect to the reciprocating detector member whereby the parts may be adjusted for handling signatures of different thickness.

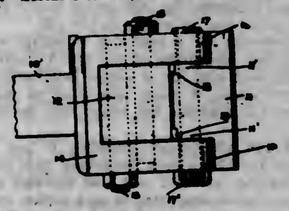
2. In a signature gathering machine, a signature hopper, a relatively fixed calipering member, a yieldingly mounted calipering member having a movement toward and away from the stationary calipering member, means for delivering the signatures from the hopper between the calipering members, a carrier, a switch located below the calipering members for directing the signatures either toward or away from the carrier, a reciprocating element, a rigid detector member on the reciprocating element, a detector member carried by the switch and arranged to coöperate with the reciprocating detector member, means for adjusting the detector member carried by the switch with respect to the rigid reciprocating detector member, connections from the yielding calipering member to the gate member for positioning the gate member according to the displacement of the yielding calipering member from the fixed calipering member, and means in the said connections for adjusting the position of the detector member carried by the switch with respect to the reciprocating detector member whereby the parts may be adjusted for handling signatures of different thickness.

3. In a signature gathering machine, a signature hopper, a stationary calipering roll, a yieldingly mounted calipering roll having a movement toward and away from the stationary roll, means for delivering the signatures from the hopper between the rolls, a carrier, a switch located below the rolls and adapted to direct the signatures toward or away from the carrier, a reciprocating member, a rigid detector finger carried thereby, a member carried by the switch having a gate opening for the passage of the detector finger therethrough, connections from the movable roll to the gate member for positioning the gate member according to the thickness of the signature between the detector rolls, and means for adjusting the said connections to shift the gate member with respect to the detector finger whereby the parts may be adjusted for handling signatures of different thickness.

4. In a signature gathering machine, a signature hopper, a pair of calipering rolls, one of said rolls being mounted on a fixed support and the other roll being mounted to have a yielding movement toward and away from the fixed roll, means for delivering the signatures from the hopper between the rolls, a carrier, a switch located below the rolls adapted to direct the signatures toward or away from the carrier, a reciprocating member, a rigid detector finger adjustably supported on said reciprocating member, a member carried by the switch having a gate opening for the passage of the detector finger therethrough, means for adjusting the size and location of the gate opening of said member, connections from the yielding roll to the gate member for positioning the gate member according to the displacement of the yielding roll from the fixed roll, and means in the said connections for adjusting the position of the gate member with respect to the detector finger whereby the parts may be adjusted for handling signatures of different thickness.

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1,040,690. CAR-COUPLING. RUFFNA LOUISA KAHNS and AUGUSTA LEE ROBBERS, Ashland, Ky. Filed June 5, 1912. Serial No. 701,774. (Cl. 213—68.)



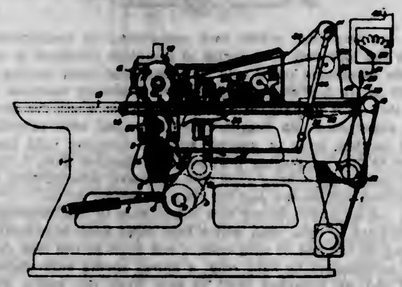
1. In a car coupler, the combination of a head having an integral laterally extending block, said block having vertical holes and forwardly extending arc-shaped shoulders, a strap embracing said block on the upper, rear and lower sides thereof, said strap including a pair of forwardly extending lugs having vertically alined eyes, bolts extending through the strap and said block holes whereby the strap is secured to the block, a knuckle pivoted between said strap lugs and adapted to impinge against the block shoulders, and a pin extending through the lug eyes and the knuckle.

2. In a car coupler, the combination of a head, a block extending laterally from the side of the head, the rear portion of the block being undercut, a strap embracing the top, rear and bottom sides of the block, the rear portion of the strap being inclined on its front face to correspond to said undercut, means to secure the strap to the block, a knuckle pivoted within the strap, and a pin passing downwardly through the strap and constituting a pivot for the knuckle.



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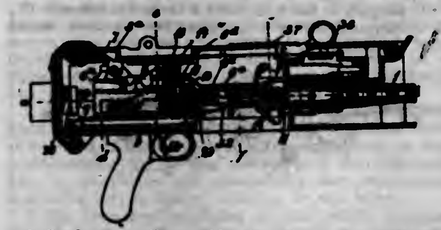
1,040,691. PLATE-PRINTING MACHINE. GEORGE H. KENDALL, New York, N. Y. Filed Mar. 27, 1912. Serial No. 686,563. (Cl. 101—102.)



A plate printing machine, comprising a reciprocating bed, a printing plate adapted to be carried upon the surface of said bed, a pair of pressure rolls between which the bed and plate pass to accomplish the printing operation, the under surface of the bed over which the plate rests being provided with table-like projections the surfaces of which are all in the same horizontal plane and extend over the entire area covered by the plate, and electro-heating devices located in the spaces between said projections, whereby the passage of the bed and plate between the rolls is not obstructed and the plate is evenly heated throughout its area.

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1,040,692. AUTOMATIC FIREARM. RUDOLF HENRIK KJELLMAN, Stockholm, Sweden, assignor to Nya Aktiebolaget Stockholms Vapenfabrik, Stockholm, Sweden. Filed Oct. 9, 1908. Serial No. 456,866. (Cl. 89—8.)



1. In fire-arms the combination of a reciprocating tail piece provided with a slot, a breech block movable with relation to the tail piece, extractors carried by the breech block, a transporter also on the breech block, said transporter being provided with a slot guiding the cartridge when moved transversely, a lever for effecting the said transversal movement, said lever being provided with a lateral projection engaging the slot in the tail piece, said slot being suitably shaped to impart to the lever the desired movement on the movement of the tail piece.

2. In fire-arms, the combination of a reciprocating tail piece, a transporter fixed to the breech block for guiding the cartridge when moved transversely for placing the cartridge in a line with the barrel, said transporter being provided with a slot in which the flanged end of a cartridge is capable of sliding, two extractors fixed to the breech block and forming the top end of the said slot, the said extractors being adapted to extract the cartridge as the breech block is moved backward and a lever for moving the cartridge transversely, said lever being movable upon operation of the tail piece and being extended with its fore end above the cartridge through the slot in the transporter when the breech block is in its rear terminal position.

3. In fire-arms, the combination of a reciprocating breech block, extractors on the fore end of the same, a transporter also on the fore end of the breech block and firmly connected with the same, said transporter being provided with a slot guiding a cartridge when moved transversely, a lever effecting the said transversal movement and a part fixed to the mechanism casing to which the lever is pivotally connected.

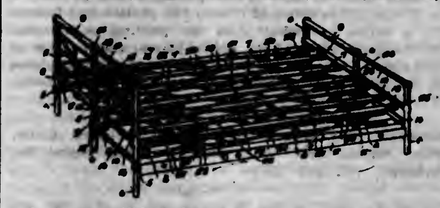
4. In fire-arms, the combination of a reciprocating breech block, a firing pin, a transporter on the fore end of the breech block adapted to guide the cartridge when moved transversely, a slide on the mechanism casing moved manually and engaging the firing pin, a second slide provided with a slot, a lever, and a lateral projection on the lever engaging the slot of the second slide.

5. In a device of the character described, a barrel, a reciprocating tail piece having a slot, a breech block movable with relation to the tail piece and provided with extractors and with a transporter to guide a cartridge into line with the barrel and means extended within the slot of the tail piece operable by movement of such tail piece for imparting the desired movement to the cartridge.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,693. BEDSTEAD. JOHN KOHLER, New York, N. Y. Filed Apr. 19, 1912. Serial No. 691,836. (Cl. 5—8.)



1. A convertible bedstead having movable side sections comprising posts, upper and lower transversely extending rods telescopically fitted to each other and respectively connected to said posts, and head frames mounted between the said posts at one end of the bedstead, one of said frames being swingingly connected to one of the posts whereby the said frame may be moved out of the path of the remaining post on the contracting of the sections.

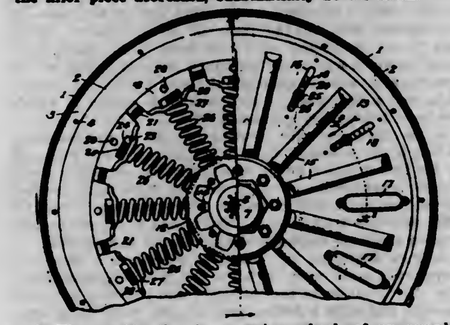
2. A convertible bedstead having movable side sections comprising posts, upper and lower transversely extending rods telescopically fitted to each other and respectively connected to said posts, head frames mounted between the said posts at one end of the bedstead, one of said frames being swingingly connected to one of the posts whereby the said frame may be moved out of the path of the remaining post on the contracting of the sections, and an end bar on the swinging frame for engagement with the rods adjacent thereto for locking the said frame in parallel alinement with the other frame when the sections have been extended.

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1,040,694. SPRING-WHEEL. JOSEPH KOHLER, Chicago, Ill., assignor of one-half to Kittie Collins, Chicago, Ill. Filed Aug. 28, 1911. Serial No. 646,500. (Cl. 152—62.)

1. The combination in a spring wheel, of an annular outer member provided with a series of projections on its inner circular surface, a series of saddle pieces engaging

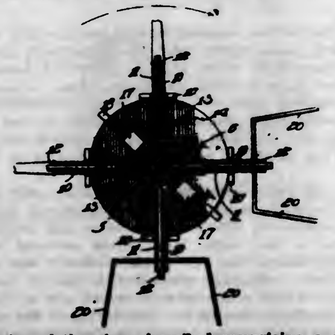
said projections and provided with laterally projecting guide studs, a hub provided with a central cylindrical portion, a fixed flange at one end of said central portion, a removable annular disk at the other end of said central portion, an intermediate filler piece fitting said central portion, a pair of side plates secured between the aforesaid flange, annular disk and filler piece by a series of transverse bolts, said side plates being formed with a series of radial guide slots for guiding engagement with the guide studs of the saddle pieces, and a series of coiled springs arranged radially between the saddle pieces and the filler piece aforesaid, substantially as set forth.



2. The combination in a spring wheel, of an annular outer member provided with a series of projections on its inner circular surface, a series of saddle pieces engaging said projections and provided with laterally projecting guide studs, headed plugs resting against the inner sides of the saddle pieces and having spring engaging shanks, abutment plates encircling said shanks and resting against the inner sides of said saddle pieces, a hub portion, a pair of side plates attached to said hub portion and formed with a series of radial slots for guiding engagement with the guide studs of the saddle pieces, and a series of coiled springs arranged radially between the saddle pieces and the filler piece aforesaid, substantially as set forth.

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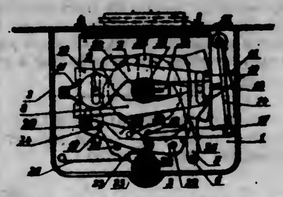
1,040,695. AIR-CRAFT PROPELLER. JULIUS KOIW, Port Arthur, Tex. Filed Sept. 7, 1911. Serial No. 648,036. (Cl. 244—28.)



A device of the class described comprising a shaft, a driving sleeve, a plurality of supporting rods carried thereby, propeller shafts carried by said rods, propeller blades carried by said propeller shafts, a disk carried by said first-mentioned shaft, said disk being provided with a plurality of oppositely disposed apertures, a pin carried by the periphery of said disk just in alinement with each of said apertures, a squared portion carried by said propeller shafts, a fingered wheel carried by said shaft being adapted to engage said pin for rotating said propeller shaft and said squared portion being adapted to fit in one of said slots at the same time said pin engages said fingered wheel for allowing said propeller sleeve to rotate one-quarter of a turn, and means engaging said shaft for rotating said disk whereby the rotation of said propeller blades may be adjusted.

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1,040,696. VARIABLE SAFETY-LOCK WITH CONTROLLING DEVICE. BENJAMIN KOTKOVSKY, Paris, France. Filed Aug. 1, 1910. Serial No. 575,021. (Cl. 70—70.)

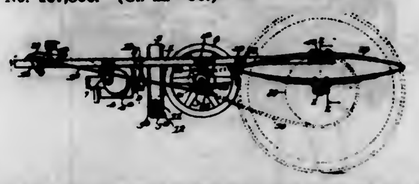


1. An improved safety lock comprising in combination with the lock bolt, two series of tumblers arranged in opposite directions upon said lock bolt and each having a notch at its free end, a locking lever pivotally mounted in the lock case engageable with said notches when the same are superposed, an eccentrically arranged axle carrying said locking lever, a special key for bringing said tumblers to the registering position, and springs fixed to the lock casing and acting upon said tumblers, substantially as described and shown and for the purpose set forth.

2. An improved safety lock comprising in combination a hand knob, a tube upon which said hand knob is mounted, a ring at the end of said tube, a rod fixed in the lock case and surrounded by said ring, a spiral spring surrounding said rod, an enlarged head of said fixed rod and a diaphragm carried by said tube serving as abutments for said spring, a sleeve loosely mounted upon said tube, a disk with pointed prongs fixed upon said sleeve, a cover plate in front of said disk and having perforations for the passage of said pointed prongs, a strong spiral spring for pushing said disk suddenly forward, and a lever for maintaining said sleeve in inoperative position, an indicating device connected with said sleeve and a lever of said indicating device for locking said tube, so that if after a fraudulent attempt to open the lock with a false key said lever has been removed the disk is released as soon as the hand knob is being pulled, the pointed prongs penetrating through the perforations of the cover plate scratching the hand of the person tampering with the lock, substantially as described and shown and for the purpose set forth.

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1,040,697. AUTOMOBILE. ALVARO S. KROTZ, Chicago, Ill., assignor to Sears, Roebuck & Company, Chicago, Ill., a Corporation of New York. Filed Dec. 16, 1908. Serial No. 467,866. (Cl. 21—90.)



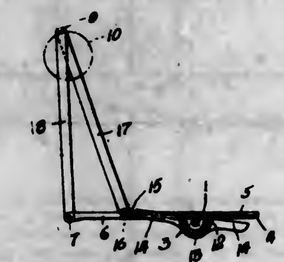
1. In an automobile, the combination with a chassis, of driving means carried by said chassis; a driving axle operatively connected with said driving means; a spring comprising two portions, the lower portion being connected with said axle, the other portion being connected with said chassis, and adjacent ends of said portions being connected together; and a member rigidly fixed on said chassis and arranged to come in contact with said connected ends, but unconnected with said ends, for limiting upward movement of said connected ends.

2. In an automobile, the combination with a chassis, of driving means carried by said chassis; a driving axle operatively connected with said driving means; a spring comprising two portions, the lower portion being connected with said axle, the other portion being rigidly connected with said chassis; and adjacent ends of said portions being connected together, and a stop rigidly fixed to and projecting outwardly from said chassis in position to overlie and to come in contact with said connected ends.



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1,040,698. ATTACHMENT FOR FOOT-POWER-OPERATING MACHINES. AUGUST KYYNY, Monessen, Pa. Filed Jan. 9, 1912. Serial No. 670,282. (Cl. 74—81.)



An attachment for a foot operated machine comprising the combination of a drive wheel of a shaft, a rectangular main treadle provided at each end with a depending apertured ear mounted upon said shaft and means upon the shaft to prevent longitudinal movement of said treadle, said treadle provided with two rows of transversely extending parallel slots, one row being spaced from the other row, a longitudinally extending U-shaped auxiliary treadle positioned below said main treadle and having each end provided with an upwardly extending apertured plate mounted upon said shaft, means upon the shaft to prevent longitudinal movement of the auxiliary treadle, said auxiliary treadle of greater length than said main treadle, oppositely extending spaced tread pieces projecting from said auxiliary treadle and capable of extending up through said slots, an extension projecting from one corner of the main treadle, an extension projecting from one end of the auxiliary treadle, and a pitman connecting said extension to said drive wheel.

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1,040,699. ALLOY AND PROCESS OF PRODUCING THE SAME. ISADOR LADOFF, Cleveland, Ohio, assignor, by mesne assignments, of thirty one-hundredths to Walter D. Edmonds, Boonville, N. Y. Filed Jan. 18, 1906. Serial No. 296,650. (Cl. 75—1.)

1. The method of producing an alloy which comprises subjecting the co-assembled oxids of its constituent metals, in a reducing atmosphere, to temperature below the melting points of said metals but sufficiently high to inaugurate, and maintain such temperature sufficiently long to insure, reduction of said oxids.

2. The method of producing an alloy of iron and titanium which comprises subjecting the co-assembled oxids of iron and titanium, in a reducing atmosphere, to temperature below the melting point of iron but sufficiently high to inaugurate, and maintaining such temperature sufficiently long to insure, reduction of said oxids.

3. The method of producing an alloy which comprises subjecting the co-assembled oxids of its constituent metals together with carbon to temperature below the melting points of said metals but sufficiently high to inaugurate, and maintaining such temperature sufficiently long to insure, reduction of said oxids.

4. The method of producing an alloy which comprises heating the co-assembled oxids of its constituent metals, in a reducing atmosphere, sufficiently long and at temperature sufficiently high to reduce said oxids without melting the resulting metals.

5. The method of producing an alloy of iron and titanium which comprises heating co-assembled oxid of iron and oxid of titanium, in a reducing atmosphere, sufficiently long, and at temperature sufficiently high, to reduce said oxids without melting the resulting metals.

[Claims 6 to 19 not printed in the Gazette.]

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1,040,700. ENGINE. FRANKLIN W. LAKE, Kingston, Ontario, Canada, assignor of one-third to Joseph B. Cooke and one-third to Robert N. F. McFarlane, Kingston, Canada. Filed Jan. 13, 1911. Serial No. 602,502. (Cl. 123—8.)



1. In combination with an engine, a casing, the casing having openings for the admission of the driving element and the exhaust, a shaft passing through the casing, a cylinder shaped eccentric piston rigidly secured to the shaft and arranged to rotate within the casing, the side of the eccentric piston which is farthest from the shaft arranged to work close to or against the cylindrical part of the casing, a piston plate one end of which is hinged to the casing between the openings for the admission and exhaust, and the other end of the piston plate coming in contact with the side of the eccentric piston, the piston plate thus forming a wall or partition from the casing to the eccentric piston between the intake and outlet openings in the casing, a recess or extension of the casing forming a receptacle for the piston plate sufficient to admit the whole of the piston plate, thus allowing the piston plate to leave the path of the eccentric piston, so the eccentric piston can make complete revolutions, substantially as described.

2. In combination with an engine, a casing, the casing having openings for admission and exhaust, a shaft passing through the casing, an eccentric piston rigidly secured to the shaft and arranged to rotate within the casing, the side of the eccentric piston which is farthest from the shaft arranged to work close to or against the cylindrical part of the casing, a roller (15) inserted in the side of the eccentric piston, the opening containing the roller being larger in diameter than the roller and cutting through the side of the eccentric piston, thus allowing the side of the roller to protrude far enough to work against the cylindrical part of the casing, a piston plate hinged to the casing, the hinge being between the intake and exhaust openings and the piston plate connecting with the side of the eccentric piston, a recess or extension of the casing forming a receptacle for the piston plate so the piston plate can leave the path of the eccentric piston, substantially as described.

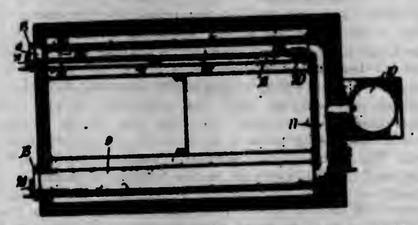
3. In combination with an engine, a casing, the casing having openings for admission and exhaust, a shaft passing through the casing, an eccentric piston rigidly secured to the shaft and arranged to rotate within the casing, the side of the eccentric piston which is farthest from the shaft arranged to work close to or against the cylindrical part of the casing, a roller inserted in the side of the eccentric piston and arranged to work against the cylindrical part of the casing, a piston plate one end of which is hinged to the casing, the hinge being between the intake and exhaust openings, the other end of the piston plate coming in contact with the side of the eccentric piston, bands or rings (13) encircling the eccentric piston, the one end of the piston plate being hinged to such rings, thus keeping the piston plate in continual connection with the eccentric piston, the said

rings being sufficiently loose to allow the eccentric piston to rotate within the same, a recess or extension of the casing forming a receptacle for the piston plate, substantially as set forth.

4. In combination with an engine, a casing, the casing having openings for intake and exhaust, a shaft passing through the casing, an eccentric piston rigidly secured to the shaft and arranged to rotate within the casing, the side of the eccentric piston which is farthest from the shaft arranged to work close to or against the cylindrical part of the casing, a roller inserted in the side of the eccentric piston and arranged to work against the cylindrical part of the casing, a piston plate with one end hinged to the casing and the other end connecting with the eccentric piston, bands or rings encircling the eccentric piston to which one end of the piston plate is hinged, the eccentric piston to rotate within the said rings, balls or rollers ( ) inserted between the said bands or rings and the eccentric piston, such balls or rollers thus arranged to take the pressure applied to the piston plate to avoid friction, a recess or extension of the casing forming a receptacle for the piston plate so the piston plate can leave the path of the eccentric piston and the eccentric piston can make complete revolutions, substantially as described.

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1,040,701. HEATING SYSTEM FOR INCUBATORS. GEORGE HOWARD LEE, Omaha, Nebr. Filed Aug. 25, 1911. Serial No. 645,985. (Cl. 237—22.)



1. In a system of the character described, the combination with a plurality of heat drums each having a closed end and an open end; of a heater having a delivery flue entering each of said drums; register pipes in open communication with the said delivery flues of said heater and extended lengthwise of said drums, said register pipes having openings adjacent the opposite ends thereof; means rotatively mounted in said register pipes for successively exposing and closing said openings in the opposite ends of said pipes; and a crank handle connected with said means for rotating same within said pipes.

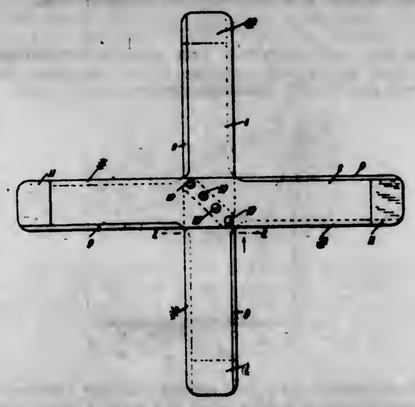
2. In a system of the character described, the combination with a plurality of heat drums each having a closed end and an open end; of a heater having delivery flues extended within said drums; register pipes one in each of said drums in open communication with the delivery flues connected with said heater, said register pipes having openings adjacent opposite ends thereof; and closure pipes rotatively mounted in said register pipes and provided with openings adjacent the ends thereof to register with the openings in the register pipes, said openings in the closure pipes being differently arranged circumferentially from the openings in the register pipes whereby the distribution of the heated air at opposite ends of said pipes is varied.

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1,040,702. TOY BOOMERANG. GEORGE H. LEE, Omaha, Nebr. Filed Jan. 24, 1912. Serial No. 673,017. (Cl. 102—26.)

1. A toy boomerang having a plurality of blades each reversely inclined at its opposite ends, said blades rigidly united at their common center; and a plurality of wedge-shaped members inserted between said blades to separate the edges thereof at opposite sides of the said common center.

2. A toy boomerang having a plurality of blades superposed at their median sections to form a rectangular overlapping section; means for structurally uniting said blades disposed in line with a diagonal diameter of said rectangular section; and means for wedging the edges of said blades apart at the ends of the diagonal diameter perpendicular to the first mentioned diameter.

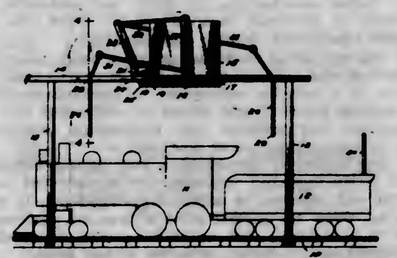


3. A toy boomerang having a plurality of blades superposed at their median sections to form a rectangular overlapping section; means for structurally uniting said blades disposed in line with a diagonal diameter of said rectangular section; and a plurality of wedge-shaped blocks for insertion between the said blades to separate the edges thereof at the extremes of the diagonal diameter perpendicular to the first mentioned diameter.

4. A toy boomerang having a plurality of blades superposed at their median section to form a rectangular overlapping section; means for structurally uniting said blades disposed in line with a diagonal diameter of said rectangular section; and a plurality of wedge-shaped right angle triangular blocks the wedged edge whereof is the hypotenuse of the triangle, said blocks being disposed between said blades on the opposite sides of the fastening means therefor.

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1,040,703. COALING DEVICE. CLIFFORD C. LEFTWICH, Council, Va. Filed June 7, 1911. Serial No. 631,772. (Cl. 214—1.)



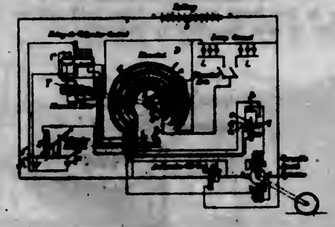
In a coaling device, a super-frame structure adapted for arrangement above a railway track, a stationary hopper mounted in the said structure, and having an open bottom, a swinging door hinged to the structure and normally closing the open bottom of the hopper, a forked bracket fixed in and projecting outwardly from one side of said hopper, a swinging arm pivoted in said forked bracket, a locking pin pivotally connected to the lower end of said arm and working through one side of the hopper for engagement with the door when closed, trip levers pivoted in the frame structure spaced from and on opposite sides of the hopper and adapted to be actuated by a passing train when traveling in either direction on a track, a rocking arm pivoted to the hopper, a flexible connection between one of said trip levers, and one end of the rocking arm.



and a flexible connection between the other trip lever, swinging and rocking arms.

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1,040,704. AUTOMATIC ELECTRIC REGULATOR. HENRY LEITNER, Maybury, Woking, England. Filed Feb. 26, 1910. Serial No. 545,219. (Cl. 171—313.)



1. In an electric regulator, the combination with an accumulator, a dynamo and a lamp circuit connected with the accumulator and dynamo, and regulating means for inserting resistance progressively in the lamp circuit, and to simultaneously insert resistance progressively in the dynamo field circuit, an independent resistance and an automatic electric device brought into operation when the potential difference across the lamp resistance reaches a predetermined point, to cut said independent resistance into the progressive resistance of the dynamo field circuit, to change the scale value of the said progressive resistance and enable the dynamo output, while being reduced to accommodate itself to load voltage conditions under the control of the said regulating means.

2. The combination with a variable speed dynamo, an accumulator, a lamp circuit connected with the dynamo and accumulator, progressive resistance for the lamp circuit, progressive resistance for the dynamo field circuit, a separate resistance in circuit with said progressive resistance for the dynamo field circuit, a short circuiting device for said separate resistance normally short circuiting the same, a circuit across the lamp resistance and an electric device in said circuit, constructed to operate said short circuiting device so as to place the separate resistance in circuit with the progressive resistance of the dynamo field circuit when the potential of the circuit in which said electric device is located, reaches a predetermined point.

3. The combination with a variable speed dynamo, an accumulator, a lamp circuit, a progressive resistance for the lamp circuit, a progressive resistance for the dynamo field circuit, a regulating device for simultaneously cutting said resistance in and out, of a circuit across the lamp resistance, an electro magnetic device having a coil in said circuit, an armature for said electro magnetic device, a spring normally holding said armature in "off" position, an independent resistance in circuit with the progressive resistance of the dynamo field circuit, and a normally operative short circuiting device operatively connected with said armature for short circuiting said independent resistance.

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1,040,705. INTERLOCKING MECHANISM. HENRY E. LARRABEE, New Britain, Conn., assignor to The Hart Manufacturing Company, Hartford, Conn., a Corporation of New Jersey. Filed Mar. 14, 1911. Serial No. 614,280. (Cl. 176—238.)

1. In an interlocking device, the combination of a base, three openings therein, a series of three plungers in said openings respectively, each plunger having a circumferential recess, a detent between each pair of adjacent plungers, and a ring loosely seated at the bottom of the recess in the intermediate plunger and adapted to be engaged by each detent.

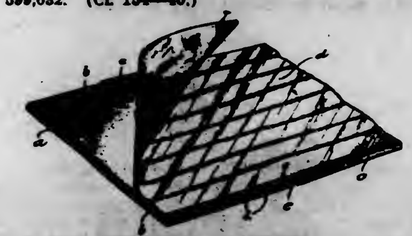
2. In an interlocking device, the combination of a base, three openings therein, a series of three plungers in said openings respectively, each plunger having a circumferential recess, a ball detent between each pair of adjacent plungers, and a ring loosely seated at the bottom of the recess in the intermediate plunger and adapted to be engaged by each ball detent.



3. In an interlocking device, the combination of a base, three openings therein, a series of three plungers in said openings respectively, each plunger having a circumferential recess, a detent between each pair of adjacent plungers, a ring loosely seated at the bottom of the recess in the intermediate plunger and adapted to be engaged by each detent, and springs normally tending to retract said plungers.

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1,040,706. WEATHERPROOF COVERING. LOWELL F. LINDLEY, Chicago, Ill. Filed Dec. 23, 1910. Serial No. 599,032. (Cl. 154—40.)



A flexible waterproof covering, comprising a base compound of a flexible material impregnated with a compound containing hydrocarbon, and a fabric having a rubber compound pressed onto its outer face only and united on its uncoated face to said base under pressure.

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1,040,707. TIN, CANISTER, AND SIMILAR RECEPTACLE. PERCY L. LINEY, Gunnersbury, England. Filed Feb. 18, 1910. Serial No. 544,610. (Cl. 220—5.)



In an article of the character described, the combination of a cylindrical body portion flared outwardly near its upper edge and having a cylindrical upper edge of continuous circular outline, with a lid conforming in cross sectional shape to the said body portion, the lower edge of the lid fitting over the upper edge of the body portion, the edge of the body portion and the edge of the lid being elastic and compressible.

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1,040,708. HYDROCARBON SOAP AND PROCESS OF MAKING SAME. PAUL GEORG LIST, Tübingen, and GEORG SCHMIDT, Offenbach-on-the-Main, Germany, assignors to The Firm of I. Simon & Dürrbeim, Offenbach-on-the-Main, Germany. Filed Jan. 21, 1911. Serial No. 603,302. (Cl. 87—5.)

1. A process of making a soap containing soluble aromatic hydrocarbons, which process comprises reacting upon such a hydrocarbon with a soapy material, under the joint action of heat and agitation, while excluding water

as much as possible, until a product completely soluble in water is produced, substantially as described.

2. The process of making a soap containing soluble aromatic hydrocarbons, which process comprises combining such a hydrocarbon with fat and alkali lye at an elevated temperature, while excluding water as much as possible during the reaction, and producing a product completely soluble in water as described.

3. The process of making a soap containing soluble aromatic hydrocarbons, which process comprises combining such a hydrocarbon with oleic acid and caustic potash lye at an elevated temperature, while excluding water as much as possible, and producing a product completely soluble in water.

4. The process of making a soap containing soluble aromatic hydrocarbons, which process comprises combining xylol with a soapy material while excluding water as much as possible, and producing a product completely soluble in water, substantially as described.

5. The process of making a soap containing soluble aromatic hydrocarbons, which process comprises combining solvent naphtha with a soapy material while excluding water as much as possible during the process of combination, and producing a product completely soluble in water, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

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1,040,709. COOLING MEANS FOR GASOLENE-ENGINES. THOMAS J. LOETUS, Castella, Cal., assignor of one-half to Harmon Bell, Oakland, Cal. Filed May 9, 1911. Serial No. 626,984. (Cl. 123—35.)



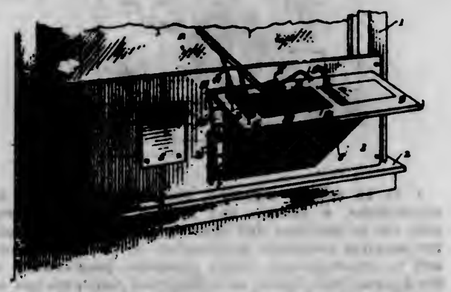
1. A device to automatically inject water into the cylinder of an internal combustion engine, said device including a supplemental cylinder fixed in the engine cylinder and having parts of two diameters, the larger of which is contiguous to the engine cylinder, a spring pressed plunger with parts of two diameters fitting the supplemental cylinder, passages converging from the junction of the parts of two diameters of the plunger to the bottom of the part of larger diameter, a fixed valve against which the plunger normally closes, and a valve controlled water inlet connecting with the cylinder at the junction of its parts of two diameters.

2. A device to automatically inject water into the cylinder of an internal combustion engine, said device comprising a supplemental cylinder fixed in the main cylinder, having parts of two diameters, and a closure for the outer end, a valve member located contiguous to the main cylinder and having a stem screw-threaded and adjustable in the closure at the outer end, a plunger fitting the parts of two diameters, bored for the passage of the valve stem and having a seat in its lower end, a spring by which the plunger seat is normally closed upon the valve member and raised therefrom by explosions in the main cylinder, ports connecting said seat with the junction of the parts of two diameters of the plunger, and a valve controlled source of water supply thereto.

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1,040,710. PHOTOGRAPHIC-PRINTING DEVICE. MAX FREEDOM LONG, Evanston, Wyo. Filed July 11, 1911. Serial No. 637,906. (Cl. 95—73.)

1. A photographic printing device comprising a casing, means to which said casing is secured for attaching the same to a window frame, said casing having an opening in its front to permit the entrance of light to the inside of the same, a translucent member for controlling said opening, means for movably mounting said member adjacent said opening and a mirror supported inside of said casing at an angle to said opening, said casing having an opening in its top and having means adjacent the top opening for supporting a negative in said opening in the top, whereby light passing into said casing through the opening in the front will fall upon said mirror and pass therefrom to said negative by reflection.



2. A photographic printing device comprising a casing, said casing having an opening in its front to permit the entrance of light to the inside of the same, translucent means for controlling said opening, means for adjustably mounting the said translucent means, a mirror supported inside of said casing at an angle to said opening, said casing having an opening in its top and having means adjacent the top opening for supportig a negative over said opening, whereby light passing through the opening in the front will fall upon the mirror and pass therefrom to said negative by reflection, means for holding said negative in position over the top opening, and means for controlling the translucent means located adjacent the holding means, whereby when the holding means is pressed down by the hand over the negative, the controlling means can be also operated to move the translucent means to uncover the opening in the front of the casing.

3. A photographic printing device comprising a casing having an opening in its front, a plurality of translucent shutters carried by said casing in position to uncover and close said opening, means for movably mounting said shutters, a mirror supported inside of said casing at an angle to said opening, said casing having an opening in its top, and having means adjacent the top opening for supporting a negative over said opening in the top, whereby light passing through the opening in the front of said casing will fall upon said mirror and pass therefrom to said negative by reflection, means for holding said negative in position, and means for adjusting the position of said translucent shutters and located adjacent said holding means, whereby when the holding means is pressed down over the negative by the hand, the adjusting means can also be operated to move the translucent shutters into position to uncover said opening in the front of the casing.

4. A photographic printing device comprising a casing with an opening in its front, a plurality of transverse shutters, means for mounting the same pivotally over the opening, said casing having a second opening in its top, and having means adjacent said second opening to support a negative in position therein, a mirror carried by said casing at an angle to the opening in the front, to cause light passing into said casing to pass to the negative by reflection, means mounted on the top of the casing to be pressed down upon said negative to hold the same in position, and an adjusting member mounted on top of the casing, said member being located adjacent the means for pressing down upon the negative, and means for connecting said member to the shutters whereby when the means for securing the negative in place is operated by hand, the shutters can likewise be moved into position to uncover the opening in the front of the casing.



5. In a photographic printing device, a shutter plate comprising a single blank of metal having an oblong central opening, and a plate of colored translucent material carried by said blank and covering said opening, the outer edges of said blank being bent over to engage the edges of said plate of translucent material to hold the same in place.

[Claims 6 to 8 not printed in the Gazette.]

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1,040,711. HAIR-CUTTING GAGE. ELMER R. LONGNER, Toledo, Ohio. Filed Aug. 2, 1910. Serial No. 575,082. (Cl. 73—141.)



1. A pair of plates each toothed on one of its margins as a comb, pivotal connections between said plates at their margins opposite the toothed margins, a handle rigidly connected with one end of one of the plates, an inclined member carried by one of said plates, a member slidable longitudinally of the handle and adapted by its movement in contact with such inclined member to swing one of the plates upon its said pivots, and means for holding said swinging member in operative engagement with said sliding member.

2. In a device of the described character, a handle, a comb-plate rigidly supported by the handle, a corresponding comb-plate pivoted upon the handle to coöperate with the opposed comb-plate, a spring which holds the two plates in normally closed relation, a sliding member mounted upon the handle, an inclined member secured to the inner side of the pivoted plate and in the path of the sliding member, the arrangement being such that the movement of the sliding member swings the pivoted comb-plate upon its pivot.

3. A hair cutting gage comprising a handle having a comb rigidly connected thereto at one end, a second comb, the two combs being hinged together at their backs and the second comb having a surface inclined to the axis of the handle, a controller mounted for movement lengthwise of the handle and having a portion engaging said inclined surface whereby when the controller is moved, the distance between the toothed edges of the combs is varied and resilient means tending to draw these edges together.

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1,040,712. VALVE FOR GAS-LIGHTING SYSTEMS FOR AUTOMOBILES. ALBERT LUTENBOGER, Sacramento, Cal. Filed Dec. 28, 1910. Serial No. 599,682. (Cl. 137—4.)



1. In a valve for a gas lighting system, the combination of a casing having openings in its sides, a plug removably fitted to an end of the casing and having a passage to register with certain openings in the sides of the casing, said plug being further provided with a second passage forming a valve seat which intersects the first mentioned passage, and a valve threaded into the opposite end of the casing and adapted to enter the said second passage and close the first mentioned passage.

2. In a valve for a gas lighting system, the combination of a casing having openings in its sides, a plug threaded into an end of the casing and closing the same, said plug having intersecting passages, the one adapted to register with the openings in the sides of the casing and the other passage forming a valve seat, a cap threaded upon the opposite end of the casing, and a valve having screwthread connection with the cap and adapted to close the second passage in the before mentioned plug.

3. In a valve for a gas lighting system, the combination of a dial, a casing supported by means of said dial and having an inlet opening and outlet openings in its sides, a plug threaded into an end of the casing for closing the same and having a passage to register with the outlet openings of the casing, said plug having a second passage intersecting the first mentioned passage and forming a valve seat, a cap fitted to the opposite end of the casing, a valve threaded in said cap and adapted to enter the second passage of the before mentioned plug, and a hand wheel fitted to the outer end of the valve and adapted to coöperate with the dial.

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1,040,713. SEAL-LOCK. JOHN MACKENZIE, Watervliet, N. Y. Filed Mar. 11, 1912. Serial No. 682,975. (Cl. 70—28.)



1. A lock adapted for use on railway cars, comprising a casting provided with a chamber and a staple; a bolt adapted to reciprocate in said chamber and pass through an opening in the staple; a spring tongue in said bolt adapted to project beyond the opening through which the bolt reciprocates when the bolt is inserted in the opening in the staple; a swinging plate; a means for mounting said plate in said casting, whereby one end of the plate will engage the said spring tongue, when the other end thereof is swung away from the bolt, and press the spring tongue into the bolt; a seal adapted to be placed into the casting forward of and preventing the operation of said swinging plate; a cap on the end of said bolt adapted to cover said seal.

2. A seal lock comprising a casting provided with a chamber; a bolt adapted to reciprocate in said chamber; a cap attached to said bolt; a spring mounted in said bolt; a means for compressing said spring; a seal placed in said casting in such relation to said means for compressing said spring that said means cannot be operated during the pressure of the spring in its normal condition.

3. A seal lock, comprising a casting provided with a chamber; a bolt adapted to reciprocate therethrough; a spring secured in said bolt adapted to project therefrom; a means for compressing said spring and thus permitting said bolt to be reciprocated in said chamber; a means for preventing said bolt from being removed from said casting; and a means for preventing the operation of said spring compressing means, substantially as described.

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1,040,714. NON-REFILLABLE BOTTLE. CHARLES W. MASSEY, Detroit, Mich. Filed Feb. 19, 1912. Serial No. 678,003. (Cl. 215—56.)

In a non-refillable bottle, the combination with an inwardly tapering bottle neck, of a tapering member arranged completely within and having all portions of the sides thereof forming a tight joint with the sides of the neck, said member having a recess in the upper end thereof

provided with imperforate walls and having a seat in the base thereof, there being a channel leading downwardly from said seat through said member, a ball valve engaging said seat and normally closing the channel, a stopper having a portion projecting within and fitting the neck, said projection being provided with a contracted extension arranged within said recess and extending in immediate



proximity to the ball valve whereby the latter has a very limited movement, said stopper having a channel extending from the exterior thereof downward through said projection and the inner end of said projection having a notch or restricted passage communicating with the last mentioned channel, interlocking portions upon the stopper and neck, and means for permanently cementing the interlocking portions together.

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1,040,715. CENTERING DEVICE. HARRY MANN, Brooklyn, N. Y., assignor of one-fourth to Charles Thoma, Jr., and one-fourth to Walter Thoma, Carlstadt, N. J. Filed Dec. 8, 1909. Serial No. 531,285. (Cl. 177—311.)



1. A centering device comprising a tool body having a longitudinal bore, a plunger slidingly engaged in the said bore, a signal lamp mounted at the inner end of said bore, the tool body having an opening in the top thereof to expose said signal lamp, and a switch interposed between the inner end of the plunger and the lamp, adapted to be actuated by the said plunger.

2. A centering device comprising a tool body having a longitudinal bore therein, a plunger slidingly engaged in the said bore, a signal lamp mounted in the tool body at the inner end of the bore, the tool body having an opening to expose said signal lamp, and a switch interposed between the plunger and signal lamp, the said switch having a movable electrode adapted to be engaged by the inner end of the plunger.

3. A centering device comprising a tool body having a longitudinal bore therein, a plunger slidingly engaged in the said bore and consisting of a contact member having an outer exposed portion for engagement with the work, an inner part, and a spring interposed between the two parts of the plunger, a signal lamp mounted in the tool body at the inner end of the bore, the tool body having an opening to expose said signal lamp, and a switch interposed between the plunger and signal lamp, the said switch having a movable electrode adapted to be engaged by the inner part of the plunger.

4. A centering device comprising a tool body having a longitudinal bore, a plunger slidingly engaged in the said bore, an electric signal mounted at the inner end of the bore, the tool body having an opening in the top thereof to expose the said signal, a switch interposed between the inner end of the plunger and the signal having a movable part to be engaged and actuated by the plunger, and means for conducting electric current to the said switch.

5. A centering device comprising a tool body having a longitudinal bore, a plunger slidingly engaged in the said bore, an electric signal mounted in the tool body at the inner end of the bore aforesaid, an electric terminal on the under side of the tool body having connection with the signal, a movable electrode interposed at the inner end of the bore in the tool body between the plunger and the signal, a second terminal on the under side of the tool body having connection with the movable electrode, the tool body having a passage extending longitudinally through the lower part thereof in line with the terminals aforesaid, and electric conductors extending through said passage to the terminals.

[Claim 6 not printed in the Gazette.]

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1,040,716. ROTARY MOTOR. HENRY MANBOOT, Brooklyn, N. Y. Filed Apr. 1, 1911. Serial No. 618,286. (Cl. 123—43.)



1. A rotary motor comprising essentially a stationary and a rotary part rotatable relatively to the other, both parts having spherical surfaces of the same radius in all directions, admission and exhaust ports and spark plugs on the one part, and means for the compression of the explosive fuel on the other part.

2. A rotary motor comprising essentially a stationary and a rotary part rotatable relative to the other, both parts having surfaces of the same radius in all directions, admission and exhaust ports and spark plugs on the stationary part, means for the compression of the explosive fuel on the rotary part, and means for the expulsion of the waste gases.

3. A rotary motor comprising essentially a stationary casing with spherical inner surface, a rotor within having a corresponding spherical surface sliding on the spherical surface of the casing during rotation, admission and exhaust ports and spark plugs in the casing, means for suction and compression of the explosive fuel in the rotor, and means for the expulsion of the exhaust gases.

4. A rotary motor comprising a casing with fuel inlet and having a spherical inner surface, a rotor within with spherical outer surface, a number of open cylinders with pistons and piston rods within the rotor, a stationary cam on the casing having an irregular groove with eccentric sections, and transmission mechanism linked to the piston rod and having an end roll that travels in the cam groove.

5. A rotary motor comprising a casing with fuel inlet and having a spherical inner surface, a rotor within with spherical outer surface, a number of open cylinders with pistons and piston rods within the rotor, packing rings with conforming spherical surfaces around the cylinder openings, a stationary cam on the casing having an irregular groove with eccentric sections, and transmission mechanism linked to the piston rod and having an end roll that travels in the groove.

[Claims 6 to 11 not printed in the Gazette.]



1,040,717. GAME APPARATUS. WILLIAM C. MARTINEAU, Albany, N. Y. Filed June 14, 1912. Serial No. 703,631. (Cl. 46—31.)



1. Game apparatus comprising a part providing a depressed seat and means leading to said seat; and a rolling part having on its face indicia of different values.

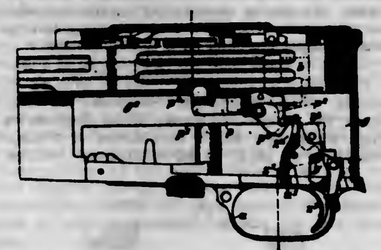
2. Game apparatus comprising a part providing a depressed seat and an inclined plane leading to said seat; and a rolling part having on its face indicia of different values.

3. Game apparatus comprising a part providing a ball seat and an inclined plane leading to said seat; and a ball having on its face indicia of different values.

4. Game apparatus comprising a part providing an inclined plane and an apertured ball receiving portion at the head of said plane; and a ball having on its face indicia of different values.

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1,040,718. SMALL-ARM. PAUL MAUSER, Oberndorf-on-the-Neckar, Germany. Filed Feb. 8, 1911. Serial No. 607,293. (Cl. 42—3.)



1. In a breech-loading fire-arm, the combination with a breech bolt, of locking levers therefor, firing mechanism comprising a trigger, means engaged by said trigger adapted to lock said trigger when said locking levers are in unlocking position, and means adapted to disengage said trigger and locking means when said trigger is pulled to release the firing mechanism.

2. In a breech-loading fire-arm, the combination with a breech bolt, of locking-levers therefor, firing mechanism comprising a trigger, and a lever adapted to be engaged by said trigger and directly coöperating with said locking levers to lock said trigger against operation when said locking levers are in position to unlock the breech.

3. In a breech-loading fire-arm, the combination with a breech bolt, of locking levers therefor, firing mechanism comprising a trigger, a lever adapted to be engaged by said trigger and coöperating with said locking levers to lock said trigger against operation when said locking levers are in position to unlock the breech, and means adapted to disengage said trigger and lever when the trigger is pulled to release the firing mechanism.

4. In a breech-loading fire-arm, the combination with a breech bolt, of locking levers therefor, firing mechanism comprising a trigger and a sear, a lever adapted to be engaged by said trigger, and coöperating with said locking levers to lock said trigger against operation when said locking levers are in position to unlock the breech, and means adapted to disengage said trigger and lever immediately after with the disengagement of said trigger and sear.

5. In a breech-loading fire-arm, the combination with a breech bolt, of locking levers therefor, firing mechanism comprising a trigger, and a two-arm rocking lever adapted to be engaged at one end by said trigger and at its other end directly coöperating with said locking levers to lock said trigger against operation.

[Claims 6 to 11 not printed in the Gazette.]

1,040,719. STAMP. JOSEPH A. MCCLURE, Emporia, Kans. Filed Dec. 28, 1911. Serial No. 668,344. (Cl. 101—160.)



1. A stamp comprising a head, arms extending from opposite sides of said head and having their ends offset, side pieces extending from said head between said arms, a bridge connecting the ends of said arms, the end portions of said bridge being out of alinement, and marking means upon said bridge whereby sets of characters may be printed out of alinement.

2. A stamp comprising a frame, a bridge carried by said frame, certain portions of said bridge being out of alinement and connected at their inner ends, bands passing over the disalined portions of said bridge, and marking means carried by said bands.

3. A stamp comprising a frame, a bridge carried by said frame, the end portions of said bridge being positioned out of alinement, and bands passing over said bridge, said bands having marking characters formed thereon.

4. A stamp comprising a frame having a head, arms extending from said head, a shaft passing through said arms, disks rotatably mounted upon said shaft, a bridge connecting the ends of said arms, the end portions of said bridge being positioned out of alinement, and bands passing around said disks and over said bridge, marking characters being formed upon said bands.

5. A stamp comprising a head, arms extending from said head and having their ends offset, strips extending from the sides of said head and positioned between the upper portions of said arms, a bridge connecting the free ends of said arms, the ends of said bridge being positioned out of alinement, disks rotatably mounted between said arms, and type bands passing over said disks and over said bridge whereby characters printed by said bands will form a plurality of groups of characters printed out of alinement.

[Claim 6 not printed in the Gazette.]

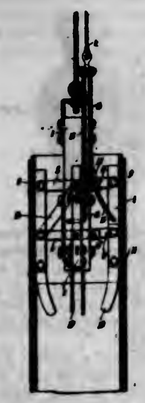
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1040,720. COMBINED RAIL-JOINT AND NUT-LOCK. JACKSON A. MCELROY and WILLIAM B. FREEMAN, Hattiesburg, Miss. Filed Dec. 8, 1911. Serial No. 664,547. (Cl. 238—6.)



The combination with the meeting ends of a pair of rails, and fish plates embracing the opposite sides of the webs of the rails and provided with flanges overlapping the rail bases and extending beyond such bases and provided adjacent to their edges with apertures suitably spaced apart, of a chair below said rails provided with spaced apertures registering with the first-mentioned apertures, said chair being further provided with an inclined lip at one of its longitudinal edges having relatively large openings therein spaced apart and alining with the first-mentioned openings whereby a spike may be driven through the apertures and the head thereof disposed below the plane of the upper surface of the lip, said lip terminating in a nut engaging member having a horizontal face adapted to engage the nuts upon the bolts of the rail joint.

1,040,721. TILE-SETTER. GEORGE W. MCGANDY, Marshall, Minn. Filed Oct. 8, 1911. Serial No. 653,491. (Cl. 166—7.)



1. A device of the class described, comprising a supporting element having openings and recesses communicating with the openings, radially extending stationary members positioned in the openings, pivoted movable members positioned in the recesses, means engaging the said members and the supporting element whereby the parts are maintained in position, vertical rods carried by the outer ends of the stationary members and the movable members, and a plurality of braces extending from the supporting element to the stationary rods whereby the same are held immovable.

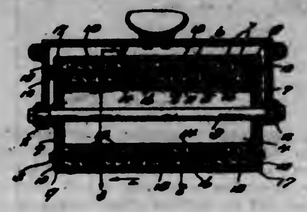
2. A device of the class described, comprising a supporting element having openings and recesses therein, the recesses communicating with the openings, radially extending stationary members positioned in the openings, radially extending movable members positioned in the recesses, vertical rods secured to the outer ends of the stationary members, vertical rods secured to the outer ends of the movable members, a plurality of braces extending from the supporting element to the rods carried by the stationary members whereby the same are held immovable, and upwardly extending links engaging the movable rods whereby the same may be moved relatively to the supporting element, thereby providing for positioning of the device within a tile or analogous article.

3. A device of the class described, comprising a supporting element having therein a number of openings and recesses communicating with the openings, means at one end thereof whereby the same may be held in position, radially extending stationary members in the openings, vertical rods at the outer end of the members, a plurality of braces engaging the said element and the rods whereby the same are held immovable, movable members positioned within the recesses, vertical rods in engagement with the outer ends of the said movable members, one end of each of the said stationary members and movable members being provided with openings, bolts extending through the said element and through the openings for holding the members in position, a plurality of links extending from the said movable rods, and means whereby the links may be moved and with them the rods in order to permit the device to be positioned within a tile or similar article.

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1,040,722. LAND-ROLLER. WILLIAM A. MCILVOY, Gettysburg, S. D. Filed Mar. 25, 1912. Serial No. 686,038. (Cl. 56—49.)

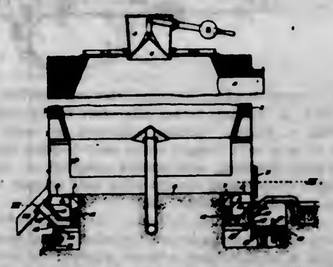
1. In combination, an axle, a land roller journaled thereon, the land roller comprising inner and outer sheet metal shells, and end plates having annular recesses to receive the ends of the outer shell, a body of concrete arranged between the adjacent circumferential surfaces of the shells, and tie rods extending through the concrete and securing the plates to the outer shell.



2. In combination, a draft frame having an operator's seat, an axle journaled in the frame, a land roller journaled thereon, the land roller comprising inner and outer shells, and end plates having annular recesses to receive the ends of the outer shell, a body of cement arranged between the adjacent circumferential surfaces of the shells, the circumferential surfaces of the shells having projections and lugs arranged in staggered relations with one another to hold the cement from slipping relative to the shells, tie rods having projections arranged in staggered relations with one another and extending through the cement and securing the plates to the ends of the outer shell, the projections of the rods being in staggered relations with the projections and lugs of the circumferential surfaces, the plates constituting means to relieve the inner shell of the weight of the draft frame and the operator and subject the outer shell to such weight.

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1,040,723. GAS-PRODUCER. FREDERIC MERIAM, Pittsburgh, Pa., assignor to Forter Miller Engineering Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 14, 1911. Serial No. 614,477. (Cl. 48—66.)



1. In a gas producer, the combination with inner and outer concentric radially spaced annular walls forming the bottom portion of the producer chamber, of a stationary supporting base having an annular projecting portion, and an annular rotatable ash bin extending inwardly underneath said portion.

2. In a gas producer having an outer shell, the combination therewith of an inner annular wall forming the bottom portion of the producer chamber, a stationary supporting base spaced downwardly therefrom and having an annularly projecting portion, and an annular rotatable ash bin extending inwardly underneath said portion.

3. In a gas producer, the combination with an inner annular wall forming the bottom portion of the producer chamber, of a stationary supporting base having an annularly projecting portion extending outwardly underneath said wall, an annular rotatable ash bin extending inwardly underneath said base portion, and means for supporting and rotating said ash bin.

4. In a gas producer, the combination with an inner annular shell forming the bottom portion of the producer chamber and an outer shell radially spaced away therefrom having a depending skirt, of a stationary supporting base having an annularly projecting portion, and a rotatable ash bin extending inwardly below said skirt and projecting portion.



5. In a gas producer, the combination with an inner annular shell forming the bottom portion of the producer chamber and an outer shell radially spaced away therefrom having a depending skirt, of a stationary supporting base having an annularly projecting portion and an annular wall depending therefrom, and a rotatable ash bin extending inwardly below said skirt and annular wall.

[Claims 6 to 10 not printed in the Gazette.]

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1,040,724. CHALK-HOLDER. GEORGE F. MILLER, Kansas City, Mo. Filed Jan. 9, 1912. Serial No. 670,159. (Cl. 46—8.)



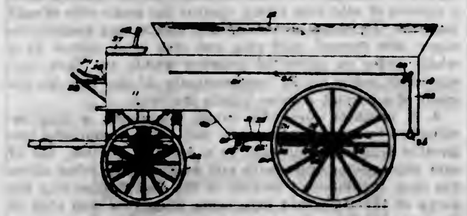
1. A chalk holder comprising a casing formed from a blank of yieldable material, having its ends provided with apertured ears and having an inner recess adapted for receiving a chalk cylinder, and forming edge flanges for holding the cylinder in the recess, when the casing is formed, the said ears being adapted for engagement and being stitched together adjacent the apertured portions.

2. In a chalk holder, a casing formed from a blank of yieldable material having ears on its opposite ends, and having a longitudinal groove on its inner surface, said groove, when the casing is formed, providing a recess for receiving a chalk cylinder, the outer edges of said grooved portion forming flanges for keeping the chalk cylinder within the casing, substantially as set forth.

3. In a chalk holder, a casing formed from a single piece of yieldable material, having apertured ears at its ends adapted for engagement when the casing is formed, the inner surface of the casing being recessed to receive a chalk cylinder, the end flanges formed by said recess being immediately within the outer edges of the casing and adapted to hold said cylinder within the said recessed portion.

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1,040,725. DUMP-WAGON. SAMUEL MILLER, Chicago, Ill. Filed Feb. 24, 1912. Serial No. 679,643. (Cl. 21—20.)



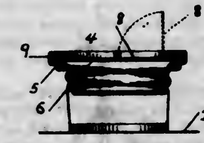
1. A wagon having a bottom frame including side members and a transverse sill above the rear axle, a door for closing the bottom in rear of said sill having free corners at the rear corners of the wagon and doors for closing the bottom in front thereof, having free contacting edges along the longitudinal center of the wagon, cables associated with the doors behind and in front of said sill respectively at said free corners and free edges thereof, a transverse shaft on the wagon, inner and outer drums on the shaft respectively fixed and loose with respect thereto, the respective inner and outer cables engaging said drums, and independent means to rotate either drum.

2. The combination of a wagon having a bottom frame formed of side members and transverse sills, one at the front edge of the wagon and one over the axle thereof, the bottom having therefore two completely unobstructed spaces separated by the transverse sill above the axle of the wagon, a transversally hinged door closing the rear space, operating means therefor, two doors closing the other unobstructed space, each hinged to a side member and contacting with the other at the longitudinal center of the wagon, two independent cable-attaching means upon each transverse sill, pulleys near the free corners of the doors which close the front space in the bottom frame, the pulleys and appropriate sill-carried cable-engaging means lying in longitudinal alinement to form for each door an independent cable-engaging means, a cable associated with said means for each door, and means for operating said two cables independently of the means for operating the door which closes said rear space in the bottom frame.

3. A wagon having a bottom including side members and a transverse sill, a door hinged to the sill to close the bottom in rear thereof, two doors closing the bottom each hinged to a side member and contacting with the other door at the longitudinal center of the wagon, a transverse shaft on the wagon, a central drum and outer drums, a cable extending from each outer drum along the side of the wagon to a point of connection to the free corner of the transversely hinged door, a cable extending from each end of the central drum under the free edge of the respective longitudinally hinged door to a point of connection to said sill, one set of drums being fixed to said shaft and one loose thereon, and independent means to operate said loose and fixed drums for independent control of the doors in rear and in front of said sill.

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1,040,726. SEALING DEVICE FOR CANS, &c. STEPHEN W. MILLIGAN, Elizabeth, and JACOB F. JACOBSEN, Newark, N. J., assignors to The Manufacturers Can Company, Newark, N. J., a Corporation of New Jersey. Filed Feb. 5, 1912. Serial No. 675,461. (Cl. 220—67.)



1. A sealing device for cans comprising a flanged tapered threaded spout, a flanged tapered threaded cup shaped sealing member, the flange of which is adapted to be spun over the edge of the spout, and a tapered threaded plug adapted to screw into the thread of the spout and also into the thread of the sealing member and having a cutter secured at its top in normal flat or horizontal position, the cutter being adapted to be turned up into vertical position and of such length that when the cutter is turned up and the plug inverted on the sealing member the cutter may be forced through the bottom of the sealing member which by rotation of the plug may be cut out.

2. A sealing device for cans comprising a flanged tapered threaded spout, a flanged tapered threaded cup shaped sealing member, the flange of which is adapted to be spun over the flanged edge of the spout, a flanged tapered threaded plug adapted to screw into the thread of the spout and also into the thread of the sealing member and having an upright flange around its upper edge forming a counter sink adapted to fit over the edge of the sealing member and a cutter secured at the bottom of said counter sink and projecting from adjacent the edge thereof inwardly in normal horizontal position and adapted to be turned up at right angles for the purpose described.

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1,040,727. CAP. CHARLES I. MINKOFF and LOUIS KRONTHAL, New York, N. Y. Filed Feb. 24, 1912. Serial No. 679,788. (Cl. 2—106.)

1. A cap comprising a body having an opening therein, whereby the cap may be positioned on the head, the cap being provided with a band secured thereto adjacent the said opening, the ends of the band being remote from each other, the said ends being connected together by means of

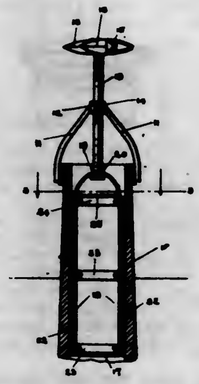
a resilient element suitably secured to the said ends, together with a second or overlapping band extending around the said resilient element and portions of the first band, the said resilient element being secured to this second band, together with a resilient element connecting the ends of the second band.



2. A cap comprising a body having an opening therein whereby the cap may be positioned on the head, the cap being provided with a band secured thereto adjacent the said opening, the ends of the band being remote from each other, the said ends being connected together by means of a resilient element suitably secured to the said ends, together with a second or overlapping band extending around the said resilient element and portions of the first band, a resilient element connecting the ends of the second band, together with straps carried by the cap for maintaining the second band in position.

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1,040,728. CHIMNEY-CLEANER. MOHACHI MIYAMOTO, San Francisco, Cal. Filed Feb. 2, 1912. Serial No. 675,027. (Cl. 98—4.)



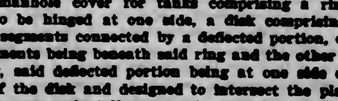
1. In a cleaner of the class described, the combination with a chimney, of a bracket mounted thereon, a shaft mounted for rotation in said bracket, a fan carried at the upper terminal of said shaft, means whereby the interior of the said chimney may be cleansed by the rotation of said shaft, a U-shaped member carried rigidly by said shaft, and brushes carried by said U-shaped member.

2. In a cleaner of the class described, the combination with a chimney, of a bracket mounted thereon, a shaft mounted for rotation in said bracket, a fan carried at the upper terminal of said shaft, means whereby the interior of the said chimney may be cleansed by the rotation of said shaft, a U-shaped member carried rigidly by said shaft, brushes carried by said U-shaped member, and means whereby smoke emitted from said chimney may be strained.

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1,040,729. WRENCH. GEORGE MOORE, Pittsburgh, Pa. Filed Apr. 22, 1912. Serial No. 692,823. (Cl. 81—140.)

In a wrench, the combination with a main shank having a terminal jaw at one end, a threaded terminal at the other end, and a longitudinal channel in one of its edges; of a ratchet bar in said channel having a series of rack teeth, a laterally extending lug, and an extension tail piece lying along said channel, a jaw slidingly mounted on said main shank having a pivotally mounted pawl arm provided with a pawl terminal for engaging the rack teeth



and a reversely curved finger terminal, a spring inserted between the finger terminal and the jaw, and a threaded handle screwed on the threaded terminal of the shank and having an interior annular shouldered portion embracing the laterally extending lug of the rack bar, the threads of the handle embracing said tail piece and retaining it in position in the channel, substantially as set forth.

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1,040,730. VALVE OR COVER FOR TANKS. ROBERT H. MOORE, Chicago, Ill., assignor to American Creosoting Company, Chicago, Ill., a Corporation of Indiana. Filed Oct. 25, 1911. Serial No. 656,659. (Cl. 220—121.)



1. A manhole cover for tanks comprising a ring hinged at one side to the tank, and a disk closing the opening in said ring, said ring and disk being constructed and arranged to conjointly open outwardly under an excess of pressure from within the tank, said disk being pivoted on said ring and constructed and arranged to open inwardly in the event of a partial vacuum within the tank.

2. A manhole cover for tanks comprising a ring designed to be hinged at one side, a disk pivoted to said ring, a portion of said disk fitting against the under side of said ring, the remaining portion of said disk fitting against the upper side thereof, said ring and disk being moved as a whole under an excess of pressure within the tank, and said disk being moved independently of the ring in the event of a partial vacuum within the tank.

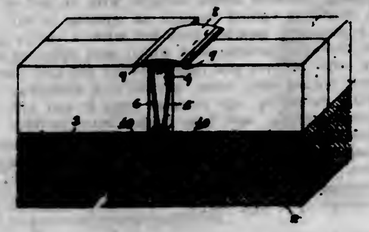
3. A manhole cover for tanks comprising a ring designed to be hinged at one side, and a disk comprising two parallel segments connected by a deflected portion, one of said segments being beneath said ring and the other above the ring, the deflected portion of the disk intersecting the plane of the ring, said disk being hinged to said ring in line with the deflected portion of the disk.

4. A manhole cover for tanks comprising a ring designed to be hinged at one side, a disk comprising two parallel segments connected by a deflected portion, one of said segments being beneath said ring and the other above the ring, said deflected portion being at one side of the center of the disk and designed to intersect the plane of the ring, means pivotally connecting the disk to the ring in line with said deflected portion, the larger segment of the disk being beneath the ring and the smaller segment above the ring, and a counterweight attached to said smaller segment.

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1,040,731. PAVING-JOINT. THOMAS L. MOORE, New York, N. Y. Filed Jan. 22, 1912. Serial No. 672,871. (Cl. 94—1.)

1. A spring metal paving joint consisting of opposite movable angularly related flanges, separated from each other by a V-form interval, upper outward extending shoulders, and a cover for said interval, having connection with one of said flanges to move therewith.



2. A spring metal paving joint, consisting of opposite movable angularly related flanges separated from each other by a V-form interval, a cover extension of one of said flanges for said interval, upper outward extending shoulders, and a lateral base flange-extension.

3. In a paving joint, a horisontally extending anchor member under the paving, a movable supporting member extending upward from the anchor member, and bearing laterally against the paving, and a horisontally-movable bridge member carried by the supporting member, movable therewith to keep the joint closed and having means bearing against the top of the paving to take the strain of a load from the supporting member.

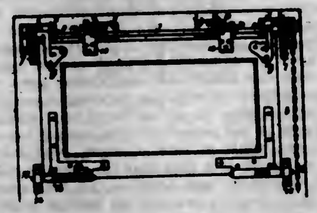
4. In a paving joint, a laterally extending anchor member for location beneath the paving, movable supporting members extending upward from the anchor member and separated from each other by an interval, said supporting members being designed to bear laterally against the paving and having upper lateral extensions designed to bear upon the top of the paving, and a horisontally movable bridge member carried by one of the supporting members, having extension across said interval, and a sliding bearing upon the upper lateral extension of the supporting member at this side.

5. In a paving joint, a laterally extending anchor member for location beneath the paving, a movable supporting member extending upward from and having a spring connection with the anchor member and being designed to bear laterally against the paving and a horisontally movable bridge member carried by said supporting member and being movable therewith to keep the joint closed.

[Claims 6 and 7 not printed in the Gazette.]

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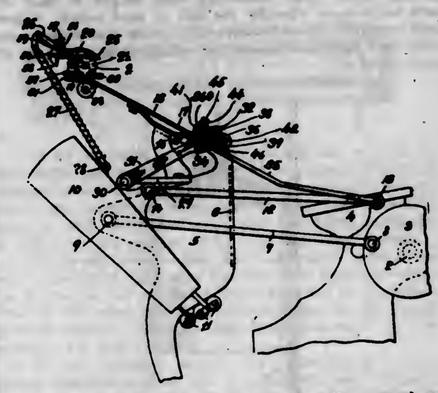
1,040,732. TRANSOM-LIFTER. JOSEPH MORITZ, Dresden, Germany. Filed Sept. 12, 1911. Serial No. 648,828. (Cl. 16—28.)



An improved means for operating hinged transoms, comprising in combination a rotary axle mounted on the frame of the transom on top of same, lugs on the transom, spring-pressed closing hooks on the frame of the transom adapted to engage said lugs in the closed position of the transom, eccentric disks on said axle having lateral pins designed, upon rotation of said axle, to disengage said hooks from said lugs, a hand chain gearing to rotate said axle, and holding chains on the transom to guide the same when being opened, substantially as described and shown.



1,040,733. INKING MECHANISM. LEWIS B. MORRISON, Newark, N. J., assignor to himself and Matthias Plum, Newark, N. J. Filed June 22, 1909. Serial No. 503,652. (Cl. 101—79.)



1. The combination of a fountain roll, a pawl and ratchet mechanism for rotating the same, and oscillating pawl bearing arm, a dog mounted on the said arm and normally inactive and means whereby when the said dog becomes active the moment of rotation of the said fountain roll is delayed at will.

2. The combination of a fountain roll, a device for intermittently rotating the same, mechanism for suspending the action of the said device, an ink plate, vibrating distributing rollers, oscillating means for moving the said rollers on the said plate and means for actuating the said device and for lifting one of the said rollers off the said plate.

3. In an inking attachment for printing machines, a non-rotating ink plate, a plurality of stationary ink plates supported thereon for inking in more than one color, inking rollers and means carried by the latter and coöperating with the sides of the said first ink plate to vibrate the said rollers over the said other ink plates.

4. The combination of an ink plate having serrated sides, other ink plates supported thereon, inking rollers and means carried by the said rollers and coöperating with the sides of the said first ink plate for vibrating the rollers on the said other ink plates, one roller being moved in a direction opposite to that of an adjacent roller.

5. The combination of a fountain roll, a device for intermittently rotating the same, mechanism for suspending the action of the said device, an ink plate, ink rollers, a separate movable member in the path of the said rollers, and means for causing the latter to actuate the said devices when the said rollers contact with the said movable member.

[Claims 6 to 9 not printed in the Gazette.]

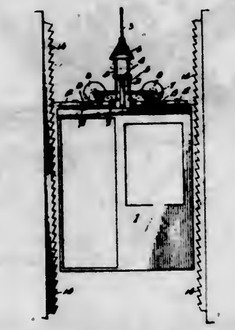
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1,040,734. SAFETY-BRAKE FOR ELEVATORS. EDISON J. MOUNTS, Krum, Tex. Filed Mar. 10, 1911. Serial No. 613,559. (Cl. 187—84.)

1. In a device of the character described, the combination with a cage, a supporting cable therefor, and racks at each side at said cage, of pawls slidably mounted on the roof of said cage, brackets on said roof, segmental gears journaled in said brackets and in engagement with said pawls, levers extending from said segmental gears, means for operating said levers when the supporting cable of the cage breaks whereby said pawls are projected outwardly into engagement with said racks, and means for aiding the projection of the pawls.

2. In a device of the character described, a combination with a cage, a supporting cable therefor, and an elevator shaft having racks therein, of guides on said

cage, pawls slidably mounted in said guides, brackets disposed in proximity to said guides, segmental gears journaled in said brackets, lever arms extending from said gears, a weight connected to the lower end of the supporting cable, rods connecting said weight to each of said lever arms whereby the fall of said weight causes said segmental gears to move said pawls into engagement with said rack, and means for aiding such movement of said pawls.



3. In a device of the character described, the combination with an elevator shaft having racks therein, a cage, and a cable supporting said cage within said shaft, of a weight connected to the lower end of the cable, segmental gears journaled on the roof of said cage, levers extending from said segmental gears, rods connecting said weight with each of said levers, whereby the weight of the car is evenly distributed at a plurality of points of support, means for guiding said rods, and pawls slidably mounted upon the roof of said cage and in engagement with said gears, whereby the breaking of the cable and the consequent fall of the weight causes said pawls to be projected into engagement with said racks and means for aiding the movement of said pawls.

4. In a device of the character described, a combination with an elevator shaft having racks therein, a cage, and a supporting cable, of a weight at the lower end of said cable, brackets on the roof of said cage, segmental gears journaled in said brackets, lever arms extending from said gears, rods connected to said lever arms and to said weight, grooved guide-ways on said cage, toothed pawls slidably mounted in the grooves in said guide-ways and in engagement with said segmental gears, stops formed at the inner ends of said guide-ways whereby the inward movement of said pawls caused by the weight of the car is limited, springs connected to said pawls, said springs adapted to project said pawls into engagement with said racks when said cable breaks, and means carried by said guides for preventing upward movement of said pawls.

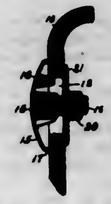
5. In a device of the character described, a combination with an elevator shaft having racks therein a cage and a cable supporting the cage, of a weight at the lower end of said cable, brackets on the roof of said cage, segmental gears journaled in said brackets, guide plates on the roof of said cage, pawls slidably mounted on said guide plates, means on said guide plates adapted to limit the backward movement of said pawls, said pawls adapted to be operated by said segmental gears when said weight falls, and means for aiding the movement of said pawls.

[Claim 6 not printed in the Gazette.]

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1,040,735. COCK-HOLE COVER. PHILIP MUELLER and HENRY MUELLER, Decatur, Ill.; Ora B. Mueller and Adolph Mueller, executors of said Henry Mueller, deceased, assignors to H. Mueller Manufacturing Company, Decatur, Ill., a Corporation of Illinois. Filed July 19, 1910. Serial No. 572,779. (Cl. 4—35.)

1. A closure for openings in lavatory walls, comprising a cover member having an outer edge cupped and adapted to fit against one face of a lavatory wall, said cover member being provided with a centrally disposed externally threaded shank integral with it and of sufficient length to extend through an opening in said wall, and a clamping member provided with a centrally disposed threaded opening into which said threaded shank fits in order to force said cover member and said clamping member toward each other, one of said members having inwardly extending legs integral with it and projecting into said opening, said legs having outer inclined faces for binding against the marginal edge of the opening, said legs having suitable form to guide said members into position against said wall, and in so doing to yield under pressure exerted by the pull of said clamping member exerted upon said shank.



2. The combination of a support having an opening therethrough and a cover plate for concealing said opening, said cover plate having an edge turned inwardly for snug engagement against said support, said cover plate being made of relatively soft material and provided with inwardly extending legs integral with it and projecting into said opening, said legs having outer inclined faces for binding against the marginal edge of the opening, said legs having suitable form to guide said cover plate into position against said support, and in so doing to yield under pressure of said plate, and clamping means engaging against the side of said support opposite said cover plate and connected with said cover plate.

3. In combination with a fixture provided with an aperture, a dished cover plate for concealing said aperture, said plate having a marginal annulus bearing against said support and encircling a portion of the surface of said support adjacent to said aperture, said plate being provided with a centrally disposed member extending through said aperture and integral with said plate, and a plurality of legs radially disposed about said member and spaced equidistant therefrom, said legs being provided with outer surfaces tapering inwardly, and a clamping member engaging said centrally disposed member for forcing said cover plate against said support.

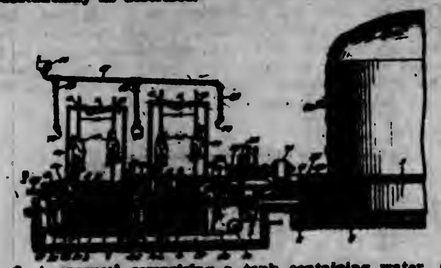
4. In combination with a bath fixture having an aperture, a dished cover therefor, said cover having a marginal annulus bearing at one end of said aperture against said fixture, a centrally positioned outwardly extending shank interiorly integral with said cover and normally protruding from said aperture, a plurality of legs radially formed upon the interior of said cover and spaced equidistant from said shank, said shank being screw threaded, the outer surfaces of said legs tapering inwardly, and a washer nut working on the screw thread of said shank, the free ends of one or more of said tapered legs abutting the inclosing walls of said aperture, said washer nut adapted to engage said fixture at the opposite end of said aperture, whereupon said annulus and the terminal portion of each abutting leg will be held in rigid contact with the meeting walls of said apertured fixture.

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1,040,736. CAROUSEL. ALFRED F. MCLLER, Philadelphia, Pa. Filed Jan. 9, 1912. Serial No. 670,157. (Cl. 46—27.)

1. A carousel comprising an annular concealed water containing tank, and a circular pontoon supported solely by the water in the tank, substantially as described.

2. A carousel comprising an annular concealed water containing tank, a circular pontoon supported solely by the water in the tank, and means for turning the pontoon, substantially as described.



3. A carousel comprising a tank containing water, a circular pontoon mounted in the tank and supported solely by the water in the tank, figures on the pontoon, and means for turning the pontoon, substantially as described.

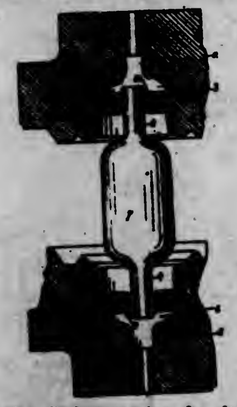
4. A carousel comprising a tank adapted to contain water, a circular pontoon mounted in the tank, figures supported on the pontoon, means for moving the pontoon, and means for moving the figures, substantially as described.

5. A carousel comprising a circular pontoon, means for moving the same, a central scenic float, and means for turning the float in a direction opposite to the movement of the pontoon, substantially as described.

[Claims 6 to 20 not printed in the Gazette.]

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1,040,737. APPARATUS FOR PRODUCING RUBBER BULBS FOR ATOMIZERS, SYRINGES, &c. JAMES A. MURRAY, New Haven, Conn., assignor of one-half to Jeremiah L. Mahoney, New Haven, Conn. Filed Jan. 18, 1911. Serial No. 603,298. (Cl. 18—42.)

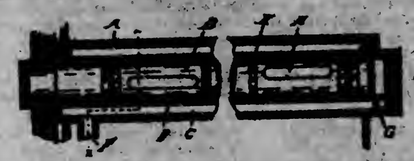


The herein described apparatus for forming rubber bulbs consisting of a male die and a female die having recesses each corresponding to half of a bulb divided transversely, combined with a core corresponding to the internal dimensions of the bulb, said core formed at opposite ends with stems over which disks of rubber may be placed, the said ends of the cores co-acting one with the male, and the other with the female die and whereby when the dies are closed together, the rubber will be spread around the core and the edges united at the center.

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1,040,738. VALVE. EMIL A. NELSON, Detroit, Mich., assignor to Rotary Valve Motor Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 8, 1910. Serial No. 542,191. (Cl. 123—7.)

1. In an explosion engine, the combination with a valve and a valve seat, of a channel extending transverse to the movement of said valve on its seat, and a slit extending from said channel to the contacting faces of said valve and seat, said slit being restricted in width for the passage of a liquid film therethrough.



2. In an explosion engine, the combination with a rotary valve and a seat therefor, of a channel extending transverse to the movement of said valve across said seat, and a slit connecting said channel with the contacting faces of said valve and seat, said slit being restricted in width for the passage of a liquid film therethrough.

3. In an explosion engine, the combination with a rotary valve and a valve seat therefor, of a groove or channel formed in the one extending transverse to the movement of the valve, and a segmental insert in the mouth of said channel having a restricted clearance for the passage of a liquid film.

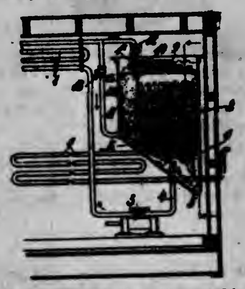
4. In an explosion engine, the combination with a rotary cylindrical valve and a cylindrical seat therefor, of a channel extending longitudinally of one of said members, and a segmental insert in the mouth of said channel having a restricted clearance for the passage of a liquid film.

5. In an explosion engine, the combination with a cylindrical valve, of a cylindrical valve seat therefor formed with a slight clearance therebetween, of a groove or channel formed longitudinally of said valve seat, a segmental insert in the mouth of said channel having a restricted clearance for the passage of a liquid film, and means for maintaining liquid in said channel beneath said insert.

[Claims 6 to 9 not printed in the Gazette.]

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1,040,739. REFRIGERATING DEVICE. JÖNS LAURITS NILSSON, Kristianstad, Sweden. Filed Apr. 20, 1910. Serial No. 558,545. (Cl. 62—6.)



1. In a refrigerating device, the combination of a refrigerating member, an ice-receptacle with which the said member is connected, a pump or the like for causing a liquid to circulate through the said receptacle and member, the said ice-receptacle being provided with an overflow opening for the surplus of liquid produced by the melting ice and also with a tap hole at the bottom of the receptacle for the removal of solid dirt, and a conduit between the receptacle and the pump leading from a level located between the said overflow opening and the tap hole.

2. In a refrigerating device, the combination of a refrigerating member, a receptacle for ice, tapering downward at its bottom, a pump for causing the liquid to circulate through the said member and receptacle, a conduit connecting the receptacle with the pump, an overflow pipe, the said conduit extending from a point in the receptacle on a lower level than the said overflow pipe, and a drain cut connection in the narrowest bottom part of the re-

ceptacle for the removal of solid dirt which may have gathered therein.

3. In a refrigerating device, the combination of a refrigerating member, a receptacle for ice, and through which member and receptacle a liquid is caused to pass, an overflow connection in the receptacle for the removal of surplus liquid produced by the melting ice, a chamber in said receptacle adapted to contain salt, a conduit leading from the said refrigerating member and emptying into the said salt receptacle, and means for controlling and regulating the flow of liquid through the said conduit.

4. In a refrigerating device, the combination with a refrigerating member and a receptacle, through which the liquid circulates, of straining means, through which the liquid passes from the said member to the said receptacle, a chamber or receptacle for salt, a conduit leading from the said member to the said chamber for salt for conveying a part of the liquid thereto, and straining means through which the said part of the liquid so diverted from the main circulation is caused to pass before returning to the main body of circulating liquid.

5. In a refrigerating device, the combination of a refrigerating member, a receptacle having compartments adapted respectively to contain ice and salt, means for causing the circulation of a liquid through said refrigerating member and the ice compartment of the said receptacle, and means for passing a liquid in varying quantities through the salt compartment of the said receptacle to control the percentage of salt in the said liquid circulating through the said refrigerating member.

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1,040,740. WRAPPING-TWINE HOLDER. DORMAN D. NISWONGER, Dayton, Ohio. Filed Sept. 29, 1910. Serial No. 584,423. (Cl. 242—146.)



A twine holder comprising two telescoping sections providing a shell or receptacle for a ball of twine, one of said sections having a loop stamped therefrom and provided with an elongated opening of different diameters and a loop above said opening, and the other of said sections having in its center a twine eyelet, the inner end of said eyelet being projected into the interior of the shell and the opening in said inwardly projected portion being enlarged to readily receive the end of the twine, as herein shown and described.

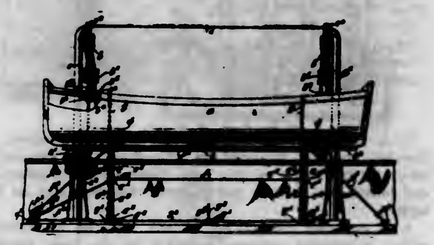
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1,040,741. APPARATUS FOR STOWING AND LAUNCHING SHIPS' BOATS. AREND R. NIEDOM, Edam, Netherlands, assignor to George H. Diehl, Jr., New York, N. Y. Filed Jan. 31, 1911, Serial No. 605,794. Renewed Mar. 4, 1912. Serial No. 681,613. (Cl. 9—22.)

1. A collapsible support for a ship's boat comprising a frame hinged at its foot and hinged between its upper and lower ends, a chock at the upper end of the frame, a connection from the deck to the frame at its upper end to hold the upper end in position and a connection from the deck to the frame between its ends to prevent the frame from collapsing.

2. A collapsible support for a ship's boat comprising a frame hinged at its foot and hinged between its upper and lower ends, a chock at the upper end of the frame, a link connected to the frame at its upper end and to the deck, and a link connected to the frame between its ends and detachably connected to the deck.

3. A collapsible support for a ship's boat comprising a frame hinged at its foot and consisting of an upper member, a lower member and a hinge rod to which both members are connected, the upper member consisting of a rigid chock and rods extending therefrom to the hinge rod and the lower member consisting of rods extending from the hinge rod to the deck and pivotally secured to the deck, a link pivotally connected to the upper end of the frame and to the deck and a link pivotally connected to the hinge rod and detachably connected to the deck.



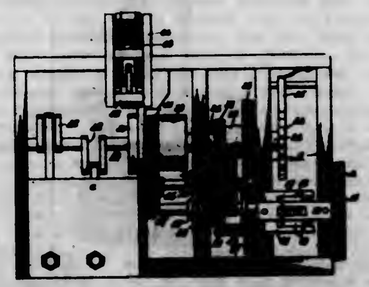
4. A collapsible support for a ship's boat comprising a frame hinged at its foot and hinged between its upper and lower ends, a chock at the upper end of the frame, a link pivotally connected to the upper end of the frame and to the deck, a bracket secured to the deck, a link connected to the frame between its ends, detachable devices connecting the other end of the link to said bracket and means to detach the link from the bracket.

5. A collapsible support for a ship's boat comprising a frame hinged at its foot and hinged between its upper and lower ends, a chock at the upper end of the frame, a link pivotally connected to the upper end of the frame and to the deck, a bracket secured to the deck, a link connected to the frame between its ends, a pin detachably connecting the link and the bracket and means to pull out said pin.

[Claims 6 to 25 not printed in the Gazette.]

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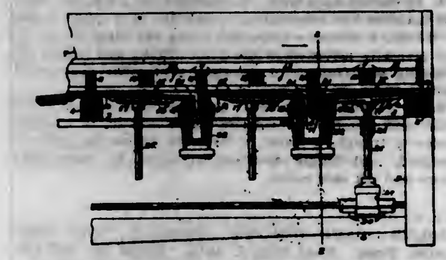
1,040,742. SPRING-MOTOR. GOBY O'BRYAN, Louisville, Ky. Filed Dec. 28, 1909. Serial No. 535,352. (Cl. 185—41.)



In a device of the character described, an operating shaft, driving means for said shaft including a spring barrel connected with the shaft, a winding shaft connected with the spring within the barrel, a pinion upon the operating shaft, a screw shaft having a gear wheel meshing with a pinion, a gear wheel having threaded engagement with the screw shaft, means for driving the winding shaft including a connecting clutch and a shipping lever for the same, means for actuating the shipping lever including a slide and stop members upon said slide disposed in the path of the gear wheel upon the screw shaft, a pinion upon the winding shaft meshing with the gear wheel upon the screw shaft, and governor means for obstructing the rotation of the operating shaft.



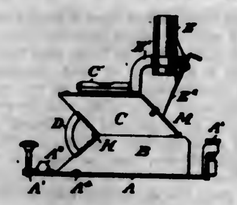
1,040,743. PULP-SCREEN. JOHN OLSEN, Watertown, N. Y. Filed Sept. 8, 1909. Serial No. 516,856. (Cl. 92—32.)



In a pulp screen, the combination with a bellows-frame, and a series of vacuum chambers arranged in said frame, of a flexible diaphragm extending lengthwise across and supported by said frame and forming the bottom of each vacuum chamber, the said diaphragms inclining in a manner to effect the flow of pulp liquor toward one corner, means for vibrating said diaphragms, an outlet for screened pulp for each diaphragm, the said outlets having bottoms extending part way in their length and arranged to decline in the direction of the length of the diaphragms, and a separate flow-spout for each diaphragm and outlet.

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1,040,744. DEVICE FOR PLUMBING AND LEVELING. PETTER MARTIN OLSEN, Brooklyn, N. Y. Filed Aug. 4, 1910. Serial No. 575,405. (Cl. 88—13.)



1. In a plumbing and leveling instrument, members hinged to each other, means for adjusting one of said members to level, and a sight tube and a mirror mounted on the other member.

2. In a plumbing and leveling instrument, members hinged to each other, means for adjusting one of said members to level, a sight tube and a mirror mounted on the other member, and a scale and pointer on said members for indicating the angular relation of said members.

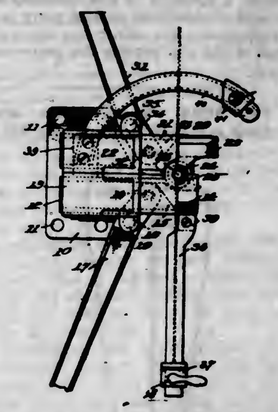
3. In a plumbing and leveling instrument, members hinged to each other, means for adjusting one of said members to level, a sight tube mounted on the other member, a mirror also mounted on said other member at an angle to the axis of said sight tube, and a source of light within said mirror member for illuminating a transparent spot on said mirror in line with the axis of said sight tube.

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1,040,745. TOOL FOR MAKING ANGULAR BENDS IN METAL. ALEX H. OLSON, Chicago, Ill. Filed Mar. 11, 1912. Serial No. 682,166. (Cl. 153—20.)

1. A bending tool comprising a base, a bending member pivoted to the base, fixed jaws and sliding jaws on the base and the bending member, means for operating the sliding jaw of the base, means for operating the bending member, and a connection between the last-mentioned operating means and the sliding jaw of the bending member.

2. A bending tool comprising a base having a fixed jaw, a jaw mounted on the base and movable toward and from the fixed jaw, means for operating said jaw, a bending member pivoted to the base and having a fixed jaw, the face of said jaw being normally in alinement with the face of the fixed jaw of the base, and said jaws being on opposite sides of the pivot of the bending member, means for operating the bending member, a jaw on the bending member and movable toward and from the fixed jaw thereof, and an operative connection between the last-mentioned operating means and the movable jaw of the bending member.



3. A bending tool comprising a base, a bending member pivoted to the base, fixed jaws and movable jaws on the base and the bending member, means for operating the movable jaw of the base, means for operating the bending member, a connection between the last-mentioned operating means and the movable jaw of the bending member, and a stop in the path of the last-mentioned operating means.

4. A bending tool comprising a base, a bending member pivoted to the base, fixed jaws and movable jaws on the base and the bending member, means for operating the movable jaw of the base, means for operating the bending member, a connection between the last-mentioned operating means and the movable jaw of the bending member, and a gage carried by the base and adjustable toward and from the fixed jaw thereof.

5. A bending tool comprising a base, a bending member pivoted to the base, fixed jaws and sliding jaws on the base and the bending member, means for operating the sliding jaw of the base, and means for initially operating the sliding jaw of the bending member and thereafter operating said member.

[Claims 6 to 8 not printed in the Gazette.]

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1,040,746. IRON FRAME FOR WINDOWS. ARTHUR PACHSCHENK, Berlin, Germany. Filed Apr. 10, 1912. Serial No. 689,801. (Cl. 189—77.)



1. In combination, a panel, a frame provided with inclined seats to receive putty, the panel being supported in the frame adjacent the inclined seats, the inclination of the latter tending to cause the putty to settle toward the panel.

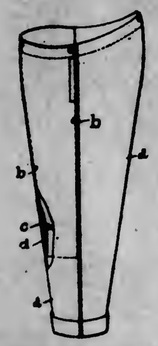
2. In combination, a sash frame provided with a plurality of inclined ribs to form putty seats and a glass panel supported in the sash frame adjacent the inclined ribs, the inclination of the ribs tending to cause the putty to settle toward the glass panel.

3. In combination, a sash frame provided with an inwardly projecting flange, a plurality of ribs which incline downwardly toward the inwardly projecting flange to form putty seats, and a panel supported in the sash frame adjacent the ribs, the inclination of the ribs causing the putty to settle toward the panel.

4. In combination, a sash provided with an inwardly projecting flange, a plurality of ribs inclining toward the flange and spaced therefrom to provide putty seats, and a glass panel supported in the sash frame adjacent the ribs, the inclination of the ribs causing the putty to settle toward the panel.

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1,040,747. TROUSERS. ARTHUR PAGE, Huddersfield, England. Filed Jan. 6, 1912. Serial No. 669,742. (Cl. 2—136.)




1. The combination, with a trousers leg, of a strip of textile material secured inside the leg across the knee portion thereof and provided with a longitudinal fold formed by folding the material of the strip upon itself and securing the folded portion to the main portion.

2. The combination, with a trousers leg, of a strip of textile material secured to the side seam and to the waist of the trousers and extending inside the leg across the knee portion thereof, said strip being provided with a longitudinal fold formed by folding the material of the strip upon itself and securing the folded portion to the main portion.

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1,040,748. REELING DEVICE. BENJAMIN F. PARKER, Beaver Falls, Pa., assignor to The Pittsburgh Seamless Tube Company, Beaver Falls, Pa., a Corporation of Pennsylvania. Filed Feb. 24, 1912. Serial No. 679,649. (Cl. 80—13.)



1. In reeling mechanism, the combination with the reeler and mandrel bar coöperating therewith, of a guide frame or trough, and anti-friction means mounted for upward movement and normally supported below said guide frame or trough and adapted to be moved upwardly to contact with the reeled tube when the mandrel is being withdrawn.

2. In reeling mechanism, the combination with the reeler and mandrel bar coöperating therewith, of a guide frame or trough for supporting the tube, a roller mounted for upward movement and normally supported below said guide frame or trough, and means for moving the same upwardly to contact with the tube when the mandrel is about to be withdrawn.

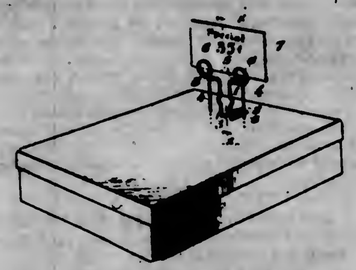
3. In reeling mechanism, the combination with the reeler and mandrel bar coöperating therewith, of an anti-frictional element mounted for upward movement, and means for lifting the same, including toggle members connected thereto.

4. In reeling apparatus, the combination with the reeler and mandrel bar coöperating therewith, of a guide frame or trough, a roller, a swinging frame carrying the roller and pivotally mounted in the guide frame, and means for swinging said frame and elevating said roller above said guide frame or trough.

5. In reeling mechanism, the combination with the reeler and mandrel bar coöperating therewith, of a guide frame or trough, a roller, a frame in which the roller is mounted, and toggle members arranged to move said frame and lift said roller.

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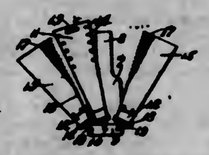
1,040,749. CARD-HOLDER. GEORGE S. PEERY, Nashville, Tenn. Filed Feb. 7, 1911. Serial No. 607,128. (Cl. 40—11.)



A card holder constructed from a single strand of wire and including a pair of spaced parallel arms having their ends sharpened, the said arms being bent upon themselves to provide each a plurality of card engaging loops, the lower and end convolution of each of the loops being extended at a right angle to the arms and toward each other, and then bent at an angle and in a plane parallel with each other and with the first named arms, the said parallel members being further bent to provided a right angular U-shaped foot, and the said foot being arranged at a distance away from the sharpened ends of the first named arms.

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1,040,750. HAIR-HOLDER. MARION J. POPE, Boswell, Okla. Filed Mar. 2, 1912. Serial No. 681,168. (Cl. 132—16.)



1. A hair holder embodying a stiff bowed member upon which the hair may be wound, a stiff outer bowed member nearly coextensive therewith and adapted to pass over the hair wound thereon, and resilient members secured to the ends of one of the said members and attachable to the ends of the other member.

2. A hair holder embodying a stiff bowed member upon which the hair may be wound and having its ends bent back outwardly and apertured, and a stiff outer bowed member nearly coextensive with the said member and adapted to pass over the hair wound on the said member and carrying hooks at its ends engageable in the said apertures of the ends of the former member.

3. A hair holder embodying a stiff bowed member upon which the hair may be wound and having apertures in its ends, and a stiff outer bowed member nearly coextensive therewith and adapted to pass over the hair wound thereon and having hooks resiliently connected to its ends which are engageable in the said apertures.



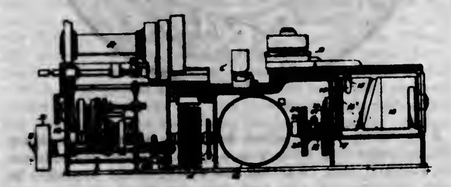
4. A hair holder embodying a stiff bowed member upon which the hair may be wound, and having apertures in its ends, a stiff outer bowed member nearly coextensive therewith and adapted to pass over the hair wound thereon, resilient loops secured to the ends of the latter member, and eyes engaged by the said loops and having hooks engageable in the apertures of the former member.

5. A hair holder embodying an inner bowed member upon which the hair may be wound, and an outer bowed member adapted to pass over the hair wound thereon and a bowed comb both attachable to the ends of the inner bowed member.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,751. TURRET-SLIDE-OPERATING MECHANISM FOR AUTOMATIC TURRET-LATHES. JAMES CHARLES POTTER, Providence, R. I. Filed Jan. 31, 1911. Serial No. 606,818. (Cl. 29—44.)



1. In a turret lathe, the combination of a turret slide, and a slide reciprocating drum having a single cam of a helical or substantially helical form extending more than one turn around the drum with a terminal portion at right angles to the axis of the revolution of the drum, such terminal portion being at the end of the cam where the completion of the tool-feeding movement occurs, and means to reverse the direction of revolution of the drum after the cam-engaging member of the slide has entered into engagement with said terminal portion.

2. In a turret lathe, the combination of a turret slide, a slide reciprocating drum having a single cam of a helical or substantially helical form extending more than one turn around the drum with terminal portions at right angles to the axis of revolution of the drum, and means to reverse the direction of revolution of the drum at each reciprocation of the slide.

3. In a turret lathe, the combination of a turret slide, and a slide reciprocating drum having a single cam of a helical or substantially helical form extending more than one turn around the drum with a terminal portion at right angles to the axis of the revolution of the drum, such terminal portion being at the end of the cam where the completion of the tool-feeding movement occurs, means to reverse the direction of revolution of the drum after the cam-engaging member of the slide has entered into engagement with said terminal portion, a cross slide, cross slide moving mechanism, and means to cause the reversal of revolution of the drum in a predetermined time relation to the movements of the cross slide.

4. In a turret lathe, the combination of a turret slide, a reversible slide reciprocating drum, a feed shaft geared to the drum, automatic reversing mechanism, and automatic means controlling the reversing mechanism geared to the feed shaft.

5. In a turret lathe, the combination of a turret slide, a reversible slide reciprocating drum, a feed shaft geared to the drum, automatic stopping and reversing mechanism, and automatic means controlling said stopping and reversing mechanism geared to the drum and to the feed shaft, respectively.

[Claims 6 to 9 not printed in the Gazette.]



1,040,752. TILTING GATE. LEONARD Z. PEARSON, Topeka, Kans. Filed Dec. 14, 1911. Serial No. 665,702. (Cl. 20—12.)



1. The combination with a tilting gate and gate post, of a locking bar mounted to swing intermediate the ends upon the gate and adapted to engage at one end with said post, and an operating bar mounted to swing intermediate the ends upon the gate and hingedly connected at one end to the other end of the locking bar.

2. The combination with a tilting gate and gate post, of a rod extending through the gate, handles upon said rod at opposite sides of the gate, a locking bar swinging upon the rod and adapted to engage with said post, and an operating bar swinging upon the gate and hingedly connected to the locking bar.

3. The combination with a tilting gate and gate post, of a rod extending through the gate, handles upon said rod at opposite sides of the gate, a block upon the gate and through which said rod passes, said block having stop lugs, a locking bar swinging upon said rod and bearing against said block, a spring between said locking bar and the adjacent handle, and an operating bar swinging upon the gate and hingedly connected to the locking bar, said locking bar being yieldably held between said stop lugs when moved into operative position.

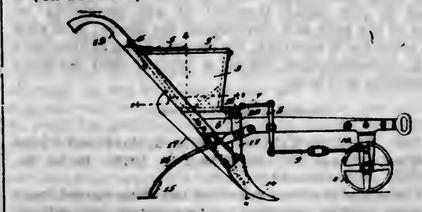
4. The combination with a tilting gate and gate post, of a stop block upon the gate post and having an inclined upper face, a locking bar swinging upon the gate and adapted to engage with said stop block, and an operating bar swinging upon the gate and hingedly connected to the locking bar.

5. The combination with a tilting gate and gate post, of a stop block upon the gate post and having an inclined upper face, a locking bar swinging upon the gate and having a terminal spur and adapted to engage with said stop block, and an operating bar swinging upon the gate and hingedly connected to the locking bar.

[Claims 6 to 8 not printed in the Gazette.]

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1,040,753. PEA-PLANTER. FRANCIS M. PROCTOR, Garfield, Ga. Filed Sept. 30, 1911. Serial No. 652,055. (Cl. 111—82.)



A planter comprising a beam, a ground wheel for said beam, a hopper, said hopper being engaged in discharge relation with respect to the rear of the beam, a valve mounted upon the hopper, a plow supported by the beam, a seed conveying tube secured to the beam and located in the rear and in engagement with the hopper and in the rear of the opening in said hopper, means for operating said valve, said means comprising a link connected with the central forward end of the valve and disposed in parallel relation with a portion of the top face of the

beam upon one position of said valve, a rock arm pivotally connected at its intermediate portion to the side of said beam adjacent said hopper, said rock arm being pivotally connected at its extremity to the outer end of said link, an actuating rod pivoted at the lower end of said rock arm and at its other end to said ground wheel, said actuating rod in one position of the valve being disposed below and in parallel relation with the underneath face of said beam.

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1,040,754. INK-WELL. JEPTHA B. RANDOLPH, Omaha, Nebr. Filed June 16, 1909, Serial No. 502,466. Renewed Nov. 20, 1911. Serial No. 661,418. (Cl. 120—60.)



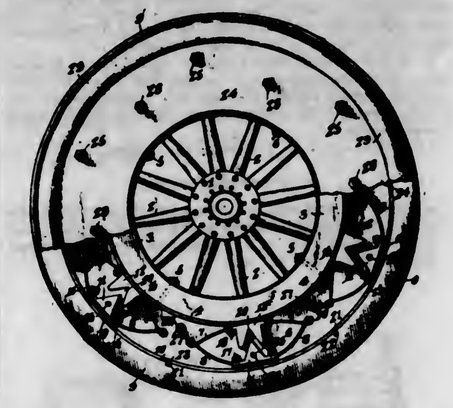
1. In an ink well, the combination with a container having a vertical neck extension, said neck extension having a vertical channel formed therein through only a portion of its height and extending to the upper edge of the neck extension, of an upper container comprising a head which overhangs the neck extension and is provided with a flaring ink receiving recess, a depending angular stem carried by said head, a tube threaded into said stem and establishing communication between said flaring recess and the interior of said container, a cushion having an angular opening therethrough, through which said angular stem passes, the periphery of said cushion being vertically grooved through a portion only of its height, said groove opening at the bottom edge of said cushion, the groove of said cushion being adapted to be brought into or out of registry with the channel of the neck extension by rotating said head and said cushion, said cushion fitting snugly within and engaging the walls of the neck extension, and a separate ring secured about the inner upper edge of the neck and overhanging said cushion to prevent withdrawal of the head and the cushion, substantially as shown and described.

2. In an ink well, the combination with a lower container having a neck with a recess formed in a part of its inner wall and opening upon its upper end, of an upper container having an apertured stem disposed within said neck, its aperture communicating with said lower container, said upper container being provided with a head overhanging the neck and formed with an outwardly projecting ledge intermediate its head and said stem; a cylindrical sleeve seated upon said stem outwardly of said ledge and making contact with the inner wall of said neck, said sleeve having a recess formed in a part of its outer wall and opening upon its lower end; a keeper member secured at the upper terminal of and projecting inwardly of the neck and overhanging the sleeve; said stem being revoluble in said neck, the recesses being in alinement and in communication during a part of said revoluble movement of said stem.

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1,040,755. SPRING-WHEEL. PETER G. RAPP and PETER H. KING, Chicago, Ill. Filed May 15, 1911. Serial No. 627,258. (Cl. 152—38.)

1. A wheel of the class described including spaced inner and outer annular members, approximately semi-elliptic springs interposed between the said members, and opposite coacting blocks arranged in pairs within the springs midway of the ends thereof, said blocks being secured to the annular members at each end and having oppositely tapered longitudinal grooves extending from one end of the blocks to the other end and receiving the springs, the latter being clamped to the annular members by the said blocks, one of the blocks of each pair having a tapered recess and the other being tapered to fit the recess and normally extending into the same in overlapped relation but also in spaced relation to the walls of the recess to limit radial compression of the springs and to correct circumferential distortion.



2. A wheel of the class described including an inner rim, an outer tire, compression springs interposed between the rim and tire, co-acting blocks oppositely arranged in pairs between the rim and tire, one block of each pair having formed in its face a notch with tapering walls, said notch extending transversely of the wheel, the other block of each pair tapered to fit said notch and extending into the same but in spaced relation to the wall thereof to limit radial compression of the springs and circumferential relative movement of the rim and tire, and rigid side plates secured to the tire and overlapping the rim to prevent lateral relative movement of the rim and tire.

3. A wheel of the class described including spaced inner and outer annular members having relative movement, approximately semi-elliptic springs interposed between the said members, and co-acting blocks arranged in pairs within the springs and provided at their ends with projecting flanges secured to the annular members, said blocks clamping the inner and outer portions of the springs in place and provided between the flanges with co-acting normally interlocking inclined portions spaced apart and arranged to limit the transverse compression and longitudinal distortion of the springs.

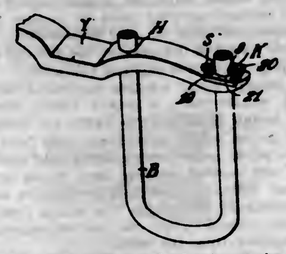
4. A wheel of the class described including inner and outer metallic bands spaced apart and having relative movement, approximately elliptic springs interposed between the bands, co-acting male and female blocks arranged in pairs within the springs and secured to the bands and clamping the springs in place and provided adjacent to the same with longitudinal grooves receiving the springs and permitting free resilient action of the same, the female blocks being provided with tapered recesses and the male blocks being tapered to fit the recesses and normally extending into but spaced from the walls thereof, and plates interposed between the male blocks and the outer band and adapted to fit against the springs.

5. A wheel of the class described including inner and outer annular members spaced apart and having relative movement, approximately elliptic springs interposed between the members, co-acting blocks arranged within the springs and connected with the members and clamping the springs in place without interfering with their free resilient action and having portions normally interlocked but spaced from and arranged to engage each other to limit the movement of the said members, a tire supported by the outer annular member, and unyielding annular side plates connected with the outer member and loosely embracing the inner annular member and holding the said parts against lateral movement.

[Claims 6 and 7 not printed in the Gazette.]



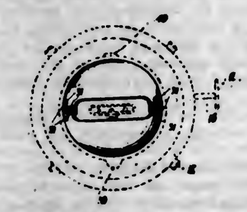
1,040,756. OX-BOW. JAMES WILEY REEVES, Burnsville, Miss. Filed Nov. 28, 1910. Serial No. 594,567. (Cl. 54—77.)



The combination with a yoke having a circular opening extending therethrough and a longitudinally extending slot, of a plate secured to the yoke and bridging the slot, said plate being adjustable longitudinally of the slot and having a circular opening therein adapted to register with the slot, a U-shaped bow having its ends extending through the circular openings in the yoke and plate respectively, that end portion of the bow above the plate being formed with a longitudinal slot, and a flat key removably and revolubly mounted in the slot, the intermediate portion of the key engaged by the bow being reduced to permit rotation of the key within the slot, the flat end portions of the key bearing downwardly on the plate and constituting supports for the bow, the pressure of said end portions upon the plate serving to prevent rotation of the key within the bow.

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1,040,757. WICK-TRIMMER FOR LAMP-BURNERS. HAROLD H. REYNOLDS, Hamburg, Conn. Filed Feb. 12, 1912. Serial No. 676,947. (Cl. 67—68.)

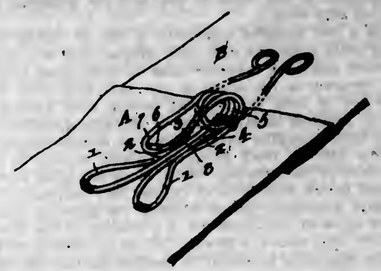


The combination in a lamp burner having a supporting ring attached thereto, of a pair of jaws elliptical in plan view and concavo-convex in longitudinal and cross section, pins passing through the extremities of the jaws and the ring, and a spring engaging one pin and the jaws for yieldingly seating the latter upon the supporting ring, the inner edges of the said jaws being off-set to produce a wick passage, and beveled to produce a wick trimmer.

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1,040,758. HOOK AND EYE. ELLEN MARY RHODES, Derry, Pa. Filed May 7, 1910. Serial No. 559,882. (Cl. 24—228.)

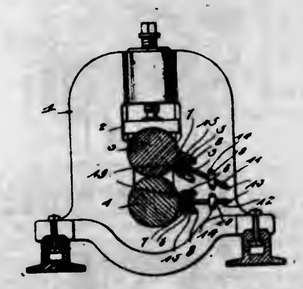
An article of the class described comprising a hook made of a single length of wire bent into a shank consisting of two side members, and a central member all straight and disposed parallel, an eye at the end of one side member, an eye between the end of the other side member and central member, a bill in the form of a loop disposed over the shank and consisting of side members connected with the side members of the shank, the points of connection between the corresponding side members of the shank and bill being bends that are spaced apart, a coil integrally connected with the central member of the shank and disposed between said bends, and a spring tongue having one end integrally connected with the coil and the other end terminating within the loop of the bill and extending the full length thereof and resiliently engaging with the inner wall of the medial portion of the tip portion of the bill, the intermediate portion of the tongue being formed with a downwardly extending hump which extends in spaced proximity to the central member of the shank to retain the eye in engagement with the hook, said coil forming an



abutment with which the eye engages to prevent such eye from engaging the attaching threads applied to the end of the shank opposite from the said attaching eyes and also increasing the resiliency of the spring tongue.

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1,040,759. APPARATUS FOR GRINDING AND POLISHING ROLLS. MATTHEW H. RICHARDS, New Castle, Pa. Filed Feb. 12, 1912. Serial No. 677,094. (Cl. 80—1.)



1. In a rolling mill, the combination of housings, a roll grinding apparatus adjustably mounted on the housings and adapted to be brought into engagement with the rolls of the mill, and comprising pairs of guiding and supporting members suitably secured to the housings of the mill, block holding boxes having on their ends guiding and supporting lugs adapted to be slidably engaged with said guiding and supporting members, a plurality of grinding blocks adjustably arranged in said boxes, said blocks having their abutting ends formed at oblique angles, means whereby the grinding blocks are adjusted in said holders to project the blocks to a greater or less extent from the holders, and adjusting screws operatively mounted on the housings of the mill and adapted to be engaged with said boxes whereby the latter are adjusted to bring the grinding surfaces of the blocks into engagement with the rolls of the mill.

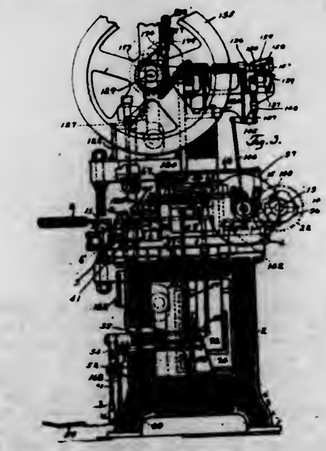
2. In a rolling mill, the combination of housings, a roll grinding apparatus adjustably mounted on the housings, and adapted to be brought into engagement with the rolls of the mill, and comprising pairs of guiding and supporting members suitably secured to the housings of the mill, block holding boxes having their ends constructed to form guiding and supporting lugs adapted to be slidably engaged with said guiding and supporting members, a plurality of grinding blocks adjustably arranged in said boxes, said blocks having their engaging ends formed at oblique angles, backing plates secured to the inner sides of said grinding blocks, said plates corresponding in shape to said blocks, block adjusting screws arranged in the outer side of the boxes and adapted to be engaged with the backing plates of the blocks whereby the latter may be projected from and adjusted in the box, and box ad-

justing screws operatively mounted on the housings of the mill and adapted to be engaged with the block holding boxes whereby the latter are adjusted to bring the grinding blocks therein into operative engagement with the surfaces of the rolls of the mill for grinding and polishing said rolls.

3. In a roll grinding apparatus, a box or casing comprising outer sides and ends cast integral said ends being of greater thickness than the sides to form guide blocks, plates secured to the edges of the ends and outer side of the box to form the top and bottom sides thereof, a series of grinding blocks formed of abrasive material and having their engaging ends disposed at oblique angles to the sides thereof, block protecting plates secured to the inner sides of the grinding blocks, block adjusting screws arranged in the outer side of the box and adapted to engage said protecting plates whereby the grinding blocks may be adjusted and projected to a greater or less extent from the box, means whereby the box or casing is adjustably supported in operative position on the mill, and means to adjust the box whereby the grinding blocks therein are brought into operative engagement with the rolls of the mill.

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1,040,760. ELECTRIC CHAIN-WELDING MACHINE. ADOLPH F. RIETZEL and GEORGE E. BARSTOW, Lynn, Mass., assignors to Thomson Electric Welding Company, Lynn, Mass., a Corporation of Massachusetts. Filed May 11, 1907. Serial No. 373,081. (Cl. 219—5.)



1. In an electric metal working machine, the combination with mechanism for supplying current to the work, a master shaft controlling the times of operation of said mechanism, a clutch, a treadle, a catch through which the treadle operates to cause the clutch to couple the master shaft to the driving power and means for disengaging said catch at predetermined points in the movement of the master shaft.

2. In an electric metal working machine, the combination with mechanism for supplying current to the work, of a master shaft controlling the times of operation of said mechanism, a clutch, a treadle and means connected therewith operating on said clutch to couple the master shaft to the power, and mechanism controlled by said master shaft for freeing the clutch from the influence of the treadle.

3. In an electric metal working apparatus, the combination with mechanism for supplying current to the work, of a master shaft controlling the times of operation of said mechanism, means for automatically disconnecting the master shaft from its driving power and independent means for coupling and uncoupling the shaft from its power independent of the position of said shaft.

4. In an electric metal working apparatus, the combination of a master-shaft, a power clutch therefor, a treadle and means connected therewith for coupling the master-shaft to the power, current-carrying jaws normally free from the work, means controlled by said master-shaft for causing said current-carrying jaws to engage the work and mechanism controlled by said master-shaft for freeing the clutch from the influence of the treadle after the current-carrying jaws have engaged the work.

5. In an electric metal working apparatus, the combination of a master-shaft, a power clutch therefor, a treadle and means connected therewith for coupling the master-shaft to the power, current-carrying jaws adapted to engage the work, means controlled by said master-shaft for causing said current-carrying jaws to be drawn out of engagement with the work and mechanism controlled by said master-shaft for freeing the clutch from the influence of the treadle after the current-carrying jaws have been removed from the work.

[Claims 6 to 191 not printed in the Gazette.]

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1,040,761. DEVICE FOR FACILITATING THE COUNTING OF NOTES, DEALING OF CARDS, &c. GEORGE H. RIVES, Brooklyn, N. Y. Filed Feb. 8, 1912. Serial No. 676,341. (Cl. 101—36.)



1. In a device of the character stated, a bed plate, a frictional strap secured at one end thereto and adapted to form a thumb or finger stall therewith, one end of said strap being free for adjustment to varying sizes of fingers, means on said plate for controlling the free end of said strap on said bed, and means on the plate at a distance from said controlling means for freely embracing the side edges of said strap forming lateral guards for the strap.

2. A device for the purpose stated comprising a strap of frictional material, a segmental bed plate with which one end of the same is permanently connected, said plate and strap being adapted to form a thumb or finger stall, and a movable tongue on said plate adjacent the fixed end of the strap adapted to tighten against the free end portion of said strap in its stall-shape formation, said portion being adapted to be passed adjustably through the space between said tongue and plate and beyond the fixed end of the strap.

3. A device for the purpose stated comprising a strap of frictional material, a bed plate with which one end of the same is permanently connected, said plate and strap being adapted to form a thumb or finger stall, a movable tongue on said plate adjacent the end of the strap adapted to tighten against the free end portion of said strap, said portion being adapted to be passed adjustably through the space between said tongue and plate and beyond the fixed end of the strap.

4. A device for the purpose stated comprising a strap of frictional material, a bed plate with which one end of the same is permanently connected, the other end of said strap being free for adjustment said plate and strap being adapted to form a thumb or finger stall, a movable tongue on said plate adjacent the fixed end of the strap adapted to tighten against the free end portion of said strap, and lips on the sides of said plate at a distance from said tongue forming lateral guides and guards for said strap.

5. In a device of the character stated, a frictional strap, a bed plate to which one end of said strap is permanently secured, ears on said plate, and a pivotal tongue on said ears, the journals of said tongue freely occupying openings in said ears and having their terminals extended beyond said ears provided with limbs angularly



thereon, the same freely overlapping the walls of the openings occupied by said journal.

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1,040,762. PROTECTIVE COVERING FOR ATTACHMENT-PLUGS. MANUEL R. RODRIGUES, New York, N. Y. Filed Dec. 7, 1911. Serial No. 664,525. (Cl. 173—343.)



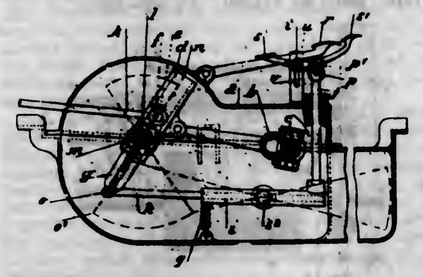
1. An attachment plug consisting of two members, one member comprising a screw socket at one end, contact devices mounted on an insulating base at the other extremity, and an intermediate tough body portion, and the other member comprising contact devices mounted on an insulating base at one end, an outlet for the line conductors at the other extremity, and an intermediate tough body portion.

2. An attachment plug consisting of two members, one member comprising a screw socket at one end, contact devices mounted on an insulating base at the other extremity, and an intermediate tough body portion, and the other member comprising contact devices mounted on an insulating base at one end, an outlet for the line conductors at the other extremity, and an intermediate tough body portion, the body portion of each member being formed with a recessed portion to contain the said contact devices.

3. An attachment plug consisting of two members, one member comprising a screw socket at one end, contact devices mounted on an insulating base at the other extremity, and an intermediate tough body portion, and the other member comprising contact devices mounted on an insulating base at one end, an outlet for the line conductors at the other extremity, and an intermediate tough body portion, the body portion of each member being provided with means to hold the same together in an interlocked relation.

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1,040,763. CHANGING-SPEED-TRANSMISSION DEVICE. PAUL ROLANDO and FRANÇOIS ROLANDO, Paris, France. Filed July 25, 1910. Serial No. 573,756. (Cl. 74—5.)



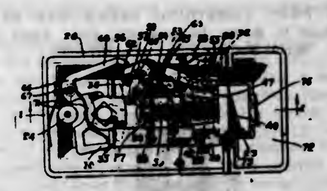
1. A change speed transmission device comprising in combination, a pivotally mounted transmission member, means oscillating said member about its pivot at a constant speed, a cross head slidable on said member toward and away from the pivot thereof and provided with a connecting rod, and treadle mechanism having a telescoping connection with said member for moving said cross head, said telescoping connection being movable with said member, and a second telescoping connection between said member and the remainder of said treadle mechanism.

2. A change speed mechanism device comprising in combination, a pivotally mounted transmission member, means oscillating said member about its pivot at a constant speed, a cross head slidable on said member toward and away from the pivot thereof and provided with a connecting rod, an element slidable in said member and connected with said cross head, and treadle mechanism including a pivotal member having a telescoping connection with said element.

3 A change speed transmission device comprising in combination, a pivotally mounted transmission member, means oscillating said member, a cross head slidable on said member toward and away from the pivot thereof and provided with a connecting rod, a connecting bar telescoping said member and connected with said cross head to move the same toward and away from said pivot, a hollow pivoted element, a connection slidable in said element and pivoted to said bar, and treadle mechanism for operating said element, substantially as described.

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1,040,764. RIM NIGHT-LATCH. EDWARD ROSE, Mamaroneck, N. Y., assignor to Norwalk Lock Company, South Norwalk, Conn., a Corporation of Connecticut. Filed Apr. 8, 1912. Serial No. 689,164. (Cl. 70—29.)



1. In a night latch the combination with a spring controlled bolt and a keeper having an abutment adapted to be engaged by the bolt to limit its throw, of a dogging lever and means for moving said lever into position to lock the bolt against retraction when its forward movement is limited by engagement with the abutment.

2. In a night latch the combination with a spring controlled bolt and a keeper having an abutment adapted to be engaged by the bolt to limit its throw, of a dogging lever, means for moving said lever into position to lock the bolt against retraction when the bolt is in engagement with the abutment and means for swinging said lever out of operative position when the bolt is drawn backward.

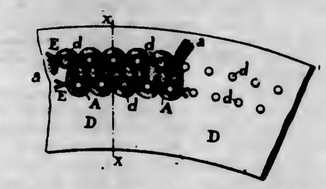
3. In a night latch the combination with a spring controlled bolt and a keeper having an abutment adapted to be engaged by the bolt to limit its throw, of a slide engaging the bolt, a dogging lever adapted to engage the bolt when the latter is in engagement with the abutment and a bell crank lever engaging the slide and adapted to swing the dogging lever out of operative position when the slide is drawn backward.

4. In a night latch, the combination with a spring controlled bolt and a dogging lever, for the purpose set forth, of a slide engaging the bolt, a secondary slide also engaging the bolt, a bell crank lever engaging the slide and adapted to swing the dogging lever out of operative position and a dog actuated by the secondary slide to lock the dogging lever out of operative position.

5. In a night latch, the combination with a spring controlled bolt and a keeper having an abutment adapted to be engaged by the bolt to limit its throw, of a slide loosely engaging the bolt, a secondary slide also engaging the bolt, a dogging lever adapted to engage the bolt when the latter is in engagement with the abutment, a bell crank lever engaging the slide and adapted to engage the dogging lever, for the purpose set forth, and a dog engaged by the slide and the secondary slide and adapted to retain the dogging lever out of operative position.

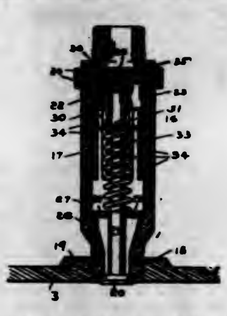
[Claims 6 to 20 not printed in the Gazette.]

1,040,765. METHOD OF BUILDING UP A RESILIENT TREAD OR TIRE. GEORGE DAUBNEY ROSS, Manchester, England. Filed Oct. 15, 1910. Serial No. 587,224. (Cl. 154—12.)



The method of building up a resilient tire or tread from strips of rubber-coated strands which consists in winding the said strips side by side in zigzag loops around a series of pins on a suitable frame, to produce a plurality of parallel layers, weaving and interlacing inextensible binding cords about said pins and between said layers, compressing and consolidating the layers by lateral pressure, withdrawing said pins, and inserting binding cords through the transverse openings produced by the withdrawal of the pins to secure said layers together.

1,040,766. COMPOUND VALVE AND STARTER. CHARLES C. ROTH, Indianapolis, Ind. Filed May 22, 1911. Serial No. 628,839. (Cl. 137—32.)



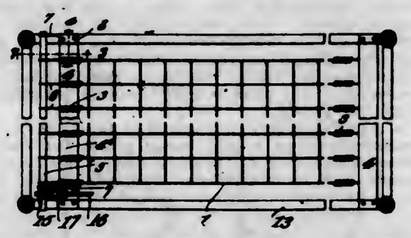
1. In a valve to prevent back pressure through pipes supplying air under pressure to the cylinders of explosive engines, a cylindrical valve case having a reduced discharge end in which a valve seat is formed, an outwardly opening valve in said seat, a spring to normally seat said valve, a valve stem extending inwardly of the case, a cap on said case, a piston mounted in the case and seated against the cap and a second spring weaker than said first spring to press the piston against its seat in the cap.

2. In a valve to prevent back pressure through pipes supplying air under pressure to the cylinders of explosive engines, a cylindrical valve case having a reduced discharge end in which a valve seat is formed, an outwardly opening valve in said seat, a spring to normally seat said valve, a valve stem extending inwardly of the case, a cap on said case, a piston mounted in the case and seated against the cap, a second spring weaker than said first spring to press the piston against its seat in the cap, and packing rings on the piston, the inner walls of the cylindrical valve case having longitudinal channels which begin below the packing rings when the piston is in its seat.

3. In a valve to prevent back pressure through pipes supplying air under pressure to the cylinders of explosive engines, a cylindrical valve case having a reduced discharge in which a valve seat is formed, an outwardly opening valve in said seat, a spring to normally seat said valve, a valve stem extending inwardly of the case, a cap on said case, a piston mounted in the case and seated against the cap, said cap having a socket to secure the end of said valve stem and a second spring weaker than the first in said socket pressing against the end of the stem.

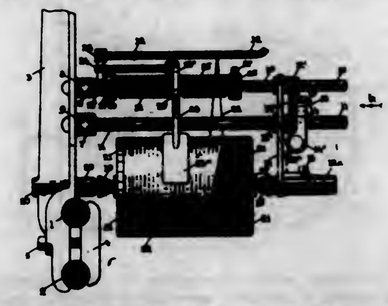
4. In a valve to prevent back pressure through pipes supplying air under pressure to the cylinders of explosive engines, a cylindrical valve case having a reduced discharge in which a valve seat is formed, an outwardly opening valve in said seat, a spring to normally seat said valve, a valve stem extending inwardly of the case, a cap on said case, a piston mounted in the case and seated against the cap, said cap having a socket to secure the end of said valve stem, a second spring weaker than the first in said socket pressing against the end of the stem, and packing rings on the piston, the inner walls of the cylindrical valve case having longitudinal channels which begin below the packing rings when the piston is in its seat.

1,040,767. BED-SPRING. HARRY ALVAH RUGGLES, St. Joseph, Mich. Filed Nov. 9, 1911. Serial No. 659,433. (Cl. 5—68.)



A device of the type described, including bed-rails, transverse bars, a wire-fabric forming a mattress connected to one of said transverse bars, a stretching roll for said mattress-forming wire-fabric, and brackets, each having an arm extending at right angles to the trend thereof, said arms forming supports for said stretching roll, said brackets having additional arms provided with sockets facing at right-angles to the trend of the aforesaid arms, and adapted to receive the ends of one transverse bar, said additional arms having enlarged lower portions provided with slots receiving the horizontal portions of the bed-rails.

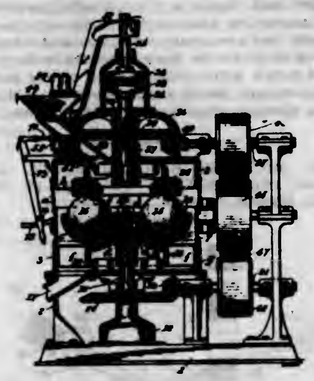
1,040,768. SPOOL-HOLDER AND TENSION DEVICE FOR WINDING-MACHINES. EPPA H. RYON, Worcester, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed Feb. 4, 1910. Serial No. 541,960. (Cl. 242—156.)



In a winding machine of the class described, a spool from which the thread is to be unwound, two supporting revoluble spindles, one movable longitudinally, a friction pad to bear against the thread on the spool, a spring connected to said pad, to cause the same to be pressed against said thread, a rod or guide over which the thread passes from the spool, a second spring connected to said rod or guide, and to said friction pad, whereby the tension of the thread over the rod or guide lessens the pressure of the friction pad on the thread.



1,040,769. PULVERIZING-MILL. AUGUST J. SACKETT, Baltimore, Md. Filed Mar. 1, 1910. Serial No. 546,635. (Cl. 83—45.)



In a pulverizing mill, a tilting grinding disk having an annular race therein, means to rotate the disk in a certain direction, and a system of balls situated in the race, combined with an upper disk, mechanism to rotate the said upper disk in a direction contrary to that of the lower disk, and appliances to hold the upper disk in contact with the said balls with a yielding pressure, substantially as specified.

1,040,770. NOSE-CLIP FOR EYEGLASSES. HARRY M. SACKS, Brooklyn, N. Y. Filed Mar. 22, 1912. Serial No. 685,498. (Cl. 88—48.)

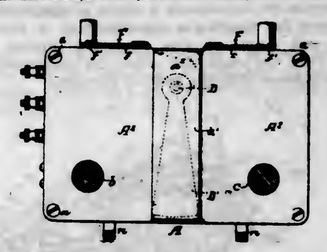


1. A suction-clip for eye-glasses comprising a pair of contact members adapted to respectively engage opposite sides of the nose when in position thereon, each of said members being provided with a recess and a cul-de-sac member opened at its inner end and closed at its outer end, snugly fitted within each of said recesses, and positively secured to one of said contact members, said cul-de-sacs being composed of elastic material.

2. A suction-clip for eye-glasses, comprising a pair of contact members adapted to respectively engage opposite sides of the nose when in position thereon, each of said members being provided with an aperture of curvilineal configuration, extending completely therethrough at a point intermediate the edges of said contact members, and a suction cup snugly fitted within each of said apertures and positively united at its open end with the contact members, each of said suction-cups being composed of elastic material.

3. A suction-clip for eye-glasses comprising a pair of contact members adapted to respectively engage opposite sides of the nose when in position thereon, each of said members being provided with an aperture of curvilineal configuration, extending completely therethrough at a point intermediate the edges of said contact members, and a suction cup snugly fitted within each of said apertures and positively united at its open end with the contact members, each of said suction-cups being composed of elastic material and projecting substantially beyond the outer surface of the contact member to which it is secured.

1,040,771. REAR INDICATOR FOR VEHICLES. WALTER H. SAMMONS, Philadelphia, Pa. Filed June 3, 1910. Serial No. 564,866. (Cl. 177—311.)



1. A signaling device comprising a casing, having two openings arranged one on either side of a vertical line, an electric lamp back of each opening, a semaphore pivoted between the openings, an armature connected to the semaphore, magnets operable on the armature to rock the semaphore, means in common with the lamps and magnets to throw—either the lamps or the magnets into circuit, and means for energising either lamp when the lamps are in circuit, said latter means also being capable of energising either magnet when the magnets are in circuit.

2. The combination in a signaling device of a casing having two openings arranged one on each side of a center line, an electric lamp back of each opening, a rock-shaft located between the openings and extending through the casing, a semaphore keyed to the shaft outside the casing, a plate normally covering the semaphore; a two-armed lever keyed to the rock-shaft and forming an armature; two magnets one of said magnets being secured adjacent one arm of said lever the other magnet being secured adjacent the other arm of the lever, one of said magnets when energised being operable on its respective lever arm to rock the shaft in one direction, the other of said magnets when energized being operable on its respective lever arm to rock the shaft in the opposite direction; means in common with the lamps and magnets to throw either the lamps or the magnets into circuit; and means for energising either lamp when the lamps are in circuit, said latter means also being capable of energizing either magnet when the magnets are in circuit.

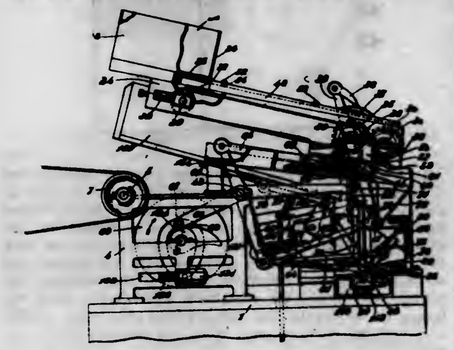
3. The combination of a casing having openings, two electric lamps therein, a shaft, a semaphore on the shaft, an armature also on the shaft within the casing, two electro-magnets arranged to attract the armature, two switch arms on the casing arranged to throw the lights or the magnets in circuit, and a switch located at the chauffeur's seat and operable to light either lamp when the lamps are in circuit and to energise either magnet when the magnets are in circuit.

1,040,772. CIGARETTE-MAKING MACHINE. ARAKEAL H. SARKISIAN, Bridgewater, Mass. Filed Nov. 25, 1911. Serial No. 662,407. (Cl. 131—5.)

1. In a cigarette making machine, the combination of a mold having relatively fixed sides and a tobacco-receiving opening in the top thereof, means for introducing a charge of tobacco into the mold through said opening therein, means for applying a cigarette tube to the mold, a device movable laterally across said opening in the mold to close the same, and means operative to force a charge of tobacco endwise through the mold and into the cigarette tube applied thereto.

2. In a cigarette making machine, the combination of a mold having relatively fixed side walls and a tobacco-receiving opening of fixed size in the top thereof, means for introducing a charge of tobacco into the mold through said opening therein, means for positioning a cigarette tube to receive the charge of tobacco from the mold, a knife movable laterally across said opening in the mold to close the same, and means for transferring the charge of tobacco from the mold to the cigarette tube.

3. In a cigarette making machine, the combination of a mold having a tobacco-receiving opening and a tube-receiving end formed as an integral and fixed extension thereof, means for introducing a charge of tobacco into the mold, means for applying a cigarette tube to said tube-receiving end, means movable across the opening in the mold to close the same, and means for transferring the charge of tobacco from the mold to the tube.



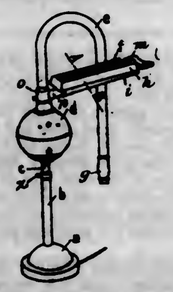
4. In a cigarette making machine, the combination of a mold having a tube-receiving end, relatively fixed side walls and a tobacco-receiving opening in the top thereof, means movable longitudinally of the mold for applying a cigarette tube to the tube-receiving end thereof, means for introducing a charge of tobacco into the mold, a devices movable laterally across said opening in the mold to close the same, and means operative longitudinally of the mold to transfer a charge of tobacco from the latter to the tube.

5. In a cigarette making machine, the combination of a mold having a tube-receiving portion at one end, relatively fixed side walls, and a tobacco-receiving opening in the top thereof, means for introducing a charge of tobacco into the mold, means for applying a cigarette tube to said tube-receiving portion of the mold, a knife movable transversely across said opening to close the same, and means operative longitudinally of the mold for transferring a charge of tobacco from the mold to the cigarette tube and for removing the filled cigarette tube from the mold.

[Claims 6 to 32 not printed in the Gazette.]

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1,040,773. AIR-DOUCHE. AUGUST SCHAEFFER, Frankfort-on-the-Main, Germany. Filed Apr. 8, 1911. Serial No. 619,848. (Cl. 34—26.)



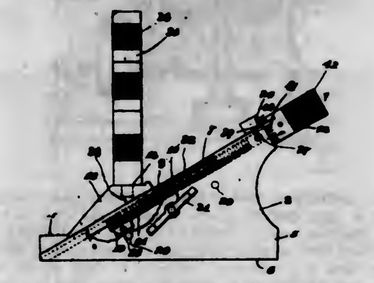
1. In an apparatus for the purpose set forth, an air conveyer having an opening in its wall, a coupling fitted to rotate around said conveyer over said opening, and a pipe connected to said coupling, the latter being adjustable on the conveyer to place said pipe in or out of communication with said conveyer without interrupting the passage of air through the latter.

2. In an apparatus for the purpose set forth, the combination with a blower casing, and a blower therein, of a discharge spout on the casing having a lateral opening, a nipple fitting over said discharge spout, an air conveyer fitting over said nipple, a tube extending laterally from the said nipple and adapted to register with the opening in the spout, and a receptacle carried by said lateral tube.

3. In an apparatus for the purpose set forth, the combination of a pan, a rim slidably fitted on the said pan, a perforated support within the rim covering said pan, and means for directing the air current into the pan.

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1,040,774. MICROMETER SIZING-BLOCK. JAMES T. SCHAMEL, Philadelphia, Pa. Filed May 17, 1911. Serial No. 627,863. (Cl. 73—144.)



1. A device of the class described, comprising a triangular-shaped base having a channel in its inclined head to provide flexing sides, a movable block slidably fitted in the channel for engagement with the inclined edge of the base, and provided with a plurality of steps containing threaded sockets, an adjusting screw swiveled at one end of the channel and adjustably engaged with the block for moving the same, means flexing the sides of the base for binding the block in the channel and a post formed of separable sections, each section being provided in one end with a threaded socket and on its opposite end with a threaded lug for detachably connecting the sections and also for detachably connecting the post in the threaded sockets in the steps of the block.

2. A device of the class described comprising a triangular shaped base having a channel in its inclined edge to provide flexing sides, a movable block slidably fitted in the channel for contacting with the inclined edge of the base, an adjusting screw swiveled at one end of the channel and adjustably engaged with the block for moving the same, a sectional post having a plurality of separable parts and engageable with the block at different points thereon, and means engaging the sides of the base for locking the block in adjusted position.

3. A device of the class described comprising a triangular-shaped base having a channel in its inclined edge, a movable block slidably fitted in the channel for contacting with the inclined edge of the base, means for adjusting the block on the base, a sectional post having a plurality of separable parts and engageable with the block at different points thereon, means engaging the sides of the base for the locking of the block in adjusted position, the said base being provided with a graduated scale and said block with a pointer coöperative with the scale.

4. A device of the class described comprising a triangular-shaped base having a channel in its inclined edge, a movable block slidably fitted in the channel for contacting with the inclined edge of the base, means for adjusting the block on the base, a sectional post having a plurality of separable parts and engageable with the block at different points thereon, means engaging the sides of the base for the locking of the block in adjusted position, the said base being provided with a graduated scale, and said block with a pointer formed on the block and coöperative with the scale, and a turning knob fixed to the adjusting means for operating the same.

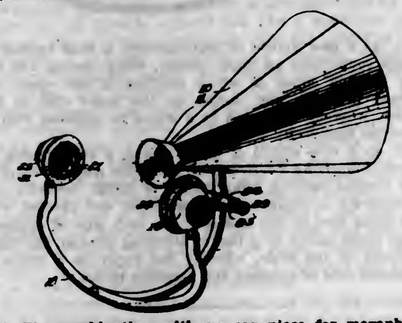


5. A device of the class described comprising a base having a channel in one edge thereof, a movable block slidably fitted in the channel, an adjusting screw swiveled at one end of the channel and adjustably engaged with the block for moving the same, a sectional post adapted for detachable connection with the block at different points thereon and having separable parts, the said base being provided with a graduated scale, and said block with a pointer coöperative with the scale, and a turning knob fixed to one end of the adjusting screw, the said block being provided with a plurality of steps forming seats for the said sectional post.

[Claim 6 not printed in the Gazette.]

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1,040,775. MEGAPHONE. CHAPMAN SCHANANDOAH, Norfolk, Va. Filed Dec. 19, 1911. Serial No. 666,739. (Cl. 181—20.)

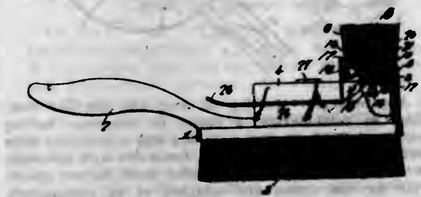


1. The combination with an ear piece for megaphone horns of a ring carried in said ear piece, pegs carried by said ring and revoluble therein, and wires connecting said pegs and stretching across said ring.

2. The combination with an ear piece for megaphone horns of a ring carried in said ear piece, pegs carried by said ring and revoluble therein, and wires connecting said pegs and stretching across said ring, said wires being arranged in parallelism.

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1,040,776. FOUNTAIN BLACKING-BRUSH. JOSEPH F. SCHOOLFIELD, Greensboro, N. C. Filed Apr. 23, 1912. Serial No. 692,868. (Cl. 15—46.)



A brush comprising a member having a handle thereon, a liquid container carried by the member, a head carried by the container and provided with a yieldable valve seat having a central passage, the said head having a bore aliining with the passage of the valve seat, bristles extending from the head, the said bore being in open communication with the bristles, a valve rod slidable in the bore and in the passage in the valve seat, a valve disposed at one side of the seat, and having a conical portion, a spring bearing against the valve so as to hold the conical portion thereof yieldingly against the walls of the passage in said seat, a rocking lever mounted upon the head and having an arm extending through the bristles and pivotally connected with the valve rod and having a second arm extending laterally beyond one side of the container, and a second lever pivoted to the side of the container and having a portion pivotally connected with the second arm of the first lever and having a manipulating portion disposed at one end of the container and in spaced relation with said handle.

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1,040,777. LAMP-EXTINGUISHER. MORRIS SCHRADER, McKeesport, Pa., assignor of three-fourths to Samuel Firestone, McKeesport, Pa. Filed Mar. 6, 1912. Serial No. 682,037. (Cl. 67—79.)

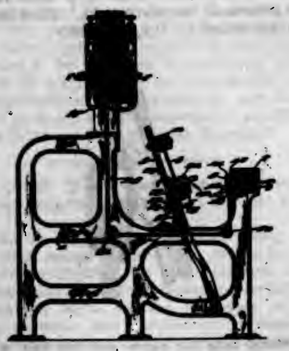


1. An extinguisher for lamps comprising the combination with a lamp burner including a casing, a wick tube, and a pair of oppositely movable shutters pivotally connected to the wick tube and capable of being shifted over the tube to extinguish the flame, of a pair of hangers connected to and depending in said casing, a globular member arranged in proximity to each of said shutters, and suspension members attached to said globular members and loosely connected to said hangers whereby when the lamp is tilted one of said members will move to shift a shutter to extinguish the flame.

2. An extinguisher for lamps comprising the combination with a lamp burner including a casing, a wick tube, and a pair of oppositely movable shutters pivotally connected to the wick tube and capable of being shifted over the tube to extinguish the flame, of a pair of hangers connected to and depending in said casing, a globular member arranged in proximity to each of said shutters, and suspension members attached at their lower ends to said globular members and having hook-shaped upper ends movably connected to the lower ends of said hangers whereby when the lamp is tilted one of said globular members will shift a shutter to extinguish the flame.

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1,040,778. LOOM. ROBERT W. SCHREY, Philadelphia, Pa., assignor of one-half to Albert S. Fairfield, Philadelphia, Pa. Filed Apr. 13, 1911. Serial No. 620,740. (Cl. 139—18.)



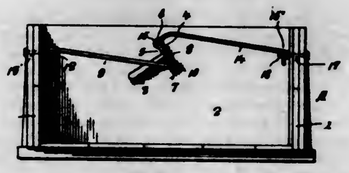
1. An attachment for looms comprising a four sided rectangular guide adapted to be secured to the batten of a loom, blocks so shaped as to slide in the guide and bear at their upper ends against the batten of the loom, fingers rigidly secured to the reed of the loom and adapted to engage the upper portion of said blocks above the guide, a spring normally holding said blocks in position to be en-

gaged by the fingers, and means for moving the blocks out of the path of movement of said fingers, substantially as described.

2. An attachment for looms comprising a four sided rectangular guide adapted to be secured to the batten of a loom, blocks so shaped as to slide in the guide and bear at their upper ends against the batten of the loom, fingers rigidly secured to the reed of the loom and adapted to engage the upper portion of said blocks above the guide, a rod connecting said blocks and compelling them to move together, a spring normally engaging one of said blocks and holding the same in the path of movement of said fingers, and means for moving said blocks out of the path of movement of the fingers, substantially as described.

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1,040,779. FASTENING FOR WAGON END-GATES. JOHN W. SCHROEDER, Freeman, S. D. Filed Oct. 28, 1911. Serial No. 657,236. (Cl. 21—21.)



The combination with a wagon body having an end gate, of a locking device for fastening said end gate to said body, said device comprising a lever, a crank arm consisting of a substantially U-shaped central portion and oppositely extending portions contiguous to said central portion, said crank arm being carried by one end of said lever and extending in a lateral direction thereto, end portions bent at right angles to said oppositely extending portions and in opposite directions therefrom, means for pivoting the said crank arm to the end gate, a plurality of rods, each rod having its inner end connected to one of the end portions of said crank arm and out of direct alinement with the other rod, whereby said lever may be swung to any position, the opposite ends of said rods being formed with hooks, and eye-bolts in opposite sides of the wagon body for the reception of said hooks.

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1,040,780. CASE FOR GAGES AND THE LIKE. FREDERICK SCHUBERT, Sellersville, Pa. Filed Mar. 15, 1912. Serial No. 683,994. (Cl. 224—29.)



In a round case for gages and the like, a cup-shaped body provided with external threads on each end, means for fastening on a board, which means consist of two internally threaded washers adapted to screw on the external threads first mentioned, whereby said body is securely held when the two said washers are advanced toward each other upon said threads, one of said washers having an inturned annular flange and a glass member seated between said body and flange.

1,040,781. SHOE. JACOB N. SCHWANDER, Cincinnati, Ohio. Filed Dec. 4, 1911. Serial No. 663,780. (Cl. 36—57.)

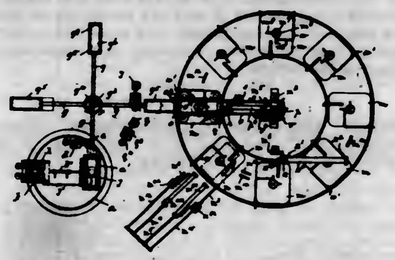


1. As a new article of manufacture, a shoe having an upper comprising an upper proper, vamp, foxing and tip, the meeting edges of which sections of the upper are turned inwardly and united on the inner side of the upper, whereby the upper as a whole is rendered void of external seams.

2. As a new article of manufacture, a shoe having an upper comprising a series of sections, the meeting edges of the various sections being turned or folded inwardly and backwardly in opposite directions upon and parallel with the inner face of the said sections, each pair of opposing folds being united by a line of stitching through the bight portions of the folds, whereby the upper as a whole is rendered void of external and abrading seams.

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1,040,782. APPARATUS PARTICULARLY SUITABLE FOR TREATING OIL-SEED AND THE LIKE. ROBERT SCOTT, London, England. Filed Feb. 13, 1912. Serial No. 677,896. (Cl. 100—50.)



1. Apparatus for treating oil seed and the like comprising, in combination, a kettle or container having an outlet at the bottom, a mold box and a mold top slide beneath the opening, a raisable, lowerable and rotatable frame, a series of vertically guided mold bottom plates carried by the frame and adapted to be successively brought and arrested beneath the mold box and removed therefrom to any convenient position, driving means for turning the frame, and a hydraulic ram adapted to automatically raise and lower the frame, substantially as described.

2. Apparatus for treating oil seed and the like comprising, in combination, a kettle or container having an outlet at the bottom, a mold box and a mold top slide beneath the opening, a raisable, lowerable and rotatable frame, a series of vertically guided mold bottom plates carried by the frame and adapted to be successively brought and arrested beneath the mold box and removed therefrom to any convenient position, driving means for turning the frame, a hydraulic ram for operating the top slide, a valve automatically controlling said ram, a cataract, the valve being controlled by the rotary frame and by the cataract, and a hydraulic ram adapted to automatically raise and lower the frame, substantially as described.

3. Apparatus for treating oil seed and the like comprising, in combination, a kettle or container having an outlet at the bottom, a mold box and a mold top slide beneath the opening, a hydraulic ram for operating the top slide, a raisable, lowerable and rotatable frame, a series of vertically guided mold bottom plates carried by the frame and adapted to be successively brought and arrested beneath the mold box and removed therefrom to any convenient position, driving means for turning the frame, a hydraulic ram adapted to automatically raise and lower the frame, a valve for automatically controlling said ram, a ram for operating the top slide, and a cataract, the valve being controlled by the ram for operating the top slide and by the cataract, substantially as described.

4. Apparatus for treating oil seed and the like comprising, in combination, a kettle or container having an outlet at the bottom, a mold box and a mold top slide beneath the opening, a hydraulic ram for operating the top slide, a raisable, lowerable and rotatable frame, a series of vertically guided mold bottom plates carried by the frame and adapted to be successively brought and arrested beneath the mold box and removed therefrom to any convenient position, driving means for turning the frame, a hydraulic ram adapted to automatically raise and lower the frame, a hydraulic ram for raising the bottom plates into the mold box and compressing the material, a valve for automatically controlling this ram, and a cataract, the valve being controlled by the ram for operating the top slide and by the cataract, and the ram for raising the bottom plates in its raised position being adapted to engage the frame so as to prevent the same from rotation, substantially as described.

5. Apparatus for treating oil seed and the like comprising, in combination, a kettle or container having an outlet at the bottom, a mold box and a mold top slide beneath the opening, a raisable, lowerable and rotatable frame, a series of vertically guided mold bottom plates carried by the frame and adapted to be successively brought and arrested beneath the mold box and removed therefrom to any convenient position, driving means for turning the frame, a hydraulic ram adapted to automatically raise and lower the frame, a rotary turntable, a series of oil presses thereon, and hydraulic means adapted to automatically remove the molded cakes from the rotary frame, load the presses therewith and rotate the turntable step by step as each press is loaded, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

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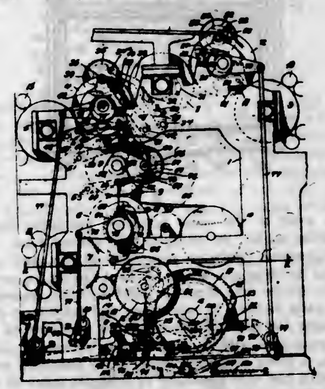
1,040,788. MULTICOUPLE MULTIREVOLUTION PRINTING-MACHINE. WALTER SCOTT, Plainfield, N. J.; Isabella Scott and David John Scott executors of said Walter Scott, deceased. Filed Nov. 17, 1905. Serial No. 287,868. (Cl. 101—90.)

1. In a multi-couple multi-revolution printing machine, the couples of which are adapted to print on the same side of the sheet, the combination with a first impression cylinder adapted to receive, print and release a sheet during the first revolution of its cycle, and to rotate idly during the remainder of its cycle, of a second impression cylinder adapted to receive and print the sheet during the first revolution of its cycle and to release the same after the said first revolution, means for transferring the sheets from one impression cylinder to another, and form members adapted to co-act with the impression members.

2. In a multi-couple two-revolution printing machine, the couples of which are adapted to print on the same side of the sheet, the combination with a first impression cylinder adapted to receive, print and release a sheet during its first revolution and to rotate idly during its second revolution, of a second impression cylinder adapted to receive and print the sheet during its second revolution, means for transferring the sheet from one impression cylinder to another, and form members adapted to co-act with the impression members.



3. In a multi-couple multi-revolution printing machine, the couples of which are adapted to print on the same side of the sheet, the combination of a first impression cylinder adapted to receive, print and release a sheet during the first revolution of its cycle, and to rotate idly during the remainder of its cycle, a second impression cylinder adapted to receive and print the sheet during the first revolution of its cycle and to release the same after the said first revolution, a transfer cylinder adapted to transfer the sheet from one impression cylinder to the other during its first revolution only, and to rotate idly during the remainder of its cycle, and form members adapted to co-act with the impression members.



4. In a multi-couple two-revolution printing machine, the couples of which are adapted to print on the same side of the sheet, the combination of a first impression cylinder adapted to receive, print and release a sheet during its first revolution and to rotate idly during its second revolution, a second impression cylinder adapted to receive and print the sheet during its first revolution and to release the same during its second revolution, a transfer cylinder adapted to transfer the sheet from the first to the second impression cylinder during its first revolution and to rotate idly during its second revolution.

5. In a multi-couple multi-revolution printing machine, the couples of which are adapted to print on the same side of the sheet, the combination of a plurality of impression cylinders adapted to receive and print a sheet during the first revolution of their cycle and to release the sheet after their first revolution, a first impression cylinder adapted to receive, print and release the sheet during the first revolution of its cycle and to rotate idly during the remainder of its cycle, means for transferring the sheet from one impression cylinder to another, and form members adapted to co-act with the impression members.

[Claims 6 to 33 not printed in the Gazette.]

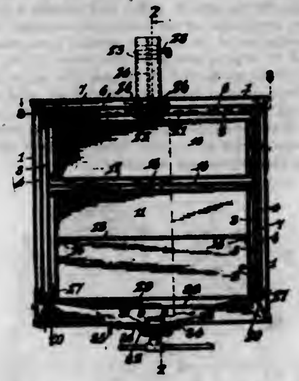
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1,040,784. OVEN. JEFFERSON W. SEALE, Mineral Wells, Tex. Filed Aug. 1, 1911. Serial No. 641,829. (Cl. 126—99.)

1. An oven of the class described including an inner shell, an outer casing spaced from the inner shell, a central partition dividing the space between the inner shell and the outer casing into separate side portions, interiorly arranged walls dividing the space at opposite sides of the partition into a plurality of passages, and a stove pipe communicating with the said passages.

2. An oven of the class described including an inner shell, an outer casing spaced from the inner shell, a central partition composed of top and rear portions and dividing the space between the inner shell and the outer casing into separate side portions, interiorly arranged walls located in the space between the inner shell and the outer casing and forming a plurality of passages for causing heat and other products of combustion to pass back

and forth from the bottom to the top of the oven, and a stove pipe having separate passages communicating with the passages at opposite sides of the central partition.



3. An oven of the class described including upper and lower inner shells, an outer casing spaced from the said shells, a central partition composed of top, and rear portions and dividing the space between the outer casing and the inner shells into separate side portions, interiorly arranged walls located in said space and forming a plurality of passages for causing the heat and products of combustion to pass back and forth from the bottom to the top of the oven, a stove pipe having separate passages communicating with the said passages at opposite sides of the central partition, said shells being spaced apart to form a horizontal flue having a central partition, and baffle plates located within the said horizontal flue and extending inwardly from the interiorly arranged walls and terminating at points short of the central partition of the horizontal flue and dividing the said horizontal flue into upper and lower passages, which are connected with some of the first-mentioned passages.

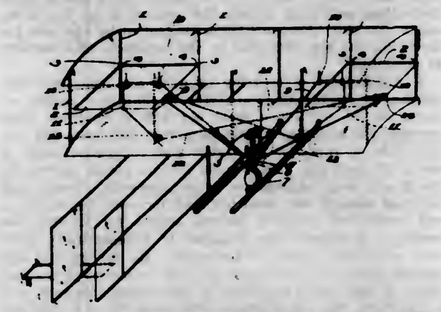
4. An oven of the class described provided at the bottom with a burner opening and having a downwardly tapered annular flange depending from the opening, and a downwardly tapered annular shield or collar fitted against the said flange and detachably secured to the oven and arranged to extend inwardly beneath a burner to prevent cold draft from striking the top or passing over the same.

5. An oven of the class described provided in its bottom with a burner opening and provided at one side of the opening with a slot, a shield depending from the bottom of the oven at the opening and provided at the top with a flange fitting against the said bottom, a tongue extending from one side of the shield and projecting into the said slot, and a fastening device mounted on the bottom of the oven and engaging the flange of the shield at a point opposite the tongue for detachably securing the shield to the oven.

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1,040,785. AEROPLANE. AUGUST SHAVER, Montague, Mich. Filed Mar. 9, 1912. Serial No. 682,570. (Cl. 244—29.)

1. In a flying machine, supporting planes positioned in vertical spaced relation, balancing planes pivotally mounted between said supporting planes, a plate mounted in the center of the lower face of the lower one of said supporting planes, a socket carried by said plate, a pendulum having its upper end formed into a ball mounted in said socket, oppositely disposed eyes carried by said pendulum adjacent its lower end, a cable secured to one of said eyes and carried over a pulley at one side of said lower supporting planes, and carried to the opposite side of said flying machine and connected to the lower face of one of said balancing planes, a second cable secured to the second eye and carried over pulleys carried by the upper one of said supporting planes above said balancing plane and connected with the upper face of said balancing plane, a third cable connected with said first mentioned eye and carried over pulleys carried by said upper supporting plane above the remaining one of said balancing planes and connected with the upper face of said second balancing plane, and a fourth cable secured to said second mentioned eye and carried over a pulley carried by the lower supporting plane beneath said first mentioned balancing plane and being then carried across the flying machine and having its end portion connected with the lower face of said second mentioned balancing plane.



2. A flying machine comprising a pair of supporting planes positioned one above the other in spaced relation, a pendulum connected with the lower supporting plane to permit of universal movement, balancing planes pivotally mounted between the end portions of said supporting planes, cables leading from said pendulum to said balancing planes whereby said balancing planes will move in opposite directions upon the swinging of said pendulum longitudinally of said supporting planes, a lever carried by the lower one of said supporting planes, pulley wheels mounted in said lower plane, and cables connected with said lever and leading over said pulley wheels and having their lower ends connected with oppositely disposed eyes carried by said pendulum whereby the movement of said lever will swing said pendulum transversely of said supporting planes.

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1,040,786. HAY-PRESS. FRED SHINAVER and WILLIAM PRAHL, Marshfield, Wis. Filed Jan. 19, 1912. Serial No. 672,092. (Cl. 100—20.)



1. In a hay baling machine having a bale chamber; a feeding means and a compressing means for the hay; a driving mechanism for actuating the feeding means and the compressing means; a clutch mechanism, including means for operating the same; combined mechanisms, including a revoluble member, thrown in gear with the driving mechanism, by the clutch mechanism, for drawing wires through the bale chamber and binding the wires; a gravitating divider to enter the bale chamber; and means having connections with the revoluble member to raise the divider.

2. In a hay baling machine, a frame having a bale chamber and provided with a hopper, a feeding means and a compressing means for the hay, a mechanism for simultaneously actuating the feeding means and the compressing means, a clutch mechanism including means for operating the same, and means thrown in gear with the first mechanism by the clutch mechanism for drawing wires through the bale chamber and binding the wires, and means including a member in the path of the compressing means and actuated thereby for throwing the clutch in gear.

3. In a hay baling machine having a bale chamber; a feeding means and a compressing means for the hay; a driving mechanism for actuating the feeding means and the compressing means; a clutch mechanism, including means for operating the same; combined mechanisms, including a revoluble member, thrown in gear with the driving mechanism, by the clutch mechanism, for drawing wires through the bale chamber and binding the wires; a gravitating divider to enter the bale chamber; and means having connections with the revoluble member to raise the divider; the divider raising means having devices for cushioning the divider when it gravitates.

4. In a machine as set forth, a vertical movable divider, means for retarding or cushioning the divider, and means coöperating with the first means for raising the divider.

5. In a machine as set forth, a vertical movable gravitating divider, and means for raising the divider, and means for cushioning the divider when lowering to prevent a thud.

[Claims 6 to 85 not printed in the Gazette.]

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1,040,787. CHECK-REIN-SUPPORT. OTTO H. SEILTZ, Green Bay, Wis. Filed Jan. 9, 1912. Serial No. 670,229. (Cl. 54—62.)



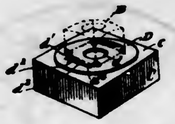
1. In a check rein support, a casing, means carried by said casing for securing it in place, a check rein hook pivoted within the casing at the front end thereof, the nose of said hook extending rearwardly, a guard hook pivoted within the casing at the rear end thereof, said hook having a portion cut away to form a shoulder, said shoulder adapted to co-act with the nose of the check rein hook to normally hold the latter closed, and resilient means for normally holding the guard hook closed.

2. In a check rein support, a casing, means carried by said casing for securing it in place, a check rein hook pivoted within the casing at the front end thereof, the nose of said hook extending rearwardly, a guard hook pivoted within the casing at the rear end thereof, said hook having a portion cut away to form a shoulder, said shoulder adapted to co-act with the nose of the check rein hook to normally hold the latter closed, an inclosing arm formed with the guard hook, coacting with the check rein hook to hold the check rein in place, an operating arm also formed with the guard hook, whereby said guard hook may be manipulated.

3. In a check rein support, a casing comprising a bottom having an opening therein, side and end walls, the forward end wall being bent inward forming a fastener; a bolt passing through the opening in the bottom, the head thereof being situated within the casing, a flat spring, one end of which is permanently held in place beneath the front end wall, said spring projecting rearwardly and resting upon the head of the bolt, a check rein hook having a rearwardly projecting nose, means for pivoting said hook between the side walls of the casing, a guard hook having two diverging arms, one projecting upwardly and one projecting forwardly, said guard hook having a portion thereof cut away to form a shoulder in proximity to its lower end, said shoulder coacting with the nose of the check rein hook to normally hold the latter closed, the heel of the guard hook coacting with the flat spring whereby said guard hook is normally held in place, means for pivoting said guard hook between the side walls of the casing, and a nut threaded upon the bolt for holding the support in place.

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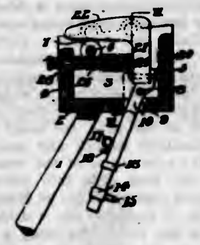
1,040,788. NUT-LOCK. WILLIAM H. SIMON, Cleveland, Ohio. Filed Mar. 6, 1911. Serial No. 612,663. (Cl. 151—52.)



The combination of a bolt; a bed in which said bolt is seated; a nut for said bolt; and a locking device for said nut interposed between it and said bed, and fixed relative to the latter, said locking device being provided with two or more oppositely disposed projections upwardly inclined in both directions of rotation of the nut, located laterally and adapted to engage opposite sides of the nut.

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1,040,789. TROLLEY. HENRY SHAFFERT, East Pittsburgh, Pa. Filed July 15, 1912. Serial No. 709,563. (Cl. 191—37.)



1. In a trolley harp, the combination with a pole, of a box like hollow harp carried by the upper end thereof, a lever fulcrumed in said harp and extending through the bottom thereof, a cord attached to the lower end of said lever, parallel retaining members pivotally connected to the upper end of said lever within said harp, spring pressed pins engaging the outer sides of said retaining members, a trolley wheel journaled in said harp below said retaining members, flexible connections connecting the lower end of said lever and the upper ends of said retaining members and a spring pressed bar engaging the lower ends of said retaining members within said harp.

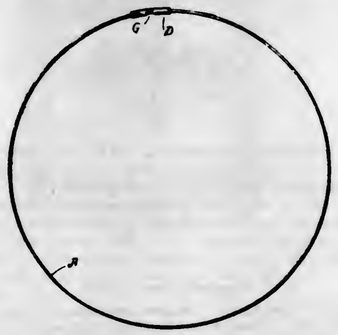
2. In a trolley harp, the combination with a trolley pole, of a box like harp formed integral with the upper end thereof, a lever fulcrumed in said harp and extending through the bottom thereof, spring pressed retaining members arranged in said harp and pivotally connected to the upper end of said lever, a trolley wheel journaled in said harp below said retaining members, and flexible connections between the lower end of said lever and the upper ends of said retaining members, whereby said retaining members can have the upper ends thereof opened by shifting said lever.

3. In a trolley harp, the combination with a trolley pole, of a box like harp formed integral with the upper end thereof, a lever fulcrumed in said harp and extending through the bottom thereof, spring pressed retaining members arranged in said harp and pivotally connected to the upper end of said lever, a trolley wheel journaled in said harp below said retaining members, flexible connections between the lower end of said lever and the upper ends of said retaining members, whereby said retaining members can have the upper ends thereof opened by

shifting said lever, means arranged interiorly of said harp for normally maintaining said members in a closed position, a cushioning means within said harp for said members, and means arranged exteriorly of said harp for maintaining the lever in its normal position.

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1,040,790. HAT-WIRE CONNECTOR. GEORGE B. SHERMAN, Danbury, Conn. Filed Nov. 23, 1907. Serial No. 403,556. (Cl. 2—32.)




1. As an article of manufacture a device for connecting the ends of a hat wire, comprising a sheet metal tube divided longitudinally to provide a certain amount of lateral resiliency, said tube being provided at its middle portion with a crimp or indentation reducing the internal diameter of the tube and serving to wedge in place the ends of the hat wire, and to insure their proper positioning longitudinally of the tube, the inner surface of the tube being substantially smooth and unobstructed adjacent the respective extremities of the same, to facilitate the slipping of the wire ends into place against said crimp or indentation; substantially as described.

2. As an article of manufacture, a device for connecting the ends of a hat wire, comprising a tube slit from end to end, and provided intermediate of its ends with a crimp formed in the opposing edge portions of the tube, along the slit, said crimp extending only partially around the tube; substantially as described.

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1,040,791. GEM-SETTING. DAVID SHIMAN, New York, N. Y. Filed June 19, 1911. Serial No. 634,073. (Cl. 63—27.)



1. A gem setting comprising an annular base having upwardly flaring concave reflecting segments and upright elongated gem supporting prongs extending high above said base, and an annular background connected with said base and having flaring concave reflecting segments.

2. A gem setting comprising an annular base having upwardly flaring concave reflecting segments and upright elongated gem supporting prongs extending high above said base, and an annular background connected with said base and having flaring concave reflecting segments disposed to break joint in relation to the reflecting segments of said base.

3. A gem setting comprising an annular base having upwardly flaring concave reflecting segments and upright elongated gem supporting prongs extending high above said base, and an annular background connected with said base and having flaring concave reflecting segments and slots for the admission of light.

4. A gem setting comprising an annular base having upwardly flaring concave reflecting segments and upright elongated gem supporting prongs extending high above said base, and an annular background connected with said base and having flaring concave reflecting segments disposed to break joint in relation to the reflecting segments of said base and slots for the admission of light.

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1,040,792. RECEPTACLE. CARL T. SIEBERT, East Pittsburgh, Pa. Filed May 16, 1912. Serial No. 697,638. (Cl. 220—3.)



A barrel comprising in combination, a shell of relatively thin material, a covering of twine on said shell, a pair of corrugated end pieces welded to said shell and arranged to cover the portion of the twine adjacent to the ends, a cement for fastening said twine on to said shell and for filling interstices in said twine, and a fireproof impregnation in said twine.

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1,040,793. CHLORATE EXPLOSIVE. OSWALD SILBERRAD, Buckhurst Hill, England. Filed June 15, 1911. Serial No. 633,406. (Cl. 52—1.)

1. A blasting explosive containing postassium chlorate 65 to 70 parts, nitro-toluene 12 to 13 parts, dinitrotoluene 6 to 7 parts, nitronaphthalene 6 to 7 parts, wood meal 5 to 6 parts and soluble nitro cellulose 0.5 to 2.5 parts; as set forth.

2. A plastic blasting explosive composed of nitro compounds gelatinised by soluble nitro-cellulose and having an oxidising substance admixed therewith in which the jelly is composed of 12 to 13 parts of nitrotoluene, 6 to 7 parts of dinitrotoluene, 6 to 7 parts of nitronaphthalene, and 0.5 to 2.5 parts of soluble nitro-cellulose, 65 to 70 parts of potassium chrolate and 5 to 6 parts of wood meal being incorporated in said jelly; as set forth.

3. The method of producing a plastic blasting explosive consisting in mixing together 12 to 13 parts of nitro tolnene and 6 to 7 parts of dinitrotoluene, and 6 to 7 parts of nitronaphthalene, adding thereto 0.5 to 2.5 parts of soluble nitro-cellulose, producing gelatinisation of this mixture by the action of heat and incorporating with the resultant product 65 to 70 parts of potassium chlorate and 5 to 6 parts of wood meal; as set forth.



1,040,794. PERCHLORATE EXPLOSIVE. OSWALD SILBERRAD, Buckhurst Hill, England. Filed June 15, 1911. Serial No. 633,407. (Cl. 52—1.)

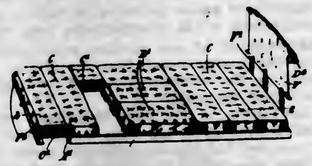
1. A blasting explosive containing ammonium perchlorate 63 to 70 parts, nitrotoluene 12 to 14 parts, dinitrotoluene 6 to 7 parts, nitronaphthalene 6 to 7 parts, wood meal up to 6 parts and soluble nitro-cellulose 0.5 to 2.5 parts; as set forth.

2. A plastic blasting explosive composed of nitro compounds gelatinised by soluble nitro-cellulose and having an oxidising substance admixed therewith in which the jelly is composed of 12 to 14 parts of nitrotoluene, 6 to 7 parts of dinitrotoluene, 6 to 7 parts of nitronaphthalene and 0.5 to 2.5 parts of soluble nitro-cellulose, 63 to 70 parts of ammonium perchlorate and up to 6 parts of wood meal being incorporated in said jelly; as set forth.

3. The method of producing a plastic blasting explosive consisting in mixing together 12 to 14 parts of nitrotoluene, 6 to 7 parts of dinitrotoluene and 6 to 7 parts of nitronaphthalene, adding thereto 0.5 to 2.5 parts of soluble nitro-cellulose, producing gelatinisation of this mixture by the action of heat and incorporating with the resultant product 63 to 70 parts of ammonium perchlorate and up to 6 parts of wood meal; as set forth.

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1,040,795. INVALID-BED. ARTHUR SKEFFINGTON, London, England. Filed Aug. 24, 1911. Serial No. 645,837. (Cl. 5—44.)



1. In an invalid bed, the combination of a sectional mattress, a main frame supporting the sections of the mattress, a frame slidable on the main frame and carrying sections of the mattress whose divisions are parallel with the longitudinal axis of the bed, and means for lowering one of these sections without disturbing any other section.

2. In an invalid bed the combination of a sectional mattress, a main frame supporting the sections of the mattress, a frame carrying sections of the mattress whose divisions are parallel with the longitudinal axis of the bed, and slidable on the main frame to be interchangeable in position with other sections of the mattress.

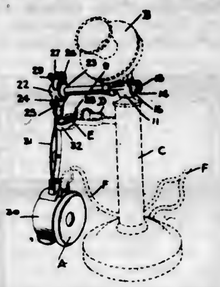
3. In an invalid bed the combination of a sectional mattress, a main frame supporting the sections of the mattress, a frame slidable on the main frame and carrying sections of the mattress whose divisions are parallel with the longitudinal axis of the bed, a hinged support on said slidable frame for one of said sections whereby the latter can be swung downward, and means for holding it normally up in position.

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1,040,796. TELEPHONE-RECEIVER HOLDER. SIDNEY C. SLADDEN, New York, N. Y. Filed May 16, 1912. Serial No. 697,602. (Cl. 179—149.)

1. The combination of a telephone instrument having a body portion, a relatively fixed transmitter, a relatively movable receiver, and a yielding support for said receiver, operable to make and break the telephone and bell electric circuits; a stiff bracket arm extended laterally from and rigidly secured to said body portion and having at the outer end thereof a globular hinge member provided with a vertically-disposed guide groove; a supporting arm rigidly connected with said receiver and having a cup-shaped hinge member adapted to envelop said globular hinge member, and provided with a registering device to move in said groove, and means for locking said supporting arm in telephone-in-service and telephone-out-of-service positions.

2. The combination of a telephone instrument having a body portion, a relatively fixed transmitter, a relatively movable receiver, and a yielding support for said receiver; operable to make and break the telephone and bell electric circuits; a stiff bracket arm extended laterally from and rigidly secured to said body portion and having at the other end thereof a globular hinge member provided with a vertically-disposed guide groove; a supporting arm rigidly connected with said receiver and having a cup-shaped hinge member adapted to envelop said globular hinge member, and provided with a registering device to move in said groove; means for locking said supporting arm in telephone-in-service and telephone-out-of-service positions; and a short switch groove formed in said globular hinge member, in open communication with said vertical groove adapted to receive said registering device to hold the supporting arm in substantially horizontal or telephone-in-service position.



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1,040,797. APPARATUS FOR STENCILING DESIGNS ON SURFACES. WILLIAM B. SLATER, Washington, D. C. Filed Jan. 20, 1912. Serial No. 672,374. (Cl. 101—134.)



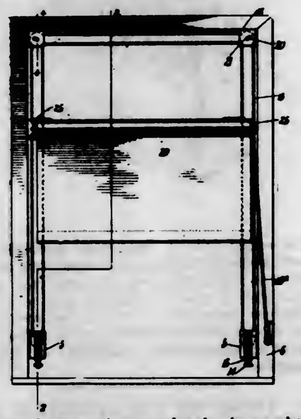
1. Apparatus for stenciling designs on surfaces comprising coöperating secondary and primary stencils formed of flexible material, the secondary stencil having a pair of spaced openings through which color or colors may be applied to produce the opposite edges of each figure of the design while the primary stencil is provided with an opening for each figure of the design having its edges slightly overlapping the inner edges of the openings in the secondary stencil for the same figure of the design, through which opening in the primary stencil a color may be applied to produce the central portion of the figure, each figure of the design being produced in the same manner.

2. Coöperating primary and secondary stencils formed of flexible material, the primary stencil having openings through which color may be introduced to produce the central portion of an ornamental figure while the secondary stencil is provided with openings offset from and overlapping the openings of the primary stencil, through which offset overlapping openings second and third colors may

be applied to produce the opposite edges of the ornamental figure and thus complete said figure, the openings in the secondary stencil having certain of their edges serrated to cause proper blending of the colors applied through the openings of the primary and secondary stencils.

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1,040,796. **SHADE-SUPPORT.** ALVA BERNARD SMITH, Memphis, Tenn., assignor, by direct and mesne assignments, to Simplicity Shade Adjuster Company, Memphis, Tenn., a Corporation of Tennessee. Filed Nov. 18, 1911. Serial No. 660,991. (Cl. 156—27.)



1. In a shade support a member having a shade roller supporting means, two lugs spaced apart and projecting laterally at one side of the member, and a third lug disposed at one side of a line extending from one of the first-mentioned lugs to the other first-mentioned lug, and projecting laterally at the other side of the member.

2. In a shade support a bracket having two vertical channels and an opening at its bottom, a stud disposed across the bracket for traveling in the channels, the stud being bent downwardly and having a threaded terminal disposed through the opening, a nut meshing with the thread on the terminal and engaging the bracket, a pulley mounted on the stud, a second pulley, a cord disposed around the pulleys, and a shade roller carrying means supported by the cord.

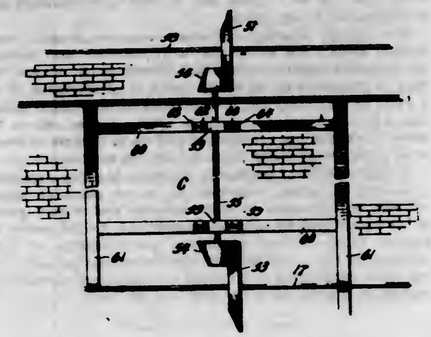
3. In a shade support two brackets each having two vertical channels, and an opening at its bottom, a stud disposed across each of the brackets for traveling in the channels, the studs being bent downwardly and having threaded terminals disposed through the openings, nuts meshing with the threads on the terminals for engaging the brackets, additional pulleys, a cord disposed around the pulleys, two members each having lugs around which the cord is disposed so that when the cord is drawn taut by turning the nuts against the brackets, the members will be supported by the cord, and shade roller carrying means, secured to the members.

4. In a shade support a bracket with two sides having openings with sides which converge in one direction, a stud adapted to be inserted in the openings at their widest ends, and being provided with grooves for fitting the sides of the openings when the stud is moved toward the other end of the openings, a pulley mounted on the stud, another pulley, a cord disposed around the pulleys, and a shade roller carrying means supported by the cord.

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1,040,799. **GEARING.** THOMAS E. SMITH, Davis Station, S. C., assignor of one-half to Joseph E. Davis, Davis Station, S. C. Filed Oct. 24, 1911. Serial No. 656,382. (Cl. 74—26.)

1. In a mechanism of the class described, the combination with a plurality of countershafts, of a driving shaft connected to all of said counter-shafts, means for driving the last-named shaft, means for disconnecting each of said counter-shafts from the driving shaft independently of one another, and means for disconnecting the driving means from the driving shaft independently of the countershafts.



2. In a mechanism of the class described, the combination with a plurality of counter-shafts, of a driving shaft common to all of said shafts, driving means for said driving shaft, said means including an engine, means for disconnecting each of the counter-shafts from the driving shaft independently of one another, and means for disconnecting the driving means from the driving shaft independently of the counter-shafts and independently of the operation of the engine.

3. A mechanism of the class described, including a drive shaft, a support for the drive shaft, means arranged upon the support for driving said shaft, a pair of spaced friction disks associated with said drive shaft and adapted to be moved longitudinally relatively to the shaft into and out of engagement with the said driving means, means including a gear shifting lever arranged upon each disk, and means for operating the levers to move the disks in opposite directions with respect to the shaft to connect the driving shaft to the driving mechanism and to disconnect it therefrom.

4. A mechanism of the class described including a drive shaft, a counter-shaft driven from said drive shaft, means for moving said counter-shaft into and out of engagement with said driving shaft, means for driving said drive shaft including an engine, a friction disk, and a pair of spaced beveled disks adapted to be moved in relatively opposite directions to be brought into and out of engagement with the friction disk to impart motion from the engine to the drive shaft, and means for moving said movable disks.

5. In a mechanism of the class described, the combination with a plurality of counter-shafts, of a driving shaft common to all of said shafts, driving means for said driving shaft, friction disks carried by said counter-shafts and driving shaft to drive the counter-shafts from the driving shaft, means operable to move the counter-shafts bodily to disengage the disks of the counter-shafts from those of the driving shaft, and means for disconnecting the driving means from the driving shaft independently of the counter-shafts.

[Claims 6 to 12 not printed in the Gazette.]

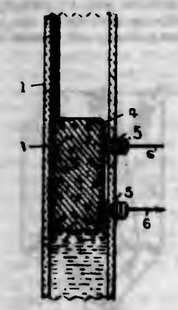
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1,040,800. **SAFETY ATTACHMENT FOR BOILERS.** WILLIAM P. SMITH, Locust Grove, Va. Filed July 15, 1911. Serial No. 638,711. (Cl. 177—317.)

1. A float attachment for boilers comprising the combination with a gage of a pair of contact points extending through the wall of the gage and spaced longitudinally thereof, and a cylindrical metallic float adapted to contact with the points and complete the circuit between the contact points.



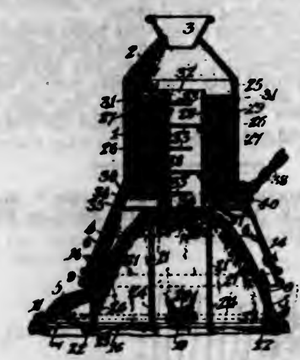
2. A float attachment for boilers comprising the combination with a gage of a pair of contact points extending through the wall of the gage and spaced longitudinally



thereof, the inner ends of said contact points being rounded and a cylindrical metallic float having rounded edges adapted to contact with the rounded ends of the points and complete the circuit between the contact points.

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1,040,801. **INHALING-MASK.** JOHN W. SNYDER, Michigan City, Ind. Filed Dec. 29, 1910. Serial No. 599,976. (Cl. 128—42.)



1. An inhaler for the administration of anesthetics provided with a mask for inclosing the respiratory orifices of a patient, and a heater having a continuous tube therein provided with a free passage therethrough for both air and anesthetic and open at the ends only, one end of the passage communicating directly with the atmosphere and the other end of the passage opening directly into the mask, said tube being provided with a plurality of oppositely directed plates impervious to the anesthetic and rendering the passage tortuous.

2. An inhaler comprising a mask portion for application to the face of a patient, and a heating portion having a centrally located free passage therethrough for air and anesthetic, said passage being open at the ends only with one end communicating directly with the atmosphere and the other directly with the mask and containing a series of oppositely directed overlapping plates or ledges impervious to an anesthetic traversing the passage and dodning a tortuous path for air and an anesthetic moving through the passage, and a heater surrounding the passage in direct heat conducting relation to the plates to cause vaporization of an anesthetic and the heating of the same and air traversing the passage before reaching the mask.

3. An inhaler comprising a mask portion for application to the face of a patient, and a heating portion having a centrally located free passage therethrough for air and anesthetic and open at the ends only, one end communicating directly with the air and the other end directly with the mask, and said passage being provided with a series of oppositely directed plates impervious to an anesthetic and spaced apart in the direction of the length of the passage, the plates being supported at one end by the walls of the passage and having their free ends in overlapping relation one to the other to define a tortuous path for the air and anesthetic moving through the passage, and a heating element surrounding the passage in direct heat conducting relation to the walls thereof and to the plates to cause the vaporization of anesthetic and the heating of the same and air moving through the passage before heating the mask, the heater including a member responsive to the passage of an electric current to convert the electric energy into heat.

4. An inhaler comprising a suitable casing having a neck at one end with a funnel entering the neck, and at the other end provided with a portion extending away from the body of the casing, an electric heating coil housed in the casing, a conduit in line with the funnel and extending through the heating coil and provided with means for the retardation of a fluid passing therethrough, and a mask structure adapted to the expanded extension of the casing.

5. An inhaler comprising a suitable casing having a neck at one end with a funnel entering the neck and at the other end provided with a portion extending away from the body of the casing, an electric heating coil housed in the casing, a conduit in line with the funnel and extending through the heating coil and provided with means for the retardation of a fluid passing therethrough, and a mask structure adapted to the expanded extension of the casing, said mask structure comprising separable frames for the securing of a distributing sheet thereto.

[Claims 6 to 8 not printed in the Gazette.]

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1,040,802. **WRENCH.** JOHN SOÑNIERZ, McKees Rocks, Pa. Filed Mar. 8, 1912. Serial No. 682,366. (Cl. 81—147.)

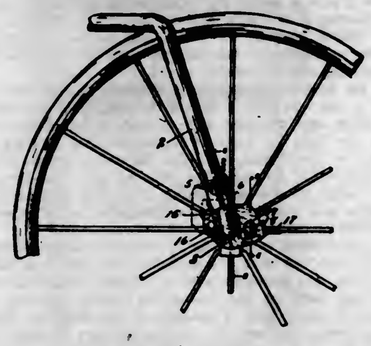


A wrench comprising a shank having the front edge thereof toothed and its outer end formed with a fixed jaw, an adjustable and tiltable jaw body normally spaced from said toothed edge, a strap having its sides integral with the forward portion of said jaw body and constituting means for connecting the jaw body to the shank, the sides of said strap normally projecting from the toothed edge of the shank, a jaw projecting from said body, an extension integral with and projecting inwardly from said jaw body and having an inturned free end formed with an inner face of greater length than the width of the extension, said inner face provided with teeth capable of engaging with the teeth of the shank, the inturned free end of said extension positioned in a plane parallel with the plane of the inner face of the jaw body, an angularly disposed cylindrical member mounted in the forward part of said jaw body and capable of engaging

the shank for retaining the teeth of the extension in engagement with the front side of the shank, said cylindrical member further constituting means for engaging the teeth of the shank to prevent shifting in one direction of the jaw body, and a coiled spring carried by the jaw body and abutting against one end of said pin.

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1,040,803. WHEEL-ATTACHING DEVICE. CHRISTOPHER STEELE SPOFFORD and FREDERICK WILLIAM JONAS, Sturgis, Mich., assignors to Sturgis Steel Go-Cart Company, Sturgis, Mich. Filed Jan. 29, 1912. Serial No. 674,011. (Cl. 21—30.)



1. The combination of a rod-like wheel support, a spindle projecting laterally therefrom, a wheel having a flange at the inner end of its hub, a thrust collar sleeved upon said spindle and having an upwardly projecting clip arm engaging said support, and a yoke-shaped securing member channel shaped in cross section to embrace said collar and said hub flange, said member pivoted by one of its arms to said thrust collar at one side of the axle to embrace the axle when in its engaging position, said collar being provided with a lug-like catch and said attaching member with a coacting engaging opening.

2. The combination of a rod-like wheel support, a spindle projecting laterally therefrom, a wheel having a flange at the inner end of its hub, a thrust collar sleeved upon said spindle and having an upwardly-projecting clip arm engaging said support, and a yoke-shaped securing member channel shaped in cross section to embrace said collar and said hub flange, said member being pivoted by one of its arms to said thrust collar at one side of the axle to embrace the axle when in its engaging position.

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1,040,804. APPARATUS FOR CLASSIFYING OR GRADING CRUSHED ORE AND THE LIKE. GEORGE HARDY STANLEY, Johannesburg, Transvaal, assignor to Sands Limited, Johannesburg, Transvaal. Filed Sept. 30, 1911. Serial No. 652,208. (Cl. 83—82.)

1. The combination of a hydraulic classifier having an underflow outlet for less buoyant material separately from the more buoyant material and constructed for continuous separation of less buoyant material from more buoyant material, a reciprocating screen forming with parts of said classifier a compartment adapted to contain pulp, said screen providing the outlet for more buoyant material and being so positioned that oversize material may fall directly from it by gravity.

2. The combination of a hydraulic classifier having an underflow outlet for less buoyant material separately from the more buoyant material and constructed for continuous separation of less buoyant material from more buoyant material, and a substantially vertical reciprocating screen forming with parts of said classifier a compartment adapted to contain pulp and providing the outlet for more buoyant material.

3. The combination of a hydraulic classifier having a restricted passage comprising a rising portion and an underflow outlet at the lower end of said rising portion, and a reciprocating screen positioned to receive pulp from said rising portion and to permit oversize rejected by it to fall directly by gravity to the lower side of said rising portion of the passage and thence to the outlet.

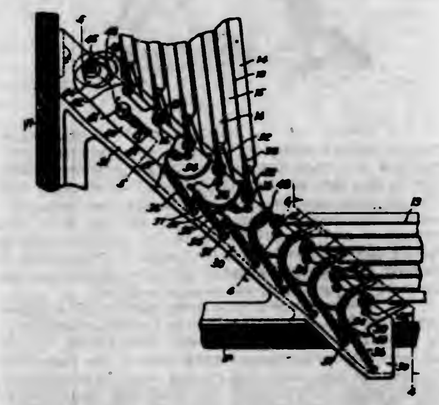


4. The combination of a hydraulic classifier having an underflow outlet for less buoyant material separately from the more buoyant material and constructed for continuous separation of less buoyant material from more buoyant material, a chamber forming an extension thereof into which the more buoyant material passes, and a vertical reciprocating screen bounding said chamber.

5. A structure having an upwardly flaring compartment, a substantially vertical screen bounding said compartment, means for reciprocating the screen, said structure also having a restricted pulp inlet passage opening into the compartment obliquely at the base of the screen and a slot in the lower wall of said passage, and receiving means into which said slot opens.

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1,040,805. ACCOUNT-REGISTER. ALBERT F. STAPLES, Buffalo, N. Y. Filed May 6, 1912. Serial No. 695,491. (Cl. 45—2.)



1. An account-register having, in combination, means for supporting a plurality of bill-holder frames pivotally at their lower edges, said means including counterbalancing devices tending to raise the frames to upright position; a set of bill-holder frames normally supported by said means but readily removable therefrom, and means for holding the counterbalancing devices out of operation while the frames are being placed upon the supporting-means.

2. An account-register having, in combination, means for supporting a plurality of bill-holder frames pivotally at their lower edges, said means including counterbalancing devices tending to raise the frames to upright position; a set of bill-holder frames normally supported by said means but readily removable therefrom, and means for holding the counterbalancing devices out of operation while the frames are being placed upon and removed from the supporting-means.

3. An account-register having, in combination, means for supporting a plurality of bill-holder frames pivotally at their lower edges; a set of bill-holder frames normally supported by said means but readily removable therefrom, a plurality of counterbalancing devices adapted to engage the frames severally and tending to raise them to upright position, and manually-operable means for holding the counterbalancing devices simultaneously out of operative engagement with the frames while the frames are placed upon the supporting-means.

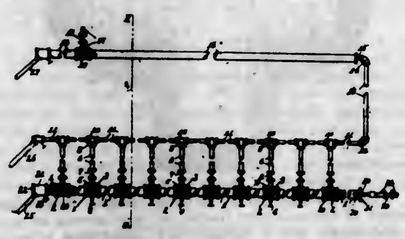
4. An account-register having, in combination, means for supporting a plurality of bill-holder frames pivotally at their lower edges; a set of bill-holder frames normally supported by said means but readily removable therefrom, a plurality of counterbalancing devices adapted to engage the frames severally and tending to raise them to upright position, and a slide having abutments adapted to cooperate simultaneously with the several counterbalancing devices to hold them out of operation, the slide being movable to release said devices during the normal operation of the account-register.

5. An account-register having, in combination, a set of upwardly-opening bearings arranged in an inclined plane, a set of bill-holder frames having pivot-members at their lower edges by which they may be supported on said bearings, a series of counterbalancing devices each comprising a resilient arm pivoted below the pivotal axis of the respective frame and adapted to engage the front of the frame above said axis, and means for locking the pivot-members in the bearings.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,806. APPARATUS FOR SAVING GAS AND OIL FROM PRODUCING-WELLS. ERIC A. STARKE, Berkeley, Cal. Filed Jan. 31, 1912. Serial No. 674,453. (Cl. 166—1.)



1. An apparatus for the described purpose comprising a recumbent separating pipe; a supply pipe entering and fitted to one end of said separating pipe by a tight connection and adapted to introduce thereinto the well-product under the well-pressure; a discharge pipe from the other end of said separating pipe, leading from the lower cross sectional area thereof for carrying off to the tank the liquid component of said well-product; and a delivery pipe leading from the upper cross sectional area of said separating pipe for carrying off to the mains the gaseous component of said well-product.

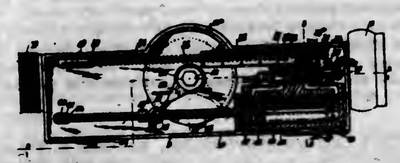
2. An apparatus for the described purpose comprising a recumbent separating pipe; a supply pipe entering and fitted to one end of said separating pipe by a tight connection and adapted to introduce thereinto the well-product under the well-pressure; a discharge pipe from the other end of said separating pipe, leading from the lower cross-sectional area thereof for carrying off to the tank the liquid component of said well-product; a plurality of delivery pipes leading at intervals from the separating pipe throughout its length, said delivery pipes communicating with the upper cross sectional area of said separating pipe, for carrying off to the mains the gaseous component of said well-product.

3. An apparatus for the described purpose comprising a recumbent separating pipe; a supply pipe entering and fitted to one end of said separating pipe by a tight connection and adapted to introduce thereinto the well-product under the well-pressure; a discharge pipe from the other end of said separating pipe, leading from the lower cross-sectional area thereof for carrying off to the tank the liquid component of said well-product; a delivery pipe leading from the upper cross-sectional area of said separating pipe for carrying off therefrom the gaseous component of said well-product; and one or more additional successively communicating recumbent separating pipes to successively receive said gaseous component from the delivery pipe of the first separating pipe, each additional separating pipe having a discharge pipe leading from the lower cross-sectional area thereof for carrying off to the tank the liquid separated from the gas, the final one of said additional separating pipes having an outlet to carry off the gas to the mains.

4. An apparatus for the described purpose comprising a recumbent separating pipe; a supply pipe entering and fitted to one end of said separating pipe by a tight connection and adapted to introduce thereinto the well-product under the well-pressure; a discharge pipe from the other end of said separating pipe, leading from the lower cross-sectional area thereof for carrying off to the tank the liquid component of said well-product; a plurality of delivery pipes leading at intervals from the separating pipe throughout its length, said delivery pipes communicating with the upper cross-sectional area of said separating pipe; and one or more additional successively communicating recumbent separating pipes to successively receive said gaseous component from the plurality of delivery pipes of the first separating pipe, each additional separating pipe having a discharge pipe leading from the lower cross-sectional area thereof for carrying off to the tank the liquid separated from the gas, the final one of said additional separating pipes having an outlet to carry off the gas to the mains.

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1,040,807. REDUCING-VALVE. SPENCER A. STINSON, Blairstown, N. J. Filed June 13, 1911. Serial No. 632,915. (Cl. 50—11.)



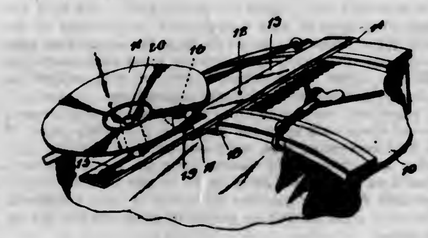
A reducing valve comprising a casing having a high pressure side and a low pressure side, a main valve mounted within said casing, a piston for actuating said main valve, a cylinder slidably engaged by said piston, a slide valve for controlling the flow of a liquid from the high pressure side of said casing into said cylinder, a lever for actuating said slide valve, a rod connected with said lever, means for causing a liquid from the low pressure side of said casing to move said rod, a sleeve of tubular form encircling said rod and serving as a bearing therefor, a spiral spring encircling a portion of said rod and a portion of said sleeve, a stop engaged by one end of said spring, and a member adjustably mounted upon said sleeve and engaged by the other end of said spring for controlling the tension of said spring.

1,040,809. ROTARY BRUSH. WILLIAM STORK, San Diego, Cal. Filed June 28, 1912. Serial No. 706,260. (Cl. 15—87.)



The combination with a ring having pairs of openings extending therethrough, of U-shaped wires passed through the openings, a sleeve secured in the ring, said sleeve having a collar extending over one end of the ring and securing the wires in position.

1,040,809. DRUM ATTACHMENT. FRANK J. STEARNS, Danville, Ill. Filed Nov. 27, 1911. Serial No. 662,727. (Cl. 84—10.)



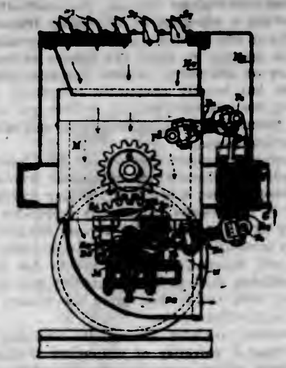
A device of the class described comprising a bracket formed from a flat plate having a central longitudinal slot at one end, and its other end terminating in a hook portion forming a stationary jaw, a slidable jaw opposite the stationary jaw, adjusting means passed through the sliding jaw and engaging in said slot for holding the jaw in adjusted position whereby both jaws may engage the hoops of a drum, a boss spanning the slot and disposed at right angles to the plate, means carried by the boss for securing a cymbal thereto, and means engaged through the slot for adjusting the boss longitudinally of the plate.

1,040,810. MOTOR SUSPENSION. KENNETH E. STUART, Philadelphia, Pa. Original application filed Sept. 9, 1910, Serial No. 581,208. Divided and this application filed Apr. 9, 1912. Serial No. 689,495. (Cl. 105—241.)

1. The combination with a car frame, of a driving wheel axle, a motor for driving said axle, members pivotally supporting said car frame upon said axle independently of said motor, and parallel rods pivoted to said motor and to said car frame independently of said axle.

2. The combination with a car frame, of a driving wheel axle, a journal for said axle, members pivotally supporting said car frame upon said journal, a motor for driving said axle, and parallel rods pivoted to said motor and to said car frame independently of said axle.

3. The combination with a car frame, of a driving wheel axle, springs pivotally supporting said car frame upon said axle independently of said motor, and parallel rods pivoted upon said motor and upon said car frame independently of said axle.



4. The combination with a motor frame, of a driving wheel axle, a motor for driving said axle, members pivotally supporting said car frame upon said axle, resilient means intervening between said motor and said axle, and parallel rods pivoted upon said motor and said car frame independently of said axle.

5. The combination with a car frame, of a driving wheel axle, a motor for driving said axle, means disposed in a plane at right angles to said axle pivotally supporting said car frame upon said axle, and parallel rods pivoted upon said motor and upon said frame disposed in a plane at right angles to said axle.

[Claims 6 and 7 not printed in the Gazette.]

1,040,811. TUNNEL. KENNETH E. STUART, Philadelphia, Pa. Original application filed Sept. 9, 1910, Serial No. 581,208. Divided and this application filed Apr. 9, 1912. Serial No. 689,496. (Cl. 61—16.)



1. In a despatch system, a tunnel section having side channels to accommodate tracks for cars moving in opposite directions, and a passage way comprising a trench between said channels, and an arched roof common to said passage way and to said channels.

2. In a despatch system, a tunnel section having channels to receive car tracks, said channels formed with a bottom of substantially circular section having as center the center of figure of the car adapted to run upon said tracks, whereby the tracks may be banked at curves without altering the tunnel section.

3. In a despatch system, a tunnel section having channels to receive car tracks, said channels formed with bottoms of substantially circular section having as center the center of figure of the car adapted to run upon said tracks, whereby the tracks may be banked at curves without altering the tunnel section, and provided with a trackway in each of said channels comprising transverse sleepers, a longitudinal sleeper, said transverse sleepers resting upon and overhanging said longitudinal sleeper, and running rails secured upon said transverse sleepers.

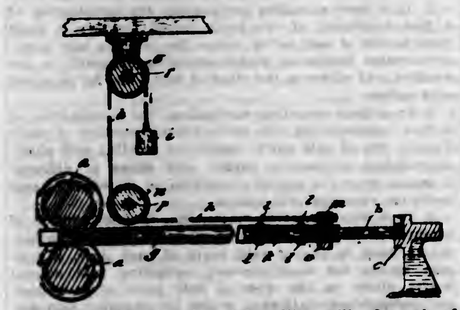
4. A reinforced tunnel section having side channels and a trench between said channels, an arched roof common to said trench and channels, and reinforcing means occupying substantially the neutral axis of the arched roof and approaching the inner surface of the tunnel section at said channels.

5. A reinforced tunnel section having side channels and a trench between said channels, an arched roof common to said trench and channels, and reinforcing means occupying substantially the neutral axis of the arched roof and approaching the inner surface of the tunnel section at said channels and approaching the surface of a corner formed between a channel and said trench.

[Claims 6 to 10 not printed in the Gazette.]



1,040,812. TUBE-ROLLING MILL. FRIEDRICH STÖTING, Witten, Germany. Filed Mar. 19, 1910. Serial No. 550,517. (Cl. 80—11.)



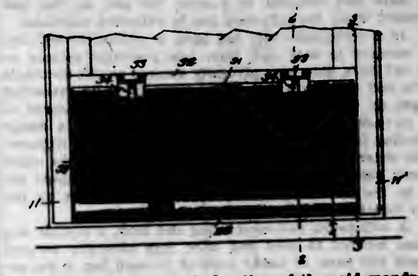
1. The combination, in a tube-rolling mill, of a pair of tube-rolling rolls capable of being moved toward and away from each other, a stationary frame, a plurality of mandrel-rods fixed to said frame, an independent-stripper-tube slidable on each of said mandrel-rods, a plurality of flexible tension members each connected at one end to one of said stripper-tubes, weights connected to the other ends of said flexible tension members, respectively, and means for guiding said tension members in such a manner that the stripper-tubes are urged continously against the leading ends of tubes in process of manufacture advancing on to said mandrel-rods.

2. The combination, in a tube-rolling mill, of a pair of tube-rolling rolls capable of being moved toward and away from each other, a stationary frame, a plurality of mandrel-rods fixed to said frame, independent-strippers guided to move along said mandrel-rods respectively, weights corresponding in number to said strippers, gearing connecting said weights and said strippers respectively in such a manner that the strippers are urged continuously against the leading ends of tubes in process of manufacture as said tubes are rolled on to said mandrel-rods.

1,040,813. SCREEN. ANNA L. M. THOMPSON, Philadelphia, Pa. Filed May 10, 1911. Serial No. 626,381. (Cl. 156—39.)

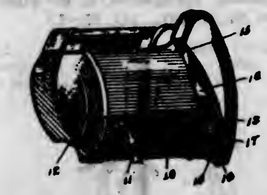
1. In a device of the class described, the combination with a revolvable sleeve, of a slotted mandrel telescopically mounted therein, a pin secured to the inner side of the sleeve and extending into the slot of the said mandrel to rotate the said mandrel with the said sleeve, a casing mounted to slide in the said sleeve, said sleeve being revolvable relatively to said casing, a spring mounted in the said casing with an end thereof secured to the casing and the other end thereof secured to the said sleeve, means for limiting the telescopical action of the said mandrel and a curtain mounted to encircle the said sleeve and having an end thereof secured to the sleeve, the other end of the said curtain being adapted for connection with a closure.

2. In a device of the class described, the combination with a revolvable sleeve of a slotted mandrel telescopically mounted therein, a pin secured to the inner side of the sleeve and extending into the slot of the said mandrel to rotate the said mandrel with the said sleeve, a casing mounted to slide in the said sleeve, said sleeve being revolvable relatively to said casing, a spring mounted in the said casing with an end thereof secured to the casing and the other end thereof secured to the said sleeve, means



for limiting the telescopical action of the said mandrel, a curtain mounted to encircle the said sleeve and having an end thereof secured to the sleeve, the other end of the said curtain being adapted for connection with a closure, a guard secured to the window casing and a longitudinally slotted casing secured to the said guard and mounted to loosely encircle the said sleeve, the said curtain being adapted to slidably extend through the slot in the said casing.

1,040,814. LIGHT-DIMMER. FRANCIS H. TOBIAS, New York, N. Y. Filed Dec. 12, 1911. Serial No. 665,266. (Cl. 240—45.)

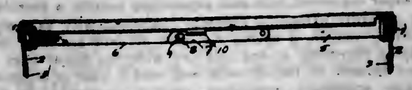


1. In a dimmer for lamps, a disk of fabric having a facing about the marginal edge thereof and a strand of spring wire in said facing.

2. In a lamp dimmer, a disk of fabric having a facing about the marginal edge thereof, a strand of spring wire within said facing, said spring wire being yieldable to permit the diameter of said disk being reduced in applying the same, and an opening through said disk between the center and the margin to permit direct rays to pass therethrough.

3. In a dimmer for lamps, a disk of fabric having a facing about the edge thereof, a strand of spring wire in said facing, and an opening through said disk eccentrically formed therein, said opening permitting direct rays to pass therethrough to be projected to the ground in advance of the lamp.

1,040,815. COLLAPSIBLE BED. NELSON Y. TOWNSEND, Dresden, N. Y. Filed May 10, 1912. Serial No. 696,501. (Cl. 5—5.)



1. In a collapsible bed, end bars, a flexible bed bottom secured to said end bars, legs pivotally secured to said end bars, side bars pivotally secured to the terminals of

said end bars, a link pivotally secured to one of each pair of said side bars, and means to collapsibly secure said links to the other of each pair of said side bars.

2. In a collapsible bed, end bars, a collapsible bed bottom secured to said end bars, legs pivotally secured to said end bars, side bars pivotally secured to the terminals of said end bars, a link pivotally secured to one of each pair of side bars and having a slot in its free terminal, and a hooked pin secured to the other of each pair of side bars and adapted to engage the slot in the link aforesaid when the side bars are in extended positions.

3. In a collapsible bed, end bars, a collapsible bed bottom secured to said end bars, legs pivotally secured to said end bars, side bars pivotally secured to the terminals of the end bars, said side bars having laterally extending flanges on their upper edges, a link pivotally secured to one of each pair of side bars, said link having a flange extending laterally of its upper edge and a slot adjacent to its outer terminal, a hooked pin secured to the other of each pair of said side bars and adapted to engage the slot in the link aforesaid, and a flanged support on the outer terminal of the last mentioned side bars.

4. A collapsible bed comprising end bars, a flexible bed bottom secured to said end bars, legs pivotally secured to said end bars, of hooks secured to each leg, a pin secured to each end bar and adapted to engage the hooks on said legs, side bars pivotally secured to the terminals of said end bars and having laterally extending flanges, a link pivotally secured to the terminal of one of each pair of side bars and having a laterally extending flange on its upper edge, said links having slots adjacent to their outer terminals, a hooked pin secured to the other of each pair of side bars, and a flanged support secured to the upper edge of the last mentioned side bars.

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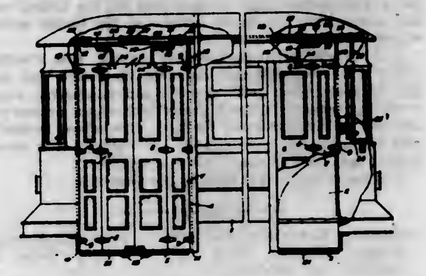
1,040,816. SCRAPER ATTACHMENT. GEORGE E. TUCKER, Springwater, N. Y., assignor of one-half to Ebenezer Robinson, Springwater, N. Y. Filed Feb. 23, 1912. Serial No. 679,287. (Cl. 37—7.)



1. In a device of the character described, the combination with a support, of a scraper blade pivotally mounted on said support, a plurality of adjustable plates arranged near the upper edge of the scraper blade, a pair of restraining springs connected with said adjustable plates for normally and resiliently resisting the pivotal movement of the scraper blade, and a plurality of springs acting substantially in opposition to said first named springs for holding the scraper blade in a predetermined position.

2. In a device of the character described, the combination with a supporting vehicle, of a pivotally mounted scraper connected with said supporting vehicle, a plurality of inwardly extending brackets connected with said supporting vehicle, a spring for each of said brackets connected therewith at one end and with the upper part of said scraper at the opposite end, and a pair of substantially oppositely positioned springs connected to the upper edge of the scraper and to said supporting vehicle in front of the scraper.

1,040,817. DOOR-OPERATING MECHANISM. THOMAS H. TUTWILER and ALFRED D. MCWHORTER, Memphis, Tenn. Filed Sept. 29, 1911. Serial No. 652,017. (Cl. 89—93.)



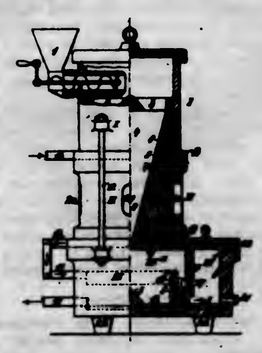
1. In a door operating mechanism, the combination of a door consisting of two parts hinged together, a shaft fixed to one of said parts, means for rotating said shaft, independent stationary guides extending angularly to one another, and slides on the other of said parts for engaging said guides.

2. In a door operating mechanism, the combination of a door consisting of two parts hinged together, a shaft fixed to one of said parts, means for rotating said shaft, independent stationary guides, and slides at different distances from the hinged connection on the other of said parts for engaging said guides.

3. In a door operating mechanism, the combination of a plurality of doors consisting of parts hinged together, shafts fixed to one of said parts of each door, a common means for simultaneously actuating said several shafts, slides on the other of said parts of each door, and independent stationary guides for engaging said several slides.

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1,040,818. ELECTRIC FURNACE. OTTO VOGEL, Wilmersdorf, Germany. Filed Feb. 11, 1910. Serial No. 543,334. (Cl. 204—64.)



1. In an electric resistance furnace for melting quartz and glass, the combination with two current terminals, of a melting chamber located between said terminals, a preparatory heating chamber located above said melting chamber for receiving the materials to be melted, a collecting chamber located below said melting chamber divided into three compartments, means for charging the materials to be melted into said preparatory heating chamber at approximately the rate at which the melted materials flow into said collecting chamber, whereby the materials to be melted are enabled to remain in said preparatory heating chamber for a protracted period exposed to the heat rising from said melting chamber, an electric heating resistance surrounding said melting chamber, and an electric heating resistance surrounding said collecting chamber, whereby the materials to be melted are heated and rapidly liquefied in said melting chamber and the liquid is heated to a still higher temperature as it flows progressively through the three compartments of said collecting chamber, and is thereby clarified and adapted for further manufacture, as set forth.

2. In an electric resistance furnace for melting quarts and glass, the combination with two current terminals, of a melting chamber located between said terminals having a lining of oxid of the rare metals which is refractory to the melting heat of quarts and is neutral to silicic acid with a thin backing of carbon and a layer of carbid of boron, or carborundum, behind said backing, a preparatory heating chamber located above said melting chamber for receiving the charge to be melted, wherein said charge is heated by the heat rising from said melting chamber, a collecting chamber located below said melting chamber for receiving the molten material therefrom, and an electric heating resistance surrounding said collecting chamber as set forth.

3. In an electrical resistance furnace for melting quarts and glass, the combination with two current terminals, of a melting chamber located between said terminals, having a lining of oxid of the rare metals which is refractory to the melting heat of quarts and is neutral to silicic acid, a preparatory heating chamber for receiving the charge to be melted, a collecting chamber for receiving the melted charge from said melting chamber, lined with a refractory oxid of the rare metals which is neutral to silicic acid, said collecting chamber being divided by two partitions into three compartments of which the front compartment has a bottom raised conically at its center, the first of said partitions being formed as an overflow from said front compartment into the intermediate compartment, and the second partition stopping short of the bottom, whereby the melted charge flowing down from said melting chamber is directed by said raised conical bottom toward said first partition over which it overflows into said intermediate compartment, and thence under said second partition into said third compartment, an electric heating resistance surrounding said melting chamber, and an electric heating resistance surrounding said collecting chamber, as set forth.

4. In an electrical resistance furnace for melting quarts and glass, the combination with two current terminals, of a melting chamber located between said terminals, having a lining of oxid of the rare metals which is refractory to the melting heat of quarts and is neutral to silicic acid, a preparatory heating chamber for receiving the charge to be melted, a collecting chamber for receiving the melted charge from said melting chamber, lined with a refractory oxid of the rare metals which is neutral to silicic acid, said collecting chamber being divided by two partitions into three compartments of which the front compartment has a bottom raised conically at its center, the first of said partitions being formed as an overflow from said front compartment into the intermediate compartment, and the second partition stopping short of the bottom, whereby the melted charge flowing down from said melting chamber is directed by said raised conical bottom in all directions down into said front compartment whence it overflows over said first partition into said intermediate compartment, and thence under said second partition into said third compartment, an electric heating resistance located in said first partition, an electric heating resistance located in said second partition, and an electric heating resistance surrounding said collecting chamber, and an electric heating resistance surrounding said melting chamber, as set forth.

5. In an electric resistance furnace for melting quarts and glass, the combination with two current terminals, of a melting chamber located between said terminals, a preparatory heating chamber for receiving the charge to be melted, an electric heating resistance surrounding said melting chamber, a collecting chamber for receiving the melted charge from said melting chamber, divided by two partitions into three intercommunicating compartments, an electric heating resistance for heating the first and second of said compartments, the third compartment having a cover and a tapping hole, and an electric heating resistance surrounding said tapping hole and said spout, as set forth.

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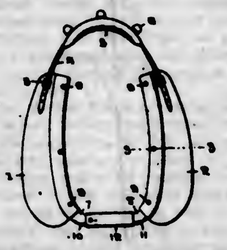
1,040,819. SAFETY SIDE POCKET. HENRY T. WARDNESS, Chicago, Ill. Filed May 20, 1912. Serial No. 698,436. (Cl. 2—15.)



As a new article of manufacture, a safety side pocket for trousers having a two part clasp secured to the sides of the pocket at a point adjacent to the lower cross seam of the pocket opening, and intermediate said opening and far edge of the pocket, the one part of the clasp being secured to one side of the pocket, and the other part secured to the opposite side and detachably secured to the first named part to form a deep seated recess, out of direct communication with said pocket opening but capable of being thrown into direct communication therewith when the two parts of the clasp are unclasped.

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1,040,820. ADJUSTABLE HORSE-COLLAR. EDWARD WALRATH, La Fargeville, N. Y. Filed Sept. 27, 1910. Serial No. 584,075. (Cl. 54—19.)



In combination with a horse collar adapted to be used with hames, side pads, a stiffening member comprising a piece of equidiametrical tubing secured to each side pad and adapted to be engaged by the hames, the lower ends of the stiffening members being bent at approximately right angles to their upper portions so that the said lower ends are rectilinear and in alinement with each other, a cylindrical sleeve surrounding and secured to one of said rectilinear ends, the other of said rectilinear ends being slidably seated in the sleeve and adapted to become properly adjusted therein by means of the inward pressure of the hames and the outward pressure of the horse's neck.

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1,040,821. HINGE STRUCTURE FOR SEAL-HOLDERS AND THE LIKE. THOMAS C. WARE, Tishomingo, Okla. Filed Mar. 20, 1912. Serial No. 685,046. (Cl. 16—11.)

1. In a device of the character described two members having like radial extensions, one terminating in a lateral

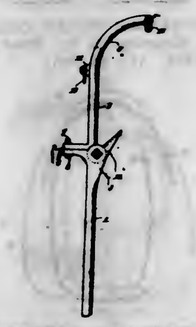
tongue and the other in two spaced lateral tongues between which the tongue of the first-named extension is adapted to fit, and all the tongues being provided with alining holes with the outer ends of the holes in the two spaced tongues counterbored, a pivot pin traversing the first-named tongue and the ends of said pin entering the holes in the spaced tongues to substantially the counterbores, said pin operating as a hinge pintle for connecting the two members together, and an incomplete sustaining ring exterior to said members and having its ends entering the counterbores in the outer ends of the spaced tongues and there lodged adjacent the ends of the pivot pin to hold the latter from accidental displacement.



2. In a device of the character described, a hinge structure comprising two coacting hinge members provided with alined holes having the outer ends counterbored, a pivot pin lodged in the holes and of a length to extend substantially to the counterbores, said pin operating as a hinge pintle for connecting the two hinge members together, and an incomplete sustaining ring exterior to said hinge members and having its ends entering the counterbores and there lodged adjacent the ends of the pivot pin to hold the latter from accidental displacement.

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1,040,822. BOAT-DAVIT. CHARLES E. WATSWORTH, Las Cascades, Canal Zone. Filed Jan. 12, 1912. Serial No. 670,804. (Cl. 9—22.)

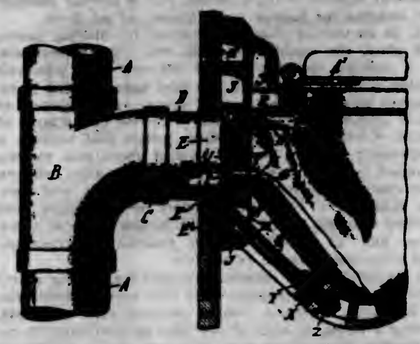


A boat davit comprising a vertical member having a pair of parallel ears and a socket intermediate the same, a curved upper member having an ear arranged in the socket, a pivoting bolt passing through said ears to pivotally connect said members, an angular supporting bearing carried by the first member and adapted to support the curved member at an obtuse angle to the first member, laterally extending supporting feet on said members adapted to abut each other when the members are in alinement, a locking pin passing through said feet and adapted to hold the feet together, a rope cleat carried by the curved member, and a lifting clevis carried by said curved member.

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1,040,823. SUPPORTING DEVICE FOR WATER-CLOSETS. EARL G. WATROUS, Chicago, Ill. Filed Sept. 8, 1911. Serial No. 648,268. (Cl. 137—94.)

1. A supporting device for water-closets of the class described, comprising a threaded hub adapted to have a screw connection with and be supported by the soil-pipe, and provided with a peripheral flange, a pair of bolts and nuts for connecting the upper part of the closet with the upper part of said flange on opposite sides of the hub, and a third bolt and nut for connecting the bottom of the closet with the bottom of said flange; substantially as described.



2. A supporting device for water-closets of the class described, comprising a threaded hub adapted to have a screw connection with and be supported by the soil-pipe, and provided with a peripheral flange, a pair of combined brackets and seat-post bolts with means for securing them to the closet, a pair of bolts and nuts for connecting said brackets with said flange on opposite sides of the hub, and a third bolt and nut for connecting the bottom of the closet with the lower side of said flange; substantially as described.

3. In the herein described supporting device for water-closets, comprising the threaded hub E having the peripheral flange E' and adapted to be connected with and supported by the soil-pipe, the brackets P P and bolts Q Q formed integral with each other and the seat-post nuts S S for securing them to the seat-shelf of the closet, the bolts N N and nuts T T for connecting the brackets P P with the flange E' of the hub E, and the bolt O and nut Z for connecting the bottom of the flange E' with the bottom of the closet; substantially as described.

4. The herein described supporting device for water-closets, comprising the threaded hub E having the peripheral flange E' provided with the sockets U U and W, the bolts N N adapted to be engaged with said sockets at their rear ends and to be secured to the closet at their front ends, and the bolt O adapted to be engaged with the socket W at its upper rear end and to be connected with the bottom of the closet at its lower forward end; substantially as described.

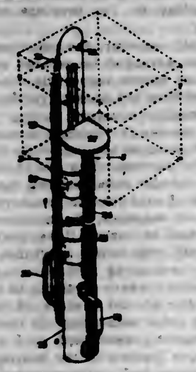
5. The herein described supporting device for water-closets comprising the threaded hub E having the peripheral flange E' provided with the sockets U U and W, the combined brackets and bolts P P and Q Q and the seat-post nuts S S for securing them to the seat-shelf of the closet, the bolts N N engaged at their rear ends with the sockets U U and connected at their front ends with the brackets P P by the nuts T T, and the bolt O engaged at its upper rear end with the socket W and provided at its lower forward end with the nut Z for connecting it with the bottom of the closet; substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

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1,040,824. BOX-LIFTER. GROVER WHALEN, Rochelle, La., assignor of one-half to William P. Thompson, Rochelle, La. Filed Sept. 28, 1911. Serial No. 650,892. (Cl. 87—112.)

1. A box lifter comprising a gripping rod having a tapered upper end and provided with a flat side having a longitudinally extending groove therein, a retaining rod provided with a flat side adapted to engage the flat side of the gripping rod, a track extended from the flat side of the retaining rod and operable in the groove of the gripping rod and a plate secured to the upper end of the retaining rod, the tapered end of the said gripping rod being adapted for insertion beneath the edge of a box cover and the said plate being adapted for engagement with the bang of a box.



2. In a box lifter, a gripping rod, a retaining rod for slidable engagement with the gripping rod, a band secured to the gripping rod and encircling the retaining rod, a second band secured to the retaining rod and encircling the gripping rod, a track formed on the said retaining rod and operable in a groove in the gripping rod, a plate secured to the upper end of the retaining rod and handles mounted on the lower ends of the said gripping rod and said retaining rod for operating the same.

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1,040,825. FOLDER FOR SEWING-MACHINES. JOHN P. WEIS and LOUIS KRUG, Nyack, N. Y., assignor to Metropolitan Sewing Machine Company, Nyack, N. Y., a Corporation of New York. Filed May 11, 1905. Serial No. 259,857. (Cl. 112—1.)



1. A folder for fabrics comprising a tapering, tubular body-portion provided with loops at the narrow end thereof, and tongues in said loops, said tongues being continuities of opposite portions of one of the walls of said body, and means for holding said tongues rigidly suspended in said loops, substantially as described.

2. A folder for fabrics comprising a tubular body-portion having one portion thereof flat and tapering therefrom to provide a reduced end-portion, loop-portions extended inwardly from opposite sides of the outer wall of said body at the tapered end thereof and forming loops, tongues forming continuations of the outer wall of said body entering said loops, and means for rigidly holding said tongues suspended within said loops.

3. A folder for fabrics comprising a tubular body-portion having its side edges cut away or notched between the ends thereof, tongues applied to the body-portion and formed so as to overhang the said notches, a portion of the tubular body being flattened and a portion of it being tapered and formed into loops, tongues suspended in said loops, and means for rigidly holding said tongues in said loops.

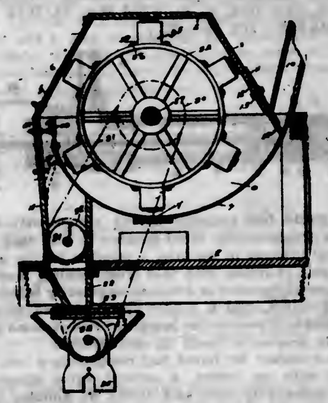
4. A folder for fabrics comprising a body-portion having a centrally located channel for receiving and guiding an edge of the fabric, a plurality of loops for receiving and guiding other portions of the fabric, tongues suspended in said loops, and means for rigidly securing the tongues in place.

5. A folder for fabrics comprising a body-portion formed to provide loops, tongues suspended in said loops, and means carried by the loop-portions whereby the tongues are rigidly held suspended in said loops.

[Claims 6 to 28 not printed in the Gazette.]

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1,040,826. MIXING DEVICE. IRA B. WHITE, Peoria, Ill., assignor of one-half to Albert D. Campbell, Peoria, Ill. Filed Sept. 14, 1911. Serial No. 649,280. (Cl. 99—2.)



1. In a mixing device, a casing having a plurality of compartments formed therein, each compartment adapted to have operative connection with a bin, a plurality of rotatable supporting members mounted in the compartments of said casing, means for rotating said supporting members, discharge chutes or spouts connected to said compartments, conveying devices on said rotary supports adapted to discharge into said chutes or spouts, means for varying the capacities of said conveying devices, and means for varying the sizes of the openings into the discharge chutes or spouts.

2. In a mixing device, a casing having a plurality of compartments formed therein, each compartment adapted to have operative connection with a bin, a plurality of rotatable supporting members mounted in the compartments of said casing, means for rotating said supporting members, discharge chutes or spouts connected to said compartments, conveying devices on said rotary supports adapted to discharge into said chutes or spouts, means for varying the capacities of said conveying devices, and deflecting means mounted in each of said discharge chutes or spouts so that material may be discharged from any one of the chutes to the outside of the machine for the purposes set forth.

3. In a mixing device, a casing, a plurality of partitions disposed therein in spaced relation to form compartments, a shaft extending through said casing, a plurality of rotatable supporting members mounted on said shaft and positioned in said compartments, supply inlets for each of said compartments, discharge outlets for each of said compartments, conveying buckets on each of said rotatable supporting members, means for varying the capacities of said conveying buckets, means for varying the size of the supply inlets and means for varying the size of the discharge outlets.

4. In a mixing device, a casing having a plurality of compartments formed therein, wheels mounted in said compartments, means for rotating said wheels, each of said compartments having discharge openings, means for varying and controlling said discharge openings, said

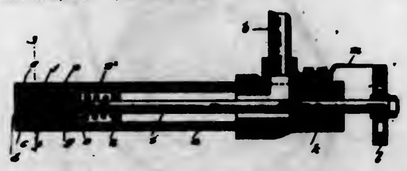
wheels each having a plurality of buckets mounted thereon, and each of said buckets being adjustable to control the capacity thereof.

5. In a mixing device, a casing, a plurality of partitions disposed therein in spaced relation to form compartments, inlets to each of said compartments adapted to be connected to storage bins, separate outlets from each compartment, conveying means disposed below said outlets, a shaft extending through said casing, a plurality of wheels mounted on said shaft in said compartments, and conveying buckets on said wheels, each of said buckets being adjustable to vary the capacity thereof.

[Claims 6 to 9 not printed in the Gazette.]

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1,040,827. LIQUID-FUEL ATOMIZER. WILLIAM A. WHITE, New York, N. Y. Filed Mar. 14, 1912. Serial No. 683,895. (Cl. 158—73.)

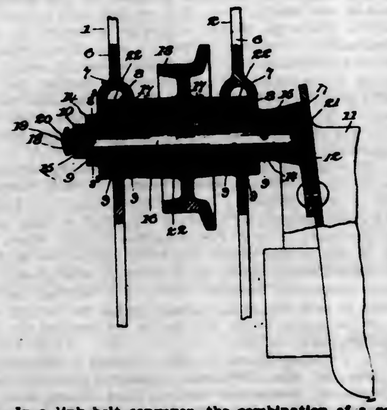


1. A liquid fuel atomiser having a tube with an exit orifice, a frusto-conical faced member in said tube having tangential grooves in its face, a member having a frusto conical seat co-acting with said frusto-conical faced member, a conical chamber of different angularity between said seat and orifice, and a needle valve adapted to seat in said chamber to receive the impact of fuel streams emitted from said grooves to break up said streams.

2. An atomizer for liquid fuel comprising a tube, a cap therefor with an orifice, a conical valve chamber extending rearwardly from said orifice, an annular inclined seat of different angularity extending rearwardly from said chamber, a needle valve adapted to seat in said conical chamber, a cylindrical member whose face forms the frustrum of a cone and fits against said inclined seat, longitudinal channels in said member for the passage of fuel, and grooves extending from the channels across said frusto-conical face and entering said conical chamber tangentially, together with a valve stem and means controlling said stem and valve.

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1,040,828. LINK-BELT CONVEYER. NEWTON BARTON WIDMAYER, Yonkers, N. Y. Filed Jan. 19, 1911. Serial No. 603,481. (Cl. 193—7.)



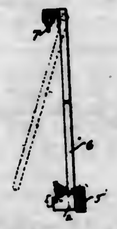
1. In a link belt conveyer, the combination of a series of buckets, chains arranged in parallel relation on each side of the buckets, wheels supporting the chains, through cross members between the buckets connecting the links of the several chains at points intermediate their ends, hollow axles for the wheels pivotally uniting the links of the chains and having projecting portions on which the buckets are trunnioned, said axles being provided with oil passages leading to the bearings of the members mounted thereon.

2. In a link belt conveyer, the combination of a series of buckets, chains arranged in parallel relation on each side of the buckets, wheels supporting the chains, through cross members between the buckets rigidly connecting the several chains, tubular members having the chain links, chain-supporting wheels and buckets mounted thereon and provided with oil passages leading to the bearings thereof, means securing the corresponding end of each of the chain links fast to the tubular members, and removable closures for the open ends of said tubular members.

3. In a link belt conveyer, the combination of two or more chains formed of forked links having overlapping ends provided with registering apertures, through cross members rigidly connecting the links, chain-supporting wheels and conveyer buckets arranged to turn about axes coinciding with the pivotal centers of the chain links, hollow oil-holding axles connecting the chain links, wheels and buckets operatively assembled, said axles being provided with passages leading to the bearings of the members mounted thereon, and means securing the forked end of the chain links fast to the axles.

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1,040,829. AUTOMATIC DOOR-GUIDE. JOHN D. WIMER, Manson, Iowa. Filed Feb. 12, 1912. Serial No. 676,951. (Cl. 16—89.)



1. In combination, a horizontally sliding and vertical swinging door, a fixed support disposed below the same, an integral approximately U shaped support having both transverse end portions pivotally connected with the fixed support so that the same may be swung in a vertical plane to assume upper and lower positions with relation to the door, one of the transverse end portions being extended to form an element to be engaged by the door to return the approximately U shaped support to its upper position, a spring connected with the approximately U shaped support to hold the same in its upper or lower position when moved to the same, and a roller mounted upon the longitudinal portion of the approximately U shaped support and adapted, when the approximately U shaped support is in its upper position, to rotate upon a vertical axis in engagement with the door.

2. In combination, a horizontally sliding and vertically swinging door, a fixed support disposed near and below the door, a pivoted support connected with said fixed support and adapted to be moved to substantially vertical and horizontal positions, a roller mounted upon the pivoted support and adapted, when the pivot support is in its substantially vertical position, to rotate upon a substantially vertical axis in engagement with the door to permit of the free longitudinal movement of the door and normally prevent the vertical swinging of said door, and a spring to normally hold the pivoted support in either position when moved thereto.

3. In combination with a door, an automatic guide therefor comprising a bracket having a slot therein, a supporting member pivotally mounted in said bracket, lugs carried by the supporting member adapted to move in the slot aforesaid, the extremities of which forming limits of movement of the supporting member, a roller bearing secured to the supporting member and adapted to guide the door in its normal movement, said bearing being yieldable to release the door upon abnormal movement thereof, a spring connected to the bearing and tending to swing the same to the limit of its movements, and means operable by the door to restore the bearing from abnormal position to normal position for guiding the door.

4. In combination, a horizontally sliding and vertically swinging door, a fixed support disposed near and below the door, a pivoted support connected with said fixed support and adapted to be moved to substantially vertical and horizontal positions, a roller mounted upon the pivoted support and adapted, when the pivoted support is in its substantially vertical position, to rotate upon a substantially vertical axis in engagement with the door to permit of the free longitudinal movement of the door and normally prevent the vertical swinging of the same, a spring to normally hold the pivoted support in either position when moved thereto, the pivoted support being moved to its substantially horizontal position by the door swinging outward in engagement with the roller, and an element attached to the pivoted support to be engaged by the door upon its inward swing to swing the pivoted support to its substantially horizontal position.

5. The combination, with a horizontal sliding and vertically swinging door, of a vertically swinging pivoted support disposed below the door, a roller mounted upon the pivoted support to rotate upon a vertical axis in engagement with the door, when the pivoted support is in its vertical position, to allow of the free longitudinal sliding of the door and normally hold it against swinging movement, and means to positively limit the swinging movement of the pivoted support in both directions.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,830. SECTIONAL ELECTRODE. ARTHUR M. WILLIAMSON, Niagara Falls, N. Y., assignor to International Acheson Graphite Company, Niagara Falls, N. Y., a Corporation of New Jersey. Filed Mar. 4, 1912. Serial No. 681,823. (Cl. 204—64.)



1. In a sectional electrode, a plurality of graphite sections with an interposed joining member also of graphite, said joining member of finer grain than the said sections.

2. In a sectional electrode, a plurality of carbon sections with an interposed joining member also of carbon, said joining member of greater specific tensile strength than the said sections.

3. In a sectional electrode, a plurality of carbon sections with an interposed joining member also of carbon, said joining member having a greater specific electrical conductivity and tensile strength than the material of the said sections.

4. In a sectional electrode, a plurality of carbon sections with an interposed joining member also of carbon, said joining member of finer grain and having a greater specific electrical conductivity and tensile strength than the material of the said sections.

5. In a sectional electrode, a plurality of carbon sections with an interposed joining member also of carbon, said joining member consisting of a plurality of pieces having a greater specific tensile strength than the said sections.

[Claim 6 not printed in the Gazette.]



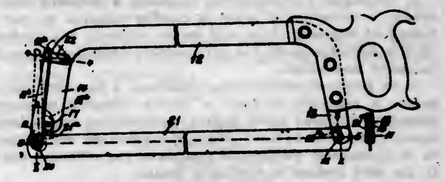
1,040,831. BUTTON. DANIEL C. WOLF, Philadelphia, Pa. Filed July 8, 1911. Serial No. 637,451. (Cl. 24—97.)



A button, comprising a head having a shank threaded throughout its extent and formed with a bifurcated end, a base, a lug of the same width as said shank formed centrally on the base projecting from one side thereof and entering said bifurcation and having screw threads adapted to coöperate with the screw threads on the shank, a pivot connecting the lug in the bifurcated end of the shank, whereby said base may swing in parallel relation thereto, and a disk surrounding the shank and engaging the threads, whereby the same may be screwed onto the bifurcated end of the shank for engagement with the lug to prevent swinging of the base.

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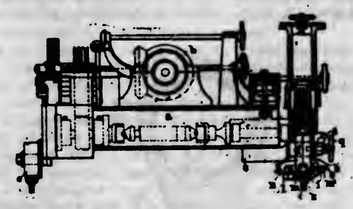
1,040,832. HANDSAW. JOSEPH WOOD, Everett, Mass. Filed Dec. 1, 1911. Serial No. 663,834. (Cl. 145—33.)



A saw frame, having slotted arms adapted to receive the end portions of a saw blade, and means for engaging and straining the blade, the blade-receiving slots being obliquely arranged and adapted to deflect the portions of the blade inserted therein.

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1,040,888. RAIL-DRESSING MACHINE. MICHAEL WOODS, Carlton, and THOMAS JEFFERSON GILBERT, Brunswick, Victoria, Australia. Filed Mar. 11, 1911. Serial No. 613,790. (Cl. 51—12.)

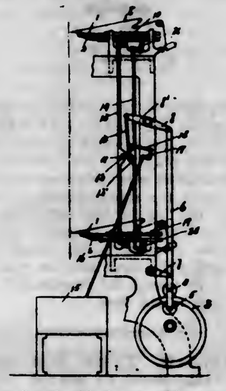


1. In rail dressing machines, a combined carriage and holder secured to the machine, dressing means carried thereby, and a series of supporting rollers mounted upon said combined carriage and said rollers being directly in line with the dressing means holder and adapted to form an extended and multiple contact support.

2. In rail dressing machines, a tool attachment secured to the machine, dressing means carried thereby, a series of supporting rollers adjacent to said dressing means and directly in line therewith, and side rollers which contact with the rail being treated adjacent to said dressing means.

3. In rail dressing machines, a tool attachment secured to the machine, dressing means carried thereby, a bracket supported by said attachment, supporting rollers mounted upon said bracket, and adapted to form an extended multiple contact support and means carried by said bracket for laterally adjusting the tool attachment.

**1,040,824. JACQUARD EMBROIDERY-MACHINE.** ROBERT ZAHN, Plauen, Germany. Filed Oct. 2, 1911. Serial No. 652,812. (Cl. 112—7.)



1. In jacquard embroidering machines, a jacquard mechanism, a plurality of rows of needles adapted to carry thread of different color, and means whereby the needles of the different rows are alternately controlled by said jacquard mechanism.

2. In jacquard embroidering machines, a jacquard mechanism, a plurality of rows of needles adapted to carry thread of different color, motion transmitting means, and means controlled by said jacquard mechanism and adapted to alternately couple the needles of the different rows to the said motion transmitting means.

3. In jacquard embroidering machines, a jacquard mechanism, a plurality of rows of needles adapted to carry thread of different color, driven means, motion transmitting means for the needles of each row, a coupling means between said first named means and the latter means, and means controlled by said jacquard mechanism and operatively connected to said coupling means to effect an alternate coupling of the driven means with the motion transmitting means of the different needle rows.

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**1,040,835. WRENCH.** CHARLES ABRAMS, Suffern, N. Y. Filed Nov. 13, 1911. Serial No. 659,904. (Cl. 81—61.)



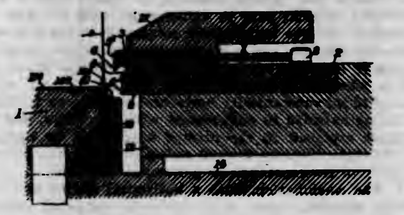
1. In a wrench, a handle, a head at the end of said handle, nut engaging means mounted in said head, an eye carried by said head, a plate fitting upon said head and holding said nut engaging means in place, a tongue extending from said plate parallel to said eye, a band connecting the tongue and eye, and a second band surrounding the inner end of said head and plate.

2. A wrench provided with a head having a transversely extending opening formed therethrough, a nut engaging piece rotatably mounted in said opening, an eye formed upon one end of said head, a side plate for said head, a tongue formed upon one end of said plate, a collar connecting the tongue and eye, and a second collar surrounding the opposite end portions of said head and plate.

3. A wrench provided with a head having a transversely extending opening, a nut engaging piece rotatably mounted in said opening, a side plate for said head holding said nut engaging piece in position, a tongue extending from said plate, an eye carried by said head, a collar connecting said tongue and eye, and a band at the opposite end portion of said head and plate holding said plate in position.

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**1,040,836. MACHINE FOR SEAMING AND FOLDING THE EDGES OF SHEET METAL FOR AND IN THE MANUFACTURE OF BOXES, CANISTERS, AND THE LIKE.** FRANK EDWARD ADAMS, Bromborough, England. Filed June 21, 1910. Serial No. 568,125. (Cl. 113—18.)



1. A machine for seaming and folding the edges of sheet metal for and in the manufacture of boxes, canisters and other articles, comprising operative tools composed of upper and lower parts movable relatively to each other and together to and from the work, the lower part having an inclined face; a lower edge and a recessed part; and the upper part having a downwardly projecting portion which is always disposed between the inclined face and the work and moves to and from such face and the work; the lower edge serving to fold the bottom flange over the flange on the body, the projecting portion serving to hold the work and as a fulcrum when the inclined face bears against the flanges for folding them about the fulcrum, and the recessed portion serving for receiving the folded flanges during the squeezing operation, the work being held by the projecting portion.

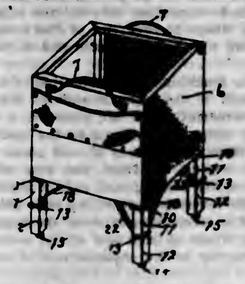
2. A machine for seaming and folding the edges of sheet metal for and in the manufacture of boxes, canisters and other articles, comprising operative tools composed of upper and lower parts movable relatively to each other and together to and from the work, the lower part having an inclined face; and the upper part a downwardly projecting portion which is disposed between the inclined face and work during the whole of the operations of seaming and folding; and means for effecting a plurality of squeezing operations against the lower part.

3. A machine for seaming and folding the edges of sheet metal for and in the manufacture of boxes, canisters and other articles, comprising operative tools composed of upper and lower parts and springs, the one part being slidable on and relatively to the other and both parts being movable together to and from the work, the lower part having an inclined face, a lower edge and a recessed portion; and the upper part having a downwardly projecting portion which is always disposed in front of the inclined face and is moved away from such face by the springs and moved toward the face when the tools are moved toward the work and the springs are compressed; the lower edge serving to fold one flange on the other, the inclined face serving to fold the flanges about the projecting portion which serves to hold the work, and the recessed portion for receiving the folded flanges for squeezing.

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**1,040,837. CLOTHES-BASKET.** ELISABETH J. ADNEY, Kansas City, Mo. Filed Aug. 26, 1911. Serial No. 646,158. (Cl. 220—135.)

A device of the character described comprising a receptacle, the bottom of said receptacle being provided at each corner thereof with an aperture, said aperture having one wall thereof beveled, hinged sectional legs for said receptacle, a brace secured to each of said legs and engaging one edge of said aperture, and a second brace secured to each of said legs and hinged to the bottom of said receptacle.



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**1,040,838. PLASTIC-METAL COMPOUND.** CHARLES L. ALEXANDER, Charlotte, N. C. Filed Apr. 26, 1910. Serial No. 557,749. (Cl. 106—6.)

1. A mass composed of metal in a finely divided state presenting interstices filled with a waxy binder capable of plasticity at a temperature which will not cause discomfort when applied to a part of the human anatomy and of being solidified when cold.

2. A mass composed of metal in a finely divided state presenting interlying interstices filled with a waxy binder capable of being manipulated to move the metal parts one upon the other without separation or adhesion when warmed to a temperature which will not cause discomfort when applied to a part of the human anatomy and of becoming less plastic as it is cooled.

3. A mass composed of metallic particles having its interstices filled by a waxy binder capable of plasticity at a temperature which will not cause discomfort when applied to a part of the human anatomy and of being solidified when cold.

4. A mass composed of metallic particles and a plastic binder adapted to be entirely dissipated by heat of such consistency as to permit the mass to be manipulated to move the particles one upon the other without separation or adhesion when warmed to a temperature which will not cause discomfort when applied to a part of the human anatomy and of becoming less plastic as it is cooled.

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**1,040,839. STITCHED BUTTONHOLE.** EDWARD B. ALLEN, Bridgeport, Conn., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed June 20, 1911. Serial No. 634,284. (Cl. 112—34.)

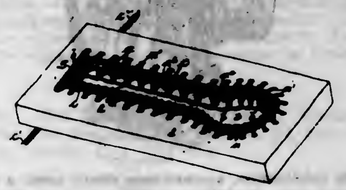


1. A fabric having a stitched buttonhole comprising an overseam extending along both edges and around an end of the same, and a cord embraced within said overseam and overlying the outer or exposed face of the fabric and having its extremities at the opposite end of the buttonhole covered and concealed by said overseam.

2. A fabric having a stitched buttonhole comprising a continuous overseam extending along both edges and across an end of the same, and a cord embraced within said overseam and overlying the outer or exposed face of the fabric with its extremities at the opposite end of the buttonhole covered and concealed by overseam stitches whose component threads are continuous with those of the adjacent stitches along the edges of the buttonhole.

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**1,040,840. STITCHED BUTTONHOLE.** EDWARD B. ALLEN, Bridgeport, Conn., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed June 20, 1911. Serial No. 634,285. (Cl. 112—34.)



A fabric having a stitched buttonhole formed with a slit having an overseam extending along both edges thereof, and a cord embraced within said overseam upon one face of the fabric and having its opposite extremities drawn through said slit and anchored upon the opposite face of the fabric.

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**1,040,841. HAT-PIN PROTECTOR.** PETER H. ALPP, New York, N. Y. Filed Jan. 27, 1912. Serial No. 673,784. (Cl. 24—155.)



1. A protector for the points of ladies' hat-pins, comprising an exterior shell, a conical inwardly tapering diaphragm at the entrance end of said shell, said diaphragm being provided with a center-opening and a notched edge adjacent thereto, a spring-actuated jaw-lever fulcrumed adjacent to the center-opening of the diaphragm and provided with a biting jaw, a spring-actuated locking-lever whose upper end is placed in alinement with said center-opening for engaging the opposite end of the jaw-lever, said locking-lever being fulcrumed near the rear-end of the shell and adapted for engaging the jaw-lever and holding the jaw in unlocked position.

2. A protector for the points of ladies' hat-pins, comprising an exterior shell, a conical inwardly-tapering diaphragm at the entrance end of said shell, said diaphragm being provided with a center-opening and a notched biting edge adjacent thereto, a spring-actuated jaw-lever fulcrumed adjacent to the center-opening of the diaphragm and provided with a biting jaw adjacent to the notched edge of the opening, a spring-actuated locking-lever whose upper end is placed in alinement with said center-opening and whose lower end is fulcrumed to the rear-end of the shell adapted for engaging the opposite end of the jaw-lever, and means for producing the interlocking of the jaw-lever and locking-lever.

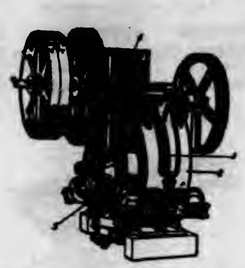
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**1,040,842. ROTARY PRESS.** JOHN T. ANDERSON, Davenport, Iowa, assignor to Davenport Machine & Foundry Co., Davenport, Iowa, a Corporation of Iowa. Filed Apr. 25, 1912. Serial No. 693,084. (Cl. 100—38.)

1. In combination, a continuous rotary press comprising a casing, disks consisting of a circular frame provided with integral gear teeth on one face and removably attached segments on the other face, and screens secured to said segments.

2. In combination, a continuous rotary press, a casing, disks within said casing, consisting of segments removably attached to a circular frame work, and screens secured to said segments.

8. In combination, a continuous rotary press, a casing squeesing disks consisting of a gear ring and removably attached segmental sections, and screens secured to said sections.



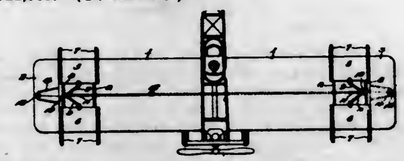
4. In combination, a continuous rotary press, a casing, squeesing disks provided with integral gear teeth on one side, an integral bevel ring and an annular groove on the other side, removably attached segments engaging said ring and groove and screens secured to said segments.

5. In combination, a continuous rotary press, a casing provided with a discharge opening, segmental squeesing disks within said casing removable and replaceable through said discharge opening, and screens secured to said segmental sections.

[Claim 6 not printed in the Gazette.]

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1,040,843. STABILIZER FOR FLYING-MACHINES. ERNST H. ANDRAE, Dallas, Tex. Filed Jan. 28, 1911, Serial No. 605,246. Renewed Aug. 1, 1912. Serial No. 712,769. (Cl. 244—29.)



1. In a flying machine, the combination of a main plane, upwardly movable wing tips at each end of the main plane, a pair of sliding stabilising wings at each end of the main plane movable outwardly beyond the front and rear edges of said plane, means for holding each pair of stabilising wings retracted, and an operating connection between the vertically movable tip at each end of the main plane and the sliding stabilising wings at the opposite end of said main plane.

2. In a flying machine, the combination of a main plane, upwardly movable wing tips at the opposite ends of said main plane, outwardly movable stabilising wings at each end of the main plane arranged to slide across said plane to be projected beyond the front and rear edges thereof, means for normally holding each pair of stabilising wings retracted, operating devices for projecting the same, and a connection between the operating devices of the stabilising wings at each end of the main plane and the wing tip at the opposite end of said main plane.

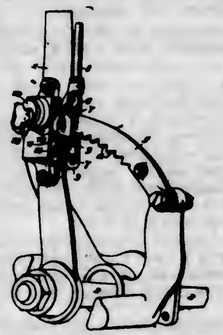
3. In a flying machine, the combination of a main plane, fore and aft movable stabilising elements at each end of the main plane, means for holding the same normally retracted, an actuating member at each end of the main plane movable upward under air pressure, and a connection between the actuating member at each end of the main plane and the stabilising element at the opposite end of the main plane for projecting the latter upon the upward movement of the former.

4. In a flying machine, the combination of a main plane, wing tips hinged to the opposite ends of the main plane for upward movement under air pressure, a pair of sliding stabilising wings at each end of the main plane normally lying within the confines of said plane and adapted for movement beyond the front and rear edges thereof, means for normally holding said stabilising wings retracted, toggle levers for projecting each pair of stabilising wings, and a connection between the toggle levers of the stabilising wings at each end of the main plane, and the hinged wing tip at the opposite end of the said main plane.

5. In a flying machine, the combination of a main plane, wing tips hinged to the opposite ends of the main plane for upward movement under air pressure, a pair of sliding stabilising wings at each end of the main plane normally lying within the confines of said plane and adapted for movement beyond the front and rear edges thereof, springs for normally holding each pair of stabilising wings retracted, toggle levers for projecting each pair of stabilising wings, and a connection between the toggle levers of the stabilising wings at each end of the main plane, and the hinged wing tip at the opposite end of the said main plane.

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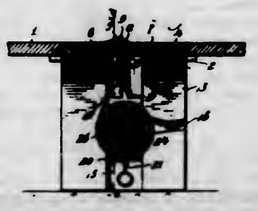
1,040,844. BRAKE-LEVER LOCK. PETER F. AUCHNBRAUN, Stamford, Conn., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Filed Sept. 9, 1909. Serial No. 516,984. (Cl. 74—89.)



The combination with a lever carrying a movable dog, and a toothed bar adapted to be engaged by said dog, of a fixed abutment located in the plane of a portion of said movable dog, and a lock secured to the lever and having a bolt adapted to be projected between said fixed abutment and the movable dog and engage both.

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1,040,845. COUNTER PAPER-CUTTER. JOSEPH L. BABBE, Wyndal, W. Va. Filed Jan. 23, 1912. Serial No. 672,807. (Cl. 211—82.)



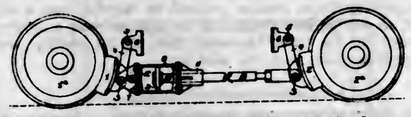
1. A counter paper cutter embodying a frame including depending sides, said sides being provided with vertically arranged ways, a paper roll supporting carriage within the ways, resilient members supporting the carriages, the top of the frame being provided with a longitudinally extending depression, one of the walls provided by the depression being rounded from the lower face of the top toward the upper face thereof, the adjacent wall being tapered to a point which is arranged approximately central of the rounded wall, an apron upon the upper face of the top and upon the upper face of the tapered wall, the top being provided with an annularly arranged depressed portion, a cutting element comprising a flat member which is received within the recess, and a rounded cutting edge which is arranged adjacent the apron, the said apron adapted to receive and guide the paper from the roll and means for adjustably sustaining the cutting member against the paper upon the apron.

2. In a device for the purpose set forth, the combination with a counter having an opening, of cleats partially closing the opening, a rectangular frame supported upon the cleats and having its top portion arranged in a plane with the counter, the said top having a centrally arranged longitudinally extending slit, an apron for one of the walls provided by the slits, a knife co-acting with the apron, means for adjusting the knife with relation to the apron, the side members of the frame being provided with ways, carriages within the ways, a spring member supporting each of the carriages, each of said carriages being provided with a depending stem, a paper roll having its core trunnioned upon the carriages, and the paper from the roll adapted to be fed upon the apron and to be contacted by the knife substantially as described.

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1,040,846. FLUID-PRESSURE BRAKE FOR RAILWAY-CARS. EDWARD A. BARBER, York, Pa., assignor to Barber Car Company, York, Pa., a Corporation of Pennsylvania. Filed Mar. 30, 1912. Serial No. 687,522. (Cl. 188—45.)



Car brake mechanism in which are combined, opposite brake shoes, a cylinder having pivotal connection with one of said brake shoes, and a piston in said cylinder having a rod which is in pivotal connection with the opposite brake shoe, said pivotal connection providing the sole support for the cylinder and piston.

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1,040,847. HOLDBACK FOR THILLS. JACOB V. BAYER, Owosso, Mich. Filed May 20, 1912. Serial No. 698,504. (Cl. 21—27.)



1. The combination with a notched bar of a slide having slots and movable relatively thereto to bring said notches into and out of register with the slots, and means for holding said slide against accidental displacement in either register or non-register position.

2. A holdback comprising a notched bar, a slide having slots adapted to register with the notches of the bar, and movable longitudinally thereof, and a spring secured to one member and having a hook shaped end adapted to engage the other member to hold said slide against accidental displacement relatively to the bar in either register or non-register position.

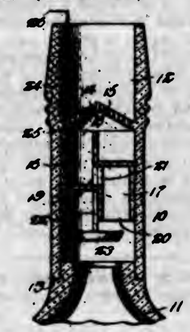
3. A holdback comprising a notched bar, a slide having slots adapted to register with the notches of the bar, and movable longitudinally thereof, and a spring secured to said slide and having a hook shaped end adapted to engage said bar for holding the slide against accidental displacement relatively to the bar in either register or non-register position.

4. The combination with a channeled holdback casing having a series of notches, of a slide having slots adapted to register with the notches of said casing, a spacing member disposed between the free edge portions of the channel member and having inclined abutment faces, and a spring secured to the slide and having a hook shaped end to engage said abutment face to prevent accidental displacement between the slide and said casing.

5. The combination with a casing formed of sheet metal and bent to form a trough with substantially parallel sides, and having notches in its connecting bend-portion and extending into said parallel sides, and a spacer member disposed between the free edges of the casing sides, of a slide mounted for longitudinal movement in said casing and having slots adapted to register with the notches of said casing, and means for locking said slide against accidental displacement in either direction.

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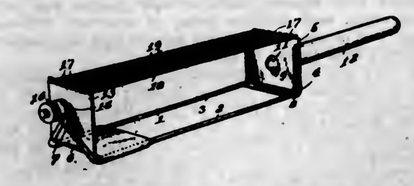
1,040,848. NON-REFILLABLE BOTTLE. HENRY C. BECKER, Fort Riley, Kans. Filed Feb. 24, 1912. Serial No. 679,591. (Cl. 215—69.)



In a non refillable bottle, the combination with a bottle body, of a neck thereon, an apertured conical guard plate formed within the said neck, a stationary valve member secured within the said neck and provided with a plurality of openings, a slidable valve member mounted within the said neck and provided with a plurality of openings, one of the openings in the said slidable valve member being adapted to register with one of the openings of the stationary valve member when the slidable valve member is moved into open position, a rod mounted to depend from the under side of the slidable valve member, a stopper secured to the lower end of the said rod and movable with the said slidable member and a frangible rod provided with a weakened portion and extended upwardly from the said slidable valve member to project exteriorly of the said neck for permitting an initial raising of the said slidable valve member when an upward pull is exerted on the said frangible rod.

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1,040,849. COMB-CLEANING DEVICE. JOSEPH BERCHA, Beatrice, Nebr. Filed Feb. 14, 1911. Serial No. 608,545. (Cl. 132—17.)



A device of the class described comprising a pair of parallel legs having upturned ends, a stationary head secured to said ends, the opposite ends of the legs being connected together, a loop in said connection, a second head slidably mounted on said legs, outwardly extending projections on said heads, a flexible wire looped back and forth between the projections, a bolt carried by the

movable head and passed through the loop, a knurled adjusting nut on the bolt bearing against the loop, and a handle rigidly secured to the stationary head.

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1,040,850. PROCESS OF PREPARING CONDENSATES FROM CASEIN, PHENOLS, AND FORMIC ALDEHYDE AND THE PRODUCT OBTAINED THEREBY. LUDWIG BERNED, Wiesbaden, Germany. Filed July 15, 1911. Serial No. 638,789. (Cl. 106—22.)

1. The process of producing a condensation product of casein, a phenol, and formaldehyde which comprises condensing a solution of casein in a phenol with a formaldehyde-yielding substance.

2. The process of producing a condensation product of casein, a phenol, and formaldehyde which comprises dissolving a casein in a phenol, and condensing the resulting solution with formaldehyde.

3. The process of producing a condensation product of casein, a phenol and formaldehyde which comprises heating a mixture of casein, a phenol, and an alkali until a clear solution is obtained, and condensing the resulting solution with a formaldehyde-yielding substance.

4. The process of producing a condensation product of casein, phenol and formaldehyde which comprises dissolving a casein substance in a phenol, condensing such solution with a formaldehyde-yielding substance until a rosin-like condensation product is obtained, and purifying the resulting product by boiling with water.

5. As a new product a condensation product of casein, a phenol and formaldehyde free from uncombined casein.

[Claim 6 not printed in the Gazette.]

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1,040,851. DISCUS. WILHELM BERG, Erlenstegen, Germany. Filed Apr. 22, 1912. Serial No. 692,473. (Cl. 46—69.)



1. As a new article of manufacture, a discus comprising the combination of a ring provided with an interiorly projecting portion, a plurality of members positioned within said ring and adjacent such portion and means for securing said members relative to said ring.

2. As a new article of manufacture, a discus comprising the combination of a ring provided with an interior annular projection, a pair of disks disposed on opposite sides of said projection and means for fixing said disks to each other.

3. As a new article of manufacture, a discus comprising the combination with an annular member, of a pair of fibrous disks inclosed by said member, the fibers of said disks extending transversely with respect to each other.

4. As a new article of manufacture, a discus comprising the combination with an annular member provided with a radially projecting portion, intermediary members contiguous with opposite sides of said portion and with each other, said members being of relatively different grain, and means for fixing said annular and intermediary members with respect to each other.

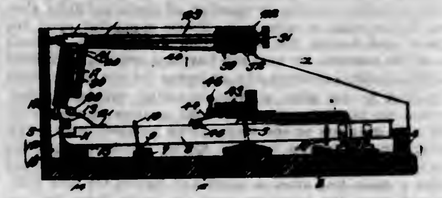
5. As a new article of manufacture, a discus comprising the combination of a ring, a plurality of members interiorly contiguous thereto, a weighting member centrally disposed relative to such other members and said ring, and means for simultaneously securing each of said members relative to said weighting member and ring.

[Claims 6 to 9 not printed in the Gazette.]

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1,040,852. PRACTICE-CLAVIER. AMOS C. BERGMAN, New York, N. Y. Filed June 7, 1910. Serial No. 565,633. (Cl. 84—92.)

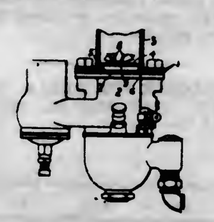
1. A practice clavier comprising a casing having a recessed front strip, a touch bar, a regulating rod having an actuating portion located at one side of the recess, connections between the touch bar and the rod and including a follower mounted to travel on the rod, a pointer in the recess of the strip, a dial plate movably supported by the strip and having a portion disposed beneath the recess and graduated to co-act with the pointer, and a rod movably connected at one end to the dial and movably connected at its opposite end to the follower.



2. The combination with a practice clavier including a casing having a recessed front bar, a touch bar, a practice key and a spring carried by the touch bar and bearing against the practice key, of a graduated dial pivoted to the recessed front bar of the casing, a regulating rod revolubly mounted in the casing and having an actuating portion extending through the recessed front bar, a follower adapted to travel on the regulating rod and operatively connected with the touch bar to move the same when movement is imparted to the follower, a rod having a depending front portion pivoted to the dial and a depending rear portion pivoted to the follower, and a pointer located on the front recessed bar of the casing and adapted to co-act with the said dial.

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1,040,853. MIXER FOR GASEOUS FUEL. WILBUR W. BERGOLD, Canton, Ohio, assignor of one-half to J. M. Bergold, Canton, Ohio. Filed Jan. 5, 1912. Serial No. 669,530. (Cl. 48—180.)



1. A mixer for carbureters, comprising a gauze intercepting disk provided with an offset rim portion, flanged rim members mounted above and below said offset rim portion of said gauze intercepting disk, and upwardly and laterally inclined stationary deflecting blades secured above said intercepting disk.

2. A mixer for carbureters, comprising a gauze intercepting disk provided with stationary deflecting blades and having an offset rim portion, a rim and gasket member mounted beneath said rim portion, and a flanged rim member mounted above said gauze intercepting disk.

3. A mixer for carbureters, comprising a gauze intercepting member provided with openings, and stationary deflecting blades carried by said intercepting member and extending above said openings.

4. A mixer for carbureters, comprising a gauze intercepting disk provided with a plurality of openings, and a plurality of inclined stationary blades secured above said disk and extending above said openings.

5. A mixer for carbureters, comprising a gauze intercepting disk having a plurality of openings and provided with a gasket adapted to be inserted in the outlet portion of the carbureter, and similarly inclined radially extending stationary deflector blades secured above said openings and carried by said disk.



1,040,854. CORN-HUSKER. HERMAN RAGSDALE, Alpena, Mich. Filed Mar. 19, 1911. Serial No. 615,597. (Cl. 130—4.)



In a corn husker comprising a pair of pivotally connected curved jaws, a handle carried by each jaw and projecting at right angles to the plane of opening of said jaws and straps secured to the handles, the ends of said jaws being curved and formed with opposing serrations adapted to grip the husk when the jaws are closed.

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1,040,855. OVEN. LEWIS F. BETTS, New York, N. Y., assignor to Abbot A. Low, Horseshoe, N. Y., and Maurice J. Wohl and Harry Hertzberg, Brooklyn, N. Y., trustees. Filed Apr. 18, 1910. Serial No. 556,043. (Cl. 126—275.)

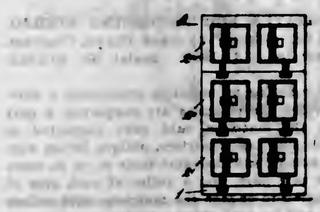


1. A portable oven, consisting of a sheet metal box having, in combination side and end walls, a bottom part, provided with a hot air inlet and a horizontal partition extending between the end walls and having one end spaced from one of said end walls to form an air passage, a second horizontal partition comprising a shelf and supporting ledges for said shelf, each of said ledges having their marginal edges bent back horizontally upon themselves and then upward and downward to form angular slide ways, one of said ledges having an opening, and said oven having an outlet in its upper portion whereby the heated air will travel in zig zag fashion through the oven.

2. A portable oven, consisting of a sheet metal box having in combination, side and end walls, a plurality of partitions within said walls, one of said partitions comprising a shelf and supporting ledges for said shelf, said ledges having their marginal edges bent back, horizontally upon themselves and then upward and downward to form angular slide ways.

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1,040,856. APPARATUS FOR CONSTRUCTING HOLLOW CEMENT MONOLITHS OR BLOCKS. ELIA BIANCHI, Milan, Italy. Filed Apr. 11, 1910. Serial No. 554,788. (Cl. 25—121.)



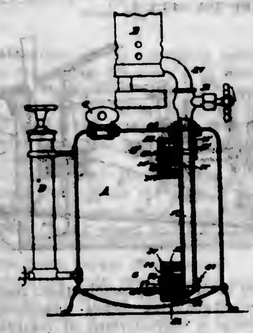
1. A dismantable block mold consisting, in combination, of a base; pairs of opposed vertical side walls hinged at their lower edges to the marginal edges of the base, one pair of walls comprising a series of edgewise superposed sections having their mutually-adjacent horizontal edges hinged together; a vertical partition wall hinged at its lower edge to said base and arranged between and in spaced parallel relation to said pair of walls; and removable connections between said partition wall and the adjacent sections of said side walls.

2. A dismantable block mold consisting, in combination, of a base; pairs of opposed vertical side walls hinged at their lower edges to the marginal edges of the base, one pair of walls comprising a series of edgewise superposed sections having their mutually-adjacent horizontal edges hinged together; a vertical partition wall hinged at its lower edge to said base and arranged between and in spaced parallel relation to said pair of walls; and oppositely-extending pairs of connecting devices attached at their inner ends to the vertical edges of said partition wall and having their outer ends removably engaged with the vertical edges of the adjacent sections of said side walls.

3. A dismantable block mold consisting, in combination, of a base; pairs of opposed vertical side walls hinged at their lower edges to the marginal edges of the base, one pair of walls comprising a series of edgewise superposed sections having their mutually-adjacent horizontal edges hinged together, the corresponding sections of said pair of walls being formed with registering core openings; a vertical partition wall hinged at its lower edge to said base and arranged between and in spaced parallel relation to said pair of walls, said partition wall being formed with a vertical series of core openings which register with the core openings in the adjacent sections of said pair of walls; cores removably arranged within said mold and extending through the registering openings in said partition and side walls; and removable connections between the vertical edges of said partition wall and the vertical edges of the adjacent sections of said side walls.

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1,040,857. HAND-TORCH. FRANK C. BINKLEY, Sycamore, Ill. Filed Oct. 2, 1911. Serial No. 652,250. (Cl. 158—33.)

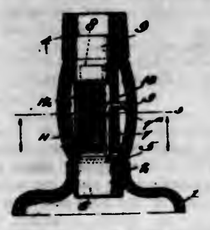


A hand torch, comprising, in combination, a tank, means for forcing air into said tank, a burner above said tank, a supply-pipe in said tank reaching close to the bottom thereof, a stop-valve located at the outside of said tank and connecting with said supply-pipe and said burner, two casings in screw-threaded engagement with said supply-pipe, one of which is located at the lower end of said supply-pipe, the other of said casings being located at the upper end of said supply-pipe, each of said casings having a cylindrical bore located at the side of said supply-pipe, a screw-threaded plug in said bore, a valve-seat on said plug within said bore, a disk-valve in said bore, a stem to which said disk-valve is secured, said stem projecting beyond the outer end of said plug, and a weight at the outer end of said stem, the lower one of said casings being up

wardly turned and the upper one being downwardly turned, as specified.

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1,040,858. NON-REFILLABLE BOTTLE. FERDINAND BLACK, New Orleans, La., assignor of thirty one-hundredths to Otto Lerch, New Orleans, La. Filed June 7, 1912. Serial No. 702,313. (Cl. 215—67.)

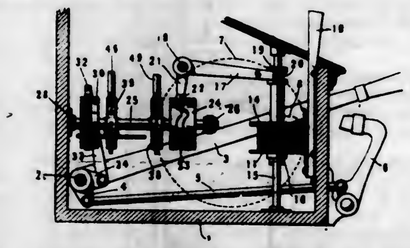


1. A non-refillable bottle, comprising a neck having the lower portion adapted to receive the cork, a barrel-shaped intermediate portion, a lock consisting of a hollow plug perforated at one side, a slotted plug adapted to slide into said hollow plug, and a bent wire mounted partly in said slot, and having a short arm projecting through said perforation in the outer plug, substantially as described.

2. A non-refillable bottle, comprising a neck having the lower portion adapted to receive the cork, a barrel-shaped intermediate portion, a lock consisting of a hollow plug perforated at one side, a slotted plug adapted to slide into said hollow plug, and a bent wire mounted partly in said slot, and having a short arm projecting through said perforation in the outer plug, and engaging in the inside of the barrel portion of said neck, substantially as described.

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1,040,859. WORKMAN'S TIME-RECORDER. ROBERT S. BLAIR, New Rochelle, N. Y., assignor to International Time Recording Company of New York, Endicott, N. Y., a Corporation of New York. Filed Sept. 25, 1907, Serial No. 394,513. Renewed Mar. 29, 1911. Serial No. 617,738. (Cl. 234—43.)



1. In a time recorder, in combination, record forming mechanism, record-changing means comprising a spring adapted to change a characteristic of records formed by said mechanism, hand actuated means adapted to distort said spring, and clock-controlled means adapted to release said spring to actuate said record-changing means, said clock-controlled means being formed and driven to release said spring only at the beginning and terminal points of periods of labor.

2. In a time recorder, in combination, printing wheels, a multi-colored ribbon mounted adjacent said printing wheels, means comprising a spring adapted to shift said ribbon to change the color thereof in operative relation to said printing wheels, hand actuated means adapted to distort said spring, and clock-controlled means adapted to release said spring to actuate said ribbon shifting means.

3. In a time recorder, in combination, printing wheels, a multi-colored ribbon mounted adjacent said printing wheels, means comprising a spring adapted to shift said ribbon to change the color thereof in operative relation to said printing wheels, hand actuated means adapted to distort said spring, and clock-controlled means adapted to release said spring to actuate said ribbon shifting means, said clock-controlled means being formed and driven to release said spring at the beginning and terminal points of periods of labor.

4. In a time recorder, in combination, record forming mechanism, means comprising a source of power potentially adapted to change a characteristic of records formed by said mechanism prior to the beginning and terminal points of periods of labor, and clock-controlled means adapted only at the beginning and terminal points of said periods of labor to render operative said source of power.

5. In a time recorder, in combination, printing wheels, a multi-colored ribbon mounted adjacent said wheels, means comprising a spring adapted to shift said printing ribbon in a direction to change the color of the portion thereof in operative relation to said wheels, hand actuated means adapted to distort said spring prior to the beginning and terminal points of periods of labor, and clock-controlled means adapted to release said spring to shift said ribbon at said beginning and terminal points, said spring being adapted upon being distorted to store power to shift said ribbon a plurality of times.

[Claims 6 to 18 not printed in the Gazette.]

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1,040,860. PORTABLE PENCIL-HOLDER. WILLIAM D. BLAKER, Indianapolis, Ind. Filed Sept. 16, 1911. Serial No. 649,720. (Cl. 120—8.)



A pencil holder comprising a base, a rigid stem rising centrally from said base, a closely coiled spring having one end fixed to the upper end of said stem and forming a guideway in its center, a sleeve fixed to the opposite end of said spring and having a slot in one side, a spring catch mounted upon the sleeve and normally passed through the slot to project interiorly on the sleeve, a chain having one end portion passed through the sleeve into said guideway in the spring and adjustably engaged by said catch, and means at the other end of the chain for connecting a writing instrument therewith.

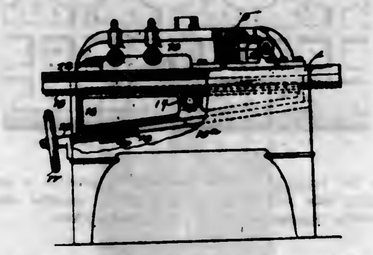
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1,040,861. APPARATUS FOR PREPARING STEREOTYPE-MATRICES. JOHN PARKINSON BLAND, Clapham, England. Filed Jan. 13, 1909. Serial No. 472,025. (Cl. 198—3.)

1. A machine for truing up matrices comprising a movable table upon which the matrices are supported, a part which acts upon the matrices, said part supported in an oblique position above the matrices, oblique bridge supports, means for moving said movable table so as to move the matrices past said part, and a roller at each side of said part and adapted to engage the matrices, said rollers supported at one end by said oblique bridge supports.

2. A machine for truing up matrices comprising a reciprocating table upon which the matrices are supported, a part which acts upon the matrices, said part supported in an oblique position above the matrices, a series of separated independent rollers of different lengths supported above said table, means for moving said reciprocating table so as to move the matrices past said part, and means for varying the distance between said part and said table.





3. A machine for truing up matrices comprising a frame, a sliding table mounted thereon, an abrasing device mounted on said frame above said table and set at an angle with the line of direction of travel of the table, a series of separated rollers of different lengths mounted above said table and set at an angle to said abrasing device, means for moving said table to and from said abrasing device so as to vary the distance between them, and means for moving said table longitudinally.

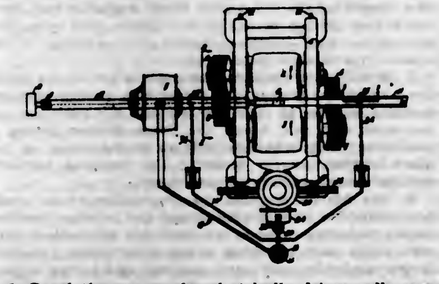
4. A machine for truing up matrices comprising a frame, a sliding table mounted thereon, an abrasing device mounted on said frame above said table and set at an angle with the line of direction of travel of the table, a wedge-shaped support upon which said table is slidably carried, inclined guideways for said support, an actuating part mounted upon said wedge-shaped support and operatively connected with said sliding table so as to move it longitudinally, and means for moving the support along said guide-ways to raise and lower the table.

5. A machine for truing up matrices comprising a frame, a wedge-shaped support extending across said frame, a sliding table mounted thereon, an actuating part mounted upon said wedge-shaped support and operatively connected with said sliding table so as to move it longitudinally, an abrasing device mounted on said frame above said table and set at an angle with the line of direction of travel of the table, a casing for said abrasing device arranged so as to form a dust chamber, and a dust-withdrawing device connected with the dust chamber.

[Claims 6 to 8 not printed in the Gazette.]

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1,040,862. AUTOMATIC ADJUSTMENT FOR REELERS. GEORGE H. BLAXTER, Beaver Falls, Pa., assignor to Pittsburg Seamless Tube Company, Beaver Falls, Pa., a Corporation of Pennsylvania. Filed Oct. 10, 1911. Serial No. 653,847. (Cl. 80—1.)



1. Regulating means for electrically driven rolls comprising in combination with the rolls, electric driving means therefor, adjusting means for the rolls, and means controlled by and in synchronism with variations in the current supplied to the driving means for operating said adjusting means and varying the adjustment of the rolls.

2. Reeling apparatus comprising in combination, rolls, electric driving means therefor, adjusting means therefor, and means controlled by the power consumed by the driving means and controlling the roll adjusting means, whereby the power consumed in successive reeling operations is equalized and a product of uniform diameter produced.

3. Reeling apparatus comprising in combination, rolls, electrical driving means therefor, adjusting means therefor, a magnet connected to the main driving circuit, and means actuated by said magnet and controlling the roll adjusting means, whereby the power consumed in successive rolling operations is equalized and a product of uniform diameter produced.

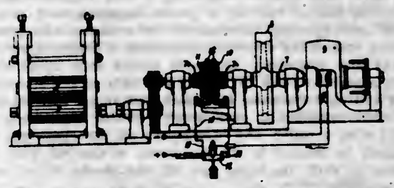
4. Reeling apparatus comprising in combination, rolls, a mandrel therebetween, adjusting means for the rolls, electrical driving means for the rolls, a magnet in the main driving circuit, and means actuated by the magnet and controlling the roll adjusting means and including reversing means for said roll adjusting means.

5. Reeling apparatus comprising in combination, rolls and a mandrel therebetween, electrical driving means for the rolls, adjusting means for the rolls, a magnet in the driving circuit, and means actuated from said magnet for controlling the roll adjusting means and comprising a reversing motor and means actuated by said magnet for controlling said motor and reversing the same.

[Claims 6 to 24 not printed in the Gazette.]

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1,040,863. OVERLOAD CONTROL FOR METAL ROLLS. GEORGE H. BLAXTER, Beaver, Pa. Filed Jan. 22, 1912. Serial No. 672,620. (Cl. 172—239.)



1. The combination of the operating parts of a machine, a motor for driving the same, a fly wheel connected to said machine, connections from said motor and fly wheel to said machine, and means controlled by the power supply of said motor and arranged to disconnect the fly wheel and motor from said machine on abnormal fluctuation in the power supply.

2. The combination with the operating parts of a machine, of a motor for driving the same, a fly wheel connected to the machine, and means controlling the connections between the fly wheel and the machine and arranged to disconnect the fly wheel from the machine on variation in the power supply to the motor.

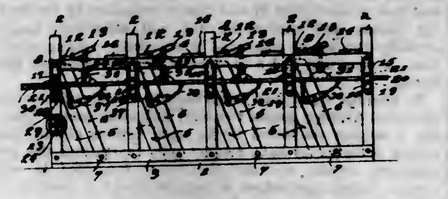
3. The combination with the operating parts of a machine, of a motor for driving the same, a fly wheel connected to said machine, a disconnectible coupling between the fly wheel and the machine, and means controlled by the power supply of said motor and arranged to disconnect said coupling on the occurrence of overload.

4. The combination with the operating parts of a machine, of a motor for driving the same, a fly wheel driven by said motor, a releasable connection between said motor and the machine, and means controlled by the power supply of said motor for releasing the machine from the motor and fly wheel.

5. The combination with the operating parts of a machine, of a motor for driving the same, a fly wheel connected to said machine, connections from said motor and fly wheel to said machine, and means controlling said connections and arranged to disconnect the fly wheel and motor from said machine on variation in the power supply to the motor.

[Claims 6 to 11 not printed in the Gazette.]

1,040,864. CATTLE-STANCHION. PERRY B. BONESTEEL, Chicago, Ill. Filed Oct. 28, 1911. Serial No. 657,297. (Cl. 119—148.)



1. In a cattle stanchion, the combination of stationary standards and pivoted stanchion bars arranged adjacent thereto, roller bearings carried by said stationary standards, an operating rod mounted in said bearings and adapted to reciprocate therein, flexible connections between said rod and stanchion bars to move the latter to operative and inoperative position, means for reciprocating said rod, movable locking members located adjacent the ends of the bars and adapted to bear against the same, a vertical arm depending from each locking member, and a plurality of cams carried by said rod and adapted to engage said arms to release the stanchion bars from the influence of the locking members in the movement of the operating rod in one direction.

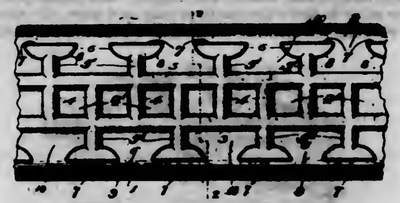
2. In a cattle stanchion, the combination with stationary standards and pivoted stanchion bars arranged adjacent thereto, a longitudinally movable operating rod, connections between said rod and the individual stanchion bars, means for shifting said rod longitudinally to swing the bars, said means comprising a rack formed integral with one end of the bar, a pinion engaging said rack, a chain and sprocket mechanism for rotating the pinion, locking means for the bars comprising a series of pivoted blocks and stationary abutment blocks each coöperating with a pivoted block to receive the ends of the stanchion bars and hold the same in locked position, a vertical sliding arm connected to each pivoted locking block and provided with a roller, and cam blocks on the operating rod adapted to contact in the movement of the rod with the rollers to shift the arms and lift the blocks out of locking position.

3. In a cattle stanchion, a stanchion frame comprising a base, vertical stationary standards extending from the base and top cross bars spaced apart and secured to the opposite sides of the said stationary standards, movable stanchion bars adjacent to the stationary standards and pivoted to the base, bearings on said stationary standards, a longitudinally movable operating rod in said bearings, connections between said rod and the individual stanchion bars, means for shifting said rod longitudinally to swing the bars, locking blocks pivotally mounted upon the spaced top cross bars, an arm depending from each of said blocks, stationary abutment blocks coöperating with the pivoted blocks and adapted to receive the ends of the stanchion bars to hold the same in locked position, cam blocks on the operating rod and adapted to engage said arms to elevate the pivoted locking blocks to release the stanchion bars.

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1,040,865. NON-SKIDDING TIRE. JOHN G. BOSS, Denver, Colo. Filed Sept. 1, 1910. Serial No. 580,697. (Cl. 152—14.)

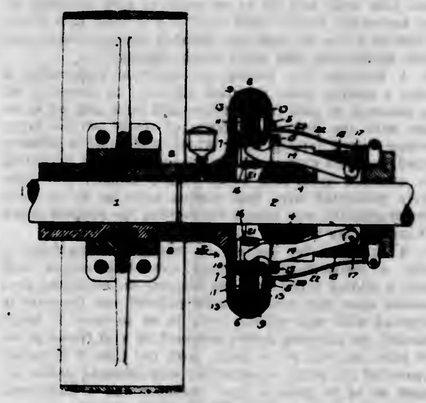
A tire tread comprising a tread body provided with a pair of circumferentially disposed parallel ribs extending entirely around the tire in spaced relation to the center line thereof, spaced ribs connecting the pair of ribs to divide the space between said pair into a series of substantially square pockets, short stout ribs in staggered relation on each side of said pair of ribs, the ribs on one side being alined with every other transverse rib, the short stout ribs on the remaining side being alined with the remaining transverse ribs, and heads each connected to one of said short stout ribs and having their ends in spaced relation to provide open-mouthed pockets, the outer sides of all of said heads being straight and in alinement and the under sides of all of said heads being curved



from the straight portion whereby to provide a ground gripping side and walls for the pocket mouths adapted to readily release material held in said pockets.

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1,040,866. FRICTION-CLUTCH. JAMES BOWEN, Manheim, Pa., assignor to Bond Foundary & Machine Company, Manheim, Pa., a Corporation of Pennsylvania. Filed Mar. 15, 1912. Serial No. 684,045. (Cl. 192—11.)



1. In a friction coupling, the combination of a disk having bosses thereon, a series of clutch segments each having a stem guided in one of said bosses, a lever carrying member having levers acting upon said stems and each having a fulcrum bolt whose inner end is seated in a socket in the lever-carrying member and is adjustable in respect to the lever.

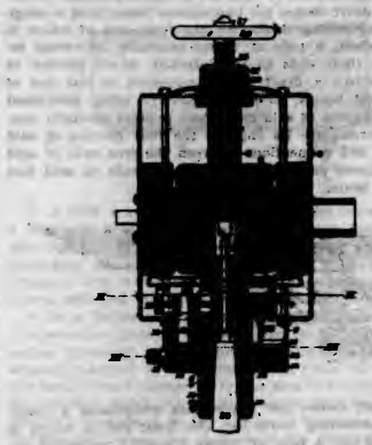
2. In a friction coupling, the combination of a disk having a series of bosses, and stiffening and strengthening ribs connecting the same, with cluten segments each having a stem guided in one of the bosses, and retracting springs for said clutch segments each engaging at its inner end with a rib on the disk.

3. In a friction coupling, the combination of one member having an overhanging flange and another member carrying a series of clutching elements for frictional engagement with said flange, the latter member having a projecting flange which extends up to the flange on the other member, thereby inclosing the clutching elements and preventing external access thereto.

4. In a friction coupling, the combination of one member having an overhanging flange and another member having clutching elements for frictional engagement with said flange, said clutching elements including actuating levers carried by said latter member, and having adjustable fulcrum bolts and a hood for covering said levers and preventing external access thereto said hood having openings in line with said bolts for permitting access thereto when the clutch is at rest.



1,040,867. DRIVING MECHANISM FOR PORTABLE DRILLS OR SIMILAR TOOLS. JAMES A. BRADLEY, Pittsburgh, Pa., assignor of one-half to Henry C. Digby, Pittsburgh, Pa. Filed Dec. 2, 1909. Serial No. 530,975. (Cl. 77—6.)



1. In a portable drill or similar tool, a motor having a shaft, a tool spindle, reducing gears carried by the spindle, a casing for the reducing gears, a rack mounted in guides in said casing, a driving pinion on the motor shaft, the reducing gears on the spindle engaging the pinion on the motor shaft and the rack, and a spring pressed plunger for connecting the rack to the casing, said plunger being arranged to disconnect the rack when a predetermined resistance has been reached, substantially as described.

2. In a portable drill or similar tool, a motor having a shaft, a tool spindle, reducing gears carried by the spindle, a casing for the reducing gears, a circular guide in the casing, a rack mounted in said guide, a slip connection between the casing and the rack, and a driving pinion on the motor shaft, the reducing gears on the spindle engaging the pinion on the motor shaft and the rack, substantially as described.

3. In a portable drill or similar tool, a motor casing, a motor having a shaft contained therein, a gear casing connected to the motor casing, a tool spindle journaled within the gear casing, the motor shaft being journaled in the motor casing and in the spindle, and means on the spindle on opposite sides of the spindle journal to secure the tool spindle in the gear casing and to prevent longitudinal movement thereof; substantially as described.

4. In a portable drill or similar tool, a motor casing, a motor having a shaft contained therein, a gear casing secured to the motor casing, a tool spindle journaled in the gear casing, ball bearings on opposite ends of the spindle bearing in the gear casing, means to secure the tool spindle in the bearing to prevent longitudinal movement thereof, and ball bearings on the end of the tool spindle arranged to support the motor shaft; substantially as described.

5. In a portable drill or similar tool, a motor having a hollow shaft, a tool spindle in line with the motor shaft, actuating connections between the motor shaft and the tool spindle, a tool supported in the end of the tool spindle, a plunger in the rear of the tool spindle, and means in the motor shaft for feeding the spindle longitudinally when moved in one direction and for ejecting the tool when moved in the other direction, said feeding means also forming means for advancing the plunger in the tool spindle to eject the tool; substantially as described.

[Claim 6 not printed in the Gazette.]

1,040,868. CONTINUOUS HEATING-FURNACE. WILLIAM J. BRAMLEY, Troy, N. Y., assignor to The Ball Joint Company, New York, N. Y., a Corporation of New York. Filed Sept. 30, 1908. Serial No. 455,474. (Cl. 110—85.)



1. In a furnace of the class described, the furnace casing having a grateless fire box provided with an upper combustion chamber and a lower ash pit, the latter being in open communication with the combustion chamber, a single wind-chest centrally supported within the ash pit below the ash-line and having means for directing the blasts of air upwardly, supplemental wind-chests arranged at the side walls of the ash pit and also below the ash-line, and each of which supplemental chests is provided with an open side portion exposed to the interior of the ash pit, and removably mounted slats arranged in spaced relation over the open side portions of said supplemental chests.

2. In a furnace of the class described, the combination with the furnace casing having a fire box provided with an ash pit, of a wind-chest arranged at the side of the ash pit and having an open side portion and perforated supporting flanges at the top and bottom edges of said open side portion, the latter being exposed to the interior of the ash pit, a series of spaced removable slats mounted in said perforated supporting flanges, and retaining means for holding said slats in place.

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1,040,869. TRACKING DEVICE. GEORGE P. BRAND, New York, N. Y. Filed Mar. 12, 1910. Serial No. 548,986. (Cl. 84—161.)



1. The combination with a take-up spool for a note sheet and a tracker bar adjustable independently thereof, automatic means for simultaneously moving the tracker bar and take-up spool transversely in relation to the travel of the note sheet.

2. A take-up spool for a note sheet, a tracker bar mounted for movement in unison therewith, and means including means movable with the tracker bar for simultaneously moving said tracker bar and take-up spool in the direction of their length.

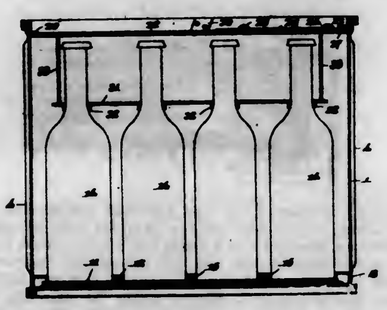
3. A tracker bar and a take-up roll for a note sheet mounted for movement in unison therewith, and automatic means including means movable with the tracker bar controlled by the lateral movement of the note sheet for simultaneously moving the tracker bar and take-up roll transversely in relation to the travel of the note sheet.

4. A tracker bar and a take-up roll for a note sheet and automatic means including means movable with the tracker bar for moving the latter and the take-up roll simultaneously in the same direction.

5. A tracker bar and a take-up roll mounted for movement in unison, and means including means movable with the tracker bar for automatically moving the same and the take-up roll.

[Claims 6 to 40 not printed in the Gazette.]

1,040,870. METALLIC PACKING AND SHIPPING CASE. LEONARD F. BRAND and FREDERICK C. GLADDOCK, Philadelphia, Pa. Filed Sept. 30, 1911. Serial No. 652,068. (Cl. 220—9.)



1. A sheet metal case comprising a body having its upper edge portion folded, a cover rest comprising vertical and horisontal portions, the vertical portion having its upper part interlocking with the folded edge of the body, cover retainers at opposite sides of the body and comprising vertical and horisontal portions, the vertical portion being held between the body and the vertical portion of the cover rest and the horisontal portion passing through a slot in the vertical portion of said cover rest and extending over and spaced from the horisontal portion thereof, a cover supported upon the rest and comprising hingedly connected sections, said cover having its outer section engaging with the before mentioned cover retainers, and means for holding the cover sections in alinement.

2. A sheet metal case comprising a body having its upper edge portion folded, a cover rest comprising vertical and horisontal portions, the vertical portion having its upper part interlocking with the folded edge of the body, cover retainers at opposite sides of the body and comprising vertical and horisontal portions, the vertical portion being held between the body and the vertical portion of the cover rest and the horisontal portion passing through a slot in the vertical portion of said cover rest and extending over and spaced from the horisontal portion thereof, a cover supported upon the cover rest and comprising hingedly connected sections, said cover having its outer section engaging with the before mentioned cover retainers, and one of the sections having a part extended beyond the hinged joint formed between it and the adjacent section to overlie the latter, and means between the said extended part and the underlying section to secure them and hold the cover sections in alinement.

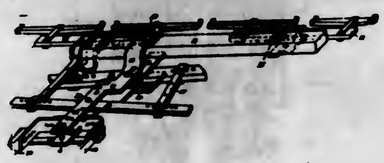
3. A sheet metal case comprising a body having its upper edge outwardly folded, a cover rest comprising vertical and horisontal portions, the vertical portion having a slot paralleling the horisontal portion and having a part extending over the upper edge of the body of the case and folded to form a lock joint with the folded edge of the body, and a cover retainer comprising vertical and horisontal portions, the latter passing through the slot in the vertical portion of the cover rest, and the vertical portion of the retainer being confined between the upper part of the body and the vertical portion of the said rest.

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1,040,871. DRAFT-EVENER. FRED A. BRESSMER and JAMES SHELHAMMER, Macon county, Ill. Filed Jan. 26, 1911. Serial No. 604,897. (Cl. 21—76.)

1. A draft evener of the character described, comprising a clevis bar adapted for connection to an implement, a pair of superposed beams pivotally connected at one side of the centers thereof to the forward portion of said clevis bar, the pivotal points of said beams being in alinement and the long arms thereof extending on opposite sides of the clevis bar, a draft connection directly connected to the long arm of each of said pairs of beams and extending forwardly therefrom, a beam pivotally connected intermediate its ends to said clevis bar in rear of said first mentioned pair of beams, and a link directly connecting the short end of each of said first mentioned pair of beams with the adjacent end of said last mentioned beam.

2. In a draft device for implements comprising a longitudinally extending clevis bar, the front end of which is laterally offset, a pair of beams pivotally connected intermediate their ends to the laterally off-set portion of said clevis bar, a draft device connected to one end of each of said beams, said draft devices being positioned on opposite sides of said clevis bar, a beam pivotally connected intermediate its ends to the rear portion of said clevis bar, and connections between the free ends of said first mentioned pair of beams and the ends of said last mentioned beam.



3. A draft device for implements comprising a longitudinally extending clevis bar, the front end of which is laterally off-set, a pair of beams pivotally connected intermediate their ends to the laterally off-set portion of said clevis bar, a draft device connected to one end of each of said beams, said draft devices being positioned on opposite sides of said clevis bar, a beam fulcrumed to the rear portion of said clevis bar, and a link pivotally connecting the free end of each of said first mentioned beams with the adjacent end of said last mentioned beam.

4. A draft device for implements comprising a longitudinally extending clevis bar adapted for connection to an implement, the front end of which is laterally off-set, a pair of beams pivotally connected at one side of the centers thereof to the off-set clevis bar, a draft device connected to the long arm of each of said beams, a beam pivotally connected intermediate its ends to the inner portion of said clevis bar, and links pivotally connecting the short arm of each of said first mentioned beams with the corresponding end of said last mentioned beams, the pivotal connection of said links with said beams being adjustable longitudinally of the beams.

5. A draft device for implements comprising a longitudinally extending clevis bar, the front end of which is laterally off-set, said clevis bar being formed of a pair of superposed plates, a pair of superposed beams positioned between the plates of the laterally off-set portion of the clevis bar, a pivot bolt passing through said clevis bar and said superposed beams, a draft device connected to one end of each of said beams, said draft devices being positioned on opposite sides of said clevis bar, a beam pivotally secured between the plates of the rear portion of the clevis bar, and links connecting the outer ends of said beam with the corresponding ends of said first mentioned pair of beams.

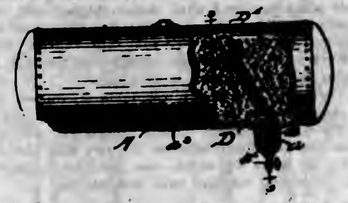
[Claim 6 not printed in the Gazette.]

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1,040,872. SURFACE DISCHARGE APPARATUS FOR TANKS. ROBERT A. BROOKS, Chicago, Ill. Filed Sept. 2, 1909. Serial No. 515,884. (Cl. 220—120.)

1. The combination with a tank of an outlet pipe therefor pivoted therein and a shell on the intake end of said pipe comprising an air tight chamber or float and an intake chamber with which said pipe communicates, said float adapted to support said intake chamber at approximately the surface of the liquid in the tank.

2. A tank having a receptacle connected in the bottom thereof, an outlet pipe extending through the wall of said receptacle, a discharge pipe pivotally connected with the outlet pipe and extending into the tank, a shell at the upper end of said discharge pipe comprising an intake chamber communicating with said outlet pipe and a float acting to hold the intake chamber near the surface of the liquid in the tank, and a screen in said intake chamber adapted to strain the liquid as it flows into the chamber.



3. A tank, a receptacle connected in the bottom thereof, a discharge pipe pivotally connected above the bottom of said receptacle, a float on the intake end of said pipe extending beyond the end thereof and provided with a chamber with which the intake pipe communicates and a screen affording the outer wall of said chamber.

4. In a device of the class described a tank for liquid, a receptacle connected to the bottom thereof and communicating therewith, a pipe pivotally connected in the receptacle adapted to draw the liquid from the surface of the tank, a float connected to the pipe and having a chamber through which the liquid flows to the pipe, said tank having a depression in the bottom of the same for receiving the float when the surface of the liquid is near the bottom of the tank, thereby permitting all of the liquid to be drained from the tank.

5. In a device of the class described, a tank, a receptacle secured to the bottom thereof and communicating with the tank, a sleeve integral with the receptacle, a shaft journaled in the sleeve, an oscillating pipe secured to said shaft and projecting into the tank, and a float secured to the upper end of said pipe and provided with an intake chamber with which said pipe communicates to completely empty the tank of its pure liquid content.

[Claims 6 to 9 not printed in the Gazette.]

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1,040,873. AUTOMATIC AIR-RETAINER. LEONARD L. BROWN, Clifton Forge, Va., and JOHN FRANKLING SMITH, Ronceverte, W. Va. Filed Dec. 21, 1910. Serial No. 598,551. (Cl. 188—12.)



1. In an air brake system, the combination with a retaining valve, of a gear carried by the stem thereof, a fork provided with upper and lower racks for operating said gear to control said valve, and means for automatically actuating said fork.

2. In an air brake system, the combination with a retaining valve, of a pressure cylinder, a piston therein actuated by the pressure from the air brake system, a fork actuated by said piston, rotating means carried by said valve, and racks carried by said fork for actuating said rotating means.

3. In an air brake system, the combination with a brake cylinder, auxiliary reservoir, retaining valve and the pressure connection between said cylinder and reservoir, of means actuated by a relatively low pressure in said connection for closing said valve and by the maximum pressure in said connection for opening said valve.

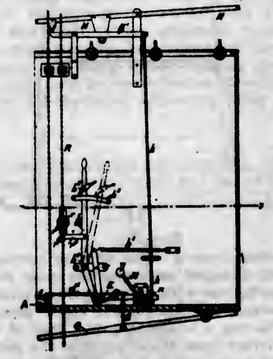
4. An air brake system comprising a retaining valve, a gear carried thereby, a fork straddling said gear and provided with an upper rack, a yieldable lower rack carried by said fork, and means for automatically operating said fork to cause the racks to engage said gear to first close and then open said valve.

5. An air brake system comprising a cylinder, a piston therein, a rod for said piston, a spring on said rod opposing movement of the same in one direction, a fork provided with retainer valve operating means, a rod carried by said fork, means for adjustably connecting the piston rod to the fork rod, and pressure admitting means carried by said cylinder.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,874. LIFT OR HOIST. NORMAN SEDDON BROWN, Wigan, England. Filed Sept. 21, 1908. Serial No. 454,045. (Cl. 187—40.)



1. In apparatus for the cages of lifts or hoists to prevent accidents the combination with the cage of a rocking plate A placed along the front edge of the cage and movably attached along its inner edge, a lever for operating the same, and a cranked arm and link by which the lever is connected with the rocking plate substantially as described.

2. In apparatus for the cages of lifts or hoists to prevent accidents the combination with the cage of a hand rope or chain, a rocking plate A placed along the front edge of the cage movably attached along its inner edge, a lever for operating the same, a cranked arm and link by which the lever is connected with the rocking plate and means connected to said rocking plate for gripping the hand rope or chain substantially as described.

3. In apparatus for the cages of lifts or hoists to prevent accidents the combination with the cage of a hand rope or chain, a rocking plate A placed along the front edge of the cage, a lever for operating the same, a cranked arm and link by which the lever is connected with the rocking plate means for gripping the hand rope or chain and means for setting the gripping device in operation on the cage coming into contact with an obstruction substantially as described.

4. In apparatus for the cages of lifts or hoists to prevent accidents the combination with the cage of a rocking plate A placed along the front edge of the cage a rope or chain R, a lever for operating the rocking plate, a cranked arm and link by which the lever is connected with the rocking plate a stationary stud r provided with a slot through which the chain R passes, a sleeve $r'$ provided with slots rotatable thereon a lever $r^2$ and link $r^3$ by which the sleeve is connected with the operating lever substantially as described.

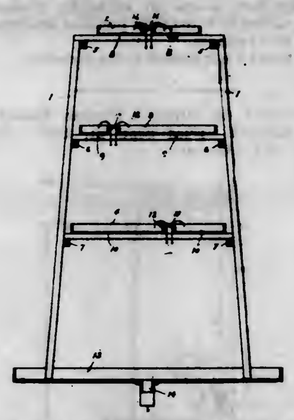
5. In apparatus for the cages of lifts or hoists to prevent accidents the combination with the cage of a rocking plate A placed along the front edge of the cage, a lever for operating the same, a cranked arm and link by which

the lever is connected with the rocking plate a pawl $b^5$ pivoted on the lever and a quadrant rack $b^6$ with which the pawl engages substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

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1,040,875. COOLING-TOWER. EDWIN BUEHORN, Hoboken, N. J. Filed Feb. 6, 1911. Serial No. 606,984. (Cl. 62—2.)



In a cooling tower a series of pans having perforated bottoms and arranged one above the other and each provided in its bottom with an emergency overflow comprising an aperture and an annular collar surrounding the same and having a height less than that of the sides of the pan whereby upon the clogging of the perforations in the pan, the water will pass through the emergency overflow, the overflow aperture of each pan being set out of the vertical line of the overflow apertures of the adjacent pans, substantially as shown and described.

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1,040,876. GOLD-ORE-GRINDING MILL. JOHN H. BUXTON, Baltimore, Md. Filed Apr. 1, 1912. Serial No. 687,578. (Cl. 83—9.)



1. A gold and silver ore mill having in combination a revoluble cylinder; a number of circular grinding rollers loose in said cylinder and free to revolve therein and filling the cylinder from end to end; and circular baffle plates having a greater diameter than said rollers and a less diameter than the interior of the cylinder and also free to revolve therein and spaced at intervals between said rollers, whereby said rollers form groups each group comprising a plural number of rollers.

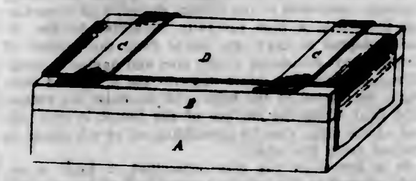
2. A gold and silver ore mill having in combination a revoluble cylinder whose inner cylindric surface has corrugations extending lengthwise; a number of flat circular grinding plates loose in said cylinder and free to revolve on their edges and filling the cylinder from end to end; and some or all of said rollers having corrugations crosswise of their circumferential kind.

3. A gold or silver ore mill having in combination a revoluble cylinder; a number of circular grinding rollers loose in said cylinder and free to revolve therein and filling the cylinder from end to end and said rollers having their sides provided with radial ridges; and circular baffle plates having a greater diameter than said rollers and spaced at intervals between said rollers, whereby said rollers form groups each group comprising a plural number of rollers.

4. A grinding roller for revoluble cylinders of ore mills, comprising a steel rim; two side disk plates of steel; V-shaped segment plates completely filling said steel rim and the space between the two disk plates, and a number of bolts of which one extends through each segment plate and through both disk plates.

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1,040,877. TIRE-REPAIRING CASE. CHARLES BYRNE, Pompton Lakes, N. J., assignor of one-half to George W. Drew, Florida, N. Y. Filed Oct. 16, 1906. Serial No. 339,267. (Cl. 152—27.)

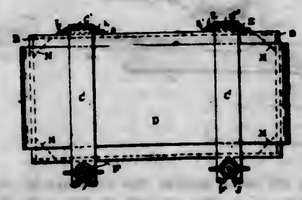


1. In a tire repairing case the combination of a case body with a cover, spring acting arms extending across said cover, backward extending portions of said arms secured to the inner face of the cover, substantially as described.

2. The combination in a tire repairing case of a case body with a cover, bearing arms, having one end secured to its inner face, the free portions of said arms extending to lie flat across the outer face of said cover, substantially as set forth.

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1,040,878. TIRE-REPAIRING CASE. CHARLES BYRNE, Pompton Lakes, N. J. Filed Apr. 16, 1908. Serial No. 427,556. (Cl. 152—27.)

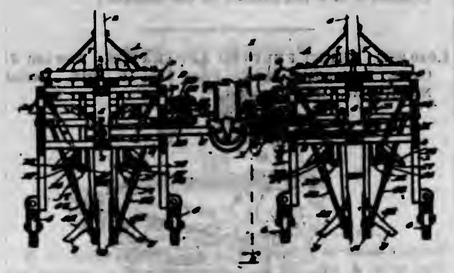


1. In a tire repairing case the combination of a case body with a cover, arms extending across the upper face of said cover, having one end hinged to one side of said cover, the other end being notched lengthwise to support a locking screw, having a nut movably secured to the ring shaped head of a bolt secured to the front of said case, substantially as described.

2. In a tire repairing case the combination of a case body having triangular studs with a cover, prevented by said studs from slipping off sideways, the cover having arms hinged at one side, extending across its upper face, the face ends of said arms notched lengthwise to support locking screws bearing nuts movably secured to ring shaped heads of bolts secured to the front of said case, substantially as set forth.



1,040,879. CULTIVATOR. WILLIAM A. CLEVER, Manhattan, Kans. Filed June 1, 1911. Serial No. 630,644. (Cl. 97—81.)



1. In a cultivator, the combination of a frame having a forward cross-bar, ground wheels of the caster type supporting the rear portion of the frame, hangers adjustably fixed on said forward frame bar and adjustable in the direction of the length of said bar, ground wheels carried by said hangers, transverse rock-shafts journaled on the frame, beams adjustably fixed on and extending rearward from the forward rock-shaft and adjustable lengthwise of said shaft, lengthwise adjustable braces disposed at acute angles to the beams and connected at their rear ends to the beams and pivotally connected at their forward ends to the rock-shaft, beams adjustably fixed on and extending rearward from the rear rock-shaft and adjustable lengthwise of said shaft, lengthwise adjustable braces disposed at acute angles to said beams and connected at their rear ends to the beams and pivotally connected at their forward ends to the rear rock-shaft, and means supported directly and entirely upon the rock-shafts for adjustably fixing said shafts.

2. In a cultivator, the combination of a wheel-supported main frame, transverse rock-shafts thereon, a beam fixed to and extending rearward from one of the shafts, a beam fixed to and extending rearward from the other shaft, ground-working devices carried by said beams, levers supported on the shafts and adapted to rock the same and carrying detents, means supported on the shafts and adapted to cooperate with the detent of one lever in adjustably fixing the same, and means carried by said lever and adapted to cooperate with the other lever in adjustably fixing the latter.

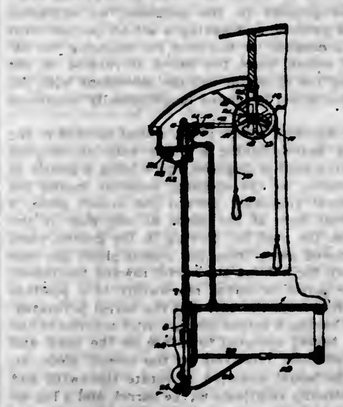
3. In a cultivator, the combination of a wheel-supported main frame, transverse rock-shafts journaled thereon, beams fixed to and extending rearward from and adjustable on one of the shafts in the direction of the length thereof, lengthwise-adjustable braces disposed at acute angles to said beams and connected at their rear ends to the beams and pivotally connected at their forward ends to the shaft, ground-working devices carried by said beams, beams fixed to and extending rearward from and adjustable on the other shaft in the direction of the length thereof, lengthwise-adjustable braces disposed at acute angles to said beams and connected at their rear ends to the beams and pivotally connected at their forward ends to the respective shaft of said beams, ground-working devices carried by said beams, hand levers supported by and adapted to rock the shafts and provided with detents, a segmental rack supported by the shafts and adapted to cooperate with one of the levers in adjustably fixing the same, and a rack carried by said lever and adapted to cooperate with the detent of the other lever in adjustably fixing the latter.

4. In a cultivator, the combination of a wheel-supported main frame, transverse rock-shafts journaled thereon and arranged one in front of the other, levers supported by and adapted to rock said shafts and provided with detents, a segmental rack supported on the shafts and adapted to cooperate with one of the levers in adjustably fixing the same, a rack carried by said lever and adapted to cooperate with the detent of the other lever in adjustably fixing the latter, beams fixed on and extending rearward from and adjustable on the forward shaft in the direction of the length thereof, disks carried by said beams, beams fixed on and extending rearward from and adjustable on the rear shaft in the direction of the length thereof, plows carried by the latter beams and disposed in rear of the disks, lengthwise adjustable braces disposed at acute angles to the first-named beams and connected at their rear ends thereto and pivotally connected at their forward ends to the forward rock-shaft, and lengthwise adjustable braces disposed at acute angles to and connected at their rear ends to the second-named beams and pivotally connected at their forward ends to the rear rock-shaft.

5. In a cultivator, the combination of a frame having a forward cross-bar, ground wheels of the caster type, supporting the rear portion of the frame, hangers adjustably fixed on said forward frame bar and adjustable in the direction of the length of said bar, ground wheels carried by said hangers, transverse rock-shafts journaled on the frame, beams adjustably fixed on and extending rearward from the forward rock-shaft and adjustable lengthwise of said shaft, beams adjustably fixed on and extending rearward from the rear rock-shaft and adjustable lengthwise of said shaft, ground-working devices carried by said beams, and means supported directly and entirely upon the rock-shafts for adjustably fixing the rock-shafts.

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1,040,880. DOOR-OPERATING MECHANISM. GAYLOR M. CAMERON, Rochester, N. Y. Filed May 18, 1911. Serial No. 628,058. (Cl. 20—98.)



1. In a door operating mechanism, the combination with a door pivotally mounted for swinging movement, of a shaft rotatably mounted in spaced relation to the door and arranged parallel to the top of the latter when closed, a lever fixedly mounted on the door, and operating connections between the lever and the rotary shaft arranged near the top of the door.

2. In a door operating mechanism, the combination with a door, a shaft rotatably mounted in spaced relation to the door, a lever fixedly mounted on the door, a connecting rod having a swiveled connection at one end with the lever, an arm mounted on the shaft and pivoted to the opposite end of the aforesaid connecting rod, and an operating member secured to the shaft.

3. In a door operating mechanism, the combination with a door, of a shaft rotatably mounted in spaced relation to the door, a lever fixedly mounted on the door, a connecting rod having a swiveled connection at one end with the lever and a curved portion adjacent to its opposite end, an arm mounted on the shaft, the connecting rod having pivotal connection with the arm at its end adjacent to the curved portion, a pulley fast on the shaft, and an operating member attached to the pulley.

4. In a door operating mechanism, the combination with a door frame, of a pair of doors pivotally mounted in the frame, a second pair of doors hinged to the first named doors, a door controlling member arranged in parallelism to the doors when closed, connections between the doors and the door controlling member, and spring actuated means for controlling the movement of the doors to open or closed positions.

5. In a door operating mechanism, the combination with a swingingly mounted door, of a door controlling member arranged in parallelism to the door when closed, operative connections between the door and the door controlling member, and spring actuated means for controlling the movement of the door to open or closed positions.

[Claim 6 not printed in the Gazette.]

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1,040,881. **FIREARM.** BENJAMIN FRANK CASE, Mitchell, Ind. Filed May 14, 1912. Serial No. 697,299. (Cl. 42—13.)



1. A firearm having a breech piece, a stud secured to the breech piece, a barrel having two members spaced apart with orifices in which the stud is disposed, there being extractor grooves in the members, an extractor disposed in the grooves, and having a set off portion with a recess, and a member on the stud for engaging the extractor at the recess, when the barrel is rotated on the stud for holding the extractor against movement with the barrel when the barrel is moved longitudinally relatively to the stud.

2. A firearm having a breech piece, a stud secured to the breech piece, a barrel having a plate with an opening through which the stud is disposed, there being a groove in the plate extending to the opening, resilient means for holding the barrel yieldingly toward the breech piece, a cam in the front face of the plate at one side of the groove, a key on the stud for moving in the groove when the barrel is moved away from the breech piece, the cam engaging the key for holding the barrel toward the breech piece when the barrel is moved rearwardly to a position with the plate free from the key, and the barrel is rotated.

3. A firearm having a breech piece, a stud secured to the breech piece, a barrel mounted to rotate on the stud, and to move longitudinally relatively to the breech piece, an extractor for the barrel mounted to rotate therewith and to move longitudinally relatively to the barrel, and a lug on the stud with which the extractor is adapted to engage, when the barrel is rotated for holding the extractor against movement when the barrel is moved away from the breech piece, resilient means for holding the barrel yieldingly toward the breech piece, and means for locking the barrel to the breech piece in position for firing.

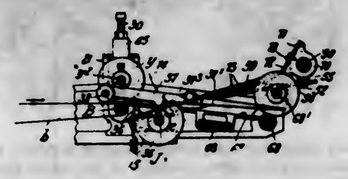
4. A firearm having a breech piece, a stud secured to the breech piece, a barrel having a plate at its breech with an opening through which the stud is disposed, and a recess, a member spaced from the plate secured to the barrel and having an opening through which the stud is disposed, there being an extractor groove in the barrel, an extractor in the groove, a member on the stud with which the extractor engages when the barrel with the extractor is rotated on the stud for holding the extractor against longitudinal movement with the barrel, and a member on the breech piece having a belt normally disposed in the recess.

5. A firearm having a breech piece, a stud secured to the breech piece, a barrel having a plate with an opening through which the stud is disposed, there being a groove in the plate extending to the opening, a cam on the front face of the plate at one side of the groove, and a key on the stud for moving in the groove when the barrel is moved away from the breech piece, the cam engaging the key for holding the barrel toward the breech piece when the barrel is moved rearwardly to a position with the plate free from the key and the barrel is rotated.

[Claims 6 to 8 not printed in the Gazette.]

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1,040,882. **SHEET-FEEDING APPARATUS.** EDWARD J. CASEY, Springfield, Mass. Filed Feb. 19, 1912. Serial No. 678,637. (Cl. 101—86.)



1. In a machine of the class described, the combination of a platform for the paper having a notch therein, a movable member having a finger arranged to be brought to the platform in proximity to the notch to arrest and position the paper on the platform, an arm movable to be brought to the platform to enter the notch therein and serve to deflect the paper, and means for moving the finger and the arm in timed relation to alternately engage the paper on the platform.

2. In a machine of the class described, the combination of a platform for the paper having a notch therein, means for intermittently advancing the paper along the platform, a movable member having fingers arranged to be brought to arrest and position the paper on the platform, a deflecting arm movable to be brought to the platform to enter the notch therein and serve to deflect the paper, and means for moving the fingers and the arm in timed relation whereby the arm is brought to the platform at an interval after the withdrawal of the fingers to permit advance of the paper after being positioned by the fingers, and to enter the notch and deflect the paper if not positioned by the fingers.

3. In a machine of the class described, the combination of a platform for the paper, a movable member having fingers arranged to be brought to arrest and position the paper on the platform, a deflecting arm movable to and from the platform, and means for moving the fingers and the arm in timed relation to alternately engage the paper on the platform, said arm having a resilient support to rest lightly upon the paper when advanced to permit its movement along the platform.

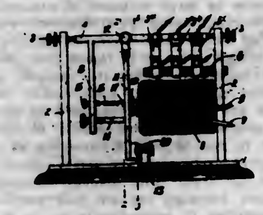
4. In a machine of the class described, the combination of a platform for the paper having a notch therein, a movable member having fingers arranged to be brought to the platform in proximity to the notch to arrest and position the paper on the platform, an arm movable to be brought to the platform to enter the notch therein and serve to deflect the paper, and means for moving the fingers and the arm in timed relation to alternately engage the paper on the platform, said arm having a resilient support to rest lightly upon the paper when advanced to permit its movement along the platform.

5. In a machine of the class described, the combination of a platform member for the paper, a movable member having evener fingers arranged to project into the platform and arrest and position the paper, a swinging arm on the other side of the platform from the evener fingers arranged to be brought down upon the platform when the evener fingers are swung away to deflect the paper away from the platform member, said arm and evener fingers being spaced to permit the paper to be passed along platform between the said two positions of the evener and the arm, a tape roll, a shaft having disks arranged to coact with the roll, means for operating the disks and roll to bring the paper to rest against the evener fingers.

[Claims 6 to 13 not printed in the Gazette.]



1,040,883. **CIRCUIT-CLOSER.** CLYDE A. CASTLE, Oldham, S. D. Filed Dec. 19, 1911. Serial No. 666,655. (Cl. 178—48.)



1. A circuit-closing device comprising a fixed contacting element, a movable contacting element, a lever movably mounted in position, a constantly turning screw, means on the lever adapted to engage the screw, whereby the lever may be swung and the contacts brought into engagement with each other, an armature on the lever, and an electromagnet for coöperation with the armature for bringing the screw-engaging means on the lever into engagement with the screw.

2. A circuit-closing device comprising a fixed contacting element, a movable spindle, a contacting element carried by the spindle and adapted to engage the first contacting element, a lever movably connected to the spindle, an armature on the lever, a constantly turning screw adjacent the lever, another screw of equal pitch carried by the lever adapted for engagement with the constantly turning screw, means for keeping the lever remote from the said constantly turning screw, and an electro-magnet coöperating with the said armature in order to bring the screws into engagement with each other.

3. A circuit-closer comprising a fixed contacting element, a movable spindle, a contacting element thereon and moving therewith, the said contacting elements being adapted to engage each other, a lever movably carried by the spindle, an armature on the lever, a rotating worm, a screw on the lever adapted to engage the worm, a spring engaging the lever and keeping the worm and screw out of engagement, and an electro-magnet for coöperation with the said armature in order to bring the worm and the screw into engagement, whereby the lever and the spindle may be moved, thereby bringing the contacting elements into electrical connection.

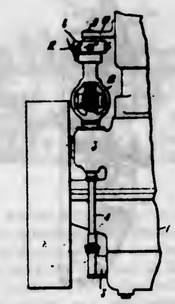
4. A circuit closer comprising fixed contacts, a spindle movably mounted in position, contacts carried by the spindle and adapted to engage the said fixed contacts when the spindle moves, a lever movably carried by the spindle and turning therewith, a constantly turning worm, a coöperating element on the said lever adapted to engage the worm, an armature on the lever, and an electro-magnet for coöperation with the armature whereby, when the coöperating element on the lever engages the worm, the said lever will move and with it the spindle, whereby the said contacting elements will engage each other.

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1,040,884. **AUTOMATIC SPARK-ADVANCER.** CLYDE C. CHARLES, Hoisington, Kans. Filed Feb. 27, 1912. Serial No. 680,295. (Cl. 123—117.)

1. Apparatus of the kind described comprising a timer having a casing, a contact carried thereby, a shaft for operating said timer, an arm pivotally connected to said casing, a rock shaft on which said arm is mounted, a second arm mounted upon said rock shaft, and means connected to said second-named arm and actuated in accordance with the speed of the shaft to shift the position of the timer casing.

2. Apparatus of the kind described comprising a timer having a casing, a shaft for operating said timer, an arm pivotally connected to the timer casing, a rock shaft carrying said arm, another arm carried by said rock shaft, a governor comprising a spring mounted upon said shaft, and connections between said governor and said second-named arm to shift the position of the timer, the governor spring serving to move the timer casing to retarded position when the engine stops.



3. Apparatus of the kind described comprising a timer having a casing, a shaft for operating said timer, a governor mounted on said shaft, said governor comprising a sleeve fixed to the shaft and a disk movable on said shaft, a pair of rods connected to said disk, nuts upon said rods, a flanged sleeve movably mounted upon said shaft and engaging said nuts, a spring arranged between said sleeves and serving to force the same apart, a ring surrounding said shaft and secured to the opposite end of said rods, a sleeve rotatably secured to said ring, the nuts on the rods being adjustable to vary the tension of the spring, and means for connecting said last-named sleeve to the timer to shift the position thereof in accordance with the speed of the shaft.

4. Apparatus of the kind described comprising a circuit maker and breaker for closing the ignition circuit to an internal combustion engine to supply ignition sparks therefor, a shaft for operating said circuit maker and breaker, said circuit maker and breaker being mounted upon the upper end of said shaft, a casting surrounding said shaft below said circuit maker and breaker, a governor carried by said shaft inside of said casting, means connecting the governor to the circuit maker and breaker to shift the same in accordance with the speed of the shaft, said circuit maker and breaker having a projection in line with the shaft, and an arm or brace connecting said projection to the frame of the engine.

5. Apparatus of the kind described comprising a timer having a casing, a shaft for operating said timer, a casting surrounding said shaft adjacent the timer casing, an arm pivotally connected to the timer casing, an oscillatable spindle on which said arm is mounted, a second arm carried by said spindle, a sleeve loosely mounted upon the shaft inside of the casting, a rod connecting said sleeve to said second-named arm, and means rotatably connected to said sleeve and actuated in accordance with the speed of the engine to move said sleeve along the shaft to shift the position of the timer.

[Claim 6 not printed in the Gazette.]

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1,040,885. **CENTRIFUGAL HUMIDIFIER.** HAROLD H. CLARK, Pittsburgh, Pa. Filed Sept. 10, 1912. Serial No. 719,982. (Dedicated to the public.) (Cl. 98—41.)

1. A centrifugal humidifier comprising a hollow disk having a central opening for the admission of water and carrying a set of spray nozzles adjacent its outer edge, said disk also having secured thereon a set of fan blades, a casing surrounding said disk and carrying a set of air vanes arranged about the edge of the disk, and means for rotating the disk.

2. A centrifugal humidifier comprising a hollow disk having a central opening for the admission of water, said disk carrying in one side a set of spray nozzles and on

its reverse side a series of fan blades, a frusto-conical casing arranged about said disk, said casing carrying a



circular series of air vanes surrounding the outer edge of the disk, and means for rotating the disk.

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1,040,886. PROCESS OF RECOVERY OF VOLATILE LIQUIDS. Georges Claude, Paris, France, assignor to L'Air Liquide, Société Anonyme pour l'Etude et l'Exploitation des Procédés Georges Claude, Paris, France. Filed Mar. 5, 1909. Serial No. 481,526. (Cl. 62—18.)



1. A process of recovering by liquefaction, volatile liquids contained in the condition of dilute vapors in large volumes of air or gas, which consists in compressing the air or gas containing the vapors to be recovered, submitting it to a preliminary cooling by means of cold water, then circulating it in indirect contact with air or gas previously expanded and cold in order to liquefy the volatile portions, so that the liquids formed run toward spaces which are warmer than those in which they are liquefied, finally allowing the air or gas thus freed from volatile matters to expand, and using it for cooling successive quantities of the air or gas containing the volatile vapors to be recovered.

2. A process of recovering by liquefaction, volatile liquids contained in the form of dilute vapors in large volumes of air or gas, which consists in compressing the air or gas containing the vapors to be recovered, submitting it to a preliminary cooling by means of cold water, then submitting it to temperatures progressively lower in order to liquefy progressively the volatile matters by circulating it methodically in indirect contact with air or gas previously expanded and cooled, effecting the circulation in such a way that the liquids formed by the volatile matters run in such a direction as to be progressively heated, and finally expanding the air or gas thus freed from volatile matters and circulating it methodically so as to progressively cool further quantities of air or gas containing the volatile vapors to be recovered.

3. The process of recovering by liquefaction alcohol and ether contained in the form of dilute vapors at ordinary temperatures in large volumes of atmospheric air, which consists in compressing the atmospheric air containing the vapors of alcohol and ether, cooling it by means of cold water to extract from it its liquid form the greater part of the water vapor which it contains, cooling it progressively and circulating it methodically in contact with air cooled and previously expanded in such a way as to liquefy progressively substantially all the alcohol and causing it to run in such a direction as to be reheated to approximately ordinary temperature, carrying ether with the air freed from alcohol, condensing this ether to a liquid, allowing the air thus purified to expand, and circulating it methodically so as to progressively cool further quantities of air containing alcohol and ether.

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1,040,887. DOOR STOP AND HOLDER. Jacob H. Cowman, Philadelphia, Pa. Filed Nov. 20, 1911. Serial No. 661,290. (Cl. 16—79.)



1. A device of the character described comprising a resilient compressible wedge, its upper leaf having a straight gradually rising upper surface extending to its free end, an upstanding flange on said free end of the upper leaf, said flange provided with two vertical slots, a strip of combining material bent into curved form and having its ends secured in said slots forming a step, all for the purposes specified.

2. In a device of the character described, the combination with a resilient compressible wedge, of a spring holder inclined in the opposite direction from said wedge, and having an apex normally extending above said wedge at a point spaced well away from the upper end of said wedge.

3. In a device of the character described, the combination, with a resilient compressible wedge having a slot in its upper leaf, of a spring holder inclined in the opposite direction from said wedge and having an apex projecting through said slot at a point spaced well away from the upper end of said wedge.

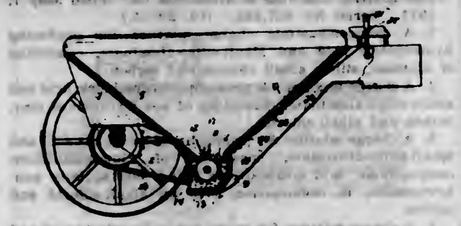
4. In a device of the character described, the combination, with a resilient compressible wedge having a slot in its upper leaf, of a spring holder inclined in the opposite direction from said wedge and having an apex projecting through said slot at a point spaced well away from the upper end of said wedge, and a step formed on the slotted upper leaf of said wedge at the upper end thereof.

5. A device of the character described, comprising a resilient compressible wedge and spring holder made from a single piece of sheet metal, said wedge having a slot in its upper leaf, and the lower leaf of said wedge having the holder cut and struck up therefrom with an apex projecting through said slot at a point spaced well away from the upper end of said wedge.

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1,040,888. SPREADER. Alonzo B. Cossum, Penn Yan, N. Y. Filed Jan. 26, 1912. Serial No. 673,513. (Cl. 111—84.)

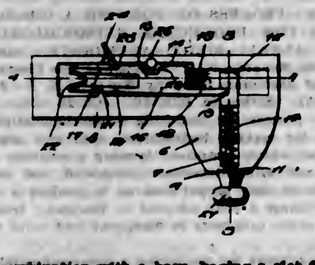
In a vehicle of the class described, a wheeled hopper including side boards and inclined end boards and provided with an outlet opening, extensions on said side boards below the outlet opening, a feed roller journaled in said extensions below the opening in said hopper, means for operating said roller, an apron hingedly connected to said hopper below the opening therein and partially inclosing said roller, said apron and extensions forming a discharge opening at right angles to the outlet opening of the hopper, spirit-held rods connecting the free edge of said apron to said hopper whereby the apron may be moved relatively to



the hopper and feed roller, and a gate carried by one of said inclined end boards and slidable to establish and cut off communication between said hopper and apron.

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1,040,889. HARP-LOCK. William Henry Conrad, Williamstown, Ky. Filed Apr. 6, 1912. Serial No. 689,010. (Cl. 70—5.)



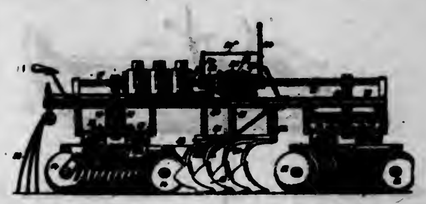
1. In combination with a hasp, having a slot formed in one end thereof, and a staple adapted to be disposed in said slot, of a casing mounted upon one end of the hasp, a spring controlled bolt slidably mounted in said casing and adapted to be disposed through the staple, a sliding tumbler mounted in the casing, an extension formed on said tumbler and adapted to engage the bolt to hold the same in a locked position, means for forcing said tumbler into its locking position.

2. In combination with a hasp, having a slot formed in one end thereof, and a staple adapted to be disposed in said slot, of a casing mounted upon one end of the hasp and arranged over the slot, a spring controlled bolt slidably mounted in the casing and adapted to be disposed through the staple, a sliding tumbler mounted in the casing, said tumbler comprising a body portion, spaced arms formed at one end thereof, an extension formed on the other end of the body and adapted to engage the bolt to hold the same in a locked position, one of said arms having recesses formed on the outer side thereof, a lug formed on the casing to engage in said recesses to hold the tumbler in a locked and unlocked position, a spring arranged between and bearing against the outer ends of said arms, and means for actuating the tumbler to lock and unlock the bolt.

3. In combination with a hasp, having a slot formed in one end thereof, and a staple adapted to be disposed in said slot, of a casing mounted upon one end of the hasp, a spring controlled bolt slidably mounted in said casing and adapted to be disposed through the staple, a sliding tumbler mounted in the casing, said tumbler comprising a body portion, spaced arms formed at one end thereof, a shoulder formed on the outer face of one of said arms, a catch carried by the casing and adapted to engage said shoulder for forcing the tumbler into its locking position, a spring arranged between and bearing against the outer ends of said arms, and means for actuating the tumbler and unlocking the same.



1,040,890. MOTOR-PLOW. Albert H. Coon, Oelwein, Iowa. Filed Jan. 24, 1906, Serial No. 297,460. Renewed Mar. 2, 1912. Serial No. 681,173. (Cl. 97—30.)



1. In a motor driven cultivating apparatus, the combination of a frame, means on the frame at its front portion to cut the sod, plowing means on the frame behind the said cutting means to turn the said sod in furrows, cultivating and pulverizing means at the rear portion of the frame, said sod cutting means and cultivating and pulverizing means bearing continuously on the ground to sustain the apparatus and a motor mounted on the frame and geared with said cultivating and pulverizing means to drive them positively whereby such means exert a combined propelling and cultivating action.

2. In a motor driven cultivating apparatus, the combination of a frame, disks on the frame at the front portion thereof to cut the sod, plowing means on the frame behind the sod cutting means to turn the sod in furrows, cultivating disks mounted on the frame behind the plowing means to cultivate the plowed soil, said disks bearing continuously on the ground to sustain the apparatus, and a motor mounted on the frame and geared with certain of said disks to rotate them positively, whereby such disks exert a combined plowing and propelling effect.

3. In a motor driven cultivating apparatus, the combination of a frame, two gangs of disks mounted on the frame respectively at the front and rear portions thereof, a motor mounted on the frame and geared with said disks to rotate them positively, whereby said disks serve to propel the apparatus and the forward gang of disks serves to cut the sod while the rearward gang serves to cultivate the soil, and a plowing means mounted on the frame intermediate said gangs of disks to turn the sod in furrows after the operation of the forward gang of disks.

4. In a motor driven cultivating apparatus, the combination of a frame, two gangs of disks mounted on the frame respectively at the front and rear portions thereof, a motor mounted on the frame and geared with said disks to rotate them positively, whereby said disks serve to propel the apparatus and the forward gang of disks serves to cut the sod while the rearward gang serves to cultivate the soil, a plowing means mounted on the frame intermediate said gang of disks to turn the sod in furrows after the operation of the forward gang of disks, and means for raising and lowering said plowing means independently of the disks.

5. In a motor driven cultivating apparatus, the combination of a frame, means on the frame at its front portion to cut the sod, plowing means on the frame behind the sod cutting means to turn the sod in furrows, cultivating disks at the rear portion of the frame arranged in gangs oblique to each other, a motor mounted on the frame and geared with said cultivating disks to rotate them positively, whereby the disks exert a combined propelling and cultivating action, and means for raising and lowering the plowing means.

[Claims 6 to 10 not printed in the Gazette.]

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1,040,891. TREE-SUPPORT. Eugene C. Coon and Thomas E. Coon, Portland, Oreg. Filed Oct. 25, 1911. Serial No. 656,578. (Cl. 47—31.)

A device of the class described including a U-shaped clamping plate adapted to be secured to the limb of a tree,

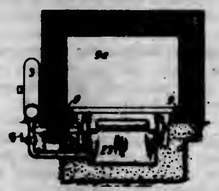
said clamping plate being formed to provide grooves, a pad mounted in the grooves of said plate and adapted to prevent direct contact between the said limb and plate,



and a retaining member carried by said plate and adapted to cause the growth of the limb in any desired direction, said retaining member being of spiral form.

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1,040,892. METHOD OF PROTECTING TUNNEL-FURNACES FROM INJURIOUS GASES. Alfred H. Cowles, Sewaren, N. J., assignor to The Electric Smelting and Aluminum Company. Filed Apr. 14, 1911. Serial No. 621,002. (Cl. 23—1.)



1. The method of protecting against the injurious gases formed in the top of tunnel furnaces the corrodible portions of the cars and of the furnace lying below the car tops, consisting in maintaining below the car tops such a pressure of non-corrodible gas as to prevent any downward leakage of the injurious gases.

2. The method of preventing the injurious gases formed in tunnel furnaces above the tops of the cars from attacking the metal portions of the cars and the masonry below the car tops, which consists in creating beneath the car tops such a pressure of air as to prevent any downward leakage of the injurious gases.

3. The method of preventing the injurious gases formed in tunnel furnaces above the tops of the cars from attacking the metal portions of the cars and the masonry below the car tops, which consists in creating beneath the car tops a pressure of air upward exceeding the downward pressure of the injurious gases downward.

4. The method of protecting from the injurious action of gases formed in tunnel furnaces above the tops of the cars the corrodible portions of the cars and of the furnace lying below the car tops, which consists in introducing into the furnace under the cars an upward air pressure equal to the downward pressure of the injurious gases.

5. The method of protecting from the injurious action of gases formed in tunnel furnaces above the tops of the cars the corrodible portions of the cars and of the furnace lying below the car tops, which consists in introducing into the furnace, beneath the cars an inert gas under an upward pressure sufficient to counteract the tendency of the injurious gases to leak downward, said inert gas pressure being unequally distributed throughout the length of the furnace, to correspond with the pressure of the injurious gases in the various portions of the furnace.

[Claims 6 to 14 not printed in the Gazette.]

1,040,893. CHARGE MIXTURE FOR FORMING ALKALI-SILICO-ALUMINATE AND HYDROCHLORIC ACID. Alfred H. Cowles, Sewaren, N. J., assignor to The Electric Smelting & Aluminum Co. Filed July 7, 1911. Serial No. 637,246. (Cl. 23—1.)

1. A non-combustible charge mixture for producing hydrochloric acid and alkali-silico-aluminate, consisting of alumina, silica, alkali chlorid and carbon.

2. A charge mixture for producing hydrochloric acid and alkali-silico-aluminate, consisting of non-ferruginous clay, carbon and alkali-chlorid.

3. A charge mixture for producing hydrochloric acid and alkali-silico-aluminate, consisting of alumino-silicious compositions, said compositions being substantially non-ferruginous, in combination with an alkali-chlorid and carbon.

4. A charge mixture for producing hydrochloric acid and alkali-silico-aluminate, consisting of alumina, silica and alkali chlorid and 3% to 10% of carbon.

5. A charge mixture for producing hydrochloric acid and sodic-silico-aluminate, consisting of alumina, silica, salt, together with carbon in so small percentage as to render the charge incapable of use as a fuel.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,894. PROCESS OF FORMING A CHARGE MIXTURE FOR PRODUCING HYDROCHLORIC ACID AND ALKALI-SILICO-ALUMINATE. Alfred H. Cowles, Sewaren, N. J., assignor to The Electric Smelting and Aluminum Company, Sewaren, N. J. Filed Oct. 10, 1911. Serial No. 653,876. (Cl. 23—13.)

1. The process for producing a non-combustible charge mixture for making hydrochloric acid and alkali-silico-aluminate, which comprises forming a mixture of alkali chlorid and silico-aluminous compound and combining therewith in such proportions as to produce a non-combustible charge a body adapted to disappear, treating the mass to cause said body to disappear and leave the mass porous.

2. The process for producing a non-combustible charge mixture for making hydrochloric acid and alkali-silico-aluminate, which comprises forming a mixture of alkali chlorid and a silico-aluminous material, adding thereto in such proportions as to produce a non-combustible charge a material adapted to pass off and leave the mixture porous, and treating the mass to remove at least a part of said material.

3. The process for producing a charge mixture for making hydrochloric acid and alkali-silico-aluminate, which comprises producing shaped bodies by mixing, in such proportions as to produce a non-fuel charge, clay, salt, and a material adapted to disappear at a temperature of 1700 to 2400 degrees Fahrenheit and render the charge mixture porous and preserve its original shape as put into the furnace.

4. The process of forming a non-combustible charge mixture for making hydrochloric acid and alkali-silico-aluminate, which comprises producing shaped bodies of silico-aluminous materials and an alkali chlorid, adding thereto a material adapted to pass off and then treating the mass so formed at such temperature that the compound becomes porous, while retaining its original external shape.

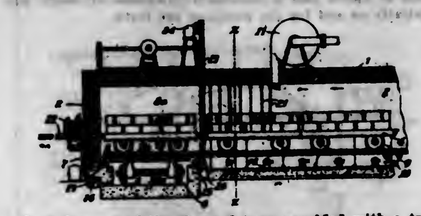
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1,040,895. CHANNEL-FURNACE. Alfred H. Cowles, Sewaren, N. J., assignor to The Electric Smelting & Aluminum Company, Sewaren, N. J. Filed Mar. 19, 1912. Serial No. 684,838. (Cl. 75—124.)

1. A channel furnace having a combustion chamber through which trucks are adapted to be passed and means for maintaining the spaces above and below the trucks isolated from each other while introducing a fresh truck into the combustion chamber.

2. A furnace of the channel type having a vestibule suitably sealed from the furnace proper and the outer air, said vestibule being provided with rails for supporting a transfer car, rails on the upper surface of the transfer car, a car carried by said rails, in combination with a pusher penetrating the wall of the vestibule and adapted to impart to the car on the transfer car a gradual and uniform movement into and through the channel furnace.





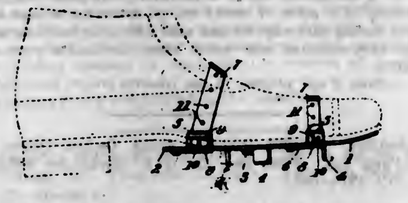
3. A furnace of the channel type provided with a track, cars located on said track and dividing the furnace into two portions, one above and one below the car bodies, means for supplying gas to, and means for exhausting gas from the upper portion of the furnace, means for dividing the portion of the furnace below the cars into a series of separate sections extending throughout the length of the furnace, a gas supply connected with each such sections, and means for separately regulating the gas supply to each section, so as to prevent the gases from passing from the upper to the lower portion of the furnace.

4. In a furnace of the channel type, a track, cars running on said track and dividing the furnace into upper and lower portions, a series of curtains at the entrance end of the furnace, and an exhaust fan located near the said entrance end, in combination with means for preventing gas passing from above to below the car bodies.

5. A channel furnace provided with a car track, cars resting on said track, a car pit, a series of movable baffles dividing the car pit into separate sections, and an adjustable means of gas supply connected with each section.

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1,040,896. FOOT-GEAR. Bishop A. Cox, Fayetteville, Ark. Filed Oct. 26, 1911. Serial No. 657,007. (Cl. 36—62.)



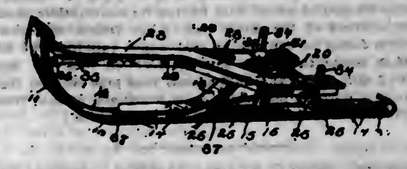
1. The combination, with a plate adapted to be secured to the sole of a shoe, of a pair of oppositely facing clamps mounted on said plate and having parallel slots in each, studs projecting from the clamps between the slots, and a strap passed through said slots and having perforations adapted to engage said studs for holding said clamps against sepration beyond a predetermined limit.

2. The combination, with a plate adapted to be secured to the sole of a shoe, of a pair of oppositely facing clamps mounted on said plate and having parallel slots in each, studs projecting from the clamps between the slots, and a strap passed through said slots and having perforations adapted to engage said studs, a portion of said strap being designed to extend below the sole of the shoe and to serve as a connection between the clamps, another portion of said strap adapted to pass over the shoe for supporting the weight of the device.

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1,040,897. SIDE FRAMING FOR SLEIGHS. Patrick Henry Cummins, Amsterdam, N. Y. Filed Nov. 17, 1911. Serial No. 660,805. (Cl. 21—48.)

1. In the side framing of a sleigh, a runner constructed of T-iron with the web offset from the line of the center and a superstructure built upon and connected with the runner and having a web offset reversely from the line of the center with the flanges of the connected parts registering.



2. In the side framing of a sleigh, a runner constructed of T-iron having its web offset from the line of the center and a knee constructed of T-iron having reversely extending extremities with webs offset from the line of the center connected with the offset web of the runner and with the flanges of the knee and runner registering.

3. In the side framing of a sleigh, a runner constructed of T-iron having its web offset from the line of the center, a knee constructed of T-iron with the web offset from the line of the center and with the webs of the knee and runner reversed and connected, and a rave constructed of T-iron having its web offset from the line of the center and connected with the offset web of the runner.

4. In the side framing of a sleigh, a runner constructed of T-iron with the web offset from the line of the center and a knee constructed of T-iron with its web offset from the line of the center and formed as the reverse arcs of a circle with the oppositely extending extremities secured by their offset webs to the offset webs of the runner at spaced points.

5. In the side framing of a sleigh, a runner constructed of T-iron, a knee constructed of T-iron and as an upwardly extending loop, a pipe bifurcated at its lower end embracing the web of the runner, a rod constructed as a Y at one end to receive the knee and a stud extended into the upper end of the pipe.

[Claims 6 to 13 not printed in the Gazette.]

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1,040,898. OIL-DRIP. Peter A. Curtin, Buffalo, N. Y. Filed Aug. 3, 1911. Serial No. 642,189. (Cl. 184—10.)



1. An oil drip comprising a feed pipe, a frame of coiled wire secured to said feed pipe, and a cover of absorbent material on said frame.

2. An oil drip comprising a feed pipe, a collapsible frame secured to said feed pipe, and a cover of absorbent material surrounding said frame.

3. An oil drip comprising a feed pipe, an open-work collapsible frame secured to said feed pipe, compressible oil retarding material in said frame, and a cover of absorbent material on said frame.

4. An oil drip comprising a feed pipe, a collapsible frame formed of coiled wire, oil retarding material within said frame, and an absorbent material at the lower end of said frame.

5. An oil drip comprising a feed pipe, a collapsible frame formed of coiled wire having its convolutions spaced apart except at the upper end of the frame, said convolutions being in contact at said upper end to serve as a female screw thread, a bushing screwed into the upper end of said frame and having said feed pipe secured thereto, and absorbent material at the lower end of said frame.

[Claims 6 to 12 not printed in the Gazette.]

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1,040,899. SELF-CLEANING NOZZLE. RICHARD DAHMAN, Chicago, Ill. Filed Apr. 28, 1911. Serial No. 623,936. (Cl. 137—17.)



1. A self-cleaning nozzle comprising a plurality of laterally separable members constituting the walls of a passage for fluid under pressure, said passage annularly enlarged and flared at its inlet end, and means yieldingly holding said members against separation by the pressure exerted thereon by the fluid flowing through said passage.

2. A nozzle comprising a plurality of laterally separable members constituting the walls of a passage for fluid under pressure, the latter annularly enlarged and tapered at its inlet end, a holder for said members, and means within said holder for yielding restraining separation of said members by the fluid pressure acting thereon and permitting separation thereof upon an increase in fluid pressure acting thereon due to lodgment of an obstruction in said passage, whereby the discharge end of the latter is automatically enlarged to permit said obstruction to pass.

3. A self-cleaning nozzle comprising a housing having a flaring mouth at its delivery end, and laterally separable members having a discharge opening therebetween contracted at its delivery end disposed in said flaring mouth and adapted to be moved longitudinally of said flaring mouth by fluid pressure and separate therein to permit the passage of obstructions.

4. A self-cleaning nozzle for liquid under pressure comprising a discharge spout consisting of a plurality of laterally separable members between which a passage for liquid is formed, the said passage enlarged at its inlet end, and means normally holding said members against separation by the pressure of the liquid thereon, said members adapted to be separated to expand the discharge end of the passage therebetween by increase in the fluid pressure thereon due to the lodgment of an obstruction in said passage, substantially as and for the purpose specified.

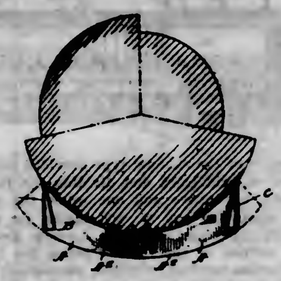
5. A self-cleaning nozzle for fluid under pressure comprising a plurality of laterally separable members made of unyielding material constituting the walls of a passage for the fluid, a carrying member for said separable members, said carrying member normally maintaining said members in contact with each other, said separable members being movably relatively to each other and to the carrying member by fluid pressure acting thereon in one direction.

[Claims 6 to 10 not printed in the Gazette.]

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1,040,900. TURPENTINE-APRON. WILLIAM O. DALY, Mobile, Ala. Filed May 19, 1911. Serial No. 628,246. (Cl. 47—40.)

1. An apron for turpentine cups composed of a plate of sheet metal curved from end to end and provided along its inner curved side with a series or row of serrations forming teeth and having its portion adjacent to its opposite or outer edge reduced in thickness throughout whereby with a given weight of material, is secured a maximum width of apron and a maximum thickness of teeth, substantially as and for the purposes set forth.



2. An apron consisting of a flat plate of metal which is curved from end to end and has at its inner edge a series or row of teeth which extend on a curved line whereby they coincide approximately with the curvature of a tree, the portion of the plate adjacent to its outer edge or edge opposite the series of teeth being reduced in thickness relatively to the toothed edge, substantially as set forth.

3. An apron for turpentine cups formed of sheet metal, curved from end to end on the arc of a circle and provided along its inner edge with teeth or serrations with the adjacent teeth adjoining whereby said edge presents an uninterrupted saw tooth edge, the apron being made of greater width at one end, substantially as set forth.

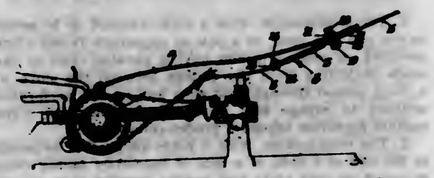
4. An apron for turpentine cups consisting of a plate of metal toothed along one edge and curved inwardly on said edge and having its other edge reduced in thickness relatively to its toothed edge.

5. A turpentine apron substantially as described, consisting of a plate of metal curved inwardly at one edge and having said edge formed with adjoining teeth forming an uninterrupted saw tooth edge, substantially as set forth.

[Claim 6 not printed in the Gazette.]

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1,040,901. PAPER-GUIDE. ALICE UNTILLA DAVIS, El Paso, Tex. Filed Dec. 12, 1911. Serial No. 665,222. (Cl. 197—143.)

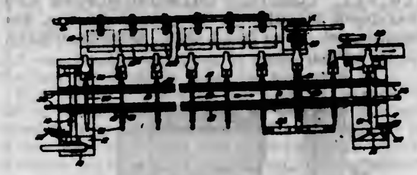


1. A paper guide, comprising a plurality of supporting arms; a rest-bar adjustably mounted on said supporting arms; and a holding member detachably mounted upon said rest-bar to form a guiding slot for the paper as delivered to and from the platen of a typewriting machine.

2. A paper guide, comprising a plurality of longitudinally slotted supporting bars; a cross-bar having adjacent the ends thereof longitudinally-disposed slots; a rectangular sliding member disposed in said slots to maintain said bars in perpendicular relation; means for clamping said bars in fixed relation; a holding bar disposed above said rest-bar; and suitable button and eyelet connections between said rest-bar and said holding bar.



1,040,902. GLASSWARE-FINISHING MACHINE. JAMES H. DRAKIN, Marion, Ind., and HENRY SCHNEEBACH, Charleroi, Pa., assignors to Macbeth-Evans Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 2, 1910. Serial No. 558,936. (Cl. 49—7.)



1. A finishing machine for glass articles having a series of holders for the articles, mechanism to carry the articles and to open and close the holders in the carrier at two points of their travel, and mechanism to automatically release the holders from the carrier at one point of the travel.

2. A carrier machine for finishing glass articles, comprising a continuous traveler, a holder for the articles mounted on the traveler, and means to temporarily release the holders and to open and close the holders at predetermined positions when on the traveler, substantially as described.

3. A finishing machine for glass articles having a continuous traveling carrier, a series of holders bodily removably mounted on the carrier, means to lift them out of the traveling carriers and means to re-adjust their position and reinsert them in the traveling holders, when placed again on the carrier.

4. The combination of an endless carrier chain having forks, self-closing snaps in the forks, a cam arranged to open the snaps and mechanism to remove and then again aline and place the snaps in said forks when replaced on the carrier chain, substantially as described.

5. The combination with a furnace having a graduated series of heating chambers, of mechanism to carry glass articles through the heating zones in succession, holders and supporting means for said glass articles permitting of the holders being removed, and means operating in conjunction with the holders and supports, after replacing the holders thereon to discharge the articles at a predetermined point.

[Claims 6 to 9 not printed in the Gazette.]

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1,040,903. SUPPORT FOR TOOLS. JOHN J. DELEHANT, Chicago, Ill. Filed June 16, 1911. Serial No. 633,497. (Cl. 81—41.)



1. A device of the character described, comprising a comparatively broad strip bent to form a vertical member and two horizontal parallel members of unequal length, the longer one serving as a base and the shorter one apertured to permit a vise to be secured upon it, two inclined spaced strips having their upper ends secured to the ends of the shorter member of the first strip and their lower ends to the longer member of said strip a short distance from its end, the inclined strips being provided with bars secured thereto and having their ends curved outwardly to form tool supports, and a brace secured to the vertical member of the first strip to extend laterally therefrom and provided with a foot for engaging a supporting surface.

2. A device of the character described, comprising a box-like structure in the form of a truncated wedge, the longer end wall of the structure being extended beyond the inclined side of the said structure to form therewith an elongated base and the shorter end wall being apertured to permit a vise to be secured upon it, bars secured upon the inclined side of the structure and having their ends bent outwardly to form tool supports, and a brace pivoted to the side opposite the inclined side and provided with a foot for engaging a supporting surface when said brace is extended laterally.

3. A device of the character described, comprising a frame formed of a strip bent to form two parallel members, one shorter than the other, and provided with an aperture, a vertical member and an inclined member, inclined strips secured to the parallel members of the first strip and having their ends secured to the longer parallel member and projecting beyond the inclined member of said first strip, a plate fixedly secured to one side of the frame, and a plate slidably mounted on the opposite side of said frame.

4. A device of the class described, comprising a frame formed of a strip bent to form two parallel members, one shorter than the other and provided with an aperture, a vertical member and an inclined member, inclined strips secured to the parallel members of the first strip with their ends which are secured to the longer parallel member and extending beyond the inclined member of said strip, a strip of angle iron secured to one side of the frame to form therewith a guideway, a plate mounted to slide in the guideway, a plate fixedly secured to the frame opposite the sliding plate, and corner shields secured upon the corners opposite the angle iron.

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1,040,904. TROLLEY-GUARD. SAMUEL C. DISTEFANO, Baltimore, Md. Filed Feb. 8, 1912. Serial No. 676,167. (Cl. 191—37.)

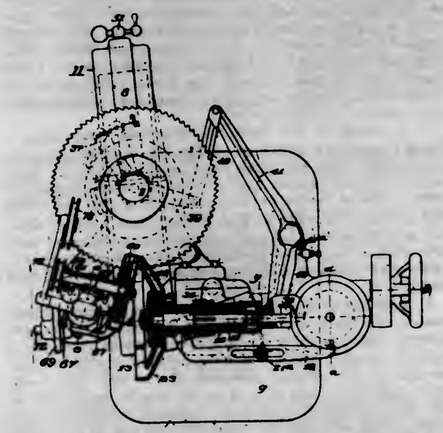


1. The combination with a trolley wheel, and the forked ends of the supporting harp formed with recesses or slots, of a guard arm pivoted at each side of the harp and said arms seated in said slots, an integral cup formed on each forked end and located over one of said slots, and a coiled spring in said cup bearing against the guard arm.

2. The combination with the slotted forked ends of a supporting harp and a trolley wheel, an integral cup formed at the outside of each harp end and located over a slot, a guard arm pivoted on each forked end and located in a slot, a shoulder on the arm bearing against a wall of the slot, and a spring inclosed in said cup bearing on said arm.

3. The combination with the slotted forked ends of a supporting harp, and a trolley wheel, an integral cup formed at the outside of each forked end and located over a slot, a guard arm formed with a hooked end and pivoted at its other end on each forked end, and located in a slot, a shoulder on the arm bearing against a wall of the slot, and a spring inclosed in said cup bearing on said arm.

1,040,905. SAW FORMING AND SHARPENING MACHINE. ROY B. DOW, Rochester, N. Y., assignor to Cochran-Bly Company, Rochester, N. Y., a Corporation of New York. Filed July 18, 1906. Serial No. 444,164. (Cl. 76—40.)



1. In a saw grinding machine, the combination with a grinder reciprocating within fixed limits, and an adjustable saw support, of devices for intermittently advancing a saw on such support to present its teeth successively to the action of the grinder, means acting upon the saw support and said advancing devices for moving the saw support toward the field of movement of the grinder upon a predetermined number of steps of the saw and simultaneously imparting to the saw an advance movement on the support in the direction of its cutting action.

2. In a saw grinding machine, the combination with a rotatable saw support, a grinder adapted to move into and out of the spaces between the teeth of a saw mounted on the support and means for advancing the support forwardly toward the grinder upon each complete rotation, and means coöperating with the support when it is so advanced to also rotate it slightly to position the saw thereon so that the grinder will dress one of the side faces of each tooth of the saw upon the continued rotation of the latter.

3. In a saw grinding machine, the combination with a support adapted to receive a circular saw, a grinder adapted to reciprocate into and out of the spaces between the saw teeth and means for intermittently rotating the saw to position a new tooth relatively to the grinder upon each reciprocation thereof, of means for automatically advancing the support toward the grinder upon each complete rotation of the saw, said means for advancing the support and the means for rotating the saw operating conjointly to rotate the saw into an advanced position so that the width of the teeth will be decreased by the grinder as the latter acts to decrease the diameter of the saw.

4. In a machine for grinding circular saws, the combination with a grinder mounted to reciprocate into and out of the spaces between the teeth of a saw mounted upon a support, and a revoluble saw support, of means for intermittently rotating the support to successively position the saw teeth relatively to the grinder, and means for carrying the axis of rotation of the support relatively toward the grinder upon each complete rotation thereof, said means of rotation acting to rotate the support slightly for advancing the position of the saw teeth upon the shifting of the axis of said support.

5. The combination with a tooth grinder and a saw support movable toward the grinder, of mechanism for rotating a saw on the support, having a portion mounted on the said support and a portion connected to a fixed part of the machine acting to impart a rotary movement to a saw on the support during the adjustment of the saw support relatively toward and from said grinder.

[Claims 6 to 24 not printed in the Gazette.]

1,040,906. COMBINED CHARGING-HOPPER AND TRAP-DOOR THEREFOR. PATRICK F. DUNBOR, San Francisco, Cal. Filed July 3, 1911. Serial No. 636,674. (Cl. 110—118.)



The combination with a furnace, an arch having an orifice therein and one wall of the furnace having an opening adjacent to the orifice in the arch, of a hopper removably located within the furnace, its lower end encompassing the orifice in the arch and its upper end extending to the top of the furnace, the hopper having an enlargement in one side, a trap-door hinged at the lower end of the hopper in position to close the orifice in the arch when in one position and to enter the enlargement when opened, an arm secured to the hinged portion of the door, and extending through the opening in the wall, and a counterweight slidably mounted on the arm for opening the door and, holding it in an open position.

1,040,907. SUPPORT FOR FURNITURE-DRAWERS. JAMES FRANK DUNLEAVY, Newton, Mass. Filed Oct. 4, 1910, Serial No. 585,171. Renewed Sept. 6, 1912. Serial No. 719,006. (Cl. 45—77.)



1. A support of the character described, comprising two slotted side plates; a roller between the side plates provided with trunnions mounted in the slots of the plates, and means for securing the support to the article to which it is applied comprising a fastener for interlocking the ends of the plates and attaching them to the article.

2. A support of the character described, comprising a pair of slotted plates each made at its ends with laterally extending ears overlapping and fitting against the ears of the other plate; a roller between the plates provided with trunnions mounted in the slots of the plates, and means engaging said ears to lock the latter together and also fasten the support in its place.

3. A support of the character described, comprising a pair of slotted plates, each made at its ends with laterally extending ears overlapping and fitting against the ears of the other plate; a roller between the plates provided with trunnions mounted in the slots of the plates, and yoke-shaped fasteners engaging the ears to lock the latter together, said fasteners being adapted to be driven into an article of furniture or the like to fasten the support in its place.

4. A support of the character described, comprising a pair of slotted plates, each made at its ends with laterally extending ears overlapping and fitting against the ears of the other plate; a roller between the plates provided with trunnions mounted in the slots of the plates, and staples engaging said ears so as to lock them together, said staples being adapted to be driven into an article of furniture or the like to fasten the support in place.

5. A support of the character described, comprising a pair of slotted plates each made at its ends with laterally extending ears overlapping and fitting against the ears of the other plate, said ears each having an upwardly extending lug adapted to register with the corresponding lug on the adjacent ear of the other plate; a roller between the plates provided with trunnions mounted in the slots of the plates, and two staples each embracing two of the ears, the top of each staple being perforated to receive and inclose the lugs on the ears which the staple embraces.

[Claims 6 to 8 not printed in the Gazette.]



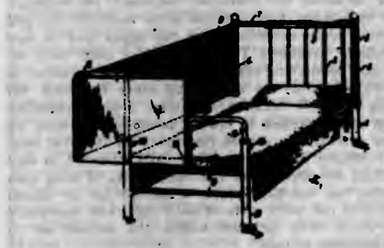
1,040,908. COMPOSITION OF MATTER FOR USE IN REMOVING GREASE, &c., FROM THE MOLDS USED IN THE ART OF ELECTROTYPING. GEORGE E. DUNTON, New York, N. Y. Filed Sept. 6, 1910. Serial No. 580,539. (Cl. 87—5.)

1. A composition for use in removing grease, oil or fatty substances from molds, used in the art of electrotyping, the constituent ingredients of which are alcohol, caustic alkali and chlorin gas dissolved in water, substantially as described.

2. A composition for use in removing grease, oil or fatty substances from molds, used in the art of electrotyping, the constituent ingredients of which are methyl alcohol, caustic alkali and free chlorin gas dissolved in water, substantially as described.

3. A composition for use in removing grease, oil or fatty substances from molds, used in the art of electrotyping, the constituent ingredients of which are methyl alcohol eight hundred cubic centimeters, chlorin gas two thousand cubic centimeters, water one thousand cubic centimeters and caustic soda fifty five grams, substantially as described.

1,040,909. SCREEN-BED. FRANK B. EASTON, New York, N. Y. Filed Mar. 16, 1912. Serial No. 684,144. (Cl. 5—4.)



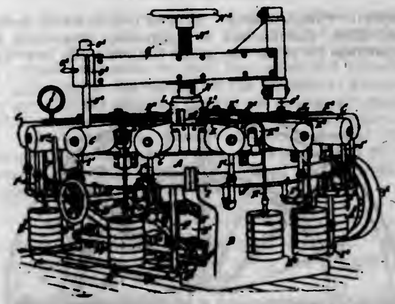
1. In an improvement of the kind described, a bed having a screen attached to one end, means for extending said screen from said end to the other end of said bed and securing the same to the other end, and means for spacing said screen from a side of said bed.

2. In an improvement of the kind described, a bed having a hollow cross-bar at one end thereof, a post having a lateral arm extending into said cross-bar, a screen carried by said post, whereby, when said post is moved to withdraw said arm in part from the bar and the screen carried by said post extended, the said screen will be spaced from the side of the bed, and means for securing the outer end of the screen to the other end of the bed.

3. In an improvement of the kind described, the combination of a bed having a screen secured to one end of the same, said bed having a hollow post at the other end, a U-shaped bar pivotally and slidably mounted in said post, and means carried by said post for securing said arm in adjusted position, whereby, when the U-shaped bar is swung into position to project laterally from the bed and the screen extended and secured to the foot of the bed, the said U-shaped bar will cause said screen to be spaced from the side of the bed.

4. In an improvement of the kind described, the combination of a bed having a hollow cross bar at one end, a post having an arm extending laterally therefrom received by said cross-bar, a screen carried by said post, a hollow post located at the other end of the bed, a U-shaped bar pivotally and rotatably carried by said hollow post, and means for securing said U-shaped bar in adjusted position, whereby, when the post is moved to withdraw the arm in part from the hollow bar, and the U-shaped arm is secured in position to project laterally from the bed and the screen extended, the screen will be spaced from the side of the bed.

1,040,910. ASSEMBLING-MACHINE. GEORGE A. ENSIGN, Defiance, Ohio, assignor to Defiance Machine Works, Defiance, Ohio. Filed Feb. 17, 1912. Serial No. 678,251. (Cl. 157—2.)



1. An assembling machine for assembling wooden wheels, comprising a series of radially-disposed cylinders, pistons movable in the said cylinders, means for controlling fluid pressure to the said cylinders to move the pistons toward a common center, and sets of gearings, each set connecting adjacent pistons with each other to cause the pistons to move in unison.

2. An assembling machine for assembling wooden wheels, comprising a series of radially-disposed cylinders, pistons movable in the said cylinders and each provided with racks, means for controlling fluid pressure to the said cylinders to move the pistons toward a common center, sets of gearings, each set connecting adjacent pistons racks with each other to cause the pistons to move in unison, and weight-controlled means connected with the said pistons for returning the same on relieving the cylinders of fluid pressure.

3. An assembling machine for assembling wooden wheels, comprising a series of radially-disposed cylinders, pistons movable in said cylinders and provided at opposite sides with racks, means for controlling fluid pressure to the said cylinders, and pairs of gear wheels between adjacent pistons, the gear wheels in a pair being in mesh with each other and with the racks of the adjacent pistons.

4. An assembling machine for assembling wooden wheels, comprising a table for supporting the wheel sections, wheel rim presser devices grouped horizontally

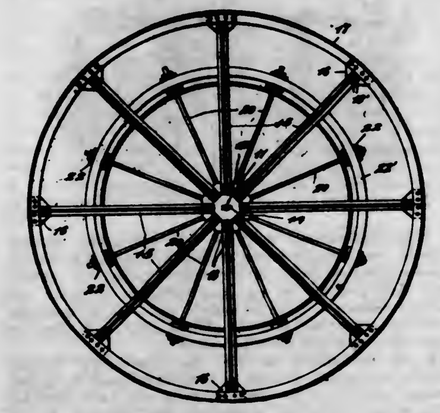
around the table and disposed radially, the said presser devices pressing against the peripheral faces of the wheel rim sections in the direction of the center of the wheel, clamping members, of which one engages the under side of the spokes at the center of the wheel and the other engages the top of the spokes at the center of the wheel, independent presser devices for pressing the said clamping members toward each other and in firm contact with the spokes, and fastening means for fastening the said clamping members together while the wheel is held pressed by the said presser devices for the wheel rim and the said clamping members.

5. An assembling machine for assembling wooden wheels, comprising a support for supporting the wheel sections, wheel rim presser devices for pressing the wheel sections to engage the inner ends of the spokes with each other, a bottom clamping member adapted to engage the under side of the spokes at the center of the wheel, the said clamping member having an apertured shank extending through a central opening in the wheel, an apertured top clamping member resting on top of the spokes directly opposite the said bottom clamping member, the said shank passing through a central opening in the said top clamping member, presser devices for pressing the bottom clamping member upward, presser devices for pressing the top clamping member downward, and a key engaging the said shank and the said top clamping member to lock the same together while the wheel is held pressed by the presser devices for the wheel rim and the clamping members.

[Claims 6 to 9 not printed in the Gazette.]

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1,040,911. TURN-TABLE. August C. Erickson, Tecumseh, Nebr., and Lauren D. Fletcher, Yates City, Ill. Filed June 10, 1912. Serial No. 702,904. (Cl. 104—19.)



1. In a device of the character described, the combination of a base plate, means for anchoring said plate, a cylindrical drum mounted upon said plate, means for securely fastening the drum on to the plate, angular brackets having their vertical portions secured to the inner side of the drum at the upper edge thereof, a bearing plate mounted upon the horizontal portions of said brackets, a bearing pin mounted in said bearing plate and a platform frame rotatably mounted upon said pin.

2. In a device of the character described, the combination of a base plate, means for anchoring said plate, a cylindrical drum mounted upon said plate, means for securely fastening the drum on to the base plate, angular brackets mounted in said drum at the upper edge thereof, a bearing plate mounted upon and rigidly secured to said brackets, a bearing pin mounted in the bearing plate, a platform frame rotatably mounted upon said pin, a ring encircling the drum and arranged in spaced relation therewith, an outer ring arranged in spaced relation with said first ring, radially arranged rods having their ends mounted in said rings, rollers mounted upon the inner ends of said rods and bearing upon the base plate, a second set of rollers mounted upon the outer ends of said rods, and oppositely disposed track rails between which the second set of rollers are adapted to run.

3. In a device of the character described, the combination of a base plate, a cylindrical drum mounted thereon, means for fastening the drum to the base plate, angular brackets secured to the inner side of the drum at the upper edge thereof, a bearing plate mounted upon said brackets, a bearing pin mounted in said bearing plate, a connecting plate mounted upon said bearing pin, radially arranged T beams having their inner ends secured to said connecting plate, a sectional rim arranged in spaced relation with the connecting plate to which the outer ends of the T beams are secured, a ring encircling said drum and arranged in spaced relation therewith, an outer ring arranged in spaced relation with the first ring, radially arranged rods having their ends mounted in said rings, rollers mounted upon the inner ends of every other one of said rods and bearing on the base plate, a second set of rollers mounted upon the outer ends of said rods, and oppositely disposed track rails between which the second set of rollers is adapted to run.

4. In combination with a pit having a raised central portion, of a base plate mounted upon the central portion, means for anchoring said base plate, a cylindrical drum mounted upon the base plate, means for securing said drum to the base plate, angular brackets secured upon the inner side of the drum at the upper edge thereof, a bearing plate mounted upon said brackets, a bearing pin mounted in said bearing plate, a connecting plate mounted upon said bearing pin, a washer mounted upon said pin and arranged between said connecting plate and bearing plate, radially arranged T beams having their inner ends secured to the connecting plate, a sectional rim arranged in spaced relation with the connecting plate and to which the outer ends of said beams are secured, a ring encircling the drum and arranged in spaced relation therewith, an outer ring arranged in spaced relation with the first ring, radially arranged rods having their ends mounted in said rings, rollers mounted upon the inner ends of every other one of said rods, a second set of rollers mounted upon the outer ends of said rods, oppositely disposed track rails between which the second set of rollers is adapted to run, one of said rails being arranged at the bottom of the pit, and the other rail suspended from the lower side of the T beams.

5. In a device of the character described, the combination of a base plate, a cylindrical drum mounted thereon, a connecting plate mounted upon the upper end of said drum, radially arranged T beams having their ends secured to said connecting plate, a sectional rim arranged in spaced relation with the connecting plate to which the outer ends of the T beams are secured, a ring encircling said drum and arranged in spaced relation therewith, an outer ring arranged in spaced relation with the first ring, radially arranged rods having their ends mounted in said rings, rollers mounted upon the inner ends of said rods and bearing on the base plate, a second set of rollers mounted upon the outer ends of said rods, and oppositely disposed track rails between which the second set of rollers is adapted to run.

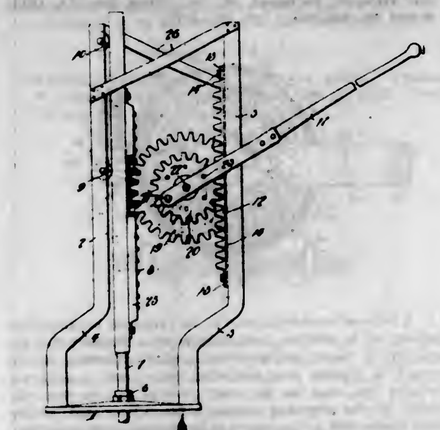
[Claims 6 and 7 not printed in the Gazette.]

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1,040,912. PUMP-DRIVING GEAR. Samuel F. Eubank, Columbia, Ky., assignor of one-third to W. R. Lyon, Campbellsville, Ky. Filed Apr. 5, 1912. Serial No. 688,720. (Cl. 103—62.)

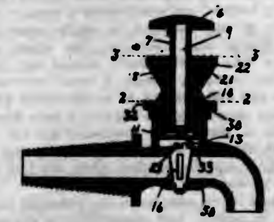
Pump driving gear, embodying stationary bars, one of which is provided with a longitudinal slot, stationary racks secured in fixed relation to the slotted bar and arranged at opposite sides of the slot therein, a pump rod, a rack fastened to the pump rod, a pump lever, and a gear wheel connected to said lever and having three toothed faces meshing with said racks, the central or larger member of the gear wheel working in the slot in the stationary bar.





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1,040,913. LOCKING FAUCET. Bruno Falke and Edward Walters, Cleveland, Ohio. Filed May 8, 1912. Serial No. 695,893. (Cl. 137—7.)



1. The combination with a valve body and a turning valve, of an operating stem movable to engagement with said valve, and a locking mechanism mounted on the valve body and having a member located between the inner end of the stem and the valve body and adapted to prevent such movement and engagement, when in locked condition.

2. The combination with a valve body and a turning valve therein, of a stem normally detached from the valve and movable axially to engagement at its end therewith, and a lock on the body, having a rotary member located between the inner end of the stem and the valve and movable to different positions to either permit or prevent such axial movement of the stem.

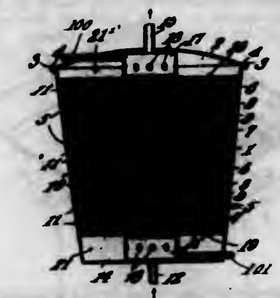
3. The combination with a valve body and a turning valve therein, of a thimble rotatable in the valve body, a cylinder rotatable in the thimble, and a plunger stem rotatable within the cylinder, and movable axially therein to engagement with the valve, said cylinder and thimble having corresponding recesses and the stem having projections adapted to lock said stem against said axial movement, and also adapted to be registered with said recesses by proper relative rotation of the cylinder, thimble and stem to permit said axial movement and engagement.

4. The combination with a valve body and a turning valve therein, of a rotary stem movable axially to and from engagement with said valve, and a permutation lock mounted on the valve body and having a member rotatable around the stem, and also having a plurality of rotatable parts normally located between the inner end of the stem and the valve and preventing engagement of the stem and valve and adapted to be turned to set position to permit such engagement.

5. The combination with a valve body and a turning valve therein, of a stem movable axially to and from engagement with said valve, and rotatable to turn the same, the inner end of said stem being non-circular, and a spool mounted on the valve body and rotatable around the stem, said spool having at its inner end a non-circular recess corresponding to the inner end of the stem and adapted to permit the said end to pass through said recess when the spool is turned to proper position.

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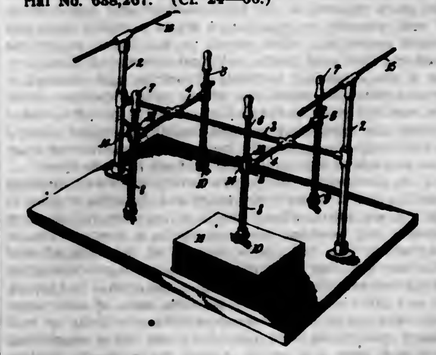
1,040,914. HOUSEHOLD GAS-FILTER. John Plant Farmer, Portland, Oreg. Filed Aug. 21, 1911. Serial No. 645,102. (Cl. 48—187.)



In a device of the class described, a receptacle comprising a case and a lid; an inlet pipe extended through the bottom of the case; an outlet pipe extended through the lid; drums perforated in their side walls and secured to the pipes within the contour of the receptacle; screens in contact with the adjacent faces of the drums and extended entirely across the case, the screens defining openings in the case, around the drums; spaced, perforated plates located within the case between the screens; and filtering material interposed between the plates, and between the terminal plates and the screens.

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1,040,915. NEWSPAPER-HOLDER FRAME. Henry Zum Felde, New York, N. Y. Filed July 13, 1911. Serial No. 638,267. (Cl. 24—66.)

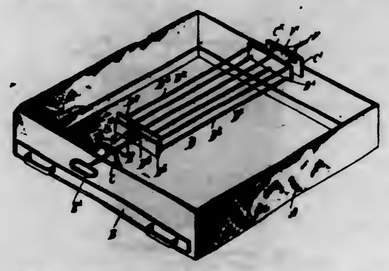


1. A frame for holding sheets of paper, comprising a base, a substantially horizontal bar supported above said base, substantially horizontal bars supported by the first-named bar and arranged transversely with respect thereto, said last-named bars having vertically-extending bearings in their outer ends, movable rods mounted in said bearings to engage piles of papers upon the base to hold the same in place, and means carried by the transverse bars to engage the rods and hold them in raised position when desired.

2. In a frame for holding newspapers and the like, the combination of a rod, a fixed bearing in which said rod is slidably mounted, a ring surrounding said rod and snugly fitting the same adjacent one end of the bearing, and a spring mounted on said bearing and engaging said ring to move the same laterally of the rod, said rod having a reduced section, whereby, when the rod is moved to bring the reduced section opposite the ring, the spring will force the inner edge of the ring against the reduced section to hold the rod against movement.

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1,040,916. COOKING APPARATUS. HARRIET JULIA FELL, White Plains, N. Y. Filed Dec. 1, 1911. Serial No. 663,220. (Cl. 53—5.)

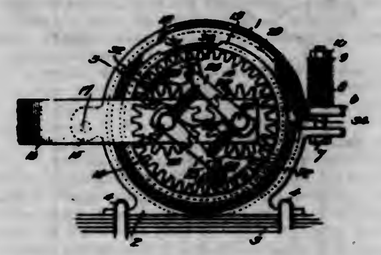


1. In combination with a pan having oppositely-disposed bearings of which one is elongated and the other is open at the top, a gridiron whose length is less than the distance between the bearings having clamping members between which the article of food is to be clamped, the gridiron having trunnions for engagement with the said bearings, and being movable in the direction of its length between the bearings, one of the trunnions having a handle and engaging the said open bearing, and the other trunnion having a flat portion for engagement with the said elongated bearing to hold the gridiron against turning.

2. A gridiron comprising a lower series of supporting rods, end plates rigidly connected to the ends of said rods and extending upwardly therefrom, trunnions extending centrally, and in opposite directions, from said end plates, an upper series of rods having a hinged connection at one end with the upper portion of one of said end plates, an end plate secured to the other ends of said upper series of rods whereby to constitute a frame movable upon said hinged connection with respect to the lower supporting rods and their end plates, said last-named end plate having a pin extending centrally therefrom and adapted to project parallelly above one of the said trunnions, when the said end plate is lowered in operative position, and a locking key comprising opposed clasping members secured to and projecting upwardly from the last-mentioned trunnion and adapted to receive the said pin between them.

3. In combination with a pan having oppositely disposed bearings of which one is elongated and the other is open at the top, a gridiron whose length is less than the distance between the bearings, and comprising a lower series of supporting rods, end plates secured at the ends of said rods, an upper series of rods having a hinged connection at one end with the upper portion of one of said end plates, an end plate secured at the opposite ends of said upper rods, whereby to form a frame movable vertically on said hinged connection with respect to the lower supporting rods and their end plates, means for normally holding said frame in a substantially parallel position above and with respect to the lower supporting rods and their end plates, said gridiron as a whole being shiftable between the said pan bearings and having trunnions movable through the said bearings, one of the said trunnions having a handle and being disposed in the open bearing, and the other trunnion engaging the elongated bearing and having a flattened portion which may be moved into registry, and out of registry, with the said elongated bearing, by shifting the gridiron.

1,040,917. REBOUND-CHECK. WALTER ARTHUR FINLEY, Fairmont, W. Va., assignor of one-fourth to Frederic Helmick, Fairmont, W. Va. Filed Dec. 14, 1911. Serial No. 665,600. (Cl. 21—105.)



1. A rebound check adapted to be arranged between two members of a vehicle, and comprising a support for attachment to one of the members, a shaft rotatable on the support, a fibrous ring encircling the shaft, means for clamping the ring on the shaft, means for varying the tension of the clamping means, a lever journaled on the shaft at one end and adapted to be connected at the other with the other member of the vehicle, a gear wheel secured to the shaft, a gear wheel journaled on the lever and meshing with the gear wheel on the shaft, a wedge shape block above and between the gear wheels, a spring normally drawing the said block downward to lock the gear wheels together when the lever moves upward.

2. A rebound check adapted to be arranged between two members of a vehicle, and comprising a support for attachment to one of the members, a shaft rotatable on the support, a fibrous ring encircling the shaft, means for clamping the ring on the shaft, means for varying the tension of the clamping means, a lever journaled on the shaft at one end and adapted to be connected at the other with the other member of the vehicle, a gear wheel secured to the shaft, a gear wheel journaled on the lever and meshing with the gear wheel on the shaft, and means for locking the gear wheels together when the free end of the lever moves upward.

3. A rebound check adapted to be arranged between two members of a vehicle, and comprising a support for attachment to one of the members, a shaft rotatable on the support, a fibrous ring encircling the shaft, means for clamping the ring on the shaft, means for varying the tension of the clamping means, a lever journaled on the shaft at one end and adapted to be connected at the other with the other member of the vehicle, a wheel on the shaft adjacent to the lever, and means for locking the lever to the wheel when the lever moves upward and for permitting the lever to move freely downward.

4. A rebound check adapted to be arranged between two members of a vehicle, and comprising a support for attachment to one of the members, a shaft rotatable on the support, a fibrous ring encircling the shaft, means for clamping the ring on the shaft, means for varying the tension of the clamping means, a lever journaled on the shaft at one end and adapted to be connected at the other with the other member of the vehicle, and means for locking the lever to the shaft when the lever moves upward and for releasing the lever from the shaft when the lever moves downward.

5. A rebound check adapted to be arranged between two members of a vehicle, and comprising a support for attachment to one member, a shaft journaled on the support, a lever journaled at one end on the shaft and adapted to be connected with the other member of the vehicle, means for locking the lever to the shaft when the said members move away from each other and for releasing the lever from the shaft when the members move together, and a braking device engaging the shaft, said device comprising a disk secured to the shaft, a split ring of fibrous material encircling the disk, a split ring encircling the fibrous ring, means for clamping the split ring on the fibrous ring, means for varying the tension of the clamping means, and means for preventing the rotation of the fibrous ring with respect to the split ring.

[Claims 6 to 18 not printed in the Gazette.]



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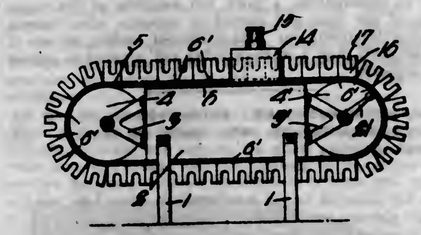
1,040,918. SHOE-LACE BUCKLE OR LOCK. CHARLES W. FISCHER, Sparks, Nebr. Filed Nov. 2, 1911. Serial No. 658,212. (Cl. 24—120.)



A fastener for shoe laces comprising a base plate having a slot in the bottom portion thereof and open at one end to position the fastener on the lace, a U-shaped clamping member pivoted between its ends on said base plate and comprising spaced side members providing a free opening therebetween through which the bow ends may be inserted, the closed end of said member extending across the open end of the slot aforesaid, a locking tongue pivotally mounted at the open end of the U-shaped clamping member and movable to a position between and in substantially the same plane as the sides of the U-shaped clamping member to positively engage the lace bow at this point.

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1,040,919. EGG-TESTING MACHINE. SQUIRE J. FISH, Jackson, Mich. Filed Dec. 13, 1911. Serial No. 665,503. (Cl. 99—6.)



1. An egg testing machine, having an open electrical lighting circuit, egg holders and a slidable circuit closer one to each egg holder carried by the holders.

2. An egg testing machine, having an open electrical lighting circuit, a slidable egg carrier having an egg holder with a sight aperture to aline with the light of the lighting circuit, and a circuit closer carried by the carrier to successively open and close the circuit for each egg holder to energize the light.

3. An egg testing machine, having a normally open electrical circuit including an illuminator, and a movable egg tray and circuit closer disposed to successively open and close the circuit as the egg tray disposes an egg above the illuminator.

4. An egg tester, having a frame, a normally open electrical lighting circuit carried thereby, a light excluding means disposed above the light of the circuit, an observation tube carried by said means, a movable carrier mounted upon the frame, a circuit closer carried thereby, and a plurality of egg holders secured to the carrier for interposition between the light of the circuit and the observation tube, the circuit being successively opened and closed as each egg holder is presented.

5. An egg testing machine, having a casing, a normally open electric lighting circuit carried thereby, said casing being provided with an aperture disposed in alinement with the light of the circuit, a light confining tunnel connected to the casing above the aperture thereof, an observation tube connected to the tunnel in line with the aperture of the casing, and an egg carrier and circuit closer disposed for passage through the tunnel to interpose the eggs between the aperture of the casing and the observation tube and simultaneously energize the lighting circuit, said circuit being opened and closed successively during the passage of the carrier and circuit closer.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,920. TIRE. HENRY G. FISKE, New York, N. Y., assignor, by mesne assignments, to The Columbia Motor Car Company, Hartford, Conn., a Corporation of Connecticut. Filed July 1, 1899. Serial No. 722,526. (Cl. 152—10.)



1. A non-collapsible continuous pneumatic tire comprising a substantially flat tread portion and a seat portion, layers of fabric permanently embodied in said tire, an outer layer thereof extending from the tread portion down the sides, another layer substantially parallel with the tread portion, another layer substantially circular, a riding cushion arranged adjacent to the seat portion and having its central portion raised, and an oppositely disposed interior suface coöperating with said riding cushion and adapted, when the tire is deflated, to provide air space on either side of the engaging cushion surface.

2. In a non-collapsible pneumatic tire, a pair of coöperating riding cushions causing protruding internal surfaces oppositely disposed, one adjacent to the seat portion and the other adjacent to the tread portion, the surface adjacent to the seat portion being substantially convex, the surface adjacent to the tread portion being substantially parallel to said tread portion, and an outward exterior surface built up, producing a flat tread of substantially equal stiffness with the balance of the structure of the tire.

3. A vehicle tire, including a tubular casing having a substantially flat tread, said casing and tread being formed of fabric and rubber laid in layers and molded into an integral unit, at least one layer of said fabric lying adjacent to and substantially parallel with the outer flat surface of said tread, and other layers thereof disposed cylindrically in the tire body.

4. A vehicle tire including a tubular casing having a substantially flat tread, said casing and tread being formed of fabric and rubber laid in layers and molded into an integral unit, at least one layer of said fabric lying adjacent to and substantially parallel with the outer flat surface of said tread, oppositely disposed surfaces protruding from the interior of said casing, one of said surfaces being adjacent said tread, and an air tight lining covering the inner surface of said casing.

5. A tire built up of a series of webs of fabric and rubber, and including an outer flat wearing surface and an inner elastic coating, said coating adjacent to the tread portion being substantially parallel thereto, an oppositely

disposed convex portion within the tire and adjacent to the seat portion, at least one layer of said fabric extending across the tread portion and down either side, and at least one layer of said fabric constituting in effect a complete tubular casing, means for holding the tire against lateral displacement, and means for holding it positively in engagement with the felly.

[Claims 6 to 8 not printed in the Gazette.]

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1,040,921. POINT-GUARD FOR HAT-PINS. JOHN A. FLEMING, St. Louis, Mo. Filed Mar. 7, 1911. Serial No. 612,945. (Cl. 24—155.)



A device of the class described comprising a supporting plate, a pair of bent locking L-shaped jaws pivotally mounted on said plate, the pivot point of each jaw being at the lower end, a spiral spring connecting the free upturned ends of said jaws, stops formed integral with the plate and bent upwardly to limit the inward movement of the locking jaws and keep them in alinement with the opening in the housing, a stop formed integral with said plate and bent upwardly against which the point of the hat pin contacts so as to limit its inward movement, a housing in which all of the parts are securely mounted, and a flared inlet formed on the housing in alinement with the contacting surface of the locking jaws so as to form a proper guide for the insertion of a hat pin, substantially as specified.

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1,040,922. DEVICE FOR FASTENING SHADES TO ROLLERS. GEORGE W. FOUNTAIN and SAMUEL H. HOOK, Cameron, Mo. Filed Feb. 9, 1912. Serial No. 676,522. (Cl. 156—25.)



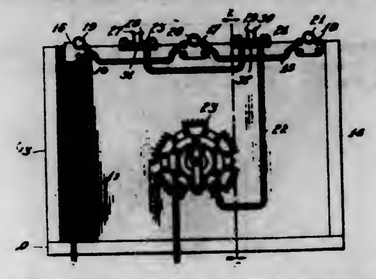
1. In a device for fastening shades to rollers, an elongated flexible member having projections on one face, and a slot at one end, the other end being adapted to be disposed through the slot, and be turned over to hold the elongated flexible member around the shade roller.

2. In a device for fastening shades to rollers, an elongated flexible member with a pointed end, adapted to pierce a shade and having a lateral projection for limiting the passage of the member through the shade, the member having a slot in which the pointed end of the member may be inserted and bent over when the member has been bent around the shade roller.

3. In a device for fastening shades to rollers, an elongated flexible member with an end adapted to be disposed through an opening in a shade and having a lateral projection for limiting the passage of the member through the shade, the member having a slot in which the end of the member may be inserted and bent over when the member has been bent around a shade roller.

4. In a device for fastening shades to rollers, an elongated flexible member with a roughened face adapted to engage a shade and shade roller, the flexible member having a pointed end adapted to pierce a shade and having a lateral projection for limiting the passage of the member through the shade, the member having a slot in which the pointed end of the member may be inserted and bent over when the member has been bent around the end of a shade and the shade roller, with the roughened face engaging the said shade and shade roller.

1,040,923. ELECTROPLATING APPLIANCE. JOHN A. FRAZER, Benton Harbor, Mich. Filed Apr. 26, 1912. Serial No. 693,268. (Cl. 204—5.)



1. In an electroplating appliance, in combination, a tank, a pair of spring jaws mounted on the tank, a cathode rod adapted to enter between the jaws, and an electric circuit leading to the tank, one line thereof being connected with the jaws.

2. In an electroplating appliance, in combination, a tank having supports at its ends, one thereof being a pair of upstanding jaws, an electric circuit one line thereof leading to the jaws, and a rod for carrying articles to be plated and removably engaging the jaws.

3. In an electroplating appliance, in combination, a tank, a rod for carrying articles to be plated and being removable from the tank, means for securing the rod upon the tank, and an electric circuit one line thereof leading to the securing means.

4. In combination, a tank, a rod support at the upper edge of the tank, an electric circuit one branch thereof leading to the support, and a work carrying rod adapted to engage the support.

5. In combination, a tank, rod supports at the upper edges of the tank and located at opposite sides thereof, an electric circuit one branch thereof leading to one of the supports, and a work-carrying rod adapted to engage the supports.

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1,040,924. PROJECTILE. ERNEST FRIEDRICK, U. S. Navy. Filed Dec. 21, 1911. Serial No. 667,123. (Cl. 102—40.)



1. In a projectile the combination of a hollow screw-threaded forward portion provided with an undercut outer rim; a reduced base portion screw threaded to fit said forward portion and provided with a larger portion having an undercut open seat for a band; and a band beveled at its rear edge, fitting said seat, extending a slight distance beyond the edge of said larger portion, and its forward edge adapted to fit said undercut rim, said band also adapted to be forced radially outward when the said forward and base portions are forced together, substantially as described.

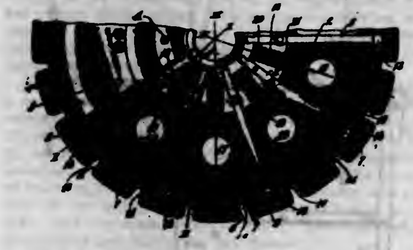
2. In a projectile, the combination of a hollow screw threaded forward portion having an under cut lip, and a straight shoulder portion between said lip and screw threaded portion; a base portion screw threaded to fit said forward portion, having an open ended seat for a band, an under cut portion to receive said band, and a straight shoulder portion between the open end of said seat and said screw threaded portion; and a band located in said seat fitting said undercut lips, and extending slightly beyond the shoulder portion of said base in order that it may be forced radially outward upon forcing the parts together, substantially as described.

3. In a projectile, the combination of a forward portion having a screw-threaded end; a base portion provided with an open ended seat for a band, said base portion also provided with a reduced screw-threaded portion adapted to fit the screw-threaded end of said forward portion; a band fitting said seat and projection slightly over the open end of the same to form a space between said forward and base portions when the latter are united; and a gasket located in the space thus formed, whereby said band may be forced radially outward when the parts are screwed home, while gases are prevented from leaking past said gasket, substantially as described.



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1,040,925. WHEEL. FRANKLIN A. FROMMANN, Detroit, Mich. Filed Sept. 30, 1911. Serial No. 652,144. (Cl. 152—29.)



1. In a vehicle wheel, a hub, a series of radially arranged plates on the hub, radially disposed spacing members articulated to the hub between the plates, segmental tread members disposed around the end portions of the plates and spacing members, means bearing against the spacing members and normally projecting the tread members and means limiting the movements of the tread members.

2. In a vehicle wheel, a hub, a series of radially disposed guide plates on the hub, a series of radial spacing plates articulated to the hub between the guide plates, segmental tread members around the end portions of the plates and spacing members, side plates adapted to limit the movement of the tread sections, and means between the side plates for bearing against the articulated spacing plates and yieldingly projecting the segmental tread members.

3. In a vehicle wheel, a hub, a pair of circular side plates secured thereon in spaced relation, a series of radially arranged guide plates on the hub between the side plates, radially disposed spacing members articulated to the hub between the guide plates and the side plates, segmental tread members disposed around the end portions of the guide plates between the marginal portions of the side plates against which they are adapted to seat themselves, guard members secured between the side plates and adapted to limit the outward movement of the tread members, and means between the guide plates and spacing members bearing against the articulated spacing members and yieldingly projecting the tread members.

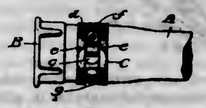
4. In a vehicle wheel, a hub, a pair of circular side plates in spaced relation thereon, a series of radially arranged guide plates secured on the hub between the side plates, radially disposed spacing members articulated to the hub between the side plates in alternation with the guide plates, segmental tread blocks around the end portions of the guide plates and spacing members between the side plates adapted to bear on the margins of the latter when at their inner limit of motion, a series of guard blocks alternating with the segmental members secured between the side plates over the meeting end portions of the tread blocks, and elastic means between the hub and tread members for normally projecting the latter, the articulated spacing members being adapted to transmit movement of the elastic projecting means from one part thereof to another when the tread members are being compressed.

5. In a vehicle wheel, a hub, a pair of circular side plates secured thereon in spaced relation, a series of radially arranged guide plates on the hub between the side plates, radial spacing members articulated to the hub between the side plates in alternation with the guide plates, cushioning means between the side plates filling the spaces between the guide plates and radial spacing members, the latter moving with the cushioning means, segmental tread members around the end portions of the guide plates and spacing members, whose inner end portions loosely interlock with annular grooves in the side plate and whose outer end portions are adapted to rest against the marginal portions of the side plates when at the inner limit of motion, and guard members secured between the side plates over the abutting end portions of the tread members for limiting the outward movement thereof.

[Claims 6 to 9 not printed in the Gazette.]

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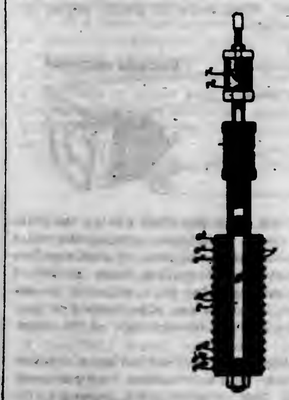
1,040,926. HOSE-BAND. HENRY GIBBS, Chicago, Ill., assignor to W. D. Allen Manufacturing Company, Chicago, Ill., a Corporation. Filed Feb. 6, 1908. Serial No. 414,528. (Cl. 137—28.)



A flexible, sheet metal hose band having an opening at one end, an integral fastening tongue adjacent and extending toward its opposite end, and an integral, U-shaped end portion extending around said tongue, said U-shaped end portion being adapted to extend beneath the opposite end of the band when in position for use, and said tongue being cut away to engage a tightening tool and adapted to extend up through said opening and be reversely bent over the opposite end of the band, substantially as described.

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1,040,927. ELECTRIC SAFETY DEVICE FOR THE FLOWING OUT OF EXCESS VOLTAGE. GEORGES GILLE, Fribourg, Switzerland. Filed Aug. 12, 1908. Serial No. 448,095. (Cl. 175—30.)



1. An apparatus of the character described having a series of annular electrodes; a series of rings of insulation formed with outwardly-extending flanges which separate said electrodes from one another; and a metallic rod

which passes through said rings of insulation and is separated from all except one of said electrodes by said rings, whereby starting condensers are formed to which said rod is common as the second armature thereof; the excepted electrode being directly connected to said rod.

2. An apparatus of the character described having a series of annular electrodes; a series of rings of insulation formed with outwardly-extending flanges which separate said electrodes from one another; a metallic rod which passes through said rings of insulation and is separated from all except one of said electrodes by said rings, whereby starting condensers are formed to which said rod is common as the second armature thereof, the excepted electrode being directly connectel to said rod; a line-wire electrode which is separated from said metallic rod by a main spark-gap; and an ohmic resistance arranged in series with said rod.

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1,040,928. SPRING-BLOCK SET FOR SAWS. EUGENE GODIN, Harrisville, N. Y., assignor to Thomas J. Wilber, Harrisville, N. Y. Filed Jan. 20, 1912. Serial No. 672,474. (Cl. 76—70.)



1. An improved saw setting device comprising an anvil member, a hammer member movable to and from the same, a supporting member, a guide for the hammer member mounted on the supporting member, means for normally maintaining the hammer in raised position, said anvil member being formed with downwardly inclined surface, a wedge shaped gage resting on said inclined surface and means for adjusting the supporting member across the inclined surface.

2. An improved saw setting device comprising an anvil member having converging upper and lower faces at one end thereof, a hammer movable to and from the anvil member, a support for the hammer engaging one of said inclined surfaces, and adjusting means for said support engaging the other of said inclined surfaces.

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1,040,929. DOUGH RETAINER OR TROUGH. IRVING B. GOLDEN, Toledo, Ohio. Filed June 13, 1912. Serial No. 703,419. (Cl. 126—281.)



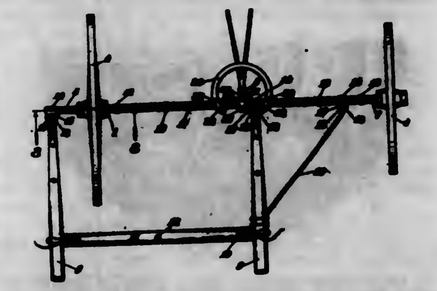
1. An apparatus of the class described having its sides and bottom hollow to form a chamber around the sides and bottom of the interior of the apparatus, and separate means for passing heating and cooling fluids backward and forward through said chamber from adjacent to one top edge to adjacent to the other top edge thereof to permit a regulation of the interior temperature of the apparatus.

2. An apparatus of the class described having a chamber which encompasses the dough retaining compartment thereof, and separate non-communicating passages for heating and cooling fluids extending to and fro within said chamber in alternating pairs throughout substantially the entire area of the chamber to permit an even regulation of the temperature within the compartment.

3. A dough retainer having its sides and bottom formed with spaced inner and outer shells forming a closed U-shaped chamber around the dough compartment, a pipe for a heating fluid extending forward and backward within said chamber lengthwise thereof and from one top portion to the other top portion thereof, said pipe having its inlet adjacent to one top portion and its outlet adjacent to the other top portion of such chamber, and a pipe for a cooling fluid extending forward and backward through said chamber lengthwise of and from one top portion to the other top portion of said chamber with its lengths arranged in adjacent pairs which alternate with adjacent pairs of the lengths of the other pipe, said cooling medium pipe having its inlet adjacent to one top portion of the chamber and its outlet adjacent to the other top portion thereof, substantially as described.

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1,040,930. SIDE-TRACK-DRAFT ATTACHMENT FOR VEHICLES. HENRY GOOSENS, Columbia, Ill. Filed Mar. 18, 1912. Serial No. 684,456. (Cl. 21—39.)



In combination with the front axle of a vehicle having a relatively smaller wheel at one end than at the opposite end thereof the end of the axle having the larger wheel extended beyond the latter, a pair of shafts, one of said shafts being attached to the said axle extension and the other being attached to the axle at a point between the wheels, and means adjacent the smaller wheel to counterbalance the axle, said smaller wheel acting to compensate for the inequality of the lines of force exerted by the draft animal in drawing the vehicle so that both wheels will travel substantially abreast of each other.

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1,040,931. BOX. CHARLES A. GOODEY, Woonsocket, R. I. Filed May 10, 1912. Serial No. 696,442. (Cl. 220—61.)



1. In a box, the combination of a body open at one end, a bail-shaped spring pivoted at opposite points to the body and having its top portion slotted and bowed upward, a closure cap movable bodily on and off the open end of the body and having apertures in its end portions receiving in a loose manner the top portion of the bail-shaped spring and also having a slot in its top, a follower finally secured in the closure cap and having a flange extending toward the body, packing carried by the follower within said flange and adapted to be opposed to the open end of the body, and a lever pivoted to the follower and extending through the slots of the bail-shaped spring and the closure cap and having a portion disposed below and adapted to bear against the inner side of said spring.

2. In a box, the combination of a body open at one end, a bail-shaped spring pivoted to the body and having its top portion slotted, a closure cap movable bodily on and off the open end of the body and having end apertures loosely receiving the top portion of the spring and also having a slot in its top, a follower fixedly secured in the closure cap below the top portion of the spring and opposed to the open end of the body, and a lever pivoted to the follower and extending through the slots of the spring and the closure cap and having a portion disposed below the top portion of the spring.

3. In a box, the combination of a body open at one end, a bail-shaped spring pivoted to the body, a closure cap movable bodily on and off the open end of the body and movable on the top portion of said spring, a follower arranged in the closure cap and at the opposite side of the top portion of the spring, with reference to the top of the cap, and a lever connected to said follower and extending exteriorly of the cap and having a portion disposed below the top portion of the spring.

4. The combination in a box, of a body open at one end, a bail-shaped spring having arms on which are enlargements pivoted at opposite points to the body and having the said enlargements bent to form stops adapted to bring up against one side of the body, a follower arranged and movable between the bail-shaped spring and the open end of the body, a closure cap carrying the follower and a portion of the spring, and means coöperating with the follower and the spring and the cap to close the open end of the body and retain the cap thereon.

5. The combination in a box, of a body open at one end, a hollow closure cap, a bail-shaped spring having arms pivoted to the body and also having an intermediate portion extending through the hollow closure cap, a follower arranged and movable in the hollow cap and between the intermediate portion of the bail-shaped spring and the open end of the body, and means in the hollow closure cap coöperating with the follower and the spring to close the open end of the body and retain the cap thereon; the said means comprising a member that extends outside the hollow closure cap.

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1,040,932. SIGN. ALFRED GRAY, New York, N. Y. Filed Mar. 4, 1911. Serial No. 612,232. (Cl. 40—125.)




In a sign, the combination with a base, of a metallic back ground electrodeposited, of letters, a border of material contrasting with the back ground secured to the base and upstanding therefrom, and a coat of metal electrodeposited around the sides of the letters and the inner side of the border.



1,040,933. CHAIR-FRAME. ARTHUR H. GREENLUND, Jamestown, N. Y., assignor to Jamestown Lounge Company, Jamestown, N. Y., a Corporation of New York. Filed Dec. 21, 1908, Serial No. 468,496. Renewed Apr. 3, 1912. Serial No. 686,192. (Cl. 155—3.)



1. In a chair construction, the combination with the wooden seat-frame, of a frame-member comprising wires bunched together and extending into the wooden seat-frame, one of said wires being extended beyond its companions and passed transversely through said seat-frame.

2. In a chair construction, the combination with the wooden seat-frame having holes, of a wire-frame member, the latter comprising wires extending into holes in the wooden seat-frame, an anchor-wire extending transversely through said seat-frame, and a metal plate secured upon the wooden seat-frame and having holes corresponding to and alining with those in the wooden seat-frame and through which said wires pass into the wooden seat-frame.

3. In a chair construction, the combination with the wooden seat-frame, of the wire-frame member, comprising wires which extend into the upper side of the wooden seat-frame, an anchor-wire extending transversely through said wooden seat-frame, a metal plate secured upon the wooden seat-frame and having holes corresponding to and alining with those in the wooden seat-frame and through which said wires pass, and lips depending from the metal plate and embracing the sides of the seat-frame and provided with openings for the reception of said anchor-wire.

4. As a new article of manufacture, a metal reinforcing-plate for use in chair construction, the same comprising a body-portion having a plurality of wire-receiving holes, and, at opposite margins of said body-portion, depending lips designed to embrace the chair-frame, said lips having wire-engaging openings at their lower edges.

5. In a chair construction, the combination, with a seat or other frame-portion having a series of vertical holes arranged in a group and below the latter a transverse hole, of a frame-member consisting of a bunch of wire-strands all but one of which terminate in said vertical holes and the remaining wire extending beyond the companion wires and passed through the lower transverse hole to form an anchor.

[Claim 6 not printed in the Gazette.]

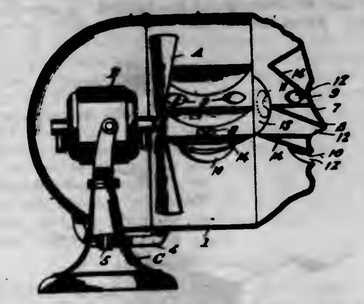
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1,040,934. CASING FOR ELECTRIC FANS. ARTHUR GREGORY, Wytheville, Va. Filed July 19, 1911. Serial No. 639,246. (Cl. 230—1.)

1. The combination with an electric fan and a motor therefor, said fan discharging axially, of a casing inclosing said fan and motor and comprising a rear wall, a side wall and a front wall, one of said walls having a vertical series of relatively spaced openings, a deflector secured to the inside of the wall having the openings, said deflector being located above each of the said openings.

2. A casing for electric fans comprising a rear and front section hingedly connected together at the top thereof and means carried by each section and disposed on the bottom of the section thereby preventing any accidental

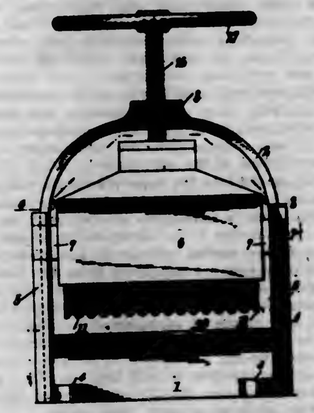
displacement of the sections from their operative position, said means being detachably secured and embracing a



portion of the fan structure below the plane of the bottom of said rear section.

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1,040,935. APPARATUS FOR MAKING CONFETTI. GERALD G. GRIFFIN, New York, N. Y. Filed Aug. 8, 1911. Serial No. 642,981. (Cl. 164—27.)



1. Apparatus for making confetti, comprising a head or casting, a plurality of cutter elements projecting from one face of said casting, resilient means projecting from the same face of the head or casting beyond the ends of the cutter elements, said resilient means being interspersed among the cutter elements, and means for moving said head or casting toward a sheet of paper or cardboard, to cut said sheet into pieces of the proper size and shape, said resilient means engaging the material to be worked before and after cutting, to hold the sheet down while being cut, and to prevent the knives from displacing the pieces when they are being withdrawn after the cutting is finished

2. Apparatus for making confetti, comprising a head or casting, a plurality of knives projecting from one face of said casting, a plurality of spring-pressed plungers projecting from the same face of the head or casting beyond the ends of the knives, said rods or plungers being interspersed among the knife blades, and means for moving said head or casting toward a sheet of paper or cardboard, to cut said sheet into pieces of the proper size and shape, said plungers engaging the material to be worked before and after cutting, to hold the sheet down while being cut, and to prevent the knives from displacing the pieces when they are being withdrawn after the cutting is finished.

3. Apparatus for manufacturing confetti, comprising a head or casting, guides in which the said head or casting is mounted to be moved, a plurality of knives carried by and projecting from one face of said casting, a plurality of spring-pressed plungers projecting from the said face of the casting beyond the ends of the knives, said plungers being interspersed among the knives, a guide plate having slots therein to receive the ends of the knife blades, and means for moving said casting toward said guide plate, whereby a sheet of paper or other material on said guide plate will be engaged by the plungers and severed into pieces of the proper size and shape by the knives, said plungers also serving to hold the pieces against displacement when the knives are withdrawn.

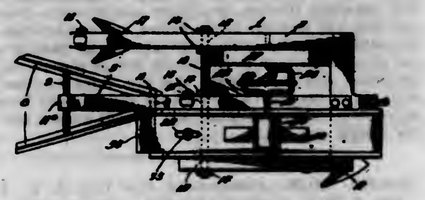
4. In apparatus for making confetti, a supporting member comprising a hollow shank having slots extending through its sides, said slots being wider adjacent their inner than adjacent their outer edges, a plurality of knife blades adapted to be received by said slots, said blades each having a shoulder and a diagonal cutting edge adjacent one end, said shank having a reduced screw-threaded extension adjacent the cutting edges of the blades, and a stem having an internally threaded cap to be inserted into said shank, to bring the cap into engagement with the screw-threaded extension and the shoulders of the knife blades, to hold the latter in place.

5. In apparatus for making confetti, a supporting member comprising a hollow shank having longitudinal slots in its sides, said slots being wider adjacent their inner than adjacent their outer edges, a plurality of knife blades adapted to be received by said slots, and means engaging the lower ends of said knife blades and said shank, to hold the knives in place in said shank.

[Claims 6 to 10 not printed in the Gazette.]

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1,040,936. COMBINED CULTIVATOR AND FERTILIZER-DISTRIBUTER. THOMAS J. GRIMES, York, Ala. Filed July 6, 1911. Serial No. 637,136. (Cl. 111—7.)



In a fertiliser distributer comprising a frame consisting of three parallel beams, one being less in length, transverse members, one of which connecting one end of the beams and the other connecting the other end of the shorter beam and the intermediate portion of the other beams, a hopper, the sides and ends of which converge from top to bottom, the sides and ends of said hopper resting on the shorter and one of the other beams and the two transverse members, eyes mounted on the beams, hooks mounted on the side of the hopper for engaging said eyes, a ground wheel mounted between the longer beams, an agitator mounted in said hopper and means connecting said agitator with said ground wheel substantially as described.

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1,040,937. COMBINATION GAS-BURNER AND ELECTRIC GAS-IGNITER. HAROLD D. GRINNELL, Pittsfield, Mass. Filed June 6, 1912. Serial No. 702,038. (Cl. 175—115.)

1. A combination gas burner and electric gas igniter, comprising a burner tube of an insulated material, a burner held on the said tube, electric wires embedded in the said tube and terminating in electrodes extending on opposite sides of a burner orifice, contact plates embedded in the said burner tube and to which the said wires are attached, and a sleeve slidable on the burner tube and adapted to receive the ends of the line wires for engagement with the said contact plates.



2. A combination gas burner and electric gas igniter, comprising a burner tube arranged for connection at its entrance end with a source of gas supply and provided at its other end with a burner, wires embedded in the wall of the said tube and terminating in electrodes having their ends on opposite sides of a burner orifice, contact plates embedded in the entrance end of the said tube and to which the said wires are secured, and a sleeve slidable on the entrance end of the tube and provided with apertured bosses for the reception of conductors, the bosses being in register with the said contact plates and the said bosses being adapted to receive electrical conductors for engagement with the said plates.

3. In a combination gas burner and electric gas igniter, the combination with a lamp casing having an opening, of a burner tube having a flange and a polygonal base passing through the said casing opening, the said flange being seated on the top of the said casing, a burner on the upper end of the said tube, wires embedded in the wall of the said tube and having their upper ends extended onto the said burner to form electrodes on opposite sides of a burner orifice, contact plates embedded in the base of the tube and to which the lower ends of the said wires are attached, a sleeve having a polygonal bore slidingly fitting onto the base of the tube and abutting against the under side of the lamp casing, the said sleeve having apertures in register with the said contact plates, the apertures being adapted to receive the ends of line wires to contact with the said contact plates, and a nut screwing on the lower end of the said base and against the said sleeve.

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1,040,938. PROTECTIVE DEVICE FOR EMBROIDERING-MACHINES. JOSEPH A. GNOSELLI, New York, N. Y., assignor, by mesne assignments, to Alphonse H. Kursheedt, New York, N. Y. Filed Oct. 6, 1910. Serial No. 586,662. (Cl. 112—7.)



1. An embroidering machine having a sewing needle and a take up, a safety device and means for operating the same, comprising a movable thread testing element, a movable element adapted to support the thread testing element during a period of the stitching and means for withdrawing the movable element from the support of the thread testing element during a period of the take up action and for moving the same across the path of the thread engaging element, means for causing the thread testing element to rise as it is moved by the movable element and means whereby the engagement of the thread engaging element with the said movable element will cause the operation of the safety device.

2. An embroidering machine having a sewing needle and a take up, a safety device and means for operating the same, comprising a movable thread testing element, a movable element adapted to support the thread engaging element during a period of the stitching and means for withdrawing the movable element from the support of the thread engaging element during a period of the take up action and for moving the same across the path of the thread engaging element, a slanting plate for limiting the movement of the testing element when the said supporting element is withdrawn and means whereby the engagement of the thread engaging element with the movable element will cause the operation of the safety device.

3. In a machine of the class described, the combination of means for stitching a fabric, means for indicating a defective condition of the sewing thread, means for periodically testing the sewing thread to detect a defective condition thereof, and mechanism for effecting the operation of the indicating means only after a plurality of operations of the detecting means, said indicating means being inoperative by said operating means except upon a plurality of operations of said detecting means.

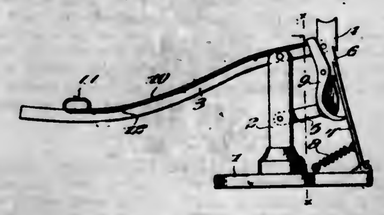
4. In a machine of the class described, the combination of means for stitching a fabric, means for indicating a defective condition of the sewing thread, means for periodically testing the sewing thread to detect a defective condition thereof, and mechanism for effecting the operation of the indicating means only after a plurality of operations of the detecting means, said indicating means being inoperative by said operating means except upon a plurality of successive operations of said detecting means.

5. In a machine of the class described, the combination of means for stitching a fabric, means for indicating a defective condition of the sewing thread, means for periodically testing the sewing thread to detect a defective condition thereof, means for operating said indicating means, said operating means being adapted to be initiated by an operation of the said detecting means and to complete its operation upon a succeeding operation of the detecting means, and means for periodically restoring the operating means if the detecting means fails to be operated successively.

[Claims 6 to 16 not printed in the Gazette.]

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1,040,939. LIFTING-JACK. LEWIS S. GROSSCUP, Salem, N. J. Filed Feb. 21, 1912. Serial No. 679,014. (Cl. 57—101.)



1. A lifting jack comprising a standard, a lever pivoted near one end to said standard, a lifting head pivotally connected to the projecting end of the lever and having teeth along its front side, a link paralleling the front portion of the lever and pivotally connecting the lower end of the lifting head to the standard, and a dog pivoted at its lower

and and adapted to engage the teeth of the lifting head to hold the same elevated.

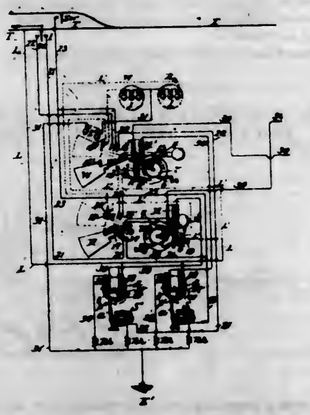
2. A lifting jack comprising a standard, a lever pivoted near one end to the standard, a lifting head spaced from and arranged parallel with the standard and pivotally connected with the front end of the lever and having teeth along its front side, a link arranged parallel with the front portion of the lever and pivotally connected at its ends to the standard and to the lower portion of the lifting head, a dog adapted to engage the toothed portion of the lifting head and to hold the same elevated, and a trip lever mounted upon the lifting head and adapted to engage the said dog to cause the same to clear the toothed portion of the lifting head.

3. A lifting jack comprising a standard, a lever pivoted near one end to the standard, a lifting head spaced from and arranged parallel with the standard and pivotally connected with the front end of the lever and having teeth along its front side, a link arranged parallel with the front portion of the lever and pivotally connected at its ends to the standard and to the lower portion of the lifting head, a dog adapted to engage the toothed portion of the lifting head and to hold the same elevated, a trip lever mounted upon the lifting head and adapted to engage the said dog to cause the same to clear the toothed portion of the lifting head, and a connection extending along the lever and provided at its rear end with a grip and having its front portion connected with the upper end of the trip lever.

4. A lifting jack comprising a base, a standard rising from said base, a lever pivoted near its front end to the upper portion of said standard, a lifting head spaced from and arranged parallel with said standard and pivotally connected to the front end of the lever and having teeth along its front side, a link arranged parallel with the front portion of the lever and pivotally connected at its ends to the said standard and to the lower portion of the lifting head, a trip lever pivotally connected between its ends to the lifting head, a connection attached to the upper end of the trip lever and extending along the first mentioned lever and provided at its rear end with a grip, and a dog pivoted at its lower end to the said base and inclining upwardly and rearwardly and adapted to engage the toothed portion of the lifting head.

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1,040,940. ART OF RAILWAY SIGNALING. WILLIAM GRUNOW, Jr., Waterbury, Conn., assignor to American Railway Signal Company, a Corporation of Connecticut. Filed May 10, 1911. Serial No. 626,311. (Cl. 246—36.)



1. In a railway block-signal system, the combination of two signals at each end of a block, actuating electro-magnets for said several signals, a main circuit, two line wires extending throughout the block, each grounded in series with an electro-magnet at each end thereof, circuit controllers for breaking such grounds and establishing electric connection between the main circuit and line wires, electro-magnets for actuating said circuit controllers, branch circuits for said controller electro-magnets, and switches actuated by the cars for crossing said branch circuits.

2. In a railway block-signal system, the combination of two signals at each end of a block, actuating electro-magnets for said several signals, a main circuit, two line wires extending throughout the block and each normally grounded through an electro-magnet at each end thereof, circuit controllers for breaking such grounds and establishing electrical connections between said main circuit and line wires, and means actuated by the cars for operating said circuit controllers.

3. In a railway block-signal system, the combination of two signals at each end of a block, actuating electro-magnets for said several signals, a main circuit, two line wires extending throughout the block and each normally grounded through an electro-magnet at each end thereof, circuit controllers, electro-magnets for actuating said controllers to break such grounds and establish electrical connections between said main circuit and line wires, branch circuits for said controller electro-magnets, and switches actuated by the cars for closing said branch circuits.

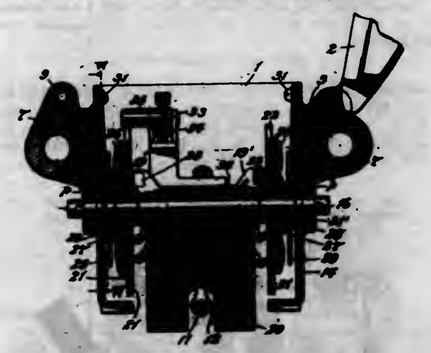
4. In a railway block-signal system, the combination of two signals at each end of a block, actuating electro-magnets for said several signals, two main line circuits, each in series with an electro-magnet at each end of the block, controller electro-magnets, and time interval mechanism actuated by said controller magnets for maintaining said main line circuits closed during predetermined, uniform periods of time.

5. In a railway block-signal system, the combination of two signals at each end of a block, actuating electro-magnets for said several signals, two main line circuits, each in series with an electro-magnet at each end of the block, time interval mechanism for maintaining said main line circuits closed during predetermined, uniform periods of time, controller electro-magnets for actuating said time interval mechanism, branch circuits for said controller electro-magnets, and switches actuated by the cars for closing said branch circuits.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,941. CIRCUIT-CLOSING DEVICE OR SWITCH FOR USE IN CONNECTION WITH ELECTRIC OR OTHER RAILWAYS. WILLIAM GRUNOW, Jr., Waterbury, Conn., assignor to American Railway Signal Company, a Corporation of Connecticut. Filed May 10, 1911. Serial No. 626,312. (Cl. 246—54.)



1. A normally open circuit provided with a movable terminal, in combination with resilient means tending to maintain said movable terminal in normal, open position, means for shifting said terminal to closed position against the tension of said resilient means, and a freely-supported inertia device frictionally engaging said movable terminal, whereby said circuit will be closed for definite, constant periods of time under all practical conditions.



2. A normally open circuit provided with a movable terminal, in combination with means for shifting said movable terminal to close the circuit, and a freely-supported inertia device frictionally engaging said movable terminal.

3. A normally open circuit provided with a movable terminal, in combination with means for shifting said movable terminal to close the circuit, a freely-supported inertia device frictionally engaging said movable terminal, and resilient means engaging said movable terminal for yieldingly maintaining the latter in open position.

4. A normally open circuit provided with a movable terminal, in combination with means for shifting said movable terminal to close the circuit, a freely supported inertia device, yielding means for maintaining said device in frictional engagement with said movable terminal, and means for adjusting said yielding means.

5. In a circuit-closing switch, the combination of stationary and movable terminals, resilient means tending to normally maintain said movable terminals in open position, means for shifting said movable terminals against the tension of said resilient means to close the circuit, and an inertia device mounted for free movement in frictional engagement with said movable terminal, whereby said circuit will be closed for definite, constant periods of time under all practical conditions.

[Claim 6 not printed in the Gazette.]

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1,040,942. COLLAPSIBLE COAT-HANGER. JAMES W. HAMILTON, Chicago, Ill. Filed Mar. 18, 1912. Serial No. 684,436. (Cl. 211—13.)



1. In a device of the class described, the combination with a pair of main supporting members pivotally connected together at one of their ends and each having at said ends a longitudinally extended slot each provided with a lateral recess, each of said members having near its other end an opening, of a hook loosely mounted on the pivot which unites the upper ends of said members and having its shank extended through said slots and adapted to engage said recesses, an extension member pivotally secured at one of its ends to each of the main supporting members and provided on the upper portion of said end with an apertured extension or lip, a bow spring secured at one of its ends on each of the pivots which unite the extension members and main supporting members and having on its free portion a projection to engage the opening in said lip and a button to extend through the opening near the lower end of each of the main supporting members.

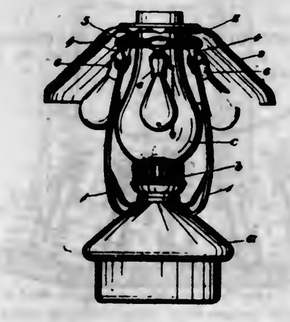
2. In a device of the class described, the combination with a pair of main supporting members pivotally connected together at one of their ends and each having near its other end an opening, of means on the upper portion of said members to suspend the same, an extension member pivotally secured at one of its ends to each of the main supporting members and provided on the upper portion of said end with an apertured extension or lip, a bow spring secured at one of its ends on each of the pivots which unite the extension members and main supporting members and having on its free portion a projection to engage the opening in said lip and a button to extend through the opening near the lower end of each of the main supporting members.

3. In a device of the character described, the combination with a channeled member having an opening near one of its ends, of another channeled member pivotally mounted between the sides of the first named channeled member at the end thereof provided with said opening and having on its portion adjacent to said opening an apertured extension or lip, and a spring connected at one of its ends to the pivot which unites said members and having on its free portion a projection to engage the opening in said lip and a button to extend through the opening of the first named member.

4. A coat hanger consisting of a pair of channeled members pivotally united together at one of their ends and each member having between its ends a joint whereby the outer extremity of said member may be folded into the cavity of the member to which it is joined and whereby the pivotally connected parts of said members may be folded together, and means at the pivoted ends of said members for suspending the same.

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1,040,943. LIGHT-FIXTURE. PHILIP J. HANDEL, Meriden, Conn. Filed Aug. 1, 1910. Serial No. 574,089. (Cl. 240—52.)



1. The combination with a lamp, of a plurality of standards secured to the font and upstanding therefrom, said standards being outwardly bowed and converging at their upper ends, a shade supporting ring secured to the tops of said standards, and a fixture supporting ring fitting on and adapted to be supported by said standards near their upper ends.

2. An article of the character described comprising in combination with a lamp, of standards secured to the font, a shade supporting ring secured to the tops of said standards, projections from the outer sides of said standards underneath said ring, an electric fixture carried by said projections.

3. In an article of the character described the combination with a lamp having a font, of standards secured to said font, a shade supporting ring secured to the tops of said standards, lateral projections from said standards underneath said ring, a support for an electric fixture carried by said projections, sockets adjustably mounted on said support, and a shade mounted on said supporting ring.

4. In an article of the character described the combination with a lamp having a font, of standards secured to said font and projecting upwardly therefrom, a shade supporting ring secured to the tops of said standards, lateral projections from said standards underneath said ring, a tubular ring mounted on said projections, electric light sockets adjustably mounted on said ring, and a shade mounted on said supporting ring.

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1,040,944. HANDLE. GEORGE P. HART and STUART W. PARSONS, New Britain, Conn., assignors to The Stanley Works, New Britain, Conn., a Corporation of Connecticut. Filed Sept. 28, 1911. Serial No. 651,876. (Cl. 16—10.)

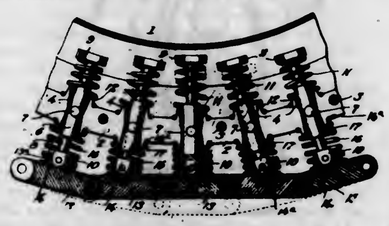
In a handle of the character described, a wire bail portion, a grip portion secured thereto, said grip portion comprising a strip of sheet metal rolled into cylindrical form, an integral bearing and reinforcement at each end of said grip portion comprising an annular rolled in edge

forming a contracted passage broken only in the line of the seam of said grip, said contracted passage corresponding substantially to the diameter of the wire bail portion, whereby said handle will take a bearing thereon.



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1,040,945. SPRING-WHEEL. JOHN W. HEAONEY, Melrose, Iowa. Filed Nov. 25, 1911. Serial No. 662,381. (Cl. 152—8.)



1. A spring tire comprising a rim, a flexible tread comprising pivotally connected members, the latter having lugs and annular projections upon their inner sides, guide rods mounted upon the rim and having their outer ends made rounding to engage the inner sides of the tread members and formed with slots to receive the lugs thereof, pins pivotally connecting the outer ends of the guide rods to the lugs and annular projections, and springs interposed between the tread members and rim and having their outer ends fitted upon the annular projections of the said tread members.

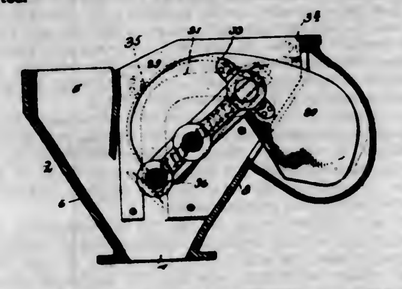
2. A spring tire comprising a rim having radial openings and having outer annular projections in line with the openings and further provided with grooves at the base of the annular projections, sleeves mounted in the radial openings of the rim and having a limited oscillatory movement, a tread comprising pivotally connected members, the latter having lugs and annular projections upon their inner sides and having grooves at the base of the annular projections, guide rods mounted in the sleeves and pivotally connected at their upper ends to the lugs of the tread members, and helical springs surrounding the guide rods and having their ends receiving the annular projections of the rim and tread members and fitted in the grooves of the respective parts.

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1,040,946. PACKER. FREDERICK J. HEYBACH, Baltimore, Md., assignor to The Unit Weighing and Packing System (Incorporated), Baltimore, Md., a Corporation of Delaware. Filed Feb. 7, 1912. Serial No. 675,924. (Cl. 100—57.)

1. A packer comprising a casing having a passage for the flow of the material therethrough and an outlet for discharging the material into a receptacle, a packing member operative in said casing, and means embodying a cam for guiding said packing member from a position at one side of said passage into alinement with said outlet.

2. A packer comprising a casing having a passage for the flow of the material and an outlet for discharging the material into a receptacle, a reciprocatory packing member in the casing, means for reciprocating said member, and a cam guiding the packing member for movement in alinement with said outlet during the packing operation and carrying said member out of said passage when retracted.



3. A packer comprising a casing having an outlet for discharging material therefrom into a receptacle, a packing plunger in the casing and having a stem, an operating member yieldably connected to the plunger and guiding said stem, and means connected to said member for reciprocating it and said plunger.

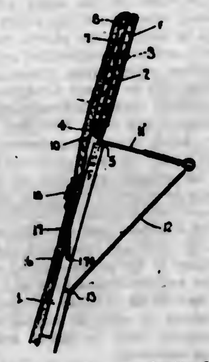
4. A packer comprising a casing having a plurality of outlets for discharging material therefrom into receptacles, a packing plunger for each outlet, and a reciprocatory operating member common to the plungers movable transversely and also axially of said outlets and having means individual to each plunger for forcing it toward its respective outlet during the packing movement of said member, said plungers and operating member being inclosed by said casing.

5. A packer comprising a casing having a plurality of outlets and a charge-receiving hopper in the casing individual to each outlet, each hopper having an inlet leading into one side thereof, a packing plunger for each hopper and outlet, a common operating member for the plungers, the plungers and operating member being inclosed by said casing, and means for guiding said member to cause each plunger to move laterally of the inlet and then axially of the outlet of its respective hopper.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,947. FRUIT-PICKER. ALBERT M. HUGHES, Sedalia, Mo., assignor of one-half to William W. Barrett, Sedalia, Mo. Filed Nov. 16, 1911. Serial No. 660,644. (Cl. 56—30.)



1. In a fruit picker, a pole, an elastic fixed jaw comprising a frame of wire having its ends bent to form spaced apart alined spring coils and thence continued in parallel and adjacent lines into the end of the pole, a movable jaw member comprising a frame having its ends formed into adjacent coils mounted between and in alinement with those of the elastic fixed jaw and thence twisted to form an operating lever, and a pintle arranged in the spring coils of both jaws.

2. A fruit picker comprising a supporting pole, a stationary jaw member secured to the outer end thereof, a movable jaw member hingedly connected to said stationary jaw member, an operating cord connected with said movable jaw member whereby the latter is closed into engagement with the stationary jaw member, a flexible fruit conducting tube connected at its upper end to said movable jaw and extending alongside of and below the lower end of the pole, a ring loosely pivoted to the pole and embracing the connecting tube, and means whereby the ring is loosely secured to the outside of the tube in a manner to cause the ring to move on its pivot when the tube is raised and lowered with the movable jaw.

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1,040,948. SHOCK-ABSORBER. LOUIS PAUL CONSTANT JULES JACQUET, Neuilly-sur-Seine, France. Filed Sept. 8, 1911. Serial No. 648,820. (Cl. 21—97.)



In a shock absorber for spring-suspended vehicles, the combination of a vertical cylinder provided with an upper head, a piston therein provided with a piston rod extending through said upper head, a spiral spring confined between said cylinder head and piston, means for pivoting one end of the vehicle suspension spring directly to said piston rod, and means for pivotally supporting said cylinder head from the vehicle chassis in the axial line of said cylinder at a distance above said pivotal connection of the suspension ring.

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1,040,949. LOG-HAUL SHOE. NIELS JANTZEN, Victoria, British Columbia, Canada, assignor of one-half to Burtren Alexander Holden, Victoria, British Columbia, Canada. Filed Mar. 29, 1912. Serial No. 687,280. (Cl. 193—8.)



1. In a log haul-shoe, the combination with a shoe body, of prongs extending upwardly from the upper side thereof, teeth depending from the under side of the shoe body, gripping members mounted to slide on the shoe body, and securing members mounted on the shoe body and engaging the gripping members to retain the same in rigid position on the shoe body.

2. In a log haul-shoe, the combination with a shoe body, of prongs formed therewith and extending upwardly therefrom, teeth formed on the under side of the shoe body and depending therefrom to be engaged by the link of a chain, gripping members mounted to slide on the shoe body and terminating at their lower ends in teeth adapted to grip the link of the chain, heads formed on the said gripping members at the upper ends thereof, securing members adjustably mounted on the shoe body to engage the said gripping members, and bolts for connection with the said securing members and the said shoe body for retaining the securing members in rigid position on the shoe body.

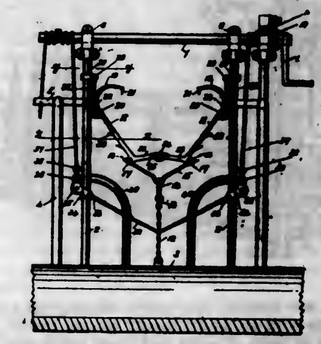
3. In a log haul-shoe, the combination with a shoe body, of prongs extending upwardly from the upper side thereof, teeth depending from the under side of the shoe body adjacent an end thereof, gripping members mounted to slide on the shoe body, and means for retaining the said gripping members in rigid position on the said shoe body.

4. In a log haul-shoe, the combination with a shoe body, of prongs formed thereon, teeth formed on the shoe body and depending therefrom, gripping members mounted to slide in slots in the said shoe body, heads formed on the gripping members and extending upwardly from the shoe body, teeth formed on the gripping members and extending downwardly from the shoe body, L-shaped securing members adjustably mounted on the shoe body and engaging the said gripping members, and bolts for connecting with the said securing members and the said shoe body for retaining the said securing members in rigid position thereon.



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1,040,950. STANCHION. JULIUS N. JENSEN, Lincoln, Nebr. Filed Aug. 30, 1911. Serial No. 646,861. (Cl. 119—150.)



1. In a stanchion, the combination, with a frame, of a pair of arms provided with hook-shaped upper end portions and having also toggle members at their lower parts which are pivoted together at their adjacent ends, supports which suspend the arms from the top of the frame when open, a spring for closing the arms when the toggle members are depressed, and a tether for holding the closed arms.

2. In a stanchion, the combination, with a frame, of a pair of arms provided with hook-shaped upper end portions and having also toggle members at their lower parts which are pivoted together at their adjacent ends, supports which suspend the arms from the top of the frame when open, a spring clevis arranged below the toggle members and connected to their outer ends and operating to close the arms when the toggle members are depressed, and a connection attached to the clevis for holding the closed arms.

3. In a stanchion, the combination, with a frame, of a neck-yoke provided with pivoted arms and having also toggle members and a spring for normally holding the arms apart, a flexible connection arranged between the spring and the frame, a pair of setting-bars which straddle the said connection, and means for raising the setting-bars into engagement with the pivot of the toggle members.

4. In a stanchion, the combination, with a frame provided with guide-posts, of a neck-yoke provided with pivoted arms and having also toggle members and a spring for normally holding the arms apart, a flexible connection arranged between the spring and the frame, a pair of setting-bars which straddle the said connection, crossheads connected to the ends of the setting-bars and sliding on the guide-posts, and means for raising the setting-bars into engagement with the pivot of the toggle members.

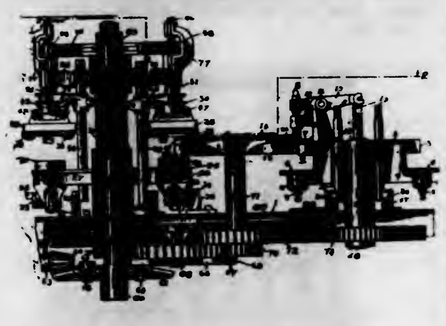
5. In a stanchion, the combination, with a frame provided with guide-posts having bearings at their upper parts, and an operating shaft journaled in the said bearings and provided with means for revolving it; of a neck-yoke provided with pivoted arms and having also toggle members and a spring for normally holding the arms apart, a flexible connection arranged between the spring and the frame, a pair of setting-bars which straddle the said connection, crossheads connected to the ends of the setting-bars and sliding on the guide-posts, and flexible con-

nections attached to the crossheads and adapted to be wound upon the operating shaft to raise the setting-bars into engagement with the pivot of the toggle members.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,951. COMBINED CAN-BODY FLANGING AND DOUBLE-SEAMING MACHINE. AXEL JOHNSON, San Francisco, Cal., assignor to American Can Company, a Corporation of New Jersey. Filed Dec. 5, 1910. Serial No. 595,608. (Cl. 113—24.)



1. In a can flanging and double seaming machine, the combination with an intermittently moving carrier having a plurality of pairs of upper and lower can holder chucks and a plurality of rotary seaming heads furnished with seaming rollers, of an intermittently rotating carrier having a plurality of segmental external flanging dies, an intermediate rotating carrier having a plurality of segmental external flanging dies, a reciprocating internal flanging die co-acting with segmental external flanging dies when in registry for flanging the end of a held can therein, and means for applying a can head to the flanged can prior to its delivery to the seaming rollers.

2. In a can flanging and double seaming machine, the combination with an intermittently moving carrier having a plurality of pairs of upper and lower can holder chucks and a plurality of rotary seaming heads furnished with seaming rollers, of an intermittently rotating carrier having a plurality of segmental external flanging dies and an intermediate rotating carrier having a plurality of segmental external flanging dies and a coöperating reciprocating flanging die.

3. In a can flanging and double seaming machine, the combination with an intermittently moving carrier having a plurality of pairs of upper and lower can holder chucks and a plurality of rotary seaming heads furnished with seaming rollers, of an intermittently rotating carrier having a plurality of segmental external flanging dies and a plurality of reciprocating internal flanging dies, and an intermediate rotating carrier having a plurality of segmental external flanging dies.

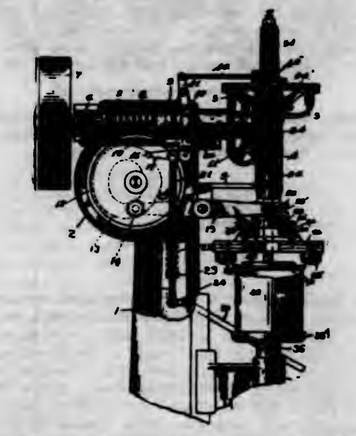
4. In a can flanging and double seaming machine, the combination with an intermittently moving carrier having a plurality of pairs of upper and lower can holder chucks and a plurality of rotary seaming heads furnished with seaming rollers, of an intermittently rotating carrier having a plurality of segmental external flanging dies and an intermediate rotating carrier having a plurality of segmental external flanging dies, a coöperating reciprocating flanging die, a can head holder and a can head feeder.

5. In a can flanging and double seaming machine, the combination with an intermittently moving carrier having a plurality of pairs of upper and lower can holder chucks and a plurality of rotary seaming heads furnished with seaming rollers, of an intermittently rotating carrier having a plurality of segmental external flanging dies and a plurality of reciprocating internal flanging dies and an intermediate rotating carrier having a plurality of segmental external flanging dies, a can head holder and a can head feeder for delivering the can heads to said intermediate carrier.

[Claims 6 to 39 not printed in the Gazette.]

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1,040,952. CAN-HEAD-SEAMING MECHANISM. AXEL JOHNSON, Oakland, Cal., assignor to American Can Company, a Corporation of New Jersey. Filed Dec. 5, 1910. Serial No. 595,609. (Cl. 113—24.)



In a machine for the described purpose, the combination with a seaming head provided with axially movable forming and seaming rollers, of a spring actuated can chuck normally held below the rollers of the seaming head, a second can chuck spaced a distance below the upper can chuck for supporting a can to have a head seamed thereto, means for raising the lower chuck to clamp a can between the chucks, and raise the upper spring held chuck, drive means for imparting continuous rotation to the seaming head, a slidable cam collar acting against the rollers of the seaming head, actuating mechanism for raising and lowering said collar for successively placing the forming roller and the seaming roller into and out of engagement with the flange of the can head to be seamed onto the clamped can, and a lock device for holding the upper can chuck in raised position during the seaming operation and the actuating mechanism for the cam collar against movement until the said can chuck is properly positioned.

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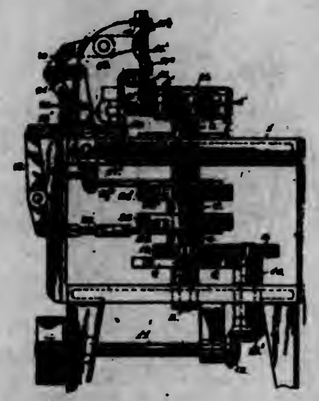
1,040,953. CAN-END-FLANGING MECHANISM. AXEL JOHNSON, Oakland, Cal., assignor to American Can Company, a Corporation of New Jersey. Filed Dec. 5, 1910. Serial No. 595,611. (Cl. 153—25.)

1. In a can body end flanging machine, the combination with a rotary carrier having a plurality of external segmental flanging dies, of a reciprocating external segmental flanging die coöperating with the flanging dies of the carrier, a vertically reciprocating internal flanging plunger die, and means for imparting movement to the said flanging dies.

2. In a can body end flanging machine, the combination with a rotary carrier provided with a plurality of external segmental flanging dies, of a segmental wall coacting with said dies for holding can bodies therein, a reciprocating external segmental flanging die for registering successively with the flanging dies of the rotary carrier, and a reciprocating internal flanging die for flanging the end of can bodies held between the said external flanging dies when in registry.

3. In a can body end flanging machine, the combination with a rotary carrier provided with a plurality of external flanging dies, of a reciprocating external segmental flanging die coacting with the dies of the rotary carrier, each of said mentioned dies being provided with an external segmental wall extension, and a reciprocating internal flanging die coöperating with the external segmental flanging dies for the described purpose.





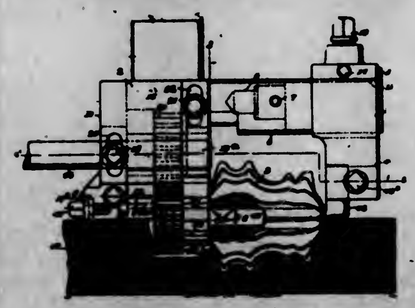
4. In a can body end flanging machine, the combination with a rotary carrier provided with external segmental flanging dies, of means for imparting an intermittent movement thereto, a reciprocating external segmental flanging die registering successively with the rotary traveling segmental dies, a vertically reciprocating internal flanging plunger die coöperating with the external segmental flanging dies, and means for imparting motion to the mentioned reciprocating dies.

5. In a can body end flanging machine, the combination with an intermittent rotary carrier, provided with a plurality of external segmental flanging dies, of a reciprocating external segmental flanging die registering successively with the said flanging dies, a slide carrying the reciprocating die, means for reciprocating the slide toward and from the rotary carrier, and a vertically reciprocating internal flanging plunger die coöperating with the segmental flanging dies when in registry for the described purpose.

[Claims 6 to 8 not printed in the Gazette.]

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1,040,954. ATTACHMENT FOR MILLING-MACHINES. JUSTUS JOHNSON, Bethlehem, Pa. Filed Nov. 21, 1911. Serial No. 661,544. (Cl. 90—16.)



1. An attachment of the character described, comprising a box-like casing which has removable wall parts at the front and back thereof, a shaft which passes in a forward direction through the casing and has support in the latter, a gear wheel on the shaft, a milling cutter, and means associated with the milling cutter and operated by the gear wheel to drive said cutter, the said removable wall parts furnishing support for the milling cutter and the said means associated therewith.

2. An attachment of the character described, comprising a box-like casing having a fixed front wall and a removable back wall, a frame removably associated with the front wall, a shaft passing through said front and back wall, a milling cutter, a gear wheel mounted on the shaft, and means associated with the milling cutter and operated by the gear wheel to drive said cutter, the said back wall and frame furnishing support for the milling cutter and the means associated therewith.

3. An attachment of the character described, comprising a box-like casing having a fixed front wall and a removable and vertically adjustable back wall, a frame removably and vertically adjustably associated with the front wall, a shaft passing through said front and back wall, a milling cutter, a gear wheel mounted on the shaft, and means associated with the milling cutter and operated by the gear wheel to drive said cutter, the back wall and frame furnishing support for the milling cutter and the means associated therewith.

4. An attachment of the character described, comprising a box-like casing, removable and vertically adjustable wall parts associated with said casing at the front and back thereof, a shaft passing through the casing, a milling cutter, a gear wheel mounted on the shaft, and means associated with the milling cutter and operated by the gear wheel to drive said cutter, the said wall parts furnishing support for the milling cutter and said means associated therewith.

5. An attachment of the character described, comprising a box-like casing having a fixed front wall and a removable back wall, a frame removably associated with the front wall, an arm projecting forwardly from the casing in advance of said front wall, a shaft passing through said front and back wall, a milling cutter, a gear wheel mounted on the shaft, and means associated with the milling cutter and operated by the gear wheel to drive said cutter, the said back wall and frame furnishing support for the milling cutter and the means associated therewith.

[Claims 6 and 7 not printed in the Gazette.]

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1,040,955. SUSPENDER ATTACHMENT. LEWIS B. JOHNSON, Benson, Minn. Filed Apr. 18, 1911. Serial No. 621,820. (Cl. 241—18.)



In combination, a shoulder strap having a loop therein, a button tab strap, a hook member for connecting the loop and the button tab strap which comprises a single strip of metal bent back upon itself at one end to form a tab strap receiving hook, the opposite end of the hook member being formed with a hook adapted to engage through the loop and with its terminal end extending parallel to the hook member, a pair of ears arranged on either side of said terminal end, and a lever pivoted in said ears and operating against said terminal end, said terminal end comprising a spring tongue which engages the lever to hold its outer free end in engagement with the strap receiving hook.

1,040,956. CORK-EXTRACTOR. JAMES H. JONES and HOWARD LIPPERT, Cincinnati, Ohio. Filed Nov. 20, 1909. Serial No. 529,051. (Cl. 215—53.)



The combination with a bottle neck having a circumscribing bead and a cork engaged in the neck, of a single strand of flexible wire, bent in substantially U-shaped formation with an arched bight and having a depression in each end portion of the arch of its bight, the terminals of the side portions of the wire being engaged in the cork and a sheet metal plate curved to conform to the arch of the bight of the wire and having apertures formed near its ends and through which the wire is engaged, with the edges of the perforations in the depression of the bight of the wire, and with the outer surface of the plate between the perforations in close contact with the under side of the bight of the wire, the side portions of the wire being bent downwardly with the curved plate receiving the bottle neck directly below the bead.

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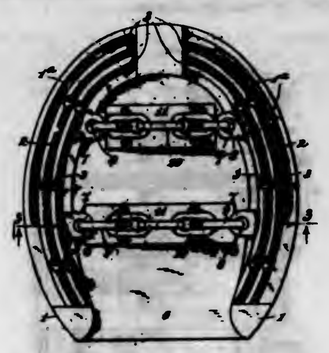
1,040,957. FASTENER. WILLIAM J. KEARY, Schenectady, N. Y. Filed Dec. 1, 1910. Serial No. 595,132. (Cl. 24—224.)



1. In a fastener of the class described, a socket device coöperating with a stud and formed with a partly cylindrical member, a spacing and housing member held in place by the partly cylindrical member, and a stud retaining member comprising a plate and a spring member, the plate being apertured and having one flat side adjacent to the spacing member and having a slot extending from the aperture for accommodating the neck portion of the stud, the spring member projecting into the partly cylindrical member for resisting the entrance and removal of the head of the stud.

2. In a fastener of the class described, a socket device coöperating with a stud and formed with a substantially semi-cylindrical member, and with flanged sides extending substantially parallel with said member, a housing partly inclosing said member, and spaced therefrom and from the sides of the socket device for assisting in clamping the housing to an article, and a stud retaining member comprising a plate having an aperture therein, one flat side of the plate being adjacent to the housing, and the plate having a slot extending from the aperture and a turned over portion extending across the aperture and into the semi-cylindrical member, for resisting the entrance of the head into the socket and resisting the lateral movement of the reduced portion with reference to the aperture and slot.

1,040,958. HORSESHOE. PERCIVAL C. KETTENBURG, New York, N. Y. Filed Feb. 20, 1912. Serial No. 678,902. (Cl. 168—4.)



1. A drop forged horse-shoe having series of spaced V-shaped calks formed on its under surface, chains extending across the shoe and disposed wholly between the inner faces thereof, and means to hold said chains in contact with the pavement.

2. A horse-shoe having a chain extended across the same and disposed wholly between the inner faces thereof, a pad on the top of said shoe and means carried by said pad to hold the chain in contact with the road surface.

3. A horse-shoe having a chain extended across and disposed wholly between its inner faces, a pad on the top thereof, said pad having an enlarged portion to bear against the chain and hold it in contact with the road surface.

4. A horse-shoe having a chain extended across and disposed wholly between its inner faces, and means integral with said shoe to carry the chain.

5. A horse-shoe having a chain extended across and between its inner faces and permanently secured thereto.

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1,040,959. TOOTH-BRUSH. FERDINAND C. KUINDERS, Seattle, Wash. Filed Feb. 20, 1912. Serial No. 678,789. (Cl. 15—37.)



A rotary tooth brush comprising a longitudinally slotted casing having one of its ends exteriorly threaded, a guard carried by the opposite end of said casing, a shaft extending through the casing, and through the guard and having one end journaled in one of the walls of the guard, bristles extending radially from the shaft, a sleeve slidably mounted on the casing and slidably embracing the exterior of said casing, said sleeve having connected therewith by means of diametrically opposed lugs a shaft actuated nut, said nut extending transversely throughout the interior of said sleeve, said lugs being integrally formed with the inner face of said sleeve at a point intermediate the ends thereof and adapted to extend through the slots of the casing, said nut being operatively associated with the shaft so as to revolve the same on the sliding movement of the sleeve upon the casing, and a handle detachably mounted on the exteriorly threaded end of the casing and having a bearing passage receiving one end of the shaft.



1,040,960. DOOR-HANGER TRACK. JOHN H. LAWRENCE, Sterling, Ill., assignor of one-half to Edwin F. Lawrence, Sterling, Ill. Filed Mar. 8, 1912. Serial No. 682,461. (Cl. 16—7.)

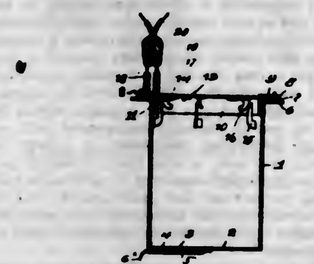


1. A door hanger track, comprising a hollow longitudinal housing formed with a longitudinal opening in its under side and with wheel tracks at the margins of said opening, and a supplementary longitudinal plate member formed with an inner vertical attaching web, an intermediate outwardly extending horizontal web resting against the top web of the housing aforesaid, means for securing said webs together and an outer depending web adapted to rest against the outer vertical web of the housing aforesaid, substantially as set forth.

2. A door hanger track, comprising a hollow longitudinal housing formed with a longitudinal opening in its under side, with wheel tracks at the margins of said opening and with a series of widely spaced vertical ridges or corrugations in its rear wall and with the crown of the corrugations resting against the wall of the building, substantially as set forth.

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1,040,961. RAT-TRAP. SAMUEL LOTZ, Harrisburg, Pa. Filed May 5, 1911. Serial No. 625,154. (Cl. 43—84.)

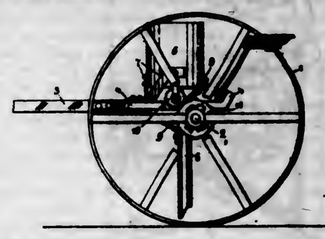


In an electric trap, a receptacle having an annular flange, a collar supported by and insulated from said flange and the receptacle, said collar having a plurality of yieldable trap doors, a bail carried by said flange and supporting a bait holder located above said doors, and means for connecting the opposite sides of an electric circuit to said flange and collar respectively, whereby said doors and the bait holder will form the complemental terminals of an electrocuting circuit.

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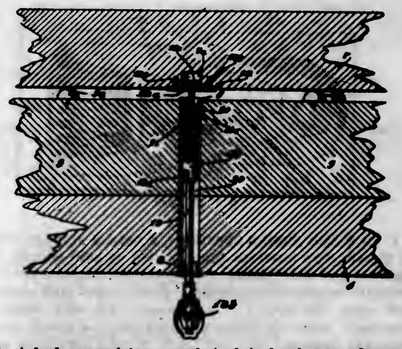
1,040,962. CORN AND COTTON PLANTER. HENRY F. ROY, Arlington, Tex., assignor of one-third to William P. Craig and one-third to Proctor G. Craig, Handley, Tex. Filed Nov. 7, 1910. Serial No. 591,056. (Cl. 111—6.)

A machine of the class described including a tongue, side members diverging therefrom, an axle mounted for rotation and supporting the side members, wheels supporting and adapted to rotate the axle, a seed box secured to the tongue, a seed chute depending from the box, a shaft extending through the bottom portion of the seed box and constituting means for actuating the dropping mechanism within the box, a gear upon said shaft, a mutilated gear secured to and revoluble with the axle and adapted to mesh intermittently with the gear on the shaft to rotate said shaft intermittently, and collars on the axle and engaging the side members for holding said axle against longitudinal movement and maintaining the mutilated gear in operative relation with the gear on the shaft.



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1,040,963. PIANO-LOCK. HARRY J. STRONG and SHERIDAN OSTRANDER, Chicago, Ill.; said Ostrander assignor to said Strong. Filed Feb. 15, 1912. Serial No. 677,826. (Cl. 70—20.)



1. A lock comprising a socket plate having an elongated rectangular recess in its outer face, a bolt slidably mounted in said plate and having a head fitting said recess and having secured to its opposite end, a key engaging member provided with a recess, an expansion coil spring arranged between the said socket member and said key receiving member and adapted to normally hold the bolt head in said recess, in combination with a strike plate having an opening adapted to engage said bolt head when the latter is projected from said socket member, said bolt adapted to be projected and to be rotated by a suitable key engaging said key receiving member.

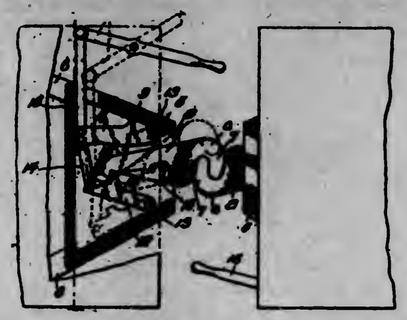
2. A lock comprising a circular socket-plate having an elongated recess in its outer face, a bolt slidably mounted in said plate, having on one end a head adapted to be seated in said recess, and on its opposite end a slotted block, a spring surrounding said bolt and bearing against said socket-plate and block, a strike-plate having an opening adapted to engage said bolt head, and a key adapted to engage said slotted block to rotate and project said bolt.

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1,040,964. COUPLING. HENRY TAYLOR and STYLES LESTON HUTCHINS, Peoria, Ill.; said Hutchins assignor to William Bragg, Peoria, Ill., and said Taylor assignor of one-half his right to said Bragg. Filed Aug. 19, 1911. Serial No. 644,912. (Cl. 213—40.)

In a car coupler, in combination with a support, a coupling hook pivoted thereon, said hook having a lateral shoulder at one end and a cam surface contiguous to

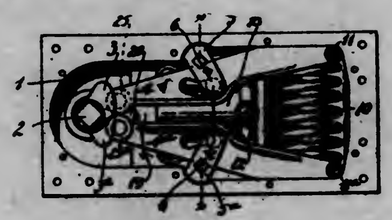
said shoulder, of a pair of connected cams connected to said support and arranged to oscillate said hook, and co-



operating interlocking means carried by one of said cams and adapted to engage the inner end of said hook.

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1,040,965. COMBINED FLOOR CHECK AND HINGE. HENRY G. VOIGHT, New Britain, Conn. Filed July 19, 1911. Serial No. 639,262. (Cl. 16—88.)

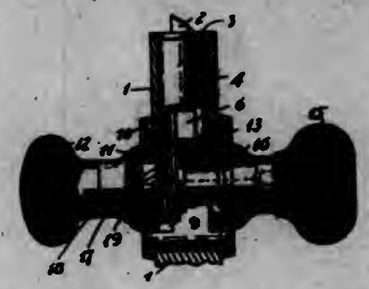


1. In a door closing apparatus, a case, a spindle mounted therein, two separate cams carried by said spindle, two separate and independent levers carried by said case and pivotally mounted intermediate their length and engaging said cams, the points of engagement for said levers respectively being at different elevations, a single spring operating between the rear ends of said levers to force the same apart, and a liquid checking device coöperating with said spindle arranged within said casing, said checking device including a cylinder, a piston therein, and a rod between said piston and spindle.

2. In a combined check and closer, a rotatable spindle, two cams carried thereby, a crank carried thereby, closing mechanism comprising two independent arms bearing at one end against said cams, an adjustable pivotal mounting for each of said arms arranged intermediate the length thereof, a spring operating between the rear ends of said arms, a casing inclosing all of said parts and including a closer plate, a groove adjacent the rear ends of said arms, a projection from the rear end of each of the arms extending into said groove, said groove being arranged transversely to prevent substantial endwise movement of each of said arms, a piston, a cylinder check within said casing and a connection between said piston and said crank.

3. In a combined door closer and check, a casing, a spindle, two independent lever arms operatively connected with the spindle and arranged to be independently moved by the rotation of the spindle in one or the other direction, a pivotal mounting for each of said arms, each mounting comprising a pivot carrying frame, a pivotal bearing carried by said frame eccentrically thereto, a locking member mounted wholly within the casing and operable from outside of the casing for holding said frame in any one of several positions, means for moving said lever arms, and checking mechanism for retarding the return movement of the spindle.

1,040,966. LOCK. HENRY G. VOIGHT, New Britain, Conn. Filed Aug. 26, 1911. Serial No. 646,260. (Cl. 70—91.)



1. In a lock of the character described, in combination, a main frame embodying a cylindrical casing, a knob bearing at one end of said casing, a knob mounted therein having a spindle, a threaded bore formed in said casing transversely thereof, a bolt slide and coöperating roll back mechanism carried by said frame, said frame and its associated parts forming an assembled unit adapted to be secured to and inserted in one side of a door, a side plate having a knob bearing and a knob and spindle mounted therein, adapted to be secured to the opposite side of the door and arranged to be aligned with and operatively connected to the parts of said main frame, said plate and its associated parts forming a second and independent assembled unit adapted to be inserted in the opposite side of said door independently of said first assembled unit, a cylindrical bolt guide having its end formed for threaded engagement with said casing bore to extend radially from said casing, and a bolt arranged within said guide having its end formed for threaded engagement with said slide.

2. In a lock of the character described, in combination, a main frame embodying a cylindrical casing, a knob bearing at one end of said casing, a knob mounted therein having a spindle extending through said casing, a threaded bore formed in said casing transversely thereof, a cylindrical bolt guide having its end in threaded engagement with said bore and extending radially from its casing, a bolt slide within said casing, a bolt arranged within said guide having its end in threaded engagement with said slide, roll back mechanism positioned to engage said slide to operate said bolt, a side plate arranged to be aligned with and adjustably connected to said main frame, a knob bearing carried by said plate and a knob and spindle mounted therein and adjustable with said plate, said knob spindles being operatively connected with said roll back mechanism.

3. In a lock of the character described, in combination, a main frame embodying a cylindrical casing, a knob bearing at one end of said casing, a knob mounted therein having a spindle, a threaded bore formed in said casing transversely thereof, a bolt slide and two coöperating roll backs carried by said frame, said frame and its associated parts forming an assembled unit, a side plate having a knob bearing and a knob and spindle mounted thereon adapted to be secured to the opposite side of the door, said parts forming a second assembled unit, threaded aligning pins carried by said main frame and engaging and adjustably spacing said side plate and its associated parts therefrom, the spindle of said second assembled unit having an adjustable connection with one of said roll backs, a cylindrical bolt guide having its end formed for threaded engagement with said casing, and a bolt arranged within said guide having its end formed for threaded engagement with said slide.

4. In a lock of the character described, in combination, a main frame embodying a cylindrical casing, a knob bearing at one end of said casing, a knob mounted therein having a spindle, a threaded bore formed in said casing transversely thereof, a bolt slide and three coöperating



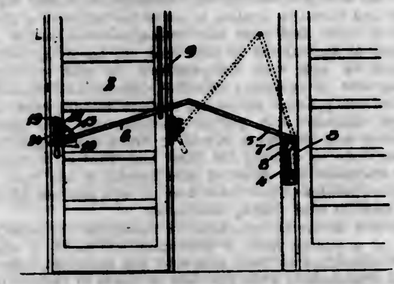
roll backs carried by said frame, said frame and its associated parts forming an assembled unit, a side plate having a knob bearing and a knob and spindle mounted thereon adapted to be secured to the opposite side of the door, said parts forming a second assembled unit, threaded aligning pins carried by said main frame and engaging and adjustably spacing said side plate and its associated parts therefrom the spindle of said second assembled unit having an adjustable connection with a roll back, the spindle of said first mentioned unit being operatively connected to a second roll back and key controlled mechanism for operating the third roll back.

5. A sectional unit lock of the character described comprising two complemental and assembled sections adapted to be inserted as independent unitary structures through opposite sides of a bore extending transversely through a door, each sectional unit embodying a supporting frame having a knob and a knob spindle mounted therein, one of said sectional units carrying a bolt slide and roll-back mechanism, and said complemental sections being automatically and operatively connected when so inserted in said transverse bore; and a third and independent sectional unit adapted to be inserted through a bore in said door extending longitudinally thereof and intersecting said first named bore, said third sectional unit embodying an assembled bolt guide and bolt and said bolt being constructed and arranged to be adjustably and operatively connected to said bolt slide.

[Claim 6 not printed in the Gazette.]

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1,040,967. LOCK FOR SLIDING DOORS. HENRY G. VOIGHT, New Britain, Conn. Filed Mar. 2, 1912. Serial No. 681,254. (Cl. 70—102.)



1. In a device of the character described, the combination of a door casing, a sliding door, a lever pivoted to said door and connected to said casing and swinging with the opening and closing movement of said door, a member carried by and oscillating with the movement of said lever, a member pivotally mounted on said door and carrying a part adapted to engage said oscillating member as said door closes and lock said door against opening movement, means whereby said member may be withdrawn from locking engagement and whereby said door may be opened, and means whereby said locking member may be inoperatively positioned relative to said oscillating member to permit the door to close without locking.

2. In a device of the character described, a sliding door, a movable arm carried thereby, a connection for said arm independent of the door, an operating handle carried by the door, a locking device operable by said handle and coacting with said arm to hold said arm against movement and to thereby lock said door, and means whereby said locking device may be inoperatively positioned relative to said arm to permit the door to close without locking.

3. In a device of the character described, a sliding door, a movable lever carried thereby, a connection for said lever independent of the door, an operating handle carried by the door, a locking device operable by said handle and coacting with said lever to hold said lever against movement and to thereby lock said door, closing mechanism for said door operatively connected with said lever to move the latter in a direction to move said door into closed position, and means whereby said locking device may be inoperatively positioned relative to said lever to permit the door to close without locking.

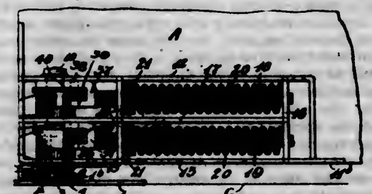
4. In a device of the character described, a sliding door, an arm pivotally mounted near one end on said door, a support or connection independent of the door for the other end of said arm, said arm being movable relatively to said door and to said independent support, an operating handle carried by the door for moving the latter, said handle having a limited independent movement relatively to said door, a locking mechanism for said arm to prevent movement thereof and to thereby lock the door, said locking mechanism being controllable by the said independent movement of said handle, and means for rendering said locking mechanism inoperative to lock said arm against movement.

5. In a device of the character described, a sliding door, a toggle lever connected at one end to said door, a coöperating toggle lever for the other end of the first mentioned toggle lever, a support for said second toggle lever, means for moving said toggle levers normally in a direction to transmit a closing movement to the door, and a locking mechanism carried by the door and coacting with said first mentioned toggle lever to hold the latter against movement when the door is closed, and a door-operating handle carried by the door and capable of limited independent movement relatively thereto, means of connection between said handle and said locking means whereby the latter may be released preparatory to opening the door, and means for rendering said locking means inoperative to hold said toggle lever against movement to permit the door to close without locking.

[Claims 6 to 12 not printed in the Gazette.]

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1,040,968. SPRING FLOOR-HINGE. HENRY G. VOIGHT, New Britain, Conn. Filed Apr. 25, 1912. Serial No. 693,045. (Cl. 16—25.)



1. In a device of the character described, in combination, a floor pivot, two guide members mounted thereon, a door journaled on said pivot and swinging in either direction, two bearing members carried by said door engaging said guide members, locking means carried by said guide members adapted to engage said bearing members and releasably lock said door open in its opposite directions of swing, means whereby said guide members cooperate with said bearing members to automatically return said door to central closed position when released from open locked position or when partly opened, and means whereby said guide members are each only operative to lock said door open or close said door in opposite directions of swing thereof.

2. In a device of the character described, in combination, a normally stationary floor pivot adapted for rotation, two guide members mounted thereon, a door journaled on said pivot and swinging in either direction, two bearing members carried by said door engaging said guide members, locking means carried by said guide members adapted to engage said bearing members and releasably lock said door open in its opposite directions of swing, means whereby said guide members coöperate with said bearing members to automatically return said door to central closed position when released from open locked position or when partly opened, means whereby said guide members are each only operative to lock said door open

or close said door in opposite directions of swing thereof, and means for rotating said floor pivot and door in unison and for retaining said pivot in adjusted position whereby compensating adjustment of the door relative to its line of central closure is effected.

3. In a device of the character described, in combination, a floor pivot, two guide members mounted thereon, a door journaled on said pivot and swinging in either direction, two spring-pressed bearing members carried by said door engaging said guide members, means whereby the spring pressure of one bearing member may be varied relative to the other, locking means carried by said guide members adapted to engage said bearing members and releasably lock said door open in its opposite directions of swing, means whereby said guide members coöperate with said bearing members to automatically return said door to central closed position when released from open locked position or when partly opened, and means whereby said guide members are each only operative to lock said door open or close said door in opposite directions of swing thereof.

4. In a device of the character described, in combination, a floor pivot, two guide members mounted thereon adapted for movement relative thereto and provided with cam surfaces, a door journaled on said pivot and swinging in either direction, two spring-pressed bearing members mounted in said door and frictionally engaging the cam surfaces of said pivot guides, means whereby the spring pressure of one bearing member may be varied relative to that of the other, locking means carried by said guide members at opposed ends of their bearing faces and adapted to engage said bearing members when said door is swung relative to said guide members and releasably lock said door open in its opposed directions of swing, means whereby said guide members are alternately held stationary and operate to lock the door open in opposed directions of swing only, and means whereby said cam surfaces coöperate with said bearing members to automatically return said door to central closed position when released from open locked position or when partly opened.

5. In a device of the character described, in combination, a normally stationary floor pivot, two guide members mounted thereon adapted for movement relative thereto and provided with cam surfaces, a door journaled on said pivot and swinging in either direction, two spring-pressed bearing members mounted in said door and frictionally engaging the cam surfaces of said pivot guides, means whereby the spring pressure of one bearing member may be varied relative to that of the other, locking means carried by said guide members at opposed ends of their bearing faces and adapted to engage said bearing members and releasably lock said door open in its opposed directions of swing, means whereby said guide members are alternately held stationary and operate to lock the door open in opposed directions of swing only, means whereby said cam surfaces, when stationary, coöperate with said bearing members to automatically return said door to central closed position when released from open locked position or when partly opened, means for rotating said floor pivot, guides, bearing members and door as a unitary structure without disturbing the relative positions of their coöperating parts, to thereby effect compensating adjustment of the door relative to its central line of closure, and means for retaining said floor pivot in its adjusted position.

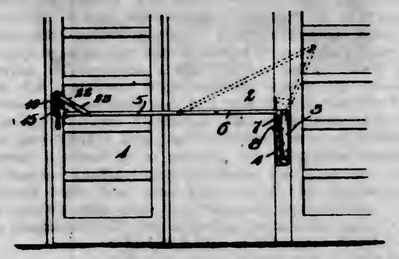
[Claims 6 to 17 not printed in the Gazette.]

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1,040,969. DOOR-CONTROLLING MEANS. HENRY G. VOIGHT, New Britain, Conn. Filed May 28, 1912. Serial No. 700,188. (Cl. 70—102.)

1. In a device of the character described, the combination of a sliding door, a stationary abutment, a toggle lever connection between said door and abutment adapted to be straightened when the door is closed to thereby lock the door against opening movement, an operating handle carried by the door and having a limited free movement relative thereto, and means whereby a continuous movement of said handle in the same direction operates to break said toggle lock and to open said door.

2. In a device of the character described, the combination of a sliding door, a stationary abutment, a toggle lever connection between said door and abutment adapted to be straightened when the door is closed to thereby lock the door against opening movement, closing mechanism for said door operatively connected with said toggle lever and normally tending to move the latter in a direction to move said door into closed position, an operating handle carried by the door and having a limited free movement relative thereto, and means whereby a continuous movement of said handle in the same direction operates to break said toggle lock and to open said door against the force of said closing means.



3. In a device of the character described, the combination of a sliding door, a stationary abutment, a toggle lever connection between said door and abutment adapted to be straightened when the door is closed to thereby lock the door against opening movement, closing mechanism for said door operatively connected with said toggle lever and normally tending to move the latter in a direction to move said door into closed position, toggle unlocking means carried by said door, an operating handle carried by said door independently of said unlocking means and in operative relation thereto, and having a limited independent movement relative to said door, and means whereby said limited movement of said handle actuates said unlocking means to break said toggle lock preparatory to opening the door, and whereby a further and continued movement of said handle in the same direction operates to move said door to open position against the force of said closing mechanism.

4. In a device of the character described, the combination of a sliding door, a stationary abutment, a toggle lever connection between said door and abutment adapted to be straightened when the door is closed to thereby lock the door against opening movement, closing mechanism for said door operatively connected with said toggle lever and normally tending to move the latter in a direction to move said door into closed position, toggle unlocking means carried by said door, an operating handle carried by said door in operative relation with said unlocking means, and having a limited independent movement relative to said door, an abutment positioned on said door to be engaged by and limit the independent movement of said handle, and means whereby a preliminary movement of said handle relative to said door and in the direction of its opening breaks said toggle lock preparatory to opening the door, and whereby a further and continued movement of said operating handle in the same direction operates to open said door against the force of said closing means.

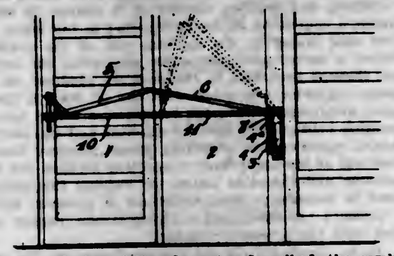
5. In a device of the character described, the combination of a sliding door, a stationary abutment, a toggle lever connection between said door and abutment adapted to be straightened when the door is closed to thereby lock the door against opening movement, closing mechanism for said door operatively connected with said toggle lever to move the latter in a direction to move said door into closed position, means carried by said door and operatively connected with said toggle adapted to be positioned thereby upon the closing movement of the door to form an auxiliary lock against door opening movement on the part of said toggle, an operating handle carried by the door having a limited independent movement relative thereto and adapted to be moved relative to said door to inoperatively position said auxiliary locking means and to break said toggle lock preparatory to opening the door.

[Claim 6 not printed in the Gazette.]



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1,040,970. DOOR CONTROLLING AND LOCKING MEANS. HENRY G. VOIGHT, New Britain, Conn. Filed June 5, 1912. Serial No. 701,736. (Cl. 70—102.)



1. In a device of the character described, the combination of a sliding door, a stationary abutment, a bent toggle lever connection between said door and abutment, closing mechanism for said door operatively connected with said bent toggle to move the latter in a direction to move said door into closed position, a straight toggle lever connection between said door and a stationary abutment adapted to be straightened by the closing of the door to thereby lock the door against opening movement, and means carried by the door and independently movable relative thereto adapted to be moved to break said straight toggle lock and to open said door.

2. In a device of the character described, the combination of a sliding door, a stationary abutment, a bent toggle lever connection between said door and abutment, closing mechanism for said door operatively connected with said bent toggle to move the latter in a direction to move said door into closed position, a straight toggle lever connection between said door and a stationary abutment adapted to be straightened by the closing of the door to thereby lock the door against opening movement, an operating lever carried by the door and independently movable relative thereto, and means operable by said independent movement of said lever to break said straight toggle lock preparatory to opening the door.

3. In a device of the character described, the combination of a sliding door, a stationary abutment, a bent toggle lever connection between said door and abutment, closing mechanism for said door operatively connected with said bent toggle to move the latter in a direction to move said door into closed position, a straight toggle lever connection between said door and a stationary abutment adapted to be straightened by the closing of the door to thereby lock the door against opening movement, an operating lever carried by the door and independently movable relative thereto, means operable by said independent movement of said lever to break said straight toggle lock preparatory to opening the door, and an abutment positioned on the door to be engaged by said operating lever at the end of such independent movement thereof whereby said lever may be further actuated to open said door.

4. In a device of the character described, the combination of a sliding door, a stationary abutment, a bent toggle lever connection between said door and abutment, closing mechanism for said door operatively connected with said bent toggle to move the latter in a direction to move said door into closed position, a straight toggle lever connection between said door and a stationary abutment adapted to be straightened by the closing of the door to thereby lock the door against opening movement, toggle unlocking mechanism carried by said door and in operative connection with said straight toggle, an operating lever carried by said door operatively connected with said unlocking mechanism and having a limited independent movement relative to said door whereby such movement of said lever operates to break said straight toggle lock preparatory to opening said door, and an abutment positioned on said door to be engaged by said operating lever at the end of such independent movement thereof, whereby said lever may be further actuated to open said door.

5. In a device of the character described, the combination of a sliding door, a stationary abutment, a bent toggle lever connection between said door and abutment, closing mechanism for said door operatively connected with said bent toggle to move the latter in a direction to move said door into closed position, a straight toggle lever connection between said door and a stationary abutment adapted to be straightened by the closing of the door to thereby lock the door against opening movement, means carried by said door and operatively connected with said straight toggle adapted to be positioned thereby upon the closing movement of the door to form an auxiliary lock therefer against door opening movement, and an operating lever carried by the door having a limited independent movement relative thereto and adapted to be moved relative to said door to inoperatively position said auxiliary locking means and to break said straight toggle lock preparatory to opening the door.

[Claim 6 not printed in the Gazette.]

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1,040,971. INSULATING-JOINT. CHARLES WIRT, Philadelphia, Pa., assignor, by mesne assignments, to Wirt Electric Specialty Company, a Corporation of Maine. Filed Apr. 24, 1907. Serial No. 369,888. (Cl. 173—365.)



1. An insulating connection having a continuous outer shell provided with end openings larger than the greatest diameter of the inner members, two inner members of a size to be readily insertible through the ends of said shell, and insulating material between said shell and said inner members, means on the shell and inner members, coöperating with the insulating material, to subject the latter to a shearing strain when the device is in use, substantially as set forth.

2. An insulating joint having a continuous outer shell provided with end openings larger than the greatest diameter of the inner members, two inner members of a size to be readily insertible through the ends of said shell, the outer surfaces of the inner members and the inner surface of the shell having projections thereon, and insulating material between said shell and said inner members which is subjected to a shearing strain when the device is in use, substantially as set forth.

3. An insulating joint having a shell, two inner members therein, and an insulating filling between the inner members and the shell, the shell having longitudinal depressions near the middle portion and transverse depressions nearer the ends, the longitudinal depressions serving to resist torsional strains and the transverse depressions serving to resist longitudinal strains.

4. An insulating connection having a continuous shell provided with end openings, one at least being larger than the greatest diameter of the inner members, two inner members of a size to be readily insertible through an end of the shell, and insulating material molded into the space between said shell and said inner members.

5. An insulating connection having a continuous shell provided with end openings, one at least being larger than the greatest diameter of the inner members, two inner members of a size to be readily insertible through an end of the shell, insulating material molded into the space between said shell and said inner members, and means on the shell and inner members, coöperating with the insulating material to subject the latter to a shearing strain when the device is in use.

[Claims 6 and 7 not printed in the Gazette.]

1,040,972. PLASTIC METAL. CHARLES LEE ALEXANDER, Charlotte, N. C. Original application filed Apr. 28, 1910, Serial No. 557,749. Divided and this application filed July 19, 1911. Serial No. 639,461. (Cl. 106—6.)

1. A mass composed of metal in fibrous state presenting interstices filled with a waxy binder capable of plasticity at a temperature which will not cause discomfort when applied to a part of the human anatomy, and of being solidified when cold.

2. A mass composed of metal in the form of fibers presenting interlying interstices filled with a waxy binder capable of being manipulated to move the metal parts one upon the other without separation or adhesion when warmed to a temperature which will not cause discomfort when applied to a part of the human anatomy, and of becoming less plastic as it is cooled.

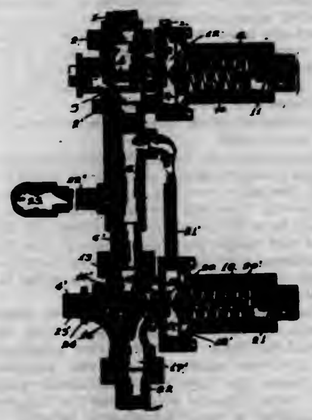
3. A mass composed of metallic fibers having the interstices filled with a waxy binder capable of plasticity at a temperature which will not cause discomfort when applied to a part of the human anatomy, and of being solidified when cold.

4. A mass composed of metal in the form of connected fibers having the interstices filled with a waxy binder capable of plasticity at a temperature which will not cause discomfort when applied to a part of the human anatomy and of being solidified when cold.

5. A mass composed of metal of spongy formation having the interstices filled with a waxy binder capable of plasticity at a temperature which will not cause discomfort when applied to a part of the human anatomy, and of being solidified when cold.

[Claims 6 and 7 not printed in the Gazette.]

1,040,973. PRESSURE-CONTROLLED MEANS FOR HYDROCARBON-BURNERS. CHRISTIAN O. BARION, San Francisco, Cal. Filed June 14, 1911. Serial No. 633,140. (Cl. 236—6.)



1. In an apparatus for the described purpose, the combination with a pressure chamber, of a valved steam inlet connected with one end and a controlled oil feed connected to the opposite end thereof, a pressure actuated regulator associated with the valved steam inlet for positioning the valve thereof for varying the steam supply to the pressure chamber in accordance with the rise or fall of the steam pressure within a boiler, a second pressure actuated regulator associated with the controlled oil feed for regulating the said oil feed on changes of pressure within the pressure chamber, a steam by-pass between the said pressure chamber and the second regulator for the oil feed, a steam supply connection between the valved steam inlet and a steam boiler, a direct steam connection from the boiler to the regulator for the valved steam inlet, a hydro-carbon burner connected to the pressure chamber, and a connection between the controlled oil feed and a source of supply for the pressure oil.

2. In an apparatus for the described purpose, the combination with an elongated tubular casing having intermediate its ends a pressure chamber, of a valved steam inlet connected with the upper end of said casing, a steam pressure regulator associated with said inlet, a spring pressed diaphragm held therein, means for admitting steam direct from a boiler to one side of the diaphragm, connection between said diaphragm and the valve of the steam inlet, for shifting the position thereof on a change in steam pressure, a controlled oil feed connected to the lower end of the said casing to the opposite side of the pressure chamber, a ported slide piston for regulating the supply of oil through said feed to the pressure chamber, an oil pressure regulator associated with the oil feed, a spring pressed diaphragm within the regulator, a steam by-pass connection between the pressure chamber and the said oil pressure regulator for admitting steam pressure therein to one side of the diaphragm, connection between the said diaphragm and the slide piston for varying the position thereof in accordance with variations of pressure within the pressure chamber, and a hydro-carbon burner connected with the pressure chamber.

3. In an apparatus for the described purpose, the combination with a pressure chamber, of a valved steam inlet connected with one end thereof, a controlled oil feed connected with the opposite end thereof, a pressure actuated regulator for adjusting the valved steam inlet in accordance with variations of steam pressure, a second pressure actuated regulator for adjusting the controlled oil feed with variations of steam pressure within the pressure chamber, a steam by-pass connection between the said chamber and the second regulator for the oil feed, and a hydro-carbon burner connected with the pressure chamber for receiving oil and steam therefrom.

4. In an apparatus for the described purpose, the combination of an elongated tubular member forming a pressure chamber, a pressure regulated valved steam inlet connected to one end thereof and detachable therefrom as an independent unit, of an oil feed connection at the opposite end of the pressure chamber and detachable therefrom as an independent unit, a ported slide piston working in said oil inlet connection, a pressure actuated regulator for shifting the position of said piston in accordance with the variations in the steam pressure within the pressure chamber, a by-pass steam connection between said regulator and the pressure chamber, and a hydro-carbon burner connected with the said chamber for receiving steam and oil under pressure therefrom.

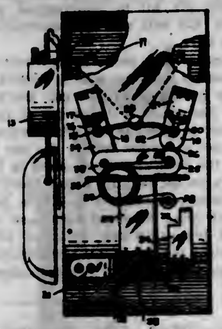
5. In an apparatus for the described purpose, the combination with a pressure chamber interposed between the steam supply from a boiler and the oil supply, of a valved steam inlet connected to one end portion of the pressure chamber and a controlled oil feed to the opposite end portion thereof, of a pressure actuated regulator for controlling the position of the valve of the steam inlet in accordance with variations in the boiler pressure, a pipe connection extended from the boiler to the said regulator, a slide piston within the controlled oil feed, a record pressure regulator for actuating said piston in accordance with the adjustment given the valve of the steam inlet, a by-pass steam connection between said second regulator and the pressure chamber, a hydro-carbon burner connected with the steam chamber for receiving steam and oil under pressure therefrom, and adjustable means for regulating the closing movement of the slide piston, independently of the valve of the steam inlet.

[Claims 6 and 7 not printed in the Gazette.]

1,040,974. ALARM-BELL. HANS P. CHRISTIANSON, Oakland, Cal., assignor of one-half to A. J. Hanford, Oakland, Cal. Filed Dec. 27, 1911. Serial No. 668,084. (Cl. 177—10.)

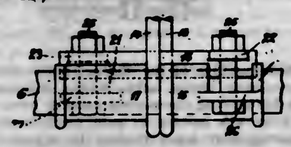
In a device of the kind described, a casing, a plate mounted on said casing and provided with wire terminal engaging means, a second plate similarly mounted and provided in spaced relation to the first plate, a T-shaped member having one of its arms connected pivotally to the first mentioned plate, a pin on the second plate adapted for contact by the remaining arm of the T-shaped member, a spring normally urging the last mentioned arm against said pin, an upturned flange on the end of the stem of the T, a thumb piece secured adjacent the end of





the stem of the T and provided with an offset portion overlapping a part of the end of said stem to hold the stem against the casing, said thumb piece terminating in an up-turned flange, and a keeper pivoted adjacent the upturned flange of the T and provided with a notch at its end to engage said upturned flange of the T.

1,040,975. SUSPENSION INSULATOR-CLAMP. WALTER G. CLARK, New York, N. Y. Original application filed May 4, 1911, Serial No. 624,980. Divided and this application filed Sept. 21, 1911. Serial No. 650,523. (Cl. 248—21.)



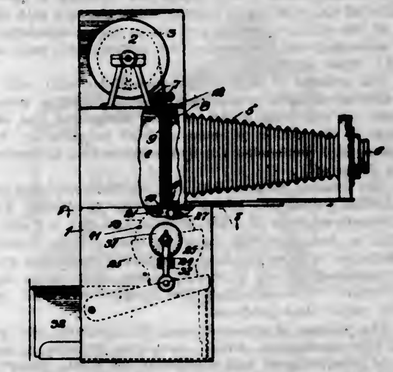
1. A suspension insulator clamp, comprising main clamping members having grooved body portions and suspending members at one end, said clamping members being arranged end to end with the suspending members adjacent each other, and means for holding a conductor in said clamping members.

2. A suspension insulator clamp, comprising main clamping members having elongated grooved body portions arranged end to end, suspending members and securing members, and a retaining member arranged longitudinally of said clamping members and secured to said securing members.

3. A suspension insulator clamp, comprising main clamping members having grooved body portions arranged end to end with the grooves in substantial alinement, a grooved retaining member arranged longitudinally of said clamping members and secured to each clamping member, and suspending members projecting from the clamping members.

1,040,976. COPYING APPARATUS. GUSTAVE H. COQUUGNIOT, Los Angeles, Cal., assignor to Martin L. Rice, San Francisco, Cal. Filed June 24, 1912. Serial No. 705,060. (Cl. 95—18.)

1. The combination with a photographic casing having a roll of sensitized paper in the upper part thereof, of a plurality of pistes to guide said paper, a developing cylinder journaled in the bottom of said casing, and provided with a longitudinal groove, a bar in said groove provided with lugs to engage the end of said paper and clamp it in said cylinder, means to operate said clamping means, a fixing tray in said casing, means to remove the paper from said cylinder and deliver it to said fixing tray, a disk to control said removing means, means to control said disk, and means movable in one direction to operate said clamping means and hold said removing means inoperative, and in the opposite direction to release said clamping means, and actuate said removing means.



2. The combination with a photographic casing having in the upper part thereof a roll of sensitized paper, of a cylinder having a longitudinal groove, a bar operable in said groove and provided with lugs to engage the end of said paper, a shaft on which said cylinder is mounted, a sleeve on said shaft provided with a disk for operating said clamp bar, means to operate said sleeve independently of said shaft, means to automatically remove the paper from said cylinder, a loosely mounted disk to control said removing means, means controllable by the oscillation of said clamp bar controlling disk in one direction to cause said disk to travel with said sleeve, means to automatically control said paper removing means, and a crank to revolve said cylinder.

3. In a photographic copying apparatus, the combination with a casing having in the upper part thereof a roll of sensitized paper, of a cylinder journaled in said casing and provided with a longitudinal groove, a bar in said groove to clamp the end of said paper, means to operate said bar, means to remove the paper from said cylinder, a disk to operate said removing means, means to operate said disk, and means to control both said bar and said disk operating means.

4. In a photographic copying apparatus, the combination with a casing having in the upper part thereof a roll of sensitized paper, of a developing cylinder for an exposed piece of paper, provided with a longitudinal groove, a bar in said groove to clamp the end of said paper, means to operate said bar, a shaft on which said cylinder is mounted, means to remove the paper from said cylinder, a disk to control said removing means, means to operate said disk, a sleeve loose on said shaft and provided with a disk to operate said clamp bar and said disk operating means, and means to move said sleeve independently of said shaft.

5. The combination with a casing having a roll of sensitized paper in the upper part thereof, of a developing cylinder, having a longitudinal groove, a shaft on which said cylinder is mounted, a crank to revolve said cylinder, a sleeve loosely mounted on said shaft and forming a bearing for one end thereof, a cam disk on said sleeve, an automatic paper removing means in operative relation to said cylinder, a disk loosely mounted relatively to said sleeve to control said removing means, a paper clamping means in said groove, means operatively connected with said cam disk to operate said clamping means, means operatively connected with said cam disk to actuate said disk for controlling said removing means, and means to actuate said sleeve independently of said shaft.

1,040,977. PROCESS FOR PRODUCING HYDROCHLORIC ACID AND ALKALI-SILICO-ALUMINATES. ALFRED H. COWLES, Sewaren, N. J., assignor to The Electric Smelting and Aluminum Company, Sewaren, N. J. Original application filed Oct. 10, 1911, Serial No. 653,876. Divided and this application filed Jan. 23, 1912. Serial No. 672,823. (Cl. 23—1.)

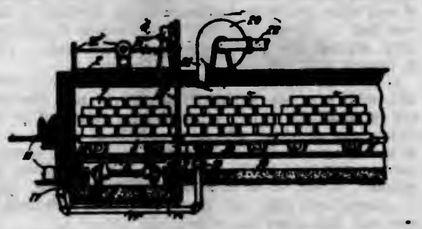
1. The process of producing hydrochloric acid and alkali-silico-aluminate, which comprises forming a porous mixture of clay and alkali chlorid, subjecting the said mixture to the action of steam and air at high temperatures, and collecting and condensing the hydrochloric acid and watery vapor given off.

2. The process of producing hydrochloric acid and alkali-silico-aluminate, which comprises forming a porous mixture of clay and alkali chlorid, subjecting the said mixture to the action of steam at high temperature, and collecting and condensing the hydrochloric acid and watery vapor given off.

3. The process of manufacturing hydrochloric acid and alkali-silico-aluminate, which comprises combining with an intimate mixture of alkali chlorid and clay a material adapted to disappear and leave the mass porous, treating the material to make it porous, subjecting the porous mass thus produced to the action of steam and air at high temperature, and collecting the hydrochloric acid and watery vapor thus produced.

4. The process of manufacturing hydrochloric acid and alkali-silico-aluminate, which comprises forming a mixture of alkali-chlorid and aluminous material, rendering the mass chemically porous and subjecting the said mass to the action of steam and air at high temperatures.

1,040,978. TUNNEL-FURNACE. ALFRED H. COWLES, Sewaren, N. J., assignor to The Electric Smelting and Aluminum Company, Sewaren, N. J. Original application filed Apr. 14, 1911, Serial No. 621,002. Divided and this application filed Aug. 24, 1911. Serial No. 645,868. (Cl. 23—13.)



1. An apparatus for making hydrochloric acid comprising a tunnel furnace provided with means for drawing off the injurious gases produced in the upper part of the furnace above the cars, means for maintaining the gases in the lower portion of the furnace above atmospheric pressure, in combination with means for supplying inert gases to the lower portion of the furnace below the cars, and means for regulating the pressure of said inert gases so as to prevent the injurious gases from reaching the lower part of the furnace.

2. An apparatus for making hydrochloric acid from aluminous material and an alkali chlorid, comprising a tunnel furnace provided with a car track, cars running on said track and dividing the furnace into an upper and lower portion, said furnace being provided above the car tops with a gas heating source and means at the exit end for introducing steam and air, and having, moreover, connected with the top of the furnace near the car entrance a suction device for drawing off the acid fumes, formed in the top of the furnace, in combination with means for supplying inert gas, means for maintaining the inert gas above the atmospheric pressure so as to counterbalance the pressure of the acid fumes downward and keep them from penetrating below the car tops and attacking the corrodible portions of the cars and of the furnace.

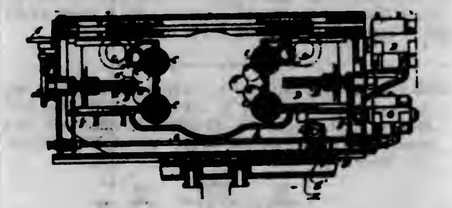
3. An apparatus for manufacturing hydrochloric acid, comprising a tunnel furnace open at the exit end, a car track, a car pit, loaded cars located on said track and dividing the pit from the upper portion, said furnace being provided in the upper portion with a supply of steam and air, having, moreover, a suction device connected with the top of the furnace near the car entrance, and means for supplying inert gas to the pit, all in combination with gas baffles in the pit near the exit end and automatically operated by the moving cars.

4. An apparatus for making hydrochloric acid from aluminous material and an alkali chlorid, comprising a tunnel furnace provided with a car track, a car pit, a suction device connected with the top of the furnace near the car entrance, in combination with a valved pipe located also near the car entrance and in the car pit and adapted to regulate the pressure of the gases in the car pit.

5. An apparatus for making hydrochloric acid, comprising a tunnel furnace having a vestibule provided with a car pit, said pit being provided with mud seals, in combination with a pipe provided with an adjustable valve adapted to control the gas pressure in the vestibule car pit.

[Claims 6 and 7 not printed in the Gazette.]

1,040,979. MACHINE FOR FORGING CIRCULAR PIECES. JOSEPH GIELOT, Laeken, Brussels, Belgium. Filed Jan. 30, 1911. Serial No. 606,992. (Cl. 78—30.)



1. A blank carriage of the character described comprising a supporting frame, slide blocks mounted thereon and means for moving the same toward or away from each other, bearing rolls carried by said blocks and projecting beyond the opposed faces thereof to engage the blank, means for imparting a positive drive to said rolls to rotate the blank, in combination with means to displace said carriage and blank as a whole transversely of the axis of the blank.

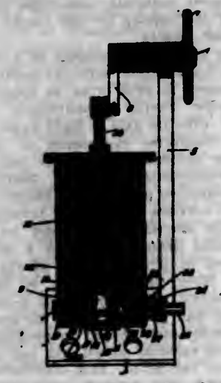
2. A blank carriage of the character described, comprising a supporting frame, slide blocks mounted thereon and a motor on the carriage for moving the same synchronously toward or away from each other, bearing rolls carried by said blocks and projecting beyond the opposed faces thereof to engage the blank, means for imparting a positive drive to said rolls to rotate the blank, in combination with means to displace said carriage and blank as a whole transversely of the axis of the blank.

3. A blank carriage of the character described, comprising a supporting frame, slide blocks mounted thereon and means for moving the same toward or away from each other, bearing rolls carried by said blocks and projecting beyond the opposed faces thereof to engage the blank, a motor on the carriage independent of the slide operating means for imparting a positive drive to said rolls to rotate the blank, in combination with means to displace said carriage and blank as a whole transversely of the axis of the blank.

4. A blank carriage of the character described, comprising a supporting frame, slide blocks mounted thereon and means for moving the same toward or away from each other, bearing rolls carried by said blocks and projecting beyond the opposed faces thereof to engage the blank, means for imparting a positive drive to said rolls to rotate the blank, in combination with gearing mounted in said carriage adapted to cooperate with suitable external gearing and means on the carriage for operating said gearing to travel the carriage and blank as a whole transversely of the axis of the blank.



1,040,980. AUTOMOBILE-PUMP. EDWIN H. HANBY, Stockton, Cal., assignor of one-fourth to Andrew McCormick and Harry Jacoby, Stockton, Cal. Filed Jan. 13, 1912. Serial No. 671,017. (Cl. 230—27.)



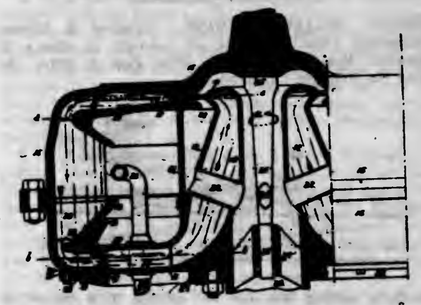
1. A device of the character described comprising the combination with a frame of a motor vehicle of a plate secured to said frame and provided with two bearings spaced apart, a cylinder having a downwardly projecting lug on its lower end provided with a central recess, a sleeve on each side of said lug such sleeves being journaled in said spaced bearings, a passage and the passage way in each of said sleeves, a spring pressed valve forming a normal closure for each passage way between each passage way in said lug, a nipple secured on one of said sleeves, a piston in said cylinder and means for operating said piston as described.

2. A device of the character described comprising the combination with a frame of a motor vehicle, of a plate secured to said frame, two bearings on said plate and spaced apart, a cylinder, a depending lug on the bottom of said cylinder such lug having a central passage way, a sleeve on each side of said lug, such sleeves being journaled in said spaced bearings, one of said sleeves having a plurality of passage ways communicating with said passage way in said lug, a valve forming a normal closure for said passage ways, a spring pressed pin on said valve, a spring pressed piston mountable in the other of said sleeves, such other sleeve having a valve communicating with the passage way in said lug, such piston forming a normal closure for said valve, ports in side of said piston adapted to communicate with said valve when it is opened, said piston having a central recess communicating with said ports, a piston in said cylinder and means for operating said piston as described.

1,040,981. EXHAUSTER OR COMPRESSOR FOR GASES, ALSO APPLICABLE AS AN EJECTOR-CONDENSER. WILFRED HUFF, Hillhead, Glasgow, Scotland. Filed Oct. 26, 1911. Serial No. 657,808. (Cl. 230—12.)

1. An air or gas exhauster or compressor or an ejector-condenser, comprising a stationary director and an ejector device, a rotary centrifugal returner arranged to receive an entraining liquid from the ejector, subject the same to centrifugal action and pressure to effect the separation of the entrained gases from the liquid and discharge said liquid to the stationary director, so that said liquid travels a circuit, in combination with means for maintaining the amount of the entraining liquid, an entrance for entrained air or gas and a discharge port for the separated air or gas.

2. An air or gas exhauster or compressor or an ejector condenser, comprising a rotatory returner and a stationary director co-axial and both of annular form as a whole, interconnection between both inner and outer peripheries of these members, an entraining ejector device between the members and a space in the returner where entraining liquid is subjected to centrifugal pressure, means being provided for maintaining the amount of liquid and for admitting and discharging the air or gas.



3. An air or gas exhauster or compressor or an ejector condenser comprising a rotatory returner of drum form, an annular centrifugal extracting portion at the periphery thereof, a device delivering liquid at one side thereof, an annular passage receiving liquid at the other side thereof, vanes in said passage dividing it into spaces the areas of which gradually increase from the inner to the outer periphery of said passage and which vanes are curved to the path upon the disk taken by the liquid moving radially with dropping velocity and a fixed annular director receiving liquid from the returner, a jet nozzle on the director returning the liquid to the returner and means for maintaining the amount of liquid and for admitting and discharging air or gas.

4. An air or gas exhauster or compressor or an ejector condenser comprising a coaxial director and returner, the director of hollow internally vaned annular disk form merging in the tubular with an annular ejector nozzle terminating the tubular part and the returner having a vaned annular hollow disk part into the inner periphery of which the ejector nozzle discharges and the outer periphery of which merges in a drum part open inwardly which part again merges into an annular discharge directed toward the outer periphery of the director, a casing about the tubular part of the director and carrying a part forming part of the annular hollow disk part of the returner, a passage for the intake of air within the tubular director part, communicating passages therefrom to the space between the casing and the tubular part, means for the discharge of air after entrainment and means for supplying and maintaining the level of entraining liquid within the apparatus.

1,040,982. WRENCH. ALPHONSO CHANCY INGERHAM, Greenville, Mich. Filed Feb. 6, 1912. Serial No. 675,737. (Cl. 81—90.)

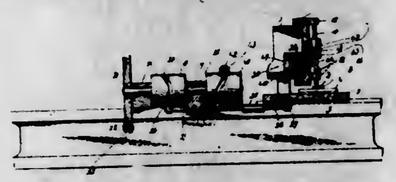


A wrench of the class described comprising a handle, a U-shaped yoke centrally connected to said handle, said

yoke comprising oppositely-disposed, correspondingly-shaped alined arms, inverted T-shaped heads formed on the free ends of said arms and arranged substantially parallel with respect to each other, said heads being each provided with two curved duplicate hooks, which are individually arranged on opposite sides of each arm and having their entrances opening upwardly, whereby a wrench is provided which is both double acting and duplex.

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1,040,983. MILLING-MACHINE. CHARLES R. NORTH, Hartford, Conn., assignor of one-half to Henry G. Newton, New Haven, Conn. Filed June 4, 1910. Serial No. 565,028. (Cl. 90—13.)



1. In a milling machine for milling in a curved or irregular path, the combination with two parts or carriers movable with respect to each other in transverse paths, of a revolving milling cutter having continuous independent rotary movement with its axis at right angles to the transverse movements of both of said parts or carriers, a single continuously revolving shaft bearing and giving rotary movements to two cam-paths, and motion-transmitting independent connections between said cam-paths and said carriers respectively, each of said cam-paths being so shaped as to give its respective carrier such variable movements and speeds that said carriers, acting conjointly in said transverse paths, may determine the curved or irregular path of the cutting conformably to a predetermined pattern.

2. A milling machine for milling in a curved or irregular path, having two parts or carriers movable with respect to each other in transverse paths, a revolving milling cutter having its axis at right angles to a plane parallel to the transverse movements of said both parts or carriers, and an automatic feeding device including a single revolving shaft bearing and giving rotary movements to two cam-paths conjointly so determined in their contours by the contour of the path in which the milling is to be done that when employed in the machine and acting through driving connections upon the parts or carriers they conjointly determine the path of the milling by said milling cutter conformably to the predetermined pattern, said driving connections including means for changing the direction of movement for one of said parts or carriers so that they may move in transverse paths.

3. In a milling machine for milling in a curved or irregular path, the combination with two parts or carriers movable with respect to each other in transverse paths, of a revolving milling cutter having continuous independent rotary movement with its axis at right angles to the transverse movements of both of said parts or carriers, a single continuously revolving shaft bearing and giving rotary movements to two cam-paths, motion transmitting independent connections between said cam-paths and said carriers respectively, and a bell-crank lever for changing the direction of motion imparted to one carrier, each of said cam-paths being so shaped as to give to its respective carrier such variable movements and speeds that said carriers acting conjointly in said transverse paths may determine the curved or irregular path of the cutting conformably to a predetermined pattern.

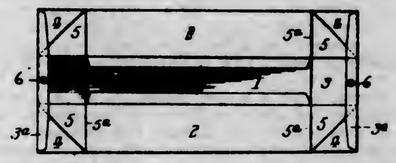
4. In a milling machine for milling in a curved or irregular path, the combination with a work-carrier and a tool-carrier movable with respect to each other in transverse paths, of a single revolving shaft bearing and giving rotary movement to two cam-paths, a revolving milling cutter mounted upon said tool-carrier, means for securing the work to said work-carrier, and driving connections between the respective carriers and cam-paths including means for changing the direction of movement for one carrier, each of said cam-paths being shaped in such manner as to give to its respective carrier such individually variable movements and speeds that the variable movements of these carriers each acting transversely upon the variable movements of the other in said transverse parts conjointly determine the curved or irregular path of the cutting by said cutter conformably to a predetermined pattern.

5. In a milling machine for milling in a curved or irregular path, the combination with two parts or carriers, movable with respect to each other in transverse paths, of a milling cutter having a continuous independent rotary movement, with its axis at right angles to a plane parallel to the transverse movements of both of said parts or carriers, automatic means for imparting such predetermined individually variable movements and speeds in said transverse paths to the respective parts or carriers that said carriers by re-acting transversely, each upon the variable movements produced by the other, conjointly determine conformably with a predetermined pattern the curved or irregular path of the cutting by said cutter and cause the cutting to be done in said path, which automatic means consist of a single revolving shaft bearing and giving rotary movement to two peripheral cam-paths, each shaped to produce conjointly with the other said variable movements, cam-pins moving in their respective cam-paths, and connections between said cam-paths and said carriers respectively adapted to transmit said variable movements, and including a bell-crank lever for changing the direction of movement for one carrier, whereby the carriers are caused to move in said transverse paths.

[Claims 6 to 8 not printed in the Gazette.]

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1,040,984. FOLDING BOX. JOHN G. REBER, Chicago, Ill.; Olive S. Reber, administratrix of said John G. Reber, deceased, assignor to The Sefton Manufacturing Company, Chicago, Ill., a Corporation of Indiana. Original application filed May 31, 1905, Serial No. 263,163. Divided and this application filed Apr. 27, 1908. Serial No. 429,378. (Cl. 229—31.)



1. A collapsed box, comprising a base, a pair of side walls and a pair of end walls hingedly connected to the base along folding lines, one set of walls lying flat on the base with infolded portions at the ends thereof, said infolded portions being also connected to the end edges of the other set of walls, flaps hingedly secured to the outer sides of the other set of walls, and means located adjacent the free ends of said walls for securing each flap between its ends to the wall upon which it is folded when the box is in collapsed condition.

2. A collapsed box, comprising a base, a pair of side walls and a pair of end walls hingedly connected to the base along folding lines, one set of walls lying flat on the base with infolded portions at the ends thereof, said infolded portions being also connected to the end edges of the other set of walls, said infolded portions being provided with a diagonal fold line upon which they fold in the erection of the box, flaps hingedly secured to the outer sides of the other set of walls, and means located adjacent the free ends of said walls for securing each flap between its ends to the wall upon which it is folded when the box is in collapsed condition.



3. A folding box comprising a bottom, walls connected therewith, pairs of triangular corner folds hinged to the ends of their adjacent walls, and flaps on the end walls adapted to fold inwardly and downwardly upon the corner folds to lock the box in set-up position, said flaps being secured intermediate their length to their walls with their ends free and arranged to fold upwardly to accommodate the upper edges of the corner folds in both the setting up and knocking down operation; substantially as described.

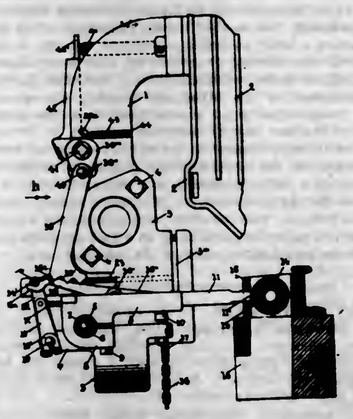
4. A folding box comprising a bottom, walls connected therewith, pairs of triangular corner folds hinged to the ends of their adjacent walls, and flaps on the end walls adapted to fold inwardly and downwardly upon the corner folds to lock the box in set-up position, said flaps being secured substantially at their middle portion to their walls near the upper edges thereof and having their ends free to rise upwardly to accommodate the upper edges of the corner folds in both the setting up and knocking down operation; substantially as described.

5. A folding box comprising a bottom, walls connected therewith, pairs of triangular corner folds hinged to the ends of their adjacent walls, one member of each pair of corner folds being secured at one edge to its adjacent wall along the upper edge of the latter, and flaps on the end walls adapted to fold inwardly and downwardly upon the corner folds to lock the box in set up position, said flaps being secured intermediate their length to their end walls, near the free edges of said walls to accommodate the upper edges of the corner folds in both the setting up and knocking down operation; substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

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1,040,985. LOCKING DEVICE FOR FILLING-DETECTORS OF WEFT-REPLENISHING LOOMS. EPPA H. RYON, Waltham, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed Apr. 19, 1911. Serial No. 622,061. (Cl. 139—85.)



1. In a weft replenishing loom, a feeler or detector to contact with the filling on the filling carrier in the active shuttle, to determine the amount of filling thereon, means to lock said feeler in its inoperative position, and means, operative through connections to the drop shuttle box mechanism, to unlock said feeler.

2. In a weft replenishing loom, a feeler or detector to contact with the filling on the filling carrier in the active shuttle, to determine the amount of filling thereon, means, coöperating with said carrier, to cause said feeler to be moved out of a position to contact with the filling, means to lock said feeler in its inoperative position, and means, operative through connections to the drop shuttle box mechanism, to unlock said feeler.

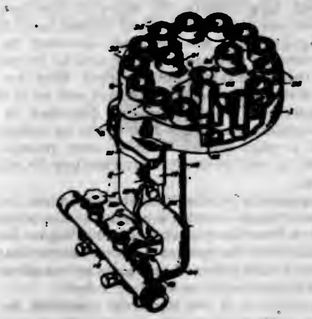
3. In a weft replenishing loom, a filling feeler, means to cause the same to contact with the filling on the filling carrier at predetermined periods, means, coöperating with the filling on the filling carrier, to move said feeler out of a position to contact with the filling, means to lock said feeler in its inoperative position, and means, operative through connections to the drop shuttle box mechanism, to unlock said feeler and to allow it to return to its normal operative position.

4. In a weft replenishing loom, a feeler or detector to contact with the filling on the filling carrier, to determine the amount of filling thereon, means, including a movable cam surface, and connections thereto, to coöperate with the filling on the carrier to move said feeler out of a position to contact with the filling, means to lock said feeler in its inoperative position, and means, operative through connections to the drop shuttle mechanism, to unlock said feeler.

5. In a weft replenishing loom, a feeler or detector to contact with the filling on the filling carrier, a rock shaft having an arm thereon, connections from said arm to said feeler, a second arm on said rock shaft, an oscillating lever having a cam surface thereon at one end, means at the same end of said oscillating lever to coöperate with and lock said second mentioned arm, connections from the other end of said oscillating lever to a cam, to operate said lever in one direction, and means coöperating with said cam surface on said lever, to operate said oscillating lever in the opposite direction.

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1,040,986. GAS-BURNER. WILLIAM B. BASTIAN, Chicago, Ill., assignor to W. B. Bastian Mfg. Co., Pierre, S. D., a Corporation of South Dakota. Filed Oct. 20, 1911. Serial No. 655,751. (Cl. 158—105.)



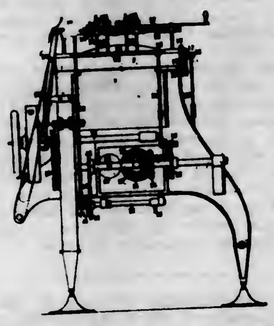
1. A gas burner having a hollow shell, a partition within the shell dividing its interior into a plurality of separate and independent chambers, said shell having openings, communicating with said chambers, respectively, for the admission of gas thereinto, separate and independent mixing chambers, the discharge branches of which communicate with said openings, respectively, a separate valve mechanism for controlling the supply of gas to said mixing chambers, each of said mixing chambers having two branches united in the form of an L, the discharge branches being vertical and located one behind the other in a plane which is common to their axes, while one of the horizontal branches is located with its axis in the same plane and the other of said horizontal branches is located with its axis in a plane perpendicular to the plane first aforesaid.

2. A gas burner having a hollow shell, a partition located within the shell and dividing its interior into a plurality of chambers, said shell having openings communicating with said chambers, respectively, for the admission of gas thereinto, a plurality of burner tips communicating with said chambers, respectively, separate mixing chambers, the discharge branches of which communicate with said openings, respectively, and lie in a vertical plane which is common to their axes, while their

intake branches lie in a horizontal plane which is common to their axes, one of said chambers having an intermediate off-set portion which lies with its axis in a horizontal plane above the horizontal plane aforesaid and in a vertical plane which is perpendicular to the vertical plane aforesaid.

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1,040,987. MACHINE FOR FORMING PAPER BLANKS. CARLOS HOLLY, Lockport, N. Y., assignor to The F. N. Burt Company, Limited, Buffalo, N. Y., a Corporation of Ontario, Canada. Original application filed Apr. 24, 1909, Serial No. 492,029. Divided and this application filed Feb. 25, 1911. Serial No. 610,764. (Cl. 164—77.)



1. In an apparatus of the character described, in combination, means adapted to grip and feed a web, and a guide disposed intermediate the edges of the web and adapted to restrain lateral movement thereof as it is fed.

2. In an apparatus of the character described, in combination, mechanism adapted to feed a web by frictionally coöperating therewith at a point spaced from an edge thereof, and means adapted to guide said web as it is fed.

3. In an apparatus of the character described, in combination, mechanism adapted to feed a web by coöperating therewith at a point spaced from an edge thereof, and means adapted to contact the web intermediate its edges to guide the same.

4. In an apparatus of the character described, in combination, a web supply, cutting mechanism, means adapted to feed the web from the supply to the cutting mechanism by coöperating with the web at a point intermediate its edges, and web guides disposed to engage intermediate portions of the web transverse to the line of feed.

5. In an apparatus of the character described, in combination, web feeding rollers disposed to grip a web at a point spaced from an edge of the web and leave a portion of web ungripped, and pivoted guide fingers adapted to engage the web and restrain lateral movement thereof.

[Claims 6 to 51 not printed in the Gazette.]

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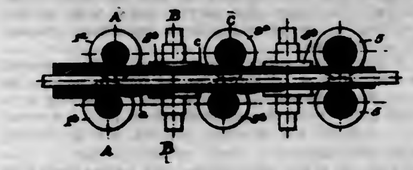
# REISSUES.

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13,473. MANUFACTURE OF TUBES. OTTO REINOS, Benrath, Germany, assignor to Emil Winter, Pittsburgh, Pa. Filed June 14, 1912. Serial No. 703,767. Original No. 914,333, dated Mar. 2, 1909, Serial No. 277,396. (Cl. 80—62.)

1. As an improvement in the art of rolling hollow billets on a mandrel, the method herein described which consists in passing a billet longitudinally through a series of rolls applying rolling reducing pressure to the billet at only one point in the same plane transverse of the axis of the billet thereby enlarging and elongating the billet, and permitting the metal of the billet at points outside that of applied pressure to move away from the mandrel.

2. As an improvement in the art of rolling hollow billets on a mandrel, the method herein described which consists in passing a billet longitudinally through a series of rolls applying rolling reducing pressure to the billet at a series of points along the same, no two points of pressure being in the same plane transverse of the axis of the billet and permitting the metal of the billet at points outside those of applied pressure to move away from the mandrel.




3. As an improvement in the art of rolling hollow billets on a mandrel, the method herein described which consists in passing a billet longitudinally through a series of rolls applying rolling reducing pressure to the billet at a series of points along and around the same, no two points of pressure being in the same planes transverse of the billet and permitting the metal of the billet at points outside those of applied pressure to move away from the mandrel.

4. As an improvement in the art of rolling hollow billets, the method herein described which consists in passing a billet longitudinally through a series of rolls simultaneously applying rolling reducing pressure to opposite sides of the billet, each point of applied pressure being in a plane transverse of the billet but outside of the plane passing through the outer points of pressure and permitting the metal of the billet at points opposite that of applied pressure to move away from the mandrel.

5. As an improvement in the art of rolling hollow billets on a mandrel, the method herein described, which consists in passing a billet inclosing a mandrel through a series of reducing rolls arranged to operate reductively on less than half of the circumference of the billet, and controlling the movement of the mandrel by the conjoint action of the areas of contact of the billet on the mandrel.

6. As an improvement in the art of rolling hollow billets on a mandrel, the method herein described which consists in passing a billet inclosing a mandrel through a series of reducing rolls having progressively increasing speeds and arranged to operate reductively on less than half of the circumference of the billet and causing the mandrel to move longitudinally at a rate less than the peripheral speed of the last pair of reducing rolls.

7. As an improvement in the art of rolling hollow billets on a mandrel, the method herein described, which consists in passing a billet inclosing a mandrel through a series of rolls having progressively increasing speeds, each pair of rolls forming between them oval passes, and causing the mandrel to move longitudinally at a rate equal to the average of the peripheral speeds of the reducing rolls.

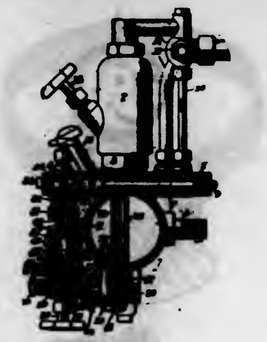
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13,474. SIGHT-FEED FOR LUBRICATORS. FRANK W. EDWARDS, Logansport, Ind., assignor to The Chicago Lubricator Company, Chicago, Ill., a Corporation of Illinois. Filed July 10, 1911. Serial No. 637,796. Original No. 952,611, dated Mar. 22, 1910, Serial No. 450,093. (Cl. 184—96.)

1. A lubricator observation glass, made as a short thick tube, to provide for the passage through it of the lubricant, to afford sufficient strength to resist pressure and practically infrangible, and of greater thickness between its ends that at its ends, and having said ends constructed to receive and retain thereon packing rings, the ends being adapted to enter their supporting parts when in use, so that as pressure from said supporting parts is applied it will be transmitted longitudinally of the glass, the thicker portion alone of the glass being exposed between its supporting parts.

2. A lubricator observation-glass, tubular in form to provide for the passage through it of the lubricant and of great thickness to provide strength to resist pressure and blows, the greatest thickness being arranged about midway of its length and where the glass is exposed, and its ends reduced and shouldered to provide seats which of themselves are adapted to receive and retain packing-rings.





3. A lubricator observation-glass, tubular in form to provide for the passage through it of the lubricant and of great thickness to provide strength to resist pressure and blows, the greatest thickness being arranged about midway of its length and where the glass is exposed, and its ends reduced and shouldered to provide seats which of themselves are adapted to receive packing-rings which bear upon the glass circumferentially and also endwise thereof.

4. A lubricator observation-glass, tubular in form to provide for the passage through it of the lubricant and of great thickness to provide strength to resist pressure and blows, the greatest thickness being arranged about midway of its length and where the glass is exposed, and its ends reduced and shouldered to provide seats which of themselves are adapted to receive and retain packing-rings combined with a packing-case within which the glass is confined.

5. In a lubricator, a sight-feed comprising an observation glass provided with a longitudinal oil passage, and having a thick-walled central portion and ends of smaller diameter than the central portion, a packing-case for said glass, means to connect the packing-case with the lubricator, and packing-rings or gaskets interposed between the connecting means, the packing-case and the glass.

6. In a lubricator, having an oil-bowl, an upper projection and a lower projection, a sight-feed interposed between said projections and comprising a reinforced observation glass provided with a longitudinal oil-passage, and having a thick-walled central portion and ends of smaller diameter than the central portion, a packing-case for said glass interposed between the upper and lower projections and having a slip connection therewith, and packing-rings or gaskets interposed between the said connection, packing-case and glass.

7. In a lubricator, a sight-feed, comprising a reinforced observation-glass provided with a longitudinal oil-passage and having a thick-walled central portion and ends adapted to receive and retain packing-rings or gaskets, and a packing-case for said glass, in combination with an oil-bowl, an upper and a lower feed-arm on said oil-bowl, means to connect the packing-case with the said feed-arms, and packing-rings or gaskets interposed between the connecting means, the packing-case, and the glass.

8. A reinforced observation glass for lubricators, combined with a packing-case therefor having sight openings to permit a limited exposure of the glass, said glass being tubular and having a thick-walled central portion exposed at the openings in the packing-case and its opposite ends reduced and shouldered, and gaskets interposed between the packing-case and glass and received and retained upon the reduced and shouldered ends of the glass.

9. A reinforced observation glass for lubricators, a packing-case therefor having sight openings to permit a limited exposure of the glass, said glass being tubular and having a thick-walled central portion exposed at the openings in the packing-case and its opposite ends reduced and shouldered, and gaskets interposed between the packing-case and glass and received and retained upon the reduced and shouldered ends of the glass and engaging the glass at two places, combined with the upper and lower feed-arms of the lubricator, said packing-case interposed between and connected with these feed-arms and retaining the gaskets in engagement with the glass.

10. A sight-feed for lubricators, having a packing-case provided with sight openings and a tubular extension in one piece therewith, a reinforced observation glass having a through-bore for the passage of the oil and its walls thickened where exposed in the sight openings and its ends reduced and shouldered, and gaskets interposed between the case and the ends of the glass and adapted to be combined with the upper and lower feed-arms of the lubricator, the aforesaid packing-case interposed between these feed-arms and bearing directly upon said gaskets and forcing each of them into contact at two places with the glass.

11. In a sight-feed for lubricators, a reinforced observation glass having its walls thicker at its middle portion than at its ends and having a longitudinal oil passage and reduced and slanting ends provided with shoulders to receive and retain the gaskets, combined with gaskets of complemental irregular cross-section applied to these ends and having contact therewith at two places, and means to secure the glass and its gaskets to the lubricator.

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13,475. FITTING FOR ELECTRIC CONDUITS. WILLIAM C. ROBINSON, Pittsburgh, Pa. Filed Mar. 30, 1911. Serial No. 618,044. Original No. 971,216, dated Sept. 27, 1910, Serial No. 499,225. (Cl. 173—331.)



1. As a means for connecting branch lines to conductors inclosed in conduits, the combination of a block placed within a conduit, terminals for the conductors carried by the block but insulated from each other, and a cap provided with an opening for the reception of the branch conductors and having means for clamping the conduit inclosing the main conductors.

2. As a means for connecting branch lines to conductors inclosed in conduits, the combination of a block placed within a conduit, terminals for the conductors carried by the block but insulated from each other, and means carried by the block for securing the block within the conduit.

3. As a means for connecting lamps to conductors inclosed in conduits, the combination of a block placed within a conduit, a lamp-socket carried by the block, a terminal connecting the socket to one of the conductors, a second terminal for the other conductor in position to contact with the inner terminal of the lamp, said terminals being insulated from each other, and a cap provided with a tubular portion to inclose the socket and having means for clamping the conduit on opposite sides of the point of connection of the branch to the main conductors.

4. A metallic cap for inclosing the junction of branch conductors with conductors inclosed in a conduit, provided with resilient gripping portions to clamp the conduit on opposite sides of the junction point, an opening in the cap for the branch conductors, and a lining of insulating material fitted within the cap at and adjacent to the junction point.

5. A cap for inclosing the junction of branch conductors with conductors inclosed in a conduit, consisting of a

tubular portion and with resilient gripping portions on opposite sides of the tubular portion to clamp the cap in position on the conduit.

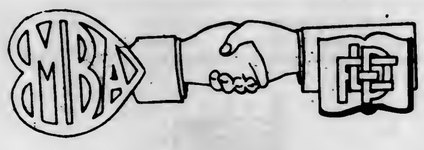
6. The combination with an outwardly open section of a conduit for electrical conductors, of a block of insulating material having a portion fitting within said open conduit section, oppositely disposed shelves covering the opposite edges of said conduit section, and a portion projecting outwardly from said shelves, and electrical terminals arranged on opposite sides of said outwardly projecting portion of the block.

7. The combination with an outwardly open semi-elliptical base member of a sectional conduit, of a block having an elongated base portion fitting within said conduit section, oppositely disposed shelves covering the opposite edges of said conduit section, and a ridge projecting outwardly from said shelves, and electrical terminals arranged on opposite sides of said ridge.

8. A connecting block of insulating material having an elongated base portion, a pair of shelves projecting from opposite sides of said base portion, and a ridge projecting upwardly between said shelves.

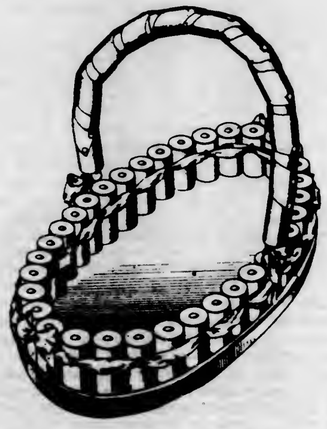
# DESIGNS.

43,100. BADGE, EMBLEM, OR SIMILAR ARTICLE. ROSWELL C. BAIRD, Cumberland, Wis. Filed July 12, 1912. Serial No. 709,072. Term of patent 7 years.



The ornamental design for a badge, emblem or similar article, as shown.

43,101. BASKET. GEORG ADAM BARTHEL, Chicago, Ill. Filed Apr. 10, 1912. Serial No. 689,913. Term of patent 14 years.



The ornamental design for a basket, as shown.

43,102. STATUETTE. NORMAN A. CARBERY, Chicago, Ill. Filed July 13, 1912. Serial No. 709,296. Term of patent 7 years.



The ornamental design for a statuette as shown.

43,103. STATUETTE. NORMAN A. CARBERY, Chicago, Ill. Filed July 13, 1912. Serial No. 709,297. Term of patent 7 years.



The ornamental design for a statuette as shown.

43,104. COMBINATION POCKET-TOOL. JAMES G. CARY, Jackson, Tenn. Filed June 8, 1912. Serial No. 702,572. Term of patent 7 years.



The ornamental design for a combination pocket tool, as shown.



43,105. GARTER. RICHARD J. FREEMAN, Overbrook, Pa., assignor to Pioneer Suspender Company, a Corporation of Pennsylvania. Filed June 29, 1910. Serial No. 569,605. Term of patent 14 years.



The ornamental design for a garter, as shown and described.

43,106. REINFORCED KETTLE. EDWARD C. HOFFMANN, Scribner, Nebr. Filed Mar. 18, 1912. Serial No. 684,627. Term of patent 14 years.



The ornamental design for a reinforced kettle, as shown.

43,107. NURSE'S PIN. MARIE E. KAUFMANN, Plattsmouth, Nebr. Filed July 19, 1912. Serial No. 710,489. Term of patent 7 years.



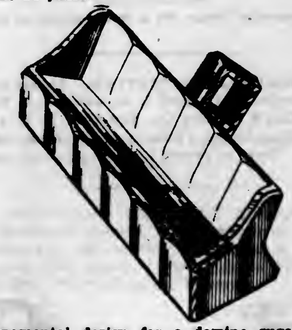

The ornamental design for a nurse's pin, as shown.

43,108. STRAW JAR. ANDREW J. SANFORD, Newark, Ohio, assignor to A. H. Heisey & Co., Newark, Ohio, a Copartnership. Filed June 11, 1912. Serial No. 703,082. Term of patent 14 years.



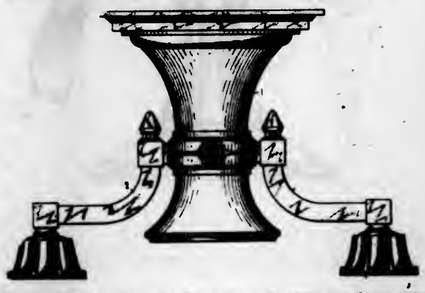
The ornamental design for a straw jar, as shown.

43,109. DOMINO-SUGAR TRAY. ANDREW J. SANFORD, Newark, Ohio, assignor to A. H. Heisey & Co., Newark, Ohio. Filed June 24, 1912. Serial No. 705,664. Term of patent 14 years.



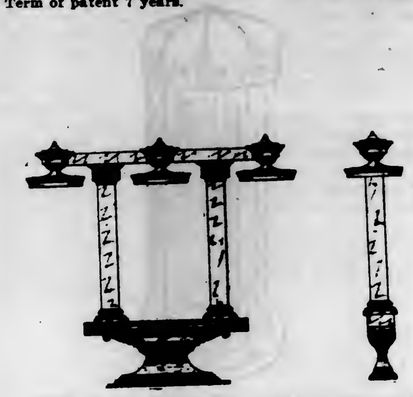
The ornamental design for a domino sugar tray, as shown.

43,110. LAMP-FIXTURE. LINDSLEY SCHERMORN, Hasbrouck Heights, N. J., assignor to The Safety Car Heating & Lighting Co., New York, N. Y., a Corporation of New Jersey. Filed Aug. 23, 1911. Serial No. 645,659. Term of patent 7 years.



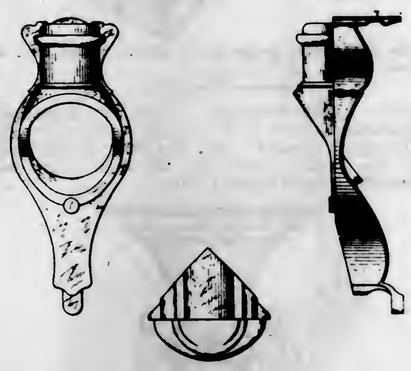
The ornamental design for a lamp fixture as shown and described.

43,111. CANDELABRUM. LINDSLEY SCHEPMOES, Hasbrouck Heights, N. J., assignor to The Safety Car Heating & Lighting Co., New York, N. Y., a Corporation of New Jersey. Filed Aug. 23, 1911. Serial No. 645,660. Term of patent 7 years.



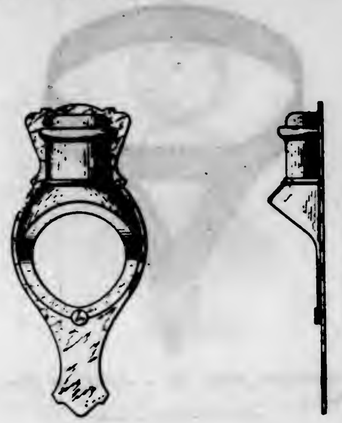
The ornamental design for a candelabrum as shown and described.

43,112. BERTH-LIGHT FIXTURE. LINDSLEY SCHEPMOES, Hasbrouck Heights, N. J., assignor to The Safety Car Heating & Lighting Co., New York, N. Y., a Corporation of New Jersey. Filed Aug. 23, 1911. Serial No. 645,661. Term of patent 7 years.



The ornamental design for a berth light fixture as shown and described.

43,113. BERTH-LAMP FIXTURE. LINDSLEY SCHEPMOES, Hasbrouck Heights, N. J., assignor to The Safety Car Heating & Lighting Co., New York, N. Y., a Corporation of New Jersey. Filed Aug. 23, 1911. Serial No. 645,662. Term of patent 7 years.



The ornamental design for a berth lamp fixture as shown and described.

43,114. PENDANT-FIXTURE. LINDSLEY SCHEPMOES, Hasbrouck Heights, N. J., assignor to The Safety Car Heating & Lighting Co., New York, N. Y., a Corporation of New Jersey. Filed Aug. 23, 1911. Serial No. 645,663. Term of patent 7 years.



The ornamental design for a pendant fixture as shown and described.



43,115. PENDANT-FIXTURE. LINDSLEY SCHEPMOES, Hasbrouck Heights, N. J., assignor to The Safety Car Heating & Lighting Co., New York, N. Y., a Corporation of New Jersey. Filed Aug. 23, 1911. Serial No. 645,664. Term of patent 7 years.



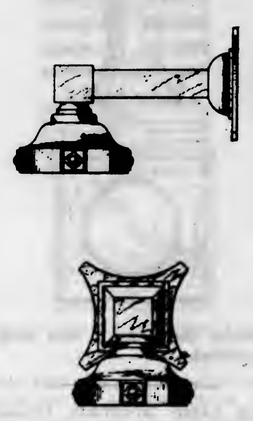
The ornamental design for a pendant fixture as shown and disclosed.

43,116. PENDANT-FIXTURE. LINDSLEY SCHEPMOES, Hasbrouck Heights, N. J., assignor to The Safety Car Heating & Lighting Co., New York, N. Y., a Corporation of New Jersey. Filed Aug. 23, 1911. Serial No. 645,665. Term of patent 7 years.



The ornamental design for a pendant fixture as shown and described.

43,117. BRACKET-LAMP FIXTURE. LINDSLEY SCHEPMOES, Hasbrouck Heights, N. J., assignor to The Safety Car Heating & Lighting Co., New York, N. Y., a Corporation of New Jersey. Filed Aug. 23, 1911. Serial No. 645,666. Term of patent 7 years.



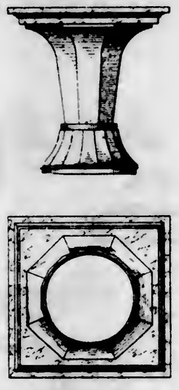
The ornamental design for a bracket lamp fixture as shown and described.

43,118. DECK-LAMP FIXTURE. LINDSLEY SCHEPMOES, Hasbrouck Heights, N. J., assignor to The Safety Car Heating & Lighting Co., New York, N. Y., a Corporation of New Jersey. Filed Aug. 23, 1911. Serial No. 645,667. Term of patent 7 years.



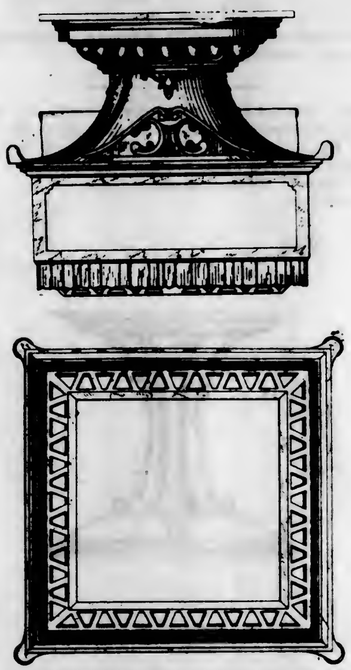
The ornamental design for a deck lamp fixture as shown and described.

43,119. DECK-LAMP FIXTURE. LINDSLEY SCHEPMOSS, Hasbrouck Heights, N. J., assignor to The Safety Car Heating & Lighting Co., New York, N. Y., a Corporation of New Jersey. Filed Aug. 23, 1911. Serial No. 645,670. Term of patent 7 years.



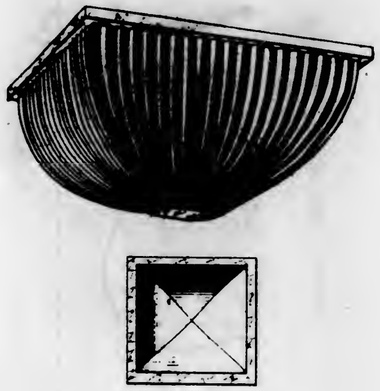
The ornamental design for a deck lamp fixture as shown and described.

43,120. DECK-LAMP FIXTURE. LINDSLEY SCHEPMOSS, Hasbrouck Heights, N. J., assignor to The Safety Car Heating & Lighting Co., New York, N. Y., a Corporation of New Jersey. Filed Aug. 23, 1911. Serial No. 645,671. Term of patent 7 years.



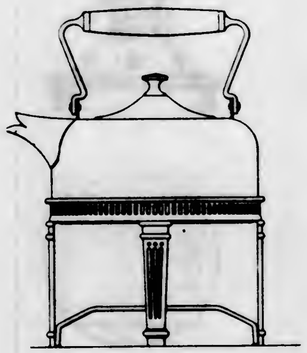
The ornamental design for a deck lamp fixture as shown and described.

43,121. LAMP-BOWL. LINDSLEY SCHEPMOSS, Hasbrouck Heights, N. J., assignor to The Safety Car Heating & Lighting Co., New York, N. Y., a Corporation of New Jersey. Filed Aug. 23, 1911. Serial No. 645,672. Term of patent 7 years.



The ornamental design for a lamp bowl as shown and described.

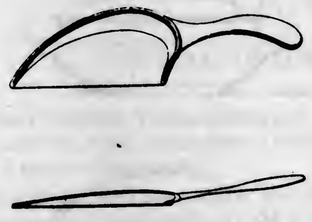
43,122. KETTLE AND STAND. SIGMUND STERNAU and CHARLES NELSON, New York, N. Y., assignors to S. Sternau & Company, Brooklyn, N. Y., a Copartnership. Filed June 2, 1911. Serial No. 630,912. Term of patent 7 years.



The ornamental design for a kettle and stand, as shown.

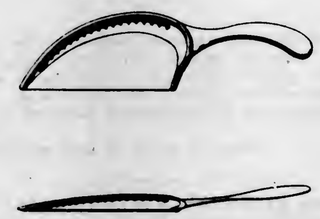


43,123. CRUMB-SCRAPER. LIONEL STRASSBURGER and CHARLES NELSON, New York, N. Y., assignors to S. Sternau & Company, Brooklyn, N. Y., a Copartnership. Filed June 2, 1911. Serial No. 630,909. Term of patent 14 years.



The ornamental design for a crumb scraper, as shown.

43,124. CRUMB-SCRAPER. LIONEL STRASSBURGER and CHARLES NELSON, New York, N. Y., assignors to S. Sternau & Company, Brooklyn, N. Y., a Copartnership. Filed June 2, 1911. Serial No. 630,910. Term of patent 14 years.



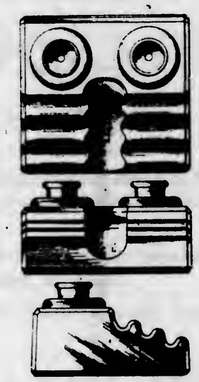
The ornamental design for a crumb scraper, as shown.

43,125. CRUMB-SCRAPER. LIONEL STRASSBURGER and CHARLES NELSON, New York, N. Y., assignors to S. Sternau & Company, Brooklyn, N. Y., a Copartnership. Filed June 2, 1911. Serial No. 630,911. Term of patent 14 years.



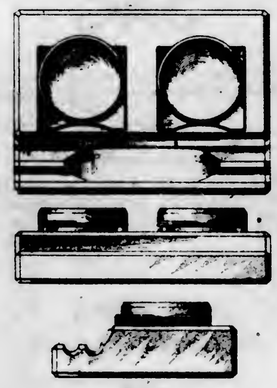
The ornamental design for a crumb scraper, as shown.

43,126. INKSTAND. FRANK A. WEEKS, Plainfield, N. J. Filed Apr. 3, 1911. Serial No. 618,776. Term of patent 7 years.



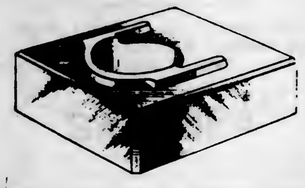
The ornamental design for an inkstand, as shown.

43,127. INKSTAND. FRANK A. WEEKS, Plainfield, N. J. Filed June 12, 1911. Serial No. 632,789. Term of patent 7 years.



The ornamental design for an inkstand, as shown.

43,128. INKSTAND. FRANK A. WEEKS, Plainfield, N. J. Filed June 12, 1911. Serial No. 632,790. Term of patent 7 years.



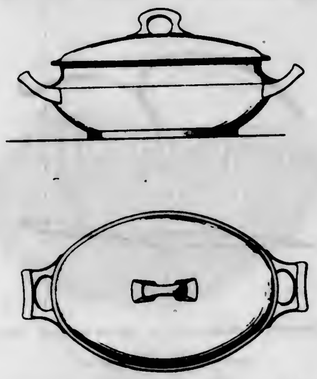
The ornamental design for an inkstand, as shown.

43,129. LAMP-POST. THOMAS WIGHT, Kansas City, Mo., assignor to Frank Tilk Ornamental Iron Works Company, Kansas City Mo., a Corporation of Missouri. Filed May 20, 1912. Serial No. 698,637. Term of patent 7 years.



The ornamental design for a lamp post, as shown.

43,130. COVERED DISH OR SIMILAR ARTICLE. CHARLES B. ZIEGLER, Altwasser, Germany, assignor to The J. Pouyat Company, New York, N. Y. Filed Jan. 10, 1912. Serial No. 670,504. Term of patent 3½ years.



The ornamental design for a covered dish or similar article as shown.



# TRADE-MARKS

## PUBLISHED OCTOBER 8, 1912.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 51,315. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE AMERICAN WELL WORKS, Aurora, Ill. Filed Aug. 8, 1910. Under ten-year proviso.

AMERICAN

*Particular description of goods.*—Air-Compressors, Gasolene-Engines, Deep-Well Pumps, Turbine Deep-Well Pumps, Steam-Engines, Centrifugal Pumps, Mining-Machines, Mine-Pumps, Well-Drills, Drill-Wrenches, Well-Drilling Machines, Boring-Machines, and Prospecting-Machines.

*Claims use* since about Jan. 1, 1890.

Ser. No. 52,822. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) H. L. YAGER & Co., Monroe City, Mo. Filed Oct. 18, 1910.

SURE SHOT

*Particular description of goods.*—Corn Remedy.

*Claims use* since June 30, 1910.

Ser. No. 55,670. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) WILLIAM LINK COMPANY, Newark, N. J. Filed Apr. 11, 1911.

L

*Particular description of goods.*—Jewelry for Personal Wear, and Hollow Ware, Flat Ware, Knives, Forks, and Spoons Made of Precious Metal.

*Claims use* since Mar. 1, 1911.

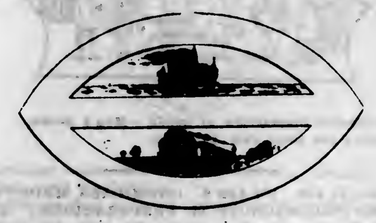
Ser. No. 56,211. (CLASS 39. CLOTHING.) THE SHERIDON DRY GOODS COMPANY, Columbus, Ohio. Filed May 5, 1911.



*Particular description of goods.*—Sun-Hats, Shirts, Infants' Wrappers, Shirt-Waists, Mufflers, Outer and Under Vests.

*Claims use* since Jan. 1, 1904.

Ser. No. 57,524. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MOTHERSILL REMEDY COMPANY LIMITED, Detroit, Mich. Filed July 7, 1911.



*Particular description of goods.*—Seasickness Remedies.

*Claims use* since June 1, 1908.

Ser. No. 58,771. (CLASS 37. PAPER AND STATIONERY.) SALUBRA WALL-COVER COMPANY BASLE, Basel, Switzerland. Filed Sept. 21, 1911.

SALUBRA

*Particular description of goods.*—Wall-Coverings of Paper.

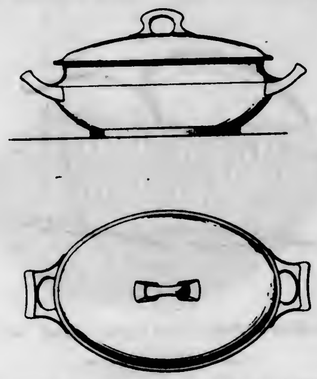
*Claims use* since Apr. 5, 1900.

43,129. LAMP-POST. Thomas Wight, Kansas City, Mo., assignor to Frank Tilk Ornamental Iron Works Company, Kansas City Mo., a Corporation of Missouri. Filed May 20, 1912. Serial No. 698,637. Term of patent 7 years.



The ornamental design for a lamp post, as shown.

43,130. COVERED DISH OR SIMILAR ARTICLE. Charles B. Zisoler, Altwasser, Germany, assignor to The J. Pouyat Company, New York, N. Y. Filed Jan. 10, 1912. Serial No. 670,504. Term of patent 3½ years.



The ornamental design for a covered dish or similar article as shown.



# TRADE-MARKS

## PUBLISHED OCTOBER 8, 1912.

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As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 51,315. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) The American Well Works, Aurora, Ill. Filed Aug. 8, 1910. Under ten-year proviso.

AMERICAN

*Particular description of goods.*—Air-Compressors, Gasolene-Engines, Deep-Well Pumps, Turbine Deep-Well Pumps, Steam-Engines, Centrifugal Pumps, Mining-Machines, Mine-Pumps, Well-Drills, Drill-Wrenches, Well-Drilling Machines, Boring-Machines, and Prospecting-Machines.

*Claims use* since about Jan. 1, 1890.

Ser. No. 52,322. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) H. L. Yagen & Co., Monroe City, Mo. Filed Oct. 18, 1910.

SURE SHOT

*Particular description of goods.*—Corn Remedy.

*Claims use* since June 30, 1910.

Ser. No. 55,670. (CLASS 22. JEWELRY AND PRECIOUS-METAL WARE.) William Link Company, Newark, N. J. Filed Apr. 11, 1911.

L

*Particular description of goods.*—Jewelry for Personal Wear, and Hollow Ware, Flat Ware, Knives, Forks, and Spoons Made of Precious Metal.

*Claims use* since Mar. 1, 1911.

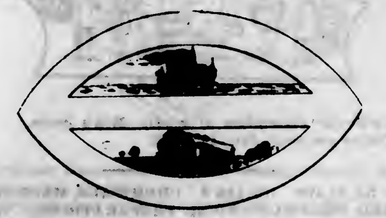
Ser. No. 56,211. (CLASS 39. CLOTHING.) The Sheldon Dry Goods Company, Columbus, Ohio. Filed May 5, 1911.



*Particular description of goods.*—Sun-Hats, Shirts, Infants' Wrappers, Shirt-Waists, Mufflers, Outer and Under Vests.

*Claims use* since Jan. 1, 1904.

Ser. No. 57,524. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) Mothersill Remedy Company Limited, Detroit, Mich. Filed July 7, 1911.



*Particular description of goods.*—Seasickness Remedies.

*Claims use* since June 1, 1908.

Ser. No. 58,771. (CLASS 37. PAPER AND STATIONERY.) Salubra Wall-Cover Company Basle, Basel, Switzerland. Filed Sept. 21, 1911.

SALUBRA

*Particular description of goods.*—Wall-Coverings of Paper.

*Claims use* since Apr. 5, 1909.

Ser. No. 58,772. (CLASS 37. PAPER AND STATIONERY.) SALUBRA WALL-COVER COMPANY BASLE, Basel, Switzerland. Filed Sept. 21, 1911.

MATTHO

*Particular description of goods.*—Wall-Coverings of Paper.
*Claims use* since Aug. 16, 1911.

Ser. No. 60,330. (CLASS 39. CLOTHING.) THE STAR RUBBER CO., Akron, Ohio. Filed Dec. 18, 1911.

SATURN

*Particular description of goods.*—Household Rubber Gloves and Bath-Caps.
*Claims use* since 1909.

Ser. No. 60,333. (CLASS 39. CLOTHING.) THE STAR RUBBER CO., Akron, Ohio. Filed Dec. 18, 1911.

JUPITER

*Particular description of goods.*—Household Rubber Gloves and Bath-Caps.
*Claims use* since 1908.

Ser. No. 61,371. (CLASS 39. CLOTHING.) JACOB B. HIRSHFELD, New York, N. Y. Filed Feb. 8, 1912.



*Particular description of goods.*—Men's Socks.
*Claims use* since Jan. 12, 1912.

Ser. No. 61,478. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RICHARD HUDNUT, New York, N. Y. Filed Feb. 15, 1912.

SEC

*Particular description of goods.*—Perfumes, Sachet-Powders, Face and Toilet Powders, Talcum Powder, Rice-Powder, Cream Preparations for the Skin, and Bath-Powder.
*Claims use* since prior to Jan. 1, 1900.

Ser. No. 61,493. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RICHARD HUDNUT, New York, N. Y. Filed Feb. 15, 1912.

HEART OF THE HELIOTROPE

*Particular description of goods.*—Perfumes.
*Claims use* since May, 1910.

Ser. No. 61,546. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MIZARROL EDUARDO SARAVIA & CO., Guatemala, Guatemala. Filed Feb. 16, 1912.




*Particular description of goods.*—A Remedy for Chills and Fever and Malaria.
*Claims use* since Sept. 1, 1911.

Ser. No. 61,840. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SALVATORE CAVALLARO-FERRARA, Baltimore, Md. Filed Mar. 1, 1912.

Ctro

*Particular description of goods.*—A Medicinal Powder to be Used as a Remedy for Headaches and Indigestion.
*Claims use* since Feb. 26, 1912.

Ser. No. 62,049. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) LOUIS MONDON, New York, N. Y. Filed Mar. 8, 1912.



*Particular description of goods.*—Chiffons, Silk Piece Goods, Cotton Piece Goods, Cotton and Silk Mixed Piece Goods, Linen Piece Goods, and Woolen Piece Goods.
*Claims use* since Mar. 6, 1912.





Ser. No. 62,182. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HOWARD BROS. CHEMICAL CO., New York, N. Y. Filed Mar. 15, 1912. Under ten-year proviso.

Howard Bros

*Particular description of goods.*—Worm-Syrup, Blood-Purifier, Tablets for Liver, Stomach, Bowels, Eye-Water, Eye-Salve, Pile Remedy, and Cough Remedy.
*Claims use* since February, 1885.

Ser. No. 62,229. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HOWARD BROS. CHEMICAL CO., Buffalo, N. Y. Filed Mar. 18, 1912.



Consisting of the portrait of Dr. Pettit, deceased.
*Particular description of goods.*—Eye-Salve, Pile Remedy, Cathartic Tablets, and Eye-Water.
*Claims use* since Feb. 14, 1900.

Ser. No. 62,304. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) CHARLES W. JACOB AND ALLISON, New York, N. Y. Filed Mar. 25, 1912.

TRAGACUM

*Particular description of goods.*—A Vegetable Product to be Used as a Basis for Paste in the Manufacture of Thickener Size and Finish for Textile and other Products, in the Preparation of Colors, and in Emulsions.
*Claims use* since about Nov. 1, 1911.

Ser. No. 62,519. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE HOSTETTER COMPANY, Pittsburgh, Pa. Filed Mar. 30, 1912. Under ten-year proviso.



The picture shown being fanciful.
*Particular description of goods.*—Stomach-Bitters.
*Claims use* since July 4, 1859.

Ser. No. 62,574. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) WALDES & CO., Prag-Wrschowitz, Austria. Filed Apr. 1, 1912.

TALISMAN

*Particular description of goods.*—Snap-Buttons Used as Garment-Fasteners.
*Claims use* since Oct. 26, 1903.

Ser. No. 62,835. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) S. FROEHLICH & SON, Newark, N. J. Filed Apr. 11, 1912.



*Particular description of goods.*—Whisky, Brandy, Gin, Cocktails, and Cordials.
*Claims use* since some time during the year 1907.

Ser. No. 62,843. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JOSEPH HIRSCH & SONS, New New York, N. Y. Filed Apr. 11, 1912.

JUTEINA

*Particular description of goods.*—Cotton, Linen, and Silk Dress Goods, Cotton Sheetings and Shirtings, Denims, Linen, Cotton, and Jute Canvas, Canton-Flannel, Silesias, and Italian Cloths in the Piece.
*Claims use* since Jan. 2, 1892.

Ser. No. 62,844. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JOSEPH HIRSCH & SONS, New York, N. Y. Filed Apr. 11, 1912.

Cordette

*Particular description of goods.*—Cotton, Linen, Silk, and Woolen Fabrics in the Piece.
*Claims use* since Aug. 1, 1906.

Ser. No. 62,845. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JOSEPH HIRSCH & SONS, New York, N. Y. Filed Apr. 11, 1912. Under ten-year proviso.

JUTEINA MILLS.

*Particular description of goods.*—Cotton, Linen, and Silk Dress Goods, Cotton Sheetings and Shirtings, Denims, Linen, Cotton, and Jute Canvas, Canton-Flannel, Silesias, and Italian Cloths in the Piece.
*Claims use* since Jan. 2, 1892.

Ser. No. 62,915. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) INTERNATIONALE MAGNESIET WERKEN, Rotterdam, Netherlands. Filed Apr. 15, 1912.

MAGNESIA

*Particular description of goods.*—Magnesite.
*Claims use* since Mar. 1, 1912.

Ser. No. 62,966. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) COLUMBIA WAX PRODUCTS CO., New York, N. Y. Filed Apr. 24, 1912.

GRAND-MA'S PERFUMED WAXING PAD

No claim being made to the representation of a pad or to the words "Perfumed Waxing Pad" as a technical trade-mark.
*Particular description of goods.*—Ironing-Wax.
*Claims use* since Jan. 20, 1912.

Ser. No. 63,281. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CUTHBERT G. GIRVAN, Manchester, England. Filed May 3, 1912.

SYMLASYL

*Particular description of goods.*—Artificial-Silk Fabric.
*Claims use* since Oct. 15, 1911.

Ser. No. 63,309. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE TARRANT COMPANY, New York, N. Y. Filed May 4, 1912. Under ten-year proviso.

*Particular description of goods.*—Laxative Medicines.
*Claims use* since 1844.

Ser. No. 63,310. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE TARRANT COMPANY, New York, N. Y. Filed May 4, 1912. Under ten-year proviso.

SELTZER APERIENT

*Particular description of goods.*—Laxative Medicines.
*Claims use* since the year 1868.





Ser. No. 63,346. (CLASS 39. CLOTHING.) BERNARD SCHLIFF, New York, N. Y. Filed May 4, 1912.

ANCO

*Particular description of goods.*—Tea-Gowns, Kimonos, Dressing-Sacks, and Women's Outer House-Dresses.
*Claims use* since July 1, 1905.

Ser. No. 63,348. (CLASS 39. CLOTHING.) BIRDSEY-SOMERS COMPANY, New York, N. Y. Filed May 4, 1912.

Lady of Quality

*Particular description of goods.*—Corsets.
*Claims use* since Apr. 23, 1912.

Ser. No. 63,371. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) F. CROMWELL HAND, Scranton, Pa. Filed May 6, 1912.

BEAUTY BLUSH

*Particular description of goods.*—Remedy for Complexion Disorders and Skin-Beautifier.
*Claims use* since Apr. 24, 1911.

Ser. No. 63,518. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JAMES H. LEAVINES, Coldwater, Tex. Filed May 13, 1912.



THE QUEEN OF VICTORY

The portrait being that of applicant.
*Particular description of goods.*—A Remedy for Rheumatism, Indigestion, and Kidney Trouble.
*Claims use* since Jan. 1, 1912.

Ser. No. 63,563. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HARRIS TWEED ASSOCIATION, LIMITED, London, England. Filed May 15, 1912.

HARRIS TWEED

No claim is made to the words "Harris Tweed."
*Particular description of goods.*—Tweed.
*Claims use* since June, 1911.

Ser. No. 63,599. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) ALLSOPP & ALLSOPP, Newark, N. J. Filed May 17, 1912.

A & A

*Particular description of goods.*—Gold and Diamond Mounted Jewelry for Personal Wear.
*Claims use* since about May 1, 1904.

Ser. No. 63,625. (CLASS 37. PAPER AND STATIONERY.) EAGLE PENCIL COMPANY, New York, N. Y. Filed May 18, 1912. Under ten-year proviso.

STANDARD

*Particular description of goods.*—Lead-Pencils.
*Claims use* since the year 1885.

Ser. No. 63,696. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) O. V. TRACY & Co., Syracuse, N. Y. Filed May 21, 1912.

*Particular description of goods.*—Canned Vegetables, Dried Fruits, Rice, Dry Mince-Meat, Tomato Catsup, Olives, Olive-Oil, Dried Beef, Sage, Allspice, Cayenne Pepper, White Pepper, Cinnamon, Cloves, Pure Pepper, Pure Mustard, and African Ginger.
*Claims use* since Jan. 1, 1895.

Ser. No. 63,812. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) BOREL ET GRANGE, Annecy, France. Filed May 25, 1912.

BOG

*Particular description of goods.*—Buttons for Gloves, Dress-Apparel, and Boots and Shoes.
*Claims use* since July, 1911.

Ser. No. 63,874. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE THOMAS BUCHANAN COMPANY, Cincinnati, Ohio. Filed May 29, 1912.




No claim is made to the use of the term "Case-Hardo."
*Particular description of goods.*—A Substance for Case-Hardening Metals.
*Claims use* since Mar. 1, 1912.

Ser. No. 64,019. (CLASS 39. CLOTHING.) HENRY E. FRANKENBERG COMPANY, New York, N. Y. Filed June 6, 1912.

UTOPIA

*Particular description of goods.*—Infants' Sacks, Ladies' Sacks, Kimonos, Wraps, Wrappers, Bathing-Suits, Bath-Robes, Corset-Covers, Jackets, Norfolk Jackets, Cardigan Jackets, Bolero-Jackets, Helmets, Caps, Hoods, Tam-o'-Shanters, Capes, Toques, Petticoats, Drawers, Leggings, Knitted Bands, Knee-Caps, Muffs, Boas, Vests, Undervests, Mufflers, Mittens, Sandals, Socks, Boots, Bootees, Slippers, Overshirts and Underskirts, Sweaters, Sweater-Coats, Blouses, and Autocoats.
*Claims use* since Nov. 1, 1882.

Ser. No. 64,020. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) HENRY E. FRANKENBERG COMPANY, New York, N. Y. Filed June 6, 1912.

UTOPIA

*Particular description of goods.*—Neckscarfs, Head-Scarfs, Fascinators, Armlets, Wristlets.
*Claims use* since Nov. 1, 1882.

Ser. No. 64,063. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANCIS ALFRED ROGERS, London, England. Filed June 8, 1912.

VOTABZ

*Particular description of goods.*—Medicated Voice-Losenges.
*Claims use* since May 15, 1912.

Ser. No. 64,111. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) AMERICAN WOOLEN COMPANY, Jersey City, N. J., and Boston, Mass. Filed June 11, 1912.

A.W-CO.
CHINCHILLA

No claim being made to the word "Chinchilla."
*Particular description of goods.*—Woolen Cloth Known as Piece Goods.
*Claims use* since on or about May 1, 1912.

Ser. No. 64,114. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) AMERICAN WOOLEN COMPANY, Jersey City, N. J., and Boston, Mass. Filed June 11, 1912.

WOOD
SERGE
A.W-CO.

No claim being made either to the word "Serge" or the word "Wood."
*Particular description of goods.*—Woolen Cloth Known as Piece Goods.
*Claims use* since on or about May 1, 1912.

Ser. No. 64,157. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES H. YATES, Toledo, Ohio. Filed June 13, 1912.

L'Almo

*Particular description of goods.*—Face-Creams in Brick Form and Face-Powders.
*Claims use* since May 28, 1912.

Ser. No. 64,169. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NELATON REMEDY CO., Baltimore, Md. Filed June 13, 1912. Under ten-year proviso.

NELATON'S

*Particular description of goods.*—An External Remedy for Rheumatism, Gout, and Neuralgia.
*Claims use* since January, 1880.





Ser. No. 64,224. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE CITIZENS' WHOLESALE SUPPLY CO., Columbus, Ohio. Filed June 17, 1912.



*Particular description of goods.*—Talcum Powder, Perfumes, Toilet Water, Sachet-Powder, and Cold-Cream.
*Claims use* since May 31, 1912.

Ser. No. 64,226. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TRAGUE-MCKEVETT COMPANY, Santa Paula, Cal. Filed June 17, 1912.

Golden Bowl



The bowl being printed in gold.
*Particular description of goods.*—Citrus Fruits.
*Claims use* since Mar. 8, 1912.

Ser. No. 64,291. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRIEDRICH BLOCH, Berlin, Germany. Filed June 20, 1912.

Deleol

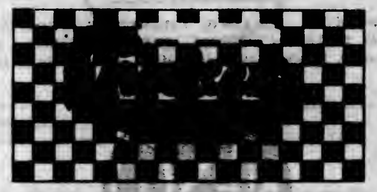
*Particular description of goods.*—Disinfectants.
*Claims use* since Dec. 10, 1903.

Ser. No. 64,294. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EMPIRE STATE FLOUR MILLS, Syracuse, N. Y. Filed June 21, 1912.

EMPIRE
EMF

*Particular description of goods.*—Wheat-Flour.
*Claims use* since Oct. 12, 1883.

Ser. No. 64,380. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SHOTWELL MFG. CO., Chicago, Ill. Filed June 26, 1912.



The alternating squares being printed in red.
*Particular description of goods.*—Popcorn Coated with Candy.
*Claims use* since Apr. 2, 1906.

Ser. No. 64,410. (CLASS 39. CLOTHING.) ALBERT I. BEHRENS & COMPANY, New York, N. Y. Filed June 26, 1912.



*Particular description of goods.*—Knitted Athletic Garments—viz., Sweaters, Coats, Jersey Sweaters, and Bathing-Suits.
*Claims use* since May 31, 1912.

Ser. No. 64,485. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) THE KOHN DISTILLING CO., Montgomery, Ala., and Jacksonville, Fla. Filed June 29, 1912.

RED RABBIT



*Particular description of goods.*—Gin.
*Claims use* since the spring of 1907.

Ser. No. 64,488. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALBERT BOEHRINGER, Nieder-Ingelheim-on-the-Rhine, Germany. Filed June 29, 1912.

Lactonal

*Particular description of goods.*—Baking-Powder.
*Claims use* since Oct. 6, 1909.

Ser. No. 64,504. (CLASS 27. HOROLOGICAL INSTRUMENTS.) ROBT. H. INGERSOLL & BRO., New York, N. Y. Filed July 1, 1912.

ECLIPSE

*Particular description of goods.*—Watches and Clocks.
*Claims use* since the year 1893.

Ser. No. 64,522. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PERCIVAL D. MOODY, Somerville, Mass. Filed July 1, 1912.

NELSO

*Particular description of goods.*—Starch Finish.
*Claims use* since Apr. 10, 1912.

Ser. No. 64,533. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN S. LEES, Pittsburgh, Pa. Filed July 2, 1912.

BONNIE GIRL

*Particular description of goods.*—Facial and Massage Creams.
*Claims use* since about Feb. 1, 1912.

Ser. No. 64,546. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CLARENCE A. CRANE, Cleveland, Ohio. Filed July 2, 1912.

Crane Crows

*Particular description of goods.*—Candy.
*Claims use* since March, 1912.

Ser. No. 64,551. (CLASS 39. CLOTHING.) THE REGAL HAT COMPANY, Chicago, Ill. Filed July 3, 1912.

REGAL

*Particular description of goods.*—Felt, Cloth, and Straw Hats.
*Claims use* since Jan. 1, 1907.

Ser. No. 64,556. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) WM. STENHOUSE, Glasgow, Scotland. Filed July 3, 1912. Under ten-year proviso.

STENHOUSE

*Particular description of goods.*—Blended Scotch Liquor Whisky.
*Claims use* since the year 1883.

Ser. No. 64,574. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CLARENCE A. CRANE, Cleveland, Ohio. Filed July 3, 1912.

Fade Away

*Particular description of goods.*—Candy.
*Claims use* since May 10, 1912.

Ser. No. 64,577. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES. ARTHUR J. EHLER, West Alexandria, Ohio. Filed July 5, 1912.

BON-MAX

*Particular description of goods.*—Poultry Drinking-Pans Constructed of Metal.
*Claims use* since October, 1911.

Ser. No. 64,615. (CLASS 39. CLOTHING.) TAUNTON KNITTING COMPANY, Taunton, Mass. Filed July 8, 1912.

TAKNICO

*Particular description of goods.*—Knitted Undergarments—to wit, Shirts, Drawers, and Union Suits.
*Claims use* since June 26, 1912.





Ser. No. 64,618. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE L. C. BAUER CO., New Haven, Conn. Filed July 8, 1912. Under ten-year proviso.

FAIRBURY

*Particular description of goods.*—Butter.
*Claims use* since 1893.

Ser. No. 64,650. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DANIEL K. MOORE, Webster, N. C. Filed July 10, 1912.



Daniel K. Moore

Consisting of the portrait of the applicant and a fac simile of his signature.
*Particular description of goods.*—A Remedy for Hog and Chicken Cholera.
*Claims use* since May 1, 1912.

Ser. No. 64,669. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) YAKIMA FRUIT PRODUCTS CO., INC., North Yakima, Wash. Filed July 12, 1912.



*Particular description of goods.*—Vinegar.
*Claims use* since 1909.

Ser. No. 64,745. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS NOT INCLUDING ELECTRICAL APPARATUS.) PHILIP S. DELANY, Kansas City, Mo. Filed July 15, 1912.

UNIVERSAL

*Particular description of goods.*—Window-Ventilators.
*Claims use* since July 1, 1912.

Ser. No. 64,783. (CLASS 39. CLOTHING.) THE IRISH LINEN MERK CO. LTD., Belfast, Ireland. Filed July 17, 1912.

MESHLIN

*Particular description of goods.*—Articles of Underwear—viz., Men's Shirts, Underdrawers, Combinations, Union Suits, and Pajamas, and Ladies' Vests, Combinations, Union Suits, Night-Dresses, and Drawers, All Made from Pure-Linen Yarns.
*Claims use* since Jan. 12, 1906.

Ser. No. 64,805. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) P. BAILLY & CIE., Paris, France. Filed July 18, 1912.

C★G

*Particular description of goods.*—Shoulder-Braces and Suspenders.
*Claims use* since some time prior to May 1, 1901.

Ser. No. 64,814. (CLASS 42. KNITTED, NETTED AND TEXTILE FABRICS.) KORS BROS., New York, N. Y. Filed July 18, 1912.

Nemo

*Particular description of goods.*—Elastic Webbing.
*Claims use* since June 1, 1912.

Ser. No. 64,823. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) BRAMBACH PIANO COMPANY, New York, N. Y. Filed July 19, 1912. Under ten-year proviso.

Brambach

*Particular description of goods.*—Pianos.
*Claims use* since 1823.

Ser. No. 64,841. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) AERMORE MANUFACTURING COMPANY, Chicago, Ill. Filed July 20, 1912.

AERMORE

*Particular description of goods.*—Automobile-Horns.
*Claims use* since May 1, 1911.

Ser. No. 64,842. (CLASS 26. MUSICAL INSTRUMENTS AND SUPPLIES.) ARMORS MANUFACTURING COMPANY, Chicago Ill. Filed July 20, 1912.

BIG FOUR

*Particular description of goods.*—Automobile-Horns.
*Claims use* since July 1, 1911.

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Ser. No. 64,846. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) DAVID A. HART, Attleboro, Mass. Filed July 20, 1912.




*Particular description of goods.*—Bracelets, Lockets, Pendants, Pins, Brooches, Chains, and Buttons.
*Claims use* since May 28, 1912.

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Ser. No. 64,874. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DR. FRANZ STOHR, Vienna, Austria. Filed July 23, 1912.

GALAFER

*Particular description of goods.*—A Concentrated Nutritive Preparation Composed of Milk and Iron.
*Claims use* since June 21, 1912.

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Ser. No. 64,907. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SPOKANE VALLEY ORCHARD & LAND CO., Spokane Bridge, Wash. Filed July 25, 1912.




The portrait being that of Martha Washington, deceased.
*Particular description of goods.*—Fresh Apples.
*Claims use* since June 7, 1912.

Ser. No. 64,918. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NOVELTY CANDY CO., New York, N. Y. Filed July 25, 1912.

KARO CHIPS

The word "Chips" being disclaimed.
*Particular description of goods.*—Candy.
*Claims use* since July 16, 1912.

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Ser. No. 64,925. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE OHIO CONFECTION CO., Cleveland, Ohio. Filed July 25, 1912.

BIG 4

*Particular description of goods.*—Candy.
*Claims use* since 1906.

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Ser. No. 64,928. (CLASS 48. MALT EXTRACTS AND LIQUORS.) FRED HOLLENDER & CO., New York, N. Y. Filed July 25, 1912.

Humbser

The facsimile signature being that of Joh. Humbser.
*Particular description of goods.*—Beer.
*Claims use* since about January, 1896.

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Ser. No. 64,933. (CLASS 39. CLOTHING.) ROSENWALD & WEIL, Chicago, Ill. Filed July 26, 1912.




*Particular description of goods.*—Men's and Boys' Coats, Men's Fancy and Plain Outer Vests, Men's Trousers, Golf Trousers, Riding-Breeches, Rain-Coats, and Automobile-Dusters.
*Claims use* since Jan. 1, 1888.

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Ser. No. 64,947. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALBERT C. MANGANIELLO, New York, N. Y. Filed July 26, 1912.

ISABEAU

*Particular description of goods.*—Borated Talcum Powder.
*Claims use* since July 1, 1912.





Ser. No. 64,949. (CLASS 39. CLOTHING.) BELLEVILLE HOSIERY MILLS, Belleville, Ill. Filed July 26, 1912.



No claim is made to the word "Hose" appearing on the drawing or the specimens filed therewith.
*Particular description of goods.*—Hosiery.
*Claims use* since May 12, 1912.

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Ser. No. 64,973. (CLASS 26. MUSICAL INSTRUMENTS AND SUPPLIES.) THE BALDWIN COMPANY, Cincinnati, Ohio. Filed July 27, 1912.

Manualo

*Particular description of goods.*—Autopneumatic Player-Pianos.
*Claims use* since July 20, 1912.

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Ser. No. 65,024. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) BROOKS RUPTURE APPLIANCE CO., Marshall, Mich. Filed Aug. 1, 1912.



The picture shown being that of C. E. Brooks.
*Particular description of goods.*—Rupture Appliances.
*Claims use* since June 10, 1912.

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Ser. No. 65,044. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE F. W. KING OPTICAL COMPANY, Cleveland, Ohio. Filed Aug. 1, 1912.

AKOPOS

*Particular description of goods.*—Lenses for Spectacles.
*Claims use* since February, 1912.

Ser. No. 65,048. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) STROBEL & WILKEN CO., New York, N. Y. Filed Aug. 1, 1912.

SCRAMBOLO



The pictures shown being fanciful.
*Particular description of goods.*—A Game.
*Claims use* since May 25, 1912.

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Ser. No. 65,059. (CLASS 39. CLOTHING.) THE L. CANDEE & COMPANY, New Haven, Conn. Filed July 31, 1912.

ES-KI-MO

*Particular description of goods.*—Rubber Boots and Shoes.
*Claims use* since May 6, 1912.

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Ser. No. 65,060. (CLASS 39. CLOTHING.) THE L. CANDEE & COMPANY, New Haven, Conn. Filed July 31, 1912.



*Particular description of goods.*—Rubber Boots and Shoes.
*Claims use* since May 6, 1912.

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Ser. No. 65,097. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EDWARD HENRY WALSDORF, New Orleans, La. Filed Aug. 5, 1912.




*Particular description of goods.*—Ant-Exterminators.
*Claims use* since Mar. 1, 1907.

Ser. No. 65,188. (CLASS 17. TOBACCO PRODUCTS.) JAYNES DRUG CO., Boston, Mass. Filed Aug. 10, 1912.




*Particular description of goods.*—Cigars.
*Claims use* since June 24, 1912.

Ser. No. 65,189. (CLASS 17. TOBACCO PRODUCTS.) JAYNES DRUG CO., Boston, Mass. Filed Aug. 10, 1912.




*Particular description of goods.*—Cigars.
*Claims use* since June 24, 1912.

Ser. No. 65,262. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) SOCIÉTÉ FRANÇAISE DES FILMS ET CINÉMATOGRAPHES ECLAIR, New York, N. Y. Filed Aug. 14, 1912.

SCIENTIA

*Particular description of goods.*—Moving-Picture Films.
*Claims use* since May 1, 1912.

Ser. No. 65,284. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) GLIDE ROAD MACHINE COMPANY, Minneapolis, Minn. Filed Aug. 15, 1912.

GLIDE

*Particular description of goods.*—Road-Grading Machines.
*Claims use* since May 1, 1909.

Ser. No. 65,299. (CLASS 32. FURNITURE AND UPHOLSTERY.) U. S. BEDDING COMPANY, Memphis, Tenn. Filed Aug. 16, 1912.

MAJESTIC

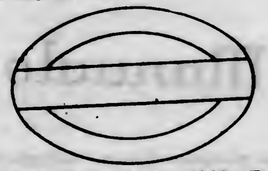
*Particular description of goods.*—Mattresses.
*Claims use* since January, 1912.

Ser. No. 65,337. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) EVERARD WARES & SONS CO., St. Louis, Mo. Filed Aug. 19, 1912.



*Particular description of goods.*—Distilled and Carbonated Water, Flavored Beverages, and Syrups for the Production of Beverages.
*Claims use* since Jan. 1, 1909.

Ser. No. 65,393. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) SOUTH BEND BAIT CO., St. Joseph, Ind. Filed Aug. 23, 1912.



*Particular description of goods.*—Fishing-Tackle, Fish-Lines, Fishing-Reels, Fish-Hooks, Fishing-Rods, Artificial Minnows, Artificial Baits, and Spoon-Hooks.
*Claims use* since on or about May 1, 1910.

Ser. No. 65,403. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) NATIONAL CARBON COMPANY, Cleveland, Ohio. Filed Aug. 24, 1912.

COAST



*Particular description of goods.*—Dry Cells.
*Claims use* since Feb. 9, 1912.

Ser. No. 65,512. (CLASS 38. PRINTS AND PUBLICATIONS.) FRANK S. BUTTERWORTH, New Haven, Conn. Filed Aug. 30, 1912.

THE PROGRESSIVE NEWS

*Particular description of goods.*—Newspapers.
*Claims use* since July 27, 1912.

Ser. No. 65,560. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) PARKER BROTHERS, Portland, Me., and Salem, Mass. Filed Sept. 3, 1912.

PLAZA

*Particular description of goods.*—Card Games.
*Claims use* since July 31, 1912.





# TRADE-MARKS

## REGISTERED OCTOBER 8, 1912.

88,609. LAXATIVE PREPARATIONS. THE ALPINE PHARMACAL CO., Cleveland, Ohio.
Filed May 13, 1912. Serial No. 63,519. PUBLISHED AUGUST 6, 1912.

88,610. LIGHTNING-RODS AND FIXTURES FOR SAME. JOSEPH BARNETT & COMPANY, Riverside, Iowa.
Filed February 29, 1912. Serial No. 61,833. PUBLISHED AUGUST 6, 1912.

88,611. RUBEFACIENT OINTMENT. NICHOLAS E. BARRY, Chicago, Ill.
Filed January 11, 1909. Serial No. 50,832. PUBLISHED AUGUST 6, 1912.

88,612. CORN AND BUNION REMEDY. WM. F. BRAMM, Salt Lake City, Utah.
Filed May 7, 1912. Serial No. 63,409. PUBLISHED AUGUST 6, 1912.

88,613. CERTAIN ALUMINUM HOUSEHOLD AND KITCHEN UTENSILS. THE GEO. H. BOWMAN CO., Cleveland, Ohio.
Filed May 4, 1912. Serial No. 63,306. PUBLISHED AUGUST 6, 1912.

88,614. LOTIONS FOR CHAPPED HANDS, LIPS, OR ROUGHNESS OF THE SKIN. CENTRAL DRUG CO., Detroit, Mich.
Filed May 13, 1912. Serial No. 63,496. PUBLISHED AUGUST 6, 1912.

88,615. RAZORS, RAZOR-BLADES, SHEARS, SCISSORS, AND CERTAIN NAMED KNIVES. F. A. CLAUBERG & CO., New York, N. Y.
Filed May 24, 1912. Serial No. 63,773. PUBLISHED AUGUST 6, 1912.

88,616. WRENCHES. CORE WRENCH COMPANY, Worcester, Mass.
Filed May 25, 1912. Serial No. 63,809. PUBLISHED AUGUST 6, 1912.

88,617. CERTAIN NAMED KNIVES, WEAPONS, SHEARS, RAZORS, SCISSORS, AND FORKS. E. M. DICKINSON LTD., Sheffield, England.
Filed March 29, 1911. Serial No. 55,891. PUBLISHED MAY 28, 1912.

88,618. RAZORS. THE EDLIS BARBERS SUP. CO., Pittsburgh, Pa.
Filed December 23, 1910. Serial No. 58,447. PUBLISHED AUGUST 6, 1912.

88,619. CERTAIN NAMED ENAMEL WARE. THE ENTERPRISE ENAMEL CO., Bellaire, Ohio.
Filed March 11, 1912. Serial No. 62,109. PUBLISHED AUGUST 6, 1912.

88,620. REMEDIES FOR DISEASES OF THE KIDNEY AND BLADDER AND RHEUMATISM. FOLEY & COMPANY, Chicago, Ill.
Filed May 10, 1912. Serial No. 63,467. PUBLISHED AUGUST 6, 1912.

88,621. RAZORS. FRIEDR. ERN & CO., Weyer, near Solingen, Germany.
Filed December 5, 1911. Serial No. 60,073. PUBLISHED AUGUST 6, 1912.

88,622. WINE MADE FROM THE SCUPPERNONG-GRAPE. GARRETT & CO., Norfolk, Va.
Filed March 27, 1912. Serial No. 62,448. PUBLISHED AUGUST 6, 1912.

88,623. BLACKBERRY-WINE. GARRETT & CO., Norfolk, Va.
Filed March 28, 1912. Serial No. 62,473. PUBLISHED AUGUST 6, 1912.

88,624. WINE MADE FROM THE SCUPPERNONG-GRAPE. GARRETT & CO., Norfolk, Va.
Filed March 30, 1912. Serial No. 62,544. PUBLISHED AUGUST 6, 1912.

88,625. ELECTRICAL REGULATORS. GENERAL ELECTRIC COMPANY, Schenectady, N. Y.
Filed June 14, 1912. Serial No. 64,194. PUBLISHED AUGUST 6, 1912.

88,626. OPTICAL LENSES. HAUSSMANN & CO., Philadelphia, Pa.
Filed February 16, 1912. Serial No. 61,540. PUBLISHED AUGUST 6, 1912.

88,627. REMEDY FOR DANDRUFF. WILLIAM N. HULL, Los Angeles, Cal.
Filed May 7, 1912. Serial No. 63,390. PUBLISHED AUGUST 6, 1912.

88,628. CERTAIN ELECTRICAL SUPPLIES. IMPERIAL RUBBER CO., New York, N. Y.
Filed June 24, 1912. Serial No. 64,343. PUBLISHED AUGUST 6, 1912.

88,629. KINETOSCOPIC FILMS. LUBIN MANUFACTURING COMPANY, Philadelphia, Pa.
Filed May 27, 1912. Serial No. 63,827. PUBLISHED AUGUST 6, 1912.

88,630. DREDGES AND POWER-SHOVELS. THE MARION STEAM SHOVEL CO., Marion, Ohio.
Filed June 5, 1911. Serial No. 56,838. PUBLISHED AUGUST 6, 1912.

88,631. LIQUID MEDICINE FOR CERTAIN DISEASES. CONO MAXSONE, Providence, R. I.
Filed May 10, 1912. Serial No. 63,446. PUBLISHED AUGUST 6, 1912.

88,632. LIFTING-JACKS. MCKIERNAN-TERRY DRILL COMPANY, New York, N. Y.
Filed May 25, 1912. Serial No. 63,800. PUBLISHED AUGUST 6, 1912.

88,633. MOVING-PICTURE APPARATUS AND SUPPLIES. MULTI-SPEED SHUTTER COMPANY, New York, N. Y., assignor to The Precision Machine Company, New York, N. Y., a Corporation of New York.
Filed July 20, 1911. Serial No. 57,738. PUBLISHED AUGUST 6, 1912.

88,634. DRY CELLS. NATIONAL CARBON COMPANY, Cleveland, Ohio.
Filed June 17, 1912. Serial No. 64,241. PUBLISHED AUGUST 6, 1912.

88,635. DRY CELLS. NATIONAL CARBON COMPANY, Cleveland, Ohio.
Filed June 17, 1912. Serial No. 64,242. PUBLISHED AUGUST 6, 1912.

88,636. DRY CELLS. NATIONAL CARBON COMPANY, Cleveland, Ohio.
Filed June 17, 1912. Serial No. 64,243. PUBLISHED AUGUST 6, 1912.

88,637. DRY CELLS. NATIONAL CARBON COMPANY, Cleveland, Ohio.
Filed June 17, 1912. Serial No. 64,244. PUBLISHED AUGUST 6, 1912.

88,638. WATER-BOTTLES. MARY H. PARSONS, Providence, R. I.
Filed March 7, 1912. Serial No. 61,997. PUBLISHED JULY 9, 1912.

88,639. PREPARATIONS FOR TREATING BRONCHIAL CATARRHS. J. D. RIEDEL AKTIENGESELLSCHAFT, Berlin, Germany.
Filed May 13, 1912. Serial No. 63,507. PUBLISHED AUGUST 6, 1912.

88,640. PREPARATIONS FOR TREATING PARALYSIS AND NERVOUS AND MENTAL DISEASES. J. D. RIEDEL AKTIENGESELLSCHAFT, Berlin, Germany.
Filed May 13, 1912. Serial No. 63,508. PUBLISHED AUGUST 6, 1912.

88,641. CERTAIN ELECTRICAL SUPPLIES. ROSS MANUFACTURING CO., Philadelphia, Pa.
Filed October 13, 1911. Serial No. 59,142. PUBLISHED AUGUST 6, 1912.

88,642. TOILET SOAP. THE STANDARD SOAP COMPANY, West Berkeley, Cal.
Filed June 19, 1909. Serial No. 43,119. PUBLISHED AUGUST 10, 1909.

88,643. HICKORY HAMMER AND HATCHET HANDLES. CARL STOSSEL & COMPANY, Front Royal, Va.
Filed May 11, 1912. Serial No. 63,473. PUBLISHED AUGUST 6, 1912.

88,644. EJECTORS. THE UNITED INJECTOR COMPANY, New York, N. Y.
Filed June 14, 1912. Serial No. 64,184. PUBLISHED AUGUST 6, 1912.

88,645. CIGARS. A. S. VALENTINE & SON, Philadelphia, Pa.
Filed March 27, 1912. Serial No. 62,444. PUBLISHED AUGUST 6, 1912.

88,646. LAXATIVE PILL. THE VICTORIA CREAM CO., Camden, N. J.
Filed May 4, 1912. Serial No. 63,314. PUBLISHED AUGUST 6, 1912.

88,647. CHEMICAL COMPOUNDS FOR USE IN PRODUCING TRANSPARENT PICTURES. THE WALKER-HENDERSON ART CO., Jewett, Tex.
Filed May 8, 1912. Serial No. 63,409. PUBLISHED AUGUST 6, 1912.

88,648. COD-LIVER-EXTRACT PREPARATIONS. HENRY K. WAMPOLE AND COMPANY, INCORPORATED, Philadelphia, Pa.
Filed May 4, 1912. Serial No. 63,354. PUBLISHED AUGUST 6, 1912.

88,649. ENSILAGE-CUTTERS. WARSAW-WILKINSON COMPANY, Warsaw, N. Y.
Filed August 10, 1911. Serial No. 58,136. PUBLISHED AUGUST 6, 1912.

88,650. HAIR-CUTTING MACHINES. WEYERSBERG KIRSCHBAUM & CIE., Solingen, Germany.
Filed November 1, 1911. Serial No. 59,464. PUBLISHED AUGUST 6, 1912.

88,651. HAIR-CUTTING MACHINES. WEYERSBERG KIRSCHBAUM & CIE., Solingen, Germany.
Filed November 1, 1911. Serial No. 59,465. PUBLISHED AUGUST 6, 1912.

88,652. REMEDY FOR CORNS, CALLI, AND BUNIONS. ZINO SALVE COMPANY, Pittsburgh, Pa.
Filed May 14, 1912. Serial No. 63,533. PUBLISHED AUGUST 6, 1912.



# LABELS

## REGISTERED OCTOBER 8, 1912.

16,595.—*Title:* "'49 CAMP' GOLD QUARTZ." (For Gold Quartz.) MARY A. BEALS, San Francisco, Cal. Filed August 31, 1912.

16,596.—*Title:* "BURIAL GARMENT DISPLAY BOX." (For Burial-Garments.) FRANK & LAMBERT INC., New York, N. Y. Filed April 18, 1912.

16,597.—*Title:* "REDSNAPPER SAUCE." (For Sauce.) THOMAS L. HARDIN CO., New Orleans, La. Filed September 25, 1912.

16,598.—*Title:* "IDEAL SMOKE OF LEISURE." (For Cigars.) FRANK NOVOTNY, Bridgeport, Conn. Filed July 30, 1912.

16,599.—*Title:* "REIS' TEX FOUNDATIONS." (For Embroidery Foundation-Initials and Other Foundations for Embroidery.) G. REIS & BRO., New York, N. Y. Filed September 25, 1912.

16,600.—*Title:* "SCOTTISSUE DYDEES." (For Paper Diapers.) SCOTT PAPER COMPANY, Philadelphia, Pa. Filed September 19, 1912.

16,601.—*Title:* "12 REASONS WHY NUWEAVE HOSE IS THE BEST." (For Hosiery.) THE VAUGHAN KNITTING COMPANY, Pottstown, Pa. Filed September 4, 1912.

16,602.—*Title:* "SHRINER." (For Cigars.) VILAS-HANIGAN CIGAR CO., Pierre, S. D. Filed September 19, 1912.

16,603.—*Title:* "LA FLOR DE ASINGA." (For Cigars.) E. A. & OTTO WEBER, Manila, Philippine Islands. Filed September 5, 1912.

16,604.—*Title:* "LA FLOR DE LAVINAB." (For Cigars.) E. A. & OTTO WEBER, Manila, Philippine Islands. Filed September 5, 1912.

# PRINTS

## REGISTERED OCTOBER 8, 1912.

3,112.—*Title:* "20TH CENTURY CALENDAR." (For Stay-Tongues for Shoes.) WM. BARD ARNOLD, Eaton Rapids, Mich. Filed July 29, 1912.

3,113.—*Title:* "SUNBEAM PERCHERON COLLARS." (For Horse-Collars.) BROWN & SEHLER CO., Grand Rapids, Mich. Filed August 19, 1912.

3,114.—*Title:* "FUNNY BOYS AND FUNNY GIRLS." (For Funny Boys and Girls.) LEHMAN S. BROWNING, Camden, N. J. Filed September 3, 1912.

3,115.—*Title:* "FUNNY BOYS AND FUNNY GIRLS." (For the Game of Funny Boys and Funny Girls.) LEHMAN S. BROWNING, Camden, N. J. Filed September 3, 1912.

3,116.—*Title:* "SPRING-STEP RUBBER HEELS." (For Rubber Heels.) REVERE RUBBER COMPANY, Providence, R. I., and Chelsea, Mass. Filed August 16, 1912.

3,117.—*Title:* "SYMPHONY LAWN WRITING PAPER." (For Writing-Paper.) UNITED DRUG COMPANY, Boston, Mass. Filed August 24, 1912.

# DECISIONS

OF THE

# COMMISSIONER OF PATENTS

AND OF

# UNITED STATES COURTS IN PATENT CASES.

## COMMISSIONER'S DECISIONS.

EX PARTE HOGE AND RIEBE.

*Decided May 8, 1913.*

PATENTABILITY—BASE FOR PRINTING-PLATES.

Claims for a base for printing-plates consisting of blocks of wood having the grain vertical *Held* patentable over the prior art.

APPEAL from Examiners-in-Chief.

BASE FOR PRINTING-PLATES.

*Messrs. Burton & Burton* for the applicants.

MOORE, *Commissioner:*

This is an appeal from the decision of the Examiners-in-Chief affirming the action of the Primary Examiner rejecting the following claims:

1. A base for printing plates, consisting of a multiplicity of parallelogrammatic blocks of wood, each having the grain vertical, and means for binding them together.

2. A base block for printing plates made of non-metallic, penetrable, fibrous material, having the fibers extending vertically.

3. A base for printing plates, a metallic skeleton consisting of thin, intersecting septa inclosing parallelogrammatic cells, whose horizontal area is large relatively to the area occupied by the septa, such cells extending entirely through the skeleton and opening at the top and bottom thereof, and parallelogrammatic wooden blocks having the grain of the wood vertical fitting tightly in the cells and extending therethrough from top to bottom.

4. A base for printing plates, comprising a metal skeleton having inclosing side and end walls and thin intersecting septa oblique to the side and end walls and subdividing the area inclosed by said walls into cells whose horizontal area is large relatively to that of the intersecting septa, such cells extending entirely through the grain of the wood vertical fitted tightly into such cells and extending therethrough from top to bottom.

The references cited are: Servante, British, No. 3,720 of 1872; Pitman, British, No. 9,752 of 1902.

The Examiners-in-Chief held that Figures 20 and 21 of the patent to Servante, upon which the Examiner relied, were not sufficient, when taken together, to suggest the vertical arrangement of the grain of the wood in the block, and with this I agree. One of these figures shows the grain vertical and one of them indicates it horizontal, although the two figures are supposed to represent a plan view and a sectional view, respectively, of the same block. The only conclusion that can be drawn is that it was intended to indicate wood without regard to the direction of the grain.

The Examiners-in-Chief, however, have held that the Pitman patent was a sufficient suggestion of the use of vertical grain. The patent discloses a way of making base-blocks, which consists of forming four or more strips of wood of a length equal to several finished blocks, then casting the metal sheathing around and between the strips, and afterward sawing them up into proper lengths. The supposed suggestion of vertical grain in this construction arises from the fact that a piece of wood of the length indicated would ordinarily have the grain running lengthwise and not crosswise. I cannot agree, however, that the patent is a disclosure of the applicant's idea. It appears that wooden base-blocks for printing-plates have hitherto uniformly been made with the grain running crosswise, probably due to the fact that a block of this character would more securely hold the tacks or screws which are used to fasten the plate to the block. In view of the uniformity of this practice it is believed that the vertical arrangement of the grain in the blocks produced by the Pitman method can hardly be assumed. In my opinion the art cited is insufficient to anticipate the invention claimed.

The decision of the Examiners-in-Chief is reversed.

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EX PARTE WILLIAMS.

*Decided July 6, 1913.*

1. CLAIMS—INAPT LANGUAGE—MATTER OF FORM.

Where the Examiner rejected claims for an ice-making machine in which there is a plurality of upright molds, in which the ice is to be formed, and surrounding jackets, between which and the molds a freezing and thawing medium is introduced, on the ground that the expression in these claims "freezing and thawing means" would imply the freezing or thawing medium, as well as the jacket itself, *Held* that since the Examiner's objection relates to the meaning of language used to describe an undisputed structure it should not have been made the basis of a rejection, and the question in issue is reviewable on petition.

2. SAME—SUFFICIENTLY ACCURATE—CHANGE IN FORM NOT INSISTED UPON.

The expression "freezing and thawing means" used in referring to a jacket surrounding an upright mold in which ice is to be formed and between which and the mold a freezing or thawing mixture is introduced *Held* sufficiently accurate to permit its retention, if the applicant insists thereon, although the Examiner was right

in suggesting the substitution therefor of the words "means for applying the freezing or thawing medium thereto."

ON PETITION.

ICE MAKING AND HARVESTING APPARATUS.

*Messrs. Robertson & Johnson* for the applicant.

MOORE, *Commissioner:*

This is a petition from the action of the Examiner requiring the cancelation of a paragraph inserted in the specification by amendment of February 6, 1912, and requesting, further, that the Examiner be instructed that the ground upon which he has rejected certain claims is a matter of form and not of merits and that the language used in the claims is appropriate and unobjectionable.

The invention relates to ice making and harvesting apparatus and employs a plurality of upright molds, in which the ice is to be formed, and surrounding jackets, between which and the molds a freezing or thawing medium is introduced as it is desired to freeze the ice or thaw it loose from the mold. The claims refer to the jacket as "freezing and thawing means." The Examiner's position, as shown by the record, is that this language would imply the freezing or thawing medium, or at least the means for supplying such medium, as well as the jacket itself.

In a letter of May 9, 1912, he rejected the claims in which this expression occurs on the authority of *ex parte Bitner* (140 O. G., 256) and stated that the applicant might consider the rejection final, if he so desired. He further stated that the defect in each of the claims on which the rejection was based could be cured by substituting the words "means for applying the freezing or thawing medium thereto" for the words "freezing and thawing means therefor."

*Ex parte Bitner*, cited by the Examiner, is clearly not authority for a rejection of the kind entered. That decision relates to the practice in dealing with functional claims. It does not appear that the Examiner has held the claims in this application to be functional, and it is obvious on a mere inspection that they are not, at least so far as the expression objected to is concerned. It is well settled that means accompanied by a statement of function is a proper way to cover one element of a combination.

It is possible that the Examiner might have rejected the claims on the ground that they cover structure not shown and described; but conceivably such a rejection might be entered in all cases where the Examiner holds the language of a claim inapt or misdescriptive. The real contention here between the applicant and the Examiner is as to the meaning of language used to describe an undisputed structure and not whether the disclosure includes certain elements clearly covered in the claims. This is a matter which may properly be decided on a petition of this kind.

The change in the claims suggested by the Examiner would, it is believed, unquestionably make them suggest to the mind more readily and exactly the invention it is intended to cover, and applicant does not contend that it would introduce any additional limitations.

It is also true, however, that the expression used by applicant and now in the claims describes the structure with sufficient accuracy so that no mistake could be made as to its meaning, especially when read in connection with the specification and drawing to which it is appended. The Examiner did right to suggest the improvement, and it would seem that the applicant should have been glad to take advantage of the suggestion; but it is believed to be a change which need not be insisted upon if applicant prefers to take his patent without it. Within the limits of accuracy and reasonable clearness he is entitled to state his invention in his own language.

The paragraph inserted on page 4, to which the Examiner objects, simply makes reference to the fact that a copending application shows a complete system of refrigeration of the kind with which the present invention would be used, and there appears to be no objection to the insertion of this statement.

The petition is granted.

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## IN RE HENRY W. PEABODY & CO.

*Decided June 20, 1912.*

1. APPLICATION—ACCESS.
   Where an application upon which a patent was granted is filed as the continuation of or substitute for another application, access to the earlier application will be granted upon request.
2. SAME—SAME.
   Where an application upon which a patent was granted is a division of an earlier application, access to the latter will be granted only upon a showing of interest or, where a suit has been brought upon the patent, upon the filing of a certificate of the judge before whom the suit is pending that the earlier application will be relevant and material evidence.

ON PETITION.

*Mr. Charles J. Hedrick* for Henry W. Peabody & Co.

*Messrs. Sturtevant & Mason* for Schatz.

*Messrs. Fraley & Paul* for the Harpoon Caster Manufacturing Company, assignee of Adam E. Schatz.

BILLINGS, *First Assistant Commissioner:*

This is a petition by Henry W. Peabody & Co. that it be permitted to inspect and obtain copies of certain applications of Adam E. Schatz.

The petition asks access to an alleged abandoned application said to be the parent application of that upon which Patent No. 1,019,534 was granted, and also to a pending application of Schatz said to have been referred to in a suit brought by the owners of a patent to Alleyn, No. 995,758, against the Harpoon Caster Manufacturing Company, the assignee of Schatz.

The request for access to the alleged abandoned application is based upon the ground that the application upon which Patent No. 1,019,534 was granted was a continuation thereof and that therefore petitioner is entitled to see the earlier application as part of the proceedings leading up to the grant of the patent.

It is well settled that where an application upon which a patent was granted is filed as a continuation or substitute for another application access to the earlier application will be granted upon request. (*In re Doman*, 115 O. G., 804.) This rule, however, does not hold where the application upon which the patent was granted was a division of an earlier application, in which case access to the earlier can be granted only upon a showing of interest or, where a suit has been brought on a patent, if a certificate of the judge before whom the suit is pending is filed stating that the application would be relevant and material evidence. The later application does not appear to be merely a continuation of the earlier one, no court certificate has been filed, and no such showing of interest has been made as would justify granting the request.

Access to the pending application is based upon the allegation that during the progress of the suit it was stated that Schatz had a pending application and that at the conclusion of complainant's rebuttal testimony defendant's counsel placed upon the record a statement that the application of Schatz, Serial No. 625,375, had been allowed and that if the patent issued thereon before the trial of the case leave would be asked to present a copy thereof to the court.

It does not appear from the affidavit filed in support of the petition whether the questions as to Schatz's application were asked by counsel for plaintiff or defendant; nor does it appear for what purpose counsel for defendant proposes to use the patent if granted. In the absence of a certificate from the judge before whom the case is being tried that a copy of Schatz's application referred to in the testimony would be relevant and material evidence and admitted in the record of the case it cannot be held that such a showing has been made as would justify granting the request.

The petition is denied.

---

## EX PARTE BAKER.

*Decided July 9, 1912.*

CLAIMS—COMBINATION—GROUND OF REJECTION.

Where a combination of elements is old, claims to that combination should not be allowed, whether they state the elements of the combination broadly or specifically, unless the specific form of the elements themselves enter into the combination to produce a new result.

ON PETITION.

VENDING-MACHINE.

*Mr. William N. Moore* for the applicant.

BILLINGS, *First Assistant Commissioner:*

This is a petition requesting that the Examiner be instructed to withdraw his final rejection of February 16, 1912, and admit an amendment submitted by applicant on February 27, 1912.

The request is based upon the ground that no references have been cited definitely against any particular claim and that the actions of the Examiner have been otherwise of a nature which did not cover the merits of the case.

The three actions by the Examiner preceding the final rejection, which merely refers to the reasons of record, read as follows:

The claims are rejected as aggregations (*ex parte Casler*, 90 O. G., p. 446, third section of the syllabus) of a dispensing mechanism and a check controlled operating means, in view of the patent to Cummings, 822,829, June 5, 1906, (194—54,) which discloses broadly the construction claimed.

Claims 3 to 8, inclusive, include also a "size testing" device useful with any check controlled apparatus, and these claims are further rejected as aggregations for this reason. See the patent to Joy, 767,345, August 9, 1904, (194—102.)

Responsive to amendment of October 2, 1911.

The claims are rejected as aggregations for the reasons noted in the last Office letter.

Attention is called to the patents to Clifford, 414,705, November 12, 1889, (194—89,) Dieterich, 452,635, May 19, 1891, (194—58,) and Cornell, 441,536, November 25, 1890, (194—57.)

Responsive to letter of December 1, 1911.

The claims in this case define aggregations for the reasons noted in *ex parte Casler* of record, third section of the syllabus as noted in the Office letter of July 22, 1911.

The Office cannot suggest claims but may only act on those presented.

It would seem that there should have been no misunderstanding in the mind of the attorney as to the grounds of the rejection thus given. Reference was made to *ex parte Casler*, which is to be considered in connection with the various references cited to make clear the reasons of the rejection.

At the same time the Examiner's actions do not deal with the case with the particularity and clearness that they might. They might easily have been so worded that no misunderstanding was possible. For instance, in the letter of December 12, 1911, which preceded the final rejection, it was held that the claims—

define aggregations for the reasons noted in *ex parte Casler* of record, third section of the syllabus.

*Ex parte Casler* does not deal with the question of aggregation, properly speaking, and the third section of the syllabus does not set forth a ground upon which the present claims could be rejected. Following that portion of the decision to which the third section of the syllabus refers will be found a statement of the reasons for rejecting a certain class of claims under which the Examiner evidently thinks the claims in this case fall. Briefly stated, it is this: that where a combination of elements is old claims to that combination should not be allowed, whether they state the elements of the combination broadly or specifically, unless the specific form of the elements themselves enter into the combination to produce a new result. This ground of rejection is in no way peculiar to the claims relating to the coin-controlled art, and the Examiner should cite the art which he considers to disclose the combination claimed and apply that art to the various claims in such a way as to make the reasons of his holding clear.

On the whole it is believed that the applicant is entitled to a more full and complete statement of the relation of the art to his claims and the reasons for the rejection entered.

The petition is therefore granted.

---

## EX PARTE ALLGOEVER.

*Decided July 26, 1912.*

1. TRADE-MARKS—GOODS OF THE SAME DESCRIPTIVE PROPERTIES—"SYRUP FOR FLAVORING BEVERAGES," "GINGER-ALE, SARSAPARILLA, AND LEMON-SODA."
   A concentrated syrup for flavoring beverages *Held* to constitute goods of the same descriptive properties as ginger-ale, sarsaparilla, lemon-soda, and club-soda.

2. SAME—SIMILARITY—"REX-O-TONE" AND "REX."

The marks "Rex" and "Rex-O-Tone" bear such a resemblance to each other as would be likely to confuse purchasers if the two marks were concurrently used upon goods of the same descriptive properties.

ON APPEAL.

TRADE-MARK FOR TONICS, BEVERAGES, AND EXTRACTS.

*Messrs. Edgar Tate & Co.* and *Messrs. Herrick & Drew* for the applicant.

BILLINGS, *First Assistant Commissioner:*

This is an appeal from the decision of the Examiner of Trade-Marks refusing to register "Rex-O-Tone" as a trade-mark applied to a concentrated syrup for flavoring beverages. Registration was refused in view of the mark "Rex" applied to ginger-ale, sarsaparilla, lemon-soda, and club-soda, registered May 26, 1908, by William A. Megrath, No. 40,440.

Applicant contends that the goods are of different descriptive properties and that the marks are not deceptively similar. Applicant's flavoring-syrup is for the preparation of drinks, and the labels filed bear directions for its use in making soda, which is one of the drinks to which the registered mark is applied.

It is believed that these goods are of such a similar nature that a purchaser would naturally be led to believe that they were put up by the same manufacturer if he found upon them the same or similar trade-marks.

"Rex" and "Rex-O-Tone" clearly bear such a resemblance to each other as would be likely to confuse purchasers if the two marks were concurrently used upon goods of the same descriptive properties. The Examiner in his statement has cited a number of instances in which marks quite as dissimilar as these have been held deceptively similar.

The decision of the Examiner of Trade-Marks is affirmed.

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EX PARTE BASS.

*Decided September 9, 1912.*

APPLICATION—PROSECUTION—FINAL REJECTION.

A final rejection should not be given upon the second official action unless an unmistakable issue is reached between the applicant and the Examiner as to the patentability of the invention claimed.

ON PETITION.

COMBINED GAGE AND CUTTING-TOOL.

*Mr. Victor J. Evans* for the applicant.

TENNANT, *Acting Commissioner:*

This is a petition that the Examiner be directed to waive the final rejection in the above-entitled application.

The record shows that in the first action the Examiner made certain criticisms of the specification and rejected the claims as not being supported by the drawing and also in view of references. The applicant thereupon amended the same by directing the substitution of a single claim and corrections of the matters objected to by the Examiner in the specification. The Examiner thereupon rejected the new claim as being misdescriptive and also in view of the references of record and said:

Applicant having failed to so amend as to avoid the references, and not having traversed the position of the Examiner by argument, this rejection is made final.

Thereafter applicant requested the entry of a further amendment and accompanied the same by an argument pointing out the alleged difference between the applicant's structure as set forth in the claims and the references of record. This amendment was refused entry in view of the decision in *ex parte Miller* (139 O. G., 780) and others of the same character.

While the Examiner was correct in insisting upon compliance with the provisions of Rule 68, it does not appear that such an issue had been reached as to the patentability of the invention as is contemplated by the decisions cited. Final rejection should not be given upon the second official action unless an unmistakable issue is reached between the applicant and the Examiner as to the patentability of the invention claimed.

The petition is granted.

---

EX PARTE SHUMATE RAZOR COMPANY.

*Decided September 16, 1912.*

TRADE-MARKS—DESCRIPTIVE—"TUNGSTEEL" FOR RAZORS AND POCKET-KNIVES.

The mark "Tungsteel" as applied to razors and pocket-knives *Held* not registrable, since it would clearly indicate that the plates were made of tungsten steel.

ON APPEAL.

TRADE-MARK FOR RAZORS AND POCKET-KNIVES.

*Messrs. Carr & Carr* for the applicant.

TENNANT, *Assistant Commissioner:*

This is an appeal from the action of the Examiner of Trade-Marks refusing the registration of the word "Tungsteel" as a trade-mark for razors and pocket-knives.

Registration is refused upon the ground that the word "Tungsteel" is a contraction or misspelling of the words "tungsten" and "steel," which as applied to the merchandise above specified is descriptive in character.

It is urged that the word "Tungsteel" is an arbitrary word and that—

assuming, however, that the newly coined word "Tungsteel" suggests a combination of the words "tungsten" and "steel," the fact remains that the word "Tungsteel" is newly coined and is arbitrary in its application to razors and pocket knives, and the Examiner fails to point out that tungsten steel has been used to any considerable extent or is desirable for use in the manufacture of razors or pocket knives.

In the early history of this application the Examiner referred to the *Century Dictionary and Cyclopedia*, in which it is stated that—

"tungsten steel" is a variety of special steel, now largely employed in the manufacture of the harder grades of crucible steel. * * * Tungsten steel is exceedingly hard and very brittle; it is used chiefly for the tools of lathes and planers for heavy work.

It is contended in applicant's brief that the latter quality is undesirable for pocket-knives, and it is therefore urged that the rejection of the Examiner, even assuming that the mark is suggestive of the character of the goods, is erroneous. This contention of the applicant is not believed to be well founded. Tungsten steel is well known as a steel having particular qualities, and the use of the contracted word "Tungsteel" would clearly indicate





that the blades of the knives or razors were made of tungsten steel. If the articles were so constructed, the term would be descriptive of the quality or character of the goods; if not, it would be deceptive, and in either event prohibited registration.

The decision of the Examiner of Trade-Marks is affirmed.

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ONDERDONK *v.* RONTKE *v.* MOFFATT.

*Decided September 26, 1912.*

INTERFERENCE—MOTION TO DISSOLVE—TRANSMISSION.

Where in an interference involving two parties no motion to dissolve was made on the ground that the issue is not patentable, *Held* that a motion to dissolve on this ground filed after the addition of a third party to the interference was properly refused transmission.

APPEAL on motion.

FOLDER FOR SEWING-MACHINES.

*Messrs. Sturtevant & Mason* for Onderdonk.

*Mr. F. W. Ostrom* and *Mr. Henry Calver* for Rontke.

*Messrs. Sturtevant & Mason* for Moffatt.

TENNANT, *Assistant Commissioner:*

This is an appeal by Rontke from a decision of the Examiner of Interferences refusing to transmit a motion to dissolve by him in so far as it is alleged that the counts of the interference are not patentable in view of the prior art.

It appears that count 1 of this interference was count 9 of interference No. 33,894, involving the parties Onderdonk and Rontke, and that counts 2 and 3 correspond to claims which were presented in that interference by Onderdonk under the provisions of Rule 109. In view of the fact that the party Moffatt could make these claims this interference was declared to involve three parties.

Within the period allowed by the rules, after the approval of the preliminary statements, the party Rontke moved to dissolve, upon the ground that the claims have different meanings as applied to the applications of Moffatt and Rontke, that Moffatt has no right to make the claims, and that the claims are unpatentable in view of the prior art. The Examiner of Interferences transmitted the motion as to the first and second grounds, but refused to transmit it in respect to the allegation that the claims are not patentable in view of the prior art, on the ground that Rontke should have raised this question, if at all, upon a motion to dissolve in the earlier interference or in connection with Onderdonk's motion to add claims corresponding to certain of these counts under Rule 109.

It is urged in behalf of Rontke that the claims as read upon the Onderdonk and Rontke structure appear to be patentable over the prior art, but when read more broadly in such a manner as to include the structure of Moffatt, which differs widely from that of either of the other parties, that he should be entitled to urge the non-patentability of the issue thus construed. This contention is believed to be without substantial foundation.

It is well settled that the issue in interference is to be considered as broadly as the terms will permit. As stated in the case of *Andrews v. Nilson*, (128 O. G., 1067; 27 App. D. C., 451:)

The reasonable presumption is that an inventor intends to protect his invention broadly, and consequently the courts have often said that the scope of a claim should not be restricted beyond the fair and ordinary meaning of the words except for the purpose of saving it from invalidity.

It is not seen, therefore, that the inclusion of the party Moffatt in this interference affords any sufficient reason for the transmission of the motion to dissolve. A further reason why the motion should not be transmitted is that in support of the non-patentability ten patents are cited, unaccompanied by any sufficient statement of the manner in which the references are to be applied to the claims.

The decision of the Examiner of Interferences is affirmed.

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## ADJUDICATED PATENTS.

(U. S. C. C. A.) The Coffield reissue patent, No. 12,719, (original No. 806,779,) *Held* valid and infringed. *A. D. Howe Mach. Co. v. Coffield Motor Washer Co.*, 197 Fed. Rep., 541.

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(U. S. C. C. A.) The Meil patent, No. 806,907, for a tire for vehicle-wheels, *Held* void for lack of invention in view of the prior art. *Republic Rubber Co. v. Morgan & Wright*, 197 Fed. Rep., 549.

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(U. S. D. C.) The Washburne patent, No. 517,084, for a cuff-fastener, *Held* void for anticipation; also not infringed, if conceded validity. *Washburne v. Consolidated Safety Pin Co.*, 197 Fed. Rep., 552.

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(U. S. D. C.) The Washburne patent, No. 553,972, for a clasp or fastener, *Held* not infringed. 197 Fed. Rep., 552.

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(U. S. D. C.) The Moody patent, No. 891,869, for an electric transformer, *Held* not infringed. *General Electric Co. v. Allis-Chalmers Co.*, 197 Fed. Rep., 558.

---

(U. S. D. C.) The Coldwell and Gildard reissue patent, No. 11,923, (original No. 637,234,) for a stop-motion for looms, *Held* valid and infringed. *Coldwell-Gildard Co. v. Stafford Co.*, 197 Fed. Rep., 568.

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## Certifications by the Secretary of the Interior—Notice.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., October 4, 1912.*

By authority of an act of Congress approved August 24, 1912, (188 O. G., 508,) providing uniform charges for furnishing copies of records of the Department of the Interior and its several Bureaus, a fee of twenty-five cents will be charged by the Secretary of the Interior for every certificate of authentication of official character of the officials of the Patent Office. The fee thus provided should

be paid to the Secretary of the Interior, and not to the Patent Office. Attorneys and inventors desiring such certificates are requested to remit the necessary fee to the Secretary of the Interior at the time of filing in the Patent Office an order for the copies desired.

EDWARD B. MOORE,
*Commissioner of Patents.*

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CHARGES FOR FURNISHING COPIES OF RECORDS OF THE INTERIOR DEPARTMENT AND ITS BUREAUS.

(Public—No. 317.)

(S. 7157.)

An act to make uniform charges for furnishing copies of records of the Department of the Interior and of its several bureaus.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That the Secretary of the Interior, the head of any bureau, office, or institution, or any officer of that department, may, when not prejudicial to the interests of the Government, furnish authenticated or unauthenticated copies of any official books, records, papers, documents, maps, plats, or diagrams within his custody, and charge therefor the following fees: For all written copies, at the rate of fifteen cents for each hundred words therein; for each photolithographic copy, twenty-five cents where such copies are authorized by law; for photographic copies, fifteen cents for each sheet; and for tracings or blueprints the cost of the production thereof to be determined by the officer furnishing such copies, and in addition to these fees the sum of twenty-five cents shall be charged for each certificate of verification and the seal attached to authenticated copies: *Provided*, That there shall be no charge for the making or verification of copies required for official use by the officers of any branch of the Government: *Provided further*, That only a charge of twenty-five cents shall be made for furnishing authenticated copies of any rules, regulations, or instructions printed by the Government for gratuitous distribution.

SEC. 2. That nothing in this act shall be construed to limit or restrict in any manner the authority of the Secretary of the Interior to prescribe such rules and regulations as he may deem proper governing the inspection of the records of said department and its various bureaus by the general public, and any person having any particular interest in any of such records may be permitted to take copies of such records under such rules and regulations as may be prescribed by the Secretary of the Interior.

SEC. 3. That all authenticated copies furnished under this act shall be admitted in evidence equally with the originals thereof.

SEC. 4. That all officers who furnish authenticated copies under this act shall attest their authentication by the use of an official seal, which is hereby authorized for that purpose.

SEC. 5. That the act of Congress approved April nineteenth, nineteen hundred and four, chapter thirteen hundred and ninety-six, be, and the same is hereby, repealed; but nothing in this act shall be so construed as to repeal the provisions of sections four hundred and ninety to four hundred and ninety-three, inclusive, and forty-nine hundred and thirty-four of the Revised Statutes, fixing the rates for patent fees; or the act approved March third, eighteen hundred and ninety-one, chapter five hundred and forty-one, fixing a rate for certifying printed copies of specifications and drawings of patents; or of section fourteen of the act of February twentieth, nineteen hundred and five, chapter five hundred and ninety-two, to authorize the registration of trade-marks used in commerce with foreign nations or among the several States or with Indian tribes, and to protect the same; nor shall anything in this act be construed to repeal any of the provisions of section eight of the act approved April twenty-sixth, nineteen hundred and six, chapter eighteen hundred and seventy-six, authorizing the officer having charge of the custody of any records pertaining to the enrollment of members of the Five Civilized Tribes of Indians to furnish certified copies of such records and charge for that service such fees as the Secretary of the Interior may prescribe; nor shall anything herein contained prevent the Secretary of the Interior, under his general power of supervision over Indian affairs, from prescribing such charges or fees for furnishing certified copies of the records of any Indian agency or Indian school as he may deem proper; and the said Secretary is hereby authorized to charge a fee of twenty-five cents for each certified copy issued by him as to the official character of any officer of his department.

SEC. 6. That all sums received under the provisions of this act shall be deposited in the Treasury to the credit of miscellaneous receipts.

Approved, August 24, 1912.

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## Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., October 1, 1912.*

*Dassel Woolen Mills Company, its assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of the Yantic Woolen Company, Yantic, Conn., and the application of the Acton Mills, 76 Central street, Boston, Mass., and Watertown, Mass., for registration of trade-marks and trade-mark registration No. 14,250, registered May 3, 1887, to the Dassel Woolen Mills Company, of Dassel, Minn., and the notice of such declaration sent by registered mail to said Dassel Woolen Mills Company at the said address having been returned by the post-office authorities undeliverable, notice is hereby given that unless the Dassel Woolen Mills Company, its assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

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DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., September 28, 1912.*

*William C. King, his assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of the Texas Consumers Co., 2601–2603 Strand, Galveston, Tex., for registration of a trade-mark and trade-mark No. 21,548, granted August 2, 1892, to William C. King, 94 Water street, Norfolk, Va., and a notice of such declaration sent by registered mail to said William C. King at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said William C. King, his assigns or legal representatives, shall within thirty days from the first publication of this order enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

---

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., September 24, 1912.*

*David H. Smith, his assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Enos M. Morrison, 151 Sacramento St., San Francisco, Cal., for registration of a trade-mark and trade-mark No. 35,468, issued November 20, 1900, to David H. Smith, 24–28 Washington street, Buffalo, N. Y., and a notice of such declaration sent by registered mail to said David H. Smith at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said David H. Smith, his assigns or legal representatives, shall within thirty days from the date of first publication of this order enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

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DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., September 24, 1912.*

*Thomas N. Dwyer, his heirs, assigns, or legal representatives, take notice:*

An interference having been declared by this Office between the application of The Southern Cotton Oil Company, 15 Exchange Place, Jersey City, N. J., for registration of a trade-mark and trade-mark No. 39,044, registered May 4, 1897, to Thomas N. Dwyer, 25–27 South William street, New York, N. Y., and a notice of said interference sent by registered mail to the said Thomas N. Dwyer at the said address having been returned by the post-office authorities undeliverable, notice is hereby given that unless Thomas N. Dwyer, his heirs, assigns, or legal representatives, shall within thirty days from the first publication of this order enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*





THE
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OF THE
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| Alabama | 7 | 1 | North Carolina | 2 | ..... |
| Arizona | ..... | ..... | North Dakota | 4 | ..... |
| Arkansas | 2 | ..... | Ohio | 30 | 4 |
| California | 25 | 1 | Oklahoma | 10 | ..... |
| Colorado | 14 | 1 | Oregon | 7 | ..... |
| Connecticut | 23 | 6 | Pennsylvania | 49 | 4 |
| Delaware | 1 | ..... | Rhode Island | 3 | ..... |
| Florida | 2 | ..... | South Carolina | 2 | ..... |
| Georgia | 4 | ..... | South Dakota | 2 | ..... |
| Idaho | 2 | ..... | Tennessee | 2 | ..... |
| Illinois | 53 | 14 | Texas | 15 | 4 |
| Indiana | 14 | 3 | Utah | ..... | ..... |
| Iowa | 9 | 1 | Vermont | ..... | ..... |
| Kansas | 11 | ..... | Virginia | 4 | ..... |
| Kentucky | 2 | ..... | Washington | 12 | ..... |
| Louisiana | 5 | ..... | West Virginia | 5 | ..... |
| Maine | 1 | ..... | Wisconsin | 14 | ..... |
| Maryland | 10 | 1 | Wyoming | ..... | ..... |
| Massachusetts | 33 | 2 | | | |
| Michigan | 23 | 3 | Alaska, District of | ..... | ..... |
| Minnesota | 15 | ..... | Canal Zone | ..... | ..... |
| Mississippi | 2 | ..... | District of Columbia | 3 | ..... |
| Missouri | 25 | 1 | Hawaii Territory | 1 | ..... |
| Montana | 3 | ..... | Philippine Islands | ..... | ..... |
| Nebraska | 5 | ..... | Porto Rico | ..... | ..... |
| Nevada | ..... | ..... | U. S. Army | ..... | ..... |
| New Hampshire | 2 | ..... | U. S. Navy | 2 | ..... |
| New Jersey | 40 | 3 | | | |
| New Mexico | 2 | ..... | Total to citizens of the United States | 569 | 66 |
| New York | 112 | 17 | | | |

## TO RESIDENTS OF FOREIGN COUNTRIES.

| Countries. | Patents and Designs. | Trade-Marks. | Countries. | Patents and Designs. | Trade-Marks. |
|---|---|---|---|---|---|
| Argentina | ..... | ..... | Netherlands | ..... | ..... |
| Austria-Hungary | 1 | ..... | Newfoundland | ..... | ..... |
| Belgium | ..... | ..... | New South Wales | ..... | ..... |
| Bermuda | ..... | ..... | New Zealand | ..... | ..... |
| Brazil | ..... | ..... | Norway | ..... | ..... |
| British West Indies | ..... | ..... | Peru | 1 | ..... |
| Canada | 9 | ..... | Roumania | 1 | ..... |
| Cape Colony | ..... | ..... | Russia | 1 | ..... |
| Chile | ..... | ..... | Scotland | 4 | ..... |
| China | ..... | ..... | South Australia | ..... | ..... |
| Costa Rica | ..... | ..... | Spain | ..... | ..... |
| Cuba | 2 | ..... | Sweden | 4 | ..... |
| Denmark | ..... | ..... | Switzerland | 7 | ..... |
| Ecuador | ..... | ..... | Transvaal, South Africa | ..... | ..... |
| England | 27 | ..... | Victoria | ..... | ..... |
| France | 4 | 1 | Western Australia | 1 | ..... |
| Germany | 20 | 1 | | | |
| Ireland | 1 | ..... | Total to citizens of foreign countries | 113 | 2 |
| Italy | ..... | ..... | | | |
| Japan | ..... | ..... | | | |
| Mexico | ..... | ..... | | | |

## Attorneys.

(ORDER No. 2,607.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., October 8, 1912.*

Pursuant to the provisions of section 487 of the Revised Statutes, and with the approval of the Secretary of the Interior, Fred W. Barnacle, of Oklahoma city, Okla., registry No. 4176, is hereby disbarred from practice before the United States Patent Office for gross misconduct.

EDWARD B. MOORE.
*Commissioner of Patents.*

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## Certifications by the Secretary of the Interior—Notice.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., October 4, 1912.*

By authority of an act of Congress approved August 24, 1912, (188 O. G., 508,) providing uniform charges for furnishing copies of records of the Department of the Interior and its several Bureaus, a fee of twenty-five cents will be charged by the Secretary of the Interior for every certificate of authentication of official character of the officials of the Patent Office. The fee thus provided should be paid to the Secretary of the Interior, and not to the Patent Office. Attorneys and inventors desiring such certificates are requested to remit the necessary fee to the Secretary of the Interior at the time of filing in the Patent Office an order for the copies desired.

EDWARD B. MOORE,
*Commissioner of Patents.*

## APPLICATIONS UNDER EXAMINATION.

*Condition at Close of Business October 12, 1912.*

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. | | No. of applications awaiting action. |
|---|---|---|---|---|
| | | New. | Amended | |
| 313 | 1. Fences; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers. | Aug. 1 | July 24 | 668 |
| 128 | 2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco. | July 5 | July 27 | 554 |
| 175 | 3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working. | Sept. 14 | Sept. 30 | 211 |
| 282 | 4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Traversing Hoists. | Aug. 10 | July 26 | 584 |
| 167 | 5. Bookbinding; Harvesters; Jewelry; Music. | July 16 | Aug. 1 | 621 |
| 318 | 6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Medicines; Preserving; Sugar and Salt; Substance Preparation. | Aug. 8 | Sept. 11 | 387 |
| 312 | 7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Optics; Velocipedes. | Apr. 2 | June 15 | 946 |
| 131 | 8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports. | July 2 | Sept. 11 | 729 |
| 142 | 9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Wind-Wheels. | June 3 | June 25 | 539 |
| 235 | 10. Carriages and Wagons..... | June 4 | July 25 | 806 |
| 154 | 11. Boot and Shoe Making; Boots, Shoes, and Leggings; Buttons, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus. | Aug. 1 | Sept. 3 | 206 |
| 322 | 12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements. | July 20 | Aug. 1 | 828 |
| 220 | 13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning. | July 10 | Aug. 14 | 635 |
| 207 | 14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working. | Aug. 21 | Sept. 13 | 419 |
| 308 | 15. Bread, Pastry, and Confection Making; Coating; Fuel; Glues; Laminated Fabrics and Analogous Manufactures; Liquid Coating Compositions; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastic Compositions; Plastics. | June 21 | Aug. 12 | 1052 |
| 109 | 16. Radiant Energy; Telegraphy; Telephony. | July 8 | July 12 | 403 |
| 203 | 17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making. | Aug. 28 | Sept. 12 | 347 |
| 227 | 18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves. | Aug. 1 | Aug. 16 | 263 |
| 236 | 19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces. | Aug. 12 | Aug. 9 | 532 |
| 179 | 20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking. | July 20 | Aug. 20 | 220 |

*Applications Under Examination*—Continued.

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. | | No. of applications awaiting action. |
|---|---|---|---|---|
| | | New. | Amended | |
| 113 | 21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling. | June 4 | July 5 | 533 |
| 249 | 22. Ammunition; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships. | June 14 | Aug. 30 | 394 |
| 279 | 23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism. | July 12 | July 29 | 886 |
| 144 | 24. Apparel; Apparel Apparatus; Sewing-Machines. | July 31 | Aug. 10 | 831 |
| 315 | 25. Butchering; Mills; Thrashing; Vegetable Cutters and Crushers. | Sept. 9 | Sept. 17 | 204 |
| 105 | 26. Electricity, Generation; Motive Power. | Mar. 13 | Apr. 27 | 700 |
| 372 | 27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus. | Aug. 10 | Aug. 9 | 469 |
| 66 | 28. Internal-Combustion Engines.. | July 8 | July 5 | 1147 |
| 147 | 29. Coopering; Fire-Escapes; Ladders; Rods; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning, Woodworking; Woodworking-Tools. | June 1 | Aug. 21 | 645 |
| 122 | 30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines. | June 28 | Sept. 20 | 389 |
| 172 | 31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue. | Aug. 8 | Aug. 1 | 391 |
| 276 | 32. Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration. | Aug. 14 | Sept. 7 | 271 |
| 71 | 33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes. | July 15 | July 26 | 560 |
| 204 | 34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners. | July 15 | Aug. 8 | 693 |
| 244 | 35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet. | Aug. 12 | Aug. 27 | 965 |
| 264 | 36. Drafting; Drawing; Engraving; Measuring Instruments; Photography. | Aug. 21 | Aug. 19 | 673 |
| 107 | 37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications. | July 24 | July 27 | 488 |
| 278 | 38. Animal Husbandry; Artesian and Oil Wells; Fishing and Trapping; Stationary; Steam-Working. Mine | July 6 | Aug. 2 | 794 |
| 221 | 39. Water Distribution..... | June 7 | July 8 | 871 |
| 220 | 40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles. | Aug. 20 | Sept. 6 | 691 |
| 126 | 41. Railway Draft Appliances; Resilient Tires and Wheels. | July 17 | Aug. 1 | 677 |
| 279 | 42. Electric Railways; Electric Signaling; Railway Signaling; Signals. | July 19 | Aug. 13 | 475 |
| 252 | 43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification. | Aug. 15 | Aug. 20 | 397 |

Oldest new case, Mar. 13; oldest amended, Apr. 27.
Total number of applications awaiting action..... 34,426

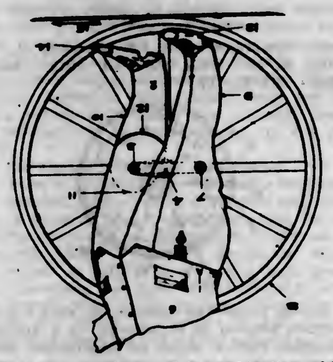
| | | | | |
|---|---|---|---|---|
| 161 | TRADE-MARKS, DESIGNS, LABELS AND PRINTS: | | | |
| | Trade-Marks..... | Aug. 17 | Aug. 8 | 1126 |
| | Designs..... | Sept. 12 | Aug. 27 | 176 |
| | Labels and Prints..... | Oct. 7 | Oct. 3 | 30 |



# PATENTS

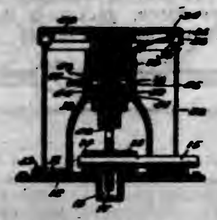
## GRANTED OCTOBER 15, 1912.

**1,040,988. ADVERTISING DISPLAY MECHANISM.** REID ARD, Sumter, S. C. Filed Feb. 15, 1911. Serial No. 608,807. (Cl. 46—45.)



In a display mechanism, and in combination with a rotative member, of a crank rigidly secured to said member, another crank rigidly secured to the first mentioned crank and means disposed on said cranks for actuating two parts of a figure loosely disposed on said means for the purpose herein described.

**1,040,989. JOLT RAMMING-MACHINE.** LOUIS M. ATHA, Newark, and EDGAR H. MUMFORD, Plainfield, N. J. Filed Aug. 6, 1910. Serial No. 576,927. (Cl. 22—45.)



1. In a device of the class described, a base having a recess therein, a table, a plunger connected to the table and moving in the recess, means for raising the table and permitting the same to drop, the wall of the recess having an opening therein and communicating with the recess to permit air under the plunger to escape upon the drop of the table.

2. In a device of the class described, a table, a support, one of said elements having a groove therein and the other provided with a corresponding tongue, and means for raising the table and permitting it to drop, the tongue entering the groove upon the drop of the table.

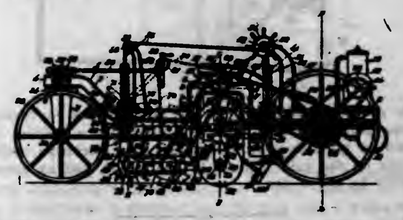
3. In a device of the class described, a table having a recess on the under side thereof, a corresponding tongue entering said recess, and means for raising the table and permitting it to drop the tongue entering the recess upon the drop of the table.

4. In a device of the class described, a base, a table mounted on the base, means for raising the table and permitting it to drop, said table having a groove on the under side thereof, and a tongue coöperating with said groove the tongue entering the groove upon the drop of the table.

5. In a device of the class described, a base, a table mounted on said base, a channel on the under side of the table, means for raising the table and permitting it to drop, a wall surrounding the base and having a flange on the upper side thereof, said flange entering the channel upon the drop of the table.

[Claims 6 to 13 not printed in the Gazette.]

**1,040,990. CULTIVATOR.** JAMES CORBIN AVARY, Atlanta, Ga. Filed Sept. 6, 1910. Serial No. 580,625. (Cl. 97—58.)



1. In a device of the class described, a main frame mounted upon wheels, a motor on said main frame, means for connecting said motor to and disconnecting the same from certain of said wheels for driving or stopping the device, an auxiliary frame slidably mounted on said main frame for vertical reciprocation thereon, a carriage on said auxiliary frame and adapted to move transversely thereon in either direction, disks on said carriage, and means for connecting said carriage to said motor to move the former in the direction desired, substantially as described.

2. In a device of the class described, a main frame mounted upon the wheels and comprising a pair of parallel longitudinal side members and a plurality of transverse members rigidly connecting the same, said side members being arched intermediate their ends, an auxiliary frame mounted for vertical reciprocation on said main frame and of less width than said main frame, a transverse member on said auxiliary frame having its ends projecting beneath the arched portion of said main frame, a carriage slidably mounted on said transverse member, disks on said carriage, means for moving said carriage and disks laterally in either direction, and means for raising and lowering said auxiliary frame, substantially as described.

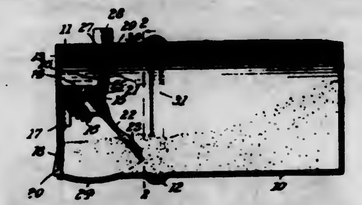
3. In a device of the class described, a main frame mounted upon wheels, said main frame comprising a pair of longitudinal side members and a plurality of transverse members rigidly connecting the same, an auxiliary frame comprising a pair of longitudinal members and a pair of transverse yokes connecting the same, said yokes each consisting of a horizontal upper portion and parallel depending end portions, vertically disposed ways on the side members of the main frame for the depending end portions of said yokes, brackets on said main frame, transverse shafts mounted in said brackets and above said yokes respectively, drums on one of said shafts, pulleys or grooved wheels on the other shaft, flexible members secured to said yokes and to said drums, the flexible mem-

bers attached to the yoke adjacent said pulleys passing over the same, means for turning the shaft provided with said drums, and cultivator members on said auxiliary frame, substantially as described.

4. In a device of the class described, a main frame mounted upon wheels, a motor on said frame, an auxiliary frame mounted for vertical reciprocation on said main frame, a carriage on said auxiliary frame and adapted to slide transversely of the device in either direction, disks carried by said carriage, means for raising and lowering said auxiliary frame, means for connecting said motor to said carriage for moving the latter and a flexible unit in the same means whereby the auxiliary frame may be raised and lowered without disturbing the connection between the motor and the carriage, substantially as described.

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1,040,991. POWDER-BOX. MOIS H. AVRAM, New York, N. Y. Filed Aug. 16, 1911. Serial No. 644,431. (Cl. 221—62.)



A powder box having a discharge orifice, a toothed sector pivoted within the box, means for actuating the sector, a slidable gate controlling the discharge orifice, a rack on the gate engaged by the sector, and an ejector carried by the sector.

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1,040,992. LOOSE-LEAF BINDER. MAX H. BAKER, Oshkosh, Wis. Filed Mar. 7, 1912. Serial No. 682,197. (Cl. 129—12.)



1. A loose leaf binder comprising front and back cover sections having near their rear edges a series of alined eyelets or apertures, a flexible binding element laced through said eyelets and fastened at one end, means for fastening the free end of said binding element when said element is drawn tight, studs extending laterally from the inner face of one of said cover sections the other section having eyelets arranged near its rear edge in position to register with the studs of the first mentioned section and adapted to be engaged therewith.

2. A loose leaf binder comprising front and back cover sections having near their rear edges a series of alined eyelets or apertures, a flexible binding element laced through said eyelets and fastened at one end, means for fastening the free end of said binding element when said element is drawn tight, studs extending laterally from the inner face of one of said cover sections the other section having eyelets arranged near its rear edge in position to register with the studs of the first mentioned section and adapted to be engaged therewith, and removable leaves for insertion between said covers having a plurality of apertures arranged near one edge in position to fit over the studs of one of the cover sections and open slots disposed to register with the eyelets through which the binding element passes.

3. The combination with a loose leaf binder comprising front and rear sections having a series of alined eyelets near their rear edges, a flexible binding element laced through said eyelets, one of said sections having laterally extending longitudinally spaced studs of detachable leaves having apertures positioned to register with the studs of the cover section and slots opening through the rear edge thereof positioned to register with the eyelet through which the binding element passes.

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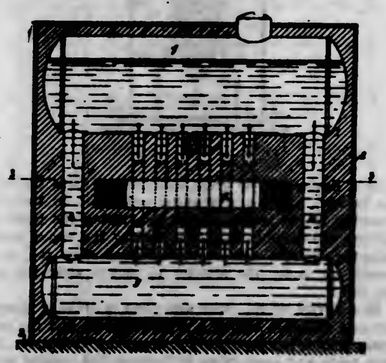
1,040,993. DRIVING-PULLEY. GEORGE A. BAKER, Stanley, N. D. Filed Jan. 30, 1912. Serial No. 674,393. (Cl. 64—17.)



In a driving pulley, the combination, with a cylindrical body portion adapted to be mounted on a driving shaft and provided with a series of longitudinal dovetailed grooves arranged around its periphery, of a removable lagging formed of a series of curved lagging bars arranged side by side upon the cylindrical body portion and provided with longitudinal dovetailed tongues which are slidable in the said grooves, said bars having also notches at their extreme ends which form circumferential recesses, removable rings slidable in the said recesses, and removable fastening pins engaging with holes in the rings, bars and body portion and holding the rings and lagging bars in place.

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1,040,994. STEAM-BOILER WORKING AS AN ELECTRIC TRANSFORMER. JEAN BALLY, Grenoble, France. Filed July 5, 1912. Serial No. 707,857. (Cl. 219—47.)



1. In an electric boiler, in combination, an upper cylinder, a lower cylinder, pipes connecting said cylinders directly together, annular pipes connecting said cylinders together, a magnetic frame engaging through the central space in the annular pipes, a primary wire coil through which the magnetic frame is engaged, means for supplying electric current to said primary coil and a heat insulating brickwork inclosing the upper and lower cylinders and the pipe system, substantially as described and for the purpose set forth.

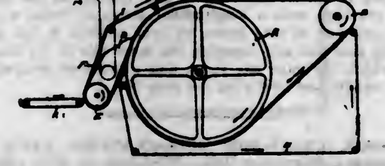
2. In an electric boiler, in combination, an upper cylinder, a lower cylinder, pipes connecting said cylinders directly together, annular pipes connected, annular pipes connecting said cylinders together in the middle of their length, a magnetic frame engaging through the central space in the annular pipes, a primary wire coil through which the magnetic frame is engaged, means for supplying electric current to said primary coil and a heat insulating brickwork inclosing the upper and lower cylinders and the pipe system, substantially as described and for the purpose set forth.

3. In an electric boiler, in combination: an upper cylinder, a lower cylinder, pipes connecting said cylinders directly together, groups of annular pipes mounted in series in each group, connecting said cylinders together, magnetic frames engaging through the central spaces in the annular pipes, primary coils through which the magnetic frames engage respectively, means for supplying electric current to said primary coils and a heat insulating brickwork inclosing the cylinders and pipe system, substantially as described and for the purpose set forth.

4. In an electric boiler, in combination: an upper cylinder, a lower cylinder, pipes connecting said cylinders directly together, annular pipes connecting said cylinders together, a magnetic frame engaging through the central space in the annular pipes, a primary coil through which the magnetic frame is engaged, means for supplying electric current to said primary coil, a heat insulating brickwork inclosing the upper and lower cylinders and the pipe system, holes in the magnetic frame and means for causing feed water to circulate through said holes, substantially as described and for the purpose set forth.

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1,040,995. MACHINE FOR MAKING SHEET INSULATION. KURT BASSLER, Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed July 31, 1909. Serial No. 510,575. (Cl. 154—1.)



1. A machine for making sheet insulation comprising a movable screen, means for producing a vacuum on one side of said screen, a device for feeding mica fragments or the like to the screen to be held thereby, and a movable support upon which the fragments are pressed by the screen.

2. A machine for making sheet insulation comprising a perforated endless belt, means for producing a vacuum within said belt, a device for feeding mica fragments or the like to the belt to be held thereby, and a support movable with said belt for receiving the mica fragments from the belt.

3. A machine for making sheet insulation comprising a perforated endless belt, a perforated supporting roller therefor, means for producing a vacuum within said belt and roller, a device for feeding mica fragments or the like to be held by the belt and an endless support movable with said belt for receiving the mica fragments from the belt.

4. A machine for making sheet insulation comprising a perforated endless belt, means for producing a vacuum in a portion of the space within said belt, a device for feeding mica fragments or the like to the belt to be held thereby throughout the evacuated portion and a support engaging the belt beyond the evacuated portion to receive the mica fragments therefrom.

5. A machine for making sheet insulation comprising a perforated endless belt, means for producing a vacuum in a portion of the space within said belt, a device for feeding mica fragments or the like to the belt to be held thereby throughout the evacuated portion, a support engaging the belt beyond the evacuated portion to receive the mica fragments therefrom and means for applying adhesive to the fragments on the support.

[Claims 6 to 9 not printed in the Gazette.]

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1,040,996. GAS-ENGINE PRIMING-CUP. CHARLES W. BACK, Roslyn Center, N. Y. Filed Jan. 9, 1911, Serial No. 601,501. Renewed Mar. 7, 1912. Serial No. 682,090. (Cl. 123—187.5.)



1. A priming cup comprising a base having a longitudinally extending priming aperture, a cup secured to the top of said base, a closure plug for said cup, a valve carried by said plug and adapted to seat on the margin of the priming aperture of the base to close said aperture, a charging aperture in the plug, and means for closing the said charging aperture.

2. A priming cup comprising a base having a longitudinally extending priming aperture, a cup secured to the top of said base, a closure plug for said cup, a valve carried by said plug and adapted to seat on the margin of the priming aperture of the base to close said aperture, a charging aperture in the plug, and means carried by the closure plug for closing the outer end of the charging aperture.

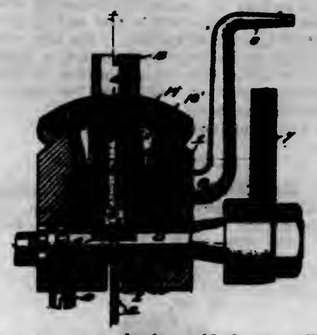
3. A priming cup comprising a base having a longitudinally extending priming aperture, a cup secured to the top of said base, a closure plug for the cup, a valve carried by said plug and adapted to seat on the margin of the priming aperture of the base to close said aperture, a charging aperture in the plug, and a pivoted cover slide carried by the closure plug on the top thereof for closing the outer end of the charging aperture.

4. A priming cup comprising a base formed with a priming aperture and with an extension at its upper end, a cup formed of a cylindrical shell having an inwardly turned annular flange at its lower end, the extension of the base extending into the cup and being enlarged at its upper end to interlock it with the flange on the cup to rigidly secure said cup to the base, a closure plug threaded in the cup and formed with a needle valve at its inner end adapted to close the outer end of the priming aperture in the base, and with a charging aperture through said plug, and a closure device carried by the plug and adapted to close the outer end of the charging aperture.

5. A priming cup comprising a base formed with a longitudinally extending priming aperture and with a cup at the upper end of the base, a closure plug for said cup, a valve carried by said plug and adapted to close the priming aperture of the base, a charging aperture in the plug, and means for closing said charging aperture.

[Claims 6 to 9 not printed in the Gazette.]

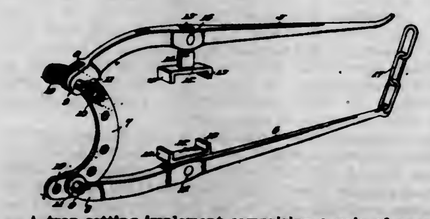
1,040,997. SAW-SWAGE. AUGUST J. BRUCHE, Oshkosh, Wis. Filed May 26, 1911. Serial No. 629,734. (Cl. 76—54.)



1. In a saw swage having a block, an oscillatory die transversely journaled in the block, the die being provided with an eccentric working face, a saw-clamping means carried by said block and a vertically disposed anvil having a working face upon the same plane as the working face of the die; the combination of a transversely oscillatory supporting means for the anvil, its axis of oscillation being upon the same horizontal plane as the working faces of the anvil and die said point of oscillation intersecting an imaginary vertical line passing through the saw tooth upon which said members are adapted to operate, and locking means for the oscillatory anvil support.

2. A saw-swage comprising an apertured block, a transversely disposed oscillatory die mounted therein, the die-carrying block being provided with a transversely disposed circular face that is described about the working point of the die, a transversely disposed oscillatory sleeve-carrying anvil fitted within the die-block aperture, a concave faced cap extending from the sleeve in engagement with a circular face of the block, and means for adjusting the cap-sleeve transversely of the circular face of the block whereby the central point of the lower face of the anvil will remain fixed relative to a common working point of the die, and means in connection with the block and sleeve-cap for securing the anvil in its transversely adjusted position.

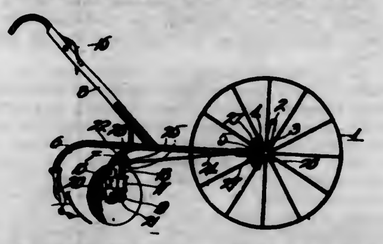
1,040,998. TRAP-SETTING IMPLEMENT. GEORGE S. BEMMER, Meeker, Colo. Filed Apr. 29, 1912. Serial No. 693,895. (Cl. 43—23.)



A trap setting implement comprising a pair of opposite levers, a rigid connecting bar, pivot bolts connecting one end of the levers to the bar, said bar having a series of apertures for the pivot bolt to permit adjustment, and said pivot bolts being removable, and a jaw on the inner edge of each lever intermediate the ends thereof, said jaws facing one another and having outstanding side flanges, and one of the jaws being pivoted.

1,040,999. CULTIVATOR. LEWIS H. BELTZER, Hennessey, Okla. Filed Apr. 22, 1911. Serial No. 622,798. (Cl. 97—37.)

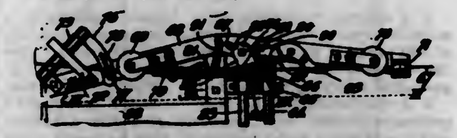
1. A cultivator, comprising carrying wheels, an axle, brackets secured to the axle, brackets pivoted for horizontal movement to the first-named brackets, a pair of rearwardly projecting beams carried by each of the last-named brackets, one constituting the outer and the other the inner beam, cultivating appliances attached to the rear ends of the outer beams, a handle rigid with each pair of beams, a gage bar connecting the handles and limiting their movement toward each other without interfering with their movement in the opposite direction, vertical standards attached to the said inner beams, and provided with vertical bearing sleeves, short vertical shafts journaled in said sleeves and provided at their lower ends with crank arms and terminating in tapered upper ends and threaded stems projecting upwardly from said ends, cultivating disks journaled on said crank arms, crank arms engaging said tapered portions of said shafts, means engaging said threaded stems and clamping the last-named crank arms rigidly on said tapered portions, angle plates pivoted to said last-named crank arms and rods connecting said angle plates with the axle and extending substantially parallel with said inner beams.



2. The combination of a cultivator provided with beams pivoted to swing laterally, cultivating devices carried by said beams, handles carried by the beams, a gage bar secured to one of the handles and resting on the other and provided with a depending arm engaging the inner side of the last-named handle, and a retainer to hold the bar upon said handle.

3. The combination of a cultivator provided with beams pivoted to swing laterally, cultivating devices carried by said beams, handles carried by the beams, a gage bar secured to one of the handles and resting on the other and provided with a longitudinal series of holes, a bolt engaging one of said holes, an arm secured to the gage bar by said bolt and engaging the inner side of the handle on which the gage bar rests, and a retainer secured to said handle and overlying the gage bar.

1,041,000. CHECK-ROW SEED-PLANTER. LEWIS H. BELTZER, Hennessey, Okla. Filed July 17, 1911. Serial No. 639,034. (Cl. 111—5.)



1. In a check row seed planter, a shaft, means actuated by a check row wire to rock said shaft, means to secure the shaft in the position to which it has been rocked, and means actuated by the check row wire to trip the securing means.

2. In a check row seed planter, a shaft, means actuated by a check row wire to rock said shaft, means to secure the shaft in the position to which it has been rocked, means actuated by the check row wire to trip the securing means, and means to return the rock shaft to its original position.

3. In a check row seed planter, a shaft, means actuated by a check row wire to rock said shaft, means to secure the shaft in the position to which it has been rocked, a second shaft, a forked arm rigid with the second shaft and adapted to be caused by the check row wire to rock said second shaft to trip said securing means, and independent means to rock said shafts back to their original positions.

4. In a check row seed planter, a seed box provided with a seed dropping tube, a gate controlling said tube, a rock shaft connected to said gate, means actuated by a check row wire to rock said shaft to open said gate, means to secure the rock shaft in its new position, means actuated by a check row wire to trip said securing means, and means to reverse the operation of the rock shaft to effect the closing of the gate.

5. In a check row seed planter, a seed box having a seed discharge, a seed tube to receive seed from said seed discharge, a gate controlling the seed tube, a rock shaft, a second rock shaft connected to open said gate, a forked arm connected to the said second rock shaft and adapted to be operated by the check row wire to open the gate, means to secure the said second rock shaft in the position to which it is adjusted by said forked arm, a forked arm carried by the first-named rock shaft and adapted to be moved by the checkrow wire to rock said rock shaft, means actuated by the last-named forked arm to trip the said securing means, and means to return the first named rock shaft and its connections to their original positions.

[Claims 6 to 8 not printed in the Gazette.]



1,041,001. DUSTLESS COAL-ASH SIFTER. WILLIAM F. BENSON, Brockton, Mass. Filed Dec. 15, 1910. Serial No. 597,589. (Cl. 82—60.)



1. In a coal ash sifter the combination of a casing in which is a mechanism adapted for rotation, comprising two disks spaced apart; a set of frames pivotally suspended within and near the top of the disks; a second frame made of resilient material, the ends of which are pivotally connected to the first named frame; two sifting screens; a pan adapted to hold coal ashes and a device attached to the two sides of said second frame, adapted to support said pan; means for locking the pan and other means adapted to allow the whole mechanism to be rotated substantially as shown or described.

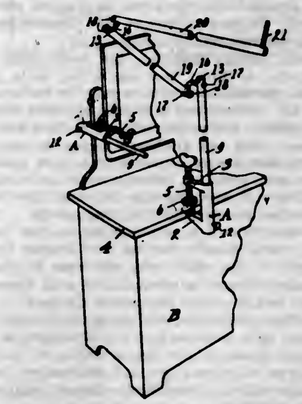
2. In a coal ash sifter the combination of a mechanism comprising a set of frames pivotally connected to a rod between two disks and carrying sifting screens; a second frame of resilient material pivotally connected to the first named frames and having at their lower ends a device adapted to support a pan; a pan adapted to contain coal ashes; means for locking said pan upon said device; a casing inclosing said mechanism and means for causing said mechanism to be revolved within said casing, substantially as shown or described.

3. In a coal ash sifter the combination of a casing, a pan adapted to hold coal and ashes, two pivoted frames, one carrying a sifting screen and the other having means of upholding the pan, means for locking the pan in place and means for causing the mechanism to revolve within the casing and to separate the coal ashes from the cinders, substantially as shown or described.

4. In a coal ash sifter the combination of a pan adapted to be filled with coal ashes; frames supporting said pan, and another frame pivotally connected to said supporting frames; means adapted to draw two of the frames together and to close the lower ends tightly against said pan; screens upon said frames and other means adapted to agitate said coal ashes within said screens, substantially as shown or described.

5. In a coal ash sifter the combination of two sets of frames pivotally connected, one set being pivotally supported; sifting screens attached to two of said frames; a pan supporting device attached to the lower ends of two of said frames; a pan adapted to receive coal ashes and means adapted to cause the weight of said pan of coal ashes to press the lower ends of two of said frames together tightly against said pan, and other means to agitate the said coal ashes within said screens, substantially as shown or described.

1,041,002. ADJUSTABLE-MIRROR HOLDER. OLE O. BERGH, St. Paul, Minn. Filed May 8, 1911. Serial No. 625,835. (Cl. 45—97.)



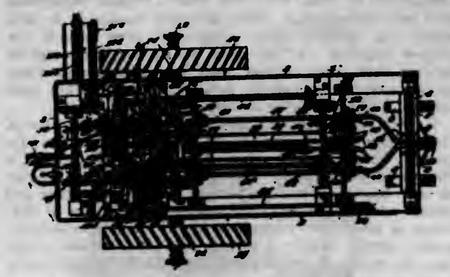
A device of the class described, comprising a plurality of relatively-movable supporting members the ends of which are split and provided with transverse openings therein, rigid union members interposed between adjacent ends of said relatively-movable members, said union members being curved to project their ends at right angles to each other, the ends of said union members fitting within the transverse openings of the supporting members, means for retaining the ends of the union members within said openings, and means for compressing the split ends of said supporting members to provide frictional engagement thereof with the union members.

1,041,003. BEET-TOPPER. BENJAMIN F. BINDER and RALPH O. DEULIN, Julesburg, Colo. Filed Mar. 23, 1909, Serial No. 485,289. Renewed Aug. 3, 1912. Serial No. 713,160. (Cl. 146—11.)

1. In a beet topping machine, the combination of a supporting frame, a tilting beet supporting table, a holding means for said table, a beet topping knife, means for feeding beets on to said table, a trip adapted to be engaged and actuated by a beet, and an actuating means controlled by said trip for intermittently operating said knife, and said table holding means.

2. In a beet topping machine, the combination of a supporting frame, a tilting beet supporting table, a beet engaging trip adjacent said table, means for feeding beets on to said table and against said trip, a rotary beet topping knife, a holding means for said table, a constantly

moving drive shaft, and means actuated from said shaft and controlled by said trip for intermittently rotating said knife, and controlling said table holding means.



3. In a beet topping machine, the combination of a supporting frame, a tilting beet supporting table, a beet engaging trip adjacent to said table, means for feeding beets on to said table, a holding means for said table, beet body discharging means, a constantly rotating shaft, and means actuated from said shaft and controlled by said trip for intermittently rotating said knife, actuating said beet body discharging means, and controlling said table holding means.

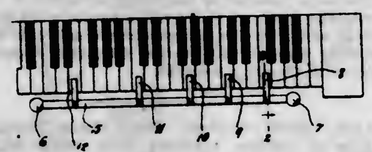
4. In a beet topping machine, the combination of a supporting frame, a tilting beet supporting table, a beet engaging trip adjacent said table, means for feeding beets on to said table, and against said trip, a rotary beet topping knife, holding means for said table, beet body discharging means, beet top discharge means, a constantly rotating shaft, and means actuated from said shaft and controlled by said trip, for intermittently rotating said knife, actuating said beet top and beet body discharging means, and controlling said table holding means.

5. The combination of a beet support, a beet topping knife, and a rotary member having two fingers disposed one in advance of the other with reference to the pivotal axis of said member so that one of said fingers engages the body and the other the top of the beet, the beet top engaging finger being disposed ahead of the beet body engaging finger with reference to the direction of revoluble movement of the said rotary member, so that said beet top engaging finger engages and discharges the beet top and the other finger immediately thereof engages and discharges the beet body.

[Claims 6 to 24 not printed in the Gazette.]

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1,041,004. PIANO-PLAYING DEVICE. RALPH H. BOARDMAN, New Britain, Conn. Filed Jan. 16, 1912. Serial No. 671,467. (Cl. 84—12.)

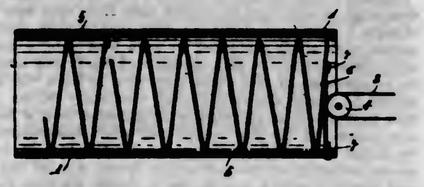


1. A piano playing device comprising a supporting body adapted to be manually operated and to be shifted on its manipulation in the direction of the length of the keyboard of a piano, said supporting body being provided with at least five fingers in the same plane and spaced to strike a corresponding number of keys on the keyboard, the first and the second and the second and the third of said fingers being spaced to sound fourths, the third and the fourth fingers being spaced to sound fifths, and the fourth and fifth fingers being spaced to sound sixths.

2. A piano playing device comprising a supporting body provided with at least five fingers in the same plane and spaced to strike a corresponding number of keys on the keyboard, the first and the second and the second and the third of said fingers being spaced to sound fourths, the third and the fourth fingers being spaced to sound fifths, and the fourth and the fifth fingers being spaced to sound sixths, said supporting body extending outwardly beyond the first and the fifth fingers to present grasping portions to be held in the hands whereby the user can move said supporting body along the keyboard and also raise and lower the same.

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1,041,005. CONCRETE-MIXER. EDWARD F. BOLTS, Chicago, Ill., assignor of one-half to Theodore H. Bolts, Kearney, Nebr. Filed July 17, 1911. Serial No. 638,818. (Cl. 23—73.)



1. In a device of the kind described the combination with a rotary drum, of a spiral blade of less diameter than the interior of said drum, forming an open space extending the length of said drum above said blade, the latter being in said drum and resting directly on the bottom thereof and frictionally driven by said drum.

2. In a device of the kind described, the combination with a rotary drum, of a resilient spiral blade of less diameter than the interior of said drum, forming an open space extending the length of said drum above said blade, the latter being in said drum and resting directly on the bottom thereof and frictionally driven by said drum.

3. In a device of the kind described, the combination with an approximately horizontal cylindrical rotary drum, of a spiral blade of considerably less diameter than the interior of said drum, forming an open space extending the length of said drum above said blade, the latter being in said drum and resting directly on the bottom thereof, and frictionally driven from said drum.

4. In a device of the kind described, the combination with an approximately horizontal cylindrical rotary drum, of a spiral blade of considerably less diameter than the interior of said drum, forming an open space extending the length of said drum above said blade, the latter being in said drum and resting directly on the bottom thereof and frictionally driven from said drum, and an abutment at the receiving end of said drum against which said spiral reacts in the feeding action.

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1,041,006. BRICK-KILN. ARTHUR E. BOYCE, Monterey, Cal. Filed July 6, 1911. Serial No. 637,099. (Cl. 25—142.)



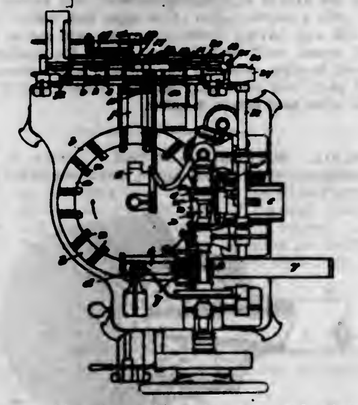
A brick kiln having a track extending therethrough, heat supplying means for said kiln, cars adapted to travel on said track and having a fire resisting platform arranged on the upper face thereof, and an apertured fire resisting brick supporting table spaced above said platform, and a damper arranged in the space between said table and platform for controlling the direction of heat passing therethrough.

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1,041,007. MACHINERY FOR PACKING CIGARETTES AND OTHER ARTICLES. EDWARD LEROY BRADY, Scotland Neck, N. C. Filed Nov. 1, 1910. Serial No. 590,102. (Cl. 93—4.)

1. An improved machine for packing cigarettes and other articles, which comprises, in combination, an intermittently rotating mold-wheel provided with mold-recesses, devices for feeding the shaped paper or carton blanks intended to form the envelope or wrappers, in a flat condition, over the mold-recesses, a plunger for forcing a part of each blank into a mold-recess, devices for delivering the charge of goods into that part of the blank which is within the mold-recess, a plunger for forcing the goods into the said part of the blank, devices for folding the top and bottom ends of the thus partly formed envelop or wrapper so as to more or less completely inclose the goods within the latter, a fixed guideway provided with stationary shoes for completing the folding of the envelop or wrapper, a horizontally acting plunger for forcing the partly formed envelop or wrapper with its contents out of the mold-recess into and through the said fixed guideway, and an intermittently moving endless chain provided with pockets, each having a hinged side, for receiving, opening and holding the outer covers or shells while the completely folded envelope or wrappers with their contents are being delivered from the fixed guideway into the said outer covers or shells by the horizontally acting plunger, substantially as described.





2. In a machine for packing cigarettes and other articles, and in combination, an intermittently rotating mold-wheel *a* provided with mold-recesses *b* for receiving the envelops or wrappers and the goods, a fixed guideway *f* provided with stationary folding shoes 20 and 21 for completing the folding of the envelops or wrappers, an endless chain for receiving the outer covers or shells in a collapsed condition and for pressing the same into the open position for receiving the envelops or wrappers with their contents from the fixed guideway, and a horizontally acting plunger *e* for forcing the envelop through the fixed guideway *f* and into the covers or shells carried on the endless chain, substantially as described.

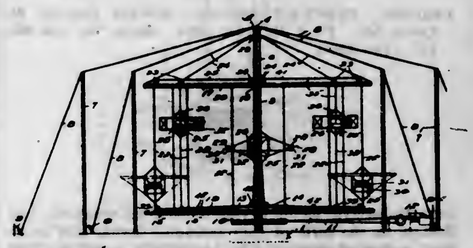
3. In a machine for packing cigarettes and other articles, having an intermittently moving chain *g* with pockets mounted thereon, spring devices for facilitating the reception by the covers or shells, of the packets of the goods, devices for pressing back the outer covers or shells from the said pockets onto the said spring devices, which consist of the plunger 17, bar 19, connected to said plunger, shaft 20 carrying said bar 19, sector gear 21 on said shaft, rocking shaft 23, sector gear 22 carried thereby, lever 24, carried by said shaft 23, cam plate 27 for operating said lever, and means for operating the cam plate, substantially as described.

4. In a machine for packing cigarettes and other articles, the pockets mounted on the intermittently moving endless chain *g*, for receiving and manipulating the outer covers or shells, each of which pockets consists of a bottom 2, a fixed side 3 standing at right angles to the said bottom, a side 4 hinged to the said bottom and having a flange $4^x$ for overhanging the edge of the packet, and devices for turning the said side 4 so as to open the pocket in order to receive the outer cover or shell 5, and to close the same in order to open and hold the said outer cover or shell, substantially as described.

5. In a machine for packing cigarettes and other articles, the pockets mounted on the intermittently moving endless chain *g*, each of which pockets has a side 4 hinged to the bottom and provided with a flange $4^x$ for overhanging the packet, cam surfaces 13, 11, 14 and 15, and a lever 10 with weight 12 for turning the hinged side 4 of the pocket into the open and closed positions, combined and arranged substantially as described.

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1,041,008. ROUNDABOUT. ORSON D. BRENNAN, San Francisco, Cal. Filed June 16, 1911. Serial No. 633,467. (Cl. 46—27.)



1. An amusement apparatus, comprising a rotatably supported center post, means for rotating the same, upper and lower sets of arms projecting radially from the post, a bracing rope connecting the outer ends of the upper arms, a second bracing rope connecting the outer ends of the lower set of arms, guide members connecting the upper and lower brace ropes on each side of each of the arms, a car frame slidably engaged on said guide members, sheaves secured to the upper arms near the inner and outer ends thereof, sheaves similarly secured to the lower arms, a rope secured to the top of the car frame and passing over the sheaves of the upper arms, and means for balancing the weight of the frame.

2. An amusement apparatus, comprising a rotatably supported center pole, upper and lower sets of arms projecting radially from the center pole, guides extending from the upper to the lower sets of arms, car frames slidably mounted on said guides, said frames being shaped to present the appearance of aeroplanes and having guiding planes pivotally secured thereto, a seat included within said frame, connections leading from the pivoted planes to the seat to allow the person in the seat to control said plane, and means for rotating the center post, whereby as the post is rotated the shifting of the planes by the passenger will cause said planes through the resistance of the air to cause the balanced frame to rise or descend on its guides.

3. The combination with a rotatably supported center pole, of means for rotating the same, upper and lower sets of arms extending radially from the center post, means connecting the outer ends of the arms of each set, guides extending between the upper and lower sets of arms, cars in the form of aeroplanes slidably mounted on the guides, sheaves carried by the upper and lower sets of arms, sheave blocks slidably secured to the center post, a pair of sheaves secured within said blocks, means for securing the blocks in adjusted position on the post, a rope having its ends secured to diametrically opposite aeroplanes and its intermediate portion passing over the sheaves of the upper set of arms and around the upper sheave of the sheave block, a second rope having its ends secured to the under side of the aeroplanes, and its intermediate portion passing around the sheave of certain of the lower set of arms and around the lower sheave of the sheave block, guiding planes pivotally secured to the aeroplane frame, and connections leading from said planes to a seat within the aeroplane, whereby as the apparatus rotates the adjustment of said guiding planes by the passenger will serve to regulate the ascending or descending movement

of the aeroplane on its dives, the opposite connected aeroplanes through their ropes balancing the weight of each other.

4. A roundabout including a rotatable support, cars supported thereby, connections between the cars for causing diametrically opposite cars to balance each other and means carried by each car for overcoming said balancing to vertically adjust the car.

5. A roundabout including a rotatable support, cars carried by the support, a sheave, connections passing over the sheave and leading to certain of the cars, and means for adjusting the sheave relative to the support to vary the position of the cars.

[Claim 6 not printed in the Gazette.]

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1,041,009. ELECTRIC MOTOR. EDWARD BERTCH, St. Louis, Mo. Filed July 31, 1908. Serial No. 446,260. (Cl. 172—120.)



1. An electric motor having a field, an armature, conductors in the form of bars extending across said armature, a flanged conductor for electrically connecting said bars, the ends of said bars being bent into interlocking engagement with the flange of said conductor; substantially as described.

2. An electric motor having a field, an armature, conductors in the form of bars extending across said armature, a flanged conductor for electrically connecting said bars, said bars being mechanically connected to said conductor by having their end portions interlocked with the flange on the conductor; substantially as described.

3. An electric motor having a field, an armature provided with a laminated core, conductors in the form of bars embedded in the surface of the armature and extending across the same, conducting rings on the ends of the armature, flanges on said conducting rings, and the end portions of said bars being bent around said flanges; substantially as described.

4. An electric motor having a field, an armature provided with a laminated core, conductors in the form of bars embedded in and extending across the armature core, a flanged conducting ring arranged on each side of the armature core, the end portions of said bars being bent around the edges of said rings; substantially as described.

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1,041,010. CLUTCH. GEORGE L. BROWNELL, Worcester, Mass. Filed Apr. 10, 1905. Serial No. 254,703. (Cl. 192—8.)



1. In a clutch, a driven member, a driving member, movable into and out of engagement with said driven member, a flanged sleeve attached to said driving member, a cylindrical shell inclosing the flange of said sleeve, and having an interior flange engaging the flange of said sleeve, a collar inclosed in said shell and held in a fixed position, said collar having a spiral peripheral slot, and a stud held in said shell and engaging said spiral slot.

2. In a clutch, the combination with frictionally engaging clutching members, of means for moving one of said members into and out of engagement with the other of said members, comprising a shell engaging said movable member to impart an axial movement thereto, a fixed collar having a peripheral cam slot, and a stud carried by said sleeve and engaging said slot.

3. In a clutch, comprising a pair of clutch engaging members, one of said members being capable of an axial movement toward and away from said other member, means for disengaging said clutching members, and holding them out of engagement at will, comprising a shell connected with said movable clutch member, a fixed collar inclosed in said shell and provided with a cam slot, a stud carried by said shell and engaging said cam slot, said cam slot having a lateral recess at one end for engaging said stud and holding it from reverse movement.

4. In a clutch, a driven member, a driving member above said driven member and movable thereto by gravity, said members having vertical axes, means for raising said driving member out of engagement with said driven member, comprising a fixed collar having its axis coincident with the axis of said driving member, and having a spiral slot with a lateral recess at its upper end, a shell rotatable at will and having a stud engaging said spiral slot and said recess, said shell having means for engaging said driven member, whereby the upward axial movement of said shell will raise said driving member out of engagement with said driven member.

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1,041,011. SCRUBBING-BRUSH. JOSEPH D. BRYAN, Oklahoma, Okla. Filed Apr. 3, 1912. Serial No. 688,130. (Cl. 15—51.)



A fountain-brush comprising a base, a nozzle extending therefrom at right-angles and integral therewith, a flange about the base, a screw-threaded rim in juxtaposition to said flange, a dome housing said nozzle provided with screw-threads to engage the screw-threads on said screw threaded rim, said dome being also provided with perforations located radially with respect to the nozzle, tufts in the perforations, thimbles for holding the tufts in and against the walls of the perforations, and having channels through which the fluid spurts.

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1,041,012. BATHING-SUIT. JOHN F. BURKE, Philadelphia, Pa. Filed June 18, 1906. Serial No. 322,135. (Cl. 9—20.)

1. In a bathing suit, the combination of a detachable buoyant garment fitting next to the body of the wearer and consisting of front and back body and leg buoyant portions connected together into a harness by elastic webs.

2. In a bathing suit, the combination of a detachable buoyant garment fitting next to the body of the wearer and consisting of a belt portion, buoyant body portions flexibly connected to and above the belt portion and buoyant leg portions flexibly connected to and below the belt portion.

3. A buoyant garment to be worn under a bathing suit consisting of a belt portion, buoyant body portions flexibly connected to and above the belt portion and buoyant leg portions flexibly connected to and below the belt portion.

4. A buoyant garment to be worn under a bathing suit consisting of a series of buoyant parts shaped to fit the body and legs, combined with connecting flexible webs.



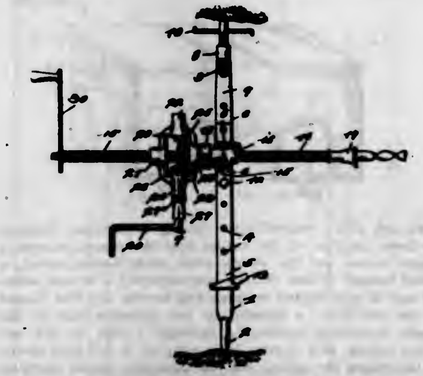
5. In a bathing suit the combination of a body garment fitting close to the body provided with a waist band and buoyant body pieces having means for detachably connecting them to the body above the waist band, combined with an outer separate pervious textile garment in the form of bloomers provided with a waist band and pockets in its sides below the waist band, buoyant pieces secured in the



pockets, and detachable connections between the waist band of the bloomers and the waist band of the body garment whereby the buoyant parts of the body garment are held close to and relatively fixed with respect to the body and the buoyant parts of the bloomers are made to move with the legs but do not interfere with their free movement in swimming.

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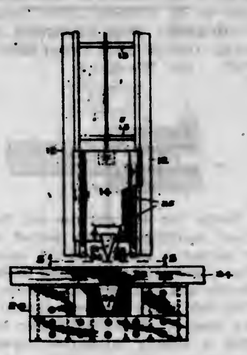
1,041,013. DRILLING-MACHINE. ELISHA L. BURTON, Thealka, Ky., assignor of one-half to William H. Davis, Thealka, Ky. Filed Feb. 17, 1912. Serial No. 678,245. (Cl. 125—10.)



A drilling machine of the character described, including a frame provided with four bearing sleeves arranged in quartering relation with each other, a shaft journaled in one of said sleeves, a pinion secured to the inner end of said shaft within the frame, another pinion mounted in the adjoining sleeve of the frame and meshing with the first named pinion and having an opening extending therethrough, and means for turning said pinions, the sleeve opposite the sleeve in which the shaft is journaled having a socket for the reception of a breast strap supporting rod and the two sleeves adjoining the sleeve in which the shaft is journaled, together with the pinion mounted therein being designed for the reception of a feed bar or a drive shaft.

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1,041,014. MACHINE FOR CUTTING OLD TIES INTO ENGINE-WOOD. CHARLES O. BUSHEY, Chicago, Ill. Filed Feb. 10, 1912. Serial No. 676,720. (Cl. 144—193.)



1. In a machine for reducing ties to fire-wood, a chopping-block upon which the tie to be reduced is placed, said block having a transverse recess and other recesses in its face, a heavy head reciprocating in a vertical direction above the block said head having a transverse cutting-knife to enter the transverse recess in the block at the lowered position of the head and also having splitting-knives on opposite sides of said transverse knife with cutting-edges at rigth angles to the cutting-edge of said transverse knife, said splitting-knives being adapted to enter said other recesses in the chopping-block.

2. In a machine for reducing ties to fire-wood, a chopping-block upon which the tie to be reduced is placed having knife-receiving recesses in its face, a heavy head reciprocating vertically above the block, a transverse cutting-knife depending from said head, a pair of splitting-knives shorter than the cutting-knife with cutting-edges at right angles to the cutting-edge of the cutting-knife and arranged on opposite sides of the cutting-knife also depending from said head, said knives being adapted to enter corresponding recesses in the cutting-block, and means for raising and lowering the head.

3. In a machine for reducing ties to fire-wood, a chopping-block upon which the tie to be reduced is placed comprising horizontally disposed timbers and a metal face plate covering said timbers, said plate having a middle downward transverse bend with slots on each side of said bend, a heavy head above the block having a depending knife to enter the transverse bend in the face plate of the block when the head is in its lowered position and said head having a pair of splitting-knives at right angles to the cutting-knife arranged on opposite sides of the cutting-knife and adapted to enter said slots in the chopping-block plate, and means for raising and lowering the head.

4. In a machine for reducing ties to fire-wood, a chopping-block upon which the tie to be reduced is placed said block having recesses in its face, a pair of parallel vertical guides above the chopping-block, a plurality of yokes connecting said guides, a head reciprocating between the guides and directed thereby, means for raising and lowering the head, and a transverse cutting-knife depending from said head and splitting-knives one on each side of the cutting-knife also depending from said head, said cutting-knives being adapted to enter corresponding recesses in the cutting-block when the head is in its lowered position.

5. In a machine for reducing ties to fire-wood, a chopping-block upon which the tie to be reduced is placed, said block having knife-receiving recesses in its top face, a pair of vertical guides above the chopping-block, a heavy head having channels to receive the vertical guides said channels having recesses, and splitting-knives having reduced ends

sions forming shoulders where they join the thicker portions of the knives said extensions being placed in the recessed parts of said channels with the bottom of the head resting on the said shoulders of the knives and means for securing the reduced portions of the knives in the recesses of the channels.

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1,041,015. HOLDER FOR REAMING-TOOLS. HERBERT BUTLER, Detroit, Mich. Filed Nov. 6, 1911. Serial No. 658,707. (Cl. 77—55.1.)



1. In a device for the purpose set forth, a tubular holder, a tool carrying member seated in the tubular holder and having a limited lateral movement therein, and a combined centering and locking block interposed between the holder and tool carrying member, said block cooperating with said parts to allow a lateral shifting of the tool carrying member within the holder in all directions and yet effect a locking connection between the holder and said member to prevent a rotation of the tool carrying member within the holder beyond a predetermined point.

2. A tool holder comprising a tubular holding member, a tool carrier seated therein and having a limited lateral movement, said holder and said tool carrier having registering recesses formed in the axial alined parts thereof, and a combined centering and locking block lying freely in said recesses to effect a locking connection between said parts which will allow a free lateral shifting of the carrier within the holder.

3. A tool holder comprising a tubular holding member, having a recess in the bottom thereof provided with a central depression, a tool carrier adapted to lie within the holder to have a slight lateral movement therein, said carrier having a recess in the end thereof provided with a central depression, a locking block lying in the recesses between said parts and having rounded projections which enter said depressions, and means for loosely retaining the carrier within the holding member.

4. A tool holder comprising a tubular holding member having a recess in the bottom thereof, a cylindrical tool carrier lying within said holder and adapted to have a limited lateral movement therein, said carrier having a recess in its end corresponding with the recess in the bottom of the holder, a locking block fitting loosely in said recess and extending between said parts, and means for loosely retaining the carrier within the holder.

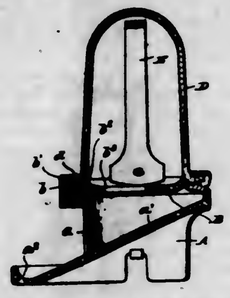
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1,041,016. DEVICE FOR HOLDING AND DELIVERING SMALL ARTICLES, SUCH AS PINS, PAPER-CLIPS, &c. DANIEL G. BUTTS, New Orleans, La., assignor of one-half to Julius D. Tschopik, New Orleans, La. Filed May 7, 1912. Serial No. 695,751. (Cl. 211—8.)

1. In a device such as described, the combination of the reservoir, of a bottom closure therefor having a discharge opening therein, said reservoir and closure being movable relatively to each other, and means for permitting the mass of articles in the reservoir to remain stationary relatively to the moving part or to partake of the movement of such part, to effect the discharge of the articles through the opening.

2. In a device such as described, the combination with a base provided with a receiving tray and feed chute, a bottom plate or closure for a reservoir having a feed opening carried by said base, a reservoir resting on said plate and movable relatively thereto, and means within the reservoir for causing the mass of articles in the reservoir to move with the reservoir, whereby the articles will be fed through the feed opening and drop by gravity upon the chute.

3. In a device such as described, the combination with a base having a delivery chute, a plate carried by said base, and having a feed opening therein, a reservoir for holding the articles resting on said plate and movable relatively thereto, means for holding the reservoir to its seat upon the plate, and a spring holder fitting frictionally within the reservoir for causing the articles to partake of the movement of the reservoir.



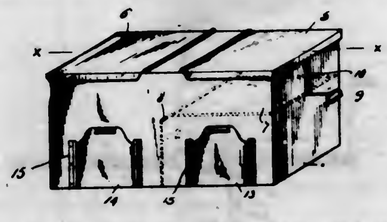
4. In a device for delivering small metal articles in position to be picked up individually, a base having an article receiving tray, a reservoir mounted on the base above the tray and having a relatively small bottom discharge opening, and a frictionally driven stirrer within the reservoir whereby the mass of articles in the reservoir will be moved past the discharge opening.

5. In a device for delivering small metal articles in position to be picked up individually, a base having an article receiving tray, a reservoir mounted to rotate on the base above the tray and having a bottom discharge opening, and clips for retaining the reservoir in position.

[Claim 6 not printed in the Gazette.]

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1,041,017. ASH-SIFTER. LEWIS CALDER, Chicago, Ill., assignor of one-fourth to Harry Freedman, Chicago, Ill. Filed Aug. 28, 1911. Serial No. 646,323. (Cl. 83—60.)

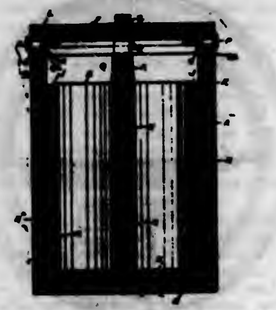


An ash sifter comprising a casing, a partition dividing the lower portion of the casing into two compartments, a hinged cover on the casing over each compartment, a raised hopper bottom in each compartment, a screen covering one of said hopper bottoms and having one side hinged at the partition, a handle on the opposite side of the screen extending outwardly through a slot in the end of the casing, said handle being adapted to tilt said screen on its hinges for sifting and for dumping coarse material thereon into the other compartment, and a vertically sliding door in the sides of the casing below each hopper.

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1,041,018. BATTERY CASE OR CABINET. ALPHONSO S. CAMPBELL, Medford, Mass. Filed Mar. 31, 1909. Serial No. 487,010. (Cl. 217—18.)

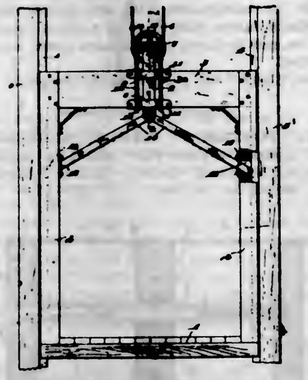
1. A container for dry battery cells comprising, in combination, a casing; a cover therefor; means to secure said cover to said casing; a body of waterproof material inclosed by said casing, said body being formed to present a plurality of cell-receiving pockets having walls shaped closely to fit and conform to the contours of said cells, said walls being of substantial thickness and arched transversely to the lengths of said pockets sufficient to maintain said walls upright in fixed relationship, said body being formed to provide above said pockets beneath said cover a chamber for containing the contacts of said cells, and means to prevent said cells from sliding out of their pockets into said contact-containing chamber.



2. A container for dry battery cells comprising, in combination, a casing; a cover therefor; means to secure said cover to said casing; a body of waterproof material inclosed by said casing, said body being formed to present a plurality of cell-receiving pockets having walls shaped closely to fit and conform to the contours of said cells, said walls being of substantial thickness and arched transversely to the lengths of said pockets sufficiently to maintain said walls upright in fixed relationship, said body being formed to provide above said pockets beneath said cover a chamber for containing the contacts of said cells, and a spring-pressed bar to prevent said cells from sliding out of their pockets into said contact-containing chamber.

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1,041,019. SAFETY DEVICE FOR ELEVATORS. CHARLES CARSON and ERNEST B. TIMMERMAN, Chicago, Ill. Filed Dec. 1, 1911. Serial No. 663,883. (Cl. 187—86.)

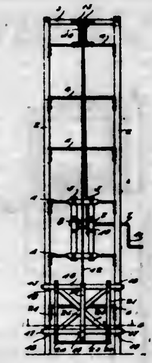


1. The combination of a car; vertically movable straps on said car; a shaft traversing the upper ends of said straps; a yoke secured to each end of said shaft, springs interposed between said yokes and said car; a pulley on said shaft between said straps; a hoisting cable passing under said pulley; and stop bars pivoted to the lower ends of said straps, substantially as described.

2. The combination of a car having a cross beam at the top; vertically movable straps arranged on opposite sides of said beam; a shaft traversing the upper ends of said straps; a yoke secured to each end of said shaft; springs interposed between said yokes and said car; a pulley on said shaft between said straps; a hoisting cable passing under said pulley; and stop bars pivoted to the lower ends of said straps, substantially as described.

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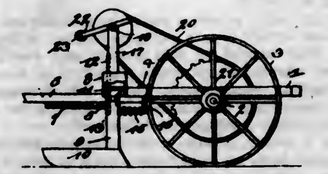
1,041,020. HOISTING APPARATUS. CHARLES CARSTENS, Davenport, Iowa, assignor of one-half to Herman Fleming, Davenport, Iowa. Filed Dec. 18, 1911. Serial No. 666,330. (Cl. 214—12.)



In a hoisting apparatus comprising a supporting frame, the latter consisting of parallel T-shaped tracks rigidly connected, a carriage having rigid arms projecting therefrom, alining rollers mounted in said arms and adapted for engagement with the outer flat face and one side of the rail with the roller carrying arms disposed in close relation to the outer edges of the tracks whereby the carriage is prevented from lateral movement and becoming released from the rails, and a raising and lowering mechanism arranged on said frame and flexibly attached to the carriage.

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1,041,021. CORN-PLANTER. WILLIAM W. CAVENEE, Greenfield, Mo. Filed Sept. 23, 1911. Serial No. 650,987. (Cl. 111—6.)



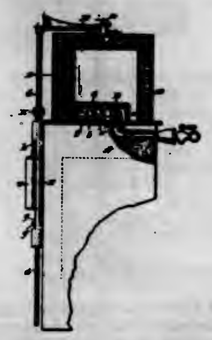
1. A planter, comprising a wheeled framework, a transversely extending beam connected thereto, seed boxes carried by said beam, a transversely extending rod mounted on said beam and adapted to actuate the seed dropping mechanism of said boxes, said bar being provided intermediate of its ends with an upwardly projecting arm and with a downwardly projecting arm, vertically extending supporting arms mounted on said beam, a transverse shaft journaled in said arms, means operatively connecting said shaft with the axle of the wheeled framework, whereby the propulsion of the planter will rotate said shaft, a trip lever carried by said shaft and movable in the path of the upwardly projecting arm of the bar, and a spring connected to the downwardly projecting arm of the bar, for the purpose specified.

2. A planter, comprising a frame, a wheel supported axle supporting said frame, seed boxes, means for supporting said boxes, a transversely extending bar extending from one seed box to the other and operatively connected to the seed dropping mechanism of said boxes, the bar being formed intermediate of its ends with an up-

wardly projecting arm and a downwardly projecting arm, a spring connected to the downwardly projecting arm, whereby to hold the bar in one position, vertically extending arms, a transverse shaft journaled in said arms, a trip lever secured to said shaft and engageable with the upwardly projecting arm of the bar, for the purpose specified, a sprocket wheel secured to said shaft, a spring wheel secured to the axle, and a driving connection between said sprocket wheels.

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1,041,022. COOKER. JOHN H. CHAMBERS, Shelbyville, Ind. Filed Nov. 10, 1900. Serial No. 527,840. (Cl. 126—39.)



1. In a cooker, a relatively flat base, a laterally swinging bracket positioned above the base, a hood detachably secured to said bracket and adapted to coöperate with the base to form therewith an airtight cooking chamber and means for raising and lowering said bracket permitting the hood to be swung laterally beyond the base.

2. In a cooker, a stove body provided with a flat top, a vertically movable support slidably secured to one side of the stove body, means for vertically adjusting said support, a swinging bracket carried by said support and positioned above the base, and an inverted hood carried by said swinging bracket and adapted to coöperate with the top to form an airtight chamber therewith when the support is lowered.

3. In a cooker, a base, a vertically movable rod mounted at one side of said base, a swinging bracket carried by said rod, a hood carried by said bracket and overlying said base and adapted to coöperate therewith to form an airtight cooking compartment and a counterweight operatively connected to said rod and serving to hold the same in various positions of adjustment.

4. In a cooker, a base, a swinging bracket positioned above said base, an imperforate hood of heat insulating material carried by said bracket, a stop coöperating with said bracket, to limit the lateral movement of the bracket over the base, and means for raising and lowering said bracket to move the hood into and out of air tight engagement with the base.

5. In a cooker, a stove body having a heat insulating top, a plate secured to one side of said stove body, a vertically disposed support slidably mounted in said plate, a swinging bracket secured to said vertically disposed support and positioned above the top of the stove body, and an inverted hood of heat insulating material carried by said bracket and adapted to coöperate with said stove body to form therewith an airtight cooking compartment.

[Claims 6 to 12 not printed in the Gazette.]

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1,041,023. MOP. CHARLES A. CHANNELL, Chicago, Ill. Filed Feb. 17, 1912. Serial No. 678,382. (Cl. 15—13.)

1. The combination with a circular absorbent body, having a passage therein; of a reinforcing member mounted in said passage; a block carried by said reinforcing member; and a handle secured to said block.

2. The combination with an absorbent body having a continuous passage therein; of a block carried by and conforming with said body; a reinforcing member mounted in said passage, for retaining the body in its operative position and securing the block thereto; and a handle attached to said block.



3. The combination with a circular body of absorbent material, having the ends thereof disconnected and a passage extending completely through said body; of a reinforcing member mounted in said passage; and a block mounted in said body and attached by said reinforcing member.

4. The combination with a circular body of absorbent material having the ends thereof disconnected and a passage extending completely through said body; of a reinforcing member mounted in said passage and projecting from the ends thereof; a block encircled by said body and conforming in contour to a portion thereof; connections between one side of said block and the reinforcing member; and means whereby the ends of said reinforcing member may be secured to said block.

5. A mop comprising a circular absorbent body having an annular opening in the upper edge thereof; an annular broken reinforcing member engaging said opening; a block arranged in said body and having ears projecting therefrom for engagement with said reinforcing member to detachably fasten said block in position; and a handle secured to and projecting from said block, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,024. PORTABLE FIRE-EXTINGUISHER. ARTHUR ALBERT CHARBONNEAU and LÉO ALBERT CHARBONNEAU, Montreal, Quebec, Canada. Filed Dec. 4, 1911. Serial No. 663,936. (Cl. 169—15.)



1. In combination, a collapsible casing, heads secured within the ends thereof, tubes leading inwardly from said heads, and toward each other, an extinguishing medium within said casing, an explosive within said casing, a frangible acid container mounted within the adjacent ends of said tubes.

2. In combination, a casing, heads secured within the ends thereof, tubes leading inwardly from said heads and toward each other, an extinguishing medium within said casing, and a frangible acid container mounted within the adjacent ends of said tubes and adapted to be ruptured by movement of either of said tubes relatively to the other.

3. In combination, a casing, heads mounted within the ends thereof, tubes secured within said heads and extending inwardly toward each other, an extinguishing medium within said casing, a frangible acid container mounted within the adjacent ends of said tubes, and a spring mounted within one of said tubes and bearing against said container to maintain it normally in operative position.

4. In combination, a collapsible casing, rigid heads secured within the ends thereof, tubes leading inwardly from said heads and toward each other, two layers of fire extinguishing powder within said casing and surrounding said tubes, a layer of explosive between said layers of powder, a layer of chlorate of potassium surrounding the adjacent ends of said tubes, and a frangible tube mounted in the adjacent ends of said tubes and containing a charge of sulfuric acid.

5. In combination, a collapsible casing, rigid heads secured within the ends thereof, tubes leading inwardly from said heads and toward each other, two layers of fire extinguishing powder within said casing and surrounding said tubes, a layer of explosive between said layers of powder, a layer of chlorate of potassium surrounding the adjacent ends of said tubes, a frangible tube mounted in the adjacent ends of said tubes and containing a charge of sulfuric acid, and means for maintaining said frangible tube in operative position.

[Claims 6 and 7 not printed in the Gazette.]

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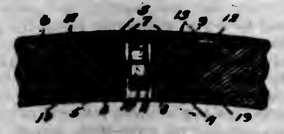
1,041,025. FLOAT-VALVE. FRANK B. CHARROIN, South Bellingham, Wash., assignor, by direct and mesne assignments, to Bellingham Brass Manufacturing Company, Bellingham, Wash., a Corporation of Washington. Filed May 31, 1910. Serial No. 564,093. (Cl. 137—104.)



The combination with a valve casing having an external arcuate seat and an outlet therethrough, of a cut off cap movable on an axis eccentric to the curvature of the seat and having an arcuate face corresponding to the curvature of the seat and arranged to engage a substantial portion of the seat on opposite sides of the outlet when the valve is closed, whereby to preclude leakage, to insure noiseless closing and to compensate for wear, the cap having sides embracing the casing and pivoted thereto, and means on the cap located substantially at one end of the face and adapted to receive a buoyant means for operating the cutoff.

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1,041,026. TIRE-TIGHTENER. THEODORE F. CHRANE, Gravette, Ark. Filed Mar. 25, 1912. Serial No. 686,060. (Cl. 21—87.)



The combination with the felly of a wheel having an opening formed therein and its adjacent ends reduced, of an integral tire surrounding the felly, spacing blocks provided upon their outer surfaces with teeth adapted to be embedded within the ends of the felly, said spacing blocks being provided with screw-threaded openings, a screw operating within the openings and adapted upon being turned to move the spacing blocks farther apart, an operating nut rigidly mounted upon the screw, a housing surrounding the adjacent ends of the felly, including an L-shaped section and a flat section having interlocking engagement with each other, the L-shaped section having its horisontal portion passed through the opening formed between the reduced ends of the felly and the tire to completely fill such opening for the greater portion of its length and to hold said L-shaped section in place, the flat section being readily removable from the ends of the felly and the L-shaped section to allow ready access to the opening between said ends of the felly, a key adapted to be inserted and removed within the opening between the ends of the felly when the flat section is removed, said key being placed in engagement with the outer portion of the operating nut to prevent its accidental rotation and serving as reinforcing means for the horisontal portion of the L-shaped section, said L-shaped section and flat section being provided with transversely alined elongated openings, and transverse bolts passing through the ends of the felly and disposed within the elongated openings.

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1,041,027. METALLIC CLOTHES-LINE. CALVIN F. CHRISTOPHER, Asheville, N. C., assignor of one-half to William M. Jones and one-half to Neptune Buckner, Asheville, N. C. Filed July 6, 1912. Serial No. 708,024. (Cl. 68—8.)



1. In a clothes line, the combination with opposed wire members, of a clip slidably mounted on said members and including a central wire engaging portion and oppositely extending arms straddling the members.

2. In a clothes line, the combination with parallel wire portions, of a clip mounted on said portions and including a central portion for engaging the parallel wire portions to hold the clip against rotation about said wire portions, said clip also including oppositely extending arms straddling the parallel wire portions.

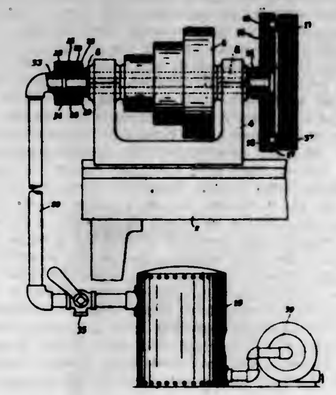
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1,041,028. HOLDING DEVICE. CHARLES F. CHURCH, Brooklyn, N. Y. Filed Sept. 5, 1911. Serial No. 647,682. (Cl. 29—107.)

1. In a holding device the combination of a plate, a gasket located on the face of the said plate, the said plate having an opening located within the area inclosed by the gasket, a pipe connected with the said opening and means for continuously exhausting the air through the said opening and pipe and rigidly holding the object on the said plate.

2. In a holding device the combination of a plate, a gasket located on the face of the said plate, the said plate having an opening located within the area inclosed by the gasket, a pipe connected with the said opening, a means for giving vacuum capacity connected to the said

pipe, a vacuum producing means for drawing the air from the said capacity means, whereby an object will be rigidly held upon the said plate.



3. In a holding device the combination of a plate, a gasket located on the face of the said plate, the said plate having an opening located within the area inclosed by the gasket, a pipe connected with the said opening, a reservoir connected to the said pipe, a vacuum pump for drawing air from the said reservoir.

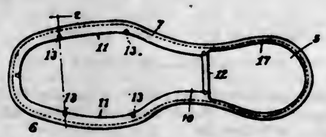
4. In a holding device the combination of a face plate a gasket located on the face of the said plate, an opening located in the center of the said plate, a hollow shaft connected to the said opening, a means for rotating the said shaft and face plate, a stationary pipe, a pipe coupler for connecting the said rotatable shaft and the said stationary pipe together with means for continuously drawing air through the said pipe and shaft for rigidly holding an object on the said plate.

5. In a holding device the combination of a face plate a hollow gasket located on the face of the said plate, an opening located in the center of the said plate, a hollow shaft connected to the said opening, a means for rotating the said shaft and face plate, a stationary pipe, a pipe coupler for connecting the said rotatable shaft to the said stationary pipe, a means for continuously drawing air through the said pipe and shaft for rigidly holding an object on the said plate.

[Claims 6 to 13 not printed in the Gazette.]

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1,041,029. EDGE-PROTECTOR FOR THE SOLES OF BOOTS AND SHOES. WILLIAM H. COLBATH, Natick, Mass. Filed Dec. 5, 1911. Serial No. 664,031. (Cl. 36—75.)



As an article of manufacture, an outer sole for boots or shoes, and a metallic protector extending around the edge of the forepart, shank and heel portions thereof and embodying in its formation a vertically disposed rim adapted to extend entirely around the edge of said forepart, shank and heel portions, a lip laterally disposed on said rim and adapted to engage one face of said sole, a series of projections arranged adjacent to the inner edge of said lip, each adapted to pierce said sole at a distance from the edge thereof, and means adapted to connect the opposite sides of said protector at the shank of said sole.

1,041,030. COIN-COLLECTOR. EDWARD B. CRAFT and AMOS F. DIXON, Chicago, Ill., assignors to Western Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 2, 1907. Serial No. 400,406. (Cl. 194—16.)



1. In a coin collector for a telephone system, the combination with a coin-chute, of a pivoted lever having an arm projecting in the path of a coin passing through said chute, said lever being thereby adapted to be operated by a coin striking said arm in its passage through said chute, contacts controlled by said lever, a cup for receiving and simultaneously holding tentatively a plurality of coins deposited in the coin-chute after they have passed beyond said arm, a polarized electromagnet, and an armature therefor arranged when tilted to deposit or to refund the coins held in said cup.

2. In a coin collector for a telephone system, the combination with a coin-chute, of a pivoted lever having an arm projecting in the path of a coin passing through said chute, said lever being thereby adapted to be operated by a coin striking said arm in its passage through said chute, a catch for holding said lever in its operated position, contacts controlled by said lever, a cup for receiving coins deposited in the coin-chute, a polarized electromagnet, an armature therefor arranged when tilted to deposit or to refund the coins held in said cup, and means for releasing said lever upon the tilting of said armature.

3. In a coin-collector for a telephone system, a movable coin carrier, a coin chute arranged to receive a coin from said receptacle, a cup arranged to receive a coin from said coin chute, line signaling mechanism arranged to be operated by a coin contacting therewith in its passage through said chute, a guide normally deflecting a coin from said signaling mechanism, means controlled by a deposited coin of a predetermined size, in the movement of said carrier, for withdrawing said guide to permit the contact of said coin with said signaling mechanism, and means for refunding or depositing a coin collected in said cup.

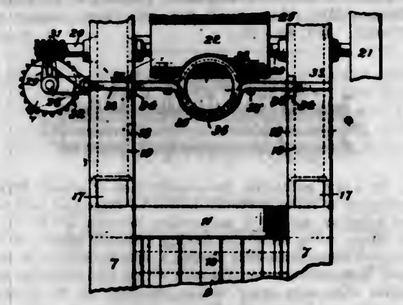
4. In a combined local and toll coin collector for a telephone, a coin carrier, toll-indicating mechanism arranged to be operated by a coin deposited in said carrier, a cup, a coin chute arranged to receive a coin from said carrier and direct it into said cup, line-signaling mechanism arranged to be operated by a coin contacting therewith in its passage through said chute, a movable guide normally deflecting a coin from said line-signaling mechanism, means controlled by said toll-indicating mechanism for governing the interposition of said guide, and means for depositing or refunding the coin or coins collected in said cup.

5. In a coin-collector for a telephone system, the combination with a coin-chute, of a cup for receiving coins from said chute, said cup having a pivoted bottom arranged to tilt in either of two directions and thereby to deposit or to refund said coins, line signaling mechanism arranged to be operated by a coin contacting therewith in its passage through said chute, and electromagnetically controlled means for tilting the bottom of said cup in either direction.

[Claims 6 to 28 not printed in the Gazette.]

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1,041,031. PILING-BOX. HARRY L. CRAIG, Wilmington, Del. Filed Oct. 30, 1911. Serial No. 657,447. (Cl. 8—19.)



1. The combination, with a piling-box, of mechanism for delivering material to said box, comprising a driven shaft journaled near the intake end of the box, a draw-roll on said shaft, a worm on said shaft, a pinion meshing with said worm, a shaft rotated by said pinion, a crank on said shaft, a slide-rod having a material-guiding eye thereon reciprocable in a line substantially parallel to said draw-roll, and a pitman connecting said crank and slide-rod.

2. The combination, with a piling-box, of mechanism for delivering material to said box, comprising a driven shaft journaled near the intake end of the box, a draw-roll on said shaft, a slide-rod having a material-guiding eye therein reciprocable in a line substantially parallel to said draw-roll, and operating means between the shaft and slide-rod whereby the latter is reciprocated.

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1,041,032. AUTOMATIC STOP-MOTION TO ATTACH TO A COTTON-CARD. WALKER W. CRENSHAW, Rockhill, S. C. Filed Aug. 29, 1911. Serial No. 646,758. (Cl. 19—25.)

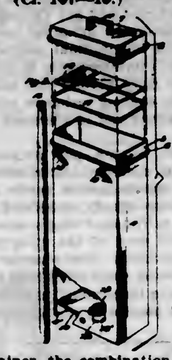


In combination with a cotton card having a feed plate, a stop motion comprising a shaft journaled above the feed plate and carrying the roller which is located above the feed plate, said shaft being free for vertical movement in its bearings, a gear wheel carried by the shaft, a rod slidably mounted and arranged to move vertically with the shaft, a lever suitably fulcrumed and pivotally connected at one end with said rod, an arm pivotally connected with the other end of the lever, a stand slidably receiving the upper end of said arm, a bearing slidably mounted in said stand and having a finger which normally lies against the side of the said arm, a shaft journaled in the last mentioned bearing and a gear wheel carried by the last mentioned shaft and normally meshing with the first mentioned gear wheel.





1,041,033. ICE-CREAM CONTAINER. GROSVEN W. CRIST, Oskaloosa, Iowa. Filed Mar. 19, 1912. Serial No. 684,741. (Cl. 107—10.)



1. In a container, the combination with a body portion having a fixed bottom therein provided with an aperture therethrough, of a false bottom adapted to rest upon said fixed bottom, means for exerting pressure upon said false bottom through the aperture in said fixed bottom, and means adjacent the upper end of the mold adapted to take against an abutment, for the purpose set forth.

2. In a container, the combination with a body portion having a fixed bottom therein provided with an aperture therethrough, a flange extending from said body portion below said fixed bottom, a false bottom adapted to rest upon said fixed bottom, an aperture in said fixed bottom, means for closing said aperture and means for exerting pressure through said aperture when such closing means is removed therefrom and against said false bottom.

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1,041,034. REINFORCED-CONCRETE PILE, COLUMN, OR POLE. ROBERT A. CUMMINGS, Beaver, Pa. Filed Sept. 27, 1909. Serial No. 519,859. (Cl. 72—81.)



1. An artificial pile, column or pole comprising a body of cementitious material, main reinforcing members comprising longitudinal members embedded therein and united at their ends by transverse members and firmly anchored at both ends in said cementitious material, a series of transversely arranged metal reinforcements in the upper end of said cementitious body beyond the longitudinal reinforcing members and spaced sufficiently close together to reduce surface fracture, and means for spacing said transverse members apart, said means being connected to said main reinforcing members.

2. An artificial pile, column or pole comprising a body of cementitious material, longitudinal reinforcing members embedded therein and firmly anchored at both ends in said cementitious material but not extending for the full length thereof, a series of transversely arranged metal reinforcements in the upper portion of said cementitious body and spaced sufficiently close together to reduce surface fracture, and bars secured to said transverse members to space them apart and being connected to said longitudinal members.

3. An artificial pile, column, post or pole comprising a body of cementitious material, longitudinal reinforcing members embedded therein, transversely arranged endless hoops or bands secured to said longitudinal reinforcing members, a series of transversely arranged metal reinforcements spaced sufficiently closely together to reduce surface fracture, and longitudinal spacing members secured to said transverse reinforcements and to the main metal reinforcement structure.

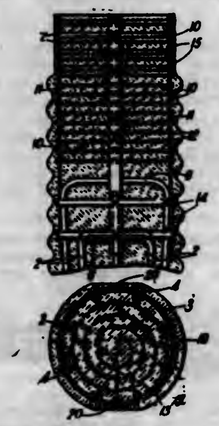
4. An artificial pile, column, post or pole comprising a body of cementitious material, longitudinal reinforcing members embedded therein and anchored at both ends in said cementitious material but not extending for the full length thereof, transversely arranged endless hoops or bands secured to said longitudinal members, a series of transversely arranged reinforcements in the upper portion of said cementitious body beyond the longitudinal reinforcing members, and spacing members connected to said transverse reinforcements and to the main metal reinforcing structure.

5. An artificial pile, column, post or pole comprising a body of cementitious material, longitudinal reinforcing members embedded therein, and a series of transversely arranged metal reinforcements embedded in the cementitious material and each comprising a substantial portion of the cross sectional area of the structure in any one plane and placed sufficiently close together to reduce surface fracture, and means connecting said transverse reinforcing members to the longitudinal members.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,035. CORRUGATED CONCRETE PILE. ROBERT A. CUMMINGS, Beaver, Pa. Filed Dec. 16, 1909. Serial No. 533,452. (Cl. 72—81.)



1. An artificial pile or similar structure adapted to be driven by concussive blows, comprising a body of cementitious material, transverse reinforcing members embedded in the upper end thereof and placed sufficiently close together to reduce surface fracture, longitudinal reinforcing bars also embedded therein and having their upper ends securely anchored in the cementitious material, a protecting cap or shoe at the lower end of the pile, some of the longitudinal bars having their ends rigidly secured to said cap or shoe, and bars for spacing said transverse members apart, said bars being secured to said longitudinal bars.

2. An artificial pile or similar structure adapted to be driven by concussive blows, comprising an integral solid body of cementitious material, transverse reinforcing members embedded in the upper end thereof and placed sufficiently close together to reduce surface fracture, longitudinal reinforcing bars also embedded therein united rigidly at their upper ends across the body of the cementitious material, and a protecting cap or shoe at the lower end of the pile, some of said longitudinal bars being rigidly secured to said cap or shoe, and bars for spacing said transverse members apart, said bars being secured to said longitudinal bars.

3. An artificial pile or similar structure adapted to be driven by concussive blows, comprising a body of cementitious material, a series of transversely arranged metal reinforcements embedded in the upper portion thereof and spaced sufficiently closely together to reduce surface fracture, longitudinal spacing bars connected to said transverse reinforcements, and hoops surrounding the said spacing bars and secured thereto adjacent to the transversely arranged reinforcements.

4. An artificial pile or similar structure comprising a body of cementitious material, and a series of transverse reinforcing members embedded therein and spaced sufficiently closely together to reduce surface fracture, said transverse reinforcing members each comprising a spiral band or rod of metal having the turns lying in substantially the same plane.

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1,041,036. CLOD-PULVERIZER. LUTHER CUNNINGHAM, Morgan Hill, Cal. Filed Feb. 19, 1912. Serial No. 678,451. (Cl. 55—77.)



1. In a clod pulverizer the combination of a main frame, a plurality of roller sections, means of fastening said sections together, means of connecting sections A—B—C, to said frame, outer section A having a square socket on the outer end thereof, an axle having a square head to fit said socket, said axle passing through all of said sections, and movable with said outer section, sections B, C, movable upon said axle; interchangeable bearings on said axle held in place by stanchions, substantially as set forth.

2. In a clod pulverizer the combination of a main frame stanchions fastened thereto extending down a distance into which bearings are held, and means of preventing said bearings from turning, a plurality of roller sections connected thereto, an axle passing through said sections, a square head on one end of said axle fitting into a socket on the outer end of said section, a key at the other outer end holding said sections in place, said outer sections being shorter than the middle section.

3. In a clod pulverizer the combination of a main frame, stanchions fastened thereto extending downward a distance in which bearings are held, means for preventing said bearings from turning, an axle passing through said bearings, a square head on one end of said axle, a key at the other outer end of said axle, a plurality of roller sections connected thereto, a square socket on the outer end of one of said sections, means for fastening said sections together, as shown and described.

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1,041,037. BENDING-TOOL. ERNEST N. O. DAHLQUIST, Chicago, Ill. Filed May 17, 1912. Serial No. 697,853. (Cl. 81—15.)



1. A bending tool comprising a supporting clamp; a swage arranged on said supporting clamp; an anvil carried by said swage; a ring rotatively retained on said swage between said clamp and said anvil; a handle pivoted on said ring; and a roller carried by said handle and cooperating with said anvil, substantially as described.

2. The combination with a supporting clamp; of an exteriorly threaded swage mounted thereon; an anvil formed on said swage creating a channel in combination with said supporting clamp; a ring rotatably mounted in said supporting clamp; and a roller carried by said ring adapted to operate upon said anvil.

3. The combination with a swage; of a horizontal anvil formed therefrom; a ring rotatably retained upon said swage by said anvil; a handle carried by said ring; and a roller carried by said handle for cooperating with said anvil.

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1,041,038. DEVICE FOR LIGHTING AND EXTINGUISHING GAS-FLAMES FROM A DISTANT POINT. GUSTAF DALÉN, Stockholm, Sweden, assignor to Aktiebolaget Gasaccumulator, Stockholm, Sweden. Filed June 29, 1907. Serial No. 381,490. (Cl. 67—18.)



1. A device for lighting and extinguishing a gas flame from a distant point, comprising a casing, a diaphragm therein dividing the casing into two compartments, a gas supply pipe entering one of said compartments, a valve for controlling the flow of gas from the gas supply pipe to the burner, means additional to the diaphragm for opening and closing the valve when a difference of pressure is prevailing between the compartments, and means for gradually transmitting the gas pressure from one compartment to the other, the latter means being independent from the supply pipe to the burner.

2. In a device of the class described a casing, a diaphragm dividing the casing into two compartments, a gas inlet to one of said compartments and a gas outlet therefrom, a magnetically actuated valve controlling the gas outlet, said valve being closed by the diaphragm, a spring tending to open the valve, and means for gradually transmitting the gas pressure from one compartment to the other.

3. In a device of the class described, a casing, a diaphragm dividing the casing into two compartments, a gas supply pipe entering one of said compartments, a gas outlet pipe leading from said compartment, a magnetically actuated valve controlling said gas outlet pipe and adapted to be closed by the diaphragm, a spring tending to open said valve, and adjustable means for gradually transmitting the gas pressure from one compartment to the other.

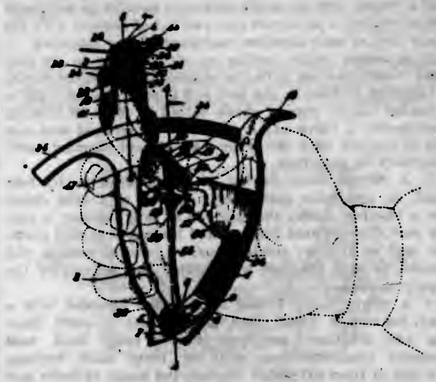
4. In a device of the class described, a casing, a diaphragm dividing the same into two compartments, a gas supply pipe leading to one of said compartments, a gas outlet pipe leading from said compartment, a magnetic valve plate for controlling the gas outlet pipe, said plate being supported intermediate its ends, a spring engaging with one end of said plate and tending to hold the valve open, a part of the diaphragm engaging with the plate to close the same, a pipe connecting the compartments together, and means in said pipe regulating the gradual transmission of gas pressure from one compartment to the other.

5. In a device of the class described, a casing, a diaphragm dividing the casing into two compartments, a gas supply pipe leading to one of said compartments, a gas outlet pipe leading from said compartment, a valve seat of magnetic material in communication with said outlet pipe, a magnetic valve plate supported intermediate its ends, a stud of magnetic material adapted to engage with the free end of said plates, a spring tending to hold the valve open, a part on the diaphragm adapted to engage with the valve plate to close the same, and means for gradually transmitting the gas pressure from one compartment to the other.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,039. KNOT-TIER. JOHN T. DALTON and JOHN CLAYTON DANEKER, Baltimore, Md. Filed Oct. 23, 1911. Serial No. 656,259. (Cl. 28—33.)



1. A knot-tying implement comprising, in combination, a pair of pivotally-connected levers; a knotter and a gripper carried by one of said levers; means carried by the other lever for operating said knotter; and a cam carried by said other lever for operating said gripper.

2. A knot-tying implement comprising, in combination, a pair of pivotally connected levers; a rotatable knotter and a rocking gripper carried by one of said levers; and separate rack and cam elements carried by the other lever for operating said knotter and said gripper, respectively.

3. In a knot-tying implement, the combination, with a pair of operating levers, and a knotter carried by one lever; of a movable gripper carried by said lever; cooperating means carried by the gripper and the other lever for imparting a relatively slow initial movement and a relative rapid subsequent movement to said gripper; and additional means carried by said other lever for operating said knotter.

4. In a knot-tying implement, the combination of a pair of coöperating levers bowed in opposite directions to fit the hand of the operator and pivoted directly together at their lower ends to form a V, whereby the implement may be gripped and operated with either hand, or reversed; means for normally forcing said levers away from each other; a gripper and a knotter carried by one of said levers; and separate elements carried by the other lever for operating said knotter and said gripper.

5. In a knot-tying implement, the combination of a pair of coöperating levers bowed in opposite directions to fit the hand of the operator and pivoted directly together at their lower ends to form a V, each of said levers being provided with an outturned guard adjacent its upper end, whereby the implement may be gripped and operated with either hand, or reversed; means for normally forcing said levers away from each other; a gripper and a knotter carried by one of said levers; and separate elements carried by the other lever for operating said knotter and said gripper, one of said operating elements being arranged in alinement with the guard on the first-named lever, to enter said guard when said levers are forced together.

[Claims 6 to 16 not printed in the Gazette.]

**1,041,040. ROTARY MOTOR.** PHILIP J. DARLINGTON, Pittsburgh, Pa. Filed June 17, 1907. Serial No. 379,466. (Cl. 121—78.)



1. A rotary motor having an air chamber in its rear head communicating with the admission port of the motor, and a supply pipe or shank rotatably secured in said head and arranged to be turned into and out of contact with the inner wall of said chamber; substantially as described.

2. A rotary motor having an air chamber in its rear head communicating with the admission port of the motor, a threaded bushing in the rear end of said chamber, and a threaded supply pipe or shank seated in the said bushing and having a valve end arranged to be screwed into and out of contact with the inner wall of said chamber; substantially as described.

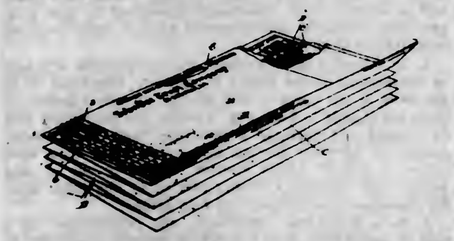
3. A rotary motor having an air chamber in its rear head, an admission port communicating with said chamber, a bushing closing the rear end of said chamber, a supply port through said bushing and leading into said chamber, and an annular strainer carried by said bushing and located in said chamber surrounding the delivery of the supply passage.

4. A rotary motor having a rear head provided with a shaft bearing, a front head also having a shaft bearing, and lubricant passages in the front head, said passages communicating with the front shaft bearing, and one of them extending through the motor cylinder and into the rear head to the rear shaft bearing; substantially as described.

5. A rotary motor having front and rear heads, and a cylinder secured between said heads, the rear head having a chamber communicating with the air supply for the motor and also with the interior of the cylinder, and the front head having a lubricant passage extending therethrough and through the cylinder wall and rear head to the said chamber; substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

**1,041,041. COUPON CERTIFICATE OF DEPOSIT.** CHARLES HALL DAVIS, Petersburg, Va. Filed July 10, 1908. Serial No. 442,816. (Cl. 11—13.)



1. An interest bearing instrument of obligation, comprising a sheet provided with leaves integral with each other and further provided with folding lines bounding adjacent portions of said leaves to facilitate the severance of said leaves, one of said leaves carrying articles of agreement, another of said leaves having a portion for receiving a signature relating to said articles of agreement, another of said leaves carrying a certificate, and others of said leaves being interest coupons, each leaf being provided with indicia distributed in a definite columnar direction for indicating different numerical denominations, and also distributed in a second columnar direction for indicating the different units of each of said denominations, the indicia of the respective leaves being so positioned relatively to the latter that when said sheet is bent upon said folding lines, like portions of the indicia carried by the respective leaves are brought into registry to facilitate the simultaneous punching of said like portions.

2. An interest bearing instrument of obligation, comprising a sheet provided with leaves integral with each other and further provided with folding lines bounding adjacent portions of said leaves to facilitate the severance of said leaves one from another, one of said leaves carrying articles of agreement, another of said leaves having a portion for receiving a signature relating to said articles of agreement, another of said leaves carrying a certificate, and others of said leaves being interest coupons, each leaf being provided with indicia distributed in horizontally disposed columns for indicating different monetary denominations related decimally to each other, and also distributed in vertically disposed columns crossing said horizontally disposed columns for indicating different units of each of said denominations, all of said columns being positioned upon the several leaves, so that when said sheet is bent upon said folding lines like portions of indicia carried by the respective leaves are brought into registry to facilitate the simultaneous punching of said like portions of indicia.

**1,041,042. WINDOW-LOCKING DEVICE.** IRWIN A. DEAN, Niagara Falls, N. Y., assignor of one-half to Frederick N. C. Jerauld, Niagara Falls, N. Y. Filed Oct. 16, 1911. Serial No. 654,973. (Cl. 16—18.)



1. The combination with an upper sash having a series of openings therein, of a locking device located in the side jamb, said slidable locking device comprising a locking bolt mounted on the end of a lever, a second slidable bolt mounted on the end of a lever, means for connecting the ends of the lever, a spring bearing against the connected ends of the levers and arranged to normally press said bolts outwardly and a hollow casing having an internal wedge surface carried by the lower sash for operating the second bolt.

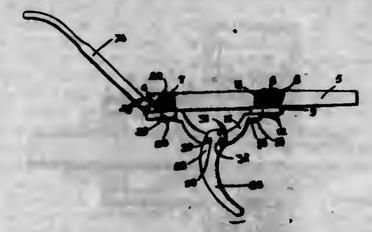
2. The combination with an upper sash having a series of openings therein, of a locking device located in the side jamb, said locking device comprising a slidable locking bolt mounted on the end of a lever, a second slidable bolt mounted on the end of a second lever, means for connecting the ends of the levers, a spring bearing against the connected ends of the levers, and means carried by the lower sash for operating the second bolt.

3. The combination of a window-frame and sashes therein, an upper sash having a series of openings in the side thereof adapted to receive a slidable locking bolt, a locking device located in the jamb of the window-frame and adapted to cooperate with the lower sash to unlock the upper sash, said locking device having slidable locking bolts mounted on levers and having corresponding inward and outward movements, an inclined compressing element attached to the lower sash adapted to press one of the bolts on raising the sash and to release the bolt on lowering the sash.

4. The combination of a window-frame and sashes therein, an upper sash having a series of openings in the side thereof and adapted to be locked by a slidable locking bolt engaging the openings, a locking device located in the jamb of the window-frame comprising slidable locking and unlocking bolts mounted upon spring operated levers, and being normally projected outwardly, a lower sash having an inclined compressing element engaging the unlocking bolt and adapted to compress the bolt on raising the sash and to release it on lowering the sash, said spring operated levers depressing the locking bolt upon the depression of the unlocking bolt, and projecting the locking bolt upon the release of the unlocking bolt.

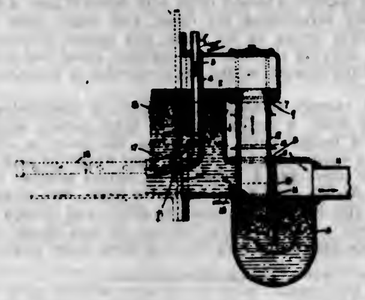


**1,041,043. CULTIVATOR.** JOHN H. DEELS, Register, Ga. Filed Oct. 2, 1911. Serial No. 652,260. (Cl. 97—26.)



In combination with a plow beam, of an arcuate element pivotally connected at its forward end to the forward end of the beam for lateral swinging movements, a laterally extending head connected to the other end of said element, means connecting the beam and head for locking the latter in an adjusted position, a rearwardly extending L-shaped bracket integral with the head, the long arm thereof being normally disposed in rear of the rear end of the beam, and handles connected to the long arm of the bracket to swing with said element.

**1,041,044. COMBINED DIP-REGULATOR AND TAR-SEAL.** JOHN DELL, St. Louis, Mo., and GLENN H. NILES, Babylon, N. Y.; said Niles assignor to said Dell. Filed Jan. 19, 1910. Serial No. 538,919. (Cl. 48—171.)



1. In a device of the character described, the combination of a dip regulator compartment having offset portions above and below, said offset portions being spaced one from the other and provided with coaxial circular openings, a seal compartment depending from the lower offset portion of the dip regulator compartment, said seal compartment communicating with said dip regulator through a circular opening coaxial with the openings in said offset portions, and a tubular gate movable endwise through said openings, said tubular gate being opened at both ends to adapt it to provide a passageway from the upper offset portion of the dip regulator compartment to the seal compartment.

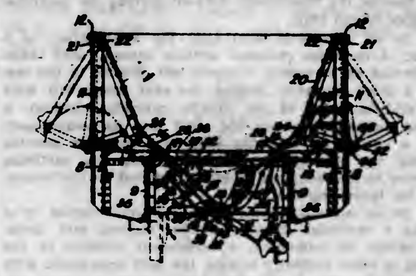
2. In a device of the character described, the combination of a dip regulator compartment having offset portions above and below, said offset portions being spaced one from the other and provided with coaxial circular openings, a seal compartment depending from the lower offset portion of the dip regulator compartment, said seal compartment communicating with said dip regulator through a circular opening coaxial with the openings in said offset portions, and a tubular gate providing a passageway from the upper offset portion of the dip regulator compartment to the seal compartment, said tubular gate being connected by screw threads with the edges of the several openings to adapt it to be adjusted endwise therethrough.

3. In a device of the character described, the combination with a hydraulic main, of a dip regulator and tar seal operatively connected thereto, a tar receiver connected up with said tar seal, and separate means for conveying the liquor from the upper end of said tar receiver back to said hydraulic main.

4. In a device of the character described, the combination with a hydraulic main of a dip regulator, of a tar seal connected thereto, a tar receiver connected up with said tar seal, a pump, a pipe connecting the upper portion of said tar receiver with said pump, and a second pipe connecting said pump with said hydraulic main.

5. In a device of the character described, the combination with a hydraulic main, of a tar seal, a tar receiver, a pipe leading from said tar seal and discharging at the bottom of said tar receiver, a pump, a pipe connecting said pump with the upper portion of said tar receiver, an injector in said hydraulic main, and a pipe leading from said pump to said injector.

**1,041,045. CAR-DOOR-OPERATING MECHANISM.** FRANK DITCHFIELD, Montreal, Quebec, Canada. Filed Mar. 18, 1911. Serial No. 613,969. (Cl. 105—94.)



1. In a car of the class described, the combination with a supporting framework of a pair of floor doors, a creeping shaft movable under said doors to lock the same in overlapping horizontal position, chains wound on said shaft for raising the doors and drawing the shaft under the doors, and means for holding the shaft under said doors.

2. In a car of the class described, the combination with a supporting framework, of a pair of floor doors, one of said doors having a recess for the reception of the other door, and a creeping shaft movable under the recessed door to lock both doors in closed position.

3. In a car of the class described, the combination with a supporting framework, of a pair of floor doors hinged adjacent the sides of the car, one of said doors having a recess for the reception of the other door, a creeping shaft, chains wound on said shaft, for raising the doors to a horizontal position, and drawing the shaft under the recessed door to lock the doors in a horizontal position.

4. In a convertible car, a supporting framework, a pair of dumping doors hinged adjacent the sides of the car, one of said doors being curved to form a longitudinal recess for the reception of the other door, a revolubie shaft extending longitudinally of the car, chain anchors on the edge of said curved door, and chains connecting the anchors and shaft whereby the doors may be raised and the shaft drawn under the anchors to lock the doors in elevated position.

5. In a convertible car, a supporting framework, a floor door hinged to said framework adjacent one side of the car having a plane portion adjacent the hinges, and a longitudinally recessed portion adjacent the free edge of the door, a second door hinged adjacent the opposite side of the car and having the free edge thereof normally resting on the recessed portion of the first door, a revolubie shaft extending longitudinally of the car, chain anchors on the edge of said first door, and chains connecting the anchors and shaft whereby the doors may

be raised and the shaft drawn under the anchors to lock the doors in elevated position.

[Claims 6 to 9 not printed in the Gazette.]

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1,041,046. AUTOMATIC-LOADING FIREARM. HANS DORN, Suhl, Germany. Filed Dec. 2, 1910. Serial No. 595,189. (Cl. 42—4.)



1. In an automatic small-arm, the combination of a casing, a cartridge chamber slidable therein, said chamber having an extension, a breech-bolt slidable in the casing, a latch normally locking the said breech-bolt with the said extension of the cartridge chamber, a spring normally pressing the latch into its locked position, and a handle independent of the breech-bolt and extending through the casing for releasing said latch from its position locking the breech-bolt, without moving the cartridge chamber to the rear.

2. In an automatic small-arm, the combination of a casing, a cartridge chamber slidable therein, said chamber having an extension, a breech-bolt slidable in the casing, a latch normally locking the said breech-bolt with the said extension of the slidable cartridge chamber, a spring normally pressing the latch into its locked position, a handle for releasing said latch from its position locking the breech-bolt, without moving the cartridge chamber to the rear, and a handle mounted on the breech-bolt for retracting the same.

3. In an automatic small-arm, the combination of a casing, a cartridge chamber slidable therein, said chamber having an extension, a breech-bolt slidable in the casing, a latch normally locking the said breech-bolt with the said extension of the cartridge chamber, a spring normally pressing the latch into its locked position, a handle independent of the breech-bolt and extending through the casing for releasing said latch from its position locking the breech-bolt, without moving the cartridge chamber to the rear, and a handle mounted on the breech-bolt for retracting the same.

4. In an automatic small-arm, the combination of a casing, a cartridge chamber slidable therein, said chamber having an extension, a breech-bolt having a recess, a latch locking the said breech-bolt with the said extension of the cartridge chamber, a spring normally pressing the latch into said recess, and a handle independent of the breech-bolt and extending through the casing for releasing said latch from its position locking the breech-bolt, without moving the cartridge chamber to the rear.

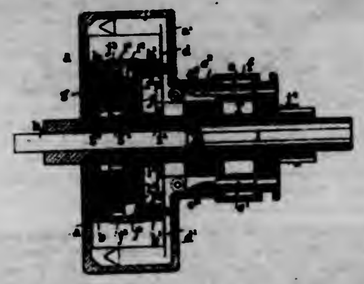
5. In an automatic small-arm, the combination with a casing, of a breech-bolt having a recess slidable therein, a spring in the rear end of the casing tending to drive the breech-bolt to the front end thereof, a latch arranged transversely of the casing and having an upper face slanting downward from the front to the rear of the casing, a second spring normally pressing the latch into said recess, and a handle extending through the casing for releasing said latch from the breech-bolt against the action of the latter spring.

[Claims 6 to 21 not printed in the Gazette.]

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1,041,047. GEARING. ARTHUR JAMES DRAKE and JAMES MITCHELL HEWITT, Manchester, England, assignors to The Saver Clutch Company Limited, Manchester, England. Filed Oct. 28, 1911. Serial No. 657,282. (Cl. 74—34.)

1. A variable speed gearing comprising a driving shaft, a clutch casing, a drum therein, provided with a boss and a flexible band surrounding said drum, a gear on the drum boss, a driven shaft, gear wheels carried therefrom, and a second drum having a gear, and a band surrounding said second drum, toggle links operating the flexible bands, and drag links and means for moving the drag links progressively as set forth.



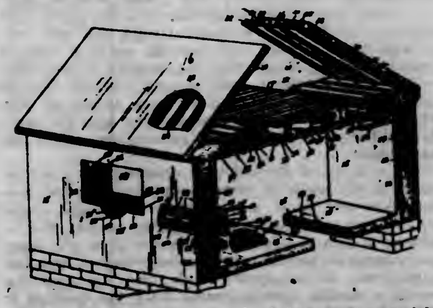
2. Variable speed gearing having a driving shaft, a clutch casing thereon, and a drum loose on said shaft, means to be contracted around the drum and a gear on the drum, a driven shaft constituting a carrier for spur pinions and spur pinions on said carrier, a sleeve and a second drum, an internal gear on said second drum and means capable of being contracted, toggle links, and radially movable drag links and sliding means for acting on the drag links progressively as set forth.

3. Variable speed gearing comprising a driving shaft, an enveloping clutch casing thereon, a drum with external gear, a flexible band, a driven shaft, gear wheels carried thereby, a second drum with internal gear, a flexible band surrounding the drum, and toggle links, and drag links acting on the same, and sliding plungers, a sleeve carrying the same and movable along said sleeve, the sliding plungers acting one in advance of the other, as set forth.

4. A variable speed gearing having, in combination, a driving shaft, a clutch casing, a drum having internal teeth, a flexible band surrounding the drum, a driven shaft, a support for gear wheels, gear wheels on said support, a sleeve and a second drum having internal teeth and a flexible band surrounding the drum, sets of toggle levers and drag links, a movable sleeve, and incased progressively acting plungers carried on said sleeve, said plungers coöperating with the drag links, as set forth.

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1,041,048. FIREPROOF STRUCTURE. WILLIAM C. EDWARDS, Jr., Kansas City, Mo. Filed Nov. 29, 1911. Serial No. 663,695. (Cl. 72—50.)



1. In a fabricated sheet metal reinforcement comprising oppositely positioned, longitudinally extended recessed studs of dovetail formation and a distance member between said studs, the said studs being attached integrally to the outer edges of the distance member and the recesses in said studs opening in opposite directions, the combination therewith of a separate reinforcement consisting of a sheet metal stud of dovetail formation extending telescopically upon and inclosing the outer surfaces of either of the said recessed studs.

2. A fabricated stud and sheathing structure or reinforcement composed of a plate of sheet metal having intermediate its ends a distance member or plate between two side members in parallel planes; each of which side members having one or more longitudinally extended dovetail corrugations and the outer and inner ends of said side members terminate in end studs and recessed studs, respectively, of dovetail formation, said recessed studs being integrally connected with the outer portions of the distance member; the said recessed studs being slightly smaller in cross section than the said end studs carried by their respective side members.

3. Fabricated sheathing structures or reinforcement composed of combined plates or sections of sheet metal, each of which plates having intermediate its ends a distance plate or member between two side members in parallel planes, each of which side members having one or more longitudinally extended dovetail corrugations and the outer and inner ends of which side members terminate in end and recessed studs, respectively, of dovetail formation, which recessed studs are integrally connected with the outer portions of the distance member; said recessed studs being slightly smaller in cross-section and telescopically engaged within the end studs of an adjacent section.

4. A fabricated stud and sheathing structure or reinforcement composed of an expanded metal plate having intermediate its ends a distance member between two side members in parallel planes; each of which side members having one or more longitudinally extended dovetail corrugations, and the outer and inner ends of said side members terminating in end studs and recessed studs, respectively, of dovetail corrugated formation, said recessed studs being integrally connected with the outer portions of the distance member; the said recessed studs being slightly smaller in cross section than the end studs carried by their respective side members.

5. Fabricated sheathing structures or reinforcement composed of combined plates or sections of expanded metal, each of which plates, intermediate its ends, having a distance plate between two side members in parallel planes, each of which side members having one or more longitudinally extended dovetail corrugations and the outer and inner ends of which side members terminate in end and recessed studs, respectively, of dovetail formation, which recessed studs are integrally connected with the outer portions of the distance member; said recessed studs being slightly smaller in cross section and telescopically engaged within the end studs of an adjacent section.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,049. CORN-CUTTER. GEORGE S. ELLIOTT, Mobile, Ala. Filed Jan. 12, 1912. Serial No. 670,922. (Cl. 30—20.)



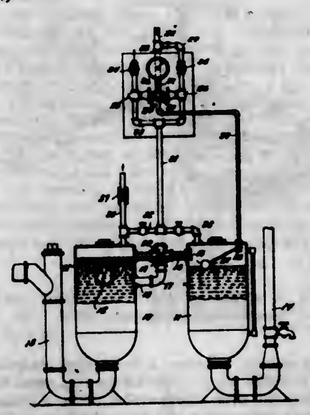
1. A corn cutter comprising a body; a blade slidable in the body, transversely of the body, the blade including a resilient, angularly disposed flange, engaged at its free edge only with the exterior of the body, there being an opening in the flange; and an adjusting member extended through the opening and engaged with the body.

2. A corn cutter including a body provided with a transverse slot, there being a seat in the outer face of the body, at one end of the slot; a blade slidable in the slot and including a resilient, angularly disposed flange engaging the seat adjacent the free edge only of the flange; and an adjusting member extended through the flange, into engagement with the body.

3. A corn cutter comprising a body, curvilinear in cross section, to accommodate the hand of the operator, there being a concaved longitudinally extended groove in one face of the body, there being a slot extended through the body, at an acute angle to the groove, the slot being provided with slits adjacent its rear wall, the body having upon its outer surface, a seat, disposed adjacent the slits; a blade slidable in the slits and having its cutting edge concaved, to conform to the concavity of the groove, the blade including a resilient angularly disposed flange, bearing at its free edge only, against the seat; and an adjusting member extended through the flange and engaging the body.

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1,041,050. APPARATUS FOR DISPOSING OF OIL-LADEN DRAINAGE. GEORGE V. ELLIS, New York, N. Y. Filed Feb. 23, 1912. Serial No. 679,527. (Cl. 210—5.)



1. An apparatus for disposing of oil-laden drainage, comprising a reservoir with an inlet intermediate its vertical length and an outlet at its lower portion below the inlet, means for maintaining the drainage in the reservoir at a fixed level, an oil outlet means from the reservoir above said level and above the inlet whereby a body of oil is maintained in the reservoir over the drainage level and above the inlet, and a separator device located in the reservoir in the said body of oil and between the reservoir inlet and the oil outlet means.

2. An apparatus for disposing of oil-laden drainage, comprising a reservoir with an inlet intermediate its vertical length and an outlet at its lower portion below the inlet, means for maintaining the drainage in the reservoir at a fixed level, an oil outlet means from the reservoir above said level and above the inlet whereby a body of oil is maintained in the reservoir over the drainage level and above the inlet, and a separator device located in the reservoir in the said body of oil and between the reservoir inlet and the oil outlet means, said separator device comprising a screen disposed substantially horizontally across the reservoir in said body of oil.

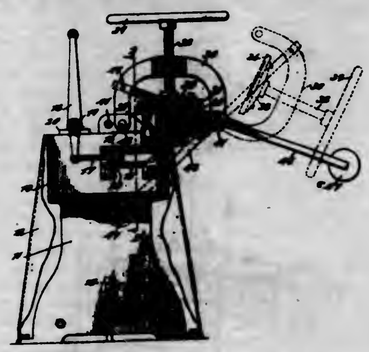
3. An apparatus for disposing of oil-laden drainage, comprising a reservoir with an outlet intermediate its vertical length and an outlet at its lower portion below the inlet, means for maintaining the drainage in the reservoir at a fixed level, an oil outlet means from the reservoir above said level and above the inlet whereby a body of oil is maintained in the reservoir over the drainage level

and above the inlet, and a separator device located in the reservoir in the said body of oil and between the reservoir inlet and the oil outlet means, and a branch or return pipe leading back from the oil outlet means to the reservoir below the level of the said body of oil to return to the reservoir sudden overflows from the same.

4. An apparatus for disposing of oil-laden drainage, comprising a reservoir with an inlet intermediate its vertical length and an outlet at its lower portion below the inlet, means for maintaining the drainage in the reservoir at a fixed level, an oil outlet means from the reservoir above said level and above the inlet whereby a body of oil is maintained in the reservoir over the drainage level and above the inlet, and a separator device located in the reservoir in the said body of oil and between the reservoir inlet and the oil outlet means, and means for supplying air pressure to the top of the tank or reservoir above the said separator device for the purpose specified.

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1,041,051. CASTING-MACHINE. FRANK ENGEL, Buffalo, N. Y., assignor, by mesne assignments, to The United States Light & Heating Company, New York, N. Y., a Corporation of Maine. Filed Mar. 15, 1909. Serial No. 483,509. (Cl. 22—91.)



1. In a casting machine, a horizontal stationary mold plate, a movable mold plate adapted to rest thereon, a press associated with said movable plate, a hinge connection between said plates and a counterbalance for holding the movable plate and press up out of the way when thrown back upon the hinge.

2. In a casting machine, a horizontal stationary mold plate, a movable mold plate adapted to rest thereon, the movable plate being hinged to the stationary plate, a lock for holding the plates one upon the other, and a press for increasing the pressure between the plates after they have been locked, said press carrying said movable mold plate.

3. In a casting machine, a mold formed of separable parts, a stationary frame supporting one of said mold parts, a movable frame hinged to said stationary frame, means for holding said movable frame stationary with respect to the stationary frame, and a screw mounted in said movable frame and carrying one of the parts of the mold for the purpose described.

4. In a casting machine, a mold formed of separable parts, a stationary frame supporting one of said mold parts, a movable frame hinged to said stationary frame, means for holding said movable frame stationary with respect to the stationary frame, a screw mounted in said movable frame and connections between said screw and one of the mold parts whereby the screw may be rotated independently of said mold part to press the same upon and raise it from the companion mold part.

5. The combination with a separable two piece mold, of a supporting structure consisting of two hinged parts, one of said parts carrying an adjustable rod attached to one piece of the mold, the other piece being secured to the other of said hinged parts.

[Claims 6 and 7 not printed in the Gazette.]

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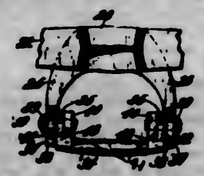
1,041,062. ROOT-SEPARATOR. EMERY JEROME ESTEY, Kerman, and ARTHUR WOOD REDDIG, Fresno, Cal. Filed Feb. 11, 1911. Serial No. 608,165. (Cl. 55—138.)



A device of the character described comprising a wheel mounted frame, a plurality of cutting disks disposed in the forward end of said frame, a scraper plow disposed at the rear of said disks, a conveyer operating over said scraper plow, a separating cylinder disposed to the rear of said scraper plow, a draper disposed to the rear of said separating cylinder, a picker upon which said last named draper discharges, an inclined trough beneath said picker, a dump box disposed at the rear of said picker and means for driving said drapers and said cylinders, as described.

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1,041,063. DOOR HANGER AND TRACK. MORGAN J. EVANS, Milwaukee, Wis. Filed Dec. 23, 1910. Serial No. 598,914. (Cl. 16—90.)



1. A door hanger and track, comprising a tubular track provided with a lower longitudinal slot, a bracket therefor, a hanger frame positioned within the tubular track and having legs depending downwardly therefrom and through the longitudinal slot, said legs provided with slotted ends, wheels journaled on the hanger frame and bearing on the lower inner portion of the track, a bolt positioned between the depending legs, bolts extending through the slots and engaging the bolt, and a door supporting strap extending between the legs and looped over the bolt and resting to form a swinging connection between the strap and the bolt.

2. A door hanger and track, comprising a tubular track provided with a lower longitudinal slot, a bracket therefor, a hanger frame positioned within the tubular track and having legs depending downwardly therefrom and through the longitudinal slot, wheels journaled on the hanger frame and bearing on the lower inner portion of the tubular track, a member adjustably connected to the depending legs and positioned between the depending legs, and a door supporting strap extending between the legs and looped over the member and resting thereon to form a swinging joint connection between the strap and the member.

3. A door hanger and track, comprising a tubular track provided with a lower longitudinal slot, a bracket therefor, a hanger frame positioned within the tubular track and having legs depending downwardly therefrom and through the longitudinal slot, said depending legs provided with slots and having serrated faces, wheels journaled on the hanger frame and bearing on the lower inner portion of the tubular track, a bolt having slotted ears and serrated faces, said bolt positioned so that its serrated faces will engage the serrated faces of the depending legs and the slots will register with each other, bolts extending through the slots to bind said parts together, and a door supporting strap extending between the depending legs and looped over the bolt thereon to form a swinging joint connection between the strap and the bolt.

4. A door hanger track, comprising a tubular track provided with a lower longitudinal slot, said tubular track having reinforcing flanges depending downwardly therefrom on each side of the slot and extending approximately at right angles inwardly toward each other at the lower edges to reinforce the downwardly extending flanges laterally.

5. A door hanger and track, comprising a tubular track provided with a lower longitudinal slot, a bracket therefor, a hanger frame positioned within the tubular track and having legs depending downwardly therefrom and through the longitudinal slot, flanged wheels journaled on the hanger frame and bearing on the lower inner portion of the tubular track with the flanges extending into the longitudinal slot, a member adjustably connected to the depending legs and provided with a medial enlargement positioned between the depending legs, and a door supporting strap extending between the legs and looped over the member and resting on the medial enlargement to form a universal joint connection between the strap and the member.

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1,041,064. MECHANICAL STARTER FOR AUTOMOBILES. GEORGE E. EWING and COLBY R. FARLEY, Ewington, Ohio. Filed June 26, 1912. Serial No. 705,995. (Cl. 123—185.)



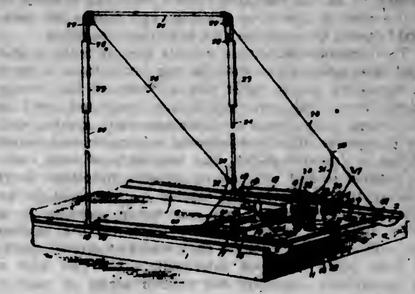
1. A mechanical starter for automobiles having, in combination, an endwise movable hand-lever carrying a ratchet-toothed sector, a fulcrum for the same, a ratchet-toothed pinion constructed and arranged to mesh with said sector, and connected with the motor shaft, and means whereby said hand lever and sector are rendered normally retracted.

2. A mechanical starter for automobiles having, in combination, an endwise movable hand-lever carrying a ratchet-toothed sector and constructed with a longitudinal slot and superjacent shoulders, a horizontal pivot extending through said slot, a spring abutment, movable on the same pivot, a spring compressed between said abutment and shoulders, a ratchet-toothed pinion constructed and arranged to mesh with said sector, and a shaft and gearing connecting said pinion with the motor shaft.

3. The combination of a horizontal motor shaft provided with a fly wheel, a horizontal starter shaft at right angles thereto, bevel gearing connecting said shafts, a ratchet toothed pinion fast on said starter shaft, a ratchet-toothed sector constructed and arranged to mesh with said pinion, a longitudinally slotted and shouldered hand-lever carrying said sector and extending upward therefrom, an abutment opposed to the shoulders of said hand-lever, a horizontal pivot, common to said hand-lever and abutment, extending through the slot of said hand-lever, and a helical retracting spring compressed between said abutment and shoulders, substantially as hereinbefore specified.

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1,041,065. PIN-SPOTTING MECHANISM. WILLARD M. FARROW, Jr., Washington, D. C. Filed Mar. 4, 1912. Serial No. 681,571. (Cl. 46—54.)



1. A pin spotting plate and a pivotal mounting therefor, and means to elevate the plate and to at all times maintain it in a substantially horizontal position.

2. A pin spotting plate, a pivotal mounting therefor and plate counterbalancing means to elevate the plate and to at all times maintain it in a substantially horizontal position.

3. A pin spotting plate, a pivotal support therefor, a counterbalance for the plate, and connections movable with the plate for maintaining the plate at all times in a substantially horizontal position during its swinging movements.

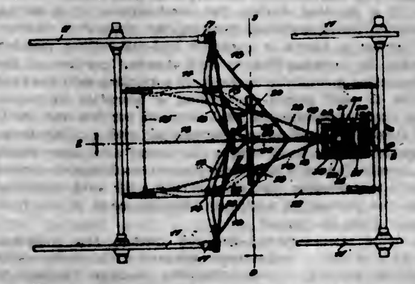
4. A pin spotting plate, a pivotal support therefor, a counterbalance for the plate, connections for maintaining the plate at all times in a substantially horizontal position during its swinging movements, and means for automatically locking the plate in its lowermost position.

5. A pin spotting plate pivotally mounted for swinging movement, and means for maintaining it at all times in a horizontal position during its swinging movement.

[Claims 6 to 15 not printed in the Gazette.]

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1,041,066. VEHICLE-BRAKE. EMILE G. FAVRE, Harriville, Ill. Filed Jan. 18, 1912. Serial No. 671,951. (Cl. 21—8.)



1. The combination with a vehicle box, of bowed brake beams pivoted intermediate the ends on the box bottom, longitudinal braces bridging the curved portions of the beams, guide arms secured to the box bottom straddling and slidably supporting said braces, a draw cord operatively connected to the outer ends of said beams, a second draw cord operatively connected to the inner ends of said beams, means for actuating both cords simultaneously in opposite directions for actuating said beams, and spring controlled toggle rods engaging and normally holding said beams rocked to released position longitudinally upon the box bottom.

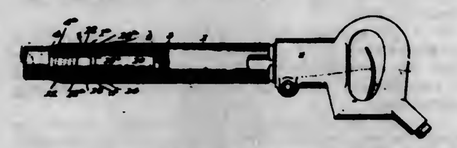
2. The combination with a vehicle box, of bowed brake beams pivoted intermediate the ends on the box bottom, and adapted to be rocked entirely within the borders of the box bottom, a pair of rods having the inner ends pivotally connected together and having notches formed

near the outer ends adapted to engage the inner ends of the brake beams and lock the lever in released position, a stand rod pivotally assembled with said rods, a spring connected to one of the first named rods and serving to hold the rods in operative position, and means for rocking said beams to operative and to released position.

3. The combination with a vehicle box, of brake beams pivoted intermediate the ends on the box bottom, a draw cord connected to the outer end portions of the beams, a second draw cord connected to the inner end portions of the beams, and means for simultaneously moving said cords in opposite directions whereby to actuate said beams including a grooved pulley, the terminals of said cords being secured to and wrapped in opposite directions about the pulley, said pulley having ratchet teeth formed on the flanges, the ratchet teeth on one flange pointing in a counter direction to the ratchet teeth on the mating flange, and a pivoted lever for each series of ratchet teeth, each lever being equipped intermediate the end with a pawl operatively engaging the related series of ratchet teeth.

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1,041,057. PNEUMATIC-HAMMER DEVICE. LOUIS G. FISCHER, Harrisburg, Pa. Filed Feb. 14, 1911. Serial No. 608,574. (Cl. 78—44.5.)



1. In a riveting device, the combination of a barrel, a pneumatically-operated riveting-tool-member supported therein and provided with a shank having a circumferentially-reduced portion, a resilient tool-controlling member disposed in juxtaposition to said tool-member, a nose-element mounted at one end of said barrel for supporting and guiding the tool-member, means for movably retaining the shanked portion of said tool-member in said barrel comprising a split-ring encompassing the reduced portion of the shank, a holding-ring encircling said split-ring, and a bushing encircling said shanked portion of the tool-member and abutting the holding and split-rings.

2. In a riveting device, the combination of a barrel, a pneumatically-operated tool-member supported therein and having a shank, a resilient tool-controlling member disposed in juxtaposition to said shanked portion of the tool-member, means for operatively retaining said shanked portion in said barrel comprising a plurality of superposed rings encompassing said shanked portion and shiftable therewith, and an end-supporting and guiding member immovably secured within the barrel and upon which said member has a sliding engagement, and means carried by said tool-member and coöperating with said retaining means for preventing accidental displacement of the tool-member from the barrel.

3. In a pneumatically-operated device, the combination of a barrel, a tool-member adapted to be reciprocally supported thereby, a tool-controlling member disposed in juxtaposition to a portion of said tool-member, and means within said barrel for operatively retaining the tool-member therein comprising a shiftable encircling member and a member-engaging element shiftable with said member, and means carried by said tool-member and coöperating with said retaining means for preventing thrusting of said tool-member from the barrel while acting under the influence of said tool-controlling member.

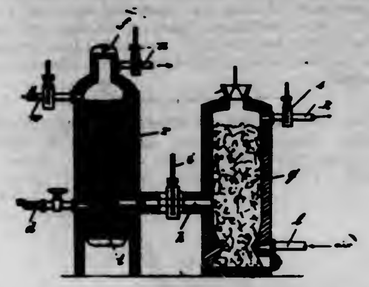
4. A pneumatically-operated device including in combination, a containing-member, a tool-member movably supported thereon, tool-controlling means juxtaposed to said tool-member, an instrumentality arranged in juxtaposition to said tool-member and in operative engagement with said tool-controlling means and movable in one direction to actuate the latter and adapted to be itself actuated in the opposite direction under the influence of said controlling-means, and means carried by said tool-member and co-acting with said instrumentality to prevent a thrusting of said tool-member out of its containing member.

5. A pneumatically-operated device including in combination, a barrel-member, a tool-member adapted to be reciprocated therein, means for actuating said tool-member including a cushioning instrumentality within said barrel and adapted to be compressed by said tool-member, member-holding means within said barrel and comprising a plurality of encircling elements distinct from said tool member and cushioning instrumentality, one at least of which encircling elements is shiftable with said tool-member to compress said cushioning instrumentality, and means formed on said tool-member and co-acting with the shiftable encircling element to prevent displacement of said tool-member from the barrel-member.

[Claims 6 to 22 not printed in the Gazette.]

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1,041,058. METHOD OF MAKING HOT PRODUCER-GAS. EMIL FLEISCHER, Dresden-Altstadt, Germany. Filed Oct. 26, 1910. Serial No. 589,178. (Cl. 48—202.)



1. The method of making producer gas having a temperature of 1000° C. and upward, which consists in blasting fuel to incandescence in a suitable producer into which fuel is introduced from time to time, tapping off a portion of the producer gas from that portion of the producer which is at a maximum temperature and before the producer gas traverses the whole body of incandescent fuel, and passing a portion of the gas through the descending fuel sufficient to preheat the same to substantially the temperature of that at the zone where the hot gas is tapped off, substantially as described.

2. The method of making producer gas having a temperature of 1000° C. and upward, which consists in subjecting incandescent fuel, such as coke or anthracite in a producer to a blast of air, withdrawing a portion of the producer gas immediately from the hottest zone of combustion, passing a sufficient portion of the producer gas through the descending fuel to preheat the same to approximately the temperature of that at the hottest zone, and regulating the amounts of both portions of gas to insure the results aforesaid.

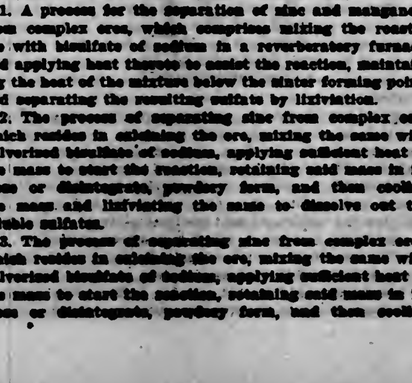
3. The method of making producer gas having a temperature of 1000° C. and upward, which consists in subjecting incandescent fuel, such as coke or anthracite in a producer to a blast of air, withdrawing a portion of the producer gas immediately from the hottest zone of combustion, passing another portion of the producer gas through the descending fuel to preheat a portion of the same to the temperature of that where the hot gas is tapped off, and preheating the air blast by means of combustion of the gas passed through the fuel charge.

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1,041,060. EDUCATIONAL DEVICE. JOHN H. FOX, Berea, Ohio. Filed Nov. 10, 1911. Serial No. 659,558. (Cl. 35—9.)

1. In an educational device, the combination, with a holder having a continuous annular passageway and communicating cross passageways, of a series of double-headed buttons occupying said passageways and shiftable along them into varying relation with each other, each button having designations on its respective faces.

2. In a device of the character described, the combination of an outer annular rim and an inner rim having portions parallel therewith, a transverse passageway leading inward from the inner rim and communicating with the space between the rims, braces extending between the outer and inner rim, and double-faced buttons slidable in the space between the rims and into and out of the transverse passageway and exposed to view on both sides of the device.




3. In an educational device, the combination of an outer circular rim, an inner rim spaced therefrom and having portions parallel therewith and provided with a lateral passageway, and double-faced buttons slidable in the space between the rims and into such transverse passageways.

4. The combination of an outer rim, an inner rim, U-shaped separated braces connecting the two, and double-headed buttons slidable in the space between the rims and adapted to pass through the braces.

5. The combination of an outer rim, an inner rim, means for holding the two properly spaced apart, the inner rim being bent laterally to provide a transverse passageway communicating therewith, the extreme end of said transverse passageway being secured to the inner face of the inner rim, and devices slidable in the passageways thus provided.

[Claims 6 to 14 not printed in the Gazette.]

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1,041,060. PROCESS FOR THE TREATMENT OF REFRACTORY ZINC-LEAD ORES. ANDREW GORDON FRENCH, Nelson, British Columbia, Canada. Filed Sept. 30, 1911. Serial No. 652,047. (Cl. 75—18.)

1. A process for the separation of zinc and manganese from complex ores, which comprises mixing the roasted ore with bisulfate of sodium in a reverberatory furnace, and applying heat thereto to assist the reaction, maintaining the heat of the mixture below the sinter forming point, and separating the resulting sulfate by lixiviation.

2. The process of separating zinc from complex ores which resides in subjecting the ore, mixing the same with pulverized bisulfate of sodium, applying sufficient heat to the mass to start the reaction, retaining said mass in its loose or disintegrate, powdery form, and then cooling the mass and lixiviating the same to dissolve out the soluble sulfates.

3. The process of separating zinc from complex ores, which resides in subjecting the ore, mixing the same with pulverized bisulfate of sodium, applying sufficient heat to the mass to start the reaction, retaining said mass in its loose or disintegrate, powdery form, and then cooling the mass and washing the same with water containing a small proportion of bisulfate of sodium.

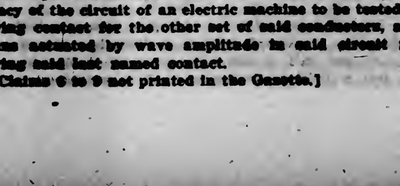
4. The process of separating the metals in complex ores by heating 100 parts of the ore with from 5 to 15 parts of niter cake, maintaining the heat of reaction below the sinter forming or agglomeration point, and subsequently lixiviating the mass to recover the soluble sulfate.

5. The process of separating zinc and manganese from complex ores which resides in first roasting the ore to drive off the excess of sulfur, then adding to the mass crushed bisulfate of sodium in the proportion from 5 to 15 per cent. of bisulfate of sodium to the original weight of the ore before it has been calcined, then applying heat to the mixture to bring the mass to a dull red heat at a temperature below the sinter forming point, and subsequently recovering the soluble sulfates formed by the reaction, by lixiviation.

[Claim 6 not printed in the Gazette.]

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1,041,061. INDICATING MECHANISM. AUGUST FRISCH, Zürich, Switzerland. Filed Apr. 1, 1912. Serial No. 687,687. (Cl. 171—95.)



1. In indicating apparatus, the combination of a diagram screen, two series of conductors arranged substantially at right angles to each other and visibly placed upon said screen, sparking apparatus, and means including movable contacts for producing upon said screen a continuous, visible, living diagram of electric sparks.

2. In indicating apparatus, the combination of a diagram screen, two sets of transversely arranged parallel conductors on the face of the said screen, sparking apparatus, movable contacts, and means for moving said contacts in relation to the conductors so that a continuous visible moving diagram of electric sparks is produced between said conductors upon the face of the screen.

3. In indicating apparatus, the combination of a diagram screen, sets of transversely arranged parallel conductors thereon, a movable contact for one set of conductors moving in accordance with one physical condition of a machine to be tested, another movable contact for the other set of conductors moving in accordance with another physical condition in said tested machine, and sparking apparatus whereby a living visible diagram of electric sparks is produced upon said screen showing conventional momentary conditions in said tested machine.

4. In indicating mechanism, the combination of a diagram screen, transversely arranged conductors thereon, sparking apparatus and means operated jointly by mechanical movement and electrical conditions in an electric machine to be tested for changing the sparking point between said conductors, whereby a living visible diagram of conditions in said machine is produced upon the screen.

5. In indicating mechanism, the combination of a screen, two sets of parallel conductors arranged substantially at right angles thereon, a movable contact for one set of conductors operated mechanically in accordance with the frequency of the circuit of an electric machine to be tested, a moving contact for the other set of said conductors, and means actuated by wave amplitude in said circuit for moving said last named contact.

[Claims 6 to 9 not printed in the Gazette.]

1,041,062. TEMPORARY LOCKING-PIECE FOR TRANSVERSELY-SPLIT VEHICLE-WHEEL RIMS. RICHARD W. FUNK, Weehawken, N. J. Filed May 31, 1912. Serial No. 700,001. (Cl. 152—21.)



1. A temporary locking piece for transversely split vehicle wheel rims comprising a member adapted to span the split in a rim, and having projections thereon for engagement with said rim at either side of the split therein to hold the same in alined juxtaposition, said locking piece lying substantially within the boundaries of the rim when in operative position.

2. A temporary locking piece for transversely split vehicle wheel rims comprising a forked member having projections adapted to interlock with suitable means on either side of the split in a rim and thereby hold the adjacent ends of the same in alined juxtaposition.

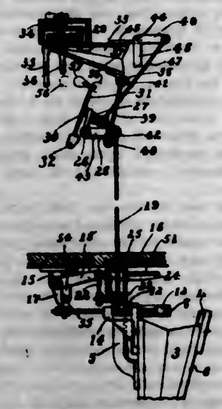
3. A temporary locking piece for transversely split vehicle wheel rims comprising a member having two pairs of oppositely disposed projections adapted to interlock with suitable means on either side of the split in a rim and thereby hold the adjacent ends of the rim in alined juxtaposition.

4. A temporary locking piece for transversely split vehicle wheel rims comprising a member having two pairs of oppositely disposed outstanding lugs, each pair of which is adapted to span the split in a rim and to engage the rim on either side of the split to hold the ends thereof in alined juxtaposition.

5. A temporary locking piece for transversely split vehicle wheel rims comprising a sheet metal member having two pairs of oppositely disposed outstanding lugs, each pair being adapted to span the split in a rim and to engage the rim on either side of the split to hold the ends thereof in alined juxtaposition, the body of said member being bent or bowed to decrease its effective length prior to attachment to a rim.

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1,041,063. ACTION-CONTROLLER FOR AUTOMATIC PIANOS. FREDERICK O. GAMBLE, Fort Wayne, Ind., assignor to The Packard Company, Fort Wayne, Ind., a Corporation of Indiana. Filed Aug. 19, 1911. Serial No. 644,919. (Cl. 84—160.)



1. An action controller for automatic pianos including in combination, a reservoir bellows, a pivotally mounted main hammer rest rail, a pivotally mounted divided hammer rest rail, a divided hammer rest rail actuating pneumatic and means actuated by the swinging of the main hammer rest rail for limiting the collapse of the divided hammer rest rail actuating pneumatic.

2. An action controller for automatic pianos including in combination, a pivotally mounted main hammer rest rail, a pivotally mounted divided hammer rest rail, a divided hammer rest rail actuating pneumatic and means actuated by the swinging of the main hammer rest rail for limiting the collapse of the divided hammer rest rail actuating pneumatic.

3. An action controller for automatic pianos including in combination, a reservoir bellows, a pivotally mounted main hammer rest rail, a pivotally mounted divided hammer rest rail, means actuated by the collapse of said bellows for swinging the main hammer rest rail and means operatively connected with the main hammer rest rail for limiting the stroke of the divided hammer rest rail actuating pneumatic.

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1,041,064. RATCHET-WRENCH. CHARLES ANTHONY GEIST, Oklahoma, Okla. Filed Apr. 12, 1912. Serial No. 690,628. (Cl. 81—62.)





1. The combination with a handle having a head formed on one end provided with an opening, of an operating member arranged in said opening, a face plate secured upon said head to retain the operating member therein, said member being provided with ratchet teeth upon its periphery, spaced pawls pivotally mounted in the head to engage said ratchet teeth, springs normally acting to hold the pawls in engagement with the teeth, a shiftable element mounted in the face plate disposed between said pawls to hold one of the pawls out of engagement with the ratchet teeth, a resilient plate carried by said shiftable element and movable upon the face plate, and means for adjusting the tension of said resilient plate to retain said element in the position to which it has been shifted.

2. The combination with a handle having a head formed on one end provided with an opening, an operating member loosely arranged in said opening, a face plate secured to the head to retain the operating member therein, spring



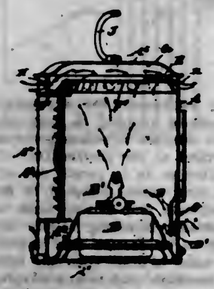
pressed pawls pivotally mounted in the head, said head being provided with ratchet teeth upon its periphery for engagement by said pawls, a transversely shiftable key disposed between the pawls to move either of said pawls out of engagement with the ratchet teeth, said face plate being provided with an enlargement upon its outer surface, a resilient plate carried by said key and resting at its ends upon the enlargement of the face plate, and means for adjusting the tension of said resilient plate, the end of said resilient plate being adapted for engagement over the edge of said enlargement to retain the key in the position to which it has been shifted.

3. The combination with a handle having a head formed on one end provided with an opening, of an operating member loosely mounted in said opening, a face plate secured upon said head provided with a transverse slot, a pair of spring controlled pawls mounted in the head to engage at their free ends with the ratchet teeth formed upon the periphery of the operating member, a shiftable key disposed between said pawls and having a reduced portion projecting through the slot of said plate, said plate having grooves in its outer face adjacent the opposite ends of said slot, and means rigid upon the extension of the key to engage in said grooves whereby either of the pawls is held in an inoperative position out of engagement with the ratchet teeth.

4. The combination with a handle having a head formed on one end provided with an opening, of an operating member loosely mounted in said opening and provided upon its periphery with ratchet teeth, a face plate secured upon said head having a projection on its outer face extending transversely of the plate, said plate and projecting portion being provided with a slot, the face of the projection having grooves therein disposed adjacent to the opposite ends of said slot, a pair of pawls pivotally mounted in said head, springs normally holding the free ends of the pawls in engagement with the teeth on the operating member, a shiftable key slidably mounted in the head between said pawls and having a reduced extension projecting through the slot of the face plate, a plate fixed upon said extension to engage at its ends in the grooves of said face plate, the movement of said key in either direction causing one end of the plate to engage in one of the grooves and the other end of said plate engaging over the edge of said enlarged portion of the face plate.

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1,041,065. LANTERN. HJALMAR GRELOSEN, New York, N. Y. Filed Mar. 19, 1912. Serial No. 684,852. (Cl. 240—21.)



1. In a lantern of the character set forth, a body portion having air inlet openings in the rear wall thereof, a lamp in the lower portion of said body, a deck above said lamp, having openings therein for the escape of products of combustion from said lamp, and a closed top above said deck, forming with the latter an air space, said body having openings in its walls on all sides between said top and deck below the upper face of said deck to permit air currents to traverse said space.

2. In a lantern of the character set forth, a body portion having air inlet openings in the lower portion of the rear wall thereof, a shield on the interior of said wall, covering said openings, a lip on the lower edge of said shield extending toward said rear wall, a lamp in the lower portion of said body, a deck above said lamp, a raised circular platform in said deck having inwardly inclined walls, said platform having openings for the escape of products of combustion from said lamp, and a closed top above said deck and platform and forming therewith an air space, said body having openings in its walls on all sides between said top and deck to permit air currents to traverse said space.

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1,041,066. CONNECTING DEVICE. DAVID D. GORDON, Chicago, Ill. Filed Sept. 14, 1911. Serial No. 649,278. (Cl. 173—360.)



1. A plug having a base portion, and a plunger, a contact element carried by said plunger, movable spherical contacts carried by the base, and means whereby the plunger controls the outward movement of said spherical contacts.

2. A plug having a base portion and a plunger, a contact element carried by said plunger, movable spherical contacts carried by the base, and spring controlled means whereby the plunger controls the outward movement of said spherical contacts.

3. A plug having a base portion and a plunger, a contact element carried by said plunger, movable spherical contacts carried by the base, and means whereby the plunger controls the outward movement of said spherical contacts, said means including an inclined conducting element.

4. A plug having a base portion and a plunger, a contact element carried by said plunger, movable spherical contacts carried by the base, and spring controlled means whereby the plunger controls the outward movement of said spherical contacts, said means including an inclined conducting element.

5. A plug having a base portion and a plunger, a contact element carried by said plunger, movable spherical contacts carried by the base, means whereby the plunger controls the outward movement of said spherical contacts, said means including an inclined conducting element, and means provided in said base to hold said spherical contacts in place.

[Claim 6 not printed in the Gazette.]

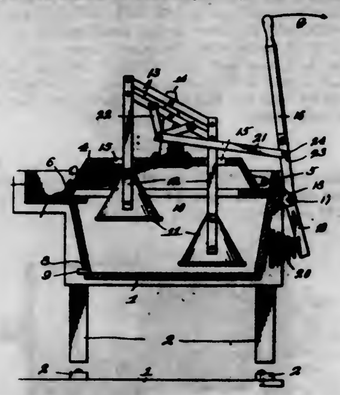
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1,041,067. WASHING-MACHINE. CARGILL GRAHAM, Kansas City, Kans. Filed May 27, 1911. Serial No. 629,257. (Cl. 68—19.)

1. In combination with a receptacle and a cover thereon, a vertical member extending upwardly from the cover, a pair of parallel rock-bars pivoted centrally of their lengths to the upper end of said member, stems depending from and pivotally connected to the ends of said rock-bars, an agitator on the lower end of each stem, a V-shaped crank connected at its free upper ends to the lower of said rock-bars on opposite sides of the pivotal point thereof, a hand lever pivoted intermediate of its ends to said receptacle, a spring between said receptacle and the lower end of the hand lever, and a connecting bar between the lower end of said crank and the hand lever.

2. In combination with a receptacle and a cover thereon, a pair of spaced stems having agitators on their lower ends, a member extending upwardly from the cover, means pivoted to said stems and to said member for supporting

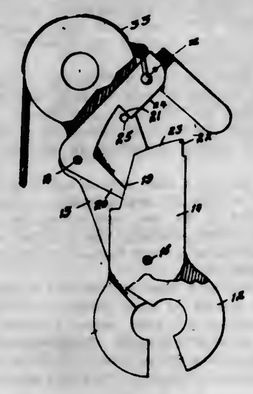
the stems, a crank connected to said means, a hand lever pivoted intermediate its ends to the receptacle and having its lower end bent outwardly away from the receptacle,



a spring between said lower end of the hand lever and the receptacle, and a connecting bar between the crank and the hand lever above the pivot of the latter.

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1,041,068. GRAPPLE. CHARLES W. GREENHALGH, Lowell, Wash. Filed Aug. 12, 1911. Serial No. 643,728. (Cl. 57—128.)



1. A grapple, comprising a body having an eye terminal at one end, and a stationary hook at the opposite end, said body being cut away intermediate the hook and eye to provide spaced parallel cheeks, a movable jaw having a shank portion pivoted between the cheeks, a locking lever pivoted between the cheeks above the shank portion of the movable jaw and adapted for engagement with said shank portion to hold the movable jaw in closed position, a trip nose formed on the locking lever and adapted to move the shank portion on the release thereof for swinging the movable jaw in open position, and releasing means for operating the said locking lever.

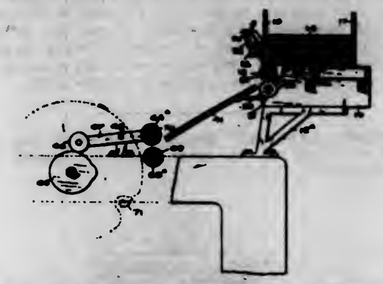
2. A grapple, comprising a body having an eye terminal at one end, and a stationary hook at the opposite end, said body being cut away intermediate the hook and eye to provide spaced parallel cheeks, a movable jaw having a shank portion pivoted between the cheeks, a locking lever pivoted between the cheeks above the shank portion of the movable jaw and adapted for engagement with said shank portion to hold the movable jaw in closed position, a trip nose formed on the locking lever and adapted to move the shank portion on the release thereof for swinging the movable jaw in open position, and releasing means for operating the said locking lever.

3. A grapple, comprising a body having an eye terminal at one end, and a stationary hook at the opposite end, said body being cut away intermediate the hook and eye to provide spaced parallel cheeks, a movable jaw having a shank portion pivoted between the cheeks, a locking lever pivoted between the cheeks above the shank portion of the movable jaw and adapted for engagement with said shank portion to hold the movable jaw in closed position, a trip nose formed on the locking lever and adapted to move the shank portion on the release thereof for swinging the movable jaw in open position, and releasing means for operating the said locking lever, the said eye terminal being formed with an external guide groove for receiving the said releasing means.

4. A grapple, comprising a body having an eye terminal at one end, and a stationary hook at the opposite end, said body being cut away intermediate the hook and eye to provide spaced parallel cheeks, a movable jaw having a shank portion pivoted between the cheeks, a locking lever pivoted between the cheeks above the shank portion of the movable jaw and adapted for engagement with said shank portion to hold the movable jaw in closed position, a trip nose formed on the locking lever and adapted to move the shank portion on the release thereof for swinging the movable jaw in open position, releasing means for operating the said locking lever, the said eye terminal being formed with an external guide groove for receiving the said releasing means, and means for holding the releasing means in the guide groove.

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1,041,069. MACHINE FOR WRAPPING PAMPHLETS AND SIMILAR ARTICLES. WILLIAM HALL, New York, N. Y., assignor to Hubert Gardiner, New York, N. Y., Frank H. Fuessenich, Brookline, Mass., and Edward H. Fuessenich, Meriden, Conn. Filed June 5, 1911. Serial No. 631,807. (Cl. 101—39.)



1. A feeding mechanism for wrapping machines, comprising a receptacle adapted to hold the articles to be wrapped, means adapted to separate the edges of the articles to be wrapped at the portion thereof nearest to the wrapping machine so as to permit one of said pamphlets to be gripped, and means adapted to draw said article from said receptacle and deliver same to the wrapping machine, comprising co-acting rollers located near said receptacle adapted to receive said article between them and to deliver same to other co-acting rollers located near the wrapping machine, and means adapted to cause said last named rollers to feed intermittently, comprising a driving shaft of the wrapping machine, a sprocket 62 on one of said rollers, a drive chain 61 engaging with said sprocket and running through said driving shaft of the machine, rocking arms or levers 67 in which the other of said rollers is journaled, gear wheels 63 and 64 on said rollers, a cam 65 on a driving shaft of the machine and a cam roller 66 on one of said rocking arms or levers, adapted to alternately throw said gear wheels 63 and 64 into and out of engagement with each other.

2. A feeding mechanism for wrapping machines, comprising a receptacle adapted to hold the articles to be wrapped, reciprocating means adapted to cause one or more of the said articles to bend or buckle at the portion thereof nearest the wrapping machine and to thereafter depress an edge of such portion, comprising sleeves 18 provided with blocks 50 and means for operating said reciprocating means, comprising a crank arm operatively secured to said sleeves, a shaft, a crank arm secured to said shaft, a link operatively connecting said crank arms and means for operating said shaft 38; and means adapted to draw said article from said receptacle and deliver same to the wrapping machine, comprising co-acting rollers adapted to receive said article between them and to deliver the same to the wrapping machine.

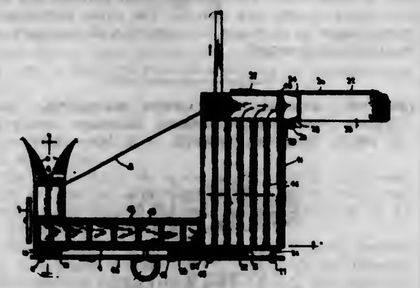
3. A feeding mechanism for wrapping machines, comprising a receptacle adapted to hold the articles to be wrapped, reciprocating means adapted to cause one or more of the said articles to bend or buckle at the portion thereof nearest the wrapping machine and to thereafter depress an edge of such portion, comprising sleeves 18 provided with blocks 50 and means for operating said reciprocating means, comprising a crank arm operatively secured to said sleeves, a shaft, a crank arm secured to said shaft, a link operatively connecting said crank arms and means for operating said shaft 38; and means adapted to draw said article from said receptacle and deliver same to the wrapping machine, comprising co-acting rollers adapted to receive said article between them and to deliver the same to the wrapping machine.

4. A feeding mechanism for wrapping machines comprising a receptacle adapted to hold the articles to be wrapped, reciprocating means adapted to cause one or more of the said articles to bend or buckle at the portion thereof nearest the wrapping machine and to thereafter depress an edge of such portion, comprising sleeves 18, a rod 22, and blocks 50; means for operating said reciprocating devices, comprising a crank arm 47 keyed to one of said sleeves, a driving shaft 38 of the machine, a crank arm 45 keyed to said driving shaft, a link 46 operatively connecting said crank arms 47 and 45 with each other; and means adapted to draw said article from said receptacle and deliver same to the wrapping machine.



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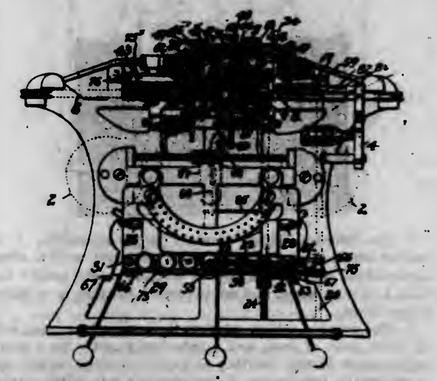
1,041,070. CORN-HARVESTER. JONATHAN D. HAMACHER, Hiawatha, Kans. Filed Sept. 21, 1911. Serial No. 650,639. (Cl. 56—113.)



In a corn harvester, a main supporting frame, a frame superimposed on said main frame, longitudinally disposed husking rolls mounted horizontally on said superimposed frame, a conveyer supporting frame extending laterally from the rear end of said main frame in a plane at right angles to the husking rolls, a horizontal snapping roll frame projecting forwardly from the free end of said conveyer supporting frame in a plane at right angles to said conveyer frame and parallel with said husking rolls, a pair of longitudinally disposed snapping rolls mounted in said snapping roll frame, forwardly projecting diverging gathering blades secured to the outer end of the snapping roll frame, the space between said blades aligning with the space between the snapping rolls, the husking rolls being mounted in a horizontal plane above said snapping rolls, a conveyer traveling in said laterally extending frame to carry the corn from the snapping rolls to the husking rolls, a grain elevator arranged to receive the husked ears from said husking rolls, and means for discharging the husked ears from the machine.

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1,041,071. TABULATOR FOR TYPE-WRITERS. JAMES B. HAMMOND, New York, N. Y., assignor to The Hammond Typewriter Co., New York, N. Y., a Corporation of New York. Filed Dec. 20, 1906, Serial No. 348,799. Renewed Mar. 3, 1911. Serial No. 612,102. (Cl. 197—178.)



1. In combination in a typewriter, a carriage, escapement mechanism, a variable spacing stop for the escapement mechanism to set the parts according to the denomination of the number to be printed, tabulator keys connected to said stop releasing means operated by said keys and means for arresting the carriage at different columnar positions also controlled from said tabulator keys, substantially as described.

2. In combination in a typewriter, a carriage, a hammer escapement mechanism, including an escapement wheel, a hammer lever, a pawl carried thereby, a variable spacing stop to control said pawl for variable spacing actions, means for releasing the pawl from the escapement wheel, tabulator keys connected with said means, connections from the tabulator keys to the said variable stop to set the same, and means controlled from the tabulator keys for arresting the carriage in different columnar positions, substantially as described.

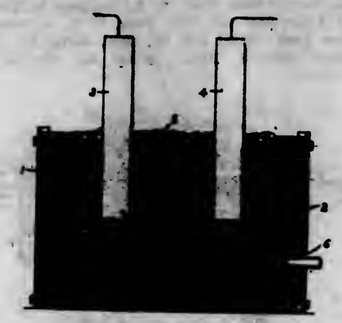
3. In combination in a typewriter, escapement mechanism, a carriage, a pivoted stop for variable spacing to engage a part of the escapement mechanism, tabulator keys having connections to the said stop, releasing means operated by said keys and means for arresting the carriage at different columnar positions with connections thereto from the tabulator keys, substantially as described.

4. In combination in a typewriter, a carriage, an escapement wheel, an escapement lever, having a detent tooth to engage the escapement wheel, a pawl engaging the escapement wheel and controlled by the escapement lever, connections to the escapement lever from the ordinary letter keys, means for releasing the escapement pawl from the escapement wheel independently of the escapement lever, tabulator keys with connections for operating said means, a variable stop for the escapement pawl to determine the denomination of the number connections thereto from the tabulator keys, means for arresting the carriage at different columnar positions and connections thereto from the tabulator keys, substantially as described.

5. In combination in a typewriter of the Hammond type, a carriage, escapement means comprising an escapement wheel and pawl, denomination stop means coacting with the escapement means, means for arresting the carriage in different columnar positions, tabulator keys and connections therefrom to the denomination stop and the columnar stop means, substantially as described.

[Claims 6 to 18 not printed in the Gazette.]

**1,041,072. PRODUCTION OF ALLOYS.** CHARLES A. HANSEN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Aug. 6, 1909, Serial No. 511,524. Renewed Apr. 12, 1911. Serial No. 620,606. (Cl. 204—63.)



1. The process, which consists in incorporating a reducible boron compound and ferric material with a viscid carbonizable binder, heating to carbonize said binder and form a spongy mass, and subsequently heating to a higher temperature.

2. The process, which consists in intimately mixing oxid of boron, oxid of iron, and a reducing agent with a viscid carbonizable binder, heating to carbonize said binder, and subsequently heating to a temperature at which carbon will interact with the oxids present.

3. The process, which consists in intimately mixing oxid of boron, ferric material and carbon with a viscid carbonizable binder, heating to carbonize said binder, and subsequently subjecting said material to the heat of an electric arc while supported on a carbon-free furnace lining.

4. The process, which consists in coating with carbonaceous material the particles of a comminuted charge containing chemically active compound or compounds of metals having a high affinity for carbon, the proportions of said compound or compounds and carbon being substantially in proportion called for by a reaction between the same carbonizing to form a spongy mass of carbon supporting the compounds to be reduced, heating the mixture to the reaction temperature and supporting the reduced product upon a carbon-free surface.

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**1,041,073. POST-DRIVER.** EMIL S. HANSEN and CHRISTIAN P. HANSEN, Bella Vista, Cal. Filed Jan. 5, 1912. Serial No. 669,628. (Cl. 61—38.)



1. In a device of the character described, the combination with a forward and a rear truck and a reach connecting said trucks, of a vertical frame carried by the rear truck, a hammer member mounted for reciprocation in said frame, a lever pivoted intermediate its length to the forward portion of the reach, a pulley carried by the lower end of said lever, a windlass carried by the rear truck, a cable connected by one end to said windlass and having its other end passed forwardly about said pulley, said cable being then passed rearwardly over a pulley carried by the top of the frame and downwardly and secured at its free end to the hammer member and means operable by a draft animal for intermittently engaging the upper end of said lever and swinging the same rearwardly.

2. In a device of the character described, the combination with a forward and a rear truck and reach connecting the two, of a vertical frame carried by the rear truck, a hammer member mounted for reciprocation in said frame, a lever pivoted to the forward portion of said reach, means for intermittently swinging said lever, and means coacting between said lever and hammer whereby the rearward swinging of the lever will raise said hammer.

3. In a device of the character described, the combination with a forward and a rear truck and a reach connecting the two, of a hammer member carried by the rear truck and mounted for vertical reciprocation, a lever pivoted intermediate its length to said reach and with its upper end extending above the same, a vertical shaft carried by the forward truck, a cross-shaped member rotatably mounted upon said shaft and having one of its arms extended to form a sweep beam, the arms of said cross-shaped member being adapted to consecutively engage the upper end of said lever and swing the same forwardly, and means coacting between the lower end of said lever and the hammer whereby the swinging of said lever will raise the hammer.

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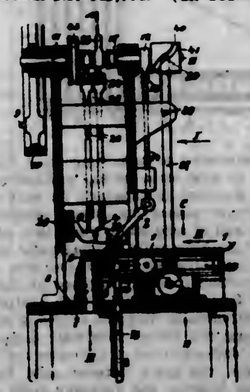
**1,041,074. ROLL FOR LEATHER-WORKING MACHINES.** ROSSER H. HARRIS, Boston, Mass., assignor to The Turner Tanning Machinery Company, Peabody, Mass., a Corporation of Maine. Filed June 15, 1910. Serial No. 566,915. (Cl. 149—14.)



A roll of the character described for leather working machines, comprising a center shaft of rigid material of a length materially in excess of its diameter, and a covering or sleeve of rubber capable of yielding under pressure, said covering having distributed over its surface in substantially close proximity to one another a plurality of cups or wells which are closed at their bottoms and sides, and whose mouths are open at the outer circumference of the sleeve to be closed by contact with the work, substantially as described.

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**1,041,075. TOOTHPICK-MAKING MACHINE.** ERNST HAUPT, Nassheng-on-the-Saale, Germany. Filed Dec. 4, 1911. Serial No. 663,774. (Cl. 144—196.)



1. In a tooth pick making machine of the character described, a guide-way, means for feeding a wooden strip intermittently and positively through said guide-way, a printing-block arranged underneath the guide-way so as

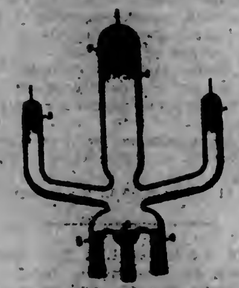


to print the strip through when the said guide-way is at rest, means for cutting off the printed strip, means for feeding the cut strip forwardly, means for pushing the strip from the guide-way, means for pushing the strip against the printing-block, means for holding the strip against the printing-block while the latter is withdrawn, a detaching knife, and connections between said knife and the feeding device, the printing-block and the means pushing the latter downwardly to withdraw, substantially as set forth.

2. In a tooth pick making machine, a cutter composed of two combined knife blades arranged together in the middle and diverging toward both ends, cutting edges fitted in the ends of one blade and abutting against the ends of the other blade for adjusting the projection of divergency, and a resilient device automatically tending to set to adjustable with the cutter and receive the waste severed by the cutter from the strip from which the tooth picks are made, substantially as set forth.

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**1,041,076. VAPOR-RECTIFIER AND METHOD OF MANUFACTURE.** JOHANN L. R. HAYDEN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Apr. 16, 1907, Serial No. 368,489. Renewed Apr. 18, 1912. Serial No. 691,697. (Cl. 176—42.)



1. A mercury-vapor device comprising a vaporizable cathode, one or more anodes and a highly exhausted envelop with a thin gas-absorbing coating of carbonaceous material.

2. A vapor rectifier having anodes, a vaporizable cathode, and an evacuated envelop with a thin coating of gas-absorbing material to limit the quantity of gas between said anodes.

3. The combination of an evacuated envelop, electrodes therein, at least one of which is of vaporizable metal, and a carbonaceous coating on said envelop adjacent to at least one of said electrodes.

4. The combination of an evacuated envelop, anodes and a vaporizable cathode therein, and means for depositing disintegrated carbonaceous material in a thin layer on a portion of said envelop.

5. The method which consists in pumping out the envelop of a vapor electric device and then coating at least a part of the inner wall of said envelop with a gas-absorbing medium while the pumping operation is continued.

[Claims 6 to 15 not printed in the Gazette.]

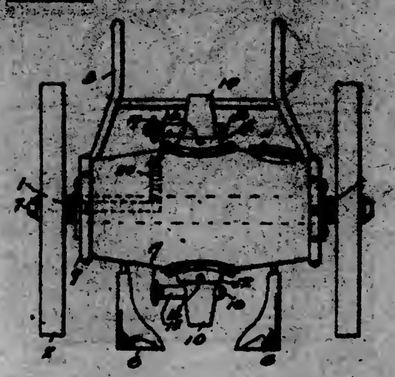
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**1,041,077. AGRICULTURAL IMPLEMENT.** JOHN LLOYD EVANS, Hobson, Colo., assignor of one-fourth to William H. Fyfe, Hobson, Colo. Filed Apr. 4, 1912. Serial No. 688,680. (Cl. 212—24.)

1. The combination with a supporting frame, a furrow opening plow and furrow closing plows, of a pair of supporting wheels and a transversely driven rotatable thereto, chain carrying seed-cups, and seed dropping mechanism located in each sprout with means for operating said mechanism.



2. [illegible] seed-cups, and means for actuating said mechanism.

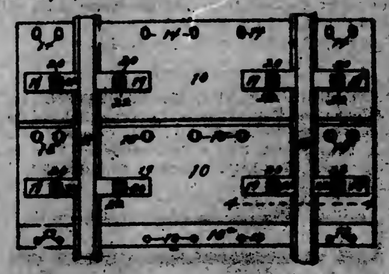


3. The combination with a frame suitably supported and a seed carrying drum rotatable thereto, sprouts opening from said drum, seed dropping mechanism located in said sprouts, a movable member connected to said seed dropping mechanism, and means in the path of movement of said member adapted to contact therewith and actuate the seed dropping mechanism.

4. The combination with a supporting frame, a seed carrying drum, rotatable thereto and sprouts opening from said drum, of a cupped disk located in each sprout and adapted to rotate, a shaft for said disk, a cog wheel on said shaft, and a rock bar supported on the frame in the path of movement of said cog wheel, whereby the rock bar with the cog wheel actuates the seed dropping cupped disk.

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**1,041,078. RAILWAY.** MELCHIOR F. HEARNS, Denver, Colo. Filed Nov. 27, 1911. Serial No. 662,761. (Cl. 238—5.)



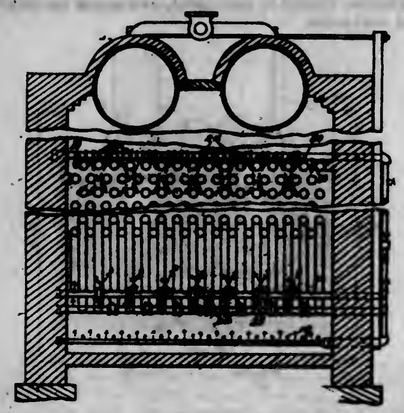
An improvement in railways, comprising bed plates, one margin of each bed plate being offset and overlaid by a marginal portion of an adjacent bed plate, said offset margins formed with holes, slots in the overlying marginal portions registering with said holes, and bolted rivets mounted through said slots and holes and clinched beneath said offsets.

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**1,041,079. BOILER-FLUE-CLEANER SYSTEM.** ISAAC LEE H. HOGGE, Hobson, Tex., assignor to The Yukon Gas Cleaner Company of Pittsburg, Pa., Dubois, Pa., a Corporation of New Jersey. Filed Jan. 11, 1912. Serial No. 670,936. (Cl. 122—392.)

1. In a flue cleaner system, a flue, a fluid discharging pipe, a fluid pipe thereto and a supply pipe to which the

feed pipe is connected, combined with a plurality of discharge nozzles interposed in the distributing pipe and arranged to discharge fluid at an oblique line with respect to the axis of the distributing pipe and flue.



2. In a flue cleaner system, a flue, a fluid distributing pipe, a feed pipe, a branch pipe connecting the distributing pipe to the feed pipe, and a plurality of nozzles interposed in the distributing pipe and each provided with an outlet disposed to discharge fluid at an oblique line to the line of axis of the distributing pipe and flue.

3. In a flue cleaner system a flue and distributing pipes arranged for cleaning the flue by fluid conducted to the flue through said pipes, a plurality of nozzles interposed in each pipe and having outlets discharging the fluid at an oblique angle to the axis of the pipe and flue.

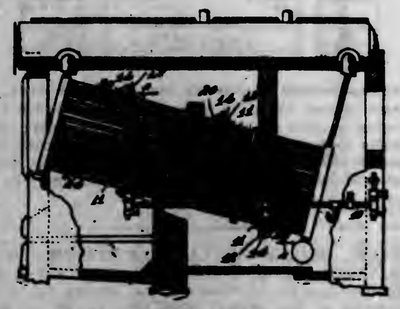
4. In a flue cleaner system, a flue, a series of distributing pipes, connections with said pipes for supplying same with steam, and nozzles interposed in each pipe and each provided with an outlet disposed obliquely to the axis of the pipe and flue.

5. In a flue cleaner system, a flue, a distributing pipe, connections with said pipe for supplying same with steam, and nozzles interposed in the distributing pipe each having an outlet disposed to project the steam at an oblique angle to the axis of the pipe and flue.

[Claim 6 not printed in the Gazette.]

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1,041,060. BOILER-FLUE-CLEANER SYSTEM. DE LOS E. HIBNER and FREDERICK W. LINAKER, Dubois, Pa., assignors to The Vulcan Soot Cleaner Company of Pittsburg, Pa., Dubois, Pa., a Corporation of New Jersey. Filed Apr. 27, 1912. Serial No. 693,596. (Cl. 122—391.)



1. In a flue cleaner system, a distributing pipe mounted for rotation in proximity to the water tubes of a boiler, means for supplying said pipe with steam, projecting nozzles carried by said pipe, and means whereby the discharge ends of said nozzles are maintained at an oblique angle to the axis of the distributing pipe while the inlet ends of the nozzles describe an arc of a circle on lines at right angles to the axis of said pipe while the latter is being rotated.

2. In a flue cleaner system, a distributing pipe mounted for rotation in proximity to the tubes of a boiler, a nozzle carried by said pipe, and means whereby the oblique angularity of the discharge end of the nozzle with respect to the axis of the distributing pipe is maintained while the distributing pipe is being rotated and the inlet end of the nozzle is describing an arc of a circle on lines at right angles to the axis of the distributing pipe.

3. In a flue cleaner system, a rotatably-mounted distributing pipe having connection with a steam supply, flexible nozzles carried by the distributing pipe and projecting therefrom, and means whereby the discharge ends of said nozzles are retained at an oblique angle with respect to the axis of the distributing pipe and the inlet ends of said nozzles are describing an arc of a circle on lines at right angles to said distributing pipe during rotation of the latter.

4. In a flue cleaner system, a distributing pipe, a steam feed line for the distributing pipe, and nozzles carried by the distributing pipe capable of having their discharge ends retained in such position that the steam is discharged therefrom during rotation of the distributing pipe in lines at oblique angles to the axis of the distributing pipe, means for so retaining said discharge ends of the nozzles, the inlet ends of said nozzles describing an arc of a circle on lines at right angles to the axis of the distributing pipe during rotation of the latter.

5. In a flue cleaner system, a rotatably-mounted distributing pipe, means for supplying steam to said pipe, and nozzles carried by said pipe which are flexible between the distributing pipe and their outlet ends whereby the outlet ends of the nozzles are retained during rotation of the pipe on lines at an oblique angle to the axis of the distributing pipe.

[Claims 6 to 11 not printed in the Gazette.]

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1,041,061. CUP OR HOLE-RIM FOR GOLF-LINKS. HOWARD HINCKLEY, Washington, D. C. Filed Jan. 9, 1912. Serial No. 670,217. (Cl. 46—4.)



1. A device of the class described, comprising a cup section, an anchor section, and an adjusting connection between said sections including a threaded stem on one section and reëntrant helically disposed lugs forming a mutilated thread on the other section coöperating with said threaded stem and adapted to clear the threads thereon of obstructions.

2. A device of the class described, comprising a cup section having a threaded stem, and an anchor section having a central opening and reëntrant helically disposed lugs forming a mutilated thread for engaging the threaded stem.

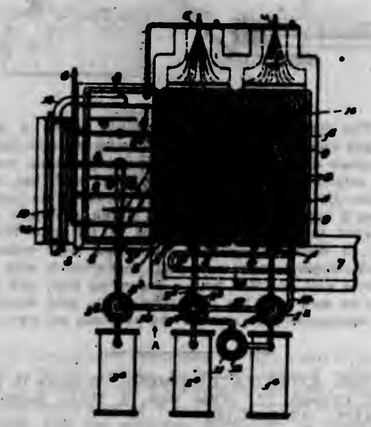
3. A device of the class described, comprising a cup having a pendant stem with screw threads thereon, and an anchor section of inverted cup form with depending anchoring legs and a central top opening with reëntrant helically disposed lugs forming a mutilated thread for engaging the threaded stem.

4. A device of the class described, comprising a pressed metal cup having a hollow pendant stem with threads formed thereon, and a pressed metal anchor section of inverted cup form having depending anchoring legs, and a central top opening surrounded by an interrupted rim having helically disposed lugs forming a mutilated nut for engaging the threaded stem.



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1,041,062. PLANT FOR THE CONTINUOUS DISTILLATION OF COAL-TAR, MINERAL OILS, AND THE LIKE. HAROLD P. KING, Norwood Green, near Halifax, England. Filed May 10, 1912. Serial No. 696,819. (Cl. 196—18.)



In a distilling apparatus, the combination, with a series of stills provided with heating devices and arranged one after another in regular order, of a corresponding series of condensing chambers each provided with a worm, separate pipes connecting the vapor space of each still with one end of the worm pertaining to it, a corresponding series of collecting chambers, a series of pipes each connecting a collecting chamber with the other end of the worm pertaining to it and which is connected to the still pertaining to it as aforesaid, pipes and connections for conducting the liquid to be distilled through the condensing chambers in the reverse order of the series of stills pertaining to them and thence from one still to another in the regular order of their arrangement, the liquid being caused to enter first the condensing chamber pertaining to the last still of the series and to escape finally from the last still of the series, and a separate condensing chamber provided with a worm which is connected to the vapor spaces of all the aforesaid condensing chambers and which is cooled by means independent of the liquid to be distilled.

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1,041,063. CONTROLLING ATTACHMENT FOR HEATING-LAMPS. LEWIS W. HOLMES and CORNELIUS V. TRAUTMAN, Madera, Ind. Filed Oct. 27, 1911. Serial No. 657,080. (Cl. 67—72.)

1. A controlling attachment for heating lamps, comprising a yoke to surround and being supported bodily by a lamp, a bracket carried by said yoke, a lever pivoted at one end to the outer end of the bracket and having its free end disposed above the yoke, and a flame regulating sleeve carried upon the free end of said lever to surround and slide upon the wick tube of a burner.

2. The combination with a heating lamp, of a flame controlling attachment therefor, comprising a yoke fitting upon and bodily supported by the burner of the lamp, a bracket carried by said yoke and extending away from the lamp, a lever having one end pivoted to the free end of the bracket with its free end extending toward the burner of the lamp, and a flame regulating sleeve carried upon the free end of said lever to surround and slide upon the wick tube of the burner.



3. The combination with a heating lamp, and a flame controlling attachment therefor, comprising a spring clamped yoke fitting around the burner of the lamp and bodily supported from the burner, a bracket carried by said yoke and provided with divergent and spaced terminals, a lever provided with oppositely extended journaling trunnions pivoted in the spaced terminals of the bracket and having its free end projected toward the burner, a flame regulating sleeve forming a continuation of the lever disposed in alinement with the main portion of the lever, said sleeve being normally above the yoke and surrounding the wick and tube of the burner, and an eyed lug formed integral with the lever intermediate of its ends and upon the upper side thereof.

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1,041,064. BROOM-BRACE. MACK HOLTS, Chicago, Ill. Filed Mar. 21, 1912. Serial No. 685,257. (Cl. 15—23.)



1. A broom brace comprising a head encircling clamp, a handle engaging member, and a connecting device for said clamp and member composed of slidably engaged elements one of which is adapted to be connected with said clamp and the other with said member, one of said elements having longitudinally spaced notches and the other having a loop for engagement with said notches to hold said elements in adjusted position.

2. A broom brace comprising a head encircling clamp, a handle engaging member, and a connecting device for said clamp and member composed of slidably engaged elements one of which is adapted to be connected with said clamp and the other with said member, one of which has parallel legs provided with longitudinally spaced notches, and the other having a loop arranged transversely thereof in which said legs are adapted to slide, said legs being adapted to spring apart to cause the notches thereof to engage said loop and thereby hold said elements in adjusted position.

3. A broom brace comprising a head encircling clamp, a handle engaging member, and a connecting device for said clamp and member composed of adjustably connected elements, one of which is provided at one end with means for detachably engaging said handle engaging member and at its other end with a transversely arranged loop, the other element being in the form of an inverted U with means at the ends of its legs for detachable engagement with said clamp, said legs having oppositely disposed

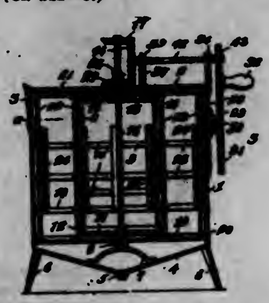
notches, said inverted U-shaped element being slidably mounted in the loop of the other element with its legs tending to spread apart and engage the notches thereof with said loop.

4. A broom brace comprising an adjustable head encircling clamp, an adjustable handle engaging band, a connecting device for said clamp and band composed of adjustably connected elements, one of which is formed of heavy wire curved to fit the curved edge of the broom head and provided at one end with a straight portion to fit said head and having its terminal bent outwardly to engage the top of said band, the other end of said element being bent to form a transversely arranged loop, the other element of said connecting device being formed of heavy wire bent into inverted U-shape with an eye in its cross bar and loops on its legs to receive said clamp, said legs being adapted to pass through the loop of the other element and having notches formed therein for engagement with the opposite ends of said loop, the body portion of said first mentioned element passing loosely through the eye in the cross bar of the other element.

5. A broom brace comprising a head encircling clamp, a handle engaging band having oppositely-disposed recesses in its inner face, a connecting device for said clamp and band composed of adjustably connected elements, one of which is formed of heavy wire curved to fit the curved edge of the broom head and provided at one end with a straight portion to fit in one of the recesses of said band and having its terminal bent outwardly to engage the top of the band, the other element of said connecting device being provided with means for engaging said clamp.

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1,041,065. DISH-WASHING MACHINE. Frank Houmholden, Guthrie, Okla. Filed May 8, 1911. Serial No. 624,773. (Cl. 141—9.)

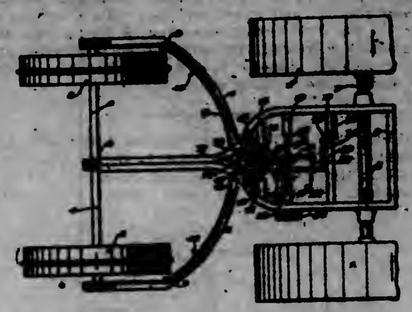


A dish washing machine, comprising a casing, concentrically disposed inner and outer dish holding cages mounted for rotation in the casing and each provided with a plurality of inwardly projecting vertically disposed and vertically elongated blades extending at obliqûe angles to the peripheral surfaces of the cages, the blades of the inner cage extending in a direction opposite to that of the blades of the outer cage and all of the blades being of substantially the same length, the upper ends and the lower ends of the blades of the inner cage lying in the same planes as the corresponding ends of the blades of the outer cage, and means for rotating the cages simultaneously in opposite directions.

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1,041,066. STEERING MECHANISM FOR TRACTORS. August Hovland, St. Paul, Minn. Filed Jan. 3, 1911. Serial No. 600,419. (Cl. 21—114.)

1. The combination with a vehicle having a wheel equipped steering element, of a windlass drum with reversely acting flexible connections with the said steering element, a reversible drive with connections for reversely driving said windlass drum, a manually operated controller for said reversible drive and automatic tripping devices on said flexible connections for throwing said drive out of action at predetermined limits of movement of said steering element.



2. The combination with a vehicle having a wheel equipped steering element equipped with an arch bar, of a windlass drum having reversely acting flexible connections attached to opposite sides of said arch bar, a reversible drive connected to said windlass drum and including a reversely acting friction clutch, a shipper lever connected to the movable element of the said friction clutch, a manually operated controlling lever connected to said shipper lever, a rock shaft connected to said shipper lever and provided with a depending arm, and abutments on said arch bar operative on the said depending arm, substantially as and for the purposes set forth.

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1,041,067. SADDLE ATTACHMENT. William H. Howard, Chicago, Ill. Filed Sept. 8, 1910. Serial No. 580,377. (Cl. 266—122.)



1. The combination with a spring-supported saddle, a back-rest, supporting-means secured to said saddle, means adjustably supporting said back rest and pivotally connected to said supporting-means, and means connected to said saddle for detachably securing the pivoted means in position to hold the back-rest in operative position.

2. The combination with a saddle, and a back-rest, of supporting-means secured to said saddle, means supporting said back rest and pivotally secured to the supporting-means, braces for said supporting-means, and means for securing the back-rest in upright position.

3. The combination with a saddle comprising a rigid back-piece, and springs for supporting said saddle and back-piece, of a back-rest, a post for said back-rest pivoted to said back-piece, and means for detachably securing said post and back-rest in position to render said back-rest operative.



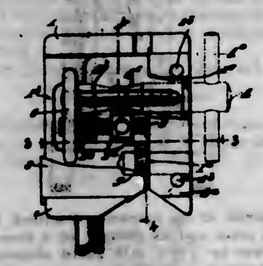
4. The combination with a saddle comprising a back-piece and a cross-bar, a supporting-bracket rigidly secured to said back-piece, braces connected to said bracket and said cross-bar, a back-rest, means for supporting the back-rest pivotally connected to the bracket, and means for securing the said supporting-means in upright position.

5. The combination with a saddle comprising a back-piece and a cross-bar, a supporting-bracket rigidly secured to said back-piece, braces connected to said bracket and said cross-bar, a lug pivoted in said bracket, a post secured in said lug, a back-rest adjustably secured to said post, and means for locking said lug comprising a locking-member connected to said cross-bar.

[Claims 6 to 18 not printed in the Gazette.]

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1,041,068. YARN-STRIPPER. William Hurd, Troy, N. Y. Filed Dec. 21, 1911. Serial No. 667,217. (Cl. 28—20.)



1. A yarn stripper comprising a body; a pair of stripper plates attached thereto, mechanism inclosed within the body for adjusting the space between the plates, and a removable device adapted to be inserted within the body and engaged with the adjusting mechanism to operate the latter.

2. A yarn stripper comprising a body having a notch for the passage of the yarn; a fixed stripper plate at one side of the notch; a slidable plate at the opposite side of the notch; a rotatable screw mounted and inclosed within the body; a connection between said screw and the slidable plate, and a removable device adapted to be partly inserted in the body and engaged with the screw to operate the latter.

3. A yarn stripper comprising a body; a pair of stripper plates attached thereto, a rotatable screw, a nut attached to one plate and engaging said screw; a pinion on said screw; and a removable pinion adapted to be engaged with the pinion on the screw, to operate the latter.

4. A yarn stripper comprising a body having a notch for the passage of the yarn; a fixed stripper plate at one side of the notch; a slidable plate at the opposite side of the notch; a rotatable screw mounted and inclosed within the body; a traveling nut on said screw within the body; a connection between said nut and the slidable plate within the body; and means for rotating the screw.

5. In a yarn stripper the combination of a body; a pair of stripper plates attached thereto; a nut attached to one plate; a rotatable screw in the body engaging said nut; a pinion on said screw; and a removable key provided with a pinion on its end adapted to be inserted into the body and engaged with the pinion on the screw to operate the latter.

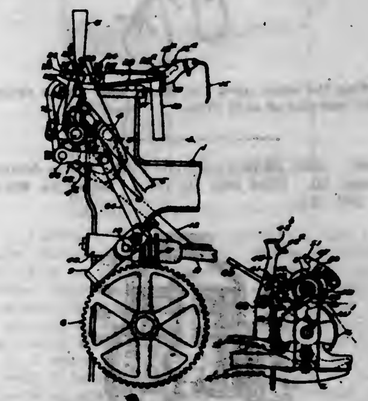
[Claims 6 to 8 not printed in the Gazette.]

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1,041,069. PICK-FINDER DEVICE FOR LOOMS. Ernest Schuyler Jatkins, Readville, Mass., assignor to The Stafford Company, Readville, Mass., a Corporation of New Jersey. Filed July 12, 1909. Serial No. 507,804. (Cl. 139—65.)

1. In pick-finder devices for looms, in combination, a tripping device and a member in connection therewith having a shoulder and lip, a dog which engages normally with the said lip and thereby is kept from engaging with the shoulder on the primary stroke of the dog, and which clears said lip in making the return, and engages the shoulder and actuates the tripping-device on a succeeding stroke, and weft-detector devices which occasion successive advances of the dog when weft-deficiency is detected.

2. In pick-finder devices for looms, in combination, a tripping device and a member in connection therewith having a shoulder and lip, a dog which engages normally with the said lip and thereby is kept from engaging with the shoulder on the primary stroke of the dog, and which clears said lip in making the return, and engages the shoulder and actuates the tripping device on a succeeding stroke, weft-detector devices which occasion successive advances of the dog when weft-deficiency is detected, and automatic means for restoring the dog to its normal position in connection with the lip.



3. In pick-finder devices for looms, in combination, a tripping device and a member in connection therewith having a shoulder and lip, a dog which engages normally with the said lip and thereby is kept from engaging with the shoulder on the primary stroke of the dog, and which clears said lip in making the return, and engages the shoulder and actuates the tripping-device on a succeeding stroke, weft-detector devices which occasion successive advances of the dog when weft-deficiency is detected, and a shipper-device which is thrown by the said tripping device to bring about the required change in the working of the loom, and by which the dog is restored to its normal position in connection with the lip.

4. In pick-finder devices for looms, in combination, the tripping rock-shaft and the arm provided with shoulder and lip, the dog which rests normally upon the lip, and the weft-detector slide by which the said dog is operated.

5. In pick-finder devices for looms, in combination, the tripping rock-shaft and the arm provided with shoulder and lip, the dog which rests normally upon the lip, the weft-detector slide by which the dog is actuated, and a shipper-device which is thrown by the said rock-shaft and by which the dog is restored to its normal position upon the lip.

[Claims 6 to 16 not printed in the Gazette.]

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1,041,080. FIRE-ESCAPE. Nels Johnson, South Stillwater, Minn. Filed Aug. 1, 1911. Serial No. 641,818. (Cl. 256—22.)

A fire escape apparatus comprising a bar, a drum journaled on said bar, a disk rigid with said drum, a notched wheel supported by the drum supporting sheet, a hand actuatable shaft journaled in said bar and having operative connection with said drum, a post journaled in said bar, a cam carried by said post, means for actuating said post to turn said cam either into locking engagement with

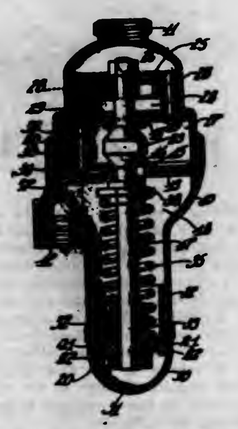
said toothed wheel, frictional engagement with said disk, or, an intermediate position, means carried by said box for



supporting the same upon the user's body and a cable secured at one end of said drum.

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1,041,091. AIR-BRAKE APPARATUS. OSCAR JOHNSON, Chicago, Ill. Filed May 18, 1911. Serial No. 627,918. (Cl. 188—3.)



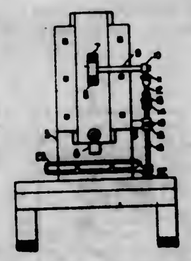
1. In air-brake apparatus, the combination of a source of high-pressure, an engineer's brake valve connected to said source of high pressure and having an exhaust outlet, a brake cylinder, a brake pipe connecting the engineer's brake valve to said brake cylinder, a valve in said brake pipe, means tending to hold the second mentioned valve open, pressure-fluid actuated means for closing the second mentioned valve, the casing for the latter valve containing an outlet for pressure fluid in the brake cylinder to the brake pipe, and means within said casing responsive to pressure in the brake cylinder for opening said outlet.

2. In air-brake apparatus, the combination of a brake cylinder, an air pipe, a valve casing having therein a chamber connected to said air pipe, and another chamber connected to said brake cylinder, a valve member for closing communications between said chambers, a spring tending to unseat said valve member, means responsive to pressure in the brake cylinder for seating said valve, and means for relieving pressure in the brake cylinder so as to permit the spring to unseat said valve member.

3. In air-brake apparatus, the combination of a brake cylinder, an air pipe, a valve casing having therein a chamber connected to said air pipe and another chamber connected to said brake cylinder, a valve member for closing communications between said chambers, a spring tending to unseat said valve member, means responsive to pressure in the brake cylinder for seating said valve member, means in said valve casing responsive to pressure in the second mentioned chamber for permitting the discharge of pressure fluid from the second mentioned chamber to the first mentioned chamber.

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1,041,092. SAFETY-GUARD FOR FOOT OR SCREW PRESSES. JAMES MELVIN JOHNS, Hamilton, Ontario, Canada. Filed Apr. 4, 1912. Serial No. 686,425. (Cl. 164—107.)



1. In a device of the character described, the combination with a press and its plunger, of a guard element, a swinging lever by which said guard element is carried, and a pivoted link connection between said plunger and said swinging lever, said guard element being carried by the lower end of said lever and said swinging link connection engaging said lever above the point upon which it swings.

2. In a device of the character described, the combination with a press and its plunger, of a bracket secured to the press frame, a bearing block pivotally mounted upon said bracket, a lever mounted in said bearing block, a guard element carried by said lever and a pivoted link connection between said lever and said plunger.

3. In a device of the character described, the combination with a press and its plunger, of a bracket secured to the press frame, a bearing pivotally mounted upon said bracket, a lever mounted in said bearing block, a guard element carried by said lever, a pivoted link connection between said lever and said plunger, and means for adjusting the point of engagement of said link connection with the said lever.

4. In a device of the character described, the combination with a press and its plunger, of a swingingly mounted bent lever, a guard element supported from the lower end of said bent lever, and a pivoted link connection between the upper end of said lever and said plunger.

5. In a device of the character described, the combination with a press and its plunger, of a bracket secured to the press frame, a block pivoted to said bracket, a bent lever adjustable through said block, a guard carrying element adjustable upon said lever, a bracket secured to the press plunger, a second block adjustably mounted upon said lever and a link connection between the last named block and said bracket.

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1,041,093. MEANS FOR ADJUSTING CLUTCH-INSERTS. FRANK JUNGJOHANN, Davenport, Iowa. Filed Jan. 31, 1912. Serial No. 674,506. (Cl. 192—1.)

1. In combination, power transmitting devices having friction surfaces provided with inserts, and devices adapted to adjust said inserts a positive predetermined degree relative to the friction surface.

2. In combination, power transmitting devices having friction surfaces provided with non-metallic inserts, and devices adapted to adjust said inserts a fixed predetermined degree relative to the friction surface.



3. In combination, power transmitting devices having friction surfaces provided with non-metallic inserts, devices adapted to adjust said inserts relative to the friction surface, and means adapted to positively indicate the degree or extent of adjustment.



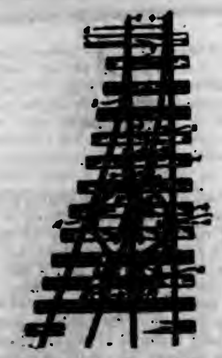
4. In combination, friction devices, having friction surfaces provided with inserts, devices adapted to adjust said inserts relative to the friction surface, and means adapted to positively indicate the degree or amount of adjustment.

5. In combination, friction devices having friction surfaces provided with inserts, insert adjusting devices, and degree-of-adjustment indicating means controlled by said adjusting devices.

[Claims 6 to 13 not printed in the Gazette.]

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1,041,094. GUARD-RAIL. JOHN W. KELLEY, Chicago, Ill., assignor of one-half to David R. Miller and William Panscher, Chicago, Ill. Filed Feb. 12, 1912. Serial No. 677,231. (Cl. 238—17.)



1. In a device of the character described, the combination of track-rails, a frog, and a guard-rail, said guard-rail being secured to said frog at the joint between the frog and the switch-track rail and at the joint between the frog and the main-track rail, said guard-rail extending outwardly from said frog and being secured to the main-track rail at a point opposite said frog.

2. In a device of the character described, the combination of track-rails, a frog, and a guard-rail secured thereto and directly engaging the frog at the joint between the frog and the switch-track rail and secured to the frog but spaced apart therefrom at the joint between the frog and one main-track rail, said guard-rail being also secured to the other main-track rail at a point opposite said frog.

3. In a device of the character described, the combination of track-rails, a frog, a guard-rail secured thereto and having an arm extending parallel to one of the switch-track rails, an arm parallel to one of the main-track rails, said arms being secured, respectively, to the frog at the joints between said frog and the rails to which said arms are parallel, an arm parallel to the other main-track rail, and arms extending obliquely to the main-track rails and connecting said first-mentioned and said second-mentioned arms to said third-mentioned arm.

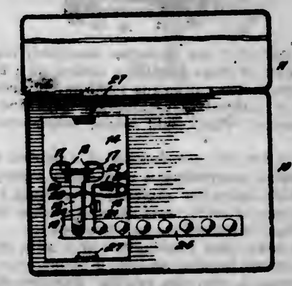
4. In a device of the character described, the combination of track-rails, a frog, a pair of guard-rails secured thereto, each being secured to said frog at the joint between the frog and one of the switch-track rails and at the joint between the frog and one of the main-track rails, both of said guard-rails extending from said frog and being secured to the track rail at a point opposite said frog.

5. In a device of the character described, the combination of track-rails, a frog, and a guard rail, said guard-rail being secured to said frog at the joint between the frog and one of the rails connected to the switch point and extending from said point to one of the rails.

[Claims 6 to 9 not printed in the Gazette.]

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1,041,095. SURPRISE AND ALARM DEVICE. JAMES L. KELLOGG, New York, N. Y. Filed July 17, 1912. Serial No. 709,890. (Cl. 46—41.)



1. In a device of the character described, a base, a hammer-arm pivotally mounted thereon, means for holding a paper-cap to be exploded by said arm, and a laterally extending actuating spring-member connected with said arm at one side of its axis of motion to be carried by the arm toward the other side of said axis on the moving of the arm to its predetermined set position for operation.

2. In a device of the character described, a carrying base-plate, a hammer-arm pivotally mounted at one end thereon on an axis substantially parallel therewith, means on said plate for holding a paper-cap against the same in position to be struck by said arm, and a laterally extending actuating spring-member secured to said plate and connected at its free end with said arm at one side of its axis of motion to be carried by the arm toward the other side of said axis on the moving of the arm to its predetermined set position for operation.

3. In a device of the character described, a carrying base-plate, a hammer-arm pivotally mounted at one end thereon on an axis substantially parallel therewith, and a rod of spring wire secured to said plate and at one part constituting a spring-clamp for holding a paper-cap against said plate in position to be struck by said arm and at another part affording a laterally extending actuating spring-member lying at right angles to said spring clamp and connected with said arm at one side of its axis of motion to be carried by the arm toward the other side of said axis on the moving of the arm to its predetermined set position for operation.

4. In a device of the character described, a carrying base-plate, a hammer-arm pivotally mounted at one end thereon on an axis substantially parallel therewith, and a rod of spring wire secured to said plate and at one part constituting a spring-clamp for holding a paper-cap against said plate in position to be struck by said arm and at another part affording a laterally extending actuating spring-member lying at right angles to said spring clamp and connected with said arm at one side of its axis of motion to be carried by the arm toward the other side of said axis on the moving of the arm to its predetermined set position for operation, said plate having ears integral therewith and standing at right angles thereto and affording bearings for said arm and ears integral therewith and extending at right angles to each other securing said wire rod thereto.

5. In a device of the character described, a base-plate, a hammer-arm pivotally mounted at one end thereon on

an axis parallel therewith and having at one side of its axis of motion an eye, means on said plate for holding a paper-cap against the same in position to be struck by said arm, and a laterally extending actuating spring-member secured to said plate and at its free end entered in said eye and to be carried by said arm toward the other side of said axis of motion on the moving of the arm to its predetermined set position for operation.

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1,041,096. MIXER FOR INTERNAL-COMBUSTION ENGINES. WILLIAM KELLY, Lowell, Mass. Filed May 11, 1912. Serial No. 696,694. (Cl. 48—180.)



1. In a device of the character described, the combination of a pair of rings forming a casing, of a mixer rotatably mounted therein, spacing for rotatably securing the perphery of said mixer within said rings and radiating blades mounted within said mixer, substantially as described.

2. In a mixer, the combination of a pair of rings, of a rotary member comprising a rim, a fan mounted within said rim and means for rotatably connecting the periphery of the rim of said rotary member within the interior of said rings, substantially as described.

3. In a mixer, the combination of a pair of rings detachably secured together to form a casing, a rotary member comprising a rim, the exterior diameter of said rim being less than the interior diameter of said rings, antifrictional bearings mounted between the outer periphery of said rim and the inner periphery of said rings, substantially as and for the purpose described.

4. In a mixer for internal combustion engines, the combination of a casing, of a mixer mounted therein, said mixer comprising a rim, radiating blades mounted within said rim and made integral therewith, wire meshes for inclosing said blades and means for rotatably connecting said rim with said casing, substantially as described.

5. In a mixer for internal combustion engines, the combination of a casing comprising two sections, each of said sections having an annular segmental groove formed therein, a rotary member comprising a peripheral rim having an annular semicircular groove formed therein, bearing elements mounted within said annular groove, a fan mounted within said rotary member, and means for securing the sections of said casing together, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,097. COMBINED VEHICLE-HUB AND SHOCK-ABSORBER. CHARLES L. KENNEDY, Winnipeg, Canada. Filed Mar. 27, 1912. Serial No. 686,090. (Cl. 21—66.)



1. In a combined hub and shock absorber, the combination with an axle, of a pair of spaced bosses carried by the ends of the axle, a circular plate formed with an annular depression opening in one direction into which the bosses extend, and a central depression opening in the opposite direction, a stub axle extending from the center of the central depression, a pair of bolts connecting the opposite sides of the annular depression and passing through the bosses, a pair of springs, one surrounding each bolt, and interposed between one side of the boss and one side of the annular depression and a wheel hub mounted on the stub axle.

2. In a combined hub and shock absorber, the combination with an axle, of a pair of spaced bosses carried by the ends of the axle, a circular plate formed with an annular depression opening in one direction into which the bosses extend, and a central depression opening in the opposite direction, a stub axle extending from the center of the central depression, a pair of bolts connecting the opposite sides of the annular depression and passing through the bosses, a pair of springs, one surrounding each bolt and interposed between one side of the boss and one side of the annular depression, and a hub mounted on the stub axle and entering the central depression, a circular extension of the hub surrounding the periphery of said circular plate, a tread surface supported by the hub with the plane of the tread in line with the centers of said bolts.

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1,041,098. DENTAL GOLD-CAP-CROWN REMOVER. IRVING BURTON KENNEY, Wadena, Minn. Filed Jan. 12, 1912. Serial No. 670,757. (Cl. 32—10.)



1. A dental crown remover comprising a cross-bar, a pair of spring pressed grapple hooks pivoted to the bar, arms formed on the hooks and extending at an angle to the hooks to operate and position the same, and a screw working through the central portion of the bar.

2. A dental crown remover comprising a cross-bar, a pair of spring pressed grapple hooks pivoted to the ends of the bar, arms formed on the hooks to position the same, means to lock said hooks in crown-engaging position, and a screw working through the central portion of the bar.

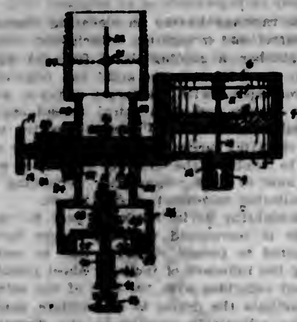
3. A dental crown remover comprising a cross-bar, a pair of spring pressed grapple hooks pivoted to the bar, arms formed on said hooks, an inwardly extending sleeve mounted on one arm, an inwardly extending screw mounted on the other arm with its inner end extending into said sleeve, a nut on the screw adapted to engage the end of the sleeve and thus prevent the hooks from separating, and a screw working through the central portion of the bar.

4. A dental crown remover comprising a cross-bar, a pair of spring pressed grapple hooks pivoted to the bar, arms formed on the hooks to operate and position the same, a screw working through the central portion of the bar, and a handle mounted on said bar by means of which the instrument may be held in proper position.

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1,041,099. CARBURETER. JAMES KEMPE, Wayne, Mich., assignor, by direct and mesne assignments, of three-fourths to John Howes and one-fourth to Nettie Talmon, Wayne, Mich. Filed Jan. 9, 1911. Serial No. 601,626. (Cl. 48—185.2.)

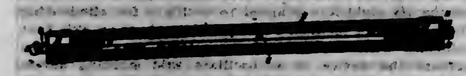
In a carburetor, the combination of a carbureting chamber comprising a hollow body having flat sides and cylindrical ends, a rotatably adjustable tube extending through said sides and having a collar bearing against one side, a nut on said tube engaging the opposite side, a float-valve chamber connected to one end of said tube, a needle valve mounted in said tube for controlling the flow of fuel therethrough, a needle projecting upward from said tube



at the central line of the carbureting chamber and a gland on the end of said tube to prevent leakage around the needle valve stem.

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1,041,100. TUBULAR INCANDESCENT LAMP. EDWARD R. KNOWLES, New York, N. Y. Filed July 1, 1909. Serial No. 505,242. (Cl. 176—39.)



1. In an incandescent lamp, the combination of a tube, a filament holder therein in the form of a frame having outwardly tensioned resilient side members engaging at an intermediate point the walls of the tube, the extremities of the frames being flexible and out of contact with the tube, and a filament attached at its ends to the frame.

2. In an incandescent lamp, the combination of a tube, a filament holder therein in the form of a frame having outwardly tensioned resilient side members engaging at an intermediate point the walls of the tube, the extremities of the frames being flexible and out of contact with the tube, a filament extending longitudinally of the frame, and springs in alinement with the filament and connecting the extremities thereof with the extremities of the frame.

3. An incandescent lamp comprising a straight cylindrical tube, a rectangular resilient inner frame with outwardly bowed sides received within said tube, and a filament wholly supported by said frame coaxially within said tube.

4. An incandescent lamp comprising a straight cylindrical tube, a rectangular resilient inner frame with outwardly bowed sides received within said tube, a filament wholly supported by said frame coaxially within said tube, and means for maintaining said filament stretched under tension within said frame.

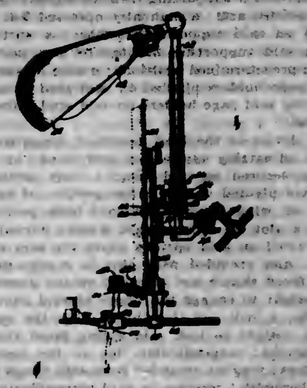
5. An incandescent lamp comprising a straight cylindrical tube, an inner rectangular wire frame having ends shorter than the inner diameter of the tube and outwardly bowed sides, and a filament wholly supported by said frame within said tube.

[Claims 6 to 18 not printed in the Gazette.]

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1,041,101. BOOK-HOLDER. STEPHEN KONEY, Chicago, Ill. Filed Apr. 10, 1912. Serial No. 690,617. (Cl. 45—60.)

1. A device of the kind described comprising a stand; an arm adjustably secured on said stand; an upright adjustably secured on said arm; a body portion provided with ears pivoted on the lower portion of said upright; a pair of wings pivoted on said body portion; an ear having a slot on each of said wings; curved connecting rods pivoted on said upright above the ears of said body portion, and provided with pins to engage said slots; a spring faced thumb nut threaded on the upper portion of said upright to engage the upper of said curved connecting rods; a lock nut also threaded on the upper portion of said upright to lock said spring faced thumb nut on said upright, substantially as described.



2. A device of the kind described comprising a stand; an arm adjustably secured on said stand; an upright adjustably secured on said arm; a body portion provided with ears pivoted on the lower portion of said upright; a pair of wings pivoted on said body portion; an ear having a slot on each of said wings; curved connecting rods pivoted on said upright above the ears of said body portion, and provided with pins to engage said slots; a spring faced thumb nut threaded on the upper portion of said upright to engage the upper of said curved connecting rods; a lock nut also threaded on the upper portion of said upright to lock said spring faced thumb nut on said upright; perpendicular lips on the lower edges of said wings; tongues extended from said wings in the same plane therewith; recesses in said perpendicular lips opposite said tongues to engage said tongues when said perpendicular lips are closed, a depended arm on said body portion; a supporting member adjustably secured on said depended arm; a manually operated bell crank lever pivoted on said supporting member; and a spring actuated lock in said supporting member to lock said bell crank lever in predetermined positions, substantially as described.

3. A device of the kind described comprising a stand; an arm adjustably secured on said stand; an upright adjustably secured on said arm; a body portion provided with ears pivoted on the lower portion of said upright; a pair of wings pivoted on said body portion; an ear having a slot on each of said wings; curved connecting rods pivoted on said upright above the ears of said body portion, and provided with pins to engage said slots; a spring faced thumb nut threaded on the upper portion of said upright to engage the upper of said curved connecting rods; a lock nut also threaded on the upper portion of said upright to lock said spring faced thumb nut on said upright; perpendicular lips on the lower edges of said wings; tongues extended from said wings in the same plane therewith; recesses in said perpendicular lips opposite said tongues to engage said tongues when said perpendicular lips are closed, substantially as described.

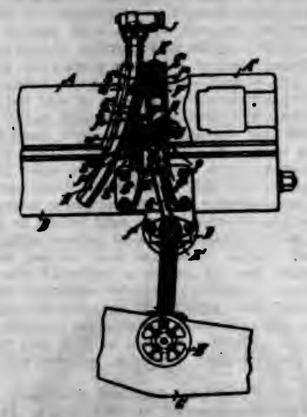
4. A device of the kind described comprising a stand; an arm adjustably secured on said stand; an upright adjustably secured on said arm; a body portion provided with ears pivoted on the lower portion of said upright; a pair of wings pivoted on said body portion; an ear having a slot on each of said wings; curved connecting rods pivoted on said upright above the ears of said body portion, and provided with pins to engage said slots; a spring faced thumb nut threaded on the upper portion of said upright to engage the upper of said curved connecting rods; a lock nut also threaded on the upper portion of said upright to lock said spring faced thumb nut on said upright; perpendicular lips on the lower edges of said wings; tongues extended from said wings in the same

plane therewith; recesses in said perpendicular lips opposite said tongues to engage said tongues when said perpendicular lips are closed; an arm depended from said body portion; a supporting member adjustably secured on said depended arm; a manually operated bell crank lever pivoted on said supporting member; a spring actuated lock in said supporting member to lock said bell crank lever in predetermined positions; a stud on said bell crank lever; page holders pivoted on said stud; and means for tensioning said page holders on said stud, substantially as described.

5. A device of the kind described comprising a stand; an arm adjustably secured on said stand; an upright adjustably secured on said arm; a body portion provided with ears pivoted on the lower portion of said upright; a pair of wings pivoted on said body portion; an ear having a slot on each of said wings; curved connecting rods pivoted on said upright above the ears of said body portion, and provided with pins to engage said slots; a spring faced thumb nut threaded on the upper portion of said upright to engage the upper of said curved connecting rods; a lock nut also threaded on the upper portion of said upright to lock said spring faced thumb nut on said upright; perpendicular lips on the lower edges of said wings; tongues extended from said wings in the same plane therewith; recesses in said perpendicular lips opposite said tongues to engage said tongues when said perpendicular lips are closed; an arm depended from said body portion; a supporting member adjustably secured on said depended arm; a manually operated bell crank lever pivoted on said supporting member; a spring actuated lock in said supporting member to lock said bell crank lever in predetermined positions; a stud on said bell crank lever; page holders pivoted on said stud; a spring faced thumb nut threaded on said stud and engaging said page holders to frictionally lock said page holders in desired positions, substantially as described.

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1,041,102. GUN-SIGHTING DEVICE. HEINRICH KONRODT, Bern-Kirchenfeld, Switzerland, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Oct. 15, 1910. Serial No. 587,260. (Cl. 89—32.)



1. A sighting attachment having a sight bar, a guiding sleeve for said sight bar, a rotary driving gear engaging the sight bar for adjusting it relatively to said sleeve to correspond with the target distance and means for oscillating the sleeve to eliminate the influence of inclined wheel position, the axis of said rotary gear coinciding with the axis of oscillating movement of said sleeve.

2. A sighting attachment having a toothed sight bar, a guiding sleeve for said sight bar, a rotary gear constructed with spiral thread engaging the teeth of the sight bar for adjusting the sight bar relatively to said sleeve to correspond with the target distance and means for oscillating the sleeve to eliminate the influence of inclined wheel position, the axis of said rotary gear coinciding with the axis of oscillating movement of said sleeve.

3. A gun carriage having an elevating mechanism for the gun barrel and a sighting attachment comprising a toothed sight bar, a guiding sleeve for said sight bar, a rotary gear for adjusting the sight bar relatively to the sleeve to correspond with the target distance, said rotary gear being constructed with spiral thread engaging the teeth of said sight bar and having positive connection with said elevating mechanism, and means for oscillating the sleeve to eliminate the influence of inclined wheel position, the axis of said rotary gear coinciding with the axis of oscillating movement of said sleeve.

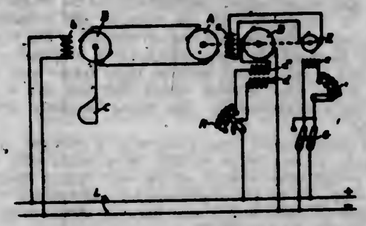
4. A gun-sighting device having a gear for setting the firing angle to correspond with the target distance and being mounted to permit its sight line to oscillate, for eliminating the influence of inclined wheel position, about an axis that coincides with the axis of the setting gear; means to actuate the device to so oscillate, said sighting device being adjustable parallel to the direction to be imparted to the axis of the gun bore; in combination with a hollow attachment arm upon which the sighting device and said gear are mounted and shafting extending through said hollow arm and having driving connection with said gear.

5. A gun-sighting device having a gear for setting the firing angle to correspond with the target distance, and having its sight-line adapted to oscillate for eliminating the influence of inclined wheel position, about an axis that coincides with the axis of the setting gear; means to actuate the device to so oscillate said sighting device having a toothed segment bar through which it is adjusted and said gear being constructed with a spiral thread engaging the teeth of said segment bar, constructed approximately in the form of a circle.

[Claim 6 not printed in the Gazette.]

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1,041,103. POWER-TRANSMISSION SYSTEM. CHRISTIAN KRÄMER, Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed May 15, 1912. Serial No. 697,498. (Cl. 172—239.)



1. In a system of power transmission, a compound-wound motor, a source of current supplying said motor, a generator and an exciter driven by said motor, said exciter supplying the field excitation of said generator, and a translating device supplied with current from said generator and driving a variable load.

2. In a system of power transmission, a motor having a shunt and a cumulative series field winding, a source of current supplying said motor, a generator and an exciter driven by said motor, said exciter supplying the field excitation of said generator, a translating device supplied with current from said generator and driving a variable load, and means for controlling the speed of said translating device by varying the voltage supplied thereto.

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1,041,104. GARMENT-SUPPORT. FLORA B. KRAUCH, Indianapolis, Ind. Filed Feb. 3, 1912. Serial No. 675,196. (Cl. 241—12.)

A garment support of the class described, composed of three substantially V-shaped strap members, the apex of one of the V's being designed to lie against the back of the wearer and the arms to overlie the shoulders of the wearer and meet in front; and each of the other two V's having its apex designed to be downward at the sides of the wearer and its two arms extended upwardly and respectively forwardly and rearwardly and attached respectively to one arm of the first V, the point of attachment of the rearwardly extending arm of each of the last named V's to the arm of the first named V being above the apex of the first named V, two garment supports carried one by the apex of the first V and the other by the end of one arm of said V, two other garment supports one carried by each apex of the two other V's, and a single fastening comprising two coöperating separable members carried by the free ends of the first mentioned V.





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1,041,105. DROP-BOTTLE. HEINRICH KNOOP, Minden, Germany. Filed Apr. 10, 1912. Serial No. 689,926. (Cl. 215—16.)



In a drop bottle the combination, with a bottle neck having a short vertical internal groove at the neck base, a longer vertical internal groove extending upward from the neck base and a lateral delivery orifice vertically above said short groove, of a stopper having a lateral projection above its insertible part, two vertical alined grooves separated by a ridge of the stopper material above the level of the lateral neck orifice, the upper alined groove extending in part along the underside of said projection, and a third vertical groove at a part of the stopper circumference remote from said alined grooves, said third groove and the lower alined groove terminating at a level slightly below the upper end of the shorter neck groove, the whole arranged so that by adjusting the alined stopper grooves against the longer neck groove a passage is made from the interior of the bottle to the grooved lateral stopper projection, the third stopper groove being then against the lateral neck orifice, and that by adjusting the lower alined groove against the shorter neck groove a passage is made from the interior of the bottle to the lateral neck orifice.

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1,041,106. METALLIC TIE AND RAIL-CLAMP. ALGERNON SIDNEY LAWSON, Fossil, Ala. Filed June 19, 1912. Serial No. 704,239. (Cl. 238—4.)



1. In combination, a metallic tie having a T-shaped head, a rail fastener shaped to slip on said head and having a rail engaging portion, there being a slot formed in the web of the tie, a bearing block which is inserted in one end of said slot and extends beyond the sides of the web and into engagement with said fastener, laterally projecting shoulders connected to the tie web and disposed at the other end of the slot, and a wedge key adapted to engage between said shoulders on one side and said block on the other to force the latter end with it said fastener into position against the rail, substantially as described.

2. In combination, a metallic tie having a T-head, a bent metal rail fastener adapted to fit over said head and having portions which lie alongside the web of the tie in which is a slot, means to clamp said portions to the web, a wedge adapted to be inserted through said slot to force the clamp into operative position, and an extended bearing for said key formed by shoulders which project on each side of said web and are connected thereto.

3. In combination, a metallic tie having a T-head which supports the rails and is provided with slots in its web on each side of each rail, rail fasteners which receive between them the rails and are shaped to slip over and along the tie head and having depending shoulders, and separate fastening means for each rail fastener comprising a notched bearing block which is inserted through a slot in the tie web and engages and overlaps the depending shoulders on the fastener, a wedge also inserted in said slot, and bearing projections on each side of the tie web which are engaged by said wedge which is adapted to be interposed between them and said clamp to force the block and fastener toward the rail.

4. A metallic rail fastener formed of bent sheet metal and comprising a rail flange engaging lip, side wings bent to form between them and the body of the fastener a T-shaped opening, and a rear extension which is transversely crimped to form an upwardly projecting shoulder.

5. In combination, a metallic tie having a T-head which supports the rails and is provided with slots in its web, clamps shaped to fit over the tie head and having depending shoulders, and fastening means for each clamp comprising a notched bearing block which is inserted through a slot in the tie web and engages and overlaps the depending shoulders on a clamp, a second notched bearing block inserted in the slot and adapted to engage the web, and a wedge adapted to be driven between said blocks, as and for the purposes described.

[Claim 6 not printed in the Gazette.]

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1,041,107. INDICATOR. JOHN W. LEDOUX, Swarthmore, Pa. Filed Feb. 23, 1910. Serial No. 545,874. (Cl. 234—34.)



1. In an indicator, a revoluble device, a constant rate motor for driving said device, a wheel revoluble by contact with a surface of said device, means for moving said wheel axially to vary its position with relation to the axis

of revolution of said device, said means comprising an axial shaft fixed to said wheel and differential gearing mechanism for moving said shaft, a threaded member through which said shaft is movable, means whereby said shaft revolves said member, a marker, and means whereby said threaded member moves said marker at a rate proportional to the rate of said wheel.

2. In an indicator, a revolvable device having a surface of revolution, means for revolving said device at a constant rate, a traction member revolvable by contact with said device, a shaft fixed to said member, means for moving said shaft longitudinally to vary the position of said member with relation to the axis of said device, a journaled device through which said shaft is movable, means whereby said shaft revolves said device, a marker, means whereby said journaled device moves said marker, and means for receiving a record from said marker.

3. In an indicator, a revolvable device having a surface of revolution, means for revolving said device at a constant rate, a shaft substantially parallel to an element of said device, a traction member fixed to said shaft, a journaled member having a thread therein through which said shaft is movable, means whereby said shaft revolves said member, a marking device, means whereby said thread translates said marking device, means for receiving a record from said marking device, and mechanism for moving said means last named at a constant rate.

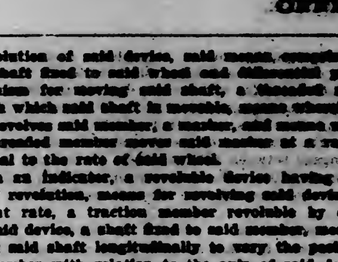
4. In an indicator, a driving device having a surface of revolution revolvable at a constant rate, a traction wheel revolvable by contact with the surface of said device, means for moving said wheel axially parallel to an element of said surface, and means for intermittently relieving the pressure of said wheel on said surface.

5. In an indicator, a member having a surface of revolution, means for revolving said member about the axis of said surface at a constant rate, a wheel normally engaging said surface, an axial shaft fixed to said wheel and disposed substantially parallel to an element of said surface, means for moving said shaft longitudinally whereby said wheel is moved to positions on said surface of different distance from the axis of revolution, and means for oscillating said shaft and wheel.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,108. THEATER-CHAIR. WILLIAM J. LEONARD and FRED R. LEONARD, Chester, Nebr. Filed May 18, 1912. Serial No. 698,277. (Cl. 155—18.)



The combination with a floor having a rectangular recess therein, the bottom of which is provided adjacent the side walls with longitudinal channels, and transverse channels connecting the longitudinal channels, of a chair comprising a pair of straight standards, a pair of angular standards, a rung pivotally connecting an angular standard to each of the straight standards, a back rigidly fastened to the straight standards, a seat hinged to said back and a rung connecting the rear ends of the angular standards, the forward ends of the straight standards being pivotally connected within said longitudinal channels adjacent their front ends, the last mentioned rung being adapted to engage the rear wall of the forward transverse channel to hold the chair in an upright position, the chair being adapted by spreading the legs, to fold within the recess to bring the back and seat in the same horizontal plane and on a level with the floor, the chair standards and rungs being received by the longitudinal and transverse channels respectively.

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1,041,109. MACHINE-GUN. Goodell S. Lewis, Chicopee Falls, Mass., assignor to J. Stevens Arms & Tool Company, Chicopee Falls, Mass., a Corporation of Massachusetts. Filed Mar. 26, 1912. Serial No. 686,916. (Cl. 42—17.)



1. In a magazine gun, the combination of a barrel, a receiver, a magazine tube, a grip-piece arranged to slide on the magazine tube, a slide bar, a closure at the forward end of the magazine tube, a spring follower within the magazine tube, and a removable stop, independent of the said closure and the said follower and arranged between the two to limit the forward movement of the spring follower independently of the movement of the grip-piece.

2. In a magazine gun, the combination of a barrel, a receiver, a magazine tube, a grip-piece arranged to slide on the magazine tube, a slide bar, a spring follower arranged within the magazine tube and comprising a long spiral spring and a cupped cap, and a rod interposed between the forward end of the magazine tube and the cap of the follower to limit the forward movement of the cap and to support the spring.

3. In a firearm, the combination with the tubular magazine and cap thereof, of a spring-actuated cartridge follower longitudinally movable in said magazine, and a removable transchamber located within the said magazine tube and having a bearing at the forward end against said cap and adapted at its rear end to limit the forward movement of the cartridge follower.

4. In a firearm, the combination with the tubular magazine and cap thereof, of a cartridge follower located in said magazine, a spring within said magazine and tending to force the follower rearward, and an independently formed rod located within the said spring and having a bearing at the forward end against the magazine cap and adapted at its rear end to be engaged by the said cartridge follower whereby the forward movement of the cartridge follower is positively arrested.

5. In a magazine gun, a tubular magazine closed at one end, a cartridge feeding spring and follower therein, and a removable stop independent of the magazine and the follower and arranged between the follower and the closed end of the magazine to limit the number of cartridges that may be placed therein by standing in the path thereof.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,110. DRAFT-RIGGING FOR RAILWAY-CARS. GOODRICH Q. LEWIS, Wheaton, Ill., assignor to William H. Miner, Chicago, Ill. Filed June 12, 1912. Serial No. 703,192. (Cl. 213—42.)



1. In a device of the character described, a draw bar, a shell and a member connecting them, said member having arms provided with lugs, and the shell having pockets opening rearwardly to receive said lugs.

2. In a railway draft rigging, a draw bar, a shell and a member connecting them, removably attached to the shell, the said member comprising arms extended rearwardly from the draw bar having inwardly turned lugs adapted to engage within rearwardly opening pockets upon the shell.

3. In a railway draft rigging, a draw bar, a shell and a member connecting them, removably attached to the draw bar and to the shell, the said member being provided with a box like opening to receive the draw bar, and with rearwardly extending arms having inwardly turned lugs, and the shell having rearwardly opening pockets adapted to receive the said lugs.

4. In a railway draft rigging, a draw bar, a shell and a member connecting the draw bar and shell, the shell being provided externally with U shaped members forming rearwardly opening pockets, and the said connecting member being provided with arms adapted for engagement within said pockets.

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1,041,111. OIL-STOVE BURNER. ALBERT J. LINDEMANN, Milwaukee, Wis., assignor to A. J. Lindemann & Hoverson Co., Milwaukee, Wis. Filed Dec. 12, 1911. Serial No. 665,208. (Cl. 158—89.)



1. An oil-stove burner having a wick-holder comprising a pair of shells between which the wick is guided and which are outwardly folded in a downward direction on an inclination, and then horizontally extended to form ledges that constitute seats for the perforated rings of a burner-drum below the folds.

2. An oil-stove burner having a wick-holder comprising a pair of shells between which the wick is guided and which are outwardly folded in a downward direction on an inclination, then horizontally extended to form ledges and finally turned downward at right-angles to said ledges.

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1,041,112. SOLVENT FOR ACETYL CELLULOSE. WILLIAM G. LEMSAY, New York, N. Y., assignor to The Celluloid Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 25, 1911. Serial No. 646,067. (Cl. 106—40.)

1. A new composition of matter consisting of acetyl cellulose dissolved in a mixture of pentachlorethane and methyl alcohol, said solvent ingredients being in substantially equal volumes, substantially as described.

2. A new composition of matter consisting of acetyl cellulose dissolved in a mixture of pentachlorethane and methyl alcohol, said solvent ingredients being in substantially equal volumes, in conjunction with other solvents, liquid or solid, substantially as described.

3. A new composition of matter consisting of acetyl cellulose dissolved in a mixture of pentachlorethane and methyl alcohol, said solvent ingredients being in substantially equal volumes, in conjunction with other solvents, liquid or solid, and inert materials, substantially as described.



1,041,113. PROCESS FOR MAKING ACETYL-CELLULOSE PLASTICS AND SOLVENTS THEREFOR. WILLIAM G. LEMSAY, Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 6, 1911. Serial No. 658,704. (Cl. 106—40.)

1. The process of making plastic compounds of acetyl cellulose consisting in (1) incorporating with an acetyl cellulose soluble in acetone one part of the group of the hereinbefore-described substances (triphenyl phosphate, tricresyl phosphate) and one or more of the substances named in Class C herein (toluol-sulphonamid, ethyl para toluol-sulphonamid, benzene-sulphonamid, ethyl acetanilid, methyl acetanilid); (2) adding one or more of the group of the hereinbefore-described alcohols (ethyl alcohol, methyl alcohol); (3) allowing the mixture to stand at room temperature in a closed vessel until it has become a gelatinated mass; (4) working such mass on rolls or in a heated press, or otherwise; substantially as described.

2. The process of making plastic compounds of acetyl cellulose, consisting in (1) incorporating with an acetyl cellulose soluble in acetone one or more of the group of the hereinbefore described substances (triphenyl phosphate, tricresyl phosphate) and one or more of the substances specified in Class C herein (toluol-sulphonamid, ethyl para toluol-sulphonamid, benzene sulphonamid, ethyl acetanilid, methyl acetanilid); (2) adding methyl alcohol; (3) allowing the mixture to stand at room temperature in a closed vessel until it has become a gelatinated mass; and (4) working such mass on rolls or in a heated press, or otherwise, substantially as described.

3. The process of making plastic compounds of acetyl cellulose consisting in (1) incorporating ethyl para toluol-sulphonamid and triphenyl phosphate with an acetyl cellulose which is soluble in acetone; (2) adding one or more of the group of the hereinbefore-described alcohols (ethyl alcohol, methyl alcohol); (3) allowing the mixture to stand at room temperature in a closed vessel until it has become a gelatinated mass; and (4) working such mass on rolls or in a heated press, or otherwise, substantially as described.

4. The process of making plastic compounds of acetyl cellulose consisting in (1) incorporating ethyl para toluol-sulphonamid and triphenyl phosphate with an acetyl cellulose which is soluble in acetone; (2) adding methyl alcohol; (3) allowing the mixture to stand at room temperature in a closed vessel until it has become a gelatinated mass; and (4) working such mass on rolls or in a heated press, or otherwise, substantially as described.

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1,041,114. SOLVENT OF ACETYL CELLULOSE. WILLIAM G. LEMSAY, Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 7, 1911. Serial No. 659,853. (Cl. 106—40.)

1. A new composition of matter consisting of a solution of acetyl cellulose in a mixture of trichlorhydrin and one or more of the group of hereinbefore-described alcohols (ethyl alcohol, methyl alcohol), substantially as described.

2. A new composition of matter consisting of a solution of acetyl cellulose in a mixture of trichlorhydrin and one or more of the group of hereinbefore-described alcohols (ethyl alcohol, methyl alcohol), said trichlorhydrin and the alcohol or alcohols being in equal volumes, substantially as described.

3. A new composition of matter consisting of a solution of acetyl cellulose in a mixture of trichlorhydrin and one or more of the group of hereinbefore-described alcohols (ethyl alcohol, methyl alcohol), in combination with other substances either in a liquid or solid form, substantially as described.

4. A new composition of matter consisting of a solution of acetyl cellulose in a mixture of trichlorhydrin and one or more of the group of hereinbefore-described alcohols (ethyl alcohol, methyl alcohol), said trichlorhydrin and the alcohol or alcohols being in equal volumes, in combination with other substances either in liquid or solid form, substantially as described.

5. The new solvent for acetyl cellulose consisting of trichlorhydrin in admixture with one or more of the group of hereinbefore-described alcohols (ethyl alcohol, methyl alcohol), substantially as described.

[Claim 6 not printed in the Gazette.]

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1,041,115. COMPOUND OF ACETYL CELLULOSE AND PROCESS OF MAKING SUCH COMPOUND. WILLIAM G. LINDSAY, Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 27, 1911. Serial No. 662,741. (Cl. 106—40.)

1. The process of dissolving or converting an acetyl cellulose that is soluble in acetone which consists in dissolving or converting said acetyl cellulose by the use of camphor and methyl alcohol in the presence of one or more of the group of phosphates described (triphenyl phosphate, tricresyl phosphate), substantially as set forth.

2. The process of dissolving or converting an acetyl cellulose that is soluble in acetone which consists in (1) mixing said acetyl cellulose with camphor and one or more of the group of phosphates described (triphenyl phosphate, tricresyl phosphate) and (2) adding methyl alcohol, substantially as set forth.

3. The process of dissolving or converting an acetyl cellulose that is soluble in acetone which consists in dissolving or converting said acetyl cellulose by the use of camphor and methyl alcohol in the presence of one or more of the group of phosphates described (triphenyl phosphate, tricresyl phosphate) together with coloring matters or other inert substances, substantially as set forth.

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1,041,116. PROCESS OF CONVERTING ACETYL CELLULOSE. WILLIAM G. LINDSAY, Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 27, 1911. Serial No. 662,743. (Cl. 106—40.)

1. The process of dissolving or converting an acetyl cellulose that is soluble in acetone which consists in dissolving or converting said acetyl cellulose by the use of camphor and ethyl alcohol in the presence of one or more of the group of phosphates described (triphenyl phosphate, tricresyl phosphate), substantially as set forth.

2. The process of dissolving or converting an acetyl cellulose that is soluble in acetone which consists in (1) mixing said acetyl cellulose with camphor and one or more of the group of phosphates described (triphenyl phosphate, tricresyl phosphate) and (2) adding ethyl alcohol, substantially as set forth.

3. The process of dissolving or converting an acetyl cellulose that is soluble in acetone which consists in dissolving or converting said acetyl cellulose by the use of camphor and ethyl alcohol in the presence of one or more of the group of phosphates described (triphenyl phosphate, tricresyl phosphate together with coloring matters or other inert substances, substantially as set forth.

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1,041,117. PROCESS FOR MAKING ACETYL-CELLULOSE PLASTIC COMPOUNDS. WILLIAM G. LINDSAY, Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 27, 1911. Serial No. 662,745. (Cl. 106—40.)

1. The process of dissolving or converting acetyl cellulose which consists in dissolving or converting an acetyl cellulose that is soluble in acetone, by the use of one or more members of the hereinbefore-specified group of acetanilids (tetrachlorethyl acetanilid, trichlormethyl acetanilid) and one or more of the hereinbefore specified group of phosphates (triphenylphosphate, tricresylphosphate) together with methyl alcohol, substantially as described.

2. The process of dissolving or converting acetyl cellulose which consists in dissolving or converting an acetyl cellulose that is soluble in acetone, by (1) mixing said acetyl cellulose with one or more of the hereinbefore-specified group of acetanilids (tetrachlorethyl acetanilid, trichlormethyl acetanilid) and one or more of the hereinbefore-specified group of phosphates (triphenylphosphate, tricresylphosphate); and (2) adding methyl alcohol to the mixture, substantially as described.

3. The process of dissolving or converting acetyl cellulose which consists in dissolving or converting an acetyl cellulose that is soluble in acetone, by (1) mixing said acetyl cellulose with one or more of the hereinbefore-specified group of acetanilids (tetrachlorethyl acetanilid, trichlormethyl acetanilid) and one or more of the hereinbefore-specified group of phosphates (triphenylphosphate, tricresylphosphate) and coloring matters or other inert substances; and (2) adding methyl alcohol to the mixture, substantially as described.

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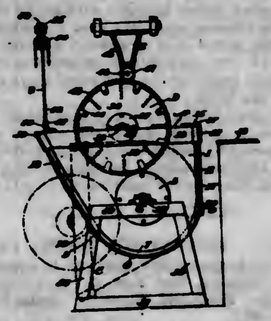
1,041,118. PROCESS FOR MAKING ACETYL-CELLULOSE PLASTIC COMPOUNDS. WILLIAM G. LINDSAY, Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 27, 1911. Serial No. 662,748. (Cl. 106—40.)

1. The process of dissolving or converting acetyl cellulose which consists in dissolving or converting an acetyl cellulose that is soluble in acetone by the use of one or more of the group of hereinbefore-specified acetanilids (tetrachlorethyl acetanilid, trichlormethyl acetanilid) in conjunction with one or more of the group of hereinbefore-specified phosphates (triphenylphosphate, tricresylphosphate) and ethyl alcohol with the application of heat, substantially as set forth.

2. The process of dissolving or converting acetyl cellulose which consists in dissolving or converting an acetyl cellulose that is soluble in acetone by the use of one or more of the group of hereinbefore-specified acetanilids (tetrachlorethyl acetanilid, trichlormethyl acetanilid) in conjunction with one or more of the group of hereinbefore-specified phosphates (triphenylphosphate, tricresylphosphate) coloring matters or other inert substances and ethyl alcohol, with the application of heat, substantially as set forth.

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1,041,119. SELF-DUMPING PADDLE-WHEEL. FREDERICK J. LOCKWOOD, Newark, N. J., assignor to The J. H. Ladew Company, a Corporation of New Jersey. Filed Feb. 25, 1911. Serial No. 610,785. (Cl. 149—9.)



1. An apparatus for paddling hides combining a support, a vessel having an open top and pivoted at a lower axis to said support, a paddle-wheel journaled in an upper portion of said vessel and having its peripheral portion widely distant from the bottom and opposite sides of said vessel, a gear wheel co-axially secured to said paddle-wheel, and a driving gear positioned above said gear and adapted to be disconnected therefrom when the vessel is tilted to dump the hides.

2. An apparatus of the nature disclosed combining, a support, a vessel having a discharge lip and pivoted to said support below and at one side of its center of gravity, a paddle-wheel mounted in the upper part of said vessel, and driving means for said paddle-wheel adapted to automatically disconnect therewith when said vessel is tilted.



3. An apparatus of the nature disclosed combining, a support, a vessel having an open top and pivoted to said support below its center of gravity, a paddle-wheel journaled on the upper edges of said vessel, a gear-wheel secured to said paddle-wheel, and a pinion carried by a driving-shaft and meshing with said gear at a point of its periphery rearward of its center.

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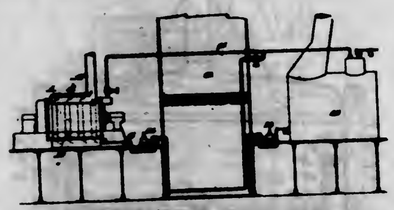
1,041,120. FOOD-PRESERVING CHEST. ADAM LOSS, Portland, Oreg. Filed Jan. 7, 1911. Serial No. 601,492. (Cl. 99—2.)



A food preserving chest comprising an outer shell, and an inner shell made of open mesh material spaced apart from the outer shell, and an intermediate filling of salt, the walls of said inner shell being formed to represent corrugated surfaces whereby the area of the surfaces is increased and the action of the salt filling is facilitated.

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1,041,121. ELASTIC-FLUID TURBINE. LOUIS C. LOEWENSTEIN, Lynn, Mass., and LEONARD H. DYER, Greenwich, Conn., assignors to General Electric Company, a Corporation of New York. Filed Sept. 28, 1909. Serial No. 520,001. (Cl. 121—95.)



1. A multistage elastic fluid turbine, having a furnace within its shell for reheating elastic fluid between stages.

2. In a power plant, in combination with the source of steam supply and a multistage turbine, of means for reheating steam between stages, such means being independent of the source of steam supply.

3. A power plant which comprises a generator and furnace and a multistage motor, of means for reheating steam between stages, such means being independent of the generator furnace.

4. A multistage steam turbine, with a main generator, and having means for reheating steam between stages, such means comprising a furnace with independent firing.

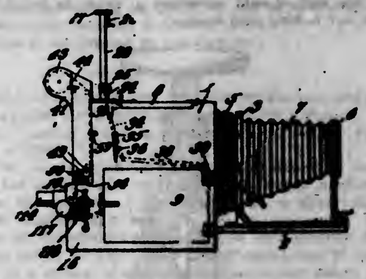
5. A multistage steam turbine, having means for reheating steam between stages, such means comprising a separate furnace for each stage.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,122. PHOTOGRAPHIC APPARATUS. ROBERT J. LONDON and JAMES A. LONDON, Glen Allen, Mo. Filed Feb. 2, 1912. Serial No. 674,941. (Cl. 95—12.)

1. Photographic apparatus including a box, tanks within the box for containing materials employed in the development and fixing of photographic images, means for holding a photo-sensitive material, means for feeding said material into focus, a slide, a carrier movable therewith, means for shifting the carrier into position to receive the exposed photo-sensitive material, and subsequently into and out of certain of the tanks, and means for releasing the contents of the carrier when above one of the tanks.



2. Photographic apparatus including a box, tanks within the box for holding materials used in the development and fixing of photographic images, means for holding photo-sensitive material, means for feeding said material into focus, a carrier for receiving material subsequent to exposure, yielding means for holding the carrier above the tanks, a slide, the carrier and slide being movable together to bring the carrier above any one of the tanks, and yielding means for holding the slide normally in a predetermined position.

3. Photographic apparatus including a box, tanks within the box for holding materials used in the development and fixing of photographic images, means for holding photo-sensitive material, means for feeding said material into focus, a carrier for receiving material subsequent to exposure, yielding means for holding the carrier above the tanks, a slide, the carrier and slide being movable together to bring the carrier above any one of the tanks, and a spring drawn curtain for holding the slide normally closed, said curtain constituting means for preventing the admission of actinic rays to the box when the slide is lifted out of normal position.

4. Photographic apparatus including a box, tanks therein for holding materials to be used in the development and fixing of photographic images, there being a slot within the box, a slide normally closing the slot, a stem slidable within and movable with the slide, a carrier movable with the stem and slide into position above any one of the tanks, and a spring drawn curtain for holding the slide normally closed, said curtain constituting means for preventing the admission of actinic rays through the slot when the slide is out of normal position.

5. Photographic apparatus including a box having a slot therein, tanks within the box for holding materials used in the development and fixing of photographic images, a slide normally closing the slot, a normally rolled spring drawn curtain connected to the slide and holding it normally in a predetermined position, and a carrier movable with the slide and into position above the respective tanks, said curtain constituting means for closing the slot when the slide is moved out of normal position and for preventing the admission of actinic rays through the slot.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,123. VALVE. PETER LORD, Montreal, Quebec, Canada, assignor of one-fourth to Joseph Antoine Hilaire Hebert, one-eighth to Gustave Ituweire, and one-eighth to Louis Adhemar Delorme, Montreal, Canada. Filed Sept. 19, 1911. Serial No. 650,289. (Cl. 137—4.)

1. In a valve, a casing having a valve seat formed therein, a valve resting on said seat and having a central boss terminating in a ball, an extension screwed into said casing and forming therewith a metal to metal joint, a

ping screwing longitudinally in said extension and having a ball cavity at the lower end thereof and partially inclosing said ball, a stem projecting into said extension and into said plug and journaled at the outer end of said extension and having a flange forming with the wall of said extension a metal to metal joint, a washer encircling said stem and non-rotatively secured thereon and forming with the end of said extension a metal to metal joint, and a nut locking said washer.



2. In a valve, a casing having a partition therein with a central opening and sloping walls at the edge of said opening, a correspondingly formed disk or plate valve fitting to and closing said opening and having a central boss terminating in a ball, an extension screwing into said casing and forming therewith a metal to metal joint and threaded in the interior thereof, a plug correspondingly threaded and screwing in said extension having a square recess at one end thereof and a ball cavity in the other partially inclosing said ball, a stem journaled at the outer end of said extension having a flange toward the inner end thereof forming with said extension a metal to metal joint and a square pin projecting from said flanged portion into said plug, a washer non-rotatively arranged on said stem and forming with the end of said extension a metal to metal joint, and a nut screwing on said stem against said washer.

3. In a valve, a casing having a partition therein and an opening through said partition, said partition having a sloping wall at the edge of said opening and forming a valve seat, a valve fitting to and closing said opening having a central boss terminating in a ball, an extension screwing into said casing and having a flange, forming with said casing a metal to metal joint, and an internal thread, a plug correspondingly threaded and screwing longitudinally in said extension and having at one end thereof a squared recess and at the other end a ball cavity and flange adapted to be knocked over and partially inclose said ball in said cavity, a stem journaled at the outer end of said extension and having a flange forming with the interior wall of said extension a metal to metal joint, a square pin projecting from said flange into said squared recess in the plug and a flattened side beyond said extension, a washer having a corresponding opening therethrough and fitting on said stem at said flattened part and forming with the outer end of said extension a metal to metal joint, and a nut screwing on said stem and holding said washer.

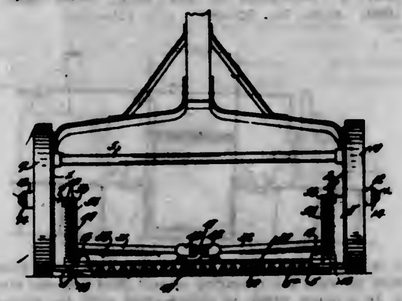
4. In a valve, a casing having a partition wall therein and an opening through said partition, said opening having sloping walls forming a valve seat and straight walls leading from said sloping walls, a valve fitting to and closing said opening and having at one side guide lugs engaging said straight walls and on the other side a central boss terminating in a ball, an extension screwing into said casing and having a flange forming with said casing a metal to metal joint and an internal thread, a plug screwing in said extension having at one end a squared recess and at the outer end a ball cavity partially inclosing said ball, a stem projecting into said extension and said plug and journaled at the outer end of said extension and having a flange forming with the wall of said extension a metal to metal joint, a washer encircling said stem and non-rotatively secured thereon and forming with the end of said extension a metal to metal joint, and a nut locking said washer.

5. In a valve, a casing having a partition and an opening through said partition and sloping walls at said opening forming a valve seat, a valve fitting to and closing said opening and having on one side a spider with straight legs forming guides and at the other side a boss terminating in a ball, guide ends right with said partition and engaged by said straight legs, an extension connector into said casing and forming a metal to metal connection of the flanged thereof forming with said casing a metal to metal joint and an internal thread, a plug having a correspondingly threaded end screwing in said connector and said having a squared recess at one end and a ball cavity at the other partially inclosing said ball, said extension having a reduced end forming a shoulder with a surface finished inner side and terminating at the ends, said reduced end forming the bushing, a stem journaled in said bearing and having a flange extending outwardly therefrom with a surface finished face engaging the inner side of said shoulder, a square pin projecting from said flange into said plug and a flat face on one side beyond said extension, a washer having a corresponding opening fitting on said stem at its flattened part and having a surface finished face engaging said reduced end, and a nut screwing on said stem and engaging said washer.

[Claim 6 not printed in the Gazette.]

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1,041,124. LAWN-MOWER. HENRY B. LOCKERBY, Jr., Katonah, N. Y. Filed July 29, 1910. Serial No. 574,527. (Cl. 56—19.)



1. In a lawn-mower, the combination of a frame comprising an annularly flanged end plate, a driving wheel provided with an annular flange of less diameter than said wheel and substantially in contact with the flange of said end plate, means for mounting said wheel on said end plate, and cutters, one of which is operated from said wheel.

2. In a lawn-mower, the combination of a frame comprising an annularly flanged end plate having a gear housing which bulges inwardly from one side of said plate away from its plane, a driving wheel located on the other side of said plate, provided with an annular flange substantially in contact with the flange of said end plate, said gear housing being located approximately at a point between the said wheel flange and said end plate, and said wheel having an annular series of bevel teeth surrounded by its flange, means for mounting said wheel on said end plate, a shaft journaled in said housing, a bevel gear mounted on said shaft and substantially inclosed in said housing and meshing with said teeth, and cutters, one of which is operated from said wheel.

3. In a lawn-mower, the combination of a frame, a driving wheel mounted on said frame, and provided with an annular series of teeth, shaft bearings supported from said frame, a crank shaft journaled in said bearings, a gear mounted on said shaft, and meshing with said teeth, said gear having pocket means comprising two opposite recesses in its inner wall, said said shaft having a transverse socket against the closed inner end thereof, a spring seated in said socket, a bevoled pawl guided in said socket and projected outwardly by said spring into one of said recesses, a fixed cutter, a reciprocating cutter, and a pitman connecting said reciprocating cutter with said crank shaft.

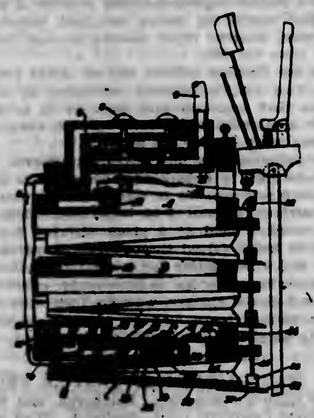
4. In a lawn-mower, the combination of a frame, a fixed cutter and a reciprocating cutter, a crank shaft, means for rotating said shaft, a pitman, and ball-and-socket joints between the ends of said pitman and said reciprocating cutter and crank shaft, each joint consisting of a ball connected with its appropriate pitman, a half socket on said pitman and a relatively movable half socket in said pitman.

5. In a lawn-mower, the combination of a frame, a fixed cutter and a reciprocating cutter, a crank shaft, means for rotating said shaft, a pitman, said pitman being jointed to said crank shaft and reciprocating cutter, one of said joints comprising a ball-and-socket joint consisting of a ball on one of said parts connected with said pitman, a half socket on said pitman and a spring pressed half socket in said pitman.

[Claims 6 to 12 not printed in the Gazette.]

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1,041,125. PNEUMATIC ACTUATING UNIT. NILS MAGNUSON, Fort Wayne, Ind., assignor to The Packard Company, Fort Wayne, Ind., a Corporation of Indiana. Filed Feb. 9, 1911. Serial No. 607,640. (Cl. 94—178.)



1. A musical instrument including in combination, a tension box, a rear frame, a pneumatic actuating unit, means detachably securing said unit to said tension box and a tapered member rearwardly reaching from said unit detachably securing it to said frame.

2. A musical instrument including in combination, a tension box, a rear frame, a pneumatic actuating unit and means detachably securing said unit to said tension box and means rearwardly reaching from said unit detachably securing it to said frame, said unit when detached being removable horizontally forwardly from the instrument.

3. A musical instrument including in combination, a rear frame, a pneumatic unit having a tapered lip at its rear end, means on said rear frame for supporting and guiding said tapered lip and means supporting the forward end of said pneumatic unit.

4. A musical instrument including in combination, a tension box, a rear frame having a mortise therein, a pneumatic actuating unit having a tapered lip at its rear end for engagement with and guidance by said mortise in the rear frame and means detachably securing said unit to said tension box.

5. A musical instrument including in combination, a tension box, a frame independent of and parallel with said tension box, a pneumatic actuating unit, means detachably securing said tension box to one end of said actuating unit and a tapered lip on the other end of said actuating unit removably securing it to said frame.

[Claim 6 not printed in the Gazette.]

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1,041,126. PROCESS FOR THE SUPERFICIAL METALLIZATION OF SILICIOUS ARTICLES. PASCAL MARINO, London, England. Filed July 25, 1911. Serial No. 640,506. (Cl. 91—68.)

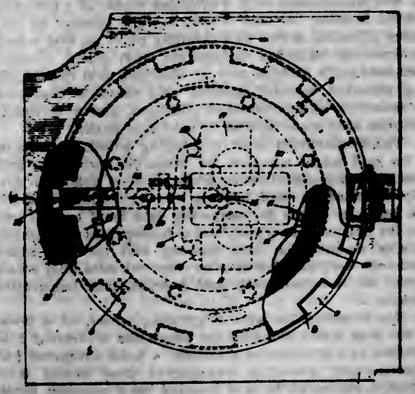
1. The herein described process of superficially metallizing the surface of a silicious article which consists in coating the surface of the article with a silver fluoric salt in solution and submitting it to the action of a stream of illuminating coal gas, and subsequently heating the article to about 50° C., and submitting it to the action of a stream of carbon sulfid vapor and finally submitting the deposit to friction substantially as specified.

2. A process of depositing a metal or metallic alloy upon an article made of silicious material which consists in first coating the surface of the article with a silver fluoric salt in solution and submitting it to the action of a stream of illuminating coal gas, then heating the article to about 50° C., then submitting it to the action of a stream of carbon sulfid vapor, then submitting the deposit to friction, and finally depositing the metal or metallic alloy upon the article by electrolysis.

3. The herein described process of depositing a metal or metallic alloy upon an article made of silicious material, which consists in coating the surface of the article with a silver fluoric salt in solution and submitting it to the action of a stream of illuminating coal gas, then heating the article and submitting it to the action of a stream of carbon sulfid vapor and finally depositing the metal or metallic alloy upon the article by electrolysis.

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1,041,127. RING-AND-BOLT SAFE-LOCK. ALEXANDER W. MANN, Hamilton, Ohio. Filed May 5, 1910. Serial No. 559,617. (Cl. 109—3.)



2. In a device of the character described, the combination of a safe, a door, a locking ring thereon, means for turning said ring and a bolt for engaging said locking ring.

3. In a device of the character described, the combination of a safe, a door, a locking ring thereon, means for turning said ring, and a bolt located on the door for engaging said locking ring and engaging the wall of the safe.

5. In a device of the character described, the combination of a safe, a door, a locking ring thereon and rota-

table relatively thereto, means for turning said ring to cause it to engage the wall of the safe, means to keep the ring from turning when so engaged and a bolt carried by the door engaging the wall of the safe.

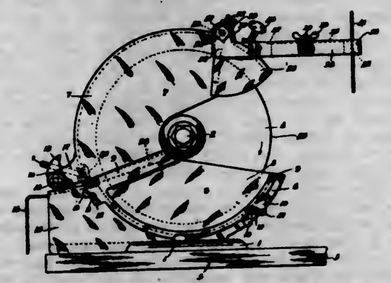
4. In a device of the character described, the combination of a safe, a door, a locking ring thereon, a gear mechanism for turning said ring, and a bolt located on the door for engaging said locking ring, and engaging the wall of the safe.

5. In a device of the character described, the combination of a safe, a door, a locking ring thereon and rotatable relatively thereto, a gear mechanism for turning said ring to cause it to engage the wall of the safe, means to keep the ring from turning when so engaged and a bolt carried by the door engaging the wall of the safe.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,128. EMERY-WHEEL GUARD. WALLACE B. MARTIN, St. Paul, Minn., assignor of one-half to Walter C. Stanton, St. Paul, Minn. Filed Apr. 29, 1912. Serial No. 693,842. (Cl. 51—7.)



1. The combination with a grinding wheel, of a pivotally mounted housing for said wheel, a work passage in said housing affording access to a grinding point on said wheel, and a transparent dust shield through which said work passage may be observed, said dust shield being mounted on said housing and movable therewith into operative and inoperative positions.

2. The combination with a grinding wheel, of a pivotally mounted housing for said wheel, a work passage in said housing affording access to a grinding point on said wheel, a horizontally extended transparent dust shield, through which said work passage may be observed, said dust shield being mounted on said housing and movable therewith into operative and inoperative positions, and a vertically adjustable stop plate carried by said dust shield.

3. The combination with a grinding wheel, of a housing for said wheel mounted for hinge-like movement into operative and inoperative positions, a hood extension pivotally mounted on said housing and extending into said work passage, means for adjusting said hood toward and from the axis of said wheel, and a transparent dust shield pivotally mounted on said housing and through which shield said work passage may be observed, said dust shield adapted to be moved with said housing into inoperative positions.

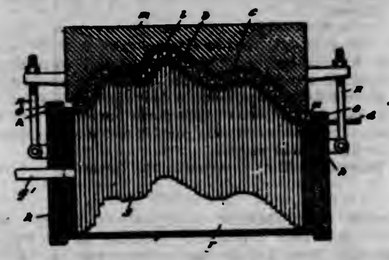
4. The combination with a grinding wheel, of a housing for said wheel mounted for hinge-like movement into operative and inoperative positions, a hood extension and a horizontally extended transparent dust shield independently connected to said housing on a common pivot, said hood extension normally extending into said work passage, means for adjusting said hood toward and from the axis of said wheel, said dust shield adapted to be moved with said housing into inoperative positions and through which shield said work passage may be observed when the shield is in an operative position, and means for adjusting said dust shield with respect to said housing and hood extension.

5. The combination with a grinding wheel, of a housing for said wheel mounted for hinge-like movement into operative and inoperative positions, a hood extension and a horizontally extended transparent dust shield independently connected to said housing on a common pivot, said hood extension normally extending into said work passage, means for adjusting said hood toward and from the axis of said wheel, said dust shield adapted to be moved with said housing into inoperative positions and through which shield said work passage may be observed when the shield is in an operative position, means for adjusting said dust shield with respect to said housing and hood extension, and a vertically adjustable stop plate mounted in said dust shield.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,129. APPARATUS FOR MANUFACTURING PLASTIC ARTICLES, RELIEVOS, HOLLOW BODIES, AND THE LIKE, OF PULP. KARL WALTHER MAUERSBERGER, Chemnitz, Germany. Filed July 19, 1911. Serial No. 639,426. (Cl. 92—54.)



1. A die for forming articles out of liquid pulp fiber comprising a flexible impervious base, a cover of pervious material, and separating means arranged between said base and cover, whereby liquid passing through the cover can escape from the die.

2. A die for forming articles out of liquid pulp fiber comprising two flexible members connected by intermediate means that maintain said members in parallelism and provide a plurality of conduits between them, one of said members being of pervious material.

3. In an apparatus for manufacturing relievos, hollow bodies and the like, by depositing a compressible layer of pulp on a surface permeable to water, the combination of an elastic surface comprising an impermeable base and a permeable covering held at a given distance from said base to allow water forced through the permeable cover to flow off, and a foundation for said elastic surface comprising a plurality of strips independently adjustable to and from said elastic surface, whereby their ends against which said surface bears may be adjusted to the configuration to be given the article to be produced.

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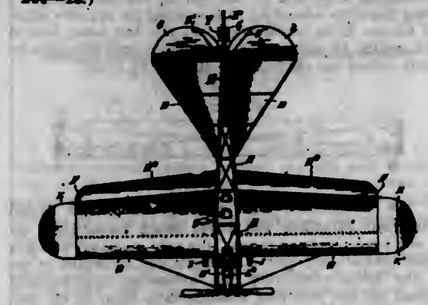
1,041,130. MANUFACTURE OF TEXTILE BELTING. WILLIAM GILMOUR MAXWELL, Edinburgh, and HOWARD JAMES CRAIG CHRISTIE, Leith, Scotland. Filed Feb. 12, 1912. Serial No. 677,209. (Cl. 154—4.)



The herein described process of manufacturing, at a single continuous operation, a laminated belt composed of three plies or layers of substantially equal width, said process consisting in applying an adhesive cementing liquid to a strip of textile fabric, then immediately drawing said strip through a number of consecutively graded and suitably formed apertures so as to fold one side of approximately one-third of the width of said strip over upon the central portion thereof, and thereafter to fold the opposite side of approximately one third of the width of said strip over upon the first-named side, and finally pressing the folded plies together.



1,041,131. MONOPLANE. ROBERT E. McBANE, Mullen, Nebr. Filed Feb. 1, 1912. Serial No. 674,740. (Cl. 244—13.)



1. In a flying machine of the heavier-than-air type, the combination with a central longitudinal body frame work, of forward and rearward approximately U-shaped supporting struts, resiliently mounted forward wheels, forwardly mounted supporting surfaces, rearwardly mounted approximately horizontal, stabilising fins mounted at a dihedral angle to each other, a vertical stabilising fin between said dihedral fins, a right and left mounted elevating rudder, a vertically mounted steering rudder and propelling mechanism.

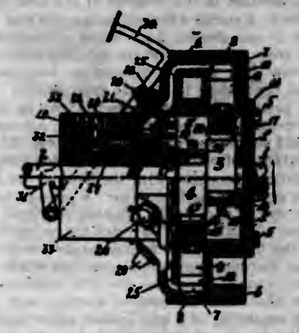
2. In a flying machine of the heavier-than-air type, the combination of a central longitudinal body, a supporting surface mounted to the forward left side of said body, a like supporting surface mounted to the right forward side of said body in the same plane as said left mounted surface, said surfaces having a parabolic curve with a rigid straight rear edge portion and an upwardly sloping end-tip, vertically and horizontally mounted rear stabilising fins and elevating and steering rudders.

3. In a flying machine of the heavier-than-air type, having supporting surfaces, stabilising fins, two elevating rudders and a single steering rudder, the combination therewith of a pivotally mounted controlling device within handy reach and to the right of a pilot seat, said controlling device consisting of a horizontal handle-operated bar, pivotally mounted uprights connected to said bar, and controlling cables running from the rear portion of said device to one of said elevating rudders, a like and second controlling device consisting of a horizontal bar and two pivotally mounted uprights to the left of said pilot seat having handles and controlling cables running to the second of said elevating rudders, substantially as described.

4. In a flying machine of the heavier-than-air type, the combination of a body portion, supporting surfaces, stabilising fins, elevating rudders, steering rudders, propelling mechanism, controlling mechanism for said elevating rudders and a controlling device for said steering rudder, the said last mentioned controlling device consisting of a pivotally and horizontally mounted frame work, of separate cables running from said frame work to said steering rudder, and said frame work consisting of two longitudinal bars with foot rests and two pivotally connecting bars centrally mounted near the pilot seats, substantially as described.

5. In a flying machine of the heavier-than-air type, the combination of a central longitudinal frame work, rear stabilising fins mounted on said framework, elevating and steering rudders mounted at the rear end of said framework, a rear wheel and wheel supporting strut mounted at the rear base of said framework, propelling and power mechanism mounted in the forward end of said framework, a forward strut, forward wheel supporting struts, resiliently mounted wheels on said wheel supporting struts and supporting surfaces mounted to each side at the front end of said framework, said surfaces having a parabolic curve from front to rear, the camber of which decreasing from the framework to the wing-tip, a rear straight extension to said surfaces and an upwardly turned wing-tip, substantially as specified.

1,041,132. POWER-TRANSMISSION MECHANISM. CHARLES DAVID MCCLINTOCK, Oakland, Cal., assignor of fifty-eight one-hundredths to Saul Cornfeld, Oakland, Cal. Filed Jan. 15, 1912. Serial No. 671,205. (Cl. 192—16.)



1. In power-transmitting mechanism, in combination with a driving shaft and a driven shaft; a housing fixed to one of said shafts and provided with a central fluid space and a plurality of piston-chambers opening into said space and radiating therefrom with the axes of the shafts as a center; a piston in each chamber; a passage leading from the outer end of each chamber back into the central fluid space of the housing; a balanced valve for controlling the flow of the fluid from said passages into the central space, said valve being automatically operative under and in proportion to the pressure of the fluid in the passages; other valves for admitting the fluid from the central space into the piston-chambers; and a rotatively movable connection between the other shaft and the pistons to operate said pistons.

2. In power-transmitting mechanism, in combination with a driving shaft and a driven shaft; a housing fixed to one of said shafts and provided with a central fluid space and a plurality of piston-chambers opening into said space and radiating therefrom with the axes of the shafts as a center; a piston in each chamber; a passage leading from the outer end of each chamber back into the central fluid space of the housing; a balanced valve for controlling the flow of the fluid from said passages into the central space, said valve being automatically operative under and in proportion to the pressure of the fluid in the passages; a spring affecting said valve and adapting it to be set to any desired load; other valves for admitting the fluid from the central space into the piston-chambers; and a rotatively movable connection between the other shaft and the pistons to operate said pistons.

3. In power-transmitting mechanism, in combination with a driving shaft and a driven shaft; a housing fixed to one of said shafts and provided with a central fluid space and a plurality of piston-chambers opening into said space and radiating therefrom with the axes of the shafts as a center; a piston in each chamber; a passage leading from the outer end of each chamber, an annular beveled walled valve seat having ports with which said passages communicate, said valve seat opening into the central space of the housing; an annular valve having a beveled surface mounted in the beveled valve seat and slidable axially thereto, said valve being automatically operative under and in proportion to the pressure of the fluid upon its beveled surface; other valves for admitting the fluid from the central space into the piston-chambers; and a rotatively movable connection between the other shaft and the pistons to operate said pistons.

4. In power-transmitting mechanism, in combination with a driving shaft and a driven shaft; a housing fixed to one of said shafts and provided with a central fluid space and a plurality of piston-chambers opening into said space and radiating therefrom with the axes of the shafts as a center; a piston in each chamber; a passage leading from the outer end of each chamber, an annular beveled

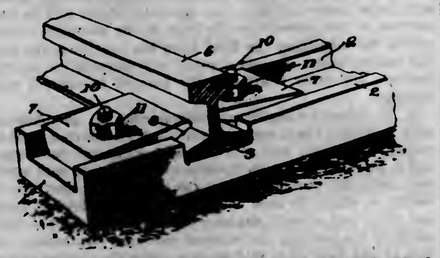
walled valve seat having ports with which said passages communicate, said valve seat opening into the central space of the housing; an annular valve having a beveled surface mounted in the beveled valve seat and slidable axially therein, said valve being automatically operative under and in proportion to the pressure of the fluid upon its beveled surface; a spring affecting said valve and adapting it to be set to any desired load; other valves for admitting the fluid from the central space into the piston-chambers; and a rotatively movable connection between the other shaft and the pistons to operate said pistons.

5. In power-transmitting mechanism, in combination with a driving shaft and a driven shaft; a housing fixed to one of said shafts and provided with a central fluid space and a plurality of piston-chambers opening into said space and radiating therefrom with the axes of the shafts as a center; a piston in each chamber; a passage leading from the outer end of each piston chamber back into the central fluid space of the housing; a valve for controlling the passage of the fluid through said passages; other valves for admitting the fluid from the central space into the piston chambers; and a rotatively movable connection between the other shaft and the pistons whereby said pistons are operated, consisting of a cam on said other shaft, by which the pistons are forced outwardly and a pull ring by which said pistons are drawn inwardly.

[Claims 6 to 10 not printed in the Gazette.]

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1,041,132. **RAILWAY-TIE AND FASTENER.** SAMUEL W. MCCONNELL, Tippecanoe, Ohio. Filed July 26, 1911. Serial No. 640,527. (Cl. 238—5.)

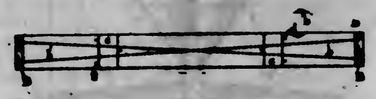


A railway tie having transversely spaced longitudinal flanges upstanding from its upper face, the flanges being recessed to provide affixing seats, the tie being formed in its upper face between the seats with a depression, a cushion block fitted in the depression and supporting the rail, oppositely disposed elongated clamping blocks mounted upon the tie between the longitudinal flanges thereof and engaging over the base of the rail at opposite sides of the web thereof, the tie being formed on one side of the rail with a keyhole shaped slot extending entirely therethrough and elongated in the direction of the tie with its larger end adjacent to the rail, a bolt having a T-head adapted to be inserted through the slot, the shank of the bolt being angular in cross section and being free to turn in the larger end of the slot and being held against turning movement when fitted in the contracted end of the slot, said bolt detachably connecting each clamping block to the tie, each of said clamping blocks having a flat lower face bearing against the upper face of the tie, a beveled rail-engaging end adapted to engage over the base of the rail, and a shoulder defining the flat lower face and the inner end of the beveled face, the clamping blocks being of a width to fit snugly between the flanges whereby to prevent and to be braced against strain in the length of the rail.

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1,041,134. **RAILWAY-SLEEPER.** JOHN MCCULLOCH, Lostock-Graham, England. Filed Mar. 20, 1911. Serial No. 615,255. (Cl. 238—8.)

1. The combination with a composition tie, of a metal end plate, said plate being bent at right angles along a longitudinal central line, one-half of the plate engaging a surface face of the tie, and the other half of the plate over-lapping a portion of the end of the tie, said plate having inwardly extending flanges along its opposite sides, said flanges being embedded in the tie, and being also at right angles to each other, said plate extending transversely across the tie from one side to the other.



2. The combination with a composite tie, of angled transversely extending end plates fitting respectively upper and lower edges of the tie, the said marginal portions of said plates being bent at an angle and embedded in the tie, and metal connecting rods extending longitudinally through the tie, said rods crossing each other in the center of the tie, each of said rods being secured at one end to a plate fitted upon a lower edge of the tie, and secured at the opposite end to a plate fitted upon an upper edge of the tie.

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1,041,135. **CASING FOR CLINICAL THERMOMETERS.** FRANK MCINTYRE, New York, N. Y., assignor to Charles J. Tagliabue, Brooklyn, N. Y. Filed Sept. 8, 1911. Serial No. 648,849. (Cl. 73—52.)



1. A device for returning the mercury to the bulb of a thermometer, comprising a tubular member, a casing extending into the one end of said member, a thermometer carrying section rotatably mounted in said casing and having means for removably connecting a thermometer therewith, and means connected with said casing and said thermometer carrying section respectively for rotating said section relatively to said casing.

2. A device for returning the mercury to the bulb of a thermometer comprising a tubular member, a casing extending into the one end of said member, a sleeve rotatably mounted on said casing, a stem rigidly connected with said sleeve and provided with means for holding a thermometer, said stem being rotatably secured to said casing and means connected with said casing and said sleeve for rotating said sleeve and stem relatively to said casing.

3. A device for returning the mercury to the bulb of a thermometer comprising a tubular member, a casing extending into the one end of said member to close the same, a sleeve rotatably mounted on said casing, a stem passing through said sleeve and said casing and being rigidly connected with the sleeve and rotatably mounted in the casing, the one end of said stem being provided with an aperture for holding a thermometer and a spring connected with said casing and said sleeve and arranged to be wound to exert a torsional strain on said sleeve and said casing and to rotate said sleeve and stem relatively to the casing when released.



1,041,136. **AEROCRAFT.** LAWRENCE P. MCKNOWN, New York, N. Y. Filed Sept. 27, 1910. Serial No. 584,016. (Cl. 244—12.)



1. In an aerocraft, a weight-carrying plane and a plurality of stability vanes pivoted beneath and extending over the major part of said weight-carrying plane, said stability vanes being foldable into inoperative positions in close relation to the under surface of the weight-carrying plane.

2. In an aerocraft, an imperforate weight-carrying plane, and a plurality of movable stability vanes depending beneath the same and the combined area of which exceeds one-half the area of the weight-carrying plane, said stability vanes being foldable into inoperative positions in close relation to the under surface of the weight-carrying plane.

3. In an aerocraft, a chassis, a weight-carrying plane on either side thereof, a plurality of series of stability vanes beneath each of said planes and having a pivotal movement with relation thereto, the combined area of the vanes beneath each weight-carrying plane being equal substantially to the area of said plane, and means for simultaneously operating each series of vanes, said stability vanes being foldable into close relation to the under surface of said weight-carrying plane and adapted to assume depending operative positions relative thereto.

4. In an aerocraft, a chassis, a weight carrying plane on either side thereof, a plurality of shafts beneath each plane, a series of vanes mounted on each of said shafts, and means for operating the shafts, whereby the vanes may be opened into operative positions depending from the weight-carrying plane and moved into inoperative positions in close relation to the under surface of said weight-carrying plane.

5. In an aerocraft, a weight-carrying plane, and stability vanes positioned below said weight-carrying plane, each stability vane being pivoted at one end and the aggregate area of said vanes exceeding one-half the area of said weight-carrying plane, said vanes being movable into operative positions depending from the weight-carrying plane and being foldable into inoperative positions close to the under surface of said weight-carrying plane.

[Claims 6 to 14 not printed in the Gazette.]

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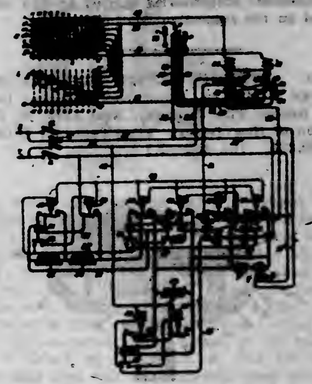
1,041,137. **MOTOR-CONTROL SYSTEM.** ROBERT H. MCLAIN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Aug. 21, 1911. Serial No. 645,167. (Cl. 172—239.)

1. The combination with an electric motor, of a movable machine element actuated thereby, a limit switch moving synchronously with said element, a second limit switch controlled by an attendant, and a master-switch controlled by an attendant.

2. The combination with an electric motor, of a movable machine element actuated thereby, contactors controlling the power circuit of said motor, relays controlling said contactors, and two limit switches controlling said relays, one limit switch being controlled by an attendant and the other moving synchronously with said moving element.

3. The combination with an electric motor, of a movable machine element actuated thereby, two or more contactors or sets of contactors controlling the direction of rotatation of said motor, a relay controlling each contactor or set thereof, and each relay controlling both control circuits, said circuits being open when both relays are in either their upper or lower positions, and limit switches controlling said relays.

4. The combination with a three-high rolling mill, of an electric motor for raising and lowering the middle roll, "up" and "down" contactors controlling the power circuit of said motor, "up" and "down" relays both controlling the two control circuits of said contactors, a limit switch moving with the vertical adjustment of the upper roll, and a limit switch moving with the middle roll, said limit switches controlling said relays.



5. The combination with a three-high rolling mill, of an electric motor for raising and lowering the middle roll, "up" and "down" contactors controlling the power circuit of said motor, "up" and "down" relays both controlling the two control circuits of said contactors, a limit switch moving with the vertical adjustment of the upper roll, and a limit switch moving with the middle roll, said limit switches controlling said relays, and a master-switch provided with means for energizing the "down" relay when said middle roll switch is in any but its lowest position.

[Claims 6 to 11 not printed in the Gazette.]

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1,041,138. **SURGICAL APPLIANCE.** NORMAN E. MICHELL, Marshalltown, Iowa. Filed Nov. 10, 1910. Serial No. 591,691. (Cl. 128—82.)



1. A surgical appliance, comprising an adjustable arched frame, a floating bar adjustably suspended thereon, a right angled bar carried by the floating bar and adjustable relative thereto, extension means carried by the right angled bar, and suspensories carried by and adapted to be wound on the floating bar.

2. A surgical appliance, comprising an adjustable arched frame, a floating bar adjustably suspended thereon, a right angled bar carried by the floating bar and adjustable and pivotal relative thereto, extension means carried by the right angled bar, and suspensories carried by and adapted to be wound on the floating bar.

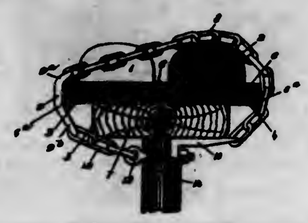
3. A surgical appliance, comprising an arched frame, a floating bar adjustably suspended thereon, a right angled bar carried by the floating bar and adjustable relative thereto, extension means carried by the right angled bar, and suspensories carried by and adapted to be wound on the floating bar.

4. A surgical appliance, comprising an adjustable arched frame, longitudinal bars mounted on said frame

between the sides thereof and adjustable independently of each other transversely of the frame, separate and independent floating bars suspended adjustably from the longitudinal bars, a right-angled bar carried by one of the floating bars and adjustable relative thereto, extension means carried by the right-angled bar, and separate and independent suspensories carried by and adapted to be wound on the respective floating bars.

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1,041,139. ANTISKID DEVICE FOR BLOCK-TIRES. STEPHEN S. MILLER, Akron, Ohio, assignor to Consolidated Rubber Tire Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 15, 1910. Serial No. 582,235. (Cl. 152—2.)

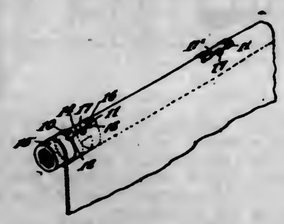


1. In a device of the character described, the combination with a rubber tire and its holding device, of a chain extending over the tire, a strap to which one end of said chain is connected, said strap being fitted to one side of the holding device, of an adjusting device to which the other end of said chain is connected, and a flexible connection between said adjusting device and said strap, substantially as specified.

2. In a device of the character described, the combination with a rubber tire and its holding device, and a chain extending over said tire, a strap to which one end of said chain is connected fitted to the one side of the holding device, a plate having a connection to the other end of said chain, an eye-bolt adjustably connected with said plate, and a flexible connection between said eye-bolt and said strap, substantially as specified.

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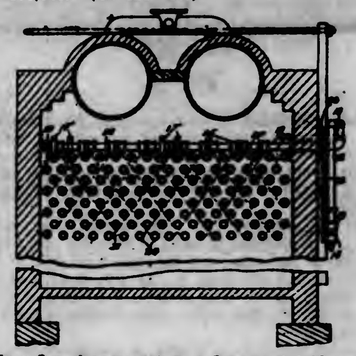
1,041,140. DEVICE FOR ATTACHING SHADES TO SHADE-ROLLERS. NANNIE L. MIMMS, Selma, Ala. Filed Apr. 8, 1912. Serial No. 689,444. (Cl. 156—25.)



1. In a device for attaching shades to shade rollers, a clip formed of a single piece of sheet metal, said clip being formed with a plurality of arms, the terminals of which are coiled, a rod embraced by said arms and a tongue formed integral with said blank, said tongue being bent to embrace said rod.

2. In a device for attaching shades to shade rollers, a clip formed of a single piece of sheet metal bent to embrace the shade roller, a tongue formed integral with said clip and arranged to extend through a slit in the shade, arms formed integral with the clip, the terminals of said arms being coiled, a rod embraced by said arms, said tongue being bent to embrace said rod.

1,041,141. BOILER-FLUE-CLEANER SYSTEM. JAMES MOORE, Boston, Mass., assignor to The Vulcan Soot Cleaner Company of Pittsburg, Pa., Dubois, Pa., a Corporation of New Jersey. Filed Jan. 26, 1912. Serial No. 673,643. (Cl. 122—39.)



1. In a flue cleaner system, a flue, a rotatably-mounted fluid distributing pipe arranged at an angle to said flue, a feed pipe therefor, a supply pipe to which the feed pipe is connected, and a plurality of nozzles interposed in the pipe and each provided with an outlet disposed obliquely to the axis of the pipe.

2. In a flue cleaner system, a flue, a rotatably-mounted distributing pipe arranged at an angle to said flue, a supply pipe, a feed pipe connecting the supply pipe and the distributing pipe, a plurality of nozzles interposed in the pipe and each having an outlet disposed to project fluid at an oblique angle to the axis of the pipe, and means for rotating the pipe.

3. In a flue cleaner system, a flue, a rotatably-mounted steam distributing pipe arranged at an angle to said flue, a supply pipe, a feed pipe connecting the distributing pipe to the supply pipe, and a plurality of nozzles in the distributing pipe having lateral outlets disposed to project the steam obliquely to the direction of draft of the products of combustion passing around the flue.

4. In a flue cleaner system, a flue, a plurality of rotatably-mounted distributing pipes arranged at an angle to said flue, a supply pipe, feed pipes connecting the supply pipe and the distributing pipes, a sprocket carried by each distributing pipe, and depending operating chains, one for each distributing pipe.

5. In a flue cleaner system, a flue, a plurality of independent rotatably-mounted distributing pipes arranged at an angle to said flue, a feed pipe common to all of the distributing pipes, a sprocket carried by each distributing pipe, and depending chains operating over said sprockets, separate chains being provided for each sprocket.

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1,041,142. WIRE-FENCE-REELING DEVICE. MALA MOORE, Roseville, Ill. Filed June 8, 1912. Serial No. 702,590. (Cl. 242—90.)



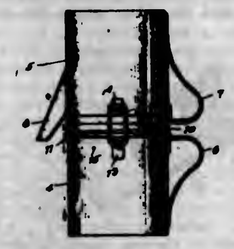
1. In a device of the character described, the combination of an end gate of a wagon, of a pair of spaced brackets detachably mounted upon one face thereof, a shaft, a reel mounted upon said brackets, a pair of brackets one of which is detachably mounted upon the front and the other upon the rear face of the end gate, said shaft adapted to be mounted within said first mentioned brackets for unwinding the wire upon the reel and adapted to be mounted within the second mentioned brackets when winding the wire upon the reel, substantially as described.

2. In a device of the character described, the combination of an end gate, brackets detachably mounted thereupon, a shaft journaled within said brackets, a reel mounted upon said shaft, a third bracket mounted upon said end gate, a link pivotally mounted within said last mentioned bracket, eyelets formed in the extremities of said link, a lever pivotally connected to the longer arm of said link, the said end gate having a notch formed therein, a plate mounted upon said gate and extending transversely of said notch, and the said lever adapted to engage said plate for adjustably holding said link, substantially as described.

3. In a device of the character described, the combination of an end gate, of a reel journaled thereupon, a bracket detachably mounted upon one face of said gate at one end of said reel, a link pivotally connected to said bracket, the extremities of said link being bent at right-angles thereto and provided with loops, a rack bar pivotally connected to said link, the said end gate having a notch formed therein, means for holding said rack bar within said notch, and means for adjustably holding said rack bar, substantially as and for the purpose specified.

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1,041,143. COFFEE-POT. JAMES J. MORGAN, Chicago, Ill. Filed Apr. 16, 1910. Serial No. 555,929. (Cl. 53—3.)



1. A reversible coffee-pot consisting of a boiler, a strainer, and a secondary receptacle combined in a unitary structure, said boiler having an aperture near the open end thereof, said aperture being of such size as to prevent the simultaneous passage of air and liquid.

2. A reversible coffee-pot consisting of a boiler, a strainer and a secondary receptacle, combined in a unitary structure, said boiler having an aperture near the open end thereof, said aperture being restricted so as to prevent the simultaneous passage of air and liquid, said aperture being below the level of the liquid when the boiler is inverted.

3. In a reversible coffee-pot, a boiler, a strainer, and a secondary receptacle combined in a unitary structure, said boiler having a simple permanent aperture in the side thereof near the open end of said boiler adapted to be below the level of the liquid therein.

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1,041,144. WATER AND AIR RELIEF VALVE FOR STEAM-HEATING SYSTEMS. WILLIAM W. MORGAN, Philadelphia, Pa., and JAMES L. FITTS, Merchantville, N. J., assignors to Warren Webster & Company, a Corporation of New Jersey. Filed Jan. 8, 1906. Serial No. 294,454. (Cl. 237—19.)

1. In a water and air relief valve for steam heating systems, the combination of a body having an inlet and an outlet, a motor within said body controlling said outlet and provided with a tube, the lower end of which constitutes the valve piece, and a stationary head having a sharp edge closely fitting the lower end of the tube when the tube is lowered and acting to arrest foreign matter entering the tube, said head being located below the level assumed by the bottom of the tube when the tube is raised by the motor, so that the arrested matter on said head will be discharged when the tube is raised.



2. In a water and air relief valve for steam heating systems, the combination of a body having an inlet and an outlet, a motor within said body controlling said outlet and provided with a tube, the lower end of which constitutes the valve piece, and a stationary head of conical form, having a sharp edge closely fitting the lower end of the tube when the tube is lowered and acting to arrest foreign matter entering the tube, said head being located below the level assumed by the bottom of the tube when the tube is raised by the motor, so that the arrested matter on said head will be discharged when the tube is raised.

3. In a water and air relief valve for steam heating systems, the combination of a body having an inlet and an outlet, a motor within said body controlling said outlet and provided with a tube the lower end of which constitutes the valve piece, a stationary guide extending into said tube and provided with a head having a sharp edge closely fitting the lower end of the tube when the tube is lowered and acting to arrest foreign matter entering the tube, said head being located below the level assumed by the bottom of the tube when the tube is raised by the motor, so that the arrested matter on said head will be discharged when the tube is raised.

4. In a water and air relief valve for steam heating systems, the combination of a body having an inlet and an outlet, a tube one end of which is adapted to rest on the body and close the outlet with the interior of the tube in communication therewith, a motor carried by said tube and controlled by the accumulation of water in the body to lift said tube and open the outlet, a stationary guide piece carried by the valve body and extending down into said tube, and a head carried by the end of said guide within said tube and located below the level assumed by the bottom of the tube when the tube is raised by the motor and provided with a sharp edge adapted to scrape the inner walls of the tube when the same is raised.

5. In a water and air relief valve for steam heating systems, the combination of a body having an inlet and an outlet, a tube one end of which is adapted to rest on the body and close the outlet with the interior of the tube in communication therewith, a motor carried by said tube and controlled by the accumulation of water in the body to lift said tube and open the outlet, a stationary guide piece carried by the valve body and extending down into said tube, and a head carried by the end of said guide within said tube and located below the level assumed by the bottom of the tube when the tube is raised by the motor and provided with a sharp annular edge adapted to scrape the inner walls of the tube when the same is raised.

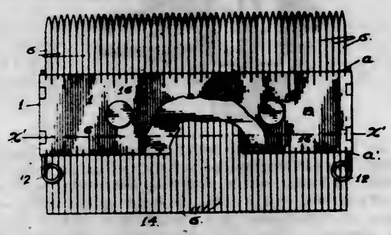
[Claim 6 not printed in the Gazette.]

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1,041,145. GAGE FOR SCRIBING WORK. GEORGE A. MOSS, San Francisco, Cal., assignor to Mary L. Moss, San Francisco, Cal. Filed Feb. 6, 1912. Serial No. 675,864. (Cl. 73—73.)

1. In a gage for the work of scribing, the combination with a holder provided with upturned vertically slotted ends, of a series of horizontally disposed alined gage pins independently slidable therein, a presser plate situated

within the holder to bear onto the gage pins and provided with projecting lugs to engage the vertical slots in the upturned ends of the holder, ears upwardly projected from said ends, a cover plate provided with cut outs or seats to receive the said ears, lock pins fitted within a transverse bore in the ends of the cover plate and the ears of the upturned ends of the holder to secure the cover plate thereto, and thumb-screws working through the cover plate for forcing the presser plate against the gage pins.

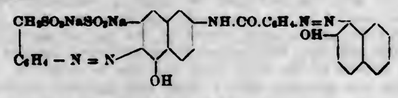


2. In a gage for the work of scribing, the combination with a holder provided with upturned vertically slotted ends, of a series of horizontally disposed alined gage pins independently slidable therein, and each provided at one end with a scribing point, a presser plate situated within the holder to bear onto the gage pins and provided with projecting lugs to engage the vertical slots in the upturned ends of the holder, ears upwardly projected from said ends, a cover plate provided with cut outs or seats to receive the said ears, lock pins fitted within a transverse bore in the ends of the cover plate and the ears of the upturned ends of the holder to secure the cover plate thereto, and thumb-screws working through the cover plate for forcing the presser plate against the gage pins.

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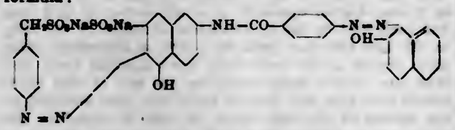
1,041,146. DYESTUFF. CARL OSKAR MÜLLER, Höchst-on-the-Main, and AUGUST LUTHER, Nied-on-the-Main, Germany, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Nov. 17, 1911. Serial No. 660,893. (Cl. 8—1.)

1. As new articles of manufacture, dyestuffs of the formula:



being red powders readily soluble in water with a red color, dyeing directly unmordanted cotton bright yellowish-red tints of excellent fastness to acids.

2. As a new article of manufacture, the dyestuff of the formula:

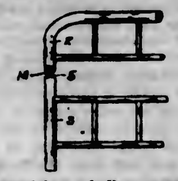


being a red powder, readily soluble in water with a red color, dyeing directly unmordanted cotton bright yellowish-red tints of excellent fastness to acids.

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1,041,147. HINGE. WILLIAM L. MURPHY, San Francisco, Cal., assignor to Murphy Wall Bed Company, a Corporation of California. Filed Feb. 21, 1912. Serial No. 679,106. (Cl. 16—11.)

1. A hinge comprising a hollow member provided at one end with a slot, a second member, an ear projecting from said second member provided with a closed end slot, a tapered projection at the base of said ear arranged to seat in said hollow member and a pin secured in said first member engaging in said closed end slot.

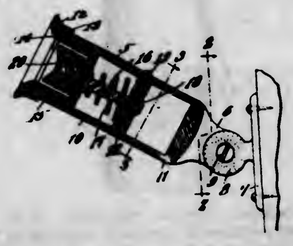


2. A hinge comprising a hollow member provided at one end with a slot, a pin in said member arranged transversely of said slot, a second member, an ear projecting from said member provided with a slot engaging said pin, a tapered projection at the base of said ear adapted to seat in the hollow member and a shoulder on said ear adapted to lie in the slot in the hollow member when the hinge is closed.

3. A joint for tubular frames, said joint including two abutting tubes, one of which has an open slot upon one end, a flat tongue fixed in the other tube extending into the slotted one and slidable therein, said tongue having a slot, a pin fixed in the first mentioned tube upon which the tongue is movable, and a projection on the second tube arranged at the base of said tongue and adapted to engage in the first tube when the tubes are alined and the joint closed.

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1,041,148. CUE-CHALKER. ALVIN E. NEWMAN, Chicago, Ill. Filed Mar. 2, 1912. Serial No. 681,118. (Cl. 46—8.)



1. A cue chalker embodying a tubular guide having a longitudinal inner groove in its lower side to convey chalk dust rearward, a chalk holder slidable and rotatable in the forward end of the guide, means for yieldingly forcing the chalk holder forward, and means for rotating the chalk holder when forced rearward.

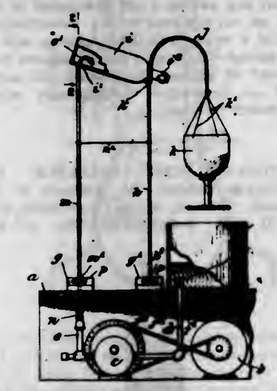
2. A cue chalker embodying a tubular guide having its rear end closed, and having a longitudinal inner groove extending from the forward end to the rear end to convey the chalk dust rearward with an outlet orifice at the rear end of the groove, a chalk holder slidable and rotatable in the forward end of the guide and having a rearwardly extending screw, a member mounted in the guide and through which the screw is engaged, a spiral spring compressibly disposed between the chalk holder and the said member, and an annular mouth piece engaged on the forward end of the guide and against which the chalk holder is adapted to seat.

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1,041,149. ADVERTISING DEVICE. CHARLES W. NICHOLS, Rahway, N. J. Filed Oct. 12, 1911. Serial No. 654,235. (Cl. 46—70.)

1. An advertising device, embodying therein in combination a delivery receptacle of limited capacity having an inlet opening, and an outlet opening at one end thereof, similar standards for supporting said receptacle adjacent to the opposite ends thereof in a position inclined from said inlet toward said outlet, a rest carried by said standards adjacent the inlet opening of said receptacle, one of said standards and said rest having a continuous duct therein, means establishing communication between said duct and said receptacle, a receiving tank spaced away from the outlet opening of said delivery receptacle, and a power actuated circulating pump, the leads of which are respectively in communication with said receiving tank and said duct, whereby a continuous circulation of fluid may be maintained through said delivery receptacle and said receiving tank.





2. An advertising device embodying therein in combination a delivery receptacle of limited capacity having an inlet opening, and an outlet opening at one end thereof, similar standards for supporting said receptacle adjacent to the opposite ends thereof in a position inclined from said inlet toward said outlet, a rest carried by said standards adjacent the inlet opening of said receptacle, one of said standards and said rest having a continuous duct therein, means establishing communication between said duct and said receptacle, a receiving tank spaced away from the outlet opening of said delivery receptacle, a power actuated circulating pump, the leads of which are respectively in communication with said receiving tank and said duct, whereby a continuous circulation of fluid may be maintained through said delivery receptacle and said receiving tank, and a receptacle interposed between the outlet of said delivery receptacle and said tank and having communication with neither.

3. An advertising device, embodying therein in combination a delivery receptacle of limited capacity having an inlet opening, and an outlet opening at one end thereof, similar standards for supporting said receptacle adjacent to the opposite ends thereof in a position inclined from said inlet toward said outlet, a rest carried by said standards adjacent the inlet opening of said receptacle, one of said standards and said rest having a continuous duct therein, means establishing communication between said duct and said receptacle comprising a nipple projecting through said inlet opening and projected downwardly against the bottom of said receptacle, whereby the splashing of the fluid is minimized, a receiving tank spaced away from the outlet opening of said delivery receptacle, and a power actuated circulating pump, the leads of which are respectively in communication with said receiving tank and said duct, whereby a continuous circulation of fluid may be maintained through said delivery receptacle and said receiving tank.

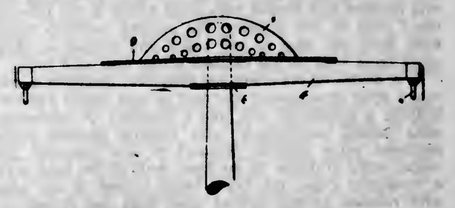
4. An advertising device, embodying therein in combination a delivery receptacle having an inlet opening therein and an outlet opening adjacent to the end thereof, a plurality of pairs of oppositely disposed similar standards adapted to support said receptacle in a position inclined from said inlet toward said outlet, a rest carried by each pair of said standards adapted to engage said receptacle at divergent points, one pair of said standards and the rest carried thereby having therein a continuous duct, means establishing communication between said duct and said receptacle, a receiving tank spaced away from the outlet opening of said delivery receptacle, and a power actuated circulating pump, the leads of which are respectively in communication with said receiving tank and said duct, whereby a continuous circulation of fluid may be maintained through said delivery receptacle and said receiving tank.

5. An advertising device, embodying therein in combination, a delivery receptacle having an inlet opening therein, and an outlet opening adjacent to the end thereof, a plurality of pairs of oppositely disposed standards adapted to support said receptacle in a position inclined from said inlet toward said outlet, a rest carried by each pair of said standards adapted to engage said receptacle at divergent points, one pair of said standards and the rest carried thereby having therein a continuous duct, means establishing communication between said duct and said receptacle comprising a nipple projecting through said inlet opening and projected downwardly against the bottom of said receptacle, whereby the splashing of the fluid is minimized, a receiving tank spaced away from the outlet opening of said delivery receptacle, and a power actuated circulating pump, the leads of which are respectively in communication with said receiving tank and said duct, whereby a continuous circulation of fluid may be maintained through said delivery receptacle and said receiving tank.

[Claims 6 to 11 not printed in the Gazette.]

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1,041,150. NECK-YOKE SAFETY ATTACHMENT. JOHN N. NOVOTNY, Badger, Minn. Filed Aug. 29, 1911. Serial No. 646,605. (Cl. 21—77.)



1. The combination with a bar, of a cage centrally secured to the forward face of said bar, and a pole receiving loop secured to the rear face of said bar, said loop being positioned in parallel spaced relation to the central portion of the mouth of the cage, said cage and loop being both secured to the bar by the same bolt.

2. The combination with a yoke bar, of a cage centrally secured to the forward face of said bar and extending in advance of the same, said cage adapted to inclose the end of the pole when the latter is in position and to permit swinging of the neck yoke upon the pole, and a pole receiving loop secured to the rear face of said bar in parallel spaced relation to the central portion of the mouth of the cage.

3. The combination with a neck yoke bar, of a cage centrally secured to the forward face of said bar, and a pole receiving loop secured to the rear face of said bar and in alinement with the mouth of the cage the opening of said loop being greater in width diagonally than transversely or vertically.

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1,041,151. ROTARY PUMP. GEORGE F. OLMSON, Haverford, Pa., assignor, by mesne assignments, to Ethel Atterbury Oberge, Haverford, Pa. Filed Jan. 18, 1912. Serial No. 671,836. (Cl. 103—44.)

1. A device of the class described, including a casing, a rotor eccentrically mounted in said casing and formed with a plurality of radially disposed guide channels, the casing being provided on the inner wall of one head with an annular ridge concentric to the casing, vanes slidably disposed in the guide channels of the rotor and formed with recesses, and guiding members mounted to freely turn in said recesses and slidably engaging said ridge.

2. A device of the class described, including a casing formed on the inner wall of one head with a concentric transversely rounded ridge, a rotor mounted in said casing and formed with a plurality of radially disposed guide channels, vanes slidably mounted in said channels and each formed in one edge with a recess, and cylindrical guiding members mounted in said recesses and flush with the adjoining edge of the vanes, the guiding members being formed with curved recesses adapted to fit over said ridge.

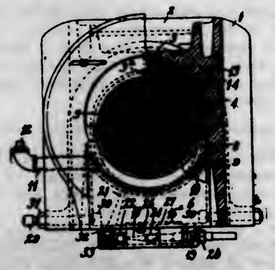


3. A device of the class described, including a casing, a rotor eccentrically mounted in said casing and provided with a plurality of radially disposed guide channels, vanes slidably mounted in said channels, the casing being provided on the inner wall of one head with a concentric transversely rounded ridge, the vanes being formed in one edge with recesses having reduced inner ends, and cylindrical guiding members mounted to turn freely in said recesses and formed with studs fitting in the reduced inner ends of the recesses, the guiding members being flush with one edge of the vanes and formed in their outer faces with curved recesses fitting over said ridge.

4. A device of the character described, including a casing, a rotor eccentrically mounted in said casing and embodying a cylindrical rim, and a plurality of connecting webs formed, respectively, with radially disposed guide channels, vanes slidably mounted in said channels, the casing being provided on the inner wall of one head with a concentric ridge, the vanes being formed in one edge with recesses having reduced inner ends and cylindrical guiding members mounted to turn freely in said recesses and formed with studs fitting in the reduced inner ends of the recesses, the guiding members being flush with one edge of the vanes and formed in their outer faces with curved recesses fitting over said ridge, the webs being cut away on one side adjoining the head of the casing which is formed with the ridge, whereby to provide clearance spaces for the said cylindrical guiding members.

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1,041,152. OILING APPARATUS FOR JOURNALS. WILLIAM O'CONNER, New Castle, Pa. Filed Mar. 9, 1911. Serial No. 613,371. (Cl. 64—24.)



1. A journal box having a detachable cellar adapted to contain a body of oil, an oil applying device having a discharge nozzle and a body portion provided with an inlet opening submerged in said body of oil, and a fluid-conducting pipe having its nozzle located within said device between the inlet opening and the discharge opening of the nozzle.

2. An oiling device for railway vehicle journals comprising an oil reservoir, a spraying device having a body member located in said reservoir and provided with a submerged inlet opening, a nozzle portion and means for applying fluid-pressure to the oil at a point between the inlet opening and the discharge opening of the nozzle.

3. A journal box having a cellar adapted to contain a body of oil, an oil-applying device comprising a body member having a submerged inlet opening and a nozzle member, and means within said nozzle member for forcing portions of said oil against the journal and maintaining a continuous oil circulation through said cellar, body member and nozzle member.

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1,041,153. TOOL-HOLDING APPLIANCE. JOHN M. PALMER, Chicago Heights, Ill., assignor to Universal Tool Company, Chicago, Ill., a Corporation of Illinois. Filed July 16, 1906. Serial No. 326,338. (Cl. 29—141.)



1. In combination, a sleeve having a socket adapted to fit a tool shank, and a key extending into the socket of the sleeve and adapted to register with a corresponding keyway formed in such shank, the depth of said key being increased toward the receiving end of said socket.

2. In combination, a sleeve having a socket adapted to fit a tool shank, and a key extending longitudinally of and inwardly from said sleeve and adapted to register with a corresponding keyway formed in such shank, the depth of said key being increased toward the receiving end of said socket.

3. In combination, a driving sleeve having a socket adapted to fit a tool shank and a key extending into the socket of the sleeve adapted to register with a corresponding keyway formed in such shank, the depth of said key being increased toward the receiving end of the said socket.

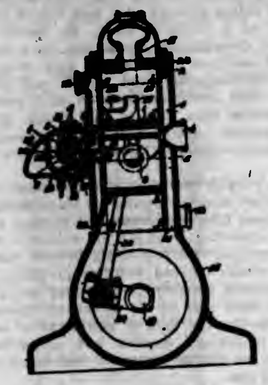
4. In combination, a sleeve having a socket adapted to fit a tool shank, and a key extending into the socket of the sleeve and adapted to register with a corresponding keyway formed in such shank, the top surface of said key and the bottom of said keyway being in engagement throughout the entire length thereof and the depth of said key being increased toward the receiving end of said socket.

5. In combination, a sleeve having a socket adapted to fit a tool shank, and a key extending into the socket of the sleeve and adapted to register with a corresponding keyway formed in such shank, the depth of said key being increased toward the receiving end of said socket and the upper surface of said key being parallel to the diametrically opposite inside element of the sleeve.

[Claims 6 to 8 not printed in the Gazette.]



1,041,154. TWO-CYCLE EXPLOSION-MOTOR. LEON PALOUS, Berlin, Germany. Filed Dec. 26, 1911. Serial No. 667,799. (Cl. 123—73.)

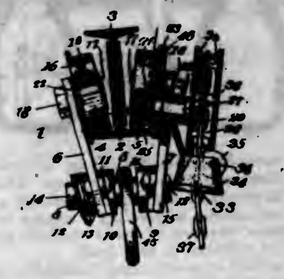


1. In an explosive motor of the type described, a piston cylinder, a piston, a water chamber substantially surrounding the upper portion of said cylinder and having an inlet for the water at the lower portion of said cylinder, an air compression chamber substantially incasing the lower portion of said cylinder, a valve-box having three superposed valve chambers, the central of said chambers communicating with said compressed air chamber, the upper of said valve chambers being positioned above and extending around said central valve chamber, and communicating with the lower valve chamber, said lower valve chamber operating to communicate with the piston chamber upon the down stroke of the piston, means for introducing fuel into said lower valve chamber, and a valve operated by the compression of air upon each stroke of the piston for simultaneously admitting air to the upper valve chamber and fuel to said lower valve chamber.

2. In an explosive motor of the type described, a piston cylinder, an air compression chamber and a water chamber substantially incasing said cylinder, a valve-box positioned exteriorly of the piston cylinder, said valve-box containing three superposed valve chambers, the middle of which chambers communicates with the air compression chamber, and also with the upper valve chamber, said upper valve chamber communicating with the lower valve chamber, a source of fuel supply communicating with the lower valve chamber, a member separating said middle valve chamber and said lower valve chamber, a valve operable by the compression of air on the down stroke of the piston for regulating the passage of air from said middle valve chamber to said upper valve chamber and lower valve chamber, respectively, and a spindle carried by said valve and operating upon the movement of said valve to simultaneously admit fuel to said lower valve chamber when air is admitted thereto, for the purpose specified.

3. In an explosive motor of the type described, the combination, with an air compression chamber, a piston chamber, and a piston, of a valve-box provided with three superposed valve chambers, a member closing the upper part of said upper valve chamber, another member separating the middle valve chamber from the lower valve chamber, and a valve operating to control the passage of compressed air from the air compression chamber and the middle valve chamber to the upper valve chamber and the lower valve chamber, respectively, the upward movement of said valve being controlled by the down stroke of the piston, a fuel port to said lower valve chamber and a spindle secured to said valve and operating to control the passage of fuel through said fuel port to said lower valve chamber simultaneously with the admission of air to said lower valve chamber, for the purpose specified.

1,041,155. TROLLEY. CARL PAULI, Roselle Park, N. J., assignor to New Jersey Foundry and Machine Company, a Corporation of New Jersey. Filed Apr. 8, 1912. Serial No. 689,129. (Cl. 104—181.)



1. The combination with a trolley of one or more traction wheels carried by the trolley and provided with gear surfaces, a driving member, a driven member, both driving and driven members mounted above the tread of the traction wheels, and automatic means to operate said driving and driven members to connect or disconnect said driven member from the gear surface or surfaces, permitting the trolley to operate either as a plain or geared trolley.

2. The combination in a trolley of one or more traction wheels provided with teeth, a driving member, a pinion, both driving member and pinion being mounted above the tread of the traction wheels, and automatic means to operate the driving member and pinion to connect or disconnect said pinion from the teeth carried by the traction wheels, permitting the trolley to operate either as a plain or geared trolley.

3. In a trolley the combination of a plurality of traction wheels, gear teeth carried by two traction wheels on the same side of the trolley, a driving member, a single pinion adapted to coöperate with the gear teeth carried by the two traction wheels, and automatic means to cause the pinion to become connected or disconnected from the gear teeth, forming either a plain or geared trolley.

4. In a trolley the combination of a plurality of traction wheels, gear teeth carried by two traction wheels on the same side of the trolley, a driving member, a single pinion mounted on the same side of the trolley and above the tread of the traction wheels and adapted to coöperate with the gear teeth carried by the two traction wheels, and automatic means to cause the pinion to become connected or disconnected from the gear teeth forming either a plain or geared trolley.

5. In a trolley, the combination of two traction wheels on the same side of the trolley, friction surfaces connected to the two traction wheels, a driving member mounted on the same side of the trolley and adjacent to the two traction wheels, a driven member mounted adjacent to the two friction surfaces, and automatic means to connect or disconnect said driven member to or from the friction surfaces carried by both traction wheels, permitting the trolley to operate either as a plain or geared trolley.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,156. METHOD FOR ASCERTAINING THE LOCATION OF LEAKS IN UNDERGROUND FLUID-PRESSURE PIPES. GEORGE V. PAYNE, Chicago, Ill. Filed May 10, 1912. Serial No. 696,403. (Cl. 137—77.)

1. The method of ascertaining the location of a leak in an underground fluid pressure pipe which consists primarily in creating a draft in one direction adjacent the leak, and secondarily in creating a suction in said draft in the opposite direction.

2. The method of ascertaining the location of a leak in an underground fluid pressure pipe which consists primarily in creating a draft in one direction adjacent the leak, and secondarily in creating a suction in said draft

in the opposite direction by means of a pipe arranged in said draft.



3. The method of ascertaining the location of a leak in an underground fluid pressure pipe which consists primarily in creating a draft in one direction adjacent the leak, and secondarily in creating a suction in said draft in the opposite direction by means of a pipe arranged and progressively extended in said draft.

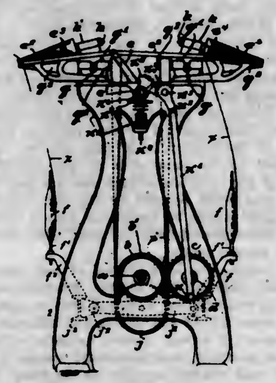
4. The method of ascertaining the location of the point of entry of fluid into a conduit which consists in first creating a draft in one direction through said conduit, second in inserting a pipe into said conduit, and then creating a suction in said pipe in a direction opposite to that of said draft.

5. The method of ascertaining the location of the point of entry of fluid into a conduit which consists in first creating a draft in one direction through said conduit, second in inserting a sectional pipe progressively into said conduit, and then creating a suction in said pipe in a direction opposite to that of said draft.

[Claims 6 to 10 not printed in the Gazette.]

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1,041,157. WINDING-MACHINE. CHARLES F. PERHAM, Lowell, Mass. Filed Jan. 4, 1908, Serial No. 409,315. Renewed Feb. 23, 1912. Serial No. 679,499. (Cl. 242—29.)



1. In a winding machine, a thread guide movable in a straight line, a crank pin movable in a circular path, means for driving said crank pin at a uniform rate of speed, an oscillatory member, a rod connected to said crank pin and said oscillatory member in such relation as to oscillate the latter through substantially 180 degrees of a circle, reducing gearing driven forward and backward by said oscillatory member, and connections between said reducing gearing and said thread guide for reciprocating the latter.

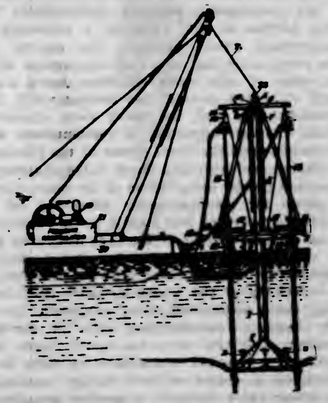
2. In a winding machine a rock-shaft, a series of reciprocatory thread guides, arms affixed upon said rock-shaft and acting directly upon said thread guides, a crank revolving at a uniform speed, an oscillatory member, means for transmitting oscillation in a less proportion from said oscillatory member to said rock-shaft, and a connecting rod engaging said crank and pivotally connected to said oscillatory member at a point of slightly greater radius than that of said crank, whereby said oscillatory member is oscillated through substantially 180 degrees of a circle.

3. In a winding machine a rock-shaft, a series of reciprocatory thread guides, arms affixed upon said rock-shaft and acting directly upon said thread guides, a crank revolving at a uniform speed, an oscillatory member, means for transmitting oscillation in a less proportion from said oscillatory member to said rock-shaft, a connecting rod engaging said crank and pivotally connected to said oscillatory member at a point of slightly greater radius than that of said crank, and means for exerting reverse tension first in one direction and then in the opposite direction upon the aforesaid reciprocating parts.

4. In a winding machine, a reciprocatory thread guide, an oscillatory member, means for transmitting reciprocating movement from said oscillatory member to said thread guide, an operating crank-pin movable in a circular path, a rod connecting said oscillatory member and said crank-pin, said connecting rod being so pivotally connected to said oscillatory member as to swing the point of connection at both ends of its movement substantially to a line intersecting the axes of movement of said crank-pin and said oscillatory member, and spring-tension means adapted to prevent said point of connection from passing across said line.

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1,041,158. APPARATUS FOR DRILLING IN ROUGH WATER. HENRY GUION PLUMMER, Honolulu, Hawaii. Filed Aug. 10, 1911. Serial No. 643,300. (Cl. 125—10.)



1. Apparatus for drilling in rough water comprising, a mast provided with a heavy base, and an adjustable platform suspended from the upper end of said mast, drills adapted to be operated from said platform, and means to support said drills.

2. Apparatus for drilling in rough water comprising, a mast provided with a heavy base, a platform surrounding said mast suspended therefrom, said platform adapted to be raised or lowered, drills operated from said platform, and means to support said drills.

3. Apparatus of the kind described comprising a mast provided with a heavy base, a platform surrounding said mast, a rotatable portion at the top of said mast from which the platform is suspended thereby permitting the platform to turn about said mast, means whereby said platform may be raised and lowered, and drills operated from said platform.

4. Apparatus of the kind described comprising, a mast provided with a heavy base, a platform from which one or more drills are operated supported by said mast, means for adjusting the height of said platform, and means for leveling the base so that the mast will be approximately vertical when in the operating position.

5. Apparatus of the kind described comprising a mast provided with a heavy weight at its lower end, a platform from which one or more drills are operated, means for adjusting the height of the platform, and a cross arm near the top of said mast from which the drills are suspended, said cross arm being located above said platform.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,159. SILO. EDWARD I. POTTER, Cassopolis, Mich. Filed Mar. 7, 1912. Serial No. 682,221. (Cl. 72—6.)



1. A silo, comprising numerous slabs of concrete arranged in circumferential and vertical series, the seams between the superposed slabs being inclined to the horizontal, and horizontal bands or hoops crossing the seams and engaging both adjacent ends of the slabs.

2. A silo, comprising numerous slabs of concrete each slab having parallel vertical sides and inclined ends and also having two acute and two obtuse angles and interlocking margins, and hoops or bands surrounding the slabs and extending across the inclined seams between the ends of the slabs.

3. A silo, comprising numerous slabs of concrete arranged in circumferential and vertical series and having interlocking margins, and door casings of concrete having margins adapted to interlock with the margins of said slabs, said casings also being recessed to form a door opening, a door to close said opening, and hoops or bands surrounding said slabs and door casings.

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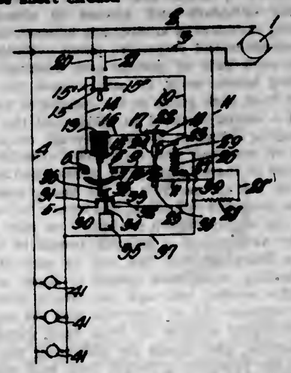
1,041,160. PROCESS OF REMOVING THE TOXIC CONSTITUENTS FROM COFFEE. HERMANN DE PURY, Neuchatel, Switzerland, assignor to Atenienfe S. A., Clarens, Montreux, Switzerland, a Corporation of Switzerland. Filed May 28, 1912. Serial No. 700,285. (Cl. 99—11.)

The process of removing the toxic constituents from coffee, comprising two successive operations, which consist in causing the ligneous cells of the green coffee beans to burst, and then roasting the beans in the presence of a current of hot air.

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1,041,161. AUTOMATIC CIRCUIT-BREAKER. ESTELLE C. RAMEY, Columbus, Ohio. Filed Jan. 29, 1912. Serial No. 674,123. (Cl. 175—294.)

1. In a system of distribution, a supply circuit, a load circuit connected thereto, an electrically actuated circuit breaker in said load circuit, a circuit including said actuating mechanism of said circuit breaker, an overload coil in the load circuit, a switch for the circuit breaker actuating circuit controlled by the overload coil, a shunt around the circuit breaker in the load circuit including a resistance, a reclosing coil for the overload switch connected in an open shunt with the load circuit, and a switch controlled by the circuit breaker for closing the last shunt after a short circuit takes place in the load circuit, whereby the current flowing through the resistance will divide inversely proportional to the resistance of the reclosing coil and the short circuit.



2. In a system of distribution, a supply circuit, a load circuit connected thereto, a circuit breaker in said load circuit having a main switch held in closed position by an operating magnet, an overload switch in the operating magnet circuit with which an overload coil in the load circuit coöperates, means for locking said overload switch in open position, a coil and a resistance in a shunt circuit to the supply for tripping said locking means, a switch in said shunt circuit permitted to close by the opening of the main switch, and a conductor connected to the load side of the main and to the shunt circuit between the coil and resistance.

3. In a system of distribution, a supply circuit, a load circuit connected thereto, an electro-magnetically controlled circuit breaker for the load circuit, a shunt circuit from the supply circuit and including the electro-magnet of the circuit breaker and normally energizing the same to hold the switch thereof closed, an overload switch in the shunt circuit, a coil controlling said overload switch disposed in the load circuit to operate the overload switch due to an overloading of the load circuit, means for locking the overload switch in open position, a locking device and a resistance in shunt with the supply circuit, a switch in said last shunt circuit disposed for closure by the opening of the main switch, and a conductor from the load side of the switch of the circuit breaker and to the last shunt circuit between the lock switch tripping device and the resistance.

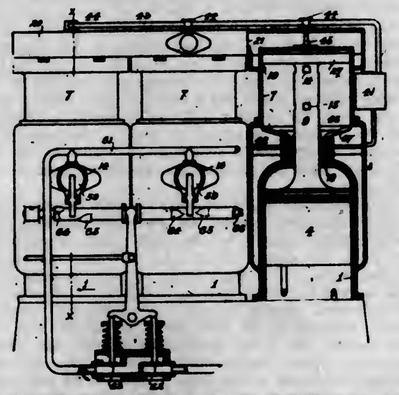
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1,041,162. INTERNAL-COMBUSTION ENGINE. BALFOUR READ, Bedford, England. Filed Aug. 10, 1910. Serial No. 576,435. (Cl. 123—59.)

1. An internal combustion engine comprising a plurality of working cylinders and pistons, an equal number of pumping cylinders and pistons in alinement with said working cylinders, a stuffing box between each working cylinder and respective pump cylinder, a sleeve connecting each pair of pistons and working in one of said stuffing boxes, ports in said sleeves for admitting the charge from each pump to the respective working cylinder, a casing adapted to inclose all the back ends of the pumping cylinders, and means for admitting the explosive mixture to the pumping cylinders from said casing.

2. An internal combustion engine comprising a plurality of working cylinders and pistons, and an equal number of pumping cylinders and pistons in alinement with their respective working cylinders, a stuffing box between each working cylinder and respective pump cylinder, a sleeve connecting each pair of pistons and working in one of said stuffing boxes, ports in said sleeves, inlet ports in the walls of the pump cylinders, a casing adapted to inclose said inlet ports and all the back ends of the pumping cylinders, forming a single closed chamber which is in communication with the explosive mixture supply.

3. An internal combustion engine comprising a plurality of working cylinders and pistons, an equal number of pumping cylinders and pistons in alinement with said working cylinders, a stuffing box between each of said working cylinders and respective pump cylinder, a sleeve connecting each pair of pistons and working in one of said stuffing boxes, ports in said sleeves for admitting the charge from each pump to the respective working cylinder, and a casing adapted to inclose all the back ends of the pumping cylinders, an oil reservoir, connections between the oil reservoir and each pump chamber to maintain pressure in the said reservoir, a branched supply pipe leading from the oil reservoir to the casing over the back ends of the pumping cylinders, non-return valves in each branch of the supply pipe, a projection on each pump piston to raise said valves, a circular trough in each pump chamber, a dished stuffing box cap on each stuffing-box, a gutter leading from each trough to upper surfaces of the respective stuffing box caps, non-return valves in said connection between the oil reservoir and the pump chambers for returning surplus oil from each pump chamber to the reservoir, and means for admitting the explosive mixture to the pumping cylinders from said casing.



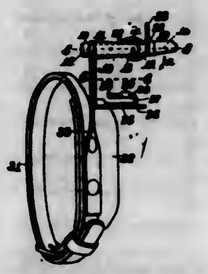
4. An internal combustion engine comprising a plurality of working cylinders and pistons, and an equal number of pumping cylinders and pistons in alinement with their respective working cylinders, a stuffing box between each working cylinder and respective pump cylinder, a sleeve connecting each pair of pistons and working in one of said stuffing boxes, ports in said sleeves, inlet ports in the walls of the pump cylinders, a casing adapted to inclose said inlet ports and all the back ends of the pumping cylinders, forming a single closed chamber which is in communication with the explosive mixture supply, an oil reservoir, connections between the oil reservoir and each pump chamber to maintain pressure in the said reservoir, a branched supply pipe leading from the oil reservoir to the casing over the back ends of the pumping cylinders, non-return valves in each branch of the supply pipe, a projection on each pump piston to raise said valves, a circular trough in each pump chamber, a dished stuffing box cap on each stuffing box, a gutter leading from each trough to the upper surfaces of the respective stuffing box caps, and non-return valves in said connections between the oil reservoir and the pump chambers for returning surplus oil from each pump chamber to the reservoir.

5. An internal combustion engine comprising a plurality of working cylinders and pistons, and an equal number of pumping cylinders and pistons in alinement with their respective working cylinders, a stuffing box between each working cylinder and respective pump cylinder, a sleeve connecting each pair of pistons and working in one of said stuffing boxes, ports in said sleeves, inlet ports in the walls of the pump cylinders, and a casing adapted to inclose said inlet ports and all the back ends of the pumping cylinders, forming a single closed chamber which is in communication with the explosive mixture supply, said pumping piston being hollow and having ports therein, and said pumping cylinders having corresponding ports in the walls thereof communicating with the atmosphere, and tubes leading from the hollow pump pistons to the interior of the sleeves.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,163. HAND KNOT-TIER. WILLIAM RENFREW, Brookline, Mass. Filed Oct. 6, 1911. Serial No. 653,290. (Cl. 28—33.)



1. In a device of the class described, the combination of a member for positioning the threads to be tied; a pivot member; and a pair of spring jaws with their side faces normally in contact adapted to be encircled by a loop of said threads and movable about the axis of said pivot member into position to seize the positioned threads while the loop is passed over the same.

2. In a device of the class described, the combination of a member for positioning the threads to be tied; a pivot member; a pair of spring jaws with their side faces normally in contact adapted to be encircled by a loop of said threads and to be moved about the axis of said pivot member into position to seize the positioned threads while the loop is passed over the same; and a knife in the plane of movement of said pivoted jaws adapted to sever the threads when the positioned threads have been seized by said spring jaws.

3. In a device of the class described, the combination of a slotted member for positioning the threads to be tied; a pivot member; and a pair of spring jaws with their side faces normally in contact adapted to be encircled by a loop of said threads and to be moved about the axis of said pivot member to seize the positioned threads while the loop is passed over the same.

4. In a device of the class described, the combination of a pivoted member provided with gripping jaws at its outer end; a fixed thread holder; and a knife thereon interposed between said holder and the pivot of said jaws and in the plane of movement of said pivoted member.

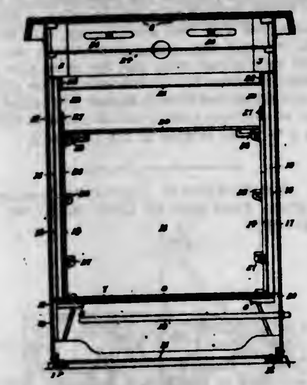
5. In a device of the class described, the combination of a frame adapted to be secured to the hand of the operator; a pair of spring jaws pivoted thereto; a thread stop thereon; an arm beneath said pivoted jaws provided with a thread receiving slot; and a knife thereon in the plane of movement of said jaws adapted to cut off the parts of the thread in said jaws from the parts thereof in said slot.

[Claims 6 to 20 not printed in the Gazette.]

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1,041,164. KNOCKDOWN LINING FOR OVENS, REFRIGERATORS, AND SIMILAR ARTICLES. ERNEST RICHARDSON, Beaver Falls, Pa. Filed July 27, 1911. Serial No. 640,292. (Cl. 126—39.)

1. In an oven, a base plate, rear and side linings supported thereon, a burner beneath the base plate, side plates spaced from the side linings to constitute flues for the burner, and a top plate on the upper ends of the linings and having flanges extending to the said side plates to form stops in the said flues, the side linings and the top-plate having holes therein to transmit the heat and products of combustion from the said flues into the oven and above the same, the said top plate having a depressed central portion with the outer walls thereof engaging the inner surfaces of the tops of the linings to prevent their inward movement.



2. In a receptacle, a base plate having the upper surface at its rear and side edges provided with recesses, rear and side linings having outwardly bent flanges seated in the recesses to prevent inward movement of the linings, a top plate having horizontal flanges resting on the top of the linings and a depressed central portion, having its vertical walls engaging the inner surfaces of the tops of the linings to prevent their inward movement, and side plates spaced from the linings and engaging the said horizontal flanges of the top plate.

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1,041,165. ROTATABLE PUMP-VALVE. HUGH H. RILEY, Memphis, Tenn. Filed Feb. 7, 1911. Serial No. 607,041. (Cl. 103—66.)

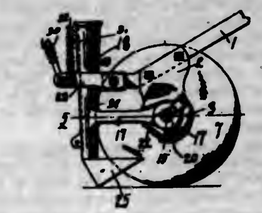


In combination, a conduit having a valve seat therein, a bearing located below said valve seat, a valve stem extending through the bearing and valve seat, a valve mounted on said stem and adapted to engage the seat, the upper end of said stem being reduced, a second stem section having a socket to receive the reduced end of the first stem section and having curved vanes spaced above said valve and having their outer edges disposed in the same vertical plane as the outer periphery of the valve and spaced from the cylinder wall, means connecting the two valve stem sections, said vanes being adapted to rotate said valve stem and valve when said valve is reciprocated.

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1,041,166. GRAIN-DRILL. LUTHER E. ROBY and CLARENCE A. PATTISON, Peoria, Ill. Filed Jan. 5, 1910. Serial No. 536,531. (Cl. 111—11.)

1. In a disk-drill, in combination, a disk and a disk mounting, a seed conductor, an arm extending forwardly from said conductor intermediate its receiving and delivery ends and pivotally connected with the disk mounting concentric with the axis of the disk, a guide for the conductor, said guide being distinct from said arm, and an earth engaging member connected with the lower end of the conductor and unattached at its forward end.



2. In a disk-drill, in combination, a disk and a disk mounting, a seed conductor, an arm attached to the conductor and pivotally attached to the disk mounting concentric with the axis of the disk, so that the conductor may have vertical movement independent of the disk, and a runner connected with the delivery end of the conductor, said runner unattached at its forward end and adapted to travel in the wake of the cutting edge of the disk.

3. In a disk-drill, in combination, a concavo-convex disk and a disk mounting, a seed conductor, an arm attached to the conductor, said arm extending forwardly and conforming to the contour of the convex face of the disk and pivotally attached to the disk mounting concentric with the axis of the disk, a guide for the conductor, attached to the disk mounting, and a runner connected with the delivery end of the conductor, said runner unattached at its forward end and adapted to travel in the wake of the cutting edge of the disk.

4. In a disk-drill, in combination, a disk, a support therefor, a seed conductor, a mounting for the conductor comprising an arm extending at right angles from the conductor and at approximately a central point midway of said conductor and pivotally attached at its forward end to the support of the disk and concentric with the axis of the disk, whereby the conductor may have vertical movement independent of the disk; the earth engaging portion of the conductor being free and unattached; a guide for the conductor; said guide connected with the disk support; means for raising and lowering the guide so as to raise or depress the disk, and means on the conductor adapted to engage with the guide.

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1,041,167. REARER FOR PUPPIES AND KITTENS. EDWARD ERNEST ROGERS, Four Oaks, England. Filed Mar. 13, 1911. Serial No. 613,989. (Cl. 119—33.)



1. A portable rearer for animals comprising in combination, a receptacle open at the top, a jacketing for the sides and bottom of said receptacle adapted to retain liquid, a frame substantially the size of said receptacle and adapted to be contained therein, and a cushioning means for supporting the animal carried by said frame.

2. A portable rearer for animals comprising in combination, a receptacle open at the top and adapted to receive the animal, a jacketing for the sides and bottom of said receptacle adapted to contain fluid, means for transporting

said jacketing and receptacle, said means being carried by the former, and a supplemental jacketing including two separable complementary sections adapted to embrace said first mentioned jacketing and each provided with an aperture to permit access to the said transporting means.

3. A portable rearer for animals comprising in combination, a receptacle open at the top and adapted to receive the animal, a jacketing for the sides and bottom of said receptacle adapted to contain fluid, and supplemental jacketing means for said first mentioned jacketing, including a bottom, a segmental side rigidly carried by said bottom, and a complementary segmental side pivoted to said first mentioned side, substantially as and for the purpose set forth.

4. A portable rearer for animals comprising in combination, a receptacle open at the top and adapted to receive the animal, a jacketing for the sides of said receptacle adapted to contain fluid, and a supplemental jacketing means for said first mentioned jacketing including a one-piece bottom, a segmental side rigidly carried by said bottom, and a complementary segmental side pivoted to said first mentioned side, substantially as and for the purpose set forth.

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1,041,168. **AUTOMATIC SIGNALING MECHANISM.** JOSEPH W. ROGERS, Woodbury, N. J. Filed Mar. 12, 1910. Serial No. 548,810. (Cl. 246—48.)



1. In a signaling mechanism adapted to be operated by a car, in combination with a track for said car, said track comprising several insulated sections, a relay, a signal circuit closed by the armature of said relay when its electro-magnet is excited, a pair of relays connected with different sections of said track for controlling said relay first named, said track sections last named having between them a third section insulated therefrom, each of said pair of relays having a circuit closed by a car moving toward said third section from a track section adjacent the relay whose circuit is thus closed, and means controlled by a car on said third named track section for breaking the circuits of said pair of relays.

2. In a signaling mechanism adapted to be operated by a car, in combination with a track, a pair of relays connected with different sections of said track, the circuits of the respective relays each comprising members electrically connected by a car on said track adjacent the points of connection of said relay thereto, a signal, a relay for controlling the operation of said signal, said last named relay having circuits containing contacts respectively closed by one of said first named relays, and means comprising members electrically connected by a car on said track intermediate of its points of connection with said first named relays for terminating the operation of said signal.

3. In a signaling mechanism, in combination with a track, a pair of circuits each containing a relay magnet and adapted to be closed by a car on said track, a relay having connected therewith circuits respectively controlled by one of said relay magnets, and a signal operated under control of said relay, said relay having means connected therewith whereby the operation of said signal is stopped by said car.

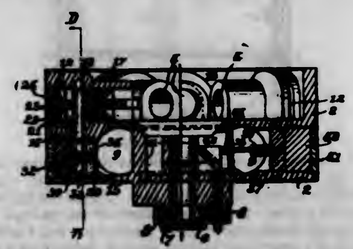
4. In a signaling mechanism, a normally open circuit containing an electro-magnet and an armature, means for closing said circuit, a second normally open circuit containing an electro-magnet adapted for attracting said armature to interrupt said first circuit, said means being adapted for closing said second circuit, in combination with a circuit containing an electro-magnet and an armature adapted to be attracted by said first named electro-magnet, a circuit containing an armature attracted by said last named electro-magnet, and a signal controlled thereby.

5. In a signaling mechanism, a relay having a circuit, a car for closing said circuit, a second circuit, said car closing said second circuit, and means whereby the closing of said second circuit effects the interruption of said first circuit, in combination with a second relay, a plurality of circuits connected with said second relay, said first named relay being adapted for closing one of said circuits connected with said second relay and the closure of said last named circuit effecting the closure of a second circuit connected with said second relay, a signal, and means whereby the closure of said last named circuit operates said signal.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,169. **FLUID-CLUTCH.** JOSEPH W. ROSCHE, Minneapolis, Minn. Filed Mar. 26, 1910. Serial No. 551,712. (Cl. 192—18.)



1. In a fluid clutch, a rotatable casing and a crank shaft journaled in said casing, a plurality of cylinders mounted on said casing, pistons reciprocating in said cylinders, a pitman wheel freely journaled on the crank of said shaft, links pivotally mounted on said wheel successively about its perimeter in the same plane and connected with said pistons to operate the latter, said links being so formed as to engage each other successively during the rotation of the crank in the casing and prevent the rotation of said wheel in said casing.

2. In a fluid clutch, a rotatable casing and a crank shaft journaled therein, a plurality of cylinders mounted on said casing, pistons mounted on said shaft and operable in said cylinders, said cylinders having inlet passages communicating with a reservoir chamber in said casing near its periphery and outlet passages communicating with an annular pressure chamber in said casing, said pressure chamber communicating with said reservoir chamber through a passageway, and a control valve in said passageway adapted to control the flow of liquid from said plurality of cylinders through said chamber, whereby in operation liquid is supplied to said cylinder inlets through the revolution of said casing and the speed of said plurality of pistons in the cylinders is regulated by said control valve.

3. In a device of the class set forth, a cylindrical casing having a liquid reservoir and an annular pressure chamber communicating therewith by a valved passageway, a crank shaft journaled to revolve in said casing, a plurality of cylinders mounted on said casing tangential to a circle about said shaft having valved inlets from said reservoir at the periphery thereof and valve outlets to said pressure chamber adapted to receive liquid from said cylinders, pistons operating in said cylinders to draw liquid from said reservoir and force it into said annular chamber, a pitman wheel journaled freely on said crank shaft and connected with said pistons to operate them and equalize the pressure thereon and a control valve between said pressure chamber and reservoir adapted to regulate the flow of liquid from said piston, the connection between said pitman and piston being axial of said cylinder midway of the working stroke of said piston, whereby the action of said pistons is equalized and regulated.

4. In a device of the class set forth, a cylindrical casing having a plurality of piston cylinders, their axes being tangential to a circle about the axis of said cylinder, a crank shaft journaled on the axis of said casing and having a crank pin, pistons reciprocating in said cylinders and a pitman wheel freely journaled on said crank pin and links pivoted to the periphery of said pitman wheel and to said pistons to operate the same, whereby a plurality of pistons may be operated in the same casing by links positioned substantially upon the area of said cylinders.



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1,041,170. **HAND-BAGGAGE.** SAMUEL J. ROSS, Moulton, Idaho. Filed Apr. 26, 1912. Serial No. 693,154. (Cl. 190—68.)



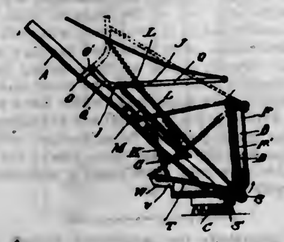
1. A handle for hand baggage having a plate adapted to be disposed against the inner surface of a wall thereof and provided with struck-up looped parts, a handle having openings receiving the struck-up looped parts, and pins passing through the looped parts above the handle.

2. A handle for hand baggage having a plate adapted to be disposed against the inner surface of a wall thereof and provided with struck-up looped parts, having reduced end parts and shoulders, a handle having openings receiving said reduced end parts, said handle bearing against the shoulders, and pins received in the looped reduced end parts and bearing on the handle.

3. A handle for hand baggage having a plate adapted to be disposed against the inner surface of a wall thereof and provided with struck-up looped parts having reduced end parts and shoulders, a handle having openings receiving said reduced end parts, said handle bearing against the shoulders, and pins received in the looped reduced end parts and bearing on the handle, the extremities of the looped struck-up parts being provided with feet which gear against the plate.

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1,041,171. **COMBINED SCRUBBER AND MOP.** LINDLEY M. ROSSITER and THOMAS C. BASW, Olathe, Colo. Filed Jan. 30, 1912. Serial No. 674,302. (Cl. 15—44.)

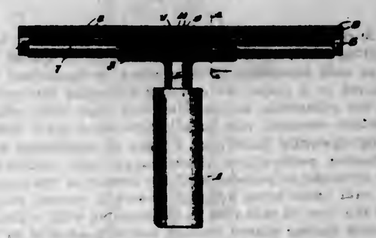


1. A combined scrub brush and mop comprising an angled frame, a handle fastened thereto, a scrub brush upon one angle of the frame and a pad upon the other, a covering for the pad, a lever mounted upon the handle and a yieldably mounted roller connected to the lever for movement thereby and adapted to press water out of the pad as it is moved over the same, as set forth.

2. A combined scrub brush and mop comprising an angled frame, a handle fastened thereto, a scrub brush upon one angle of the frame and a pad upon the other, a covering for the pad, a lever pivoted to the handle, a roller having spindle ends, arms journaled upon said spindle ends and pivoted to the lever, a spring connecting said lever and handle, and a bail-shaped member having pivotal connection with the spindles of the roller and yieldably connected to the frame, as set forth.

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1,041,172. **WIPER FOR WINDOWS AND THE LIKE.** WALTER A. ROTH and FRANK O. MOLDENHAUER, Chicago, Ill. Filed Dec. 21, 1911. Serial No. 667,082. (Cl. 15—59.)



1. The combination with a handle; of a socket carried thereby; a jointed sleeve mounted in said socket; and a plurality of abutting sheets of resilient material mounted in said sleeve, said sheets being bent upon themselves to present two wiping edges the joint between said sheets being staggered, when in their operative position, in order that an unbroken surface may operate over the path of the joint at the opposite side thereof.

2. The combination with a handle; of a transversely arranged socket carried thereby; a jointed tubular sleeve mounted in said socket; and a plurality of abutting sheets of resilient material mounted in said sleeve and curved to conform with the contour thereof and to present two longitudinal wiping edges, said longitudinal edges of said sheets projecting beyond the wall of said sleeve, and the joints between said strips of material being staggered to provide an unbroken surface upon one side thereof to operate over the path of the joint in the opposite side thereof.

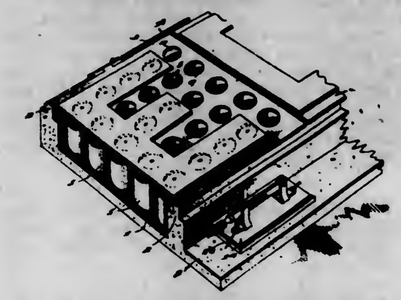
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1,041,173. **FLAGSTAFF.** CHARLES LEWIS RYANS, Covington, Ky. Filed July 31, 1911. Serial No. 641,420. (Cl. 116—12.)



A folding flag staff comprising a pair of hingedly connected rods each having a flattened face, and to which is secured one edge of a flag, a half sleeve secured to one of the rods and having a projecting portion to embrace one end of the other rod when unfolded, a ring encircling one of the rods and held against accidental displacement by the secured edge of the flag, said ring being adapted to engage the projected portion of the sleeve to hold the rods in their unfolded position, said flattened faces being brought into contact when the rods are folded, whereby the flag is creased lengthwise to be wound on the rods when folded and being adapted to be unwound previous to the unfolding of the rods thus unfurling the flag as the rods are unfolded.

1,041,174. ELECTRIC SIGN. GUNTER VON SAALFELD, Seattle, Wash. Filed July 1, 1911. Serial No. 636,385. (Cl. 177—350.)



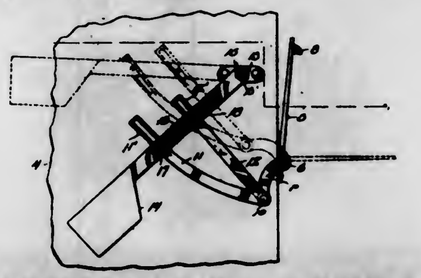
1. A contact maker for display signs consisting of an insulating plate, a series of cups mounted in spaced relation on said insulating plate, a series of conductors each connected to a respective cup and extending through the plate for connection with a wire, said cups being adapted to contain mercury, ribs on said insulating plate and extending upwardly therefrom, a plate of conducting material having perforations therethrough, said perforations being arranged to register with the centers of the mercury cups, said plate being adapted to rest in spaced relation above the cups on said ribs, in combination with a metallic character having spaced contact members adapted to pass through selected perforations in the conducting plate, and dip into the mercury, said character being arranged to rest upon the conducting plate when the contact members dip in the mercury.

2. In a circuit closer for display signs, an insulating base plate provided with spaced parallel ribs, a series of mercury cups arranged in spaced relation between said ribs, each of said cups being held in position on the base plate by a conductor member extending through the bottom of the cup and the base plate, a conducting plate hinged to one of the ribs of the base plate and having its free edge adapted to rest on the other edge of the base plate, said conducting plate being provided with a series of perforations equal in number to the mercury cups and corresponding in position thereto, the conducting plate being held in spaced relation to the mercury cups, and a metallic character adapted to rest upon the conducting plate and receive current therefrom, said character being provided with a series of conducting members adapted to pass through selected perforations in the contact plate and dip into respective mercury cups.

3. A contact maker for display signs consisting of an insulating plate, a series of cups mounted in spaced relation on said insulating plate, a series of conductors each connected to a respective cup extending through the plate for connection with a wire, said cups being adapted to contain mercury, ribs on said insulating plate and extending upwardly therefrom, a plate of conducting material having perforations therethrough, said perforations being arranged to register with the centers of the mercury cups, said plate being adapted to rest in spaced relation above the cups on said ribs, in combination with a metallic character having spaced contact members adapted to pass through selected perforations in the conducting plate, and dip into the mercury, said character being arranged to rest upon the conducting plate when the contact members dip in the mercury, each of said conducting members of the metallic character comprising a coiled metallic spring adapted to engage the bottom of the respective mercury cup when the character is in contact with the plate.

4. In a circuit closer for display signs, an insulating base plate provided with spaced parallel ribs, a series of mercury cups arranged in spaced relation between said ribs, each of said cups being held in position on the base plate by a conductor member extending through the bottom of the cup and the base plate, a conducting plate hinged to one of the ribs of the base plate and having its free edge adapted to rest on the other edge of the base plate, said conducting plate being provided with a series of perforations equal in number to the mercury cups and corresponding in position thereto, the conducting plate being held in spaced relation to the mercury cups, and a metallic character adapted to rest upon the conducting plate and receive current therefrom, said character being provided with a series of conducting members adapted to pass through selected perforations in the contact plate and dip into respective mercury cups, each of said conducting members of the metallic character comprising a coiled metallic spring adapted to engage the bottom of the respective mercury cup when the character is in contact with the plate.

1,041,175. SELF-CLOSING OVEN-DOOR. JAMES SCANLAN, Adell, Wis. Filed Apr. 10, 1912. Serial No. 689,717. (Cl. 126—191.)



1. The combination of an oven door, a crank fast on a journal of the door, a pair of links pivoted in connection with the crank, a pivotal bar with which the links are engaged to lift alternately thereon upon downward swing of said door, and a counterweight in connection with the bar.

2. The combination of an oven door having a crank fast on a journal thereof, a pivot carried by the crank, a pair of links on said pivot, a pivotal bar with which the links are engaged to lift alternately thereon upon downward swing of the door, and a counterweight in connection with the bar.

3. The combination of an oven door having a crank fast on a journal thereof, a pair of links having lower ends thereof in pivotal connection with the crank and their upper ends in the form of loops, a pivotal bar engaging the loop ends of the links, stops provided in connection with the bar opposing staggered sides of the link-loops, and a counterweight in connection with said bar, the links being arranged to lift alternately on the aforesaid bar upon downward swing of the door.

4. The combination of an oven door having a crank fast on a journal thereof, a pair of links pivoted in connection with the crank, a pivotal bar with which the links are engaged to lift alternately thereon upon downward swing of the door, a stop provided in connection with the bar and engageable with one of the links to hold said door ajar, and a counterweight in connection with said bar.

5. The combination of an oven door having a crank fast on a journal thereof, a pair of links having lower ends thereof in pivotal connection with the crank and their upper ends in the form of loops one of which has a side thereof provided with a notch, a pivotal bar extending through the link-loops, stops provided in connection with the bar opposing opposite sides of said loops, one of the stops being engageable with said notch; and a counterweight in connection with said bar.

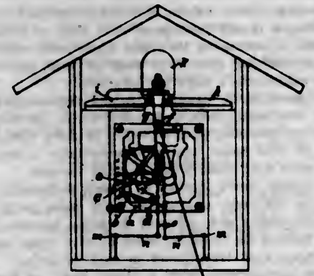
1,041,176. METHOD OF BENDING PIPES. MORITZ SCHITTKOWSKY, Duesseldorf, Germany. Filed Apr. 3, 1912. Serial No. 686,196. (Cl. 153—63.)

1. The process herein described of bending a metal tube consisting in inserting a bar of metal in the tube, said bar having a cross section corresponding to the interior of the tube and a length corresponding approximately to that of the proposed bend and further having a melting point above that of the bending temperature of the tube, but below the melting point of the tube, then heating the tube and the core bar to bending temperature and bending the tube and core and finally heating the tube and the bar to the melting point of the bar to thereby melt out the bar.

2. The process herein described of bending a metal tube consisting in inserting a bar of metal in the tube, said bar having a cross section corresponding to the interior of the tube and a length corresponding approximately to that of the proposed bend and further having a melting point above that of the bending temperature of the tube but below the melting point of the tube, then heating the tube and the core bar to bending temperature and bending the tube and core and finally heating the tube and the bar to the melting point of the bar to thereby melt out the bar, said bar consisting of softened copper.

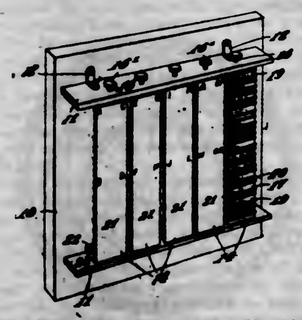


1,041,177. CUCKOO-CLOCK. JOSEF SCHMIDT, Villingen, Germany. Filed Apr. 5, 1911. Serial No. 619,106. (Cl. 58—12.)



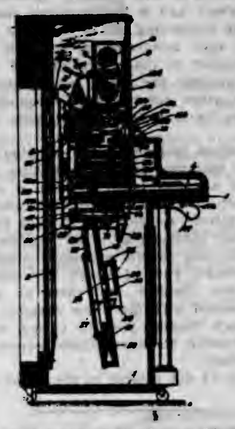
An improved cuckoo-clock comprising in combination with the mechanism which produces the cry of the cuckoo, figures mounted on the face of the clock, bearings in the casing of the clock one for each figure, an axle of the figure revolubly mounted in said bearing, an elbow lever for each figure connecting the axle of the figure with the said mechanism for alternatingly revolving said axles in both directions so that a swinging movement is communicated to said figures, substantially as described and shown and for the purpose set forth.

1,041,178. INDEX. LLOYD E. SCHUMACHER, Perrysville, Ohio. Filed Jan. 26, 1912. Serial No. 673,686. (Cl. 11—7.)



An index comprising a support, a plurality of vertically extending bars, said bars being triangular in cross section, brackets arranged upon said support, said members being formed with trunnions extending within said brackets, a trunnion of each of said members being provided with a knurled disk, two faces of each of said members being adapted to contain alphabetically arranged data and data arranged upon the remaining faces by means of which the classified data may be located.

1,041,179. AUTOMATIC PLAYING INSTRUMENT. JOSEPH SCHWEITZER, New York, N. Y., assignor, by direct and mesne assignments, to Hoerwagen Company, a Corporation of New York. Filed Dec. 30, 1909. Serial No. 535,585. (Cl. 84—160.)



1. In a musical instrument, the combination of means for causing each note to be sounded, a set of striking pneumatics, one for each note, arranged to mechanically act on said means when the note is to be sounded, a second set of striking pneumatics, one for each note, arranged to mechanically act on said means when the note is to be accented, a high pressure reservoir, a medium pressure reservoir and a low pressure reservoir, means for operatively connecting any one of said reservoirs into operative relation with said first set of pneumatics whereby the first set of pneumatics may be operated with different pressures at will, and means for operatively connecting either of said first two mentioned reservoirs into operative relation with said second set of pneumatics whereby the second set of pneumatics may be operated with different pressures at will.

2. In a musical instrument, the combination of means for causing each note to be sounded, a set of striking pneumatics, one for each note, arranged to mechanically act on said means when the note is to be sounded, a second set of striking pneumatics, one for each note, arranged to mechanically act on said means when the note is to be accented, a high pressure reservoir, a medium pressure reservoir and a low pressure reservoir, means for operatively connecting either of said last two mentioned reservoirs into operative relation with said first set of pneumatics whereby said first set of pneumatics may be operated with medium or low pressure, at will, and means for operatively connecting either of said first two mentioned reservoirs into operative relation with said second set of pneumatics whereby said second set of pneumatics may be operated under high or medium pressure, at will.

3. In a musical instrument, the combination of means for causing each note to be sounded, a set of striking pneumatics, one for each note, arranged to mechanically act on said means when the note is to be sounded, a second set of striking pneumatics, one for each note, arranged to mechanically act on said means when the note is to be accented, a high pressure reservoir, a medium pressure reservoir and a low pressure reservoir, means for operatively connecting said first set of pneumatics with the last mentioned reservoir whereby it may operate

under low pressure, and means for operatively connecting said second set of pneumatics with either of said first two reservoirs whereby the second set of pneumatics may be operated with high or medium pressure to vary the amount of accenting.

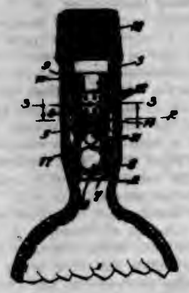
4. In a musical instrument, the combination of means for causing each note to be sounded, a set of striking pneumatics, one for each note, arranged to mechanically act on said means when the note is to be sounded, a second set of striking pneumatics, one for each note, arranged to mechanically act on said means when the note is to be accented, a high pressure reservoir, a medium pressure reservoir and a low pressure reservoir, means for operatively connecting one of said sets of pneumatics with one of said reservoirs, whereby it may operate under the pressure of that reservoir, and means for operatively connecting the other set of pneumatics with either of the other reservoirs, whereby the said other set of pneumatics may be operated with different pressures.

5. In a musical instrument the combination of a plurality of note sounding devices, a striking pneumatic for each note for accompaniment playing, a striking pneumatic for each note for accentuated playing, a wind chamber operatively connected with said first mentioned pneumatics, an independent wind chamber operatively connected with said second mentioned pneumatics, three regulating bellows, two of which are operatively connected with one chamber, and three of which are operatively connected with the other chamber, whereby the pressure in each chamber may be varied, and valves for opening and closing the connections between the bellows and the chambers.

[Claims 6 to 14 not printed in the Gazette.]

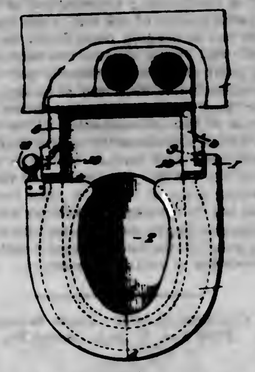
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1,041,180. **BOTTLE-STOPPER.** LOUIS F. SHAMBS, Buffalo, N. Y. Filed May 29, 1912. Serial No. 700,496. (Cl. 215—65.)



The combination of a bottle having its neck provided with a bore the inner part of which tapers inwardly while the outer part is cylindrical without interruption from the large end of the tapering part of the bore to the outer end of the neck, a cylindrical valve tube arranged axially within the neck and engaging at its inner end with the tapering part of said bore and separated by an intervening annular passage from said neck and provided at its lower end with an internal valve seat, a plurality of lower openings above said valve seat and a plurality of upper openings above said lower openings, a valve arranged within the lower part of the tube and adapted to engage with said seat, a partition arranged within the tube between said upper and lower openings, a centering ring engaging with the cylindrical part of said bore and with the upper end of said tube, and a filling ring interposed between the bore of the neck and the periphery of the tube immediately below the lower openings of the latter so as to close the space between the neck and tube below the lower openings and prevent the entrance of liquid into this space.

1,041,181. **CLOSET AND SEAT.** JOSEPH W. SHARP, Jr., Philadelphia, Pa. Filed Oct. 21, 1909. Serial No. 523,592. (Cl. 4—16.)



1. A closet bowl having a stepped portion at its rear comprising a raised tank support 3 and an offset portion 6, a tank 4 resting at its front upon said raised support 3, and a flushing pipe 7 in rear of said portion 3 connecting said tank 4 with the offset 6.

2. A closet bowl having a raised tank-supporting portion at its rear, side webs projecting forwardly from such raised portion, seat-trunnion sockets formed on the outside of said webs, and a substantially U-shaped rearwardly-open seat trunnioned in said sockets.

3. A closet bowl having a raised forwardly draining portion at its rear, upstanding side webs projecting forwardly on either side of said draining portion, trunnion sockets formed on the outer sides of said webs, and a rearwardly open seat trunnioned in said sockets.

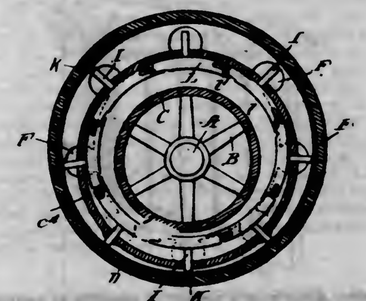
4. The combination with a closet bowl, of a seat trunnioned thereon and having trunnions shiftable to different positions in raised and lowered positions, and means to prevent shifting of the trunnions in their sockets when the seat is in lowered or down position.

5. The combination with a closet bowl, of a seat trunnioned thereon and having trunnions shiftable to different positions when the seat is in raised or lowered position, and means to wedge the seat and bowl together when the seat is in down position and prevent shifting of the trunnions in their sockets.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,182. **CUSHION-TIRED WHEEL.** WILLIAM D. SIMPSON, Columbia, S. C. Filed May 4, 1912. Serial No. 695,061. (Cl. 152—35.)



1. A cushion tired wheel, comprising a felly, an inner rim secured thereto having two flanges on each side with spaces between the flanges and provided also with an air chamber between the inner flanges, an outer rim having flanges extending into the spaces between the flanges of the inner rim and provided with circular recesses on their inner sides, pegs projecting from the inner rim and extending into the recesses to limit the circumferential movement of the rims relatively to each other, radial rods provided with ball bearings on their outer ends bearing against the outer rim and movable circumferentially to a limited extent relatively thereto, and means within the air chamber pressed outward by pneumatic pressure to which the rods are connected.

2. A cushion tired wheel, comprising a flanged inner rim provided with an air chamber between its flanges, an outer rim having a rigid metallic body portion and provided with flanges overlapping the flanges of the inner rim, radial rods bearing against the body portion of the outer rim, and a flexible band within the air chamber pivotally connected with said rods and pressed outward by pneumatic pressure.

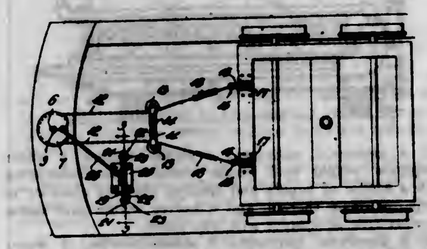
3. A cushion tired wheel, comprising a flanged inner rim provided with an air chamber between its flanges, an outer rim having a rigid metallic body portion and provided with flanges overlapping the flanges of the inner rim, means for limiting the circumferential movement of the rims relatively to each other, radial rods bearing against the body portion of the outer rim, and a flexible band within the air chamber pivotally connected with said rods and pressed outward by pneumatic pressure.

4. A cushion tired wheel, comprising a flanged inner rim provided with an air chamber between its flanges, an outer rim having flanges overlapping the flanges of the inner rim, a pneumatic tube within the air chamber, a flexible band surrounding the pneumatic tube, radial rods bearing against the outer rim, and connections between said band and the inner ends of the radial rods.



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1,041,183. **HEADLIGHT FOR CARS.** CHARLES EDWIN SLACK, Galesburg, Ill. Filed Mar. 23, 1911, Serial No. 616,413. Renewed Mar. 7, 1912. Serial No. 682,087. (Cl. 240—61.)



1. A headlight for cars comprising a revolvable vertical lamp carrying shaft, a triple armed lever pivotally connected to the underside of the car platform, two arms thereof extending substantially horizontally in opposite directions from the pivot and the third depending vertically therefrom, two treadles above the platform pivotally connected respectively to the opposite horizontal arms, and means connecting the shaft with the lower free end of the depending arm whereby the depression of the treadles oscillates the shaft.

2. A dirigible head light for cars comprising a revolubly mounted lamp supporting and operating shaft, a lamp secured to the upper end thereof, an operating wheel secured to the lower end of said shaft, a double bell crank lever pivotally connected to the under side of the car platform, push bars connected to the opposite ends of the upper arms of said lever, said bars projecting up through the platform of the car, bushings arranged in said platform to guide said push bars, treadles arranged on the upper ends of the bars and a pitman rod connected at one end to the lower arm of the lever and having its opposite end eccentrically connected to said operating wheel.

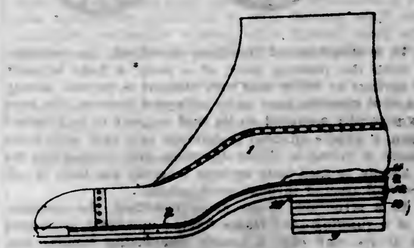
1,041,184. **RIBBON-SPOOL MECHANISM FOR TYPEWRITERS.** CHARLES SUMNER, New York, N. Y. Filed Feb. 9, 1912. Serial No. 676,899. (Cl. 242—76.)



The combination of a ribbon-spool shaft, slotted at its upper end, a latch pivoted in the slot of the shaft, one of said members having a pin and the other a slot for limiting the movement of the latch, a spring arranged to press a portion of the latch beyond the surface of the shaft, and a ribbon spool slotted to receive such projecting part of the latch.

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1,041,185. **BOOT AND SHOE.** ALEXANDER H. SMITH and ABRAHAM KESSLER, Chicago, Ill. Filed Jan. 24, 1912. Serial No. 673,173. (Cl. 36—15.)



1. The combination with an upper member of an upper sole member permanently secured to said member; a combined sole and heel member, there being a horizontal groove in the outer periphery of the heel of said sole and heel member; a substantially U-shaped clamping member provided with flanges adapted to engage in said groove and over said upper sole member and tangs adapted to be bent over the inner edges of said heel; and detachable means for securing the sole portion of said sole and heel member to said upper sole member, substantially as described.

2. The combination with an upper member, of an upper sole member permanently secured to said upper member; a combined sole and heel member, there being a horizontal groove in the outer periphery of the heel of said sole and heel member; a substantially U-shaped clamping member provided with flanges adapted to engage in said groove and over said upper sole member and tangs adapted to be bent over the inner edges of the heel; snap fasteners on said upper sole and said sole and heel members adapted to detachably secure them together; and a plate secured to the toe portion of said sole and heel member and provided with a flange adapted to take over the toe portion of said upper sole, substantially as described.

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1,041,186. **CHILD'S CARRIAGE.** CHRISTOPHER STEELE SPOFFORD, FREDERICK WILLIAM JONAS, and JOHN WALLACE EBERHART, Sturgis, Mich., assignors to Sturgis Steel Go-Cart Co., Sturgis, Mich. Filed Dec. 9, 1911. Serial No. 664,751. (Cl. 21—88.)

1. In a structure of the class described, the combination of a running gear frame, a body, a body support, a vertically disposed body pivot carried by said body support

whereby said body may be reversed on said body support, body springs pivotally connected to said body support and to said running gear frame, the rear springs being carried by arms pivotally mounted on said running gear frame, a handle pivotally mounted on said running gear frame to collapse over said body, and links connecting said arms to said handle.



2. In a structure of the class described, the combination with the running gear, of a body, a body support, body springs by which said body support is carried, mounted on said running gear to be collapsed thereon, the body being pivotally mounted on its said support to be reversed thereon, a handle adapted to collapse over said body when the body is facing in either direction, and connections for said handle to said body springs whereby the body is collapsed and erected through said handle.

3. In a structure of the class described, the combination of a running gear frame having upwardly projecting arms at its rear end, a handle comprising tubular side members pivotally mounted on said arms, said side members being longitudinally slotted, a latch bar arranged in said slots, the upper ends of said arms being provided with notch-like keepers for said bar and being provided with cam portions extending to said notch-like keepers whereby the bar is automatically raised when the handle is erected, coiled springs for said latch bar arranged in said side members of said handle, a collapsible body, and connections for said handle to said body whereby the body is maintained in its erected position by said latch.

4. In a structure of the class described, the combination of a running gear frame, a handle comprising tubular side members pivotally mounted on said running gear frame, said side members being longitudinally slotted, a latch bar arranged in said slots, keepers on said running gear frame, coiled springs for said latch bar arranged in said side members on said handle, a collapsible body, and connections for said handle to said body.

5. In a structure of the class described, the combination of a running gear frame, a handle comprising tubular side members pivotally mounted on said running gear frame, said side members being longitudinally slotted, a latch bar arranged in said slots, keepers on said running gear frame, a spring for said latch bar, a collapsible body, and connections for said handle to said body.

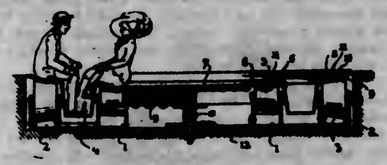
[Claims 6 to 12 not printed in the Gazette.]

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1,041,187. ROUNDABOUT. PAUL STEINERT, Dresden, Germany. Filed Jan. 3, 1912. Serial No. 669,149. (Cl. 46—27.)

1. A roundabout comprising circular series of rotatable elements, resilient bands supported on said elements, and means for moving said bands over the rotatable elements, substantially as and for the purpose set forth.

2. A roundabout comprising circular series of rollers mounted in stationary bearings, resilient bands supported by said rollers, and a revolving frame to which said bands are connected so as to move over the rollers, substantially as and for the purpose set forth.

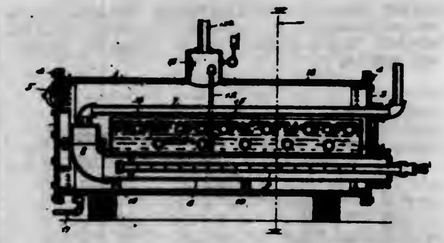


3. A roundabout comprising several concentric series of rollers mounted in stationary bearings, resilient bands supported on said rollers, and means for moving the bands over said rollers about a common center, substantially as and for the purpose set forth.

4. A roundabout comprising two concentric series of rollers mounted in stationary bearings, a U-sectioned ring arranged between the series and supported on the rollers, a centrally disposed revolving platform, arms connecting said platform with the U-sectioned ring, a ring supported on the outer edge of the outer roller series, arms connecting said latter ring with the U-sectioned ring, and bands supported on the rollers and connected to the revolving elements so as to participate in the movement, substantially as and for the purpose set forth.

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1,041,188. STEAM-GENERATOR. WILLIAM H. STEWART, Kansas City, Kans. Filed Nov. 4, 1910. Serial No. 590,771. (Cl. 122—75.)



1. A generator embracing a steam-chamber, a water receptacle within said steam chamber, communicating with a source of supply and opening into the chamber to discharge steam therein, and a beater within said steam chamber free of contact with the water.

2. A generator embracing a steam-chamber, a water receptacle within said chamber, and surrounded on all sides by steam-space and opening at the top to discharge steam into said space, and evaporating means within said chamber.

3. A generator embracing a steam chamber, a water receptacle within said chamber, tubes extending through said receptacle, and evaporating means in said steam chamber.

4. A generator embracing a steam-chamber, fire-tubes leading into said steam chamber, fire-tubes leading from said steam chamber, and a water receptacle resting on the first-mentioned fire-tubes.

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1,041,189. BROOM-HOLDER. ARCHIBALD STILES, Otar, N. Mex. Filed Nov. 27, 1911. Serial No. 662,655. (Cl. 15—19.)

1. The combination with a handle and a broom head at one end thereof; of attaching means therefor, said handle having a threaded portion and a conical tapered portion therebeneath, a sleeve threaded on the handle and having an enlarged lower end, broom engaging plates hinged to the handle above the tapered portion and having inwardly projecting teeth to engage the sides of the broom, a clamping bolt for drawing said plates together, cover plates for the first named plates and hinged thereto, edge plates for the broom and hooks carried by the edge plates and adapted to be projected into the side portions of a broom head beneath the aforesaid plates.





2. The combination with a handle and a broom head at one end thereof; of edge plates connected to the handle, means carried by the edge plates for engaging in the sides of the head to draw said plates together, toothed side clamping plates connected to the handle and means carried by the handle to draw said plates inwardly.

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1,041,190. MUFFLER. ROBERT SHELDON STRAHAN, Brooklyn, N. Y. Filed Feb. 14, 1912. Serial No. 677,806. (Cl. 121—116.)



1. A funnel shaped chamber attached to the end of an exhaust pipe of a motor boat engine, the open end of the said chamber adapted to rest slightly below the surface of water whereby a partial vacuum is formed therein, substantially as set forth.

2. A funnel shaped chamber M, attached to the end of a motor boat engine exhaust pipe E, and adapted to pass across the surface of water, and thereby form a muffler, substantially as shown and for the purpose specified.

3. A funnel shaped chamber attached to the end of a motor boat engine exhaust pipe with the open end of the said funnel shaped chamber adapted to rest slightly below the surface of water, and the plane of the said open end parallel to the surface thereof, substantially as described.

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1,041,191. TRACTION-ENGINE FOR CULTIVATORS. HERMAN F. SUHL, Fortuna, Mo. Filed Oct. 4, 1911. Serial No. 652,724. (Cl. 121—114.)



1. The combination of a wheeled axle, a stand shaft forming a pivot upon which said axle swings, a draft beam having an upright portion alining with said stand shaft, a hinge connection between said upright portion and said stand shaft, a gear loose on said stand shaft and fixed to said axle, a driving shaft, and an operative connection between said driving shaft and said gear.

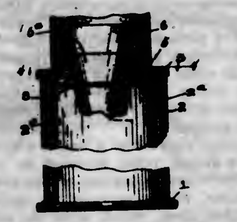
2. The combination of a wheeled axle, a stand shaft forming a pivot upon which said axle swings and terminating at the upper end in gudgeons, a draft beam having an upright portion alining with said stand shaft and terminating at the lower end in gudgeons, a collar having orifices at ninety degrees apart journaling the gudgeons of said shaft and said draft beam, a gear loose on said stand shaft and fixed to said axle, a driving shaft, and an operative connection between said driving shaft and said gear.

3. The combination of a wheeled axle, a stand shaft engaged in and forming a pivot upon which said axle swings, a draft beam having an upright portion alining with said stand shaft, a hinge connection between said stand shaft and said upright portion, an upright yoke fixed to said axle, a depending yoke swivelly mounted on said upright portion, pivotal connections between the legs of both yokes, a gear loose on said stand shaft and fixed to said upright yoke, a driving shaft, and an operative connection between said driving shaft and said gear.

4. The combination of a dirigible truck, a stand shaft forming a pivot upon which said truck swings, a draft beam connected to said shaft, an engine on said truck, a driving shaft actuated by said engine, and means actuated by said driving shaft to swing the truck including a gear loose on said stand shaft and fixed to said truck, a reverse gear operatively connected to said driving shaft, and an operative connection between said driving shaft and the first named gear for actuating said gear in either direction.

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1,041,192. ICE-CREAM-CONE DISPENSER. FRANK L. TARBELL, Chicago, Ill., assignor of one-half to Milan H. Fisher, Chicago, Ill. Filed Apr. 24, 1911. Serial No. 622,924. (Cl. 211—8.)



1. A cone dispensing apparatus embracing a casing having cover and a door, a plurality of resilient means arranged above and transversely each other in the casing adjacent the top of the door and adapted to successively support thereon a nest of the cones by engagement with the bottom cone and permitting said cones to be successively withdrawn from the bottom.

2. A dispensing apparatus for cones embracing a casing, a cover and a door, a plurality of horizontal springs arranged in pairs one above the other, extending across the casing and adapted to successively support the contents of the casing releasably thereon, a part of said casing above said resilient supporting means being transparent to permit inspection of the contents.

3. A dispensing apparatus embracing a metallic cylindric casing, an automatically closing door in one side thereof, a transparent container supported on the casing and communicating therein, a cover therefor, and a plurality of pairs of spiral springs arranged one pair above another and stretched across the communication between the casing and container and acting to yieldingly and successively support the contents of the container thereon.

4. A commodity receptacle embracing a container, a removable cover thereon, independent resilient members secured at each end and positioned one above the other adapted to control the passage of articles therethrough, said members being adapted to yield downwardly to per-

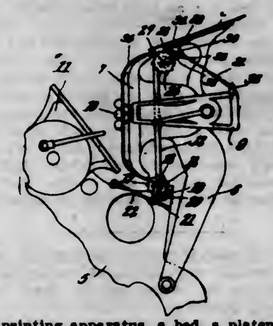
mit of the discharge of an article, and to return to its normal position after such discharge to engage and prevent the discharge of the adjacent article, and a compartment into which a portion of the lowermost article normally projects.

5. In a commodity receptacle, the combination of a container, coiled springs at the lower end of the container for controlling the passage of articles therethrough, said springs adapted to yield downwardly and outwardly to permit the discharge of an article, and to return to normal position after such discharge to engage and prevent the discharge of the adjacent article, and a compartment into which a portion of the lowermost article normally projects, the walls of said compartment being cut away to provide an opening.

[Claims 6 to 10 not printed in the Gazette.]

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1,041,198. APPARATUS FOR PRINTING IN COLORS. WILLARD M. TEMPLE, Mason City, Iowa. Filed Jan. 25, 1911. Serial No. 604,659. (Cl. 101—88.)



1. In a printing apparatus, a bed, a platen, an oscillatory frame, an inking roller mounted therein and arranged to travel over a portion of the bed of predetermined dimensions, a traveling inked sheet arranged between the platen, and the other portion of the bed which is not affected by the inking roller, and means operatively connected with the oscillatory frame for imparting movement to the traveling sheet.

2. In a printing apparatus, a bed, a platen, an oscillatory frame, an inking roller mounted in the frame and arranged to travel over a portion of the bed of predetermined dimensions, rollers arranged at opposite sides of the bed, an inked sheet wound upon the rollers and arranged to travel across the other portion of the bed which is not affected by the inking roller, and means operatively connected with the oscillatory frame, for imparting movement to one of the rollers.

3. In a printing apparatus, a bed, a platen, an oscillatory frame, an inking roller mounted in the frame, the said roller being arranged to travel over a portion of the bed, rollers mounted at opposite sides of the bed of predetermined dimensions, an inked sheet wound upon the rollers and arranged to travel over the other portion of the bed unaffected by the inking roller, and means actuated by the oscillatory frame for imparting step-by-step rotative movement to one of the rollers.

4. In a printing apparatus, a bed, a platen, an inking roller arranged to travel over a portion of the bed of predetermined dimensions, an oscillatory frame in which the roller is mounted, rollers mounted at opposite sides of the bed, a ratchet carried by one roller, an inked sheet wound upon the other roller and arranged to travel over the portion of the bed unaffected by the inking roller, an arm at one end of the ratchet carrying roller, a pawl carried by the arm, and flexible connection between the arm and the oscillatory frame for imparting intermittent movement to the arm.

5. In a printing apparatus, a bed, a platen, an inking roller arranged to travel over a portion of the bed of predetermined dimensions, a moving carrier for the roller, an inked sheet arranged between the platen and the portion of the bed unaffected by the inking roller and arranged for travel, and means operatively connected with the moving carrier for the roller to move the sheet.

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1,041,194. NUT-LOCK. OTTO TERRIAN, Manistique, Mich. Filed Oct. 30, 1911. Serial No. 657,444. (Cl. 151—24.)

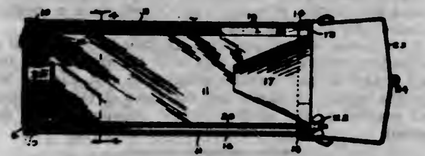


1. In a nut lock, a nut having formed in one side a longitudinal groove and a recess and having in said side a threaded passage communicating at its inner end with the threaded bore of the nut, a set screw adapted to be screwed into said passage and into engagement with the bolt on which the nut is screwed, a screw fastening plate having one end bent at an angle and engaged with a recess in the side of the nut at right angles to the side having the groove, a detent arranged on the free end of said plate and adapted to engage said set screw, and means to secure said fastening plate in engagement with the nut whereby the detent thereon will fasten said screw and whereby when the screw is removed the plate and detent will spring into the groove and recess formed in the adjacent side of the nut, said plate thus being flush with the adjacent outer surface of the nut.

2. A nut lock comprising a set screw adapted to be screwed through one side of the nut and into engagement with the bolt on which the nut is screwed, a screw fastening plate having one end loosely engaged with one side of the nut, a detent arranged on the free end of said plate and adapted to engage the screw driver slots in the head of the screw, said screw head having a plurality of slots arranged at right angles to each other, and a plate actuating spring secured to the nut and adapted to bear against the nut engaging end of the screw fastening plate whereby the latter is held in yielding engagement with the screw.

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1,041,195. KNOCKDOWN COMBINATION MINNOW-TRAP AND LANTERN. THOMPSON F. THOMAS, Indianapolis, Ind. Filed May 20, 1912. Serial No. 698,587. (Cl. 43—20.)



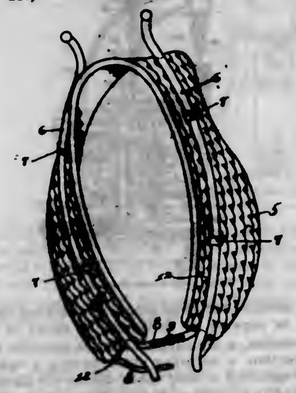
1. In a minnow-trap, a lower end piece having a large opening, a removable closure for said opening, means secured to said closure for holding bait or material to be lighted as an illuminant, glass sides for said trap, an upper end piece having an opening, an inturned funnel entering the trap through said opening and having a flange at its large end to limit the insertion, said funnel having ears, removable fastening means to engage said ears, and a bail secured to said upper end of the trap.

2. In a device for the purposes specified, upper and lower end pieces with inturned flanges and adjacent inside flanges, transparent side plates having their ends inserted between said inturned and inside flanges, binders V-shaped in cross section at the corners of the side plates, the ends of said plates and binders extending under the flanges of both end pieces, bolts for drawing the end pieces together, said lower end piece having a cup on its inner side for holding bait or material to be lighted as an illuminant, an inturned funnel entering the trap through an opening in the upper end piece, said funnel having an outside flange at its large end to limit the insertion of the funnel and having outwardly extended perforated ears through which some of said bolts are passed, and a bail secured to said upper end of the trap.



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1,041,196. SHOULDER-PAD. WILLIAM A. THORNHILL, Gibbon, Okla. Filed Feb. 27, 1912. Serial No. 680,858. (Cl. 54—19.)

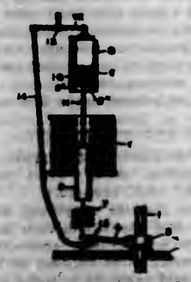


1. A hame supporting pad of the character described, closed at the top and open at the bottom and formed of heavy quilted material, means for drawing the lower ends of said pad together, and hame supporting clasps of hook shape having their open portions directed toward the front of the pad, the distance between the end of said clasps and the body of the pad, being less than the diameter of the hames.

2. A hame supporting pad of the character described formed of heavy quilted material and open at one end, means for drawing the ends of said pad together, hame supporting clasps of hook shape carried by said pad and having their open portions directed toward the front of the pad, the distance between the end of said clasps and the body of the pad being less than the diameter of the hames, said pad being quilted to form longitudinally extending grooves of considerable depth, in which said hames lie.

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1,041,197. ARC-LAMP. ELIHU THOMSON, Swampscott, Mass., assignor to General Electric Company, a Corporation of New York. Filed Dec. 1, 1909. Serial No. 530,711. (Cl. 176—60.)



1. In an electric arc lamp, the combination with the arc establishing clutch, the lever for operating the same and the electromagnet for actuating the lever, of means for damping the action of the electromagnet and for reinforcing the bite of the clutch by and in accordance with the action of the electromagnet.

2. In an electric arc lamp, the combination with the arc establishing clutch, the lever for operating the same and the electro-magnet for actuating the lever, of a dash-pot having two mutually reacting movable members, one of said members being operatively connected with the armature of the magnet and the other reacting upon the clutch lever to re-inforce the bite of the clutch by and in accordance with the action of the electro-magnet.

3. In an electric arc lamp, the combination with the clutch, of a lever for operating the same, a lamp magnet having a movable core attached to said lever, a dash pot for said core having its cylinder movable, and means for reinforcing the bite of the clutch by the movement of said cylinder.

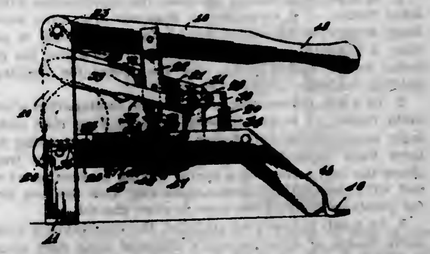
4. In an electric arc lamp, the combination with the clutch, of a lever for operating the same, a lamp magnet having its core attached to said lever, a dash pot for said core, a lever to which the cylinder of said dash pot is attached, and a rod attached to said second lever and acting upon the clutch lever to reinforce the bite of the clutch.

5. In an electric arc lamp, the combination with the clutch, of a lever for operating the same, a lamp magnet having its core attached to said lever, a dash pot for said core, a lever to which the cylinder of said dash pot is attached, and a rod attached to said second lever and engaging with the clutch lever at a point between the clutch and the point of attachment of the core to said clutch lever.

[Claim 6 not printed in the Gazette.]

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1,041,198. CLAM-OPENER. EDWARD D. TIFFANY, Albion, N. Y., assignor of one-half to James De Planty, Albion, N. Y. Filed Jan. 23, 1912. Serial No. 672,918. (Cl. 17—31.)



1. In a clam opener, a frame, a tilting frame constituting a tray, a clamp, a second clamp coöperating with the first mentioned clamp and constituting of a pair of co-acting members, a knife adapted to move between the members of the second clamp, and means to move said knife.

2. In a clam opener, a frame, a tilting clamp constituting a tray pivoted on said frame, means normally holding said clamp in a horizontal position, means to tilt said clamp, a second clamp co-acting with the first clamp, and a knife for opening a clam held between said clamps.

3. In a clam opener, a frame, a lower clamp mounted on said frame, an upper clamp consisting of a pair of co-acting members having cylindrical proximal surfaces, a pivoted knife mounted to swing between the members of the upper clamp, an operating lever pivoted to said frame, and links connecting said knife and operating lever.

4. A clam opener, a frame, a tilting lower clamp pivotally mounted on said frame and consisting of a tray, a pawl pivoted on said frame and normally engaging the rear end of said tray to hold the same in a horizontal position, a pawl having a notched end, a spring urging the notched end of said pawl into engagement with said tray, a pin projecting laterally from the pawl adjacent the notch, an operating lever pivotally mounted on said frame, a second pawl pivoted to the operating lever and provided with a pointed end having a notch adjacent thereto, said pointed end being adapted to engage the pin and rear end of the

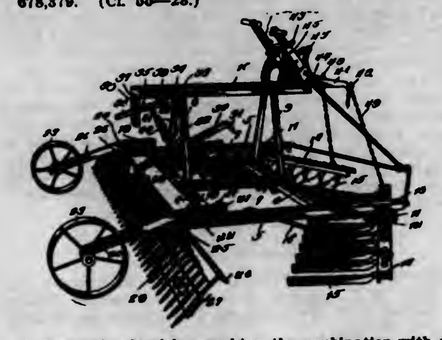
tray as the second pawl is forced downward, and a spring normally urging the lower end of said second pawl forward.

5. In a clam opener, a frame, a standard carried by said frame, a strip of resilient metal bent centrally to provide arms, one on each side of said standard, a pair of coacting clamping jaws, each carried on one of said arms, a spring normally urging said clamping jaws downward, a knife pivoted to said standard to pass between said clamping jaws, an operating lever, a link connecting said lever and knife, and a second clamp coöperating with said pair of clamping jaws.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,199. SOIL-PULVERIZING MACHINE. ANDREW J. TOWER, Mendota, Ill. Filed Feb. 17, 1912. Serial No. 678,379. (Cl. 55—23.)



1. In a soil pulverising machine, the combination with a main frame, of a transversely disposed drag rake swingingly supported by said frame, a foot lever fixed to said rake, a hand lever fulcrumed on the frame above the foot lever, and a spring connecting the levers for yieldingly holding the rake against the soil.

2. In a soil pulverising machine, the combination with a main frame, of a transversely disposed drag rake swingingly supported by said frame, a forwardly extending foot lever fixed to said rake, a seat supported by the frame above the foot lever, and a spring having connection at one end with the seat and at its other end with the foot lever for yieldably holding the rake against the soil.

3. In a soil pulverising machine, the combination with a main frame, of a transversely disposed drag rake swingingly supported by said frame, a forwardly extending foot lever fixed on said rake, a seat supported by the frame above the foot lever, a hand lever fulcrumed on the seat, a spring having connection at one end with the foot lever and at its other end with the hand lever for yieldably holding the rake against the soil, and a rack carried by the seat for engagement by the hand lever to regulate the tension of the spring.

4. In a soil pulverising machine, the combination with a main frame, of a transversely disposed drag rake swingingly supported by said frame, a forwardly extending foot lever fixed to said rake and having a plurality of notches formed along its underside, a seat supported by the frame above the foot lever, a hand lever fulcrumed on the seat and formed with a plurality of notches along its upper side, a rack carried by the seat for engagement with the hand lever, and a spring having its ends respectively connected with certain of the notches of the foot and hand levers.

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1,041,200. MACHINE FOR REMAKING WIRE-DRAWING DIES. NICHOLAS KING TURNBULL, Manchester, England. Filed Oct. 4, 1910. Serial No. 586,182. (Cl. 76—4.)

1. In a machine for remaking wire drawing dies, a hammer, a fixed guide therefor, a die support movable in any required direction, a rotating member effecting a rotary movement of the die support around the stationary axis of the hammer, and a member adapted gradually to move the die support toward the said hammer axis during its rotary movement around the axis.



2. In a machine for re-making wire drawing dies, a hammer that is capable of delivering a series of blows in rapid succession, a die support that is movable in any required direction, a rotating shaft having a space within it, a lever mounted in said space, means for advancing the lever toward the center of the shaft during the rotation of the latter, and a slidable fulcrum block between the lever and the die support.

3. In a machine for re-making wire drawing dies, a hammer capable of delivering a series of blows in rapid succession, a movable hammer member, a die support, a device for preventing the hammer from being operated, and an operative connection from the said device to the movable hammer member, adapted to release the hammer for operation on the insertion of a die between the die support and the hammer.

4. In a machine for re-making wire drawing dies, a pneumatic hammer capable of delivering a series of blows in rapid succession, a die support and means for simultaneously moving the same around and toward the hammer, an air inlet valve for controlling the supply of air to the hammer, and a supplementary valve that normally excludes the passage of air to the air inlet valve, a lever operatively connected with the hammer and with the supplementary air valve and operated by the movement of the hammer to open such valve when a die is inserted between the hammer and the die support.

5. In a machine for re-making wire drawing dies, a hammer capable of delivering a series of blows in rapid succession, a die support, means for moving the die support around and toward a point coincident with the axis of the hammer, a device for automatically stopping the machine, and controlling means for the said device adapted to actuate it when the die support has reached its predetermined innermost position with regard to the axis.

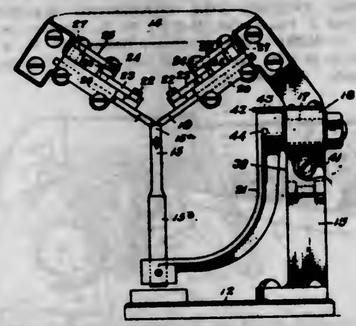
[Claims 6 to 10 not printed in the Gazette.]

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1,041,201. BUTT-SEAMING MACHINE. CHARLES L. TURNER, Wilmington, Mass. Filed May 21, 1912. Serial No. 698,850. (Cl. 154—42.)

1. A butt-seaming machine comprising an anvil having an arc-shaped face and adapted to turn on an axis with which said face is substantially concentric, a pair of hammers having acting faces opposed to the anvil face, means for guiding said hammers in paths which are oppositely inclined relatively to the said axis, and mechanism for reciprocating said hammers to cause their acting faces to simultaneously approach and recede from the anvil.

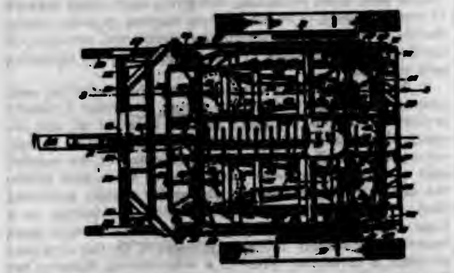
2. A butt-seaming machine comprising an anvil having an arc-shaped face and adapted to turn on an axis with which said face is substantially concentric, a pair of hammers having acting faces opposed to the anvil face, fixed hammer guides which are oppositely inclined relatively to said axis, two pairs of toggle links, each pair consisting of



an outer link pivoted to a fixed support and an inner link pivoted to one of said hammers, a pair of connecting-rods, each pivoted to the meeting ends of a pair of links, a driving-shaft and connections between said shaft and the connecting-rods whereby each rotation of the shaft causes two reciprocations of each hammer.

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1,041,202. COTTON-HARVESTER. LUCIUS L. UPSHAW, Denison, Tex., assignor of one-fifth to Godwin L. Blackford and one-fifth to Patric H. Tobin, Denison, Tex. Filed Mar. 13, 1912. Serial No. 683,462. (Cl. 56—118.)



1. A cotton harvester comprising a frame and supporting wheels, endless carriers mounted in the frame, means for operating the carriers, picker spindles movable with the carriers and opposed friction surfaces between which the spindles travel in contact, one of said surfaces being movable and the other fixed, and means for imparting an accelerated speed to said movable surfaces.

2. A cotton harvester comprising a frame and supporting wheels, endless carriers mounted in the frame, picker spindle supports on the carriers, endless traveling belts operating with but at a higher speed than the carriers, picker spindles horizontally journaled in said supports, fixed guide tracks arranged parallel with and spaced from the belts, said picker spindles being confined between said fixed tracks and the belts and rotated thereby.

3. A cotton harvester comprising a frame and supporting wheels, endless carriers mounted in the frame, picker spindle supports on the carriers, endless traveling belts operating with but at a higher speed than the carriers, picker spindles horizontally journaled in said supports, fixed guide tracks parallel with the belts and upon which the spindles travel, said belts opposing the tracks and confining spindles between themselves and the tracks.

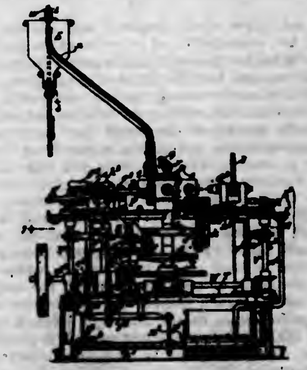
4. A cotton harvester comprising a frame, supporting wheels therefor, endless carriers mounted in the frame, picker spindle supports on the carriers, endless traveling belts operating with but at a higher rate of speed than the carriers, picker spindles horizontally journaled in said supports and having fixed rollers at their inner ends, stationary guide tracks parallel with the belts, said rollers being confined between the fixed tracks and the belts and rotated by frictional engagement therewith, and cotton collecting means carried by the spindles.

5. A cotton harvester comprising a frame, supporting wheels therefor, endless carriers mounted in the frame, picker spindle supports on the carriers, endless traveling belts operating with but at a higher rate of speed than the carriers, picker spindles horizontally journaled in said supports and having fixed rollers at their inner ends, stationary guide tracks parallel with the belts, said rollers being confined between the fixed tracks and the belts and rotated by frictional engagement therewith, and cotton collecting means carried by the spindles, said spindle supports having opposite ends pivotally journaled on said carriers and capable of a swinging movement in a horizontal direction.

[Claims 6 to 13 not printed in the Gazette.]

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1,041,203. TURRET-LATHE. ERNEST VAHLE, West Hoboken, N. J., assignor, by mesne assignments, to A. Schrader's Sons, Incorporated, New York, N. Y., a Corporation of New York. Filed Mar. 18, 1908. Serial No. 147,612. (Cl. 29—38.)



1. In a lathe, in combination, a chuck, a tool in line with said chuck, a pusher in front of and in axial line with said tool, and means for operating said pusher to push a blank into said chuck and then moving said pusher aside to permit the advance of said tool.

2. In a lathe, in combination, a chuck, a tool in line with said chuck, a pusher in front of and in axial line with said tool, a shaft s' carrying said pusher, a slide carrying said tool and shaft s', means for giving said shaft first a forward movement to push a blank into the chuck and then an angular movement to swing said pusher out of line with the tool, and means for then advancing said tool.

3. In a lathe in combination a magazine adapted to carry a number of blanks, a reciprocating carrier for carrying said blanks one at a time from said magazine to a position registering with a chuck of the lathe, a reciprocating pusher adapted to push said blank from said carrier into the chuck in said position, an arm carried by the chuck of the lathe adapted to oscillate and to thereby open and close the jaws of the chuck, a rotating turret carrying said chuck, a second arm adapted to engage and swing said chuck operating arm forward, means for moving said second arm and a stop in the path of said chuck operating arm adapted to swing the same backward.

4. In a turret lathe, the combination with a turret and a chuck therein, of an arm carried by said chuck adapted to oscillate, means for opening and closing the jaws of the chuck upon the oscillation of said arm, means

for rotating said turret, a second arm adapted to engage and swing said chuck operating arm forward, means for moving said second arm, and a stop in the path of said chuck operating arm adapted to swing the same backward.

5. In a turret lathe, the combination of a turret, means for rotating the same on a vertical axis, a series of work-holding chucks carried thereby, means for introducing blanks in a horizontal position into said chucks in succession, a stationary table surrounding said turret, a series of rotating cutting tools comprising a drill, a tap, a die, and a reamer carried by said table, separate means for advancing each of said tools toward the work as the latter is presented to them by the rotating turret, and means for rotating said tools.

[Claims 6 to 22 not printed in the Gazette.]

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**1,041,204. ELAPSE-TIME COMPUTER AND CENTURY-CALENDAR MACHINE.** ALLEN VAN RENSSELAER and FRED H. TENNEY, Spokane, Wash. Filed Nov. 7, 1911. Serial No. 659,081. (Cl. 235—87.)

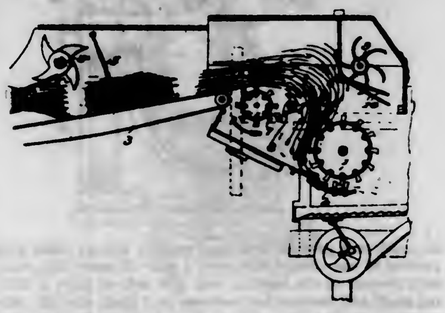


1. In an elapse time computer and century calendar machine, the combination of an outer chart and an inner chart, with an arrangement on the outer chart of a calendar of the months and the dates of the months in regular order, in twelve horizontal, parallel rows with slots between the rows, and with a calendar of the months and dates of the months on the inner chart arranged in the same manner as the one on the outer chart except that there are no slots between the rows, and with an arrangement of numbers, called herein elapsed-days numbers, on the inner chart, ranging from 1 to 365 inclusive, in such order and in such relation to each other and in such relation and position to the calendars on the inner and outer charts and with the two calendars in such relation and position to each other, in short, the whole arrangement of the dates of the calendars and the elapsed-days numbers being in such manner that when two dates are selected, with not to exceed 365 days between them, and the inner chart is slid or slid and rotated, or placed by any means, in such a position to the outer chart that the earlier of the two dates selected will appear in the slot in the outer chart directly over the month containing the later date selected and at a point directly over said later date, the later date being located on the calendar on the outer chart, an elapsed-days number will invariably appear at a fixed point below the calendar on the outer chart in an opening in the outer chart, called herein elapsed-time opening, provided at that point, which will be the number of days that will elapse between the two dates selected.

2. In an elapse time computer and century calendar machine, the combination of an outer chart and an inner chart, with an arrangement on the outer chart of a calendar of the months and the dates of the months in regular order, in twelve horizontal, parallel rows with slots between the rows, and with an arrangement of the days of the week in regular order, occurring and reoccurring, in twelve, horizontal, parallel rows, on the inner chart, and with an arrangement of all the years in the twentieth century in the embraces of brackets on the inner chart, with the arrangement on the inner chart herein set forth in such relation and position of its parts to each other, and in such relation and position to the calendar on the outer chart and to two indicating arrows on the outer chart, one for common years and one for leap years, so that when the point of the indicating arrow is placed to the point of the bracket embracing the year for which the calendar is sought, which is done by sliding or sliding and revolving the inner chart to such position, the calendar for the year sought will invariably be formed by the names of the days of the weeks on the inner chart appearing in the slots on the outer chart directly over the dates on the outer chart, the two charts combined forming the calendar.

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**1,041,205. FEEDER FOR THRESHING-MACHINES.** EDWARD J. VRAALSTAD, Buffalo, N. Y., assignor of one-half to Buffalo Pitts Company, Buffalo, N. Y., a Corporation of New York. Filed Dec. 7, 1907. Serial No. 405,598. (Cl. 130—1.)



1. Means for feeding grain to a threshing machine comprising, in combination with a casing, a carrier, a rapidly revolving stripping cylinder located forward of and beneath the plane of the carrier with its effective periphery approximately in line with such plane of the carrier, said carrier and cylinder having above them and within the casing a free open space, means for rapidly operating such cylinder to strip the grain from the bottom of a loose mass thereof, the top or upper portion of such mass remaining relatively inert until engaged by the stripping cylinder, a slow moving retarder immediately forward of the stripping-cylinder and between the latter and the threshing cylinder, and means for operating said retarder.

2. Means for feeding grain to a threshing machine comprising, in combination with a casing, a carrier, a rapidly revolving stripping cylinder located forward of and beneath the plane of the carrier, with its effective periphery approximately in line with such plane of the carrier, said carrier and cylinder having above them and within the casing a free open space, means for rapidly operating such cylinder to strip the grain from the bottom of a loose mass thereof, the top or upper portion of such mass remaining relatively inert until engaged by the stripping cylinder, a threshing cylinder, a slow-moving deflector for directing the grain toward the threshing cylinder after leaving the stripping cylinder, a slow-moving retarder immediately forward of the stripping cylinder and between the latter and the threshing cylinder, and means for operating said deflector and retarder.

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**1,041,206. NON-REFILLABLE BOTTLE.** DAVID G. VRADENBURGH, Matteawan, N. Y., assignor of one-half to William R. Starbuck, Matteawan, N. Y. Filed Jan. 8, 1912. Serial No. 670,080. (Cl. 215—61.)

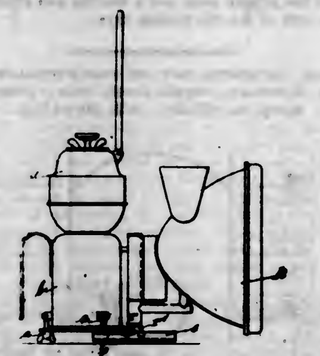
A non-refillable bottle comprising a bottle having its neck internally provided with an annular slot, and further provided with an annular stop shoulder adjacent to said slot, a valve casing within the bore of the bottle neck seated upon said stop shoulder, a leaf spring extending externally along said casing and engageable in said annular slot whereby to prevent withdrawal of the casing, and having a portion projecting into said casing, said casing being provided with a discharge opening registering with the bore of the bottle neck, a valve seat in said casing having a flange contacting intimately with the inner wall of said casing, and engageable with that portion of said spring which projects into said casing whereby forcing of the valve seat bodily through the valve casing into the bottle is prevented, and a valve seating on said valve seat and gravitating in the direction



of said cap during inversion of the bottle whereby to permit of the discharge of the contents of the bottle through said valve casing into the bore of the bottle neck.

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**1,041,207. SLIDING SUPPORT FOR LANTERNS.** JULIUS WALDMANN, Berlin, Germany, assignor to The Firm of Ernst Schichtmeyer, Charlottenburg, Germany. Filed Mar. 6, 1912. Serial No. 681,861. (Cl. 240—11.)



In combination, a lantern body provided with downwardly projecting supports, a reflector disposed on one side of the lantern body, an attachment of the lantern body projecting below the bottom of said body, and a trough shaped support slidably mounted on said body and adapted to span the projecting portion of said attachment and be extended to prevent the reflector from tipping the body, substantially as described.

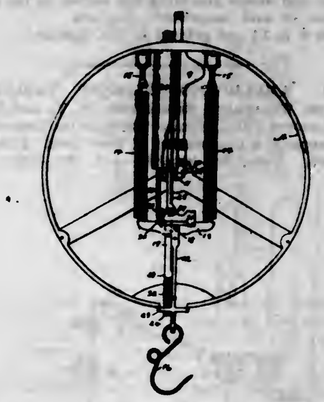
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**1,041,208. SPRING-SCALE.** GEORGE WALKER, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation. Filed Mar. 4, 1912. Serial No. 681,402. (Cl. 73—48.)

1. In spring scales, a draw bar having an upright middle portion, a cross head at the upper end of said draw bar, said cross head being provided with an open recess at one side face, and a cross bar at the lower end of said draw bar, in combination with a tare adjusting slide having a portion near its upper end fitted to and sliding within the said open recess of the cross head while its body extends downwardly along side of the middle upright portion of the draw bar and is provided with a nut at its lower end, and a screw extended upwardly through one wing of the said cross bar into the said nut at the lower end of the said slide.



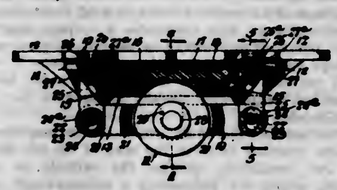
2. In spring scales, a draw bar having a cross head at its upper end provided with an open recess in one side face and an upwardly extended guide post to one side of the said recess in combination with a tare slide and screw, the said slide having a portion near its upper end fitted to the said open recess for sliding therein, a rest re-



ceiving block above the said portion, a guide wing or lug bearing against one vertical face of the said upwardly extended guide, and having also a laterally and downwardly extended arm for engaging one side face of the said cross head, the said slide extending downwardly along one side of the draw bar and provided with a nut at its lower end.

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**1,041,209. ANTIFRICTION-BEARING.** ARNOLD A. WERNER, Chicago, Ill., assignor to Edwin S. Woods, Chicago, Ill. Filed Mar. 27, 1911. Serial No. 617,348. (Cl. 64—64.)



1. In an antifriction bearing, in combination with an antifriction member, and a swinging suspension member adapted for supporting said antifriction member, means for locking said swinging suspension member in a predetermined position when said antifriction member is not transmitting load.

2. In an antifriction bearing, in combination with an antifriction member, and means for suspending said antifriction member, said suspending means including a link provided with an eye, and a non-rotative bearing located in said eye, said link and eye being provided with engaging parts adapted to lock said link in a predetermined position when said link is suspended from said bearing.

3. In an antifriction bearing, in combination with an antifriction member, and means for suspending said antifriction member, said suspending means including a link provided with an eye, and a non-rotative rod extending through said eye, said link being provided with a depending detent located in said eye and adapted for engagement with a notch formed in the upper side of said rod below said detent, when said link is suspended from said rod.

4. An antifriction device comprising an antifriction member carrying frame, an antifriction member rotatively carried thereby, and swinging suspension members pivot-

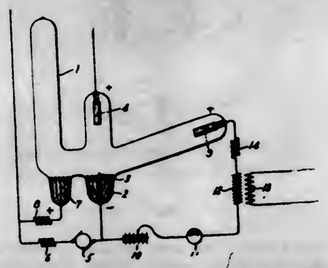
ally connected at each end of said antifriction member carrying frame.

5. An antifriction device comprising an antifriction member carrying frame, an antifriction member rotatively carried thereby, swinging suspension members pivotally connected at each end of said antifriction member carrying frame, and means providing lost motion in the pivotal connections of said suspension members.

[Claims 6 to 11 not printed in the Gazette.]

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1,041,210. AMPLIFYING CURRENT VARIATIONS. ESECHIEL WEINTRAUB, Schenectady, N. Y., and MARIUS C. A. LATOUR, Paris, France, assignors to General Electric Company, a Corporation of New York. Filed Nov. 26, 1907. Serial No 403,868. (Cl. 178—319.)



1. A current receiver consisting of an evacuated envelop, a cathode or negative electrode, means for constantly exciting said electrode, an anode coöperating with said cathode, means adjusted to normally impress between said anode and cathode a voltage less than the polarization voltage of an arc discharge, and means responsive to current variations for momentarily raising the voltage between said electrodes above the polarization voltage.

2. The combination of electrodes between which an arc may be produced, means for enabling such an arc to be produced whenever a voltage in excess of the polarization voltage of an arc is applied to said electrodes, means for impressing on said electrodes a voltage approximating the polarization voltage, a source of current variations, and means for augmenting said voltage in response to said current variations to raise the same above the polarization voltage and thereby produce an arc between said electrodes.

3. The combination of an evacuated envelop containing electrodes adapted to form the seat of an arc discharge, means for constantly exciting the cathode or negative electrode, means for impressing a substantially constant voltage on said electrodes, and means for superposing voltage impulses to produce corresponding arc discharges between said electrodes.

4. The method of amplifying current variations which consists in impressing upon electrodes a voltage just insufficient to produce an arc discharge, and augmenting said voltage at recurrent intervals to a value sufficient to produce an arc discharge in response to the fluctuations of a variable current.

5. The method of producing amplified current variations responsive to variable currents or impulses, which consists in impressing upon electrodes between which an arc may be produced a voltage insufficient to maintain such an arc, and recurrently augmenting said voltage to the arcing voltage in response to the variable currents or impulses to produce corresponding arc discharges between said electrodes.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,211. GIN-SAW FILE. JAMES HENRY WESSON, Atalla, Ala. Filed Oct. 6, 1910. Serial No. 585,661. (Cl. 76—32.)

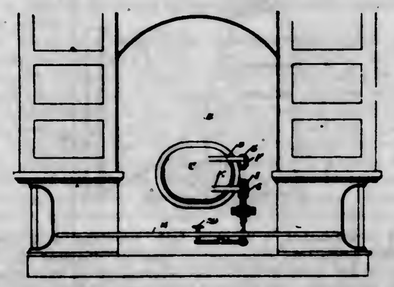
1. In an apparatus for sharpening gin saws, file holding bars, carriers therefor in which the bars reciprocate, a shaft extending transversely of the apparatus, members pivoted adjustably on the shaft and connected to the carriers, means for holding the members in their adjusted positions on the transversely disposed shaft, means for permitting the connection between the members and the carriers to be adjusted, means for imparting reciprocating motions to the file holding bars, and a guiding and antifrictional bearing roller for the file carrying ends of the bar.



2. In an apparatus for sharpening gin saws, file holding bars, carriers therefor in which the bars reciprocate, a shaft extending transversely of the apparatus, members pivoted adjustably on the shaft and connected to the carriers, means for holding the members in their adjusted positions on the transversely disposed shaft, means for permitting the connection between the members and the carriers to be adjusted, and means for imparting reciprocating motions to the file holding bars, said means comprising pitman rods, a bar connected thereto, means for adjusting the connection between the bar and the pitman rods, and a bearing and guiding roller for the ends of the file holding bars.

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1,041,212. OPENING DEVICE FOR FURNACE-DOORS. JOHN WHEELER, Cripple Creek, Colo. Filed May 6, 1911. Serial No. 625,523. (Cl. 110—178.)



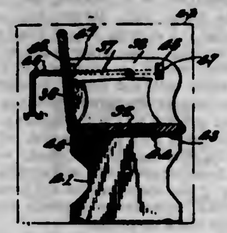
A means for opening furnace doors, comprising a vertically movable actuating rod, part of which is rectangular in cross section and provided with screw threads below said rectangular portion, said rod constituting the lower hinge pin of the door, a bracket extending from the furnace in threaded engagement with said screw-threaded rod, said rod having a leaf extending from the door of the furnace, said leaf having a bore rectangular in cross section extending therethrough and in sliding engagement with the rectangular portion of the rod, a hinge connection between the furnace and door having its pivotal point in axial alinement with said rod, a lever one end of which is positioned below said rod, and a pedal resting upon the opposite end of said lever whereby stepping on said pedal will raise and rotate said rod, thereby opening the furnace door on its hinges.

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1,041,213. SEAT. JAMES R. WILLARD, Iaeger, W. Va. Filed Sept. 6, 1911. Serial No. 647,804. (Cl. 155—2.)

In a device of the character described, the combination of a hinged seat, supporting means including a flange upon which the free end of the seat is adapted to rest loosely when the seat is in normal position, a rock shaft

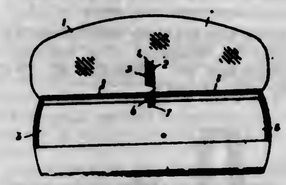




mounted upon the supporting means, and a lateral arm upon the shaft for engaging the swinging end of the seat to hold it in position upon the said flange.

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1,041,214. CASE FOR SPECTACLES AND EYEGLASSES. FRANCIS JAMES WILLMOTT, Highfield, Evesham, England. Filed Jan. 10, 1911. Serial No. 601,925. (Cl. 206—6.)



1. In a case for spectacles or eyeglasses, the combination of a case body, a lid, a hinge securing said lid to the said case body and extending continuously from end to end thereof, a spiral spring, means for directly securing one end of said spring to the lid and the other end thereof to the case body, and a bent up part integral with the spring adapted to surround and embrace the hinge and permitting the lid to open to such a position that the effective pull of the spring is operating along a line beyond the hinge; all so arranged that when the spring is on one side of its dead center it will close the lid while when on the other side of the dead center it will fully open same; substantially as set forth.

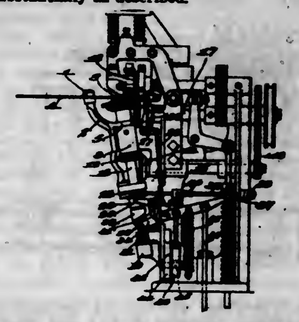
2. In a case for spectacles, or eyeglasses, the combination of a case body, a lid, a hinge securing said lid to said case body and extending continuously from end to end thereof, lugs pressed up from said lid and case body, a spiral spring, loops on the ends of said spring and engaging the said lugs and thereby directly securing the spring to the case body and lid, and a curved part bent up from the wire of the spring intermediate the points of attachment arranged to allow the lid to open to such a position that the effective pull of the spring is operating along a line beyond the hinge; all so arranged that when the spring is on one side of its dead center it will close the lid while when on the other side of the dead center it will fully open same; substantially as set forth.

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1,041,215. AUTOMATIC SOLE-MACHINE. ERASTUS E. WINKLEY, Lynn, Mass. Filed Apr. 2, 1906, Serial No. 309,401. Renewed Nov. 11, 1910. Serial No. 591,796. (Cl. 12—27.)

1. An automatic sole machine, having, in combination instrumentalities engaging the marginal portion of a sole blank and including means for feeding, and operating upon the blank, and guiding means acting automatically at suitable intervals to swing the blank when certain portions thereof are reached in the operation thereon, substantially as described.

2. An automatic sole machine, having, in combination, instrumentalities engaging the marginal portion of a sole blank and including means for feeding, and operating upon the blank, the blank being normally free to swing under the influence of such means, and guiding means acting automatically at suitable intervals, when certain points on the blank are reached, to control the swinging movement thereof, substantially as described.



3. An automatic sole machine, having, in combination, instrumentalities including an edge gage and means for feeding a sole blank tending normally to hold the blank against the edge gage, and guiding means thrown into operation and acting automatically to swing the blank when a sharply curved portion is reached, substantially as described.

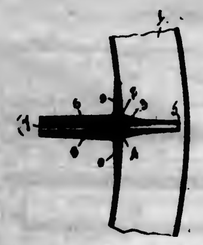
4. An automatic sole machine, having, in combination, instrumentalities engaging the marginal portion of a sole blank, including an edge gage and feeding means tending to swing the blank against the edge gage, the blank being normally free to swing under the influence of the feeding means, and guiding means thrown into operation and acting automatically, when certain points on the blank are reached, to control the swinging movement of the blank, substantially as described.

5. An automatic sole machine, having, in combination, means for feeding and operating upon a sole blank, a movable guide engaging the marginal portion of the blank, and mechanism acting automatically during the operation on the blank to move the guide and swing the blank, substantially as described.

[Claims 6 to 64 not printed in the Gazette.]

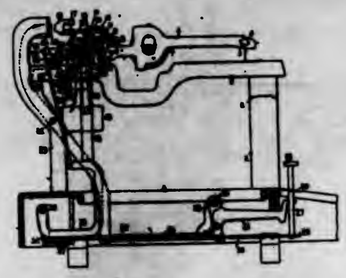
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1,041,216. AUTOMATIC ELASTIC CHECK-VALVE FOR PNEUMATIC TIRES. PINKNEY P. WOOD, Hot Springs, Ark. Filed May 2, 1911. Serial No. 624,545. (Cl. 152—12.)



In combination with a pneumatic tire provided through its inner wall with an opening, a valve consisting of a hollow stem and provided about midway its length with a shoulder, said shoulder fitting into said opening, the lower end of said valve being collapsible and tapering nearly to a point, the upper wall of said shoulder being on a line with the outer surface of said tire, the outer part or stem of said valve being of uniform size, a reinforcing member fitting around said stem and extending from the upper end thereof down to and fitting on the shoulder of said valve, a flange integral with and extending outwardly from the lower end of said reinforcing member and vulcanized to said tire.

1,041,217. TYPE-WRITING MACHINE. OSCAR WOODWARD, Montclair, N. J., assignor to Union Typewriter Company, Jersey City, N. J., a Corporation of New Jersey. Filed May 16, 1912. Serial No. 697,690. (Cl. 197—64.)



1. In a typewriting machine, the combination of a releasable carriage, retarding devices, and elastic connections through which said retarding devices are connected with said carriage only when said carriage is released.

2. In a typewriting machine, the combination of a carriage, retarding devices, elastic connecting devices, and means for automatically rendering said devices operative and inoperative to connect the retarding devices with the carriage.

3. In a typewriting machine, the combination of a carriage, retarding devices, tabulating mechanism, and elastic connections operative automatically during the operation of said tabulating mechanism to connect said retarding devices with said carriage.

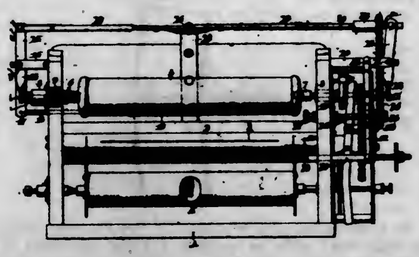
4. In a typewriting machine, the combination of a releasable carriage, retarding devices, and a flexible device through which said retarding devices are connected with said carriage only when said carriage is released.

5. In a typewriting machine, the combination of a releasable carriage, retarding devices, and a flexible spring-mounted device through which said retarding devices are connected with said carriage only when said carriage is released.

[Claims 6 to 31 not printed in the Gazette.]

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1,041,218. DEVICE FOR CENTERING MUSIC-ROLLS IN MUSICAL INSTRUMENTS. PHILIP WURST, Jr., Woodbury, N. J., assignor to Oscar Blasius, Philadelphia, Pa. Filed Feb. 28, 1912. Serial No. 680,468. (Cl. 84—161.)



1. The combination with a tracker bar, of members for engaging the trunnions of the music roll for supporting the same, means whereby the shifting of one supporting member moves the other supporting member in the opposite direction, and means whereby said supporting members may be simultaneously shifted in the same direction.

2. The combination with a tracker bar, of members for engaging the trunnions of the music roll for supporting the same, devices for connecting said supporting members, whereby the shifting of one member moves the other member in the opposite direction, and devices whereby said supporting members may be shifted in the same direction.

3. The combination of a tracker bar, of members for supporting the music roll, devices for connecting said members whereby the shifting of one member in one direction causes a shifting of the other member in the opposite direction, yielding means for holding said members in contact with the music roll, and means for shifting said members simultaneously in the same direction, for centering the music sheet relative to the tracker bar.

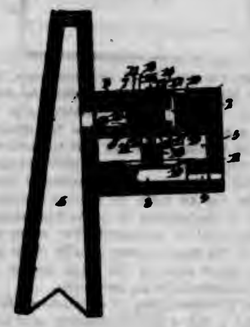
4. The combination with a tracker bar, of sliding sleeves for engaging the trunnions of the music roll for supporting the same, devices connecting said sliding sleeves whereby the shifting of one sleeve moves the other sleeve in the opposite direction, and devices whereby said sleeves may be shifted in the same direction.

5. The combination with a tracker bar, freely sliding members for engaging the trunnions of the music roll, a rock shaft having an arm for engaging each sliding member, devices for connecting said rock shafts whereby the movement of one sliding member imparts a movement in the opposite direction to the other sliding member, said devices including means whereby said sliding members may be simultaneously moved in the same direction.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,219. VALVE MECHANISM FOR PIANO-PLAYERS. PHILIP WURST, Jr., Woodbury, N. J., assignor to Oscar Blasius, Philadelphia, Pa. Filed Feb. 28, 1912. Serial No. 680,470. (Cl. 137—4.)



The combination of spaced valve seats each of which is provided with a central opening and a laterally projecting flange surrounding said opening and forming a guiding sleeve, a valve stem, valve members threaded on said stem and adapted to coöperate respectively with said valve seats, a spacing member between the valve members and engaging said valve members, disks threaded on said stem and having spaced notches formed in the outer edges thereof, said disks being disposed so as to cooperate respectively with the guiding sleeves on the valve seat for guiding said valve in its movements, and washers interposed between the notched disks and the valve members.

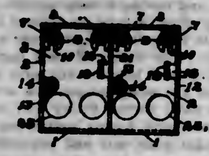
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1,041,220. OUTLET-BOX CONSTRUCTION. JAMES H. WYATT and HARRY CLIFFORD CAMPION, Jr., Philadelphia, Pa., assignors to The Cutter Electrical and Manufacturing Company, Philadelphia, Pa., a Corporation of New Jersey. Filed Aug. 23, 1911. Serial No. 645,572. (Cl. 247—5.)

1. In a device of the character described, the combination with a U-section, of a plate, an ear on one edge of said plate secured to a side of said U-section, a hook on an opposite edge of said plate, a side of said U-section having a slot adapted to receive said hook, and a lug on said plate at a distance from the edge thereof approximately equal to the thickness of the side of said U-section.



2. In a device of the character described, the combination with a U-section, of a plate, an ear on one edge of said plate secured to a side of said U-section, a hook on an opposite edge of said plate, a side of said U-section having a slot adapted to receive said hook, and a projection on said plate remote from said hook but adjacent the same edge upon which said hook is disposed.



3. In a gang box of the character described, a U-section, a partition plate, said U-section having a slot, a hook on one edge of said partition plate adapted to engage in said slot, an ear on the opposite edge of said plate secured to another side of said U-section, a second U-section, a slot in said second U-section, a second hook on said partition plate adapted to engage in said slot, and a second ear on said partition plate secured to another side of said second U-section.

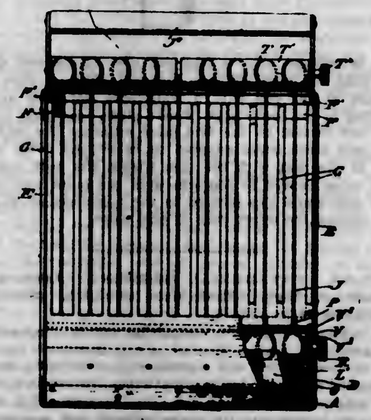
4. In a gang box of the character described, a U-section, a partition plate, said U-section having a slot, a hook on one edge of said partition plate adapted to engage in said slot, an ear on the opposite edge of said plate secured to another side of said U-section, a second U-section, a slot in said second U-section, a second hook on said partition plate adapted to engage in said slot, a second ear on said partition plate secured to another side of said second U-section, and a lug for each of said hooks on said partition plate.

5. In a gang box of the character described, a U-section, a partition plate, said U-section having a slot, a hook on one edge of said partition plate adapted to engage in said slot, an ear on the opposite edge of said plate secured to another side of said U-section, a second U-section, a slot in said second U-section, a second hook on said partition plate adapted to engage in said slot, said hooks on said partition plate being on opposite sides thereof and on opposite edges, and said ears on opposite sides of said partition plate and on opposite edges.

[Claims 6 to 14 not printed in the Gazette.]

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1,041,221. CULINARY IMPLEMENT. JAMES E. WYATT, Yantis, Tex. Filed Apr. 17, 1912. Serial No. 691,293. (Cl. 146—12.)



1. A culinary implement of the character and for the purpose described, comprising a supporting frame, a knife guide consisting of a series of parallel disposed strips, a reciprocating cutter consisting of a series of similar parallel disposed knives guided in said knife guide, and a stationary cutter mounted in the frame and arranged to co-act with the knives of the reciprocating cutter.

2. A culinary implement of the character and for the purpose described, comprising a supporting frame, a knife guide consisting of a series of parallel disposed strips, a reciprocating cutter consisting of a series of similar parallel disposed knives guided in said knife guide, and a stationary cutter mounted in the frame and arranged to co-act with the knives of the reciprocating cutter, and means for adjusting the knives of said cutters to gage the thickness of the slices of material to be cut thereby.

3. A culinary implement of the character and for the purpose described, comprising a supporting frame, a knife guide consisting of a series of parallel disposed strips, a reciprocating cutter consisting of a series of similar parallel disposed knives guided in said knife guide, a stationary cutter mounted on the frame and arranged to co-act with the knives of the reciprocating cutter, and means for adjusting the knives of said cutters with respect to each other, said means consisting of grooved rollers in which the blades are received and operating rods upon which the rollers are mounted whereby said rollers may be rotated.

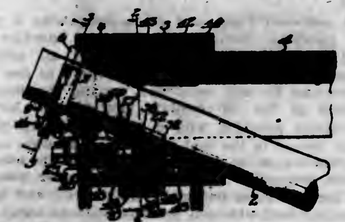
4. In a culinary implement, the combination of a frame, a reciprocating cutter composed of a plurality of blades, a stationary cutter composed of a plurality of blades, a grooved roller mounted upon the frame in which the ends of the blades of both cutters are received, a rod for rotating said roller, rollers engaging the outer ends of the blades of the reciprocating and stationary cutters respectively, and rods upon which said rollers are mounted for rotating said rollers.

5. A culinary implement of the character and for the purpose described, consisting of a frame, a knife guide carried by the frame, an open discharge portion adjacent the guide, a reciprocating cutter pivoted in the frame and consisting of a series of parallel disposed knives having curved cutting edges, and a stationary cutter consisting of a series of parallel disposed knives arranged at an incline to co-act with the cutting edges of the reciprocating cutter knives to give a shear clean cut to the material.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,222. BRAKE-BEAM. HENRY ZIMMS, Jr., Chicago, Ill., assignor to Chicago Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 19, 1908. Serial No. 449,205. (Cl. 188—28.)



1. In a brake beam, a compression member, a tension member, a connecting member, and a wedge interposed between said tension member and said connecting member for holding the parts together.

2. In a brake beam, in combination, a compression member, a tension member, a connecting member, and a wedging key extending through a recess in said tension member, said connecting member having a wedging surface which is contacted by said wedging key, the latter having a screw-threaded portion, and a nut mounted on said threaded portion bearing against said connecting member.

3. The combination with a brake beam, of a brake head rotatably mounted thereon, a toothed member in said brake beam adapted to engage a toothed surface on said brake head, and means in said brake beam for moving said toothed member.

4. The combination of a brake beam, a brake head rotatably mounted thereon, a member slidably mounted in said brake beam and adapted to engage said head, and means in said brake beam for moving said toothed member.

5. The combination of a brake beam, a brake head rotatably mounted thereon, a member slidably mounted in said brake beam and adapted to engage said brake head, a wedge in said brake beam adapted to move said slidably mounted member, and means for moving said wedge.

[Claims 6 to 31 not printed in the Gazette.]

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1,041,223. SPRING CHECK-HINGE. JOSEPH M. ZUK, New Britain, Conn. Filed May 1, 1912. Serial No. 694,328. (Cl. 16—88.)



1. A combined hinge and check comprising a pair of leaf members, having intermeshing knuckles, a slide screw fixedly secured to one of the end knuckles by the outer end, having the inner end positioned in the intermediate knuckle, and having a body portion provided with a thread of steep pitch, a carriage housed in the said intermediate knuckle comprising a slide nut at one end and a plunger at the other end, and rods connecting the said ends, a spring housed between the said inner end of the slide screw and the said plunger, the said slide nut provided with an axial thread fitting and engaged with the said first thread, and means preventing rotative movement of the said slide nut and permitting axial movement thereof.

2. A combined hinge and check comprising a pair of hinge members having intermeshing knuckles comprising a pair of end knuckles and an intermediate knuckle, a slide screw fixedly secured to one of the end knuckles by the outer end, having the inner end positioned in the intermediate knuckle, and having a body portion provided with a thread of steep pitch, a carriage housed in the said intermediate knuckle comprising a slide nut at one end and a plunger at the other end, and rods connecting the said ends, a spring housed between the said inner end of the slide screw and the said plunger, the said slide nut provided with an axial thread fitting and engaged with the said first thread, and means preventing rotative movement of the said slide nut and permitting axial movement thereof, and a needle valve provided in the said plunger and operative to restrict the flow of fluid from one side of the said plunger to the other.

3. A combined hinge and check comprising a pair of leaf members, having intermeshing knuckles, a slide screw fixedly secured to one of the end knuckles by the outer end, having the inner end positioned in the intermediate knuckle, and having a body portion provided with a thread of steep pitch, a carriage housed in the said intermediate knuckle comprising a slide nut at one end and a plunger at the other end, and rods connecting the said ends, a spring housed between the said inner end of the slide screw and the said plunger, the said slide nut provided with an axial thread fitting and engaged with the said first thread, and means preventing rotative movement of the said slide nut and permitting axial movement thereof, and means for adjusting the tension of the said spring.

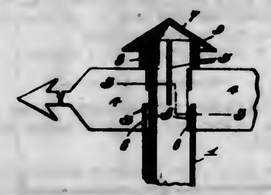
4. A combined hinge and check comprising a pair of hinge members having intermeshing knuckles comprising a pair of end knuckles and an intermediate knuckle, a slide screw fixedly secured to one of the end knuckles by the outer end, having the inner end positioned in the intermediate knuckle, and having a body portion provided with a thread of steep pitch, a carriage housed in the said intermediate knuckle comprising a slide nut at one end and a plunger at the other end, and rods connecting the said ends, a spring housed between the said inner end of the slide screw and the said plunger, the said slide nut provided with an axial thread fitting and engaged with the said first thread, and means preventing rotative movement of the said slide nut and permitting axial movement thereof, and a needle valve operative as a restricted passage provided in the said plunger, and means for adjusting the said needle valve.

5. A combined hinge and check comprising a pair of leaf members having intermeshing knuckles, a slide screw fixedly secured to one of the end knuckles by the outer end, having the inner end positioned in the intermediate knuckle, and having a body portion provided with a thread of steep pitch, a carriage housed in the said intermediate knuckle comprising a slide nut at one end and a plunger at the other end, and rods connecting the said ends, a spring housed between the said inner end of the slide screw and the said plunger, the said slide nut provided with an axial thread fitting and engaged with the said first thread, and means preventing rotative movement of the said slide nut and permitting axial movement thereof, and means for adjusting the tension of the said spring comprising a pin positioned axially in the said slide screw and having one end accessible above the said end knuckle.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,224. SIGN-POST. DANIEL A. ADAMS, Paxinos, Pa. Filed Apr. 20, 1912. Serial No. 692,200. (Cl. 40—145.)



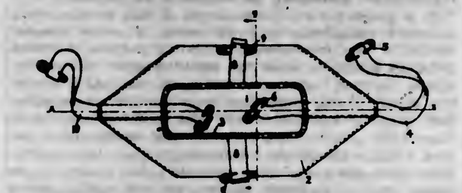
A cylindrical tubular post provided at one end with a plurality of longitudinally disposed slots, a sign plate formed at one end with a transverse slot, said slot extending to the lower edge of said plate, oppositely extending lugs formed on the said plate adjacent the said slot, the said plate being adapted to be slipped down into a slot in the post with the lugs within the post, the said lugs being curved to conform with the inner wall of the said post and a cap secured to the upper end of the post and closing the upper ends of said slots.

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1,041,225. CATAMENIAL GARMENT. LUCY ALDEN, Saginaw, Mich. Filed Mar. 10, 1911. Serial No. 613,596. (Cl. 128—5.)

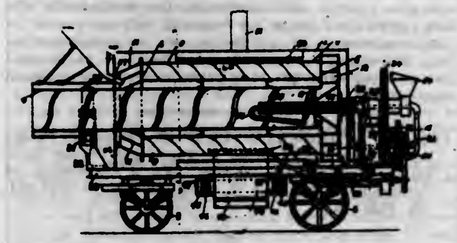
A catamenial garment comprising a sack composed of a non-absorbent bottom member, a non-absorbent top member secured thereto and formed with a centrally disposed elongated aperture; longitudinal tapes secured to the front and rear portions of said sack, the inner free ends of said tapes projecting into the space between said members and provided with fastening means; side tapes secured at their inner ends to the lateral edges of said top member surrounding said aperture and midway its length, said side tapes adapted to extend downwardly to spread the aperture and to fold outwardly and downwardly the edges surrounding the aperture of said top member; and fastening devices secured to the free lower ends of said side tapes.





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1,041,226. MACHINE FOR CLEANING, DRYING, HEATING, AND MIXING TARRED MACADAM. RICHARD AMES, Brighton, England. Filed Aug. 29, 1911. Serial No. 646,752. (Cl. 94—9.)



1. In a machine of the class described, the combination with a heating chamber, a revoluble body mounted therein, a feeding device disposed near the forward end of the said revoluble body, a delivery device disposed near the rear end of the revoluble body, means for rotating the body, and means for heating, screening, drying and mixing the material fed.

2. In a machine for cleaning, drying, heating and mixing tarred macadam the combination with a heating chamber of a revoluble body rotating therein consisting of a central cylinder, or cone, a plurality of cylinders disposed in the form of a ring around the central cylinder, or cone, and rotating therewith, a portion of the outer peripheries of the outer cylinders being perforated and the said cylinders being closed for half their diameter at each end, a feed cone fitted with lifters at one end of said cylinders and a ring fitted with lifters at the other end of the cylinders, a chute to convey the cleaned, dried, and heated material into the central cylinder, helices in the cylinders, with means for supporting and for rotating the said cylinders as a whole, means for heating the tar and heating chamber and means for coating the hot macadam with tar all substantially as set forth.

3. In a machine for cleaning, drying, heating and mixing tarred macadam, the combination of a heating chamber, a revoluble body rotating therein, means for disposing of the screened out material from said body, means for rotating the revoluble body, means for heating the tar and the heating chamber, and means for forcing the tar from the tar boiler into the central cylinder, or cone, all substantially as set forth.

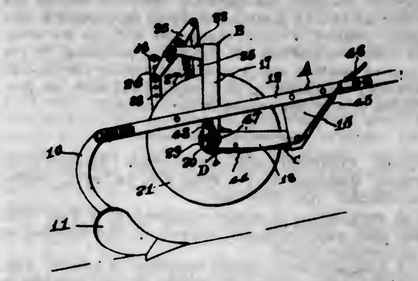
4. In a machine of the class described, the combination with a heating chamber, a revoluble body mounted therein, means for feeding material to said revoluble body, means for rotating the revoluble body, and means for heating the heating chamber.

5. In a machine of the class described, the combination with a heating chamber, a revoluble body mounted therein, means for feeding material to said revoluble body, means for rotating said revoluble body, means for heating the heating chamber, and means for coating the material fed into said revoluble body.

[Claims 6 to 15 not printed in the Gazette.]

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1,041,227. PLOW. HENNING G. ANDERSON, Harvey, N. D. Filed Sept. 11, 1911. Serial No. 648,741. (Cl. 97—58.)

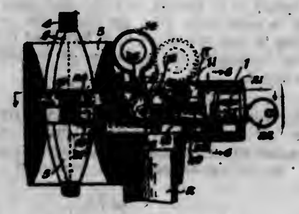


1. The combination of a shaft, a supporting wheel loosely journaled thereon, a frame supported upon said shaft, a plow pivotally connected to said frame, a rock arm mounted upon the frame, connections between said rock arm and shaft whereby the rotation of the latter will oscillate the rock arm, connections between said plow and the rock arm whereby the oscillation of the latter will raise and lower said plow, and a clutch connection between the supporting wheel and the shaft for transmitting the rotation of said wheel to the shaft.

2. The combination of a shaft, a supporting wheel loosely journaled thereon, a frame supported upon said shaft, a rock arm mounted upon the frame, connections between the rock arm and shaft whereby the rotation of the latter will oscillate the rock arm, connections between said plow and the rock arm whereby the oscillation of the latter will raise and lower said plow, a clutch connection between the supporting wheel and the shaft for transmitting the rotation of said wheel to the shaft, and means for automatically throwing out said clutch connection at the termination of the elevating and lowering movements of the plow.

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1,041,228. ELEVATOR-LOCK. EDWIN ELLOITT ANGELL, Somerville, Mass. Filed June 2, 1911. Serial No. 630,880. (Cl. 187—46.)



1. An elevator lock, consisting of jaws between which the shipper cable of the elevator passes, one of said jaws being movable away from and toward the other, a detent arranged to occupy a position outside of the movable jaw, and locking means for placing said detent in such position.

2. An elevator lock comprising a pair of separable jaws, a detent member having detents arranged to occupy positions outside of said jaws to prevent their separation, and a key-operated device for so moving said detent member as to place the detents in such position.

3. In an elevator lock, a jaw movable into and out of a position relatively near the shipper cable, a detent for preventing movement of said jaw from such position, and a key-operated cam arranged to make said detent operative for this purpose.

4. In an elevator lock, means for coöperating with the control cable of the elevator and adapted to be respectively opened and closed, a detent arranged to interlock with said means to prevent opening of said means when the latter is closed, and a key-operated safety-locking device arranged to coöperate with such detent and operable to place the same in and out of its operative position.

5. An elevator lock comprising in combination a laterally shifting jaw movable respectively into operative and inoperative positions, an operating lever for moving the jaw into one of such positions, a spring for moving it into the other position, a detent engageable with the jaw when in its operative position for preventing movement to the inoperative position, and a locking device for placing and maintaining the detent in such engagement with the jaw.

[Claims 6 to 10 not printed in the Gazette.]

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1,041,229. COMPOSITION OF MATTER. EDWARD ARMSTRONG, Brooklyn, N. Y. Filed Feb. 14, 1911. Serial No. 608,555. (Cl. 106—89.)

1. A composition of matter composed of a glue, wax, tannic acid, milk, linseed oil, banana oil, and molasses in the proportions stated.

2. A composition of matter composed of gelatin, wax, tannic acid, water, linseed oil, banana oil, and molasses in the proportions stated.

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1,041,230. CHORD-CHART FOR PIANO-KEYBOARDS. WALLACE C. EBARD, St. Louis, Mo. Filed Sept. 25, 1911. Serial No. 651,093. (Cl. 84—150.)



The improved accompaniment chart for piano keyboards, comprising a single integral movable keyboard-sheet having a fixed series of like numbered horizontal, and differently numbered vertical spaces defined upon the face of the sheet by vertical and horizontal intersecting lines; the said vertical spaces being of a width corresponding to that of the keyboard keys; and a series of spaces below and adjoining said vertical spaces marked with the signatures of the various keys in which it is desired to play, said signatures being arranged in such order that the chart may be positioned for playing in any one of the keys indicated in the several signatures by placing the signature of the particular key over the key C.

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1,041,231. MEANS FOR THE TRANSMISSION OF TENS IN THOMAS CALCULATING-MACHINES. BERNHARD BEHR, Dresden, Germany. Filed Mar. 4, 1912. Serial No. 681,509. (Cl. 235—133.)



1. A means for the transmission of tens in calculating machines comprising in combination, a sector member having a tens transmission operating portion, a spring normally acting to move the sector member into an operative position, said sector member having a cam and a retaining flange, spring controlled lever mechanism engaging said flange to normally retain said sector member in an inoperative position and maintain the spring under tension, a figure disk means for disengaging said lever mechanism from said flange to permit said sector member to be moved into an operative position by said spring, and means engaging said cam for returning said sector member to an inoperative position at the completion of its transmission movement, substantially as described.

2. A means for the transmission of tens in calculating machines comprising in combination, a sector member having a tens transmission operating portion, a spring normally acting to move the sector member into an operative position, said sector having a cam and a retaining flange, spring controlled lever mechanism engaging said flange to normally retain said sector member in an inoperative position and maintain the spring under tension, a figure disk means for disengaging said lever mechanism from said flange to permit said sector member to be moved into an operative position by said spring, and a fixed stop disposed in the path of said cam and engaging the same whereby the sector member is moved to an inoperative position at the completion of its transmission movement, substantially as described.

3. A means for the transmission of tens in calculating machines comprising in combination, an actuated sector device for effecting tens transmission, a spring normally acting to move said device into an operating position, mechanism engaging said device to hold it out of an operative position and maintaining the spring under tension, figure disk means for engaging said mechanism to permit movement of said device into an operative position, and means for returning said device to an inoperative position after the completion of the tens transmission thereby.

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1,041,232. SCREW-CYLINDER BOAT. HARRY C. BERRY, Los Angeles, Cal., assignor to The Rapid Transit Navigation Company, Los Angeles, Cal., a Corporation of California. Filed Aug. 8, 1911. Serial No. 643,044. (Cl. 115—19.)



The combination of a boat body, a plurality of cylinders extending at each side of the center line of said body and below said body, said cylinders being hollow to adapt them to serve as floats for the body, helical propeller ribs on the outside of said cylinders, means for rotating said cylinders to propel the boat, said cylinders having tapered forward ends, a propeller at the rear end of each cylinder, mounted to rotate independently of said cylinder, and means for driving said propeller.

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1,041,233. EARTH-ANCHOR. JASPER BLACKBURN, Kirkwood, Mo. Filed Mar. 1, 1911. Serial No. 611,731. (Cl. 189—92.)



1. In an anchor of the class described, a crown, flukes carried by the crown and arranged for lateral movements relative to each other and the crown, combined guides and fluke supports of varying heights carried by the crown for directing the movements of and supporting said flukes, one of said flukes arranged to slide directly upon said crown and the remaining flukes positioned one above the other and arranged to slide upon each other and said supports.



2. In an anchor of the class described, a substantially disk-shaped crown, a plurality of flukes carried by the crown and arranged for lateral movement relative each other and the crown, one of said flukes arranged to slide directly upon said crown, the remaining flukes arranged to slide upon each other, a support carried by the crown for each of the flukes save the one sliding directly upon the crown, a shank secured to the crown, a member loosely embracing said shank, and a connection between said member and each of said flukes whereby when said member is moved the flukes will be moved.

3. In an anchor of the class described, a crown having a substantially flat body portion, a post, a plurality of superimposed flukes, one of which lies directly upon the crown, the remaining flukes arranged to slide over each other, a pair of guides for directing the movement of a pair of said flukes, said guides being of different heights and each arranged to support one of the flukes when extended, there being a slot in the body portion of each fluke to embrace said post, a socket carried by each fluke, a shank secured to the crown, a spider having a number of sockets, and a rod, having an enlarged head at each of its ends, connecting the sockets of the spider and the sockets carried by the flukes.

4. In an anchor of the class described, a crown, a pair of flukes arranged for movement relative each other over said crown, a shank secured to the crown, a member having a pair of sockets arranged to slide relative the shank, a socket carried by each fluke, and a rod, having an enlarged head at each of its ends, connecting each pair of said sockets, said heads being movable lengthwise relative to the sockets.

5. In an anchor of the class described, a crown, a pair of flukes carried by the crown and arranged to be moved laterally relative each other, a shank secured to the crown and projecting through said flukes, a socket carried by each fluke, a member having projecting arms in each of which there is a socket, all of said sockets being open at one end and at their tops, ribs surrounding the open portions of the sockets, a rod, having adjacent each of its ends opposing ribs, connecting each pair of sockets, said member arranged to be moved relative the shank and in its movement effect a movement of said flukes.

[Claim 6 not printed in the Gazette.]

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1,041,234. AUTOMATIC FEEDING-TABLE. CHARLES W. H. BLOOM, Winthrop, Mass., assignor to S. A. Woods Machine Company, Boston, Mass. Filed Dec. 14, 1911. Serial No. 665,506. (Cl. 198—1.)



1. An apparatus of the kind described, comprising means for receiving a plurality of boards at once and feeding them lengthwise, and means mounted and arranged for coöperation therewith for selecting the boards one by one as they are delivered thereto by said first named means and continuing their feed lengthwise in a continuous line.

2. An apparatus of the kind described, comprising mechanism for receiving a plurality of boards in miscellaneous arrangement at once, and delivering the same in a single continuous line with a tendency to move at a relatively high velocity, and means for operating on the boards, said means being arranged and connected to be driven so as to receive the boards of said line at a relatively retarded rate whereby they are held pressed end to end.

3. An apparatus of the kind described, comprising feeding means adapted for receiving a plurality of boards at once and advancing the same lengthwise, means mounted and arranged for coöperation therewith for selecting the boards one by one and continuing their feed lengthwise in a continuous line with a tendency to move at a relatively high velocity, and mechanism for operating on the boards connected to be driven so as to receive said continuous line at a relatively retarded rate whereby the boards are held pressed end to end.

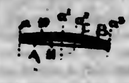
4. An apparatus of the kind described, comprising a feed table adapted to receive a plurality of boards at once and having provision to feed the same lengthwise, means at the delivery end of the table arranged for coöperation with said feed table for aligning the boards lengthwise, and means for selecting the boards one by one and continuing their advance lengthwise in a single continuous line.

5. An apparatus of the kind described, comprising a feed table adapted to receive a plurality of boards at once and having provision to move the same laterally, aligning means adjacent the side of the table toward which the boards are moved, and means adjacent said aligning means and near the forward end of the table for selecting the boards one by one and advancing them lengthwise in endwise alinement.

[Claims 6 to 25 not printed in the Gazette.]

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1,041,235. METHOD OF MAKING MULTIFOCAL LENSES. ALBERT J. BOWERS, Worcester, Mass. Filed June 20, 1907. Serial No. 379,990. (Cl. 51—3.)



1. The method of making a multifocal lens from a piece of glass of suitable size to form the completed lens by attaching a wafer to its surface in the following manner; by grinding one side of said piece in a curve determined by the desired curvature of the contacting surface of the wafer, with said curve extending entirely across said side and larger in area than said completed wafer, attaching in any desired position on said curved surface a segment, of area smaller than said curved surface and designed to form said wafer, then grinding said piece with said segment attached to form the completed lens.

2. The method of making a multifocal lens from a piece of glass of suitable size to form the completed lens, having its cross section in the plane of the minor axis of the finished lens with one oblique side, by attaching a wafer to said oblique side in the following manner; by grinding said entire oblique side in a curve determined by the desired curvature of the contacting surface of the wafer, said curvature of larger area than said completed wafer, attaching in any desired position on said curved surface a segment, of area smaller than said curved surface and designed to form said wafer, then grinding the said piece with said segment attached to form the completed lens.

3. The method of making a multifocal lens from a piece of glass of suitable size to form the desired lens by attaching two or more wafers to its surface in the following manner, first, grinding one side of said piece of glass in the desired curve of the contacting face of the first wafer, said curve extending entirely across said side, permanently attaching to a portion of said curved surface a segment designed to form the first wafer, then grinding said entire curved surface and the segment attached thereto in the desired curve of the contacting face of the second wafer, permanently attaching to a portion of the said second curved surface a segment designed to form the second wafer, with part of its surface in contact with said piece of glass and part in contact with said first segment, and grinding the united piece of glass and two segments to form the completed lens.

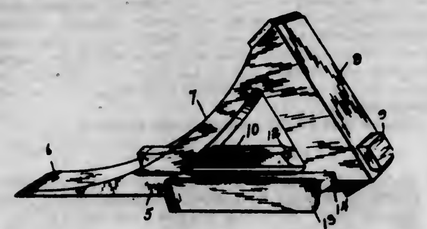
4. The method of making a multifocal lens from a piece of glass of prismatic form and of suitable size to form the desired lens by permanently attaching successive segments designed to form the wafers to successive curved seats in the oblique side of said piece of glass, each curved seat extending entirely across said oblique side with the de-

sired curve of the attached wafer, and grinding the united piece of glass and segments to form the completed lens.

5. The method of making a multifocal lens from a piece of glass of suitable size to form the desired lens by grinding successively curved seats of the same size but of different radii in said glass, each seat extending entirely across said glass, and permanently attaching to each successive seat a segment designed to form a wafer, each segment in a different position on its seat with relation to the center of the lens, and grinding the united piece of glass and segments to form the completed lens.

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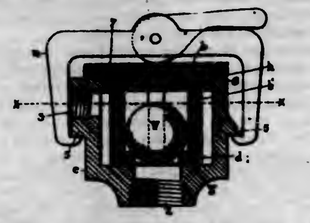
1,041,236. CHOCK FOR RAILWAY ROLLING-STOCK. HENRY W. BRAUN, Lemoyne, Pa. Filed June 10, 1912. Serial No. 702,796. (Cl. 104—49.)



In a chuck, a body having a tapered extension, a hopper carried by the body, said hopper adapted to discharge on to a surface supporting the body, said hopper having an opening transversely thereof, a valve slidable in said opening and having a valve stem projecting into the path of travel of a wheel traveling on the extension of the body of the chuck, the valve having recesses in its sides forming ports when said recessed portion is within the hopper.

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1,041,237. VALVE. WILBUR F. BUDLONG, Berea, Ohio. Filed Feb. 17, 1912. Serial No. 678,312. (Cl. 137—82.)



1. In a valve mechanism, a casing and a cage therein having a ring-shaped bottom provided with an annular recess, a ring-shaped valve seat occupying said recess, said cage and seat having a substantially V-shaped space between them and a substantially wedge-shaped gasket adapted to wedge into said space and lock said parts together and to seal the valve seat as to both the cage and the bottom of the casing.

2. In a valve mechanism, a chamber with an inlet and an outlet and a cage therein having a bottom provided with an annular recess on its inside, a ring-shaped valve seat occupying said recess, and a gasket adapted to wedge into the space between the wall of said recess and said valve seat to lock said parts together and to seal the valve seat as to both the cage and the bottom of the chamber.

3. A valve casing and a cage therein having an annular recess in its bottom, a valve in said cage and a ring-shaped seat for said valve removably secured in said recess and having beveled outer edges, thereby making the said seat reversible, and a gasket adapted to engage about the edge of said seat.

4. A valve mechanism having a casing and a cage therein provided with panels spaced apart at different intervals, whereby a greater space remains between two given panels than between other two, a ball valve adapted to float in said cage and a seat therefor at the bottom of the cage and the said casing having an inlet in its bottom and an outlet on a plane relatively above the said ball, whereby when the liquid flows through the said crib the ball will be automatically turned by the action of the liquid.

5. In a valve mechanism, a casing having an opening in its top and an inlet and outlet in its side and bottom respectively, a cage having openings of varying size therein, said cage being seated upon and within said casing apart from its side walls.

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1,041,238. FASTENER FOR RUGS, CARPETS, &c. FRED S. CARR, Brookline, Mass., assignor to Carr Fastener Company, Boston, Mass., a Corporation of Maine. Filed Feb. 3, 1912. Serial No. 675,865. (Cl. 16—3.)



1. A fastening member comprising a base provided with spaced apart arms adapted to be inserted beneath the head of a fixed stud and to straddle the shank of said stud, and a resilient head overhanging said base and arms and having a shoulder adapted to engage the stud head to positively lock the fastening member against edgewise movement, said resilient head and said stud head being approximately in the same plane when said shoulder and stud head are in engagement.

2. A fastening member comprising a base having a slot which is open at one end of the base and has a closed inner end, adapted to straddle the stem of a fixed stud beneath the head thereof, and a resilient head flexibly connected with the base and having an outer end portion adapted to bear on the top of the stud, and a head-engaging shoulder at the inner end of said portion, adapted to spring automatically into engagement with the margin of the stud head and positively lock the fastening member against edgewise movement, said resilient head and said stud head being approximately in the same plane when said shoulder and stud head are in engagement.

3. A fastening member comprising a forked base having spaced apart arms adapted to be inserted under the head of a fixed stud and to straddle the shank of the stud, and a resilient head flexibly connected with the base and overhanging the base and slot, and having an orifice, the wall of which forms a continuous annular shoulder adapted to spring automatically into engagement with and embrace the margin of the stud head and positively lock the fastening member against edgewise movement, said resilient head and said stud head being approximately in the same plane when said shoulder and stud head are in engagement.

4. A fastening member comprising a forked base having spaced apart arms adapted to be inserted under the head of a fixed stud to straddle the shank of the stud, and a resilient head flexibly connected with the base and overhanging the base and slot, and having a shoulder adapted to spring automatically into engagement with the margin of the stud head, said resilient head and said stud head being approximately in the same plane when said shoulder and stud head are in engagement.

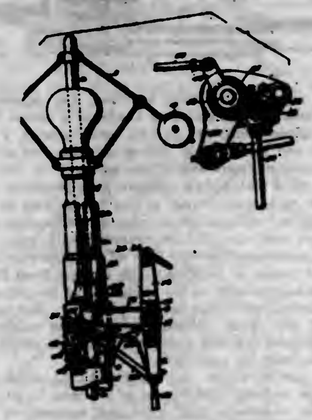
5. A fastening member comprising a forked base having arms adapted to be inserted under the head of a fixed stud and separated by a slot adapted to receive the shank of the stud, said slot having an open mouth and a closed inner end, and a resilient head flexibly connected with the base and overhanging the base and slot, and having a shoulder adapted to spring into engagement with the margin of the stud head, the base being provided with step ears and the head with slots receiving said ears.

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1,041,239. SAFETY-STOP FOR STEAM-ENGINES. SELBY C. CANN, Muskogee, Okla. Filed Apr. 28, 1911. Serial No. 622,914. (Cl. 121—108.)

1. In mechanism of the class described, the combination with the movable element of a governor, a rock member connected with the said element of the governor, a valve controlling lever movable independently of the rock-member, means tending to move the lever to cut-off position, an arm pivoted to the lever and formed with a shoulder, a trip pivoted to the rock-member, a reversible abutment movable with the trip and normally engaging with the shoulder upon the said rod whereby to hold the lever against such movement, and means for actuating said trip upon abnormal movement of the said rock arm to disengage said abutment from said shoulder.





2. In mechanism of the class described, the combination with the movable element of a governor, of a rock-member connected with the said element of the governor, a valve controlling lever movable independently of the rock-member, means tending to move the lever to cut-off position, a rod pivoted to the lever and provided with a slot having a shouldered wall, a trip pivoted to the rock-member, an abutment movable with the trip and normally engaging the shoulder of the said rod whereby to hold the lever against such movement, an adjustable means for actuating said trip upon abnormal movement of the said rock-member whereby to disengage said abutment from said shoulder.

3. In mechanism of the class described, the combination with the movable element of a governor, of a rock-arm connected with the said element of the governor, a valve controlling lever movable independently of the rock arm, means tending to move the lever to cut-off position, a rod pivoted to the lever and provided with a shoulder, a trip pivoted to the rock-arm, an abutment movable with the trip and normally engaging the shoulder upon said rod whereby to hold the lever against such movement, and adjustable means for actuating said trip movement of the rock-arm responsive to abnormal increase in speed of said governor whereby to disengage said abutment from said shoulder.

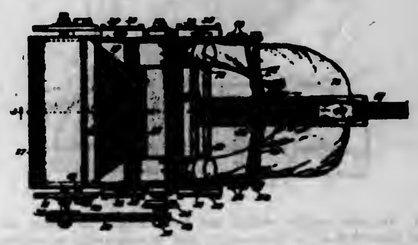
4. In mechanism of the class described, the combination with the movable element of a governor, of a rock-member connected with said element of the governor, a valve controlling lever movable independently of the rock-member, means tending to move the lever to cut-off position, an arm pivoted to the lever and provided with a slot having a shouldered wall, a trip pivoted to said arm, a reversible abutment movable with the trip and normally engaging the shoulder of the said rod whereby to hold the lever against movement independently of the said rock-member, and means arranged to actuate said trip upon movement of the rock-member responsive to abnormal increase or decrease in speed of the governor whereby to disengage said abutment from said shoulder.

5. In mechanism of the class described, the combination with the movable element of a governor, of a rock-member connected with the said element of the governor, a valve controlling lever movable independently of the rock-member, means tending to move the lever to cut-off position, a rod pivoted to the lever and formed with a slot having a shouldered wall, a trip pivoted to the arm and movable therewith, an abutment carried by the trip and normally engaging with said shoulder whereby to hold the lever against such movement, an abutment arranged to engage with the trip upon movement of the arm responsive to abnormally high speed movement of the governor whereby to disengage said abutment from said shoulder, and an abutment arranged to engage with said trip upon movement of the arm responsive to movement of the governor under abnormal load whereby to disengage said abutment from said shoulder.

[Claims 6 to 20 not printed in the Gazette.]

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1,041,240. SURFACING-MACHINE. ARTHUR E. CHAPPELL, Chicago, Ill. Filed Apr. 24, 1911. Serial No. 622,950. (Cl. 51—13.)



1. In a surfacing machine, the combination of a pair of supporting wheels, a main frame rockingly supported on said wheels, a surfacing roll rotatably mounted on said frame near the forward end thereof, a wheel supporting the rear end of said frame, means for adjusting the rear end of the frame relatively to said wheel, and means for automatically locking the frame in adjusted position to maintain the surfacing roll in operative relation to the floor.

2. In a surfacing machine, the combination of a pair of supporting wheels, a frame rockingly supported thereby, a surfacing roll carried by the forward end of said frame, a supporting wheel adjustably connected with said frame at the rear of said pair of supporting wheels, means for adjusting said frame relatively to said rear wheel whereby to adjust the position of said surfacing roll, a locking block mounted to automatically lock said frame in adjusted position relatively to said wheel, and means for releasing said block.

3. In a surfacing machine, the combination of a pair of supporting wheels, a frame rockingly mounted thereon, a surfacing device rotatably and yieldingly mounted in said frame, a rear supporting wheel connected with said frame and adapted to support the rear end thereof, a handle for rocking said frame on said pair of wheels and relatively to said rear wheel to adjust the position of the surfacing device, means for automatically locking said frame to said rear wheel whereby the surfacing roll is maintained in adjusted position and manual means for releasing said locking means.

4. In a surfacing machine, the combination of a pair of supporting wheels, a frame rockingly mounted thereon, a surfacing device mounted upon the forward end of said frame, a rearwardly extending supporting member pivotally connected with said frame behind said pair of wheels, a rear supporting wheel secured to the free end of said supporting member, an adjustable connection between said supporting member and the frame whereby the position of said frame may be varied to adjust the position of said surfacing device, a lock fixed with respect to the frame and adapted to automatically lock said frame in adjusted position relatively to the supporting member, and manually controlled means for releasing said lock.

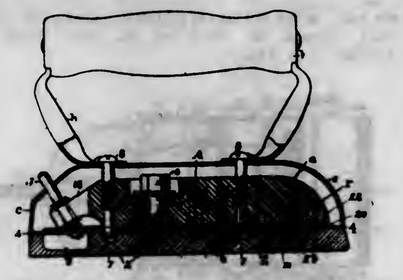
5. In a surfacing machine, the combination of a rockingly mounted frame, a surfacing device carried thereby, a supporting member pivotally connected with said frame,

a supporting wheel attached to said supporting member, a handle for adjusting the position of said frame, a ratchet mounted on the free end of said supporting member, and projecting through said handle, means carried by the handle for automatically engaging with said ratchet to lock the frame in adjusted position and manual means releasing said lock.

[Claims 6 to 21 not printed in the Gazette.]

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1,041,241. ELECTRICALLY-HEATED SAD-IRON. ROY E. CLISBY, Wellington, Ohio. Filed May 13, 1912. Serial No. 696,967. (Cl. 219—25.)



1. An electrically heated sad iron having an upper section provided with rearwardly and downwardly extending arms at its rear adapted to receive electrical terminals and a lower section having a recess next beneath said arms, in combination with heating elements having narrowed ends corresponding to said recesses and extending behind the same between the said sections.

2. An electrically heated sad iron having electrical elements doubled one over the other in the point portion of the iron and diverging therefrom to the rear, in combination with upper and lower body sections between which said elements are clamped, and the said upper section recessed over the front doubled portions of said elements.

3. An electrically heated sad iron having two flat non-conducting heating elements provided with serrated edges and each having a substantially V-shaped point at its front in overlapping relations with the point of the other element, resistance wire wound continuously about both elements, the said elements having inwardly extended slots in their points adapted to pass the wire through from side to side and an insulating plate between the said V-shaped points having a notch in its point corresponding to said slots.

4. An electrically heated sad iron having two non-conducting elements shaped to conform to the sides of the iron at their outer edges and serrated from end to end on both side edges and at the point, resistance wires wound on said elements and each element having a relatively narrowed rear extremity adapted to extend into the heel of the iron and provided with an inwardly extended wing at its front end in lapping relation to the corresponding wing of the other element, in combination with upper and lower body sections of the iron between which the said elements are secured, the upper of said sections having a recess in its point and bottom conforming to the shape and size of said wings, and insulating sheets between said sections and said serrated members.

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1,041,242. WATER-MOTOR. PETER T. COFFIELD, Dayton, Ohio, assignor to The Coffield Motor Washer Co., Dayton, Ohio, a Corporation of Ohio. Filed June 12, 1911. Serial No. 632,804. (Cl. 138—2.)

1. In a water motor, the combination with a cylinder, of a piston having inlet and exhaust chambers and an axial opening therein, hollow rods communicating with said inlet and exhaust chambers, a compound valve mounted in the axial opening of the piston and controlling the inlet and exhaust, and abutments adapted to engage the ends of said valve to seal the same and to impart initial movements thereto, the final movements being imparted by the water pressure acting on the valve after said initial movements.

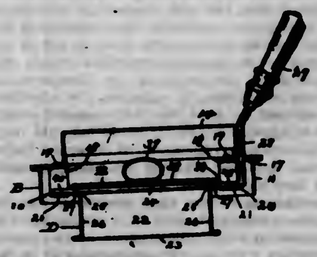


2. In a motor of the type specified, the combination with a cylinder having inclosing heads, of a piston having inlet and exhaust chambers and an axial opening, a frame attached to one side of said piston, a piston rod attached to said frame, a compound valve mounted in the axial opening of said piston and adapted to alternately admit motive fluid to opposite sides of the piston and to alternately establish communication between the opposite sides of the piston and the exhaust chamber, said valve being adapted to be engaged on one side of the piston by one of the cylinder heads to be sealed and started from its seat thereby and an actuator on the other side of the piston and carried thereby, said last named actuator, through the medium of the other cylinder head, being adapted to engage said valve to seal and start it in the other direction, substantially as specified.

3. In a motor of the type specified, the combination with a motor cylinder and heads, of a piston having inlet and exhaust chambers and an axial opening, a valve mounted in said axial opening and adapted to be engaged to seal and start the valve in one direction by contact with one of the cylinder heads to admit motive fluid to drive the piston in one direction, a yoke attached to the other side of the piston, a piston rod secured to said yoke, and a valve actuator interposed between the said yoke and the adjacent end of the valve, said actuator being slidably supported on said yoke by means of pins which are adapted to engage the adjacent cylinder head, whereby said actuator engages said valve to seal and start the valve to admit the motive fluid to drive the piston in the other direction.

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1,041,243. ASH-SIFTER. SIMON COHEN, Hartford, Conn. Filed May 17, 1912. Serial No. 697,934. (Cl. 83—60.)



1. An ash sifter comprising a barrel top member and a sifter member, the said barrel top member provided with a central opening, longitudinal extensions thereof and a transverse slot connecting with one of the said extensions, and bearing loops bridging the said extensions and having bearings, a sifter member having a body portion, bearings extending from the ends thereof and a handle extending from one of the said bearings.

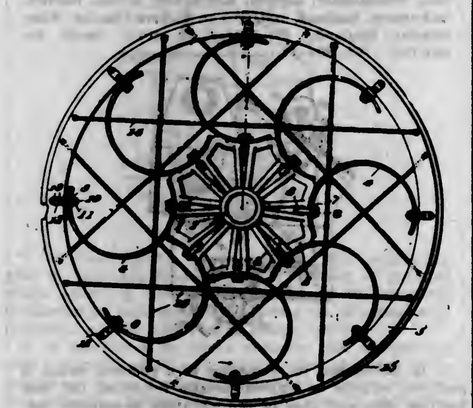
2. In an ash sifter comprising a barrel top member having bearings and a sifter member having bearings, the said sifter member comprising a rectangular structure, ways along two sides of the said structure, and a cap having ways suitable for cooperating with the said first ways and the said cap serving as a closure for the said sifter member when the said ways are in engagement.



3. An ash sifter comprising a barrel top member and a sifter member, the said barrel top member provided with central opening, longitudinal extensions thereof and a transverse slot connecting with one of the said extensions, and bearing loops bridging the said extensions and having bearings, a sifter member having a body portion, bearings extending from the ends thereof and a handle extending from one of the said bearings, and the said sifter member comprising a rectangular structure, ways along two sides of the said structure, and a cap having ways suitable for cooperating with the said first ways.

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1,041,244. RESILIENT WHEEL. CHARLEY J. CRAIG, Lathrop, Mo. Filed Jan. 7, 1911. Serial No. 601,337. (Cl. 152—51.)



A wheel comprising a hub made up of a central cylindrical portion and a continuous ring portion having inwardly bowed arcuate sections and arms connecting the cylindrical portion with the ring and arranged in pairs each pair joining with one of the sections of the said ring and the members of the pairs being spaced from each other at their outer ends, a rim surrounding the ring, arcuate springs secured at their outer portions to the rim and at their inner portions bearing in the arcuate sections of the said ring, and clamping bolts surrounding the inner portions of the springs and the arcuate sections of the ring and lying between the members of the pairs of arms and holding the inner ends of the springs in position in the arcuate sections of the ring.

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1,041,245. BUILDING CONSTRUCTION. LEWIS K. DAVIS, New York, N. Y. Filed Jan. 16, 1911. Serial No. 602,774. (Cl. 72—30.)

1. In building constructions, a wall comprising a plurality of blocks having at their abutting ends a projecting end-joint portion formed by side walls and a base, which walls constitute a continuous vertical recess, the walls of said recess being provided at its side faces with inwardly-extending projections and provided with a projecting portion supplementary thereto and extending into said recess, which projections constitute double and auxiliary key-holds in the recess, and vertical columns of concrete or cementitious material filling the adjoining recesses of the abutting projecting end-joint portions of the adjoining blocks and having a key-hold connection with the side projections and supplementary projection in each of said recesses, said key-holds being operative in the longitudinal plane of the wall.

2. In building constructions, a wall comprising a plurality of blocks having at their abutting ends a projecting end-joint portion formed by side walls and a base, which walls constitute a continuous vertical recess, the walls of said recess being provided at its side faces with inwardly-extending projections and provided with a projecting portion supplementary thereto and extending into said recess, which projections constitute double and auxiliary key-holds in the recess, and vertical columns of concrete or cementitious material filling the adjoining recesses of the abutting projecting end-joint portions of the adjoining blocks and having a key-hold connection with the side projections and supplementary projection in each of said recesses, said key-holds being operative in the longitudinal plane of the wall, and a plastic material filling the space formed by the end grooves or channels at the abutting ends of the adjoining blocks.

3. In building constructions, a wall comprising a plurality of blocks having at their abutting ends a projecting end-joint portion formed by side walls and a base, which walls constitute a continuous vertical recess, the inner faces of the side walls being of flaring or dovetail contour with relation to the base wall to form inwardly-extending projections, and the base wall being provided at its face with a flaring or dovetail projection extending into said recess immediately of said side walls, whereby the side walls and projection on the base wall constitute double and auxiliary key-holds operative in the longitudinal plane of the wall, and vertical columns of concrete or cementitious material filling the adjoining recesses of the abutting projecting end-joint portions of the adjoining blocks and having a key-hold connection with the inner faces of the side walls and the projection of the base wall of each of said recesses.

4. In building constructions, a wall comprising a plurality of blocks having at their abutting ends a projecting end-joint portion formed by side walls and a base, which walls constitute a continuous vertical recess, the walls of said recess being provided with inwardly-extending projections at its faces to constitute key-holds operative in the longitudinal plane of the wall, the end faces of said side walls being provided with grooves or channels, vertical columns of concrete or cementitious material filling the adjoining recesses of the abutting projecting end-joint portions of the adjoining blocks and having a key-hold connection with the projections in each of said recesses, and a plastic material filling the space formed by the end grooves or channels at the abutting ends of the adjoining blocks.

5. In building constructions, a wall comprising a plurality of blocks having at their abutting ends a projecting end-joint portion formed by side walls and a base, which walls constitute a continuous vertical recess, the recess being provided with inwardly-extending projections at its faces to constitute key-holds operative in the longitudinal plane of the wall, the end faces of said side walls being provided with grooves or channels, vertical columns of concrete or cementitious material filling the adjoining recesses of the abutting projecting end-joint portions of the adjoining blocks and having a key-hold connection with the projections in each of said recesses, and a plastic finishing surface applied upon the face of the block and entering

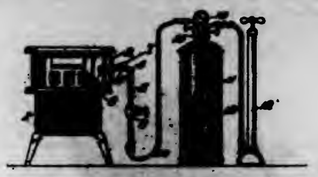


the end-joint between adjoining blocks and filling the space formed by said end grooves or channels.

[Claims 6 to 17 not printed in the Gazette.]

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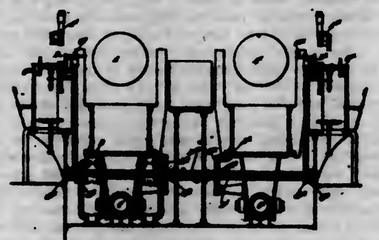
1,041,246. OIL-BURNER. WILLIAM R. DAVIS and ROBEN U. WRIGHT, Deport, Tex. Filed June 7, 1912. Serial No. 702,819. (Cl. 158—8.)



The combination of a fire-box door having an opening therein, of an integral burner pipe extending through said opening and beyond said door with its inner extremity threaded and lying inside of the fire-box, a burner cap on the inner end of said pipe, jam nuts having engagement with the outer terminal threads of the threaded extremity of said burner pipe, one upon each side of the door, and a valve for supplying oil to said burner pipe.

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1,041,247. ELEVATING MECHANISM OF HEAVY ORDNANCE. ARTHUR TREVOR DAWSON, Westminster, London, and JAMES HORNE, Barrow-in-Furness, England, assignors to Vickers Limited, Westminster, England. Filed Mar. 29, 1912. Serial No. 687,112. (Cl. 89—41.)



1. In mountings for heavy ordnance, the combination with the elevating mechanism of a plurality of guns, of a pointer and a disk constituting an indicator arranged contiguous to each gun, means for moving the pointer of one indicator and the disk of another indicator from one gun and means for moving the disk of said one indicator and the pointer of said other indicator from another gun.

2. In mountings for heavy ordnance, the combination with the elevating mechanism of a plurality of guns, of a pointer and a disk constituting an indicator arranged contiguous to each gun, displaceable members, means for actuating each of them from one of the guns during its elevation and means for connecting one pointer and one disk of each of the indicators to each of the said members.

3. In mountings for heavy ordnance, the combination with the elevating mechanism of a plurality of guns, of a pointer and a disk constituting an indicator arranged contiguous to each gun, rotary shafts, means for actuating each of them from one of the guns during its elevation, and means for connecting both the pointer of one indicator and the disk of another indicator to each of the said shafts.

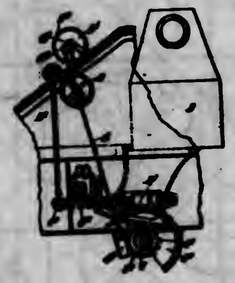
4. In mountings for heavy ordnance, the combination with the turntable, the gun slides and the elevating mechanism of a plurality of guns, of a pointer and a disk constituting an indicator arranged contiguous to each gun, rotary shafts carried by the turntable, a pinion on each of said shafts, racks on the gun slides with which said pinions engage, means for actuating the pointer of one indicator and the disk of another indicator from one of said shafts, and means for actuating the disk of said one indicator and the pointer of said other indicator from another of said shafts.

5. In mountings for heavy ordnance, the combination with the elevating mechanism of a plurality of guns, of a pointer and a disk constituting an indicator arranged contiguous to each gun, means for moving the pointer of one indicator and the disk of another indicator from one gun, means for moving the disk of said one indicator and the pointer of said other indicator from another gun, and manual means for causing relative movement to take place between the pointer and disk of each indicator to compensate for differences in muzzle velocity between the guns.

[Claim 6 not printed in the Gazette.]

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1,041,248. HEAVY ORDNANCE. ARTHUR TREVOR DAWSON, Westminster, London, and JAMES HORNE, Barrow-in-Furness, England, assignors to Vickers Limited, Westminster, England. Filed Mar. 29, 1912. Serial No. 687,113. (Cl. 89—41.)



1. In mechanism for elevating to a common range, a plurality of guns of different muzzle velocities, the combination with said guns of gun elevating mechanism common to all of them, range correcting mechanism associated with said guns for correcting the elevation of the guns individually for differences in muzzle velocity, and individual gun elevating connections operable by the common elevating mechanism and by the elevation correcting mechanism, the individual elevating connections being movable by the common elevating mechanism without moving the elevation correcting mechanism, substantially as described.

2. In mechanism for elevating to a common range a plurality of guns of different muzzle velocities, the combination with said guns of gun elevating mechanism common to all of them, range-correcting mechanism associated with said guns for correcting the elevation of the guns individually for differences in muzzle velocity, individual gun elevating connections operable by the common elevating mechanism and by the elevation correcting mechanism, the individual elevating connections being movable by the common elevating mechanism without moving the elevation correcting mechanism, and indicating devices associated with the elevation correcting mechanism whereby the correction in the elevation of the individual guns may be observed, substantially as described.

3. In mechanism for elevating to a common range a plurality of guns of different muzzle velocities, the combination with said guns of gun elevating mechanism common to all of them, range-correcting mechanism associated with said guns for correcting the elevation of the guns individually for differences in muzzle velocity, individual gun elevating connections operable by the common elevating mechanism and by the elevation correcting mechanism, the individual elevating connections being movable by the common elevating mechanism without moving the elevation correcting mechanism, and indicating devices associated with the elevation correcting mechanism whereby the correction of the elevation of the individual guns may be observed, the indicator associated with the elevation correcting mechanism having a scale calibrated on the basis of the known muzzle velocity of the gun with which it is associated to indicate the corrections for different ranges, substantially as described.

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1,041,249. HEAVY ORDNANCE. ARTHUR TREVOR DAWSON, Westminster, London, and JAMES HORNE, Barrow-in-Furness, England, assignors to Vickers Limited, Westminster, England. Filed Mar. 29, 1912. Serial No. 687,114. (Cl. 89—41.)



1. In mountings for heavy ordnance, the combination with the elevating mechanism of a plurality of guns, of means operating during the actuation of the elevating mechanism for automatically correcting the elevation of an individual gun for difference in muzzle velocity.

2. In mountings for heavy ordnance, the combination with a plurality of guns having individual elevating mechanisms and means for operating them in common, of elevation correcting mechanism associated with an individual elevating mechanism of a gun and means for automatically actuating said elevation correcting mechanism during the elevation of the guns.

3. In mountings for heavy ordnance, the combination with a plurality of guns having individual elevating mechanisms and means for operating them in common, of adjustable elevation correcting mechanisms associated with an individual elevating mechanism of a gun and means for automatically actuating said individual elevation correcting mechanism during the elevation of the guns.

4. In mountings for heavy ordnance, the combination with the elevating pinions of a plurality of guns, of automatic means for causing relative angular movement to take place between said pinions during the elevation of the guns.

5. In mountings for heavy ordnance, the combination with the elevating pinions of a plurality of guns, of elevation correcting mechanism associated with one of said pinions, and means for automatically actuating said mechanism during the elevation of the guns.

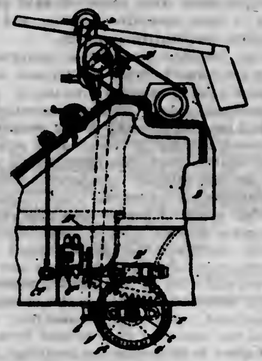
[Claims 6 to 12 not printed in the Gazette.]

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1,041,250. HEAVY ORDNANCE. ARTHUR TREVOR DAWSON, Westminster, London, and JAMES HORNE, Barrow-in-Furness, England, assignors to Vickers Limited, Westminster, England. Filed Mar. 29, 1912. Serial No. 687,115. (Cl. 89—41.)

1. In mountings for heavy ordnance, the combination with the sight, its range setting mechanism and the elevating mechanism of a plurality of guns, of means operated by said range setting mechanism for correcting the elevation of any desired number of the guns for differences in muzzle velocity.

2. In mountings for heavy ordnance, the combination with the sight, its range setting mechanism and the elevating mechanism of a plurality of guns, of a hydraulic relay device operated by said range setting mechanism for correcting the elevation of any desired number of the guns for differences in muzzle velocity.



3. In mountings for heavy ordnance, the combination with the sight, its range setting mechanism and the elevating mechanism of a plurality of guns, of a hydraulic relay device connected to any desired number of said elevating mechanisms, a valve forming part of said device, and means for operating said valve from the range setting mechanism.

4. In mountings for heavy ordnance, the combination with the sight, its range setting mechanism and the elevating mechanism of a plurality of guns, of a hydraulic relay device connected to any desired number of said elevating mechanisms, a valve forming part of said device, and adjustable means for operating said valve from the range setting mechanism.

5. In mountings for heavy ordnance, the combination with the sight, its range setting mechanism and the elevating mechanism of a plurality of guns, of a hydraulic relay device connected to any desired number of said elevating mechanisms, a valve forming part of said device, a variable throw lever, means for connecting said lever to the valve and means for actuating said lever from the range setting mechanism.

[Claims 6 to 10 not printed in the Gazette.]

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1,041,251. PRESSER-FOOT. ALBERT H. DE VOE, Elizabeth, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Nov. 30, 1910. Serial No. 594,828. (Cl. 112—13.)



1. A sewing machine presser-foot comprising a shank and a foot-plate formed with a needle-hole, edge-guiding members vertically movable into positions above and below the lower operative face of the foot-plate, and reciprocally acting means for shifting one of said guide-members into operative position and another into inoperative position.

2. A sewing machine presser-foot comprising a shank and a foot-plate formed with a needle-hole, edge-guiding members vertically movable upon opposite sides of the needle-hole into positions above and below the lower operative face of the foot-plate, and reciprocally acting means for shifting one of said guide-members into operative position and another into inoperative position.

3. A sewing machine presser-foot comprising a shank and a foot-plate formed with a needle-hole, edge-guiding members vertically movable into positions above and below the lower operative face of the foot-plate, means for

normally pressing said guide-members into retracted inoperative position, and positively acting means adapted for operative engagement with either of said guide-members for shifting it into operative position and causing the other to assume inoperative position.

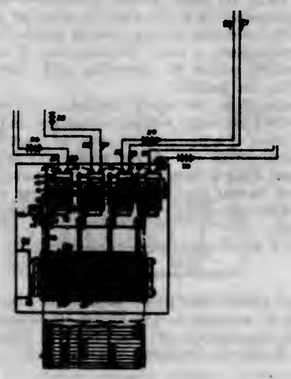
4. A sewing machine presser-foot comprising a shank and a foot-plate formed with a needle-hole, longitudinally extending edge-guiding members vertically movable into positions above and below the lower operative face of the foot-plate, and positively acting means comprising a transversely disposed cam-pin journaled upon said presser-foot in operative relation with said edge-guiding members and adapted to fix the advance operative positions and the retracted positions of the latter.

5. A sewing machine presser-foot comprising a shank and a foot-plate formed with a needle-hole, a pair of longitudinally extending levers fulcrumed intermediate their ends transversely of said foot-plate and each formed at its forward end with an edge-guiding member and positively acting means comprising a transversely disposed cam-pin journaled upon said presser-foot in operative relation with the rearward ends of said levers and acting through the same to determine the positions of their edge-guiding members.

[Claims 6 to 9 not printed in the Gazette.]

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1,041,252. ACTIVITY-RECORDER. JAMES WILLIAM DOUGHERTY, McKeesport, Pa. Filed Nov. 4, 1911. Serial No. 658,589. (Cl. 234—41.)

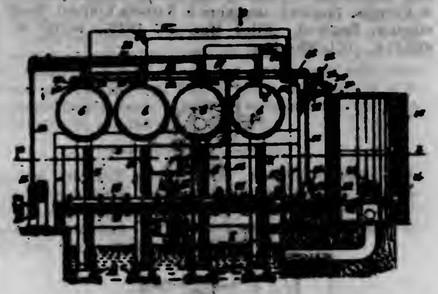


1. In an activity recorder, a relatively stationary recording mechanism, electrically operated mechanism therefor, and a contact maker and breaker attached to and movable with the body, whose activity is to be recorded, for making and breaking the circuit of the electrically operated mechanism.

2. In an activity recorder, a relatively stationary recording mechanism, electrically operated mechanism therefor, and a normally closed vibratory contact maker and breaker attached to and movable with the body whose activity is to be recorded, whereby the circuit to the electrically operated mechanism is made and broken when said body becomes active.

3. In an activity recorder, a relatively stationary recording mechanism, a vibrating marker in constant contact with the record sheet, electrically operated mechanism therefor, a normally closed vibratory contact maker and breaker attached to the body whose activity is to be recorded for making and breaking the circuit to the electrically operated mechanism when said body becomes active, whereby said marker produces a relatively solid record line made up of a number of vibrations when said body is active.

1,041,253. APPARATUS FOR PRODUCING POWER. WILLIAM HENRY DRUMMOND, Denver, Colo., assignor to Drummond Atmospheric Pump Company, Denver, Colo., a Corporation of Arizona. Filed Sept. 11, 1911. Serial No. 648,768. (Cl. 123—5.)



1. The combination with a tank and a source of explosive mixture, of a conduit leading from the explosive mixture source to the tank, a normally closed check valve located in said conduit, a motor, a check-valve-controlled conduit leading from the upper part of the tank to the motor through which the explosive force travels to the motor, a check-valve-controlled conduit adapted to connect the lower part of the tank with a source of water supply, to allow the water to enter the tank but preventing its return to the source, a water outlet connected with the lower part of the tank through the last-named conduit, above the check valve of said conduit, a normally closed check-valve located in said outlet, and means for simultaneously opening the said check-valves to allow the explosive mixture to enter the tank and the water to escape therefrom during equal periods and at equally timed intervals, and a water motor to which the water passes from the tank outlet.

2. The combination with a tank, and a water supply source, of a pipe connecting the lower part of the tank with the source of supply, an inwardly-opening check-valve located in said pipe, a source of explosive mixture, a conduit leading therefrom to the upper part of the tank above the water level, a normally closed check-valve located in said conduit, a water outlet leading from the lower part of the tank and connected with the water supply pipe above the check valve contained therein, a normally closed check valve located in said outlet, means for simultaneously opening the check valves in the explosive-mixture-supply pipe and the water outlet pipe and holding the same open until the water has partly escaped from the tank by gravity, means for exploding the mixture in the tank simultaneously with the closing of the last-named check-valves, a second water outlet in communication with the lower part of the tank through the said water supply pipe above the check valve therein and provided with a spring-closed outwardly-opening check-valve arranged to open in response to the pressure of the water under the influence of the explosion in the tank, and a storage reservoir in communication with the second outlet.

3. The combination with a tank and a source of water supply, of a pipe connecting the lower part of the tank with the said source, a check-valve to allow the water to enter the pipe from the source but preventing its return, a source of explosive mixture, a conduit leading therefrom to the upper part of the tank above the water level, a normally closed check-valve located in the said last-named conduit, a water outlet leading from the lower part of the tank and connected with the water supply pipe above the check valve therein, a normally closed check-valve located in said outlet, means for simultaneously opening the check valves in the explosive-mixture-supply pipe and the water outlet pipe and maintain the same in the open position until the water has partly escaped from the tank by gravity, means for exploding the mixture in the tank simultaneously with the closing of the check-valves in the explosive-mixture-pipe and the said water outlet pipe, a second water outlet leading from the lower part of the tank through the said water supply pipe, above the valve contained therein and provided with a spring-closed outwardly-opening check-valve arranged to open in response to the pressure of the water under the influence of the explosion in the tank, a water storage reservoir in communication with the second outlet, and a water motor arranged to be operated by the water from said reservoir, substantially as described.

4. The combination with a number of tanks and a water supply source, of a conduit connecting the lower part of each tank with said source of water supply, an inwardly-opening check-valve in each pipe, a source of explosive mixture, a pipe connecting said source with the upper part of each tank, a normally closed check-valve interposed between each tank and the explosive-mixture-supply pipe, a water outlet connected with the lower part of each tank, a normally closed check-valve located in each water outlet, means for successively opening the check valves to allow the explosive mixture to enter the said tanks, and means for successively opening the check-valves in the water outlets, to allow the water to escape from said tanks by gravity, the supply of explosive mixture to each tank being timed to correspond with the period of escape of the water by gravity from the same tank.

5. The combination with a number of tanks, of a water supply source, conduits connecting the lower part of the respective tanks with said source of water supply, inwardly-opening check-valves in the said pipes, a source of explosive mixture, pipes connecting said source with the upper portions of the respective tanks, a normally closed check-valve interposed between each tank and the explosive-mixture-supply pipe, a water outlet leading from the lower part of each tank through the water supply conduits above the check valve therein, a normally closed check-valve located in each outlet, means for successively opening the check-valves to allow explosive mixture to enter the said tanks, means for successively opening the check valves in the water outlets to allow the water to escape from said tanks by gravity, the supply of explosive mixture to each tank being timed to correspond to the period of escape of the water by gravity from the same tank, means for successively producing explosions in the several tanks, the explosion in each tank being simultaneous with the cutting off of the explosive-mixture and the cutting off of the gravity water-escape, a secondary water outlet leading from the lower part of each tank through the said water supply conduits, above the valves therein, a spring-seated outwardly-opening check-valve located in said last-named outlet of each tank, the said valve being adapted to be opened by the pressure of the water acted on by the explosive force.

[Claims 6 to 8 not printed in the Gazette.]

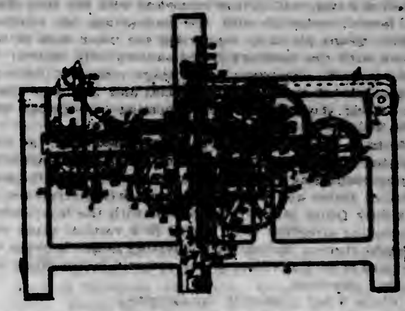
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1,041,254. LOOM. FREDERICK DUNKERLEY, Paterson, N. J. Filed May 17, 1911. Serial No. 627,718. (Cl. 139—19.)

1. In a loom, the combination of a supporting structure, warp-sustaining means, a plurality of rotary warp-twisting devices each having a plurality of warp-holding portions, and means, including a pattern mechanism, for rotating said devices back and forth together all in the same direction on each rotation, substantially as described.

2. In a loom, the combination of a supporting structure, warp-sustaining means, a plurality of rotary warp-twisting devices each having a plurality of warp-holding portions, and means, including a pattern mechanism, for synchronously rotating said devices back and forth together all in the same direction on each rotation each through a definite stage or a multiple thereof, substantially as described.

3. In a loom, the combination of a supporting structure, warp-sustaining means, a series of rotary warp-twisting devices each having a plurality of warp-twisting portions, a reciprocatory actuating member for said devices having a positive advancing engagement with each of them in the movement of said member in each direction, and means for reciprocating said member, substantially as described.



4. In a loom, the combination of a supporting structure, warp-sustaining means, a series of rotary warp-twisting devices each having a plurality of warp-twisting portions, a reciprocatory actuating member for said devices having a positive advancing engagement with each of them in the movement of said member in each direction, and means, including a pattern mechanism, for reciprocating said member, substantially as described.

5. In a loom, the combination of a supporting structure, means for sustaining the warp, a series of rotary warp-twisting devices each having a plurality of warp-twisting portions, an actuating member for said devices movable back and forth and having a positive advancing engagement with each of them in the movement of said member in each direction, and means, comprising oppositely acting members engageable with said actuating member, for effecting the back and forth movements of the actuating member, substantially as described.

[Claims 6 to 22 not printed in the Gazette.]

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1,041,255. SPRING-MOUNTING. THOMAS W. DUNN, Oil City, Pa. Filed Jan. 31, 1912. Serial No. 674,502. (Cl. 21—101.)



1. In a device of the character described, a main wheeled frame, an intermediate flexible supporting structure, spring connecting means between the end portions of the main wheeled frame and said intermediate flexible supporting structure, an auxiliary frame being between its ends pivotally connected with the intermediate flexible supporting structure to be swung in a vertical plane with relation thereto, and spring connecting means between end portions of the auxiliary frame and intermediate flexible supporting structure.

2. In a device of the character described, a main wheeled frame, springs connected with the ends thereof, levers connected with said springs, an auxiliary frame, means connecting the inner ends of the levers with the sides of the auxiliary frame, supporting springs connected with the end pieces of said auxiliary frame, and connecting means between the supporting springs and said levers.

3. In a device of the character described, a main wheeled frame, springs connected with the ends thereof, levers connected with said springs, an auxiliary frame, means connecting the inner ends of the levers with the sides of the auxiliary frame, supporting springs connected with the end pieces of said auxiliary frame, connecting means between the supporting springs and said levers,

and coil springs connected with the inner ends of the levers and the intermediate portion of the main wheeled frame.

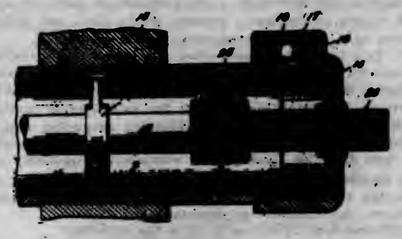
4. In a device of the character described, a main wheeled frame, leaf-springs connected with the ends thereof, levers connected with the leaf-springs, an auxiliary frame, means pivotally connecting the inner ends of said levers with the auxiliary frame substantially midway the ends thereof, supporting bow-springs connected with the end pieces of the auxiliary frame, and means pivotally connecting the ends of the supporting bow-springs with said levers.

5. In a device of the character described, a main wheeled frame, an intermediate supporting structure, spring connecting means between end portions of the main wheeled frame and intermediate supporting structure, an auxiliary frame pivotally connected with the intermediate supporting structure to be swung in a vertical plane with relation thereto, and spring connecting means between end portions of said auxiliary frame and said intermediate supporting structure.

[Claim 6 not printed in the Gazette.]

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1,041,256. PIPE-PROTECTOR. CHARLES ELKIN, New York, N. Y. Filed Oct. 24, 1908. Serial No. 459,331. (Cl. 137—35.)



1. The combination with a fluid supply pipe, of a protecting pipe surrounding said supply pipe and of relatively large diameter to afford a vacuum chamber between the two pipes, said protecting pipe being provided at its ends with heads or caps having screw-threaded connections with said supply pipe, to provide tight closures, one of said heads or caps being located within a wall of a building and provided with a check valve to which an exhaust pump may be applied.

2. The combination with a fluid supply pipe, of a protecting pipe surrounding said supply pipe and of relatively large diameter to afford a vacuum chamber between the two pipes, said protecting pipe being provided at its ends with heads or caps having screw-threaded connections with said supply pipe, to provide tight closures, one of said heads or caps being located within a wall of a building and provided with a check valve to which an exhaust pump may be applied, the inner threaded part of said supply pipe being formed as a separate section which is coupled, as by a sleeve 21, to the other section of said pipe.

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1,041,257. BALL-COCK. CHARLES H. ELLIS, Boston, Mass. Filed Sept. 19, 1911. Serial No. 650,106. (Cl. 137—104.)

1. A ball cock comprising a casing having a valve chamber, an inlet at the inner end of the chamber, a valve seat surrounding the inlet, an outlet communicating with the inner portion of the valve chamber, a plunger valve movable in the chamber and having a valve face at its inner end adapted to abut against said seat, and an outwardly facing centrally located socket, said float lever and strut having complemental means for moving the strut from the valve seat to permit the valve to open, and for successively exerting initial and final valve-closing pressures on the strut.

2. A ball cock comprising a casing having a valve chamber, an inlet at the inner end of the chamber, a valve seat surrounding the inlet, an outlet communicating with the inner portion of the valve chamber, a plunger valve movable in the chamber and having a valve face at its inner end adapted to abut against said seat, and an outwardly facing centrally located socket, a float lever fulcrumed on the casing and having longer and shorter arms and an abutment between said arms in close proximity to the fulcrum, a strut seated at its inner end in said socket, and connections between the shorter arm of the float lever and the strut whereby the strut may be moved from its seat in the socket by the elevation of the shorter arm to permit the valve to open, and may be moved toward its seat in the socket by the depression of said arm to partially close the valve, the abutment being arranged to bear on the outer end of the strut and exert a final valve-closing pressure thereon, said pressure compressing the elastic portion of the valve face.



3. A ball cock comprising a casing having a valve chamber, an inlet at the inner end of the chamber, a valve seat surrounding the inlet, an outlet communicating with the inner portion of the valve chamber, a plunger valve movable in the chamber and having a valve face at its inner end adapted to abut against said seat, and composed of a rigid portion and an elastic portion normally projecting therefrom, said valve having an outwardly facing centrally located socket, a float lever fulcrumed on the casing and having longer and shorter arms and an abutment between said arms in close proximity to the fulcrum, a strut seated at its inner end in said socket, and connections between the shorter arm of the float lever and the strut whereby the strut may be moved from its seat in the socket by the elevation of the shorter arm to permit the valve to open, and may be moved toward its seat in the socket by the depression of said arm to partially close the valve, the abutment being arranged to bear on the outer end of the strut and exert a final valve-closing pressure thereon.

4. A ball cock comprising a casing having a valve chamber comprising a cylindrical portion which is open at one end of the casing, an inlet at the inner end of the chamber, an annular valve seat surrounding the inlet, an outlet communicating with the inner portion of the valve chamber, ears projecting from the outer end of the valve casing, a cylindrical plunger valve movable in said cylindrical portion and having a face at its inner end adapted to abut against the valve seat and a recess in its outer end terminating in a centrally located semispherical socket, a float lever fulcrumed to said ears and having a cam-shaped abutment above its fulcrum and a bifurcated shorter arm, the branches of which are connected by a pivot stud and by a retaining pin extending across the space between the said branches, a strut having a semispherical inner end seated in said socket, and a recess the inner end of which bears on said pivot stud and is adapted to turn thereon, the outer portion of said strut projecting outwardly from said stud over the pivot of the float lever, and being formed to bear on said abutment when the float lever is raised to its valve-closing position, the strut being confined in engagement with the stud by the said retaining pin.

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1,041,258. SELF-SCORING TARGET. MARK ST. CLAIR ELLIS, U. S. Navy. Filed Jan. 19, 1911. Serial No. 603,589. (Cl. 177—245.)

In self scoring targets the combination of designating plates, brackets for supporting said plates, a holding bulkhead on which said brackets are mounted, with rubber buffers located between said brackets and said bulkhead as resilient shock absorbers to take up the blow of the bullet and prevent vibration in the designating members not struck, an annunciator and circuit closers consisting of helical springs with weighted tips mounted on said buffers and normally resting against the designating plates,



other springs carrying cups and mounted on said buffers within said first named springs, said weighted tips adapted to leave said plates when the latter are struck and to recoil and touch the cups sustained by said inner springs thus closing an electric circuit, and actuating an annunciator through suitable cable and batteries, substantially as shown and described.



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1,041,259. CONTACT-MAKING SHUTTLE FOR SELF-SCORING TARGETS. MARK ST. CLAIR ELLIS, U. S. Navy. Filed July 17, 1911. Serial No. 638,983. (Cl. 177—245.)



A circuit closer for self scoring targets consisting of the combination of a support, a tube, a spiral spring, a striker, contact fingers, and a holder therefor; said striker normally touching the rear face of the target, said support holding said tube, said tube forming a bearing for said striker and protecting it from the spatter of the bullet; said holder adapted for varying the distance between the rear end of said striker and said contact fingers by movement on said tube; said fingers being insulated from said holder and said support by fiber washers; said striker adapted to move to the rear when the said target is struck by the bullet to engage said contact fingers and close an electric circuit substantially as shown and described.

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1,041,260. COUPLING FOR PIPES OR CONDUITS. FREDERIC WM. ERICKSON, New York, N. Y., assignor to Lord Manufacturing Company, New York, N. Y. Filed Nov. 22, 1910. Serial No. 593,611. (Cl. 137—38.)



A pipe coupling adapted to externally connect two pipe sections with the ends of the latter abutting, said coupling comprising two pipe-engaging members and an inclosing sleeve, said pipe-engaging members having interengaging and directly abutting projections and recesses, one of said members being internally threaded and externally smooth and the other one being both internally and externally threaded and having an enlargement at one end to be operatively engaged by a wrench, the said sleeve having an internally threaded portion to coact with the external thread of the member having the enlargement and having an internally smooth portion and an inwardly projecting lip to surround and engage the end of the externally smooth member, the length of the sleeve relatively to the two pipe-engaging members being such that when the enlargement of one of said members is engaged by one end of the sleeve the lip at the other end of the sleeve holds the two pipe-engaging members in endwise contact with their projections and recesses interlocked.

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1,041,261. ANODE FOR USE BY ELECTROLYSIS OF ALKALINE-SALT SOLUTIONS. AXEL THEODOR KONSTANTIN ESTELLE, Stockholm, Sweden. Filed Mar. 6, 1911. Serial No. 612,600. (Cl. 204—4.)



1. In apparatus for the electrolytic decomposition of alkaline salts soluble in water, an anode of a heavy metal capable of forming in the electrolyte with the anion a soluble salt solution heavier than the electrolyte, said anode being placed beneath the cathode and consisting of two independent parts, one of said parts forming a solid metallic support and the other of said parts consisting of a layer of pieces of the heavy metal loosely resting on said support, substantially as described.

2. In apparatus for the electrolytic decomposition of alkaline salts soluble in water, an anode of a heavy metal forming in the electrolyte with the anion a soluble salt solution heavier than the electrolyte, said anode being placed beneath the cathode and consisting of two independent parts, one of said parts forming a solid metallic support connected with the source of current and the other of said parts consisting of a layer of pieces of said heavy metal loosely resting on the solid support, said pieces being of such a size that the metallic solution easily passes through the spaces formed between them, substantially as described.

3. In apparatus for the electrolytic decomposition of alkaline salts soluble in water, a cathode, an iron anode beneath the cathode and consisting of a solid iron support connected with the source of current, and of a layer of iron pieces loosely resting on said iron support, substantially as described.

4. In apparatus for the electrolytic decomposition of alkaline salts soluble in water, a cathode, an iron anode beneath the cathode and consisting of a solid iron support connected with the source of current, and a layer of pieces of spongy iron loosely resting on said solid iron support, substantially as described.

5. In apparatus for the electrolytic decomposition of alkaline salts soluble in water, a cathode, an iron anode beneath the cathode and consisting of a solid iron support connected with the source of current and a layer of pieces of spongy iron, preferably such as is produced from magnetite by means of a reducing gas, said pieces loosely resting on the solid iron support, substantially as described.

1,041,262. PLASTIC MASS FOR METALLIC FILAMENTS. KARL FARKAS, New York, N. Y., assignor of one-half to Guy V. Williams, New York, N. Y. Filed Aug. 10, 1909. Serial No. 512,144. (Cl. 176—132.)

1. The process of producing a plastic mass for producing metallic filaments for incandescent electric lamps consisting in mixing black fine impalpable powder of chromous oxids with some sulfate of a highly refractory element in presence of an organic liquid preparation composed essentially of a volatile liquid substance, and rubbing said mixture until a plastic mass results.

2. The process of producing a plastic mass for producing metallic filaments for incandescent electric lamps consisting in mixing black impalpable powder of chromous oxids with some sulfate of molybdenum in presence of an organic liquid preparation composed essentially of a volatile liquid substance, and rubbing said mixture until a plastic mass results.

3. The process of producing a plastic mass for producing metallic filaments for incandescent electric lamps consisting in mixing black impalpable powder of chromous oxids with about 15% of sulfate of molybdenum in presence of an organic liquid preparation composed essentially of a volatile liquid substance, and rubbing said mixture until a plastic mass results.

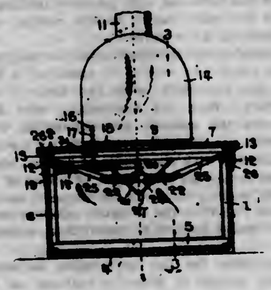
4. The process of producing a plastic mass for producing metallic filaments for incandescent electric lamps consisting in mixing black impalpable powder of chromous oxids with about 15% of sulfate of molybdenum in presence of a rubber solution, and rubbing said mixture until a plastic mass results.

5. A plastic mass for producing metallic filaments for incandescent lamps consisting of fine impalpable powder of chromous oxids, a sulfate of a highly refractory element, and an organic liquid preparation composed essentially of a volatile liquid substance.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,263. SANITARY CLOSET. MATTHEW J. FRAMBACH and ALDON R. COMMINGTON, Hartley, Iowa, assignors of one-half to W. F. Schildt, Hartley, Iowa. Filed Oct. 25, 1911. Serial No. 656,719. (Cl. 4—33.)



A closet comprising the combination with a casing having the usual opening in its top and a hinged cover for engagement over the opening; of a tank positioned within the casing, parallel supporting bars having horizontal central portions and the extremities of their upwardly directed ends removably engaged over opposite edges of the tank, crank rods rotatably mounted in the horizontal portions of the parallel supporting bars, receiving and depositing plates rigidly secured upon the crank rods between the supporting bars, means for connecting adjacent turned ends of the crank rods, and connections between the cover and the means for connecting the crank rods to turn the latter upon raising of the cover to bring the lower edges of the receiving plates into engagement with one another.

1,041,264. SUPPORTING-ARM FOR DISPLAY-CASES. MAURICE FREUD, Berlin, Germany. Filed Dec. 28, 1909. Serial No. 535,944. (Cl. 248—19.)

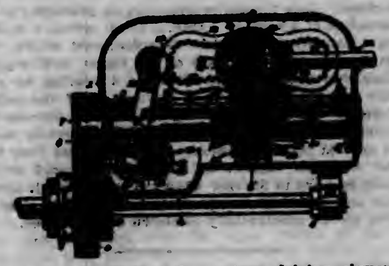


1. In supports for show frames, the combination with a grooved upright and an arm having a base, of a rotatable securing-head on said base, and provided at one side only with a helical cam surface, and a fixed projection also on said base, and provided with a helical face curved in the opposite direction.

2. In supports for show frames, the combination with an upright having a dovetail groove and a supporting arm having a base, of a fixed head on the upper part of said base and engaging under both walls of said groove, a rotatable head on the lower part of said base and having a helically curved cam face at one side only and adapted to engage under one wall of the groove, a fixed part on said base just above said rotatable head and having a curved face engaging under the opposite wall from the one engaged by the rotatable head, and a manipulating means for the rotatable head.

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1,041,265. MECHANICAL MOVEMENT. LEONHARD FUCHS, Rochester, N. Y. Filed Dec. 10, 1910. Serial No. 596,568. (Cl. 74—14.)



1. The combination of a rotary driving element; a reciprocating driven element; a gear mounted to rotate eccentrically in the reciprocating element; means for driving said gear from the rotating driving element; a mangle rack adapted to coact with the eccentric gear when moved in a definite manner; and means for moving the rack in such manner.

2. The combination of a rotary driving element; a reciprocating driven element; a spur gear mounted to rotate eccentrically in the reciprocating element; means comprising a pair of gears one of which is splined upon the rotary element for driving the spur gear; a mangle rack adapted to coact with the eccentric gear when moved in a definite manner; and means for moving the rack in such manner.

3. The combination of a rotary driving element; a reciprocating driven element; a gear mounted to rotate eccentrically in the reciprocating element; means for driving said gear from the rotary driving element; a crank rotated from the rotating driving element; a mangle rack adapted to rock to coact with the eccentric gear; and a connecting rod connecting the crank and the rack to rock the latter.



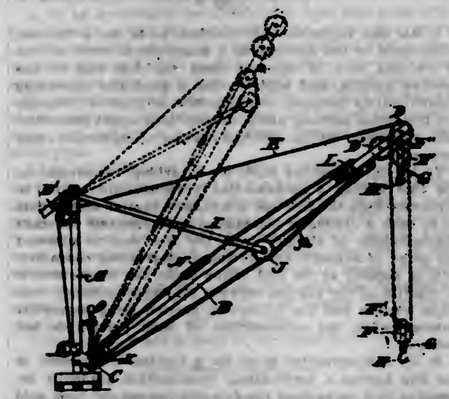
4. The combination of a reciprocating element; a gear mounted to rotate eccentrically in said reciprocating element; means for driving the gear; a mangle rack; and means for moving the rack, whereby the rack is caused to coact with the gear.

5. The combination of a rotary driving element; a reciprocating driven element; a gear mounted to rotate eccentrically in the reciprocating element; means comprising a pair of gears, one of which is splined upon the rotary driving element for driving the eccentric gear; a mangle rack mounted to rock; a crank; means comprising gears driven by the rotary driving element for rotating said crank; and a connecting rod connecting the crank to the mangle rack to rock the latter, the mangle rack and the various gears being so proportioned that the eccentric gear and the rack coact in all positions assumed by the mechanism.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,266. CRANE AND DERRICK. OMAR N. GARDNER, Jamestown, N. Y. Filed Mar. 15, 1912. Serial No. 683,973. (Cl. 212—58.)



1. In a device of the character described, the combination with a hoisting block, a cable therefor, a vertical support, and a boom adapted to be raised and lowered about its inner or lower end, of a traveling jib pivoted to the support and connected to the cable, and having its outer or lower portion embracing the boom and traveling in contact therewith, and means for lowering the jib to allow the boom to be lowered, said jib adapted to shift its position on the boom, in response to a change in the inclination of said boom, said means comprising a flexible element extending along the boom, and wheels at opposite portions of the boom over which said element passes, said element having its ends attached to the outer or lower portion of the jib.

2. In a device of the character described, the combination with a hoisting block, a cable therefor, a vertical support, and a boom adapted to be raised and lowered about its inner or lower end, of a traveling jib pivoted to the support and connected to the cable, and having its outer or lower portion embracing the boom and traveling in contact therewith, and means for lowering the jib to allow the boom to be lowered, said jib adapted to shift its position on the boom, in response to a change in the inclination of said boom, said means including sprocket-wheels at opposite portions of the boom, and a sprocket-chain having one end secured to an outer portion of the jib, said chain extending upwardly over one of the sprocket-wheels and returning downwardly along the boom and under the outer end of the jib and around the other sprocket-wheel, and returned upwardly along the boom and having its other end secured to said jib.

3. In a device of the character described, the combination with a hoisting block, a cable therefor, a vertical support, and a boom adapted to be raised and lowered about its inner or lower end, of a traveling jib pivoted to the support and connected to the cable, and having its outer or lower portion embracing the boom and traveling in contact therewith, and means for lowering the jib to allow the boom to be lowered, said jib adapted to shift its position on the boom in response to a change in the inclination of said boom, said means including sprocket-wheels at opposite portions of the boom, and a sprocket-chain having one end secured to an outer portion of the jib, said chain extending upwardly over one of the sprocket-wheels and returning downwardly along the boom and under the outer end of the jib and around the other sprocket-wheel, and returned upwardly along the boom and having its other end secured to said jib, and means for adjusting the tension of said chain.

4. In a crane, derrick or like device, the combination of a vertical support, a pivotally mounted boom, a jib having its outer end mounted in traveling engagement with the underside of the boom, a winding-cable extending along said support to and over the end of the boom, and having its outer end connected to the outer portion of the jib, and a hoisting block suspended from an intermediate portion of the cable and arranged to engage the outer end of the boom during the winding of said cable to thereby change the inclination of the boom, said jib shifting its position on the boom in response to the change in the inclination of said boom.

5. In a crane, derrick or like device, the combination of a vertical support, a pivotally mounted boom, a jib having one end pivotally mounted on the support and having its other end provided with a pulley which engages the boom from below, a winding-cable extending from said support to and over the outer end of the boom and having its outer end connected to the outer portion of the jib, and a hoisting block suspended from an intermediate portion of the cable and arranged to engage the outer end of the boom during the winding of said cable to thereby change the inclination of the boom, said jib shifting its position on the boom in response to the change in the angle of said boom.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,267. REPEATING CAP-PISTOL. WILLIAM F. GEHRIG, Newark, N. J., assignor to Joseph A. Dainty, Newark, N. J. Filed Dec. 30, 1911. Serial No. 668,613. (Cl. 42—57.)



1. In a pistol, the combination with an anvil and a slideway for a cap strip leading thereto, a hammer, a feeding finger adapted to propel a cap strip along said slideway, means for pressing said feed finger against the cap strip during its forward stroke and releasing it at the end of said forward stroke for the back stroke, and a trigger to actuate said hammer and feeding finger.

2. In a pistol, the combination of an anvil and a slideway for a cap strip leading thereto, a feeding finger adapted to propel a cap strip along said slideway, a hammer, a trip upon said hammer adapted to press said feed finger against the cap strip during its forward stroke and to release it at the end of said forward stroke for the back stroke, and means for actuating said finger and hammer.

3. In a pistol, the combination with an anvil and a slideway for a cap strip leading thereto, a feeding finger

adapted to propel a cap strip along said slideway, a hammer, a trip pivoted upon said hammer adapted to press said feed finger against the cap strip on its forward stroke and to release it on the back stroke, and means for moving said feed finger back and forth.

4. In a pistol, the combination of an anvil and a slideway for a cap strip leading thereto, a feeding finger adapted to propel a cap strip along said slideway, a hammer, a trip pivoted upon said hammer adapted to press said feed finger against the cap strip on its forward stroke, a spring for said trip, and a trigger adapted to move said feeding finger back and forth and to engage said trip on the back stroke.

5. In a pistol, the combination of an anvil and a slideway for a cap strip leading thereto, a hammer, a spring-projected trip on said hammer, a trigger, and a feeding finger on said trigger adapted to engage said trip on its forward stroke, the trigger engaging said trip on the back stroke.

[Claims 6 to 11 not printed in the Gazette.]

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1,041,268. TUBING OR CASING SPEAR. ROBERT C. GLINES and HENRY A. STIER, Orcutt, Cal. Filed Oct. 9, 1911. Serial No. 653,750. (Cl. 166—7.)



1. A tubing or casing spear including a tapered body portion formed with a longitudinally extending pocket and longitudinal slots opening into the pocket, slips mounted on said body portion and spring held thereon, a rod mounted in the pocket of the body portion and provided with a cross bar working in said slots and engaging said slips, a spring mounted in the pocket and tending to move the cross bar in a direction to carry the slips toward the smaller end of the tapered body portion, means for holding the rod with the spring contracted, and a foot connected to the lower end of the body portion.

2. A tubing or casing spear including a tapered body portion formed with a longitudinally extending pocket and slots opening into the pocket, slips mounted for longitudinal movement on the body portion and spring clamped thereon, a rod mounted in the pocket and provided with a cross bar extending through said slots and engaging the slips, a bushing secured to the lower end of the body portion and formed with an opening through which the rod passes, a spring encircling said rod and bearing against the cross bar and the bushing, a latch carried by the bushing and adapted to engage the rod to hold the same with the spring contracted, and a hollow foot secured to the lower end of the body portion.

3. A tubing or casing spear including a tapered body portion, slips mounted for movement thereon, a spring encircling said slips and clamping them to the body portion, a spreader adapted for insertion between the ends of said spring to hold the same apart to admit of the adjustment of the slips upon the body portion, means tending to move the slips toward the smaller end of the body portion, and a latch adapted to hold said means in inoperative position.

4. A tubing or casing spear including a tapered body portion, slips mounted for movement thereon, a spring encircling said slips and clamping them to the body portion, a spreader adapted for insertion between the ends of said spring to hold the same spread apart to admit of the adjustment of the slips upon the body portion, and means tending to move the slips toward the small end of the body portion.

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1,041,269. BLADING FOR TURBINES. HANS GUYER, Zürich, Switzerland. Filed Sept. 23, 1910. Serial No. 583,358. (Cl. 92—68.)



1. An end supported side notched blade for a turbine, compressor or the like having a longitudinal cross section of varying rate of increase from the free end to the notched portion, said blade having a gradually increasing approximately constant characteristic of rigidity throughout the active portion, and a substantially equal characteristic of rigidity at the notched portion of maximum cross section.

2. An end supported blade for a turbine, compressor or the like having a cross-section gradually increasing in thickness from the free end toward the base at such a rate as to have a gradually increasing, approximately constant characteristic of rigidity from the free end to adjacent the point of support, and having an increasing characteristic of rigidity at the foot of the blade, the characteristic of rigidity of the portion between said approximately constant portion and the increasing portion being somewhat reduced while the cross-section of such portion is not reduced.

3. An end supported blade for a turbine, compressor or the like having a longitudinal cross-section gradually increasing in a curve from the free end toward the base, said curve sharply increasing at the end near the foot, and the remaining portion of the blade surface being straight.

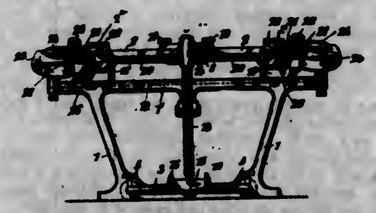
4. An end supported blade for a turbine, compressor or the like having its active surface straight and its rear surface gradually curved away from the active surface as the base is approached, the base being thickened in the direction of strain and cut away at the side.

5. An end supported blade for a turbine, compressor or the like having its active surface straight and its rear surface gradually curved away from the active surface as the base is approached, the curvature being sharply increased adjacent the foot of the blade.

[Claims 6 to 11 not printed in the Gazette.]

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1,041,270. DENTAL ARTICULATOR. ALFRED GYSI, Zürich, Switzerland. Filed May 23, 1911. Serial No. 628,986. (Cl. 32—1.)



1. In an articulator for dentists, a fixed and a movable part, means yieldingly connecting said parts, two guide pieces connected to one of said parts, each of said guide pieces having two curved surfaces arranged at an angle to each other, two pins connected to the other one of said parts and engaging said surfaces, said movable part when operated being actuated by the curved surfaces of each guide piece simultaneously in a horizontal forward, a horizontal inward and in a vertical downward direction, that is in a direction which lies between these three directions, substantially as described.

2. In an articulator for dentists, a fixed and a movable part, a spring securing said movable part to said fixed part, two guide pieces connected to one of said parts having two curved surfaces arranged at an angle to each other, two guide pins connected to the other one of said parts and engaging said curved surfaces, substantially as described.

3. In an articulator for dentists, a fixed and a movable part, a plate-spring secured to the fixed part engaging with its free end over the movable part and holding the latter in the position tipped backward, two guide pieces connected to one of said parts having two curved surfaces arranged at an angle to each other, two guide pins connected to the other one of said parts and engaging said curved surfaces, substantially as described.

4. In an articulator for dentists, a fixed and a movable part, means yieldingly connecting the parts, two guide pieces connected to one of said parts having two curved surfaces arranged at an angle to each other, two guide pins connected to the other one of said parts and engaging said curved surfaces, the axis of the vertical movement of the movable part being between the top of the articulator and behind a vertical plane passing through the guide pins.

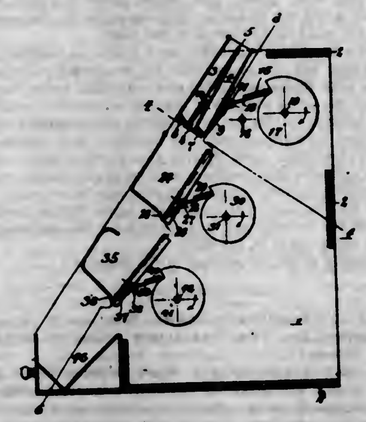
5. In an articulator for dentists, a fixed and a movable part, a plate spring secured to the fixed part and engaging the movable part, two guide pieces connected to one of said parts having two curved surfaces arranged at an angle to each other, two guide pins connected to one of said parts and engaging said curved surfaces, the axis of the vertical movement of the movable part being situated between the top of the guide pins and the horizontal middle plane of the articulator and behind the vertical plane passing through the guide pins.

[Claims 6 to 8 not printed in the Gazette.]



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1,041,271. CARD-SHUFFLER. CHARLES T. HALL, Buffalo, N. Y. Filed July 22, 1911. Serial No. 639,892. (Cl. 46—88.)



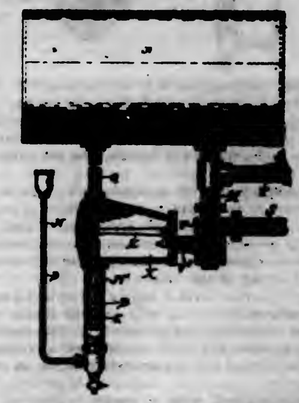
1. A card shuffler comprising a pair of supply pockets arranged one above the other and separated from each other by an intervening space and each having an inlet at one end and an outlet at its opposite end, upper and lower independently operable gates controlling the outlets of said pockets, an upper operating shaft arranged transversely in the space between the upper and lower pockets and having an upper arm which carries the upper gate, and a lower operating shaft arranged below the lower pocket and having a lower arm which carries said lower gate.

2. A card shuffler comprising a pair of inclined supply pockets arranged one above the other and adapted to receive two parts of a deck of cards, respectively, and each having an outlet at its lower end, gates controlling said outlet, and means for operating said gates independently of each other.

3. A card shuffler comprising two inclined supply pockets arranged one above the other and adapted to receive cards and each provided at its lower end with an outlet, independently operable gates controlling said outlets, an inclined mixing pocket having an inlet at its upper end for receiving the cards from said supply pockets and an outlet at its lower end for discharging the cards therefrom, a gate for controlling the outlet of the mixing pocket, and means for gradually withdrawing the several gates from their respective outlets.

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1,041,272. VALVE-REGULATING MECHANISM. WILLOUGHBY B. HAMMOND, Boston, Mass., assignor to General Fire Extinguisher Company, New York, N. Y., a Corporation of New York. Filed Oct. 18, 1906. Serial No. 339,461. (Cl. 137—68.)



1. The combination, with a system and a valve for regulating the supply thereto, of a fluid column of greater specific gravity than the fluid in the system and serving to balance the pressure in the system, and devices embodying a float intermediate said column and valve for opening the valve upon the reduction of the pressure in the system, and closing said valve upon the return of the system pressure to normal.

2. The combination, with a system and a valve for controlling the supply thereto, of a chamber containing a fluid subjected to the pressure in the system, a fluid column balancing said pressure, a float in said chamber, and operative connections between the float and valve.

3. The combination, with a system and a valve for controlling the supply thereto, of a chamber containing a fluid subjected to the pressure in the system, a fluid column balancing said pressure, a float in said chamber, and operative connections between the float and valve for opening and closing the valve.

4. The combination, with a system and a valve for regulating the supply thereto, a fluid chamber connected with the system, a fluid column balancing the pressure in said chamber, a float in said chamber and operative connections between said float and valve.

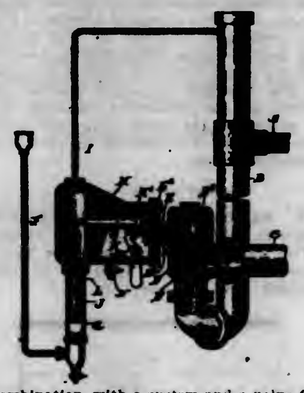
5. The combination, with a system, of a supply valve therefor held closed by the pressure in the supply, an aux-

iliary valve for controlling the opening of said supply valve, a fluid chamber connected with the system, a fluid column balancing the pressure in said chamber, and a float in said chamber connected with said auxiliary valve.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,273. VALVE-REGULATING MECHANISM. WILLIAMSPORCH B. HAMMOND, Boston, Mass., assignor to General Fire Extinguisher Company, New York, N. Y., a Corporation of New York. Filed Oct. 18, 1906. Serial No. 339,462. (Cl. 169—28.)



1. The combination, with a system and a valve for regulating the supply thereto and held closed by the pressure in the supply, of a fluid column balancing the pressure in the system, and devices embodying a float actuated by a variation in said column for causing the permanent opening of said valve.

2. The combination, with a supply valve held to its seat by the pressure in the supply, of an auxiliary valve for controlling the opening of said supply valve, a fluid column balancing the pressure in the system, and devices intermediate the fluid column and auxiliary valve for causing the permanent opening of the valve.

3. The combination, with a supply valve, of an auxiliary valve for controlling the opening of said supply valve, a fluid column balancing the pressure in the system, and connections between the fluid column and auxiliary valve adapted to be thrown out of operative relation on the opening of the valve.

4. The combination, with a supply valve, of a fluid chamber connected with the system, a fluid column balancing the pressure in the fluid chamber, a float in said chamber, and devices in said chamber between the float and valve for permanently opening the valve by the movement of the float.

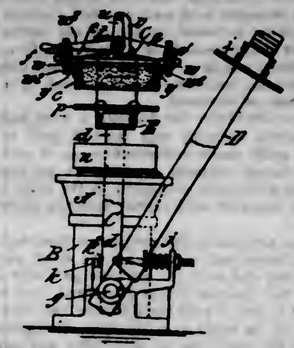
5. The combination, with a supply valve held to its seat by the pressure in the supply, of an auxiliary valve controlling the opening of the supply valve, a fluid chamber connected with the system, a fluid column balancing the pressure in the chamber, a float in the chamber, and connections between the float and auxiliary valve adapted to be thrown out of operative relation on the opening of the valve.

[Claims 6 to 10 not printed in the Gazette.]

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1,041,274. MACHINE FOR MAKING SAND MOLDS. JOHN M. HANSON, Springfield, Mass. Filed May 11, 1912. Serial No. 696,632. (Cl. 22—26.)

1. In a machine for making sand molds, in combination, an elevating bed for supporting the separable parts of a flask, a yoke frame embracing and extending above the bed and pivoted thereon and having on the opposite side members thereof slidable cope lifters and also having a rock shaft mounted thereon provided with lever arms and means for rocking such shaft, links connecting the lever arms, and lifters and means for the squeezing of the mold being formed in the flask.



2. In a machine for making sand molds, in combination, a bed for supporting the separable parts of a flask with a pattern plate, a yoke frame embracing and extending above the bed, and pivoted thereon and provided on the opposite side members thereof with cope and pattern plate lifters, one above another, which are slidable on such side members, and also provided with means for slidably operating such cope lifters, and means for the squeezing of the mold being formed in the flask.

3. In a machine for making sand molds, in combination, a bed for supporting the mowel and cope parts of a flask and the pattern plate, a yoke frame embracing and extending above the bed and pivoted thereon and having slides on the opposite side members thereof provided with cope lifting members and pattern plate lifting members which are vertically and independently adjustable on such slides, and also provided with means for operating the slides, and means for the squeezing of the mold being formed in the flask.

4. In a machine for making sand molds, in combination, an elevating bed for supporting the separable parts of a flask, a yoke frame embracing and extending above the bed, pivotally mounted whereby it may be swung off to one side of the bed, and provided on the opposite side members thereof with cope lifters which are slidable on such side members, and also provided with means for slidably operating such cope lifters, and means above the bed, relatively to which the latter in rising operates, for the squeezing of the mold being formed in the flask.

5. In a machine for making sand molds, in combination, an elevator bed for supporting the separable parts of a flask, a yoke frame embracing and extending above the bed pivotally mounted whereby it may be swung off to one side of the bed and having on the opposite side members thereof slidable cope lifters and also provided with means for slidably operating such lifters, and another yoke,—comprising opposite side members and an upper uniting member pivotally mounted whereby it also may be swung to one side of the bed, and relatively to the upper uniting member of which the elevator bed may operate for the squeesing of a mold being made in the flask.

[Claims 6 to 13 not printed in the Gazette.]

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1,041,275. PEANUT-PLANTER. WILLIAM L. HARRIS, Petersburg, Va. Filed Sept. 1, 1911. Serial No. 647,270. (Cl. 111—9.)

1. A planter comprising a wheel mounted frame portion, a second frame portion pivotally connected with the first mentioned frame portion, means mounted upon the first mentioned frame portion and engageable with the second mentioned frame portion and adapted to be operated to raise or lower the second mentioned frame portion with relation to the first mentioned frame portion, a furrow opener carried by the second mentioned frame portion, a dropper carried by the second mentioned frame portion and adapted to deposit material in the furrow opened by said furrow opener, means carried by the second mentioned frame portion and adapted to partially close said furrow, a dropper carried by the first mentioned frame portion and adapted to deposit material in the partially closed furrow, and a furrow closer carried by the first mentioned frame portion.



2. A planter comprising a wheel mounted frame portion, a second frame portion pivotally connected with the first mentioned frame portion, a shaft journaled upon the first mentioned frame portion, cams carried by said shaft and lying under and in engagement with the second mentioned frame portion, a furrow opener carried by the second mentioned frame portion, a dropper carried by the second mentioned frame portion and adapted to deposit material in the furrow opened by said furrow opener, means carried by the second mentioned frame portion and adapted to partially close said furrow, a dropper carried by the first mentioned frame portion and adapted to deposit material in the partially closed furrow, and a furrow closer carried by the first mentioned frame portion.



3. A planter comprising a wheel mounted frame portion, a second frame portion pivotally connected with the first mentioned frame portion, means carried by the first mentioned frame portion for raising or lowering the second mentioned frame portion, caster frames pivotally connected with the second mentioned frame portion, a furrow opener carried by said caster frames, a dropper carried by the second mentioned frame portion and adapted to deposit material in the furrow opened by said furrow opener, means carried by said caster frame and adapted to partially close said furrow, a dropper carried by the first mentioned frame portion and adapted to deposit material in the partially closed furrow, and a furrow closer carried by the first mentioned frame portion.

4. A planter comprising a wheel mounted frame portion, a second frame portion connected with the first mentioned frame portion, means carried by the first mentioned frame portion for raising or lowering the second mentioned frame portion, a hollow caster frame, pivotally connected with the second mentioned frame portion, a furrow opener carried by said caster frame, a dropper carried by the second mentioned frame portion and adapted to deposit material into the furrow opened by the furrow opener through the hollow caster frame, a furrow closer carried by the caster frame and adapted to partially close the furrow, a dropper carried by the first mentioned frame portion and adapted to deposit material in the partially closed furrow, and a furrow closer carried by the first mentioned frame portion.

5. A planter comprising a wheel mounted frame portion, a second frame portion pivotally connected with the first mentioned frame portion, means for raising or lowering the second mentioned frame portion with relation to the first mentioned frame portion, a furrow opener carried by the second mentioned frame portion, a dropper carried by the second mentioned frame portion and adapted to deposit material into the furrow opened by the said furrow opener, means carried by the second mentioned frame portion and adapted to partially close the furrow, a dropper mounted upon the first mentioned frame portion and adapted to deposit material in the partially closed furrow, a furrow closer carried by the first mentioned frame portion, the supporting wheel of the first mentioned frame portion being in the path of movement of the said furrow openers and closers, a sleeve journaled upon the first mentioned frame portion behind the wheel, fingers depending from the sleeve and adapted to travel behind the wheel, and a sweeper carried by the sleeve and adapted to engage the wheel when the tines are in engagement with the soil.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,276. SHOCK-ABSORBER FOR VEHICLES. RAY E. HART, Battle Creek, Mich. Filed Nov. 15, 1911. Serial No. 660,268. (Cl. 21—103.)



1. In a shock absorber comprising oppositely disposed hinged sections pivotally attached at their outer extremities to the body and running gear of a vehicle respectively, one of said sections having a fixed cam race, the opposite section having a rim with detachable interiorly arranged studs, a portable cam race within said rim between said sections, said race engaging with said rim studs and prevented from rotary movement therein but telescopically movable therewith, a thimble fitted within said cam race and movable therewith, a spring fitted within said thimble bearing against the inbrawn end thereof and at the opposite end against the section having the rim with detachable interiorly-arranged studs, and a bolt axially passing through the assembled parts, as and for the purpose set forth.

2. In a shock absorber, the combination with two supporting members pivotally hinged and telescopically fitted to oscillate in true arcs, a concentrically disposed triangular cam formed within one of said members and a correspondingly shaped portable intermeshing cam fitted within the other member, detachable studs fitted within grooves between the periphery of the portable cam and the inner rim of its incasing member, whereby said cam cannot rotate within said rim but be telescopically movable therein, and whereby the angularity of said pivotal members may be changed on their axes by the shifting of the movable studs, substantially as set forth and for the purpose set forth.

3. In a shock absorber, the combination with two supporting members pivotally hinged and telescopically fitted to oscillate in true arcs, a concentrically-disposed triangular cam formed within one of said members and a correspondingly-shaped portable intermeshing cam fitted within the other member, detachable studs fitted within grooves between the periphery of the portable cam and the inner rim of its incasing member, whereby the angularity of the pivotal members may be shifted on their axes and whereby said members may be longitudinally movable but non-rotatable, a thimble fitted within said portable cam, a spring fitted within said thimble bearing against the inbrawn end thereof and the member without a fixed cam and a bolt axially passing through the assembled parts, as and for the purpose set forth.

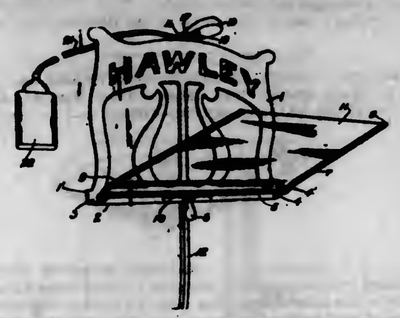
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1,041,277. MUSIC-LYRE. JOEL E. HAWLEY, Kansas City, Mo. Filed Mar. 14, 1911. Serial No. 614,849. (Cl. 84—91.)

1. A music lyre comprising a body member body-upwardly at its lower portion to form a lip, outwardly struck ears formed on said lip and projecting beyond the side edges of said body, a frame comprising side bars pivotally mounted on said ears, and adapted to lie outside the planes of the side edges of the body portion, and a transversal stabilizer carried by said bars.

2. A music lyre comprising a body portion having laterally directed ears at its lower edge, a frame pivotally mounted on said body portion and comprising side bars adapted for engagement with said ears, and a transversal medium carried by said bars.

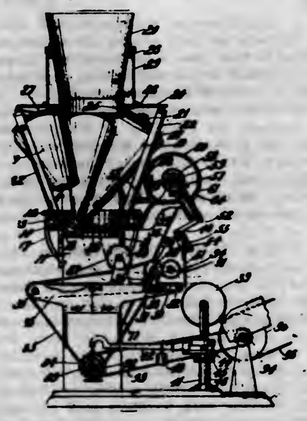
3. A music lyre comprising a body portion having ears projecting beyond the planes of the side edges of said body portion, a frame pivotally mounted on said body portion and having bars adapted to lie outside of the




planes of the side edges of the body portion and for engagement with said ears, and a transparent medium carried by said bars and adapted for covering the face of said body portion.

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1,041,278. DOUGH WEIGHING AND DIVIDING MACHINE. HERMAN HAYSSEN and ARTHUR H. HAYSSEN, Sheboygan, Wis. Filed May 25, 1910. Serial No. 563,296. (Cl. 73—179.)



1. A dough weighing and dividing machine, comprising means for feeding dough in a continuous stream, a scale in the path of movement of said stream of dough, dough dividing means positioned to divide the stream of dough after a portion has been weighed on the scale and said dividing means constructed to travel with said dough at approximately the same speed of travel as the dough while dividing the same, and means actuated by the portion of the dough resting on the scale for causing the operation of the dough dividing means.

2. A dough weighing and dividing machine, comprising means for feeding dough in a continuous stream, an endless apron positioned below the feeding means for receiving said dough, a scale provided with a roller positioned adjacent to the end of the apron and over which the stream of dough is moved, dough dividing knives positioned to divide a portion from the stream of dough after said portion has been weighed on the scale and said knives constructed to travel with the dough at approximately the same speed of travel as the dough while dividing the same, and means including an electric circuit and actuated by the weight of the portion of the dough resting on the scale for causing the operation of the dough dividing means.

3. A dough weighing and dividing machine, comprising means for feeding dough in a continuous stream, an endless apron positioned below the feeding means for receiving said dough, a scale provided with a roller positioned adjacent to the end of the apron and over which the stream of dough is moved, dough dividing knives positioned between the scale and the end of the endless apron and arranged to divide a portion of the dough from the stream of dough after said portion has been weighed on the scale, cranked shafts upon which said knives are mounted for moving the knives to cut the dough and to move said knives with the dough at approximately the same speed of travel as the dough during the cutting operation, and means including an electric circuit and actuated by the weight of the portion of the dough resting on the scale for causing the rotation of the cranked shafts and the movement of the knives to sever the weighed portion of dough from the stream of dough.

4. A dough weighing and dividing machine, comprising means for feeding dough in a continuous stream, and an endless apron positioned below the feeding means and upon which the dough is fed, means for regulating the thickness of the dough carried by the apron, a scale positioned adjacent to the end of the endless apron and over which the stream of dough is moved, dough dividing knives positioned between the scale and the endless apron and arranged to divide a portion of the dough from the stream of dough after said portion has been weighed on the scale, cranked shafts upon which said knives are mounted for moving the knives to cut the dough and to move the knives with the dough at approximately the same speed of travel as the dough during the cutting operation, a shaft having a geared connection with the cranked shafts, a clutch mechanism for controlling the rotation of said shaft, and means including an electric circuit and actuated by the weight of the portion of the dough resting on the scale for causing the engagement of the clutch with the shaft and the rotation of the cranked shafts to sever the weighed portion of dough from the stream of dough.

5. A dough weighing and dividing machine, comprising a frame provided with a standard, means for feeding dough in a continuous stream mounted on the standard, an endless apron positioned below the feed means, a guide roller positioned above the apron, an adjustable roller positioned above the apron, a scale positioned adjacent to one end of the apron, a horizontal shaft journaled on the standard and provided with bevel gears, cranked shafts journaled on the standard and provided with bevel gears in mesh with the horizontal shaft gears, a slotted member journaled on the cranked portion of one of the cranked shafts and having a knife rigidly connected thereto, a member journaled on the cranked portion of the other cranked shaft and having a sliding connection with the slotted member and also provided with a knife, a clutch mounted on the horizontal shaft, magnetic means controlling the operation of the clutch, and means actuated by a movement of the scale for controlling the operation of the magnet.

[Claims 6 and 7 not printed in the Gazette.]

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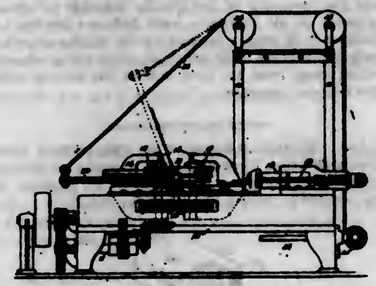
1,041,279. MACHINE FOR ROLLING ANNULAR PLATES. EDWIN I. HEINSOHN, WILLIAM R. EDWARDS, and FREDERICK R. KLAUS, Cleveland, Ohio, assignors to The Cleveland Welding & Mfg. Co., Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 8, 1911. Serial No. 659,225. (Cl. 153—9.)

1. Apparatus for forming annular plates, comprising a pair of rolls having operating surfaces of proper width for engaging the full width of a band as measured in a direction parallel with the general axis thereof, so as to turn said band peripherally, and means for moving said band toward a plane extending in the general direction of said full width of the band when thus engaged by said rolls.



2. Apparatus for forming annular plates comprising a pair of rolls provided with operating surfaces of proper width to engage the full width of a band as measured in a direction parallel with the general axis of said band, a supporting member for guiding said band relatively to said rolls, and means for normally holding said supporting member in a predetermined plane oblique to the general direction of the grip of the rolls in order to expand one edge of said band and contract another edge thereof, said supporting member being also movable toward a plane extending in the general direction of the width of the portion of the band where the latter is engaged by said rolls.

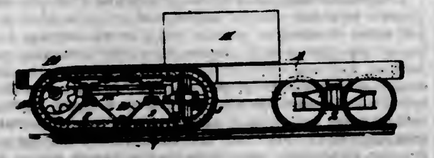
3. Apparatus for forming annular plates comprising a pair of rolls provided with operating surfaces of proper width to engage the full width of a band as measured in a direction substantially parallel with the general axis thereof, a supporting member disposed adjacent to said rolls for guiding said band relatively to the latter, means for normally maintaining said supporting member in such position relatively to said rolls that the general plane of said band is oblique relatively to the general direction of the grip of the rolls, and mechanism for gradually turning said supporting member toward a plane parallel with the axes of said rolls.



4. Apparatus for forming annular plates comprising a pair of rolls provided with operating surfaces of proper width to engage the full width of a band as measured in a direction substantially parallel with the general axis of said band, a supporting table disposed adjacent to said rolls, means for normally maintaining said supporting table in a predetermined plane slightly oblique relatively to the general direction of the grip of the rolls, and means for turning said table in a direction crossing said predetermined plane.

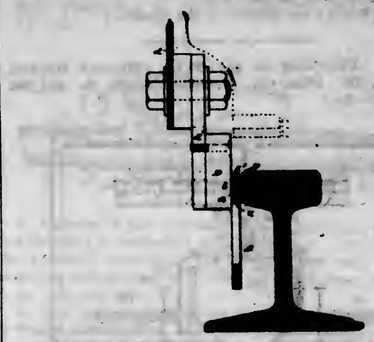
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1,041,280. TRACTION APPARATUS. CLARENCE A. HENNEUSS, Berkeley, Cal., assignor of two-thirds to Alfred C. Johnson and Fred D. Calkins, Sunnyvale, Cal. Filed Nov. 28, 1910. Serial No. 594,469. (Cl. 21—114.)



An improved traction apparatus, including a vehicle body, rigid, longitudinally channeled supports with opposed, internal concaved surfaces, said supports having horizontal parallel upper and lower sides and segmental connecting ends, truss frames interposed between the horizontal sides, one of said ends being separable from the supports and from the truss frames, chains of flexibly connected shoes having up-turned flanges with exterior curved surfaces forming ball races opposing the fixed ones, balls fitting said races, means for adjusting the separable curved ends of the supports, a motor, and mechanism connecting therewith to propel the chain.

1,041,281. METHOD OF MAKING HOMOGENEOUS MECHANICAL JUNCTURES. ALBERT R. HERRICK, Ridgewood, N. J., assignor to The Electric Railway Improvement Company, Cleveland, Ohio, a Corporation of Ohio. Original application filed Nov. 25, 1904, Serial No. 234,161. Divided and this application filed Oct. 26, 1908, Serial No. 459,502. Renewed Mar. 9, 1911. Serial No. 613,482. (Cl. 219—10.)



1. The method of homogeneously uniting metal bodies having unlike heat conductivities, which consists in interposing between said bodies at the desired point of union a relatively more fusible material; holding said bodies in contact with such material; and thereupon applying heat from a single external source to said bodies, the heat applied to the body of greater conductivity passing by conduction through such body and interposed material to the contacting face of the second body, whereby said first body and such contacting face of the second body are brought to a welding temperature practically simultaneously, substantially as described.

2. The method of homogeneously uniting metal bodies having unlike heat conductivities, which consists in interposing between said bodies at the desired point of union, or joint, a relatively more fusible material; holding said bodies in contact with such material; and thereupon applying heat to that side of the joint only on which the body of greater conductivity is located, whereby said body of greater conductivity and the contacting face of the other body are brought to a welding temperature practically simultaneously, substantially as described.

3. The method of homogeneously uniting metal bodies having unlike characteristics as to fusibility, the more readily fusible body having also the greater heat conductivity, which consists in interposing between said bodies at the desired point of union, or joint, a relatively more fusible material; holding said bodies in contact with such material; and thereupon applying heat to that side of the joint only on which the first or more readily fusible body is located, whereby said more readily fusible body and the contacting face of the other body are brought to a welding temperature practically simultaneously, substantially as described.

4. The method of homogeneously uniting metal bodies of unlike masses and different temperatures of fusion, the smaller mass having both the lower temperature and the greater heat conductivity; which consists in interposing between said bodies at the desired point of union, or joint, a relatively more fusible material; and thereupon applying heat to that side of the joint only on which the first or smaller body is located, whereby said smaller body and the contacting face of the larger body are brought to a welding temperature practically simultaneously, substantially as described.

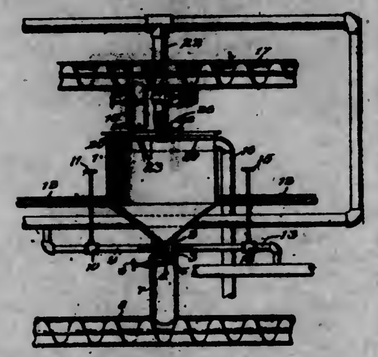
5. The method of homogeneously uniting a bond to a rail, which consists in interposing between the bond and rail at the desired point of union, or joint, a relatively more fusible material; holding said bond and rail in contact with such material; and heating such joint from the bond side only, such heating being effected by pressing an

electricity of high intensity against the outer face of said head and then passing an electric current through said electrode, such current being adapted to produce a high temperature in said electrode, thereby effectively heating the contacting face of said rail from the same electrode by conduction through said head and interposed material, whereby said head and such contacting face of the rail are brought to a welding temperature practically simultaneously, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

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1,041,282. PROCESS OF MALTING. HERMAN HAUSER, Chicago, Ill. Filed Oct. 17, 1908. Serial No. 458,196. (Cl. 195—24.)



1. In the art of steeping grain in the manufacture of malt, the step of passing water through the body of grain until the grain is substantially softened, said water passing through the body of the grain forthwith without accumulation.

2. In the art of steeping grain in the manufacture of malt, the step of discharging water upon the whole exposed surface of the body grain until the grain is substantially softened so as to moisten and wash all of the kernels with substantial uniformity, said water passing through the body of the grain forthwith without accumulation.

3. In the art of steeping grain in the manufacture of malt, the step of passing through the body of grain water descending upon the exposed surface of the body of grain and trickling with substantial uniformity through said body until the grain is substantially softened.

4. In the art of malting, steeping the grain in both still water and in water descending upon the whole surface of the body of grain and forthwith passing through the body.

5. In the art of malting, steeping the grain alternately in still water and in water descending upon the whole surface of the body of grain and forthwith passing through the body.

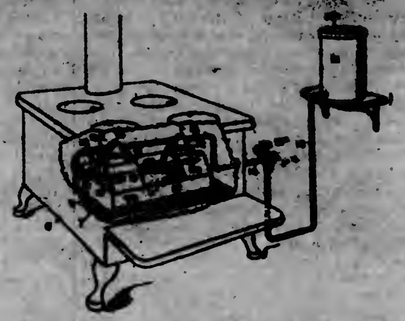
[Claims 6 to 9 not printed in the Gazette.]

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1,041,283. COMBINED GAS GENERATOR AND BURNER. ELMER E. HECKENDORN, McComb, Ohio. Filed Feb. 7, 1912. Serial No. 676,023. (Cl. 158—64.)

1. In a gas generator, a combined oil supply pipe and gas generator pipe having a heat sprender thereon, a burner pipe having a jet opening therein, a mixing chamber seated between the first said pipe and the burner pipe and partially surrounding the jet opening, said mixing chamber being open at one side, and an inclined deflector located adjacent to the jet opening and opposite to the open side of the mixing chamber for causing air to pass into said chamber through said open side.

2. In a gas generator, a combined oil supply pipe and gas generator pipe, a burner pipe having a jet opening, a combustion air chamber for which the burner pipe is seated, a mixing chamber having an open side and arranged upon the burner pipe and upon circular projection on the first said pipe communicating with the burner pipe and jet opening being within the mixing chamber and arranged to direct a flame against the first said pipe and a deflector hinged on the air chamber and being inclined upwardly



toward the open side of the mixing chamber for directing the passage of air thereinto, said deflector having a stop for holding it in proper relation to the mixing chamber independently thereof, said deflector plate being adapted to be swung away from the open side of the mixing chamber for the purpose specified.

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1,041,284. TUBULAR BEDSTEAD AND OTHER FRAME. GEORGE HOLDEN, Flushing, N. Y., assignor to Greenpoint Metallic Bed Company, Brooklyn, N. Y., a Firm. Filed Feb. 28, 1912. Serial No. 680,276. (Cl. 5—4.)



1. A frame comprising a tubular rail and a tubular end-member to whose side the end of said rail is secured, said rail being recessed at opposite sides of its end and having at the ends of said recesses forwardly extending projections, and said end-member having openings in its side snugly receiving said projection and within its interior oppositely disposed springs normally in the path through said openings and bent at their free ends interlocked with said projections of the rail.

2. A frame comprising a tubular rail and a tubular end-member to whose side the end of said rail is secured, said rail being recessed at opposite sides of its end and having at the ends of said recesses forwardly extending projections, and said end-member having openings in its side snugly receiving said projections and within its interior oppositely disposed springs normally in the path through said openings and being at their free ends interlocked with said projections of the rail, said springs being the end portions of an integral metal strip bent to snugly engage the inner surfaces of said end-member.

3. A frame comprising a tubular rail and tubular end-members to whose facing sides the ends of said rail are secured, said rail being recessed at opposite sides of each end and said having at the ends of said recesses forwardly extending projections, and said end-members having openings in their facing sides snugly receiving said projections and within their interiors oppositely disposed springs normally in the path through said openings and being at their free ends interlocked with said projections of the rail, said springs being the end portions of integral metal strips bent to snugly engage the inner surfaces of said end-mem-



bers, and said projections on the ends of the rail being at their sides adapted to interlock with the free ends of said springs and hold the same against shifting endwise of said end-members.

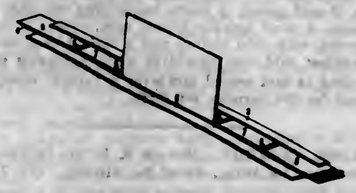
4. A frame comprising a tubular rail and a tubular end-member to whose side the end of said rail is secured, said rail being recessed at opposite sides of its end and having at the ends of said recesses forwardly extending projections, and said end-member having openings in its side snugly receiving said projections and within its interior oppositely disposed springs normally in the path through said openings and having at their free ends inwardly bent portions forming engaging members interlocked with said projections of the rail, said projections having at their outer sides means to receive and interlock with said bent portions of said springs.

5. A frame comprising a tubular rail and a tubular end-member to whose side the end of said rail is secured, said rail being recessed at opposite sides of its end and having at the ends of said recesses forwardly extending projections, and said end-member having openings in its side snugly receiving said projections and within its interior oppositely disposed springs normally in the path through said openings and having at their free ends inwardly bent portions forming engaging members interlocked with said projections of the rail, said projections being recessed at their outer sides between their opposite edges to receive said bent portions of the said springs and also prevent the shifting of the springs endwise of the member containing them.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,285. METHOD OF MAKING BOXES. CARLOS HOLLY, Lockport, N. Y., assignor to The F. N. Burt Company, Limited, Buffalo, N. Y., a Corporation of Ontario, Canada. Original application filed Apr. 24, 1909, Serial No. 492,029. Divided and this application filed Feb. 25, 1911. Serial No. 610,763. (Cl. 93—36.)



1. The method of making box elements which comprises grooving a strip of material, superposing on the grooved side of said strip a second strip, folding the strips, and disposing a folded portion of one strip in the groove at the folded portion of the other.

2. The method of making box elements which comprises abrading a strip of material to provide grooves, superposing and attaching on the grooved face of said strip a second strip, simultaneously folding the strips at the grooved portions, and dedenting portions of one strip into the grooves at the folded portions of the other.

3. The method of making box elements which comprises abrading a strip of material to provide grooves, superposing and attaching on the grooved face of said strip a second strip, simultaneously folding the strips and causing the walls of the grooves to approach each other and leave a space in the grooves spanned by the fold of the second strip, whereby a substantially smooth fold of the second strip is provided at the folded portions of the box element.

4. The method of making box elements which comprises grooving a strip of material at points corresponding to the corners of the box element, superposing and attaching on the grooved face of said strip a second strip, folding the strips and causing the walls of the grooves to approach each other and leave a space in the grooves spanned by the second strip, whereby a substantially smooth fold of the second strip is provided at the corners of the box element.

5. The method making box elements which comprises superposing strips of material, one of said strips being grooved on a side facing the other, folding these strips, and disposing a folded portion of one strip in the groove at the folded portion of the other.

[Claims 6 to 10 not printed in the Gazette.]

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1,041,286. BROOM-HANDLE. HORACE HOSKINS, Eolia, Mo. Filed May 6, 1912. Serial No. 695,423. (Cl. 15—24.)



1. A device of the class described comprising a socket; a jaw adapted to coöperate with the socket; a lever; means for pivotally connecting the lever intermediate its ends with the socket; and means for connecting one end of the lever with the jaw.

2. In a device of the class described, a socket; a jaw pivotally connected at one end with the socket; a lever; means for pivotally connecting the lever intermediate its ends with the socket; and means for connecting one end of the lever with the intermediate portion of the jaw.

3. In a device of the class described, a socket; a support extended partially around the socket and constituting a reinforcement for the socket; a jaw movable within the support and coöperating with the socket; and means connected with the support and with the jaw for operating the jaw.

4. A device of the class described comprising a socket; a jaw coöperating with the socket to engage an article; a link pivotally supported from the socket; an angular lever fulcrumed intermediate its ends upon the link and pivotally connected with the jaw; and means for preventing the jaw from moving longitudinally under the action of the lever to move the article longitudinally in the socket when the jaw is clamped upon the article.

5. In a device of the class described, a socket; a jaw pivotally connected at one end to the socket; a link pivotally supported adjacent its ends from the socket; an angular lever fulcrumed intermediate its ends upon the link; and means for connecting one end of the lever with the jaw.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,287. METHOD OF UNITING BY CEMENTATION. WILLIAM HOSKINS, Chicago, Ill. Filed June 7, 1911. Serial No. 631,828. (Cl. 144—309.)

1. The process of assembling parts together, which consists in supplying a moist part, applying thereto a powdered cementitious substance substantially insoluble in water except in the presence of heat, applying a second part and subjecting them to pressure and heat whereby the moisture in the moist part under the influence of the heat dissolves the cementitious substance and causes absorption thereof by the parts, the cementitious substance to the extent of the moisture required to dissolve it assisting the action of the heat in drying the moist part.

2. The process of assembling parts together, which consists in supplying a moist part, applying thereto powdered rawhide, applying thereto a second part and subjecting them to pressure and heat whereby the moist part under the influence of the heat dissolves the powdered rawhide and causes absorption thereof by the parts, the powdered rawhide to the extent of the moisture required to dissolve it assisting the action of the heat in drying the moist part.

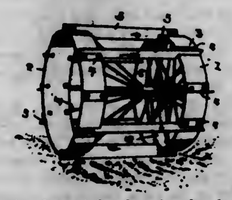
3. The process of assembling veneer, which consists in supplying a moist veneer, applying thereto a powdered cementitious substance substantially insoluble in water except for the presence of heat, applying a second layer

of veneer and subjecting them to pressure and heat whereby the moisture in the wet veneer under the influence of the heat dissolves the cementitious substance and causes absorption thereof by the veneer, the cementitious substance to the extent of the moisture required to dissolve it assisting the action of the heat in drying the veneer.

4. The process of assembling veneer, which consists in supplying a moist veneer, applying thereto powdered rawhide, applying a second layer of veneer and subjecting them to pressure and heat whereby the moisture in the wet veneer under the influence of the heat dissolves the rawhide and causes absorption thereof by the veneer, the rawhide to the extent of the moisture required to dissolve it assisting the action of the heat in drying the veneer.

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1,041,288. STALK-CUTTER ATTACHMENT FOR SULKY-PLOWS. FREDERICK KONRAD HUBER, Hamlin, Tex. Filed Jan. 30, 1912. Serial No. 674,357. (Cl. 55—61.)



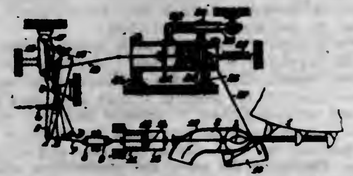
1. A cutter attachment for farming implements comprising rings, blades connected to the rings, a hub within one of the rings and directed toward the opposite ring, said hub being adapted for engagement over the hub of a wheel while the ring around the first mentioned hub is adapted for engagement over the wheel.

2. A stalk cutter attachment comprising rings, a hub within one of the rings and projecting a short distance in the direction of the opposite ring, spokes connecting the hub with the rings, and detachable cutter blades having their opposite ends removably secured to the rings.

3. The combination with a wheel and hub of a farming implement; of a cutter attachment comprising a ring adapted for engagement over the wheel, a hub within the ring and adapted for engagement over the hub of the wheel, a second ring, connections between the hub and the rings, and cutter blades carried by said rings.

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1,041,289. DEVICE FOR GOVERNING THE SPEED OF WATER-TURBINES. ALBERT HUGUENIN, Zürich, Switzerland. Filed June 13, 1912. Serial No. 703,525. (Cl. 138—18.)



1. A device for deflecting the water jet of a turbine when suddenly unloaded, comprising in combination, a deflector adapted to be moved into the path of the water jet, and means to automatically move said deflector into the path of the water jet at a higher speed according as the turbine is working against a lower load when suddenly unloaded, substantially as, and for the purpose, set forth.

2. A device for deflecting the water jet of a turbine when suddenly unloaded, comprising in combination, a deflector adapted to be moved into the path of the water jet, a sliding cylinder connected with said deflector, a piston adapted to move in said cylinder and having a valve controlled opening therein, liquid in said cylinder on both sides of said piston, a cam-lever connected with said piston, a second cam-lever adapted to move said first cam-lever, and means to permit said liquid to pass from one side of said piston to the other, substantially as, and for the purpose, set forth.

3. A device for deflecting the water jet of a turbine when suddenly unloaded, comprising in combination, a deflector adapted to be moved into the path of the water jet, a sliding cylinder, means to connect said deflector with said sliding cylinder, a piston adapted to move in said cylinder and having a valve controlled opening therein, liquid in said cylinder on both sides of said piston, a sleeve connecting the ends of said cylinder, a fixed spindle fitting said sleeve, a cam-lever connected with said piston, a second cam-lever working against said first cam-lever with increasing purchase according as said second cam-lever is turned, substantially as, and for the purpose, set forth.

4. A device for deflecting the water jet of a turbine when suddenly unloaded, comprising in combination, a deflector adapted to be moved into the path of the water jet, a sliding cylinder, means to connect said deflector with said sliding cylinder, a piston adapted to move in said cylinder and having a valve controlled opening therein, liquid in said cylinder on both sides of said piston, a sleeve connecting the ends of said cylinder, a fixed spindle fitting said sleeve, a cam-lever connected with said piston, a second cam-lever working against said first cam-lever with increasing purchase according as said second cam-lever is turned, a needle adapted to reduce the section of the water jet, and means to automatically slowly move said needle when said second cam-lever is turned, substantially as, and for the purpose, set forth.

5. A device for deflecting the water jet of a turbine when suddenly unloaded, comprising in combination, a deflector of a snow-plow like form adapted to be moved into the path of the water jet, a sliding cylinder, means to connect said deflector with said sliding cylinder, a piston adapted to move in said cylinder and having a valve controlled opening therein, liquid in said cylinder on both sides of said piston, a sleeve connecting the ends of said cylinder, a fixed spindle fitting said sleeve, a cam-lever connected with said piston, and a second cam-lever bearing against said first cam-lever with increasing purchase according as said second cam-lever is turned, substantially as, and for the purpose, set forth.

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1,041,290. CONDUIT. HORACE S. HUNT, Jackson, Mich. Filed Apr. 10, 1911. Serial No. 619,961. (Cl. 72—51.)



1. A cementitious pipe or conduit composed of tubular sections provided with a channel at their meeting ends which is closed when the sections are placed together in axial alinement, an impermeable lining for said pipe sections whose terminals lie in said channel, and a bond of fusible metal filling said channel and embedding the terminal of the lining sections therein to effect a metallic union between the ends of the sections of the impermeable lining and the continuity of said lining throughout the length of the conduit.

2. A cementitious pipe or conduit composed of tubular sections of uniform diameter throughout their entire length having a receiving channel between their abutting ends wholly within the plane of the main walls thereof, a thin metallic lining for said pipe sections having flanged terminals which lie in said channel when the sections are placed end to end, and a filling of fusible metal in said channel embracing the flanged terminals of the sections of lining to effect a metallic coupling between the ends thereof.



1,041,291. HAT-PIN-POINT PROTECTOR. AUGUST JASCHKE, Tomahawk, Wis. Filed Mar. 18, 1912. Serial No. 684,665. (Cl. 24—155.)

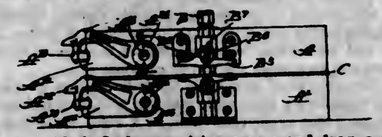


1. A tapering interiorly fluted sheet metal receiver, the smallest end ending in an outstanding flange from which is continued a cup, the largest end of said receiver having a skirting bead, said flutes running from said flange to said bead, and a cork forced into said receiver with one end projecting into said cup.

2. A tapering interiorly fluted sheet metal receiver, the smallest end ending in an outstanding flange from which is continued a cup, said flutes running from said flange to the outer end of said receiver each flute having a plurality of inwardly bent spurs, and a pliable member forced into said receiver and completely occupying said fluted portion and having a part thereof within said cup, said spurs engaging said pliable member.

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1,041,292. SNAP-FLASK FOR MOLDING. CHARLES JURACK, Milwaukee, Wis. Filed Apr. 6, 1911. Serial No. 619,256. (Cl. 22—107.)



1. A molder's flask comprising a cope and drag, a guide finger projecting upwardly from the drag and rigidly carried thereby, a bracket projecting from the cope and a hook projecting upwardly from said bracket and a grooved guide piece in opposition to said finger, a base upon which said guide piece is mounted, a slot within said base, a screw adjustably mounted within said bracket and slidable in said slot, a flange projecting upwardly from said base and a part in screw-threaded engagement with said flange and held beneath said hook.

2. A guide for molder's flask comprising a bracket, a hook projecting upwardly from the outer end of said bracket, a bearing surface intermediate said hook and the flask, a slotted plate slidably mounted upon said bearing surface, adjustable means mounted in said bracket and slidable in said slot for holding the plate upon the bracket, a grooved guide member carried by the plate, a flange projecting upwardly from said plate at the end opposite the guide member and an adjustable part adjustably mounted in said flange and held beneath said hook.

3. The combination with a molder's flask of a slotted guide member, a base upon which said member is supported, a flange projecting from said flask and in slidable relation with said base, means for holding said base upon said bracket and combined holding and adjusting means for sliding said base along said bracket, said combined holding and adjusting means comprising a hook projecting upwardly from said bracket and a screw in screw-threaded relation to said flange and having a collar on one side of said hook, a head on the other and a shank interposed between them beneath said hook.

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1,041,293. METHOD OF MANUFACTURING ELECTRICAL-INSTRUMENT COILS. WILHELM KELLER, Frankfort-on-the-Main, Germany, assignor to The Firm of Hartmann and Braun, Aktiengesellschaft, Frankfort-on-the-Main, Germany. Original application filed June 8, 1905, Serial No. 264,297. Divided and this application filed Feb. 27, 1911. Serial No. 611,040. (Cl. 29—148.)

1. The hereindescribed method of manufacturing an electrical instrument coil comprising forming a coil of insulated wire and subjecting such coil to pressure to eliminate the spaces between the windings and produce smooth exterior faces on the coil.



2. The hereindescribed method of manufacturing an electrical instrument coil comprising winding an insulated wire about a frame and subjecting the coil thus formed and the frame to pressure to eliminate the air spaces between the several windings and between the windings and frame and to produce smooth exterior faces on the coil.

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1,041,294. CIRCUIT-CONTROLLING APPARATUS. JOHN F. KELLY, Pittsfield, Mass. Filed Aug. 27, 1910. Serial No. 579,218. (Cl. 177—350.)



1. In a circuit controlling apparatus, the combination of a receptacle containing a conducting liquid, a single guiding surface facing downward in the receptacle below the surface level of the liquid, a contact terminal in said guiding surface, and means for moving a perforated sheet of non-conducting material against the downwardly facing guiding surface.

2. In a circuit controlling apparatus, the combination of a receptacle containing a conducting liquid, a guiding member in the receptacle having a guiding surface below the surface level of the liquid, a contact terminal in said guiding surface, and means for moving a perforated sheet of flexible non-conducting material beneath said member and against said guiding surface.

3. In a circuit controlling apparatus, the combination of a receptacle containing a conducting liquid, a single guiding member in the receptacle having a downwardly facing, curved guiding surface below the surface level of the liquid, a plurality of contact terminals arranged in said guiding surface, and means for moving a perforated sheet of non-conducting material beneath said member and against said guiding surface.

4. In a circuit controlling apparatus, the combination of a receptacle containing a conducting liquid, a guiding member in the receptacle having a curved guiding surface below the surface level of the liquid and having holes open to the guiding surface, contact terminals in said holes extending downward to below the surface level of the liquid but above the lower ends of the holes, and means for moving a perforated sheet of non-conducting material beneath said member and against said guiding surface.

5. In a circuit controlling apparatus, the combination of a receptacle containing a conducting liquid, a guiding member having a downwardly facing, curved guiding surface, a fixed contact terminal in an opening in said guiding surface, guide-ways in the receptacle to permit said guiding member to move from a position above the liquid vertically downwardly to carry its guiding surface below the surface level of the liquid, and means for moving a perforated sheet of non-conducting material beneath said member and against said guiding surface.

[Claims 6 to 29 not printed in the Gazette.]

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1,041,295. STEAM-BOILER. MICHAEL KELLY, Buffalo, N. Y. Filed Feb. 19, 1912. Serial No. 678,476. (Cl. 122—236.)

1. A boiler comprising a section having upright hollow columns at its opposite sides, a hollow arch connecting the

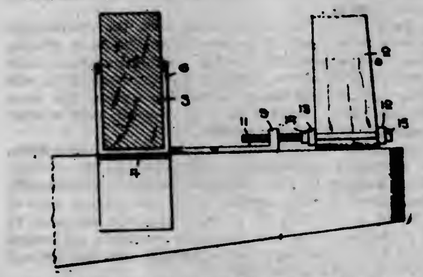
upper ends of the columns, and a hollow horizontal pipe connecting the columns below said arch and having its upright sides corrugated horizontally so that the base between two adjacent corrugations of one of these sides is arranged opposite to the space between two bases of adjacent corrugations of the other wall.



2. A boiler comprising a section having upright hollow columns at its opposite sides, a hollow arch connecting the upper ends of the columns, a hollow horizontal pipe connecting the columns below said arch and having its upright sides corrugated horizontally so that the base between two adjacent corrugations of one of these sides is arranged opposite to the space between two bases of adjacent corrugations of the other wall and having its upper and lower parts narrowed and constructed in the form of waving channels which correspond to the corrugations of the side walls thereof.

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1,041,296. SUPPORTING-CLIP. DUNCAN MCCALLISTER KERR, Palisade, Nebr. Filed Dec. 20, 1910. Serial No. 598,427. (Cl. 21—74.)



In combination with a wagon bolster and standard and hay frame, a plate slidably seated on the bolster and supporting a sill of said frame, two similar apertured yokes on two opposite sides respectively of the standard, two headed and threaded bolts engaging an apertured flange on the plate, whereby the position of the plate and frame relative to the standard may be adjusted, and nuts on the bolts for maintaining the adjusted position.

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1,041,297. MATERIAL FOR TREATING COPPER. JULIAN KICH, Lyndora, Pa. Filed Mar. 21, 1912. Serial No. 685,288. (Cl. 75—62.)

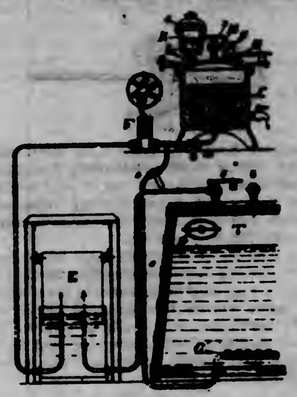
1. A material for treating copper consisting of potash, ferro-silicon, and limestone.

2. A material for treating copper consisting of potash, ferro-silicon, limestone, and a welding compound.

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1,041,298. PROCESS OF MAKING ALCOHOL. KARL KIEFER, Cincinnati, Ohio. Filed Feb. 11, 1907, Serial No. 356,845. Renewed Mar. 18, 1912. Serial No. 684,536. (Cl. 195—28.)

1. The process of producing alcoholic liquors consisting of consecutively fermenting a saccharine wort under pressure and inducting a subsequent fermentation from previous fermentations under pressure so as to get the yeast accustomed to a large amount of carbonic acid.



2. The process of producing alcoholic liquors, consisting of impregnating a wort with carbonic acid, and fermenting the same, adding as a yeast a ferment accustomed to a large amount of carbonic acid.

3. The process of producing alcoholic liquors, consisting of impregnating the wort with carbonic acid under pressure, and fermenting same, adding as a yeast a ferment accustomed to a large amount of carbonic acid.

4. The process of producing alcoholic liquors, consisting of impregnating a wort with carbonic acid, and fermenting the same under pressure, adding as a yeast a ferment accustomed to a large amount of carbonic acid.

5. The process of producing alcoholic liquors, consisting of impregnating a wort with carbonic acid under pressure, and fermenting the same under pressure, adding as a yeast a ferment accustomed to a large amount of carbonic acid.

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1,041,299. AMUSEMENT DEVICE. IMRE KIRALFY, South Kensington, London, England. Filed Apr. 10, 1912. Serial No. 689,738. (Cl. 104—111.)



1. An amusement device comprising a car of suitable formation, a track along which said car may roll and means for displacing said car from a horizontal position to a vertical position prior to its movement along said track.

2. An amusement device comprising a car having a plurality of seats, said car being mounted to roll or rotate in the plane of its seats so that the passengers partake of the rolling or rotating movement laterally about the axis of rotation, and a track adapted to receive said car and impart an angular movement thereto so as to displace the same from the horizontal position to the vertical position and vice versa during its rolling movement along said track.

3. An amusement device comprising a rolling car, seats in said car, arms for said seats and a track adapted to receive said car and impart an angular movement thereto so as to displace the same from the horizontal position to the vertical position and vice versa during its rolling movement along said track.



4. An amusement device comprising a drum-like car, seats in said car, arms and retaining devices for said seats and a track adapted to receive said car and impart an angular movement thereto so as to displace the same from the horizontal position to the vertical position and vice versa during its rolling movement along said track.

5. An amusement device comprising a drum-like car, seats in said car, arms, retaining devices for said seats, means for automatically locking said retaining devices and a track adapted to receive said car and impart an angular movement thereto so as to displace the same from the horizontal position to the vertical position and vice versa during its rolling movement along said track.

[Claims 6 to 11 not printed in the Gazette.]

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1,041,300. CABLE-CLAMP. JOHN H. KLIMEL, New York, N. Y. Filed Mar. 15, 1911. Serial No. 614,563. (Cl. 173—322.)



1. In a cable clamp a member provided with a socket therein adapted to receive a cable, means projecting outwardly therefrom, clamping members for the cable mounted on the opposite sides of the projecting means and means on the clamping members coöperating with said projecting means for clamping the cable within said member.

2. A cable clamp for plug switches and the like, in combination, a portion of said plug having a socket therein said socket having open sides and protruding edges, binding plates extending across the open sides, and means cooperating with the protruding edges and acting upon the clamps to bind the cable.

3. In a cable clamp, in combination, a body having in its end a socket adapted to receive an insulated cable, said socket having open sides, releasable binding plates extending across the open sides, protruding members located between the clamps having perforations therein, and means passing through said perforations and adapted to bind the clamping members upon the cable.

4. In a cable clamp, a member provided with a socket therein adapted to receive a cable, edges protruding outwardly from said socket, clamping members mounted on the opposite sides of the protruding edges, and means cooperating with said edges for clamping the cable.

5. In a cable clamp, in combination, a member provided with a socket therein adapted to receive a cable, protruding edges having perforations therein, clamping members mounted on the opposite sides of the protruding edges, and means on said clamping members extending through said perforations for clamping said cable.

[Claims 6 and 7 not printed in the Gazette.]

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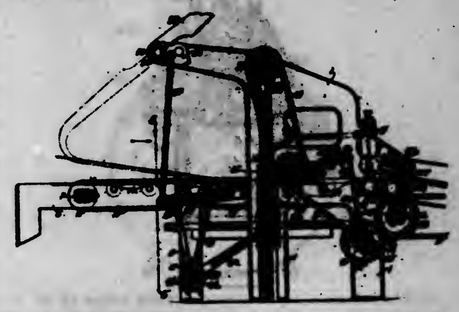
1,041,301. METHOD OF MAKING PATTERNS FOR THE MANUFACTURE OF PAPER CONTAINING WATER-MARKS OF VARIOUS DESIGNS. JOSEF KLOIZAN, Oregon City, Oreg. Filed Mar. 6, 1912. Serial No. 682,073. (Cl. 92—68.)

1. A method of making patterns for the production on paper sheets of water marks of various designs, consisting in first making paper boards or plates, then etching the desired design in rigid plates, then placing the sheet of paper on top of the etched design, then applying a layer of paste-like mass on to said paper, thereupon making an impression of the said etched design in said layer and finally pasting the said embossed paper sheet onto the said paper board or plate.

2. A method of making patterns for the production on paper sheets of water marks of various designs, consisting in first making paper boards or plates, then etching the desired design in rigid plates, then placing a sheet of paper on top of the etched design, then applying a layer of a paste-like mass prepared of water, gelatin, lime, salmine, alcohol and glycerin on top of said paper sheet, rolling over said layer under application of heat, and thereby making an impression of the design therein, and in the paper, cooling said sheet and pasting the same onto the paper board or plate.

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1,041,302. SHEET-FEEDING MECHANISM FOR PRINTING-PRESSES. CHARLES M. KNEPPLER, New York, N. Y. Filed Oct. 12, 1910. Serial No. 586,768. (Cl. 101—96.)



1. In sheet feeding mechanism for printing presses, a support adapted to receive a pile of sheets of paper; means for lifting the rear portion of said pile of sheets from said support; and means for supporting the rear portion of said pile of sheets in an elevated position to thereby permit a new supply of sheets to be placed upon said support and beneath said first mentioned sheets.

2. In a sheet feeding mechanism for printing presses, a support adapted to receive a pile of sheets of paper; a series of slats connected with said support adjacent the forward end thereof; means for elevating the rear ends of said slats to thereby lift the rear portion of the pile of sheets from said support; and means for supporting the rear portion of said pile of sheets in an elevated position to thereby permit a new supply of sheets to be placed upon said support and beneath said first mentioned sheets.

3. In a sheet feeding mechanism for printing presses, a support adapted to receive a pile of sheets of paper; a series of slats connected with said support adjacent the forward end thereof; means for elevating the rear ends of said slats to thereby lift the rear portion of the pile of sheets from said support; means normally inactive adapted to support the rear portion of said pile of sheets in an elevated position, and means for operating said elevating means and said supporting means to thereby raise the rear portion of the pile of sheets and bring said supporting means in position to support said sheets.

4. In a sheet feeding mechanism for printing presses, a support adapted to receive a pile of sheets of paper; a series of slats connected with said support adjacent the forward end thereof and the rear ends of which may be elevated to thereby lift the rear portion of the sheets from said support; means normally inactive adapted to support the rear portion of said pile of sheets in an elevated position; a shaft; a handle for operating said shaft; a cam upon said shaft; a connecting rod operated by said cam and operatively connected with said slats; a second cam upon said shaft; and a connecting rod operated by said second cam and operatively connected with said supporting means.

5. In a sheet feeding mechanism for printing presses, a support adapted to receive a pile of sheets of paper; a series of slats connected with said support adjacent the forward end thereof; arms upon the under side of said slats and by means of which the rear ends and of the pile of sheets may be lifted from said support; means normally inactive adapted to support the rear portion of said pile of sheets in an elevated position; a shaft; a handle for operating said shaft; a cam upon said shaft; a connecting rod

operated by said cam and operatively connected with said arms; a second cam upon said shaft; and a connecting rod operated by said cam and operatively connected with said supporting means.

[Claims 6 to 16 not printed in the Gazette.]

1,041,303. INTERNAL-COMBUSTION ENGINE. HANS KNUDSEN, London, England. Filed Feb. 27, 1911. Serial No. 611,447. (Cl. 123—90.)



1. In an internal combustion engine provided with concentric inlet and exhaust valves arranged coaxially with the engine cylinder in a cylinder head that opens directly into the cylinder, a cylindrical coaxial extension on the cylinder, a detachable cover fitting in the extension, a cam shaft section mounted in bearings between the cover and the extension, and valve operating levers mounted in the cover and removable therewith.

2. In an internal combustion engine provided with concentric inlet and exhaust valves arranged coaxially with the engine cylinder in a cylinder head that opens directly into the cylinder, a detachable cover situated coaxially with the engine cylinder, two crossed valve operating levers inclosed within the cover and pivoted to opposite sides thereof, a cam acting upon the free ends of the levers, and bearing pieces for the valves situated between the free and pivoted ends of the levers.

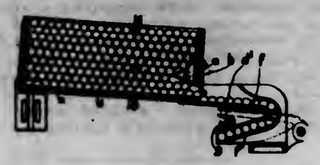
3. In an internal combustion engine provided with concentric inlet and exhaust valves arranged coaxially with the engine cylinder in a cylinder head that opens directly into the cylinder, a detachable cover situated coaxially with the engine cylinder, two crossed levers inclosed within the cover and pivoted to opposite sides thereof, the free ends of the said levers being provided with rolling surfaces, a shaft rotatably mounted in bearings formed between the detachable cover and the cylinder head and a cam mounted upon such shaft in the path of the aforesaid rolling surfaces.

4. In an internal combustion engine provided with concentric inlet and exhaust valves arranged coaxially with the engine cylinder in a cylinder head that opens directly into the cylinder, a detachable cover situated coaxially with the engine cylinder, two crossed levers inclosed within the cover and pivoted to opposite sides thereof, a projection on each lever arranged to rest upon one of the concentric valves, a roller mounted on the free end of each lever, a shaft rotatably mounted in bearings formed between the detachable cover and the cylinder head and a cam mounted upon such shaft in the path of the aforesaid rollers.

5. In an internal combustion engine provided with concentric inlet and exhaust valves arranged coaxially with the engine cylinder in a cylinder head that opens directly into the cylinder, a detachable cover situated coaxially with the engine cylinder, a cam shaft section rotatably mounted in bearings formed between the detachable cover and the cylinder head, serrations formed on the ends of the cam shaft section and a coupling ring formed with corresponding serrations.

[Claim 6 not printed in the Gazette.]

1,041,304. AUTOMATIC BOBBIN-EXCHANGING DEVICE FOR LOOMS. ALBERT GROSS KOECHLIN, Basel, Switzerland, assignor to Spinnerei & Weberei Steinen Actien-Gesellschaft, Steinen, Baden, Germany. Filed Oct. 5, 1911. Serial No. 652,954. (Cl. 139—85.)



1. In an automatic weft bobbin exchanging device for looms, a bobbin magazine consisting of a box without any inner partition wall for receiving a plurality of superposed layers of bobbins, said box having a slightly inclined base and being provided above an exit opening for the bobbins with an internally protruding retaining wedge, forming an inner guide-channel ahead of said opening and designed to relieve the bobbins near the latter from the pressure of the other bobbins in the box and to separate the bobbin layers near said opening, said box being provided at its base with a guide rail for the bobbins of the lowest layer, a transferrer for transferring the bobbins into the working shuttle and an inclined guide-channel for conveying the bobbins from the box directly to said transferrer, said guide-channel having its end contiguous to the box somewhat below the base thereof, substantially as and for the purpose described.

2. In an automatic weft bobbin exchanging device for looms, a bobbin magazine consisting of a box without any inner partition wall for receiving a plurality of superposed layers of bobbins, said box having an inclined base and being provided above an exit opening for the bobbins with an internally protruding retaining wedge, forming an inner guide-channel ahead of said opening and designed to relieve the bobbins near the latter from the pressure of the other bobbins in the box and to separate the bobbin layers near said opening, said box being provided at its base with a guide rail for the bobbins of the lowest layer, a transferrer for transferring the bobbins into the working shuttle and an inclined guide-channel for conveying the bobbins from the box directly to said transferrer, said guide-channel having its end contiguous to the box somewhat below the base thereof, and being also provided with a guide rail for the bobbins to keep them in their correct position, substantially as and for the purpose described.

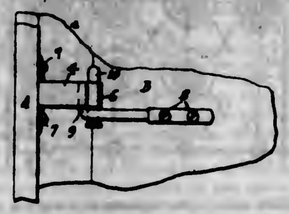
3. In an automatic weft bobbin exchanging device for looms, a bobbin magazine consisting of a box without any inner wall for receiving a plurality of superposed layers of bobbins, said box having an inclined base and being provided above an exit opening for the bobbins with the internally protruding retaining wedge, forming an inner guide-channel ahead of said opening and designed to relieve the bobbins near the latter from the pressure of the other bobbins in the box and to separate the bobbin layers near said opening, said box being provided at its base with a guide rail for the bobbins of the lowest layer, a transferrer for transferring the bobbins into the working shuttle and an inclined guide-channel for conveying the bobbins from the box directly to said transferrer, said guide-channel having its end contiguous to the box somewhat below the base thereof, a retaining flap being arranged on the outside of the exit opening in the box, substantially as and for the purpose described.

4. In an automatic weft bobbin exchanging device for looms, a bobbin magazine consisting of a box without any inner partition wall for receiving a plurality of superposed layers of bobbins, said box having a slightly inclined base and being provided above an exit opening for the bobbins with an internally protruding stationary retaining wedge, forming an inner guide-channel ahead of said opening and designed to relieve the bobbins near the latter from the pressure of the other bobbins in the box and to separate the bobbin layers near said opening, said box being provided



at its base with a guide rail for the bobbins of the lowest layer, a transferrer for transferring the bobbins into the working shuttle and an inclined guide-channel for conveying the bobbins from the box directly to said transferrer, said guide-channel having its end contiguous to the box somewhat below the base thereof, substantially as and for purpose described.

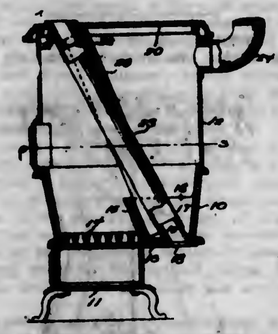
1,041,305. LATCH AND LOCK. WILLIAM KRAFT, Detroit, Mich. Filed Apr. 5, 1912. Serial No. 688,611. (Cl. 70—119.)



1. A combined latch and lock, having in combination, a clasping member provided with a pair of terminals resiliently tending together, a clasped member adapted to strike between the terminals spreading them and entering the clasped member and an inverted J-shaped lock journaled in one of the terminals and adapted to be turned so as to be inserted in the opposite terminals and thereby lock the terminals from separation, substantially as described.

2. A combined latch and lock, having in combination, a clasping member provided with a pair of thin metal arms bent at their ends to form cylindrical terminals, a clasped member arranged to strike between the terminals, and thereby pass between the terminals resiliently tending together, and a lock comprising an inverted J-shaped bar having the end of its bill slotted and thereby adapted to normally engage the edge of one of the arms, the said lock being journaled in one of the cylindrical terminals and being adapted to be lifted from engagement with the edge of the arm and revolved so that the bill may be inserted in the opposite terminal and thereby lock the terminals together, substantially as described.

1,041,306. STOVE. WILLIBALD KRAUS, Selby, S. D. Filed May 20, 1911. Serial No. 628,455. (Cl. 126—67.)



In a stove, an ash pit, a fuel combustion chamber above the ash pit and extending beyond the same at one side, said combustion chamber having openings in said extended portion, and in the top, a plurality of flues extending diagonally across said combustion chamber over the fire space and engaging the openings in the extended portion and in the top of the same, and a partition forming a portion of the fuel-supporting part of the combustion chamber at one side of the fuel space and protecting the lower portion of said pipes.

1,041,307. ALARM-CLOCK. JOHN KNUBI, St. Louis, Mo. Filed Feb. 28, 1911. Serial No. 610,127. (Cl. 161—6.)



1. In an alarm clock, a pivoted lever, a segmental member carried by said lever, a rack formed on said segmental member of less length than said member, a pinion secured for rotation upon the alarm arbor, a spring connected with said lever at its one end, a pair of stops arranged for engagement at different times with the free end of the spring, and a link pivotally connected with the free end of said segmental member and arranged for operation through the clock casing.

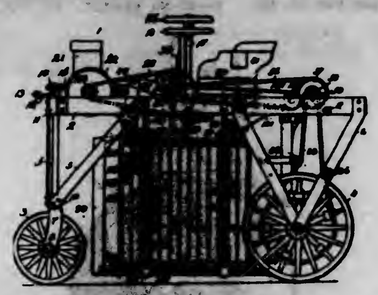
2. In an alarm clock, a pinion carried by the alarm arbor and secured for rotation therewith, a rack, a spring secured at one of its ends to said rack, and a pair of stops for engagement with the free end of the spring at different times, for the purposes stated.

1,041,308. DEVICE FOR EXTRACTING SINEWS FROM FLESH. ARTHUR ARSENE LAMOUREUX, Manchester, N. H. Filed Mar. 1, 1912. Serial No. 680,909. (Cl. 17—30.)



A device for removing sinews from meat on the bone comprising a fixed support, a claw member fixed upon the support and having spaced arms extending laterally therefrom, one of said arms having its free end bent downwardly and the other of said arms having its free end bent upwardly, a second claw member yieldably supported adjacent the first, and means for moving said second claw member away from the first.

1,041,269. COTTON-HARVESTER. GEORGE LAUFMANN, New York, N. Y., assignor to Solomon E. Lichtenstein, trustee, New York, N. Y. Filed Dec. 20, 1907. Serial No. 407,523. (Cl. 56—118.)



1. A cotton harvester comprising a vehicle, cotton picking belts, bars for raising and lowering the said belts, a rack and pinion device for raising said bars simultaneously and resilient means for pendently supporting said belts.

2. In a cotton harvester, a vehicle, belt frames, cotton picking belts carried by said frames, resilient means for supporting said frames, vertical bars connected with the frames and each provided with a rack, a horizontal shaft having a plurality of pinions connected with the racks on the said bars and means for operating said shaft whereby the belt frames may be raised and lowered in unison.

3. In a cotton harvester, a vehicle having horizontal side sills, rods depending from the said sills provided with springs, belt frames, a plurality of cotton picking belts carried upon said belt frames, the said belt frames being supported from the said springs.

4. In a cotton harvester, the combination of a vehicle, and a picking belt adapted to be raised and lowered on the vehicle, a driving shaft, means for transmitting motion from the driving shaft to the picker belt comprising a jointed arm with mechanism thereon, means for transmitting motion from the operating shaft to the mechanism on the joint of said arm, and means for transmitting motion from the mechanism on the joint to the picking belt, and resilient means for supporting the belt independently of the other parts.

5. In a cotton harvester, the combination of a vehicle, and a picking belt supported by the vehicle and adapted to be raised and lowered thereon, a driving shaft, means for transmitting motion from the shaft to the belt comprising an arm journaled on the driving shaft, and a second arm fulcrumed to the first arm, mechanism on the joint of said arms, means for transmitting motion from the driving shaft to the mechanism at the connection of the second arm, means for transmitting motion from the said point of fulcrum to the picking belt, and resilient means for pendently supporting said belt.

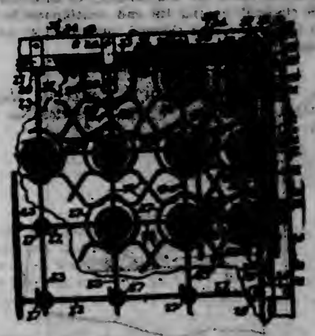
[Claims 6 to 14 not printed in the Gazette.]

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1,041,310. BED-SPRING. GEORGE C. LOCKLIN, Hammond, Ind. Filed Nov. 25, 1911. Serial No. 662,428. (Cl. 5—29.)

1. In a bed spring, the combination with a rigid outer rectangular frame adapted to rest upon a bedstead, of a rigid rectangular frame within and spaced from the outer frame and rigidly connected therewith comprising strips of metal lying edgewise within the side rails of the bedstead, and a spring structure sustained on said inner frame.

2. In a bed spring, the combination with a rigid rectangular outer frame adapted to rest upon the bedstead, of a rigid rectangular frame within and spaced from the outer frame and rigidly connected therewith comprising strips of metal lying edgewise within the side rails of the bedstead, and end strips and intermediate cross strips connecting the same; and a spring structure sustained on said inner frame.



3. In a bed spring, the combination with a rigid outer rectangular frame adapted to rest upon a bedstead, of a rigid rectangular frame within and spaced from the outer frame comprising strips of metal lying edgewise within the side rails of the bedstead, and end strips and intermediate cross strips connecting said side strips; angular hangers which support the inner frame from the outer frame; and a spring structure sustained on said inner frame.

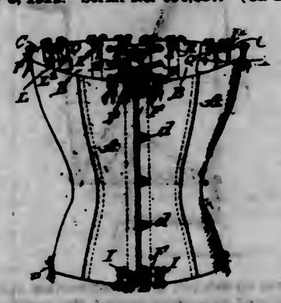
4. In a bed spring, the combination with rigid outer rectangular frame adapted to rest upon a bedstead, comprising side and end members of wood covered with sheet metal, of a rigid rectangular frame within and spaced from the outer frame and rigidly connected therewith comprising strips of metal lying edgewise within the side rails of the bedstead; and a spring structure sustained on said inner frame.

5. In a bed spring, the combination with an outer frame adapted to rest upon a bedstead comprising side and end members of wood covered with sheet metal, and sheet metal corner pieces having rounded backs and angular flanges overlapping and secured to the abutting ends of the side and end pieces; an inner frame rigidly connected with and supported from the outer frame comprising strips of metal lying edgewise within the side rails of the bedstead, and a spring structure sustained on said inner frame.

[Claims 6 to 13 not printed in the Gazette.]

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1,041,311. CORSET. KATE LUKE, New York, N. Y. Filed May 8, 1912. Serial No. 694,867. (Cl. 2—73.)



1. A corset, comprising two members, each member being composed of a plurality of sections having meeting edges and provided with interlocking loops which are arranged behind the meeting portions of the corset and are concealed thereby and a stay passing through the interlocking loops and connecting them.



2. A corset, comprising two members, each member being composed of a plurality of sections having meeting edges and provided with interlocking loops on opposite sides of each meeting edge which are arranged behind the meeting portions of the corset and are concealed thereby and stays passing through the loops.

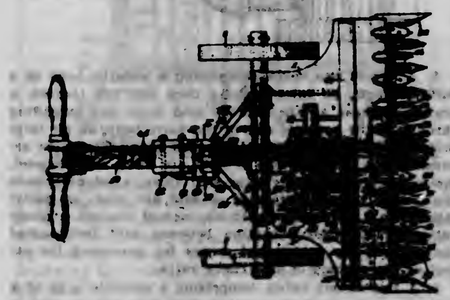
3. A corset section carrying a set of loops which project from its vertical edge, and another set of loops adjoining those first mentioned and arranged within the edge of the section and are concealed thereby.

4. A corset member, comprising a plurality of sections having meeting edges, each section carrying two sets of loops at its edge, one of which set of loops projects from the edge of the section while the other set is arranged within the edge of the section, said loops being interlocked and brought into suitable alinement and stays extending through the alined loops for detachably connecting them.

5. A corset section having a steel inclosing casing formed by doubling over the fabric upon itself, loops projecting laterally from the medial edge of the folded portion of the fabric and which are exposed for purposes of manipulation on the outer face of the section, another set of loops secured to the outer face of the fabric and also exposed for purposes of manipulation with which the first set of loops interlock and which, and a stay passing through the loops and detachably connecting them.

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1,041,312. MOWING-MACHINE. ERIC MASSEY, Westville, N. J. Filed Nov. 1, 1910. Serial No. 590,168. (Cl. 56—19.)



1. In a mowing machine, in combination, a frame, a main shaft, a plurality of shafts carried by said frame and extending at right angles to the main shaft, heads at the forward ends of said shafts, substantially triangular cutters carried in cross section carried by said heads, intermeshing pinions carried by said shafts, finger bars carried by said frame, stationary knives carried by said finger bars, wheels carried by said main shaft, and a train of gearing operated by said shaft for operating the pinions upon the shafts of the rotating knives.

2. In a mowing machine, in combination, a frame, a main shaft of less length than the width of said frame, wheels carrying said shaft, a plurality of revolving and a plurality of stationary knives, the former revolving at right angles to the direction of motion of the machine, shafts carrying said revolving knives, intermeshing pinions carried by and connecting said shafts means driven from the main shaft for driving said pinions, and means by which the direction of motion of said cutters may be reversed.

3. In a mowing machine, in combination, a frame, a shaft carried by said frame, wheels on said shaft, a gear wheel carried with said shaft, a pinion wider than said gear wheel gearing with the same, bevel gears facing each other and secured to opposite sides of said pinion, a sliding shaft carrying said pinion and bevel gears, means for sliding said means for locking said shaft, a bevel gear between and adapted to engage either one of said bevel gears, a shaft carrying said latter bevel gear, a driving pinion on said shaft, a train of pinions adapted to be driven by said driving pinion, shafts carrying said pinions, a pair of rotating substantially triangular blades secured in cross-section each having double cutting edges carried by each of said shafts and stationary knives and finger bars carried by said frame.

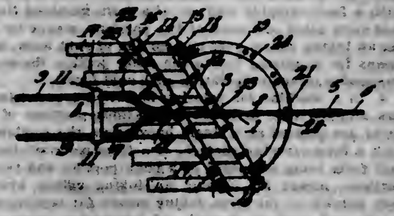
4. A cutter for a mowing machine consisting of a shaft, a head carried by said shaft, a pair of oppositely placed substantially triangular blades curved in cross-section secured to said head and sharpened on both free edges and revolving at right angles to the direction of the travel of the machine and stationary [illegible] which and the revolving blades ride [illegible]

5. The combination to a mowing machine of a cutter comprising a rotating shaft, a pair of substantially triangular blades curved in cross-section, secured to said shaft and sharpened upon both edges, means for rotating and means for rotating said shaft in either direction, and three stationary blades the central one of which is operative upon a movement of said rotary cutter in either direction and the side ones of which are operative, the one, upon a rotation of said rotary cutter in one direction, the other upon a rotation of said cutter in the opposite direction.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,313. HARROW. JESSE W. MASSA, Nordell, Miss. Filed Aug. 3, 1911. Serial No. 642,401. (Cl. 55—98.)



1. A harrow including a beam, bars pivotally connected, at their centers, to the beam, said bars being arranged in pairs, harrow teeth extending between the bars of the two pairs and pivotally connected to them, said teeth being parallel and constituting means for holding the two pairs of bars parallel, a semi-circular brace bar secured at its ends to the bars of the front pair and extending close to said under the beam, and means straddling the beam and adjustably connected to the semi-circular brace for holding the brace against movement relative to the beam.

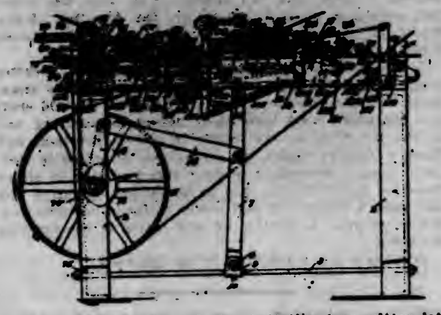
2. A harrow including parallel strips secured together and constituting a beam, said strips having registering offset portions forming eyes, pivot bolts extending through the eyes, front and back bars pivotally connected, at their centers, to the bolts, parallel harrow teeth pivotally connected to said bars and extending rearwardly therefrom, said bars being parallel, a semi-circular brace bar secured at its ends to the end portions of the front bar and extending under the beam, and a clamping bolt straddling the beam and adjustably connected to the bar to hold the bars against movement relative to the beam.

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1,041,314. PRINTING-MACHINE. JOHN F. MANLEYMOT, Los Angeles, Cal. Filed Apr. 20, 1906. Serial No. 312,192. (Cl. 101—4.)

1. In a printing machine the combination with an impression roller and a reciprocating form-carrying bed, of means for reciprocating the bed and rotating the impression roller, ribbon-carrying spools mounted on the bed, and said bed being provided with an opening intermediate of its ends through which the ribbon is adapted to pass, whereby said ribbon may be passed over a portion of said form through said opening and beneath another portion of the form.

2. In a printing machine the combination with an impression roller and a reciprocating form-carrying bed, of means for reciprocating the bed and rotating the impression roller, ribbon-carrying spools mounted on the bed, said bed being provided with an opening intermediate of its ends and intermediate of the ends of the form, whereby said ribbon may pass over a portion of said form only, and means for inking the portions of the form not inked by the ribbon.



3. In a machine for printing imitation typewritten letters and the like, in which the various portions of each letter are printed at a single impression, the combination with a form-carrying surface, of a form mounted thereon, said form being composed of two portions, means for passing an inking ribbon over one portion of said form, inking means for supplying ink to the other portion thereof and impression means coöperating with said form.

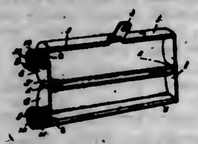
4. In a machine for printing imitation typewritten letters and the like, in which the various portions of each letter are printed at a single impression, the combination with a form-carrying surface, of a form mounted thereon, said form being composed of a body portion and two end portions, means for passing an inking ribbon over the body portion of the form, inking means for supplying ink to the end portions thereof and impression means coöperating with said form.

5. The combination with a form-carrying surface, of a form mounted thereon, said form being provided with an opening intermediate its ends through which an inking ribbon is adapted to pass, whereby said ribbon may be passed over a portion of said form and through said opening, means for inking the portion of the form not inked by the ribbon, and impression means coöperating with said form.

[Claims 6 to 18 not printed in the Gazette.]

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1,041,815. PROTECTIVE COVERING FOR TOOTH-BRUSHES. LEON L. MARX, Monroe, La., assignor of one-half to August A. Swayne, Monroe, La. Filed Oct. 14, 1911. Serial No. 654,705. (Cl. 132—11.)



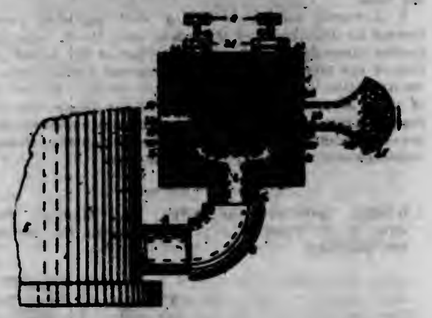
1. A tooth brush cover consisting of a casing having hingedly connected side members provided with notched end walls, semicylindrical flanges on said end walls adjacent to the notches and having terminal lips, and absorbent material confined between the end walls and the lipped flanges to engage the handle of the brush, the notches of the end walls being disposed opposite each other to engage the brush handle when the casing is closed.

2. A tooth brush cover consisting of a casing comprising hingedly connected containing members provided on their free sides with inturned flanges, and a sheet of absorbent material engaged and retained by said flanges and covering the interior of said members.

3. A tooth brush cover consisting of a casing comprising hingedly connected containing members provided at their free side edges with inturned flanges, said side members having end walls provided with notches, lipped flanges adjacent to said notches and constituting to constitute a neck engaging the handle of the brush, bits of absorbent material within said neck, and a sheet of absorbent material within the casing having its side edges engaged and retained by the inturned flanges, and means for connecting the free edges of the side members.

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1,041,816. VALVE. CHARLES F. MAGEE, Neenah, Wis. Filed Apr. 12, 1912. Serial No. 690,339. (Cl. 121—97.)



1. A two in one valve, comprising a metallic body of a suitable form, an inlet opening from one end thereof, a branch channel at one side of said inlet and extending through to the opposite side of the valve body, an air inlet intermediate the ends of said branch channel, a valve arranged near the junction of said air inlet and channel, means for opening and closing said valve, a second branch channel at the opposite side of said air inlet, an outlet intermediate the ends of said last named channel, a check valve arranged for operation between said last named channel and the outlet, and means for governing the extent of the opening of said check valve.

2. A two in one valve, comprising a metallic body of a suitable form, an inlet opening from one end thereof, a branch channel at one side of said inlet and extending through to the opposite side of the valve body, an air inlet intermediate the ends of said branch channel, a valve arranged near the junction of said air inlet and channel, means for opening and closing said valve, a second branch channel at the opposite side of said air inlet an outlet intermediate the ends of said last named channel, a check valve arranged for operation between said last named channel and the outlet, means for governing the extent of the opening of said check valve, and a muffler connected with said outlet.

3. A two in one valve, comprising a metallic body of a suitable form, an inlet opening from one end thereof, a branch channel at one side of said inlet and extending through to the opposite side of the valve body, an air inlet intermediate the ends of said branch channel, a valve arranged near the junction of said air inlet and channel, means for opening and closing said valve, a second branch channel at the opposite side of said air inlet, an outlet intermediate the ends of said last named channel, a check valve arranged for operation between said last named channel and said outlet, means for governing the extent of the opening of said check valve, and means for producing a quick closing of said check valve, such as a spring, mounted above the valve.

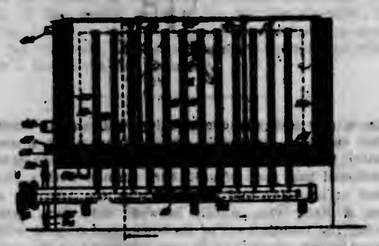
4. A two in one valve, comprising a metallic body of a suitable form, an inlet opening from one end thereof, a branch channel at one side of said inlet and extending through to the opposite side of the valve body, an air inlet intermediate the ends of said branch channel, a valve arranged near the junction of said air inlet and channel, means for opening and closing said valve, a second branch channel at the opposite side of said air inlet, an outlet intermediate the ends of said last named channel, a check valve arranged for operation between said last named channel and the outlet, means for governing the extent of the opening of said check valve, and a muffler connected with said outlet, said muffler comprising hingedly connected containing members provided on their free side edges with inturned flanges, said side members having end walls provided with notches, lipped flanges adjacent to said notches and constituting to constitute a neck engaging the handle of the brush, bits of absorbent material within said neck, and a sheet of absorbent material within the casing having its side edges engaged and retained by the inturned flanges, and means for connecting the free edges of the side members.

5. A two in one valve, comprising a metallic body of a suitable form, an inlet opening from one end thereof, a branch channel at one side of said inlet and extending through to the opposite side of the valve body, an air inlet intermediate the ends of said branch channel, a valve arranged near the junction of said air inlet and channel, means for opening and closing said valve, a second branch channel at the opposite side of said air inlet of a much larger cross sectional area than that of the first named branch channel, an outlet intermediate the ends of said last named branch channel, a check valve arranged for operation between said last named channel and outlet, and means for governing the extent of the opening of said check valve.

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1,041,817. ICE-MANUFACTURING APPARATUS. ALBERTUS B. MATTINGLY, New York, N. Y. Filed Mar. 1, 1912. Serial No. 680,296. (Cl. 62—6.)



1. In an ice making apparatus, in combination, a tank, a freezing plate extending upwardly through the bottom of said tank, means for delivering a freezing medium through the freezing plate, means for delivering a thawing medium through the freezing plate, and means for extracting or draining any condensed fluid from the freezing plate.

2. In an ice making apparatus, in combination, a tank, a freezing plate in the form of a plurality of tubes extending up through the bottom of the tank, means for delivering a freezing medium through the tubes for forming a plate of ice upon said tubes, means for delivering a thawing medium to the tubes, said means for extracting or draining any condensed fluid from the freezing plate.

3. In an ice making apparatus, in combination, a tank, a freezing plate in the form of a plurality of tubes extending up through the bottom of the tank, means for delivering a freezing medium through the tubes for forming a plate of ice upon said tubes, means for delivering a thawing medium to the tubes, means for forming a uniform bottom to the plate of ice, and means for extracting or draining any condensed fluid from the freezing plate.

4. In an ice making apparatus, in combination, a tank, a freezing plate in the form of a plurality of tubes extending up through the bottom of the tank, means for delivering a freezing medium through the tubes for forming a plate of ice upon said tubes, means for delivering a thawing medium to the tubes, means for forming a uniform bottom to the plate of ice, means for thawing the ice from the bottom of the tank, and means for extracting or draining any condensed fluid from the freezing plate.

5. In an ice making apparatus, in combination, a tank, a freezing plate extending upwardly through the bottom of said tank, means for delivering a freezing medium through the freezing plate, means for delivering a thawing medium through the freezing plate, means for extracting or draining any condensed fluid from the freezing plate, and means for delivering the water before it enters the freezing tank with the drainage from the freezing plate.

[Claims 6 to 10 not printed in the Gazette.]

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1,041,818. VEHICLE-FENDER. WILLIAM McDERMID, Chicago, Ill. Filed Mar. 16, 1912. Serial No. 684,502. (Cl. 105—33.)



1. A vehicle fender comprising a frame; a pair of pivoted arms mounted in said frame for swinging in a horizontal plane and adapted when released to swing forwardly toward each other to embrace the object or person positioned between the same; resilient means for normally holding said arms in embracing position; oscillatory levers for releasably holding said arms in open position; transversely extending impact springs arranged forward of said arms, and an operative connection between said impact springs and said levers whereby flexing of said springs by reason of contact with an object or person effects tilting of said levers to release said arms, substantially as described.

2. A vehicle fender comprising a horizontal transversely extending frame member; a pair of arms pivotally mounted in said frame for swinging in a horizontal plane and adapted when released to swing forwardly toward each other to embrace the object or person positioned between the same; resilient means for normally holding said arms in embracing position; means for releasably holding said arms in open position; vertically extending bars at the respective ends of said frame member; a plurality of transversely extending tension impact springs secured to and extending between said bars; and an operative connection between one of said springs and said arm holding means whereby flexing of said spring by reason of contact with an object or person effects operation of said holding means to release said arms, substantially as described.

3. A vehicle fender comprising a horizontal transversely extending frame member; a pair of arms pivotally mounted in said frame for swinging in a horizontal plane and adapted when released to swing forwardly toward each other to embrace the object or person positioned between the same; resilient means for normally holding said arms in embracing position; oscillatory levers for releasably holding said arms in open position; substantially vertically extending bars at the respective extremities of said frame member; a plurality of transversely extending tension impact springs secured to and extending between said bars; and an operative connection between one of said springs and said arm holding levers whereby flexing of said springs by reason of contact with an object or person effects tilting of said lever to release said arms, substantially as described.

4. A vehicle fender comprising a horizontal transversely extending frame member; means for mounting said frame member at the forward end of a vehicle; a pair of arms pivotally mounted in said frame for swinging in a horizontal plane and adapted when released to swing forwardly toward each other to embrace the object or person positioned between the same; resilient means for normally holding said arms in embracing position; means for releasably holding said arms in open position; vertically extending bars at the respective ends of said frame member; a plurality of transversely extending tension impact springs secured to and extending between said bars; and

an operative connection between one of said springs and said arm holding means whereby during of said spring by reason of contact with an object or person effects operation of said holding means to release said arms, substantially as described.

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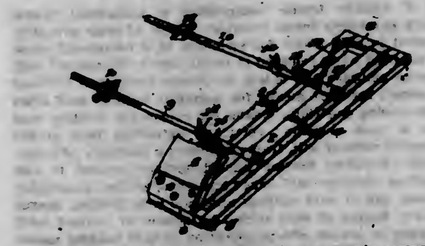
1,041,319. LUMBER-TRUCK. JOHN A. MCGANN, Chicago, Ill. Filed Jan. 11, 1911. Serial No. 601,265. (Cl. 21—38.)



The combination with a truck of a slotted platform thereon, the slots in said platform being transversely disposed, load carrying rollers rotatably mounted on the platform supports and located in the slots, the upper edges of the rollers projecting slightly above the level of the platform, means for rotating one of said rollers and connecting means interposed between said driven roller and all the remainder to rotate them in unison, said rollers being supported at either end and at points intermediate their two ends.

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1,041,320. TOOL FOR MARKING CEMENT PAVEMENTS. LORENZ W. MCINTYRE, Portland, Oreg. Filed Aug. 3, 1911. Serial No. 642,021. (Cl. 94—6.)



1. A support for jointing concrete pavements comprising a longitudinally extended resilient beam, adapted to rest at a point intermediate its ends upon the side forms of a concrete sidewalk, and a bowed member supported on said and engaging at its ends with the ends of the beam, the intermediate portion of the bowed member being disconnected from the beam.

2. A support for jointing concrete pavements comprising a longitudinally extended resilient beam, adapted to rest at a point intermediate its ends upon the side forms of a concrete sidewalk, formed of parallel strips, and a bowed member supported on said beam and engaging at its ends with the extremities of the beam, the intermediate portion of the bowed member being disconnected from the beam.

3. A support for jointing concrete pavements comprising a longitudinally extended base formed of parallel strips of wood spaced from each other at their ends, adapted to rest at a point intermediate its ends upon the side forms of a concrete sidewalk, and a bowed member comprising an arched board engaging at its ends with the ends of the base, the intermediate portion of the said bowed member being disconnected from the base.

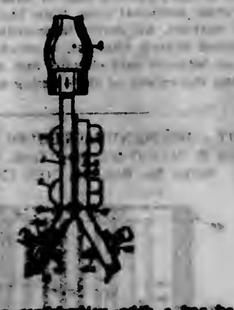
4. A support for jointing concrete pavements comprising a longitudinally extended base composed of parallel wooden strips, adapted to rest at a point intermediate its ends upon the side forms of a concrete sidewalk, spacing members disposed between said strips, bolts passing transverse the strips and the spacing members, a bowed member contacting at its ends with the extremities of the strips, ends upon which the extremities of the bowed member rest, the intermediate portions of the bowed member being disconnected from the base.

5. A support for jointing concrete pavements comprising parallel resilient cedar spaced from each other to form a base, a jointing strip extending at its ends to the base and connecting parallel chords, and a bowed member engaging at its ends with the extremities of the base.

(Claims 6 to 10 not printed in the Gazette.)

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1,041,321. SAW-SET. EDWARD C. MEARSON, Saginaw, Mich., assignor to Wm. H. Merrihew & Co., Carrollton, Mich., a Corporation of Michigan. Filed Feb. 26, 1910. Serial No. 545,076. (Cl. 76—71.)



In a saw set, the combination with a bar having its lower end bent outwardly and provided with a set screw, of a similar bar disposed at the lower side thereof in said first-mentioned bar, ends of said bars formed with a clearance notch at one side and located above the junction of said bars, a plate lying wholly between said bars, said plate having the middle part of its lower end formed with a V-shaped notch adapted to fit over the point of the saw teeth to be set, the upper extremity of said notch being above the head of said bars, the lower corners of said plate being beveled to form a clearance notch, and means for longitudinally adjusting said plate relative to said bars.

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1,041,322. HEATING AND VENTILATING APPARATUS. FRANK P. MANN, Chicago, Ill., assignor to The Fitzal System Ventilator Co. Filed May 26, 1910. Serial No. 563,257. (Cl. 236—99.)



1. In an apparatus of the character described, a casing divided into three chambers, a central and two side chambers, a casing for a motor in the central chamber, and a casing for a fan in each of the side chambers, a motor in the motor casing, and a fan in each of the fan casings, said fans connected to opposite ends of the motor shaft, said fans each having an inlet and an outlet, one shutter controlling the inlet of each fan casing, and means for controlling the same.

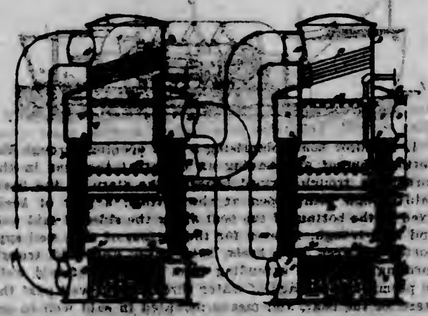
2. In a device of the character described, a fan casing, a heating element curved to substantially correspond with the peripheral wall of said casing, a stem at one end and a screw at the other end for securing said heating element in place.

3. In an apparatus of the character described, a casing providing a motor chamber and a fan chamber, a motor and a fan in said respective chambers, said casing providing a passage for air into the motor chamber, closure to the fan chamber, and flanges on the exterior of said fan chamber, and a heater in the fan chamber to heat the air received from the motor chamber.

4. In an apparatus of the character described, a casing providing a motor chamber and a fan chamber, the walls of said casing being perforated and adapted to provide an inlet at the bottom of the motor chamber, a passage from the top of the motor chamber to the fan chamber, humidifying means in the motor chamber, and heating means in the fan chamber, an inclosed motor in the motor chamber and a fan in the fan chamber.

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1,041,323. APPARATUS FOR REMOVING MOISTURE FROM AIR. JOHN B. MILES, Philadelphia, Pa. Filed Mar. 26, 1912. Serial No. 686,104. (Cl. 62—22.)



2. The combination in a drying element of an inclosing casing; structures therein forming chambers; tubes connecting said chambers; a container forming a spray chamber also in said casing; and means for spraying liquid in said chamber; the working inlets and outlets for the chambers.

3. The combination in a drying apparatus of an air cooler; a heat exchanger having compartments; and means for directing air, after it has had its temperature reduced by passage through the cooler and one compartment of the heat exchanger, through the second compartment of said heat exchanger.

4. The combination in an air drying apparatus of a plurality of elements each having a heat exchanger provided with a plurality of compartments, and a liquid cooler; with conduits arranged to conduct air through one heat exchanger compartment and the cooler of each element; and other conduits arranged to thereafter conduct the air through substantially through the second compartments of said heat exchangers.

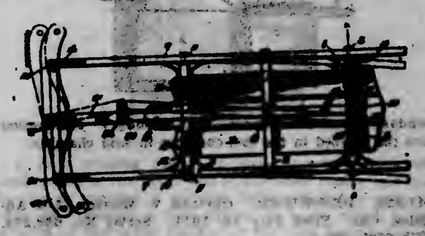
5. The combination in an air drying apparatus of a plurality of elements each having a heat exchanger provided with compartments and a liquid cooler; with conduits arranged to conduct air through one heat exchanger compartment and the cooler of each element; and other conduits arranged to thereafter conduct the air through the second compartments of said heat exchangers, the cooler of one of said elements being arranged to produce a lower temperature than the other.

6. A drying element consisting of a casing; an air cooling device within said casing; and an apparatus for permitting flow of heat from a body of gas at one temperature to a second body of gas at a lower temperature; said apparatus being extended within the casing and surrounding the air cooling device.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,324. SLED. ROBERT H. MILLER, Bethlehem, Pa. Filed July 11, 1884. Serial No. 697,963. (Cl. 21—94.)



1. A sled having flexible runners, a seat mounted thereon, said runners having a fixed connection at their forward ends, and means for slidably connecting said runners to the seat at their rear ends.

2. A sled having flexible runners, a seat, standards connecting said seat to said runners adjacent their forward ends, and standards carried by the rear ends of said runners having a cross [illegible] which said seat is slidably mounted.

3. A sled comprising a seat having cross-bars fixed thereto, handle bars carried by said cross-bars, standards pivotally connected to the forward cross-bars of said seat, standards slidably connected to the rear cross-bars of said seat, and flexible runners carried by said standards having a fixed connection at their forward ends with the handle bars.

4. A sled provided with flexible runners, having a fixed connection at their forward ends, and means for slidably connecting the rear ends of said runners to said sled.

5. A sled comprising a seat having cross-bars, handle bars connected to said cross-bars, runners fixed to the forward ends of said handle bars, standards loosely connecting said runners to said cross-bars, and means for moving the said standards laterally in respect to the seat.

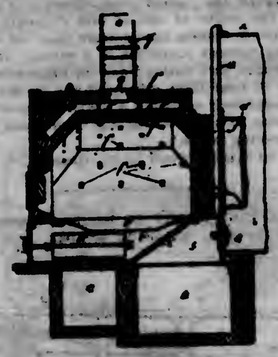
[Claims 6 to 10 not printed in the Gazette.]

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1,041,325. FURNACE FOR STEAM-BOILERS. EDGAR CROMPTON KNOX, Manchester, England. Filed Apr. 14, 1910. Serial No. 555,402. (Cl. 110—75.)

In combination, a steam-boiler, a furnace external to said boiler for the providing heat for steam generation in said boiler, a support for said furnace having walls and roof inclosing a chamber forming by its lower part a fuel-chamber to hold a fire-bed and by its upper part a secondary combustion-space for secondary combustion above the fire-bed in said fuel chamber so that both the fuel chamber with the fire-bed therein and the secondary combustion-space for secondary combustion are wholly free of contact of [illegible] plates and having within the walls and roof a plurality of air-cells each extending in the direction of and for the greater part of the length of the furnace from front to back and spaced from one another and with a plurality of orifices for each air-cell extending from the air-cell whereby they are respectively connected and extending in the secondary combustion space by the chamber and above the fire-bed in the fuel-chamber thereto and means to conduct air to the said air-cells whereby air will

pass to said air cells and being heated therein by absorption of heat, will pass thence through said orifices into the



secondary combusting-space for secondary combustion above the fire-bed in the fuel-chamber in said chamber.

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1,041,226. PEN-WIPER. Orville V. Monson, Los Angeles, Cal. Filed July 12, 1911. Serial No. 638,274. (Cl. 120—108.)



1. A penwiping device comprising wiping members, intermeshing pinions thereon, racks engaging the intermeshing pinions for a short distance, and means for continuing the motion of said pinions and the wiping members carried thereby beyond the said racks.

2. A penwiper comprising rotating wiping members, pinions connected therewith, rigid racks engaging the pinions for a short portion of their movement, and a balance wheel adapted to continue the motion started by the racks after the pinions pass beyond the racks.

3. A wiper comprising a base, a movable casing mounted thereon, short racks projecting into said casing, shafts journaled in the casing, gears carried by the said shafts and adapted to engage the said short racks, the casing when depressed being capable of carrying the gears beyond the racks, a balance wheel connected with one of the said shafts for continuing the movement of the gears after they pass beyond the racks, and rotary wipers adapted to be actuated by the said balance wheel.

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1,041,227. PROCESS OF TREATING FELDSPAR. Harry W. Morse and Leonard W. Hardesty, Cambridge, Mass. Filed Feb. 28, 1911. Serial No. 611,534. (Cl. 23—22.)

1. In the herein described process of treating feldspar the improvement which consists in heating the feldspar first with sulfate of calcium and then heating the non-volatilized residue with alkali chlorid, whereby a soluble compound of potassium is produced.

2. The process of treating feldspar which consists in strongly heating finely divided feldspar in the presence of finely divided sulfate of calcium, but without fusion of the mixture, whereby oxids of sulfur are evolved, then strongly heating the non-volatilized residue in the presence of finely divided alkali chlorid, and treating the non-volatilized residue with water whereby a soluble compound of potassium is dissolved substantially as described.

3. The process of treating feldspar which comprises strongly heating an intimate mixture consisting of feldspar and sulfate of calcium, but without fusion of the mixture, whereby oxids of sulfur are evolved, then strongly heating an intimate mixture consisting of the non-volatilized residue and sodium chlorid and treating the non-volatilized residue with water whereby a soluble compound of potassium is dissolved substantially as described.

4. The process of treating feldspar which comprises subjecting feldspar, at an elevated temperature, to the action of sulfate of calcium and of an alkali chlorid, and treating the non-volatilized residue with water, whereby a soluble compound of potassium is dissolved, substantially as described.

5. The process of treating feldspar which consists in subjecting feldspar, at a temperature below that at which fusion of the mixture takes place, to the action of sulfate of calcium, thereafter subjecting the mass at a lower temperature to the action of sodium chlorid and then extracting a soluble compound of potassium by subjecting the mass to the action of water.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,228. MOTOR-BOAT. John D. Mullen, New York, N. Y. Filed June 1, 1911. Serial No. 630,569. (Cl. 115—62.)



1. A motor boat comprising a well opening through the bottom thereof and having an outlet at the rear in the form of a trough formed beneath the stern of the boat, said trough being open at the bottom, a pair of hooks fixed to the bottom of the boat along the sides of said well and said trough, a cover for the bottom of said well supported between said hooks, said cover and said trough forming a channel extending from the front of said well, to permit the passage of water through said well past the stern of the boat, and means mounted in said well to engage the water to propel the boat forward, said cover serving to protect said propelling means.

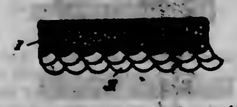
2. In a motor boat, an endless chain comprising links having laterally projecting cams located along the length of the chain at one side, links on the other side of the chain opposite the first-named links, said second-named links being bent toward the first-named links and then being again bent to form cams which are parallel with the cams on the first links, paddle blades having lateral flanges each pivotally connected to the cams on one pair of links between the cams, and a connecting brace pivotally connected to a flange on the paddle blade near the outer end thereof at one end and between the cams of an adjacent pair of links at the other end.

3. A motor boat comprising a well opening through the bottom thereof and having an outlet at the rear in the form of a trough formed beneath the stern of the boat and being open at the bottom, a pair of hooks fixed to the bottom of the boat along the sides of said well and said trough, a cover for the bottom of said well supported between said hooks, said cover and said trough forming a channel extending from the front of said well, to permit the passage of water through said well past the stern of the boat, and an endless chain mounted in said well carrying paddle blades to engage the water to propel the boat forward, said cover serving to protect said chain and blades.

4. A motor boat comprising a well opening through the bottom thereof and having an outlet at the rear in the form of a trough beneath the stern of the boat and being open at the bottom, a pair of hooks fixed to the bottom of the boat along the sides of the well and the trough, and a removable cover for the bottom of said well supported between said hooks, said trough forming a channel extending from the front of said well to permit the passage of water through the well past the stern of the boat, said cover serving as a protecting shield for the bottom of said well.

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1,041,229. GLASS STRUCTURE. Otis A. Mygatt, New York, N. Y. Filed May 13, 1907, Serial No. 373,230. Renewed Feb. 5, 1912. Serial No. 675,647. (Cl. 49—92.)

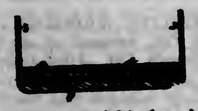


1. A transparent glass body having a lens-like curved surface on one side and upon the opposite surface a colored backing integral therewith.

2. A transparent glass body varying in thickness having a lens-like curved surface on one side and upon the opposite side a colored backing integral therewith.

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1,041,230. HAT-WEIGHT. Dorothy Nelson, Seattle, Wash. Filed June 15, 1911. Serial No. 633,283. (Cl. 2—108.)



The combination in a hat weight of a relatively thin but heavy main body, a flexible wire extending through said body and having its ends bent upwardly at right angles thereto, a channel through the main body and above that portion of said wire which extends through the same, the depth of which channel is greater than the diameter of said wire and into which said upwardly bent ends may be folded, thread receiving eyes through the main body and a channel leading from one of said eyes to the other.

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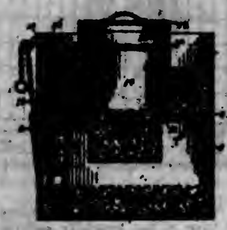
1,041,231. STRAINER FOR MILK-CANS. Herman Nelson, Gothenburg, Nebr. Filed Feb. 12, 1912. Serial No. 676,941. (Cl. 31—14.)



The combination with a can having a neck, a flared top and a cover support, of oppositely disposed stops provided with alternately positioned latches disposed within said flared top, a handle adapted for engagement with the said latches, a perforated cover mounted to said handle adapted to rest upon the said cover support, a perforated plate secured to said perforated cover, a strainer cloth disposed beneath the last named plate and a perforated supporting plate frictionally engaging the said cover beneath the said strainer cloth.

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1,041,232. COOKING UTENSIL. Francis Newton, Elkins, W. Va. Filed Feb. 11, 1909, Serial No. 477,458. Renewed Mar. 20, 1912. Serial No. 684,972. (Cl. 53—1.)



1. In a cooking utensil, a lower vessel, a detachable tank fitting in the upper end of the lower vessel, said tank having an opening, a movable valve adapted to open and close said opening, a float within the lower vessel, a lever pivoted to the upper portion of the tank having one end of the lever connected with the valve, the opposite end of the lever located outside of the tank, the lower vessel having an opening extending outside of the said tank, and a flexible connection having its upper end connected to the end of the lever outside of the tank, with its lower end passing through the said opening in the lower vessel and into the lower vessel and connected with the said float, the parts constructed and arranged to operate as described.

2. In a cooking utensil, a lower vessel, a detachable tank fitting in the upper end of the lower vessel and provided with an opening communicating with the lower vessel, a movable valve adapted to open and close said opening, a Z-shaped lever having its central portion pivoted in the upper end of the wall of the tank with one end in the tank and connected with the said valve, the opposite end of the lever located outside of the tank, the lower vessel having a float chamber, the wall of the lower vessel having an upwardly and laterally extending opening communicating with the float chamber with its upper end in a plane outside of the bottom of the tank, a chain having its upper end outside of the tank and the vessel, the outer end of said lever having a projection to detachably receive the links of the chain for the purpose described, the lower end of the chain passing through the opening and into the float chamber, and a float within the chamber connected with the lower end of the chain, the parts operating substantially as and for the purpose described.

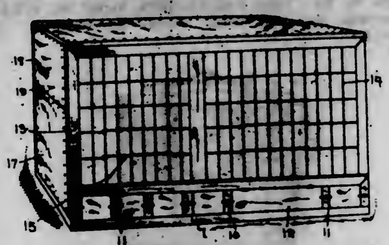
3. In a cooking utensil, a lower vessel provided with an opening and having a U-shaped well adjacent to said opening, an annular tank ranged to be placed upon said lower vessel and provided with an opening in its bottom, a float disposed within the said well, a Z-shaped lever journaled at its central portion in the side wall of the said annular tank, a chain attached to said float and to the outer arm of said Z-shaped lever and arranged for movement through said opening, and a conical valve loosely attached to the inner arm of the said Z-shaped lever and arranged to close the opening in the bottom of said annular tank.

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1,041,233. KNOCKDOWN BOX. Carl Neubel, Rising City, Nebr. Filed Dec. 1, 1911. Serial No. 663,268. (Cl. 217—15.)

A crate comprising the combination with a base; of frames projecting upwardly from the front and rear edges of said base, sectional ends hingedly secured to the ends of said base and adapted to be folded therearainst between the frames, the sections of the ends being secured to-

gether by horizontal hinges along the upper and lower edges of the lower end upper sections respectively of each end, a vertical sectional partition hingedly secured to said base about one-third the length thereof and adapted to be folded therealong between the sectional ends, a back hingedly secured to the frame disposed at the back of said base and adapted to be folded upon said sectional ends and partition when said ends and partition are in their folded



positions, a front hingedly secured to the frame disposed at the front of said base, a top hingedly secured to the upper inner edge of said front, said top and front being adapted to be folded upon said back, the frame disposed at the front of said base having openings therein, closures for said openings, and means carried by said frame adapted to be moved in the path of said closures to prevent the removal thereof.

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1,041,334. GUARD-RAIL FASTENER. WALTER S. NEWHALL, Cleveland, Ohio, assignor to The Cleveland Railway Supply Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 26, 1911. Serial No. 667,643. (Cl. 239—18.)



1. In a guard rail fastener, the combination, with a main rail and a guard rail, of a tie plate on which the main rail seats with a portion of one of its flanges overhanging, and a cooperating tie plate on which both flanges of the guard rail seat with a portion of one flange extending beneath the overhanging main rail flange, said cooperating tie plate having its rail seat lower than the seat of the first mentioned plate and being movable relative to that plate.

2. In a guard rail fastener, the combination, with a main rail and a guard rail, of a tie plate on which the main rail seats with a portion of one of its flanges overhanging, a cooperating tie plate on which the guard rail seats with a portion of its outer flange extending beneath the main rail flange, the tie plate first mentioned having a recess beneath the rail seat, and the last mentioned tie plate extending into said recess.

3. In a guard rail fastener, the combination, with a main rail having two base flanges, and a guard rail having two base flanges one of which has its top substantially horizontal, of a tie plate on which the main rail seats with a portion of its flange overhanging, a cooperating tie plate on which both flanges of the guard rail seat with the horizontal flange extending beneath the main rail flange and rested upon by it.

4. In a guard rail fastener, the combination of a tie plate for the main rail having a bottom recess, a tie plate for the guard rail extending into such recess, a guard rail having a flange, the upper surface of which is in the same plane with the top surface of the main plate, and a guard rail resting on said top surfaces and flange.

5. In a guard rail fastener, the combination of a tie plate having a stud for a portion of the main rail and having a bottom recess, a tie plate for the guard rail extending into such recess, a guard rail resting thereon and having a flange which is of the same thickness as the main plate above the recess, and a rail resting on both the main rail seat and the guard rail flange.

[Claims 6 to 11 not printed in the Gazette.]

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1,041,335. WATCH-MOVEMENT. GRANVILLE NORTHE, Jersey City, N. J., assignor to The Keystone Watch Case Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 27, 1912. Serial No. 711,899. (Cl. 58—140.)

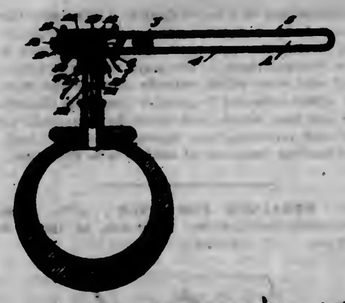


1. A shell, for use as a substitute for the balance jewels in a watch movement, made of tempered metal and formed with a perforated center, the outer edge being formed with an upwardly-turned flange forming a setting for the end stone.

2. A shell, for use as a substitute for the balance jewels in a watch movement, made of metal, and formed with a perforated cone-shape center, the outer edge thereof being flanged to provide a setting for the end stone.

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1,041,336. PNEUMATIC-PRESSURE GAGE. OLE OLSEN, Oakland, Cal., assignor of one-half to Harrison T. Carvin, Alameda, Cal. Filed June 1, 1911. Serial No. 630,606. (Cl. 73—111.)



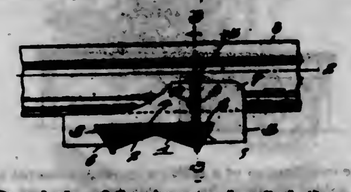
1. A pressure gage for pneumatic tires, including a gage-tube and a fixed valve-opening pressure-pin, a casing fixed to the gage-tube and carrying the pressure-pin, said casing adapted to form a joint with a tire-valve tube, a plunger within the gage-tube movable by the admission of compressed air into said tube, and a valve controlling the communication between the gage-tube and the tire valve tube, said valve closing outwardly and adapted to trap the air in said gage-tube and maintain the pressure in the tube when said tube is removed from the tire-valve tube.

2. A pressure-gage for pneumatic tires including a gage-tube and a fixed valve-opening pressure-pin at right angles with each other, a casing fixed to the gage-tube and carrying the pressure-pin, said casing adapted to form a joint with the tire-valve tube, a plunger movable by the admission of compressed air into said gage-tube, a valve between the tube-end of the gage-tube and the discharge end of the tire-valve tube and adapted to open to admit air from the tire into the gage-tube, said valve adapted to close automatically to trap the air in the gage-tube and maintain the pressure in said tube when the gage-tube is removed from the tire-valve tube, and a push-button adapted to unseat the valve from the outside to release the trapped air and allow the plunger to return to normal position.



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1,041,337. METALLIC TIE AND RAIL-CHAIR. MARION E. PACKER, Rockwell City, Iowa. Filed Mar. 25, 1912. Serial No. 686,020. (Cl. 238—8.)



1. In a device of the character described, the combination of a tie having a channeled base, and beveled faces formed on the longitudinal edges thereof, of a rail chair having a transverse groove formed on its under side, said groove being provided with undercut side walls adapted for the reception of the beveled faces of the tie, longitudinally disposed vertical flanges formed on the upper face of the chair and arranged upon opposite sides of the rail, said flanges being each provided with a transverse opening, a locking pin disposed within said opening and adapted to engage the base flange of the rail, means for holding said pin in a locked position, said means being also adapted to prevent lateral movement of the chair upon the tie.

2. In a device of the character described, the combination with a metallic cross tie, having a channeled base and beveled faces formed upon its longitudinal edges, a rail chair having a transverse groove formed in its under side, said groove being provided with undercut side walls adapted for the reception of the beveled faces of the tie, longitudinally disposed vertical flanges formed upon the upper face of the chair and arranged upon opposite sides of the rail, each of said flanges being provided with a transverse opening, a locking pin disposed in said opening, a beveled face formed upon one end of the pin and adapted to engage the base flange of the rail, each of said flanges being also provided with a vertical opening communicating with the transverse opening, and securing pins arranged within the vertical openings and holding the locking pin in place, said securing pins being disposed through openings in the tie to prevent lateral movement of the chair upon the tie.

3. In a device of the character described, the combination with a metallic cross tie, having beveled faces formed upon its longitudinal edges, of a rail chair having a transverse groove on its under side, said groove being provided with undercut side walls adapted for the reception of the beveled faces of tie, longitudinally disposed vertical flanges formed upon the upper face of the chair and arranged upon opposite sides of the rail, each of said flanges being provided with a transverse opening, a locking pin disposed within the opening and adapted to engage the base flanges of the rail, each of said flanges having a vertical opening adapted to communicate with the transverse opening, said locking pin being cut away to form a shoulder against which the securing pin is adapted to abut and hold the same in position, said securing pin being disposed through an opening in the tie to hold the chair against lateral movement upon the tie.

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1,041,338. DRILL-AND-CHUCK. CARL A. FRANKSON, Chicago, Ill. Filed May 26, 1902. Serial No. 109,171. (Cl. 75—7b.)

1. In combination, a chuck of cylindrical form exteriorly threaded at its end and provided with a tooth, a ring to screw up on said chuck and having an inturned lip, and a main part to enter the chuck and provided with a flange to lie between the end thereof and the lip of said ring, said flange being notched to be engaged by said tooth, for the purpose set forth.



2. In combination, a chuck of cylindrical form exteriorly threaded at its end and provided with a tooth, a ring to screw up on said chuck and having an inturned lip, and a drill-head to enter said chuck provided with a flange to lie between the end thereof and the lip of said ring, said flange being notched to be engaged by said tooth, for the purpose set forth.

3. In combination, a chuck of cylindrical form exteriorly threaded at its end and provided with a tooth, a ring to screw up on said chuck and having an inturned lip and a sleeve to enter said chuck, said sleeve being exteriorly threaded at its end and being provided with a tooth, being also provided with a flange to lie between the end of said chuck and the lip of said ring, said flange being notched to receive said tooth, a second ring having an inturned lip to screw up on the end of said sleeve and a drill fitting the sleeve and having a flange to lie between the sleeve and said second ring, and a notch to be engaged by the tooth of said sleeve.

4. In combination, a female part of cylindrical form exteriorly threaded at its end and provided with a tooth, a ring to screw up thereon having an inturned lip and a drill to enter said female part having a flange to lie between the end thereof and the lip of said ring, said flange being notched to be engaged by the tooth of said female part for the purpose set forth.

5. As an article of manufacture, a drill to cooperate with a chuck of the character described and having a cylindrical shank and a projecting notched flange, for the purpose set forth.

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1,041,339. CONTROLLING MEANS FOR COMBUSTION-ENGINES. WILLIAM M. PAGE, Corning, N. Y. Filed Dec. 20, 1910. Serial No. 598,401. (Cl. 121—112.)

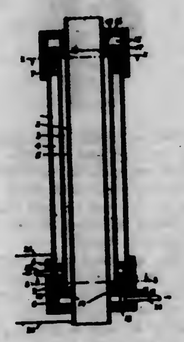


An attachment for engines comprising a shaft having one end thereof channeled, a head slidably mounted on the channeled end of said shaft and rotatable therewith, a collar mounted on said shaft, means for adjustably securing said collar longitudinally of said shaft, spring arms

connected at opposite ends to said head and collar, weights carried centrally of said spring arms, and a rigid stop collar carried by the end of said shaft for limiting the outward movement of said head.

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1,041,840. APPARATUS FOR PRODUCING A GASEOUS REACTION. FRANK W. PEEK, Jr., Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 23, 1911. Serial No. 634,985. (Cl. 204—32.)



1. In an apparatus for producing a gaseous reaction by a silent discharge, a pair of electrodes between which a static discharge takes place, a dielectric located between said electrodes and means independent of the electrodes for preventing the concentration of a static charge between the edges of the electrodes.

2. In an apparatus for producing a gaseous reaction by a silent discharge, a pair of electrodes between which a static discharge takes place and a conducting member located adjacent the edges of the electrodes for preventing the concentration of a static charge between the edges of said electrodes.

3. In an apparatus for producing a gaseous reaction by a silent discharge, a pair of electrodes between which a static discharge takes place, a dielectric member disposed between the two electrodes and a conducting member arranged adjacent the edges of the electrode for preventing the concentration of a static charge between the edges of said electrodes.

4. In an apparatus for producing a gaseous reaction by a silent discharge, a pair of electrodes between which a static discharge takes place, a dielectric member arranged between the two electrodes and means for maintaining said dielectric member in position comprising a yieldingly supported conducting member engaging one end of the dielectric.

5. In an apparatus for producing a gaseous reaction by a silent discharge, a pair of concentrically arranged electrodes between which a static discharge takes place, a dielectric member arranged between the two electrodes, a stationary conducting member engaging one end of the dielectric member, and a yieldingly supported conducting plate engaging the other end of the dielectric.

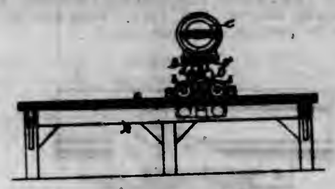
[Claim 6 not printed in the Gazette.]

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1,041,841. CLOTH-CUTTING MACHINE. ERICK H. PETERSON, Philadelphia, Pa., assignor to Sartorial Pattern Company of Philadelphia, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 5, 1907. Serial No. 360,654. (Cl. 164—19.)

1. The combination of a table; a pattern having knives; and mechanism mounted on the table in position to pass transversely of the same, over the pattern in engagement with the back portions of the knives to cause them to cut through the material laid between them and said table; said pattern with its knives being free to tilt under the action of said mechanism.

2. A table; a carriage movably mounted thereon and provided with a roller; and a pattern having peripheral knives mounted to have their back portions engaged by the roller of the carriage to cut material between them and the table; the knives of said pattern being free to tilt under the action of said roller.



3. The combination of a table; a carriage mounted thereon and guided so as to be movable from one end of the table to the other; a roller on the carriage supported above the surface of the table; and a pattern or patterns provided with cutting knives arranged to have their back portions engaged by said roller so as to cause their edges to cooperate with the top of the table to cut material laid thereon; said pattern or patterns being free to tilt under the action of the roller.

4. The combination of a table; a carriage movably transversely thereof; a pattern having knives; with means on the carriage cooperating with the back portions of said knives when said carriage is moved across said table to cut material laid between the pattern and the top of the table; said pattern being free to tilt relatively to the table under the action of the carriage.

5. The combination of a table, a carriage movable thereon, a motor on the carriage, mechanism connected to the motor for moving the carriage over the table, a pattern having cutting knives, and means on the carriage cooperating with the back portions of said knives to force their edges to cut material laid on the table under the pattern, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,842. COMBINED CONNECTING-BRACE, SHIELD, AND BUFFER-HOLDER FOR WATER-CLOSET SEATS. CHARLES PFAU, Cincinnati, Ohio, assignor to The Pfau Manufacturing Company, Norwood, Ohio, a Corporation of Ohio. Filed June 30, 1911. Serial No. 636,178. (Cl. 4—18.)



1. As an article of manufacture, a combined connecting brace, shield and buffer holder adapted to securely connect the divided portions of a water closet seat at its front end, to serve as a shield for the purpose specified, and to hold buffers transversely of the closet bowl, substantially as set forth.

2. A combined connecting brace, shield and buffer holder for a water closet seat and bowl having the shield curved and extending downwardly from the central portion of said brace and having the buffer holders disposed at an angle to said connecting brace and transversely of the upper edge of the closet bowl.



1,041,843. AUTOMATIC DRILL. ROBERT FINKBEIT, Philadelphia, Pa., assignor of one-third to John Penn, Philadelphia, Pa. Filed Dec. 6, 1910. Serial No. 595,929. (Cl. 144—92.)



1. In a drilling apparatus, a spindle rotatably mounted and prevented from longitudinal movement, said spindle having a slotted end, a drill having a socket slidably engaging said slotted end, which latter extends into said socket, a pivoted lever, means for interlocking said lever and socket, driving means for said spindle, and cam actuating means controlled by the driving means for rocking said lever.

2. In a drilling apparatus, a spindle rotatably mounted but prevented from longitudinal movement and having a slotted end, a drill having a socket surrounding a portion of said spindle and having a shank adapted to engage said slotted end, a pivoted lever, means for interlocking said lever and said socket, and driving means operatively connected with said spindle and said lever.

3. In a drilling apparatus, a standard, a spindle mounted therein but prevented from longitudinal movement and having a slotted end, a drill having a socket movably carried by said spindle and interlocking with said slotted end so as to rotate in unison therewith, said slotted end extending into said socket, a lever pivotally mounted in said standard, means for interlocking said socket and lever, means for varying the pivotal point of said lever, and driving means for said spindle and for actuating said lever.

4. In a drilling apparatus, a standard, a spindle rotatably mounted therein but prevented from longitudinal movement and having a slotted end, a drill having a socket adapted to interlock with said slotted end so as to rotate in unison therewith, a lever pivoted in said standard, a second lever pivoted in said first lever, means for interlocking said second lever with respect to said socket, means for varying the coöperation of said second lever with said first lever, means for actuating said spindle, and devices controlled by said actuating means for rocking said first lever, whereby relative longitudinal movement of said drill socket with respect to said spindle is produced.

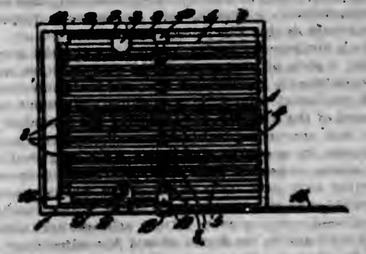
5. In a drilling apparatus, a standard, a spindle rotatably mounted therein but prevented from longitudinal movement, driving means for said spindle, a drill having relative longitudinal movement with respect to said spindle, a gear driven by said spindle, a cam actuated by said gear, a work support, means for intermittently feeding said work support, and means controlled by said cam for simultaneously rendering said feeding means inoperative and returning said work support to its normal position at a predetermined time.

[Claims 6 to 9 not printed in the Gazette.]

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1,041,844. GRATE-MECHANISM AND CLEARING-MEANS THEREFOR. WILHELM POHL, Ditterbach-Grossau, Germany, assignor to Gustave Werner, Philadelphia, Pa. Filed Feb. 8, 1912. Serial No. 675,897. (Cl. 126—173.)

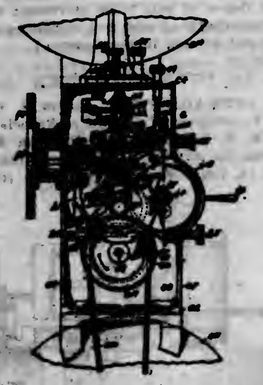
1. The combination of a support, trunnions pivotally mounted therein and having laterally extending shoulders, a grate carried by said trunnions, a plurality of grate clearing members adapted to slide on said shoulders and provided with teeth projecting between the bars of the grate, a rock shaft, arms connecting said rock shaft and one of said grate clearing members, means for connecting said grate clearing members, an arm carried by said rock shaft, and a lever secured to said arm, the pivotal point of said trunnions being on one side of the center of the grate, whereby when said lever is brought to one of the extreme positions said trunnions will turn on their fulcrum to dump the grate.



2. The combination of a support, members pivotally mounted therein, a grate carried by said members and having on opposite sides laterally extending shoulders, a grate clearing member adapted to slide on said shoulders and provided with teeth projecting between the bars of the grate, a rock shaft operatively connected with said grate clearing member, and an actuating lever operatively connected with said rock shaft, the pivotal point of said first members being on one side of the center of the grate whereby when said actuating lever is brought to one of its extreme positions said first members will turn on their pivots to dump the grate.

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1,041,845. KINETOSCOPE. EDWIN S. PORTER, New York, N. Y., assignor of one-half to Francis B. Cannock, New York, N. Y. Filed Mar. 4, 1911. Serial No. 612,417. (Cl. 88—18.)



1. In a kinetoscope having an aperture therein, a source of light, a strip of film passing over said aperture, means for intermittently moving said film, and a shutter for closing off the light; means for adjusting the film with relation to said aperture and for adjusting said shutter in the degree of film adjustment, simultaneously, and means for changing the relationship between said film moving means and said shutter operation during kinetoscope operation.

2. In a kinetoscope having an aperture therein, a source of light, a strip of film passing over said aperture, means for intermittently moving said film, and a shutter for clos-

ing off the light; means for adjusting the film with relation to said aperture and for adjusting said shutter as the degree of film adjustment, simultaneously; and means for independently adjusting said shutter with respect to said aperture during kinetoscope operation.

3. In a kinetoscope having an aperture therein, a source of light, a strip of film passing over said aperture, means for intermittently moving said film, and a shutter for closing off the light; means, in a position convenient to the free hand of the operator, for adjusting the film with relation to said aperture and for adjusting said shutter in the degree of film adjustment, simultaneously, and means for independently adjusting said shutter with respect to said aperture during kinetoscope operation.

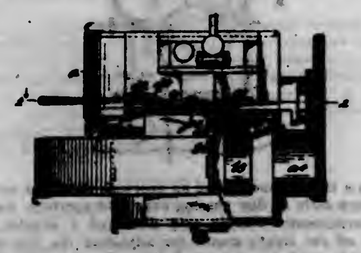
4. In a kinetoscope having an aperture therein, a source of light, a strip of film passing over said aperture, means for intermittently moving said film, and a shutter for closing off the light; a lever, in a position convenient to the free hand of the operator, for adjusting the film with relation to said aperture, a train of manually operable gears, a spiral gear in operative connection with said shutter, a spiral pinion enmeshed with said spiral gear in operative connection with said train of gears and means connected with said lever for moving said spiral pinion longitudinally of said spiral gear to adjust said shutter, simultaneously with and in the degree of said film adjustment, and means for changing the relationship between said film and shutter, during kinetoscope operation.

5. In a kinetoscope having an aperture therein, a source of light, a strip of film passing over said aperture, means for intermittently moving said film, and a shutter for closing off the light; a lever, in a position convenient to the free hand of the operator, for adjusting the film with relation to said aperture, a train of manually operable gears, a spiral gear in operative connection with said shutter, a spiral pinion enmeshed with said spiral gear and in operative connection with said train of gears and means connected with said lever for moving said spiral pinion longitudinally of said spiral gear to adjust said shutter, simultaneously with and in the degree of said film adjustment, and means for changing the relationship between said film and shutter, comprising a supplemental lever in pivotal connection with a slide-block and means for adjusting the position of said block, the movement of said block moving the spiral pinion longitudinally of the spiral gear in the degree of said block movement to adjust the shutter independently of said first named lever.

[Claim 6 not printed in the Gazette.]

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1,041,346. LENS-ADJUSTER. EDWIN R. PORTER, New York, N. Y., assignor of one-half to Francis B. Cannock, New York, N. Y. Original application filed Mar. 4, 1911, Serial No. 612,417. Divided and this application filed Aug. 11, 1911. Serial No. 643,678. (Cl. 88—17.)



2. In a kinetoscope, provided with the usual lens and coil therefor; a partition provided with an opening, a lens-coil carrier slidable in guides on one side of said partition, a rack slidable in suitable guides on the other side of said partition, means for connecting said carrier and rack, said means, exterior of said kinetoscope, for moving said rack and carrier to adjust said lens.

3. In a kinetoscope, provided with the usual lens and coil therefor; a partition provided with an opening, a lens-coil carrier slidable in guides on one side of said partition, a rack slidable in guides on the other side of said partition, means passing through said opening for connecting said carrier and rack, a pinion enmeshed with said rack, and means, exterior of said kinetoscope, for rotating said pinion to move said rack and thereby adjust said lens.

1,041,347. DOUBLE-WALLED ENAMEL-LINED CONTAINER. CHARLES J. [illegible], Middletown, N. Y. Filed July 13, 1911. Serial No. [illegible]. (Cl. [illegible]—3.)



1. A double walled container comprised of duplicate shells, each shell having an inner receptacle portion and an outer protective shell therefor, said outer shell being formed by reversed extensions of said inner shell, thereby forming a space between said outer and said inner shells, a connecting flange between said inner and outer shells formed integral with said inner shell and the said reversed extension, said flange forming a single centrally located annular means for support of the inner receptacle formed by said shells, and a single forming means for connecting the two duplicate halves in one another.

2. A double walled container comprised of duplicate members, each of said duplicate members having an inner receptacle portion and an outer protective shell therefor, said outer protective shell being formed by a reversed extension of the said inner receptacle portion, and integral flange formed between said inner and outer shells, said flanges forming means for attaching said duplicates together, whereby said receptacle is centrally suspended in said outer shell.

3. A double walled container comprised of duplicate inner shells having reversed outer portions forming outer protective shells and abutting their edges at the middle of said container, and duplicate head members having annular extending side portions arranged to be connected to said reversely arranged outer portions.

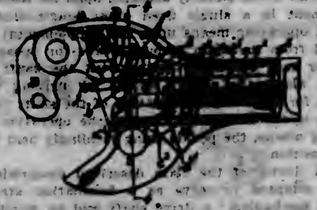
4. A double walled container comprised of duplicate inner shells forming an inner receptacle, each of said duplicate inner shells having a reversed outer portion forming outer protective shells and abutting at their edges at the middle thereof, said edges adapted to receive therein a sealing means, and duplicate head members having annular extending side portions arranged to be connected to said reversely arranged outer portions.

5. A double walled container comprised of four drawn metallic portions, two of said portions comprised of duplicate inner shells forming an inner receptacle, each of said duplicate inner shells having reversed outer portions forming outer protective shells and abutting at their edges at the middle thereof, and duplicate headed bands or ends having annular flanged extensions, said extensions having annular beads therein and adapted to receive said outer extensive walls of said inner receptacle therefrom, the projections formed thereby, together with the projections formed by the said duplicate head members being externally arranged on the outer walls of said container and being adapted to be welded.

[Claims 6 to 19 not printed in the Gazette.]



1,041,348. CAR-COUPLING. William J. Simmons, Depew, N. Y., assignor to Gould Coupler Company, New York, N. Y. Filed May 13, 1911. Serial No. 627,320. (Cl. 213—10.)

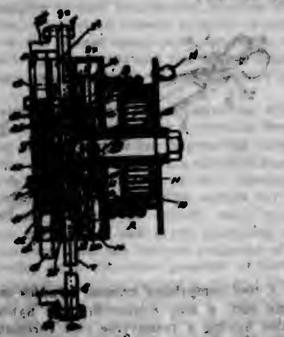


1. In a car coupler, the combination with a horizontally swinging knuckle provided with a slot and a longitudinally movable knuckle lock, of a pair of oppositely disposed horizontally swinging levers the outstanding ends thereof, one of which levers being pivoted outside of the coupler head and in such an arm extending into said head to actuate said knuckle lock and the other lever being pivoted in the body of the coupler head at the side thereof within the knuckle to project, and having an end thereof to the knuckle lock, and a pivoted connection between the said levers, substantially as set forth.

2. In a car coupler, the combination with a horizontally swinging knuckle provided with a tail, a knuckle lock arranged to move longitudinally in the tail, a pivoted lever on the coupler head at opposite sides of said lock to swing horizontally and having inwardly extending actuating arms for the lock, one of said levers being located above the path of movement of the knuckle tail and knuckle opening device, substantially as set forth.

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1,041,349. TROLLEY-RETRIEVER. James R. Rockett, Los Angeles, Cal., assignor to The Los Angeles Trolley Catcher Company, Los Angeles, Cal., a Corporation of California. Filed Oct. 16, 1911. Serial No. 654,906. (Cl. 191—35.)



1. A rod provided in one side thereof with an annular opening, a substantially radial dog slidably mounted upon the rod, the inner end of the dog projecting into the [illegible] opening and [illegible] a pivoted [illegible] a [illegible] a [illegible] a

outward from the center of the wheel while the intermediate rim has a similar pair of flanges directed inward toward said center; a pair of separate elastic annular chocks having beadings at their inner and outer edges adapted to interlock with the flanges of the inner and intermediate rims, respectively so that between said rims and elastic chocks an annular space is inclosed for the reception of the air-tube; an approximately V-shaped expansible security-band comprising an annular series of segments applied between the outer margins of the respective elastic chocks and secured by radial bolts to the inner side of the intermediate rim; a tread-band carried by the outer rim and having lateral beadings adapted to interlock with the flanges of said rim; a pair of lateral annular clamping-plates for maintaining concentricity between the outer and intermediate rims by the insertion of a wedging action between said rims at each side and throughout the circumference of both; and bolts passing transversely through said clamping-plates and the intervening annular space and serving to draw the one clamping-plate toward the other; substantially as illustrated in the accompanying drawings.

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1,041,251. CONSTRUCTION OF SHEET-METAL UTENSILS. ADOLPH F. RIETHER, Lynn, Mass., assignor, by mesne assignments, to Thomson Electric Welding Company, Lynn, Mass., a Corporation of Massachusetts. Filed Dec. 26, 1906. Serial No. 349,547. (Cl. 220—23.)



1. A sheet metal utensil having its attached bail ear or other sheet metal attachment welded to a rounded edge of the utensil body by its plane face, as and for the purpose described.

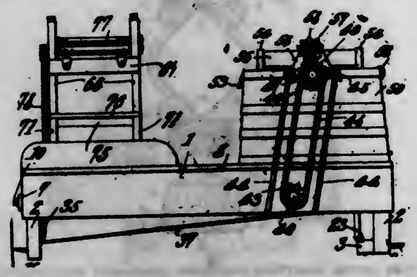
2. A sheet metal utensil having a bail ear or other attachment welded to the edge of the utensil body by two or more projections in the same plane as the main body portion of the ear.

3. A sheet metal utensil having a rounded edge to which the bail ear or other attchment is welded at the plane face, of two or more planar projections extending from said attachment.

4. The combination with a sheet metal utensil, of a rounded reinforced edge on said utensil and a bail ear welded to said edge directly by the plane surface of said ear.

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1,041,252. GEARING. JOHN ROCKE, Meadows, Ill. Filed Feb. 3, 1910. Serial No. 541,698. (Cl. 74—59.)



1. A device of the class described comprising a main frame; a shaft journaled for rotation in said frame; a supplemental frame slidably mounted upon the main frame for movement in a single fixed plane longitudinally of the shaft; operating means upon the supplemental frame; means for operatively connecting said operating means with the shaft at spaced points along the shaft; means for driving the shaft; and means for reversing the rotation of the shaft.

2. A device of the class described comprising a main frame; a shaft journaled for rotation in said frame; a supplemental frame slidably mounted upon the main frame for movement in a single fixed plane longitudinally of the shaft; operating means upon the supplemental frame and spaced from the main frame; means for operatively connecting said operating means with the shaft at spaced points along the shaft; means for driving the shaft; means for reversing the rotation of the shaft; and spaced pedals upon the main frame for the operation of the reversing means, the pedals being yieldingly held in inoperative position.

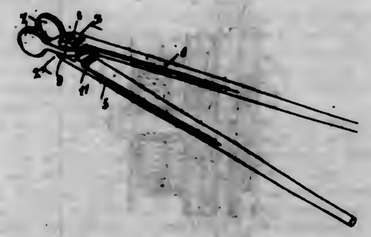
3. A device of the class described comprising a main frame adapted to serve as a foundation structure for driven mechanism; a drive shaft and an auxiliary shaft, both journaled for rotation in said frame; spaced gear trains intoperatively connecting the drive shaft with the auxiliary shaft; a clutch operating upon the drive shaft between the gear trains and operative to connect the same, alternately, with the drive shaft to reverse the rotation of the auxiliary shaft; and pedals upon the frame for operating the clutch from opposite ends of the main frame.

4. A device of the class described comprising a main frame; an auxiliary shaft journaled for rotation in said frame; a supplemental frame slidably mounted upon the main frame for movement longitudinally of the auxiliary shaft; a pulley slidably mounted upon the auxiliary shaft; a belt carried by the pulley; mechanism upon the supplemental frame operable by the belt; elements upon the auxiliary shaft to lock the pulley at spaced points for rotation with said shaft; a drive shaft journaled for rotation in the main frame; spaced gear trains inoperatively connecting the drive shaft with the auxiliary shaft; and a clutch operating upon the drive shaft between the gear trains and operative to connect the same, alternately, with the drive shaft to reverse the rotation of the auxiliary shaft.

5. In a machine of the character described, in combination, a main frame, an operating shaft, a driving member slidably carried on said shaft and arranged to have a clutch connection with said shaft, driving means slidably mounted on said frame, and a permanent connection between said driving means and said driving member.

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1,041,353. TONGS. JOHN W. ROUSE and ALVIN L. KING, Perry, Kans. Filed Feb. 19, 1912. Serial No. 678,464. (Cl. 81—48.)

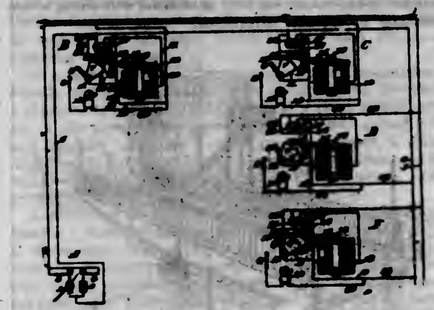


1. A tool comprising crossed handles each having a jaw at one end, a bolt connecting the handles, one of said handles having a transverse slot through which the bolt loosely passes, and a fulcrum on one of the handles behind the connection between the handles and engageable by the other handle.

2. A tool comprising crossed handles each having a jaw at one end, a bolt connecting the handle, one of said handles having a transverse slot through which the bolt loosely passes, and a lug on one side of one of the handles, behind the connection between the handles, said lug being in the path of the inner edge of the other handle and engageable by said edge to serve as a fulcrum for the handles.



1,041,354. SELECTIVE SIGNALING. HARRY O. ROUSE and CHARLES STARLEY RUSSELL, Jr., Sandwich, Ill., assignors to Sandwich Electric Company, Sandwich, Ill., a Corporation of Illinois. Filed Aug. 18, 1910. Serial No. 577,764. (Cl. 177—352.)



1. A selective signaling system having a central station and two groups of substations united by a common line circuit, means at the central station for impressing currents of different electrical character on said line circuit, a selective impulse mechanism at each substation, means at each mechanism for stepping up said mechanism, holding means for said mechanism, a polarized release magnet to control said holding means, the release magnets of one group operating with one character of current and the release magnets of the other group operating with a different character of current.

2. A selective signaling system having a central station and two groups of substations united by a common line circuit, means at the central station for impressing currents of different electrical character on said line circuit, a selective impulse mechanism at each substation, means at each mechanism for stepping up said mechanism, holding means for said mechanism, a release magnet to control said holding means, the release magnets of one group operating with one character of current and the release magnets of the other group operating with a different character of current.

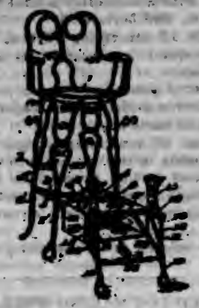
3. A selective signaling system having a central station and two groups of substations united by a common line circuit, means at the central station for impressing currents of different polarity on said line circuit, a selective impulse mechanism at each substation, means at each mechanism for stepping up said mechanism, holding means for said mechanism, a polarized release magnet to control said holding means, the release magnets of one group operating with one polarity of current and the release magnets of the other group operating with the other polarity of current.

4. A selective signaling system having a central station and two groups of substations united by a common line circuit, means at the central station for impressing currents of different polarity on said line circuit, a selective impulse mechanism at each substation, means at each mechanism for stepping up said mechanism, holding means for said mechanism, a release magnet to control said holding means, the release magnets of one group operating with one polarity of current and the release magnets of the other group operating with the other polarity of current.

5. A selective signaling system having a central station and two groups of substations united by a common line circuit, means at the central station for impressing currents of different electrical character on said line circuit, a selective impulse mechanism at each substation, means at each mechanism for stepping up said mechanism, holding means for said mechanism normally out in engagement therewith, a polarized release magnet to control said holding means, the release magnets of one group operating with one character of current and the release magnets of the other group operating with a different character of current.

[Claim 6 not printed in the Gazette.]

1,041,355. WIRE CHAIR. JOSEPH HAZLEHURST, Chicago, Ill. Original application filed Jan. 27, 1906, Serial No. 242,577. Divided and this application filed Mar. 25, 1907, Serial No. 364,405. Renewed Feb. 29, 1912. Serial No. 680,892. (Cl. 155—3.)

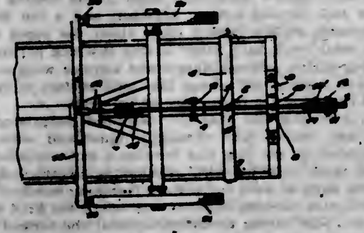


1. In a chair, the combination of a seat ring, rigidly formed arms provided with spindles, rear legs having separated duplex portions, a back of wire having separated upper and lower ends, means for securing the upper ends thereof to the arms, common means for securing the lower ends of the back and rear members of said legs to the ring, and common means for securing the arm spindles and the front members of said legs to the ring.

2. In combination with the seat ring of a metal chair, legs formed of wire each having a lower twisted portion and an upper portion comprising divergent wires, means for securing the upper ends of said wires to the seat ring, and clamps of flat metal having their ends bent so as to encircle and rigidly engage the said divergent wires of each leg midway of their length.

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1,041,356. VEHICLE-BRAKE. SAMUEL J. SAMPSON, Manning, N. D. Filed Feb. 19, 1912. Serial No. 678,521. (Cl. 21—8.)



A brake mechanism of the character described, including a main supporting beam, a clip secured to the beam near the front end of the latter and arranged for attachment to a vehicle reach, front and rear transversely extending supporting straps secured to the beam in spaced relation to each other and in the rear of and in spaced relation to said clip, said straps being arranged for attachment to a vehicle frame, the rear end of said beam being forked, an actuating lever pivotally mounted intermediate of its ends in the fork of said beam, and a link rod pivotally connected to the lower end of said actuating lever and extending forwardly therefrom and arranged for attachment to a brake beam.

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1,041,357. PROCESS OF PRODUCING EFFERVESCENT BATHS. LEOPOLD SARASON, Hirschgarten, and SIGMUND HALLER, Grünau, Germany; said Haller assignor to said Sarason. Filed Oct. 30, 1906. Serial No. 341,241. (Cl. 167—9.)

1. The process of generating oxygen gas only for effervescing baths which consist in introducing into water a

pulverulent and difficultly soluble perborate having a large quantity of adhering air, in conjunction with a substance exerting a catalytic action.

2. The process of generating oxygen for effervescing baths which consists in introducing into water a perborate in conjunction with a difficultly soluble manganese salt in pulverulent form, and boric acid.

3. The process of generating oxygen, consisting in introducing into water a perborate in conjunction with manganese borate.

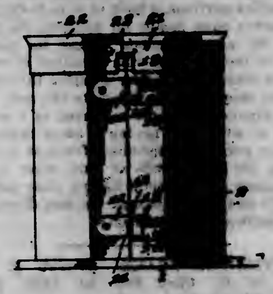
4. The process of generating oxygen, consisting in introducing into water a perborate in conjunction with manganese borate and boric acid.

5. The process of generating oxygen for effervescing baths which consists in introducing into water a difficultly soluble manganese salt in pulverulent form and a substance containing oxygen in loosely combined form, upon which the manganese salt exerts a catalytic action to slowly liberate oxygen gas only.

[Claim 6 not printed in the Gazette.]

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1,041,358. MOLD FOR MAKING WELL-CURBING. Edward Savoy, Chappell Hill, Tex. Filed June 28, 1911. Serial No. 635,750. (Cl. 126—127.)



1. A mold of the character described comprising a pallet base, spaced inner and outer shells resting on the base and forming a mold chamber, and a top flange or removable section formed to fit about the upper edge of the outer shell, said flange having instruck portions providing spring gripping fingers and angular webs or shoulders to respectively engage the inner surface of the shell and rest upon the upper edge of the shell.

2. A mold of the character described comprising a pallet base, spaced split expansible inner and outer shells supported by the base and forming a mold chamber, each shell being provided with overlapping meeting edges, coacting pairs of fixed and pivoted fastening members on the overlapping meeting edges of each shell, the fixed member of each pair having an outwardly bent end formed with a vertical slot opening through its upper edge and the pivoted member of each pair having a vertical slot opening through its lower edge to interlock with the slotted end of the fixed member, a removable cover for the inner shell, and a removable top flange or section engaging the upper edge of the outer shell.

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1,041,359. SAFETY DRAWBRIDGE ATTACHMENT. Edward F. Echoenthaler, Long Branch, N. J. Filed Feb. 11, 1911. Serial No. 607,908. (Cl. 14—53.)

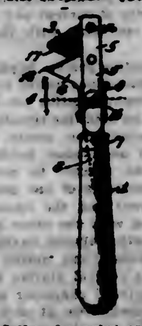
1. The combination with a drawbridge adapted to bridge a gap between two portions of a roadway, of a pair of guard gates on said roadway located in juxtaposition to the end of said drawbridge, an engine-house on said drawbridge, from whence the swinging movement of said drawbridge may be controlled, each of said gates comprising a pivotally mounted arm, said arms being adapted to swing in opposite directions, a clutch member on the pivot of one of said arms, a shaft rotatably and slidably mounted on the drawbridge, a clutch member on said shaft, a lever mounted on the drawbridge for sliding the said shaft to move the clutch member thereof into and out of engagement with the clutch member on the pivot of said arm, a chain-and-sprocket connection with the pivots of said arms, and a single strand chain-and-sprocket connection between said first-mentioned sprocket connection, whereby said arms will swing simultaneously in opposite directions, means for rotating said shaft, comprising a shaft mounted in the engine-house, a crank secured to said shaft for operating it, and a chain-and-sprocket connection between the said sliding shaft and the shaft mounted in the engine-house.



2. The combination with a drawbridge adapted to bridge a gap between two portions of a roadway, of a pair of guard gates on said roadway located in juxtaposition to the end of said drawbridge, an engine-house on said drawbridge, from whence the swinging movement of said drawbridge may be controlled, each of said gates comprising a pivotally-mounted arm, said arms being adapted to swing in opposite directions, a clutch member on the pivot of one of said arms, a shaft rotatably and slidably mounted on the drawbridge, a clutch member on said shaft, a lever mounted on the drawbridge and extending into the engine-house for sliding the shaft to move the clutch member thereof into and out of engagement with the clutch member on the pivot of said arm, a chain-and-sprocket connection with the pivots of said arms, and a single strand chain-and-sprocket connection between said first-mentioned sprocket connection, whereby said arms will swing simultaneously in opposite directions, means for rotating said shaft, comprising a shaft mounted in the engine-house, a crank secured to said shaft for operating it, and a chain-and-sprocket connection between the said sliding shaft and the shaft mounted in the engine-house.

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1,041,360. SHARPENER. Harry B. Smallcomb, Wilmette, Ill., assignor to Smallcomb Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 10, 1911. Serial No. 607,782. (Cl. 76—82.)



1. In a device of the character set forth, the combination of a frame, a fixed sharpening-blade provided with an oblique sharpening-edge, a laterally adjustable sharpening-blade provided with an oblique sharpening-edge coacting said first-named sharpening-edge, and adjusting means moving during adjustment to maintain said sharpening-blades against substantial variation of the angle between their sharpening edges.



2. In a device of the character set forth, the combination of a handle, a shank projecting therefrom, a sharpening-blade having secured to the end portion of said shank, a sharpening-blade, overlapping said first-named sharpening-blade, and guide and adjustment means connecting said second-named blade to said shank and permitting adjustment movement lengthwise of said shank only, whereby variation of the angle between said blades during adjustment is obviated.

3. A device of the character set forth, comprising a handle, a blade-supporting member projecting therefrom, a sharpening-blade secured to the end-portion of said member, a sharpening-blade overlapping said first-named blade and provided with two slots in its base-portion, a clamping-screw extending through one slot in said base-portion and connected with said blade-supporting member, and a guide-pin in the other slot in said base-portion.

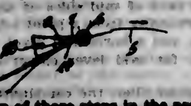
4. A device of the character set forth, comprising a handle, a blade-supporting member fixedly carried thereby, a sharpening-blade secured on the end-portion of said member, a second [illegible] with relation to said first-named member, a sharpening-blade interposed between said first-named blade and said second-named member, and clamping-means for the second-named blade.

5. A device of the character set forth, comprising a handle equipped with a projecting blade-supporting member, a blade fixedly carried by the end-portion of said member, a stud extending through said sharpening-blade, a sharpening-blade having a base-portion overlapping the base-portion of said first-named blade and provided with an open-ended slot engaging said stud, and second-named blade having an extension provided with a slot, and a clamping-screw extending through said last-named slot.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,361. PROCESS OF MAKING PAPER BAGS. Charles F. Salmi, Bridgeport, Conn., assignor to Howland Bag and Paper Company, Dexter, N. Y., a Corporation of New York. Filed Feb. 14, 1912. Serial No. 677,572. (Cl. 93—55.)



1. The combination of those steps in the process of forming the diamond fold in a tubular bag blank having opposite inwardly folded ends in the sides thereof respectively, comprising gripping the opposite lower plies of the side tucks near the forward end of said blank, turning over backwardly that forward end on the line of the main transverse crease, gripping the upper plies of the side tucks and turning over forwardly the previously gripped lower plies, thereby opening the forward end of the blank into box shape.

2. The combination of those steps in the process of forming the diamond fold in a tubular bag blank having opposite inwardly folded ends in the sides thereof respectively, comprising gripping the opposite lower plies of the side tucks on the line of the angular folds respectively, turning over backwardly the forward end of the bag blank on the line of the main transverse crease, gripping in the body of the blank the upper plies of the side tucks on the line of the angular folds respectively and turning over forwardly the previously gripped lower plies, thereby opening the forward end of the blank into box shape.

3. The combination of those steps in the process of forming the diamond fold in a tubular bag blank having opposite inwardly folded ends in the sides thereof respectively, comprising gripping the opposite lower plies of the side tucks near the forward end of said blank, turning over backwardly that forward end on the line of the main transverse crease, gripping the upper plies of the side tucks to the body of the blank, turning over forwardly the previously gripped lower plies, thereby opening the [illegible]

forward end of the blank into box shape, turning backwardly the upper plies, folding down the forward end of the diamond fold, folding that diamond end in the side plies of the box blank and folding down the rearward end of the diamond fold into the bag body.

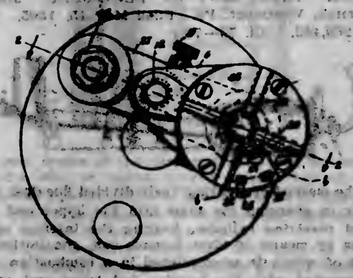
4. The combination of those steps in the process of forming the diamond fold in a tubular bag blank having opposite inwardly folded ends in the sides thereof respectively, comprising gripping the opposite lower plies of the side tucks near the forward end of said blank, turning over backwardly that forward end on the line of the main transverse crease, gripping the upper plies of the side tucks and turning over forwardly the previously gripped lower plies, thereby opening the forward end of the blank into box shape, folding down the forward end of the diamond fold and folding down the rearward end of the diamond fold into the bag body.

5. The process of forming the diamond fold on a tubular bag blank having opposite inwardly folded ends in the sides thereof, including in combination, turning over backwardly the forward end of said blank on the line of the main transverse crease, and folding said forward end down backwardly onto the body of the blank, folding in their folded back positions those plies which were originally upper plies but which now lie down against said body, and then turning over forwardly those plies which were originally lower plies but which now lie uppermost, thereby opening the forward end of the blank.

[Claim 6 not printed in the Gazette.]

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1,041,362. [illegible]-TOOL. Jesse C. Sarns, Detroit, Mich. Filed Sept. 8, 1910. Serial No. 581,050. (Cl. 10—96.)



1. In a threading tool, in combination with a chuck adapted to hold a rod from which a stud is to be cut on the end projecting therefrom, expansible cutters, a threaded work guide contained within said tool adapted to engage the end of said rod while the cutters are in expanded position, and means for coupling the chuck and the tool and thereby actuating the cutters to close them against the rod, means for thereafter disengaging the chuck and the tool and means for holding the cutters against rotation and thereby cutting the thread on the rotating rod, substantially as described.

2. In a threading tool, in combination with expansible cutters, a spindle, a cutter holding head mounted on the spindle and adapted to rotate, a threaded guide carried by said spindle, means for rotating said cutter head with respect to said guide, a chuck adapted to hold a rod to be threaded with the end projecting therefrom, means for coupling the chuck and the cutter holding head and thereby actuating the head to close the cutters against the work, means for disengaging the cutter head and the chuck, and means for holding the cutter head against rotation during the threading period, substantially as described.

3. A threading tool, having in combination a scroll and threading guide element, a cutter holding element in which

the cutters are opened and closed by relative movement between the said two elements, automatic means for connecting and disconnecting said cutter holding element with a rotating member to rotate the one element relatively to the other element a predetermined distance and automatic means for giving the cutter holding element the return rotative movement relative to the scroll and guide element, substantially as described.

4. A threading tool, having in combination, a scroll and threading guide element, a cutter holding element in which the cutters are opened and closed by relative movement between the two elements, rotating means automatically connectible with one of the elements to give the relative movement between the two elements and means for automatically connecting the two elements so that after a given relative rotation has taken place, the two elements rotate together until the rotating member is withdrawn, substantially as described.

5. A threading tool, having in combination, a scroll and threading guide element, a cutter holding element in which the cutters are opened and closed by relative movement between the two elements, rotating means automatically connectible with one of the elements to give the relative rotation between the two elements, means for automatically connecting the two elements so that after a given relative movement has taken place, the elements rotate together until the rotating means is withdrawn from the element to which it is connected and means for adjustably fixing the final relative location of one element to the other to vary the depths to which the cutters close under the influence of said automatically connectible rotating means and said automatic means for coupling the two elements together, substantially as described.

[Claims 6 to 26 not printed in the Gazette.]

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1,041,363. TREATMENT OF FLUE-DUST. John I. Souther, Westmont, Pa. Filed May 15, 1905. Serial No. 260,462. (Cl. 75—78.)



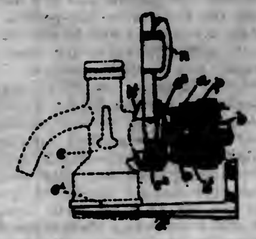
1. The method of treating finely divided flue-dust which consists in charging the same into the upper end of an inclined revolving cylinder, heating the interior of said cylinder by means of blast furnace gas, the initial combustion of which is accomplished in a combustion chamber connected with the interior and lower end of said cylinder, whereby the combustion of said gas is partially perfected without said cylinder and near the lower end thereof, subjecting said flue-dust to gradually increasing temperature, as it travels toward the fire end of the cylinder, and thereby sintering or agglomerating the said flue-dust in masses or lumps, substantially as described.

2. The method of treating finely divided flue-dust or fine-ores which consists in charging the same into the upper end of an inclined revolving cylinder, heating the interior of said cylinder by means of a mixture of combustible gas and air, the initial combustion of which is accomplished in an expansive combustion chamber connected with the lower end of the interior of said cylinder, whereby the combustion of said gases is partially perfected without said cylinder and the highest temperature attained near the lower end of the cylinder aforesaid, subjecting said flue-dust or fine-ores to gradually increasing temperature as they travel toward the fire end of the cylinder, and thereby sintering or agglomerating the same into masses or lumps by the combined action of the gradually increasing temperature and rolling action.

3. The process of agglomerating fine-ores or residues, which consists in initially burning a mixture of combustible gas and air out of the presence of said ores or residues and under such conditions that the resulting reaction-gases may expand and thoroughly mix and then passing the intensely hot products thereof over the ore or residue to be agglomerated and progressively heating it to a temperature sufficient to partially fuse the impurities therein and cause them to become semi-plastic and sticky, and agitating the semi-plastic mass to cause it to form into lumps.

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1,041,364. SIPHON-FILLER. Philip Spitzmesser, New York, N. Y., assignor to Marion B. Spitzmesser, trustee, Brooklyn, N. Y. Filed Aug. 17, 1907. Serial No. 388,006. (Cl. 226—23.)



1. In a siphon filler, the combination with a discharge and means controlling the flow of liquid therethrough, of means supporting a siphon bottle adjacent to said discharge, a lever, a cam surface thereon adapted to engage the filling nozzle of a siphon bottle, and a horizontal pivot for said lever off-set relative to said discharge whereby the bottle will be forced toward said discharge by the wedging action of said cam surface, and said pivot will absorb all strains on said lever.

2. In a siphon filler, the combination with a discharge and means controlling the flow of liquid therethrough, of means supporting a siphon bottle adjacent to said discharge, a lever having an opening having parallel curved sides adapted to engage the filling nozzle of a siphon bottle, a cam surface thereon adjacent to and curved in conformity with each of said sides of said opening, said surface rising gradually from a point adjacent to the bottom of said lever, and a horizontal pivot concentric with said curved sides, for said lever off-set relative to said discharge.

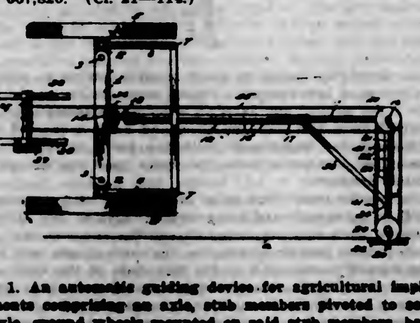
3. In a siphon filler, the combination with a discharge and means controlling the flow of liquid therethrough, of means supporting a siphon bottle adjacent to said discharge, a lever having an opening having parallel curved sides, a cam surface thereon adapted to engage the filling nozzle of a siphon bottle, adjacent to and curved in conformity with each of said sides of said opening, said surface rising gradually from a point adjacent to the bottom of said lever, a hollow horizontal boss offset relative to said discharge, a pivot pin for said lever mounted in said boss, and an enlarged head for said pin whereby strains on said lever will be transmitted to said pivot pin.

4. In a siphon filler, the combination with a discharge, and means adapted to be automatically actuated by the application of the bottle thereto controlling the flow of liquid to said discharge, of a fixed yoke positioned below said discharge and projected forwardly thereof and parallel therewith, whereby a siphon is supported adjacent to said discharge and held in alinement therewith, and means adapted to engage the siphon while supported by said yoke and force it within said yoke and into engagement with said discharge and the automatically operative means controlling the flow of liquid therethrough.

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1,041,365. TRAGET-PRACTICE APPARATUS. Henry A. Stebbins, Malden, and Arthur A. Adams, Brookline, Mass., assignors, by mesne assignments, to Atlantic National Bank, Providence, R. I., a Corporation of Rhode Island. Filed Jan. 26, 1907. Serial No. 354,287. (Cl. 124—15.5.)

1. A target practice apparatus having an aiming device, aim indicating means for indicating the aim thereof without the necessary issuance of a projectile, supporting means whereon said aiming device has free aiming movement and a base whereon said supporting means is mounted for free positioning movement relative thereto.



2. A target practice apparatus having an aiming device, aim indicating means for indicating the aim thereof without the necessary issuance of a projectile, supporting means whereon said aiming device has free aiming movement and a base whereon said supporting means is mounted for free rotative positioning movement relative thereto.

3. A target practice apparatus having an aiming device, aim indicating means for indicating the aim thereof without the necessary issuance of a projectile, supporting means whereon said aiming device has free aiming movement and a stationary base whereon said supporting means is mounted for free positioning movement relative thereto.

4. A target practice apparatus having an aiming device, aim indicating means for indicating the aim thereof without the necessary issuance of a projectile, supporting means whereon said aiming device has free aiming movement and a stationary base whereon said supporting means is mounted for free rotative positioning movement relative thereto.

5. A target practice apparatus having an aiming device for aiming at a target or like object, a carrier upon which said aiming device is fulcrumed for horizontal and vertical aiming movement, a base, and means connecting said base and carrier to permit of lateral and longitudinal swinging movement of the latter relative to said base, and independently of or simultaneously with the aiming movement of said aiming device.

[Claims 6 to 77 not printed in the Gazette.]

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1,041,366. AUTOMATIC GUIDING DEVICE. Walter C. Stephens, Aplin, N. D., assignor to Mariah B. Stephens, Aplin, N. D. Filed Dec. 26, 1911. Serial No. 667,820. (Cl. 21—114.)



1. An automatic guiding device for agricultural implements comprising an axle, stub members pivoted to said axle, ground wheels mounted on said stub members, bars connected to said stub members, a transverse guiding device, pivoted to said bars and provided with a sliding block, a telescopic guiding member extending through said sliding block and pivoted to the axle, a member adjustably connected to said telescopic member, a laterally extending telescopic member, a guide disk support having a guide disk mounted thereon, pulleys, and cables extending around said pulleys, one of said cables passing around an axle mounted on the implement.

2. An automatic guiding device for agricultural implements comprising an axle, stub shafts pivoted to said axle, bars secured to said stub shafts, a guiding device pivoted to said bars and provided with a centrally disposed sliding block, a telescopic guiding device extending through said block and mounted in a ball and socket joint on the axle, a grooved pulley at the front of said telescopic guiding device, a laterally extending telescopic support, a guide wheel, a grooved pulley, a cable extending around said grooved pulley, and a cable extending around one of said pulleys back to an axle on the implement.

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1,041,367. CHIMNEY-MOLD. Martin Stiehler, Chicago, Ill. Filed Jan. 25, 1912. Serial No. 673,304. (Cl. 25—126.)



1. In a device of the character described, the combination of a shell or casing, a band or hoop secured thereto and spaced apart therefrom, means adapted to engage said band, and means adapted to engage said last-mentioned means, thereby to support the casing.

2. In a device of the character described, the combination of a casing, a hoop-like member secured thereto and spaced apart therefrom, a yoke engaging said hoop-like member and adapted to grasp the same, and means adapted to engage said yoke, thereby to support the casing.

3. In a device of the character described, the combination of a casing and band secured thereto and spaced apart therefrom, a yoke engaging and clamping said band, a spider from which the casing can be suspended, and means connecting said yoke to said spider.

4. In a device of the character described, the combination of a casing, a band secured thereto and spaced apart therefrom, a yoke engaging said band, a spider adapted to support the casing, a hanger supported by said spider, and bolts connecting said hanger to said yoke.

5. In a device of the character described, the combination of a casing, a band secured thereto and spaced apart therefrom, yokes which grasp the said band, a plurality of hangers, bolts securing said hangers to said yokes, a spider, and means connecting said hangers to said spider.

[Claims 6 to 10 not printed in the Gazette.]

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1,041,368. COLLAR-FASTENER. George Abner Stiles, Somerville, Mass. Filed Nov. 4, 1911. Serial No. 658,666. (Cl. 24—67.)

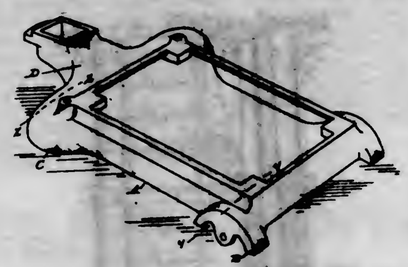
A device of the class described comprising a button including a body having an outstanding post of like cross section from its free end to a point adjacent the body; and

a lever fashioned from a single strip of material, bent upon itself to form a cam bar pivoted in the post, and outwardly curved arms, curved inwardly to fit the neck, the curvature of the arms being rectangularly bent to form a tie-engaging lip, the lip being concaved in an outward direction opposite to the curve of the arms.



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1,041,369. SCALE. WALTER F. STIMPSON, Detroit, Mich., assignor, by mesne assignments, to The Commercial Savings Bank & Trust Company, trustee, Toledo, Ohio, a Corporation of Ohio. Filed Apr. 20, 1911. Serial No. 622,252. (Cl. 73—121.)



1. In a scale, a base frame, having hollow projections at the several corners thereof and supporting wheels housed within said hollow projections, the wheels at one end of said frame being swiveled, and an axle forming a journal for the wheels at the opposite end of said frame.

2. In a scale, the combination with the base frame, and platform levers supported therein, of a caster wheel, and a swivel bearing for said caster wheel at the corner of said base in close proximity to one of said levers but clearing the same and permitting the wheel to swing beneath the levers.

3. In a scale, a base frame having hollow projections at the several corners thereof, and supporting wheels housed within said hollow projections, the wheels at one end of said frame being swiveled, and the axes of the wheels at the opposite end being fixed.

4. The combination with a scale base having hollow projections at the several corners thereof, and supporting wheels housed within said hollow projections mounted so as to project upwardly above the plane of the lower edge of the base, the wheels at one end of the frame being swiveled and the axes of the wheels at the opposite end being fixed.

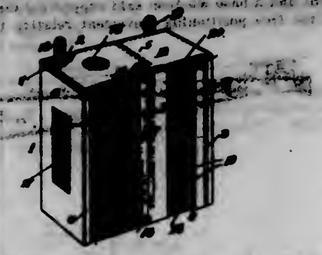
5. The combination with a scale base having a hollow projection extending outward therefrom and formed integral therewith, and a supporting wheel for the base journaled within said hollow projection extending upward therein above the plane of the lower edge of the base.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,370. MATCH-SAFE. RICHARD HENRY TATLOW, Jr., Denver, Colo. Filed May 2, 1900, Serial No. 493,604. Renewed Mar. 15, 1912. Serial No. 684,007. (Cl. 206—36.)

A match safe comprising a double compartment receptacle having an open face and top, a front and top formed in one piece, hinged on the sides of said receptacle forming a cover for said front piece, said front piece having an opening over one compartment for the extraction of matches in small numbers.



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1,041,371. LINK-BUTTON. ROBERT J. TAUFFER, Las Vegas, N. Mex. Filed Mar. 29, 1910. Serial No. 552,170. (Cl. 24—102.)



As a new article of manufacture the herein shown and described cuff button, consisting of the ornamental heads, the central V shaped cross braces terminating in the common meeting point, and the connecting link having its ends bent around said meeting point to form the attaching eyes in which the heads are pivotally secured.

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1,041,372. POKE. JOHN TAUSCHER, Ellis, Kans. Filed Mar. 15, 1911. Serial No. 614,726. (Cl. 119—139.)



1. A poke including an upper member having an upper extension, a lower member hinged upon the lower end of the upper member and having a depending extension, spurs carried upon the lower member, and means connecting the spurs with the lower extremity of the upper member to move the spurs upon the swinging of the members.

2. A poke comprising pairs of spaced arms converging at their outer ends and being centrally fulcrumed together, one of the arms of each pair projecting beyond the opposite arm of each pair to provide extensions, the arms of one pair being hingedly connected to the free ends of the arms of the opposite pair, sleeves slidably disposed about the ends of one of the pairs of arms, spurs hinged upon the sleeves and having curved arms engaging the extremities of the opposite pair of arms, and detachable hinge-bolts engaging through the adjacent ends of the arms for



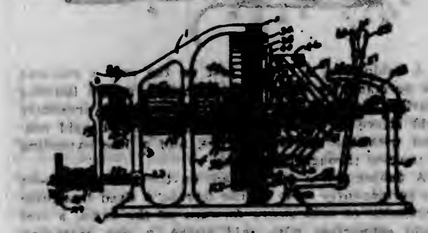
hingedly connecting the arms whereby the outreaging of the arms out of alinement shoves the spurs forward.

3. A poke comprising a pair of yokes, adjustable hinge-bolts engaging through the free ends of the yokes to hingedly connect the arms, sleeves carried about the ends of one of the yokes, spurs hinged through the sleeves and having outstanding arms engaging with the ends of the opposite yoke, and rigid extensions projecting through the outer ends of the yokes for swinging the same out of alinement.

4. A poke including an upper member having an upper extension, a lower member hinged upon the lower end of the upper member and having a depending extension, spurs carried upon the lower member, and means connecting the spurs with the lower extremity of the upper member to move the spurs upon the swinging of the members.

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1,041,373. VARIABLE-SPEED TRANSMISSION DEVICE. JOHN EDWARD THIESEN, Buffalo, N. Y., assignor of one-third to John Ziegler and one-third to I. Elmer Mighton, Buffalo, N. Y. Filed Aug. 28, 1911. Serial No. 646,909. (Cl. 74—96.)



1. In a variable speed transmission device, a disk, a plurality of rollers in tractive contact upon said disk, adapted to rotate respectively, about axes which are radial to the axis of rotation of the said disk, means adapted to simultaneously position said rollers in the same path upon the said disk, concentric with the axis of rotation of the said disk, a rotative element, concentric with the said disk, means operative about the periphery of said disk, connecting the said rotative element with said roller or rollers, adapted to rotate with the same, a compression member adapted to adjustably produce pressure between the said disk and the said roller or rollers.

2. In a variable speed transmission device, a disk, a plurality of rollers adapted to be positioned radially and to roll on said disk, a shaft adapted to pass loosely through each of said rollers and to rotate therewith, means adapted to simultaneously position said rollers in the same path upon the said disk, concentric with the axis of rotation of the said disk, a rotative element, concentric with the said disk, means operative about the periphery of said disk, connecting the said rotative element with said roller or rollers, adapted to rotate with the same, a compression member adapted to adjustably produce pressure between the said disk and the said roller or rollers, means within said device cooperating with the said rollers and said disk, adapted to connect the same with a driving mechanism, means within said device for cooperating with said rollers and said disk and adapted to connect the same with a driven mechanism.

3. In a variable speed transmission device, a disk, one or more rollers adapted to be positioned radially and to roll on said disk, and a shaft adapted to pass loosely through each of said rollers and to be locked thereon with respect to rotation, a guiding element connected with each of said rollers, two links of equal length journaled on said guiding element, one link of one-half the length of either of the two said equal links journaled on one of the two said equal links at the center of the same, and journaled at its other end at a fixed point within said device, a sleeve adapted to be slid in a line perpendicular to the face of said disk and having journaled thereto each of the said links of equal length, means adapted to position the said sleeve with respect to said disk, a compression member adapted to adjustably produce pressure between the said disk and said roller or rollers, means within said device cooperating with the said rollers and said disk, adapted to connect the same with a driving mechanism, means within said device for cooperating with said rollers and said disk and adapted to connect the same with the driven mechanism.

4. In a variable speed transmission device, a disk, one or more rollers in tractive contact with said disk, and adapted to be positioned radially thereon, a shaft adapted to pass through each of said rollers, and to be locked thereon with respect to motion of rotation, a guiding element connected with each of said rollers, two links of equal length journaled on said guiding element, one link of one-half the length of either of the two said equal links journaled on one of the two said equal links at the center of the same, and journaled at its other end at a fixed point within said device, a sleeve adapted to be slid in a line perpendicular to the face of said disk and having journaled thereto each of the said links of equal length, means adapted to position the said sleeve with respect to said disk, a compression member adapted to adjustably produce pressure between the said disk and said roller or rollers, means within said device cooperating with the said rollers and said disk, adapted to connect the same with a driving mechanism, means within said device for cooperating with said rollers and said disk and adapted to connect the same with the driven mechanism.

5. In a variable speed transmission device, a rotative element, a disk adapted to rotate concentrically to said rotative element, a plurality of rollers, adapted to be positioned radially and to roll on said disk, a shaft loosely keyed within each of said rollers, adapted to rotate with the same for any radial position of the roller with respect to said disk within operative limits, said shaft being positioned radial to said disk, means adapted to simultaneously position said rollers in the same path upon the said disk, concentric with the axis of rotation of the said disk, means at the outer end of each of said shafts adapted to cooperate and connect with the said rotative element, to revolve with the same, a compression member adapted to be manually positioned in adjustment and to cause pressure thereby between the said disk and the said roller or rollers.

[Claims 6 to 9 not printed in the Gazette.]

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1,041,374. THEATRICAL AQUATIC APPARATUS. JAMES THOMPSON, New York, N. Y. Filed Oct. 26, 1911. Serial No. 656,660. (Cl. 46—70.)



1. In a theatrical apparatus, a water containing vessel, having an entrance shaft adapted to extend up to the stage level, and one or more air domes connected to said vessel.

2. In a theatrical apparatus, a water containing vessel, having an entrance shaft adapted to extend up to the stage level, and one or more air domes, said domes rigidly connected to the vessel containing and extending up to less than the stage level.

3. In a theatrical apparatus, a water containing vessel, having an entrance shaft adapted to extend up to the

stage level, and one or more air domes, said domes rigidly connected to the vessel casing and extending up to less than the stage level, and means for maintaining air supply in said domes.

4. In a theatrical apparatus, a water containing vessel, having an entrance shaft adapted to extend up to the stage level, and one or more air domes, and means in said shaft adapted to assist the ascent and descent of actors.

5. In a theatrical apparatus, a water containing vessel, having an entrance shaft adapted to extend up to the stage level, and one or more air domes connected to said vessel, and means in said shaft adapted to permit the ascent and descent of actors, consisting of an elevator with means for operating it.

[Claims 6 to 20 not printed in the Gazette.]

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1,041,875. PUMP. WILLIAM A. S. THOMPSON, THOMAS N. KELLETT, and ROBERT W. GUNN, Los Angeles, Cal. Filed June 1, 1911. Serial No. 630,663. (Cl. 103—89.)



1. A pump comprising a plunger chamber having no opening except at the top of said chamber and then being provided with a port; and a tubular valved plunger open at its lower end, said lower end working past said port into and out of said chamber, and closing said port while the plunger is in said chamber.

2. The combination with a coupling provided with a port, of a case section connected with one end of said coupling and provided with a cap, a working barrel section movably secured inside the case section above the cap, a guiding working barrel section secured to the other end of the coupling, and a tubular valved plunger working in said working barrel section.

3. A pump comprising a coupling provided with a port, case sections connected by said coupling, working barrel sections in said case sections, means connected with the case sections to retain the working barrel sections in place, one of said working barrel sections being closed at its end opposite the port, and a tubular valved plunger working in said working barrel sections and across said port.

4. A pump comprising a coupling provided with a port, case sections secured to the opposite ends of the coupling, a working barrel section in one of said case sections and seated with relation to the coupling, a cap screwed onto the case section surrounding said working barrel section to hold the working barrel section seated, another working barrel section seated in the other end of the coupling, a case section being secured to each other end of the coupling and surrounding said other working barrel section, an internally-shouldered head coupling screwed into said other case section and into contact with the other working barrel section to hold it in seated relation to the coupling, and a tubular valved plunger working through said head and in said working barrel section past said port.

5. In a pump the combination with a plunger chamber closed at one end and provided with a port at the other end, of a tubular valved plunger open at its lower end and working past the port and into and out of said chamber, and an anti-wear ring below the port.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,876. FISHING-TACKLE. CHARLES TOWNSEND, Milwaukee, Wis. Filed Dec. 16, 1911. Serial No. 666,241. (Cl. 43—15.)



1. A fishing-rod, a ferrule fast on the rod, a reel-seat sleeve permanently located on the ferrule, means limiting oscillation of the sleeve, a fixed line-guide in proximity to said sleeve forward of the same, a reel in rigid connection with the aforesaid sleeve, and a line extending from the reel through the guide.

2. A fishing-rod, a ferrule fast on the rod, a reel-seat sleeve permanently loose on the ferrule, a fixed line-guide in proximity to said sleeve forward of the same, a reel in rigid connection with said sleeve, a line extending from the reel through the guide, and a friction brake for the aforesaid sleeve constituting an under finger-grip in connection with the rod.

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1,041,877. PROCESS OF MAKING CORES FOR AUTOMOBILE-TIRES. IRA F. TRAUTMAN, New York, N. Y. Filed Oct. 25, 1911. Serial No. 656,822. (Cl. 154—12.)

1. A process of making a tire core consisting in shaping a mixture of crude rubber, sulfur and a gas generator into the form of an annulus, wrapping tape about the same so that the tape, when stretched on the finished product, will fit snug against it and fill the core mold, placing this annulus in a suitable core mold and vulcanizing the annulus so placed whereby a core of sponge rubber inclosed in a tight fitting envelop is produced under pressure.

2. A process of making a tire core consisting in shaping a mixture of crude rubber, sulfur and a gas generator into the form of an annulus, wrapping tape about the same so that the tape, when stretched on the finished product, will fit snug against it and fill the core mold, placing this annulus in a suitable core mold and vulcanizing with several heats the annulus so placed whereby a core of sponge rubber inclosed in a tight-fitting envelop is produced under pressure.

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1,041,878. STRAINER FOR NURSING-BOTTLES. JEAN TWEEDDALE, New York, N. Y. Filed Sept. 6, 1911. Serial No. 647,961. (Cl. 210—16.)

1. A strainer, adapted to be used in conjunction with bottles, comprising a flat circular disk, having a circular opening in the center thereof, and a depending flange around said opening, a flange upon the outer edge of said disk, adapted to engage a straining member, a straining member comprising a cup-shaped depending part adapted to fit within the mouth of a bottle, and an integral extended flange, whereby the same is secured to the said disk, by means of said outer flange on the said disk, clips integrally formed with the said flat circular disk, and upon the outer edge thereof, adapted to secure the device to the mouth of a bottle.



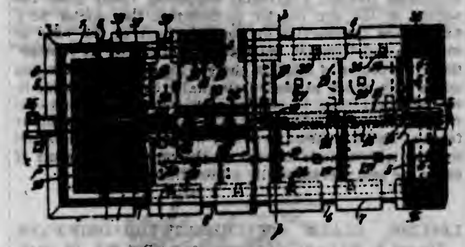
2. A strainer, adapted for nursing bottles, comprising a flat circular disk, adapted to rest upon the top of the mouth of the bottle, and contact closely therewith, said disk having a circular opening in the center thereof, surrounded by a depending flange adapted to engage and register with the mouth of the bottle, an outer flange around the said disk, whereby a straining member is secured to the said disk, a straining member formed of woven wire cloth, cup-shaped in form and having an integral flange



of woven wire cloth adapted to be engaged and secured by the said flange on the outer edge of said flat circular disk, and said depending cup-shaped part of said straining member adapted to fit within the mouth of said bottle, hooks integrally formed with the said flat circular disk and so adapted as to secure the said device in position closely adhering to the mouth of the bottle thereby admitting the use of said device in combination with an ordinary nipple such as are used for nursing bottles.

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1,041,879. SECTIONAL KILN. GEORGE C. F. VATH, Dayton, Ohio, assignor to The C. W. Raymond Company, Dayton, Ohio, a Corporation. Filed Apr. 5, 1911. Serial No. 619,069. (Cl. 25—136.)



1. In a kiln of the type specified, parallel rows of kiln sections each of which is provided with burner openings, a main draft flue common to all of said sections, and gas flues, one for each row of kiln sections, means for connecting the gas flues with the burner openings, said gas flues having ports which communicate directly with the atmosphere so that air may enter to reduce the temperature of the products of combustion, said gas flues being also provided with valve controlled openings which lead to said main draft flue, whereby when one kiln section in one row is being fired the flue of the other row of sections may be burned out.

2. In a kiln of the type specified, a plurality of kiln sections, a continuous water smoking flue common to all of said kiln sections, a valve-controlled passageway leading from said flue to each of said sections, and dampers in said flue between the passageways dividing the flue into two parts thereby permitting the air radiated from two cooling sections to be independently conducted to other sections, whereby the temperature in said last named sections may be gradually raised, and means for creating a draft in said flue and sections, substantially as specified.

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1,041,880. CHROMATROPE. HENRY VAN ALKEMA, New Brunswick, N. J. Filed May 21, 1912. Serial No. 700,690. (Cl. 46—14.)



1. In a chromatrope, the combination with disks divided into three colored sections and having central perforations, of a ring passing through the perforations so as to carry a disk at diametrically opposite points, washers supporting the disks, a cord connected with the ring at one side to rotate the ring when the cord is twisted, a resilient support, and a cord at the opposite side of the ring and connected with the resilient support.

2. In a chromatrope, the combination with a ring, of colored disks centered on the ring, washers beneath the disks, cords attached to the ring, a base, a resilient frame secured to the base and carrying one of the cords, and a ring for the other cord.

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1,041,881. MAT-PIN GUARD. JOHN J. VAN VLIET, Chicago, Ill. Filed May 5, 1911. Serial No. 625,804. (Cl. 24—155.)



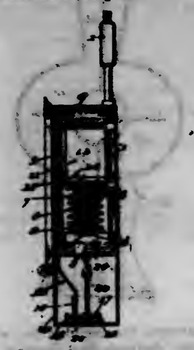
A device of the class described, comprising a tube, a conical mouth piece at one end having an opening in its apex co-axial with said tube, a flat strip traversing the opposite end of said tube and secured to the same, said strip being bent into substantially V-shape with its sides converging inwardly and provided with a perforation in its apex co-axial with said tube and a pair of normally curved leaf springs arranged in said tube with their convex sides contacting, the ends of said springs adjacent said mouth piece being fixed and the opposite ends being free and extending through the spaces between said V-shaped strip and the wall of said tube, and the apex of said V-shaped strip being at right angles to the plane of the contact of said springs, substantially as described.

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1,041,882. VACUUM-RECORDER. GEORGE C. VENNUM, St. Louis, Mo. Filed Nov. 28, 1911. Serial No. 662,281. (Cl. 73—167.)

1. In a gage of the character specified, the combination of a case having a glass front and an opening in its top, a movable receptacle disposed within said case, a counterbalance device disposed within said case whereon said receptacle is mounted, a fixed receptacle located exteriorly of said case at a higher elevation than the movable receptacle, a pipe connecting said receptacles and extending

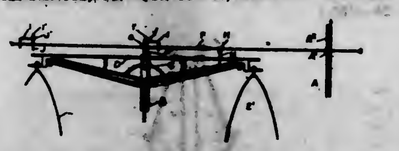
through said opening, said movable receptacle being adapted initially to contain a fluid transferable therefrom through said pipe to said fixed receptacle by the action of the force to be measured, and an indicating and recording device located within said case behind said glass front and controlled by said movable receptacle.



2. In a gage of the character specified, the combination of a case provided with a glass front and with a depending extension, the top of the case having an opening therein, a movable receptacle disposed within said case, a counterbalance device disposed within said case whereon said receptacle is mounted, a fixed receptacle located exteriorly of said case, a pipe connecting said receptacles and extending through said opening, and an indicating and recording device located behind said glass front and controlled by said movable receptacle.

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1,041,883. BALANCE. GOTTFRIED VOLAND and GEORGE G. VOLAND, New Rochelle, N. Y. Filed Apr. 17, 1912. Serial No. 691,298. (Cl. 73—3.)



1. A balance provided with a beam-actuating device controlled from the outside of the balance casing and mounted to turn and to slide, the said device having a member adapted to engage the balance wheel to impart a swinging motion thereto to test the sensitiveness of the balance.

2. A balance provided with a rider carrier, a clip held on the rider carrier, and a finger carried by said clip and adapted to engage the beam for imparting a swinging motion thereto to test the sensitiveness of the balance.

3. A balance provided with a rider carrier comprising a rod mounted to turn and to slide, a clip held on said rod, and a resilient finger carried by said clip and adapted to engage one end of the balance beam for imparting a swinging motion to the latter with a view to test the sensitiveness of the balance.

4. A balance, comprising a casing, a post within the said casing, a beam mounted to swing on the said post and carrying the pans, a rider rod mounted to turn and to slide in bearings on the said post and one side of the casing, the rod extending to the outside of the casing, and a resilient finger attached to the said rod and extending at a right angle thereto and at a point opposite one end of the beam to engage the latter on turning the rod to impart a swinging motion to the beam.

5. A balance provided with a rider rod provided with an arm having a hook for supporting a rider and having a stop lug in the path of the hook to prevent the rider from passing rearward on the rod.

[Claims 6 and 7 not printed in the Gazette.]

1,041,884. GUN-MOUNTING. Ernst Valentin Zimmermann, Gelsenkirchen, assignor to Maschinenbau-Anstalt und Maschinenfabrik, Düsseldorf-Derendorf, Germany. Filed May 8, 1908. Serial No. 431,972. (Cl. 89—37.)

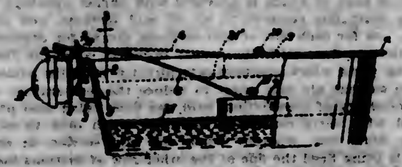


1. In combination with a gun, a base or carriage provided with a bearing, a gun carrier having a spherically shaped journal adapted to be mounted in said bearing so as to permit free rotary movement of the carrier in all directions therein, a gyrostat supported freely from the bottom of the gun carrier to maintain the carrier in a fixed plane irrespective of the movement of the base or carriage, and trunnion bearings in said carrier substantially the center of rotation thereof, for supporting the gun on an axis which passes substantially through a point in the resultant force of gravity acting on the gun and carrier and substantially through a point in the resultant force of recoil incident to firing, whereby substantially no turning movement is exerted on the carrier as a result of firing the gun; substantially as described.

2. In combination with a gun, a base or carriage provided with a bearing, a gun carrier having a spherically shaped journal adapted to be mounted in said bearing so as to permit free rotary movement of the carrier in all directions therein, a gyrostat supported freely from the bottom of the gun carrier to maintain the carrier in a fixed plane irrespective of the movement of the base or carriage, and trunnion bearings in said carrier substantially the center of rotation thereof, for supporting the gun on an axis which passes substantially through a point in the resultant force of gravity acting on the gun and carrier and substantially through a point in the resultant force of recoil incident to firing, whereby substantially no turning movement is exerted on the carrier as a result of firing the gun; substantially as described.

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1,041,885. ALARM ATTACHMENT FOR DRIP-PANS. JULIUS T. WAGNER, St. Louis, Mo. Filed Feb. 19, 1912. Serial No. 678,469. (Cl. 116—15.)



1. An alarm attachment for drip-pans comprising a member adapted to be secured to the wall of the pan, a flexible wall portion, a lever adjacent to said member and having a long arm to which said wall portion, a short heavily counterweighted arm, and means, on other short arm, an alarm device positioned to engage the short lever arm for an oscillation of the lever in one direction.

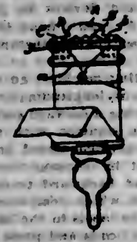
2. In combination with a drip-pan having a depending wall, a clamp having attachment members for said wall, a lever mounted intermediate its ends in said clamp, the under surface of the wall below the upper edge thereof, the upper



end of the clamp body being recessed centrally, a short pin mounted across the recess, a flexible and pliable contact blade, short arm of the lever and pivoted intermediate its ends on said pin, the latter having a long arm extending into the plane of said first extending end of the pin, a flexible conductor fixed depending from the free end of the long terminal, a nut secured on the outside of the pin to one of the clamp members, and a conductor on the latter adapted to be engaged by the short lever arm with the upward oscillation of the long arm, for sounding an alarm.

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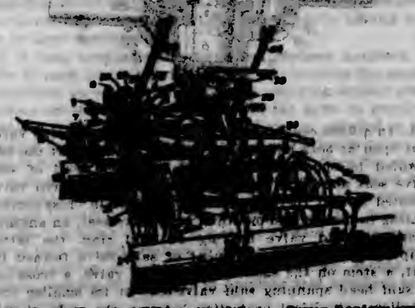
1,041,886. BUCKLE. DE VAN H. WARNER, Bridgeport, Conn., assignor to Warner Brothers Co., Bridgeport, Conn., a Corporation of Connecticut. Filed Sept. 23, 1910. Serial No. 583,128. (Cl. 24—194.)



1. The combination of a buckle comprising a lever having a clamping edge and an integral back or frame pivotally connected to said lever, said back having inwardly extending portions approaching each other, but leaving a space between the ends of said portions greater than the length of said clamping edge, the edge of the lever being adapted to come into clamping relation with the said ends, and a webbing having one end secured over said inwardly extending portions and bridging the space between the ends thereof, the running length of the webbing being looped from front to rear over the fixed end of the webbing and between said fixed end of the webbing and the lever, whereby the clamping edge of the lever presses the webbing into the space between the ends of said inwardly extending portions of the back.

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1,041,887. GRADING [illegible]. RAYMOND WATERMAN, Minneapolis, Minn. Filed Dec. 9, 1911. Serial No. 601,640. (Cl. 37—3.)

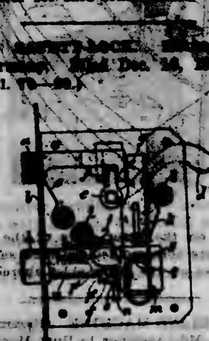


1. A grading machine comprising a frame having carrying wheels, a scraper [illegible] supporting support thereon, a draw-bar connected with said support, a ball connected to said draw-bar, a transversely arranged crank shaft having its crank gimbaled [illegible] with said ball, and an operating lever for said crank shaft.

2. A grading machine comprising a frame having carrying wheels, a scraper [illegible] supporting support thereon, a draw-bar connected with said support, a ball connected to said draw-bar, a transversely arranged crank shaft having its crank gimbaled [illegible] with said ball, and an operating lever for said crank shaft.

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1,041,888. [illegible] LOCK. [illegible] WEHMANN, Bochum, Germany. Filed Dec. 16, 1911. Serial No. 666,113. (Cl. 70—30.)



1. A safety lock comprising a bolt having a pair of key-notches, a slide movable at a right angle to the bolt and having a pair of key notches, a latch adapted to be engaged by the slide, said key having a pair of facing and independently movable bits [illegible] to engage the notches of the bolt and slide, while the [illegible] is adapted to successively engage the [illegible] and slide.

2. A safety lock comprising a bolt, a slide movable at an angle thereto, a latch adapted to be engaged by the slide, a key having a pair of bits adapted to be engaged by the slide, a key having a pair of facing and independently movable bits that form the drag bit, the first bit being adapted to start the bolt, the first and second bits being adapted to conjointly complete the movement of the bolt and start the slide while the second bit is adapted to complete the movement of the slide.

3. A safety lock comprising a bolt, a slide movable at an angle thereto, a latch adapted to be engaged by the slide, and a key having a slotted barrel carrying a first bit, and a stem fastened within said barrel and carrying a second bit that forms the first bit, said first named bit being adapted to engage the bolt, while the second named bit is adapted to successively engage the bolt and slide.

4. A safety lock, comprising a bolt, having a curved slot, a slide movable at an angle to the bolt and having a pin adapted to engage said slot, a latch adapted to be engaged by the slide, tumblers engaging the bolt and slide, and a key having a pair of facing and independently movable bits that are adapted to operate said bolt and slide.

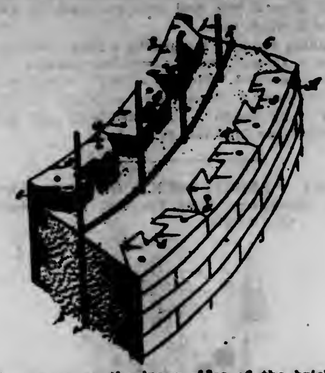
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2,041,889. CONCRETE WALL CONSTRUCTION. Walter W. Wilkinson, St. Louis, Mo. Filed Oct. 18, 1909. Serial No. 523,405. (Cl. 72—20.)

1. A reinforced concrete wall provided with a facing comprising [illegible] arranged in proximity the outer surface [illegible] and provided on their [illegible] with [illegible] recesses of approximately triangular cross section, the walls of the latter having inwardly [illegible] edges [illegible] between the walls of the recesses [illegible] and diverging inclined faces which form a [illegible] between the [illegible] and [illegible] of the facing.

[illegible] the construction of [illegible] and outer facing [illegible] that are arranged in proximity the [illegible] ordinary building [illegible] the latter [illegible] of the former having contracted recesses approximately [illegible] and the ends of the latter having [illegible]

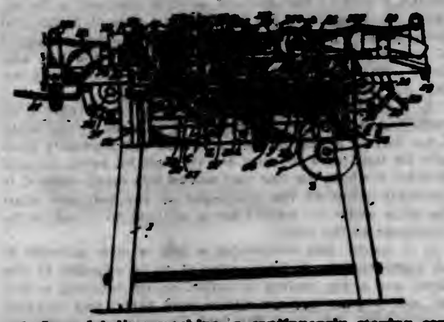
faces which insure tight joints between adjacent bricks and also beveled or inclined faces which are so disposed that V-shaped recesses are located between the con-



tracted recesses on the inner sides of the bricks, and a reinforced concrete core molded between said facings and filling the recesses on the inner sides thereof.

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1,041,390. LABELING-MACHINE. FREDERICK W. WILD, Jr., Baltimore, Md., assignor to Burt Machine Company, a Corporation of Delaware. Filed Feb. 4, 1909. Serial No. 476,144. (Cl. 216—98.)



1. In a labeling machine, a continuously moving conveyer belt adapted to carry articles longitudinally of the machine, combined with labeling devices, means to effect an independent longitudinal forward and backward movement of the labeling devices the former movement being in a direction in common with that of the said conveyer belt, and other means to cause the said labeling devices while so moving, to have a transverse forward movement to bring them into contact with the articles, and hold them in such contact for a period, substantially as, and for the purpose specified.

2. In a can labeling machine, an entrance runway, an endless continuously moving conveyer chain to receive cans from the runway and carry them longitudinally of the machine, combined with a carriage having a forward and backward movement longitudinally of the machine, the forward movement being in common with that of the conveyer chain, and label applying devices supported by the said carriage, having a movement in unison with the same, and also an independent motion in a direction transversely of that of the carriage, whereby the label applying devices will perform their function with respect to the cans as the cans are in motion or passing through the machine, substantially as and for the purpose specified.

3. In a can labeling machine, a continuously moving conveyer chain adapted to carry cans longitudinally of the machine, a reciprocating main carriage having a forward and backward movement its forward movement being in common with the conveyer chain, secondary carriages seated on the main carriage having a transverse forward motion toward and from the conveyer chain, the said secondary carriages having an elements thereof, devices to apply paste to a can, means to apply a label to the pasted head of a can, and an appliance to press the affixed label tightly against the pasted label, the three operations being performed simultaneously and on different cans, substantially as specified.

4. In a can labeling machine, embodying an endless conveyer chain adapted to carry separated cans longitudinally of the machine, a pasting device which comprises an endless pasting belt having an intermittent movement in a direction the same as that of the conveyer chain and a part of whose surface is adjacent to and parallel with the path taken by the heads of the cans to be labeled, means to apply paste to the outer surface of the pasting belt, and devices to push the pasted belt against the head of a can during the longitudinal movement of the conveyer chain, substantially as and for the purpose specified.

5. In a can labeling machine, an endless conveyer belt adapted to carry cans longitudinally of the machine and a main carriage having a forward and backward movement, the former being in common with that of the conveyer belt, a secondary carriage seated on the main carriage, having a movement in common therewith, and in addition, a forward and backward transverse motion, label-applying mechanism which comprises a label holder and means to advance the labels in the holder toward and into the path of the can heads and press the front label independently of the holder against a pasted can head while the same is in motion, a distance equal to the thickness of a label, the feeding of the labels being effected during each complete stroke of the secondary carriage, substantially as specified.

[Claims 6 to 11 not printed in the Gazette.]

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1,041,391. AIR-BRAKE COUPLING. OLIVER P. WILHELM, Michigan City, Ind., assignor to himself, Lena Wilhelm, and Sanford Wilhelm, Michigan City, Ind. Filed Oct. 24, 1910. Serial No. 588,677. (Cl. 137—30.)



1. In a hose coupler head provided with a tapered valve seat open at both ends and of greater diameter at the end adapted to oppose a companion head, the wall of said valve seat annularly beveled at said end, a tapered valve adapted to seat thereon, a ring triangular in cross-section resting in the beveled mouth of said valve-seat, an annular flange on said valve bearing on said ring, the latter adapted to limit the movement of said valve toward its seat, a stem on the smaller end of said valve, a cross-bar in said head spanning said valve-seat at its smaller end, a hollow cylindrical projection between the ends of said bar concentric with an opening therein through which the stem of said valve passes, a collar on the latter of greater diameter than the recess in said projection, and a compression spring in said recess bearing on said collar to maintain said valve seated, said collar coacting with said projection to limit the movement of said valve from its seat.

2. In a hose coupler head provided with a tapered valve seat open at both ends and of greater diameter at the end adapted to oppose a companion head, the wall of said valve seat annularly beveled at said end, a tapered valve adapted to seat therein, a ring triangular in cross-section resting in the beveled mouth of said valve-seat, an annular flange on said valve bearing on said ring, the latter adapted to limit the movement of said valve toward its seat, a stem on the smaller end of said valve, a cross-bar in said head spanning said valve-seat at its smaller end, a hollow cylindrical projection between the ends of said bar concentric with an opening therein through which the stem of said valve passes, a collar on the latter of greater diameter than the recess in said projection, and a compression spring in said recess bearing on said collar to maintain said valve seated, said collar coacting with said projection to limit the movement of said valve from its seat, and a lip on each of said members forming a guard for said segmental flange of said valve when the latter is open, the ends of the said segmental lips of companion members meeting when said members are moved into relative coupled positions, and a projection flush with one end of said lip and adapted to engage one of said projections on said segmental flange to turn said valve when the said members are moved into coupled position, substantially as and for the purpose described.

3. A hose coupling comprising two opposed members, a valve in each controlling communication between the same, a segmental flange on each of said valves terminating at its ends in projections between which the lip of the other member is adapted to be received, whereby relative rotary movement of said members is transmitted to said valves to open and close the same, said segmental flange of each valve adapted to pass underneath the wing of its carrying member when said valve is opened, a segmental lip on each of said members forming a guard for said segmental flange of said valve when the latter is open, the ends of the said segmental lips of companion members meeting when said members are moved into relative coupled positions, and a projection flush with one end of said lip and adapted to engage one of said projections on said segmental flange to turn said valve when the said members are moved into coupled position, substantially as and for the purpose described.

4. A hose coupling comprising two opposed members, a valve in each controlling communication between the same, projections on each of said members engaging similar projections on the other thereof to hold the same in coupled relation, projections on each of said valves adapted to be engaged by one of said projections of the other member to impart movement to said valve to open and close the same as said members are manually coupled and uncoupled respectively, and a projection on each of said members adapted to engage one of the projections of the valve of the other member to close the latter as said members are moved into coupled relation, whereby when the first-named valve-actuating projection of either member should be broken, opening of the valve in coupling said members will be assured.

[Claim 5 not printed in the Gazette.]

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1,041,392. HEADLIGHT. CHARLES I. WILLIAMS, Utica, N. Y. Original application filed Apr. 1, 1911, Serial No. 618,475. Divided and this application filed Dec. 20, 1911. Serial No. 667,021. (Cl. 240—61.)

1. In a locomotive headlight, a cylindrical and fixed casing provided with a lamp, the casing having a door in its cylindrical wall hinged substantially at the bottom of



valve seat complexly beveled at said end, a tapered valve adapted to seat therein, a ring triangular in cross-section resting in the beveled mouth of said valve-seat, an annular flange on said valve bearing on said ring, the latter adapted to limit the movement of said valve toward its seat, a stem on the smaller end of said valve, a cross-bar in said head spanning said valve-seat at its smaller end, a hollow cylindrical projection between the ends of said bar concentric with an opening therein through which the stem of said valve passes, an adjustable collar on the latter of greater diameter than the recess in said projection, and a compression spring in said recess bearing on said collar to maintain said valve seated, said collar coacting with said projection to limit the movement of said valve from its seat.

2. In a hose coupler head provided with a tapered opening of greater diameter at the end adapted to oppose a companion head, the wall of said opening annularly beveled at said end, a tapered valve adapted to seat in said opening, a stem on the smaller end of said valve, a cross-bar in said head spanning said opening at its smaller end, a hollow cylindrical projection between the ends of said bar concentric with an opening therein through which the stem of said valve passes, a collar on the latter of greater diameter than the recess in said projection, and a compression spring in said recess bearing on said collar to maintain said valve seated, said collar coacting with said projection to limit the movement of said valve from its seat, an annular flange on the larger end of said valve, and a ring having a beveled face adapted to seat on the beveled portion of the wall of the opening in said head interposed between the latter and said annular flange, substantially as and for the purpose specified.

4. A hose coupling comprising two opposed members, a lip and a wing on each thereof, the lip of each adapted to engage the wing of the other to maintain said members in coupled relation, a valve in each of said members controlling communication between the same, a segmental flange on each of said valves terminating at its ends in projections between which the lip of the other member is adapted to be received, whereby relative rotary movement of said members is transmitted to said valves to open and close the same, said segmental flange of each valve adapted to pass underneath the wing of its carrying member when said valve is opened, a segmental lip on each of said members forming a guard for said segmental flange of said valve when the latter is open, the ends of the said segmental lips of companion members meeting when said members are moved into relative coupled positions, and a projection flush with one end of said lip and adapted to engage one of said projections on said segmental flange to turn said valve when the said members are moved into coupled position, substantially as and for the purpose described.

5. A hose coupling comprising two opposed members, a valve in each controlling communication between the same, projections on each of said members engaging similar projections on the other thereof to hold the same in coupled relation, projections on each of said valves adapted to be engaged by one of said projections of the other member to impart movement to said valve to open and close the same as said members are manually coupled and uncoupled respectively, and a projection on each of said members adapted to engage one of the projections of the valve of the other member to close the latter as said members are moved into coupled relation, whereby when the first-named valve-actuating projection of either member should be broken, opening of the valve in coupling said members will be assured.

[Claim 6 not printed in the Gazette.]

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1,041,392. HEADLIGHT. CHARLES I. WILLIAMS, Utica, N. Y. Original application filed Apr. 1, 1911, Serial No. 618,475. Divided and this application filed Dec. 20, 1911. Serial No. 667,021. (Cl. 240—61.)

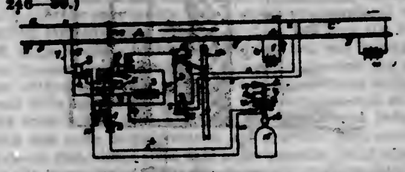
1. In a locomotive headlight, a cylindrical and fixed casing provided with a lamp, the casing having a door in its cylindrical wall hinged substantially at the bottom of the cylinder on a line parallel to the axis of the casing and of a width extending substantially to the top of the casing.



2. In a locomotive headlight, a horizontally disposed casing provided with a lamp, the casing having a door in its side wall hinged substantially at the bottom of the casing on a line parallel to the axis of the casing and of a width extending substantially to the top of the casing.

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1,041,393. AUDIBLE SIGNAL. HIRAM C. WILLIAMS, Utica, and STEPHEN B. PAYNE, Syracuse, N. Y., assignors of one-third to Francis B. Harrington, Albany, N. Y. Filed May 11, 1911. Serial No. 626,403. (Cl. 246—30.)



1. A track divided into blocks; a semaphore signal and an audible signal; electromagnetic means controlling said audible signal; means controlled by the presence of a train on the block adjacent said signals for closing a circuit through said electromagnetic means when the block is clear; means controlled by the semaphore and the presence of a train on the block in advance for closing another circuit through said electromagnetic means when the semaphore is at clear and the block in advance is unoccupied, and to break said circuit when either the signal is at danger or the block in advance is occupied, whereby the electromagnetic means will be deenergized to sound the audible signal when a train is on the first mentioned block section and the signal is at danger or the signal is at clear and the block section in advance is occupied.

2. A track divided into blocks; an audible signal; electromagnetic means controlling said audible signal; means controlled by the presence of a train on the block adjacent said signal for closing a circuit through said electromagnetic means when the block is clear; means controlled by the presence of a train on the block in advance for closing another circuit through said electromagnetic means when the block in advance is unoccupied, and to break said circuit when the block in advance is occupied, whereby the electromagnetic means will be deenergized to sound the audible signal when a train is on the first mentioned block section and the block section in advance is occupied.

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1,041,394. ELECTRICAL BONDING DEVICE. HIRAM C. WILLIAMS, Utica, N. Y., assignor of one-third to Francis B. Harrington, Albany, N. Y., and one-third to Stephen B. Payne, Syracuse, N. Y. Filed May 20, 1911. Serial No. 628,260. (Cl. 178—98.)

1. A bond wire holder comprising a plate provided with openings therein for holding bonding wires, each end of

said plate provided with a cutting edge throughout its portion of its extent; whereby said plate may be inserted between the under side of the head of the rail and the upper side of the foot thereof, forming a channel in the under side of the head of the rail and in the top side of the foot, into which the ends of the plate will be forced.

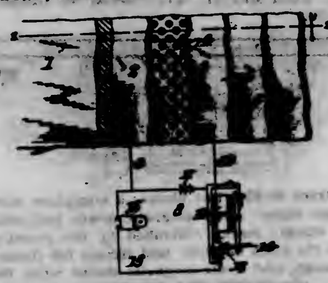


2. A bond wi[illegible] provided with openings, extending [illegible] the medial line thereof, for wires [illegible] said plate placed, when in operation, with its [illegible] into the head and foot of a rail; wires extending into said openings in the plate.

3. An electrical [illegible], comprising, two retaining plates provided with openings [illegible] wires placed in said openings respectively, [illegible] of said plates between the head and the foot of each rail; a means on said plates for causing a channel to be cut in the head and foot of the rails when said plates are rotated, into which channel the ends of the plates will project.

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1,041,895. ELECTROTHERMOSTATIC LINING FOR VAULTS, SAFES, &c. JOHN P. WILLIAMS and HERMANN HUBER, New York, N. Y., assignors to Electric Bank Protection Company, a Corporation of Delaware. Filed Dec. 8, 1910. Serial No. 596,903. (Cl. 177—316.)



1. In a protective lining for vaults and other structures, lining members spaced thermostatic conducting plates in layers with said lining members and an alarm circuit including said spaced layer plates and operatively to actuate an alarm when said thermostatic layer plates are subjected to the action of heat.

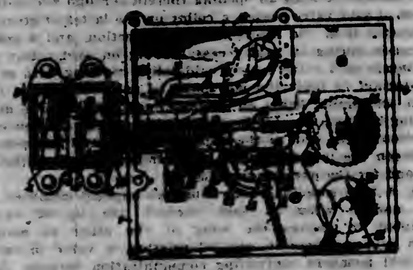
2. In a protective structure for vaults, safes and the like, outer and inner metallic plates, an alarm circuit, thermostatic members constituting electrical conductors and included by said outer and inner plates and in layer therewith and connected with the positive and negative terminals of said circuit; and an insulating plate disposed in layer between said thermostatic members and having openings through which the thermostatic members contact one with the other when subjected to the action of heat; said alarm circuit including said thermostatic members and operatively to actuate an alarm when said members come into contact.

3. A protective lining for vaults, safes or other structures, comprising outer and inner metallic plates, outer and inner conducting plates inclosed by said thermostatic plates and in layer therewith, one of which conducting plates is fusible, means for insulating said conducting plates from each other when in normal conditions and an alarm circuit including said conducting plates and operatively to actuate an alarm when said lining is subjected to the action of heat.

4. A protective structure comprising outer and inner plates, inner and outer insulating plates inclosed by said thermostatic plates and in layer therewith, one of which conducting plates is fusible, an alarm circuit including the layer of said conducting plates, and operatively to actuate an alarm when said lining is subjected to the action of heat; said fusible conducting plate in contact with the other conducting plates under the action of heat.

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2,041,897. COMBINATION LOCK. Hugh Wilson Wood, Bexar, Tex. Filed Dec. 2, 1911. Serial No. 663,836. (Cl. 194—38.)



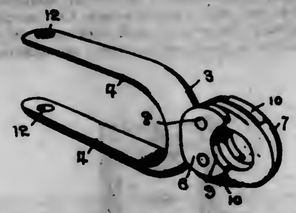
1. In a lock, a bolt having a pocket upon its upper face, a locking lever extending parallel with said bolt, said locking lever having a latch adapted to engage said pocket; said lever adapted to be actuated by a coin falling on the end opposite the latch to withdraw said latch from said pocket, a keeper-shaped cam carried by said shaft adapted to engage the under side of said lever, and a finger carried by said shaft, engaging said bolt to withdraw the same after the cam has disengaged the finger on the lever from the pocket in the bolt.

2. In a combination bolt, a sliding locking a coin slot in the upper edge thereof, a gravitating-depressed lever said coin slot; the discharge-from the walls of said casing being substantially equal to the thickness of the coin, to form a coin compartment; a lever pivoted below said coin compartment, means for viewing the coin in said compartment, a bolt; means locking said bolt in said lever, and means maintaining said coin in sight until said bolt has been twelve actuated.

3. In a combination bolt, a bolt; a locking lever adapted to engage said bolt to lock the same in projected position, a coin controlled means supporting one end of said lever, means maintaining a coin deposit supported end of said lever; an electrically controlled means acting against said supporting coin to permit the coin from said lever.

4. In a combination bolt, a casing having a slot therein, a bolt normally projecting from said casing; a bolt projecting finger said casing; a bolt projecting from said casing; a bolt projecting finger said casing; a bolt projecting from said casing; a bolt projecting finger said casing; a bolt

position, and allow the free ends thereof to rest against the side edges of the walls, and means adapted for en-



gagement with the free ends of the jaws for automatically locking the jaws in closed position.

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1,041,400. SKIRT-MARKER. MARIE ANDERSEN, New York, N. Y. Filed Apr. 30, 1912. Serial No. 694,277. (Cl. 73—48.)



1. The herein described skirt marker comprising a frame having a series of parallel horizontal rings, means to secure said rings in fixed relation to one another, and a foot piece connected to the lowermost frame ring, and a loop adapted to embrace and rest upon the uppermost frame ring, substantially as set forth.

2. In a skirt marker, the combination of a frame including a series of parallel marking rings, means at the bottom of the frame to secure the same in stationary position when in use, and a binder ring of slightly less diameter than the marking rings at the top of the frame, a loop comprising an inwardly extended flange adapted to rest upon said binder ring and a downwardly projecting flange surrounding said binder ring, and hand means to manipulate said loop.

3. In a skirt marker, the combination of a plurality of horizontal rings superimposed one above the other and adapted to be surrounded by the skirt to be marked, means to support the rings, one of said rings carrying marking material to indicate the height of the skirt from the floor, and means operable by the person wearing said skirt, while standing erect, to clamp the skirt to one of the rings aforesaid above the ring carrying the marking material, substantially as described.

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1,041,401. HOLLOW BRICK. FRANS OSKAR ANDERSSON, Stockholm, Sweden. Filed Sept. 9, 1911. Serial No. 648,594. (Cl. 72—41.)

A wall structure comprising in combination, a plurality of bonded elements; each comprising in combination, a plurality of parallel walls (4); each wall having opposite vertical terraced channels outwardly and concavely (11 and 2) respectively, and a plurality of webs (5) concave-concave in cross section separating said walls and disposed adjacent the said terraced and curved margins, parallel thereto and in spaced apart relation to each other, to provide an elongated cavity (8) between the walls, said bond-



ed elements being disposed in staggered superposed relation to each other with the said elongated cavities (8) intercommunicating with each other, and aligned cylindrical cavities (7) at each alternate row of elements formed by the margins of said concave-concave webs, substantially as and for the purpose set forth.

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1,041,402. COMBINED EYEGLASS-CASE AND SCREW-DRIVER. HERMAN ASHER, New York, N. Y. Filed Apr. 26, 1912. Serial No. 693,227. (Cl. 206—6.)



1. The combination with an eyeglass case of a tube held in the case, and a screw driver adapted to be passed into the said tube through one end thereof, the said tube and screw driver having fastening means between them for removably fastening the screw driver in place in the tube, and the said screw driver having a head extending through one end of the case and somewhat beyond the same.

2. The combination with an eyeglass case of a tube held in the case and extending at one end close to one end of the case, the said outer end being provided with a screw thread, and a screw driver adapted to be passed into the said tube through the outer end thereof, the screw driver having a head and a threaded portion adjacent the head and screwing into the threaded end of the said tube, the said screw driver head extending through one end of the case to the outside thereof.

3. The combination with an eyeglass case having a cover and hinges connecting the cover with the case, of a tube forming the pintle of one of the said hinges, the outer end of the tube being provided with a screw thread, and a screw driver adapted to be passed into the said tube through the outer end thereof, the screw driver having a head and a threaded portion adjacent the head and screwing into the said threaded end of the tube, the said head extending through one end of the case to the outside thereof.

4. The combination with an eyeglass case having a cover, and hinges connecting the cover with the case of a tube forming the pintle of one of the hinges and projecting beyond the ends of this hinge, and a screw driver adapted to be passed into said tube through the outer end thereof, the screw driver having a head and a threaded portion adjacent the said head and screwing into the outer threaded end of the said tube, the head abutting against the outer end of the tube and extending through one end of the cover to the outside thereof.

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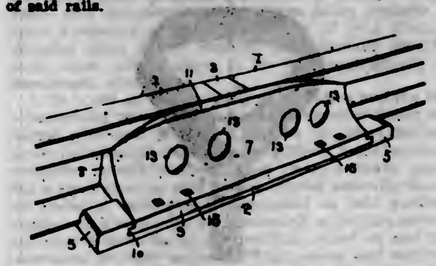
1,041,403. RAIL-JOINT CHAIR. GILBERT BACON and MILTON L. BACON, Antigo, Wis. Filed Dec. 20, 1911. Serial No. 666,005. (Cl. 238—8.)

1. In a rail joint chair, a main section and an auxiliary section adapted to embrace the adjacent ends of railroad rails of ordinary construction, said main section consisting of a horizontal base plate and the middle track-



rail section and a fish-plate united with the track-rail section, said auxiliary section having a base flange seated upon the base plate and having a pair of spaced fish-plate sections between which said track-rail section is seated.

2. In a rail joint chair, a main section and an auxiliary section adapted to embrace the adjacent ends of railroad rails of ordinary construction, said main section consisting of a horizontal base plate and a middle track-rail section and a fish-plate united with the track-rail section, said auxiliary section having a base flange seated upon the base plate, having a pair of spaced fish-plate sections between which said track rail section is seated, and having an elongated track-rail element extending along the sides of the adjacent rail ends with its top surface on the same horizontal plane with the top surfaces of said rails.



3. In a rail-joint chair, a main section and an auxiliary section adapted to embrace the adjacent ends of railroad rails of ordinary construction, said main section consisting of a horizontal base plate and a middle track-rail section and a fish-plate united with the track-rail section and having horizontally extending flanges on said base plate, said auxiliary section having a base flange seated upon the base plate and having an elongated track-rail element extending along the sides of the adjacent rail ends with its top surface on the same horizontal plane with the top surfaces of said rails.

4. In a rail joint chair, a main section and an auxiliary section adapted to embrace the adjacent ends of railroad rails of ordinary construction, said main section consisting of a horizontal base plate and a middle track-rail section and a fish-plate united with the track-rail section and having horizontally extending flanges on said base plate, said auxiliary section having a base flange seated upon the base plate and having a pair of spaced fish-plate sections between which said track-rail section is seated and having tongues on said base plate seated under said horizontal flanges.

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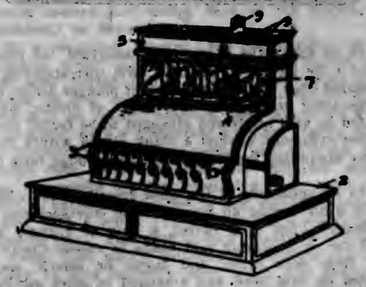
1,041,404. SHOE. GEORGE W. BAKER, New York, N. Y. Filed June 11, 1912. Serial No. 702,944. (Cl. 36—1.)



A high-cut shoe comprising a vamp and an ankle inclosing upper portion distinctive in appearance from said vamp, the upper portion having edges adapted to be drawn toward each other to inclose the shoe upon the foot of the wearer, means for holding said edges in operative relationship, a distending tab projecting outwardly exterior of said edges from a point adjacent the bottom of the same, and a decorative device disposed upon said tab and covering the line of juncture of the latter to the shoe proper, substantially as described.

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1,041,405. ATTACHMENT FOR CASH-REGISTERS. WILLIAM E. BAUMAN, Minneapolis, Minn. Filed Dec. 20, 1911. Serial No. 667,098. (Cl. 235—58.)



1. A cash register having keys, a group of primary indicators bearing characters readable from the front of the machine to indicate the amount of the purchase, in combination with a casing mounted on said register, a group of duplicate indicators within said casing and connected with said primary indicators for simultaneous movement, said duplicate indicators bearing characters corresponding to those of said primary indicators and readable from the end of the machine.

2. The combination, with a cash register and its indicator plates, of a casing mounted thereon, a series of duplicate indicator plates disposed within said casing and having depending rods, the lower ends of said rods being attached to the indicator plates of the register and vertically movable therewith, said duplicate plates being visible above the top of their casing and disposed in planes at an angle to the plane of the register plates, for the purpose specified.

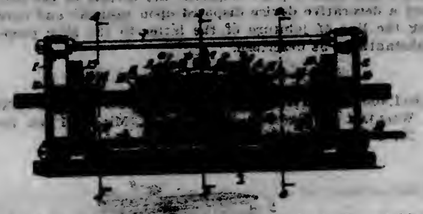
3. The combination, with a cash register and its indicator plates, of a casing mounted thereon, a series of rods vertically movable in said casing and disposed in staggered relation to one another, the lower ends of said rods being attached to the indicator plates of said register and vertically movable therewith, and duplicate indicator plates mounted on the upper ends of said rods and visible at the end of the register when the register indicators are raised, and said duplicate indicators being disposed in planes at an angle to the planes of said register indicators.

4. A cash register having keys and a series of plates to indicate the amount of the purchase, said plates being disposed in staggered relation to one another, and a corresponding number of duplicate plates connected with said first named plates for simultaneous movement and also arranged in staggered relation to one another and bearing marks or characters which are readable from the end of the machine.

5. A cash register having a key-board and a series of primary indicators bearing characters readable from the front of the machine to indicate the amount of the purchase, in combination with a series of duplicate indicators bearing characters corresponding to those of the primary indicators and disposed above said primary indicators, rods connecting said duplicate indicators with said primary indicators, said duplicate indicators bearing characters corresponding to those of said primary indicators and visible from the end of the machine.

[Claims 6 to 9 not printed in the Gazette.]

1,041,466. APPARATUS FOR FORMING METALLIC BARREL BODIES. Lawrence Ramsdell, Toledo, Ohio, assignor to Charles E. Wadley, Chicago, Ill. Filed Mar. 11, 1910. Serial No. 548,884. (Cl. 153—44.)



1. In an apparatus of the class described, the combination of a die having an interior form corresponding with the desired bilge of a barrel, a pair of plunger heads, means for operating said heads, and blocks of elastic material mounted on said heads and arranged to be forced together to cause expansion against a blank placed within the die, thereby expanding the blank against said bilge form of the die.

2. In an apparatus of the class described, the combination of a die having an interior form corresponding with the desired bilge of a barrel, a pair of plunger heads, means for reciprocating said heads in unison toward and away from each other, and blocks of elastic material mounted on said head and arranged to meet midway of the die to cause expansion against a blank placed within the die, thereby expanding the blank against said bilge form of the die.

3. In an apparatus of the class described, the combination of a die having an interior form corresponding with the desired bilge of a barrel, a pair of plunger heads, screw-shafts connected with the heads, threaded gear wheels on said shafts, means for rotating said gear wheels in unison, and blocks of elastic material mounted on said heads and arranged to be forced together to cause expansion against a blank placed within the die, thereby expanding the blank against said bilge form of the die.

4. In an apparatus of the class described, the combination of a die having an interior form corresponding with the desired bilge of barrel, said die having end openings in axial alignment with each other and with said interior form, a pair of plunger heads movable in said end openings, and blocks of elastic material mounted on said heads and arranged to be forced together within said die to cause expansion against a blank placed therein.

5. In an apparatus of the class described, the combination of a die having an interior form corresponding with the desired bilge of barrel, said die having cylindrical end openings in axial alignment with each other, and with said interior form, a pair of cylindrical plunger heads movable in said openings, and cylinders of elastic material mounted on said heads and arranged to be forced together within said die.

[Claims 6 to 15 not printed in the Gazette.]

1,041,497. ART OF EXTRACTING METALS FROM ORES. Jean Baptiste de Alzugaray, New York, N. Y., assignor, by mesne assignments, to Midland Ores and Patents Company, New York, N. Y., a Corporation of Maine. Filed Sept. 21, 1907. Serial No. 393,975. (Cl. 75—18.)

1. The process for treating copper, silver and gold ores consisting in subjecting a pulverized mass of ore to the action of a mixture of acidulated chlorid and metallic chlorids, to which a suitable amount of a chlorate or a perchlorate is added to effect the solution of the precious metals.

2. The process for treating copper, gold and silver ores consisting in reducing the ores to a pulverulent state and then subjecting the reduced mass to the action of an acidulated solution of chlorids, perchlorids and perchlorates of the alkali and heavy metals.

3. The process for treating copper, gold and silver ores consisting in reducing the ores to a pulverulent state, and then subjecting the reduced mass to the action of a solution containing free chlorin, perchlorin and perchlorates of the alkali and heavy metals.

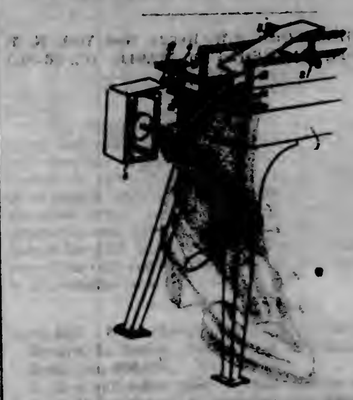
1,041,498. SUPPORTER FOR ARTICLES OF APPAREL. Abraham D. Baum, Cranford, N. J., assignor to Hayes W. Baldwin, New York, N. Y. Filed Apr. 3, 1911. Serial No. 619,609. Renewed Apr. 12, 1912. Serial No. 690,578. (Cl. 24—4.)



1. A supporter for an article of apparel comprising an endless girdle of flat elastic webbing, the ends of which diagonally approach each other and are permanently joined together at an angle to the plane of the girdle at the rear thereof in combination with a fastener strip, forming a loop through the intention of said girdle, said loop carrying one member of a clasp, and said loop having a free end attachment carrying a fastener at a point above the apex and carrying a locked member of said clasp substantially as described.

2. A supporter for an article of apparel comprising an endless girdle of flat elastic webbing in combination with a transparent lining and a supporting strip for the fastener through the upper member of said clasp, said supporting strip being adapted to fold inward edge of said webbing while said strip is adapted adjacent to the upper edge of said webbing, substantially as described.

1,041,509. CUT-OFF FOR BOX-COVERING MACHINES. Andrew Reid, Jersey City, N. J. Filed Jan. 23, 1912. Serial No. 672,900. (Cl. 164—43.)



1. In a cut-off for box covering machines and the like, a stationary knife, a pivotally mounted knife, a pivotally mounted frame carrying said pivotally mounted knife designed to be moved downwardly pivotally independent of said pivotally mounted knife whereby said pivotally mounted knife is given a rearward movement directly away from said stationary knife for disengaging the knives, and means for operating said pivotally mounted frame for forcing said pivotally mounted knife past said stationary knife.

2. In a cut-off for box covering machines and the like, a framework, a pivotally mounted frame mounted on said framework, means connected to said pivotally mounted frame for actuating the same, a pivotally mounted knife holder mounted on said pivotally mounted frame, a knife connected to said pivotally mounted knife holder, and a stationary knife co-acting with said pivotally mounted knife, said pivotally mounted frame being designed to move downward pivotally independent of said pivotally mounted knife holder whereby said pivotally mounted knife holder will be drawn to the rear longitudinally for disengaging said knives.

3. In a cut-off for box covering machines and the like, a supporting framework, a pivotally mounted frame connected with said framework, means for operating said pivotally mounted frame, an auxiliary frame pivotally connected to said first mentioned frame normally engaging a cross brace on said first mentioned pivotally mounted frame, a knife pivotally mounted on said auxiliary frame, and a stationary knife mounted on said framework, the pivotal mounting of said auxiliary frame on said first mentioned pivotally mounted frame causing said auxiliary frame to be given a longitudinal rearward movement when said first mentioned pivotally mounted frame is lowered independent of the auxiliary frame.

4. In a cut-off for box covering machines, a pivotal knife, a sectional knife co-acting therewith, a support for said sectional knife formed with slots therein, clamping screws passing through said slots engaging said support and said sections for clamping said sections to said support, and a plurality of adjustable screws engaging each of said sections for regulating the position of the sections, and means for rocking one of said knives to move past the opposite knife while in operation.

5. In a cut-off for box covering machines, a stationary knife, a pivotally mounted knife formed into a plurality of sections, means for holding the sections of said pivotally mounted knife together end for end, means for independently adjusting the position of any of said sections, means for moving said pivotally mounted knife past said stationary knife, and means for causing said pivotally mounted knife to move radially from said stationary knife while moving pivotally in one direction.

[Claims 6 to 8 not printed in the Gazette.]

1,041,410. CARTRIDGE-CASE EXTRACTOR. Laurence Vincent Benêt and Henri Albert Mencia, Paris, France. Filed May 18, 1912. Serial No. 694,895. (Cl. 89—2.)



1. In a magazine fire-arm, the combination of a receiver having breech-block provided with a laterally open recess for the extraction through which the extractor may be readily removed, and with a transverse shoulder closing the forward portion of the lateral recess, said shoulder having a wedge face projecting into said extractor recess, an extractor mounted in said extractor recess and provided with a wedge face engaging said wedge face on the breech-block, and with a claw oppositely disposed to said wedge face, and a coil-shaped extractor spring also mounted in said laterally open recess and surrounding the leaf of said extractor and normally pressing said extractor toward said wedge face, substantially as described.

2. In a magazine fire-arm, the combination of a reciprocating breech-block provided with an ejector groove in one side thereof and with a laterally open recess for the extractor in the opposite side, through which the extractor may be readily removed, and a transverse shoulder closing the forward portion of the lateral recess, said shoulder having a wedge face projecting into said extractor recess, an ejector projecting into said ejector groove, an extractor mounted in said extractor recess and provided with a wedge face engaging said wedge face on the breech-block, and with a claw oppositely disposed to said wedge face, and with a notched tail, and a coil-shaped extractor spring also mounted in said laterally open recess and surrounding the leaf of said extractor and normally pressing said extractor toward said wedge face on the breech block, substantially as described.





1,041,411. TUBULAR LANTERN. Charles Rossiter, Rochester, N. Y., assignor to C. T. Hess Manufacturing Company, Rochester, N. Y. Filed Feb. 1, 1911. Serial No. 606,207. (Cl. 240—51.)



1. The combination of a lantern frame, a tilting globe plate, a lamp globe holder capable of up and down movement

in said frame, and connecting rods secured to said top holder and having devices for engagement with said tilting plate arranged at different levels, substantially as set forth.

2. The combination of a lantern frame, a tilting globe plate provided with means for releasably holding the globe thereon, a top globe holder capable of up and down movement in said frame, and connecting rods secured to said top holder and having devices for engagement with said tilting plate arranged at different levels, substantially as set forth.

3. The combination of a lantern frame, a globe plate, lifting mechanism for raising and lowering said plate in said frame, a pivotal connection between said plate and said lifting mechanism, a top globe holder capable of up and down movement in said frame, and connecting rods secured to said top holder and having devices for engagement with said tilting plate arranged at different levels, substantially as set forth.

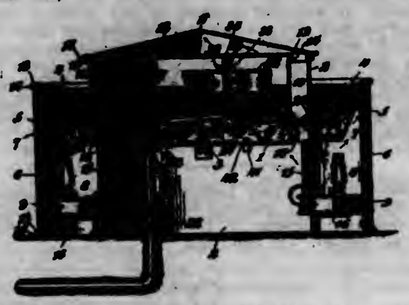
4. The combination of a lantern frame, a pivoted globe plate provided with means for releasably holding the globe thereon, a top globe holder capable of up and down movement in said frame, and rods secured to said top globe holder and connected with said plate out of line with the pivot thereof, whereby the upward movement of said holder swings said plate on its pivot and moves the upper end of the globe from under said globe holder, substantially as set forth.

5. The combination of a lantern frame, a pivoted globe plate, a top globe holder capable of up and down movement in said frame, and connecting rods secured to said top holder and connected with said plate out of line with the pivot thereof by shiftable connections one above the other, whereby the upward movement of said holder first raises the latter from the globe and then swings the plate on its pivot, substantially as set forth.

[Claims 6 to 9 not printed in the Gazette.]

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1,041,412. HOG-WATERER. PHILIP BERNARD, Jefferson, S. D. Filed Feb. 15, 1912. Serial No. 677,702. (Cl. 119—73.)

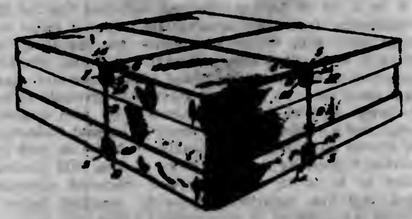


1. A device of the class described including an outer casing, a cover therefor having a vent opening, a tank supported within the upper portion of the outer casing in spaced relation with the cover and with the outer casing to provide an intervening passage, a drinking trough mounted on the exterior of the outer casing and communicating with the tank, a jacket surrounding the trough and connected at its upper edge with the upper edge of the trough and having its side edges connected with the outer casing so as to inclose the space around the sides and bottom of the trough, said jacket forming a compartment below the trough for the reception of a heating device, said outer casing being provided with an opening communicating with the said compartment to permit the heat from the said heating device located within the jacket to pass upward through the space between the outer casing and the tank and over the latter to the vent opening.

2. A device of the class described including an outer casing, a cover therefor having a vent opening, a tank supported within the upper portion of the outer casing in spaced relation with the same and with the said cover to provide a passage around the tank and over the same, drinking troughs mounted exteriorly of the outer casing and communicating with the tank and tapered downwardly so as to present inclined side walls, vertical jackets surrounding the sides and bottoms of the drinking troughs and connected at their upper edges to the same and spaced from the side walls of the trough and connected at their side edges to the outer casing and extending to the bottom of the latter forming compartments beneath the troughs for the reception of heating devices, said outer casing being provided below the troughs with openings communicating with the said compartments, whereby the heat is caused to pass up beneath and around the troughs and also beneath and around the tank and out through the opening of the cover.

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1,041,413. EDGE-PROTECTOR FOR TIED BOXES. WILLIAM R. BERNHAM, Chicago, Ill. Filed Jan. 18, 1911. Serial No. 603,217. (Cl. 217—69.)



An edge protector for tied boxes formed of a single piece of sheet metal bent to provide two legs meeting at an angle to overlie, respectively, contiguous portions of two sides of a box, one of said legs having in its central portion a relatively elongated and narrow aperture completely surrounded by the metal of the leg, and having the metal within the side edges of the leg between said aperture and the end of the leg bowed outwardly to form in the underside of the leg a relatively narrow groove aligning with and opening into the aperture, the elongated aperture and groove forming a cord passage, through the leg and under said leg to its end, through which a cord may pass substantially without deflection.

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1,041,414. LAMP. CHARLES L. BERTE, New York, N. Y., assignor to R. H. Dietz Company, New York, N. Y. Filed Jan. 21, 1910. Serial No. 539,374. (Cl. 240—111.)



1. The combination with a lamp case having a circular lens opening and provided outside of said opening with attaching projections which project outwardly therefrom on opposite sides thereof, of a detachable lens frame having a circumferential internal recess adapted to engage over and interlock with said projections and provided in its edge with a notch for engaging it with one of said projections preparatory to rotating the frame to the locked position, substantially as set forth.

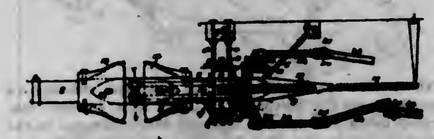
2. The combination with a lamp case having a circular lens opening and provided outside of said opening with attaching projections which project outwardly therefrom on opposite sides thereof, of a detachable lens frame having a circumferential internal recess adapted to engage over and interlock with said projections and provided in its edge



with a notch for engaging it with one of said projections preparatory to rotating the frame to the locked position and with a stop adjacent to said notch for limiting the rotary movement of the frame, substantially as set forth.

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1,041,415. COUPLING DEVICE. SOLOMON C. BEETS, Maumee, Ohio, and AMOS BOUCHER, Scottville, Mich. Filed Mar. 20, 1912. Serial No. 684,458. (Cl. 105—13.)



1. In coupling devices for train pipes, the combination with a swiveled block and means for supporting same on a car, said swiveled block provided with an elongated opening, of a coupling bar freely movable through said elongated slot of the swiveled block and provided with a duct and with a valve at the forward end of said duct, a spring attached to said coupling bar and tending to move the same rearwardly, springs attached to the coupling bar and to the swiveled block and tending to move the coupling bar forwardly, and means for limiting the forward movement of said coupling bar.

2. In coupling devices for train pipes, the combination with a frame to be secured to a car, a block mounted in said frame and provided with vertical pivots, said block having a vertical elongated slot, of a coupling bar passing through the slotted block and provided with a valved duct, a spring secured to said block and bearing against the under face of the coupling bar, springs tending to move the coupling bar forwardly, and a spring tending to move the coupling bar rearwardly.

3. In coupling devices for train pipes, the combination with a coupling bar and means for supporting the same, said coupling bar having a duct provided at its forward end with a lateral valved outlet, of a guard secured to the coupling bar rearwardly of said valved outlet and having beveled inner faces to direct the forward end of another coupling bar into coupling relation, and a set screw passing through the outer wall of said guard.

4. In coupling devices for train pipes, the combination with a train pipe, a coupling bar and means for yieldingly supporting the latter, said coupling bar having a duct provided at its forward end with a lateral valved outlet, of a flexible pipe connection between the train pipe and the duct in the coupling bar, said pipe connection comprising a plurality of pipe sections connected together by swivel-couplings, a yoke connecting the parts of each swivel-coupling, and a set screw passing through one end of each yoke and engaging the adjacent part of the swivel-coupling.

5. In coupling devices for train pipes, the combination with a train pipe, a coupling bar and means for yieldingly supporting the latter, said coupling bar having a duct provided at its forward end with a lateral valved outlet, of a flexible pipe connection between the train pipe and the duct in the coupling bar, said pipe connection comprising a plurality of pipe sections connected together by swivel-couplings, and a yoke connecting the parts of each swivel-coupling.

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1,041,416. COMBINED RAKE AND PITCHFORK. ISAAC F. BILBRO, Wetumpka, Ala. Filed Jan. 4, 1911. Serial No. 600,734. (Cl. 56—25.)

1. An implement of the class described comprising a ferrule having a socket in one end for detachably receiving a handle and a bifurcation in the opposite end and also an opening spaced therefrom, a tined head having an ear pivotally connected in the bifurcation in the end of the ferrule the said ear being provided with notches, a locking member slidably mounted in said ferrule and adapted for engagement with either of said notches, a spring held pull rod working within the ferrule and having connection with said locking member, and an eye formed on the rod in alinement therewith and disposed medially within the opening in the ferrule, the said bifurcated end being cut away to provide abutment shoulders for engagement by the tined head to limit its arcuate movement in reverse directions.



2. An implement of the class described, comprising a ferrule having a bifurcated end and an opening spaced therefrom, a tined head having an ear pivotally connected in the bifurcation in the end of the ferrule, the said ear being provided with notches, a locking member adapted for engagement with either of said notches, a spring-held pull rod working within the ferrule and having connection with said locking member, an eye formed on the rod in alinement therewith and disposed medially within the opening in the ferrule, and stop extensions on the bifurcated end of the ferrule for abutment of the head therewith when shifted into alinement with the ferrule.

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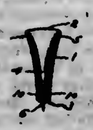
1,041,417. SOAP-DISPENSER. MARTIN BOHLIG, St. Paul, Minn. Filed Jan. 24, 1912. Serial No. 673,248. (Cl. 73—163.)



In a dispenser of the class described, a liquid soap receptacle, open at one end and having a closure therefor, a bracket pivotally supporting said receptacle, adapted to lock the same in different positions, a horizontal cylinder on said closure, an inlet port in said cylinder in communication with said receptacle, a discharge port in the side of said cylinder, a movable piston in said cylinder having dual piston heads spaced apart, adjustable with respect to each other and forming a variable compartment adapted to receive and deliver the contents of said receptacle in measured quantities and a tube or vent on said closure leading from said compartment to the interior of said receptacle.

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1,041,418. REMOVABLE NECKTIE-SHAPER. CHARLES H. BOMBER, Hartford, Conn. Filed Nov. 7, 1911. Serial No. 658,970. (Cl. 2—84.)



A new article of manufacture designed to be removably inserted between the folds of a string necktie after the

knot in tied for the purpose of giving shape to the knot and temporarily holding it in form and position, which consists of a thin concave-convex plate that is wider at the top than at the bottom and is curved backward laterally to a greater degree at the bottom than at the top, but nowhere more than one-half of a cylinder so that the outer edges of the plate coincide with and form the contour of the article, whereby the article may be easily slipped into and removed from the knot in order to shape the same without materially increasing its bulk, and a retaining pin projecting downwardly from the smaller bottom end of the plate.

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1,041,419. BRIDDING-MACHINE. HOWARD W. BORDEN, Swathmore, Pa. Filed Feb. 1, 1910. Serial No. 541,268. (Cl. 153—38.)



In a device of the character described, the combination of a main cross head or body member, links connected to the said cross head or body member, the said links having resistance blocks movably connected thereto, a member adjustably connected to the said main cross head or body member, and a second cross head secured to the said member and carrying links having hooks or projections formed thereon, the said hooks or projections being adapted to engage a bar and exert pressure thereon to straighten it.

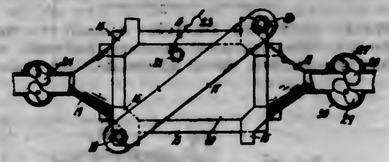
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1,041,420. SANITARY SUPPORT. JENNIE L. BORNSTEIN, Dayton, Ohio. Filed Aug. 17, 1911. Serial No. 644,653. (Cl. 128—3.)



The combination with a sanitary support, provided with folded corner portions, connected near their ends to provide a small aperture and having belt engaging loops and a supporting belt having depending tape portions for engaging said loops, of a sanitary pad, adapted to fit within said support and have its ends inclosed beneath the said corner portions, said pad being provided at each end with a loop formed by a tape secured to the pad adjacent to the corners thereof, and having the two portions thereof united about midway of the length of the loop, said loops extending through the end apertures of the support and detachably engaging the said depending tape portions of the belt, whereby the ends of the pad are held at all times within the folded end portions of the support, and both are connected to and supported by the belt.

1,041,421. PROCESS FOR OZONIZING. CHARLES A. BRADLEY, New York, N. Y., assignor to Richard B. Wilcox, New York, N. Y. Original application filed Oct. 28, 1908, Serial No. 458,120. Divided and this application filed Aug. 6, 1910. Serial No. 575,967. (Cl. 204—32.)



The process of ozonizing, which comprises effecting an ozonizing electric discharge in a gas at a pressure materially below atmospheric, whereby the impedance to the travel of the charged particles of the gas is diminished.

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1,041,422. TUNING DEVICE. GUY B. BROOME, Daphne, Ala. Filed Jan. 20, 1912. Serial No. 672,403. (Cl. 84—42.)



1. A pitch or tuning device comprising a pair of plates spaced apart, a standard passed through said plates centrally thereof and rotatable and slidable relatively thereto, a plurality of tuning pipes secured in said plates concentrically of the standard, and a mouth piece attached to one extremity of the standard and movable from one tuning pipe to another to register therewith.

2. A pitch or tuning device comprising a pair of plates spaced apart, a standard passed through said plates centrally thereof and rotatable and slidable relatively thereto, a plurality of tuning pipes secured in said plates concentrically of said standard, a mouth piece attached to one extremity of the standard and movable from one tuning pipe to another to register therewith, and means for holding the mouth piece in engagement with said pipes.

3. A pitch or tuning device comprising a pair of plates spaced apart, a standard passed through said plates centrally thereof and rotatable and slidable relatively thereto, a plurality of tuning pipes secured in said plates concentrically of said standard, a mouth piece attached to one extremity of the standard and movable from one tuning pipe to another to register therewith, and a spring encircling said standard and having one extremity secured thereto and the opposite extremity fastened to one of the plates and acting to hold the mouth piece in engagement with the pipes.

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1,041,423. TRACK-SUPPORT. JAMES G. BROWN, Elkhart, Ind. Filed Feb. 7, 1912. Serial No. 676,896. (Cl. 238—5.)



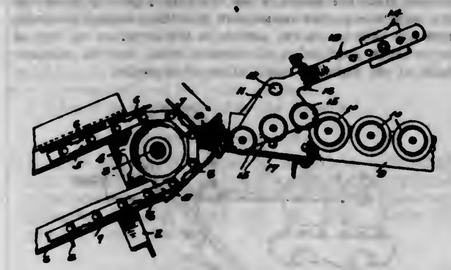
The combination with a tie; of a plate adapted to be secured upon the upper surface thereof, inwardly extending



rail bearer formed at the opposite ends of said plate, vertically extending curtilinear flanges in the inner surface of said rail bearers, and tongues formed from the adjacent portions of said plate adapted to be bent toward said rail bearers to receive a rail therebetween.

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2,047,424. CARRIER. HERMAN J. BUCK, Minneapolis, Minn., assignor to Mathews Gravity Carrier Company, St. Paul, Minn., a Corporation. Filed Aug. 17, 1911. Serial No. 644,686. (Cl. 198—1.)



1. The combination, with an elevating carrier and pallets mounted thereon, of a carrier forming a continuation of said elevating carrier, a tilting section mounted in said second named carrier and having anti-friction rollers, said section being tilted by the pressure of an article becoming wedged between one of said pallets and said section.

2. The combination, with an elevating carrier, and pallets mounted thereon, having upwardly turned lips at their forward edges, of a carrier forming a continuation of said elevating carrier, a tilting section mounted in said second named carrier, said section being tilted by the pressure of an article lodging between the lip of the pallet and said section, for the purpose specified.

3. The combination, with a driven carrier having pallets mounted thereon, of a gravity carrier forming a continuation of said driven carrier, a tilting section interposed in said gravity carrier between it and said driven carrier and tilted by the pressure of an article lodging between it and said driven carrier, for the purpose specified.

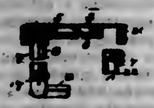
4. The combination, with an elevating carrier, and pallets mounted thereon, of a horizontal carrier forming a continuation of said elevating carrier, a tilting section mounted in said second named carrier and having anti-friction rollers, a counter balance weight mounted on said tilting section, said section being tilted by the pressure of an article wedged between one of said pallets and said section.

5. The combination, with an elevating carrier, pallets mounted thereon, having upwardly turned lips, of a horizontal carrier forming a continuation of said elevating carrier, a pivoted frame mounted on said second named carrier and having anti-friction rollers mounted thereon, a counter balance for said pivoted frame normally holding it and its rollers in line with said second named carrier, said pivoted section being tilted by the pressure of an article becoming wedged between the lip of a pallet and a roller of said tilting frame.

(Claims 6 to 9 not printed in the Gazette.)

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1,041,425. BOX FOR WARM-AIR REGISTERS. JOHN J. BURGESS and SAMUEL P. BURGESS, Rock Island, Ill. Filed Mar. 21, 1911. Serial No. 618,143. (Cl. 126—327.)

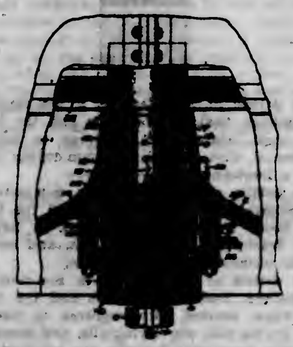


1. In a device of the class described, a back having a double reverse fold on its lower edge, a lining for the back having a single fold engaging the double reverse fold, the fold last mentioned being adapted to receive the end of an adjacent pipe section, a plurality of side members having a double reverse fold at their lower edges and a three sided fold at their front edges, a lining for each of the side members, each lining last mentioned having flanges along its longer edges arranged to space the lining from the side members, the lining having a lower fold engaging the double reverse fold of the side members, a top having flanges disposed between the back and side members and the lining of the same, and a front piece connecting the lower portions of the side members, said front piece being stiffened longitudinally and arranged to engage the pipe section.

2. In a device of the class described, a back having a double reverse fold on its lower edge, a lining for the back having a single fold engaging the double reverse fold, the fold last mentioned being adapted to receive the end of an adjacent pipe section, a plurality of side members each having a double reverse fold at its lower edge and a three sided fold at its front edge, an adjustable engaging device located in the three sided fold, means for securing a register to such engaging device, a lining for each of the side members, said lining last mentioned having flanges along its lower edges arranged to space the lining from the side members, the lining having a lower fold engaging the double reverse fold of the side members, a top having flanges disposed between the back and side members and the lining of the same, and a front piece connecting the lower portions of the side members, and means thereon for engaging the aforesaid pipe section.

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1,041,426. COMBINED STEP AND GUIDE BEARING. JOHN G. CALLAN, Holbrook, Mass., assignor to General Electric Company, a Corporation of New York. Filed June 28, 1907. Serial No. 381,230. (Cl. 64—47.)



1. In combination, a guide-bearing adapted to surround a shaft, a second bearing adapted to receive the weight or thrust of the shaft, a divided holder in which both of the bearings are mounted, which holder incloses an end of the shaft and has bearing surfaces on different parts thereof, a housing for the holder that restrains it against lateral movement and is provided with separate seats for said surfaces, means for supplying lubricant to the bearings within the holder, and a device for adjusting the holder longitudinally in the housing.

2. In combination, a divided holder which incloses an end of a shaft and is provided with spherical surfaced portions, a guide-bearing adapted to surround the shaft which is mounted in one part of the holder, a second bearing adapted to receive the weight or thrust of the shaft which is mounted in the other part of the holder, a housing for the holder, a spherical surfaced seat carried by the housing that restrains the holder against lateral movement, a separate spherical surfaced seat also carried by the housing that engages one end of the holder, the radius of curvature of the second seat being greater than that of

the first seat, a removable head on the end of the housing adjacent the end of the shaft, and a screw carried by said head for supporting and adjusting the last named seat and the holder.

3. In combination, a housing, a holder mounted therein, spherical seats for the holder that have the same center and restrain the holder in planes perpendicular to each other, step-and-guide bearings mounted in the holder, and means for supplying lubricant under pressure to the bearings.

4. In combination, a housing, a holder located therein, spherical surfaced seats for the holder that are supported by the housing and restrain the same in planes perpendicular to each other, a parallel guide bearing and a flat surfaced step-bearing mounted in the holder, and means for distributing lubricant in multiple to one of the spherical surfaced seats and the flat-surfaced step-bearing.

5. In combination, a housing having a cylindrical bore, a seat mounted therein and having a spherical inner surface, a member having an enlargement which snugly fits said surface, a second member which is secured to the first and is provided with a spherical under surface and a flat upper surface, a flat surfaced step coöperating with the said flat surface, a spherical surfaced block which supports the second member, and means supplying lubricant to the center of the surfaces of said second member and its coöperating parts to flow outwardly over said surfaces.

[Claims 6 to 10 not printed in the Gazette.]

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1,041,427. NON-METALLIC BEARING. CHARLES O. L. CARDELL, Pearl River, N. Y. Filed May 6, 1909. Serial No. 494,210. (Cl. 64—19.)



1. As an article of manufacture, a non-metallic material for pulleys, bushings, bearings and the like, consisting of wood treated with copperas to harden the fibers permeated with drying oils, non-drying oils, and beeswax as a lubricant.

2. As an article of manufacture, a non-metallic material for pulleys, bushings, bearings, and the like, consisting of wood, treated with copperas to harden the fibers, with drying oils, non-drying oils, and beeswax to lubricate the material and with creosote.

3. As an article of manufacture, a non-metallic material for pulleys, bushings, bearings and the like, consisting of wood, treated with copperas to harden the fibers, with drying oils, non-drying oils, and beeswax as a lubricant, with creosote to preserve the wood and coated with varnish.

4. The herein described method for forming a non-metallic bearing, pulley, bushing and like article, consisting in subjecting fashioned wood to a bath of copperas, then subjecting it to a hot bath formed initially of drying oils, non-drying oils and beeswax, with a final addition of creosote.

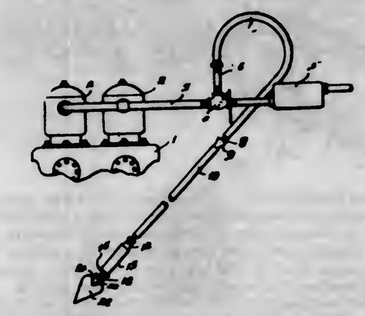
5. The herein described method for forming a non-metallic bearing, pulley, bushing, and like article, consisting in subjecting fashioned wood to a bath of copperas, then subjecting it to a hot bath formed initially of drying oils, non-drying oils and beeswax, and with a final addition of creosote, then coating the article with varnish.

[Claim 6 not printed in the Gazette.]

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1,041,428. ATTACHMENT FOR OPERATING DEVICES BY RECIPROCATING MOVEMENTS. JOHN M. CHRISTINE, Braddock, Pa. Filed Apr. 21, 1910. Serial No. 556,790. (Cl. 230—27.)

1. An attachment adapted to be connected to the exhaust pipe of a motor having an intermittent exhaust, said attachment being operated by the successive impulses of the exhaust and comprising a cylinder, a piston movably mounted in said cylinder and actuated in one direction by the exhaust from the motor, a rod connected to and moving with the piston and projecting from one end of the cylinder and adapted to have a work-performing element attached to and movable with the projecting end thereof, means located in said cylinder for operating said piston in the opposite direction, a connection between said cylinder and the exhaust pipe of the motor, and means within said connection to constitute the sole exhaust from the motor when the attachment is in operation, said means and connection providing impact pressure from the exhaust to the piston in the direction of flow of the exhaust, said point of exhaust being located substantially at the point of application of pressure.



2. An attachment adapted to be connected to the exhaust pipe of a motor having an intermittent exhaust, said attachment being operated by the successive impulses of the exhaust exerted by impact in the direction of exhaust flow and comprising a cylinder having a piston, said piston being operatively connected to a work-performing device to provide reciprocations to said device, connections between the cylinder and the pipe for the passage of exhaust to the cylinder to actuate said piston in one direction, means within the cylinder for moving the piston in the opposite direction, and an exhaust release element between the piston and exhaust pipe for the escape of exhaust under the action of said means, said element being located substantially at the point of impact and operative between successive impulses of the exhaust.

3. An attachment adapted to be connected to the exhaust pipe of a motor having an intermittent exhaust, said attachment being operated by the successive impulses of the exhaust exerted by impact in the direction of exhaust flow and comprising a cylinder having a piston, said piston being operatively connected to a work-performing device to provide reciprocations of said device, connection between the cylinder and the pipe for the passage of exhaust to the cylinder to actuate said piston in one direction, a spring within the cylinder in advance of the piston for moving the latter in the opposite direction, and an exhaust-release element for the escape of exhaust under the action of said spring, said element being located substantially at the point of impact and operative between successive impulses of the exhaust.

4. An attachment adapted to be connected to the exhaust pipe of a motor having an intermittent exhaust, said attachment being operated by the successive impulses of the exhaust exerted by impact in the direction of exhaust flow and comprising a cylinder having a piston, said piston being operatively connected to a work-performing device to provide reciprocations to said device, connections between the cylinder and the pipe for the passage of exhaust to the cylinder to actuate said piston in one direction, means within the cylinder for moving the piston in the opposite direction, and an exhaust release element between the piston and exhaust pipe for the escape of exhaust under the action of said means, said element being located substantially at the point of impact and operative between successive impulses of the exhaust, said exhaust release element having its exhaust exit annular with respect to the path of travel of the exhaust in its work-performing movement.

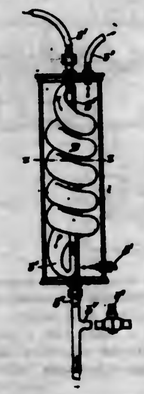
5. An attachment adapted to be connected to the exhaust pipe of a motor having an intermittent exhaust, said attachment being operated by the successive impulses of the exhaust, and comprising a reciprocating element adapted to perform work in both directions of its movement and having its movements in one direction provided by the exhaust impulses exerted by impact in the direction of exhaust flow, variations in number of exhaust impulses per unit of time providing variations in length of reciprocations of the element, the working capacity of the element remaining unimpaired by such variations in length and means for exhausting the exhaust flow substantially at the point of impact.

[Claims 6 to 9 not printed in the Gazette.]



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1,041,429. MEANS FOR USE IN HEATING, PUMPING, AND CIRCULATING WATER AND OTHER FLUIDS. ALEXANDER CLARK, Govan, and JOHN JAMES FERGUSON, Glasgow, Scotland. Filed Apr. 29, 1910. Serial No. 558,388. (Cl. 103—8.)



1. In combination, a heating chamber, having inlet and outlet openings, an automatic tubular liquid pump arranged in said chamber and comprising a capacious, spiral-shaped, central air-chamber, having a small-bore inlet pipe at the top extended downward below the spiral, and an outlet at the base having a trap-bend, and a small-bore discharge pipe extended upward from said trap-bend above the spiral, as and for the purposes herein set forth.

2. An automatic tubular liquid pump adapted to be arranged in a heating chamber, comprising a wide-bore, spiral-shaped air-chamber terminating at the top in a small-bore inlet pipe extended downward below the spiral, and a tapered base having a trap-bend therein, and a small-bore discharge pipe extended upward from said trap-bend above the spiral, as and for the purposes herein set forth.

3. An automatic tubular liquid pump, adapted to be arranged within a heating chamber, comprising a capacious air chamber having an inlet pipe at the top and an outlet pipe at the bottom, substantially as and for the purposes herein set forth.

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1,041,430. DOOR-CHECK. ELISHA WM. CLARK, St. Petersburg, Fla. Filed Aug. 14, 1912. Serial No. 714,998. (Cl. 16—77.)

1. A door-check, comprising a door-engaging member, a spring-controlled check, a movable element carried by said door-engaging member and adapted to engage the said check when the said member is moved by a door, and a stop arranged in the path of movement of the said element whereby to move the same out of engagement with said check.



2. A door-check, comprising a door-engaging member, a movable check, a movable element carried by said door-engaging member and adapted to engage the said check when the said member is moved by a door, a spring for resisting movement of said check, means whereby to adjust the tension of said spring, and a stop arranged in the path of movement of said movable element whereby to move the same out of engagement with said check.

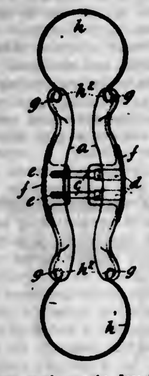
3. A door-check, comprising a slidable door-engaging member, a spring-controlled check slidable in parallelism with said member, a connecting lever pivoted on the door-engaging member and adapted to engage the said check when the said member is moved by a door, and a stop arranged in the path of movement of said lever whereby to engage and move the same free of said check.

4. A door-check, comprising a slidable door-engaging member, a spring-controlled sliding check adjacent said member, a lever pivoted on the said member and having angular arms, one of which is adapted for engagement with the said check when the said member is moved by the door, a spring in connection with said lever whereby to hold the same in position for engagement with the check, and a stop arranged in the path of movement of the other angular arm and adapted to engage the same in order to swing the first-mentioned arm out of engagement with the said check.

5. A door-check, comprising a casing having communicating guideways, a door-engaging bolt movable within one of said guideways and partially out of the casing, a check movable in the other guideway, a spring for controlling movement of the said check, a connecting element carried by the said bolt and adapted to engage the said check when the bolt is moved by a door, a stop arranged in the path of movement of the said connecting member and adapted to engage and move the same away from the said check, and a spring engaging the said bolt for maintaining the same partially out of the casing.

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1,041,431. FLEXIBLE OR SPRING GRIP-DEVELOPER. WALTER EDWARD CLEMENTS, Erdington, England. Filed Jan. 30, 1912. Serial No. 674,353. (Cl. 46—69.)

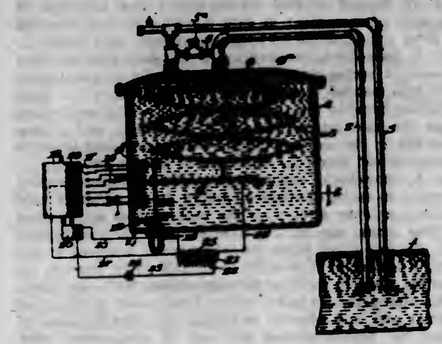


1. In a flexible or spring grip developer the combination of two bars or handle parts coupled to have a limited and guided parallel movement toward and away from each other, and bow springs interchangeably fitted to the ends of the bars or handle parts in a manner requiring no tool to attach or detach them, substantially as described.

2. In a flexible or spring grip developer, the combination of two bars or handle parts coupled to have a limited and guided parallel movement toward and away from each other, recesses formed in the extreme ends of said bars or handle parts, and bow springs interchangeably fitted to the ends of the bars or handle parts and whose ends are curled up or bended to engage the recesses, substantially as described.

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1,041,482. MECHANISM FOR USE IN CONNECTION WITH FLOWING STREAMS. EDWARD S. COLE, New York, N. Y. Filed Feb. 28, 1910. Serial No. 546,569. (Cl. 284—34.)



1. The combination of a casing containing a hollow, expansible and contractible member, the casing being arranged to receive a static pressure of the flowing stream, and the hollow member being arranged to receive the velocity pressure of said stream; a conduit for a flowing stream, two pipes projecting into said conduit, one facing up stream and one facing down stream, one of said pipes leading into said casing, and the other pipe leading to within the expansible and contractible member, a swinging arm arranged within the casing and adapted to be actuated by the expansion and contraction of said member, a series of contact points arranged also within the casing and adapted to coöperate with said contact arm, a series of electrical circuits coöperating with said contact points, an induction coil arranged for inclusion in said electrical circuits, and metallic contacts associated therewith arranged to coöperate with the contact points of said electrical circuits, whereby the closure of said circuits forms a record by sparks from said contact.

2. A device of the class specified comprising a casing containing an expansible and collapsible member in the form of a series of intercommunicating hollow metallic drums, pipes or tubes extending respectively from said casing and from said expansible and collapsible member, and having bent ends adapted to face up-stream and down-stream in a pipe or conduit, a cross-pipe 5 having a valve $5^a$, and connecting said tubes or pipes extending from the casing and said member, a swinging contact arm 8, arranged within the casing and pivotally mounted on a cross-bar 9, supported by said casing, a contact strip $9^a$ located in the casing, a series of contacts 10 provided in said contact strip, adapted to coöperate with the swinging contact arm 8, an electro-magnet 15 mounted on the casing and having its armature 14 provided with a swinging arm 13 adapted to swing the contact arm 8 toward the contact strip $9^a$, a series of electrical circuits 16, 16, extending from the contacts 10, 10, and provided with spark points 17, 17, a contact strip 29 coöperating with the spark points 17, 17, a rotary drum 18, outside the casing arranged to pass between the contact strip 19 and the spark points 17, a clock-work 20, an induction coil including the electro-magnet 15 in its primary circuit, and including the aforesaid series of circuits in its secondary.

3. A device of the class described, comprising a contact arm, means responsive to changes in pressure operating said arm, contacts coöperating with said arm, a lever for contacting with said arm, and a casing inclosing said above mentioned elements, said lever being mounted to move at right angles to said contact arm, and means for moving said lever.

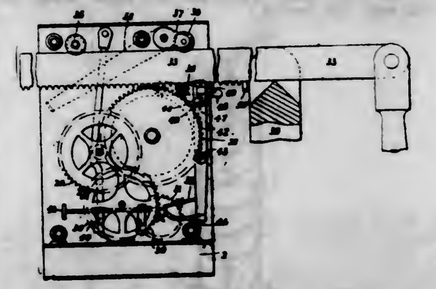
4. A device of the class described, comprising a contact arm, means responsive to changes in pressure for operating said arm, contacts coöperating with said arm, a lever for contacting with said arm and an electro-magnet for operating said lever.

5. A device of the class described, comprising a contact arm, contacts coöperating with said arm, a lever, a casing inclosing said above mentioned elements, and a magnet for controlling said lever, said magnet extending through said casing.

[Claims 6 to 11 not printed in the Gazette.]

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1,041,433. WORT-REGULATOR FOR MASH-TUNS. STANTON WILDING COLE, London, England. Filed May 17, 1912. Serial No. 698,071. (Cl. 210—16.)



1. In combination, a mash tun, a perforated false bottom in same, an outlet for the wort and an adjustable pressure valve controlling said outlet.

2. In combination, a mash tun, a perforated false bottom in same, an outlet for the wort below said false bottom and an adjustable pressure valve controlling said outlet.

3. In combination, a mash tun, a perforated false bottom in same, an outlet for the wort below said false bottom, a valve controlling said outlet having a spindle, a counter-balance lever bearing on said spindle and a weight on the counter-balance lever adapted to change its position thereon automatically.

4. In combination, a mash tun, a perforated false bottom in same, an outlet for the wort below said false bottom, a valve controlling said outlet having a spindle, a counter-balance lever bearing on said spindle and a weight on the counter-balance lever adapted to change its position automatically thereon when the counter-balance lever is out of the horizontal.

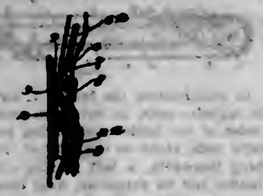
5. In combination, a mash tun, a perforated false bottom in same, an outlet for the wort below said false bottom, a valve controlling said outlet having a spindle, a counter-balance lever bearing on said spindle and a casing containing a clockwork train movably mounted on said lever.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,434. SUSPENDER-FASTENER. FRED W. COOLEY, Minneapolis, Minn. Filed Dec. 18, 1911. Serial No. 666,891. (Cl. 24[illegible]—25.)

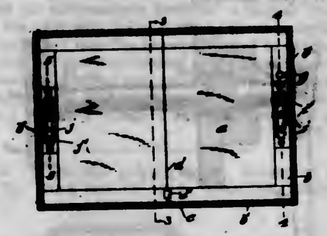
1. The combination with a suspender strap terminating in an expanded extremity, of a fastener coupled to said strap having a limited downward movement on the expanded end of said strap, and adapted to clamp thereto a loose portion of a shirt folded around said strap, and which fastener when pressed downward on said strap to its limit, tightly grips the engaged portion of said shirt, but which fastener, when slightly raised or loosened on said strap permits the shirt to be moved or adjusted through said fastener while said strap, shirt and fastener are held together and in coöperative relation.



2. The combination with a suspender strap having an expanded end, of a suspender fastener having two loops rigidly connected at an angle to each other, one of said loops being engageable with a coöperating fastening device on a trouser band, and the other loop having an entrance passage adapting it to be coupled to said suspender strap end, and to secure thereto a portion of a shirt folded around the said strap, substantially as described.

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1,041,435. DRAWING-TABLET. ARSON K. CROSS, Winthrop, Mass. Filed Feb. 26, 1910. Serial No. 545,418. (Cl. 35—10.)



1. A transparent tablet for use in the study of free-hand drawing, having means for determining when one of its edges is horizontal.

2. A transparent tablet for use in the study of free-hand drawing, said tablet having a rectangular frame, and means for determining when the upper and lower edges of the frame are horizontal.

3. A transparent tablet for use in the study of free-hand drawing, having a rectangular frame provided with beveled edges, and means whereby a horizontal position of two of the edges of the frame may be determined.

4. A transparent tablet for use in the study of free-hand drawing, having a rectangular frame provided with beveled and colored edges, the beveling of said edges being equal.

5. The combination with a frame, of a sheet of transparent material having a surface adapted to be marked upon, and having means for determining when the upper and lower edges of the frame are horizontal.

[Claims 6 to 9 not printed in the Gazette.]

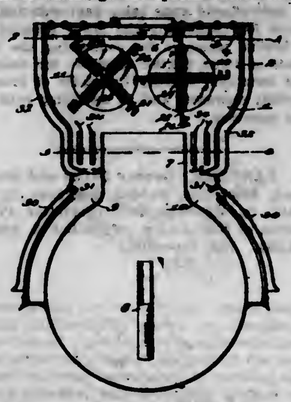
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1,041,436. SPARK-ARRESTER. PATRICK HOWARD CORNISHMAN and EBENEZER BURT, Childers Well, Western Australia, Australia, assignors of one-half to Valentine Mare Pike Hugh, Kirkintin, Australia. Filed Feb. 5, 1912. Serial No. 675,698. (Cl. 110—124.)

1. A spark arrester for locomotive and other steam engines, comprising in combination a casing adapted to receive and discharge the products of combustion, and spark-arresting members having foraminous interengaging blades arranged in the path of the products of combustion and operative to permit passage of gases therethrough and to intercept and hold the sparks, said members being movable to discharge the sparks collected thereby.



2. A spark arrester comprising in combination a casing containing means for directing the products of combustion therethrough, and spark-arresting members having foraminous blades interengaging at a point directly above said directing means and operative to permit passage of gases therethrough and to intercept and retain the sparks, said blades being movable under the influence of the draft from a position in the path of the draft to a position out of such path to discharge the sparks therefrom.



3. A spark arrester comprising in combination a tube adapted to discharge the products of combustion, and a pair of oppositely mounted revoluble spark arresting members arranged in the path of the products of combustion, said members having interengaging foraminous blades to permit the passage therethrough of the gases and to arrest the sparks.

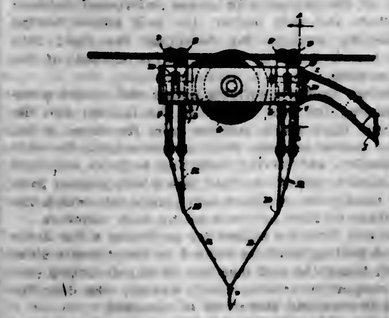
4. A spark arrester comprising in combination a discharge tube for the products of combustion, a pair of oppositely mounted revoluble members having foraminous blades arranged in interengaging relation directly above the outlet of said tube, and means operatively connecting said members to insure rotation thereof in unison.

5. A spark arrester comprising in combination a discharge tube for the products of combustion, an outer casing forming spark-collecting chambers, and a pair of oppositely mounted revoluble spark-arresting members above the discharge of said tube and having foraminous blades interengaging at a point directly above the outlet of said tube, said foraminous blades being operative to permit passage therethrough of the gases and to intercept and discharge the sparks into said collecting chambers.

[Claim 6 not printed in the Gazette.]

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1,041,437. TROLLEY-GUARD. WILLIAM E. DAGGETT, Seattle, Wash., assignor of one-half to Edward B. Stewart, Seattle, Wash. Filed Aug. 10, 1910. Serial No. 576,462. (Cl. 191—37.)

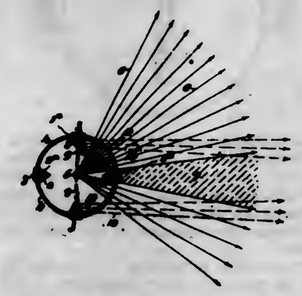


The combination with a trolley harp comprising a rectangular frame having partitions extending across from

side to side and a wheel journaled in the frame between said partitions, of longitudinally separated pairs of arms pivoted in the frame and for lateral movement between the ends of the frame and the partitions, a single pivot member for each pair of arms, a single spring for holding the upper ends of each pair together, a headed roller carried by the upper end of each arm of the separated pairs and adapted to coact with the roller on the opposite arm to prevent disengagement of the trolley wire from the wheel, the lower ends of said arms being bent outwardly, of flexible members for connecting the lower ends of each pair of arms, flexible members for connecting the lower ends of each pair of arms, flexible members for connecting the last-named members whereby the pairs of arms may be simultaneously operated, and an operating cord connected to the last members.

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1,041,438. LANTERN. GUSTAF DALÉN and SVEN AUGUST ESKILSON, Stockholm, Sweden, assignors, by mesne assignments, to American Gasaccumulator Company, a Corporation of New Jersey. Filed Oct. 3, 1906. Serial No. 337,294. (Cl. 240—103.)



1. In a lantern, the combination of a suitable burner and opaque members supporting the roof or top of the lantern and obstructing the light coming from the flame of the burner with means separate from and overlying the said members for deflecting the rays of light from the flame of the burner into the planes in which the direct passage of the light is obstructed by such members.

2. In a lantern, the combination of a suitable burner and opaque members supporting the roof or top of the lantern and obstructing the light which radiates from the flame of the burner with light deflecting surfaces formed on members separate from and overlying said opaque members for deflecting the light rays into the planes in which the direct passage of light is obstructed by such members.

3. In a lantern, the combination of a suitable burner and opaque members which support the roof or top of the lantern and which obstruct the light which radiates from the flame of the burner with means interposed between said members and said burner, the said means having light deflecting surfaces for deflecting the light rays from the burner flame to planes in the shadow of the adjacent member.

4. A lantern having a suitable burner and opaque members supporting the roof or top of the lantern and obstructing the light which radiates from the flame of the burner and means separate from and over-lying the said opaque members and having deflecting surfaces arranged at angles so as to deflect the light rays which proceed from the flame toward the members into planes into which the direct passage of light is prevented by such members.

5. A lantern having a burner for producing a flat flame and light deflecting members located on the opposite sides of said flat flame, the said members having deflecting surfaces of unequal transverse width whereby the distribution of light resulting therefrom is equalized.

[Claims 6 to 14 not printed in the Gazette.]

1,041,439. BELT CONVEYER. FRANKLIN J. DEARBORN, Oakland, Cal. Filed June 8, 1910, Serial No. 565,860. Renewed Sept. 9, 1912. Serial No. 719,488. (Cl. 198—4.)

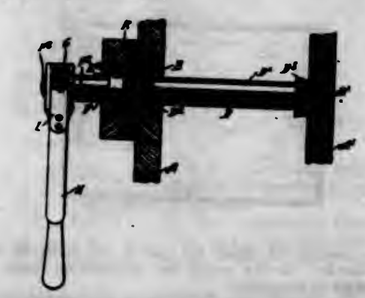


1. In combination the ladder 1, having pulleys thereon at its opposite ends, an extension member guided between the sides of the ladder and having pulleys thereon at its opposite ends, racks on the sides of the extensions, pinions meshing therewith, a belt passing around the pulleys on the ladder and its extension, fixed idlers one on the ladder and one on the extension, intermediate idlers slidably mounted on the ladder and extensible connections between the fixed idler on the extension and the intermediate idlers, substantially as described.

2. In combination with an extensible conveyer belt, a series of supporting rollers and a series of slotted links connecting the said rollers to extend the said rollers from a closed position to a spread position, substantially as described.

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1,041,440. STAY-BOLT AND MEANS FOR SCREWING THE SAME IN PLACE. WILLIAM LORENZO DECKER, Mollendo, Peru. Filed Feb. 10, 1912. Serial No. 676,737. (Cl. 85—1.5.)



1. A stay bolt, comprising a shank and a set of conical threads at each end of the shank, each thread having a straight base and a slanting back, the backs of the threads at one end of the stay bolt slanting in an opposite direction to the backs of the threads on the other end of the stay bolt, the inner ends of the threaded portions of the stay bolt being of greater diameter than the shank portion of said bolt.

2. In combination with a stay bolt having threads at the ends for screwing into tapped holes in the inner and outer boiler walls, a guide nut screwing on the threads at one end of the stay bolt, and a driving key mounted to turn in the said guide nut and adapted to engage the end of the stay bolt to turn the latter.

3. In combination with a stay bolt having a set of threads at each end, a guide nut having a screw thread adapted to screw on the outer end of one of said sets of threads, the guide nut having a smooth guide opening concentric with the thread, and a driving key having a head mounted to turn in the said guide opening in the nut, the face of the said head being provided with gripping teeth for engaging the outer end of the stay bolt.

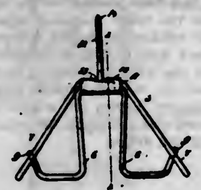
4. In combination with a stay bolt having threads at the ends for screwing into tapped holes in the inner and outer boiler walls, a guide nut screwing on one of the said threads, a driving key mounted to turn in the said guide nut and adapted to engage the stay bolt to turn the same, and means for turning the said driving key.

5. In combination with a stay bolt having threads at the ends for screwing into tapped holes in the inner and outer boiler walls, a guide nut screwing on one of the said threads, a driving key mounted to turn in the said guide nut and having a head and a shank, the head being provided at its face with gripping teeth for engagement with the end of the stay bolt, and means for turning the driving key.



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1,041,441. CLOTHES-HOOK. ROSCOE DENNY, Eagle Pass, Tex. Filed Dec. 8, 1911. Serial No. 664,697. (Cl. 248—36.)

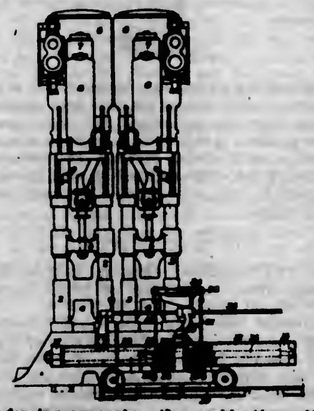


1. A clothes hook comprising a single strand of relatively stiff wire bent to form reversely extending hook portions and an intermediate inverted U-shaped connecting portion, the said wire being further bent to provide downwardly diverging loop-like guards adapted to overhang and receive the bill portions thereof and a sleeve surrounding the connecting portion and receiving the free end of the wire.

2. A clothes hook comprising a single strand of relatively stiff wire bent to form reversely extending hook portions and an intermediate inverted U-shaped connecting portion, the said wire being further bent to provide downwardly diverging loop-like guards adapted to overhang and receive the bill portions thereof and a sleeve surrounding the connecting portion and receiving the free end of the wire, one end of said wire being extended through the sleeve and having a threaded terminal forming a securing shank.

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1,041,442. FORGING APPARATUS. ROBERT F. DEVINE, Erie, Pa. Filed July 12, 1912. Serial No. 709,036. (Cl. 78—1.)



1. In forging apparatus, the combination with a fixed forging press, of another forging press adjacent to the fixed press and mounted for movement toward and away from the same, substantially as described.

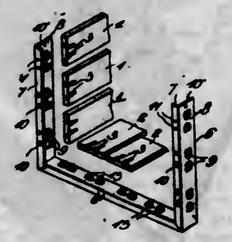
2. In forging apparatus, the combination with a fixed press, of another forging press adjacent thereto and in line therewith, and a movable mounting for the second press, substantially as described.

3. In forging apparatus, the combination with a fixed forging press, of another press adjacent thereto and mounted for movement toward and away from the fixed press, together with means exerting a normal tendency to separate the two presses, substantially as described.

4. In forging apparatus, the combination with a fixed forging press, of another press adjacent thereto and mounted for movement toward and away from the fixed press, together with means exerting a normal tendency to separate the two presses, and means for moving the movable press toward the fixed press, substantially as described.

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1,041,443. EGG-CARRIER. RICHARD DE WRIGHT, Allegan, Mich. Filed Mar. 30, 1912. Serial No. 687,350. (Cl. 217—69.)



1. In a receptacle, the combination with a metallic slat holder having longitudinally curved slat engaging tongues, of slats provided at their ends with segmental kerfs to receive the longitudinally curved tongues of the slat holder.

2. A corner brace for receptacles, comprising an angular metallic strip provided with projecting tongues which are bent solely longitudinally to form segments of a circle, in combination with slats which have in their ends segmental kerfs to receive the tongues of the corner braces.

3. Means for associating slats comprising corner braces of sheet metal which have struck up therefrom inwardly extending and longitudinally curved tongues arranged in pairs to extend one toward the other the ends of such tongues being rounded, in combination with slats in which are formed segmental kerfs which correspond with the curvature of the tongues.

4. In a receptacle of the character set forth, means for engaging the ends of slats comprising an angular strip having tongues which are integral therewith said tongues being curved longitudinally and provided with rounded ends.

5. A corner brace and connecting means for slats of receptacles of the character set forth comprising an angular strip of sheet metal that is bent at right angles to provide a wide and a narrow flange, a plurality of tongues which are integral with the strip and are arranged in pairs to extend from the wider flange in the segment of a circle the ends of each of the tongues being rounded and angular spurs of less length than the thickness of the slats formed to extend inward from the other flange.

[Claims 6 to 8 not printed in the Gazette.]

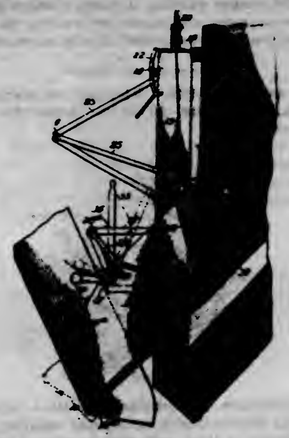
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1,041,444. ORE-BIN DOOR. OLIVER H. DICKINSON, Duluth, Minn. Filed Apr. 17, 1911. Serial No. 621,688. (Cl. 57—37.)

1. A device of the class described, comprising in combination, a bin having an opening in one wall thereof, a closure for said opening, a series of struts acting as the closure guiding means and so arranged that the closure is bodily moved in an arcuate path during a portion of its closing movement, the outer end of one of the struts which guides the lower edge of the closure having a floating pivot and being connected by a link to a fixed pivotal point, which latter point is above the path of material escaping from said bin, substantially as described.

2. A device of the class described, comprising in combination, a bin having an opening in one wall thereof, a closure for said opening, a series of struts acting as the closure guiding means for the closure, one strut being pivoted to the upper edge of the door, and another strut pivoted to the lower edge of the door, said lower strut having a floating outer pivot, and a connecting link between said

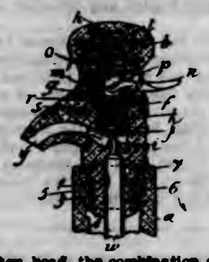
floating outer pivot and a fixed pivotal point, said fixed pivot being out of the path of materials passing through said opening, substantially as described.



3. A device of the class described, comprising in combination, a bin having an opening in one wall thereof, a closure for said opening, a series of struts acting as the closure guiding means and so arranged that the closure is allowed a combined swinging and bodily movement, the bodily movement in closing being in the arc of a circle whereby the weight of materials passing through the opening assists in the closing movement, the lower strut for said closure having a fixed and a floating pivot, the fixed pivot being located in a plane above, the path of materials passing through said opening, substantially as described.

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1,041,445. HEAD OR STOPPER OF SIPHONS AND THE LIKE. Julius Diedrichs, London, England. Filed Jan. 17, 1912. Serial No. 671,995. (Cl. 215—115.)



1. In a siphon head, the combination of a valve-operating plunger, a flexible washer mounted on said plunger, a seat for the lower side of the peripheral margin of the washer, a hollow fitting adapted to hold the peripheral margin of the washer on said seat and having a chamfered inner edge, a valve, a block carrying said valve and attached to the plunger below the washer, said block having a chamfered upper edge adapted to engage the lower surface of the washer when the valve is opened and compress the washer between the chamfered edges of the block and fitting without shear.

2. In a siphon head, the combination of a valve, a valve-operating plunger, a flexible washer carried by said plunger, means for engaging the peripheral margin of the washer to hold the same in fixed position in the siphon head, and means carried by the plunger adapted to flex the washer in one direction when the valve is closed and in the opposite direction when the valve is opened.

3. In a stopper, a hollow head having a tail piece reduced in cross sectional area to provide a substantial cushioning shank, expansible screw parts surrounding said portion of reduced cross sectional area, means resulting relative movement between the head and screw parts with rotative effort in screwing and unscrewing directions, and a resilient ring adapted to hold the screw parts together and act as a leakage preventing washer.

4. In a siphon head, the combination of a valve, a valve-operating plunger, a flexible washer carried by said plunger, means engaging the peripheral margin of the washer to hold the same in a fixed position in the siphon head comprising a seat for the lower marginal edge of the washer and a removable cylindrical fitting adapted to hold the washer on its seat and having a chamfered inner edge, means carried by the plunger adapted to flex the washer downwardly when the valve is closed, and means carried by the plunger adapted to flex the washer upwardly when the valve is opened and compress the washer against the chamfered edge of the fitting.

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1,041,446. SLIDING-DOOR HANGER. Otto W. Dolph, Cincinnati, Ohio, assignor to The O. Armleder Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Dec. 31, 1910. Serial No. 600,272. (Cl. 16—7.)

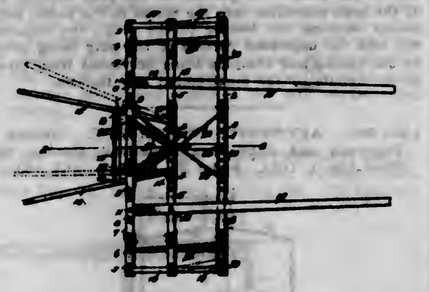


In an anti-rattling sliding-door hanger device, a vertical suspension-bar, lateral tubular bearings duly spaced apart at the upper projecting end of said bar, bread headed or flanged pins mounted in said tubular bearings, flanged rollers mounted on said tubular bearings, and compensating take-up spiral-springs also mounted on said tubular-bearings intermediate said rollers and the bread heads or flanges of the pins.

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1,041,447. CULTIVATOR. Robert Calvin Dougan, Millersburg, Ohio. Filed Oct. 9, 1911. Serial No. 653,700. (Cl. 97—31.)

1. A cultivator comprising three spaced substantially parallel transverse bars, each bar having an arch near each end, a pair of shafts for the frame, said shafts being arranged on each side of the center of the bars above the arches of the front and central bar and below the arches of the rear bar, said shafts being pivoted to the arches of the rear and central bars, a pair of handles connected with the central bar between the arches and extending rearwardly above the central portion of the rear bar, a plate connecting the arches of the rear bar, a stirrup on the plate for each handle, the handle passing through the stirrup, a bar connecting the handles, straps connecting the ends and central portions of the front and central bar, straps connecting the ends and centers of the central and rear bar, a link connecting each handle with the front bar, said links being crossed, teeth on the bars, and a runner at each end of the frame, the front end of each runner being pivoted to the front bar near its ends, and a hanger connecting the rear end of each runner to the rear bar, said runners being parallel.



2. A cultivator, comprising a frame composed of a front, a central and a rear bar arranged substantially parallel and transverse to the direction of movement of the cultivator, a pair of straps connecting the central to the rear bar, said straps being pivoted to the center of the central bar and diverging toward the rear bar, each bar having an arch near each end, a shaft pivoted to each arch of the rear bar and extending over the arches of the other bars, a pivotal connection between each shaft and the arch of the central bar, a handle pivoted to the central bar on each side of its center and extending over the rear bar, a plate connecting the arches of the rear bar, a stirrup on the plate for each handle, a connection between the handles, a swinging connection between the front and the central bar, a runner at each side of the frame, said runners being parallel, and a pivotal connection between the ends of each runner and the first and rear bars, and teeth on the bars.

3. A cultivator comprising a pair of transverse rigidly connected spaced bars, a front bar connected to the said bars for swinging movement transversely of the frame, a runner at each side of the frame and transverse to the bars, a pivotal connection between the rear ends of the runners and the rear bar, a pivotal connection between the front ends of the runners and the front bar, shafts connected to the first named bars, a pair of handles pivoted to the central bar, a connection between the handles, and a link connecting each handle with the front bar, said links being crossed to cause the front bar to swing in the same direction with the handles, and teeth on the bars, one of the said teeth being directly in front of each runner.

4. A cultivator comprising a frame consisting of a pair of transverse rigidly connected spaced bars, a front bar connected to the said bars for swinging movement transversely of the frame, a runner at each side of the frame and transverse to the bars, a pivotal connection between the rear ends of the runners and the rear bar, a pivotal connection between the front ends of the runners and the front bar, shafts connected to the first named bars, a pair of handles pivoted to the central bar, a connection between the handles, and a link connecting each handle with the first bar, said links being crossed to cause the front bar to swing in the same direction with the handles, and teeth on the bars.

5. A cultivator comprising a pair of transverse rigidly connected spaced bars, a front bar connected to the said bars for swinging movement transversely of the frame, a runner at each side of the frame and transverse to the bars, a pivotal connection between the rear ends of the runners and the rear bar, a pivotal connection between the front ends of the runners and the front bar, means for drawing the frame connected with the first named bars, a pair of handles mounted to swing on the first named bars, a link connecting each handle with the front bar, said links being crossed, a connection between the handles, and cultivating means supported by the bars.

[Claim 6 not printed in the Gazette.]



1,041,448. SPLIT GEAR. Charles J. Dohmmert, Philadelphia, Pa. Filed Feb. 5, 1912. Serial No. 675,873. (Cl. 74—32.)



1. A gear wheel comprising two sections provided with coöperating recesses for the reception of a shaft, one of said sections being provided upon one side of its respective recess with a socket, a pin secured unitarily to the other of said sections and operative to engage said first section in said socket and provided with a tapered transverse recess segmental in cross section, tapered means arranged to laterally enter said socket and the recess in said pin to firmly secure said sections together, and tapered means for keying said gear to a shaft, said last-mentioned means coöperating with each of said sections simultaneously and capable of operating without substantially increasing the longitudinal stress upon said pin.

2. A gear wheel comprising two sections, each of said sections being provided with a socket, a pin secured unitarily to each of said sections and operative to engage the other of said sections in the socket opposite thereto and provided with a tapered recess segmental in cross section, tapered means transversely arranged to enter each of said sockets and fit within the recess within each of said pins to draw and firmly secure said sections together, and tapered means for keying said sections to a shaft, said last-mentioned means coöperating with both of said sections simultaneously and operative to perform its function without increasing the longitudinal tension upon said pins.

3. A gear wheel comprising two sections, each of said sections being provided with a socket, a pin secured unitarily to each of said sections and operative to engage the other of said sections in the socket opposite thereto and provided with a tapered recess, and tapered means transversely arranged to enter each of said sockets and fitting within the recess within each of said pins to draw and firmly secure said sections together, said tapered means being in threaded engagement with their respective adjacent sections.

4. A gear wheel comprising two sections, each of said sections being provided with a socket, a pin secured unitarily to each of said sections and operative to engage the other of said sections in the socket opposite thereto and provided with a tapered recess, and tapered means transversely arranged to enter each of said sockets and fitting within the recess within each of said pins to draw and firmly secure said sections together, each of said tapered means having one of its ends in threaded engagement with its adjacent section.

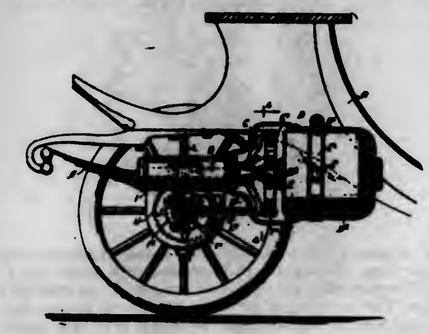
5. A gear comprising two sections, in combination with a pin firmly secured to one of said sections and extending within a socket within the other of said sections, and tapered means laterally entering said socket and in threaded engagement with said second section for drawing into and securing said pin in said socket.

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1,041,449. ELECTRIC DRIVING-GEAR FOR MOTOR-VEHICLES. William Henry Douglas, Belleville, N. J., assignor to Healey & Co., New York, N. Y. Filed May 23, 1910. Serial No. 562,982. (Cl. 21—90.)

A driving connection for vehicles, comprising in combination with the body and the axle, of a motor, a sup-

pension mounted to rock on the vehicle body, on an axis parallel with the axle, and in which the motor is mounted in a direction transverse to its axis, a bearing mounted to rock on the axle and attached to the casing of the motor, a shaft journaled in the bearing and having a driving



connection with the motor and with the axle, said suspension being ring-shaped and provided with oppositely arranged trunnions, the motor casing having an annular groove in which the suspension is received, the body having depending bearings for the trunnions.

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1,041,450. HORSESHOE. THEODORE DREW, Basom, N. Y. Filed Feb. 3, 1912. Serial No. 675,869. (Cl. 168—35.)



In a device of the character described, the combination with a horse-shoe, having transversely extending tapering dove tail grooves formed in the front portion and rear ends thereof, of a calk having a tapering base portion formed coincident with the grooves and adapted to be disposed therein, said shoe having openings formed in the side walls of said grooves and communicating with the exterior of said shoe, said calk having a transverse opening formed in the base thereof, a coil spring disposed in said opening and frictionally engaging the side walls thereof, pins secured to each end of said spring and normally extending beyond the outer surface of the base of the calk, said pins being adapted to be pressed inwardly to allow the calk to be inserted within said grooves, said spring forcing the outer ends of the pins into the openings in the walls of the groove to hold the calk securely in place, and set screws threaded into the outer ends of the openings in the shoe to prevent accidental loss of said pins.

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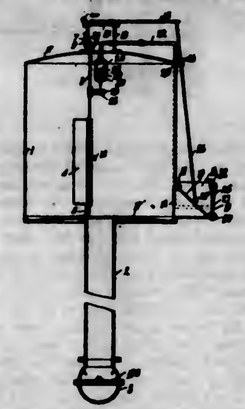
1,041,451. MEANS FOR ATTACHING BLADES OF TOOLS TO HANDLES. THOMAS J. FEGLEY and GEORGE O. LEOPOLD, Philadelphia, Pa., assignors to North Bros. M'f'g Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 28, 1910. Serial No. 546,372. (Cl. 145—83.)



The combination of a blade having a notched end and having a recess some distance from the notch; a handle having a cavity therein and provided with a ferrule; a plug having a head at the outer end and having longitudinal ribs projecting from its body and having a seat formed by slotting the plug transversely; said seat being beveled for the reception of the beveled end of the blade; the portion of the plug directly back of the head extending into the recess in the blade, permanently securing the handle to the plug; the transverse slot and the depressed portion of the plug being covered by the handle and the plug being prevented from turning in the handle by the longitudinal ribs thereon.

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1,041,452. AUTOMATIC WATER-LIFT. GEORGE A. FERGUSON and ALEXANDER MARSHALL, Condon, Oreg. Filed Aug. 1, 1911. Serial No. 641,711. (Cl. 160—A.)



1. An automatic water lift comprising a tank adapted to receive an amount of water from a well or cistern, an opening adjacent the bottom of the tank, a movable member carried by the tank adapted to close the said opening, a release valve adjacent the top of the tank, means engaging the movable member and the said valve whereby they may be opened and closed simultaneously, together with an ignition device adjacent the opening in the bottom of the tank and exterior thereof, the said ignition device providing means for supplying gas to the tank, the issuing gas from the said opening being fired by the said ignition device, the shock of the explosion bringing the said movable member into position to close the opening in the tank and also closing the said release valve.

2. An automatic water lift comprising a tank adapted to receive an amount of water from a well or cistern, an opening adjacent the bottom of the tank, side boards on the outside of the tank and on each side of the opening, a movable member mounted between the said boards and adapted to close the opening, a release valve carried on the tank, movable means between the said movable member and release valve whereby they may be operated together, means for holding the said movable member in open position and with it the release valve, an ignition device adjacent the opening in the tank and exterior thereof, the said device affording means for providing gas into the tank whereby when the said movable member is in open position and gas issues through the opening in the tank the gas within the tank will be exploded by the said ignition device, the shock of the explosion releasing the said movable member and permitting it to close the said opening, the release valve also coming to closed position.

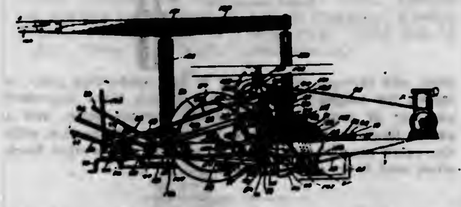
3. An automatic water lift comprising a tank adapted to receive an amount of water from a well or cistern, an opening adjacent the bottom of the tank, boards on the outside of the tank at opposite sides of the opening, a member pivotally mounted between the boards and adapted to close the opening, a release valve adjacent the top of the tank, an arm pivotally secured to the said movable member, one end of the arm engaging the said release valve whereby the valve and the said



member may be operated simultaneously, a lever having a notch therein mounted between the said boards, the said notch being engaged by the outer end of the said movable member whereby it may be held in open position, an ignition device adjacent the said opening and exterior of the tank, the said device affording means for providing gas to the interior of the tank, the issuing gas from the tank through the opening being exploded by the said device, the shock of the explosion bringing the said movable member into closed position, the said release valve also closing.

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1,041,453. WELL PULLING, CLEANING, AND DRILLING MACHINE. LOUIS W. FETNER, Findlay, Ohio. Filed Nov. 16, 1909. Serial No. 527,255. (Cl. 166—3.)



1. In a machine of the character set forth, the combination of a shaft journaled in stationary bearings and carrying a winding drum and a friction wheel, a drive shaft adjustable toward and from said friction wheel and carrying a friction wheel and a pulley, a second drive shaft adjustable toward and from the first-named friction wheel and also carrying a friction wheel and a pulley, means for independently adjusting the adjustable shafts and friction wheels, a drive belt passing around said pulleys, and means acting upon said belt for normally holding the same under tension and the adjustable friction wheels in retracted position.

2. In a machine of the character set forth, the combination of a driven shaft journaled in stationary bearings and carrying a winding drum and a friction wheel, a second shaft adjustable with relation to said friction wheel and carrying a pulley and a co-acting friction wheel, a third shaft adjustable with relation to the first-named friction wheel and carrying a pulley and a co-acting friction wheel, means for independently adjusting the adjustable shafts to throw the friction wheels carried thereby into and out of engagement with the first-named friction wheel, a tension pulley disposed on a line between the adjustable shafts, a belt engaging the first-named pulleys and looped around the tension pulley, and a tension device acting on said tension pulley to hold the belt taut and the adjustable shafts in normal or retracted position.

3. In a machine of the character described, the combination of a shaft journaled in stationary bearings and carrying a winding drum and a friction wheel, a pair of shafts independently adjustable with relation to the first-named shaft and carrying friction wheels to engage with the friction wheel thereon, each of said adjustable shafts also carrying a pulley, means for adjusting said adjustable shafts, a drive belt passing around said pulleys, means for normally maintaining the belt taut and the friction wheels on the adjustable shafts out of engagement with the friction wheel on the drum shaft, other friction wheels adapted to be disposed between the first-named friction wheel and the friction wheels on the respective adjustable shafts, and means for independently adjusting the latter-named friction wheels.

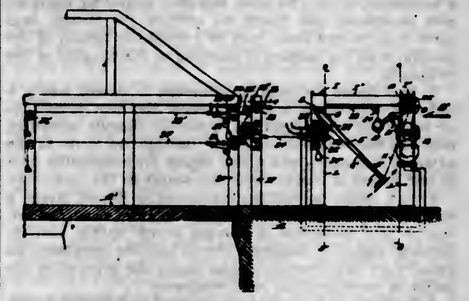
4. In a machine of the character described, the combination of a shaft journaled in stationary bearings and carrying a friction wheel and a winding drum, a second shaft adjustable toward and from the first-named shaft and carrying a friction wheel to engage the friction wheel thereon, means for driving said adjustable shaft and yieldingly holding the same retracted, means for adjusting said adjustable shaft toward the stationary shaft to throw the friction wheels into contact, a brake member, a third shaft carrying a winding drum and a friction wheel and adjustable to move said friction wheel alternately into engagement with the brake member and friction wheel on the adjustable shaft, and means for adjusting the third-named shaft.

5. In a machine of the character set forth, the combination of a stationary shaft carrying a friction wheel and a winding drum, a drive shaft adjustable toward and from the first-named shaft and carrying a friction wheel to engage the friction wheel thereon, a third shaft, means for adjusting said adjustable shaft to throw the friction wheels into or out of engagement, gearing between said adjustable shaft and the third shaft for driving the latter, drilling mechanism, and a crank mechanism actuated by the third shaft for operating said drilling mechanism.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,454. SAFETY-GATE FOR BRIDGES AND RAILWAY-CROSSINGS. MICHAEL E. FRANK, Sheboygan, Wis., assignor of one-half to Louis Herman, Sheboygan, Wis. Filed Mar. 30, 1912. Serial No. 687,411. (Cl. 14—58.)



1. In a swinging bridge having an abutment; the combination of a safety gate comprising an overhead supporting structure arranged transversely of the abutment thoroughfare, horizontally hinged gates suspended from the overhead structure, a winding shaft journaled in the overhead structure in parallel relation to the gate hinges, a flexible connection between each gate and the winding shaft, a ratchet-wheel carried by the winding shaft, a lock and release mechanism for the winding shaft, an electric-motor in gear connection with said winding shaft, a circuit controlling switch for the motor, coupling bolts supported upon the abutment in cable connection with the switch and lock and release mechanism, a connection between the switch and one of the gates, other coupling bolts for inter-locked engagement with the aforesaid bolts carried by the bridge, automatic retracting means for the bridge carried bolts and cables connected with each of said bridge-carried bolts the said cables being extended to a convenient position accessible to an operator upon the bridge.

2. In a horizontally swinging bridge having an abutment; the combination of a safety gate comprising an overhead supporting structure arranged transversely of the abutment thoroughfare, horizontally hinged gates suspended from the overhead structure, a winding shaft journaled in the overhead structure in parallel relation to the gate hinges, a flexible connection between each gate and the winding shaft, a ratchet-wheel carried by the winding shaft, a locking dog engageable with the ratchet-wheel, an electric-motor in gear connection with said winding shaft, a circuit controlling switch for the motor, coupling bolts supported upon the abutment in cable connection with the switch and dog, a connection between the switch and one of the gates, other coupling bolts for inter-locked engagement with the aforesaid bolts carried by the bridge, automatic retracting means for the bridge-carried

belts, and cables connected with each of said bridge-carried belts, the said cables being extended to a convenient position accessible to an operator upon the bridge.

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1,041,455. DEVICE FOR COOKING COTTON-SEED OR LINSEED MEATS. CHARLES EVRAM FULSOM, Memphis, Tenn., assignor of one-half to John Warner Todd, New Orleans, La. Filed Nov. 22, 1911. Serial No. 661,653. (Cl. 87—6.)



1. In a device for cooking cottonseed or linseed meats, a receptacle, a movable cover therefor, means for charging said receptacle, and means for stirring the charge, said cover being moved away from or toward the bottom of the receptacle by the respective charging or discharging of the receptacle.

2. In a device for cooking cottonseed or linseed meats, a series of receptacles, a movable cover for each receptacle, an outlet for each receptacle, a flexible conduit extending from the outlet of one receptacle through the cover in the adjacent receptacle, and spring means for suspending each of said covers in contact with the charge in the receptacle.

3. In a device for cooking cottonseed or linseed meats, a receptacle, a cover movable toward or away from the bottom of said receptacle, a stirring device within said receptacle, means for feeding a charge into the receptacle, an outlet from said receptacle, and means for preventing the escape of moisture from said receptacle.

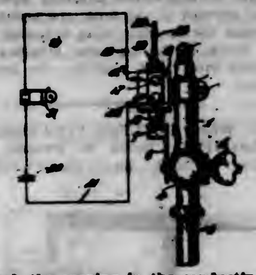
4. In a device for cooking cottonseed and linseed meats, a receptacle, a cover therefor movable toward or away from the bottom of the receptacle, said cover being provided with an inlet opening near one edge thereof, the bottom of the receptacle being provided with an outlet opening on the opposite side of the receptacle from the inlet opening, a series of rotary stirring arms disposed within said receptacle, and a shaft for rotating said stirring arms, said shaft passing through the cover.

5. In a device for cooking cottonseed and linseed meats, a receptacle, a cover therefor movable toward or away from the bottom of the receptacle, said cover being provided with an inlet opening near one edge thereof, the bottom of the receptacle being provided with an outlet opening on the opposite side of the receptacle from the inlet opening, a series of rotary stirring arms disposed within said receptacle, a shaft for rotating said stirring arms, said shaft passing through the cover, a hub for said shaft connected to said cover, a yoke carried by the hub, an adjustable collar carried by the shaft, and a spring disposed about said shaft and bearing at one end on said yoke and at the other end on said collar.

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1,041,496. SAFETY-ALARM. JOSEPH GONGALEO and FREDERICO BALDASSARRE, Newark, N. J. Filed Sept. 6, 1911. Serial No. 647,824. (Cl. 177—311.)

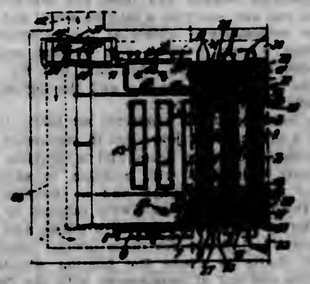
An automatic safety alarm attachment for gas burners comprising a block of electric insulating material provided with a cavity and with means of attachment to a burner, spaced conducting plates carried by said block, one of said plates having a base portion provided with an opening communicating with the cavity, a bell-shaped thermostat having one of its arms connected with said conducting plate, and its other arm provided with an adjustable contact screw to engage the other conducting plate, binding posts carried by the latter-named conducting plate for the attachment of wires forming part of an alarm circuit, one of said binding posts being insulated from said last-named plate, a flexible contact piece projecting from one of said binding posts through the block into the cavity, a switch block movable in said cavity toward and from said contact



piece and through the opening in the conducting plate, a spring for normally holding said switch block depressed and out of engagement with said contact piece, and a switch block elevating member adapted for connection with the valve plug of the burner to elevate said switch block when said valve plug is opened.

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1,041,497. REGENERATIVE COKE-OVEN. ARTHUR GOEHMANN, Stettin, Germany, assignor to Stettiner Chamotte-Fabrik Actien-Gesellschaft vorm. Didier, Stettin, Germany, a Corporation of Germany. Filed Nov. 28, 1910. Serial No. 594,676. (Cl. 202—6.)



1. A coke oven provided with coking chambers arranged side by side, heating flues in the side walls of said chambers, and a plurality of upright regenerators connected with said flues and arranged in the end walls of the coking chambers.

2. A coke oven provided with upright coking chambers of rectangular cross section, regenerators located adjacent to the short sides of said chambers, two sets of superposed heating flues located in the partitions between the coking chambers, adjacent to the long sides of said chambers, upright collecting channels whose lower ends are connected with said regenerators, and branch channels connecting said upright channels with the heating flues.

3. A coke oven provided with upright coking chambers, upright regenerators adjacent to said chambers, each regenerator being provided with a partition extending from its bottom to a point at a distance from its top, so as to leave at the top a channel connecting the two compartments of the regenerator, one of said compartments being located between the coking chamber and the other compartment, superposed heating flues in the partitions separating adjacent coking chambers, and upright collecting channels connected with said heating flues and also connected with the lower ends of the regenerator compartments nearest to the coking chambers.

4. A coke oven provided with coking chambers arranged side by side, heating flues in the side walls of said chambers, a plurality of upright regenerators each connected with the flues of one side wall only, and arranged in the end walls of the coking chambers, and means for controlling the connection of the individual regenerators with the respective heating flues.

5. A coke oven provided with upright coking chambers of rectangular cross section and partitions intervening between the long sides of adjacent chambers, two sets of superposed heating flues located in said partitions adjacent to the respective coking chambers, individual regenerators adjacent to the short sides of the coking chambers, and connections between the heating flues and the regenerators, the heating flues of different partitions being connected with different regenerators.

[Claims 6 and 7 not printed in the Gazette.]



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1,041,458. ELECTRIC-LIGHT FIXTURE OR ELECTROLIER. WINSLOW GOODWIN, Winsted, Conn., assignor of one-half to The Goodwin & Kintz Company, Winsted, Conn., a Corporation of Connecticut. Filed Feb. 9, 1912. Serial No. 676,592. (Cl. 240—78.)



1. A device for supporting a pendant electric light fixture, comprising a hook and hook block for attachment to an arm or bracket part of the light fixture, in which the union of the hook and the hook block is beyond and away from possible contact with the light wires as they project from the hole in the hook block, permitting the same to bend down unobstructed, and an eye and eye block at the upper end of the light fixture, having a central hole through which said light wires also pass.

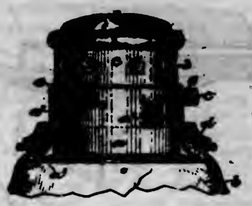
2. A device for supporting a pendant electric light fixture, comprising a hook and hook block for attachment to an arm or bracket part of the light fixture and each having a central hole for the light wires, in which the union of the hook and the hook block is made above the central hole or aperture of the hook block, so that the light wires may pass through the opening and bend down entirely free from contact with the hook, and a complemental eye and eye block having a central opening and connected to the portion of the electric light fixtures, suspended therefrom and into the opening of which eye block the light wires pass freely.

3. As a new article of manufacture, a hook and hook block for electric light fixtures or electroliers, adapted for connection with an eye and eye-block of a suspended part, the same comprising a hook and block having a screw-threaded cylindrical portion with a central opening extending through the cylindrical portion of the hook block and the union of the base of the hook with the hook block coming above said central opening.

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1,041,459. ELECTRIC-LIGHT FIXTURE OR ELECTROLIER. WINSLOW GOODWIN, Winsted, Conn., assignor of one-half to The Goodwin & Kintz Company, Winsted, Conn., a Corporation of Connecticut. Filed Feb. 9, 1912. Serial No. 676,594. (Cl. 240—115.)

1. In a shade holder for electric fixtures or electroliers, a tubular interior flanged member adapted to be passed up through the shade, means forming part thereof and adapted for automatic connection with the rim and the shade, and a tubular supporting member adapted to come outside of said inner member, and means for connecting said parts together.



2. In a shade holder for electric fixtures or electroliers, a tubular interior flanged member adapted to be passed up through the shade, means forming part thereof and adapted for automatic connection with the rim and the shade, and a tubular supporting member adapted to come outside of said inner member having fastening devices and apertures above the same, and means connected to the inner part and bearing a direct relation to the fastening devices for visually indicating the coinciding relation of the fastening devices at said openings for their connection.

3. In a shade holder for electric fixtures, and in combination with an outer tubular part and an inner tubular part, each having a flanged lower end between which the shade at its rim is to be secured, spaced tongues formed of the metal of the inner part and pressed outward at their lower ends, and adapted in connecting the inner part to the shade to come over the rim of the shade so that the shade is held between the lower flanged portion thereof and the lower ends of said tongues.

4. A shade holder for electric fixtures or electroliers, comprising an inner tubular member, having a flanged lower end, spaced tongues formed by cutting and pressing out portions from the sheet metal body of said inner member, a tubular outer and supporting member having a limiting shoulder, means for removably connecting the said inner and outer parts together, and a finishing ring adapted to surround the outer part at its lower end and to cover over and conceal the rim of the shade or sphere.

5. A shade holder for electric fixtures or electroliers, comprising a tubular inner member having a flange at its lower end, spaced apart sockets near the upper end, an indicating finger rising from the upper edge thereof over one of said sockets, spaced apart spring tongues formed in the body of said inner tubular part and the tongues pressed outward at their lower ends and said tongues adapted to come over the upper edge of the rim of a shade while the flange of the tubular part passes within and beneath the shade, a tubular outer member adapted to surround a portion of the inner member and having a shoulder limiting the telescopic relation of the inner and outer parts, a finishing ring setting over and concealing the rim of the shade or pendant sphere, screw sleeves spaced apart in the outer member and screws passing through the same and through the sockets of the inner member for connecting the inner and outer parts together.

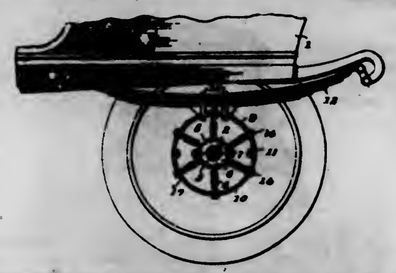
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1,041,460. SPRING ATTACHMENT FOR VEHICLES. GEORGE GRAYBILL, York, Pa. Filed July 30, 1910. Serial No. 574,745. (Cl. 21—50.)

1. The combination with an axle, supporting wheels, and the body of a vehicle, of a sectional ring adapted to be fitted about the axle and having one of its sections connected with the vehicle body, a second similar ring adapted to be fitted about the axle within the first said ring and out of contact therewith, separable filling pieces in the space between said inner ring and the axle, and a plurality of coiled springs having their ends connected respectively to said inner and outer rings.

2. The combination with an axle, supporting wheels, and the body of a vehicle, of an attachment for the purpose described comprising a plurality of similar sections each

consisting of two parallel segments and a plurality of coiled springs extending across the space between and having their ends connected to said segments, the sections



being adapted to be fitted and secured together about the axle to form concentric rings connected by radially extending springs, and means for connecting one of said rings with the vehicle body.

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1,041,461. BUST AND SHOULDER FORM. ALEXANDER M. GREAN, New York, N. Y. Filed Dec. 23, 1909. Serial No. 534,746. (Cl. 2—37.)



1. As an article of manufacture, a bust form and waist lining, comprising a supporting sheet, the upper portion of which is of permanent size and having a bust form of permanent size molded therein, and a depending variable waist extension below the bust form, said waist extension comprising separate relatively adjustable wings.

2. As an article of manufacture, a bust form and waist lining, comprising a supporting sheet having its upper portion of permanent size and outwardly bulged to produce a bust form therein and having waist-forming wings extending below the bust form, said wings below the bust form having their adjacent margins relatively adjustable toward and from each other and to overlapping relation in order that the waist portion thus produced may be changed in size and fitted to the contour of the wearer.

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1,041,462. GARMENT. ALEXANDER M. GREAN, New York, N. Y. Filed Apr. 7, 1910. Serial No. 554,032. (Cl. 2—86.)

1. A garment of the character set forth, including a skirt portion having a front central section and side sections, the front portions of said side sections being transversely gathered along the side margins of the front section, the ends of said gathers being secured directly to the front section and forming fullness at the knee portions of the garment.

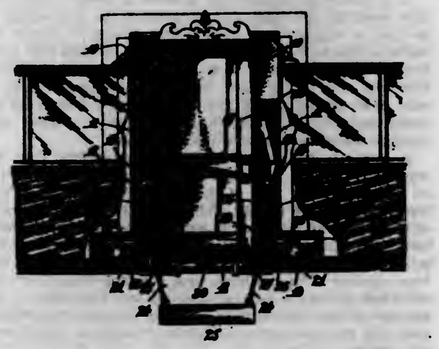
2. A garment of the character set forth, including a skirt portion having a permanently closed front and an open back, said skirt portion comprising a central front section and side sections that are gathered above their lower edges, the ends of the gathers and the portions of the side sections below the same being sewed directly to the opposite margins of the front section forming fullness at the knee portions of the garment, and means for securing the back portions of the skirt portion together.



3. A garment of the character set forth, including a skirt portion having a central panel, and side sections of greater length than the panel, said side sections being plaited and secured to the opposite side margins of the central panel and having their lower edges substantially in line with the lower edge of said central panel.

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1,041,463. TRAP. JOHN GRIFFIN, Tyre, Pa., assignor of one-tenth to L. A. Drugmand, Tyre, Pa., and one-tenth to George M. Weaver, Imperial, Pa. Filed Apr. 5, 1912. Serial No. 688,681. (Cl. 43—23.)



1. In a device of the class described, the combination with a plurality of standards, of gripping arms mounted to swing on the standards, bars mounted on the standards and adapted to be engaged by the gripping arms to retain the gripping arms in locked position, an operating foot, rods connecting the said operating foot with the said bars, a weight, cords connecting the said weight with the said gripping arms, foot gripping members slidably mounted within the said standards and cords connecting the said foot gripping members with the said weight.

2. In a device of the class described, the combination with a plurality of standards, of gripping arms mounted to swing thereon, locking bars for releasably retaining the gripping arms in locked position, an operating foot, rods connecting the said operating foot with the said bars to disengage the said bars from the said arms when pressure is applied to the said operating foot and a weight in connection with the said gripping arms for moving the said gripping arms into gripping position when the same are released.

3. In a device of the class described, the combination with a plurality of standards, of gripping arms mounted to swing thereon, locking bars for releasably retaining the gripping arms in locked position, an operating foot, rods connecting the said operating foot with the said bars to disengage the said bars from the said arms when pressure is applied to the said operating foot and a weight connected with the said gripping arms for moving the said gripping arms into gripping position when the same are disengaged from the said bars.

4. In a device of the class described, the combination with a plurality of standards, of gripping arms mounted to swing thereon, means for releasably retaining the said arms in locked position, an operating foot for releasing the said arms to permit the same to move into gripping position when pressure is applied to the operating foot and a weight connected to the said gripping arms for moving the same into gripping position when the said arms are released.

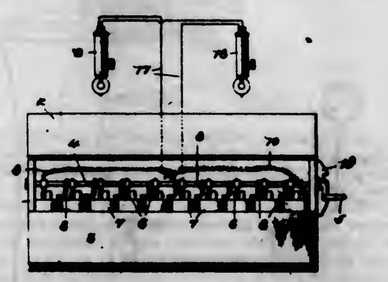
5. In a device of the class described, the combination with a plurality of standards, of gripping arms mounted to swing thereon, means for releasably retaining the said arms in locked position, an operating foot for releasing the said arms to permit the same to move into gripping position when pressure is applied to the operating foot, foot gripping members mounted to slide in the said standards, a connection between the said foot gripping members and the said gripping arms for moving the said foot gripping members into gripping position when the said gripping arms are moved into gripping position and a weight connected to the said gripping arms for moving the same into gripping position.

[Claims 6 and 7 not printed in the Gazette.]



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1,041,464. BATTERY-CONNECTOR. JAMES MONROE HALL, Sulphur Springs, Tex. Filed Apr. 8, 1911. Serial No. 619,835. (Cl. 204—52.)



1. A device of the character described, comprising a series of batteries having pairs of pole pieces thereon, a rod disposed over said batteries having laterally extending fingers thereon, said fingers being disposed over the same pole of each battery, and wires connecting the opposite poles to said fingers.

2. In a device of the character described, the combination with a series of batteries having pairs of pole pieces thereon; of a rod rotatably mounted above said batteries and provided with laterally extending fingers, said fingers being disposed, respectively, over the same poles of the batteries and wires connecting the remaining pole of each battery to the finger disposed over the successive battery.

3. In a device of the character described, the combination with a housing and a series of batteries mounted therein having pole pieces thereon; of a rod rotatably mounted in the ends of said receptacle and disposed above said batteries, said rod being provided with laterally extending fingers equal in number to the number of batteries used and said fingers being disposed in alinement with the same pole of said batteries, wires connecting the remaining pole of each battery to the finger disposed over the successive battery, and means to rotate said rod and dispose the fingers in engagement with the pole pieces of the batteries over which they extend.

4. A device of the class described, comprising a housing and a series of batteries arranged in alinement therein; of a rod rotatably mounted in said housing and disposed over said batteries, said rod being provided with a plurality of laterally extending fingers disposed over the same pole of each battery, wires connecting the opposite poles to said fingers, a handle member formed on one end of said rod, and means to retain said rod in its adjusted positions.

5. A device of the class described, comprising a housing, and a series of batteries alined in said housing; of a rod rotatably mounted in said housing and disposed above said batteries, said rod being provided with a plurality of laterally extending fingers disposed, respectively, over the same poles of the batteries, wires connecting the opposite poles to said fingers, a handle member formed on one end of said rod and disposed beyond the end of said housing, and a keeper mounted on one end of said housing adapted to engage said handle member and retain the rod in its adjusted positions.

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1,041,465. VIOLIN-BRIDGE. THOMAS HARDING, San Jose, Cal. Filed Oct. 21, 1910. Serial No. 588,377. (Cl. 84—73.)



A violin bridge provided with a tubular aperture extending longitudinally the entire length of said bridge, substantially as described.

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1,041,466. SUCTION CLEANING-TOOL. CHARLES E. HARKER, Parnassus, Pa., assignor to Electric Renovator Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 2, 1909. Serial No. 525,929. (Cl. 15—60.)



A brush attachment for a suction cleaning tool comprising a brush head adapted to engage the end of said tool and having a central long and narrow slot therethrough adapted to register with the mouth of the tool, a U-shape plate secured to each end of the brush head and adapted to fit snugly about the adjacent end of said tool, each of said plates having a pair of upwardly extending lugs embracing the sides of the tool, binding screws tapped in the lugs and adapted to move against the tool whereby the head is held to the tool, a soft facing carried on the upper face of the brush head and engaging the lower end of the tool to seal the connection with the same, and tufts of bristles mounted in the under face of the brush head.

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1,041,467. ADJUSTABLE STOVEPIPE-JOINT. WILLIAM F. HARRIS, Lakenan, Mo. Filed May 13, 1911. Serial No. 626,886. (Cl. 126—308.)

A device of the character described comprising a pair of telescoping pipe sections, the outer section being formed

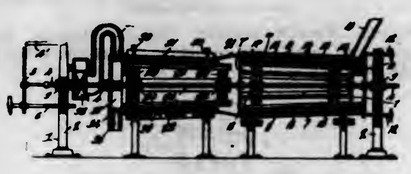
with a longitudinally extending slot by means of an open sided longitudinal recess in one edge of said section and the opposite edge of the underlapping section spaced there-



from, each of said edges being formed with notches in staggered relation to each other and, a pin carried by the inner section and adapted to move longitudinally in said slot and engage one of said notches.

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1,041,468. DELINTING APPARATUS. HALE E. HAWK, Greenville, Miss. Filed May 3, 1909. Serial No. 493,758. (Cl. 13—10.)



1. A delinting apparatus including a retarding casing formed with perforations to temporarily receive the seed during their passage longitudinally through the casing and momentarily hold said seed fixed with relation to the casing, a holding casing encircling the retarding casing to limit the movement of seed through the perforations in the retarding casing, and a seed treating member within the retarding casing.

2. A delinting apparatus including a retarding casing formed with perforations to temporarily receive the seed during their passage longitudinally of the casing and momentarily hold said feed fixed with relation to the casing, a holding casing encircling the retarding casing to limit the movement of the seed through the perforations in the retarding casing, means for adjusting one of the casings with relation to the other casing, and a seed treating member operating within the retarding casing.

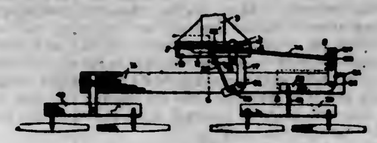
3. A delinting apparatus including a retarding casing formed with perforations to temporarily receive the seed during their passage longitudinally of the casing and momentarily hold said seed fixed with relation to the casing, a holding casing encircling the retarding casing to limit the movement of the seed through the perforations in the retarding casing, means for adjusting the casings to vary the space between them, and a seed treating member operating within the retarding casing.

4. A delinting apparatus including a retarding casing of conical form formed with perforations to temporarily receive the seed during their passage longitudinally of the casing and momentarily hold said seed fixed with relation to the casing, a holding casing of corresponding conical shape encircling the retarding casing to limit the movement of the seed through the perforations in the retarding casing, means for effecting longitudinal adjustment of one of said conical casings with reference to the other conical casing to vary the distance between their opposed faces, and a seed treating member operating within the retarding casing.

5. A delinting apparatus including a retarding casing formed with seed receiving perforations, a holding casing encircling the retarding casing and serving to limit the movement of the seed through the perforations in the latter, and a brush rotatably operated within and in contact with the inner surface of the retarding casing.

[Claims 6 to 8 not printed in the Gazette.]

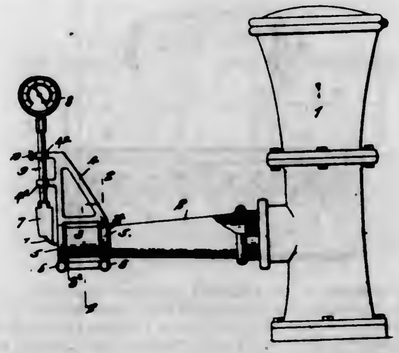
1,041,469. COMBINED HORSE-HITCH. LOUIS P. HEEMAN, Irvington, Ill. Filed June 12, 1911. Serial No. 632,910. (Cl. 21—76.)



A horse hitch adapted to be attached to a plow for allowing a number of draft animals to be attached thereto without danger of injury to the corn or other vegetables planted in the field, comprising a beam provided with a transverse slot, a main tree pivotally connected to said beam, equalizing means carried by one end of said main tree, a rod attached to said equalizing means and provided with a straight angular projection extending in said slot a connecting rod engaging said first mentioned rod, connecting plates pivotally secured to said main tree and also pivotally connected to said beam, said equalizing means extending toward the center of said beam for allowing a tree to be attached substantially in front of said beam, whereby one horse may be allowed to travel so as to be out of the path of the rows of corn, said beam extending to one side of said connecting plates for allowing the second draft animal to be attached thereto whereby said animal may effectually assist in drawing the plow while being placed a considerable distance to one side of said beam.

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1,041,470. DEVICE FOR MEASURING THE FLOW OF WATER. JOHN A. HILLIS, Cincinnati, Ohio, assignor to National Water Main Cleaning Company, New York, N. Y., a Corporation of Maine. Filed Jan. 21, 1910. Serial No. 539,327. (Cl. 73—31.)



1. In a device of the character described, the combination with a fluid conduit, of a Pitot tube operatively associated therewith, and means whereby said Pitot tube may be adjusted circumferentially in relation to said conduit and retained in such adjusted position.

2. In a device of the character described, the combination with a fluid conduit, of a Pitot tube operatively associated therewith, means for supporting said Pitot tube in relation to said conduit, and means wherein said Pitot tube may be adjusted radially in relation to said conduit and retained at any desired point of such adjustment.

3. In a device of the character described, the combination with a fluid conduit, of a Pitot tube having its induction end normally directed toward the outlet end of said conduit, supporting means for said Pitot tube adjustable circumferentially in relation to said conduit, and means for retaining said supporting means in adjusted position.



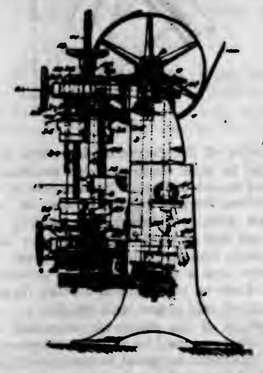
4. In a device of the character described, the combination with a fluid conduit, of a Pitot tube having its induction end normally directed toward the outlet end of said conduit, and a support for said Pitot tube, said support being adjustable circumferentially in relation to said conduit and embodying means wherein said Pitot tube may be adjusted radially in relation to said conduit.

5. In a device of the character described, the combination with a fluid conduit, of a Pitot tube having its induction end normally directed toward the outlet end of said conduit, a support for said Pitot tube, said support being adjustable circumferentially in relation to said conduit and embodying means wherein said Pitot tube may be adjusted radially in relation to said conduit, means for retaining the support in adjusted circumferential position, and means for retaining the Pitot tube in adjusted radial position.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,471. SHEET SHAPING AND BENDING MACHINE. JOHN F. HOAG and WILLIAM THOMAS, Beatrice, Nebr., assignors to Dempster Mill Manufacturing Company, Beatrice, Nebr., a Corporation of Nebraska. Filed Oct. 24, 1911. Serial No. 656,421. (Cl. 153—54.)



1. In a sheet metal bending machine, in combination, cooperating positively-driven sheet feed rolls, a sheet bending roll in rear thereof and adjustable across the straight path of the sheet from said feed rolls, said feed rolls being recessed to receive previously-formed enlarged longitudinal edges of the sheets and to thereby hold said sheets against edgewise movement in one direction, and guide means receiving lateral and edgewise thrust of the sheets and maintaining them against edgewise movement and to travel in a straight path through said feed rolls.

2. In a sheet metal bending machine, in combination, cooperating positively-driven sheet feed rolls, a sheet bending roll in rear thereof and adjustable across the straight path of movement of the sheets from said feed rolls, means to prevent edgewise movement of the sheet longitudinally of said rolls and to maintain a longitudinal edge of each sheet while passing through said rolls in fixed relation with respect to the axes thereof, and means to maintain the sheet traveling in a straight path while passing forward between said feed rolls.

3. In a sheet metal bending machine, in combination, a pair of vertical coöperating positively-driven sheet feed rolls, sheet bending means in rear thereof, a sheet guiding grooved idler roll arranged at the lower ends of said feed rolls and receiving the lower edges of the sheets, and means coöperating with said grooved roll in guiding the sheets and receiving lateral and edge thrust thereof and maintaining the sheets to travel in a straight path to and between said feed rolls.

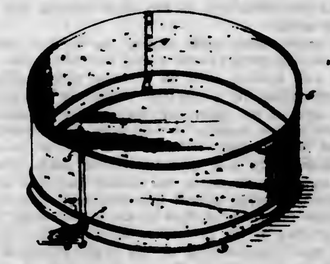
4. In a sheet bending machine, in combination, vertical coöperating positively-driven sheet feed rolls, sheet bending means in rear thereof, and means to receive edgewise and lateral thrust of the sheets passing between said rolls and to maintain the sheets to travel in a straight line to and between said rolls comprising a horizontal grooved idler roll at the lower ends of said feed rolls and receiving the lower edges of and upholding the sheets, and in inclined vertically disposed grooved idler roll in advance of and above said horizontal roll and arranged to one side of the path of the sheets to said feed rolls and coöperating with the lower edges of said sheets.

5. Coöperating vertical positively driven rotary sheet feeding rolls having an annular recess and a coöperating annular enlargement and overhang forming a recess to receive an enlarged longitudinal edge of the sheet and prevent upward shifting of the sheet longitudinally of the rolls and transversely of its direction of movement through the rolls, in combination with a vertical positively driven rotary sheet bending roll adjustable to and from operative sheet curving position with respect to said rolls, and means independent of said rolls to sustain and guide the lower longitudinal edge of the sheet.

[Claims 6 to 42 not printed in the Gazette.]

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1,041,472. SHEET-METAL TANK. JOHN F. HOAG and WILLIAM THOMAS, Beatrice, Nebr., assignors to Dempster Mill Manufacturing Company, Beatrice, Nebr., a Corporation of Nebraska. Filed Oct. 27, 1911. Serial No. 657,196. (Cl. 220—125.)



1. A sheet metal tank having its vertical surrounding side wall formed with an exterior bulge around the lower end of the tank and terminating in an inwardly extended horizontal edge around the tank bottom, and a tank bottom resting on and united to said inwardly extended edge by a tight seam spaced inwardly from the general vertical line of the tank side wall, said bulge projecting outwardly beyond said general vertical line of said side wall, whereby the side wall merges into the bottom on curved lines, and whereby the bottom can be inserted into the tank through the top thereof, in assembling.

2. A sheet metal tank having an end edge portion of its side wall formed with a surrounding continuous bulge transversely curving outwardly, downwardly and inwardly and terminating in an inwardly projected approximately radial portion provided at its inner side with an outturned hook bend at its outer edge spaced radially a distance from the adjacent inner surface of said bulge, and a plate forming a head of said tank and resting on the inner surface of said inwardly projected portion and at its outer side having an inturned hook bend engaging under said out-turned hook bend, said hook bends being compressed to form a tight flat seam uniting said head to said side wall, the outermost edge of said head being spaced inwardly and radially from the surrounding inner surface of said bulge, whereby the side wall merges into said head on transverse curved lines, and whereby said side wall can be previously rolled with said bulge and hook bend, and whereby said head can be previously formed with its hook bend and in assembling can be inserted into the side wall onto the inner face of its inwardly extended portion and into mesh with the previously formed out-turned hook bend thereof.

3. A sheet metal tank having a vertical seam in its side wall, an end of said side wall being transversely

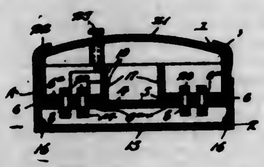
curved inwardly and terminating in an inwardly projected approximately radial portion provided at its inner side with an out turned hook bend at its outer edge spaced radially a distance from the adjacent inner surface of said wall, and a plate forming a head of said tank and resting on the inner surface of said inwardly projected portion and at its outer side having an inturned hook bend engaging under said out turned hook bend, said bends being compressed to form a seam uniting the head to the side wall, the outermost edge of said head being spaced inwardly from the surrounding inner surface of said side wall, substantially as described.

4. A sheet metal tank having its surrounding wall formed with a side seam extending longitudinally of the tank, the lower end of said wall extending inwardly and terminating in an inwardly projected approximately radial portion provided at its upper side with a seam member spaced radially a distance inwardly from the adjacent inner surface of said wall, and a bottom plate resting on the upper surface of said inwardly projected radial portion and at its under side provided with a seam member corresponding to said seam member first mentioned and cooperating therewith to form a tight seam uniting the bottom and side, the outermost edge of said bottom plate being spaced inwardly a distance from the surrounding inner surface of said side wall, whereby in assembling the tank, said bottom plate can be inserted in the side wall before the side seam is formed and placed down on said inwardly projected portion to cause said seam members to mesh for the formation of the seam uniting the bottom and side walls.

5. A sheet metal tank having its vertical side wall formed with a vertical side seam, the lower end portion of said wall formed with an exterior surrounding bulge and terminating in a portion extending inwardly and radially and at its upper side formed with a seam member, and a bottom resting on said inwardly extending portion and at its under side formed with a seam member meshing with said first mentioned seam member to form a tight joint between the bottom and side wall, said seam members being spaced inwardly and radially a distance from the inner surface of the surrounding bulge to permit placing of the bottom on said inwardly extending portion and intermeshing of the seam members in the assembling of the tank before said vertical side seam is formed.

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1,041,473. TERMINAL BOX. PHILIP HOGAN, Brooklyn, N. Y. Filed Jan. 28, 1911. Serial No. 606,258. (Cl. 247—18.)

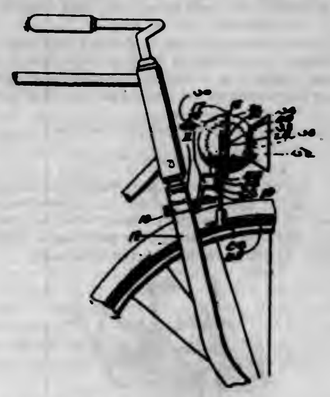


1. A terminal box comprising a casing, a partition dividing the casing into separate compartments, said partition having an opening extending from one side to the other, plates of insulating material disposed against opposite sides of the partition, binding posts passing through the plates, insulating material filling the space between the plates, and wires leading into the said compartments and connected with the binding posts.

2. A terminal body comprising a casing, a partition dividing the casing into separate compartments, said partition having spaced flanges extending from one side and having openings between the flanges and the side walls of the casing, plates secured to the opposite sides of the partition and covering the openings, bolts passing through the plates to form binding posts, insulating material filling the openings in the partition, a cable extending into the compartment at the side of the partition opposite from that having the flanges and having its wires connected with the binding posts, and distributing wires in the other compartment and connected with the binding posts and extending through the said flanges to the chamber between the latter, the bottom of the chamber between the flanges being open for the outlet of the distributing wires.

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1,041,474. BICYCLE-ALARM. THOMAS C. HOLBROOK, Brownsville, Tenn. Filed Jan. 18, 1912. Serial No. 671,858. (Cl. 248—3.)



1. In a device of the character described, a container, a sleeve carried by said container and provided with a reduced opening in one end and with a socket in its side wall, a bracket having its end portion positioned in said sleeve and provided with a reduced end passing through the opening in the end of said sleeve whereby said container will be pivotally mounted upon said bracket, said bracket being provided with a socket formed in alinement with the socket of said sleeve, and a spring having its ends mounted in the sockets of said sleeve and bracket.

2. In a device of the character described comprising a container, a sleeve carried by said container, a bracket having one end rotatably mounted in said sleeve, a spring connecting said sleeve and bracket above the pivot point of said bracket, and an abutment mounted in said sleeve and forming a stop to limit the pivotal movement in one direction.

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1,041,475. BOX. CARLOS HOLLY, Lockport, N. Y., assignor, by mesne assignments, to F. N. Burt Company, Limited, Buffalo, N. Y., a Corporation of New York. Original application filed Apr. 24, 1909, Serial No. 492,029. Divided and this application filed Sept. 3, 1910. Serial No. 580,464. (Cl. 229—6.)



1. A box element of the character described comprising in combination an angular strip having a groove on the inside at the corner, and a second strip secured to the first strip and comprising a portion engaging the groove of the first strip.

2. An article of manufacture comprising in combination an angular strip of paper having material removed on the inside at the corners, and a second strip of flexible material adhesively secured to the outside of the first strip extending over the edge thereof and adhesively secured to the inside thereof, the corners of the second strip being seated in the grooves provided by the removal of the material at the corners on the inside.



3. A box comprising in combination an angular head, a flange strip of relatively thick paper surrounding the head and having material removed on the inside at the corners, and a relatively thin strip of flexible material adhesively secured to the outside of the flange strip extending over the edge thereof and adhesively secured to the inside thereof, the corners of the thin strip being seated in the scores provided by the removal of the material of the flange.

4. A box comprising in combination an angular head, a flange strip of relatively thick paper surrounding the head provided with scarfed adhesively secured end portions providing a continuous flange strip, and having material removed on the inside at the corners, and a strip of cover material adhesively secured to the outside of the flange strip, extending across the edge thereof and adhesively secured to the inside thereof, the corners of the cover strip entering the grooves provided by the removal of the material of the flange.

5. A box comprising, in combination, an angular head, a flange strip around the head and having material removed on the inside at the corners and a strip of flexible material facing the outside of the flange strip extending over the edge and secured to the inside thereof, the corners of the head being seated in the scores provided by the removal of the material of the flange, and the scores providing space adapted to receive the corner folds of the second strip.

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1,041,476. CONTACT-BREAKER FOR ELECTRICAL IGNITION APPARATUS FOR INTERNAL-COMBUSTION ENGINES. GOTTLOB HONOLD, Stuttgart, Germany. Filed July 19, 1907. Serial No. 384,630. (Cl. 123—154.)



1. In contact breakers for electric igniters, the combination of two contact members, one having a cavity with outwardly diverging unitary walls and the other having a head to enter the cavity, the members mounted for movement one toward the other and also pivotally for relative lateral movement.

2. In contact breakers for electric igniters, the combination with a unitary contact member having a cavity with outwardly diverging walls, of a contacting member provided with a head to enter the cavity, one of the members pivoted for a normal contact breaking movement to and from the other member and also for lateral movement relative to the normal movement.

3. In contact breakers for electric igniters, the combination, with a fixed contact member having a cavity with outwardly unitary diverging walls, of a contacting member provided with a head formed to enter said cavity, one of the members mounted in a bearing to move pivotally to and from the other member, said bearing arranged to permit of movement of the member laterally relatively to the normal movement.

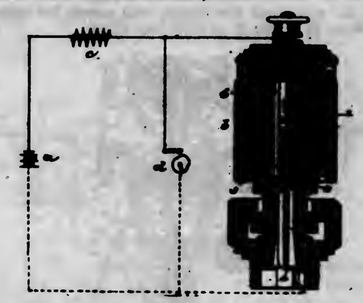
4. In contact breakers for electric igniters the combination with a fixed unitary contact member having a wedge shaped cavity, of a contacting member provided with a head formed so as to fit into said cavity, said member being mounted in a bearing permitting lateral pivotal play relatively to the normal movement.

5. In contact breakers for electric igniters the combination with a fixed contact member having a wedge shaped cavity, of a contacting member provided with a wedge shaped head adapted to enter said cavity and also with a bearing groove for a fulcrum, said member being pivoted on the fulcrum and having lateral play in the bearing groove relatively to the normal movement.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,477. ELECTRICAL IGNITION APPARATUS FOR INTERNAL-COMBUSTION ENGINES. GOTTLOB HONOLD, Stuttgart, Germany. Filed Dec. 18, 1907. Serial No. 407,048. (Cl. 123—147.)



1. An ignition system for internal combustion engines comprising a primary source of electrical energy, a make and break sparking plug, a self-induction coil connected in series with the plug and the source of energy, and an interrupter connected in parallel with the plug between the plug and the coil.

2. An ignition system for internal combustion engines, comprising a primary source of electrical energy, a make and break igniter, an interrupter, and a self-induction coil connected in series with the igniter and with the interrupter, the igniter and interrupter connected in parallel with each other.

3. An ignition system for internal combustion engines, comprising a primary source of electrical energy, a make and break igniter, an interrupter and a self-induction coil, the igniter and interrupter connected in parallel with each other and the coil connected in series with both the igniter and the interrupter.

4. An ignition system for internal combustion engines, comprising a primary source of electrical energy, a make and break sparking plug having a winding, a self-induction coil connected in series with the igniter points and winding of the plug, and an interrupter connected in parallel with the igniter points and plug winding and in series with the coil.

5. An ignition system for internal combustion engines, comprising a battery, an electromagnetic sparking plug, a self-induction coil connected in series with the plug, and an interrupter connected in parallel with the plug and in series with the coil.

[Claims 6 to 13 not printed in the Gazette.]

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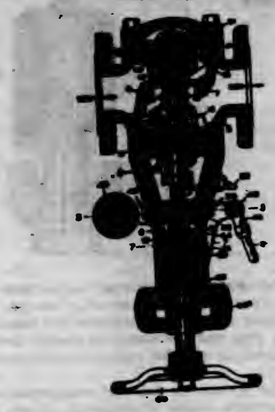
1,041,478. COMBINED THROTTLE AND EMERGENCY VALVE. WILLIAM JOHNSON, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Jan. 22, 1912. Serial No. 672,614. (Cl. 136—11.)

1. In combination, a valve, a casing therefor, a spindle and movable nut for opening and closing the valve under normal conditions, a weight that acts as a support for the nut during normal operation of the valve and which actuates the valve when it is desired to move it suddenly, and means for holding the weight.

2. In combination, a valve, a casing therefor, a spindle and sliding nut for opening and closing the valve under normal conditions, a suspended weight that acts as a support for the nut during normal operation of the valve and which actuates the valve when it is desired to move it suddenly, and means for releasing the weight and permitting it to fall and the nut to slide.

3. In a valve of the character described, the combination of a valve, a casing therefor, a sliding, nut, a valve actuating spindle coöperating with the nut, a member upon which the nut normally rests, means which support said member, and mechanism for releasing said means to cause the valve to close suddenly.

4. In a valve of the character described, the combination of a valve, a casing therefor, a sliding nut, a valve operating spindle coöperating therewith, a weight which when in its raised position forms a support for the nut, means for sustaining the weight, and means for releasing the weight to permit it to move the valve.



5. In a valve of the character described, the combination of a valve, a casing therefor, a yoke carried by the casing that forms a guide, a nut guided by the yoke, stops between which the nut moves with a limited amount of lost motion, means for moving one of the stops to permit the nut to slide and close the valve, and a valve actuating spindle that coöperates with the nut.

[Claims 6 to 15 not printed in the Gazette.]

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1,041,479. COMBINED SEAT-DRESSER AND CUTTER-HOLDER. WILLIAM KAISER, Wilkes-Barre, Pa. Filed June 15, 1910. Serial No. 566,962. (Cl. 90—12.5.)



1. A tool having a centering and clamping member provided with a central sleeve-like portion and with an enlarged tubular extension surrounding the sleeve-like portion and having its outer end closed by a removable cover, said extension forming a receptacle and a hand-hold.

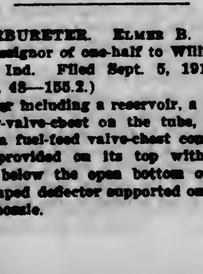
2. A tool having a centering and clamping member provided with a sleeve-like portion projecting rearwardly therefrom and with an integral enlarged tubular portion surrounding the sleeve-like portion and terminating short of the end thereof, and a removable cover apertured to receive the sleeve-like portion and removably secured upon the tubular portion, said tubular portion and cover forming a receptacle and a hand-hold.

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1,041,480. CARBURETER. ELMER B. KALEY, Indianapolis, Ind., assignor of one-half to William H. Thomas, Indianapolis, Ind. Filed Oct. 26, 1910. Serial No. 589,094. (Cl. 48—155.2.)

1. A carbureter including a bowl, a top seated upon the bowl, a mixing tube in the bowl and having an inlet and an outlet orifice in said top, a valve-chest secured to said top in communication with said inlet orifice, a valve in the valve-chest, a secondary mixing tube having an air-inlet secured to said top in communication with said outlet orifice, a valve-chest on said secondary mixing tube and a valve therein, and a carbureting tube connected to the mixing tube and extending through the bowl, the carbureting tube having a feed-duct in the wall thereof.

2. A carbureter including a bowl, a top seated upon the bowl, a mixing tube in the bowl and extending from said top downward and thence upward to the top, said tube having an inlet and an outlet orifice in said top, a secondary mixing tube having an air inlet end screwed into the outlet orifice of the mixing tube, a lock-nut adjustable on said end of the secondary mixing tube and seated on said top, a valve-chest on the secondary mixing tube, a valve in the valve-chest, and a carbureting tube connected to the under side of the mixing tube and extending through the bowl, the carbureting tube having a feed-duct in the wall thereof.



3. A carbureter including a bowl, a top seated upon the bowl, a mixing tube in the bowl and having an inlet and an outlet orifice in said top, a valve-chest secured to said top in communication with said inlet orifice and having a valve-seat therein and a fulcrum-arm thereon, a hollow guide adjustably secured in the wall of the valve-chest, a valve in the valve-chest opposite the valve-seat and having a stem that extends through and is movable in the guide, a head on the outer end of said stem, a spring under compression between the head and the outer end of the guide to normally hold the valve to the guide, a lever pivotally connected to the fulcrum-arm and also to said head for moving the valve from the guide to or toward the valve-seat, a secondary mixing tube connected with said outlet orifice, and a carbureting tube connected to said mixing tube and having a feed-duct in the wall thereof.

4. In a carbureter, the combination of a bowl, a top seated upon the bowl, a mixing tube in the bowl having inlet and outlet orifices in said top, the wall of said tube having a boss on the exterior thereof, a carbureting tube connected at one end with said mixing tube and extending through and secured to the bottom of said bowl, the inner side of the wall of said carbureting tube having screw-threads thereon extending throughout the length thereof, a feed-tube inserted in the wall of said carbureting tube and extending obliquely through and across said screw-threads toward said mixing-tube, said feed-tube extending downward below said boss and having a valve-seat in the wall thereof under said boss, and a valve-stem screwed through said top and guided in said boss, said stem having a valve on its inner end to coöperate with said valve-seat.

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1,041,481. CARBURETER. ELMER B. KALEY, Indianapolis, Ind., assignor of one-half to William H. Thomas, Indianapolis, Ind. Filed Sept. 5, 1911. Serial No. 647,762. (Cl. 48—155.2.)

1. A carbureter including a reservoir, a mixing tube, an open-bottom air-valve-chest on the tube, a valve in the air-valve-chest, a fuel-feed valve-chest connected with the reservoir and provided on its top with an adjustable nozzle that is below the open bottom of the air-valve-chest, a dish-shaped deflector supported on the nozzle, and a valve in the nozzle.



2. A carbureter including a reservoir, a mixing tube, an open-bottom air-valve-chest on the tube, a valve in the air-valve-chest, a fuel-feed valve-chest connected with the reservoir and provided on its top with a nozzle that is below the open bottom of the air-valve-chest, a dish-shaped deflector adjustably supported on the nozzle, and a valve in the nozzle.



3. A carbureter including a reservoir, a mixing tube mounted on the reservoir, an auxiliary air-inlet valve at one end of the mixing tube, fuel-feeding and atomizing apparatus within the reservoir and connected with the mixing tube, and auxiliary fuel-feeding and atomizing apparatus mounted exteriorly to the reservoir in the atmospheric air below the auxiliary air-inlet valve and connected with the reservoir.

4. A carbureter including a reservoir comprising a bottom and a side wall, a cover on the side wall, a mixing tube on the cover, an auxiliary air-inlet valve at one end of the tube, a primary air-inlet tube extending through the reservoir to the mixing tube, a fuel-feed valve in the primary air-inlet tube, a valve-chest having an inlet tube connected to the side wall of the reservoir, a spraying nozzle connected to the valve-chest and thereby supported below the auxiliary air-inlet valve, and a fuel-regulating valve in the nozzle.

5. A carbureter including a reservoir having a plurality of bosses thereon provided with ducts, an inlet valve-chest on one side of the reservoir, a cover on the reservoir and rotatively adjustable thereon, a mixing tube fixed on the cover, a valve-chest on the tube beyond the exterior of the reservoir, a feed valve-chest having an inlet-tube removably inserted in one of the bosses and having a nozzle thereon, a valve adjustable in the nozzle, and plugs removably inserted in the remaining bosses.

[Claim 6 not printed in the Gazette.]

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1,041,482. VOLTAGE COMPENSATING AND REGULATING MEANS. PIERRE O. KNILMONTE and FORREST E. RICKETTS, Baltimore, Md. Filed Dec. 26, 1908. Serial No. 469,242. (Cl. 171—241.)



A controlling device for use in regulating an electric circuit, comprising, in combination, an angularly movable rigid body, means including magnetic fields for causing the movement of said body in accordance with a predetermined relation dependent upon the magnitude but independent of the phase relation of the current and voltage elements to be regulated, the direction of motion of said body being at right angles to the controlling magnetic field, and means controlled directly by said device for maintaining the current and voltage relation of said circuit accordingly.

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1,041,483. GEARING. SAMUEL H. KENNEDY, Tunnel Hill, Ga. Filed Apr. 5, 1911. Serial No. 619,176. (Cl. 74—58.)



In a driving mechanism for vehicles, the combination of a driving shaft, a gear secured on one end thereof, a driven shaft arranged at the end of said driving shaft and longitudinally inclined with relation to the transverse axis thereof, spaced gears longitudinally movable upon said driven shaft adapted to engage the gear on the driving shaft at opposite points, a sleeve connecting said gears, a vertically disposed lever fulcrumed at one end and having a slot and pin connection with said sleeve, rods connected to the upper end of said lever and extending in opposite directions therefrom, operating levers fulcrumed at their lower ends, said rods being connected to the operating levers adjacent the upper ends thereof and inclined upwardly from said first named lever to the operating levers whereby upon the manipulation of either of said latter levers the gears on the driven shaft are simultaneously moved to engage one of them with the gear on the driving shaft and disengage the other of said gears therefrom.

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1,041,484. COMPOSITION TO FACILITATE THE TAPPING OF ALUMINUM OR THE LIKE. HAYDEN A. KEAN, Dayton, Ohio. Filed Jan. 31, 1912. Serial No. 674,485. (Cl. 97—9.)

1. A composition to facilitate the tapping of aluminum or the like consisting of beeswax and a solvent formed into a pasty condition.

2. A composition to facilitate the tapping of aluminum or the like and consisting of beeswax, a solvent, and an odor neutralizing agent.

3. A composition to facilitate the tapping of aluminum or the like, consisting of beeswax and gasolene formed into a paste.

4. A composition to facilitate the tapping of aluminum or the like, consisting of beeswax, gasolene, and turpentine, or their equivalents formed into a paste.

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1,041,485. LEAKAGE-REDUCING DEVICE. WALTER KIENER, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed Apr. 29, 1911. Serial No. 624,280. (Cl. 121—109.)



1. In a device of the character described, the combination of a rotating element, a leakage reducing member which surrounds said element, abutments located on opposite sides of the axis of said member and coöperating

therewith to determine its position, one of said abutments preventing downward movement of one side of the member but permitting upward movement thereof, a yielding means that normally holds the other side of the member in engagement with the other abutment and permits movement downward from said abutment, and a casing by which the abutments are carried, there being a clearance space in the casing around the member to permit said member to move about either abutment as a fulcrum as it follows the movements of the rotating element.

2. In a device of the character described, the combination of a movable element, a tubular member which surrounds said element and is free to follow the movements of the element from its normal position, abutments arranged on opposite sides of the axis of said member and on opposite sides of a diameter thereof, projections on the member, one of which normally rests on an abutment, and a spring device arranged substantially at right angles to said diameter that engages the other projection and yieldingly presses it against the other abutment.

3. In a device of the character described, the combination of a rotating element, a leakage reducing member which surrounds said element and is free to follow the movements of the element from its normal position, abutments arranged on opposite sides of the axis of the said member, projections on said member, one of which rests on the top of an abutment while the other projection is pressed against the bottom of the other abutment, and spring means that engages the second projection and presses it against its abutment.

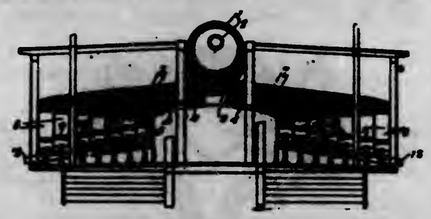
4. In a device of the character described, the combination of a moving element, a leakage reducing member which surrounds the element and is free to follow the movements of the element from its normal position, shoulders on the member, a casing that contains the member and engages the shoulders to prevent axial movement of said member, projections on the member, diametrically opposite abutments on the casing, one of the projections being supported by one abutment, and means that engages the other projection and yieldingly supports it and normally holds it in engagement with the other abutment.

5. In a device of the character described, the combination of a moving element, a leakage reducing member that surrounds the element and is provided with a fluid conveying passage between its ends, a conduit communicating with the passage for carrying off leakage fluid, a casing for the member having abutments, projections on the member which engage the abutments, the said projections being free to move on the abutments, and yielding means for holding one of the projections against its coöperating abutment.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,486. GOLD-SAVING TABLE. CHARLES B. KING and JACOB W. FELLMETH, Marion, Ohio, assignors to The Marion Steam Shovel Company, Marion, Ohio, a Corporation of Ohio. Filed Sept. 28, 1910. Serial No. 584,204. (Cl. 88—89.)



1. The combination, with a screen, of a gold saving table at the side of said screen and inclined both in the direction of the length of said screen and at an angle to the length thereof, said table having a plurality of angular channels, the upper portions of which are divided into a plurality of parts.

2. The combination, with an inclined screen, and a distributing hopper arranged beneath the same, of a gold saving table at the side of said distributing hopper and inclined both in the direction of inclination of said screen and at right angles to the length of said screen, said table having a plurality of L-shaped channels, the upper portions of each of said channels being divided into two parallel parts.

3. The combination, with a screen, and a distributing hopper arranged beneath the same, of a gold saving table at the side of said distributing hopper and inclined both in the direction of the length of said screen and at an angle to the length thereof, said table having a plurality of angular channels, the upper portions of which are divided into a plurality of parts.

4. The combination, with a screen, and a distributing hopper arranged beneath the same, of a gold saving table, composed of an upper and lower portion, at the side of said distributing hopper, said portions being at an angle to each other and each having a plurality of channels of unequal length, the channels of the upper portion having their side walls converging, and the channels of the lower portion receiving water and material from a plurality of channels of the upper portion.

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1,041,487. PNEUMATIC ACTION FOR MUSICAL INSTRUMENTS. AUGUST DE KLEIST, North Tonawanda, N. Y. Filed May 6, 1910. Serial No. 559,824. (Cl. 84—178.)



The combination of a wind chest comprising a section containing an exhaust chamber and having a removable front wall, a plurality of separate valve boards secured to the back of the rear wall of said section and individually removable therefrom, each of said valve boards containing a row of valve chambers extending through said rear wall and communicating with said exhaust chamber, guide plates covering the front ends of said valve chambers and containing exhaust ports, said plates being removably secured to the rear wall of said exhaust chamber, air and exhaust valves in said valve chambers having their stems guided in said removable plates, motor pneumatics connected with said valve chambers, and operating diaphragms for said valves applied to the inner side of said removable front wall.

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1,041,488. CAR-COUPLING. FRANCIS A. KRAUSE, Hingham, Mass. Filed Mar. 27, 1912. Serial No. 686,537. (Cl. 213—17.)

1. A car coupling comprising a head having intermediate and outer substantially V-shaped stationary jaws, a swinging knuckle pivoted to the intermediate jaw and automatic locking means for coöperation with the knuckle to sustain the same immovable when in one position.

2. A car coupling comprising a head having intermediate and outer substantially V-shaped stationary jaws, a swinging knuckle pivoted to the intermediate jaw, automatic locking means for coöperation with the knuckle to sustain the same immovable when in one position, and an arrow-shaped head formed on the knuckle.



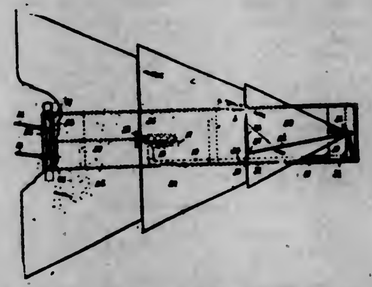
3. A car coupling comprising a head having intermediate and outer substantially V-shaped stationary jaws, a swinging knuckle pivoted to the intermediate jaw, automatic locking means for coöperation with the knuckle to



sustain the same immovable when in one position, an arrow shaped head formed on the knuckle, means for releasing the locking means, the said head being formed with recesses between the stationary jaws and adapted to receive the head of the knuckle of an adjacent coupling.

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1,041,489. AEROBOAT. CHRISTOPHER J. LAKE, Bridgeport, Conn. Filed Jan. 27, 1911. Serial No. 606,141. (Cl. 114—66.5.)



1. In a ship of the class described, the combination with a ship, of a motor contained therein, means for creating a current of intermingled air and gases by directing the discharge of the exhaust gases from the cylinders directly into and through a mixing conduit, a conduit encircling the exhaust ports or outlets, and having its initial end open to the atmosphere forward of the inlet point of the discharging gases so that the primary impulse of the escaping gases will impinge and impel a large volume of air into and through the conduit, the other end of the conduit being arranged to convey and discharge said intermingled air and gases under the bottom of the ship.

2. The combination with a ship of the class described, of a motor for operating the same, an aerial driving propeller operated by the motor, a single pipe from the motor to the bow of the ship, having an open end at the motor to insure the exhaust drawing in a supply of air and directing it beneath the bow, a closed compartment in the said bow to receive the fluid, a series of fluid channels arranged beneath the ship and connected with the said closed compartment whereby the said fluid is directed beneath the several channels of said ship to lighten the weight of the same upon the water while the motor and propeller are being operated.

3. In a ship of the class described, the combination with a ship, of a motor contained therein, an aerial propeller operated by the motor, air planes to lift and support the ship, rudders to guide the ship, means for creating a current of intermingled air and gases by directing the discharge of the exhaust gases directly from the cylinders into and through a mixing conduit encircling the exhaust ports or outlets, said conduit having its initial end open to the atmosphere forward of said inlet point of the discharging gases so that the primary impulse of the escaping gases will impinge and impel therewith a large volume of air through the conduit, the other end of the conduit directed to convey and discharge said intermingled air and gases under the bottom of the ship.

4. In an air-ship of the class described, the combination of a series of longitudinal channels arranged upon the under side of the ship, a compartment in the bow of the ship connected with said channels, means for creating a current of elastic fluid by the exhaust gases and directing it through said compartment and into the several longitudinal channels, an aerial propeller operated by the motor, air planes which tend to lift the ship by the operation of the propeller, shoes arranged upon the underside of the ship, and rudders to support and guide the ship and operate it upon ice or snow.

5. In a ship of the class described, the combination with a motor, of an aerial propeller operated thereby, air planes connected to the ship which tend to lift the latter by the operation of the propeller, rudders connected to the rear of the ship to direct and guide the same while operating in the water or upon the ice, an aerial rudder arranged upon the bow of the ship, means for connecting the said rudders with a single operating means whereby they are simultaneously operated to guide the ship while either in the water or in the air.

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1,041,490. PIANO-HAMMER. JOHN W. E. LAKES, Victoria, British Columbia, Canada. Filed Nov. 17, 1911. Serial No. 660,901. (Cl. 84—168.)



1. In a means for attaching the head of a piano hammer to the stem, a socket having a recess in one end, said socket having a pair of diametrically disposed countersunk portions in the end having the recess, a shank having a stem fitting within the recess and a wedge-shaped part extending from said stem fitting within the pair of countersunk portions, and means maintaining said shank in said socket.

2. A piano hammer comprising a socket having a recessed end and a recessed side, a shank disposed within said recessed end, a stem disposed in said recessed side, and a screw carried by said socket and passing through said stem and into said shank, to fasten together, said shank, socket and stem.

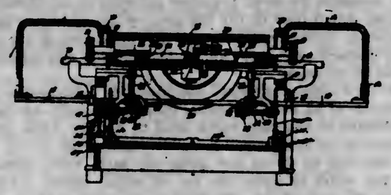
3. A piano hammer comprising a socket having a recess in one end, a cushion-carrying shank mounted in said recess, the end of said shank within said recess having a screw-threaded bore therein, a screw passing through said socket and into said bore, to maintain said shank in position in said socket and means for preventing the rotation of said shank in said recess.

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1,041,491. ATTACHMENT FOR TYPE-WRITERS. LUIS LAMARQUE, Habana, Cuba. Filed June 2, 1911. Serial No. 631,806. (Cl. 197—112.)

1. In a typewriter, the combination with a movable carriage, a pinion carried thereby, a ribbon, and a step-by-step ribbon feed mechanism, of a key actuated character wheel operable into engagement with the ribbon and the pinion, a gearing forming a direct connection between the carriage and one ribbon rotating shaft of the said ribbon feed mechanism, and means whereby to throw said gearing into, and out of operation.

2. In a typewriter, the combination with a movable carriage, provided with a rack bar, a platen carried by said carriage, a ribbon, and a step-by-step ribbon feed mechanism, of a key actuated character wheel movable into engagement with the ribbon and the platen, a shaft having geared connection with one ribbon rotating shaft of said ribbon feed mechanism, and provided with a gear wheel, and means whereby to move said shaft in order to engage its said gear wheel with said carriage rack.

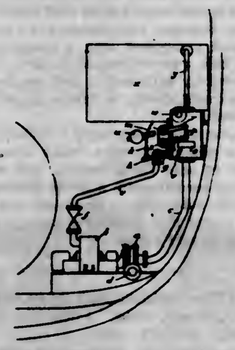


3. In a typewriter, the combination with a movable carriage having a rack bar, a platen carried by said carriage, a ribbon, and a step-by-step ribbon feed mechanism, of a key-actuated character wheel movable into engagement with the ribbon and the platen, a shaft movably mounted in connection with the machine and having a geared connection with one ribbon rotating shaft of the said ribbon feed mechanism, a gear wheel loosely mounted on said shaft, a spring controlled clutch forming a connection between said shaft and said gear wheel, and a lever mounted on the typewriter and having connection with said shaft whereby to move the same in order to cause engagement of its said gear wheel with the said carriage rack bar.

4. In a typewriter, the combination with a movable carriage, a platen carried thereby, a vertically movable ribbon guide, a ribbon movable through said guide and movable vertically therewith, a ribbon feed mechanism for moving the ribbon through the guide, and a mechanism whereby to move the ribbon guide vertically, of a character wheel movable toward and away from the platen and normally in a plane above that of the ribbon, and key actuated connections for moving said character wheel against the platen, having means to actuate the said ribbon guide moving means and to release the said carriage, substantially as described.

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1,041,492. CONTROL OF STEAM-TURBINE-DRIVEN BOILER-FEED PUMPS. CHARLES RUSSELL LAING, Cathcart, Glasgow, Scotland. Filed June 3, 1912. Serial No. 701,292. (Cl. 103—86.)



1. In combination, a boiler, a rotary pump adapted to supply water to said boiler, a steam turbine adapted to drive the said pump, a steam pipe adapted to convey steam to the said turbine for the purpose of driving it, a throttle valve on said steam pipe, a float located in a vessel from which the said pump draws its water, and means whereby said float can reduce the speed of rotation of said turbine to a velocity below that necessary to deliver water into said boiler against the pressure therein.

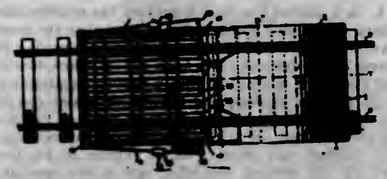
2. In combination, a boiler, a rotary pump adapted to supply water to said boiler, a steam turbine adapted to drive the said pump, a steam pipe adapted to convey steam to the said turbine for the purpose of driving it, a throttle valve on said steam pipe, a float located in a vessel from which the said pump draws its water, and means whereby said float can operate said throttle valve to reduce the speed of rotation of said turbine to a velocity below that necessary to deliver water into said boiler against the pressure therein and above the critical velocity of the said turbine.

3. In combination, a boiler, a feed tank adapted to contain feed water for said boiler, a rotary pump adapted to supply water to said boiler, a steam turbine adapted to drive said pump, a steam pipe adapted to convey steam to said turbine for the purpose of driving it, a throttle valve on said steam pipe, a float located in a vessel from which the said pump draws its water and which is connected to and supplied with water from the said feed tank, and means whereby said float can operate said throttle valve to reduce the speed of rotation of said turbine to a velocity below that necessary to deliver water into said boiler against the pressure therein.

4. In combination, a boiler, a feed tank adapted to contain feed water for said boiler, a rotary pump adapted to supply water to said boiler, a steam turbine adapted to drive said pump, a steam pipe adapted to convey steam to said turbine for the purpose of driving it, a throttle valve on said steam pipe, a float located in a vessel from which the said pump draws its water and which is connected to and supplied with water from the said feed tank, and means whereby said float can operate said throttle valve to reduce the speed of rotation of said turbine to a velocity below that necessary to deliver water into said boiler against the pressure therein, and above the critical velocity of the said turbine.

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1,041,493. CATTLE-GUARD. JOHN L. LANKFORD, Essex, Mo. Filed Nov. 18, 1911. Serial No. 661,030. (Cl. 89—42.)



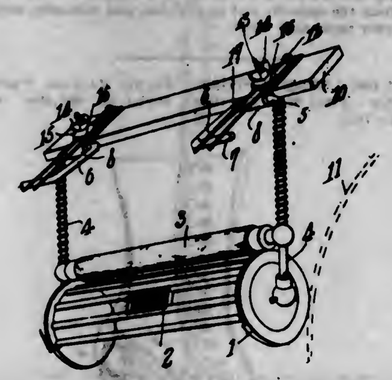
In a cattle guard, a rotatable shaft, U-shaped bars extending over said shaft and each having the ends of the arms of the U secured to said shaft, the outer-most bars having arms that diverge toward the bight of the U, and signals extending between the arms of and fitting the bights of the U-shaped bars at the ends of the barrier.

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1,041,494. AUTOMATIC PRINTER FOR PAPER-ROLLS. DAVID C. LEE, St. Louis, Mo., assignor of one-half to Herbert M. Lee, Tacoma, Wash. Filed Sept. 21, 1909, Serial No. 518,742. Renewed Mar. 29, 1912. Serial No. 687,266. (Cl. 211—90.)

1. In a printing attachment for paper rolls, independent pivoted supports for the two ends of the printing roll and each formed with a crank extension, and a linear spring for each pivoted support having one end fixed and the other engaging the crank extension of the respective roller supports, the springs being independent one of the other.

2. In an automatic printer for paper rolls, a printing roller, independent pivotal supports for the ends thereof each pivoted support terminating in a crank extension, a plate having at one end an eye forming the journal for the pivot support for the corresponding end of the printing roller, a linear spring secured to the plate and engaging with its free end the crank extension of the corresponding printing roller support, and fastening means for the spring constituting the fastening means for the plate.



3. In an automatic printer for paper rolls, a printing roller, independent supports for the ends thereof each support terminating in a pivot extension and a crank member, a plate provided at one end with an eye constituting the journal for the pivot of the corresponding printer roller support, a spring formed of a looped wire engaging at its free end the crank portion of the pivot support, a holding member for the spring serving to secure the plate at one end and an adjustable holding member for the spring constituting a fastening member for the other end of the plate.

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1,041,495. PULVERIZER. WILLIAM K. JENCKES and WALTER J. ARMSTRONG, Columbus, Ohio, assignors to The Jeffrey Manufacturing Company. Filed Jan. 26, 1909. Serial No. 474,819. (Cl. 83—11.)



1. In a pulverizer, the combination of a rotatable cylindrical frame disposed with its axis horizontal, hammer arms pivotally mounted in the outer parts of said frame, and hammer blocks each secured to the arms and having a plurality of working faces, each of which is adapted to be directed radially outward in turn as the preceding face becomes worn, each block being formed with grooves on its two vertical end faces, each groove extending outward from the center of the block to a point on the periphery between two adjacent working faces and being adapted to receive the outer end of that one of the hammer arms to which the block is mounted whereby the hammer arm is protected within the groove.

2. In a pulverizer, the combination of a rotatable cylindrical frame disposed with its axis horizontal, hammer arms pivotally mounted in the outer parts of said frame, horizontal pins each carried between and by the outer ends of each two of said arms, and triangular right prismatic hammer blocks, the three peripheral sides of each prism acting by successive adjustment as working faces, each block being centered axially upon one of the pins and grooved radially upon its vertical end faces, each groove extending outward between two peripheral working faces to receive the outer ends of the two hammer arms so as to fix the block in position on the end of the hammer arms and to protect them from contact with the material pulverized.

3. In a pulverizer, the combination of a cylindrical frame rotatable upon its axis, hammer arms pivotally mounted in the outer parts of said frame, and hammer blocks secured to the outer ends of the hammer arms, each block being formed with a plurality of working projections adapted to be successively adjusted to extend radially outward, each projection having a face directed circumferentially forward and another face directed radially outward.

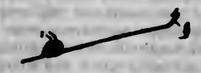
4. In a pulverizer, the combination of a cylindrical frame rotatable on its axis, hammer arms pivotally mounted in the outer parts of said frame, and hammer blocks secured to the outer ends of the hammer arms, each block being formed with parallel end faces in planes transverse to the frame axis and with peripheral faces perpendicular thereto and with peripheral recesses between each two peripheral faces.

5. In a pulverizer, the combination of a cylindrical frame rotatable upon its axis, hammer arms pivotally mounted in the outer parts of said frame, and hammer blocks secured to the outer ends of the hammer arms, each block being formed with three working projections spaced 120° apart and adapted to be successively adjusted to extend radially outward, each projection having a face directed circumferentially forward and another face directed radially outward.

[Claim 6 not printed in the Gazette.]

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1,041,496. COMBINED DISPLAY AND SHIPPING CASE. WILLIAM D. LIGHT, Dunkirk, N. Y. Filed Jan. 26, 1911. Serial No. 604,606. (Cl. 217—69.)



1. In a case subdivided into compartments by means of partitions, a wire extending across the open sides of the compartments and having its end portions bent and rebent to form securing means for attaching the wire to the sides of the case, said wire having spaced extensions projecting therefrom and forming a part thereof and adapted to embrace opposite sides of the partitions.

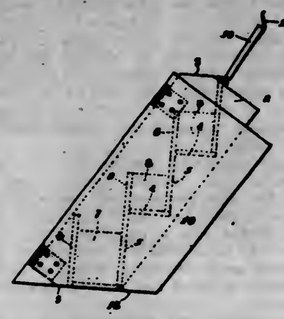
2. Means for closing the open sides of compartments formed by subdividing a case by means of partitions, said means consisting of a flat wire having its end portions bent and terminating in inwardly extending projections to enter the sides of the case, said wire having portions pressed therefrom near its ends to form spurs to enter the edges of the side portions of the case and said wire having portions cut from opposite edges on a slant to form parts which are bent at a right angle to the wire to embrace the partitions.

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1,041,497. DISPLAY-CABINET. JAMES LYNCH, Sabetha, Kans. Filed Apr. 1, 1911. Serial No. 618,818. (Cl. 206—45.)

In a stand receptacle comprising a body having side members, the same having their diagonally opposite corners beveled to support the receptacle in inclined position and to provide an opening in its upper end, doors with beveled lower ends secured to the side members and adapted to overlie each other, an auxiliary door hinged to the upper

end of the body for closing the said opening, and a catch fixed to the auxiliary door and engageable with one of



the overlapping doors for locking the same in closed position.

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1,041,498. RAILROAD-TIE. JOHN C. LOEWEN, Worden, Ill., assignor of one-half to Frank Brewalski, Worden, Ill. Filed Feb. 8, 1912. Serial No. 676,202. (Cl. 238—5.)



1. A tie, a rail chair at each end of said tie, each of said rail chairs comprising a base plate provided with a longitudinally extending slot in one end portion and with bolt openings at each side of said longitudinally extending slot, the opposite end portion of said base plate being thickened, a lip extending from the thickened portion of said base-plate, a clamping plate fitting upon said base-plate, a lip extending from said clamping plate in the direction of said first-mentioned lip, said clamping plate provided with openings registering with the openings at each side of said longitudinally extending opening, a rib carried by said clamping plate and fitting in said longitudinally extending opening, said clamping plate provided with a socket at one end of said rib, a threaded shaft extending through one set of registering openings, a bar extending from said threaded shaft and having one end portion bent to form a lug passing through said longitudinally extending opening into said socket formed in said clamping plate, and a bolt passing through said second set of registering openings.

2. A tie, a rail chair at each end of said tie, each of said rail chairs provided with a base-plate provided with a longitudinally extending opening in one end portion, a lip extending from the opposite end portion of said plate and adapted to fit upon the base of a rail, a clamping plate fitting upon said base plate, a lip extending from said clamping plate and adapted to fit upon the base of a rail, a rib carried by said clamping plate and one end of said rib extending beyond said clamping plate beneath said second lip, the end of said rib being adapted to fit beneath a rail base, and means for securing said plates together.

3. A tie, a rail chair at each end of said tie, each of said rail chairs comprising a base plate provided with a longitudinally extending opening, a clamping plate fitting upon said base plate, a rib carried by said clamping plate, and fitting in said longitudinally extending opening, said rib being of less length than said opening and providing a socket at the end of said rib, and clamping means passing through said chair and tie, and having one end fitting in said socket.

4. A tie, a rail chair at each end of said tie, a clamping plate carried by each chair, means for securing said plates upon said chairs, said securing means comprising a bar having one end portion bent to form a lug, a shaft extending from the opposite end of said bar, and clamping means mounted upon said shaft.

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1,041,499. SHOE-SUPPORT. FRANK MACIARE, Vulcan, Mich. Filed Mar. 30, 1912. Serial No. 687,490. (Cl. 36—76.)



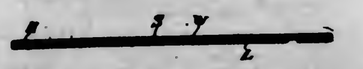
1. As an article of manufacture, a support for shoes comprising a base plate, counter supports secured thereto, a shank support likewise secured to said plate, and downwardly projecting members integral with said plate designed to extend within the shoe heel.

2. As an article of manufacture, a support for shoes comprising a base plate, counter supports secured to said plate, a shank support likewise secured to said plate at one side thereof, and downwardly projecting spaced apart members depending from said plate and designed to extend within the shoe-heel.

3. As an article of manufacture, a support for shoes comprising a base plate, counter supports secured to said plate at opposite points thereon, a shank support secured to said plate at one side thereof, and downwardly projecting spaced apart pins integral with said plate designed to extend within the shoe-heel.

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1,041,500. MEMORANDUM-BOOK. JOHN MARKS, Treherne, Manitoba, Canada. Filed June 14, 1911. Serial No. 633,039. (Cl. 11—19.)



The herein described leaf, consisting of a sheet of fabric having a plurality of apertures, layers of waterproof material secured to all faces, edges, and the walls of the apertures, and said waterproof material being of a nature adapted for writing purposes.

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1,041,501. APPARATUS FOR CLEANING OIL-WELLS. MARK W. MANSEAU, Philadelphia, Pa. Filed Apr. 11, 1911. Serial No. 620,449. (Cl. 166—74.)

A cleaning tube or bailer provided at its operating end with a valve and with a cutting or disintegrating device and having an unobstructed passage to its outlet, ways or guides in the outlet end of the tube, and a sliding bail or yoke having arms adapted to said guides, said arms



equipped with hammers and weights arranged respectively above and below the guides, substantially as specified.

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1,041,502. RAIL-JOINT. WILLIAM W. MCQUAID, Petroleum, W. Va., assignor of one-half to F. B. Haymaker, Clarksburg, W. Va. Filed Jan. 17, 1912. Serial No. 671,626. (Cl. 238—6.)



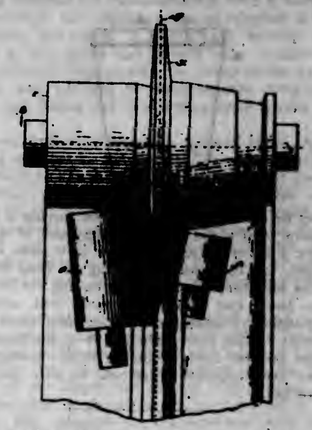
1. In combination with rail ends having recesses in the heads thereof and recesses in the bases thereof, a sleeve mounted to slidably engage the bases of the rail ends, apertured flanges formed on the sleeve and received in the recesses in the bases of the rail ends, keys mounted in the apertures of the said flanges and adapted to extend in the apertures in the bases of the said rail ends to lock the said sleeve to the bases of the rail ends, fish plates mounted to slidably engage the rail ends and the said sleeve and flanges formed on the upper and lower edges of the fish plates and adapted to be received in the recesses in the heads and bases of the rail ends respectively.

2. A rail joint comprising a sleeve, upwardly extending inclined plates formed on the said sleeve, laterally extending flanges formed on the free edges of the said plates and provided with apertures, the said sleeve being adapted for engagement with the bases of rail ends, fish plates for slidable engagement with the rail ends and keys mounted to extend through the apertures in the said flanges and into apertures in the bases of the rail ends to retain the said sleeve in rigid engagement with the bases of the rail ends.

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1,041,503. METHOD OF MAKING RAIL-JOINTS. JOSEPH MISKO, New York, N. Y., assignor to D. W. McCord, New York, N. Y. Filed Jan. 20, 1912. Serial No. 672,206. (Cl. 29—33.)

1. The method of manufacturing continuous rail joint plates having rail seating flanges, which consists in first rolling from the hot ingot or bloom a continuous bar only approximating the cross section required to fit the rail, then rolling the same into its final form or exact cross section, by subjecting the same to the rolling action while it is so held that the center line of the V-section is at right angles to the axis of the roll, and finally cutting the bar into plate sections of proper length; substantially as described.



2. The method of manufacturing continuous rail joint plates having rail seating flanges, which consists in first rolling from the hot ingot or bloom a continuous bar only approximating the cross section required to fit the rail and having the V-section formed by the base substantially open or divergent, then rolling the divergent V-section to close the same to the desired extent, then rolling the bar into its final form or exact cross section, by subjecting the same to the rolling action while it is so held that the center line of the V-section is at right angles to the axis of the roll, and finally cutting the bar into plates of proper length; substantially as described.

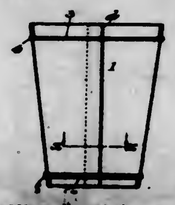
3. The method of manufacturing continuous rail joint plates having rail seating flanges, which consists in first rolling from the hot ingot or bloom a continuous bar only approximating the cross section required to fit the rail and having the V-section formed by the base substantially open or divergent, then rolling the divergent V-section to close the same to the desired extent, then rolling the bar into its final form or exact cross section, by subjecting the same to the rolling action while it is so held that the center line of the V-section is at right angles to the axis of the roll, cutting the bar into plates of proper length, and finally punching and slotting the plates as required for the fastening bolts and spikes; substantially as described.

4. The method of manufacturing continuous rail joint plates having rail seating flanges, which consists in first rolling from the hot ingot or bloom a continuous bar of the proper cross section to fit the rail, cutting said bar into sections of proper length by shearing out chips from the continuous bar and simultaneously punching and slotting the same as required for bolts and spikes, while the bar is held in stationary position; substantially as described.

5. The method of manufacturing continuous rail joint plates having rail seating flanges, which consists in first rolling from the hot ingot or bloom a continuous bar only approximating the cross section required to fit the rail and having the V-section formed by the base substantially open or divergent, then rolling the divergent V-section to close the same to the desired extent, then rolling the bar into its final form or exact cross section by subjecting the same to the rolling action while it is so held that the center line of the V-section is at right angles to the axis of the roll, and then simultaneously punching and slotting the bar as required for bolts and spikes and cutting the same into sections of proper length by shearing out chips therefrom while the said bar is held in a stationary position and is still hot from its initial heat; substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

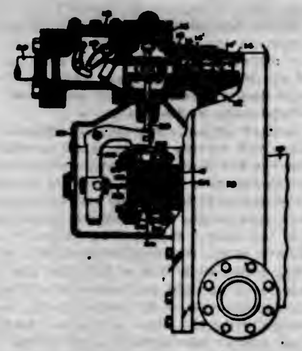
**1,041,504. GREASE-PROOF PAPER VESSEL.** HERBERT L. G. MOORE, Richmond Hill, N. Y., assignor of one-half to himself, and one-half to Henry A. Vreeland, North Paterson, N. J. Filed May 23, 1912. Serial No. 699,097. (Cl. 229—5.)



A vessel for holding oily substances, having a body portion, a cover and a bottom each composed of a body of paper with a covering on both sides of a piece of grease-proof paper, the body portion having its ends overlapped and pasted together, the inner lap having its edge folded over upon itself and against the outer fold, and secured in such position by adhesive material, said cover and bottom being so formed that when joined to the body portion their edges are free from contact with the contents of the vessel and are protected therefrom by said grease-proof paper covering.

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**1,041,505. CENTRIFUGAL COMPRESSOR.** SANFORD A. MOSS, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Mar. 5, 1908. Serial No. 419,278. (Cl. 103—85.)



1. In combination, a centrifugal compressor which delivers fluid at substantially constant pressure when driven at constant speed under normal delivery conditions, a fluid-actuated motor for driving the compressor, a regulating valve for the motor that is open to a fixed extent during the ordinary operation of the compressor and supplies a constant quantity of motive fluid to drive the compressor at a constant speed under normal delivery conditions and at an increasing speed from normal speed up to a predetermined limit above normal if the delivery of the compressor is choked, and a governor having a member that tends to hold the valve open and means responsive to said predetermined speed that overcomes the action of said member and closes the valve to a greater or less extent when the speed tends to exceed said limit.

2. In combination, a centrifugal air compressor which delivers air at approximately constant pressure and volume so long as its outlet is unobstructed, a motor which is ungoverned during the ordinary operation of the compressor and is direct-connected to said compressor, means delivering a substantially constant supply of energy to the motor so that its speed increases as the load decreases below normal, and a speed governor which is ordinarily inactive and only comes into service to limit the speed of the motor by controlling the input of energy when the volume of fluid delivered by the compressor decreases below a predetermined amount and its pressure increases to a predetermined limit due to an obstruction in the compressor outlet.

3. In combination, a motor which is connected to a centrifugal air compressor which delivers air at approximately constant pressure at constant speed and at higher pressures at higher speeds, means furnishing a constant supply of energy to the motor during the ordinary operation of the compressor and up to a predetermined increase in speed and delivery pressure, and a speed governor which is ordinarily inactive but becomes active at said predetermined speed to regulate the supply of energy to the motor and prevent a further increase in speed and delivery pressure.

4. In combination, a centrifugal compressor, a fluid-actuated motor for driving it, a valve controlling the supply of fluid to the motor, and means for holding the valve open to a fixed extent while the load is normal and during the decrease of the load to a certain point, said means including speed responsive mechanism that becomes active at a speed corresponding to said point of decreased load and closes the valve to a greater or less extent.

5. In combination, a motor for driving a centrifugal air compressor, means furnishing a substantially constant supply of energy to the motor during the ordinary operation of the compressor so that its speed increases above normal as the load decreases below normal, and a speed responsive mechanism which is ordinarily inactive but becomes active at a predetermined increase in speed above normal to regulate the supply of energy to the motor to prevent a further increase in speed.

[Claim 6 not printed in the Gazette.]

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**1,041,506. CABLE SUSPENSION TRANSPORTATION SYSTEM.** FRANK NEALE, Hood River, Oreg. Filed Nov. 22, 1911. Serial No. 661,678. (Cl. 104—4.)



1. A cable suspension transportation system comprising a track, trucks including wheels adapted to run on said track, a car, and a laterally adjustable connection between said car and each of said trucks.

2. A cable suspension transportation system comprising a track, car trucks including grooved wheels adapted to run on said track, a car, a supporting frame connected to each truck and having a lateral bearing, a laterally adjustable cross arm slidably mounted in said bearing, and a connection between said car and said cross arm.

3. A cable suspension transportation system comprising a track, trucks including wheels adapted to run on said track, a car, a supporting frame connected to each truck, a laterally adjustable cross arm slidably connected to each of said frames, and a connection between said car and said cross arm.

4. In a cable suspension transportation system, the combination with a support and a track; of a truck including wheels adapted to run on the upper surface of said track, a casing for said truck, a supporting frame depending from said casing, a cross arm adjustably carried by said frame, and yieldable means carried by said frame and engaging the lower surface of said track.



**1,041,507. CONVEYER.** BERTRAM MORTON, Stourbridge, England. Filed Nov. 4, 1910. Serial No. 590,725. (Cl. 198—11.)



1. In a conveyer the combination of a pair of horizontally disposed troughs, a series of inclined pivoted levers supporting each of said troughs, an extension to one of said levers projecting beyond its pivot, and a link connecting said lever extension to the other trough.

2. In a conveyer, the combination of a trough adapted for reciprocating a certain distance, a fulcrumed lever connected with one of the troughs and provided with an extension at the other end, and a link connected to said extension and operatively connected to the other trough, said extension moving through only a limited angle when the troughs are reciprocated said certain distance.

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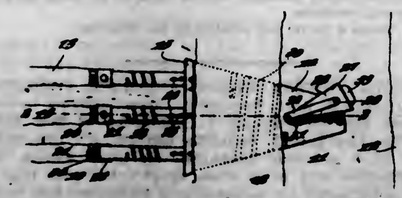
**1,041,508. INCUBATOR HEATER-TANK.** JOHN A. PERRIN, Fargo, Okla. Filed Dec. 31, 1910. Serial No. 600,241. (Cl. 237—22.)



An incubator tank heater comprising a casing having inlet and outlet ports arranged adjacent the upper and lower portions of the casing, a member secured to the casing and forming a compartment separate from the casing, an inlet flue and an outlet flue extending transversely through said casing and communicating at one end with the compartment, the inlet flue extending beyond the casing and provided with oppositely arranged heat inlet and outlet ports, a transverse rod mounted in the inlet flue, a damper controlling the entrance of the same proportionately with the control of the outlet port, the damper comprising a flat sheet of metal pivotally mounted on the said rod at a point approximately central thereof, and said damper having a rearward extension which lies entirely within the said flue and is beveled off at its inner end to conform with the bottom of the flue when the damper is in a raised position.

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**1,041,509. WATER-DISTRIBUTER.** JAMES J. PETRIE, Palisades, Colo. Filed Jan. 20, 1912. Serial No. 672,302. (Cl. 137—66.)



1. In an irrigating device, a tapered body, the smaller end being adapted for communication with a head ditch, a gate pivoted to the smaller end and adapted for opening and closing the same, a perforated flexible end wall mounted at the larger end of said body, and branch coupling tubes detachably engaging in the perforations in the said end wall and adapted to communicate with irrigating ditches.

2. In an irrigating device, a tapered body, the smaller end being adapted for communication with a head ditch, a gate pivoted to the smaller end and adapted for opening and closing the same, a perforated flexible end wall mounted at the larger end of said body, branch coupling tubes detachably engaging in the perforations in the said end wall and adapted to communicate with irrigating ditches, and means for controlling said branch coupling tubes.

3. In an irrigating device, a tapered body, the smaller end being adapted for communication with a head ditch, a gate pivoted to the smaller end and adapted for opening and closing the same, a perforated flexible end wall mounted at the larger end of said body, branch coupling tubes detachably engaging in the perforations in the said end wall and adapted to communicate with irrigating ditches, and gates pivoted to the free ends of said branch coupling tubes and adapted for opening and closing the same.

4. In an irrigating device, a tapered body, the smaller end being adapted for communication with a head ditch, a gate pivoted to the smaller end and adapted for opening and closing the same, a perforated flexible end wall mounted at the larger end of said body, branch coupling tubes detachably engaging in the perforations in the said end wall and adapted to communicate with irrigating ditches, means for controlling said branch coupling tubes, and means for securing the tubes against displacement with respect to the body.

5. In an irrigating device, a tapered body, the smaller end being adapted for communication with a head ditch, a gate pivoted to the smaller end and adapted for opening and closing the same, a perforated flexible end wall mounted at the larger end of said body, branch coupling tubes detachably engaging in the perforations in the said end wall and adapted to communicate with irrigating ditches, means for controlling said branch coupling tubes, means for securing the tubes against displacement with respect to the body, and means for reinforcing the body and said tubes.

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**1,041,510. PROCESS OF PRODUCING FAST BROWN RESISTS ON VEGETABLE FIBERS.** CARL PIRA, Liesing, near Vienna, Austria-Hungary. Filed Dec. 7, 1911. Serial No. 664,480. (Cl. 8—5.)

1. The process of producing fast brown resists on vegetable fibers which comprises padding such material with anilin black and printing on such material an easily oxidizable aromatic amin capable of preventing the oxidination of the aniln black and developing the padded and printed material by steaming.

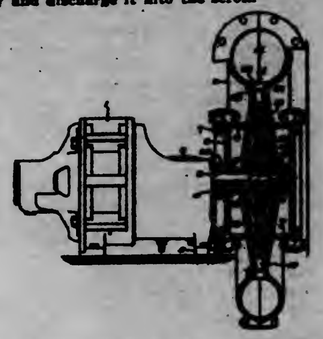
2. The process of producing fast brown resists on vegetable fibers which comprises padding such material with aniliin black and printing on such material an easily oxidizable aminophenol, and developing the padded and printed material by steaming.

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**1,041,511. CENTRIFUGAL COMPRESSOR AND PUMP.** RICHARD H. RICE and SANFORD A. MOSS, Lynn, Mass., assignors to General Electric Company, a Corporation of New York. Filed Feb. 8, 1907. Serial No. 356,327. (Cl. 230—11.)

1. In an apparatus of the character described, the combination of an impeller having blades on opposite sides of the body thereof, a casing, the walls of which inclose the blades on the impeller and are provided with orifices, one in each side, through which the fluid enters, the surfaces of said orifices being well rounded and arranged to direct the entering fluid radially to the blades, chambers formed on opposite sides of the impeller which are bounded on one side by said walls and which are larger in diameter than said orifices and supply fluid thereto, a conduit for supplying said chambers, a scroll receiving fluid from the impeller, and a nozzle having a plurality of partitions with

diverging passages between them which receive fluid from the impeller, convert its velocity into pressure, increase its density and discharge it into the scroll.



2. In an apparatus of the character described, the combination of a motor, an impeller driven thereby, a casing for the impeller having a discharge conduit, a projection on the motor with which the casing is united and is angularly adjustable thereon, a supply chamber located between one end of the projection and the casing, and a second supply chamber located on the opposite side of the impeller.

3. In an apparatus of the character described, the combination of a motor, an impeller driven thereby, a casing for the impeller having a discharge conduit, a projection on the motor for uniting it with the casing, a wall located on one side of the casing and coöperating with the projection to form a chamber, walls on the opposite side of the casing arranged to form a chamber, and a conduit for supplying fluid to the chambers.

4. In an apparatus of the character described, the combination of a motor, an impeller driven thereby, a casing for the impeller, a projection on the motor for uniting it with the casing and forming a wall of a supply chamber, a wall coöperating with that supported by the projection and with the casing to form a supply chamber, and conduits for supplying fluid to the chamber and receiving it after passing through the impeller.

5. In an apparatus of the character described, the combination of a motor, an impeller driven thereby, a casing for the impeller, a projection on the motor for uniting it with the casing and forming a wall of a supply chamber, a wall coöperating with that supported by the projection and with the casing to form a supply chamber, walls on the opposite side of the impeller coöperating with the casing to form a second supply chamber, means for supplying fluid to the chambers, and a scroll which receives the fluid after it passes through the impeller.

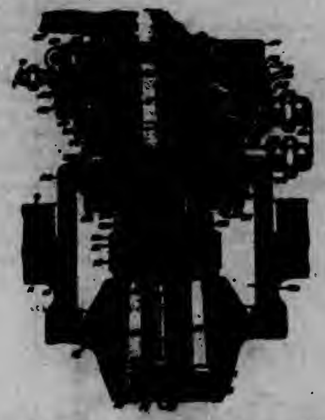
[Claims 6 to 16 not printed in the Gazette.]

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1,041,512. COMBINED STEP AND GUIDE BEARING FOR TURBINES. RICHARD H. RICE, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Mar. 6, 1907. Serial No. 360,955. (Cl. 64—10.)

1. In a turbine, the combination of a vertical shaft, a casing, a guide bearing for the shaft having a spherical surface, a seat therefor comprising an upper member secured to the casing and a lower member detachably secured to the casing, which when detached and lowered permits the guide bearing to be lowered without disturbing the casing and the shaft, and a step-bearing, the lower block of which is carried and guided by the casing, the opposed surfaces of the bearing being spherical and having the same center as the spherical surface of the guide-bearing.

2. In a turbine, the combination of a vertical shaft, a casing having a central bore, a guide-bearing for the shaft having a spherical outer surface, a seat therefor comprising a member which forms the upper end of the casing and a second member that is smaller in diameter than said bore and is attached to the interior of the bore adjacent the upper end thereof, the end of the shaft projecting through the guide bearing and said second member into the bore, a step-bearing for the projecting end of the shaft arranged within the bore of the casing below said second member, the opposed surfaces of the step-bearing being spherical and having the same center as the spherical surface of the guide-bearing, and a detachable head secured to the casing at the lower end of the bore which supports the step-bearing.



3. In combination, a vertical shaft, a guide-bearing comprising a lining and a sleeve with a spherical surface, a seat therefor, a step-bearing comprising a rotatable and a stationary block having opposed spherical surfaces, a means for adjusting one of the blocks vertically, a guide for the means, and a casing for the bearings.

4. In combination, a vertical shaft, a guide-bearing therefor having a spherical surface, a step-bearing for the end of the shaft arranged below the guide-bearing and including blocks having opposed spherical surfaces, the said surfaces being struck from the same center, an internally shouldered casing for the bearings, an upper head mounted on the top of the casing, a lower head mounted inside the casing and attached to the under side of the shoulder, the said heads engaging the guide-bearing and forming a seat therefor, means by which the lower step-bearing block is mounted in the casing and guided for longitudinal movement therein, and a device for adjusting said block.

5. In combination, a vertical shaft, a sleeve surrounding the shaft and having a spherical surface, a lining for the sleeve, a spherical seat for the sleeve, a step-bearing comprising a stationary and a rotating block, the opposed surfaces of which are spherical, the said spherical surfaces of the seat and the blocks being struck from the same center, a guide and a support for the lower step-bearing block, a means for adjusting the position of the lower block in the support, and a means for supplying lubricant under pressure to the central portions of said spherical surfaces.

[Claims 6 to 10 not printed in the Gazette.]

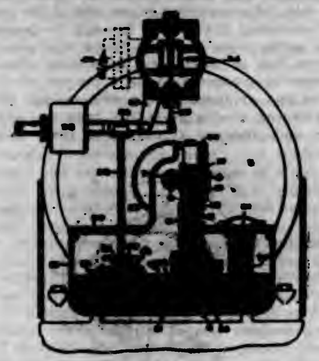
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1,041,513. GOVERNING MECHANISM FOR TURBINES. RICHARD H. RICE, Swampscott, Mass., assignor to General Electric Company, a Corporation of New York. Filed June 2, 1911. Serial No. 630,822. (Cl. 121—118.)

1. In a governing mechanism for prime movers, the combination of a pump whose speed varies with that of the prime mover for maintaining a continuous fluid circulation, a nozzle through which the pump discharges a column of fluid, the area of the nozzle increasing in the direction of flow, a float arranged within the nozzle that rides on the fluid column, the position of the float varying with the volume of the discharge and thereby varying



the effective flow area of the nozzle, a valve means controlling the admission of motive fluid to the prime mover, and a mechanical connection for transmitting the movements of the float to the valve means.



2. In a governing mechanism for prime movers, the combination of a pump whose speed varies with that of the prime mover for maintaining a continuous fluid circulation, a nozzle through which the pump discharges a column of fluid, the area of the nozzle increasing in the direction of flow, a float arranged within the nozzle that rides on the fluid column, the position of the float varying with the rate of discharge and thereby increasing the effective flow area of the nozzle as the speed of the pump increases and vice versa, a valve controlling the admission of motive fluid to the prime mover, a lever connected to the valve, and a connection for transmitting motion between the lever and float.

3. In a governing mechanism for prime movers, the combination of a pump driven by the prime mover to be governed, a chamber for the pump having a discharge orifice, a float located in the orifice and arranged by its movements to increase and decrease the effective discharge area of the orifice, a valve actuated by the float for controlling the admission of fluid to the prime mover, and a means acting in opposition to the float.

4. In a governing mechanism of the character described, the combination of a pump, a float comprising a body portion and an outwardly extending flange, said body portion and flange both being located in the path of and acted upon by the discharge of the pump, a valve moved by the float to control the passage of motive fluid, and an adjustable means acting in opposition to the float.

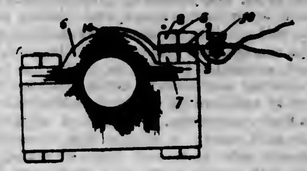
5. In a mechanism of the character described, the combination of a pump, a discharge chamber therefor, a nozzle through which the chamber discharges, the cross-sectional area of said nozzle being greater at one end than the other, a float located in the nozzle and moving in a direction to increase the discharge area as the volume of fluid discharged by the pump increases, and a valve means actuated by the float.

[Claims 6 to 10 not printed in the Gazette.]

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1,041,514. ELECTRIC ALARM ATTACHMENT FOR JOURNAL-BEARINGS. JAMES EDWARD ROGERS, Beloit, Kans. Filed Aug. 28, 1911. Serial No. 646,421. (Cl. 177—308.)

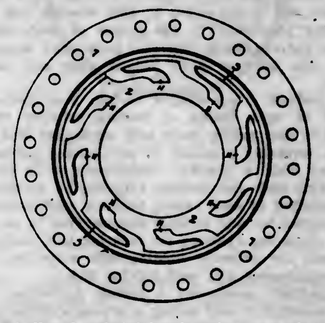
The combination with a journal bearing consisting of a base member, an arched cap plate overlying the same, bolts passing upward through said member and plate, and nuts on the upper ends of the bolts resting on the upper face of the plate along its edges; of an electric alarm, the circuit wires leading therefrom, connections between one terminal and the cap plate, a circuit closer consisting of a plate having a flat body and an upbent toe, the former pierced with a relatively large hole adapted to loosely surround one of said bolts and a smaller hole in its heel, and the toe extending upward over said cap plate; a disk of fusible insulating material carried by the tip of the toe and resting on said plate, insulating washers above



and below the body of said plate, a clamping nut on said bolt over the uppermost washer, and a binding screw in said smaller hole connected with the remaining terminal.

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1,041,515. BALL-JOINT FOR PIPES. JAMES A. ROUARK, Savannah, Ga. Filed May 1, 1912. Serial No. 694,539. (Cl. 137—88.)



1. In a ball-and-socket joint for pipes, a socket member having an internal annular rib constituting a bearing for the ball member, and longitudinal ribs formed on the inside face of the socket and constituting additional bearings for the ball.

2. In a ball-and-socket joint for pipes, a socket member having an internal annular rib constituting a bearing for the ball member, and longitudinal ribs formed on the inside face of the socket and constituting additional bearings for the ball, said longitudinal ribs being curved transversely.

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1,041,516. PERMUTATION-PADLOCK. ANDREW RUDY, Sunman, Ind. Filed Oct. 3, 1911. Serial No. 652,507. (Cl. 70—113.)



1. A padlock comprising a casing provided with upper and lower openings, a disk rigidly mounted in said casing between said openings, a locking cylinder mounted in said casing above said disk and exhibited through said upper opening, a locking disk mounted in said casing below said

stationary disk, lugs carried by said locking disk, an actuating cylinder mounted in said casing below said locking disk and provided with sockets in which said lugs are adapted to fit, said actuating cylinder being exhibited through said lower opening and said locking disk being hidden in said casing, springs surrounding said lugs and bearing against said actuating cylinder, and normally holding said actuating cylinder in a position to prevent said lugs entering said sockets, and a shackle constructed to be locked by said locking disk and locking cylinder.

2. A padlock comprising a casing, a stationary disk mounted in said casing, a locking disk mounted in said casing beneath said stationary disk, a locking cylinder mounted in said casing above said stationary disk, said cylinder and disks being provided with central openings having grooves formed in the walls of said openings adapted to be brought in alinement, an actuating cylinder mounted in said casing beneath said locking disk and adapted to engage said locking disk to rotate the same to bring its groove in alinement with the groove of the stationary disk, means for normally holding said actuating cylinder out of engagement with said locking disk, a shackle having its arms passing through said cylinders and disks, and lugs carried by said shackle, one of said lugs being positioned in the groove of said stationary disk, and the remaining lug being positioned beneath said locking disk between said locking disk and actuating cylinder.

3. A padlock comprising a casing, a stationary disk mounted in said casing, a locking cylinder rotatably mounted in said casing above said stationary disk, a locking disk rotatably mounted in said casing beneath said stationary disk, a shackle constructed to be locked by said locking disk and locking cylinder, an actuating cylinder mounted in said casing beneath said locking disk, means carried by said locking disk adapted to be engaged by said actuating cylinder for rotating said locking disk, and means for normally holding said actuating cylinder out of engagement with said locking disk.

4. A padlock comprising a casing, a locking disk rotatably mounted in said casing, a locking cylinder mounted in said casing, an actuating cylinder mounted in said casing and adapted to engage said locking disk, a plug mounted in said casing for closing the lower end of said casing, said plug being provided with a central socket and said disk and cylinders provided with central openings formed in alinement with said socket, a disk mounted in the upper end of said casing, provided with an irregularly shaped central opening registering with the opening in said locking cylinder, and a shackle passing through said openings into said socket and provided with an enlarged shoulder at its outer end portion conforming to the shape of the opening in said upper disk and abutting against said locking cylinder to limit the inward movement of said shackle.

5. A padlock comprising a casing, a partition in said casing, a locking cylinder to one side of said partition, a locking disk at the opposite side of said partition, a shackle adapted to be locked by said disk and cylinder, actuating means for bringing said disk into and out of operative position, means carried by said disk adapted to be engaged by said actuating means, and means for normally holding said actuating means out of engagement with said last-mentioned means.

[Claim 6 not printed in the Gazette.]

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1,041,517. OIL-BURNER. STORM B. SARR, Abilene, Kans. Filed Feb. 12, 1912. Serial No. 677,065. (Cl. 158—53.)

1. The combination with a stove body, of a casing disposed therein and arranged at one side thereof, a generating pipe arranged in the lower side of the stove body, said casing having openings formed in the sides thereof to receive the ends of said pipe, an inlet pipe connected to one end of the generating pipe, means for controlling the flow of oil into the generating pipe, a reservoir connected to the other end of the generating pipe, and nozzles leading from said reservoir through which the gas passes.

2. The combination with a stove body, of a substantially rectangular casing disposed therein and arranged at one side thereof, a generating pipe arranged in the lower side of the stove body, said casing having an opening formed in each side thereof to receive the ends of said pipe, an inlet pipe connected to one end of the generating pipe and extending downwardly through the bottom of the casing, a needle valve arranged in the inlet pipe for controlling the flow of oil into the generating pipe, a cylindrical reservoir connected to the other end of the generating pipe and arranged within said casing, and a plurality of spaced nozzles projecting from one end of said reservoir and disposed through the front end of the casing.

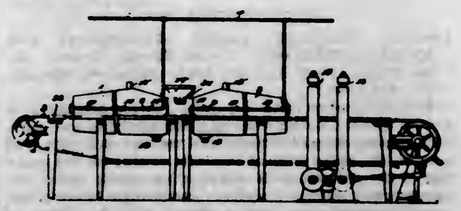


3. The combination with a stove body, of a substantially rectangular casing disposed therein, having beveled corners formed at one end thereof, a generating pipe having its ends connected with the interior of said casing at each side thereof, an inlet pipe connected to one end of the generating pipe, means for controlling the flow of oil into the generating pipe, a cylindrical reservoir connected to the other end of the generating pipe, a plurality of spaced nozzles projecting from one side of the reservoir and disposed through the beveled corners and front face of said casing, and a drain-valve arranged in the lower side of said reservoir to drain the oil and sediment from the reservoir and generating pipe when the flow of oil has been turned off.

4. The combination with a base, having a stove body thereon, a drip pan upon said base and arranged in said body, of a casing arranged in the body at one side thereof, a generating pipe disposed in the lower side of said body and having its ends connected with the interior of the casing at each side thereof, an inlet pipe connected to one end of the generating pipe, means for controlling the flow of oil into the generating pipe, a cylindrical reservoir connected to the other end of the generating pipe, a plurality of spaced nozzles projecting from one side of the reservoir and disposed through one end of said casing, and a drain valve arranged in the lower side of said reservoir to drain the oil and sediment from the reservoir and generating pipe, when the flow has been turned off.

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1,041,518. PROCESS OF PRESERVING FOOD PRODUCTS. EDWARD D. SCHMITT, Baltimore, Md., assignor to The Pure Food Process Company, Baltimore, Md., a Corporation of Maryland. Filed Sept. 19, 1911. Serial No. 650,297. (Cl. 99—8.)



1. The process of cooking food-products in hermetically-sealed non-metallic vessels, consisting in filling the vessel with a product of approximately the same temperature as that of the vessel; then subjecting the filled vessel to heat of greater intensity than the temperature of the vessel and contents, so as to equalize the temperature of the same; then hermetically sealing the vessel, and finally subjecting the sealed vessel and contents to the action of a heating-fluid of sufficient heat capacity to cook the contents.

2. The process of cooking food-products in hermetically-sealed non-metallic vessels, consisting in filling the vessel with a product of approximately the same temperature as that of the vessel; then subjecting the filled vessel to heat of a higher temperature than that of the vessel and contents, so as to equalize the temperature of the same; then hermetically sealing the vessel; then subjecting the sealed vessel and contents to the action of a heating-fluid of sufficient heat-capacity to cook said contents, and finally cooling the cooked product without removing the vessel from the heating-fluid.

3. The process of cooking food-products in hermetically-sealed non-metallic vessels, consisting in filling the vessel with a product of approximately the same temperature as that of the vessel; then subjecting the filled vessel to heat of a higher temperature than that of the vessel and contents, so as to equalize the temperature of the same and to thoroughly exhaust the gases or fumes arising from the product; then hermetically sealing the vessel; then subjecting the sealed vessel and contents to the action of a heating-fluid of sufficient heat-capacity to cook said contents, and finally gradually displacing the heating-fluid with cold water, so as to cool the product without the danger of cracking or breaking the vessel.

4. The process of cooking food-products in hermetically sealed non-metallic vessels, comprising the following steps, first, subjecting the vessel to successively increased zones of heat, so as to bring the vessel to approximately the same degree of temperature as that of the product to be placed therein; second, filling the vessel with said product; third, passing the filled vessel through a zone of heat of higher temperature than that of the vessel and contents so as to thoroughly exhaust the gases and fumes arising from the product and to equalize the temperature of the vessel and contents for final cooking; fourth, hermetically sealing the vessel, and finally, subjecting the sealed vessel and contents to the action of a heating-fluid of a temperature higher than the equalising temperature to cook the contents.

5. The process of cooking food-products in hermetically-sealed non-metallic vessels, comprising the following steps, first, subjecting the vessel to successively increased zones of heat to bring the vessel to approximately the same degree of temperature as that of the product to be placed therein; second, filling the vessel with the product; third, passing the filled vessel through a zone of heat of higher temperature than that of the vessel and contents, so as to thoroughly exhaust the gases or fumes arising from the product and to equalize the temperature of the vessel and contents for final cooking; fourth, hermetically sealing the vessel; fifth, subjecting the sealed vessel and contents to the action of a heating-fluid of a temperature higher than the equalising temperature to cook the contents, and finally, gradually cooling the cooked product without removing the vessel from the heating-fluid.

[Claims 6 to 11 not printed in the Gazette.]

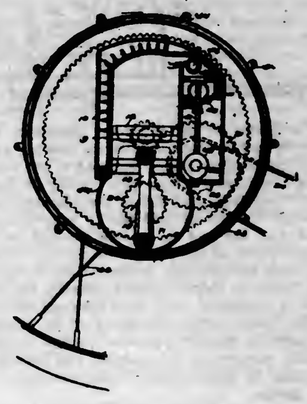
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1,041,519. MOTOR-WHEEL FOR CYCLES. ARTHUR C. SHIPAK, San Francisco, Cal. Filed Feb. 3, 1910. Serial No. 541,718. (Cl. 21—90.)

1. A motor wheel, including a main chamber or casing, a cylinder therein, a gasolene reservoir supported by the cylinder, a piston arranged in said cylinder, a piston rod coupled to said piston, a crank-shaft having connection with said piston rod, a hub revolubly mounted on the main chamber or casing, an internal gear-wheel carried thereby, a pinion carried by said crank-shaft, a drive-shaft journaled on the main chamber or casing, a gear carried thereby and meshing with said pinion, and gear-wheel and a drive sprocket also carried by said drive shaft.

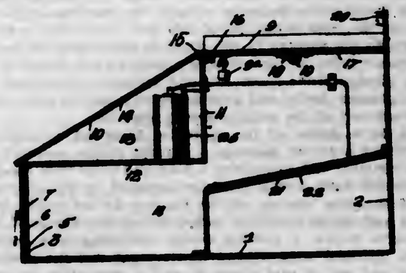


2. A motor wheel, including a main chamber or casing, a cylinder therein, a gasolene reservoir supported by the cylinder, a piston arranged in said cylinder, a piston rod coupled to said piston, a crank-shaft having connection with said piston rod, a hub revolubly mounted on the main chamber or casing, an internal gear-wheel carried thereby, a pinion carried by said crank-shaft, a drive-shaft journaled on the main chamber or casing, an idler pinion journaled on the cylinder, a drive gear on the drive-shaft meshing with said pinions and internal gear, a drive-sprocket on the drive-shaft, a mixing chamber, means for supplying an explosive mixture thereto, and means for exploding the mixture.



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1,041,520. TRAP. ABSALOM D. SHAFFER, Kittanning, Pa. Filed Dec. 4, 1911. Serial No. 663,657. (Cl. 43—84.)

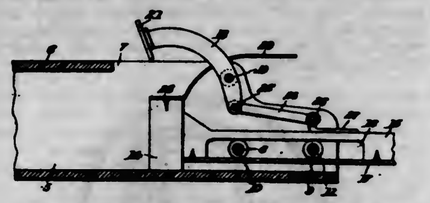


A trap comprising a bottom plate, a rear wall, a front wall of a less height than said rear wall and having a doorway formed therein, a hinged door normally closing said doorway, side walls carried by said bottom plate and having the forward upper edges thereof inclined, a vertical partition connecting said side walls, a horizontal partition connecting said side walls and coöperating with said vertical partition in providing a battery compartment, a lid hinged to the upper edge of said vertical partition and adapted to rest upon the inclined edges of said side walls and close said battery compartment, a tiltable door pivotally mounted between the upper edges of said side walls, a bar connecting said side walls and normally supporting said door in a horizontal position, an inclined platform arranged in said trap and extending from said rear wall to a point below said vertical partition, wire electrodes arranged upon said platform and in circuit with the source of electrical energy located in said battery compartment, said electrodes each embodying a wire extending in open loop formation in the direction of inclination of the platform and having its free end secured to an adjacent loop,

said ends being adjacent to each other substantially central of the platform, the wire of the electrode lying between such free end and the side of the trap.

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1,041,521. BALING-PRESS. MARION F. SLOVER and JAMES R. HARTER, Canyon, Tex. Filed Apr. 10, 1912. Serial No. 689,850. (Cl. 100—25.)



1. In a device of the character described, a chamber whose outer end is provided with an opening at its top, a reciprocating plunger device mounted in the chamber and including a head and a bar, with the bar provided with a slot, roller bearings mounted in the chamber and extending through the slot of said bar to support and balance the head and bar and to prevent upward or downward tilting movement of the plunger device and thereby maintain an even straight-line reciprocating movement of the plunger device to reduce friction between the plunger device and the chamber, with said bearings arranged so as to restrict reciprocating movement of the plunger device, and a packing device connected to the plunger device swingingly mounted in the chamber and operable through the opening in said chamber upon reciprocation of the plunger device.

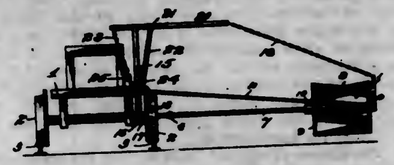
2. A device of the character described comprising a chamber provided with an opening in its top, a reciprocating plunger device mounted in the chamber, a packing device including an arm and a head swingingly mounted in said chamber, a connection between the swinging arm and the plunger device to actuate the packing device to throw the head of the latter into and out of the chamber through the opening in the latter to pack material in the chamber prior to the pressing action on the material by the plunger device, and a shield secured to the head of the plunger device and provided with a slot in which the curved arm of the packing device operates.

3. In a device of the character described, a chamber provided with an opening, a plunger device mounted in the chamber and comprising a head and a bar with the bar provided with a slot, bearings mounted in the chamber and engaging the bar of the plunger device within said slot and which limit the reciprocating movements of the plunger device, a packing device consisting of a curved arm provided with a head at its inner end for passage into and out of said chamber, and a connection between said arm and the bar of the plunger device to operate the arm to pack the material in the chamber prior to the pressing of the material by the head of the plunger device, and a shield carried by the head of the plunger device and provided with a slot in which latter the arm of the packing device operates.

4. A device of the character described comprising a chamber provided with an opening in its top, a pair of shafts mounted transversely through the chamber at the outer end thereof, a roller bearing mounted on each shaft, a reciprocating plunger device mounted in the chamber and including a head and a bar, the latter being formed of two parts with one part provided with a notch whose outer side is closed by the other part of the bar to form a slot in the latter, the slot embracing said roller bearings and engageable at its ends with the bearings to limit the reciprocating movement of the plunger device, a packing device including a curved arm and a head swingingly mounted in said chamber, a connection between the swinging arm and the plunger device to actuate the packing device to throw the head of the latter into and out of the chamber through the opening of the latter to pack the material in the chamber prior to pressing action on the material by the plunger device, and a shield secured to the head of the plunger device, and provided with a slot in which the curved arm of the packing device operates.

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1,041,522. WEED-CUTTER. JAMES SMITH, Reliance, S. D. Filed Sept. 5, 1911. Serial No. 647,567. (Cl. 56—16.)

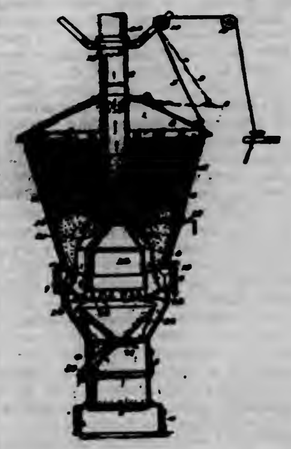


1. A weed cutter attachment for hand cars comprising a shaft mounted for rotation, a cutter shaft pivoted to the outer end of the first mentioned shaft, a cutter adjustable on the cutter shaft, a friction cone mounted on the first mentioned shaft, a lever for throwing said cone into and out of contact with one of the wheels of the car, and means for throwing the cutter up out of operative position.

2. A weed cutter for hand or motor cars comprising a shaft mounted for rotation in a lever, a cutter shaft pivoted to the outer end of the first mentioned shaft, a cutter mounted to rotate with said cutter shaft, and a brace connected to the outer end of said cutter shaft and pivoted to the car.

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1,041,523. SAND-DRIER. THOMAS N. SMITH, Portsmouth, Va. Filed June 3, 1912. Serial No. 701,345. (Cl. 34—34.)



1. The combination of a heater, its stack, a sand basket, having an axial space or passage connecting the heater and stack, and a shell or casing inclosing the basket and forming a surrounding hot air passage.

2. The combination of a heater, its stack, a perforate sand basket having an axial space or passage that connects the heater and stack, and an imperforate shell or casing inclosing the basket and forming therewith a surrounding hot air passage.

3. The combination of a heater, its stack, a perforate sand basket having an axial space or passage that connects the heater and stack, a shell or casing inclosing the basket and forming therewith a surrounding hot air passage, and a receptacle for dry sand below the sand basket.

4. The combination of a heater, its stack, a perforate sand basket having an axial space or passage that connects the heater and stack, a damper operatively mounted in said passage, and a shell or casing inclosing the basket and forming therewith a surrounding hot air passage.

5. The combination of a heater, its stack, a perforate sand basket having an axial space or passage that connects the heater and stack, a heat deflector in said passage, and a shell or casing inclosing the basket and forming therewith a surrounding hot air passage.

[Claims 6 to 10 not printed in the Gazette.]



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1,041,524. GREASE-GUN. HENRY C. SNYDER and CHARLES REED, Minneola, Kans. Filed Apr. 18, 1912. Serial No. 691,756. (Cl. 221—79.)



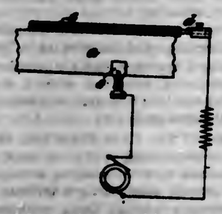
1. In a device of the character described, a shell having one end formed closed and the other end open, a removable head to close the open end of the shell and provided with a recess to register with the opening of the shell, a plunger operating in the shell and adapted to be moved in the recess of the head, means to move the plunger, and discharge means connected with said shell.

2. In a device of the character described, a shell having an outwardly extending flange near one end thereof, a removable head to close one end of the shell, the flange and head being provided with openings adapted to be moved into registration, swinging clamping bolts to operate within registering openings, a plunger to force the lubricant from within the shell, and means mounted upon the removable head to move the plunger.

3. In a device of the character described, a shell, a removable head to close one end thereof and provided with an approximately annular opening, an approximately annular flange formed upon the shell near its open end to fit within the approximately annular opening of the head to form a proper joint to prevent the escape of the lubricant, means to force the lubricant from the shell, and discharge means for receiving such lubricant when thus forced from the shell.

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1,041,525. ELECTRIC DEPOSITION OF METALS. ARTHUR PERCY STROMMENGER, Westminster, London, England. Filed Apr. 11, 1912. Serial No. 690,124. (Cl. 219—8.)



1. A process of depositing metal by means of the electric arc, which comprises connecting the work to one pole of a source of electric current, laying an insulated metal electrode along the line on which metal is to be deposited, connecting this electrode to the other pole of the source of current, and striking an arc between the work and the end of the electrode.

2. A process of depositing metal by means of the electric arc, which comprises connecting the work to one pole of a source of electric current, laying a plurality of insulated metal conductors forming an electrode along the line on which metal is to be deposited, connecting these conductors in parallel to the other pole of the source of current, and striking an arc between the work and the ends of the electrode.

3. A process of depositing metal by means of the electric arc, which comprises connecting the work to one pole of a source of electric current, laying a metal electrode covered with asbestos yarn along the line on which metal is to be deposited, connecting this electrode to the other pole of the source of current, and striking an arc between the work and the end of the electrode.

4. A process of depositing an alloy by means of the electric arc which comprises connecting the work to one pole of a source of electric current, laying along the line on which alloy is to be deposited an insulated electrode of an alloy which contains an excess of one of the constituents of the work, connecting this electrode to the other pole of the source of current, and striking an arc between the work and the end of the electrode.

5. A process of electric welding, which comprises placing the two pieces of metal to be welded side by side, connecting them to one pole of a source of electric current, laying an insulated metal electrode along the seam, connecting this electrode to the other pole of the source of current, and striking an arc between the work and the end of the electrode.

[Claims 6 to 11 not printed in the Gazette.]

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1,041,526. CORE-FILLING COMPOUND FOR PNEUMATIC TIRES AND PROCESS OF MAKING THE SAME. HERMAN M. SUSS, Fall River, Mass. Filed July 27, 1911. Serial No. 640,765. (Cl. 106—39.)

1. A process of producing a composition for filling the cores of pneumatic tires, which consists in placing 40 parts of cabinet glue in 20 parts of water and allowing it to remain until the water is absorbed by the glue, then heating the so formed mass until it runs freely, then adding 20 parts of brown sugar and boiling the ingredients together for one hour, then adding fifteen parts of silicate of soda and five parts of glycerin to the mass and boiling them for half an hour constantly agitating them during the boiling thereof.

2. A core filling compound for pneumatic tires composed of cabinet glue forty parts, water twenty parts, brown sugar twenty parts, silicate of soda fifteen parts, and glycerin five parts.

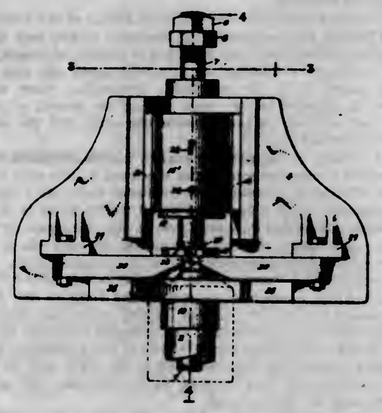
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1,041,527. BOTTLE-CAPPING MACHINE. RUSSELL E. TAYLOR, New York, N. Y. Filed Jan. 9, 1911. Serial No. 601,524. (Cl. 113—2.)

1. In a machine for commercially applying ordinary metal crowns in bottling to bottles having an integral glass head flange or bead, a pair of rigid anvil blocks adapted to receive the neck of a bottle between them, with its head flange or bead resting on the upper edges of the anvil blocks, means affording rigid lateral support for said anvil blocks on a line passing through the bottle in capping position, a rigid support beneath the anvil blocks near the bottle engaging portions thereof, and a capping die.

2. In a machine for commercially applying ordinary metal crowns in bottling to bottles having an integral glass head flange or bead, a pair of anvil blocks adapted to receive the neck of a bottle between them, with its head flange or bead resting on the upper edge of the anvil blocks, rigid lateral supports for said anvil blocks on a line passing through the bottle in capping position, rigid supports beneath the anvil blocks near the bottle engaging

portions thereof, rigid supports above the anvil blocks at a point more remote from the bottle, and a capping die.



2. In a machine for commercially applying ordinary metal crowns in bottling to bottles having an integral glass head flange or bead, a pair of anvil blocks adapted to receive the neck of a bottle between them, with its head flange or bead resting on the upper edges of the anvil blocks, rigid lateral supports for said anvil blocks on a line passing through the bottle in capping position, means for permitting a simultaneous outward swinging movement of said anvil blocks to receive a bottle, rigid supports beneath the anvil blocks near the bottle engaging portions thereof, and a capping die.

4. In a machine for commercially applying ordinary metal crowns in bottling to bottles having an integral glass head flange or bead, a pair of rigid anvil blocks adapted to receive the neck of a bottle between them, with its head flange or bead resting on the upper edges of the anvil blocks, means affording rigid lateral support for said anvil blocks on a line passing through the bottle in capping position, a rigid support beneath the anvil blocks near the bottle engaging portions thereof, and a capping die having a central plunger with a spring of great power to insure against the lifting of any bottle even in extreme cases, as and for the purpose set forth.

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1,041,528. MANUFACTURE OF ESTERS OF THE HYDROCINCHONA ALKALOIDS. HEINRICH THRON, Frankfort-on-the-Main, Germany, assignor to The Firm of Vereinigte Chininfabriken Zimmer & Co., Gesellschaft mit beschränkter Haftung, Frankfort-on-the-Main, Germany. Filed Dec. 23, 1911. Serial No. 667,447. (Cl. 28—24.)

1. The process of producing esters of hydrocinchona alkaloids which comprises acidulating the corresponding hydrocinchona alkaloids with acid chlorids.

2. The process of producing esters of hydroquinin which comprises acidulating hydroquinin with acid chlorids.

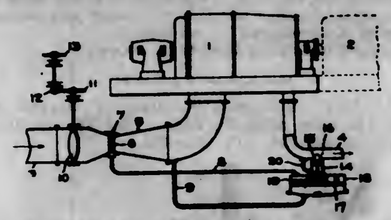
3. The process of producing aromatic esters of hydrocinchona alkaloids which comprises acidulating with aromatic acidulating agents the corresponding hydrocinchona alkaloids.

4. The process of producing aromatic esters of hydroquinin which comprises acidulating hydroquinin with aromatic acidulating agents.

5. The process of producing bensoyl esters of hydrocinchona alkaloids which comprises bensoylating the corresponding hydrocinchona alkaloids.

[Claims 6 to 11 not printed in the Gazette.]

1,041,529. MEANS FOR REGULATING CENTRIFUGAL COMPRESSORS. RICHARD THOMA, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed Feb. 16, 1912. Serial No. 678,023. (Cl. 230—11.)



1. In combination, a centrifugal compressor having an inlet and a discharge conduit, a blow-off valve for discharging fluid under pressure from the compressor, a throttle valve in the inlet, and a means located on the compressor side of the throttle and sensitive to a change in the rate of flow of fluid passing through it for actuating the blow-off valve.

2. In combination, a centrifugal compressor having an inlet and a discharge conduit, a blow-off valve in the discharge conduit, a means sensitive to a change in the rate of flow of fluid passing through the inlet for controlling the operation of the blow-off valve, and a member for throttling the passage of fluid prior to its entrance to the inlet and said means.

3. In combination, a centrifugal compressor having an inlet and a discharge conduit, a blow-off valve in the discharge conduit, a means located in the inlet for creating a pressure difference responsive to changes in the rate of flow of the fluid passing through the compressor, a means for actuating the blow-off valve that is responsive to said pressure difference, and a throttle valve that is located in the inlet and precedes the said means.

4. In combination, a centrifugal compressor having an inlet and a discharge conduit, a blow-off valve in the discharge conduit, means tending at all times to open the valve, a pressure responsive motor that normally opposes said means, a device for creating a pressure difference that is located in the inlet conduit, conduit means for conveying said pressure difference to the motor, and a throttle valve that is located on the inlet side of said device.

5. In combination, a centrifugal compressor having an inlet and a discharge conduit, a blow-off valve in the discharge conduit, that is arranged to open when the load on the compressor falls below a certain value, a means actuated by fluid under pressure for holding the valve closed, a Venturi tube for creating a pressure difference, conduits conveying fluid under pressure from the tube to the said means, and a throttle valve in the inlet conduit for controlling the amount of fluid that passes through said tube.

[Claim 6 not printed in the Gazette.]

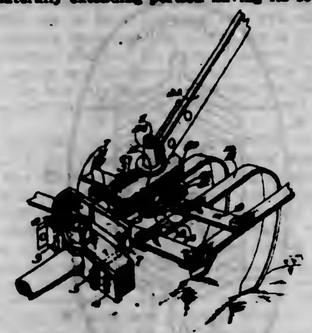
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1,041,530. BEAM AND SHANK ATTACHMENT. ROBERT A. TROUSDALE, Tyler, Tex., assignor of one-half to J. H. Seeton, Tyler, Tex. Filed Sept. 12, 1911. Serial No. 648,909. (Cl. 97—35.)

1. A device of the class described comprising a harrow, means for connecting said harrow to a plow-head, said means comprising a primary and an auxiliary section, one of said sections being provided with a downwardly extending end, and the other of said sections being provided with a forwardly extending end.

2. In a device of the class described, the combination with a harrow, a plow head, said plow head being provided with transverse and vertical sockets, a connecting attachment, said attachment comprising a primary and auxiliary section, said primary section being provided with a laterally extending portion having its outer end bent downwardly and then forwardly and at right angles to said laterally extending portion for fitting in said transverse socket of said head, said auxiliary section being provided with a laterally extending portion having its forward end

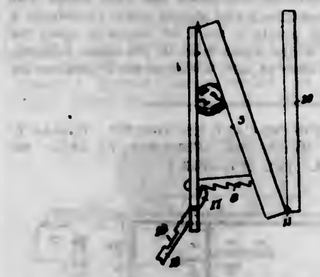




bent downwardly and at right angles to said laterally extending portion and being adapted to fit in the vertically extending slot formed in said plow head, and means carried by said harrow for holding said primary and auxiliary sections in a locked position upon said harrow.

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1,041,531. NUT-CRACKING DEVICE. JAKOB WACHOWITZ, Detroit, Mich. Filed Apr. 16, 1912. Serial No. 691,083. (Cl. 146—3.)



In a nut cracking device, a body having recesses formed therein adapted to receive a nut, a rack having one end pivotally mounted in said body and adapted to have the opposite end thereof swung from said body, a cracking lever having one end pivotally connected to said body and adapted to swing upon said body, and an arm pivotally mounted in said lever and adapted to engage said rack whereby suitable leverage can be brought to bear by said leverage upon a nut in said body.

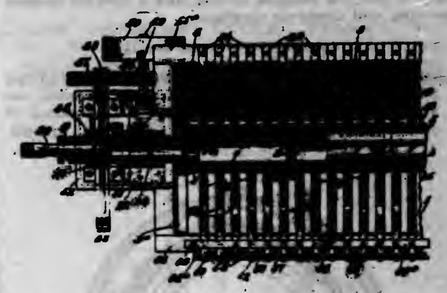
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1,041,532. BOTTLE-CLEANER. EDWARD WAGNER, St. Louis, Mo., assignor to The Model Bottling Machinery Company, St. Louis, Mo., a Corporation of Missouri. Filed July 21, 1905. Serial No. 270,616. (Cl. 141—7.)

1. In a machine of the type set forth, a cleaning-solution containing-cylinder having an outlet, a bottle carrier surrounding the said cylinder, a pressure-pipe passing through one end of said cylinder and carrier and revolubly supporting the same, a shaft passing through and supporting the opposite end of the cylinder and carrier and secured to the cylinder, means for revolving the carrier, and means whereby said outlet of the cylinder may be adjusted with relation to said carrier.

2. In a machine of the type set forth, a cylindrical bottle-carrier having a plurality of circumferential ribs, a plurality of longitudinal resilient strips in engagement with said ribs and a plurality of bottle-supports adapted to hold bottles adjacent to said strips.

3. In a machine of the type set forth, a cylindrical bottle carrier formed with a plurality of circumferential ribs providing channels between each pair, a plurality of resilient strips running at right angles to said ribs, and a plurality of bottle-supports adapted to hold bottles adjacent to said strips.



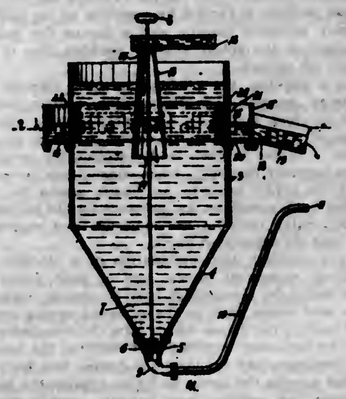
4. In a machine of the type set forth, a cylindrical bottle carrier having a plurality of circumferential ribs, there being a channel between each pair of said ribs, nozzle bottle-supports arranged in rows projecting out of said channels, and longitudinal resilient strips running between each pair of longitudinal rows of bottles.

5. In a machine of the type set forth, a cylindrical bottle carrier having a plurality of circumferential ribs, a plurality of longitudinal strips engaging said ribs, means for binding said strips to said ribs, and a plurality of bottle-supports adapted to hold bottles adjacent to said strips.

[Claims 6 to 17 not printed in the Gazette.]

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1,041,533. COMBINED SETTLER AND FILTER. EMANUEL WAGNER, New York, N. Y. Filed Aug. 12, 1911. Serial No. 643,740. (Cl. 75—86.)



1. In an apparatus of the character described, the combination with a tank having a plurality of discharge openings arranged all over the surface of said tank in a zone included between two parallel horizontal planes below its top, a conduit for supplying a precipitate carrying solution thereto, and a filtering medium covering said discharge openings.

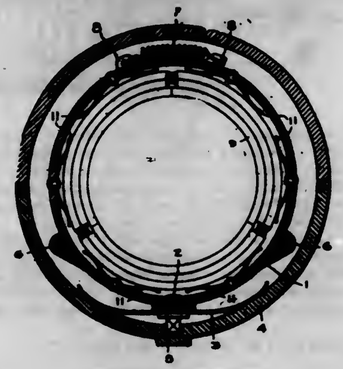
2. In an apparatus of the character described, the combination with a tank having a plurality of discharge openings arranged all over the surface of said tank in a zone included between two parallel horizontal planes below its top, a launder encircling said tank communicating through said openings with said tank, a conduit for supplying a

precipitate carrying solution to said tank, and a filtering medium covering said discharge openings.

3. In an apparatus of the character described, the combination with a tank having a plurality of discharge openings in a zone included between two parallel horizontal planes below its top, of a conduit for supplying a precipitate carrying solution thereto, and a filtering medium covering said discharge openings.

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1,041,534. DIVIDED PACKING-RING FOR ROTATING SHAFTS. PAUL WAGNER, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed Mar. 10, 1911. Serial No. 613,626. (Cl. 121—100.)



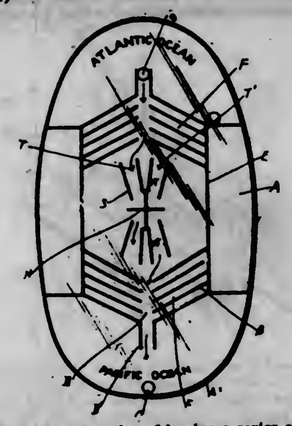
1. In a packing, the combination of a ring-shaped holder made in sections, hinge connections between sections, a means for pressing two of the adjacent sections together, a segmental packing ring that surrounds the rotor, each of whose sections is carried by a section of the holder and is loosely mounted therein, and a means for sustaining the weight of the holder and the packing ring to relieve the rotor of weight.

2. In a packing, the combination of a circular holder comprising segmental sections, each section being U-shaped in cross section, a segmental packing ring, each segment of which is loosely mounted in one of the holder sections, a spring in each holder section for pressing its packing segment inwardly, hinge connections between certain of the holder sections, an elastic means for uniting the other holder sections, an inclosure for the packing, and a spring which rests on the inclosure and supports the holder and its associated parts.

3. In a packing, the combination of a circular holder comprising segmental pieces, one of said pieces being located under the rotor which is to be packed, hinges uniting the said under piece to the others, a spring connected to and uniting the pieces which form the remainder of the holder, an inclosure, a spring that rests on the inner wall of the inclosure and supports the holder and its parts, a stud that secures the spring and also engages the inclosure to prevent the packing from rotating, and a segmental packing ring whose segments are mounted in the holder.

4. In a packing, the combination of a circular holder made in segments, all but one of the pairs of adjacent ends of which are hinged together, a spring arranged on the outside of the segments that secures the other pair of ends together, means securing the ends of the spring to said other pair of segments ends so that at least one end of the spring can be disconnected when desired, a segmental packing ring whose segments are mounted in the holder, springs for pressing the segments of the ring toward the axis of the packing, an inclosing casing for the packing, means for supporting the packing from the casing, and a device for preventing the holder from rotating.

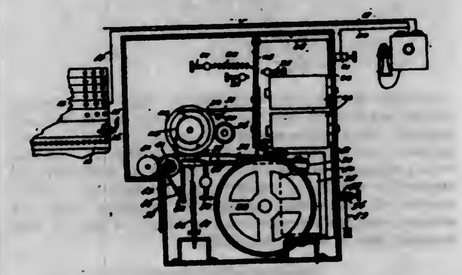
1,041,535. PUZZLE. FRANCIS C. WALLACE, Drummond, Md. Filed June 5, 1911. Serial No. 631,941. (Cl. 46—41.)




A puzzle comprising a board having a series of partitions disposed parallel to one another and at inclinations to the length of the board, the adjacent ends of said series spaced apart and partitions closing their outer ends, oppositely disposed, V-shaped partitions rising from the board and centrally in alinement with the space intermediate said series, inclined partitions positioned one upon either side of said V-shaped partitions and spaced apart therefrom, a rotatable turn stile pivotally mounted centrally upon the board and having wings which turn in the space intermediate the adjacent ends of said V-shaped partitions, as set forth.

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1,041,536. TELEPHONE-CALL RECORDER. HAROLD L. WARWICK, Fort Worth, Tex. Filed Apr. 15, 1912. Serial No. 690,989. (Cl. 234—33.5.)



1. A telephone call recorder comprising a multiple switch-board, line circuits connected thereto, local stations on said line circuits, an impulse sending mechanism consisting of a plurality of graduated operating elements any one of which is provided with means for connecting with any unit of said switch board, and including a wheel carrying means for switching from a lower voltage in said circuits to a higher voltage, and means at the local station for recording the impulses sent over said line wires.

2. A telephone call recorder comprising a multiple switch-board, line circuits connected thereto, local stations on said line circuits, an impulse sending mechanism consisting of a plurality of independent graduated operating elements any one of which is provided with means for connecting with any unit of said switch-board and including a plurality of contacts acting successively and the last contact doubling the voltage, and means at the local station for recording the impulses sent over said line wires.



2. A telephone call recorder comprising a multiple switch-board, line circuits connected thereto, local stations on said line circuits, an impulse sending mechanism consisting of a plurality of independent operating elements for sending one or more impulses and each element including contacts corresponding to impulses to be sent and the last contact doubling the voltage, means for connecting any one of said elements to said switch board, and means at the local stations for recording the last impulse sent over said line circuits by each one of said operating circuits.

4. A telephone call recorder comprising a multiple switch-board, line circuits connected thereto, local stations on said line circuits, an impulse sending mechanism consisting of a plurality of independent operating elements each including a rotatable wheel and a contact maker for lower voltage and a contact maker for higher voltage cooperating with said wheel for sending one or more impulses over any one of said line wires, means for connecting any one of said operating elements with any unit of said switch-board, and means at the local station for recording impulses sent over said line wires.

5. A telephone call recorder comprising a multiple switch-board, line circuits connected thereto, local stations on said circuits, an impulse sending mechanism consisting of a plurality of independent operating elements each including a rotatable wheel and means coöperating with said wheel for sending currents of different voltage over said line circuits, means for connecting any one of said operating elements to any unit of said switch-board, and means at a local station for recording impulses sent over the line circuit to said station.

[Claims 6 to 11 not printed in the Gazette.]

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1,041,537. SHADE OR CURTAIN FIXTURE. ARTHUR G. WATKINS, Mechanicsburg, Pa., assignor of one-fourth to David J. Beitzel, Mechanicsburg, Pa. Filed Feb. 16, 1912. Serial No. 677,990. (Cl. 156—24.)

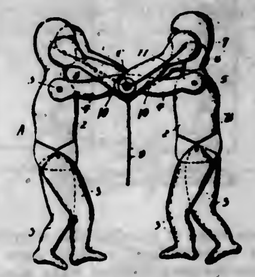


1. A fixture of the character described comprising an attaching plate having apertured ears at its ends, a longitudinal slot in its front wall between said ears, a longitudinal recess opening through the rear face of said plate, said recess being V-shaped in cross section and communicating at its front with said slot and providing beveled top and bottom binding surfaces, the rear face of the plate and rear faces of the ears providing bearing surfaces flush with each other and adapted to lie snugly against the window frame, fastening members adapted to be passed through the apertured ears to clamp the attaching plate in position, and a supporting member having a shank passing through and adjustable in said slot and carrying a lug wholly inclosed within and adjustable in said recess, said lug having beveled binding surfaces to engage the beveled faces of the recess and a flat rear bearing face bearing against the wall of the window frame, said bearing face normally lying flush with the bearing faces of the attaching plate when said plate is fully secured in position, whereby the lug will be clamped in place and whereby upon loosening one of the fastening members said lug may be adjusted and again clamped by tightening said fastening member.

2. A fixture of the character described comprising an attaching plate having end attaching means and provided in its front with a longitudinal slot and in its rear with a longitudinal recess, said recess being provided with beveled binding walls, and a supporting member having a shank adjustable in said slot and carrying a lug adjustable in said recess and provided with coacting beveled binding walls, said member being also provided with a bracing arm terminating in a bearing plate having projecting pins adapted to be pressed into the face of the window frame.

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1,041,538. AMUSEMENT DEVICE. WILLIAM F. WATKINS, Butte, Mont., assignor of one-eighth to Eugene Hines and one-fourth to Harvey A. Tucker, Butte, Mont. Filed May 8, 1912. Serial No. 696,029. (Cl. 46—40.)



1. In a device of the class described, the combination of opposing figures, connecting members normally holding the figures in spaced relation, arm sections carried by said members, and means for manipulating the figures and arm sections aforesaid.

2. In a device of the class described, the combination of opposing figures, connecting members normally holding the figures in spaced relation, arm sections carried by said members, and means connected directly to the arm sections for manipulating the figures and arm sections aforesaid.

3. In a device of the class described, the combination of opposing figures, connecting members normally holding the figures in spaced relation, arm sections carried by said members, means normally maintaining the arm sections in operative position, and means for manipulating the figures and arm sections aforesaid.

4. In a device of the class described, the combination of opposing figures, connecting members normally holding the figures in spaced relation, a pair of arm sections mounted on each connecting member, springs normally holding the arm sections in operative position, and operating cords connected with the sections for manipulating the figures and arm sections.

5. In a device of the class described, the combination of opposing figures, connecting members normally holding the figures in spaced relation, a pair of arm sections mounted on each connecting member, springs normally holding the arm sections in operative position, and operating cords connected to the corresponding arm sections of each pair aforesaid, whereby pivotal movement will be imparted to the sections in opposite directions.

[Claims 6 to 8 not printed in the Gazette.]

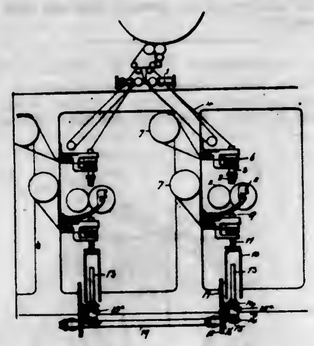
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1,041,539. APPARATUS FOR SPINNING YARN. CHARLES WHATHERHEAD, Bradford, England. Filed June 8, 1912. Serial No. 702,563. (Cl. 118—13.)

1. In an apparatus of the character described, the combination of a reciprocatingly-mounted plate, brackets on said plate provided with extensions, supports pivoted on said extensions for swinging into engagement with said brackets, means on said brackets for detachably locking said supports in engagement therewith, and bobbin spindles carried by said pivoted supports for swinging into and from winding position.

2. In an apparatus of the character described, the combination of a reciprocatingly-mounted plate, brackets on said plate provided with recessed seats, supports pivotally mounted on said brackets for swinging into engagement with said recessed seats, means on said brackets for de-

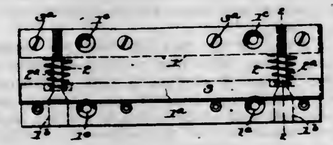
tachably locking said supports on said seats, and bobbin spindles carried by said pivoted supports for swinging into and from winding position.



3. In an apparatus of the character described, the combination of a reciprocatingly-mounted plate, brackets on said plate provided with recessed seats, sleeves pivotally mounted on said brackets for swinging into engagement with said recessed seats, latches on said brackets for detachably locking said sleeves on said seats, and bobbin spindles rotatably mounted in said pivoted sleeves for swinging into and from winding position.

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1,041,540. SPRING FILLER OR CUT-OFF FOR USE IN CONNECTION WITH MOLDING MACHINERY. GEORGE PATCHETT WHITE, Wallace, Idaho, assignor to J. A. Ferguson, Denver, Colo. Filed June 8, 1911. Serial No. 632,048. (Cl. 25—119.)

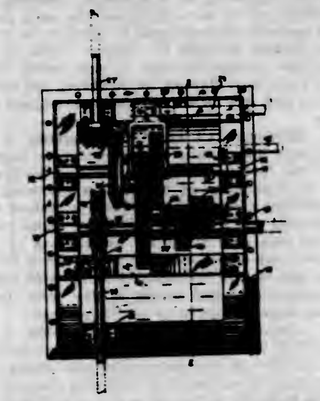


1. In combination a pair of spring fillers each comprising opposite bars, means normally separating these bars to expand the fillers, and means for limiting the expansion of the fillers; with expanders interposed between the similar bars of the adjacent fillers and connected therewith.

2. In combination with a pair of spring fillers each comprising opposite bars, means normally separating these bars to expand the filler, means for limiting the expansion of the filler, and a plate attached to one bar and bridging the space between the bars; with expanders interposed between the similar bars of the adjacent fillers and detachably connected therewith.

3. A spring filler for irregularly shaped molds comprising a pair of bars, springs interposed between the bars for separating them, means connected to one bar and slidably engaging the other for limiting the expansion of said bars, plate sections bridging the space between the bars, certain sections being attached to one bar and slidably contacting the opposite bar, and other irregular shaped sections being attached to the latter bar and projecting across the space between the bars and slidably contacting the opposite bar, said irregular sections also projecting beyond the outer edge of the bar to which they are attached, so as to fit an irregular part of the mold, substantially as described.

1,041,541. TRANSMISSION-GEARING. LEAMAN WHITLOCK and IRA S. WHITLOCK, Ephratah, N. Y. Filed Mar. 26, 1912. Serial No. 686,243. (Cl. 74—68.)

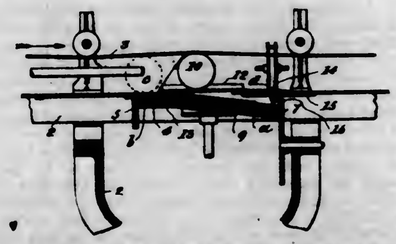


1. In gearing of the class described, a group of sliding gears, a shaft whereon said gears slide, and means to move said gears on said shaft comprising a yoke having ends hooked over said shaft, a bar extending parallel to the shaft and secured to said yoke, and means to guide said bar in parallelism with the shaft.

2. In gearing of the class described, a group of sliding gears, a shaft whereon said gears slide, and means to move said gears on said shaft comprising a yoke having ends hooked over said shaft, a bar extending parallel to the shaft and secured to said yoke, and means to guide said bar in parallelism with the shaft, said means including a slotted guide block provided with a cover plate having a turned down end to engage one side of the guide block, and securing means for the other end of said cover plate whereby a single bolt serves to hold the cover plate in fixed position.

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1,041,542. LABELING-MACHINE. FREDERICK W. WILD, Jr., Baltimore, Md., assignor to Burt Machine Company, a Corporation of Delaware. Filed Feb. 19, 1912. Serial No. 678,654. (Cl. 216—48.)

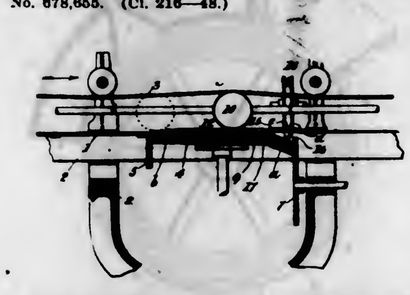


In a labeling machine, an entrance runway for the cans, a label holder the rear portion of which has a downward inclination, and the forward portion of which has a horizontal position, whereby the holder is adapted to sustain the elevated end of a stack of wrappers in practically horizontal alinement with the entrance runway, means to hold the stack of wrappers down upon its holder and from under which the upper wrapper is drawn by the rolling can, and an elevated track for the cans which is situated in the rear of the forward end of the label holder, combined with a transversely moving pasting belt over the lower lay of which the can is adapted to pass, and a conveyer belt arranged to roll the cans over a limited portion of the upper wrapper of the stack, and then along the elevated track to and across the lower lay of the pasting belt, substantially as specified.



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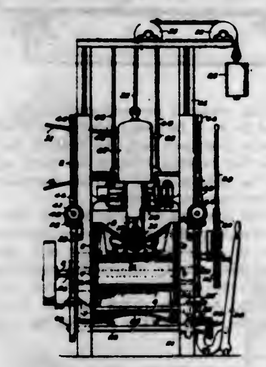
1,041,543. LABELING-MACHINE. FREDERICK W. WILD, Jr., Baltimore, Md., assignor to Burt Machine Company, a Corporation of Delaware. Filed Feb. 19, 1912. Serial No. 678,655. (Cl. 216—48.)



In a can labeling machine, an entrance runway for the cans, and a label holder adapted to hold a stack of labels in the path of the cans, combined with a plate which covers a portion of the label holder at the rear end thereof, the said plate having a transversely extending groove therein, and a pasting belt adapted to traverse the said grooves, substantially as, and for the purpose specified.

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1,041,544. APPARATUS FOR MANUFACTURING RUBBER TIRES, &c. EMERY T. WILLIAMS, Akron, Ohio. Filed Nov. 5, 1910. Serial No. 590,852. (Cl. 154—10.)



1. A machine of the character described comprising an elastic apron, a core or mandrel adapted to engage said apron and press it out of its normal plane at the point of contact, means on the opposite side of the apron to the core for causing the apron to conform to contour of the core when said apron is engaged by the latter, and means for effecting the movement of the first-mentioned means to exert a pressure along the apron where it contacts with the core or mandrel.

2. A machine of the character described comprising a core or mandrel, an elastic medium adapted to be engaged by the core, and adjustable members arranged on the opposite side of the elastic medium to the core, for the purpose set forth.

3. A machine of the character described comprising a mandrel or core, an elastic apron, and spaced wheels acting upon the apron to coöperate with the mandrel to form a mold.

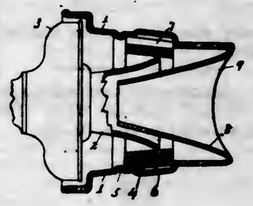
4. A machine of the character described comprising a mandrel of permanent form, a rotary elastic apron, and spaced wheels acting upon said apron to coöperate with the mandrel to form a mold.

5. A machine of the character described comprising a mandrel of permanent form, an elastic apron, spaced wheels acting upon said apron to coöperate with the mandrel to form a mold, and means for simultaneously adjusting said wheels with relation to the mandrel.

[Claims 6 to 12 not printed in the Gazette.]

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1,041,545. SECONDARY MOUTHPIECE FOR TELEPHONE-TRANSMITTERS. SAMUEL S. WILLIAMSON, Philadelphia, Pa. Filed Feb. 19, 1912. Serial No. 678,643. (Cl. 179—188.)



1. As a new article of manufacture, a secondary mouth piece for telephone transmitters made of a single piece of glass and having a body for surrounding the ordinary mouth piece and the head of the transmitter, and an extension adapted to project into the ordinary mouth piece as specified.

2. A secondary mouth piece for telephone transmitters consisting of a body divided into two compartments by a compressible and elastic ring and a funnel shaped extension projecting into the body and adapted to pass into the ordinary mouth piece of the telephone instrument when the device is placed in position thereon as specified.

3. In a secondary mouth piece for telephone transmitters the combination of a body, a funnel shaped extension formed therewith and projecting within said body, an annular shoulder formed on the interior of the body, a ring secured in place by said shoulder and an enlargement in the body forming a recess around the ring for giving the latter limited movement as and for the purpose set forth.

4. As an article of manufacture, a muffler formed from a single piece of material provided with an inwardly projecting extension, open at both ends and a mouth piece adapted to inclose the head of the transmitter and the ordinary mouth piece while the extension projects into said ordinary mouth piece.

5. As an article of manufacture, a muffler formed from a single piece of material provided with an inwardly projecting extension open at both ends, a mouth piece adapted to inclose the head of the transmitter and the ordinary mouth piece while the extension projects into said ordinary mouth piece and means for holding the muffler upon the instrument.

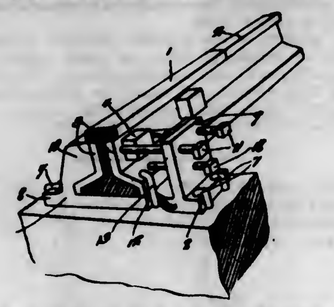
[Claim 6 not printed in the Gazette.]

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1,041,546. RAIL-CLAMPING PLATE-FASTENER. ALFORD PERVIS WILLOUGHBY, Olney, Tex. Filed Jan. 6, 1912. Serial No. 669,781. (Cl. 238—2.)

In combination, a pair of rails, fish plates for joining the rails end to end, bolts penetrating the fish plates and the rails for securing them together, a pair of clamping plates having upstanding portions at their ends and considerably spaced apart, bolts penetrating one of the upstanding portions of each of the plates to engage one of the fish plates to hold the other fish plate closely in con-

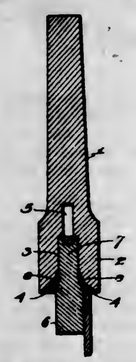
tact with the other upstanding portion, the bolts of the upstanding portions engaging the head of the bolts of the



fish plates in such wise as to prevent longitudinal movement of the rails.

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1,041,547. COMBINED SAW SET AND SWAGE. THOMAS N. WILSON, Spokane, Wash. Filed Feb. 1, 1912. Serial No. 674,710. (Cl. 76—72.)



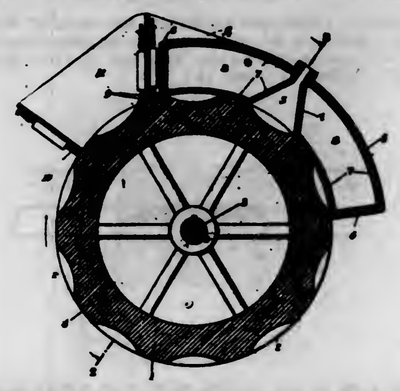
A combined saw swage and set comprising a body portion having on one end a head provided with an annular socket, said socket having its outer end flared to form an annular, curved tooth engaging surface, an anvil having a reduced cylindrical shank adapted to be driven into said socket, said anvil projecting a considerable distance beyond the outer end of the socket, and head, and forming an annular tooth receiving space between the same and the annular wall of said socket, whereby when the tool is applied to the teeth of the saw for the purpose of swaging and setting the same, the annular walls of the socket and the shank of the anvil will simultaneously form channels in the teeth.

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1,041,548. CONVEYING AND DISCHARGING APPARATUS. WYLIE GEMMEL WILSON, Elizabeth, N. J., assignor to W. G. Wilson Company, Montclair, N. J., a Corporation of New Jersey. Filed Aug. 29, 1911. Serial No. 646,676. (Cl. 193—10.)

1. The combination of a wheel-shaped conveyer the periphery of which is provided with pocket-forming recesses spaced apart one from another; an elastic covering for the pocketed periphery of the conveyer; a rigid casing for the ends, opposite sides and the outward surface of said covering, said covering and the casing being provided with an inlet and with an outlet that register through a pocket of the conveyer.

2. The combination of a wheel-shaped conveyer the periphery of which is provided with pocket-forming recesses spaced apart one from another; an elastic covering for the pocketed periphery of the conveyer; a rigid casing for the ends, opposite sides and the outward surface of said covering, said covering and the casing being provided with an inlet and with an outlet that register



through a pocket of the conveyer, and a hopper and scrapers that contact with the periphery of the conveyer between its pockets.

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1,041,549. ROBE-RAIL FOR AUTOMOBILES. ALEXANDER WINTON and HAROLD B. ANDERSON, Cleveland, Ohio, assignors to The Winton Motor Carriage Company, Cleveland, Ohio. Filed Sept. 11, 1911. Serial No. 648,801. (Cl. 45—13.)



1. In a folding robe-rail for automobiles, the combination with a seat back, of two separated projecting brackets secured thereto, a U-shaped rail, the ends of the rail and the brackets having tapered friction bearings, and spring means forcing the said tapered friction bearings into engagement for the purpose described.

2. In a folding robe-rail for automobiles, the combination with a seat-back, of two separated projecting brackets secured thereto, of a one-piece U-shaped rail, the rail and brackets having respectively telescoping tapered recesses and projections, the main portion of the rail having normally a lateral bend to cause friction between said projections and the walls of the recesses for the purpose described.

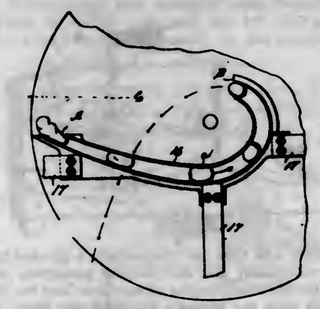
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1,041,550. FORMING-MACHINE. ROY A. WITHERILL, Birmingham, Ala. Filed Aug. 30, 1910. Serial No. 579,673. (Cl. 107—9.)

1. In a machine for molding plastic materials, a rotatably mounted carrier embodying a vertically disposed disk, a former disposed at one side of the disk and opening at one side directly onto the disk, the said former being of a gradually decreasing diameter from its point of material discharge to its point of material introduction and having its discharge end disposed above the axis of the carrier, and a conveyer located below the plane of the former and forwardly of the discharge end of the said former.

2. In a machine for molding plastic materials, a vertically disposed rotatably mounted carrier, a former disposed at one side of the carrier and opening at one side directly onto the same, the said former being of a gradually decreasing diameter from its point of material discharge to its point of material introduction, the major portion of said former being arranged below and angularly with respect to the axis of the carrier, the minor portion of said former being arranged substantially concentric with respect to the axis of the carrier, and said former having its discharge end arranged in a plane above the axis of the carrier, substantially as, and for the purpose, described.

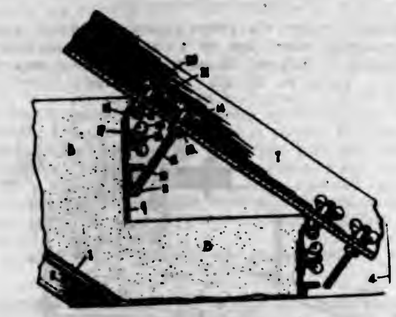




3. In a machine for molding plastic materials, a table, a vertically disposed rotatably mounted carrier supported by said table, brackets secured to the table, a former detachably secured to the said table by means of the brackets and disposed at one side of the carrier and opening at one side directly on to the latter, the said former being of a gradual decreasing diameter from its point of material discharge to its point of material introduction, and having its discharge end disposed above the axis of the carrier, and a conveyer located below the plane of the former.

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1,041,551. APPARATUS FOR MOLDING CONCRETE STAIRCASES. CHARLES H. WITTHOEFFT, St. Louis, Mo., assignor to Witthoefft Collapsible Concrete Forms Company, St. Louis, Mo., a Corporation of Missouri. Filed Nov. 17, 1910. Serial No. 592,791. (Cl. 25—118.)



1. In a concrete staircase mold, a foundation device, top bars extending longitudinally of the staircase, and a series of sectional riser mold plates arranged below and supported by said top bars, each of said riser mold plate sections being adjustably connected to the top bars.

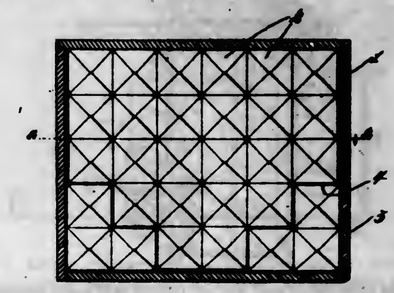
2. In a concrete staircase mold, a foundation device, top bars extending longitudinally of the staircase, riser mold plates interposed between the top bars and the foundation device, and setting rods by which said mold plates are adjustably connected to said top bars.

3. In a concrete staircase mold, a foundation device, top bars extending longitudinally of the staircase, riser mold plates interposed between the top bars and the foundation device, and setting rods pivoted to said mold plates and connected to said top bars.

4. In a concrete staircase mold, a foundation device, top bars extending longitudinally of the staircase, sectional riser mold plates interposed between the top bars and the foundation device, setting rods secured to each mold plate independently of setting rods secured to other mold plates, and means whereby said setting rods are adjustably connected to said top bars.

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1,041,552. PACKAGE-DISPLAY APPARATUS. FRANK WOKOUN, New York, N. Y. Filed Jan. 19, 1912. Serial No. 672,145. (Cl. 206—46.)

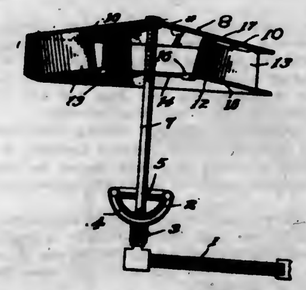


1. A shipping parcel of box-form composed of a plurality of packages piled in rows, and a display device for the same of shell-form, receiving a portion of said packages therein, and having a stepped wall passing between the rows of packages.

2. A shipping parcel of box-form composed of a plurality of packages piled in rows, and a display device for the same of shell-form, receiving a portion of said packages therein, and having a stepped wall passing between the rows of packages, the steps of said wall being of substantially the same linear dimensions as said packages.

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1,041,553. GAS-HEATER. PAUL FREDERICK WOLDAN, Brooklyn, N. Y. Filed Oct. 11, 1911. Serial No. 654,166. (Cl. 126—248.)



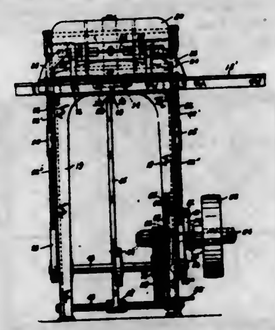
A device of the class described comprising a burner, supporting means carried by said burner, a heating drum carried by said supporting means and comprising a dome-shaped upper disk, a sloping auxiliary disk, said auxiliary disk being provided with a central opening, sheets of asbestos on the lower sides of said disks, spacing webs positioned between said disks and provided with lugs adapted to pass therethrough and through said sheets of asbestos and to be bent in opposite directions to hold said disks, sheets of asbestos, and spacing webs in their operative position.

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1,041,554. PIECING-MACHINE FOR PAPER-BOX BLANKS. ALBERT WORCESTER, New York, N. Y. Filed Feb. 15, 1912. Serial No. 677,652. (Cl. 92—55.)

In a piecing machine for paper-box blanks, the combination with a table provided upon its front portion with a plurality of stops for predetermining the position of a piece of card board placed thereon and with a receptacle adapted to contain a stack of card boards, of a reciproc-

cable bar carrying means for feeding the lowermost of the stack of card-boards onto said table to said first card board so that portions of said first card board and the card board fed thereto overlap each other, paste applying means shiftably arranged upon the underside of said table,



means attached to said bar for forcing said paste applying means to a portion of the underside of the card board fed from said stack while moving from said stack toward said first named card board, and means for applying pressure to the overlapping portions of the two card boards.

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1,041,555. TYPE-WRITER CARRIAGE-FEED. JESSE ALEXANDER, New York, N. Y., assignor of one-half to Hudson Bidwell, New York, N. Y. Filed June 22, 1911. Serial No. 634,704. (Cl. 197—88.)



1. In a typewriting carriage feeding mechanism, a toothed carriage rack, two dogs normally engaging said rack, a third dog adapted to engage said rack when said first mentioned dogs are disengaged, universal bar operated means for oscillating said dogs and key controlled means for moving one of said dogs laterally.

2. In a typewriting carriage feeding mechanism, two escapement dogs, a common support therefor, a toothed rack normally engaging said dogs, means for oscillating said dogs and key-controlled means for moving one of said dogs.

3. In a typewriting carriage feeding mechanism, an oscillating shaft, two dogs carried thereby, a toothed rack engaging said dogs and means for moving one of said dogs toward the right with the rack while the other dog snaps by the teeth of the rack.

4. In a typewriting carriage feeding mechanism, two dogs pivoted on pivots parallel to each other and extending from front to rear, means for oscillating said dogs from front to rear, a toothed rack coöperating with said dogs and key-controlled means for moving one of said dogs toward the right.

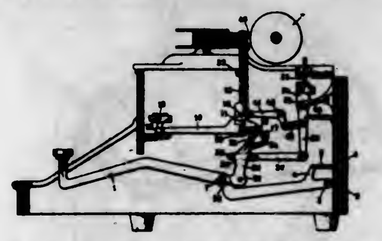
5. In a typewriting carriage feeding mechanism, an escapement mechanism consisting of a rocker and two dogs carried thereby, one of said dogs being movable relatively to the other and a third dog having a moving tension in line with the relatively movable first mentioned dog.

[Claims 6 to 12 not printed in the Gazette.]

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1,041,556. TYPE-WRITER ACTION. JESSE ALEXANDER, New York, N. Y., assignor of one-half to Hudson Bidwell, New York, N. Y. Filed June 22, 1911. Serial No. 634,705. (Cl. 197—27.)

1. In a key and type bar mechanism, a pivoted key lever, a pivoted type bar, a pivoted intermediate lever connected to said key lever, a link connecting said intermediate lever and said type bar, said type bar and said intermediate lever each having a projecting arm in rear of said link, said arms being adapted to coöperate with each other through a part of their movement.



2. In a key and type bar mechanism, a pivoted type bar having a rearwardly and downwardly projecting arm and a lug located between the end of said arm and the printing end of said type bar beneath the type bar pivot, a lever having an arm for coöperating with said type bar arm through a part of its movement and a link connecting said lever and said lug on said type bar.

3. In a type bar action, a type bar, a pivot therefor, a roller carried by said type bar, a pivoted lever having an arm for engaging said roller and a link connecting said arm and said type bar.

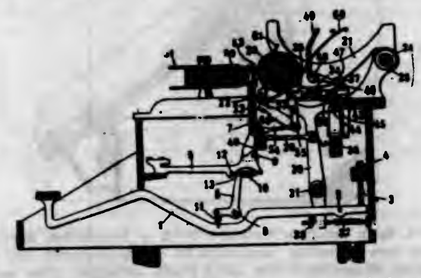
4. In a type bar action, a type bar, a pivot therefor, a roller carried by said type bar, a pivoted lever having an arm for engaging said roller and a link connecting said arm and said type bar beneath said pivot.

5. In a type bar action, a type bar, a pivot therefor, a roller carried by said type bar, a pivoted lever having an arm for engaging said roller and a link connecting said arm and said type bar beneath said pivot and between said roller and the printing end of said type bar.

[Claims 6 to 9 not printed in the Gazette.]

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1,041,557. TYPE-WRITER CARRIAGE-FEED. JESSE ALEXANDER, New York, N. Y., assignor of one-half to Stephen C. Halstead, Brooklyn, N. Y. Filed Mar. 30, 1912. Serial No. 687,353. (Cl. 197—88.)



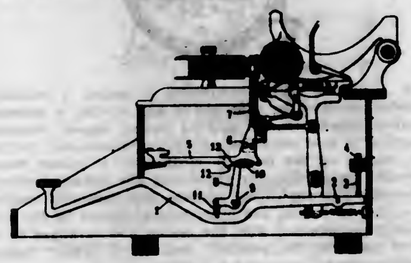
1. In a typewriting machine, a carriage rack having teeth on its front and rear edges, a rocker having two dogs for coacting with said teeth, a key operated means for oscillating said rocker in one direction, a spring for oscillating said rocker in the other direction, one of said dogs being stationary relative to said rocker, a support for the other dog carried by said rocker on a pivot parallel with said rack, a spring engaging said support, a vertical pivot carried by said support for its dog and a spring interposed between said dog and said support and means for tilting said support on its pivot to retract its dog without moving the rocker.

2. In a typewriting machine, a carriage rack having teeth on its front and rear edges, a rocker having dogs for coacting with said teeth, means for oscillating said rocker backward and forward, one of said dogs being fixed relative to said rocker, a support for the other dog pivotally carried by said rocker on a pivot parallel with said rack, a vertical pivot carried by said support for its dog, a spring interposed between said latter dog and said support, a rod pivotally carried by the carriage and extending across the machine and engaging said support and a finger-piece connected with said rod for tilting said rod and tilting said support to retract the dog carried thereby.

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1,041,558. TYPE-WRITER ACTION. JESSE ALEXANDER, New York, N. Y., assignor of one-half to Stephen C. Halstead, Brooklyn, N. Y. Filed Mar. 30, 1912. Serial No. 687,354. (Cl. 197—27.)



1. In a key and type bar mechanism, a pivoted type bar having a shoulder, a lever having one end adapted to engage said shoulder for starting said type bar and a spring connecting said lever and said type bar.

2. In a key and type bar mechanism, a vertical type bar plate, a type bar pivoted therein and having an extension in rear and below its pivot and a shoulder in front of and below its pivot, a lever adapted to engage said shoulder and a spring connecting said lever and said extension.

3. In a key and type bar mechanism, a vertical type bar plate, a type bar pivoted therein and having an extension in rear and below its pivot and a shoulder in front of and below its pivot, a lever adapted to engage said shoulder, a spring connecting said lever and said extension, a key lever and a spring connecting said key lever and said first mentioned lever.

4. In a key and type bar mechanism, a type bar, a pivoted intermediate lever, a spring connecting said intermediate lever and said type bar, a pivoted key lever, a spring connecting said key lever and said intermediate lever and a compression spring engaging said key lever.

5. In a key and type bar mechanism, a pivoted type bar having a downward and rearward extension, an operating lever and a spiral spring connecting said operating lever and said extension.

[Claims 6 and 7 not printed in the Gazette.]

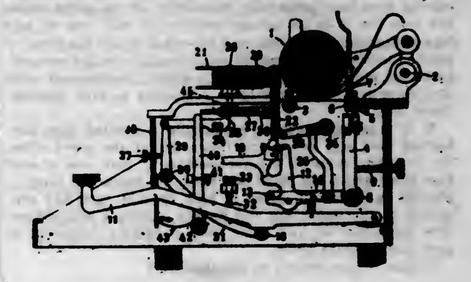
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1,041,559. TYPE-WRITING-MACHINE RIBBON FEEDING AND OPERATING MECHANISM. JESSE ALEXANDER, New York, N. Y., assignor of one-half to William H. Keating, New York, N. Y. Filed May 7, 1912. Serial No. 695,599. (Cl. 197—154.)

1. Ribbon mechanism comprising horisontal feeding ratchets, horisontally movable pawls therefor, a horisontal shaft having arms connected to the front ends of said pawls, arms projecting downwardly and rearwardly from said shaft, a universal bar connected to the rear end of the latter arms and key levers extending over said universal bar and adapted to operate the same.

2. Ribbon mechanism comprising horisontal feeding ratchets, horisontally movable pawls therefor, a transverse rocker shaft, vertical arms carried thereby and connected at their upper ends to the forward ends of said pawls, a stationary front plate immediately in front of said arms and an adjusting stop screw passing through said front plate for adjusting one of said arms.

3. Ribbon mechanism comprising horisontal ratchets, horisontally movable pawls therefor, means for vibrating said pawls, a releasing lever at each side of the machine pivoted on a horisontal axis having its upper end located adjacent one of said pawls and a reversing rod connected to the lower ends of said levers and transversely movable for operating said levers and yielding means for holding said rod.



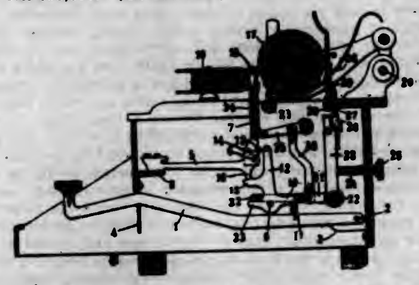
4. Ribbon mechanism comprising horisontal ratchets, horizontally movable pawls therefor, a transverse shaft, arms projecting upwardly therefrom and connected to the front ends of said pawls, vertical levers pivoted on horizontal axes for forcing said pawls out of operative position and a transversely movable rod for operating said levers.

5. Ribbon mechanism comprising horisontal ratchets, horisontally movable pawls therefor, a transverse shaft, arms projecting upwardly therefrom and connected to the front ends of said pawls, vertical levers pivoted on horizontal axes for forcing said pawls out of operative position, a transversely movable rod for operating said levers and screws passing through the front plate of the machine for adjusting the movement of said arms.

[Claim 6 not printed in the Gazette.]

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1,041,560. TYPE-WRITER ACTION. JESSE ALEXANDER, New York, N. Y., assignor of one-half to William H. Keating, New York, N. Y. Filed May 7, 1912. Serial No. 695,600. (Cl. 197—27.)



1. A typewriter action comprising a pivoted key lever, a pivoted intermediate lever, a spring connecting said levers, a pivoted type bar, a spring connecting said type bar and said intermediate lever, said intermediate lever and said type bar having lugs with inclined edges having a sliding engagement at the beginning of the stroke.

2. A typewriter action comprising a pivoted key lever, a pivoted intermediate lever, a spring connecting said levers, a pivoted type bar, a spring connecting said type bar and said intermediate lever, said intermediate lever and said type bar having lugs with inclined edges having a sliding engagement at the beginning of the strobe, and a universal bar operated by the intermediate lever.

3. A typewriter action comprising a pivoted key lever, a pivoted intermediate lever, a spring connecting said levers, a pivoted type bar, a spring connecting said type bar and said intermediate lever, said intermediate lever and said type bar having lugs with inclined edges having a

sliding engagement at the beginning of the stroke, a universal bar operated by the intermediate lever and a spring for returning the universal bar to its normal position, said universal bar tending to return the intermediate levers to their normal positions.

4. A typewriter action comprising a pivoted type bar having two lugs projecting forwardly of the pivot when the type bar is in its normal position of rest, one of said lugs being above the pivot and the other below the pivot, a pivoted intermediate lever in rear of said type bar connected to the upper lug and having a sliding engagement with the lower lug and a key lever connected to said intermediate lever.

5. A typewriter action comprising a pivoted type bar, having two lugs projecting forwardly of the pivot when the type bar is in its normal position of rest, one of said lugs being above the pivot and the other below the pivot, a pivoted intermediate lever in rear of said type bar connected to the upper lug and having a sliding engagement with the lower lug and a key lever yieldingly connected to said intermediate lever.

[Claim 6 not printed in the Gazette.]

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1,041,561. BOTTLE-STOPPER. ERNEST E. ALLEN, Portland, Oreg. Filed July 2, 1910. Serial No. 570,145. (Cl. 215—56.)



The combination in a bottle stopper of a tubular member having a head formed upon one end thereof and tapered toward its upper terminal, said head producing a resultant shoulder, a flexible sleeve bearing against the underside of the shoulder and surrounding the tubular member, said sleeve being less in width than the width of the shoulder whereby when the sleeve is inserted in a neck of a bottle, the shoulder will contact with the mouth thereof, the said tubular member having a longitudinal bore curved at its upper end and terminating in a reduced portion extending through the head, an internal flange formed adjacent the opposite end of the body portion producing a resultant shoulder, a ring threaded within the body portion for contact with the shoulder, said ring being formed to produce a valve seat, a ball valve slidable within the bore for engagement with the valve seat and curved end of the bore to which it conforms, and grooves formed within the body portion of the stopper and extending from the upper side of the internal flange within the reduced portion of the bore whereby when the valve engages the seat, the interior of the bottle will be hermetically sealed, and when the valve engages the curved portion of the bore, the contents of the bottle will be permitted to pass out through the grooves and reduced portion of the said bore.

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1,041,562. TURBINE. WILLIAM ANDERSON, Parkland, Wash., assignor of one-third to Tom S. Helland, Parkland, Wash. Filed Mar. 12, 1912. Serial No. 683,327. (Cl. 121—58.)

1. A turbine engine comprising a supply conduit for a pressure medium, a revoluble member, impulse wheels mounted in said member at opposite sides of its axis, and means operable by the impulse wheels for causing rotation of the revoluble member.

2. A turbine engine comprising a supply conduit for a pressure medium, a revoluble member, an impulse wheel mounted in said member at one end and adapted to receive impact of the pressure medium, a second impulse wheel mounted in the revoluble member at its other end and adapted to receive impact of the pressure medium after it leaves the first mentioned wheel, and means operable by the impulse wheels to impart rotation to the revoluble member.



3. A turbine engine comprising a casing, a revoluble member mounted in said casing and having a pressure medium supply conduit and an outlet, impact members mounted in said revoluble member to successively receive the impact of the pressure medium as it passes therethrough, means operably connecting the impact members aforesaid with the casing whereby said revoluble member is caused to rotate, and other means carried by the said member coöperating with the casing and arranged to be acted upon by the pressure medium to impart supplementary rotary movement to said member.

4. A turbine engine comprising a casing having a plurality of peripheral abutments, a revoluble member mounted in said casing and having a pressure medium supply conduit therefor, an impulse wheel mounted in said member to receive the impact of the pressure medium, means operable by the impulse wheel to impart rotation to the revoluble member, and a nozzle carried by said member arranged to direct the pressure medium against the abutments aforesaid to supplement the rotative action imparted to the revoluble member by the impulse wheel aforesaid.

5. A turbine engine comprising a casing, a shaft journaled in said casing and having a pressure medium supply conduit, a revoluble member carried by said shaft having chambers therein each provided with inlet and outlet passages and said member also having an outlet port, impulse wheels rotatably mounted in the chambers aforesaid and comprising a plurality of blades against which the pressure medium impinges as it issues from the inlets aforesaid, gears connected to the wheels aforesaid, a gear secured to the casing interposed between and intermeshing with the gears on the wheels whereby the member aforesaid is caused to revolve, and means on the casing to receive the impact of the pressure medium as it issues from the outlet of said revoluble member.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,563. CURTAIN-FIXTURE. VINCENT ANDREJKOVITS, Wallingford, Conn. Filed July 8, 1912. Serial No. 708,278. (Cl. 156—20.)

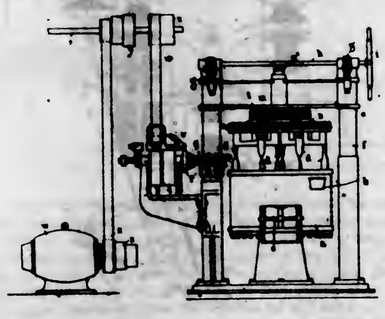


The combination with a hollow cylindrical pole having a slot formed therein extending from one end of said pole to the opposite end thereof, of hangers slidably mounted in the slot of said pole, each hanger comprising a strap having the upper end thereof slitted to provide angularly disposed lugs adapted to retain the hanger in engagement with said pole, a horizontal support carried by the lower end of said strap, and a U shaped clamping member having one end thereof pivotally connected to said strap, said clamping member having action of a cam for frictionally holding the upper edge of the curtain in engagement with the support of said strap.



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1,041,564. SOLIDIFICATION OF HYDROCARBON OILS. JAMES TARBOTTON ARMSTRONG, London, and JAMES MORDAN, Hughenden, England. Filed May 4, 1912. Serial No. 695,142. (Cl. 44—7.)



1. A process for the manufacture of solidified hydrocarbon oils consisting in mixing a hydrocarbon oil with a binding and emulsifying agent at a high speed until an emulsion is formed and continuing the mixing after the emulsion has been formed until a fluffy product is obtained, substantially as set forth.

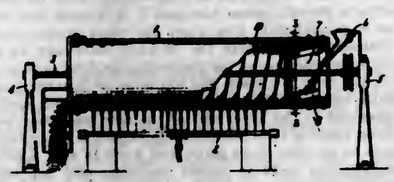
2. A process for the manufacture of solidified hydrocarbon oils consisting in mixing a hydrocarbon oil with a binding and emulsifying agent at a high speed until an emulsion is formed and continuing the mixing after the emulsion has been formed so long and at an increased rate of speed until a fluffy product is obtained, substantially as set forth.

3. A process for the manufacture of solidified hydrocarbon oils consisting in mixing at a high speed a hydrocarbon oil with a binding and emulsifying agent dissolved in an excess quantity of water and continuing the mixing so long until a fluffy product is obtained, substantially as set forth.

4. Fire lighters consisting of solidified hydrocarbon oils in a fluffy state.

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1,041,565. INTUMESCENT MATERIAL AND PROCESS OF MAKING THE SAME. WALTER ARTHUR, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Jan. 8, 1912. Serial No. 669,970. (Cl. 23—13.)



1. The process which consists in comminuting an alkali silicate containing combined water and then heating the silicate particles to a temperature at which said water is driven off with intumescence of said particles.

2. The process which consists in comminuting a solid soluble silicate and subjecting the separate particles to an elevated temperature to drive off water while agitating to prevent caking.

3. The process which consists in suddenly heating particles of a water-containing alkali silicate to a temperature at which the water is liberated with frothing and allowing the particles to puff up independently.

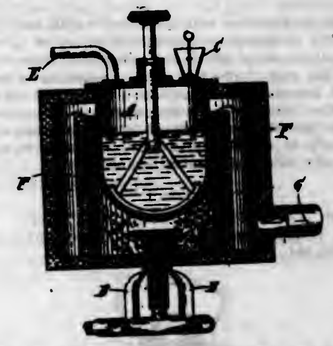
4. The process which consists in heating particles of a viscous material containing an easily vaporizable ingredient to a temperature at which said ingredient is rapidly vaporized and agitating said particles during said heating to cause said particles to swell without sticking to each other.

5. The process which consists in bringing a comminuted alkali silicate containing water into contact with a surface heated to temperature at which said water is rapidly eliminated and agitating said particles to prevent adhesion to each other or said surface.

[Claims 6 to 9 not printed in the Gazette.]

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1,041,566. PRODUCTION OF CYANAMIDS AND CYANIDS OF THE ALKALI METALS. EDGAR ARTHUR ASHCROFT, London, England. Filed Apr. 15, 1911. Serial No. 621,391. (Cl. 23—13.)

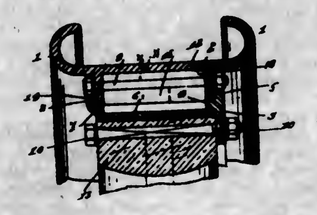


1. The herein described improvement in the process of producing cyanamid of an alkali metal which consists in reacting upon the amid of said metal with a form of cyanamid.

2. The herein described improvement in the process of producing cyanamid of an alkali metal which consists in reacting upon the amid of said metal with a form of cyanamid and utilizing the ammonia liberated by that reaction in the production of an additional quantity of the alkali amid.

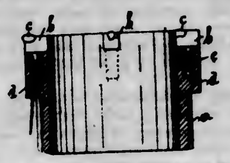
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1,041,567. DETACHABLE AND DIVISIBLE RIM FOR MOTOR-CARS AND OTHER VEHICLES. JAMES ASHTON, Kilnahue Rectory, Gorey, Ireland. Filed Jan. 8, 1912. Serial No. 670,041. (Cl. 152—21.)



In detachable rims for wheels of the character described, the combination with a wheel having a circumferential fixed rim with a stepped flange on one side projecting outwardly from said band, of an annular plate detachably secured to the wheel on the side opposite the flange and formed with a flange corresponding to and opposite the step of the first named flange, and a detachable rim having inwardly projecting flanges adapted respectively, to rest on said step and on the opposite corresponding flange of the annular plate, said plate being detachably secured to said wheel.

1,041,568. DIAMOND DRILL. FRANZ BADE, Peine, Germany. Filed May 19, 1911. Serial No. 628,282. (Cl. 125—4.)



1. The combination with an annular drill head having a plurality of cylindrical sockets, the axes of which are equidistant from and parallel to the axis of the drill head, a plurality of separate diamond mounts each comprising a cylindrical shank and a head of larger diameter than the shank, and diamonds mounted on the upper face of said mount heads respectively at different predetermined distances with respect to the axis of the mount shanks.

2. The combination with an annular drill head having a plurality of angular recesses terminating in cylindrical sockets, the axes of which are equidistant from and parallel to the axis of the drill head, a plurality of separate diamond mounts each comprising a cylindrical shank and an angular head of larger diameter than the shank, and diamonds mounted on the upper face of said mount heads respectively at different predetermined distances with respect to the axis of the mount shanks.

1,041,569. PERCUSSION-TOOL MACHINE. FRANZ BADE, Peine, Germany. Filed May 19, 1911. Serial No. 628,284. (Cl. 125—10.)

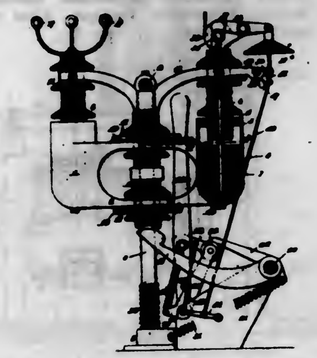


1. In a percussive tool machine the combination of a casing having a tool guide and bearings for a rotor, a stator mounted in said casing, an axially reciprocatable rotor having a shaft mounted in said bearings, a percussive tool positioned in the path of the axial movement of said shaft, and means within the casing for reciprocating said rotor during its rotation.

2. In a percussive tool machine the combination of a casing having a tool guide and bearings for a rotor, a stator mounted in said casing, an axially reciprocatable rotor having a shaft mounted in said bearings, a percussive tool positioned in the path of the axial movement of said shaft, a cam device within the casing whereby axial movement in one direction is imparted to said rotor during its rotation, and a spring bearing on said rotor in the opposite direction.

3. In a percussive tool machine the combination of a casing having a tool guide and bearings for a rotor, a stator mounted in said casing, an axially reciprocatable rotor having a shaft mounted in said bearings, a percussive tool positioned in the path of the axial movement of said shaft, a cam-plate within the casing having a ball race, a ball in said race, and a spring axially thrusting the rotor against said ball, so that the rotor is reciprocated during its rotation.

1,041,570. SWITCH OR CIRCUIT-OPENER FOR HIGH-POTENTIAL CIRCUITS. CHARLES C. BADEAU, Swissvale, Pa., assignor to Roller-Smith Company, New York, N. Y., a Corporation of New York. Filed June 16, 1906. Serial No. 321,906. (Cl. 175—283.)



1. An electric switch, comprising fixed terminals and movable terminals, the movable terminals being in the form of a multi-part chamber containing insulating liquid.

2. An electric switch having a double pole break in the form of a single multi-part liquid containing chamber, and terminals extending into the chamber the said chamber containing insulating liquid.

3. In an electric switch, the combination with a single multi-part liquid containing chamber of a plurality of fixed terminals, and means for moving the chamber to break contact said chamber containing insulating liquid.

4. In an electric switch, the combination with a single open multi-part liquid containing chamber, of fixed terminals extending into the chamber, and means for moving the chamber the said chamber containing insulating liquid.

5. An electric switch having a fixed terminal and a movable terminal, the movable terminal being in the form of a chamber containing insulating liquid and the fixed terminal being in the form of a rod with means moving with the chamber, and surrounding the rod and which make a close fit therewith.

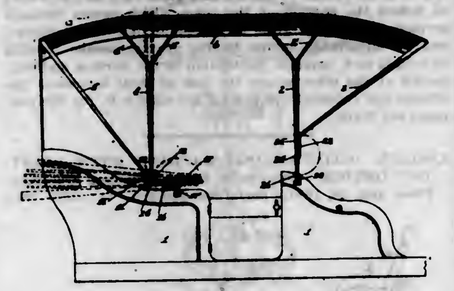
[Claims 6 to 8 not printed in the Gazette.]

1,041,571. VEHICLE-TOP. CLARENCE L. BAIR, San Francisco, Cal. Filed Sept. 20, 1910. Serial No. 582,833. (Cl. 21—62.)

1. In a vehicle top, and in combination with its bows, including a forward main bow and a rear main bow separated from said main bow when the top is raised, means for detachably connecting the forward main bow to the vehicle body, and means for connecting said forward main bow to the rear bow when the top is to be lowered, a bar pivotally connected at one end to the vehicle body, and at its other end to the lower end of the rear main bow, said bar being adapted to be positioned to extend in a horizontal position to the rear of its pivot, and when in said position to support the bows in raised position, said bar being adapted to be swung to a horizontal position in advance of its pivot to shift the lower ends of the connected bows relatively to the vehicle body when the top is lowered.

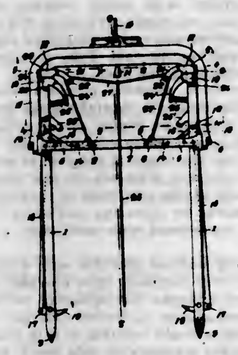
2. In a vehicle-top and in combination with its bows, a bar pivotally connected at one end to the lower end of that bow to which the others are attached when lowered, a channeled supporting base connected with the vehicle body adapted to receive the bar, said base having a lower guard flange and an upper guard flange of less width than the lower guard flange, a pivot pin carried by the other end of the bar and seated in the base, a spring on the pivot pin normally tending to hold the bar clear of the upper guard flange whereby said bar is free to swing on its pivotal connection with the base, and a thumb nut on the pin to draw and hold the bar in locked engagement with upper guard of the base.





3. In a vehicle body, and in combination with its bows, a bar pivotally connected at one end to the lower end of that bow to which the others are attached when lowered, a channeled supporting base connected with the vehicle body adapted to receive the bar, said base having a lower guard flange and an upper guard flange of less width than the lower guard flange, a pivot pin carried by the other end of the bar and seated in the base and means to shift said bar clear of the upper guard flange, whereby said bar is free to swing on its pivotal connection with the base and to draw and hold the bar in locked engagement with the upper guard of the base.

1,041,572. HAY-FORK. FRANK L. BAKER, Oriskany, N. Y. Filed Feb. 10, 1912. Serial No. 676,712. (Cl. 57—41.)



1. In a device of the character described, the combination with a substantially U-shaped fork, of a substantially U-shaped bail or yoke in which said fork is pivotally mounted, and latch means for maintaining the fork in fixed relation to the yoke.

2. In a device of the character described, the combination with a substantially U-shaped fork including side members and a bridge piece, of a substantially U-shaped yoke in which the fork is pivotally mounted, prongs pivotally associated with the limbs of the fork and adapted to occupy obstructing and non-obstructing positions, spring actuated latch members to maintain the fork in fixed relation to the yoke, and means for moving the prongs from an obstructing to a non-obstructing position and for simultaneously exerting releasing strain on the spring actuated latch members.

3. In a device of the character described, a carrying yoke having limbs provided with terminal bearings, a hoisting element connected with said yoke, a substantially U-shaped harpoon fork having a cross bar provided with trunnions engaging the bearings of the carrying yoke, and spring actuated latch means to maintain the fork in fixed relation to the yoke.

4. In a device of the character described, a carrying yoke, a U-shaped harpoon fork pivotally associated therewith, latch members pivoted on the limbs of the fork and having bifurcated arms straddling the limbs of the carrying yoke, said arms being exteriorly beveled, said latch members being also provided with inwardly extending lateral arms having guide members and inwardly extending arms, springs engaging the last mentioned arms to maintain the latch members in engagement with the carrying yoke, obstructing prongs pivotally associated with the limbs of the fork, means for actuating said obstructing prongs including levers pivotally associated with the limbs of the fork and having lateral inwardly extending arms, and a trip rope having branches connected with said arms, said branches being guided over the guide members on the inwardly extending lateral arms of the latch members.

5. In a device of the character described, a carrying yoke, a pivotally supported fork having spring actuated latch members engaging the carrying yoke, obstructing prongs pivotally associated with the fork, means for actuating said prongs including levers pivoted on the limbs of the fork and having laterally extending arms and diagonal braces, and spring members mounted on the fork to engage the lever arms, thereby maintaining the obstructing prongs in non-obstructing position.

1,041,573. ADVERTISING-CARD. WILLIAM D. BARING-GOULD, Minneapolis, Minn. Filed Feb. 17, 1912. Serial No. 678,407. (Cl. 46—37.)



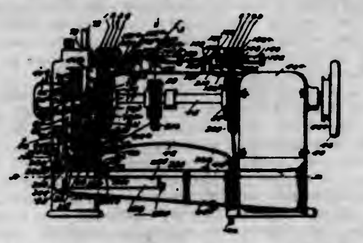

1. A card of the class described having a tongue formed therein and also having a stop tongue turned outwardly therefrom, a movable display element arranged on the card and having a notch in one side, and an elastic band engaged with said notch and said tongue and normally holding the movable display element in engagement with the stop tongue.

2. A card having a tongue turned outwardly therefrom and also having a stop tongue formed therein, a display element pivotally mounted on the card and having a notch in one side, and an elastic band engaged with said notch and said tongue and normally holding the movable display element in engagement with the stop tongue.

1,041,574. SEWING-MACHINE. STOCKTON BOSTON, Providence, R. I., assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y., a Corporation of New York. Filed Dec. 13, 1906. Serial No. 347,649. (Cl. 112—7.)

1. The combination with a gang of two or more needles, of a cross-thread carrier having a thread-guiding blade

thereon adapted to be projected between two of the needles by the movement of the carrier.



2. The combination with a gang of two or more needles, of a cross-thread carrier movable toward and from the needles and having thereon a thread-guiding blade adapted to be projected beyond the needles by the movement of the carrier toward the needles.

3. In a sewing machine, the combination with stitch-forming mechanism, of a cross-thread carrier having at one end a thread-eye; an oscillatory shaft to which the other end of the thread-carrier is secured; and a thread-guiding blade projecting from the thread-carrier intermediate of its ends.

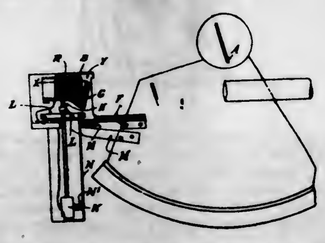
4. In a sewing machine, the combination with stitch-forming mechanism, of a cross-thread carrier having thereon a thread-guiding blade; and a coöperating hook adapted to intermittently engage the cross-thread and extend the same in a path leading from the point of attachment of said thread to the seam around the hook and across the blade to an eye in the thread-carrier.

5. In a sewing machine, the combination of a main driving shaft; a presser-foot bar; a sleeve or tubular shaft rotatable about said bar; a cross-thread carrier; a cross-thread hook; two upright rotatable shafts to which said carrier and hook are respectively secured; driving connections from the main shaft to said tubular shaft and from the latter to one of said upright shafts; and driving connections to the other upright shaft.

[Claims 6 to 31 not printed in the Gazette.]

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1,041,575. SEXTANT AND THE LIKE. LUDWIG BECKER, Glasgow, Scotland. Filed Mar. 18, 1912. Serial No. 684,460. (Cl. 88—11.)

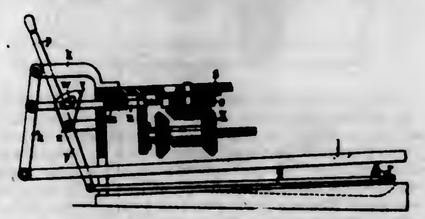


1. An instrument comprising an index glass (A), a horizontal glass (B) by which a portion of light reflected by the index glass toward the horizon glass is reflected and forms an image in a field in the line of sight viewed by the user while another portion of the beam passes through or past the horizon glass (B), in combination with a fixed mirror F, placed in the line joining the middle of the index glass (A) and the middle of the horizon glass (B) and arranged to reflect the portion of the beam which passes through or past the horizon glass in the plane of the instrument, and a mirror (G) which places itself at a constant inclination to the horizon and is supported at the place where the line of sight intersects the central ray reflected by the mirror F, for the purposes set forth.

2. An instrument comprising an index glass (A), a horizon glass (B) by which a portion of light reflected by the index glass toward the horizon glass is reflected and forms an image in a field, in the line of sight viewed by the user, while another portion of the beam passes through or past the horizon glass (B), in combination with a fixed mirror F, placed in the line joining the middle of the index glass (A) and the middle of the horizon glass (B), and arranged to reflect the portion of the beam which passes through or past the horizon glass in the plane of the instrument, and an adjustable mirror having gravity means tending to hold it at a constant inclination to the horizon and supported at the place where the line of sight intersects the central ray reflected upward by the mirror F, for the purposes set forth.

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1,041,576. CALCULATING-MACHINE WITH PRINTING DEVICE. BERNHARD BERR, Dresden, Germany. Filed Aug. 28, 1911. Serial No. 646,310. (Cl. 235—60.)



1. In a calculating machine provided with printing mechanism and a figure device, the combination with rotatable disks provided with radial notches of different depth corresponding to the different number of values, and spring controlled devices arranged to engage the notches in said disks to arrest rotation thereof, substantially as described.

2. In a calculating machine provided with printing mechanism and a figure device, the combination with rotatable disks provided with radial notches of different depths and figures or characters of a different value adjacent said notches, and spring controlled rods arranged to engage the notches, in said disks to arrest rotation thereof, substantially as described.

3. In a calculating machine provided with a figure device, the combination with rotatable disks provided with radial notches of different depths corresponding to numbers of different values, spring controlled rods for engagement with said notches to arrest rotation of said disks, an operating shaft, notched segments on said shaft, one for each rod, said rods having pins lying in the notches of said segments, and means for operating said shaft to withdraw said rods from engagement with said disks, substantially as described.

4. A calculating machine provided with a figure device, the combination with rotatable disks provided with radial notches of different depths corresponding to the numbers of different values, spring controlled rods for engagement with said notches to arrest rotation of said disks, an operating shaft, notched segments on said shaft, one for each rod, said rods having pins lying in the notches of said segments, means for operating said shaft to withdraw said rods from engagement with said disks, and link mechanism operated upon movement of said shaft, substantially as and for the purposes set forth.

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1,041,577. UMBRELLA-CARRIER. OLAF M. BEKKEVAR, Port Townsend, Wash. Filed Sept. 5, 1911. Serial No. 647,544. (Cl. 135—12.)

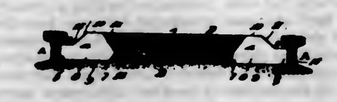
An umbrella carrier comprising a body harness including a back engaging plate and a waist engaging plate, a swiveled eye member on the back engaging plate, said eye member receiving the handle end of the rod of the umbrella, a socket member on the waist engaging plate, said socket member having an opening in the bottom thereof, a spring clip in the eye member for retaining the umbrella stick centrally therein, and clamping means in the socket, whereby the umbrella is adapted to have its handle engaged in the socket and opened over the wearer's head,



and when closed to be rotated with the eye member and having its opposite end passed through the opening in the bottom of said socket, and held by said clamping means.

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1,041,578. ART OF PAVING. JOHN A. BELL, GEORGE R. WILTON, and GEORGE P. GRIFFITH, Los Angeles, Cal. Filed May 5, 1909. Serial No. 494,127. (Cl. 94—1.)

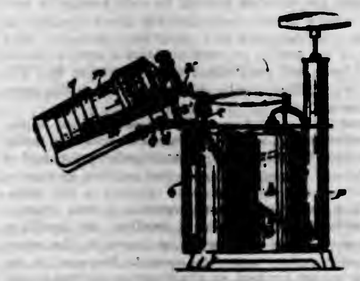


1. In a pavement, a porous block impregnated with a filler having a relatively low melting point, and a plastic body adapted to coalesce with the filler and applied at a higher temperature than the melting point of the filler, whereby the plastic body and porous block are bonded together.

2. A porous block impregnated with a filler having a relatively low melting point, and a plastic body applied at a higher temperature than the melting point of the filler, whereby the plastic body and porous block are bonded together, both the filler and the plastic body having asphalt as the essential constituent thereof.

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1,041,579. TORCH. GEORGES ALEXANDRE PHILIPPE BELLON, Vincennes, France. Filed Sept. 25, 1911. Serial No. 651,274. (Cl. 158—33.)



1. In a torch of the character described, the combination of a nozzle, a device adapted to emit inflammable fluid through said nozzle to be concentrated thereby, and an annular member, fusible at a very high temperature, disposed in the path of concentration, with its annular section at substantially right angles to the axis of the path of concentration.

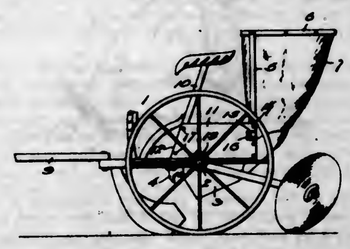
2. In a torch of the character described, the combination of a nozzle, a device adapted to deliver inflammable fluid through said nozzle to be concentrated thereby, and a cylindrical tubular member, fusible at a very high temperature, disposed in the path of concentration, with its cross section at substantially right angles to the axis of the path of concentration.

3. In a torch of the character described, the combination of a nozzle, a device adapted to deliver inflammable fluid through said nozzle to be concentrated thereby, and a perforated cylindrical tubular member, fusible at a very high temperature, disposed in the path of concentration, with its cross section at substantially right angles to the axis of the path of concentration.

4. In a torch, of the character described, the combination of a nozzle, a device adapted to emit inflammable fluid through said nozzle to be concentrated thereby, an annular member fusible at a very high temperature, disposed in the path of concentration with its annular section at substantially right angles to the axis of the path of concentration, and a stem secured to said annular member and nozzle for supporting the former, said stem being disposed below the path of concentration, substantially as and for the purpose set forth.

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1,041,580. ATTACHMENT FOR POTATO-PLANTERS. SAMUEL WILLIAM BICKEL, Newtown, Ohio. Filed Jan. 8, 1912. Serial No. 670,051. (Cl. 111—27.)



The combination with a potato planter comprising a wheeled frame, a hopper carried by said frame, a plurality of pickers rotatably mounted in said hopper, a seat standard mounted on the frame, a pair of vertical supports mounted upon the frame and in the rear of the seat standard, a pair of detachably connected plates mounted upon the upper side edges of said hopper and having their inner ends secured to the seat standard and their outer ends to the vertical supports, said plates having their lower edges formed with recesses to accommodate the axle of the planter whereby potatoes are prevented from being ejected from the picker arms and out of the hopper during the operation of the planter.

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1,041,581. HEAT-INSULATED COOKER. HANS BIBNUTTA, GUSTAV FISCHBACH, and CARL ZIOAHN, Lyck, Germany. Filed Apr. 18, 1911. Serial No. 621,061. (Cl. 62—23.)

1. A cooker, comprising in combination, a double-walled annular outer casing having an inwardly-projecting ledge at the inner bottom edge thereof and containing insulation between its walls, a pot for containing food resting on the ledge in the casing, and a lid having double walls and filled with insulation tightly closing the top of both the pot and the outer casing, the upper outer edge of the lid being formed by folding the edges of the two walls together.

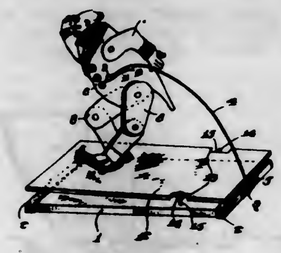
2. A cooker, comprising in combination, a double-walled annular outer casing having an inwardly-projecting ledge at the inner bottom edge thereof and containing insulation between its walls, a plurality of pots for containing food resting on the ledge in the casing, the total section of the



pots for containing food filling the inside section of the outer casing, and a lid having double walls and filled with insulation tightly closing the top of the pots and the outer casing, the upper outer edge of the lid being formed by folding the edges of the two walls together.

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1,041,582. TOY. JOHN H. BOLTON, St. Louis, Mo. Filed Feb. 20, 1912. Serial No. 678,837. (Cl. 46—40.)



1. A toy of the character described comprising a base board, a socket secured to one end of said base board, pivot eyes carried by said base board adjacent one end, a vibrating board provided with cut out portions adjacent one end, pins passing through the pivot eyes and into the cut out portions of the vibrating board to pivotally connect the vibrating board with the base board, a jointed figure, pins carried by said figure, a bar connecting said pins, and a resilient strip inserted in said socket and curved over said vibrating board and having its free end bent at an angle and carried over one of said pins between said bar and figure and beneath the remaining pin to removably secure said figure to said resilient strip.

2. A device of the character described comprising a base board, a vibrating board carried by said base board, a resilient supporting strip carried by said base board and overhanging said vibrating board, a figure, pins carried by said figure, and a bar connecting said pins, the end of said strip being passed over one of said pins, between said figure and bar and under the remaining one of said pins to connect said figure with said supporting strip.

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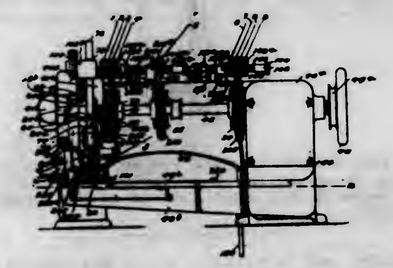
1,041,583. PROCESS OF OBTAINING POROUS AND FAIRLY-PURE BARIUM OXID FROM BARIUM CARBONATE. KARL BORNEMANN, Aix-la-Chapelle, Germany, assignor to Chemische Fabrik Coswig-Anhalt, G. M. B. H., Coswig-Anhalt, Germany. Filed July 31, 1912. Serial No. 712,573. (Cl. 23—13.)

1. A process of producing very porous, fairly pure barium oxid from barium carbonate, consisting in heating a mixture of barium carbonate and a reducing agent to the reaction temperature at a pressure below atmospheric.

2. A process of producing very porous, fairly pure barium oxid from barium carbonate, consisting in heating a mixture of barium carbonate and a reducing agent in a partial vacuum to the reaction temperature of the mixture, and in constantly drawing off the gases which are produced.

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1,041,584. SEWING-MACHINE. CHRISTINA P. BORTON, Warwick, R. I., administratrix of Stockton Borton, deceased, assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y., a Corporation of New York. Original application filed Dec. 13, 1906, Serial No. 347,649. Divided and this application filed June 18, 1907. Serial No. 379,653. (Cl. 112—7.)



1. The combination with a main presser-foot, of a needle or needles operable through an opening in said main-foot in forming the seam; means for looping a cross-thread back and forth into said opening in the main-foot through which the needle or needles operate and into engagement with the stitches formed by said needle or needles; an auxiliary presser-foot located to bear upon the work in the rear of the needle or needles; and means acting to yieldingly press said auxiliary-foot against the work independent of movement of the main-foot.

2. The combination with a main presser-foot, of a needle or needles operable through an opening in said main-foot in forming the seam; means for looping a cross-thread back and forth into said opening in the main-foot through which the needle or needles operate and into engagement with the stitches formed by said needle or needles; an auxiliary presser-foot movable in an opening or recess in the main-foot and located to bear upon the work in the rear of the needle or needles; and means tending to yieldingly move the auxiliary-foot toward the work in its opening in the main-foot.

3. The combination with a main presser-foot, of a needle or needles operable through an opening in said main-foot in forming the seam; means for looping a cross-thread back and forth into said opening in the main-foot through which the needle or needles operate and into engagement with the stitches formed by said needle or needles; an auxiliary presser-foot movable in an opening or recess in the main-foot and located to bear upon the work in the rear of the needle or needles; and a spring acting between the main and auxiliary feet and tending to yieldingly move the auxiliary-foot toward the work in its opening in said main-foot.

4. The combination with a main presser-foot, of a plurality of needles operable through an opening in said main-foot in forming the seam; a cross-thread-carrier and a cross-thread-hook coöperating with the needles to loop a cross-thread back and forth into said opening in the main-foot through which the needles operate and into engagement with stitches formed by said needles; an auxiliary presser-foot movable in an opening or recess in the main-foot and located to bear upon the work in the rear of the needles; and means tending to yieldingly move the auxiliary-foot toward the work in its opening in the main-foot.

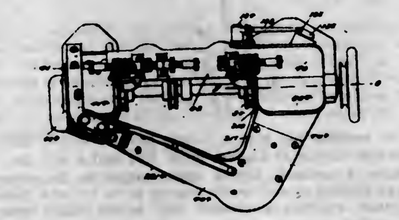
5. In a sewing machine, the combination with stitch-forming mechanism, of a throat-plate; a presser-foot; trimmer mechanism associated with the presser-foot; means for looping a cross-thread back and forth across the seam into engagement with stitches formed by the stitch-forming mechanism; and means under control of an operative for moving said presser-foot and associated trimmer-mechanism and the cross-thread looping means from their normal operative positions to positions more distant from the throat-plate to permit introduction and withdrawal of work.

[Claims 6 to 26 not printed in the Gazette.]



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1,041,585. SEWING-MACHINE. CHRISTINA P. BORTON, Warwick, R. I., administratrix of Stockton Borton, deceased, assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y., a Corporation of New York. Original application filed Dec. 13, 1906, Serial No. 347,649. Divided and this application filed June 18, 1907, Serial No. 379,654. Renewed Aug. 1, 1912. Serial No. 712,767. (Cl. 112—29.)



1. A sewing machine having a work-arm free at its work-supporting end at which the stitch-forming mechanism operates and at its other end joining the frame-work of the machine, said arm between its ends being bowed forward away from said frame-work and including an approximately horizontal bridging portion extending in a direction transverse to the direction of the work-supporting end of the arm and having a clearance beneath providing a space into which a hand or an arm of an operator may be passed below said bridging portion in holding, guiding or manipulating the work.

2. A sewing machine having a work-arm free at its work-supporting end at which the stitch-forming mechanism operates and supported entirely from its other end which joins the frame-work of the machine, said arm between its ends being bowed forward away from said frame-work and including an approximately horizontal portion extending in a direction transverse to the direction of the work-supporting end of the arm.

3. A sewing machine having a work-arm free at one end at which the stitch-forming mechanism operates and supported entirely from its other end which joins the frame-work of the machine, said arm between its ends being bowed forward from the main part of the machine in an approximately horizontal direction.

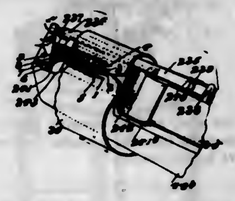
4. In a sewing machine, the combination with stitch-forming mechanism, of a work-arm free at one end at which the stitch-forming mechanism operates and supported entirely from its other end which joins the frame-work of the machine, said arm between its ends being bowed forward from the main part of the machine in an approximately horizontal direction; and driving connections extending along said arm to the part or parts of the stitch-forming mechanism operating at the free end thereof.

5. In a sewing machine, the combination with stitch-forming mechanism, of an elbowed work-arm free at one end at which the stitch-forming mechanism operates and supported from its other end which joins the frame-work of the machine, said arm extending outward in an approximately horizontal direction from the frame-work or casing at its supporting end and inward from an elbow to its free end.

[Claims 6 to 12 not printed in the Gazette.]

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1,041,586. SEWING-MACHINE. CHRISTINA P. BORTON, Warwick, R. I., administratrix of Stockton Borton, deceased, assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y., a Corporation of New York. Original application filed Dec. 13, 1906, Serial No. 347,649. Divided and this application filed June 18, 1907, Serial No. 379,655. Renewed Aug. 1, 1912. Serial No. 712,768. (Cl. 112—33.)



1. In a sewing machine, the combination with stitch-forming mechanism including one or more needles, of a work supporting-arm having a free end at which said stitch-forming mechanism operates, a presser-foot and a throat-plate, and a thread-cutter mounted on a bearing on the work-arm and normally in a position clear of the space between the presser-foot and the throat-plate but movable on said bearing to traverse the space between the presser-foot and needle or needles (when elevated) and the throat-plate to sever thread extending from the work in the path of said thread-cutter.

2. In a sewing machine, the combination with stitch-forming mechanism including one or more needles, of a work-arm formed with a recess in its outer surface and a thread-cutter mounted on said work-arm and normally positioned in said recess but movable upward out of the recess and along the arm to sever thread connected to the work.

3. In a sewing machine, the combination with stitch-forming mechanism including one or more needles, of a work-arm formed with a recess in its upper surface, and a thread-cutter mounted on said work-arm and including a blade extending transversely across the upper surface of the work-arm and normally positioned in said recess but movable upward out of the recess and along the arm to sever thread connected to the work.

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1,041,587. PROCESS OF PRODUCING DYED CELLULOSE ESTER. BENNO BORZYKOWSKI, Charlottenburg, Germany. Filed June 11, 1912. Serial No. 702,989. (Cl. 23—24.)

1. A process of producing dyed cellulose esters, said process comprising the simultaneous treatment of a cellulosic material with a suitable dye and an acidylising agent.

2. A process of producing dyed cellulose acetate, said process comprising the simultaneous treatment of a cellulosic material with a suitable dye and an acetylising agent.

3. A process of producing dyed cellulose esters, said process comprising the simultaneous treatment of cellulose with a suitable dye and an acidylising agent.

4. A process of producing dyed cellulose esters, said process comprising the simultaneous treatment of a cellulosic material with a suitable dye and a mixture of acetic acid, acetic anhydrid and sulfuric acid.

5. A process of producing dyed cellulose esters, said process comprising the simultaneous treatment of a cellulosic material with an acid-soluble dye and an acidylising agent.

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1,041,588. PIN-TICKET. HENRY S. BREWINGTON, Baltimore, Md., assignor to A. Kimball Company, New York, N. Y., a Corporation of New York. Filed Apr. 17, 1912. Serial No. 691,882. (Cl. 40—25.)

A blank for a pin ticket or tag comprising a strip having two transverse creases forming a body, a fold, and a flap, in the order named, the flap being reduced in width

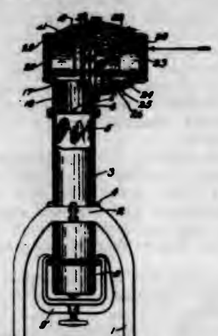
forming a tongue provided with a transverse slot near its end, and the fold being provided with a transverse slot near the crease separating it from the flap, a slit



parallel with its slot, and an opening at each end of the slit on the side next the slot forming between them with the slit a short broad tongue.

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1,041,589. SEPARATOR. JOHN E. CAPS, Wilmette, Ill. Filed Feb. 14, 1911. Serial No. 608,554. (Cl. 83—90.)



1. A separator comprising a horizontally disposed receiving member having intake and exhaust ports provided with inturned flanges and an enlarged center portion provided with ribs, a baffle supported on said flanges, said baffle having a cone shaped base and curved blades mounted on the convex surface thereof in parallel relation to each other and extending from said surface at a greater distance than the altitude of the cone and parallel to the axis thereof, the said blades intersecting said axis to form a vortex to distribute the fluid against the ribs.

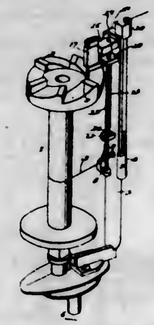
2. A separator comprising a horizontally arranged receiving member formed with inwardly extending inlet and outlet ports, a baffle supported on the said ports, ribs provided on the inner surface of said receiving member, the said baffle provided with a convex base and having parallelly disposed curved blades arranged thereon, and projecting therefrom at a greater distance than the altitude of said convex base for deflecting the fluid against the said ribs and inner surface of the receiving member.

3. A separator comprising a horizontally arranged receiving member formed with inwardly extending inlet and outlet ports, a baffle supported at its opposite ends on said inwardly extending ports, and positioned adjacent the central part of the said receiving member, ribs provided on the inner surface of said receiving members at the central part thereof, in proximity to the baffle, said baffle having a convexed base and parallelly arranged curved blades formed thereon and projecting for a greater distance than the altitude of the base, for deflecting the fluid against the ribs.

4. A separator comprising an oval shaped horizontally arranged receiving member, having an inwardly extending intake port at one end and an inwardly extending exhaust port at the opposite end, ribs formed on the inner surface of the receiving member, a conical shaped baffle having parallelly disposed curved blades arranged thereon, said baffle supported on the inwardly extending ports and in alinement with the intake port, for deflecting the fluid against said ribs and interior surface of said receiving member.

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1,041,590. BRAIDING-MACHINE CARRIER. JOHN EDDY CHACE, South Attleboro, Mass. Filed Sept. 26, 1911. Serial No. 651,399. (Cl. 28—24.)



1. In combination with a bobbin having ratchet teeth, a standard having an angular guide way and a seat above the same, a rotatable sliding latch carried by the standard and moving in said guide way so as to be held thereby against rotating movement, said bobbin when raised and rotated causing a corresponding movement of the latch to first raise the latter above the guide-way to permit the same to be rotated and moved down to engage said seat.

2. In combination with a bobbin having ratchet teeth and a standard, lugs carried by the standard and having perforations, a rod extending through said perforations, a projection on the rod, a coiled spring surrounding the rod and engaged between said projections and one of the lugs to normally exert downward tension on the rod, a rectangular head carried by the rod, a latch carried by the head, said standard having a right angular guide-way in which the head slides so as to have a non-rotating movement, said standard having a seat above said guide way thereof to receive and engage said head when the latter is moved out of the guide-way and given a partial turn, and a weight having a foot to engage the lower end of the rod to raise the latter.

3. In combination with a bobbin having ratchet teeth, latching means to engage the ratchet teeth, means to normally prevent rotation of said latching means, said latching means being movable out of engagement with said means, and being rotatable when out of engagement with said last named means to be locked in inoperative position.

4. In combination with a bobbin having ratchet teeth, spring latching means, means for providing a guide for the latching means which normally holds the latching means against rotation, and means whereby when the latching means is raised out of engagement with said guide same will be held by said spring in inoperative position.

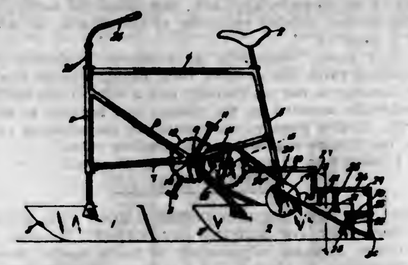
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1,041,591. ICE-VELOCIPEDE. STANLEY CHESKY, Flinton, Pa. Filed Mar. 20, 1911. Serial No. 615,648. (Cl. 21—47.)

The combination with a frame including front and rear upright bars, upper and lower bars connecting the front and rear bars and a diagonal brace bar connected to the front bar and extending toward the rear bar, of a steering post extending through the front bar, a front runner connected to the lower end of the steering post, a rear runner connected to the lower end of the rear upright bar and the lower end of the diagonal brace bar, a crank bearing formed at the intersection of the diagonal brace bar and



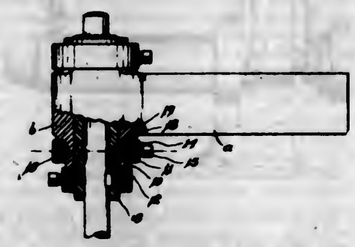
the lower bar, a crank journaled in said bearing, a sprocket wheel fast on said crank, a drive pinion meshing with said sprocket wheel, a second sprocket wheel to which said pinion is connected, a shaft passing through the lower end of the rear upright bar, a sprocket wheel fast with one end of said shaft, a disk fast with the other



end of said shaft, an endless drive chain connecting the last mentioned sprocket wheel in driven engagement with the pinion carrying sprocket wheel, and propelling rods pivoted eccentrically to the disk and the sprocket wheel on the same shaft with the disk and extending therefrom rearwardly, and guides at the sides of the rear runner for the propelling rods.

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1,041,592. TOOL-HOLDER. WILLIAM G. CHURCH, Hartford, Conn. Filed June 19, 1911. Serial No. 634,072. (Cl. 29—99.)



1. A tool holder comprising a tubular body adapted to receive a part to be held, a key mounted in said tubular body and adapted to engage the part to be held, a retaining ring for said key recessed to permit the withdrawal of said key from engagement with the part to be held, and means for securing said retaining ring in position.

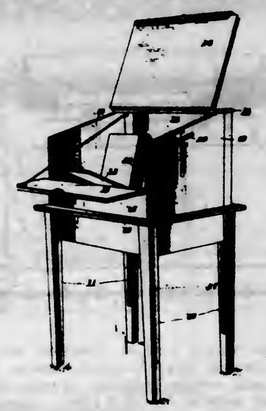
2. A device of the character described comprising a body member having a bore to receive a part to be held and a transverse slot opening into said bore, a key located in said transverse slot and adapted to project into said bore into engagement with the part to be held, a retaining ring fitting over the end of said body and inclosing said key, said ring being interiorly recessed at one side to permit the disengagement of said key from the part to be held, and means for securing said ring in position.

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1,041,593. RECORD-FILE. WILLIS JAMES CLARK, New Orleans, La. Filed Jan. 13, 1912. Serial No. 671,079. (Cl. 45—2.)

1. A device of the character described comprising a cabinet provided with a table portion and legs to support the table portion, a back, a front composed of a fixed and a hinged section, a top member, and sides, one of the sides being slidable vertically.

2. A device of the character described, comprising a cabinet provided with a table portion and legs to support the table portion, two of the legs having grooves therein and the table portion having a slot coinciding with said grooves, a back member, a front composed of a fixed and a hinged section, a top member, and sides, one of the sides being slidable vertically in said grooves through said slot.



3. A cabinet of the character described, comprising a table portion and legs to support the same, a back member on the table portion, a front composed of a fixed and a hinged section, a top member, the table portion having slots at its ends and the legs having grooves therein which coincide with the slots in the table portion, and sides which are slidable through the slots of the table portion and in the grooves of the legs, the lower ends of the grooves in the legs limiting the downward movement of the sides, and means for locking the sides in their elevated positions.

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1,041,594. CIRCUIT-MAKE-AND-BREAK DEVICE. AUGUST E. CLAUDON, Denver, Colo. Filed Jan. 25, 1911. Serial No. 604,680. (Cl. 175—310.)



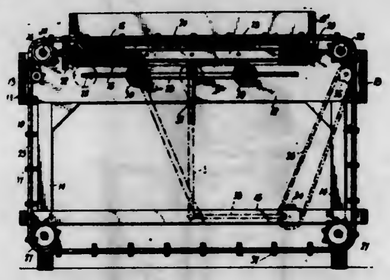
A device of the class described, comprising a holder composed of two metal members, forming a fork and insulated from each other, an insulating disk composed of two members, means for connecting the said members with each other, the said disk having radially arranged cavities suitably spaced, and whose inner extremities are separated from each other by a solid part of the disk, centrally located metal hub members applied to the disk members on opposite sides of the latter, metal screws connecting the said hub members with their respective disk members, the heads of the screws projecting into the inner extremities of the cavities, there being two separated screw heads in each cavity, the said hub members having metal journals which respectively engage the two members of the fork, an electric circuit whose branches are respectively connected with the said fork members, and metal balls freely movable in the respective cavities and adapted to engage the two screws of each cavity when the balls are at their inner limit of movement to close the circuit, substantially as described.

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1,041,595. ONION-TOPPER. CHARLES M. CLEMENS, Jr., Eyota, Minn. Filed Oct. 9, 1911. Serial No. 653,612. (Cl. 146—11.)

1. The combination in an onion topper of a pair of rotatable rollers provided with grooves, means for rotating

the rollers, a conveyer engaging the rollers, a pair of oscillating brushes engaging the rollers and means for oscillating said brushes through the medium of the conveyer.



2. An onion topper such as described comprising a main frame, topping rollers rotatable therein, means for rotating the said rollers, oscillating brushes mounted in the frame and engaging the said rollers, a supplemental frame connecting the brushes, a lever pivoted to said frames, a sprocket wheel journaled upon the frame, a link connecting the sprocket wheel and lever, a conveyer mounted upon the supplemental frame, and disposed above the rollers and means connecting the sprocket and the conveyer for oscillating the said brushes.

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1,041,596. PUMP. RUDOLPH CONRADER, Erie, Pa. Filed Jan. 23, 1911. Serial No. 604,007. (Cl. 103—80.)



1. A pump comprising as members, a plunger and standing valve; and a screw connection between said members, one part of the connection being on the standing valve and the other on the plunger, and one of said parts being yieldingly mounted on one of the members whereby the screw connection parts are yieldingly pressed together as the members approach each other.

2. A pump, comprising as members, a plunger and standing valve; and a screw connection between said members, one part of the connection being on the standing valve and the other on the plunger, and one of said parts being yieldingly mounted on one of the members whereby the screw connection parts are yieldingly pressed together as the members approach each other, said members having a limit of approach within the limits of the yielding movement of the connection.

3. A pump, comprising as members, a plunger and standing valve, one of said members having a screw threaded opening; and a yielding bolt mounted on the other of said members and adapted to enter the screw threaded opening as the members approach each other.

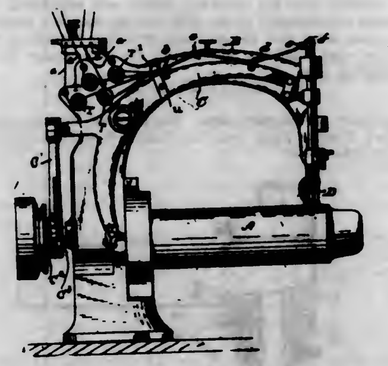
4. A pump, comprising as members, a plunger and standing valve, one of said members having a screw threaded opening; a yielding bolt mounted on the other of said members and adapted to enter the screw threaded opening as the members approach each other; and means for locking the bolt against turning relatively to the member on which it is mounted.

5. A pump, comprising as members, a plunger and standing valve, the standing valve having a screw threaded opening in the top thereof; and a screw threaded bolt yieldingly mounted on the plunger and adapted to enter with yielding pressure the opening in the standing valve as the plunger approaches the standing valve.

[Claims 6 to 12 not printed in the Gazette.]

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1,041,597. DEVICE FOR CONTROLLING THE UPPER THREADS OF SEWING-MACHINES. DANIEL W. COREY, Chicago, Ill., assignor to Union Special Sewing Machine Co., Chicago, Ill., a Corporation of Illinois. Filed May 21, 1901. Serial No. 61,291. (Cl. 112—39.)



1. A sewing machine comprising stitch forming mechanism, including a reciprocating needle, means for drawing thread from the supply, a tension device, clamping jaws for the needle thread located between the supply and the means for drawing off the thread, and a member movable with the needle and coöperating with the clamping jaws to cause said jaws to alternately clamp and release the thread, and means for imparting movement to the movable member, whereby the jaws of the clamp will be closed during substantially the entire time the needle eye is beneath the material.

2. A sewing machine comprising stitch forming mechanism, including a reciprocating needle, a needle lever for reciprocating said needle, means for drawing thread from the supply, a tension device, threaded clamping jaws attached to a stationary part of the machine frame, said jaws being located between the supply and the means for drawing thread from the supply, a member attached to said needle lever and engaging said jaws, to cause them to alternately clamp and release the thread, and means for operating the movable member to close the thread clamping jaws on the needle thread during substantially the entire time the needle eye is beneath the material.

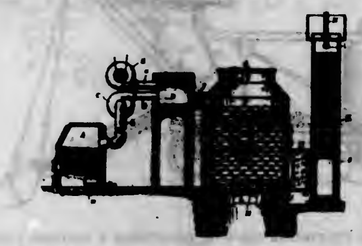
3. In a sewing machine having a reciprocating needle, a needle lever, a plate secured to the goose-neck of the machine, a spring plate secured thereto and movable to grasp the needle thread, a plate attached to the needle lever, having an adjustable projection adapted to engage and release the spring plate; substantially as described.

4. In a sewing machine, having a reciprocating needle, a needle lever, a plate secured to the goose neck of the machine, a spring plate secured thereto, a plate attached to the needle lever, having on its upper end an angular projection, and a slotted plate adjustably secured thereto and adapted to engage and release the spring plate; substantially as described.



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1,041,598. PROCESS OF MANUFACTURING SODIC-SILICO ALUMINATE AND HYDROCHLORIC ACID. ALFRED H. COWLES, Lockport, N. Y., assignor to The Electric Smelting and Aluminum Company, Lockport, N. Y., a Corporation of Illinois. Filed Oct. 8, 1909. Serial No. 521,892. (Cl. 23—13.)



1. The herein described method which comprises treating a charge mixture consisting of an alkali chlorid, a carboniferous material and a composition containing silica and alumina, at a high temperature, with steam and air.

2. The herein described method which comprises treating a charge mixture consisting of an alkali chlorid, a carboniferous material and a composition containing silica and alumina, at a high temperature, with steam, and maintaining an oxidising atmosphere in the reacting zone.

3. The herein described method which comprises treating a charge of lumps composed of an intimate mixture of an alkali chlorid, a carboniferous material and a composition containing silica and alumina, at a high temperature, with steam and air.

4. The herein described method which comprises treating a charge mixture consisting of a charge of lumps composed of an intimate mixture of an alkali chlorid, a carboniferous material and a composition containing silica and alumina, at a high temperature, with steam, and maintaining an oxidising atmosphere surrounding said lumps in the reacting zone.

5. The herein described method which comprises treating an alkali chlorid, a carboniferous material and a composition containing silica and alumina, at a high temperature, with steam and air, the alkali chlorid being substantially between 30 and 55 per cent., the carboniferous material between 5 and 10 per cent. and the alumina between 15 and 55 per cent. of the charge.

[Claim 6 not printed in the Gazette.]

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1,041,599. PROCESS OF MANUFACTURING SODIC-SILICO ALUMINATE AND HYDROCHLORIC ACID. ALFRED H. COWLES, Bowaren, N. J., and ADOLF KAYSER, deceased, by Grace Kayser, administratrix, Lockport, N. Y., assignors to Electric Smelting and Aluminum Company, Lockport, N. Y., a Corporation of Illinois. Filed June 23, 1911. Serial No. 635,050. (Cl. 23—13.)

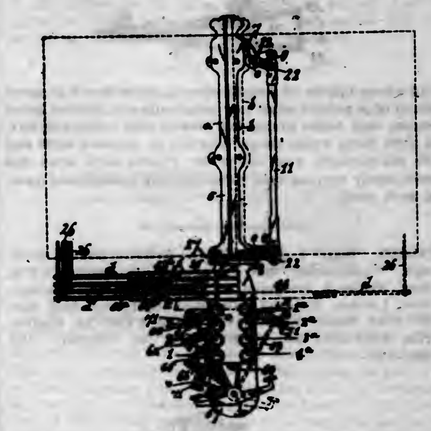
1. The herein described method which comprises arranging bricks containing alkaline chlorid and a compound containing alumina and silica so that the mass of the charge per cubic unit decreases from top to bottom, and forcing through the charge from top to bottom steam and the flame from a gaseous fuel.

2. The herein described method which comprises arranging bricks of the material to be treated so that the mass of the charge per cubic unit decreases from top to bottom of the charge and forcing through the charge from top to bottom a stream of gaseous material adapted to react with the charge.

3. The herein described method which comprises arranging segregated masses of material to be treated so that the quantity of material per cubic unit decreases gradually from the top toward the bottom and forcing through the charge from the top to the bottom a stream of gaseous material adapted to react with the charge.

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1,041,600. MUSIC-LEAF TURNER. EDITH I. COX, London, Ontario, Canada. Filed May 10, 1911. Serial No. 626,898. (Cl. 84—17.)



1. A music leaf turner comprising a shaft adapted to oscillate, a plurality of separate and independent sleeves adapted to oscillate and concentrically arranged upon said shaft, a music turning arm rigidly secured to said shaft, a music turning arm rigidly secured to each of said sleeves, music-sheet holding wires upon each of said arms, and two sets of operating means adapted to operate said shaft and sleeves and arranged for movement perpendicularly to each other.

2. A music leaf turner comprising a casing, toothed racks slidably-mounted transversely of said casing, a shaft journaled in said casing and operatively connected with one of said racks, a plurality of telescoping sleeves mounted upon said shaft and each of said sleeves being operatively-connected with one of the others of said racks, a music-turning arm rigidly secured to said shaft, a music turning arm rigidly secured to each of said sleeves, and means for oscillating said shaft and sleeves in one direction and further means adapted for movement in a direction perpendicularly to the line of movement thereof adapted to shift the said racks.

3. A music leaf turner comprising a casing, toothed racks slidably-mounted transversely of said casing, a shaft journaled in said casing and operatively connected with one of said racks, a plurality of telescoping sleeves mounted upon said shaft and each of said sleeves rigidly connected to said racks, means for oscillating said first-named shaft and sleeves in one direction, and further means adapted for movement in a direction perpendicularly thereto for oscillating said shaft and sleeves in a reverse direction through the second named shaft and sleeves and said racks.

4. A device of the class described comprising music leaf contacting arms, horizontal movably-reciprocating means adapted for moving said arms in one direction, and vertically-movable rocking means adapted for moving said arms in the opposite direction.

5. A device of the class described comprising a casing, arms adapted for engagement with sheet music, reciprocating rods journaled in said casing and horizontally-mov-

able adapted for turning said arms, and vertically-movable oscillating means carried by said casing adapted for moving said arms in the opposite direction.

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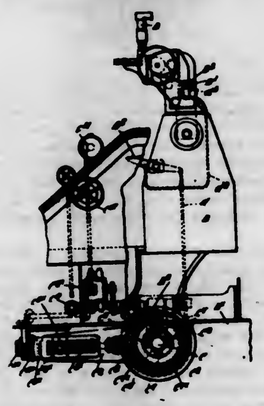
1,041,601. DENTAL PIVOT-CROWN REMOVER. VAN BROADUS DALTON, Cincinnati, Ohio. Filed Nov. 16, 1911. Serial No. 660,565. (Cl. 32—10.)



As a new article of manufacture, a pivot crown remover formed of a pair of arms and longitudinally divided beaks thereon, said beaks projecting toward each other and having their faces wedge-shaped and flat on opposite sides and both sharp-edged, and means for closing said arms and consequently moving said beaks forcibly toward and passing each other.

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1,041,602. HEAVY ORDNANCE. ARTHUR TREVOR DAWSON, Westminster, and JAMES HORNE, Barrow-in-Furness, England, assignors to Vickers Limited, Westminster, London, England. Original application filed Mar. 29, 1912, Serial No. 687,114. Divided and this application filed July 20, 1912. Serial No. 710,684. (Cl. 89—41.)



1. In mountings for heavy ordnance, the combination with the elevating pinions of a plurality of guns, of a rotary elevating shaft, a differential gear for connecting one of said pinions with the shaft, and means for actuating said differential gear during the elevation of the guns.

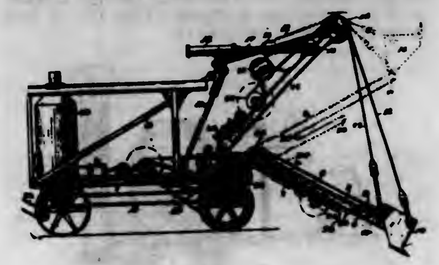
2. In mountings for heavy ordnance, the combination with the elevating pinions of a plurality of guns, of a rotary elevating shaft, a differential gear for connecting one of said pinions with the shaft, and an adjustable correcting device for actuating said differential gear during the elevation of the guns.

3. In mountings for heavy ordnance, the combination with the elevating pinions of a plurality of guns, of a rotary elevating shaft, a differential gear for connecting one of said pinions with the shaft, a correcting member connected to said differential gear, a pivot for said member, mechanism for actuating said member during the elevation of the guns, and means for adjusting the pivot of said member.

4. In mountings for heavy ordnance the combination with the elevating pinions of a plurality of guns, of a rotary elevating shaft, a differential gear for connecting one of said pinions with the shaft, a correcting member connected to said differential gear, a pivot for said member, mechanism for actuating said member during the elevation of the guns, means for adjusting the pivot of said member, and means for disconnecting the mechanism that actuates the member.

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1,041,603. EXCAVATING-MACHINE. FRANKLIN J. DEARBORN, Oakland, Cal. Filed June 6, 1910, Serial No. 565,403. Renewed Sept. 9, 1912. Serial No. 719,459. (Cl. 37—16.)



1. An excavating machine comprising a movable frame, a turntable mounted thereon, a telescoping extension ladder pivotally secured to the turntable, a bucket pivotally carried by said ladder, a conveyer on said ladder for receiving the material from the bucket, a boom pivoted on the turntable, a drum, cables passing from the drum over the end of the boom to the bucket, and means engaging one of the cables for tilting the bucket on the ladder while the ladder is rising.

2. An excavating machine comprising a movable frame, a turntable mounted thereon, a telescoping extension ladder pivotally secured to the turntable, a bucket pivotally carried by said ladder, a conveyer on said ladder for receiving the material from the bucket, a boom pivoted on the turntable, a drum, cables passing from the drum over the end of the boom to the bucket, and means engaging one of the cables for tilting the bucket on the ladder while the ladder is rising, said means comprising a cylinder and piston located above the drum.

3. An excavating machine comprising a main frame, a turntable thereon, a boom pivoted on the turntable, a bucket carrying arm pivoted to the turntable, a drum, means for rotating the same, cables passing from the drum over the end of the boom to the arm, a cylinder pivotally supported over the turntable, the pivot being in line with the pivot of the turntable, a piston, and means for connecting the piston to one of the cables.

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1,041,604. PROCESS FOR PREPARING AN OIL SUITABLE FOR IMPREGNATING POROUS BODIES. JULIUS DEHNST, Halensee, near Berlin, Germany. Filed June 20, 1911. Serial No. 634,317. (Cl. 90—12.)

1. The process for preparing an oil suitable for impregnating porous bodies, which consists in mixing tar with petroleum, allowing the obtained precipitate consisting of free carbon and resin like substances to settle and separating mechanically the clear oil consisting of the hydrocarbons of the petroleum and coal tar, including the bituminous substances of the latter soluble in the said hydrocarbons, from the deposits.

2. The process for preparing an oil suitable for impregnating porous bodies which consists in mixing tar with petroleum, allowing the obtained precipitate consisting of free carbon and resin like substances to settle separating mechanically the clear oil consisting of the hydrocarbons of the petroleum and coal tar including the bituminous substances of the latter soluble in the said hydrocarbons, from the deposits, blowing air into the heated separated clear oil and separating mechanically the clear oil from the formed deposits.

3. The process for impregnating porous bodies which consists in mixing tar with petroleum, allowing the formed precipitate to settle, separating the clear oil from the deposits and introducing the obtained oil into exhausted porous bodies under pressure.

4. The process for impregnating porous bodies which consists in mixing tar with petroleum, allowing the formed precipitate to settle, separating the clear oil from the deposits, blowing air into the heated separated clear oil, separating the clear oil from the formed deposits and introducing the obtained oil into exhausted porous bodies under pressure.

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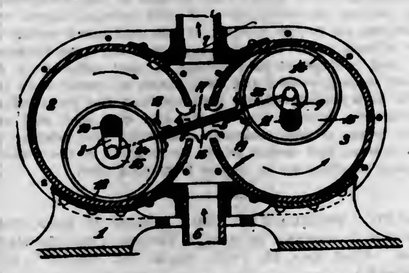
1,041,605. ICE-BREAKER. JOHN DEININGER, Ulm, Wurttemberg, Germany. Filed Mar. 1, 1911. Serial No. 611,591. (Cl. 83—62.)



An ice breaker comprising a row of pegs, an angle iron to which said pegs are secured, a vertical plate with sharpened lower edge slidable along said pegs, a spindle on said plate, clips on said plate loosely embracing the vertical portion of said angle iron and the outer pegs, and a resilient member depressing said spindle and said plate, as herein set forth.

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1,041,606. ENGINE. EMIL DEMBOWSKY, Metuchen, N. J. Filed Feb. 27, 1912. Serial No. 680,340. (Cl. 121—54.)



1. The combination of two similar adjacent cylinders open to each other and to an inlet and an outlet, an inlet and an outlet, two similar pistons, one mounted in each cylinder on shafts with cranks whose eccentricity is equal to the difference in radii between the pistons and the cylinders, slides rigidly secured to each piston and extending to a connection with the other, and a shaft meshing with the similar gear on the other shaft.

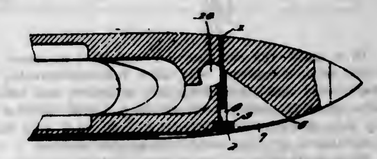
2. The combination of two pistons oppositely set, two cylinders, cranks and connection and two slides extending from one piston to the other, an oil-duct leading from an oil cup to the periphery of the piston at a point immediately beneath the end of the slide of the opposite piston all substantially as set forth.

3. The combination of two similar adjacent cylinders open to each other and to an inlet and an outlet, an inlet and an outlet, two similar pistons, one mounted in each cylinder on shafts with cranks whose eccentricity is equal to the difference in radii between the pistons and the cylinders, slides rigidly secured to each piston and extending to a connection with the other together with similar gear wheels one on each shaft meshing with the similar gear on the other shaft.

4. The combination of two similar adjacent cylinders open to each other and to an inlet and outlet, an inlet and an outlet, two similar pistons, one mounted in each cylinder on shafts with cranks whose eccentricity is equal to the difference in radii between the pistons and the cylinders, slides arranged between the pistons and connected to each, all substantially as set forth.

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1,041,607. SHUTTLE. SUMNER A. DUDLEY, Taunton, Mass. Filed June 16, 1911. Serial No. 633,574. (Cl. 139—46.)



1. In a shuttle, formed with a vertical slot, and with a horizontal slot communicating with the base end of the vertical slot and with a diagonal slot connecting the vertical and horizontal slot, said shuttle being formed with a thread passage which communicates with the horizontal slot and the vertical slot, a guide eye located at the outer end of the thread passage, and a locking pin having an end thereof projecting in said thread passage, said end of the locking pin being spaced from the walls forming said thread passage and having its extremity spaced from the guide eye.

2. In a shuttle formed with a thread passage, a guide eye having a shank extending in the shuttle below said thread passage, said guide eye being in alinement with the thread passage, and a locking pin having its length coextensive with that of said thread passage located in the latter and having its end in spaced relation to the guide eye.

3. In combination with a shuttle and the thread passage thereof, a guide eye carried by the shuttle and located in alinement with said thread passage, and a locking pin in the thread passage having its inner end spaced from the walls of said thread passage and its extremity spaced from the guide eye.

4. In combination with a shuttle having a horizontal thread passage having its outer end extending through one side of the shuttle, a guide eye arranged in the outer end of said passage, and a locking pin having one end secured in the opposite side of the shuttle and having its opposite end extending in said passage in a direction co-extensive with the length of the latter and being spaced from the walls of said passage and having its free extremity spaced from the guide eye.

5. In combination with a shuttle having a thread passage, a guide eye at the outer end of the passage, and locking means in the passage co-extensive with the length thereof and having its outer end spaced from said guide eye and also spaced from the walls of the passage.

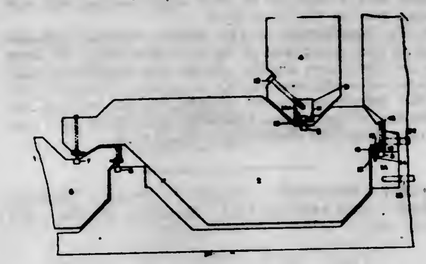
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1,041,608. DRYING AGENT FOR GASES. LAZAR EDELEANU, Ploesti, Roumania. Filed June 17, 1911. Serial No. 633,792. (Cl. 23—11.)

1. As a new article of manufacture, a drying agent for gases which is composed of a solidified molten mass consisting of one part by weight of a hygroscopic metallic chlorid mixed with more than one part by weight of sodium chlorid.

2. As a new article of manufacture, a drying agent for gases which is composed of one part by weight of calcium chlorid mixed with about three parts by weight of sodium chlorid.

1,041,609. FULCRUM FOR SCALES. ALBERT H. EMERY, Stamford, Conn. Filed Apr. 21, 1910. Serial No. 556,671. (Cl. 73—51.)



1. In a scale, the combination with two members each provided with a fulcrum seat, of a fulcrum entering said fulcrum seats and connecting said members and allowing relative angular motion between them; said fulcrum having a thin flexible central portion, and each end thereof terminating in a thick solid rectangular portion.

2. In a scale, the combination with two members, each provided with a fulcrum seat with two faces about square with each other, of a fulcrum connecting said members and allowing relative angular motion between them, and means for securing the fulcrum to its seats; said fulcrum having a thin flexible central portion, and each end thereof terminating in a thick solid rectangular portion having two bearing faces fitting against the two corresponding faces of its seat, said construction thereby allowing the fulcrum to be removed and replaced exactly in its former position.

3. In a scale, the combination with two members each provided with a fulcrum seat, of a fulcrum fitted to said fulcrum seats and having a thin flexible portion, and each end thereof terminating in a thick rectangular portion, affording flat bearing faces at right angles to each other on each rectangular end portion; one bearing face at each end being normal to the plane of the thin flexible part of the fulcrum.

4. In a scale, the combination with two members each provided with a fulcrum seat, of a fulcrum having its ends fitted in said fulcrum seats; said fulcrum having a thin flexible portion, and each end thereof terminating in a thick rectangular portion, affording flat bearing faces at right angles to each other on each rectangular portion; one bearing face at each end being normal to the plane of the thin flexible part of the fulcrum; said faces transmitting the load which acts parallel to the said plane; the faces at right angles to said load transmitting faces enabling the fulcrum when removed to be readily replaced exactly in the same position.

5. The combination with two members of a scale to be flexibly connected, each provided with a seat, of a plate fulcrum made thin at its central part and secured in its seat at one end by screws 16 and 17 and at the other by screws 15 and block 13 and screws 14.

[Claim 6 not printed in the Gazette.]

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1,041,610. FIRE-HELMET. GEORGE FABIAN, Bootle, England. Filed Jan. 3, 1911. Serial No. 600,629. (Cl. 128—42.)

1. In protective apparel for use in the presence of fire, smoke and noxious gases, a helmet comprising an inner casing and an outer casing connected together at their lower ends and around a glazed sight hole formed therein, a tubular bush formed with perforations fixed in said helmet and extending from the outer casing to the inner casing thereof, and an air inlet branch mounted in said bush and communicating with the interior of said helmet, said branch being formed with perforations adapted to supply air to the space between the casings of said helmet through the perforations of said bush.

2. In protective apparel for use in the presence of fire, smoke and noxious gases, a helmet comprising an inner casing and an outer casing connected together at their lower ends and around a glazed sight hole formed therein, a tubular bush formed with perforations fixed in said helmet and extending from the outer casing to the inner casing thereof, and an air inlet branch mounted to rotate in said bush and communicating with the interior of said helmet, said branch being formed with perforations adapted to supply air to the space between the casings of said helmet through the perforations of said bush.

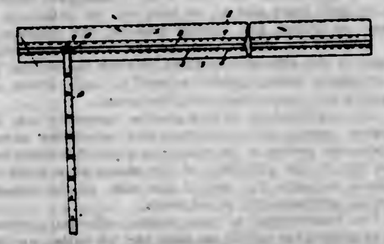


3. In a fire and smoke helmet an inner casing adapted to entirely but freely inclose the head of a wearer, an outer casing so much larger than said inner casing as to provide a space between the two said casings said casings being each formed with a sight hole and the said outer casing being formed with a small perforation at its upper part, means for connecting said casings together in an air tight manner at their lower ends and around the sight holes of said casings, a tubular bush formed with perforations and extending from the outer casing to the inner casing thereof, and an air inlet branch mounted in said bush and communicating with the interior of said inner casing, said branch being formed with perforations adapted to supply air to the space between said inner and outer casings through the perforations of said bush.

4. In protective apparel for use in the presence of fire, smoke and noxious gases, a fire and smoke helmet comprising an inner casing adapted to entirely but freely inclose the head of a wearer, an outer casing so much larger than said inner casing, as to provide a cooling space in which air circulates between the two said casings said casings being each formed with a sight hole and the said outer casing being formed with a small air escape perforation at its upper part, and means for connecting said casings together in an air tight manner at their lower ends and around the sight holes of said casings, means for supplying air to the interior of the said inner casing of said helmet, means for supplying air to the space between the said casings of said helmet, a coat adapted to fit loosely upon a wearer and leave ample air space when inflated at a slightly higher pressure than the surrounding atmosphere, between the wearer and said coat said air space being in free communication with the interior of said helmet, and means under the control of the wearer adapted to allow air to escape from said coat.

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1,041,611. SKIRT-MEASURER. EUGENE M. FARR, Oradell, N. J., assignor to Mary J. Phillips, Charlotte Hall, Md. Filed May 23, 1912. Serial No. 699,307. (Cl. 73—48.)



1. In a skirt measurer, a body portion having a portion thereof bent to form a continuous flap, a strip secured upon said body portion and adapted to lie parallel with said flap, a button slidably mounted between said strip and said flap, and a tape measure supported by said button, for the purpose described.

2. In a device of the character described, a skirt measurer comprising a body portion, a portion of said body portion being bent to form a continuous flap, a strip of material secured upon said body portion and adapted to lie parallel with said flap, a button slidably mounted between said flap and said strip, an eyelet supported by said button, a tape measure and means connecting said tape measure and said eyelet, for the purpose described.

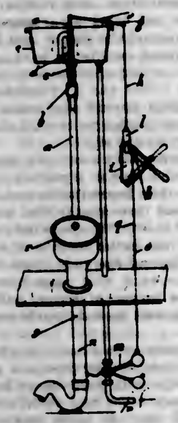
3. In a skirt measurer, a body portion having its lower edge bent upwardly to form a continuous flap, a strip of material secured upon said body portion and adapted to lie parallel with said flap, a button slidably mounted between said flap and said strip, an eyelet supported by said button, a sleeve having connection with said eyelet, a tape measure, said sleeve adapted to engage said tape measure, for the purpose described.

4. In a device of the character described, a skirt measurer comprising a body portion adapted to be secured about a person's waist, the lower edge of said body portion adapted to be bent forwardly thereon and form a continuous flap, a strip of material independent of said body portion and adapted to be secured thereon and lie parallel with said flap, a button slidably mounted between said flap and said strip, an eyelet supported by said button, a sleeve supported by said eyelet, and a tape measure supported by said sleeve, for the purpose described.



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1,041,612. FLUSHING APPARATUS. EUGEN FRÄNKEL, Beuthen, Upper Silesia, Germany. Filed June 15, 1911. Serial No. 633,411. (Cl. 4—5.)



1. In a flushing apparatus, in combination, a flush-tank having a water inlet and outlet, a siphon located therein and conducting to the outlet, a valve controlling the inlet, and a device hanging freely in the outlet and whose suspension-member extends to the outside, and mechanism for temporarily locking the inlet-valve in its open position, connected with the external part of the said suspension-member.

2. In a flushing apparatus, in combination, a flush-tank having a water inlet, a siphon located therein and forming the exit of the tank, valve mechanism controlling the inlet, a device hanging freely in the siphon and whose suspension-member extends to the outside, and gravity-mechanism connected to the external part of the said suspension-member and hanging in the path of the said inlet-valve mechanism and adapted to lock the said mechanism in its open position after being raised by the same.

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1,041,613. POTATO-PLANTER. EMIL R. FREDERICK, Shelby, Mich. Filed Mar. 11, 1912. Serial No. 683,153. (Cl. 111—22.)



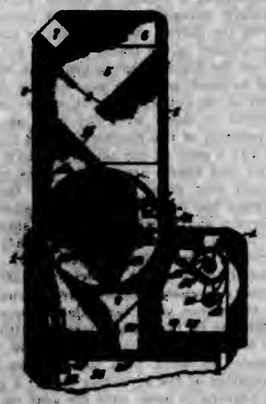
1. In combination with the back wall, pivotal gate, handle and conductor chamber of a hand potato planter, a fertilizer chamber above the pivotal gate, and an auxiliary gate between the pivotal gate and the back wall to form a passageway for fertilizer to the potato hill.

2. In combination with the back wall, pivotal gate, handle and conductor chamber of a hand potato planter, a fertilizer chamber formed adjacent to the conductor chamber, a corrugated feed roll in said fertilizer chamber, an auxiliary gate pivoted between the pivotal gate and the back wall of the digger, and means for actuating said gates by carrying the top of the handle forward and backward.

3. In combination with the back wall, pivotal gate, handle and conductor chamber of a hand potato planter, a tube secured parallel with the conductor chamber forming a storage chamber for fertilizer, a feed roller mounted in the lower end of said chamber, means for actuating said roller by forcing the handle backward and forward, an auxiliary gate in the compartment between the back wall and the pivotal gate to divide said compartment into two wedge shaped compartments, and means for holding the pivotal gate in normal position.

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1,041,614. FARE-BOX. HENRY GEBHART, Dayton, Ohio. Filed Feb. 11, 1911. Serial No. 607,000. (Cl. 232—61.)



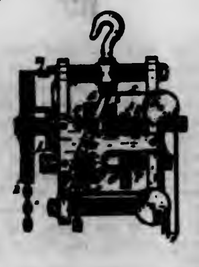
1. In a device of the type specified, the combination with a series of fare-receiving tables revoluble upon a shaft constituting an axis which is common to all of said tables, a spring constituting a motor which imparts movement to said tables, means adapted to wind said

spring and release it after each succeeding operation of the tables, said means including a pawl and ratchet, and a lever upon which said pawl is mounted, of an oscillating shield connected with said lever and movable above the tables simultaneously with the operation of winding the spring to a position to cover said tables while the spring operates them, substantially as specified.

2. In a device of the type specified, a series of revoluble fare-receiving tables, means for intermittently revolving said tables consisting of a spring motor, means adapted to store energy in said spring motor to release it after each operation of the tables, and an oscillating shield movable over the tables simultaneously with the operation of storing energy in said motor.

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1,041,615. GEARING. OTTO GEHRICKE, Leipzig-Lindenau, Germany. Filed Jan. 17, 1912. Serial No. 671,575. (Cl. 74—58.)



1. In combination, a frame, a driven shaft journaled therein, an axially movable counter-shaft journaled therein parallel with the driven shaft, an axially movable actuating shaft journaled in the frame parallel with the other shaft; a gear on the driven shaft, a pinion on the actuating shaft adapted to mesh with the gear on the driven shaft in one position of the actuating shaft; a gear on the counter-shaft adapted to mesh with the gear on the driven shaft in one position of the counter-shaft; a pinion on the counter-shaft and a gear on the actuating shaft adapted to mesh when the said shafts are shifted so as to disengage the driven-shaft gear from the pinion on the actuating shaft, and engage the gear on the counter-shaft with the gear on the driven shaft.

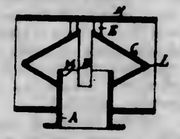
2. In combination, a frame, a driven shaft journaled therein, an axially movable counter-shaft journaled therein parallel with the driven shaft, an axially movable actuating shaft journaled in the frame parallel with the other shaft; a gear on the driven shaft, a pinion on the actuating shaft adapted to mesh with the gear on the driven shaft in one position of the actuating shaft, a gear on the counter-shaft adapted to mesh with the gear on the driven shaft in one position of the counter-shaft, a pinion on the counter-shaft and a gear on the actuating shaft adapted to mesh when the said shafts are shifted so as to disengage the driven shaft gear from the pinion on the actuating shaft, and engage the gear on the counter-shaft with the gear on the driven shaft; with means for simultaneously shifting the counter-shaft and actuating shaft axially in opposite directions, substantially as described.

3. In combination, a frame, a driven shaft journaled therein, an axially movable counter-shaft journaled therein parallel with the driven shaft, an axially movable actuating shaft journaled in the frame parallel with the other shaft; a gear on the driven shaft, a pinion on the actuating shaft adapted to mesh with the gear on the driven shaft in one position of the actuating shaft; a gear on the counter-shaft adapted to mesh with the gear on the driven shaft in one position of the counter-shaft; a pinion on the counter-shaft and a gear on the actuating shaft adapted to mesh when the said shafts are shifted so as to disengage the driven-shaft gear from the pinion on the actuating shaft, and engage the gear on the counter-shaft with the gear on the driven shaft; with means for retaining the counter-shaft and actuating shaft in the positions to which they are shifted.

4. The combination with a pair of grooved shafts, and means for axially moving said shafts in opposite directions; with locking devices adapted to simultaneously engage the grooves in said shafts to lock them in adjusted position.

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1,041,616. WIND-OPERATED VENTILATOR. EDWARD E. GOLD, New York, N. Y., assignor to Gold Car Heating & Lighting Company, New York, N. Y., a Corporation of New York. Filed Nov. 26, 1909. Serial No. 529,902. (Cl. 98—4.)



1. A wind operated ventilator, having an outlet in line with the entrance, a hood over said outlet and a face extending from said outlet at an inclination away from said hood, said hood covering the entire length of said inclined face, and extending slightly beyond the same to protect the ends thereof from the wind, in combination with a structure to be ventilated, said ventilator being mounted on said structure and being so arranged that in use the wind shall blow against the side of said hood.

2. A wind operated ventilator, having an outlet in line with the entrance, a conical face with its base adjacent to said outlet and a cylindrical hood over said outlet and extending around said conical face and over its entire length, and extending slightly beyond the same to protect the ends thereof from the wind, in combination with a structure to be ventilated, said ventilator being mounted on said structure and being so arranged that in use the wind shall blow against the side of said hood.

3. A wind operated ventilator, having an outlet in line with the entrance, a pair of cones with their bases forming the sides of said outlet and a cylindrical hood over said outlet and extending around said cones over their entire length, and extending slightly beyond the same to protect the ends thereof from the wind.

4. The combination with a car of a wind operated ventilator having an inlet pipe A, a pair of cones C on the end of said pipe with their bases facing and slightly separated from each other and their axes in line with each other and a cylindrical hood D over the space between said cones and extending around the entire lengths of said cones and extending slightly beyond the ends thereof so as to protect said ends from the wind, said cones having openings L in their ends for the escape of water, and said hood being located upon a car with its axis transverse to the direction of travel.

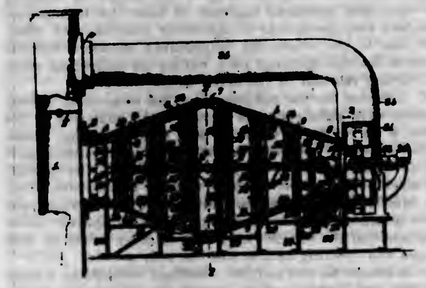
5. The combination with a car of a wind operated ventilator having a horizontal inlet pipe A, a pair of cones C on the end of said pipe with their bases facing and slightly separated from each other and their axis vertical and a cylindrical hood D over the space between said cones and extending around the entire lengths of said cones and extending slightly beyond the ends thereof so as to protect said ends from the wind, said cones having openings L in their ends for the escape of water, and said hood being located upon a car with its axis vertical.

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1,041,617. MEANS FOR RECOVERING DUST AND OTHER MATERIALS. CHARLES EBENEZER GOODRICH, Daggett, Cal. Filed July 17, 1911. Serial No. 639,047. (Cl. 75—30.)

1. A means for the purpose described comprising an elongated conduit for the passage of products of combustion carrying materials to be extracted therefrom, said conduit having its longitudinal axis substantially horizontal when in use, a plurality of spaced, substantially upright stationary screens in said conduit extending completely across the conduit and in position to be progressively traversed by the products of combustion, and water directing means on the side of each screen toward the oncoming products of combustion and related to said screens to forcibly direct streams of water against and through the screens over substantially their entire areas in substantially the direction of the longitudinal axis of the conduit, said conduit being provided with means for the escape of water to maintain the conduit free from accumulations of water.





2. A means for the purpose described comprising an elongated conduit for the passage of the products of combustion carrying materials to be extracted therefrom, said conduit having its longitudinal axis substantially horizontal when in use, a plurality of spaced, substantially upright screens in said conduit in transverse relation thereto and in position to be progressively traversed by the products of combustion, and rotative water directing means on the side of each screen toward the oncoming products of combustion, said water directing means being related to the screens to direct streams of water against and through the screens in substantially the direction of the longitudinal axis of the conduit.

3. A means for the purpose described comprising an elongated conduit having its longitudinal axis substantially horizontal when in installed position, a series of spaced and substantially upright screens extending entirely across the conduit and progressively increasing in fineness from the entrance of the conduit toward the exit end thereof, and water directing means adjacent those faces of the screens toward the entrance end of the conduit and positioned to project streams of water against and through the screens in the same direction as the travel of the products of combustion therethrough.

4. A means for the purpose described comprising a conduit for the passage of products of combustion containing materials to be extracted therefrom, a series of spaced screens in the conduit in transverse relation to the length thereof, and means for directing streams of water through the screens in the same direction as the travel of the products of combustion therethrough, the capacity of said last named means to direct water through the screens being greater at those screens adjacent the entrance to the conduit than at those screens adjacent the exit end of the conduit.

5. The combination with a furnace stack, of a substantially horizontally arranged conduit connected at the opposite ends to the stack at spaced points of the latter, said conduit containing a series of substantially upright pervious screens spaced apart in the direction of the length of the conduit and each extending wholly across the conduit, and means for forcibly projecting streams of water against each screen over substantially the whole surface of such screen in the direction of movement of the products of combustion through the screen, the conduit having means for the escape of water therefrom at a point below the lowest part of any of the screens.

[Claims 6 to 11 not printed in the Gazette.]

1,041,618. HOSE-SUPPORTER. ANNA GOTTSCHALK, Berlin, Germany. Filed Aug. 1, 1912. Serial No. 712,671. (Cl. 24—247.)



A hose supporter consisting of a plate for attachment to the supporter band, a lever pivoted to said plate, an eye on said plate, a loop attached to said lever and passed through said eye, said lever being adapted to pull said loop through said eye to narrow the loop when the lever is swung to closed position, a cord having one end attached to the supporter and the other end terminating in a globular body, and adapted to be passed with its globular end inclosed by the fabric of the hose through said loop to be secured therein when the lever is swung to closed position, and means for retaining the lever in closed position.

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1,041,619. SNAP-FASTENER SOCKET AND TOP. ABRAHAM H. GREENEBAUM, Baltimore, Md., assignor to Alma Manufacturing Company of Baltimore City, Baltimore, Md., a Corporation of Maryland. Filed Mar. 23, 1911. Serial No. 616,434. (Cl. 24—220.)



1. A snap fastener socket and top, said socket having a rounded and smooth nipple, a barrel having a rounded and smooth shoulder, and a base flange, a rounded collet, and a riveting plate within the top, the said top closed about the plate and collet, said plate having a central concavo-convex projection perforated from its convex side and thereby presenting a smooth non-shearing edge, so that when set the goods are gripped between the socket and top at three places, namely, between the nipple and top, between the shoulder and plate, and between the base flange and collet without cutting out the goods.

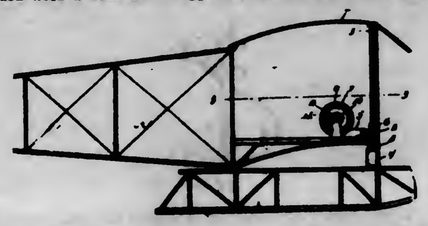
2. In a snap fastener socket and top, the socket member having a nipple provided with rounded, smooth and non-shearing edges, a barrel having a rounded, smooth and non-shearing shoulder, and a base flange, and the top member having a rounded collet and a riveting plate arranged within it, said plate provided with a substantially flat outer edge, a central concavo-convex projection, and a smooth edged non-shearing central hole of considerably greater diameter than the nipple, so that when the socket and top members are set the plate tends to flatten out, engages the socket member between its shoulder and nipple and said nipple is broken down, thereby gripping the goods interposed between the socket and top at three places, namely, between the nipple and top, between the shoulder, nipple and plate, and between the base flange and collet, without cutting out the goods.

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1,041,620. STABILIZATOR. THOMAS D. GREER, Norton, Kans. Filed Jan. 12, 1912. Serial No. 670,809. (Cl. 244—31.)

A flying machine including a main frame carrying a pair of superposed planes, the lower plane having an opening therein at or adjacent to its front edge, a guide tube secured to the main frame adjacent to said lower plane and extending at its lower end through said opening, a guide pulley arranged in proximity to the opening and guide tube, a winding drum mounted upon the lower plane in rear of said pulley, said drum being provided with a hand

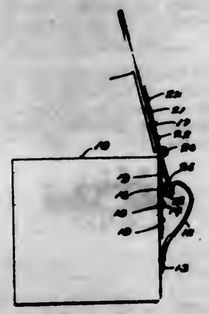
wheel, means for locking the drum against rotary movement, a rod slidable through said tube, said rod being provided with a head at its upper end for contact with said



tube and with a weight at its lower end, and a cable terminally attached to the drum and weight and extending through the opening and over said guide pulley.

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1,041,621. SPITTOON. MATTIE GRISHAM, Athens, Tex. Filed Apr. 17, 1912. Serial No. 691,326. (Cl. 4—30.)

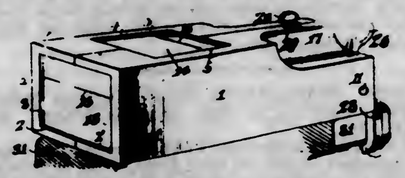


1. A sputum cup comprising a receptacle, a lid therefor, a handle on one side of the cup, a spring hinge for the lid, said hinge comprising arms secured to the side of the receptacle on either side of the handle, arms secured to the lid of the receptacle, single turns between the side and top arms formed integrally therewith, and a rearward extension on the top arms projecting over the handle and adapted for engagement with said handle to hold the lid open.

2. A sputum cup comprising a receptacle, a lid therefor, a handle on one side of the cup, said handle being formed with a depression adjacent the side of the receptacle a spring hinge connecting the lid to the receptacle and formed of a single piece of wire, and a rearward extension formed integrally with the hinge for engagement in said depression to hold the lid open.

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1,041,622. LEVEL. JAMES D. GUILFOYLE, Titusville, Fla. Filed Sept. 20, 1911. Serial No. 650,450. (Cl. 88—12.)



1. In a device for the purpose described, a body member formed of two coacting parts provided with matching flanged openings and coacting flanges in spaced operative relation to the openings and with other flanges diagonally disposed with relation to the flanged openings and flanges coacting therewith, transparent members forming closures for the openings and supported by the flanges, a mirror supported by the diagonal flanges, and means for securing the two body members together to hold the transparent members and the mirror in operative position with reference one to the other, the transparent members forming closures for the openings each having an indicating mark in coacting relation to the mark on the other.

3. A device for the purpose described comprising a body member with sight openings therein at an angle one to the other, a mirror at an angle to both sight openings, transparent covering members for the sight openings each having an indicating mark adapted to coact with the indicating mark on the other, the body member being provided on the interior with supporting flanges for the transparent cover members and the mirror, and said transparent cover members and the mirror being held in place solely by said flanges and coacting members of the body member.

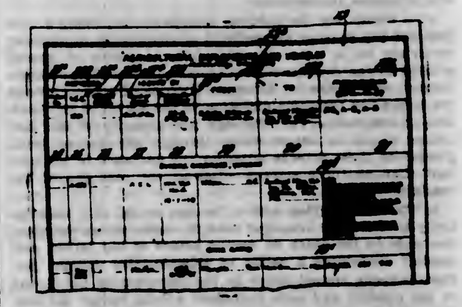
4. A device for the purpose described comprising a body member with sight openings therein at an angle one to the other, a mirror at an angle to both sight openings, transparent covering members for the sight openings each having an indicating mark adapted to coact with the indicating mark of the other, the body member being provided on the interior with supporting flanges for the transparent cover members and the mirror, and said transparent cover members and the mirror being held in place solely by said flanges and coacting parts of the body member, the body member being also provided with a leveling means.

5. A device for the purpose described comprising a body member having sight openings at an angle one to the other and a reflecting member at an angle to the sight openings to reflect light entering through one opening into position to traverse the other opening, and a clamp member carried by the body member in position to engage and grip the support on which the body member is placed in operation.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,623. CONSOLIDATED TARIFF-INDEX. CHARLES B. GUTHRIE, St. Louis, Mo. Filed Mar. 30, 1912. Serial No. 687,481. (Cl. 11—19.)



1. A consolidated tariff index comprising groups of leaves, the leaves of some of said groups being provided with means that show the tariffs that are issued by a number of transportation companies and the points from and to which said tariffs apply, a key composed of symbols grouped with said means for showing the originating and participating carriers that participate in said various



tariffs, and means on the leaves of another group for explaining said key or defining what each symbol of the key designates.

2. A consolidated tariff index comprising groups of leaves, means on the leaves of some of said groups that show the tariffs that are issued by a number of transportation companies, a key composed of symbols grouped with said means for showing the carriers that participate in said various tariffs, and means on the leaves of another group for explaining said key or defining what each symbol of the key designates, there being a symbol for each carrier and the symbols which designate the carriers in one section of the country or which are known under a general name being related or distinguished from the symbols that designate the carriers in a different section of the country.

3. A consolidated tariff index comprising groups of leaves, the leaves of some of said groups being provided with means that show the tariffs that are issued by a number of transportation companies, a key composed of symbols grouped with said means for showing the originating carriers and participating carriers that participate in said various tariffs, and means on the leaves of another group for explaining said key or defining what each symbol of the key designates, the symbols that designate the originating carriers being distinguished from the symbols that designate the participating carriers in some suitable manner.

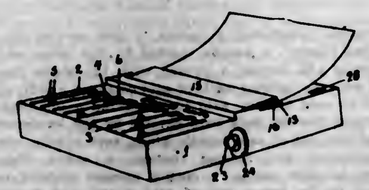
4. A consolidated tariff index comprising groups of leaves, the leaves of some of said groups being provided with means that show the tariffs that are issued by a number of transportation companies, a key composed of symbols grouped with said means for showing the carriers that participate in said various tariffs, means for explaining said key or defining what each symbol of the key designates, a second key separate and distinct from the first and composed of symbols that are grouped with the means first mentioned for designating certain commodities to which said tariffs apply, and means for explaining or defining the meaning of the symbols that compose said second key.

5. A consolidated tariff index comprising groups of leaves that form separate sections which relate to various kinds of commodity tariffs, means in each of said sections for showing the carriers that issue the tariffs specified in the section and the points from and to which particular tariffs apply, key symbols in each of said sections for indicating the carriers that participate in the tariffs specified therein, means for showing the dates on which the tariffs became effective, and means for defining or explaining said key, said explanatory means consisting of the names of the carriers and key symbols identical with the key symbols used in said sections arranged adjacent said names.

[Claim 6 not printed in the Gazette.]

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1,041,624. COLLECTOR'S RECHIPTING-RECORDER. ARTHUR WARD HAYES and CLARENCE D. STEVENS, San Antonio, Tex., assignors, by mesne assignments, to said Clarence D. Stevens, Chicago, Ill. Filed June 4, 1910. Serial No. 565,048. (Cl. 235—3.)



1. A receipting recorder, comprising a case, slides mounted in said case, buttons for manipulating said slides, a platen to receive a bill to be receipted, means for operating said platen to engage and hold a bill to be receipted and hold said slides at times, means for effecting an impression of said types on a bill to be receipted, an indicating totalizing counter mounted in said case, and means for directly, temporarily, operatively connecting said counter with said slides, whereby the amount printed on a bill receipted is transferred to said counter.

2. In a receipting recorder, a case, adjustable slides having fixed printing types thereon, a clamping platen for receiving a bill or other paper to be receipted and locking said slides pivotally mounted in said case, an operating shaft, and means on said operating shaft for depressing said platen to clamp the bill to be receipted and lock said slides.

3. A receipting recorder, comprising a case, adjustable slides slidably mounted on flexible guides in said case, index characters on said slides by which said slides may be set, printing types on the upper surface of said slides for receipting a bill, printing characters on the under surface of said slides for making a record of data printed on a bill receipted, and means for effecting the impression of said characters on a bill to be receipted and of a record.

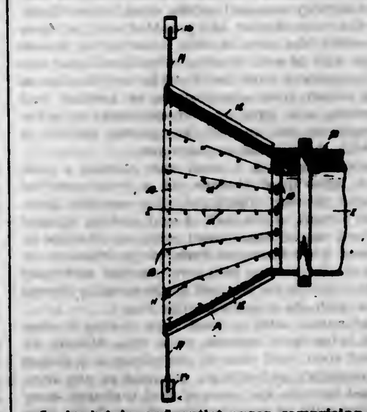
4. A receipting recorder, comprising a case, flexible guides, printing types adjustably mounted on said guides, buttons for setting up said printing types to print certain data, means for receiving a bill or other paper to be receipted, a clamping platen upon which to make an impression mounted in said case, means for effecting an impression of said types, an indicating totalizing counter, and means for operatively connecting said counter with said printing types, whereby the amount printed is transferred to said counter.

5. A receipting recorder, comprising a case, operating slides slidably mounted on flexible guides in said case, index characters and printing types mounted on said slides, a totalizing counter pivotally mounted in said case, said counter being provided with number wheels rotatably mounted, pinions, mounted on said number wheels, racks mounted on said slides, said pinions being adapted to mesh with said racks so that said counter is operated directly by said slides, and means for elevating and depressing said counter and thus bringing it into and out of gear with said slides.

[Claims 6 to 15 not printed in the Gazette.]

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1,041,625. METALLIC APRON INTAKE AND OUTLET. GEORGE L. HESS, Denver, Colo., assignor to Hess Flume Company, Denver, Colo., a Corporation. Filed Oct. 20, 1911. Serial No. 655,733. Renewed Aug. 29, 1912. Serial No. 717,788. (Cl. 61—5.)



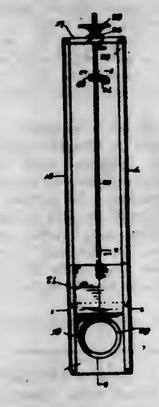
1. An intake and outlet apron comprising a semi-frusto conical member, longitudinal stiffening bars secured along the sides of said member, a transverse stiffening bar secured along the major end of said member, anchors secured to each of said longitudinal stiffening bars, an angular flange formed at the minor end of the member, and a flume joint member attached to said flange.

2. An intake and outlet apron comprising a semi-frusto conical member, means for anchoring the lateral portions of said member, an angular flange formed at the minor end of said member, and a flume joint member attached to said flange.

3. An intake and outlet apron comprising a semi-frusto conical member formed of a plurality of successively connected plates, longitudinal angle bars secured along the sides of said member, a transverse angle bar secured along the major end of said member, anchors secured to each of said longitudinal angle bars, and angular flanges formed at the minor end of each of said plates, said flanges being disposed in continuity, and a flume joint member connected to said flanges.

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1,041,626. HEAD-GATE. GEORGE L. HESS, Denver, Colo., assignor to Hess Flume Company, Denver, Colo., a Corporation. Filed Oct. 20, 1911, Serial No. 655,734. Renewed Aug. 29, 1912. Serial No. 717,789. (Cl. 61—46.)



1. The combination with a head gate having a stem provided with interrupted threads, of a stop member non-rotatably and slidably mounted on the stem, a lever interlocking with the stop member and provided with an opening through which the stem extends, interrupted threads formed on the wall of said opening adapted to pass into and ont of engagement with the threads on the stem as said lever is moved from one position to another, and means for locking said lever against movement to maintain the threads on the wall of the opening therein in engagement with the threads on the stem.

2. The combination with a head gate having a stem provided with interrupted threads, of a lever provided with an opening through which the stem extends, interrupted threads formed on the wall of said opening adapted to pass into and out of engagement with the threads on the stem as said lever is moved from one position to another, and means for locking said lever against movement to maintain the threads on the wall of the opening therein in engagement with the threads on the stem.

3. The combination with a head gate having a stem provided with interrupted threads, of a stop element adjustable on said stem, said element comprising a U-shaped member, non-rotatably and slidably mounted on the stem, a lever disposed between the arms of said U-shaped member and provided with an opening through which the stem extends, interrupted threads formed on the wall of said opening adapted to pass into and out of engagement with the threads on the stem as said lever is moved from one position to another, and means for locking said lever against movement relatively to the U-shaped member to maintain the threads on the wall of the opening in the lever in engagement with the threads on the stem.

4. The combination with a head gate having a stem provided with interrupted threads, of a stop element adjustable on said stem, said element comprising a U-shaped member non-rotatably and slidably mounted on the stem, a lever disposed between the arms of said U-shaped member and provided with an opening through which the stem extends, interrupted threads formed on the wall of said opening adapted to pass into and out of engagement with the threads on the stem as said lever is moved from one position to another, a U-shaped ball pivoted on the free end of the lever adapted to embrace one of the arms of the U-shaped members to lock the lever against movement relatively to the U-shaped member and maintain the threads on the wall of the opening in the lever in engagement with the threads on the stem, and means for locking said U-shaped ball against movement from embracing relation with respect to said arm of the U-shaped member.

5. The combination of a frame, a head gate slidably mounted on said frame, and having a stem provided with interrupted threads, a depending extension at the upper end of the frame, a lever provided with an opening through which the stem extends, interrupted threads formed on the wall of said opening adapted to pass into and out of engagement with the threads on the stem as said lever is moved from one position to another and means for locking the lever to the depending extension on the upper end of the frame to secure said lever against movement and thereby maintain the threads on the wall of the opening in the lever in engagement with the threads on the stem.

[Claims 6 and 7 not printed in the Gazette.]

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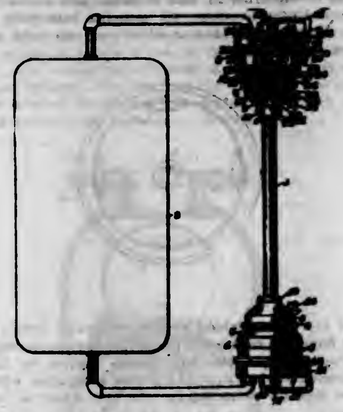
1,041,627. WRENCH. CHARLES A. HOOVER, Fair Oaks, and JELBERT G. HETRICK, Ambridge, Pa. Filed Mar. 22, 1912. Serial No. 685,496. (Cl. 81—139.)



A wrench comprising a casing, a jaw carried by the outer end thereof, a handle carried by the inner end of said casing and having a groove with the walls thereof alining with the interior walls of said casing, a handle plate secured to said handle, said plate having a longitudinal slot formed therein, rack bars carried by the longitudinal walls of the slot of said handle plate, said handle having a longitudinal slot formed therein, a shank slidably mounted in said casing, a spring pressed pivoted pawl arranged in the inner end of said shank and normally engaging said rack bars, a push button located within the slot of said handle plate and having the shank thereof connected to said pawl, a guide block slidably mounted in the slot of said handle, and a screw carried by the inner end of said shank and connected to said block.



1,041,628. STEAM-BOILER GAGE. ALLAN D. HUNSICKER and BERTRAM A. HUNSICKER, Shawnee, Okla. Filed Sept. 9, 1911. Serial No. 648,456. (Cl. 73—54.)



1. In a gage of the class described, the combination of a valve adapted to be actuated by fluid pressure in one direction, a second valve adapted to control the flow of fluid to the first valve to actuate the same, and a diaphragm intermediate said valves and apertured to permit the flow of fluid to the first named valve to actuate the same to a closed position in the event of the gage glass breaking.

2. In a gage of the class described, the combination of a valve adapted to be actuated by a fluid in one direction, a second valve adapted to control the flow of fluid to the first valve to actuate the same, means for operating said second valve, and a diaphragm intermediate said valves and apertured to permit the flow of fluid to the first named valve to actuate the same to a closed position in the event of the gage glass breaking.

3. A gage including a casing formed with fluid passages and having a pair of valve seats therein, a valve adapted to coöperate with one of said seats and capable of being actuated by fluid pressure, a second valve mounted on the other of said seats and manually operable and having a port formed therein, the passages terminating in the last-named valve seat and being adapted to register with the port in the second-named valve, said last-named valve being adapted to control the admission of fluid to one or the other of the said passages, and a diaphragm intermediate said valve seats and apertured to permit the flow of fluid to the first-named valve to actuate the same in one direction in the event of the breaking of the gage glass.

4. A gage of the class described, comprising a casing, said casing being formed with passages, an automatic valve arranged in said casing and having a port formed therein, and a diaphragm carried by said casing and having apertures formed therein for communication with said valve, a controlling valve, one of said passages communicating with the lower surface of said automatic valve, the other of said passages being in communication with said diaphragm, and said controlling valve being operable to control the admission of fluid to one or the other of said passages.

5. In a gage of the class described, a casing having fluid passages formed therein and provided with valve seats, an automatic valve adapted to coöperate with one of the seats, and a manually operable controlling valve rotatably mounted on the other of the seats and having a port formed therein, said passages terminating in the last-named valve seat and being adapted to register with said port, and said last-named valve being adapted to control the admission of fluid to one or the other of said passages.

[Claim 6 not printed in the Gazette.]

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1,041,629. PROCESS OF TREATING GRAIN, PULSE, AND THE LIKE. CHARLES JAQUET, Königshofen, Strasburg, Germany, assignor to Schneider, Jaquet & Cie., G. M. B. H., Königshofen, Strasburg, Germany. Filed Mar. 31, 1911. Serial No. 618,241. (Cl. 83—28.)

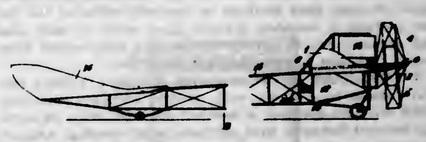
1. The process of improving, and keeping fresh, grain, pulse and the like, consisting in wetting the same and submitting it to a current of air, and in thereupon immediately repeating the water treatment of the material in its entire state, substantially as described.

2. The process of improving, and keeping fresh, grain, pulse and the like, consisting in wetting the same and submitting it to a current of air, and in thereupon immediately repeating the water treatment of the material in its entire state, and checking fermentation, substantially as described.

3. The process of improving, and keeping fresh, grain, pulse and the like, consisting in wetting the same and submitting it to a current of air, and in thereupon immediately repeating the water treatment of the material in its entire state, and again passing a current of air through it, substantially as described.

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1,041,630. AEROPLANE. MARIE JABOGNE, Paris, France. Filed Dec. 24, 1910. Serial No. 599,069. (Cl. 244—14.)



1. In an aeroplane the combination with the body of sustaining surfaces adapted to oscillate around their extreme front edge, a sliding block adapted to move on an inclined guideway, a drum a cable wound on said drum and connected at its ends with the ends of said sliding block, tractional members connecting the said sliding block with said sustaining surfaces, a worm adapted to actuate said drum and a handle adapted to actuate said worm substantially as and for the purpose set forth.

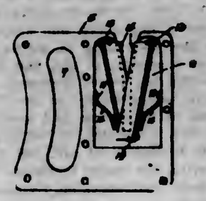
2. In an aeroplane, the combination with the body of the machine, of a movable sustaining surface, an inclined guideway, a sliding block adapted to move in said guideway, a drum, a cable wound on said drum and connected on its ends with the ends of said sliding block, a connection between the block and the sustaining surfaces, and means for actuating the drum.

3. In an aeroplane, the combination with the body, of upper and lower sustaining surfaces connected together for simultaneous and corresponding movement, a guideway, a sliding block adapted to move on said guideway, a drum, a cable wound on said drum and connected on its ends with the ends of said sliding block, a connection between the sliding block and one of the sustaining surfaces, and means for guiding said block.

4. In an aeroplane, the combination with the body of the machine, of a sustaining surface, a guideway, a sliding block adapted to move on said guideway and operatively connected to the sustaining surface, a drum, a cable wound on said drum and connected to said block, a worm adapted to actuate said drum, and a handle adapted to actuate said worm, substantially as and for the purpose set forth.

5. In an aeroplane, a body portion formed with laterally projecting wings which are laterally curved with convex surfaces facing downward, the machine being formed at the middle of said wing with a forwardly projecting and longitudinally and upwardly curving sustaining surface, and a tail secured to the rear of the body portion, the tail being laterally curved and the convex sides of which face downward, becoming more and more close toward the rear end for the purpose specified.

1,041,631. DEVICE FOR SHARPENING KNIVES. Leo C. Johnson, Spokane, Wash. Filed Jan. 26, 1912. Serial No. 673,318. (Cl. 51—7.)



1. In a device of the character described, a body portion formed in sections, a member mounted between said sections, said member, being provided with a cut-out portion, blocks of abrasive material pivotally connected to said sections and operating in said cutout portions, and a cut out portion provided on each of said sections registering with the cut out portion of the member for the purpose described.

2. In a device of the character described, a body portion formed in sections, a member being provided with a cutout portion secured between said members, pins journaled through said sections on opposite sides of the cut out portion, a member pivoted upon each of said pins and abrasive blocks carried by each of said second mentioned members for the purpose described.

3. In a device of the character described, a body portion formed in sections, each of said sections being provided with an opening, a member provided with an opening secured between said sections, said openings adapted to register and provide a hand opening, said member provided with a cut-out portion, pins connected to the body extending across said cutout portion, a separate block of abrasive material pivotally connected upon each pin and a cut out portion provided on each section registering with the cut out portion of the member for the purpose described.

4. In a device of the character described, a body portion formed in sections, each of said sections provided with an opening, a member secured between said sections, said member also provided with an opening, said second mentioned opening adapted to register with said first mentioned openings, said member provided with a cut-out portion adapted to register with said apertures, and blocks of abrasive material pivoted to said sections and operating on said cutout portion for the purpose described.

5. In a device of the character described, a body portion formed in sections, said sections provided with openings, a member secured between said sections, said member being also provided with an opening adapted to register with said first mentioned openings, said member provided with a cutout portion, blocks of abrasive material pivoted to said sections one on opposite sides of the cut out portion and operating in said cut-out portions, one block inclined with respect to the other and leaf springs between said member and blocks in said cutout portion to engage said abrasive blocks for the purpose described.

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1,041,632. TIRE-LOCK. Thomas J. Kelly, Denver, Colo. Filed July 9, 1912. Serial No. 706,501. (Cl. 105—156.)

1. In a two-part wheel, a wheel body, a tire rim, means secured to corresponding edges of said rim and body preventing relative movement therebetween, lugs projecting from said body outwardly at an angle to the face of said body, an angular recess formed between said lugs and rim, and a strip inserted within said recess for holding said rim and wheel in forced relation, said strip having the same general cross section as the recess.

2. In a two-part wheel, a wheel body, a tire rim, means secured to said body and engaging said rim for preventing relative movement therebetween, lugs projecting from said body at an angle therefrom, recesses formed between said lugs and said rims, a strip beveled on one edge to conform to the other of said recesses, and means formed on one end of said strips for securing said strip to the wheel, whereby the rim and wheel body are held in fixed relation.



3. In a wheel provided with a removable tire, a wheel body, a flange on said body, projecting lugs extending from said wheel body, a tire rim, means carried by the rim for engaging said flange, and means associated with said rim and lugs for retaining the rim and wheel in fixed relation.

4. In a wheel provided with a removable tire, a wheel body, a flange formed on said body, projecting lugs on said body, a tire rim, a shouldered recess formed on either side of said rim, one recess positioned to receive said flange, a recess formed by said projecting lug and the other shouldered recess, and means received in said last mentioned recess for holding said rim and wheel in fixed relation.

5. In a wheel provided with a removable tire, a wheel body, a flange formed on said body, a plurality of arcuate lugs projecting from said body, a tire rim, and means on one side of said rim for engaging said lug, a plurality of irregular recesses in cross section formed between said lugs and said rim, and strips secured to said wheel body and contained within said recesses for holding said rim and wheel in fixed position.

[Claims 6 and 7 not printed in the Gazette.]

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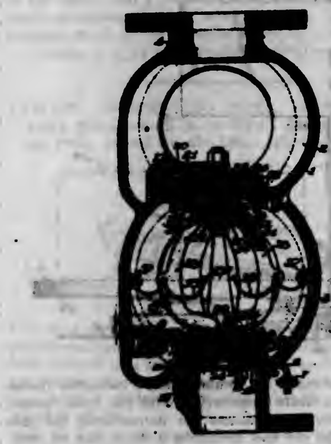
1,041,633. MAIN VALVE FOR DRY-PIPE AUTOMATIC FIRE-EXTINGUISHING SYSTEMS. Charles W. Knabesch, Chicago, Ill. Filed Aug. 16, 1911, Serial No. 644,345. Renewed Aug. 8, 1912. Serial No. 714,134. (Cl. 169—23.)

1. A main valve for dry pipe automatic fire extinguishing systems having a casing, said casing having an air chamber communicating with the system, a second chamber having a port for the inlet of water, valves adapted to said ports, respectively, and mechanism interposed between the valves for transmitting pressure from one to the other, said transmitting means having a pair of levers, a pair of struts, one end of each of which bears against one of the levers, an abutment against which the other ends of said struts bear, and means interposed between the air valve and the levers for normally holding the levers in the operative positions.

2. A main valve for dry pipe automatic fire extinguishing systems having a casing, said casing having an air chamber communicating with the system, a second chamber having a port for the inlet of water, valves adapted to said ports, respectively, and mechanism interposed between the valves for transmitting pressure from one to the other, said transmitting means having a pair of levers, a pair of struts, one end of each of which bears against one of the levers, an abutment against which the other ends of said struts bear and means interposed between the air valve and the levers for converting the downward pressure of the air valve into lateral pressure against the levers for forcing them toward each other.

3. A main valve for dry pipe automatic fire extinguishing systems having a casing, said casing having an air chamber communicating with the system, a second chamber having a port for the inlet of water, and a port through which said chambers communicate, in combination with valves adapted to said ports, respectively, and means interposed between the valves for transmitting pressure from one to the other, said transmitting means having a pair of levers, a pair of struts each bearing at one end upon one of said levers, and means interposed between the air valve and levers for drawing the levers toward each other.





4. A main valve for dry pipe automatic fire extinguishing systems having a casing, said casing having an air chamber communicating with the system, a second chamber having a port for the inlet of water, and a port through which said chambers communicate, in combination with valves adapted to said ports, respectively, and means for transmitting pressure from one of said valves to the other, said transmitting means having a pair of levers, a pair of struts each bearing at one end upon one of said levers, and means interposed between the air valve and levers for drawing the levers toward each other, the engaging surfaces of the link and levers being inclined or cam-like.

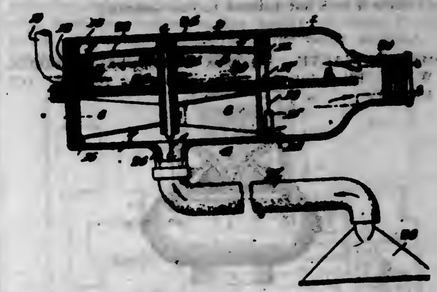
5. A main valve for dry pipe automatic fire extinguishing systems having a casing, said casing having an air chamber communicating with the system, a second chamber having a port for the inlet of water, and a port through which said chambers communicate, in combination with valves adapted to said ports, respectively, and means for transmitting pressure from one of said valves to the other, said transmitting means having a pair of bent spring levers, a pair of struts each bearing at one end upon one of said levers, and means interposed between the air valve and the levers for normally preventing the levers from moving away from each other.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,634. VACUUM-PRODUCER. Willis L. King, Phenix, R. I. Filed Feb. 28, 1912. Serial No. 680,418. (Cl. 230—11.)

The herein described vacuum producer comprising a shaft, a water wheel and a fan carried by the shaft, a partition plate having a bearing for the shaft and through which the latter extends so that the water wheel and fan are on opposite sides of the partition plate, the said partition plate being provided also on opposite sides with annular walls inclosing the water wheel and the fan, and a pair of casing members on opposite sides of and secured to the partition plate, the said casing members having walls coacting with those of the partition plate to form chambers for the water wheel and fan, the said chambers having discharge openings, the said fan chamber having an air intake nipple and the said casing having a common discharge opening for both of the chambers, and a water pipe arranged to discharge into the water wheel chamber and against the paddles of the said water wheel.



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1,041,635. CONTAINER. Kosy Kohn, Lincoln, Nebr. Filed Aug. 11, 1911. Serial No. 643,593. (Cl. 206—46.)



1. The combination with a shell or casing having a delivery opening at its top, and a body of closely packed material within said shell, of a flexible strand or cord-like device embedded in said material and adapted to break up the mass in the lower section of the casing so that portions thereof may be readily removed.

2. The combination with a shell or casing having a delivery opening at its top, and a body of closely packed material within said shell, of a flexible strand packed into the shell with said material in the form of a series of spiral convolutions whereby the mass of material in which the strand is embedded will be broken up as the strand is withdrawn therefrom.

3. A package comprising a shell or casing having a discharge opening at its upper end, a body of granular or fibrous material closely packed within the casing, and means intimately engaged with the material and adapted to progressively break up the closely packed mass as it is withdrawn therefrom.

4. A package comprising a shell or casing having a discharge opening at its upper end, granular or fibrous material closely packed within the casing, and an elongated flexible device arranged in folds throughout a portion of the body of said material and adapted, when drawn therefrom, to progressively break up the mass in which it is embedded.

5. A package comprising a shell or casing having an opening at its upper end, a cover for said opening, granular or fibrous material closely packed within the casing, and an independent device intimately engaged with and arranged wholly below the surface of said material and adapted to break up or disintegrate the portion of the material in which it is embedded as it is withdrawn therefrom, said device being exposed and rendered operative by partially emptying the shell or casing and the

disintegrated mass produced by the withdrawal of said device occupying more space within the casing than when said device was engaged therewith.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,636. VALVE. CHARLES LAMORMAUX, Charleston, W. Va. Filed July 15, 1912. Serial No. 709,638. (Cl. 166—1.)

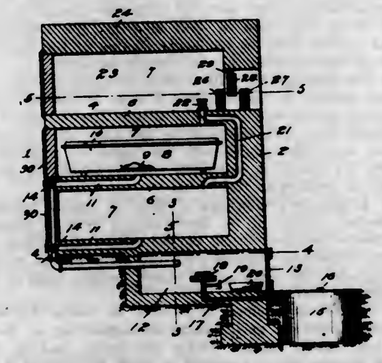


1. A valve of the type described comprising a hollow body having a depending coupling member, an outlet sleeve in communication with the top of the body, a closure detachably mounted in the outer end of said sleeve, rock shafts supported by the opposite sides of said body, flap valves mounted upon said shafts and coöperating in closing the inner end of said outlet sleeve, and means carried by said shafts whereby said shafts can be rocked in unison to open and close said valves.

2. A valve of the type described comprising a hollow body having a depending coupling member, an outlet sleeve in communication with the top of the body, a closure detachably mounted in the outer end of said sleeve, rock shafts supported by the opposite sides of said body, flap valves mounted upon said shafts and coöperating in closing the inner end of said outer sleeve, means carried by said shafts whereby said shafts can be rocked in unison to open and close said valves, said means including sector gears, and a bar detachably mounted upon the ends of said shafts adjacent to said sector gears.

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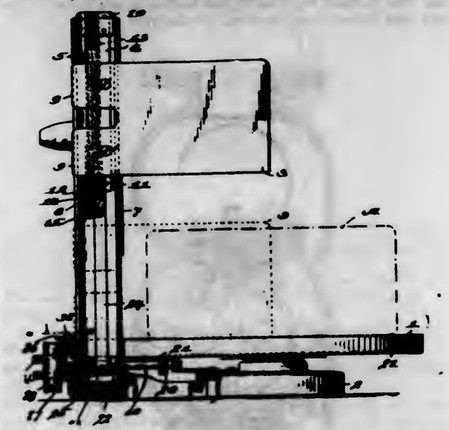
1,041,637. MAUSOLEUM. WARREN L. LAWRENCE, Eureka, Ill. Filed June 21, 1911. Serial No. 634,448. (Cl. 72—7.)



In combination, a plurality of burial compartments, a fuel compartment, a hot air compartment provided with a fresh air inlet, a container for moisture absorbent within said compartment, and a burner therein communicating with the fuel supply compartment, a common hot air duct leading from the hot air compartment and branch ducts communicating with respective burial compartments, air outlet ducts from each of the burial compartments connected in a series for the final discharge, valves for opening or closing against inflow or outflow of air to and from the burial compartments, a common air chamber above the burial compartments into which all of the air outlet ducts discharge, an air outlet opening from said compartment and disinfectant containers arranged in staggered relation within said outlet, substantially as described.

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1,041,638. CHEESE-CUTTER. ISAAC EDWARD LEE, Dayton, Va., assignor of one-half to Maggie Chester Houff and one-half to Charles H. Alder, Dayton, Va. Filed Mar. 6, 1912. Serial No. 681,896. (Cl. 31—68.)



1. In a cheese cutter, in combination, a rotatable cheese carrying table, a knife coöperating with the table, means for operating the knife, means for determining the size of the slice to be cut and including a scale and an indicating finger coöperating therewith, the scale and the indicating finger being relatively movable, a shaft, gearing operatively connecting the shaft and the table, an operative connection between the shaft and the knife operating means, and an operative connection between the shaft and the movable element of the determining means.

2. In a cheese cutter, in combination, a rotatable cheese carrying table, a knife coöperating with the table, means for operating the knife, means for determining the size of the slice to be cut and including a scale and an indicating finger coöperating therewith, the scale and the indicating finger being relatively movable, a shaft, gearing operatively connecting the shaft and the table, an operative connection between the shaft and the knife operating means, an operative connection between the shaft and the movable element of the determining means, and a resetting connection between the movable element of the determining means and the knife operating means.

3. In a cheese cutter, in combination, a movable cheese carrying table, a knife coöperating therewith, a movable knife actuating element, a continuously operable value indicating means including a relatively movable scale and pointer, means for correlating the table, the movable part of the value indicating means, and the knife actuating element whereby operations thereof are produced in unison, the last named means including clutch connections which enable a reverse movement of the knife actuating element independently of the table and a resetting connection between the movable part of the value indicating means and the knife actuating element.

4. In a cheese cutter, in combination, a movable cheese carrying table, a knife coöperating therewith, a movable knife actuating element, a shaft geared to the table, an operating connection between the shaft and the knife actuating element and including companion clutch parts whereby a movement of the knife actuating element in one direction causes a movement of said shaft and in the opposite direction is without effect on the shaft, a drum connected to the shaft and adapted to carry a scale, and a pointer which is traversed by the scale when the latter moves with the drum.



5. In a cheese cutter, in combination, a movable cheese carrying table, a knife coöperating therewith, a movable knife actuating element, a shaft geared to the table, an operating connection between the shaft and the knife actuating element and including companion clutch parts whereby a movement of the knife actuating element in one direction causes a movement of said shaft and in the opposite direction is without effect on the shaft, a drum adapted to carry a scale, a pointer which is traversed by the scale when the latter moves with the drum, a frictional connection between the drum and the shaft enabling the drum to be rotated by the shaft and also to be rotated free of the shaft, and a connection between the drum and the knife actuating element whereby when the latter moves without effect on the shaft, it resets the drum.

[Claims 6 to 16 not printed in the Gazette.]

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1,041,639. SUSPENDING TOYS. ERNST PAUL LEHMANN, Brandenburg-on-the-Havel, Germany. Filed Aug. 16, 1910. Serial No. 577,529. (Cl. 46—37.)



1. In a toy, the combination, with a body portion, and a suspension device, of a member movably connected to the body portion and attached to the suspension device, steering blades adjustably mounted on the toy, and means for transmitting motion from said movable member to said steering blades.

2. In a toy, the combination, with a body portion, a suspension device, and a member attached to said suspension device and movably connected to the body portion, of a driving mechanism carried by the toy and arranged to move said movable member, whereby the relation between the point of suspension and the center of gravity of the toy is shifted.

3. In a toy, the combination, with a body portion, and a reciprocatory member carried by said body portion, of a suspension device attached to said reciprocatory member, and means carried by the toy for reciprocating said reciprocatory member.

4. In a toy, the combination, with a body portion, a reciprocatory member connected to the body portion, a suspension device attached to said reciprocatory member, and steering mechanism carried by the toy, of a driving mechanism carried by the toy and arranged to move the reciprocatory member and said steering mechanism.

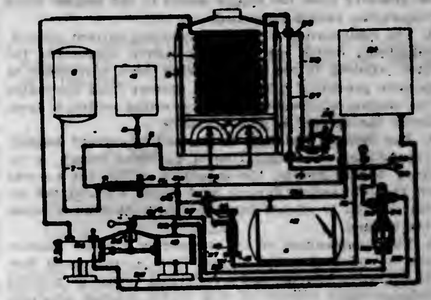
5. In a toy, the combination, with a body portion, of a reciprocatory member connected to the body portion, a suspension device attached to said reciprocatory member, steering mechanism and propelling mechanism carried by the toy, and means for simultaneously operating the propelling mechanism and moving the reciprocatory member and the steering mechanism.

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1,041,640. SUPPLYING FUEL AND WATER TO BOILERS. HERMANN LEMP, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Aug. 16, 1907. Serial No. 388,752. (Cl. 122—448.)

1. In combination, a vapor generator, a burner for heating the fluid in the generator, means for supplying fluid to the generator, a controller for the fluid supply, means for supplying fuel to the burner, a controller for the fuel supply, a source of compressed air supply, and a regulator responsive to variations in the pressure in the generator for regulating the supply of compressed air from said source to said controllers to cause the latter to vary the supply of fluid and fuel to the generator and burner respectively.

2. The combination with a boiler, of a burner therefor, a source of liquid fuel supply, a pressure actuated regulator controlling the flow of said fuel to the burner, a steam pump for supplying water to said boiler, a pressure actuated regulator controlling the supply of steam to said pump, and means responsive to the boiler pressure for controlling both of said regulators.



3. The combination with a boiler, of a burner therefor, a source of liquid fuel supply, a pressure actuated regulator controlling the flow of said fuel to the burner, a steam pump for supplying water to said boiler, a pressure actuated regulator controlling the supply of steam to said pump, a source of elastic fluid pressure, and means responsive to the boiler pressure for admitting elastic fluid pressure to both of said regulators.

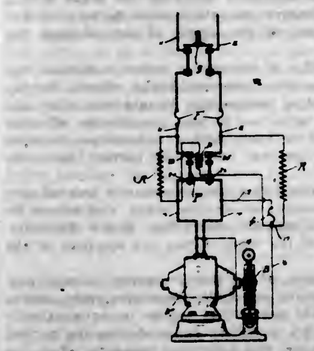
4. The combination with a boiler, of a burner therefor, a source of liquid fuel supply, a pressure actuated regulator controlling the flow of said fuel to the burner, a source of elastic fluid pressure, a means responsive to the temperature of the steam for admitting said elastic fluid pressure to the regulator and means responsive to the pressure of the steam for also admitting said elastic fluid pressure to said regulator.

5. The combination with a boiler, of a burner therefor, a source of liquid fuel supply, a pressure actuated regulator controlling the flow of fuel to the burner, a source of elastic fluid pressure, a valve controlling the admission of said elastic fluid pressure to the regulator, a thermostat exposed to the steam and arranged to operate said valve, and a valve controlled by the pressure of the steam for also admitting said elastic fluid pressure to said regulator.

[Claims 6 to 12 not printed in the Gazette.]

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1,041,641. BRAKE-MAGNET PROTECTIVE AND DEMAGNETIZING DEVICE. DAVID L. LINDQUIST, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Mar. 10, 1909. Serial No. 482,614. (Cl. 175—294.)



1. The combination with an alternating current magnet, of supply mains, a potential or operating switch, and

means for demagnetizing the magnet with alternating current from the supply mains when the operating switch is open.

2. The combination with an alternating current magnet, of supply mains, an operating switch which completes an energizing circuit from the supply mains to the magnet when closed, and means whereby a demagnetizing circuit is made effective from the supply mains to the magnet when the operating switch is opened.

3. The combination with an alternating current magnet, of supplying mains, an operating switch connecting the magnet winding to the supply mains, high inductance or resistance providing a bypass for current from the mains to the magnet winding when the operating switch is open, whereby the magnet is demagnetized.

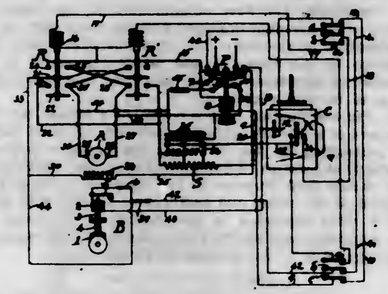
4. The combination with an alternating current magnet, of supply mains, an operating or potential switch, a restricted bypass around the potential switch for current when the said switch is open, and means whereby the potential switch is opened when excessive current is taken by the magnet.

5. The combination of an alternating current magnet, means for protecting the magnet from a continuous flow of an excessive current, and a restricted bypass permitting a demagnetizing current to flow to the magnet windings when the protecting means has operated.

[Claims 6 to 22 not printed in the Gazette.]

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1,041,642. BRAKE APPARATUS. DAVID L. LINDQUIST, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Apr. 5, 1911. Serial No. 619,069. (Cl. 172—152.)



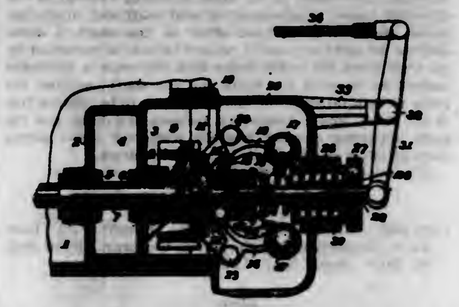
1. The combination with an electric motor, of a brake, a manual device for controlling the supply of current to the motor, means for applying the brake with full power, and means for automatically applying the brake with a reduced power whenever the said manual device is moved into position to cut off the supply of current from the motor.

2. The combination of an electric motor, a manual controller therefor, an electromagnetic brake, circuits for the brake magnet winding independent of said controller, and means associated with one of said circuits for effecting the application of the brake with a reduced power when the controller is operated to cut off current from the motor.

3. The combination of an electric motor, a manual controlling device therefor, an electric brake, and means independent of said manual controlling device for automatically easing off the brake during the stopping of the motor.

4. The combination of an electric motor, manual controlling means therefor, an electro-responsive brake, means independent of said controlling means to automatically apply the brake with a reduced power during the normal stopping of the motor, and additional means to effect the application of the brake with full power.

1,041,643. CENTRIFUGAL GOVERNOR. VINCENT LINK, Detroit, Mich., assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed June 9, 1908. Serial No. 437,589. (Cl. 121—112.)



1. In a centrifugal governor, the combination with a rotary shaft, of a block mounted to slide longitudinally on the end of said shaft, a circumferential fixed abutment on said shaft, movable weights carried thereby and engaging said block to move it, a longitudinally movable rod mounted in substantial alinement with the shaft and provided with a cup-shaped end surrounding and spaced from said shaft and bearing against said block, a spring surrounding said rod tending to force it against said block, and a thrust bearing carried on the end of said block against which the cup-shaped end of the rod bears.

2. In a device of the class described, the combination with a main casing, of a rotary shaft mounted therein and extending to an opening in the wall thereof, of a centrifugal governor mounted on the end of said shaft having a longitudinally movable portion, a supplemental casing surrounding the governor mechanism and closing the opening in the main casing, the said supplemental casing being provided with an opening in substantial alinement with the end of the shaft, an adjustable bushing in said opening, a sliding rod mounted in said bushing and bearing at its inner end against the longitudinally movable portion of the governor, and a coiled spring surrounding said rod and bearing against said bushing and tending to force it against the governor.

3. In a device of the class described, a block having a longitudinal bore and provided with transverse grooves for engagement with governor arms and provided with a reduced cylindrical end having thereon rotary rings with a ball bearing between them, the said cylindrical portion having an end flange for retaining the rings thereon.

4. In a device of the class described, the combination with a gear case, of a rotary shaft in line with an opening in said case, a centrifugal governor mounted on the end of said shaft embodying a longitudinally movable block, a ball thrust bearing secured on the end of said block, a supplemental casing detachably secured around the opening in the gear case and surrounding said governor, a longitudinally movable rod in said supplemental casing in line with and spaced from said shaft and having a bearing surface adapted to engage said thrust bearing, and actuating mechanism secured to said rod.

5. In a device of the class described, the combination with a gear case, of a rotary shaft in line with an opening in said case, a centrifugal governor mounted on the end of said shaft embodying a longitudinally movable block, a ball thrust bearing secured on the end of said block, a supplemental casing detachably secured around the opening in the gear case and surrounding said governor, a longitudinally movable rod carried by said supplemental casing in line with and spaced from said shaft and having a bearing surface adapted to engage said thrust bearing, a spring in said casing tending to force said rod toward said governor, and actuating mechanism secured to said rod.

[Claims 6 to 8 not printed in the Gazette.]



1,041,644. HITCHING-STRAP. THOMAS LYNCH, Jefferson, Iowa. Filed Feb. 9, 1912. Serial No. 676,582. (Cl. 54—34.)



1. In a hitching strap, a clamp, a hitching rope having one end secured to said clamp, the free portion of said hitching rope projecting from one end of said clamp and bent back upon itself over said clamp and along the back thereof to form a loop, and a locking ring pivotally mounted contiguous the other or free end of said clamp, said hitching rope passing through said locking ring, the pivotal point of said ring being farther from the back of the clamp than from the end, whereby the ring is caused to engage said rope when in a position over the back of said clamp and will afford a free passage for said rope when the ring is swung to a position over the end of said clamp.

2. In a hitching strap, a clamp, a hitching rope having one end secured to said clamp, said hitching rope projecting from one end of said clamp and bent back upon itself over said clamp and along the back thereof to form a loop, and a locking ring pivotally mounted contiguous to the other or free end of said clamp and movable to occupy positions either transversely of the clamp or on a line therewith and projecting from the end, said rope being passed through said locking ring, whereby when said locking ring is moved to its transverse position said rope will be engaged by said locking ring to prevent the movement of said rope through said locking ring, and when said locking ring is moved to its longitudinal position said rope will have a free passage through said locking ring.

3. In a hitching strap, a clamp made of spring steel with two sides connected by a back wall so as to present a U-shape in cross-section, and provided with a slot in its back wall, a hitching rope having one end placed in said clamp against the back wall, a bolt connecting the sides transversely of said clamp and at one side of said slot, said bolt being adapted to bear against one side of said rope to press the other side through said slot, said hitching rope projecting from one end of said clamp, and releasable means carried by said clamp to secure said hitching rope against movement.

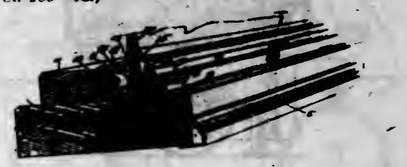
4. In a hitching strap, a clamp having a portion U-shaped in cross section, a hitching rope having one end secured in said clamp, bolts for connecting and fixing said clamp to grip said rope end, said clamp having an angular slot formed therein beyond the U-shaped portion contiguous the free end of said clamp, and a locking ring positioned in said slot and maintained therein by the end of said rope secured in said clamp, said hitching rope projecting from one end of said clamp and bent back over said clamp and extended through said locking ring, said locking ring being movable to engage said rope in adjusted positions.

5. In a hitching strap, a clamp, a hitching rope having one end secured in said clamp, the free portion of said hitching rope projecting from one end of said clamp and bent back upon itself over and along the back of said clamp, said clamp having an angular slot formed at its other or free end and opening out at the sides thereof, one branch of said slot being arranged longitudinally of said clamp forming clamping fingers, and a locking ring positioned in the longitudinal branch of said slot, said locking ring being adapted to releasably secure said hitching rope in position, said fingers being bent around to inclose the end of said rope secured in said clamp, and having their inner ends bent inwardly to contract the entrance to the longitudinally-extending branch of said slot.

[Claims 6 to 9 not printed in the Gazette.]

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1,041,645. JOINT CONNECTION. SILAS C. MCDOWNEY, Chicago, Ill. Filed July 8, 1911. Serial No. 637,550. (Cl. 189—78.)



1. In combination, a window frame, sash or glass holding bars provided with interlocking joint flanges, the bars adapted to be arranged one on each side of a glass, a single row of screws penetrating the bars from the outside of the glass for drawing the bars closely against the glass and insuring a tight flange joint, and a wood buffer block and sheet metal holders therefor penetrated by the screws, arranged to be contacted with by the glass.

2. In combination, a window frame, sash or glass holding bars provided with interlocking joint flanges, the bars adapted to be arranged one on each side of a glass, a single row of screws penetrating the bars from the outside of the glass for drawing the bars closely against the glass and insuring a tight flange joint, and a wood buffer block penetrated by the screws and arranged to be contacted with by the glass.

3. In a window, a base member having a base portion and opposite lateral portions bent upwardly and toward each other, so as to overlie the base portion, one overlying portion being adapted to engage with one face of the glass; a cover member having one portion adapted to engage the other side of the glass, and another portion in engagement with the remaining overlying portion of the base member, means for supporting the glass, and means for clamping the glass between the cover member and the base member.

4. In a glass window, a sheet metal base having a lateral member in engagement with one side of the glass, and a second lateral member located at the opposite side of the glass and bent upwardly and toward the first lateral member so as to overlie the base; a cover member having one portion in engagement with the remaining face of the glass, and another portion resting upon the overlying portion of the said second lateral member, and means for clamping the glass between the said first member and the cover member.

5. In a window, a base member having a base portion and opposite lateral portions bent upwardly and toward each other, so as to overlie the base portion, one overlying portion being adapted to engage with one face of the glass; a cover member having one portion adapted to engage the other side of the glass, and another portion in engagement with the remaining overlying portion of the base, a buffer member resting on the base portion for supporting the glass, and means penetrating the cover member and the buffer member for clamping the glass between the cover member and the overlying portion which engages one face of the glass.

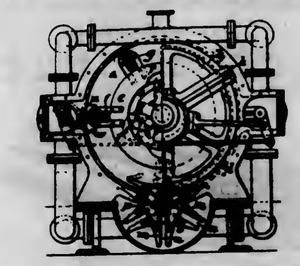
[Claims 6 and 7 not printed in the Gazette.]

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1,041,646. ROTARY ENGINE. RICHARD MASSOHN and KARL THEODOR SANDRECZKI, Hamburg, Germany. Filed Jan. 11, 1912. Serial No. 670,699. (Cl. 121—48.)

1. A power generator comprising an annular cylinder; a pair of piston-carriers normally loosely mounted on a shaft; pistons carried by said piston-carriers; means

keyed to said shaft, and positioned between said piston-carriers; rotary-slotted means; means whereby said rotary slotted means are journaled, the said rotary slotted means coacting with said member and said piston-carriers and means mounted in the engine, so that the said piston-carriers will be alternately locked from rotation and locked to said shaft, as set forth.

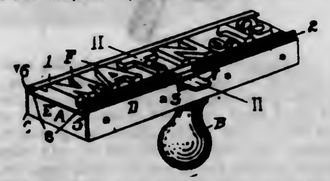


2. A power generator comprising an annular cylinder through which a shaft passes; a suitable frame in which said shaft has bearing; a pair of piston-carriers operating within said cylinder and normally loosely mounted on said shaft; pistons carried by said piston-carriers; means positioned between said piston-carriers and keyed to said shaft; pins carried by said piston-carriers and projecting inwardly; rotary slotted means mounted one on each end of two axles journaled in said member keyed to said shaft, the said rotary slotted means on each axle being positioned at right angles to each other; a unitary means keyed to each of the said piston-carriers; means whereby when one of the said unitary means is rotating, the other of said unitary means is locked from rotation, thus locking its associated piston-carrier from rotation, the said slotted means having bearing surfaces which coact with bearing surfaces and recesses formed in said piston-carriers, and the said pins, so that when one of said piston-carriers is at rest, the other piston-carrier is coupled to said shaft.

3. A power-generator comprising an annular cylinder through which a shaft passes; a suitable frame in which said shaft has bearing; a pair of piston-carriers operating within said cylinder and normally loosely mounted on said shaft; pistons carried by said piston-carriers; means positioned between said piston-carriers and keyed to said shaft; pins carried by said piston-carriers and projecting inwardly; rotary slotted means mounted one on each end of two axles journaled in said member keyed to said shaft, the said rotary-slotted means on each axle being positioned at right angles to each other; a rotary-member keyed to each of the said piston-carriers, the periphery of said rotary-members being concentric to said shaft except at certain points where said periphery is interrupted by slots; a pin carried by each of the said rotary-members and opposite said slots; a shaft journaled in said frame; a rotary slotted member keyed to each end of the second-mentioned shaft, and each being provided with bearing surfaces which are concentric to the periphery of said rotary-members, the whole being arranged so that when one of said rotary-members is locked to prevent the rotation of its associated piston-carrier, the other rotary-member and its piston-carrier will be rotating and locked to said shaft.

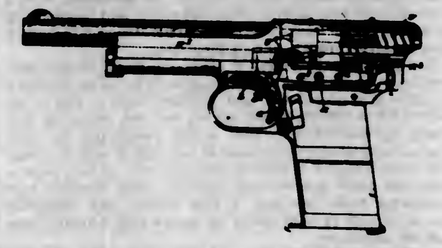
4. A power-generator comprising an annular cylinder through which a shaft passes; a suitable frame in which said shaft has bearing; a pair of piston-carriers operating within said cylinder and normally loosely mounted on said shaft, and each provided with bearing surfaces overhanging said shaft and concentric thereto, the said bearing surfaces being interrupted by pockets at intervals; pistons carried by said piston-carriers; means positioned between said piston-carriers and keyed to said shaft; pins carried by said piston-carriers and projecting inwardly; rotary slotted means mounted one on each end of two axles journaled in said member keyed to said shaft, the said rotary slotted means on each axle being positioned at right angles to each other, and each being provided with an outer bearing surface which coacts with the concentric bearing surfaces of its associated piston-carrier; a unitary means keyed to each of the said piston-carriers; means whereby when one of the said unitary means is rotating, the other of said unitary means is locked from rotation, thus locking its associated piston-carrier from rotation, the said slotted means having bearing surfaces which coact with the said bearing surfaces and recesses formed in said piston-carriers, and the said pins, so that when one of said piston-carriers is at rest, the other piston-carrier is coupled to said shaft.

1,041,647. HOLDER FOR CHANGEABLE TYPE-BLOCKS. JAMES H. MATTHEWS, Pittsburgh, Pa., assignor to Jas. H. Matthews & Co., Pittsburgh, Pa., a Corporation of Pennsylvania. Filed June 14, 1912. Serial No. 703,606. (Cl. 101—58.)



In a holder for changeable type-blocks, a base carrying a resilient edge-flange extending along one of the longitudinal sides thereof; a type-plate operatively correlated with said base and provided with an edge-flange extending along one of the longitudinal sides thereof and engageable with one edge of the type-blocks and with said resilient flange; and a projecting lug carried by said type-plate and adapted to be grasped by the fingers of the operator.

1,041,648. FIRING MECHANISM FOR RECOIL-LOADING PISTOLS WITH FIXED BARRELS. PAUL MAUSER, Oberndorf-on-the-Neckar, Germany. Filed Oct. 18, 1910. Serial No. 587,729. (Cl. 42—3.)



1. A trigger mechanism for a recoil loading pistol, comprising a sear ($c^1$ $c^2$), in the form of a two armed lever and having a rigid arm ($c^2$) which forms the sear proper, an upward projection ($c^3$) upon its fore-end, a trigger engaging said sear, means for disengaging said trigger and sear upon pulling of the trigger, and a breech block (f) having a recess ($f^3$) therein into which said projection ($c^3$) is adapted to project, whereby the pulling of the trigger can be effected only when the breech bolt is in its closing position.

2. A firing mechanism for recoil operated fire arms, comprising a trigger, a sear, a firing-pin, a recoil operated breech-bolt, and coöperating means on said sear and on said breech-bolt for preventing operation of said sear to release the firing-pin except when said breech-bolt is in position to close the breech, said sear being released by said trigger upon the trigger being pulled, whereby said coöperating means may be disengaged to permit recoil of the breech-bolt.



3. A firing mechanism for recoil operated fire arms, comprising a trigger, a sear, a firing-pin, a recoil operated breech-bolt, having a recess therein, and a projection upon said sear adapted to enter said recess in the breech-bolt only when the breech is in closed position, said sear being released by said trigger upon the trigger being pulled, whereby said projection may be disengaged from said recess in the breech-bolt to permit recoil of said breech-bolt.

4. A firing mechanism for recoil operated firearms, comprising a trigger, a sear in the form of a two arm lever, a firing-pin adapted to be engaged by one arm of said sear, a recoil operated breech-bolt, having a recess therein, and a projection upon the other arm of said sear adapted to enter said recess in the breech-bolt when the breech is in closed position to prevent release of said firing-pin except when said breech-bolt is in position to close the breech, said sear being released by said trigger upon said trigger being pulled, whereby said projection may be disengaged from said recess in the breech-bolt to permit recoil of the breech-bolt.

5. A firing mechanism for recoil-operated fire-arms, comprising a trigger, a sear, a catch-device upon said trigger adapted to engage said sear, means for disengaging said catch device from said sear, a firing pin, a recoil-operated breech-bolt, and coöperating means on said sear and on said breech-bolt for preventing operation of said sear to release the firing pin except when said breech-bolt is in position to close the breech.

1,041,649. LIQUID-FUEL BURNER. WILLIAM E. MCCARTHY, Seattle, Wash. Filed Feb. 15, 1911. Serial No. 608,725. (Cl. 158—56.)

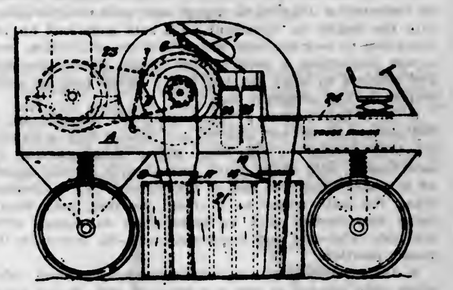


1. A liquid fuel burner comprising a steam generator, means for supplying water to the lower portion of the generator, a vaporiser arranged adjacent to the generator and having connection with the upper portion thereof, a burner having connection with the vaporizer and arranged with the vaporizer between the burner and generator, said vaporizer and generator being in proximal relation to the burner, a valved coupling in the connection between the vaporizer and upper portion of the generator, and a fuel pipe connected to said valved coupling.

2. A liquid fuel burner comprising a steam generator, a pipe leading from a source of water supply and having connection with the lower end of the generator, a pipe leading from the upper end of the generator, a vaporizer adjacent to the generator, a burner tip having connection with one end of the vaporizer, a pipe leading from the opposite end of the vaporizer, a liquid fuel supply pipe, and a valved coupling joining the liquid fuel supply pipe and the two pipes leading from the upper end of the generator and from the said vaporizer, said coupling having passages communicating with the several pipes.

3. A liquid fuel burner comprising a steam generator consisting of a coil of conical form, means for supplying water to the lower end of the generator, a pipe leading from the upper end of the generator, a vaporizer arranged adjacent to the steam generator, a burner tip exterior to the vaporizer and having connection therewith and having outlets to direct a flame upon the vaporizer and generator as well as a flame in an upward direction, a pipe having connection with the vaporizer, a liquid fuel supply pipe, a coupling joining the liquid fuel supply pipe and the pipes leading from the vaporizer and generator and having inter-communicating passages and a valve seat at the juncture of said passages, and a valve threaded into the coupling for closing upon said seat and controlling the flow of steam from the generator.

1,041,650. PROCESS AND APPARATUS FOR HARVESTING COTTON. WILLIS ROBERT MCCOMB, San Francisco, Cal. Filed Jan. 3, 1910. Serial No. 536,237. (Cl. 84—117.)



1. The process of harvesting cotton, which consists in charging the cotton on the plant with electricity to cause it to expand and removing and harvesting the cotton when thus expanded, by means of a current of electrified air.

2. A cotton harvester comprising a source of compressed air, a source of rarefied air, an air conduit leading from said compressed air source adapted to be applied to the cotton plant, an air conduit leading to the source of rarefied air, adapted to be applied to the cotton plant, and means for supplying electricity to the first said conduit.

3. A cotton harvester comprising a source of compressed air, a source of rarefied air, a member having a recess to receive the cotton plants, a conduit leading from said first source to said recess, a conduit leading from said recess to said second source, and means for supplying electricity to the first said conduit.

4. A cotton harvester comprising a blower having an inlet and an outlet, a member having a recess to receive the cotton plants, a conduit leading from said recess to said inlet, a conduit leading from said outlet to said chamber and means for supplying electricity to one of said conduits.

5. A cotton harvester comprising a blower having an outlet and a rotatable fan, an air conduit including a passage leading from said outlet and a machine for supplying electricity to said conduit, including a rotatable member mounted coaxially with said fan.

1,041,651. HAIR-WAVER. MINEOLA MCILVEENE, Luceders, Tex. Filed Sept. 8, 1911. Serial No. 648,385. (Cl. 132—18.)



1. In a hair waver, a body comprising spaced rods, a rod pivoted at one end between said spaced rods, a handle pivotally carried by the body, means carried by the handle for normally holding the same in alinement with the body in one position and for locking the pivoted

rod closed in another position, and a hook carried by said means adapted to engage the free end of said pivoted rod to bring the rod to a closed position.

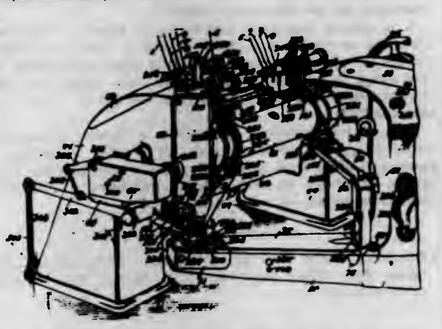
2. In a hair waver, a body comprising a plurality of spaced rods connected at one end, and each having a loop at the other end, a rod pivoted by means of a pintle at one end thereof to said loops between a pair of said spaced rods and adapted to be swung, a handle pivotally carried by said body, a shank carried by said handle having an indentation adapted to engage with said body to maintain the handle in alinement with said body and an indentation to lock the hair waver in a closed position, and means comprising a hook carried by the shank aforesaid and adapted to bring the rod into a closed position with respect to the aforesaid body.

3. In a hair waver, a body comprising spaced rods, a rod pivoted at one end between said spaced rods, a handle pivotally carried by the body, and a shank carried by said handle, said shank being formed with a hook adapted to engage the free end of the pivoted rod to thereby bring the hair waver to a closed position, said shank being also formed with an indentation to engage with the body aforesaid and to thereby lock the waver in its closed position.

4. In a hair waver, a body comprising spaced rods, other rods pivoted at one end between said spaced rods, a handle pivotally carried by the opposite end of said body, and shanks carried by said handle having indentations formed therein to normally hold the handle in alinement therewith, said shanks being also formed with hooks adapted to engage the free ends of the pivoted rods to bring the hair waver to closed operative position when the handle is moved inwardly.

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1,041,652. SEWING-MACHINE. ARTHUR A. MERRITT, Worcester, Mass., assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y., a Corporation of New York. Filed Dec. 12, 1908. Serial No. 467,163. (Cl. 112—7.)



1. In a sewing machine, the combination of a presser-foot; a cross-thread-carrier and a cross-thread hook co-operating therewith; two upright shafts to which said carrier and hook are respectively secured, one of said shafts being mounted and supported in bearings on the presser-foot; and driving connections to said upright shafts.

2. In a sewing machine, the combination of a presser-foot; a cross-thread-carrier and a cross-thread hook co-operating therewith; two upright shafts mounted and supported in bearings on the presser-foot and to which said carrier and hook are respectively secured; and driving connections to said upright shafts.

3. In a sewing-machine, the combination of a presser-foot bar; a presser-foot thereon; a cross-thread carrier; a cross-thread hook; two upright shafts mounted in bearings on the presser-foot and to which said carrier and hook are respectively secured; a sleeve or tubular shaft rotatable about said presser-foot bar; and driving connections to said tubular shaft and from the latter to said upright shafts.

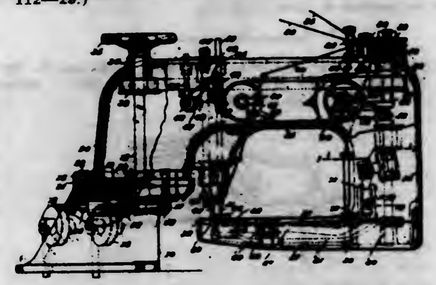
4. In a sewing machine, the combination of a presser-foot bar; a presser-foot thereon; a cross-thread carrier; a cross-thread hook; two upright shafts mounted in bearings on the presser-foot and to which said carrier and hook are respectively secured; a sleeve or tubular shaft rotatable about said presser-foot bar; driving connections to said tubular shaft; and driving connections, including an arm on the lower end of the tubular shaft, from said tubular shaft to the two upright shafts.

5. In a sewing machine, the combination of a presser-foot; two upright shafts mounted in bearings on the presser-foot; coöperating thread-handling elements one on each shaft and adapted to act upon thread in the formation of a seam; driving connections extending to said shafts from a main driving shaft of the machine; and presser-foot lifting means under control of operator for elevating the presser-foot and with it the shafts and thread-handling elements.

[Claims 6 to 15 not printed in the Gazette.]

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1,041,653. SEWING-MACHINE. ARTHUR A. MERRITT, Worcester, Mass., assignor to Willcox & Gibbs Sewing Machine Co., New York, N. Y., a Corporation of New York. Filed Nov. 5, 1910. Serial No. 590,826. (Cl. 112—29.)



1. In a sewing machine, the combination with a base or supporting member, of a frame or casing swiveled at its supporting end to said base to turn on an upright axis to different radial positions with relation to the base, said frame having an approximately horizontal part extending outward from its supporting end and an approximately vertical part depending from said horizontal part; and an approximately horizontal work-arm or horn supported from the lower end of said vertical part of the frame.

2. In a sewing machine, the combination with a base or supporting member, of a frame or casing swiveled at its supporting end to said base to turn on an upright axis to different radial positions with relation to the base, said frame having an approximately horizontal part extending outward from its supporting end and an approximately vertical part depending from said horizontal part; an approximately horizontal work-arm or horn supported from the lower end of said vertical part of the frame; an upright shaft extending from the base to the frame and having its axis coincident with the axis on which said frame is swiveled; driving connections to said shaft; and driving connections from said shaft to parts of the machine on the frame.

3. In a sewing machine, the combination with a base or supporting member, of a frame or casing swiveled at its supporting end to said base to turn on an upright axis to different radial positions with relation to the base, said frame having an approximately horizontal part extending outward from its supporting end and an approximately vertical part depending from said horizontal part; an approximately horizontal work-arm or horn supported from the lower end of said vertical part of the frame; stitch-forming elements mounted upon the work-arm; and other stitch forming elements mounted upon the frame and depending into coöperative relationship to said elements on the work-arm.

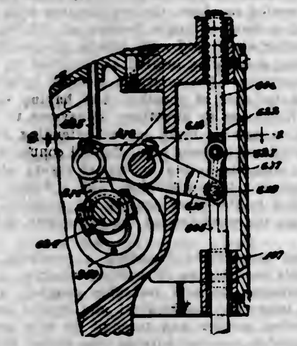
4. In a sewing machine, the combination with a base or supporting member, of a frame or casing swiveled at its supporting end to said base to turn on an upright axis to different radial positions with relation to the base, said frame having an approximately horizontal part extending outward from its supporting end and an approximately horizontal work-arm or horn below said horizontal part.

5. In a sewing machine, the combination with a base or supporting member, of a frame or casing swiveled at its supporting end to said base to turn on an upright axis to different radial positions with relation to the base, said frame having an approximately horizontal part extending outward from its supporting end and an approximately horizontal work-arm or horn below said horizontal part; an upright shaft extending from the base to the frame and having its axis coincident with the axis on which said frame is swiveled; and driving connections from said shaft to parts of the machine on the frame.

[Claim 6 not printed in the Gazette.]

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1,041,654. NEEDLE-BAR-DRIVING CONNECTION. ARTHUR A. MERRITT, Worcester, Mass., assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y., a Corporation of New York. Original application filed Dec. 12, 1908, Serial No. 467,163. Divided and this application filed Jan. 12, 1910, Serial No. 537,681. Renewed Aug. 1, 1912. Serial No. 712,772. (Cl. 112—29.)



1. In a sewing-machine, the combination of a needle-bar; two links lying along opposite sides of the needle-bar and pivoted thereto; and a driving member having a forked end embracing the links and needle-bar, the arms of said fork being pivoted to the links respectively.

2. In a sewing machine, the combination of a needle-bar; two links lying along opposite sides of the needle-bar; pivot-studs projecting from the needle-bar into pivot-openings in said links; a driving member having a forked end embracing the links and holding the same in place against opposite sides of the needle-bar; and pivot-studs connecting the arms of the forked end of the driving member and the links respectively.

3. The combination of a needle-bar; a driving member; and one or more links pivoted to said needle-bar and driving member, each link having a lubricant passage or chamber communicating with its pivots, and said needle-bar being hollowed to form a lubricant reservoir having an outlet leading to the chamber in the link or links.

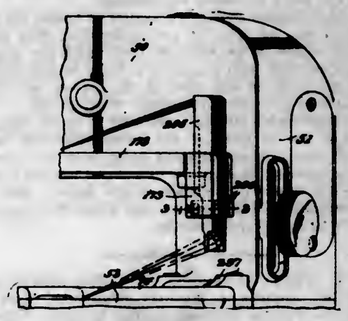
4. The combination of a needle-bar; a driving member; one or more links pivoted to said needle-bar and driving member, each link having a lubricant passage or chamber communicating with its pivots, and said needle-bar being hollowed at its upper end to form a lubricant reservoir having an outlet leading to the chamber in the link or links, and a spring-actuated valve closing the upper end of the reservoir in the needle-bar.

5. In a sewing machine, the combination of a needle-bar; driving means; and two links lying along opposite sides of the needle-bar and pivotally connected thereto and to the driving means, each link having a flattened inner surface which for approximately the length of the link closely fits and bears against a coacting flattened surface of the needle-bar.

[Claim 6 not printed in the Gazette.]

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1,041,655. THREAD-GUIDE. ARTHUR A. MERRITT, Worcester, Mass., assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y., a Corporation of New York. Original application filed Dec. 12, 1908, Serial No. 467,163. Divided and this application filed Jan. 12, 1910, Serial No. 537,684. Renewed Aug. 1, 1912. Serial No. 712,774. (Cl. 112—29.)



1. In a sewing machine, the combination with a thread-passage through which one or more threads pass from one part of the machine to another part thereof, of a thread-guide for said threads movably mounted on the machine and adapted to be moved from a position to direct the threads into the thread-passage to a position to withdraw the threads from said passage.

2. In a sewing machine, the combination with a thread-passage through which one or more threads pass from one part of the machine to another part thereof, of a thread-guiding slide movable in a bearing on the machine from a position to guide the threads into the thread-passage to a position to withdraw the threads from said passage.

3. In a sewing machine, the combination with a thread-way through which one or more threads pass from one part of the machine to another part thereof, of a thread-guiding slide having one or more longitudinal thread-passages therein for directing the thread or threads into said thread-way, said slide being longitudinally slidable in a bearing on the machine to move its end into or withdraw it from its juxtaposition to said thread-way.

4. In a sewing machine, the combination of a thread-way for guiding thread in its passage from one part of the machine to another, and a thread-guiding slide movably mounted at one end of the thread-way and by its movement serving to move the thread into or out of said thread-way.

5. In a sewing machine having a work-arm, means for guiding thread in its passage from one part of the machine to operating parts associated with said work-arm, said means including a thread-way and a thread-guiding slide movably mounted at one end of said thread-way, said slide in its normal lowered position extending into an opening in said work-arm.

[Claims 6 to 12 not printed in the Gazette.]

1,041,656. THREAD-GUIDE. ARTHUR A. MERRITT, Worcester, Mass., assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y., a Corporation of New York. Original application filed Dec. 12, 1908, Serial No. 467,163. Divided and this application filed Jan. 12, 1910, Serial No. 537,663. Renewed Aug. 1, 1912. Serial No. 712,775. (Cl. 112—26.)



1. A thread-guide having a plurality of hooks, the point of one of said hooks projecting into a groove or recess in an adjacent hook, whereby thread may pass said hook-point when moved in one direction but will be caught by the hook-point when moved in the reverse direction, and means for supporting the parts in proper relationship.

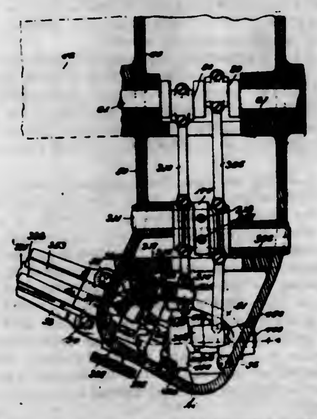
2. A thread-guide having a plurality of hooks, the point of each hook projecting into a longitudinal groove or recess in the back of an adjacent hook, and means for supporting the parts in proper relationship.

3. A thread-guide having a plurality of hooks, the point of each of one or more of the hooks projecting into a groove or recess in an adjacent hook, with the point of said hook entering said groove to a depth beyond the surface of the hook at the sides of the groove, and means for supoporting the parts in proper relationship.

4. A thread-guide having a plurality of hooks, the point of each of one or more of the hooks projecting into a groove or recess in an adjacent hook, with the point of said hook entering said groove to a depth beyond the surface of the hook at the sides of the groove, but clear of the bottom wall of the groove, and means for supporting the parts in proper relationship.

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1,041,657. DRIVING CONNECTION FOR SEWING-MACHINES. ARTHUR A. MERRITT, Worcester, Mass., assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y., a Corporation of New York. Original application filed Dec. 12, 1908, Serial No. 467,163. Divided and this application filed Jan. 28, 1910, Serial No. 540,599. Renewed Aug. 1, 1912. Serial No. 712,777. (Cl. 74—5.)



1. In a sewing machine, the combination with a work-arm having a bend or angle therein, of driving connections extending along said work-arm to an operating part and including a rotatable coupling located at the bend or angle of the arm and longitudinally movable on its axis of rotation, a driving member extending along the arm at one side of its bend or angle and connected to said coupling, actuating means for imparting longitudinal and lateral movement to said driving member and through said connection to the coupling turning the latter about and moving it longitudinally of its axis, and a driven member also connected to said coupling and extending along the work-arm at the other side of the bend or angle thereof.

2. In a sewing machine, the combination with a hollow work-arm having a bend or angle therein, of driving connections extending along said work-arm to an operating part and including a coupling within the arm at the bend or angle thereof, a shaft extending transversely within the arm and on which said coupling is rotatable and movable longitudinally of the shaft, a driving member extending longitudinally within the arm at one side of its bend or angle and connected to said coupling, actuating means for imparting longitudinal and lateral movement to said driving member and through said connection to the coupling turning the latter about and moving it longitudinally of its axis, and a driven member also connected to said coupling and extending within the work-arm at the other side of the bend or angle thereof.

3. In a sewing machine, the combination with a hollow work-arm having a bend or angle therein, of driving connections extending along said work-arm to an operating part and including a rotatable coupling within the arm at the bend or angle thereof, a driving lever extending longitudinally within the arm at one side of its bend or angle and connected to said coupling, actuating means for imparting longitudinal movement to said lever while rocking it on its fulcrum and through said connection of the lever to the coupling turning the latter about and moving it longitudinally of its axis, and a driven lever extending within the arm at the other side of its bend or angle and free to rock on its fulcrum while moving longitudinally.

4. In a sewing machine, the combination with a work-arm having a bend or angle therein, of driving connections extending along said work-arm to an operating part and including a coupling located at the bend or angle of the arm consisting of a rotatable member longitudinally movable on its axis of rotation, and having two arms branching therefrom in directions transverse to the axis of rotation, a driving lever or bar extending along the arm at one side of its bend or angle and connected to one arm of the coupling acting to impart rotary and longitudinal movement to the coupling, and a driven lever or bar connected to the other arm of the coupling and extending along the work-arm at the other side of its bend or angle.

5. Driving connections including a rotatable member longitudinally movable on its axis of rotation, a driving member connected to said rotatable member, actuating means for imparting longitudinal and lateral movement to said driving member and through its said connection to the rotatable member turning the latter about and moving it longitudinally of its axis, and a driven member also connected to said rotatable member.

[Claims 6 to 13 not printed in the Gazette.]

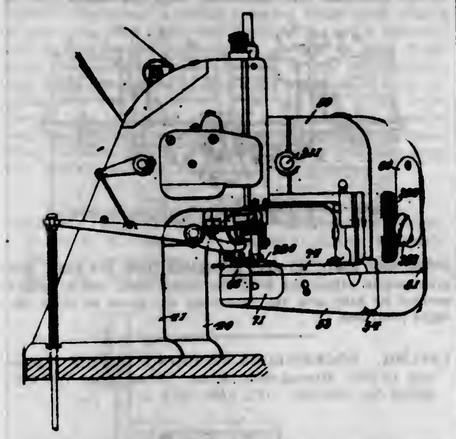
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1,041,658. FEEDING MECHANISM FOR SEWING-MACHINES. ARTHUR A. MERRITT, Worcester, Mass., assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y., a Corporation of New York. Original application filed Dec. 12, 1908, Serial No. 467,163. Divided and this application filed Jan. 28, 1910, Serial No. 540,598. Renewed Aug. 9, 1912. Serial No. 714,807. (Cl. 112—8.)

1. In a sewing machine, the combination of stitch-forming elements, a work-arm extending outward from the frame-work or casing of the machine in an upper approximately horizontal part, thence depending in an approximately vertical part, and thence continuing in a lower approximately horizontal part to its free end at which said stich-forming elements operate, a feed-member operating at said free end of the work-arm, and driving connections for said feed-member extending along the work-arm from the frame or casing of the machine and including a lever extending along the approximately vertical part of the arm and having its fulcrum adjustable to different positions to vary the throw or feeding movement of the feed-member.



2. In a sewing machine, the combination of stitch-forming elements, a hollow work-arm free at one end at which said stitch-forming elements operate and supported



from its other end which joins the frame-work or casing of the machine, two feed-members operating at said free end of the work-arm, and driving connections for said feed members extending within the work-arm from said frame-work or casing and including two levers corresponding to said feed-members respectively, each lever having a fulcrum pin adjustable to different positions in an opening in the wall of the work-arm to vary the throw or feeding-movement of its corresponding feed-member.

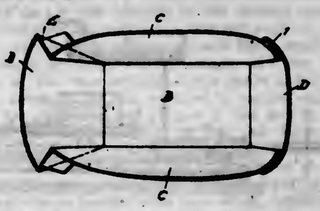
3. In a sewing machine, the combination of stitch-forming elements, a hollow work-arm extending outward from the frame-work or casing of the machine in an upper approximately horizontal part, thence depending in an approximately vertical part, and thence continuing in a lower approximately horizontal part to its free end at which said stitch-forming elements operate, a feed-member operating at said free end of the work-arm, and driving connections for said feed-member extending through said hollow work-arm from the frame or casing of the machine and including a lever in the approximately vertical part of the arm having a fulcrum pin adjustable to different positions in an opening in the wall of the work-arm to vary the throw or feeding-movement of said feed-member.

4. In a sewing machine, the combination of stitch-forming elements, a hollow work-arm extending outward from the frame-work or casing of the machine in an upper approximately horizontal part, thence depending in an approximately vertical part, and thence continuing in a lower approximately horizontal part to its free end at which said stitch-forming elements operate, two feed-members operating at said free end of the work-arm, and driving connections for said feed-members extending through said hollow work-arm from the frame or casing of the machine and including two levers in the approximately vertical part of the arm corresponding to the feed-members respectively and each having a fulcrum pin adjustable to different positions in an opening in the wall of the work-arm to vary the throw or feeding-movement of its corresponding feed-member.

5. In a sewing machine, the combination of stitch-forming elements, a work-arm free at one end at which the stitch-forming elements operate and supported from its other end which joins the frame-work or casing of the machine, two feed-members operating at the free end of the work-arm, driving connections extending along the work-arm to one feed-member, and other driving connections extending along the work-arm to the other feed-member and adjustable to vary the throw or feeding movement of its feed-member.

[Claims 6 to 11 not printed in the Gazette.]

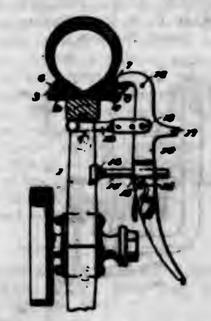
1,041,659. BUTTER-DISH. HERMAN M. MONNICK, Detroit, Mich., assignor of one-half to George B. Streit, Detroit, Mich. Filed Jan. 29, 1912. Serial No. 672,416. (Cl. 229—31.)



A butter dish, comprising a blank scored to form the bottom of the dish, two side portions, two end portions and four triangular gusset portions connecting the end portions and the side portions and shaped to give the ends and sides somewhat of an inclination from the vertical to provide the "flare" of the dish, and a clamping piece attached to one of the members—as the end of the side member—and foldable, when the end of the side is bent in to pass inside of the gusset, between the gusset portion and the adjacent portion—as the end portion, when the clamping piece is located on the side portion,—to lock the side and end, without any other fastening means, into angular position with reference to the bottom, substantially as described.

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1,041,660. TIRE-TOOL. AXEL A. NELSON, Washington, D. C. Filed June 28, 1911. Serial No. 636,338. (Cl. 157—6.)



A tire-casing tool comprising a lever having an off-set arm at one end thereof for engaging the casing ring, a fulcrum bearing for said lever extending from the same between its ends to detachably engage a wheel spoke, and a strut located between said fulcrum and the handle end of the lever which is adapted to bear at one of its ends against the wheel and to adjustably engage the lever so as to hold the lever in different positions into which it may be moved when in engagement with the tire-casing.

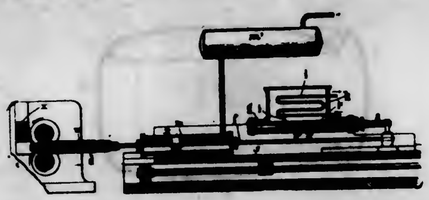
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1,041,661. BRAKE DEVICE FOR ROLLING-MILLS. ADOLF ALEXANDER KARL NOWAK, Bous-on-the-Saar, Germany. Filed Feb. 28, 1911. Serial No. 611,884. (Cl. 80—14.)

1. A brake device for rolling mills of the type described, comprising a plunger moving with the mandrel rod, and a fluid brake cylinder arranged to coöperate with said plunger, and a fluid container secured to said cylinder and communicating therewith to admit to and receive from said cylinder a braking fluid during the operation of the plunger, together with means for cooling the fluid in said container.

2. A brake device for rolling mills of the type described, comprising a plunger moving with the mandrel rod, and a fluid brake cylinder arranged to coöperate with said

plunger, and a fluid container surrounding said cylinder and communicating therewith to admit to and receive from said cylinder a braking fluid during the operation of the plunger.



3. A rolling mill having a mandrel rod, a compressed air device for advancing the same, and a fluid brake employing a non-compressible fluid, coöperating with the mandrel rod to halt its advance at a predetermined point, substantially as described.

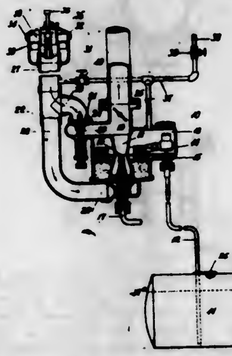
4. A rolling mill having a mandrel rod, a brake plunger moving therewith, a compressed air device for advancing said mandrel rod and a fluid brake cylinder employing a non-compressible fluid, arranged to coöperate with the brake plunger to halt the advance of the mandrel rod at a predetermined point, substantially as described.

5. A brake device for rolling mills of the type described, comprising a fluid brake element moving with the mandrel slide and a coöperating element moving with the mandrel, substantially as described.

[Claim 6 not printed in the Gazette.]

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1,041,662. VACUUM FUEL-FEEDER AND CARBURETER. EDWARD P. NOYES, Winchester, Mass. Filed Sept. 7, 1911. Serial No. 648,132. (Cl. 48—155.)

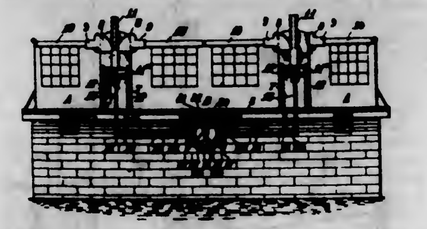


A carbureter comprising a fuel reservoir provided with a constant-level device, a mixing chamber having a fuel inlet from said reservoir and primary and secondary air-inlets, the secondary inlet having an automatic loaded valve, an air pipe having outlet branches to the respective air inlets and an inlet branch, an automatic loaded valve controlling said inlet branch, and a vacuum pipe connecting the upper part of the fuel reservoir with said air pipe.

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1,041,663. GATE. WILLIAM H. OLIVE, Menominee, Mich. Filed May 1, 1912. Serial No. 694,444. (Cl. 14—68.)

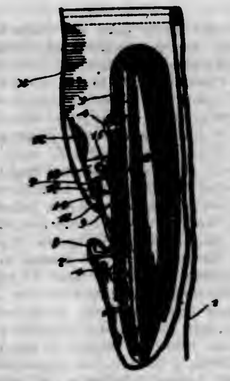
In combination with a bridge and its turntable, of a casing supported by the bridge opposed segmental gears pivotally mounted in the casing, gates respectively carried by said gears, a double-faced rack bar disposed between and engaging said gears, a rock shaft longitudinally supported below the bridge and having one end projecting under the turntable, operative connections between said shaft and the rack bar, a rocker arm fixedly connected on the projecting end of said shaft, means carried by the turntable for engagement with the rocker arm to



rotate said shaft, an arm projecting from the shaft and arranged in alinement with the rocker arm, and a weight carried by said arm for returning the gates to their upright positions.

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1,041,664. POCKET-BOOK-SECURING DEVICE. MARTIN OLSON, Minneapolis, Minn. Filed June 7, 1912. Serial No. 702,205. (Cl. 150—47.)



1. The combination with a pocketbook, of a base plate secured to said pocketbook, a toothed flange on said plate, and a coöperating barb equipped member movably mounted on said base plate and arranged to fold a portion of a garment onto and over said toothed flange, substantially as described.

2. The combination with a pocketbook, of a base plate secured to said pocketbook, relatively short barbs secured to and spaced outward from said base plate, and relatively long barbs movably mounted on said base plate and arranged to fold a portion of a garment onto and over said relatively short barbs, substantially as described.

3. The combination with a pocketbook, of a base plate secured to said pocketbook, relatively short barbs secured to and spaced outward from said base plate, and relatively long spring actuated barbs mounted on said base plate and arranged to fold a portion of a garment onto and over said relatively short barbs, substantially as described.

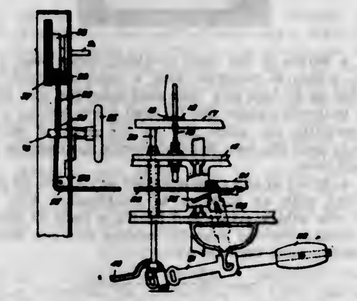
4. The combination with a pocketbook, of a base plate secured to said pocketbook, relatively short barbs secured to and spaced outward from said base plate, a spring actuated finger piece hinged to said base plate, and relatively long barbs on said finger piece, arranged to work above and from one side to the other of said short barbs and to engage and fold a portion of a garment onto and over said relatively short barbs, said long barbs being normally held in a position between said base plate and said short barbs, substantially as described.



5. The combination with a pocketbook, of a base plate secured to said pocketbook, relatively short upwardly projecting barbs pressed from said base plate and spaced outward therefrom, a spring actuated finger piece hinged to said base plate above said short barbs, and a yoke-like rod secured at its intermediate portion to said finger piece, the prongs thereof affording a pair of relatively long barbs, the points of which are arranged to work between said short barbs and from one side to the other thereof and to engage and fold a portion of a garment onto and over said relatively short barbs, said long barbs being normally held in a position between said base plate and said short barbs, substantially as described.

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1,041,665. SPINNING-FRAME. HERBERT W. OWEN, Dover, N. H., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Nov. 22, 1911. Serial No. 661,797. (Cl. 118—1.)



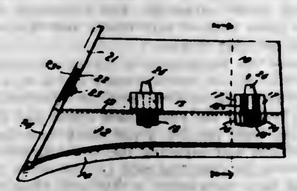
1. A spinning machine having means for mechanically traversing the ring rail, said means including a power-operated actuator, a movable member normally separated from said actuator and adapted to be manually shifted to position to be operated by said actuator, and connections between said movable member and the ring rail to transmit motion to the latter, said actuator and connections being structurally independent of the builder motion of the machine.

2. A spinning machine having a cam, a lever normally out of position to be operated by the cam, manually operable means for shifting the lever to position to be actuated by the cam, and connections between the lever and ring rail for causing the latter to be traversed by said lever.

3. A spinning machine having a cam, a lever having a roll at one end adapted to contact with said cam, a sheave at the other end of the lever, a chain passing over said sheave and connected at one end to the rocker arm of the ring rail lifter mechanism, and means for taking up the other end of said chain.

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1,041,666. PLOW. SIGFRED PETERSON, Lost Springs, Kans. Filed June 24, 1910. Serial No. 568,712. (Cl. 97—22.)



1. In a plow, in combination, a share consisting of two detachable sections, the front edge portion of the rear section of the share being beveled said section being provided with a landside portion, the front section having a cutting edge and being formed with a landside portion adapted to be placed in alinement with the landside portion of the said rear section, said front section being provided on its side opposite to the cutting edge with a groove adapted to receive the beveled edge of said rear section, the landside portion of said front section of the share being provided with a tongue and the land side portion of the rear section of the share being provided with a groove in its side adapted to receive said tongue, means for fastening said tongue in the groove, a socket arranged on the under side of the rear section of the share adjacent the beveled edge thereof, a socket arranged on the under side of the front section of the share adjacent the rear grooved edge thereof, said two sockets being adapted to contact with each other, fastening means passing through both of said sockets, and extensions formed on said first named socket and extending beyond the front edge of the rear section of said share so as to engage the sides of said second socket and the lower side of the front section of the share.

2. In a plow, in combination, a share consisting of two detachable sections, the front edge portion of the rear section of the share being beveled said section being provided with a landside portion, the front section having a cutting edge and being formed with a landside portion adapted to be placed in alinement with the landside porton of the said rear section, said front section being provided on its side opposite to the cutting edge with a groove adapted to receive the beveled edge of said rear section, the landside portion of said front section of the share being provided with a tongue and the landside portion of said rear section of the share being provided with a groove in its side adapted to receive said tongue, a bolt passing through the wall of the land-side portion of said rear section and through said tongue adapted to fasten the latter in the groove, a pair of sockets arranged on the under side of said rear section of the share at the beveled edge thereof, a pair of sockets arranged on the under side of said front section of the share at the rear grooved edge thereof and adapted to connect respectively with said first named sockets, a screw passing through each pair of sockets and adapted to fasten the same together, and a pair of extensions formed on one of said sockets, one to each side thereof, said extensions being adapted to engage with the corresponding socket on the front section of said share and to also engage the under side of said front section.

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1,041,667. CLEAT FOR ATHLETIC SHOES. GEORGE L. PIERCE, Brooklyn, N. Y. Filed Aug. 3, 1911. Serial No. 642,048. (Cl. 36—59.)



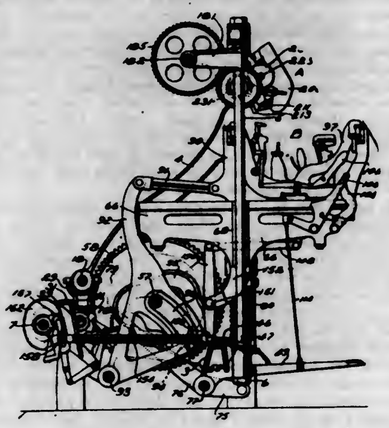
An improved cleat for athletic shoes comprising the combination of an open metal frame constituting the base of the cleat by which it is secured against the shoe, ground-entering parts projecting from the frame at about right angles to the plane thereof, and a piece filling the opening of the frame whereby the base of the cleat is prevented from picking up masses of clay, said piece being secured in place by a flange thereon which is clamped between the metal frame and the sole of the shoe.

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1,041,668. LAYING AND LEVELING MACHINE. THOMAS G. PLANT, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept 21, 1908. Serial No. 454,082. (Cl. 12—34.)

1. In a sole laying or leveling machine, the combination of a jack for sustaining a shoe and a coöperating leveling or laying form, means for progressively moving the jack

and form longitudinally to cause the form to travel longitudinally over the shoe sole, means for vibrating the form longitudinally as it travels over the shoe sole, means for maintaining the same lateral or transverse relation of the form and jack during such progressive movement, and means for varying the effective action of the form laterally of the shoe sole being treated while maintaining such lateral or transverse relation of the form and jack.



2. In a sole laying or leveling machine, the combination of a jack for sustaining a shoe, a coöperating laying or leveling form, means for causing the form to move progressively and longitudinally over the sole of the shoe being treated, said form and jack maintaining the same lateral or transverse relation during such progressive movement, means for vibrating the form longitudinally as it progresses over the shoe sole, and means for varying the effective action of the form at opposite sides of the shoe sole during such progressive movement and while the form and jack maintain the same lateral or transverse relation.

3. In a sole laying or leveling machine, the combination of a jack, a sole laying or leveling device, means sustaining one of said parts on a line of support, means for relatively progressing the jack and laying or leveling device longitudinally of a shoe mounted on said jack, and means for relatively shifting the line of support laterally with relation to the part sustained on said line of support to vary the effective leveling action on different portions of the shoe sole.

4. In a sole laying or leveling machine, the combination of a jack for sustaining a shoe, a coöperating laying or leveling form, means for causing the form to move progressively and longitudinally over the sole of the shoe being treated, said form and jack maintaining the same lateral or transverse relation during such progressive movement, a crank and its operating devices for vibrating the form longitudinally as it progresses over the shoe sole, means for maintaining a substantially uniform pressure of the form on the shoe sole, and means for varying the effective action of the form at opposite sides of the shoe sole during such progressive movement and while the form and jack maintain the same lateral or transverse relation.

5. In a machine of the character described, the combination of a jack, means for sustaining it on a line of support, sole laying or leveling means, means to cause relative approach of the jack and sole laying or leveling means, means to cause relative progression of the jack and sole laying or leveling means at varying speeds at different portions of the shoe sole as the laying or leveling means moves over the sole of a shoe supported by the jack, and means for longitudinally vibrating the laying or leveling means to produce attritive action on the shoe sole.

[Claims 6 to 33 not printed in the Gazette.]

1,041,669. HEAT-INSULATED BUCKET. MYRON W. PRISBLER and RUDOLF W. RUSTERHOLZ, Chicago, Ill. Filed Sept. 18, 1906. Serial No. 518,386. (Cl. 62—23.)



1. A device of the class specified, comprising a lid or cover, which is provided with a small aperture, a plug adapted to fit into and close said aperture, and having a head projecting above the lid, and a cup having a rim of substantially the same size as the head of said plug, whereby said cup may be fitted closely upon and be carried by said head.

2. A device of the class specified having its lid or cover provided with an aperture in combination with a plug fitted into said aperture and having a head 11 and a cup 14 having a bayonet joint for holding said cup detachably in position upon the head 11.

1,041,670. RAILROAD-TIE. CHARLES JACOB REDIFER, Kings Bridge, and HERBERT HERLUIN CANTWELL, Croton-on-Hudson, N. Y. Filed July 24, 1911. Serial No. 640,093. (Cl. 238—5.)



1. A railway tie comprising a metal channel frame formed of a bottom and vertical sides and an end wall at one end thereof, a rail block fitting in one end of the said main frame and abutting against the end wall, an angle iron clamp engaging the outer upper corner of said rail block, securing means connecting said clamp to the main frame, an angle iron clamp for the inner upper corner of the said rail block, securing means for said clamp to draw the rail block downwardly and to thrust it outwardly against the end wall.

2. A railway tie comprising a metal channel frame formed of a bottom and vertical sides, short wooden rail blocks secured within said frame near each end thereof, means for holding the outer ends of said rail blocks, angle iron clamps for the inner ends of said blocks, means for connecting said clamps to the main frame said means thrusting said blocks outwardly, and abutments contacting with the outer ends of said blocks and receiving the thrust of said securing means.

3. A railway tie comprising a metal channel frame formed of a bottom and vertical sides and a wall at one end, a removable abutment plate near the other end of said frame, a rail block at one end of said frame and abutting against the end wall thereof, a rail block near the other end of said frame and engaging the inner surface of the abutment, means for clamping said rail blocks in position and thrusting them outwardly, a third-rail block contacting with the abutment on the opposite side thereof from one of the rail blocks, means for thrusting said third-rail block inwardly against the abutment, and means for clamping the adjoining ends of the rail block and the third-rail block, the end of the frame adjoining the third-rail block being open to permit of the removal of said third-rail block.

4. A railway tie comprising a metal channel frame formed of a bottom and vertical sides and a wall at one end thereof, a block fitting in said frame and abutting against the end wall, a clamp engaging the outer end of said rail block and carrying brackets at its sides said brackets being below the upper surface of the clamp, brackets on the sides of the main frame, securing means connecting said main frame brackets to the brackets of the clamp, said securing means being wholly below the upper surface of the clamp, a clamp embracing the inner corner of said rail block and formed with brackets on its sides, securing means connected to said brackets and extending downwardly and outwardly, means for connecting said securing means to the sides of the main frame, said securing means being wholly below the upper surface of the clamp and serving to draw the rail block downwardly and outwardly and to thrust it against the end wall of the tie.

5. A railway tie comprising a metal channel frame formed of a bottom and vertical sides and a wall at one end thereof, a wooden rail block fitting in one end of the main frame and abutting against the end wall and extending above the sides of the frame, a clamp engaging the outer end of said rail block, securing means for said clamp connected to the sides of the main frame, a clamp for the inner end of said rail block, securing means for said clamp serving to draw the rail block downwardly and outwardly whereby said block will be thrust outwardly against the end wall and means carried by this latter clamp engaging the sides of the frame to brace said sides.

[Claims 6 to 11 not printed in the Gazette.]



1,041,671. CURTAIN-FIXTURE. CHARLES SAMUEL REBBER, Windber, Pa. Filed May 18, 1912. Serial No. 698,290. (Cl. 156—22.)



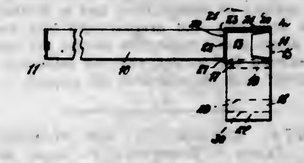
1. A curtain fixture comprising a base plate, sets of parallel arms carried thereby, tubular supports having the inner ends thereof flattened and pivotally mounted between the outer ends of each set of arms, rods slidably mounted in said tubular supports and having the outer ends thereof pivotally connected together, and means carried by the outer ends of said supports for adjustably holding said rod.

2. A curtain fixture comprising a base plate, arms carried thereby, tubular supports having the inner ends thereof flattened and pivotally supported by said arms with one of said supports disposed at an angle to the other said supports, rods adjustably mounted in said tubular supports, one of said rods having the outer end thereof pivotally mounted in the other rod, and an extension carried by said base plate, and adapted to support the pintle of the curtain shade roller.

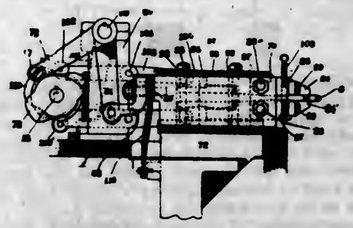
3. A curtain fixture comprising a base plate, outwardly extending parallel sets of arms carried thereby, a horizontal tubular support having the inner end thereof flattened and pivotally supported by one set of arms, an angularly disposed tubular support having the inner end thereof flattened and supported by the other set of arms, rods slidably mounted in said supports, one of said rods having the outer ends thereof pivotally mounted in the other rod, and means carried by the outer ends of said supports for adjustably holding said rods therein.

1,041,672. CAR-SEAL. HARRY B. RHEAM, Raynesford, Mont. Filed July 31, 1911. Serial No. 641,403. (Cl. 70—99.)

In a car seal, a strip of sheet metal having its free end bent downwardly and upon itself to form a tongue, the opposite extremity of the strip being enlarged to provide a bottom wall in continuation of the strip, a tongue at the end portion thereof adapted to be bent inwardly in an inclined direction, a side flap formed with the bottom and adapted to be bent at right angles to form a side and top wall, a second side flap at the opposite side of the bottom part bent upwardly and outwardly upon itself, the extremity of the first mentioned flap being bent inwardly and upwardly to overlie and engage said rebent portion and a tongue formed with the first mentioned side flap and extended longitudinally of the strip to be bent at right angles thereto to form an inner end flap and then longitudinally and inwardly of the second mentioned side flap and rebent at its end portion to engage the far end of the second mentioned end flap beneath the interlocked portions.



1,041,673. ELECTRIC METAL-WORKING APPARATUS. ADOLPH F. RIETZEL, Charlestown, R. I., and GEORGE E. BARSTOW, Lynn, Mass., assignors, by mesne assignments, to Thomson Electric Welding Company, Lynn, Mass., a Corporation of Massachusetts. Original application filed May 11, 1907, Serial No. 373,061. Divided and this application filed Dec. 26, 1908. Serial No. 469,189. (Cl. 219—4.)



1. In an electric metal working apparatus, the combination of a source of heating current a work-engaging contact supplying current to the work and having a moving connection with the source of heating current, and a flexible shunt connection around the moving connection and forming an unbroken path for supplying current from the source to the contact as and for the purpose described.

2. In an electric metal working apparatus, the combination of a transformer secondary, a block of metal forming a terminal of said secondary, a current supplying contact connected with the said secondary by a moving connection with said block and a direct connection forming an unbroken path from the source to the contact between the secondary and contact, said direct connection constituting a shunt around the moving connection for supplying current from the source to the contact as and for the purpose described.

3. In an electric metal working apparatus, a guide block or bearing forming a terminal of a source of energy, a carrier movable thereon and having electrical connection therewith through the bearing, a work engaging contact borne by the carrier, and a flexible connection from the carrier to the source forming a direct unbroken path between the contact and source and a shunt path around the moving connection between the carrier and its bearing for supplying current from the source to the contact.

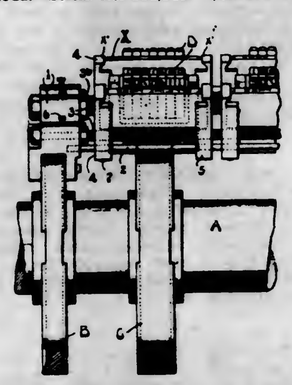
4. In an electric metal working apparatus, a source of heating current, a current supplying contact movable into and out of connection with the work while the latter is properly supported within the machine, said contact hav-

ing a moving connection and also a direct unbroken connection with said source, the latter connection forming a shunt around the moving connection for supplying current from the source to the contact.

5. In an electric metal working apparatus, the combination of a transformer secondary, a block forming a terminal of said secondary, a contact carrier guided on and in electrical connection with said block, whereby it may be moved toward and away from the work, a work-engaging contact on said carrier and a flexible lead between the secondary and carrier, said lead forming an unbroken direct shunt connection around the moving connection between the carrier and the secondary for supplying current from the source to the contact.

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1,041,674. ATTACHMENT FOR NUMBERING DEVICES. JAMES G. ROBERTSON, St. Louis, Mo. Filed Dec. 7, 1911. Serial No. 664,345. (Cl. 101—169.)



1. An attachment of the character described, comprising supports, a smooth carrier rod mounted in said supports, a setting screw also mounted in said supports, type-block holders slidable on said carrier rod, means for holding said type-block holders in fixed positions after they have been slid upon said carrier rod, and type-block holders fitted to said setting screw and adjustable thereby relative to the first mentioned type-block holders.

2. An attachment of the character described, comprising supports, a smooth carrier rod mounted in said supports, a setting screw also mounted in said supports, type-block holders slidably fitted to said carrier rod, means for securing said type-block holders to said rod, and type-block holders fitted to said setting screw and adjustable thereby relative to the first mentioned type-block holders; both said carrier rod and said setting screw extending through all of said type block holders to hold them in alinement.

3. An attachment of the character described, comprising supports, a carrier rod mounted in said supports, a setting screw also mounted in said supports, type-block holders adjustably fitted to said carrier rod, set screws in said type-block holders for impingement against said carrier rod to retain the type block holders in set positions, and type-block holders fitted to said setting screw and adjustable thereby relative to the first mentioned type-block holders.

4. An attachment of the character described, comprising supports, a carrier rod mounted in said supports, a setting screw also mounted in said supports, type-block holders having unthreaded apertures through which said carrier rod and said setting screw extend, and type-block holders having threaded engagement with said setting screw and having unthreaded apertures through which said carrier rod extends, the last mentioned type-block holders being adjustable by said setting screw relative to the first mentioned type-block holders.

5. The combination with a numbering device including a rotatable shaft, carriers and numbering heads secured to said carriers, of printing attachments disposed intermediate of said numbering heads, and comprising supports, a carrier rod mounted in said supports, a setting screw also mounted in said supports, type-block holders adjustably fitted to said carrier rod, and type-block holders fitted to said setting screw and adjustable thereby relative to the first mentioned type-block holders.

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1,041,675. COMBINED REAMER AND THREADER. HARRY E. ROBINSON, Zanesville, Ohio. Filed June 24, 1912. Serial No. 705,553. (Cl. 10—140.)



1. A thread cutter and countersunk comprising a tap recessed longitudinally, a countersink sleeve having inwardly projecting ribs in the bore thereof movable within said recesses, a set nut upon the threaded portion of the die, a spring interposed between the nut and countersink, and means for holding the ends of the spring respectively against said nut and countersink sleeve, as set forth.

2. A thread cutter and countersink comprising a tap recessed longitudinally, a countersink sleeve with a shoulder at one end thereof having inwardly projecting ribs in the bore thereof movable within said recesses, a set nut upon the threaded portion of the die and having a shouldered end, a coiled spring engaging said shouldered portion of the nut at one end and its other end engaging a shoulder upon the countersink, a clip fastened to the countersink and having curved portions engaging a spring and holding the same upon the shoulder of the countersink, and clips engaging the other end of the spring and having shank portions extending through said nut and provided with angled portions engaging the outer face of the nut, as set forth.

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1,041,676. TYPOGRAPHICAL COMPOSING-MACHINE. WILHELM RÖDIGER, Dresden-Blasewitz, and CARL MUEHLEISEN, Berlin, Germany, assignors to Mergenthaler Linotype Company, a Corporation of New York. Filed May 25, 1911. Serial No. 629,329. (Cl. 199—7.)

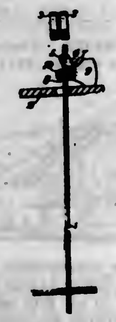
1. In a typographical composing machine, the combination of a plurality of escapements, a movable actuating device therefor, and additional means controlled by the movement of said device for causing it to actuate the escapements successively.

2. In a typographical composing machine, the combination of a plurality of escapements, an actuating device shiftable to different positions to engage one or another of said escapements, and means controlled by the movement of said device for shifting its position each time it is actuated.

3. In a typographical composing machine, the combination of a plurality of escapements, a movable device for engaging said escapements one at a time, and means controlled by the movement of said device for causing it to operate the escapements in predetermined order.



4. In a typographical composing machine, the combination of a plurality of escapements, an actuating device for engaging said escapements one at a time, and additional means for causing said device by its repeated actuations to engage the escapements in succession.

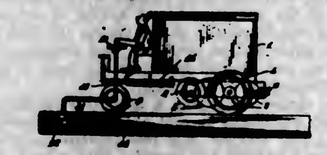


5. In a typographical composing machine, the combination of a plurality of escapements, escapement actuating means comprising a member to engage and actuate the escapements, and means controlled by the actuating movement of said member for causing it to engage the escapements successively.

[Claims 6 to 9 not printed in the Gazette.]

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1,041,677. TOY. WILHELM SADTLER, Homburg-vor-der-Höhe, Germany, assignor to The Firm of Ernst Paul Lehmann, Brandenburg-on-the-Havel, Germany. Filed June 10, 1911. Serial No. 632,469. (Cl. 46—47.)



1. In a traveling toy, the combination, with steering mechanism carried by said toy, of a feeler controlling the position of said steering mechanism in accordance with guiding surfaces encountered by said feeler in its path of motion, substantially as and for the purpose set forth.

2. In a toy, the combination, with steering mechanism carried by said toy, of a feeler pivotally connected to said toy and controlling the said steering mechanism in accordance with guiding surfaces encountered by said feeler in its path of motion, substantially as and for the purpose set forth.

3. In a toy, the combination, with steering mechanism carried by said toy and normally tending to steer its course in a predetermined direction, of a feeler carried by the toy adapted to control the steering mechanism in accordance with guiding surfaces encountered by said feeler in its path of motion, substantially as and for the purpose set forth.

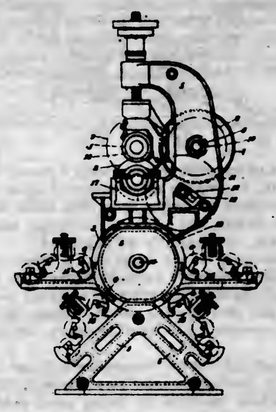
4. In a traveling toy, the combination, with steering mechanism carried by the toy and tending to steer the same in a predetermined direction, of a feeler carried by the said toy to control the position of said steering mechanism, and means arranged to secure permanent contact between the said feeler and the guiding surfaces encountered by it in its path of motion.

5. In a traveling toy, in combination, with a steering mechanism carried by said toy and tending to steer the same in a predetermined direction, of a feeler rigidly connected to said toy and arranged to temporarily prevent the said steering mechanism from taking its normal position.

[Claim 6 not printed in the Gazette.]

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1,041,678. APPARATUS FOR USE IN THE PRODUCTION OF PRINTED AND EMBOSSED WALL-PAPERS AND THE LIKE. HAROLD WILLIAM SANDERSON, Chiswick, England. Filed Jan. 31, 1912. Serial No. 674,543. (Cl. 101—89.)



1. In a combined printing and embossing machine, a driving shaft with pinion thereon, an embossing roll with pinion of like diameter meshing therewith, a second pinion on said driving shaft, a series of printing rollers provided with pinions, a master gear meshing therewith and a pinion interposed between said master gear and said second pinion on the driving shaft for driving the printing rolls from the latter, the pinions of said printing-rolls driving gear being proportioned to secure a peripheral speed for the printing rolls corresponding to that of the embossing rolls, as described.

2. In a combined printing and embossing machine, a driving shaft with pinion thereon, an embossing roll with pinion of like diameter meshing therewith, a second pinion removably mounted on said driving shaft, a series of printing rollers, a master gear meshing therewith, a pinion interposed between said master gear and the second pinion on the driving shaft for driving the printing rolls from the latter, and an adjustable stud carrying said interposed pinion whereby the position of the latter may be shifted to accommodate different size pinions on the driving shaft, for the purpose described.

3. In a combined printing and embossing machine, side framing, a driving shaft mounted in the upper portion thereof and projecting beyond the same, an embossing roll mounted adjacent said driving shaft, pinions on said roll and shaft operatively connecting the same together, a second pinion removably mounted on the driving shaft outside the side frames, a series of printing rollers with pinions thereon, a master gear controlling the same and a pinion, mounted on an adjustable stud, interposed between said second pinion on the driving shaft and said master gear, for the purpose described.

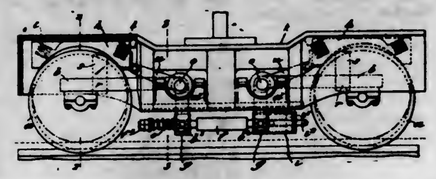
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1,041,679. CANOE ATTACHMENT. EVERETT L. SARGENT, Patten, Me. Filed Feb. 28, 1912. Serial No. 680,400. (Cl. 9—1.)



The combination with a canoe, of inflatable air bags, a covering for receiving each of said air bags and having an opening in one end, means for closing said open end of the covering, and means on the coverings for the securing thereof in the bow and stern of the canoe.

1,041,680. MONOTRACK-VEHICLE. PETER SCHILOWSKY, Kostroma, Russia. Filed Jan. 30, 1911. Serial No. 605,483. (Cl. 105—233.)



1. A monotrack vehicle comprising a frame carrying the vehicle body, transverse axles mounted upon said frame, brackets mounted to swing upon said axles and carrying the vehicle wheels, and a yielding coupling connecting the said brackets, substantially as described.

2. A monotrack vehicle comprising a frame carrying the vehicle body, transverse axles mounted with longitudinal freedom upon said frame, brackets mounted to swing upon said axles and carrying the vehicle wheels, and a yielding coupling connecting the said brackets, substantially as described.

3. A monotrack vehicle comprising a frame carrying the vehicle body, transverse axles pivotally mounted upon said frame, brackets mounted to swing upon said axles and carrying the vehicle wheels, and a yielding coupling connecting the said brackets, substantially as described.

4. A mono-track vehicle comprising a frame carrying the vehicle body, transverse axles mounted upon said frame, brackets mounted to swing upon the said axles and carrying the vehicle wheels, a spring acting on the swinging brackets to support the weight of the vehicle body, and means for releasing the spring to allow the vehicle body to drop and the wheels to be braked, substantially as described.

5. A mono-track vehicle comprising a frame carrying the vehicle body, transverse axles mounted upon said frame, brackets mounted to swing upon the said axles and carrying the vehicle wheels, a spring acting on the swinging brackets to support the weight of the vehicle body, a fluid pressure abutment for said spring and means for taking off the pressure to annul said abutment, substantially as described.

1,041,681. COMPOSITION OF MATTER AND METHOD OF PRESERVING AND FIREPROOFING WOOD. FRIEDRICH SEIDENSCHNUR, Charlottenburg, and JULIUS DEHNST, Halensee, near Berlin, Germany. Filed July 18, 1912. Serial No. 710,176. (Cl. 99—12.)

1. The process for preserving wood and rendering it uninflammable which consists in impregnating the wood with salts of ammonium, salts of magnesium and salts of α-naphthalene sulfonic acid.

2. Solution for preserving wood and rendering it non-inflammable composed of an aqueous solution of salts of ammonium, salts of magnesium and salts of α-naphthalene sulfonic acid.

1,041,682. COMPOSITIONS OF MATTER AND METHODS FOR PRESERVING AND FIREPROOFING WOOD. FRIEDRICH SEIDENSCHNUR, Charlottenburg, and JULIUS DEHNST, Halensee, near Berlin, Germany. Filed July 18, 1912. Serial No. 710,177. (Cl. 99—12.)

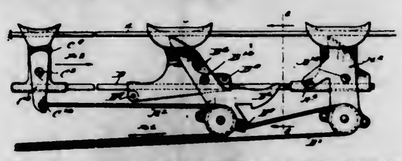
1. The process for preserving wood and rendering it non-inflammable which consists in impregnating wood with salts of ammonium, salts of magnesium and salts of nitronaphthalene-sulfonic acids.

2. The process for preserving wood and rendering it non-inflammable which consists in impregnating wood with salts of ammonium, salts of magnesium and salts of nitronaphthalene-disulfonic acids.

3. Solution for preserving wood and rendering it non-inflammable composed of an aqueous solution of salts of ammonium, salts of magnesium and salts of nitronaphthalene-sulfonic acids.

4. Solution for preserving wood and rendering it non-inflammable composed of an aqueous solution of salts of ammonium, salts of magnesium and salts of nitronaphthalene-disulfonic acids.

1,041,683. LINE-CARRIER. LEWIS D. SHAFFER, Paint borough, Pa. Filed Aug. 21, 1911. Serial No. 645,084. (Cl. 247—24.)



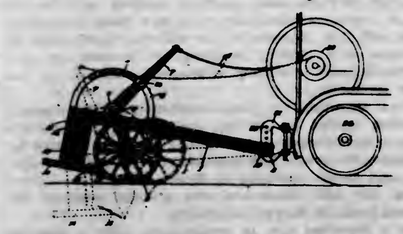
1. The line carrier substantially as herein described, comprising a front traveler having a rearwardly projecting bar, a line guide on the said bar, a rear carrier slidable along the bar between the front carrier and its line guide, said front and rear travelers having pivoted pawls to engage the cable and bind the same in connection with their respective carriers, pulleys carried by the pawls of the front and rear carriers, a hook on the pawl of the rear carrier, means on the pawl of the front carrier for engagement by said book, a cord for advancing the front carrier, said cord being connected to the line guide of the bar and extending thence over the pulley of the rear carrier, and a cord for advancing the rear carrier connected with the pawl of said carrier and extending thence over the pulley of the pawl of the front carrier, substantially as set forth.

2. A line carrier having a line guide comprising a shoe in hook form, a pivoted lever rocking in the direction of movement of the line carrier, and having at one end a lateral head complementary to and closing the hook form shoe of the guide and an operating cord connected with the said lever and adapted to adjust the same to closed position, substantially as set forth.

3. A line carrier comprising a front traveler having a pivoted pawl and means on said pawl for engagement by a hook on a rear traveler, said rear traveler movable toward the front traveler and provided with a hook to engage with the pawl of the front traveler and operating cords, substantially as set forth.

4. A line carrier comprising a front traveler and a rear traveler movable toward the front traveler, the rear traveler having a pivoted pawl and a hook carried thereby, and the front traveler having a pivoted pawl provided with means for engagement by the said hook, substantially as set forth.

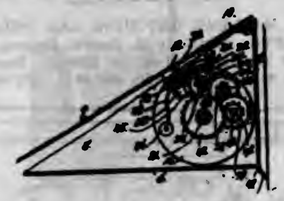
1,041,684. CULTIVATOR AND BEET-DIGGER. HERMAN C. SHAY, Hamilton City, Cal. Filed Nov. 2, 1911. Serial No. 658,188. (Cl. 55—106.)



A device of the character described comprising the combination of a wheeled frame, a plurality of pairs of spaced bars projecting from the rear end of said frame, a downwardly projecting bar disposed between each of said pairs of bars, each of said downwardly projecting bars having an angular head, blocks on the lower ends of said last named bars and adapted to carry diggers, said frame being capable of being raised or lowered with respect to the position of its wheels, as described.



1,041,685. COMBINED DOOR AND WINDOW STOP AND ALARM. JOSEPH SIMPSON, Denver, Colo. Filed Sept. 29, 1911. Serial No. 651,966. (Cl. 110—44.)



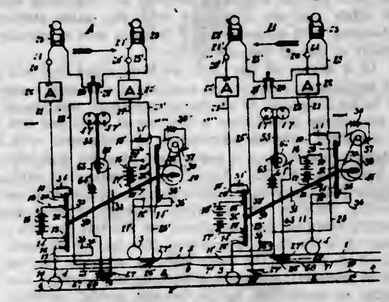
1. The combination with a casing carrying alarm mechanism, the said casing being of triangular shape and having one of its sides hinged to the casing at one extremity, its opposite extremity being located in the path of a door or window sash, the said plate having an interior projection whereby the hinged plate is supported a short distance from the body of the casing, a spring upon which the projection of the hinged plate rests, an escapement pawl normally acted on by the said spring to lock the pawl against movement, and a spring actuated train of gears with which the escapement pawl is connected in operative relation, the escapement pawl carrying a hammer and a gong arranged in operative relation with the hammer, the arrangement being such that, as the first-named spring is acted on by the projection of the hinged plate, the escapement pawl is unlocked and acted on by the train of gears to vibrate the hammer, substantially as described.

2. In a combined door and window stop and alarm, the combination with a casing having the shape of a right angle triangle, a gong carried thereby and equipped with a vibrating hammer, one side of the casing having a hinged plate movable toward and away from the body of the casing, and provided with an interior projection, a spring upon which the projection of the hinged plate rests, and an escapement pawl normally acted on by the said spring to lock the pawl against movement, and a spring motor with which the escapement pawl is connected in operative relation, the vibrating hammer being connected with the said pawl, and the latter being arranged to be released by the hinged plate acting upon the spring, during the movement of said plate toward the casing, substantially as described.

3. The combination with a casing having the general shape in side view of a right angle triangle and means located thereon to prevent movement, the said casing having the wall opposite the right angle hinged at the extremity of the perpendicular side, remote from the base, the said hinged wall having an interior projection, a spring engaged by said projection and normally holding the hinged wall away from the body of the casing, the extremity of the wall remote from the hinge being adapted to be located in suitable proximity to a door or window, and alarm mechanism normally held inactive by the said spring, but connected to be released by the pressure on the said spring due to the movement of the hinged plate, substantially as described.

1,041,686. BLOCK-SIGNAL SYSTEM. GEORGE H. SMITH, Dayton, Ohio, assignor of one-third to Chester L. Smith and one-third to Robert C. Smith, Dayton, Ohio. Filed Dec. 7, 1910. Serial No. 596,108. (Cl. 246—28.)

1. In a railway signaling device, two pairs of parallel electrical conductors extending along the track and divided into insulated block sections, the block sections of one pair being staggered with relation to those of the other pair, two partial traveling circuits carried by the cab, each including a source of energy and an indicator, and coöperating respectively with the two pairs of conductors along the track, a two position indicator mechanism carried by the cab, means located along the track at the beginning and at the middle of each block section for operating said two position indicator mechanism to cause the same to assume alternative position and thereby indicate the relative position of the partial traveling circuits with respect to the block sections, whereby when two cabs similarly equipped occupy the same block, the several indicators in each cab will jointly indicate the positions of the one cab with respect to the other.



2. In a device of the type specified, right and left parallel stationary conductors, first partial traveling circuits adapted to be connected respectively with said right and left stationary conductors, said partial circuits being right and left relative to the direction of travel, second partial traveling circuits adapted to be connected with the said stationary conductors and also right and left relative to the direction of travel, an ammeter in each partial traveling circuit, an electrical energizer and a shunt circuit around said energizer in connection with each partial traveling circuit, the energizers for the right partial traveling circuits being arranged for connection with their respective circuits in opposite polarity to those of the left whereby the current flows in relatively opposite directions in said right and left partial traveling circuits, an oscillating switch associated with each of said partial traveling circuits adapted in one position to connect the energizers with their respective partial circuits and in another position to eliminate the energisers from their respective partial circuits and to connect the shunt circuit around said energisers to said respective partial circuits, the period of oscillation of the switches for the first partial traveling circuits being different from those of the second partial traveling circuits, whereby when the first and second partial traveling circuits are traveling in the same direction and are connected with the same stationary conductors, said ammeters will indicate zero or the capacity of one of the energisers; and when said partial traveling circuits are traveling toward each other and are connected with the same stationary conductors, said ammeters will indicate zero or double the capacity of one of the energisers.

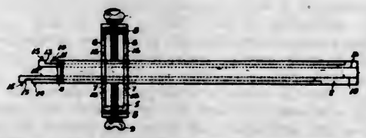
3. In a device of the type specified, right and left parallel stationary conductors, the ends of the right conductors being placed at an intermediate point of the left conductors, first partial traveling circuits adapted to be connected respectively with said conductors, said partial circuits being right and left relative to the direction of travel, second partial traveling circuits adapted to be connected with said stationary conductors and also right and left relative to the direction of travel, an ammeter in each partial traveling circuit, an electrical energizer and a shunt circuit around said energizer in connection with each partial traveling circuit, the energizers for the right partial traveling circuits being arranged for connection with their respective circuits in opposite polarity to those of the left whereby the current flows in relatively opposite directions in said right and left partial traveling circuits, an oscillating switch associated with each of said partial traveling circuits adapted in one position to connect the

energisers with their respective partial traveling circuits, and in another position to eliminate the energisers from their respective partial traveling circuits and to connect the shunt circuit around said energisers to said respective partial circuits, the period of oscillation of the switches for the first partial traveling circuits being different from those of the second partial traveling circuits, whereby, when the first and second partial traveling circuits are traveling in the same direction and are connected with the same stationary conductors, said ammeters will indicate zero or the capacity of one of the energisers; and when said partial traveling circuits are traveling toward each other and are connected with the same stationary conductors, said ammeters will indicate zero or double the capacity of one of the energisers.

4. In a device of the type specified, right and left parallel stationary conductors, said right stationary conductors being arranged in staggered positions relative to the left stationary conductors, a first set of right and left partial traveling circuits adapted to be connected with said stationary conductors, a second set of right and left partial traveling circuits adapted to be connected with said stationary conductors, an indicator in each of said partial traveling circuits, an energiser in each of said partial traveling circuits, the energisers for the left circuits being connected with their respective circuits by opposite polarity from that of the right circuits, whereby the current flows in relatively opposite directions in the right and left circuits, an oscillating switch in each partial traveling circuit adapted to eliminate each energiser from its respective circuit, the switches of the first set of partial traveling circuits having different periods of oscillation from those of the second set, a second or direction indicator for the first set of circuits, a similar second indicator for the second set of circuits, means located at the beginning of the right stationary conductors, and means located at the beginning of the left stationary conductors for actuating said second indicators, whereby said first and second indicators of one set of partial traveling circuits are adapted to indicate the position of the other set of partial traveling circuits relative to the stationary conductors, when a partial traveling circuit of each set is connected with the same stationary conductors.

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1,041,687. CARPENTER'S GAGE. JAMES SMITH, San Francisco, Cal. Filed May 4, 1912. Serial No. 695,078. (Cl. 73—146.)



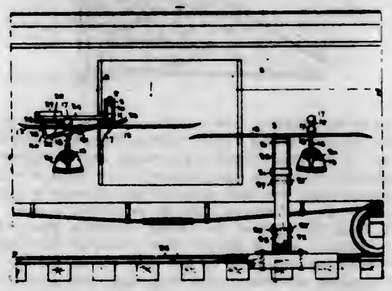
1. A carpenter's gage having a main body in the form of an H-shaped channel iron, a pair of independently movable gage plates one above the other in each groove of the channel-iron, pins extending outwardly from ends of the gage plates, a stop fitting closely around the channel-iron and the gage plate therein and longitudinally movable thereon, and screws screwed through opposite sides of said stop and adapted independently to be screwed against the outermost gage plates.

2. A carpenter's gage having a main body in the form of an H-shaped channel-iron, a pair of independently movable gage plates one above the other in each groove of the channel-iron, pins extending outwardly from ends of the gage plates, a stop fitting closely around the channel-iron and the gage plate therein and longitudinally movable thereon but formed with recesses to permit the stop to pass over the pins, and screws screwed through opposite sides of said stop and adapted independently to be screwed against the outermost gage plates.

3. A carpenter's gage having a main body in the form of an H-shaped channel-iron, a pair of independently movable gage plates one above the other in each groove of the channel-iron, pins extending outwardly from ends of the gage plates, a stop fitting closely around the channel-iron and the gage plate therein and longitudinally movable thereon, said channel-iron being formed at one end with end stops extending at right angles to the channel iron and in line with each other, and screws screwed through opposite sides of said stop and adapted to be screwed independently against the outermost gage plates.

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1,041,688. MAIL-BAG CATCHING AND DELIVERING APPARATUS. WILLIAM M. SMITH, Bastrop, La., assignor of one-half to Lewllyn Bentley, Bastrop, La. Filed Apr. 4, 1912. Serial No. 688,411. (Cl. 105—231.)



1. In a mail bag serving apparatus, a bracket carrying an upstanding pivot and adapted to be secured to a car door post, a movable bracket having a sleeve adapted to be fitted onto the pivot and to be moved vertically thereon and to be applied thereto and removed therefrom without obstruction, said movable bracket carrying a mail bag holder and having a brace rod pivoted thereto, a detent secured in fixed relation to the first said bracket and adapted to engage the free end of the brace rod for retaining the mail bag holder in operative position and being releasable therefrom so that the mail bag holder may be swung into the car, substantially as shown and specified.

2. In a mail bag serving apparatus, an arm pivotally connected to the side of a mail car door and carrying a mail bag holder, a brace rod pivotally connected to the arm and carrying a retaining lug on its free end, a keeper in fixed relation to the car door and having a cam surface for raising the retaining lug and guiding it into engagement with the keeper.

3. In a mail bag serving apparatus, an arm pivotally connected to the side of a mail car door and carrying a mail bag holder, a brace rod pivotally connected to the arm and carrying a retaining lug on its free end, a keeper in fixed relation to the car door, having a cam surface for raising the retaining lug for guiding it into engagement with the keeper and means associated with the keeper and the retaining lug, whereby the retaining lug may be lifted out of engagement with the keeper.

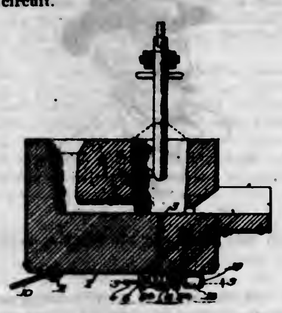
4. In a mail bag serving apparatus, a stationary mail bag holder pivotally connected to a stationary prop and having means associated therewith for adjusting the operative position of the holder relative to the prop.

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1,041,689. ELECTRODE-HOLDER. FREDERICK T. SNYDER, Oak Park, Ill. Filed Apr. 17, 1911. Serial No. 621,486. (Cl. 204—64.)

1. The combination with an electric furnace provided with an electrode extending through the wall thereof, of a water-cooled electrode-holder provided with opposed clamping jaws for engaging said electrode, bolts extending from said wall through said clamping jaws, and nuts engaging the ends of said bolts, substantially as described.

2. The combination with an electric furnace having a wall composed of masonry and an exterior metallic shell, said wall being provided with an opening from the interior to the exterior of the furnace for the reception of an electrode, of a metallic electrode holder mounted on said wall about said opening in electrical contact with said shell, and a conductor secured to said shell, whereby said electrode, holder, shell and conductor constitute a portion of an electric circuit.

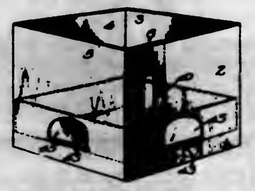


3. An electrode holder comprising two opposed hollow clamping jaws, clamping bolts at the opposite ends of said electrode-holder for adjusting the clamping engagement of said jaws, and means for circulating a cooling fluid through said hollow jaws, said latter means comprising a flexible pipe-coupling connecting the chambers in said hollow jaws, an inlet pipe to the chamber in one of said jaws and an outlet pipe from the chamber in the other of said jaws.

4. The combination with an electric furnace provided with a bottom electrode extending through the bottom wall of said furnace; of an electrode holder comprising two opposed hollow clamping jaws, means for adjusting said jaws and means for circulating a cooling fluid through said hollow jaws; and means for adjustably mounting said electrode holder on said bottom wall to permit of the adjustment of said jaws without detaching said holder from the furnace.

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1,041,690. BERRY-BOX. PERRY E. SNYDER, Hicksville, Ohio. Filed Nov. 16, 1911. Serial No. 660,669. (Cl. 229—23.)



In a berry box the combination with peripheral walls each provided between its upper and lower edges and between its side edges with an inwardly projecting tongue, of a bottom fitting telescopically within said peripheral walls and flanges on the edges of said bottom resting upon said tongues, there being slots in said bottom contiguous to and each bordered by one of said flanges, said tongues passing through said slots.

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1,041,691. DIE FOR MAKING BOTTLE-CAPS. GEORGE J. SPAHN, Baltimore, Md. Filed Feb. 3, 1912. Serial No. 675,118. (Cl. 113—49.)

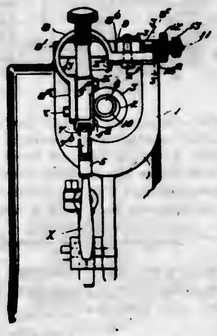
A die for forming sheet-metal bottle caps, consisting of a lower tubular section having in its top edge two undercut notches diametrically opposite each other and of a tapering dovetail form; an upper tubular section seated on top of the said lower section and its bottom edge having two undercut dovetail notches diametrically opposite each other and of the same width throughout, and two coupling blocks each having reversely-placed dovetailed ends—the sides of one end being different from the other



and corresponding respectively with those of the notches in said lower and upper sections.

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1,041,692. BURNISHING-MACHINE. CHARLES F. STACKPOLE, Lynn, Mass., assignor of one-half to Alfred H. Howard, Boston, Mass. Filed Dec. 19, 1911. Serial No. 666,656. (Cl. 12—78.)



1. In a burnishing machine, in combination, an actuating cam, and a tool-carrier maintained in immediate engagement with the said cam by spring tension, said cam producing the movement of the tool-carrier in one direction and the spring tension producing the movement in the other direction, the moving contact between the cam and a surface in connection with the tool-carrier imparting the heat required for the burnishing action of the tool.

2. In a burnishing machine, in combination, a tool-carrier, a rotating cam actuating said tool-carrier, and anti-attrition surfacing dispensing with the use of oil between the said parts and also effecting the heating of the tool for the burnishing action through moving contact between the said surfacing and the surface contacting therewith.

3. In a burnishing machine, in combination, a tool-carrier, and a rotating cam-surface of anti-attrition material operatively engaging with said tool-carrier to actuate the same, and effecting the heating of the tool for the burnishing action through the movement of such cam-surface relative to the surface which contacts therewith.

4. In a burnishing machine, in combination, a tool-carrier, a rotating cam-body for actuating said tool-carrier, and an anti-attrition shell or jacket upon said cam-body engaging with a surface in connection with said tool-carrier, and effecting the heating of the tool-carrier and tool for the burnishing action through moving contact between said shell or jacket and a surface in connection with the tool-carrier.

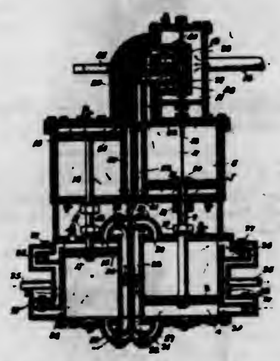
5. In a burnishing machine, in combination, a tool, a tool-carrier, a rotating cam engaging said tool-carrier, and a spring maintaining the tool-carrier in continuous engagement with said cam, said cam and spring imparting

reciprocatory movement to said tool-carrier and also imparting the heat required for the burnishing action to the tool in consequence of the moving contact of the cam-surface with the tool-carrier.

[Claims 6 to 13 not printed in the Gazette.]

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1,041,693. DUPLEX AIR-COMPRESSOR. SIMON K. STEPPT, Harrisburg, and HOWARD H. NAYLOR, Marietta, Pa. Filed Apr. 8, 1911. Serial No. 619,747. (Cl. 136—8.)



A slide valve comprising a shell having oppositely disposed longitudinal steam inlet openings therein, a reversible valve block having a pair of faces mounted in said valve shell, said valve block being provided on one face with transverse openings and a longitudinal arcuate opening, and on its opposite face with a longitudinal arcuate opening.

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1,041,694. BLACKING-BOX OR THE LIKE. CHARLES STUPIAN, Buffalo, N. Y. Filed Jan. 31, 1912. Serial No. 674,509. (Cl. 220—6.)



1. A receptacle comprising a body-portion having an annular groove, a cover having an outstanding inclined elongated projection, and a cover lifter having a circular portion rotatably fitting into said groove, an outstanding arm and an upstanding stud adapted to engage said inclined projection on the cover.

2. A receptacle comprising a body-portion having an annular groove, a cover having an inclined elongated projection on its circular side wall, and a cover lifter formed of wire curved to provide a circular portion fitting into said annular groove and bent to form an outstanding arm and an upstanding stud adapted to engage said inclined projection.

3. A receptacle comprising two parts, one of said parts having an annular groove and the other having an outstanding inclined elongated projection, a rotatable element having a circular portion fitting into said groove, an outstanding arm and a stud arranged at an angle to said arm adapted to engage said inclined projection.

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1,041,695. MATCH-SAFE. HENRY L. SULZBACH, Sioux City, Iowa. Filed Sept. 29, 1910. Serial No. 584,560. (Cl. 224—26.)

A match safe comprising a back plate having laterally extending attaching portions, a spring catch secured to said plate and an animal skin secured to said plate and having feet portions covering said attaching portions and a head projecting above said plate to form a lid and coöperating with said catch and providing a match receiving space.



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1,041,696. TYPE-WRITER KEY. WILLIAM D. SUMMERVILLE, Brookville, Pa. Filed Jan. 19, 1912. Serial No. 672,034. (Cl. 197—102.)



1. A typewriter key cap composed of transparent material and provided with a flange adapted to fit the key of the typewriter and having a raised character thereon.

2. A typewriter key cap adapted to fit the key of the typewriter and composed of transparent material and having a raised character thereon.

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1,041,697. VALVE. LOUIS SWENINGSON and WILLIAM H. WOODWARD, Salem, Ohio. Filed Aug. 24, 1911. Serial No. 645,759. (Cl. 136—10.)



1. A device of the character described comprising a cylinder and piston, two ports communicating with the said cylinder at each end thereof to act as supply and exhaust ports, a plurality of ports independent from the supply and exhaust ports communicating with the cylinder, a valve casing associated with said cylinder, a cylindrical main valve within said valve casing, a cylindrical auxiliary valve within said cylindrical main valve, said cylindrical main valve and cylindrical auxiliary valve being provided with ports and passages communicating with the supply and exhaust ports of the cylinder and effecting communication between said supply and exhaust ports of the cylinder and supply and exhaust openings in the valve casing, ports in said main and auxiliary valves communicating with ports in said cylinder other than the supply and exhaust ports in order to cause the exhaust from the cylinder to act upon the auxiliary valve simultaneously at both ends thereof and to provide a greater pressure on one end of the auxiliary valve than on the other to hold the said auxiliary valve against movement, one of said last mentioned ports being arranged to take pressure from the cylinder to exert the same on one end of the auxiliary valve to move the same to lead pressure to one end of the main valve to move said main valve to effect communication between the intake and exhaust openings in the valve casing with the intake and exhaust ports of the cylinder, substantially as described and for the purposes set forth.



2. A device of the character described comprising a cylinder and a piston, suitable supply and exhaust ports in said cylinder, additional ports in said cylinder, a valve casing associated with said cylinder, a main slidable valve in said valve casing, an auxiliary slidable valve arranged in said main valve and slidable therein, said valve casing being provided with suitable supply and exhaust openings to lead the pressure supply to the said valve casing and to conduct the exhaust therefrom, said main valve being provided with annular ports to register with the supply and exhaust ports in the valve casing and to register with the supply and exhaust ports leading to the said cylinder, said main valve being provided with ports arranged to register with the ports in said cylinder other than the main supply and exhaust ports to cause a portion of the exhaust from said cylinder to pass into the main valve and to act upon the said auxiliary valve therein, means in said auxiliary valve to allow the exhaust pressure from the cylinder to act on both ends of the said auxiliary valve to hold the said auxiliary valve against movement during the effective stroke of the said piston, one of said last mentioned ports in the said main valve being arranged to receive pressure from the said cylinder to move the said auxiliary valve, said auxiliary valve being provided with ports adapted to register with ports in the said main valve to cause the pressure from the cylinder to act upon the said main valve to move the same at the completion of each effective stroke of the said piston, substantially as described and for the purposes set forth.

3. A device of the character described comprising a cylinder and a piston, said cylinder being provided with suitable supply and exhaust ports and also provided with a plurality of additional ports, a main slidable valve associated with said cylinder, an auxiliary valve arranged within said main valve and slidable therein, means for leading the supply pressure to the said main valve and for exhausting therefrom, said main valve being provided with ports to lead the pressure and exhaust to and from the said cylinder, said main valve being provided with ports to register with the said additional ports in the said cylinder to lead a portion of the exhaust therefrom to the said auxiliary valve with the said main valve, said auxiliary valve being provided with means for causing the exhaust pressure so led thereto to act on both ends of the said auxiliary valve to hold the said auxiliary valve against movement during the effective stroke, one of said additional ports in said cylinder being arranged to take pressure from the cylinder at the end of the effective stroke of the piston to lead pressure therefrom to one end of the said auxiliary valve to move the same within the said main valve, said auxiliary valve being provided with ports registering with ports in the said main valve to have a communication between the supply pressure and one end of the said main valve to lead said supply pressure thereto to move said main valve, substantially as described and for the purposes set forth.

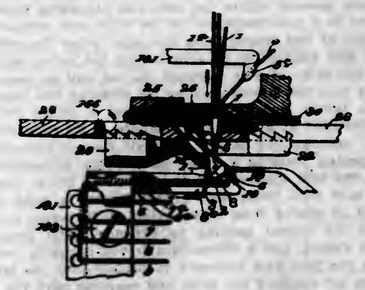
4. A device of the character described comprising a cylinder and a piston, said cylinder being provided with suitable supply and exhaust ports, a main valve associated with said cylinder, an auxiliary valve arranged within said main valve and slidable therein, means for leading pressure and exhaust to and from said main valve, means for leading pressure and exhaust to and from said cylinder to said main valve, means for leading exhaust from said cylinder to said auxiliary valve to act at both ends thereof unequally in order to hold said auxiliary valve against movement during the effective stroke of the said piston, said means also acting to cause a communication between the supply pressure in said cylinder to one end of the said auxiliary valve when the said piston has reached the end of its effective stroke in order to move said auxiliary valve, said auxiliary valve and said main valve being provided with means to lead supply pressure to one end of said main valve to move said main valve, substantially as described and for the purposes set forth.

5. A device of the character described comprising a cylinder and piston, a main valve associated therewith, an auxiliary valve associated with said main valve, said device being provided with means for leading pressure to and exhausting from the said cylinder to actuate the said piston and provided with means for leading a portion of the exhaust from said cylinder to both ends of said auxiliary valve in such manner that pressure of the exhaust acts unequally upon the ends of said auxiliary valve to hold the said auxiliary valve against movement during the effective stroke of the said piston, said means also acting to cause a communication between the supply pressure in the cylinder and one end of the said auxiliary valve to move the said auxiliary valve, said auxiliary valve and said main valve being provided with means for leading the supply pressure to one end of the said main valve to move the same when the said piston has reached the end of its effective stroke, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,698. LOOPER MECHANISM FOR SEWING-MACHINES. ALBERT B. TABOR, Providence, R. I., assignor to Willcox & Gibbs Sewing Machine Co., New York, N. Y., a Corporation of New York. Filed May 2, 1910, Serial No. 558,847. Renewed Aug. 1, 1912. Serial No. 712,779. (Cl. 112—5.)



1. In a sewing machine, the combination of a needle, two thread-carrying loopers one having thereon a hook or tooth adapted in the movement of the loopers to engage the thread extending from the other looper to deflect its loop out of the path of said needle.

2. In a sewing machine, the combination of a needle, two loopers relatively fixed but movable together, one of said loopers having thereon a hook or tooth adapted in the movement of the loopers to engage and position, with relation to the needle, the thread extending from the other looper which latter is a thread carrying looper.

3. The combination of a plurality of needles and a plurality of loopers movable together for coöperating with said needles, one of said loopers having thereon a hook or tooth adapted in the movement of the loopers to engage and position the thread extending from another looper with relation to the needles.

4. The combination of two loopers, and a coöperating loop-spreader, one of said loopers having thereon a hook or tooth adapted in the movement of the loopers to engage and position the thread extending from the other looper to the loop-spreader.

5. The combination of a plurality of needles, a plurality of loopers and a loop-spreader, one of said loopers having thereon a hook or tooth adapted in the movement of the loopers to engage the thread extending from the other looper to the loop-spreader and position said thread with relation to the needles.

[Claims 6 and 7 not printed in the Gazette.]

1,041,699. BOTTLE FAUCET OR TAP. ROBERT HENRY THOMPSON, Jr., Portland, Oreg. Filed Oct. 14, 1911. Serial No. 654,671. (Cl. 225—22.)



1. A bottle faucet or tap including a hollow tapered tube having a lateral opening at a point intermediate of its ends and provided with a solid inner end of gimlet form, said tapered tube being provided at its outer portion beyond the lateral opening with a spiral flange forming a thread, an outwardly closable valve located at the outer portion of the tapered tube for controlling the flow of liquid through the same, and a reciprocatable rod normally located within the tube and extending from the opening to a point adjacent to the valve and arranged in the path of and spaced from the same when the valve is closed and adapted to be actuated by the valve, whereby when the said valve is operated the rod will be caused to project into the lateral opening for cleaning the same.

2. A bottle faucet or tap including a hollow tapered tube provided at a point intermediate of its ends with a lateral opening and having the wall thereof adjacent to the opening forming a valve seat, which is located between the said opening and the outer end of the tapered tube, said tube being also provided with a solid inner portion of gimlet form and having at its outer portion beyond the lateral opening an exterior spiral flange to form a thread, and a reciprocatable rod normally located within the tube and arranged to project into the lateral opening for cleaning the same and coacting with the said valve seat to form a valve for controlling the flow of liquid through the opening.

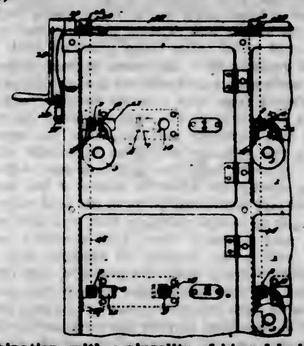
3. A bottle faucet or tap including a hollow tube having an opening at the inner end of its bore, a valve located at the outer portion of the tube and movable inwardly and outwardly in a direction longitudinally of the tube for controlling the flow of liquid through the same, a reciprocatable rod mounted in the tube and normally spaced from the valve and extending from a point adjacent the latter to the opening of the tube, said rod being located in the path of the valve and adapted to be moved inwardly by the same and being of a length to project into the opening of the tube to dislodge accumulation therefrom and coacting with the walls of the bore of the tube to form a valve to control the flow of liquid through the said opening.

4. A bottle faucet or tap including a hollow tube having an opening at the inner end of its bore and provided beyond the opening with an interior valve seat, a rod operating within the hollow tube and extending to the opening for ejecting accumulation therefrom and provided with a valve portion co-acting with the said valve seat to regulate the outflow and movable inwardly to carry it to the said seat, and an outwardly closable valve for controlling the flow of the liquid through the tube, said outwardly closable valve being located beyond the rod and arranged to move the same inwardly.

5. A bottle faucet or tap including a hollow tube having an opening at the inner end of its bore and provided beyond the opening with an interior valve seat, a rod operating within the hollow tube and extending to the opening for ejecting accumulation therefrom and provided with a valve portion co-acting with the said valve seat to regulate the outflow and movable inwardly to carry it to the said seat, an outwardly closable valve for controlling the flow of the liquid through the tube, said outwardly closable valve being located beyond the rod and arranged to move the same inwardly, and a spring housed within the tube and connected with the rod for moving the same outwardly for holding the valve portion normally away from the valve seat.

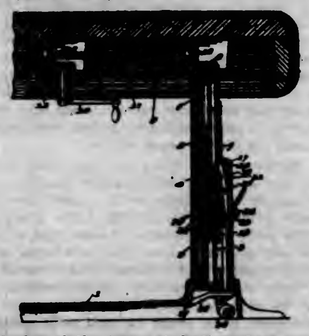
[Claims 6 to 8 not printed in the Gazette.]

1,041,700. LOCKER STRUCTURE. ALBERT J. THORNLEY, Pawtucket, R. I., assignor to Narragansett Machine Company, Pawtucket, R. I., a Corporation of Rhode Island. Filed July 10, 1911. Serial No. 637,749. (Cl. 189—7.)



In combination, with a plurality of hinged locker doors, each provided with a transversely extended margin at its free end, a vertically sliding locking bar having a right-angle cross-section, one of the sides of said bar extending parallel and to the rear of the locker doors in spaced relation thereto and being formed with notches, a sliding lock member for each door having a right angular outer end which extends in the same plane as said side of the locking bar and is spaced from the locker door so as to engage on the rear face of said side of the locking bar, and means to operate the locking bar.

1,041,701. GYMNASIUM APPARATUS. ALBERT J. THORNLEY, Pawtucket, R. I., assignor to Narragansett Machine Company, Pawtucket, R. I., a Corporation of Rhode Island. Filed Nov. 25, 1911. Serial No. 662,268. (Cl. 46—89.)



1. In a device of the type set forth, a base, a column thereon, a sleeve in the column having a threaded bore, a top member, a hollow stem secured to the top member and engaging in the space between the sleeve and column, a threaded rod in the stem engaging said threaded bore of the sleeve, means to rotate said rod, a rack on the stem, a vertically moving bar carried by the column, said bar having a bifurcated upper end, a latch pivoted in said bifurcation and having a toothed upper end to engage said rack, a spring between the column and latch to normally hold the latter in engagement with the rack, said column having a slot which registers with the tail end of the latch, a cam lever pivoted in the slot to engage said tail end of the latch to move the upper end thereof out of engagement with the rack, and a shoe pivoted to the base and carrying a caster at its free end, said shoe being engaged by the lower end of said bar.

2. In combination with a base member and a top member and an adjustable connection between said members, a rack carried by the top member, a pivoted shoe having a caster carried by the base member, means slidably carried by the base member for engagement with the rack and shoe, means for lowering the top member to cause said shoe engaging means to effect raising of the base member, and means to disengage the rack engaging means from the rack to permit the top member to be lowered without raising of the base member.

3. In combination with a base and a top member and an adjustable connection between said base and top member, means to lower the top member, a caster carried by the base member, and means actuated by and capable of being locked to and unlocked from the top member to engage the caster and effect raising of the base member when the top member is locked to said second named means and lowered.

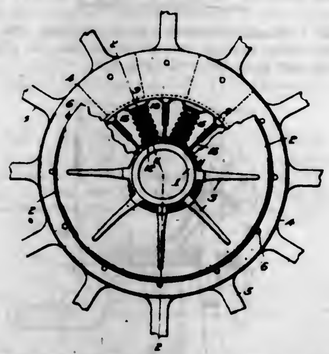
4. In combination with a base and a top member and an adjustable connection between said base and top member, means to lower the top member, a caster carried by the base member, means engaging the caster to effect raising of the base member, and means to lock the caster engaging means to the top member so that when the latter is lowered the caster engaging means will bear on the caster and thereby effect raising of the base member.

5. In combination with a base member and a top member, means to adjust the two members in a vertical direction, movable floor engaging means carried by the base member, means carried by the base member and engaging said floor engaging means to effect raising of the base member, means to lock the means of the base member which engages the floor engaging means to the top member, and means to permit unlocking of said means of the base member which engages the floor engaging means.

[Claim 6 not printed in the Gazette.]

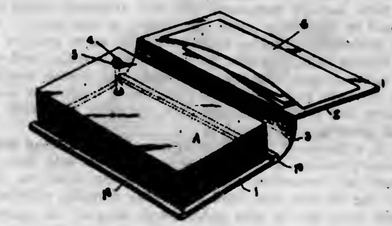


1,041,702. SHOCK-ABSORBING HUB FOR VEHICLE-WHEELS. JOHN WALKER TILTON, Atlantic City, N. J., assignor of one-half to George Hoefer, Clement J. Adams, and Nicholas W. Young, Atlantic City, N. J. Filed May 1, 1912. Serial No. 694,554. (Cl. 152—45.)



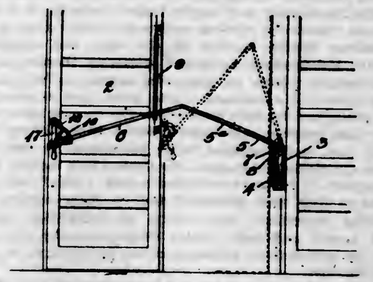
A shock-absorbing hub, comprising a central hub having its outer ends screw-threaded, side-plates screwed on said ends, an annular spoke-holding rim operative within the space-formed between the side-plates, a plurality of pairs of cushioning-devices arranged between said rim and the central hub, and a leaf spring driver arranged between each pair of cushioning devices.

1,041,703. SAMPLE-BOOK. JACOB P. TERRILL, St. Louis, Mo. Filed Apr. 28, 1911. Serial No. 623,890. (Cl. 129—23.)



A sample book comprising a bottom cover and a top cover, a series of sample sheets surmounting said bottom cover, a threaded pivot post secured to said bottom cover and extending through corners of the sample sheets, and a nut fitted to said pivot post adapted to clamp the sheets together so as to prevent said sheets from turning on the pivot post independently of each other, combined with the ribs $1^a$ engaging the lowermost sheets to prevent them from turning on said pivot post.

1,041,704. LOCK FOR SLIDING DOORS. HENRY G. VOIGHT, New Britain, Conn. Filed Mar. 2, 1912. Serial No. 681,253. (Cl. 70—102.)



1. In a device of the character described, the combination of a door casing, a sliding door, a lever pivoted to said door and connected to said casing and swinging with the opening and closing movement of said door, a movable locking device carried by the door, an abutment carried by and oscillating with the movement of said lever, said abutment being positioned by said lever when the door is open to engage and restrain said device from locking movement and said abutment being positioned by said lever upon the closing of the door to release said locking device to permit it to move relative to and beyond said abutment to thereby lock said door against opening movement, and means whereby said locking device may be withdrawn from locking position and whereby said door may be opened.

2. In a device of the character described, a sliding door, a movable arm carried thereby, a connection for said arm independent of the door, an operating handle carried by the door, a movable locking device controlled by said handle, and an abutment carried by and moving with said arm, said abutment being positioned by said arm when the door is open to engage and restrain said locking device from locking movement and said abutment being positioned by said arm upon the closing of the door to release said locking device to permit it to move relative to and

beyond said abutment to lock said abutment and its arm against door-opening movement.

3. In a device of the character described, a sliding door, a movable lever carried thereby, a connection for said lever independent of the door, an operating handle carried by the door, a movable locking device controlled by said handle, an abutment carried by and moving with said lever, said abutment being positioned by said lever when the door is open to engage and restrain said locking device from locking movement and said abutment being positioned by said lever upon the closing of the door to release said locking device to permit it to move relative to and beyond said abutment to lock said abutment and its arm against door opening movement, and closing mechanism for said door operatively connected with said lever to move the latter in a direction to move said door to closed position.

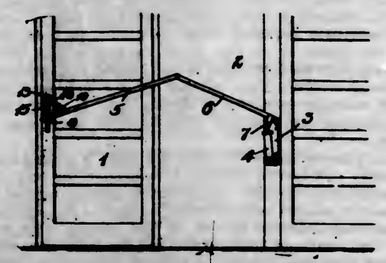
4. In a device of the character described, a sliding door, an arm pivotally mounted near one end on said door, a support or connection independent of the door for the other end of said arm, said arm being movable relatively to said door and to said independent support, an operating handle carried by the door for moving the latter, said handle having a limited independent movement relatively to said door, an abutment carried by and moving with said arm, said abutment being positioned by said arm when the door is open to engage and restrain said locking device from locking movement and said abutment being positioned by said arm upon the closing of the door to release said locking device to permit it to move relative to and beyond said abutment to lock said abutment and its arm against door-opening movement, said locking device being controlled by the said independent movement of said handle.

5. In a device of the character described, a sliding door, a toggle lever connected at one end to said door, a cooperating toggle lever for the other end of the first mentioned toggle lever, a support for said second toggle lever, means for moving said toggle levers normally in a direction to transmit a closing movement to the door, a door operating handle carried by the door and capable of limited independent movement relatively thereto, a movable locking device, an abutment carried by and moving with said first mentioned toggle lever, said abutment being positioned by said lever when the door is open to engage and restrain said locking device from locking movement and said abutment being positioned by said lever upon the closing of the door to release said locking device to permit it to move relative to and beyond said abutment to lock said abutment and its lever against door opening movement, and means of connection between said handle and said locking device whereby the latter may be moved from locking position preparatory to opening the door.

[Claims 6 to 14 not printed in the Gazette.]

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1,041,705. DOOR-CONTROLLING MEANS. HENRY G. VOIGHT, New Britain, Conn. Filed Apr. 12, 1912. Serial No. 690,382. (Cl. 70—102.)



1. In a device of the character described, the combination of a door casing, a sliding door, a lever pivoted to said door and connected to said casing and swinging with the opening and closing movement of said door, locking means permanently connecting said door and lever so constructed and arranged that upon the closing of the door said means is positioned to lock said lever against door opening movement, and means whereby said locking means may be moved from locking position and whereby said door may be opened.

2. In a device of the character described, a sliding door, a movable arm carried thereby, a connection for said arm independent of the door, an operating handle carried by the door, locking means permanently connecting said door and arm and controllable by said handle so constructed and arranged that upon closing of the door, said means is positioned to lock said lever against movement and to thereby lock said door.

3. In a device of the character described, a sliding door, a movable lever carried thereby, a connection for said lever independent of the door, an operating handle carried by the door, locking means permanently connecting said door and lever so constructed and arranged that upon the closing of the door, said means is positioned to lock said lever against movement and to thereby lock said door, said locking means being controllable by said handle, and closing mechanism for said door operatively connected with said lever to move the latter in a direction to move said door to closed position.

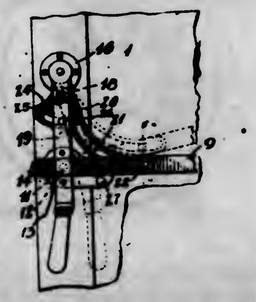
4. In a device of the character described, a sliding door, an arm pivotally mounted near one end on said door, a support or connection independent of the door for the other end of said arm, said arm being movable relatively to said door and to said independent support, an operating handle carried by the door for moving the latter, said handle having a limited independent movement relatively to said door, and locking means permanently connecting said door and arm and controllable by said handle so constructed and arranged that upon closing of the door, said means is positioned to lock said lever against movement and to thereby lock said door.

5. In a device of the character described, a sliding door, a toggle lever connected at one end to said door, a cooperating toggle lever for the other end of the first mentioned toggle lever, a support for said second toggle lever, means for moving said toggle levers normally in a direction to transmit a closing movement to the door, locking means permanently connecting said door and first mentioned toggle lever, so constructed and arranged that upon the closing of the door said means is positioned to lock said first mentioned toggle lever against movement and to thereby lock said door, a door operating handle carried by the door and capable of limited independent movement relatively thereto, and means of connection between said handle and said locking means whereby the latter may be inoperatively positioned preparatory to opening the door.

[Claims 6 to 13 not printed in the Gazette.]

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1,041,706. DOOR-CONTROLLING MEANS. HENRY G. VOIGHT, New Britain, Conn. Filed July 3, 1912. Serial No. 707,628. (Cl. 70—102.)



1. In a device of the character described, in combination, a sliding door, an independent stationary abutment, movable connections between said door and abutment constructed and arranged as to be so positioned by the closing of the door as to be locked against door opening movement, an operating handle carried by the door and movable relative thereto, and cam means controlled by said handle and operable by movement thereof relative to the door to unlock said connections whereby said door may be moved to open position.

2. In a device of the character described, in combination, a sliding door, an independent stationary abutment, movable connections between said door and abutment constructed and arranged as to be so positioned by the closing of the door as to be locked against door opening movement, an operating handle carried by the door and movable relative thereto in the direction of door opening movement, a cam member carried by the door and controlled by said handle, and means whereby a continued movement of said handle in the direction of door opening operates said cam member to unlock said connections and moves said door to open position.

3. In a device of the character described, in combination, a sliding door, an independent stationary abutment, movable connections between said door and abutment, constructed and arranged as to be so positioned by the closing of the door as to be locked against door opening movement, an operating handle carried by the door and movable relative thereto, means controlled by said handle, including a cam coöperating with said movable connections, whereby a continued movement of said handle in the same direction will unlock said connections and move said door to open position.

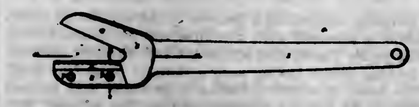
4. In a device of the character described, in combination, a sliding door, an independent stationary abutment, movable connections between said door and abutment constructed and arranged as to be so positioned by the closing of the door as to be locked thereby against door opening movement, means normally actuating said connections to move said door to closed position, and means controlled by said handle, including a cam coöperating with said movable connections, whereby a continued movement of said handle in the same direction will unlock said connections and will move said door to open position against the force of said closing means.

5. In a device of the character described, in combination, a sliding door, an independent stationary abutment, toggle lever connections between said door and said stationary abutment constructed and arranged as to be so positioned by the closing of the door as to be locked against door opening movement, means normally actuating said lever connections to move said door to closed position, an operating handle carried by said door and having a limited free movement relative thereto, a cam member controlled by said handle mounted on said door to cooperate with said toggle lever connections and movable relative to said door, and means whereby said limited movement of said handle relative to said door operates said cam member to move said toggle lever connections to unlocked position, and whereby a continued movement of said handle in the same direction will open said door.

[Claims 6 to 10 not printed in the Gazette.]

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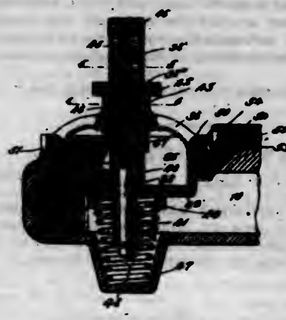
1,041,707. WRENCH. BENJAMIN F. WAITT, Camden, N. J., guardian of George W. Waitt. Original application filed Aug. 28, 1906, Serial No. 331,162. Renewed June 8, 1905, Serial No. 264,335. Divided and this application filed Dec. 15, 1905. Serial No. 291,883. (Cl. 81—120.)



A wrench having two rigid jaws, one presenting a toothed face substantially parallel with the handle of the wrench and the other presenting a smooth inner face disposed at an acute angle in respect to the inner face of the first jaw.



1,041,708. CARBURETER. WILLIAM K. ANDERSEN, New York, N. Y. Filed Sept. 28, 1910. Serial No. 583,338. (Cl. 137—32.)



1. In an apparatus of the character described, the combination with a casing having an auxiliary air inlet, of a support adjustably mounted in said auxiliary air inlet, means for securing said support to its adjusted position, a valve mounted upon said support, means for yieldingly resisting the movement of said valve with one degree of resistance for a part of its movement, and means for resisting the movement of said valve with a greater degree of resistance for the remainder of its movement, means for actuating said adjustable support whereby to regulate the tension of the means for initially resisting the movement of said valve, and means for regulating the tension of the means for subsequently resisting the movement of said valve for the remainder of its movement, substantially as specified.

2. In an apparatus of the character described, the combination with a casing having an auxiliary air inlet, of a support adjustable in said auxiliary air inlet, means for securing said support to its adjusted position, a valve stem adjustably mounted in said support, a valve loosely mounted upon said stem, means for yieldingly resisting the movement of said valve for a portion of its movement, and means arranged upon said stem for yieldingly resisting the movement of said valve stem for the remainder of its movement, substantially as specified.

3. In an apparatus of the character described, the combination with a casing having an auxiliary air inlet, of a support adjustable in said auxiliary air inlet, means for securing said support to its adjusted position, a valve stem adjustably mounted in said support, a valve loosely mounted upon said stem, means for regulating the extent of movement of said valve, means arranged within said casing below said valve for primarily resisting the movement of said valve, and means arranged upon said valve stem below said valve adapted to coöperate with said first-named means for resisting the movement of said valve for the remainder of its movement, substantially as specified.

4. In an apparatus of the character described, the combination with a casing having an auxiliary air inlet, of a screw-threaded bushing adjustably arranged in said auxiliary air inlet, a valve stem adjustably mounted in said bushing, a valve loosely mounted upon said bushing and adapted to seat thereon, means arranged upon said valve stem for regulating the movement of said valve upon said stem, a spring arranged within said casing below said valve for initially resisting the movement of said valve, and a spring disposed upon said valve stem below said valve adapted to coöperate with said first-named spring whereby to subsequently resist the movement of said valve for the remainder of its movement, substantially as specified

5. In an apparatus of the character described, the combination with a casing having an auxiliary air inlet, of a screw-threaded bushing adjustably arranged in said auxiliary air inlet, means for securing said bushing to its adjusted position, a valve stem adjustably mounted in said bushing, a valve loosely mounted upon said bushing and adapted to seat thereon, means arranged upon said valve

stem for regulating the movement of said valve upon said stem, a spring arranged within said casing below said valve for initially resisting the movement of said valve, and a spring disposed upon said valve stem below said valve adapted to coöperate with said first-named spring whereby to subsequently resist the movement of said valve for the remainder of its movement, substantially as specified.

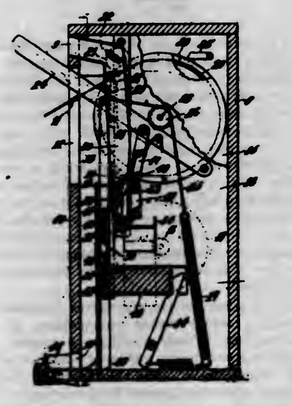
[Claims 6 and 7 not printed in the Gazette.]

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1,041,709. [WITHDRAWN.]

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1,041,710. SANITARY SOAP AND TOWEL DISPENSER. RICHARD F. DOWNEY, Milwaukee, Wis., assignor to Sanitary Service Company, Milwaukee, Wis. Filed Oct. 5, 1911. Serial No. 652,930. (Cl. 211—33.)



1. A soap and towel dispenser, comprising a casing provided with discharge openings, a roller journaled within the casing for holding a roll of fibrous material, another roller journaled adjacent thereto and around which the fibrous material passes, a soap holding means within the casing, an operating lever projecting through the casing, a connection between the second mentioned roller and the lever for rotating said roller when the lever is moved, a soap cutting means connected to the lever, and a locking means for the lever.

2. A soap and towel dispenser, comprising a casing provided with discharge openings, a roller journaled within the casing for holding a roll of fibrous material, another roller journaled adjacent thereto and around which the fibrous material passes, a soap holding means within the casing, an operating lever projecting through the casing, a connection between the second mentioned roller and the lever for rotating said roller when the lever is moved, means for preventing the retrograde rotation of the roller, a reciprocal soap cutting means connected to and actuated by the lever, and a locking means for the lever.

3. A soap and towel dispenser, comprising a casing provided with discharge openings, a roller journaled within the casing for holding a roll of fibrous material having transverse perforations, a drum journaled within the casing and positioned adjacent to the roller and around which roller the fibrous material passes, a pulley connected to said drum, a soap holding means within the casing, a yielding means for moving soap within said holder, a reciprocal soap cutter within the casing and positioned to cut a thin slice of soap from the cake and discharge it from one of the openings of the casing, an operative lever projecting through the casing, a belt having one end connected to the lever and its other end connected to a yielding means fastened to the casing, said belt extending over the drum pulley, means for preventing retrograde movement of said drum, a dog for stopping the rotation of the drum at the end of each revolution and which is engaged by the lever to release the drum from said locking engagement, a connection between the lever and the soap cutter, and a locking means for the lever.

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1,041,711. WEARING-APPAREL. WILLIAM H. EBSARY, Buffalo, N. Y. Filed Mar. 30, 1909. Serial No. 486,682. (Cl. 2—79.)

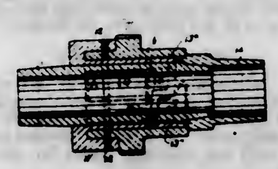


1. In an article of apparel, a sleeve and a reversible cuff comprising an extension of rectangular outline narrower in width than the sleeve and integral with said sleeve; said extension projecting from the outer end of the sleeve and being bent in a serpentine manner to form a central cuff stiffening portion, then laterally to one side, then folded laterally backward over the first mentioned lateral fold and finally folded laterally beneath the second mentioned fold with its inner margin lapping over the inner margin of the first mentioned fold, and a single row of stitching passed through the serpentine cuff stiffening portion and the lapping inner margins.

2. In an article of apparel, a sleeve and a reversible cuff integral with said sleeve and comprising an extension projecting from the sleeve; said extension being first bent backward and forward or in a serpentine manner in a series of short folds to form a central multi-ply stiffening portion, then extended laterally to one side to form approximately one half of the inner ply of the cuff, then folded laterally in a series of short folds to form a four ply side edge having two rounded corners, then extended laterally to form the outer ply of the cuff, then folded laterally in a series of short folds to form a four ply side edge having two rounded corners on the side opposite the first mentioned side edge, and finally extending the extreme end portion inwardly and lapping it over the inner margin of the first mentioned fold to form the other half of the inner ply of the cuff, and rows of stitching passed through the center and side margins of the cuff.

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1,041,712. COUPLING. ALBERT O. GALE and ELDON J. IVERSON, Seattle, Wash. Filed Nov. 30, 1910. Serial No. 594,922. (Cl. 137—28.)



A coupling comprising a pair of cylinders, one of which cylinders is provided with a conical end portion and with locking plates rigidly and symmetrically disposed thereon, said locking plates having each a radially projecting stud, and the other of which cylinders is provided with an end adapted to fit the cone shaped end portion of said first named cylinder to make a fluid tight joint therewith and further provided with locking projections adapted to engage with said locking plates of said first named cylinder, and a collar having cam-slots and disposed on said first named cylinder which cam-slots are adapted to coöperate with said studs to forcibly engage said locking projections with said locking plates to rigidly unite said cylinders, in combination with an annular cap associated with said collar and with said first named cylinder, said cap having longitudinally extending tongues adapted to prevent rotary movement of one of said cylinders with respect to the other.



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1,041,713. WINDOW-FASTENER. FRANK GALLOWAY, Leamington, England. Filed June 17, 1912. Serial No. 704,079. (Cl. 16—30.)

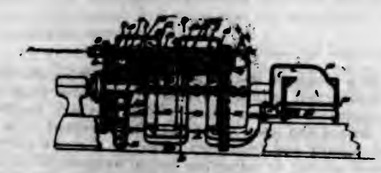


1. In a window fastener of the type described the use of a hinged or articulated locking bar pivoted on the outer plate in conjunction with a stop on the inner plate substantially as described and set forth.

2. In a window fastener of the type described the combination with a stop on the inner plate of a locking bar pivoted on the outer plate which is so hinged that the knob portion can be turned upward from the inside to clear the stop and open the sashes substantially as described and set forth in the drawings.

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1,041,714. ELASTIC-FLUID TURBINE. LOUIS C. LOEWENSTEIN, Lynn, Mass., and LEONARD H. DYER, Greenwich, Conn., assignors to General Electric Company, a Corporation of New York. Filed Sept. 28, 1909. Serial No. 520,002. (Cl. 121—95.)



1. A multistage elastic fluid turbine, having a furnace separate from the main generator furnace for reheating fluid between stages, such furnace being outside of the turbine shell.

2. A multistage elastic fluid turbine, having a shell with the reheaters within the shell, and a furnace connected thereto and outside of the shell, and means for passing gases from the furnace through all of the stages of the turbine.

3. A multistage elastic fluid turbine having a furnace separate from the main generator furnace and outside of the casing of the turbine, and means for passing gases from the furnace through all of the stages of the turbine.

4. A multistage elastic fluid turbine having a separate furnace, flues between stages, connections between the flues and furnace, and means for passing elastic fluid outside of the flues.

5. A multi-stage elastic fluid turbine, having a main boiler furnace and an additional furnace outside of the casing of the turbine, flues connecting the furnace and turbine, and means for controlling the passage of heating gases through the different stages.

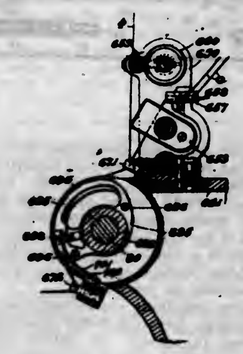
[Claims 6 and 7 not printed in the Gazette.]

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1,041,715. ROTARY TAKE-UP. ARTHUR A. MERRITT, Worcester, Mass., assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y., a Corporation of New York. Original application filed Dec. 12, 1908, Serial No. 467,163. Divided and this application filed Jan. 12, 1910, Serial No. 537,685. Renewed Aug. 1, 1912. Serial No. 712,776. (Cl. 112—26.)

1. A rotary take-up having an unyielding part adapted to act upon the thread to take up the same, and a yielding part in the form of a spring adapted to press outward against the thread but to be bent inward toward the axis of rotation of the take-up by pull on the thread.

2. A rotary take-up having side plates and a flat spring in the space between the plates adapted to press outward against the thread but to be bent inward toward the axis of rotation of the take-up by pull on the thread.



3. A rotary take-up having in its surface which contacts with the thread a cam-like part followed by a yielding portion constituting a continuation of said cam-like part.

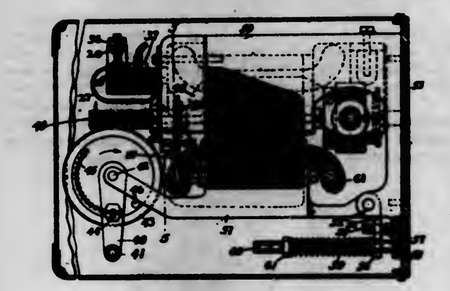
4. A rotary take-up for simultaneously operating upon a plurality of threads having a cam-like part for acting upon the threads to take up the same, followed by one or more fingers with intervening slots, said fingers being adapted to project between and separate the threads, and yielding means under said slots adapted to be engaged by the threads passing through the slots and to yield to pull upon said threads.

5. A rotary take-up for simultaneously operating upon a plurality of threads having a cam-like part for acting upon the threads to take up the same, followed by one or more fingers extending beyond the cam-like part and separated by intervening slots, said fingers being adapted by the rotation of the take up to be projected between and separate the threads, and a flat spring extending from its fixed end along and in contact with the under surface of the fingers and under said slots and adapted to be engaged by the threads passing through the slots and to yield to pull upon said threads.

[Claim 6 not printed in the Gazette.]

**1,041,716. SELECTIVE TIME-LIMIT-CONTROLLING DEVICE FOR ELECTRIC SWITCHES.** GEORGE A. BURNHAM, Saugus, Mass., assignor to S. B. Condit, Jr., Boston, Mass. Filed July 17, 1911. Serial No. 638,846. (Cl. 175—270.)

1. A selective time-limit controlling-device for electric-switches having an operating-device requiring a prolonged period of time to operate the switch, and means responsive to an overload current to actuate said operating-device, which means consumes varying periods of time in causing the operating-device to operate the switch according to the current value of the overload up to a predetermined current value, and constant periods of time regardless of the current value of the overload on overloads of higher current values, substantially as described.



2. A selective time-limit controlling-device for electric-switches having an operating-device requiring a prolonged period of time to operate the switch, and means responsive to an overload current to actuate said operating-device, which means exerts a force proportionate to the current value of the overload up to a predeterimed current value, and exerts a constant force regardless of the current value of the overload on overloads of higher current values, substantialy as described.

3. A selective time-limit controlling-device for electric-switches having an operating-device requiring a prolonged period of time to operate the switch, and means responsive to an overload current to actuate said operating-device at a variable speed according to the current value of the overload, up to a predetermined current value, and at a definite speed, regardless of the current value of the overload on overloads of higher current values, substantially as described.

4. A selective time-limit controlling-device for electric-switches, comprising switch-operating means requiring a prolonged period of time to operate the switch, and an electro-magnetic device responsive to an overload current to actuate said switch-operating means, said electro-magnetic device consuming periods of time of different length in causing the switch-operating means to operate the switch according to the current value of the overload up to a predetermined current value, and periods of time of the same length on overload of higher current values, substantially as described.

5. A selective time-limit controlling-device for electric-switches comprising switch-operating means requiring a prolonged period of time to operate the switch, and an electro-magnetic device responsive to an overload current to actuate said switch operating-means which exerts a force proportionate to the current value of an overload up to its point of saturation, and exerts its maximum force on overloads of higher current values, substantially as described.

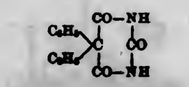
[Claims 6 to 21 not printed in the Gazette.]

# REISSUES.

**13,476.** [WITHDRAWN.]

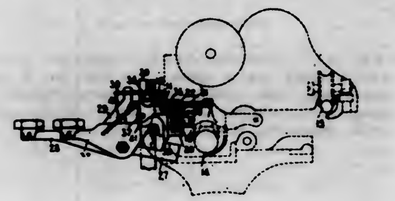
**13,477. PHENYLETHYLBARBITURIC ACID.** HEINRICH HORELEIN, Vohwinkel, near Elberfeld, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Sept. 12, 1912. Serial No. 720,087. Original No. 1,028,872, dated May 7, 1912, Serial No. 647,902. (Cl. 23—24.)

The herein described phenylethylbarbituric acid of the formula:



crystallizing from water in the shape of white leaflets melting at 173–174° C.; forming salts with alkali metals and calcium; and being a valuable hypnotic, substantially as described.

**13,478. TYPE-WRITING MACHINE.** WALTER E. PALMER, Cicero, Ill., assignor to Union Typewriter Company, Jersey City, N. J., a Corporation of New Jersey. Filed June 17, 1912. Serial No. 704,245. Original No. 1,008,053, dated Nov. 7, 1911, Serial No. 598,802. (Cl. 197—179.)



1. In a tabulator mechanism for typewriting machines, the combination with a plurality of tabulator stops and the supporting member along which they are longitudinally spaced and upon which they are mounted to be adjusted toward and from each other, of a single movably mounted setting or adjusting device adapted to directly engage and separately release and set or adjust the stops along their supporting member.

2. In a tabulator mechanism for typewriting machines, the combination with a plurality of tabulator stops and a supporting member therefor, along which the stops are longitudinally spaced and upon which they are adapted to be adjusted toward and from each other, with means for locking the stops in adjusted positions, of a movably mounted setting device adapted to separately and independently release the locking mechanism of each stop, and hold the stop to permit it to be adjusted by relative movement of the supporting member.

3. In a tabulator mechanism for typewriting machines, the combination with a plurality of tabulator stops and a supporting member therefor along which the stops are adapted to be adjusted, with means for locking the stops in adjusted positions, of a lever operated setting finger adapted to release the locking means and to confine the stops while relative adjustment of the stops and bar is effected.

4. In a tabulator mechanism for typewriting machines, the combination with a plurality of tabulator stops and a supporting bar along which said stops are adapted to be adjusted, said stops having rocking motion on the bar whereby they may be locked to and released from the bar, and means to interlock with the stops to rock them to releasing positions and to retain or confine the stops while being adjusted on said bar.

5. In a tabulator mechanism for typewriting machines, the combination with a member carried by or movable with the carriage and a plurality of stops having means to lock them on said member and adapted to be adjusted longitudinally of the member, of means carried by a relatively fixed part of the machine for separately engaging the stops to release them from said member and to hold the stops while the member is shifted to adjust the stops on said bar.

6. In a tabulator mechanism for typewriting machines, the combination with a member carried by or movable with the carriage and a plurality of stops having means to lock them on said member and adapted to be adjusted longitudinally of the member, of a lever actuated finger pivoted to a relatively fixed part of the frame and adapted to interlock with the stops to release them from the member and to hold them while said member is being longitudinally shifted to thereby adjust the stops on the member.

7. In a tabulator mechanism for typewriting machines, the combination with a member carried by or movable with the carriage and a plurality of stops having means to lock them on said member and adapted to be adjusted longitudinally of the member, of a lever actuated finger pivoted to a relatively fixed part of the frame and adapted to interlock with the stops to release them from the member and to hold them while said member is being longitudinally shifted to thereby adjust the stops on the member, and means arranged to brace or stiffen the finger near its free end.

8. A tabulator stop setting device comprising a lever actuated member having means to separately engage the tabulator stops to release the latter from their supporting member and confine the stops while they are being adjusted on the support, and means for movably supporting the lever actuated member.

9. In a tabulator or stop mechanism for typewriting machines, the combination with a stop device and its supporting member to which the stop device is normally locked, of a single setting device adapted by movement thereof in one direction to interlock with the stop device to hold it stationary and to release the stop device from its supporting member.

10. In a tabulator or stop mechanism for typewriting machines, the combination with a stop device and its supporting member to which the stop device is normally locked, of a pivoted lever arranged when swung in one direction to release the stop device from its supporting member and lock it stationary, and when swung in the other direction to relock the stop device to its supporting member and release said stop device.

11. A typewriting machine embracing an endwise traveling paper carriage and its supporting frame, a bar carried by and arranged longitudinally of the carriage, a series of spaced tabulator stops on the bar and adjustable longitudinally therealong with means for locking them in adjusted position, means mounted on said frame to separately and independently release said stops from the bar and to hold them stationary while the carriage is shifted endwise and thereby reset the stops on said bar, and a coöperating stop on the frame.

12. A typewriting machine embracing an endwise traveling carriage and its supporting frame, a bar carried by and arranged longitudinally of the carriage and provided with a series of closely spaced notches, a series of tabulator stops spaced longitudinally of said bar and slidable endwise thereof and provided with means to engage the notches of the bar to lock the stops thereto, means carried by said frame arranged to separately release said stops from the notches of said bar and to hold them stationary while the carriage is shifted endwise to thereby reset the stops on the bar and a coöperating stop on the frame.

13. A typewriting machine embracing an endwise traveling carriage and its supporting frame, a bar carried by and arranged longitudinally of the carriage and provided with a series of closely spaced notches, a series of tabulator stops spaced longitudinally of said bar and slidable endwise thereof, and having a rocking or tilting movement thereon to engage the stops with and release them from the notched bar, means carried by the frame for so releasing the stops from said bar and for holding them temporarily fixed during the endwise movement of the carriage and a coöperating stop carried by said frame.

14. A typewriting machine embracing an endwise traveling carriage and its supporting frame, a letter spacing mechanism embracing a rack on the carriage and a pinion and a tabulator mechanism embracing a flange on the rack bar, a series of longitudinally spaced tabulator stops carried by and adjusted longitudinally of said flange, a coöperating stop on the carriage and resetting means embracing a member mounted on the frame to separately engage the tabulator stops and release them from the said flange and to hold them fixed while the carriage is shifted endwise.

15. In a typewriter, an endwise traveling carriage and its supporting frame, a series of tabulator stops carried by and adjustable relatively to each other longitudinally of the carriage, and having means to lock them in adjusted position, a coöperating stop on the frame, a right-hand margin stop on the carriage, a coöperating stop therefor on the frame having a release key, and means operable by movement of the said release key to release the tabulator stops from the carriage and to hold them while the carriage is shifted to thereby adjust the tabulator stops on the carriage.

16. In a typewriting machine and tabulating mechanism, the combination of a column stop, coöperative key actuated tabulator stop mechanism, a stop bar, said column stop and bar having a relative sliding movement one on the other so that the column stop may be adjusted to different points along said bar, and positioning means adapted to co-act with and restrain the column stop relatively to said positioning means while the required relative movement between said bar and column stop is effected, said positioning means being distinct from said key actuated tabulator stop mechanism.

17. In a typewriting machine and tabulating mechanism, the combination of a series of column stops, locking means therefor, each column stop being mounted for relative sliding movement and adjustment along and on that part of the machine which carries it and being mounted also for movement into and out of engagement with said locking means, and a single device operative individually on the column stops to control the movement of said stops into or out of engagement with said locking means.

18. In a typewriting machine and tabulating mechanism, the combination of a series of column stops adjustable to various distances apart, each stop being also angularly and separately movable to and from operative position, and hand controlled means operable individually on said column stops to control such angular movement.

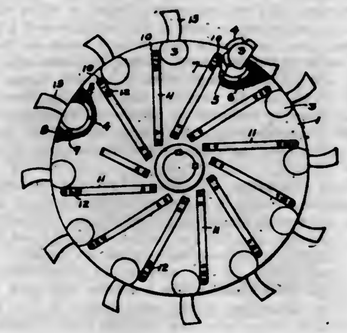
19. In a typewriting machine and tabulating mechanism, the combination of a series of column stops mounted for relative adjustment on that part of the machine which supports them, coöperative key controlled tabulator stop mechanism, and latching means by which each column stop may be restrained against movement relatively to said latching means while a relative adjustment is effected between the stop and the support therefor, said latching means being distinct from said key controlled tabulator stop mechanism.

20. In a typewriting machine and tabulating mechanism, the combination of a series of column stops mounted for sliding movement on their support for purposes of adjustment, coöperative key controlled tabulator stop mecha-

nism, and pivoted positioning means which co-acts with said column stops to restrain them against movement relatively to said positioning means in the direction of the travel of the carriage, whether the carriage travels in one direction or the other.

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13,479. THRESHING-MACHINE CYLINDER. ORPHEUS C. SHAW, Spokane, Wash., assignor to Sectional Threshing Cylinder Co., Spokane, Wash., a Corporation. Filed Aug. 19, 1912. Serial No. 715,942. Original No. 1,011,379, dated Dec. 12, 1911, Serial No. 596,291. (Cl. 130—27.)



1. A cylinder comprising opposite heads having segmental recesses formed in the periphery of the heads greater than a semi-circle, said recesses being each provided with a groove, a segmental member proportioned to fit each of said recesses and provided with a tongue proportioned to fit the groove, and a covered stop means below the periphery of the heads at the forward sides of said recesses to retain the segmental members.

2. A cylinder comprising opposite heads having segmental recesses formed in the periphery of the heads greater than a semi-circle, said recesses being each provided with a groove, a segmental member proportioned to fit each of said recesses and provided with a tongue proportioned to fit the groove, and a stop means comprising an integral part of the segmental member and an integral part of the head with which it contacts, to retain the segmental member and by which said stop is covered.

3. A cylinder comprising opposite heads having segmental recesses formed in the periphery of the heads greater than a semi-circle, said recesses being each provided with a groove terminating short of the forward side of said recesses, a segmental member proportioned to fit each of said recesses and provided with a tongue proportioned to fit the groove and to form an abutment at the shoulder formed by the termination of the groove.

4. A cylinder comprising opposite heads having segmental recesses formed in the periphery of the heads greater than a semi-circle, said recesses being each provided with a groove terminating short of the forward side of said recesses, a segmental member proportioned to fit each of said recesses and provided with a tongue proportioned to fit the groove and to form an abutment at the shoulder formed by the termination of the groove, and means to lock the segmental members in their heads.

5. A cylinder comprising opposite heads having segmental recesses formed in the periphery of the heads greater than a semi-circle, said recesses being each provided with a groove terminating short of the forward side of said recesses, a segmental member proportioned to fit each of said recesses and provided with a tongue proportioned to fit the groove and to form an abutment at the shoulder formed by the termination of the groove, and pins to lock the segmental members in their heads.

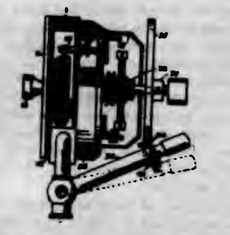
6. A cylinder comprising opposite heads having segmental recesses formed in the periphery of the heads greater than a semi-circle, said recesses being each provided with a groove terminating short of the forward side of said recesses, a segmental member proportioned to fit each of said recesses and provided with a tongue proportioned to fit the groove and to form an abutment at the shoulder formed by the termination of the groove, a pin positioned to be inserted through the tongue and the adjacent walls of the groove and a resilient member for holding the pin yieldingly in position.

7. A cylinder comprising opposite heads having lugs projecting laterally on alternate opposite sides and having recesses formed in said lugs, and toothed cross-bars having ends to fit into said recesses.

8. A cylinder comprising opposite heads having lugs projecting laterally on alternate opposite sides and having segmental recesses formed in the periphery of the heads greater than a semicircle, said recesses being each provided with a groove terminating short of the forward side of said recesses and toothed cross-bars connecting the heads and having segmental members proportioned to fit the respective recesses, said segmental members being each provided with a tongue proportioned to fit the groove and form an abutment at the shoulder formed by the termination of the groove.

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13,480. ELECTRICAL WATER-HEATER. MILTON H. SHOEMAKER, San Francisco, Cal., assignor, by mesne assignments, to The Thermo Electric Company, San Francisco, Cal., a Corporation of California. Filed Jan 10, 1912. Serial No 670,509. Original No. 1,005,754, dated Oct. 10, 1911. Serial No. 624,017. (Cl. 219—39.)



1. An electric fluid heater comprising a casing having a heating chamber provided with inlet and outlet passages, supporting bars in one end of said chamber and an insulating stud at the other end, a heater element having its ends secured respectively to said bars and its intermediate portion bent around said stud, an electric switch having contacts connected with said bars and coöperating contact members carried by a rotary stem, a guard or locking-plate carried by said stem having notches in its periphery, and a valve in said inlet passage having a handle adapted to enter one of said notches when in the closed position.

2. An electric fluid heater comprising a casing having a heating chamber provided with inlet and outlet passages, supporting bars in one end of said chamber and an insulating stud at the other end, a heater element having its ends secured respectively to said bars and its intermediate portion bent around said stud, an electric switch having contacts connected with said bars and coöperating contact members carried by a rotary stem, a guard or locking plate carried by said stem having notches in its periphery, a valve in said inlet passage having a handle adapted to enter one of said notches when in the closed position, and an adjusting device upon said handle adapted to regulate the approach thereof with respect to the periphery of said plate.

3. An electric heater comprising a casing having a heating chamber provided with inlet and outlet openings, electric heating coils in said chamber, a metal supply cock connected with said inlet, a metal discharge pipe with said outlet, and a short-circuiting plate fixed to the casing and connecting said metal parts.

4. An electric water heater comprising a casing having a heating chamber provided at opposite ends with inlet and outlet openings respectively, insulated supporting bars located near one end of said chamber and an insulating stud near the opposite end thereof, a U-shaped heating coil having its ends detachably connected to said bars and its bight passing around said stud, the inlet opening being located below said bight whereby water passing through the chamber may traverse the interior of the coil and also surround its exterior.

5. An electric water heater comprising a casing provided with a recess forming a heating chamber having a side cover plate which may be removed to give ready access to the entire chamber, contact bars located near one end of said chamber and an insulating support near the opposite end thereof, and U-shaped spiral heating coils within said chamber and having their ends detachably connected to said contact bars and their intermediate portions supported upon said insulating support.

6. An electric water heater comprising a casing provided with a recess forming a heating chamber having a side cover plate which may be removed to give ready access to the entire chamber, conducting contact bars projecting within one end of said chamber and an insulating support projecting within the opposite end thereof, and U-shaped spiral heating coils within said chamber and having their ends detachably connected to said contact bars and their intermediate portions supported upon said insulating support.

7. An electric water heater comprising a casing having a heating chamber provided with inlet and discharge passages, said discharge passage being connected with one end of said chamber and passing through the body of the casing parallel with and adjacent to the chamber throughout its length, and having an outlet opposite the inlet end thereof, electric heating coils supported within said chamber, and switch contacts connected with the terminals of said coils.

8. An electric water heater comprising a casing having a heating chamber provided with inlet and discharge openings, heating coils supported within said chamber, a rotary switch having contacts connected with the terminals of said coils, a disk detachably connected to said switch and rotatable therewith and having recesses upon its periphery, a water valve connected with said inlet, a controlling lever for said valve adapted to swing into one of said notches to lock the switch when the water supply is cut off, and an adjustable gage on said lever to engage said disk and regulate the minimum flow of water when the electric switch is in the closed or "on" position.

9. In combination with a heating chamber casing open on one vertical side, contact bars extending each at one end from the opposite side of said chamber, the other ends being free and directed toward said first-named side, a coiled spring under tension at both ends and having at its ends loops surrounding said contact bars and adapted to be passed over their free ends, a cover plate closing said open side, a gasket between the cover plate and the wall of the chamber, and a screw passing through said cover plate and screwed into the wall of said chamber, said screw having a large head adapted to be manually held and turned.

10. In combination with a casing of a heating chamber adapted to be opened on one side only, and having independent water inlet and outlet conduits therethrough, contact bars each extending at one end from said casing, the other ends being free and directed toward said side, a high-resistance wire detachably connected at its ends to said contact bars, and removable means for closing said open side of the chamber.

11. In combination with a casing of a heating chamber adapted to be opened on one side, and having independent water inlet and outlet conduits therethrough, contact bars each extending at one end from the opposite side of said casing, the other ends being free, a high-resistance wire having at its ends loops surrounding said contact bars, and removable means for closing said open side of the chamber.

12. In combination with a casing of a heating chamber open on one side, and having independent water inlet and outlet conduits therethrough, contact bars each extending at one end from the opposite side of said chamber, and adapted to be connected outside said chamber with conductors for supplying electric current, the other ends being free, a coil of high resistance spring wire having at its ends loops of sufficient size to pass over the free ends of the bars, and removable means for closing said open side of the chamber.

13. In combination with a casing of a heating chamber adapted to be opened on one side only, and having independent water inlet and outlet conduits therethrough, contact bars each extending at one end from the opposite side of said chamber, and adapted to be connected outside said chamber with conductors for supplying electric current, the other ends being free, a coil of high resistance spring wire having at its ends loops of sufficient size to pass over the free ends of the bars, said wire being held on said bars by its spring tension, and removable means for closing said open side of the chamber.

14. In combination with a casing of a heating chamber open on one side only, and having independent water inlet and outlet conduits therethrough, contact bars each extending at one end from said casing, the other ends being free and directed toward said first-named side, a coiled high-resistance spring wire under tension at both ends and having at its ends loops surrounding said contact bars and held by said tension thereon, and adapted to be passed over their free ends, and removable means for closing said open side of the chamber.

15. In an electric water heater, the combination with a switch for controlling the electric current, a valve for controlling the water current, and permitting said current to flow in quantity corresponding to the angle through which said valve is turned, means for preventing the closing of said switch, means whereby said preventive means is rendered operative when said valve is closed, or is opened less than a predetermined extent, said means being arranged to be inoperative when said valve is opened to more than said extent.

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13,481. CANDLE-HOLDER. NICEFOR ZYLIEWICZ, Chicago, Ill. Filed Sept. 7, 1912. Serial No. 719,690. Original No. 1,034,752, dated Aug. 6, 1912, Serial No. 670,708. (Cl. 248—42.)



1. In candleholders, the combination, with a stem provided with fastening means at one end, of a slotted tube slidably mounted on the stem; a candle socket attached to the outer end of the tube; and a wire clamp, carrying an additional candle socket, mounted on the stem and the tube, for the purpose described.

2. In candleholders, the combination, with a stem, and candle sockets carried by the stem, of a slotted clamp adapted to coöperate with the stem in attaching the candleholder to a vertical support, substantially as described.

3. In candleholders, the combination, with a stem, and candle sockets carried by the stem, of a clamp having two

arms placed at approximately right angles to each other, one of said arms being slotted from below, and the other arm being slotted from above, said clamp being adapted to coöperate with the stem in attaching the candleholder to a vertical support, substantially as described.

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13,482. CANDLE-HOLDER. NICHPOR ZYLIEWICZ, Chicago, Ill. Filed Sept. 7, 1912. Serial No. 719,691. Original No. 1,034,751, dated Aug. 6, 1912, Serial No. 648,734. (Cl. 248—42.)



1. In candleholders, the combination with a stem provided with fastening means at one end, and with a bracket at the other end, of a wire encircling said stem, having two parallel members mounted in openings in said bracket, and formed into a candle carrier beyond said bracket, substantially as described.

2. In candleholders, the combination, with a member having fastening means, of a wire member, slidably mounted thereon, forming a spring wire candleclamp with one of its ends, and an angularly disposed holder with the other end, and a dished drip-catching member mounted in such holder, substantially as described.

3. In candleholders, the combination with a stem, provided with a wood screw at one end, and a vertical bracket, having two openings, one above, and one below, the stem, at the other end, of a candle carrier slidably mounted on said stem and in said openings.

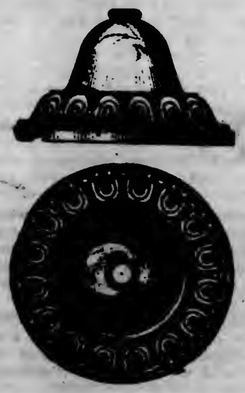
4. In candleholders, the combination, with a member having fastening means, of a wire member slidably mounted thereon, forming a candleclamp with one of its ends, and a drip-catcher clamp with the other end; and a drip-catcher mounted in such clamp.

5. In candleholders, the combination of fastening means with a double-eyed wire loop, resembling in outline the section of a dumbbell, one loop constituting a spring, and the other a candle clamp operated by said spring.

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# DESIGNS.

43,131. CANOPY. LAURITS W. ANDERSEN, Waterbury, Conn., assignor to The Plume & Atwood Manufacturing Company, Waterbury, Conn., a Corporation of Connecticut. Filed Aug. 15, 1912. Serial No. 715,300. Term of patent 3½ years.



The ornamental design for a canopy, as shown.

43,132. DOME-HOLDER. LAURITS W. ANDERSEN, Waterbury, Conn., assignor to The Plume & Atwood Manufacturing Company, Waterbury, Conn., a Corporation of Connecticut. Filed Aug. 15, 1912. Serial No. 715,301. Term of patent 3½ years.



The ornamental design for a dome holder, as shown.

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43,133. SOCKET-COVER. LAURITS W. ANDERSEN, Waterbury, Conn., assignor to The Plume & Atwood Manufacturing Company, Waterbury, Conn., a Corporation of Connecticut. Filed Aug. 15, 1912. Serial No. 715,302. Term of patent 3½ years.



The ornamental design for a socket cover, as shown.



43,134. CASING FOR COIN-DELIVERY MACHINES. EDWARD J. BRANDT, Watertown, Wis., assignor to Brandt Cashier Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 18, 1912. Serial No. 714,904. Term of patent 14 years.



The ornamental design for a casing for coin delivery machine, as shown.

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43,135. AUTOMOBILE-BODY. ALANSON P. BRUSH, Flint, Mich. Filed Mar. 26, 1910. Serial No. 551,812. Term of patent 7 years.



The ornamental design for an automobile body, as shown.

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43,136. HANDLE. TERENCE F. CURLEY, New York, N. Y. Filed July 20, 1912. Serial No. 710,707. Term of patent 7 years.



The ornamental design for a handle as shown.

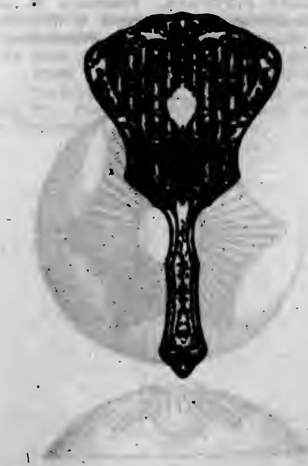
43,137. JAR OR RECEPTACLE. JACOB C. EICHHORN, Detroit, Mich., assignor to The Victor Jar Company, Detroit, Mich., a Corporation of Michigan. Filed July 17, 1912. Serial No. 710,064. Term of patent 3½ years.



The ornamental design for a jar or receptacle, as shown.

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43,138. BACK FOR TOILET MIRRORS, BRUSHES, OR SIMILAR ARTICLES. JAMES W. FARRELL, Norwood, Ohio. Filed Aug. 2, 1912. Serial No. 713,011. Term of patent 3½ years.



The ornamental design for a back for toilet mirrors, brushes, or similar articles, as shown.

43,139. BACK FOR TOILET MIRRORS, BRUSHES, OR SIMILAR ARTICLES. JAMES W. FARRELL, Norwood, Ohio. Filed Aug. 2, 1912. Serial No. 713,012. Term of patent 3½ years.



The ornamental design for a back for toilet mirrors, brushes, or similar articles, as shown.

43,140. COMBINED SHADE AND CURTAIN-POLE HOLDER. FRED W. FAY, Wellsville, N. Y. Filed July 2, 1912. Serial No. 707,356. Term of patent 14 years.



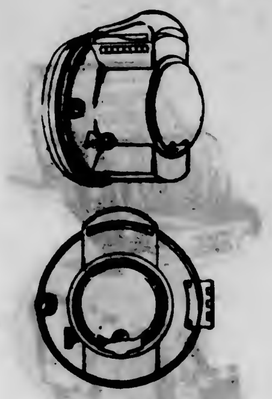
The ornamental design for a combined shade and curtain pole holder, as shown.

43,141. ORNAMENTAL SHELL FOR GAS AND ELECTRIC LIGHT FIXTURES. FREDERICK W. GEHAKE, West Collingswood, N. J., assignor to The Horn and Brannen Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 14, 1912. Serial No. 703,749. Term of patent 7 years.



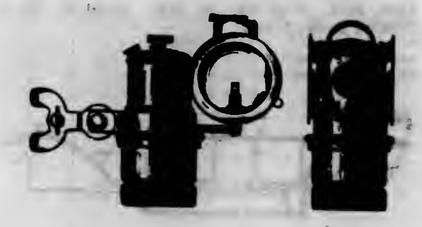
The ornamental design for a shell for gas and electric light fixtures, as shown and described.

43,142. LAMP. CHARLES E. GOODLEY, Detroit, Mich., assignor to The Edmunds & Jones Mfg. Co., Detroit, Mich., a Corporation of Michigan. Filed Sept. 11, 1911. Serial No. 648,780. Term of patent 3½ years.



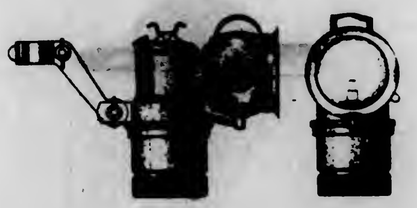
The ornamental design for a lamp, as shown.

43,143. LAMP. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Filed Aug. 1, 1912. Serial No. 712,789. Term of patent 7 years.



The ornamental design for a lamp, as shown.

43,144. LAMP. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Filed Aug. 1, 1912. Serial No. 712,790. Term of patent 7 years.



The ornamental design for a lamp, as shown.

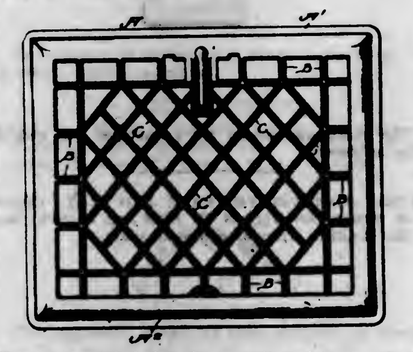


43,145. TRAP. PETER D. HAY, Detroit, Mich. Filed Aug. 1, 1912. Serial No. 712,791. Term of patent 7 years.



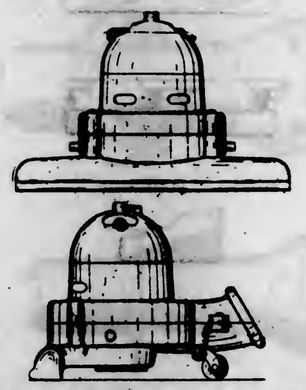
The ornamental design for a trap, as shown.

43,146. WALL-REGISTER. ALMON O. JONES, Battle Creek, Mich. Filed Nov. 30, 1910. Serial No. 595,004. Term of patent 14 years.



The ornamental design for a wall register as shown and described.

43,147. CASING FOR PNEUMATIC CLEANERS. JAMES B. KIRBY, Cleveland, Ohio. Filed July 29, 1911. Serial No. 641,229. Term of patent 7 years.



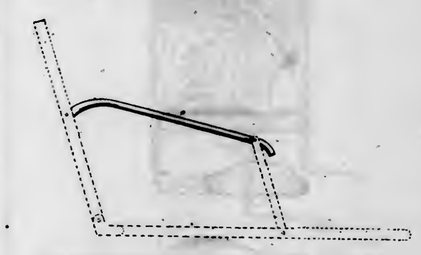
The ornamental design for a casing for a pneumatic cleaner, as shown.

43,148. COLLAPSIBLE FRONT HOOD FOR GO-CARTS. MARSHALL B. LLOYD, Menominee, Mich., assignor to The Lloyd Manufacturing Company, Menominee, Mich., a Corporation of Michigan. Filed Apr. 28, 1910. Serial No. 558,313. Term of patent 14 years.



The ornamental design for a collapsible front hood for a go-cart as shown.

43,149. COLLAPSIBLE GO-CART-FRAME ARM-REST. MARSHALL B. LLOYD, Menominee, Mich., assignor to The Lloyd Manufacturing Company, Menominee, Mich., a Corporation of Michigan. Filed Sept. 6, 1910. Serial No. 580,756. Term of patent 7 years.



The ornamental design for a collapsible go-cart-frame arm rest, as shown.

43,150. CIGAR-PROTECTOR. GODFREY S. MAHN, Philadelphia, Pa. Filed Mar. 15, 1912. Serial No. 684,002. Term of patent 14 years.



The ornamental design for a cigar protector, as shown and described.

43,151. CIGAR-PROTECTOR. GODFREY S. MANN, Philadelphia, Pa. Filed Mar. 15, 1912. Serial No. 684,008. Term of patent 14 years.



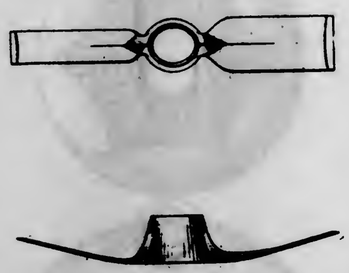
The ornamental design for a cigar protector, as shown and described.

43,152. CHAIR-ARM. GEORGE E. MITCHELL, Haverhill, Mass. Filed July 10, 1912. Serial No. 706,740. Term of patent 14 years.



The ornamental design for a chair-arm, as shown.

43,153. MATTOCK. JOHN A. MOORE, Wheeling, W. Va. Filed Feb. 1, 1912. Serial No. 674,845. Term of patent 14 years.



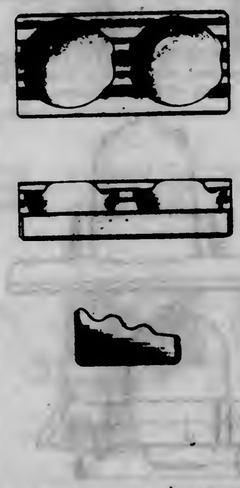
The ornamental design for a mattock, as shown.

43,154. COMBINED PEN RACK AND TRAY. CHARLES H. NUMAN, New York, N. Y. Filed Aug. 9, 1912. Serial No. 714,815. Term of patent 3½ years.



The ornamental design for a combined pen rack and tray, as shown.

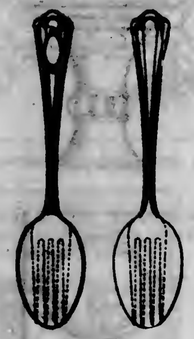
43,155. COMBINED PEN RACK AND TRAY. CHARLES H. NUMAN, New York, N. Y. Filed Aug. 9, 1912. Serial No. 714,816. Term of patent 3½ years.



The ornamental design for a combined pen rack and tray, as shown.



43,156. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. CHARLES OSBORNE, New York, N. Y., assignor to Whiting Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Feb. 19, 1912. Serial No. 678,726. Term of patent 14 years.



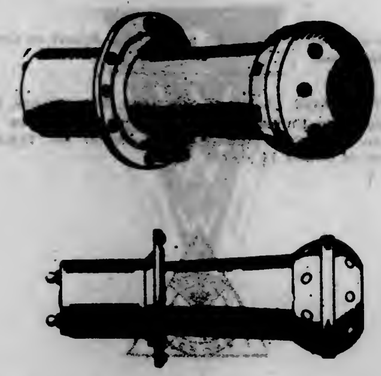
The ornamental design for a handle for a spoon, fork, or similar article, as shown.

43,157. SHOE ORNAMENT. MARY J. PARROTT and SAMUEL PARROTT, Hotchkiss, Colo. Filed July 17, 1912. Serial No. 710,062. Term of patent 3½ years.



The ornamental design for shoe ornament, as shown.

43,158. SIGNALING-HORN. MAYO B. PURPLE, East Hampton, Conn. Filed Aug. 10, 1912. Serial No. 714,478. Term of patent 7 years.



The ornamental design for a signaling horn as shown.

43,159. DOLL-HEAD. LIMA RUBA, London, England, assignor to Monroe M. Schwarzschild, New York, N. Y. Filed Aug. 8, 1912. Serial No. 713,195. Term of patent 3½ years.



The ornamental design for a doll head as shown.

43,160. CABINET. JOSEPH RUBINO, Corona, N. Y., assignor to Thomas A. Edison, Incorporated, West Orange, N. J., a Corporation of New Jersey. Filed Aug. 12, 1912. Serial No. 714,749. Term of patent 14 years.



The ornamental design for a cabinet as shown.

43,161. CABINET. JOSEPH RUBINO, Corona, N. Y., assignor to Thomas A. Edison, Incorporated, West Orange, N. J., a Corporation of New Jersey. Filed Aug. 12, 1912. Serial No. 714,750. Term of patent 14 years.



The ornamental design for a cabinet as shown.

43,162. CABINET. JOSEPH RUBINO, Corona, N. Y., assignor to Thomas A. Edison, Incorporated, West Orange, N. J., a Corporation of New Jersey. Filed Aug. 12, 1912. Serial No. 714,751. Term of patent 14 years.



The ornamental design for a cabinet as shown.

43,163. CABINET. JOSEPH RUBINO, Corona, N. Y., assignor to Thomas A. Edison, Incorporated, West Orange, N. J., a Corporation of New Jersey. Filed Aug. 12, 1912. Serial No. 714,752. Term of patent 14 years.



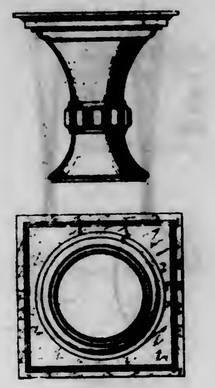
The ornamental design for a cabinet as shown.

43,164. NEWSPAPER-STAND. CHINA RUSSELL, Columbus, Ohio. Filed Aug. 9, 1912. Serial No. 714,319. Term of patent 7 years.



The ornamental design for a newspaper stand, as shown.

43,165. DECK-LAMP FIXTURE. LINDSLEY SCHEPMOES, Hasbrouck Heights, N. J., assignor to The Safety Car Heating & Lighting Co., New York, N. Y., a Corporation of New Jersey. Filed Aug. 23, 1911. Serial No. 645,668. Term of patent 7 years.



The ornamental design for a deck lamp fixture as shown and described.

43,166. DECK-LAMP FIXTURE. LINDSLEY SCHEPMOES, Hasbrouck Heights, N. J., assignor to The Safety Car Heating & Lighting Company, a Corporation of New Jersey. Filed Nov. 18, 1911. Serial No. 661,181. Term of patent 7 years.



The ornamental design for a deck lamp fixture as shown and described.

43,167. BADGE. LOUIS B. SOSSENIER, New Orleans, La., assignor to United Ancient Order of Druids, New Orleans, La. Filed Aug. 9, 1912. Serial No. 714,312. Term of patent 14 years.



The ornamental design for a badge, as shown.



43,168. LABEL-BLANK. EMIL STEPHENS, Jr., and HOMER A. JONES, Rutherford, N. J. Filed July 20, 1912. Serial No. 710,709. Term of patent 3½ years.




The ornamental design for a label blank, as shown.

43,169. LEG FOR STORE FURNITURE. MAURICE TAUSSIG, Chicago, Ill. Filed May 25, 1912. Serial No. 699,762. Term of patent 7 years.



The original design for a leg for store furniture as shown.

43,170. BANNER. ANTHONY B. VAN RIPER, Paterson, N. J. Filed Aug. 9, 1912. Serial No. 714,318. Term of patent 3½ years.



The ornamental design for a banner, as shown.

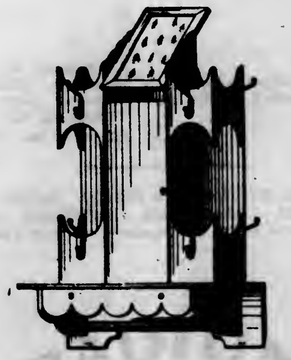


43,171. DISPLAY-STAND. GEORGE WALKER, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation of Connecticut. Filed Aug. 10, 1912. Serial No. 714,476. Term of patent 7 years.



The ornamental design for a display stand as shown.

43,172. TOILET-CABINET. CHARLES J. WASHMAN, Terrell, Tex. Filed May 14, 1912. Serial No. 697,337. Term of patent 7 years.



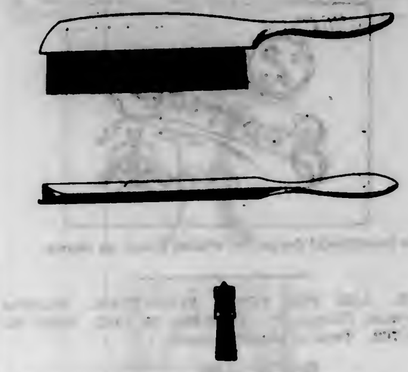
The ornamental design for a toilet cabinet as shown.

48,172. BOTTLE. GEORGE R. WEST, Pittsburgh, Pa. Filed May 11, 1912. Serial No. 696,700. Term of patent 7 years.



The ornamental design for a bottle, as shown.

48,174. BRUSH. ROBERT A. WEITZ, Maplewood, N. J. Filed June 11, 1912. Serial No. 703,664. Term of patent 7 years.



The ornamental design for a brush as shown.



# TRADE-MARKS

## PUBLISHED OCTOBER 15, 1912.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 40,721. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) STANDARD VARNISH WORKS, New York, N. Y. Filed Feb. 20, 1909.

PRIMARITE

*Particular description of goods.*—A Liquid Filler Intended for Priming and First-Coating on Hard and Soft Woods.

*Claims use since* Feb. 5, 1909.

Ser. No. 47,054. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WILLIAM J. BREWER ENGG. CO., Troy, N. Y. Filed Jan. 11, 1910.



*Particular description of goods.*—Antifriction Roller-Bearings.

*Claims use since* November, 1909.

Ser. No. 49,960. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE CHEMO-CRAFT COMPANY, Cleveland, Ohio. Filed May 28, 1910.

Velvet

*Particular description of goods.*—Shaving-Pastes.

*Claims use since about* Feb. 20, 1910.

Ser. No. 53,533. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) OREAR DRUG CO., Wimnsboro, S. C. Filed Dec. 29, 1910.

RED LION



The lion being red.

*Particular description of goods.*—Allspice, Cinnamon, Black Pepper, Cayenne Pepper, Cloves, Turmeric, African Ginger, and Mustard.

*Claims use since* Oct. 14, 1904.

Ser. No. 56,297. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) INTERNATIONAL COLOR & MFG. CO., Chicago, Ill. Filed May 11, 1911.

RADIUM

*Particular description of goods.*—Leather-Burnish.

*Claims use since* Jan. 1, 1911.

Ser. No. 57,080. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) PHILLIPS LEAD & SUPPLY CO., Providence, R. I. Filed June 14, 1911.

PHILCO

*Particular description of goods.*—Elbows, Brass T's, Unions, Nipples, Bushings, Return-Bends, Bib-Faucets and Basin-Faucets, Gate-Valves, Steam-Valves, Stop and Waste Cocks, Bath-Tubs, Water-Closet Flushing-Valves, Float-Valves, Water-Closet Seats, Water-Closets, Boilers, Shower-Baths, Water-Closet Flushing-Tanks, China and Porcelain Lined Iron Washbasins.
*Claims use* since Oct. 1, 1910.

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Ser. No. 58,243. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE A. SANDER PACKING COMPANY, Cincinnati, Ohio. Filed Aug. 17, 1911.

MORNING GLORY

*Particular description of goods.*—Hams, Shoulders, Skinned Shoulders, Breakfast-Bacon, Skinned Hams, Picnics, Dried Beef, Chipped Beef, Sausages, Beef-Tongues, Pig-Tongues, Lard, Kettle-Rendered Lard, Smoked Hams, Smoked Bacon, Smoked Sausages, Summer-Sausages, Butts, Jowl-Butts, Bacon-Bellies, Fancy Bacon-Bellies, Strips, Bellies, Bacon, Bacon-Strips, Bacon Clear Sides, Bacon Loin-Backs, Clear Sides, Loin-Backs, Pigs' Feet, Spiced Pigs' Feet, and Family Clear Pork.
*Claims use* since 1873.

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Ser. No. 58,612. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ANTONIO MAGNANO, Seattle, Wash. Filed Sept. 9, 1911.




The picture being fanciful.
*Particular description of goods.*—Alimentary Paste and Olive-Oil.
*Claims use* since about July 1, 1911.

Ser. No. 58,719. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HENRY GLADE & CO., Grand Island, Nebr. Filed Sept. 19, 1911.



Consisting of alternate blue and white concentric circles inclosing a white field, in the center of which is a blue diamond-shaped figure, one of the blue circles containing a series of spaced hearts, printed in red, and the central field containing heads of wheat, printed in yellow, said circles and the diamond-shaped figure being crossed by two panels.
*Particular description of goods.*—Wheat-Flour.
*Claims use* since June 12, 1911.

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Ser. No. 58,813. (CLASS 37. PAPER AND STATIONERY.) A. M. COLLINS MANUFACTURING COMPANY, Philadelphia, Pa. Filed Sept. 22, 1911.



*Particular description of goods.*—Photographic Card-Mounts, Photographic Folder-Mounts, Photographic Cover-Mounts, Cut-Cards, Blotting-Paper, Hand-Blotters, and Paper-Folders.
*Claims use* since Feb. 15, 1908.

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Ser. No. 58,814. (CLASS 37. PAPER AND STATIONERY.) A. M. COLLINS MANUFACTURING COMPANY, Philadelphia, Pa. Filed Sept. 22, 1911. Under ten-year proviso.

COLLINS

Which consists of the word "Collins."
*Particular description of goods.*—Photographic Card-Mounts, Photographic Folder-Mounts, Photographic Cover-Mounts, Cardboard, Drawing-Board, Bristol-Board, Cut Cards, Plain Paper, and Coated Paper.
*Claims use* since about 1880.





Ser. No. 58,889. (CLASS 15. OILS AND GREASES.) LEWIS & MITCHELL, INC., Oakland, Cal. Filed Sept. 27, 1911.




*Particular description of goods.*—An Oil for Preventing Moisture from Collecting Upon Glazed Surfaces.
*Claims use* since June 1, 1911.

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Ser. No. 58,900. (CLASS 15. OILS AND GREASES.) LEWIS & MITCHELL, INC., Oakland, Cal. Filed Sept. 28, 1911.

GLASSO

*Particular description of goods.*—An Oil for Preventing Moisture from Collecting Upon Glazed Surfaces.
*Claims use* since Jan. 1, 1906.

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Ser. No. 59,706. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) POSTUM CEREAL CO. LIMITED, Battle Creek, Mich. Filed Nov. 13, 1911.

Post Tavern

*Particular description of goods.*—A Cereal Breakfast Food Made of Wheat, Corn, and Rice.
*Claims use* since Oct. 19, 1911.

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Ser. No. 59,833. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GREEN & DE LAITTRE COMPANY, Minneapolis, Minn. Filed Nov. 22, 1911.

EARLY MORN

*Particular description of goods.*—Cereal Breakfast Food.
*Claims use* since July 1, 1901.

Ser. No. 61,224. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) AMERICAN OPTICAL COMPANY, Southbridge, Mass. Filed Feb. 2, 1912.



*Particular description of goods.*—Eyeglasses, Spectacles, Bridges, Lens-Clips, Lenses, Lens-Mountings, Finger-Piece Levers, Guards, Finger-Piece-Actuating Springs, Pivot-Posts, Frames, Temples, Face-Gages, Frame-Gages, Lens-Gages, and Rules.
*Claims use* since Aug. 1, 1911.

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Ser. No. 61,442. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILLIAM WOLFF & CO., San Francisco, Cal. Filed Feb. 12, 1912.

St. Mesarthe

*Particular description of goods.*—Fresh Olive-Oil.
*Claims use* since January, 1912.

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Ser. No. 61,708. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE J. E. SCOTT CUP CO., Marietta, Ohio. Filed Feb. 24, 1912.



*Particular description of goods.*—Leather Valve-Cups.
*Claims use* since Jan. 20, 1912.

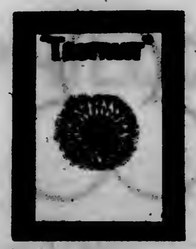
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Ser. No. 61,718. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CURRIER-KOSTH MFG. CO., Coudersport, Pa. Filed Feb. 24, 1912.

K. K. K.

*Particular description of goods.*—Pincers, Pliers, Punches, Shears, Wire-Cutters, Wrenches, Pipe-Tongs, Nutcrackers, Screw-Drivers, Tack-Pullers.
*Claims use* since 1906.

Ser. No. 61,946. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) A. BOAKE ROBERTS & Co. LIMITED, Stratford, County of Essex, England. Filed Mar. 5, 1912.




No claim is made for the word "Trufruit."
*Particular description of goods.*—Fruit Extracts.
*Claims use* since about Jan. 1, 1911.

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Ser. No. 62,072. (CLASS 17. TOBACCO PRODUCTS.) H. UPMANN & Co., Habana, Cuba. Filed Mar. 9, 1912. Under ten-year proviso.




*Particular description of goods.*—Cigars.
*Claims use* since 1846.

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Ser. No. 62,367. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) CHICKERING BROTHERS, Chicago, Ill. Filed Mar. 28, 1912.

The Acoustigrande

*Particular description of goods.*—Pianos.
*Claims use* since Jan. 24, 1912.

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Ser. No. 62,741. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE CONTINENTAL SUPPLY COMPANY, St. Louis, Mo. Filed Apr. 8, 1912.



*Particular description of goods.*—Rubber Machinery Belts and Composition Packing for Steam-Joints.
*Claims use* since about Apr. 1, 1912.

Ser. No. 62,872. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NORTHERN PICKLE Co., Tacoma, Wash. Filed Apr. 13, 1912.

PANDORA

*Particular description of goods.*—Pickles, Chow-Chow, India Relish, Mexican Hot Relish, Piccalilli and Dill Pickles, Horse-Radish, Mustard, and Olives.
*Claims use* since July 1, 1911.

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Ser. No. 63,122. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GORMAN & COMPANY, INC., Seattle, Wash. Filed Apr. 26, 1912.

POTLATCH

*Particular description of goods.*—Canned Salmon.
*Claims use* since Sept. 12, 1911.

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Ser. No. 63,129. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) HAIGASUN BARSAM MANISSADJIAN, Basel, Switzerland. Filed Apr. 25, 1912.

Zellotyl

*Particular description of goods.*—A Plastic Compound Made of Acetyl Cellulose.
*Claims use* since Dec. 6, 1909.

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Ser. No. 63,131. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HARRY MATUSOW, Philadelphia, Pa. Filed Apr. 25, 1912.

HEMRO

*Particular description of goods.*—A Remedy for Diseases of the Rectum.
*Claims use* since Apr. 1, 1912.

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Ser. No. 63,279. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ERNEST LIMPER, New York, N. Y. Filed May 3, 1912.




*Particular description of goods.*—Filbert Cakes.
*Claims use* since Apr. 1, 1912.





Ser. No. 63,267. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE AUTOPIANO COMPANY, New York, N. Y. Filed May 8, 1912.

LYRATONE

*Particular description of goods.*—Player-Pianos and Pianos.
*Claims use* since Mar. 25, 1912.

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Ser. No. 63,283. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ANGELO MARTORANO, Chicago, Ill. Filed May 6, 1912.




No claim being made to the word "Brand."
*Particular description of goods.*—Shoe-Blackings.
*Claims use* since Jan. 1, 1912.

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Ser. No. 63,417. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE MORGAN CRUCIBLE COMPANY LIMITED, Battersea, London, England. Filed May 8, 1912. Under ten-year proviso.




*Particular description of goods.*—Crucibles.
*Claims use* since 1860.

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Ser. No. 63,418. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE NATIONAL AUTOMATIC TOOL COMPANY, Dayton, Ohio, and Richmond, Ind. Filed May 8, 1912.

NATCo

*Particular description of goods.*—Drilling, Reaming, and Tapping Machines, Slotting-Machines, and Chamfering-Machines.
*Claims use* since Aug. 15, 1911.

Ser. No. 63,528. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MEXICO LAND COMPANY, Minneapolis, Minn.; Cleveland, Ohio, and Ocorio, Mexico. Filed May 14, 1912.



"El Conejo"

*Particular description of goods.*—Fresh Grape-Fruit, Oranges, Lemons, Limes, and Pineapples.
*Claims use* since May 28, 1909.

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Ser. No. 63,531. (CLASS 33. GLASSWARE.) CHARLES M. SCHOFIELD, Marion, Ind. Filed May 14, 1912.

LYRIC

*Particular description of goods.*—Glass Bottles.
*Claims use* since Apr. 22, 1912.

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Ser. No. 63,614. (CLASS 38. PRINTS AND PUBLICATIONS.) THE AMERICAN ARCHITECT, New York, N. Y. Filed May 17, 1912.

THE AMERICAN ARCHITECT

*Particular description of goods.*—Magazines.
*Claims use* since Jan. 1, 1876.

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Ser. No. 63,636. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) LINDSAY LIGHT COMPANY, Chicago, Ill. Filed May 27, 1912.

MODEL HOME

*Particular description of goods.*—Incandescent Gas-Lamps.
*Claims use* since May 14, 1912.

Ser. No. 63,944. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ASTORIA & PUGET SOUND CANNING CO., Bellingham, Wash. Filed June 3, 1912.

SEASIDE

*Particular description of goods.*—Canned Salmon.
*Claims use* since August, 1909.

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Ser. No. 63,964. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) O. F. MEYER, Rosholt, Wis. Filed June 4, 1912.



No claim is made to the words "Campho-Pine Oil Compound."
*Particular description of goods.*—A Remedy for Rheumatism.
*Claims use* since October, 1909.

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Ser. No. 64,025. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) SAMUEL STEPHENS, Boston, Mass. Filed June 6, 1912.

Multio-Hexset

*Particular description of goods.*—Spaces and Quadrats.
*Claims use* since the 17th of May, 1912.

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Ser. No. 64,074. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SEABURY & JOHNSON, East Orange, N. J., and New York, N. Y. Filed June 8, 1912. Under ten-year proviso.

CAPCINE

Consists of the word-symbol "Capcine."
*Particular description of goods.*—Medicinal Plasters.
*Claims use* since 1876.

Ser. No. 64,081. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MCADAMS & MORFORD, Lexington, Ky. Filed June 8, 1912




The words "Liver Pills" being disclaimed.
*Particular description of goods.*—A Remedy for Diseases of the Liver.
*Claims use* since Sept. 2, 1910.

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Ser. No. 64,189. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PETER ADRIAN PINCOFFS, New York, N. Y. Filed June 14, 1912.

LINCOLIA

*Particular description of goods.*—Fresh and Dried Fruits.
*Claims use* since 1908.

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Ser. No. 64,260. (CLASS 43. THREAD AND YARN.) ROBERT MARSLAND & CO., LIMITED, Manchester, England. Filed June 18, 1912.




The name "Robert Marsland & Co., Ltd." and the geographical term "Manchester" being disclaimed.
*Particular description of goods.*—Cotton Yarns.
*Claims use* since August, 1903.

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Ser. No. 64,342. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) IMPERIAL RUBBER CO., New York, N. Y. Filed June 24, 1912.

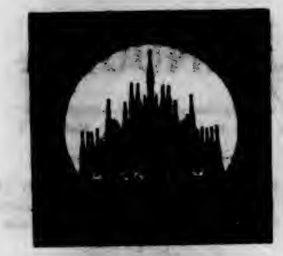
CEDAR

*Particular description of goods.*—Cotton and Rubber-Lined Hose, Linen Hose, Rubber Hose, Rubber and Fabric Hose, Rubber Tubing, Rubber, Cotton, and Leather Belting, Rubber Gaskets, Rubber Valves, and Machinery Packing in Sheet, Spiral, and Ring Form Composed of Rubber, Rubber and Metal, Rubber and Asbestos, Rubber and Cloth, Rubber and Fiber, and Rubber and Flax.
*Claims use* since 1902.





Ser. No. 64,422. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) SOCIETÀ ANONIMA MILANO-FILMS, Bovisa, near Milan, Italy. Filed June 26, 1912.



The words "Società Anonima Milano-Films" and "Bovisa presso Milano" are disclaimed.
*Particular description of goods.*—Kinematograph-Films.
*Claims use* since about 1912.

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Ser. No. 64,431. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) L. GEVAERT & CO., Vieux-Dieu, near Antwerp, Belgium. Filed June 26, 1912.

ETRAL

*Particular description of goods.*—Photographic Papers for Printing and Coating Photographic Plates and Films, Photographic Dark-Room Lamps, Printing Lamps and Outfits, Photographic Sensitometer, Photographic-Printing Frames, Photographic Print and Plate Holding Clips, Photographic-Retouching Outfits, Photographic-Trimming Board, Photographic-Print Roller, Photographic-Mounting Presses, Photographic-Mounting Tissues.
*Claims use* since November, 1911.

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Ser. No. 64,452. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) WALTER DURROW, New York, N. Y. Filed June 27, 1912.

OK PL

*Particular description of goods.*—Poultry-Litter.
*Claims use* since Jan. 1, 1912.

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Ser. No. 64,458. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE JOHN LAUSON MANUFACTURING COMPANY, New Holstein, Wis. Filed June 28, 1912.

FROST KING

*Particular description of goods.*—Gas-Engines.
*Claims use* since 1905.

Ser. No. 64,536. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ZARNITS BROS. GROCERY CO., Wheeling, W. Va. Filed July 2, 1912.




*Particular description of goods.*—Sugar, Buckwheat-Flour, Pancake-Flour, Granulated Wheat, Granulated Corn, Corn-Starch, Barley, Tapioca, and Farina.
*Claims use* since July, 1905.

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Ser. No. 64,596. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) KING & HAMILTON CO., Ottawa, Ill. Filed July 5, 1912. Under ten-year proviso.

C

*Particular description of goods.*—Corn-Shellers.
*Claims use* since 1887.

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Ser. No. 64,597. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) KING & HAMILTON CO., Ottawa, Ill. Filed July 5, 1912. Under ten year proviso.

D

*Particular description of goods.*—Corn-Shellers.
*Claims use* since 1887.

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Ser. No. 64,598. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) KING & HAMILTON CO., Ottawa, Ill. Filed July 5, 1912. Under ten-year proviso.

OTTAWA

*Particular description of goods.*—Corn-Shellers.
*Claims use* since 1887.

Ser. No. 64,660. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) S. ZECHNOWITZ, New York, N. Y. Filed July 10, 1912.

FORGET ME NOT



*Particular description of goods.*—Coffee.
*Claims use* since June 1, 1912.

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Ser. No. 64,818. (CLASS 37. PAPER AND STATIONERY.) THE WALLPAPER MANUFACTURERS LIMITED, London, England. Filed July 19, 1912.
"Rockfast."

ROCKFAST

*Particular description of goods.*—Paper Hangings.
*Claims use* since Apr. 18, 1912.

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Ser. No. 64,943. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) GEO. P. BENT COMPANY, Chicago, Ill. Filed July 26, 1912.

ACCENTANO

*Particular description of goods.*—Interior-Player Pianos.
*Claims use* since May 15, 1912.

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Ser. No. 64,955. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE PHILADELPHIA LAWN MOWER CO., Philadelphia, Pa. Filed July 27, 1912. Under ten-year proviso.

ALL DAY

*Particular description of goods.*—Lawn-Mowers.
*Claims use* since Jan. 3, 1895.

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Ser. No. 64,967. (CLASS 37. PAPER AND STATIONERY.) EATON, CRANE & PIKE COMPANY, Pittsfield, Mass. Filed July 27, 1912.

KYLESFORD

*Particular description of goods.*—Writing-Paper, Printing-Paper, Envelops, Tablets, Writing-Cards, and Cardboard.
*Claims use* since 1905.

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Ser. No. 64,982. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HORLICK'S MALTED MILK COMPANY, Racine, Wis. Filed July 29, 1912.

MALTO DEXTRO

*Particular description of goods.*—A Food Product Made of Barley-Malt and Wheat-Flour.
*Claims use* since July 18, 1912.

Ser. No. 64,994. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed July 30, 1912.

PANDORA

*Particular description of goods.*—Biscuit.
*Claims use* since at least Nov. 27, 1906.

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Ser. No. 64,996. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed July 30, 1912.

CRONY

*Particular description of goods.*—Biscuit.
*Claims use* since at least Dec. 10, 1906.

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Ser. No. 64,997. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed July 30, 1912.

CHATTERBOX

*Particular description of goods.*—Biscuit.
*Claims use* since at least June 22, 1912.

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Ser. No. 64,998. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed July 30, 1912.

HEYDAY

*Particular description of goods.*—Biscuit.
*Claims use* since at least June 22, 1912.

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Ser. No. 64,999. (CLASS 37. PAPER AND STATIONERY.) MAX GREENBAUM, New York, N. Y. Filed July 30, 1912.

Summit

*Particular description of goods.*—Writing and Printing Paper.
*Claims use* since July 29, 1912.

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Ser. No. 65,004. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EDWIN M. BAKER, Tutwiler, Miss. Filed July 30, 1912.

RED QUI SCAT IN PACE

*Particular description of goods.*—An Insecticide.
*Claims use* since July 22, 1912.





Ser. No. 65,027. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PACIFIC FISHERIES & PACKING COMPANY, Aberdeen, Wash. Filed Aug. 1, 1912.

Brigadier



The picture shown being fanciful.
*Particular description of goods.*—Canned Salmon.
*Claims use* since August, 1911.

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Ser. No. 65,030. (CLASS 10. FERTILIZERS.) LISTER AGRICULTURAL CHEMICAL WORKS, Newark, N. J., and New York, N. Y. Filed Aug. 1, 1912.

SUCCESS

*Particular description of goods.*—Fertilizers.
*Claims use* since Mar. 1, 1885.

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Ser. No. 65,046. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TERRA CEIA CITRUS GROWERS ASSOCIATION, Terra Ceia, Fla. Filed Aug. 1, 1912.

CELESTIAL

*Particular description of goods.*—Oranges, Grape-Fruit, Tangerines, Lemons, and Limes.
*Claims use* since May, 1912.

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Ser. No. 65,054. (CLASS 32. FURNITURE AND UPHOLSTERY.) DETROIT SHOW CASE CO., Detroit, Mich. Filed Aug. 1, 1912.

Silent Salesman

*Particular description of goods.*—Show-Cases.
*Claims use* since Jan. 1, 1889.

Ser. No. 65,057. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) F. E. ROYSTON & CO., Aurora, Ill. Filed Aug. 1, 1912.

YULETIDE

*Particular description of goods.*—Raisins, Dried Currants, and Canned Vegetables.
*Claims use* since June 28, 1912.

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Ser. No. 65,088. (CLASS 37. PAPER AND STATIONERY.) A. M. COLLINS MANUFACTURING COMPANY, Philadelphia, Pa. Filed Aug. 3, 1912.

FOTETTE

Which consists of the word "Fotette."
*Particular description of goods.*—Photographic Mounts.
*Claims use* since about July 22, 1912.

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Ser. No. 65,093. (CLASS 27. HOROLOGICAL INSTRUMENTS.) THE ANSONIA CLOCK COMPANY, New York, N. Y. Filed Aug. 3, 1912.

RURAL

*Particular description of goods.*—Watches.
*Claims use* since Nov. 4, 1909.

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Ser. No. 65,145. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) DIXON SPRINGS HOTEL COMPANY, Dixon Springs, Ill. Filed Aug. 7, 1912.

Va-Mon-O-Ma

*Particular description of goods.*—Drinking-Water.
*Claims use* since on or about July 1, 1912.

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Ser. No. 65,200. (CLASS 15. OILS AND GREASES.) STANDARD OIL COMPANY OF NEW YORK, New York, N. Y. Filed Aug. 12, 1912.

BROAD ARROW

*Particular description of goods.*—Refined Oil for Illuminating, Heating, and Power Purposes.
*Claims use* since 1879.

Ser. No. 65,209. (CLASS 37. PAPER AND STATIONERY.) MAX GREENEBAUM, New York, N. Y. Filed Aug. 12, 1912.

Metropolitan

*Particular description of goods.*—Writing and Printing Paper.
*Claims use* since Aug. 8, 1912.

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Ser. No. 65,244. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RO-CO-NA COMPANY, New York, N. Y. Filed Aug. 13, 1912.

Ro-Co-Na

*Particular description of goods.*—An Obesity Remedy.
*Claims use* since about Apr. 30, 1912.

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Ser. No. 65,248. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FARBENFABRIKEN OF ELBERFELD COMPANY, New York, N. Y. Filed Aug. 13, 1912.

CORIAL

*Particular description of goods.*—Coal-Tar Dyes.
*Claims use* since July 19, 1912.

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Ser. No. 65,252. (CLASS 37. PAPER AND STATIONERY.) MAX GREENEBAUM, New York, N. Y. Filed Aug. 14, 1912.

Monastery

*Particular description of goods.*—Writing and Printing Paper.
*Claims use* since Aug. 8, 1912.

Ser. No. 65,294. (CLASS 39. CLOTHING.) JOHN W. GRANT, New York, N. Y. Filed Aug. 16, 1912.

JACKTAR

*Particular description of goods.*—Men's Half-Hose and Boys' Hosiery.
*Claims use* since on or about the 1st of June, 1912.

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Ser. No. 65,340. (CLASS 10. FERTILIZERS.) PACIFIC BONE COAL & FERTILIZING CO., San Francisco, Cal. Filed Aug. 19, 1912.

PROSPERITY

*Particular description of goods.*—Fertilizer.
*Claims use* since July 1, 1912.

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Ser. No. 65,913. (CLASS 38. PRINTS AND PUBLICATIONS.) THE PEDIC SOCIETY OF THE STATE OF NEW YORK, New York, N. Y. Filed Sept. 21, 1912.

THE PEDIC ITEMS

*Particular description of goods.*—A Monthly Periodical in Book Form.
*Claims use* since August, 1907.





# TRADE-MARKS

## REGISTERED OCTOBER 15, 1912.

88,653. PERFORATED MUSIC-ROLLS. AEOLIAN COMPANY, Meriden, Conn.; Garwood, N. J., and New York, N. Y.
Filed June 12, 1912. Serial No. 64,140. PUBLISHED AUGUST 13, 1912.

88,654. PIANOS AND OTHER MUSICAL INSTRUMENTS OPERATED IN CONNECTION WITH PHONOGRAPHS. AEOLIAN COMPANY, Meriden, Conn.; Garwood, N. J., and New York, N. Y.
Filed June 12, 1912. Serial No. 64,143. PUBLISHED AUGUST 13, 1912.

88,655. PICTURES, ILLUSTRATIONS, STORIES, AND DRAMATIC REPRESENTATIONS PUBLISHED SERIALLY. ALB-TING SERVICE, Chicago, Ill.
Filed April 15, 1912. Serial No. 62,892. PUBLISHED AUGUST 13, 1912.

88,656. CAST-METAL TYPE, LINES OF TYPE, AND MATRICES. AMALGATYPE MACHINE COMPANY, New York, N. Y.
Filed April 25, 1912. Serial No. 63,114. PUBLISHED AUGUST 13, 1912.

88,657. FERTILIZERS. AMERICAN AGRICULTURAL CHEMICAL COMPANY, New York, N. Y.
Filed June 26, 1912. Serial No. 64,419. PUBLISHED AUGUST 13, 1912.

88,658. RADIATORS. AMERICAN RADIATOR COMPANY, East Orange, N. J.; Chicago, Ill.; New York, N. Y.; Philadelphia, Pa.; Boston, Mass.; London, England; Paris, France, and Berlin, Germany.
Filed May 23, 1906. Serial No. 19,793. PUBLISHED MARCH 9, 1909.

88,659. ROOFING FELTS AND PAPERS. BARRETT MANUFACTURING COMPANY, New York, N. Y.
Filed June 6, 1912. Serial No. 64,016. PUBLISHED AUGUST 13, 1912.

88,660. LEAD-PENCILS AND COPYING-PENCILS. RICHARD BEST, New York, N. Y.
Filed May 22, 1912. Serial No. 63,721. PUBLISHED AUGUST 13, 1912.

88,661. REMEDY FOR DISEASES OF THE STOMACH, AND PURIFYING THE BLOOD, AND POSSIBLE PREVENTION OF RHEUMATISM. JOHN J. BOCKAR, New York, N. Y.
Filed May 21, 1912. Serial No. 63,686. PUBLISHED AUGUST 13, 1912.

88,662. FERTILIZERS. BOWKER CHEMICAL COMPANY, New York, N. Y.
Filed June 26, 1912. Serial No. 64,425. PUBLISHED AUGUST 13, 1912.

88,663. FOOT-POWDER. JOSEPH W. BRANICKI, Newark, N. J.
Filed September 1, 1911. Serial No. 58,496. PUBLISHED JUNE 18, 1912.

88,664. ANTISEPTICS AND GERMICIDES. LAURENCE E. CASH, New York, N. Y., and Chicago, Ill.
Filed March 29, 1912. Serial No. 62,513. PUBLISHED AUGUST 13, 1912.

88,665. BUILDING-CONTRACT DOCUMENTS. CHICAGO ARCHITECTS' BUSINESS ASSOCIATION, Chicago, Ill.
Filed March 23, 1912. Serial No. 62,366. PUBLISHED AUGUST 6, 1912.

88,666. SOAPS AND SOAP POWDERS. COLGATE & Co., New York, N. Y.
Filed December 5, 1911. Serial No. 60,077. PUBLISHED AUGUST 6, 1912.

88,667. ANESTHETIC. RONALD B. COLVIN, Berlin, Pa.
Filed May 21, 1912. Serial No. 63,693. PUBLISHED AUGUST 13, 1912.

88,668. HAT-BRUSHES AND CLOTHES-BRUSHES. J. C. DOWD & Co., New York, N. Y.
Filed July 1, 1911. Serial No. 57,430. PUBLISHED AUGUST 13, 1912.

88,669. MONTHLY MAGAZINE. GEORGE A. FERRIS, Detroit, Mich.
Filed May 18, 1912. Serial No. 63,499. PUBLISHED AUGUST 13, 1912.

88,670. WINE MADE FROM THE SCUPPERNONG-GRAPE. GARRETT & Co., Norfolk, Va.
Filed March 30, 1912. Serial No. 62,545. PUBLISHED AUGUST 13, 1912.

88,671. SALVE. GEORGIE C. GILDEA, Los Angeles, Cal.
Filed May 25, 1912. Serial No. 63,787. PUBLISHED AUGUST 13, 1912.

88,672. OINTMENTS. JOSEPH A. GLENN, Philadelphia Pa.
Filed March 6, 1912. Serial No. 61,975. PUBLISHED AUGUST 13, 1912.

88,673. COMPOUND OF HERB BITTERS. JOSEPH GRETSCHEL, Long Island City, N. Y.
Filed August 4, 1911. Serial No. 58,037. PUBLISHED APRIL 30, 1912.

88,674. BLANK CHECKS. GEORGE A. GRIGGS, Butte, Mont.
Filed February 3, 1912. Serial No. 61,246. PUBLISHED AUGUST 13, 1912.

88,675. MAGAZINE. LYMAN D. HALL, New York, N. Y.
Filed May 4, 1912. Serial No. 63,300. PUBLISHED AUGUST 13, 1912.

88,676. CERTAIN ELECTRICAL APPARATUS. THE HART & HEGEMAN MANUFACTURING COMPANY, Hartford, Conn.
Filed December 21, 1910. Serial No. 53,405. PUBLISHED AUGUST 13, 1912.

88,677. ROUP AND POULTRY MEDICATED CONDITION-POWDERS. HILDEBRAND & KELLER, Ephrata, Pa.
Filed October 28, 1911. Serial No. 59,396. PUBLISHED AUGUST 13, 1912.

88,678. CERTAIN SOAP SOLUTION USED AS DISINFECTANT AND GERMICIDE. THE HOFFMANN-LA ROCHE CHEMICAL WORKS, New York, N. Y.
Filed February 28, 1912. Serial No. 61,795. PUBLISHED AUGUST 13, 1912.

88,679. ADHESIVE LIQUID. HENRY HOHORST, Jersey City, N. J.
Filed December 20, 1911. Serial No. 60,375. PUBLISHED AUGUST 6, 1912.

88,680. CERTAIN CONSTRUCTION MATERIALS. WILLIAM B. HOUGH COMPANY, Chicago, Ill.
Filed March 22, 1912. Serial No. 62,838. PUBLISHED AUGUST 13, 1912.

88,681. MEDICINAL TONIC. WILLIAM H. JAMES, Shippensburg, Pa.
Filed November 27, 1911. Serial No. 59,947. PUBLISHED AUGUST 13, 1912.

88,682. CERTAIN NAMED TOYS. ERNST PAUL LEHMANN, Brandenburg-on-the-Havel, Germany.
Filed April 2, 1912. Serial No. 62,611. PUBLISHED AUGUST 13, 1912.

88,683. CERTAIN NAMED TOOLS AND PARTS OF MACHINERY. THE LUNKENHEIMER COMPANY, Cincinnati, Ohio.
Filed April 22, 1912. Serial No. 63,060. PUBLISHED AUGUST 13, 1912.

88,684. CERTAIN NAMED SPORTING GOODS. E. J. MARTIN'S SONS, Rockville, Conn.
Filed May 16, 1912. Serial No. 63,579. PUBLISHED AUGUST 13, 1912.

88,685. CLEANING COMPOUND. EDWARD L. MERTZ, Fort Wayne, Ind.
Filed May 23, 1912. Serial No. 63,743. PUBLISHED AUGUST 13, 1912.

88,686. REMEDY FOR MALARIA IN ALL ITS VARIED FORMS. METROPOLITAN PHARMACAL CO., New York, N. Y.
Filed May 18, 1912. Serial No. 63,628. PUBLISHED AUGUST 13, 1912.

88,687. MIXED FERTILIZER. MORRIS & COMPANY, Chicago, Ill.
Filed March 6, 1912. Serial No. 61,962. PUBLISHED AUGUST 13, 1912.

88,688. MIXED FERTILIZER. MORRIS & COMPANY, Chicago, Ill.
Filed March 6, 1912. Serial No. 61,963. PUBLISHED AUGUST 13, 1912.

88,689. MIXED FERTILIZER. MORRIS & COMPANY, Chicago, Ill.
Filed March 6, 1912. Serial No. 61,964. PUBLISHED AUGUST 13, 1912.

88,690. MIXED FERTILIZER. MORRIS & COMPANY, Chicago, Ill.
Filed March 6, 1912. Serial No. 61,965. PUBLISHED AUGUST 13, 1912.

88,691. MIXED FERTILIZER. MORRIS & COMPANY, Chicago, Ill.
Filed March 6, 1912. Serial No. 61,966. PUBLISHED AUGUST 13, 1912.

88,692. MIXED FERTILIZER. MORRIS & COMPANY, Chicago, Ill.
Filed March 6, 1912. Serial No. 61,967. PUBLISHED AUGUST 13, 1912.

88,693. MIXED FERTILIZER. MORRIS & COMPANY, Chicago, Ill.
Filed March 6, 1912. Serial No. 61,968. PUBLISHED AUGUST 13, 1912.

88,694. MIXED FERTILIZER. MORRIS & COMPANY, Chicago, Ill.
Filed March 6, 1912. Serial No. 61,969. PUBLISHED AUGUST 13, 1912.

88,695. MIXED FERTILIZER. MORRIS & COMPANY, Chicago, Ill.
Filed March 6, 1912. Serial No. 61,970. PUBLISHED AUGUST 13, 1912.

88,696. MIXED FERTILIZER. MORRIS & COMPANY, Chicago, Ill.
Filed March 6, 1912. Serial No. 61,971. PUBLISHED AUGUST 13, 1912.

88,697. CARBURETERS. MOTOR APPLIANCE COMPANY OF AMERICA, New York, N. Y.
Filed July 3, 1912. Serial No. 64,560. PUBLISHED AUGUST 13, 1912.

88,698. PHARMACEUTICAL PREPARATIONS FOR THE TREATMENT OF RHEUMATISM, NEURALGIA, AND LUMBAGO. GEORG LEO NICOLAUS, Cleveland, Ohio.
Filed January 4, 1912. Serial No. 60,603. PUBLISHED APRIL 23, 1912.

88,699. VACCINE. PARKE, DAVIS & Co., Detroit, Mich.
Filed May 18, 1912. Serial No. 63,636. PUBLISHED AUGUST 13, 1912.

88,700. CARD GAMES. PARKER BROTHERS, INCORPORATED, Salem, Mass.
Filed June 24, 1912. Serial No. 64,347. PUBLISHED AUGUST 13, 1912.

88,701. TYPE-WRITING MACHINES. REMINGTON TYPEWRITER COMPANY, Ilion and New York, N. Y.
Filed April 16, 1912. Serial No. 62,940. Renewal of No. 9,690, September 19, 1882. PUBLISHED AUGUST 13, 1912.

88,702. HARDENING-POWDER AND CASE-HARDENING COMPOUND. THE ROWE RING-POINT COMPANY, Hartford, Conn.
Filed May 21, 1912. Serial No. 63,695. PUBLISHED AUGUST 13, 1912.

88,703. REMEDY FOR THE BLOOD AND BOWELS. RUSSMANN MFG. CO., Cincinnati, Ohio.
Filed July 17, 1911. Serial No. 57,667. PUBLISHED OCTOBER 24, 1911.

88,704. PRINTING-INKS. PHILIP RUXTON, INC., New York, N. Y.
Filed May 22, 1912. Serial No. 63,716. PUBLISHED AUGUST 13, 1912.

88,705. FERTILIZERS. SANDERSON FERTILIZER & CHEMICAL CO., New Haven, Conn.
Filed June 26, 1912. Serial No. 64,433. PUBLISHED AUGUST 13, 1912.

88,706. BALL-BEARINGS. JOSEPH SCHAEFFERS, Cleveland, Ohio.
Filed June 24, 1912. Serial No. 64,345. PUBLISHED AUGUST 13, 1912.

88,707. CORN AND BUNION REMEDY. THE SCHOLTZ DRUG COMPANY, Denver, Colo.
Filed May 22, 1912. Serial No. 63,725. PUBLISHED AUGUST 13, 1912.

88,708. PARLOR GAME OF CARDS. CHAS. GILBERT SHAW, Bloomington, Ind.
Filed April 15, 1912. Serial No. 62,890. PUBLISHED AUGUST 13, 1912.

88,709. ENAMELS, READY-MIXED PAINTS, VARNISHES, AND VARNISH-REMOVERS. STANDARD VARNISH WORKS, New York and Port Richmond, N. Y.
Filed June 29, 1912. Serial No. 64,479. PUBLISHED AUGUST 13, 1912.

88,710. MEDICINE IN TABLETS, PILLS, LIQUID, AND POWDER FOR CERTAIN DISEASES. AUGUSTUS G. STOLLENWERCK, Baltimore, Md.
Filed June 8, 1912. Serial No. 64,058. PUBLISHED AUGUST 13, 1912.

88,711. CERTAIN NAMED VEHICLES. THE STUDEBAKER CORPORATION, South Bend, Ind.
Filed November 15, 1911. Serial No. 59,761. PUBLISHED AUGUST 6, 1912.

88,712. LUBRICATING-OIL. THE TEXAS COMPANY, Houston and Port Arthur, Tex., and New York, N. Y.
Filed June 26, 1912. Serial No. 64,375. PUBLISHED AUGUST 13, 1912.

88,713. KEROSENE. THE TEXAS COMPANY, Houston and Port Arthur, Tex., and New York, N. Y.
Filed June 26, 1912. Serial No. 64,377. PUBLISHED AUGUST 13, 1912.

88,714. LUBRICATING-OIL. THE TEXAS COMPANY, Houston and Port Arthur, Tex., and New York, N. Y.
Filed June 26, 1912. Serial No. 64,378. PUBLISHED AUGUST 13, 1912.

88,715. KEROSENE. THE TEXAS COMPANY, Houston and Port Arthur, Tex., and New York, N. Y.
Filed June 26, 1912. Serial No. 64,379. PUBLISHED AUGUST 13, 1912.

88,716. GLASS FRUIT-JARS. WARREN FRUIT JAR CO., Fairfield, Iowa.
Filed April 25, 1910. Serial No. 49,280. PUBLISHED AUGUST 6, 1912.



88,717. GERMICIDE, BACTERICIDE, AND INSECTICIDE. WEST DISINFECTING COMPANY, New York, N. Y.
Filed February 16, 1912. Serial No. 61,552. PUBLISHED AUGUST 13, 1912.

88,718. SYRUP FOR A SODA-FOUNTAIN BEVERAGE. GEORGE W. WEBSTER, Birmingham, Ala.
Filed May 3, 1912. Serial No. 63,283. PUBLISHED AUGUST 13, 1912.

88,719. CIGARS. HORACE P. WRIGHT, Springfield, Mass.
Filed August 2, 1911. Serial No. 57,987. PUBLISHED NOVEMBER 21, 1911.

88,720. BURGUNDY. VERCHERRE & Co., Beaune, Cote d'Or, France.
Filed February 26, 1910. Serial No. 48,037. PUBLISHED AUGUST 13, 1912.

# DECISIONS

OF THE

# COMMISSIONER OF PATENTS

AND OF

# UNITED STATES COURTS IN PATENT CASES.

## COMMISSIONER'S DECISIONS.

### EX PARTE THOMPSON.

*Decided February 22, 1912.*

1. APPLICATION—DISCLOSURE.

A petition stating that the attorneys filed an informal application and then asking that the Examiner instruct them in what way to make it formal denied, since it is obvious that the invention for which a patent is sought must be disclosed by the applicant and not by the Examiner.

2. SAME—NEW MATTER—QUESTION OF REVIEWABLE BY EXAMINERS-IN-CHIEF.

Whether the claims in an application as amended cover new matter is a question reviewable in the first instance by the Examiners-in-Chief.

ON PETITION.

FEED-COOKER.

*Messrs. Chandlee & Chandlee* for the applicant.

MOORE, *Commissioner:*

This is a petition that certain instructions be given to the Examiner.

On December 31, 1910, permission to amend the drawings in this case was finally refused and the claim was finally rejected on the references of record and on the ground that "no smoke consumer in addition to element 15" was either shown or described when the case was filed. On July 13, 1911, there was filed a petition from the action of the Examiner refusing permission to amend the drawing. It was also requested that the Examiner be directed to consider the application on its merits. The petition was dismissed on the ground that it raised a question of merits, reviewable in the first instance by the Examiners-in-Chief on appeal, and with respect to the request that the Examiner be instructed to act on the merits it was pointed out that the case had been throughout rejected on the references. The present petition states that the attorneys have come into the Office with an informal application and—

> they ask your honor to direct the Examiner to instruct them in what way to make the application formal.

The petition also asks whether the Examiner should have required the applicant to illustrate in some conventional way the element included in the original claim or to eliminate the same from the application.

It should have been obvious to the attorneys that, as pointed out by the Examiner, the invention for which a patent is sought must be disclosed by the applicant for patent and not by the Examiner. If the application does not disclose the invention claimed, it does not comply with the statute, and any attempt to amend that application so as to put therein an invention not originally shown and described would constitute new matter. Whether such is the case in the present application is a question, as held in the decision on the prior petition, reviewable in the first instance by the Board of Examiners-in-Chief. No irregularity whatever has been shown in the actions of the Examiner.

It is to be noted that no action responsive to the final rejection of December 31, 1910, has been taken in this application since that time. The application therefore stands abandoned.

The petition is denied.

### EX PARTE PARTRIDGE.

*Decided April 11, 1912.*

ASSIGNMENTS—CONFLICTING—DISPUTES NOT SETTLED BY THE OFFICE.

The Patent Office will not undertake to settle disputes among conflicting assignees, but will leave the parties to their remedy in the courts.

ON PETITION.

SMELTER.

*Messrs. Spear, Middleton, Donaldson & Spear* for the applicant.

*Messrs. Byrnes, Townsend & Brickenstein* for The Universal Smelting and Refining Company.

MOORE, *Commissioner:*

This is a petition by the applicant, Partridge, through his attorneys of record—

> • • • that the final fee • • • be not accepted, and the case be allowed to become forfeited so that your petitioner may renew the same and thus have the necessary time within which to apply for his foreign patents.

The assignment records of this Office show the following two conflicting assignments relating to this application: an assignment dated January 23, 1911, recorded February 23, 1911, from the applicant, Partridge, to The Universal Smelting and Refining Company, also an assignment dated November 3, 1910, recorded March 31, 1911, from the applicant, Partridge, to The Partridge Smelting and Refining Company.

The petition is accompanied by an affidavit of Partridge in which he alleges that the first of the above-mentioned assignments is a forgery. As against this affidavit there have been filed on behalf of The Universal Smelting and Refining Company the affidavits of A. W. Hille and of Mrs. A. L. Briggs, who states that she is secretary of The Universal Smelting and Refining Company and that A. W. Hille is president of said company, both of whom allege that they were present at a meeting of the board of directors of The Universal Smelting and Refining Company on the 30th day of January, 1911, and that Allen R. Partridge executed and delivered said assignment to The Universal Smelting and Refining Company at that meeting, also the affidavit of George M. Jarecki, the notary before whom said assignment was acknowledged, who states that in his presence, on January 30, 1911, Partridge acknowledged signing and delivering an assignment to The Universal Smelting and Refining Company and that at the request of Partridge he made the verification or acknowledgment and that the signature and seal to the same are his.

It is well settled that this Office will not undertake to settle disputes among conflicting assignees, but must leave this to the courts. It is not necesary in order to dispose of the present petition to determine the rightful owner of the application in question.

It is noted that while Partridge claims that the assignment to The Universal Smelting and Refining Company is a forgery he admits the assignment of all his right, title, and interest in the invention of said application to The Partridge Smelting and Refining Company. He has no such interest, therefore, as entitles him to be heard upon the question of whether the payment of the final fee was authorized.

No protest against the receipt of the final fee and the issuance of the patent has been made by The Partridge Smelting and Refining Company. Under these circumstances it must be held that there was no error in receiving and applying the final fee.

Petitioner states as a further reason why this petition should be granted that he desires to take out foreign patents and that it is doubtful if he will have time to file such applications before the issuance of a patent upon the application in question if the fee which has been paid, as stated above, is applied. The showing in support of this ground of the petition is altogether too indefinite to entitle it to consideration. It does not appear what effort or progress has been made concerning said foreign applications, nor whether, as a matter of fact, it would not be possible to file said applications in time if the patent is allowed to issue in due course upon the present application. Said patent in due course will issue under date of May 7, 1912, which will give petitioner over three weeks in which to perfect the filing of his foreign applications.

The petition is denied, and the issue of the patent will not be withheld.

DE FERRANTI v. LINDMARK.

*Decided April 6, 1912.*

INTERFERENCE—PRIORITY.

Evidence considered and *Held* to establish that Lindmark introduced the invention into this country prior to the earliest date claimed by de Ferranti and was reasonably diligent in filing his application and that priority was therefore properly awarded him.

APPEAL from Examiners-in-Chief.

STEAM-TURBINE.

*Messrs. Spear, Middleton, Donaldson & Spear* for de Ferranti.

*Messrs. Harding & Harding* for Lindmark. (*Mr. George J. Harding* and *Mr. Frank S. Busser* of counsel.)

BILLINGS, *First Assistant Commissioner:*

This is an appeal by de Ferranti from a decision of the Examiners-in-Chief affirming the decision of the Examiner of Interferences awarding to Lindmark priority of the invention of the following issue:

1. In combination with a plurality of elastic-fluid motors wherein said fluid undergoes progressive expansions, means for maintaining uniform the temperature of said fluid at the inlets of the several motors.

2. The combination of a plurality of elastic-fluid turbine-wheels, a shaft supporting the same, a casing, partitions in said casing forming successive chambers, conduits exterior to said casing and connecting said chambers in series, and means for heating said conduits.

3. The combination of a plurality of elastic-fluid turbine-wheels, a shaft supporting the same, a casing, partitions in said casing forming successive wheel-chambers, conduits exterior to said casing and connecting said chambers in series, and a duct for conveying heated gas; the said connecting-conduits extending into said duct.

De Ferranti is involved in this interference upon an application filed March 9, 1905, as a division of a prior application filed October 31, 1903. He rests his case upon a British application filed November 11, 1902. His claim to the benefit of this application is based upon a certified copy of said application and a stipulation that he is the applicant named in the said British application.

Lindmark has a patent granted November 1, 1904, upon an application filed January 16, 1903. He took testimony for the purpose of establishing an introduction of the invention into this country on October 15, 1902.

The lower tribunals agreed in holding that Lindmark introduced the invention of the issue into the United States on October 15, 1902, when his exhibits "1902 Description" and "1902 Blue Print" were received in New York.

De Ferranti does not dispute that the evidence shows that these exhibits were received in New York on October 15, 1902; but he contends that these exhibits do not disclose—

means for maintaining uniform the temperature of said fluid at the inlets of the several motors,

as called for in count 1, and he has taken the testimony of the expert Ayres in support of his contention. It is pointed out that Lindmark's exhibit "1902 Blue Print" shows five heat-absorbing flanges on the conduit 12, six flanges upon the conduit 11, and seven flanges upon the conduit 10, whereas his patent involved in the interference shows a uniform number (six) upon each conduit. It is argued that this difference is material and that





if the blue-print shows the invention the patent does not and, vice versa, that if the patent discloses the invention it is not found in the blue-print. Neither the Lindmark exhibit "1902 Description" nor the specification of the Lindmark patent states the number of heat-absorbing flanges that are to be located on the respective conduits. Moreover, these flanges do not constitute the only—

means for maintaining uniform the temperature of the fluid at the inlet of the several motors,

for both the exhibits and the patent disclose the conduits increasing in size in the direction of flow of the steam, while the flow of hot gases in the duct E for heating the conduits is in the opposite direction. It is believed to be no more necessary that the exact size or number of the flanges on the conduits should be stated than that the relative increase in size of the respective conduits should be stated. Obviously these factors will be varied as required, and by properly proportioning them in a manner well known to those skilled in the art it is believed that they constitute a means adequately fulfilling the requirements of the claim.

Concerning counts 2 and 3, de Ferranti contends that the subject-matter is not patentable. Inasmuch as Lindmark has a patent and the only question involved in the present proceeding is the right of de Ferranti to a patent, the interference would have been dissolved in its initial stages without expressing any opinion upon the merits of this question, in accordance with the practice set forth in *Lipe* v. *Miller*, (109 O. G., 1608,) *Robins, Jr.*, v. *Titus & Titus*, (110 O. G., 810,) and *Griffith* v. *Dodgson*, (116 O. G., 173,) had this contention been made in a motion for dissolution of the interference. At this stage of the proceeding, however, it is deemed best to terminate the proceeding by an award of priority. In *Johnson* v. *Mueser* (145 O. G., 764; 29 App. D. C., 61) the Court of Appeals of the District of Columbia held that the question of the patentability of the issue is not a jurisdictional one which must be considered by each of the tribunals called upon to pass on the question of priority of invention in an interference proceeding. It is well settled that the patentability of the issue will be considered on final hearing only under the supervisory authority of the Commissioner and in a clear case. (*Dison* v. *Marsh et al.*, 127 O. G., 1993; *Sobey* v. *Holsclaw*, 126 O. G., 3041; 28 App. D. C., 65; *Potter* v. *McIntosh*, 127 O. G., 1995; 28 App. D. C., 510; *Huber* v. *Aiken*, 88 O. G., 1525.) Such a case is not presented here.

Having found that Lindmark's exhibits "1902 Description" and "1902 Blue Print" were received in this country on October 15, 1902, and disclose the invention of the issue, it follows that Lindmark is entitled to this date as his date of conception of the invention. (*De Kando* v. *Armstrong*, 169 O. G., 1185; 37 App. D. C., 314.) Since said date is prior to the earliest date—November 11, 1902—claimed by de Ferranti, Lindmark is entitled to the award of priority, provided he exercised due diligence in filing his application from a date prior to November 11, 1902, to the date—January 16, 1903—when the application was actually filed in the Patent Office. Although de Ferranti has not contended on this appeal that Lindmark did not exercise proper diligence in filing his application, the evidence upon this point has been examined, and I agree with the holding below that due diligence was exercised in filing the Lindmark application, especially in view of the fact that it was necessary to send the application papers abroad to be executed.

Priority of invention was properly awarded in favor of Lindmark, and the decision of the Examiners-in-Chief is accordingly affirmed.

EX PARTE GOODRICH DRUG CO.

*Decided May 28, 1912.*

1. TRADE-MARKS—GOODS OF THE SAME DESCRIPTIVE PROPERTIES—"LAUNDRY SOAP," "SOAP," AND "SAPONIFIED SHAMPOO PREPARATIONS."

Soap and saponified shampoo preparations *Held* to constitute goods of the same descriptive properties as laundry soap.

2. SAME—SIMILARITY—"VELVET" AND "VELVETINA."

The marks "Velvet" and "Velvetina" *Held* to be so similar that their use upon goods of the same descriptive properties would be likely to cause confusion in the mind of the public and deceive purchasers.

ON APPEAL.

TRADE-MARK FOR SOAP AND SAPONIFIED SHAMPOO PREPARATIONS.

*Mr. Charles E. Foster* and *Mr. Delbert H. Decker* for the applicant.

BILLINGS, *First Assistant Commissioner:*

This is an appeal from the action of the Examiner of Trade-Marks in refusing to register the word "Velvetina" as a trade-mark for soap and saponified shampoo preparations.

Registration was refused in view of the following: Uriah G. Beck, January 14, 1896, No. 27,641; William J. Anderson, April 11, 1899, No. 32,705; The Procter & Gamble Company, September 15, 1908, No. 70,580; The Procter & Gamble Company, September 29, 1908, No. 70,767.

The registrations of Beck and Anderson were subsequently withdrawn as references; but in his statement in answer to the appeal the Examiner says that the Beck mark was inadvertently withdrawn and is regarded as a valid reference. This holding appears to have been made through a misapprehension. In the paper filed June 3, 1911, applicant stated that the trade-mark "Velvetine," shown in the Beck registration, No. 27,641, was the property of the applicant and that an assignment from the registrant to the applicant is on record in this Office. The assignment records show that this statement is correct, and the action of the Examiner withdrawing this registration as a reference was right.

The two remaining registrations of the Procter & Gamble Company show the word "Velvet" in connection with other matter, the word "Velvet," however, being the prominent feature. The goods are stated to be soap for laundry use. All soaps constitute goods of the same descriptive properties. It is a well-known fact that many soaps are used both

as laundry and toilet soaps. It is believed that the word "Velvetina" so nearly resembles the word "Velvet" as to fall within the prohibition of the Trade-Mark Act against registration of a mark so nearly resembling a prior registered mark that it would be likely to cause confusion in the mind of the public and deceive purchasers.

The decision of the Examiner of Trade-Marks is affirmed.

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EX PARTE THE UTRECHT EXPORT CY. GRIENDT BROTHERS, LTD.

*Decided September 17, 1912.*

1. TRADE-MARKS—GOODS OF THE SAME DESCRIPTIVE PROPERTIES—"BUTTER" AND "ARTIFICIAL BUTTER."

Butter and artificial butter or "oleomargarin" *Held* goods of the same descriptive properties within the meaning of the trade-mark law.

2. SAME—SIMILARITY.

A mark consisting of the representation of a horse grazing *Held* properly refused registration in view of a registered mark consisting of the word "Pony" and the representation of the head of a pony or horse applied to goods of the same descriptive properties.

ON APPEAL.

TRADE-MARK FOR ARTIFICIAL BUTTER.

*Messrs. Gravenhorst & Co.* and *Messrs. Goepel & Goepel* for the applicant.

TENNANT, *Assistant Commissioner:*

This is an appeal from the action of the Examiner of Trade-Marks refusing registration of a trade-mark comprising the representation of a horse grazing, as applied to artificial butter. Registration is refused in view of the registered trade-mark to Borden's Condensed Milk Company, No. 35,600, December 18, 1900, which consists of the word "Pony," accompanied by the representation of the head of a pony or horse, for "milk, condensed milk, cream, evaporated cream, butter, and cheese."

It is contended in behalf of appellant that butter and artificial butter or "oleomargarin" or "margarin" are not goods of the same descriptive properties and, further, that there is no such similarity between the marks as would be likely to cause confusion in the mind of the public.

As to the contention that butter and artificial butter or "oleomargarin" or "margarin" are goods of different descriptive properties it is sufficient to say that this question has been discussed in the decision of *John F. Jelke* v. *Emil Fleischl & Son*, (176 O. G., 274,) and no reason is found for departing from the ruling therein that butter and oleomargarin must be considered of the same descriptive properties so far as the registration of trade-marks is concerned.

While the appearance of the trade-mark of the appellant and that of the registrant is different, it is believed that they have the same general significance and that the "Pony Brand" would aptly describe the appellant's mark, since the representation of a pony or horse is the most prominent feature of the mark. Where, as in the present case, the trade-mark has been for many years registered for a staple commodity, as butter, it is believed that care should be taken to prevent the registration of a mark for a similar but artificial commodity which would in any way be likely to be mistaken for the registrant's mark, in order that the public may not be deceived into purchasing the artificial merchandise for the real product, as well as to avoid any possibility of the registrant being damaged by the substitution of an artificial product for that upon which he uses his mark.

I am clearly of the opinion that the action of the Examiner of Trade-Marks refusing registration of appellant's mark is right, and it is accordingly affirmed.

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TOMLINSON v. KIELY.

*Decided October 4, 1912.*

INTERFERENCE—DISSOLUTION—CONSENT OF PARTIES NOT CONCLUSIVE.

Where both of the parties to an interference are applicants, *Held* that the fact that each of them moved to dissolve the interference on the ground that the issue is not patentable does not warrant the dissolution of the same if the Examiner is of the opinion that the issue is patentable.

ON PETITION.

TIME-RECORDER.

*Messrs. Parsons, Hall & Bodell* for Tomlinson.

*Messrs. Kerr, Page, Cooper & Hayward* for Kiely.

TENNANT, *Assistant Commissioner:*

This is a petition by Tomlinson that the Primary Examiner be instructed to dissolve the interference as to counts 1, 2, 3, and 6.

The record discloses the following state of facts:

The interference was declared November 13, 1911. On December 27, 1911, Kiely moved to dissolve the interference as to count 5 on the ground that he has no right to make the claim and as to counts 1, 2, 3, and 4 on the ground that said counts are unpatentable over the British patent to Boult, No. 15,502 of 1908. On December 30, 1911, Tomlinson moved to dissolve the interference as to count 5 upon the ground that Kiely has no right to make the same and as to counts 1, 2, 3, 4, and 6 upon the ground that they are not patentable over the British patent mentioned above and also over various other patents cited. These motions were transmitted to the Primary Examiner, who in a decision rendered May 10, 1912, dissolved the interference as to counts 4 and 5, but held that counts 1, 2, 3, and 6 are patentable and denied the motion as to those counts.

It further appears from the decision of the Primary Examiner that Tomlinson at the hearing before him urged that—

in view of the fact that both parties were contending that counts 1 to 4 and 6 were not patentable to them, the Examiner need not consider the merits of these counts but should dissolve the interference.

This contention was denied by the Primary Examiner, who held that—

the question must be settled on its merits and not on such ground as that urged by Tomlinson, to wit, that both parties to the interference considered them unpatentable.

It is urged by petitioner in his brief filed at the hearing before me that—

* * * in view of the fact that both parties moved to dissolve and that, at the hearing neither recanted but both contended that claims 1 to 4 and claim 6 are not





patentable, that it was not incumbent upon the Primary Examiner to look into the patentability of the claims in question, but, on the contrary, he should dissolve the interference as to such claims, and reject the same in the applications of the respective parties on the doctrine of estoppel.

In support of his petition Tomlinson calls attention to the practice announced in the decisions of *Lipe* v. *Miller*, (109 O. G., 1608,) *Robins* v. *Titus and Titus*, (111 O. G., 584,) and others, to the effect that in an interference between an applicant and a patentee the interference will be dissolved where a motion is brought by the applicant alleging the non-patentability of the issue, without considering the merits of the motion.

In those cases it was held that since the only question before the Office was the right of an applicant to a patent and as his motion alleging non-patentability was an admission that he was not entitled to a patent he should not be permitted to cast a cloud upon the patent of his opponent and that it was a waste of time for the Office to consider the merits of the motion. Said principle is set forth in the Commissioner's decision in *Yarnall* v. *Pope*, (115 O. G., 2136,) as follows:

The applicant who is the only one before the Office seeking a patent is not entitled to move to dissolve on the ground that his own invention is unpatentable, since the only purpose of such motion is to cast a cloud upon his opponent's patent. Where the applicant admits that he is not entitled to a patent, this Office will not waste time in considering the question of patentability, but will accept the applicant's admission, dissolve the interference, and reject his claims. It is not necessary for the Office to consider the question of patentability in order to dispose of the interference, and it will not do it for the sole purpose of discrediting the patent which has been granted.

The principle therein announced does not apply to the present case, where both parties are applicants. Here there is no question of casting a cloud upon a patent. Moreover, in the present case there is no question of saving the time of the Office in passing upon the motion, since the Primary Examiner has already rendered a decision holding counts 1, 2, 3, and 6 to be patentable.

Nor is the case similar to that of *Oliver* v. *Felbel*, (100 O. G., 2384; 20 App. D. C., 255,) decided by the Court of Appeals of the District of Columbia, also relied upon by petitioner. There the court held the question of priority of invention to be a moot one in view of the fact that the Commissioner in his decision held the question of patentability in abeyance, to be reconsidered by the Primary Examiner upon the return of the case to him. In that case the court found that appellant stated in his testimony that he did not claim to be the inventor of the subject-matter of the issue of the interference and that this was—

a positive declaration under oath that he never was the inventor of the matter in issue.

The court expressed its opinion that this should settle the controversy. That case, however, is not similar to the present one, where the parties merely assert in their motions, but not under oath, that the issue is unpatentable.

Petitioner may be satisfied in the present case with a dissolution of the interference upon a holding whereby neither party receives a patent for the invention of the issue. Should a third party, however, file an application claiming the invention here in issue, he would apparently be entitled to a patent under the Examiner's holding that the invention of the issue is patentable. Would the action petitioner has taken in the present interference, in case it was dissolved, estop him from contesting priority of invention with such third party? Clearly petitioner's action in order to warrant dissolution of the present interference should be of such a nature as to preclude him from contesting priority with any future applicant.

If the parties to the present interference do not wish to contest the question of priority, they have a remedy by simultaneously filing an abandonment of the invention of the counts of the issue. In the case of *Krakau* v. *Harding*, (107 O. G., 1662,) where such a course was followed, it was held that the proper action was a dissolution of the interference.

The petition is denied.

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## ADJUDICATED PATENTS.

(U. S. C. C. A.) The Labombarde patent, No. 990,348, for a machine for making pasteboard boxes, *Held* void for lack of invention, also not infringed, if conceded validity. *Lord Baltimore Press* v. *Labombarde*, 197 Fed. Rep., 739.

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(U. S. C. C. A.) The Rowntree patent, No. 666,699, for a signal system for electric elevators, *Held* valid and infringed. *Standard Plunger Elevator Co.* v. *Burdett-Rowntree Mfg. Co.*, 197 Fed. Rep., 743.

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(U. S. D. C.) The Madden patent, No. 570,224, for a machine for making grids for secondary batteries, *Held* not infringed by the machine of Patent No. 572,363, to the same inventor. *Electric Storage Battery Co.* v. *Gould Storage Battery Co.*, 197 Fed. Rep., 745.

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(U. S. D. C.) The Grant patent, No. 554,675, for a rubber-tired wheel, *Held* infringed. *Hurd* v. *James Goold Co.*, 197 Fed. Rep., 756.

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(U. S. D. C.) The Jenne patent, No. 722,512, for an egg-carrier, *Held* not infringed. *Hibs* v. *Rochester Egg Carrier Co.*, 197 Fed. Rep., 764.

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Trade-Marks and Patents in Colombia.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., October 8, 1912.*

The following communication from the American consul at Barranquilla, Colombia, with reference to trade-marks and patents in Colombia is published for the information of those concerned.

EDWARD B. MOORE,
*Commissioner.*

As questions are frequently asked this consulate regarding the laws governing the registration of trade-marks and the issuance of patents on inventions, in this country, I desire to quote the following from a circular

which has been sent to Colombian consuls abroad, covering the information so frequently required:

Under the general dispositions and requirements of Colombian law the mark of the factory (*marca de fabrica*), is understood to be any phrase or sign employed to distinguish or determine a product especially destined for industry or commerce and for the mark of commerce (*marca de comercio*), the phrase or distinctive sign of an article of commerce destined for a person or a commercial house. The trade-mark as above understood which pertains to an individual or a foreign company, not a resident of Colombia, cannot be registered in Colombia, if it has not been previously and originally registered in the country of its origin, which must be proven by accompanying the petition with an authentic copy of the registration issued in the foreign country.

Registrations of trade-marks can be made without previous examination as to the utility of the object or the quality or properties of the products for which it is destined, but under the exclusive responsibility of the petitioner, without interference of course in the rights of third parties.

Under this registration one acquires the exclusive right of its use in the territory of this Republic, and whoever may imitate or falsify the marks, will be prosecuted and suffer the penalty in conformance with the penal code.

The individual or company who may first make use of the mark, is the only one who has the right to acquire property therein. In case of dispute between two or more possessors of a trade-mark, the property right will pertain to the first possessor, and if the date of previous possession should be the same, then it will belong to the first who may have asked registration thereof.

Powers of attorney issued in foreign countries for the presentation of trade-marks for registration should come authenticated by the Colombian minister or consul in the place where it is authorized or by one of a friendly nation in case that Colombia should not have either minister or consul in the country where the one making the power of attorney resides.

The power of attorney should explain with entire clearness, the distinctive sign which constitutes the trade-mark, the article or product to which it refers, and the place where same is manufactured.

With the petition to be presented it is necessary to send two examples at least of the trade-mark. The petition shall then be published in the *Diario Oficial*. If in thirty (30) days after publication of a trade-mark (*marca de fabrica*), or sixty (60) days for a commercial mark (*marca de comercio*), no opposition shall be presented as to the proprietorship of the mark, same will be registered and the certificate will be immediately extended. The charges for this are $1.00 for the first and sixty cents for the second. This certificate carries a stamp tax of $10.00 and is published twice in the *Diario Oficial*.

*Patents.*—The Government of Colombia concedes under the name of patent of invention (*patente de invencion*), the privilege to any Colombian or foreigner, to maintain the exclusive right of any discovery or invention of whatever class or industry or invention or perfection of any machinery or mechanical apparatus, combination of materials or method of proceedings of utilitarian application to industry, the arts or sciences, or any manufacture or industrial product.

This patent insures the exclusive right for a term of from ten to fifty years for the inventor or his assigns. In the petition it should say for how many years he asks the privilege, which may be any time between ten and fifty years.

The Government on conceding a patent does not enter into an examination nor declaration as to whether the object is an invention or an improvement, if the one gaining the privilege is the inventor, nor if the description or models are true; the right remains to others interested in the patent to prove their interest in a court of law.

Within forty days following the presentation of the petition the patenter must present a circumstantial and complete description of the new product or a model of the apparatus or machinery. If the product is of easy conservation, he shall deposit one sample or model in the Ministry.

The infringement by imitation or falsification will be judged, conforming to the penal code.

Whoever may have received in other countries, patents on his inventions, may obtain the same in Colombia, providing that such inventions are not property of the public. The Colombian patent in favor of inventions or improvements patented in other countries, terminates with the termination of the patent right in the foreign country. This also will terminate when, owing to judicial sentence it is declared that the patent was issued with prejudice to a third party; or if the patent covers an industry, when this may have remained one consecutive year without having been exercised, except in case of fortuitous circumstances or major force; and when the term for which the privilege was granted, has terminated.

The petition shall be presented, accompanied with a receipt for twenty cents deposited in the General Treasury. This will be published in the *Diario Oficial*, and if forty days have passed without any one having presented opposition, the minister will issue the Letters Patent. It is necessary to pay $1.00 for each year of privilege which may be requested and to the Letters Patent there shall be affixed a stamp of the value of $10.00.

The usual attorney's fee charged for the presentation of petitions for the issuance of trade-marks or patents will range from $10 to $20.

ISAAC A. MANNING,
*American Consul.*

BARRANQUILLA, COLOMBIA, *September 5, 1912.*

## Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., October 1, 1912.*

*Dassel Woolen Mills Company, its assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of the Yantic Woolen Company, Yantic, Conn., and the application of the Aetna Mills, 40 Central street, Boston, Mass., and Watertown, Mass., for registration of trade-marks and trade-mark registration No. 14,350, registered May 2, 1887, to the Dassel Woolen Mills Company, of Dassel, Minn., and the notice of such declaration sent by registered mail to said Dassel Woolen Mills Company at the said address having been returned by the post-office authorities undeliverable, notice is hereby given that unless the Dassel Woolen Mills Company, its assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., September 28, 1912.*

*William C. King, his assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of the Texas Consumers Co., 2601–2603 Strand, Galveston, Tex., for registration of a trade-mark and trade-mark No. 21,543, granted August 2, 1892, to William C. King, 94 Water street, Norfolk, Va., and a notice of such declaration sent by registered mail to said William C. King at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said William C. King, his assignee or legal representatives, shall within thirty days from the first publication of this order enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., September 24, 1912.*

*David H. Smith, his assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Enos M. Morrison, 151 Sacramento St., San Francisco, Cal., for registration of a trade-mark and trade-mark No. 35,468, issued November 20, 1900, to David H. Smith, 36–38 Washington street, Buffalo, N. Y., and a notice of such declaration sent by registered mail to said David H. Smith at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said David H. Smith, his assigns or legal representatives, shall within thirty days from the date of first publication of this order enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., September 24, 1912.*

*Thomas N. Dwyer, his heirs, assigns, or legal representatives, take notice:*

An interference having been declared by this Office between the application of The Southern Cotton Oil Company, 15 Exchange Place, Jersey City, N. J., for registration of a trade-mark and trade-mark No. 29,955, registered May 4, 1897, to Thomas N. Dwyer, 33–37 South William street, New York, N. Y., and a notice of said interference sent by registered mail to the said Thomas N. Dwyer at the said address having been returned by the post-office authorities undeliverable, notice is hereby given that unless Thomas N. Dwyer, his heirs, assigns, or legal representatives, shall within thirty days from the first publication of this order enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*





THE
# OFFICIAL GAZETTE
OF THE
# United States Patent Office.

Vol. 188—No. 4. TUESDAY, OCTOBER 22, 1912. Price—$65 per year.

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Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

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| Trade-Marks | 100—No. | 89,728 to No. | 89,827, inclusive. |
| Labels | 3—No. | 14,605 to No. | 14,612, inclusive. |
| Prints | 1—No. | 3,128 to No. | 3,128, inclusive. |
| Reissues | None. | | |
| Total | 783 | | |

### TO RESIDENTS OF THE UNITED STATES.

| States. | Patents and Designs. | Trade-Marks, Labels, and Prints. | States. | Patents and Designs. | Trade-Marks, Labels, and Prints. |
|---|---|---|---|---|---|
| Alabama | 7 | 2 | New York | 93 | 28 |
| Arizona | 3 | .... | North Carolina | 3 | .... |
| Arkansas | 4 | .... | North Dakota | 6 | .... |
| California | 37 | 4 | Ohio | 21 | 5 |
| Colorado | 9 | .... | Oklahoma | 6 | .... |
| Connecticut | 27 | 3 | Oregon | 6 | 1 |
| Delaware | .... | 2 | Pennsylvania | 64 | 8 |
| Florida | 2 | 2 | Rhode Island | 7 | 3 |
| Georgia | 3 | 1 | South Carolina | 1 | .... |
| Idaho | 2 | .... | South Dakota | 5 | .... |
| Illinois | 79 | 9 | Tennessee | 3 | 4 |
| Indiana | 11 | 1 | Texas | 12 | 2 |
| Iowa | 10 | .... | Utah | 3 | .... |
| Kansas | 14 | .... | Vermont | 1 | .... |
| Kentucky | 2 | .... | Virginia | 5 | 1 |
| Louisiana | 4 | 1 | Washington | 7 | 1 |
| Maine | 3 | .... | West Virginia | 6 | 1 |
| Maryland | 5 | 2 | Wisconsin | 10 | .... |
| Massachusetts | 40 | 7 | Wyoming | 1 | .... |
| Michigan | 19 | 3 | | | |
| Minnesota | 3 | 2 | Alaska, District of | 1 | .... |
| Mississippi | 2 | .... | District of Columbia | 2 | 1 |
| Missouri | 12 | 1 | Hawaii, Territory | 1 | .... |
| Montana | 4 | .... | Philippine Islands | .... | .... |
| Nebraska | 3 | .... | U. S. Army | 1 | .... |
| Nevada | 1 | .... | U. S. Navy | .... | .... |
| New Hampshire | 1 | .... | | | |
| New Jersey | 24 | 3 | Total to citizens of the United States | 539 | 122 |
| New Mexico | 1 | .... | | | |

### TO RESIDENTS OF FOREIGN COUNTRIES.

| Countries. | Patents and Designs. | Trade-Marks. | Countries. | Patents and Designs. | Trade-Marks. |
|---|---|---|---|---|---|
| Argentina | .... | .... | Netherlands | .... | .... |
| Austria-Hungary | 3 | .... | Newfoundland | .... | .... |
| Belgium | 2 | .... | New South Wales | .... | .... |
| Bermuda | .... | .... | New Zealand | .... | .... |
| Brazil | .... | .... | Norway | .... | .... |
| British West Indies | .... | .... | Queensland | .... | .... |
| Canada | 13 | .... | Roumania | .... | .... |
| Cape Colony | .... | .... | Russia | 8 | .... |
| China | .... | .... | Scotland | 1 | .... |
| Costa Rica | .... | .... | South Australia | .... | .... |
| Cuba | .... | .... | Spanish Honduras | .... | .... |
| Denmark | 1 | .... | Sweden | 4 | 1 |
| Egypt | 1 | .... | Switzerland | 2 | .... |
| England | 7 | 6 | Transvaal, South Africa | .... | .... |
| Fiji Islands | 1 | .... | Victoria | .... | .... |
| France | 6 | 4 | Western Australia | .... | .... |
| Germany | 25 | .... | Total to citizens of foreign countries | 70 | 11 |
| India | .... | .... | | | |
| Italy | 1 | .... | | | |
| Japan | 1 | .... | | | |
| Mexico | .... | .... | | | |

## Amendments.

RULE 73. In every amendment the exact word or words to be stricken out or inserted in the application must be specified and the precise point indicated where the erasure or insertion is to be made. All such amendments must be on sheets of paper separate from the papers previously filed, and written on but one side of the paper. Erasures, additions, insertions, or mutilations of the papers and records must not be made by the applicant.

Amendments and papers requiring the signature of the applicant must also, in case of assignment of an undivided part of the invention, be signed by the assignee. (Rules 8, 107.)

## Certifications by the Secretary of the Interior—Notice.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., October 4, 1912.*

By authority of an act of Congress approved August 24, 1912, (188 O. G., 898,) providing uniform charges for furnishing copies of records of the Department of the Interior and its several Bureaus, a fee of twenty-five cents will be charged by the Secretary of the Interior for every certificate of authentication of official character of the officials of the Patent Office. The fee thus provided should be paid to the Secretary of the Interior, and not to the Patent Office. Attorneys and inventors desiring such certificates are requested to remit the necessary fee to the Secretary of the Interior at the time of filing in the Patent Office an order for the copies desired.

EDWARD B. MOORE,
*Commissioner of Patents.*

## APPLICATIONS UNDER EXAMINATION.

*Condition at Close of Business October 19, 1912.*

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. | | No. of applications awaiting action. |
|---|---|---|---|---|
| | | New. | Amended | |
| 313 | 1. Fences; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers. | Aug. 1 | Aug. 9 | 716 |
| 128 | 2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco. | July 5 | Aug. 1 | 864 |
| 175 | 3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working. | Sept. 20 | Oct. 7 | 238 |
| 282 | 4. Bridges; Conveyors; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Traversing Hoists. | Aug. 17 | Aug. 14 | 620 |
| 167 | 5. Bookbinding; Harvesters; Jewelry; Music. | July 16 | Aug. 12 | 568 |
| 318 | 6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Medicines; Preserving; Sugar and Salt; Substance Preparation. | Aug. 15 | Sept. 19 | 389 |
| 212 | 7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Optics; Velocipedes. | Apr. 10 | June 19 | 969 |
| 131 | 8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports. | July 5 | Sept. 14 | 721 |
| 142 | 9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Wind Wheels. | June 10 | Aug. 27 | 542 |
| 235 | 10. Carriages and Wagons..... | June 4 | Aug. 1 | 949 |
| 154 | 11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus. | Aug. 5 | Sept. 12 | 298 |
| 222 | 12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements. | Aug. 8 | Aug. 7 | 321 |
| 229 | 13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning. | July 10 | Sept. 9 | 620 |
| 207 | 14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working. | Aug. 26 | Sept. 19 | 414 |
| 208 | 15. Bread, Pastry, and Confection Making; Cooking; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Liquid Coating Compositions; Paper-Making and Fiber Lateral; Plastic Block and Earthenware Apparatus; Plastic Compositions; Plastics. | May 23 | Aug. 21 | 1083 |
| 109 | 16. Radiant Energy; Telegraphy; Telephony. | July 3 | July 13 | 491 |
| 203 | 17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making. | Sept. 3 | Sept. 19 | 234 |
| 227 | 18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves. | Aug. 22 | Aug. 28 | 247 |
| 236 | 19. Dampers, Automatic; Furnaces; Mixed-Distributing Systems; Stoves and Furnaces. | Aug. 13 | Aug. 14 | 535 |
| 179 | 20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Saws; Undertaking. | July 29 | Aug. 28 | 293 |

*Applications Under Examination*—Continued.

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. | | No. of applications awaiting action. |
|---|---|---|---|---|
| | | New. | Amended | |
| 112 | 21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Fur and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling. | June 4 | July 13 | 543 |
| 249 | 22. Ammunition; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Rifles. | June 14 | Sept. 7 | 422 |
| 270 | 23. Accounting; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanisms. | July 17 | Aug. 1 | 567 |
| 144 | 24. Apparel; Apparel Apparatus; Sewing-Machines. | Aug. 13 | Aug. 28 | 494 |
| 315 | 25. Bunching; Mills; Threshing; Vegetable Cutters and Crushers. | Sept. 10 | Sept. 20 | 198 |
| 108 | 26. Electricity, Generation; Motive Power. | Mar. 25 | May 1 | 709 |
| 272 | 27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus. | Aug. 1 | Aug. 19 | 456 |
| 65 | 28. Internal-Combustion Engines.. | July 10 | July 8 | 1126 |
| 147 | 29. Cooperage; Fire-Escapes; Ladders; Rods; Wheelwright; Miscellaneous Wooden Articles; Wooden Buildings; Wood-Sawing; Wood-Turning; Wood-working; Woodworking Tools. | June 1 | Sept. 3 | 633 |
| 123 | 30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines. | July 1 | Oct. 2 | 371 |
| 172 | 31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Gum. | Aug. 9 | Aug. 7 | 394 |
| 278 | 32. Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration. | Sept. 5 | Sept. 16 | 263 |
| 71 | 33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes. | July 22 | Aug. 2 | 546 |
| 104 | 34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fastenings. | Aug. 7 | Aug. 15 | 695 |
| 244 | 35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet. | Aug. 21 | Sept. 3 | 926 |
| 264 | 36. Drafting; Drawing; Engraving; Measuring Instruments; Photography. | Aug. 28 | Aug. 21 | 695 |
| 167 | 37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications. | Aug. 1 | Aug. 1 | 490 |
| 276 | 38. Animal Husbandry; Artesian and Oil Wells; Fishing and Trapping; Stationery; Stone-Working. | July 11 | Aug. 3 | 767 |
| 221 | 39. Water Distribution..... | June 12 | July 13 | 548 |
| 220 | 40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Metallic Shipping and Storing Vessels; Packages and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles. | Sept. 3 | Sept. 16 | 706 |
| 126 | 41. Railway Draft Appliances; Resilient Tires and Wheels. | Aug. 5 | Aug. 10 | 680 |
| 279 | 42. Electric Railways; Electric Signaling; Railway Signaling; Signals. | July 19 | Aug. 13 | 470 |
| 223 | 43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Beverages; Surgery; Water Purification. | Aug. 26 | Aug. 21 | 409 |

Oldest new case, Mar. 25; oldest amended, May 1.
Total number of applications awaiting action..... 24,291

| | | | | |
|---|---|---|---|---|
| 161 | TRADE-MARKS, DESIGNS, LABELS AND PRINTS: | | | |
| | Trade-Marks..... | Aug. 17 | Aug. 8 | 1127 |
| | Designs..... | Sept. 28 | Sept. 28 | 195 |
| | Labels and Prints..... | ..... | Oct. 16 | 98 |



# PATENTS

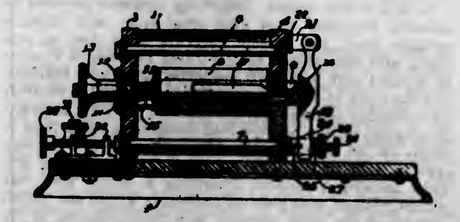
## GRANTED OCTOBER 22, 1912.

**1,041,717. ICE-SAWING MACHINE.** CHARLES Y. AKIN, Custer, S. D., assignor to Mary J. Tubbs and Merritt J. Bailey, Custer, S. D. Filed June 26, 1911. Serial No. 635,351. (Cl. 62—8.)



In a machine of the class described the combination of a frame, a motor carried by the frame, a U-shaped member disposed at each end of the frame and having its arms slidably connected to the frame, a runner mounted on each free end of the arms of each U-shaped member respectively, a lever pivoted to each end of the frame and adapted when operated to engage and fulcrum upon the bight portion of the adjacent U-shaped member, whereby said frame may be moved relatively to the arms of said U-shaped members, a cutting mechanism, a propelling mechanism and connections between said mechanisms and the motor whereby the actuation of the latter will simultaneously operate said mechanisms.

**1,041,718. TELEGRAPHIC RELAY.** HUGH J. ARCHER, Chicago, Ill. Filed Feb. 8, 1912. Serial No. 676,261. (Cl. 178—304.)

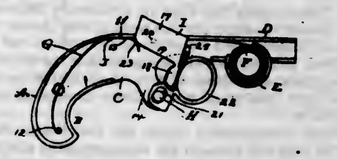


1. In a relay, the combination with an armature lever pivoted at its upper end, of an armature member and a perpendicularly extending weight arm having an end shouldered down and threaded, the said armature being secured to the said lever by having the said weight arm passed through said armature and secured into said lever, substantially as described.

2. In a relay, the combination with a base; of a plurality of end frame pieces mounted thereon; a cylinder interposed between said end frame pieces; rods connecting said end frame pieces, one of said rods constituting a contact member; an electromagnet within said cylinder; an armature adapted to coöperate with said magnet; a contact point carried by said armature for engagement with the contact rod aforesaid; and means for creating a circuit through said contact rod.

3. The combination with a base; of a cylindrical sound box mounted thereon; an electromagnet adjustably mounted in said sound box, the cores thereof adapted to project from the casing aforesaid; a lever pivoted to one end of said sound box; an armature carried medially and transversely by said lever for coöperation with the cores aforesaid; and a weight centrally carried by said armature and threaded into said lever for swinging said armature outwardly from contact with the cores aforesaid, said weight projecting into said sound box.

**1,041,719. TAPE-PISTOL.** CHARLES A. BAILEY, Cromwell, Conn. Filed Jan. 12, 1912. Serial No. 670,811. (Cl. 42—57.)



1. In a pistol, a body having a way suitable for guiding a tape, the inner end suitable for an anvil, a spring hammer comprising a spring, fixedly supported at one end, having a hammer head suitable for coöperating with the said anvil, and a trigger member, pivotally mounted on the said body, means responsive to a movement of the said trigger member operative to separate the said hammer from the said anvil and to release the hammer.

2. In a pistol, a body having a way, and an anvil at one end thereof, a hammer having a head and means for resiliently holding the said hammer in engagement with the said anvil, and a trigger member operatively mounted on the said body and means on said trigger member and in contact with the said hammer head and anvil and operative responsive to a movement of the said trigger member to separate the said hammer and anvil.

3. In a pistol, a body having a way, and an anvil at one end thereof, a hammer comprising a piece of resilient material, fixedly secured by one end, having a hammer head coöperative with the said anvil adjacent the other end, and the free end coöperative with the said way to form a recess, and having a lateral slot adjacent the said head and on the side thereof remote from the said free end, a trigger member pivotally mounted on the said body and having a lug suitable for entering the said recess and operative to successively pass between the said head and anvil and pass through the said slot responsive to a movement of the said trigger member.

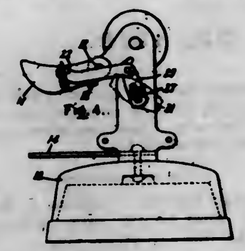
4. In a pistol having a body provided with a way and an anvil at one end thereof and a hammer in resilient engagement with the said anvil, a trigger member having a tape bearing projection on the upper end and a finger piece near the lower end, and means responsive to a movement of the said trigger to bring the said projection in engagement with the said first way.

5. In a pistol a body having a laterally projecting stud and provided with a way and an anvil at one end thereof, a hammer head in resilient engagement with the said anvil, a trigger member having a lug near the rear end of the upper portion and a biting edge at the front end thereof, a hole at the lower end engaged with the said stud, and a finger piece on the trigger, the said trigger member operative consecutively on a movement thereof to bring the lug and biting edge into engagement with the said first way, to enter the said lug between the said

hammer head and anvil, and to release the said hammer and permit the return thereof to position of engagement with the said anvil.

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1,041,720. AUTOMATIC FLAT-IRON. HENRY PRICE BALL, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed Sept. 27, 1909. Serial No. 519,764. (Cl. 219—25.)



1. The combination with an electrically heated flat iron, of a switch element for controlling the circuit thereof, a pivoted member rotatable toward and from the handle of the iron, and mechanism for actuating the switch element in opposite directions with a snap action to make and break said circuit as said member is rotated in opposite directions.

2. The combination with an electrically heated flat iron, of a switch element for controlling the circuit thereof, a pivoted member rotatable by the hand of the operator toward the handle and spring pressed away from the handle, and mechanism for actuating the switch with a snap action in one direction to make the circuit as the pivoted member is moved by the hand and in the opposite direction with a snap action as the member is moved by the spring.

3. The combination with an electrically heated flat iron, of a switch element for controlling the circuit thereof, a pivoted member rotatable toward and from the handle of the iron and parallel therewith, and mechanism for actuating the switch element to make and break said circuit as said member is moved in opposite directions.

4. The combination with an electrically heated flat iron, of a switch element for controlling the circuit thereof, mechanism controlled by the hand of the operator in grasping the handle of the iron for actuating said element in opposite directions with a snap action to make and break said circuit.

5. The combination with an electrically heated flat iron, of a switch element for controlling the circuit thereof, a pivoted member movable toward and from the handle of the iron and parallel therewith, and mechanism for actuating the switch element in opposite directions with a snap action to make and break said circuit as said member is moved in opposite directions.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,721. ROTARY ENGINE. WALTER BALL, Boston, Mass., assignor of one-half to John F. Cooley, New York, N. Y. Filed Mar. 27, 1906. Serial No. 423,706. (Cl. 121—84.)

1. In a rotary engine, two rotary elements mounted on parallel, relatively fixed axes offset from each other, a straight shaft, one of said elements being fast on said shaft, said element and shaft turning together as a single or integral part, said shaft supported in suitable bearings, and the other of said elements being supported by relatively fixed bearings whose axis is eccentric to the axis of said shaft, connection between said elements to cause them to rotate in the same direction at equal angular velocities, each of said elements being provided with spaced, curved walls, said walls forming a channel describing a curved path, the curved walls of each element projecting within the curved channel of the other element, said walls adapted as the elements rotate to remain tangent to each other, the point of tangency being progressive and remaining in the same plane with relation to a plane passing through the offset axes of the elements.



2. In a rotary engine, two rotary elements mounted on parallel, relatively fixed axes offset from each other, a straight shaft, one of said elements being fast on said shaft, said element and shaft turning together as a single or integral part, said shaft supported in suitable bearings, and the other of said elements being mounted in relatively fixed annular bearings surrounding said shaft but eccentric thereto, connection between said elements to cause them to rotate in the same direction at equal angular velocities, each of said elements having spaced, curved walls, said walls forming a channel describing a curved path, the curved walls of each element projecting within the curved channel of the other element, said walls adapted as the elements rotate to remain tangent to each other, the point of tangency being progressive and remaining in the same plane with relation to a plane passing through the offset axes of the elements.

3. In a rotary engine, two rotary elements mounted on parallel, relatively fixed axes offset from each other, a straight shaft, one of said elements being fast on said shaft, said element and shaft turning together as a single or integral part, said shaft supported in suitable bearings, and the other of said elements being mounted in relatively fixed annular bearings surrounding said shaft but eccentric thereto, connection between said elements to cause them to rotate in the same direction at equal angular velocities, each of said elements having spaced, curved walls, said walls forming a channel describing a curved path, the curved walls of each element projecting within the curved channel of the other element, said walls adapted as the elements rotate to remain tangent to each other, the point of tangency being progressive and remaining in the same plane with relation to a plane passing through the offset axes of the elements, and a casing inclosing both rotary elements and carrying said eccentric bearings one within the other, said casing providing a closed chamber communicating with said channels.

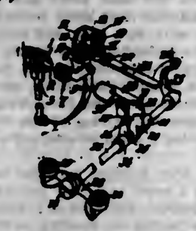
4. In a rotary engine, two rotary elements mounted on parallel, relatively fixed axes offset from each other, a straight shaft, one of said elements being fast on said shaft, said element and shaft turning together as a single or integral part, said shaft supported in suitable bearings, and the other of said elements being supported by relatively fixed bearings whose axis is eccentric to the axis of said shaft, connection between said elements to cause them to rotate in the same direction at equal angular velocities, each of said elements being provided with spaced, curved walls, said walls forming a channel describing a curved path, the curved walls of each element projecting within the curved channel of the other element, said walls adapted as the elements rotate to remain tangent to each other, the point of tangency being progressive and remaining in the same plane with relation to a plane passing through the offset axes of the elements, and means to adjust the extent of offset between said axes.

5. In a rotary engine, two rotary elements mounted on parallel, relatively fixed axes offset from each other, a straight shaft, one of said elements being fast on said shaft, said shaft and element turning together as a single or integral part, said shaft supported in suitable bearings, and the other of said elements being supported by relatively fixed annular bearings surrounding said shaft but eccentric thereto, the element mounted on the shaft being provided with a channel describing a spiral path, said shaft being made hollow and the inner end of the spiral channel communicating with said hollow shaft, the outer end of said spiral channel opening through the periphery of said element, and the other of said elements having a wall describing a spiral path corresponding with the spiral path of the channel and projecting therein, said wall adapted as said elements rotate to remain tangent to the walls of the channel, the latter element being supported by annular bearings surrounding said shaft but eccentric thereto, and a casing inclosing both of said elements and carrying said shaft bearings and said eccentric annular bearings, said casing constituting a chamber spaced from the periphery of said element with which chamber the outer end of said spiral channel communicates, said chamber provided with a port.

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1,041,722. TYPE-WRITING MACHINE. WALTER B. BARNARD, Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Aug. 12, 1910. Serial No. 577,869. (Cl. 197—157.)



1. In a typewriting machine, the combination with an actuator which reciprocates at the type strokes, of mechanism for setting the actuator to cause the same to vibrate either of two fields of ribbon to cover the printing point at the type strokes, said mechanism comprising a key controlled rock shaft which is rocked to the right to set the actuator for one of the ribbon fields, and to the left to set the actuator for the other of the ribbon fields, and having a position intermediate its right and left hand positions in which the actuator is set for neither ribbon field, said shaft being also movable longitudinally in its bearings, and means with which the shaft coöperates when moved longitudinally to cause the shaft to be rotated during such longitudinal movement to its aforesaid intermediate or unsetting position.

2. In a typewriting machine, the combination with an actuator which reciprocates at the type strokes, of mechanism for setting the actuator to cause the same to vibrate either of two fields of ribbon to cover the printing point at the type strokes, said mechanism comprising a key controlled rock shaft which is rocked to the right to set the actuator for one of the ribbon fields, and to the left to set the actuator for the other of the ribbon fields, and having a position intermediate its right and left hand positions in which the actuator is set for neither ribbon field, said shaft being also movable longitudinally in its bearings, and means with which the shaft coöperates when moved longitudinally to cause the shaft to be rotated during such longitudinal movement to its aforesaid intermediate or unsetting position, said last named means acting to oppose turning of the shaft in either direction when the latter is in the unsetting or silencing position.

3. In a typewriting machine, the combination with an actuator which reciprocates at the type strokes, of mechanism for setting the actuator to cause the same to vibrate either of two fields of ribbon to cover the printing point at the type strokes, said mechanism comprising a key controlled rock shaft which is rocked to the right to set the actuator for one of the ribbon fields, and to the left to set the actuator for the other of the ribbon fields, and having a position intermediate its right and left hand positions in which the actuator is set for neither ribbon field, said shaft being also movable longitudinally in its bearings, means with which the shaft coöperates when moved longitudinally to cause the shaft to be rotated during such longitudinal movement to its aforesaid intermediate or unsetting position, and yielding means to oppose the turning of the shaft in either direction when the latter is in the unsetting position.

4. In a typewriting machine, the combination with an actuator which reciprocates at the type strokes, of mechanism for setting the actuator to cause the same to vibrate either of two fields of ribbon to cover the printing point at the type strokes, said mechanism comprising a key controlled rock shaft which is rocked to the right to set the actuator for one of the ribbon fields, and to the left to set the actuator for the other of the ribbon fields, and having a position intermediate its right and left hand positions in which the actuator is set for neither ribbon field, said shaft being also movable longitudinally in its bearings, and means with which the shaft coöperates when moved longitudinally to cause the shaft to be rotated during such longitudinal movement to its aforesaid intermediate or unsetting position, said last named means acting to oppose turning of the shaft in either direction when the latter is in the unsetting position, said shaft carrying a cross bar with a key at each end for rocking the shaft to the right or left hand ribbon-setting positions, and to coöperate with said shaft-rotating means to shift the shaft endwise forwardly.

5. In a typewriting machine, the combination with an actuator which reciprocates at the type strokes, of mechanism for setting the actuator to cause the same to vibrate either of two fields of ribbon to cover the printing point at the type strokes, said mechanism comprising a key controlled rock shaft which is rocked to the right to set the actuator for one of the ribbon fields, and to the left to set the actuator for the other of the ribbon fields, and having a position intermediate its right and left hand positions in which the actuator is set for neither ribbon field, said shaft being also movable longitudinally in its bearings, said shaft carrying a wedge or cam-shaped centering device, and means with which said centering device coöperates upon longitudinal movement of the shaft to turn the shaft during such longitudinal movement from either its right or its left hand position to its aforesaid intermediate or unsetting position.

[Claims 6 to 11 not printed in the Gazette.]

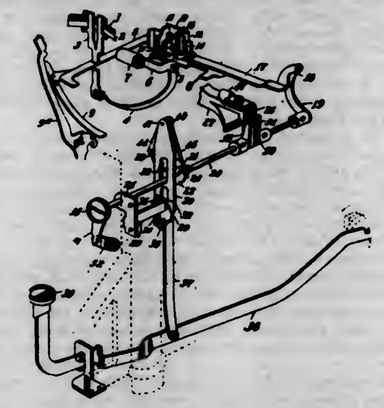
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1,041,723. TYPE-WRITING MACHINE. WALTER B. BARNARD, Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Aug. 20, 1910. Serial No. 578,228. (Cl. 197—157.)

1. In a typewriting machine, the combination with an actuator which reciprocates at the type strokes, of mechanism, including a rock shaft, for effecting two different settings of the actuator to cause the latter to vibrate either of two fields of ribbon to cover the printing point at the type strokes, a single key controlling said rock shaft for both of said settings, said key having the same movement in each instance, means whereby the operation of the key effects one and then the other of said settings of said shaft alternately; and means controlled by an endwise movement of said rock shaft for silencing the ribbon at the type strokes.

2. In a typewriting machine, the combination with an actuator which reciprocates at the type strokes, of mechanism for effecting two different settings of the actuator to cause the latter to vibrate either of two fields of ribbon

to cover the printing point at the type strokes, a single key controlling said mechanism for both of said settings, said key having the same movement in each instance, means whereby the movement of the key in one instance effects one of said settings and in another instance effects the other of said settings, and a second key movable in one direction for effecting a third setting of the actuator from either of said settings to render both ribbon fields inactive at the type strokes.



3. In a typewriting machine, the combination with an actuator which reciprocates at the type strokes, of mechanism for effecting two different settings of the actuator to cause the latter to vibrate either of two fields of ribbon to cover the printing point at the type strokes, said mechanism comprising a rock shaft having clockwise movement in effecting one of said actuator settings and anti-clockwise movement in effecting the other of said settings, a single key controlling said mechanism for both of said settings, said key having the same movement in each instance, means whereby the movement of the key in one instance effects clockwise movement of said rock shaft and in another instance anti-clockwise movement of said rock shaft, and means dependent upon the movement of said rock shaft in a third direction for silencing the ribbon-vibrating mechanism.

4. In a typewriting machine, the combination with an actuator which reciprocates at the type strokes, of mechanism for effecting two different settings of the actuator to cause the latter to vibrate either of two fields of ribbon to cover the printing point at the type strokes, said mechanism comprising a rock shaft having clockwise movement in effecting one of said actuator settings and anti-clockwise movement in effecting the other of said settings, a cross plate fast to said shaft for rocking the same, a single key for controlling said mechanism for both of said settings, said key having the same movement for each of said settings, a slide reciprocated by said key, a member carried by said slide adapted on each operation of the key to engage one end of the cross plate on the rock shaft, according to the setting of the latter and to rock the shaft to its other setting; and means dependent upon an endwise movement of the shaft for silencing the ribbon-vibrating mechanism.

5. In a typewriting machine, the combination with an actuator which reciprocates at the type strokes, of mechanism for effecting two different settings of the actuator to cause the latter to vibrate either of two fields of ribbon to cover the printing point at the type strokes, said mechanism comprising a rock shaft having clockwise movement in effecting one of said actuator settings and anti-clockwise movement in effecting the other of said settings, and a cross plate fast to said shaft for rocking the same, a single key for controlling said mechanism for both of said settings, said key having the same movement for each of said settings, an element reciprocated by said key, and a two-armed oscillatory lever pivoted to said key reciprocated element and movable with the latter bodily and perpendicularly toward and from the rock shaft and cross plate thereon; the arms of said lever, during this movement, straddling the shaft so that, according to the setting of the shaft, one end of the cross plate will be engaged by one arm of the lever and the cross plate with the shaft thereby rocked to its other setting, the lever, by reason of the engagement of one arm thereof with the cross plate, being rocked to remove its other arm from the path of the cross plate, so that the setting of the latter may be effected.

[Claims 6 to 12 not printed in the Gazette.]

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1,041,724. **BOX-SEAL.** SAMUEL RABUCH, New York, N. Y. Filed Jan. 23, 1912. Serial No. 672,886. (Cl. 70—101.)



1. A combined wire fastener and seal having a pointed body and a head, said body having a hole therethrough adjacent to the point end for receiving a wire and a notch between said head and said point and also serving to receive a wire, and said head being formed of two curved flanges integrally with said body and each having a hole therethrough and a sealing material within said head.

2. A combined wire fastener and seal having a pointed body and a head integral therewith, said body having means adjacent to the point end for carrying portions of a wire therewith upon the driving of the device into place and said head having a chamber adapted to receive a sealing material.

3. A combined wire fastener and seal having a pointed body portion and a head, said body portion having means for retaining in position portions of a wire and said head being hollow and having an opening in the wall thereof and sealing material within said head and entering said opening.

4. A combined wire fastener and seal having a pointed body and a head, said body having a hole therethrough adjacent to the point end for receiving a wire and a notch between said head and said point and also serving to receive a wire and said head being formed of two curved flanges.

5. A combined wire fastener and seal having a pointed body and a head, said body having means for retaining in position portions of a wire, and said head being formed of two flanges integral with said body on opposite edges thereof and curved toward each other.

[Claim 6 not printed in the Gazette.]

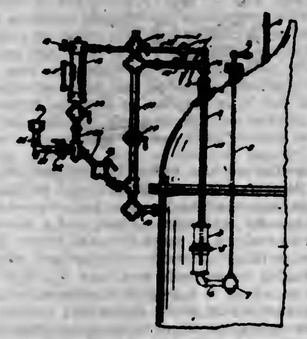
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1,041,725. **SAMPLER FOR VACUUM-PANS.** CARL A. BAUMANN, Jefferson, Wis. Filed Oct. 30, 1911. Serial No. 657,613. (Cl. 127—18.)

1. A sampler for vacuum pans comprising a pipe or tube in the pan, a sampler cup, a pipe leading to the sampler cup from the pipe within the vacuum pan, and means for admitting atmospheric pressure to said pipe within the pan.

2. A sampler for vacuum pans comprising a pipe or tube in the pan, a sampler cup, means affording connection between said sampler cup and said pipe, a valve controlling the passageway between said pipe and said pan, and means adapted to admit atmospheric pressure within said pipe.

3. A sampler for vacuum pans comprising a reservoir within the pan, a pipe or tube connected to said reservoir, means to admit the milk within the vacuum pan into said reservoir, a sampler cup, a pipe connecting said sampler cup to the interior of the pan, and means to admit atmospheric pressure within said reservoir, thereby to force the fluid therefrom.



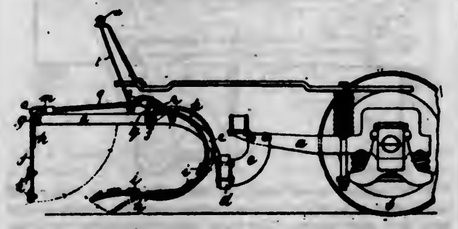
4. A sampler for vacuum pans comprising a reservoir within the pan, a valve adapted to admit fluid from the pan into said reservoir, an equalising pipe opening at one end into the pan above the level of the fluid therein contained, and opened at its other end to the atmosphere, an air-valve or a stop-valve in said pipe, a pressure pipe leading from said equalising pipe to said reservoir, a feed pipe extending into said pressure pipe and into said reservoir, a cylinder connected with said feed pipe, a drain pipe leading from said cylinder to the equalising pipe below stop-valve, and a test-cup connected to the drain pipe and adapted to receive fluid from said cylinder.

5. A sampler for vacuum pans comprising a cylinder, a test-cup, means connecting said cylinder and said test-cup exterior to the pan above the fluid level within said pan, and means adapted automatically to force the fluid from the pan into said cylinder.

[Claim 6 not printed in the Gazette.]

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1,041,726. **VEHICLE-FENDER.** THOMAS ARTHUR BENNETT, Newton, Hyde, England. Filed Oct. 16, 1911. Serial No. 654,934. (Cl. 105—130.)



1. A life-saving device for tramway and like vehicles consisting of brackets secured to the underframe of the car truck, such brackets extending forwardly of the frame, a shaft near the rearward end of said brackets and carried by them, a cradle or tray having the major portion of its construction extending rearwardly of the shaft, a lever mounted on the aforesaid shaft, a link coupled to said lever and extending forwardly and provided at its forward end with a cam-shaped slot, a projection within the slot, a second shaft supported in the forward ends of the brackets previously referred to, a pivoted gate downwardly suspended from said shaft, a lever fixed on the shaft having a downwardly extending arm located behind the pivoted gate and a second arm provided with a snug in normal engagement with the projection in the cam-shaped slot of the link previously referred to, substantially as described.

2. In a life-saving device for tramway and like vehicles the combination of brackets secured to the underframe of the car truck and extending forwardly of such, a shaft near the rearward end of said brackets and carried by them, a cradle or tray having the major portion of its construction extending rearwardly of the shaft, a lever mounted on the aforesaid shaft, a link coupled to said lever extending forwardly and provided at its forward end with a cam-shaped slot, a projection within the slot, a second shaft supported in the forward ends of the brackets previously referred to, a pivoted gate downwardly suspended from said shaft, a lever fixed on the cradle shaft and a pivoted pawl mounted on one of the brackets supporting the tray substantially as described.

3. A life-saving device for tramway and like vehicles comprising two brackets fixed to the truck frame, a shaft carried by said brackets, a cradle or tray having the major portion of its construction extending rearwardly of the shaft, a toothed sector fixed on the cradle shaft having a number of ordinary teeth and a longer tooth, a pivoted pawl in engagement with the toothed sector and overhanging it, a projection located behind the pawl arm, a cord, chain or cable connected to the forward end of the pawl and means for operating the cord or chain from the vehicle driver's platform substantially as described.

4. In a life-saving device for tram cars and like vehicles, a pivoted gate supported at the forward ends of brackets fixed to the car truck, a shaft mounted in the brackets forming the support for the pivoted gate, a lever fixed on said shaft and rigidly secured to the pivoted gate, a second arm projecting from the lever provided with a projecting snug and a link coupled to a pivoted tray having a cam-shaped slot at its forward end in which is a projection engaging with the snug on the second arm of the lever substantially as described.

5. The combination, with the frame of a vehicle, of brackets secured thereto and arranged in front of its wheels, a rear shaft carried by the said brackets, a lever carried by the rear shaft and projecting upwardly, a cradle or scoop operatively connected with the said lever and carried by the rear shaft, a front shaft supported by the said brackets, a gate carried by the front shaft, an upwardly projecting arm carried by the front shaft and provided with a projection engaging with the gate so that the said arm is moved forwardly when the gate is moved pivotally to the rear, a link pivoted at its rear end to the said lever, and disengageable catch mechanism between the front end of the link and the said arm which permits the gate to return to its normal position after being moved rearwardly without moving the cradle or scoop in the reverse direction.

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1,041,727. **WIRE-STRETCHER.** PHILLIP ANDERSON BERRY, Coahoma, Tex. Filed Dec. 20, 1910. Serial No. 598,428. (Cl. 39—54.)



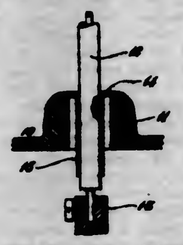
1. In a wire stretcher, a bar, a curved yoke connected therewith and extending in the same plane, a fulcrum formed by the intersection of the bar and curved yoke, a fork upon the end of said curved yoke, hooks upon the extremities of said fork, a spur in the center of said fork, an arm provided with a hook formed upon the yoke in-

termediate of its ends, and a wire engaging claw pivotally mounted upon said bar.

2. In a wire stretcher, a bar, a curved yoke integral therewith and extending in the same plane, a fulcrum edge at the junction of said bar and yoke, said yoke being provided with a fork having hooks upon its extremities and further provided with a spur disposed centrally within the fork, a rigid fulcrum arm provided with a hook upon its extremity extending laterally from said yoke intermediate of its ends, a hook rigidly connected with said bar intermediate of its ends and a claw pivoted upon said bar and spaced therefrom, said hook being disposed on the opposite side of the bar from said fulcrum arm.

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1,041,728. MEANS FOR PREVENTING THEFT OF CURRENT FROM ELECTRIC METERS. CHARLES F. BEETIG, Winsted, Conn. Filed Mar. 11, 1912. Serial No. 682,887. (Cl. 173—268.)



1. The combination of a wire, a disk through which the wire extends, said disk having a tube connected therewith and inclosing and rigidly secured to the wire, said disk constituting a barrier for an opening through which said wire extends.

2. The combination of a section of insulated wire, and a disk provided with an integral tube both surrounding the insulated portion of the wire, said tube having the stock punched therefrom into the insulation of the wire and the disk constituting a barrier for an opening through which said wire extends.

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1,041,729. BRACELET. SIDNEY O. BIGNEY, Attleboro, Mass. Filed Feb. 12, 1912. Serial No. 677,184. (Cl. 63—7.)



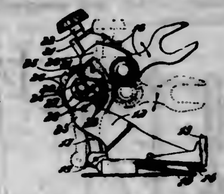
1. In a bracelet, the combination of a pintle, sleeves upon the pintle, enlarged bearings upon the adjacent ends of the sleeves directly abutting each other, a curved wing fixed to each enlarged portion with their free ends abutting each other, and means for fastening said free ends.

2. In a bracelet, the combination of a pintle, sleeves upon the pintle, hemi-spherical bearings upon the adjacent ends of said sleeves provided with edges in direct slidable contact with each other, and wings fixed to said bearings, the free ends of said wings abutting each other.

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1,041,730. SEWING-MACHINE RUFFLER. EMANUEL J. BOYLES, New Haven, Conn., assignor to The Greist Manufacturing Company, a Corporation of Connecticut. Filed Feb. 10, 1912. Serial No. 676,722. (Cl. 112—16.)

1. In a sewing machine ruffler, the combination with a ruffler and its operating parts, comprising a spring-pressed pawl, of a ratchet-wheel having deep and shallow notches, a detent device for said ratchet wheel, and a movable adjusting device adapted to cause the said detent device to prevent the rotation of said ratchet wheel when five-stitch ruffling is to be performed, and which adjusting device may be moved to a position to release the said detent device.

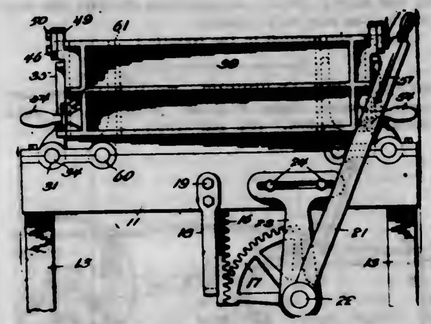


2. In a sewing machine ruffler, the combination with a ruffler and its operating parts, comprising a spring-pressed pawl, of a ratchet-wheel having deep and shallow notches, a detent device for said ratchet-wheel, and a movable adjusting device adapted to cause the said detent device to prevent the rotation of said ratchet-wheel when five-stitch ruffling is to be performed, and which adjusting device may be moved to a position to release the said detent device, said detent device comprising a plate having one or more spring fingers adapted to be pressed in engagement with said ratchet-wheel, and the said movable adjusting device consisting of a lever adapted to be engaged with or removed from the said spring fingers.

3. In a sewing machine ruffler, the combination with an operating lever provided with a notched, internally threaded ear, of a ruffling blade, means for reciprocating the said blade from said lever, said means comprising an adjustable contact screw mounted in said threaded ear, a spring sleeve frictionally fitting the said threaded ear and having a spring finger to frictionally engage the said screw through the notch formed in said ear.

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1,041,731. CONCRETE-BLOCK-MOLDING MACHINE. JOSEPH W. HASSELD, Canton, S. D. Filed Oct. 5, 1911. Serial No. 652,961. (Cl. 25—141.)



1. A cement block machine comprising face, rear and end plates, a pallet, link connection members between said face and rear plates, said face plate pivoted at the top thereof to the forward ends of said link members, said link members adapted for engagement with said end plates with the latter contacting the face and rear plates when in closed relations, rearwardly-projecting lugs at the top of said rear plate and each of said lugs having a slot therein, bolts carried by said link members and engaging in said slots adapted for providing a sliding pivotal connection between said link members and rear plate.

2. A cement block machine comprising face, rear and end plates, a pallet, link connection members between said face and rear plates, said face plate pivoted at the top thereof to the forward ends of said link members, said link members adapted for engagement with said end plates when in closed relations with said end plates contacting the face and rear plates, sliding pivotal means between said rear plate and link members whereby the tops of said face and rear plates are relatively separable and a common support for said pallet and link members.

3. A cement block machine comprising face, rear and end plates, a pallet, link connection members between said face and rear plates, said face plate pivoted at the top thereof to the forward ends of said link members, said link members adapted for engagement with said end plates when in closed relations with said end plates contacting the face and rear plates, sliding pivotal means between said rear plate and link members whereby the tops of said face and rear plates are relatively separable, lugs provided adjacent to the bottom of said rear plate, upright links pivoted intermediate their ends to said lugs, the upper ends of said upright links pivoted to said link connection members, and a common support for said pallet and upright links.

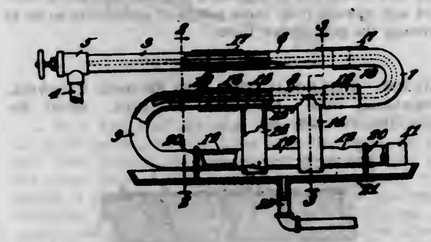
4. A cement block machine comprising face, rear and end plates, a pallet, link connection members between said face and rear plates, said face plate pivoted at the top thereof to the forward ends of said link members, rearwardly-projecting lugs at the top of said rear plate and each of said lugs having a slot therein, bolts carried by said link members and engaging in said slots, lugs provided adjacent the bottom of said rear plate, upright links pivoted intermediate their ends to said lugs, the upper ends of said upright links pivoted to said bolts, a table support for said plates and pallet, and brackets carried by the rear of said table support, the lower ends of said upright links pivoted to said brackets.

5. A cement block machine comprising a vertically movable central core member, a table support, a pallet mounted upon said support, end plates hinged to said support, end core members linked to said end plates and having an initial sliding movement in opposite directions in the opening operation.

[Claims 6 to 11 not printed in the Gazette.]

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1,041,732. OIL-BURNER. BENJAMIN R. BRILES, Le Roy, Kans. Filed Jan. 29, 1912. Serial No. 674,096. (Cl. 158—98.)



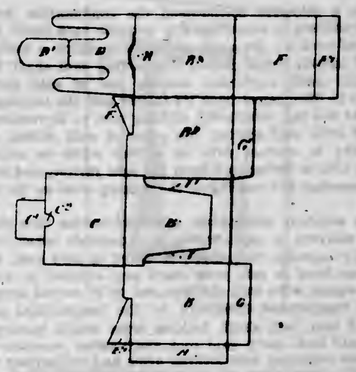
1. A liquid fuel burner embodying a pipe bent to form a plurality of vertically arranged parallel horizontal portions, the lowermost portion forming a vaper chamber and having an upper vaper outlet therein, and the upper portions forming vaper generating chambers receiving the fuel, and a down draft tube extending from an intermediate portion of the pipe below the lowermost portion, the lowermost portion passing through the down draft tube with the vaper outlet disposed at one side of the down draft tube.

2. A liquid fuel burner embodying a pipe bent to form a plurality of vertically arranged parallel horizontal portions, the lowermost portion forming a vaper chamber and having upper vaper outlets therein, and the upper portions forming vaper generating chambers receiving the fuel, and down draft tubes extending from an intermediate portion of the pipe to the lowermost portion adjacent the respective vaper outlets and intermediate the said outlets.

3. A liquid fuel burner embodying a pipe bent to form a plurality of vertically arranged parallel horizontal portions, the lowermost portion forming a vaper chamber and having upper vaper outlets therein, and the upper portions forming vaper generating chambers receiving the fuel, and down draft tubes of an internal diameter larger than the external diameter of the said pipe and having seats in their upper ends receiving an intermediate portion of the said pipe, the lowermost portion passing through the down draft tubes, the down draft tubes being arranged adjacent the respective vaper outlets and intermediate the said outlets.

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1,041,733. INCANDESCENT-MANTLE BOX. ALEXANDER AITCHISON BROWN, Rutherglen, Scotland. Filed Feb. 25, 1911. Serial No. 610,831. (Cl. 206—68.)



1. A box for suspending and inclosing incandescent gas mantles, comprising a six-walled rectangular housing having a portion of the front wall severed except at its lower edge, where it is provided with a hinging connection with the remainder of the front wall; also having the top wall movable relatively to the box and connected thereto only through the movable portion of the front wall; also having a suspending shelf connected with the back wall, overlying the space left by the movable top and having openings to receive the suspending base of the mantle; and having tabs connected with the side walls and extending inwardly beneath the suspending shelf to support the latter; and having the front wall severed on lines which leave portions of the front rigidly associated with the bottom and sides to stiffen the structure laterally and the supporting tabs which underlie the suspending shelf being in abutment with the rear wall, whereby they stiffen the structure from front to rear.

2. A box for suspending and inclosing incandescent gas mantles, comprising a six-walled rectangular housing having a portion of the front wall severed except at its lower edge, where it is provided with a hinging connection with the remainder of the front wall; also having the top wall movable relatively to the box and connected thereto only through the movable portion of the front wall; also having a suspending shelf connected with the back wall, overlying the space left by the movable top and having openings to receive the suspending base of the mantle; and having tabs connected with the side walls and extending inwardly beneath the suspending shelf to support the latter; and having the front wall severed on lines which leave portions of the front rigidly associated with the bottom and sides to stiffen the structure laterally and the supporting tabs which underlie the suspending shelf being in abutment with the rear wall, whereby they stiffen the structure from front to rear; the shelf-supporting and wall-bracing tabs being connected with the rear portions only of the side walls and leaving portions of the side walls projecting above said tabs to form lateral abutments for both the supporting shelf and the inclosing top.

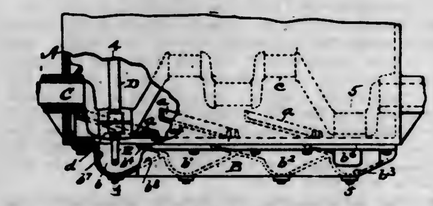
1,041,734. SELECTIVE MECHANISM FOR SHIFTING GEARS. ALANSON P. BRUSH, Flint, Mich. Filed Jan. 12, 1910. Serial No. 537,625. (Cl. 74—33.)



1. In a selective mechanism, the combination with a pair of shifters, a longitudinally movable rock shaft, shifting arms fixed on the shaft and each engaging a shifter, a pair of locking arms, means for moving said shaft longitudinally, such movement causing one of said shifting arms to be disengaged from its shifter and the locking arm adjacent the last mentioned shifting arm to be retained in contact with said shifter, the other of said shifter arms remaining in contact with its shifter while its adjacent locking arm is disengaged from the said shifter, and means for preventing the turning of the locking arms as the shaft rocks.

2. In selective mechanism, the combination of a plurality of shifters, a case having a removable cover, longitudinally movable rock shaft, mounted in said case, shifting arms fixed to said rock shaft and adapted to respectively engage with said shifters and to be moved into and out of engagement therewith by the longitudinal movement of said rock shaft, locking arms which loosely embrace said rock shaft, said rock shaft being provided with shoulders engaging said locking arms and compelling them to move endwise with the rock shaft, members having surfaces which slidingly engage the inner face of the case cover, said members being rigidly connected to the locking arms.

1,041,735. SYSTEM OF SPLASH LUBRICATION. ALANSON P. BRUSH, Flint, Mich. Filed Feb. 15, 1911. Serial No. 608,665. (Cl. 184—11.)



1. In a multiple cylinder engine provided with a plurality of cranks, the combination of a crank case, and a crank shaft mounted therein,—said crank case having a bottom section which is removable in a plane below the crank shaft bearing, and is formed with oil pits located one below each crank, and an oil return channel which is located in its upper edge in the plane of separation of the two casing members and has an open front end adjacent to the front pit and extends therefrom to a point where it may be discharged into the rear pit, and the upper part of said crank case having on the side wall, toward which the cranks move when in their lowest positions, inclined troughs which are located one over each of the oil pits except the front one and are arranged to discharge into the pits next ahead of those over which they are located.

2. In a multiple cylinder engine provided with a plurality of cranks, the combination of a crank case having a removable bottom section which is separable from the part above it in a plane below the crank shaft bearings, and has oil pits located one below each crank, there being in said lower section transversely extended shelves which extend rearwardly and upwardly from the places where the walls of the adjacent pits are joined and partly overhang the oil pits behind them.

3. In a multiple cylinder engine, provided with a plurality of cranks, a crank case having a removable bottom section which is separable from the part above it in a plane below the crank shaft bearings, and has a plurality of oil pits located one below each crank, and has along one edge a longitudinally extended open topped trough provided with a lateral offset near the front end, the upper part of said crank case having along one lower side edge an inwardly extended flange which, when the parts are connected together, covers said oil channel, excepting the offset part thereof, said upper member having on its sides above all of the oil pits except the front one downwardly and forwardly inclined troughs which severally discharge into the pits next ahead of those above which they are located, and said side also having above the front pit an open topped pocket whose lower end is in open communication with the offset part of said oil channel.

4. In a multiple cylinder engine provided with a plurality of cranks, a crank case in which the crank shaft is mounted, which crank case has a removable bottom section which is separable from the part above it in a plane below the crank shaft bearings, said bottom section having a plurality of oil pits located respectively below the several cranks, the rear wall of each oil pit being approximately vertical and the front wall of said oil pit being inclined more nearly toward a horizontal position.

5. In a multiple cylinder engine provided with a plurality of cranks, a crank case in which the crank shaft is mounted, which crank case has a removable bottom section which is separable from the part above it in a plane below the crank shaft bearings, said bottom section having a plurality of oil pits located respectively below the several cranks, the rear wall of each oil pit being approximately vertical and the front wall of said oil pit being inclined more nearly toward a horizontal position, and downwardly and forwardly inclined shelves extending from one side of the lower crank case section to the other side and connected at their front ends with the junctures of the front and rear walls of adjoining pits and extending rearward and upward from these points of connection so as to overhang the pits behind them.

1,041,736. RAILROAD-TIE. FRED SEYMOUR CALDWELL, Oklahoma, Okla. Filed Jan. 22, 1912. Serial No. 672,770. (Cl. 238—8.)



1. An improved composite railroad tie having a wooden core and a casing of sheet asphalt inclosing said core and affixed thereto, in combination with slotted rail plates each constructed with vertically depending flanges adapted to penetrate the top of said sheet asphalt casing and rest solidly upon said wooden core, rail clamps superposed upon said rail plates, and lag screws coöperating with said clamps and extending through the slots of said rail plates and through the top of said sheet asphalt casing into said wooden core.

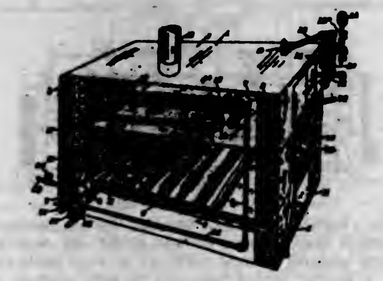
2. The combination, with the rails of a railroad, of a cross tie composed of a core of wood and a casing of sheet asphalt inclosing said core, superposed rail plates each constructed with vertically depending flanges adapted to penetrate the top of said sheet asphalt casing and to rest solidly upon said wooden core, and means for securing the rails upon said rail plates including fastenings driven through said top of the sheet-asphalt casing into the wooden core of the tie.

3. The combination, with the rails of a railroad track, of composite cross ties laid in close contact with each other, each having a core of wood and a casing of sheet asphalt, rail plates interposed between the rails and each tie and each constructed with vertically depending flanges adapted to penetrate the top of said sheet-asphalt casing and to rest solidly upon said wooden core of each tie, and rail fastening means adapted to be driven through said top of the sheet-asphalt casing into the wooden core of each tie.

4. The combination with the rails of a railroad track of composite cross ties laid in close contact with each other, each having a core of wood and a casing of sheet asphalt, and each constructed with articulating shoulders extending along its vertical longitudinal sides, crosswise of the track, said shoulders of adjoining ties being in mutually supporting contact with each other, rail plates interposed between the rails and each tie and each constructed with vertically depending flanges adapted to penetrate the top of said sheet-asphalt casing and to rest solidly upon said wooden core of each tie, and rail fastening means adapted to be driven through said top of the sheet-asphalt casing into the wooden core of each tie, substantially as hereinbefore specified.



1,041,737. STEAM AND HOT-WATER FURNACE. JOHN CALLICOTT, Bradford, Ontario, Canada, assignor of one-half to Andrew T. Howes and one-half to George Bannerman, Bradford, Ontario, Canada. Filed July 29, 1911. Serial No. 641,219. (Cl. 122—225.)

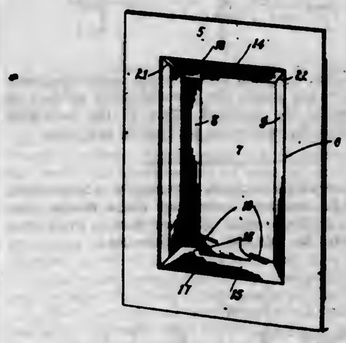


1. In a device of the class described, a lower header, an upper header, vertical tubes extending upwardly from said lower header, upper horizontal tubes extending from the upper ends of said vertical tubes to the said upper header, a plurality of horizontal tubes of various lengths extending from said vertical tubes and paralleling said upper horizontal tubes, and vertical coupler tubes connecting the outer end of each of said horizontal tubes with the horizontal tube immediately thereabove.

2. In a device of the class described, the combination of a furnace casing, a lower header, an upper header, vertical tubes extending upwardly from said lower header, a baffle plate horizontally arranged intermediate of the height of said vertical tubes and spaced apart from the side walls of the said furnace casing, upper horizontal tubes extending from the upper ends of said vertical tubes to the said upper header, a plurality of horizontal tubes of various lengths extending from said vertical tubes and paralleling said upper horizontal tubes, and vertical coupler tubes connecting the outer end of each of said horizontal tubes with the horizontal tube immediately thereabove.

3. In a device of the class described, the combination of a furnace casing, a lower header, an upper header, vertical tubes extending upwardly from said lower header, upper horizontal tubes extending from the upper ends of said vertical tubes to the said upper header, a plurality of horizontal tubes extending from said vertical tubes, a series of vertical tubes connecting the outer ends of said horizontal tubes with the horizontal tubes immediately thereabove, a baffle plate horizontally arranged across the said casing intermediate of the height of said vertical tubes and forming upper and lower chambers in said casing and a smoke stack extending through the top of said casing in proximity to said baffle plate.

1,041,738. COLLAPSIBLE DISPLAY DEVICE. WILLIS M. CARTER, New York, N. Y., assignor to American Lithographic Company, New York, N. Y., a Corporation of New York. Filed May 16, 1912. Serial No. 697,775. (Cl. 211—24.)



1. A display device including in combination, two principal members, first, an integral rectangular front wall having a rectangular opening therethrough, second, an integral rear wall comprising a mid-portion parallel with said front wall, opposite edge portions bent forwardly from said mid-portion and extension portions bent backwardly from said edge portions respectively, means for securing one of said extension portions to the rear face of said front wall at one side of said opening therethrough, means for securing the other of said extension portions to said front wall at the opposite side of said opening, opposite edge walls integral with said front wall and bent backwardly from those edges of the opening therethrough normal to the sides to which the back wall extension portions are secured respectively, and each having means for engagement with said back wall.

2. A display device including in combination, two principal members, first, an integral rectangular front wall having a rectangular opening therethrough, second, an integral rear wall comprising a mid-portion parallel with said front wall, apertures therein, opposite edge portions bent forwardly from said mid-portion and extension portions bent backwardly from said edge portions respectively, means for permanently securing one of said extension portions to the rear face of said front wall at one side of said opening therethrough, means for removably securing the other of said extension portions to said front wall at the opposite side of said opening, opposite edge walls integral with said front wall and bent backwardly from those edges of the opening therethrough normal to the sides to which the back wall extension portions are secured respectively, and each having an ear on its free edge for engagement with said apertures, respectively, in the back wall.

1,041,739. TIRE. WILLIAM G. CHIPLEY, New Orleans, La. Filed Apr. 10, 1911. Serial No. 620,667. (Cl. 152—22.)

In a device of the character described, the combination with a rim formed with an annular groove substantially pear shaped in cross-section merging into a concave outer

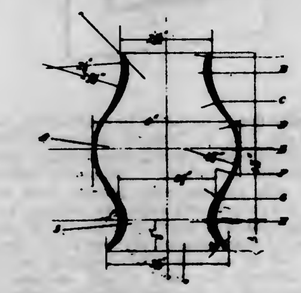
surface, of a tire structure formed of a tire portion, an inflatable portion and a valve for said inflatable portion, said inflatable portion being formed with a body portion and a neck portion, the body portion fitting said annular



groove in said rim, and said neck portion supporting said tire portion normally above the concave outer surface of said rim, whereby the resilient effect of the inflatable portion is utilized for resiliently supporting said rim.

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1,041,740. LANTERN-GLOBE. WILLIAM CHURCHILL, Corning, N. Y., assignor to Corning Glass Works, Corning, N. Y., a Corporation of New York. Filed Oct. 2, 1911. Serial No. 652,489. (Cl. 240—94.)



1. An integral lantern globe having upper and lower end openings which afford end surfaces by which it is supported, and having a constricted zone located above the lower opening and an enlarged zone located between the constricted zone and the upper opening, the thickness of the walls of the globe being greater at the constricted zone than at the enlarged zone.

2. An integral lantern globe having upper and lower end openings which afford end surfaces by which it is supported, and having a constricted zone located above the lower opening and an enlarged zone located between the constricted zone and the upper opening, the thickness of the walls of the globe at the constricted zone and between the enlarged zone and the top being of greater thickness than other parts of the globe.

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1,041,741. STAVE-COLUMN. CHARLES JOHN CIBULAT, New Orleans, La. Filed May 6, 1908. Serial No. 431,178. (Cl. 20—97.)

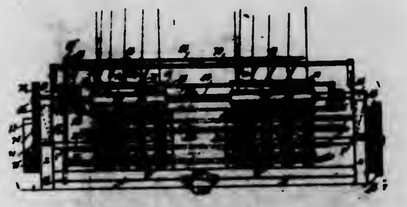
A stave column comprising a plurality of interlocked staves engaged edge to edge, each having at one edge adjacent its inner face a longitudinal groove or recess, directed outwardly and tapered in an outward direction, the groove having a flat base disposed at an obtuse angle to one of its sides, and at an acute angle to the other, the other edge of each stave being formed adjacent the inner face of the stave with a laterally disposed outstanding head shaped to snugly fit the groove of the corresponding opposite edge of the adjacent stave, each stave having a relatively large portion of material disposed outwardly beyond the groove and head, and the meeting edges of the several staves outside of the grooves and heads lying in



lines disposed at a tangent to a circle coaxial with the column.

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1,041,742. WIRE-FENCE MACHINE. JOHN L. CLAUSEN, Morton, Ill., assignor, by mesne assignments, to Interlocking Fence Company, Morton, Ill., a Corporation of Illinois. Filed May 20, 1904. Serial No. 208,824. (Cl. 140—4.)



1. In a device of the class described, the combination of a revoluble head, a series of independent and detachable supports mounted on said head and in rows around the same, a twister section journaled in each support, and means carried by said head and reciprocally arranged thereon for actuating said twisters.

2. In a device of the class described, the combination of a shaft, a head mounted on said shaft, a series of pairs of supports attached to said head, a revoluble twister journaled between each pair of supports, means for rotating said shaft and head, means for rotating each twister, and guards attached to the supports upon opposite sides of each twister.

3. A twister support, comprising a revoluble head, a pair of brackets attached to said head, a revoluble twister journaled between the brackets, and guard plates supported by said brackets upon opposite faces of the twister.

4. In a device of the class described, the combination of a revoluble support, a series of brackets detachably attached to said support, a revoluble twister mounted on each bracket, guard plates attached to said brackets, and reciprocally arranged means for actuating said twisters during the rotation of the support.

5. In a device of the class described, the combination of a revoluble frame, a series of pairs of slotted supports detachably attached on said frame, a slotted twister revolubly mounted between each pair of supports, guard plates attached to said brackets in front of their slots, and reciprocally disposed means adapted to impart an intermittent movement to the twisters.

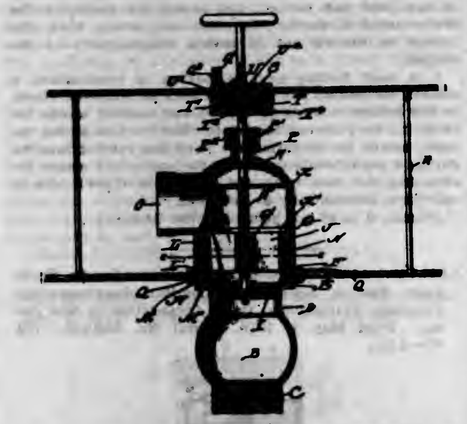
[Claims 6 to 50 not printed in the Gazette.]

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1,041,743. REEL-OPERATED HYDRANT. WILLIAM J. CLAY, Cotton Valley, La. Filed Dec. 10, 1910. Serial No. 596,626. (Cl. 137—31.)

1. A reel operated hydrant comprising a vertically arranged pipe adapted to discharge at its upper end, said pipe comprising an enlarged portion having immediately above the same a straight cylindrical portion of less diameter than the said enlarged portion, said straight portion having an inwardly extending annular valve seat at its upper end, a valve arranged in said straight portion and adapted to engage said seat, said valve being adapted to move downwardly into said enlarged portion, a hose reel mounted upon said pipe, and means connecting said reel with said valve for the purpose of moving the valve, the straight portion having such a length that a comparatively large number of turns of the reel will be necessary to move the said valve from its seat into the said enlarged portion.





2. The combination with a valve casing provided with a globular portion and a central contracting portion, of a cap provided with a neck mounted on said casing, a valve stem extending through said cap having a threaded portion, a nut carried by said casing through which said stem extends, a valve revolubly mounted on the lower end of said stem working in the contracted portion of said casing, a reel carried by said cap provided with means for locking the same to the stem of the valve.

3. A reel operated hydrant comprising a valve casing having a globular portion and an enlarged portion, and a central contracted portion having an annular flange forming a valve seat, a valve slidably mounted in said contracted portion, bearing rings carried by the enlarged portion, a cap provided with a flange revolubly mounted on said bearing rings, a valve stem connected to said valve, a reel carried by said cap and means carried by said reel for locking the same to the valve stem for forcing said valve downwardly out of the contracted portion.

4. In a device of the kind described, the combination with a valve casing having a central contracted portion terminating in an interior annular flange forming a valve seat, of a valve slidably mounted in said contracted portion, a valve stem connected to said valve provided with a threaded portion, a nut carried by the casing to receive said stem, a bearing ring mounted on said enlarged portion, a cap provided with a flange revolubly mounted on said ring, a nut carried by said cap co-acting with said valve casing for preventing a vertical movement of said cap, and a rod carried by said cap having means for locking the same to the valve stem.

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1,041,744. PNEUMATIC TRACK-SANDER. ANTHONY S. CONTI, Chicago, Ill. Filed May 10, 1912. Serial No. 696,524. (Cl. 105—283.)

1. The combination with a sand box having two sand discharge openings, of a pneumatic track sander comprising an elongated body mounted upon said sand box, said body having angular passages in its ends, corresponding terminals of said passages registering with said discharge openings of said sand box; a discharge pipe leading from the opposite end of each of said passages; an air jet nozzle removably secured in each end of said body having its discharge end projecting axially into the adjacent end of the corresponding discharge pipe; a chamber provided at the opposite end of each of said nozzles; and a compressed air supply pipe communicating with each of said chambers, substantially as described.



2. The combination with a sand box having two sand discharge openings, of a pneumatic track sander comprising an elongated body mounted upon said sand box, said body having angular passages in its ends, corresponding terminals of said passages registering with said discharge openings of said sand box; a discharge pipe leading from the opposite end of each of said passages, the portions of said passages approaching said discharge pipes converging toward the latter; an air jet nozzle removably secured in each end of said body having its discharge end projecting axially into the adjacent end of said pipe; a chamber provided at the opposite end of each of said nozzles; and a compressed air supply pipe communicating with each of said chambers, substantially as described.

3. The combination with a sand box having two sand discharge openings, of a pneumatic track sander comprising an elongated body mounted upon said sand box, said body having angular passages in its ends, corresponding terminals of said passages registering with said discharge openings of said sand box; a discharge pipe leading from the opposite end of each of said passages, the bottoms of the portions of said passages approaching said pipes being inclined upwardly; an air jet nozzle provided in each end of said body having its discharge end projecting into the adjacent end of the corresponding discharge pipe; a chamber provided at the opposite end of each of said nozzles; and a compressed air supply pipe communicating with each of said chambers, substantially as described.

4. The combination with a sand box, of a sand discharge pipe leading therefrom; an annular steam jacket encircling the lower end of said pipe; and a steam pipe and an outwardly opening vent communicating with said jacket, substantially as described.

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1,041,745. MANUFACTURE OF EXPLOSIVES. PAUL EUGÈNE CHARLES CORBIN, Paris, France, assignor to Société Universelle d'Explosifs (Anciennement: Bergès, Corbin & Cie.), Paris, France. Filed Mar. 15, 1912. Serial No. 684,010. (Cl. 52—1.)

1. A process of the kind described which consists in coating the grains of an explosive which is only difficultly sensitive to shocks and difficultly inflammable with a layer of easily inflammable explosive difficultly sensitive to shocks, substantially as described.

2. A process of the kind described which consists in coating the grains of an explosive which is only slightly sensitive to shocks and slightly inflammable with a coating of black powder, substantially as described.

3. A process of the kind described which consists in first introducing a granulated explosive which is only slightly sensitive to shocks and difficult to ignite into a cask, then adding the desired quantity of an easily inflammable explosive difficultly sensitive to shocks and the necessary quantity of a liquid containing an adhesive in suspension, then rotating the cask and drying the grains by causing the liquid to evaporate slowly, substantially as described.

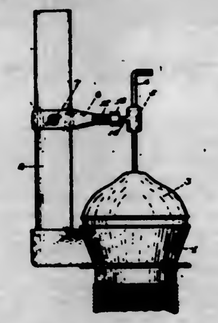
4. An explosive comprising grains of an explosive which is difficult to detonate and is slightly inflammable, coated with a thin layer of an explosive which is highly inflam-

mable and is difficult to detonate, substantially as described.

5. An explosive comprising grains of an explosive which is difficult to detonate and is difficultly inflammable, coated with a thin layer of black powder, substantially as described.

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1,041,746. FLOAT-VALVE FOR TANKS. LOUIS A. CORNELIUS, Grand Rapids, Mich. Filed Mar. 18, 1909. Serial No. 484,317. (Cl. 4—5.)

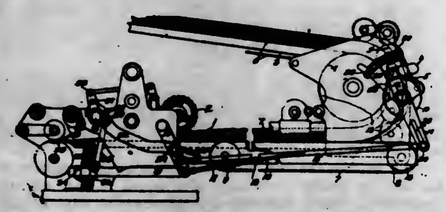


1. The combination of the valve seat, the valve, a stem therefor, a sleeve for such stem, means for supporting such sleeve in connection with the valve seat, a stem projecting from such sleeve, a hollow chamber in connection with the supporting means, slots in the walls of such hollow chamber and a nut having a taper thread,—whereby the stem may be adjusted in such hollow chamber and clamped in any desired adjustment.

2. In a device of the character described, the combination of a valve having a stem, a valve seat for the valve a bearing-member for the valve stem, and means for adjustably holding the bearing-member relatively to the valve seat comprising a supporting member having tongues adapted to adjustably hold the bearing-member between them, and a nut taperingly screw-threaded on the tongues and adapted when turned to its operative position to clamp the tongues on the bearing-member.

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1,041,747. SHEET-FEEDING MACHINE. FRANK L. CROSS, Wollaston, Mass., assignor to Cross Paper Feeder Company, a Corporation of Maine. Filed Jan. 21, 1909. Serial No. 473,521. (Cl. 101—39.)



1. A sheet feeding machine, having, in combination, a comber, mechanism for feeding a feathered bank of sheets to the comber, means for rendering the feeding mechanism substantially inactive to feed the bank so long as the comb is less than a predetermined length, said means being adjustable to vary the length of comb requisite to render it active, substantially as described.

2. A sheet feeding machine, having, in combination, a comber, mechanism for feeding a feathered bank of sheets to the comber, means for rendering the feeding mechanism substantially inactive to feed the bank so long as the comb is less than a predetermined length, and means for adjusting the feeding mechanism to vary the feed in accordance with the character of the sheets being operated upon, substantially as described.

3. A sheet feeding machine, having, in combination, a comber, mechanism for feeding a bank of feathered sheets to the comber comprising a pawl and ratchet, means for rendering the pawl and ratchet inactive during a predetermined part of the comb, and means controlled by the sheet advanced by the comber for arresting the action of the pawl and ratchet, substantially as described.

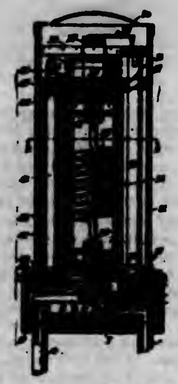
4. A sheet feeding machine, having, in combination, a comber, mechanism for feeding a bank of feathered sheets to the comber comprising a pawl and ratchet, means for holding the pawl and ratchet out of action during the first part of the comb, a device for preventing movement of the pawl and ratchet, and means for rendering the device inactive during the comb and active when the comber is thrown out of action, substantially as described.

5. A sheet feeding machine, having, in combination, a comber, mechanism for feeding a bank of feathered sheets to the comber comprising a pawl and ratchet, means for actuating the pawl and ratchet to effect the feed during the comb, means for rendering the pawl and ratchet inactive during a predetermined part of the comb, and means for arresting the feed when the comber is thrown out of operation, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

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1,041,748. AUTOMATIC VALVE. GUSTAF DALÉN, Stockholm, Sweden, assignor to American Gasaccumulator Company, Philadelphia, Pa., a Corporation of New Jersey. Filed May 3, 1910. Serial No. 559,215. (Cl. 67—111.)



1. In combination, a working or operable member, a member which expands under the influence of light and contracts in the absence or partial absence of light, the said expanding and contracting member being in operative relation to said working or operable member whereby the expansion and contraction thereof causes the actuation of said working or operable member, and means for causing a variation of the co-efficient of expansion of said expanding and contracting member.

2. In combination, a working or operable member, a member which expands under the influence of light and contracts in the absence or partial absence of light, the said expanding and contracting member being in operative relation to said working or operable member whereby the expansion and contraction thereof causes the actuation of said working or operable member, and means for imposing a variable load or pressure upon the said expanding and contracting member whereby the co-efficient of expansion of the said member is varied.

3. In combination, a working or operable member, a member which expands under the influence of light and contracts in the absence or partial absence of light, the said expanding and contracting member being in operative relation to said working or operable member whereby the expansion and contraction thereof causes the actuation of said working or operable member, a spring for exerting a load or pressure upon the said expanding and contracting member, and means for varying the tension of the said spring whereby the co-efficient of expansion of the said expanding and contracting member is varied.

4. In combination, a working or operable member, a hollow metallic cylinder in operative relation to the working or operable member whereby the expansion and contraction of the cylinder under the influence of light and darkness causes the actuation of the said working or operable member, devices at the opposite ends of the said cylinder, a coiled spring situated in the said cylinder and having its opposite ends secured to the said devices, and means for varying the tension of the said spring whereby the co-efficient of expansion of the said hollow cylinder is varied.

5. In combination, a working or operable member, a plurality of bodies adapted to be unequally expanded under the influence of light, means interposed between said bodies and the working or operable member whereby the actuation of the said working or operable member is caused by the unequal expansion of the said bodies, and means for controlling the co-efficient of expansion of the said bodies whereby such co-efficient in each of the said bodies may be made the same.

[Claims 6 to 12 not printed in the Gazette.]



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1,041,749. LOCK. FRANK DANNER, St. Louis, Mo. Filed Mar. 2, 1912. Serial No. 681,247. (Cl. 70—27.)



1. A lock of the class described comprising a casing, a slotted barrel located therein, a bolt provided with conical portions operating in said barrel, a plurality of pivotally mounted tumblers operating in the slots of the barrel and contacting with the conical portions of the bolt, levers pivotally mounted in the casing and designed to be brought in contact with the tumblers for tilting the same, a key for operating the levers and tumblers in unison for releasing the tumblers from the bolt and a spring for throwing the bolt outwardly when the tumblers have been released, substantially as specified.

2. A lock comprising a casing, a locking bolt located therein, said bolt formed into a plurality of conical portions forming rectangular shoulders, a spring controlling the movement of said bolt, a plurality of tumblers arranged to contact with the shoulders of the bolt for holding the bolt in locked position, levers pivotally mounted in the casing beneath the tumblers, for tilting the same when a key is inserted into the casing and contacting with the levers, substantially as specified.

3. A lock of the class described comprising a casing, a barrel having a plurality of slots formed therein, a locking bolt located in said barrel, said bolt provided with a plurality of shoulders, a plurality of bifurcated tumblers pivotally mounted, the jaws of the bifurcated ends of the tumblers operating in the slots of the barrel and designed to contact with the shoulders of the bolt for holding the same in locked position, the opposite end of the tumblers being weighted, means for keeping the tumblers in a locked position by the lower jaws contacting with the shoulders of the bolt, levers located beneath the tumblers, a slotted guide supporting the free ends of the levers, the weighted ends of the tumblers being of various sizes to correspond with the surface of a key to be inserted in a slotted indication and to enter into the guide and contact with the levers for tilting the tumblers, thereby releasing the bolt, substantially as specified.

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1,041,750. EAVES-TROUGH HANGER. EDGAR K. DAY, Wheeling, W. Va. Filed Jan. 31, 1912. Serial No. 674,525. (Cl. 108—29.)



1. An eaves trough hanger comprising a wire bent to constitute a trough-underlying element, a horizontal trough-overlying member, and a return member, said members being parallel and lying in the same horizontal plane, a loop being formed at the outer end of said members; a second wire bent to form a pair of parallel members having adjustable relation to the first named members and which project outward beyond and are guided by said loop, a downturned hook formed at the outer end of the last named members and adapted for receiving the free end of the trough-underlying element; and a two-legged suspension element adapted for attachment to a roof, one leg thereof being an integral extension of one of the adjustable members, and the other leg being attached to said loop.

2. An adjustable eaves trough hanger comprising a stationary element, a movable element and a suspension device; said stationary element comprising a wire doubled upon itself to form parallel members terminated at their outer ends by a loop, one of said members having its opposite end in fixed embracing engagement with the other, and the other member being extended to conformably embrace the head and the under face of a trough for supporting the latter; said movable element comprising a wire doubled upon itself to form parallel members which are slidably mounted upon the parallel members of the stationary element and which are guarded by said loop, a downwardly directed trough-engaging hook formed at the outer end of the second named parallel members; and said suspension device comprising a two legged member adapted for attachment to a roof and having its legs connected in supporting relation to said elements whereby adjustment of the latter to increase and decrease their reach causes said legs to approach and spread apart, respectively, for preserving the central supporting disposition of the last named member.

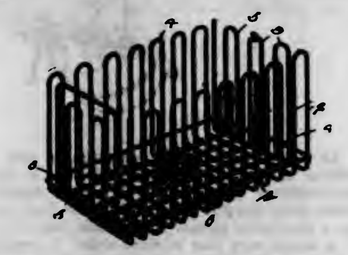
3. An adjustable eaves trough hanger comprising a stationary trough engaging element, a movable trough-engaging element, said elements being associated in adjustable relation for embracing troughs of varying sizes, and a two legged suspension device having one leg integral with the movable element and the other fixed to the stationary element, whereby adjustment of said elements automatically changes the position of the first mentioned leg with respect to the other for maintaining the central disposition of said suspension device with respect to the adjusted elements, said first mentioned leg being caused to approach the other as the reach of said elements is increased, and vice versa.

4. An eaves trough hanger formed of two wires, the first being bent to constitute a trough-underlying element, and a stationary trough-overlying element extending horizontally outward from the inner end of said underlying element; the second wire being bent to form an element which is horizontally movable with respect to said stationary element, a trough-engaging hook at the outer end of said movable element, and a two-legged suspension element one leg of which is extended abruptly upward from the inner end of said movable element and the other leg of which is attached to the outer end of the stationary element, said legs being adapted to approach

and move away from each other, respectively, as the stationary and movable elements are adjusted to increase and decrease their reach.

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1,041,751. CRATE. JOHN S. DE LONG, Osborn, Ohio. Filed May 22, 1912. Serial No. 699,034. (Cl. 220—111.)



1. A crate of the class described comprising a bottom, side and end walls therefor, the side walls being composed of spaced vertical members, and a top for the device having projecting loops on the side edges thereof, said loops being adapted for adjustable engagement with the spaced members of the side walls.

2. A crate of the class described comprising a bottom, side and end walls therefor, said side walls being composed of spaced vertical members, and a top formed of longitudinally and transversely extending loops, the transverse loops being adjustably engaged with said vertical members to permit vertical movement of said top thereon.

3. A crate of the class described comprising a bottom, side and end walls therefor, the side walls being composed of spaced vertical members, and a top composed of wires looped to form longitudinally and transversely extending wires, the loops of the transversely extending wires being projected beyond the side edges thereof to intersleak with the spaced members of the side walls, whereby said top will be securely retained within the device and capable of a vertical movement therein.

4. A crate of the class described comprising a bottom, side and end walls therafer, the side walls being provided with spaced vertical members, and a top composed of transverse and longitudinally extending wires, said longitudinal and transversely extending wires being formed respectively from single strands of wires looped a number of times, the loops of wire forming the transversely extending wires being adapted to coöperate with the spaced members of the side walls to adjustably retain said top therebetween.

5. A crate of the class described comprising a bottom, side and end walls therafer, said side and end walls being respectively formed of single strands of wire looped a number of times and said bottom being formed of the transversely extending sections of the two strands of wire forming said side and end walls, bracing wires encircling said side and end walls, and a top composed of wires looped a number of times, the loops of said top being adapted to coöperate with the loops of the side and end walls to adjustably retain said top therebetween.

[Claim 6 not printed in the Gazette.]

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1,041,752. ARC-LIGHT ELECTRODE AND METHOD OF MAKING THE SAME. JOHN T. H. DEMPSTER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 26, 1906. Serial No. 148,641. (Cl. 176—130.)

1. The method of facilitating the shaping of electrodes composed principally of magnetic oxid of iron, which consists in adding a comparatively small portion of red oxid of iron to the magnetic oxid of iron prior to the shaping.

2. The method of facilitating the shaping of electrodes composed principally of the magnetic oxid of iron, which consists in adding red oxid of iron and a suitable binding material to the magnetic oxid of iron prior to the shaping of the electrode.

3. The method of treating electrodes consisting mainly of iron and oxygen chemically combined, which consists in placing them in a granular mass of non-reducing material and then baking them.

4. The method which consists in forming a mixture composed principally of iron and oxygen chemically combined, molded into pencils, forcing the pencils into iron shells, and then treating the arcing end of the inclosed pencil to increase its conductivity.

5. The method of producing a pencil composed principally of magnetite, which consists in mixing together magnetite with a red oxid of iron, treating the mixture to make it plastic, molding the plastic material into pencils, and then converting the red oxid of iron into magnetite.

[Claims 6 to 10 not printed in the Gazette.]

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1,041,753. WINDOW-GUARD. WILLIAM C. DE WITT, Chicago, Ill. Filed Apr. 5, 1912. Serial No. 688,648. (Cl. 98—81.)



1. A window guard consisting of a flexible fabric strip having triangular end members, rods mounted one on either end of said strip along one side of said triangular end members, a flap projecting downwardly from said strip on the side opposed to said rods, means for attaching said flap to a window sill, means for attaching the inner ends of said rods removably to the casement and means for drawing said rods upwardly and outwardly against the tension of said fabric to hold them in a substantially horizontal position.

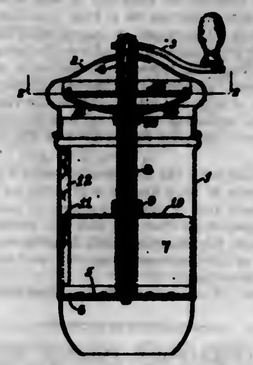
2. A window guard consisting of a flexible fabric strip having triangular end members, rods mounted one on either end of said strip along one side of said triangular end members, a flap projecting downwardly from said strip on the side opposed to said rods, means for attaching said flap to a window sill, means for attaching the inner ends of said rods removably to the casement and means for drawing said rods upwardly and outwardly against the tension of said fabric to hold them in a substantially horizontal position and means for varying the length of said strip.

3. A window guard comprising an inclined fabric portion projecting inwardly and upwardly from the window aperture, a flap mounted on the lower end of said portion, means for removably attaching said flap to the window sill, triangular end members projecting upwardly and outwardly from said body portion, rods carried in one side of said triangular members, means for attaching the inner ends of said rods to the window casement and means for drawing the outer ends of said rods upwardly and outwardly against the tension of the fabric to hold the guard in position.

4. A window guard comprising an inclined fabric portion projecting inwardly and upwardly from the window aperture, a flap mounted on the lower end of said portion, means for removably attaching said flap to the window sill, triangular end members projecting upwardly and outwardly from said body portion, rods carried on one side of said triangular members, means for attaching the inner ends of said rods to the window casement and means for drawing the outer ends of said rods upwardly and outwardly against the tension of the fabric to hold the guard in position and means for varying in unison the length of said body piece and said flap to provide for windows of varying widths.



1,041,754. AUTOMATIC FEEDING DEVICE FOR SOAP-MACHINES. LEWIS J. DOOLITTLE, New York, N. Y. Filed July 20, 1906. Serial No. 327,092. (Cl. 146—11.)



1. In a soap dispensing machine, in combination, a soap receptacle, a comminuting device, operating means for said comminuting device, a feeding device adapted to feed soap to said comminuting device, and frictionally operated means interposed between said operating means and said feeding device and adapted to operate said feeding means, the operation thereof being controlled by the pressure between the soap and comminuting device whereby the amount of feed is automatically varied in proportion to the amount of soap cut away by said comminuting device.

2. In a soap dispensing machine, in combination, a soap receptacle, a comminuting device, means for operating said comminuting device, said means being also adapted to operate a feeding device by frictional engagement, and a feeding device adapted to feed soap to said comminuting device, said device being provided with a flexible member adapted to frictionally engage said operating means to operate said feeding device.

3. In a soap dispensing machine, in combination, a soap receptacle, a comminuting device, means for operating said comminuting device, said means being also adapted to operate a feeding device by frictional engagement, and a feeding device adapted to feed soap to said comminuting device, said device being provided with a plurality of flexible members adapted to frictionally engage said operating means to operate said feeding device.

4. In a soap dispensing machine, in combination, a soap receptacle, a comminuting device, a shaft for operating said comminuting device, a disk operated by said shaft, feeding means adapted to be operated by a frictional device to feed soap to said comminuting device, and a friction device operated by said disk and adapted to operate said feeding means.

5. In a soap dispensing machine, in combination, a soap receptacle, a comminuting device, a shaft for operating said comminuting device, a disk operated by said shaft, feeding means adapted to feed soap to said comminuting device, said means being provided with a plurality of members adapted frictionally to operatively engage said disk to operate said feeding means.

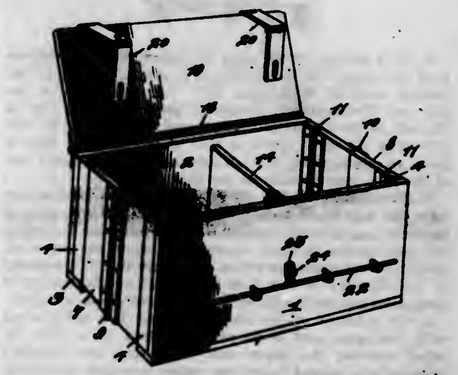
[Claims 6 to 8 not printed in the Gazette.]

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1,041,755. KNOCKDOWN CRATE. ROY DOUGLASS, Pierceville, Kans. Filed Apr. 20, 1912. Serial No. 692,011. (Cl. 217—14.)

1. A folding crate, comprising a front wall, a rear wall, a top and bottom hinged respectively to the upper and lower edges of said rear wall, sectional end walls adapted to fold inwardly and means passing under the bottom of the crate and secured to the end walls, said means preventing an undue outward motion of said end walls, and also supporting the bottom of the crate.

2. The combination with a crate of the class described, comprising front and rear walls, a top and bottom hinged respectively to the upper and lower edges of said rear walls, and sectional end walls adapted to swing inwardly, of means for preventing an undue outward motion of said end walls, said means also supporting the bottom of the crate and comprising a plurality of longitudinal rods formed in section, the outer ends of said sections being secured to the lower edges of the sectional end walls and the corresponding inner ends being slidably secured to each other, said rods passing under the bottom of the crate and supporting the same.



3. The combination with a crate of the class described, comprising front and rear walls, a top and bottom hinged respectively to the upper and lower edges of said walls, and sectional end walls adapted to swing inwardly, of means for locking said crate when in its upright or its collapsed position, said means comprising a longitudinally slidable rod, U-shaped fasteners adapted to secure said rod upon the outer face of said front wall, sectional hasps secured to the top of the crate adjacent its free front edge, said hasps being formed with slots in their free ends adapted for engagement over said U-shaped fasteners, said longitudinally slidable rod being movable out of engagement with the U-shaped fasteners which are adapted to secure said hasps, and means for locking said rod in its effective position.

4. The combination with a crate of the class described, comprising front and rear walls, a top and bottom hinged respectively to the upper and lower edges of said rear wall, and sectional end walls adapted to swing inwardly, of means for locking said crate both in its upright and in its collapsed condition, said means comprising a longitudinal rod, U-shaped fasteners carried by the outer face of said front wall and adapted to slidably support said rod thereon, the rod being bent intermediate of its ends to provide a loop adapted to engage with the innermost fasteners to limit the longitudinal movement of the rod, a plurality of sectional hasps secured to the top of the crate adjacent its forward edge, the hasps being formed with longitudinal slots in their outer ends for engagement over the outermost of the aforementioned U-shaped fasteners, said rod being longitudinally movable to disengage the same from the outermost fasteners and means for engagement with the loop of said rod for the purpose of retaining it in its effective position.

5. A folding crate comprising a front wall, a rear wall, a top and bottom hinged respectively to the upper and lower edges of said rear wall, sectional end walls adapted to swing inwardly and means for limiting the outward motion of said end walls, said means also supporting the bottom of the crate and comprising a plurality of rods formed in sections, the outer ends of said sections being secured to the lower edges of the sectional end walls and the corresponding inner ends being looped into engagement with each other.

1,041,756. CONVEYER. THOMAS A. EDISON, Llewellyn Park, Orange, N. J. Filed Nov. 22, 1907. Serial No. 403,300. (Cl. 198—25.)



1. In a device of the class described, the combination with the upper and lower runs of a belt, of means for receiving material discharged from the upper run of the belt and discharging it forwardly upon the lower run of the belt in the direction of the travel of the latter at substantially the same speed as that of the belt and from a point at substantially the same elevation as the lower run of the belt, substantially as set forth.

2. In a device of the class described, the combination with the upper and lower runs of a belt, of a stationary shelf for receiving the material discharged from the upper run and means located beneath the shelf for receiving material discharged therefrom and projecting it forwardly in the direction of and from a point at substantially the same elevation as the lower run, substantially as set forth.

3. In a device of the class described, the combination with the upper and lower runs of a belt, of a roller located between the upper and lower runs for receiving material discharged from the upper run and projecting it forwardly in the direction of the lower run, a pivoted trough-shaped guard for said roller, and a spring for holding said guard close to the roller, substantially as set forth.

4. In a device of the class described, the combination of a conveyer, a rotating paddle wheel above the conveyer, a pivoted guard normally maintained in proximity to the paddle wheel, but movable away from the same, and a spring for opposing such movement, substantially as set forth.

5. In a device of the class described, the combination with the upper and lower runs of a belt, of rotary means for receiving material discharged from the upper run of the belt, and acting on the material to discharge it forwardly upon the lower run of the belt in the direction of the travel of the latter and from a point at substantially the same elevation as the lower run of the belt, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,757. ROLLING-MILL. VICTOR E. EDWARDS, Worcester, Mass., assignor to Morgan Construction Company, Worcester, Mass., a Corporation of Massachusetts. Filed Jan. 9, 1909. Serial No. 471,887. (Cl. 80—55.)



1. In a rolling mill, the combination with a pair of rolls, an independent housing for each roll of said pair, means for maintaining said housings in a fixed relation to each other, and means for the joint adjustment of said housings.

2. In a rolling mill, the combination with a pair of rolls, of an independent housing for each roll of said pair, means for adjusting one of said housings relatively to the other, and means for the joint adjustment of said housings.

3. In a rolling mill, the combination with a pair of rolls, of a separate housing for each roll of said pair, means for maintaining said housings in a fixed position, means for the independent adjustment of one of said housings, and means for the joint adjustment of said housings.

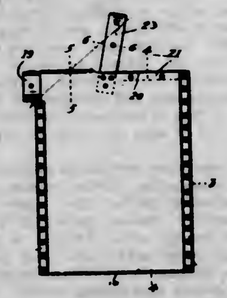
4. In a rolling mill, the combination of a track, a pair of roll housings adjustable along said track, means for adjusting one of said housings relatively to the other, comprising a yoke attached to one of said housings, and an adjustable screw between said yoke and the other of said housings.

5. In a rolling mill, the combination with a pair of rolls, journal bearings at each end of said rolls, an independent housing for each roll having an opening of larger diameter than the diameter of the roll and its journal bearings, clamping means for clamping each housing upon the journal bearings of the corresponding roll, and means for adjusting said housings.

[Claims 6 to 15 not printed in the Gazette.]

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1,041,758. COLLAPSIBLE FOLDING BUCKET. EDWARD ELLIS, Minneapolis, Minn. Filed Feb. 19, 1912 Serial No. 678,501. (Cl. 150—1.)



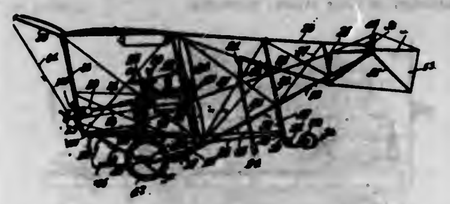
1. A collapsible folding bucket formed of a single piece of fabric, one set of side walls being folded throughout its length and secured together in a triple seam, the other set of side edges being transversely cut across a short distance from the top of the bucket and secured together in a triple seam below said cut, the portion of the side edges above said cut having a strip of fabric wrapped around the same and secured to the side members independently to form a spout turned at an angle to the sides of the bucket.

2. A collapsible folding bucket formed of a single piece of fabric, one set of side walls being folded throughout its length and secured together in a triple seam, the other set of side edges being transversely cut across a short distance from the top of the bucket and secured together in a triple seam below said cut, the portion of the side edges above said cut having a strip of fabric wrapped around the same and secured to the side members independently to form a spout turned at an angle to the sides of the bucket, the top edges being partly closed above and adjacent said spout, and a bail secured to the sides within the open portion of the top.

3. A collapsible folding bucket formed of a single piece of fabric, one set of side walls being folded throughout its length and secured together in a triple seam, the other set of side edges being transversely cut across a short distance from the top of the bucket and secured together in a triple seam below said cut, one of the side walls above said cut being formed with a strip of material extending in parallel relation with said last named triple seam, which strip of material is wrapped around the portions of the side wall extending above said cut and independently secured to said portions to form a spout turned at an angle to the sides of the bucket.



1,041,759. AEROPLANE. EDWARD J. ELSAS, Kansas City, Mo. Filed July 28, 1911. Serial No. 641,100. (Cl. 244—20.)



1. An aeroplane including a sustaining plane, an emergency plane normally rolled and supported in front of the sustaining plane, and means operated by the involuntary forward pitching of the aviator for shifting the emergency plane forwardly and upwardly relative to the sustaining plane.

2. An aeroplane including a sustaining plane, a normally rolled emergency plane, ailerons movably connected to the sides of the sustaining plane, means under the control of the aviator for shifting the ailerons relative to the sustaining plane, and means operated by said first mentioned means when shifted in one direction by the involuntary forward pitching of the aviator for moving the emergency plane forwardly and upwardly from the sustaining plane.

3. An aeroplane including a sustaining plane, an emergency plane normally retracted in front of the sustaining plane, means connected to the sides of the sustaining plane for restoring the lateral balance of the machine, means under the control of the aviator for actuating said balancing means, said means being movable forwardly by the involuntary forward pitching of the aviator, and means operated by the forward movement of said first mentioned means for shifting the emergency plane forwardly and upwardly relative to the sustaining plane.

4. An aeroplane including a sustaining plane, a rearwardly extending frame detachably connected thereto, combined vertical and horizontal rudders carried by said frame, wheels supporting the frame and the sustaining plane, means under the control of the aviator for shifting the rudders, means for shifting the frame supporting wheels about upwardly extending axes to steer the machine upon the ground, and means for coupling said wheel shifting means to rudder shifting means.

5. An aeroplane including upper and lower sustaining planes, standards pivotally connected to the upper plane, slotted members upon the lower plane, means upon the lower ends of the standards and mounted to swing into the slots, crossed braces connected to the lower portions of the standards to hold said means within the slots, and cooperating means upon the standards and planes for holding said standards against swinging movement relative to the planes.

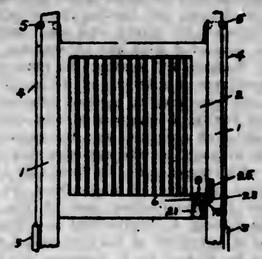
[Claims 6 to 9 not printed in the Gazette.]

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1,041,760. TRIPPING MECHANISM FOR ELEVATOR-WELL GATES. WILLIAM H. ESTES, Pawtucket, R. I., assignor of one-half to Hiehn H. Howard, Providence, R. I. Filed Feb. 8, 1912. Serial No. 675,906. (Cl. 187—58.)

1. In a device of the character described, an actuator carried by the elevator car, an engaging member carried by the well gate, means whereby said member is held normally in the path of travel of said actuator to be engaged thereby when the car rises, and means whereby the engaging portion of said member may be moved laterally across and from the path of travel of the actuator to disengage the latter and release the gate when the latter has been raised a predetermined distance.

2. In a device of the character described, an actuator carried by the elevator car, an engaging member carried by the well gate, means whereby said member is held normally in the path of travel of said actuator to be engaged thereby as the car rises, means whereby the engaging portion of said member may be moved across and from the path of travel of said actuator to disengage the same when the gate has been raised a predetermined distance, and means whereby said member may also be moved laterally from the path of said actuator as the car descends.



3. In a device of the character described, an actuator carried by the elevator car, an engaging member pivotally held to swing laterally on the well gate, means whereby said member is normally held in the path of said actuator to be engaged thereby as the car rises, and means whereby the engaging portion of said member is swung laterally on its pivot to disengage said actuator when the gate has been raised a predetermined distance.

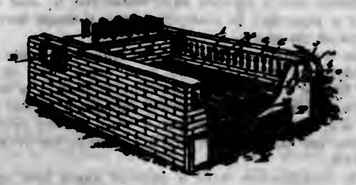
4. In a device of the character described, an actuating arm carried by the elevator car, a latch pivotally held on the well gate, a counter weight for holding said latch normally in engaging position in the path of travel of said arm to be engaged thereby when the car rises, and a stop on the side wall for causing said latch to disengage said arm when the gate has been raised a predetermined distance.

5. In a device of the character described, an actuating arm carried by the elevator car, a latch pivotally held on the well gate, means for holding said latch normally in engaging position in the path of travel of said arm to be engaged thereby when the car rises, a tripper finger on said latch, and a stop on the wall for engaging said finger to move the latch out of engagement with said arm to release the gate and permit the car to pass on without it when the gate has been raised a predetermined distance.

[Claims 6 to 10 not printed in the Gazette.]

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1,041,761. MEANS FOR FEEDING AIR TO FURNACES. WILLIAM W. EVANS, Salt Lake City, Utah. Filed Nov. 2, 1911. Serial No. 658,220. (Cl. 110—75.)



1. In means for feeding air to furnaces, the combination with the fire-box of a furnace, of an air chamber arranged in a wall of the fire-box and having apertures in its inner side, at intervals of its length, and an end adapted to be put into communication with the atmosphere and also having longitudinal ribs spaced from said inner side, a slide arranged in the chamber and against the inner side thereof and having apertures at intervals of its length, the series of said apertures extending to a point adjacent one of its ends, and also having a longitudinal slot disposed between the series of apertures and its opposite end, and a slide arranged at the opposite side of the first-named slide, with reference to the inner side of the chamber, and having apertures at intervals of its length dis-

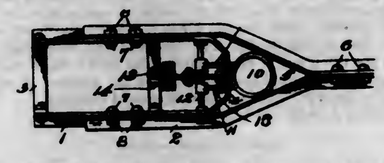
posed opposite the longitudinal slot of the first-named slide and also having a lateral projection disposed and movable in said slot and further having a longitudinal slot disposed opposite the series of apertures of the first-named slide.

2. In means for feeding air to furnaces, the combination with the fire-box of a furnace, of an air chamber arranged in a wall of the fire-box and having apertures in its inner side at intervals of its length and also having an end adapted to be connected with the atmosphere, a slide arranged in the chamber and against the inner side thereof and having apertures at intervals of its length, the series of said apertures extending to a point adjacent one of its ends, and also having a longitudinal slot disposed intermediate the series of apertures and its opposite end, and a second slide arranged at the opposite side of the first-named slide, with reference to the inner side of the chamber, and having apertures at intervals of its length disposed opposite the longitudinal slot of the first-named slide and also having a longitudinal slot disposed opposite the series of apertures of the first-named slide.

3. In means for feeding air to furnaces, the combination with the fire-box of a furnace, of an air chamber arranged in a wall of the fire-box and having apertures in its inner side, at intervals of its length, and also having an end adapted to be connected with the atmosphere, and slides adjustable independently of each other; the said slides being arranged side by side and close together and also close to the inner side of the chamber and having apertures so relatively arranged that adjustment of one slide relative to the other will jet air into the portion of the fire-box adjacent the open end of the chamber, only, and adjustment of the other slide relative to the first mentioned slide will jet air into the portion of the fire-box remote from said end, only.

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1,041,762. PIPE-CLAMP. ARTHUR D. EVERETT, Garden City, Tex. Filed Aug. 5, 1912. Serial No. 713,349. (Cl. 166—7.)



1. The combination with a pair of frames, one of which is formed with an open end and fashioned to provide a V-shape inclosure, of a foot lever pivoted in the other frame, and a pivoted pawl connected to said lever, whereby a pipe may be clamped in the V-shape inclosure by means of the pawl.

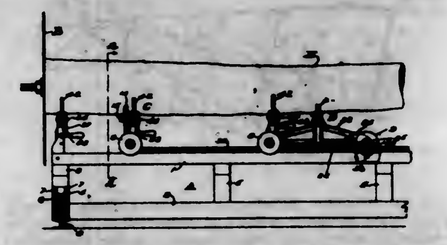
2. The combination with a pair of frames of angle irons and slidable with relation to each other, one of said frames having an open end and bent to form a V-shaped inclosure, a pair of pivoted pawls supported in the other frame adapted to bear against a pipe in the inclosure and clamp the same therein, and a foot lever for actuating said pawls.

3. The combination with a pair of angle iron frames adjustable with relation to each other and provided with securing bolts, one of said frames having an open end and bent to form a V-shaped inclosure, a pair of clamping pawls pivoted in the other frame, and a foot lever connected to said pawls, for the purpose described.

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1,041,763. LOG-HANDLING DEVICE. WILLIAM C. FARNUM, Fitchburg, Mass., assignor of one-half to Henry H. Cowdrey and Charles F. Cowdrey, Fitchburg, Mass. Filed Jan 25, 1912. Serial No. 673,426. (Cl. 143—52.)

1. In a device of the character described, the combination of a log carriage mounted for movement transversely and provided with longitudinal tracks, a front truck and a rear truck mounted for longitudinal movement on said carriage, and each provided with a pivotally mounted jack having log engaging and supporting portions, and means for locking the jacks in log supporting positions when adjusted on their pivotal mounting.



2. In a device of the character described, the combination of a log carriage mounted for transverse movement, a saw for operating transversely of a log supported on said carriage, a front truck and a rear truck each having a skid to receive and support a log, a jack mounted on each of said trucks and having log engaging and supporting portions, means for raising said jacks into log supporting positions, means for locking the jacks in said positions, and means permitting the skids to be moved from contact with the log that the latter may be wholly supported by said jacks as it is presented to the saw for cutting into sections transversely.

3. In a device of the character described, a saw, a log carriage movable transversely of the saw, a front truck movable longitudinally of the carriage and provided with a jack having flaring side members to engage and support a log, a rear truck also longitudinally movable on the carriage, and a jack frame mounted on the carriage at the end adjacent to the saw and having a jack, said jacks being mounted on the front truck and jack frame respectively to permit the latter to be moved into supporting relation to the log and the jack on the truck to be moved from such supporting relation that the front truck may be moved longitudinally of the log frame to place its jack in a new supporting position while maintaining the log in its original undisturbed axial alinement with respect to the saw.

4. In a device of the character described, the combination of a saw, a log carriage movable transversely of the saw, a front truck and a rear truck movable longitudinally of said carriage and adapted to support and present different longitudinal portions of a log to the action of the saw, said front truck being provided with a log supporting jack movable to and from supporting position, and means on the log carriage movable into position to support the end portion of the log in its original axial relation with the saw when the jack on the front truck is moved out of supporting position to permit the said truck to move into new supporting relation longitudinally of the log.

5. A device of the character described, the combination of a saw, a log carriage movable transversely of the saw, a front truck and a rear truck for supporting a log as it is cut transversely into sections, said front truck being provided with a jack having flaring side portions for engaging and supporting a log, said jack being pivotally mounted for movement into and out of log supporting position, and means permitting said jack to be moved transversely of the truck.

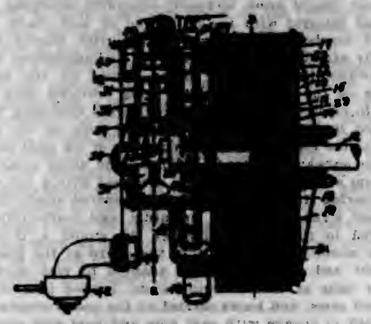
[Claims 6 to 10 not printed in the Gazette.]

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1,041,764. ENGINE. EMANUEL FISHER, Jr., Providence, R. I., assignor of one-half to Frederick S. Peck, Providence R. I. Filed Sept. 24, 1910. Serial No. 583,587. (Cl. 122—9.)

1. An engine of the character described, comprising a casing having a chamber for motive fluid under pressure and having a ring member, a wheel having a recess for said ring member the walls of said recess being corrugated, the ring member having jet orifices for directing the fluid inwardly and outwardly against the walls of the wheel recess, and ports connecting said chamber with said jet orifices.





2. An engine comprising a plurality of concentric alternate rotatable and fixed ring-shaped members each being provided with corrugated fluid contacting surfaces forming a plurality of impact receiving walls, and means whereby the fluid is caused to act upon each set of corrugations successively before finally exhausting.

3. An engine comprising a plurality of concentric alternate rotatable and fixed ring-shaped members each being provided with corrugated fluid conducting surfaces forming a plurality of impact receiving walls, means whereby the fluid is caused to act upon each set of corrugations successively before finally exhausting, and means for automatically controlling the flow of fluid to said fluid-contacting surfaces.

4. An engine of the character described comprising a casing and a wheel having concentric ring-shaped members which alternate with each other the casing being provided with ports leading from one ring to the next whereby the fluid is conducted to act successively upon the different members, and means for automatically controlling the supply of motive fluid to said fluid contacting surfaces.

5. A rotary engine comprising a casing, a shaft mounted therein, a wheel in the casing and connected to said shaft to rotate it, the wheel and casing having coacting members to drive the wheel by the impact of a motive fluid, a crank shaft mounted in alinement with said wheel shaft, reducing gearing for driving the crank shaft from said wheel shaft, a cylinder and a piston for compressing an explosive mixture, a pitman connecting the piston with the crank shaft, and means for igniting the explosive mixture.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,765. COLOR-CHART. OSCAR A. FOSS, Chicago, Ill. Filed Oct. 28, 1911. Serial No. 657,344. (Cl. 88—14.)



1. A color chart comprising a plurality of varying sized concentric rotatable disks bearing a plurality of color sectors on the exposed portions thereof; and a rotatable mask having a plurality of segmental openings therein, said openings being located in different sectors and at different distances from the center of rotation, substantially as described.

2. A color chart comprising a plurality of varying sized concentric rotatable disks bearing a plurality of color sectors on the exposed portions thereof; a rotatable mask having a plurality of segmental openings therein; said openings being located in different sectors and at different distances from the center of rotation, and a rotatable disk under said mask and provided with an opening therein adapted to expose a sector on each of said disks, substantially as described.

3. A color chart comprising a circular base, an axial pin projecting from said base, a series of independently rotatable disks secured together and mounted for rotation upon said pin, said disks being of varying size and bearing a plurality of sectors of different colors on the peripheries thereof, and a perforated mask adapted to be superimposed on said disks and adapted for free rotation upon said pin, said mask being provided with a plurality of openings therein, said openings being located in different sectors and at different distances from the center of rotation, substantially as described.

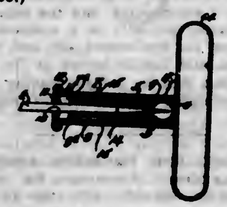
4. A color chart comprising a circular base having an axial pin projecting therefrom, a pair of circular steps arranged co-axially with said pin and suitably arranged on the periphery of said base, a series of varying sized disks secured together and adapted to rotate upon said pin, the periphery of the larger of said disks being adapted to seat on one of said steps, and a circular perforated mask mounted for free rotation upon said pin and adapted to seat on the other of said steps, substantially as described.

5. A color chart comprising a circular base having a peripheral wall, a central pin projecting upwardly from said base, there being a pair of circular steps provided on the interior of said peripheral wall, a series of disks of varying size secured together and mounted for free rotation upon said pin, the periphery of the larger of said disks being adapted to seat on one of said steps, said disks being mounted for independent rotation, and a rotatable perforated mask mounted upon said pin and adapted to seat on the other of said steps, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

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1,041,766. HAT-PIN GUARD AND RETAINER. CONSTANTIN H. FRANK and CHRISTOPHER HERMAN, New York, N. Y. Filed May 31, 1911. Serial No. 630,866. (Cl. 24—155.)



1. In a pin guard and retainer, the combination of a head or button, having a hollow shank, a springy gripping member secured in said shank, and an apertured member slidably attached to said shank and held in its inner position by friction between it and said shank, said apertured member serving to guide a pin to said gripping member, and said apertured member having operating means to engage and act directly on said springy gripping member to cause it to grip a pin.

2. In a pin guard and retainer, the combination of a head or button, having a hollow shank, a gripping member secured in said shank, and an apertured member slidably attached to and extending longitudinally beyond said shank and gripping member and provided with means for acting directly on said gripping member to close it upon a hat pin, said gripping member acting to hold said apertured member in both its inner and outer positions, and said apertured member and shank having frictional contact to assist said gripping member in holding said apertured member in said two positions.

3. In a pin guard and retainer, the combination of a head or button, having a hollow shank, a gripping mem-

ber secured in said shank, and an apertured member telescoping with said shank, and provided with means for acting on said gripping member to close it upon a hat pin, said means constituting a stop to limit the inward movement of said telescoping member.

4. In a pin guard and retainer, the combination of a head or button having a tubular shank, a gripping member composed of a transversely bent up length of spring metal providing jaws, the bent portion of said member having transverse screw threads and said shank being threaded for engagement by said threads, and a tubular member telescoping with said shank and provided with means for acting on said gripping jaws to close them upon a hat pin.

5. In a pin guard and retainer, the combination of a head or button having a tubular shank, a gripping member provided with jaws, and secured in said shank, and a tubular member telescoping with said shank having an inner bevel or incline, said tubular member having a pin-guiding aperture in front of said bevel or incline, and said jaws being located behind said aperture and diverging in juxtaposition to said bevel or incline, whereby the outward longitudinal movement of said tubular member is adapted to close said jaws upon a hat pin, the outer side of said bevel or incline abutting against said shank to limit the movement of the tubular member when the latter is pushed in.

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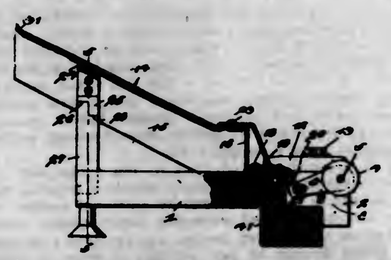
1,041,767. ORANGE-KNIFE. EDWARD FRANK, San Francisco, Cal. Filed Nov. 2, 1911. Serial No. 658,136. (Cl. 30—9.)



A device of the character described comprising a thin wide substantially straight handle having at one end, in alinement therewith, an integral extension formed at one side with a substantially straight edge, the terminal portion of said extension being comparatively narrow and terminating in a sharp point, and the remainder of said extension extending laterally in a rounded form at the side remote from the first-named side and being concavo-convex in form, said handle having at the other end an integral extension forming a blade having comparatively blunt edges converging to a blunt point remote from said handle.

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1,041,768. TOOL FOR DRESSING EMERY-WHEELS. JOHN Z. FRANKOFSKY, Johnstown, Pa. Filed Apr. 12, 1912. Serial No. 690,451. (Cl. 125—19.)



1. In combination with a shank, having a head formed integral therewith, said head being bifurcated to form two spaced arms, of a guard member having one end pivotally secured between said spaced arms, and adapted to extend rearwardly and be disposed over said shank, means carried by the rear end of said shank for supporting said guard, and means carried by the guard and adapted to engage with the supporting means carried by the shank to hold said guard in position.

2. In combination with a shank having a head formed integral with one end thereof, said head being bifurcated to form spaced arms, upwardly extending diverging arms formed integral with the other end of said shank, of a guard member comprising a body portion having downwardly extending flanges formed on its longitudinal edges, a downwardly extending flange formed on one end, a flange on the end of the body being provided with a recess to receive said shank, an outwardly extending flange formed integral with the end of the body at the upper side of the recess, a strap having one of its ends secured to the outwardly extending flange, said strap being bent to form a sleeve, a pivoted pin arranged within the sleeve and having its ends mounted in the spaced arms, the end of said strap being bent upwardly and rearwardly and secured to the body portion of the guard, a U-shaped brace member disposed within the guard at the rear end thereof and having its ends adapted to rest upon the upper ends of the diverging arms, headed pins carried by said arms, and hooks carried by the guard member and adapted to engage with said pins and hold said guard in position.

3. In a device of the character described, the combination with a shank, having a bifurcated head formed on one end thereof, of a guard member having one of its ends pivotally secured to said head, said guard being inclined and extending rearwardly, and means carried by the shank and adapted to be detachably secured to the rear of the guard member to support the same.

4. In combination with a shank having a head formed integral with one end thereof, of a guard member having one end pivotally secured to said head, and adapted to extend rearwardly and be disposed over said shank, and means for supporting the rear end of said guard member.

5. In a device of the character described, the combination with a shank, having a bifurcated head formed at one end thereof, upwardly extending diverging arms formed on the other end of said shank, of a guard member having one of its ends pivotally secured to said head, said guard member being inclined and extending rearwardly, a U-shaped brace member disposed within the guard at the rear end thereof and having its ends adapted to rest upon the upper ends of the diverging arms, and means for securely holding the rear end of said guard member in position.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,769. APPARATUS FOR GRINDING AND SORTING POWDERS. CARL T. FULLER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Aug. 19, 1907. Serial No. 389,314. (Cl. 83—46.)



1. The combination of a grinding chamber in which powdered material may be placed, means for discharging a jet of gaseous fluid into said powder within the chamber and movable means for automatically and progressively shifting the position and direction of the jet.

2. The combination of a grinding chamber in which a charge of powdered material may be placed, inlet means for introducing gaseous fluid thereinto to produce a grinding action between the several particles of said powdered material in the chamber, and an automatically shifting baffle between said inlet means and the material to be ground, said chamber having an outlet.

3. The combination of a grinding chamber for powdered material, inlet means through which a gaseous medium may be introduced into said chamber in a jet of high velocity to exert a grinding action on the powdered material, and movable means by which the direction in said chamber of the incoming jet is constantly varied.

4. As a means for grinding powder, a flaring chamber in which the powder may be introduced from the top, means for discharging a jet of gaseous fluid into the bottom of said chamber to produce a grinding action of the several particles of said powder one on another, and a ball in the path of the incoming jet and movable thereby.

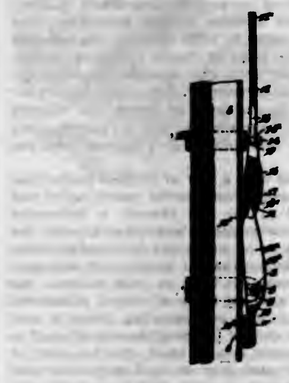
5. The combination of a grinding chamber into which powdered material may be introduced, means for subjecting said material to the grinding action of a jet of pure air and a moving object between the incoming jet of pure air and the powdered material for varying the direction of play of said jet in said chamber.

[Claim 6 not printed in the Gazette.]



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1,041,770. VENT FOR WELL-TUBES. FRED G. GARRARD, Banner county, Nebr., assignor of one-half to Wesley Alexander, Banner county, Nebr. Filed May 29, 1912. Serial No. 700,538. (Cl. 103—60.)

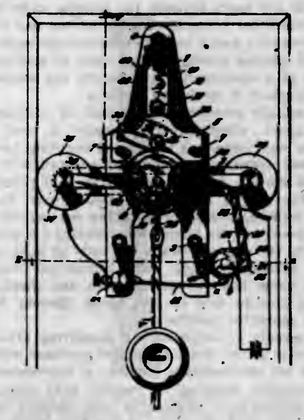


1. In a device of the character described, a vertically disposed well tube provided with a drain opening, a lever extending longitudinally of and fulcrumed close to said well tube and having a closure for said drain opening at the lower end of said lever, an outwardly and upwardly extending cam face provided at the upper end of said lever and forming an undercut portion, a plunger rod movably mounted on said well tube above said lever, a plunger head carried at the bottom of said plunger rod and having a sliding bearing against said well tube, and a cam face formed on the outer side of said plunger head and extending to the lower end of the same and normally extending behind and out of engagement with the cam face of said lever and at an angle thereto, whereby when said plunger rod is lowered, the cam face of said lever will contact with the cam face of said plunger head and said lever will be forced outwardly until said closure is pressed tightly against said drain opening to close the same.

2. In a device of the character described, a vertically disposed well tube provided with a drain opening, a lever extending longitudinally of and fulcrumed close to said well tube and having a closure for said drain opening at the lower end of said lever, an outwardly and upwardly inclined cam face provided at the upper end of said lever, a gravity plunger rod movably mounted on said well tube above said lever, a guide for said plunger rod to permit vertical movement of said plunger rod and holding the same against rotation, a plunger head provided at the lower end of said plunger rod and having a slidable bearing on said well tube, an inclined cam face formed on said plunger head and normally extending behind and out of contact with the cam face of said lever and at an acute angle thereto, whereby when said plunger rod is lowered the upper end of said lever will contact with the cam face of said plunger head and said lever will be forced outwardly until said closure is pressed tightly against said drain opening to close the same; abutments formed at each side of the cam face of said plunger head to prevent the lateral displacement of the cam of said lever with respect to the cam of said plunger head, and an abutment carried by said plunger head and adapted to engage the guide for said plunger rod to prevent said plunger head being drawn sufficiently far away to disengage the cam end of said lever from the abutments at each side of the cam face of said plunger head.

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1,041,771. ELECTRIC CLOCK. HERMAN T. GAY, Baltimore, Md., assignor of one-half to Joseph G. Hochrein and one-fourth to Joseph F. Carroll, Baltimore, Md. Filed Mar. 14, 1912. Serial No. 683,687. (Cl. 58—41.)



1. In combination with the vibratory armature of an electric clock, a magnet, a stud having a rotary disk with ratchet teeth thereon and also a loose vibratory arm of insulating material with a portion thereof practicably concentric with the disk and projecting beyond the circumference of the same, a spring held arm with its free end adapted to rest alternately on the disk and the projecting portion of the insulating material, the said spring arm, disk and magnet being in an electric circuit, and a link which communicates motion from the armature to the vibratory arm, and is provided with a pawl in engagement with the ratchet teeth of the disk to effect the vibratory motion of the insulating arm from the armature, and thereby produce an intermittant rotary motion of the disk, the object of the devices described being to present a different point of contact to the end of the spring arm at each vibration of the armature, substantially as, and for the purpose specified.

2. In an electric clock, a stud, a metallic disk electrically connected with the stud and adapted to turn thereupon, an arm of insulating material adapted for vibration on the stud, the said arm having a portion which projects beyond the circumference of the disk, a spring arm the point of which is adapted to bear alternately on the metallic disk and the said arm, the stud and spring arm being in an electric circuit, and pawl and ratchet mechanism to produce an intermittent rotation of the said disk and thereby alternately open and close the electric circuit, substantially as specified.

1,041,772. ROLLING-MILL COUPLING-SPINDLE. HARRY B. GEER, Johnstown, Pa. Filed Nov. 14, 1910. Serial No. 592,182. (Cl. 74—19.)

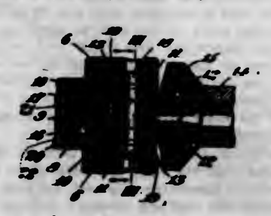


1. A spindle provided with a pair of partially cylindrical projections spaced apart and arranged transversely at the end thereof, a bifurcated coupling having a corresponding transverse groove of substantially rectangular cross section adapted to receive said projections; slippers fitting the cylindrical surfaces of said projections and adapted to allow the same to partially rotate thereon, the opposite sides of said slippers being in sliding contact with the sides of the groove of the bifurcated coupling, a spacing-block located in the space between the interior ends of said partially cylindrical projections adapted for flat sliding contact therewith; and a bolt secured through said bifurcated ends and passing through larger holes in said slippers and through said spacing block, whereby the aforesaid parts are maintained in operative position.

2. A spindle provided with a pair of cylindrical pivots spaced apart, arranged transversely of, and projecting from, the end thereof, a bifurcated coupling having a corresponding transverse groove of substantially rectangular cross section adapted to receive said pivots, slippers fitting the curved surfaces of said pivots, the opposite sides of said slippers being in sliding contact with the sides of the groove of the bifurcated coupling; a spacing block located in the space between the ends of said pivots; and a bolt passing through said bifurcated coupling and through larger holes in said slippers, and through a corresponding hole in said spacing block, thereby holding the parts in operative position.

3. A spindle provided with a projecting pivot arranged transversely at the end thereof and provided with a slot or space in its intermediate portion, a corresponding bifurcated coupling adapted to receive said pivot, bearings located within said bifurcation and adapted for rotative contact with said pivot and for sliding contact with the interior surfaces of said bifurcation, a spacing block located within the intermediate slot of the pivot adapted for flat bearing against the surfaces thereof; and a bolt passing through said bifurcated coupling, through larger holes in said bearings and through a corresponding hole in said spacing block.

1,041,773. ROLLING-MILL SPINDLE-COUPLING. HARRY B. GEER, Johnstown, Pa. Filed Nov. 19, 1910. Serial No. 593,149. (Cl. 74—19.)



1. A spindle provided with a pair of integral projections of substantially rectangular cross-section, arranged transversely and forming an opening at the end thereof, a bifurcated coupling adapted to receive said projections, said bifurcated coupling having its opposite interior surfaces of concave cylindrical form arranged transversely thereof; slippers fitting the flat surfaces of said projections adapted to allow the same to slide thereon, the opposite sides of said slippers being of convex cylindrical curvature fitting within the corresponding concave surfaces of the bifurcated ends of the coupling, a cylindrical spacing-block, the flat ends of which are slidably mounted between said projections and a bolt passing transversely through said block said slippers and the bifurcated coupling.

2. A spindle provided with a pair of integral projections of substantially rectangular cross-section arranged transversely at the end thereof, a bifurcated coupling having a corresponding transverse groove, the opposite interior surfaces of which are of concave cylindrical form, slippers fitting the flat surfaces of said projections adapted to allow the same to slide thereon, the opposite sides of said slippers being of convex cylindrical curvature in rocking contact with the corresponding concave surfaces aforesaid, a cylindrical spacing-block, the flat ends of which are slidably mounted between said projections and a bolt passing transversely through said block said slippers and the bifurcated coupling.

3. A spindle provided with a pair of integral projections of substantially rectangular cross-section arranged transversely at the end thereof, a corresponding bifurcated coupling adapted to receive said projections, said bifurcated coupling having its opposite interior surfaces of concave cylindrical form arranged transversely thereof, slippers fitting the flat surfaces of said projections and adapted to allow the same to slide thereon, the opposite surfaces of said slippers being of convex cylindrical curvature in rocking contact with the corresponding concave surfaces of the bifurcated ends of the coupling, a cylindrical spacing-block, the flat ends of which are slidably mounted between said projections and a bolt passing transversely through said block said slippers and the bifurcated coupling.

4. A spindle provided with a pair of integral projections of substantially rectangular cross-section spaced apart and arranged transversely at the end thereof, a bifurcated coupling having a corresponding transverse groove, the interior opposite surfaces of which are of concave cylindrical form, slippers fitting the flat surfaces of said projections adapted to allow the same to slide thereon, the opposite sides of said slippers being of convex cylindrical curvature fitted within the corresponding concave surfaces of the bifurcated ends of the coupling and adapted to rock therein, a cylindrical spacing-block, the flat ends of which are slidably mounted between said projections and a bolt passing transversely through said block said slippers and the bifurcated coupling.

5. A spindle provided with a pair of projections of substantially rectangular cross-section spaced apart and arranged transversely at the end thereof, a bifurcated coupling having a corresponding transverse groove, the opposite interior surfaces of which are of concave cylindrical form adapted to receive said projections, slippers fitting the flat surfaces of said projections and adapted to allow the same to slide thereon, the opposite sides of said slippers being of convex cylindrical curvature in rocking contact with the corresponding concave surfaces of the bifurcated ends of the coupling, a cylindrical spacing-block located between the interior ends of said projections, the flat ends of which are adapted for sliding contact therewith, and a bolt secured through said bifurcated ends and passing through elongated holes in said slippers and through said spacing-block, whereby the aforesaid parts are held in operative position.

[Claims 6 to 9 not printed in the Gazette.]

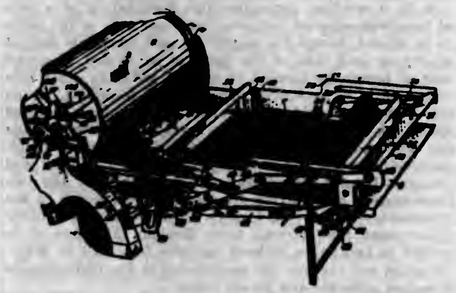
1,041,774. BOTTLE-STOPPER. JAMES D. GERAGHTY and JOHN E. HAGUE, New York, N. Y. Filed Mar. 12, 1912. Serial No. 683,286. (Cl. 215—54.)

In a device of the character described, a bottle having a recessed neck forming a pair of shoulders, a pouring member comprising a ring of water proof material having an outwardly flaring pouring lip at its upper end and a flange at the lower end thereof, and a tubular member fitting in the recess in said neck and clamping said flange against one of said shoulders.





1,041,775. STENCILING-MACHINE. CHARLES GIBBS and JACOB SOKOLOV, New York, N. Y., assignors to Underwood Typewriter Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 18, 1908. Serial No. 427,920. (Cl. 101—40.)



1. Sheet holding and releasing means for an automatic sheet-feeding mechanism, comprising a stationary table to support the pile of sheets, a clamp, a spring to cause said clamp to bind the pile of sheets, a pawl and ratchet mechanism to lift the clamp from the sheets, and means to cause the pawl and ratchet mechanism to release the clamp at each sheet-feeding operation.

2. Sheet holding and releasing means for an automatic sheet-feeding mechanism, comprising a clamping bar, lifting racks connected to the ends of the bar, a transverse shaft having pinions to mesh with the racks, a spring to cause the bar to clamp the pile of sheets, a ratchet wheel connected to said shaft, a pawl, said pawl and ratchet forming part of a mechanism to lift the clamp from the sheets, and means to cause the pawl and ratchet mechanism to release the shaft and permit the spring to force the bar down upon the sheets at each sheet-feeding operation.

3. The combination with sheet holding and releasing means for an automatic sheet-feeding mechanism, comprising a stationary table to support the pile of sheets, a clamp, a spring to cause said clamp to bind a pile of sheets, mechanism self-adjusting to any height of the pile of sheets, to lift said clamp from the sheets, and means to release the clamp from said lifting means at each sheet-feeding operation, of means independently movable up and down with the pile to feed the sheets when released.

4. A sheet-feeding mechanism comprising a stationary table to support the pile of sheets, forward and rear spring-pressed clamps for the leading and rear portions of the pile of sheets, a traveling feeder between the clamps, mechanism self-adjusting to any height of the pile of sheets, to lift the rear clamp from said sheets, means for then advancing the feeder to start the rear part of the top sheet while the other clamp is holding all the sheets, means to then release the rear clamp from said lifting means, and means operative at any height of the pile of sheets, to lift the front clamp from said sheets while the forward travel of said feeder continues; said feeder movable up and down to accommodate variations in the height of the pile.

5. A sheet-feeding mechanism comprising a stationary support for the pile of sheets, forward and rear clamps for the leading and rear portions of the sheets, means being provided to cause said support and said clamps to coöperate to hold the pile of sheets constantly during all its variations in height, mechanism self-adjusting for all the variations in the height of the pile to cause the pile of sheets to be released from said clamps in alternation, and a sheet-feeder traveling between the clamps and operative after the release of the pile from the rear clamp to advance the rear portion of the top sheet, and also operative to advance the entire top sheet after the release of the pile from the forward clamp, and movable up and down to accommodate variations in the height of the pile.

[Claims 6 to 27 not printed in the Gazette.]

1,041,776. FASTENING DEVICE FOR PICTURE-FRAMES. LEMUEL E. GIBSON, Des Moines, Iowa. Filed Aug. 26, 1911. Serial No. 646,140. (Cl. 40—156.)

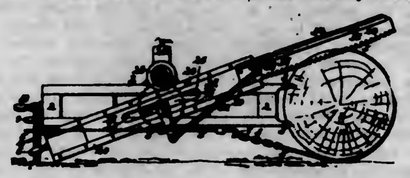


The combination of an inner frame and an outer frame, the back of which receives the front of said inner frame, and extends rearwardly from said inner frame with a plurality of fastening devices on opposite sides of each frame, each of which is composed of a catch member, comprised of a plate secured to the rearwardly extending surface of the outer frame, a triangular right angled extension on said plate adjacent to said inner frame, a second catch member comprising a plate pivoted to said inner frame, with its edge at its free end adapted to engage the inclined face of said triangular extension, said plate having at its free end a right angled extension designed in one position of the movement of said last named plate to pass under and engage the triangular extension on said first catch member, said outer frame being slotted at the proper point to permit the free movement of said second catch member.

1,041,777. PORTABLE POWER-OPERATED SAW. MAX GOEHLER, Vancouver, British Columbia, Canada. Filed Aug. 17, 1911. Serial No. 644,488. (Cl. 143—68.)

1. In a power operated saw, a main supporting frame, a bushing mounted in said frame, a hollow bearing mounted in said bushing, a slideway frame member securely mounted on said hollow bearing member, a slide mounted in said slideway frame and having a slot through which said hollow bearing member projects, a crank shaft mounted in said hollow bearing, means for applying power to said crank shaft, a saw carried by said slide, and means for transmitting the movement of said crank shaft to said saw.

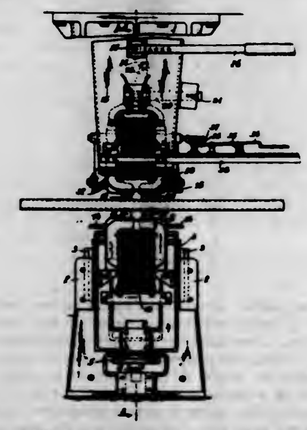
2. In a portable saw, a main supporting frame including means for securing it to a log, a sleeve mounted in said frame, a hollow bearing pivotally mounted in said sleeve and having a flange intermediate its ends, a slideway frame member mounted on said bearing and secured to said flange, a slotted slide mounted in said slideway through



the slot of which slide said hollow bearing projects, a saw carried by said slide, a crank shaft mounted in said hollow bearing and coöperatively connected with said saw, an engine mounted on said main frame, and power transmitting connections between said engine and said crank shaft, substantially as shown and described.

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1,041,778. WELDING APPARATUS. JAMES H. GRAVELL, Philadelphia, Pa., assignor to Hale and Kilburn Company, Philadelphia, Pa., a Corporation of Delaware. Filed Oct. 31, 1911. Serial No. 657,770. (Cl. 219—4.)



1. In a welding apparatus, the combination of a pair of terminals adapted to contact with one side of the parts to be welded, means for supporting said terminals located wholly on said side of the parts to be welded, a second pair of terminals adapted to contact with the other side of the parts to be welded opposite said terminals, means for supporting said second pair of terminals located wholly on said other side of the parts to be welded, means for moving the terminals of one of said pairs toward and away from those of the other, and two transformers each having its secondary connected to the terminals of one of said pairs, said transformers being so arranged that current flows through the parts to be welded in two paths between opposite terminals of different pairs and through the secondaries of the transformers in series, substantially as set forth.

2. In a welding apparatus, the combination of a pair of terminals adapted to contact with one side of the parts to be welded, means for supporting said terminals located wholly on said side of the parts to be welded, a second pair of terminals adapted to contact with the other side of the parts to be welded opposite said terminals, means for supporting said second pair of terminals located wholly on said other side of the parts to be welded, means for moving the terminals of one of said pairs toward and away from those of the other, and two transformers each having its secondary connected to the terminals of one of said pairs, said transformers being so arranged that current flows through the parts to be welded in two paths between opposite terminals of different pairs and through the secondaries of the transformers in series, substantially as set forth.

3. In a welding apparatus, the combination of a pair of terminals adapted to contact with one side of the parts to be welded, means for supporting said terminals located wholly on said side of the parts to be welded, a second pair of terminals adapted to contact with the other side of the parts to be welded opposite said terminals, means for supporting said second pair of terminals located wholly on said other side of the parts to be welded, means for moving the terminals of either pair simultaneously toward and away from those of the other, and two transformers each having its secondary connected to the terminals of one of said pairs, said transformers being so arranged that current flows through the parts to be welded in two paths between opposite terminals of different pairs and through the secondaries of the transformers in series, substantially as set forth.

4. In a welding apparatus, the combination of a pair of terminals adapted to contact with one side of the parts to be welded, means for supporting said terminals located wholly on said side of the parts to be welded, a second pair of terminals adapted to contact with the other side of the parts to be welded opposite said terminals, means for supporting said second pair of terminals located wholly on said other side of the parts to be welded, means for moving the terminals of one of said pairs simultaneously toward and away from those of the other and for permitting a differential movement thereof, and two transformers each having its secondary connected to the terminals of one of said pairs, said transformers being so arranged that current flows through the parts to be welded in two paths between opposite terminals of different pairs and through the secondaries of the transformers in series, substantially as set forth.

5. In a welding apparatus, the combination of a pair of terminals adapted to contact with one side of the parts to be welded, means for supporting said terminals located wholly on said side of the parts to be welded, a second pair of terminals adapted to contact with the other side of the parts to be welded opposite said terminals, means for supporting said second pair of terminals located wholly on said other side of the parts to be welded, means for moving the terminals of one of said pairs simultaneously in a straight line, means for moving the terminals of the other of said pairs in a straight line toward and away from said first-named pair of terminals and for permitting differential movement thereof, and two transformers each having its secondary connected to the terminals of one of said pairs, said transformers being so arranged that current flows through the parts to be welded in two paths between opposite terminals of different pairs and through the secondaries of the transformers in series, substantially as set forth.

[Claims 6 to 21 not printed in the Gazette.]

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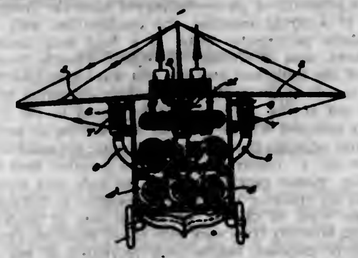
1,041,779. COMBINATION AUTOBOAT AND AEROPLANE. FÉLIX GAGOOSH, St. Jean Baptiste, Manitoba, Canada. Filed Nov. 6, 1911. Serial No. 658,847. (Cl. 244—18.)

1. In a machine of the character described, a body, a deck supported above said body, wings extending from said deck, a plurality of upwardly extending tubes within said body beneath said deck and said wings and each provided with an upper flexibly connected section, means for creating currents of air through said tubes, and means for simultaneously swinging the upper sections of said tubes.

2. In a machine of the character described, a body, a deck supported above said body, wings extending from said deck, a plurality of upwardly extending tubes within said body beneath said deck and said wings and each provided with an upper flexibly connected section, means for creating currents of air through said tubes, means for simultaneously swinging the upper sections of said tubes, a tube mounted in each end of said body and each provided with an upper flexibly connected section arranged at an angle to the vertical, means for creating an air current through each of said end tubes, and means for simultaneously swinging the flexibly connected sections thereof in opposite directions.



5. In a machine of the character described, a body, a deck supported above said body, wings extending from said deck, a plurality of upwardly extending tubes within said body beneath said deck and said wings and each provided with an upper flexibly connected section, means for creating currents of air through said tubes, means for simultaneously swinging the upper sections of said tubes, a tube mounted in each end of said body and each provided with an upper flexibly connected section at an angle to the vertical, means for creating an air current through each of said end tubes, means for simultaneously swinging the flexibly connected sections thereof in opposite directions, and deflecting means for directing the currents of air from said sections.



3. In a machine of the character described, a body, a deck supported above said body, wings extending from said deck, a plurality of upwardly extending tubes within said body beneath said deck and said wings and each provided with an upper flexibly connected section, means for creating currents of air through said tubes, means for simultaneously swinging the upper sections of said tubes, an elevating plane, and means for operating the same.

4. In a machine of the character described, a body, a deck supported above said body, wings extending from said deck, a plurality of upwardly extending tubes within said body beneath said deck and said wings and each provided with an upper flexibly connected section, means for creating currents of air through said tubes, means for simultaneously swinging the upper sections of said tubes, a tube mounted in each end of said body and each provided with an upper flexibly connected section arranged at an angle to the vertical, means for creating an air current through each of said end tubes, and means for simultaneously swinging the flexibly connected sections thereof in opposite directions.

5. In a machine of the character described, a body, a deck supported above said body, wings extending from said deck, a plurality of upwardly extending tubes within said body beneath said deck and said wings and each provided with an upper flexibly connected section, means for creating currents of air through said tubes, means for simultaneously swinging the upper sections of said tubes, a tube mounted in each end of said body and each provided with an upper flexibly connected section at an angle to the vertical, means for creating an air current through each of said end tubes, means for simultaneously swinging the flexibly connected sections thereof in opposite directions, and deflecting means for directing the currents of air from said sections.

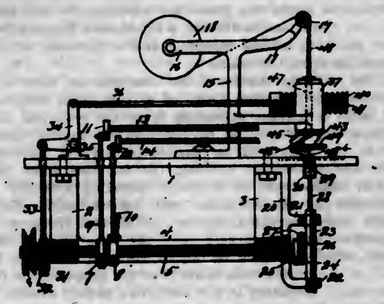
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1,041,780. BEAD-SEWING MACHINE. JOSEPH A. GROSSLI, New York, N. Y. Filed July 11, 1911. Serial No. 638,015. (Cl. 112—7.)

1. In a bead sewing machine a looper arranged to cast loops on one side of the fabric, a sewing hook adapted to pierce the fabric and to carry said loops through the fabric, and means operating between said looper and the fabric for separating beads on the thread which is cast by said looper, whereby the beads will be fed in regular rotation relatively to the stitching operations of said hook and looper.

2. In a bead sewing machine a sewing hook adapted to pierce the fabric, a looper arranged to cast a thread loop over the portion of said sewing hook which extends through the fabric whereby the loop will be drawn through the fabric upon the retraction of said hook, and means operating between the said looper and the fabric, and adapted to separate beads on the thread which is cast into loops by said looper, for the purpose of regularly feeding beads on said thread relative to the stitching operations of said hook and looper.

3. In a bead sewing machine a looper through which a string of beads is adapted to be fed, said looper being adapted to form loops of said bead string around a sewing hook, a sewing hook adapted to pierce the fabric and to engage the loops formed by said looper, and means for causing the beads of said string to feed along their thread in definite relation to the stitching operations of said sewing hook.



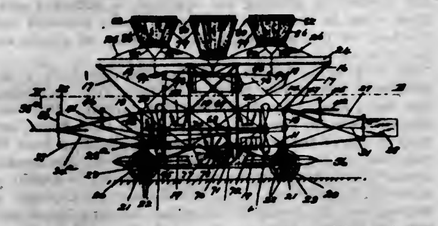
4. In a bead sewing machine, stitching mechanism, comprising a looper adapted to form loops of the sewing thread on one side of the fabric, a sewing hook arranged to pierce the fabric from the opposite side to that on which said loops are formed, and to engage said loops for the purpose of drawing them through the fabric and a separator acting on beads on the thread which is cast by said looper, to cause the beads to feed in regular order to the stitching mechanism and arranged whereby the relative movement of said looker and separator will cause the separation of the beads.

5. In a bead sewing machine, stitching mechanism, comprising a sewing hook arranged to pierce the fabric, an oscillating looper arranged on the opposite side of the fabric from said sewing hook and adapted to cast loops around said hook when the latter is projected through the fabric and a separator adapted to act upon beads on the thread which is cast by said looper, and adapted to cause the separation of a bead on said thread from those beyond it, upon one of the oscillatory movements of said looper, and to feed the said separated bead upon the return oscillation of the looper, whereby said beads will be fed in regular order along the sewing thread relatively to the stitching operations.

[Claims 6 to 9 not printed in the Gazette.]

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1,041,781. FLYING-MACHINE. DAVID HACKER, New York, N. Y. Filed July 25, 1912. Serial No. 711,542. (Cl. 244—14.)



1. In a flying machine, the combination with a substantially rectangular body, of a boat held underneath the body, a bracket extending from the rear end of the body, a rudder pivoted to the bracket, means provided within the body and serving to permit an operator to guide the rudder for steering the machine when in the air, an engine, sets of brackets extending laterally from each side of the machine, two longitudinally disposed shafts each journaled in one set of the brackets, four propellers, two

being held upon the ends of each of the shafts, means adapted to impart rotation from the drive shaft of the engine to each shaft of the propellers, a transverse shaft journaled in the body, two paddle wheels, each held upon the transverse shaft, means adapted to revolve the shaft of the paddle wheels when the drive shaft of the engine is revolved, a bracket extending from the front end of the body, a transverse plane movably held by the bracket, means supported within the body and serving to permit an operator to guide the plane for steering the machine to different elevations in the air, a superposed frame provided upon the body of the machine, and a plurality of planes supported upon the frame.

2. In a flying machine, the combination with a substantially rectangular body, of a boat held underneath the body, a bracket extending from the rear end of the body, a rudder pivoted to the bracket, means provided within the body and serving to permit an operator to guide the rudder for steering the machine when in the air, an engine, sets of brackets extending laterally from each side of the machine, two longitudinally disposed shafts each journaled in one set of the brackets, four propellers, two being held upon the ends of each of the shafts, means adapted to impart rotation from the drive shaft of the engine to each shaft of the propellers, a transverse shaft journaled in the body, two paddle wheels, each held upon the transverse shaft, means adapted to revolve the shaft of the paddle wheels when the drive shaft of the engine is operated, a bracket extending from the front end of the body, two transverse planes, each movably held by the bracket, means supported within the body and serving to permit an operator to guide each of the planes for steering the machine to different elevations when in the air, a superposed frame provided upon the body of the machine, and a plurality of planes supported upon the frame.

3. In a flying machine, the combination with a substantially rectangular body, of a boat held underneath the body, sets of brackets extending laterally from each side of the body, two air-tight and water-tight floats, each held to one of the brackets, a bracket extending from the rear end of the body, a rudder pivoted to the bracket, means provided within the body and serving to permit an operator to guide the rudder for steering the machine when in the air, an engine, sets of brackets extending laterally from each side of the machine, two longitudinally disposed shafts each journaled in one set of the brackets, four propellers, two being held upon the ends of each of the shafts, means adapted to impart rotation from the drive shaft of the engine to each shaft of the propellers, a transverse shaft journaled in the body, two paddle wheels, each held upon the transverse shaft, means adapted to revolve the shaft of the paddle wheels when the drive shaft of the engine is operated, a bracket extending from the front end of the body, two transverse planes, each movably held by the bracket, means supported within the body and serving to permit an operator to guide each of the planes for steering the machine to different elevations when in the air, a superposed frame provided upon the body of the machine, and a plurality of planes supported upon the frame.

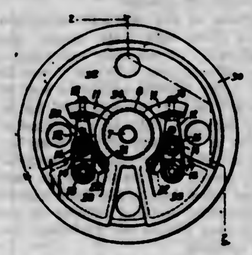
4. In a flying machine, the combination with a substantially rectangular body, of a boat held underneath the body, sets of brackets extending laterally from each side of the body, two air-tight and water-tight floats, each held to one of the brackets, a bracket extending from the rear end of the body, a rudder pivoted to the bracket, means provided within the body and serving to permit an operator to guide the rudder for steering the machine, an engine, sets of brackets extending laterally from each side of the machine, two longitudinally disposed shafts each journaled in one set of the brackets, four propellers, two being held upon the ends of each of the shafts, means adapted to impart rotation from the drive shaft of the engine to each shaft of the propellers, a transverse shaft journaled in the body, two paddle wheels, each held upon the transverse shaft, means adapted to revolve the shaft of the paddle wheels when the drive shaft of the engine is operated, a bracket extending from the front end of the body, a transverse plane movably held by the bracket, means supported within the body and serving to permit an opeartor to guide the rudder for steering the machine to different elevations when in the air, a superposed frame provided upon the body of the machine, and a plurality of planes supported upon the frame.

5. In a flying machine, the combination with a substantially rectangular body, of a boat held underneath the body, sets of brackets extending laterally from each side of the body, two air-tight and water-tight floats, each held to one of the brackets, a bracket extending from the rear end of the body, a rudder pivoted to the bracket, means provided within the body and serving to permit an operator to guide the rudder for steering the machine when in the air, a transverse plane also movably held in said bracket, means provided within the body and serving to permit an operator to guide the machine to different elevations when in the air, an engine, sets of brackets extending laterally from each side of the machine, two longitudinally disposed shafts each journaled in one set of the brackets, four propellers, two being held upon the ends of each of the shafts, means adapted to impart rotation from the drive shaft of the engine to each shaft of the propellers, a transverse shaft journaled in the body, two paddle wheels, each held upon the transverse shaft, means adapted to revolve the shaft of the paddle wheels when the drive shaft of the engine is operated, a bracket extending from the front end of the body, two transverse planes, each movably held by the bracket, means provided within the body and serving to permit an operator to guide each of the planes for steering the machine to different elevations when in the air, a superposed frame provided upon the body of the machine, and a plurality of planes supported upon the frame.

[Claims 6 to 20 not printed in the Gazette.]

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1,041,782. ELECTRIC MOTOR OR GENERATOR. EDWARD A. HALSELBE, Rochester, N. Y., assignor to Northeast Electric Company, Rochester, N. Y., a Corporation. Filed Dec. 16, 1910. Serial No. 597,731. (Cl. 171—210.)



The combination of the armature-shaft 7, the commutator 8 thereon, the shaft-bearing 34, the frame-ring 30, the arms 33 connecting the shaft-bearing and the frame-ring and located below the armature-shaft and spaced apart to afford access to the commutator from below, the brush-holders 12 pivoted above the arms and projecting upwardly, and the brushes 11 fixed on the brush-holders and engaging the commutator.

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1,041,783. APPARATUS FOR GRINDING ORES AND OTHER MATERIALS. HARRY W. HARDINGE, New York, N. Y., assignor to Hardinge Conical Mill Company, New York, N. Y., a Corporation of New York. Filed Oct. 19, 1910. Serial No. 587,850. (Cl. 83—8.)

1. In a mill for the purpose described, in combination, a drum having hollow trunnions at its ends, conical partitions mounted inside the drum providing conical chambers therein and having discharge openings at their apexes, a feed pipe for supplying material to be ground and extending through one of the apexes of the conical partitions, and means for rotating the drum and conical chambers about a longitudinal axis.



2. In a mill for the purpose described, in combination, a drum having hollow trunnions at its ends, conical partitions mounted inside the drum, means for directly discharging material to be treated between the conical partitions and means for allowing the treated material to issue from both ends of the drum.



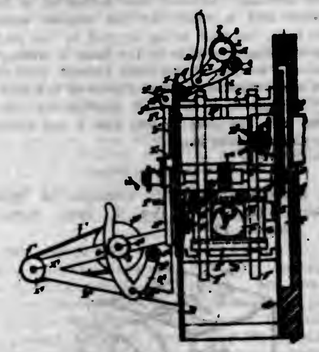
3. In a mill for the purpose described, in combination, a drum having an outlet opening, a conical partition arranged with its apex toward said outlet opening of the drum the base thereof connected to said drum and dividing the same into two compartments, the exterior of said conical portion constituting the end wall of one compartment.

4. In a mill for the purpose described, in combination, a drum having an outlet opening and an inlet, a conical partition having an opening in said apex, arranged with said apex toward the outlet opening and dividing the drum into two corpartments, with the base of the conical portion connected directly to the drum said conical portion constituting the end walls of the two compartments.

5. In a mill for the purpose described, in combination, a drum having hollow trunnions at its ends, a conical partition mounted inside the drum and dividing the latter into two compartments, means for directly discharging material to be treated into one of the compartments, and means for allowing the treated material to issue from both ends of the drum.

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1,041,784. MOVING-PICTURE MACHINE. WARD B. HAUSMAN, Philadelphia, Pa. Filed Aug. 2, 1909. Serial No. 510,863. (Cl. 88—18.)



1. In combination with a moving picture machine, vertical rods slidably mounted in suitable bearings, frame members having grooves therein secured to the vertical rods, a cam plate having a central squared opening slidable in the grooves, an arm carried by said cam plate, pins adjustably mounted therein, and a cam mounted in the opening in the cam plate, as specified.

2. In combination with a moving picture machine, a main shaft, vertical rods mounted in suitable bearings, frame members having grooves therein secured to said vertical rods, a cam plate having a squared central opening slidably mounted in said grooves, a cam mounted on the main shaft adapted to operate against the side walls of the opening in the cam plate for moving said cam plate sidewise, and the frame members up and down, and an arm carrying adjustable pins mounted on said cam plate.

3. In combination with a moving picture machine, a main shaft, vertical rods mounted in suitable bearings, frame members having grooves therein secured to said vertical rods, a cam plate having a squared central opening slidably mounted in said grooves, a cam mounted on the main shaft adapted to operate against the side walls of the opening in the cam plate for moving said cam plate horizontally and the frame members vertically, an arm mounted on the cam plate and extending at right angles thereto, pins adjustably mounted on said arm, and screws for holding said pins in their adjustment.

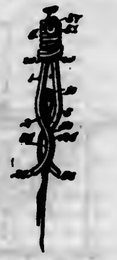
4. In combination with a moving picture machine, vertical rods slidably mounted in suitable bearings, frame members having grooves therein secured to the vertical rods, a cam plate having a central squared opening slidable in the grooves, means carried by said cam plate for intermittently engaging the film, and a cam mounted in the opening in the cam plate, as specified.

5. In combination with a moving picture machine, vertical rods slidably mounted in suitable bearings, frame members secured to said rods, a cam plate having a central squared opening slidably mounted between said frame members, means carried by said cam plate for intermittently engaging a film, and a cam mounted in the opening in the cam plate for operating the same.

[Claims 6 to 9 not printed in the Gazette.]

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1,041,785. METALLIC CLOTHES-PIN. FRANKLIN A. HAWK, Central Point, Oreg. Filed Feb. 7, 1912. Serial No. 675,916. (Cl. 24—261.)



A clothes pin formed of a single piece of spring wire, one part of which is bent to form a clamping loop and then bent back to form an opposing clamping loop, then coiled around the upper ends of the two loops to form a rigid body, the beginning end of the wire and the upper adjacent strands of the two loops being bent back over the said rigid body, the two opposing clamping loops being bent to form cloth gripping portions, the said cloth gripping portions of the two loops interlocking with each other against lateral movement, the free ends of the said loops being spread to form a line guide throat for the opposing clamping members.

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1,041,786. FOLDING CRATE. ERNEST C. HAHL and HERMAN HAASE, Atchison, Kans. Filed June 30, 1911. Serial No. 636,240. (Cl. 217—15.)



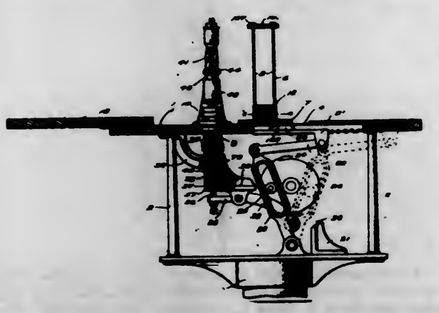
1. A folding crate comprising a base, end and side members, a plurality of blocks secured to said base and

strips mounted on said blocks and running the length of said base, and forming clean out openings on the opposite sides, end members hinged to said base and adapted to fold over flat, side members hinged to said strips and adapted to fold over the end members, and a top arranged to fit over the said members and having deep depending corner brackets for engagement with the opposite corners of said side members in their set up and knock down positions, and hook and eye members on the top and ends respectively, for holding the crate together when assembled, and eyes arranged on the ends of said base adapted to receive said hooks when the crate is in knockdown position.

2. A folding crate comprising a base, end and side members, end members hinged to the base, a plurality of blocks secured to the front and rear of said base, strips mounted on said blocks and forming openings between the base and strips, side members hinged to the strips and adapted to fold over the end members, a top having depending corner brackets, adapted for engagement with the top corners of the side and end members, when the crate is assembled and engaging the lower corners of the side members when the crate is knocked down, hooks and eyes on the top, end and base for locking the crate in assembled and knocked down position.

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1,041,787. CAN-MAKING MACHINERY. JAMES M. HENRY, Pittsburgh, Pa. Filed Oct. 23, 1911. Serial No. 656,163. (Cl. 113—114.)



1. A lining machine having means for clamping and rotating a can end whereby it may be lined, a turn table upon which said can end is adapted to seat, said turn-table having a reciprocating movement, and said rotating means consisting of an independently rotatable chuck and a cam operated lever for reciprocating said turn table.

2. A lining machine having means for clamping and rotating a can end whereby it may be lined, a turn-table upon which said can end is adapted to seat, said turn-table having a reciprocating movement, said rotating means consisting of an independently rotatable chuck, between which and said turn-table said can end is adapted to be clamped and a cam operated lever for reciprocating said turn table.

3. A lining machine having means for clamping and rotating a can end whereby it may be lined, a turn-table upon which said can end is adapted to seat, said turn-table having a reciprocating movement, said rotating means consisting of an independently rotatable chuck, between which and said turn-table said can end is adapted to be clamped, and an adjustable lining member for depositing a coating on said can and a cam operated lever for reciprocating said turn-table.

4. A lining machine having means for clamping and rotating a can end whereby it may be lined, a turn-table upon which said can end is adapted to seat, said turn-table having a reciprocating movement, said rotating means consisting of an independently rotatable chuck, between which and said turn-table said can end is adapted to be clamped, a pivotally adjustable lining member for depositing a coating on said can, and a reciprocating valve in said lining member.

5. A lining machine having means for clamping and rotating a can end whereby it may be lined, a turn-table upon which said can end is adapted to seat, said turn-table having a reciprocating movement, said rotating means consisting of an independently rotatable chuck, between which and said turn-table said can end is adapted to be clamped, a pivotally adjustable lining member for depositing a coating on said can, and a reciprocating valve in said lining member, said valve being operated by air pressure, a valve stem upon which said chuck is mounted, said stem adapted to control said pressure.

[Claims 6 to 63 not printed in the Gazette.]

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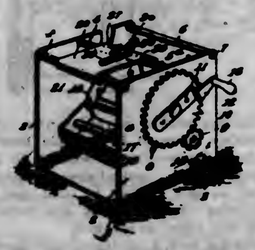
1,041,788. MAIL-BOX. JOHN W. HENRY, Crawfordsville, Ind. Filed July 11, 1910. Serial No. 571,469. (Cl. 232—36.)



In combination with a mail box having a hinged closure, a bell arranged therein and including a base, a rotary clapper and a shaft for the clapper extending through the base, the base being secured to the mail box, a pinion on the shaft outside of the base, a sliding plate on the base and having slined slots therein, pins carried by the base and extending into the slots of the said plate to support the plate, a rack bar carried by the plate and meshing with the said pinion, and a rod connecting the closure and the said plate.

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1,041,789. RAZOR-STROPPER. CHARLES M. HERRING, Fort Worth, Tex. Filed Oct. 7, 1910. Serial No. 585,869. (Cl. 51—16.)



1. A razor stropping device including opposed, parallel, rotatable stropping members, each having oppositely disposed, parallel, interrupted stropping faces approximately concentric to the axis of rotation of the corresponding member, the stropping faces of both of said members being arranged to act alternately upon the blade, a frame upon which the stropping members are rotatably mounted, and a blade support comprising a resilient plate mounted upon the frame at its upper end, the free end of the plate depending in a plane intersecting the path of movement of the stropping faces of the stropping members and being yieldable in the direction of the stropping members.

2. A razor stropping device including a supporting frame, a stropping member rotatably mounted in the frame and having oppositely disposed parallel interrupted stropping faces approximately concentric to the axis of rotation of the stropping member, a resilient support pivotally mounted upon said frame and when in operative position extending in a plane intersecting the path of movement of the stropping member, said resilient support being yieldable at its free end in the direction of the stropping member, and means for preventing an upward movement of the blade support.

3. A razor stropping device including parallel rotatable stropping members, each having oppositely disposed parallel interrupted stropping faces approximately concentric to the axis of rotation of the stropping member, the path of movement of the stropping faces of one member intersecting the path of movement of the other member, the major axes of the stropping members being always out of alinement with each other, a frame in which the stropping members are supported, a resilient blade support comprising an angular plate pivotally mounted upon said frame, the angular end of the support when in operative position extending in a plane midway between the axes of the supporting members and coincident with the intersection of said paths of movement of the stropping members, said plate being yieldable at its free end in the direction of the stropping members, and disengageable means preventing the upward movement of the plate.

4. A razor stropping device including parallel rotatable stropping members each having parallel interrupted stropping faces approximately concentric to the axis of rotation, the stropping faces of the members acting alternately and the paths of movement of the stropping faces intersecting, and a blade support comprising a resilient plate extending when in an operative position in a plane coincident with a plane cutting the intersection of the paths of movement, the end of the plate farthest from the stropping members being held from movement away from the stropping members, the free end of said support being resiliently yieldable in the direction of the stropping members.

5. A razor stropping device including a rotatable stropping member having the form of a segment of a circle, a blade holder movable in position to support a blade within the path of movement of said stropping member and parallel thereto, a device for locking the blade holder in operative position, and means for locking the stropping members from rotation when the holder locking device is shifted to an unlocked position.

[Claims 6 to 16 not printed in the Gazette.]

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1,041,790. PROCESS FOR ELECTROLYTIC CLEANSING. ARTHUR HERRMANN, Leipsig, Germany. Filed Apr. 8, 1912. Serial No. 689,363. (Cl. 204—1.)

1. A process for electrolytically cleansing metal goods such as wire tape, wire fabric, sheet iron and the like which process comprises rapidly and continuously passing the goods through an electrolytic bath containing a non acid solution and during the passage subjecting them to very high current densities, the said goods being connected to form the anode.

2. A process for electrolytically cleansing wire, metal tape, wire fabric, sheet metal and the like which process comprises continuously passing the goods a short distance through a highly concentrated non acid electrolytic bath at high speed and applying high current densities, the goods to be cleansed being connected to form the anode.

3. A process for electrolytically cleansing metal wire, tape, sheet metal and such like goods which process comprises continuously passing the goods for a distance not exceeding one meter at a speed of 4 to 15 meters per minute through a highly concentrated non acid electrolytic bath and therein subjecting them to current densities of 30 amperes and upward per square decimeter, the goods to be cleansed being connected to form the anode and the cathode being made of an indifferent conducting substance and being arranged at a distance not exceeding 6 to 8 centimeters from the goods.

4. A process for electrolytically cleansing the surface of metal goods such as iron wire, bands, sheets or fabric which process comprises passing the said goods through a neutral conductive solution such as chlorate of sodium having a temperature between 30° and 70° centigrade, the goods traveling continuously through the bath at speeds between 4 and 15 meters per minute and being electrically connected to form an anode in such solution, as cathode using an indifferent conductor such as sheet iron placed at a distance not exceeding 8 centimeters from the anode and applying current densities exceeding 30 amperes per square decimeter.

5. A process for electrolytically cleansing metal wire, bands, sheets and such like goods, which process comprises continuously passing said goods rapidly through a non acid electrolytic bath and subjecting them to high current densities, the goods being connected to form the anode and the solution being made to continuously circulate into vessels in which it remains at rest until the impurities have sunk to the bottom and thence back to the electrolytic vat.

[Claims 6 to 13 not printed in the Gazette.]

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1,041,791. PROCESS OF TREATING VEGETABLE AND TEXTILE FIBER, WASTE PAPER, WOOD-WASTE, AND THE LIKE FOR CONVERSION INTO PAPER MATERIAL. LUDWIG HANS, Nuremberg, Germany, assignor to The Firm of Papeterie de la Seine, Nanterre-sur-Seine, France. Filed Feb. 27, 1911. Serial No. 611,282. (Cl. 92—6.)

1. The process for treating vegetable and textile fiber, waste paper, wood waste and the like, for conversion into paper material, which consists in soaking the material to be treated in a solution of caustic soda in water in the cold state, said solution containing ammonia in the substantial proportions of 8 grams of caustic soda and .01 liter of aqua ammonia to each liter of water and at the same time starting the disintegration of the fibers while being so treated, pressing the mass so as to crush the solid material, then subjecting the mass to centrifugal action and at the same time washing and churning the material, subjecting the mass to further pressure while being churned and subjected to centrifugal action, and then subjecting the resulting material to treatment with chromic acid and size, the operations being conducted with the materials in the cold state.

2. The process for treating vegetable and textile fiber, waste paper, wood waste and the like, for conversion into paper material, which consists in soaking the material to be treated in a solution of caustic soda in water containing ammonia in the cold state and at the same time starting disintegration of the material while being so treated, passing the mass between rollers whereby the solid material is crushed, then subjecting the mass to centrifugal action and at the same time churning and washing the same whereby caustic soda is removed from the material, subjecting the mass to further pressure while being churned and subjected to centrifugal action, and then subjecting the resulting material to treatment with a mixture of pure chromic acid and size in the substantial proportions of 200 kilograms of the material to be treated to 0.5 kilograms chromic acid and 4 kilograms size, the operations being conducted with the materials in the cold state.

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1,041,792. FLOATING TOOL OR TOOL-HOLDER. JOHN WILLIAM HILL, Providence, R. I. Filed Mar. 26, 1909. Serial No. 485,968. (Cl. 77—55.)

1. As an improved article of manufacture a floating tool-holder device, comprising an annular one-piece socket member or casing adapted to be removably mounted in a revoluble chuck or driver, said member being bored throughout its length and having its lower end terminating in an

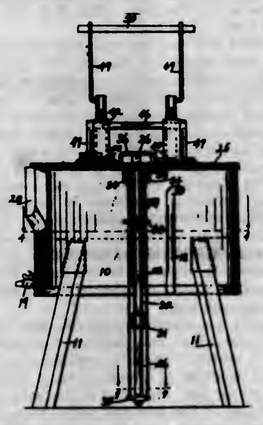
inwardly facing socket-shaped seat, a centrally bored holder element proper movably mounted in said socket member and having its lower portion conforming to and being in normally continuous engagement with said seat, the other portion of the holder element being at the same time capable of independent limited lateral movement in the socket member, and means provided for detachably securing a cutting tool in the device, whereby when in use all the parts of the device are adapted to rotate in unison.



2. In a floating tool-holder device, the combination of a centrally bored and socketed outer member having a stem or extension at its rear end, a tool-holder member proper mounted to vibrate slightly in the outer member, having its inner end fitted to and being in continuous engagement with the adjacent surface of the socket, means for connecting the two members together against endwise separation, and having said outer member provided with a transversely disposed drift-slot communicating with the socket whereby a tool mounted in the device may be detached therefrom.

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1,041,793. WASHING-MACHINE. JAMES E. HODSON, Indianapolis, Ind. Filed Dec. 15, 1910. Serial No. 597,442. (Cl. 68—19.)



1. A washing machine including a circular tank open at the top, a circular casing of slightly less diameter than the tank and open at the bottom and closed at the top and insertible in said tank, means mounted in connection with said tank so as to be vertically adjustable for supporting said casing in the tank and to which the casing is connected so that the casing may be vertically adjusted and agitating apparatus mounted in connection with said casing.

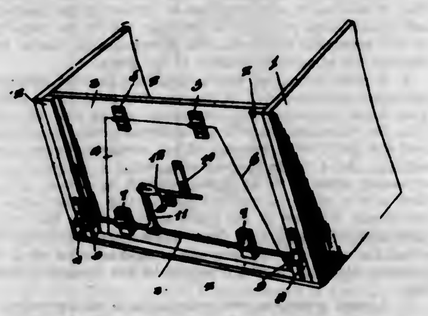
2. A washing machine including a circular tank open at the top, a circular casing of slightly less diameter than the tank open at the bottom and closed at the top and insertible in said tank, a bent rod mounted in connection with the tank so as to be vertically adjustable for supporting said casing in the tank and with a horizontal portion projecting over the top of the casing and with which rod the casing is centrally connected so as to be oscillatory, means secured on top of the casing and overlying said rod for limiting the oscillatory movement of the casing with reference to said rod, and agitating apparatus mounted in connection with said tank.

3. A washing machine including a tank open at the top, a casing of slightly less diameter than the tank and insertible in the tank and open at the bottom and closed at the top, agitating apparatus mounted in connection with said casing, a bent rod having horizontal and vertical portions and with the horizontal portion extending over and connected with said casing, a vertical guide secured to the tank in which the vertical portion of said rod is mounted, means for clamping said rod in said guide, and a pin in said rod adapted to rest upon the top of the guide and support the rod and agitating apparatus and on a higher level than the tank.

4. A washing machine including a tank, an agitating apparatus adapted to be inserted in said tank, a bent rod having a horizontal portion secured to said agitating apparatus, a vertical guide for the vertical portion of said rod secured to the tank, means for clamping said rod at the desired elevation, pulleys at the upper end of said guide, cables secured to the lower end of said rod and passing over said pulleys, and a handle secured to said cables, whereby said agitating apparatus can be elevated and swung to one side.

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1,041,794. END-GATE. HUBERT A. HOLTFRERICH, Dodge City, Kans. Filed Jan. 27, 1912. Serial No. 673,754. (Cl. 21—21.)



1. The combination with a wagon body and an end gate hinged thereto; of a bar carried on said end gate and partially rotatable thereon, said bar having the extremities thereof bent and extended beyond the side edges of said end gate, a pair of strips carried on the rear end of the wagon body beyond the side edges of said end gate, said strips having the lower portions thereof bent outwardly and adapted to receive in engagement with the same, the bent extremities of said bar when the latter is disposed in one position, a rigid arm carried on said bar, a pivoted lever carried on said arm, a keeper carried on the end gate and adapted to receive said lever therein, and a leaf spring member also carried on the end gate in the path of said lever, said spring member being adapted to retain the lever in locked position under the keeper.

2. The combination with a wagon body having an end gate thereon; of a locking bar carried on said end gate and partially rotatable thereon, the ends of said locking bar being offset and extended beyond the side edges of the end gate, a pair of strips carried on the rear ends of the wagon body adapted to receive the offset ends of said locking bar thereunder, when said bar is disposed in one position, a rigid arm carried on said bar for the operation of the latter, said arm being adapted to rest flatly against the end gate when the locking bar is disposed in its locking position, a lever pivoted to the outer end of said arm, an upwardly facing keeper secured on the outer face of said end gate and adapted to receive said lever therein, and a leaf spring secured at its upper end to the outer face of said end gate in the path of said lever toward the keeper, the free end of said leaf spring being bent outwardly from the face of said end gate and terminating in substantially the same plane as that in which the keeper is disposed, whereby said lever may be retained in its locked position within the keeper.



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1,041,795. GAS-LIGHTER. CONRAD HUBERT, New York, N. Y. Filed Aug. 17, 1909. Serial No. 513,269. (Cl. 67—6.)



1. A gas lighter comprising a sparking element, a slide, a guide for the slide, a friction lever pivoted to the slide and having a free friction end engageable with the sparking element, and a spring mounted on the guide and engaging the lever to press the free end of the friction lever into frictional engagement with the sparking element.

2. A gas lighter comprising a sparking element, a friction element, a slide supporting one of said elements, a guide for the slide supporting the other of said elements, the friction element comprising a pivoted lever having a free friction and engageable with the sparking element, and a spring adapted to rotate the friction lever on its pivot so as to press the free end thereof into frictional engagement with the sparking element.

3. A gas lighter comprising a sparking element, a slide, a guide for the slide supporting the sparking element, a friction element movably supported on the slide, a spring pressing the friction element into engagement with the sparking element, another guide at an angle to the first, another slide guided by the second guide, connecting means connecting the two slides, and means for actuating the second slide to thereby effect sparking engagement between the friction element and the sparking element.

4. A gas lighter comprising a sparking element, a slide, a guide for the slide supporting the sparking element, a friction element movably supported on the slide, a spring pressing the friction element into engagement with the sparking element, another guide at an angle to the first, another slide guided by the second guide, a bent actuating rod connecting the two slides, an actuating spring adapted to move the second slide in one direction, and a trigger mechanism adapted to move said second slide in the other direction of its movement and to automatically release the same, whereby the actuating spring will bring the friction element and the sparking element into frictional sparking engagement.

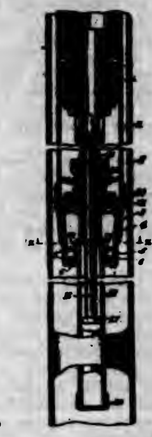
5. A gas lighter comprising a guide tube, a second guide tube joining the first at an oblique angle, a slide in each guide tube, a bent rod of substantially smaller diameter than the inner diameter of the guide tubes connecting the two slides within the guide tubes, a sparking element a friction element coactive therewith, one of said elements being supported by one of the guide tubes and the other of said elements being supported by the corresponding slide, and means for actuating the other slide.

[Claims 6 to 11 not printed in the Gazette.]



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1,041,796. DEEP-WELL-PUMPING APPARATUS. DAVID W. HUDSON, Green Bay, Wis. Filed July 1, 1912. Serial No. 706,862. (Cl. 103—80.)

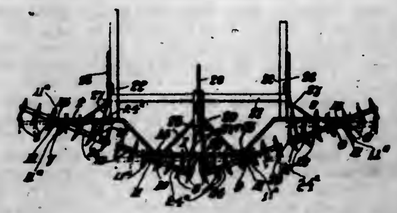


1. The combination with a pump cylinder, of a valve seat member removably connected with the lower end portion of said cylinder and provided with ports for the passage of water therethrough, a tubular member extending through said valve seat member, a cap at its lower end, an interior shoulder on said tubular member, a piston rod provided with an extension adapted to slide in said tubular member and provided with a head at its lower end adapted to engage said shoulder when the piston rod is moved upwardly beyond its normal field of movement, and a valve adapted to slide upon the tubular member to open and close the ports in the valve seat member.

2. The combination with a pump cylinder, of a valve seat member removably connected with the lower end portion of said cylinder and provided with ports for the passage of water therethrough, a tubular member extending through said valve seat member, a cap at its lower end, an interior shoulder on said tubular member, a piston rod provided with an extension adapted to slide in said tubular member and provided with a head at its lower end adapted to engage said shoulder when the piston rod is moved upwardly beyond its normal field of movement, and a valve adapted to slide upon the tubular member to open and close the ports in the valve seat member, said valve seat member having a cup shaped lower end provided with a series of apertures and constituting a strainer through which water is permitted to pass into the cylinder when the valve is open.

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1,041,797. DISK HARROW. FREDERICK GEORGE HUNT, Elora, Ontario, Canada. Filed Nov. 21, 1911. Serial No. 661,468. (Cl. 55—83.)



1. A disk harrow comprising a frame having end portions in alinement with each other and an offset central portion paralleling said end portions, depending portions attached to the extremities of said end portions and from

opposite ends of said central portion, a central pair of gangs and an outer pair of gangs, the gangs of each pair being independently connected to one of said depending portions, and means for simultaneously swinging one gang of each pair into alinement with the next adjacent gang and at an angle to the line of draft.

2. A disk harrow comprising a frame having end portions in alinement with each other and an offset central portion paralleling said end portions, a plurality of pairs of gangs connected to said frame and means for independently swinging the gangs of each pair into operative and inoperative position.

3. A disk harrow comprising a frame having end portions in alinement with each other and an offset central portion paralleling said end portions, a plurality of pairs of gangs connected to said frame, and means for simultaneously swinging one gang of each pair into alinement with the next adjacent gang and at an angle to the line of draft.

4. A disk harrow comprising a frame having end portions in alinement with each other and an offset central portion paralleling said end portions, said end portions having integral downwardly and inwardly inclined members, inwardly inclined uprights connected to the extremities of said offset central portion, a gang pivoted to each of said integral inclined members and said inclined uprights, and means for simultaneously swinging one of said gangs into operative position and into alinement with the next adjacent gang.

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1,041,798. MIST-PRODUCING NOZZLE. RUDOLPH M. HUNTER, Philadelphia, Pa., assignor to Warren Webster & Company, a Corporation of New Jersey. Filed Nov. 17, 1910. Serial No. 592,763. (Cl. 137—86.)



In a spraying nozzle for producing mist, the combination of a head having a water supply aperture, a nozzle portion detachably secured upon the head and having a tapered chamber within the same, the large end of which chamber is next to the head and the small end terminating at its apex in a boundary formed like a knife edge with the incline on the inside as a continuation of the taper of the chamber, and a tapered guide piece fitting the tapered chamber nearly to its apex and providing a transverse spiral wall to form two spiral tapered passages, the small end of which wall is made of small thickness to permit the two spiral columns of water to unite into a solid body before passing through the final portion of the tapered chamber adjacent to the aperture.

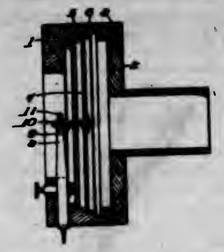
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1,041,799. SOUND-BOX FOR TALKING-MACHINES. ELDRIDGE R. JOHNSON, Philadelphia, Pa., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed Apr. 22, 1902. Serial No. 104,612. (Cl. 181—11.)

1. In a sound box, the combination with a support, of a diaphragm located therein, and an inclined bearing surface for the periphery of said diaphragm.

2. In a sound box, the combination with a support, of a diaphragm located therein, an inclined bearing surface on the interior of the support, an elastic covering for said inclined bearing surface against which the circumferential surface of the diaphragm rests and an elastic cement connecting said circumferential surface and said bearing surface.

3. In a sound box, the combination with a casing, of a ring in said casing and having a tapering internal surface, and a diaphragm having its circumferential surface resting adjacent the tapering internal surface of said ring and cemented thereto.



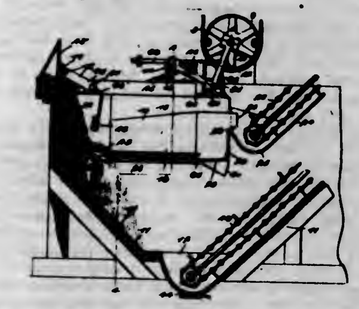
4. In a sound box, the combination with a casing of a diaphragm, an inclined seat supported in the casing adjacent which the peripheral edge of the diaphragm rests, a stylus bar mounted on the casing, and an adjustable connection between said stylus bar and said diaphragm whereby said diaphragm may be properly adjusted on its seat.

5. The combination with a sound box casing, of a diaphragm located therein, cement holding said diaphragm in position, a stylus bar yieldingly mounted on said casing, a pin rigidly secured to the diaphragm, said stylus bar being provided with an aperture through which said pin passes, and a set screw for holding the pin in position with respect to the bar.

[Claims 6 to 15 not printed in the Gazette.]

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1,041,800. COAL-WASHING JIG. GEORGE W. KELLER, CHARLES BRASSINGTON, ABRAHAM BRASSINGTON, and HARRY D. KOSTENBAUDER, Aristes, Pa. Filed Jan. 4, 1912. Serial No. 669,322. (Cl. 83—80.)



1. The combination with a jig tank and a cradle to reciprocate therein, of supporting arms connected at one of their ends to the cradle, inclined supports mounted upon the jig tank, a transverse shaft, the other ends of said arms being fixed to the shaft, bearings for the shaft longitudinally adjustable upon said supports, inclined hanger arms connected to said cradle and adjustable on the jig tank independently of said first named arms to vary their inclination with relation to the cradle, and means for actuating the cradle.

2. The combination with a jig tank and a cradle to reciprocate therein, of supporting arms connected to one end of the cradle, a transverse shaft, the other ends of said arms being fixed to said shaft, obliquely movable bearings for the shaft mounted upon the jig tank, means for rigidly securing said bearings in their adjusted positions, inclined hanger arms connected to the other end of the cradle, bracket plates mounted on the jig tank, and means for adjusting said arms upon the bracket plates to vary their inclination with relation to the cradle, and means for actuating the cradle.

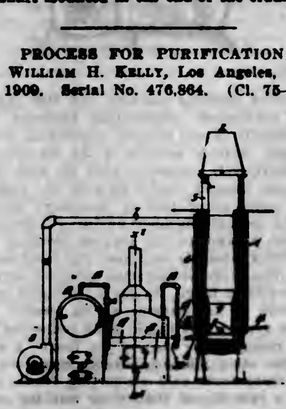


3. The combination with a jig tank and a cradle to reciprocate therein, of supporting arms connected to one end of said cradle, a transverse shaft, said arms being fixed upon the shaft, longitudinally inclined supports mounted upon the walls of the tank, adjustable bearings for the ends of said shaft longitudinally movable on the supports, inclined hanger arms connected to the other end of said cradle, and means for mounting said arms upon the jig tank and vertically adjusting the same to vary their inclination with relation to the cradle, and means for actuating said cradle.

4. The combination with a jig tank and a cradle to reciprocate therein, of a transverse shaft mounted in one end of the cradle, supporting arms loosely connected to said shaft, inclined supports mounted upon the walls of the jig tank, bearings longitudinally adjustable upon the inclined surfaces of said supports, a shaft rotatably mounted at its ends in said bearings, the other ends of the cradle supporting arms being fixed upon said shaft, a transverse shaft mounted upon the jig tank, inclined hanger arms loosely mounted upon said shaft and connected to the cradle, and means for vertically adjusting said transverse shaft to vary the inclination of the arms with relation to the cradle, and actuating means connected to the shaft mounted in the end of the cradle.

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1,041,801. PROCESS FOR PURIFICATION OF METALS. WILLIAM H. KELLY, Los Angeles, Cal. Filed Feb. 8, 1909. Serial No. 476,864. (Cl. 75—44.)



1. The process of purifying metals which consists in melting the metals and directing on the body of metal as it melts a current of air together with steam which has been heated to a sufficient temperature to cause dissociation of a part thereof.

2. The process of purifying metals which consists in melting the metals in a chamber and directing into said chamber air together with steam which has been superheated to a sufficient temperature to cause dissociation of a part thereof.

3. The process of purifying metals which consists in charging the metal into a chamber, melting the metal by the action of a fire in conjunction with an air blast, and passing into the chamber together with the air blast nascent oxygen and hydrogen.

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1,041,802. RECORDING-KEY. CHARLES F. KETTERING, Dayton, Ohio. Filed Aug. 9, 1909. Serial No. 511,912. (Cl. 234—39.)



1. A recording key comprising a key portion and an attached recording mechanism in combination with a lock, said mechanism recording therein particular characterising index for the particular lock into which the key is inserted.

2. A recording key comprising a key portion in combination with a lock, and a recording mechanism attached to said key portion and actuated by the operation of the latter, said recording mechanism being constructed to record a certain characterising index for the particular lock into which the key is inserted.

3. The combination with a recording key comprising a key portion and a recording mechanism attached thereto including a recording element movable to a plurality of different positions; of a series of locks operable by the common key, each of said locks containing an operating element for moving said recording element, and said operating elements being distinctively constructed for each of said series of locks to produce correspondingly distinctive recordations by the recording element.

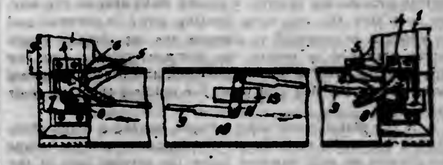
4. The combination with a key, of a recording mechanism attached thereto, including a marking device for marking a record strip; a series of locks operable by the common key; and an operating element formed in each lock and positioned to engage and operate the marking device when the key is inserted into the lock, said operating elements each being constructed in distinctive operative forms for actuating the marking device differently for each lock and thereby producing in the recording mechanism a plurality of characterising indicia for the series of locks.

5. The combination with a key, of a recording mechanism attached thereto including a marking device for marking a record strip; a series of locks operable by the common key; an operating element in each lock for actuating the marking device, said elements have distinctive shapes for actuating the marking device differentially; and means for feeding the record strip as an accompaniment to the movement of key in the lock.

[Claims 6 to 11 not printed in the Gazette.]

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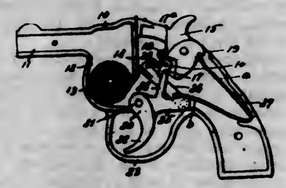
1,041,803. WINDOW-LOCK. JOHN EDWIN KILBURN, Philadelphia, Pa., assignor, by mesne assignments, to Hale and Kilburn Company, Philadelphia, Pa., a Corporation of Delaware. Filed Mar. 11, 1911. Serial No. 613,808. (Cl. 16—51.)



1. The combination with a window having a sash formed of hollow sheet-metal frame-members, of two latches mounted at opposite sides of the sash each having a movable manually-actuated member upon the exterior of the sash and a bolt controlled thereby, and connecting devices lying within one of the hollow frame-members of the sash and connecting the manually-actuated members of the two latches so that when either is actuated to withdraw its bolt the other will be simultaneously actuated, substantially as set forth.

2. The combination with a window having a sash formed of hollow sheet-metal frame-members, of two latches mounted at opposite sides of the sash each having a movable manually-actuated member upon the exterior of the sash and a bolt controlled thereby, connecting rods lying within one of the hollow frame-members of the sash and each connected at one end to the manually-actuated member of one of the said latches, a bar to which the other ends of said rods are pivotally connected, a finger-grip secured in an opening in said frame-member, and means for pivotally mounting said bar upon the inner side of said finger-grip, substantially as set forth.

**1,041,804. TOY PISTOL.** JOSEPH D. KILGORE, Homestead, Pa., assignor to Louis Edwin Rott, Homestead, Pa. Filed June 24, 1912. Serial No. 705,612. (Cl. 42—57.)



1. A toy pistol comprising a frame having a firing abutment, a hammer, an escape dog pivoted on the hammer, a cap strip feeding pawl, a trigger having a rigid arm for actuating the hammer through the dog, and a second arm on which the feeding pawl is pivoted for actuating said pawl, a return spring for the hammer and trigger, and a second spring tending to hold the dog and the pawl to their work.

2. A toy pistol comprising a frame having a firing abutment, a hammer, an escape dog pivoted on the hammer and free to be moved in one direction, a cap strip feeding pawl bearing at its free end against said abutment, a trigger having a rigid arm to engage the dog and actuate the hammer, and a second arm to which the feeding pawl is pivoted and by which it is operated, a U-shaped return spring for the hammer and the trigger and a second spring connected to the dog and pawl for holding them in operative position.

3. A toy pistol comprising a frame having a firing abutment, and a chamber to receive a roll of paper cap ammunition, a hammer arranged to strike said abutment, an escape dog having a depending finger, pivoted on the hammer and free to be moved in one direction, a cap strip feeding pawl bearing at its free end against said abutment to feed the ammunition strip to the hammer, a trigger having a rigid arm arranged to engage the finger on said dog and raise the hammer to firing position, then slip from said finger and permit the hammer to fall, said dog turning on its pivot to permit the return of the operating arm on the trigger, a second rigid arm on the trigger to which the cap strip feeding pawl is pivoted and by which it is operated to advance the cap strip, a single spring arranged to return the hammer, trigger and cap strip feeding pawl to normal position, and a second spring connected to the dog and pawl for holding them to their work.

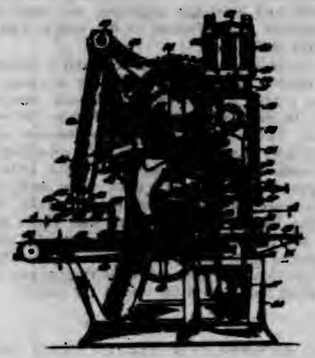
4. A toy pistol comprising a frame having a firing abutment, a forwardly striking pivoted hammer, and an escape dog pivoted on said hammer below the pivotal axis of the latter, a trigger having an arm that engages said dog to raise the hammer to firing position and then escapes from the dog to permit the hammer to fall, a cap strip feeding pawl pivoted on said trigger and bearing at its free end against said abutment, a spring for retracting both the hammer and the trigger, and a second spring for retracting the dog and holding the feeding pawl against the abutment.

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**1,041,805. BRICK-PRESSING MACHINE.** HOWARD K. KING, Philadelphia, Pa., assignor to Chambers Brothers Company, a Corporation of Pennsylvania. Filed Mar. 1, 1907. Serial No. 360,616. (Cl. 25—96.)

1. In a brick pressing machine, the combination of cooperating plungers, a toggle, having its fulcrum mounted in the framework of the machine directly operating on one plunger, one arm of said toggle being pivotally connected with said fulcrum, movably supported slide rods for supporting the other plunger, a roller on the knee of the toggle and a coöperating cam-way connected with the slide rods for raising and lowering said last mentioned plunger.

2. In a brick pressing machine, the combination of cooperating plungers, a toggle directly operating on one plunger, cam means operated by the knee of the toggle for operating the other plunger, and an eccentric at the fulcrum of the toggle journaled in a sliding box adapted to engage the supporting structure of said last mentioned plunger.



3. In a brick pressing machine, the combination of a stationary framework, coöperating plungers, a toggle operating directly on one plunger, supporting rods for the other plunger, slidably secured in the stationary framework and operatively connected with the knee of the toggle, a movable member connected with the slide rod and having an independent limited movement with respect thereto, said movable member having an eccentric journaled therein, as and for the purpose specified.

4. In a brick pressing machine, the combination of a stationary framework, coöperating plungers movably connected therewith, a toggle, having its fulcrum mounted in the framework of the machine acting directly upon one plunger, one arm of said toggle being connected with said fulcrum, a roller at the knee of the toggle, a supporting frame for the other plunger movably connected with the stationary framework, said supporting frame being provided with a cam-shaped channel or way for coöperating with the roller during a portion of the movement of the toggle to cause the upward and downward actuation of said last mentioned plunger.

5. In a brick pressing machine, the combination of a stationary framework, coöperating plungers movably connected therewith, a toggle directly operating on one plunger, a projection at the knee of the toggle, a movable supporting frame for the other plunger, provided with a cam-shaped channel or way adapted to coöperate with the projection at the knee of the toggle during part of the movement of the toggle, an eccentric integral with and adjacent the journal of the fulcrum of the toggle and a journal box for said eccentric connected with the movable supporting frame of the plunger and having a limited independent movement therewith, the parts so proportioned and adjusted that the eccentric will cause a movement of the movable supporting frame after the projection on the knuckle of the toggle is free from its coöperating channel.

[Claims 6 to 15 not printed in the Gazette.]

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**1,041,806. FOLDING-MACHINE.** HOWARD K. KING, Philadelphia, Pa., assignor to Chambers Brothers Company, a Corporation of Pennsylvania. Filed June 29, 1908. Serial No. 440,986. (Cl. 101—120.)

1. In combination with a plurality of folding devices arranged in alinement and adapted to deliver folded sheets in sequence directly into a common path of travel, a plurality of sheet feeders delivering to the folding devices, said feeders arranged in a row side by side all feeding in the same direction and in sequence, and means whereby the passage of a sheet from one feeder controls the passage of a sheet from another feeder.





2. In combination with a plurality of folders adapted to deliver folded sheets directly into a common pile, a plurality of sheet feeders delivering to the folders simultaneously and in sequence, said feeders arranged in a row side by side, and means whereby the passage of a sheet from one folder controls the operation of a feeder.

3. In combination with feeding and folding means, means for carrying away, or delivering complete numbers, comprising a delivering drum operatively connected with the feeding and folding mechanism, gripper elements operatively connected with the delivering drum, a switch for diverting imperfect numbers adjacent said drum, and mechanism connected with the operating parts of the machine for controlling the switch.

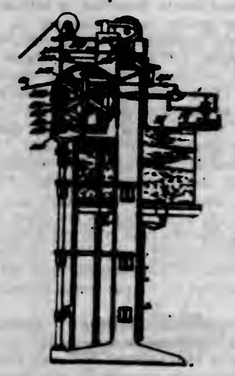
4. In combination with a plurality of folding devices having one element of each folding device on a continuous shaft, a plurality of feeding devices arranged in line, and delivering in parallel for delivering a plurality of sheets to the folding machine simultaneously, said sheets upon their passage from the folding devices, adapted to be delivered into a common path of travel.

5. In combination with folding devices comprising a plurality of pairs of folding rollers arranged end to end in line, one of each pair of rollers mounted on a continuous shaft, a plurality of adjacent feeding devices arranged in line and delivering in parallel for delivering a plurality of sheets thereto simultaneously, and means between adjacent devices for controlling the delivery of sheets from the feeding to the folding devices.

[Claims 6 to 49 not printed in the Gazette.]

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**1,041,807. SHEET-FEEDING MACHINE.** HOWARD K. KING, Philadelphia, Pa., assignor to Chambers Brothers Company, a Corporation of Pennsylvania. Filed Mar. 31, 1909. Serial No. 486,934. (Cl. 101—39.)



1. In a sheet feeding machine, a combing wheel, regulatable pneumatically operated means for pressing said wheel upon the sheet, means for blowing air between the sheets and means for securing a constant pressure relation between said combing wheel and blowing means.

2. In a sheet feeding machine, a combing wheel, air pressure means of varying range for communicating pressure to the wheel, means for blowing air between the sheets and means for securing a constant pressure relation between said combing wheel and blowing means.

3. In a sheet feeding machine, the combination of a combing wheel, means for imparing a varying pneumatic pressure to the wheel, means for blowing air between the sheets and means for securing a constant pressure relation between said combing wheel and blowing means.

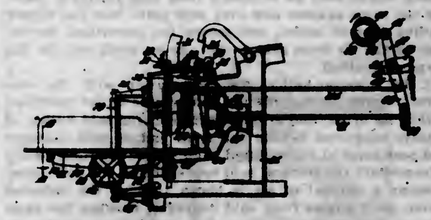
4. In a sheet feeding machine, having pneumatically controlled sheet separator and trip mechanism, an air pressure system for controlling said pneumatically controlled mechanisms, comprising two reservoirs, one having a high constant pressure and the other a low variable pressure.

5. In a sheet feeding machine, having pneumatically operated sheet separator and trip mechanism, an air pressure system for operating said pneumatically operated mechanisms, comprising two reservoirs, one having a high constant pressure and the other a low variable pressure, and means for maintaining said different pressures.

[Claims 6 to 56 not printed in the Gazette.]

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**1,041,808. PACKING MECHANISM.** HOWARD K. KING, Philadelphia, Pa., assignor to Chambers Brothers Company, a Corporation of Pennsylvania. Filed July 15, 1910. Serial No. 572,068. (Cl. 101—43.)



1. In a packing mechanism, the combination of a trough comprising a number of split slat elements, and recessed side elements, a pair of supporting rods therefor, a pair of vertical posts and horizontal bars slidable thereon as supporting means for said rods, and rack and pinion means for causing the vertical adjustment of said horizontal bars thereof.

2. In combination with folding and feeding mechanism, a packing mechanism comprising a trough having separated split slats comprising part of the bottom thereof, and removable sides and partitions, vertically adjustable supporting means for said trough elements, adjustable cutting elements comprised in the feeding mechanism, and interchangeable pacter members slidably connected with the trough, as and for the purpose specified.

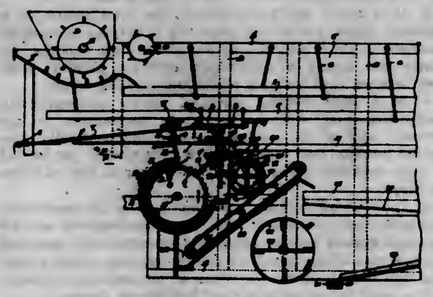
3. In a packing mechanism, the combination of a trough, means for delivering sheets thereto, oppositely disposed series of hooks, each series mounted on a rock shaft, and sector-gear mechanism connecting said rock shafts with a source of power as means for rocking said shafts simultaneously to open and close the hooks.

4. In a packing mechanism, the combination of a trough and means for feeding sheets thereto, two oppositely disposed series of hooks, each series mounted on a rock shaft, a vertical shaft having sector gear connection between said rock shafts, and cam means for oscillating the vertical shaft.

5. In combination with folding and feeding mechanism a packing mechanism, comprising a trough having separated split slats comprising part of the bottom thereof, and removable sides and partitions, vertically adjustable supporting means for said trough elements, and adjustable cutting elements comprised in the feeding mechanism, as and for the purpose specified.

[Claims 6 and 7 not printed in the Gazette.]

1,041,809. CLOVER-HULLER. MARMADUKE KING, Fingerboard, Ontario, Canada. Filed Mar. 18, 1912. Serial No. 684,421. (Cl. 130—2.)



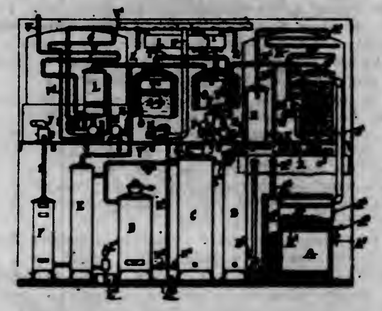
1. In a clover-huller, the combination with the conveyer; means for operating the same; the huller operating within its drum, and a suitable hopper for said huller, of a plate supported beyond the front end of said conveyer and positioned at the required angle; a blower functionally intermediate the front of said conveyer and the said plate, whereby a current of air is blown through the unhulled clover seed as it passes from said conveyer, blowing the same against and over said plate into the hopper leading to said huller, and means for permitting the escape of the air from said hopper, as set forth and for the purpose specified.

2. In a clover-huller, the combination with the conveyer; means for operating the same; the huller operating within its drum, and a suitable hopper for said huller, of a plate supported beyond the front end of said conveyer and positioned at the required angle; a blower functionally intermediate the front of said conveyer and the said plate, whereby a current of air is blown through the unhulled clover as it passes from said conveyer, blowing the same against and over said plate into the hopper leading to said huller; means for permitting the escape of the air from said hopper, and a plate supported by said machine between said blower and said huller whereby the refractory bodies as they are separated from the unhulled clover are prevented from passing into said huller.

3. In a clover huller, the combination with the stemmer; means for operating the same; the conveyer; means for operating the same, and the huller, operating within its drum, of a drum open at each end to permit the necessary air supply, supported within said machine, and provided with a discharge spout; means within said drum for creating a current of air; a plate supported at an upward-outward angle by said machine in advance of the front end of said conveyer and the discharge spout of the said drum; a hopper for said huller; a plate positioned intermediate said drum and said huller to prevent the passage of the separated bodies of refractory material into said huller, and an air-box carried by said stemmer, whereby the current of air escapes from the upper part of the hopper for said huller, the whole being arranged and set forth for the purposes specified.

4. In a clover huller, the combination with the stemmer; means for operating the same; the conveyer; means for operating the same, and the huller, operating within its drum, of a drum open at each end to permit the necessary air supply, supported within said machine and provided with a discharge spout; means within said drum for creating a current of air; a plate supported at an upward-outward angle by said machine in advance of the front end of said conveyer and the discharge spout of the said drum; a hopper for said huller, the same provided with a forward flexible wall which is supported at its upper end by said stemmer; a plate positioned intermediate said drum and said huller to prevent the passage of the separated bodies of refractory material into said huller, and an air-box carried by said stemmer, whereby the current of air escapes from the upper part of the hopper for said huller, the whole being arranged as set forth and for the purpose specified.

1,041,810. METHOD AND MEANS FOR UTILIZING FUEL-WASTES AND GENERATING POWER. JOSEPH MORIS WARD KITCHEN, East Orange, N. J. Original application filed Apr. 3, 1909, Serial No. 487,694. Divided and this application filed June 28, 1909. Serial No. 504,778. (Cl. 60—1.)



1. The method herein described for utilizing fuel wastes and generating power, which consists in, (1) distilling fuel and producing the separate products, coal gas, coke and exhaust hot gases, (2) generating producer gas from the coke product in a step separate and apart from the step of distilling the fuel, (3) generating motive energy from the producer gas, (4) generating motive energy from the exhaust hot gases, and (5) uniting the two motive energies.

2. The method herein described of utilizing fuel wastes and generating power, which consists in, (1) distilling fuel and producing a combustible gas, coke and exhaust hot gases, (2) making water gas from the coke, (3) making producer gas from the coke, (4) enriching the producer gas with the water gas, (5) generating motive power from the gas generated, (6) generating motive power from the exhaust hot gases, and (7) uniting for work the two motive powers generated.

3. The method herein described of utilizing fuel wastes and generating power, which consists in, (1) distilling fuel and thereby producing a combustible gas, coke and hot exhaust gases, (2) super-heating water with the hot exhaust gases, (3) accumulating and storing the super-heated water, (4) generating motive power from the accumulated and stored super-heated water, (5) generating motive power from the coke, and (6) uniting the two motive powers generated for useful work.

4. The method herein described of utilizing fuel wastes and generating power, which consists in (1) distilling fuel, said step producing a combustible gas, coke and hot exhaust gases, (2) generating motive power from the coke, (3) generating motive power from the hot gases exhausted in said first and second steps, and (4) using, regeneratively in the step of distilling the fuel, the low temperature heat exhausted in the two steps of generating motive power.

5. The method herein described of utilizing fuel wastes and generating power, which consists in, (1) distilling fuel and producing a combustible gas, coke and hot exhaust gases, (2) generating combustible gas from the coke by heating the coke, (3) generating steam from the heat wastes of both of the said steps, (4) generating and uniting electric energy from the steam and from the combustible gas generated in heating the coke.

[Claims 6 to 23 not printed in the Gazette.]

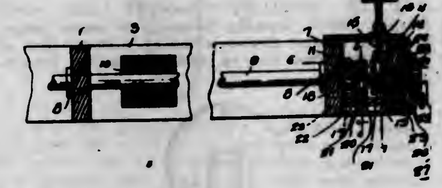


1,041,811. DOOR-ALARM. WILLIAM E. KLEIN, Chicago, Ill. Filed June 4, 1910. Serial No. 565,109. (Cl. 116—44.)



In combination a door lock having a separable operating shaft, a spring adapted to hold said shaft normally connected, means for holding said shaft separated, means for sounding an alarm when said shaft is connected and rotated, said means consisting of a plate mounted on said shaft, an escutcheon having springs secured thereto adapted to hold said plate in a normal position, a gear pivotally mounted on said escutcheon, arms connected to the opposing sides of said plate and to the opposing sides of said gear whereby said gear may be rotated, a pinion mounted on a shaft on said escutcheon meshing with said gear, a bell on the opposing side of said escutcheon, and means on said last-named shaft for actuating said bell.

1,041,812. BURIAL APPARATUS. EDWARD KNELL, Carthage, Mo.; Susan L. Knell executrix of said Edward Knell, deceased. Filed July 22, 1910. Serial No. 573,280. (Cl. 27—6.)



In a device of the class described, the combination with a two-part frame, of means for hinging them together, web winding shafts journaled in each part of the frame, means for simultaneously operating said shafts, escapement means mounted in one of the parts of the frame for regulating the speed of the shafts in unwinding, and means for throwing said last-named means out of operative position for winding the shafts, together with casket supporting webs carried by the shafts.

1,041,813. ATTACHMENT FOR MOVING-PICTURE MACHINES. FRANK C. KNOPF, Toledo, Ohio. Filed Dec. 20, 1911. Serial No. 667,053. (Cl. 88—17.)



1. In a machine of the class described, the combination with an intermittently moving film-feeding roll, of a continuously driven feed-roll having its film coacting part adapted to back turn when undue pressure is exerted thereon by the film.

2. In a machine of the class described, a film-feeding roll having a continuously rotating part and a part with which a film coacts adapted to back turn relative to said continuously rotating part when undue back pressure is exerted on the roll by the film.

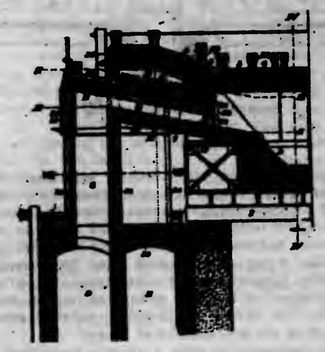
3. In a machine of the class described, a continuously rotating shaft, a film-feeding roll mounted on said shaft and having a plurality of parts; one of which is fixed to the shaft while the other has yielding clutch engagement with the fixed part to permit a back turning thereof when an undue back pressure is exerted thereon by a film.

4. In a machine of the class described, a driven shaft, a film-feeding roll mounted on said shaft and having a part fixed thereto and a part mounted for free rotation thereon, said roll parts having interengaging surfaces which permit a back turning of the loose part to effect a yielding engagement of the engaging surfaces of such parts.

5. In a machine of the class described, the combination of a continuously driven feed-roll having a film coacting part which is adapted to back turn when undue back pressure is exerted thereon by a film, and an idler-roll adapted to yieldingly act on a film to form a loop therein prior to its coaction with the feed-roll.

[Claim 6 not printed in the Gazette.]

1,041,814. REGENERATIVE REVERSING-FURNACE. LUTHER L. KNOX, Avalon, Pa., assignor to Keystone Furnace Construction Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 14, 1911, Serial No. 614,607. Renewed Mar. 8, 1912. Serial No. 682,518. (Cl. 75—119.)



1. In a regenerative furnace, a gas port forming and cooling structure, comprising separate top, side and bottom members, each of said members having a hollow cooling plate and a refractory lining, the top member being arched and supported by the side members which are vertical, the hollow cooling plates in the top and side members extending from the discharge end of the gas port as far back, at least, as the gas uptake; substantially as described.

2. In a regenerative furnace, a gas port forming and cooling structure, comprising separate top, side and bottom members, each of said members having a hollow cooling plate and a refractory lining, the top member being arched and supported by the side members which are vertical, the hollow cooling plates in the top and side members extending from the discharge end of the gas port as far back, at least, as the gas uptake, the structure having also a separate water-cooled end wall which forms the outer wall of the upper portion of the gas uptake; substantially as described.

3. In a regenerative furnace, a gas port forming and cooling structure, comprising separate top, side and bottom members, each of said members having a hollow cooling plate and a refractory lining, the top member being arched and supported by the side members which are verti-

cal, the hollow cooling plates in the top and side members being extended to inclose and form the upper portion of the gas uptake; substantially as described.

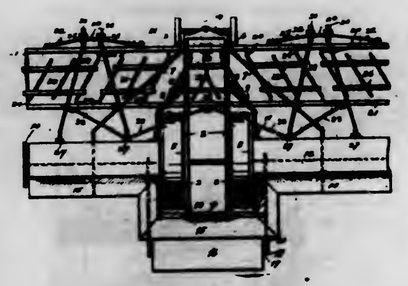
4. In a furnace of the class described, having gas and air ports, a refractory wall separating said ports, and a cooling member extending inwardly through the end wall of the furnace underneath said refractory wall, said cooling member having supports for a refractory lining and also having a refractory nose portion at its inner end and supported by it; substantially as described.

5. A furnace of the class described, having its air and gas up-takes surrounded by hollow cooling jackets, the chambers of said jackets being connected at their junctions to form a continuous space for a cooling medium; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,815. TRACTOR-HITCH FOR DRILLS AND DRAGS. PEDER M. KNUTSON, Clifford, N. D., assignor of one-half to John Falkenhagen, Galesburg, N. D. Filed Nov. 15, 1911. Serial No. 660,894. (Cl. 111—18.)



1. The combination with a tractor including a frame, of a pair of spaced beams arranged transversely thereof, a series of harrows flexibly connected to said beams, a pair of bars rigidly connected to the frame near the outer end of the frame and extending rearwardly and slightly beyond said frame, a hopper supported upon the extended ends of said bars, hoppers secured to the outer sides of said bars and in advance of the first mentioned hopper, and means carried by the second mentioned hoppers to operate the drop shaft of the first mentioned hopper.

2. The combination with a tractor including a frame consisting of side and end sills, a beam rigidly connected to the rear end sill of the frame, a pair of bars having their forward ends rigidly connected to the side sills of the frame and their rear ends projected beyond the rear end sill, and supported upon the said beam, a hopper supported upon the projected ends of said bars, a second pair of bars having their outer ends rigidly connected to the side sills of the frame, and in advance of the outer ends of the first mentioned pair of bars, said second pair of bars extended rearwardly and stopping at a point short of the rear sill of said frame, hoppers connected to the sides of the first mentioned bars, said hoppers being also connected to the central portion of the last mentioned hoppers, and a series of flexibly connected harrows arranged in advance of said hoppers.

3. The combination with a tractor including a wheeled supported frame, of a pair of bars rigidly connected to said frame and extending rearwardly, hoppers connected to and supported by said bars, a pair of beams arranged transversely of said frame and in advance of the hoppers, a series of harrows flexibly connected between said beams, V-shaped members pivotally connected to certain of said hoppers at their rear ends, said members being provided at their forward ends with caster wheels, and pivotally connected links connecting the beams with the forward end of the V-shaped members and certain of the hoppers.

1,041,816. BOTTLE-STOPPER. VICTOR H. KOPALS, Brooklyn, N. Y. Filed June 3, 1911. Serial No. 631,019. (Cl. 215—27.)



1. A bottle stopper comprising the stopper proper, a cap on the top of the stopper with small side openings permanently secured thereto, and a wire on the stopper within said cap, the ends of said wire passing through the said openings in the cap.

2. A bottle stopper comprising a cork stopper, a metal cap permanently secured thereto at its top portion covering the top and a short portion of its sides and having a small side opening; a wire within said cap around the stopper passing through the side opening of the cap, said wire being adapted to be wound around the neck of the bottle and long enough to permit of the removal or insertion of the cork.

3. In combination with the neck of the bottle, a cork stopper, a metal cap permanently secured thereto at its top portion covering the top and a short portion of its sides and having a small side opening, a wire within said cap around the stopper passing through the side opening of the cap, said wire being adapted to be wound around the neck of the bottle and long enough to permit of the removal or insertion of the cork.

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1,041,817. METALLIC-FILAMENT LAMP. OTTO KRAUSE, Berlin, Germany, assignor, by mesne assignments, to General Electric Company, a Corporation of New York. Filed Oct. 16, 1909. Serial No. 522,910. (Cl. 176—89.)



1. The combination of an axially open filament holder, a filament wholly supported on said holder, a stem projecting into said open holder, said stem being normally out of contact with said holder and an elastic support to maintain said holder in the lamp.

2. The combination of an axially open filament holder, a filament wholly supported on said holder, a stem projecting into said open filament holder having a cylindrical tubular form, said stem being normally out of contact with said holder and an elastic support to maintain said holder in the lamp.

3. The combination of an axially open filament holder, a filament wholly supported on said holder, a stem projecting into said open holder, said stem being normally out of contact with said holder and an elastic support to maintain said holder in the lamp, said elastic support comprising a plurality of springs operating on different portions of said holder.



4. The combination of an axially open filament holder, a filament wholly supported on said holder, a stem projecting into said open holder, said stem being normally out of contact with said holder and an elastic support to maintain said holder in the lamp, said elastic support comprising a plurality of springs operating on different portions of said holder, each spring having several gripping surfaces.

5. The combination of an axially open filament holder, a filament wholly supported on said holder, a stem projecting into said open holder, said stem being normally out of contact with said holder and an elastic support to maintain said holder in the lamp, said elastic support being interposed between the stem and the filament holder.

[Claims 6 to 18 not printed in the Gazette.]

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1,041,818. BILL-FILE. FRANK J. KRISTOFEK, Chicago, Ill., assignor to Cruver Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 21, 1911. Serial No. 667,111. (Cl. 129—21.)



1. In a bill file, a board having a longitudinal perforation near one end, a metal strip, said metal strip having a loop therein, said loop projecting through said perforation, a U-shaped wire, one arm of said wire passing through said loop, the projecting end of said arm being bent at right angles to the plane of the arms of said wire, and said loop having a notch therein adjacent said board adapted to receive said bent end.

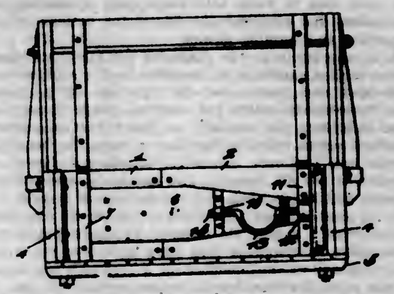
2. In a bill file, a board, said board having a perforation near one end, a metal strip having a loop therein, said loop projecting through said perforation, a U-shaped wire, one arm of said wire passing through said loop, the projecting end of said arm being bent at an angle, the other end of said wire being pointed, said loop having a notch therein and the bent portion of said arm lying in said notch.

3. In a bill file, a board, a metal strip attached to said board, a loop in said strip, a U-shaped wire, one arm of said wire passing through and projecting from said loop, and a bend on said projecting end, said loop having a notch therein adjacent said board and said bent end lying in said notch.

4. In a bill file, a board having a longitudinal opening near one end, a metal strip having a loop substantially midway between its ends, said loop projecting through said opening, a U-shaped wire, one arm of said wire passing through said loop, the projecting end of said arm being bent at right angles to the plane of the arms of said wire, said loop having a notch adjacent said board adapted to receive said bent end and hold the plane of the arms of said wire substantially at right angles to said board; the other end of said wire being pointed, the ends of said strip being bent in opposite directions against said board to assist in securing said strip to said board.

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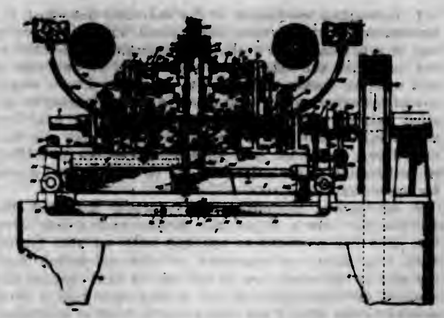
1,041,819. END-GATE FASTENER. PHIL EUGENE LANE, Urbana, Iowa. Filed Apr. 27, 1912. Serial No. 693,542. (Cl. 21—21.)



The combination with an end gate consisting of hingedly connected sections, of a cleat connected to one of said sections and adapted to overlap the other section, straps connected to the relatively free end of said cleat, a latch mounted to turn and slide in said straps and formed at one end with a laterally disposed lug arranged in offset relation to the handle, a batten secured to one of the sections of the end gate and provided with a keeper slot, a band of relatively greater width than the batten secured thereupon and formed with an arched portion, said band extending beyond one edge of said batten, the said latch being formed with a projection adjacent the lug and opposite thereto, said latch adapted to extend into the said keeper slot when in closed position, the said lug adapted to bear against one side of said batten, and the said projection on the latch adapted to frictionally engage that portion of the band extending beyond the said batten whereby the latch is frictionally held in closed position and rattling of the end gate is prevented.

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1,041,820. MACHINE FOR INSERTING TAPE BUSHINGS IN PIANO-ACTIONS. ADOLPH LARSON and JACOB JACOBSEN, Rockford, Ill. Filed June 23, 1911. Serial No. 634,997. (Cl. 144—2.)



1. In apparatus of the character set forth, the combination with a die having an open sided and open ended die channel, of means entering the die to deposit a bushing blank in the channel, other means entering the open side to form said blank into a bushing, and means for moving the bushing longitudinally in the channel.

2. In apparatus of the character set forth, the combination with a die having an open sided and open ended die channel, of a plunger that enters the die channel to de-

posit a bushing blank in the channel, means for moving the deposited blank longitudinally in the channel, and a finger entering the open side to form said introduced blank into a bushing.

3. In apparatus of the character set forth, the combination with a die having a channel provided with an open side, of means entering the die channel to deposit a bushing blank therein, means for shifting the deposited die longitudinally in the channel, other means entering the open side to form said blank into a bushing, and mechanism for effecting the successive actions of said depositing and forming means.

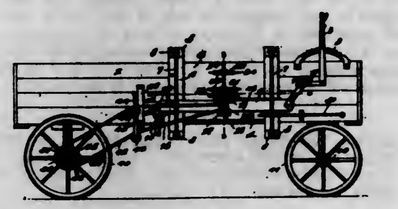
4. In apparatus of the character set forth, the combination with a rotatable die member having a plurality of open-sided and open-ended die channels, of a plunger that successively enters the bushing blanks through the open ends into the channels, a finger that successively enters the open sides of the dies to form the introduced blanks into bushings, means for effecting a step-by-step rotation of the die member, and means for operating the plunger and finger when the die member is at rest.

5. In apparatus of the character set forth, the combination with a rotary die member having a plurality of open-ended die channels, that have sides opening through the periphery of said member, of a reciprocating plunger at one point for introducing blanks successively into the die channels through their open ends, a reciprocating forming finger successively entering the die channels at another point, a power shaft, ratchet mechanism driven by the power shaft for effecting a step-by-step rotation of the die member, and mechanism driven by the power shaft for effecting the movements of the plunger and finger when the die member is at rest.

[Claims 6 to 38 not printed in the Gazette.]

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1,041,821. CORN-TOPPING MECHANISM. ZENAS R. LILE and VIRGIL H. DAVIDSON, Corbin, Kans. Filed Nov. 22, 1911. Serial No. 661,716. (Cl. 56—131.)



1. In topping mechanism of the character described, the combination with a wagon box formed with a side opening, of a bar having a vertically adjustable connection at one end with the side of the wagon box at one side of said opening, means supported by the side of the wagon box at the other side of said opening and connected to the other end of the bar for vertically adjusting said last named end higher and lower or on a level with the first named end of the bar and for holding the bar in adjusted positions, a rotary cutter carried by the bar, and means for operating said cutter.

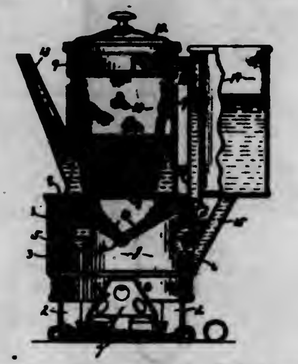
2. In topping mechanism of the class described, the combination with a wagon box formed with a side opening, of a bar provided at one end with an arm formed with a plurality of apertures, a stud projecting from the side of the wagon box at the rear of said opening and adapted for engagement in any of said apertures, a lever carried by the side of the wagon box in front of said opening, a link connection between the forward end of the bar and said lever, a rotary cutter carried by the bar, and means for operating said cutter.

3. A machine of the class described comprising a vehicle having a side provided with an opening, a supporting bar extending across the said opening and provided at one end with means attaching the same to the side for vertical adjustment, guides for the said supporting bar, a lever on said side having an arm, a link connecting said arm to the other end of said supporting bar, a bracket projecting from said supporting bar, a fixed cutter on said bracket and supporting bar, a vertical shaft carried by said bracket, a rotary cutter and rotary reels carried by said shaft, said rotary cutter coacting with said fixed cutter, a driving gear revolved by a wheel of the vehicle and power transmitting means between said driving gear and the said vertical shaft, to rotate the latter, the rotary cutter and the reel.

4. In topping mechanism of the character described, the combination with a wagon box formed with a side opening; of a supporting bar extending across said opening, the bar being provided at its rear end with a downwardly extending and vertically disposed arm formed with a plurality of apertures, a stud projecting from the side of the wagon box and adapted to enter the apertures of said arm, a link pivotally connected to the other end of the bar, a bell crank lever fulcrumed on the side of the wagon box and having one of its arms connected to said link, a cutter and reel carried by said bar, and means for operating said cutter and reel.

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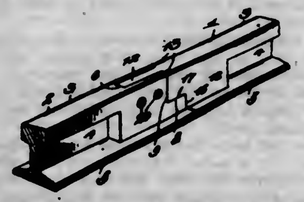
1,041,822. STEEPING COFFEE OR TEA. GAY BARBER DE LIMA, Syracuse, N. Y. Filed Sept. 9, 1911. Serial No. 648,586. (Cl. 126—358.)



In an apparatus of the class described, a water jacket constituting a boiler and having a hollow inverted conical top in communication with the water jacket, a lateral partition in the water jacket extending partially around the same, a tank supported at one side and above the boiler, a conduit connecting the lower end of said tank with the jacket below said partition, and a vertically-extending outlet pipe leading from the jacket above said partition to a point near the upper end of the tank.

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1,041,823. RAIL-JOINT. ROBERT H. LIVELY, Okarche Okla., assignor of one-half to Amseye W. Schooley, Okarche, Okla. Filed Apr. 25, 1912. Serial No. 693,224. (Cl. 239—8.)

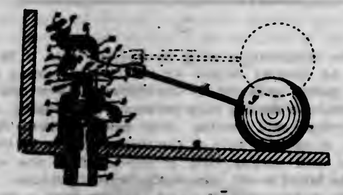


A rail joint comprising a rail having a longitudinal recess formed in one end thereof, said rail having a socket formed in the web thereof at the inner end of said recess and disposed beneath the tread of the rail, said rail having an opening in the base thereof communicating with said socket, the walls of the recess at the outer ends thereof being cut away to form a horizontal seat and a vertical shoulder, and a second rail having an extending tongue formed on one end thereof, an extension formed on the outer end of the tongue at the lower edge thereof and adapted to be arranged in said socket of the first rail, shoulders formed upon the end of the second rail at the inner end of said tongue and adapted to abut against the shoulders of the first rail, angularly disposed shoulders formed upon the end of the second rail at the lower edge of the tongue and adapted to abut with the seats formed on the first rail and the end of said first rail, and bolts disposed through the ends of said rails to securely hold the same against vertical or lateral movement.



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1,041,824. BALL-VALVE FOR FLUSHING-TANKS. WILLIAM LOSER, Portland, Oreg. Filed Jan. 23, 1911. Serial No. 604,256. (Cl. 137—104.)



1. In a ball valve for flushing tanks, the combination of a valve housing having an outlet and an exterior extension constituting a bearing; a valve having a stem reciprocating in the roof of the valve housing and projecting there-through, said valve stem formed with a conical end; an arm and a hollow ball affixed to the end thereof, said arm provided with a cam head made with a slot; a fulcrum pin inserted through such slot of the cam head and affixed in said extension of the valve housing, said pin located to one side of the axis of the valve stem; and the bottom face of said cam head made with a protuberance adapted to ride on said conical end of the valve stem.

2. In a ball valve for flushing tanks, the combination of a valve housing having an outlet and an exterior extension constituting a bearing; a valve having a stem reciprocating in the roof of the valve housing and projecting there-through, said valve stem formed with a conical end; an arm and a hollow ball affixed to the end thereof, said arm provided with a cam head made with a slot; a fulcrum pin inserted through such slot of the cam head and affixed in said extension of the valve housing, said pin located to one side of the axis of the valve stem; and the bottom face of said cam head made with a protuberance adapted to ride on said conical end of the valve stem, said protuberance being provided with an anti-friction device.

3. In a ball valve for flushing tanks, the combination of a valve housing having an outlet and an exterior extension constituting a bearing; a valve having a stem reciprocating in the roof of the valve housing and projecting there-through, said valve stem formed with a conical end; an arm and a hollow ball affixed to the end thereof, said arm provided with a cam head made with a slot; a fulcrum pin inserted through such slot of the cam head and affixed in said extension of the valve housing, said pin located to one side of the axis of the valve stem; the bottom face of said cam head made with a protuberance adapted to ride on said conical end of the valve stem; and the parts being so arranged that when the extremity of the arm of the cam head is lifted above the normal the protuberance on the bottom face of the cam head will have climbed up the conical end of the valve stem and be positioned past the center thereof and lock the valve in its shut position.

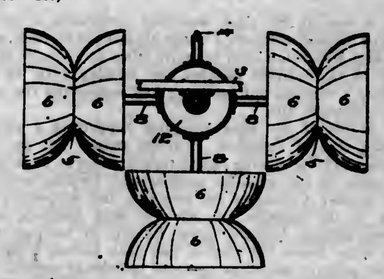
4. In a ball valve for flushing tanks, the combination of a valve housing having an outlet and an exterior extension constituting a bearing; a valve having a stem reciprocating in the roof of the valve housing and projecting there-through, said valve stem formed with a conical end; an arm and a hollow ball affixed to the end thereof, said arm provided with a cam head made with a slot; a fulcrum pin inserted through such slot of the cam head and affixed in said extension of the valve housing, said pin located to one side of the axis of the valve stem; the bottom face of said cam head made with a protuberance adapted to ride on said conical end of the valve stem; and a set-screw arranged for regulating the lift of the arm of the cam head.

5. In a ball valve for flushing tanks, the combination of a valve housing having an outlet and an exterior extension constituting a bearing; a valve having a stem reciprocating in the roof of the valve housing and projecting there-through, said valve stem formed with a conical end; an arm and a hollow ball affixed to the end thereof, said arm provided with a cam head made with a slot; a fulcrum pin inserted through such slot of the cam head and affixed in said extension of the valve housing, said pin located to one side of the axis of the valve stem; the bottom face of said cam head made with a protuberance adapted to ride on said conical end of the valve stem; said protuberance being provided with an anti-friction device; and the parts being so arranged that when the extremity of the arm of the cam head is lifted above the normal the protuberance on the bottom face of the cam head will have climbed up the conical end of the valve stem and be positioned past the center thereof and lock the valve in its shut position.

[Claim 6 not printed in the Gazette.]

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1,041,825. PROPELLER. CHARLES J. LOW, Chelan, Wash. Filed Feb. 14, 1911. Serial No. 608,637. (Cl. 244—19.)



1. In a device of the kind described comprising a vertical shaft, which is rotatably held to the framework of a device on which the device is mounted, horizontal shafts extending radially from the vertical shaft, a pair of hemispheres secured to the outer end of each horizontal shaft, means interposed between each pair of hemispheres and the vertical shaft whereby the former are held to said shaft, said means comprising a horizontal shaft for each pair of hemispheres, substantially as shown.

2. In a device of the kind described comprising a vertical shaft which is rotatably held to the framework of a device on which the device is mounted, horizontal shafts extending radially from the vertical shaft, said horizontal shafts each having a pair of hemispheres secured to the outer end thereof, the hemispheres of each pair having their curved parts contacting and provided with registering perforations within the contacting portions, means interposed between each pair of hemispheres and the vertical shaft whereby the former are held to said shaft, said means comprising a horizontal shaft for each pair of hemispheres, each of which horizontal shafts extends through the registering perforations in its respective pair of hemispheres, each of said first mentioned horizontal shafts provided with a beveled gear upon the inner end thereof, and means to transmit power from the vertical shaft to said horizontal shafts, which means include said beveled gears.

3. A device of the kind described, adapted to be secured to the framework of an air ship or other device, comprising a vertical shaft, four pairs of hemispheres and a horizontal shaft corresponding to each pair of hemispheres, the vertical shaft extending into a tubular bearing and held therein for rotation, said bearing provided with a large beveled gear at its lower end, a bracket secured to the vertical shaft, a plurality of horizontal shafts of lesser diameter than the first-mentioned horizontal shafts upon which said first-mentioned horizontal shafts rotate, the second-mentioned horizontal shafts being held to said bracket which is secured to the vertical shaft, a beveled gear secured to the inner end of each first mentioned horizontal shaft, each of said beveled gears in conjunction with the large beveled gear, coöperating to transmit power from the vertical shaft to its respective horizontal shaft, thereby giving to each pair of hemispheres rotation within itself which is distinct from the rotation of the device as an entirety.

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1,041,826. CHAIN-REPAIR TOOL. JOHN N. MACDONALD, Hartford, Conn., assignor to James M. Macdonald, Wethersfield, Conn. Filed July 20, 1912. Serial No. 710,641. (Cl. 81—15.)



1. A tool of the class described comprising a pair of pivoted crossed members, a wedge shaped bill on each member, said bills being each laterally offset so as to lie in the plane of the opposite member and forming with its own member a shoulder for receiving and supporting the point of the opposite bill.

2. A tool of the class described comprising a pair of pivoted crossed members, a wedge shaped bill on each member, said bills being each laterally offset so as to lie in the plane of the opposite member and forming with its own member a shoulder for receiving and supporting the point of the opposite bill, each of said members being correspondingly recessed below its bill to form a clearance space below the surface and each having a pair of similar grooves providing opposite individual bearing surfaces for closing the hooks while supporting them in parallel position.

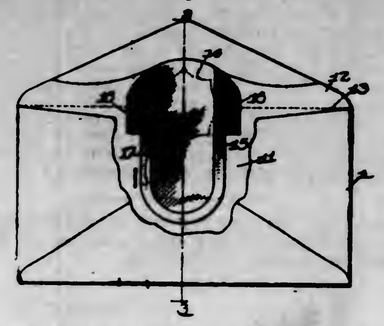
3. A tool of the class described comprising a pair of pivoted crossed members, a wedge shaped bill on each member, said bills being each offset so as to lie in the plane of the opposite member, and forming with its own member a shoulder for receiving and supporting the point of the opposite bill, each of said members being correspondingly recessed below its bill to form similar opposite grooves for supporting double hooks in parallel position during closing.

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1,041,827. ENVELOP. LUTHER D. MACNAUGHTON, Eagle Grove, Iowa. Filed Feb. 16, 1912. Serial No. 677,998. (Cl. 229—85.)

1. The combination with an envelop with a flap and having an opening formed at the line of folding of the flap to permit grasping of the contents for withdrawing the same, of a sealing member for covering said opening within the envelop, said sealing member being connected with said envelop so as to be disconnected therefrom when the envelop is slit open in the ordinary manner, whereby, when the envelop has been slit open, the contents may be withdrawn by grasping the same through said sealing member.

2. The combination with an envelop with a flap and having an opening formed at the line of folding of the flap to permit grasping of the contents for withdrawing the same, of a sealing strip covering said opening, within the envelop, said sealing strip being secured to said envelop at one side only of the line of folding of the flap whereby said sealing strip is severed from the envelop when the latter is slit open in the ordinary manner.



3. The combination with an envelop with a flap and having an opening formed at the line of folding of the flap to permit grasping of the contents for withdrawing the same, of a sealing strip covering said opening, within the envelop, said sealing strip being secured to said envelop at one side only of the line of folding of the flap, whereby said sealing strip is severed from the envelop when the latter is slit open in the ordinary manner.

4. The combination with an envelop with a flap and having an opening formed at the line of folding of the flap to permit grasping of the contents for withdrawing the same, of a sealing strip covering said opening, within the envelop, said sealing strip being formed with rearwardly-extending ears, said ears being secured to the envelop at one side only of the line of folding of the flap, for the purposes set forth.

5. The combination with an envelop with a flap and having an opening formed at the line of folding of the flap to permit grasping of the contents for withdrawing the same, of a sealing strip covering said opening, within the envelop, said sealing strip being secured to said envelop at one side only of the line of folding of the flap whereby said sealing strip is severed from the envelop when the latter is slit open in the ordinary manner, and said sealing strip having an extension at the part adjacent the rear side of the envelop, to prevent reading of the contents of the envelop.

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1,041,828. HYDROCARBON-BURNER. NEWTON W. MANAFFEY, Stockton, Cal. Filed Dec. 4, 1911. Serial No. 663,855. (Cl. 158—91.)



1. A device of the character described comprising a chambered member having an opening in its lower end, a pin disposed across said chambered member, a combustion plate turnably mounted on said pin, an upwardly projecting pipe extending through the upper end of said chambered member, and a cup-like member screw mounted on the upper end of said pipe as described.

2. A device of the character described comprising a chambered member having an opening in its upper and lower ends of a lesser diameter than the diameter of the chamber in said member, a plate suspended centrally in the chamber of said chambered member, an upwardly projecting threaded pipe on said chambered member, and a cup mounted on the upper end of said threaded pipe, as described.

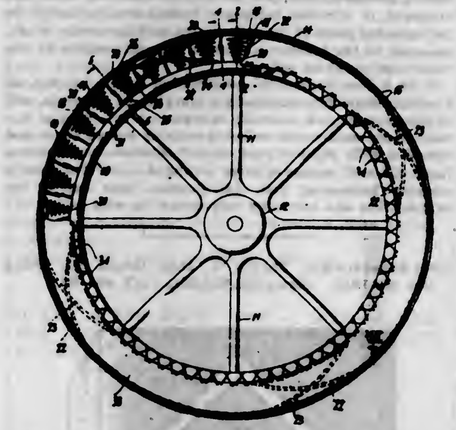
3. A device of the character described comprising a chambered member, such chambered member gradually reducing in diameter toward its lower end to a single opening of a lesser diameter than the diameter of said chamber, and a combustion member suspended centrally in said chambered member, as described.



1. A device of the character described comprising a chambered member having an opening in its lower end, such opening being of a lesser width than the width of the central diameter of the chamber, a pin disposed across the center portion of said chambered member, and a combustion plate mounted centrally on said pin, as described.

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1,041,829. SPRING WHEEL-TIRE. WILLIAM B. MALLORY, Hermosa, S. D. Filed May 12, 1910. Serial No. 560,932. (Cl. 152—8.)



The combination with a wheel including an inner rim, an endless resilient outer rim spaced from the inner rim, a plurality of coiled springs connected at their ends respectively to the inner rim and the outer rim, a plurality of brace chains connecting said inner rim and outer rim, a plurality of resilient braces arranged in oppositely disposed pairs, one end of each of said braces being rigidly secured to the inner rim while its opposite end is slidably secured to the outer rim, flexible skirt members connected to said outer rim and bearing over the side of the inner rim, and means for detachably connecting said skirt member to the inner rim.

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1,041,830. EDGE AND BOTTOM PROTECTOR FOR SHOES. EDWARD C. MARSHALL and ERNEST MARSHALL, Lynn, Mass., assignors, by direct and mesne assignments, to Novelty Selling Company, Boston, Mass., a Corporation of Massachusetts. Filed Apr. 22, 1910. Serial No. 556,948. (Cl. 36—72.)

1. A protector for the tip portion of a shoe-sole comprising a sole-bottom-protecting plate composed of a plurality of partly separated sections, and a flexible, edge-engaging flange connecting said sections and extending continuously about the outer edges thereof and having a correspondingly extending elastic, inturned, protecting and retaining lip for the exposed upper side of the sole arranged to leave free the adjacent portion of the upper, substantially as described.



2. A protector for the tip-portion of a shoe-sole comprising a sole-bottom protecting plate composed of a plurality of partly separated sections having a sole-edge engaging flange extending continuously about the outer edges thereof, said flange having a correspondingly extending, inturned, edge protecting and retaining lip, and said parts being formed of integrally connected elastic rubber permitting the connecting portions of said sections and said flange and lip to be bent to conform to soles of different shape, substantially as described.

3. A bottom and edge protector for the toe portion of a shoe-sole comprising a sole-shaped bottom protecting portion composed of two pairs of partly separated sections, one pair formed to cover portions adjacent the tip end of the sole and the other formed to cover portions in the rear thereof, a perpendicularly disposed, sole-edge-engaging portion integrally connected with said sections, and an inwardly extending lip on the said edge-engaging portion adapted to engage and cover the upper side of the sole between its edge and the upper and to leave free the adjacent portion of the upper, said parts being formed of elastic rubber, integrally connected to permit relative swinging movement of said sections, substantially as described.

4. A bottom and edge protector for the tip portion of a shoe-sole, integrally formed of elastic rubber, and comprising an edge-engaging flange, molded in sole shape and having at its upper edge a protecting and retaining lip arranged to extend adjacent the upper without bearing against an appreciable portion of the surface thereof, and a plurality of sole-bottom protecting sections connected to the lower edge of said flange inclosed thereby and constructed for movement to different relative positions as the flange is bent into different shapes, substantially as described.

5. A protector for the tip portion of a shoe-sole comprising an expansible sole bottom protecting portion, having a flexible sole-edge-engaging flange provided with a flexible wedge-shaped lip disposed to be pressed between the upper and projecting edge of the sole and out of engagement with an appreciable portion of the surface of the upper, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

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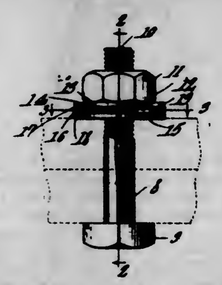
1,041,831. NUT-LOCK. GEORGE W. MARTIN, Channing, Tex. Filed Dec. 28, 1911. Serial No. 668,250. (Cl. 151—13.)

1. In combination, a nut having a collar at one end with ratchet teeth in its periphery, a washer having a member engaging the collar, and a pawl carried by the washer to engage the ratchet teeth.

2. In combination, a nut having a collar at one end with ratchet teeth in its periphery, a washer having a member engaging the collar, a pawl carried by the washer to engage the ratchet teeth, and means carried by the washer and coöperating with the pawl to disengage same from the ratchet teeth.

3. In a device of the character described, a nut having a collar at its inner end with ratchet teeth in the periphery thereof, a washer having an undercut arcuate extension to be engaged by the collar, and a spring pawl secured to one end of the extension to engage the ratchet teeth.

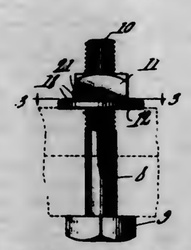
4. In a device of the character described, a nut having a collar at its inner end with ratchet teeth in the periphery thereof, a washer having an undercut arcuate extension to be engaged by the collar, a spring pawl secured to one end of the extension to engage the ratchet teeth, and an eccentric pivoted to the washer and coöperating with the spring pawl to disengage the pawl from the ratchet teeth.



5. In combination, a bolt having a longitudinal channel therein, a nut thereon having a collar at its inner end with ratchet teeth in the periphery thereof, a washer coöperating with the nut and having an undercut arcuate extension engaged by the collar and a lug engaging in said channel, and a spring pawl secured to one end of the extension to engage the ratchet teeth.

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1,041,832. NUT-LOCK. GEORGE W. MARTIN, Channing, Tex. Filed Dec. 28, 1911. Serial No. 668,251. (Cl. 151—3.)



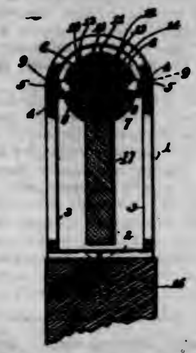
1. A washer adapted to be held non-rotatably on a bolt and having an annular raised portion on one face surrounding the hole of the washer with its periphery non-circular in outline, and a supplementary washer adapted to rest against the said face of the washer, having peripheral portions adapted to be bent into engagement with a nut and having its opening of a size and contour to receive the said raised portion.

2. A thick washer adapted to be held non-rotatably on a bolt and having an annular raised portion on one face surrounding the hole of the washer to form a short boss having notches in its periphery, and a supplementary nut locking washer of sheet metal adapted to rest against the said face of the washer and having its opening adapted to receive the said boss and having spurs projecting from the edges of the said opening engageable in the said notches of the boss, the supplementary washer being of a thickness coincident with the length of the boss to bring the end of the boss flush with the outer face of the washer, and the washer having a series of slits cut in the periphery thereof to provide tongues to be bent into engagement with a nut.

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1,041,833. DOOR-HANGER. CHARLES O. MARX, Brooklyn, N. Y., assignor of one-half to Samuel Bruckheimer, New York, N. Y. Filed Apr. 19, 1912. Serial No. 691,927. (Cl. 16—91.)

1. In a door hanger, the combination with a bracket, of a ball-roller comprising an independently rotatable, central section designed to operate on the door track, antifriction means interposed between the sections of the roller for retaining the said central section in juxtaposition with the other sections, and studs, mounted in the bracket, on which the end-sections of the roller are journaled axially.



2. In a door hanger, the combination with a bracket, of a ball-roller comprising an independently rotatable, central section designed to operate on the door track, ball-bearings arranged in circular ball-races formed concentrically in the opposing faces of the roller-parts, and adjustable studs, mounted in the bracket, on which the end-sections of the roller are journaled axially.

3. In a door hanger, the combination with a bracket, of a cylindrical roller comprising a plurality of segments, one of which is located centrally to travel on the track of the door frame, said segments being suitably spaced apart and provided with ball-bearings located between the opposing faces, the said segments being arranged to revolve upon a common horizontal axis, and journal pins carried by said bracket and revolubly supporting the said roller.

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1,041,834. GAME. JULIUS A. MAY, Genoa, Ill. Filed Oct. 28, 1911. Serial No. 657,261. (Cl. 46—62.)



1. A game comprising a casing having an opening in its top; a series of pockets at one end of said casing; an inclined board leading to said pockets; pins on said board; a member positioned under said opening and provided with divergent ball guiding grooves arranged to direct a ball over said board toward said pockets; and propelling means arranged to project a ball from said member over said board toward said pockets, substantially as described.



2. A game comprising a casing, having an opening at its top; a series of pockets at one end of said casing; there being openings provided in the adjacent end of said casing to give access to said pockets; an inclined board leading to said pockets; pins on said board; a member positioned under said opening and provided with divergent ball guiding grooves arranged to direct a ball over said board toward said pockets; and propelling means arranged to project a ball from said member over said board toward said pockets, substantially as described.

3. A game comprising a casing, having an opening in its top; a series of pockets at one end of said casing; an inclined board leading to said pockets; pins on said board; a member positioned under said opening and provided with divergent ball guiding grooves arranged to direct a ball over said board toward said pockets; a spring actuated hammer arranged to propel a ball on said member over said board toward said pockets; and means for actuating said hammer, substantially as described.

4. A game comprising a casing, having an opening in its top; a series of pockets at one end of said casing; there being openings provided in the adjacent end of said casing to give access to said pockets; an inclined board leading to said pockets; pins on said board; a member positioned under said opening and provided with divergent ball guiding grooves arranged to direct a ball over said board toward said pockets; a spring actuated hammer arranged to propel a ball on said member over said board toward said pockets; and means for actuating said hammer, substantially as described.

5. A game comprising a casing, having an opening in its top; a series of pockets at one end of said casing; an inclined board leading to said pockets; pins on said board; a member positioned under said opening and provided with divergent ball guiding grooves arranged to direct a ball over said board toward said pockets; a spring actuated hammer arranged to propel a ball on said member over said board toward said pockets; a slidable plunger projecting from the pocket end of said casing; a trigger on said plunger arranged to engage said hammer to move it through its inoperative stroke; and a trip in said casing arranged to engage and release said trigger, substantially as described.

[Claim 6 not printed in the Gazette.]

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1,041,835. SPARK-PLUG. JOHN J. MCINTYRE, Hartford, Conn. Filed Oct. 31, 1911. Serial No. 657,702. (Cl. 123—169.)



1. In a device of the class specified, a shell, a plug of insulating material located therein and having embedded in it a rod of conducting material, a gasket interposed between engaging shoulders on the shell and plug, a bushing rotatably mounted on the plug and having threaded engagement with the shell, and means non-rotatable on the plug but coöperating with the end of said bushing to lock said bushing to said shell.

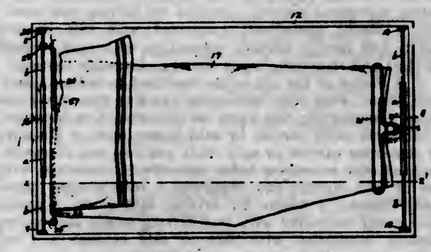
2. In a device of the class specified, a shell, a plug of insulating material located therein, a gasket interposed between engaging shoulders on the shell and plug, a bushing rotatably mounted on the plug and having threaded engagement with the shell, and means for spreading the lower end of said bushing for the purposes specified.

3. In a device of the character described, a shell having a central aperture extending therethrough, the upper part of said aperture being enlarged to form a socket having a threaded wall and an undercut portion beneath said threads, a plug of insulating material located in said aperture and resting on a shoulder and having embedded therein a rod of conducting material, a ring non-rotatable on said plug, a bushing surrounding said plug and having threaded engagement with said shell, the lower end of said bushing being yielding and adapted to be spread into the undercut portion of the socket by said ring for the purpose described.

4. In a device of the character described, a shoulder having a central aperture extending therethrough, the upper part of said aperture being enlarged to form a socket having a threaded wall and an undercut portion beneath said threads, a plug of insulating material located in said aperture and resting on a shoulder and having embedded therein a rod of conducting material, a bushing surrounding said plug and having threaded engagement with said shell, the lower end of said bushing being yielding, and means on said plug coöperating with the yielding lower end of said bushing to spread it into the undercut portion of the socket for the purpose described.

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1,041,836. GARMENT-CONFINING ATTACHMENT FOR TRUNKS. MARIE ANTOINETTE MCKIM, Cambridge, Mass. Filed June 17, 1912. Serial No. 704,028. (Cl. 190—36.)



1. A garment-confining attachment for trunks, comprising a pair of cross bars each adapted to extend across the interior of a trunk and having garment-engaging means, the bars being independent of each other, and means for detachably and independently securing the bars to end portions of the trunk at different distances from the bottom thereof, the bars being adjustable in length to adapt them to trunks of different widths.

2. A garment-confining attachment for trunks, comprising a pair of cross bars each adapted to extend across the interior of a trunk, the bars being independent of each other, and means for detachably and independently securing the bars to end portions of the trunk at different distances from the bottom thereof, one of said bars having a clamp adapted to grasp one of the end portions of a garment, while the other bar has a yoke over which the opposite end portion of the garment may be folded, said yoke being hinged at one end to the last mentioned bar and having means at its opposite end for detachable engagement therewith, the said cross bars and yoke being adjustable in length to adapt them to trunks of different widths.

3. A garment-confining attachment for trunks, comprising two pairs of elongated latch members adapted to be affixed in pairs to portions of a trunk, and each having a plurality of latch sockets, cross bars, the ends of which constitute latch bolts adapted to engage sockets in a pair of latch members, and means supported by said bars for engaging end portions of garments and confining said end portions and the intermediate portions against displacement, the cross bars being adjustable in length to adapt them to trunks of different widths.

1,041,837. TRACTOR. AMBROSE MIER, Ganado, Tex. Filed Aug. 28, 1911. Serial No. 646,536. (Cl. 21—124.)



1. A device of the character described including a suitable frame work, a plurality of oscillating legs supporting the same, an eccentric operatively connected with each leg and imparting a reciprocating movement thereto, a means having a slidable connection with each leg and imparting an oscillatory movement thereto, and a driving mechanism imparting motion to said reciprocating and oscillating means.

2. A device of the character described including a suitable frame work and oscillating carriers supporting the same, a rotatable shaft carried by said frame work, a plurality of eccentrics carried by said shaft and rotating therewith, each of said eccentrics being operatively connected with one of said carriers and imparting a reciprocating movement thereto, a means for driving said shaft, and a means operatively connected with said driving means and having slidable connection with each of said carriers and imparting an oscillatory movement thereto.

3. A device of the character described including a suitable frame work and oscillating carriers supporting the same, a supporting foot upon the free end of each carrier, a rotatable shaft carried by said frame work, a plurality of eccentrics carried by said shaft and rotating therewith, each of said eccentrics being operatively connected with one of said carriers and imparting a reciprocating movement thereto, a means for driving said shaft, a means operatively connected with said driving means and having slidable connection with each of said carriers and imparting an oscillatory movement thereto.

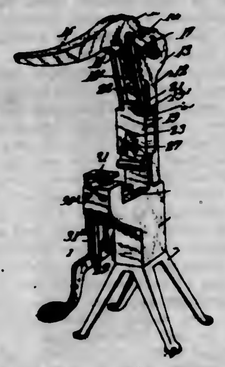
4. In a device of the character described, a suitable frame work, a transverse shaft carried thereby, an eccentric rigidly mounted on said shaft, an oscillating leg operatively connected with said eccentric and operated thereby and having a lengthwise slot in the upper end thereof, a crank rotatably mounted upon said frame work, a stud projecting from the free end thereof through said slot and imparting an oscillatory movement to the leg, means for operating said transverse shaft and means operating said crank.

5. A device of the character described, including a suitable frame work, a plurality of oscillating carriers supporting the same, each having a lengthwise slot in the upper end thereof, a rotatable shaft carried by said frame work, a plurality of eccentrics carried by said shaft, and rotating therewith, each eccentric being operatively connected with one of said carriers and imparting a reciprocating movement thereto, a means for driving said shaft, a plurality of crank arms operatively connected with said driving means, a stud projecting from the free end of each arm through the slots of the respective carriers and imparting an oscillatory movement thereto.

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1,041,838. METAL-WELDING MACHINE. FREDERICK WILLIAM MILEK, Sturgis, S. D. Filed May 12, 1911. Serial No. 626,835. (Cl. 59—65.)

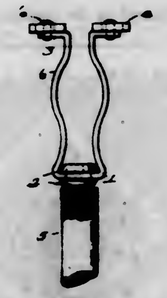
1. In a welding machine, a supporting base, a vertically extending arm formed integral with said base, said arm terminating in an enlargement, said enlargement being formed with a segmental gear, a hammer mounted for vertical movement on said arm, a lever, said lever being formed with a segmental gear in mesh with the first mentioned gear, link connections between said lever and the enlarged portion of said arm, and a link connection between said lever and said hammer.



2. In a metal welding machine, a supporting base, a vertically extending arm formed integral with said base, said arm terminating in a round enlargement, said enlargement being formed with a segmental gear, a lever having a link connection with the enlargement, said lever being formed with a gear meshing with the first mentioned gear, said arm being formed with laterally extending guides, a hammer mounted for vertical movement on said arm, said guides entering channels formed in said hammer and a link connection between said hammer and said lever.

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1,041,839. GUN-BARREL CLEANER. GEORGE GUY MILLER, Lebanon, Pa., assignor to Joseph Von Bracht, Reading, Pa. Filed Feb. 8, 1912. Serial No. 676,359. (Cl. 42—91.)



1. In a gun barrel cleaner, a resilient body portion of substantially U-shape, and having its ends bent at right angles thereto, a swivel secured to the center of the body for engagement with a cleaner rod, and a pair of adjustable cleaner blades removably secured to the right angled ends and lying on the same plane.

2. In a gun barrel cleaner, a resilient body formed of a sheet of metal bent to U-shape, the ends of which are set at right angles thereto, a swivel located at the base of the U-shaped body for engaging a cleaner rod, and a pair of blades removably and adjustably secured to the right angled ends of the body portion.

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1,041,840. GREASE-GUN. WILLIAM P. MILLER, Freeport, N. Y. Filed Nov. 23, 1911. Serial No. 661,949. (Cl. 221—47.)

1. In a device of the class described, a grease gun comprising a casing, a plunger in said casing, a head on one end of said casing projecting over the interior thereof to prevent the withdrawal of said plunger from said barrel, a shank for said plunger passing through said head, and means associated with said shank and head to permit either the shank or the plunger to move longitudinally in said casing independently of the other.

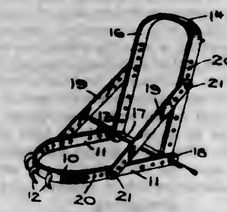


2. In a device of the class described, a grease gun comprising a barrel having a head substantially closing one end thereof, a plunger in said barrel, a shank for said plunger passing through said head, anchoring means in said head to allow rotary movement only of said shank but removable therefrom to permit a longitudinal movement of said shank and plunger, said head adapted to prevent withdrawal of said plunger from the barrel when the anchoring means is removed, and means on said shank for moving the plunger longitudinally on imparting a rotary motion to said shank.

3. In a device of the class described, a grease gun comprising a barrel, a plunger in said barrel, a shank for said plunger, anchoring means for said shank in one end of the barrel, and means on said shank for reciprocating the plunger on imparting a rotary motion to said shank, said anchoring means adapted to be removed from said barrel to allow a longitudinal movement of either the shank or both the shank and plunger, and means on said barrel to prevent the withdrawal of the plunger when the anchoring means is removed.

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1,041,841. MUZZLE. JAMES M. MILLINER, New Hope, Ala. Filed Mar. 20, 1911. Serial No. 615,635. (Cl. 119—130.)



A muzzle comprising a cheek loop formed of a rigid flat strap, an upstanding neck loop formed of a rigid flat strap, the legs of both loops intersecting, rigid flat straps bridging the elbows formed at the intersections of said legs, pins passed through said straps and said legs and adjustably connecting the parts together, a pin bridging the neck and the cheek loops and terminally passed through the intersections of the legs of said loops, said pin having stop shoulders bearing against said intersections, and nuts threaded on the terminals of said pin and clamping said legs at their intersections to said shoulders.

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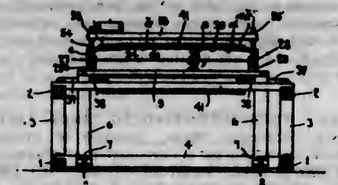
1,041,842. ORE CONCENTRATOR OR SLIMER. IRA F. MONELL, Boulder, Colo. Filed Dec. 15, 1910, Serial No. 597,396. Renewed Apr. 8, 1912. Serial No. 689,409. (Cl. 83—83.)

1. In a belt ore concentrator having a transverse series of longitudinal continuous plane surfaces, some of which are hingedly connected with others, one of said surfaces being arranged to bed mineral thereon, another to receive and redress the sands thereon, and another inclined laterally to permit the sands to pass laterally thereover, and means for varying the lateral inclination of said planes relatively to each other.





2. A concentrator having a four-plane longitudinal continuous belt supporting surface, said planes being rigidly connected in pairs and said pairs pivotally connected at their inner ends to vary the lateral inclination of said supporting surface, the initial plane being adjustable and inclined reversely to the transverse flow, and the transversely succeeding concentrating planes being inclined at varying angles in the direction of the flow and a belt operable over said surface.

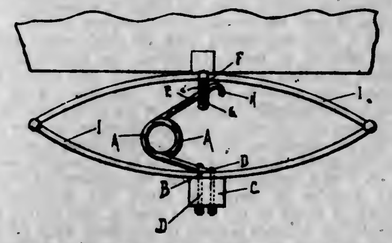


3. In a belt concentrator, the combination of a supporting structure, an agitator frame mounted therein, means for vibrating said frame, the floor of said frame being composed of a plurality of sectional cross bars, the sections of said cross bars being pivotally connected and the upper faces of each cross bar having a transverse series of four longitudinally continuous planes, longitudinal strips secured to said cross bars, the initial plane being adjustable and inclined reversely to the transverse flow, and the transversely succeeding concentrating planes being inclined at varying angles in the direction of the flow, and a belt operable over said floor.

4. A concentrator comprising an endless belt whose surface is divided into a transverse series of longitudinally continuous planes, the initial plane being adjustable and inclined reversely to the transverse flow and the transversely succeeding concentrating planes being inclined at varying angles in the direction of the flow, a shaking support for said belt and means for supplying pulp to the initial plane.

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1,041,843. SHOCK-ABSORBING DEVICE. CHARLES S. MOORE, Danvers, Mass. Filed June 14, 1911. Serial No. 633,175. (Cl. 21—105.)



1. The combination with a vehicle carrying-spring, of elliptical type, comprising two bow-shaped members, and provided with a bracket carrying rollers, of an auxiliary shock-absorbing spring disposed between said bow-shaped members and provided with a terminal reciprocating between said rollers.

2. The combination with a vehicle carrying-spring, provided with a bracket carrying rollers, of an auxiliary, spiral, shock-absorbing spring operatively associated with said carrying-spring and having a terminal reciprocating between said rollers.

3. The combination with a vehicle carrying spring, provided with a bracket carrying rollers, of an auxiliary, spiral, shock-absorbing spring operatively associated with said carrying-spring and having two terminals lying at less than a right angle to each other, one of said terminals reciprocating between said rollers.

4. In a road-vehicle, having an axle and a carrying-spring disposed between said axle and the vehicle-body

1,041,837. TRACTOR. AMMOSES MIKE, Ganado, Tex. Filed Aug. 28, 1911. Serial No. 646,535. (Cl. 21—124.)



1. A device of the character described including a suitable frame work, a plurality of oscillating legs supporting the same, an eccentric operatively connected with each leg and imparting a reciprocating movement thereto, a means having a slidable connection with each leg and imparting an oscillatory movement thereto, and a driving mechanism imparting motion to said reciprocating and oscillating means.

2. A device of the character described including a suitable frame work and oscillating carriers supporting the same, a rotatable shaft carried by said frame work, a plurality of eccentrics carried by said shaft and rotating therewith, each of said eccentrics being operatively connected with one of said carriers and imparting a reciprocating movement thereto, a means for driving said shaft, and a means operatively connected with said driving means and having slidable connection with each of said carriers and imparting an oscillatory movement thereto.

3. A device of the character described including a suitable frame work and oscillating carriers supporting the same, a supporting foot upon the free end of each carrier, a rotatable shaft carried by said frame work, a plurality of eccentrics carried by said shaft and rotating therewith, each of said eccentrics being operatively connected with one of said carriers and imparting a reciprocating movement thereto, a means for driving said shaft, a means operatively connected with said driving means and having slidable connection with each of said carriers and imparting an oscillatory movement thereto.

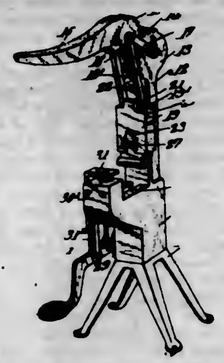
4. In a device of the character described, a suitable frame work, a transverse shaft carried thereby, an eccentric rigidly mounted on said shaft, an oscillating leg operatively connected with said eccentric and operated thereby and having a lengthwise slot in the upper end thereof, a crank rotatably mounted upon said frame work, a stud projecting from the free end thereof through said slot and imparting an oscillatory movement to the leg, means for operating said transverse shaft and means operating said crank.

5. A device of the character described, including a suitable frame work, a plurality of oscillating carriers supporting the same, each having a lengthwise slot in the upper end thereof, a rotatable shaft carried by said frame work, a plurality of eccentrics carried by said shaft, and rotating therewith, each eccentric being operatively connected with one of said carriers and imparting a reciprocating movement thereto, a means for driving said shaft, a plurality of crank arms operatively connected with said driving means, a stud projecting from the free end of each arm through the slots of the respective carriers and imparting an oscillatory movement thereto.

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1,041,838. METAL-WELDING MACHINE. FREDERICK WILLIAM MILEK, Sturgis, S. D. Filed May 12, 1911. Serial No. 626,885. (Cl. 59—65.)

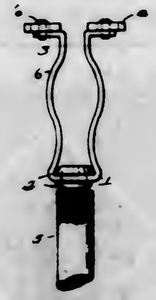
1. In a welding machine, a supporting base, a vertically extending arm formed integral with said base, said arm terminating in an enlargement, said enlargement being formed with a segmental gear, a hammer mounted for vertical movement on said arm, a lever, said lever being formed with a segmental gear in mesh with the first mentioned gear, link connections between said lever and the enlarged portion of said arm, and a link connection between said lever and said hammer.



2. In a metal welding machine, a supporting base, a vertically extending arm formed integral with said base, said arm terminating in a round enlargement, said enlargement being formed with a segmental gear, a lever having a link connection with the enlargement, said lever being formed with a gear meshing with the first mentioned gear, said arm being formed with laterally extending guides, a hammer mounted for vertical movement on said arm, said guides entering channels formed in said hammer and a link connection between said hammer and said lever.

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1. In a gun barrel cleaner, a resilient body portion of substantially U-shape, and having its ends bent at right angles thereto, a swivel secured to the center of the body for engagement with a cleaner rod, and a pair of adjustable cleaner blades removably secured to the right angled ends and lying on the same plane.

2. In a gun barrel cleaner, a resilient body formed of a sheet of metal bent to U-shape, the ends of which are set at right angles thereto, a swivel located at the base of the U-shaped body for engaging a cleaner rod, and a pair of blades removably and adjustably secured to the right angled ends of the body portion.

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1. In a device of the class described, a grease gun comprising a casing, a plunger in said casing, a head on one end of said casing projecting over the interior thereof to prevent the withdrawal of said plunger from said barrel, a shank for said plunger passing through said head, and means associated with said shank and head to permit either the shank or the plunger to move longitudinally in said casing independently of the other.

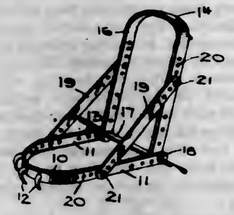


2. In a device of the class described, a grease gun comprising a barrel having a head substantially closing one end thereof, a plunger in said barrel, a shank for said plunger passing through said head, anchoring means in said head to allow rotary movement only of said shank but removable therefrom to permit a longitudinal movement of said shank and plunger, said head adapted to prevent withdrawal of said plunger from the barrel when the anchoring means is removed, and means on said shank for moving the plunger longitudinally on imparting a rotary motion to said shank.

3. In a device of the class described, a grease gun comprising a barrel, a plunger in said barrel, a shank for said plunger, anchoring means for said shank in one end of the barrel, and means on said shank for reciprocating the plunger on imparting a rotary motion to said shank, said anchoring means adapted to be removed from said barrel to allow a longitudinal movement of either the shank or both the shank and plunger, and means on said barrel to prevent the withdrawal of the plunger when the anchoring means is removed.

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1,041,841. MUZZLE. JAMES M. MILLINER, New Hope, Ala. Filed Mar. 20, 1911. Serial No. 615,635. (Cl. 119—130.)



A muzzle comprising a cheek loop formed of a rigid flat strap, an upstanding neck loop formed of a rigid flat strap, the legs of both loops intersecting, rigid flat straps bridging the elbows formed at the intersections of said legs, pins passed through said straps and said legs and adjustably connecting the parts together, a pin bridging the neck and the cheek loops and terminally passed through the intersections of the legs of said loops, said pin having stop shoulders bearing against said intersections, and nuts threaded on the terminals of said pin and clamping said legs at their intersections to said shoulders.

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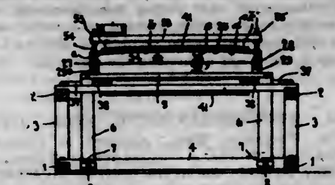
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1. In a belt ore concentrator having a transverse series of longitudinal continuous plane surfaces, some of which are hingedly connected with others, one of said surfaces being arranged to bed mineral thereon, another to receive and redress the sands thereon, and another inclined laterally to permit the sands to pass laterally thereover, and means for varying the lateral inclination of said planes relatively to each other.





2. A concentrator having a four-plane longitudinal continuous belt supporting surface, said planes being rigidly connected in pairs and said pairs pivotally connected at their inner ends to vary the lateral inclination of said supporting surface, the initial plane being adjustable and inclined reversely to the transverse flow, and the transversely succeeding concentrating planes being inclined at varying angles in the direction of the flow and a belt operable over said surface.

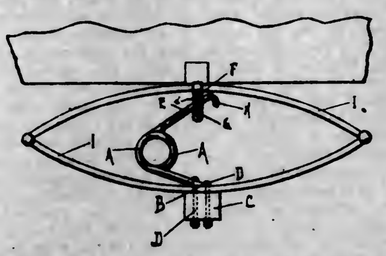


3. In a belt concentrator, the combination of a supporting structure, an agitator frame mounted therein, means for vibrating said frame, the floor of said frame being composed of a plurality of sectional cross bars, the sections of said cross bars being pivotally connected and the upper faces of each cross bar having a transverse series of four longitudinally continuous planes, longitudinal strips secured to said cross bars, the initial plane being adjustable and inclined reversely to the transverse flow, and the transversely succeeding concentrating planes being inclined at varying angles in the direction of the flow, and a belt operable over said floor.

4. A concentrator comprising an endless belt whose surface is divided into a transverse series of longitudinally continuous planes, the initial plane being adjustable and inclined reversely to the transverse flow and the transversely succeeding concentrating planes being inclined at varying angles in the direction of the flow, a shaking support for said belt and means for supplying pulp to the initial plane.

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1,041,843. SHOCK-ABSORBING DEVICE. CHARLES S. MOORE, Danvers, Mass. Filed June 14, 1911. Serial No. 633,175. (Cl. 21—105.)



1. The combination with a vehicle carrying-spring, of elliptical type, comprising two bow-shaped members, and provided with a bracket carrying rollers, of an auxiliary shock-absorbing spring disposed between said bow-shaped members and provided with a terminal reciprocating between said rollers.

2. The combination with a vehicle carrying-spring, provided with a bracket carrying rollers, of an auxiliary, spiral, shock-absorbing spring operatively associated with said carrying-spring and having a terminal reciprocating between said rollers.

3. The combination with a vehicle carrying spring, provided with a bracket carrying rollers, of an auxiliary, spiral, shock-absorbing spring operatively associated with said carrying-spring and having two terminals lying at less than a right angle to each other, one of said terminals reciprocating between said rollers.

4. In a road-vehicle, having an axle and a carrying-spring disposed between said axle and the vehicle-body

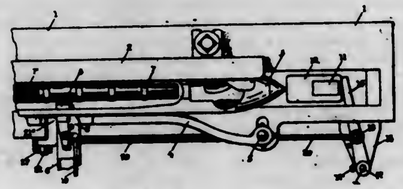
and provided with a bracket carrying rollers, an auxiliary shock-absorbing spring operatively associated with said carrying-spring and having two terminals, one of said terminals reciprocating between said rollers and the other of said terminals being secured to said axle.

5. In a road-vehicle, having an axle and a carrying-spring disposed between said axle and the vehicle-body and provided with a bracket carrying rollers, an auxiliary, spiral, shock-absorbing spring operatively associated with said carrying-spring and having two terminals, one of said terminals reciprocating between said rollers and the other of said terminals being secured to said axle.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,844. WEFT-REPLENISHING LOOM. ALFRED F. MORELL, Worcester, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed Mar. 2, 1912. Serial No. 681,174. (Cl. 139—85.)



1. In a weft replenishing loom, the combination with a filling detector or feeler, to detect the substantial exhaustion of filling in the active shuttle, and put into operation the weft replenishing mechanism, of mechanism to coöperate with said filling detector or feeler, and prevent the operation thereof when the filling is substantially exhausted, in case the shuttle is not properly boxed.

2. In a weft replenishing loom, the combination with a filling detector or feeler, to detect the substantial exhaustion of filling in the active shuttle, and put into operation the weft replenishing mechanism, of mechanism the operation of which is controlled by the shuttle, to coöperate with said filling detector or feeler, and prevent the operation thereof when the filling is substantially exhausted, in case the shuttle is not properly boxed.

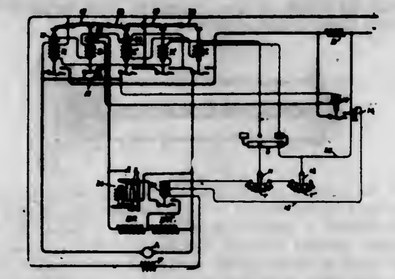
3. In a weft replenishing loom, the combination with a filling detector or feeler, to detect the substantial exhaustion of filling in the active shuttle, and having two members, one movable relative to the other, when the filling is substantially exhausted in the active shuttle, of mechanism to coöperate with said movable member and prevent the movement thereof when the filling is substantially exhausted, in case the shuttle is not properly boxed.

4. In a weft replenishing loom, the combination with a filling detector or feeler, to detect the practical exhaustion of filling in the active shuttle, and having two members, one movable relative to the other, when the filling is substantially exhausted in the active shuttle, of mechanism the operation of which is controlled by the shuttle, to coöperate with said movable member, and prevent the movement thereof when the filling is substantially exhausted, in case the shuttle is not properly boxed.

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1,041,845. MOTOR-CONTROL SYSTEM. EDWIN J. MURPHY and JOHN EATON, Schenectady, N. Y., assignors to General Electric Company, a Corporation of New York. Filed May 4, 1912. Serial No. 695,189. (Cl. 172—239.)

1. The combination with an electric motor, of reversing mechanism therefor, a brake resistance, means for short circuiting the motor armature through said resistance when the reversing mechanism is operated to produce a dynamic braking effect, a resistance connected in the field circuit of the motor during normal operation, an electromagnetic switch which is inactive during normal operation of the motor for cutting out a section of said brake resistance, and means for rendering said switch active and dependent for its operation upon the field strength of the motor when the reversing mechanism is operated.



2. The combination with a reversible electric motor, of contactors for closing the motor circuit for either forward or reverse movement, a brake resistance, a contactor for closing a braking circuit through the motor and resistance, interlocking mechanism between the brake contactor and the line contactors to prevent the closing of the brake contactor when either line contactor is closed, a resistance connected in the field circuit of the motor during normal operation, a master switch, and means whereby the field resistance is short circuited, the line contactors opened, and the brake contactor closed upon the operation of the master switch.

3. The combination with an electric motor, of a controlling switch therefor, a braking resistance, means for short circuiting the motor armature through the said resistance to produce a dynamic braking effect when the switch is operated, an electromagnetic switch for controlling the dynamic braking circuit, actuating windings in the field of the motor during normal operation, and means for deënergising one of said windings upon the operation of the switch to permit the electromagnetic switch to operate upon a sufficient flow of current.

4. The combination with an electric motor, of a controlling switch therefor, a braking resistance arranged for short circuiting the motor armature through the said resistance to produce a dynamic braking effect when the switch is operated, an electromagnetic switch for cutting out a section of said brake resistance having differential actuating windings in series with the field of the motor during normal operation, and means for deënergising one of said windings upon the operation of the switch to permit the electromagnetic switch to operate upon a sufficient flow of current.

5. The combination with a reversible electric motor, of a master switch for controlling the same, a pair of line contactors for each direction of rotation energised through said master switch, a brake resistance, a contactor for closing a braking circuit through the motor and a resistance, a mechanical interlock between the brake contactor and one of each pair of line contactors, a resistance connected in the field circuit of the motor during normal operation, and means whereby the field resistance is short circuited, the actuating windings of the line contactors deënergised, and the brake contactor closed upon the operation of the master switch.

[Claims 6 to 16 not printed in the Gazette.]

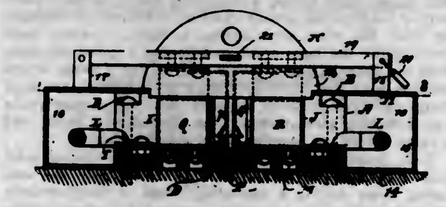
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1,041,846. ELECTRIC CUT-OUT. THOMAS E. MURRAY, New York, N. Y. Filed May 20, 1912. Serial No. 698,397. (Cl. 173—273.)

1. An electric cut-out, comprising a base, having a recess, contacts in said recess, a plug, contacts on said plug coöperating with said base contacts, a partition on said plug entering said base recess and dividing the same into compartments, and a fuse strip on said plug connected to said plug contacts and looped around said projection.

2. An electric cut-out, comprising an insulating base, having a longitudinal recess, the said recess having a groove in its bottom and side walls, contacts in said recess on opposite sides of said groove, a plug, a partition on said plug entering said groove, and connected contacts on said plug on opposite sides of said partition coöperating with said base contacts.





3. An electric cut-out, comprising an insulating base, having a longitudinal recess, the said recess having a groove in its bottom and side walls, contacts in said recess on opposite sides of said groove, a plug, a partition on said plug entering said groove, contacts on said plug on opposite sides of said partition coöperating with said base contacts, and a fuse strip connected to said plug contacts and looped around said partition.

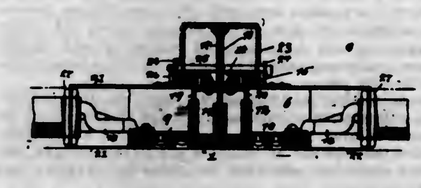
4. An electric cut-out, comprising an insulating base, having a longitudinal recess, the said recess having a groove in its bottom and side walls, contacts in said recess on opposite sides of said groove, a plug, a partition on said plug entering said groove, contacts on said plug on opposite sides of said partition coöperating with said base contacts, and a fuse strip connected to said plug contacts and extending through an opening in said partition.

5. An electric cut-out, comprising an insulating base, having a longitudinal recess, an upward projection on the bottom of said recess having a transverse groove, plates seated in the walls of said recess in contact with the ends of said projection and having vertical grooves, grooves registering with the ends of said transverse groove, contacts in said recess on opposite sides of said projection, a plug, a partition on said plug entering said grooves, and connected contacts on said plug on opposite sides of said partition coöperating with said base contacts.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,847. ELECTRIC CUT-OUT. THOMAS E. MURRAY, New York, N. Y. Filed May 31, 1912. Serial No. 700,592. (Cl. 175—293.)



1. An electric cut-out, comprising a base, circuit terminals thereon, a gang plug, pairs of contacts on one side of said plug coöperating with said terminals, and fuses connected respectively to each pair of contacts; the said fuses extending through openings in said plug and protruding from the opposite side thereof.

2. An electric cut-out, comprising a base, circuit terminals thereon, a gang plug, pairs of contacts on one side of said plug coöperating with said terminals, fuses in loop form connected respectively to each pair of contacts, and supports on said plug for said fuses; the said fuses extending through openings in said plug and protruding from the opposite side thereof.

3. An electric cut-out, comprising a base, circuit terminals thereon, a gang plug, pairs of contacts on one side of said plug coöperating with said terminals, fuses in loop form connected respectively to each pair of contacts, and supports for said fuses disposed within the loops thereof and within the openings in said plug; the said fuses and supports extending through said openings.

4. A base, circuit terminals thereon, a partition between said terminals, a gang plug, depending contacts on said plug coöperating with said terminals, a fuse in loop form connected to said contacts and extending through an opening in said plug, and an insulating support for said fuse disposed within the loop thereof and meeting said partition.

5. In combination with a base block and circuit connections therein, and a gang plug entering said block, two metal boxes having openings for the passage of circuit leads and receiving said base block, a box-shaped cover disposed on said plug, and means for locking said boxes to one another and to said cover.

[Claim 6 not printed in the Gazette.]

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1,041,848. FENCE-POST. CHARLES H. MYERS, Buffalo, N. Y. Filed Mar. 23, 1910, Serial No. 551,054. Renewed Mar. 14, 1912. Serial No. 683,715. (Cl. 189—28.)



A fence post constructed of angle metal of uniform size and comprising a lower section having its upper portion deflected forwardly and provided with a longitudinal approximately semi-cylindrical portion and having flat side portions, the latter and the semi-cylindrical portion terminating near the center of the base and the lower portion of the base consisting of two straight angularly disposed sides or wings, and an upper section having its lower portion deflected forwardly and provided with an intermediate longitudinal approximately semi-cylindrical portion and flat side portions, the upper portion of the upper section consisting of straight angularly related sides or wings, and the intermediate semi-cylindrical portion of the upper section being extended beyond the flat side portions thereof and fitted in the intermediate portion of the lower section, and the flat side portions of the upper and lower sections being overlapped and fitted against each other.

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1,041,849. MOTOR-BOAT. CHARLES H. MYERS, Buffalo, N. Y. Filed Mar. 23, 1910, Serial No. 551,056. Renewed Mar. 14, 1912. Serial No. 683,717. (Cl. 114—66.5.)



1. The combination of a boat including a tapered upper main hull or body, and a lower auxiliary hull of a length and width less than the upper hull or body, and an oblong skimming device rigidly and detachably connected with

the boat and fitted around and interlocked with the lower hull, said skimming device being of uniform width and of substantially the same length as the boat.

2. The combination of a boat including an upper main hull, and a lower auxiliary hull, and an approximately oblong skimming device rigidly connected with the boat and composed of a continuous series of detachable buoyant sections adapted to be floated into position and assembled one at a time.

3. The combination of a boat including an upper tapering hull or body, and a lower hull of a length and width less than the upper hull or body, and an oblong skimming device of a uniform width equal to the greatest width of the upper hull or body and of a length substantially the same as that of the boat and projecting laterally therefrom at portions thereof, said skimming device being composed of a continuous series of abutting sections entirely surrounding the lower hull.

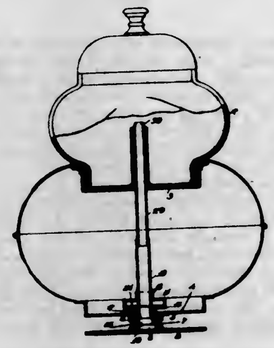
4. The combination of a boat including an upper tapering hull or body having a flat bottom, and a lower hull of a length and width less than the upper hull or body, and a skimming device composed of rigid hydroplane sections fitted against the flat bottom of the upper hull or body and rigidly connected with the same and entirely surrounding and interlocked with the lower hull.

5. The combination of a boat including a tapered upper tapering hull or body having a flat bottom, and a lower hull of a length and width less than the upper hull or body, and a skimming device composed of hollow tapering detachable sections having horizontal upper faces fitted against the flat bottom of the upper hull or body and rigidly secured to the boat and entirely surrounding and interlocked with the lower hull and presenting inclined lower faces to the water.

[Claims 6 to 9 not printed in the Gazette.]

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1,041,850. COFFEE-MACHINE. CHARLES NELSON, New York, N. Y., assignor to S. Sternau & Company, Brooklyn, N. Y., a Copartnership. Filed Oct. 30, 1907. Serial No. 399,804. (Cl. 53—3.)



1. A fountain for a coffee machine having an outlet tube, a casing connected therewith, and a removable longitudinally grooved inset piece lying within the casing and connected to the outlet tube, the said casing, in conjunction with the inset tube, forming passages.

2. A fountain for a percolator having a casing containing an inlet port, a valve for closing the port, an outlet tube and an inset piece connected to the outlet tube and lying within the casing, the said inset piece having a grooved exterior forming, in connection with the casing, passages from the valve port to the outlet tube.

3. A fountain for a coffee machine having an outlet tube and a casing, the said casing being formed in parts, one of said parts being carried by the outlet tube and having a flange, a grooved inset piece removably connected to the outlet tube, and a portion of the casing being removably connected to the inset piece, and coacting with the flange to complete the casing.

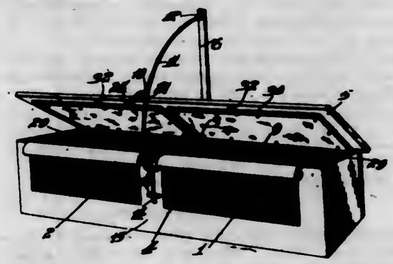
4. A fountain for a coffee machine having an outlet tube, a casing cover permanently secured thereto, the said casing cover having a depending flange, an inset piece with a longitudinal groove removably secured to the outlet tube, the inset piece having a finger, a casing body surrounding the inset piece, and having a notch engaging with the finger, the said casing body having a flange which engages with the depending flange of the cover, the said flange having inlet ports disposed above its circumference and radiating strengthening ribs between the ports, and a valve within the chamber for closing the ports.

5. A fountain for a coffee machine having an inlet tube, a casing cover permanently secured thereto, the said casing cover having a depending flange, a longitudinally grooved inset piece removably secured by screw-threads to the outlet tube, a casing body surrounding and engaging with the inset piece, the said inset piece having a finger and the casing body having a notch, the said casing body also having a flange, the periphery of which engages with the depending flange on the cover and constitutes in cooperation therewith, a valve chamber, a valve within the chamber, the flange of the casing body having a plurality of inlet ports and radiating ribs between the ports, the said ribs extending from the body of the casing to its periphery.

[Claim 6 not printed in the Gazette.]

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1,041,851. BROODER. WILLIAM L. NIEMANN, Mount Olive, Ill. Filed Feb. 10, 1911. Serial No. 607,731. (Cl. 119—19.)



1. In a device of the character described, the combination with a portable coop body, of a cover hinged thereto, an upright in the rear of said coop, a curved rod rigidly mounted at one end below and secured to said upright above, and means carried by said cover for releasably engaging said rod.

2. In a device of the character described, the combination with a portable coop body, of a top hinged thereto, an upright secured to said coop, a rod secured at its lower end to the coop and at its upper end to said upright, and means carried by said cover for releasably engaging said rod.

3. In a chicken coop, the combination with a portable coop body, of a support rigidly secured to the rear wall of said body to project upwardly, a bar secured at one end to the upper end of said support and having its other end secured to the front wall of said body, and a cover hinged to said rear wall and provided with means for releasably engaging said bar.

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1,041,852. HOVER. WILLIAM L. NIEMANN, Mount Olive, Ill. Filed Feb. 10, 1911. Serial No. 607,732. (Cl. 119—33.)

1. In a device of the character described, the combination of a wire fence section for removably mounting the lateral wall constructed of flexible pervious washable material, said section comprising horizontal wires and vertical wires, one of the horizontal wires between adjacent vertical wires being cut away to provide a doorway, a runway platform hinged to the wire at the bottom of said doorway, said platform being adapted to perform the functions of a door when in raised position, and catches slidably mounted on the cut-away wire on either side of said doorway, said catches being movable into and out of engagement with said platform when in raised position.



2. In a brooder, the combination with circularly bent overlapping sections of wire fencing provided with upper and lower horizontal wires, of a strip of pervious washable material disposed with its lateral edges over and around said horizontal wires respectively, clips for releasably clamping the edges of said strip to said wires, and a cover sheet depending inwardly from said upper wire.

3. A hover comprising of circularly bent overlapping sections of wire fencing, a strip of pervious material covering each of said sections, the edges of said strips being folded around the lateral edges of said sections, a cover sheet of pervious material having its edges overhanging the top wires of said sections and its central portion depending within said sections, and releasable clips for clamping the cover sheet and strips to the top wires of the sections, said cover sheet being thus adapted to secure the sections together.

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1,041,853. DOOR-CHECK. PER ERIK NORDQVIST, Chicago, Ill., assignor to Concealed Door Check Company, Santa Barbara, Cal. Filed May 3, 1910. Serial No. 559,209. (Cl. 16—88.)



1. In a door check and closer, the combination of a cylinder and piston, means for permitting free entrance of a fluid to said cylinder, a shiftable valve for throttling the escape of fluid from said cylinder, an adjustable device for firmly supporting said shiftable valve in any desired position, and means adapted to actuate said adjustable device during closing of the door for shifting said valve to open position.

2. In a door check and closer, the combination of a cylinder and piston, means for permitting free entrance of a fluid to said cylinder, a shiftable valve for throttling the escape of fluid from said cylinder, resilient means tending to maintain said valve in closed position, a fixed stop, an adjustable device confined between said stop and shiftable valve for firmly supporting the latter in any desired position, and means adapted to actuate said adjustable device during closing of the door for shifting said valve to open position.

3. In a door check and closer, the combination of a cylinder and piston, means for permitting free entrance of a fluid to said cylinder, a shiftable valve for throttling the escape of fluid from said cylinder, a fixed stop, an adjustable device engaging said valve, means for yieldingly maintaining said adjustable device against said fixed stop for firmly supporting said shiftable valve, and means adapted to actuate said adjustable device during closing of the door for shifting said valve to open position.



1,041,854. DOOR CHECK AND CLOSER. PER ERIK NORDQVIST, Chicago, Ill., assignor to Concealed Door Check Company, Santa Barbara, Cal. Filed May 3, 1910. Serial No. 559,210. (Cl. 16—88.)

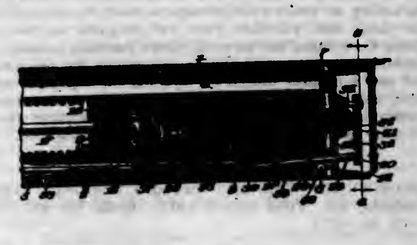


1. In a door check and closer, the combination of a cylinder and piston, a shiftable throttle valve for said cylinder, a hinged member for shifting said valve, and means carried by said cylinder for actuatingly engaging said hinged member to progressively increase the throttle action of said valve throughout the stroke of said piston.

2. In a door check and closer, the combination of a cylinder and piston, a valve device for throttling the escape of fluid from said cylinder, a hinged rod for actuatingly engaging said valve device to vary the throttling action of the latter, and means carried by said cylinder in sliding engagement with said hinged rod for operating the latter.

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1,041,855. VALVE MECHANISM FOR DOOR-CHECKS. PER ERIK NORDQVIST, Chicago, Ill., assignor to Concealed Door Check Company, Santa Barbara, Cal. Filed May 3, 1910. Serial No. 559,211. (Cl. 16—88.)



1. In a door check and closer, the combination of a cylinder and piston, means for permitting free entrance of a fluid to said cylinder, a shiftable valve for throttling the escape of fluid from said cylinder and provided with an irregular surface, a hinged member engaging said irregular surface of the valve, and means for swinging said hinged member to shift said valve.

2. In a door check and closer, the combination of a cylinder and piston, means for permitting free entrance of a fluid to said cylinder, a hinged member, means for swinging said hinged member, a shiftable valve for throttling the escape of fluid from said cylinder and provided with an irregular surface, and resilient means for maintaining said irregular valve surface in yielding engagement with said hinged member for causing ununiform shifting of said valve upon swing of said member.

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1,041,856. DOOR-CHECK MECHANISM. PER ERIK NORDQVIST, Chicago, Ill., assignor to Concealed Door Check Company, Santa Barbara, Cal. Filed May 3, 1910. Serial No. 559,213. (Cl. 16—88.)

In a door check and closer, the combination of a movable cylinder, a piston therefor, a shiftable valve for throttling the escape of fluid from said cylinder, resilient means tending to maintain said valve in closed position, a hinged member engaging said shiftable valve, means for swinging said hinged member to increase the throttling action of

said valve during the stroke of said piston, and means within said cylinder for permitting free escape of fluid



from said cylinder during the final portion of the piston stroke.

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1,041,857. CONCEALED DOOR-CHECK. PER ERIK NORDQVIST, Chicago, Ill., assignor to Concealed Door Check Company, Santa Barbara, Cal. Filed May 3, 1910. Serial No. 559,214. (Cl. 16—88.)



In a door check, the combination of a cylinder and springs for actuating the cylinder to close a door, a piston in the cylinder, an inlet valve for said cylinder, said piston having an outlet therethrough, a valve for controlling the outlet and provided with an irregular surface, a spring for holding the valve in closed position, means for adjusting said valve including a rod, means for adjusting said rod, a member hinged on said rod for engaging said valve, and a by-pass in said cylinder for permitting communication from one side of the piston to the other when the door is almost closed, substantially as described.

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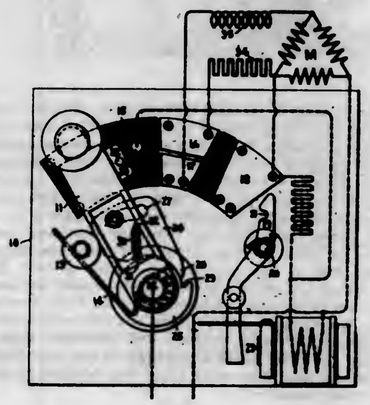
1,041,858. TAP-WRENCH. DANIEL J. NORMOYLE, Philadelphia, Pa. Filed July 6, 1911. Serial No. 637,173. (Cl. 81—77.)



A tool comprising a chuck having a threaded shank having a transverse groove in the top thereof, a rod having a flattened end adapted to be engaged in said groove so that said chuck can be turned thereby, said rod having a reduced section forming a notch back of said rod end, and a sleeve provided with a thread engaging the thread of said shank, said sleeve having an elongated aperture through which said flattened end can be passed into said groove and a flange adapted to be engaged in said notch by turning said sleeve.

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1,041,859. MOTOR-CONTROLLING DEVICE. THOMAS W. NOWELL, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed May 19, 1911. Serial No. 628,163. (Cl. 172—179.)



1. A controlling device for electric circuits comprising a controlling arm, a coöperating stop and detent mechanism associated with said arm biased to lock the arm when the latter is moved to a predetermined position and means whereby the detent is biased away from the stop by the pressure of the detent against the stop and is released therefrom by a backward movement.

2. A controlling device for electric circuits comprising a controlling arm, a detent mounted thereon and biased to locking position, a recessed stop arranged to receive said detent at a predetermined point in its travel when the detent is in locking position, and means whereby the bias on said detent is reversed by the pressure of the detent in the recess so as to cause the detent to move out of the path of the stop when released from the recess.

3. A controlling device for electric circuits comprising a controlling arm, a recessed stop, a detent on said arm having a locking position in which it enters the recess at a predetermined point of its travel and a releasing position in which it is out of the path of the stop, and means whereby the detent is held in locking position while the arm is being moved to said predetermined point and is biased toward releasing position by engagement with the stop so that the detent will move to releasing position when moved out of the recess.

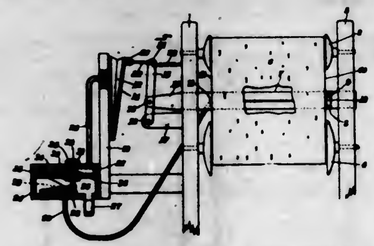
4. A controlling device for electric circuits comprising a controlling arm, a recessed stop, a detent mounted on the arm and biased to enter the recess at a predetermined point in the travel of the arm to stop the same, and means whereby the bias on the detent is reversed by the pressure of the detent against the stop so that the detent will move out of the path of the stop when released from the recess.

5. A controlling device for electric circuits comprising a controlling arm, a pivot pin on said arm, a detent movable on said pivot to change the pivotal point thereof, a spring having one end secured to the arm and the opposite end secured to the detent at a point between the pivotal points so that the spring will act upon opposite sides of the pivot in opposite pivotal positions of the detent, and a stop for engaging the detent in a predetermined position of said arm.

[Claim 6 not printed in the Gazette.]



1,041,860. MUSIC-SHEET-GUIDING DEVICE. JAMES O'CONNOR, New York, N. Y. Filed Sept. 8, 1911. Serial No. 648,286. (Cl. 84—161.)



1. A music sheet guiding device including in combination, a tracker-bar, a music roll, means for drawing a note-sheet across said tracker-bar, a guide opening appurtment to said tracker-bar, an actuating pneumatic operatively connected with the tracker-bar and effective for shifting said tracker-bar in one direction and whose action is governed by means including said guide opening said guide opening being controlled by the note-sheet and a guide flange rigid with said tracker-bar for engagement with one edge of the note-sheet for shifting said tracker-bar in the other direction.

2. A music sheet guiding device including in combination, a tracker-bar mounted for movement in the direction of its length, means for moving a note-sheet thereacross, a guide opening appurtenant to said tracker-bar, an actuating pneumatic operatively connected with the tracker-bar and effective for shifting said tracker-bar in one direction and whose action is governed by means including said guide opening said guide opening being controlled by the note-sheet and a guide flange rigid with said tracker-bar for engagement with one edge of the note-sheet for shifting said tracker-bar in the other direction.

3. A music sheet guiding device including in combination, a tracker-bar mounted for movement in the direction of its length, means for moving a note-sheet thereacross, a guide opening appurtenant to said tracker-bar, an actuating pneumatic operatively connected with the tracker-bar and effective for shifting said tracker-bar in one direction and whose action is governed by means including said guide opening whenever said guide opening begins to be opened by a lateral tendency of the note-sheet and a guide flange rigid with said tracker-bar for engagement with one edge of the note-sheet for shifting said tracker-bar in the other direction.

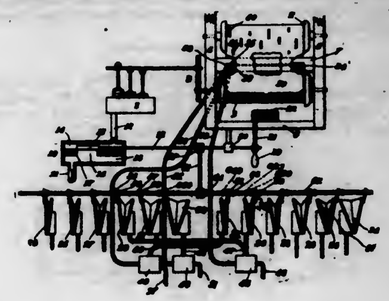
4. A music sheet guiding device including in combination, a tracker-bar mounted for movement in the direction of its length, means for moving a note-sheet thereacross, a guide opening appurtenant to said tracker-bar and adjacent to one edge of the path of the note-sheet and normally closed by said note sheet, an actuating pneumatic operatively connected with the tracker-bar and effective for shifting said tracker-bar in one direction and whose action is governed by means including said guide opening whenever the adjacent edge of the note-sheet begins to uncover said guide opening and a guide flange rigid with said tracker-bar for engagement with one edge of the note-sheet for shifting said tracker-bar in the other direction.

5. A music sheet guiding device including in combination, a tracker-bar mounted for movement in the direction of its length, a guide opening appurtenant to said tracker-bar adjacent to one edge of the path of the note-sheet over said tracker-bar, means including the guide opening, for moving the tracker-bar, said means being controlled by the note-sheet, and a guide flange fixed to said tracker-bar for engagement with one edge of said note-sheet.

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1,041,861. TEMPO-REGULATOR. JAMES O'CONNOR, New York, N. Y. Filed Nov. 3, 1911. Serial No. 658,224. (Cl. 84—168.)

1. A pneumatically operated musical instrument including in combination, a movable member for modifying the musical effect controlled by a perforation or group of perforations in a music sheet and a plurality of pairs of oppositely acting pneumatics the members of each pair of which act conjointly, all operatively connected with said movable member.



2. A pneumatically operated musical instrument including in combination, a movable member for modifying the musical effect controlled by a perforation or group of perforations in a music sheet, a plurality of pairs of oppositely acting pneumatics the members of each pair of which act conjointly and a pair of oppositely acting pneumatics the members of which pair act independently, all operatively connected with said movable member.

3. A pneumatically operated musical instrument including in combination, a movable member for modifying the musical effect controlled by a perforation or group of perforations in a music sheet, a plurality of pairs of oppositely acting pneumatics operatively connected with said movable member the movement of both members of any given pair being initiated from a common source, the first member of any given pair of said pneumatics being effective to move said movable member in one direction a distance equal to one or more of a plurality of predetermined increments and the other member of said pair of pneumatics being effective to move said movable member in the opposite direction to the same position to which it was moved by said first member of the given pair of pneumatics, after it has been moved a greater distance in the first direction by the first member of some other pair of pneumatics.

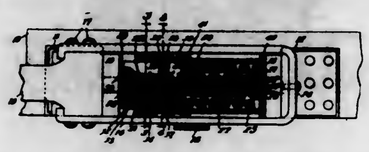
4. A pneumatically operated musical instrument including in combination, a movable member for modifying the musical effect controlled by a perforation or group of perforations in a music sheet, a plurality of pairs of oppositely acting pneumatics operatively connected with said movable member, the first member of any given pair of said pneumatics being effective to move said movable member in one direction a distance equal to one or more of a plurality of predetermined increments and the other member of said pair of pneumatics being effective to move said movable member in the opposite direction to the same position to which it was moved by said first member of the given pair of pneumatics, after it has been moved a greater distance in the first direction by the first member of some other pair of pneumatics and means for actuating both members of any pair of pneumatics simultaneously.

5. A pneumatically operated musical instrument including in combination, a tracker having a plurality of ducts in addition to those connected with note sounding devices, a perforated music sheet having perforations adapted to admit air to said additional ducts, one at a time, a movable member for modifying the musical effect controlled by a note actuating perforation or group of perforations in said music sheet, a plurality of pairs of oppositely acting pneumatics operatively connected with said movable member, the first member of any given pair of said pneumatics being effective to move said movable member in one direction a distance equal to one or more of a plurality of predetermined increments and the other member of said pair of pneumatics being effective to move said movable mem-

ber in the opposite direction to the same position to which it was moved by said first member of the given pair of pneumatics, after it has been moved a greater distance in the first direction by the first member of some other pair of pneumatics, means whose operation is initiated from a single perforation in said music sheet and means for actuating both members of any given pair of pneumatics simultaneously.

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1,041,862. FRICTION DRAFT-RIGGING FOR RAILWAY-CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed July 24, 1911. Serial No. 640,077. (Cl. 213—64.)



1. In a friction draft rigging, the combination with a drawbar, draft yoke, center sills, stops and followers, of a longitudinally movable friction shell, two friction wedges, a set of friction shoes coacting with each of said wedges, all arranged in tandem within the friction shell, a draft spring, and a restoring spring between the wedges, substantially as specified.

2. In a friction draft rigging, the combination with a drawbar, draft yoke, center sills, stops and followers, of a longitudinally movable friction shell having an inwardly extending lug on one end thereof, a longitudinally disposed rod extending within the shell and having slidably mounted thereon near its opposite end two similarly arranged wedges, two sets of friction shoes having inclined internal wedging faces coöperating with said wedges and a spring on said rod between the wedge members, substantially as specified.

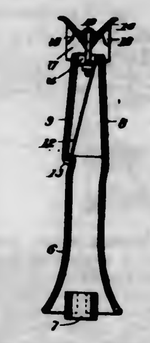
3. In a friction draft rigging, the combination with a drawbar, draft yoke, center sills, stops and followers, of a longitudinally movable friction shell, a draft spring therein, a set of circularly disposed inner friction shoes engaging said spring and each having inclined or wedging faces, a wedge interposed between said shoes, an outer set of friction shoes, the inner ends of which engage the outer end of the said wedge, said outer friction shoes each having inclined friction faces, a second wedge engaging the last named set of friction shoes, and a spring within the outer set of friction shoes, substantially as specified.

4. In a friction draft rigging, the combination with a drawbar, draft yoke, center sills, stops and followers, of a friction shell movable longitudinally, a longitudinally extending rod arranged therein, springs surrounding said rod, two wedges and a set of circularly arranged friction shoes co-acting with each of said wedges, each set having the corresponding friction faces thereof inclined in the same direction, and a restoring spring mounted on the rod between said wedges, substantially as specified.

5. In a friction draft rigging, the combination with a drawbar, draft yoke, center sills, stops and followers, of a longitudinally movable friction shell and springs therein, longitudinal, slidably mounted friction blocks circularly arranged within said shell near its outer end, each friction block having two segmental cylindrical inner surfaces connected by an intermediate inclined wedge face, a wedge disposed within said blocks having faces coöperating with the inclined faces of the blocks, and an inner spring bearing end, a second set of friction blocks within the shell and each having inner inclined friction faces engaged by a second wedge, each of said second named friction shoes having an inner segmental cylindrical portion for the reception of the end of one of the draft springs, and a restoring spring engaging the bearing end of the outer wedge and the outer face of the second named wedge, substantially as specified.

[Claims 6 and 7 not printed in the Gazette.]

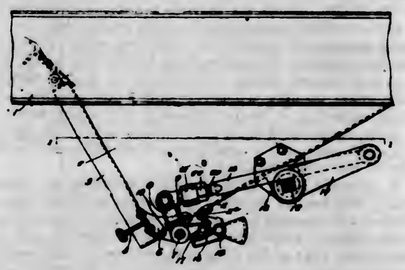
1,041,863. GAS-BURNER. FREDERICK H. OEHLER, Lorain, Ohio, assignor to Hoffman Heater Company, Lorain, Ohio, a Corporation of Ohio. Filed Jan. 2, 1912. Serial No. 669,087. (Cl. 158—112.)



A burner comprising a casing or chamber consisting of opposite sections united on a diagonal line, a screen clamped between the edges of said sections and extending diagonally across the chamber, one section having a plurality of spaced teeth at the upper edge, which teeth extend across the top of the chamber producing a row of discharge openings therebetween each of which extends entirely across the chamber, and a V-shaped spreader mounted above the top of said chamber, the lower angle of the spreader extending along and above the row of openings and spaced therefrom.

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1,041,864. DOOR-OPERATING DEVICE. ALLEN E. OSTRANDER, Ridgewood, N. J. Filed May 18, 1911. Serial No. 628,048 (Cl. 105—185.)



1. In a car door operating device of the tension type, the combination comprising a door, an operating shaft, a bell crank between said operating shaft and said door for transmitting the movement of said shaft to said door and adapted to increase the power of said operating shaft for opening said door.

2. In a car door operating device of the tension type, the combination comprising a door, an operating shaft, a bell crank between said operating shaft and said door for transmitting the movement of said shaft to said door.

3. In a car door operating device, the combination comprising lifting means, a door, and interposed lever adapted to automatically push open said door while one end of said lifting means is rising to a higher plane.

4. In a car door operating device of the tension type, the combination comprising lifting means, a door and an interposed bell crank adapted to automatically push open said door while one end of said lifting means is rising to a higher plane.

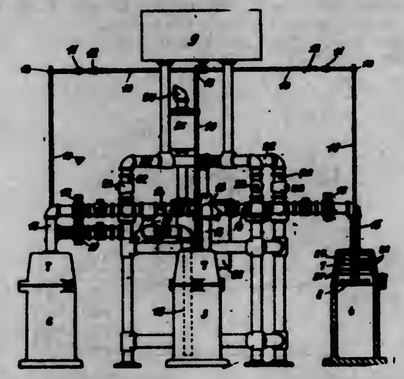
5. In a car door operating device of the tension type, the combination comprising a door closing and locking means including a bell crank supported above the lower edge of the door adapted to partly open said door.

[Claims 6 to 40 not printed in the Gazette.]



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1,041,865. METHOD OF GENERATING GAS. HERMANN PHILIPP, Perth Amboy, N. J., assignor to The Roessler & Hasslacher Chemical Co., New York, N. Y., a Corporation of New York. Filed Nov. 26, 1910. Serial No. 594,847. (Cl. 48—196.)



1. The method of making gas from a chemical mixture which only partially reacts with water in the evolution of the gas, consisting in partially reacting upon the mixture with water with production of the gas desired and steam and bringing the resulting hot moist gas and steam in contact with a similar, previously partially reacted upon, mixture.

2. The method of making hydrogen from a mixture comprising an alkali metal and a silicid, consisting in partially reacting upon the mixture with water with production of the gas desired and steam and bringing the resulting hot moist gas and steam in contact with a similar, partially decomposed mixture already reacted upon by water.

3. The method of making hydrogen from a mixture comprising a sodium metal and a silicid consisting in partially reacting upon the mixture with water with production of the gas desired and steam and bringing the resulting hot moist gas and steam in contact with a similar, partially decomposed mixture already reacted upon by water.

4. The method of making hydrogen from a mixture comprising an alkali metal and aluminum silicid consisting in partially reacting upon the mixture with water with production of the gas desired and steam and bringing the resulting hot moist gas and steam in contact with a similar, partially decomposed mixture already reacted upon by water.

5. The method of making hydrogen from a mixture comprising sodium metal and aluminum silicid, consisting in partially reacting upon the mixture with water with production of the gas desired and steam and bringing the hot moist gas and steam in contact with a similar, partially decomposed mixture already reacted upon by water.

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1,041,906. STREET-SIGN. SAMUEL L. PHILLIPS, Denver, Colo. Filed Feb. 27, 1911. Serial No. 611,206. (Cl. 40—145.)

1. A street sign comprising two box-like members arranged one above another, means for supporting said members and so arranged that one of the members may occupy varying angles with reference to the other member, each member comprising a skeleton frame open at the top and bottom and frame members applied to the opposite extremities of the skeleton frames, inclosing the same at the top and bottom, the skeleton frames of the sign members being open on opposite sides and provided with upper and lower grooves, transparent plates engaging these grooves and covering the side openings, plate sections also engaging the grooves and having characters formed therein to indicate street names by illumination, and an illuminating element located within the sign members, substantially as described.




2. A street sign comprising a supporting post, upper and lower hollow sign members arranged one above the other, the top of the post having a part adapted to support the lower sign member, a washer interposed between the two sign members and having recesses engaging the upper side of the lower sign member, the said washer having a centrally located opening, the upper face of the washer having a plurality of sets of recesses arranged at varying angles and adapted to receive the edges of the sides of the upper sign member, bolts connecting the post with the washer interposed between the two sign members for clamping the lower sign member in position, the said bolts passing through the lower sign member beyond the axis of the latter, the upper sign member being adjustable to cause its lower edges to occupy any set of recesses in the upper face of the washer, whereby the angles formed by the sign members will harmonize with those formed by the intersecting streets, a second washer having recesses engaging the upper edges of the sides of the upper sign member, other bolts connecting the first named washer with the last named washer for clamping the upper sign member in position, the last named bolts also passing through the hollow of the upper sign member exteriorly of the axis of the said upper sign member, and a lamp arranged in part in the upper sign member and in part in the lower sign member, the said lamp passing through the opening in the washer interposed between the two sign members, substantially as described.

3. A street sign comprising a supporting post, box-like sign members arranged one above the other, the top of the post having a part adapted to support the lower sign member, a washer interposed between the two sign members and having recesses engaging the edges of the sides of the lower sign member, the upper face of the washer having a plurality of sets of grooves arranged at varying angles adapted to receive the lower edges of the sides of the upper sign member, bolts connecting the top part of the post with the washer for clamping the lower sign member in place, the said bolts passing through the lower sign member beyond the axis of the same, the upper sign member being adjustable to occupy any set of grooves in the upper face of the said washer, whereby the angles formed by the two members will harmonize with those formed by the intersecting streets, a second washer having grooves engaging the upper edges of the sides of the upper sign member, other bolts connecting the first named washer with the last named washer for clamping the upper sign member, the last named bolts also being passed through the upper sign member beyond the axis of the same, the first named washer being provided with bolt holes corresponding in position with the various grooves in the said washer, the said first named washer having a central opening, a lamp arranged within the sign mem-

bers partly in the lower sign member and partly in the upper sign member whereby both members are lighted by the same light, the said lamp projecting through the opening in the first named washer.

4. A street sign composed of an upper and a lower member, clamping means for holding said members, frames applied to the opposite extremities of the members and having their inner extremities fitted between said clamping means, the said frames preventing the escape of light from the interior of the structure, and one of the sign members being adjustable to occupy varying angles with reference to the other to harmonise with the streets intersecting at different angles, substantially as described.

5. A street sign composed of two box-like structures arranged one above another, each member consisting of a skeleton frame carrying interiorly located transparent plates and plate sections in which the street name indicating characters are formed, means for supporting said skeleton frames, frame members applied to the opposite extremities of the skeleton frames, the same being closed at the top, bottom and outer ends, while their inner extremities are fitted between said supporting means, and an illuminating element protruding partly into each sign member, for the purpose set forth.

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1,041,867. DRIVING OF RAIL AND LIKE VEHICLES. HENRI PIEPER, Liege, Belgium. Filed Dec. 10, 1910. Serial No. 596,695. (Cl. 105—222.)



1. In a rail vehicle, a bogie truck, a power unit disposed longitudinally on aforesaid vehicle, a flexible coupling disposed in the vertical axis of the center of pivoting of aforesaid bogie truck, a connecting element connecting said coupling to aforesaid power unit, a clutch interposed in said connecting element, and a driving connection between the aforesaid flexible coupling and aforesaid track wheel shaft; as set forth.

2. In a rail vehicle, a power unit, a driving shaft extending therefrom, a clutch interposed in said driving shaft, a bogie truck on said vehicle, a driven track wheel shaft mounted in said bogie, track wheels thereon, a further track wheel shaft in said bogie and track wheels thereon of lesser size than aforesaid wheels, a flexible coupling disposed in the vertical axis of the center of pivoting of said bogie truck and connected to aforesaid driving shaft, and a driving connection between the said coupling and former of aforesaid track wheel shafts; as set forth.

3. In a rail vehicle, a power unit disposed longitudinally with respect to aforesaid vehicle driving shafts extending from both ends of said unit clutch elements interposed in said shafts, swiveling elements carrying track wheel shafts, driving elements connecting aforesaid driving shafts to said track wheel shafts, and a flexible coupling interposed in said driving shafts and disposed in the vertical axis of the center of swiveling of aforesaid swiveling elements; as set forth.

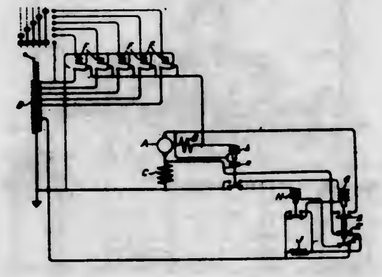
4. A driving arrangement for vehicles including in combination a power unit, a bogie carriage including two pairs of wheels of different diameter, a shaft connecting the power unit to the wheels of larger diameter to drive the same, said shaft being disposed at a height above the center of the wheels of smaller diameter and a flexible coupling interposed in said driving shaft and disposed in the vertical axis of the center of said bogie truck; as set forth.

5. A driving arrangement for vehicles including a power unit comprising a dynamo electric machine adapted to run either as a dynamo or as a motor mechanically connected with an internal combustion engine disposed longitudinally on aforesaid vehicle, a bogie truck, a flexible coupling disposed in the vertical axis of the center of pivoting of aforesaid bogie truck, a connecting element connecting said coupling to aforesaid power unit, a clutch interposed in said connecting element, and a driving connection between the aforesaid flexible coupling and aforesaid vehicle wheel shaft; as set forth.

[Claim 6 not printed in the Gazette.]

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1,041,868. ALTERNATING-CURRENT-MOTOR-CONTROL. WILLIAM B. POTTER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Apr. 2, 1910. Serial No. 552,941. (Cl. 172—274.)



1. In combination with an alternating current motor of the commutator type and a source of current therefor, manually controlled means for connecting said motor to said source and for varying the motor speed, and automatic means, independent of the manual control and responsive to variation in the electrical condition of a winding of the motor, for short-circuiting the motor armature brushes at low speeds and opening the short-circuit at high speeds.

2. In combination with an alternating current motor of the commutator type provided with brushes and a source of current therefor, manually controlled means for connecting the motor to the source and varying the motor speed, a relay having a winding connected in parallel with a winding of the motor, the voltage of which varies with the motor speed, and connections controlled solely by said relay, independently of the manual control, for short-circuiting the motor armature brushes.

3. In combination with an alternating current motor of the compensated series type and a source of current therefor, manually controlled means for connecting the motor to the source and varying the motor speed, and automatic means, independent of the manual control and responsive to variation in the motor speed, for short-circuiting the motor armature brushes at low speeds and opening the short-circuit and impressing a shunt voltage on the compensating winding at high speeds.

4. In combination with an alternating current motor of the compensated series type and a source of current therefor, manually controlled means for connecting the motor to the source and varying the motor speed, a relay having a winding connected in parallel with a winding of the motor, the voltage of which varies with the motor speed, and connections controlled solely by said relay, independently of the manual control, for short-circuiting the motor armature brushes when the relay contacts are in one position and opening the short-circuit and impressing a shunt voltage on the compensating winding when the relay contacts are in their other position.

5. In combination with an alternating current motor of the compensated series type and a source of current therefor, manually controlled means for connecting the motor to the source and varying the motor speed, a relay having a main winding connected in parallel with the exciting winding of the motor and an opposing winding connected in parallel with the motor armature, and connections controlled solely by said relay, independently of the manual control, for short-circuiting the motor armature brushes.



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1,041,869. DOOR-CHECK. ERNEST P. PRATOR, Leeper, Mo. Filed Aug. 3, 1912. Serial No. 713,125. (Cl. 16—80.)



1. A door check comprising a fixed portion consisting of a base plate, spaced parallel arms formed integral with and extending at right angles to said base plate, the arms being reduced at their free ends and apertured, a ratchet wheel positioned between said arms and means for rotatably securing said wheel in position, said means being adjustable so as to regulate the force necessary to rotate said ratchet wheel; and a movable portion adapted to be carried by a door and consisting of a base plate having spaced parallel arms formed integral therewith, a spring pressed catch member pivotally secured between said arms and provided near its inner end with a shoulder, and inwardly projecting lugs carried by the supporting arms and adapted to engage said shoulder for the purpose of limiting the movement of the catch member in one direction.

2. A combined door check and buffer comprising a relatively fixed portion consisting of a base plate, spaced apertured guide plates carried by said base plate, a spring pressed buffer slidably mounted in said apertured guide plates, spaced parallel supporting arms formed integral with said base plates and having their side edges engaged for a portion of their length by the guide plates, a ratchet wheel rotatably mounted between said supporting arms and means for adjusting the frictional resistance between the inner faces of the supporting arms and the side faces of the ratchet wheel; and a relatively movable member adapted to be carried by a door and consisting of a base plate having spaced parallel arms formed integral therewith, a catch member pivotally secured at one end between said arms and adapted for engagement with the ratchet wheel, and means for limiting the movement of said catch member in one direction.

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1,041,870. LAUNDRY CONVEYER-DROP. WILBUR W. QUINN, Goshen, Ind., assignor of one-half to National Chemical Company, Syracuse, N. Y., a Corporation of New York. Filed Jan. 12, 1911. Serial No. 602,311. (Cl. 214—14.)



1. A drop-carrier for conveyer chains comprising a frame having a central head and fixed jaws spaced some distance apart from the head, movable jaws pivoted to the head and extending across such space and coacting with the fixed jaws to grip articles between them, said jaws having upwardly extending arms located between their pivots and gripping points and extending some distance above the arms of the frame, horizontally disposed pins secured to and projecting outwardly from the upper ends of said arms, and apertured guides on the frame for receiving and guiding the outer ends of the pins.

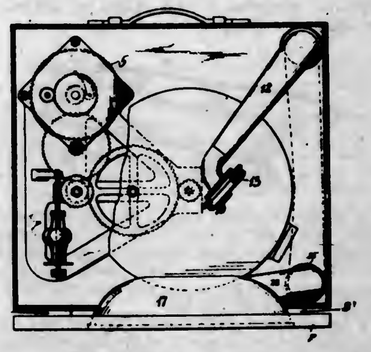
2. A drop carrier for endless conveyers comprising a head having oppositely projecting slotted arms terminating in jaws, and opposite movable jaws pivoted to the head to coact with the first named jaws and provided with stop shoulders guided in the slots in the arms.

3. A drop carrier for endless conveyers comprising a head having oppositely projecting slotted arms extending downwardly some distance below the head and terminating in relatively fixed jaws, and movable jaws pivoted to the head to coact with the relatively fixed jaws and provided with laterally projecting stops guided in the slots in the arms.

4. A drop carrier for endless conveyers comprising a head having oppositely projecting arms extending downwardly some distance below the head and terminating at their lower ends in relatively fixed jaws, and movable jaws coacting with the relatively fixed jaws and pivoted to the head at points some distance above the points of contact between the jaws.

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1,041,871. TALKING-MACHINE. JAMES A. RABBITT, Yokohama, Japan. Filed Feb. 28, 1910. Serial No. 546,269. (Cl. 181—3.)



1. A portable talking-machine comprising the combination of a motor-box having a body and a top which is hinged to the body and which has an opening therethrough, a motor mounted within the box, a turn-table detachably mounted on a shaft of the motor and adapted to be secured to said top in position to close said opening therethrough, an amplifying device adapted to lie in inoperative position within the box, means for removably supporting the amplifying device in operative position upon the body of the box and upon said hinged top in which position it directs sound through said opening in the top, and sound-reproducing mechanism adapted to be connected to said amplifying device, substantially as set forth.

2. A portable talking-machine comprising the combination of a motor-box provided with a cover-plate and with a hinged top which has an opening therethrough, a motor mounted within the box, a turn-table detachably mounted on a shaft of the motor and adapted to be secured to said top in position to close said opening therethrough, an amplifying device adapted to lie in inoperative position within the box, means for removably supporting the amplifying device upon said cover-plate and said top in position to direct sound through the opening in the top, a tone-arm pivotally mounted on said cover-plate, a reproducer carried thereby, and a sound-passageway below the cover-plate connecting the tone-arm and amplifying device, substantially as set forth.

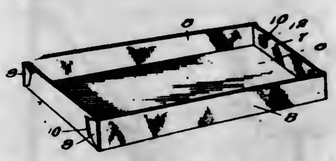
3. The combination of a casing comprising a body and a cover therefor having an opening therethrough and movable to closed and open positions, a motor mounted within the body, a turntable driven thereby, a tone-arm pivotally mounted on the body adjacent to the turntable, a sound-box carried by the tone-arm and movable across the record on said turntable, and a tubular amplifying horn supported at one end upon said body and near the other

upon said cover when the latter is in the open position, in position to direct sound passing therethrough through said opening in the cover, substantially as set forth.

4. A portable talking-machine comprising a motor-box, a hinged wall for the box having an opening therethrough, a motor mounted within said box adjacent to one of the side walls thereof, a shaft distant from the motor, gearing between the motor and said shaft located adjacent to the bottom of the box, a turntable mounted on said shaft, a sound-box, and a sound-amplifying device connected to said sound-box and supported in operative position by said hinged wall when the latter has been turned relatively to the box, in position to direct sound passing therethrough through the opening in said wall, said turntable being removable from the shaft on which it is mounted to provide space above said gearing for the reception of said sound-amplifying device, and said turn-table being adapted to be secured to the hinged wall of the box in position to close the opening therethrough when the amplifying device has been detached from the hinged wall and is in inoperative position, substantially as set forth.

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1,041,872. FOLDING BOX. JOSEPH REGENSTEIN, Atlants, Ga. Filed Dec. 1, 1909. Serial No. 530,733. (Cl. 229—35.)



1. A box having a wall with an end flap, and an adjoining wall with a slit to receive said flap, the end of said flap having a tongue folded against the flap and fastened thereto, the end of the tongue being unattached, to form a fork to engage the edge of the wall adjacent the slit between the said end and the flap.

2. A box having a wall with an end flap and provided with a tongue at the extremity of the flap, said tongue being folded against the flap and fastened thereto at a distance from the end of the tongue, forming a fork, and also having an adjoining wall with an opening through which the end of the flap is inserted, the edge of the wall adjacent the opening being engaged in said fork, between the end of the tongue and the flap.

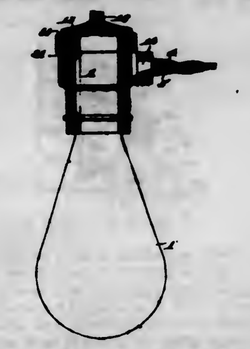
3. A box having a wall with a flap at the end thereof, a tongue at the end of the flap and folded against the flap, a fastening connecting the tongue and flap, said fastening being located at a distance from the end of the tongue, whereby said end is free, to form a fork, and also having an adjoining wall with an opening therein through which the flap is inserted to engage the edge of said opening between the end of the tongue and the flap.

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1,041,873. ELECTRIC-LAMP SOCKET. WILLIAM A. RICHARDSON, Chicago, Ill., assignor of one-half to John G. Barrett and one-half to Edmond M. Kennealy, Chicago, Ill. Filed May 16, 1912. Serial No. 697,659. (Cl. 173—362.)

1. In a device of the class described, the combination with an electric lamp socket having two terminals for engagement with the electric lamp terminals, of an extension for one of said terminals of said socket; a resilient member carried by the other of said terminals and adapted to contact said extension, said resilient member being held normally out of contact with said extension member; and a slidable button arranged in the wall of said socket for forcing said resilient member into contact with said extension to complete a circuit through said socket, substantially as described.

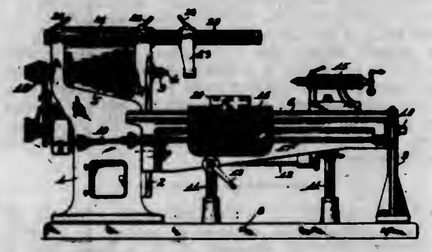
2. A device of the class described comprising a lamp socket provided with filament terminals; upstanding conductor posts secured to said terminals; a spring conductor secured to one of said posts and arranged over the other; a removable cap closing the end of said socket and provided with an opening for the accommodation of wires; and a button protruding from the end of said cap and adapted to operate said spring conductor upon depression, substantially as described.



3. A device of the class described comprising a lamp socket provided with filament terminals; upstanding conductor posts secured to said terminals, one of said posts being arranged coaxially with said socket; a spring conductor secured to the outer of said posts and arranged over the other; a removable cap closing the end of said socket and provided with a lateral opening for the accommodation of wires; and a button protruding from the end of said cap and adapted to operate said spring conductor upon depression, substantially as described.

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1,041,874. MACHINE-TOOL. WALLACE RICKS, Santa Ana, Cal. Filed July 31, 1912. Serial No. 712,475. (Cl. 29—27.)



1. A machine tool comprising, a column, a vertical guide carried by the column, a horizontal bed having one end fitted to rise and fall on said guide, a vertically slotted support for the outer end of the bed, elevating screws disposed below the bed to serve in raising and lowering it, a hand-crank and gearing connected with the elevating screws to serve in turning them simultaneously, a tail-stock carried by the bed, a carriage mounted for longitudinal movement upon the bed, a cross-slide rest mounted on the carriage, a feed screw mounted on the bed for giving motion to the carriage along the bed, an arbor mounted in the column above the level of the bed, means for imparting rotary motion to the arbor, feed gearing carried by the column and adapted to have motion imparted to it from the arbor, and a flexible connection between said feed gearing and said feed screw, combined substantially as set forth.

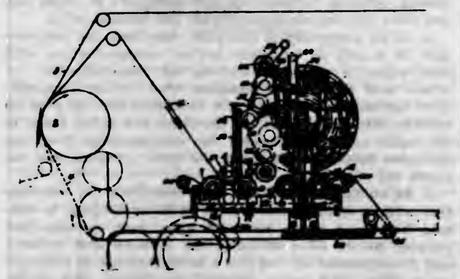
2. A machine tool comprising, a column, a vertical guide carried by the column, a horizontal bed having one end fitted to rise and fall on said guide, a vertically slotted support for the outer end of the bed, elevating screws disposed below the bed to serve in raising and lowering it,



a hand-crank and gearing connected with the elevating screws to serve in turning them simultaneously, a tail-stock carried by the bed, a carriage mounted for longitudinal movement upon the bed, a cross-slide rest mounted on the carriage, a feed screw mounted on the bed for giving motion to the carriage along the bed, an arbor mounted in the column above the level of the bed, means for imparting rotary motion to the arbor, feed gearing carried by the column and adapted to have motion imparted to it from the arbor, a flexible connection between said feed gearing and said feed screw, a clamp-socket carried by the column above the arbor and parallel therewith, a steady-bar carried by the clamp-socket to project beyond the inner end of the arbor, and a steady-arm carried by the steady-bar, combined substantially as set forth.

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1,041,875. OFFSET MECHANISM FOR PRINTING-MACHINES. OSCAR ROSSEN, New York, N. Y., assignor, by mesne assignments, to R. Hoe and Co., New York, N. Y., a Corporation of New York. Filed Jan. 15, 1909. Serial No. 472,416. (Cl. 101—112.)



1. The combination with a printing couple, of a pair of spindles from one of which an offset web may be unwound and upon the other of which it may be wound, means for transposing the position of the spindles to bring them successively into delivery and receiving positions and turning them end for end, and suitable offset web guides for leading the web between the members of the couple.

2. The combination with a pair of spindles either of which may be moved into receiving or delivery position, a friction driving mechanism for each spindle, a driver, and means for moving the spindles and driving mechanisms to cause each of the driving mechanisms to coöperate with the driver.

3. The combination with a pair of spindles either of which may be moved into receiving and delivery positions, of a friction driving mechanism for each spindle said mechanism including one or more friction driving rolls, and a driver with which the driving mechanism coöperates when its roll is in receiving position.

4. The combination with a printing couple, of a pair of spindles each of which may be brought into receiving and delivery position, of means with which each spindle may be caused to coöperate for adjusting it endwise.

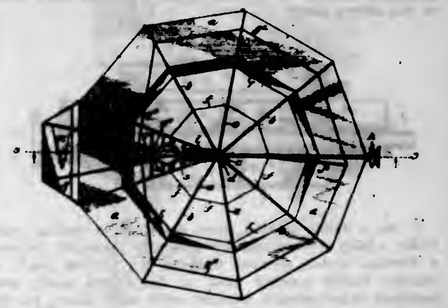
5. The combination with a pair of offset web spindles, of means for successively bringing the spindles into receiving and delivery position, a driver with which the spindles coöperate when in receiving position, a tension device including a shaft with which the spindles coöperate when in delivery position, means for coupling the spindles to the tension device shaft, and means for adjusting the tension device shaft and the spindle coupled thereto endwise.

[Claims 6 to 13 not printed in the Gazette.]

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1,041,876. FLYING-MACHINE. WILLIAM S. ROMME, New York, N. Y., assignor to McCormick-Romme Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 14, 1910. Serial No. 549,218. (Cl. 244—12.)

1. A flying machine including adjacent main and stabilifying aeroplane elements, the main aeroplane element having an opening about which the surface portions of each of the aforesaid aeroplane elements are distributed, the surface portions of the stabilifying aeroplane element being located at the inner edge of the main aeroplane element and sloping downwardly therefrom with respect to the vertical axis of the machine, said opening permitting air freely pass therethrough and to impinge upon portions of the stabilifying aeroplane element adjacent to the main aeroplane element.



2. A flying machine including adjacent main and stabilifying aeroplane elements, the main aeroplane element having an opening about which the surface portions of each of the aforesaid aeroplane elements are distributed, the surface portions of the stabilifying aeroplane element lying upon the same side of the general plane of the main aeroplane element and substantially symmetrically inclined with respect to the vertical axis of the machine, said opening permitting air freely to pass therethrough and to impinge upon the stabilifying aeroplane element adjacent to the main aeroplane element, the center of gravity of the machine being disposed forward of the geometrical center thereof.

3. A flying machine including adjacent main and stabilifying aeroplane elements, the main aeroplane element having an opening about which the surface portions of each of the aforesaid aeroplane elements are distributed, the surface portions of the stabilifying aeroplane element being inclined with respect to the main aeroplane element, said opening permitting air freely to pass therethrough and to impinge upon the stabilifying aeroplane element adjacent to the main aeroplane element, the center of gravity of the machine being disposed forward of the geometrical center thereof.

4. A flying machine including adjacent angularly related main and stabilifying aeroplane elements, the main aeroplane element having an opening about which the surface portions of each of the aforesaid aeroplane elements are distributed, the stabilifying aeroplane element being located adjacent the said opening of the main aeroplane element, said opening permitting air freely to pass therethrough and to impinge upon portions of the stabilifying aeroplane element adjacent to the main aeroplane element, the center of gravity of the machine being disposed forward of the geometrical center thereof.

5. A flying machine including adjacent angularly related main and subsidiary aeroplane elements, the main aeroplane element having an opening permitting air freely to pass therethrough and to impinge upon the subsidiary aeroplane element adjacent to the main aeroplane element, the center of gravity of the machine being disposed forward of the geometrical center thereof.

[Claims 6 to 12 not printed in the Gazette.]

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1,041,877. GEARING. EDDIX ROUNDS, Owensboro, Ky., assignor of one-half to Gunther-Wright Machine Company, Owensboro, Ky., a Corporation. Filed June 20, 1910. Serial No. 567,877. (Cl. 74—89.)

1. In a device of the class described, a casing, relatively alined driving and driven shafts journaled therein, friction clutch elements upon the adjacent ends of said shafts tele-

scopically engaged, each of the friction clutch elements being fixed to its respective shaft and providing an intermediate support therefor, means for uniting said elements, a second clutch member fixed on the driving shaft, and a second clutch element fixed on the driven shaft, each provided with a sleeve concentric with the shaft, a gear journaled upon each of said clutch sleeves, a train of gearing connecting said gears, and means for uniting said gears to their respective clutch elements for transmitting motion from the driving shaft through the gearing to the driven shaft.

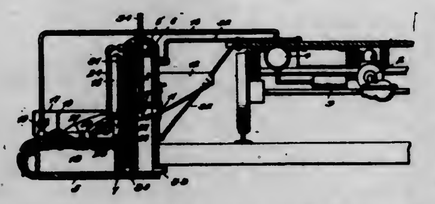


2. In a device of the class described, a casing, relatively alined driving and driven shafts journaled therein, a friction clutch member fixed to the driving shaft, a friction clutch member fixed to the driven shaft, said members telescopically engaged with each other, providing an intermediate support for the shaft, a train of gearing connecting said shafts, a gear of said train being loose upon the driving shaft, and a second gear of said train being loose upon the driven shaft, clutch mechanism for each of said loose gears for connecting the same to their respective shafts, and means for simultaneously operating the clutch mechanisms, comprising a hand lever and coöperating toothed segments for simultaneously operating all of the friction clutch mechanisms.

3. A device of the class described, comprising a casing divided into three sections, with bearings formed between the meeting faces of the sections, rendering the shafts accessible upon separation of the sections, relatively alined driving and driven shafts journaled in two of said sections, friction clutch mechanism upon the adjacent ends of said shafts telescopically engaged with each other, providing an intermediate support for said shaft, means for frictionally clamping the same together, a train of gearing adapted to be connected with said shafts, comprising a gear loose on the driving shaft, a second gear loose on the driven shaft, clutch mechanism for clamping said gears to their respective shafts, intermediate gears and shafts therefor, in driving connection with said first-named gears, said intermediate shafts being journaled in bearings formed between two of said casing sections, and a lever for simultaneously operating all of the friction clutch mechanisms, for alternately controlling said first-named clutch mechanism connecting said driving and driven shafts, and said second clutch mechanisms connecting said shafts with the loose gears thereon.

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1,041,878. BALLAST-INJECTING APPARATUS. JAMES A. ROYAL, Strathcona, Alberta, Canada. Filed Feb. 19, 1912. Serial No. 678,717. (Cl. 104—173.)



1. In an apparatus of the class described, the combination of a pair of angularly arranged cylinders, said cylinders being in communication with each other, one of said cylinders having an explosion chamber and the other a compressing chamber, means for feeding ballast to the compressing chamber, whereby when the explosion takes place the ballast will be forced from the compressing chamber and beneath the railway tie.

2. In an apparatus of the class described, the combination of an explosion cylinder and a compressing cylinder, means for feeding ballast to the compressing cylinder, a tamping head having reciprocatory movement in the compressing cylinder whereby when gas under pressure is exploded in the explosion cylinder the tamping head will be reciprocated, an automatically operated valve for permitting communication between said cylinders, which when operated forces the ballast from the compressing cylinder and beneath the tie.

3. In an apparatus of the class described, the combination of a pair of cylinders, one of which constitutes an explosion chamber and the other a compressing chamber, a tamping head operable in the compressing cylinder when an explosion takes place in the explosion cylinder, a port forming a communication between said cylinders, a valve operated by the tamping head to permit gas from the explosion cylinder to pass through said port to force ballast from the compressing cylinder and beneath a tie.

4. In an apparatus of the class described, the combination of a pair of cylinders having communication with each other, a valve for cutting off communication between said cylinders, a tamping head having reciprocatory movement in one of the cylinders and adapted to operate said valve after an explosion has taken place in the other cylinder, whereby the gas resulting from the explosion forces ballast from the other cylinder and beneath the railway tie.

5. In an apparatus of the class described, the combination with a railway track, of a cylinder adapted to contain ballast, a valve mounted upon said cylinder and adapted to cut off communication between said cylinder and a compressed air supply, a head operable in said cylinder, said head being adapted to operate said valve, whereby ballast contained in the cylinder will be ejected under the ties of the track.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,879. APPARATUS FOR HEATING AUTOMOBILES. GASTON RUFFNER, New York, N. Y. Filed Mar. 17, 1909. Serial No. 483,929. (Cl. 237—4.)

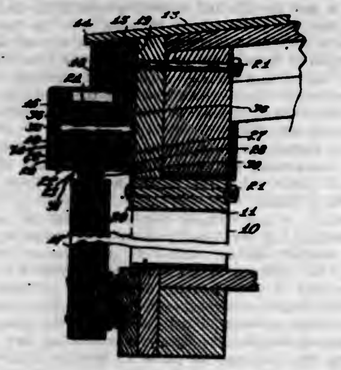


1. The combination with an internal combustion propelling engine of a self-impelled conveyance, having one or more exhaust ports and a main exhaust pipe leading therefrom, of a gas conducting heater, a gas-supply pipe adapted to receive and conduct a portion of the exhaust gases to said heater, said supply pipe being located within and co-extensive with said main exhaust pipe between the heater and the engine and means for controlling the said heater independently of the flow of gases in said main exhaust pipe.

2. A heating apparatus for automobiles, comprising in combination with the main exhaust passage of the propelling engine, a gas-receiving supply pipe located within said passage and provided with connections affording a continuous escape of the gases received therein, a heater constituting one of said connections, a by-pass to said heater constituting another of said connections, and a controlling valve operative to deflect all the gas supplied by said pipe into one or the other or both of the said connections.



1,041,880. DOOR HANGER AND TRACK CONSTRUCTION. JAMES W. RUMSEY, Chicago, Ill., assignor of one-half to Alvin W. Baker, Oakland, Cal. Filed Nov. 17, 1910. Serial No. 592,917. (Cl. 16—7.)



1. In combination with a car body having an opening in a vertical wall thereof, a door mounted to be moved over the opening in front of the plane of the said vertical wall of the car body, a combined track and hood consisting of a plate secured to the said vertical wall of the car body above the said opening and having an offset vertical flange depending in front of the door for its entire width, a rail extending horisontally along the inner face of the said depending flange below the top of the door, a second rail extending along the wall of the car body above the said opening, trunnions projecting from opposite sides of the door, and a roller mounted on each of the said trunnions running on the respective rails.

2. In combination with a car body having an opening in a vertical wall thereof, a door mounted to be moved over the opening in front of the plane of the said vertical wall of the car body, a combined track and hood consisting of a plate secured to the said vertical wall of the car body above the said opening and having an offset vertical flange depending in front of the door for its entire width, a rail extending horisontally along the inner face of the said depending flange below the top of the door, a second rail extending along the wall of the car body in horisontal alinement with the first-named rail, a pin set through the door and projecting therefrom upon opposite sides of the door, and rollers rotatably mounted on opposite ends of said pin and running on said rails.

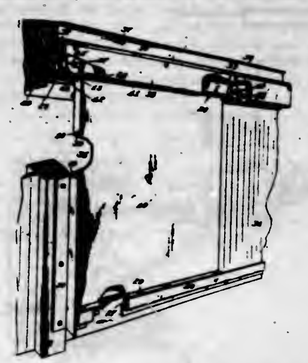
3. In combination with a car body having an opening in a vertical wall thereof, a door mounted to be moved over the opening in front of the plane of the said vertical wall of the car body, a combined track and hood consisting of a plate secured to the said vertical wall of the car body above the said opening and having an offset vertical flange depending in front of the door for its entire width, a rail extending horizontally along the inner face of the said depending flange below the top of the door, an outwardly projecting shoulder extending across the face of the door and overlying the said rail, and a roller mounted on the door and running on the rail.

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1,041,881. CAR-DOOR. JAMES W. RUMSEY, Chicago, Ill., assignor of one-half to Alvin W. Baker, Oakland, Cal. Filed July 29, 1911. Serial No. 641,283. (Cl. 20—22.)

1. A car door made from a metal plate of substantially rectangular shape folded upon itself along one end to provide a double thick hanger support at the upper margin of the door, the edge of the folded over portion of the plate being outturned to form a weathering and stiffening flange extending horisontally across the face of the door below the said hanger support.

2. A car door made from a metal plate of substantially rectangular shape folded upon itself along each end to provide a double thick hanger-support at the upper margin of the door and a double thick door-bracket engaging portion at the lower margin of the door, the edges of both of the said folded over portions of the plate being outturned to provide weathering and stiffening flanges extending horisontally across the face of the door.



3. A car door made from a metal plate of substantially rectangular shape and wider than the door intermediate its ends, one side of the plate being bent outwardly to provide a stiffening and door-stop engaging flange extending along the front edge of the door, the other side of the plate being folded over upon the body of the plate to provide a stiffening and weathering cleat extending along the rear edge of the door and one end of the plate being folded to provide a double thick hanger-support extending across the top of the door.

4. A car door made from a metal plate of substantially rectangular shape and wider than the door intermediate its ends, one side of the plate being bent outwardly to provide a stiffening and door-stop engaging flange extending along the front edge of the door, the other side of the plate being folded over upon the body of the plate to provide a stiffening and weathering cleat extending along the rear edge of the door, and one end of the plate being folded to provide a double thick hanger-support extending across the top of the door, the edge of the last-mentioned folded portion being outturned to provide a stiffening and weather flange extending horisontally across the face of the door below the said hanger-support.

5. A car door made from a metal plate wider than the door adjacent one end and of the same width as the door for a short distance at the said end, the said wide portion of the plate being folded upon itself centrally across the plate and the said end of the plate being outturned whereby a stiffening and weathering horisontal flange extends entirely across the door adjacent one end and double thick hanger supports project at each side of the door above the said flange.

[Claims 6 to 10 not printed in the Gazette.]

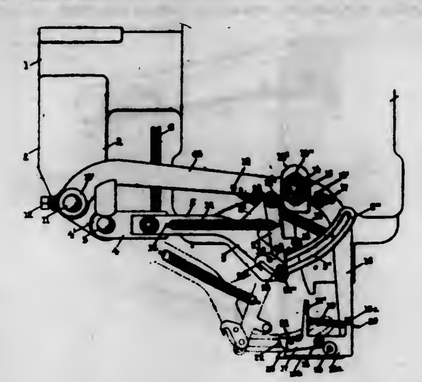
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1,041,882. FILLING-THREAD-CUTTING MECHANISM FOR WEFT-REPLENISHING LOOMS. EPPA H. RYON, Waltham, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed June 22, 1911. Serial No. 634,730. (Cl. 139—85.)

1. A shuttle feeler, having a portion to determine the proper boxing of a shuttle, and said feeler having a guide slot for a hook to catch a filling thread, and said hook, a lever pivoted on said feeler, and operatively connected to said hook, a thread cutter, and a clamp arranged adjacent to said feeler, a lay, and means on said lay to move said lever and hook, and also open said cutter and clamp, for the purpose set forth.

2. In mechanism of the class described, a shuttle feeler, having a portion to detect the improper boxing of a

shuttle, a guide slot in said feeler, a hook guided in said slot, a lever pivoted on said feeler and connected to said hook, a stationary clamp to receive a filling thread, said clamp located adjacent said feeler, a lay, and means on said lay to move said hook, to catch a filling thread, and carry the same into said clamp, and to cause said clamp to be opened.

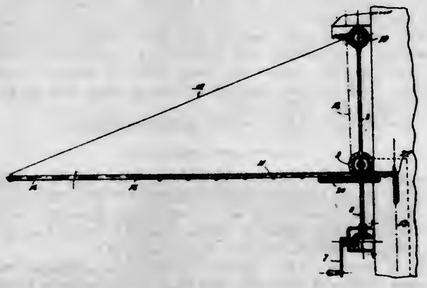


3. In mechanism of the class described, a shuttle feeler, having a portion to detect the improper boxing of a shuttle, and a guiding portion to guide a hook to catch a filling thread, and said hook, a lever pivoted on said feeler, a connection between said hook and said lever, a stationary clamp to receive a filling thread, located adjacent said feeler, a lay, having means thereon to operate said hook and clamp, for the purpose set forth.

4. In mechanism of the class described, a shuttle feeler, having a portion to detect the improper boxing of a shuttle, and a guiding portion to guide a hook to catch a filling thread, and said hook, a lever pivoted on said feeler, a connection between said hook and said lever, a clamp, and a thread cutter to receive the filling thread, and to sever the same, said clamp and cutter located adjacent said shuttle feeler, a lay, and means on said lay to operate said hook, and said clamp and cutter.

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1,041,883. CHAIN AND ROLLER GEARING FOR AWNINGS AND THE LIKE. DINO DAVIDE SAMAIA, Vicenza, Italy. Filed July 7, 1910. Serial No. 570,902. (Cl. 156—44.)



1. A horizontally disposed rigid chain device for awnings, comprising U-shaped sections non-extensibly joined together, each section having a front piece extending over the transverse portion of the preceding section, and means for locking said front piece upon such transverse portion to rigidly lock the two sections together in straight alined relation, substantially as described.

2. A rigid chain device for awnings comprising U-shaped sections joined together, each section having a front piece extending over the transverse portion of the preceding section, springs attached by one end to and along the sides of the sections, pins fixed to the other ends of said springs and extending within the said sections over the said front pieces through holes in the sides of the said preceding sections, means for moving apart the free ends of the springs to withdraw said pins, and means for releasing said springs to permit the springs to project the pins into the sections and lock the front pieces upon the transverse portions of said preceding sections, substantially as described.

3. A horizontally supporting rigid chain device for awnings, comprising in combination, a plurality of non-extensible links, each link having a portion lying in overlapping relation with respect to its adjacent link, and yieldingly acting locking means mounted on said links for locking the overlapping parts in straight alined relation, substantially as and for the purposes set forth.

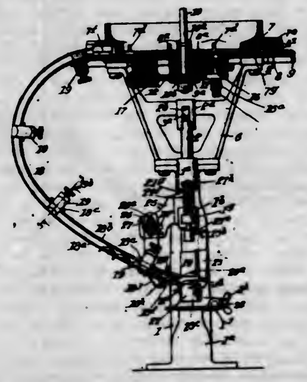
4. A horizontally acting rigid chain device for awnings, comprising in combination, a plurality of links non-extensibly pivoted together, each link having a portion lying in overlapping relation with respect to its adjacent link, and spring mechanism rigidly mounted on said links for locking the overlapping parts to prevent flexure of the chain in either of two directions, substantially as and for the purposes set forth.

5. A horizontally acting chain device for awnings comprising in combination, a plurality of joined links having portions lying in overlapping locking relation with respect to each other, and yielding mechanism carried by the links for engaging the overlapping parts of adjacent links for locking the same to prevent flexure of the chain, substantially as and for the purposes set forth.

[Claims 6 to 11 not printed in the Gazette.]

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1,041,884. SPOT-SETTING MACHINE. DAVID C. SASSEMAN, River Forest, Ill., assignor to F. H. Smith Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed June 9, 1911. Serial No. 632,256. (Cl. 218—3.)



1. In a spot-setting machine, a hopper for the spots, a rotatably mounted bottom plate, and a fixedly mounted body overhanging said bottom plate, the body being provided with an exit opening for the spots, its overhanging surface having a system of guide grooves leading outwardly to said exit opening, and the inner vertical edge of the overhanging portion of the body being formed with inwardly projecting guide blocks arranged to compose enlarged or flared entrances to the said guide grooves.

2. In a spot-setting machine, a hopper for the spots, comprising a rotatably mounted bottom plate, and a fixedly mounted body overhanging said bottom plate, the overhanging surface of said body being provided with a guide groove in the form of an incomplete annulus, feeder grooves leading outward from the central portion of the hopper into said annular groove, and an exit groove leading out of the body from one end of the annular groove together with means for rotating the bottom plate.

3. In a spot-setting machine, a hopper for the spots, comprising a rotatably mounted bottom plate, and a fixedly mounted body overhanging the peripheral portion of the bottom plate, the overhanging surface of said body being spaced above the bottom plate, and being provided with outwardly leading guide grooves, the inner vertical edge of said overhanging body being formed with guide blocks flanking the entrances to the respective guide grooves, and the aforesaid overhanging surface being formed with downwardly extending guard flanges, respectively parallel to the out-leading guide grooves and to the edges of the blocks, which constitute the entrances to said grooves, and means for rotating the bottom plate.

4. In a spot-setting machine, a hopper for the spots, comprising a rotatably mounted bottom plate, and a fixedly mounted body having an exit opening for the spots, together with a driving gear for the bottom plate, comprising a pinion rigidly connected therewith, a pair of racks, means connecting said racks and spacing them apart by a distance greater than the diameter of the pinion, a cross head connected to the racks and mounted for reciprocation toward and from the pinion, means for holding one of the racks in mesh with the pinion during the advance of the cross head, and for holding the other rack in mesh with the pinion during the return of the cross head, and means for reciprocating the cross head.

5. In a spot-setting machine, a hopper for the spots, comprising a rotatably mounted bottom plate, and a fixedly mounted body having an exit opening for the spots, together with means for rotating the bottom plate, comprising a pinion rigidly connected therewith, a pair of racks, means laterally connecting said racks and spacing them apart by a distance greater than the diameter of the pinion, a cross head connected to the racks and mounted for reciprocation toward and from the pinion, means adapted for holding one of the racks in mesh with the pinion during the advance of the cross head, means for holding the other rack in mesh with the pinion during the return of the cross head, means for disengaging one of the racks and engaging the other rack with the pinion prior to the completion of the stroke of the cross head in either direction, and means for reciprocating the cross head.

[Claims 6 to 10 not printed in the Gazette.]

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1,041,885. BASCULE-BRIDGE. ALBERT H. SCHERSER, Chicago, Ill. Filed July 30, 1907. Serial No. 386,256. (Cl. 14—39.)



1. A rolling lift bascule bridge, comprising a bridge leaf provided with rolling segments and supporting tracks for said segments; said segments and the supporting tracks being located in planes laterally exterior to the sides of the leaf.

2. A rolling lift bascule bridge, comprising a bridge leaf having longitudinal trusses and provided with rolling segments attached to said trusses, and supporting tracks for said segments, said segments and supporting tracks being located laterally exterior to the said trusses.

3. In a rolling lift bascule bridge, a bridge leaf having longitudinal trusses and provided with rolling segments which are located exterior to the planes of the trusses and with transverse frame members rigidly connecting said rolling segments with the trusses.





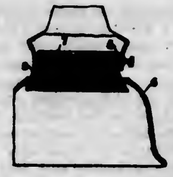
4. A rolling lift bascule bridge, comprising a bridge leaf having longitudinal trusses, rolling segments located laterally exterior to the planes of said trusses, supporting tracks for said segments, and a counterweight attached to the leaf and extending laterally outside of the trusses.

5. In a rolling lift bascule bridge of the deck type, comprising a bridge leaf provided with rolling segments and having longitudinal trusses and a floor located substantially at the level of the upper chords of said trusses, said trusses extending at the rear end of the leaf beyond the rolling segments toward the bridge approach, and a counterweight extending transversely between the said trusses at the rear of said rolling segments and below the level of the top chords of the said trusses.

[Claims 6 to 13 not printed in the Gazette.]

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1,041,886. SHADE OR GLOBE FOR LAMPS. HARRY A. SCHEIBACH, Crafton, Pa., assignor to Jefferson Glass Company, Follansbee, W. Va., a Corporation. Filed Sept. 26, 1910, Serial No. 583,963. Renewed July 23, 1912. Serial No. 711,190. (Cl. 240—115.)



1. A neckless glass shade or globe, having an opening at the top, and a neck extending through said opening, the lower end of the neck being enlarged, and having outwardly-extending projections on which the shade rests, providing a space between the shade and the neck, and the upper end of the neck projecting above the top of the shade and provided with means for the engagement of the shade-holding devices of a burner.

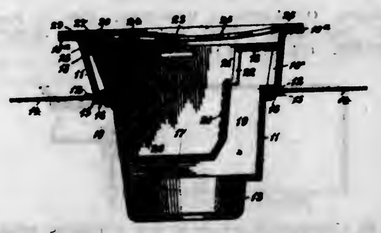
2. A neckless glass shade or globe, and a separable neck extending through the upper opening of the shade, said neck being made of heat resisting molded material and having supports for the shade at its lower end.

3. A shade or globe made of molded material, and an upper separable neck for the same made of molded material having greater heat resisting quality than the shade or globe.

4. A glass shade or globe, and an upper separable neck for the same made of material having a light-deflecting quality, and greater heat resisting quality than the shade or globe.

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1,041,887. AREA-CESSPOOL. GEORGE W. SCHODDE, New York, N. Y., assignor to Fanny J. Meyer, New York, N. Y. Filed Aug. 28, 1909. Serial No. 514,196. (Cl. 182—10.)



1. A drain comprising a receptacle consisting of a body portion and a reduced base portion, a flashing having an angular inner edge disposed about said base portion, a collar surrounding said reduced base portion having its lower edge arranged substantially flush with the angular edge of said flashing, and means for securing said collar and flashing to said receptacle, substantially as specified.

2. A drain comprising a receptacle consisting of a body portion and a reduced base portion, a flashing having an angular inner edge disposed about said reduced base portion, a collar having a horizontal portion and a depending portion thereon, having its lower edge arranged substantially flush with the angular inner edge of said flashing, said collar surrounding said reduced base portion and arranged below said flashing, and means for securing said flashing and collar together and to said receptacle, substantially as specified.

3. A drain comprising a receptacle consisting of a body portion and a reduced base portion, a flashing having an angular inner edge disposed about said reduced base portion, a collar surrounding said reduced base portion arranged below said flashing, said collar having a horizontal end and inclined portion depending therefrom, said depending portion having its lower edge arranged substantially flush with the angular edge of said flashing, and means for securing the horizontal portion of said collar against the under side of the body portion of said receptacle and securing the angular edge of said flashing against the inclined portion of said receptacle, substantially as specified.

4. A drain comprising an outer receptacle, a shoulder on said receptacle, a flashing disposed about said outer receptacle, a collar arranged below said flashing, means for securing said flashing and collar against the shoulder on said outer receptacle, an inner substantially closed receptacle open at its top and provided with a laterally projecting flange, apertures at the vertical edges thereof, and a transverse opening extending across one side of said inner receptacle adjacent to its upper edge, a series of vertical, parallel members extending over said transverse opening, and handles arranged opposite to each other upon the inner sides of said inner receptacle, substantially as specified.

5. A drain comprising a rectangular outer receptacle consisting of a body portion and a reduced base portion, lugs provided upon the inner surface of said body portion above the reduced end thereof, a flashing disposed about said reduced base portion, a collar arranged below said flashing, screws extending through said collar and flashing and into said body portion whereby to secure said flashing in position thereon, an inner receptacle corresponding in outline generally with said outer receptacle, said inner receptacle being open at its top and provided with a laterally-projecting flange of uneven width whereby to support said inner receptacle within said outer receptacle nearer to one of the edges thereof, apertures arranged at the vertical edges of said inner receptacle, a transverse opening arranged at one of the sides of said inner receptacle farthest removed from the inner surface of said outer receptacle, a series of vertical, parallel members integral with said inner receptacle extending across the transverse aperture therein, handles arranged upon said inner receptacle, and a perforated cover disposed within the open top of said outer receptacle, substantially as specified.

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1,041,888. OUTLET-BOX BUSHING. PAUL C. SCHORR, St. Paul, Minn. Filed Sept. 27, 1911. Serial No. 651,529. (Cl. 247—1.)

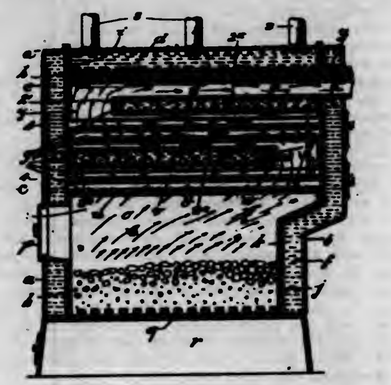


1. In combination, an outlet box, a conduit extending through one wall thereof, means for securing said conduit in position including a bushing threaded upon the end of the conduit and bearing against the inner face of the box wall, a flange extending inwardly from said bushing, and a covering cap secured over said flange.

2. In combination an outlet box, a conduit extending through one wall thereof, means for securing said conduit in position including a bushing threaded upon the end of the conduit and bearing against the inner face of the box wall, a flange extending inwardly and laterally from said bushing, and a covering cap secured over said flange.

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1,041,889. FURNACE. ANTON SCHROEDER, Belleville, Ill. Filed June 13, 1911. Serial No. 632,908 (Cl. 122—264.)



1. A furnace having a pair of end water-sections; water-tubes connecting said end water-sections; and an intermediate water-section which communicates with one of said end water-sections and which is mounted in proximity to said water-tubes and between the end wall of which and the opposed wall of the other of said end water-sections there is provided a substantial interval for the passage of the products of combustion.

2. A furnace having a pair of end water-sections; water-tubes connecting said water-sections; lateral water-spaces between and communicating with said water-sections; and an intermediate water-section which communicates with one of said end water-sections and with said lateral water-spaces and between the end wall of which and the opposed wall of the other of said end water-sections there is provided a substantial interval for the passage of the products of combustion.

3. A furnace having a pair of end water-sections; a plurality of sets of water-tubes connecting said water-sections; and an intermediate water-section which communicates with one of said end water-sections and which is mounted between said sets of water-tubes and between the end wall of which and the opposed wall of the other of said end water-sections there is provided a substantial interval for the passage of the products of combustion.

4. A furnace having a pair of end water-sections; an intermediate water-section which communicates with one of said end water-sections and between the end wall of which and the end water-section opposed to said end wall there is provided a substantial interval for the passage of the products of combustion; a second intermediate water-section which communicates with one of said end water-sections and between the end wall of which and the end water-section opposed to the last-named end wall there is provided a substantial interval for the passage of the products of combustion; and water-tubes which communicate with said end water-sections and which are mounted between said intermediate water-sections.

5. A furnace having a pair of end water-sections; an intermediate water-section which communicates with one of said water-sections and between the end wall of which and the end water-section opposed to said wall there is provided a substantial interval for the passage of the products of combustion; and a pair of sets of water-tubes which connect said end sections and between which is mounted said intermediate water-section.

[Claims 6 to 12 not printed in the Gazette.]



1,041,890. SIGNAL DEVICE FOR CARS. JOHN L. SCUDDER, South Omaha, Nebr. Filed Feb. 8, 1912. Serial No. 676,802. (Cl. 116—9.)



A signal device for cars comprising, in combination with a car, a spring-pressed angle rock shaft mounted in suitable bearings upon the car, a bracket member fastened to the latter and having two laterally projecting arms spaced apart, a pivotal link mounted between said arms and having an end projecting beyond the ends of the arms, a tread member fastened to the inner end of said link, a spring fastened to the car and having connection with the inner end of the link, a cord fastened to the angled end of said rock shaft, and a ring secured to said cord and adapted to be held yieldingly over the projecting end of said link, as set forth.

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1,041,891. LEAK-STOPPER. MARK E. SHERLAND, McGehee, Ark., assignor of one-half to Ensley E. Williams, McGehee, Ark. Filed Oct. 28, 1911. Serial No. 656,273. (Cl. 137—99.)



1. In a leak stopper for boilers, pipes, or the like, the combination of a pair of bolt parts having abutting flat faces, having angular extensions at one end thereof, and having their outer curved faces threaded up to said extensions, and a tubular nut adapted to be screwed upon the threaded ends of said bolt parts, and to abut said angular extensions, said nut having an outstanding portion.

2. In a leak stopper for boilers, pipes, or the like, the combination of a two part bolt proper, each of said parts having an angular extension at one end thereof, and means for clamping said bolt comprising a sleeve nut to screw about said parts, and having an outstanding portion adapted to enter a recess in the boiler, pipe, or the like to which the stopper is secured, and a cap nut to screw upon the end of said bolt against said sleeve nut.

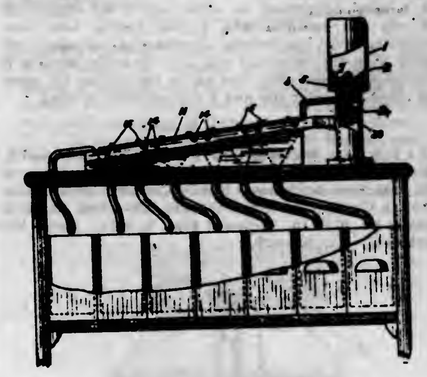
3. In a leak stopper, the combination of a two part bolt proper, each of said parts having a semicircular groove to aline with the groove in the opposing part and to form an opening through the bolt when said parts are assembled, each of said parts being further provided with an angular extension at one end thereof, and means for clamping said bolts together comprising a sleeve nut to screw downwardly thereon against said extensions and provided with an outstanding portion, and a cap nut to screw upon said parts against said sleeve nut to close said opening through said bolt.

4. In a leak stopper, the combination with a bolt composed of independent members each of angular form, the corresponding legs of which are screw threaded, of a nut adapted to engage the screw threaded legs and to clamp them together, said nut and screw threaded legs being so constructed and related that the nut is adapted to surround the legs where they pass through the member to which the leak stopper is applied.

5. In a leak stopper, the combination with independent angular members each having a leg provided with screw threads and both having flattened abutting faces, said legs being provided with alined transverse apertures adapted for the reception of a temporary holding member, of a nut adapted to clamp the parts of the shank together and secure the angular members in position.

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1,041,892. GAGING-MACHINE. FRANK I. SIELING, Philadelphia, Pa., assignor to The Standard Roller Bearing Company, Philadelphia, Pa., a Corporation of New Jersey. Filed Nov. 2, 1908. Serial No. 460,924. (Cl. 73—138.)



1. In a ball gaging and sorting machine the combination of inclined ways having their edges receding in respect to each other and along which balls roll and between which they pass, an agitator bar having a straight edge and arranged beneath the ways, and means for reciprocating the agitator sidewise and in a horizontal plane below the opening in the ways to wipe the balls and turn them crosswise of the ways.

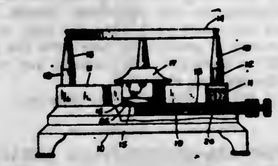
2. In a ball gaging and sorting machine the combination of inclined ways having their edges receding in respect to each other and along which balls roll and between which they pass, an agitator bar having a straight edge and arranged beneath the ways, and means including spring connections for reciprocating the agitator sidewise and in a horizontal plane below the opening in the ways to wipe the balls and turn them crosswise of the ways.

3. In a ball gaging and sorting machine in combination with the ways along and between which balls pass, an agitator bar having a straight edge and arranged beneath the ways and movable in a horizontal plane transversely thereof, a bar provided with pins and having spring connection interposed between it and the agitator bar, and means for oscillating the second mentioned bar, substantially as described.

4. In a ball gaging and sorting machine, the combination with the ways along and between which balls pass, of an agitator bar arranged beneath the ways and movable transversely thereof, a bar provided with pins and rollers, cams coöperating with the rollers, and springs for holding the rollers up to the cams, substantially as described.

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1,041,893. ALCOHOL-BURNER. HENRY V. SMITH, Bridgeport, Conn., assignor of one-half to Eugene H. H. Smith, Bridgeport, Conn. Filed Feb. 14, 1912. Serial No. 677,448. (Cl. 158—80.)



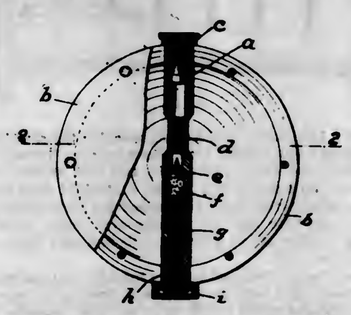
1. An alcohol burner comprising an outer cup, an inner cup shorter than the outer cup and of a diameter to leave a thin space between said cups and a cap provided with a flame opening and air holes above the outer cup whereby a mixing chamber is formed.

2. An alcohol burner comprising an outer cup, an inner cup shorter than the outer cup and of a diameter to leave a thin space between said cups, for the purpose set forth, and a dome-shaped cap having a flame opening and air holes above the outer cup.

3. A lamp comprising an outer cup, a bar supporting said cup and provided with a fuel feeding bore communicating with the interior of said cup, an inner cup shorter than the outer cup and of a diameter to leave a thin space between said cups and a cap having air openings above the outer cup and a central flame opening.

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1,041,894. DETONATOR FOR HAND-GRENADES. ERNST SOKOLOWSKI, Hamburg, Germany, assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Jan. 18, 1912, Serial No. 671,115. Renewed Sept. 9, 1912. Serial No. 719,444. (Cl. 102—29.)




1. A detonator for hand grenades, comprising a tube, a detonating cap adapted to be inserted and secured in said tube, a firing pin normally held in fixed position, a propelling charge for driving the pin into the cap, and an igniting mixture for igniting the propelling charge.

2. A detonator for hand grenades, comprising a tube, a detonating cap adapted to be inserted and secured in said tube, a firing pin normally held in fixed position, a propelling charge for driving the pin into the cap, an igniting mixture for igniting the propelling charge, and an igniter for igniting the igniting charge.

3. A detonator for hand grenades, comprising a tube, a detonating cap adapted to be inserted and secured in said tube, a firing pin normally held in fixed position, a propelling charge for driving the pin into the cap, an igniting mixture for igniting the propelling charge, an igniter for igniting the igniting charge, and a protecting cover for the igniter.

4. A detonator for hand grenades, comprising a tube, a firing pin, a propelling charge for the pin, and an igniting charge for igniting the pin propelling charge, the tube and cap being so constructed that the cap can be inserted and secured in position in line with the pin after assemblage of the detonator and grenade.

5. A detonator for hand grenades, comprising a tube, a firing pin, a propelling charge for the pin, an igniting charge for igniting the pin propelling charge, the tube and cap being so constructed that the cap can be inserted and secured in position in line with the pin after assemblage of the detonator and grenade, and an igniter for igniting the igniting charge.

[Claims 6 to 20 not printed in the Gazette.]

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1,041,895. PROCESS OF PURIFYING ALKALI STANNATES. GUSTAV SPITZ, Brünn, Austria-Hungary, assignor to Goldschmidt Detinning Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 6, 1909. Serial No. 526,604. (Cl. 23—13.)

1. Process of purifying an impure alkaline solution of alkali stannate containing impurities such as silica, alumina and lead, which process consists in treating the solution with material containing metallic tin in the presence of an oxidizing salt.

2. Process of purifying an impure alkaline solution of alkali stannate containing impurities such as silica, alumina and lead, which process consists in treating the solution with material containing metallic tin in the presence of sodium nitrate.

3. Process of purifying an impure alkaline solution of alkali stannate containing impurities such as silica, alumina and lead, which process consists in adding to the solution tin scrap in the presence of an oxidizing salt.

4. Process of purifying an impure alkaline solution of alkali stannate containing impurities such as silica, alumina and lead, which process consists in adding to the solution tin scrap in the presence of sodium nitrate.

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1,041,896. MALTED WHEY. JOSEPH S. STILLWELL, West Orange, N. J. Filed Feb. 14, 1912. Serial No. 677,545. (Cl. 99—11.)

1. The herein described composition of matter, consisting of malt extract and whey, substantially as described and for the purposes specified.

2. A composition of matter for use in breadmaking consisting of malt extract containing active enzyms mixed with whey, the solids of the whey being modified by the action of said malt enzyms.

3. The herein described composition of matter, consisting of malt extract and whey, the acidity of said compound being neutralized by an alkali, substantially as described and for the purposes specified.

4. A composition of matter for use in breadmaking consisting of malt extract containing active enzyms mixed with whey, the solids of the whey being modified by the action of malt enzyms, and the acidity of the compound neutralized by an alkali.

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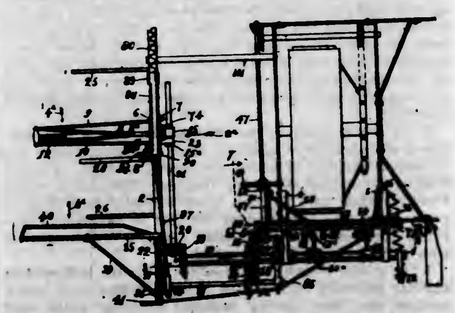
1,041,897. DEPILATORY AND PROCESS OF MAKING IT. ALBERT H. STONE, Boston, Mass. Filed Dec. 18, 1911. Serial No. 666,368. (Cl. 149—2.)

1. The process of making a depilatory which consists in slaking quick lime with a solution of sulfid of sodium and adding previously prepared sulfhydrate of calcium to the extent of at least ten per cent. of the depilatory, substantially as described.

2. A depilatory consisting of an admixture of slaked lime, sulfid of sodium, and previously prepared sulfhydrate of calcium to the extent of at least ten per cent. of the depilatory, substantially as described.

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1,041,898. SHOCKING-MACHINE. EMIL STUMPF, Waterloo, Ill. Filed Feb. 20, 1908. Serial No. 416,882. (Cl. 56—121.)



1. In combination with a binder frame, a shocker frame consisting of a round tube, a square tube, and a casting by which they are rigidly secured together at the end of each, forming an L-shaped frame, and said round tube being rotatably supported to the front part of the binder frame, substantially as described.

2. In a shocking attachment for grain-binders, a receptacle of curved rods, each forming almost a complete circle, and having an opening wide enough for bundles to pass through from the binder-deck, two compressing arms pivoted in the receptacle so that one compresses from below and the other from the side, and a spring pulling on the side-compressor arm, substantially as described.

3. In combination with a grain binder, a shocker comprising an L-shaped frame pivoted to the front part of the binder, a receptacle and a butt-board carried by said L-shaped frame, a shaft supported on the L-shaped frame and having fingers projecting therefrom to form a cradle, one of said fingers extending between the receptacle and butt board and being pivoted to the shaft, and means for turning said finger downwardly on depositing the shock, substantially as described.

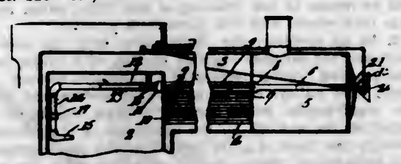
4. In combination with a grain binder, an L-shaped shocker frame having one member rotatably supported by the binder, a shocker mounted on the other member, a tubular shaft sleeved on the shocker frame, gears 16 and 18 secured to said tubular shaft, connections between the gear 18 and the shocker, a shaft 50, means for transmitting motion from the binder to said shaft, a pinion 51 secured to the shaft, a sector 64 secured to the shocker frame, means for engaging the pinion with the gear 16 for rotating the shocker to discharge position and with the sector 64 for rotating the shocker back to receiving position, means for disengaging the pinion from the gear 16 when the shocker is in its discharging position and from the sector 64 when in its receiving position, and means for holding the shocker in its discharging position when said gear 16 and pinion 51 are disengaged, substantially as described.

5. In combination with a grain binder, a binder deck, a shocker, an L-shaped frame being the main frame of the shocker and rotatably mounted by one member to the binder, a square sleeve reciprocatingly mounted on the other member which is also square and normally disposed in a horisontal position longitudinally of the binder deck, a receptacle secured to said sleeve and being held thereby in receiving position adjacent to the binder deck, a pair of rollers rotatably mounted on opposite sides in the sleeve in such a manner as to reduce friction on the shocker frame while reciprocating thereon, and means for rotating the square member of the frame to a substantially vertical position to deposit the shock, said sleeve being moved downward by gravity on the square member during the rotation of the latter.

[Claims 6 to 9 not printed in the Gazette.]

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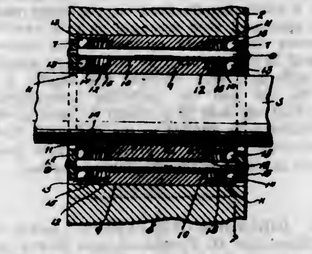
1,041,899. SMOKE-CONSUMER. JOSEPH H. TATE, Richmond, Va. Filed May 22, 1911. Serial No. 628,744. (Cl. 110—61.)



The combination with a horisontal tube boiler having a central flue compartment, a rear fire box, and a forward smoke compartment, of a smoke consumer, comprising a plurality of tubes disposed within the upper flues of the flue compartment with their ends projecting beyond the ends of the flues into the respective fire box and smoke compartment, the body portions of said tubes being reduced and out of contact with the flues while their ends are enlarged and ping the ends of the respective flues, two casings, one in the fire box and one in the smoke compartment, each of said casings having an apertured base to fit upon the projecting ends of the tubes and having a tapered mouth projecting into its respective fire box, or smoke compartment, a conduit having a flaring mouth exteriorly of the smoke compartment and having its inner end connected to the casing within the smoke compartment, an air conducting nozzle disposed in the fire box, and an expansible conduit connected to the nozzle and to the casing within the fire box.

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1,041,900. ROLLER-BEARING. FRANKLIN M. TATUM, Nacogdoches, Tex., assignor, by direct and mesne assignments, of one-sixth to John T. Norris, one-sixth to H. H. Norris, eight thirty-sixths to David B. Woods, one-eighteenth to James M. Sanders, two twenty-fourths to W. I. Davis, one twenty-fourth to J. D. Redditt, and one twenty-fourth to R. E. Harkrider, Center, Tex., one-eighteenth to Thomas M. Barham, Kansas City, Mo., and one-sixth to A. R. Fox, Center, Tex. Filed Nov. 2, 1911. Serial No. 658,199. (Cl. 64—62.)



In a roller bearing, the combination with a pair of spaced rings, of a plurality of spaced axles connected at their ends to said rings, a plurality of bearing rollers respectively formed with longitudinal bores for receiving said axles, the diameter of each bore being greater than the diameter of the respective axle, the length of the bearing roller being less than the distance between the rings, each roller having each end formed with counterbores forming a consequent shoulder, a plurality of anti-friction balls disposed within each counterbore between the axle and the roller for supporting the latter, a disk disposed within each counterbore and bearing against the balls and resilient means disposed between said disk and the shoulder of each counterbore to urge said balls outwardly against the ring to take up the end thrust of said rollers.

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1,041,901. OPERATING MECHANISM FOR CAR-DOORS. MARION TAYLOR, Soudan, Va. Filed Feb. 19, 1912. Serial No. 678,436. (Cl. 39—92.)



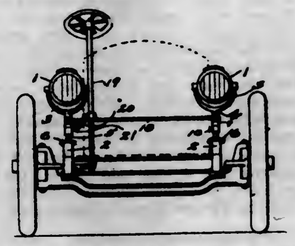
1. In an operating mechanism for car doors, a revolubly mounted operating shaft geared to the door near the

upper and lower ends thereof, a crank handle fixed on the lower end of said shaft and adapted to revolve beneath the car, an apertured stud arranged on said handle, a handle fastening link loosely secured to the under side of the car and having on its free end an eye adapted to be engaged with the stud on said handle whereby the latter is fastened beneath the car and the operating mechanism thereby locked to hold the door in a closed or open position, and a seal adapted to be engaged with the apertured stud on the handle whereby the link is prevented from being disengaged from the stud without breaking the seal.

2. An operating mechanism for car doors, means to slidably support said door, upper and lower rack plates secured thereto adjacent to the top and bottom of the door, shaft supporting brackets secured to the car above and below the door opening therein, an operating shaft revolubly mounted in said brackets, gears fixedly mounted on said shaft and adapted to engage the rack plates on the door, a crank handle fixed on the lower end of said shaft, an apertured stud arranged on said handle, a handle fastening link loosely secured to the under side of the car and having in its free end an eye adapted to be engaged with said stud whereby the handle is fastened beneath the car and the operating mechanism thereby locked to hold the door in a closed or open position, and a seal adapted to be applied to the apertured stud on said handle whereby the link is prevented from being disengaged from the stud without breaking the seal.

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1,041,902. DIRIGIBLE HEADLIGHT. LOUIS C. THOMMING, BENJAMIN H. THOMMING, and EDWIN A. ANDERSON, Newcastle, Wyo. Filed May 7, 1912. Serial No. 695,715. (Cl. 240—62.)



In a dirigible head light mechanism, the combination of a standard having a section formed with a socket and fixed upon a post, a second section having a complementary stem rotatable in the socket, an anti-friction ball between said members, an annular groove in the stem, and a screw engaging said groove to hold the two sections against separation.

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1,041,903. COMBINED HAMMER AND NAIL-SET. WILLIAM THOMAS, Springfield, Mo., assignor of one-half to Joe E. Mote, Springfield, Mo. Filed Mar. 25, 1912. Serial No. 686,088. (Cl. 145—30.)

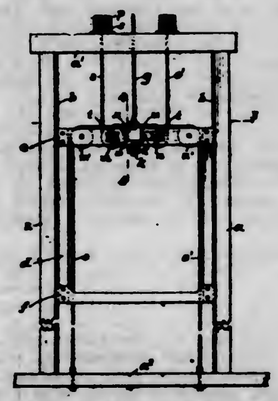


1. A nail placer comprising a hammer head having an end recess provided with an opening in one of its side walls and a bearing shoulder in rear of said opening, and gripping means for the nail shank to maintain it in set position in said head comprising opposite longitudinally grooved spring plates in axial alinement with said head, the nail head having a bearing against said shoulder and against the opposite wall of said recess in being set in position between and released from said gripping means.

2. A nail placer comprising a hammer head having a longitudinally alined end recess provided with an opening in its upper wall and a bearing shoulder in rear of said opening, and gripping means for the nail shank to maintain it in set position in said head comprising opposite longitudinally grooved spring plates in axial alinement with said head having lateral extensions located across the outer end of said recess to prevent endwise outward movement of the nail, and outer branches having connection with opposite sides of said head, the nail head being adapted to take a bearing against said shoulder and against the opposite wall of said recess in being set in position between and released from said gripping means.

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1,041,904. ELEVATOR SAFETY-CLUTCH. JAMES F. TIGHE, Philadelphia, Pa. Filed Mar. 14, 1912. Serial No. 683,664. (Cl. 187—77.)



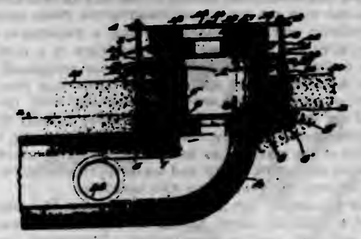
1. In an elevator, the combination with the elevator shaft and the car-body movable therein, of a lifting cable, two pairs of pulleys carried by the car, one pulley of each pair located near the center of the car and the other pulley located near the side thereof, supplemental cables, each cable extending from the bottom of the shaft upwardly near the walls thereof thence over the outer pulley of a pair, thence over and around the inner pulley and thence up to the top of the shaft, toothed wheels on the shafts of the inner pulleys, and a spring-actuated plate connected with, and normally held inactive by, the lifting cable and adapted, when moved into operative position by reason of the breaking of the lifting cable, to engage both wheels and lock them from rotation.

2. In an elevator, the combination with the elevator shaft and the car-body movable therein, of a lifting cable, supplemental cables extending vertically through the shaft, idler pulleys carried by the car and around which the supplemental cables extend, toothed wheels on the pulley shafts, a block on the car frame, a pin extending through the block, a plate carried by the pin, a guide on the cross-frame, means rigidly connected with the plate and slidable on said guide, and a spring tending to move said plate into engagement with the toothed wheels.

3. In an elevator, the combination with the elevator shaft and the car-body movable therein, of a lifting cable, supplemental cables extending vertically through the shaft, idler pulleys carried by the car and around which the supplemental cables extend, toothed wheels on the pulley shafts, a block on the car frame, a pin extending through the block, a plate carried by the pin, a spring confined between said block and the pin and tending to move said plate downward into locking engagement with said toothed wheels, and a collar on the pin adapted to engage the block and limit the upward movement of the pin.



1,041,905. WATER-CLOSET CONNECTION. GEORGE FRANCIS TOMS, Chicago, Ill. Filed Oct. 28, 1911. Serial No. 657,201. (Cl. 137—94.)



1. In a water closet connection, a soil pipe having an annular groove therein; a yoke arranged to be inserted in said groove; interlocking elements on said yoke and pipe arranged to interlock upon turning of said yoke; and securing bolts on said yoke, substantially as described.

2. A water closet connection comprising a cylindrical member having a plurality of integrally formed annular flanges thereon and an annular groove therein, a horseshoe like yoke in said annular groove and adapted to turn therein; locking means in said groove to prevent withdrawal of the yoke, together with upstanding bolts rigidly secured to said yoke and adapted to hold a water closet on said connection, substantially as described.

3. A water closet connection comprising a cylindrical portion provided with a plurality of integrally formed annular flanges and an annular groove therein, a yoke-like member in said groove and adapted to be turned therein and thereby locked, a pair of bolts upstanding from said yoke adapted to hold a water closet upon said connection, substantially as described.

4. A water closet connection comprising a cylindrical portion, a plurality of integrally formed annular flanges thereon and an annular recess therein, a pair of parallel grooves diametrically oppositely disposed within said recess; a yoke-like member in said recess having lugs thereon adapted to interfit with said grooves, and upstanding bolts on said yoke-like member, substantially as described.

5. In a water closet connection, a cylindrical portion provided with a plurality of integrally formed annular flanges and an annular recess therein; a yoke-like member in said recess; bolts in said yoke-like member and removable shields on said bolts, substantially as described.

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1,041,906. SWINGING GATE. WILLIAM WEBT TONG, Clarksville, Cal. Filed Mar. 28, 1910. Serial No. 551,956. (Cl. 39—14.)



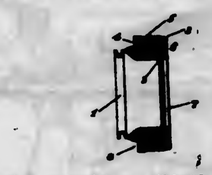
1. A gate comprising a base member having a central vertical V-shaped slot, a supporting post having a V-shaped lower end resting normally in said slot, such post carrying a gate, such base member having flat sloping sides, each side coming to a point at the front end of the corners of the sides of said slot and sloping outwardly and rearwardly from said point, and means for elevating said gate.

2. A gate comprising a base supporting member having a V-shaped slot, the outer edges of said supporting member sloping outward and rearward from the front upper corners of the sides of said slot, a gate having a base member resting normally in said slot, and means for raising said gate.

3. A gate comprising a base member having a vertical V-shaped slot, a supporting post having a V-shaped lower end resting normally in said V-shaped slot, such post carrying a gate, such base member having flat sloping sides, each side having its upper end of a lesser width than its lower end and sloping from such upper end backwardly and downwardly to its said lower end, and a means for lifting said gate as described.

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1,041,907. COUPLING-GASKET. JOSEPH M. TOWNE, East Orange, N. J., assignor to Safety Car Heating & Lighting Company, a Corporation of New Jersey. Filed July 22, 1909. Serial No. 508,914. (Cl. 121—107.)



1. A gasket comprising a thimble of metal having an exterior annular portion formed of alternate laminæ of vulcanisable and harder fibrous materials.

2. A gasket comprising a thimble of metal having an exterior annular portion composed of alternate spirally-wound continuous layers of vulcanized and fibrous materials.

3. A gasket comprising a thimble of metal having an annular portion formed of alternate layers of vulcanised and harder fibrous materials wound concentric thereto.

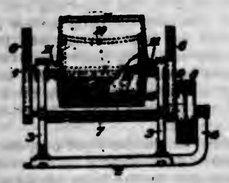
4. A gasket comprising a thimble of metal having alternate layers of hard fibrous and softer elastic materials spirally wound about the same.

5. A gasket comprising a thimble of rigid material having a yielding cover composed of alternate layers of asbestos and rubber vulcanised together.

[Claims 6 to 16 not printed in the Gazette.]

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1,041,908. DOUGH MIXING AND KNEADING MACHINE. WALTER J. TRAVIS, Yonkers, N. Y. Filed Jan. 13, 1912. Serial No. 671,006. (Cl. 107—40.)



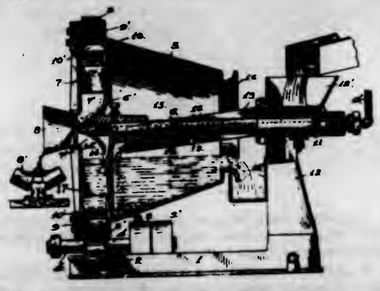
1. In a machine of the class specified, the combination of a trough having a wall a portion of which is substantially circular, a rotary dasher mounted in said trough and having a general position coaxial with the general position of said trough at the axial center of curvature of the wall thereof, said dasher having a number of blades each provided with a concave edge substantially parallel to the axis of the dasher, and the several concave edges be-

ing arranged in direct succession and together forming with the wall of the trough a dough opening having a gradually increasing volume from the ends to the center of said dasher, said concave edges coacting with said walls for forcing the dough toward the central plane of rotation of said dasher.

2. In a machine of the class described, the combination of a trough provided with a wall a portion of which has a cylindrical curve, a revoluble dasher mounted in said trough and having its axis of rotation substantially coincident in position with the axial center of the curved portion of said wall, said dasher being provided with blades spaced at different distances from its own axis and having concave outer surfaces arranged in direct order of succession, said outer surfaces and the curved portion of said trough together forming an opening having a gradually increasing volume from the ends to the middle of said dasher for forcing a plastic material toward the central plane of rotation of said dasher.

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1,041,909. CLASSIFIER. LAMARTINE C. TRENT, Los Angeles, Cal. Filed Dec. 29, 1910. Serial No. 599,925. (Cl. 82—86.)



1. In an apparatus for the described purpose, the same comprising a horizontally disposed rotatable drum provided with a central discharge in its outer end, a vertically disposed diaphragm secured within the drum, a water supply, mechanism for imparting rotation to the drum, means for feeding material to the interior of the drum, and devices arranged therein for raising the separated heavier particles and discharging the same, said means including a conical projection on said diaphragm leading to said central outlet, separated blades on said projection, and auxiliary relatively short blades on the diaphragm interposed between the said first mentioned blades.

2. In an apparatus for the described purpose, the combination with a horizontally disposed rotatable drum provided with a discharge outlet and an overflow outlet, a vertically disposed disk shaped diaphragm within the drum extending to a point adjacent the periphery of the drum and separated therefrom by a relatively narrow space, a plurality of radial ribs projecting therebetween and connecting the diaphragm to the outer end wall of the drum, circumferentially disposed elevating devices carried by the drum intermediate the said end wall and the diaphragm, the said diaphragm extending below the level of the material as determined by said overflow outlet, means for feeding water with the material into the drum between the diaphragm and the overflow, and mechanism for imparting rotation to the drum.

3. In a classifier for the described purpose, the combination of a rotatable drum having at one end a discharge outlet, a rear end wall for the drum having a substantially central discharge opening, a diaphragm within the drum and extending at its periphery to a point adjacent to but separated from the interior peripheral wall of the drum, separated radial blades projecting from one surface of said diaphragm and connecting with the end wall of the drum, forming guides to deliver directly to said central discharge opening, blades projecting inwardly from the peripheral wall of the drum, and deflectors interposed between the blades of the drum and radial blades on the diaphragm.

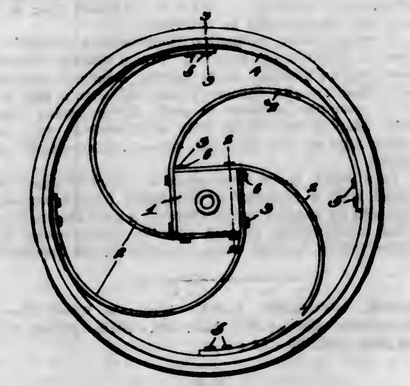
4. In a classifier for the described purpose, the combination of a rotatable drum having at one end an overflow outlet, an end wall for the opposite end of the drum having a substantially central discharge opening, a diaphragm within the drum and projecting at its periphery to a point adjacent to but separated from the interior peripheral wall of the drum, separated radial blades projecting from one surface of said diaphragm and connecting with the end wall of the drum, forming guides to deliver directly to said central discharge opening, the diaphragm projecting below the level of the material as determined by the overflow and means for delivering water and material to said drum at a point between the diaphragm and overflow.

5. In a classifier for the described purpose, the combination of a rotatable drum having at one end a circumferential enlarged portion constituting a peripheral pocket, an end wall for the drum having a substantially central discharge opening, the opposite end of the drum forming an overflow, a diaphragm within the drum and extending at its periphery to a point adjacent to but separated from the interior peripheral wall of the drum to the side of said circumferential pocket, separated radial blades projecting from one surface of said diaphragm and connecting with the end wall of the drum, forming guides to deliver directly to said central discharge opening, means for feeding material through the open end of the cylinder to a point between the diaphragm and overflow.

[Claims 6 to 9 not printed in the Gazette.]

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1,041,910. SPRING-WHEEL. ARTHUR M. TULLY, Woodville, Fla. Filed Mar. 14, 1912. Serial No. 683,789. (Cl. 152—50.)



In a device of the character described, the combination of a rim, an angular hub, a plurality of C shaped resilient spokes, each of said spokes having its inner end secured to one of the faces of the hub, and its outer end secured to the rim at a point opposite its inner end, bolts, each of said bolts adapted to pass through the hub and the inner ends of two of the said resilient spokes thereby securing the said spokes to the hub.

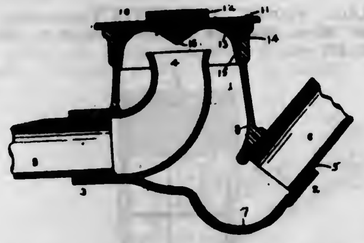
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1,041,911. TRAP. HENRY H. TURNER, Rochester, N. Y. Filed Oct. 26, 1907. Serial No. 398,245. (Cl. 182—12.)

1. A trap comprising a hollow body having an inlet and an outlet connection, a stand-pipe communicating with the outlet connection, and a removable cover for said trap, said cover being provided with an internal flange or skirt projecting below the top of the stand-pipe, substantially as specified.

2. A trap comprising a hollow body having an inlet and an outlet connection, a stand-pipe communicating with the outlet connection, and a cover for said trap, said cover being provided with a skirt having a thread thereon by means of which it may be fitted to the top of the trap body, said skirt projecting below the top of the stand-pipe, substantially as specified.





3. A trap comprising a hollow body having an inlet and an outlet connection, a stand-pipe communicating with the outlet connection, and a cover for said trap, said cover being provided with a skirt having a thread thereon by means of which it may be fitted to the top of the trap body, said skirt having a plain or unthreaded lower end projecting below the top of the stand-pipe, substantially as specified.

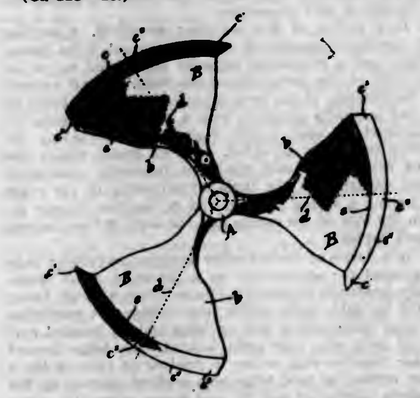
4. A trap comprising a hollow body having an inlet and an outlet connection, a stand-pipe communicating with the outlet connection, and a cover for said trap, the interior of said cover being provided with a conical projection located above the central portion of the stand-pipe, a concave annular space being provided between said conical portion of the cover and the side thereof, substantially as specified.

5. A trap comprising a hollow body having an inlet and an outlet connection, a stand-pipe communicating with the outlet connection and having a centrally arranged upper end, and a cover for said trap provided with a central downwardly extending conical projection, the interior of said cover being concave outside of said projection, substantially as specified.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,912. MARINE PROPELLER. JAMES R. TYSON, Reading, Pa. Filed Nov. 19, 1906. Serial No. 343,965. (Cl. 115—46.)



1. In a propeller, a compound screw blade comprising a substantially radial member and a rim constituting a peripheral propelling member, said rim being at an angle to the face of the radial member, and said angular relation of the rim increasing toward the rear end of the radial member.

2. In a propeller, a compound screw blade comprising a substantially radial screw member, and a peripheral screw rim overhanging the working surface of said radial member, the angular relation of the rim to the radial member increasing toward the rear edges of said radial member and rim.

3. In a drive wheel, a compound screw blade comprising a screw member extending outwardly from a hub and a helical rim overhanging the working face of said screw member, one edge of said rim following the contour of the peripheral edge of the screw blade and said rim being inclined outwardly from the face of the blade.

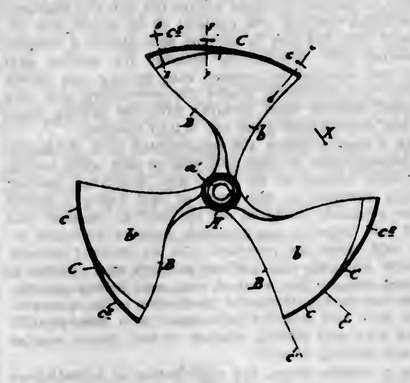
4. A drive wheel comprising screw blades extending outwardly from a hub, and helical rims, one on each blade, positioned to overhang the working face of said blade, each rim being oblique for a part of its length to said working face and the rear part of said rim being at a different angle than the angle of the rim of the working face at the front part of said rim.

5. A drive wheel comprising screw blades extending outwardly from a hub, and rims, one on each blade, positioned to overhang the working face thereof, each rim being a helix the axis of which is different from the axis of the screw blade, said rims being inclined relative to the working faces of said blades.

[Claims 6 to 18 not printed in the Gazette.]

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1,041,913. AERIAL PROPELLER. JAMES R. TYSON, Reading, Pa. Filed Dec. 6, 1909. Serial No. 531,491. (Cl. 115—46.)



1. A device of the class described comprising a hub, a plurality of blades, and a wing on each blade, the angle of inclination of each wing with respect to the blade increasing toward the rear of the wing, each blade being provided with ribs on the rear face thereof.

2. A device of the class described comprising a hub, a plurality of screw blades, and a wing extending from the outer edge of each blade, the angle of inclination of each wing to the face of the blade increasing toward the rear part of the wing, each blade being provided on the rear surface thereof with a plurality of ribs which converge toward the hub.

3. A device of the class described comprising a taper bore chambered hub, a plurality of screw blades, and a wing extending forwardly with respect to the working face of each blade, said wing being flared for the major part of its length at an increasing angle relative to the face of the blade.

4. A device of the class described comprising a hub, a plurality of screw blades, and a substantially spiral wing at the outer edge of each blade, said blades being each provided with a plurality of ribs, certain of said ribs conforming to the contour of the side edges of said blade.

1,041,914. COASTER-BRAKE. HENRY B. VAN NESS and WILLIAM T. KENDALL, Elmira, N. Y. Filed Dec. 23, 1911. Serial No. 667,481. (Cl. 208—57.)



1. In a coaster brake, the combination of a stationary member, a driving member, a driven member, a non-rotatable axially movable sleeve provided with an inclined surface, a corresponding inclined surface on said stationary member, a member engaging said inclined surfaces and arranged to be pressed against the interior of the driven member by an axial movement of said sleeve, means for connecting said driving and driven members and for moving said sleeve axially, and frictional means for preventing said last-mentioned means from rotating with the driving member when disconnected from the driven member.

2. In a coaster brake, the combination of a stationary axle, a member on one end of the axle provided with an inclined surface, a longitudinally movable sleeve carried by the axle and held against rotation thereon and provided with an inclined surface, a driving member on the other end of the axle, a hub rotatably mounted on said members, a member arranged within the hub and engaging said inclined surfaces and adapted to be moved into engagement with the hub by moving said sleeve, a member coöperating with the driving member for moving said sleeve, and adapted to connect said driving and driven members, and frictional means for preventing said last mentioned member from rotating with the driving member when disconnected from the driven member.

3. In a coaster brake, the combination of a stationary axle, bearing-cones on said axle, one of said cones having an inclined surface at its inner end, a driving member rotatably mounted on the other of said cones, a driven member rotatably mounted on the driving member and one of said cones, a non-rotatable member arranged between said cones and provided with an inclined surface, a member engaging said inclined surfaces and adapted to be moved radially into contact with said driven member, and means having frictional connection with a non-rotatable part and adapted to connect said non-rotatable member with said driving member or said driven member with said driving member.

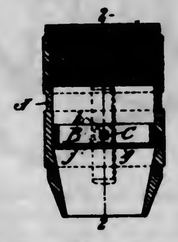
4. In a coaster brake, the combination of a stationary axle, a driving member, a driven member, a brake member arranged within said driven member and provided with oppositely arranged inclined surfaces, non-rotatable members having inclined surfaces engaging the inclined surfaces on said brake member, one of said non-rotatable members being axially movable to press said brake member against the interior surface of said driven member, and means having frictional connection with a non-rotatable part and adapted to be moved axially by the driving member into engagement with said axially movable member or said driven member.

5. In a coaster brake, the combination of a stationary axle, a driving member, a driven member, a plurality of brake members arranged within said driven member and provided with oppositely arranged inclined surfaces, non-rotatable members having interlocking means and inclined surfaces engaging the inclined surfaces on said brake members, one of said non-rotatable members being axially movable to press said brake members against the interior surface of the driven member, a rotatably mounted member having means adapted to coöperate with the driven member to drive the latter and said member being also adapted to be moved axially to move said axially movable member, frictional means connecting said rotatably mounted member with a non-rotatable part, and cam means connecting said rotatable member and the driving member whereby the former is moved axially by the latter.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,915. FILTER. LEVI D. VAN VALKENBURG, Holyoke, Mass. Filed Jan. 18, 1912. Serial No. 671,904. (Cl. 210—6.)



1. In a device of the character described, in combination, a tubular body having diametrically opposed axially horizontal journal holes therethrough with countersunk depressions at their outer ends, a screen frame within the body having alined polygonal openings therethrough, a polygonal shaft engaged through the screen frame, polygonally apertured disks through which the shaft is engaged and which are disposed in said circular depressions,—the said shaft having a handle enlargement at one end in engagement against one of the disks, and means operative on the shaft for holding it with its handle member in engagement with one of said disks.

2. In a device of the character described, in combination, a tubular body having diametrically opposed axially horizontal journal holes therethrough with countersunk depressions at their outer ends, and having a further depression radially relatively to one of the countersunk depressions, a polygonal shaft and a screen frame having openings corresponding to the cross sectional shape of the shaft and through which the latter is engaged, polygonally apertured disks through which the shaft is engaged and which are disposed in said circular depressions,—the said shaft having a handle at one end made with a blade shaped portion for engagement in said radial depression and a spring exerting an endwise force to the shaft for yieldingly maintaining the blade-like portion of the handle in said depression.

3. In a device of the character described, a tubular body having diametrically opposed journal holes therethrough and a depression adjacent and radial to one of said holes on the outer side of the body, a shaft extending transversely of the body through said holes having at one end a handle provided with a blade-like portion for engagement in said radial depression and having its opposite end screw threaded, a screen frame within the casing mounted on said shaft, an internally chambered bonnet engaging on the threaded extremity of the shaft and having a spring inclosed and in reaction therein between the side of the casing and the wall of the chamber in such bonnet.

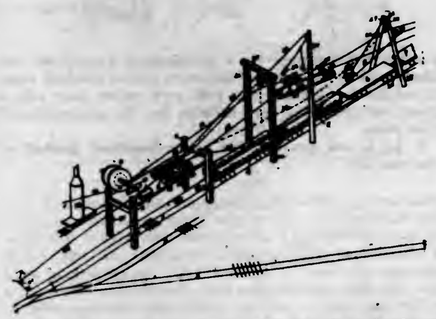
4. In a device of the character described, a tubular body constructed for attachment on a faucet, a shaft transversely rotatively mounted in the body and a screen frame carried by said shaft within the casing and consisting of a ring made with a seat or ledge and an integral portion of such ring outwardly beyond such ledge formed thinner than the ring proper to produce an annular lip, a screen resting on said ledge and confined thereon by the angularly turning of said lip, and means externally of the casing for rotatively moving said shaft.

5. In a device of the character described, in combination, a tubular body constructed for attachment on a faucet, a shaft, transversely and rotatively journaled through an intermediate portion of the body, carrying a screen-frame therein and having at one of its extremities a shoulder in sidewise engagement against the body, and a handle member adjacent the body, provided at its other end with spring means for drawing the shoulder against the body, and detachable means for preventing the disengagement of the shaft from the screen frame and from the body.



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1,041,916. AERIAL TRAMWAY. CHARLES H. VOGEL and GEORGE R. TAITT, Vancouver, British Columbia, Canada. Filed Aug. 5, 1911. Serial No. 642,581. (Cl. 214—14.)



1. An aerial tramway for transporting logs, having a track cable to support the logs, in combination with carriages, a traction cable to regulate the movement of the logs, a track cable on which the empty carriages return, and supports from which the track cable is suspended, and means for raising and lowering the logs.

2. An aerial tramway for transporting logs, having a track cable to support the logs, in combination with carriages, a traction cable to regulate the movement of the logs, a track cable on which the empty carriages may return, and supports from which the track cable may be suspended, and means for raising and lowering the logs and means for connecting and disconnecting the carriages with the traction cable, and means for transferring the carriages from one track cable to the other.

3. An aerial tramway for transporting logs, having a track cable to support the logs, in combination with carriages, a traction cable to regulate the movement of the logs, a track cable on which the empty carriages return, and supports from which the track cable is suspended, and means for raising and lowering the logs and means for connecting and disconnecting the carriages with the traction cable, and means for transferring the carriages from one track cable to the other, a motor operating drums, a railway and means to admit cars to pass longitudinally beneath the suspended logs, and means for loading the logs on to the car, and means for moving the cars.

4. An aerial tramway for transporting logs, having a track cable to support the logs, in combination with carriages, a traction cable to regulate the movement of the logs, a track cable on which empty carriages may return and supports from which the track cable may be suspended and means for transferring the logs from the ground to the track cable, and for transferring them from track cable to the ground.

5. In an aerial tramway, the combination of track cables, an endless traction cable, intermediate supports, a motor and operating drums on portable supports to permit loaded cars to pass beneath it, and reels to wind up the track and traction cables for the purpose of transportation.

[Claims 6 and 7 not printed in the Gazette.]

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1,041,917. CUT TOY FIGURE. FLORENCE WADDINGTON, Baltimore, Md. Filed Feb. 26, 1912. Serial No. 679,942. (Cl. 46—40.)

1. A figure cut from stiff paper or the like comprising the object represented formed with pendent portions, the lower ends of which have flat forwardly and rearwardly bent foot-shaped members that form the "feet" of the object.



2. A toy figure having pendent portions, the lower ends of which are bent outwardly to form flat foot-like members and then bent backwardly to form heel extensions for the foot-like members.

3. A cut out figure including a pendent member, said member being bent backwardly and forwardly to form a foot-like support for the figure.

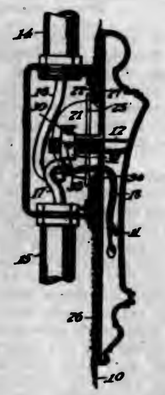
4. In a cut out figure, a supporting member comprising a pair of upright members, one of said members being bent at right angles to form a "heel" and the other of said members being bent at right angles to form a "toe", said "heel" and "toe" forming a foot-like support for the figure.

5. In a cut out figure, a supporting member comprising a pair of upright members, one of said members being bent at right angles to form a "heel" and the other of said members being bent at right angles to form a "toe", said "heel" and "toe" forming a foot-like support for the figure, and a horizontal sole secured to the underside of said "heel" and "toe".

[Claims 6 to 9 not printed in the Gazette.]

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1,041,918. JUNCTION-BOX COVER. CHARLES WAGNER, Brooklyn, N. Y., assignor to Sterling Bronze Company, a Corporation of New York. Filed May 1, 1912. Serial No. 694,891. (Cl. 240—86.)



1. In a junction-box, the combination with a cover, of reversible plates in the junction-box and having securing

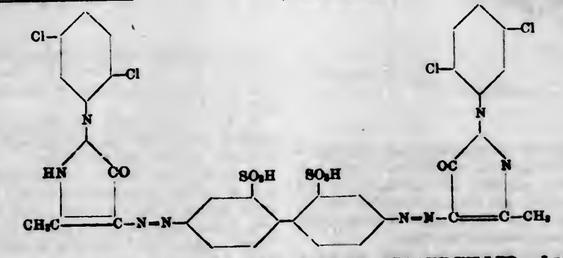
devices in different planes, and a pin projecting inward from the cover and having adjustable means for engaging the securing devices.

2. In a junction-box, the combination with a cover, of a pair of opposing, slotted, reversible plates, the slots having recesses in different planes, and a pin projecting inward from the cover and having adjustable catch-pins for engaging the corresponding recesses in the slots of the reversible plates.

3. In a junction-box, the combination with a cover, of a connecting, threaded pin, a nut borne by the pin, catch-pins on the nut, and means lying in different planes for engaging the pins.

4. In a junction-box, the combination with a cover, of a threaded pin bearing a nut, catch-pins on the nut, and a plate having recesses in different planes to receive the catch-pins.

5. In a junction-box, the combination with a cover, of a threaded pin bearing a nut, catch-pins on the nut, and reversible plates having recesses in different planes to receive the catch-pins.



the alkali salt of which, when dry, forms a yellow powder, readily soluble in water, dyeing wool a pure yellow tint with a green hue, and being very suitable for the preparation of color lakes.

3. The process of manufacturing yellow dyestuffs, which consists in diazotising benzidin-m-disulfonic acid and coupling it with a halogenated pyrazolone.

1,041,920. LOCKING-NUT. DANIEL O. WARD, Oak Park, Ill. Filed Feb. 27, 1911. Serial No. 611,016. (Cl. 151—21.)

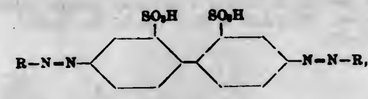


1. As an article of manufacture, a nut having a screw-threaded aperture extending therethrough from face to face, there being an annular channel surrounding and spaced apart from said aperture in the face of the nut last to pass upon a coöperating bolt, said channel producing a thin annular wall about said aperture, said wall being divided at one or more points, and a ring pressed into and lying normally in said channel, said ring and said channel being so proportioned that the entry of the ring into the channel bends the parts of the divided wall inwardly so as to reduce the size of the screw-threaded aperture in that portion bounded by the wall.

2. As an article of manufacture, a nut having a screw-threaded aperture extending therethrough from face to face there being in one face of the nut an annular channel surrounding the aperture and spaced apart therefrom so as to produce a narrow annular inner wall lying below the face of the nut and immediately surrounding said aperture and an outer wall surrounding and spaced apart from the inner wall, said inner wall being divided at one or more points, and said outer wall being continuous so as to form a rigid abutment for a wedging member adapted to enter said channel and bend the sections of the inner wall inwardly to reduce the size of the screw-threaded aperture throughout that portion bounded by the inner wall.

1,041,919. DYESTUFFS AND PROCESS OF MAKING SAME. HERMANN WAGNER and JOSEF BLUMS, Höchst-on-the-Main, Germany, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Feb. 23, 1912. Serial No. 679,374. (Cl. 8—1.)

1. As new products, the herein-described dyestuffs of the general formula:—

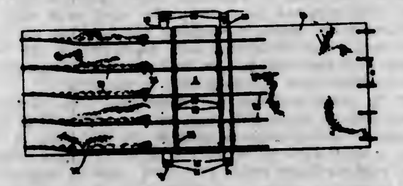


wherein "R" stands for a halogenated pyrazolone, the alkali salts of which, when dry, form yellow powders, readily soluble in water, dyeing wool pure yellow tints with a green hue and being very suitable for the preparation of color-lakes.

2. As a new product, the herein-described dyestuff of the formula:



1,041,921. GRAVE-FILLER. LEONARD G. WARD, Demopolis, Ala. Filed Jan. 19, 1911. Serial No. 603,550. (Cl. 27—5.)



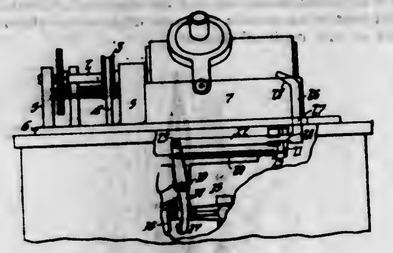
A device such as described comprising a pair of fixed members arranged one upon each side of an excavation, attaching pins projecting inwardly from said fixed members, a sheet removably engaging one set of pins and extending laterally from the excavation to receive the excavated earth, a second sheet removably engaging the pins which engage the first sheet and disposed upon said first sheet for also receiving the excavated earth, connections between the intermediate portion of the second sheet and the free end of the first sheet, flexible members attached to the free edges of the second sheet for manually moving the sheets in the direction of the excavation to disengage the same from the pins, a third sheet removably engaging the pins provided upon the other fixed member, and operating members connected to the free edges of the third sheet.

1,041,922. PHONOGRAPH. PETER WEBER, Orange, N. J., assignor, by mesne assignments, to THOMAS A. EDISON, Incorporated, West Orange, N. J., a Corporation of New Jersey. Filed Apr. 2, 1909. Serial No. 487,568. (Cl. 181—9.)

1. In a phonograph, the combination with the governor disk, of a lever carrying a friction pad adapted to coact with said disk to control the same, a longitudinal rod attached to said lever and provided on its under side with a locking notch, an abutment adapted to coact with said notch to hold the rod in such position that the pad



is out of contact with the disk, means tending to move said pad into engagement with said disk, a trip arm carried by said rod having a cam surface extending upwardly and laterally at an angle to the horizontal, a traveling carriage, and means carried thereby for contacting said cam surface to lift said arm to unlatch said rod, substantially as described.



2. In a phonograph, the combination with a motor brake of means tending to apply said brake, a longitudinal rod connected to said brake and having a locking notch on its under side, an abutment co-acting with said notch to latch said brake in "off" position, a traveling carriage, a member connected with said rod extending into the path of said carriage, and means carried by said carriage to contact said member to lift the same and unlatch said rod at a predetermined point, substantially as described.

3. In a phonograph, the combination with a motor brake of means tending to apply said brake, a longitudinal rod connected to said brake and having a locking notch on its under side, an abutment co-acting with said notch to latch said brake in "off" position, a traveling carriage, a pin carried by said carriage, and a member connected with said rod having a cam extending into the path of said pin, whereby said rod will be lifted out of contact with said abutment at a predetermined point, substantially as described.

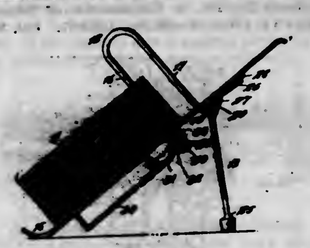
4. In a phonograph, the combination with a traveling carriage carrying an arm provided with contacting means, of a motor brake, means tending to apply said brake, a rod pivotally connected to said brake, carrying projecting means adapted to be contacted by said contacting means, and being provided with latching means, an abutment with which said latching means coacts under the influence of gravity to latch said brake in "off" position, and a slideway for said traveling carriage arm, the conformations of said contacting means and projecting means being such that contact therebetween oscillates said rod about its pivot to unlatch the same and presses said arm more tightly upon said slideway, substantially as described.

5. In a phonograph, the combination with a motor brake, of means tending to apply said brake, a longitudinally movable rod connected to said brake and having a locking notch on its under side, a stationary abutment coacting with said notch to latch said brake in "off" position, a traveling carriage, a member connected with said rod extending into the path of said carriage, and means carried by said carriage to contact said member to lift the same and unlatch said rod at a predetermined point, substantially as described.

[Claim 6 not printed in the Gazette.]

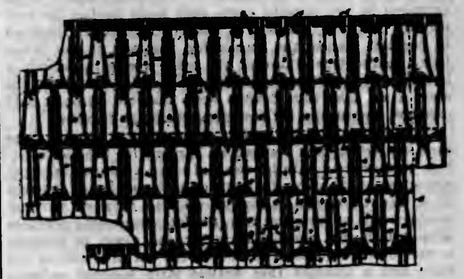
1,041,923. MEMORANDUM-PAD CALENDAR. FRANK A. WEEKS, Plainfield, N. J. Filed Feb. 11, 1910. Serial No. 543,321. (Cl. 40—120.)

A calendar stand adapted to hold a pad of calendar slips and comprising a plate, wire loops at about the middle of the plate to receive said slips and permit them to be turned from one section to the other section of said plate, and a removable prop for application to said plate for supporting it in an inclined position, said plate having on its lower side a wedge-surface and hooks at the sides thereof, and said prop having at its upper end flanges to pass within said hooks and an arm to be forced against said



wedge-surface, for binding the prop to the plate; substantially as set forth.

1,041,924. SHEET-METAL TILE. CLARENCE A. WEIRICH, Canton, Ohio. Filed Nov. 6, 1911. Serial No. 658,688. (Cl. 108—17.)



1. A metal sheet having a plurality of rows of laterally adjoining individual tile designs shaped thereon, each design having a raised body portion forming a ridge across the sheet and adjoining designs having a common raised lateral-joint portion likewise forming a ridge across the sheet, and the several designs in each row being staggered so that the raised body portions of one row are alined and merged with the raised joint portions of another row to form a continuous ridge across the sheet.

2. A metal sheet having a row of laterally adjoining individual tile designs shaped thereon, each design having a raised body portion forming a ridge across the sheet, and adjoining designs having a common raised lateral-joint portion likewise forming a ridge across the sheet.

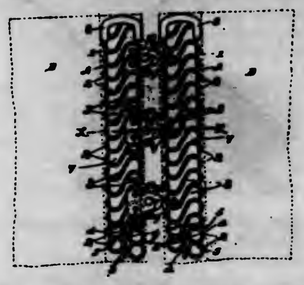
3. A metal sheet having a row of laterally adjoining individual tile designs shaped thereon, each design having a raised body portion forming a ridge across the sheet, and adjoining designs having a common raised lateral-joint portion likewise forming a ridge across the sheet, the joint ridge being composed of two raised ribs with an intervening depression and a groove on each side in the base plane of the sheet.

4. A metal sheet having a row of laterally adjoining individual tile designs shaped thereon, each design having a raised body portion forming a ridge across the sheet and adjoining designs having a common raised lateral-joint portion likewise forming a ridge across the sheet, the raised body portion having well defined side edges bent acutely downward and thence curved laterally in each direction to form the side faces of the individual design.

5. A metal sheet having a row of laterally adjoining individual tile designs shaped thereon, each design having a raised body portion forming a ridge across the sheet, and adjoining designs having a common raised lateral-joint portion likewise forming a ridge across the sheet, one side of the sheet being extended beyond the tile-design portion thereof.

[Claims 6 to 16 not printed in the Gazette.]

1,041,926. FRONT-CLASP FOR CORSETS. JAMES M. WELSH, Meadville, Pa., assignor to The Spirella Company, Meadville, Pa., a Corporation of Pennsylvania. Filed May 11, 1906. Serial No. 482,061. (Cl. 2—76.)



1. A front-clasp for corsets comprising a pair of stays each consisting of a continuous spring-wire bent at regular intervals to form a succession of uniform circular loops arranged in two parallel rows, said loops having the connecting portions arranged in two crossing series disposed in parallel planes, the connecting portions of one series being spaced from those of the other series to provide a passage between them extending the entire length of the stay, a straight thin flexible strip inserted through said passage, and means for fastening the stays together.

2. A front-clasp for corsets comprising a pair of stays each consisting of a continuous spring-wire bent at intervals to form two parallel rows of loops arranged at opposite edges of the stay, the loops of each row being disposed in a transverse line extending midway between two adjoining loops of the other row, the loop-connecting portions arranged in two parallel series spaced apart to produce a wide uniform passage extending the entire length of the stay, and a straight thin flexible strip inserted endwise through said passage, the strips of the two stays being provided with fastening means.

3. A front-clasp for corsets comprising a pair of stays each consisting of a single piece of wire and having a thin flexible strip applied thereto, said wire being bent at regular intervals to form a succession of uniform circular loops alternately embracing the opposite side edges of the strip with the loop-connecting portions disposed in two series extending alternately in reverse obliquity across the opposite faces of the strip, a series of headed studs on the strip of one stay, and a corresponding number of apertured plates secured to the strip of the other stay and adapted to be engaged by said studs.

4. In a front-clasp for corsets, the combination of a pair of stays each consisting of wire bent at intervals to form a series of loops arranged alternately in two parallel rows with their connecting portions disposed diagonally and crossing one another and disposed on opposite faces of the stays in parallel planes and extending from edge to edge thereof, and means for detachably fastening the two stays together.

5. In a front-clasp for corsets, the combination of a pair of stays each consisting of wire bent at intervals to form a series of loops arranged alternately in two parallel rows, two contiguous oppositely arranged loops forming substantially a figure 8, the loop-connecting portions being disposed alternately on opposite side faces of the stay in substantially parallel planes and out of contact to provide a passage throughout the length of the stay, a reinforcing strip inserted into said passage and having its side edges embraced by the rows of loops, and means applied to the two strips for detachably fastening the stays together.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,926. PENCIL-CASE. JOSEF WIMMER, Munich, Germany. Filed Apr. 28, 1910. Serial No. 558,254. (Cl. 120—19.)

1. A device of the character described comprising a longitudinally bored case having a lateral slot therein, a lead contained in the bored case, means for moving the lead including a member passing through the slot in the case, and a laterally yieldable resilient element interposed between the lead and said member, one end of said resilient element engaging the lead and the other end thereof engaging the member passing through the slot in the case, the part of said resilient element intermediate its ends being capable of free lateral distortion, and the diameter of the bore in said case being greater than the diameter of either said lead or said resilient element.



2. A device of the character described, comprising a longitudinally bored case having a lateral slot therein, a lead movable in said case, a sliding member encircling said case and having a projection extending through the lateral slot into the case, said projection being adapted to move the lead in the case, and a laterally yieldable resilient element having one end engaging the lead and the other end engaging said projection, the part of said resilient element intermediate its ends being capable of free lateral distortion, and the diameter of the bore in said case being greater than the diameter of either said lead or said resilient element.

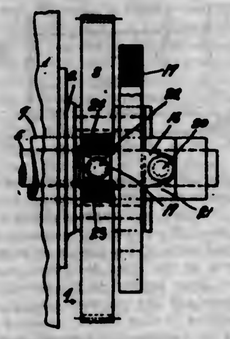
3. A device of the character described comprising a longitudinally bored case having a lateral slot therein, a lead movable in said case, means for moving the lead comprising a sliding member having a projection extending through the lateral slot in the case, a coiled spring having one end engaging said lead, and a pin connecting the other end of the coiled spring with said projection, the portion of said coiled spring intermediate its ends being capable of free lateral distortion, and the diameter of the bore in said case being greater than the diameter of either said lead or said coiling spring.

4. A device of the character described comprising a longitudinally bored case having a lateral slot therein, a lead movable in said case, means for moving the lead comprising a sliding member having a projection extending through the lateral slot in the case, a laterally yieldable resilient element having one of its ends engaging the end of the lead and its other end engaging said projection, the part of said resilient element intermediate its ends being capable of free lateral distortion, and means for locking said projection in adjusted position, the diameter of the bore in the case being greater than the diameter of either said lead or said resilient element.

5. A device of the character described, comprising a case having a longitudinal bore one end of which is exactly of a diameter to retain a lead without play, said case having a lateral slot in the wall thereof, a laterally yieldable resilient element connected at one end to one end of the lead, the diameter of the bore in the case at points other than the said end thereof being greater than the diameter of either said lead or said resilient element, means for longitudinally moving the lead, said means being connected to the end of the resilient element opposite that to which the lead is connected, a projection on the lead moving means, and an apertured member adapted to be moved into engagement with said projection to retain the lead moving means in adjusted position.

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1,041,927. TRANSMISSION MECHANISM. ALONZO W. WHEELMAN, Plainfield, N. J., assignor to Walter Scott, Plainfield, N. J.; Isabella Scott and David John Scott executors of said Walter Scott, deceased. Filed Feb. 1, 1907. Serial No. 355,246. (Cl. 74—7.)



1. Transmission mechanism comprising a shaft carrying a gear and constituting a driven member, means for raising and lowering said shaft, a driving member, compensating means pivotally supported transversely to the axis of rotation of one of said members, and guides pivotally mounted in the compensating means, engaging the other member and capable of radial movement with respect thereto.

2. A rotating driving member, a rotating driven member, one of said members being provided with radial slots, connecting means pivotally supported on the other of said members, and guides pivotally supported on the connecting means and adapted to extend into the slots aforesaid, and to slide radially and laterally therein.

3. A rotating driving member, a rotating driven member, the driving member being provided with radial slots, connecting means pivotally supported on the driven member, and guides pivotally supported on the connecting means and adapted to extend into the slots aforesaid and to slide radially and laterally therein.

4. A rotating driving member, a rotating driven member, one of said members being provided with radial slots, connecting means pivotally supported transversely to the axis of rotation on the other of said members, and guides pivotally supported on the connecting means and adapted to extend into the slots aforesaid and to slide radially and laterally therein.

5. A rotating driving member, a rotating driven member, the driving member being provided with radial slots, connecting means pivotally supported transversely to the axis of rotation on the driven member, and guides pivotally supported on the connecting means and adapted to extend into the slots aforesaid and to slide radially and laterally therein.

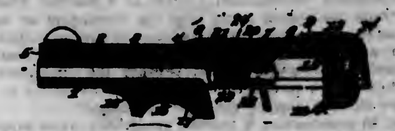
[Claims 6 to 10 not printed in the Gazette.]

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1,041,928. FIREARM. JOSEPH H. WESSON, Springfield, Mass., assignor to Smith & Wesson, Springfield, Mass. Filed Feb. 21, 1912. Serial No. 679,117. (Cl. 42—8.)

1. In an automatic pistol, the combination with the frame provided at the rear with a post; of a barrel having a rearward extension and a lug below the barrel; a recess in the frame to receive said lug; and means whereby said rearward extension and said lug are locked, respectively, on said post and in said recess in response to a longitudinal movement of the barrel.

2. In an automatic pistol, the combination with the frame provided at the rear with a post; of a barrel having a rearward extension and a lug below the barrel; a recess in the frame to receive said lug; means whereby said rearward extension and said lug are locked, respectively, on said post and in said recess in response to a longitudinal movement of the barrel; and a locking device to hold said barrel in locked position.



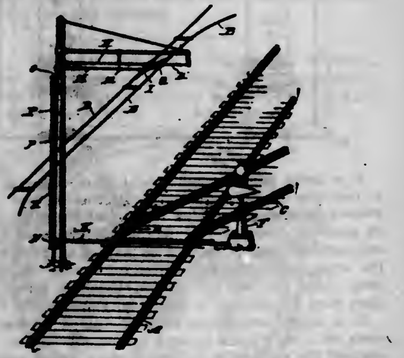
3. In an automatic pistol, the combination with the frame provided at the rear with a post; of a barrel having a rearward extension and a lug below the barrel; a recess in the frame to receive said lug; means whereby said rearward extension and said lug are locked, respectively, on said post and in said recess in response to a longitudinal movement of the barrel; and a breech bolt held and guided by said rearward extension.

4. In an automatic pistol, the combination with the barrel provided with a rearward extension; of a breech bolt sleeved on said extension; a frame; means for detachably connecting the barrel and extension with portions of the frame; a reaction spring located in the barrel portion; a movable abutment acted on by said spring; and means for connecting said breech-block with said movable abutment.

5. In an automatic pistol, the combination with a barrel; of a recess located over the barrel; a spring actuated rod in said recess; a rearward extension constituting a guide for the rear end of said rod; a breech bolt sleeved on said extension; a latching catch for connecting said breech-bolt with said rod; and means for detachably securing said barrel and extension to the frame near the front and rear thereof, respectively.

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1,041,929. TROLLEY-SWITCH MECHANISM. OSCAR H. WEST, Gary, Ind. Filed Jan. 26, 1911. Serial No. 604,704. (Cl. 191—11.)



1. In combination, two separated current-supplying conductors, a movable switch device independent of the conductors for guiding a current-collector from one conductor to the other, and controlling means for said device arranged to move it between a position wherein it bridges the space between the conductors and a position wherein it leaves both conductors clear and unobstructed.

2. In combination, two separated current-supplying conductors, a switch member pivoted between its ends at a point between the conductors and adapted to switch a current-collector from one conductor to the other, and controlling means arranged to oscillate said member between a position in which its ends lie adjacent to said conductors and a position wherein its ends are spaced

apart from the conductors so as to leave the latter clear for the passage of a current collector.

2. In combination, two separated current-supplying conductors, a switch member pivoted between its ends at a point between the conductors and adapted to guide a current-collector from one conductor to the other, means for normally holding said member in a position wherein its ends are spaced apart from the conductors so as to leave the latter clear for the passage of current collectors, and means for swinging said member into a position wherein it bridges the space between the conductors so as to switch a current-collector from one conductor to the other when it reaches the switch member.

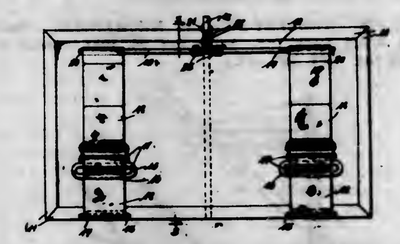
4. In combination, a bracket, two trolley wires supported side by side beneath said bracket, an arm pivoted midway between its ends to the underside of the bracket at a point midway between the wires so as to be movable in the plane of the wires, the ends of the arm being deflected laterally in opposite directions so as to lie parallel with the wires when the arm is swung to bring its ends into engagement with the wires.

5. In combination, a bracket, two trolley wires supported on the underside of said bracket, an arm pivoted to the under side of the bracket so as to be movable in the plane of the wires, the ends of the arm being deflected laterally in opposite directions so as to lie parallel with the wires when the arm is swung to bring its ends into engagement with the wires, the outer faces of the deflected portions of the arm being recessed to receive the wires, and the ends of the arm being beveled on the under side so as to afford cam-faces beginning at points above the bottoms of the recesses at the extreme ends of the arm and extending considerably below the recesses.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,930. LETTER-HOLDER. WALTER L. WEST, Hooker, Okla. Filed Aug. 31, 1911. Serial No. 647,100. (Cl. 24—17.)



1. A letter holder comprising a plate, a keeper secured to one side of the plate and projecting beyond one edge thereof, said keeper serving to support the plate in a tilted position, loops secured to the other side of the plate and opposite edge, a bar having an eye adapted to engage the keeper and adjustable bands connecting the loops and ends of the bar, said eye having oppositely coiled portions upon each side thereof to frictionally engage the bar.

2. A holder comprising a metallic plate, a keeper in the form of a bar rigidly secured to one side of the plate to support the same from positive contact with a surface and projecting beyond one edge of the plate, loop members secured to the opposite edge of the plate adjacent each end thereof, a pair of flexible bands engaged in the loops, a bar having a loop at each end through which the bands are movable and a clamping eye slidably carried by the bar on the opposite side of the plate for engagement with the keeper.

3. A holder of the class described comprising a plate, a keeper bar secured transversely to one side and projecting from one edge of the plate and having a tapered portion, rigid loops secured to the face of the plate adjacent the opposite edge and side thereof at right angles thereto, a bar having loops at its ends, an eye having a twisted shank and end portions coiled around the bar to hold the same in position thereon, said eye being adapted to engage the tapered keeper, buckle members and flexible bands engaged in the loops at the ends of the bar, through the first mentioned loops and adjustable in the buckles.

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1,041,931. SAFETY SHAPER-HEAD. HENRY M. WHITNEY, Manitowoc, Wis. Filed June 18, 1912. Serial No. 704,458. (Cl. 144—235.)



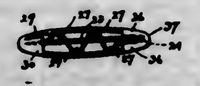
1. In a device of the class described, a support; jaws applied to opposite faces of the support, the jaws and the support being provided with tapered ends; and collars having in their inner faces, conical recesses adapted to receive the tapered ends of the jaws and of the support.

2. In a device of the class described, a support having flat side faces; jaws applied to the flat side faces of the support, the jaws and the support being provided with tapered ends; collars having conical recesses in their inner faces, adapted to receive the tapered ends of the jaws and of the support, the support having an axial bore alined with the openings through the collars, the opening through one collar being threaded.

3. In a device of the class described, a support having flat side faces; jaws applied to the flat side faces of the support and equipped in their inner faces with blade-receiving recesses, there being dowel pins connecting the support and the jaws, beyond the recesses, the jaws and the support being provided with tapered ends; collars having conical recesses in their inner faces, adapted to receive the tapered ends of the support and of the jaws.

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1,041,932. CUFF-PIN. WADE W. WILLIAMS, Providence, R. I. Filed Feb. 8, 1912. Serial No. 676,297. (Cl. 24—161.)



1. The improved cuff pin or similar article herein described, consisting of the combination of a pin tongue, coil, and presser foot, all made of one piece of tempered metal, which presser foot is formed with a series of alternately arranged oppositely directed, lateral bends; and a cuff pin body comprising a metallic, concavo-convex shell, whose edges on the two longitudinal sides thereof are rolled over to contact with and cover the extreme tips of said bends of the presser foot; a pin joint integral with said shell at one end thereof rolled and bent to cover partially and hold the coils in position; and a pin catch at the opposite end of said shell adapted to engage at will the pointed end of the pin tongue, said presser foot and coil being confined in position by their expansive pressure endwise into holding contact with said shell at the opposite ends thereof and also by the rolled edges overlying said coil and lateral bends.

2. In a cuff pin or similar article, the combination of a body having a U-shaped pin shell at one end; a pin tongue having a coil and a longitudinally expansible presser foot, which coil is inserted in said shell and held therein by the rolling of the U-shaped pin shell into overlying contact with the adjacent peripheral surface of said coil; means for engaging at will the pointed end of the pin tongue; and resisting means on the body to receive the end thrust of said presser foot.



3. In a cuff pin, or similar article, the combination of a body portion having a U-shaped end rolled through an arc of approximately 180° inwardly; a pin tongue having a coil or bend inserted in said pin joint and sufficiently covered by said rolled end to be confined in position therein, said tongue having a presser foot provided with lateral extensions; means integral with the body portion for confining said extensions in position within the body portion; and means for engaging at will the pointed end of the pin tongue.

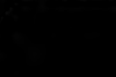
4. In a cuff pin, or similar article, the combination of a shell; a pin joint thereon; a spring coil held in operative position in the pin joint; a tempered pin tongue integral with the coil; a longitudinally-expansible spring presser foot integral with said coil; means extending from the shell for holding said presser foot from lateral and outward displacement thereon; means limiting the longitudinal expansibility of the presser foot; and means for engaging at will the free end of the pin tongue.

5. In a cuff pin, or similar article, the combination of a shell; a pin joint thereon; a pin tongue and presser foot with an intermediate turn, all integral and made of one piece of tempered metal which presser foot has bends allowing its longitudinal expansion; means extending from the shell for holding the presser foot from lateral and outward displacement therein, means comprising abutments at the ends of the shell to limit the longitudinal expansion and movement of the presser foot, and a pin catch for engaging at will the free end of the pin tongue.

[Claim 6 not printed in the Gazette.]

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1,041,933. CASE FOR SPECTACLES, EYEGLASSES, AND OTHER ARTICLES. FRANCIS JAMES WILLMOTT, Evesham, England. Filed Sept. 4, 1909. Serial No. 516,290. (Cl. 206—61.)



In a case for spectacles or eye-glasses the combination of a case body of thin sheet metal, a plain upstanding surrounding wall, a lining, a turned-over edge to said wall, receiving the lining between the turned-over portion and the main portion, a covering surrounding the outer surface of the case body and passing around the turned-over edge until it meets the lining, where both lining and covering are clamped between the turned-over edge of the case and the main portion thereof, recesses in both the inner and outer surfaces of the base of said case body formed by embossing and serving to provide an irregular surface for facilitating the holding of the adhesive which binds the lining and covering to the case body and also to impart greater rigidity thereto; a lid, a lining, a turned-over edge to said lid receiving the body of said lining between the turned-over part and the main part, a covering surrounding the lid and turned-over portion until it meets the lining when the edges of the lining and covering are both inserted beneath the turned-over portion and secured by clamping the two parts together, recesses in both the inner and outer surfaces of said lid formed by embossing and serving to provide an irregular surface for facilitating the holding of the adhesive which binds the lining and covering to the lid and also to impart greater rigidity thereto, an unembossed plain part around the lid, a hinge securing said lid to the case body and a spring connecting said lid to the case body.

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1,041,934. INTAGLIO AND RELIEF PRINTING DEVICE. HENRY A. WISE WOOD, New York, N. Y., assignor, by mesne assignments, to Wood & Nathan Company, New York, N. Y., a Corporation of New York. Filed Feb. 14, 1907. Serial No. 357,253. (Cl. 101—104.)

1. The combination with a printing member having relief and intaglio printing surfaces, the relief printing surfaces being higher than the intaglio printing surfaces, of separate means for inking each of said surfaces, the means for inking the intaglio surfaces being bodily movable toward and from the printing member and the means for inking the relief surfaces being stationary.



2. In a printing machine, the combination of a cylinder, relief and intaglio plates upon said cylinder, and separate inking devices for said plates, one of said inking devices being bodily movable toward and from the cylinder and the other stationary.

3. In a printing machine, the combination of a printing cylinder, a relief plate and an intaglio plate thereon, an inking device for the relief plate, an inking device and cleaner for the intaglio plate, and means for bodily moving the inking device and cleaner for the intaglio plate toward the cylinder when the intaglio plate approaches said inking device, and away from the axis of the cylinder when the intaglio plate passes beyond it.

4. In a printing machine, the combination of a printing cylinder, an intaglio plate thereon, an inking device and cleaner for the intaglio plate, and means for bodily moving the inking device and cleaner for the intaglio plate toward and from the cylinder, periodically during each revolution thereof.

5. In a printing machine, the combination of a printing cylinder, a relief plate and an intaglio plate thereon, said plates each occupying substantially a third of the surface of the cylinder, the other third being reduced in diameter, a bodily movable inking device for one of the plates, a stationary inking device for the other plate, and an impression cylinder geared to make three revolutions to one revolution of the printing cylinder.

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1,041,935. ROTARY SCREEN. GEORGE H. WORRALL, Kirkwood, Mo., assignor to National Lead Company, St. Louis, Mo., a Corporation of New Jersey. Filed May 19, 1911. Serial No. 628,368. (Cl. 83—56.)



1. In a screen, the combination of a rotary screen table having a screening surface of fine mesh for screening wet pulverulent material of the consistency of white lead, a receiver arranged below the screen table and adapted to receive the material passed therethrough, a circular trough extending below the edge of the table and surrounding the same and adapted to receive the material discharged over the edge thereof, and means for directing water on said table to spread the material over its screen-surface and toward its edge and carry the material through the screen.

2. In a screen, the combination of a rotary screen table having a screening surface of fine mesh for screening wet pulverulent material of the consistency of white lead, means for feeding the material on said table, a receiver arranged below said table and adapted to receive the material passed therethrough, a receiver extending around said table and adapted to receive the material discharged over the edge thereof, and a water pipe constructed and arranged to direct a jet of water on the screen surface of said table as the table revolves and at a point circumferentially in advance of the feeding means, for the purpose set forth.

3. In a screen, the combination of a rotary screen table having a screening surface of fine mesh for screening wet pulverulent material of the consistency of white lead, means for feeding the material across said table, a receiver arranged below said table and adapted to receive the material passed therethrough, a receiver extending around said table and adapted to receive the material discharged over the edge thereof, a water pipe extending across the table, and a plurality of branches extending from said pipe and adapted to direct jets of water on the upper surface of said table in advance of the feeding means and in a direction toward the outer edge of the table to spread the material over its screen surface and toward its edges.

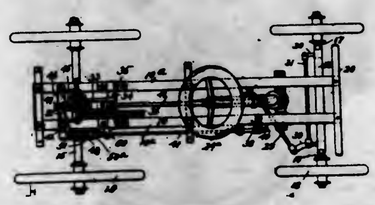
4. In a screen, the combination of a rotary screen table having a screening surface of fine mesh, means for feeding the material on said table, a receiver arranged below said table and adapted to receive the material passed therethrough, a receiver extending around said table and adapted to receive the material discharged over the edge thereof, and means for directing jets of water on said table at a plurality of points around said table to spread the material over the screen surface as the table revolves.

5. In a screen, the combination of a rotary screen table having a screening surface of fine mesh for screening wet pulverulent material of the consistency of white lead, means for feeding the material on said table, a receiver arranged below said table and adapted to receive the material passed therethrough, a receiver extending around said table and adapted to receive the material discharged over the edge thereof, a water pipe constructed and arranged to direct a jet of water on the screen surface of said table circumferentially in advance of the feeding means, and a water pipe extending below and across said table and adapted to direct jets against the lower surface thereof.

[Claims 6 to 10 not printed in the Gazette.]

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1,041,936. PROPELLING AND BRAKE MECHANISM FOR POLYCYCLES. GEORGE C. WORTHINGTON, Elyria, Ohio, assignor to The Worthington Company, Elyria, Ohio, a Corporation of Ohio. Filed Nov. 17, 1910. Serial No. 592,783. (Cl. 208—84.)

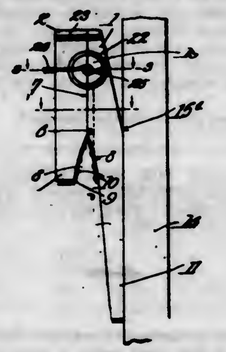


1. The combination in a velocipede, a frame provided with front and rear axles having respectively steering and driving wheels, a propelling mechanism comprising a device adapted to be actuated by the occupant of the vehicle, and a transmission between said device and the rear axle, means for connecting and disconnecting the transmission with the rear axle, a brake connected with the rear axle, a lever for operating said brake, a manually operated lever, a rod directly connected with the means for connecting and disconnecting the transmission and the axle, an abutment carried by the rod and adapted to engage the brake lever to operate the brake after the rod has been moved to disconnect the transmission from the rear axle.

2. In combination in a velocipede, a frame provided with front and rear axles with front and rear wheels mounted thereon, a driving mechanism comprising a device adapted to be actuated by the occupant of the velocipede, transmitting mechanism connecting said device with the rear axle, a brake including a brake wheel on the rear axle, and a band adapted to engage the brake wheel, means for connecting and disconnecting the driving mechanism and the rear axle, said means including a pivoted lever, a rod connected at one end to said pivoted lever, a manually operated lever pivoted upon the frame and connected to said rod, a lever for operating said brake, an abutment carried by said rod and adapted to engage the brake lever when the manually operated lever is moved to disconnect the driving mechanism and the rear axle, and after such disconnection is effected.

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1,041,937. INSULATOR-BRACKET. DANIEL WEBSTER WYCHE, Marques, Tex. Filed Apr. 16, 1912. Serial No. 691,173. (Cl. 178—314.)



1. In a device of the class described, a pair of members pivotally connected intermediate their ends and provided each, adjacent one end, with an opening to receive an insulator, the opposite end of one member projecting beyond the pivotal connection between the members to constitute a manipulating element and being cut away to disclose the corresponding end of the other member, said end of the other member having a bearing face adapted to be secured to a support and defining one of the extreme lateral edges of the device.

2. A device of the class described comprising gripping members pivotally connected intermediate their ends and of unequal lengths, the members being provided adjacent their point of pivotal connection with opposed diverging faces; and a spring comprising diverging arms secured to said faces to cause the members to grip an insulator.

3. In a device of the class described, a pair of members pivotally connected intermediate their ends; a separable insulator held together by said members, adjacent one end of said members; and a spring interposed between the other ends of the members to cause the members to engage the insulator.

4. In a device of the class described, a pair of pivotally connected members provided in their inner faces with cooperating grooves adapted to receive an insulator, there being tie-engaging elements in the outer faces of the members, aligned with the axis of the openings defined by the grooves; and means for forcing the grooved ends of the members together.

5. In a device of the class described a pair of members pivotally connected intermediate their ends; a multi-part insulator held between the members at one end of the device; and a compression spring engaged between the members at the opposite end of the device.



1,041,938. ART-GLASSWARE. LORIN W. YOUNG, Pittsburgh, Pa., assignor to Macbeth-Evans Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Dec. 30, 1909. Serial No. 535,706. (Cl. 240—108.)



An imitation leaded stained glass lamp shade comprising in one integral piece a shade composed throughout of an indiscriminate mixture of several kinds of glass of varying density and composition and color fused together, said shade having on its outside surface raised integral ribs arranged in regular patterns and opaque paint on the tops of the ribs, whereby to give the appearance of separate pieces of vari-colored art glass leaded together, substantially as described.

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1,041,939. AIR COMPRESSOR AND PUMP. GEORGE P. ADSIT, Boston, Mass., assignor to The Blake & Knowles Steam Pump Works, New York, N. Y., a Corporation of New Jersey. Filed Apr. 11, 1910. Serial No. 554,599. (Cl. 230—84.)



1. In an air pump or compressor, the combination with the cylinder and its suction and discharge ports at opposite ends of the cylinder, of a valve casing extending across the pump and open at one end, a removable discharge connection at the open end of the casing, and a single rotary valve in the casing removable through the open end of the casing when the discharge connection is removed and controlling suction and discharge for both ends of the cylinder.

2. In an air pump or compressor, the combination with the cylinder and its suction and discharge ports, of a valve casing extending across the pump and open at one end, a removable discharge connection at the open end of the casing, a rotary valve in the casing removable through the open end of the casing when the discharge connection is removed, and an automatic discharge valve carried by and removable with the rotary valve, said automatic valve being on the back of the rotary valve and opening transversely to the axis of rotation of the valve.

3. The combination with cylinder A and its passages a, of a valve chamber extending across the pump, a rotary valve in the chamber, a discharge connection at the end of the chamber, suction passage 13 at the discharge side of the pump and jacket d for the air passages and valve chamber.

4. The combination with cylinder A and its passages a on the lower side of the cylinder, of a valve chamber extending across the pump below the cylinder, a rotary valve in the chamber, a discharge connection at the end of the chamber, suction passage 13 at the discharge side of the pump, suction chamber 12 below the valve casing, and jacket d for the air passages, valve chamber and suction chamber.

5. The combination with cylinder A and its passages a, of a valve chamber extending across the pump, rotary valve e having discharge passage 3 and suction cove 4 and controlling the passages a for both ends of the cylinder, the discharge connection at the end of the valve chamber, and automatic valve 7 on the back of valve e controlling the discharge from port 3.

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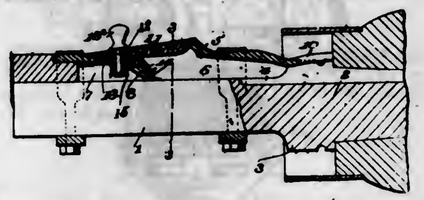
1,041,940. PROCESS FOR MAKING BRASS. LAWRENCE ADDICKS, Chrome, N. J. Filed Jan. 12, 1911. Serial No. 602,154. (Cl. 75—1.)

1. The process of manufacturing brass, which consists in melting a large quantity of copper by a suitable source of heat, drawing off a fraction of the molten copper into a suitable lined intermediate receptacle, adding to the said receptacle the proper percentage of zinc, and casting the resulting brass into the desired shape.

2. The process of manufacturing brass, which consists in reducing to the molten state by a suitable source of heat a relatively large mass of copper, transferring to an intermediate receptacle successive charges of molten copper approximating two to three tons each, adding to each charge the desired percentage of zinc, and casting the resulting brass to the desired shape.

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1,041,941. LUBRICATING ATTACHMENT FOR AXLES AND SHAFTS. JOSEPH ADEN, Danville, Va. Filed May 12, 1911. Serial No. 626,780. (Cl. 64—27.)



A lubricating attachment for axles and shafts consisting of a block adapted to be secured upon the axle and having a depending wall intermediate its ends whereby the block is provided with two separate and distinct openings in the bottom thereof extending to the opposite ends of the same, one of said openings having an upwardly facing mouth and the other opening being closed at its top by the body of the block, the block having an aperture formed through the top portion of its body communicating with an opening in the bottom of the block, and a forwardly projecting tongue being provided at the forward end of the block, a pivot post fitted in the aperture in the top of the block and extending into the communicating opening in the bottom thereof, a washer on the lower end of said post, a spring coiled around the post between said washer and the top of the block, and a lid fitted on said post below the upper end thereof and adapted to fit in the mouth of the forward opening in the block flush with the upper surface of the block, as and for the purpose specified.

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1,041,942. TURBINE-AIRSHIP. FRANZ HEINRICH ALBERT, Lodi, Cal. Filed Oct. 16, 1911. Serial No. 654,891. (Cl. 244—25.)

1. A device of the character described comprising two cylindrical members spaced apart, screw shaped turbine propellers turnably disposed in said cylindrical members, a motor for driving said turbines, said cylindrical members being provided with openings in the top and bottom, said openings being provided with shutters, and means for closing or opening said shutters, as may be desired.

2. A device of the character described comprising two cylindrical members spaced apart, a platform secured on said members, screw shaped turbine propellers turnably

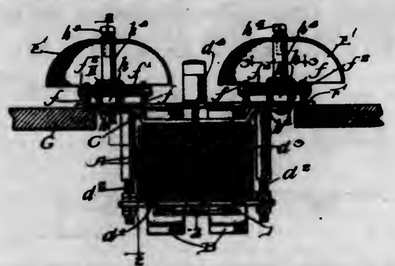
disposed in said cylindrical members, a motor for driving said turbines, said cylindrical members being provided with openings in the top and bottom, shutters slidable over said openings, rods connecting each set of said shut-



ters, levers fulcrumed on said platform, links connecting said levers with said rods, links on the other ends of said levers, and an operating lever connecting with said last named links, as described.

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1,041,943. ELECTRIC BELL OR RINGER. CARL R. ALBERTUS, Chicago, Ill., assignor, by mesne assignments, to American Electric Company, a Corporation of Illinois. Filed Jan. 17, 1908. Serial No. 411,234. (Cl. 177—7.)



An electric bell or ringer comprising a base plate provided with upturned lugs, axially alined micrometer screws rotatably mounted on said lugs, mountings carried on said screws and provided with feet bearing upon and adapted to slide along the smooth surface of said plate, gongs carried by said mountings, and means for sounding the gongs.

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1,041,944. CASKET-HANDLE. EDWARD J. ALSWORTH, Grand Rapids, Mich., assignor to Waddell Manufacturing Company, Grand Rapids, Mich. Filed Apr. 12, 1909. Serial No. 489,261. (Cl. 16—103.)



1. The combination of a hinge member, comprising a plate-like body having ear-like pintle supports thereon and a stop formed from said plate and disposed between said ears; a pintle; a housing block of wood for said hinge member having a slot-like opening adapted to receive said pintle supports, and a seat in its rear face for said plate-like body, the rear face of said plate being flush with the rear face of said housing; screws for holding said plate to the body; means for securing said housing block in place whereby said plate of said hinge member is clamped in position and supported by said housing; a hand piece; and a hinged hanger arm therefor of wood disposed in the slot of said housing and arranged on said pintle, having a stop at its inner end on the under side adapted to coact with said stop for said hinge member for limiting the upward movement of the hand piece.

2. The combination of a hinge member, comprising a plate-like body having ear-like pintle supports thereon and a stop disposed between said ears, consisting of an outwardly folded part reinforced by fingers at each end; a pintle; and a hinged hanger arm therefor of wood arranged on said pintle, having a stop at its inner end on the under side adapted to coact with said hinge stop for said hinge member for limiting the upward movement of the hand piece.

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1,041,945. VALVE-SEAT. PAUL ANDERSON, Cambridge, Mass., assignor to Dover Stamping & Manufacturing Company, Portland, Me., a Corporation of Maine. Filed May 17, 1911. Serial No. 627,949. (Cl. 137—4.)



1. The valve seat above described comprising a blank having an opening therein the wall of which is of a thickness greater than the thickness of the blank and forms a flange tapering from the plane of the blank to an edge, whereby the bearing surface of the valve seat is increased over the normal thickness of the metal.

2. The valve seat above described comprising a substantially flat blank having an opening therethrough surrounded by a wall tapering uniformly from the plane of the blank to an edge deeper than the thickness of the blank and projecting from one side thereof, said opening being conical, its small end being outside the plane of said blank.

3. The valve seat above described comprising a substantially flat blank having an opening therethrough surrounded by a wall tapering uniformly from the plane of the blank to an edge and integral therewith.

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1,041,946. CENTER-BEARING FOR RAILWAY-CARS. GEORGE EWING ANDREWS, Santa Rosa, Cal. Filed July 10, 1912. Serial No. 708,605. (Cl. 105—196.)

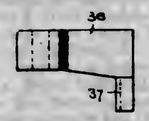


In combination with a truck bolster carrying a downwardly facing circular center bearing, said center bearing having a central downwardly tapering cone, of a truck bolster having an upwardly facing center bearing surrounding the upper open end of a downwardly tapering cup or socket into which said cone depends, there being a downwardly flaring clearance between the cone and the inner wall of the socket, for the purposes set forth.

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1,041,947. MIXING-MACHINE. FREDERICK T. ARNOLD, U. S. Army. Filed Oct. 25, 1911. Serial No. 656,809. (Cl. 69—73.)

1. A mixing machine comprising an axle, an octahedral hopper upon the axle, wheels upon the axle, means carried by the hopper and one wheel for causing the hopper to rotate with the wheels to mix the contents of said hopper, opposed baffle plates upon the inner faces of the sides of the hopper and positioned obliquely to the axle, and twisted blades of various lengths projecting from the axle to assist in mixing material within the hopper during rotation of the latter.

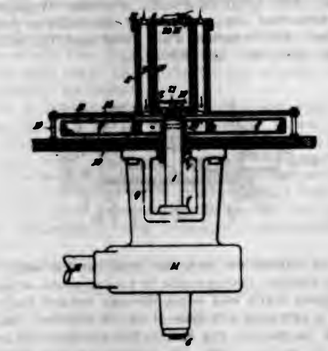


2. A mixing machine comprising the combination of a hopper formed of connected obliquely arranged side members, an axle, said hopper being rigid upon the axle, wheels loosely mounted upon the axle, means for locking the wheels with the hopper to rotate the latter to mix the contents of said hopper, opposed baffle plates upon the inner face of the side members of the hopper and arranged at various angles to the axle, and twisted blades of various lengths projecting from the axle to assist in mixing material within the hopper during rotation of the latter.

3. A mixing machine comprising an axle, an octahedral hopper rigid upon said axle, wheels upon the axle, means for rotating the wheels, means carried by the hopper and one wheel for causing the hopper to rotate with the wheels to mix the contents of said hopper, opposed baffle plates upon the inner faces of the substantially triangular sides of the hopper, and twisted blades of various lengths projecting from the axle to assist in mixing material within the hopper during rotation of the latter.

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1,041,948. PHONOGRAPH-RECORD-MOLDING APPARATUS. JONAS W. AYLSWORTH, East Orange, and EDWARD L. AIKEN, Orange, N. J., assignors, by mesne assignments, to Thomas A. Edison, Incorporated, West Orange, N. J., a Corporation of New Jersey. Filed May 11, 1909. Serial No. 495,301. (Cl. 18—5.5.)



1. In record molding apparatus, a hollow mold, means for supporting and rotating the same, and means for moving a gas and causing the same to affect directly both the inside and the outside of the mold for hastening the diffusion of heat from the inside and outside of the mold and the molten material therein during rotation, substantially as described.

2. In record molding apparatus, a hollow mold, means for supporting and rotating the same, and means for moving a gas past the mold during rotation for cooling the same, substantially as described.

3. In record molding apparatus, a hollow mold, means for supporting and rotating the same, and means for moving a gas past the mold and through the same during rotation for cooling the same, substantially as described.



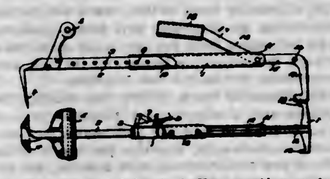
4. In record molding apparatus, a hollow mold, means for supporting and rotating the same, and means for forming a sleeve of air about the mold during rotation of the latter and causing the continuous longitudinal movement thereof, substantially as described.

5. In record molding apparatus, a hollow mold, means for supporting and rotating the same, and means for drawing air longitudinally past the mold and through the same during rotation, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

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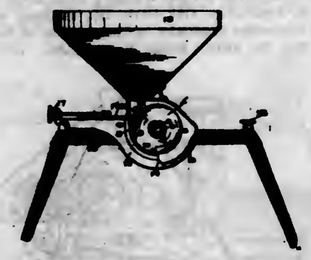
1,041,949. BRICK-CLAMP. CHARLES W. BANDEMER, Chicago, Ill. Filed Jan. 16, 1912. Serial No. 671,459. (Cl. 57—9.)



A brick clamp comprising a hollow section, a lever fulcrumed to the hollow section in the vicinity of one end thereof and between the sides thereof, a section slidably mounted in the hollow section and having a chamfered end adapted to engage the lever and hold the same against swinging movement, and means for holding the sections in an adjusted position.

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1,041,950. MILL FOR GRINDING GRAINS. JOHN BRALL, Decatur, Ill. Filed Sept. 16, 1908, Serial No. 453,293. Renewed Mar. 15, 1912. Serial No. 684,009. (Cl. 83—14.)



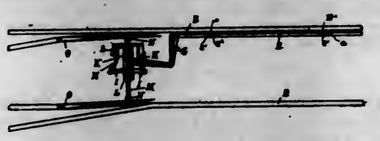
A grinding machine comprising a roller having a concentric roughened peripheral surface formed by short irregularly disposed grooves and shallow depressions therein, a concave in eccentric relation to the periphery of said roller provided on its working face with a plurality of angular ridges each having a cutting edge, the cutting edges of the ridges at the upper end of the concave facing in the opposite direction to those at the lower end of the concave and intermediate ridges having their sides of equal length and inclination with respect to the axes of said ridges.

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1,041,951. AUTOMATIC SWITCH. DIDIER BRAUDEMON, St. Ouen-sur-Seine, France. Filed Feb. 1, 1910. Serial No. 541,900. (Cl. 104—24.)

1. In an automatic track switch, the combination with a movable track switch member, of means for shifting said track switch member, an actuating mechanism therefor having movable members both normally in position to be actuated from the car while moving in either direction, spring means cooperating with said movable members, an actuating bar, and a lost motion operative connection between said movable members and said bar.

2. In an automatic track switch, track switch operating means embodying an actuating bar, levers having a lost motion operative connection therewith and both positioned normally for operation from the car, and spring means for holding said levers in engagement with the bar and biasing them toward each other.



3. In an automatic track switch, track switch operating means embodying an actuating bar, levers positioned and adapted for actuation from the car, loose operative connections between the respective levers and the bar, and a coil spring connecting the said levers together.

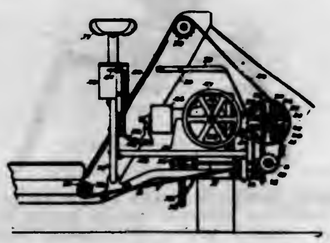
4. In an automatic track switch, the combination with switch points and a coupling bar therefor, of a member movable in relation to said bar and having a loose operative connection therewith, whereby the bar is actuated at the limits of the movement of said member, an actuating bar operatively connected to said member, and spring-actuated movable members adapted to shift said bar and themselves adapted for operation from the car.

5. In an automatic track switch the combination with two switch points, of a rod connecting the same, collars on said rod, a sleeve sliding loosely between said collars, springs adjacent to said sleeve, toggle links connecting said sleeve with said springs, an actuating bar connected with said sleeve and means for actuating said bar upon the passage of the car.

[Claim 6 not printed in the Gazette.]

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1,041,952. MOTOR ATTACHMENT FOR HARVESTERS. BERT R. BENJAMIN, Oak Park, Ill., assignor to International Harvester Company, a Corporation of New Jersey. Filed Nov. 10, 1910. Serial No. 591,563. (Cl. 56—33.)



1. A harvester including, in combination, a traction wheel and other operative parts associated therewith, means for transmitting motion from said traction wheel to the operative parts of said harvester, said means including a sprocket member journaled upon one of said parts, a pawl mechanism connecting said sprocket member with said operative part in a manner to drive it in one direction only, a second sprocket member journaled upon the same operative part, a pawl mechanism connecting said second sprocket member with said operative part in a manner to drive it in the same direction as said first sprocket only, a motor attached to said harvester, and power transmitting means connecting said motor with said second sprocket member.

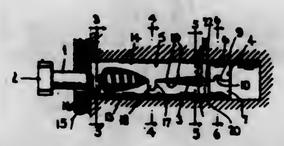
2. A harvester including, in combination, a traction wheel and a binder driving shaft, means for transmitting motion from said traction wheel to said shaft, said means including a sprocket member connected with said shaft by means of clutch mechanism and adapted to drive it in one direction only, a second sprocket member connected with said shaft by means of clutch mechanism and adapted to drive it in the same direction only, a motor attached to said harvester, and power transmitting means connecting said motor with said second sprocket member.

3. A harvester including, in combination, a traction wheel and a binder driving shaft, a sleeve journaled upon said harvester and having said shaft slidably connected therewith, means for transmitting motion from said traction wheel to said sleeve, said means including a sprocket member journaled upon said sleeve, a spring-pressed dog operative between said sprocket and said sleeve whereby the latter is driven in one direction only, a second sprocket member journaled upon said sleeve, a spring-pressed dog operative between said second sprocket and said sleeve whereby the latter is driven in one direction only, a motor attached to said harvester, and power transmitting means connecting said motor with said second sprocket member.

4. A harvester including, in combination, a traction wheel and a binder driving shaft, a sleeve journaled upon said harvester and having said shaft slidably connected therewith, means for transmitting motion from said traction wheel to said sleeve, said means including a sprocket member journaled upon said sleeve, a spring-pressed dog mounted upon said sleeve and adapted to engage with said sprocket member whereby said sleeve is driven in one direction only, a second sprocket member journaled upon said sleeve, a spring-pressed dog mounted upon said sleeve and adapted to engage with said second sprocket member whereby said sleeve is driven in the same direction as when connected with said first sprocket member, a double pawl mounted upon said first sprocket member and adjustable in one direction to engage with said second sprocket member in a manner to cause said second sprocket member to rotate in the direction of rotation of the said sleeve, and when said pawl is adjusted in an opposite direction to cause said first sprocket member to rotate with said sleeve, and a motor attached to said harvester, and power transmitting means connecting said motor with said second sprocket member.

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1,041,953. EXPANSION-BOLT. DWIGHT WILSON BENNETT, Somerton, Pa., assignor of one-third to Benjamin Van Sant, Southampton, Pa. Filed Apr. 15, 1912. Serial No. 690,769. (Cl. 85—2.4.)

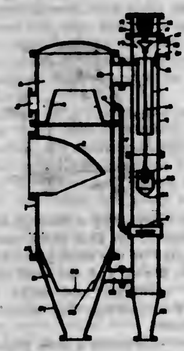


1. In an expansion bolt, the combination with a substantially tubular casing made in two members whose contiguous inner walls and edges diverge toward their inner ends; of a two-part nut conical on its exterior, each part having at its smaller end two radial prongs next its edge adapted to contact with the prongs on the companion part and to project through the space between and into contact with the edges of said members.

2. In an expansion bolt, the combination with a casing made in two members whose contiguous edges diverge toward their inner ends, a hook on one edge of each member projecting toward the other and having its inner face standing at right angles to the axis of the casing and its other face oblique thereto, and a second hook on the other edge of said member having its inner face oblique to match the oblique portion of the mating hook and its other face flat and flush with the end of the casing; of a nut having two diametrically opposite radial prongs at one end adapted to project through the space between the edges of said members and to stand normally in contact with the hook faces which stand at right angles to the axis of the casing.



1,041,954. CONDENSER. HERMAN EDWARD BEYER, Birmingham, Ala. Filed Oct. 18, 1911. Serial No. 655,248. (Cl. 62—28.)



1. In a counter-current condenser, the combination of a condensing chamber, a water separating chamber, means to connect the upper and lower ends of said separating and condensing chambers, and an air suction apparatus connected with the condensing system.

2. In a counter-current condenser having a vapor admission port, a water chamber above the port, means to provide an air chamber below said port, a water separator, pipe connections from the water chamber to the separator and from said air chamber to the separator, substantially as described.

3. In a counter-current condenser having a condensing chamber and an air suction apparatus, the combination therewith of means to connect said air suction apparatus to the upper and lower ends of the condensing chamber, as and for the purposes described.

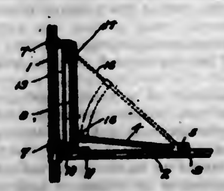
4. In a counter-current condenser having a condensing chamber, a water separating chamber, and an air suction apparatus, the combination therewith of conduits connecting said water separator to the upper and lower ends of the condensing chamber, and means to cool the air and vapors which flow from the lower end of the condenser through said lower conduit to the air suction apparatus, substantially as described.

5. In a counter-current condenser comprising a condensing chamber having a false bottom at its lower end and a water chamber at its upper end, means to discharge the vapor to be condensed into said condensing chamber at an intermediate point, a water separator having an upper connection to the water chamber and a lower connection to the space below said false bottom, and aspirating means connected to said separator, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

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1,041,955. ADJUSTABLE REST FOR BEDS. LEO E. BIRA, Corvallis, Oreg. Filed Dec. 13, 1911. Serial No. 665,475. (Cl. 5—43.)



1. In combination with a bed comprising side rails, an adjustable rest consisting of a rest frame pivoted at one end to the side rails, lifting arms slidable longitudinally of the sides of the frame at the free end portion of the latter, and means secured to the bed and connected with said lifting arms for causing sliding movement of the arms in respect to the frame in raising and lowering the latter to correspondingly adjust the position of the frame aforesaid.

2. In combination with a bed comprising side rails, an adjustable rest consisting of a rest frame pivoted at one end to the side rails, lifting arms slidable longitudinally of the sides of the frame at the free end portion of the latter, a cross bar adjacent to the free end of said frame, and connected with the lifting arms aforesaid, and means for raising and lowering said cross bar.

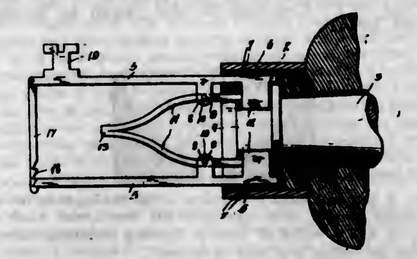
3. In combination with a bed comprising side rails, an adjustable rest consisting of a rest frame pivoted at one end to the side rails, lifting arms slidable longitudinally of the sides of the frame at the free end portion of the latter, a cross bar adjacent to the free end of said frame, guides upon which said cross bar is adapted to move vertically, a shaft carried by said guides, means connecting said shaft with the cross bar, and means for turning the shaft.

4. In combination, a bed embodying corner posts and side rails, guides detachably secured to said corner posts, a cross bar mounted for vertical movement on said guides, a shaft supported by the guides, wheels carried by said shaft at the lower ends of the guides and other wheels supported by the guides adjacent to their upper ends, endless members passing around said wheels, means connecting said endless members to the cross bar, a rest frame, and lifting arms carried by the rest frame and secured to the cross bar.

5. In combination, a bed comprising corner posts and side rails, a rest frame mounted on said side rails and consisting of sides, and a connecting bar composed of telescoping sections, a vertically movable cross bar connected to said rest frame and composed also of telescoping sections, and means for raising and lowering the cross bar for the purpose described.

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1,041,956. WRENCH. MERLE E. BIGELOW, Milford Center, Ohio. Filed July 17, 1911. Serial No. 638,998. (Cl. 81—76.)



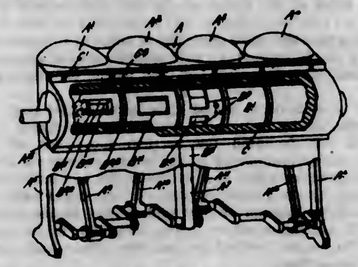
A wrench comprising a pair of levers, ribs formed upon the outer ends of said levers and having their faces serrated for engagement with the interior of the band of a hub, inwardly directed spaced flanges formed integral upon the ends of the levers, spring arms pivotally connected to the levers, said arms having their outer ends located between the inwardly directed flanges for engagement with a nut, an integral connection between the arms, a link pivotally connected to one of the levers and provided with notches for receiving the inner edge of the other lever whereby the heads will be held in yielding contact with the band for the purpose of removing or replacing an axle nut upon the rotation of the hub.

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1,041,957. ROTARY VALVE FOR MULTIPLE-CYLINDER ENGINES. GEORGE BRADFORD BOWEN, Walkerworth, Ontario, Canada. Filed May 2, 1912. Serial No. 694,728. (Cl. 136—7.)

1. In a device of the class described, the combination with the cylindrical valve bed having ports leading therefrom, of a cylindrical valve journaled therein and com-

prising an outer cylindrical member having closed heads, an inner cylindrical member extending longitudinally through the outer cylindrical member and extending at one end through one of the closed heads of the outer cylinder, ports leading from the outer cylinder and arranged in circumferential alinement with the ports of the valve bed, ports leading from the inner cylindrical member through the outer cylindrical member and also arranged in circumferential alinement with the ports of the valve bed, annular ribs extending from the outer cylindrical member of the valve between each set of inlet and exhaust ports into corresponding grooves in the valve bed and cap and backing strips extending between each pair of annular ribs to each side of each port, as and for the purpose specified.



2. In an engine, the combination with a plurality of cylinders, a cylindrical valve bed and ports connecting the interior of the bed and the cylinders together, a rotary valve journaled in the bed, said valve comprising an outer and inner cylindrical member, a series of ports in the outer member, a series of ports in the inner member, and means for preventing the gas leaking from one of the ports to the other, said means comprising an annular rib between each of the ports, said annular ribs extending into annular grooves in the interior of the valve bed.

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1,041,958. GOLF-BALL MOLD. ERNST W. BUCKAU, New York, N. Y. Filed Sept. 29, 1911. Serial No. 651,988. (Cl. 18—42.)



1. A golf ball mold comprising a cup having a series of openings located over approximately the entire surface thereof and a series of bramble forming members having stems projecting into said openings.

2. A golf ball mold comprising a cup having a series of openings therein and bramble forming members having stems projecting into said openings and held therein by the shrinkage of the mold by permitting the same to cool after heating.

3. A golf ball mold comprising a cup-shaped member having a series of openings therein, and a series of bramble forming members having heads and stems larger than the openings in the cup and secured in such openings by first heating the mold and then inserting such stems and allowing the mold to cool.

4. A golf ball mold comprising a cup-shaped member having drilled holes therein and bramble forming members having stems projecting into said holes and retained therein by the shrinkage of the mold on the cooling thereof after heating.

5. A golf ball mold comprising two semi-spherical cups, each having a series of openings therein, and a series of bramble forming members comprising heads larger than said openings and having stems rigidly secured in said openings.

[Claim 6 not printed in the Gazette.]

1,041,959. HORSESHOE. JOHN H. CASSELMAN, Denver, Colo., assignor of one-eighth to David Wandel, Denver, Colo. Filed June 27, 1911. Serial No. 635,656. (Cl. 168—18.)

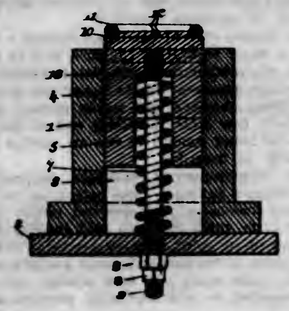


1. A horse shoe comprising a shoe plate, a hoof engaging member at the front of the shoe plate, extension plates disposed upon the arms of the shoe plate at their rear ends, the said extension plates and the said arms being formed with registering openings, and calks having threaded stems fitting in the openings and securing the extension plates at adjustment.

2. A horse shoe comprising a shoe plate having its arms formed at the ends with recesses, extension plates slidably disposed in the recesses, each arm of the shoe plate being formed with a threaded opening at its recess, each of the extension plates being formed with a plurality of openings arranged to register interchangeably with the respective openings in the shoe plate, and calks having threaded stems secured through the registering openings of the shoe plate and extension plates for holding the latter plates at adjustment.

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1,041,960. DIE. GEORGE CHRISTENSON, Nevada, Mo., assignor to H. W. Johns-Manville Company, a Corporation of New York. Filed June 14, 1911. Serial No. 633,076. (Cl. 113—40.)



1. The combination of a holder having a cylindrical bore, a movable core therein provided with an annular groove at its outer end adapted to receive a curved rod, an annular recess on the inner face of the holder next to its outer end adapted to receive a curved ribbon of sheet metal, a die adapted to fit closely in said annular recess and having an annular groove which in combination with the groove in the end of the plunger forms an annular recess of a circular cross section, the radius of which cross section is approximately equal to the radius of the cross section of the curved rod plus the thickness of the metal ribbon.

2. The combination of a holder having a cylindrical bore, a movable core therein provided with an annular groove at its outer end adapted to receive a curved rod, an annular recess on the inner face of the holder next to its outer end adapted to receive a curved ribbon of sheet metal, a die adapted to fit closely in said annular recess and having an annular groove which in combination with the groove in the end of the plunger forms an annular recess of a circular cross section, the radius of which cross section is approximately equal to the radius of the cross section of the curved rod plus the thickness of the metal ribbon, together with elastic means for normally projecting the core part way out of the holder.

3. The combination of a holder having a cylindrical bore, a core centered therein, and a die adapted to fit into said holder and meet the core, the parts being cut away to form an annular recess at the meeting point of holder, core and die, the cross section of which recess shall be circular with a tangential outlet parallel to the common axis of holder, core and die.

4. The combination of a cylindrical holder having an outer bore and an inner bore of slightly different radius, the inner bore having the smaller radius, a movable core fitting said smaller bore and projecting part way into the larger bore, and a die fitting said larger bore, the meeting faces of core and die being cut away so as to form an annular recess of circular cross section with an outlet tangent to the circumference of that cross section and coincident with the wall of the larger bore of the holder.

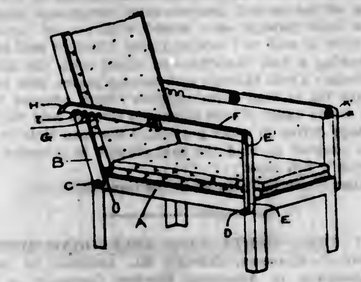
5. The combination of a cylindrical holder having an outer cylindrical bore and an inner cylindrical bore of slightly different radius, the inner bore having the smaller radius, a movable core fitting said smaller bore and projecting part way into the larger bore, and a cylindrical die fitting said larger bore and movable therein along the line of the common axis of holder and die.

[Claims 6 and 7 not printed in the Gazette.]



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1,041,961. COMBINATION CHAIR AND COUCH. DOMINICK CINALLI, Philadelphia, Pa. Filed June 3, 1912. Serial No. 701,874. (Cl. 155—6.)



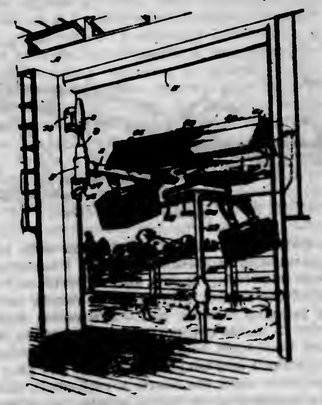
In convertible furniture, a frame resting upon supports, a frame movably secured to said supported frame, movable supports in the second frame, pins upon the sides of said frame, arms movably secured to the first frame, said arms jointed to another member, said members by tubular rivets jointed to final members, the final members serrated to engage the pins upon the sides of the second frame, a latch between the arms and first members to lock the same, in combination with a fabric secured to said frames and to a rod to enter and engage the tubular rivets, substantially as and for the purpose described.

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1,041,962. MAIL-BAG CATCHER AND DELIVERER. BURTON B. CLARK and WALTER A. CLARK, New Haven, Conn. Filed Jan. 29, 1912. Serial No. 674,072. (Cl. 105—231.)

1. A mail pouch transferring mechanism, including an arm mounted upon a car, a finger pivoted on the end of the arm and having a heel at its rear end adapted to support a pouch carrier when turned to one position, a latch adapted to hold the finger from rotation, in combination with a fixed standard beside the path of travel of the car, and a cam member on the standard adapted to trip said latch to permit rotation of the finger and heel.

2. A mail pouch transferring mechanism, including an arm mounted on a car for pivotal movement from a retracted to a projected position, a finger pivotally mounted on the end of the arm for movement in a plane at right angles to the axis of the arm, said finger having a rearwardly projecting heel adapted to support a pouch when the finger is in a downwardly turned position, means urging the finger to an upwardly projecting position, and a latch mounted upon the end of the arm and holding the finger from rotation, in combination with a fixed standard beside the track, a pouch carrier supporting means mounted on the standard, and a cam member on the standard adapted to trip said latch.



3. A mail pouch transferring mechanism, including an arm pivotally mounted on the car for movement in a horizontal plane, a pouch carrier engaging finger rotatably mounted on the end of the arm for movement in a plane at right angles to the axis thereof and having a rearwardly projecting heel adapted to support a pouch carrier, means urging the finger from a horizontal to a vertical position, a latch holding the finger in a horizontal position, a fixed standard beside the track, a guide member mounted on the standard and extending parallel to the track, said guide member including means for supporting a pouch carrier, and a cam on the standard for tripping the latch, said finger when the latch is tripped engaging with the guide and being guided thereby through the pouch carrier.

4. A mail pouch transferring mechanism, including an arm mounted on the car for pivotal movement in a horizontal plane, a pouch supporting mechanism on the end of the arm, a latch for holding the pouch supporting mechanism in an operative position, means urging the pouch supporting mechanism into an inoperative position when the latch is tripped, and means disengageably holding the arm in a projected position, said means being released upon a tripping of the latch.

5. A mail pouch transferring mechanism, including an arm mounted on a car for pivotal movement in a horizontal plane, a rotatably mounted finger on the end of the arm, means urging the finger to a vertical position, means for holding the finger in a horizontal position against such urging means, a bolt holding the arm in a position parallel to the car, said bolt being shiftable out of engagement to permit the arm to be moved to a projected position, wherein it shall be held by the bolt, and means whereby a movement of the finger to a vertical position will release said bolt to permit a retraction of the arm.

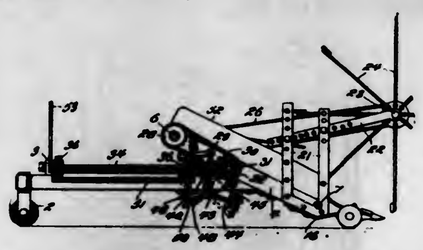
[Claims 6 to 19 not printed in the Gazette.]

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1,041,963. CLOVER-BUNCHER. HOWARD W. CLARK, Davison, Mich. Filed June 27, 1911. Serial No. 635,614. (Cl. 56—30.)

1. In a clover buncher, a longitudinally disposed inclined elevating carrier, a cutter bar, means for connecting the carrier with the cutter bar, a transversely disposed bunching carrier supported below and adjacent to the discharge end of the elevating carrier, uprights associated with the elevating carrier, reel carrying arms pivoted on the uprights, means for constantly driving the elevating carrier, means for transmitting motion from the driving means of

the elevating carrier to the reel, means including a clutch for intermittently driving the bunching carrier, lever means for setting the clutch, means including a trigger for retaining the clutch when set, and means carried by the bunching carrier for actuating the trigger to release the clutch.



2. In a clover buncher, the combination with suitable cutting apparatus of an elevating carrier, a bunching carrier disposed transversely below and adjacent to the discharge end of the carrier, said bunching carrier including an endless carrying member and a transverse slat associated therewith, a shaft supporting one end of the carrier, a gear wheel loose upon said shaft, a clutch member slidable upon the shaft and adapted to engage the gear wheel to lock the latter upon the shaft, a rock shaft having a bifurcated arm engaging the clutch member, a spring actuated arm extending from the rock shaft to hold the clutch member normally in non-engaging position, means for actuating the rock shaft against the tension of the spring actuated arm, a spring actuated trigger lying in the path of the transverse slat associated with the endless carrier, and an arm extending from the rock shaft and adapted to engage the trigger to be retained by said trigger against the tension of the spring actuated arm extending from said rock shaft.

3. In a clover buncher, a bunching carrier, supporting shafts for said bunching carrier, one of said shafts being provided with a loose gear wheel and with a clutch member adapted to lock said gear wheel upon the shaft for rotation therewith, spring means to normally hold the clutch member out of engagement with the gear wheel, means for actuating the clutch member against the tension of the aforesaid spring means to engage the gear wheel, a spring actuated trigger to retain the clutch member in engagement with the gear wheel, and trip means associated with the bunching carrier to trip the trigger.

4. The combination with a mowing machine having a cutter bar, of a clover buncher, said clover buncher including a longitudinally disposed elevating carrier, means for connecting the same with the cutter bar, a shield mounted upon the connecting means above and adjacent to the cutter bar, a reel associated with the carrier, means for constantly driving the carrier and the reel, a bunching carrier disposed transversely in rear of the elevating carrier and below the discharge end thereof, means including a clutch for actuating the bunching carrier, means for throwing the clutch into action, trigger means for retaining the clutch in action, trip means associated with the raddle to release the trigger, and spring means for restoring the clutch to non-engaging position.

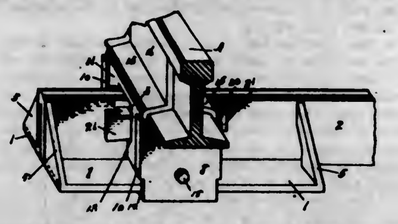
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1,041,964. RAILWAY-TIE AND FASTENER. JOHN T. CLARK, Provo, Utah. Filed Feb. 14, 1912. Serial No. 677,508. (Cl. 238—5.)

1. A railway tie consisting of a sheet of metal cut and bent to form the base and web portion of a tie and having elongated slots therein; braces integral with the base of said tie and adapted to support the web portion thereof.

2. A railway tie consisting of a sheet of metal cut and bent to form the web of a tie and a base on each end portion thereof; braces integral with the base of said tie and adapted to support the web portion in a vertical position.

3. A railway tie consisting of a sheet of metal cut and bent to form the web of a tie and a base on each end portion, the web portion being provided with elongated slots therein; braces integral with the base of said tie and adapted to support the web thereof; rail supporting blocks resting on said base; and means to bind a rail supported by said blocks to said tie by engagement through said elongated slots.



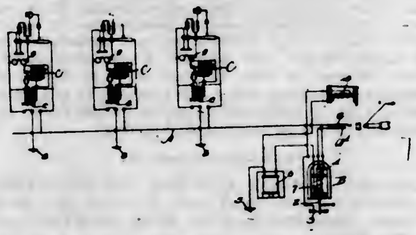
4. A railway tie consisting of a sheet of metal cut and bent to form the web, and a base on each end portion of a tie; braces integral with the base of said tie and adapted to support the web thereof; rail supporting blocks resting on said base; and means to bind a rail supported by said blocks to said tie.

5. A railway tie and fastener consisting of a sheet of metal bent to form an inverted T-shape tie; having elongated slots longitudinally cut therein; clamps having open cuts therein, the upper portion being wider than the lower portion and adapted to be placed over the vertical web portion of the tie; rail supporting blocks resting on the base portion of the tie and between said clamps and provided with a hole through each alined with one of the elongated slots in said tie; locking plates adjacent said blocks each having a hole therethrough alined with the hole in said blocks; a bolt through said locking plates, said blocks and said tie to bind them together; keys adapted to be driven in the upper of said elongated slots in said tie; and other keys driven in wider portion of the open slots in said clamps adapted to bind the said clamps in gripping contact with a rail base.

[Claims 6 to 9 not printed in the Gazette.]

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1,041,965. PARTY-LINE TELEPHONE SYSTEM. HENRY P. CLAUSEN, Chicago, Ill., assignor, by mesne assignments, to American Electric Company, a Corporation of Illinois. Filed Mar. 27, 1907. Serial No. 364,627. (Cl. 179—36.)



1. A telephone party line system comprising a line, a plurality of substations thereon, a line relay for said line, an impedance coil in circuit with said relay, means by which any subscriber on the line can cause a direct current to flow through said relay and impedance coil, a ringer at each substation, and means by which a subscriber on the line can ring with alternating current to signal another subscriber on the same line, said impedance coil preventing energising of the relay when alternating ringing currents are projected on the line.

2. A party line telephone system comprising a line, a plurality of substations thereon, a line relay for said line, an impedance coil in circuit with said relay, a direct current generator at each substation for energising the relay over the line and to ground, a bell or ringer at each substation, and means for changing the current of said generator to alternating, said impedance coil preventing energising of the relay when alternating ringing currents are projected on the line.



3. A party line telephone system comprising a grounded telephone line, a plurality of substations thereon, a line relay therefor, a grounded impedance coil in circuit with said relay, a direct current generator at each substation for energising the relay over the line and to ground, a bell or ringer at each substation, and means for changing the current of said generator to alternating, said impedance coil preventing energising of the relay when alternating ringing currents are projected onto the line.

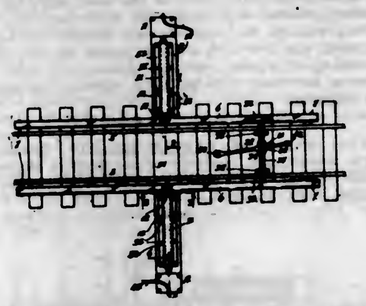
4. A party line telephone system comprising a line relay, an impedance coil in circuit with said line relay, a line signal controlled by said relay, and means by which the subscribers on said line call each other with alternating current, said impedance coil permitting the passage of direct current through said relay, but preventing the passage therethrough of alternating current.

5. A party line telephone system comprising a line, a line relay therefor, an impedance coil in circuit with the line relay, a line signal connected in parallel with said line relay and impedance coil, and normally closed jack-springs connected in circuit with said line signal.

[Claim 6 not printed in the Gazette.]

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1,041,966. CIRCUIT-MAKE-AND-BREAK DEVICE FOR RAILWAY SIGNALING SYSTEMS. WILLIAM J. COOK, Denver, Colo., assignor to The Cook Railway Signal Company, Denver, Colo., a Corporation of Colorado. Filed Jan. 10, 1911. Serial No. 601,878. (Cl. 246—35.)



1. In a circuit make and break device, adapted for use in operating railway signals, the combination of arms pivotally connected with a relatively stationary support at their outer extremities, the inner extremities of the arms being jointed to permit a limited degree of movement, contacts, an operative connection between the said contacts and the connected extremities of the pivoted arms including a lever fulcrumed between its extremities, one extremity of which supports the pivoted arms in position to be depressed, the opposite extremity of the lever having a switch member insulated therefrom and adapted to engage the contacts, suitable means mounted on the train for depressing the said arms while the train is passing the section of track where the arms are located, and means connected with the lever for retarding the circuit breaking movement of the same.

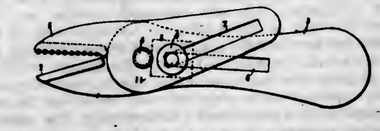
2. In an apparatus of the class described, the combination of pivoted arms arranged in pairs along the sides of the track, and out of alinement with the track rails, each pair of arms having their adjacent extremities connected to permit a limited degree of vertical oscillation, a plurality of contacts, an operative connection between the contacts and the pair of pivoted arms, including a lever, one extremity of which normally supports the pivoted arms in a position to be depressed by applying the necessary force, the other arm of the lever being provided with a switch member adapted to engage the contacts, means mounted on the train and arranged to act on the pivoted arms to depress the latter for switching purposes, and a second means connected with the lever for retarding the circuit-breaking movement of the same.

3. In an apparatus of the class described, the combination of arms pivotally connected with a relatively stationary support at their outer extremities, the inner extremities of the arms being jointed to permit a limited degree of movement, a plurality of contacts, a lever fulcrumed between its extremities, one extremity of which normally supports the arms in position to be depressed, the opposite extremity of which is provided with a switch member adapted to engage the contacts, means mounted on the train and arranged to act on the pivoted arms, to depress the latter for switching purposes, and means connected with the lever for retarding the circuit-breaking movement of the same, for the purpose set forth.

4. In an apparatus of the class described, the combination with a member jointed to permit a limited degree of oscillating movement, and pivoted to a relatively stationary support at its extremities remote from the joint, a plurality of contacts arranged in sets, an operative connection between the sets of contacts and the jointed member, comprising a lever fulcrumed intermediate its extremities, one extremity of which is engaged by the said jointed member and supports the latter in the raised position, the opposite extremity of the lever being provided with a switch member adapted to alternately engage the contacts of each set, means mounted upon the train for depressing the jointed member sufficiently for changing the position of the switch member, and means pivotally connected with the lever for retarding the circuit-breaking movement.

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1,041,967. WRENCH. WILLIAM CRONK, Montour Falls, N. Y. Filed Oct. 25, 1910. Serial No. 588,958. (Cl. 81—111.)



1. In an article of the character described, in combination, a pair of pivotally connected members, a pivot therefor and resilient means independent of said pivotal connection for urging said members together to hold the same in adjusted position.

2. In an article of the character described, in combination, a pair of pivotally connected members, a pivot therefor, adjusting mechanism independent of the pivotal connection, and spring means associated with said adjusting mechanism for frictionally holding said members in adjusted position.

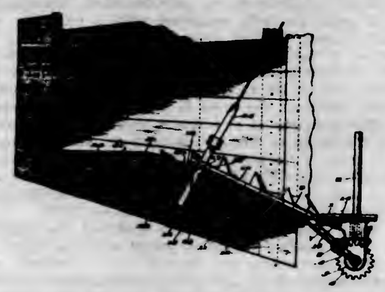
3. In an article of the character described, in combination, a pair of members pivotally connected intermediate their ends adapted to form jaws at one end and a handle at the opposite end, a pivot about which said members are adapted to turn and spring adjusting means independent of the pivotal connection engaging said members for holding the same in relatively fixed position.

4. In an article of the character described, in combination, a pair of pivotally connected members providing jaws at one end thereof, a pivot for said members and movable spring means independent of the pivotal connection adapted frictionally to hold said members in adjusted position.

5. In an article of the character described, in combination, a pair of pivotally connected members providing jaws at one end thereof, a pivot for said members, said members having slots therein, and spring held means engaging said slots at a point relatively remote from the pivotal connection for holding the members together in adjusted position.

[Claims 6 to 14 not printed in the Gazette.]

**1,041,966. BUTT-ADJUSTER FOR GRAIN-BINDERS.** JOHN DANOWL, Chicago, and BURT R. BENJAMIN, Oak Park, Ill., assignors to International Harvester Company, a Corporation of New Jersey. Filed Mar. 28, 1912. Serial No. 686,746. (Cl. 56—36.)



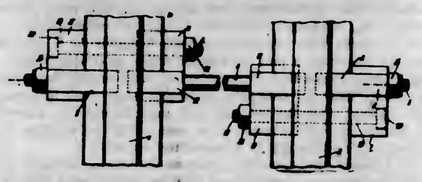
1. A grain binding attachment for harvesters including, in combination, a grain elevator frame, an inclined deck leading downward and outward from the delivery end of said elevator frame, a butts adjuster including a board arranged at right angles to the plane of said deck and inclined downward and outward and having the upper and lower edges thereof substantially parallel therewith, means whereby an orbital movement is transmitted to the upper end of said board, a support for said board including a bar having a downwardly turned arm at one end thereof, said arm being journaled in bearings carried by said elevator frame, an upwardly turned arm at the opposite end of said bar, a swinging bracket member having one end thereof journaled upon said arm and the opposite end thereof pivotally connected with the opposite end of said board, an extension for said butts adjuster having one end thereof pivotally connected with said board, a support for said extension having one end thereof pivotally mounted upon the upturned arm of said adjuster support and the opposite end thereof slidably connected with the opposite end of said extension.

2. A grain binding attachment for harvesters including, in combination, a grain elevator frame, an inclined deck leading downward and outward from the delivery end of said elevator frame, a butts adjuster including a board arranged at right angles to the plane of said deck and inclined downward and outward and having the upper and lower edges thereof substantially parallel therewith, means whereby an orbital movement is transmitted to the upper end of said board, a support for said board including a bar having a downwardly turned arm at one end thereof, said arm being journaled in bearings carried by said elevator frame, an upwardly turned arm at the opposite end of said bar, a swinging bracket member having one end thereof journaled upon said arm and the opposite end thereof pivotally connected with the opposite end of said board, an extension for said butter having the upper and lower edges thereof arranged parallel with said deck and having one end thereof pivotally connected with the lower end of said board, a support for said extension including a bracket member having one end thereof pivotally mounted upon the upturned arm of said adjuster support, a bar having one end thereof secured to the opposite end of said bracket member, a loop secured to said extension and slidably receiving the opposite end of said bar, and an adjuster controlling member slidably mounted upon said elevator frame and having one end thereof connected with said bracket member.

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**1,041,969. RAIL-BRACE.** ALBERT REBA DAVIS, Oneida, N. Y. Filed Nov. 25, 1911. Serial No. 662,295. (Cl. 238—8.)

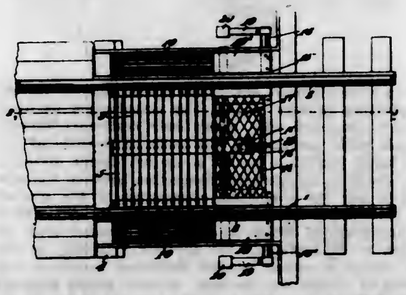
1. A rail brace comprising a rod, jaws adjacent the outer ends of the rods, the said jaws being downwardly extended along the outer sides, the said downwardly extending portions being provided with transversely extending openings through which the rod passes, nuts on the rod for engagement with the jaws for holding them in position, other jaws intermediate the ends of the rod, the said jaws being provided with laterally extending bottom portions through which the rod passes, and also provided with laterally extending offset upper portions for engagement with the inner sides of the rails, the said rod being positioned beneath the bottom of the rails, together with a bolt and nut engaging the jaws adjacent each of the rails for holding them secured together



2. A rail brace comprising a rod with threaded end, jaws adjacent the outer ends of said rod, the jaws being provided with openings through which the rod extends, the said jaws being downwardly extended along the outer sides, nuts on said rod for engagement with the jaws for holding them in place on the outer sides of the rails, other jaws intermediate the ends of the rod and adjacent the inner sides of the rails, the said second jaws being provided with laterally extending bottom portions having openings therein through which the said rod passes, the said second jaws being also provided with laterally extending offset upper portions for engagement with the inner sides of the rails, each of the jaws engaging each rail being provided with registering openings, and a bolt extending through the openings and beneath the bottom of the rails, together with a nut engaging the end of the bolt whereby the jaws are held adjacent the rails, the rails being prevented from spreading through the medium of the said rod.

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**1,041,970. RAILROAD CATTLE-GUARD.** GEORGE H. DAVIS, Searcy, Ark., assignor of one-third to Henry W. Varner, Searcy, Ark. Filed Dec. 14, 1911. Serial No. 665,693. (Cl. 89—42.)



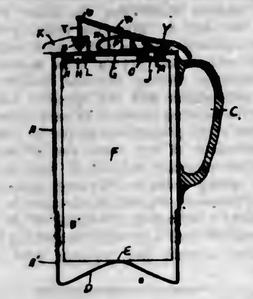
1. A railroad cattle guard, having two parallel shafts mounted transversely of the right of way of a railroad, a guard panel carried by one shaft, a treadle panel carried by the other shaft, co-acting gears carried by the treadle panel and shaft carrying the guard panel, and a weighted lever connected to the shaft of the guard panel and normally holding the guard panel in lowered position with the treadle panel elevated.

2. A railroad cattle guard, having two parallel shafts mounted transversely of the right of way of a railroad, the ends of said shafts being beyond the rails, a plurality of guard panels connected to the intermediate portion and ends of one of the shafts, a plurality of treadle panels connected to the other shaft between the rails and exterior thereof, a gear carried by the shaft having the guard panels, an arm carried by the central panel of the treadle panels, a toothed segment carried by said arm and engaging the gear of the guard panel shaft, and a weight actuated lever connected to the shaft of the guard panels and normally holding the guard panels depressed and the treadle panels elevated.



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**1,041,971. DEVICE FOR OPENING, HOLDING, PRESERVING, AND USING CANNED MILK AND OTHER CANNED FLUIDS.** JOHN MILLS DAY, Seattle, Wash. Filed Sept. 12, 1911. Serial No. 648,973. (Cl. 65—61.)



A holder for said containers and the like comprising a casing composed of separable top and bottom sections, and adapted to inclose the container, the top of the casing having outlet and vent openings, a support on the top of the casing, a lever removably pivoted to the support, a valve for the outlet opening carried by the lever, a valve for the vent opening pivoted to the top of the casing, said valve having an upstanding stem engageable by the lever to operate said valve when the lever is swung to operate the first-mentioned valve, and a spring engageable with the lever to swing the same in a direction to close the valves.

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**1,041,972. AUTOMATIC CUT-OFF FOR GAS-BURNERS.** EDWARD F. DUDLEY, Lisaton, Oreg., assignor to Moses C. Bingham, Portland, Oreg. Filed Jan. 2, 1912. Serial No. 668,845. (Cl. 67—116.)

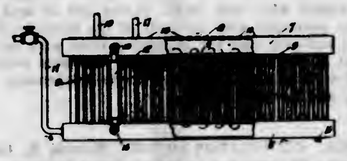


1. In a gas burner, the combination with a body-portion, a supply passage opening into said portion, a valve-seat in said opening, and a mantle; of a thermostat adjustably fixed in said body, adapted to support said mantle; a valve-stem journaled in said body portion; a latch-frame rigid on said valve-stem, a pawl pivoted on said frame and adapted to be depressed by said thermostat, a lever pivoted on the frame and adapted to be tilted by said pawl, said lever provided with a head, a bolt adjustably fixed in the body-portion and normally engaged by the head of said lever, whereby the latch-frame is held elevated, a valve plug on said latch-frame the devices so related that the thermostat in cooling, causes the head of said lever to swing clear of said bolt, thus releasing the latch-frame, which drops by gravity and cuts off the gas supply; and manually operated means for oscillating said valve-stem to open or close the gas supply.

2. In a gas burner, the combination with a body-portion, a supply passage opening into said portion, a valve-seat in said opening, and a mantle; of a thermostat adjustably fixed in said body, adapted to support said mantle, and comprising an expansible tube and a non-expansible rod freely hung in said tube; a valve-stem journaled in said body-portion; a latch frame rigid on said valve-stem, a pawl pivoted on said frame and adapted to be depressed by said thermostat, a lever pivoted on the frame and adapted to be tilted by said pawl, said lever provided with a head, a bolt adjustably fixed in the body-portion and normally engaged by the head of said lever, whereby the latch-frame is held elevated; a valve-plug mounted on said latch-frame mechanism, the devices so related that the thermostat, in cooling, causes the head of said lever to swing clear of said bolt, thus releasing the latch-frame, which drops by gravity and cuts off the gas supply; and manually operated means for oscillating said valve-stem to open or close the gas supply.

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**1,041,973. BRINE-COOLER.** OSCAR C. DE FOSSET, Cincinnati, Ohio. Filed Apr. 1, 1911. Serial No. 618,340. (Cl. 62—6.)



1. A brine cooler comprising a plurality of box shaped chambers located one directly above the other, a plurality of pipes connecting said chambers together, said tubes being staggered to interrupt the flow of brine therebetween, and suitable pipe connections in said chamber, substantially as set forth and for the purposes specified.

2. In combination with a tank for holding ice cans and brine, of a cooler having a box shaped chamber at the top and bottom thereof, respectively, vertical tubes directly connecting said chambers together, means for gaining access to said tube, an ammonia inlet pipe, and an outlet pipe for said chambers, substantially as and for the purposes set forth.

3. In combination with a brine tank for holding brine and ice cans, of a cooler, comprising a plurality of box shaped receptacles adapted to hold ammonia, tubes connecting said receptacles and removable plugs in the walls of one of said tanks opposite said tubes for gaining easy access thereto, substantially as set forth and for the purposes specified.

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**1,041,974. MANURE-SPREADER.** SAMUEL K. DENNIS, Chicago, Ill., assignor to International Harvester Company, a Corporation of New Jersey. Filed May 18, 1912. Serial No. 698,202. (Cl. 111—40.)

1. A manure spreader having, in combination, a body, a distributing cylinder journaled in bearings carried by the rear end of said body, an end-gate adapted to close the end of said body adjacent said cylinder, means for raising and lowering said end-gate, said means including arms having the front ends thereof pivotally connected with the side walls of said body and having upwardly extending loops at the rear ends thereof, end-gate supporting members received by said loops, having depending arms secured to opposite ends of said end-gate, and forwardly extending arms having the front ends thereof slidably connected with the side walls of said body.

2. A manure spreader having, in combination, a body, a distributing cylinder journaled in bearings carried by the rear end of said body, an end-gate adapted to close the end of said body adjacent said cylinder, means for raising and lowering said end-gate, said means including arms having the front ends thereof pivotally connected with the side walls of said body, end-gate supporting members carried by the rear ends of said arms, having depending arms secured to opposite ends of said end-gate, and forwardly and downwardly extending arms slidably connected with the side walls of said body in a manner to swing the lower side of said end-gate toward or from said cylinder during a raising or lowering movement thereof.



3. A manure spreader having, in combination, a body, a distributing cylinder journaled in bearings carried by the rear end of said body, an end-gate having a rising and falling movement in front of said cylinder, means for raising and lowering said end-gate, said means including arms having the front ends thereof pivotally connected with the side walls of said body upon opposite sides thereof, end-gate supporting members carried by the rear ends of said arms comprising double levers arranged at approximate right angles with each other, having one of said levers slidably connected with the body of the machine in front of said end-gate, and the remaining lever with said end-gate at opposite ends thereof, said end gate being permitted a rising and falling movement independent of the raising and lowering means.

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1,041,975. CULTIVATOR-TOOTH. SAMUEL K. DENNIS, Chicago, Ill., assignor to International Harvester Company, a Corporation of New Jersey. Filed June 24, 1912. Serial No. 705,376. (Cl. 97—11.)



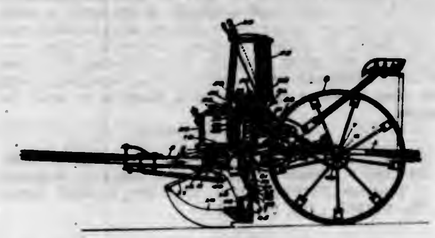
1. A cultivator tooth including, in combination, a tooth shank, a blade, a blade support, said blade support being pivotally connected with the lower end of said shank in a manner permitting the lower end thereof to swing in a fore and aft direction relative to the line of draft of the machine and provided with bearing portions extending rearward from the axis thereof, and a spring-pressed pressure regulating member having one end pivotally connected with the body portion of said tooth shank and the opposite end thereof engaging with the bearing portions of said blade support.

2. A cultivator tooth including, in combination, a tooth shank, a blade, a blade support, said blade support being pivotally connected with the lower end of said shank in a manner permitting the lower end thereof to swing in a fore and aft direction relative to the line of draft of the machine and provided with bearing portions extending rearward from the axis thereof, a pressure regulating member having one end pivotally connected with the body portion of said tooth shank and the opposite end thereof engaging with the bearing portions of said blade support, a bracket member secured to said tooth shank, and a compression spring operative between said bracket and said pressure regulating member in a manner to yieldingly resist a rearward swinging movement of the lower end of said blade support.

3. A cultivator tooth including, in combination, a tooth shank, a blade, a blade support, said blade support being pivotally connected with the lower end of said tooth shank in a manner permitting the lower end thereof to swing in a fore and aft direction relative to the line of draft of the machine and provided with bearing portions extending in rear of the pivotal axis thereof, a pressure regulating member having one end pivotally connected with said tooth shank and the opposite end thereof engaging with the bearing portions of said blade support and provided with a lip portion operative to limit a forward swinging movement of the lower end of said blade support, a bracket member secured to said tooth shank, a compression spring operative between said bracket member and said pressure regulating member in a manner to yieldingly resist a swinging movement of the lower end of said blade support, and a pressure adjusting screw carried by said bracket member and engaging with said compression spring.

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1,041,976. FERTILIZER ATTACHMENT FOR CORN-PLANTERS. SAMUEL K. DENNIS and ARTHUR HOLSEY, Chicago, Ill., assignors to International Harvester Company, a Corporation of New Jersey. Filed June 29, 1912. Serial No. 706,562. (Cl. 111—5.)



1. A combined corn planter and fertiliser distributer having, in combination, a seed conduit, a second drop valve pivotally mounted at the lower end of said seed conduit, a fertiliser conduit in rear of said seed conduit, having a valve controlled opening at the lower end thereof, and a fertiliser spreader carried by said second drop valve, and adapted to receive the material from said fertiliser conduit.

2. A combined corn planter and fertiliser distributer having, in combination, a seed conduit, a second drop valve pivotally mounted at the lower end of said seed conduit, a fertiliser conduit in rear of said seed conduit, a valve mounted at the lower end of said fertiliser conduit, means for simultaneously operating said valves, and a conical spreader carried by said second drop valve and adapted to receive the material from said fertiliser conduit.

3. A combined corn planter and fertiliser distributer having, in combination, a seed conduit, a second drop valve pivotally mounted at the lower end of said seed conduit, a fertiliser conduit in rear of said seed conduit and including a flexible body portion and a rigid lower portion, said rigid portion being secured to the lower end of said seed conduit and provided with laterally projecting trunnions upon opposite sides thereof, a valve member including arms having one end journaled upon said trunnions and the opposite ends thereof connected by a curved plate concentric with the axis of said trunnions and adapted to open and close the lower end of said rigid portion, a conical spreader integral with said second drop valve and adapted to receive material from said fertiliser conduit, and means for simultaneously operating said valves.

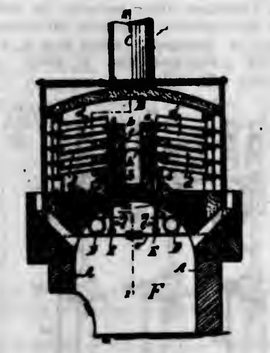
4. A combined corn planter and fertiliser distributer having, in combination, seed dropping and fertiliser distributing elements actuated from a common source of power, said fertiliser distributing mechanism including a receptacle having a base portion provided with a feed opening in the bottom thereof, a shaft journaled in opposite walls of said base portion above said feed opening, said shaft being provided with oppositely inclined helically arranged ribs that terminate upon opposite sides of said feed opening and upon opposite sides of said shaft.

5. A combined corn planter and fertiliser distributer having, in combination, seed dropping and fertiliser distributing elements actuated from a common source of power, said fertiliser distributing mechanism including a receptacle having a base portion provided with a feed opening in the bottom thereof, a shaft journaled in opposite walls of said base portion above said feed opening, a sleeve secured to said shaft and extending from side to side of said base, said sleeve being provided upon opposite sides of the longitudinal center thereof with oppositely inclined helically arranged ribs having a gradually increasing radius from opposite ends of said sleeve toward the center thereof and terminating upon opposite sides of said feed opening and upon opposite sides of said sleeve.

[Claims 6 to 11 not printed in the Gazette.]

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1,041,977. ZINC RETORT-FURNACE. CHARLES A. H. DE SAULLES, Gas, Kans., assignor to New Jersey Zinc Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 22, 1911. Serial No. 622,671. (Cl. 75—154.)

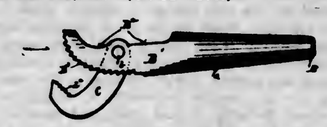


1. A zinc retort furnace, provided with a combustion chamber having an exit flue for the products of combustion at one end thereof, zinc retorts located within the chamber, a series of air ports and a series of gas ports opening into the combustion chamber below the retorts, an air pressure main and a gas pressure main communicating with the said air and gas ports respectively, and valves for controlling independently the air supply and the gas supply from the mains to each of the air and gas ports; substantially as described.

2. A zinc retort furnace, provided with a combustion chamber having two compartments with a central downtake, an exit flue for the products of combustion communicating with the downtake at one end of the chamber, zinc retorts located in the compartments, a series of air ports and a series of gas ports opening into each compartment below the zinc retorts, an air pressure main and a gas pressure main communicating with the air ports and gas ports respectively, and valves for controlling independently the air supply and the gas supply from the mains to each of the air and gas ports; substantially as described.



1,041,978. PIPE-WRENCH. EDWARD G. DIEFENDORF, Erie, Pa., assignor to Erie Stamping & Mfg. Co., Erie, Pa., a Corporation of Pennsylvania. Filed Dec. 4, 1911. Serial No. 663,770. (Cl. 81—177.)



A method of forming the body of a pipe-wrench consisting of cutting a blank of sheet-metal having pivot-holes adjacent to one end thereof and with curved jaw-surfaces around the end adjacent to said pivot-holes and then rolling said blank up so that the side margins meet along the front of said wrench body with said pivot-holes in alinement and flattening the jaw-end thereof, substantially as set forth.

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1,041,979. CABINET AND FLOOR SCRAPER. CHARLES S. DIEHMAN, Norwalk, Conn. Filed Apr. 4, 1911. Serial No. 618,953. (Cl. 145—47.)



1. In a scraper, the combination with a frame, a clamping plate fixed thereto, and a handle section, the shank of which passes through the frame and plate, and upset at its end against the latter, the said handle section having a spherical head, of a sleeve loosely attached to said handle section and embracing the head, a nut secured within the sleeve and a handle section having a bolt engaging the internal threads of the nut and bearing at its end against the rounded head of the other section of the handle.

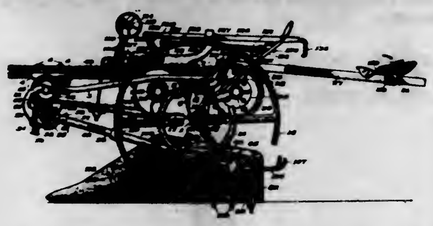
2. In a scraper, the combination with a frame having rearward projections at its ends, a clamping plate rigidly secured to said frame, a clamping plate mounted to move on the rearward projections of the rigid clamping plate, and provided on its rear or outer face with a hand rest, a cutter located between said clamping plates and projecting at opposite sides of same and means for clamping the cutter between said clamping plates, of a handle detachably and adjustably secured to the front face of the frame.

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1,041,980. ROTARY CULTIVATOR. ALBERT J. DRUMM, Racine, Wis. Filed Feb. 19, 1912. Serial No. 678,628. (Cl. 97—89.)

1. A tillage implement having, in combination, a wheel frame, traction wheels having said frame mounted thereon, a rotatable tooth carrying head carried by said frame, power transmitting means connecting said head with said traction wheels, said head being rotatable about a vertical axis, and means for varying the axial angle thereof laterally and in a fore and aft direction relative to the draft line of the machine.

2. A tillage implement having, in combination, a wheel frame, traction wheels having said frame mounted thereon, a drag bar having the front end thereof pivotally connected with said frame in a manner permitting the rear end thereof to rise and fall in a vertical plane, a longitudinally arranged shaft journaled in bearings carried by said drag bar, the front end of said shaft being operatively connected with a traction wheel, a sectional gear case having one section thereof secured to the rear end of said drag bar in a manner permitting a turning movement thereof about the axis of said shaft and another section thereof secured to said first mentioned section in a manner permitting a turning movement thereof about a transverse axis, a vertically arranged shaft journaled in bearings carried by said second mentioned section, a toothed cultivating head secured to the lower end of said shaft, and gear members connecting the upper end thereof with the rear end of said longitudinally arranged shaft.



3. A tillage implement having, in combination, a wheel frame, traction wheels having said frame mounted thereon, a tubular drag bar having the front end thereof pivotally connected with said frame in a manner permitting the rear end thereof to rise and fall in a vertical plane, a shaft journaled within said drag bar, the front end of said shaft having driving gear connections with one of said traction wheels, a two-part gear case having one part thereof secured to the rear end of said drag bar in a manner permitting a turning movement thereof about the axis of said shaft and the other part thereof provided with a tubular portion having a shaft journaled therein, a laterally projecting stud having one end thereof secured to said tubular portion and the opposite end thereof to the other part of said gear case in a manner permitting a relative angular movement of said tubular portion in a fore and aft direction, a toothed cultivating head secured to the lower end of said gear case shaft, a pinion secured to the upper end of said shaft and engaging with a double faced pinion journaled upon said stud, said double faced pinion also engaging with a pinion secured to the rear end of the shaft journaled in said drag bar.

4. A tillage implement having, in combination, a wheel frame, hangers secured to said frame upon opposite sides thereof, stub axles carried by said hangers, traction wheels journaled upon said axles, gear wheels secured to said traction wheels, transversely arranged shafts journaled in bearings carried by said hangers and adapted to move longitudinally therethrough, pinions secured to said shafts and adapted to engage with said gear wheels, gear members slidably mounted upon the opposite ends of said shafts and connected with a fixed part of the structure in a manner preventing a lateral movement thereof during a longitudinal movement of said shafts, drag bars having the front ends thereof pivotally connected with the front of said wheel frame, rotatable cultivating elements carried by the rear ends of said drag bars, and operatively connected with said gear members.

5. A tillage implement having, in combination, a wheel frame, hangers secured to said frame upon opposite sides thereof, stub axles secured to said hangers, traction wheels journaled upon said axles, gear wheels secured to said traction wheels, arms carried by said hangers and disposed in a fore and aft direction, the arms upon one of said hangers extending in front of the axis of said traction wheels and those upon the other in rear thereof, transversely arranged shafts journaled in bearings carried by said arms, pinions secured to said shafts and adapted to engage with said gear wheels, gear members secured to the opposite ends of said shafts, manually controlled means for disengaging said pinions from said gear wheels, drag bars having the front ends thereof pivotally connected with the front of said wheel frame, rotatable cultivating elements carried by the rear ends of said drag bars and operatively connected with said gear members.

[Claims 6 and 7 not printed in the Gazette.]

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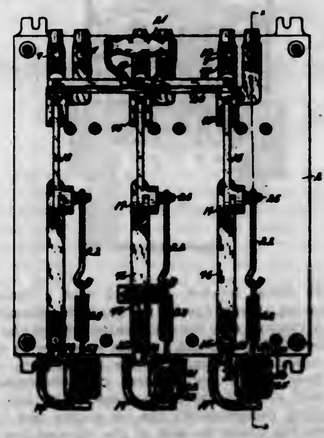
1,041,981. DETACHABLE FASTENER. WILLIAM W. DUNCAN, New York, N. Y. Filed Feb. 2, 1910. Serial No. 541,490. (Cl. 24—228.)



A two-part fastening device, comprising a hook member having portions of its material bent to form resilient sockets disposed upon opposite sides of the hook, attaching eyes formed integral with the sockets and arranged in a different plane so as to space the sockets from the material to which the eyes are secured, an eye member having its ends provided with attaching eyes, an eye formed intermediate said eyes, upwardly directed loops disposed between the intermediate eye and the attaching eyes, and adapted to fit in the sockets when the intermediate eye engages the hook, said loops having rounded cap plates fitting thereon to more firmly engage said sockets of the hook member.

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1,041,982. CURRENT-CONTROLLER. GEORGE B. DUSINBERRE, Cleveland, Ohio, assignor, by mesne assignments, to Allen-Bradley Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed May 8, 1911, Serial No. 625,796. Renewed Mar. 4, 1912. Serial No. 681,609. (Cl. 172—179.)



1. In an electric current controller, the combination of the resistance medium, means for subjecting said resistance medium to compression comprising a lever, a pressure member having an arm thereon, a spring having a rod-like extension thereon connected to said lever, an arm engaging member through which said spring extension is arranged, an auxiliary spring arranged on said extension, collars arranged on said extension at each end of said spring, the inner collar being arranged to bear against said arm engaging member, a sleeve arranged on said extension between said collars, and a nut threaded on said extension to engage the outer collar.



2. In an electric current controller, the combination of the resistance medium, means for subjecting said resistance medium to compression comprising a lever, a pressure member having an arm thereon, a spring having a rod-like extension thereon connected to said lever, an arm engaging member through which said spring extension is arranged, an auxiliary spring arranged on said extension, collars arranged on said extension at each end of said spring, the inner collar being arranged against said arm engaging member, and a nut threaded on said extension to engage the outer collar.

3. In an electric current controller, the combination of the resistance medium, means for subjecting said resistance medium to compression comprising a lever, a pressure member, a spring having a rod-like extension thereon connected to said lever, and an auxiliary spring arranged on said extension and through which said main spring acts upon said pressure member.

4. In an electric current controller, the combination of a resistance medium, means for subjecting said resistance medium to compression comprising a resistance medium pressure member, an actuating member, a main spring connected to said actuating member, and an auxiliary spring interposed in the connection for said main spring to said resistance medium pressure member, said auxiliary spring being of less strength than said main spring.

5. In an electric current controller, the combination of a resistance medium pressure member, an actuating member, a main spring connected to said actuating member, an auxiliary spring interposed in the connection for said main spring to said resistance medium pressure member, said auxiliary spring being of less strength than said main spring, and means for limiting the stress upon the said auxiliary spring.

[Claims 6 to 8 not printed in the Gazette.]

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1,041,983. PHONOGRAPH-STYLUS. THOMAS A. EDISON, Llewellyn Park, West Orange, N. J., assignor to Thomas A. Edison, Incorporated, West Orange, N. J., a Corporation of New Jersey. Filed May 12, 1910. Serial No. 560,787. (Cl. 181—10.)



1. As a new article of manufacture, a stylus for talking machines formed of crystallized boron, substantially as described.

2. As a new article of manufacture, a stylus for talking machines formed of a substance containing crystallized boron, substantially as described.

3. As a new article of manufacture, a boron stylus having a conical end with rounded point adapted to travel in the groove of a sound record, substantially as described.

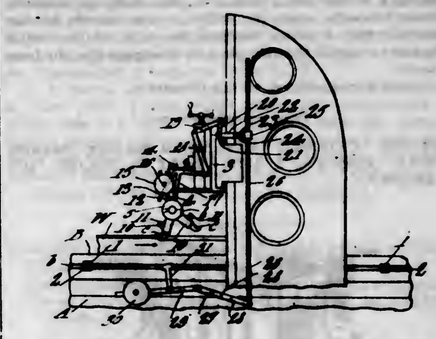
4. As a new article of manufacture, a boron stylus having irregular contour and a lapped tapered end with rounded point adapted to travel in the groove of a sound record, substantially as described.

5. As an article of manufacture, a boron stylus having irregular contour and a tapered end with a rounded point adapted to travel in the groove of a sound record, substantially as described.

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1,041,984. PLANING-MACHINE. ERNEST HOUSE, San Bernardino, Cal. Filed Nov. 27, 1911. Serial No. 662,718. (Cl. 90—62.)

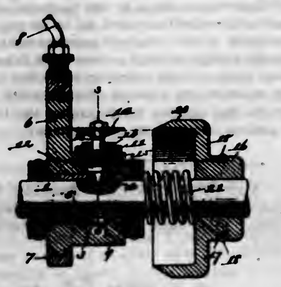
1. In a planing machine, a tool holder including a pivotally supported element, diverging tool receiving portions carried thereby and having limited swinging movement relative thereto, fixed means for connecting said element to the head of a planing machine, gravity operated means for holding said element at either limit of its pivotal movement, and means for shifting the said element about its pivot.



2. The combination with a planing machine including a work supporting bed movably mounted, a head movable transversely of the path of movement of the bed, and a rock shaft parallel with the path of movement of the head, of a tool holding element pivotally mounted, diverging tool receiving portions carried thereby and having limited swinging movement relative thereto, means for connecting said element to the head, a weighted device for holding said element at either limit of its movement, a forked member upon the head and engaging said device, means for transmitting motion from the rock shaft to said forked member to shift the tool holding element, a weighted lever fulcrumed upon the planing machine and below the bed, an arm upstanding therefrom, means adjustably connected to the bed for engaging said arm to shift the lever, and means actuated by the lever for actuating the rock shaft.

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1,041,985. REVERSING MECHANISM. WILLIAM H. EISENHOWER, Reading, Pa. Filed May 29, 1911. Serial No. 630,053. (Cl. 121—100.)



1. The combination with a shaft having pin receiving sockets, of an eccentric mounted loosely upon the shaft, and a pin carried by the eccentric and adapted to seat alternately in said sockets.

2. The combination with a shaft having oppositely locked pin receiving sockets, of an eccentric mounted loosely upon the shaft, and a spring pressed pin carried by the eccentric and adapted to engage said sockets.

3. The combination with a shaft having pin receiving sockets, of an eccentric mounted loosely on the shaft, a pin carried by the eccentric and adapted to engage said sockets, and means for disengaging the pin from the sockets.

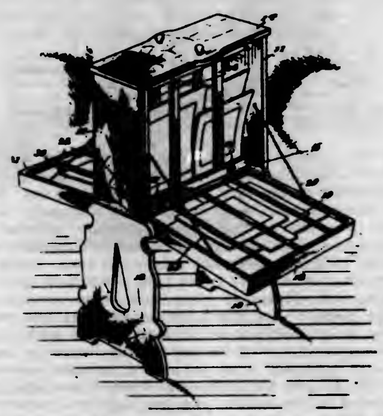
4. The combination with a shaft, an eccentric mounted loosely thereon and having pin receiving sockets, a pin carried by the eccentric adapted to alternately engage said sockets, means for disengaging the pin from a socket, and

means for limiting rotation of the shaft with respect to said pin.

5. The combination with a shaft having pin receiving sockets, a slotted collar locked to said shaft, an eccentric mounted loosely upon the collar, a pin carried by the eccentric and working through the slot of the collar adapted to engage the said pin and disengage the pin from a socket.

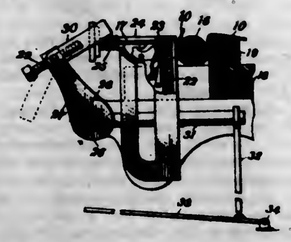
[Claim 6 not printed in the Gazette.]

1,041,986. CABINET. MARY EDITH ELLIOTT, Maxwell, Iowa. Filed Aug. 2, 1910. Serial No. 575,198. (Cl. 45—64.)



A cabinet comprising spaced end walls connected at their upper ends by a top member and intermediate their ends by the bottom member of less width than the top member, spaced vertical strips rigidly secured to the opposite edges of the bottom member and to the top member to form the front and back of the central compartment, trays hinged at their lower edges to the opposite side edges of the bottom member and adapted to be swung against the front and back of the central compartment, said trays having elastic straps secured across their faces to prevent the contents thereof from dropping out when the trays are positioned against the central compartment, and means carried by the top member for retaining the trays in their positions against the central compartment.

1,041,987. TACKING DEVICE. EPHRAIM O. ENGBERG, Salt Lake City, Utah, assignor to John Beecher Patton, Kent, Ohio. Filed Sept. 10, 1908. Serial No. 452,866. (Cl. 1—2.)



1. The combination with means for supporting a shade-roller, of a transverse bar forming an anvil for the shade-roller at the rear thereof, a plurality of tacking devices each adapted to cut-off and drive a tacking element into the shade-roller in a substantially horizontal plane, a shaft, a plurality of arms adjustably held to said shaft, means for rocking the shaft, together with means carried by the arms and adapted to engage a part of the tacking devices for forcing the tacking element into the shade-roller.

2. The combination with means for supporting a shade-roller, of a transverse bar forming an anvil for the shade-roller at the rear thereof, a plurality of tacking devices spaced from the bar each adapted to cut-off and drive a tacking element into the shade-roller, and having one member resting against the shade-roller, a shaft, a plurality of arms adjustably held to said shaft, means for rocking the shaft, together with means carried by the arms and adapted to engage a part of the tacking devices for forcing the tacking element into the shade-roller.

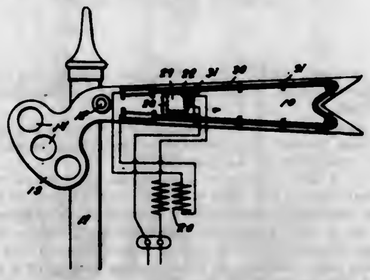
3. The combination with a table for supporting a shade-roller, of a transverse bar forming a backing bar for the shade-roller, a plurality of tacking devices each adapted to drive a tacking element into the shade-roller, a shaft, a plurality of arms adjustably held to said shaft, and means carried by the arms adapted to engage a part of the tacking devices for forcing the tacking element into the shade-roller.

4. The combination with means for supporting a shade-roller, of a transverse bar forming an anvil for the shade-roller, a plurality of vertically arranged tacking devices each adapted to drive a tacking element into the shade-roller, a shaft, a plurality of arms adjustably held to said shaft for operating the tacking device, guides carried by the arms adapted to engage a part of the tacking device, and means for rocking the shaft.

5. The combination with means for supporting a shade-roller, of a transverse backing therefor, a plurality of vertically disposed tacking devices having means for feeding and forcing the tacking elements into the shade-roller, an arm for each tacking device, an adjustable bolt carried by said arm and adapted to engage a part of the tacking device, guides projecting outward from each arm and adapted to span a part of the tacking device, an inward projecting rod carried by the shaft, and means for operating the said rod.

[Claims 6 to 8 not printed in the Gazette.]

1,041,988. RAILROAD-SIGNAL. ARTHUR H. FARGO, Newark, N. J. Filed Oct. 22, 1910. Serial No. 588,443. (Cl. 246—15.)



1. In a railroad signal, a member movable to a plurality of signal positions, and means for continuously illuminating the member comprising a long vacuum tube and means whereby electric current is caused to pass through rarefied gas in the tube and render the same luminous, said tube being carried by and conforming to the outline of the top, bottom and end edges of said member.

2. In a railroad signal, a semaphore arm having oblique end edges, and means for illuminating the arm comprising a long vacuum tube and means whereby electric current is caused to pass through rarefied gas in the tube and render the same luminous, said tube being carried by and angled to outline the oblique end edges, the top edge and the bottom edge of said arm.



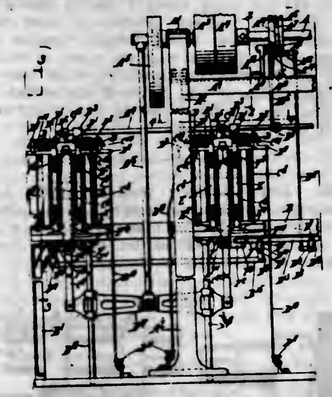
3. In a railroad signal, the combination of a semaphore arm having a reëntrant angled, fish-tail outer end, and means for illuminating the arm comprising a long vacuum tube and means whereby electric current is caused to pass through rarefied gas in the tube and to render the same luminous, said tube being carried by said arm and extending along parallel to the upper edge of the arm, then bent to form a reëntrant angle conforming to and outlining the fish-tail end of the arm, and then bent back and extending in parallelism to the lower edge of the arm.

4. In a railroad signal, a semaphore arm having a channel formed in one face and corresponding to the outline thereof, and luminous means for outlining the arm comprising a long vacuum tube and means whereby electric current is caused to pass through rarefied gas in the tube, said tube being sunk in said channel below the face of the arm, and a transparent lens guard occupying the top of the channel and covering the tube.

5. A railroad signal comprising a semaphore arm movable to a plurality of signal positions and provided with a long channel formed at one side thereof and conforming to the outline of the arm, a long illuminating tube located in said channel, means whereby said tube is continuously illuminated and an elongated lens and guard formed in sectional lengths covering said channel and tube.

[Claims 6 to 8 not printed in the Gazette.]

1,041,989. MATCH-MACHINE. PETER C. FORRESTER, Tacoma, Wash. Filed June 19, 1911. Serial No. 634,123. (Cl. 144—54.)



1. In a match machine means for feeding veneer strips thereto comprising feed rollers in opposition to the opposed edges of the strips a driving wheel loosely mounted about the axis of one of said rollers means for rotating said rollers in response to the rotation of said driving wheel, and automatic means for breaking the connection between said roller and said wheel.

2. In a match machine means for feeding veneer strips thereto comprising feed rollers in opposition to the opposed edges of the strips a driving wheel loosely mounted about the axis upon said rollers means for rotating said rollers in response to the rotation of said driving wheel and automatic means operative at the end of each revolution for breaking the connection between said roller and said wheel.

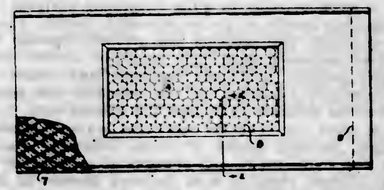
3. In a match machine means for feeding veneer strips thereto, comprising feed rollers in opposition to the opposed edges of the strips a driving wheel rotatably mounted about the axis of said rollers and means for detachably connecting said rollers and said driving wheels, said means comprising a disk rotatably connected to said feed roller perforations in said driving wheel and a pin carried by said disk and in opposition to said perforations.

4. In a match machine means for feeding veneer strips thereto, comprising feed rollers in opposition to the opposed edges of the strips a driving wheel rotatably mounted about the axis of said rollers and means for detachably connecting said rollers and said driving wheels, and means comprising a disk rotatably connected to said feed roller perforations in said driving wheel and a pin carried by said disk and in opposition to said perforations and means comprising a latch lever in opposition to said pin for disengaging it from the drive wheel.

5. A match machine comprising a reciprocating knife a shear plate within which said knife reciprocates a splint case and means carried by said knife for feeding splints thereto and means operative in unison with said knife and when it is at the end of its excursion for longitudinally displacing alternate splints in the splint case.

[Claims 6 to 18 not printed in the Gazette.]

1,041,990. CEMENT SLAB OR TILE WITH LIGHT-PANE. IGNATZ H. FREUND, Chicago, Ill., assignor to Federal Cement Tile Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 4, 1912. Serial No. 681,557. (Cl. 108—10.)



1. A construction of the character described comprising a thin slab of cement provided with a large opening, a sheet of glass covering said opening, and means within the integral cement body and adapted to permit relative movement between the sheet of glass and the slab of cement, the cement body being molded around said means and the edges of the glass sheet and brought into close juxtaposition with both sides of the glass sheet, the edges of said glass sheet and said means being both thereby permanently embedded in the slab of cement.

2. A construction of the character described comprising a thin concrete slab provided with a large opening and having a rabbet surrounding the same, a sheet of glass seated in said rabbet and molded in the concrete slab, and a cushion located between the edge portions of the sheet of glass and the concrete and wholly buried in the concrete slab, being thereby protected by the concrete and permitting movement of the glass sheet with reference thereto.

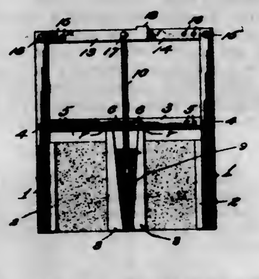
3. A construction of the character described comprising a thin cement slab provided with a large opening having a rabbet surrounding the same, a sheet of glass resting in said rabbet and having its edge portions embraced by the cement body, and a cushion of plastic material between the sheet of glass and the cement slab and held permanently in place by the setting of the cement around the edges of the glass.

4. A construction of the character described comprising a thin cement slab provided with a large opening, a sheet of glass covering said opening and having its edges embedded in the cement, and a cushion of asphaltic material between the sheet of glass and the cement slab, said cushion being elastic and adapted to absorb relative movement between the sheet of glass and cement and being permanently inclosed by the body of the cement slab.

1,041,991. MOLD. HORATIO T. FROST, Vivian, S. D. Filed Dec. 8, 1911. Serial No. 664,650. (Cl. 25—131.)

1. A mold for ventilated concrete walls comprising uprights having molding boards or plates connected thereto a cross bar on which the uprights are pivoted, core members pivotally suspended from said cross bar, a movable

wedge or expander mounted between the core members and provided with suspension rods, a longitudinal rod on which said core rods are mounted and cross bars at the end of the frame pivotally connected together for raising the core wedge and simultaneously throwing the mold boards or plates away from the molded wall.

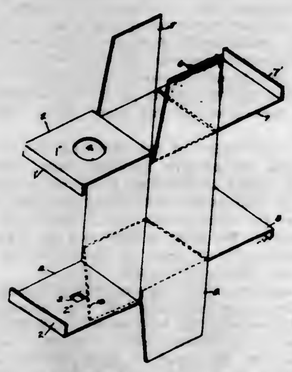


2. A mold for concrete walls comprising uprights having molding boards or plates connected thereto, a cross bar on which said uprights are pivoted, tapering core members suspended from said cross bar, a core wedge movable between said core members, and means for simultaneously loosening the core members and moving the molding members away from the finished wall.

3. A mold for concrete ventilated walls comprising uprights, molding boards or plates connected thereto, cross bars connected to said uprights at points near the center thereof, tapering mold members pivoted in slots in said cross bar, means for adjusting the molding boards inwardly and outwardly, a central wedge for expanding and loosening said core members, and means for simultaneously loosening the core members and moving the molding boards away from the molded wall.

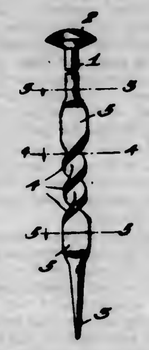
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1,041,992. FOLDING PAPER BOX. SAMUEL D. GARGOLO, Joliet, Ill., assignor of one-half to Anna M. Sisson, Joliet, Ill. Filed Nov. 17, 1911. Serial No. 660,839. (Cl. 229—37.)



A four-sided tubular paper box, each end of which is closed by four flaps, one of said flaps forming two spacing members and an intermediate supporting member, said supporting member being perforated to receive a portion of an article and of a size to fit the cross-section of said box, the opposite flap forming a closure flap of a size and shape to cover the cross-section of said box and, also, carrying a tuck flap, and the intermediate flaps forming closure flaps and each covering a large portion of said cross-section.

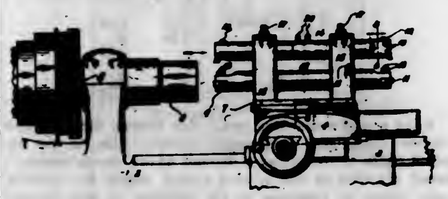
1,041,993. PIN. FRANK A. GOODNESS, Newport News, Va. Filed Mar. 21, 1910, Serial No. 550,636. Renewed July 18, 1912. Serial No. 709,269. (Cl. 24—155.)



The herein described pin comprising a cylindrical end portion having a head; a tapered point, and a flattened intermediate portion between the said cylindrical end portion and said point, the end portions of said flattened intermediate portion adjacent the cylindrical portion and point of the pin being straight and in line with each other, and the central portion of said flattened intermediate portion being spirally twisted and of a diameter somewhat less than the width of the straight ends of said intermediate flattened portion and enabling said straight ends of said flattened intermediate portion to prevent the pin from working out of an article in which it may be inserted.

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1,041,994. ATTACHMENT FOR TURRET-LATHES. CLARENCE L. GOODRICH, Hartford, Conn., assignor to Pratt & Whitney Company, Hartford, Conn., a Corporation of New Jersey. Filed Oct. 20, 1910. Serial No. 588,099. (Cl. 29—57.)



1. The combination of a work spindle, a turret, and a tool carrier comprising two axially alined connected sections, each of which is sustained by said turret for movement about its axis and while carried by said turret, and each of said sections being provided at its outer end with means for carrying a tool for adjustment transversely of the tool carrier, said tool carrier being provided with means for rigidly connecting the sections thereof to each other and the turret being turnable to bring either tool on said tool carrier into position to operate on the work carried by said spindle.

2. The combination of a tool carrier, and a support for said tool carrier, the latter having means at its opposite ends for supporting tools and also comprising two axially alined tool carrying sections each of which is carried by said support for movement about its axis and while carried by said support, said sections being joined to each other between the tool carrying ends, and means for preventing relative movement of said sections during work.



1,041,995. APPARATUS FOR RAISING SUNKEN VESSELS. JOSEPH GRANT and JOSEPH GRANT, Jr., Los Angeles, Cal. Filed July 11, 1911. Serial No. 637,896. (Cl. 114—54.)



1. A pontoon including a buoyant casing, a series of bands embracing the casing, eye bolts connecting the bands with the casing, and fastening devices extending through the eyes of the bolts and adapted for engagement to a vessel.

2. A vessel having an air tight compartment therein, a flexible pontoon located in the compartment and provided with a series of guide eyes, flexible elements extending through the guide eyes and connected with the pontoon, pulleys located in the compartments, the said flexible elements having portions extended over the said pulleys, and means carried by the flexible elements wherein the pontoon will be normally held collapsed in the compartments.

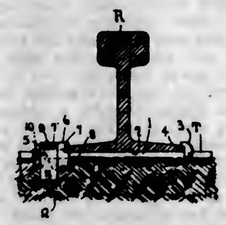
3. A pontoon including a buoyant casing provided with a plurality of peripheral bulges, a band embracing each of said bulges, eye bolts connecting the bands with the peripheral bulges and fastening devices extending through the eyes of the bolts and adapted for engagement with a vessel.

4. A pontoon of inner and outer members, the inner member being constructed of rubber, the outer member being constructed of duck and provided with peripheral bulges, whose concaved surfaces are disposed in spaced relation with the walls of the inner member, an eye bolt having portions disposed in the space between the inner and outer members and secured to the outer member and extending laterally thereof.

5. A pontoon including inner and outer members, said outer member being provided with a plurality of peripheral bulges and having one of its head portions laced permitting of convenient removal of said inner member, a band embracing each of said bulges, eye bolts connecting the bands with the peripheral bulges, and fastening devices extending through the eyes of the bolts and adapted for engagement with a vessel.

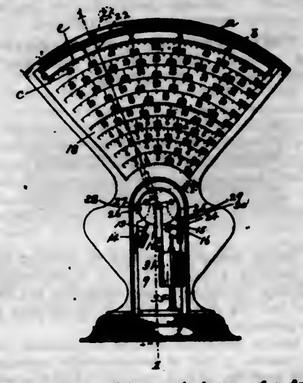
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1,041,996. RAIL-ANCHOR. MICHAEL E. HAGUN, Paul Smiths, N. Y. Filed Feb. 26, 1912. Serial No. 679,882. (Cl. 238—4.)



The herein described rail anchor comprising a shank having a fixed jaw at one extremity and oppositely disposed lugs at its other extremity; a movable jaw having an opening shaped to be passed over the last-named extremity of the shank and its lugs; and a third member consisting of a cam head having a similarly-shaped opening through its body and on its outer face a pair of cams adapted to engage behind said lugs, and a lever projecting radially from said head, bent in its body, and rounded at its outer extremity.

1,041,997. PENDULUM COMPUTING-SCALE. HENRY S. HALLWOOD, Columbus, Ohio. Filed Oct. 20, 1905. Serial No. 283,619. (Cl. 73—104.)



1. The combination, with a scale beam, of a drum operated thereby, a chart, a bracket or arm connected with said drum and extending along one face of said chart, and a wire supported at both ends by said bracket or arm and extending along the other face of said chart, substantially as specified.

2. The combination, with a scale beam, of a graduated chart, a drum operated by said scale beam, an arm carried by said drum and extending along one face of said chart and having its upper end overhanging the chart and projecting across the plane of the same, a bracket carried by said arm below said chart and projecting across the plane of the same, and a wire extending between said bracket and overhanging end of the arm, substantially as specified.

3. The combination, with a scale beam, of a rotary drum connected thereto, a chart extending transversely of the axis of said drum, an arm carried by said drum and extending adjacent one face of said chart, said arm having projections extending across the plane of the chart, and a wire extending between such projections adjacent the face of the chart opposite said arm, substantially as specified.

4. The combination, with a scale beam having a curved outer end, a rotary drum having a cam-shaped surface, a pendulum carried by said drum, a flexible connection between such curved end of the scale beam and the cam-shaped surface of said drum, a chart extending transversely of the axis of said drum, an arm carried by said drum and having projections extending across the plane of the chart, and a wire extending between such projections, substantially as specified.

5. In a scale of the character described, the combination of a scale beam, a rotary drum, means flexibly connecting said drum and said scale beam, an arm carried by said drum and having projections therefrom, a chart extending transversely of said drum and located between said projections, and a wire extending between said projections on the side of the chart opposite said arm, substantially as specified.

[Claims 6 to 11 not printed in the Gazette.]

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1,041,998. DIES FOR FORGING RAILROAD-AXLES. JOHN M. HANSEN, Pittsburgh, Pa. Filed Nov. 25, 1911. Serial No. 662,308. (Cl. 78—74.)



In dies for the forging of railroad axles and similar articles, the combination with upsetting plungers, of bold-

ing dies having a matrix provided with enlargements and having all the inner die faces of such enlargements inclined toward the center of the matrix.

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1,041,999. MANUFACTURE OF RAILROAD-AXLES. JOHN M. HANSEN, Pittsburgh, Pa. Filed Nov. 25, 1911. Serial No. 662,809. (Cl. 29—165.)



1. The herein described method of forming axles, consisting in heating a bar angular in cross section and of uniform section throughout, and upsetting the same within circular holding dies to bring it to circular form and form enlargements thereon.

2. The herein described method of forming axles, consisting in heating a bar of substantially rectangular section and of uniform section throughout and upsetting the same within circular holding dies to bring it to circular form and form enlargements thereon.

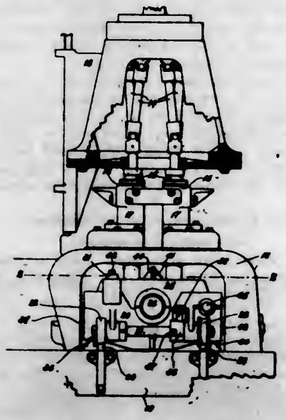
3. The herein described method of forming axles, consisting in heating a bar having flat side faces and of uniform section throughout, gripping the bar in the mid-portion of cylindrical holding dies and upsetting the same therein to bring it to circular form and form enlargements thereon.

4. The herein described method of forming axles, consisting in heating a bar having flat side faces whose greatest thickness is greater than the smallest diameter of the cylindrical cavity of the holding dies, gripping the same in said dies, and upsetting it within said cylindrical dies to bring it to circular form and form enlargements thereon.

5. The herein described method of forming axles, consisting in heating a bar having flat side faces and of uniform section throughout, setting said bar in circular clamping dies with its flat side faces transverse to the parting of the dies, clamping the same therein and upsetting it to bring it to circular form and form enlargements thereon.

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1,042,000. WORK-CARRYING MEANS. BENGT M. W. HANSON, Hartford, Conn., assignor to Pratt & Whitney Company, Hartford, Conn., a Corporation of New Jersey. Filed Oct. 7, 1910. Serial No. 585,821. (Cl. 77—63.)



1. A device of the class described comprising a traveling truck, a work carrier on said truck, means for raising and lowering the truck, and means for clamping the truck to its support when in lowered position.

2. A device of the class described comprising a traveling truck, a work carrier on the truck, means for raising and lowering the truck, and means on the support of the truck, for clamping said truck to said support when the truck is in its lowered position.

3. A device of the class described comprising a truck having axles provided with eccentric portions, wheels rotative on said eccentric portions, means for turning said axles to effect the lowering and raising of the truck, a work carrier on the truck, and means for holding the truck against movement when in lowered position.

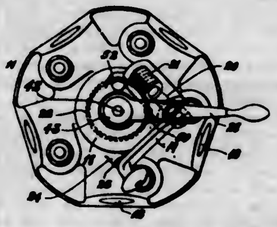
4. A device of the class described comprising a truck axles supported by said truck provided with eccentric portions, wheels rotatively connected with said eccentric portions, means for turning the axles to effect the lowering and raising of the truck, latching means on the truck for engaging the axles to normally hold the truck in elevated position, and a work carrier on said truck.

5. A device of the class described comprising a traveling truck, a work carrier reversibly supported by said truck, means for positively holding the truck in a predetermined position, means for positively holding the work carrier in a predetermined position on the truck, and means for removably supporting the work by the work carrier.

[Claims 6 to 9 not printed in the Gazette.]

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1,042,001. TURRET INDEXING AND LOCKING MECHANISM. BENGT M. W. HANSON and EMANUEL HENRIKSON, Hartford, Conn., assignors to Pratt & Whitney Company, Hartford, Conn., a Corporation of New Jersey. Filed Nov. 9, 1911. Serial No. 659,355. (Cl. 29—49.)



1. In a machine of the class described, the combination of a turret, a pair of locking bolts for the turret each having rack teeth, a rotary pinion in mesh with the rack teeth and adapted when rotated to retract said bolts, and spring means acting against the bolts and tending constantly to advance the same.

2. In a machine of the class described, the combination of a turret and a pivot therefor, a locking bolt for said turret, a rotary shaft extending through said pivot, and a pinion rigid with said shaft, said bolt having rack teeth in mesh with said pinion whereby when the shaft is turned, the bolt will be operated.

3. In a machine of the class described, the combination of a turret and a pivot therefor, a locking bolt for the turret, a rotary shaft extending through said pivot and provided with means for retracting said locking bolt, a lever loosely connected with said pivot, for clamping the turret to its support, and a pawl carried by the lever, said shaft having a device operable by the pawl after the lever on its movement has unclamped the turret.

4. In a machine of the class described, the combination of a turret and a pivot therefor, a locking bolt for the turret, a rotary shaft extending through said pivot, and provided with means for retracting said locking bolt, a lever loosely connected with said pivot, for clamping the turret to its support, a pawl carried by the lever, said shaft having a device operable by the pawl after the lever on its movement has unclamped the turret, and means for tripping said pawl when said lever has made a predetermined movement.

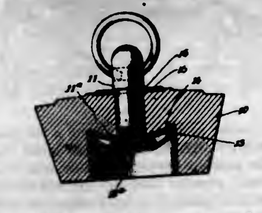
5. In a machine of the class described, the combination of a turret and a pivot for the turret, a locking bolt for said turret, a rotary shaft extending through the pivot and provided with means for retracting said locking bolt, a lever freely carried by the pivot and adapted to clamp the turret to its support, said shaft extending through the hub of said lever, a collar rigid with said shaft, a spring operated pawl carried by the lever, said collar having a notch to receive the tip of the pawl and means for tripping said pawl when said lever has made a predetermined movement.

[Claims 6 to 9 not printed in the Gazette.]



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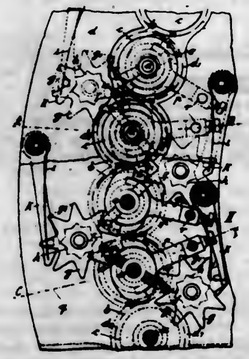
1,042,002. STOPPLE FOR DRAIN-PIPES. CHARLES F. HOLCOMB, Bridgeport, Conn. Filed Aug. 18, 1910. Serial No. 577,872. (Cl. 4—38.)



A drain stopple comprising a recessed yielding body having an aperture therethrough, a stem having a recess in its lower end extending through the said aperture, a cap member, comprising, a concavo-convex washer adapted to fit around the said stem and abut the bottom of said recess, and a concavo-convex disk having its edges inturned around the periphery of the said washer, a bur formed on the lower end of the stem, said bur being adapted to extend into a space, formed between the upper and lower elements of the cap member, and form a shoulder whereby pull on the stem tends to straighten the washer and force its edges against the inturned portion of the disk and thereby expand the inturned edges of the disk against the wall of the recess.

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1,042,003. LACE-MAKING MACHINE. FERDINAND HOLZRICHTER, Barmen, Germany, assignor to Bartels, Dierichs & Co., Gesellschaft mit beschrankter Haftung, Barmen, Germany, a corporation of Germany. Filed Apr. 11, 1912. Serial No. 690,153. (Cl. 28—4.)

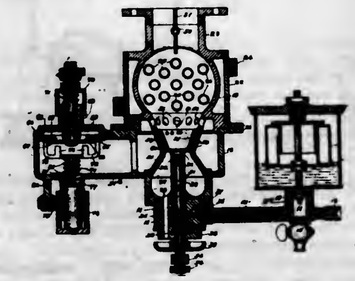


1. In a lace-making machine of the character described, the combination with a top frame-plate having truncated points, a bottom frame-plate, spindles mounted on the bottom frame-plate, heads or plates mounted on the spindles and forming tracks with the top frame-plate, the tracks forming crossings opposite the truncated points, a gear-wheel having a hub on each spindle, and a driver for bobbin-carriers driven by each hub, of a star-wheel journaled behind each truncated point, means for arresting the star-wheel with a recess opposite a crossing, blades displaceably mounted on each hub for rotating adjacent star-wheels, and means for moving the blades into and out of the plane of the star-wheels.

2. In a lace-making machine of the character described, the combination with a top frame-plate having truncated points, a bottom frame-plate, spindles mounted on the bottom frame-plate, heads or plates mounted on the spindles and forming tracks with the top frame-plate, the tracks forming crossings opposite the truncated points, a gear-wheel having a hub on each spindle, and a driver for bobbin-carriers driven by each hub, of a star-wheel journaled behind each truncated point, means for arresting the star-wheel with a recess opposite a crossing, blades displaceably mounted on each hub for rotating adjacent star-wheels, and means for moving the blades into and out of the plane of the star-wheels, the blades extending into the path of the drivers and forming spaces for receiving bobbin-carriers movable in the tracks.

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1,042,004. CARBURETER. BARRY IVOR, Chicago, Ill., assignor of one-sixth to John D. Gassolo, one-sixth to Harry Q. Turner, one-sixth to John D. Hartford, one-sixth to Fred Freer, and one-sixth to Herbert R. McPherson, Chicago, Ill. Filed May 15, 1911. Serial No. 627,109. (Cl. 48—155.2.)



1. In a carbureter, the combination with a casing having a mixing and a diluting chamber provided with a mixture outlet and a primary and a secondary air passage, of a conduit communicating with the mixing chamber and provided with apertures, a suction-control distributer movably mounted in said conduit, and means to supply hydrocarbon to said conduit below said distributer.

2. In a carbureter, the combination with a casing having a mixing and a diluting chamber provided with a mixture outlet and a primary and a secondary air passage, of a conduit communicating with said mixing chamber and having a downwardly tapered portion provided in its upper part with apertures, a downwardly tapered suction-control distributer movably located within the said tapered portion of the conduit, and means to supply hydrocarbon to said conduit below the distributer.

3. In a carbureter, the combination with a casing having a mixing and a diluting chamber provided with a mixture outlet and a primary and a secondary air passage, of a conduit communicating with said chamber at the entrance thereto and having a downwardly tapered portion, a downwardly tapered suction-control distributer movably located within said tapered portion of the conduit, and means to supply hydrocarbon to said conduit below the distributer.

4. In a carbureter, the combination with a casing having a mixing chamber provided with a mixture outlet, of a conduit communicating with said chamber and having a downwardly tapered portion, a downwardly tapered suction-control distributer movably located within said tapered portion of the conduit and provided with up-

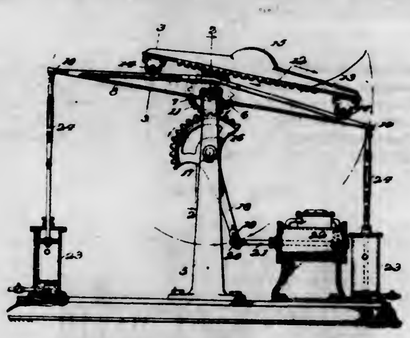
wardly extended grooves and circumferential steps on its exterior surface, and means to supply mixture and air to said conduit below the distributer.

5. In a carbureter, the combination with a casing having a mixture chamber provided with a mixture outlet, of a conduit communicating with said chamber at the entrance opening thereof and contracted between its ends, the upper portion of said conduit having apertures therein, a downwardly tapered suction-control distributer movably located within the upper portion of said conduit, and means to supply mixture and air to said conduit below the distributer.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,005. POWER-TRANSMITTING MECHANISM. GEORGE S. JOHNSON, Washington, D. C., assignor of forty-nine one-hundredths to James P. Roots, Washington, D. C. Filed Dec. 15, 1911. Serial No. 666,027. (Cl. 185—32.)



1. In a power-transmitting mechanism the combination with a walking-beam, of a truck mounted for movement along the walking-beam, and means for moving the truck longitudinally of the walking-beam and to each side of its center of oscillation.

2. Power-transmitting mechanism with a walking-beam having its upper surfaces formed at an angle to each other with the apex of the angle over the pivot of the walking beam, a truck having supporting wheels at each end thereof, one of said wheels being adapted to run on one of said angular surfaces and the other on the other, and means for moving the truck longitudinally of the walking beam.

3. The combination with a walking-beam, of a shaft on which said walking-beam is pivoted, a gear mounted on said shaft for movement independent of the walking beam, a truck mounted on the walking-beam and adapted to move longitudinally thereof, a rack carried by the truck adapted to be engaged by said gear, and means for rotating said gear.

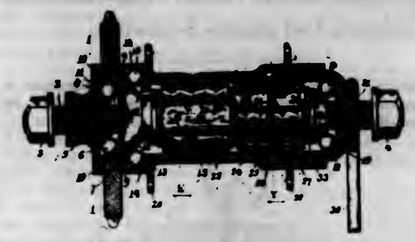
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1,042,006. COASTER-BRAKE. LAZARUS S. KALLAJIAN, Boston, Mass. Filed Dec. 3, 1909. Serial No. 531,281. (Cl. 206—57.)

1. A coaster brake comprising a hub, a stationary hood concentric therewith, a spindle within said hub and hood, clutching means for locking said hub and spindle together when the latter is turned forward, and clutching means for frictionally locking together said hood and spindle when the latter is turned rearward.

2. A coaster brake comprising a hollow hub, a stationary hood concentric therewith and of equal inner diameter, a spindle within said hub and hood, clutching means for locking together said hub and spindle when the latter is turned forward, and clutching means for frictionally locking together said hub, hood and spindle when the latter is turned backward.

3. A coaster brake comprising a hub, a stationary hood concentric therewith and having equal inner diameter, a sprocket and spindle, the latter located within said hub and hood and having clutch grooves longitudinally extended in its periphery, clutch rollers in said grooves with their mid-lengths at the juncture of said hub and hood, and means for holding said rollers away from engagement with said hub and hood, said means being adapted to release said rollers when the spindle is turned backward.



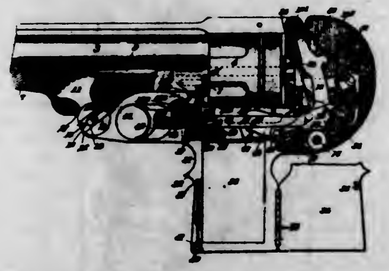
4. A coaster brake comprising a hub, a stationary hood concentric therewith and having equal inner diameter, a sprocket spindle located within said hub and hood having two sets of clutch grooves therein, one set being opposite in direction to the other, clutch rollers located in said grooves, one set of grooves and rollers being located with their mid-lengths at the juncture of said hub and hood, and means normally holding the last named rollers away from engagement with the hub and hood, said means being adapted to release said rollers when the spindle is turned backward.

5. A coaster brake comprising a hub, a stationary hood, both concentric and of equal diameters, a sprocket spindle rotatable within the same and having clutch grooves therein, rollers located in said grooves with their mid-lengths at approximately the juncture of said hub and hood, a spring ring normally holding said rollers away from engagement with said hub and hood, and means acting when the spindle is turned backward to expand said ring and permit said rollers to perform their clutching action between said spindle, hub and hood.

[Claims 6 to 9 not printed in the Gazette.]

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1,042,007. REVOLVER. WILLIAM WARREN KEY, Fayetteville, Ark. Filed Dec. 5, 1911. Serial No. 664,072. (Cl. 42—65.)



1. In a revolver, the combination, with a cylinder and hammer, of a trigger-slide operatively connected with said hammer and having an upwardly and rearwardly inclined portion, a safety block seated upon said inclined portion of the trigger-slide and normally interposed between the hammer and cylinder, and means for withdrawing said block as the trigger-slide is moved rearwardly, permitting the block to ride down said inclined portion.

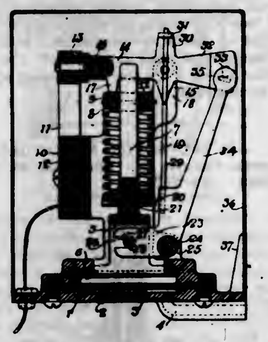
2. In a revolver, the combination, with a cylinder and hammer, of a rigid partition arranged behind the cylinder and having a passage for the firing pin of the hammer, a trigger-slide provided with an upwardly and rearwardly inclined portion, a safety block normally supported on said inclined portion so that it is interposed between the hammer and partition for the purpose specified, and means for automatically dropping said block out of locking position as the trigger-slide is moved rearwardly and the block is permitted to ride down said inclined portion.

3. In a revolver, the combination, with a cylinder and hammer, of a trigger-slide operatively connected to said hammer and having two inclined portions, one extending upwardly and rearwardly and the other upwardly and forwardly, a safety block supported in normal position by said forwardly and rearwardly inclined portion, and a cylinder-revolving device supported upon the other inclined portion whereby the rearward movement of the trigger-slide will allow the withdrawal of the safety block and will actuate said revolving device.

4. In a revolver, the combination, with a cylinder and hammer, of a trigger-slide operatively connected to the hammer, a cylinder lock, a cylinder-revolving device, and a safety block, all arranged so as to be operated in the order named, by said trigger slide, as the latter is moved rearward.

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1,042,008. AUTOMATIC PRESSURE-REGULATOR. HUGH W. KIMES, Dayton, Ohio, assignor to The Vaile and Kimes Company, Dayton, Ohio, a Corporation of Ohio. Filed Dec. 23, 1911. Serial No. 667,440. (Cl. 103—87.)



1. In a device of the character described, a cut-off having a movable member, a pressure-controlled device to actuate the movable member of said cut-off, and a pressure-controlled retaining device to hold said movable member at either limit of its movement.

2. A device of the character described comprising a cut-off having a movable member, a retaining device to hold said movable member against movement, a pressure-controlled device, and means operated by said pressure-controlled device to release and actuate said movable member.

3. A device of the character described comprising a cut-off having a movable member, a lever connected with said movable member, a pressure-controlled device connected with said lever, a retaining device to hold said lever against movement, and a connection between said retaining device and said pressure-controlled device, whereby said retaining device will be actuated to release said lever before the connection between said lever and said pressure-controlled device becomes operative.

4. A device of the character described comprising a cut-off having a movable member, a pivoted support for said movable member, a pressure-controlled device, a resilient connection between said pressure-controlled device and said pivoted support to actuate the latter, a retaining device to hold said pivoted support normally against movement, and a connection between said retaining device and said pressure-controlled device.

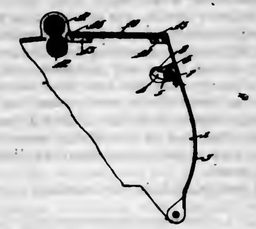


5. In a device of the character described, a circuit breaker and closer comprising a plurality of members, a movable support for one of said members, a diaphragm, a lever connected with said diaphragm, a spring connecting said lever with said movable support, a retaining device for said movable support, and a connection between said lever and said retaining device to cause the latter to hold said movable support against movement until said lever has completed its movement and then to release the same, whereby said spring is placed under tension before said movable support is released.

[Claims 6 to 9 not printed in the Gazette.]

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1,042,009. AUTOGRAPHIC REGISTER. ALBERT KRAUTH, Hamilton, Ohio, assignor to Krauth & Benninghofen, Hamilton, Ohio, a Copartnership. Filed Mar. 27, 1911. Serial No. 617,055. (Cl. 11—36.)



In an autographic register, a casing, comprising two side frames, having offsets on the interior thereof, a removable cover plate seated within said offsets and between said side frames and thereby maintained against lateral displacement, said offsets at one end of the cover plate are each provided with a projection adapted to overlap one end of the cover plate, and a door hinged between said side frames adapted to engage over the opposite end of said cover plate to lock and maintain the same against vertical displacement.

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1,042,010. ORDER-TAKING AND RECEIPT-DELIVERING DEVICE. CHARLES R. LANG, Los Angeles, Cal. Filed Oct. 12, 1911. Serial No. 654,462. (Cl. 211—8.)



1. In a delivery device, the combination with a carrier, of a pivoted operating lever provided with an actuating arm and a lifting arm, a sliding lever fulcrumed coaxially with the actuating lever and provided with a slot, a pin extending through the slot and fixed to the carrier, a pivoted lifting lever of the third class, one end of which is in sliding contact with the sliding lever, and a link connecting the other end of the lifting lever with the operating lever.

2. The combination with an ejector of a slotted lever of the third class pivoted thereto and fulcrumed to a support, such support, an operating lever fulcrumed to said support, a lever of the second class pivoted to said support and adapted to contact with the slotted lever to lift the same, a link connecting the actuating lever and the lifting lever, a pin extending through the slot and fixed to the ejector and a guide for the ejector.

3. The combination with an ejector, of a slotted lever of the third class pivoted thereto and fulcrumed to a sup-

port, such support, an operating lever fulcrumed to said support, a lever of the second class pivoted to said support and adapted to contact with the slotted lever to lift the same, a link connecting the actuating lever and the lifting lever, a pin extending through the slot and fixed to the ejector, a guide for the ejector and a plunger to move the actuating lever.

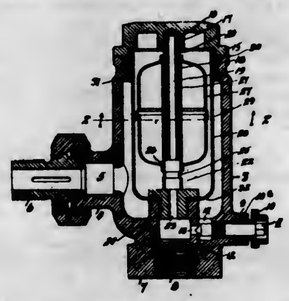
4. In a delivery device, the combination with a carrier, of a pivoted operating lever provided with an actuating arm and a lifting arm; a sliding lever fulcrumed coaxially with the operating lever and provided with a slot; a pin extending through the slot and fixed to the carrier; a pivoted lifting lever of the third class, one end of which is in sliding contact with the sliding lever; a link connecting the other end of the lifting lever with the operating lever, a support for the fulcrums of said levers; a spring fixed to the support and to the sliding lever, and a pin on the operating lever to engage the spring when the operating lever is moved.

5. In a delivery device, the combination with a carrier, of a pivoted operating lever provided with an actuating arm and a lifting arm; a sliding lever fulcrumed coaxially with the operating lever and provided with a slot; a pin extending through the slot and fixed to the carrier; a pivoted lifting lever of the third class, one end of which is in sliding contact with the sliding lever; a link connecting the other end of the lifting lever with the operating lever, and a link connecting the lifting lever and the sliding lever.

[Claim 6 not printed in the Gazette.]

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1,042,011. STEAM, AIR, AND WATER TRAP VALVE. FRED W. LEUTHESSER, Chicago, Ill. Filed Feb. 17, 1910. Serial No. 544,334. (Cl. 237—26.)



1. In a valve of the class described, the combination of a casing having an inlet opening and a discharge opening therein, a cap for closing the upper end of the casing, a float within the casing for governing the discharge opening, a tube centrally extending through said float and affixed thereto, a fixed guide member secured to said cap and entering said tube and having a central longitudinal bore therein constituting a passage for the conduction of air through the float and into the discharge passage, a transverse bore in the wall of said guide member extending at right angles to the longitudinal bore and establishing communication between the interior of the casing and the interior of the guide member, said tube covering said bore when the float is raised, whereby passage of air through the float is prevented during the water discharging operation, and a shell surrounding said float and provided with a water inlet opening and formed of an imperforate body between the water inlet opening and its lower end, and having an air inlet at its upper end, and means for securing the shells in position within the valve casing, substantially as described.

2. In a valve of the class described, the combination of a casing having an inlet opening and a discharge opening therein, a cap for closing the upper end of the casing, a float within the casing for governing the discharge opening, a tube centrally extending through said float and affixed thereto, a fixed guide member secured to said cap and entering said tube and having a centrally longitudinal bore therein constituting a passage for the conduction of air through the float into the discharge member, a transverse bore in the wall of said guide member extending at right angles to the longitudinal bore and establishing communication between the interior of the casing and the interior of the guide member, said transverse bore being covered by said tube when the float is raised, whereby passage of air through said float is prevented during the water discharging operation, a shell surrounding said float and provided with a water inlet and an air inlet and formed of an imperforate body between the water inlet opening and its lower end and between the water inlet and air inlet, a shouldered plug entered into the discharge passage and provided with a centrally located bore communicating with the discharge passage and presenting a flat upper face for the tube of the float to rest against, the shell being clamped between the shouldered plug and the floor of the casing, substantially as described.

3. In a valve of the class described, the combination of a casing having an inlet opening and a discharge opening therein, a closure for the upper end of the casing, a float within the casing governing the discharge opening, a guide stem for the float secured to said closure and having a longitudinal passage therethrough communicating with the outlet, a transverse bore through the wall of said stem communicating with the longitudinal passage, said transverse bore lying intermediate the lower end of the closure and the upper end of the float when the float is lowered, said float in its upward movement covering said transverse bore and cutting off communication between the upper portion of the float chamber and said longitudinal passage, thereby conserving the air above the water in the float chamber during the water discharging operation, substantially as described.

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1,042,012. AIR-VALVE FOR RADIATORS. FRED W. LEUTHESSER, Chicago, Ill. Filed Dec. 20, 1911. Serial No. 666,929. (Cl. 237—19.)



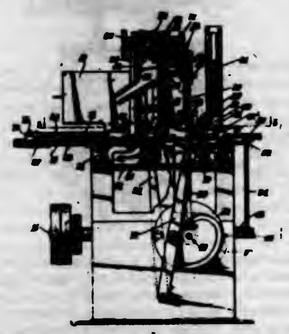
1. In an air valve for radiators, the combination of a casing provided with an inlet for connecting it to the radiator, an expansible member loosely held within the casing, an upper abutment adjustable in and detachable from the casing, and having a seating face for the upper end of the expansible member, a freely detachable coupling nipple having an opening therein contracted intermediate its ends, the wall below said contraction being screw-threaded, the wall above said contraction being configured to provide a seating face for the lower end of the expansible member and furnishing a lower abutment for the expansible member, said member being separated and loosely held in position between the seating faces of the upper and lower abutments, the lower open end of the valve casing being of a size to permit the expansible member to pass freely therethrough, a coupling nut for attaching the nipple to the casing, the upper and outer edge of the nipple bearing against the lower inner edge of the open lower end of the casing making a steam and air tight joint at this point, substantially as described.

2. In an air valve for radiators, the combination of a casing provided with an inlet for connecting it to a radiator, an expansible member loosely held within the casing, an upper abutment adjustable in and detachable from the casing and having a seating face for the upper end of the expansible member, a freely detachable coupling nipple having an opening therethrough contracted intermediate its ends, the wall of said opening below said contraction being screw-threaded, the wall of said opening above said contraction being configured to provide an outwardly flaring funnel-shaped opening providing a seat for the lower end of the expansible member and furnishing a lower abutment for the expansible member, said member being supported and loosely held in position between the seating faces of the upper and lower abutments, the lower open end of the valve casing being of a size to permit the expansible member to pass freely therethrough, a coupling nut for attaching the nipple to the casing, the upper outer edge of the nipple bearing against the lower inner edge of the open lower end of the casing making a steam tight joint at this point; substantially as described.



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1,042,013. PACKAGING-MACHINE. FRANK W. LEE, New York, N. Y., assignor to International Packing Machine Company, New York, N. Y., a Corporation of New York. Filed May 6, 1911. Serial No. 625,576. (Cl. 93—4.)



1. A machine of the character described, embodying therein means adapted to form box part blanks from a continuous strip and simultaneously feeding same substantially vertically, a guide channel through which said strip is fed by said means, a cut-off mechanism whereby the formed blanks are severed from said strip while passing through said channel, means spaced below and away from said cut-off means, adapted to receive and hold each severed blank in a flat position preparatory to having an article delivered thereinto, whereby said blank is fed mechanically until severed and is then fed solely by gravity, and means whereby said blank is folded about an article or articles.

2. A machine of the character described, embodying therein means for forming inner box part blanks from a continuous strip, including therein a rotary cutting and scoring die, simultaneously forming and scoring the strip and feeding it substantially vertically, a substantially vertically extending guide channel beyond said die, through which the strip is fed by said die, a cut-off mechanism whereby the formed blanks are severed from said strip while passing through said channel, a folding die, and means spaced below and away from said cut-off mechanism, and adapted to receive and hold said blanks in a flat position relative to said folding die, preparatory to having articles delivered thereunto, whereby said blanks are fed mechanically until severed, and are then fed solely by gravity.

3. A machine of the character described, embodying therein means for forming inner box part blanks from a continuous strip, including therein a rotary cutting and scoring die simultaneously forming and scoring and feeding the strip substantially vertically, a substantially vertically extending guide channel beyond said die, means separating the cut away portion from said strip, a cutting blade adapted to sever completely formed blanks from said strip, a folding die, and means spaced below and away from said die, adapted to receive and hold accurately said blanks in a flat position relative to said folding die preparatory to having articles delivered thereunto, whereby said blanks are fed and positioned through gravity.

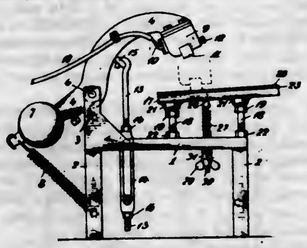
4. A machine of the character described, embodying therein means for forming inner box part blanks from a continuous strip, including therein a rotary cutting and scoring die simultaneously forming and scoring and feeding the strip substantially vertically, a substantially vertically extending guide channel beyond said die, means separating the cut away portion from said strip, means conveying said separated portion away from the operative mechanisms of the machine, a cutting blade adapted to sever completely formed blanks from said strip, a folding die, and means spaced below and away from said die, adapted to receive and accurately hold said blanks in a flat position relative to said folding die preparatory to having articles delivered thereunto, whereby said blanks are fed and positioned through gravity.

5. A machine of the character described, embodying therein means for forming inner box part blanks from a continuous strip, including therein a rotary cutting and scoring die simultaneously forming, scoring and feeding the strip, an inclosed guide channel beyond said die, said channel having therein oppositely disposed openings alined with the cutters on said die, pusher plates adapted to be projected through said openings and project the cut away portion of the strip through one set of said openings and beyond said guide channel, means intermittently actuating said pusher plates, a cutting blade beyond said pusher plates adapted to sever completely formed blanks from said strip, a folding die, and means accurately positioning said severed blanks relative to said folding die.

[Claims 6 to 29 not printed in the Gazette.]

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1,042,014. TIP-PRINTING PRESS. MAX LINDEMAN, Owego, N. Y., assignor of one-fourth to Leonidas A. Van Praag, New York, N. Y. Filed Mar. 7, 1912. Serial No. 682,144. (Cl. 101—24.)



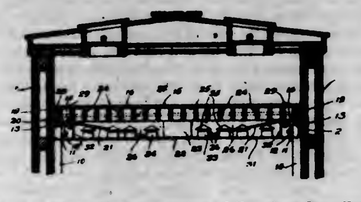
The combination in a tip printing press of a horizontally arranged platen supported upon its under side by vertically adjustable screws the upper ends of which are pointed, sockets on the under side of the platen within which the points of the screws engage, a spring which normally holds the platen upon the pointed ends of the screws, a tension device to increase the tension of said spring, a pivoted lever adapted to be swung downwardly upon the platen, a heating box attached to the front end of the lever, devices carried by the lever to heat the said box, means to attach a die to the under side of the heating box, means upon the end of the lever opposite the heating box, which normally elevate it and means whereby the lever may be oscillated by foot power.

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1,042,015. REFRIGERATING APPARATUS. LEVI H. LISTER, Bay St. Louis, Miss., assignor of one-half to William H. Bouslog, Gulfport, Miss. Filed Mar. 17, 1911. Serial No. 615,102. (Cl. 62—12.)

1. In a refrigerating apparatus of the class described, the combination of an ice partition floor comprising a plurality of longitudinal slats, spacer blocks between the

same, tie-rods extending through the slats and spacer blocks, and means on the tie-rod for drawing the slats and spacer blocks together, with a plurality of loop-shaped trusses substantially flat in their upper portions and suitably formed in their lower portions to provide end and central bearing points for the slatted floor, substantially as described.



2. In a refrigerating apparatus of the class described, an ice partition comprising a plurality of transverse trusses, means for supporting the same at their end portions, and a plurality of longitudinal T-shaped slats extending through said trusses and suitably spaced to provide therebetween openings to permit of the drainage of water from the melting ice and the circulation of air therethrough, substantially as described.

3. In a refrigerating apparatus of the class described, an ice support comprising a plurality of longitudinally extending slats, spacer blocks between them, means for retaining the spacer blocks and slats in solid engagement together, a plurality of trusses for sustaining the ice partition, supports for the ice partition at the ends of the trusses, and supporting blocks carried by the trusses for supporting the central portion of the partition, substantially as described.

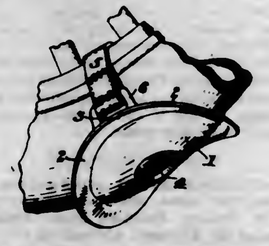
4. In a refrigerating apparatus of the class described, the combination with an ice support comprising a plurality of longitudinally extending slats, trusses surrounding the same, means for supporting the end portions of the trusses, supporting blocks carried by the trusses for supporting the central portions of the slats, of a drip pan extending beneath the trusses and the slats and having its edges upwardly extended to a level with the lower portions of the slats, at the outer edges of the ice support, whereby all drippage from between the slats is caught by said pan, substantially as described.

5. In a refrigerating apparatus, the combination of an ice support comprising a plurality of longitudinally extending slats, spacer blocks between consecutive slats, trusses surrounding the slats and spacer blocks, supporting members carried by the lower portions of the trusses for supporting the slats throughout the entire width of the partition, and means for supporting the trusses in their end portions, substantially as described.

[Claim 6 not printed in the Gazette.]

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1,042,016. TIRE TRACTION DEVICE. RICHARD LIVINGSTON, Los Angeles, Cal. Filed Apr. 24, 1909. Serial No. 491,888. (Cl. 152—14.)

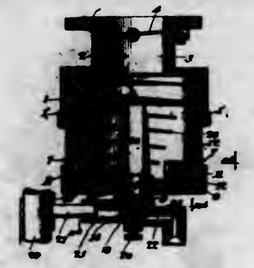


1. A detachable traction shoe for vehicles, comprising a tread-plate curved to fit the ground-engaging portion of a tire, said plate having a peripheral flange extending along its edge and turned outwardly, so as to extend in approximately radial position transversely of the tire tread and approximately in horizontal position at the sides of the tire, and attaching means adapted to extend around the tire of a wheel for holding said traction plate at any desired point upon the tire.

2. A detachable traction shoe for vehicles, comprising a tread plate curved to fit the ground-engaging portion of a tire and having a central opening through which the tire may slightly bulge, the plate having a peripheral flange extending entirely around its edge and turned outwardly so as to extend in approximately radial position transversely of the tire tread and approximately in horizontal position at the sides of the tire, and attaching means adapted to be extended around the felly of a wheel for holding the said traction plate at any desired point upon a tire.

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1,042,017. CARBURETER. ALBERT R. LONG, Los Angeles, Cal. Filed Sept. 21, 1911. Serial No. 650,654. (Cl. 48—154.1.)



1. A carbureter comprising a casing provided with a mixture outlet and air inlets, an air valve mounted to slide within said casing and provided with ports cooperating with said inlets to control admission of air to the interior of the casing, said valve member having a portion acting as a piston in said casing to operate the valve member by the suction in the casing and said valve member having a stem with an internal chamber communicating with the interior of the said casing, said casing being formed with another air inlet extending adjacent to said stem, said stem having perforations communicating with said last named air inlet and with the interior of the stem, and a fuel supply connection communicating with said passage adjacent to said perforations.

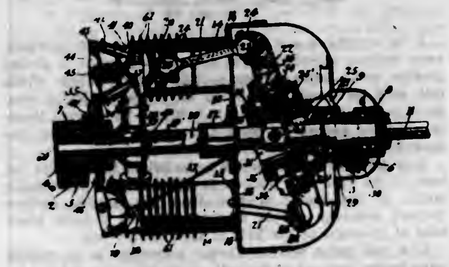
2. A carbureter comprising a casing provided with a mixture outlet and air inlets, an air valve mounted to slide within said casing and provided with ports cooperating with said inlets to control admission of air to the interior of the casing, said valve member having a portion acting as a piston in said casing to operate the valve member by the suction in the casing and said valve member having a stem with an internal chamber communicating with the interior of the said casing, said casing being formed with another air inlet extending adjacent to said stem, said stem having perforations communicating with said last named air inlet and with the interior of the stem, and a fuel supply connection communicating with said passage adjacent to said perforations, said casing having a valve seat adjacent to said fuel inlet for coöperation with said stem to shut off the fuel connection.

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1,042,018. ROTARY ENGINE. WALTER G. MACOMBER, Los Angeles, Cal. Filed Apr. 5, 1911. Serial No. 619,178. (Cl. 121—62.)

1. A rotary engine comprising a driven shaft, a cylinder supporting plate fixed to the driven shaft so as to rotate therewith, a plurality of cylinders secured to the cylinder supporting plate and having their axes arranged parallel with the driven shaft, a stroke plate having a universal connection with the driven shaft, pistons in the cylinders, connecting rods having universal connections with the stroke plate and with the pistons, and means for adjusting the stroke plate consisting of an adjusting block, surrounding the driven shaft and on which the stroke plate is adapted to rotate, having undercut segmental grooves, curved ways on opposite sides of the driven shaft and fitting the segmental grooves for guiding the adjusting block, and means for adjusting the adjusting block.





2. A rotary engine comprising a driven shaft, a cylinder supporting plate fixed to the driven shaft so as to rotate therewith, a plurality of cylinders secured to the cylinder supporting plate and having their axes arranged parallel with the driven shaft, a stroke plate having a universal connection with the driven shaft, pistons in the cylinders, connecting rods having universal connections with the stroke plate and with the pistons, and means for adjusting the stroke plate consisting of an adjusting block, surrounding the driven shaft and on which the stroke plate is adapted to rotate, having undercut segmental grooves, curved ways on opposite sides of the driven shaft and fitting the segmental grooves for guiding the adjusting block, a segmental gear secured to the adjusting block, a cross rod, a pinion fixed to the cross rod and meshing with the segmental gear, and means for turning the cross rod.

3. A rotary engine comprising a driven shaft, a cylinder supporting plate fixed to the driven shaft so as to rotate therewith, a plurality of cylinders secured to the cylinder supporting plate and having their axes arranged parallel with the driven shaft, a stroke plate having a universal connection with the driven shaft, pistons in the cylinders, connecting rods having universal connections with the stroke plate and with the pistons, and means for adjusting the stroke plate consisting of an adjusting block, surrounding the driven shaft and on which the stroke plate is adapted to rotate, having undercut segmental grooves, curved ways on opposite sides of the driven shaft and fitting the segmental grooves for guiding the adjusting block, a segmental gear secured to the adjusting block, a rear cross-rod, a pinion fixed to the rear cross-rod, an arm fixed to the rear cross-rod, a front cross-rod, a hand lever mounted on the front cross-rod, and a connecting rod connecting the arm on the rear cross-rod with the hand lever on the front cross-rod.

4. A rotary engine comprising a driven shaft, a flanged sleeve fixed to the driven shaft, a cylinder supporting plate fixed to the flanged sleeve, a plurality of cylinders secured to the cylinder supporting plate and having their axes arranged parallel with the driven shaft, tension rods secured at their inner ends to the flanged sleeve, bridges spanning adjoining edges of adjacent cylinders and receiving the outer ends of the tension rods, and nuts securing the outer ends of the tension rods to the bridges.

5. A rotary engine comprising side bars, rotatable cross rods journaled on the side bars, front and rear blocks supported by the cross rods, journals carried by the blocks, a driven shaft mounted in the journals, a plurality of cylinders secured to the driven shaft, and arranged with their axes parallel therewith, a stroke plate mounted so as to rotate at various angles relative to the driven shaft, pistons in the cylinders, connections from the pistons to the stroke plate, means supporting the stroke plate, a rack on the supporting means, a pinion on one of the cross rods and meshing with the rack, a hand lever on one of the cross rods having a projecting arm, an arm on the other cross rod, a connecting rod between the arms, and latch mechanism for holding the hand lever in position.

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1,042,019. INSULATING-JOINT. LOUIS MCCARTHY, Boston, Mass. Filed Jan. 13, 1912. Serial No. 671,040. (Cl. 173—365.)

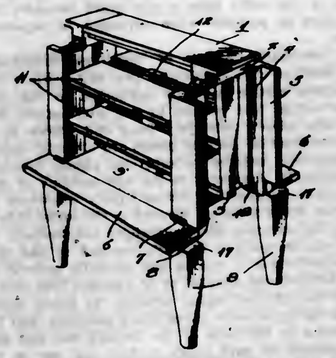


1. The improved insulating joint comprising polygonal end members, a shell of the same polygonal form, insulating material separating the polygonal end members from each other and the said shell, a supplementary shell about the said first mentioned shell also of the same polygonal form, and a supplementary layer of insulation occupying the space between the edge of the supplementary shell and the end members, and overlying the edge of the first mentioned shell.

2. The combination with a flanged end member having a polygonal form, of a shell surrounding the flanged end portion of the said end member, said shell having the same polygonal form, a layer of insulation separating the said shell from the end member, a supplementary shell about the said first mentioned shell, said supplementary shell also having the same polygonal form, and a supplementary layer of insulation occupying the space between the edge of the supplementary shell and the end members, and overlying the edge of the first mentioned shell.

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1,042,020. FOLDING TABLE. WILLIS A. MCCARTY, Doniphan, Mo. Filed Apr. 20, 1912. Serial No. 692,182. (Cl. 45—116.)



1. A convertible article of furniture, including side pieces, each of which embodies two end sections and an intermediate section hingedly connected to the end sections, a middle leaf secured to the intermediate sections of the side pieces, relatively fixed end pieces to which the end sections of the side pieces are hingedly connected, supporting legs secured to said end pieces and intermediate leaves pivotally connected to the end sections of the side pieces.

2. A convertible article of furniture, including side pieces, each of which embodies two end sections and an

intermediate section hingedly connected to the end sections, a middle leaf secured to the intermediate sections of the side pieces, relatively fixed end pieces to which the end sections of the side pieces are hingedly connected, supporting legs secured to said end pieces, intermediate leaves pivotally connected to the end sections of the side pieces, and other intermediate leaves fixedly connected to the end pieces.

3. A convertible article of furniture, including side pieces, each of which embodies two end sections and an intermediate section hingedly connected to the end sections, a middle leaf secured to the intermediate sections of the side pieces, relatively fixed end pieces to which the end sections of the side pieces are hingedly connected, supporting legs secured to said end pieces, intermediate leaves pivotally connected to the end sections of the side pieces, and other intermediate leaves fixedly connected to the end pieces, securing strips arranged transversely across the under side of the pivoted leaves and hingedly secured to one of the longitudinal edges thereof, a locking bar pivotally secured to the middle leaf and adapted to be disposed over said strips, to hold the pivoted leaves in place, and means for holding said bar in its operative position.

4. A convertible article of furniture, including side pieces each of which embodies two end sections and an intermediate section hingedly connected to the end sections, a middle leaf secured to the intermediate sections of the side pieces, relatively fixed end pieces to which the end sections of the side pieces are hingedly connected, supporting legs secured to said end pieces, and intermediate leaves pivotally connected to the end sections of the side pieces, other intermediate leaves fixedly connected to the end pieces, brace members secured to the under side of the fixed intermediate leaves to support the same, a locking bar pivotally secured to the middle leaf and adapted to be disposed over the pivoted leaves to hold the same securely in place, hooks secured to the inner ends of the brace members, headed pins carried by the ends of the locking bar and adapted to be engaged by the hooks to hold the bar in its operative position, said intermediate leaves being adapted to be arranged in superimposed relation and disposed upon the opposite sides of the central member, headed pins secured to the outer ends of the brace members, and the hooks secured to the inner ends of the brace members being adapted to be disposed in opposite directions and engage the headed pins carried by the outer ends of the brace members to hold said leaves in position when arranged in superimposed relation.

5. A convertible article of furniture, including side pieces, each of which embodies two end sections and an intermediate section hingedly connected to the end sections, a central leaf secured to the intermediate sections of the side pieces, relatively fixed end pieces to which the end sections of the side pieces are hingedly connected, supporting legs secured to said end pieces, intermediate leaves pivotally connected to the end sections of the side pieces, other intermediate leaves fixedly connected to the end leaves, brace members secured to the under side of the fixed leaves, securing strips arranged transversely across the pivoted leaves and hingedly secured to one of their longitudinal edges, a locking bar pivotally secured to the central member and adapted to be disposed over said strips to hold the pivoted leaves securely in place, hooks secured to the inner ends of the brace members, and headed pins carried by the ends of the locking bar and adapted to be engaged by said hooks to hold the bar in its operative position.

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1,042,021. RAIL-JOINT. JAMES G. MCMICHAEL, Chicago, Ill. Filed May 2, 1910. Serial No. 558,982. (Cl. 238—10.)

1. A railway rail joint comprising opposite sections, each section provided with a superstructure having a vertical portion, and a laterally extending portion, a sub-structure comprising a base plate, underlying the rail, and a downwardly extending rib at the intersection of the laterally extending portion and the base plate, the under side of said rib being substantially parallel with said base portion, said rib having a suitable number of vertically elongated perforations for a like number of bolts.



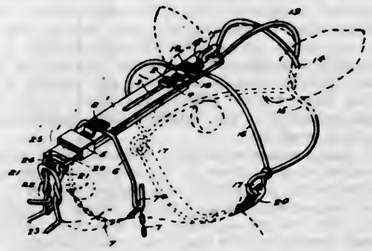
2. In a railway rail joint comprising opposite sections, each section provided with a vertical portion, a folded portion, and a bolt-receiving portion below the base of the rail, said bolt-receiving portion having a vertically elongated perforation, whereby said bolt may be inserted therein when the uninserted portion thereof is raised above the horizontal plane of said perforation.

3. A joint having a portion to be bolted lying below the base of the rail, said portion provided with a perforation larger at the inside surface than the outside surface thereof, whereby a bolt may be inserted therein when held at an angle to the axis of said perforation.

4. A rail joint section having a portion to be bolted, lying below the base of the rail, said portion provided with a vertically elongated perforation, whereby a bolt may be inserted therein at a vertical angle from the horizontal plane.

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1,042,022. ANIMAL-MUZZLE. BENJAMIN P. MERRY, Stryker, Ohio. Filed July 3, 1911. Serial No. 636,772. (Cl. 119—131.)



1. In a mussle of the character described, the combination, with a longitudinally adjustable longitudinal bar, of a laterally adjustable head-engaging piece attached to the upper end of said bar and having self-sustaining loops adapted to pass around the ears or horns of an animal, and a self-sustaining loop adapted to fit upon the top of the head between the ears or horns, means for securing the mussle to an animal's head, and a weaner on the end of said longitudinal bar.

2. In a mussle of the character described, the combination, with a longitudinally adjustable longitudinal bar, of a laterally adjustable head-engaging piece attached to the upper end of said bar and having self-sustaining loops adapted to pass around the ears or horns of an animal, and a self-sustaining loop adapted to fit upon the top of the head between the ears or horns, said head-engaging piece having pivotal connection with said longitudinal bar for the purpose specified, means for securing the mussle to an animal's head, and a weaner on the end of said longitudinal bar.

3. In a mussle of the character described, the combination, with a longitudinally adjustable longitudinal bar, of a laterally adjustable head-engaging piece attached to the upper end of said bar and having self-sustaining loops adapted to pass around the ears or horns of an animal, a self-sustaining loop, adapted to fit upon the top of the head between the ears or horns, an adjustable band attached to said head-engaging piece and passed below the animal's neck for the purposes specified and a weaner on the end of said bar.

4. In a mussle of the character described, the combination, with an adjustable longitudinal bar, of a head-engaging piece attached to the upper end of said bar and having loops adapted to pass around the ears or horns of an animal, said head-engaging piece also having adjusting arms extending transversely to said bar, means to clamp said arms to the bar, means for securing the mussle to an animal's head, and a weaner on the end of said longitudinal bar.

5. In a mussle of the character described, the combination, with an adjustable longitudinal bar, of an adjustable head-engaging piece attached to the upper end of said bar and formed of a single piece of bent wire bent upon itself at the middle and twisted at different points to form a bent loop for fitting the top of an animal's head, lateral loops adapted to extend around the ears or horns of the animal, rings on said lateral loops, an adjustable band attached to said loops and passed below the animal's neck for securing said head-engaging piece in position and a weaner on the end of said bar.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,023. CLAMPING DEVICE FOR LENS-HOLDERS. CHARLES MILLER, Rochester, N. Y., assignor to Gundlach-Manhattan Optical Company, Rochester, N. Y., a Corporation of New York. Filed Jan. 29, 1912. Serial No. 674,133. (Cl. 95—46.)



1. In a camera, the combination of a base supporting a lens front and a guide along which said base is adapted to travel, means for clamping said base adjustably on said guide, said means comprising a pair of runners, one engaging on each side of said guide, a spring embracing the outside of said runners and pressing them toward each other and against the guide.

2. In a camera the combination of a base supporting a lens front and a guide along which said base is adapted to travel, means for clamping said base adjustably on said guide, said means comprising a pair of runners, one engaging on each side of said guide, a spring embracing the outside of said runners and pressing them toward each other and against the guide, levers connected to said runners and extending upwardly through said base.

3. The combination in a camera of a base supporting a lens front, said base having a rectangular slot therein, levers extending through said slot, said levers having the recesses in the sides thereof, with which said levers are adapted to positively engage with the long sides of said slot, a plate nested in said slot between said levers, a spring connected to said plate and pressing said levers against said plate.

4. The combination in a camera of a base supporting a lens front, a rectangular slot in said base having a rectangular slot therein, levers extending through said slot, said levers having the recesses in the sides thereof, with which said levers are adapted to positively engage with the long sides of said slot, a plate nested in said slot between said levers, a spring passing through said levers and pressing said levers against said plate.

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1,042,024. RAIL-BRACE AND TIE-ROD. WILLIAM E. MILLER, Palisade, Nev. Filed Nov. 27, 1911. Serial No. 662,652. (Cl. 238—5.)

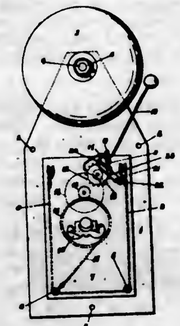
1. A device for securing the fixed rails of a switch relatively to each other, comprising two longitudinally disposed members having inner interlocking ends, means for securing said interlocking ends together, the outer ends of said rods being provided each with an upstanding stud, a rail brace having its flange disposed upon said stud, means for holding the flange upon the stud and relatively to the rod, and means for securing the brace to the rail to permit of longitudinal creeping or expansion of the rail.



2. A device for securing the fixed rails of a switch, of a means for securing the same against outward movement and to permit creeping thereof due to expansion, comprising two plates provided with shouldered interlocking ends, means for securing said ends together, a strip of insulation therebetween to insulate the plates from each other, a cylindrical stud carried upon the outer end of said rods beyond the rails, a rail brace having its flange fitting upon its respective stud, and adjacent the web of the rail, and means mounted upon the stud and above the flange of the brace for holding the brace relatively to its plate.

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1,042,025. AUTOMATIC FIRE-ALARM. JOHN MOSMANN, Newark, N. J. Filed Apr. 6, 1909. Serial No. 488,228. (Cl. 116—11.)



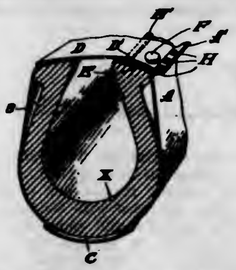
In an automatic fire alarm, the combination with parallel supporting plates adapted to stand in substantially vertical position the rear plate being extended beyond the front plate, a gong on the extended portion of said rear plate, an escapement and spring-controlled clockwork adapted to actuate said escapement between said plates, a hammer projecting from the arbor of said escapement and adapted to engage said gong, a resilient arm on said arbor extending forward around the edge of the front plate and having a portion parallel to said front plate at a distance therefrom with a projection at the end of said parallel portion, a post on the front plate having a lateral pin in alinement with said projection; the line of said pin and projection being other than vertical, and a fusible prop between said pin and projection having in its opposite ends longitudinal sockets receiving said pin and projection and holding the hammer away from the gong.

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1,042,026. TIRE-CASING. EDWIN B. NATHAN, New York, N. Y. Filed Oct. 3, 1910. Serial No. 585,051. (Cl. 150—54.)

1. In a device of the character set forth, a flexible casing having a longitudinal joint, one wall of said casing having its margin at the joint doubled and forming an outstanding shield for said joint, an inwardly extending flap having one margin inclosed within the doubled portion, the other wall of the casing having its free margin overlapping the flap, means for detachably securing said over-

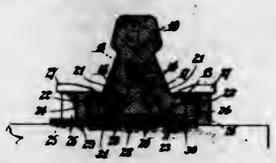
lapping portions together, and ribs of absorbent material carried respectively by the overlapping portions, said ribs detachably interengaging and preventing lateral displacement of said portions.



2. In a device of the character set forth, a flexible casing having a longitudinal joint, one wall of said casing having its margins at the joint doubled and forming an outstanding shield for said joint, an inwardly extending flap having one margin inclosed within the doubled portion, the other wall of the casing having its free margin overlapping the flap, means for detachably securing said overlapping portions together, ribs of absorbent material carried respectively by the overlapping portions, said ribs detachably interengaging and preventing lateral displacement of the said portions, and devices interposed between the ribs and shield for detachably securing the overlapped margin of the wall and the flap together.

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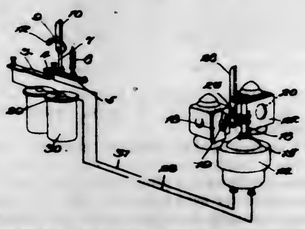
1,042,027. COMBINED RAIL JOINT AND CHAIR. HARRY J. NEWMAN, Miami, Tex. Filed Nov. 23, 1911. Serial No. 661,925. (Cl. 239—13.)



In a rail chair a pair of sections having rail engaging flanges and provided with overlapping flat base portions, the said base portion of one section being formed with transverse grooves extending from the flange thereof and terminating at a point spaced from the free edge of the base of the same and transverse ribs formed on the base of the other section and adapted to engage in the said grooves for locking the overlapping bases of the sections to prevent lateral displacement thereof.

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1,042,028. RAILWAY SIGNALING DEVICE. JOHN W. PAGE, Quitman, Ark. Filed Apr. 1, 1912. Serial No. 687,731. (Cl. 246—22.)



1. In a railway signal of the character described, an electric motor, a circuit therefor, arranged to be closed at a remote point, a box in which said motor is mounted with its shaft disposed in a vertical position, the box being formed in its top with an opening, a vertically disposed staff mounted in said opening and connected at its lower end to the shaft of the motor, a stand mounted on the top of the box and formed with openings for light to shine therethrough on opposite sides of said staff, a signal flag projecting horizontally from and secured to said staff and designed to be swung over to close one of said openings upon the actuation of the motor, and a trip lever operatively connected to said staff and designed to move the same in a direction to swing the flag over the other opening.

2. In a railway signal of the character described, an electric motor, a circuit therefor, arranged to be closed at a remote point, a box in which said motor is mounted with its shaft disposed in a vertical position, the box being formed in its top with an opening, a vertically disposed staff mounted in said opening and connected at its lower end to the shaft of the motor, a stand mounted on the top of the box and formed with openings for light to shine therethrough on opposite sides of said staff, a signal flag projecting horizontally from and secured to said staff and designed to be swung over to close one of said openings upon the actuation of the motor, a cable secured at one end to the staff, and a trip lever connected to the other end of said cable, for the purpose specified.

3. In a railway signal of the character described, an electric motor, a circuit therefor arranged to be closed at a remote point, a box in which said motor is mounted with its shaft disposed in a vertical position, the box being formed in its top with an opening, a vertically disposed staff mounted in said opening and connected at its lower end to the shaft of the motor, a stand mounted on the top of the box and formed with openings for light to shine therethrough on opposite sides of said staff, a single flag projecting horizontally from and secured to said staff and designed to be swung over to close one of said openings upon the actuation of the motor, a cable connected at one end to said staff, a trip lever, and a spring connecting the other end of said cable to the trip lever, for the purpose specified.

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1,042,029. SILK-PRINTING MACHINE. RICHARD TAGLIABUE, Paterson, N. J., assignor to American Silk & Cotton Skeins Printing Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 8, 1912. Serial No. 714,024. (Cl. 101—27.)



1. In combination, a frame having spaced parallel upwardly open grooves, parallel rails each having at each end a block received in one of said grooves, means for securing the rails in the frame including opposed adjusting screws exerting sidewise pressure against the blocks in each groove and arranged in the frame in alinement with the grooves, and a roller having dye-bands surrounding the same and spaced to correspond with said rails, said roller being adapted to be rolled over the rails, substantially as described.

2. In combination, a frame having spaced parallel upwardly open grooves, parallel rails each having at each end a block received in one of said grooves, means for securing the rails in the frame including opposed adjusting screws exerting sidewise pressure against the blocks in each groove and arranged in the frame in alinement with the grooves, a roller having dye-bands surrounding the same and spaced to correspond with said rails, said roller being adapted to be rolled over the rails, and means for guiding the roller including guide-rails interlocked therewith and secured to the frame parallel with the first-named rails, substantially as described.

3. In combination, the frame, a series of parallel skein-supporting rails arranged therein, a dye-applying roller extending crosswise of the rails and having a series of absorbent bands fitted around it and spaced the same as and coinciding with said rails, said roller being adapted to be rolled over the rails, and guide-rails for the roller carried by the frame in parallel disposition to the first-named rails, said roller having peripherally grooved collars receiving and fitting the guide-rails, substantially as described.

4. In combination, the frame, a series of parallel skein-supporting rails arranged therein, a dye-applying roller extending crosswise of the rails and having a series of absorbent bands fitted around it and spaced the same as and coinciding with said rails, said roller being adapted to be rolled over the rails, guide-rails for the roller carried by the frame in parallel disposition to the first-named rails and each projecting beyond said first-named rails and having depressions in their projecting portions, said roller having peripherally grooved collars receiving and fitting the guide-rails, and a dye-holding vessel arranged under the roller when said roller is seated in the depressions of the guide-rails, substantially as described.



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1,042,030. LATCH STRUCTURE. CHARLES J. PARSONS, Linworth, Ohio, assignor to George B. Donavin, Columbus, Ohio. Filed Nov. 13, 1911. Serial No. 660,036. (Cl. 20—49.)



1. Latch structure for the slide members of sliding and swinging sashes comprising a latch bar pivotally mounted at one end on the slide member, a spring normally pressing said latch bar into operative position, a lateral projection on the free end of said latch bar, a spring plate fastened at one end to the swinging part, a formation on the free end of said plate of a substantially pyramidal form for engagement with said lateral formation to semi-positively control said latch in one direction upon movement of said swinging part, and a lug spaced therefrom and on the secured end of said plate to control the movement of said latch upon movement of said swinging part in the opposite direction.

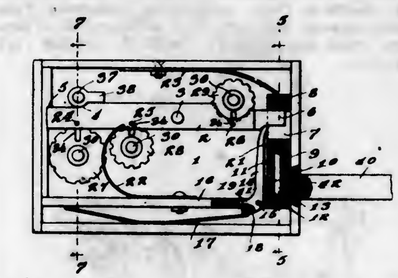
2. Latch structure for the slide members of sliding and swinging sashes comprising a latch mounted on the slide member, a spring plate mounted at one end on the swinging part, a formation on the free end of said spring plate for coaction with said latch to semi-positively control the latch in one direction upon movement of said swinging part, and a lug spaced therefrom and on the secured end of said plate to control the movement of said latch upon movement of said swinging part in the opposite direction.

3. Latch structure for the slide members of sliding and swinging sashes comprising a latch mounted on the slide member, and a complemental automatic controlling element mounted on the swinging part comprising a spring latch plate for coaction with said first latch to semi-positively control the first latch in one direction upon movement of the swinging part, and a positively effective lug on said spring latch plate for coaction with said first latch to positively control the movement of the first latch in the opposite direction upon movement of the swinging part in the opposite direction.

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1,042,031. LOCK. CHARLES PATT, Centralia, Ill., assignor of one-half to Charley Breakefield, Centralia, Ill. Filed May 17, 1911. Serial No. 627,700. (Cl. 70—53.)

1. A lock comprising a casing having a bolt receiving slot therein, an apertured bolt adapted to slide through the slot in the casing, a dog movable across the slot, a spring bearing against the dog and adapted to move the same in one direction, a movable member located in the casing and adapted to engage the dog to hold the same against the tension of the spring, the said member being adapted to be released from the dog on insertion of the bolt in the casing, an actuating member mounted in the casing and engaged with the dog, the said dog being adapted to engage in the aperture in the bolt when the dog is in one position, a movable device having an actuating surface for moving the actuating member in one direction, a spring for moving the actuating member in an opposite direction, and means for locking the actuating member against movement in either direction.



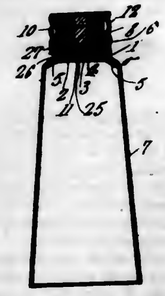
2. A lock comprising a sliding dog, a spring bearing against the same, bolt actuated means for engaging the dog to hold the same against the tension of the spring, a rocking actuating member for moving the dog against the tension of the spring, and means at the opposite sides of the actuating member for locking the member against movement.

3. A lock comprising a casing having a bolt-receiving slot therein, a movable dog retainer disposed in the path of travel of the bolt, a dog slidable across the slot and adapted to be engaged by the dog retainer whereby the dog is held in unlocking position, a spring for moving the dog when the retainer is disengaged therefrom, the said retainer being disposed in line with the bolt receiving slot of the casing so as to be engaged by the bolt and released thereby from the dog on operative insertion of the bolt in the casing.

4. A lock comprising a casing having a bolt slot therein, a dog movable across the slot, a spring bearing against the dog, means at one side of the slot for holding the dog against the tension of the spring, an actuating member movably connected with the dog and adapted to move the same against the tension of the spring, rotatable members, and means on the actuating member and on the said rotatable members adapted to coöperate to permit movement of the actuating member or to hold the member against movement.

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1,042,032. FOUNTAIN-BRUSH. CHRISTIAN H. PEDERSON, Eau Claire, Wis. Filed Dec. 30, 1910. Serial No. 600,166. (Cl. 15—46.)

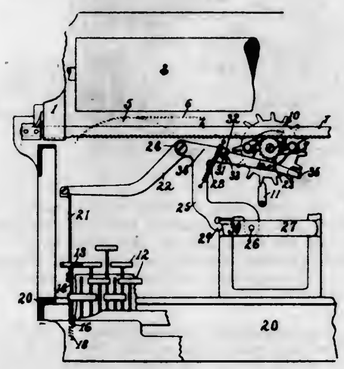


A receptacle including a top having a tubular sleeve, there being an opening through the top, within the con-

tour of the sleeve, the top being provided, about the periphery of the opening, with a plurality of spring tongues disposed in conical form and having their free ends outwardly inclined, toward the sleeve; a dauber peripherally inclosed by the sleeve, the dauber inclosing the tongues, and the inclined ends of the tongues being engaged in the dauber; and a plug mounted in the dauber, the plug having a tapered end inserted between the inclined ends of the tongues.

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1,042,033. TYPE-WRITING MACHINE. EMIL L. PFUNDER, Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Sept. 13, 1911. Serial No. 649,129. (Cl. 197—91.)



In a typewriting machine, the combination with a carriage having a rack, an escapement wheel and a pinion for said rack, of a dog lever, a link having one end pivoted to said lever between its ends, and the other end to the machine frame, a pin on said lever, a spring pulling said link against a stationary member to maintain it in position, a key lever to operate said dog lever, and links to connect both levers; the movement of the key lever swinging the dog lever about its pivot to bring it into engagement with said pinion, and said pin abutting against said link to turn the lever and link about the link pivot to rotate the pinion for back-spacing the carriage; and an extension on said dog lever engaging with the escapement wheel to prevent back lash thereof, while said dog lever rotates said pinion.

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1,042,034. SOUND-REPRODUCING APPARATUS. ALEXANDER N. PIERMAN, Newark, N. J., assignor, by mesne assignments, to Thomas A. Edison, Incorporated, West Orange, N. J., a Corporation of New Jersey. Filed July 18, 1907. Serial No. 384,328. (Cl. 181—10.)



1. In an elastic fluid sound reproducing apparatus, the combination of a valve seat provided with ports, a knife edge, a valve adapted to turn on the knife edge, means in line with the knife edge for positioning the valve on the seat, a cross-bar on the said valve, a spring bearing against the valve and against said cross-bar, and an adjusting screw in line with the knife edge for pressing said spring against the valve, substantially as set forth.

2. In an elastic fluid sound reproducing apparatus, the combination of a valve seat provided with ports, a valve coöperating therewith, a cross-bar on the said valve, a spring bearing adjacent to its ends against said valve and cross-bar, means for pressing the spring against the valve and means for actuating the valve connected with the said cross-bar, substantially as set forth.

3. In an elastic fluid sound reproducing apparatus, the combination of a valve seat provided with ports, a valve coöperating therewith, a cross bar on said valve, actuating means for the valve connected to the said cross-bar, a spring bearing against the said valve and cross-bar, the said spring being bifurcated to permit the connection of the actuating means to the cross-bar between its forks, and means for pressing the spring against the valve, substantially as set forth.

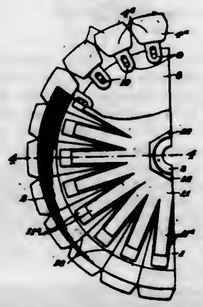
4. A sound reproducer comprising in combination a resonating chamber and an equalising chamber, a ported valve seated between the chambers and provided with a knife edge, a valve adapted to turn on said knife edge, means for resiliently holding the valve to its seat and actuating means for said valve comprising a stylus, a stylus lever, a floating weight to which the stylus lever is pivoted and a connection between said stylus lever and valve, substantially as set forth.

5. A closure for an equalising chamber of an elastic fluid sound reproducing apparatus, comprising a piece of soft rubber perforated for the passage of the valve operating link, plates of stiffer material between which the rubber piece is interposed, and means for securing the same in place, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,035. RESILIENT VEHICLE-WHEEL. ALBERT D. RAY, Cleveland, Ohio. Filed Apr. 2, 1909. Serial No. 487,384. (Cl. 152—30.)



1. A resilient vehicle-wheel, comprising a wheel body having radially-split felly-rims, a tire having a wedge-shaped contact with said felly-rims, and independent means for movably carrying said tire.

2. In a resilient vehicle-wheel, the combination with adjustable laterally-movable spring felly-rims; of a tire comprising a series of radially-movable tread-members having a wedge-shaped contact between said felly-rims.

3. In a resilient vehicle-wheel, a wheel body provided with spring resisted felly-rims, a series of wedge-shaped tire tread-members having a wedge engaging contact with said felly-rims, and means for movably securing said tire tread members in operative relationship with said felly-rims.

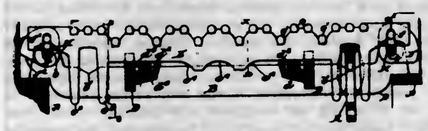
4. A resilient vehicle-wheel, comprising a hub carrying wheel disks provided with felly-rims, a tire having wedge-shaped rim-bearing portions interposed between said felly-rims, and superposed spring-disks adjustably mounted on said hub.

5. A resilient vehicle-wheel, comprising a median disk member provided with a hub, lateral disk members mounted on said hub and provided with laterally movable felly-rims, a tire carried by and movable on said median disk member and provided with a wedge-shaped portion interposed between said felly-rims, and adjusting nuts on the hub impinging against said lateral disk members.

[Claims 6 to 8 not printed in the Gazette.]



1,042,036. GRATE. WILLIAM E. RIDER, Mansfield, Mass. Filed Mar. 14, 1908. Serial No. 421,171. (Cl. 126—175.)



1. A grate bar comprising a web or body portion and transversely extending teeth, said web or body portion formed with supporting portions to permit of reciprocation of the grate bar in the plane of the web portion, said web portion being also formed with an undulated fire-surface extending along the path of reciprocation, said teeth being located both at the crest and the lower portions of the undulations.

2. A grate bar comprising a web or body portion and laterally extending teeth, said web or body portion formed with supporting portions to permit of reciprocation of the grate bar in the plane of the web portion, also formed with an undulated fire-surface extending along the path of reciprocation, said teeth being located both at the crest and the lower portions of the undulations.

3. A grate bar adapted to reciprocate in longitudinal direction, comprising a web whose top portion is corrugated, the corrugations extending transversely to the web and teeth extending laterally from said web, and arranged at intervals along the corrugated top surface and located both at the upper and lower portions of the corrugations.

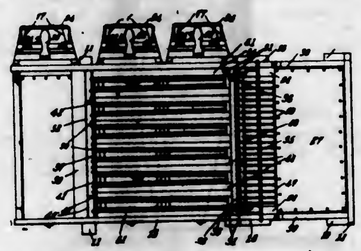
4. A grate bar adapted to reciprocate in longitudinal direction, comprising a web whose top portion is corrugated, the corrugations extending transversely to the web, and teeth extending laterally from said web and arranged at intervals along the corrugated top surface, the distance between the teeth being less than the distance between the highest and lowest parts of the corrugation.

5. In a grate the combination of a plurality of longitudinally reciprocating bars, arranged side by side, each of which has at its upper portion a series of raised and depressed portions, and which has teeth at the top of said raised and at the bottom of said depressed portions.

[Claims 6 to 24 not printed in the Gazette.]

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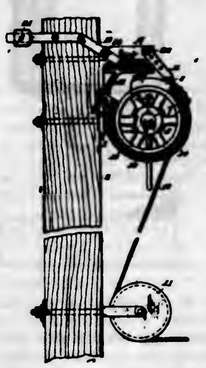
1,042,037. FRUIT GRADING AND SIZING MACHINE. WILLIAM C. ROPKAR, Port Clinton, Ohio. Filed May 11, 1909. Serial No. 495,322. (Cl. 130—32.)



In a fruit grader, a frame including front and rear transverse braces, the front brace being provided with a plurality of seats, a bearing plate supported by the said front brace and provided with a series of depressions arranged within the seats of the said braces, a bearing plate fixedly supported by the rear brace and provided with a plurality of spaced and upturned ears, each ear being provided with a plurality of openings, a second bearing plate mounted on the said rear brace for longitudinal adjustment and provided with a plurality of spaced and upturned ears, each ear being provided with an opening, pairs of grading rolls, each pair having their front ends journaled in the said depressions of the first mentioned bearing plate, and the rear end of one roll of each pair being journaled in an opening of an ear of the fixed bearing plate and the rear end of the other roll of each pair being journaled in the opening of the ear of the movable bearing plate, means to revolve said rolls, a delivery tray at the front end of said rolls, and a receiving tray mounted below said rolls.

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1,042,038. BRAKE MECHANISM. JUSTUS J. ROSS, Fairmont, W. Va. Filed Mar. 3, 1909. Serial No. 481,127. (Cl. 74—37.)



In a drum-brake for use on loading tipples, a base-plate adapted for mounting in vertical position; a pair of parallel outstanding arms carried by said base-plate; a shaft journaled in said arms; a drum fixed on said shaft; a brake-wheel fixed on said shaft; a hollow box-like support connected to one of said arms, said support comprising a pair of parallel vertical members, an upper cross-member, and a downwardly and inwardly inclined member, the inner of the vertical members being in vertical alinement with said one arm and the outer of said members being in overhanging relation to said brake-wheel; a brake-band encircling said brake-wheel; a strap connecting one end of said brake-band to the outer end of said support; a lever pivoted intermediate its ends against the brake-wheel-overhanging member and having an end pivotally connected to the opposite end of said strap, and means for adjusting said brake-band.

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1,042,039. DENTAL DISK-GUIDE. JACOB BENJAMIN SCHLUND, Kennewick, Wash. Filed Oct. 18, 1911. Serial No. 655,305. (Cl. 32—10.)



A combination with a rotary dental mandrel and flexible grinding disk attached thereto, of a curved, stationary, metal disk guide attached to the arm of a dental engine, all as and for the purposes set forth.

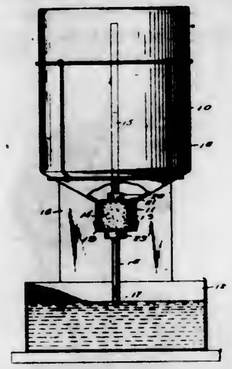
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1,042,040. POULTRY-FOUNTAIN. ADOLPH SCHENCK, Phoenix, Ariz. Filed Nov. 18, 1911. Serial No. 660,955. (Cl. 119—77.)

1. A device of the character described, comprising a cork, an air pipe passed through said cork, a water pipe passed through said cork, and means for exerting longitudinal pressure on said cork to expand the same.

2. A device of the character described, comprising a cork provided with a longitudinally extending bore, an air pipe and a water pipe passing through said bore, a plate bearing against one end of the cork and provided with apertures through which said pipes pass, a metal strip carried by said plate and extending through the

bore of the cork between the pipes and provided with a threaded end, a screw cap engaging with said threaded end and bearing against the other end of the cork, and a filling of plastic material for that portion of the bore not occupied by pipes and strip.

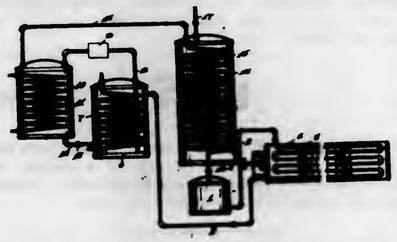


3. A device of the character described, comprising a cork provided with a longitudinally extending bore, a pair of pipes extending through said bore, a plate bearing against one end of the cork and provided with apertures through which said pipes pass, a metal strip carried by said plate and extending through the bore of the cork and serving to space the pipes apart, and means coacting with said strip for exerting longitudinal pressure on the cork to expand the same.

4. A device of the class described comprising a fluid container, a closure member mounted in one end of said container, a fluid distributing pipe and an automatically controlled air inlet pipe passed through said closure member and means at opposite ends of said closure member for exerting longitudinal pressure thereon to expand the same, one of said means being in contact with the container to form an abutment therefor.

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1,042,041. PROCESS OF REFRIGERATION. WILLIAM W. SEAY, Cincinnati, Ohio. Filed Apr. 22, 1909, Serial No. 491,450. Renewed Feb. 26, 1912. Serial No. 680,111. (Cl. 62—6.)



1. In the art of refrigeration, the process of absorbing expanded refrigerant gas into a liquid formed from a salt having the property of going from a solid state into liquid solution with said gas, subjecting the solution to the influence of a cooling medium during the absorption period, heating the solution and volatilizing refrigerant gas therefrom, condensing the separated refrigerant gas, expanding the condensed refrigerant in the zone of the article to be cooled and reabsorbing the expanded refrigerant gas into said liquid solution of the absorbent salt, substantially as described.

2. In the art of refrigeration, the process of absorbing expanded refrigerant gas into a liquid formed from a salt having the property of going from a solid state into liquid solution with said gas, subjecting the solution to the influence of a cooling medium during the absorbing period in one tank, removing the absorbing solution into another tank and heating the solution therein, volatilising off refrigerant gas from said solution, condensing the separated refrigerant gas in another compartment, expanding the condensed refrigerant in the zone of the article to be cooled, returning the weakened salt solution to the first-named absorbent tank and again reabsorbing the expanded refrigerant gas into said solution, substantially as described.

3. In the art of refrigeration, the process of absorbing the refrigerant gas into a salt having the property of going from a solid state into a liquid solution with said gas, reducing the temperature during the absorbing period, raising the temperature and vaporising refrigerant gas from said liquid solution and absorbing another charge of refrigerant gas into a solution formed by said salt and gas, substantially as described.

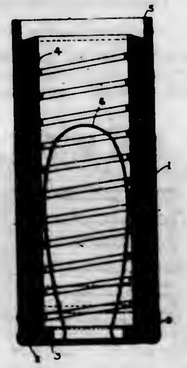
4. In the art of refrigeration, the process of absorbing in one tank refrigerant gas into a solution formed by said gas and a salt having the property of going from a solid into a liquid state with said gas, and volatilising refrigerant gas from its absorbent solution in another tank, substantially as described.

5. The herein described process of refrigeration which consists in applying heat to a dilute liquid solution of anhydrous ammonia and a salt whereby to separate and drive off a part of the ammonia while maintaining the salt in solution, condensing the gas to produce liquid anhydrous ammonia, then expanding said gas to produce cold, then absorbing said gas in a portion of the original liquid whereby it is enriched, and repeating the process, substantially as described.

[Claim 6 not printed in the Gazette.]

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1,042,042. CARTON. ABNER M. SEELEY and NELSON C. DURAND, Newark, N. J., assignors, by mesne assignments, to Thomas A. Edison, Incorporated, West Orange, N. J., a Corporation of New Jersey. Filed Oct. 20, 1910. Serial No. 588,032. (Cl. 206—15.)



1. In a record carton, the combination of a cylindrical casing, a bottom member for said casing having a central opening therein, and spring means extending upwardly within said casing and having end portions at the bottom of the carton spaced a substantial distance apart and secured to said bottom member at opposite sides of the opening therein, substantially as described.

2. In a record carton, the combination of a cylindrical casing having an open upper end, a bottom member for said casing having a central opening therein and a spring loop extending upwardly within said casing and having its end portions spaced a substantial distance apart and secured to said bottom member at opposite sides of the opening therein, substantially as described.



3. In a record carton, the combination of a cylindrical cardboard casing and having an open upper end, a detachable metallic bottom member for said casing, the said bottom member comprising a bottom portion having a central opening therein and a cylindrical portion projecting from said bottom portion, and a spring loop rising from said bottom portion within said casing and having its end portions spaced a substantial distance apart and secured to said bottom member at opposite sides of the opening therein, said cylindrical portion being provided on its interior surface with an interrupted screw thread in threaded engagement with the outside of said casing, substantially as described.

4. In a carton, the combination of a cylindrical casing having a permanent bottom provided with a central opening, a detachable bottom member provided with a central opening in register with said first named opening, and a spring loop adapted to be passed through said first named opening and extending upwardly within said casing, the end portions of said loop being spaced a substantial distance apart and secured to said detachable bottom member at opposite sides of the opening therein, substantially as described.

5. In a carton, the combination of a cylindrical casing having a permanent bottom provided with a central opening, a detachable bottom member comprising a bottom portion and a cylindrical portion projecting from said bottom portion and detachably secured to the cylindrical wall of said casing, and resilient record retaining means adapted to be passed through said opening, said means being secured to said detachable bottom member and extending upwardly within said casing, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

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1,042,043. STRUCTURE FOR FORMING CONCRETE SURFACES. JOHN A. SHEFFEY, Columbus, Ohio. Filed June 19, 1911. Serial No. 634,176. (Cl. 25—44.)



1. In combination with form boards having strips thereon, frog-shaped castings having angular cut-away portions for fitting on said strip, pronged extensions upon one wall of the cut-away portion of each casting, and angularly disposed prongs on the other wall of the cut-away portion.

2. In combination with form boards having strips thereon, frog-shaped castings having angular cut-away portions for fitting on said strip, pronged extensions integrally formed upon one wall of the cut-away portion of each casting and angularly disposed prongs integrally formed on the other wall of the cut-away portion.

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1,042,044. BOILER CONSTRUCTION. DEARELL D. SHIRK, Rockford, Ill., assignor of one-half to William C. Farquhar, Rockford, Ill. Filed Oct. 6, 1911. Serial No. 653,241. (Cl. 122—511.)



In a boiler, the combination with a flue sheet having an inturned integral nipple that is externally threaded, and has an external annular shoulder at the end of the threads, of a flue having one end internally threaded and screwed upon the nipple, and a packing gasket surrounding the nipple and interposed between the shoulder and the adjacent end of the flue.

1,042,045. WAIST. MAX SLOTKOVITZ and EDWARD H. SLOTKOVITZ, Chicago, Ill. Filed Mar. 30, 1912. Serial No. 687,468. (Cl. 2—98.)

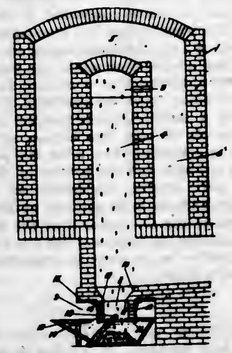


1. A waist, opening in front and having a facing normally on the inside of the garment, a portion of said facing forming a vertical strip free from the body of the waist, and the waist also having a collar which, when the waist is in normal condition forms a standing collar, the free portion of said facing being shaped at its upper edge to fit low on the throat of the wearer when said facing is exposed, whereby said upper edge of the free portion will fall short of the shoulder when turned inside.

2. A waist, opening in front, and having a standing collar, the waist also having two internal facings, one on each side of the waist opening, each facing forming a vertical strip, a portion whereof is free from the body of the garment, said facings being adapted to be turned to face outwardly and the upper edge of the free portion of said facing meeting the base line of the collar at a point several inches from the end of said base line, whereby said upper edge will form a throat line when the facing is exposed and the collar turned back.

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1,042,046. FURNACE SLAG-POCKET. WILLIAM W. SMITH, Ensley, Ala. Filed Oct. 4, 1911. Serial No. 652,839. (Cl. 75—94.)



1. The combination with a furnace having a gas flue which leads upwardly and has a contracted opening at its bottom, of a slag receptacle disposed beneath said opening and filled with a body of water which surrounds and seals the wall which surrounds said opening, the water being spaced a substantial distance from the inner wall of the flue, a wall which surrounds said opening depending downwardly into the body of water and tending to shield same from the hot gases flowing in said gas flue, and means to introduce cold water beneath said opening to produce a circulation therefrom outwardly.

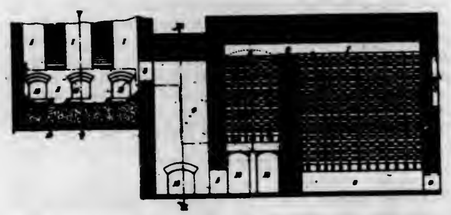
2. The combination, in a steel furnace having upright and horizontal air and gas flues, of means to provide for the ready removal of slag which tends to accumulate in said horizontal flue, comprising a water receptacle, there being an opening in the bottom of the horizontal flue disposed beneath the upright flue and in position to collect the slag which falls down said upright flue, a sealing flue which is overhung by the bottom walls of such opening

and extends from said opening down into the water in said receptacle which is disposed so as to permit the slag to be withdrawn therefrom without breaking the seal, substantially as described.

3. The combination, in a steel furnace having upright air and gas flues having horizontal portions, of means to provide for the ready removal of slag which tends to accumulate in the horizontal portions of said flues, comprising a water receptacle spaced from the bottom of a horizontal portion of one of said flues which is provided with a contracted opening in its bottom wall, said opening converging like a hopper to a relatively small central outlet beneath the upright portion of the flue, and a sealing flue which is overhung by the bottom edge of said opening and extends down vertically into the water in said receptacle and is disposed so as to permit the slag to be withdrawn from the receptacle without breaking the seal, substantially as described.

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1,042,047. METALLURGICAL FURNACE. HORACE E. SMYTHE, Pittsburgh, Pa., assignor to The S. R. Smythe Company, Pittsburgh, Pa., a Corporation of West Virginia. Filed Mar. 30, 1911. Serial No. 617,963. (Cl. 75—94.)



1. In a furnace structure, a slag-pocket, a chamber to receive the waste products suspended in the burned furnace gases which pass beyond the slag-pocket, and means for the removal of such suspended products while the furnace is operating normally or while the furnace is hot.

2. In a furnace structure, an auxiliary checker-chamber and a passage leading from the auxiliary checker chamber to the furnace, a main checker-chamber, communicating with each other at the top, the bottom of the auxiliary chamber being in communication with the passage leading to the furnace chamber and the bottom of the main chamber having a port serving alternately as an outlet for the waste gases and an inlet for one of the gases to be burned, and means for the removal of the deposits below the auxiliary checker-chamber and for the cleaning of the said chamber while the furnace is operating normally or while the furnace is hot.

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1,042,048. BREECH MECHANISM FOR GUNS. BALFOUR C. SNYDER, Brooklyn, N. Y., and JOHN H. TORNEY, Washington, D. C., assignors of one-third to George E. Smouse, Washington, D. C. Filed Aug. 2, 1911. Serial No. 641,980. (Cl. 89—27.)

1. In breech mechanism for guns the combination of a breech block, a centrally located and externally threaded sleeve, a firing pin within the sleeve, a lever for actuating the breech block and means connecting the sleeve and lever whereby when the latter is actuated the sleeve will be rotated and retracted, and it and its firing pin held retracted until after the breech block has been locked in its closed position.

2. In breech mechanism for guns, the combination of a breech block, an externally threaded sleeve located centrally therein, a firing pin carried by said sleeve, a lever for actuating the block and means for rotating the sleeve for retracting same and its firing pin prior to any rotary movement of the block in opening, and for holding the sleeve and the firing pin retracted until after the completion of the rotary movement in closing the block.

3. In breech mechanism for guns, the combination with a breech block, a longitudinally movable sleeve mounted centrally in said block and adapted when in normal position to rest with its front end flush with the front end of the block, and a firing pin carried by said sleeve, the front end of said pin projecting through said sleeve and provided with an enlargement engaging the sleeve so as to be limited in its forward movement thereby, of means for retracting the sleeve and the firing pin therein prior to the rotary movement of the block in opening, and also for manipulating the breech block.



4. In breech mechanism for guns, the combination with a breech block, a threaded sleeve having threaded engagement with said block, a firing pin carried by said sleeve, the said pin and sleeve having engaging means whereby the said pin will be moved rearwardly with the sleeve and means for engaging a projection on said pin as the latter is moved rearwardly, for holding it in its retracted position, of means for rotating the sleeve, whereby it will be moved longitudinally in the block, and also for manipulating the breech block.

5. In breech mechanism for guns, the combination with a gun, an arm pivoted thereto, an actuating lever pivoted to said arm and a breech block carried by and mounted to turn on said arm, of a sleeve mounted in the breech block, a firing pin within the sleeve and movable rearwardly with same, means connecting the lever and block whereby the latter is given a part rotation by the movement of the lever, means also connecting the lever and sleeve whereby the latter is moved longitudinally and rearwardly prior to any opening movement of the block and forwardly after the completion of the closing movement of the block and means engaging the firing pin during its rearward movement for holding it retracted after its sleeve has advanced to normal position.

[Claims 6 to 14 not printed in the Gazette.]

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1,042,049. SAW-CLAMP. CHARLES H. SPRAY, Indianapolis, Ind. Filed Mar. 23, 1912. Serial No. 685,654. (Cl. 76—78.)



1. The combination in a saw clamp of a base plate A., having connected to said base plate a bar B. by pivotal means, embodying a universal swivel connection at each end of the clamp, and having further connected to said base plate, a bar C., by pivotal means, as substantially set forth and for the purposes specified.



2. The combination in a saw clamp of a base plate A., embodying a lug 3 at each of its ends; having pivotally connected to each of said lugs 3 an arm E., having pivotally connected to the free end of each arm E. and arch D., and having pivotally connected to each arch D. a corresponding end of a bar B.,—the arches D. having a capacity of spring action, and said base plate A having further connected thereto, by pivotal means a bar C., as fully set forth and for the purposes specified.

3. The combination in a saw clamp of a base plate A., embodying a stop jaw 8 at each of its ends, having connected to said base plate by pivotal means, a bar B; said pivotal means of connection embodying a universal swivel connection at each end of the clamp, said base plate having further pivotally connected thereto a bar C., all as fully set forth and for the purposes specified.

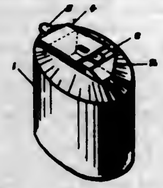
4. The combination in a saw clamp of a base plate A., embodying a stop jaw 8 at each of its ends, having connected to said base plate a bar C. by pivotal means, and having further connected to said base plate a bar B. by pivotal means; said means of connection between plate A. and bar B. embodying a universal swivel connection at each end of the clamp; said bars B. and C. being arranged to automatically engage each other in a clamping position upon the saw blade by the movement of bar B. on its pivots, in combined pivotal action of the bar C., as fully set forth and for the purposes specified.

5. The combination in a saw clamp comprising a pair of clamping jaws, B. and C., each separately and pivotally connected to a base plate A., the means of connection between bar B. and said base plate A. including pivotal means of action of the arches D. upon the pivots 14, and pivots formed through the action of arms E. in the threaded holes 4. in eyelets 3, as fully set forth and for the purposes specified.

[Claim 6 not printed in the Gazette.]

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1,042,050. COVER FOR COLLAPSIBLE TUBES. JOSEPH L. STICHTER, Oswego, N. Y. Filed Feb. 6, 1912. Serial No. 675,783. (Cl. 221—60.)

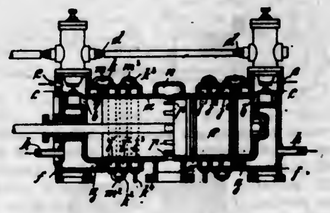


The combination of a receptacle having a top therefor, the sides of said top being undercut so that the top has the shape of an inverted truncated wedge, a cover for said top formed of a single sheet of metal, having the sides thereof bent down and under to form a sliding engagement with said top, guard tabs at each end of said cover being capable of being bent down over the ends of said cover for the purpose of locking it in place, an opening through said top into the receptacle, an opening through said cover plate normally out of line with the opening in said top, said cover plate being movable longitudinally to bring its opening into register with the opening in the top.

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1,042,051. STEAM-ENGINE. JOHANN STUMPF, Berlin, Germany. Filed Aug. 4, 1909. Serial No. 511,126. (Cl. 121—45.)

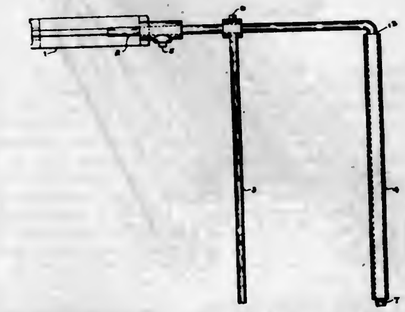
1. In combination with a steam engine having an inlet port at its end and separate exhaust ports remote therefrom, a hot-steam inlet chest at the end of the cylinder, a separate annular heater about the cylinder extending from the inlet end toward the exhaust, and receiving steam from said chest, a steam connection from said chest to said heater, means for controlling the flow of fluid in said connection, and an elongated piston working in said cylinder and controlling said exhaust ports.



2. The combination with a steam engine having an inlet port at its end and separate exhaust ports remote therefrom, a hot steam inlet chest at the end of the cylinder, a separate annular heater composed of a plurality of annular chambers about the cylinder, connections uniting said chest and chambers in series, and means in each connection for controlling the flow of fluid through the same.

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1,042,052. HEDDLE-BINDER. CHARLES R. SWEET, Worcester, and WILLIAM V. BALLARD, Millbury, Mass. Filed Nov. 29, 1911. Serial No. 663,031. (Cl. 139—18.)



1. As an article of manufacture, a heddle binder comprising a stand adapted to be fastened to a loom side and provided with a horizontal angle iron extending outwardly therefrom, said angle iron having a projection extending at right angles to its main body and provided with a readily rotatable roll thereon the stand having means for keeping said angle iron in horizontal position.

2. As an article of manufacture, a heddle binder comprising a stand adapted to be fastened to a loom side, an angle iron adjustable longitudinally on said stand, and a wooden roll on the angle iron for holding the heddles the stand having means for keeping said angle iron in horizontal position.

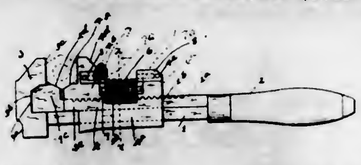
3. As an article of manufacture, a heddle binder comprising a bracket, an angle iron projecting therefrom and adjustable longitudinally, and a horizontal protector rod adjustable along the angle iron.

4. As an article of manufacture, a heddle binder comprising a bracket, an angle iron projecting therefrom, a horizontal protector rod on the angle iron parallel with the end of the angle iron, and a roll on the end of the angle iron.

5. In a device of the character described, the combination with a harness, of a horizontal member adapted to extend through the harness to separate the heddles in use from those not in use and to hold the latter back toward the loom side out of normal position.

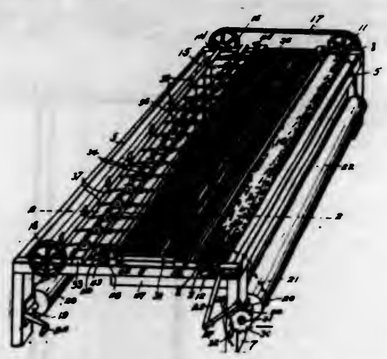
[Claim 6 not printed in the Gazette.]

1,042,053. WRENCH. STEVE TAKACS, Newark, Ohio. Filed Dec. 18, 1911. Serial No. 666,479. (Cl. 81—158.)



A wrench comprising a rack bar, a fixed head on said rack bar, a complemental jaw body slidable on said rack bar, said jaw body having a recess therein, bearing plates pivotally mounted at one end on opposite sides of the recessed portion of said jaw body, a feed screw between said bearing plates and journaled in their free ends, and a flat spring plate mounted on said jaw body adjacent said recess and adapted to bear against the pivoted end of one of said bearing plates to resiliently maintain said feed screw in or out of engagement with said rack bar.

1,042,054. CARPET-CLEANER. ELDO J. TANGEMAN, Keystone, Iowa. Filed Nov. 23, 1911. Serial No. 661,919. (Cl. 15—8.)

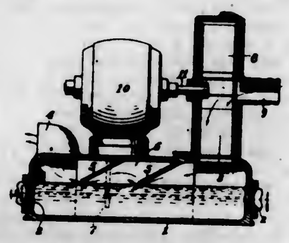


In a carpet cleaning machine, a supporting frame, an actuating shaft at the rear of the frame, a carpet receiving roll at the rear of the frame, a carpet winding roll at the front of the frame, a screen mounted on top of the frame and over which the carpet travels as it passes from the receiving roll to the winding roll, a series of spring-pressed beater-arms mounted on the frame, strikers carried by the actuating shaft to engage said arms, a bar mounted on said frame beneath the beater arms and adjustable toward and away from said arms to regulate the stroke of the arms upon the carpet, a rotary brush at the front of the frame over which the carpet passes in its travel, driving means connecting the shaft of the rotary brush to the actuating shaft, and means for actuating the winding roll from the shaft of the rotary brush.

1,042,055. VACUUM-CLEANER. JOSEPH THEISEN, Grand Rapids, Mich. Filed May 17, 1912. Serial No. 697,889. (Cl. 83—47.)

1. A vacuum cleaner, comprising a receptacle adapted to be partially filled with water, inlet and exhaust openings in said receptacle located at approximately opposite ends of the same, means for forcing a current of air into the inlet opening, a longitudinal partition in the receptacle to guide the current of air, a transverse partition to prevent a circuitous circulation of the same, and deflector plates in the path of the air current to direct the air against the surface of the water.

2. A vacuum cleaner, comprising a receptacle adapted to be partially filled with water, inlet and exhaust openings located approximately at opposite ends of said receptacle, means for forcing air into the inlet opening, partitions in the receptacle adapted to guide the current of air and prevent a circuitous circulation of the same, said partitions being arranged to allow the water within the receptacle to circulate, deflector plates in the path of the air current to deflect the air against the surface of the water.



3. A vacuum cleaner, comprising a receptacle adapted to be partially filled with water, inlet and exhaust openings at approximately opposite ends of said receptacle, means for forcing air into the inlet opening, a longitudinal partition engaging both top and bottom of the receptacle and being spaced apart from its ends, a transverse partition extending between the longitudinal partition and one side of the receptacle engaging the top of the receptacle and projecting beneath the surface of the water, and inclined deflector plates in the path of the air current to direct the air against the surface of the water.

4. A vacuum cleaner, comprising a receptacle adapted to be partially filled with water, inlet and exhaust openings in said receptacle, means for forcing a current of air into the inlet opening mounted on the top of said receptacle, a longitudinal partition in the receptacle engaging both the top and bottom of the same and spaced apart from its ends, a transverse partition extending between the longitudinal partition and one side of the receptacle engaging the top of the receptacle and spaced apart from the bottom of the receptacle, and inclined deflector plates on the opposite side of the longitudinal partition and in the path of the air current to direct the air against the surface of the water.

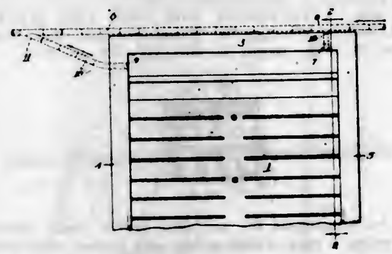
5. A vacuum cleaner, comprising a receptacle adapted to be partially filled with water, inlet and exhaust openings at approximately opposite ends of the receptacle, means for forcing a current of air into the inlet opening mounted on the top of the receptacle, a longitudinal partition in the receptacle engaging both the top and bottom of the same and spaced apart from its ends, a transverse partition extending between the longitudinal partition and one side of the case and projecting beneath the surface of the water, being spaced apart from the bottom of the case, and inclined deflector plates on the opposite side of the longitudinal partition and in the path of the air current to direct the air against the surface of the water and removable caps at opposite ends of the receptacle.

1,042,056. WATERING-TROUGH. JAMES S. TOD, Rock Island, Ill. Filed June 21, 1912. Serial No. 705,138. (Cl. 61—9.)

1. In apparatus of the class described, a drain tile section having a water basin formed therein below the level of the tile, a drain formed of a plurality of sections of tile in which said first-named section is interposed, a watering trough or the like positioned adjacent said drain, said first-named section having a take-off opening leading from said water basin and communicating with said watering trough for supplying the latter with water from said drain.

2. In apparatus of the class described, a drain tile section for taking off water from a line of drain pipe to supply a watering trough or the like, said section having a water basin formed therein below the inside bottom level of the tile, and having a lateral take-off opening leading from said basin for the purpose described.





3. In apparatus of the class described, a drain tile section for taking off water from a line of drain pipe for supplying water to a watering trough or the like, said tile having a water basin formed therein below the inside bottom level of the tile, the up-stream wall of said basin being substantially at right angles to the bottom of the tile, and the down-stream wall of said basin being inclined from the bottom of the basin to the inside bottom wall of the tile, said basin having a lateral take-off opening leading therefrom for the purpose described.

1,042,057. PROCESS OF MAKING BODIES FOR SULFURING CASKS AND THE LIKE. OTTOKAR URBASCH, Vienna, Austria-Hungary. Filed July 13, 1911. Serial No. 638,288. (Cl. 167—3.)



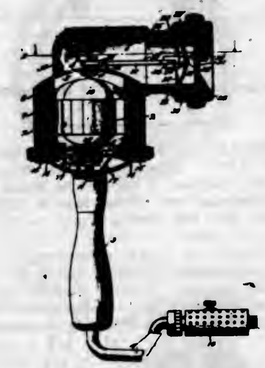
1. The hereindescribed process of making bodies for sulfuring casks and the like, which consists in mixing with water materials which harden in the presence of water, in adding thereto a refractory fibrous material, whereby a pulpy mass is obtained, in molding the pulpy mass into the form of hollow cylinders, in drying the cylinders, in impregnating the same with sulfur, and in subsequently heating the impregnated cylinders to a temperature above the melting point of sulfur, substantially as described.

2. The hereindescribed process of making bodies for sulfuring casks and the like, which consists in mixing with water materials which harden in the presence of water, in adding thereto a refractory fibrous material and a porous filling material, whereby a pulpy mass is obtained, in molding the pulpy mass into the form of hollow cylinders, in drying the cylinders, in impregnating the same with sulfur, and in subsequently heating the impregnated cylinders to a temperature above the melting point of sulfur, substantially as described.

3. The hereindescribed process of making bodies for sulfuring casks and the like, which consists in mixing with water materials which harden in the presence of water, in adding thereto a refractory fibrous material, brick dust and borax, whereby a pulpy mass is obtained, in molding the pulpy mass into the form of hollow cylinders, in drying the cylinders, in impregnating the same with sulfur, and in subsequently heating the impregnated cylinders to a temperature above the melting point of sulfur, substantially as described.

4. The hereindescribed process of making bodies for sulfuring casks and the like, which consists in mixing with water materials which harden in the presence of water, in adding thereto a refractory fibrous material, whereby a pulpy mass is obtained, in molding the pulpy mass into the form of a long tube, in cutting the tube into a plurality of cylinders of suitable length, in drying the cylinders, in impregnating the same with sulfur, and in subsequently heating the impregnated cylinders to a temperature above the melting point of sulfur, substantially as described.

1,042,058. MASSAGE APPARATUS. KATE VAN HOOK, Hiawatha, Kans. Filed Jan. 17, 1911. Serial No. 603,195. (Cl. 128—10.)



1. In a device of the class described, the combination of a diaphragm case, a diaphragm, a second diaphragm so positioned as to form a closed chamber between the two diaphragms, a motor, and means for causing said diaphragms to vibrate rapidly.

2. In a device of the class described, the combination of a diaphragm case, a diaphragm, a second diaphragm so positioned as to form a closed chamber between said diaphragms, a motor, a connecting rod between the shaft of said motor and said first mentioned diaphragm, whereby both diaphragms may be caused to vibrate rapidly.

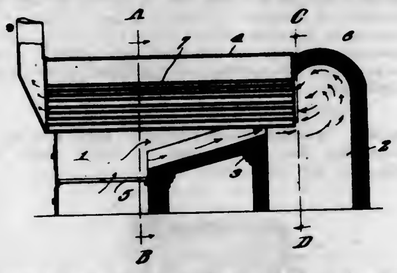
3. In a device of the class described, the combination of a diaphragm case, a diaphragm, a second diaphragm so positioned as to form a closed chamber therebetween, a motor, a connecting rod positioned between the motor and said first mentioned diaphragm and eccentrically mounted on the shaft of said motor through the movement of which said diaphragms may be caused to vibrate rapidly.

4. In a device of the class described, a case provided with a motor chamber and a diaphragm chamber, an electric motor mounted within said motor chamber, a source of current therefor, a connecting rod eccentrically mounted on the shaft of said motor and positioned within said diaphragm chamber, a resilient diaphragm closing the opened end of said diaphragm chamber, the outer end of said connecting rod being connected with the center of said diaphragm, and a second resilient diaphragm mounted in front of said first named diaphragm and forming an air chamber therebetween, whereby the operation of said motor causes said diaphragm to vibrate.

1,042,059. FURNACE. CALVIN R. WAID, Birmingham, Ala. Filed Aug. 21, 1911. Serial No. 645,075. (Cl. 110—82.)

The combination with a fire box and a smoke chamber, of a bridge wall interposed between the fire box and the smoke chamber and having its upper face inclined upwardly to the smoke chamber from the fire box and to a point close to the boiler, the upper face of the bridge wall being concaved transversely throughout the length thereof, and a boiler supported above the fire box and the bridge wall and having one end portion thereof projecting

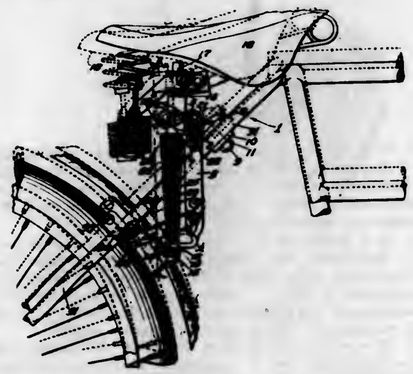
into the smoke chamber and abutting against the top of said chamber, the top of said smoke chamber being arched



to form a pocket above the plane of the uppermost flues in the boiler.

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1,042,060. SHOCK-ABSORBER FOR MOTOR-CYCLES AND THE LIKE. ALEXANDER LUKE WALTERS, Los Angeles, Cal., assignor of one-half to Frank B. Grimshaw, Los Angeles, Cal. Filed Jan. 6, 1911. Serial No. 601,172. (Cl. 208—100.)



1. A shock absorber comprising a hanger provided at the lower end with a spring support, a spring carried by the spring support, a seat support resting on the spring and provided with a guide rod that extends into the spring support, and a link connecting between the hanger and the seat support, above the spring support.

2. A shock absorber comprising a hanger provided at the lower end with a spring support, a spring carried by the spring support, a seat support resting on the spring and provided with a guide rod that extends into the spring support, a link connecting between the hanger and the seat support, above the spring support, and means adjustable relative to the hanger to adjust the tension of the spring.

3. A shock absorber comprising an inverted U-shaped hanger provided at the lower end with spring supports; coil springs carried by the spring supports; a seat support having legs resting on the springs and terminating in guide rods that extend inside the springs and spring support, and links pivoted to the seat support and to the hanger.

4. A shock absorber comprising an inverted U-shaped hanger provided at the lower end with spring supports; coil springs carried by the spring support; a seat support having legs resting on the springs and terminating in guide rods that extend inside the springs and spring support, and links pivoted to the seat support and to the hanger; said links being above the springs and engaging the same to prevent the guide rods from being withdrawn from the spring supports.

5. In a shock absorber a seat support, spring means to support the seat support, and means to move the seat support backward as the spring means are contracted.

[Claims 6 to 11 not printed in the Gazette.]

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1,042,061. ATTACHMENT FOR DRY AND WATER CLOSETS. WILLIAM B. WEBB, Paducah, Ky. Filed Apr. 20, 1912. Serial No. 692,164. (Cl. 4—20.)



1. An attachment for use with dry or water closets comprising a tank, a gate at one end thereof, a member adapted to move against said gate, and an adjustable and detachable bearing surface, said member and bearing surface co-acting to close and lock said gate, means for opening said gate and devices for retaining the same open.

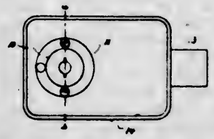
2. An attachment for use with dry or water closets comprising a tank disposed beneath the floor of such closet, a gate at one end thereof, a member adapted to move against said gate, a rod connected with said member, and an adjustable and detachable bearing surface, said member and bearing surface co-acting to close and lock said gate, said rod projected through said floor, means for opening said gate, and devices for retaining the same open.

3. An attachment for use with dry or water closets comprising a tank, a gate at one end thereof, guides upon said gate, lugs arranged in the path of said guides, a member adapted to move within said guides, means for securing said member against said gate, and devices for retaining open said gate.

4. An attachment for use with dry or water closets comprising a tank disposed beneath the floor of such closet, a gate at one end thereof, guides upon said gate, lugs arranged in the path of said guides, a member adapted to move within said guides, a rod connected with said member, said rod projected through said floor, means for securing said member against said gate, and devices for retaining open said gate.

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1,042,062. NIGHT-LATCH. DAVID WALTER WEED, Terryville, Conn., assignor to Eagle Lock Co., Terryville, Conn., a Corporation. Filed May 27, 1912. Serial No. 700,043. (Cl. 70—46.)



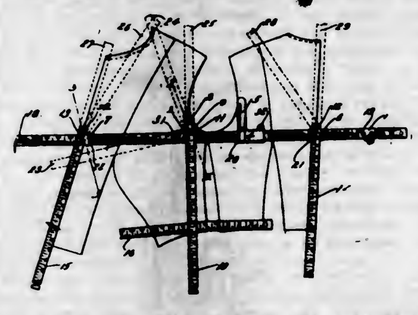
A night latch comprising a casing and a back-plate, a roll-back mounted in said plate, a tubular ward surrounding the roll-back outside said plate and projecting outward therefrom, said tubular ward formed with inwardly projecting teeth, said tubular ward formed at its lower end with lugs, and the plate formed with recesses to receive them, and an escutcheon set over said tubular ward and connected with said plate, the escutcheon bearing at its outer end on the outer end of the tubular ward, and the outer end of the escutcheon formed with a keyway opening into the tubular ward.

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1,042,063. TAILOR'S MEASURING DEVICE. WILLIAM WENDORF, Chicago, Ill. Filed Jan. 26, 1912. Serial No. 673,549. (Cl. 73—48.)

In a device of the character described, the combination of a flexible tape, a member fixed thereupon and projecting outwardly therefrom, a slidable member mounted upon said tape and adapted to be moved toward or away from said fixed member, the arm of the person being measured being adapted to be placed in the space between said fixed member and said slidable member, a pair of slidable members, one of said members being adapted to approach one

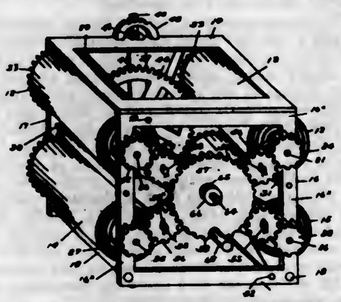




end of the tape and the other of said members being adapted to approach the other end of the tape, each of said second-mentioned slidable members having a tape in pivotal connection therewith, and a tape pivotally attached to said first-mentioned tape adjacent to its point of attachment to said outwardly-projecting member.

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1,042,064. SPRING WINDING AND CONTROLLING MECHANISM. ELLIOTT WILLIAMS, Kansas City, Mo. Filed Aug. 9, 1911. Serial No. 643,245. (Cl. 185—39.)

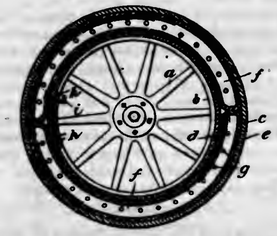


1. In a spring motor the combination with the frame of the motor and with the winding coiled springs and arbors arranged apart from each other in the upper and lower portions of said frame and having the forward ends of said arbors extending through the forward end of said frame, of pinions on the said ends of said arbors, said frame having intersecting crossed slots in the forward end thereof extending in the direction of the respective upper and lower spindles, an adjustable stud shaft in said slots at the intersection thereof, means for controlling the unwinding of the coiled springs and a winding wheel on the stud shaft adapted to be moved into engagement with a pinion in line with the slots in the forward end of said frame and means for imparting a rotary movement to said winding wheel on the stud shaft.

2. In a spring motor the combination with the frame of the motor and with the winding coiled springs and arbors arranged apart from each other in the upper and lower portions of the frame and having the forward ends of said arbors extending through the forward end of said frame, of spring winding pinions on the said ends of the arbors, said frame having crossed bars at its forward end extending in the direction of the respective upper and lower arbors, slots in said bars extending diagonally to the frame and intersecting with each other an adjustable stud shaft within the said slots at the intersection thereof, means for controlling the unwinding of the springs and a spring winding gear wheel on said stud shaft adapted to be moved into engagement with the pinions on the arbors alternately and means for imparting rotary motion to said wheel.

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1,042,065. AUTOMOBILE-TIRE. WILLARD JAY WOODCOCK, Brooklyn, N. Y. Filed Jan. 3, 1912. Serial No. 669,208. (Cl. 152—5.)

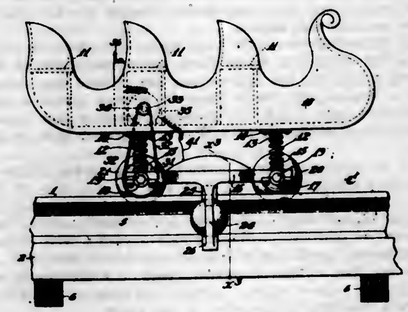


1. A vehicle tire of flexible material provided with an interior chamber relatively thin and deep in the plane of rotation and having means to prevent the collapsing of the walls of the chamber, a duct for communication with an exhaust pump and means for preventing the admission of air to the chamber, whereby a partial vacuum may be maintained within the tire and deformation of the tire at the road surface resisted by atmospheric pressure against the exterior of the tire.

2. A vehicle tire of flexible material provided with an interior chamber relatively thin and deep in the plane of rotation and relatively thick side walls, said chamber being provided on its opposite walls with stops to prevent complete collapsing of the walls of the chamber, a duct for communication with an exhaust pump and means to prevent the inlet of air to the chamber, whereby a partial vacuum may be maintained within the tire and deformation of the tire at the road surface resisted by atmospheric pressure against the exterior of the tire.

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1,042,066. SINGLE-TRACK RAILWAY. STEVEN ZSINKO, Los Angeles, Cal. Filed Jan. 29, 1912. Serial No. 674,189. (Cl. 105—234.)



1. In combination, a single rail having a longitudinal groove in its upper face and a longitudinal groove in each side face, a wheel adapted to engage the groove in the upper face of the rail, a wheel at each side of said rail adapted to engage the grooves in the sides of the rail, and carrying means supported by said wheels.

2. In combination, a single rail having a longitudinal groove in its upper face and a longitudinal groove in each side face thereof, a front spherical wheel and a rear spherical wheel adapted to engage the groove in the upper face of the rail, a spherical wheel at each side of said rail, intermediate said front and rear wheels, adapted

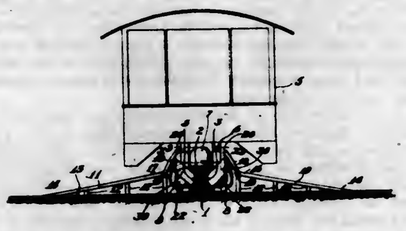
to engage the grooves in the sides of the rail, and carrying means supported by said wheels.

3. In combination, a single rail having a longitudinal groove in its upper face and a longitudinal groove in each side face thereof, a front spherical wheel and a rear spherical wheel adapted to engage the groove in the upper face of the rail, a spherical wheel at each side of said rail, intermediate said front and rear wheels, adapted to engage the grooves in the sides of the rail, a truck supported on said wheels, and a car body elastically supported on said truck.

4. In combination, a single rail having a longitudinal groove in its upper face and a longitudinal groove in each side face thereof, a front spherical wheel and a rear spherical wheel adapted to engage the groove in the upper face of the rail, a spherical wheel at each side of said rail, intermediate said front and rear wheels, adapted to engage the grooves in the sides of the rail, a truck above said wheels and supported thereon in fixed relation thereto, a car body above said truck, and a plurality of springs between said truck and said car body for elastically supporting said car body on said truck.

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1,042,067. BRIDGE FOR SINGLE-TRACK RAILWAYS. STEVEN ZSINKO, Los Angeles, Cal. Filed Apr. 17, 1912. Serial No. 691,518. (Cl. 105—233.)



1. In combination with a car and single track therefor, a bridge consisting of inclined ways at each side of the track, a movable portion mounted on each way, and means on the car for raising and lowering said movable portion of the ways.

2. In combination with a car and single track therefor, a bridge comprising an inclined way at each side of the track, a leaf on each way pivotally mounted on the inner end of each way, and means on said car for raising and lowering said leaves.

3. In combination with a car and single track therefor, a bridge comprising an inclined way at each side of the track, a leaf pivoted to the inner end of each way adapted to engage said track when in lowered position, and means on said car for raising and lowering said leaves, said means consisting of a cam bar on each side of the car.

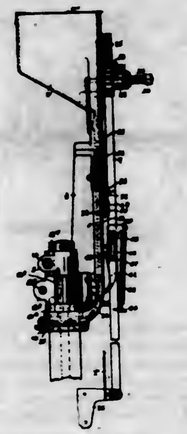
4. In combination with a car and single track therefor, a bridge comprising an inclined way at each side of the track, a leaf pivoted on the inner end of each way adapted to engage said track when in lowered position, and means on said car for raising and lowering said leaves, said means consisting of a cam mounted on each side of the car, each of said cams consisting of a bar having an outwardly curved central portion, the ends of which are curved inwardly to the sides of said track.

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1,042,068. BOTTLE-CAPPING MACHINE. BENJAMIN ADRIANCE and AMOS CALLESON, Brooklyn, N. Y.; said Calleson assignor to said Adriance. Filed Feb. 5, 1910. Serial No. 542,297. (Cl. 113—114.)

1. The combination, with a receptacle having a depression in its bottom and a relatively elongated outlet for the articles extending across said depression, of an agitating member inclosed and movable within the receptacle and having a part thereof received by the outlet, substantially as described.

2. The combination, with a receptacle having a depression in its bottom and a relatively elongated outlet for the articles extending across said depression, of a blade-shaped agitating member movable within said depression crosswise of itself and having a projection received by said outlet, substantially as described.



3. The combination of a supply means comprising a receptacle having an outlet for the articles, and an agitating blade movable crosswise of itself in said receptacle and over said outlet and having a projection received by the outlet, substantially as described.

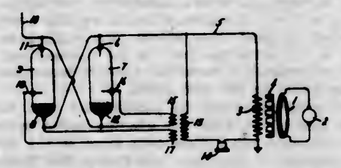
4. The combination of a supply means comprising an outlet and a non-continuous fixed checking shoulder within said outlet having one end directed toward the interior of the supply means, said shoulder being adapted to allow free passage of the articles through said outlet when the same are properly faced and to arrest said article when improperly faced, and means for advancing the articles checked by said shoulder along the latter into the interior of the supply means, substantially as described.

5. The combination, with walls to support the articles spaced from each other to form a discharge passage and sloping toward each other, a checking member movable back and forth over said passage from a position at one side of and unopposed to said passage to a position at the other side of and likewise unopposed to said passage, and means for effecting the back and forth movements of said member, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

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1,042,069. METHOD OF AND APPARATUS FOR RELAYING HIGH-FREQUENCY CURRENTS. ERNST F. W. ALEXANDERSON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 9, 1911. Serial No. 632,208. (Cl. 250—17.)



1. The method of controlling high frequency current for signaling and the like which consists in rendering conductive an arc device by high voltage, high frequency pulsations varying in amplitude in accordance with the signals to be transmitted, thereby varying the length of time required for the voltage of each pulsation to rise to the value requisite for rendering the device conductive and impressing upon the main electrodes of said mercury vapor device a pulsating current of considerable energy, the periods of said current being in step with the exciting pulsations, thereby causing variable portions of said high energy current to be transmitted.

2. The method of signaling through space, which consists in impressing upon a vapor electric device high frequency pulsations which periodically fall to a voltage less than that required to sustain an arc, rendering the space in said device conductive to current during each wave of current, retarding or advancing the point in the wave interval at which the space is rendered conductive in accordance with the signal to be sent, thus transmitting variable portions of the pulsations and utilizing said pulsations for the production of electromagnetic waves.

3. The method of controlling the energy of high frequency pulsations for signaling or other purposes, which consists in rendering conductive a device having a high break-down resistance by high frequency pulsations occurring in step with the pulsations to be controlled, attaining a voltage high enough to break down the resistance of said device and render it conductive and varying the wave slope of said exciting pulsations, thus varying the time intervals required for said exciting waves to attain the break-down voltage and thereby transmitting shorter or longer impulses of current as required.

4. The combination of a source of high frequency electrical pulsations of uniform amplitude, a control circuit carrying pulsations in step with said high frequency pulsations, means in said control circuit for varying the slope of the wave form of the pulsations in said circuit, and means for controlling the transmission of high frequency pulsations from said source in accordance with said variations of slope of the pulsations in the control circuit.

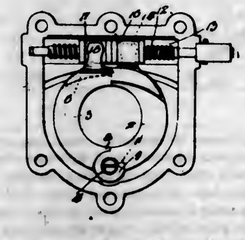
5. The combination of a source of high frequency pulsating current of considerable energy, means characterised by a high initial resistance subject to reduction by the passage of electrical energy therethrough, means for furnishing high voltage exciting pulsations in step with the main pulsating current for rendering said device conductive for current from said source during each pulsation, and means for varying the slope of the wave form of said exciting pulsations at will, thereby varying the time with respect to the beginning of each wave of main current that said means is rendered conductive and thus controlling the amount of energy transmitted.

[Claims 6 to 9 not printed in the Gazette.]



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1,042,070. ADJUSTABLE NOZZLE-TIP. CHARLES L. BAKER, St. Joseph, Mo., assignor of one-half to Thomas T. Logan, St. Joseph, Mo. Filed May 29, 1911. Serial No. 630,228. (Cl. 110—152.)



1. A nozzle tip having a body with an opening therethrough, two coacting gates pivotally secured on the body of the tip for co-active movement to increase or decrease the area of said tip opening, a lug carried by each gate, a worm screw, and a collar mounted upon said screw, one to each lug for operating the gates when the worm is operated, a manually operated device at a distant point for operating said worm, and an indicator operated by said device for indicating the area of opening of the gates.

2. A nozzle tip having a body with an opening therethrough, a lid therefor, said lid and body forming a gate casing and a worm casing, two gates mounted in the gate casing, said gates having pointed co-acting free ends and interlocking pivotal ends pivoted in said casing and disposed to vary the area of the opening of the body, each one of said gates having a lug upon its free end, a worm screw disposed within the worm casing and having two oppositely disposed worm threads thereon, and a collar to each set of threads mounted upon the worm and operably engaging the lugs of the gates, manually operated means connected to the worm and operable from a distant point for controlling the movements of the gates.

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1,042,071. RAILWAY-TIE. ALBERT J. BATES, Chicago, Ill. Filed Aug. 25, 1911. Serial No. 645,896. (Cl. 238—6.)



1. A railway tie comprising a pair of rail supporting pedestals made of a plastic material and separated from each other, and a pair of one-piece trussed metal structures of skeleton form made of ductile metal embedded in said pedestals adjacent to the sides thereof to reinforce and connect the same, substantially as described.

2. A railway tie comprising a pair of pedestals made of plastic material separated from each other to support the rails, and a pair of one-piece trussed metal structures of skeleton form made of ductile metal embedded in said pedestals adjacent to the sides thereof and extending substantially throughout their length to reinforce and connect the same, substantially as described.

3. A railway tie comprising a pair of pedestals made of plastic material and separated from each other to support the rails, and a pair of one-piece trussed metal structures of skeleton form embedded in said pedestals adjacent to the sides thereof and forming a connection therebetween, substantially as described.

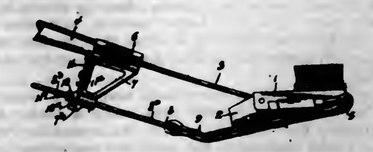
4. A railway tie comprising a pair of pedestals made of plastic material and spaced apart to support the rails in the center of the length of the pedestals, and a pair of one-piece trussed metal structures of skeleton form embedded in said pedestals adjacent to the sides thereof to reinforce and connect the same, substantially as described.

5. A railway tie comprising a pair of pedestals made of plastic material and spaced apart to support the rails, a skeleton box-like frame embedded in each pedestal adjacent to the surface thereof, and a pair of parallel one-piece trussed metal structures of skeleton form forming parts of said frames and reinforcing and connecting the pedestals, substantially as described.

[Claims 6 to 26 not printed in the Gazette.]

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1,042,072. WRINGING DEVICE. JOSEPH O. BRADLEY, Baltimore, Md., assignor to The Brush Mop Wringer Manufacturing Company, Baltimore, Md., a Corporation of Maryland. Filed July 25, 1911. Serial No. 640,389. (Cl. 15—43.)



1. The combination of a mop head having a mop carrying loop, a handle for the mop head, a rotary and slidable mop loop carried by the handle, a mop carried by the said loops and means to lock the rotary loop against rotation

in one direction when it has moved to the end of its sliding movement in one direction, the loop being free at such time for further rotation.

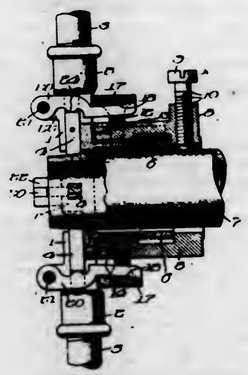
2. The combination of a mop head, having a mop carrying loop, a handle for the mop head, a rotary and slidable mop loop carried by the handle, a mop carried by the said loops and means comprising a dog and ratchet to lock the rotary loop against rotation in one direction when it has moved to the end of its sliding movement in one direction, the loop being free at such times for further rotation in the other direction.

3. In a mop wringer the combination with a front loop, of a slidable rear rotary loop having a handle, a sleeve surrounding the shank of the last named loop and having a bifurcated rear end adapted to receive the handle of the rotary loop, means for locking the sleeve against rotation and a mop carried by the loops.

4. In a mop wringer, the combination of a front loop of a rear loop having a straight shank and a cross handle upon the rear end thereof, a bearing for the shank of the last named loop, a ratchet wheel having a bifurcated hub formed integral therewith, means for retaining the ratchet wheel against longitudinal movement in respect to the bearing and a dog adapted to engage the said ratchet wheel, the shank of the rear loop being slidably mounted in the ratchet wheel.

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1,042,073. DIE-STOCK. CHARLES T. BENSON, Chicago, Ill., assignor to The Nye Tool and Machine Works, Chicago, Ill., a Corporation of Illinois. Filed Nov. 9, 1911. Serial No. 659,340. (Cl. 10—120.)



1. In a die stock, a stock body adapted to carry the dies, a leader bushing screwing upon said body and adapted to be fastened to the work, die controlling levers fulcrumed at one end upon said stock body, and a rotatable and laterally fixed cam ring having internal cams arranged lengthwise of the axis adapted to automatically control said levers.

2. In a die stock, a stock body adapted to carry the dies, a leader bushing screwing upon said body and adapted to be fastened to the work, die controlling levers pivoted at one end to said stock body, and a cam ring rotatable and laterally fixed upon said leader bushing, said cam ring being apertured and housing the free ends of said levers, and the cam surfaces extending lengthwise of the axis of rotation.

3. In a die stock, a stock body adapted to carry the dies, handle sockets on said stock body, a leader bushing screwing upon said stock body, set screws for fastening the leader bushing to the work, die controlling levers fulcrumed at one end upon said stock body, and a rotatable and laterally fixed cam ring adapted to control said levers, said cam ring being located between the set screws and the handle sockets.

4. In a die stock, a stock body adapted to carry the dies, a leader bushing making screw connection with said body and adapted to be fastened to the work, and a rotatable but laterally fixed cam ring operative upon said levers, the stock body being apertured to receive said levers for housing the same, and the lever fulcrums being located at one end of the housing apertures and the cam ring at the other.

5. In a die stock, a stock body adapted to carry the dies, handle sockets on said stock body, a leader bushing making screw connection with said stock body and adapted to be fastened to the work, die controlling levers pivoted to said stock body, and a cam ring rotatable and laterally fixed upon said leader bushing, said ring and the lever pivots being on opposite sides of the handle sockets.

[Claims 6 to 9 not printed in the Gazette.]

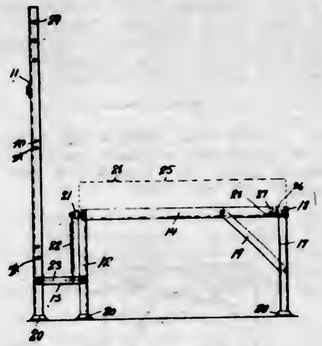
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1,042,074. METHOD OF MAKING A LIQUID BEVERAGE. CLIFFORD N. BOURNE, Syracuse, N. Y. Filed Mar. 4, 1912. Serial No. 681,622. (Cl. 99—11.)

The herein described method of making a liquid beverage consisting in dissolving a predetermined quantity of sugar in a suitable quantity of water, and then adding to this solution substantially half the quantity of pure spirit, about five per cent. over proof, then stirring this composition and leaving it for about twenty-four hours; then adding to the composition made suitable flavors, consisting of pure lime juice, and the essences of cassia, almond and clove dissolved in a pint of strong spirit and afterward put into the cask and the whole thoroughly stirred and left for another period of twenty-four hours; then mixing with the resulting composition the whites of a suitable number of eggs, together with a relatively small quantity of isinglass, separately dissolved in a pint of hot water, and then mixed with the eggs and the whole beaten together until cool; then stirring the entire composition in the receptacle and sealing the same air-tight and leaving it for a period of approximately twenty-one days before using.

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1,042,075. FOLDING BED. HENRIETTE BRANDT, New Brighton, N. Y. Filed Sept. 10, 1909. Serial No. 517,006. (Cl. 5—9.)



1. In a bed, posts or uprights, rear legs, braces connecting said rear legs to said posts, a frame pivoted at the upper end of said rear legs, a spring bottom secured to said frame, front legs disconnected from said frame and brace pivoted to said front legs and to the frame, a spring connected to the rear of the frame at one end and to the brace at the other end.

2. In a bed, two uprights or posts, a brace connecting said uprights, two rear legs, a brace connecting each of said rear legs and said uprights, a frame consisting of an angle iron, the bottom web of the angle irons having openings therein, a spring bottom, the wires of said spring bottom projecting through said openings, two front legs adapted to rest against the under side of the frame, two bars each of which is pivoted to one of the front legs, and the other to one end of the frame.

3. In a bed, two uprights or posts, a brace connecting said uprights, two rear legs, a brace connecting each of said rear legs and said uprights, a frame consisting of an angle iron, the bottom web of the angle irons having openings therein, a spring bottom, the wires of said spring bottom projecting through said openings, two front legs adapted to rest against the under side of the frame, two bars, each of which is pivoted to one of the front legs, and the other to one end of the frame, each of the posts and legs provided with enlarged feet.

4. In a bed, two uprights or posts, each of said uprights having holes or openings near the upper end thereof, a brace connecting each of said uprights, two rear legs, a brace connecting each of said rear legs and said posts, a shelf extending between said braces, a frame consisting of angle iron pivoted to the upper ends of said legs, the horizontal webs of the angle irons being provided with openings, two springs, one end of each being connected to the frame and the other end to a standing up of the bed, a wire bottom secured to the frame by wires projecting through the openings in the frame, lugs or projections extending from the frame at the front thereof, front legs, the upper ends freely resting under said lugs and braces pivoted to said front legs and to each end of the frame.



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1,042,076. FUEL-ADMISSION VALVE FOR INTERNAL-COMBUSTION ENGINES. ARMAND BANDY BREUER, Budapest, Austria-Hungary. Filed May 11, 1912. Serial No. 696,802. (Cl. 137—80.)



1. A fuel admission valve for internal combustion engines, including a casing having a spray nozzle, an expansion chamber adjacent to and supplying said nozzle with fuel, a fuel-delivering passage leading to said expansion chamber, a separate air-delivering passage leading to said expansion chamber, devices for closing said passages, and means common to said devices for operating the same, whereby air is first admitted to said expansion chamber and then air and fuel admitted thereto.

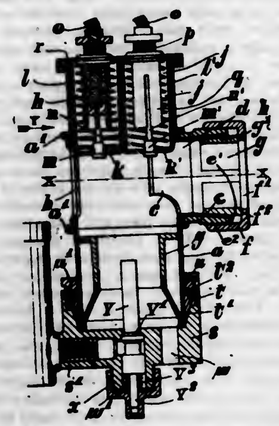
2. A fuel admission valve for internal combustion engines including a casing having a spray nozzle, an expansion chamber adjacent said nozzle, a fuel-delivering passage leading to said expansion chamber, a plunger for closing said passage, said plunger extending to a point in said casing some distance from said chamber and having an air passage therethrough, a device for closing said air passage, and means common to said device and said plunger for operating the same, whereby first air is delivered to said expansion chamber, and then air and fuel admitted thereto.

3. A fuel admission valve for internal combustion engines, including a casing having a spray nozzle and an expansion chamber adjacent said nozzle, a fuel-delivering passage leading to said expansion chamber, a plunger for closing said passage, said plunger extending to a point in said casing some distance from said chamber and having an air passage centrally therethrough, means in said casing for supporting said plunger, said supporting means having fuel passages extending therethrough, a rod for reciprocating said plunger, said rod having a valve for closing the air passage through said plunger, the connection between the rod and the plunger permitting said rod to move first independent of the plunger, whereby air is admitted through the passage, and then move the plunger, whereby air and fuel are admitted to the expansion chamber through the fuel supply passage.

4. A fuel admission valve for internal combustion engines, including a casing having a spray nozzle, an expansion chamber adjacent said nozzle, a fuel-delivering passage leading from said casing to said expansion chamber, a plunger for closing said passage, said plunger extending to a point in said casing some distance from said chamber, means in said casing for guiding said plunger, said plunger-guiding means having fuel-delivering passages therethrough, said plunger having an air passage centrally therethrough, an adjustable cap carried by said plunger and having air-receiving ports, whereby air is admitted to the passage through the plunger, a rod for operating said plunger, said rod having a valve on its inner end adapted to close the passage in said plunger, said rod above said valve being enlarged and having a limited movement in said cap, whereby the first movement of said rod will uncover the air passage through said plunger, and a further movement of said rod will move said plunger to uncover the fuel passage leading to the expansion chamber.

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1,042,077. CARBURETER. CLEMENT BROWN, Birmingham, England. Filed Oct. 4, 1909. Serial No. 520,986. (Cl. 48—155.1.)



1. A carbureter comprising a mixing chamber having inlet and outlet ports, two independently movable hollow valve members arranged side by side to slide longitudinally within the mixing chamber and control said ports, each of said valve members having an open end, and compression springs contained in said hollow valve members extending through said open ends to bear against the mixing chamber.

2. In a carbureter, the combination of a mixing chamber having an inlet port and an outlet port, sliding semi-cylindrical members controlling said ports, a quickly detachable cap affixed to the top of said chamber, a split collar encircling said chamber and having a coned periphery, a platform having a coned mouth and means for contracting the split collar to grip said chamber.

3. In a carbureter, the combination of a mixing chamber having an inlet port and an outlet port, sliding semi-cylindrical members controlling said ports, a quickly detachable cap affixed to the top of said chamber, an elbow

connection for egress from said chamber, a split collar having a coned periphery adapted to fit into the coned mouth of said elbow connection, and means for pressing said collar into said mouth.

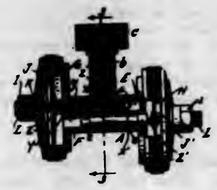
4. In a carbureter, the combination of a mixing chamber having an inlet port and an outlet port sliding semi-cylindrical members controlling said ports, a quickly detachable cap affixed to the top of said chamber, a tapped bush secured to said cap, and a stop screwed therein said bush being of slightly smaller bore than the external diameter of the stop.

5. In a carbureter the combination of a mixing chamber having an inlet port for the air and an outlet port for the mixture of air and gas, and two sliding semi-cylindrical members arranged in the mixing chamber side by side to control said ports.

[Claim 6 not printed in the Gazette.]

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1,042,078. PRESSURE-REDUCER. STEWART BROWN, Chicago, Ill. Filed Mar. 11, 1912. Serial No. 682,949. (Cl. 50—10.)



1. In a pressure reducer, a body provided with enlarged ends, said ends respectively provided with a recess, stems integral with and extending outward from said body, said stems positioned between said enlarged ends, diaphragms on said enlarged ends, caps respectively mounted on said enlarged ends to maintain said diaphragms in position to form a movable wall to chambers which are obtained by said recesses and diaphragms, said stems respectively provided with a passage way, one of said passage ways extended through said body and communicating with one of said chambers to form the inlet thereto, and the passage way in the other of said stems extended through said body and communicating with the other of said chambers to form the outlet therefrom, and said body provided with an additional passage way therethrough communicating with both said chambers to form the outlet from the first named chamber and the inlet to the other of said chambers, in combination with a valve seat in the first named passage way, a valve to co-act with said valve seat, means to yieldingly hold said valve on its seat, an additional valve seat in the passage way communicating with both said chambers, a valve to co-act with said additional seat, means to yieldingly hold said last named valve on its seat, and manually controllable means respectively positioned in said caps to yieldingly force said diaphragms forward to unseat said valves.

2. The combination of a body consisting of a central part provided with stems and provided with enlarged ends, said enlarged ends respectively provided with a recess, caps on said enlarged ends, said caps provided with screw threads fitting corresponding screw threads on the enlarged ends, and diaphragms secured in place over said recesses by said caps to obtain chambers, passage ways in said boly and in the stems thereon respectively forming inlets to and outlets from said chambers, and a passage way through said body communicating with both said chambers and forming an inlet to one of said chambers and an outlet to the other chamber, valve seats and valves to co-act with said seats, respectively arranged to control the inlets to said chambers, said diaphragms arranged to unseat said valves when in an advanced position and to permit said valves to seat when in a retracted position, and manually controlled means to yieldingly hold said diaphragms in an advanced position with an adjustably determined pressure.

1,042,079. TRANSIT. DAVID W. BRUNTON, Denver, Colo. Filed July 8, 1911. Serial No. 636,751. (Cl. 88—2.)



1. A transit of the character described, having a vernier provided with a transversely arranged bubble tube and in addition a longitudinally arranged bubble tube placed at a right angle thereto.

2. In a transit of the character described, a casing having means by which it may be engaged by a bracket for mounting it upon a tripod, combined with a bracket adapted to be sprung into engagement with the casing, and an adjustable joint for attaching the bracket to a tripod.

3. In a transit of the character described, a casing having means by which it may be engaged by a bracket for mounting it upon a tripod, combined with a spring bracket adapted to be snapped into engagement with the casing and having means for attachment to any suitable tripod.

4. In a transit of the character described, a casing having notches, combined with a spring bracket adapted to be sprung into said notches, and means to apply said bracket to a tripod.

5. In a transit of the character described, having notches in its casing, a curved spring bracket provided with reëntrant ends adapted to be sprung into said notches, and curved downwardly and provided with a universal joint for connection with a tripod.

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1,042,080. ICE-CREAM CUTTER. MARTIN L. BURKHARDT, Minneapolis, Minn., assignor of one-half to James P. McCabe, Minneapolis, Minn. Filed June 12, 1911. Serial No. 632,734. (Cl. 107—48.)



1. An ice cream cutter comprising a head having a suitable handle, knives mounted at one end on said head and projecting outwardly therefrom, a spindle slidably mounted in said head, an ejector connected with said spindle and slidable on said knives, the inward movement of said ejector operating to draw said knives together, and outward movement of said ejector forcing the cream from between said knives.

2. An ice cream cutter comprising a head having a handle, knives pivoted at one end on said head and adapted to swing toward and from one another, a cream ejecting device slidably mounted on said knives and operating, when retracted by the pressure of the cream, to draw the outer ends of said knives together, and when projected to discharge the cream from between said knives.

3. An ice cream cutter comprising a head having a suitable handle, cream cutting knives held against longitudinal movement but having a limited lateral movement, a sliding ejector and means for separating the cream from said ejector.

4. An ice cream cutter comprising a head having a suitable handle, knives carried by said head and movable toward and from one another a sliding ejector and a revolving spindle mounted in said head and connected with said ejector.

5. An ice cream cutter comprising a head, a handle therefor, cream cutting knives carried by said head, and movable toward and from one another a sliding ejector, a spindle mounted in said head and having a spiral groove therein, a pin fitting within said groove, said spindle being attached at one end to said ejector and having a finger piece at its opposite end.

[Claims 6 to 10 not printed in the Gazette.]



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1,042,081. JOINT FOR RECEPTACLES. THOMAS E. CAMP, Milwaukee, Wis. Filed Feb. 9, 1911. Serial No. 607,638. (Cl. 217—56.)



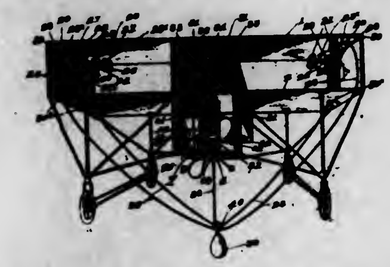
1. A joint for detachable members comprising a wood body portion having a non-flexible metallic binder secured to one wall thereof, the binder being extended above the wood body and bent at approximately a right angle thereto from which point it is rebent to form a downwardly extended oblique wall, a second binder secured to the other wall of the wood body and extending above the same to form a groove in conjunction with the oblique wall of the first named binder and top edge of said body portion the throat of the groove being of less area than its base, a cushion-strip fitted into the groove of less cross-sectional area than the latter, a second detachable member comprising a wood body, and a binder secured thereto having a tongue adapted to enter the groove of the first named detachable member.

2. A joint for detachable members comprising a wood body portion having a pair of non-flexible metallic binders secured to its opposite walls, the binder being provided with extensions above the wood body, which extensions are bent at approximately right angles and thereafter rebent to form downwardly extending oppositely disposed oblique walls, whereby a groove is formed in conjunction with the top edge of the wood body but wholly above the same, the mouth of the groove being of less width in cross-section than the base thereof, a cushion-strip fitted into the base of the groove of less cross-sectional area than the latter, a second detachable member comprising a wood body, a binder secured thereto having a tongue projecting wholly above said body member adapted to enter the groove and engage the cushion.

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1,042,082. BALANCING MECHANISM FOR AEROPLANES. JOSEPH CANTY, Concord, N. H. Filed May 20, 1912. Serial No. 698,530. (Cl. 244—31.)

1. A balancing device for aeroplanes comprising, in combination with the planes of the apparatus, spring-actuated reels mounted upon one of the planes, cables winding about said reels, hollow spring-pressed bearing members mounted upon one of the planes and through which said cables are guided, a weight, a rope fastened thereto, means for raising and lowering the latter, said cables adapted to guide the weight as it swings as a pendulum, as set forth.



2. A balancing device for aeroplanes comprising, in combination with the planes of the apparatus, spring-actuated reels mounted upon one of the planes, cables winding about said reels, hollow spring-pressed bearing members mounted upon one of the planes and through which said cables are guided, a stop fixed to each cable and adapted to bear against the bearing member to limit the movement of the cable in one direction, a weight, an eye fixed thereto through which said cables pass, a rope secured to said eye, and means for raising and lowering said rope, as set forth.

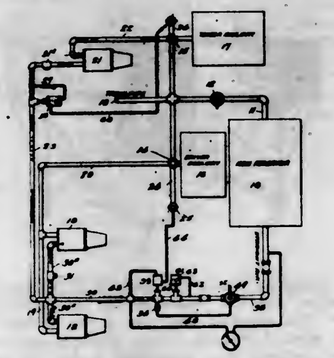
3. A balancing device for aeroplanes comprising, in combination with the planes of the apparatus, spring-actuated reels mounted upon one of the planes, cables winding about said reels, hollow spring-pressed bearing members mounted upon one of the planes and through which said cables are guided, a stop fixed to each cable and adapted to bear against the bearing member to limit the movement of the cable in one direction, a weight, an eye fixed thereto through which said cables pass, guide members mounted upon the frame of the apparatus and spaced apart, a cross head movable between said guide members, a rope fastened to said cross head and to said weight, a winding drum, a cable fixed to said cross head and winding about said drum, a longitudinally movable shaft, gear wheels fixed thereto, means for driving the shaft, and lever-operated mechanism for shifting the driving shaft to cause the drum to rotate in one direction or the other, as set forth.

4. A balancing device for aeroplanes comprising, in combination with the planes of the apparatus, a pulley, a cable passing about the same, a weight secured to the cable, a rotatable shaft, a reel fixed thereon and about which the cable winds, a second and longitudinally movable shaft, a lever pivoted to said latter and adapted to move the same longitudinally, intermeshing pinion wheels, one being carried by the spindle of the reel, and arms upon the other pinion wheel adapted to contact with said lever to cause the same to tilt, and automatic means for moving the shaft to which said lever is pivoted longitudinally, as set forth.

5. A balancing device for aeroplanes comprising, in combination with the planes of the apparatus, a pulley, a cable passing about the same, a weight secured to the cable, a rotatable shaft, a reel fixed thereon and about which the cable winds, a second and longitudinally movable shaft, a lever pivoted to said latter and adapted to move the same longitudinally, intermeshing pinion wheels, one being carried by the spindle of the reel, arms upon the other pinion wheel adapted to contact with said lever to cause the same to tilt, a pinion wheel upon said longitudinally movable shaft and meshing with the pinion wheel upon the reel spindle, a horisontally rotating pinion wheel in mesh with said pinion upon the longitudinally movable shaft, and a yoke held yieldingly against said pinion wheel which rotates in a horisontal plane, as set forth.

[Claim 6 not printed in the Gazette.]

1,042,083. STRAIGHT-AIR BRAKE ATTACHMENT FOR AUTOMATIC SYSTEMS. WILLARD R. CHANDLER, Branchville, S. C. Filed Mar. 13, 1911. Serial No. 614,170. (Cl. 188—1.)



1. An air brake system comprising a main reservoir, train pipe, brake cylinders, triple valves and brake cylinder connections, a straight air pipe leading from the main reservoir and having branches to the cylinders, release means comprising a cylinder, piston, and a check valve in the straight air pipe, a connection from the cylinder to a triple valve, and a controlling valve to apply the straight air.

2. In an air brake system, a main reservoir and train pipe, connections from said pipe each having a triple valve and a retaining valve connection to the exhaust therefrom, brake cylinders each connected to a triple valve and to each other, a check valve, and an additional connection between the check valve and a retaining valve.

3. The combination in an air brake system of a main reservoir and train pipe, triple valves and retaining valves connected to the exhaust therefrom, brake cylinders connected to the triple valves, independent connections between the brake cylinders, check valves in said connections, and connections from said check valves to said retaining valves.

4. The combination with an air pipe and valve casing of a control valve plug in the casing having a straight passage therethrough, an atmosphere port in the casing and a complementary radial port in the plug, a check valve, a valve releasing device, an outlet pipe from said casing to said device, and a complementary by-passage in the plug.

5. The combination with an air pipe of a pressure regulating device comprising a valve casing and a valve therein, an air chamber and a valve stem provided with a piston, a connection from the air pipe to admit air above the piston, and a connection to admit retained air below said piston, and an equalizing spring below the piston.

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1,042,084. MILK-CAN OR THE LIKE. WALLACE S. CHILDS, Protection, N. Y., assignor of one-half to Harry E. Richardson, Eden, N. Y. Filed Feb. 7, 1912. Serial No. 676,044. (Cl. 31—82.)

1. A receptacle having a cover provided with an ice-chamber and a tube extending into the receptacle and being in communication with said ice chamber to deliver the water therefrom, said tube being arranged to retain a quantity of water at a point within said receptacle.

2. A receptacle having a cover provided with an ice-chamber, a trap-tube in communication with said ice-chamber and extending down into the receptacle and arranged to receive the water from the ice-chamber and deliver the same outside of said receptacle.

3. A receptacle having a cover provided with an ice-chamber, a tube fastened to said cover and in communication with said ice-chamber, said tube extending downward into said receptacle and thence upward and outward to terminate outside of said receptacle.



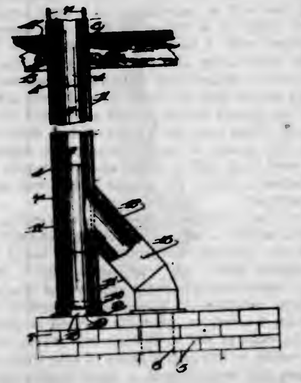
4. A receptacle having a cover provided with an ice-chamber, a U-shaped tube having one end extending laterally through said cover and receptacle and terminating outside of both, said tube having a water inlet to deliver water thereinto when the ice melts within the ice-chamber.

5. A receptacle having a chambered cover for the reception of ice, said cover having a lid and a tube extending through said cover and above said lid and also downwardly from said cover into the receptacle thence upwardly into the cover and finally outwardly through the side of said cover, said tube having a water inlet directly above the bottom of said cover.

[Claims 6 to 12 not printed in the Gazette.]

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1,042,085. CHIMNEY. LEONARD E. CLAWSON, San Francisco, Cal. Filed Jan. 12, 1912. Serial No. 670,838. (Cl. 72—92.)



1. The combination in a chimney, of a series of fire clay tubes having reduced abutting ends and metal connecting bands, a supporting base-plate and an upwardly extending, annular metal flange of larger diameter than the tube, a metal casing fitting the flange and inclosing the tube, reinforcing and spacing rods extending upwardly between and in contact with the tube and the casing, and a filling of plastic material capable of hardening around the rods and between the tube and casing.

2. A chimney composed of tubular fire clay sections having uniting metal bands, an inclosing metal casing of larger diameter, intermediate, longitudinally disposed, metal spacing rods between and in contact with the tube and casing and a filling of plastic material, a base upon which the chimney is supported, and a diagonally disposed branch having one end connected with the chimney and the other end opening into the center and top of the fireplace.

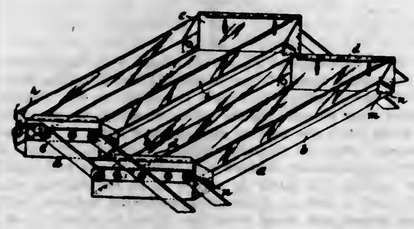
3. A chimney composed of tubular fire clay sections having uniting metal bands, an inclosing metal casing of larger diameter, intermediate, longitudinally disposed, metal spacing rods between and in contact with the tube and casing and a filling of plastic material, a base upon which the chimney is supported, and supplemental elastic supports connecting the chimney with the succeeding floors above.

4. A chimney structure comprising a suitable base or support, a tubular fire resisting lining superposed upon said support, and a reinforce arranged circumferentially to said lining, a metallic casing concentrically spaced from said lining by the reinforce, a cementitious filler between said casing and the lining, and means connecting the chimney to a fixed part of a building, said means comprising a strap embracing the chimney and fixed to the building, and cushioning springs between the chimney and strap.



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1,042,086. DISPLAY-CONTAINER. WILLIAM H. CLEMENTS, Nutley, N. J. Filed Jan. 9, 1912. Serial No. 670,293. (Cl. 206—44.)



1. In combination, an upwardly open box-like body structure and a cover consisting of a transparent top wall and two depending transparent side walls, said cover resting on the body structure and having its side walls projecting higher than the sides of the body structure, substantially as described.

2. In combination, an upwardly open rectangular box-like body-structure having a locking projection extending from the upper part of one of its upright walls inwardly beyond the inner surface of said wall, and a rectangular transparent cover formed of sheet material and fitted into the body-structure from above, said cover having downwardly extending walls each bearing edgewise against the upright wall of said body relatively opposite that wall of said body from which extends the projection and also having a top wall extending under said projection, whereby to necessitate bending of the cover in order to remove the same from the body-structure, substantially as described.

3. In combination, an upwardly open rectangular box-like structure having two opposite sides higher than the other two opposite sides and having one of the higher sides formed with an inward projection, and a transparent cover formed of stiff sheet material and resting on the body structure with its side walls coincident with and projecting above the lower sides of the body structure, said cover being held by the body structure against movement away from the side of said body structure having the projection and being engaged under the latter, substantially as described.

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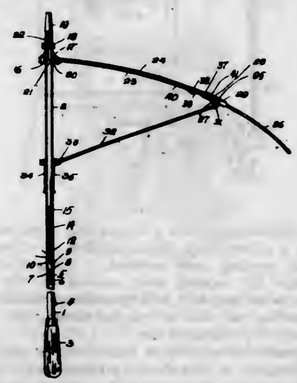
1,042,087. WASTE OR SOIL PIPE CONNECTION FOR WATER-CLOSETS. JOHN CLIFFORD, Chicago, Ill., assignor to L. Wolff Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed June 14, 1906. Serial No. 321,603. (Cl. 137—94.)

The combination with a water closet bowl having a floor engaging base provided with an annular recess, and a flat horizontal clamp face, of a lead soil pipe, a floor plate having a vertical cylindrical inner surface with beveled upper corner, said floor plate receiving the lead soil pipe and soldered thereto, and having on its upper face an annular groove with flat horizontal bottom, a thick, soft, flexible packing ring of compressible material fitting in said annular groove and engaging the closet base, and clamp bolts extending between said closet base and floor plate and compressing said packing-ring vertically between said horizontal clamp faces of said closet base and floor plate.



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1,042,088. FOLDING UMBRELLA. FRANK B. COLL, Tornado, W. Va. Filed Feb. 17, 1912. Serial No. 678,220. (Cl. 135—25.)



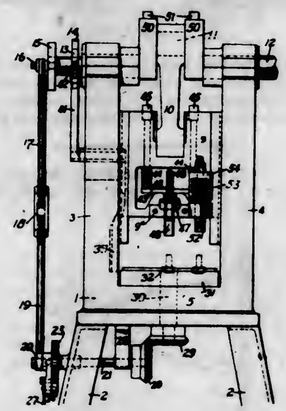
1. An umbrella comprising a stick formed near its tip with a longitudinal slot, a runner slidably mounted upon the stick, a notch carried by the stick inwardly with respect to said slot, a shiftable nut mounted upon the stick outwardly with respect to said notch, an inner rib section pivotally connected to said notch, a spreader pivotally connected to said runner, an outer rib section pivotally connected to the inner rib section, a sleeve slidably mounted upon said rib sections and adapted to extend over the pivot of said sections to provide a rigid connection, said sleeve having its inner end formed with an opening, a resilient latch carried by the inner rib section and capable of engaging in said opening for maintaining the sleeve from movement, means for pivotally connecting the spreader to said sleeve, and a flexible member connected to said latch, extending through the inner rib section and in to the stick, and means for connecting said member to said nut through said slot.

2. The umbrella comprising a stick including a hollow tip section provided with a longitudinal slot and an opening inwardly with respect to said slot, a notch secured to the stick inwardly of said slot and having an opening registering with the opening of the tip section, an inner and an outer rib section pivotally connected together, a sleeve slidable upon said sections and capable of increasing the pivot thereof to maintain a rigid connection between said sections, means for pivotally connecting said inner section to said notch, a latch carried by the inner section and engaging said sleeve to retain the latter stationary, a flexible releasing member attached to said latch, extending through said inner section and through said openings into said tip section, a shiftable nut mounted upon the tip section, means for connecting said member to said nut, means for pivotally

connecting the spreader to said sleeve, and a runner mounted upon the stick and having the spreader pivotally connected thereto.

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1,042,059. BOLT-TRIMMING MACHINE. JOHN A. COLLINS, Verona, Pa., assignor to Pittsburg Screw & Bolt Company, a Corporation of Pennsylvania. Filed Oct. 9, 1911. Serial No. 653,544. (Cl. 10—20.)



1. The combination with a frame and a movable member having a plurality of trimming dies, of means for intermittently moving said member a predetermined distance, means for locking said member in the position to which it is moved, and a reciprocating member having a bolt-adjusting tool and a tool for forcing the adjusted bolts through the trimming dies.

2. The combination with a frame and a movable die-carrying member, of means for intermittently actuating said member, means for locking the member in the position to which it is actuated, and a member reciprocating at right angles to the movement of the die-carrying member and provided with means for seating and adjusting a bolt and with means for forcing the seated and adjusted bolt through the dies.

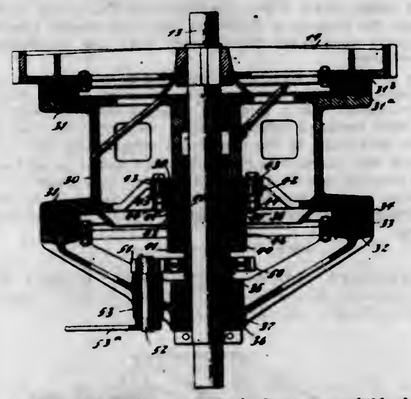
3. The combination with a frame comprising uprights provided with guideways, of a plunger-carrying member mounted in said guideways, a shaft for reciprocating said member, a die-carrying member mounted to move in a substantially horizontal plane, means for intermittently actuating said die-carrying member and locking it in its adjusted positions and means carried by the reciprocating member for seating bolts in the die-carrying member and means for forcing the same through the dies.

4. In a bolt-trimming machine, the combination with a horizontally movable member having a set of trimming dies that are adapted to receive the heads of bolts having upwardly projecting shanks, of a vertically reciprocating member having a seating and adjusting plunger and a punch, and means for moving the die and bolt carrying member in successive steps to present two bolts for respective simultaneous engagement by said plunger and said punch.

5. In a bolt-trimming machine, the combination with a die-carrying member, means for moving said member step-by-step, and means for locking said member at the end of each movement step, of a reciprocating member having a seating and adjusting plunger to engage the end of an upwardly projecting bolt shank in each position in which the die-carrying member is locked and having a combined punch and plunger for simultaneously forcing a previously adjusted bolt through the die.

[Claims 6 to 10 not printed in the Gazette.]

1,042,090. ROPE-WINDING ENGINE. HARRY N. COVELL, New York, N. Y., assignor to Lidgerwood Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Dec. 19, 1910. Serial No. 598,158. (Cl. 115—10.)



1. In a rope engine, a revoluble drum, a revoluble driving element, a fixed friction element, a thrust means movable in one direction to couple the drum to the driving element, and movable in the other direction to uncouple the drum from the driving element and move it into engagement with the friction element, means to provide a positive engagement between the thrust means and drum when moving the latter to couple it to the driving element, and a cushion connection operating between said thrust means and drum when the latter is moved to engage the friction element.

2. In a rope engine, a revoluble drum and means for driving the same, a fixed friction surface, means for placing the drum in frictional contact with said surface, and a spring between said means and the drum.

3. In a rope engine, a drum, a driving element, means for connecting the drum and driving element to drive the drum, a fixed friction element adjacent one end of the drum, means for moving the drum into engagement with said fixed friction element and a spring adapted to exert its thrust expansively between said means and drum.

4. In a rope engine, a shaft, a drum and a driving gear on the shaft, a fixed friction element, means for placing the drum and driving element in driving connection, means for placing the drum in engagement with the fixed friction element, a spring between said means and the drum, and means whereby the drum may be positively placed in contact with the friction element.

5. In a rope engine, a shaft, a drum and a driving element on the shaft, means for connecting the drum and element to drive the drum, a fixed friction element concentric with the shaft, means for moving the drum into engagement with the driving element, and means for disconnecting the drum and driving element and connecting the drum to the fixed friction element, and yielding means to permit slip of the drum relative to said friction element.

[Claims 6 to 17 not printed in the Gazette.]

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1,042,091. BOTTLE-STOPPER. FRANK CULOTTA, Ingram, Pa. Filed July 3, 1912. Serial No. 707,580. (Cl. 215—20.)

1. In a bottle stopper the combination with a bottle neck having a rim provided with a depending annular fragile flange spaced from the bottle neck, of a stopper fitting in said neck, a fastener member mounted upon the stopper and having an opening, tie rods extending through the stopper and engaging the fastener member for connecting it to the stopper, and malleable arms carried by said member and having the ends thereof bent to underlap the flange and further extending between the flange and the bottle neck whereby said flange will be broken when the stopper is removed from the bottle neck.



2. In a bottle stopper the combination with a bottle neck having a rim provided with a depending annular flange surrounding and spaced from the bottle neck, a stopper fitting in said bottle, a fastener member having one end connected to the stopper and further having a central opening in said connected ends, and a pair of malleable arms forming part of said member and bent to underlap said flange and to further extend between the flange and the bottle neck whereby said flange will be broken when the stopper is removed from the bottle neck.

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1,042,092. ART OF CASTING STEEL. EDGAR A. CUSTER, Philadelphia, Pa., assignor to The Custer Sandless Casting Company, Philadelphia, Pa., a Corporation of Delaware. Filed June 3, 1910. Serial No. 564,885. (Cl. 22—209.)



1. The improvement in the art of casting steel which consists in cooling the metal as it fills the matrix of the mold so that the metal will set throughout the casting at the same rate at which it is poured.

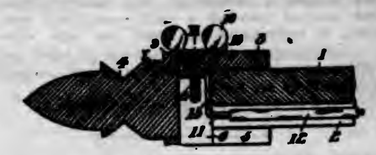
2. The improvement in the art of casting steel which consists in cooling the metal as it fills the mold quickly and progressively and pouring the metal so as to keep pace with the progressive setting of the metal in the mold.

3. The improvement in the art of casting steel which consists in continuously pouring the metal into the mold chamber through a long gate and cooling the metal as it fills the mold quickly and progressively, the pouring of the metal into the mold being at the same rate at which the metal sets.

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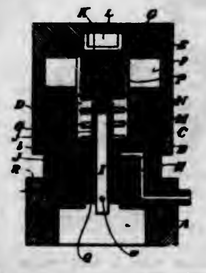
1,042,093. CURTAIN-POLE. JONATHAN C. DE HAVEN, Carnegie, Pa., assignor of one-half to Bernard J. Heney, Carnegie, Pa. Filed Apr. 17, 1912. Serial No. 691,858. (Cl. 156—19.)

A curtain pole comprising a pole body having a longitudinally extending groove formed therein, cap blocks arranged upon the ends of said pole body and having slots formed therein, adjustable screws carried by and extending into the slots of said blocks, vertically adjustable supporting nuts mounted upon said screws within said slots, a rod arranged in said groove and provided with angle-shaped ends positioned in said slots, said angle-shaped ends having their free termini provided with eyes encircling said screws above said nuts, said angle-shaped ends supported by said nuts whereby said rod can be raised and lowered relatively to the pole body by the adjustment of said screws.



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1,042,094. AUTOMATIC VALVE MECHANISM FOR BUMPING-MACHINES. HENRY L. DEMMLER, Kewanee, Ill. Filed Aug. 30, 1909. Serial No. 515,255. (Cl. 121—19.)



1. In a reciprocating device, a casing having a primary chamber and an auxiliary chamber, a valve-seated port connecting said chambers, a supply port for said primary chamber, a head slidingly engaging said casing and provided with a suitable exhaust port, a valve in said primary chamber for controlling said valve-seated port, a valve in said auxiliary chamber for controlling said exhaust port, and fluid actuated means for operating said valves.

2. In a reciprocating device, a casing having a primary chamber and an auxiliary chamber, a valve-seated port connecting said chambers, a supply port for said primary chamber, a head slidingly engaging said casing and provided with a suitable exhaust port, a valve in said primary chamber for controlling said valve-seated port, a valve in said auxiliary chamber for controlling said exhaust port, fluid actuated means for operating said valves, and means for checking said exhaust valve on its return stroke.

3. In a reciprocating device, a casing having a primary chamber and an auxiliary chamber, a valve-seated port connecting said chambers, a supply port for said primary chamber, a vertically reciprocable head slidingly engaging said casing and provided with a suitable exhaust port, a valve in said primary chamber for controlling said valve-seated port, a valve in said auxiliary chamber for controlling said exhaust port, fluid actuated means for operating said valves, and means for arresting said slidingly engaging head at the limit of its downward travel.

4. In a reciprocating device, a casing having a primary chamber and an auxiliary chamber, a valve-seated port connecting said chambers, a supply port for said primary chamber, a vertically reciprocable head slidingly engaging said casing and provided with a suitable exhaust port, a valve in said primary chamber for controlling said valve-seated port, a valve in said auxiliary chamber for controlling said exhaust port, fluid actuated means for actuating said valves, means for checking said exhaust valve on its return stroke, and means on the casing for

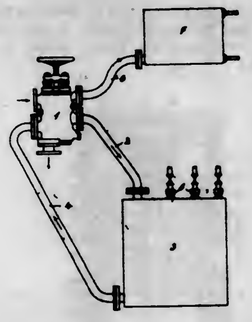
arresting the sliding head at the limit of its downward travel.

5. The combination with a stationary base provided with a telescoping reciprocable head having a valve controlled exhaust port, of a valve controlling said port adapted to reciprocate with said head, and valve and piston mechanism in the base operable to admit pressure to said head and to open said exhaust port respectively, substantially as set forth.

[Claims 6 to 23 not printed in the Gazette.]

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1,042,095. INJECTOR. PAUL DIETRICH and WILHELM MILLIES, Linden, near Hanover, Germany, assignors to Company "Gebr. Koerting Aktiengesellschaft," Körtingsdorf, near Hanover, Germany. Filed Nov. 20, 1911. Serial No. 661,308. (Cl. 162—1.)



1. In combination with a feed water lifting injector, means for subjecting the feed water to a pressure considerably above atmospheric pressure before supplying it to the injector, so as to enable the water to be fed to the injector at a high temperature without vaporisation of the water in the injector.

2. In combination with a feed water lifting injector, means for subjecting the feed water to a pressure considerably above atmospheric pressure before supplying it to the injector, by the pressure of steam supplied to the injector, so as to enable water to be fed to the injector at a high temperature without vaporisation of the water in the injector.

3. In combination with a feed-water injector, a feed-water tank, means for maintaining the feed water in said tank at a pressure considerably above atmospheric pressure and a connection from said tank to the water-inlet of the injector.

4. In combination with a feed-water injector, a feed-water tank, a connection supplying steam from the injector to said tank so as to maintain the feed water in said tank at a pressure considerably above atmospheric pressure, and a connection from said tank to the water inlet of the injector.

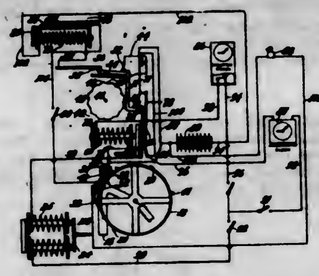
5. In combination with a feed-water injector, a feed-water tank, means for maintaining the feed water in said tank at a pressure considerably above atmospheric pressure, a connection from said tank to the water-inlet of the injector, and means for enabling the pressure in said tank to be relieved.

[Claims 6 to 10 not printed in the Gazette.]

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1,042,096. ELECTRICAL SIGNALING SYSTEM. HOWARD M. ELDRED, Milwaukee, Wis. Filed July 20, 1910. Serial No. 572,837. (Cl. 161—2.)

1. An electrical signaling system, comprising a cylinder provided with circumferential lines of openings representing certain successive periods of time, contact brushes positioned to register with the lines of openings, removable pins inserted in some of said openings to contact with said brushes, means for intermittently rotating the cylinder, the intervals of rest between the intermittent movements of the cylinder coinciding with the periods during which some of the pins inserted in the openings are in contact with the brushes, a signaling mechanism, a plurality of electric circuits in which the signaling mechanism, the cylinder and its rotating means and the brushes are included, a bell relay and a selector relay included in said circuits, and a clock also included in one of said circuits provided with means for successively making and breaking its circuit at certain regular periods of time to actuate the selector relay, the movement of the selector relay closing the circuit to the cylinder rotating means and actuating the same and also to the bell relay after certain successive movements of said selector relay, the closing of the bell relay circuit causing the actuation of the signal bells.



2. An electrical signaling system, comprising a cylinder provided with circumferential lines of openings representing certain successive periods of time, contact brushes positioned to register with the lines of openings, pins inserted in some of said openings to contact with said brushes, means for rotating the cylinder to move the pins into contact with the brushes, a signaling mechanism, a plurality of electric circuits in which the signaling mechanism, the cylinder and its rotating means are included, a bell relay and a selector relay included in said circuits, and a clock also included in one of said circuits provided with means for successively making or breaking its circuit at certain regular periods of time to actuate the selector relay, the movement of the selector relay closing the circuit to the cylinder rotating means and actuating the same and also to the bell relay after certain successive movements of said selector relay, the closing of the bell relay circuit causing the actuation of the signal bells.

3. An electrical signaling system, comprising a cylinder provided with circumferential lines of openings representing certain successive periods of time, contact brushes positioned to register with the lines of openings, removable pins inserted in some of said openings to contact with said brushes, means for intermittently rotating the cylinder, the intervals of rest between the intermittent movements of the cylinder coinciding with the periods during which some of the pins inserted in the openings are in contact with the brushes, a signaling mechanism, an electric circuit in which the signaling mechanism, the cylinder and its rotating means and the brushes are included, a circuit controlling clock included in said circuit and arranged to form a connection in said circuit, a bell relay included in said circuit, a selector relay also included in said circuit and arranged to actuate the bell relay to actuate the signals after a cylinder pin has been moved into contact with one of the cylinder brushes, and means for holding the bell relay contacts in engagement for a predetermined period of time.

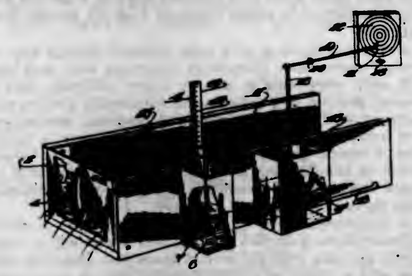
4. An electrical signaling system, comprising a cylinder provided with circumferential lines of openings representing certain successive periods of time, contact brushes positioned to register with the lines of openings, removable pins inserted in some of said openings to contact with said brushes, means for intermittently rotating the cylinder, the intervals of rest between the intermittent movements of the cylinder coinciding with the periods during which some of the pins inserted in the openings are in contact with the brushes, a signaling mechanism, an electric circuit in which the signaling mechanism, the cylinder and its rotating means and the brushes are included, a circuit controlling clock included in said circuit and arranged to form a connection in said circuit, a bell relay having a contact arm moved by its armature, a dash pot controlling the movement of said contact arm to prolong the duration of the contact, and a selector relay also included in said circuit and arranged to actuate the bell relay to actuate the signals after a cylinder pin has been moved into contact with one of the cylinder brushes.

5. An electrical signaling system, comprising a cylinder provided with circumferential lines of openings representing certain successive periods of time, contact brushes positioned to register with the lines of openings, removable pins inserted in some of said openings to contact with said brushes, means for intermittently rotating the cylinder, the intervals of rest between the intermittent movements of the cylinder coinciding with the periods during which some of the pins inserted in the openings are in contact with the brushes, a signaling mechanism, an electric circuit in which the signaling mechanism, the cylinder and its rotating means and the brushes are included, a circuit controlling clock included in said circuit and arranged to form a connection in said circuit, a bell relay having a contact arm moved by its armature, an air dash pot provided with an outlet valve and with a plurality of openings, an adjustable member positioned to close some of the openings, a piston within the dash pot and having a piston rod connected to the contact, and a selector relay also included in said circuit and arranged to actuate the bell relay to actuate the signals after a cylinder pin has been moved into contact with one of the cylinder brushes.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,097. MINER'S-INCH WEIR. WILLIAM F. ENGLEBRIGHT, Nevada City, Cal. Filed Feb. 8, 1912. Serial No. 676,422. (Cl. 73—167.)

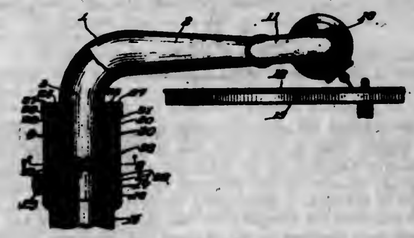


1. In a water measuring apparatus, a dam designed to discharge a volume of water proportionately increasing or proportionately decreasing with a rise or fall respectively of head on the supply side of the dam, said dam having an upper vertical and a lower horizontal orifice, said vertical orifice having curved walls which converge toward and connect with the horizontal orifice and said horizontal orifice having a uniform vertical height and having a horizontal length in excess of the vertical height.

2. In a water measuring apparatus, a dam designed to discharge a volume of water proportionately increasing or proportionately decreasing with a rise or fall respectively of head on the supply side of the dam, said dam having two orifices one of which is vertical and the other horizontal, the horizontal orifice having parallel top and bottom walls, and the vertical orifice having walls curved in the direction of the greatest length of the orifice and with one wall curved in one direction and the other curved in the opposite direction, whereby the maximum width of the vertical orifice is at a point intermediate of the ends of the orifice.

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1,042,098. TALKING-MACHINE. JOHN C. ENGLISH, Camden, N. J., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Original application filed May 29, 1909, Serial No. 499,080. Divided and this application filed July 29, 1911. Serial No. 641,250. (Cl. 181—3.)



1. The combination with a hollow bracket, of a hollow head detachably connected to said bracket and communicating therewith, a radial sound box arm rotatably engaging in said head, a sleeve surrounding and fixed upon said arm in said head, and rotary antifriction means between said sleeve and said head.

2. The combination with a hollow bracket, of a hollow head detachably connected to said bracket and communicating therewith, a radial sound box arm rotatably engaging in said head, a sleeve surrounding and fixed upon said arm in said head, and ball bearings between said sleeve and said head.

3. The combination with a hollow head, of a radial sound box arm engaging in said hollow head, a sleeve surrounding said arm and fixed thereon in said head, said sleeve being provided with annular recesses and rotary antifriction means in said recesses, between said sleeve and said head.

4. The combination with a fixed hollow bracket having one end enlarged and provided with an internal annular recess, of a hollow head detachably fixed in said recess, a radial sound box arm engaging in said hollow head, a sleeve surrounding said arm and fixed thereon in said head, said sleeve being provided with annular recesses, and balls in said recesses between said sleeve and said head.

5. The combination with a hollow head of an annular cover removably connected to said head, a radial sound box arm projecting through said cover and into said head, a sleeve surrounding and fixed on said arm in said head and having annular grooves forming bearings, one of said grooves being adjacent the inner surface of said cover, and balls in said grooves contacting with said sleeve and with said head.

[Claims 6 to 16 not printed in the Gazette.]

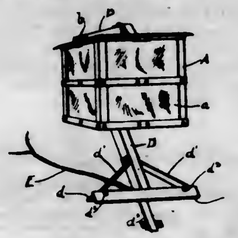
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1,042,099. PIANO-LAMP. HENRY IRVING FISHER, Cincinnati, Ohio. Filed Oct. 13, 1909. Serial No. 522,415. (Cl. 240—4.)

1. A device for mounting piano lamps upon an inclined music rack, comprising, a standard, a transversely extending bar secured to the standard for engaging the upper end of the rack, means for clamping the bar to the rack and a lamp-supporting arm pivotally mounted on the upper end of the standard and of such length that the center of gravity of the lamp and the device falls over the upper edge of the rack.

2. In a device for mounting a piano lamp upon an inclined rack the combination of a standard, an arm pivoted at the upper end of the standard, a lamp secured at one end of the arm, a bar secured to the lower end of the standard and adapted to rest upon the top of the music rack, a

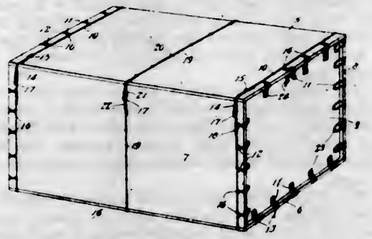
rear arm projecting down from the standard and adapted to contact with the rear face of the rack, a horizontal plate in front of the standard and adapted to contact with the front face of the rack, and means of adjusting the horizontal plate toward and from the rear arm so as to clamp the rack between said plate and arm.



3. A device for mounting lamps on inclined music racks of pianos, comprising a standard, a lamp-supporting arm pivotally mounted on the standard, a transversely extending bar secured to the standard for engaging the upper edge of the rack, a downwardly projecting arm secured to the standard for engaging the rear face of the rack and a front plate mounted on the standard and adjustable toward and awdy from said downwardly projecting arm.

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1,042,100. WIRE-BOUND BOX. ELLSWORTH E. FLORA, Chicago, Ill., assignor to Simplex Metal Bound Box Company, Chicago, Ill., a Corporation of New Jersey. Filed July 21, 1911. Serial No. 639,766. (Cl. 217—17.)



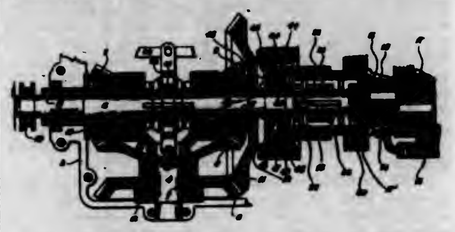
1. A wire-bound box having inset box-ends and a body-portion formed of sheet-material, securing means comprising binding-wires extending around opposite end-portions of the body, each consisting of a single strand formed at determined intervals with short twists and expanded, inwardly bent loops projecting therefrom and shaped into sockets receiving the edges of said material, and the inset box-ends abutting against said loops, the wires being stapled at said twists to the box-body and at said loops to the box-ends.

2. A wire-bound box having a body-portion formed of sheet material, securing means comprising binding-wires extending around opposite end-portions of the body, each consisting of a single strand formed at determined intervals with short twists and expanded, inwardly bent loops projecting therefrom, box-ends abutting against said loops, the wires being stapled at their twists to the box-body, the loops, excepting those on the cover, being stapled to the box-ends and the cover loops forming eyes, and hooks on the box-ends engaging said eyes.

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1,042,101. DRIVING MECHANISM. WALTER O. FOSS, Branford, Conn., assignor to Charles E. Bunnell and Richard Bradley, Branford, Conn. Filed Mar. 2, 1911. Serial No. 611,932. (Cl. 74—59.)

1. The combination of a power transferring member, a second power transferring member, a third power transferring member, means for operatively connecting the second and third power transferring members with the first power transferring member, a clutch for alternately connecting said second and third power transferring members with a source of power, a fourth power transferring member, a second clutch, and means for putting the second clutch into clutching relation with the first power transferring member when the first clutch is moved in either direction from its neutral position.



2. The combination of a rotary shaft, a power transferring member loosely surrounding said shaft, a second power transferring member also loosely surrounding said shaft, a third power transferring member also loosely surrounding said shaft, a clutch slidingly keyed to the said shaft in the space between the second and third power transferring members and shiftable from a neutral position alternately into engagement with said second and third power transferring members, means connecting said second and third power transferring members operatively with the first power transferring member, a fourth power transferring member, a second clutch member surrounding said shaft, and means for causing said second clutch member to clutch together the fourth and first power transferring members when the first clutch member is moved in either direction from said neutral position.

3. The combination of a bevel gear, a second bevel gear, a third bevel gear, rotatively connected fourth and fifth bevel gears, the fourth bevel gear being in mesh with both the second and third bevel gears and the fifth bevel gear being in mesh with the first bevel gear, a clutch shiftable from a neutral position alternately into positions to put the second and third bevel gears into operative relation with a source of power, a sixth bevel gear, a second clutch, and means for causing the second clutch to put the first and sixth bevel gears into clutched relation when the first clutch is shifted in either direction from its neutral position.

4. The combination of a gear, forward driving and reversing mechanisms operatively connected with said gear and each comprising a gear, a clutch shiftable from a neutral position into positions for alternately putting said gears of said forward driving and reversing mechanisms into operative relation with a source of power, a fourth gear, a second clutch, and means for causing the second clutch to put the first and fourth gears into clutched relation when the first clutch is moved in either direction from its neutral position.

5. The combination of a gear, a second gear, a clutch shiftable from a neutral position into a position to alternately put said first and second gears into operative relation with a source of power, a second pair of gears, operative connections between said first and second gears and one of the second pair of gears, a second clutch, and means for causing the second clutch to put the second pair of gears into operative relation when the first clutch is moved in either direction from its neutral position.

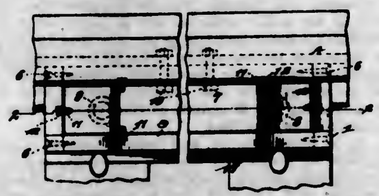
[Claims 6 to 8 not printed in the Gazette.]

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1,042,102. GUARD DEVICE FOR RAILROAD-CROSSINGS. CHARLES E. FRANCISCO, Woodston, Kans., assignor of five-sixths to John Francisco, William H. Francisco, John W. Francisco, Arthur A. Francisco, and Clara M. Francisco, Woodston, Kans. Filed Feb. 24, 1912. Serial No. 679,603. (Cl. 104—50.)

1. A guard for railroad crossings, comprising a casing arranged between the rails and the opposed edges of the crossing bed, a vertically movable guard member mounted in said casing, said casing having grooves formed in the side and end walls on the inner face thereof, guide pins carried by said guard member and arranged in said grooves, and coil springs arranged in said casing and bearing against the under side of said guard member.



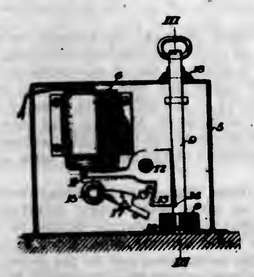


2. A guard for railroad crossings comprising a casing arranged between the rails and the opposed edges of the crossing bed, a vertically movable guard member mounted in said casing and normally disposed so that its upper face is flush with the top of the tread of the rails, said casing having grooves formed in the side and end walls on the inner face thereof, guide pins secured to the bottom of the guard member on the side and ends thereof and arranged in said grooves, coil springs arranged in said casing and bearing against the under side of said guard member to hold it in a normal position.

3. A guard for railroad crossings comprising a base adapted to be secured to the ties, side and end walls securely fastened together, said casing being arranged between the rails and the opposed edges of the crossing bed, one of said side walls being adapted to abut against the web of the rail and disposed under the tread of the rail, means for securing said side wall to the rail, a vertically movable guard member mounted in said casing and normally disposed so that its upper face is flush with the top of the tread of the rail, and coil springs mounted in said casing and bearing against the under side of the guard member to hold it in a normal position.

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1,042,103. SWITCH-LOCKING MECHANISM. THOMAS M. FERRELL, Rochester, Pa., assignor of one-half to Raymond M. Kaufmann, Pittsburgh, Pa. Filed Oct. 12, 1910. Serial No. 586,649. (Cl. 246—33.)



1. In switch-locking mechanism for railway tracks, the combination with a movable track switch member and a throwing rod therefor, of a vertically movable locking bar for the throwing rod, an armature member arranged in one position thereof to engage and lock the locking bar, a magnet for controlling the armature, a track circuit including the magnet, and a key operated member positioned when moved to engage the armature member and move it out of locking engagement with the locking bar, substantially as described.

2. In a switch-locking mechanism for railway tracks, the combination with a movable switch member and a throwing connection therefor, of a locking member to engage and lock the throwing connection against movement, a lock for said locking member, electro-magnetic means for controlling the lock, a track circuit for controlling the electro-magnetic means, and a removable key adapted to operate and release the said lock, together with means whereby the key is locked against withdrawal in one position of the switch member; substantially as described.

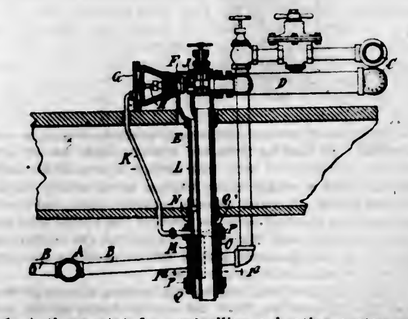
3. In switch-locking mechanism for railway tracks, the combination with a movable switch member and a throwing connection therefor, of a locking member to engage and lock the throwing connection against movement, a lock for said locking member, electro-magnetic means for controlling the lock, a track circuit for controlling the electro-magnetic means, and a removable key adapted to operate and release the said lock, the lock having means for locking the key against removal in one position of the parts; substantially as described.

4. In switch-locking mechanism for railways, the combination with a movable track switch member and a throwing rod therefor, of a vertically movable locking bar for the throwing rod, an armature member arranged, in one position thereof, to engage and lock the locking bar, a magnet for controlling the armature, a track circuit including said magnet, and a key-operated member for moving the armature member independently of the magnet, the armature member having means to engage and lock the key-operated member in one position of the parts; substantially as described.

5. In a switch locking mechanism, a switch having a throwing rod or bar, a locking member arranged to have a locking engagement therein, an electro-magnet having an armature arranged to lock the locking member when the magnet is deënergised, and a track circuit controlling the magnet, a key-operated release device for the armature, together with means whereby the key can be withdrawn from said device only when the locking member has been returned to its locking position; substantially as described.

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1,042,104. THERMOSTAT. EDWARD E. GOLD, New York, N. Y., assignor to Gold Car Heating & Lighting Company, New York, N. Y., a Corporation of New York. Original application filed Nov. 17, 1908, Serial No. 463,109. Divided and this application filed Oct. 22, 1909. Serial No. 523,998. (Cl. 236—10.)



1. A thermostat for controlling a heating system comprising a cylindrical coil M of pipe carrying a thermostatic fluid, and a supporting means for said coil passing therethrough and permitting contact therewith of the heating medium passing through the inner side of the coil.

2. A thermostat for controlling a heating system comprising a coil M of pipe carrying a thermostatic fluid, a tubular support about which said coil passes and having openings for permitting steam passing through said tubular support to come into contact with said coil, washers carried by said tubular support engaging and holding the ends of said coil and motion-transmitting means operated by the expansion of said fluid.

3. A thermostat for controlling a heating system comprising a cylindrical coil M of pipe carrying a thermostatic fluid, and a support within said coil permitting contact

therewith of the heating medium passing through the inner side of the coil, means for adjusting the spaces between the convolutions of said coil and motion-transmitting means operated by the expansion of said fluid.

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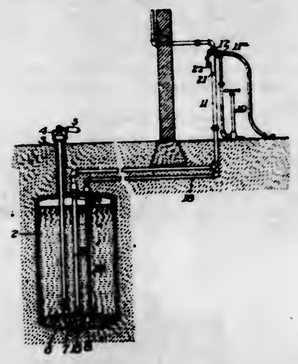
1,042,105. ARTIFICIAL TOOTH. THOMAS GOODHUGH, Brockley, London, England. Filed July 22, 1912. Serial No. 710,892. (Cl. 32—9.)



A fixing for artificial teeth consisting of the combination of an undercut groove on the inner surface of the tooth and a transverse groove or grooves issuing from each side of the same and at right angles thereto, together with an open loop of wire with posts fastened at right angles to its extremities, the posts being adapted to be inserted one at each side of the undercut groove, and the portions of the loop nearest to the posts being adapted to enter the limbs of the transverse groove for the purpose set forth.

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1,042,106. LIQUID-STORAGE SYSTEM. HORACE E. GRANT, Pittsburgh, Pa. Filed Oct. 12, 1910. Serial No. 586,729. (Cl. 220—125.)



1. In a liquid storage and supply system, a storage tank, an outlet pipe leading from the storage tank, an air pressure pipe leading into said tank from a source of air under pressure, and a single valve having ports which control both the outlet pipe and the air pressure pipe; said valve also having a port arranged to connect the outlet pipe with the atmosphere, and thereby admit air to the outlet pipe adjacent to the discharge side of the valve when the valve is closed, substantially as described.

2. In a liquid storage and supply system, a storage tank, an outlet pipe leading from the storage tank, an air pressure pipe leading into said tank from a source of air under pressure, and a single valve having ports which control both the outlet pipe and the air pipe, the outlet pipe having a vent opening to connect with the interior of the tank, and said valve also having a port which, in the closed position of the valve, connects the outlet pipe with the atmosphere and thereby forms a vent for the storage tank through said outlet pipe, substantially as described.

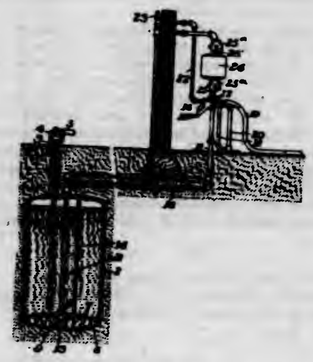
3. In a liquid storage and supply system, a main tank, a supplemental tank arranged to be filled from the main tank, an outlet pipe leading from the supplemental tank, an air pressure pipe leading into the supplemental tank, a source of air pressure, and a single valve having ports which control both the outlet pipe and the air pipe, the outlet pipe having a vent opening communicating with the interior of the main tank, and said valve also having a port which in the closed position of the valve connects the outlet pipe with the atmosphere and thereby forms a vent for the main tank through the said outlet pipe, substantially as described.

4. In a liquid storage and supply system, a main tank, a supplemental tank arranged to be filled from the main tank, an outlet pipe leading from the supplemental tank, an air pressure pipe leading into the supplemental tank, a source of air under pressure, and a single valve having ports which control both the outlet pipe and the air pipe, said valve also having a port which in its closed position connects the outlet pipe beyond and adjacent to the valve with the atmosphere, and thereby forms a vent to the atmosphere for the discharge portion of the outlet pipe, substantially as described.

5. In a liquid storage and supply system, a storage receptacle, an outlet pipe leading therefrom, and a valve for controlling said pipe, said valve having a port arranged to register with the said pipe to communicate with the atmosphere and thereby admit air thereto adjacent to the discharge side of the valve when the valve is closed, substantially as described.

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1,042,107. LIQUID-STORAGE SYSTEM. HORACE E. GRANT, Pittsburgh, Pa. Filed Oct. 12, 1910. Serial No. 586,730. (Cl. 220—120.)



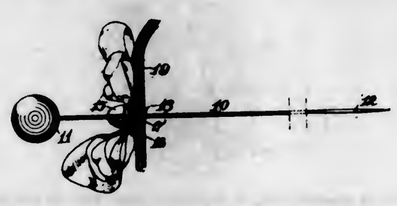
1. In a liquid storage and delivery system, a storage receptacle, an outlet pipe leading therefrom, means for admitting air pressure to the storage receptacle, a valve controlling the outlet pipe, and a measuring vessel arranged to be connected to the outlet pipe through the said valve and having an overflow, together with means operated by the passage of the liquid into said overflow for indicating the filled condition of the measuring tank, substantially as described.

2. In a liquid storage and delivery system, a storage receptacle, an outlet pipe leading therefrom, an air pipe communicating with the storage receptacle, a source of air pressure, a liquid delivery pipe, a measuring vessel connected to the outlet pipe and to the delivery pipe, and a single valve member arranged to control the connection of the air pipe with the source of air pressure, the connection of the outlet pipe with the delivery pipe and the connection of the measuring vessel with the outlet pipe, said valve also having a venting connection, substantially as described.

3. In a liquid storage and delivery system, a storage receptacle, an outlet pipe leading therefrom, means for admitting air pressure to the storage receptacle, a valve controlling the outlet and also the air admission pipe, and a measuring vessel arranged to be connected to the outlet pipe through the said valve, said valve when in a position to close the admission of air to the storage receptacle having a drain opening for the measuring vessel, substantially as described.



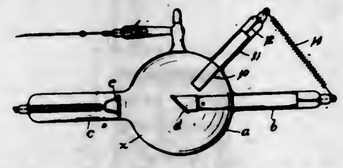
1,042,108. HAT-PIN FASTENER. ALBERT F. GRAUL, Newark, N. J. Filed Oct. 5, 1909. Serial No. 521,071. (Cl. 132—25.)



In combination with a hat pin having a head on one end and having an enlargement on its pointed end, of a button formed with a head having a centrally arranged perforation whereby the pin can slide freely in the button, and a wire arranged into a helix having a pointed end, the wire surrounding the pin and being secured to the button by a straight portion at a point to one side of the perforation whereby the button can be turned irrespective of the hat pin to form a guide for the hat pin, the button when in place having its rotation halted by the straight portion of the pin engaging the material of the hat, the button being spaced from the crown of the hat.

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1,042,109. X-RAY TUBE. HENRY GREEN, Hartford, Conn. Filed July 12, 1912. Serial No. 709,058. (Cl. 250—35.)



1. The combination with an X-ray tube including the usual cathode and anode electrodes, of a third electrode of tubular form located within the tube with one end in relative operative proximity to said anode.

2. The combination with an X-ray tube including the usual cathode and anode electrodes, of a third electrode of tubular form supported within the tube with one end arranged in operative relation with the anode, the other end projecting into a tubular extension of the tube.

3. The combination with an X-ray tube including the usual cathode and anode electrodes, of a tubular extension from the wall of said X-ray tube, and a third electrode of tubular form having one end located within said tubular extension and its other end in operative relation with said anode, said third electrode being electrically connected with the terminal exterior of the tube.

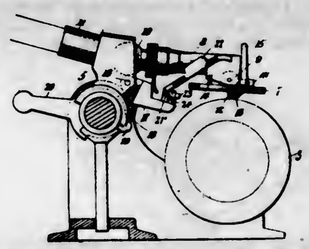
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1,042,110. PHONOGRAPH. JOHN H. J. HAINES, New York, N. Y. Filed Nov. 16, 1908. Serial No. 462,783. (Cl. 181—2.)

1. In a phonograph or similar talking machine, a combined recording and reproducing head in combination with a weight adapted to be shifted to and from the same, according as to whether it is to be used as a reproducer or recorder, substantially as described.

2. In a recording and reproducing machine, an instrument comprising a single diaphragm and two stylus points, one for recording and the other for reproducing, in combination with a weight independently mounted with respect to the diaphragm and styli, and means for adding the weight to the diaphragm for the reproducing operation and for removing it from the diaphragm for the recording operation, substantially as described.

3. In a phonograph or similar talking machine, an instrument comprising a single diaphragm and two stylus points, one for recording and the other for reproducing, in combination with a weight independently mounted with respect to the diaphragm and styli, and means for simultaneously throwing one sty'us point into operative position and the other out of operative position and adding the weight to or removing it from the diaphragm.



4. In a phonograph or similar talking machine, a recorder-reproducer head combined with an independent weight and means whereby the weight may be applied to or removed from the recorder-reproducer head, for the purpose set forth.

5. In a phonograph or similar talking machine, a recorder-reproducer head comprising two stylus points and means for adjusting said points into and out of operative position, in combination with a weight mounted independently of the recorder-reproducer head, and means whereby the weight is automatically applied to the recorder-reproducer head when one of the styli is adjusted to operative position, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

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1,042,111. METHOD FOR PRODUCING SO-CALLED POROUS METALS. HARALD IMMANUEL HANNOVER, Copenhagen, Denmark. Filed Dec. 2, 1911. Serial No. 663,592. (Cl. 204—29.)

1. The process of producing porous metal which consists in making an alloy of two or more metals, then heating the alloy until lighter fusible segregations, especially consisting of a eutectic alloy, become fluid, while the rest of the alloy remains solid, and finally mechanically forcing the fluid particles out of the body of solid metal.

2. The process of producing porous metal in a given shape which consists in making an alloy of two or more metals and forming the same into the shape desired, then heating the body until lighter fusible segregations, especially consisting of a eutectic alloy, become fluid, while the rest of the body remains solid, and finally mechanically forcing the fluid particles out of the body of solid metal, substantially as described.

3. The process of making metallic articles which are porous in certain parts only which consists in forming the articles of an alloy of two or more metals, then covering the surface of such parts of the article as are to remain non-porous with shielding strips, then applying heat to the article until lighter fusible segregations, especially consisting of a eutectic alloy, become fluid, while the rest of the article remains solid, and finally mechanically forcing the fluid particles out of the uncovered parts of the article as described.

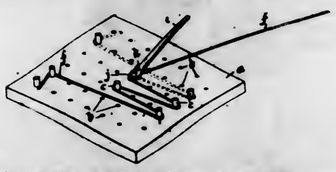
4. The process of making metal articles which consist in forming the same of an alloy of two or more metals, then applying heat thereto until lighter fusible segregations, especially consisting of a eutectic alloy, become fluid, while the rest of the article remains solid, then mechanically removing the fluid particles from the surface of the article and to any desired depth, while leaving the fluid metal in the deeper portions undisturbed, whereby the articles will have a porous surface, as set forth.

5. The process of making metallic articles which are porous locally, consisting in making parts of the article of a pure metal while other parts are made of an alloy of two or more metals, applying heat until fusible segregations, especially consisting of a eutectic alloy, become fluid, while

the pure metal and the rest of the alloy remains solid and then mechanically forcing the fluid particles out of the articles, as set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,042,112. APPARATUS FOR BENDING METAL RODS. RUDOLPH B. HARTMAN, Milwaukee, Wis. Filed June 17, 1909. Serial No. 502,676. (Cl. 153—9.)



A device for shaping reinforcing-members for concrete structures, comprising a templet-table having a plurality of tapered holes therein, a plurality of pins having tapered shanks fitted removably in said holes and provided with heads extended above the face of said templet-table, and a lever having a hole near one end to removably engage over the head of a pin to form a fulcrum for the lever, and a depending projection to engage the material being acted upon to twist it around a pin when the lever is rotated on its fulcrum, whereby metal bars may be twisted into zigzag form comprising alternate straight portions and bends.

1,042,113. PROCESS OF MAKING ARTIFICIAL STONE. MAX HARTUNG, Berlin, Germany. Filed Jan. 26, 1912. Serial No. 673,516. (Cl. 18—48.8.)

1. The herein described process of making artificial stone, which consists in adding much water to the mass from which the stone is to be made, removing the water from the mass separating the dried mass into clods, spreading a dyestuff over the clods, putting the clods together, and molding the mass which has thus been combined.

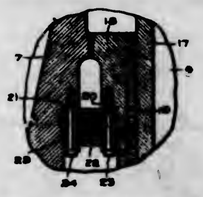
2. The herein described process of making artificial stone, which consists in adding much water to the mass from which the stone is to be made, removing the water from the mass, separating the dried mass into clods, spreading a dry powdered dyestuff over the clods, putting the clods together, and molding the mass which has thus been combined.

3. The herein described process of making artificial stone, which consists in adding much water to the mass from which the stone is to be made, removing the water from the mass, separating the dried mass into clods, dyeing the clods with different foundation colors, spreading a dye stuff over the clods, putting the same together, and molding the mass which has thus been again combined.

4. The herein described process of making artificial stone, which consists in adding much water to the mass from which the stone is to be made, removing the water from the mass, separating the dried mass into clods, dyeing the clods with different foundation colors, spreading a dry powdered dye stuff over the clods, putting the same together, and molding the mass which has thus been again combined.

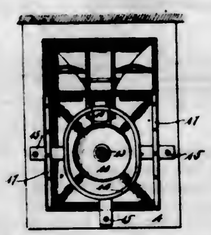
1,042,114. SELF-ALINING BEARING. FREDERICK S. HITCHCOCK, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Apr. 7, 1908. Serial No. 425,653. (Cl. 64—48.)

1. In combination, a guide bearing for a shaft, a housing therefor, a step bearing for the end of the shaft also carried by the housing, and a plurality of annular metal disks arranged perpendicular to the shaft, said disks being substantially rigid in a lateral direction with respect to the shaft and flexible in a longitudinal direction with respect thereto, and means for attaching the peripheral portions of the disks to said housing and the inner edges of the disks to the guide bearing, said disks forming the sole support for the guide bearing.



2. In combination, a supporting wall that is subjected to distortions due to temperature changes, a shouldered housing rigidly secured to the wall whose position is affected by said distortions, a bearing that surrounds the shaft and has a peripheral shoulder, thin annular metal disks that are substantially rigid in a lateral direction and are seated on the shoulders on the housing and on the bearing and occupy planes perpendicular to the shaft axis, said disks forming the sole support of the guide bearing, means for attaching the disks to said shoulders, and a step bearing for the end of the shaft that is rigidly secured to the housing and is affected by the distortions of said supporting wall.

1,042,115. FEEDING APPARATUS. AUGUST R. HOFFMANN, St. Louis, Mo. Original application filed May 25, 1911, Serial No. 629,475. Divided and this application filed Sept. 1, 1911. Serial No. 647,246. (Cl. 119—61.)



1. The combination with a feed box, of an oval shaped ring for limiting the motion of the animal's head the inner edge of which is rounded, and flat arms forming an integral part of the ring and projecting radially therefrom, the outer ends of said arms being secured to the upper edge of the feed box whereby the ring is positioned out of contact with the upper edges thereof, and thus permits the free circulation of the air between the ring and sides of the box.

2. The combination with a feed box having a concaved bottom and inclined sides,, of an oval shaped ring for limiting the motion of the animal's head the inner edge of which is rounded, and flat arms forming an integral part of the ring and projecting radially therefrom, the outer ends of said arms being secured to the upper edge of the feed box whereby the ring is positioned over the concaved bottom of the said feed box and out of contact with the upper edges thereof, and thus permits the free circulation of the air between the ring and sides of the box.

1,042,116. ANIMAL-POKE. DANIEL M. INGLISH, Goodwin, Okla. Filed May 31, 1911. Serial No. 630,479. (Cl. 119—159.)

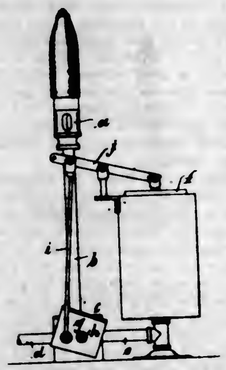
In an animal poke, a pair of members arranged to embrace the animal's neck, means for pivotally and adjustably connecting said members, an extension carried by each member, a hook at the extremity of each extension, a spur secured to one of said extremities, the body of the spur projecting beyond both sides of said extremity, a pair of wings secured to said extremity beneath said spur, the body portions of said wings extending on both sides of





said extremity, the forward ends of said wings being secured to the forward end of said spur.

1,042,117. INTERMITTENT GAS-LIGHT. THOMAS JACKSON, London, England, assignor to himself, and Allan Ramsay, Chesham, England. Filed Dec. 16, 1911. Serial No. 666,307. (Cl. 67—111.)

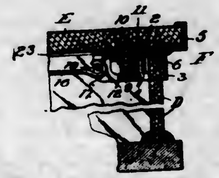


Control apparatus for gas self operated flash lighting devices consisting of a tiltable valve box, a seating in said box, two gas orifices in said seating, a valve device pivotally mounted in said box, two valve faces on said device adapted to co-act alternately with one or other of said orifices when the said device is rocked from side to side and a rolling element adapted to run from one side of the axis of said valve device to the other side thereof so as to overbalance same at each tilting movement of the said valve, substantially as described.

1,042,118. SHOW-CASE. FREDERICK C. JOHNSON, Chicago, Ill. Filed Feb. 17, 1912. Serial No. 678,400. (Cl. 211—25.)

1. In a show-case, the combination with a base and back, of top, side and end plates, a corner fastening comprising a corner-plate interposed between the top-plate and adjacent edges of the side and end plates and provided with down-turned exterior flanges, an inner angular clamp secured to said corner-plate, a top-plate clamp engaging the front edge of the top-plate and having a shank extending through a perforation in a flange of said corner-plate, and means disposed beneath the top-plate and at the inner side of the end plate and anchoring said corner-fastening to the back of the case.

2. In a show-case, the combination with a base and back, of top, side and end plates, and a corner fastening comprising a corner-plate interposed between the top-plate and adjacent edges of the side and end plates and provided with down-turned exterior flanges and equipped centrally with a depending threaded stud, an inner angular clamp having a shank provided with a slot engaging said stud, a top-plate clamp having a shank provided with a slot engaging said stud, and a nut on said stud beneath said shanks.



3. A corner fastening for a show-case, comprising a corner-plate having down-turned flanges at two of its edges forming an angle, a threaded stud depending from said plate, an inner angular clamp provided with a slot engaging said stud, and a nut on said stud adapted to clamp said shank to said plate.

4. A corner fastening for a show-case comprising a corner-plate having depending flanges at two of its edges forming an angle, said flanges having slots through their upper portions, a top-plate clamp having a shank extending through one of said slots, said shank having a slot engaging said stud, an angular inner clamp having a shank provided with a slot engaging said stud, and a nut serving to clamp said shanks to said plate.

5. In means of the character set forth, the combination of a corner-plate provided with down-turned flanges forming an angle, a top-plate clamp having a shank extending through a perforation in one of said flanges, an inner angular clamp, means for securing said inner clamp to said corner-plate, and means for anchoring said corner-fastening to the back of a show-case.

[Claim 6 not printed in the Gazette.]

1,042,119. FOOD-PACKAGE. JAMES A. KAVANAGH, New York, N. Y. Filed Dec. 14, 1911. Serial No. 665,608. (Cl. 99—8.)

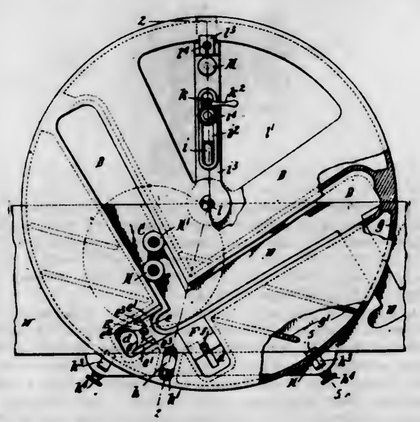


As an article of manufacture, a food package consisting of a small section of cheese adapted for retail distribution, and a paper wrapper perforated at suitable points to provide vents for the escape of the gases created by the fermentation of the cheese.

1,042,120. GUIDE DEVICE FOR WOODWORKING OR ROUTING MACHINES. GEORGE L. KELLEY, Buffalo, N. Y., assignor, by mesne assignments, to Kelley Electric Machine Company, Buffalo, N. Y., a Corporation. Filed Jan. 13, 1908, Serial No. 410,474. Renewed Mar. 1, 1912. Serial No. 680,810. (Cl. 144—144.5.)

1. A guide device for machines of the character described comprising a pattern plate, a clamp bar angularly adjustable thereon, a coöperating clamping head, an angularly adjustable support for said clamping head, and means mounted on said support for operating said clamping head to clamp and release the work, substantially as set forth.

2. A guide device for machines of the character described comprising a pattern plate, a clamp bar having a pivotal and slidable connection with said plate, means for securing said clamp bar in adjusted positions, a coöperating clamping head, a supporting bar for said clamping head which is pivoted to the center of said pattern plate to swing circumferentially thereon, means for securing said supporting bar, and means for operating said clamping head to clamp and release the work, substantially as set forth.



3. A guide device for machines of the character described comprising a pattern plate, a clamp bar angularly adjustable thereon, a coöperating clamping head, an angularly adjustable support for said clamping head, a bearing for said clamping head which is adjustable on said supporting bar, and operating means for said clamping head mounted on said adjustable bearing, substantially as set forth.

4. A pattern plate for stair stringers provided with an angular opening having extensions beyond the angle, and interchangeable guide blocks of different forms placed in said opening extensions, substantially as set forth.

5. A pattern plate for stair stringers provided with an angular opening having extensions beyond the angle, and a guide block in one of said opening extensions having an end guide edge, and a slide at one side of said guide edge which is adjustable to project beyond said guide edge, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

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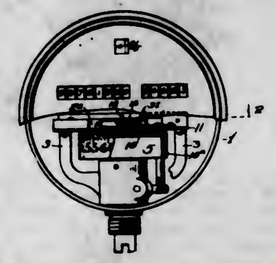
1,042,121. BOILER-TUBE CRIMPER. JOHN J. KERRIGAN, Philadelphia, Pa. Filed Apr. 30, 1912. Serial No. 694,153. (Cl. 81—15.)



1. A device of the character described, comprising a handle, and a head thereon, said head having a curved groove therein, dividing the said head into an inner and an outer jaw, said inner jaw longer than the outer jaw and beveled from its end to a point directly below the end of the outer jaw, substantially as described.

2. A device of the character described, comprising parallel tube gripping fixed jaws curved transversely, the inner jaw longer than the outer jaw and beveled at the end forming a fulcrum point below the outer end of the outer jaw, substantially as described.

1,042,122. MAGNETIC SPEEDOMETER. HENRY KOCOUREK, Chicago, Ill., assignor to Stewart & Clark Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed May 27, 1912. Serial No. 699,833. (Cl. 73—123.)



1. A magnetic speed indicating device comprising in combination with a rotatable magnet, a magnetic mass proximate thereto and a non-magnetic drag disk mounted for oscillation in the space between the magnet and magnetic mass; a helical spring for biasing the drag element to a pre-determined position of rest in its path of oscillation; a curb device for varying the operative length of the spring and for that purpose mounted to swing about the axis of oscillation of the disk, said curb device comprising two stops against which the spring may bear and which are separated from each other along their path of movement in the swinging of the curb.

2. A magnetic speed indicating instrument comprising in combination with a rotatable magnet, a magnetic mass proximate thereto, a drag element mounted for oscillation in the space between the magnet and the mass and means for biasing such drag element to a predetermined position of rest, the magnet consisting of a closed ring and being mounted for rotation about the axis of oscillation of the drag element.

3. In combination with means for producing a rotating magnetic field consisting of a circular magnet in the form of a closed ring having a portion reduced in cross section and being mounted for rotation about the axis of its circular form; a magnetic mass proximate to the magnet; a drag element mounted for oscillation in the space between the magnet and the mass, and means for biasing said drag element to a pre-determined position of rest.

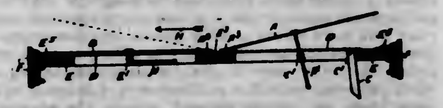
4. In combination with means for producing a rotating magnetic field, comprising a rotatable circular magnet consisting of a closed ring mounted for rotation about the axis of its circular form, a drag disk mounted for oscillation about the axis of rotation of the magnet, and means for biasing the drag disk to a predetermined position of rest.

5. In combination with means for producing a rotating magnetic field, comprising a circular magnet consisting of a closed ring mounted for rotation about the axis of its circular form; a drag element in the form of a disk proximate to one side of the magnet and having a cylindrical flange encompassing the magnet proximate to the circumference of the latter, and mounted for oscillation about the axis of rotation of the magnet, and means for biasing such drag element to a pre-determined position of rest.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,123. CAR-WINDOW SCREEN. EDWARD WILLIAM KOLB, Westmount, Quebec, Canada. Filed Feb. 23, 1911. Serial No. 610,233. (Cl. 98—31.)



1. A car window screen having a frame in two sections hinged together in the middle of said frame, in combination with a pair of shutters hinged at their proximate ends to said frame sections respectively near such middle point and opening outward and an inwardly opening deflector plate hinged to said frame near the rear end thereof, the same being arranged to receive the impact of the air directed inwardly by the forward shutter and to deflect the same outwardly through the rearward screen substantially as set forth.

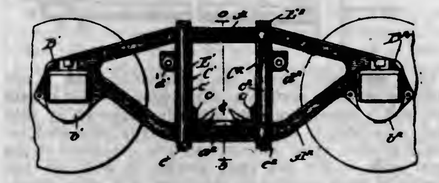
2. A car window screen having a frame in two sections hinged together in the middle of said frame, in combination with a pair of shutters hinged at their proximate ends to said frame sections respectively near such middle point and opening outwardly, an inwardly opening deflector hinged to said frame near the rear end thereof, the same being arranged to receive the impact of the air directed inwardly by the forward shutter and to deflect the same outwardly through the rearward screen, and means for adjusting the outward inclination of the forward shutter.

3. A car window screen having a frame in two sections hinged together in the middle of said frame, in combination with a pair of shutters hinged at their proximate ends to said frame sections respectively near such middle point and opening outwardly, an inwardly opening deflector hinged to said frame near the rear end thereof, the same being arranged to receive the impact of the air directed inwardly by the forward shutter and to deflect the same outwardly through the rearward screen and rods and clamping screws for adjusting independently the inclination of the two shutters.



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1,042,124. CAR-TRUCK. GUSTAV KOMAREK, St. Louis, Mo. Filed Apr. 5, 1912. Serial No. 688,629. (Cl. 105—243.)



1. In a car truck, the combination with cast metal side frames each comprising integral top and bottom bars, of a pair of transverse cast metal members each comprising a column at each end thereof and an intermediate angle bar cast integrally with the columns and uniting the lower ends thereof, and means for securing said transverse members to the side frames with the columns on their corresponding ends spaced apart to form openings for the end of the bolster and with the horizontal flanges of the angle bars extending toward each other at the bottoms of the said bolster openings.

2. In a car truck, the combination with cast metal side frames each comprising integral top and bottom bars, of a pair of transverse cast metal members each comprising a column at each end thereof and an intermediate angle bar cast integrally with the columns and uniting the lower ends thereof, and bolts passing vertically through the top and bottom bars of the side frames and through the interposed columns, thereby uniting the transverse members to the side frames and spacing apart the columns on the corresponding ends of the transverse members to form openings for the ends of the bolster, the horizontal flanges of the angle bars extending toward each other at the bottoms of the said bolster openings.

3. In a car truck, the combination with cast metal side frames each comprising integral top and bottom bars, of a pair of transverse cast metal members each comprising a column at each end thereof and an intermediate angle bar cast integrally with the columns and uniting the lower ends thereof, means securing the columns of the transverse members between the upper and lower bars of the side frames to form openings for the ends of the bolster, a spring seat formed integrally with the upper surface of the central portion of the lower bar of each side frame, and means for securing the ends of the horizontal flanges of the angle bars of the transverse members to the spring seats.

4. In a car truck, the combination with cast metal side frames, each comprising integral top and bottom bars and a spring seat formed integrally on the upper surface of the central portion of the bottom bar, of a pair of transverse cast metal members each comprising a column at each end thereof and an intermediate angle bar cast integrally with the columns and uniting the lower ends thereof, the spring seats being cut away to receive the horizontal flanges of the adjacent ends of the angle bars, and means for securing the columns between the top and bottom bars of the side frames and for securing the horizontal flanges of the angle bars to the spring seats.

5. In a car truck, the combination with cast metal side frames, each comprising integral top and bottom bars, of a pair of transverse cast metal members each comprising a column at each end thereof and a brake hanger bracket projecting inwardly from each column, each of said transverse members also comprising an angle bar cast integrally with the columns and uniting the lower ends thereof, and means for securing the said transverse members to the side frames with the columns on their corresponding ends spaced apart to form openings for the ends of the bolster and with the horizontal flanges of the angle bars extending toward each other at the bottoms of the said bolster openings.

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1,042,125. HOSE-SUPPORTER FOR APPAREL-CORSETS. DANIEL KOPS, New York, N. Y. Filed Aug. 11, 1911. Serial No. 643,481. (Cl. 241—1.)



1. The combination with a corset having a skirt, of an elastic webbing secured to the lower edge of the skirt and returned on itself forming a loop, a hose supporter fastening having a loop through which the webbing slidingly passes, an inelastic webbing secured to the corset in a plane higher than the fastening of the elastic part, and a fastening device carried by the free end of the elastic part and adapted for adjustable connection with said inelastic member, the strain of said connection being borne by the inelastic member.

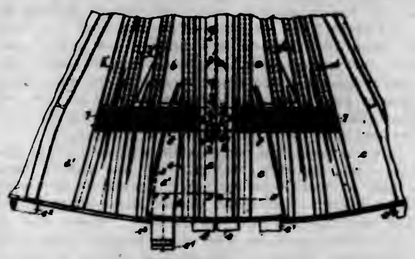
2. A hose supporter for apparel corsets, comprising a webbing having an inelastic part adapted to be secured to the corset, and an elastic part adapted for tension, the latter being a substantial prolongation of the other, and supported thereby, a supporter clasp having a loop through which the elastic part passes for running movement, and a device near the end of the elastic part for adjustable connection with the inelastic part.

3. A hose supporter for apparel corsets, comprising a webbing having integral inelastic and elastic parts, the inelastic part adapted to be secured to the under side of the corset, and the elastic part adapted for tension in a plane below the inelastic part, a supporter clasp having

a loop through which the elastic part passes, a hook device near the end of the elastic part, and eyelets in the inelastic part for adjustable connection with the said device.

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1,042,126. APPAREL-CORSET. DANIEL KOPS, New York, N. Y. Filed Oct. 18, 1911. Serial No. 655,364. (Cl. 2—73.)



1. In an apparel corset, and in combination with the halves of the corset proper, of tension members comprising straps of elastic webbing located on the corset at the under surface thereof and entirely below the corset stays and occupying a substantially horizontal position, the rear ends of the elastic webbing attached to the corset at about the forward part of the hip sections and the front ends of said webbing connected to the front edges of the corset and lower ends of the corset steels and other fastening devices for the corset halves located entirely below the corset steels as and for the purposes specified.

2. In an apparel corset, and in combination with the halves of the corset proper, of skirts forming prolongations from the lower edges of the corset proper, tension members occupying substantially a horizontal position against the under-surface of the skirts and at their distant ends connected to the skirts at about the forward part of the hip sections, a fastening device connected to the meeting edges of the skirts and the other ends of the tension members also connected adjacent thereto and at the lower ends of the steels for tension between their distant ends, and the means securing the ends of the tension members adjacent to the front edges of the corset halves consisting of a line of sewing, the rivets of the fastening devices and rivets through the lower ends of the front steels.

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1,042,127. METAL LATH. MARTIN KUHNS, Brooklyn, N. Y. Filed May 11, 1911. Serial No. 626,548. (Cl. 72—116.)



1. A metallic lathing comprising a reversible corrugated sheet metal body having hills and valleys, the hills having plaster openings provided on their opposite sides with downturned lips inclined toward each other and the valleys being provided with plaster openings having on their opposite sides upturned lips inclined toward each other.

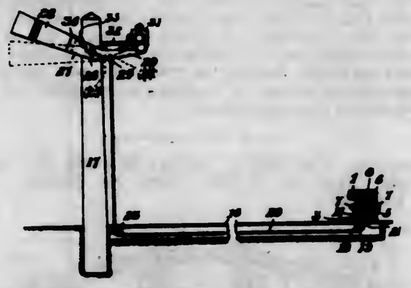
2. A metallic lathing comprising a reversible corrugated sheet metal body alike on either side and having hills and valleys, the hills being provided with plaster openings having on their opposite sides downturned lips inclined toward each other and the valleys being provided with plaster openings having on their opposite sides upturned lips inclined toward each other, the tops of the hills and the bottoms of the valleys being in straight parallel planes.

3. A sheet metal lath comprising a corrugated body having plaster openings in the hills and valleys and lips at the sides and ends of said openings, the lips of the hills being inclined downward and toward each other and the lips of the valleys being inclined upward and toward each other.

4. A sheet metal lath comprising a corrugated body having plaster openings in the hills and valleys and lips at the sides of said openings, the lips of the hills being inclined downward and toward each other and the lips of the valleys being inclined upward and toward each other, and strengthening ribs projecting in opposite directions from said corrugated body and forming a truss-like structure.

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1,042,128. SEMAPHORE-SIGNAL. JOSEPH KUTILA, McDonald, Pa. Filed Sept. 28, 1911. Serial No. 651,728. (Cl. 246—45.)



In a semaphore signal, the combination with a rail having a cut away portion, a post located adjacent to said rail, and a semaphore arm pivotally supported by said post, of a pair of curved shoes pivotally connected together at their upper ends and slidably connected at the lower ends to the cut away portion of said rail and capable of being engaged by the flange of a wheel whereby said shoes are depressed, a bar carried by the cut away portion of said rail and provided at each end with a resilient member, said members engaging said shoes for normally maintaining them in an elevated position, a shaft journaled in the upper end of said post and to which said semaphore arm is connected, a crank carried by said shaft, a cable connecting said shoes and said crank, and means carried by said shaft for moving said semaphore arm to a danger position when said shoes are depressed.

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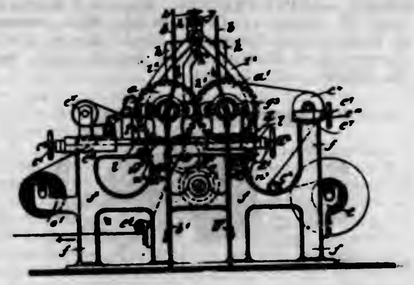
1,042,129. MACHINE FOR DOUBLING FABRICS. ALBERT LEISEN, Newark, N. J., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed May 17, 1910. Serial No. 561,521. (Cl. 134—37.)

1. A machine for doubling fabrics, comprising a pair of rotatory heated rolls, means for guiding two layers of fabric from opposite sides to and over said rolls, upright abutments at opposite ends of said rolls, the lower ends of which extend into the space between said rolls, means for suspending said abutments, and an inclined doctor supported on said abutments in proximity to one of said rolls.

2. A machine for doubling fabrics, comprising a pair of rotatory heated rolls, means for guiding two layers of fabrics from opposite sides to and over said heated rolls, upright abutments at the ends of said heated rolls, whereof the lower ends extend into the space between said rolls, means for adjusting said abutments to the rolls, an inclined doctor supported on said abutments in proximity to one of said heated rolls, and means for adjusting said doctor relatively to said heated roll.



3. A machine for doubling fabrics, comprising a pair of rotatory heated rolls, means for guiding two layers of fabric from opposite sides to and over said rolls, upright abutments having lower tapering ends extending between said heated rolls, a transverse yoke for suspending said abutments, means for adjusting the abutments vertically from and laterally to said yoke, an inclined doctor supported on said abutments in proximity to one of said rolls, and means for adjusting the doctor relatively to said roll.



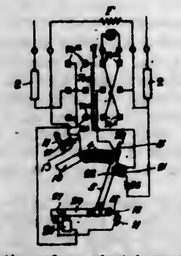
4. A machine for doubling fabrics, comprising a pair of rotatory heated rolls, one roll being stationary and the other adjustable, means for guiding two layers of fabrics from opposite sides to and over said heated rolls, an inclined doctor arranged in proximity to one of said rolls, upright abutments at the ends of the heated rolls provided with curved tapering portions at their lower ends, extending between said rolls, scrapers at the lower parts of the heated rolls, and means for holding the scrapers in contact with the lower surface of said rolls.

5. A machine for doubling fabrics, comprising a pair of rotatory heated rolls, one roll being stationary and the other adjustable, means for guiding two layers of fabrics to and over said heated rolls, an inclined doctor arranged in proximity to one of said rolls, upright abutments at the ends of the heated rolls and extending downwardly between the same, scrapers arranged in contact with the lower parts of the heated rolls, hanger-rods for supporting said scrapers, and means for supporting the scrapers at an intermediate point of their length for holding them tightly against the lower surface of the heated rolls.

[Claim 6 not printed in the Gazette.]

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1,042,130. ELECTRIC CONTROLLING DEVICE. HARRY WARD LEONARD, Bronxville, N. Y. Original application filed May 13, 1905, Serial No. 260,196. Divided and this application filed Oct. 23, 1908. Serial No. 459,180. (Cl. 172—179.)



1. The combination of an electric motor, two switches in series with the armature of said motor, one of said switches being a reversing switch for reversing the current in one element of said motor, and means whereby the opening movement of one of said switches first causes the opening of the circuit at the other side before opening the circuit at its own contacts, the movement of one of said switches being mechanically independent of the other of said switches.



2. The combination of an electric motor, two circuit controlling movable elements in series with each other and with the motor armature, one of said switches being a reversing switch for reversing the current in one element of said motor, an electroresponsive device for normally restraining one of said elements, and means whereby the movement of the other element deënergizes said electroresponsive device causing automatic movement of said restrained element, and then by further movement of the said other element controls the motor armature circuit elsewhere.

3. The combination of a translating device, two circuit controlling movable elements in series with each other and with said device, one of said elements being a reversing switch for reversing the current through said device, an electroresponsive device for normally holding one of said elements in a certain position, means for causing the automatic movement of said element when said electroresponsive device is deënergized, and means whereby the movement of the other element first deënergizes said electroresponsive device to cause the automatic movement of the element normally held by said device and then by its further movement controls the circuit elsewhere.

4. The combination of an electric motor, two switches in series with each other and with the motor armature, one of said switches being a resistance controlling switch automatically responsive to no voltage, and the other of said switches being adapted when moved to first cause the automatic opening of the first switch and then to open the circuit at its own contacts.

5. The combination of an automatic resistance controlling switch and a non-automatic switch in series with each other, means whereby the movement of the latter switch causes the automatic opening of the circuit at the first named switch and then opens the circuit at its own contacts.

[Claims 6 to 22 not printed in the Gazette.]

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1,042,131. METAL-STRAIGHTENING MACHINE. SYLVANUS D. LOCKE, Bridgeport, Conn. Filed June 12, 1911. Serial No. 632,747. (Cl. 153—54.)



1. A metal straightening machine comprising sets of straightening elements placed in staggered relation, means for adjusting one set of elements in a group toward and from the other set and means for indicating the variation of the work from a right line.

2. A metal straightening machine comprising sets of straightening elements placed in staggered relation, means for adjusting said elements longitudinally of the machine, means for adjusting one set of elements in a group toward and from the other set and means for indicating the variation of the work from a right line.

3. In a machine of the character described, the combination with a set of straightening elements and retaining plates coöperating therewith between which the work passes, of another set of straightening elements, a carrying bar in which they are journaled, corresponding retaining plates secured to the carrying bar and means for adjusting the carrying bar toward and from the first mentioned set of straightening elements.

4. In a machine of the character described, the combination with a set of straightening elements, of a second set of straightening elements, a carrying bar for said second set, means for adjusting the ends of said bar independently and an indicator carried by said bar for showing the variation of the work from a right line.

5. In a machine of the character described, the combination with a set of straightening elements, of a second set of straightening elements, a carrying bar for said sec-

end set, means for adjusting the ends of said bar independently and an indicator carried by said bar and comprising a roller which is engaged by the work and a pointer and intermediate connections for showing the variation of the work from a right line.

[Claims 6 to 12 not printed in the Gazette.]

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1,042,132. CUSHION BUTT-PLATE FOR FIREARMS. GEORGE SAMUEL LONG, Lodi, Cal. Filed Nov. 22, 1911. Serial No. 661,818. (Cl. 42—74.)



A device of the character described, comprising the combination of a stock of a gun, such stock being provided with a recess in its end, a plate disposed over the end of said stock and projecting slightly over the sides of said recess, a plate movable in said recess and having a flange to engage the overlapping edges of said first named plate, the said last named plate being provided with a plurality of recesses, screws projecting into said recesses and engaging said stock, collars on said screws adapted to abut against the end of said stock to limit the movement of said screws into said stock, and springs disposed around said screws and interposed between said last named plate and said collars as described.

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1,042,133. COMBINED DENTAL SPECULUM AND SALIVA-EJECTOR. FRANK L. MARSHALL, Boston, Mass. Filed Dec. 11, 1908. Serial No. 466,927. (Cl. 32—33.)



1. A combined dental speculum and saliva ejector, having, in combination, a double-bow loop conduit for draining the saliva from the mouth, a tongue-guard, means for depressing the lower lip to expose the teeth and an adjustable chin-plate for securing the device in the mouth.

2. A combined dental speculum and saliva ejector, having, in combination, a loop conduit for draining the saliva from the mouth, a tongue-guard mounted on the rear portion of said loop conduit, a lip-depressing plate, an adjustable chin-plate and means for securing the chin-plate in any desired position.

3. A combined dental speculum and saliva ejector, having, in combination, a conduit for draining the saliva from the mouth, a tongue guard mounted on said conduit, a lip-depressing plate also mounted on said conduit and adjustable means for securing said conduit in the mouth.

4. A combined dental speculum and saliva ejector, having, in combination, a conduit for draining saliva from the mouth, said conduit being provided with a series of corrugations adapted to contact the edges of the teeth to prevent inward and outward movement, a tongue guard mounted on said conduit, and adjustable means for securing said conduit in the mouth.

5. A combined dental speculum and saliva ejector, having, in combination, a conduit for draining the saliva from the mouth, a sleeve loosely mounted on said conduit, a chin-plate attached to said sleeve and a locking strip having a beveled face and adapted to lock said sleeve in any desired position on said conduit.

[Claim 6 not printed in the Gazette.]

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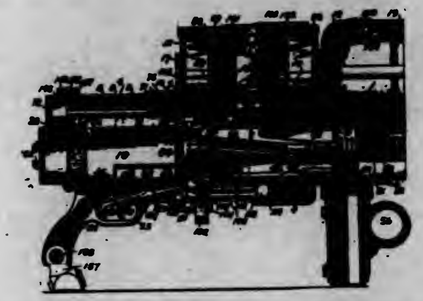
1,042,134. CARPET-SWEEPER. FRANCIS C. MASON and JOHN W. SHANAHAN, Grand Rapids, Mich., assignors to Bissell Carpet Sweeper Co., Grand Rapids, Mich., a Corporation of Michigan. Filed Jan. 24, 1912. Serial No. 673,006. (Cl. 15—60.)



A carpet sweeper, comprising a case, a dust pan pivoted between the end walls of the case and spaced apart therefrom, a sheet metal member having an upper portion extending inward from the end wall close above the end of the pan and over the space between the same and said end wall, thence extending downward between the said pan and wall and thence outward beneath the end wall and secured thereto.

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1,042,135. AUTOMATIC MACHINE-GUN. SAMUEL N. MCCLEAN, Cleveland, Ohio, assignor, by mesne assignments, to The Automatic Arms Company. Filed June 2, 1908. Serial No. 436,249. (Cl. 89—2.)



1. In a gun, the combination with breech mechanism, of a gun frame having a table formed thereon above the breech mechanism provided with an opening for the cartridges, a cartridge feed mechanism adapted to feed cartridges one by one to said opening, a yielding abutment mounted on the table and extending over the cartridge opening in the path of movement of the cartridges, and means for locking the abutment to prevent the feeding of the cartridges.

2. In a gun, the combination with breech mechanism, of a gun frame having a table formed thereon above the breech mechanism provided with an opening for the cartridges, a cartridge feed mechanism adapted to feed cartridges one by one to said opening, a yielding abutment mounted on the table and extending over the cartridge opening in the path of movement of the cartridges and having a cam face adapted to guide the cartridges to the cartridge opening, and means for locking the abutment to prevent the feeding of the cartridges.

3. In a gun, the combination with breech mechanism, of a gun frame having a table formed thereon above the breech mechanism provided with an opening for the cartridges, a cartridge feed mechanism adapted to feed cartridges one by one to said opening, a yielding abutment mounted on the table and extending over the cartridge opening in the path of movement of the cartridges and having a lug extending through the table and a safety lever adapted to engage the lug to lock the abutment to prevent the feeding of the cartridges.

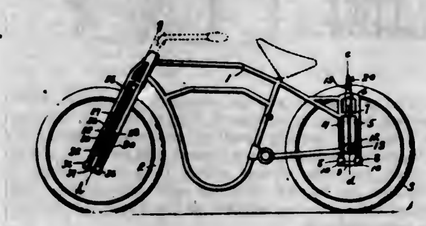
4. In a gun, a cartridge feed mechanism comprising a relatively stationary member having a helical way adapted to guide the cartridges and a rotary member concentric with the stationary member provided with means for engaging the cartridges to move them in a helical path concentric with the stationary member, means for rotating the other member, a yielding abutment in the path of the cartridges and means for locking the abutment to prevent the movement of the cartridges.

5. In a gun, a cartridge feed mechanism comprising a relatively stationary member having a helical way adapted to guide the cartridges and a rotary member concentric with the stationary member provided with means for engaging the cartridges to move them in a helical path concentric with the stationary member, means for rotating the other member, a yielding abutment in the path of the cartridges and means for locking the abutment to prevent the movement of the cartridges and a detent pawl engaging the rotary member to prevent backward movement.

[Claims 6 to 31 not printed in the Gazette.]

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1,042,136. SPRING-AXLE FOR CYCLES. CLAUDE B. MERRIHON and WEBSTER E. REDNER, Kansas City, Mo. Filed Feb. 12, 1912. Serial No. 677,220. (Cl. 280—101.)



1. A cycle frame having guides, a dash pot carried thereby, an axle bearing member reciprocative in said guides, a spring supporting the frame and supported by the axle bearing member, and a plunger secured to the axle bearing member and slidably fitted in said dash pot.

2. A cycle frame having guides, a dash pot carried thereby and having an adjustable vent, an axle bearing member reciprocative in said guides; a spring supporting the frame and supported by the axle bearing member, and a plunger secured to the axle bearing member and slidably fitted in said dash pot.

3. A cycle frame having guides, an axle bearing member reciprocative in said guides, a spring supporting the frame and supported by the axle bearing member, and adjustable means for yieldingly resisting the movement in either direction of the axle bearing member in said guides.

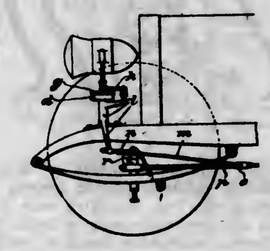
4. A cycle frame having guides, an axle bearing member reciprocative in said guides, a dash pot carried by the frame, a spring supporting the frame and supported by the axle bearing member, a plunger secured to the axle bearing member and slidably fitted in the dash pot, and a spring supported by the frame and bearing against the axle bearing member in opposition to the first named spring.

5. A cycle frame having guides, an axle bearing member reciprocative in said guides, a dash pot, carried by the frame and having an adjustable vent, a plunger secured to the axle bearing member and slidably fitted in the dash pot, a spring supporting the frame and supported by the axle bearing member, and a spring supported by the frame and bearing against the axle bearing member in opposition to the first named spring.

[Claims 6 to 13 not printed in the Gazette.]

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1,042,137. DIRIGIBLE HEADLIGHT. FRITZ MÜLLER, Cologne, Germany. Filed June 8, 1911. Serial No. 631,988. (Cl. 240—62.)



1. In a motor vehicle, in combination, a steering gear, a lamp, means controlled by the steering movement of said steering gear to rotate said lamp to direct it in the direction of travel of the vehicle, and a brake for maintaining said lamp against movement when said steering gear is subjected to a vibratory movement.

2. In a motor vehicle, in combination, a steering gear, a lamp, means controlled by the steering movement of said steering gear to rotate said lamp to direct it in the direction of travel of the vehicle, and a liquid brake for maintaining said lamp against movement when said steering gear is subjected to a vibratory movement.

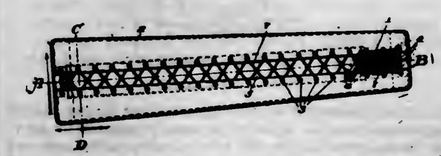
3. In a motor vehicle, in combination, a steering gear, a lamp, resilient means controlled by the steering movement of said steering gear to rotate said lamp to direct it in the direction of travel of the vehicle, and a liquid brake for maintaining said lamp against movement when said steering gear is subjected to a vibratory movement.

4. In a motor vehicle, in combination, a steering gear, a lamp, a rotatable supporting spindle therefor, a blade attached to said spindle, a fixed closed casing surrounding said spindle and within which said blade is positioned, a liquid within said casing, said casing being provided with a partition, and means operatively connected to said steering gear for rotating said spindle and said lamp.

5. In a motor vehicle, in combination, a steering gear, a lamp, a rotatable supporting spindle therefor, a perforated blade attached to said spindle, a fixed closed casing surrounding said spindle and within which said blade is positioned, a liquid within said casing, said casing being provided with a partition, and means operatively connected to said steering gear for rotating said spindle and said lamp.

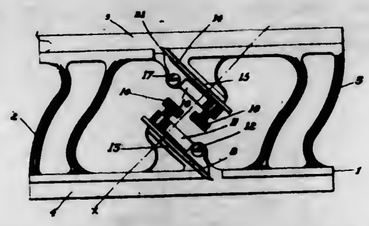
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1,042,138. COVER FOR IRONING-BOARDS. AMALIA H. NEUBERT, Chicago, Ill. Filed May 20, 1912. Serial No. 698,381. (Cl. 68—10.)



A cover for ironing boards having, in combination, eyes spaced apart along opposite edges and one end thereof, a flap having one end secured to one end of said cover and the opposite end thereof provided with eyes, the sides of the cover overlapping said flap, and lacing cords received by said eyes, and securing said flap and cover in operative position.

1,042,139. TONGUE-AND-GROOVE PLANE. ALBERT A. PAGE, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Sept. 23, 1911. Serial No. 650,904. (Cl. 145—10.)



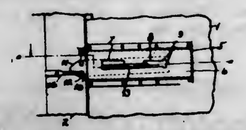
1. An invertible or reversible tongue and groove plane comprising parallel oppositely located bearing portions, handle members joining the respective ends of the respective bearing portions and forming in conjunction with said bearing portions a skeleton frame or stock of substantially rhomboidal form, separate bit supports projecting from the respective bearing portions into the inner open portion of the frame or stock, said bit supports being arranged in superposed relation and having bearing surfaces directed substantially parallel to one of the diagonals of the rhomboidal opening of the frame or stock, and bits clamped on the respective bearing surfaces and coöperating with the respective bearing portions; substantially as described.

2. An invertible or reversible tongue and groove plane comprising parallel oppositely located bearing portions, handle members joining the respective ends of said bearing portions and forming in conjunction therewith a skeleton frame or stock of approximately rhomboidal form, bit supports formed integrally with the respective bearing portions and extending therefrom into the inner open portion of the frame or stock, and bits clamped on the respective bit supports, substantially as described.

3. In an invertible or reversible tongue and groove plane, an open skeleton frame formed of oppositely arranged parallel bearing portions and handle members connecting the respective bearing portions at the ends of the plane, approximately parallel bit supports extending inward from the respective bearing portions into the inner opening of the frame, said bit supports being arranged in superposed relation and having their bit supporting surfaces opposing or facing each other, and bits clamped on said surfaces and coöperating with the respective bearing portions, substantially as described.

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1,042,140. DOOR-LATCH. WILLIAM PETERSEN, Lyons, Iowa. Filed Mar. 11, 1912. Serial No. 683,075. (Cl. 70—102.)



1. A door fastening, comprising a housing having spaced longitudinal slots, a transversely and longitudinally movable latch operating in the housing and having an end that can be projected from or withdrawn within said housing, and a handle loop having its ends passing through and operating in the different slots, said loop constituting means for limiting the movement of the latch with respect to the housing.

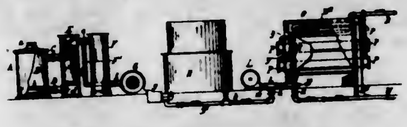
2. A door fastening, comprising a housing having spaced longitudinal slots, a transversely and longitudinally movable latch operating in the housing and having an end that can be projected from or withdrawn within said housing, and a handle loop having its ends passing through and operating in different slots, both ends of said loop engaging the ends of the slots for limiting the movement of the latch longitudinally in the housing.

3. A door fastening, comprising a housing having an opening in one side provided with a transversely disposed enlargement, of a reciprocatory and transversely movable latch operating in the housing and having an end that can be projected therefrom or withdrawn therein, and an operating handle connected to the latch and moving in the opening, said handle being movable to a position in the lateral enlargement to hold the latch in a predetermined position.

4. A door fastening, comprising a housing having spaced longitudinally disposed slots, one of said slots having an opposite transverse enlargement, a reciprocatory and laterally movable latch having a double hooked end that can be projected from the housing or withdrawn therein, and a handle loop having its ends passing through the slots and secured to the latch, one end of said loop being movable into the lateral enlargement to maintain the latch in a predetermined position.

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1,042,141. PROCESS OF MANUFACTURING NITROGEN COMPOUNDS. HAWLEY PRITTIBONE, New Rochelle, and BENJAMIN VON SHOLLY, Flushing, N. Y. Filed Aug. 19, 1908. Serial No. 449,310. (Cl. 23—13.)



1. The process of making nitrogen compounds which comprises heating a substance able to take up nitrogen in a retort, by burning producer gas with substantially the theoretical amount of air around said retort to furnish the heat, removing carbon dioxid from the product of combustion to furnish nitrogen and transmitting said freed nitrogen to the interior of the retort to combine with said substance.

2. The process of making a nitrogen compound which comprises heating calcium carbid in a retort, by burning producer gas with substantially the theoretical amount of air around said retort to furnish the heat, removing carbon dioxid from the product of combustion to furnish nitrogen and transmitting said freed nitrogen to the interior of the retort in contact with said carbid.

3. The process of making a nitrogen compound which comprises heating a substance able to take up nitrogen in a retort, by burning producer gas with substantially the theoretical amount of air around the retort to furnish the heat, removing carbon dioxid from the product of combustion to furnish nitrogen, reheating the freed nitrogen and transmitting it to the interior of the retort in contact with said substance.

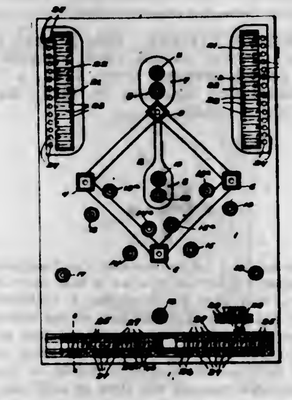
4. The process of making a nitrogen compound which comprises heating calcium carbid in a retort, by burning producer gas with substantially the theoretical amount of air around the retort to furnish the heat, removing carbon dioxid from the product of combustion to furnish freed nitrogen, reheating the nitrogen and transmitting it to the interior of the retort in contact with said carbid.

5. The process of making cyanamid which comprises heating calcium carbid in a retort with the aid of producer gas burning thereabout with substantially the theoretical amount of air, passing the products of combustion in contact with lime to remove carbon dioxid and furnish substantially pure nitrogen and returning such freed nitrogen to the interior of the retort to react with such carbid.

[Claim 6 not printed in the Gazette.]



1,042,142. BASE-BALL-GAME BOARD. EDGAR POHLIG, Philadelphia, Pa. Filed Feb. 6, 1912. Serial No. 675,767. (Cl. 46—61.)



1. A baseball game device, comprising a plurality of name spaces containing words indicating ball players, and other spaces formed beside the name spaces to contain the pieces indicating players of the team at bat, substantially as described.

2. A game board comprising a field, lines on said field forming the representation of a baseball diamond, figures at the angles of said diamond representing the home plate, first, second and third bases respectively, and positions indicated on said board for the infielders, two positions being provided for each infielder, one set of positions outside the diamond and the other set inside the diamond, substantially as described.

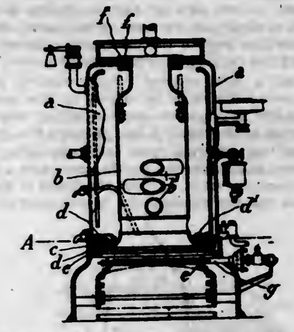
3. A game board comprising a field, lines on said field forming the representation of a baseball diamond, figures at the angles of said diamond representing the home plate, first, second and third bases respectively, and positions indicated on said board for the infielders, two positions being provided for each infielder, one set of positions outside the diamond and the other set inside the diamond, said home plate, said bases, and said infielder positions having openings therein for the reception of game pieces, substantially as described.

4. A game board comprising a field, lines on said field forming the representation of a baseball diamond, figures at the angles of said diamond representing the home plate, first, second and third bases respectively, and positions indicated on said board for the infielders, two positions being provided for each infielder, one set of positions outside the diamond and the other set inside the diamond, said home plate, said bases, and said infielder positions having openings therein for the reception of game pieces, positions indicated on said field for the pitcher and catcher and umpires, and for the out fielders similar to the positions above described for the infielders, and means on the board for keeping account of the runs and innings, substantially as described.

5. A game board comprising a field, lines on said field forming the representation of a baseball diamond, figures at the angles of said diamond representing the home plate, first, second and third bases respectively, and positions indicated on said board for the infielders, two positions being provided for each infielder, one set of positions outside the diamond and the other set inside the diamond, said board constructed to receive cards containing the names of players, and positions on the board beside the cards for the reception of game pieces indicating the players, and said board ruled, and provided with openings for the reception of pin counters, whereby lines of openings are formed to indicate the innings, and runs, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,042,143. BOILER FOR COOKING APPARATUS. AUGUSTE REICHERT, Geneva, Switzerland. Original application filed Dec. 30, 1910, Serial No. 600,121. Divided and this application filed May 28, 1912. Serial No. 700,143. (Cl. 122—167.)



1. In a vertical boiler for cooking apparatus, a casing comprising an outer cylinder, and an inner cylinder generally concentric therewith, an internal flange at the lower end of the outer cylinder, a ring placed over the said flange, an external flange on the inner cylinder, a ring below the said external flange, a packing ring between the said flanges, and a series of bolts securing said flanges and rings together.

2. In a vertical boiler for cooking apparatus, a casing comprising an outer cylinder, and an inner cylinder generally concentric therewith, an internal flange at the lower end of the outer cylinder, a ring placed over the said flange, an external flange on the inner cylinder, a ring below the said external flange, a packing ring between the said flanges, a series of bolts securing said flanges and rings together, and means for securing the top portions of the said outer and inner cylinders together.

3. In a vertical boiler for cooking apparatus, a casing comprising an outer cylinder, and an inner cylinder generally concentric therewith, a series of pipes extending transversely at different levels across the said inner cylinder, an internal flange at the lower end of the outer cylinder, a ring placed over the said flange, an external flange on the inner cylinder, a ring below the said external flange, a packing ring between the said flanges, a series of bolts securing said flanges and rings together, and means for securing the top portions of the said outer and inner cylinders together.

4. In a vertical boiler for cooking apparatus, a casing comprising an outer cylinder and an inner cylinder generally concentric therewith but having the upper end of materially reduced diameter, an internal flange at the lower end of the outer cylinder, an internal flange at the upper end of the outer cylinder, a divided ring fitting over the internal flange at the lower end of the outer cylinder, an external flange at the lower end of the inner cylinder, a ring below the said external flange, packing rings between the said flanges, means for securing together the said rings and flanges at the lower ends of the cylinders, a ring at the upper end of the inner cylinder, and means for clamping the said internal flange at the upper end of the outer cylinder to the last aforesaid ring.

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1,042,144. LIQUID-HEATING RECEPTACLE. WILLIAM A. ROBINSON, Jeffersonville, Ind. Filed Aug. 29, 1911. Serial No. 646,705. (Cl. 53—9.)

1. In a device of the class described, in combination with a liquid containing receptacle having an orifice in its upper end, a heating coil exteriorly thereof and in communication therewith, and a pivoted discharge cock connected with said coil, said cock delivering liquid directly from the coil in one position, and entering said orifice in the receptacle in the other position so as to discharge directly thereto.

2. In a device of the class described, the combination with a liquid containing receptacle having an orifice near its upper end and in one side, of a flash coil disposed beneath the bottom of the receptacle and opening at one end up through the bottom, the opposite end of the coil extending out to one side of the receptacle, a two-way valve having a fixed part secured on the outer end of the coil and a turning part in the fixed part adapted to open the coil when the turning part is adjusted to two different positions, and a tube secured to the turning part and adapted to swing therewith to extend up into said orifice in the receptacle in one open position of the valve whereby a circulation of the liquid is had through the receptacle, the coil, and the upturned tube, said tube being adapted to swing down and rotate the turning part into a different position to open the valve whereby the liquid is discharged directly from the coil through the downturned tube.



3. In a device of the character described, the combination with a liquid containing receptacle having an orifice near its upper end, of a flash coil adjacent the bottom thereof and in communication with the interior of said receptacle, a two way valve carried by the free end of said flash coil, a spout carried by said valve, the free end of said spout engaging in said orifice in said receptacle when in its raised position and discharging the contents of said receptacle and flash coil when in its lowered position, a coil inclosing and heat retaining skirt depending from said receptacle, a heater arranged directly below said coil, and means engaging with said skirt whereby to detachably connect said heater to said receptacle.

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1,042,145. GUN. ISAAC HARRISON RODENHAVER, East Auburn, Cal., assignor of one-half to James Toman, Sutter Creek, Cal. Filed Dec. 7, 1911. Serial No. 664,368. (Cl. 42—59.)



1. The combination in a gun, of a casing, a cylinder revoluble therein, and means for pressing the cylinder forward against the casing to close the space therebetween at the front, said means including a cam and a gun hammer, said cam being pivoted near its forward end and having a rear extension and said hammer having a shoulder to engage said extension.

2. The combination in a firearm, of an action case, a barrel thereon, a revoluble cylinder having a face adjacent to the barrel end, a firing hammer, and a device actuated by the hammer to seat the cylinder against the barrel end to close the joint, said device comprising a cam pivoted near its forward end and having a rear extension, said hammer having a shoulder to engage under the rear extension of the cam to thereby rock the cam about its pivot.

3. The combination in a firearm, of an action case, a barrel thereon, a revoluble cylinder having a face adjacent to the barrel end, a firing hammer, a device actuated by the hammer to seat the cylinder against the barrel end to close the joint, said device comprising a cam pivoted near its forward end and having a rear extension, said hammer having a shoulder to engage under the rear extension of the cam and rock the cam about its pivot, and a latch to sustain the device during the fall of the hammer.

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1,042,146. BUTTON TAB-END. JOHN B. RUSS, Shelton, and HENRY J. STUART, Ansonia, Conn., assignors to The Robert N. Bassett Company, Derby, Conn., a Corporation of Connecticut. Filed May 18, 1911. Serial No. 627,948. (Cl. 24—245.)



1. A button tab end for button and loop fastenings, said tab end comprising a button or stud, a base plate supporting the same, said base plate having a transverse slot therein above the point of connection of the button with the base plate, and having two transverse slots at points below said connection, a tape entirely covering the back of said plate and the front of said button or stud, said tape being threaded through the slots in said base as follows: through the top slot from the rear to the front; over the button head and through the middle slot from the front to the rear; thence through the lowermost slot from the rear to the front; thence around the lower end of the frame and up against the back thereof, thence, finally, through the uppermost slot from the rear to the front.

2. In a tab end for a button and loop fastening, a button, a base plate support therefor having a plurality of transverse slots one of which is in the upper part of the plate and above the button, a supporting strip for entirely covering the front of the button and the back of the base plate button support, said strip extending through said slot in the upper part of the base plate above the button from the rear to the front, and thence over the head of the button, and thence through the slotted lower portion of said base plate and around the lower edge thereof, and thence up along the back of the base plate and through the first mentioned slot from the rear to the front, and terminating at the front of the base plate and within the fold of the strip.

3. In a button and loop fastening, a loop, a button arranged to coact therewith, a base plate therefor having a plurality of transverse slots, a tab end for connecting the loop with said button and for entirely covering the front of the button and the back of the base plate button support, said tab end being secured at one end to the loop and extending in a single strand to said base plate, and threaded through the slots therein in a direction to entirely cover said button and the back of the base plate support therefor, said threading alone serving to securely hold said button and base plate to said tab, said depending tab end entering the upper slot in the base plate from the rear to cover the back of the upper extremity of said base plate, the extreme lower end of the tab end being passed through said frame from the rear to the front above the plane of the button, and terminating at the front of the base plate.

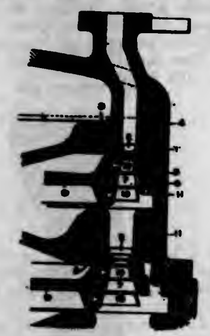
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1,042,147. ELASTIC-FLUID TURBINE. FREDERICK SAMUELSON, Rugby, England, assignor to General Electric Company, a Corporation of New York. Filed Mar. 29, 1911. Serial No. 617,661. (Cl. 121—58.)

1. In an elastic fluid turbine, the combination of a casing, a diaphragm for dividing the casing into stages, bucket wheels for the stages, intermediate buckets located between the wheel buckets, a nozzle for discharging fluid against the wheel buckets which nozzle is formed separately from the diaphragm, and a support located within the casing that is common to the nozzle and the intermediate buckets and is carried by the diaphragm.



2. An elastic fluid turbine comprising a casing, a diaphragm, and a wheel and its buckets with a nozzle plate that is secured to the diaphragm within the casing, said plate having nozzle passages completely formed therein and located intermediate its inner and outer edges, a ring that is secured to the plate, and intermediate buckets carried by the ring which are located between the wheel buckets.



3. An elastic fluid turbine comprising a casing, a diaphragm, and a wheel and its buckets with a nozzle plate, said plate having nozzle passages completely formed therein, means for securing the nozzle plate to the diaphragm which includes a shoulder between it and the diaphragm, a ring attached to the plate, and intermediate buckets carried by the ring and located between the wheel buckets.

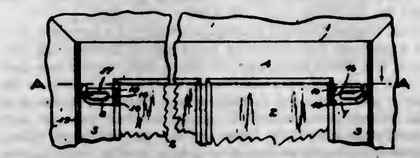
4. An elastic fluid turbine comprising a casing, a diaphragm having passages therein leading to the nozzles and a wheel and its rows of buckets, with a plate containing a nozzle that is secured to the low pressure side of the diaphragm, said plate extending beyond the inner and outer walls of the diaphragm passages, a ring which is secured to the plate and is separated from the inner wall of the casing by a space, and intermediate buckets carried by the ring which are arranged in a row and are located between adjacent rows of wheel buckets.

5. An elastic fluid turbine comprising a casing, a diaphragm having passages leading to the nozzles and a circumferential groove adjacent the outlet end of said passages, a wheel and its rows of buckets, an annular plate provided with nozzles and mounted on the diaphragm with its inner edge in engagement with said groove, intermediate buckets arranged in a row between the wheel buckets, and means for supporting the intermediate buckets from the plate.

[Claim 6 not printed in the Gazette.]

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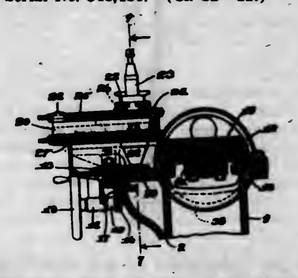
1,042,148. WINDOW-SHADE BRACKET. WILLIAM R. SANFORD, New York, N. Y., assignor to Ventilating Shade Fixture Co., a Corporation of New York. Filed Apr. 21, 1911. Serial No. 622,458. (Cl. 156—24.)



The combination with a window sash adapted to slide up and down in a frame, of a pair of shade brackets each comprising an attaching member secured upon the face of the sash and extending into the opening of the sash which receives the window pane, and an arm having one end portion hinged to said attaching member within the recess or opening of the window sash and adapted to lie in the same plane with said attaching member, the other end portion of the arm away from said attaching member being bent with respect to the first-mentioned portion on a line parallel to the line of said hinging and having a shade roller seat in itself, whereby said arms of the shade bracket may be folded into the opening or recess of the window sash adjacent to the pane or may be swung horizontally outward apart to lie at their said end portions having the shade roller seats adjacent the inner sides of the window frame.

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1,042,149. LATHE. OTTO W. SCHAUM, Philadelphia, Pa., assignor to Fay Machine Tool Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 12, 1910. Serial No. 543,436. (Cl. 82—11.)



1. In a lathe, the combination of a support, a work holder, means for rotating the work holder, a frame mounted on said support and movable parallel to the axis of rotation of the work holder and provided with guiding faces extending transversely of said axis, a carriage fitted to said guiding faces and having an opening therein extending parallel to said guiding faces, a tool holder carried by the carriage, a block slidably fitted to the walls of said opening, means operative to adjust said carriage relatively to said block, a longitudinally movable cam operatively connected to said block, and means for moving said cam.

2. In a lathe, the combination of a support, a work holder, means for rotating the work holder, a frame mounted on said support and movable parallel to the axis of rotation of the work holder and provided with guiding faces extending transversely of said axis and having an opening therein extending parallel to said guiding faces, a carriage fitted to said guiding faces, a tool holder carried by the carriage, a block located within said opening, means operative to adjust said carriage relatively to said block, a longitudinally movable cam guided by said support beneath said frame and operatively connected to said block, and means for moving said cam.

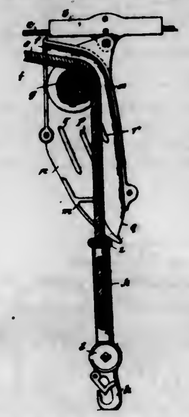
3. In a lathe, the combination of a support, a work holder, means for rotating the work holder, a frame mounted on said support and movable parallel to the axis of rotation of the work holder and provided with guiding faces extending transversely of said axis and having an opening therein extending parallel to said guiding faces, a carriage fitted to said guiding faces and having an opening therein extending parallel to said guiding faces, a tool holder carried by the carriage, a block located within said openings and slidably fitted to the walls of the opening in said carriage, means operative to adjust said carriage relatively to said block, a longitudinally movable cam guided by said support beneath said frame and operatively connected to said block, and means for moving said cam.

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1,042,150. SUPPORTING MECHANISM. ALBERT SCHEIBEL, Chicago, Ill. Filed Apr. 5, 1909. Serial No. 488,050. (Cl. 248—25.)

A supporting mechanism including a sheave; a flexible supporting member passing over the sheave and provided with an enlargement; a housing carrying the sheave and provided with entrance and exit openings for the enlargement; a seat within the housing for supporting the en-

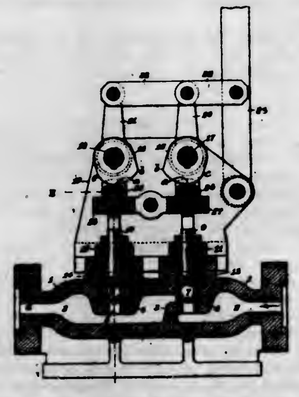
largement independently of the flexible supporting member; and substantially parallel ribs within the housing including an outer rib positioned to guide the enlargement to the entrance to the housing, a second rib facing said entrance opening and positioned to have frictional engage-



ment with said enlargement as said enlargement moves upwardly gradually to stop the said enlargement upon continuing pull upon the flexible supporting member, and a third rib positioned to guide the said enlargement to the exit opening after it has been stopped by frictional engagement with the second rib and lowered to the seat.

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1,042,151. VALVE MECHANISM. ROBERT SCHNICKE, Wilkinsburg, Pa. Filed Apr. 24, 1911. Serial No. 623,095. (Cl. 138—14.)



1. In a valve mechanism the combination of two stop valves arranged to seat against fluid pressure and means for positively shifting one of the valves to its seat and permitting the reverse movement of the other valve.

2. In a valve mechanism the combination of two stop valves arranged to seat against fluid pressure and means for positively simultaneously controlling both valves but in opposite directions and locking one of said valves in closed position.

3. In a valve mechanism, the combination of two stop valves arranged to seat against fluid pressure, and means adapted while moving in one direction to seat one of said valves and by a further movement to permit the shifting of the other from its seat while positively holding the first valve on its seat.

4. In a valve mechanism the combination of two stop valves arranged to seat against fluid pressure, oppositely arranged cams adapted to shift said valves and means for simultaneously rotating said cams in the same direction.

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1,042,152. SHAPED SEAMLESS HOSIERY AND MODE OF KNITTING SAME. ROBERT W. SCOTT, Boston, Mass., assignor, by direct and mesne assignments, to Scott & Williams, Incorporated, Camden, N. J., a Corporation of New Jersey. Filed June 7, 1906. Serial No. 320,574. (Cl. 66—4.)



1. A machine knit stocking having a seamless leg, a seamless heel, and a seamless foot narrowed by doubling stitches of certain wales onto adjoining wales, said doubling wales being within the limit of the continuous wales at the rear of the heel.

2. The mode herein described of producing a machine knit stocking with a seamless leg having a shaped calf, a seamless heel, and a seamless foot having instep gussets, said mode consisting in first knitting upon a circularly arranged series of needles a tube of a diameter sufficient for the leg of the stocking, transferring the stitches from said needles onto a smaller number of circularly arranged needles partly by straight transfer and partly by doubling transfer, the transfer from some of the first set of needles being effected at one point in the formation of the seamless tube to produce a calf narrowing, and the transfer from the remaining portion of said first set of needles being effected at a subsequent period to produce instep gussets, and knitting a seamless heel upon certain of the needles of both sets between the successive transfers.

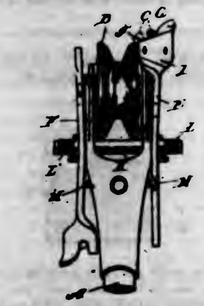
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1,042,153. TROLLEY CATCHER AND REPLACER. WALTER J. SCRIMSHAW, Chicago, Ill. Filed Feb. 14, 1910, Serial No. 543,688. Renewed Feb. 15, 1912. Serial No. 677,860. (Cl. 191—37.)

1. In combination, a trolley pole having a grooved contact wheel, an arm pivotally mounted on the pole on one side of the wheel, said arm having a fork at one end and the arm being of such length as to cause the fork to lie slightly above the top of the trolley wheel when the arm is in an upright position, a spring tending to hold said arm with the fork lying below the top of the trolley wheel, and the fork being arranged to grip a trolley wire and be sprung thereby into an upright position.

2. In combination, a trolley pole having a grooved contact wheel, an arm pivotally connected to the pole at one side of the wheel and having tines at one end thereof, said tines being so arranged that they lie substantially horizontal when the arm is in an upright position, and the tine nearest the contact wheel being nearer the pivotal axis of the arm than the other tine, and the length of the arm being such that when the arm is upright the tine nearest to the contact wheel is at about the level of the highest point of the wheel.





3. In combination, a trolley pole having a grooved contact wheel, forks lying on opposite sides of said wheel and pivotally connected to the pole, means for yieldingly holding the shanks of the forks at an angle to the pole with the tines in advance of the pivot, each of said forks being arranged to grip a wire falling into it and be swung upwardly thereby, and the tines of each fork being so shaped as to release the wire and guide in into the groove in the wheel when the fork has been lifted sufficiently to carry the wire above the top of the wheel.

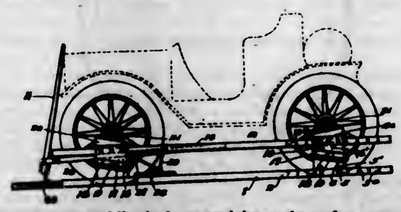
4. In combination, a trolley pole having a grooved contact wheel, a fork pivotally connected to said pole on one side of the wheel, a spring for turning the fork in one direction, and means depending upon the angular position of the trolley pole for actuating said fork against the tension of said spring so as to adjust the fork in proper relation to the trolley wire for different angular positions of the trolley pole.

5. In combination, a trolley pole having a grooved contact wheel, a fork pivotally connected to the pole on one side of the wheel in position to engage the trolley wire when it jumps from the wheel toward the fork, a spring tending to hold the tines of the fork in advance of the wheel, and means for automatically shifting the fork when the trolley pole changes its angular position so as to maintain the tines of the fork in the proper position relative to the trolley wire regardless of the angle at which the pole is placed.

[Claims 6 to 9 not printed in the Gazette.]

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1,042,154. AUTOMOBILE-JACK. HERBERT W. SEELY, Seligman, Ariz. Filed Mar. 30, 1912. Serial No. 687,332. (Cl. 57—15.)



1. An automobile jack comprising a base frame, a top frame movable longitudinally thereof and normally arranged below the level of the axle of the vehicle to be raised, wedge blocks adapted to be interposed between said top frame and the axles, engaging inclined track surfaces between said mechanism, means for moving the top frame forward intermittently, means for locking said top frame in each of its forward positions of movement, and means for rendering said locking means inoperative.

2. An automobile jack comprising a base frame provided with a rack plate, an endwise movable top frame, engaging inclined track surfaces between the said frames, a stirrup carried by the top frame, a lever adapted for detachable engagement with the rack plate and stirrup for moving the top frame intermittently forward, locking mechanism for securing the top frame in each of its positions of adjustment, and means for rendering said locking means inoperative.

3. An automobile jack comprising a base frame, a top frame adapted to engage under the axles of the vehicle, blocks carried by said top frames for engagement with the axles, said blocks being arranged in pairs at opposite ends of the frame with the engaging surfaces of the respective pairs of blocks inclining downward toward the center of the frame, engaging surfaces on the frames for raising and lowering the top frame when said frame is moved forwardly or rearwardly, and means for holding the same in a forwardly adjusted position.

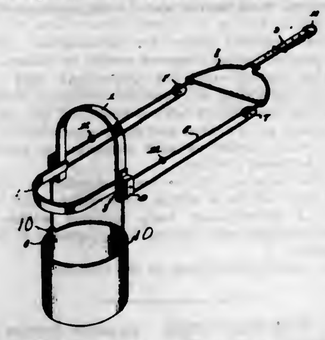
4. An automobile jack comprising a base frame, a top frame provided with downwardly and inwardly inclined surfaces to engage under the axles of a vehicle, engaging surfaces between said frames operative to raise and lower the top frame on its forward and rearward movements, rack teeth at one end of the base frame, a draft connection pivoted to the top frame, a lever slidably and pivotally engaging said draft connection and having a toothed lower end for operation with said rack teeth, and means for securing said top frame against rearward movement on each forward step of motion thereof.

5. An automobile jack comprising a base frame, a top frame having downwardly and inwardly inclined surfaces to engage under the axles of a vehicle, means for moving the top frame forward by an intermittent step by step motion, blocks carried by and disposed between said frames and having inclined surfaces, anti-friction rolls disposed between said surfaces, the latter being arranged for raising and lowering the top frame when said frame is moved forwardly or rearwardly, stops upon said blocks to retain the rolls from lateral or downward displacement, and means for holding the top frame in any of its positions of adjustment.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,155. FEED-BAG. WILLIAM SUHL, Prescott, Ariz. Filed Sept. 20, 1910. Serial No. 582,881. (Cl. 119—66.)

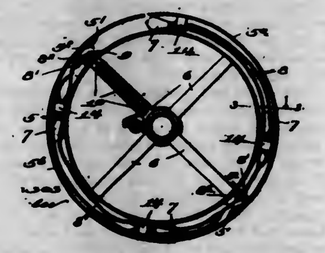


In a support for feed bags embodying a head strap and a brow strap connected thereto, the combination of casings secured to the opposite ends of said head strap, pulleys mounted in the said casings, a horizontally disposed stirrup member provided with a transverse bar, pulleys supported at the opposite ends of said transverse bar and spaced therefrom, said pulleys being spaced from the first mentioned pulleys and disposed in line therewith, flexible elements having one end connected at the opposite sides of the bag and their other ends to the casing, the intermediate portion of said flexible elements, forming loops extending rearwardly from the bag and operatively associated with both sets of said pulleys, an adjusting strap having one end connected to the said stirrup and extending rearwardly therefrom, said strap being folded

upon itself to provide a loop, a ring in said loop, and the opposite end of said strap being provided with a buckle adjustably engaging the intermediate portion thereof, substantially as and for the purpose described.

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1,042,156. HEATER FOR STEERING DEVICES FOR MOTOR-DRIVEN VEHICLES. EARL D. SHANNON, Alpena, Mich. Filed July 8, 1912. Serial No. 708,905. (Cl. 219—45.)



1. A hollow steering device for motor-driven vehicles having a heater disposed within its interior and movable to any position therein, said heater embodying an electric resistance element, means for supplying a current thereto, and means associated with said heater for retaining the same in adjusted position.

2. A hollow steering device for motor-driven vehicles having a heater disposed within its interior and movable to any position therein, said heater embodying an electric resistance element, means for supplying a current thereto, and means carried by said element and frictionally engaged with the interior wall of said device for retaining said element in adjusted position.

3. A hollow steering device for motor-driven vehicles having an electric heater disposed within its interior and provided with current supplying connections, said heater consisting of a plurality of connected resistance elements movable within said device toward and from one another to vary the zone to be heated and the temperature of such zone.

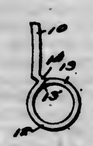
4. A hollow steering device for motor-driven vehicles having an electric heater disposed within its interior and provided with current-supplying connections, said heater consisting of a plurality of connected resistance elements movable within said device toward and from one another to vary the zone to be heated and the temperature of such zone, and means carried by said elements for retaining the same in adjusted position.

5. A hollow steering device for motor-driven vehicles having a heater disposed within its interior, said heater embodying an incandescent lamp movable within said device and provided with means for retaining it in adjusted position.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,157. TIRE-PROTECTOR. CHARLES JOSEPH SHUMAKER, Tupelo, Miss. Filed Aug. 8, 1910. Serial No. 576,100. Renewed Sept. 3, 1912. Serial No. 718,788. (Cl. 152—33.)



A tire protector comprising strips of metal of size and configuration to fit partially around a tire tread, each strip having integral ears formed with an outwardly projecting V-portion and terminating below the V in a rounded portion providing an eye, said eye having its end beveled to fit against the lower side of the V, and a securing ring adapted to be engaged in the eye by springing the V and beveled end of the eye apart.

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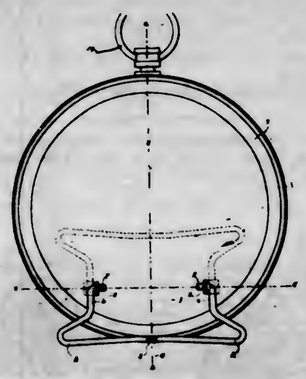
1,042,158. NUT-LOCK. SAMUEL T. SILVER, Calhoun, Ga. Filed Oct. 11, 1910. Serial No. 586,526. (Cl. 151—12.)



In a nut lock, a body portion provided with a central threaded opening, one face of said body portion being provided with a circular pivot well adjacent said central opening, a groove leading from one side of said body portion to said well and communicating with said central opening and forming a spring housing, and with a groove leading from the opposite side of said body portion to said well; a plug mounted in the outer end portion of said housing to close the outer end of said housing, a spring arm extending from said plug through said housing, a locking pawl comprising a cylindrical body portion mounted in said well and closing the inner end of said housing, a spur extending from said cylindrical body portion into said housing, said spring arm engaging said spur and causing said spur to normally protrude into said central opening, an operating handle extending from said cylindrical body portion through the groove in the opposite side of said body portion, and a cover plate secured to said body portion.

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1,042,159. CLOCK-CASE. CHARLES B. SIMMONS, Bristol, Conn., assignor to The E. Ingraham Co., Bristol, Conn., a Corporation. Filed Dec. 18, 1911. Serial No. 666,529. (Cl. 58—56.)



1. In a clock, the combination with a cylindrical sheet-metal case the back of which is formed with two apertures located in line with each other and at a point below the horizontal center of the said back of two angle-plates mounted in the case behind the said back through the apertures of which their perforated outer ends project, and a swinging rear support made from a single piece of wire bent to form two horizontal supporting-arms extending in opposite directions, and two parallel suspension-arms terminating in trunnions respectively entering the perforated outer ends of the said angle plates, whereby the said support may be swung into an inverted or clearance



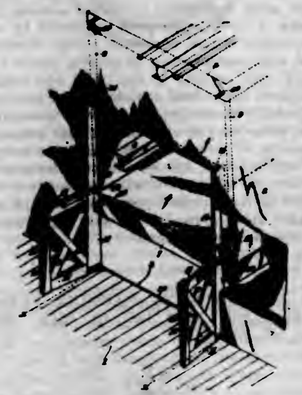
position in which it falls within the periphery of the said case.

2. In a clock, the combination with the case thereof, of a swinging rear support made from a single piece of wire bent to form two horizontal supporting-arms extending in opposite directions and two upwardly projecting suspension-arms by means of which the support is pivotally secured to the back of the case, and a retaining bend located between the said supporting-arms and adapted to be engaged with the case for holding the support in its operating position.

3. In a clock, the combination with a cylindrical sheet-metal case, of a swinging rear support pivotally connected with the back of the case and provided with two oppositely extending horizontal supporting-arms projecting beyond the periphery of the case when the said support is swung down into its operating position, and a retaining point or head projecting from the bottom of the case in position to be engaged by the said support for retaining the same in its said operating-position.

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1,042,160. ELEVATOR-GATE. FRANK E. SIMONS, Los Angeles, Cal. Filed Apr. 27, 1912. Serial No. 693,766. (Cl. 187—51.)



1. An elevator gate comprising a pivotally mounted gate member, means for elastically holding said gate member in closed position when on center and in open position when off center, and means on the elevator car coacting with said gate member for throwing said gate member on center.

2. An elevator gate comprising gate members, means on each gate member for elastically holding said gate members in closed position when on center and in open position when off center, and means on the elevator car coacting with said gate members to throw said gate members on center.

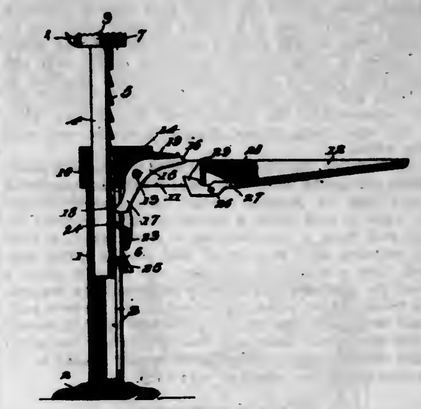
3. An elevator gate comprising gate members, means on each gate member for elastically holding said gate members in closed position when on center and in open position when off center, an arm on each gate member, and cam means on the elevator car for operating said arms to throw said gate members on center.

4. An elevator gate comprising gate members, means on each gate member for elastically holding said gate members in closed position when on center and in open position when off center, an arm on each gate member, and cam means on the top and floor of said elevator car adapted to respectively engage the arms on said gate members.

5. An elevator gate comprising a plurality of gate members pivotally mounted within a door opening, a spring on each gate member adapted to hold the gate member off center when in open position and to close the gate members when on center, and means on the elevator car adapted to coact with the gate members to throw the gate members on center to close the gates.

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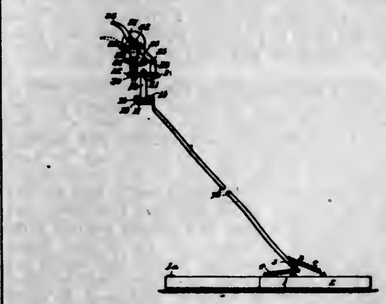
1,042,161. LIFTING-JACK. CHARLES SKIDMORE, Homer, Nebr., assignor to F. A. Wood, Dakota City, Nebr. Filed Mar. 31, 1909. Serial No. 486,977. (Cl. 57—169.)



A lifting jack comprising a tubular standard having a longitudinal slot and a head provided with a recess, a locking dog pivoted in the recess and having a nose movable in the slot of said standard, a toothed bar movable in said standard and adapted to be engaged by the nose of said locking dog, a spring secured at one end in said recess normally holding said locking dog in engagement with said bar, a lever pivoted to said head and provided with a slot to receive the upper end of said locking dog, a pawl pivoted to said lever in said slot and having a limited movement in one direction and adapted to engage said locking dog when elevated to hold said locking dog in an inoperative position, a cam member secured to said standard below the head thereof, and a yoke pivoted to the inner end of said lever and provided with a nose movable in the slot of the standard to engage the teeth of said bar and with a lower end adapted to engage the cam member and be held thereby in spaced position from said bar.

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1,042,162. TROLLEY. FRANK SLONOWSKI, Marianna, Pa. Filed Apr. 17, 1912. Serial No. 691,813. (Cl. 191—12.)



1. In a trolley, the combination with a base plate, and parallel poles having the lower ends thereof yieldably supported by said base plate, of parallel channel bars carried by the upper ends of said poles, a carrier movably mounted between said channel bars, a post supported by said carrier, a harp plate swiveled upon the upper end of said post, a harp movably supported by the rear end of said harp plate, a journal pin carried by said harp and revolubly supporting a trolley wheel, and arms hav-

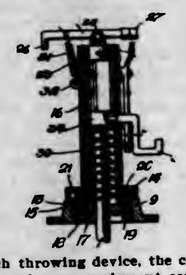
ing the lower ends thereof pivotally supported by the front end of said harp plate and the upper ends thereof shaped to extend over said trolley wheel.

2. In a trolley, the combination with a base, and parallel trolley poles having the lower ends thereof yieldably supported by said base, of a carrier movably supported by the upper ends of said poles, a harp plate swiveled above said carrier, a harp movably supported by the rear end of said harp plate, a trolley wheel revolubly mounted in said harp, and arms having the lower ends thereof pivotally supported at the forward end of said harp plate and the upper ends thereof shaped to extend over said trolley wheel.

3. In a trolley, the combination with a base, and parallel poles having the lower ends thereof yieldably supported by said base, of parallel channel bars carried by the upper ends of said poles, a carrier movably mounted between said bars, a post secured to said carrier, a harp plate swiveled upon the end of said post, a spring supported harp arranged in the rear end of said plate, a journal pin arranged in said harp and revolubly supporting a trolley wheel, a bearing carried by the forward ends of said harp plate, and slotted arms held by said journal pin and having the lower ends thereof pivotally connected to said bearing and the upper ends thereof shaped to extend over the trolley wheel of said harp.

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**1,042,163. SWITCH-THROWING DEVICE.** FRANK SLOMOWSKI, Marianna, Pa. Filed Apr. 17, 1912. Serial No. 691,314. (Cl. 104—24.)



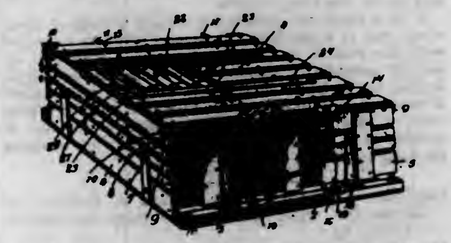
1. In a switch throwing device, the combination with a track equipment, of a car equipment comprising a base, a cylinder rotatably mounted upon said base, a spring supported rod extending into said cylinder and through said base, a shoe carried by the lower end of said rod and adapted to engage the pin of said track equipment, a tread supported by the upper end of said rod exteriorly of said cylinder, and means including a pivoted locking arm for holding said tread in a lowered position with said shoe in position to engage the said track equipment for operating it.

2. In a switch throwing device, the combination with a track equipment, of a car equipment comprising a base, a cylinder rotatably mounted upon said base, a spring supported rod extending into said cylinder and through said base, a shoe carried by the lower end of said rod and adapted to engage the pin of said track equipment, a tread supported by the upper end of said rod exteriorly of said cylinder, means including a pivoted locking arm for holding said tread in a lowered position with said shoe in position to engage the pin of said track equipment and shift the tongues thereof, and means including a pivoted locking lever for moving said cylinder whereby said shoe will be correctly positioned to shift the said track equipment in a desired direction.

3. In a switch throwing device, the combination with a track equipment including tongues, a bar connecting said tongues, and a pin carried by said bar, of a car equipment comprising a rotatable cylinder, a spring supported rod extending into said cylinder, a shoe carried by the lower end of said rod for engaging the pin of said bar, a tread arranged exteriorly of said cylinder and connected to the upper end of said rod for lowering said rod, a pivoted locking arm adapted to engage said tread and retain said rod in a lowered position, and means including an upright and a pivoted locking lever for moving said cylinder to correctly position said shoe to operate said track equipment.

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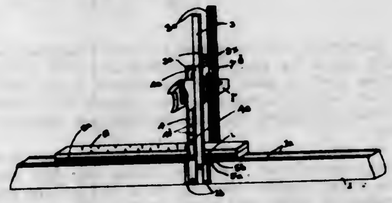
**1,042,164. FOLDING CRATE.** JOHN P. SMITH, Seguin, Tex. Filed June 11, 1910. Serial No. 566,822. (Cl. 217—47.)



A folding crate comprising a bottom member, side and end members, a cover removably supported by said side and end members, spaced apertured straps secured to one of the said end members and projecting above the upper edge thereof, rods secured to the other end member and having threaded upper ends disposed above the upper edge thereof, spaced laterally projecting hook members carried by the said cover at one side thereof and adapted to engage said straps to form a hinged connection between said cover and end member, spaced laterally projecting apertured lugs secured to the cover at the opposite side thereof and adapted to receive the upper ends of said rods, and nuts threaded on said rods above said lugs substantially as and for the purpose set forth.

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**1,042,165. MEAT-SLICING MACHINE.** CHESTER A. SPOTTS, York, Pa. Filed Jan. 19, 1912. Serial No. 672,255. (Cl. 17—24.)



1. In combination a carrier for the meat, a reciprocating hand operated cutter, vertical guides in which said cutter may reciprocate and move vertically, a lever extending vertically and pivoted on a horisontal axis, the upper end of the lever extending across the guide way to be struck by the upper edge of the knife at the end nearest the handle thereof, a rack bar on the side of the meat carrier, pawls engaging said rack, a pawl slide carrying the pawls, and a connection between the lower end of the pivoted lever and the pawl slide, substantially as described.

2. In combination with a cutter, guide means therefor, a guard extending over the face of the cutter adjacent the sliced meat to prevent contact of the slice with the cutter said cutter being movable in relation to the guard and a carrier for the meat, substantially as described.

3. In combination a reciprocatory cutter having also vertical movement, a guard to move vertically with the cutter and held against reciprocating movement therewith, said guard preventing the slice from adhering to the cutter and a carrier for the meat, substantially as described.

4. In combination a reciprocatory cutter, a carrier for the meat, a guide for the cutter and a guard of toothed form for preventing contact of the slice of meat with the cutter, substantially as described.

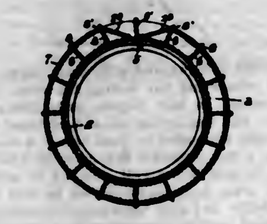
5. In combination a reciprocatory and vertically movable cutter, guide means therefor, a carrier for the meat, a guard movable vertically in guide means and held from moving with the reciprocations of the cutter, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]



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**1,042,166. TIRE-CHAIN.** JOHN G. STEWART, Vandergrift, Pa. Filed June 24, 1912. Serial No. 705,411. (Cl. 152—14.)

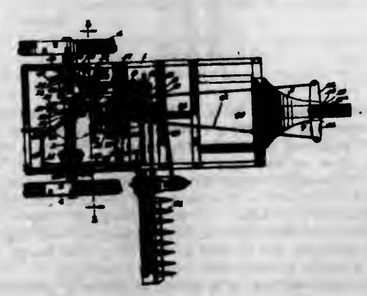


1. A chain grip tread for elastic tires consisting of the combination of a pair of separable annular inner chains having connecting terminals, diagonal stay chains extending backwardly from said terminals at each side toward the crown portion of the tread, circumferentially arranged outer longitudinal tread chains connected with the terminals of said stay chains and disposed annularly parallel with the inner chains, and closely adjacent cross chains connected with said outer longitudinal tread chains and said annular inner chains, substantially as set forth.

2. The combination of inner annular chains having interconnecting terminals, cross chains connecting said chains at intervals, longitudinal tread chains connected with said cross chains providing consecutive series of four sided rectangular chain treads, stay chains connecting the ends of said longitudinal tread chains with the inner annular chains, and a cross chain connected only with the inner chains, substantially as set forth.

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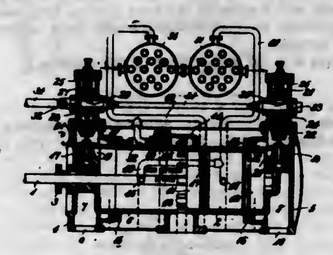
**1,042,167. FIELD-MOWER.** JONATHAN W. STUMP, Ontario, Cal. Filed Mar. 20, 1911. Serial No. 615,612. (Cl. 56—33.)



In a device of the kind described, a frame, an engine thereon, said engine including a drive shaft, wheels supporting said frame, said wheel supported frame including a driving axle fixedly connected to certain of said wheels, a friction gearing between the driving axle and the driving shaft, said friction gearing comprising a pair of friction disks arranged at right angles to each other, a cutter bar, an operative connection between said cutter bar and said driving axle whereby the number of reciprocations of the movable member of the cutter bar will remain in a constant ratio to the amount of ground traversed without reference to the speed of the machine, means to shift the friction gear, said operative connection including a friction gear comprising a pair of friction disks arranged at right angles to each other whereby the speed ratio may be varied at will without reference to the speed of the machine, and means to move one of the last mentioned friction wheels across the face of the other.

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**1,042,168. STEAM-ENGINE.** JOHANN STUMPF, Berlin, Germany. Filed Apr. 18, 1908. Serial No. 427,767. (Cl. 121—45.)



1. The combination with a steam engine cylinder having an inlet port and an exhaust port distant therefrom, of means for heating the steam within the cylinder near the inlet port, a relatively cold chamber into which the exhaust port leads, and an elongated piston working in the cylinder and adapted to uncover the exhaust port as the piston nears the end of its working stroke and to keep said port closed and to cover and protect the adjacent interior portion of the cylinder during the remainder of its operating cycle.

2. In combination with a cylinder having an inlet port at its end and an exhaust port intermediate in its length, means for heating the steam near the inlet end during expansion and compression comprising a hot partial jacket at the inlet end of the cylinder, means for bringing the working steam at the end of expansion into layers of decreasing dryness toward the exhaust, comprising a cold exhaust steam belt around the exhaust ports and into which said exhaust ports open directly, said hot jacket and cold belt being spaced apart with an unjacketed portion of the cylinder extending between and means for allowing said wettest steam to pass off unheated at the end of expansion and to trap and compress heated steam comprising an elongated piston working in said cylinder and adapted to uncover said exhaust ports at the end of expansion and retain said ports covered and the interior of the cylinder out of connection with the exhaust belt during compression, substantially as described.

3. In a steam engine, the combination with a working cylinder having an inlet port at its end and separate exhaust ports and a working piston in said cylinder adapted to uncover said exhaust ports at the end of the working stroke and also to retain them covered during expansion and compression of the steam, of means for securing graduation of the steam in zones of driest steam near the inlet end and wettest steam near the exhaust ports consisting of a partial jacket about the inlet end of said cylinder and from which jacket said cylinder inlet port leads, a live steam supply pipe to said jacket and a valve controlling the admission of live steam from said jacket to the cylinder through said inlet port.

4. In a steam engine in combination with a cylinder having exhaust ports therein and a piston working in said cylinder and adapted at and near the end of its working stroke to uncover said exhaust ports and during expansion and compression of the steam to retain said exhaust

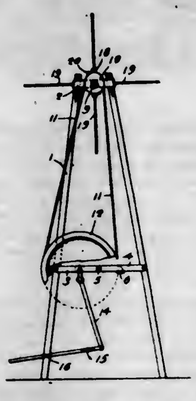
ports covered, means for securing graduation of the steam in zones of driest steam near the inlet end and wettest steam near the exhaust ports consisting of a hollow cover having a live steam inlet port therein leading to the cylinder, a live steam supply pipe to said hollow cover, and a valve in the live steam port leading from said hollow cover to the cylinder for controlling the admission of steam to said cylinder.

5. In a steam engine in combination with a cylinder having exhaust ports therein and a piston adapted to overrun and control said ports, means for securing graduation of the steam in zones of driest steam near the inlet end and wettest steam near the exhaust ports consisting of a hollow cover for said cylinder having ports leading therefrom to the cylinder, a hollow annular extension on said cover, said extension forming a part of the circular walls of the cylinder, a live steam supply pipe to said hollow cover, and a valve in the port leading from said cover to the cylinder for controlling the admission of live steam to said cylinder.

[Claims 6 to 20 not printed in the Gazette.]

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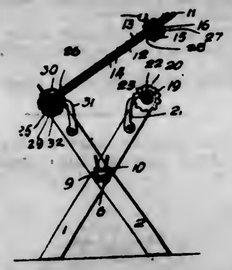
1,042,169. FAN. HUGH SUMSIONER, Westfield, Mass. Filed Apr. 20, 1912. Serial No. 692,021. (Cl. 230—1.)



1. In a fan the combination of folding legs, braces for securing the legs when spread, each of the braces comprising pivotally connected members, one of the members being extended beyond the pivot connection and having a lateral extension to engage the other member to hold the members in alinement, a shaft mounted upon the framework and provided with fans, a shaft mounted in corresponding members of the leg braces, means for transmitting motion from the last mentioned shaft to the fan shaft, and means for operating the shaft mounted in the said braces.

2. The herein described fan comprising two castings having elongated openings in their ends and round openings intermediate of their ends, the inner walls of the elongated openings being vertical and the outer walls inclined, legs having their upper ends inserted in the openings of the castings and pivoted therein, braces connecting the lower portions of the legs, each of the braces consisting of pivoted members, one of the members having an end portion extended and provided with a lateral extension to engage under the other member, a shaft having a crank portion mounted in one of the members of the braces, a treadle having connection with said shaft, a pulley detachably fitted to a projecting end of the shaft, a second shaft mounted in the central openings of the castings, a pulley mounted upon a projecting end of the second shaft, a drive belt connecting the two pulleys, a holder mounted upon said second shaft, and fans having adjustable connection with said holder.

1,042,170. QUILTING AND STRETCHING FRAME. WILLIAM W. TAGGART, Canton, Ohio. Filed May 28, 1912. Serial No. 699,746. (Cl. 45—24.)

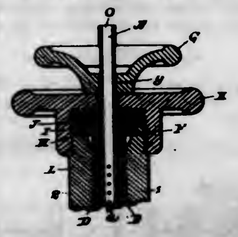


1. A combined quilting and stretching frame, comprising horses, a connecting bar having the ends thereof detachably connected to said horses, rails clamped in engagement with said connecting bar and provided with pins, a roller revolubly supported by said horses, a strip carried by said roller, a bar revolubly supported by said horses, a strip carried by said bar, a rail clamped to said bar and provided with pins, and means carried by said horses for holding said roller and said bar against rotation.

2. A combined quilting and stretching frame, comprising horses having cross legs detachably connected together, a connecting bar having the ends thereof extending through the legs of said horses, rails clamped in engagement with said connecting bar and provided with pins, a roller revolubly supported by said horses, a strip attached to said roller, a bar revolubly supported by said horses and provided with pins, a strip attached to said bar, a rail corresponding in length to said bar and clamped in engagement therewith and provided with pins, and means carried by the inner sides of said horses for locking said roller and said bar against rotation.

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1,042,171. APPARATUS FOR FIXATION OF LIQUIDS. MARIE JOSEPH TALANSIER, Paris, France. Filed Oct. 1, 1909. Serial No. 520,567. (Cl. 99—2.)



1. The combination of a series of radially perforated rings assembled to form a cylinder, conically shaped bits of hard material provided with capillary passages from base to apex of the cone set in said perforations, and means for forcing a liquid through said capillary passages.

2. The combination of a series of radially perforated rings assembled to form a cylinder, conically shaped bits of sapphire provided with capillary passages from base to apex of the cone set in said perforations, and means for forcing a liquid through said capillary passages.

3. The combination of a series of radially perforated rings assembled to form a cylinder, conically shaped bits of hard material provided with capillary passages from base to apex of the cone set in said perforations, and means for forcing a liquid through said capillary passages, the adjacent faces of said rings being provided with interlocking projections and recesses.

4. The combination of a series of radially perforated rings assembled to form a cylinder, conically shaped bits of hard material provided with capillary passages from base to apex of the cone set in said perforations, and means for forcing a liquid through said capillary passages, together with a supporting metal tube for said ring, closed at one end and having openings in line with the openings in the rings placed thereon.

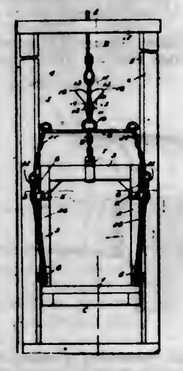
5. In an apparatus for fixing milk and other fluids, a diaphragm formed of material of great strength having conically shaped perforations, conical bits of material of great hardness set in said perforations having capillary passages from base to apex, and means for forcing the fluid to be fixed through said capillary passages from the base toward the apex of each cone.

[Claims 6 to 12 not printed in the Gazette.]



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1,042,172. SAFETY DEVICE FOR ELEVATORS. HERMAN G. TESSMER, Pittsburg, Kans., assignor of three-tenths to O. Douglas Smith and three-tenths to Claude G. Weathers, Pittsburg, Kans. Filed Mar. 16, 1912. Serial No. 684,245. (Cl. 187—72.)



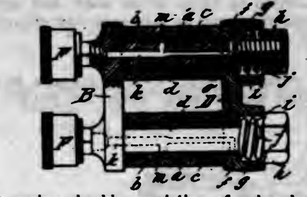
1. In an elevator, a car having a pair of hoisting links connected therewith, a flexible hoisting element including an elongated link, and a cap piece having an aperture through which the hoisting element is guided, in combination with a collapsible connecting device including members invertibly pivoted on the elongated link of the flexible hoisting element and having hooks engaging the hoisting links of the car and adapted to be disconnected therefrom by contact of portions of said members with the apertured cap piece whereby said members are inverted and collapsed; the aperture in the cap piece being proportioned to permit the passage of the connecting device when collapsed.

2. In an elevator, guiding means including uprights and a top piece, the latter having an aperture, a hoisting element guided through the aperture and having a terminal elongated link, connecting members pivoted on the link and having upwardly diverging wings with arcuate cam edges and downwardly extending shanks provided with terminal hooks that extend outwardly with reference to the pivotal axis of the connecting members, an elevator car guided on the uprights, a hoisting member connected with the car and having a central eye, and links connecting said eye with the hooks on the shanks of the connecting members; said shanks being overbalanced by the wings to become inverted when disengaged from the links, and the aperture in the top piece through which the hoisting element is guided being proportioned to permit the passage of the connecting members when thus inverted.

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1,042,173. SHACKLE FOR VEHICLE-SPRINGS. HARRY G. TRENCH, Springfield, Mass. Filed Nov. 25, 1911. Serial No. 662,899. (Cl. 21—104.)

1. A spring shackle consisting of a bar having a pair of dowel like extensions rigidly fixed to and projecting from the bar in separation and parallelism at right angles to the length of the bar, another bar having apertures therethrough and slidable on said projections, compression members on the ends of the projections outside of the slidable bar, springs between said compression members and the slidable bar, leaf springs having eyes in the ends thereof individually engaging the dowel like extensions, the slidable mounting of the last named bar upon said extension permitting said bar to bear upon the opposite edges of said leaf springs under the tension of the first named springs.

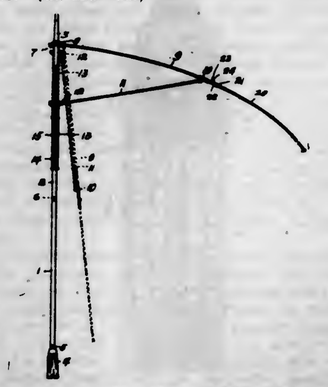


2. A spring shackle consisting of a bar having a pair of dowel like extensions rigidly fixed to and projecting from the bar in separation and parallelism at right angles to the length of the bar, another bar having apertures therethrough and slidable on said projections, compression members on the ends of the projections outside of the slidable bar, springs between said compression members and the slidable bar, leaf springs having eyes in the ends thereof individually engaging the dowel like extensions, the slidable mounting of the last named bar upon said extension permitting said bar to bear upon the opposite edges of said leaf springs under the tension of the first named springs, said dowel extensions having lubricating ports formed therein leading to the bearing surface of the leaf springs and to the bearing surface of the slidable bar upon said extensions.

3. A spring shackle consisting of a bar and a pair of dowel-like members arranged in separation and parallelism at right angles to the length of the bar, another bar having apertures therethrough and slidable on said members, compression members on the ends of the dowel-like members outside of the slidable bar, leaf springs having eyes in the ends thereof individually engaging the dowel-like members,—the slidable mounting of the second named bar upon the dowel-like members causing both of said bars to constantly maintain bearings upon the opposite edges of the leaf springs under the tension of the first named springs.

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1,042,174. FOLDING UMBRELLA. JÓZEF TYMINSKI, Chicopee, Mass. Filed Apr. 16, 1912. Serial No. 691,287. (Cl. 135—25.)

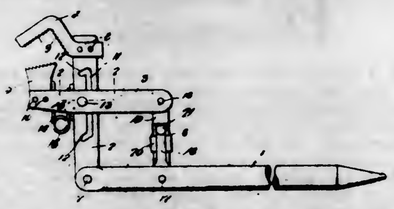


A foldable umbrella including a stick, a notch attached thereto, a runner slidably mounted thereon, a rib formed

of an inner and an outer section, a spreader pivotally connected to the runner and to the inner section inwardly of its outer end, said inner section pivotally connected with the notch, said inner section having its outer end provided with a pair of straps terminating in apertured heads, said outer section having its inner end provided with straps terminating in apertured heads between which is positioned the first mentioned heads, a pin extending through said heads for pivotally connecting them together, said pin having a head at each end, oppositely disposed arms mounted upon opposite ends of said pin and maintained in position by heads of the latter and oppositely extending clamps carried by said arms and engaging the rib sections.

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1,042,175. PIPE-WRENCH. CARL B. VIENNEAU, Mekinock, N. D. Filed May 3, 1912. Serial No. 694,850. (Cl. 81—109.)

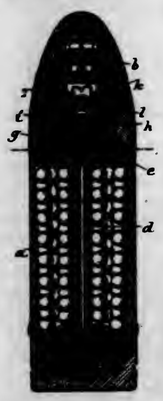


1. A wrench of the class set forth, comprising a handle, a stationary jaw, a main shank connecting said jaw with the handle and provided with a bayonet slot, embodying a plurality of fulcrum shoulders, a pivoted shank, a movable jaw thereon, a link connecting the pivoted shank with the handle, a fulcrum pin on the pivoted shank adjustable in the bayonet slot, and a spring for retaining the fulcrum pin in engagement with any one of said shoulders.

2. A wrench of the class set forth, comprising a handle, a stationary jaw, a main shank connecting said jaw with the handle and provided with a bayonet slot, embodying a plurality of fulcrum shoulders, a pivoted shank, a movable jaw thereon, a longitudinally extensible link connecting the pivoted shank with the handle, a fulcrum pin on the pivoted shank adjustable in the bayonet slot, and a spring for retaining the fulcrum pin in engagement with any one of said shoulders.

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1,042,176. ARTILLERY-PROJECTILE. KARL VÖLLER, Duesseldorf, Germany. Filed Apr. 16, 1912. Serial No. 691,146. (Cl. 102—29.)



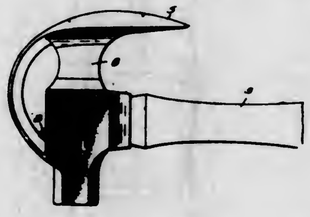
1. An artillery projectile adapted for firing at airships, comprising, in combination with a shell containing shrapnel, a separable portion, inflammable smoke-producing material extending over a comparatively extended area within the separable portion, and an explosive charge in said separable portion, which is designed to be ignited by said inflammable material.

2. An artillery projectile adapted for firing at airships, comprising, in combination with a shell containing shrapnel, a separable portion having a groove extending substantially around its axis, inflammable smoke-producing material located within said groove, and an explosive charge in said separable portion designed to be ignited by said inflammable material.

3. An artillery projectile adapted for firing at airships, comprising, in combination with a shell containing shrapnel, a separable portion having a groove extending substantially around its axis, an inflammable smoke producing material located within said groove, an explosive charge in said separable portion designed to be ignited by said inflammable material, and a smoke generator in said separable portion for indicating the moment of the explosion of the separable portion.

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1,042,177. HAMMER. PETER B. VERDENBURG, Mechanicsville, N. Y. Filed Feb. 15, 1911. Serial No. 608,730. (Cl. 145—44.)



A hammer head comprising a socket member provided with a heel, the said socket being integrally formed with a web which is arranged diametrically opposite the heel, an arched claw connected with the web and extending rearwardly beyond the socket, a curved member integrally formed with the arched claw, and extending beyond the outer face of the socket and connected thereto at the juncture of the heel with the socket, and said arched claw having an inclined opening directed toward the bore of the socket and adapted for the reception of a handle securing element, substantially as and for the purpose set forth.

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1,042,178. TIRE. ALVIN G. WALKER, Pacific Junction, Iowa. Filed Oct. 24, 1911. Serial No. 656,895. (Cl. 152—8.)

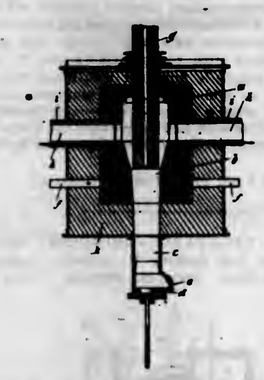


In a vehicle wheel and in combination with the rim, a plurality of bow shaped springs having a transverse arrangement and spaced apart, said springs having their end portions bent inwardly and placed against the said rim, a metal ring encircling the bow shaped springs and attached thereto, other rings placed within the bow shaped springs and confining their bent ends to the rim of the wheel, a casing exterior to the bow shaped springs and the encircling ring, clips placed against the sides of the casing and the rim of the wheel, and transverse bolts connecting opposite clips and passing through openings in certain bow shaped springs.



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1,042,179. PROCESS AND FURNACE FOR PRODUCING GAS REACTIONS. OSKAR HERMANN WEBER and KARL WEBER, Griesheim, Germany, assignors to Corporation of Chemische Fabrik Griesheim Elektron, Frankfort-on-the-Main, Germany, and Otto Dieffenbach and Wilhelm Moldenhauer, Darmstadt, Germany. Filed June 7, 1912. Serial No. 702,188. (Cl. 204—31.)



1. A process for producing gas reactions, which process consists in forming an electric arc between an upper electrode and a lower one, the latter being composed of a charge of fragmentary carbon, which is continuously pushed upward, and feeding gases to said arc, substantially as described.

2. A process for producing gas reactions, which process consists in forming an electric arc between an upper electrode and a lower one, the latter being composed of a column of fragmentary carbon, which is continuously pushed upward, and feeding gases to said arc, substantially as described.

3. A process for producing gas reactions, which process consists in forming an electric arc between an upper electrode and a lower one, the latter being composed of a column of fragmentary carbon, which is continuously pushed upward in proportion as the carbon is consumed and feeding gases to the said arc, substantially as described.

4. A process for producing gas reactions, which process consists in forming an electric arc between an upper electrode and a lower one, the latter being composed of a column of fragmentary carbon, which is continuously pushed upward in proportion as the carbon is consumed and feeding gases to the said arc through the upper hollow electrode, substantially as described.

5. A process for producing gas reactions, which process consists in forming an electric arc between an upper electrode and a lower one, the latter being composed of a column of fragmentary carbon, which is continuously pushed upward in proportion as the carbon is consumed, feeding gases to the said arc through the upper hollow electrode and withdrawing the gaseous products of the reaction immediately behind the reaction zone, substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

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1,042,180. FOOT-REST FOR SHOVELS, SPADES, &c. CHARLES H. WARSHAM, Thomaston, Me. Filed May 3, 1912. Serial No. 694,954. (Cl. 55—115.)

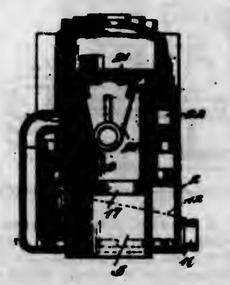
A foot rest for shovels comprising a plate pointed at one end and adapted to be attached to the handle of a shovel, said plate being bent at right angles and slotted, forming two arms, each of which is bent longitudinally at right angles to the shank portion and each apertured for the



reception of a bolt for fastening the same to a shovel, as set forth.

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1,042,181. INTERNAL-COMBUSTION ENGINE. RICHARD TROTTER WHITE, Richmond, Va. Filed Feb. 17, 1912. Serial No. 678,232. (Cl. 123—74.)



1. An internal combustion engine of the two cycle type, including a cylinder formed with an open crank case end and with an annular compression chamber surrounding such end, and with an encircling chamber surrounding the compression chamber, and with ports establishing communication between the compression chamber and the said encircling chamber at the crank case end of said chamber, the cylinder being further formed with an explosion chamber and with a longitudinally disposed passage leading from the encircling chamber and adapted to open into the explosion chamber, the encircling chamber gradually increasing in area toward said passage, and a piston mounted to reciprocate in said cylinder and to control the connection between the explosion chamber and said passage.

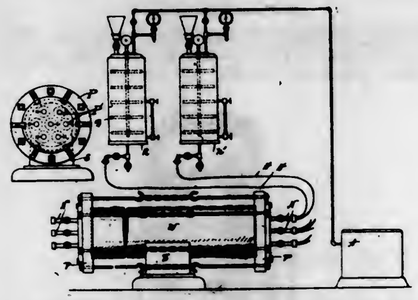
2. An internal combustion engine of the two cycle type, including a cylinder constructed in upper and lower sections connected together, the lower section being formed with an inner cylindrical wall constituting an open crank case end and being formed with an annular compression chamber surrounding said wall, a piston movable in the compression chamber around the exterior of said wall, the upper section constituting an explosion chamber, the lower section being formed at its crank case end with a fuel inlet opening and with an encircling chamber surrounding the compression chamber, with ports establishing communication between the compression chamber and the said encircling chamber, the cylinder being also formed with a longitudinally extending passage diametrically disposed with reference to the inlet opening leading from the said encircling chamber and adapted to open into the explosion chamber.

3. An internal combustion engine of the two cycle type, including a cylinder constructed in upper and lower sections connected together, the lower section being formed with an inner cylindrical wall constituting an open crank case end and being formed with an annular compression chamber surrounding said wall, a piston movable in the compression chamber around the exterior of said wall, the upper section constituting an explosion chamber, the lower section being formed at its crank case end with a fuel inlet opening, with a chamber encircling the compression chamber and with ports establishing communica-

tion between the compression chamber and the encircling chamber, the lower section being further formed with a longitudinally extending outlet passage diametrically disposed to the inlet opening and leading from said encircling chamber and adapted to open into the explosion chamber, said encircling chamber increasing in height gradually from the inlet opening toward the said outlet passage.

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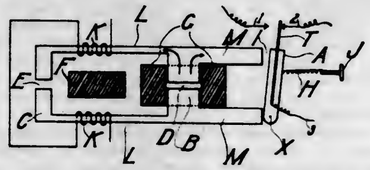
1,042,182. METHOD OF COLORING WOOD. EUGEN WILHELM, New York, N. Y. Filed Sept. 22, 1910. Serial No. 583,215. (Model.) (Cl. 92—12.)



A method of coloring wood consisting in forming a solution of aniiin dyes in hot water, adding varnish and turpentine oil thereto and injecting said mixture through the fibrous structure of a freshly felled trunk, whereby the parts of the fibers which become covered with turpentine oil and varnish remain uncolored.

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1,042,183. POLARIZED RELAY. JOSEPH LESTER WOODBRIDGE, Philadelphia, Pa. Filed Mar. 21, 1910. Serial No. 550,685. (Cl. 178—304.)



1. In combination in an electromagnet, three magnetic circuits arranged in parallel relation, whereof the first contains a movable member, the second is provided with a polarising coil and the third is provided with a source of varying excitation and includes a restricted section adapted to permit the passage of magnetic flux to increase or diminish the flux produced by the polarising coil in the movable member, but to become saturated to limit the reversal of said polarising flux.

2. In combination in an electromagnet, three magnetic circuits arranged in parallel relation, whereof the first contains a movable member, the second is interrupted by a non-magnetic gap and is provided with a polarising coil and the third is provided with a source of varying excitation and includes a restricted section adapted to permit the passage of magnetic flux to increase or diminish the flux produced by the polarising coil in the movable member, but to become saturated to limit the reversal of said polarising flux.

3. In combination in an electromagnet, three magnetic circuits arranged in parallel relation, whereof the first contains a movable member, the second is interrupted by a non-magnetic gap and is provided with a polarising coil and the third is interrupted by a non-magnetic gap, is provided with a source of varying excitation and includes a restricted section adapted to permit the passage of magnetic flux to increase or diminish the flux produced by the polarising coil in the movable member, but to become saturated to limit the reversal of said polarising flux.

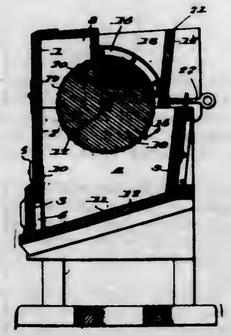
4. A polarised electromagnetic device having conductors tending to reverse its magnetic flux, and having a magnetic path of relatively low saturation point which by becoming saturated limits the reversal of the flux.

5. In combination in an electromagnetic relay, a movable contact making member, a retractive spring to hold said member in one position, a polarising coil adapted to produce a magnetic flux to attract said member against the force of said spring into another position, an electric circuit carrying a variable current and in inductive relation thereto a magnetic path, said circuit and path arranged to coöperate with the polarising coil to increase or diminish the magnetic flux first mentioned with variations of current in said circuit, said magnetic path having a restricted section adapted to become saturated to limit the reversal of said flux to prevent the attraction of the movable member into the second position by said reversed flux.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,184. VEGETABLE-GRINDING MACHINE. VÉTAL ALBERT and JOSEPH V. ALBERT, Caribou, Me. Filed Mar. 26, 1912. Serial No. 686,331. (Cl. 146—9.)



The herein described vegetable grinding machine, comprising an imperforate drum having peripheral teeth, a casing, a chamber in the casing and having a flat smooth and imperforate bottom wall inclined downward and forward and an unobstructed space intermediate the drum and said bottom wall and also having an opening in its front wall extending down to said bottom wall at an intermediate point adjacent the forward edge thereof, a door for normally closing said opening, a hopper formed in the casing and disposed above said drum and chamber and having a back wall; the bottom of the hopper being formed by the said drum, and the perimeter of the drum being spaced from the said back wall, and a door controlling an opening in the front wall of the casing and disposed opposite the side and lower portion of the drum.

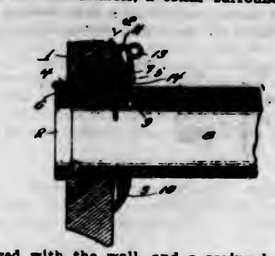
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1,042,185. STOVEPIPE ATTACHMENT. JOSEPH H. ALLEN, Sedalia, Mo. Filed May 28, 1912. Serial No. 700,209. (Cl. 126—318.)

1. In combination, an apertured wall, a thimble therein, a retaining device secured to the wall and engaged with the thimble to prevent movement of said thimble, an apertured pipe, a collar surrounding the pipe and engaged with the wall, and a locking device passing through the retainer and through the pipe and having means to hold the collar against the wall.



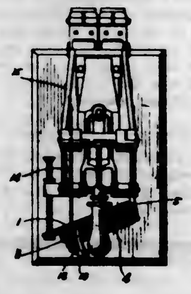
2. In combination, an apertured wall, a thimble secured therein, a retaining device connected to the thimble and to the wall and having an aperture therein, an apertured pipe seated in the thimble, a collar surrounding the pipe



and engaged with the wall, and a spring locking device having a leg extending through the aperture in the retainer and pipe and provided with a leg to overhang the collar.

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1,042,186. CIRCUIT-BREAKER. CORNELIUS AMBRUSTER, Chicago, Ill. Filed Nov. 9, 1909. Serial No. 526,987. (Cl. 175—268.)



1. The combination with a circuit breaker having a tripping armature and a part which moves when the breaker opens, of a member for increasing the weight of the armature, a catch by means of which said member may be attached to and disconnected from the armature, and tripping means operated by said part and adapted to unfasten the catch when the circuit breaker is open or opens.

2. The combination of a circuit breaker having a pivotal tripping armature and a part which moves when the breaker opens, a member pivoted concentrically with the armature, a catch for connecting and disconnecting the free ends of the armature and member, and tripping mechanism connected with said part and adapted to unfasten said catch when the breaker is open or opens and to permit of its fastening when the breaker is closed.

3. The combination of a circuit breaker having a pivotal tripping armature and a part which moves when the breaker opens, a member pivoted concentrically with the armature, a catch for connecting and disconnecting the free ends of the armature and member, tripping mechanism connected with said part and adapted to unfasten said catch when the breaker is open or opens and to permit of its fastening when the breaker is closed, and a weight adjustably carried by said member.

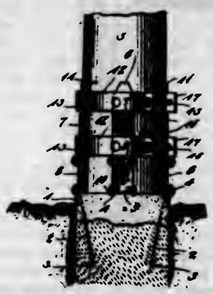
4. The combination of a circuit breaker having a pivotal tripping armature and a part which moves when the breaker opens, a member pivoted concentrically with the armature, a catch for connecting and disconnecting the free ends of the armature and member, tripping mechanism connected with said parts and adapted to unfasten said catch when the breaker opens and to permit of its fastening when the breaker is closed, a weight adjustably carried by said member, and a scale and pointer for indicating the position of the weight.

5. The combination of a circuit breaker having a pivotal tripping armature and a part which moves when the circuit breaker opens, a pivotal member adapted to be connected with the armature to increase its weight, a stud for supporting said member in inactive position, a catch for connecting and disconnecting the armature and member, a bell crank lever pivoted to the stud, and a link connected with said part and one arm of the bell crank lever and the other arm of said lever operating to unfasten the catch when the breaker is open or opens and to permit the catch to fasten when the breaker is closed.

[Claims 6 to 9 not printed in the Gazette.]

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1,042,187. ADJUSTABLE MEANS FOR DETACHABLY CONNECTING A POST TO A BASE. MATHIAS BACKES, Petersburg, Ind. Filed Nov. 2, 1911. Serial No. 658,284. (Cl. 72—84.)

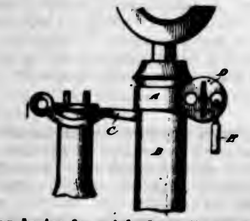


1. A pole and base connector comprising a plurality of members, each composed of a base section adapted to be permanently mounted in a base with one end projecting therefrom, a section for detachable engagement with the pole to be connected and an intermediate section pivotally connected at its opposite ends with said base and pole engaging sections, and means for securing said pole engaging section to the pole.

2. A post and base attaching device comprising hinge members having means for preventing their disconnection from the base in which they are embedded and each having a knuckle at one end, detachable pole engaging hinge members each composed of pivotally connected sections, one of said sections having a knuckle at its free end for detachable engagement with the knuckle of the base carried member and the other section having means for engaging a pole, and means for holding said sectional members in operative engagement with the pole to be connected.

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1,042,188. ADJUSTABLE TELEPHONE-INSTRUMENT-LOCKING DEVICE. CHARLES H. BARD, Mount Vernon, N. Y. Filed Oct. 28, 1911. Serial No. 657,273. (Cl. 179—189.)

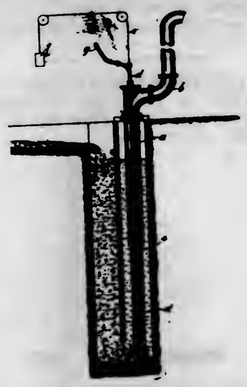


In a locking device for a telephone the combination with a telephone standard provided with a switchhook of a flexible annular band surrounding the column in a position to prevent movement of the switchhook, a thumb screw for connecting the ends of the band by holes through said ends, another hole in one end of the band, a washer head

on the thumb screw with a plurality of holes through the washer head adapted to be brought into register with the hole in the end of the band and locking means passing through said registering openings.

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1,042,189. APPLIANCE FOR RAISING SOLID BODIES. FRANZ BEDUWÉ, Liege, Belgium. Filed May 17, 1911. Serial No. 627,821. (Cl. 193—1.)



1. In an apparatus of the character described, the combination with a pit or receptacle for water and granular or fragmentary solid material, of an elevator comprising a sectional tube that extends into the receptacle, the lower intake section of said tube being telescopically connected with the section above it, a conduit extending into and connected with the intake section of the tube for supplying air under pressure to said intake section, and a counterbalance connected with said conduit.

2. In an apparatus of the character described, the combination of a pit or receptacle for water and granular or fragmentary solid material, which receptacle is divided into two compartments by a vertically arranged partition, the lower edge of which is out of contact with the bottom of the receptacle, of a discharge conduit extending into the compartment of said receptacle which is separated from the inlet thereto by said partition, the lower end of said conduit being telescopically supported and adapted to extend below the lower edge of said partition, and a conduit for discharging air under pressure into said discharge pipe adjacent the lower intake end thereof, substantially as and for the purpose described.

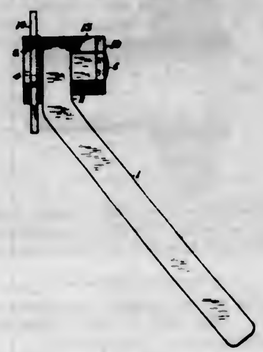
3. In an apparatus of the character described, the combination of a pit or receptacle for water and granular or fragmentary solid material, which receptacle is divided into two compartments by a vertically arranged partition, the lower edge of which is out of contact with the bottom of the receptacle, an elevator comprising a sectional tube that extends into the compartment of said receptacle which is separated from the inlet thereto by said partition, the lower section of said tube being telescopically supported, and a conduit for discharging gas under pressure into said discharge pipe, substantially as and for the purpose described.

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1,042,190. CUTTER-HOLDER. WILLIAM HENRY BINGHAM, San Francisco, Cal., assignor of one-half to William Henry Burnett, San Francisco, Cal. Filed May 2, 1910, Serial No. 558,922. Renewed Sept. 9, 1912. Serial No. 719,446. (Cl. 29—26.)

1. A cutter holder comprising a stem, a clamp held thereby adapted to be rendered operative by motion in one direction with reference to said stem, and inoperative by motion in the opposite direction, said clamp having a threaded portion, an inner nut screwed upon said threaded portion and arranged when screwed thereon to move the holder longitudinally in the direction to render it operative and an outer nut screwed upon the inner nut, the inner and outer threads of the inner nut being right and left handed, substantially as described.

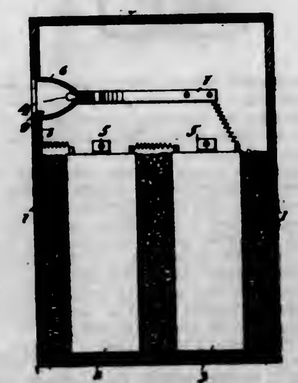
2. A cutter holder comprising a stem having a tapering bole, a clamp for the cutter having a tapering por-



tion in said hole, and being formed of two parts adapted to be pressed together by a longitudinal movement in said hole, the end of the cutter holder being threaded, an inner nut screwed upon said threaded end and an outer nut screwed upon said inner nut, the internal and external threads of the inner nut being right and left handed, substantially as described.

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1,042,191. EGG-TESTER. WILLIAM D. BIXLER, Fort Worth, Tex., assignor of one-half to William Schmidt, Fort Worth, Tex. Filed May 13, 1912. Serial No. 696,922. (Cl. 99—6.)



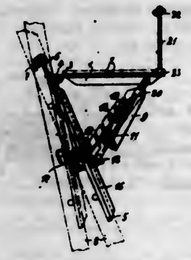
1. An egg testing device comprising a casing, a battery housed in said casing, a reflector mounted within said casing, said casing having an opening into said reflector, means for connecting said reflector with one pole of said battery, a spring contact connected to the other pole of said battery and standing in the path of eggs to be inserted in said reflector and adapted to be brought into contact with said reflector whenever an egg is inserted in said reflector, and an electric lamp in said reflector connected in said circuit.

2. An egg tester comprising a casing having an opening thereinto, a metallic reflector mounted in said casing around said opening, an electric circuit connected with said reflector, a spring contact connected to the other arm of said circuit and standing in the path of eggs to be inserted in said reflector and adapted to be pressed against said reflector when an egg is thrust into said reflector, and an incandescent globe in said reflector included in said circuit.

3. An egg testing device comprising a reflector of conducting material and adapted to receive the end of an egg, an electric circuit, one arm of which is connected to said reflector, a spring contact connected to the other arm of said circuit and standing in the path of eggs to be inserted in said reflector and adapted to be pressed against said reflector by an egg when thrust into said reflector for closing the circuit, and an incandescent lamp mounted in said reflector and connected in said circuit.

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1,042,192. PORTABLE SCAFFOLD. THEOPHILE VICTOR LOUIS BOILOT, Clermont-Ferrand, France. Filed June 6, 1912. Serial No. 702,073. (Cl. 20—85.)



1. Portable scaffold comprising an upright, means thereon adapted to suspend said upright from the rung of a ladder, a horizontal support pivotally connected with said upright, an extensible strut pivotally connected at its upper end with the outer end of said support, a slide movable upon said upright, a pivotal connection between the lower end of said strut and said slide, and means for suspending said slide from a lower rung of the ladder.

2. Portable scaffold comprising an upright, means thereon adapted to suspend said upright from the rung of a ladder, a horizontal support pivotally connected with said upright, a depending bar pivotally connected with the outer end of said support, a slide on said upright, an upwardly extending rack pivotally connected with said slide, guiding means for coupling said bar and said rack together in sliding engagement, means on said bar adapted to engage any desired tooth of said rack, and a hook on said slide for suspending the latter from a lower rung of the ladder.

3. Portable scaffolding bracket adapted to be suspended from the rungs of a ladder and comprising upright, horizontal, and strut members, the last named being adjustable in length and having a foot adjustable up and down the upright and fitted with means adapted to engage the rung of a ladder substantially as set forth.

4. Portable scaffolding bracket comprising a T-iron upright adapted to be suspended from a rung of a ladder and to lie along a plurality of rungs, a platform support fixedly pivoted on said upright, a slide on said upright, an extensible strut pivotally connected between said slide and said support, fastening means on said strut for preserving the length to which the strut is adjusted, and hooks on said slide for engaging a lower rung of said ladder substantially as set forth.

5. Portable scaffolding bracket comprising a T-iron upright, a suspension hook thereon, a horizontal bar pivotally connected at one end with said upright, a strut pivotally connected with the outer end of said bar, said strut being in two portions adapted to slide one upon the other and to be fastened together in any desired position, a shoe slidable on the web of said T-iron upright, a suspension hook on said shoe, and a pivotal connection between the lower end of said strut and said shoe substantially as set forth.

[Claim 6 not printed in the Gazette.]



1,042,193. GO-CART HANDLE. LILLIAN BOWLING, Fairview, Okla. Filed Mar. 21, 1912. Serial No. 685,143. (Cl. 21—12.)



1. In a go-cart, the combination with a collapsible frame including side arms, of a handle supporting element including opposed upwardly inclined arms secured upon each side arm, and a U-shaped handle pivoted at its ends to the side arms of the frame intermediate the arms of the element for alternate engagement with said inclined arms.

2. In a go-cart, the combination with a frame including side arms, of a handle supporting element including opposed upwardly inclined arms secured upon each side arm, a bearing secured upon each side arm centrally below the inclined arms of the element, and a U-shaped handle pivoted at its ends to the bearings for alternate engagement with said inclined arms, the ends of the handle being bifurcated to receive the elements.

3. In a go-cart, the combination with a frame including side arms, of a handle supporting element secured upon each side arm, each element being formed from a single length of strap metal and centrally bent to form an upwardly extending loop which is disposed above and in spaced relation to the respective side arm, the ends of the element thence extending upwardly to form inclined supporting arms, the outer ends of said arms being bent downwardly to form supporting legs, the bearing secured to each side arm below the loop of the element, and a U-shaped handle pivoted at its ends to the bearings for alternate engagement with the inclined supporting arms of the elements.

4. In a go-cart, the combination with a frame including side arms, of a handle supporting element including opposed upwardly inclined arms secured upon each side arm, a bearing secured upon each side arm centrally below the inclined arms of the element, and a U-shaped handle pivoted at its ends to the bearings for alternate engagement with said inclined arms, the ends of the handle being bifurcated to receive the elements, the ends of the handle being respectively formed with opposed longitudinal grooves for alternately receiving the inclined arms of the element.

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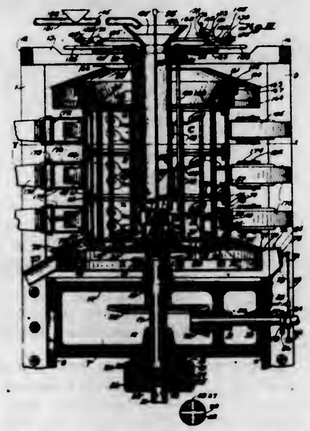
1,042,194. ORE-SEPARATOR. WILLIAM F. BRADBURY, Kansas City, Mo.; Emma Bradbury administratrix of said William F. Bradbury, deceased. Filed Oct. 31, 1910. Serial No. 589,937. (Cl. 82—87.)

1. In a separator, a revoluble cylinder, having an impervious flexible outer wall and a pervious inner wall spaced from the outer wall, means for feeding material to the interior of the cylinder, and means for vibrating the outer wall.

2. In a separator, a revoluble cylinder having an impervious flexible outer wall, a pervious wall spaced inwardly therefrom, the annulus between the walls having communication with the interior of the cylinder only through the pervious wall, means for feeding material to the interior of the cylinder, and means for vibrating the outer wall.

3. In a separator, a suitable frame, a revoluble cylinder, having a flexible, impervious outer wall, bosses on its outer face, a pervious wall spaced inwardly from the outer wall and entirely inclosing the annulus formed by said

walls, and revoluble disks rigidly mounted on the frame and adapted for rolling engagement with the outer wall of the cylinder and with said bosses.



4. In a separator, a rotary cylinder, rods located in said cylinder, agitators on said rods, levers fixed to said rods, stationary quadrant members having slots, and screws connecting the levers with the quadrant members to act as guides and for fixing said levers in an adjusted position.

5. In a separator, a rotary cylinder, a rod located in said cylinder and adapted for rotary movement, agitators on said rod, a lever fixed to said rod, a revoluble shaft, a bifurcated rod having slotted members slidable on said rod, and a cam fixed to the shaft between said bifurcated members and adapted for actuating said rod, for the purpose set forth.

[Claims 6 to 17 not printed in the Gazette.]

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1,042,195. NON-REFILLABLE BOTTLE. FREDERICK A. BRADLEY, Providence, R. I. Filed Jan. 3, 1912. Serial No. 669,274. (Cl. 215—66.)



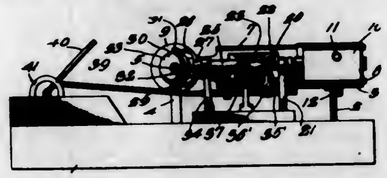
1. In a non-refillable bottle, the combination with a bottle provided with a valve seat, of a stopper permanently secured to said neck and having an air vent and discharge opening, a sealing member having an extension, a locking stem for said sealing member extending through said stopper, guards carried by said locking member, a spring including said extension and interposed between said seal and one of said guards, and means for connecting the extension of said seal to said stem, said connection being constructed to permit relative play of said stem and said seal.

2. In a non-refillable bottle, the combination with a bottle provided with a valve seat in its neck, of a stopper permanently secured to said neck and having an air vent and a discharge opening, a sealing member constructed to engage said seat and provided with a bore, a locking stem engaging said stopper and provided with a finger extending into the bore of said sealing member, means for connecting said finger and said sealing member, said connecting means being constructed to permit relative movement of said finger and said sealing member, and a spring interposed between said locking stem and said sealing member.

3. In a non-refillable bottle, the combination with a bottle provided with a valve seat in its neck, of a stopper permanently secured to said neck and having an air vent and discharge opening, a sealing member constructed to engage said seat, and provided with a bore, a locking stem engaging said stopper and provided with a finger extending into the bore of said sealing member, a cross pin secured to said finger, said sealing member being provided with an enlarged transverse slot to receive said pin, and a spring interposed between said locking stem and said sealing member.

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1,042,196. STEAM-ENGINE. HEINRICH BUCHMANN, Mannhaven, N. D. Filed June 30, 1911. Serial No. 636,168. (Cl. 121—97.)



1. In an engine, the combination of a cylinder, a piston, a drive shaft, a steam chest, a cylindrical valve mounted in said steam chest and capable of an oscillatory movement, a shaft having one end operably connected to said valve, two sleeves telescopically fitting together, co-acting means between said sleeves to permit one of the sleeves a spiral sliding movement with relation to the other, manually operated means for moving the sleeves to regulate the oscillation of the valve, co-acting means between the sleeves and the valve shaft to cause the valve shaft to rotate with said sleeve, a ball keyed upon the drive shaft, and co-acting means between said ball and the outer sleeve to impart to the valve an oscillatory movement.

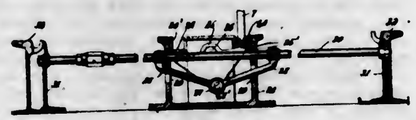
2. The combination with a cylinder and steam chest, said steam chest having ducts leading to the respective ends of the cylinder and provided with oppositely disposed inlet and exhaust ports, and a cylindrical valve mounted for oscillation in said steam chest and provided with co-acting ducts to permit the flow of steam from the steam chest to the respective ends of the cylinder and be exhausted therefrom, of means for oscillating said valve, and regulating the oscillation thereof, comprising a series of three telescopically mounted members, said members being operably connected to said valve and the driving element of the engine, a yoke mounted upon the outer end of said elements, a grooved ball operably connected with the drive shaft of the engine and the terminals of said yoke whereby the rotation of the shaft imparts to said yoked end an oscillatory movement, means for operating the intermediate member to impart thereto a sliding spiral movement to regulate the positioning of the valve, and means connecting the intermediate members and the opposite end member whereby said opposite end member is retained in the same relative position at all times to the intermediate member.

3. The combination with a crank shaft, a cylinder and steam chest of a steam engine, and a valve capable of an oscillatory movement disposed in said steam chest of means for operating said valve to give thereto an oscillatory movement, said means comprising a rod connected at one end to the valve, a sleeve keyed thereon, and capable of a sliding movement thereon at the other end, another sleeve surrounding the first sleeve, co-acting means between the said sleeves for regulating the distance of the oscillation of the valve, a yoke connected at the other end of said second sleeve, and a grooved ball rotatable with the crank shaft of the engine and operably connected to said yoke for imparting an oscillatory movement to the sleeves, rod and valve.



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1,042,197. RAILWAY SWITCHING APPARATUS. GIUSEPPE CAMPANA, New York, N. Y. Filed Jan. 11, 1911. Serial No. 601,943. (Cl. 104—24.)



1. In an automatic switch, in combination, switch points, a switch bar connecting the same, a rocker member pivotally mounted having a sliding connection with the switch-bar to permit relative movement of the two and adapted to throw the switch points, arms rigidly connected to said rocker member, inclined bars resting freely upon said rocker arms and adapted to be depressed by a trip device on the car or train, and means for guiding said inclined bars in a vertical direction.

2. In an automatic switch, in combination, a track box having longitudinal slots in the upperside thereof, arranged between the track rails, inclined bars within said box at said slots, and pivotally supported, a single rigid rocker member supporting the elevated ends of said bars and switch points connected with said rocker member and actuated thereby.

3. In an automatic switch, in combination, a rocker having lugs in pairs on opposite sides of the pivotal axis thereof, a pair of inclined bars having their elevated ends resting on said rocker between said lugs, switch-points and means for connecting said rocker with said switch points to throw the same.

4. In an automatic switch, in combination, a single rocker member, a pair of inclined bars resting loosely thereupon on opposite sides of the pivotal axis, a pair of switch points, a switch-bar connecting the same, and a yoke pivotally connected loosely with said rocker and rigidly attached to said switch bar intermediate the switch rails.

5. A switching apparatus for railways comprising a switch, a switch-bar connected thereto, a yoke secured to the switch bar intermediate the switch rails, a rocker pivotally connected to said yoke, a casing containing the said rocker, levers mounted in said casing, extending longitudinally of said casing and engaging the rocker, rollers carried by a car or train to engage said levers and actuate the rocker to move the switch-bar to open or close the switch, and controlling levers carried by the car, by means of which either of the said rollers can be moved into or out of operative position.

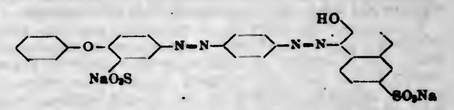
[Claim 6 not printed in the Gazette.]

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1,042,198. RED DISAZO DYE. MAX CANTOR, Berlin-Friedenau, Germany, assignor to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Filed Feb. 12, 1912. Serial No. 677,099. (Cl. 8—1.)

1. As new articles of manufacture the new disazo dyes dyeing wool red from an acid bath which derive from an aminodiarylethersulfonic acid of the benzene series, a monamin of the benzene series and a 2-naphtholsulfonic acid, their dried and pulverized sodium salts being reddish-brown powders, soluble in water to red solutions, not changing their color by addition of sodium carbonate or dilute acids, but becoming bluer by soda-lye or ammonia; being sparely soluble in alcohol with a reddish color; being dissolved in concentrated sulfuric acid to a blue solution, from which on addition of ice the dye is separated; being split off by action of strong reducing agents, yielding aminodiarylethersulfonic acids of the benzene series, para-diamins of the benzene series and 1-amino-2-naphthosulfonic acids.

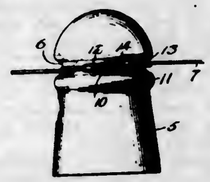
2. As a new article of manufacture the new disazo dye, dyeing wool red from an acid bath, which derives from 4-aminodiphenylether-2-sulfonic acid, anilin and 2-naphthol-6-sulfonic acid and corresponds to the formula:




its dried and pulverized sodium salt being a reddish brown powder, soluble in water to a red solution, not changing the color by addition of sodium carbonate or dilute acids, but becoming bluer by soda-lye or ammonia; being sparely soluble in alcohol with a reddish color; being dissolved in concentrated sulfuric acid to a blue solution, from which on addition of ice the dye is separated; being split off by action of strong reducing agents, yielding 4-aminodiphenylether-2-sulfonic acid, 1.4-phenylenediamin and 1-amino-2-naphthol-6-sulfonic acid.

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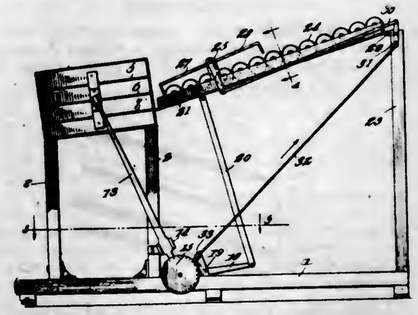
1,042,199. WIRE-CLAMP. HARRY L. CARROLL, Gassaway, W. Va. Filed Apr. 6, 1912. Serial No. 688,944. (Cl. 173—313.)



A wire clamp comprising a loop formed from a single strand of resilient wire bent to provide eye terminals, one of said eye terminals being elongated and of greater size than the other, a catch lever formed from a single strand of relatively stiff wire and having an eye at one end loosely engaging the smaller eye of the loop member and also having a curved handle at its opposite end, and a nose formed in the lever and engageable in the larger eye of the loop member whereby on swinging the lever in one direction the loop member can be drawn taut and fastened about an insulator for the securing of a current wire thereto.

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1,042,200. PACKING-MACHINE. GEORGE H. CAUGHREAN, Ketchikan, Alaska. Filed Dec. 29, 1911. Serial No. 668,416. (Cl. 100—59.)



1. In a packing machine, a receptacle provided with partitions, a portion of said receptacle being adapted to enter and to support a packing case, a delivery chute arranged to receive a series of articles, means for bringing the end of said delivery chute into alinement successively

with each of said partitions, means for feeding a predetermined number of articles on to each partition, and means for forcing the articles simultaneously from each of said partitions into engagement with the packing case, whereby the latter will be forced off from the receptacle.

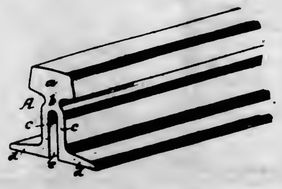
2. In a packing machine, a receptacle provided with partitions, a portion of said receptacle being adapted to enter and to support a packing case, a delivery chute hinged at one end and arranged to receive a series of articles, means for bringing the end of said delivery chute into alinement successively with each of said partitions, said means comprising a cam, a lever arranged to be engaged by the cam, a link connecting the lever with said hinged chute, means for feeding a predetermined number of articles on to each partition, and means for forcing the articles simultaneously from each of said partitions into engagement with the packing case, whereby the latter will be forced off from the receptacle.

3. In a packing machine, a receptacle provided with partitions, a portion of said receptacle being adapted to enter and to support a packing case, a delivery chute hinged at one end and arranged to receive a series of articles, means for bringing the end of said delivery chute into alinement successively with each of said partitions, said means comprising a cam, a lever arranged to be engaged by the cam, a link connecting the lever with said hinged chute, means for feeding a predetermined number of articles on to each partition, said means comprising a pair of pivotally mounted oppositely disposed stop arms having their ends bent to engage the articles, a cam, connections between said cam and said pivoted stop arms for operating the latter, and means for forcing the articles simultaneously from each of said partitions into engagement with the packing case, whereby the latter will be forced off from the receptacle.

4. In a packing machine, a receptacle provided with partitions, a portion of said receptacle being adapted to enter and to support a packing case, a delivery chute hinged at one end and arranged to receive a series of articles, means for bringing the end of said delivery chute into alinement successively with each of said partitions, said means comprising a cam, a lever arranged to be engaged by the cam, a link connecting the lever with said hinged chute, means for feeding a predetermined number of articles on to each partition, said means comprising a pair of pivotally mounted oppositely disposed stop arms having their ends bent to engage the articles, a cam, connections between said cam and said pivoted stop arms for operating the latter, a bar disposed adjacent each partition, a head, rods connecting said bars with said head, and a cam lever arranged to be engaged by one of said cams for causing the movement of the bars against the goods within the receptacle whereby the latter are forced into the packing case and the case is forced off from the box.

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1,042,201. RAILROAD-RAIL. ALBERT R. CLINE, Philadelphia, Pa., assignor of one-half to Wilmer C. Swartley, Philadelphia, Pa. Filed Apr. 5, 1912. Serial No. 688,582. (Cl. 239—14.)

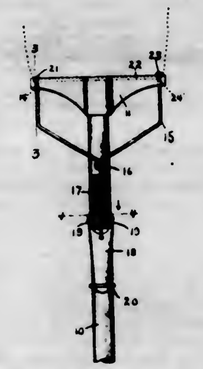


1. A rail having a short neck directly under the head; a bifurcated web extending from the neck; the sections of the web being parallel with each other; the neck being of a greater width than the width of either of the webs; and a base flange extending laterally from each web.

2. A rail having a head; a neck directly under the head; a bifurcated web extending from the neck; the neck being greater in width than the width of either of the webs; and a base flange extending laterally from each web; the space between the webs being substantially equal to the width of the neck.

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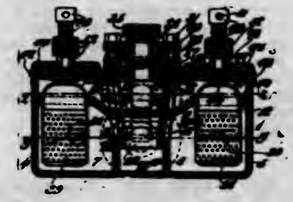
1,042,202. MOP-HOLDER. JOHN F. COSTELLO, San Francisco, Cal. Filed June 7, 1912. Serial No. 702,357. (Cl. 15—56.)



In a device of the class described, the combination with a stick, of a frame secured to an end thereof, a securing frame mounted to slide on the first mentioned frame and consisting of a single piece of wire bent at its medial portion to form an eye and terminating in ends having slidable connection with the first mentioned frame, one of the said ends being bent to form a hook, a bar mounted to swing on the other end of the securing frame and having the free end thereof for engagement with the hooked end of the securing frame, and means mounted on the said stick and having connection with the said securing frame for operating the same relatively to the first mentioned frame.

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1,042,203. FUEL-OIL STRAINER. KNUT MARTIN DAHL, San Francisco, Cal., assignor to Union Iron Works Co., San Francisco, Cal., a Corporation of New Jersey. Filed Feb. 20, 1912. Serial No. 678,861. (Cl. 210—168.)



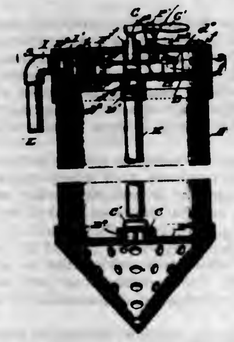
1. In an oil strainer, a casing having inclosing side, end and bottom walls, outer strainer chambers and an inner annular casing intermediate of and separating said strainer chambers, said annular casing having its inner face forming a valve seat provided at its upper portion with a main inlet port and at its lower portion with a main discharge port, and having an inlet and an outlet port leading to each strainer chamber, each chamber having an inwardly extending flange between its inlet and outlet port, strainers seated on said flanges, and a valve coacting with said seat and having an upper inlet and an upper discharge port registering respectively with the main inlet port and a strainer chamber inlet port, said valve having its lower end provided with a common outlet chamber, and a port communicating with such chamber through the side of the valve and adapted to register with one or the other of said strainer chamber outlet ports.



2. In an oil strainer, a casing having an internal cylindrical wall, the upper portion of which is conical and forms a plurality of strainer chambers, said wall having its inner face forming a valve seat provided with a main inlet port and a main discharge port and having an inlet and an outlet port leading to each chamber, each chamber having an inwardly extending flange between its inlet and outlet port, strainers seated on said flanges, and a valve co-acting with the conical portion of said wall and having an upper inlet and an upper discharge port registering respectively with the main inlet port and one of the inlet ports of a strainer chamber, and having its extreme end recessed, and a port communicating with such recess through the side of the valve and adapted to register with one of the outlet ports from a strainer chamber.

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1,042,204. WELL-PUMPING APPARATUS. JOHN W. DARLEY, Jr., Baltimore, Md., assignor to Hascal A. Hogel, New York, N. Y. Filed Dec. 21, 1910, Serial No. 598,535. Renewed Mar. 19, 1912. Serial No. 684,814. (Cl. 103—8.)



1. A well pumping apparatus, comprising an outer tube adapted to admit liquid at its lower end, a cap normally closing the upper end of said tube and provided with an air inlet port, and with an air exhaust port, connected to the interior of said outer tube, and with a liquid delivery passage, an inner tube connected at its upper end with said liquid delivery passage and projecting downward into said outer tube, valves controlling said liquid delivery passage and said air and exhaust ports, respectively, and a hand operated cam arrangement for controlling said valves, substantially as described.

2. A well pumping apparatus comprising an outer tube adapted to admit liquid at its lower end, a cap normally closing the upper end of said tube and provided with an air inlet port, and with an air exhaust port, connected to the interior of said outer tube, and with a liquid delivery passage, an inner tube connected at its upper end with said liquid delivery passage and projecting downward into said outer tube, valves controlling said liquid delivery passage and said air and exhaust ports respectively, and a cam plate pivoted in said cap and adapted to open either said air valve alone, or both said air valve and said liquid, or said exhaust valve alone, substantially as described.

3. A well pumping apparatus comprising an outer tube adapted to admit liquid at its lower end, a cap normally closing the upper end of said tube and provided with an air inlet port, and with an air exhaust port connected to the interior of said outer tube, and with a liquid delivery passage, an inner tube connected at its upper end with said liquid delivery passage and projecting downward into said outer tube, valves controlling said liquid delivery passage and said air and exhaust ports respectively, and a cam plate pivoted in said cap and adapted to open either said air valve alone, or both said air and said liquid, or said exhaust valve alone, a handle for turning said cam plate, and a bell crank lever pivoted contiguous to said handle and having its arms in different planes, whereby said lever arms form successive stops for said handle, substantially as described.

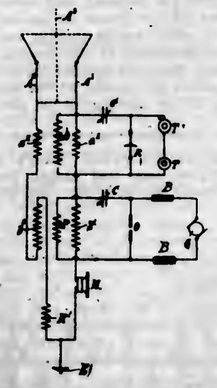
4. A well pumping apparatus, comprising an outer tube, a perforated inverted hollow cone secured to the lower end thereof, and adapted to admit liquid at its lower end, a cap normally closing the upper end of said tube and provided with an air inlet port, and with an air exhaust port connected to the interior of said outer tube, and with a liquid delivery passage, an inner tube connected at its upper end with said liquid delivery passage and projecting downward into said outer tube, valves controlling said liquid delivery passage and said air and exhaust ports respectively, and a hand operated cam arrangement for controlling said valves, substantially as described.

5. A well pumping apparatus comprising an outer tube adapted to admit liquid at its lower end, a cap normally closing the upper end of said tube and provided with an air inlet port and with an air exhaust port connected to the interior of said outer tube, and with a liquid delivery passage, an inner tube connected at its upper end with said liquid delivery passage and projecting downward into said outer tube, a diaphragm in the base of said perforated hollow cone provided with a passage therethrough for the liquid, and a valve opening upward and normally closing said passage when the air pressure is on, valves controlling said liquid delivery passage and said air and exhaust ports, respectively, and a hand operated cam arrangement for controlling said valves, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,205. SYSTEM OF DUPLEX WIRELESS TRANSMISSION. LEE DE FOREST, New York, N. Y. Filed Oct. 5, 1908. Serial No. 456,226. (Cl. 178—319.)



1. In a duplex system of wireless communication, an antenna system, a transmitting system and a receiving system associated therewith, means for normally balancing the effects of the transmitting system, and means for modifying the impressed oscillations of the transmitting system to disturb the balance.

2. In a duplex system of wireless communication, an antenna system, transmitting and receiving systems associated therewith, and differential balancing means for normally balancing the effects of the transmitting system, and a telephone transmitter for disturbing such balance.

3. In a system of wireless communication, an antenna system including two legs, a transmitting system including an inductance, inductances in each antenna leg with which the inductance of the transmitting system is associated, a receiving system including an inductance and inductances in each antenna leg with which the receiving inductance is associated.

4. In a system of wireless communication, an antenna system including two legs, a transmitting system includ-

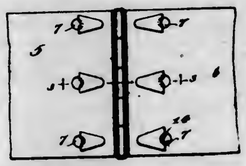
ing an inductance, inductances in each antenna leg with which said transmitting inductance is associated, a receiving system including an inductance, inductances in each antenna leg with which the receiving inductance is associated, said associated inductances being relatively adjustable.

5. In a system of wireless communication, an antenna system including two legs, each leg including two inductance coils, a transmitting system including an inductance coil associated with one of the coils in each antenna leg, a receiving system including an inductance coil, associated with the other coil in each antenna leg, the antenna coils arranged to exert equal influence on their associated receiving or transmitting coils, and one of the said antenna coils being wound in reverse relation with respect to its associated coil.

[Claims 6 to 9 not printed in the Gazette.]

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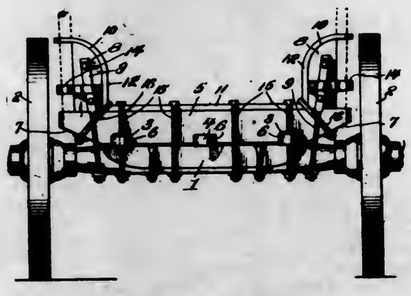
1,042,206. BELT-FASTENER. JAMES H. DOZIER, St. Petersburg, Fla., assignor of one-half to Daniel A. Lawson, St. Petersburg, Fla. Filed Feb. 16, 1912. Serial No. 677,920. (Cl. 24—33.)



A belt fastener comprising a pair of sections having pintle loops, a pintle removably passed through said loops for hinging the sections, and normally curled outwardly tapering prongs formed on the outer edges of said sections and at right angles thereto and adapted to be passed through apertures in the meeting ends of a belt and subsequently flattened against the faces of said ends opposite the points of contact of the sections therewith for the locking of the sections to the belt.

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1,042,207. TRUCK-BOLSTER. FRANK S. DUNHAM and JOHN W. GREENOUGH, Red Lodge, Mont. Filed Jan. 20, 1912. Serial No. 672,301. (Cl. 21—54.)

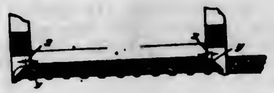


1. In a timber truck, the combination with a truck axle, of a bolster adapted to be secured to said axle, said bolster including a main body, blocks secured adjacent the opposite ends of said body and projecting upwardly therefrom, a wear iron rigidly secured to the main body, said wear iron including upwardly projecting limbs adapted to snugly engage said blocks and projecting outwardly thereof and provided with openings, and clips carried by said blocks and arranged in alinement with the openings in the said limbs, whereby to receive a stake when it is desired to increase the carrying capacity of the truck.

2. A bolster comprising a main body, a block secured to said main body adjacent each end thereof and projecting upwardly therefrom, a wear iron of substantially U-shape rigidly secured to said main body and having the limbs thereof projecting upwardly in engagement with said blocks and extended beyond the same and formed with apertures or openings in the free ends thereof, and clips carried by said blocks and arranged in alinement with the openings in said limbs to receive a stake.

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1,042,208. DEVICE FOR FINISHING STEREOTYPE PRINTING-PLATES. ARNOLD EGLI, Plauen, Germany, assignor to Vogtlandische Maschinenfabrik (vormals J. C. & H. Dietrich) A. G., Plauen, Germany. Filed Oct. 31, 1911. Serial No. 657,708. (Cl. 29—21.)



1. In a device for finishing stereotype plates, the combination with a relatively fixed rotary cutter and a driving shaft therefor, of a movable cutter adapted to be moved relative to said relatively fixed cutter in the axis of said shaft and driven by said relatively fixed rotary cutter, and means independent of said driving shaft for displacing said movable cutter relative to said relatively fixed cutter.

2. In a device for finishing stereotype plates, the combination with a relatively fixed rotary cutter and a driving shaft therefor, of a movable cutter adapted to be moved relative to said relatively fixed cutter in the axis of said shaft and driven by said relatively fixed rotary cutter, and means independent of said driving shaft for displacing said movable cutter relative to said relatively fixed cutter, and a scale coöperating with said adjusting means for determining the displacement of said movable cutter.

3. In a device for finishing stereotype plates, the combination with a relatively fixed rotary cutter and a driving shaft therefor, of a movable cutter adapted to be moved relative to said relatively fixed cutter in the axis of said shaft and driven by said relatively fixed rotary cutter, and means independent of said driving shaft for displacing said movable cutter relative to said relatively fixed cutter, and a scale coöperating with said adjusting means for determining the displacement of said movable cutter, and means for holding said adjusting means in fixed position.

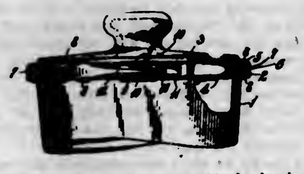
4. In a device for finishing stereotype printing plates, the combination with a relatively fixed rotary cutter and a driving shaft therefor of a movable cutter loosely mounted on said shaft and in engagement with said relatively fixed rotary cutter to be driven thereby and provided with a sleeve, a forked lever, means on said sleeve in engagement with said lever, a rotary spindle, a cam on said spindle engaging said forked lever, and an arm secured to the other end of said spindle for rotating said spindle, thereby operating the forked lever to shift the movable cutter in the axis of said driving shaft.

5. In a device for finishing stereotype printing plates, the combination with a relatively fixed rotary cutter and a driving shaft therefor of a movable cutter loosely mounted on said shaft and in engagement with said relatively fixed rotary cutter to be driven thereby and provided with a sleeve, a forked lever, means on said sleeve in engagement with said lever, a rotary spindle, a cam on said spindle engaging said forked lever, and an arm secured to the other end of said spindle for rotating said spindle, thereby operating the forked lever to shift the movable cutter in the axis of said driving shaft, and a scale coöperating with said arm for determining the displacement of said movable cutter.

[Claim 6 not printed in the Gazette.]



1,042,209. CLOSURE FOR VESSELS. JACOB C. EICHHORN, Detroit, Mich., assignor to The Victor Jar Company, Detroit, Mich., a Corporation of Michigan. Filed July 17, 1912. Serial No. 709,886. (Cl. 215—38.)



1. The combination with a receptacle having an exterior flange around its mouth, of a closure therefor having a corresponding flange, a resilient band adapted to encircle the superposed flanges and to yieldingly grip them along the outer annular faces thereof, a slotted clamping lever pivotally secured to one end portion of the band, and a head formed on the other end portion to engage the slotted body of the lever, the head being offset from the band to lie against the face of the other end portion when the lever is folded back.

2. The combination with a receptacle having an exterior flange around its mouth, of a closure therefor having a corresponding flange, a resilient band adapted to encircle the superposed flanges, a series of lugs on the margins of the band adapted to yieldingly grip the flanges and force them together when the band is drawn tight, a slotted clamping lever pivotally secured to one end portion of the band, and a head formed on the other end portion to engage the slotted body of the lever, the head being offset from the band to lie against the face of the other end portion when the lever is folded back.

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1,042,210. AUTOMATIC PUNCHING APPARATUS. ELMER C. FERRIS, Elisabeth, N. J. Filed Dec. 9, 1910. Serial No. 596,429. (Cl. 201—3.)



1. In an automatic punching apparatus, the combination of a spring operated hammer, a magazine of punches, and means for bringing any one of the punches in line with the hammer and adapted to cause said hammer to deliver a blow upon the punch in line therewith.

2. In an automatic punching apparatus, the combination of a spring operated hammer, a magazine of punches, and means for bringing any one of the punches in line with the hammer and adapted to cause said hammer to deliver a blow upon the punch in line therewith, said means comprising a casing for the hammer and a rotatable magazine for the punches pivotally mounted with reference to the hammer casing.

3. In an automatic punching apparatus, the combination of a spring operated hammer, a magazine of punches, and means for bringing any one of the punches in line with the hammer, said means comprising a casing for the hammer and a rotatable magazine for the punches pivotally mounted with reference to the hammer casing, together with a movable anvil plunger adapted to be withdrawn into the hammer casing or protruded part way into the magazine.

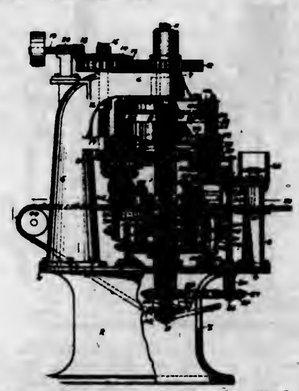
4. The combination with a spring hammer apparatus and a rotatable magazine having a series of pockets for punches, of a combined magazine lock and anvil plunger mounted in the hammer casing and adapted to be protruded into any one of the punch pockets which may be brought in line with it by rotation of the magazine.

5. The combination with a spring hammer apparatus and a rotatable magazine having a series of pockets for punches, of a combined magazine lock and anvil plunger mounted in the hammer casing and adapted to be protruded into any one of the punch pockets which may be brought in line with it by rotation of the magazine, together with means for withdrawing or protruding the anvil plunger which comprise a radial pin on said plunger, a guiding slot in the hammer casing parallel with the axis of the plunger, with which slot the pin engages, and a rotatable ring mounted on the casing provided with an oblique slot with which the pin also engages.

[Claims 6 to 17 not printed in the Gazette.]

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1,042,211. DOUBLE-SEAMING MACHINE. CHARLES E. FORRY, Oakland, Cal., assignor, by mesne assignments, to American Can Company, San Francisco, Cal., a Corporation of New Jersey. Filed July 26, 1909. Serial No. 509,663. (Cl. 113—14.)



1. In an apparatus of the character described, the combination of a rotary shaft, a plurality of vertical slide bearings carried by said shaft, sleeves slidable in said bearings, plungers slidable vertically in said sleeves and arranged to support the can bodies, and independent cams for sliding said sleeves and plungers, substantially as described.

2. In an apparatus of the character described, the combination of a rotary shaft, a plurality of slide bearings carried by said shaft, plungers therein arranged to support can bodies, a pair of bearings between each slide bearing and the shaft, diverging jaws arranged to closely surround the can body near the top, shafts for said jaws having a rotary movement, and slidable in said second named bearings, and means for rotating said shafts in unison, substantially as described.

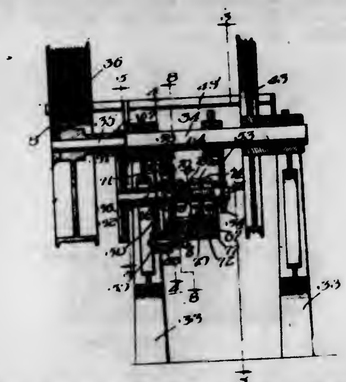
3. In an apparatus of the character described, the combination of a rotary shaft, a plurality of slide bearings carried by said shaft, plungers therein arranged to support can bodies, a pair of bearings between each slide bearing and the shaft, diverging jaws arranged to closely surround the can body near the top, shafts for said jaws having a rotary movement, and slidable in said second named bearings, gear teeth meshing with each other and operatively connected with said shafts whereby they rotate in unison, and a cam for rotating one of said shafts, substantially as described.

4. In an apparatus of the character described, the combination of a rotary shaft, a slide bearing carried thereby, a plunger slidable therein, and arranged to carry a can body, a pair of bearings also carried by said shaft, a pair of jaws and shafts for said jaws, said shafts having intermeshing gear teeth so that they turn in unison in opposite directions, a sleeve in one of said second named bearings in which one of said shafts can slide while keyed thereto, the other shaft being slidable in the other bearing, an arm carried by said sleeve, a roller carried by said arm, and a cam for actuating said roller, substantially as described.

5. The combination of a rotary shaft, a carrier for a can body, a pair of jaws arranged to clamp a can on said carrier, means for moving the jaws in unison in opposite directions to clamp the can and form a pressure surface upon which to flange the upper edge of the can, and means for flanging said upper edge upon said pressure surface, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,042,212. LIMIT-SWITCH FOR ELEVATORS OR HOISTING MACHINERY. HUGO W. FORSLUND, Chicago, Ill., assignor to J. W. Reedy Elevator Manufacturing Co., Chicago, Ill., a Corporation of Illinois. Filed Dec. 14, 1906. Serial No. 347,781. (Cl. 57—130.)



1. In a device of the class described, the combination of a motor, a hoisting member, means operated by the motor for moving the member, a controlling element for the motor, a pivotally supported link connected with the controlling element and having a limited forward and backward movement, a countershaft, a weighted member pivotally supported on the countershaft, there being a projection on the weighted member extending into the link, spaced stops on the countershaft and rotatable therewith, and means on the counter-shaft operatively connected with the weighted member and movable by the countershaft for swinging the weighted member, said projection having engagement with the link to move the latter, and adapted to move in the same direction with the link and out of engagement therewith when the latter reaches the limit of its movement.

2. In a device of the class described, the combination of a motor, a hoisting member, means operated by the motor for moving the member, a controlling element for the motor, a pivotally supported link connected with the controlling element and having a limited forward and backward movement, a countershaft, a weighted member pivotally supported on the countershaft, there being a projection on the weighted member extending into the link, spaced stops on the countershaft and rotatable therewith, a traveling member supported directly on the countershaft and having a sliding engagement with the weighted member, and means whereby the countershaft will cause the traveling member to be moved longitudinally on the countershaft into engagement with one of the stops for rotating the said weighted member, said projection having engagement with the link to move the latter and adapted to move in the same direction with the link and out of engagement therewith when the latter reaches the limit of its movement.

3. In a device of the class described, the combination of a motor, a hoisting member, means operated by the motor for moving the member, a controlling element for the motor, a pivotally supported link connected with the controlling element and having a limited forward and backward movement, a countershaft, a weighted member pivotally supported on the countershaft, there being a projection on the weighted member extending into the link, spaced stops on the countershaft and rotatable therewith, a traveling member supported upon the countershaft and having a sliding engagement with the weighted member, and means whereby the counter shaft will operate directly upon the traveling member to cause it to be moved longitudinally on the countershaft into engagement with one of the stops for rotating the said weighted member, said weighted member being mounted for movement in an arc differing from the arc of movement of the link whereby the said projection will engage and move the link and continue to move in the same direction and out of engagement with the link when the link has been shifted thereby and has reached the limit of its movement.

4. In a device of the class described, the combination of a motor, a hoisting member, means operated by the motor for moving the member, a controlling element for the motor, a pivotally supported link connected with the controlling element and having a limited forward and backward movement, a countershaft, a weighted member pivotally supported on the countershaft, there being a projection on the weighted member extending into the link, spaced stops on the countershaft and rotatable therewith, a traveling member supported directly on the countershaft and having a sliding engagement directly with the weighted member, and means whereby the counter shaft will operate directly upon the traveling member to move it longitudinally on the countershaft into engagement with one of the stops for rotating the said weighted member, said link being of an irregular diameter whereby the projection will move out of engagement with and independently of the link when the latter has reached the limit of its movement.

5. In a device of the class described, the combination of a motor, a hoisting member, means operated by the motor for moving the member, a controlling element for the motor, a pivotally supported link connected with the controlling element and having a limited forward and backward movement, a countershaft, a substantially U shaped weighted member pivotally supported on the counter shaft, there being a projection of one of the arms of the weighted member extending into the link, spaced stops on the counter shaft and rotatable therewith, a traveling member supported directly on the counter shaft and having a sliding engagement with the weighted member and in a direction longitudinally of the counter shaft, and means whereby the counter shaft will cause the traveling member to be moved longitudinally on the counter shaft into engagement with one of the stops for rotating the said weighted member, said projection having engagement with the link to move the latter and adapted to be moved in the same direction with the link and out of engagement therewith when the latter reaches the limit of its movement.

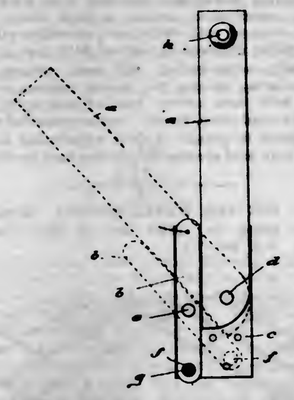
1,042,213. ADJUSTABLE WINDOW-SHADE FIXTURE. HARRY E. GIFFORD, Boston, Mass., assignor to Champion Metal Weather Strip and Parting Bead Company, Boston, Mass., a Corporation of Massachusetts. Filed Dec. 6, 1911. Serial No. 664,261. (Cl. 156—94.)

1. A curtain shade fixture, comprising a pivoted arm having a bearing for a shade roller at its free end, and a pivoted actuator mounted in position to engage said arm on opposite sides of the pivot of the latter, the arm and actuator being mounted in substantially the same plane.

2. A curtain shade fixture comprising a base plate, and an arm and an actuator independently pivotally connected in juxtaposition to each other upon said base plate and in substantially the same plane, the arm having a bearing for a shade roller at its free end.

3. A curtain shade fixture comprising a base plate, an arm pivotally connected thereto and having a shade roller bearing and an actuator also pivotally mounted to said base plate to swing in the same plane as the arm, the pivot of the actuator being in a lower plane than the pivot of the arm.

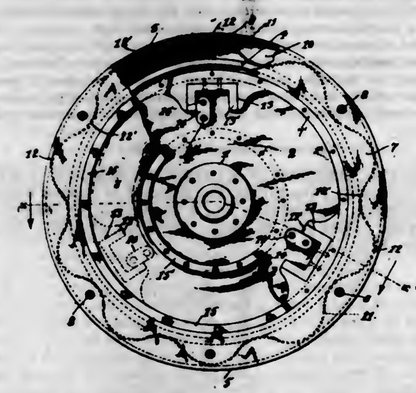
4. A curtain shade fixture comprising a base plate, and a shade roller supporting arm and an actuator pivotally connected edge to edge upon said base plate, the pivots of the arm and actuator being in different planes.



5. A curtain shade fixture comprising a pivoted arm having a bearing at its free end, and a pivoted actuator mounted in position to engage said arm on opposite sides of the pivot of the latter, said actuator having means for supporting a guide rod.

[Claims 6 and 7 not printed in the Gazette.]

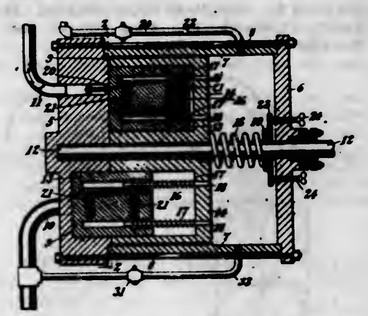
1,042,214. VEHICLE-WHEEL. HENRY S. GRACE, San Francisco, Cal. Filed Apr. 16, 1910. Serial No. 555,858. (Cl. 152—38.)



1. A wheel for motor driven vehicles, the same comprising a hub part, an annular rim, a connecting web member, the hub, web and rim being of integral metallic formation, and the rim projecting beyond opposite sides of the web, a separable outer rim member spaced from the first mentioned rim member, a spring resting upon the relatively wide periphery of the first mentioned rim and adapted to engage the outer rim member, side flanges depending from the edges of the outer rim member and overlying said spring, and said side flanges having a laterally offset part extending under the first mentioned rim and engaging the connecting web, and the said depending side flanges of the outer rim also having open ended slotted ways extending from the inner edges of the side flanges inwardly, and driver members extending from opposite sides of the web and adapted to loosely fit within the slotted portion of said side flanges.

2. A wheel for motor driven vehicles, the same comprising a hub part, an annular rim, a connecting web member, the hub, web and rim being of integral metallic formation, and the rim projecting beyond opposite sides of the web, a separable outer rim member spaced from the first mentioned rim member, a spring resting upon the relatively wide periphery of the first mentioned rim and adapted to engage the outer rim member, side flanges depending from the edges of the outer rim member and overlying said spring, and said side flanges having a laterally offset part extending under the first mentioned rim and engaging the connecting web, and the said depending side flanges of the outer rim also having slotted ways open at the inner edge of said flanges and driver members substantially rectangular in shape carried by the web member one for each of said slotted ways, substantially as and for the purpose described.

1,042,215. ROTARY FLUID-POWER DEVICE. RICHARD GRAF, New York, N. Y., assignor, by direct and mesne assignments, of two-thirds to Walter E. Savage, one-ninth to Alfred Mackay, and one-ninth to R. Gordon Mackay, Brooklyn, N. Y., and one-nineteenth to Benjamin C. Wickes, Auburn, N. Y. Filed Jan. 24, 1910, Serial No. 539,678. Renewed Mar. 15, 1912. Serial No. 684,008. (Cl. 230—30.)



1. A rotary power device comprising two heads, one of which is rotary relatively to the other each having concentric opposed annular sealing surfaces, one of these heads having an annular cam-face concentric with and between the annular sealing surfaces and the other head having an annular face between the sealing surfaces and opposite to the cam-face and forming a chamber therewith, an inlet and an outlet for the chamber, a movable partition coöperative with the cam-face and carried by the head having the annular face opposite to the cam-face, and means for pressing together the opposed sealing surfaces of the two heads.

2. A rotary fluid power device having an annular chamber, an inlet and an outlet for the chamber, longitudinally movable partitions in the chamber, one of the end walls of the chamber being shaped to approach to and recede from the other end wall thereof and arranged as a cam to actuate the partitions, means for causing relative rotary movement between the cam-shaped end wall and the partitions, the end walls of the chamber being mounted to yield apart and means for yieldingly pressing together the end walls of the chamber.

3. A rotary fluid power device comprising a casing with an end wall the inner face of which is a cam, a part within the casing having a face opposite the cam-face and forming with the casing a fluid chamber, yielding means for holding the inner part in operative position, an inlet and an outlet for the chamber, means for causing relative rotary movement between the casing and inner part, a plurality of axially reciprocative partitions carried by the inner part and coöperative with the cam-face, the partitions being actuated in one direction by the cam-face, and resilient means adapted to actuate the partitions

in the other direction and also adapted to continuously hold them in yielding engagement with the cam-face.

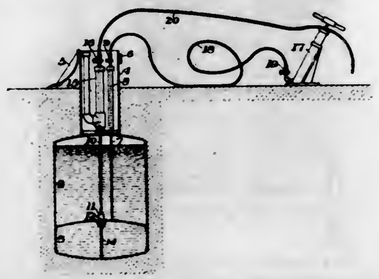
4. A rotary power device comprising two heads, one of which is rotary relatively to the other each having concentric opposed annular sealing surfaces, one of these heads having an annular cam-face concentric with and between the annular sealing surfaces and the other head having an annular face between the sealing surfaces and opposite to the cam-face and forming a chamber therewith, an inlet and an outlet for the chamber, a movable partition coöperative with the cam-face and carried by the head having the annular face opposite to the cam-face, and resilient means for pressing together the heads to thereby cause yielding engagement of the opposed sealing surfaces.

5. A rotary fluid power device comprising a casing with an end wall the inner face of which is a cam, a part within the casing having a face opposite the cam-face and forming with the casing a fluid chamber, yielding means for holding the inner part in operative position, an inlet and an outlet for the chamber, means for causing relative rotary movement between the casing and inner part, and a plurality of axially reciprocative partitions carried by the inner part and coöperative with the cam-face.

[Claims 6 to 18 not printed in the Gazette.]

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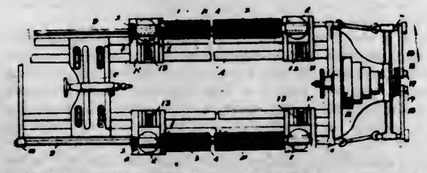
1,042,216. LIQUID-SUPPLY SYSTEM. HORACE E. GRANT, Pittsburgh, Pa. Filed Dec. 4, 1907. Serial No. 405,048. (Cl. 220—120.)



In a storage supply system for inflammable liquids, a main tank, a supplemental tank, a gravity feed connection between the two tanks, a delivery pipe having a passage extending upwardly through the said feed connection, and a check valve for said connection interposed in said passage and exposed to the outflowing liquid therein, whereby the pressure of the outflowing liquid tends to hold the valve in position to close the communication between the two tanks, together with means for creating a pressure in the supplemental tank; substantially as described.

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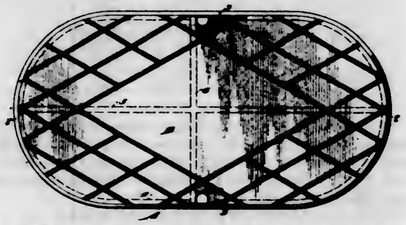
1,042,217. STONE-CUTTING LATHE. FREDERICK A. GERARSON, Barre, Vt., assignor of one-third to William A. Lane, Barre, Vt. Filed June 28, 1910. Serial No. 569,345. (Cl. 125—6.)



A stone cutting machine comprising supports forming guides, a head piece having a shaft and rotatable on one of said supports, a tail piece adjustable on said supports, members adjustable on said guide ways and provided with transverse guide ways, bearing blocks movable on said transverse guide ways, shafts journaled on said bearing blocks and provided with a plurality of contacting cutter disks having beveled edges, a wheel carried by each of said shafts and provided with a cam groove, a finger disposed in each of said cam grooves for longitudinally reciprocating said shaft, screws for moving said bearing blocks, the shafts having worms coöperating with said screws, gearing operating with the shaft of the head piece, flexible means connected with said shafts adapted to permit of their adjustment and means connected with said gearing for driving said flexible means.

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1,042,218. BOX FOR WATER-METERS. MORTIMER N. GRIFFIN, Rome, Ga. Filed Oct. 19, 1911. Serial No. 655,474. (Cl. 94—7.)



1. The combination with a box having a notched ledge, of a cover having elongated depending lugs adapted to enter the notches and fit closely the wall of the box, the cover having holes at the centers of the opposite sides adjacent to the side lugs, and over the side notches in the ledge of the box.

2. The combination with a box having a notched ledge, of a cover having elongated depending lugs adapted to enter the notches and fit closely the wall of the box, the cover having holes at the centers of the opposite sides adjacent to the side lugs and over the side notches in the ledge of the box, and intersecting ribs connecting these lugs and reinforcing and strengthening both them and the cover.

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1,042,219. METHOD OF MAKING SET-SCREWS. JOHN R. GRUNDY, Philadelphia, Pa., assignor to Charles Bond Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 25, 1912. Serial No. 673,407. (Cl. 10—10.)



1. The method of making set screws, which consists in bending the material of a tube, having its perforation of other than circular section, to form a point; threading the tube; and finally finishing the point.

2. The method of making a set screw, which consists in bending the material of one end of a tube, having its hole of a section other than circular, to give said end a substantially conical form; threading the tube; and thereafter forming a circular hole in the conically formed end.

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1,042,220. CRAVAT HOLDER AND FORMER. GEORGE F. HALL, Providence, R. I. Filed Jan. 2, 1908. Serial No. 408,080. (Cl. 2—11.)

1. In a cravat holder and former, the combination of a metallic fast adapted to be secured to the collar of the wearer, means on the fast so adapted that a cravat encircling the neck of the wearer may be removably attached thereto, a metallic binding loop having two ends or terminals and an intermediate portion extending between the terminals, said loop adapted at its terminals for detachable engagement with said fast, the intermediate portion of said loop adapted to be faced or covered with a material or fabric similar to that of which the cravat is made and the fast and the loop so assembled as to bind together a properly folded cravat in the form and manner specified.



2. In a cravat holder and former, the combination of a metallic fast adapted to be frictionally secured to the apparel of the wearer in the manner specified, means on the fast adapted for the attachment of a cravat, encircling the neck of the wearer, at two points intermediate the ends of said cravat, a metallic binding loop having two ends or terminals adapted for detachable engagement with said fast, said ends integral with the loop and the fast and the loop so assembled as to bind and hold together and in place the folds of a bow tie in the manner specified.

3. In a cravat holder and former, the combination of a metallic fast adapted to be secured to the collar of the wearer, means on the fast adapted for the attachment of a cravat at two points intermediate the ends of said cravat, two points of attachment on the fast located one above the other, a metallic binding loop having two ends or terminals, one above the other, each of which is adapted to removably engage with a point of attachment on the fast, said loop bending upwardly, downwardly, outwardly and continuously between its terminals when engaged with the fast and when so engaged the vertical height between the points of attachment on the fast being less than the total vertical height of the loop, the uppermost part of the loop extending above the upper point of attachment on the fast and the lowermost part of the loop extending below the lower point of attachment on the fast and the parts of the device assembled and adapted to hold, bind and secure a cravat in the form of a bow tie substantially as specified.

4. In a cravat holder and former, the combination of a metallic binding loop, adapted to receive a facing or covering of fabric, said loop removably attached at its upper and lower ends to means for securing same in place to the collar or neckband of the wearer, said loop adapted to exert pressure by spring tension at its points of attachment and adapted to hinge on either point of attachment and swing outwardly from the securing means.

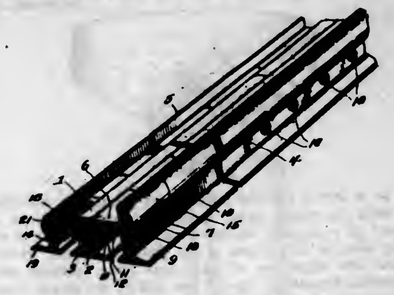
5. In a cravat holder and former, the combination of a metallic fast and a metallic binding loop, means on said fast adapted to engage with the collar or neck-band of the wearer to hold said device in place, other means adapted for the attachment of a cravat at two points intermediate the ends of the cravat, other means adapted for the attachment of a metallic binding loop at two points thereon and a metallic binding loop having two ends or terminals continuously connected by a bent portion, said loop adapted for attachment to said fast at its terminals and arranged to hinge on and swing outwardly from the fast on either of its points of engagement therewith, and the assembled device adapted to receive and hold between the loop and the fast the folds of a cravat when laid in place and bound round about by said loop.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,221. RAILWAY CONSTRUCTION. CHARLES W. HANSEN, Marathon, Fla. Filed May 7, 1912. Serial No. 696,690. (Cl. 238—17.)

1. In railway construction, the combination of main rails, and inner and outer guard rails at opposite sides thereof, each guard rail embodying a head, an outer web, a supporting base therefor, and an inner web of angle form constituting an angle bar which overlaps the main rail joint and is bolted to the main rail.



2. In railway construction, the combination of main rails, and outer and inner guard rails at opposite sides thereof, each guard rail embodying a head, an outer web, a supporting base therefor, and an inner web of angle form constituting an angle bar which overlaps the main rail joint and is bolted to the main rail, the head of one guard rail being substantially level with the head of the main rail, and the head of the other guard rail being substantially level with the bottom of the head of the main rail, and the heads of both guard rails being adapted to support the wheel flanges when derailed from the main rail.

3. In railway construction, the combination of main rails, and inner and outer guard rails at opposite sides thereof, each guard rail embodying a head, an outer web, a supporting base therefor, and an inner web of angle form constituting an angle bar which overlaps the main rail joint and is bolted to the main rail, the outer webs of the guard rails being apertured in line with the bolts of the main rail.

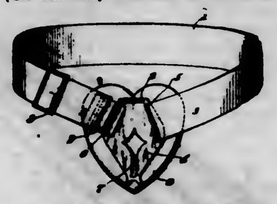
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1,042,222. LIFTING-JACK. CHARLES A. HART, Findlay, Ohio. Filed Dec. 20, 1911. Serial No. 666,870. (Cl. 57—43.)



In a jack, the combination with a base, spaced standards upstanding therefrom, a through bolt connecting the free upper end portions of the standards, a link pivoted to the bolt, a lever pivoted to the link and having a lifting end portion at one side of the pivot and an operating handle portion at the other side thereof, the pivotal connection of the lever being at a distance from the bolt greater than the distance from the pivot to the terminus of the lifting end portion, whereby said lifting end portion of the lever is free to pass the bolt during pivotal movement of the lever, and means for retaining the lever substantially parallel to the standard when the link is elevated above the bolt for causing the lever to extend substantially vertically past the bolt, the lifting end portion of the lever in operation being disposed to swing freely in the space between the standards and to extend therethrough and beyond the standards to directly engage the article to be lifted at the opposite side of the standards from the handle portion of the lever.

1,042,223. HOSE-SUPPORTER. WILLIAM B. HILL, Tucumcari, N. Mex. Filed May 19, 1911. Serial No. 628,194. (Cl. 241—6.)



1. In a device for the purpose set forth, the combination with an elastic band, carrying an engaging loop at one end of a garment engaging member, said garment engaging member comprising a flat metallic member having angular side edges, one of said edges being provided with an opening adapted to receive one end of the elastic band, the opposite edge of the said member being slitted and the metal provided by the slit being bent to form a catch, said catch adapted to engage the loop provided upon the band, the body of the member being formed with a substantially V-shaped slit and provided with a shield covering its under surface and a spring member hingedly connecting the garment engaging member with the said shield and adapted to normally force the garment engaging member against the shield.

2. The combination with an elastic band, having one of its ends provided with a loop, of a garment engaging member, said garment engaging member being constructed of a single piece of flat metal, said garment engaging member having its opposite edges angular, one of said edges being provided with an elongated opening adapted to receive one end of the elastic band, the engaging member adjacent its opposite edge being slitted, and the metal provided by said slit being bent upwardly to provide a catch, said catch adapted to engage with the loop of the elastic band, the lower central portion of the engaging member being provided with a substantially V-shaped opening, the upper portion of the member being horizontally straight, the said upper portion being arranged with a horizontally cut away portion, a helical spring inclosing the portion of the member above the cut away portion, and a shield beneath the engaging member and of a larger area than the engaging member one end of the spring engaging and supporting the shield and the other end bearing on the engaging member, substantially as and for the purpose set forth.

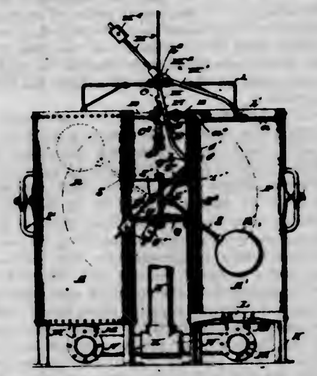
1,042,224. CLAMP. JOHN LUKES HITE, Huntington, W. Va., assignor of one-half to Abraham W. Hite, Huntington, W. Va. Filed Nov. 22, 1911. Serial No. 661,856. (Cl. 24—251.)



1. A clamp of the character described, comprising a relatively stationary central shaft having one end slotted and its opposite end externally screw threaded, an attaching device secured to the screw threaded end of the central shaft to connect it with a fixed support, a tubular element of greater diameter than the stationary central shaft, rotatably mounted upon said shaft and having its ends closed by heads which have reduced smooth and screw threaded openings to receive the smooth and screw threaded portions of said stationary central shaft, and clamping arms having corresponding ends bent to form hooks which are pivotally mounted in the slotted end of the stationary central shaft, the lower ends of the hooks being disposed in the tubular element and extending outward to engage the inner surface of one head of the same, the upper portions of the hooks also extending outwardly to be engaged by the outer surface of said head.

2. A clamp of the character described, comprising a shaft having one terminal thereof bifurcated and its opposite terminal screw threaded, an attaching device secured to the screw threaded end of said shaft to connect it with a fixed support, a tubular element of greater diameter than said shaft rotatably mounted upon the shaft and having its ends closed by heads which have reduced openings through which said shaft passes, one of said openings being screw threaded to receive the screw threaded portion of said shaft, and clamping arms having corresponding ends bent to form hooks which are pivotally mounted between the bifurcated ends of said shaft, the lower ends of the hooks being disposed in the tubular element and extending outward to engage the inner surface of one head of the same, the upper portions of the hooks also extending outwardly to be engaged by the outer surface of said head, the arrangement being such that upon the rotation of said tubular element in one direction relatively to said shaft, said arms will be forced toward each other, while upon the rotation of the tubular element in the opposite direction, said arms will be spread.

1,042,225. PUMPING APPARATUS. HASCAL A. HOGEL, Boston, Mass. Filed July 5, 1910. Serial No. 570,891. (Cl. 103—8.)



1. A pumping apparatus comprising a pair of closed vessels; a source of liquid supply connected to and leading from said vessels, with check valves controlling the liquid; a source of supply of compressed air connected to both of said vessels; a valve controlling said compressed air supply; an actuating arm for said valve; a weighted arm journaled above said valve and having members adapted to engage with and move said valve actuating arm; an arm journaled to swing in each vessel; a float secured to each arm; and a weighted bar located outside each vessel and fixedly secured to move with its respective arm, said bars adapted to engage with and actuate said weighted bar members and move the same to actuate the air valve through the rise and fall of said floats, whereby to admit the air supply alternately into said vessels, substantially as described



2. A pumping apparatus comprising a pair of closed vessels, a source of liquid supply connected to and leading from said vessels with check valves controlling said liquid; a source of supply of compressed air connected to both of the vessels, floats mounted in said vessels, and means operated by the rise and fall of said floats for admitting compressed air alternately to each of said vessels and for simultaneously allowing the compressed air to escape from the other vessel, the said means comprising an inverted Y-shaped tumbling bob having an upper weighted arm and two downwardly projecting engaging arms, a four way cock controlling the air supply and operated by the two engaging arms of said tumbling bob, and arms moved by said floats and engaging the engaging arms of said tumbling bob, substantially as described.

3. A pumping apparatus comprising a pair of closed vessels, a source of liquid supply connected to and leading from said vessels with check valves controlling said liquid; a source of supply of compressed air connected to both of the vessels, floats mounted in said vessels, and means operated by the rise and fall of said floats for admitting compressed air alternately to each of said vessels and for simultaneously allowing the compressed air to escape from the other vessel, the said means comprising an inverted Y-shaped tumbling bob, having an upper weighted arm and two downwardly projecting engaging arms, a four way cock controlling the air supply and operated by the two engaging arms of said tumbling bob, and arms moved by said floats and engaging the engaging arms of said tumbling bob with weighted arms oppositely disposed to and counterbalancing the said arms moved by said float, substantially as described.

4. A pumping apparatus comprising a pair of closed vessels, a source of liquid supply connected to and leading from said vessels with check valves controlling said liquid; a source of supply of compressed air connected to both of the vessels, floats mounted in said vessels, and means operated by the rise and fall of said floats for admitting compressed air alternately to each of said vessels and for simultaneously allowing the compressed air to escape from the other vessel, the said means comprising an inverted Y-shaped tumbling bob having an upper weighted arm and two downwardly projecting engaging arms, a four way cock controlling the air supply and operated by the two engaging arms of said tumbling bob, and T-shaped rocking frames connected to and rocked by said floats, each rocking frame having one arm engaging the corresponding arm of said tumbling bob; and an oppositely disposed weighted arm to counterbalance same, substantially as described.

5. A pumping apparatus comprising a pair of closed vessels, a source of liquid supply connected to and leading from said vessels with check valves controlling said liquid; a source of supply of compressed air connected to both of the vessels, floats mounted in said vessels, an inverted Y-shaped tumbling bob, having an upper weighted arm and two downwardly projecting engaging arms, a four way cock controlling the air supply and operated by the two engaging arms of said tumbling bob, and T-shaped rocking frames connected to and rocked by said floats, each rocking frame having one arm engaging the corresponding arm of said tumbling bob; and an oppositely disposed weighted arm to counterbalance same, substantially as described.

1,042,226. PUMPING APPARATUS. HASCAL A. HOGEL, Boston, Mass. Filed July 5, 1910. Serial No. 570,892. (Cl. 103—8.)

1. A pumping apparatus comprising a pair of closed vessels, a source of liquid supply communicating with said vessels with check valves controlling said liquid; a source of supply of compressed air connected to both of the vessels, a vertically movable float mounted in each of said vessels, a pivoted rocking frame provided with a track curved at the ends, a sliding weight mounted in said rocking frame, and adapted to travel by gravity backward and forward therein as said frame is rocked, a rod connected to each float and having a roller engaging said track on the rocking frame, and means operated by said frame for admitting compressed air alternately to each of said vessels and for simultaneously allowing the compressed air to escape from the other vessel, substantially as described.



2. A pumping apparatus comprising a pair of closed vessels, a source of liquid supply communicating with said vessels with check valves controlling said liquid; a source of supply of compressed air connected to both of the vessels, a vertically movable float in each of said vessels, a pivoted rocking frame provided with a track curved at the ends and also with inclined downwardly projecting arms, a sliding weight mounted in said rocking frame, and adapted to travel by gravity backward and forward therein as said frame is rocked, and a four-way cock operated by said arms for admitting compressed air alternately to each of said vessels and for simultaneously allowing the compressed air to escape from the other vessel, substantially as described.

3. A pumping apparatus comprising a pair of closed vessels, a source of liquid supply communicating with said vessels with check valves controlling said liquid; a source of supply of compressed air connected to both of the vessels, a vertically movable float in each of said vessels, a pivoted rocking frame provided with a track curved at the ends and also with inclined downwardly projecting arms, a ball mounted in said rocking frame, and adapted to roll by gravity backward and forward therein as said frame is rocked, and a four-way cock operated by said arms for admitting compressed air alternately to each of said vessels and for simultaneously allowing the compressed air to escape from the other vessel, substantially as described.

1,042,227. COMPRESSED-AIR WATER-ELEVATOR. HASCAL A. HOGEL, Boston, Mass. Filed Jan. 9, 1909. Serial No. 471,472. Renewed Mar. 19, 1912. Serial No. 684,812. (Cl. 103—84.)

1. In a compressed air water elevator, the combination of an air pipe; a casing provided with a plurality of chambers connected to said pipe; means by which air under pressure may be admitted to one of said chambers and allowed to leak into the other; a water delivery pipe; and a connection between said air pipe and water delivery pipe above said chamber, substantially as described.

2. In a compressed air water elevator, the combination of a plurality of chambers into which air may be delivered successively and simultaneously and from one of which water may be expelled; an air pipe connected to said chambers; a water delivery pipe connected to said chamber; a check valve between said water pipe and one of said chambers; and a connection between said water and air pipes above said check valve, substantially as described.

3. In a compressed air water elevator, the combination of a plurality of chambers into which air is delivered successively and simultaneously and from one of which water may be expelled; an air pipe connected to said

chambers; a water delivery pipe connected to said chambers; a check valve between said water pipe and one of said chambers; a plurality of connections between said water and air pipes above said check valve; and a plurality of check valves in said connections, each adapted to lift at a different pressure, substantially as described.



4. In a compressed air water elevator, the combination of a plurality of chambers; an air pipe adapted to successively and simultaneously deliver air under pressure into said chambers, while expelling water from one of the same; a water pipe; a check valve in the same above said chambers; a connection from one of said chambers leading into the water to be lifted; a pipe between said connection and said air pipe adapted to deliver air into said connection below said chambers; and a connection between said air and water pipes above said check valve, substantially as described.

5. In a compressed air water elevator, the combination of a plurality of chambers; an air pipe leading to said chambers adapted to deliver air under pressure into both of said chambers, while expelling water from one of the same; a water pipe; a check valve in the same above said chambers; a connection from one of said chambers leading into the water to be lifted; a valved pipe between said connection and said air pipe adapted to deliver air into said connection below said chambers; and a valved connection between said air and water pipes above said check valve, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

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1,042,228. PLUG-SWITCH. CHARLES HORN, Millbourne, Pa., assignor to Machen & Mayer Electrical Manufacturing Company, Philadelphia, Pa., a Corporation of New Jersey. Filed Aug. 21, 1911. Serial No. 645,171. (Cl. 173—330.)



1. A switch comprising a base having end extensions and containing insulated chambers, terminals having blades wholly within the respective chambers, a top having end extensions registering with the end extensions of said base and passages registering with said blades, said top engaging the part of said base separating said chambers, screws passing through said end extensions, and a plug having blades adapted to be thrust through said passages into said chambers to make contact therein with said blades first named.

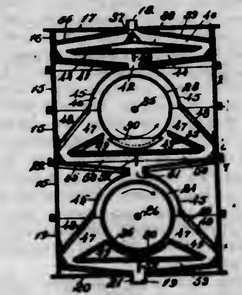
2. A switch comprising a base having front surfaces disposed in different planes including depressed end planes, said base containing insulating chambers, a top having rear surfaces disposed in different planes respectively registering with said first named planes, said top having insulated passages registering with said chambers, terminals having blades wholly disposed in said chambers, and a plug having terminals adapted to be thrust through said passages into said chambers into contact with said terminals first named.

3. A switch comprising a base having end extensions of reduced thickness, said base containing insulated chambers and terminals therein, a top having end extensions of increased thickness registering with said extensions first named, said top having insulated passages therethrough registering with said chambers, screws passing through said end extensions whereby said top and base are fixed together, and a plug having terminals adapted to be thrust through said passages into said chambers into engagement with said first named terminals.

4. A switch comprising a base having end extensions and containing insulating chambers, a top having end extensions registering with said extensions first named and an intermediate part registering with a part of said base separating said chambers, said top containing passages registering with said chambers, fastening lugs supported by the extensions of said top, screws extending through said end extensions and lugs, terminals provided with contacting parts disposed wholly in said chambers and having exposed binding screws, and a plug having terminals adapted to be thrust through said passages into said chambers into contact with said terminals first named.

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1,042,229. AMALGAMATOR. FREDERICK J. HOYT, Redlands, Cal. Filed Aug. 9, 1911. Serial No. 643,152. (Cl. 83—68.)



1. In amalgamators, a body having an ore inlet at its upper end, provided with deflecting conduits to divide the ore carried into said body, means for supplying ore with an air blast to the body, a removable amalgamating cylinder around which the ore travels, enlarged divergent conduits on the sides of the cylinder, the upper and lower walls of said conduits converging toward each other at their outer ends, and converging conduits leading from the diverging conduits to a common discharge point below the cylinder.

2. In amalgamators, an inclosing casing, a revoluble amalgamating cylinder journaled within, an amalgamating pan or trough below the cylinder, projecting out from one side of the casing, and a closure slide adapted to close the opening between the quicksilver and the upper edge of the opening in the casing.

3. In amalgamators, a body, a revoluble amalgamating cylinder therein, an amalgam pan or trough below said cylinder in which the cylinder turns, a scraper within the pan near one edge so located that as the cylinder moves down into the pan, the amalgamated particles will be retained in the pan, and a scraper at the other edge of the pan which scrapes off the surplus mercury as the cylinder leaves the pan.

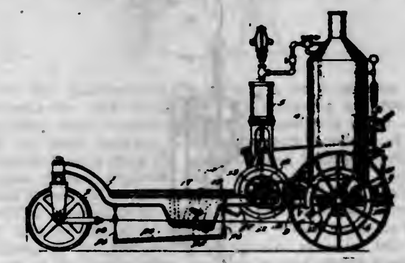
4. In amalgamators, a pair of separable unit-sections, a revoluble amalgamating cylinder journaled at the joined part of the sections, the upper section having an ore inlet at its upper end and provided with circularly-formed conduits around the upper side of the cylinder, the lower section having oppositely-projecting enlarged deflecting conduits converging at their outer ends, and communicating with horizontal converging channels to form a common discharge below the cylinder.

5. In amalgamators, an inclosing casing, a revoluble amalgamating cylinder journaled within said casing, an amalgamating trough below the cylinder, a scraping blade at each edge of the trough, the casing having an ore inlet above the cylinder and a discharge opening below the cylinder, and provided with diverging conduits from the sides of the cylinder, said conduits being so arranged as to form continuous channels from the inlet above the cylinder and the outlet below the cylinder.



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1,042,230. COMBINED TRACTION STONE-CRUSHER AND ROAD-ROLLER. ELMER HUBBARD, Gilboa, N. Y. Filed Jan. 13, 1912. Serial No. 670,986. (Cl. 94—6.)



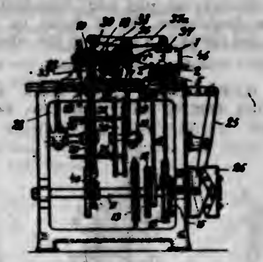
1. A combined road roller, stone crusher and separator comprising a main frame, rotary supports therefor having a broad tread and constituting the road rolling means, a stone crusher carried by the main frame, a separator for the crushed stone supported by the main frame in position to receive the stone from the crusher, an engine mounted upon the main frame, and connecting means between the engine and the stone crusher, separator and rolling supports, whereby the machine may be simultaneously propelled over the road to apply crushed stone to the surface thereof and to roll the stone into the surface of the road.

2. A combined road roller, stone crusher and separator comprising a main frame, rolling supports for the main frame constituting the road rolling means, a stone crusher, a separator, an engine mounted upon the main frame, connecting means between said engine and the stone crusher and separator, and other connecting means between the engine and the rolling supports for propelling the machine over the road, the last mentioned connecting means including a clutch to admit of throwing the drive gearing into or out of action.

3. A combined road roller, stone crusher and separator comprising a main frame, a roller supporting one end of the main frame and mounted to admit of steering the same, traction wheels supporting the opposite end of the main frame, cog gearing secured to the inner sides of the traction wheels, a stone crusher and a separator mounted upon the main frame, an engine carried upon the main frame, a crank shaft, connecting means between the engine and crank shaft, other connecting means between the crank shaft and the stone crusher and separator, other connecting means between the crank shaft and the cog gearing of the traction wheels including a clutch, a fixed shaft, clutch members mounted upon the fixed shaft and adapted to have a longitudinal movement thereon only, gear elements loose upon the fixed shaft and in mesh with the cog gearing of the traction wheels and provided with half clutches to be engaged by the said clutch members, and means for throwing the clutch members into engagement with the half clutches and the gear elements to hold the machine stationary when the drive gearing is thrown out of action.

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1,042,231. BOTTLE-CAPPING MACHINE. EMIL JAGENBERG, Duesseldorf, Germany. Filed Oct. 5, 1910. Serial No. 586,248. (Cl. 113—5.)

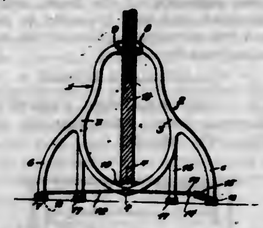


1. A device of the character described, comprising rotatable capping members, pulleys secured thereto, a slide carrying said members and pulleys, an additional apertured pulley hung in the slide, means for operatively connecting said additional pulley with the first named pulleys, and a driver having rods that engage the apertures of the additional pulley.

2. A device of the character described, comprising a slide, means for reciprocating the same, an arm secured to the slide, a plurality of spring-influenced cheeks carried by the arm and adapted to engage the tops of the bottles to be capped and a plurality of capping members carried by the slide and arranged back of the cheeks.

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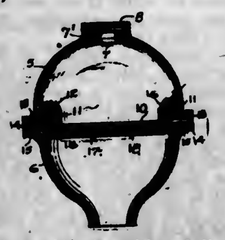
1,042,232. DOOR-CLAMP. JACOB B. JOB, Cleveland, Ohio. Filed Apr. 15, 1912. Serial No. 690,897. (Cl. 144—296.)



A door clamp comprising a pair of outwardly curved frames, said frames being pivotally connected at their lower ends by a bolt having a grooved head, a pair of legs carried by each frame, certain of which being hingedly connected thereto, and adapted to be folded against the frames, a wire strand connected to one of the legs of one frame, a coil spring connected to one of the legs of the other frame, said strand for a portion of its length resting in the groove of the bolt head, said spring serving to automatically open said frames.

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1,042,233. FILTER. BERNARD A. KANTROWITZ, New York, N. Y. Filed Oct. 22, 1910. Serial No. 588,435. (Cl. 210—6.)



In a filter, the combination with a shell comprising two hemispheric sections, of perforated diaphragms at the

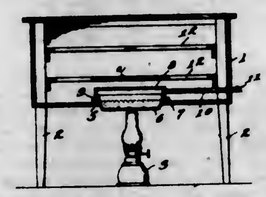
larger ends of the sections, a filter disk adapted to fit between the diaphragms, a ring swiveled on one of the sections and having threads to engage the other section, means for rotating the ring and compressing the filter between the diaphragms and a flange on one of the diaphragms and fitting in a groove in the other.

1,042,234. HAND-CARD. ALBERT KERN, Aachen, Germany. Filed Sept. 6, 1911. Serial No. 647,946. (Cl. 119—93.)



In a device of the character described, the combination of a head formed with an open slot, a handle having a threaded stem, the latter extending into the head and across the open slot, a movable plate having a rearwardly extended portion and formed with a vertical extension which fits in the open slot and which is formed near its upper end with a threaded opening with which the threaded stem of the handle engages, a rigid plate secured to the underside of the head, said rigid plate having its forward edge bent inwardly to provide a lip, the latter and the extended portion of the movable plate serving as a support for a brush.

1,042,235. DOUGH-RAISING CABINET. MATHIAS KLAREN, Lawton, Okla. Filed Mar. 22, 1911. Serial No. 616,132. (Cl. 126—282.)



1. A cabinet of the character set forth having an opening in its bottom, a shallow pan adapted to receive a quantity of water placed in said opening and having an outer flange to overlap the part of the bottom bordering upon the opening to make a close joint and to support the pan, a cover fitted to the upper portion of the pan, means for heating the water in the pan, and a pipe connected with the cover and extending through a wall of the cabinet to carry off steam.

2. A cabinet having an opening in its bottom and adapted to receive a heater beneath said opening, a shallow pan adapted to receive a quantity of water supported in the opening and having an outer flange near its upper end, said flange overlapping the part of the bottom bordering upon the opening therein, a cover for closing the upper end of the pan engaging the outer flange thereof, a pipe connected with the cover and extending through a wall of the cabinet and having its outer end inclined, and a cover for closing the outer end of the pipe and hinged to the upper side thereof.

3. A cabinet for the purpose specified mounted upon legs and having an opening in its bottom, a plurality of shelves arranged within the cabinet, the lowermost shelf having its central portion made solid, a shallow pan adapted to receive a quantity of water having an outer flange and supported in the opening in the bottom of the cabinet by said outer flange, a cover for closing the upper end of said pan and having an outer flange at the lower edge of its pendent rim to rest upon the outer flange of the pan, means for heating the water in the pan, a pipe connected to the cover and extending through a side of the cabinet and having its outer end inclined, and a cover hinged to the upper portion of the pipe and closing against the inclined end thereof.

1,042,236. AUTOMATIC SIGNALING AND CHECKING APPARATUS FOR RAILWAY-SIGNALS. IWAN VON KOROTKIEWITSCH, Warsaw, Russia. Filed July 7, 1909. Serial No. 506,403. (Cl. 246—39.)



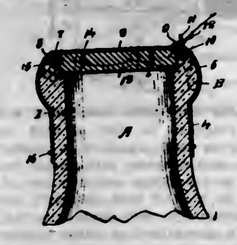
1. A combined signaling and checking apparatus comprising a railroad track, a yielding reservoir connected with said track and whose volume is decreased by the motion from the track of the railroad, a signal, a checking device, means for connecting and disconnecting said reservoir from the checking device consisting of a receptacle having two vertical and intercommunicating chambers and a lower chamber communicating with said vertical chambers, a valve for closing the communication between the lower chamber and one of said vertical chambers and connected with the signal, a movable piston in the other vertical chamber adapted to close the communication between the two vertical chambers and transmit its motion to the checking apparatus.

2. A combined signaling and checking apparatus comprising a railroad track, a hollow yielding reservoir connected with and receiving motion from the track, a signal, a checking device, means for operating said checking device consisting of a receptacle provided with a pipe connecting with the yielding reservoir, said receptacle consisting of two vertical and inter-communicating chambers, and a lower chamber communicating with the vertical chambers, a valve for closing the communication between the lower chamber and one of said vertical chambers, and connected with the signal, a movable piston in the other vertical chamber adapted to close the communication between the two vertical chambers and transmit its motion to the checking device, whereby when the signal is off, the valve permits the fluid forced from the reservoir to pass freely into all the chambers of the receptacle, while when the signal is at danger the inlet to one of the vertical chambers is closed and the liquid is caused to lift the piston, and operate the checking device.

1,042,237. BOTTLE OR JAR CLOSURE. WOLFF KOUPMAN, Paterson, N. J. Filed May 17, 1912. Serial No. 698,042. (Cl. 215—34.)

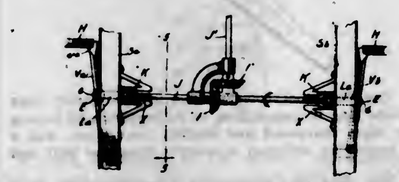
1. A closure for bottles, comprising a member split vertically throughout and adapted to embrace the neck of the bottle and to be sprung circumferentially thereround, means for securing the member to the neck, said member having a recess therein, a disk pivoted to the upper end of the member and adapted to be extended across the neck of the bottle, and a springy retainer forming a part of the disk and adapted to be extended into the recess to hold the disk in a closed position, said retainer being provided with a manipulating portion which protrudes from the recess and which extends vertically above the plane of the disk, whereby it may be engaged by the hand and drawn upwardly to permit the disk to be adjusted to an open position, and a yieldable plug secured to the under side of said disk.





2. The combination with a bottle, of a member embracing the neck of the bottle and having annular depending walls terminally seated against the upper edge of the neck, whereby to hold adjacent portions of the member spaced from the neck, the said member having a recess therein disposed above the plane of the neck, a disk hinged to the member and provided with a retaining portion adapted to be extended into said recess, whereby to hold the disk in a closed position, and a yieldable plug carried by the disk and adapted to be extended into the neck of the bottle when the disk is in a closed position.

1,042,238. LOCK FOR BASCULE-BRIDGES. HERMAN C. KRAUS, Chicago, Ill. Filed Mar. 14, 1912. Serial No. 683,730. (Cl. 14—41.)



1. The combination with a lift or bascule bridge, of a locking device therefor, said locking device comprising a toggle joint, one end of said toggle joint being pivoted in a fixed position and the other end being arranged to engage a portion of the bridge.

2. The combination with a lift or bascule bridge, of a locking device therefor, said locking device comprising a toggle joint, one end of said toggle joint being pivoted in a fixed position, the other end being arranged to engage a portion of the bridge, and means for flexing the central portion of the toggle joint.

3. The combination with a lift or bascule bridge, of a pair of locking devices therefor, one on each side of the roadway, each of said devices comprising a toggle joint, one of the arms of the said toggle joint being pivotally attached to a fixed support, and the other arm being provided with a shoulder arranged to engage a portion of the bridge, means for flexing both of said toggle joints simultaneously, said means comprising a rod having a right-handed screw at one end and a left-handed screw at the other, a block arranged to be engaged by each of said screws, guide members for each of said blocks, and links connecting each of said blocks with the central portion of said toggle joint.

4. The combination with a lift or bascule bridge, of a locking device therefor comprising a toggle joint consisting of two arms pivotally connected together, each of said arms being provided with a shoulder arranged to engage a shoulder on the companion arm for limiting the pivotal movement of the joint, one of said arms being provided with a shoulder at its end arranged to receive a portion of the bridge, and the other of said arms being pivoted to a fixed support.

1,042,239. TROUGH OR OPEN FLUME. WILLIAM LENNON, Manitou, Colo. Filed Dec. 26, 1911. Serial No. 667,237. (Cl. 61—5.)



1. A flume including side sills, hanger plates secured thereto and extending interiorly beyond the same, flume sections having exteriorly-projecting overlapping and interlocking hollow beads, a clamping rod shaped to fill the interior cavity of the bead, the extremities of the said rod abutting against the interiorly-projecting extremities of the hanger plates, and means applied exteriorly to the flume on each side of the joint and connected with the hanger plates for supporting the flume in place, the line of centers of said means passing through said clamping rod, substantially as described.

2. A flume including side sills, hanger plates secured to the sills and projecting interiorly beyond the same, flume sections having their adjacent extremities equipped with hollow beads arranged to overlap each other in interlocking relation, a clamping rod in the interior cavity of the joint, the extremities of the rod engaging the overlapping extremities of the hanger plates, carrier rods applied to the securing member on opposite sides of the joint bead and secured at their extremities to the hanger plates, said rods being so positioned that a straight line through their centers will pierce the clamping rod substantially at its median line, substantially as described.

1,042,240. FRUIT-CUTTER. FREDERICK T. LELLICK, Hamilton, Mont. Filed Apr. 22, 1912. Serial No. 692,452. (Cl. 56—99.)



1. In a device of the character described, the combination of a pair of cutting blades, having their outer edges substantially oval shaped in form, handle members formed integral at one end of the cutting blades and disposed substantially at right angles thereto, a thumb hold formed integral with one of said handle members, a curved arm formed integral with the other of said handle members, a strap having one end secured at the outer end of one of the handle members and its other end detachably connected to the outer end of said arm, a receptacle secured at one end to the outer edge portions of the cutting blades, means arranged in the other end of said receptacle to retain the same in a closed position, and means secured to the end of the receptacle to engage with the arm of the

operator to support the lower end of the receptacle opposite the cutting blade.

2. In a device of the character described, the combination with a pair of cutting blades, handle members formed integral at one end thereof and disposed at substantially right angles thereto, a receptacle open at both ends and having one end secured to the outer edge portions of the cutting blades, and cleats transversely arranged in the other end of the receptacle, a resilient band disposed in the end of said receptacle and adapted to hold the same in a closed position, and means secured to the receptacle and adapted to engage with the arm of the operator to support the end of the receptacle.

3. In a device of the character described, the combination of a pair of cutting blades having substantially oval shaped outer edges, handle members formed integral with one end of the cutting blades and disposed at substantially right angles thereto, a receptacle open at both ends and having one of its ends secured to the outer edge portions of the cutting blades, a spring member arranged within one end of the receptacle and secured thereto to force the receptacle open when the cutting blades are opened, cleats arranged transversely within the other end of the receptacle, a resilient band arranged within the end of the receptacle and secured thereto to retain the end of the receptacle normally in a closed position, and a strap having its intermediate portions secured to the end of the receptacle and having its ends adapted to encircle the arm of the operator to support the rear end of the receptacle.

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1,042,241. LATCH FOR ROTARY MAGAZINES. ORMOND M. LISSAK, Cleveland, Ohio, assignor, by mesne assignments, to The Automatic Arms Company. Filed Dec. 14, 1908. Serial No. 467,486. (Cl. 89—34.)



1. In a device of the class described, a cartridge magazine comprising a rotary and a stationary member; a locking member carried by said magazine for locking said rotary and stationary members together; and means engaged by a part of the gun when attaching the magazine to the gun for operating said locking member to thereby unlock said magazine members.

2. In a device of the class described, a cartridge magazine comprising concentric rotary and stationary members; a locking member carried by said stationary member for locking said members together; and means engaged by a part of the gun when attaching the magazine to the gun for operating said locking member to thereby unlock said magazine members.

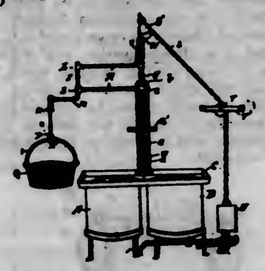
3. In a device of the class described, a cartridge magazine comprising an external rotary member and a stationary member within said rotary member and concentric therewith; a locking member carried by said stationary member for locking said members together; a post carried by the gun and whereby said cartridge magazine is supported; and means engaged by said post for operating said locking member to thereby unlock said magazine members.

4. In a device of the class described, a cartridge magazine comprising a rotary and a stationary member, each of said members being provided with a hole; a lever carried by said magazine and provided with a lug adapted to enter the holes aforesaid; and means engaged by a part of the gun for operating said lever to thereby withdraw said lug from said holes.

5. In a device of the class described, a cartridge magazine comprising concentric rotary and stationary members, each of said members being provided with a hole; a lever carried by said stationary member and provided with a lug adapted to enter the holes aforesaid; and means engaged by a part of the gun for operating said lever to thereby withdraw said lug from said holes.

[Claims 6 to 15 not printed in the Gazette.]

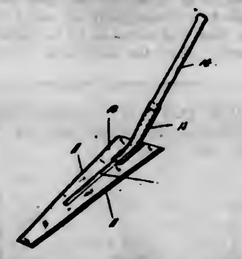
1,042,242. DISH-WASHER. OTTO LOCK, Philadelphia, Pa. Filed May 16, 1908. Serial No. 433,187. (Cl. 141—9.)



A dish washing apparatus comprising a plurality of receptacles, a standard in rear of said receptacles, a bracket slidable on said standard, a basket removably supported from said bracket, said basket being adapted for adjustment to a position over any one of said receptacles, a guide in rear of said standard, means on said bracket coöperating with said guide whereby said basket may be normally maintained in either position of adjustment, and a counterbalance weight connected to said bracket.

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1,042,243. CUTTER FOR RICE-FIELDS. WILLIAM E. LONG, Lake Providence, La., assignor to E. C. Atkins & Company, Indianapolis, Ind., a Corporation of Indiana. Filed Sept. 2, 1911. Serial No. 647,826. (Cl. 30—9.)



1. A rice field tool comprising a comparatively thin broad plate long in comparison to its breadth and having its long edges sharpened and slightly convergent, and a handle projecting obliquely upwardly from the butt end thereof.

2. A rice field tool comprising a comparatively thin broad blade having its long edges sharpened, and a handle projecting obliquely upwardly from the butt end thereof.

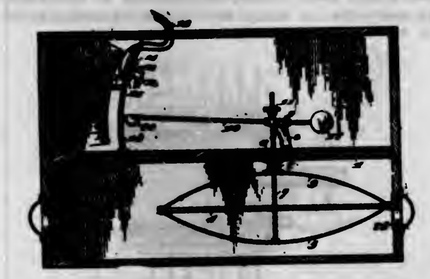
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1,042,244. ALARM. ARA LELAND MACKLIN, Bryant, Ind. Filed Jan. 27, 1911. Serial No. 606,058. (Cl. 177—128.)

1. In an alarm, the combination with a receptacle, of a post, a sleeve adjustably mounted upon the post, a plurality of electrical contacts carried by the sleeve and insulated therefrom, zinc plates mounted in the receptacle, a rod connected thereto, an arm pivotally mounted in the receptacle having engagement with the rod whereby upon the contraction of the zinc plates the rod will be actuated, to a position to connect the electrical contacts for forming a circuit.

2. In an alarm, the combination with a receptacle having a partition, of zinc plates connected together and supported by the partition, a rod connected to one of the plates, and passing through the partition, an arm pivotally mounted upon the partition, said rod having engagement with the arm, a post, and a plurality of electrical contacts mounted upon the post and insulated therefrom, a mercury cup upon the arm into which the electrical contacts dip upon the contraction of the zinc plates, which permits the arm to move toward the electrical contacts to such an extent that the electrical circuit is completed.



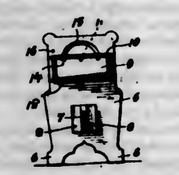


3. In an alarm, the combination with a receptacle having a partition, of a thermostat mounted beneath the partition, a post mounted on the partition, a plurality of electrical contacts connected to the post, an arm mounted on the partition in position to be actuated by the thermostat, and a contact connected to the arm in position to connect the electrical contacts and form a circuit as the thermostat is actuated in one direction.

4. In an alarm, the combination with a receptacle, of a post, a sleeve adjustably mounted on the post, a plurality of electrical contacts carried by the sleeve and insulated therefrom, a thermostat mounted in the receptacle, an arm mounted in position to be controlled by the thermostat, and a mercury-cup carried by the arm into which the contacts dip when the thermostat is actuated in one direction, and thus form an electrical circuit.

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1,042,245. ADJUSTABLE PIANO AND PIANO-PLAYER SEAT. SOLOMON MARCUS, Philadelphia, Pa. Filed Jan. 19, 1912. Serial No. 672,085. (Cl. 155—22.)

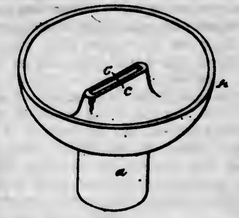


A bench comprising spaced vertical side sections having arcuate-shaped upwardly bowed slots in their inner faces near the upper ends thereof, a cross bar arranged centrally between the side sections near the lower ends thereof and connecting the same in spaced relation to each other, a box-like seat arrangement between the said sections for swinging movement, pivots eccentrically connected to the ends of the seat and journaled in the side sections for the swinging arcuate movement of the seat whereby it may swing into different planes, guide pins projecting outwardly from the ends of said seat at one side of the axis of movement thereof and engaged in the slots for abutment against opposite ends thereof for preventing the turning of the seat in one direction when shifted into different planes, and catch devices carried by the seat and adapted for engagement in the side sections for locking the seat in adjusted position.

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1,042,246. DRINKING-BOWL FOR ANIMALS. RICHARD MARKLEY, Norristown, Pa. Filed June 1, 1911. Serial No. 630,672. (Cl. 119—78.)

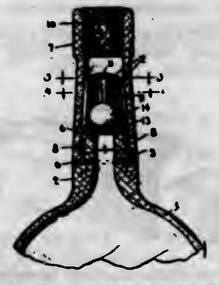
1. The combination of a drinking bowl for animals consisting of a body portion closed at the bottom; and a nozzle shaped to be taken into the mouth by an animal and projecting upward into the bowl; with means for supplying water to the bowl through the nozzle, said means maintaining the water in the bowl at a level slightly above the end of the nozzle so that the nozzle is submerged when not in use.



2. A drinking bowl for animals consisting of a body portion closed at the bottom; a nozzle projecting upward from the bottom of the bowl and shaped to be taken into the mouth by an animal and having a passage therein communicating with the water supply, said nozzle being less in height than the sides of the bowl and communicating with a water supply, whereby the bowl is supplied with water through the nozzle, the top of the nozzle being directly below the water line of the bowl.

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1,042,247. NON-REFILLABLE BOTTLE. BARNETT MAURER and AARON GORDON, Killingly, Conn. Filed Apr. 18, 1911. Serial No. 620,816. (Cl. 215—108.)



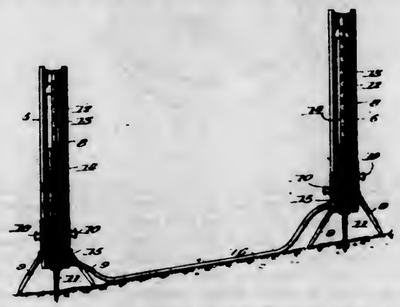
A bottle of the character described comprising a reduced neck having an inner tapering surface, a supplemental neck adapted to be attached to the same, a cage snugly confined in the supplemental neck and conforming to the inner tapering surface thereof, a concave baffle plate forming the top of the cage and provided with circumferentially disposed discharge openings which form continuations of the grooves formed between the ribs of the cage, a flat disk forming a temporary bottom for the cage and slidably located within the latter, and normally resting upon and closing the connecting reduced neck section of the bottle, and a ball movably located in the cage thus constructed and adapted to travel the full length of the cage and to be snugly engaged with the concave baffle plate and inclined ribs of the cage when the bottle is in a position to pour the contents therefrom.

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1,042,248. SURVEYING INSTRUMENT. WILLIAM N. MCGOWAN, Croatan, N. C. Filed Dec. 13, 1911. Serial No. 665,470. (Cl. 73—124.)

1. The combination with transparent liquid containing measuring tubes of housings telescoped over and detachably receiving said tubes and each having a slot longitudinally therein to permit visual inspection of the contents of the tube, flexible tubing connecting said first named tubes, an anchoring screw depending centrally from each of the housings and adapted to engage in the ground, slotted slides, set screws passed through the slides and engaged in the housings for locking the slides in adjusted position, and props hinged to the slides.

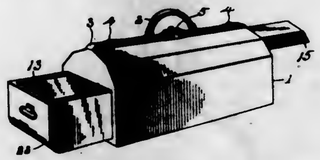
2. The combination with transparent liquid containing measuring tubes of housings telescoped over and detachably receiving said tubes and each having a slot longitudinally therein to permit visual inspection of the contents of the tube, flexible tubing connecting said first named tubes, an anchoring screw depending centrally from each of the housings and adapted to engage in the ground.



slotted slides, set screws passed through the slides and engaged in the housings for locking the slides in adjusted position, props hinged to the slides, and stationary measuring rods rising centrally interiorly of the first named tubes from the bottom thereof and having graduation marks extending in opposite directions from medial points thereof.

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1,042,249. PORTABLE REFRIGERATING-CASE. CARL P. MICKELSON, Mason, Mich. Filed Apr. 26, 1912. Serial No. 693,280. (Cl. 62—10.)



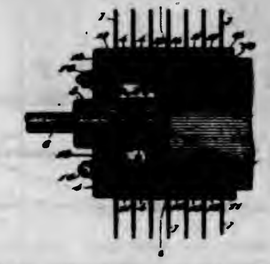
1. In a device of the character described, the combination of a casing having openings in the ends thereof, and formed with a water space extending along the sides, end and bottom of the casing, a longitudinally removable receptacle in the lower part of the casing, an ice receptacle longitudinally removable through one of the end openings in the receptacle and fitting within the upper part thereof, a discharge nipple on the bottom of the ice receptacle opening into the water space, and closures for the openings in the ends of the casing.

2. In a device of the character described, the combination of a casing having a double wall forming a water space extending along the sides, one end and bottom of the casing, said casing being also formed with openings in its opposite ends, a handle secured to the top of the casing, an ice receptacle fitting within the top of the casing and removable longitudinally through one of its end openings, a funnel on the wall of the casing adjacent to the opening through which the ice receptacle is removable, a nipple on the bottom of the ice receptacle adapted to project into the funnel and discharge into the water space, a receptacle in the lower part of the casing removable longitudinally through an opening in the end wall of the casing, and closures for the openings in the ends of the casing.

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1,042,250. GIN-SAW. WILLIAM E. MOORE, Pittsburgh, Pa. Filed May 4, 1908. Serial No. 430,682. (Cl. 13—14.)

1. The combination with a shaft, of a plurality of gin saw blades mounted on the periphery of said shaft, said blades comprising each a plurality of separable segments having offset bases resting on said shaft, slip rings inserted between adjacent saw blades and encircling and binding said bases against the periphery of said shaft, and mechanism to clamp said blades longitudinally of said shaft.



2. A gin saw, comprising a supporting shaft, a plurality of gin saw blades mounted on the outside of said shaft, said blades each being composed of a plurality of separable flanged segments, slip rings inserted between adjacent saw blades, encircling and engaging the flanges of said blades and binding them against the exterior of said shaft, and clamping mechanism acting to clamp the said saw blades and rings together longitudinally of said shaft.

3. The combination with a tubular shaft, of a plurality of gin saw blades mounted on the periphery of said shaft, said blades each being composed of a plurality of separable flanged segments, the said flanges resting on said shaft, slip rings inserted between adjacent saw blades and binding the flanges of said blades against the outer periphery of said shaft, clamping mechanism acting to clamp the said saw blades and rings together longitudinally of said shaft, supporting shafting for said tubular shaft, and means for mounting the tubular shaft on the supporting shafting.

4. The combination with a gin saw shaft having a hollow end, of a plurality of detachable gin saw blades mounted thereon, a plurality of tie bolts secured to the wall of said shaft within said hollow end, a movable clamping head through which said bolts are adapted to extend, and nuts mounted on said bolts exterior to said clamping head adapted to force said head toward said saw blades, substantially as described.

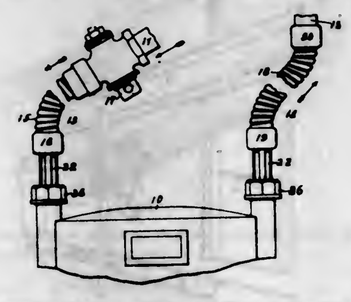
5. The combination with a gin saw shaft, of a plurality of detachable gin saw blades mounted thereon, said blades each being composed of a plurality of separable flanged segments, removable retaining devices passing over said flanges and binding them against the periphery of said shaft, tie bolts and clamping heads coöperating therewith and acting axially of said shaft to clamp said blades and retaining devices together.

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1,042,251. FLEXIBLE CONNECTION FOR GAS-METERS. FRED B. MUELLER, Decatur, Ill., assignor to H. Mueller Manufacturing Company, Decatur, Ill., a Corporation of Illinois. Filed June 28, 1910. Serial No. 569,388. (Cl. 137—34.)

1. In a flexible connection, and in combination, a flexible conduit having exterior spiral ribs constituting external coarse screw threads, couplings at the ends of the conduit having internal coarse screw threads engaging over the external threads at the opposite ends of the conduit, securing means for the couplings adapted to seal the same on the ends of the conduit, a neck permanently secured at one end in one of the couplings and having a fixed collar upon its opposite end, and a coupling nut loosely mounted on the neck and having an inwardly extending flange at its inner end adapted to engage the collar whereby the coupling nut is retained on the neck.

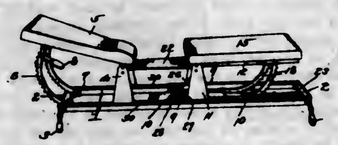
2. In a gas meter connection, the combination with a fixed pipe member, and a flexible conduit having external metallic screw-thread ribs, of internally screw threaded couplings engaging over and being fixed upon the ends of the flexible conduit, a neck threaded into and being fixed upon one of the couplings and having an exterior smooth surface at its outer end, said neck further having an integral collar at its outer end beyond the smooth surface,



and a coupling nut rotatable upon the neck and adapted for threaded engagement with said pipe member and having an inwardly extending flange at its inner end adapted to engage said collar and bind the same against said pipe member.

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1,042,252. CHIROPRACTIC TABLE. JOSIAH M. MYERS, Davenport, Iowa. Filed June 1, 1912. Serial No. 701,004. (Cl. 128—16.)



1. In a chiropractic table, the combination of a main frame, a support fixed to and rising therefrom, a vertically adjustable bench pivoted to and extending outward from said support, curved rack bars connected together and pivoted to the bench in position to engage a portion of the main frame, a carriage slidable on the main frame and provided with a support, a vertically adjustable bench pivoted to and extending outward from said support, and curvilinear rack bars connected together and pivoted to said bench in position to engage a portion of the carriage.

2. In a chiropractic table, the combination of a main frame, a support fixed to and rising therefrom, a vertically adjustable bench pivoted to and extending outward from said support, curved rack bars connected together and pivoted to the bench in position to engage a portion of the main frame, a carriage slidable on the main frame and provided with a support, a vertically adjustable bench pivoted to and extending outward from said support, curvilinear rack bars connected together and pivoted to said bench in position to engage a portion of the carriage, an abdomen support, of flexible material, connected to the first-named support and passed around guides on the second-named support, and a retractile spring connecting said abdomen support and the main frame.

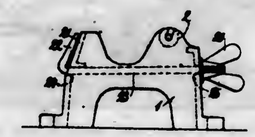
3. In a chiropractic table, the combination of a main frame, a support fixed to and rising therefrom, a vertically adjustable bench pivoted to and extending outward from said support, curved rack bars connected together and pivoted to the bench in position to engage a portion of the main frame, a carriage slidable on the main frame and provided with a support, a vertically adjustable bench pivoted to and extending outward from said support, curvilinear rack-bars connected together and pivoted to said bench in position to engage a portion of the carriage, an abdomen support, of flexible material, connected to the first-named support and passed around guides on the second-named support, a retractile spring connecting said abdomen support and the main frame, and adjustable means on the carriage for holding the same against casual movement on the main frame.

4. In a chiropractic table, the combination of a main frame, a support fixed to and rising from said frame, a bench connected with said support, means for adjustably fixing the bench with respect to the main frame, a support movable on the main frame and toward and from the first-named support, a bench adjustable on the second-named support, means for adjustably fixing the second-named bench with respect to its support, lower and upper guide devices carried by the second-named support, an abdomen support, of pliable material, connected at one end with the first-named support and passed over the guide devices of the second-named support, and a retractile spring interposed between the opposite end of the abdomen support and the main frame.

5. The combination in a chiropractic table, of a main frame, a support fixed thereto, a bench adjustable on said support, means for adjustably fixing the said bench, a support movable on the main frame and toward and from the first-named support, a bench adjustable on the second-named support, means for adjustably fixing said bench, an abdomen support, of pliable material, connected with the first-named support and engaged with the second-named and movable support, and a retractile spring connecting the abdomen support and the main frame and adapted to accommodate the said support to the adjustment of the second-named bench.

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1,042,253. SHARPENING APPARATUS FOR KNIVES, SCISSORS, AND THE LIKE. WILHELM BERNHARD NILSSON, Stockholm, Sweden. Filed Nov. 25, 1911. Serial No. 662,480. (Cl. 51—7.)



1. A sharpening apparatus for edge tools, where a sharpening tool is forced against the edge tool and a guide roll, a slanting bearing surface for the shank of the scissors provided in a frame parallelly to the said roll, and one or more hooks extending transversally to the roll and the bearing surface and adjustably inserted in slots in the frame and provided with means for forcing the same against the said shank located between the hooks and the said surface.

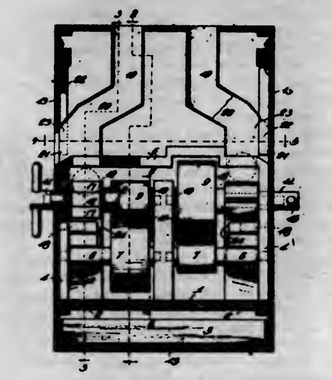
2. A sharpening apparatus comprising a rectangular frame having a slanting bearing face at one edge; a roll journaled near the other edge parallel to said face; bolts passing transversely through said frame and having hooks on one end disposed adjacent and parallel to said face; and wing-nuts on the opposite ends of the respective bolts.

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1,042,254. VENDING-MACHINE. JOSEPH A. NOSE, Logansport, Ind. Filed June 9, 1911. Serial No. 632,286. (Cl. 194—35.)

In a coin-operated vending machine, the combination of a shaft having a diametrical slot therethrough adapted to receive a part of a coin, a hollow roller loosely surrounding the slotted portion of said shaft and having at diametrically opposite points longitudinal slots of a less length than the diameter of a predetermined coin; said slots of the hollow roller being adapted to be put in registration with the slot of the shaft, the slots when in registration being adapted to receive and hold the coin with a portion thereof projecting beyond the periphery of the roller, a coin chute the discharge end of which is disposed above the vertical center of the slotted shaft and hollow and slotted roller, a stationary coin guide

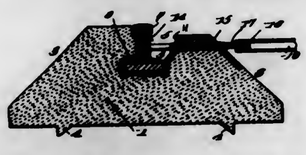
curved conformably to the periphery of the slotted and hollow roller, and a coin abutment located below the hol-



low and slotted roller and in the path of movement of the projecting portion of the coin.

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1,042,255. RAILWAY ROAD-BED. JOHN O'GORMAN, San Luis Obispo, Cal., assignor of forty-five one-hundredths to Arthur L. Dutton, San Luis Obispo, Cal. Filed Apr. 17, 1912. Serial No. 691,357. (Cl. 238—8.)



1. An improved railway roadbed formed of concrete blocks having a lengthwise top groove, metallic rail-chairs laid in said grooves crosswise, the same being provided with a rail seat and opposite angular arms extending upward and both inclined in the same direction and one of them adapted to overlie the base and abut the web of a rail, substantially as described.

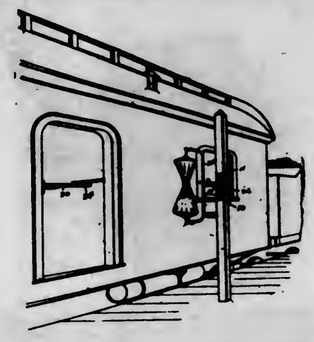
2. The combination with concrete blocks having lengthwise grooves and metallic chairs laid crosswise thereon, of metallic ties connecting such blocks and chairs and adapted for lengthwise adjustment, substantially as described.

3. The combination with concrete blocks having a lengthwise groove and metallic chairs laid crosswise on the latter, of metallic ties connecting the blocks and chairs, the terminal portions thereof being screw-threaded and passing through the inner arm of the chairs and adapted to abut the web of a rail, substantially as described.

4. The combination with the blocks having a lengthwise groove and metallic chairs laid crosswise thereon, of metallic ties connecting such blocks and chairs, the same comprising two screw-threaded rods and a connecting internally threaded sleeve, the rods passing through threaded openings in the chairs, and abutting a fish plate which intervenes the rod and the rail, substantially as described.

5. In a railway roadbed, a concrete block adapted to form part of the same and having its top portion provided with a lengthwise groove, one side of which is inclined outward and the other overhanging and projecting toward the same, whereby it is adapted to support a rail on the outer side, substantially as described.

1,042,256. MAIL CATCHING AND DELIVERING DEVICE. WILLIAM T. O'HARA, Spokane, Wash., assignor of one-third to Henry S. Schopf, Spokane, Wash. Filed Feb. 26, 1912. Serial No. 679,963. (Cl. 105—231.)



1. In a device of the class described, an arm journaled to rotate on a vertical axis, a segment positioned to support the arm throughout the major portion of its travel but stopping short of one extremity, and means permitting the arm to drop over the extremity when reaching such extreme of movement.

2. In a device of the class described, a shaft vertically journaled, means to hold the shaft in such vertical position in all but one point in its rotation, an arm disposed at right angles to the shaft, means to retain the shaft yieldingly at a point diametrically opposite the point at which the shaft leaves the vertical, and means to move the arm to the point when the shaft leaves the vertical.

3. In a device of the class described, a ball and socket joint, a shaft carried by the ball, an arm carried at right angles to the shaft, a segment horizontally positioned and disposed to support the arm, and a bearing box for the shaft positioned to release the shaft when the arm has passed beyond the end of the segment.

4. In a device of the class described, a shaft journaled normally vertical with a ball and socket joint, an arm carried at right angles to the shaft, a segment positioned with the shaft as its center and to support the arm, means at one extremity of the segment for holding the arm stationary, and means for dropping the shaft and arm when the arm has passed beyond the other extremity of the segment.

5. In a device of the class described, a keeper, a socket block removably carried by the keeper, a shaft journaled in the block with a ball and socket joint, a segment carried by the block and disposed in a horizontal plane, an arm carried by the shaft and supported to travel upon the segment in a horizontal plane, means at one extremity of the segment for holding the arm against movement, and a bearing for the upper end of the shaft adapted to release the shaft when the arm has passed over the opposite extremity of the segment.

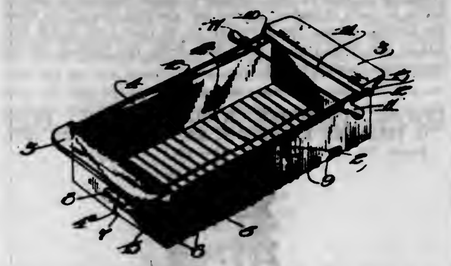
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1,042,257. BUTTER-CUTTER. ADA L. OLIVER, San Francisco, Cal. Filed Jan. 18, 1912. Serial No. 671,788. (Cl. 31—65.)

1. A butter cutter comprising a suitably shaped frame open at two sides and having handles across the ends adjacent to one of the open sides, removable cutters mounted on the lower edge of the frame and extending across the same, and a transversely extending, longitudinally movable cutter adjustable across the upper edges of the frame between the handles.

2. A butter cutter comprising a suitably shaped frame open at two sides and having handles across the ends adjacent to one of the open sides, removable cutters mounted on the lower edge of the frame and extending across the same, a transversely extending, longitudinally movable cutter adjustable across the upper edges of the

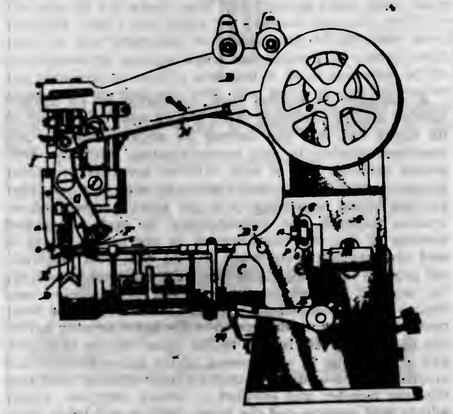




frame between the handles, and a removable guide structure for said adjustable cutter.

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1,042,258. FEEDING MECHANISM FOR BLIND-STITCH-MACHINES. LANSING ONDERDONK, New York, N. Y., assignor to The Union Special Sewing Machine Company, Chicago, Ill., a Corporation of Illinois. Filed July 31, 1902. Serial No. 117,878. (Cl. 112—8.)



1. In a blind stitch sewing machine, having a suitable work support movable to allow insertion and removal of the work, needle and looper mechanism arranged and operating above the work support, a main feeding mechanism, arranged within the work support, and a top feed mechanism arranged outside the work support, but having operative connection with the main feeding mechanism, whereby said top feed mechanism is operated in unison with the main feeding mechanism and means carried by said work support for supporting said top feed mechanism; substantially as described.

2. In a sewing machine, the combination with a work support, means for raising and lowering the work support, a main feeding mechanism located within the work support, a top feeding mechanism carried by the work support, and means whereby the top feeding mechanism may be moved from engagement with the fabric when the work support is lowered.

3. In a sewing machine, the combination with a work support, means for raising and lowering the work support, a main feeding mechanism contained within the work support, a top feeding mechanism carried by the work support, connections between the main feeding mechanism and top feeding mechanism, whereby the top feeding mechanism is operated in unison with the main feeding mechanism, and means whereby the top feeding mechanism may be moved out of engagement with the fabric when the work support is lowered.

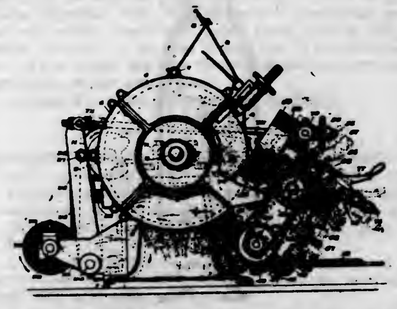
4. In a sewing machine, the combination of a work support, means for raising and lowering said work support, a main feeding mechanism, a supplemental feeding mechanism, means for operating the supplemental feeding mechanism, and means for disconnecting the supplemental feeding mechanism from its operating means, operated by the lowering of the work support, substantially as described.

5. In a sewing machine, the combination with the main feeding mechanism, a work support, means for raising and lowering said work support, a top feeding mechanism including a plurality of feed dogs, means for imparting a yielding up and down movement to said feed dogs, whereby said feed dogs may yield to varied thicknesses of material, and means whereby the top feeding mechanism may be lifted from the fabric when the work support is lowered.

[Claims 6 to 13 not printed in the Gazette.]

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1,042,259. DISK-BEVELING MACHINE. WILLIAM C. OSTERHOLM, Chicago, Ill. Filed July 20, 1912. Serial No. 710,543. (Cl. 51—7.)



1. A machine of the class described including, in combination, a rotatable grinding wheel, a rocking frame movable toward and from said grinding wheel, a chuck carrying frame pivotally mounted upon said rocking frame and adjustable at varying angles relative thereto, a rotatable feed shaft, a cam secured to said feed shaft, means for rotating said shaft including clutch mechanism, a swinging yoke engaging with said cam, an adjustable connection between said yoke and said chuck carrying frame, and manually operable means for controlling the operation of said clutch mechanism.

2. A machine of the class described including, in combination, a main frame, a shaft journaled upon said frame and having a grinding wheel secured thereto, a feed shaft journaled parallel with and in rear of said first mentioned shaft, a cam secured to said feed shaft, independent means for transmitting rotary motion to said shaft including a clutch mechanism mounted upon said feed shaft, a swinging yoke having one end thereof pivotally connected with said main frame and engaging with said cam, a rocking frame having one end pivotally connected with said main frame and movable toward and from said grinding wheel, a chuck carrying frame pivotally mounted upon the opposite end of said rocking frame and adjustable at varying angles relative thereto, an adjustable connection between the opposite end of said yoke and said chuck carrying frame, manually operable means for controlling said clutch mechanism, and a chuck head rotatably mounted in said chuck carrying frame and operatively connected with the means for transmitting motion to said feed shaft.

3. A machine of the class described including, in combination, a main frame, a shaft journaled upon said frame and having grinding wheels secured to opposite ends thereof, a two-part feed shaft journaled upon said frame, independent means for transmitting motion to said shaft,

a combined clutch and power transmitting member mounted upon the inner adjacent ends of said two-part feed shaft and operative to transmit independent motion thereto, cams carried by the opposite ends of said two-part feed shaft, swinging yokes engaging with said cams, chuck carrying frames pivotally mounted upon said main frame and operatively connected with said swinging yokes, and means whereby said clutch mechanism may transmit motion selectively to either part of said two-part shaft.

4. A machine of the class described having, in combination, a main frame, a grinding wheel rotatably mounted upon said frame, a swinging frame movable toward and from said grinding wheel, a chuck carrying frame carried by said swinging frame and adjustable at varying angles relative thereto, a chuck rotatably mounted in said chuck carrying frame, and means for automatically advancing said chuck and swinging frame toward said grinding wheel.

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1,042,260. GARMENT-FORM. EMIL THEO. PALMENBERG, New York, N. Y. Filed Feb. 24, 1912. Serial No. 679,592. (Cl. 223—18.)

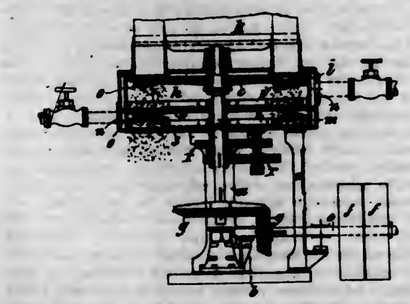


1. A top piece for a garment form, comprising a circular body having a flanged edge whereby it may be conveniently secured on a form, and further provided with depressed portions, at least one of which depressed portions is adapted to form a tray for holding articles utilized in fitting the parts of a garment on the form.

2. A top piece for a garment form, comprising a body having a marginal depression forming an article tray, and a central portion adapted to support a pincushion.

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1,042,261. APPARATUS FOR HEATING BEET-SLICES. MAX PASCHEN, Köthen, Germany. Filed Feb. 7, 1912. Serial No. 676,078. (Cl. 127—8.)



The herein described apparatus for heating beet slices for extracting the juice therefrom, comprising a heating receptacle divided into a plurality of compartments, a steam jacket around the receptacle, also divided into a plurality of superposed chambers, steam-regulating means fitted to each chamber, means for ejecting the slices from the bottom of one compartment on to that next below and means for discharging the slices from the bottom of the lowermost compartment.

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1,042,262. COSTUMER OR CLOTHES-RACK. FRANK D. PELLENTINE, Kansas City, Mo. Filed Apr. 22, 1911. Serial No. 622,803. (Cl. 45—13.)



A costumer or clothes rack, consisting of an upright tubular member provided with a hole near and a cap at its upper end, the cap having an angular opening and openings exterior to and communicating with the first-named opening, one of said exterior openings occupying the same vertical and radial plane as said hole, an inner member fitting telescopically in the outer member and extending through and nonrotatably in said first-named opening of the cap and provided in the radial planes of said communicating openings of said cap, with longitudinal grooves in its outer side and with a tongue underlying the cap and with outwardly-projecting flanges below said tongue and in engagement with the inner side of the outer member, a spring catch secured to the inner member within the groove thereof, in the radial plane of the said hole, and arms fitting in the grooves of the inner member and pivoted thereto and projecting at their pivoted ends into the said member and adapted to occupy positions wholly within said grooves and the inner member and being capable, when in such position of passing through said communicating openings of the cap; said arms being adapted when above said cap to swing downwardly and outwardly and having shoulders for engaging the outer side of said inner member to arrest such downward and outward swinging movement before said arms can attain a horizontal position, substantially as described.

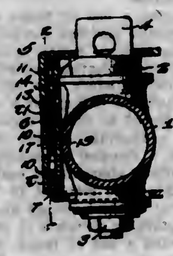
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1,042,263. LOCK. ROY NEWTON PIERSON, Minneapolis, Minn. Filed Feb. 16, 1912. Serial No. 677,694. (Cl. 137—7.)

1. A lock for the valve of a gas cock or the like, comprising a substantially L-shaped casing having one of its arms provided with an opening to receive the wrench or handle extension of the valve of the cock, a second L-shaped member having one of its arms bifurcated and slidably mounted in the casing, the second arm of this L-shaped member being provided with an opening which is adapted to surround the nut of the valve, the bifurcated arm of the said member being provided with teeth, a plate for the lock casing, said plate being provided with spring pressed dogs, which are adapted to engage with the teeth of the bifurcated arm, and a key for operating the dogs to force the latter out of engagement with the teeth substantially as described.



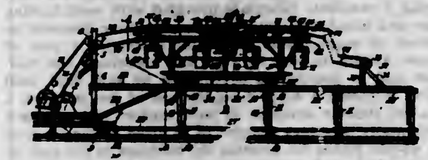
2. In combination with a cock having a valve provided with a wrench extension, of a lock for the valve, said lock comprising a pair of substantially L-shaped sections, one movable within the other, offset arms of the said L-shaped members being provided with openings, one adapted to be inserted over the wrench extension of the valve and the second opening adapted to engage with the lower face of the valve, a plate for securing the sections together, the said plate being formed with a centrally arranged stud and with pins arranged a distance away from



each side of the stud, one of the members of the lock being bifurcated and being provided with teeth, dogs upon the pins of the plate, said dogs having their outer faces provided with teeth which are adapted to co-act with the teeth of the bifurcated members, each of the dogs being provided with springs which are adapted to contact with the stud and to exert a pressure to force the teeth of the dogs into engagement with the teeth of the bifurcated arms and one of the members of the lock being formed with a key opening which is arranged centrally of the dogs.

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1,042,264. HOISTING AND CONVEYING APPARATUS. JOSEPH L. POTTER, Indianapolis, Ind. Filed Mar. 11, 1912. Serial No. 682,847. (Cl. 212—74.)



1. Hoisting and conveying apparatus including a movable conveying car, a drum rotatably mounted on the car and having two cables connected to one end portion and two cables connected to the opposite end portion thereof, each cable having a hoisting device connected thereto, and guide sheaves for the cables mounted on the conveying car.

2. Hoisting and conveying apparatus including a movable conveying car, a drum rotatably mounted on the car, a single guide sheave mounted on the car, two adjacently arranged guide sheaves mounted on the car between the drum and the single guide sheave, two cables connected to the drum and extending therefrom together in one direction, one over one of the two adjacent sheaves and the other over the remaining one of the two sheaves, and also over the single sheave, and two buckets connected to the two cables respectively.

3. Hoisting and conveying apparatus including a conveying car, a hollow winding drum rotatably mounted on the car and having two apertures in one end portion of the periphery and also two apertures in the opposite end portion of the periphery thereof, two cables secured in one end portion and two cables secured in the opposite end portion of the drum and extending through the adjacent apertures, two cables leading in one direction and the remaining two cables leading in the opposite direction from the respective ends of the drum, each cable having a lifting device thereon, and separate guide sheaves for the different cables mounted on the car.

4. Hoisting and conveying apparatus including a conveying car, a gear frame mounted on the car and projecting beyond two opposite ends thereof, two far-away sheaves mounted on the two projecting portions respectively of the gear frame, two intermediate sheaves mounted on the gear frame between the far-away sheaves, a drum rotatably mounted on the gear frame between the two intermediate sheaves, two cables connected to the drum and extending together therefrom in one direction, one over one of the intermediate sheaves and the other over one of the far-away sheaves, and two other cables connected also to the drum and extending together therefrom in an opposite direction, one over the remaining one of the intermediate sheaves and the other over the remaining one of the far-away sheaves, each cable having a lifting device thereon.

5. In hoisting and conveying apparatus, the combination of a conveying car comprising an open rectangular platform frame and an open rectangular gear frame mounted upon and projecting beyond the platform frame in opposite directions, hoisting gearing mounted on the gear frame including two pairs of cables, the two cables of one pair extending together in one direction, the two cables of the remaining pair extending together in an opposite direction, four hoisting buckets, connected to the several cables respectively, and guide sheaves for the cables mounted on the gear frame, two of the sheaves for two of the cables being on the two projecting portions respectively of the gear frame.

[Claims 6 to 9 not printed in the Gazette.]

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1,042,265. ALLYL DERIVATIVE OF BARBITURIC ACID AND PROCESS OF MAKING SAME. ERNST PREISWERK and ERNST GRETHER, Basel, Switzerland, assignors to Society of Chemical Industry in Basle, Basel, Switzerland. Filed May 21, 1912. Serial No. 698,814. (Cl. 23—24.)

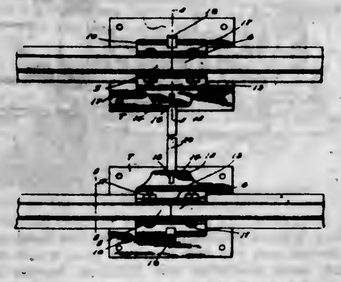
1. The described process for the manufacture of allyl derivatives of barbituric acid consisting in treating the barbituric acid with an allylhalid.

2. The described process for the manufacture of diallylbarbituric acid, consisting in treating barbituric acid with allylbromid.

3. As new product, the described diallylbarbituric acid having excellent hypnotic properties and constituting colorless leaflets, melting at 169 to 170° C., difficultly soluble in cold water, but easily soluble in hot water.

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1,042,266. COMBINED CHAIR AND RAIL-JOINT. FREDERICK JAMES PROSSER, Cleveland, Ohio. Filed May 11, 1912. Serial No. 696,676. (Cl. 239—6.)



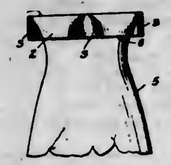
1. A device of the class described, comprising a base, a pedestal rising therefrom and having a seat for receiving the meeting ends of rails, a rail clamping flange rising from the pedestal, a horn projecting from said pedestal at right angles thereto, a movable rail engaging flange slidably engaged with said horn, means for lock-

ing the rail engaging flange on the horn, means passed through the flanges and adapted to engage the web of such rails for the securing of the same together, and spaced parallel ears formed on the pedestal and a tie rod pivotally connected between the ears.

2. A device of the class described, comprising a base, a pedestal rising therefrom and having a seat for receiving the meeting ends of rails, a rail clamping flange rising from the pedestal, a horn projecting from said pedestal at right angles thereto, a movable rail engaging flange slidably engaged with said horn, means for locking the rail engaging flange on the horn, means passed through the flanges and adapted to engage the web of such rails for the securing of the same together, spaced parallel ears formed on the pedestal and a tie rod pivotally connected between the ears, and reinforcing webs formed on opposite sides of the said pedestal, a number of said webs being integral with the base.

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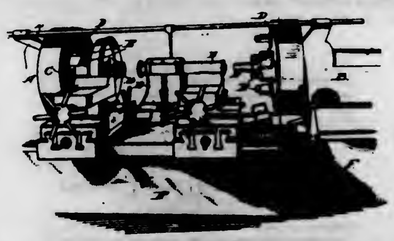
1,042,267. BOTTLE SEAL OR CLOSURE. JAMES PROWETT, Philadelphia, Pa. Filed Feb. 20, 1912. Serial No. 678,763. (Cl. 215—10.)



A bottle cap stamped from sheet metal and comprising a crown portion formed with a depending flange, said flange being provided along its lower edge at regular intervals with spaced segmental lips and having its body portion formed with semi-elliptical indentations between its top and bottom edges and in axial alinement with said lips, whereby the flange is fluted or corrugated throughout its circumference, the indentations or inwardly extending portions of said corrugations being slightly flattened to provide gripping surfaces and the depending portions of the corrugations arranged to merge into the lips, the latter being longitudinally and transversely curved and projected inwardly to provide horizontal gripping projections in line with the vertical gripping surfaces.

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1,042,268. METAL-TURNING LATHE. SALMON WILDER PUTNAM, 3d, Fitchburg, Mass. Filed May 15, 1912. Serial No. 697,435. (Cl. 82—8.)



1. In a lathe, the combination with the head and tailstock thereof and the bed or frame upon which they are mounted, said headstock and tailstock having internal spindles, of a mandrel supported upon the bed of the machine in line with said spindles, and sustaining elements or centers rigid with said spindles and projecting therefrom, said elements adapted to sustain a wheel to be machined, at each end of the mandrel, one adjacent the headstock and the other adjacent the tailstock.

2. In a lathe having a bed or frame, a headstock and a tailstock, and hollow spindles mounted in line within said headstock and tailstock, of means for operatively supporting a pair of wheels in line upon a common axis, said means including sustaining elements or centers projecting beyond the inner faces of the headstock and tailstock and rotating with said spindles and each adapted to support one of said wheels, a mandrel horizontally disposed in line with said elements or centers, and bushings removably fitted to the wheels and adapted to fit over said elements or centers.

3. In a lathe having a bed or frame and a headstock and tailstock at opposite portions thereof, said headstock and tailstock having internal hollow spindles, of sustaining elements or centers projecting beyond the inner faces of the headstock and tailstock and rotating with said spindles and each adapted to support a wheel to be machined, bushings adapted to fit the bores of said wheels and to receive the projecting portions of the sustaining elements or centers, a mandrel horizontally supported in line with the sustaining elements or centers, and means connecting the ends of the mandrel to the bushings to facilitate the removal of the bushings and their attached wheels from the sustaining elements or centers.

4. In a lathe having a bed or frame, and a headstock and tailstock at opposite portions thereof, said headstock and tailstock having internal spindles, of sustaining elements or centers removably fitted to said spindles and projecting beyond the inner faces of the headstock and tailstock, and each adapted to support a wheel to be machined, split bushings adapted to fit the bores of said wheels and to receive the projecting portions of the sustaining elements or centers, a mandrel horizontally supported in line with the sustaining elements or centers and having flanged ends adapted to abut corresponding ends of the bushings, and means connecting the ends of the mandrel to the bushings to facilitate the removal of the bushings and their attached wheels from the sustaining elements or centers, said means comprising yokes fitted to the bushings and the flanged ends of the mandrel.

5. An improved lathe comprising a bed or frame, a headstock, a tailstock, said headstock and tailstock each having a revoluble face-plate provided with work-holding dogs, and internal spindles having sustaining elements or centers, of supplemental means for sustaining a pair of wheels axially in line between the headstock and tailstock and in position to be engaged by said dogs, said means including a support on the bed of the machine, a mandrel slidably mounted in said support and arranged horizontally, bushings adapted to be fitted to the bores of the wheels, means for securing the bushings to the ends of the mandrel, and sustaining elements or centers removably fitted to said spindles and projecting beyond said face-plates and holding dogs and adapted to detachably receive said split bushings.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,269. DRAFT-EQUALIZER. JAMES BENJAMIN PYLES, Moore, Mont. Filed May 18, 1911. Serial No. 628,006. (Cl. 21—78.)



A draft equalizer comprising a vehicle tongue whose rear end is secured in a bolster, a double tree, a bolt pivotally connecting said double tree to said tongue, swingle trees pivotally connected to said double tree, a transverse, resilient, arched brace, having its ends bolted to said swingle trees, a hammer strap, a bolt pivotally securing said brace to said strap, said strap having its rear end turned over and around and secured to the rear end of the vehicle tongue within said bolster, its front end being bent around and pivotally secured to said arched brace.



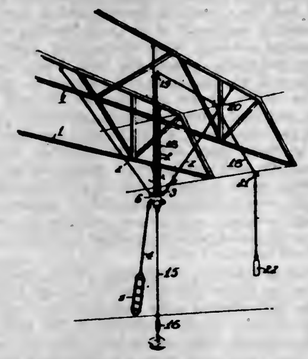
1,042,270. COMB-CLEANING DEVICE. EMIL J. RAJALA, Redridge, Mich. Filed Jan. 19, 1912. Serial No. 672,064. (Cl. 132—17.)



The combination with a comb having transverse grooved ends, of a cleaning device therefor comprising elongated strips spaced apart and in engagement with the opposite sides of the comb, cross bars interconnecting said strips at one edge and disposed within the crevices between the teeth of the comb, springs carried by the cleaning device, a lip integral with each spring and adapted to engage the groove in the adjacent end of the comb, said springs being adapted to hold the cross bars normally out of engagement with the back of the comb and adapted to be put under tension when the cleaning device is operated to engage the cross bars with the back of the comb whereby in the release of the cleaning device the teeth of the comb may be cleaned.

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1,042,271. GIANT-STRIDE. MILTON B. REACH, Chicopee, Mass., assignor to A. G. Spalding & Bros. Manf'g. Co., a Corporation of Massachusetts. Filed Apr. 15, 1912. Serial No. 691,009. (Cl. 46—69.)



1. In a giant stride apparatus, a head having a rotary member, guy ropes extending upwardly and outwardly from the head at an angle, and a central straining rope depending from the head and attached to the floor, substantially as described.

2. In combination in a giant stride apparatus, a head having a rotary member, guy ropes extending upwardly and outwardly from the head, a central straining rope extending downwardly from the head and attached to the floor, and a hoisting rope attached to the head and extending upwardly, from which point it is guided downwardly whereby the apparatus may be hoisted when detached from the floor, substantially as described.

3. In combination in a giant stride apparatus, a head having a rotary member, guy ropes extending upwardly and outwardly therefrom, a central straining rope attached to the floor, the said head having a bar or rigid member depending therefrom a considerable distance below the head to which the straining rope is attached, substantially as described.

4. In combination in a giant stride apparatus, an upper member having means of attachment for guy ropes, a lower member, a central rod connecting the upper and lower members, and a rotary head between the upper and lower members having means for attaching the giant stride ropes thereto, substantially as described.

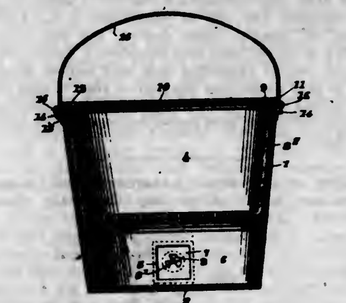
1,042,272. PAIL. FRANK REYNOLDS, Winston, Mont. Filed Feb. 27, 1912. Serial No. 680,189. (Cl. 31—14.)



A milk pail provided with a spout having a threaded portion, a member threaded to fit said portion and upset to provide an annular flange which is adapted to rest against one end of the spout when the member is in an applied position, a foraminous screening cloth removably fitted to the shoulder, a ring lying substantially within the plane of the shoulder and hinged to said member, the said member being stamped to provide an outwardly extending keeper, and a latch carried by the ring and provided with a spring portion removably engaging the said keeper and operable to cause the said ring to exteriorly bear against the said foraminous screening member to secure the same against the said shoulder.

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1,042,273. PORTABLE STOVE. JACKSON M. ROE, Sunnyside, Wash., assignor of one-half to Orin W. Crider, Sunnyside, Wash. Filed Apr. 1, 1912. Serial No. 687,751. (Cl. 126—25.)



1. A stove provided with a fire pot and an ash pit, a grate separating the former from the latter, a damper in the bottom of the stove, a recessed flange formed on the stove, and an adjustable lid supported on the flange and provided with recesses therein adapted to wholly or partly register with the recesses of the flange on the adjustment of the lid.

2. A stove comprising a receptacle having an ash pit and a fire pot, a damper located in the receptacle below the fire pot, a flange carried by the receptacle and extending from the fire pot thereof and provided with recesses therein at spaced intervals, a lid revolubly mounted on the flange and detachably connected therewith and provided with peripheral recesses adapted to partly or wholly register with the recesses of the flange, and a guard on the walls of the receptacle, the said guard being arranged in embracing relation with the lid and serving to hold the latter against displacement from the receptacle.

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1,042,274. DOOR CHECK AND SPRING. CLARENCE T. ROEMER, New York, N. Y. Filed Dec. 14, 1911. Serial No. 665,866. (Cl. 16—88.)

1. A combined door check and hinge comprising in combination, a liquid containing chamber having a spiral groove in the walls thereof, a hinge plate secured to the

said chamber, a cylinder supported above said liquid containing chamber, a shaft supported within said cylinder, one end of said shaft being hollow and adapted to extend into said liquid containing chamber, a piston rod carrying a head adapted to operate within said chamber, the said piston rod adapted to move vertically within said hollow shaft and means for rotating said shaft.



2. A combined door check and hinge, comprising in combination a liquid containing chamber having a spiral groove formed in the walls thereof, a hinge plate connected to the chamber, a cylinder supported above the chamber and a hinge plate connected thereto, a shaft mounted in said cylinder, one end of said shaft being hollow and slotted on opposite sides thereof, the said hollow end adapted to extend into said chamber, a piston rod having one end thereof extending into said hollow shaft, a bar fixed to said piston and adapted to slide in said slots, the ends of said rod adapted to engage in said spiral groove, a head on one end of said piston rod, and means for rotating said shaft.

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1,042,275. GATE FOR GRAPHOPHONES. EMIL ROOS, Manistee, Mich. Filed July 20, 1911. Serial No. 639,615. (Cl. 181—2.)

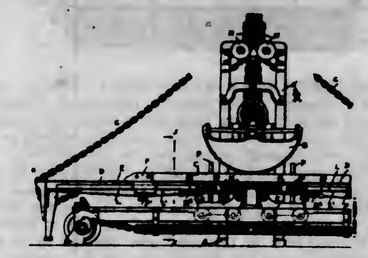


The combination with a carriage frame and cylinder, of a base, a plate pivotally connected to the base adapted to be swung to a vertical position, a screw threaded pivot pin adjustably received within a correspondingly screw threaded orifice in the plate, a set screw in position to engage the pivot pin, a resilient bar connected to the plate and extending horizontally thereto, means connecting the bar to the plate at the center of the bar and a spring catch on each end of the bar in position to engage with the carriage frame when the gate is swung to an operative position.

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1,042,276. BENDING-MACHINE. FRANK T. ROOT, York, Pa., assignor to Defiance Machine Works, Defiance, Ohio, a Corporation of Ohio. Filed June 6, 1912. Serial No. 702,027. (Cl. 144—263.)

1. A bending machine, comprising a form, bending arms for bending the timber around the form, head blocks movable on the said bending arms and adapted to engage the ends of the timber, eccentrics mounted on the said bending arms, eccentric straps connected with the said head blocks and carried around the eccentrics on movement of the said bending arms, and means connected with the eccentrics for holding the same against turning during the bending movement of the said bending arms.



2. A bending machine, comprising a form, bending arms for bending the timber around the form, head blocks movable on the said bending arms and adapted to engage the ends of the timber, shafts journaled in the said bending arms and provided with eccentrics, eccentric rods connected at the outer ends with said head blocks and provided at their inner ends with eccentric straps carried around said eccentrics on movement of the said bending arms, and means connected with the said shafts to hold the latter and the eccentrics thereon against turning during the bending movement of the said bending arms.

3. A bending machine, comprising a form, bending arms for bending the timber around the form, head blocks movable on the said bending arms and adapted to engage the ends of the timber, shafts journaled in the said bending arms and provided with eccentrics, eccentric rods connected at the outer ends with the said head blocks and provided at their inner ends with eccentric straps carried around the said eccentrics on movement of the said bending arms, clutch members turning with the said shafts, non-turnable clutch members adapted to engage the said shaft clutch members, and means carrying the said non-turnable clutch members and mounted to travel in unison with the said bending arms.

4. A bending machine, comprising a form, bending arms for bending the timber around the form, head blocks movable on the said bending arms and adapted to engage the ends of the timber, shafts journaled in the said bending arms and provided with eccentrics, eccentric rods connected at the outer ends with the said head blocks and provided at their inner ends with eccentric straps carried around the said eccentrics on movement of the said bending arms, clutch members turning with the said shafts, non-turnable clutch members adapted to engage the said shaft clutch members, vertical guide rods on which the said non-turnable clutch members are mounted to slide up and down, and fixed horizontal guideways on which the said vertical guide rods are mounted to slide forward and backward.

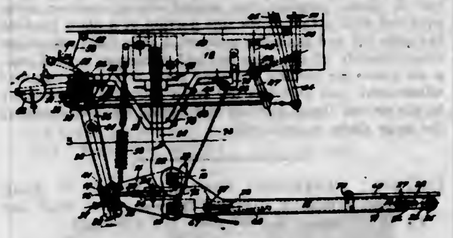
5. A bending machine, comprising a form, bending arms for bending the timber around the form, head blocks movable on the said bending arms and adapted to engage the ends of the timber, shafts journaled in the said bending arms and provided with eccentrics, eccentric rods connected at the outer ends with the said head blocks and provided at their inner ends with eccentric straps carried around the said eccentrics on movement of the said bending arms, clutch members turning with the said shafts, non-turnable clutch members adapted to engage the said shaft clutch members, vertical guide rods on which the non-turnable clutch members are mounted to slide up and down, fixed horizontal guideways on which the said vertical guide rods are mounted to slide forward and backward, clutch-shifting devices connected with the said shaft clutch members to move the latter out of engagement with the said non-turnable clutch members, and handles on the said shafts to turn the latter by hand at a time the clutch members are out of engagement with each other.

[Claims 6 and 7 not printed in the Gazette.]



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1,042,277. CAR-FENDER. JOSEPH F. E. ROSE and CAMILLE RICHARD, Montreal, Quebec, Canada; said Richard assignor to said Rose. Filed Nov. 28, 1908. Serial No. 464,910. (Cl. 105—190.)



1. A car fender comprising a pivoted apron, rearwardly extending plates rigidly attached to said apron, a locking bar connecting said plates, locking levers, means connecting said locking bar and levers whereby the fender is maintained in elevated position, and means for actuating said locking levers whereby the fender is lowered.

2. A car fender comprising a pivoted apron, rearwardly extending plates rigidly connected thereto, a locking bar connecting said plates, a shaft journaled under the car, locking levers carried by said shaft, connecting rods pivoted to said levers and engaging said locking bar, and means for actuating the locking levers whereby the fender is allowed to drop.

3. A car fender comprising a pivoted apron, rearwardly extending plates rigidly connected thereto, a locking bar connecting said plates, a shaft journaled under the car, locking levers carried by said shaft, connecting rods pivoted to said levers and engaging said locking bar, means for actuating the locking levers whereby the fender is allowed to drop, a ratchet wheel on said shaft, and a pawl engaging said ratchet wheel to lock the fender in its lowered position.

4. A car fender comprising an apron, side members supporting said apron, pivotal and resistance bars connecting said side members, plates connecting said bars, a locking bar connecting said plates, a shaft journaled under the car, locking levers carried by said shaft, connecting rods pivoted to said levers and engaging said locking bar, a trigger bar, and means operated by the trigger bar for actuating said locking levers whereby the fender is allowed to drop.

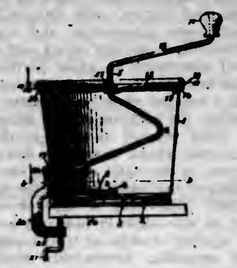
5. A car fender comprising an apron, side members supporting said apron, pivotal and resistance bars connecting said side members, plates connecting said bars, a locking bar connecting said plates, a shaft journaled under the car, locking levers carried by said shaft, connecting rods pivoted to said levers and engaging said locking bar, a trigger bar, means operated by the trigger bar for actuating said locking levers to release the fender, springs for depressing the fender, a ratchet wheel on the shaft, and a pawl engaging said ratchet wheel to lock the fender in its depressed position.

[Claims 6 to 16 not printed in the Gazette.]

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1,042,278. DOUGH MIXER OR KNEADER. CARL A. ROSSLAND, Rockford, Ill. Filed Mar. 31, 1911. Serial No. 618,190. (Cl. 107—38.)

1. In a dough mixer, a vessel, a cross bar mounted thereon and having a continuously walled opening therethrough, and an agitator journaled in the opening in the cross bar and formed from a single rod, said rod having its upper end offset to form a handle above the cross bar and its lower portion reversely bent to form agitator arms, the bends being sufficiently curved to permit the removal of the rod from and its replacement in the cross bar, by longitudinally moving it through the opening.



2. In a dough mixer, a vessel, a cross bar detachably mounted thereon, and an agitator journaled in the cross bar and formed from a single rod, said rod having its upper end above the cross bar offset to form a handle and its lower portion below the cross bar reversely bent to form agitator arms, the bends being sufficiently curved to permit the removal of the rod longitudinally from and its replacement in the cross bar when the latter is detached from the vessel, and a journal bearing in the vessel for the lower end of the rod.

3. In a dough mixer, a vessel, a cross bar detachably mounted thereon, and an agitator journaled in the cross bar and formed from a single rod, said rod having its upper end above the cross bar offset to form a handle and its lower portion below the cross bar reversely bent to form agitator arms, the bends being sufficiently curved to permit the removal of the rod longitudinally from and its replacement in the cross bar when the latter is detached from the vessel, and the first of said bends being directly beneath the cross bar and preventing the upward movement of the agitator when in a vertical position, and a journaled bearing in the vessel for the lower end of the agitator and detachably engaged by the same, said agitator being maintained in engaged relation with the journal bearing when the cross bar is mounted on the vessel.

4. A dough mixer or kneader comprising a vessel, a single integral bar spanning the open end of the vessel having one end reduced and located in an opening in the vessel and its other end screw-threaded and located in an opening in the vessel diametrically opposite the first mentioned opening, the bar being removable and replaceable by relatively flexing it and the vessel, a nut adjustably mounted on the screw-threaded end and located adjacent to the inner face of the vessel, and an agitator rotatably mounted on the bar and extending into the vessel.

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1,042,279. HEEL AND SOLE NAIL. SIMON L. ROSEN, Newport, R. I., assignor, by direct and mesne assignments, of one-fourth to John S. Martin and one-fourth to Harry Ostroff, Peabody, Mass. Filed Oct. 28, 1911. Serial No. 657,389. (Cl. 36—74.)



1. A heel nail having an upper portion with the lower part of said portion reduced in thickness on one side of the nail, whereby said upper portion is divided into two parts, one above the other, the upper thicker one of said parts being thereby made to project over the thinner part at one side of the nail only and forming a crown for the nail; said thickened crown portion being provided on its

projecting side with a beveled offset at its junction with said reduced portion; and a pointed shank extending downwardly from said reduced portion.

2. A heel nail comprising an upper portion terminating at its side edges in inwardly extending flanges, said upper portion having a beveled offset on its outer face between its top and bottom; said flanges being tapered to edges at their lower extremities; and a pointed shank extending downwardly from said crown and edged flanges.

3. A heel nail comprising an upper portion terminating at its side edges in inwardly extending flanges, said upper portion having a beveled offset on its outer face between its top and bottom, the portions of said flanges below said beveled offset being tapered to edges at their lower extremities; a pointed shank extending downwardly from said upper portion of the nail; and said shank being provided with offsets at the lower extremities of said flanges.

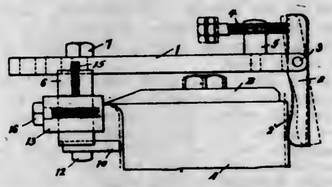
4. A heel nail comprising a tapered upper portion terminating at its side edges in inwardly extending right angled flanges tapered to edges at their lower ends; and a pointed shank extending downwardly from said upper portion of the nail; said shank being provided with offsets on its side edges at the lower extremities of said flanges, and said upper portion of the nail being provided on its rear side with a beveled offset at a point between said side edge offsets and the top of the nail.

5. A heel nail comprising a tapered upper section terminating at its side edges in inwardly extending right angled flanges tapered to edges at their lower ends; and a pointed shank extending downwardly from said upper portion of the nail; said shank being provided with offsets on its side edges at the lower extremities of said flanges, and said upper portion of the nail being provided on its rear side with a beveled offset at a point between said side edge offsets and the top of the nail; both the upper portion and the shank of said nail being convexed on the rear side and flat on the inner side.

[Claim 6 not printed in the Gazette.]

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1,042,280. GAGE FOR SETTING CUTTER-HEAD KNIVES. JOSEPH J. SALMER, Clinton, Iowa. Filed Mar. 2, 1912. Serial No. 681,100. (Cl. 73—139.)



1. In a gage of the class described, the combination of a gage bar, a clamp member pivoted between its ends to said bar at one end of the latter, adjustable means cooperating with one end of said clamp member, a second clamp member mounted upon the opposite end portion of the bar, a cutter head engaging member carried by the last mentioned clamp member, and a gage plate adjustable upon the last mentioned clamp member.

2. In a gage of the class described, the combination of a gage bar, a clamp member pivoted between its ends to one end of said bar, an adjusting screw mounted on the bar longitudinally thereof and coöperating with one end of said clamp member, the epopsite end of the said clamp member being free to engage the side of a cutter head, a second clamp member adjusted longitudinally of the opposite end portion of the gage bar, a cutter head engaging member carried by the outer end of the second clamp member and arranged opposite the cutter head engaging portion of the first mentioned clamp member, and a gage plate adjustable in a direction parallel with the gage bar and arranged between said gage bar and the cutter head engaging member.

3. In a gage of the class described, the combination of a gage bar, a clamp member pivoted between its ends to one end of said bar, an adjusting screw mounted on the bar longitudinally thereof and coöperating with one end of said clamp member, the opposite end of said clamp member being free to engage the side of a cutter head, a second clamp member provided at its upper portion with a guide groove receiving the adjacent side portion of the gage bar therein, a fastening adjustably securing the second clamp member to the gage bar, a cutter head engaging member detachably applied to the second clamp member at its opposite end, and arranged substantially opposite the cutter head engaging portion of the first mentioned clamp member, the second clamp member being provided with a seat in its side portion at a point between the gage bar and engaging member, a gage plate adjustable longitudinally of the gage bar and arranged in said seat, a set screw for holding the gage plate at a predetermined adjustment, and an adjusting screw mounted transversely in the second clamp member and having its head engaging the gage plate, as set forth.

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1,042,281. FASTENING DEVICE. ROBERT V. SAMPSON and SAMUEL T. DANLEY, Denver, Colo. Filed Dec. 21, 1911. Serial No. 667,204. (Cl. 119—128.)



1. A device of the class described comprising a base member having an offset end for engagement with the side of a post or pole, the other end thereof being provided with a movable member for engagement with the said post or pole, a pocket on one side of the said base, the pocket being adapted to receive a rein or line passed around the pole, together with means contained within the pocket and adapted for engagement with the line or rein whereby the same may be held against withdrawal from the pocket.

2. A device of the class described comprising a base member having an offset end for engagement with a post or pole, a winged bolt adjacent the other end of the base member and adapted for engagement with the post or pole, a pocket on one side of the base member, the pocket being adapted to receive a number of turns of the end of a line or rein also passed around the pole, together with a movable element within the pocket for engaging the said line or rein and holding it against the bottom of the pocket against withdrawal.

3. A device of the class described comprising a base member having an offset end with a recess therein for engagement with a post or pole, the other end of the base member being provided with a winged bolt for engagement with the post or pole, a pocket at one side of the base member, a winged bolt extending through the side wall of the pocket, a movable element for engagement with the end of the said bolt and positioned within the pocket, the pocket being adapted to receive a line or rein passed around the pole, movement of the bolt bringing the said element into firm engagement with the line whereby the line or rein is held against removal from the post.

4. A device of the class described comprising a base member having an offset end with a curved recess therein for engagement with the side of a post or pole, the other end of the base member being provided with a winged bolt for engagement with the post or pole, one side of the base member being provided with a bent piece of metal whereby a pocket is formed, a winged bolt extending through the side of the said piece of metal and into the pocket, a movable element within the pocket and in engagement with the end of the bolt, the said device being adapted for use with a rein or line passed around the pole and through the pocket, movement of the said element securing the line or rein against withdrawal from the pocket.

5. A device of the class described comprising a base member, one end of which engages a post or pole, the other end of the base member being provided with movable means for engagement with the said post or pole, a pocket carried by the member adapted to receive a line or rein passed around the pole, there being means within the pocket for engagement with the line or rein in order to hold the line or rein secured in position.



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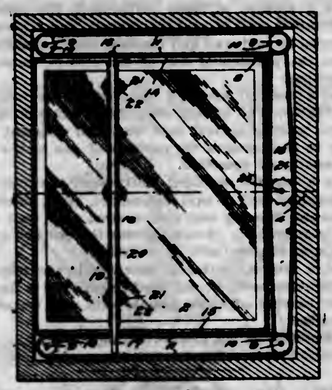
1,042,282. LOOM-SHUTTLE. ARTHUR W. SAUNDERS and CHARLES O'NEIL, Lowell, Mass. Filed June 12, 1911. Serial No. 632,674. (Cl. 139—46.)



An eye-piece for loom-shuttles, having a leading-off eye crossing the length thereof and a threading slit intersecting such eye, a delivery-eye at one end having a narrow rim-like wall 74, a threading slit intersecting such delivery-eye and formed at an oblique angle relative to the axis of the eye-piece, an outstanding spur 76 connecting with the delivery-end of the eye-piece adjacent the outer end of such diagonal slit and bridging such outer end, and an entrance slit formed between the said spur and delivery end and leading to the said outer end of the diagonal slit.

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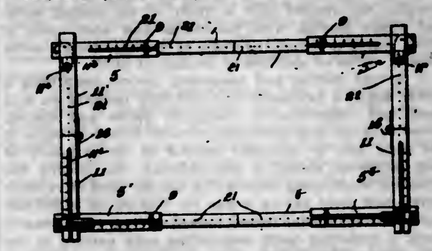
1,042,283. WINDOW-CLEANING DEVICE. ALFRED B. SAUTER and HERMAN H. WEHNER, Chicago, Ill. Filed July 1, 1911. Serial No. 636,826. (Cl. 15—59.)



In a window cleaning device, upper and lower endless chains and means for operating the chains in unison, a cleaning member comprising a central plate provided with removable side plates, and a cleaning element clamped between the side plates, the central plate having one of its ends provided with a reduced finger, the outer edge of which is in a plane with the outer edge of the central plate, the said finger being rectangular in cross section and adapted to frictionally engage between two of the links of the lower lead of the upper chain and to have the shoulder provided between the finger and the central plate contact with the said lower lead of the upper chain, the opposite end of the central plate being provided with a reduced extension which is arranged in a plane with the inner edge of the said plate, the extremity of the said extension being formed with a substantially L-shaped finger, the said finger being rectangular in cross section, and being adapted to engage between two of the links of the lower lead of the lower endless chain, substantially as and for the purpose set forth.

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1,042,284. CURTAIN-STRETCHER. BERTHA SCHENK, Pittsburgh, Pa. Filed Nov. 10, 1909. Serial No. 527,243. (Cl. 45—24.)

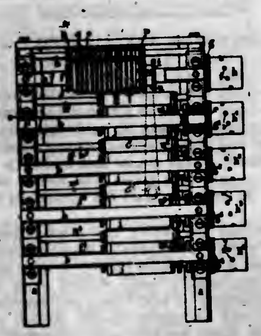


1. A curtain stretcher comprising sectional side bars hingedly connected together, and sectional end bars hingedly connected together, each of the sections of the said side bars having their outer ends of a dovetailed construction, guide members slidably fitted on the said dovetail portions and connecting the said end bars and side bars with each other, the said guide members being formed to provide a longitudinally extending dovetail groove which open onto one side of the member and adapted to slidably receive the said dovetail portions, the opposite side of the said members being formed to provide longitudinally extending slots communicating with the said dovetail grooves, and means extended through the sections and through the slots to retain the said sections against movement in the said guide members.

2. A curtain stretcher comprising foldable side bars and foldable end bars, guide members slidably mounted on the outer ends of the said side bars and connecting the end bars and side bars with each other, a second guide member mounted on the outer end and at one side of the first mentioned member and adapted to slidably receive the said end bars, and retaining elements extending through the bars and through both the said guide members substantially as and for the purpose set forth.

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1,042,285. MACHINE FOR CASTING AND COMPOSING TYPE. FRANZ SCHIMMEL, Nancy, France. Filed Jan. 28, 1911. Serial No. 604,245. (Cl. 101—200.)



1. In a machine for casting and composing types, the combination of a mold of variable width, a block provided

with matrices distributed on its surface and arranged in a circular series, means for imparting to said block a rotary motion about its axis and a longitudinal movement along its axis for bringing the desired type in front of the casting mold, and a comb adapted to follow the longitudinal movement of the block and each tooth of which serves to adjust the width of the mold for an entire circular series of types of the matrix block.

2. In a machine for casting and composing types, the combination of a mold of variable width, a support carrying several rotary shafts and adapted for movement to bring the several shafts opposite the mold, matrix blocks each of which is mounted on one of said shafts so as to be actuated by it and adapted to slide along the same for bringing the desired type in front of the casting mold, and combs moving with the blocks and each tooth of which serves to adjust the width of the mold for an entire circular series of matrices of the matrix block.

3. A type casting and composing device, comprising a rotary shaft, a prismatic block slidingly mounted on said shaft and constituted by polygonal plates and spacing pieces between said plates, matrices of letters or signs of the same font or character carried on the periphery of said polygonal plates, a driving finger for moving the prismatic block along the shaft, a casting mold of variable width, said mold having means for varying its width and being capable of being moved toward or from the prismatic block, a centering tooth coöperating with notches in the polygonal plates, and a comb determining the width of the mold, movable along the shaft with the prismatic block and presenting a number of teeth equal to the number of polygonal plates constituting the prismatic block each tooth having a thickness equal to the width of the letters or signs carried by the corresponding polygonal plates and coöperating with means for varying the width of the casting mold.

4. A type casting and composing device, comprising rotary shafts, a prismatic block slidingly mounted on one of said shafts and constituted by polygonal plates and spacing pieces between said plates, matrices of letters or signs of the same font or character carried on the periphery of said polygonal plates, a driving finger for moving the prismatic block along the shaft, a casting mold of variable width capable of being moved toward or from the prismatic block, a centering tooth coöperating with notches in the polygonal plates, and a comb determining the width of the mold, movable along the shaft with the prismatic block and presenting a number of teeth equal to the number of polygonal plates constituting the prismatic block, each tooth having a thickness equal to the width of the letters or signs carried by the corresponding polygonal plates and coöperating with means for varying the width of the casting mold, other blocks carrying letters or signs of different characters and which are mounted on the other shafts, and a frame carrying said rotary shafts and adapted for movement to bring the several blocks into and away from, a position opposite the mold.

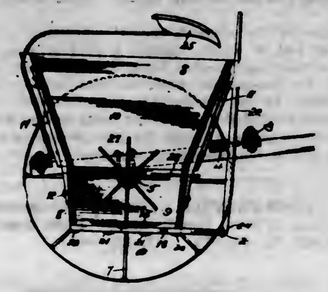
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1,042,286. FERTILIZER-DISTRIBUTER. JAMES H. SELLERS, Cottonwood, Ala. Filed Jan. 16, 1912. Serial No. 671,499. (Cl. 111—34.)

1. In a fertiliser distributer, the combination with an axle and supporting wheels, of a rectangular frame having its side bars mounted loosely on said axle, draft devices connected with said frame, a hopper hung loosely on said axle independently of the frame and having a part projecting freely through said frame, and means on the hopper to engage the frame to limit the oscillatory movement of the hopper.

2. In a fertiliser distributer, the combination with an axle, carrying wheels, a rectangular frame mounted loosely on the axle, and draft devices connected with said frame, of a hopper comprising a lower section hung loosely on the axle independently of said frame and provided with a valved outlet, and an upper hopper section removably secured to the lower section and extending upwardly through said rectangular frame, and agitators on said axle and movable in both sections of the hopper.

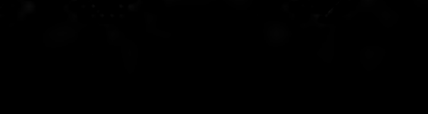
3. In a fertilizer distributer, the combination with an axle, supporting wheels, shafts journaled upon the axle and cross bars connecting the shafts in front and in rear of the axle, of a hopper located between the shafts and journaled upon the axle, and a seat standard secured at



its lower end to the cross bar connecting the rear ends of the shafts, said standard extending upwardly and over the hopper and a seat secured to the free end of the forwardly projecting end of the standard, substantially as set forth.

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1,042,287. VIOLIN. ELBRIDGE G. SHAW, Worcester, Mass., assignor to Lewis M. Brooks, Worcester, Mass. Filed June 30, 1911. Serial No. 636,313. (Cl. 84—44.)



1. In a musical stringed instrument, the combination of a vibratory wall of said instrument, and a spring vibrator carried by said wall and disposed longitudinally of and beneath the position of one of the strings, substantially as described.

2. In a musical stringed instrument, the combination of a vibratory wall of said instrument, and a metal vibrator carried by said wall and disposed longitudinally of and beneath the position of one of the strings, substantially as described.

3. In a musical stringed instrument, the combination of a vibratory wall of said instrument, and a metal spring vibrator bearing against said wall and disposed longitudinally of and beneath the position of one of the strings, substantially as described.

4. In a musical stringed instrument, the combination of a vibratory wall of said instrument, and a substantially flat vibrator bearing edgewise against said wall and disposed longitudinally of and beneath the position of one of the strings, substantially as described.

5. In a musical stringed instrument, the combination of a vibratory wall of said instrument, and a flat spring vibrator bearing edgewise against said wall, substantially as described.

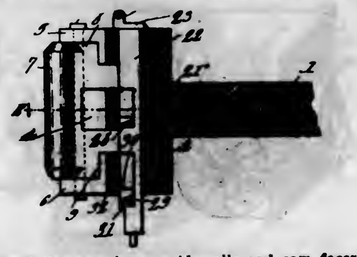
[Claims 6 to 24 not printed in the Gazette.]

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1,042,288. CAR-COUPLING. WILLIAM A. SHORTER, Princeton, W. Va. Filed Feb. 5, 1912. Serial No. 676,470. (Cl. 213—10.)

1. A coupler including a head, a knuckle, superposed tail pieces extending from the knuckle, each of said tail pieces having a cam face, and a coupling pin having spaced portions adapted successively to engage the respective cam faces to impart successive impulses to the knuckle to open it during the elevation of the pin.

2. A coupler including a head, a knuckle, upper and lower tail pieces extending from the knuckle and into the head, a locking pin normally seated in the paths of the tail pieces to hold the knuckle in closed position, said pin having recesses to receive the tail pieces when the pin is shifted out of normal position, said tail pieces having cam faces, one wall of each recess being adapted to en-



gage one of the cam faces, said walls and cam faces coöperating to impart successive impulses to the knuckle to open it during the elevation of the pin out of locking position.

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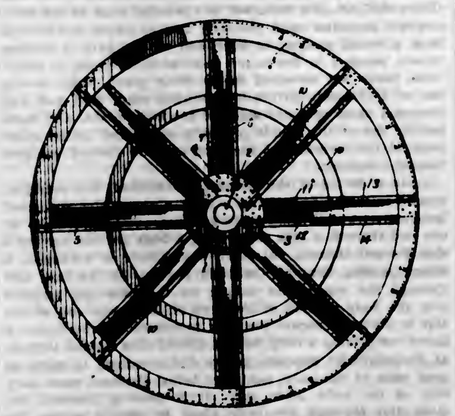
1,042,289. OAR-LOCK. WILLIAM STEPHENSON, Madison, Wis. Filed Apr. 30, 1912. Serial No. 694,064. (Cl. 9—26.)



An oar lock comprising an attaching plate provided with a concaved surface adapted to conform to the curvature of an oar and having formed in its under surface grooves spaced apart, an ear depending from said plate and connected thereto between the grooves therein, a pivot post having a bifurcated end receiving said ear and having the free extremities of the limbs thereof disposed within said grooves, and a pivot pin passed through the bifurcated end of said pivot post and said ear.

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1,042,290. METALLIC WHEEL. SAMUEL HENRY SUMMERSCALES, Winnipeg, Manitoba, Canada. Filed July 8, 1911. Serial No. 637,492. (Cl. 21—69.)



1. A metallic wheel comprising a hub having flanges thereon, a rim having flanges thereon, a plurality of spokes



in engagement with the flanges on the hub and the flanges on the rim, an intermediate member in engagement with all of the spokes, for strengthening the wheel, together with a plurality of cross braces extending between the hub and the intermediate member, and between the intermediate member and the rim, for strengthening purposes.

2. A metallic wheel made up of a hub having flanges thereon adjacent opposite ends thereof, a rim having flanges at opposite sides thereof, a plurality of spokes in engagement with the flanges on the hub and the flanges on the rim, an intermediate member between the hub and the rim and in engagement with all the spokes, for strengthening the same, together with a series of cross braces between the flanges on the hub and the said intermediate member, and another series of cross braces between the said intermediate member and the flanges on the rim, together with means for securing the cross braces in position, thereby providing a wheel of great strength.

3. A metallic wheel comprising a hub, a rim, a plurality of spokes in engagement with the hub and the rim, an intermediate member in engagement with all of the spokes, together with a plurality of cross braces extending between the hub and the intermediate member, and other cross braces extending between the intermediate member and the rim.

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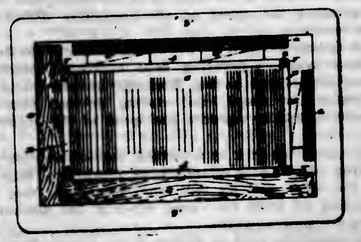
1,042,291. FASTENER FOR BROOCHES AND THE LIKE. KAKUJI TAKAHASHI, San Francisco, Cal. Filed Jan. 4, 1912. Serial No. 669,429. (Cl. 24—157.)



In a fastener, the combination with a body, and a pin pivoted thereto, a bearing secured to said body, a cylindrical retainer for the free end of the pin rotatable in said bearing, said bearing having a longitudinal opening to permit the free end of the pin to pass therethrough and the retainer having a recess to receive said free end, the opening into said recess being adapted to register with the opening in the bearing, said recess being formed with parallel walls and a semi-cylindrical bottom and so formed that the semi-cylindrical bottom leaves a wall of less thickness adjacent thereto than at the sides of the retainer.

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1,042,292. PRINTER'S TIE-UP. JOHN S. THOMPSON, Chicago, Ill. Filed Mar. 24, 1906. Serial No. 307,857. (Cl. 101—52.)



1. A printer's tie-up, comprising four interlocking members, each member having both of its ends reduced to form a shoulder, the members being adapted to overlap at their points of joining, and a vertical projection at one end and an enlarged opening at the opposite end of each member, whereby the members are adapted to interlock and inclose a type page and yield under pressure.

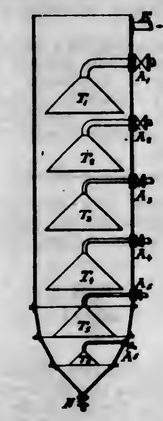
2. In a printer's tie-up, identically formed and interchangeable side and end members provided with notches

at each end and also provided with a hole in one end and a pin of less diameter in the opposite end.

3. A printer's tie-up, comprising four interlocking members, each member having both of its ends reduced to form a shoulder, the members being adapted to overlap at their points of joining, and a projection at one end and an enlarged opening at the opposite end of each member, whereby the members are adapted to interlock and inclose a type page and yield under pressure.

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1,042,293. APPARATUS FOR COMPRESSING PRECIPITATES IN SETTLING VESSELS. FRITZ TIEMANN, Berlin, Germany. Original application filed June 9, 1911, Serial No. 601,683. Divided and this application filed Nov. 23, 1911. Serial No. 661,967. (Cl. 210—5.)



1. In apparatus for compressing precipitates in settling vessels, the combination of a settling vessel, means associated therewith for establishing a downward current of liquid therein, means for inducing a plurality of rising counter-currents in said downward current and for carrying off such counter-currents from the vessels, and means for producing an increasing pressure difference between the downward current and the several counter-currents.

2. In apparatus for compressing precipitates in settling vessels, the combination of a settling vessel, means associated therewith to establish a main downward current of liquid in said vessel, means to induce rising counter-currents of liquid in said main current and to conduct such counter-currents off to the exterior of the vessel, and means for regulating the speed of the respective discharging counter-currents.

3. In apparatus such as described, the combination of a settling vessel, separating bells arranged therein at different heights and having discharge outlets leading off from inside the vessel, and closing devices associated with said outlets to regulate the speed of the outflowing liquid.

4. In apparatus such as described, the combination with a settling vessel, of a plurality of separating bells one above the other, and an individual discharge from each bell leading off from the vessel whereby the discharging streams are kept separate.

5. In apparatus such as described, the combination with a settling vessel having an inlet at the top and an outlet at the bottom, of a vertically arranged series of separating bells in said vessel, the lowermost bell being arranged closely adjacent the bottom of the vessel, discharge devices to conduct the liquid in the respective bells out of the vessel, and means to regulate the speed of the discharging streams of liquid.

[Claim 6 not printed in the Gazette.]

1,042,294. TOY. HERMAN TORLUEMKE, St. Louis, Mo. Filed May 4, 1912. Serial No. 695,365. (Cl. 46—45.)



1. In a device of the character described, the combination of a frame comprising a body plate, a sleeve formed integral with said body plate and extending outwardly at one end thereof, a fork comprising a body portion, having a slot formed therein in which said sleeve is arranged, and a screw passing through the body portion of the fork and through the sleeve, and having its threaded end screwed into the body portion of the fork at the lower end of the slot to pivotally secure the fork to one end of the frame.

2. In a device of the character described, the combination of a frame comprising a body plate, a figure rigidly secured to the upper edge thereof, a wheel pivotally secured to the body plate at one end thereof, diverging arms formed integral with the other end of the plate, a motor casing secured to the outer end of one of said arms, a shaft mounted in said casing and extending outwardly through the end of the arm, a wheel mounted on the outer end of the shaft, an axle having one end mounted in the casing, and its other end mounted in the outer end of the other of said arms, a wheel mounted upon the outer end of the axle, and means arranged within said casing and operatively connected with one end of said axle to impart motion to the same which in turn will rotate the wheel to propel the frame.

3. In a device of the character described, the combination of a frame comprising a body plate, a sleeve formed integral at one end thereof, a fork comprising a body portion having a slot formed therein in which said sleeve is arranged, a screw passing through the body of the fork and through the sleeve and having its threaded end secured into the body portion of the fork at the lower end of the slot, an axle mounted in the outer ends of the fork, a wheel mounted upon the axle and arranged within the fork, a crank secured to each end of the axle, a casting loosely secured to the outer ends of said crank, a transverse pivot rod mounted in the body plate, links having one of their ends pivotally mounted upon said rod and arranged upon opposite sides of the body plate, and links having one of their ends pivotally connected to the other ends of the levers, and their other ends formed integral with the castings.

4. In a device of the character described, the combination of a frame comprising a body plate, a sleeve formed integral with said body plate and extending outwardly at one end thereof, a fork comprising a body portion having a slot formed therein, in which said sleeve is arranged, a screw passing through the body portion of the fork and through the sleeve and having its threaded end screwed into the body portion of the fork at the lower end of the slot to pivotally secure the fork to one end of the frame, a figure comprising a body having spaced ears formed thereon at diametrically opposite points and arranged in pairs at both ends of the body, said ears being disposed upon each side of the body plate, and rivets passing through the slots and through the body plate to rigidly secure the body of the figure upon the frame.



1,042,295. FILTERING APPARATUS. LAMARTINE C. TRENT, Los Angeles, Cal. Filed Nov. 15, 1910. Serial No. 592,428. (Cl. 210—14.)



1. A filter for the described purpose, the same comprising a central hollow shaft, a plurality of alined filtering disks mounted thereon each composed of a series of hollow perforated radially extended arms communicating with the interior of the central shaft and united by an outer rim, incased with filtering cloth, and means for inducing a reverse circulation of the liquid being treated, including an apertured casing overlying the shaft and movable therewith.

2. A filter for the described purpose, the same comprising a central hollow shaft and a plurality of alined filtering disks mounted thereon, each consisting of a spider formed of a series of hollow perforated arms radially extended from the central shaft and in communication with the interior thereof, an outer rim uniting the said arms, a filtering covering incasing the spider frame of each disk, and a perforated casing surrounding the hollow shaft and spaced therefrom, the casing being supported upon the radial arms.

3. A filter for the described purpose, the same comprising a central hollow shaft and a plurality of alined filtering disks, each consisting of a spider formed of a plurality of hollow perforated arms radially extended from the central shaft and in communication with the interior thereof, an outer arm uniting the radial arms, a plurality of segmental shaped solid disk members of porous material one for each face between the radial arms and a filtering covering common to all of said sheets and incasing the spider frame.

4. A filter for the described purpose, the same comprising a central hollow shaft, a plurality of alined spiders mounted thereon each formed of a series of hollow perforated arms radially extended from said central shaft and communicating with the interior thereof, a porous corrugated segmental shaped filling held in the space between each of said arms, and a filtering covering incasing each of the said spider frames.

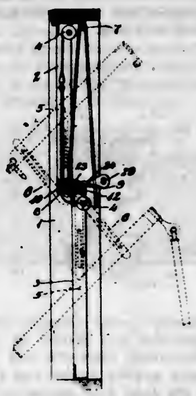
5. A filter for the described purpose, the same comprising a central hollow shaft, a surrounding casing upon the shaft and separated from the latter so as to form an intervening space substantially from end to end of the shaft, and said casing having openings therein substantially throughout its length arranged in annular series, and a plurality of alined filter disks mounted on the shaft and independently communicating with the interior of the shaft, said disks including a series of hollow perforated arms radially extended from said shaft and secured to the latter and passing through the surrounding casing whereby to constitute supports for the latter, and a porous covering for said disks.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,296. WINDOW-LOCK. HENRY G. VOIGHT, New Britain, Conn. Filed Feb. 23, 1912. Serial No. 679,309. (Cl. 16—28.)

1. A locking device for window sashes comprising a latch member carried by and projecting from one sash to overlap a coöperating sash, a detent carried by a coöperating sash positioned thereon for automatic locking engagement with said latch member, and means movable in one direction to retract said detent from locking position and in another direction to move one of said sashes relative to the other.



2. A locking device for window sashes comprising a latch member carried by and projecting from one sash to overlap a coöperating sash, a spring pressed detent carried by said coöperating sash and positioned thereon for automatic locking engagement with said latch member, and means adapted to be actuated to retract said detent from locking position.

3. A locking device for window sashes comprising a latch member carried by and projecting from one sash to overlap a coöperating sash, a spring pressed detent carried by said coöperating sash and positioned thereon for automatic interlocking engagement with said latch member, and means adapted upon preliminary movement in one direction to retract said detent from locking position and upon further movement in another direction to effect relative movement of said sashes.

4. A locking device for window sashes comprising a latch member carried by and projecting from one sash to overlap a coöperating sash and having a locking recess therein, a spring pressed detent carried by said coöperating sash positioned thereon for automatic interlocking engagement with said recess, an abutment on said detent and a pivoted actuating lever formed and positioned to engage said abutment to retract said detent from locking position.

5. A locking device for window sashes comprising a latch member carried by and projecting from one sash to overlap a coöperating sash and having a recess formed therein, a bed plate mounted upon said coöperating sash and recessed to receive said latch member, a spring pressed detent carried by said plate and adapted for automatic locking engagement with said latch recess, an abutment formed on said detent and a pivoted actuating lever positioned to coöperate with said abutment to retract said detent from locking position.

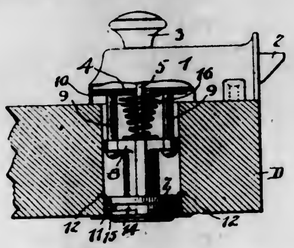
[Claims 6 to 9 not printed in the Gazette.]

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1,042,297. COMBINED SELF-ADJUSTING NIGHT-LATCH AND LOCK. HENRY G. VOIGHT, New Britain, Conn. Filed Apr. 27, 1912. Serial No. 693,645. (Cl. 70—46.)

1. In a mechanism of the character described, a night latch, a key-controlled lock carried by the back of said night latch coöperating therewith and movable toward and from the same, guiding means, and a keeper independent of the night latch and arranged to be carried by the door, with means for interlocking said lock with said keeper when the former is in its proper position.

2. In a mechanism of the character described, a night latch, a key-controlled lock carried by the back of said night latch coöperating therewith and movable toward and from the same, guiding means, and a keeper arranged to be carried by the door, with means for interlocking said lock with said keeper when the former is in its proper position, said interlocking means being operable by a rotary movement of said lock.



3. In a mechanism of the character described, a night latch, a key-controlled lock carried by the back of said night latch coöperating therewith and movable toward and from the same, guiding means, and a keeper arranged to be carried by the door, with means for interlocking said lock with said keeper when the former is in its proper position, said interlocking means being operable by a partial rotation of said lock.

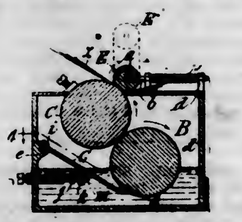
4. In a mechanism of the character described, a night latch, a lock, guiding means operatively connecting said lock with the back of said latch and permitting said lock to slide thereon toward and from said night latch, operative means of connection between the night latch mechanism and said lock, a keeper arranged to be secured to the door, and means for interlocking said lock mechanism with said keeper when said lock stands in its proper position relatively to the door, said night latch mechanism still being movable toward and from the door independently of any movement of the lock mechanism to enable said mechanism to be applied to doors of different thicknesses.

5. In a mechanism of the character described, a night latch, a key-controlled lock carried by the back of said night latch coöperating therewith and movable toward and from the same, guiding means, a keeper arranged to be carried by the door, with means for interlocking said lock with said keeper when the former is in its proper position, and yielding means for moving said lock outwardly on said guide.

[Claims 6 to 11 not printed in the Gazette.]

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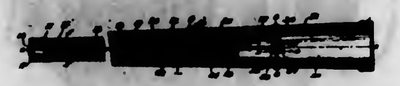
1,042,298. GUMMING-MACHINE. ALBERT P. WARD and IRVING S. RUSSELL, Springfield, Mass. Filed May 12, 1911. Serial No. 626,763. (Cl. 91—50.)



In a gumming mechanism, in combination, a gum box provided with a rotatable gum delivering roll, and said box having journal brackets at an upper portion thereof, a rod like part having an intermediate portion thereof constituting a member journaled for a rocking movement in said journal brackets, having one extremity thereof extending at right angles to said journaled member and in a plane parallel with the axis of the gum delivering roll and having a pressure roll journaled thereon, said journaled member having a return bent opposite extremity terminating in a handle member whereby the pressure roll is normally swung to a position away from the periphery of the gum delivering roll.

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1,042,299. POOL AND BILLIARD CUE. BENJAMIN T. WEIDMAN, Ellsworth, Kans. Filed Feb. 17, 1912. Serial No. 678,186. (Cl. 46—91.)



1. In a device of the class described, the combination with a cue body, of a plunger slidably mounted therein, a tip secured to the said plunger and movable therewith to extend beyond the forward end of the cue body, and a spring engaged rack and pinion mechanism mounted in the said cue body and connected with the said plunger for moving the said plunger inwardly in the said cue body and then releasing the same to move outwardly so that the said tip will extend beyond the forward end of the cue body.

2. In a device of the class described, the combination with a cue body, of a plunger slidably mounted in the cue body, and a spring engaged rack and pinion mechanism mounted in the said cue body and connected to the said plunger for moving the said plunger inwardly in the said cue body and then releasing the same.

3. In a device of the class described, the combination with a cue body, of a plunger mounted to slide therein, a tip on the said plunger and movable therewith to extend beyond the forward end of the cue body, and spring engaged means for moving the said plunger rearwardly in the said cue body and then releasing the same.

4. In a device of the class described, the combination with a cue body, of a plunger mounted to slide in the forward end thereof, a rod extending rearwardly from the said plunger, a plate secured to the rear end of the said rod, an expansible spring mounted in the said cue body and engaging the said plate to move the said rod forwardly in the cue body, a second rod connected to the said plate and extending rearwardly in the cue body, an operating knob and means connecting said operating knob with said second mentioned rod for operating the said plunger when the said knob is operated.

5. In a device of the class described the combination with a cue body, of a plunger slidably mounted therein, a tip secured to the said plunger and movable therewith to extend beyond the front end of the cue body, an actuating knob and rack and pinion means connecting said plunger with said actuating knob for moving said plunger relatively to said cue body when said actuating knob is operated.

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1,042,300. METHOD OF MAKING CUP-SHAPED ARTICLES. FRITZ WEISS, Pforzheim, Germany. Filed Jan. 16, 1912. Serial No. 671,519. (Cl. 29—148.)



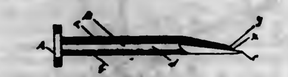
1. The herein described method of making cup-shaped articles, consisting first, in subjecting the edges of the material to a drawing operation, whereby the surplus material resulting from the drawing operation, will be carried to and beyond the edge to form a lip and second, in subjecting the lip to a grinding operation to remove it.

2. The method of making cup-shaped articles, consisting first, in suitably supporting a cup-shaped article in a die, and subjecting the walls of the material in the vicinity of the edge, to a drawing operation, performed in a direction to bend the edge and to accumulate the material thereat and beyond the corner thereof, and to form a projection thereabeyond, and second, in grinding the edge at the bend by a surface grinding operation across the edge to remove the surplus metal; substantially as described.

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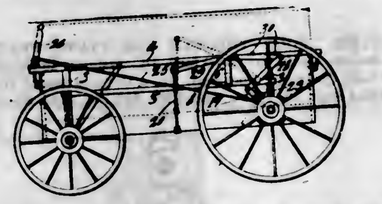
1,042,301. WIRE TACK. JAMES ALFRED WELCH, Taunton, Mass. Filed May 31, 1910. Serial No. 564,220. (Cl. 85—30.)



As an article of manufacture, a tack made from round wire, said wire being sheared to a point in a single plane surface diagonal to its axis, said plane surface having longitudinal projections and a longitudinal channel, therein, as and for the purpose described.

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1,042,302. DUMPING-WAGON. ROBERT MARSHALL WHITE, Portsmouth, Ohio, assignor of one-half to Earl T. Adams, Portsmouth, Ohio. Filed May 31, 1911, Serial No. 630,506. Renewed Mar. 1, 1912. Serial No. 680,812. (Cl. 21—20.)



1. A dump wagon including a wheel supported frame, body sections pivotally supported therein and normally closed together, means operated by one of the wheels, when rotating, for swinging one of said sections to open position, and coöperating means for automatically releasing said section from its operating wheel when opened to a predetermined point.

2. A dump wagon including a wheel supported structure, oppositely disposed body sections pivotally supported within said structure and normally held together by gravity, means operated by one of the supporting wheels for swinging one of said body sections upwardly to open position during the forward movement of the wagon, and means for automatically uncoupling said section from the wheel when the section is opened to a predetermined point.

3. A dump wagon including a wheel supported structure, oppositely disposed body sections pivotally mounted within the structure and normally held together by gravity in closed position, a clutch member revoluble with one of the supporting wheels, a clutch member normally spaced therefrom, means for shifting said spaced clutch member into engagement with the other clutch member, and means operated by the shiftable clutch member during the rotation thereof for elevating one of the body sections to open position.

4. A dump wagon including a wheel supported structure, oppositely disposed body sections pivotally mounted within the structure and normally held together by gravity in closed position, a clutch member revoluble with one of the supporting wheels, a loose clutch member adjacent thereto, means for shifting said loose member into engagement with the other clutch member, means operated by the rotation of the loose clutch member for swinging one of the body sections upwardly to open position, and means for automatically disengaging the clutch members during the rotation thereof to release the opened body section.

5. A dump wagon including a wheel supported structure, oppositely disposed body sections pivotally mounted within said structure and normally held together by gravity in closed position, a clutch member revoluble with one of the supporting wheels, a loose clutch member adjacent thereto, means under the control of the operator for shifting the loose clutch member into engagement with the other member, a spreading device carried by said loose clutch member, and means for automatically shifting said spreading device to disengage the clutch members when the body section is raised to a predetermined position.

[Claim 6 not printed in the Gazette.]

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1,042,303. SAFETY AUTOMOBILE-CRANK. CURLES T. WILLIAMS, Trenton, N. J. Filed June 27, 1911. Serial No. 635,671. (Cl. 123—185.)



1. In a safety automobile crank, the combination of a shaft adapted to be connected to an engine, a hand crank for rotating the same, having a hub journaled on said shaft, a plug mounted in said hub, and adapted to engage a shoulder on said shaft, a lever adapted to be swung over said plug and to hold the latter in locked position, a finger yieldingly mounted on said lever, and a relatively stationary shoulder adapted to hold said finger and to swing said lever from over said plug.

2. In a safety automobile crank, the combination of a shaft adapted to be connected to an engine, a hand crank having a hub journaled on said shaft, a plug mounted in said hub adapted to engage a shoulder on said shaft, a spring tending to retract said plug, a lever adapted in one position to stand over said plug and hold the latter in locked position, a finger pivoted to said lever and yieldable when said crank is moved in normal cranking direction, and a relatively stationary shoulder against which said finger is adapted to catch during backward movement of said crank.

3. In a safety automobile crank, the combination of a shaft adapted to be connected to an engine, a hand crank having a hub journaled on said shaft, a plug mounted on said hub and adapted to engage a shoulder on said shaft, a spring for retracting said plug, a lever adapted to swing over said plug and hold it in locked position, a finger pivoted to said lever and yieldable in a direction away from normal cranking movement, and a ratchet disk having teeth adapted to engage said finger and beveled in normal cranking direction.

4. In a safety automobile crank, the combination of a shaft adapted to be connected to an engine, a hand crank having a hub journaled on said shaft, a spring for retracting said plug, a lever adapted to swing over said plug and hold it in locked position, the end of

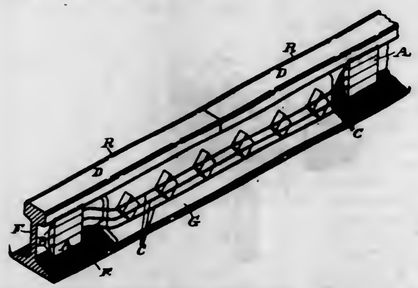
said plug being rounded and a depression being formed in said lever to fit said rounded end, a finger pivoted to said lever and yieldable in a direction away from normal cranking movement, and a ratchet disk having teeth adapted to engage said finger, and beveled in normal cranking direction.

5. In a safety automobile crank, the combination of a shaft adapted to be connected to an engine, a hand crank having a hub journaled on said shaft, a plug mounted on said hub and adapted to engage a shoulder on said shaft, a spring for retracting said plug, a lever adapted to swing over said plug and hold it in locked position, a finger pivoted to said lever and yieldable in a direction away from normal cranking movement, a ratchet disk having teeth adapted to engage said finger and beveled in normal cranking direction, and means for preventing the rotation of said ratchet disk.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,304. **ELECTRICAL BONDING DEVICE.** HIRAM C. WILLIAMS, Utica, N. Y., assignor of one-third to Francis B. Harrington, Albany, N. Y., and one-third to Stephen R. Payne, Syracuse, N. Y. Filed Jan. 20, 1910, Serial No. 539,056. Renewed Sept. 18, 1912. Serial No. 721,100. (Cl. 173—277.)



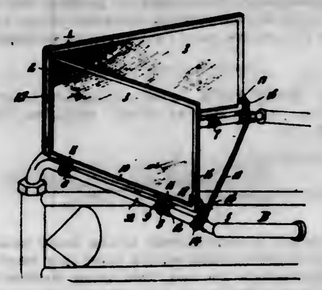

1. A means for bonding electrically two conducting agents, comprising retaining plates provided with openings therein adapted to receive wire conducting agents; one of said retaining plates placed in contact with each of said conducting agents; wires extending from one retaining plate to the other and placed in said openings in each of said plates, said plates adapted to be forced into contact with one surface only of said conducting agents, whereby said openings are closed and the retaining plates brought into close contact therewith but prevented from passing through the conducting agents respectively.

2. The combination of a railway rail with a retaining plate adapted to be placed between the head and the foot of the rail adjacent to the web, said retaining plate provided with openings adapted to receive a wire; one or more wires placed into said openings in said retaining plate; said plate adapted to be forced into close contact with the head and foot of said rail, thereby closing said openings and causing the plate to bite into the head and foot of the rail.

3. An electric bond comprising two concavo convex retaining plates; openings along the convex surface; wires placed in said openings respectively; adjacent rails, one of said plates placed between the head and the foot of each rail; the convex surfaces adapted to be forced toward the web of the rail until what was before the convex surface becomes flat and the concave surface becomes convex.

4. An electrical bond comprising retaining plates adapted to be placed between the head and the foot and adjacent to the web of adjoining rails, and containing openings therein for one or more wires; said plates adapted to be caused to bite into the head and foot of the rail, closing said openings and holding said plates in position, substantially as described.

1,042,305. **WIND-SHIELD FOR VEHICLES.** CHAUNCEY M. WRIGHT, Philadelphia, Pa. Filed Apr. 16, 1912. Serial No. 691,097. (Cl. 296—150.)

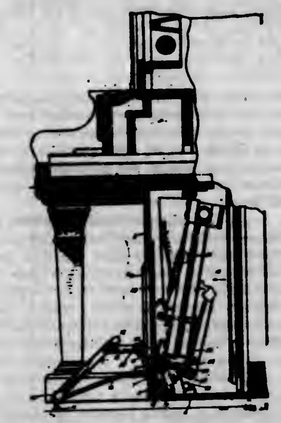


1. A wind shield comprising a shield member, in combination with the handle bars of a vehicle, clamps secured to the handle bars, bolts carried by the clamps, portions on the shield member slidably receiving the bolts, and springs interposed between said portions and the clamps.

2. A wind shield for bicycles comprising foldable frames, and means for securing the frames to the handle bars, and a shield carried by one of the frames and extending across the joint between the frames.

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1,042,306. **FOOT-TREADLE FOR PIANO-PLAYERS.** ALFRED ANDERSON, Rockford, Ill., assignor to Schumann Piano Company, Rockford, Ill., a Corporation of Illinois. Filed Sept. 30, 1911. Serial No. 652,187. (Cl. 84—169.)



1. A piano case formed with a front having a central opening, a hinged leaf for the lower portion of the opening and a sliding closure for the upper portion of the opening, said closure being adapted to rest upon and be supported by said leaf.

2. A piano case formed with a front wall having a central opening, a hinged leaf pivotally mounted at the lower edge of such opening and adapted to partially close the same, and a sliding closure for the upper portion of said opening, said closure lying in the same plane with said leaf when in closed position and having its lower edge resting upon the upper edge of said leaf, whereby said closure is supported.

3. The combination with a piano case having an opening in the front wall thereof, of a hinged leaf pivotally mounted at the lower edge of said opening and adapted to partially close the same, a spring arranged to urge the leaf toward closing position, a treadle pivotally mounted in said case and adapted to be swung through said opening into operative position and means serving, when said treadle is swung to its inoperative position in the case, to turn said hinged leaf upon its pivot against the tension of said spring.

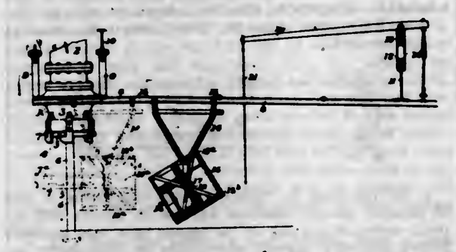
4. The combination of a piano case, a support, an arm pivotally connected with the case, a rod connected with the support and adjustably connected with the arm, a treadle pivotally connected with the support, a bellows, and a link between the bellows and treadle.

5. The combination with a piano case having an opening in the front wall thereof, of a treadle mechanism pivotally mounted within the casing and adapted to be swung outwardly through said opening into operative position, a hinged leaf pivoted to the lower edge of said opening and adapted to partially close the same, a spring serving, when the treadle mechanism is swung outwardly, to turn the said leaf on its pivots and move it to closing position, and a sliding closure for said opening adapted, when the treadle mechanism is in its operative position, to rest upon the upper edge of said leaf, said leaf having a portion projecting into the path of the treadle mechanism and adapted to be engaged and moved thereby when such mechanism is swung to its inoperative position in the casing.



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1,042,307. **APPARATUS FOR HANDLING CLAY PIPES.** EDWIN BARR, Akron, Ohio. Filed Mar. 13, 1908. Serial No. 420,884. (Cl. 25—40.)



1. An apparatus for handling clay pipes, comprising an invertible cradle adapted to be moved to and from the pipe forming machine, fixed supports at one end of the cradle for the reception of a socket plate having a pipe thereon, said cradle and support being arranged to be moved in a lateral direction over the socket plate, and fixed guides at the other end of the cradle for receiving and holding a laterally sliding bat-board in position to support the pipe when the cradle is turned; substantially as described.

2. An apparatus for handling clay pipes, comprising an invertible cradle adapted to be moved to and from the pipe forming machine, fixed supports at one end of the cradle for the reception of a laterally slidable socket plate having a pipe thereon, fixed guides at the other end of the cradle for receiving and holding a laterally slidable bat-board in position to support the pipe when the cradle is turned, and a removable semi-cylindrical support mounted in the cradle between the guides and supports for supporting the pipe when the cradle is being turned; substantially as described.

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1,042,308. **HOBBY-HORSE.** ORVILLE D. BARTOW, Philadelphia, Pa. Filed Sept. 23, 1911. Serial No. 650,371. (Cl. 46—26.)

1. In a traction toy, the combination of a support provided with traction wheels, a figure pivotally mounted on the support, traction gearing for turning the wheels and including a vertically disposed element pivotally connected to the figure, and operating means connected to the support and to the figure and operable by an operator on the figure for the purpose set forth.

2. In a traction toy, the combination of a support provided with traction wheels, a figure pivotally mounted on the support, traction gearing for turning the wheels and including a vertically disposed element pivotally connected to the figure, and operating means connected to the support and pivotally connected to the figure and operable by the feet of an operator on the figure, for the purpose set forth.

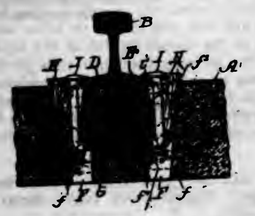


3. In a traction toy, the combination of a support provided with traction wheels, a figure for holding an operator and pivotally mounted on the support, traction gearing for turning the traction wheels and operable by the feet of the operator and including a ratchet wheel rotatably mounted on the support and an element connected to the figure and having a series of pawls adapted for engaging the ratchet wheel.

4. In a traction toy, the combination of a support provided with traction wheels, a figure for holding an operator and pivotally mounted on the support, traction gearing for turning the traction wheels and operable by the feet of the operator and including a ratchet wheel rotatably mounted on the support, and an element pivotally connected to the figure and recessed to receive the ratchet wheel and provided with oppositely disposed pawls for alternately engaging with the ratchet wheel.

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1,042,309. **RAILWAY-TIE FASTENING.** ALBERT J. BATSÉ, Chicago, Ill. Original application filed Aug. 25, 1911, Serial No. 645,896. Divided and this application filed Dec. 8, 1911. Serial No. 664,544. (Cl. 238—4.)




1. A railway tie having a seat for the rail and openings on opposite sides of the said seat to receive the rail fastening means, said openings extending entirely through the tie and having the upper portion of the inner side walls inclined downwardly toward and outwardly from the lower portion of the same.

2. A railway tie having a seat for the rail and openings on opposite sides of said seat for the rail fastening means, the lower portion of the section of the tie between said openings being of less width than the upper portion and said upper portion having downwardly and outwardly inclined side walls projecting outwardly beyond the side walls of the lower portion of said section, substantially as described.

3. A railway tie having a seat for the rail and openings on opposite sides thereof for the rail fastening means, an anchor-plate located below said seat and projecting into said openings, and upwardly removable holders detachably engaged with the ends of said anchor plate in said openings and with the flange of the rail, substantially as described.

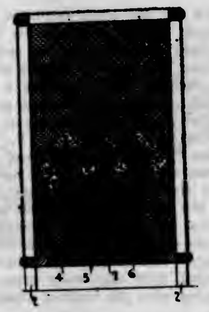
4. A railway tie having a seat for the rail and openings on opposite sides thereof for the rail fastening means, an anchor-plate located below said seat having ribs located in said openings, and upwardly removable holders detachably engaged with said ribs and with the flange of the rail, substantially as described.

5. A railway tie having a seat for the rail and openings on opposite sides thereof for the rail fastening means, an anchor-plate embedded in the tie below said seat and projecting into said openings, the outer walls of said openings being inclined downwardly and inwardly, and the inner walls of said openings being inclined downwardly and outwardly above the anchor-plate, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

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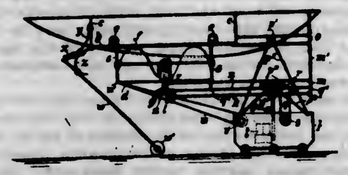
1,042,310. FLY-TRAP. FREDRICK BATCHELOR, Peru, Ind., assignor of three-fourths to Claude Y. Andrews. Filed Jan. 4, 1912. Serial No. 669,516. (Cl. 43—22.)



A fly trap comprising a frame having sides and top of wire netting and a bottom of solid material, said bottom having a central opening, legs supporting the body and bottom above their support, a closure engaging the bottom to close said opening and provided with a central opening, means for guiding flies through said opening in the closure and into the body of the trap, said guiding means comprising a tubular structure of wire netting projecting into the body of the trap and having its lower edge secured in the opening in the closure located in the tubular structure and means for securing the upper ends of the two structures together at a distance apart comprising metal clips having hooks for rigidly engaging the upper edge of the tapering structure, spacing loops, and hooks for removably engaging the upper edge of the tubular structure.

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1,042,311. FLYING-MACHINE. PAUL BEHRENS, Tacoma, Wash. Filed Apr. 24, 1912. Serial No. 692,959. (Cl. 244—25.)

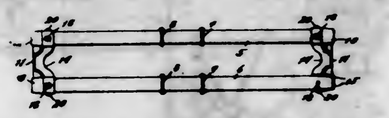


1. An aeroplane comprising in combination, a frame, a supporting surface thereon, bodily shiftable propelling means on said frame, a car shiftable on said frame, means for shifting the position of the car to change the center of mass or tilt the aeroplane, means on the car for bodily shifting the propelling means, a prime mover carried by the car for driving said propelling means, and means maintaining driving connection between said prime mover and propelling means irrespective of the position of the car with respect to said frame, substantially as described.

2. An aeroplane devoid of movable steering vanes comprising in combination, a frame, a combined supporting and steering surface rigidly secured to said frame and of longitudinally channeled formation and having open front and rear ends to afford a free passage of air therethrough on lines parallel with the longitudinal axis of said surface, propelling means bodily shiftable on said frame about a vertical axis intersecting the longitudinal axis of said channeled surface passage, and located entirely within the longitudinal and lateral edges of the channeled passage and between the ends of said passage and disposed at such an elevation within said channeled passage that the stream of wake will pass freely through the open rear end of said passage when said means is in a normal position and impinge against either side of the channeled passage when shifted from a normal position, and mechanism for shifting the said propelling means to a normal position to propel the aeroplane and from a normal position to direct the stream of wake against a side of said surface to steer the aeroplane laterally during propulsion, substantially as described.

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1,042,312. BOLSTER-SPRING. JOHN F. BICKEL, Racine, Wis. Filed June 25, 1909. Serial No. 504,270. (Cl. 21—102.)



1. An end-plate for bolster-springs comprising a pair of parallel tubular members adapted to receive and entirely surround the end of the bolster bars, said members having inwardly tapered outer ends to frictionally engage and compress the bolster bar ends, a web extending between and connecting said members, and a flange on the outer edge of said web at a right angle thereto to strengthen the same and form a broad bearing surface for the bolster stake.

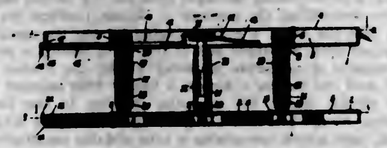
2. An end-plate for bolster-springs comprising a pair of parallel tubular members adapted to receive and entirely surround the ends of the bolster-bars, said members having inwardly tapered outer ends to frictionally engage and compress the bolster bar ends, inwardly projecting flanges on said tapered ends to bear against and protect the bolster bar ends and limit the inward movement of said members, a web extending between and connecting said members, and a flange on the outer edge of said web at a right angle thereto, parallel to but within the plane of the ends of said members for strengthening the web and to form a broad bearing surface for the bolster stake.

3. An end-plate for bolster-springs comprising a pair of parallel tubular members having inwardly tapered outer ends, said members adapted to be driven over the ends of parallel bolster bars to surround, compress and protect the same, inturned flanges on the outer ends of said members to limit the distance to which said members may be driven on the bars, and a connecting web between said members having a flange on its outer edge to form a broad bearing surface for the bolster stake, said members having suitable openings therethrough for the passage of fastening means into the bolster-bars.

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1,042,313. LOOSE-LEAF BINDER. JOHN T. BARNE and EDWARD NEDDENRIEP, Topeka, Kans. Filed Jan. 10, 1912. Serial No. 671,068. (Cl. 129—13.)

1. In a loose leaf binder, a front plate, a back plate, said back plate being formed as a housing, a plurality of impaling posts rigidly connected to said front plate, each of said impaling posts extending into said back plate, and the posts extending into said back plate being formed with grip-engaging means, gripe arranged in said back formed into a plurality of parts, and a reciprocating cam member engaging the parts of each of said gripe for causing the same to engage the gripping engaging means of said impaling posts.



2. In a loose leaf binder, a pair of binding plates one of which is formed as a housing, a plurality of impaling posts, each of said impaling posts being formed with a gripping portion extending into the binding plate formed as a housing, a divided gripping member formed with inclined sides for each of said impaling posts, and a manually-operated reciprocating bar formed with apertures having inclined sides co-acting with the inclined sides of said gripping members whereby when said bar is moved in one direction, said gripping members will engage said impaling posts and lock said binding plates together, and when moved in the opposite direction said gripping members will be released from said impaling posts.

3. In a loose leaf binder, a pair of binding plates formed as housings, a plurality of extensible impaling posts rigidly connected at one end with one of said plates, means mounted in said last mentioned plate for locking the plates against extension, a divided nut engaging the opposite end of said posts to that arranged in said last mentioned plate, and a locking plate carried in the second binding plate and formed with bevel walls and a projection for clamping the parts of said nuts to said posts when in one position, and for spreading said nuts when in another position, whereby said posts may be clamped and released at will by a proper movement of said locking plate.

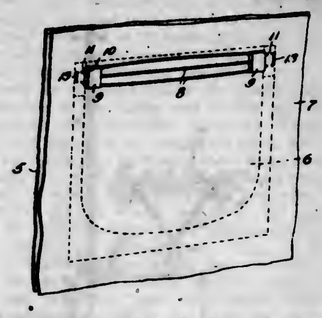
4. In a loose leaf binder, a front binding plate, a back binding plate, a plurality of telescoping impaling posts connected with said binding plates, the ends of said posts positioned in said back plate being threaded, a dividing nut formed with tapering sides engaging the threaded end of each of said posts, and a reciprocating locking plate formed with apertures therein having tapering sides engaging the tapering sides of said nuts for forcing the nuts against the threaded ends of said posts, and also formed with a wedge-shaped projection extending between the parts of said nuts for separating the parts of said nuts when the locking plate is moved to its unlocking position whereby said back plate will be disconnected from said posts.

5. In a loose leaf binder, a front plate, a back plate, a plurality of posts secured to said front plate, and threaded at their ends opposite said front plate, an auxiliary post threaded on to each of said first mentioned posts for lengthening the same, each of said auxiliary posts being formed with a threaded end extending into said back plate, a divided nut engaging the threaded ends of said auxiliary posts projecting into said back plate, and a locking plate operatively connected with said nuts for causing the same to engage and disengage the threaded ends of said auxiliary posts according to the position of the locking plate for connecting and disconnecting said back plate.

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1,042,314. SAFETY DEVICE FOR POCKETS. HARRY O. BUICE, Gates, N. Y. Filed Mar. 27, 1912. Serial No. 686,520. (Cl. 2—151.)

A safety device of the character described, comprising a plurality of resilient bars, end caps securely mounted upon the extremities of the said bars and having apertures therein, a pair of staple-like fasteners adapted for engagement with a garment and for engagement in the apertures in the said caps whereby the said device may be



detachably secured to such garment for sustaining a pocket therein closed.

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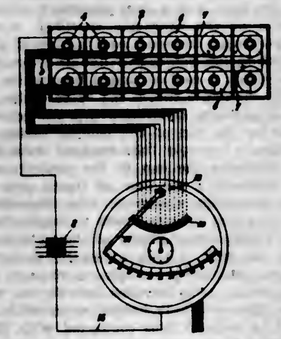
1,042,315. PROCESS OF RECOVERING ZINC FROM GALVANIZED-IRON ARTICLES. EDUARD BROMMER, St. Petersburg, Russia, and RUDOLF STEINAU, Nuremberg, Germany. Filed May 31, 1912. Serial No. 700,815. (Cl. 75—18.)

1. The process herein described of recovering zinc from galvanized iron articles, which consists in treating said articles in the presence of an excess of water with a mixture of alkali bisulfate and alkali chlorid in quantities equivalent to the zinc to be recovered.

2. The process herein described of recovering zinc from galvanized iron articles, which consists in treating said articles in the presence of an excess of water with a mixture of alkali bisulfate and a chlorid of a metal whose hydroxid has an alkaline reaction.

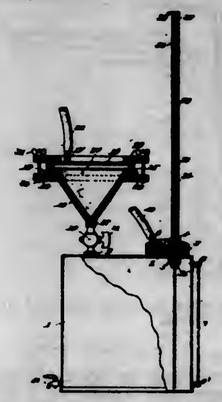
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1,042,316. SPEED-INDICATOR. FORREST LEE CANTRALL, Ivy, Cal. Filed Jan. 27, 1911. Serial No. 603,873. (Cl. 73—123.)



A speed indicator for a mechanically propelled vehicle comprising a wind shield having a portion formed of a transparent panel and having the remaining portion subdivided into cells or compartments each bearing a number to indicate the speed, electric lamps arranged within the cells or compartments for illuminating the same and the numbers thereof, a plurality of electric conductors in parallel one for each lamp of the cells or compartments, a circuit closer comprising a movable contact and a series of fixed contacts each in series with a lamp, and a speed indicating mechanism having the movable contact connected therewith, whereby the lamp circuits are successively closed as the speed of the vehicle increases.

1,042,817. SIPHON-FILTER. JULES ARCHER CASE, Salida, Colo. Filed Dec. 26, 1911. Serial No. 667,741. (Cl. 137—68.)



1. A device of the character specified, comprising a tank, a valve casing threaded into the top of the tank, a valve controlling the passage of liquids through the casing into the tank, a conical casing having its small end engaged with the upper end of the valve casing, a conical receptacle of perforate material within the conical casing, a cap inclosing the top of the conical casing, said cap having a nipple, a supply tube engaged with the nipple, means for clamping the cap to the conical casing, and means for controlling the flow of liquid into the tank, said means comprising a metallic tube threaded into the top of the tank and provided with a longitudinal slot, a glass tube slidable longitudinally of the metallic tube into and out of the tank, a plug of elastic material in the metallic tube and having an opening through which the glass tube passes, a plug threaded into the top of the slotted metallic tube, said tank having an opening in the top thereof, an exhaust tube connected with the opening and adapted to be engaged by a pump to start the flow of liquid into the tank, and a gage connected with the tank.

2. A device of the character specified, comprising a tank, a valve casing threaded into the top of the tank, a valve controlling the passage of liquids through the casing into the tank, a conical casing having its small end engaged with the upper end of the valve casing, a conical receptacle of perforate material within the conical casing, a cap inclosing the top of the conical casing, said cap having a nipple, a supply tube engaged with the nipple, means for clamping the cap to the conical casing, and means for controlling the flow of liquid into the tank, said means comprising a metallic tube threaded into the top of the tank and provided with a longitudinal slot, a glass tube slidable longitudinally of the metallic tube into and out of the tank, a plug of elastic material in the metallic tube and having an opening through which the glass tube passes, a plug threaded into the top of the slotted metallic tube, said tank having an opening in the top thereof, and an exhaust tube connected with the opening and adapted to be engaged by a pump to start the flow of liquid into the tank.

3. A device of the character specified, comprising a tank, a valve casing threaded into the top of the tank, a valve controlling the passage of liquids through the casing into the tank, a conical casing having its small end engaged with the upper end of the valve casing, a conical receptacle of perforate material within the conical casing, a cap inclosing the top of the conical casing, said cap having a nipple, a supply tube engaged with the nipple, means for clamping the cap to the conical casing, and means for controlling the flow of liquid into the tank, said means comprising a metallic tube threaded into the top of the tank, and provided with a longitudinal slot, a glass tube slidable longitudinally of the metallic tube into and out of the tank, a plug of elastic material in the metallic tube and having an opening through which the glass tube passes, a plug threaded into the top of the slotted metallic tube, means for partially exhausting the air from the tank, and a gage for indicating the depth of liquid in the tank.

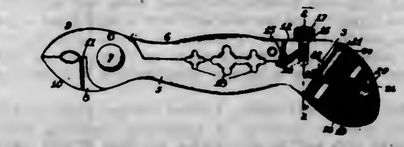
4. A device of the character specified, comprising a tank, a valve casing threaded into the top of the tank, a valve controlling the passage of liquids through the casing into the tank, a conical casing having its small end engaged with the upper end of the valve casing, a conical receptacle of perforate material within the conical casing, said cap having a nipple, a supply tube engaged with the nipple, means for clamping the cap to the conical casing, means for controlling the flow of liquid into the tank, said means comprising a tube slidable longitudinally through the top of the tank, means for holding the said tube in adjusted position, means for closing the top of the tube, and means for permitting a partial exhausting of air from the tank.

5. A device of the character specified, comprising a tank, a filter having a discharge into the tank at its upper end, a closed casing for the filter, a valve controlling the discharge, a supply tube opening into the casing of the filter, and means for controlling the flow of liquid into the tank, said means comprising a tube slidable longitudinally through the top of the tank, means for holding the said tube in adjusted position, means for closing the top of the tube, and means for permitting a partial exhausting of the air from the tank.

[Claim 6 not printed in the Gazette.]

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1,042,818. COMBINATION-TOOL. JOHN W. CHAMBERLAIN, Bismarck, N. D. Filed July 22, 1911. Serial No. 639,949. (Cl. 7—7.)



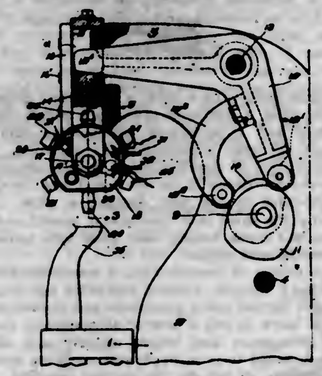
In a device of the character described, the combination with a handle member provided with a stationary jaw and a grooved shoulder; of a jaw member having a ribbed portion slidingly fitted in said grooved shoulder, a shaft having a worm wheel mounted thereon extending transversely of said sliding jaw, and worms extending through said sliding jaw at right angles to said shaft and on opposite sides thereof.

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1,042,819. SHOE-BRANDING MACHINE. EDWIN N. CHANDLER, Brockton, Mass., assignor to Simplex Electric Heating Company, Boston, Mass., a Corporation of Massachusetts. Filed Mar. 16, 1910. Serial No. 549,812. (Cl. 101—24.)

1. A shoe branding machine, comprising a head in the form of a relatively thin block with parallel sides mounted for rotatable adjustment, a plurality of radial branding tools carried thereby in sockets extending close to the parallel sides of said block and adapted to be selectively brought into operative position, electric resistance heating means in the form of plates mounted to lie against the flat sides of said head to heat the same and also the tools carried in the sockets thereof, said plates being supported on the axle of the rotatable head, and means to prevent rotation of said plates with the head.

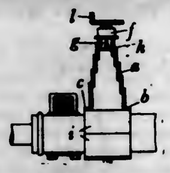
2. A shoe branding machine, comprising a carrier, a head in the form of a relatively thin block with flat parallel sides mounted for rotatable adjustment thereon, said head having a series of radial sockets carrying branding tools, and electric resistance means in the form of a plate with a resistance element embedded in insulation therein, arranged to lie against a side of said block, adjacent the socket of a tool in operative position on said head to transmit heat to said tool in operation and means



to prevent relative movement of said electric resistance while permitting rotary adjustment of the head.

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1,042,820. SHOCK-ABSORBER FOR ROAD-VEHICLES. ARTHUR WILLIAM CHAPMAN, Birmingham, England. Filed Apr. 10, 1912. Serial No. 689,764. (Cl. 21—105.)



1. In shock absorbers for road vehicles, the combination comprising a volute spring, an attachment plate at one end of the spring, a head inserted in the other end of the spring, the portion within the spring being divided, and means for expanding said divided portion for securing the head within the spring, substantially as described.

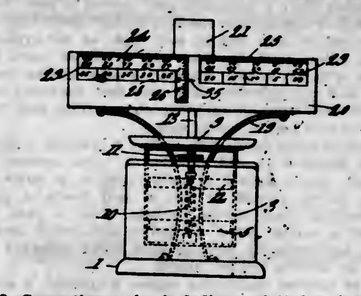
2. In shock absorbers for road vehicles, the combination comprising a volute spring having one end splayed out, an attachment plate formed with an aperture adapted to engage said splayed-out portion, a head inserted in the other end of the spring, the portion within the spring being divided, and a screw for expanding said divided portion and securing the head within the spring, substantially as described.

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1,042,821. COMPUTING-SCALE. CALVIN F. CHRISTOPHER, Asheville, N. C. Filed Jan. 15, 1912. Serial No. 671,282. (Cl. 73—104.)

1. Computing scales including a casing having slots one of which has a downward extension, adjustable bearing members mounted within the end portions of the casing, a shaft mounted at its ends within said bearing members, caps engaging the ends of the casing for concealing the bearing members, spaced cylinders carried by the shaft and having numerals thereon indicating the prices of one or more pounds at different prices per pound, one of said cylinders having diametrically opposed series of pound designating numerals, the numerals of one series being visible successively within the slot extension, there being an opening in the casing at a point diametrically opposite said extension and in which the numerals of the other series are successively exposed, a yieldingly supported pan, and means for transmitting motion from said pan to the shaft.

2. Computing scales including a casing having aligning spaced slots one of which has a downward extension, there being numerals adjacent the slots for indicating different prices per pound, an index extending into each slot from a point adjacent each numeral, adjustable bearing members mounted within the end portions of the casing, a shaft mounted at its ends within said bearing members, spaced cylinders carried by the shaft and having numerals thereon indicating the prices of one or more pounds at the different prices per pound designated by the numerals on the casing, one of said cylinders having diametrically opposed series of pound designating numerals, the numerals of one series being visible successively within the slot extension, there being an opening in the casing at a point diametrically opposite the slot extension and in which the numerals of the other series are successively exposed, a gear secured to the shaft and between the cylinders, a rack bar slidably mounted in the casing and meshing with the gear, means for guiding the rack bar, a housing, a yieldingly supported frame thereon, a pan on the frame, a lever pivotally connected to the frame and extending from the housing, there being a pivotal connection between the lever and the rack, and a spring connection between said lever and the rack bar.



3. Computing scales including a slotted casing, a shaft journaled therein, a cylinder on the shaft, a gear secured to the shaft, a rack bar meshing with the gear, means at the lower end of the bar for guiding it during its longitudinal movement, a yieldingly supported pan, a lever operated thereby and pivotally connected to the bar, and a spring connection between said lever and the bar for holding the bar constantly pressed in engagement with the gear.

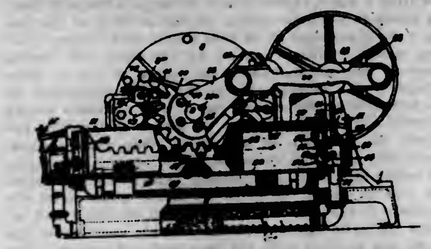
4. Computing scales including a casing having slots, one of which has a downward extension, adjustable bearing members mounted within the end portions of the casing, means mounted for rotation within the casing and engaging the bearing members, said means having numerals movable therewith for indicating the prices of one or more pounds at different prices per pound, and having numerals arranged in diametrically opposed series for designating pounds, the numerals of one of said series being visible successively within the slot extension, there being an opening in the casing at a point diametrically opposite said extension and within which the numerals of the other one of said series are successively exposed, a yieldingly supported pan, means for transmitting motion from said pan to the revoluble means, and caps engaging the ends of the casing for concealing the bearing members.

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1,042,822. INTERNAL-COMBUSTION ENGINE. AARON F. CHUMBUCK, Grand Rapids, Mich. Filed Oct. 26, 1911. Serial No. 656,806. (Cl. 123—18.)

1. In an internal combustion engine, a cylinder, a shaft disposed centrally of said cylinder, heads for said cylinder, a series of hollow rotatable intake valves carried by one of said heads and having communication with the interior of the cylinder, a fuel chamber, pipes adapted to establish communication between said fuel chamber and each of said intake valves, means actuated by the movement of said shaft for supplying an explosive mixture under pressure to said intake valves, said means comprising an air compressor having a piston and a rack, and a gear

secured to said shaft and arranged to operate the rack through the movement of the shaft.



2. In an internal combustion engine, a cylinder, a shaft disposed centrally of said cylinder, a pair of oscillating pistons secured to said shaft, a pair of abutment members within said cylinder, hollow intake valves for admitting an explosive charge into the cylinder, a crank arm secured to said crank shaft, a segmental gear secured to said crank arm, a rack arranged to be operated by said gear, a piston head secured at each end to said rack, an air cylinder for each piston head, an inlet and an outlet valve for each air cylinder, a fuel chamber, a pipe leading from each of said air cylinders into said fuel chamber, and means for delivering an explosive charge from said fuel chamber to said hollow intake valves.

3. In an internal combustion engine, a cylinder, a shaft centrally disposed of said cylinder, a collar secured to said shaft, heads carried by said cylinder, a series of rotatable valves carried by one of said heads, a pair of intermittent gears carried by said collar, a rack for each gear, a ratchet wheel secured to each valve, and a pawl at both ends of each of said racks arranged to operate one of said ratchet wheels.

4. In an internal combustion engine, a cylinder, a shaft centrally disposed of said cylinder, a collar secured to said shaft, heads carried by said cylinder, a series of rotatable valves carried by one of said heads, a pair of intermittent gears carried by said collar, a rack for each gear, a ratchet wheel secured to each valve, a pawl at both ends of each of said racks arranged to operate one of said ratchet wheels, a spark plug carried by each rotatable valve, a conducting contact spring for each spark plug, and means operated by the movement of said shaft for bringing said conductive contact spring into electrical engagement with each of said spark plugs.

5. In an internal combustion engine, a cylinder, a shaft centrally disposed of said cylinder, a collar secured to said shaft, heads carried by said cylinder, a series of rotatable valves carried by one of said heads, a pair of intermittent gears carried by said collar, a rack for each gear, a ratchet wheel secured to each valve, a pawl at both ends of each of said racks arranged to operate one of said ratchet wheels, a spark plug carried by each rotatable valve, a conducting contact spring for each spark plug, means operated by the movement of said shaft for bringing said conductive contact spring into electrical engagement with each of said spark plugs, said means comprising a crank arm secured to said main shaft, a pair of adjustable arms secured to said crank arm, and a pair of rollers carried by each of said adjustable arms, each roller being arranged to engage a contact spring for forcing it into engagement with the spark plug.

[Claims 6 to 9 are not printed in the Gazette.]

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1,042,823. NOZZLE. ALFRED R. CLARKSON, Birmingham, Ala., assignor to Alfred Clarkson, Fall River, Mass. Original application filed June 5, 1906, Serial No. 320,968. Divided and this application filed May 5, 1911. Serial No. 625,333. (Cl. 137—17.)

1. A nozzle comprising a tube, a perforated cap on said tube and a block having an opening therethrough and held between said cap and a partition within the bore of said tube, the bore of said tube on each side of said partition being of substantially the same diameter, and an opening through said partition.



2. A nozzle comprising a tube, a cylindrical glass block within said tube, a partition projecting within the bore of said tube and a perforated cap holding said block against said partition, substantially as described.

3. As an article of manufacture, a nozzle comprising a nipple threaded externally on each end and having an interior shoulder in the bore thereof, a glass tube of substantially the same bore throughout loosely lodged in said nipple and a cap holding said glass tube against the shoulder within said nipple.

4. As an article of manufacture, a nozzle comprising a nipple having a shoulder integral therewith and projecting into the bore thereof and a removable and reversible cylindrical glass block having a bore of substantially the same diameter throughout and lodged against said shoulder and a cap fastened to said nipple and retaining said glass block in position, as and for the purpose specified.

5. A nipple having a chamber, a removable cylindrical block filling said chamber, and means contacting with the end of the nipple and block and retaining the block in position.

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1,042,824. HOLDER FOR TICKET OR CHECK BOOKS. EMMA F. COATES, Chattanooga, Tenn. Filed Dec. 16, 1911. Serial No. 666,175. (Cl. 211—28.)



1. In a device of the character described, a back, means for clamping a pad thereon, said means comprising a pair of upstanding ears, an eccentric member journaled in said ears and arranged to press against said pad when moved to one position, and a locking thumb member designed to engage the pad when the eccentric member is in a locked position, and a presser bar arranged to engage said pad and adapted to permit the tearing of the leaves thereof.

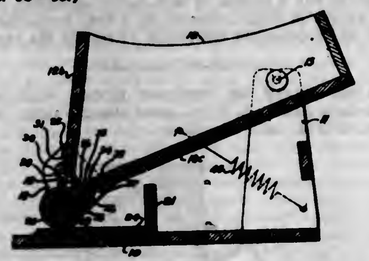
2. In a device of the character described, a back, means for clamping a pad to said back, a presser bar arranged to engage said pad, a rectpresenting slide for supporting said presser bar at any desired point along said back, and means supported by said slide for resiliently pressing said presser bar against said pad, said means last mentioned comprising studs acting as guides for the presser bar and springs carried by the guides.

3. In a device of the character described, a back, means for clamping a pad to said back, a presser bar arranged to engage said pad, a slide engaging said back and supporting said presser bar but permitting said presser bar to move toward and from said back, and studs carried by said slide arranged to guide said presser bar said springs carried by the guiding studs for resiliently pressing the same against said pad.

4. In a device of the character described, a back designed to support a pad, a slide mounted on said back and adapted to move from one end to the other, a pair of upstanding lugs connected to said slide, a presser bar slidably mounted on said upstanding lugs and extending across said pad, and springs surrounding said upstanding lugs and pressing at one end against said presser bar for resiliently pressing the same against said pad, and means connected with said upstanding lugs for engaging the opposite end of said springs to that pressing against said presser bar for holding the springs properly in position.

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1,042,825. PASTING DEVICE. JOHN W. COLLINS, Brooklyn, N. Y. Filed Jan. 7, 1911. Serial No. 601,417. (Cl. 93—68.)



1. In a pasting device, the combination with a paste feeding receptacle, a paste applying pressure roller carried by said receptacle on the outside thereof, said roller bearing upon a layer of sheets and rotated by withdrawing the latter singly for depositing paste upon said roller and applying it upon the withdrawn sheets, of a gate at the bottom of said receptacle adapted to be extended outside thereof, and an adjustable feed gate for graduating the opening between its edge and the face of said first gate for emitting layers of paste of various thicknesses thereupon, the latter being adjustable for graduating the distance between its edge and said roller for depositing layers of paste of various thicknesses upon the periphery of the roller when the latter is rotated.

2. A pasting device, comprising a table, an alinement piece thereon, upright supports at the sides of said table and rearwardly of said alinement piece, an impaling pin set in said table, a guard at the top thereof, an inclined paste receptacle swung from its upper portion, to and between said supports, means of detachably securing said receptacle to said supports, a paste-applying roller connected to the paste receptacle outside of and beyond the paste containing area, and one or more springs adapted to tensionally hold said roller in contact with sheets disposed below the same.

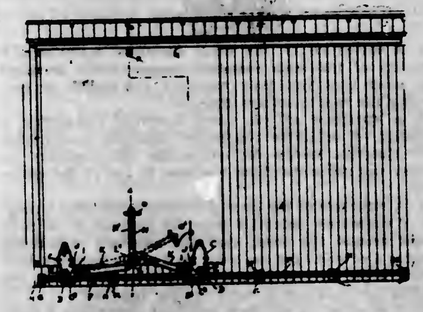
3. In a pasting device, the combination with a paste feeding receptacle, a paste applying pressure roller carried by said receptacle on the outside thereof, said roller bearing upon the sheets to be pasted, of a gate at the bottom of said receptacle adapted to be extended outside thereof, means for graduating the degree of opening in said receptacle for emitting streams of paste of various depths upon said gate, and means for graduating the distance between the edge of the latter and said roller for depositing layers of paste of various thicknesses upon the periphery of said roller when rotated to apply paste upon said sheets.

4. In a pasting device, the combination with a paste feeding receptacle, a paste applying pressure roller carried by said receptacle on the outside thereof, said roller bearing upon the sheets to be pasted, of a gate at the bottom of said receptacle adapted to be extended outside thereof, means for graduating the degree of opening in said receptacle for emitting streams of paste of various depths upon said gate, means for graduating the distance between the edge of the latter and said roller for depositing layers of paste of various thicknesses upon the periphery of said roller when rotated to apply paste upon said sheets, said graduating means being adjusted by finger pieces.

5. In a pasting device, the combination with a paste feeding receptacle, a paste applying pressure roller carried by said receptacle on the outside thereof, said roller bearing upon a layer of sheets and rotated by withdrawing the latter singly for depositing paste upon said roller and applying it upon the withdrawn sheets, an alinement block for the sheets, a pin passing through the sheets, a guard, said guard engaging the end of said pin to maintain the pin against breaking when the sheets are withdrawn.

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1,042,826. SLIDING-DOOR LOCK. HERMAN V. COOKINGHAM, Rensselaer, and GEORGE O. PRICE, Albany, N. Y. Filed May 22, 1912. Serial No. 698,908. (Cl. 16—157.)



1. The combination of a sliding door, a track for said door, hangers fastened to the door and provided with hooks adapted to engage the said track, wheels journaled on the said hangers and mounted to travel on the said track, and manually controlled wedges adapted to be forced between the wheels and the track to firmly engage the hanger hooks with the track.

2. The combination of a sliding door, a track for said door, hangers fastened to the lower end of the door and provided with depending hooks adapted to engage the under side of the said track, wheels journaled on the said hangers and mounted to travel on top of the said track, wedges adapted to pass between the wheels and the track to raise the door and to firmly engage the hanger hooks with the track, and a lever mechanism on the door and connected with the said wedges.

3. The combination of a sliding door, a track for said door, hangers fastened to the lower end of the door and provided with depending hooks adapted to engage the under side of the track, wheels journaled on the said hangers and mounted to travel on top of the said track, wedges adapted to pass between the wheels and the track to raise the door and to firmly engage the hanger hooks with the track, a lever mechanism on the door and having a crank connection with the said wedges to move the same in and out of engagement with the said wheels and track, and keepers on the said door for holding the said lever mechanism in an adjusted position.

4. The combination of a sliding door, a track for the said door, hangers fastened to the lower end of the door and provided with depending hooks adapted to engage the under side of the said track, wheels journaled on the said hangers and mounted to travel on top of the track, wedges adapted to pass between the wheels and the track to raise the door and to firmly engage the hanger hooks with the track, each wedge having an inclined slot, a bolt on the corresponding hanger and extending through the slot of the corresponding edge, a lever having a handle and fulcrumed on the door, and links connecting the ends of said lever with said wedges.

1,042,327. LIFE-SAVING GARMENT FOR AVIATORS. JOSEPH J. COSTANZO, Alexandria, Egypt. Filed Dec. 14, 1910. Serial No. 597,218. (Cl. 244—1.)



1. A structure of the class described comprising a plurality of inflatable chambers concentrically arranged and which constitute body members, and means for connecting the said chambers together.

2. A structure of the class described comprising a plurality of inflatable concentric chambers constituting body members, means for connecting the chambers together, and shock-absorbing cushions in one of the chambers.

3. A structure of the class described comprising a number of concentric inflatable members adapted to be positioned around the body, the said members collectively forming a covering for the body, each of the members comprising a plurality of inflatable chambers, and means for holding the chambers in each member together.

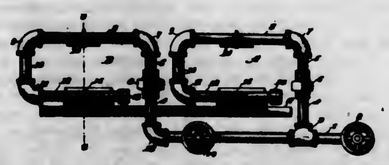
4. A structure of the class described comprising a number of concentrically arranged and inflatable members adapted to collectively inclose the body, each member being made up of a number of separate chambers, each of the chambers being adapted to be inflated, means between the side walls of the chambers for holding them in spaced relation one to the other, cushioning means within one of the members, and means for engagement with the body, whereby all of the members may be retained in position on the body.

5. A structure of the class described comprising a plurality of circularly arranged independent and inflatable chambers, means between the side walls of the chambers for holding the different chambers together, the side wall of one of the chambers forming an inclosure adapted to receive the body, whereby the body is surrounded by a resilient structure, and means for retaining the chambers in position on the body.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,328. HYDROCARBON-OIL BURNER. THOMAS J. CROOK, Wichita, Kans. Filed Feb. 27, 1912. Serial No. 680,178. (Cl. 158—64.)



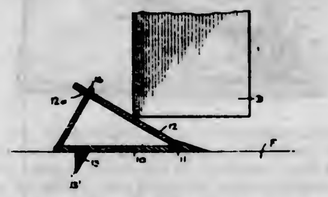
1. In a device of the character described, a burner, a pair of vertical air shafts independent of and spaced from each other and extending upon opposite sides of said burner, and a heat-resisting medium beneath said burner and in the space between said air shafts, whereby recondensation of the fuel is prevented.

2. In a device of the character described, a burner, a pair of vertical air shafts independent of and spaced from each other and extending upon opposite sides of said burner, and a heat-resisting medium beneath said burner and in the space between said air shafts, the said air shafts being at all times opened at the bottom and the space between said air shafts being at all times closed at the bottom.

3. In a device of the character described, the combination of a trough provided with a pair of air shafts independent of each other at each end, a supply pipe beneath said trough, a pair of branch pipes projecting vertically from said supply pipe, one of said branch pipes rising exteriorly of the trough adjacent one of the ends of the latter while the other branch pipe extends through said trough, a U-shaped manifold connected to each branch pipe, each manifold comprising a burner and an overlying retort, each burner being located between a pair of said air shafts and a portion of each burner extending across said air shafts being protected by a heat insulating medium, and independent controlling valves for the burners.

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1,042,329. DOOR OR WINDOW LOCK. VINCENT J. DANIELS, New York, N. Y. Filed May 21, 1912. Serial No. 698,774. (Cl. 16—154.)



The herein described door lock comprising, in combination, a base plate having a spur to secure it in position, a second plate hinged at one end to one end of the base plate, said second plate having a slot through its opposite end, and a short brace member hinged to the opposite end of the base plate having a tongue extending through said slot in the second plate and a shoulder engaging said second plate, whereby the base plate and second plate will be arranged at an acute angle with each other and formed into a substantial wedge adapted to fit between the door and the floor, substantially as set forth.

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1,042,330. WELL-PUMPING APPARATUS. JOHN W. DARLEY, Jr., Baltimore, Md., assignor to Hascal A. Hogel, New York, N. Y. Filed Dec. 21, 1910. Serial No. 598,536. Renewed Mar. 19, 1912. Serial No. 684,815. (Cl. 103—8.)



1. A well pumping apparatus comprising an outer tube, adapted to admit liquid at its lower end, a cap normally



closing the upper end of said tube and provided with liquid delivery and air exhaust ports, respectively, and also with an inlet passage for compressed air, an inner tube projecting downward into said outer tube and connected at its upper end to said air passage in said cap, valves normally closing said air passage and said liquid delivery and air exhaust ports, respectively, and a hand operated cam arrangement controlling said valves, substantially as described.

2. A well pumping apparatus, comprising an outer tube, adapted to admit liquid at its lower end, a cap normally closing the upper end of said tube and provided with liquid delivery and air exhaust ports, respectively, and also with a passage for compressed air, an inner tube projecting downward into said outer tube and connected at its upper end to said air passage in said cap, spring impressed valves normally closing said air passage and said liquid delivery and air exhaust ports, respectively, and a cam plate pivoted in said cap and adapted to open either said air valve alone, or both said air and said liquid valve, or said exhaust valve alone, substantially as described.

3. A well pumping apparatus comprising an outer tube, adapted to admit liquid at its lower end, a cap normally closing the upper end of said tube and provided with liquid delivery and air exhaust ports, respectively, and also with a passage for compressed air, an inner tube projecting downward into said outer tube and connected at its upper end to said air passage in said cap, spring impressed valves normally closing said air passage and said liquid delivery and air exhaust ports, respectively, and a cam plate pivoted in said cap and adapted to open either said air valve alone, or both said air and said liquid valve, or said exhaust valve alone, a handle for turning said cam plate, and a bell crank lever pivoted contiguous to said handle, and having its arms in different planes, whereby said lever arms form successive stops for said handle, substantially as described.

4. A well pumping apparatus, comprising an outer tube, adapted to admit liquid at its lower end, a cap normally closing the upper end of said tube and provided with liquid delivery and air exhaust ports, respectively, and also with a passage for compressed air, an inner tube projecting downward into said outer tube and connected at its upper end to said air passage in said cap, an inverted cone mounted below and spaced from the lower end of said inner tube, valves normally closing said air passage and said liquid delivery and air exhaust ports, respectively, and a hand operated cam arrangement controlling said valves, substantially as described.

5. A well pumping apparatus comprising an outer tube, a perforated inverted conical tip secured to the lower end of said tube, and adapted to admit liquid at its lower end, a cap normally closing the upper end of said tube and provided with liquid delivery and air exhaust ports, respectively, and also with an inlet passage for compressed air, an inner tube projecting downward into said outer tube and connected at its upper end to said air passage in said cap, valves normally closing said air passage and said liquid delivery and air exhaust ports, respectively, and a hand operated cam arrangement controlling said valves, substantially as described.

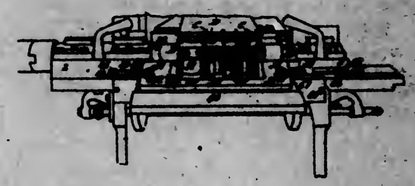
[Claims 6 to 8 not printed in the Gazette.]

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1,042,331. WOODWORKING MACHINERY. JOHN C. DU LANEY, Watertown, Mass. Original application filed Apr. 8, 1912, Serial No. 689,103. Divided and this application filed June 6, 1912. Serial No. 702,117. (Cl. 144—253.)

1. In a wood molding machine, means for holding a molding strip down upon a molding head; a support having a supporting surface, a counterpart of the molded surface of the strip; means for adjusting the support vertically; means to adjust the support horizontally toward or away from the molding head; means for adjusting the support parallel with the axis of the molding head.

2. A table member; a molding support, movably mounted in the table and comprising a block having its top surface a counterpart of that of the molding to be supported; a saw follower next to said block; means for binding them together; means for adjusting them transversely, in relation to the table.



3. A bracket pivoted to a molding machine; a table movably mounted in the bracket; a supporting block and a saw follower movably mounted in the table; means to adjust, in the horizontal plane of the bracket, the table toward or away from the cutter of the molding machine; means for securing the supporting block and saw follower together; means for adjusting vertically, the table in relation to the bracket.

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1,042,332. METHOD OF MANUFACTURING ALCOHOL FROM SULFITE LIQUOR. PER GÖSTA EKSTRÖM, Harnäs, Sweden, assignor to Aktiebolaget Ethyl, Falun, Sweden. Filed Feb. 24, 1912. Serial No. 679,796. (Cl. 195—82.)

1. In the manufacture of alcohol of the sulfite liquor from the sulfite pulp process by fermenting the saccharine matters contained therein, the addition of ammonium sulfate to the liquor, substantially as and for the purpose set forth.

2. In the manufacture of alcohol of the sulfite liquor from the sulfite pulp process by fermenting the saccharine matters contained therein and distilling the fermented liquid, the method of converting sulfurous acid bound in the lye in easily decomposable organic compounds into compounds uninjurious for the fermentation, which consists in adding calcium carbonate and ammonium sulfate to the liquor before fermenting the latter, substantially as and for the purpose set forth.

3. Method of manufacturing alcohol of the sulfite liquor from the sulfite pulp process, which consists in neutralizing the free sulfurous acid of the liquor by adding calciferous matters, adding ammonium sulfate to the lye for decomposing organic compounds therein containing sulfurous acid and for increasing the percentage of nitrogenous compounds in the liquor, and then fermenting the liquor, substantially as and for the purpose set forth.

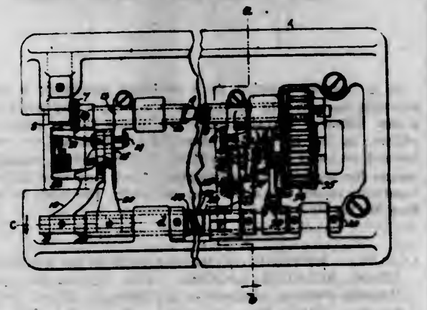
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1,042,333. FEEDING MECHANISM FOR SEWING-MACHINES. JOHN S. FINCH, Bridgeport, Conn., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Mar. 19, 1909. Serial No. 484,401. (Cl. 112—8.)

1. In a feeding mechanism for sewing machines, a loop-taker-actuating shaft, a needle-bar-actuating shaft provided with a feed-eccentric and a feed-lift eccentric, a plurality of feed-dogs separately mounted and independently controlled in their amplitude of feed movements, a plurality of feed rock-shafts having oscillating movements upon the same axis, a feed-lift rock-shaft mounted upon the same axis as said loop-taker-actuating shaft, and connections for connecting said eccentrics with said rock-shafts.

2. In a feeding mechanism for sewing machines, a needle-bar-actuating shaft provided with an adjustably-mounted eccentric, a tubular feed rock-shaft mounted in suitable bearings located beneath the bed-plate of the sewing machine and having pivotally connected to it a feed-dog-carrying bar provided with a feed-dog, a feed rock-shaft mounted in said tubular rock-shaft and having pivotally connected to it a second feed-dog-carrying bar provided with a feed-dog, connections for connecting the

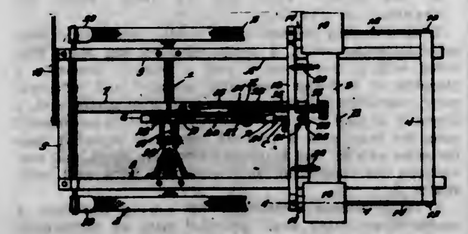
rock-shaft mounted in said tubular rock-shaft with said eccentric including an arm carried by the latter rock-shaft, and a connection directly connected with said adjustably-mounted eccentric, said tubular rock-shaft being actuated through a connection located bodily below said needle-bar-actuating shaft and having its upper end pivoted to the connection directly connected with said adjustably-mounted eccentric, and means including a feed-lift eccentric carried by said needle-bar-actuating shaft for giving to said feed-dogs their vertical movements.



3. In a feeding mechanism for sewing machines, a needle-bar-actuating shaft provided with an adjustably-mounted eccentric, a tubular feed rock-shaft mounted on suitable bearings located beneath the bed-plate of the sewing machine and having pivotally connected to it a feed-dog-carrying bar provided with a feed-dog, a feed rock-shaft mounted in said tubular rock-shaft and having pivotally connected to it a second feed-dog-carrying bar provided with a feed-dog, connections for connecting the rock-shaft mounted in said tubular rock-shaft with said eccentric including an arm carried by the latter rock-shaft, and a connection directly connected with said adjustably-mounted eccentric, said tubular rock-shaft being actuated through a connection located bodily below said needle-bar-actuating shaft and having its upper and pivoted to the connection directly connected with said adjustably-mounted eccentric, the opposite end of the connection located bodily below said needle-bar-actuating shaft being adjustably connected with said tubular rock-shaft for changing the amplitude of feed movement of one of said feed-dogs independently of the other, and means including a feed-lift eccentric carried by said needle-bar-actuating shaft for giving to said feed-dogs their vertical movements.

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1,042,334. CORN-PLANTER. GEORGE B. FLEMING, Yates Center, Kans. Filed Jan. 20, 1912. Serial No. 672,399. (Cl. 111—6.)



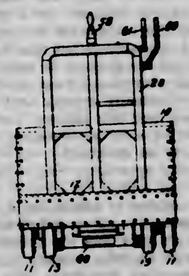
1. In a corn planter of the class described, a main frame, a runner frame pivotally connected therewith, seed boxes upon the runner frame, seed slides arranged in the seed boxes for longitudinal reciprocation therein, said seed slides projecting through the rear walls of the seed boxes, a rod connecting the seed slides and having an eye disposed intermediate its ends, springs actuating the connecting rod in a forward direction, a suitably supported bell crank having one arm extending through the eye of the connecting rod, an endless chain having tappets adapted to engage the other arm of the bell crank, and means for operating the endless chain.

2. In a corn planter of the class described having a revolving axle, seed slides supported for longitudinal reciprocation, a spring actuated rod connecting the seed slides and having an eye intermediate its ends, a suitably supported bell crank having one arm extending through and loosely engaging said eye, an endless chain, sprockets supporting said endless chain, one of said sprockets being mounted on the axle of the machine, a bracket adjustable in the main frame and carrying the other sprocket, tappets pivotally mounted on the links of the chain, and means for sustaining said tappets in engaging and non-engaging position with reference to the other arm of the bell crank which is disposed in the path of said tappets.

3. In a corn planter of the class described, seed dropping mechanism including seed slides mounted for longitudinal reciprocation, a spring actuated rod connecting said slides, and a bell crank having one arm extended in engagement with said connecting rod, in combination with an endless chain and supporting and actuating means for the same, said chain having links of predetermined length, and tappet members associated with said links, said tappet members being provided with projections at right angles to one another, and latch means adapted to engage either of said projections to support the tappet members in engaging or non-engaging position with reference to the other arm of the bell crank, one arm of which engages the connecting rod of the seed slides.

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1,042,335. MOTOR-TRUCK. GEORGE B. FRANCIS and BRONSON H. SMITH, New York, N. Y., assignors to Westinghouse, Church, Kerr & Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 13, 1911. Serial No. 613,970. (Cl. 21—90.)



1. A motor truck having a low hung central load-carrying platform, a front load-carrying platform surmounting a housing for the steering wheels and steering connections, and a rear load-carrying platform surmounting a housing for the driving wheels and power plant, the height of the front platform being intermediate that of the central and rear platforms, and the central platform being provided with depressible platform rollers mounted to turn on axes extending longitudinally of the truck.

2. In a motor truck, the combination with an axle beam, of steering wheels connected to the axle beam by knuckle joints, bearing blocks mounted on the truck frame having front and rear and side bearing faces, pockets formed in the axle beam on the inner side of the knuckle joints to receive said bearing blocks, front, rear and side bearing faces on the axle beam to engage the corresponding faces on the bearing blocks, and supporting springs in the axle beam pockets between the bearing blocks and the axle beam.

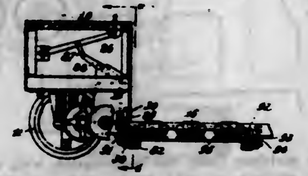
3. In a motor truck, the combination with an axle beam, of steering wheels connected to the axle beam by knuckle joints, bearing blocks mounted on the truck frame, pockets formed in the axle beam on the inner side of the knuckle joints to receive said bearing blocks, the bearing blocks and the axle beam having co-acting bearing faces for permitting relative vertical movement between said parts, and supporting springs in the axle beam pockets between the bearing blocks and the axle beam.

4. A motor truck having a central low hung platform, an elevated platform over the steering wheels, and an elevated rear platform over the driving wheels and power plant, and having a main frame comprising two inner central platform beams and two beams for the central platform outside said inner beams, cross pieces connecting said beams at each end of the central platform, the inner beams ending at the rear cross piece and extending forward of the front cross piece to support the front platform, and the other said platform beams ending at the front cross piece and extending rearward of the rear cross piece to support the rear platform and the power plant.

5. A motor truck having a central low hung platform, an elevated platform over the steering wheels, and an elevated platform over the driving wheels and power plant, and having a main frame comprising two inner central platform beams, two outer central platform beams and two intermediate central platform beams, and transverse beams at each end of the central platform, said intermediate platform beams ending at the forward transverse beam and extending rearward of the rear transverse beam to support the rear platform and power plant, and the inner platform beams and the outer platform beams ending at the rear transverse beam and extending forward beyond the forward transverse beam to support the front platform and being connected by a front cross piece.

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1,042,336. ROLLER-PLATFORM. GEORGE B. FRANCIS and BRONSON H. SMITH, New York, N. Y., assignors to Westinghouse, Church, Kerr & Company, New York, N. Y., a Corporation of New Jersey. Original application filed Mar. 13, 1911, Serial No. 613,970. Divided and this application filed Aug. 8, 1911. Serial No. 643,606. (Cl. 21—98.)



1. The combination with a platform comprising a plurality of beams extending in the same direction and flooring carried by said beams, of a plurality of sets of rollers, a carrying frame for each set of rollers mounted to move vertically between adjacent platform beams, and means for bodily raising and lowering the roller carrying frames, whereby the rollers may be elevated to project above the platform floor through openings therein and depressed to a position below the floor surface.

2. The combination with a truck platform comprising a plurality of longitudinal beams and flooring supported by said beams, of a plurality of roller carrying frames set between adjacent beams, a plurality of rollers carried by each of said frames, supporting wedges at each end of the roller carrying frames, and means for moving said wedges simultaneously to raise or lower the frames, whereby the rollers may be elevated to project above the platform floor through openings therein and depressed to a position below the floor surface.

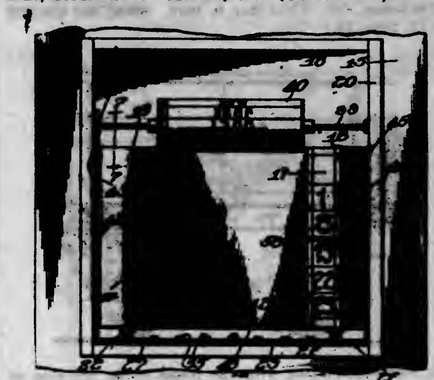
3. The combination with a platform comprising a plurality of parallel beams and flooring carried by said beams, of a plurality of roller carrying frames set between adjacent platform beams, a plurality of rollers carried by each of said frames, transverse bars carried by the platform beams and movable endwise transversely of the platform beams for raising and lowering the roller carrying frames, and means for moving said bars simultaneously, whereby when the bars are moved in one direction all the rollers will be elevated to project above the platform flooring through openings therein and when the bars are moved in the other direction the rollers will be depressed to a position below the floor surface.

4. The combination with a platform comprising parallel beams and flooring carried by said beams, of a roller carrying frame mounted between said beams and formed of two channel bars sub with their recessed sides facing and connected at their ends by supporting blocks, a plurality of rollers carried by said frame, and supports for said supporting blocks movable to raise and lower the supporting blocks and frame, whereby the rollers may be elevated to project above the platform flooring and depressed to a position below the floor surface.

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1,042,337. CALENDAR. FRED P. GOSIN, Chicago, Ill. Filed Oct. 4, 1906, Serial No. 337,265. Renewed Aug. 10, 1912. Serial No. 714,673. (Cl. 40—117.)



1. In a calendar, the combination of a day of the month indicating member comprising an indicating series of figures, a plurality of series of figures adapted to combine with the first series, means for shifting the indicating series and means for arresting the movement of the indicating series when said series occupies the position occupied by the series containing the last day of the expiring month, to present a complete and correct succeeding series.

2. In a calendar, the combination of a day of the month indicating member, comprising an indicating series of figures, a plurality of series of figures adapted to combine with the first series, means for shifting the indicating series to the position occupied by the series containing the last day of the expiring month to present a complete and correct succeeding series, a month indicating member, and means controlled by one of the elements of the shifting means for moving the last said member.

3. In a calendar, the combination of a day of the month indicating member, comprising an indicating series of figures, a plurality of series of figures adapted to combine with the first series, means for shifting the indicating series to the position occupied by the series containing the last day of the expiring month to present a complete and correct succeeding series, a month indicating member, and means controlled by one of the elements of the first said means for simultaneously shifting the last said member.

4. In a calendar, the combination of a day of the month indicating member comprising an indicating series of figures, a plurality of series of figures adapted to combine with the first series, means for shifting the indicating series to the position occupied by the series containing the last day of the expiring month to present a complete and correct succeeding series, and a month indicating member operatively connected to the first said

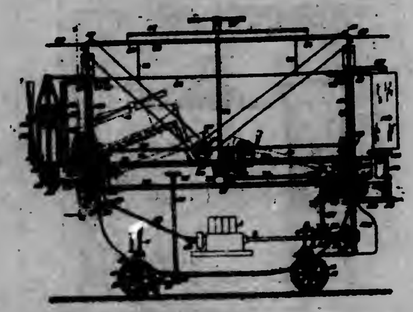
means and adapted to be operated when the day of the month indicating series is shifted.

5. In a calendar, the combination of a day of the month indicating member, comprising an indicating series of figures, a plurality of series of figures adapted to combine with the first series, a day of the week indicating series, a month indicating series, means for shifting the first said indicating series with relation to the day of the week indicating series and for automatically arresting the series to cause the first said indicating series to assume a position under the specific week-day designated by the last day of the expiring month, to present a correct series in the next month, and means controlled by one of the elements of the first said means for shifting the month indicating series with relation to the day of the month indicating series.

[Claims 6 to 25 not printed in the Gazette.]

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1,042,228. AIRSHIP. FREDERICK W. GOYETTE, San Francisco, Cal. Filed Mar. 9, 1911. Serial No. 613,232. (Cl. 244—15.)



1. The combination with the frame of an air ship of a vertical rod, a tube slidable thereon, a collar connected to the lower end of said tube, a brace depending from said collar, an aeroplane to which the lower end of the brace is connected, a second collar slidable upon the rod connected to the inner edge of the aeroplane, a brace depending from said second collar, a second aeroplane connected to the lower end of said brace, the inner edge of said latter aeroplane having pivotal connection with the frame of the ship.

2. The combination with the frame of an air ship of a vertical rod, a tube slidable thereon, a collar connected to the lower end of said tube, a brace depending from said collar, an aeroplane to which the lower end of the brace is connected, a second collar slidable upon the rod connected to the inner edge of the aeroplane, a brace depending from said second collar, a second aeroplane connected to the lower end of said brace, the inner edge of said latter aeroplane having pivotal connection with the frame of the ship, a collar secured to the upper end of the tube, a brace the inner end of which is pivoted to said collar, an aeroplane the inner edge of which is pivotally connected to said rod, the upper end of said latter brace being pivotally connected to said latter aeroplane.

3. In an air-ship, the combination of a vertical rod, a tube slidable thereon, collars attached to the ends of said tube, an aeroplane the inner edge of which is pivotally connected to said rod, an oblique brace connected to said aeroplane and to the upper collar, a collar slidable upon the rod below said tube, an aeroplane the inner edge of which is connected to said latter collar, a brace connected to said latter aeroplane and to the lower collar on the tube, an aeroplane the inner edge of which has pivoted connections with the rod, a brace connected with said latter aeroplane and the lowermost collar, and a cord connecting said latter collar with the lower-most collar on the tube.

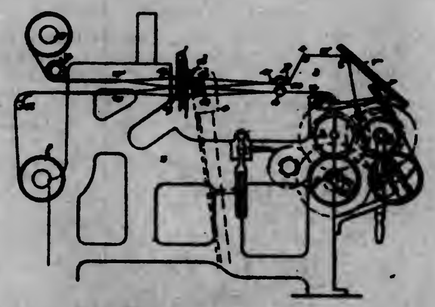
4. In an air ship, the combination of a vertically extending propeller frame, a shaft extending vertically through said frame, horizontal propeller shafts mounted in opposite sides of the propeller frame, means whereby said propeller shafts are operatively connected to said first-named shaft to be rotated thereby in opposite direction, propellers on said propeller shafts, means for rotating said first-named shaft, and means for rotating said propeller frame about a vertical axis.

5. In an air ship, the combination of a propeller frame at an end of the ship, a horizontal propeller shaft mounted therein, a propeller on said shaft, a vertical shaft extending through said propeller frame and operatively connected with said horizontal propeller shaft, means for rotating said vertical shaft, a rudder at the other end of the frame, a vertical shaft upon which said rudder is mounted, a shaft extending the full length of the ship, means for turning said shaft, and operative connections between the ends of said shaft and the propeller frame at one end of the ship, and the rudder shaft at the other end of the ship, whereby, by rotation of said shaft, said propeller frame and rudder shaft are rotated in opposite directions.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,230. MULTIPLE LOOM. GEORGES GRATEREAU, Paris, France, assignor to Société du Tissage Velex, Paris, France. Filed Mar. 15, 1911. Serial No. 614,539. (Cl. 139—18.)

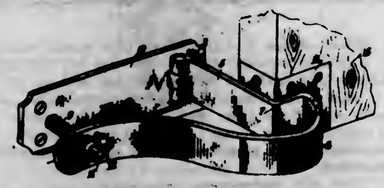


1. In a multiple loom, the combination with a frame, of a lay rocking in said frame and comprising two shuttle-boxes at the ends and a rood, each shuttle-box having a sufficient height for several superposed shuttles without any dividing plate, guides in said frame for holding in essentially parallel superposed planes the warps passing from the loose through the rood of said lay to the fell, heddles adapted to be moved up and down and possessing superposed mails for the corresponding threads of the warps, and several superposed shuttles adapted to be actuated from a common picker in either of said two shuttle-boxes, the lowest shuttle being adapted to slide on the upper surface of said lay and to serve as a support for the other shuttle bearing on it directly in the shuttle-boxes and indirectly by the mediation of the crossing threads of the superposed warps during the transverse motion.

2. In a multiple loom, the combination with a frame comprising a breast-beam, of a lay rocking in said frame and comprising two shuttle-boxes at the ends and a rood, each shuttle-box having a sufficient height for several superposed shuttles without any dividing plate, guides in said frame for holding in essentially parallel superposed planes the warps passing from the loose through the rood of said lay to the fell, and spacing guides in said frame above said breast-beam for holding the pieces of fabric in different superposed planes while leaving between them spaces sufficient for the examination of the lower pieces of fabric.



1,042,240. DOOR CHECK AND HOLDER. HILMER AGATON GUSTAFSSON, Suva, Fiji Islands, assignor of one-half to Joshua Victor Addis, Nausori P. O., Rewa River, Fiji Islands. Filed Jan. 18, 1911. Serial No. 602,895. (Cl. 16—78.)

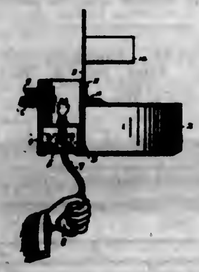


1. A device of the class described, comprising a support, a catch formed of a piece of sheet metal bent intermediate of its ends to form a curved head having a catch shoulder and two arms, one straight and the other curved, the straight arm extending from the inner end of the shoulder and hinged to the support and the curved arm extending toward the support and provided with a slot in its end, a guide pin carried by the support and projecting through the slot of the arm, and a spring surrounding the pin between the support and arm.

2. A device of the character described, comprising an attaching plate provided adjacent to one end with a pin having a collar on its outer end, a catch having a catch shoulder and two arms, one of the arms being straight and hinged to the end of the attaching plate opposite that carrying the pin, and the other arm curved and provided in its end with an opening through which the pin of the attaching plate loosely passes, and a spring interposed between the curved arm and the attaching plate.

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1,042,241. FLASH-LAMP. DAVID HARRINGTON, Eagle Lake, Tex. Filed May 7, 1912. Serial No. 695,621. (Cl. 67—42.)



1. A device of the character described including a suitable flash pan and a vertically extending plate carried by one edge thereof and having an orifice therethrough, a lamp receptacle carried by said device and a lamp arranged therein, whose flame is alined with said orifice, a pneumatic tube discharging into said lamp receptacle and against the flame of said lamp and arranged to drive said flame through said orifice, a suitable hopper discharging into said tube and a means for creating an air current through said tube.

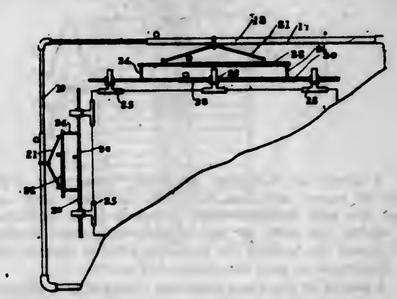
2. A device of the character described including a suitable pan for receiving an explosive powder and a vertically extending plate carried by one edge thereof and having an orifice therethrough, a lamp receptacle carried by said device and a lamp so arranged therein that its flame will be alined with said orifice, a pneumatic tube discharging into said lamp receptacle and against the flame of said lamp and arranged to drive said flame through said orifice, a metallic apron secured to said plate and extending down over said orifice, a suitable hopper discharging into said tube, and means for creating an air current through said tube.

3. A device of the character described including a suitable flash pan and a vertically extending plate carried by one edge thereof and having an orifice therethrough, an apron secured to said plate and partially closing said orifice, a deflector secured to said plate and arranged above said orifice, a lamp receptacle carried by said device and a lamp so arranged therein that its flame will be alined with said orifice, a pneumatic tube discharging into said lamp receptacle and against the flame of said lamp, a suitable hopper discharging into said tube and a means for creating an air current through said tube.

4. A device of the character described, including a suitable flash pan and a vertically extending plate carried by one edge thereof and having an orifice therethrough, a lamp receptacle carried by said device and a lamp arranged thereon whose flame is alined with said orifice, a tube discharging into said lamp receptacle and against the flame of said lamp and arranged to drive said flame through said orifice, a suitable hopper discharging into said tube and a means for generating a current of air through said tube.

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1,042,242. CURTAIN-STRETCHER. JOHN L. HEARN, Corral, Idaho. Filed Oct. 17, 1911. Serial No. 655,116. (Cl. 45—24.)

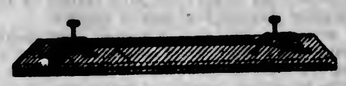


1. In a curtain stretcher an extensible frame, extensible bars located within the frame, clamping devices adjustably supported by the bars and flexible means connecting the frame with said bars.

2. In a curtain stretcher, an adjustable frame, telescopic bars located within the frame adjacent to the sides and ends thereof, clamps having eye portions receiving the said telescopic bars, and flexible connections between the said telescopic bars and the frame.

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1,042,243. RAIL-TIE. PAUL HEMERT, Benrath, Germany. Filed Feb. 20, 1911. Serial No. 609,763. (Cl. 238—3.)



1. In a rail tie; a concrete sleeper; rail chairs, each having an outer and an inner wall embedded in said sleeper; and rods embedded in said sleeper and loosely engaging the intermediate part of said inner walls and connected to the lower part of the outer walls.

2. In a rail chair, a sleeper composed of concrete, metallic castings embedded in said sleeper and formed for coöperation with rail fixing members to hold rails in engagement with the castings, each casting having an inner wall having an opening therethrough and an outer wall, and a metallic rod embedded in the body of the concrete sleeper, said rod passing through the openings in the inner walls of both castings and connected with their outer walls.

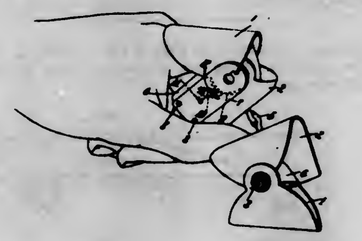
3. In a rail tie, the combination of a concrete sleeper, castings embedded in the sleeper and each having an outer

and an inner lateral portion, the inner portions being provided with openings near the upper part thereof; and iron rods passing longitudinally of the sleeper through said openings, the ends of said rods being inclined downwardly and secured to the lower edges of the outer portions.

4. In a rail tie, the combination of a concrete sleeper, castings embedded in the sleeper and each having an outer and an inner lateral portion, the inner portions being provided with openings near the upper part thereof; and iron rods passing longitudinally of the sleeper through said openings the ends of said rods being inclined downwardly and hooked under around the lower edges of the outer portions.

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1,042,844. FINGER-CUFF. CLARENCE CLINTON HEDRICK, Kansas City, Kans. Filed Jan. 20, 1912. Serial No. 672,803. (Cl. 70—24.)



1. A device of the class described, comprising a plurality of curved elements in pivotal relation with each other, the said elements being adapted to be positioned one within the other or one without the other, together with means for holding the elements secured against relative movement in such last mentioned position.

2. A device of the class described comprising a plurality of curved elements in pivotal engagement with each other, one of the elements being adapted to enter into the other whereby a finger may be inserted into each of the elements, the second element being adapted to be moved relatively to the first whereby the finger is bent, together with means for holding the elements in fixed position with respect to each other.

3. A device of the class described comprising a plurality of curved elements, pivotal engaging means between the elements, one of the elements being adapted to enter within the other whereby a finger in straight position may be inserted into both of them, one of the elements being adapted to be moved relatively to the other about the said supporting means whereby the finger within the elements is bent, there being coöperating parts carried by the elements whereby they are held fixed in position.

4. A device of the class described, comprising two curved elements, a third curved element, a common pivotal mounting for the said elements, the third element being adapted to be entirely positioned within one of the first elements, and being also adapted to be positioned outside of both of the two said elements whereby the said two first elements are adapted to engage and hold therein fingers of different sizes.

5. A device of the class described comprising a plurality of curved elements in pivotal engagement with each other, one of the said elements being adapted to enter within the other whereby a finger in straight position may be inserted into both the elements, a third element also in pivotal engagement with the first two and adapted to be moved into or out of one of the first said elements whereby the first elements are adapted to receive and hold fingers of different sizes, there being suitable means for holding the first two elements fixed in position with respect to each other.

[Claims 6 to 12 not printed in the Gazette.]

1,042,845. CLOTHES-LINE. WILLIAM P. HENNESSEE, Asheville, N. C. Filed Dec. 21, 1910. Serial No. 598,694. (Cl. 68—8.)



A pinless clothes line link made of a single length of wire, having a straight strain receiving bar throughout its length, and having a link connecting loop at one end and a clothes receiving eye adjacent thereto, and one at opposite end of the link; and a continuous uniform spirally twisted spring clamp throughout therebetween, upon which longitudinal strains have no effect, substantially as described.

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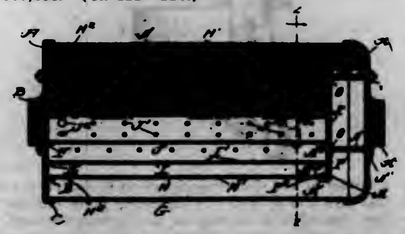
1,042,846. DAY AND NIGHT GLASS. LEO HERLE, New York, N. Y. Filed Jan. 2, 1907. Serial No. 350,497. (Cl. 88—34.)



In a day and night glass, an objective lens; an eyepiece lens; a fixed diaphragm; said diaphragm having an aperture therein of suitable size for night use; a frame, pivoted within the glass; said frame carrying an auxiliary lens, suitable to reduce the magnifying power of the glass; said frame also carrying an auxiliary diaphragm with an aperture, said aperture being smaller than the aperture in the fixed diaphragm, for decreasing the effective size of such aperture; the frame turning upon its pivot, as the glass is turned with one or the other side up; and means to aline the frame with the auxiliary diaphragm aperture, or the auxiliary lens, coincident with the fixed lenses, as depends upon the position of the glass.

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1,042,847. MUFFLER. FREDERICK BITTMAN HERRIOT, Shelton, Conn. Filed Feb. 9, 1911. Serial No. 607,464. (Cl. 121—116.)



A muffler comprising an outer cylinder provided with heads, of a plurality of inner cylinders of less length than the outer cylinder, and connected to one of the outer cylinder heads, a supplemental head for the inner cylinders, and means for securing said inner cylinders in place, said inner cylinders and the supplemental head being perforated, the perforations being enlarged adjacent alternate ends of said inner cylinders.

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1,042,848. ELECTRIC ATTACHMENT-PLUG. MAX HIMMELSTEIN, Chicago, Ill., assignor of one-half to C. W. Hengst, Watertown, Conn. Filed June 14, 1912. Serial No. 706,723. (Cl. 173—344.)

1. In an electrical attachment plug, the combination of a cylindrical body having a peripheral groove, and a sleeve having projections for engaging in said groove to normally hold the body and sleeve together but to allow free relative rotation thereof, said groove and projection connection being yielding to allow the parts to be separated by abnormal pull thereon.





2. In an electrical attachment plug, the combination of a cylindrical body of insulating material, contact terminals on said body, a ring surrounding said body and having a peripheral groove and a threaded metallic sleeve fitting over the body and having a projection for engaging in said groove to lock the sleeve to the body but to allow it to rotate thereon, said ring being electrically connected with one of said contact terminals.

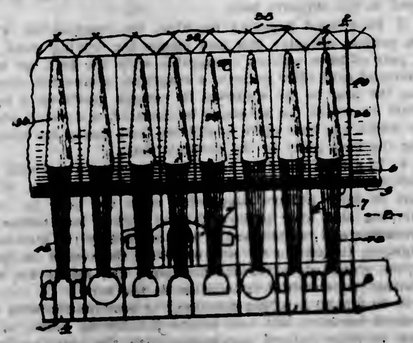
3. In an electrical attachment plug, the combination of a cylindrical body carrying terminal contacts and having a peripheral groove in a plane at right angles to the body axis, and a threaded metallic sleeve fitting over said body and having a projection for coöperating with said body groove to lock the sleeve to the body but to allow free rotation thereon, said sleeve when applied being in electrical engagement with one of said terminal contacts.

4. In an electrical attachment plug, the combination of a cylindrical body of insulating material, an end contact and a side contact carried by said body, a metallic head for said body having a peripheral groove concentric with the body axis, a threaded cylindrical shell receiving said body and having inner projections for engaging in said groove to lock the shell to the body but to allow free rotation thereof on the body, said shell when applied to the body having electrical connection with said side contact on the body.

5. In an electrical attachment plug, the combination of a cylindrical body part, a cylindrical threaded sleeve part, one of said parts having a groove in a plane at right angles to its axis and the other part having a projection for engaging at any point in said groove to lock said parts together but to allow relative rotation thereof, said sleeve part forming one electrical terminal of the plug and said body mounting the other terminal of said plug, and a cap rigid with the sleeve covering the outer ends of said sleeve part and plug and having an opening for circuit conductors.

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1,042,849. AIRSHIP LIFE-PRESERVER. LESLIE L. HILL, Los Angeles, Cal. Filed June 6, 1912. Serial No. 702,076. (Cl. 244—21.)

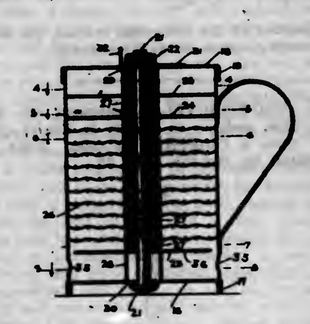


1. In an airship life preserver, a sheath open at the bottom; a parachute cover mounted in the sheath; frangible means connected to the tip of the folded parachute cover, and frangible means connected to one side of the lower edge of the parachute cover, so that when the parachute cover is pulled downwardly out of the sheath the parachute will start to open before the last mentioned frangible cords break.

2. The combination with an airship, having a gas bag and netting and a passenger car, of a parachute sheath formed upon the gas bag and open at its lower end; a parachute adapted to be inserted upwardly into the sheath; frangible means holding the parachute in the sheath; frangible means connecting the lower edge of one side of the parachute cover to the airship; a harness adapted to be put on and worn by a passenger; and a connection between the harness and the parachute, so that when the passenger jumps free of the airship the parachute will be disconnected and forced open as it is pulled out of the sheath.

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1,042,850. INSECT-TRAP. CHARLES HORSTMANN, Oswego, Oreg. Filed May 24, 1912. Serial No. 699,441. (Cl. 43—22.)



1. An insect trap comprising a box-like body portion having a closed top and bottom with side entrance passages; a plurality of perforated disks; a plurality of spacing devices disposed between said disks; a binding bolt passed through said disks and said spacing devices; and a clamping device to fit said bolt to clamp said disks and spacing devices thereupon.

2. An insect trap comprising a box-like body portion having a closed top provided with a supply orifice, a bottom, and side entrance openings; a plurality of perforated disks; a plurality of spacing members interposed between said disks; a binding bolt passing through said disks, spacing members and the bottom and top of said body portion; a cover plate for the supply orifice in said top; and screw threaded clamping means for holding said plates in fixed position.

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1,042,851. CONVERTIBLE HOOD, CAPE, AND VEIL. MARION JOHNSTOWN, New York, N. Y. Filed Jan. 22, 1912. Serial No. 672,686. (Cl. 2—118.)

1. A convertible hood, cape and veil, comprising a body portion having a tail, diverging front bands extending integrally from the sides of the body portion at the forward end thereof, and diverging back bands extending integrally from the sides of the body portion at the rear end thereof, the said upper bands diverging in an opposite direction relative to the said back bands.

2. A convertible hood, cape and veil, comprising a body portion having a tail, a turned down collar on the front margin of the body portion, plaits extending lengthwise of the body portion along the middle thereof, front bands integral with the sides of the body portion at the forward

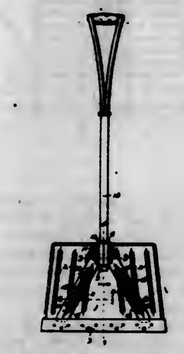
end thereof, the said front bands extending outwardly and forwardly, and back bands integral with the sides of



the body portion at the lower end thereof, the said back bands extending outwardly and rearwardly.

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1,042,352. SNOW-SHOVEL. FREDERICK E. KOHLER, Canton, Ohio, assignor to The F. E. Kohler Company, Canton, Ohio, a Corporation of Ohio. Filed May 9, 1912. Serial No. 696,256. (Cl. 55—14.)



1. A snow shovel comprising a sheet-metal blade, a single-shank wooden handle, and a sheet-metal socket having lateral flanges secured to the back of the blade and securing and surrounding the shank of the handle, with integral braces diverging diagonally downward from the flanges and secured flatwise to the back of the blade, there being longitudinal corrugations on the braces forming round-edged runners for the blade.

2. A snow shovel comprising a sheet-metal blade, a single-shank wooden handle, and a metal socket having lateral flanges secured to the back of the blade and receiving and surrounding the shank of the handle, with braces diverging diagonally downward from the flanges and secured flatwise to the back of the blade, there being longitudinal corrugations on the braces forming round-edged runners for the blade.

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1,042,353. HOLDER FOR INK-WELLS. CHARLES KRICKS, Beardstown, Ill. Filed Apr. 4, 1911. Serial No. 618,801. (Cl. 120—58.)

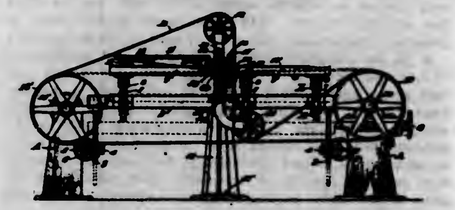
A holder for ink-wells comprising an imperforate cup-shaped holder having an upper open end provided at said end with an outwardly extending flange to support the holder in an opening in a desk, lugs integral with the holder extending inwardly from the body portion and below the top of the holder, an ink-well provided at its upper end with an outwardly extending flange to rest on the lugs and support the well centrally within the holder and below its open end, providing space above, below and around the sides of the well to permit split ink to



flow to the bottom of the holder, a cover pivotally connected to the flange of the holder and adapted to swing outwardly in a horizontal plane to uncover the open end of the holder, and absorbing material in the holder supported by the bottom of the holder and spaced from the bottom of the well.

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1,042,354. SANDING-MACHINE. JOHN W. KROESE, Burlingame, Cal. Filed Apr. 22, 1912. Serial No. 692,316. (Cl. 51—5.)



1. The combination with an endless abrasive belt and means for rotating same, of a pair of idler pulleys adapted to bear against one leaf of the belt, an adjustable arm on which said idler pulleys are revolubly mounted, said arm formed with a longitudinally extending slot, means for adjusting the arm in various positions, comprising a bolt passing through the slot therein, and a standard carrying said bolt to which the arm is clamped.

2. The combination with an endless abrasive belt and means for rotating same, of a pair of idler pulleys adapted to bear against one leaf of the belt, an adjustable arm on which said idler pulleys are revolubly mounted, said arm formed with a longitudinally extending slot, means for adjusting the arm in various positions, comprising a bolt passing through the slot therein, a standard carrying said bolt to which the arm is clamped, and an adjustable support for the materials to be worked arranged adjacent to the abrasive belt.

3. In a sand papering machine, the combination with an endless abrasive belt and means for driving same, of a pair of idler pulleys engageable with the belt, an arm carrying said idler pulleys, a standard, means for clamping the arm to the standard in various positions, a base plate on which the standard is mounted, a dovetail plate on which the base plate is slidable, and means for clamping the base plate to the dovetail plate.

4. In a sand papering machine, the combination with an endless abrasive belt and means for driving same, of a pair of idler pulleys engageable with the belt, an arm carrying said idler pulleys, formed with a longitudinally extending slot, a standard, a bolt carried by the standard engaging the slot in the arm by which the arm is clamped to the standard in various positions, and means for adjusting the standard in relation to the belt.

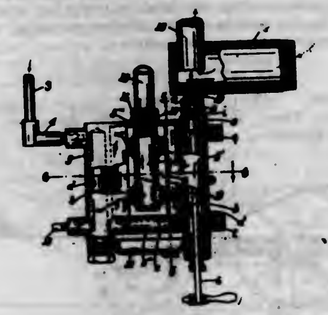
5. In a sand papering machine, the combination with an endless abrasive belt and means for driving same, of a pair of idler pulleys engageable with the belt, an arm carrying said idler pulleys, formed with a longitudinally extending slot, a standard, a bolt carried by the standard engaging the slot in the arm by which the arm is clamped to the standard in various positions, means for adjusting the standard in relation to the belt comprising a base plate on which the standard is mounted, a dovetail plate on which the base plate is slidable, and means for clamping the base plate to the dovetail plate.

[Claim 6 not printed in the Gazette.]



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1,042,355. VAPOR-GENERATOR. CHARLES M. KRUOSE, Hannibal, Mo. Filed Jan. 29, 1912. Serial No. 674,172. (Cl. 158—58.)



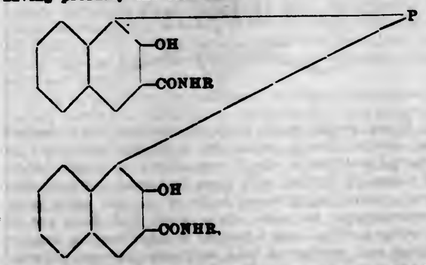
In a vapor generator, a body portion comprising a pair of parallel members spaced apart and traversed respectively by intake and discharge passage-ways, a cross member having a passage connecting the aforesaid passage-ways, the walls of the parallel members facing the space being concaved, a burner member positioned in the space between the concaved faces, a mixing chamber at the discharge end of the generator, and means for conducting a quantity of the mixture from the mixing chamber to the burner member.

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1,042,356. DISAZO DYES AND PROCESS OF MAKING THEM. AUGUST LEOPOLD LASKA, ARTHUR ZITSCHER, and FELIX KUNERT, Offenbach-on-the-Main, Germany, assignors to Corporation of Chemische Fabrik Griesheim-Elektron, Frankfort-on-the-Main, Germany. Filed June 5, 1912. Serial No. 701,716. (Cl. 8—1.)

1. The process of manufacturing disazo dyestuffs, consisting in combining the tetrazo derivatives of bases of the diphenyl series with arylamids of 2:3-oxynaphthoic acid.

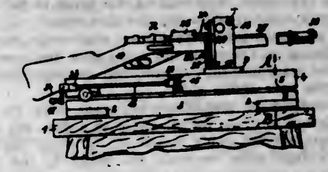
2. As new articles of manufacture, the disazo dyestuffs, having probably the formula




wherein P means the residue of the tetrazo compound of bases of the diphenyl series and R an aromatic radical, which may be obtained by combining the tetrazo compounds of bases of the diphenyl series with arylamids of 2:3-oxynaphthoic acid, which dyestuffs form when dry dark colored powders, and produce black to greenish blue shades developed on the fiber yielding upon reduction with stannous chlorid and hydrochloric acid a diamido base of the diphenyl series and an arylamid of 1-amino-2:3-oxynaphthoic acid.

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1,042,357. RIFLE-TRYING DEVICE. JOSEF LIVTSCHAK, St. Petersburg, Russia. Filed June 14, 1912. Serial No. 703,660. (Cl. 42—94.)



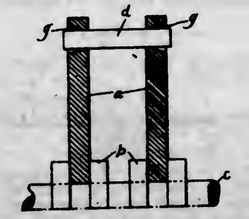
1. In a rifle-trying device of the class described, the combination with a base, of a support on said base adapted to support and guide the butt of any rifle, a slide longitudinally guided on said base, a horizontal guide on said slide adapted to support and guide said rifle beneath its barrel and gun-stock, a member on said slide adapted to hold the bed of backsight on the barrel of said rifle, and means for adjusting said slide.

2. In a rifle-trying device of the class described, the combination with a base, of means for horizontally adjusting said base, a support on said base adapted to support and guide the butt of any rifle, a slide longitudinally guided on said base and having an opening through which the barrel and the gun-stock of said rifle can be passed, means for adjusting said slide, a conical horizontal pin on said slide adapted to support and guide said rifle beneath its barrel and gun-stock, and a recessed member on said slide adapted to hold in its recess one end of the bed of backsight on the barrel of said rifle.

3. In a rifle-trying device of the class described, the combination with a base, of means for horizontally adjusting said base, a support on said base adapted to support and guide the butt of any rifle, a slide longitudinally guided on said base and having an opening through which the barrel and gun-stock of said rifle can be passed, means for adjusting said slide, a vertical plate rocking on said slide transversely and having an opening through which the barrel and gun-stock of said rifle can be passed, means for adjusting said vertical plate, a conical horizontal pin on said vertical plate adapted to support and guide said rifle beneath its barrel and gun-stock, and a recessed member on said vertical plate adapted to hold in its recess one end of the bed of backsight on the barrel of said rifle.

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1,042,358. METHOD OF MANUFACTURING VANE-RINGS FOR GAS OR STEAM TURBINES. BIRGER LJUNGSTRÖM, Stockholm, Sweden, assignor to Aktiebolaget Ljungstroms Angturbin, Stockholm, Sweden. Filed Feb. 19, 1910. Serial No. 544,871. (Cl. 29—84.)




1. The method of manufacturing vane-rings for turbines consisting in inserting the vanes in a body, securing them to the said body and thereinafter cutting away the part of the body, wherein the vanes had been inserted, from the other parts of the said body.

2. The method of manufacturing vane-rings for turbines consisting in inserting the vanes in a body, cutting a groove in the said body, said groove separating the vane-carrying part of the body from the other part thereof and only leaving a thin strip between these parts, then securing the vanes to the body by means of heat and cutting away the said thin strip.

3. The method of manufacturing vane-rings for turbines consisting in inserting the vanes in a body, the vane-carrying part thereof being separated from the other parts by means of a thin strip, then welding the vanes to the vane-carrying part and cutting away the thin strip.

4. The method of manufacturing vane-rings for turbines consisting in inserting the vanes in a disk, securing them to the said disk and thereinafter cutting away the vane-carrying part of the disk.

5. The method of manufacturing vane-rings for turbines consisting in inserting the vanes in a disk, the vane-carrying part thereof being joined to the other parts by means of a thin strip, welding the vanes to the vane-carrying part and cutting away the thin strip.

[Claims 6 to 8 not printed in the Gazette.]

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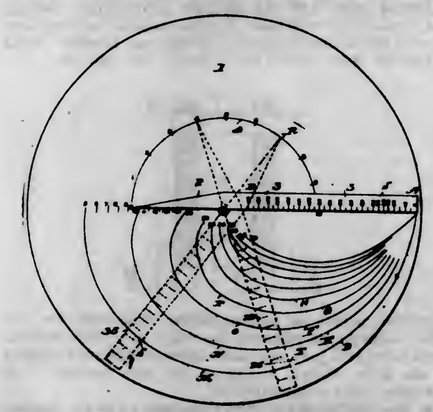
1,042,859. ROCK-DRILL. EDWIN M. MACKIE, Chicago, Ill., and PERCIVAL F. DOYLE, Franklin, Pa., assignors to Chicago Pneumatic Tool Company, Chicago, Ill., a Corporation of New Jersey. Original application filed Jan. 19, 1909, Serial No. 473,149. Divided and this application filed Apr. 14, 1910. Serial No. 555,348. (Cl. 125—10.)



In a rock drill, the combination, with a hammer barrel or cylinder and its piston and valve, of a front head secured to the cylinder and adapted to receive the working tool, and a striking piece located in said head and having water passages, one of which is adapted to communicate with a water passage in the working tool, said front head having a water supply passage to supply water to the passages in the striking piece and the cylinder having a corresponding water passage, and a hollow dowel for connecting the water passages at the junction between the cylinder and front head and for determining the proper relative position of such parts.

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1,042,860. DIAL AND POINTER FOR PRICE-COMPUTING SCALES. JOSEPH T. MAGUIRE, Washington, D. C. Filed July 1, 1912. Serial No. 707,026. (Cl. 235—68.)

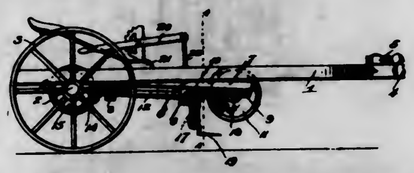


1. In a price computing scale, the combination of a relatively movable pointer and dial, the pointer being provided with graduations having indicia showing total or computed prices, and the dial having points represented by unit prices adapted to register with the graduations of the pointer, said dial having a scale representing different weights, the pointer being arranged to cooperate with said weight-scale, whereby the weight and price per unit of weight being known, the total computed price may be read from the indicia on the pointer.

2. In a price computing scale, the combination of a relatively movable pointer and dial, the pointer being provided with graduations having indicia showing total or computed prices, and the dial having curves which plot the loci of numerous point representing unit prices and arranged to register with the total prices on the pointer, the said dial also having a scale of weights on which the pointer is adapted to indicate, whereby the unit price and weight being known, the total or computed price is indicated by the indicia on the pointer coinciding with the curve representing the unit price.

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1,042,861. COTTON-CHOPPER. ISAAC N. MANSFIELD, Soddy, Tenn. Filed Nov. 2, 1911. Serial No. 658,187. (Cl. 97—46.)



1. A cotton chopper including a frame having a chain mounted to move transversely thereof, and a knife projecting laterally from said chain in a plane at right angles to the plane of movement of said chain, said knife having an offset intermediate of its ends.

2. A cotton chopper knife comprising an attaching shank having a cutting blade offset therefrom and extending longitudinally in a line parallel therewith, said blade having a curved cutting edge adapting it to shear the plants to be removed.

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1,042,862. POST. MARSHALL P. MAXWELL, Brooklyn, N. Y. Filed Oct. 20, 1911. Serial No. 655,723. (Cl. 189—92.)



1. In an anchor post, a slidable anchor block, anchor arms pivoted thereto, means for spreading said arms in anchoring position on the downward travel of said block, and means for locking said arms in spread position, said means comprising flattened surfaces on said arms lying in substantially the same plane when said arms are in anchoring position, and a locking member bearing against surfaces and serving to hold said arms against pivoting in said anchor block.

2. In an anchor post, a slidable anchor block, anchor arms pivoted thereto, means for spreading said arms into anchoring position on the downward travel of said block and means for locking said arms in spread position, said means comprising flattened surfaces lying in substantially the same plane when said arms are in anchoring position, a displaceable locking plate adapted to be pressed against said surfaces and a screw rod passing through the anchor block and bearing against said lock plate to press the same into locking engagement with said flat surfaces on said anchor arms, substantially as described.

3. In an anchor post, an anchor block, anchor arms pivoted thereto, a guy rod detachably engaging said block and means, in connection therewith, for locking said anchor arms in an anchoring position.

4. In an anchor post, an anchor block, anchor arms pivoted thereto and adapted to be spread upon the downward drive of said block, in combination with a guy rod and means for engaging the same to said anchor block after the latter has been driven to anchoring position.

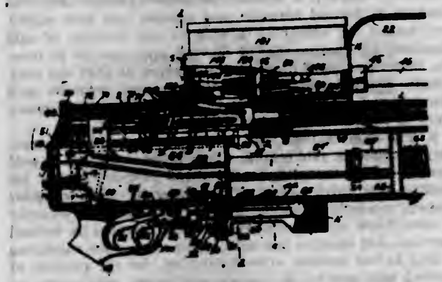
5. In an anchor post an internal slidable anchor block, anchor arms pivoted thereto and spread in anchoring position, in combination with a rod attachable to said block in anchored position and means in connection with said rod for locking said arms in spread position.

[Claims 6 to 8 not printed in the Gazette.]



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1,042,863. BREECH-LOADING AND DISCHARGE-ACTUATED FIREARM. SAMUEL N. MCCLEAN, Cleveland, Ohio, assignor, by mesne assignments, to The Automatic Arms Company. Filed July 30, 1906. Serial No. 328,320. (Cl. 89—2.)



1. In a gun, the combination of breech mechanism, a reciprocating operating slide adapted to operate the breech mechanism and having a cam guide the length of which corresponds with the extent of movement of said slide, a rotary cartridge magazine, and means in continuous engagement with and actuated by said cam guide for rotating the cartridge magazine to thereby feed cartridges to the breech mechanism.

2. In a gun, the combination of breech mechanism, a reciprocating operating slide adapted to operate the breech mechanism and having a cam guide the length of which corresponds with the extent of movement of said slide, a rotary cartridge magazine, a feed pawl for rotating the cartridge magazine to thereby feed cartridges to the breech mechanism, and means for actuating said feed pawl, said means having a projection in continuous engagement with said cam guide.

3. In a gun, the combination of breech mechanism, a rotary cartridge magazine, a reciprocating operating slide adapted to operate the breech mechanism and having a cam guide the length of which corresponds with the extent of movement of said slide, a feed pawl for rotating the cartridge magazine to thereby feed cartridges to the breech mechanism, means for actuating said feed pawl, said means having a projection in continuous engagement with said cam guide, and a stopping pawl controlled by said cam guide to stop the rotation of the cartridge magazine.

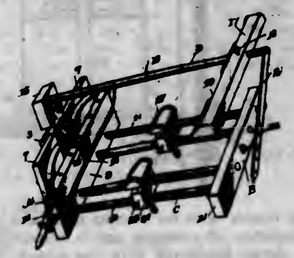
4. In a gun, the combination of breech mechanism, a reciprocating discharge-actuated operating slide adapted to operate the breech mechanism and having a cam guide the length of which corresponds with the extent of movement of said slide, a rotary cartridge magazine, and means in continuous engagement with and actuated by the cam guide for rotating the cartridge magazine to thereby feed cartridges to the breech mechanism.

5. In a gun, the combination of breech mechanism, a reciprocating discharge-actuated operating slide adapted to operate the breech mechanism and having a cam guide the length of which corresponds with the extent of movement of said slide, a rotary cartridge magazine, a feed pawl for rotating the cartridge magazine to thereby feed cartridges to the breech mechanism, and means for actuating said feed pawl, said means having a projection in continuous engagement with said cam guide.

[Claims 6 to 51 not printed in the Gazette.]

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1,042,864. SHOE-JACK. FRANK MELLEN, New York, N. Y. Filed Apr. 1, 1911. Serial No. 618,316. (Cl. 12—130.)



1. A shoe jack comprising a toe-clamping means and heel-clamping means, said means positioned apart by parallel rods, a sliding block mounted on said rods, and a bearing member mounted on said block and adapted to contact with the sole of the shoe.

2. In a shoe jack, a toe-clamping device, a heel-supporting bar, a block pivoted to said toe-clamping device, said block carrying a longitudinally-extending rod, a heel clamping device slidably mounted upon said rod, and means fastening said rod to said heel-supporting bar.

3. In a shoe jack, a toe-clamping device, a heel-receiving device, and a bar extending transversely of the counter of a shoe and bearing on the top of the counter thereof, to firmly position the heel in place.

4. In a shoe jack, a toe-positioning member, toe-clamping means, a heel-supporting member, an upper-engaging member pivoted to said toe-positioning member, and means fastening said upper-engaging member to said heel-supporting member.

5. In a shoe jack, toe and heel-fastening members, and a member having a top curved downwardly from the center thereof in two directions at right angles to each other, said member being slidably positioned between the toe and heel-fastening members, and adapted to force the sole of the shoe into a longitudinal and transverse curve in any position between the toe and heel-fastening members.

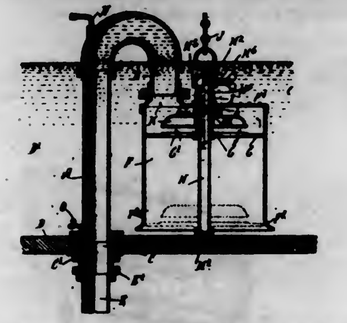
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1,042,865. SIPHON-VALVE FOR FLUSHING-TANKS. JOHN J. MEYER, Yonkers, N. Y. Filed Mar. 28, 1912. Serial No. 686,955. (Cl. 4—5.)

1. In a siphon valve for flushing tanks and like fixtures, the combination of a siphon and a manually-controlled starting device for the siphon, comprising a cylinder opening at its lower end into the flushing tank and connected at its upper end with the said siphon, a plunger movable in the said cylinder, and a valve adapted to close on moving the plunger upward to prevent return flow of the water and to allow charging of the siphon and starting the same, said valve being provided with self-opening means for automatically opening the valve when the plunger is at rest.

2. In a siphon valve for flushing tanks and like fixtures, the combination of a siphon and a manually controlled starting device connected with the siphon for starting the same, the said starting device comprising a cylinder opening at its lower end into the flushing tank and connected at its upper end with the said siphon, a plunger movable in the said cylinder for lifting the water therein and having an inlet opening, a valve controlling the said

plunger inlet opening and moving with the plunger the said valve being provided with floating means for normally holding the valve afloat in an open position, the said valve being adapted to close the said plunger opening on the upward movement of the plunger, and manually controlled means for raising the said plunger.



3. In a siphon valve for flushing tanks and like fixtures, the combination of a siphon and a manually controlled starting device connected with the siphon for starting the same, the said starting device comprising a cylinder opening at its lower end into the flushing tank and connected at its upper end with the said siphon, a plunger movable in the said cylinder for lifting the water therein and having an inlet opening, a valve controlling the said plunger inlet opening and moving with the plunger the said valve being provided with floating means for normally holding the valve afloat in an open position, the said valve being adapted to close the said plunger opening on the upward movement of the plunger, a stem provided at its lower end with a collar for engagement with the under side of the said plunger, and a manually controlled means for raising and lowering the said stem, the bottom on being raised carrying the plunger along and on being lowered allowing the plunger to descend independent of the stem.

4. A siphon valve for flushing tanks and the like comprising a siphon, a siphon starting device for starting the siphon provided with an air vent passage for breaking the siphon, and with a manually-controlled adjusting device controlling the air vent passage.

5. A siphon valve for flushing tanks and the like comprising a siphon, a siphon starting device for starting the said siphon and having a cylinder, a plunger movable therein, a stem for the said plunger and having an air vent passage for connecting the atmosphere with the interior of the said cylinder, a manually controlled means on the said stem controlling the said air vent passage, and manually controlled means for raising and lowering the said stem.

[Claims 6 to 11 not printed in the Gazette.]

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1,042,866. FLOW-MOTOR. ORLANDO C. MOORE, Morrow, Ohio. Filed Dec. 24, 1910. Serial No. 599,177. (Cl. 126—351.)



1. The combination with a casing, of a floating member mounted in said casing, out of contact with the sides thereof, a valve connected to said floating member and adapted to be operated thereby, a spring engaging said member and adapted to hold said valve in its closed position, said member having a chamber therein with a restricted outlet, and means for admitting water under pressure to the interior of said chamber, whereby an accumulation of water in said chamber will operate against said spring to open said valve.

2. The combination with a casing, of a fuel valve in said casing, a member movably mounted in said casing, connections between said member and said fuel valve, whereby said member is adapted to operate said fuel valve, means for normally holding said fuel valve closed, said member having a chamber therein with a constricted outlet, and means for admitting a fluid to said chamber, whereby the accumulation of said fluid in said chamber will generate sufficient force to open said valve.

3. The combination with a casing, of a member movably mounted in said casing, a fuel valve connected to said member and adapted to be operated thereby, means for holding said valve closed, said member having a chamber therein, a nipple extending up into said chamber, whereby a constricted outlet passage for said chamber is formed between said member and said nipple, and means for supplying a fluid to the interior of said chamber, for the purpose of moving said member to operate said valve.

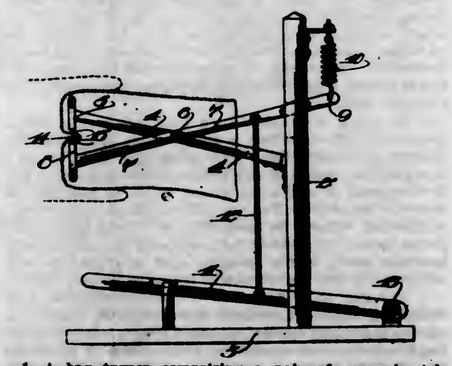
4. The combination with a casing, of a member movably mounted in said casing, a fuel valve connected to said member and adapted to be operated thereby, means for holding said valve closed, said member having a chamber therein, a nipple extending up into said chamber, whereby a constricted outlet passage for said chamber is formed between said member and said nipple, and means for supplying a fluid to the interior of said chamber, for the purpose of moving said member to operate said valve, said nipple being tapered so that the magnitude of the constricted outlet passage between said member and said nipple will be varied by relative movement of said member and said nipple.

5. The combination with a casing, of a member movably mounted in said casing, a fuel valve connected to said member and adapted to be operated thereby, means for holding said valve closed, said member having a chamber therein, a nipple extending up into said chamber, whereby a constricted outlet passage for said chamber is formed between said member and said nipple, means for supplying a fluid to the interior of said chamber, for the purpose of moving said member to operate said valve, said nipple being tapered so that the magnitude of the constricted outlet passage between said member and said nipple will be varied by relative movement of said member and said nipple, and means for adjusting the initial magnitude of said constricted outlet passage.

[Claims 6 to 14 not printed in the Gazette.]

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1,042,867. BAG-TURNING MACHINE. JAMES OGG, Pahala, Hawaii. Filed Apr. 17, 1912. Serial No. 691,487. (Cl. 139—47.)



1. A bag turner comprising a pair of approximately centrally pivoted levers carrying coacting jaws at one end, one of the levers pivoted to a support, the other lever having its inner end yieldingly supported so as to normally expand the jaws, and means for operating the levers to close the jaws.



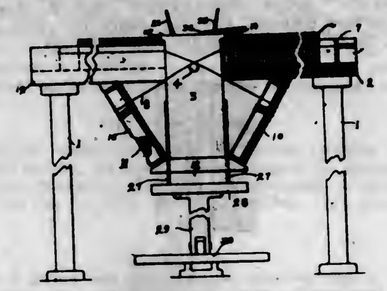
2. A bag turner consisting of a vertical support, a lever pivoted at one end to the support and extending horizontally, a second horizontally extending lever pivoted to the first named lever, the second lever having its rear end working in a vertical guide in said support, a spring normally lifting the guided end of said lever, coacting jaws carried at the front end of the levers, and means acting on the levers to close the jaws.

3. A bag turner consisting of a pair of levers pivoted together and having a pair of coacting bag gripping jaws, said jaws and levers constructed and arranged so that a bag may be slipped over them, one lever pivoted to a suitable support, means for holding the jaws normally open, and means for operating the levers to close the jaws to grip a bag and allow the bag to be turned inside out.

4. A sack turning apparatus comprising a pair of connected levers over which a bag may be extended, having bag expanding and gripping members at their outer ends, means for normally expanding said members, a support upon which the members are mounted, and a foot pedal connected with one lever to close the gripping members.

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1,042,868. TYPE-SETTING DEVICE. MINER R. PARKS, Roseburg, Oreg. Filed Aug. 14, 1911. Serial No. 644,047. (Cl. 101—195.)



1. In a type selecting mechanism, a grooved table, a plate connected therewith, a thumb lever pivoted to said plate, a slidable bar carried by said plate and operatively connected to said thumb lever, means to lift said slidable bar to project a type from a line of type in one of the grooves of the table, a secondary type selector plate and a secondary lever to permit the selection of an additional type from said line of type when desired, substantially as described.

2. In a type selecting mechanism, a grooved table, a plate connected therewith, a thumb lever pivoted to said plate, a slidable bar carried by said plate and operatively connected to said thumb lever, means to lift said slidable bar to project a type from a line of type in one of the grooves of the table, a secondary type selector plate, a secondary lever to permit the selection of an additional type from said line of type when desired, and means to move said line of type forward when one or more type are lifted from the selecting mechanism, substantially as described.

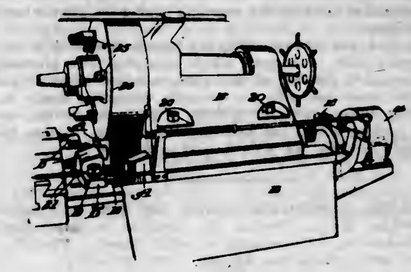
3. In a type selecting mechanism, a grooved table, a plate connected therewith, a thumb lever pivoted to said plate, a slidable bar carried by said plate and operatively connected to said thumb lever, means to lift said slidable bar to project a type from a line of type in one of the grooves of the table, a secondary type selector plate, a secondary lever to permit the selection of an additional type from said line of type when desired, and a type selecting guard to prevent the dislodgment of a number of the type when one or more type are to be removed from a groove in the table, substantially as described.

4. In a type selecting mechanism, a table having grooves therein, a plate having a thumb lever pivoted thereto, a slidable bar operatively connected with said thumb lever and adapted to project a type from a line of type in one of the grooves of the table, a pivoted plate connected to the thumb lever and slidable bar, a foot lever, means connected to the foot lever to raise the slidable bar when a type is to be withdrawn from the groove in said table, blocks slidable in said grooves, and spring operated rollers having cords passing around said blocks to draw said line of type toward the selector mechanism when a type has been removed from the line, substantially as described.

5. In a type selecting mechanism, a grooved table, a plate connected therewith, a thumb lever pivoted to said plate in the plane of the line of type, a slidable bar carried by said plate and operatively connected to said thumb lever, means to lift said slidable bar to project a type from a line of type in one of the grooves of the table, a type guard extending over the line of type and means to prevent the slidable bar from being released after the same has been lifted and prior to its release by the lowering of the lifting means, substantially as described.

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1,042,869. TAIL-STOCK-CLAMPING MEANS. SALMON WILDER PUTNAM, 3d, Fitchburg, Mass. Filed Apr. 30, 1912. Serial No. 694,136. (Cl. 82—31.)



1. In a machine of the character described, having a fixed bed and a part movably mounted thereon, a means for clamping said movable part to the fixed part, said means comprising a male member on one of said parts and a corresponding female member on the other part, one of said members having a sloping surface engaged by the other member and said members operating conjointly to produce a downward clamping action of the movable part on said fixed part.

2. In a machine of the character described, the combination of a fixed part and a part movably mounted thereon, one of said parts having a male member of substantially wedge-shaped form, and the other part having a corresponding female member to receive said male member whereby when one of said members is moved relative to the companion member, said movably mounted part is forced into clamping engagement with the fixed part.

3. In a machine of the character described, the combination with a fixed bed and a tailstock movably mounted thereon, of a projection on one of said parts and a tapered socket fixed to the other part and adapted to receive said projection, the engaging surfaces of the two parts co-acting as one is moved relatively to the other, to automatically clamp the tailstock to said bed.

4. In a machine of the character described, having a bed and a tailstock movably mounted thereon, a pair of co-acting elements one fixed to the bed and the other to the tailstock, one of said elements adapted to ride in contact with the other, said elements having co-acting wedging surfaces whereby during the forward advance of the tailstock said tailstock is automatically forced downwardly into clamping engagement with said bed.

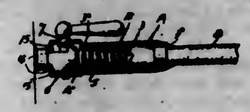
5. In a machine of the character described, the combination with a bed and a tailstock movably mounted thereon, of a foot projecting from the tailstock proximate the bed, and having one of its surfaces inclined, and a block fixed to the bed and having a socket with an in-

cluded wall substantially corresponding to the inclined surface of the foot whereby during the forward movement of the tailstock said inclined surfaces ride in engagement and the tailstock is forced downwardly into clamping engagement with the bed.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,370. GAS-PIPE COUPLING. SAMUEL SCHWEB, New York, N. Y. Filed Apr. 11, 1912. Serial No. 690,182. (Cl. 137—28.)



1. In a gas pipe coupling, the combination with a hose gripping element formed from a longitudinally split tube, one end thereof being inwardly curved to frictionally grip the hose, of opposed nipple engaging jaws pivotally connected to the other end of the tube, and coil springs respectively having one end connected to a jaw and the other end to the tube for normally urging the jaws toward each other.

2. In a gas pipe coupling, the combination with a hose gripping tube, of opposed nipple engaging jaws pivotally connected to one end of said tube, each jaw being formed at its outer end with an inwardly extending nipple engaging flange, and coil springs respectively having one end connected to a jaw and the other end to the tube for normally urging the jaws toward each other.

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1,042,371. CORN-HARVESTING MACHINE. WILLIAM SEWARD BAIRD, Urbana, Ill., assignor to Baird Corn Husker Co., a Corporation of South Dakota. Filed Oct. 27, 1910. Serial No. 589,298. (Cl. 56—113.)



1. In a device of the character described, a pair of substantially parallel snapping rolls provided with inter-engaging spirally disposed ribs and grooves, one of said rolls being provided with a plurality of pins projecting therefrom, and the other of said rolls with a plurality of depressions adapted to receive said pins upon rotation of the rolls, the front faces of said pins being beveled, and means for rotating said rolls in opposite directions.

2. In a device of the character described, a pair of longitudinally extending snapping rolls, and a pair of trash rolls positioned adjacent the rear ends of said snapping rolls, and extending upwardly from the snapping rolls and at an angle thereto, the longitudinal axes of the trash rolls being positioned in substantially the same vertical plane as the longitudinal axes of the snapping rolls and extending transversely thereof.

3. In a device of the character described, a pair of longitudinally extending snapping rolls, a pair of trash rolls positioned adjacent the rear ends of said snapping rolls and extending upwardly at right angles thereto, the longitudinal axes of the trash rolls being positioned in substantially the same vertical plane as the longitudinal axes of the snapping rolls, and feeding means positioned above said snapping rolls for directing the material between the snapping rolls and toward the trash rolls.

4. In a device of the character described, a pair of longitudinally extending snapping rolls, a pair of trash rolls positioned adjacent the rear ends of said snapping rolls and extending upwardly from the snapping rolls and at an angle thereto, the longitudinal axes of the trash rolls being positioned in substantially the same vertical plane as the longitudinal axes of the snapping rolls, a pair of pick-up chains mounted above said snapping rolls and provided with stalk engaging members extending over said rolls, and means for driving said chains to move said stalk engaging members longitudinally of said snapping rolls and toward said trash rolls.

5. In a corn harvesting machine, a pair of longitudinally extending snapping rolls, a pair of trash rolls positioned adjacent the rear ends of said snapping rolls and extending upwardly from the snapping rolls and at an angle thereto, the longitudinal axes of the trash rolls being positioned in substantially the same vertical plane as the longitudinal axes of the snapping rolls and extending transversely thereof, means for feeding the stalks into said snapping rolls and toward said trash rolls, means for driving said feeding means from the axle of the harvesting machine, and independent means for rotating said snapping and trash rolls in opposite directions.

[Claims 6 to 11 not printed in the Gazette.]

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1,042,372. SPLIT INSULATOR. JOHN R. HARRIS, Chartiers township, Allegheny county, Pa. Filed Apr. 8, 1912. Serial No. 689,111. (Cl. 173—314.)



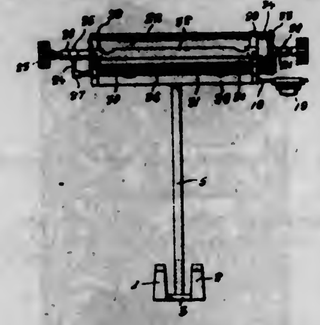
1. A split insulator composed of a base having a central bore provided with a longitudinal slot and a countersunk end, a cap, an integral stem on said cap adapted to extend through said bore into said countersinking when said cap and said base are assembled, and a lateral fin on the end of the stem adapted to register with the slot to permit the assemblage of said cap and said base but when occupying said countersinking and turned out of registration with said slot to limit the movement of said cap in relation to said base and prevent its disassemblage therefrom.

2. A split insulator composed of a base and a cap adapted to be tightened together and bind the wire between them, said base being provided with an axial bore containing a longitudinal slot, a stem integral with said cap and adapted to be inserted in said bore, said cap and stem being provided with a longitudinal fastener hole, and a lateral fin on said stem adapted to traverse said slot when said stem is inserted in said bore and to prevent the withdrawal of said stem from said bore when said fin occupies said countersinking and is turned out of registration with said slot.

3. A split insulator composed of a base and a cap adapted to be tightened together and bind the wire between them, said base being provided with an axial bore containing a longitudinal slot, a stem integral with said cap and adapted to be inserted in said bore, said cap and stem being provided with a longitudinal fastener hole, and a lateral fin on free end of said stem adapted to traverse said slot when said stem is inserted in said bore and to prevent the withdrawal of said stem from said bore when said fin occupies said countersinking and is turned out of registration with said slot, sufficient looseness being provided for the insertion of the wire between the cap and the base by making the stem between the cap and the fin longer than said bore.



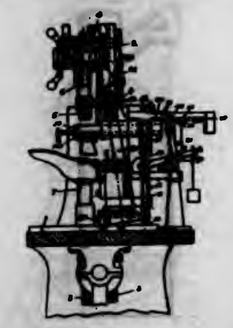
1,042,373. TYPE-WRITER ATTACHMENT. PHILIP B. HOARE, Denver, Colo. Filed Oct. 4, 1910. Serial No. 585,230. (Cl. 129—32.)



In a device of the class described, the combination with a supporting standard, a copy holding frame connected to the standard, a book shelf carried by the frame, bearings secured to the shelf, a supporting arm pivotally mounted in the said bearings, said arm being provided with a lateral shoulder adapted to engage the shelf and limit the movement of said arm in one direction, and a clamp mounted on the outer end of the arm for engaging a note book.

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1,042,374. HEEL-NAILING MACHINE. GEORGE M. PRETSCHILL, Haverhill, Mass., assignor to Haverhill Shoe Machinery Company, a Corporation of Maine. Filed Jan. 16, 1911. Serial No. 602,761. (Cl. 1—35.)



1. In combination with a heel-nailing machine having operating mechanism, movable to perform the heeling operation, and including a nail-plate and a loading-device movable to deliver a load of nails to said plate, means for automatically locking said loading-device against operative movement when it has been moved to perform its nail-delivering operation, and means, actuated on operative movement of said operating mechanism, for automatically unlocking said loading-device.

2. In a heel-nailing machine having operating mechanism, normally movable to perform the heeling-operation in a predetermined cycle and including a nail-plate and a loading-device movable to deliver a load of nails to said plate, means for automatically locking said loading-device against operative movement when it has been moved to perform its nail-delivering operation, and means for automatically unlocking said loading-device actuated by said operating mechanism at a predetermined point in the cycle of its operations.

3. In a heel-nailing machine having operating mechanism, movable to perform the heeling operation, and including a movable nail-plate and a loading-device movable to deliver a load of nails to said plate, means for automatically locking said loading-device against operative movement when it has been moved to perform its nail-delivering operation, and means, actuated by said operating mechanism in a predetermined position of the nail-plate, for automatically unlocking said loading-device.

4. In a heel-nailing machine having operating mechanism, movable successively to perform the heel-pricking and nailing operations, a nail-plate movable to corresponding positions during said operations, a loading-device movable to deliver a load of nails to said plate after each pricking operation, means for automatically locking said loading-device when it has been moved to perform its nail-delivering operation, and means, actuated by said operating mechanism on each pricking operation, for automatically unlocking said loading-device.

5. In a heel-nailing machine having operating mechanism, movable successively to perform the heel-pricking and nailing operations, a nail-plate movable between nail-receiving, heel-pricking and heel-nailing positions, a loading-device for delivering a load of nails to said plate when in nail-receiving position, means for automatically locking said loading-device at the end of each operative movement thereof, and means for automatically unlocking said loading-device disposed to be actuated by said operating mechanism only when the nail-plate is in pricking position.

[Claims 6 to 15 not printed in the Gazette.]

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1,042,375. ELECTRIC-ARC LAMP. WALDEMAR RICHLING, Berlin, Germany, assignor to Hermann Malachowski, Berlin, Germany. Original application filed Nov. 15, 1909, Serial No. 528,176. Divided and this application filed Apr. 11, 1911. Serial No. 620,407. (Cl. 176—109.)



In an arc lamp, a base, electrodes parallel throughout their length adjacently supported therein, and a stationary heat-resisting non-conductor arranged between said electrodes adjacent the base and serving to automatically extinguish the lamp by lengthening the arc.

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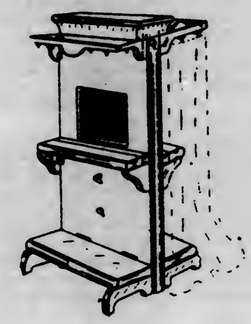
# DESIGNS.

43,175. BADGE, CHARM, OR SIMILAR ARTICLE. GEORGE W. BALL, Boise, Idaho. Filed June 24, 1912. Serial No. 705,668. Term of patent 7 years.



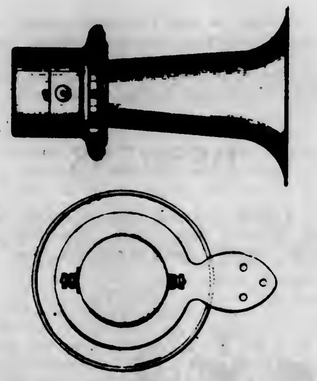
The ornamental design for a badge, charm or similar article designed for the Order of Elks.

43,176. PORTABLE CONFESSIONAL. FREDERICK W. HOFFMANN, Ottumwa, Iowa. Filed May 29, 1912. Serial No. 700,518. Term of patent 7 years.



The ornamental design for a portable confessional as shown.

43,177. AUTOMOBILE-HORN. ARTHUR ATWATER KENT, Philadelphia, Pa. Filed Feb. 28, 1910. Serial No. 546,565. Term of patent 14 years.



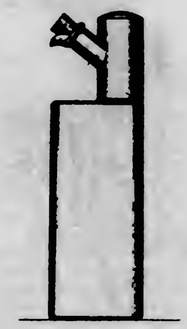
The ornamental design for an automobile horn, as shown.

43,178. TEXTILE FABRIC. HARRY T. LOOMIS, New York, N. Y., assignor to Frank & Lambert, Inc., New York, N. Y., a Corporation of New York. Filed Aug. 27, 1912. Serial No. 717,408. Term of patent 3½ years.



The ornamental design for a textile fabric, as shown.

43,179. POISON-BOTTLE. GEORGE H. PARSLOW, Chilliwack, British Columbia, Canada. Filed Mar. 27, 1912. Serial No. 686,711. Term of patent 7 years.



The ornamental design for a poison bottle as shown.

43,180. MILITARY HAIR-BRUSH. JACOB H. SCHRUBB, New York, N. Y. Filed Aug. 21, 1912. Serial No. 716,333. Term of patent 14 years.



The ornamental design for a military hair brush as shown.



43,181. MILITARY HAIR-BRUSH. JACOB H. SCHRUBB, New York, N. Y. Filed Aug. 21, 1912. Serial No. 716,334. Term of patent 14 years.



The ornamental design for a military hair brush as shown.

43,182. TOILET-BRUSH. JACOB H. SCHRUBB, New York, N. Y. Filed Aug. 21, 1912. Serial No. 716,335. Term of patent 14 years.

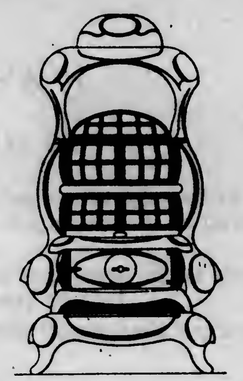


The ornamental design for a toilet brush as shown.

43,183. STOVE. STEPHEN A. STELLWAGEN, Minneapolis, Minn., and GEORGE B. CARTER and WILLIAM L. BERTRAM, Detroit, Mich., assignors to The Foster Stove Company, Ironton, Ohio, a Corporation of Ohio. Filed Aug. 19, 1912. Serial No. 715,985. Term of patent 14 years.



43,183.



The ornamental design for a stove, as shown.

43,184. STOVE. BLANCA WILL, Rochester, N. Y., assignor to Sill Stove Works, Rochester, N. Y., a Corporation of New York. Filed Aug. 22, 1912. Serial No. 716,539. Term of patent 14 years.



The ornamental design for a stove as herein shown.













# TRADE-MARKS

## PUBLISHED OCTOBER 22, 1912.

**The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.**

**Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.**

**As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.**

**Ser. No. 36,408. (CLASS 37. PAPER AND STATIONERY.) J. G. SHAW BLANK BOOK COMPANY, New York, N. Y. Filed July 21, 1908.**



No claim being made to the words "High Grade."

*Particular description of goods.*—Covered and Bound Blank Books, Journals, Ledgers, Day-Books, Cash-Books, Figuring-Books, Index-Books, Trial-Balance Books, Desk-Pads, Invoice-Books, Scrap-Books, Duplicating-Books, Diaries, and Time-Books.

*Claims use* since January, 1880.

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**Ser. No. 54,329. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) THE MCLASHEEN SALES CO., St. Louis, Mo. Filed Feb. 6, 1911.**

IMPERATOR

*Particular description of goods.*—Lighting or Flame-Rendering Devices in Which Alcohol or other Inflammable Liquid is Ignited by Sparks Produced by Friction.

*Claims use* since Sept. 20, 1910.

**Ser. No. 55,197. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) MATHIAS KLEIN & SONS, Chicago, Ill. Filed Mar. 20, 1911.**



*Particular description of goods.*—Wire-Clamps and Wire-Splicing Clamps, Wrenches, Pliers, Cutters, Wire-Tweezers, Scissors, Electricians' Tool-Kits, Electricians' Knives, Wire-Peelers, Screw-Drivers, Drills, Boring-Tools, Saws, Wire-Gripe, Wire-Stretchers, Vises, Pulley-Blocks, and Climbers.

*Claims use* since about Jan. 1, 1911.

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**Ser. No. 55,198. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) MATHIAS KLEIN & SONS, Chicago, Ill. Filed Mar. 20, 1911.**

XELA

*Particular description of goods.*—Linemen's and Electricians' Knives, Screw-Drivers, Spud-Digging and Tamping Bars, Long-Handled Telegraph-Shovels, Long-Handled Telegraph-Spoons, D-Handled Shovels, Combination Gas-Pliers and Electricians' Scissors.

*Claims use* since about Jan. 15, 1910.

Ser. No. 57,036. (CLASS 39. CLOTHING.) HADLEY & REEVES M'F'G CO., Swissvale, Pa. Filed June 14, 1911.




*Particular description of goods.*—Slippers, Shoes, Sandals, and Insoles, All Made from Vegetable Fiber Known as "Loofah," and for Friction-Gloves.
*Claims use* since May 1, 1911.

Ser. No. 58,829. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN BLYTH, Cincinnati, Ohio, assignor to The Blyth Tea Company, a Corporation of Ohio. Filed Sept. 23, 1911.




*Particular description of goods.*—Bourbon Santos Coffee.
*Claims use* since Aug. 15, 1911.

Ser. No. 59,298. (CLASS 39. CLOTHING.) MILLER BROS., Galveston, Tex. Filed Oct. 23, 1911.

ACE

HIGH

*Particular description of goods.*—Jumpers and Work-Shirts.
*Claims use* since September, 1907.

Ser. No. 59,934. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE COLLINS COMPANY, Collinsville, Conn. Filed Nov. 25, 1911.

Sam W. Collins

Being a facsimile of the signature of Sam W. Collins, one of the founders of the business to which applicant has succeeded and now deceased.
*Particular description of goods.*—Axes, Hatchets, Adzes, Bush-Hooks, Bayonets, Saws, Machetes, Cane-Knives, Tercados, Chisels, Cleavers, Swords, Sickles, Jincolas, Lansas, Lancitas, Arpones, Augers, Boring-Bits, Mill-Picks, Sledges, Hammers, Wedges, and Wrenches.
*Claims use* since 1826.

Ser. No. 60,342. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) PYLE-NATIONAL ELECTRIC HEADLIGHT COMPANY, Chicago, Ill. Filed Dec. 18, 1911.




No claim, however, is made to the words "Pyle-National Electric Headlight Co Chicago."
*Particular description of goods.*—Electric Headlights and Driving, Connecting, Controlling, and Operating Devices Therefor.
*Claims use* for about twelve years.

Ser. No. 60,710. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE COLLINS COMPANY, Collinsville, Conn. Filed Jan. 10, 1912. Under ten-year proviso.



*Particular description of goods.*—Axes, Hatchets, Adzes, Bush-Hooks, Machetes, Saws, Chisels, Knives other than Clasp and Pocket Knives, Swords, Sickles, Mattocks, Pick-axes, Shovels, Spades, Crowbars, Picks, Hoes, Mill-Picks, Sledges, Hammers, Wedges, Wrenches, Augers, Boring-Bits, Earth and Rock Drills, Cavadores, Barretones, Tarpalas, Palas, Tercados, Jincolas, Barras, Lansas, Lancitas, Arpones, Cleavers, and Bayonets.
*Claims use* since 1826.

Ser. No. 61,038. (CLASS 39. CLOTHING.) VINCENZO BENEDETTI, New York, N. Y. Filed Jan. 26, 1912.

B-D

*Particular description of goods.*—Boots, Shoes, Slippers, Insoles, and Overshoes Made of Leather.
*Claims use* since Jan. 24, 1912.

Ser. No. 61,153. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LAYTON PURE FOOD COMPANY, East St. Louis, Ill. Filed Jan. 31, 1912.

BUTTERMILK

*Particular description of goods.*—Baking-Powder and Baking-Soda.
*Claims use* since Jan. 1, 1898.





Ser. No. 61,360. (CLASS 15. OILS AND GREASES.) C. C. WAKEFIELD & COMPANY, London, England. Filed Feb. 6, 1912.

CASTROL

*Particular description of goods.*—Oils for Heating, Lighting, and Lubricating.
*Claims use* since July, 1906.

Ser. No. 61,386. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) OINTINE COMPANY, Norwich, N. Y. Filed Feb. 9, 1912.

Dr. H. A. Carr
OINTINE

The facsimile signature being that of H. A. Carr.
*Particular description of goods.*—A Remedy for Inflamed Vagina, Inflamed Womb, Inflamed Ovaries, also for Bleeding and Itching Piles.
*Claims use* since Oct. 1, 1911.

Ser. No. 61,712. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL PACKING COMPANY, Portland, Me. Filed Feb. 24, 1912.



*Particular description of goods.*—Cured Hams, Bacon, Shoulders, and Sausage.
*Claims use* since Jan. 1, 1908.

Ser. No. 61,919. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) WILLIAM FORSTER, Walnut Springs, Tex. Filed Mar. 4, 1912.




The word "Forster" being disclaimed.
*Particular description of goods.*—A Liquid Compound for Cleaning and Polishing Wood, Metal, or Any Hard Smooth Surface.
*Claims use* since Dec. 1, 1911.

Ser. No. 62,264. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) CHARLES A. UPTON, Boston, Mass. Filed Mar. 18, 1912.

ACME

*Particular description of goods.*—Dress-Forms.
*Claims use* since 1900.

Ser. No. 62,453. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE ADAMS-BAGNALL ELECTRIC CO., Cleveland, Ohio. Filed Mar. 27, 1912.

AB OLITE

*Particular description of goods.*—Electric Lamps, Pendant or Otherwise, Electric-Lamp Supports, Shade-Holders, and Reflector-Supports.
*Claims use* since June 1, 1911.

Ser. No. 62,567. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) INTERSTATE COMMERCE CO., INC., Richmond, Va. Filed Apr. 1, 1912.



The picture being fanciful.
*Particular description of goods.*—Laxative Quinin Tablets, Cough-Syrup, Blackberry-Cordial, Laudanum, Sweet-Oil, Muriate of Iron, Paregoric, Toothache-Drops, Castor-Oil, Liquid Corn Remedy, Bay-Rum, Glycerin, Extract of Peppermint, Extract of Ginger, Spirits of Camphor, Aromatic Castor-Oil, Worm-Syrup, Digestive Tablets, Spirits of Turpentine, Laxative Fig-Syrup, and Castoria.
*Claims use* since Jan. 1, 1908.

Ser. No. 62,615. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) J. & E. ATKINSON, LIMITED, London, England. Filed Apr. 3, 1912.




*Particular description of goods.*—Perfumery, Sachets, Dentifrices, Face and Toilet Powders, and Hair Tonics and Lotions.
*Claims use* since Nov. 7, 1911.

Ser. No. 62,983. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) OKLAHOMA MEDICINE COMPANY, Oklahoma, Okla. Filed Apr. 18, 1912.




The portrait being that of George Ash, no claim being made to the word "Discovery."
*Particular description of goods.*—Liquid Medicines for Blood Diseases.
*Claims use* since Jan. 1, 1912.

Ser. No. 63,264. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CLAYTON CHEMICAL COMPANY, New York, N. Y. Filed May 3, 1912.

CLAYTONIQUE

*Particular description of goods.*—A Remedy in Liquid Form for Anemia, Diseases of the Blood, and General Debility.
*Claims use* since Apr. 6, 1912.

Ser. No. 63,301. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ARTHUR MELLEVE, Seattle, Wash. Filed May 7, 1912.

M&B.



*Particular description of goods.*—Olive-Oil.
*Claims use* since 1905.

Ser. No. 63,564. (CLASS 37. PAPER AND STATIONERY.) BINNEY & SMITH COMPANY, New York, N. Y. Filed May 15, 1912.

PERMA

*Particular description of goods.*—Crayons.
*Claims use* since May 6, 1912.

Ser. No. 63,649. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) GENERAL ELECTRIC COMPANY, Schenectady, N. Y. Filed May 20, 1912.

ACME

Consists of the word "Acme."
*Particular description of goods.*—Electrical Insulating-Tape.
*Claims use* since September, 1889.

Ser. No. 63,664. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) CHEMISCHE FABRIK HEIDENAU, GESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG, Heidenau, near Dresden, Germany. Filed May 20, 1912.

Monit

*Particular description of goods.*—A Non-Inflammable Mass Made of Cellulose Xanthogenat and Manufactured in the Form of Plates and Bars.
*Claims use* since Dec. 20, 1910.





Ser. No. 63,703. (CLASS 28. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) DANIEL BEN SIMPSON, Berkeley, Cal. Filed May 21, 1912.




A red ring and the words "Red Ring."
*Particular description of goods.*—Vacuum-Cleaners and Vacuum-Cleaner Dust-Suction Tubes and Vacuum-Cleaner Tools and Parts thereof.
*Claims use* since June 1, 1910.

Ser. No. 63,714. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) LYON & HEALY, Chicago, Ill. Filed May 22, 1912.




The expression "Manual Key Board," "Artists Record Roll," "Regulation Roll," "Plays-3-Ways," being hereby disclaimed.
*Particular description of goods.*—Pianos.
*Claims use* since May 1, 1912.

Ser. No. 63,715. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AKTIEBOLAGET SVERIGES FÖRENADE KONSERVFABRIKER, Goteborg, Sweden. Filed May 22, 1912.

Monitor

*Particular description of goods.*—Sardines.
*Claims use* since January, 1912.

Ser. No. 63,902. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) HENLEY-WATSON CONCERTOLA COMPANY, Kansas City, Mo. Filed May 25, 1912.



*Particular description of goods.*—Piano-Player Actions.
*Claims use* since Apr. 15, 1912.

Ser. No. 63,936. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) A. E. PECK MFG. CO., Minneapolis, Minn. Filed June 1, 1912.

PYZOSIS

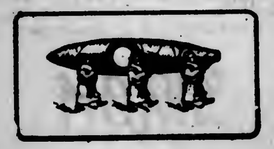
*Particular description of goods.*—A Tooth-Paste.
*Claims use* since about the 15th of May, 1912.

Ser. No. 64,030. (CLASS 48. MALT EXTRACTS AND LIQUORS.) FLOWER CITY BREWING CO., Rochester, N. Y. Filed June 6, 1912.

KaraMalt

*Particular description of goods.*—Beers, Ales, and Porters.
*Claims use* since May 25, 1912.

Ser. No. 64,185. (CLASS 17. TOBACCO PRODUCTS.) PRINCE BROS. CO., Philadelphia, Pa. Filed June 12, 1912.



The representation of the cigar being disclaimed.
*Particular description of goods.*—Cigars.
*Claims use* since about May 10, 1911.

Ser. No. 64,137. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) H. V. T. SCHILL CO., New York, N. Y. Filed June 12, 1912.

SORORITY

*Particular description of goods.*—Cloths Known as "Piece Goods," Woven from Cotton, Silk and Cotton, Linen and Wool.
*Claims use* since Feb. 15, 1912.

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Ser. No. 64,152. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) COLUMBIAN ENAMELING & STAMPING CO., Terre Haute, Ind. Filed June 13, 1912.

ONYX

*Particular description of goods.*—Enameled Steel Teapots, Coffee-Pots, and Biggins, Tea-Kettles, Bread-Raisers, Duchess Kettles, Foot-Baths, Infants' Baths, Cereal-Cookers, Saucepans, Preserving-Kettles, Dish-Pans, Sink-Strainers, Rinsing-Pans, Berlin Kettles, Convex Kettles, Sauce Pots and Pans, Seamless Colanders, Baking-Dishes, Utility-Pans, Soap-Dishes, Water-Pitchers, Wash Basins, Pitchers, and Bowls, Milk-Kettles, Milk-Pans, Pudding-Pans, Stew-Pans, Mixing-Bowls, Drinking-Cups, Custard-Cups, Saucers, Dinner-Plates, Muffin-Pans, Pie-Plates, Jelly-Cake Pans, Basting-Spoons, Soup-Ladles, Dippers, Soup-Strainers, Chambers, Spittoons and Cuspidors, Stock-Pots.
*Claims use* since January, 1907.

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Ser. No. 64,223. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) CHRISTIAN WEISS, Trossingen, Wurttemberg, Germany. Filed June 15, 1912.

Metalla

*Particular description of goods.*—Mouth-Harmonicas, Accordions, and Blow-Accordions.
*Claims use* since Dec. 11, 1911.

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Ser. No. 64,247. (CLASS 37. PAPER AND STATIONERY.) BERGER COMPANY, New York, N. Y. Filed June 17, 1912.

Beegee

*Particular description of goods.*—Glass Ink-Erasers.
*Claims use* since Dec. 1, 1911.

Ser. No. 64,263. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THOMAS A. EDISON, INCORPORATED, West Orange, N. J. Filed June 19, 1912.

BSCO

*Particular description of goods.*—Primary Batteries and Parts Thereof.
*Claims use* since August, 1907.

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Ser. No. 64,271. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) E. GREENFIELD'S SONS, New York, N. Y. Filed June 19, 1912.

CLASSIC

*Particular description of goods.*—Chocolates.
*Claims use* since February, 1912.

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Ser. No. 64,297. (CLASS 17. TOBACCO PRODUCTS.) CURRY-HEWITT TOBACCO CO., Cleveland, Ohio. Filed June 21, 1912.




The portrait being that of John A. Curry, associated with a facsimile of his signature, together with the words "Jack's Mixture," no claim being made to the words "Jack's Mixture."
*Particular description of goods.*—Smoking-Tobacco.
*Claims use* since May 15, 1912.

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Ser. No. 64,418. (CLASS 39. CLOTHING.) S. B. FOOT & CO., Red Wing, Minn. Filed June 26, 1912.

Hanagan

*Particular description of goods.*—Shoes of Leather and Skin.
*Claims use* since 1906.





Ser. No. 64,455. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) CHALFANT BROS. INC., Philadelphia, Pa. Filed June 28, 1912.

"THAT IS!"

*Particular description of goods.*—Coal.
*Claims use* since 1909.

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Ser. No. 64,575. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) J. D. RIEDEL AKTIENGESELLSCHAFT, Berlin, Germany. Filed July 3, 1912.

GIVASAN

*Particular description of goods.*—Tooth-Pastes.
*Claims use* since January, 1908.

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Ser. No. 64,690. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARSHALL FIELD & COMPANY, Chicago, Ill. Filed July 12, 1912.




The roses and lower portion of the background being blue, as shown.
*Particular description of goods.*—Perfumes and Toilet Waters.
*Claims use* since Mar. 6, 1912.

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Ser. No. 64,819. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ANDREW JERGENS CO., Cincinnati, Ohio. Filed July 19, 1912. Under ten-year proviso.


WOODBURY'S

Comprising the word "Woodbury's" and the portrait of John H. Woodbury, deceased.
*Particular description of goods.*—Facial Cream, Dental Cream, Tooth-Powder, Facial Powder, and Toilet Powder.
*Claims use* since Jan. 1, 1891.

Ser. No. 64,825. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BENTLEY MEDICINE COMPANY, Dallas, Tex. Filed July 19, 1912.




The word "Remedies" being disclaimed.
*Particular description of goods.*—A Remedy for All Derangements of the Female Organs.
*Claims use* since June 26, 1912.

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Ser. No. 64,875. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) ISAAC A. SHEPPARD & CO., Philadelphia, Pa. Filed July 23, 1912.

IASCO

*Particular description of goods.*—Stoves and Ranges for Heating and Household Purposes, Furnaces, Hot-Air Heaters, Hot-Water Heaters, Steam and Hot-Water Boilers.
*Claims use* since May 3, 1912.

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Ser. No. 64,930. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JNO. C. ABERNETHY, Miami, Fla. Filed July 25, 1912.

Creoso-Abernethy Jno C.-Pepsin

The signature shown being a facsimile of the applicant's. No claim is made to the words "Creoso-Pepsin."
*Particular description of goods.*—A Preparation for the Treatment of Coughs, Colds, La Grippe, Bronchial and Tubercular Affections.
*Claims use* since June 15, 1912.

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Ser. No. 64,974. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THOMAS A. EDISON, INCORPORATED, West Orange, N. J. Filed July 27, 1912.

HOME

*Particular description of goods.*—Motion-Picture-Exhibiting Apparatus and Motion-Picture Films.
*Claims use* since January, 1912.

Ser. No. 64,987. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) HERMAN ROBERT SEIBERT, St. Paul, Minn. Filed July 29, 1912.




No claim being made to the words "Seibert" and "Fly Killer."

*Particular description of goods.*—A Receptacle for Holding and Exposing an Insecticide.

*Claims use* since Mar. 4, 1912.

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Ser. No. 64,989. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) W. J. WILSON & SON, New Castle, Cal. Filed July 29, 1912.



The figure being a representation of Pomona, the goddess of fruit-trees.

*Particular description of goods.*—Fresh Deciduous Fruits.

*Claims use* since 1887.

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Ser. No. 65,005. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ACTIEN-GESELLSCHAFT FÜR ANILIN-FABRIKATION, Berlin, Germany. Filed July 31, 1912.

Solvarom

*Particular description of goods.*—Solvents for Resins, Oils, Natural or Artificial Perfumes.

*Claims use* since Sept. 30, 1910.

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Ser. No. 65,013. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) PROGRESSIVE MANUFACTURING COMPANY, New York, N. Y. Filed July 31, 1912.

MYSTERIOUS RAGS

*Particular description of goods.*—Cleaning and Polishing Cloths.

*Claims use* since Mar. 1, 1912.

Ser. No. 65,065. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE YALE SOAP & REFINING COMPANY, Cincinnati, Ohio. Filed Aug. 1, 1912.

"SAMBO"

*Particular description of goods.*—Laundry Soap.

*Claims use* since June 8, 1912.

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Ser. No. 65,081. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THOMAS GROSSERT, New York, N. Y. Filed Aug. 2, 1912.



Which displays a fanciful female bust, used as a trade-mark.

*Particular description of goods.*—Hair-Steaming Devices.

*Claims use* since July 5, 1912.

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Ser. No. 65,130. (CLASS 39. CLOTHING.) DRY-FUT INSOLE MFG. CO., New York, N. Y. Filed Aug. 1, 1912.



*Particular description of goods.*—Insoles.

*Claims use* since May 17, 1908.

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Ser. No. 65,139. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) M. RUMELY COMPANY, Laporte, Ind. Filed Aug. 7, 1912.

RUMELY GASPULL LA PORTE

No claim is made to the words "Rumely" and "La Porte."

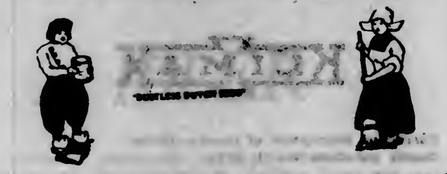
*Particular description of goods.*—Traction and Stationary Engines.

*Claims use* since July 6, 1912.





Ser. No. 65,323. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE CHASE-SWEEP COMPANY, Los Angeles, Cal. Filed Aug. 19, 1912.




*Particular description of goods.*—Sweeping Compound.

*Claims use* since Feb. 1, 1910.

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Ser. No. 65,346. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) RUDOLF SARNOSE CO., New York, N. Y. Filed Aug. 20, 1912.

Tak-Homa

*Particular description of goods.*—Hair-Nets.

*Claims use* since May 1, 1912.

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Ser. No. 65,389. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CARSON, PIRIE, SCOTT & CO., Chicago, Ill. Filed Aug. 23, 1912.

SOVEREIGN

*Particular description of goods.*—Carpets and Rugs.

*Claims use* since about August, 1909.

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Ser. No. 65,423. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) NATIONAL LEAD COMPANY, New York, N. Y., and St. Louis, Mo. Filed Aug. 26, 1912.

FIRE POT

*Particular description of goods.*—Solder.

*Claims use* since June 15, 1912.

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Ser. No. 65,444. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) PITTSBURG WATER HEATER COMPANY, Pittsburgh, Pa. Filed Aug. 27, 1912.

BUNGALOW

*Particular description of goods.*—Water-Heaters for Heating Water for Domestic Purposes.

*Claims use* since April, 1909.

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Ser. No. 65,467. (CLASS 39. CLOTHING.) TALIAFERRO & SHERWOOD, New York, N. Y. Filed Aug. 28, 1912.

STORK

*Particular description of goods.*—Hosiery.

*Claims use* since October, 1909.



Ser. No. 65,502. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) KNIT MANUFACTURING COMPANY, New York, N. Y. Filed Aug. 30, 1912.

"SWEDETTE"

*Particular description of goods.*—Bleached Mercerised Cotton Goods in the Piece.

*Claims use* since June 24, 1912.

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Ser. No. 65,515. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) THE DE LONG HOOK AND EYE COMPANY, Philadelphia, Pa. Filed Aug. 31, 1912.

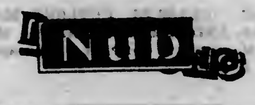
Nub

*Particular description of goods.*—Hooks and Eyes.

*Claims use* since Aug. 23, 1912.

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Ser. No. 65,517. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) THE DE LONG HOOK AND EYE COMPANY, Philadelphia, Pa. Filed Aug. 31, 1912.




*Particular description of goods.*—Hooks and Eyes.

*Claims use* since Aug. 23, 1912.

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Ser. No. 65,526. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) INTERNATIONAL LEAD REFINING COMPANY, East Chicago, Ind., and New York, N. Y. Filed Aug. 31, 1912.

I.L.R.CO.

*Particular description of goods.*—Lead.

*Claims use* since Aug. 15, 1912.

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Ser. No. 65,527. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) INTERNATIONAL LEAD REFINING COMPANY, East Chicago, Ind., and New York, N. Y. Filed Aug. 31, 1912.

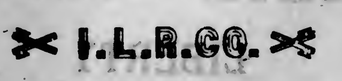



*Particular description of goods.*—Lead.

*Claims use* since Aug. 15, 1912.

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Ser. No. 65,528. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) INTERNATIONAL LEAD REFINING COMPANY, East Chicago, Ind., and New York, N. Y. Filed Aug. 31, 1912.




*Particular description of goods.*—Lead.

*Claims use* since Aug. 15, 1912.

Ser. No. 65,534. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE MARVELOUS GRIPPE REMEDY CO., Fort Atkinson, Wis. Filed Aug. 31, 1912.



Consisting of a portrait of the president of said company.

*Particular description of goods.*—A Remedy for the Treatment of La Grippe.

*Claims use* since Feb. 26, 1912.

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Ser. No. 65,540. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) MINNEAPOLIS STEEL & MACHINERY COMPANY, Minneapolis, Minn. Filed Sept. 3, 1912.



*Particular description of goods.*—Gas Traction-Engines.

*Claims use* since Mar. 28, 1911.

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Ser. No. 65,583. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) WEINGARTEN & GEBHARDS, New York, N. Y. Filed Sept. 4, 1912.

54

*Particular description of goods.*—Hand-Satchels.

*Claims use* since Jan. 10, 1912.

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Ser. No. 65,719. (CLASS 38. PRINTS AND PUBLICATIONS.) LIBERTY PUBLISHING CO., Cleveland, Ohio. Filed Sept. 12, 1912.

LIBERTY

*Particular description of goods.*—Periodicals.

*Claims use* since Apr. 1, 1909.

Ser. No. 65,722. (CLASS 12. CONSTRUCTION MATERIALS.) PAINE LUMBER COMPANY, LIMITED, Oshkosh, Wis. Filed Sept. 18, 1912.

KLIMAX

*Particular description of goods.*—Doors.

*Claims use* since Nov. 1, 1911.

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Ser. No. 65,777. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FULTON BAG & COTTON MILLS, Atlanta, Ga. Filed Sept. 16, 1912.

USAMP

*Particular description of goods.*—Canvas Ducking.

*Claims use* since Apr. 12, 1912.

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Ser. No. 65,897. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) KEY-CALK HORSESHOE MANUFACTURING COMPANY, Green Bay, Wis. Filed Sept. 20, 1912.

LOCK-JAW

*Particular description of goods.*—Horseshoe-Calks and Horseshoes.

*Claims use* since Aug. 27, 1912.

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Ser. No. 65,931. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) HERMAN L. HOELFELD, Philadelphia, Pa. Filed Sept. 23, 1912.

While Away

*Particular description of goods.*—Hammocks, Couch-Hammocks, Settee-Hammocks, Folding Hammocks, and Baby-Hammocks.

*Claims use* since Aug. 30, 1912.

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Ser. No. 65,932. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) HERMAN L. HOELFELD, Philadelphia, Pa. Filed Sept. 23, 1912.

SNUG HARBOR

*Particular description of goods.*—Hammocks, Couch-Hammocks, Settee-Hammocks, Folding Hammocks, and Baby-Hammocks.

*Claims use* since Feb. 1, 1912.





Ser. No. 65,934. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) HERMAN L. HOELFELD, Philadelphia, Pa. Filed Sept. 23, 1912.

IDLER

*Particular description of goods.*—Hammocks, Couch-Hammocks, Settee-Hammocks, Folding Hammocks, and Baby-Hammocks.

*Claims use* since Aug. 30, 1912.

Ser No. 65,904. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) BIRDSALL BROTHERS CO., Scelyville and Honesdale, Pa. Filed Sept. 26, 1912. Under ten-year proviso.

Honesdale

*Particular description of goods.*—Blankets, Woolen Piece Goods, and Flannels.

*Claims use* since 1850.

# TRADE-MARKS

## REGISTERED OCTOBER 22, 1912.

88,721. CORSETS. B. Altman & Co., New York, N. Y.
Filed June 6, 1912. Serial No. 64,006. PUBLISHED JULY 23, 1912.

88,722. CORSETS. B. Altman & Co., New York, N. Y.
Filed June 6, 1912. Serial No. 64,007. PUBLISHED JULY 23, 1912.

88,723. CORSETS. B. Altman & Co., New York, N. Y.
Filed June 6, 1912. Serial No. 64,008. PUBLISHED JULY 23, 1912.

88,724. GLOVES. B. Altman & Co., New York, N. Y.
Filed June 6, 1912. Serial No. 64,012. PUBLISHED JULY 23, 1912.

88,725. OZONIZING APPARATUS. American Ozone Company, Niagara Falls, N. Y.
Filed June 8, 1912. Serial No. 64,060. PUBLISHED AUGUST 20, 1912.

88,726. BRUSHES. Auto Strop Safety Razor Co., New York, N. Y.
Filed June 19, 1912. Serial No. 64,268. PUBLISHED AUGUST 20, 1912.

88,727. BOOK-CLOTHS. Joseph Bancroft & Sons Co., Wilmington, Del.
Filed May 29, 1912. Serial No. 63,871. PUBLISHED JULY 16, 1912.

88,728. WINDOW-SHADE FABRIC. Joseph Bancroft & Sons Co., Wilmington, Del.
Filed May 29, 1912. Serial No. 63,872. PUBLISHED JULY 16, 1912.

88,729. STOCKINGS. Joseph Black & Sons Company, York, Pa.
Filed June 8, 1912. Serial No. 64,057. PUBLISHED JULY 30, 1912.

88,730. NUTS AND BOLTS, METAL WASHERS, AND DRIVING-CHAINS. Brampton Brothers Limited, Birmingham, England.
Filed March 23, 1912. Serial No. 62,877. PUBLISHED AUGUST 20, 1912.

88,731. COOKING-OIL. The Campbell Company, Inc., Boston, Mass.
Filed May 10, 1912. Serial No. 63,458. PUBLISHED AUGUST 20, 1912.

88,732. HANDKERCHIEFS. Carson, Pirie, Scott & Co., Chicago, Ill.
Filed June 21, 1912. Serial No. 64,307. PUBLISHED JULY 30, 1912.

88,733. PIECE GOODS MADE OF CERTAIN MATERIALS AND MIXTURES THEREOF. The H. B. Claflin Company, New York, N. Y.
Filed May 17, 1912. Serial No. 63,610. PUBLISHED JULY 16, 1912.

88,734. VELVET RIBBONS. Colcombet Fois & Co., St. Etienne, France.
Filed April 10, 1912. Serial No. 62,810. PUBLISHED AUGUST 13, 1912.

88,735. VELVET RIBBONS. Colcombet Fois & Co., St. Etienne, France.
Filed April 10, 1912. Serial No. 62,811. PUBLISHED AUGUST 13, 1912.

88,736. NATURAL MINERAL WATERS. Compagnie Fermière de L'Etablissement Thermal de Vichy, Paris, France.
Filed June 16, 1911. Serial No. 57,093. PUBLISHED AUGUST 20, 1912.

88,737. SPECIALLY-PREPARED SIZE FOR CERTAIN USES. The Cott-a-lap Company, New Haven, Conn., and Somerville, N. J.
Filed February 20, 1912. Serial No. 61,652. PUBLISHED AUGUST 20, 1912.

88,738. ARTIFICIALLY-FLAVORED CARBONATED NON-ALCOHOLIC BEVERAGES. Crown City Bottling & Syrup Co., Birmingham, Ala.
Filed June 10, 1912. Serial No. 64,085. PUBLISHED AUGUST 20, 1912.

88,739. OIL-PAINTS AND PIGMENTS FOR OIL-PAINTS. Allerton S. Cushman, Washington, D. C.
Filed June 7, 1911. Serial No. 56,871. PUBLISHED AUGUST 20, 1912.

88,740. NEGLIGÉE AND UNDER SHIRTS, DRAWERS, CORSET-COVERS, AND CORSETS. Deimel Linen-Mesh System Company, San Francisco, Cal.
Filed April 27, 1912. Serial No. 63,183. PUBLISHED JULY 16, 1912.

88,741. FABRIC UNDERSHIRTS, DRAWERS, UNION SUITS, NIGHTGOWNS, AND PAJAMAS. Delmarvia Manufacturing Company, Smyrna, Del.
Filed June 8, 1912. Serial No. 64,061. PUBLISHED AUGUST 13, 1912.

88,742. CERTAIN NAMED ARTICLES OF CLOTHING. The Direct Supply Co., Martinsburg, W. Va., and New York, N. Y.
Filed July 20, 1911. Serial No. 57,780. PUBLISHED JULY 30, 1912.

88,743. OVERALLS. Blossner-Heynemann Co., San Francisco, Cal.
Filed March 26, 1912. Serial No. 62,422. PUBLISHED JULY 16, 1912.

88,744. CHAMPAGNE, SCUPPERNONG, CLARET, SHERRY, WHITE, RED, PORT, AND HUCKLEBERRY WINES. Milton L. Epperson, Fort Worth, Tex.
Filed April 19, 1912. Serial No. 63,008. PUBLISHED AUGUST 20, 1912.

88,745. CLOTH AND LEATHER BOOTS AND SHOES. The Florsheim Shoe Company, Chicago, Ill.
Filed May 20, 1912. Serial No. 63,648. PUBLISHED JULY 16, 1912.

88,746. MATCHES. Grantorpets Tändsticksfabriks Aktiebolag, Westervik, Sweden.
Filed March 2, 1911. Serial No. 54,809. PUBLISHED AUGUST 20, 1912.

88,747. PLAIN AND PRINTED COTTON FABRICS IN THE PIECE. Garner Print Works & Bleachery, West Haverstraw, Wappingers Falls, and New York, N. Y.
Filed May 16, 1912. Serial No. 63,584. PUBLISHED JULY 16, 1912.

88,748. HAIR-NETS. A. J. Hague & Co., Inc., New York, N. Y.
Filed June 3, 1912. Serial No. 63,966. PUBLISHED JULY 16, 1912.

88,749. LEATHER BOOTS AND SHOES. Haynes Henson Shoe Company, Knoxville, Tenn.
Filed September 6, 1911. Serial No. 58,547. PUBLISHED JULY 23, 1912.

88,750. MEN'S AND BOYS' FELT HATS AND CAPS. HILL & LOPER CO., INC., Danbury, Conn.
Filed June 26, 1912. Serial No. 64,405. PUBLISHED AUGUST 13, 1912.

88,751. RUBBER BOOTS, SHOES, OVERSHOES, AND RUBBER-SOLED CANVAS BOOTS AND SHOES. HOOD RUBBER COMPANY, Boston, Mass.
Filed May 13, 1912. Serial No. 63,505. PUBLISHED JULY 30, 1912.

88,752. RUBBER BOOTS, SHOES, OVERSHOES, AND RUBBER-SOLED CANVAS BOOTS AND SHOES. HOOD RUBBER COMPANY, Boston, Mass.
Filed June 26, 1912. Serial No. 64,406. PUBLISHED AUGUST 13, 1912.

88,753. WHISTLE-CALLS. JOSEPH HUDSON, Birmingham, England.
Filed March 8, 1912. Serial No. 62,025. PUBLISHED AUGUST 20, 1912.

88,754. SPECIAL LUBRICANT USED FOR CERTAIN METAL-WORKING OPERATIONS. THE HYDROIL COMPANY, Franklin, Pa., assignor to The Hydroil Company, a Corporation of Pennsylvania.
Filed January 14, 1910. Serial No. 47,112. PUBLISHED APRIL 11, 1911.

88,755. HAIR-BANGS. HYMAN & OPPENHEIM, New York, N. Y.
Filed June 4, 1912. Serial No. 63,969. PUBLISHED JULY 16, 1912.

88,756. BEER. THE INDEPENDENT BREWING CO., Seattle, Wash.
Filed June 13, 1912. Serial No. 64,168. PUBLISHED AUGUST 20, 1912.

88,757. LEATHER AND RUBBER BOOTS AND SHOES. INTERNATIONAL SHOE COMPANY, St. Louis, Mo.
Filed June 26, 1912. Serial No. 64,409. PUBLISHED AUGUST 13, 1912.

88,758. CORSETS. MADAME IRENE, New York, N. Y.
Filed June 4, 1912. Serial No. 63,967. PUBLISHED JULY 16, 1912.

88,759. ROOT-BEER, BIRCH, SARSAPARILLA, SODA, CREAM-SODA, AND GINGER-ALE. WILLIAM W. KEEFER, Lancaster, Pa.
Filed March 13, 1912. Serial No. 62,132. PUBLISHED AUGUST 20, 1912.

88,760. INTERNAL-COMBUSTION ENGINES. L. C. KUHNERT JR. CO., Chicago, Ill.
Filed April 8, 1912. Serial No. 62,781. PUBLISHED AUGUST 20, 1912.

88,761. TROUSERS. LARRY LEVY, New York, N. Y.
Filed November 15, 1909. Serial No. 45,905. PUBLISHED AUGUST 13, 1912.

88,762. WOMEN'S AND CHILDREN'S KNITTED UNDERWEAR. LINDSEY, WARNER & SONS, St. Paul, Minn.
Filed June 14, 1912. Serial No. 64,191. PUBLISHED JULY 23, 1912.

88,763. CONCENTRATOR AND SEPARATING TABLES. LODWIC CONCENTRATOR COMPANY, Los Angeles, Cal.
Filed May 9, 1912. Serial No. 63,423. PUBLISHED AUGUST 20, 1912.

88,764. MEN'S AND BOYS' OUTER SHIRTS. JOSEPH LOEWY & CO., New York, N. Y.
Filed May 4, 1912. Serial No. 63,338. PUBLISHED JULY 30, 1912.

88,765. DRESS, NEGLIGÉE, OR WORK SHIRTS. LOYAL SHIRT COMPANY, New York, N. Y.
Filed April 5, 1912. Serial No. 62,676. PUBLISHED JULY 16, 1912.

88,766. SODA-WATER SYRUP. MAGNUS & LAUER, San Francisco, Cal.
Filed May 18, 1910. Serial No. 49,780. PUBLISHED AUGUST 20, 1912.

88,767. BOOTS, SHOES, AND SLIPPERS OF LEATHER. MANFIELD & SONS, Northampton, England.
Filed May 6, 1912. Serial No. 63,357. PUBLISHED JULY 16, 1912.

88,768. COTTON DUCK IN THE PIECE. JOHN H. MEYER & CO., New York, N. Y.
Filed June 15, 1912. Serial No. 64,215. PUBLISHED JULY 30, 1912.

88,769. YARN. JOS. MEYER & COMPANY, New York, N. Y.
Filed June 20, 1912. Serial No. 64,292. PUBLISHED AUGUST 13, 1912.

88,770. GO-CARTS AND BABY-CARRIAGES. SAMUEL MOSKOWITZ, New York, N. Y.
Filed January 30, 1911. Serial No. 54,182. PUBLISHED AUGUST 20, 1912.

88,771. AUTOMOBILES. MIDLAND MOTOR CO., Moline, Ill.
Filed December 15, 1910. Serial No. 53,289. PUBLISHED AUGUST 20, 1912.

88,772. CORSETS AND BRASSIÈRES. MODART CORSET COMPANY, Saginaw, Mich.
Filed May 11, 1912. Serial No. 63,485. PUBLISHED JULY 16, 1912.

88,773. DRESS, NEGLIGÉE, AND WORK SHIRTS. WM. R. MOORE DRY GOODS CO., Memphis, Tenn.
Filed June 2, 1911. Serial No. 56,789. PUBLISHED JULY 23, 1912.

88,774. DRESS, NEGLIGÉE, AND WORK SHIRTS. WM. R. MOORE DRY GOODS CO., Memphis, Tenn.
Filed June 2, 1911. Serial No. 56,790. PUBLISHED JULY 30, 1912.

88,775. HOSIERY, KNIT UNDERWEAR, AND SWEATERS. MOORHEAD KNITTING COMPANY, Harrisburg, Pa.
Filed June 1, 1912. Serial No. 63,935. PUBLISHED JULY 16, 1912.

88,776. FERTILIZER. MORRIS FERTILIZER CO., Atlanta, Ga.
Filed May 24, 1912. Serial No. 63,772. PUBLISHED AUGUST 20, 1912.

88,777. COTTON PIECE GOODS. NATHAN & GREEB CO., New York, N. Y.
Filed June 7, 1911. Serial No. 56,873. PUBLISHED JULY 16, 1912.

88,778. LEATHER SHOES FOR MEN AND YOUTHS. A. E. NETTLETON COMPANY, Syracuse, N. Y.
Filed April 23, 1912. Serial No. 63,060. PUBLISHED JULY 30, 1912.

88,779. WATER AND OTHER FLUID METERS AND PARTS THEREOF. NEPTUNE METER COMPANY, Jersey City, N. J., and New York, N. Y.
Filed May 31, 1912. Serial No. 63,902. PUBLISHED AUGUST 20, 1912.

88,780. WATER AND OTHER FLUID METERS AND PARTS THEREOF. NEPTUNE METER COMPANY, Jersey City, N. J., and New York, N. Y.
Filed May 31, 1912. Serial No. 63,903. PUBLISHED AUGUST 20, 1912.

88,781. SILKS AND SATINS IN THE PIECE. NEWBURGH SILK COMPANY, Newburgh, N. Y.
Filed May 14, 1912. Serial No. 63,527. PUBLISHED AUGUST 13, 1912.

88,782. HOSIERY. ONEIDA REGAL TEXTILE CO., Philadelphia, Pa.
Filed June 24, 1912. Serial No. 64,348. PUBLISHED AUGUST 13, 1912.

88,783. RUBBER BATHING-CAPS. PARKER, STEARNS & COMPANY, Brooklyn, N. Y.
Filed June 19, 1912. Serial No. 64,275. PUBLISHED AUGUST 13, 1912.

88,784. NAPPED FLANNELS IN THE PIECE. PEMBERTON COMPANY, Lawrence, Mass.
Filed May 21, 1912. Serial No. 63,678. PUBLISHED JULY 16, 1912.

88,785. BREAD. HENRY D. PLACE, Newark, Ohio.
Filed January 23, 1912. Serial No. 60,978. PUBLISHED AUGUST 20, 1912.



88,786. TRADING-STAMPS. H. & J. J. POMMER, Albany, N. Y.
Filed May 25, 1912. Serial No. 63,804. PUBLISHED AUGUST 20, 1912.

88,787. CLOAKS, OUTER SUITS, OUTER SKIRTS, AND OUTER DRESSES. THE E B MANUFACTURING COMPANY, New York, N. Y.
Filed June 13, 1912. Serial No. 64,179. PUBLISHED AUGUST 13, 1912.

88,788. COLLARS. AUSTIN REED, LIMITED, London, England.
Filed March 5, 1912. Serial No. 61,947. PUBLISHED AUGUST 6, 1912.

88,789. CRAVATS. J. J. RIKER & Co., New York, N. Y.
Filed June 4, 1910. Serial No. 50,127. PUBLISHED AUGUST 6, 1912.

88,790. BROADCLOTHS. SHARLES BABBITT CO., New York, N. Y.
Filed April 20, 1912. Serial No. 63,021. PUBLISHED JULY 30, 1912.

88,791. EVAPORATED MILK. P. E. SHARPLESS COMPANY, Concordville and Philadelphia, Pa.
Filed May 9, 1912. Serial No. 63,425. PUBLISHED AUGUST 20, 1912.

88,792. COTTON PIECE GOODS. T. A. SHAW AND CO., Chicago, Ill.
Filed May 25, 1912. Serial No. 63,796. PUBLISHED JULY 30, 1912.

88,793. HAIR-NETS. SINGER, SCHAFFER & Co., Chicago, Ill.
Filed May 21, 1912. Serial No. 63,692. PUBLISHED JULY 16, 1912.

88,794. CERTAIN KINDS OF ROPE, YARNS, TWINES, CORD, AND LINES. SOUTHERN MILLS CORPORATION, Oxford, Ala.
Filed April 5, 1912. Serial No. 62,673. PUBLISHED AUGUST 20, 1912.

88,795. ZEPHYR GINGHAM. G. A. STAFFORD & COMPANY, New York, N. Y.
Filed June 7, 1912. Serial No. 64,038. PUBLISHED JULY 30, 1912.

88,796. LUBRICATING OIL AND GREASE. THE STANDARD LUBRICANT CO., New York, N. Y.
Filed June 1, 1912. Serial No. 63,933. PUBLISHED AUGUST 20, 1912.

88,797. HOUSEHOLD RUBBER GLOVES AND BATH-CAPS. THE STAR RUBBER CO., Akron, Ohio.
Filed December 18, 1911. Serial No. 60,324. PUBLISHED JULY 16, 1912.

88,798. HOUSEHOLD RUBBER GLOVES AND BATH-CAPS. THE STAR RUBBER CO., Akron, Ohio.
Filed December 18, 1911. Serial No. 60,326. PUBLISHED JULY 16, 1912.

88,799. HOUSEHOLD RUBBER GLOVES AND BATH-CAPS. THE STAR RUBBER CO., Akron, Ohio.
Filed December 18, 1911. Serial No. 60,328. PUBLISHED JULY 16, 1912.

88,800. COTTON PIECE GOODS, SHEETINGS, SHIRTINGS, AND DRILLS. SUFFERN & COMPANY, New York, N. Y.
Filed May 31, 1912. Serial No. 63,921. PUBLISHED AUGUST 6, 1912.

88,801. SOAP AND WASHING-POWDER. THE SUMMIT CITY SOAP WORKS, Fort Wayne, Ind.
Filed May 31, 1910. Serial No. 50,016. PUBLISHED NOVEMBER 22, 1910.

88,802. HOSIERY. H. SUTRO AND SON COMPANY, Philadelphia, Pa.
Filed June 13, 1912. Serial No. 64,159. PUBLISHED AUGUST 13, 1912.

88,803. COATS, TROUSERS, AND WAISTCOATS. TALBOT COMPANY, Boston, Mass.
Filed May 31, 1912. Serial No. 63,915. PUBLISHED JULY 16, 1912.

88,804. COATS, VESTS, AND PANTALOONS. TALBOT COMPANY, Boston, Mass.
Filed May 31, 1912. Serial No. 63,916. PUBLISHED JULY 16, 1912.

88,805. CERTAIN NAMED CUTLERY, MACHINERY, TOOLS, AND PARTS THEREOF. TAMPA HARDWARE CO., Tampa, Fla.
Filed April 27, 1910. Serial No. 49,334. PUBLISHED AUGUST 20, 1912.

88,806. KEROSENE. THE TEXAS COMPANY, Houston and Port Arthur, Tex., and New York, N. Y.
Filed April 21, 1911. Serial No. 55,865. PUBLISHED SEPTEMBER 19, 1911.

88,807. MIXED SPIRITUOUS LIQUORS CONSISTING OF DISTILLED SPIRITS, FLAVORING, AND VERMOUTH. GEO. W. TORREY CO., Boston, Mass.
Filed June 17, 1912. Serial No. 64,239. PUBLISHED AUGUST 20, 1912.

88,808. RUBBER BOOTS. TOWNER & Co., INC., Memphis, Tenn.
Filed April 17, 1912. Serial No. 62,947. PUBLISHED JULY 16, 1912.

88,809. TOILET-PINS. TUBBS, LEWIS & Co., Wotton-under-Edge, England.
Filed December 30, 1911. Serial No. 60,523. PUBLISHED JULY 16, 1912.

88,810. LEATHER SOLES MADE FROM CHROME-LEATHER. UNITED STATES CHROME SOLE CO., Chicago, Ill.
Filed April 24, 1911. Serial No. 55,929. PUBLISHED JULY 16, 1912.

88,811. CERTAIN NAMED WATERS AND NON-INTOXICATING CARBONATED TONIC BEVERAGES. WILLIAM H. WAGAR, Ballston Spa, N. Y.
Filed June 7, 1912. Serial No. 64,050. PUBLISHED AUGUST 20, 1912.

88,812. CORSETS. THE WARNER BROS. CO., Bridgeport, Conn.
Filed May 23, 1912. Serial No. 63,756. PUBLISHED JULY 30, 1912.

88,813. NEGLIGÉE SHIRTS, GOLF-SHIRTS, AND WORK-SHIRTS. WESTERLY SHIRT CO., Westerly, R. I., and New York, N. Y.
Filed June 25, 1912. Serial No. 64,370. PUBLISHED AUGUST 13, 1912.

88,814. NEGLIGÉE SHIRTS, GOLF-SHIRTS, AND WORK-SHIRTS. WESTERLY SHIRT CO., Westerly, R. I., and New York, N. Y.
Filed June 25, 1912. Serial No. 64,371. PUBLISHED AUGUST 13, 1912.

88,815. NEGLIGÉE SHIRTS, GOLF-SHIRTS, AND WORK-SHIRTS. WESTERLY SHIRT CO., Westerly, R. I., and New York, N. Y.
Filed June 25, 1912. Serial No. 64,372. PUBLISHED AUGUST 13, 1912.

88,816. READY-MIXED PAINTS. BENJAMIN FRANCIS WHITE, Rock Island, Ill.
Filed June 5, 1912. Serial No. 63,996. PUBLISHED AUGUST 20, 1912.

88,817. PLOWS AND CERTAIN NAMED PARTS THEREOF. S. R. WHITE'S SONS, Norfolk, Va.
Filed February 7, 1912. Serial No. 61,343. PUBLISHED AUGUST 20, 1912.

88,818. BLENDED WHISKY. THE WILSON DISTILLING COMPANY, Jersey City, N. J.
Filed June 18, 1912. Serial No. 64,256. PUBLISHED AUGUST 20, 1912.

88,819. CERTAIN NAMED CLOTHING. WOODING & TRASDALE, Leicester, England.
Filed February 16, 1912. Serial No. 61,558. PUBLISHED AUGUST 13, 1912.

88,820. LAGER-BEER. THE GEO. ZETT BREWERY, Syracuse, N. Y.
Filed June 5, 1912. Serial No. 63,986. PUBLISHED AUGUST 20, 1912.

# LABELS

## REGISTERED OCTOBER 22, 1912.

16,605.—*Title:* "KRISPY KRUST." (For Bread-Sticks.) ALBERT F. GOETZ, Baltimore, Md. Filed June 4, 1912.

16,606.—*Title:* "LUJOSO." (For Cigars.) EDUARDO GONZALES, Tampa, Fla. Filed February 23, 1912.

16,607.—*Title:* "EL MISMO." (For Cigars.) JUAN M. GONZALES, New Orleans, La. Filed August 6, 1912.

16,608.—*Title:* "BE YOUR OWN DENTIST." (For Outfits for Home Dental Treatment.) SAMUEL J. SALSMAN, Baltimore, Md. Filed August 9, 1912.

16,609.—*Title:* "CHERRY SMACK." (For a Non-Alcoholic Flavoring for Drinks of Various Kinds.) S. & S. MANUFACTURING COMPANY, Akron, Ohio. Filed September 16, 1912.

16,610.—*Title:* "DUBONNET WINE." (For Appetizing Wine.) SOCIÉTÉ ANONYME DUBONNET, Paris, France. Filed September 26, 1912.

16,611.—*Title:* "COLUMBIA." (For Butter.) UNION MEAT COMPANY, North Portland, Oreg. Filed September 26, 1912.

16,612.—*Title:* "VAN DYK & CO." (For Fruit and Candy Flavors.) VAN DYK & CO., New York, N. Y. Filed August 20, 1912.

# PRINTS

## REGISTERED OCTOBER 22, 1912.

3,118.—*Title:* "CANDY GOLDILOCKS." (For Candy.) THE COCOANUT SPECIALTY CO., Philadelphia, Pa. Filed September 28, 1912.

3,119.—*Title:* "A VISIT WITH THE CHEF." (For Wheat Breakfast Food.) CREAM OF WHEAT CO., Minneapolis, Minn. Filed September 30, 1912.

3,120.—*Title:* "DEPEND ON VAL DONA." (For Val Dona Prescriptions.) DRUGGISTS' CO-OPERATIVE ASSOCIATION, INC., Detroit, Mich. Filed August 5, 1912.

3,121.—*Title:* "THE VAL DONA GIRL." (For Val Dona Prescriptions.) DRUGGISTS' CO-OPERATIVE ASSOCIATION, INC., Detroit, Mich. Filed August 5, 1912.

3,122.—*Title:* "THE PROGRESSIVE IDEA." (For Butter Printing and Wrapping Machines.) RICHARD FRANKLIN SEDWART, New York, N. Y. Filed August 14, 1912.



# DECISIONS

OF THE

# COMMISSIONER OF PATENTS

AND OF

# UNITED STATES COURTS IN PATENT CASES.

## COMMISSIONER'S DECISIONS.

### EX PARTE HAMEY.

*Decided March 2, 1912.*

1. APPLICATION—PROSECUTION—FINAL REJECTION.

Where, in response to an action holding certain affidavits filed under Rule 75 insufficient and rejecting the claims upon a reference cited for the first time, applicant filed an argument against the holding that the affidavit was insufficient and stated that the action was not intended to be a response to the rejection on the reference, but that he wished to know whether it would be necessary to overcome both references cited, *Held* that the Examiner should not have finally rejected the claims.

2. SAME—SAME.

Where, in response to an action holding certain affidavits insufficient to overcome a reference cited and rejecting the claims on a new reference, applicant filed an argument that the affidavit was sufficient and requested further information whether it was necessary for him to overcome one or both references, *Held* that the Examiner should have informed the applicant that this was an incomplete response to the prior rejection or should have complied with the request for reconsideration of the holding that the affidavits were insufficient and reminded the applicant that his year for action ran from the date of the preceding Office letter.

ON PETITION.

SLIDE-RULE.

*Messrs. C. A. Snow & Co.* for the applicant.

MOORE, *Commissioner:*

This is a petition that the Examiner in charge of this application be advised that the final rejection entered on February 8, 1911, was premature and that he was in error in holding that a certain affidavit filed under the provisions of Rule 75 is insufficient to antedate the references cited.

On December 8, 1910, the Examiner repeated a rejection upon a reference which applicant had attempted to overcome by an affidavit under Rule 75, holding that the affidavit was insufficient, and further rejected the claims upon a patent to Speckman, cited for the first time. On January 30, 1911, applicant filed an argument against the holding that the affidavit was insufficient and closed with this statement:

> This action is not intended to be a response to that portion of the Examiner's letter in which the claims are rejected on the references as applicant desires to have a definite and final understanding as to whether, in view of applicant's showing, it will be necessary for him to overcome one or both of the references heretofore cited.

The only proper reply to such a communication from the applicant would have been either a statement from the Examiner that it was an incomplete response to the preceding Office rejection of December 8, 1910, and that no action on the case would be given until it had been made complete or a letter complying with the request for reconsideration of his holding as to the insufficiency of the affidavits and reminding the applicant that his year for action ran from the date of the preceding Office letter.

Instead of taking either of such actions, however, the Examiner entered a final rejection on each of the patents of record. This was done on February 8, 1911, and on January 10, 1912, applicant attempted to amend the case by substituting new claims accompanied by an argument. This amendment was refused admission, whereupon the present petition was taken.

It is clear that the final rejection was premature.

The sufficiency of the affidavit to overcome the reference is a matter of merits which will be reviewed by the Examiners-in-Chief on appeal and not upon a petition of this nature.

The petition is granted to the extent indicated.

### EX PARTE TAYLOR.

*Decided May 27, 1912.*

REISSUE—NEW MATTER.

Certain matter inserted in the specification of a reissue application *Held* to constitute new matter and its cancelation properly required.

ON PETITION.

AUTOMATIC SPRINKLER.

*Mr. Wilmerth H. Thurston* for the applicant.

MOORE, *Commissioner:*

This is a petition that—

> the Examiner in charge of such application be advised that such requirement with respect to the cancelation of the matter inserted in the reissue specification be not insisted upon, and that the Examiner be directed to permit such matter to be retained in the specification, to the end that the application, which is otherwise ready for allowance may be allowed and the patent issued with such matter contained therein.

This is an application for the reissue of applicant's Patent No. 842,725 for automatic sprinklers, issued January 29, 1907. The Primary Examiner allowed the claims, but required the cancelation of certain matter in the specification upon the ground

that it is new matter and describes a different invention from that originally disclosed.

The invention is for an automatic sprinkler of the type in which the sprinkler is held closed by a frangible vessel and is released by the expansive or explosive force of the contents of the vessel induced by the action of heat.

The Examiner takes the position that new matter has been added in the specification of the reissue application describing a different specific form or alternative device from that disclosed in the patent. The applicant contends that the additional matter in the specification merely sets forth another theory as to the cause of the explosion that takes place in certain cases before the contents of the vessel have reached the boiling-point. The specification of the patent states that applicant has discovered—

that what is essential * * * is that the material to be employed as the contents of the frangible vessel or support shall be such as will boil or become gaseous at or about the temperature at which it is desired the sprinkler shall open, and so that when the contents of the vessel has by the rise of the temperature to the predetermined point expanded sufficiently to fracture or rupture the vessel, such contents will when thus released from the restraint of the containing vessel and exposed to the atmosphere instantaneously become gaseous, thereby creating a sudden and violent explosion, which will serve to completely shatter the vessel, and thereby insure the complete release of the valve and the opening of the sprinkler.

The specification of the patent describes the method of preparing the frangible vessel as follows, (p. 2, lines 1–9:)

A convenient way to prepare the frangible vessel and its contents to secure this result is to subject the vessel with the material or mixture up to approximately its boiling or vaporizing point, taking care that the vessel shall be completely filled with the material or mixture at this temperature and then tightly close the vessel, preferably by hermetically sealing the same.

Claims 2, 5, and 7 of the patent specify—

a frangible vessel containing a non-gaseous material or mixture.

In the oath to his reissue application appellant states that—

the implication in the specification that the frangible vessel is to be or may be sealed at the high temperature to which said vessel and its liquid contents are heated prior to the sealing of the same,

is an error; also, that the statement or implication that the explosion—

is in all cases due to the contents of the vessel becoming gaseous * * * instead of in some cases being due to the escape of a gas already present in the vessel and held in solution in the liquid contents at the time fracture takes place,

is an error.

Not only is no reference made in the specification of the patent to the absorption or solution of a gas in the liquid contents of the vessel, but, as stated above, such a condition is interdicted by claims 2, 5, and 7. Instead of setting forth merely a new theory as to what possibly takes place in the explosion of vessels constructed as described in the specification of the patent, the new matter added in the reissue application apparently describes an intended variation in the structure and the production of an alternative form in which the vessel will contain a certain amount of gas.

The additional matter presented in the specification of the present application states, (p. 4, lines 26–33:)

When, however, the frangible vessel is made to contain a certain quantity of soluble gas it is not necessary that the contents of the vessel shall be a material or mixture which will boil or vaporize at approximately the temperature at which it is desired the sprinkler shall open, because in such case the explosion is produced, not by the contents of the vessel becoming gaseous, but by the sudden escape of the dissolved gas, when the pressure is released.

The variation in the manner of preparing the vessel is found also in the following new statement, (p. 5, lines 28–33:)

Ordinarily it will be desirable to allow the contents of the vessel to cool and contract more or less before sealing the vessel, because of the difficulty attending the sealing of the vessel when completely filled.

At the beginning of the paragraph containing the above statement the original method of preparing the vessel is now stated in the reissue application to be a convenient way of preparing it—

when the explosion is to be produced by the contents becoming gaseous when fracture takes place.

The specification on page 6, lines 7 to 13, contains the following statement not in the specification of the patent:

When the frangible vessel is to contain a quantity of soluble gas normally separate from the liquid contents and the explosion is to be produced by the sudden escape of the dissolved gas, it is important that the contents of the vessel should be allowed to cool and contract before the vessel is sealed, in order to afford a space within the vessel for such gas.

It is thought to be clear that the new matter added to the specification is not limited to an alternative theory as to the cause of the explosion which takes place in the vessel constructed in accordance with the description in the original patent, but is a broadening thereof. It contemplates an intentional variation in said construction, and the new theory explains what takes place with the new construction. The introduction of new matter of this character into the reissue application is prohibited by section 4916 of the Revised Statutes. The following decisions are also believed to be pertinent in this connection: *Bemes* v. *Andrews*, (39 O. G., 1319; 122 U. S., 40;) *Otis* v. *Timbie*, (69 O. G., 1361; 155 U. S., 141;) *Freeman* v. *Asmus*, (59 O. G., 1432; 145 U. S., 226;) *Nelson* v. *Felsing*, (142 O. G., 289; 32 App. D. C., 420;) *Philadelphia Novelty Mfg. Co.* v. *Rouse*, (48 O. G., 1664; 39 Fed. Rep., 273;) *ex parte Hoegh*, (100 O. G., 458;) *ex parte Chaffee*, (137 O. G., 1941.)

The petition is denied.

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### EX PARTE WEBSTER.

*Decided October 9, 1912.*

APPLICATION—PROSECUTION—FINAL REJECTION.

Where after a second rejection of the claims on the same references applicant amended by inserting what the Examiner held to be new matter and the claims were rejected on that ground the applicant canceled the new matter, but made no argument that the claims were patentable over the references cited, *Held* that they were properly finally rejected on the references of record.

ON PETITION.

INCUBATOR-ALARM.

*Messrs. C. A. Snow and Company* for the applicant.

MOORE, *Commissioner:*

This is a petition that the Examiner be directed to withdraw the final rejection and to enter an amendment filed July 25, 1912.

In the first Office action the claims were rejected in view of two references. Applicant thereupon amended by canceling the claims and presenting one new claim, which the Examiner rejected on the same references, pointing out wherein, in his opinion, the claim covered no invention thereover. Applicant then amended the specification and the claim and inserted one new claim. These claims the Examiner rejected on the ground that they covered new matter. Applicant then canceled, both in specification and claims, the description held to constitute new matter, whereupon the Examiner finally rejected the claims in view of the references of record.

Applicant contends that this final rejection was premature, since in the preceding letter the claims had been rejected only on the ground of new matter and he was thereby led to believe that the claims were otherwise allowable.

This contention appears to be without substantial basis. In the remarks accompanying the amendment which was held to contain new matter no reasons were pointed out why the claims were allowable, except upon the basis of these added limitations, and in the amendment canceling the same it was not pointed out wherein the claims were allowable over the references. Having taken out the matter objected to, the status of the application was exactly the same as it was prior to the filing of the amendment containing the same. The claim added by that amendment is substantially the same as the claim previously rejected, being, if anything, of broader scope, and the final rejection was therefore proper.

The petition is denied.

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### EX PARTE LABOFISH.

*Decided October 10, 1912.*

APPLICATION—PROSECUTION—FINAL REJECTION.

It is well settled that a final rejection may be in order, notwithstanding the fact that the applicant has failed to respond to objections of a formal character made by the Examiner.

ON PETITION.

CALCULATOR AND IN THE ARRANGEMENT OF THE COMPONENTS OF A CALCULATOR ON A TYPE-WRITER.

*Mr. Charles S. Labofish pro se.*

MOORE, *Commissioner:*

This is a petition that the Examiner be instructed to enter and act upon certain amendments filed by the applicant since the final rejection, entered by the Examiner in the case on January 19, 1912.

The petitioner contends that the rejection was premature, because there was a pending objection of record to the use of a certain word in the claims. In this he is clearly in error, since it is well settled that a final rejection is in order, notwithstanding the fact that an applicant has failed to respond to objections of a formal character made by the Examiner.

The Examiner states that the entry of the amendments in question would necessitate a complete re-





opening and reëxamination of the case, which has already been pending somewhat over three years and has had numerous actions. There appears to be no reason for making this case an exception to the rule that applicants must present their claims for consideration before final rejection.

The petition is denied.

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### WOOD *v.* DUNCAN.

*Decided May 22, 1912.*

INTERFERENCE—PRIORITY—RIGHT TO MAKE THE CLAIM.

Record considered and *Held* to show that the claims in issue define a process not disclosed in the specification of D. and that priority was therefore properly awarded W.

APPEAL from Examiners-in-Chief.

PROCESS OF MAKING CEMENT.

*Messrs. Rogers, Kennedy & Campbell* for Wood.

*Messrs. Duncan & Duncan* for Duncan.

BILLINGS, *First Assistant Commissioner:*

This is an appeal from the decision of the Examiners-in-Chief reversing the decision of the Examiner of Interferences and awarding priority of invention to Wood.

Neither party has taken testimony, and the award of priority turns upon the question whether Duncan has a right to make the claims, Wood urging, under the provisions of Rule 130, that they cannot properly be based upon Duncan's disclosures.

The invention in issue is a method for treating blast-furnace slag. The invention is set forth in two counts, as follows:

1. The method of treating molten blast furnace slag consisting in flowing the same over an artificially cooled moving surface while passing from a fluid to a solid state.
2. The method of treating molten blast furnace slag, consisting in flowing the same over a moving surface subject to the influence of a cooling current while passing from a fluid to a solid state.

The claims were first made in the application of Wood, which has since become a patent. Wood feeds the slag into a hollow rotating drum or tube, which is inclined, so that there is a gradual flow of slag from one end to the other, while the transverse movement due to rotation causes a continual tumbling of the slag back upon itself, which, as he states, results in the formation toward the end of the tube of pasty nodules. This structure clearly provides a "moving surface," over which the slag continually "flows," and it is the structure upon which the claims were first predicated.

If there were any ambiguity in the claims which needed interpretation, they would, in accordance with the well-settled rule, be construed in the light of the Wood specification, in which they were first made. It does not seem, however, that there is any uncertainty in their meaning.

The surfaces for handling the slag are artificially cooled in both the structures of Wood and Duncan, and they operate upon the slag during the time it is changing from a fluid to a solid state; but the Examiners-in-Chief have held that the application of Duncan does not disclose the idea of "flowing" the slag over the cooled surfaces.

In the Duncan application two internally-cooled rolls are provided, into the bite of which the slag

is delivered by a number of nozzles, the slag being cooled by the surfaces of the rolls and fed through between them by the rotation thereof and issuing in a constant plastic stream. As shown in Figure 1, there are plates at the ends of the rolls for preventing the slag from running out over the ends of the rolls, and a small pool of fluid slag is thus maintained at the bite of the rolls, from which the plastic strip is drawn and fed. Duncan contends that the slag in this arrangement must "flow" over the rolls both longitudinally and circumferentially. He argues that the slag entering from the nozzles must necessarily flow endwise of the rolls to fill up the space occupied by the pool and that the pool as a whole must have a circumferential flow relative to the rolls, since it is held stationary in space while the rolls are rotating. He says on page 7 of his brief:

> If, for example, the surface of the chilling roll 2 moves with a velocity of a foot a second the liquid slag in the pool must flow over the moving surface of this chilling roll with a relative velocity of a foot a second in order to maintain the body of this pool of slag in the same position in the bite of the rolls.

As to the contention that the slag flows axially of the rolls it is sufficient to say that the specification is entirely devoid of any such suggestion. The existence of such flow would depend upon the relative width of the rolls and the spouts 3 and the number of the spouts. The specification states that a number of spouts are employed, and so far as the disclosure goes the spouts may be of such a width and so close together that there is substantially no axial flow of the slag. If such flow were present, it would, moreover, not be to any appreciable extent over the surface of the moving roll, for the slag would spread out over the top of the pool and gradually sink down upon the roll as the slag at the bottom was drawn off by the action of the rolls. Moreover, the specification not only fails to state that there is any such flow, but there is nothing in the described operation of the device or the result obtained which could in any manner be affected by such a slight axial flow, if it existed.

As to the existence of a circumferential flow of the slag on the rolls the Examiners-in-Chief said:

> The slag that is in contact with Duncan's rolls is not fluent and cannot flow, and, furthermore, if it were fluent, would necessarily move at a velocity which is the same as the peripheral speed of the contacting roll.

Duncan's contention that circumferential flow exists finds no support in his specification and seems to be based wholly upon a theory arising out of the exigencies of the case. The specification describes the action of the rolls as follows:

> If desired, a suitable feed roll may be employed to positively feed the proper quantity of material to the congealing rolls. In Fig. 2 the feed roll 52 is indicated as being provided with a water space, each of the trunnions being formed with a suitable aperture 53 by which cooling liquid may be supplied to the interior of the roll. The outside of this feed roll is preferably formed with suitable corrugations 54 and also with annular grooves with which a suitable scraper 55 coacts to disengage the material from the roll. This feed roll may be rotated in the direction indicated by any desired means and its trunnions are preferably adjustable with respect to the congealing roll 2 with which it cooperates. The substantially molten slag 48 is supplied to the feeding roll by a number of spouts, each spout 3 being located as shown in the drawing. It is not necessary, however, in all cases to employ the separate feeding roll described, since the positive feeding forward of the material may be effected by slightly roughening the surfaces of the congealing rolls themselves, if desired. The substantially molten slag may be supplied to the bite of the congealing rolls by a number of slag spouts, such as 3, which, as indicated in Fig. 1, supplies a stream 48 of slag. (Page 7.)

> * * * * * * *

> The scraper 56 is mounted adjacent the congealing roll 1 and disengages the congealed consistent stream from this roll and this stream 49 moves down the opposite surface of the congealing roll 2 and is disengaged therefrom by the upper scraping edge of the conveyer 57. (Page 4.)

It appears from this description that in the absence of a feed-roll such as shown in Fig. 2 to force the slag between the congealing-rolls the congealing-rolls themselves are slightly roughened in order that they may grip the congealed slag upon their surfaces and that the slag is in such a condition that after having passed through the rolls it is necessary to provide scrapers to remove it from their surfaces. The Examiners-in-Chief were therefore clearly right in stating that the slag upon the surface of the rolls must necessarily move at a velocity equal to the peripheral speed of the rolls. The actual movement of the slag in the pool would seem to be substantially downward from the surface of the pool upon which it is deposited to the surface of the roll, where it is congealed and drawn on down between the rolls. It is quite likely that there will be some flow at the surface of the pool from the center toward each of the thin edges as the slag there is congealed and drawn in and downward by the rolls.

Whether we look to the specification, however, or theorize upon the probable movement of the slag it is impossible to conclude that the slag flows over the cooling-surface, as called for by the counts in issue. The specification of Duncan does not describe any function or step in the process which could be affected in any way by a slight movement of the slag relative to the roll even should it be found to actually occur. If such movement did occur, it is believed that it could not properly be described as a "flowing" of the slag over this surface any more than a piece of material held against a grindstone can be said to flow over the surface of the grindstone. The action might more correctly be described as the rubbing of the roll against the congealed slag. In the Wood device the flowing of the slag over the moving surface is not only unquestionably present, but is the very essence of the invention and is the action which produces the desired result, as fully set forth in his specification. The difference, therefore, is not a mere difference in words, but a difference in the actual result produced. The slag from Duncan's rolls issues in a "constant plastic stream" and is further treated before the process is complete. The slag from Wood's rotating drum issues in the form of hardened nodules and the process is complete.

In my opinion the claims in issue define a process which is not disclosed in the Duncan specification, and therefore as between the two parties involved in this interference Wood is the prior inventor. Judgment is entered accordingly.

The decision of the Examiners-in-Chief is affirmed.





EX PARTE ELLIOTT JEWELRY CO.

*Decided September 28, 1912.*

TRADE-MARKS—SIMILARITY—"E Co." AND "E. J. Co."

A mark consisting of the letters "E Co.," the last two letters being placed between the extended upper and lower arms of the first, *Held* so similar to a mark consisting of the letters "E. J. Co." that their simultaneous use upon goods of the same descriptive properties would be likely to cause confusion.

ON APPEAL.

TRADE-MARK FOR RINGS, HAT-PINS, ETC.

*Mr. Watson E. Coleman* for the applicant.

TENNANT, *Acting Commissioner:*

This is an appeal from the action of the Examiner of Trade-Marks refusing to register as a trade-mark for jewelry a mark consisting of the letters "E Co.," the last two letters being placed between the extended upper and lower arms of the first.

Registration was refused in view of the registered mark consisting of the letters "E. J. Co.," registered November 1, 1910, by the Enterprise Jewelry Company, No. 80,045.

The marks are believed to be so similar that registration was properly refused. In the case of *Godillot* v. *American Grocery Co.* (71 Fed. Rep., 875) the letters "A G" combined in a monogram were held to be infringed by the mark consisting of the letters "A. G. Co." In the case of the *American Tin Plate Co.* v. *Licking Roller Mill Co.* (158 Fed. Rep., 690) a mark consisting of the letters "M F" in a monogram inclosed within a circle was held to be infringed by a mark consisting of the letters "M. F. H."

It is to be noted that the date of use of the mark given in the statement in this application is subsequent to the decision refusing to register a mark of the present applicant consisting of the letters "E. J. Co." arranged as is the present mark, in view of the registration of the Enterprise Jewelry Co. of record in this case. (*Ex parte Elliott Jewelry Co.*, 177 O. G., 242.) Such attempts to differentiate from registered and well-known marks are not looked upon with favor by the courts. (*Florence Manufacturing Co.* v. *J. C. Dowd & Co.*, 178 Fed. Rep., 73; *The Capewell Horse Nail Co.* v. *Green*, 188 Fed. Rep., 20.)

The decision of the Examiner of Trade-Marks is affirmed.

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EX PARTE HILLIKER.

*Decided September 28, 1912.*

1. APPLICATION—DRAWINGS.

The action of the Examiner in requiring the illustration of the drawings to be limited to a single sheet *Held* proper.

2. SAME—SUBSTITUTE SPECIFICATION.

A second substitute specification *Held* properly refused admission where the amendments were not of such a character as to be difficult of entry or to cause confusion in the reading of the original specification when amended.

ON PETITION.

BOG CARS OR CARRIER.

*Messrs. Robb & Robb* for the applicant.

TENNANT, *Acting Commissioner:*

This is a petition that the Examiner be directed to waive his requirement of May 23, 1911, relative to the cancelation of Sheet 1 of the drawings and also that he be directed to incorporate a substitute specification filed June 22, 1912.

The requirement of the cancelation of the drawing was made for the reason that in the Examiner's opinion the illustrations contained on Sheet 2 of the drawings amply disclose the subject-matter of the invention. The proposed substitute specification is denied entry for the reason that the original specification is deemed to give a clear understanding of the applicant's construction and no new specification is found necessary.

The sheet of the drawing objected to contains four figures, Figure 1 being a perspective view of an egg-crate box, the top being partly broken away; Fig. 2, a side elevation with a corner broken away to show the interior; Fig. 3, a plan view of the assembled partitions. The remaining figure (numbered 9) is a plan view of a smaller number of assembled partitions. The figures on the second sheet show the character of the partition, one figure showing the manner in which they are interlaced. The box structure shown in Figs. 1 and 2 appears to be merely that of an ordinary egg-crate. Neither Fig. 1 nor Fig. 2 shows any distinguishing feature of the applicant's invention, and the subject-matter of Figs. 8 and 9 is fairly illustrated in Fig. 8 of the second sheet. I agree with the Examiner that Sheet 1 of the drawings is superfluous and should be canceled.

The proposed substitute specification, if entered, would be the second substitute specification to be incorporated in this case, notwithstanding the fact that no objection was made to the original specification, which would necessitate a rewriting thereof. It is a needless burden to place upon the Patent Office to review and compare substitute specifications with the original specification where, as in this case, the required amendments are not of such a character as to be difficult of entry or to cause confusion in the reading of the original specification when amended.

I find no error in the action of the Examiner, and the petition is accordingly denied.

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## ADJUDICATED PATENTS.

(U. S. D. C.) The Wilfley patent, No. 590,675, for an ore-concentrator, *Held* valid and infringed. *Mine & Smelter Supply Co.* v. *Brassert Concentrator Co.*, 197 Fed. Rep., 897.

(U. S. D. C.) The Claude and Hess patent, No. 664,383, for an apparatus for storing and distributing acetylene gas, is limited as to term by the British patent, No. 29,750 of 1896, granted to the same patentees, which expired by limitation June 30, 1910; also *Held* not infringed. *Commercial Acetylene Co.* v. *Searchlight Gas Co.*, 197 Fed. Rep., 908.

(U. S. D. C.) The Lutz patent, No. 839,071, for a machine for heating surfaces, *Held* invalid; also not infringed if conceded validity. *Equitable Asphalt Maintenance Co.* v. *Parker-Washington Co.*, 197 Fed. Rep., 920.

(U. S. D. C.) The Hood patent, No. 858,070, for a burial-crypt, *Held* void because the subject-matter is not within the patent law. *International Mausoleum Co.* v. *Sievert*, 197 Fed. Rep., 936.

(U. S. D. C.) The Spahr and Stichler patent, No. 948,778, for a gas-iron, claims 2 and 7 *Held* valid and infringed. *Strauss Gas Iron Co.* v. *Weil*, 197 Fed. Rep., 948.

(U. S. D. C.) The Hamilton reissue patent, No. 12,750, (original No. 619,567,) for a face-plate for burial-caskets, *Held* void. *National Casket Co.* v. *Stoltz*, 197 Fed. Rep., 940.

(U. S. D. C.) The Seeley reissue patent, No. 12,757, for an incandescent-lamp socket, *Held* valid and infringed. *Bryant Electric Co.* v. *David Kulloch Co.*, 197 Fed. Rep., 949.

(U. S. D. C.) The Smith reissue patent, No. 13,033, (original No. 759,037,) for a lamp, *Held* void as not for the same invention disclosed in the original patent; also *Held* not infringed if valid. *Smith Incandescent Light Co.* v. *Welsbach Gaslight Co.*, 197 Fed. Rep., 951.

## Changes in Classification.

(ORDER No. 2,609.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., October 19, 1912.*

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In Division I, class 55, Harrows and Diggers, abolish subclass—

Harrows—
Disk—
123. Disks,

the patents formerly contained therein being placed in class 97, Plows, subclasses 64, Rotary earth-working elements, Disks, and 78, Rotary earth-working elements, Gangs, hereinafter established.

In same division, same class, establish subclass—

Harrows—
122. Spiral.

In same division, class 97, Plows, establish the following subclasses:

Cotton choppers—
Revolving—
61. Chopper heads.
79. Earth-working element scrapers—
80. Gang.
77. Earth-working element sharpeners.
Plows—
Steam—
66. Endless chain,
Gang—
68. Frames,
69. Plow units,
71. Rotary—
72. Cylinder.
Plows—
Wheel—
73. Guide wheels—
74. Multiple—
75. Adjustable,
Lifts—
76. Compound.
62. Rotary earth-working elements—
63. Cylinders,
64. Disks,
78. Gangs,
65. Spirals.

In same division, same class, give to the subclass title Plows, Steam, Lifts, Power-operated, the number 70; and to subclass title Plows, Steam, Gang, the number 67.

In same division, same class, change the title of subclass 51, Plows, Steam, Rotary, horizontal, to read—

Plows—
Steam—
Rotary—
51. Horizontal,

and change the title of subclass 52, Plows, Steam, Screw, to read—

Plows—
Steam—
Rotary—
52. Spiral.

The above subclasses in classes 55 and 97 are composed of patents taken from various subclasses in classes 55, Harrows and Diggers, 7, Plows, and 111, Seeders and Planters.

EDWARD B. MOORE,
*Commissioner.*

## Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., October 17, 1912.*

*Meriam & Morgan Paraffine Co., its assigns or legal representatives, take notice:*

An interference having been declared by this Office between The Paragon Refining Co., Front street, Toledo, Ohio, for registration of a trade-mark and trade-mark registered May 19, 1896, No. 19,924, to the Meriam & Morgan Paraffine Co., of Cleveland, Ohio, and the registry return receipt for the notice of interference sent to the Meriam & Morgan Paraffine Co. having been signed by one who is apparently a stranger to the record, notice is hereby given that unless said Meriam & Morgan Paraffine Co., its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., October 18, 1912.*

*Southern Coffee Company, its assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Layton Pure Food Company, of 106 West Broadway, East St. Louis, Ill., for registration of a trade-mark and trade-mark registered August 15, 1893, No. 23,484, to said Southern Coffee Company, of Louisville, Ky., and a notice of such declaration sent by registered mail to the said Southern Coffee Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Southern Coffee Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., October 1, 1912.*

*Dassel Woolen Mills Company, its assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of the Yantic Woolen Company, Yantic, Conn., and the application of the Aetna Mills, 40 Central street, Boston, Mass., and Watertown, Mass., for registration of trade-marks and trade-mark registration No. 14,350, registered May 3, 1887, to the Dassel Woolen Mills Company, of Dassel, Minn., and the notice of such declaration sent by registered mail to said Dassel Woolen Mills Company at the said address having been returned by the post-office authorities undeliverable, notice is hereby given that unless the Dassel Woolen Mills Company, its assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., September 28, 1912.*

*William C. King, his assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of the Texas Consumers Co., 2601-2603 Strand, Galveston, Tex., for registration of a trade-mark and trade-mark No. 21,643, granted August 2, 1892, to William C. King, 94 Water street, Norfolk, Va., and a notice of such declaration sent by registered mail to said William C. King at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said William C. King, his assigns or legal representatives, shall within thirty days from the first publication of this order enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*





THE
# OFFICIAL GAZETTE
OF THE
# United States Patent Office.

Vol. 183—No. 5. TUESDAY, OCTOBER 29, 1912. Price—$65 per year.

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Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

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|---|---|---|---|
| Patents | 893—No. | 1,042,276 to No. | 1,043,057, inclusive. |
| Designs | 24—No. | 41,125 to No. | 41,148, inclusive. |
| Trade-Marks | 179—No. | 88,871 to No. | 89,049, inclusive. |
| Labels | 13—No. | 16,618 to No. | 16,630, inclusive. |
| Prints | 2—No. | 3,123 to No. | 3,124, inclusive. |
| Reissues | 9—No. | 13,483 to No. | 13,494, inclusive. |
| Total | 890 | | |

TO RESIDENTS OF THE UNITED STATES.

| States. | Patents and Designs. | Trade-Marks, Labels, and Prints. | States. | Patents and Designs. | Trade-Marks, Labels, and Prints. |
|---|---|---|---|---|---|
| Alabama | 2 | 2 | North Carolina | 7 | ..... |
| Arizona | 1 | ..... | North Dakota | 6 | 1 |
| Arkansas | 4 | ..... | Ohio | 45 | 9 |
| California | 26 | 10 | Oklahoma | 5 | ..... |
| Colorado | 10 | 1 | Oregon | 4 | 2 |
| Connecticut | 14 | ..... | Pennsylvania | 62 | 6 |
| Delaware | 2 | ..... | Rhode Island | 7 | 2 |
| Florida | 1 | 6 | South Carolina | ..... | ..... |
| Georgia | 3 | ..... | South Dakota | 4 | ..... |
| Idaho | 2 | ..... | Tennessee | 5 | 2 |
| Illinois | 73 | 7 | Texas | 10 | 2 |
| Indiana | 14 | 4 | Utah | 2 | 1 |
| Iowa | 11 | 5 | Vermont | 3 | ..... |
| Kansas | 9 | 5 | Virginia | 3 | 5 |
| Kentucky | 4 | ..... | Washington | 11 | 5 |
| Louisiana | 3 | 1 | West Virginia | 3 | ..... |
| Maine | 2 | 1 | Wisconsin | 17 | ..... |
| Maryland | 7 | 3 | Wyoming | ..... | ..... |
| Massachusetts | 21 | 7 | | | |
| Michigan | 10 | 3 | Alaska, District of | ..... | ..... |
| Minnesota | 3 | 3 | Canal Zone | ..... | ..... |
| Mississippi | 2 | 1 | District of Columbia | 6 | ..... |
| Missouri | 15 | 6 | Hawaii Territory | ..... | ..... |
| Montana | ..... | 1 | Philippine Islands | ..... | 1 |
| Nebraska | 2 | ..... | Porto Rico | ..... | ..... |
| Nevada | 2 | ..... | U. S. Army | ..... | ..... |
| New Hampshire | 3 | ..... | U. S. Navy | ..... | ..... |
| New Jersey | 23 | 10 | | | |
| New Mexico | ..... | ..... | Total to residents of the United States | 695 | 174 |
| New York | 93 | 33 | | | |

TO RESIDENTS OF FOREIGN COUNTRIES.

| Countries. | Patents and Designs. | Trade-Marks. | Countries. | Patents and Designs. | Trade-Marks. |
|---|---|---|---|---|---|
| Argentina | ..... | ..... | Netherlands | ..... | ..... |
| Austria-Hungary | 6 | 3 | New Zealand | ..... | ..... |
| Belgium | 1 | ..... | Norway | 1 | ..... |
| British West Indies | 1 | ..... | Portugal | ..... | 1 |
| Canada | 9 | ..... | Roumania | ..... | ..... |
| Colombia | ..... | ..... | Russia | ..... | ..... |
| Cuba | ..... | ..... | Scotland | ..... | ..... |
| Denmark | 1 | ..... | Spain | ..... | 1 |
| Dutch East Indies | ..... | ..... | Sweden | 4 | ..... |
| England | 16 | 2 | Switzerland | 4 | ..... |
| France | 4 | 1 | Transvaal, South Africa | ..... | ..... |
| Germany | 23 | 7 | Tunis | ..... | ..... |
| Guatemala | ..... | ..... | Victoria | ..... | ..... |
| Ireland | ..... | ..... | | | |
| Italy | ..... | ..... | | | |
| Japan | ..... | 1 | Total to residents of foreign countries | 61 | 16 |
| Mexico | 1 | ..... | | | |

## Amendments.

RULE 73. In every amendment the exact word or words to be stricken out or inserted in the application must be specified and the precise point indicated where the erasure or insertion is to be made. All such amendments must be on sheets of paper separate from the papers previously filed, and written on but one side of the paper. Erasures, additions, insertions, or mutilations of the papers and records must not be made by the applicant.

Amendments and papers requiring the signature of the applicant must also, in case of assignment of an undivided part of the invention, be signed by the assignee. (Rules 6, 107.)

## Certifications by the Secretary of the Interior—Notice

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., October 4, 1912.*

By authority of an act of Congress approved August 24, 1912, (183 O. G., 508,) providing uniform charges for furnishing copies of records of the Department of the Interior and its several Bureaus, a fee of twenty-five cents will be charged by the Secretary of the Interior for every certificate of authentication of official character of the officials of the Patent Office. The fee thus provided should be paid to the Secretary of the Interior, and not to the Patent Office. Attorneys and inventors desiring such certificates are requested to remit the necessary fee to the Secretary of the Interior at the time of filing in the Patent Office an order for the copies desired.

EDWARD B. MOORE,
*Commissioner of Patents.*

## APPLICATIONS UNDER EXAMINATION.

*Condition at Close of Business October 26, 1912.*

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. | | No. of applications awaiting action. |
|---|---|---|---|---|
| | | New. | Amended | |
| 313 | 1. Fences; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers. | Aug. 3 | Aug. 16 | 706 |
| 128 | 2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco. | July 15 | Aug. 2 | 550 |
| 175 | 3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working. | Sept. 27 | Oct. 14 | 239 |
| 232 | 4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Traversing Hoists. | Aug. 26 | Aug. 27 | 578 |
| 167 | 5. Bookbinding; Harvesters; Jewelry; Music. | July 26 | Aug. 16 | 578 |
| 318 | 6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Medicines; Preserving; Sugar and Salt; Substance Preparation. | Aug. 27 | Sept. 27 | 370 |
| 312 | 7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Optics; Velocipedes. | Apr. 15 | June 25 | 964 |
| 131 | 8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports. | July 5 | Sept. 16 | 770 |
| 142 | 9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Wind-Wheels. | June 12 | Sept. 27 | 529 |
| 225 | 10. Carriages and Wagons..... | June 5 | Aug. 5 | 373 |
| 154 | 11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus. | Aug. 9 | Sept. 16 | 264 |
| 322 | 12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements. | Aug. 12 | Aug. 9 | 820 |
| 320 | 13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning. | July 10 | Sept. 16 | 626 |
| 307 | 14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working. | Aug. 28 | Sept. 20 | 424 |
| 306 | 15. Bread, Pastry, and Confection Making; Coating; Fuel; Glues; Laminated Fabrics and Analogous Manufactures; Liquid Coating Compositions; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastic Compositions; Plastics. | July 3 | Aug. 23 | 1059 |
| 109 | 16. Radiant Energy; Telegraphy; Telephony. | July 8 | Aug. 17 | 386 |
| 303 | 17. Matrix-Making; Paper Manufactures; Printing, Type-Bar Making. | Sept. 6 | Sept. 27 | 373 |
| 327 | 18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves. | Aug. 22 | Sept. 4 | 266 |
| 236 | 19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces. | Aug. 24 | Aug. 24 | 531 |
| 179 | 20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking. | Aug. 5 | Sept. 3 | 293 |

*Applications Under Examination*—Continued.

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. | | No. of applications awaiting action. |
|---|---|---|---|---|
| | | New. | Amended | |
| 112 | 21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling. | June 11 | Aug. 2 | 551 |
| 249 | 22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships. | June 21 | Sept. 23 | 406 |
| 379 | 23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism. | July 22 | Aug. 7 | 389 |
| 144 | 24. Apparel; Apparel Apparatus; Sewing-Machines. | Sept. 5 | Sept. 5 | 493 |
| 315 | 25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers. | Sept. 23 | Sept. 26 | 205 |
| 108 | 26. Electricity, Generation; Motive Power. | Apr. 10 | May 2 | 785 |
| 372 | 27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus. | Aug. 20 | Aug. 19 | 475 |
| 65 | 28. Internal-Combustion Engines.. | July 15 | July 13 | 1188 |
| 147 | 29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools. | June 3 | Sept. 3 | 674 |
| 152 | 30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines. | Aug. 1 | Sept. 24 | 439 |
| 172 | 31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue. | Aug. 9 | Aug. 13 | 389 |
| 278 | 32. Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration. | Sept. 5 | Sept. 24 | 282 |
| 71 | 33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes. | Aug. 3 | Aug. 2 | 519 |
| 304 | 34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners. | Aug. 7 | Aug. 19 | 709 |
| 244 | 35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet. | Sept. 3 | Sept. 12 | 896 |
| 264 | 36. Drafting; Driers; Engraving; Measuring Instruments; Photography. | Aug. 27 | Aug. 29 | 696 |
| 107 | 37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications. | Aug. 10 | Aug. 5 | 519 |
| 378 | 38. Animal Husbandry; Artesian and Oil Wells; Fishing and Trapping; Stationery; Stone-Working. | July 18 | Sept. 5 | 796 |
| 321 | 39. Water Distribution..... | June 17 | July 30 | 564 |
| 280 | 40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles. | Sept. 12 | Sept. 16 | 715 |
| 125 | 41. Railway Draft Appliances; Resilient Tires and Wheels. | Aug. 20 | Aug. 16 | 662 |
| 279 | 42. Electric Railways; Electric Signaling; Railway Signaling; Signals. | July 19 | Aug. 21 | 465 |
| 362 | 43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification. | Sept. 3 | Aug. 26 | 413 |

Oldest new case, Apr. 10; oldest amended, May 2.
Total number of applications awaiting action..... 24,569

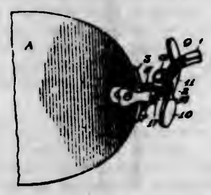
| | | | | |
|---|---|---|---|---|
| 161 | TRADE-MARKS, DESIGNS, LABELS AND PRINTS: | | | |
| | Trade-Marks..... | Aug. 17 | Aug. 19 | 1027 |
| | Designs..... | Sept. 24 | Sept. 26 | 224 |
| | Labels and Prints..... | Oct. 26 | ..... | 64 |



# PATENTS

## GRANTED OCTOBER 29, 1912.

1,042,376. EYEGLASS-MOUNTING. LEO F. ADT, Albany, N. Y. Filed Feb. 24, 1909. Serial No. 479,808. (Cl. 88—50.)



1. In an eyeglass mounting, the combination with a support for the lenses and a nose guard mounted to swing on the support, of a spring unsupported between its ends, in rear of the support and having one end detachably interlocked with the support and the other end detachably interlocked with the guard, both of said interlocking connections being held in engagement by the action of the spring.

2. In an eyeglass mounting, the combination with a support for the lenses and a spring unsupported between its ends, arranged in rear of the support, one of said parts being provided with a recessed portion and the other having a portion fitted in the recessed portion, of a nose guard mounted to swing on the support and an interlocking connection between the guard and the spring held in engagement by the action of the spring.

3. In an eyeglass mounting, the combination with a support for the lenses and a nose guard mounted to swing thereon, of a spring carried by the support and having a portion coiled in a spiral about an upright axis to one side of the turning axis of the guard and an arm extended from the coiled portion and coöperating with the guard upon the opposite side of the turning axis of the latter.

4. In an eyeglass mounting, the combination with a support for the lenses and a nose guard mounted to swing on the upper side thereof and having a downwardly turned portion at its forward end, of a spring for the guard having a portion coiled in rear of the turning axis of the latter and extending forwardly beneath the support into detachable engagement with the downwardly turned portion of the guard.

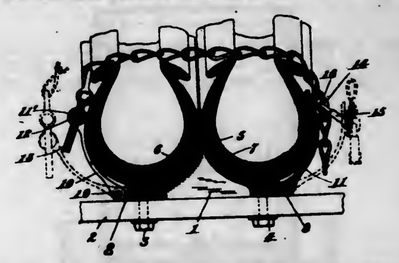
5. In an eyeglass mounting, the combination with a support for the lenses and a nose guard mounted to swing thereon, of a spring having a portion coiled about a vertical axis in rear of the support, a portion above said coil secured to the support and an arm projecting forwardly beneath the support and coöperating with the guard in front of the turning axis of the latter.

[Claims 6 to 15 not printed in the Gazette.]

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1,042,377. TIRE-LOCK FOR AUTOMOBILES. BERNARD A. ALPERIN, New York, N. Y. Filed Aug. 4, 1911. Serial No. 642,231. (Cl. 224—29.)

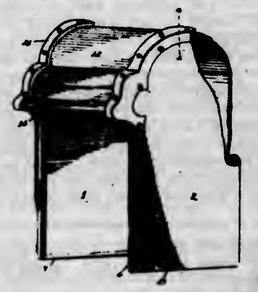
A tire lock comprising a base member adapted to be attached to the running board of a car, a link pivoted at one end of the base and provided with means for engaging a locking member, a pair of apertured lugs projecting up at the other end of the base, a pin member mounted in the apertured lugs, a pair of complemental arms pivotally mounted at one end and located between said lugs on the pin, said arms having their other ends apertured and spaced apart, a trunnion member comprising a body and reduced ends on the body projecting into said spaced



ends of the arms respectively, the body of the trunnion having a transverse threaded bore, a bolt member fitting in said bore and adjustable therein, and a securing member carried by said bolt to engage said link member at the other end of the base.

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1,042,378. GUARD-DEFLECTOR FOR RADIATORS. MARTIN B. ARMSTRONG, London, Ohio. Filed Feb. 18, 1911. Serial No. 609,504. (Cl. 237—19.)



1. A guard deflector for radiators comprising end plates spaced apart, a hood plate connecting said end plates at their rear and top edges, said plates having a sliding joint between the rear edges of said end plates and said hood.

2. A guard deflector for radiators comprising end plates spaced apart, a hood plate connecting said end pieces at their top and rear edges, said plates having a sliding jointure between the edges of the vertical portion of said hood plate and the vertical rear edges of said end plates, and angle irons detachably connecting the upper edges of said end plates and said hood plate.

3. A guard deflector for radiators comprising end plates spaced apart, a hood plate, curled flanges on said end plates, interfitting curled flanges on the vertical edges of said hood plate, and means for connecting the upper edges of said end plates with said hood plate.

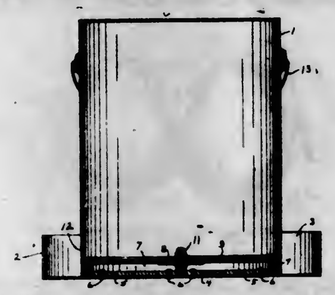
4. A guard deflector for radiators comprising end plates, a hood plate, curled flanges on the rear vertical edges of said end plates, interfitting curled flanges on the vertical edges of said hood plate, and angle irons for

detachably connecting the upper edges of said end plates and said hood plate.

5. A guard deflector for radiators comprising side pieces having their forward and rear edges curled, and a spacing sheet comprising a curved hood-like top, and a depending back plate, curled edges on said back complementally formed to slide within the curled edges upon the rear of said side plates, said side plates being curved to conform to the curvature of said hood, and detachable angle irons of a contour to conform to and connect the upper edges of said side plates and said hood.

---

1,042,379. AUTOMATIC FOUNTAIN. GEORGE W. BAIRD, Cisna Park, Ill. Filed Dec. 18, 1911. Serial No. 666,437. (Cl. 119—77.)



1. In a device of the class named, a can, open at its lower end, and provided with an outlet port near the lower end thereof; a pan surrounding the lower end of said can, and forming a trough about the same, extending higher than said outlet; a plate, supported centrally of the lower end of said can and provided with a threaded perforation; and a threaded pin fixed in said pan, centrally thereof, and adapted to engage the opening in said plate.

2. A device of the class named, comprising a can, open at its lower end, and provided with an outlet port near the lower end thereof; a pan surrounding the lower end of said can, and forming a trough about the same, extending higher than said outlet; a hoop fixed in the lower end of said can; a plate supported centrally of said hoop, and provided with a central threaded opening; a plate fixed in the bottom of said pan centrally thereof, and provided with a plurality of radial arms, also fixed to the bottom plate of said pan; and a threaded pin, supported centrally of said last-named plate, and adapted to be engaged by said perforated plate, to bring the lower edge of said can into contact with the bottom plate of the pan.

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1,042,380. WINDOW-SCREEN. THOMAS BAKER, Marysville, Wash. Filed May 10, 1912. Serial No. 696,448. (Cl. 156—14.)

1. In combination, an apertured window frame having sash guides above the aperture thereof, a sash slidably seated in the guides, a screen-frame slidably seated in the guides and adapted to be moved into the aperture of the frame, and means for locking the screen-frame into either of several alternative positions and thereby supporting the window sash.

2. In combination, an apertured window frame having sash guides in registration with the aperture thereof, window sashes slidably seated in the guides, window screens slidably seated in the guides and adapted to be moved upward into said aperture and locked in fixed relation to the window frame and means for removably securing the window sash to the screen so that said sash is supported in fixed relation to the window frame through the medium of the screen.

3. In combination, a window frame provided with sash guides and with an aperture under certain of the sash guides and with an aperture over other of the sash guides, sashes slidable in the guides, screen frames adapted to be slid into and out of the sash guides and apertures respectively, means for locking the screen-frames within said apertures, and means for locking the sashes to the respective screen-frames, and thereby effectually rendering the window inaccessible from the outside.



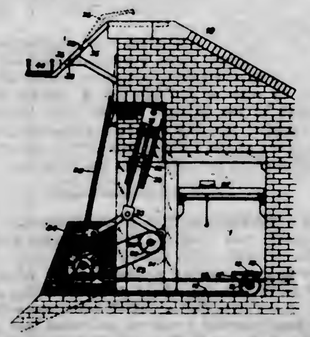
4. In combination, a window frame provided with sash guides and with upper and lower apertures respectively, sashes slidably seated in the guides, screen frames slidably seated in the guides and adapted to be slid into and out of the apertures respectively, means for locking the screens in open position, and means for locking the sashes to the screens, and thereby rendering the window inaccessible from without.

5. In combination, a window frame provided with sash guides, a sash slidably seated in the guides, a screen-frame slidably seated in the guides and adapted to be locked to the sash by means of a hooked bolt inserted in registering apertures in the sash and frame respectively, said hooked bolt having a rectangular aperture therethrough, a shank having a rectangular section slidably and non-rotatably seated in the bolt, means whereby the shank may be rotated, and means for securing the shank in fixed relation to the bolt, said rectangular aperture through the bolt extending beyond the vertical edges of the rectangular portion of the shank, whereby the bolt and shank may be fitted to window sashes of different thicknesses without danger of the rectangular portion of the shank interfering with the bearings of said shank.

[Claim 6 not printed in the Gazette.]

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1,042,381. DAM AND HYDRAULIC-POWER TRANSMITTER. WILLIAM H. BAKER, Bridgeport, Conn. Filed Mar. 2, 1912. Serial No. 681,091. (Cl. 61—34.)



1. A structure of the character described comprising a dam for protecting the crest and face of a precipice, said dam having a chamber built therein, a carriage in said chamber, a water wheel mounted on the carriage, means for moving the carriage and wheel into and out of operative position and a swinging deflector to regulate the amount of water that can come in contact with the wheel.

2. A structure of the character described comprising a dam for protecting the crest and face of a precipice, said dam having a chamber built therein, a carriage in said chamber, a water wheel mounted on the carriage, means for moving the carriage and wheel into and out of operative position, a swinging deflector to regulate the amount of water that can come in contact with the wheel and deflectors on the opposite sides of the wheel which turn the water in upon it.

3. A structure of the character described comprising a dam for protecting the crest and face of a precipice, said dam having a chamber built therein, a carriage in said chamber, a water wheel mounted on the carriage, means for moving the carriage and wheel into and out of operative position, a swinging deflector and a cylinder, piston and toggle for moving the deflector, for the purpose set forth.

4. A structure of the character described comprising a dam for protecting the crest and face of a precipice, said dam having a chamber built therein, a carriage in said chamber, a water wheel mounted on the carriage, and a rack and pinion for moving the carriage into and out of operative position.

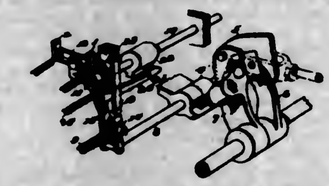
5. The combination with a dam for protecting the crest and face of a precipice, said dam having a chamber in its face, of a water wheel in said chamber, a swinging deflector for the purpose set forth and ice guards secured to the crest and face of the dam for protecting the wheel.

[Claim 6 not printed in the Gazette.]

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1,042,382. CONTROL MECHANISM FOR TYPE CASTING AND COMPOSING MACHINES. JOHN SELLERS BANCROFT and MAURICE C. INDAHL, Philadelphia, Pa., assignors to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed Feb. 3, 1911. Serial No. 606,400. (Cl. 101—200.)



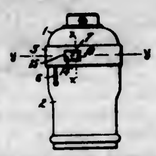
1. A control mechanism for type casting machines, including, in combination, the following elements, to wit; two designating members; pump arresting means; galley starting means, transmitting devices intermediate said designating members and said pump arresting and galley starting means adapted to effect action of the pump arresting means through the movement of a single designating member and to effect action of the galley starting means through the further movement derived from both designating members acting together; and a locking means for retaining the pump arresting means in the operative position to which they are brought by a single designating member, said locking means being controlled by the associated designating member to prevent engagement when the latter is actuated either alone or in company with the other designating member.

2. A control mechanism for type casting machines provided with a galley trip, a movable pump arresting member, transmitting devices for said trip and member including a pivoted equalizing bar, and two signal-controlled designating members arranged to act separately and conjointly upon said equalizing bar to actuate the pump arresting member by the movement of either one of said designating members and said pump arresting member together with the galley trip by the further motion derived from both designating members when acting together, and in combination therewith a latch supported to move in unison with said equalizing bar and controlled as to engagement by the designating member associated with one arm of the equalizing bar.

3. A control mechanism for pattern governed type casting and composing machines including, in combination, the following elements, to wit; pattern controlled designating members; pump arresting means; transmitting devices through which motions of the designating members are conveyed to the pump arresting means; a latch controlled by one of said designating members acting to prevent the return or release of the pump arresting devices, and means controlled by the two designating members acting in conjunction for releasing said latch and restoring the action of the pump mechanism.

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1,042,383. LOCKING DEVICE FOR LAMP-SOCKET SHELLS. FRANKLIN BAER, New York, N. Y. Filed Jan. 17, 1911. Serial No. 603,080. (Cl. 173—362.)



1. In a lock joint for an incandescent lamp socket shell, the construction for engaging the cap upon the body consisting of the combination with a body having a slot in the upper end such slot rendering the top of the body collapsible in a slight degree, of opposite loops projected outwardly from the body below the upper edge of the same, the cap having a flange fitted snugly over the body and said flange provided above its lower edge with openings to embrace the loops and having integral tongues extended from the metal at one end of each slot for a part of the length of the slot, leaving a space in the end of each slot to admit a loop thereto, the edges of the cap and body being continuous adjacent the openings and loops.

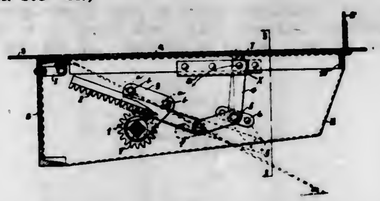
2. A socket shell comprising body and cap members, the body member having a compressible part at one end and the cap member having a flange to receive the compressible end of the body member, one of said members having an opening with a circumferentially extending tongue located a short distance from the edge of said member in said opening, the edge of said member adjacent said tongue and opening being continuous, the other member having a projection and an opening beneath the projection adapted to receive said tongue when the members are telescopically assembled and relatively rotated, the edge of said latter member being continuous adjacent said projection and opening, said members having locking shoulders adapted to snap into engagement when the members have been telescopically assembled and relatively rotated, the edge of the opening adjacent the tongue of the first member forming one of the locking shoulders, the said locking shoulder carried by the body member being carried by the compressible part of the body member whereby the locking shoulders may be disengaged by compressing the body member adjacent the locking shoulders and the members may be then relatively rotated to disengage said tongue and permit longitudinal separation of said members.

3. In a telescopic tubular construction, a loop struck outwardly from a resilient portion of the inner member and having an opening at one side, the outer member having an opening with a circumferentially extending tongue at one side of the opening adapted to be inserted in the opening beneath said loop by relatively rotating the members to prevent longitudinal separation, the opposite side of said loop being adapted to snap out into engagement with the opposite side of said opening in said outer member to prevent backward rotation.

4. In a telescopic tubular construction, a circumferentially extending tongue carried by the outer member and an outwardly struck portion carried by a resilient part of the inner member and inclined near the outer edge to permit the inner member to be readily forced into the outer member, said inner member having a slit at one side of said outwardly struck portion into which said tongue is adapted to be rotated, said outwardly struck portion being sufficiently wide to conceal and protect the tip of said tongue and means for preventing relative backward rotation of said members.

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1,042,884. DOOR-OPERATING DEVICE. DONALD S. BARROWS, Paterson, N. J., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed July 6, 1911. Serial No. 637,201. (Cl. 105—14.)



1. In a door operating device the combination comprising a door, a pivotally mounted member slidingly engaging said door, an operating shaft, a pinion operated by said operating shaft, and a rack-bar engaging said pinion and being pivotally connected to said pivotally mounted member.

2. In a door operating device, the combination comprising a door, a bell crank slidingly engaging said door, an operating shaft, a pinion operated by said operating shaft and a rack-bar engaging said pinion and being pivotally connected to said bell crank.

3. In a door operating device, the combination comprising a door, a pivotally mounted member, a door engaging roller carried by said pivotally mounted member, a runway formed upon said door adapted to under-lap said roller, an operating shaft, a pinion operated by said operating shaft, and a rack-bar engaging said pinion and being pivotally connected to said pivotally mounted member.

4. In a door operating device, the combination comprising a door, a pivotally mounted member slidingly engaging said door, an operating shaft, a pinion operated by said operating shaft, a rack-bar engaging said pinion and being pivotally connected to said pivotally mounted member, and a runway formed upon said door adapted to under-lap a part of said door engaging member whereby said door engaging member will force said door open.

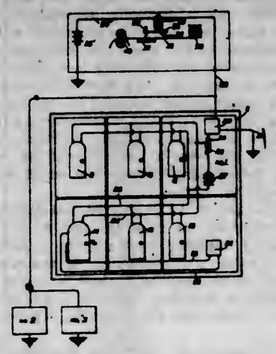
5. In a door operating device, the combination comprising a door, a reinforcing angle fixed to said door, an angle member fixed to said reinforcing angle adapted to form a runway and means engaging in said runway for forcing said door open.

[Claims 6 to 17 not printed in the Gazette.]

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1,042,885. SIGNALING SYSTEM. ALBERT C. BELL, Chicago, Ill., assignor to Hardinge Brothers, Chicago, Ill., a Corporation of Illinois. Filed Oct. 9, 1909. Serial No. 521,789. (Cl. 234—87.5.)

1. In a signaling system, the combination of a sending station, a receiving station, signaling mechanism at the sending station, such mechanism adapted to signal the receiving station unless periodically operated, and electromagnetic means for periodically operating said mechanism, a local circuit extending from said circuit station and including said electromagnetic means, a substation where said local circuit is controlled, a portable recording device, means at the substation for actuating said portable recording device, means whereby registration in said portable device automatically closes said local circuit to actuate said electromagnetic means.



2. In a signaling system, the combination of a receiving station, a sending station, a line circuit connecting said stations, a local circuit extending from said sending station, a substation where said local circuit is controlled, means at said substation for making a record in a portable device, and means whereby employment of said recording means closes said local circuit to operate said sending station.

3. In a signaling system, the combination of a signal sending device adapted to transmit a signal unless periodically operated, electromagnetic means the actuation of which prevents actuation of said sending device, a local circuit for setting electromagnetic means, a substation at which said local circuit is controlled, a key at said substation for making a record in a portable device, and means whereby employment of said key closes said local circuit to actuate said electromagnetic means.

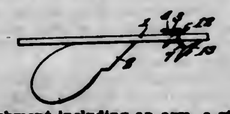
4. In a signaling system, the combination of a signaling sending device operative to transmit a signal unless periodically actuated, and electromagnetic means for actuating said sending device to prevent the transmission of a signal, a local circuit including said electromagnetic means extending from said sending device, a substation, contact springs at said substation controlling said local circuit, a recording device at said substation for coaction with a portable device and means whereby employment of said recording device closes said springs together to close said local circuit to actuate said electromagnetic means.

5. In a signaling system, the combination of a receiving station, a plurality of signaling mechanisms adapted to signal the receiving station unless periodically operated, and mechanism local to the signaling mechanisms consisting in a time-controlled recorder and means at each signaling mechanism available to an operator for actuating the same, such actuation automatically causing the operation of such signaling mechanisms.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,886. PLOW ATTACHMENT. JUSTUS C. BERGH, Hendrum, Minn. Filed Mar. 9, 1911. Serial No. 613,282. (Cl. 97—43.)



A plow attachment including an arm, a stop thereon, a sleeve mounted for rotation upon the arm, stop plates fixed on the sleeve, disks on the sleeve between the stop plates and the respective ends of the sleeve, washer plates interposed between the disks and the adjacent ends of the sleeve, nuts engaging the ends of the sleeve for binding the washer plates upon the disks and binding said disks against the stop plates, a wear device interposed between the sleeve and the stop, means extending transversely through the arm for holding the sleeve against said wear device, a cap detachably engaging the sleeve for housing said holding means, and a jacket engaging the stop and extending around the nut on one end of the sleeve.



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1,042,887. PRESSURE CONTROLLING AND RELIEF VALVE FOR HOT-WATER-CIRCULATING SYSTEMS. GEORGE L. BOTTUM, Chicago, Ill. Filed July 20, 1911. Serial No. 639,571. (Cl. 237—15.)



1. A pressure controlling and relief valve comprising a shell having a valve chamber, an inlet and outlet therefor and a valve seat around the inlet, a valve member positioned within such chamber out of contact therewith except at its seat, a stop on the shell and a spring reacting between the valve member and the stop member to hold the former yeldingly on the said seat, said valve member having upper and lower chambers which communicate with each other and a hollow bridge which partially separates them, the lower chamber having communication through the valve terminal with the valve inlet and the upper chamber having communication through the hollow bridge with the valve chamber of the shell around the valve member, and a downwardly seating check valve in said upper chamber at the mouth of said last-mentioned passage.

2. A pressure controlling and relief valve comprising a shell having a valve chamber; an inlet and outlet therefor, and an inwardly facing valve seat around the inlet; a valve member within said chamber of less diameter than the interior of the chamber and thereby affording waterway passage at all sides, said member having an axially positioned cavity opening through its end at the inlet opening of the shell, and a bridge extending across said axial cavity positioned and proportioned to leave a waterway past it from its lower to its upper side, said bridge having a cavity extending through it from end to end opening at both ends within the waterway of the shell around the valve member, said bridge having an aperture in its upper side leading into the end-to-end cavity and an upwardly facing valve seat about said aperture, and a valve within the cavity of the valve member seating downwardly on said seat.

3. In a pressure controlling and relief valve device, in combination with a valve chamber having an inlet opening, a valve member seating at said inlet opening and having upper and lower chambers and a bridge between them past which they communicate with each other, the lower chamber having communication through the valve terminal with the inlet opening of the device, the bridge having a passage leading from the upper chamber out through the side of the valve member; a check valve in the upper chamber controlling said passage, said valve member comprising a removable cap which forms the top of the upper chamber and which protrudes therefrom for limiting the movement of the check valve away from its seat, said cap having a downwardly opening cavity which accommodates said movement of the valve.

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1,042,888. FUSE-PLUG. DAVID E. BOWN, Pittsburgh, Pa. Filed June 17, 1911. Serial No. 633,993. (Cl. 175—277.)

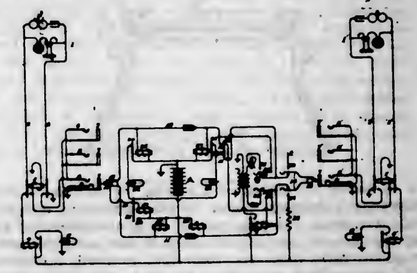


1. A fuse-plug comprising a lining of insulating material, a screw-shell around said lining, channel portions at one end of the shell forming outwardly extending flanges, inwardly extending flanges on said shell end, a rim supported between said outwardly extending flanges, and a cover supported between said outwardly extending inner flanges and said inwardly extending flanges.

2. A fuse-plug comprising a lining of insulating material, a screw-shell around said lining, channel portions at one end of the shell forming outwardly extending flanges, inwardly extending flanges on said shell end between said portions, a rim supported between said outwardly extending flanges, and a cover extending between said outwardly extending inner flanges and said inwardly extending flanges.

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1,042,889. TELEPHONE SYSTEM. CLIFFORD C. BRADBURY, Chicago, Ill., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 22, 1907. Serial No. 369,639. (Cl. 179—58.)



1. In a telephone system, the combination with a telephone line, of a cut-off relay associated therewith, a cord circuit to connect with the line for conversation, a supervisory relay actuated over a circuit independent of the talking circuit and of the coil of the cut-off relay when the cord is connected to said line, a second supervisory relay, and means to energize it, and a signal controlled by the conjoint action of said relays, substantially as described.

2. In a telephone system, the combination with a telephone line, of a pair of contacts at the central office in the talking circuit of the line, a cut-off relay connected with one of said contacts, a third contact for the line connected with a conductor independent of the talking circuit, a cord circuit having a pair of talking contacts, and a third contact adapted to register with the contacts of the line, a source of current, a supervisory relay connected between said source and said third contact of the cord circuit adapted to be actuated when the cord is connected with the line, a second supervisory relay under the control of the subscriber, and a supervisory signal controlled by said relay, substantially as described.

3. In a telephone system, the combination with a telephone line, of a cut-off relay for the line connected with one of the talking strands thereof during conversation, a cord circuit, a central source of current, a relay and an impedance coil bridged between the talking strands of the cord circuit, said cut-off relay and said impedance coil be-

ing connected in a local circuit with said source when the cord is connected with the line, a second relay for the cord circuit having its circuit completed over a different path when the cord is connected with the line, and a supervisory signal controlled by the conjoint action of said cord relays, substantially as described.

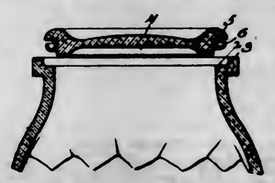
4. In a telephone system, the combination with a telephone line, of a cord circuit to connect therewith, a relay, a source of current and an impedance coil bridged across the cord circuit, a cut-off relay having its coil connected with a limb of the line, said cut-off relay being actuated by current through said impedance coil when the cord is connected with the line, a second relay for the cord circuit actuated over a local circuit independent of the talking circuit when the cord is connected with the line, and a supervisory signal controlled by the conjoint action of said cord relays, substantially as described.

5. The combination with a telephone line, of a source of electricity, a relay and an impedance coil bridged between the limbs of the talking circuit thereof, a second relay in a local circuit including said source and said impedance coil, a third relay in a local circuit independent of the talking circuit, a switch at the substation for controlling the circuit of the first relay, and switches at the central station for controlling the circuits of said second and third relays, and a supervisory signal controlled by the conjoint action of the first and third relays, substantially as described.

[Claims 6 to 18 not printed in the Gazette.]

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1,042,890. FRUIT-JAR. FRANK BEELLS, Ferndale, Cal. Filed Jan. 22, 1912. Serial No. 672,629. (Cl. 215—90.)



1. A means for closing and sealing the mouths of jars, comprising a tubular gasket in the form of a complete ring open along the side remote from the center of the ring throughout the circumference of said side, the tubular gasket being shaped to fold together along a substantially intermediate circumferential line on the side of the gasket toward the center and when so folded constituting a ring shaped gasket of double thickness.

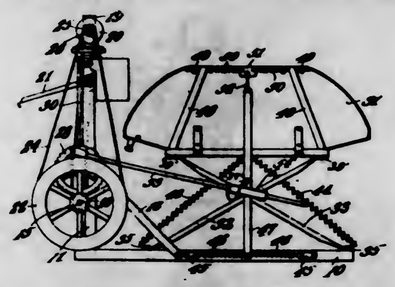
2. A jar of frangible material having a circumferential support at its mouth, a cover for the jar also of frangible material having a flange adapted to said support, and a tubular gasket of elastic material adapted to be interposed between the flange of the cover and the support of the jar, said gasket being open throughout its circumference on that side remote from the center of the gasket and shaped to fold together along a substantially intermediate circumferential line on the side toward the center of the gasket to form when so folded a ring-shaped gasket of double thickness.

3. A preserving jar having at the mouth end an inwardly directed ledge and a circumferential flange upstanding from the ledge exterior thereto, a cover member provided with a peripheral portion of an external diameter less than the internal diameter of the ledge and provided with an outstanding flange adapted to override the ledge within the upstanding flange of the jar, and a sealing ring or gasket of tubular form with a portion of its walls remote from the center of the gasket omitted throughout the circumference to form a vent toward the exterior of the jar, said gasket being adapted to the periphery of the cover to seat on the ledge of the jar between said ledge and the outstanding flange of the cover and shaped to fold together upon a circumferential line intermediate of the edges of the walls defined by the omitted portion to form when so folded a ring-shaped gasket of double thickness.

4. In a preserving jar, a collapsible tubular ring shaped gasket having a portion of its walls omitted throughout the circumferential length of the ring, said omitted portion comprising less than half the cross sectional extent of said walls.

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1,042,891. WASHING-MACHINE. GEORGE T. BURTON, Chicago, Ill., assignor of one-half to Edward H. Ward, Chicago, Ill. Filed Sept. 26, 1911. Serial No. 651,183. (Cl. 68—21.)



1. In a washing machine, a receptacle, a plurality of independently movable frames one of which extends through the other, said frames supporting said receptacle for a rocking motion, a bar having a resilient connection with said receptacle and means for imparting movement to said bar.

2. In a washing machine, a receptacle, a supporting base, a bar, having a resilient connection with said receptacle and said base, a plurality of independently movable frames pivotally arranged on the base, said frames having a pivotal connection with the receptacle and means for moving said bar to rock said receptacle.

3. In a washing machine, a base, a receptacle, a plurality of independently movable frames supporting said receptacle for rocking movement, one of said frames extending through the other, a vertically disposed bar, coiled springs connecting said bar with said base, coiled springs connecting said bar with said receptacle and means for imparting movement to said bar to rock said receptacle.

4. In a washing machine, a base, a receptacle, a plurality of independently movable frames supporting said receptacle, said frames being provided with curved extensions arranged to contact with said base and with said receptacle, a resilient connection between said receptacle and said base, a vertically disposed bar, said bar having resilient connections with said receptacle and with said base and means for moving said bar to rock said receptacle.

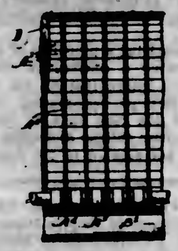
5. In a washing machine, a base, a receptacle, a plurality of independently movable frames supporting said receptacle for a rocking movement, a plurality of angle bars arranged transversely of the base, said frames being provided with curved extensions adapted to contact with said bars, a plurality of transversely disposed angle beams secured to the bottom of the receptacle, said frames being provided with curved extensions adapted to contact with said beams, a vertically disposed bar, said bar having a resilient connection with said base and with said receptacle and means for moving said bar to rock said receptacle.

[Claims 6 to 9 not printed in the Gazette.]

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1,042,892. AUTOMOBILE-TIRE. CLIFFORD L. BUTLER, Chicago, Ill., assignor to American Steel Tire Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Dec. 29, 1910. Serial No. 599,094. (Cl. 152—17.)

1. A flexible metallic tire comprising a plurality of parallel longitudinal members in contact with each other at all points and a plurality of lugs inwardly extending from each of said members, slots in said lugs and transverse binding members therein.



2. A flexible metallic tire comprising a plurality of parallel longitudinal members in contact with each other at all points and a plurality of lugs inwardly extending from each of said members, slots in said lugs and in communication with the outside of the casing and binding members in said slots.

3. A flexible metallic tire comprising a plurality of parallel longitudinal members in contact with each other at all points and a plurality of lugs inwardly extending from each of said members, slots in said lugs and in communication with the outside of the casing and binding members between said adjacent lugs.

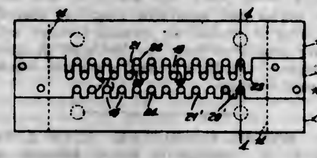
4. A flexible metallic tire comprising a plurality of parallel longitudinal members in contact with each other at all points and transverse binding members in engagement with said longitudinal members and rigid parallel annular members on either side of the casing and rigidly holding the ends of said binding members.

5. A flexible metallic tire comprising a plurality of parallel longitudinal members said members match-jointed one with the other and transverse binding members in engagement with said longitudinal members and a plurality of rigid parallel annular members on either side of the casing and rigidly holding the ends of said binding members.

[Claims 6 to 11 not printed in the Gazette.]

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1,042,893. HOLDER FOR BRISTLES OF BRUSHES. DANIEL L. CHANDLER, Ayer, Mass. Filed Dec. 12, 1910. Serial No. 596,744. (Cl. 15—7.)



1. A holder for the bristles of a brush consisting of a plurality of parts located side by side; one of said parts having a series of recesses formed in the opposite sides thereof, and terminating in semi-cylindrical grooves, the material intervening between, and constituting the walls of said recesses upon one side of said part also terminating in semi-cylindrical grooves, said projections constituting the walls of recesses which terminate in semi-cylindrical grooves, said projections and recesses in said second part being adapted to engage the recesses and projections respectively of said first part and forming thereby a parallel series of cylindrical holes, and a third part having projections terminating in semi-cylindrical grooves, said projections adapted to engage the recesses in the opposite side of said first mentioned part and forming thereby a third series of cylindrical holes parallel with said other series, all of said cylindrical holes extending through said holder transversely of the adjacent edges of said parts.

2. A holder for the bristles of a brush consisting of a plurality of parts located side by side, one of said parts having a series of recesses formed in the opposite sides thereof, and terminating in semi-cylindrical grooves, the material intervening between, and constituting the walls of said recesses upon one side of said part also terminating in semi-cylindrical grooves, a second one of said parts having a series of projections terminating in semi-cylindrical grooves, said projections constituting the walls of recesses which terminate in semi-cylindrical grooves, said projections and recesses in said second part being adapted to engage the recesses and projections respectively of said first part and forming thereby a parallel series of cylindrical holes, a third part having projections terminating in semi-cylindrical grooves, said projections adapted to engage the recesses in the opposite side of said first mentioned part and forming thereby a third series of cylindrical holes parallel with said other series, all of said cylindrical holes extending through said holder transversely of the adjacent edges of said parts, and means to clamp said plurality of parts together.

3. A holder for the bristles of a brush consisting of a plurality of parts located side by side, one of said parts having a series of recesses formed in the opposite sides thereof, and terminating in semi-cylindrical grooves, the material intervening between, and constituting the walls of said recesses upon one side of said part also terminating in semi-cylindrical grooves, a second one of said parts having a series of projections terminating in semi-cylindrical grooves, said projections constituting the walls of recesses which terminate in semi-cylindrical grooves, said projections and recesses in said second part being adapted to engage the recesses and projections respectively of said first part and forming thereby a parallel series of cylindrical holes, a third part having projections terminating in semi-cylindrical grooves, said projections adapted to engage the recesses in the opposite side of said first mentioned part and forming thereby a third series of cylindrical holes parallel with said other series, all of said cylindrical holes extending through said holder transversely of the adjacent edges of said parts, means adapted to aline the faces of said several parts, and means to clamp said plurality of parts together.

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1,042,894. APPARATUS FOR TREATING LINT. JAMES E. CHEESMAN, South Orange, N. J., assignor to Empire Duplex Gin Company, New York, N. Y., a Corporation of Arizona. Filed Jan. 24, 1911. Serial No. 604,319. (Cl. 19—8.)



1. In an apparatus for treating lint, the combination with a conduit, and means for causing air currents to flow therethrough to carry lint after it has been seeded through the conduit, of a plurality of free ended fingers disposed therein in the path of the flow of the currents and movement of the lint, and means for oscillating the said fingers.

2. In an apparatus for treating lint, the combination with a conduit, and means for causing air currents to flow therethrough to carry lint after it has been seeded through the conduit, of horizontal shafts located in proximity to the walls of the conduit, means for oscillating the said shafts, and fingers carried by the said shafts and arranged to project into the path of the air currents and the lint carried thereby.

3. In an apparatus for treating lint, the combination with a conduit, and means for causing air currents to flow therethrough to carry lint after it has been seeded through the conduit, of vibrating elements arranged to project into the path of the air currents and lint in their passage through the conduit, the said vibrating elements comprising a frame, a perforated plate carried thereby, and a

plurality of pins projecting diagonally from the said frame and plate, shafts for supporting the said vibrating elements, and means for imparting movements of oscillation to the said shafts in the operation of the apparatus.

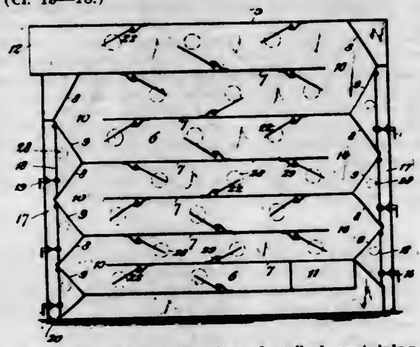
4. In an apparatus for treating lint, the combination with a conduit, and means for causing air currents to flow therethrough to carry lint after it has been seeded through the conduit, of a plurality of vibrating elements successively disposed along the said conduit and provided with fingers arranged to project into the path of the moving air currents and the lint carried thereby, and means for imparting movements of oscillation to the successive elements alternately in opposite directions.

5. In an apparatus for treating lint, the combination with a conduit, and means for causing air currents to flow therethrough to carry lint after it has been seeded through the conduit, of a plurality of free ended fingers disposed therein in the path of the flow of the currents and movement of the lint, means for oscillating the said fingers in the operation of the apparatus, and a stationary perforated screen arranged in the bottom of the conduit, the said conduit being provided with a closed chamber beneath the said screen.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,395. APPARATUS FOR TREATING LINT. JAMES E. CHEESMAN, South Orange, N. J., assignor to Empire Duplex Gin Company, New York, N. Y., a Corporation of Arizona. Filed May 10, 1911. Serial No. 626,221. (Cl. 19—18.)



1. An apparatus of the class described containing a channel of gradually increasing cross-sectional area, means for causing currents of air to flow therethrough from the smaller to the larger end, and a plurality of sets of fingers or projections disposed throughout the length of the channel and alternately inclined oppositely in the direction of the flow of the air currents therein.

2. Apparatus of the class described comprising a lint flue having a channel therethrough composed of a plurality of sections of progressively increasing cross-sectional area, means for causing currents of air to flow through the channel from the smaller to the larger end thereof, and a plurality of sets of fingers or projections arranged in the several channel sections and alternately inclined oppositely in the direction of the flow of the air currents through the channel.

3. A lint flue comprising a plurality of channel sections disposed in parallel relation with each other and in successive communication with each other at their opposite ends, the successive channel sections being of progressively increasing cross-sectional area, and a plurality of sets of fingers or projections which project alternately obliquely in opposite directions into the several sections throughout the length of the channel.

4. A lint flue comprising a plurality of channel sections disposed one above the other and in parallel relation with each other, the contiguous ends of adjacent channels being alternately in communication and the successive channel sections being of progressively increasing cross-sectional area, and a plurality of sets of fingers or projections which project alternately obliquely in opposite directions into the several sections throughout the length of the channel.

5. A lint flue comprising a plurality of horizontal superposed sections forming a continuous channel of zigzag form throughout the length thereof, the forward ends of the said channel sections terminating in forwardly inclined screens, and the rear ends of the said channels adjacent thereto having oblique deflecting plates.

[Claims 6 to 11 not printed in the Gazette.]

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1,042,396. LINT-FLUE. JAMES E. CHEESMAN, South Orange, N. J., assignor to Empire Duplex Gin Company, New York, N. Y., a Corporation of Arizona. Filed Feb. 27, 1912. Serial No. 680,317. (Cl. 19—18.)

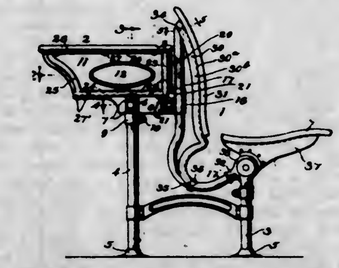


1. A lint flue, comprising a plurality of horizontal sections, connected to form a zigzag path, a reticulated inclined wall at one end of each horizontal section, the lower edge of said reticulated wall being below the plane of the bottom of the horizontal flue section and separated therefrom to provide an opening through which foreign matter separated from the lint may be discharged, and a chamber producing a dead air space communicating with said opening.

2. A lint flue comprising vertical side walls, a plurality of horizontal sheet metal plates affixed to said side walls providing a series of horizontal passages or flue sections, said horizontal plates being so positioned as to provide a space at alternate ends of said sections to produce a zigzag flue through which air under pressure may be forced, downwardly inclined sheet metal plates forming the upper portions of the ends of the bends in the flue, and upwardly inclined screens forming the lower portions of the ends of the bends in the flue, the lower edges of said screens being below the planes of the contiguous horizontal plates and separated from the corresponding inclined plates to provide an opening through which foreign matter separated from the lint may be discharged, and a chamber containing a dead air space communicating with said opening.

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1,042,397. SCHOOL FURNITURE. LOUIS A. CHUDGAY, Buffalo, N. Y., assignor to Sears, Roebuck and Co., Chicago, Ill., a Corporation of New York. Filed Feb. 27, 1911. Serial No. 611,117. (Cl. 155—34.)



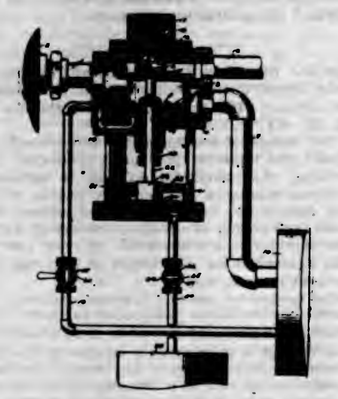
1. In a combined seat and desk, an integral metal end element comprising an end wall, a bracket extending downward therefrom on which are stamped a plurality of straps forming a socket and on which there is also a journal bearing on the end adjacent the seat; an adjustable upright standard adapted to engage said socket; a pinion rotatably supported by said bearing; and a seat having a vertical reciprocatory rack co-acting with said pinion.

2. An element for a combined school seat and desk consisting of a sheet-metal plate having upon one side grooves to receive the bottom and back of a desk box, said plate being formed below said grooves to provide a socket, and a portion of said plate being folded upon itself to provide a guide loop and a pinion-receiving space.



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1,042,398. APPARATUS FOR DIVERTING EXHAUST-STEAM. FRANK F. COGGIN, Matawan, N. J., assignor to The Economy Car Heating Company, New York, N. Y., a Corporation of Maine. Filed Dec. 15, 1909. Serial No. 533,167. (Cl. 237—12.)



1. In an apparatus for controlling exhaust steam, the combination with an exhaust steam pipe from the engine, a normal exhaust outlet, and a storage receptacle, of means of communication from the exhaust steam pipe to said receptacle, and a device governed by the variations in the exhaust steam pressure during each stroke of the engine for controlling the normal exhaust outlet, and arranged to substantially close the normal exhaust outlet during the first part of the stroke and to freely open said outlet during the latter part of the stroke.

2. In an apparatus for controlling exhaust steam, the combination with an exhaust steam pipe from the engine, a normal exhaust outlet, and a storage receptacle, of means governed by the variations in the exhaust steam pressure during each stroke of the engine for controlling communication from the exhaust steam pipe to the normal exhaust outlet and to said receptacle, and arranged to substantially close the normal exhaust outlet and open communication to the receptacle during the first part of the stroke and to close communication to the receptacle and freely open said exhaust outlet during the latter part of the stroke.

3. In an apparatus for controlling exhaust steam, the combination with an exhaust steam pipe from the engine, a normal exhaust outlet, and a storage receptacle communicating with said exhaust steam pipe, of means subject to the opposing pressures of the exhaust steam and of the receptacle for controlling communication through the normal exhaust outlet, and arranged to substantially close the normal exhaust outlet during the first part of the stroke and to freely open said outlet during the latter part of the stroke.

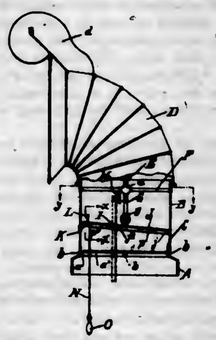
4. In an apparatus for controlling exhaust steam, the combination with an exhaust steam pipe from the engine, a normal exhaust outlet, and a storage receptacle, of a valve device subject to the opposing pressures of the exhaust steam and of the receptacle for controlling communication from the exhaust steam pipe to said normal exhaust outlet and to said receptacle, and arranged to substantially close the normal exhaust outlet and to open communication to the receptacle during the first part of the stroke and to close the communication to the receptacle and to freely open said exhaust outlet during the latter part of the stroke.

5. In an apparatus for controlling exhaust steam from a steam engine, the combination with an exhaust steam pipe connected to the engine and a normal exhaust outlet, of a receptacle for receiving exhaust steam from said exhaust pipe and a differential piston subject on one side of its larger head to pressure of the steam in said receptacle and in the opposite direction to the exhaust steam pressure and atmospheric pressure for controlling the flow of exhaust steam to the exhaust outlet and to said receptacle.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,399. VENTILATOR. JACOB N. COHEN, Providence, R. I. Filed Nov. 11, 1911. Serial No. 659,704. (Cl. 98—27.)



1. In a ventilator, the combination with the casing, of a pintle mounted in the casing transversely thereof, a stop member fixed in the casing, a damper plate upon the pintle, and a downwardly directed marginal flange upon the plate normally resting upon the stop member.

2. In a ventilator, the combination with the casing, of a pintle mounted in the casing transversely thereof and near the center of the casing, a stop member fixed in the casing in the plane of the pintle, a damper plate upon the pintle, a downwardly directed marginal flange upon the plate normally resting upon the stop member, and a gutter in the casing below the flange.

3. In a ventilator, the combination with a casing provided with openings near its bottom, of an upturned internal flange upon the perimeter of the casing adjacent the openings, a pintle mounted in the casing above the flange and transversely of the casing, a damper plate upon the pintle, a stop member fixed in the casing, and a flange upon the damper plate resting upon the stop member and overhanging the first mentioned flange.

4. In a ventilator, the combination with the casing, of a brace within the casing extending transversely thereof, a pintle mounted in the casing transversely thereof at one side of the center of the casing, a stop member in the casing, a damper plate upon the pintle, a flange upon the plate resting upon the stop member, a chain attached to the plate adjacent the stop member, a weighted handle upon the chain, and a catch upon the plate near the stop member comprising two interspaced resilient loops, and a pin in the brace in the path of the loops of greater diameter than the space between the loops.

1,042,400. PROCESS OF MANUFACTURING AVAILABLE PHOSPHORIC ACID. JAMES H. CONNOR, Nashville, Tenn. Filed Oct. 21, 1911. Serial No. 655,963. (Cl. 23—22.)

1. The method of treating phosphatic material to render the insoluble phosphates available, consisting in reducing phosphatic material to substantially a size to pass through a screen of sixty meshes to the inch, then adding thereto sodium carbonate and crushed limestone, the quantity of sodium carbonate being at least double that of the limestone, and subjecting the mixture to a temperature of from 2000 to 3000 degrees Fahrenheit for such length of time that the phosphoric acid becomes soluble.

2. The method of treating phosphatic material in order to render the insoluble phosphates available, consisting in reducing the phosphatic material to substantially a size to pass through a screen of sixty meshes to the inch, then adding thereto sodium carbonate and crushed lime in proportions of approximately 250 to 400 pounds of sodium carbonate and 50 to 100 pounds of pulverized limestone to each 1400 pounds of phosphatic material, and then fusing the same for such length of time that the phosphoric acid becomes soluble.

3. The method of treating phosphatic material in order to render the insoluble phosphates available, consisting in reducing the phosphatic material to substantially a size to pass through a screen of sixty meshes to the inch, then adding thereto sodium carbonate and crushed limestone in the proportions of substantially 250 to 400 pounds of sodium carbonate and 50 to 100 pounds of pulverized limestone to each 1400 pounds of phosphatic material, and then subjecting the same to a temperature of from 2000 to 3000 degrees Fahrenheit for a period of forty minutes to one hour.

4. The method of treating phosphatic material in order to render the insoluble phosphates available, consisting in reducing the phosphatic material to substantially a size to pass through a screen of sixty meshes to the inch, then adding thereto sulfur soda ash and crushed limestone and subjecting the same to a temperature of from 2000 to 3000 degrees Fahrenheit for such length of time that the phosphoric acid becomes soluble.

5. The method of treating phosphatic material in order to render the insoluble phosphates available, consisting in grinding the phosphatic material, then adding thereto soda ash, crushed limestone and iron oxid, and subjecting the mixture to a temperature of from 2000 to 3000 degrees Fahrenheit for such length of time that the phosphoric acid becomes soluble.

[Claim 6 not printed in the Gazette.]

1,042,401. PROCESS OF MANUFACTURING AVAILABLE PHOSPHORIC ACID. JAMES H. CONNOR, Nashville, Tenn. Filed Oct. 21, 1911. Serial No. 655,963. (Cl. 71—7.)

1. The method of treating phosphatic material in order to render the insoluble phosphates available, consisting in reducing the phosphatic material to substantially a size to pass through a sieve of 60 meshes to the inch, adding thereto from 250 to 400 pounds of sodium carbonate for each 1400 pounds of phosphatic material, and water sufficient to reduce the mixture to the consistency of thick mud, thoroughly mixing the same, and subjecting the mud mass to a temperature of from 2000 to 3000 degrees Fahrenheit for such length of time that the phosphoric acid becomes soluble.

2. The method of treating phosphatic material in order to render the insoluble phosphates available, consisting in reducing the phosphatic material to substantially a size to pass through a sieve of 60 meshes to the inch, adding thereto sulfur soda ash in the proportion of 250 to 400 pounds of said soda ash to each 1400 pounds of phosphatic material, and then subjecting the same to a temperature of from 2000 to 3000 degrees Fahrenheit.

3. The method of treating phosphatic material in order to render the insoluble phosphates available, consisting in reducing the phosphatic material to substantially a size to pass through a sieve of 60 meshes to the inch, adding thereto soda ash, in the proportion of 250 to 400 pounds of soda ash to each 1400 pounds of phosphatic material, then subjecting the same to a fusing temperature for such length of time that the phosphoric acid becomes soluble.

4. The method of treating phosphatic material in order to render the insoluble phosphates available, consisting in reducing the phosphatic material to substantially a size to pass through a sieve of 60 meshes to the inch, adding thereto soda ash in the proportion of 250 to 400 pounds of soda ash to each 1400 pounds of phosphatic material, and then subjecting the same to a temperature from 2000 to 3000 degrees Fahrenheit for a period of from 40 minutes to one hour.

5. The method of treating phosphatic material in order to render the insoluble phosphates available, consisting in reducing the phosphatic material to substantially a size to pass through a sieve of 60 meshes to the inch, adding thereto soda ash and oxid of iron, and subjecting the mixture to such temperature and for such length of time that the phosphatic acid becomes soluble.

[Claim 6 not printed in the Gazette.]

1,042,402. PROCESS OF MANUFACTURING AVAILABLE PHOSPHORIC ACID. JAMES H. CONNOR, Nashville, Tenn. Filed Oct. 21, 1911. Serial No. 655,964. (Cl. 71—7.)

1. The method of treating phosphatic material in order to render the insoluble phosphates available, consisting in reducing the phosphatic material to substantially a size to pass through a sieve of sixty meshes to the inch, adding thereto 100 to 400 pounds of sulfate of sodium for each 1400 pounds of phosphatic material, and subjecting the mixture to a temperature of from 1700 to 3400 degrees Fahrenheit for such length of time that the phosphoric acid becomes soluble.

2. The method of treating phosphatic material in order to render the insoluble phosphates available, consisting in reducing the phosphatic material to substantially a size to pass through a sieve of sixty meshes to the inch, adding thereto sulfate of sodium and sodium carbonate, and subjecting the mixture to a temperature of from 1700 to 3400 degrees Fahrenheit for such length of time that the phosphoric acid becomes soluble.

3. The method of treating phosphatic material in order to render the insoluble phosphates available, consisting in reducing the phosphatic material to substantially a size to pass through a sieve of sixty meshes to the inch, adding thereto sulfate of sodium and carbonate of sodium in substantially the proportions of 100 pounds and upward of sulfate of sodium and 200 pounds and upward of carbonate of sodium to each 1400 pounds of phosphatic material, and then subjecting the mixture to a fusing temperature for such length of time that the phosphoric acid becomes soluble.

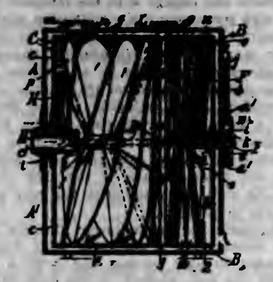
4. The method of treating phosphatic material in order to render the insoluble phosphates available, consisting in reducing the phosphatic material to substantially a size to pass through a sieve of sixty meshes to the inch, adding thereto sulfate of sodium and carbonate of sodium in substantially the proportions of 100 pounds and upward of sulfate of sodium and 200 pounds and upward of carbonate of sodium to each 1400 pounds of phosphatic material, and water sufficient to reduce the mass to the consistency of thick mud, and subjecting the mass to a temperature of from 1700 to 3400 degrees Fahrenheit for such length of time that the phosphoric acid becomes soluble.

5. The method of treating phosphatic material in order to render the insoluble phosphates available, consisting in reducing the phosphatic material to substantially a size to pass through a sieve of sixty meshes to the inch, adding thereto sulfate of sodium and oxid of iron, and subjecting the mixture to a temperature of from 1700 to 3400 degrees Fahrenheit for such length of time that the phosphoric acid becomes soluble.

[Claim 6 not printed in the Gazette.]



1,042,403. GAS AND AIR MIXING METER. GEORGE B. CORTELYOU, Anglesea, N. J. Filed Dec. 6, 1911. Serial No. 664,164. (Cl. 48—187.)



1. In a gas and air-mixing meter, the gas drum mounted on an axle and divided by helical vanes into screw measuring compartments having contracted inlet and outlet openings, and diverging walls, and an increasing cross area from the inlet openings toward the middle portion, and converging walls beyond the middle to the contracted outlet opening, whereby the currents of inflowing gas, under pressure, will impinge with the greatest pressure upon the diverging walls of any two compartments open above the water line and cause the drum to revolve, substantially as described.

2. In a gas and air-mixing meter, the gas drum mounted on an axle and divided by helical vanes into screw-measuring compartments having contracted inlet and outlet openings, the vanes diverging and the compartments increasing in cross area from the inlet openings toward the middle portion, and said vanes converging beyond the middle to the contracted outlet openings, the vanes also having sector-shaped planes of different pitch to the axle, and one or more planes of the steepest pitch being in the diverging portions of the vanes between the inlet and middle portions of each compartment, whereby the currents of inflowing gas will impinge with the greatest pressure upon said planes of steepest pitch in any two compartments open above the water line and cause the drum to revolve, substantially as described.

3. A gas and air-mixing meter comprising a propelling gas drum and an air measuring drum mounted on the same shaft or axle in a casing and having a mixing chamber between them, said drums being constructed with helical vanes dividing them into screw measuring compartments, the walls of which diverge from the inlet openings toward the middle portion, increasing the cross area, and converge beyond the middle to the contracted outlet openings, whereby the currents of inflowing gas, under pressure, will impinge with the greatest pressure on the diverging walls in the gas drum, thereby revolving the same and the air drum, and whereby the currents of gas and air will be measured in uniform proportions and discharged at the same velocity and pressure into the mixing chamber, substantially as described.

4. In a mixing meter, a drum on an axle in a casing constructed with helical vanes which converge from the circumferential wall toward the axle and which diverge one from the other from the inlet openings toward the middle portion, forming screw measuring compartments of increasing cross area, and which vanes converge beyond the middle to the contracted outlet openings, whereby the currents of inflowing gas, under pressure, will impinge with greatest pressure on the diverging walls or vanes of any two compartments open above the water line and cause the drum to revolve.

5. In a gas and air-mixing meter, a casing of greater diameter than its length for providing a comparatively tall column of water to prevent leakage of gas and having inlet and outlet openings, a gas drum mounted on an axle in the casing and divided by helical vanes into screw-measuring compartments having contracted inlet and outlet openings and of increasing cross area from the inlet openings toward the middle portions and of decreasing cross area beyond the middle to the outlet openings, whereby the currents of inflowing gas, under pressure, will impinge with the greatest pressure upon the diverging walls of any two compartments open above the water line and cause the drum to revolve, substantially as described.

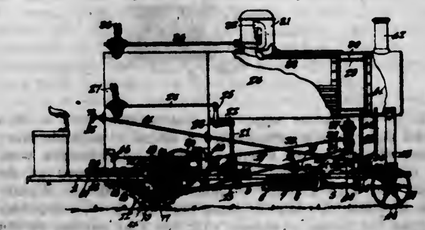
1,042,404. PLIERS FOR CLAMPING CLIPS. JAY GOULD COUTANT, Watervliet, N. Y. Filed May 4, 1912. Serial No. 695,103. (Cl. 81—15.)



1. In combination, a pair of jaws pivoted together and terminating in handles, one of the jaws having its inner face provided with a semi-circular recess adapted to receive a curved arched portion of a U-shaped clip, one side of which is formed with one tongue while the other side is formed with two tongues, the other jaw having a bifurcation, the side walls between which the bifurcation is formed being provided with oppositely arranged recesses adapted to receive the two tongues, a cam jaw including a lever pivoted in the bifurcation adapted to bend the single tongue of the clip while the two tongues are received in the recesses, the bifurcated jaw having plates, one secured upon each side thereof, and provided with inclined portions, adapted to bend the two tongues.

2. In combination, a pair of jaws pivoted together and terminating in handles, one of the jaws having its inner face provided with a semi-circular recess, while the other jaw is constructed with a bifurcation, the side walls of the bifurcated jaw having their edges adjacent the opposite jaw constructed with oppositely arranged recesses, a cam jaw including a lever pivoted in said bifurcation, and a plate secured on each side of the bifurcated jaw and provided with an inclined portion.

1,042,405. TRACTION-ENGINE. BRADFORD COX, Plainview, Tex. Filed May 27, 1910. Serial No. 563,800. (Cl. 21—114.)



1. In a traction engine, a drive axle, a power means in constant connection with said axle, drive wheels loosely mounted on the axle, coupling means between the axle and the drive wheels and provided with means for connecting the drive wheels with the axle and disconnecting them therefrom at will, and power transmitting means for other work than the propelling of the vehicle, also connected to and receiving power from the axle.

2. In a traction engine, a drive axle, a power means in constant connection with said axle, drive wheels loosely mounted on the axle, coupling means between the axle and the drive wheels and provided with means for con-

necting the drive wheels with the axle and disconnecting them therefrom at will, and power transmitting means for other work than the propelling of the vehicle, also connected to and receiving power from the axle, the said last named power transmitting means including means for coupling it to and uncoupling it from the axle at will.

3. In a traction engine, a drive axle, a power means for the axle in constant operative connection therewith, traction wheels loosely mounted on the axle, differential gearing between the axle and the traction wheels, one member of the differential gearing being carried by the axle, power transmitting means for other work than propelling the vehicle also carried by the member of the differential gear carried by the axle, and means for moving the member of the differential gear carried by the axle into and out of operative relation to the members of the differential gear carried by the traction wheels.

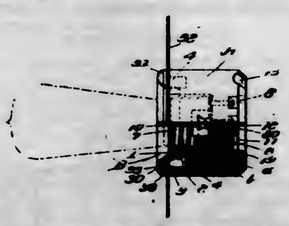
4. In a traction engine, a drive axle, a power means directly and constantly connected with the drive axle, traction wheels mounted loosely on the axle, a master gear wheel fixed to the axle between the traction wheels for the transmission of power to other structures than the traction wheels, gear wheels fixed to the traction wheels, pinions carried by the master gear wheel and movable into and out of mesh with the said gear wheels, and means for adjusting said pinions.

5. In a traction engine, a supporting frame, a crank axle mounted upon said frame transversely thereto, working cylinders mounted on the frame and having pistons connected directly with the cranks of the axle, traction wheels mounted loosely on the axle and each provided with a gear wheel fast thereto, a master gear wheel fixed to the axle between the gear wheels carried by the traction wheels and provided with connections for the transmission of power to other structures than the traction wheels, pinions carried by the master gear wheel and movable into and out of mesh with the gear wheels fixed to the traction wheels, and means for adjusting the pinions.

[Claims 6 to 15 not printed in the Gazette.]

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1,042,406. SIGN-RECEPTACLE. JAMES S. CROSSLEY, Solvay, and VICTOR R. DESPARD, Syracuse, N. Y., assignors to Pass & Seymour, Inc., Solvay, N. Y., a Corporation. Filed Nov. 1, 1910. Serial No. 590,233. (Cl. 173—339.)



1. In an electric sign, the combination with a thin metal sign plate provided with a series of suitable lamp holes, of a series of receptacles each comprising a body of insulating material, said body being formed at its front end with a screw threaded tubular flange slightly less in diameter than the lamp hole and with a shoulder around the flange to engage with the rear surface of the sign, suitable lamp and wire terminals and connections on the body, and a thin metal clamping ring for the receptacle consisting of a threaded sleeve to extend inwardly through the lamp hole and engaging with the threaded flange, and of an outwardly curved rim adapted to engage with the outer surface of the sign plate by its extreme edge, said receptacles being adapted to lie substantially entirely on the rear surface of the sign plate.

2. In a receptacle for incandescent electric signs, the combination with a substantially cylindrical porcelain body having at its front end an annular marginal wall, an externally threaded tubular flange within the wall, an annular groove between the wall and the flange, of a metal clamping ring having a rim to engage with the front of the sign plate and a threaded sleeve to extend into the groove and engage with the threaded flange.

3. In a sign receptacle the combination with a substantially cylindrical porcelain body having at its front end an annular, marginal wall, an annular flange within the wall and separated therefrom by an annular groove, said flange being screw threaded on its exterior surface, said thread extending down adjacent to the bottom of the groove, of a metal clamping ring having a rim and a threaded sleeve to extend into the groove and engage with the threaded flange, said rim being adapted to engage with the front surface of the sign plate and the margin of the wall to engage with the rear surface when the parts are in position.

4. A receptacle for incandescent electric lamp signs, having in combination a porcelain body formed with a screw-threaded tubular portion and with a shoulder to engage with the rear surface of the sign plate, suitable lamp and wire terminals and connections suitably secured on the body, and means for clamping the receptacle on the sign plate, said means consisting of a single metallic clamping ring provided with a threaded sleeve to extend through the hole in the sign plate and engage the thread on the body and with a rim to engage the outer surface of the sign plate.

5. A receptacle for incandescent electric lamp signs comprising a body of insulating material having an externally threaded, cylindrical flange and a projection to engage with the rear surface of the sign-plate, and means to secure the body on the sign-plate, said means consisting of a thin metal clamping ring provided with a threaded sleeve to extend through a hole in the sign-plate for engaging the threaded flange on the body and with a rim to engage with the outer surface of the sign-plate.

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1,042,407. HOOK-FEEDING MECHANISM. WALTER L. CURTIS, Worcester, Mass., assignor to De Long Hook and Eye Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Nov. 24, 1908. Serial No. 464,228. (Cl. 112—32.)



1. In a machine for feeding hooks and the like, the combination of a main supporting frame, a frame movably mounted thereon, feeding devices arranged in inclined position on said movable frame, a handle supported by the main frame for raising and lowering one end of the movable frame to change the angle of inclination thereof, a projection from the movable frame, means movable with said handle and engaging said projection for operating it, and means for fixing the movable frame in adjusted positions.

2. In a device of the class described, the combination of a main supporting frame, a second frame pivoted thereon at one end, hook feeding devices arranged in inclined position on the movable frame, means on the main frame for raising and lowering the opposite end of the movable frame, and a fastening device independent of said means for securing the movable frame in adjusted positions.

3. In a machine for feeding hooks and the like, the combination of a main supporting frame, a frame movably mounted thereon, feeding devices arranged in inclined position on said movable frame, an oscillatable handle supported by the main frame for raising and lowering one end of the movable frame to change the angle of inclination thereof, and means for fixing the movable frame in adjusted positions.

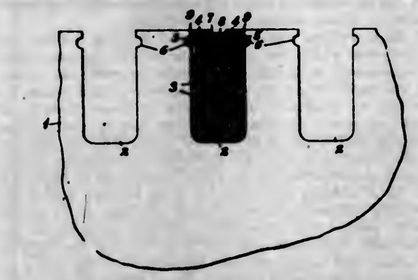
4. In a machine for feeding hooks and the like, the combination of a main supporting frame, a frame movably mounted thereon, feeding devices arranged in inclined position on said movable frame, a rack projecting from the movable frame, and gear teeth engaging said rack for operating it.

5. In a machine of the class described, the combination of a hopper, a plate in the bottom thereof, means for reciprocating said plate in its own plane to positively feed articles along the hopper, a second plate in the hopper to which the articles are fed by said reciprocating plate, and means for vibrating the second plate in a direction transverse to its plane.

[Claims 6 to 43 not printed in the Gazette.]

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1,042,408. DYNAMO-ELECTRIC MACHINE. RICHARD J. DEARBORN, Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 7, 1908. Serial No. 456,604. (Cl. 171—206.)



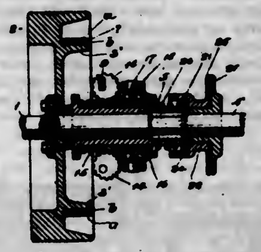
1. In a dynamo-electric machine, the combination with a magnetizable core member having a plurality of coil-containing slots, of wedges adapted to be assembled in the mouths of the slots for holding the coils in position independently of the coil reaction, each of which comprises magnetizable side strips having adjacent edge faces that diverge outwardly and a non-magnetizable key forced between said strips and having surfaces that closely fit the inner side and edge faces thereof.

2. In a dynamo-electric machine, the combination with a magnetizable core member having a plurality of coil-containing slots and longitudinal grooves near the mouths of the slots, of wedges for holding the coils in position, each of which comprises strips of magnetizable material and a rigid key of non-magnetizable material adapted to be inserted after the magnetizable strips are in position to force the outer edges of said strips into the grooves and having faces that interlock with the inner faces of the strips to prevent inward and outward movement of said key.

3. In a dynamo-electric machine, the combination with a magnetizable core member having teeth which form slots for the reception of coils and are provided with grooves in their sides and adjacent to their free ends, of wedges for holding the coils in position in the slots, each of which comprises magnetizable strips having lateral projections, the adjacent edges of the strips being beveled, and a non-magnetizable key adapted to be inserted after the magnetizable strips are in position and having a projection of dove-tail section that engages the beveled edges of said strips and forces the lateral projections into the grooves.

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1,042,409. CLUTCH. JOHN W. DENMEAD, Akron, Ohio, assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed July 30, 1909. Serial No. 510,397. (Cl. 192—14.)



1. In a clutch, the combination with two rotatable elements having complementary clutch members, of a lever for actuating the clutch member of one of said elements, whereby the two elements may be connected or disconnected, means on one of said elements for supporting the lever, an eccentrically mounted rotary member on said lever, and means movable relatively to the lever-bearing element and engaged with the eccentrically-mounted member.

2. In a clutch, the combination with two rotatable elements having complementary clutch members, of two oppositely-disposed levers for actuating the clutch member of one of said elements, whereby the two elements may be connected or disconnected, means on one of said elements for supporting the levers, eccentrically-mounted rotary members on the respective levers, and means movable relatively to the lever-bearing element and engaged with the respective eccentrically-mounted members.

3. In a clutch, the combination with two rotatable elements having complementary clutch members, of a lever for actuating the clutch member of one of said elements whereby the two elements may be connected or disconnected, means on one of said elements for supporting the lever, a pinion eccentrically mounted on said lever, and a gear rack movable relatively to said lever bearing element and meshing with the pinion.

4. In a clutch, the combination with two rotatable elements having complementary clutch members, of two oppositely-disposed levers for actuating the clutch member of one of said elements, whereby the two elements may be connected or disconnected, means on one of said elements for supporting the levers, pinions eccentrically mounted on the respective levers, and a slide on said lever-bearing element provided with oppositely-disposed rack teeth in mesh with the respective pinions.

5. In a clutch, the combination with a shaft, and a wheel thereon having a clutch member, of a second shaft, a clutch band adapted to be engaged with and released from said clutch member, a lever connected with said band, a lever support on said second shaft, a pinion eccentrically mounted on said lever, and a rack movable longitudinally of said second shaft and meshing with the pinion.

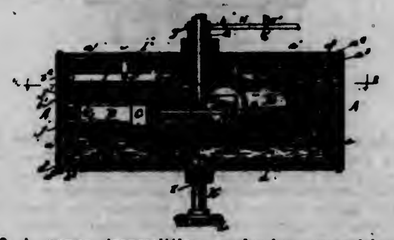
[Claim 6 not printed in the Gazette.]

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1,042,410. FLUID-CLUTCH. JOSEPH H. DODSON, Chicago, Ill., assignor to Chas. H. Aldrich, Chicago, Ill. Filed Dec. 5, 1907. Serial No. 406,158. (Cl. 92—18.)

1. A power transmitting mechanism comprising an outer cylinder adapted to contain a non-compressible liquid, a plurality of inner cylinders arranged radially within the outer cylinder, said inner cylinders having outer heads contiguous to the inner surface of the perimeter of said outer cylinder, said heads having ports com-

municating with the interior of said inner cylinders, said heads also having transverse passages therein communicating with said ports and with the exterior of said inner cylinders, each said cylinders having a transverse hole therethrough in communication with said ports, a slide valve having radial openings therethrough and movably seated in said transverse hole with the said openings normally registering with said ports, a piston in each inner cylinder, a shaft, a crank on said shaft, connecting rods between said crank and pistons, a sleeve slidably seated on said shaft, a lever pivotally connected at one end to said sleeve and at the other end to said slide valve and pivoted intermediately to a bracket, and means connected to said sleeve for moving the same longitudinally of the shaft and thereby controlling the flow of liquid through the slide valve.



2. A power transmitting mechanism comprising an outer cylinder adapted to contain liquid, an inner cylinder closed by a head at one end and disposed parallel with a radial line of the outer cylinder and removably secured to the inner surface of the outer cylinder, said head having a transverse passage therein and having ports communicating with said passage and with the interior of said inner cylinder, a hole through said head intersecting said ports, a cylindrical slide valve in said hole, said slide valve having radially disposed openings therethrough, said openings being adapted to register with said ports, a piston in the inner cylinder, means for actuating the piston, and means for sliding the slide valve.

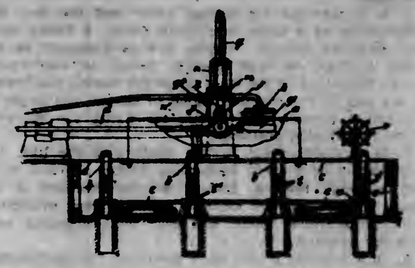
3. A power transmitting mechanism comprising an outer cylinder adapted to contain liquid, an inner cylinder closed by a head at one end and disposed parallel with a radial line of the outer cylinder and secured to the inner surface of the outer cylinder, said head having ports therethrough communicating with the interior and exterior of said inner cylinder, said head having a hole therethrough intersecting the said ports, a slide valve having openings therein, said slide valve being movably seated within said hole with the openings normally registering with said ports, a piston in said inner cylinder, means for actuating said piston, and means for moving the slide valve for regulating the flow of liquid through the said ports,

4. A power transmitting mechanism comprising an outer cylinder adapted to contain liquid, an inner cylinder closed by a head at one end and removably secured to the inner surface of the outer cylinder, said head having a passage therein and having ports communicating with said passage and with the interior of said inner cylinder, a hole through said head intersecting said ports, a slide valve in said hole, said slide valve having openings therein, said openings being adapted to register with said ports, a piston in the inner cylinder, means for actuating the piston, and means for sliding the slide valve.

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1,042,411. WELDING APPARATUS. EUGEN DOLENSKY, Frankfort-on-the-Main, Germany, assignor to The Corporation of Deliwih-Fleischer Wassergas Gesellschaft M. B. H., Frankfort-on-the-Main, Germany. Filed Feb. 2, 1910. Serial No. 541,597. (Cl. 78—87.)

1. In a welding apparatus, a joint-heating device, means for constantly maintaining pressure on the joint during the welding operation, and means for intermittently varying the pressure with rapidly-recurring frequency, whereby during the welding operation the metal to be welded is subjected simultaneously to pressure and to an action analogous to kneading.



2. In a welding apparatus, a joint-heating device, means for constantly maintaining pressure on the joint during the welding operation, and means for exerting an auxiliary increased intermittent pressure thereon of a rapidly-recurring frequency, whereby during the welding operation the metal to be welded is subjected to uninterrupted pressure and to an auxiliary intermittent higher pressure accompanied by an action analogous to kneading.

3. In a welding apparatus, a joint-heating device, fluid pressure means for constantly maintaining pressure on the joint during the welding operation, and means for intermittently varying the pressure with rapidly-recurring frequency whereby during the welding operation the metal to be welded is subjected simultaneously to pressure and to an action analogous to kneading.

4. In a welding apparatus, a joint heating device, rollers between which the joint to be welded passes, means for constantly maintaining pressure between the rollers and the joint during the welding operation, and means for exerting an auxiliary intermittent pressure thereon of rapidly-recurring frequency, whereby during the welding operation the metal to be welded is subjected to uninterrupted pressure and to an auxiliary intermittent higher pressure accompanied by an action analogous to kneading.

5. In a welding apparatus, a joint heating device, cooperating abutments between which the joint to be welded passes, means for constantly maintaining pressure between said abutments and the joint during the welding operation, and means for intermittently varying the pressure with rapidly-recurring frequency, whereby during the welding operation the metal to be welded is subjected to uninterrupted pressure and to an auxiliary intermittent higher pressure accompanied by an action analogous to kneading.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,412. ILLUMINATING APPLIANCE. WILLIAM A. DORNY, Newark, Ohio, assignor to Holophane Glass Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 12, 1910. Serial No. 576,848. (Cl. 240—106.)



1. Reflectors for artificial lights, having the part adjacent to the base of curvilinear cross-section, and the part nearest the open mouth following lines of planes passed through the curvilinear cross-section portion.

2. Glass reflectors for artificial lights, having the part nearest the collar portion of curvilinear cross-section, and a plane sided mouth part.



3. Glass reflectors for artificial lights, formed with prisms on their outer surface and having a portion of curvilinear cross-section and a straight sided mouth.

4. In combination a reflector having a portion adjacent to the collar of curvilinear cross-section and a straight sided mouth provided with a cover therefor.

5. Glass reflectors for artificial lights, having a portion of curvilinear cross-section provided with double reflecting prisms, and a plane sided mouth part, the mouth portion being provided with a cover having diffusing means thereon.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,413. ARTIFICIAL HAND. DAVID W. DORRANCE, Koler, Oreg. Filed Feb. 17, 1912. Serial No. 678,401. (Cl. 3—1.)



1. An artificial hand comprising a socket adapted to be fastened on the stump of an amputated arm; a rigid finger projecting from the extremity of said socket; a movable finger hinged to the rigid finger and matching with and normally closed on said rigid finger; a rigid perpendicular member on said movable finger to form a seat against which an article held by the artificial hand is supported; a cord fastened at one end to said rigid member for fastening at its opposite end to the shoulder of the wearer, means, comprised in said socket and its fastening means, for guiding said cord at the joint of the elbow of the amputated arm; and means for normally closing the movable finger on the rigid finger.

2. An artificial hand comprising a socket adapted to be fastened on the stump of an amputated arm; a rigid finger projecting from the extremity of said socket; a movable finger hinged to the rigid finger and matching with and normally closed on said rigid finger; a rigid perpendicular member on said movable finger to form a seat against which an article held by the artificial hand is supported; said rigid member formed near its free end with a concave inner face; a cord fastened at one end to said rigid member for fastening at its opposite end to the shoulder of the wearer, means, comprised in said socket and its fastening means, for guiding said cord at the joint of the elbow of the amputated arm; and means for normally closing the movable finger on the rigid finger.

3. An artificial hand comprising a socket adapted to be fastened on the stump of an amputated arm; a rigid finger projecting from the extremity of said socket; a movable finger hinged to the rigid finger; a rigid perpendicular member on said movable finger; said rigid member formed with a concave inner face; a cord fastened at one end to said rigid member for fastening at its opposite end to the shoulder of the wearer, means, comprised in said socket and its fastening means, for guiding said cord at the joint of the elbow of the amputated arm; and a rubber band encircling said fingers in front of said hinge joint.

4. An artificial hand comprising a socket adapted to be fastened on the stump of an amputated arm; a plate rotatable in the extremity of said socket, a rigid finger projecting from said plate; a movable finger hinged to the rigid finger and matching with and normally closed on the rigid finger; the extremity of said fingers when together forming a hook; the inner opposite faces of said fingers made flat; a rigid perpendicular member on said movable finger; said rigid member formed with a concave inner face; a cord fastened at one end to said rigid member for fastening at its opposite end to the shoulder of the wearer, means, comprised in said socket and its fastening means, for guiding said cord at the joint of the elbow of the amputated arm; and means for normally closing the movable finger on the rigid finger.

5. An artificial hand comprising a socket adapted to be fastened on the stump of an amputated arm, a plate rotatable in the extremity of said socket, a rigid finger projecting from said plate, a pivoted finger coöperating with and matching the stationary finger at the free end, the pivoted finger having an extension the end of which terminates beyond the plane of the pivoted finger and serves as a support against which an article bears when gripped between the fingers, and means for operating the pivoted finger.

[Claims 6 to 11 not printed in the Gazette.]

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1,042,414. ELECTRIC SWITCH. JOHN C. DUNPHE, Cleveland, Ohio, assignor to The Van Dorn & Dutton Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 2, 1912. Serial No. 681,021. (Cl. 175—290.)



1. In a device of the character described, the combination of two contacts; a movable piece adapted in a first position to bridge said contacts and in a second position to break contact with said contacts; tension means for moving said piece; a catch for restraining such movement; and means adapted to render said tension means operative, said means being adapted, on movement in one direction, to release said catch when said piece is in second position, and being adapted, on movement in either direction, to release said catch when said piece is in first position.

2. In a device of the character described, the combination of two contacts; a rotatable piece adapted in successive positions to alternately make and break contact with said contacts; tension means for rotating said piece; a catch for restraining such movement; and a spindle adapted to render such tension means operative, said spindle being adapted on rotation in one direction, to trip said catch when said piece is in "off" position, and being adapted, on rotation in either direction, to trip said catch when the piece is in "on" position.

3. In a device of the character described, the combination of two contacts; a rotatable piece adapted in successive positions to alternately make and break contact with said contacts; a catch for restraining rotation of said piece; a rotatable spindle; tension means connecting said piece and said spindle; and means for tripping said catch, said means being operable by rotation of the spindle against said tension means when the piece is in "off" position, and being operable by rotation of the spindle in either direction when the piece is in "on" position.

4. In a device of the character described, the combination of two contacts; a rotatable piece adapted in successive positions to alternately make and break contact with

said contacts; a catch for restraining rotation of said piece; a rotatable spindle; tension means connecting said piece and said spindle; a cam on said spindle adapted to trip said catch when the piece is in either position; and a second cam on the spindle adapted to trip the catch only when the piece is in "on" position, said cams being operative on rotation of the spindle in opposite directions.

5. In a device of the character described, the combination of two contacts; a rotatable piece adapted in successive positions to alternately make and break contact with said contacts; a catch for restraining rotation of said piece; a rotatable spindle; a spring connecting said piece and spindle and tending to rotate them in opposite directions; a cam on said spindle operative on rotation of the spindle against tension to trip said catch when the piece is in either position; and a second cam on the spindle operative on rotation of the spindle by tension to trip said catch only when said piece is in "on" position.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,415. PRIMING MECHANISM FOR EXPLOSIVE-ENGINES. JOHN H. DURNO, Rochester, N. Y. Filed Oct. 11, 1911. Serial No. 654,131. (Cl. 123—187.5.)



1. The combination with a plurality of cylinders and pet-cocks for the cylinders, of a feed pipe leading to the pet-cocks, a supply pipe, and a pump arranged to force liquid from the supply pipe to the feed pipe, said pump having operative connection with the pet-cocks.

2. The combination with a plurality of cylinders and pet-cocks for the cylinders, of a feed pipe leading to the pet-cocks, a supply pipe, and a pump arranged to force liquid from the supply pipe to the feed pipe, said pump including a piston rod, movement of the piston rod in one direction serving to open the pet-cocks and in the opposite direction to close the same.

3. The combination with a plurality of cylinders and pet-cocks for the cylinders, of a feed pipe leading to the pet-cocks, a supply pipe, a connecting rod having operative engagement with each of the pet-cocks, and a pump arranged to force liquid from the supply pipe to the feed pipe, said pump including a piston rod having operative connection with the aforesaid connecting rod.

4. The combination with a plurality of cylinders and pet-cocks for the cylinders, of a feed pipe leading to the pet-cocks, a supply pipe, a connecting rod having operative engagement with each of the pet-cocks, and a pump arranged to force liquid from the supply pipe to the feed pipe, said pump including a piston rod having operative connection with the aforesaid connecting rod, whereby the latter is actuated when the piston rod approaches the limiting points of its movement.

5. The combination with a plurality of cylinders and pet-cocks for the cylinders, of a feed pipe leading to the pet-cocks, a supply pipe, a pump arranged to force liquid from the supply pipe to the feed pipe, and a single actuating means for simultaneously operating the pump and the aforesaid pet-cocks.

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1,042,416. STOP-CASTING FOR TANDEM-SPRING DRAFT-RIGGING. ROBERT G. ELLIS, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Sept. 14, 1908. Serial No. 517,780. (Cl. 213—42.)

1. In a stop-casting for tandem-spring draft rigging, a body plate and a hollow stop projection extending inwardly therefrom and comprising a housing having an inner wall and a bottom wall, said walls having concentrically registering apertures for admission of attaching means.

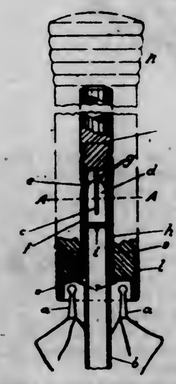
2. In a stop casting for tandem spring draft rigging, a body plate and a hollow stop projection extending inwardly therefrom and comprising a housing having a bottom wall provided with an aperture inclined relatively to the vertical axis of the cheek plate and an inner wall provided with an aperture, the lower portion of which inclines relatively to the horizontal axis of the cheek plate to conform to the inclination of the bottom wall aperture.



3. In a stop casting for tandem spring draft rigging, a body plate, and a hollow stop projection extending inwardly therefrom and comprising a housing having an inner wall and a bottom wall, each of said walls being formed with an opening, and a semi-circular depression formed in one of said openings adapted to register concentrically with said other opening.

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1,042,417. ADJUSTABLE RIB-TIP-HOLDING UMBRELLA-HANDLE. ANTON ERICKSON, Portland, Oreg., assignor of one-half to Walter M. Jackson, Portland, Oreg. Filed Mar. 25, 1911. Serial No. 616,988. (Cl. 135—44.)



1. In an umbrella, the combination of a rod the upper end of which is slitted longitudinally so as to be compressible; a sleeve slidably mounted on said slitted rod-end; the inner end of said sleeve being provided with a longitudinal slot, a spring inserted in the rod and provided with a stud projecting through said slot of the sleeve, and said spring also being made with a button projecting through an orifice therefor provided in the rod, and the parts being so arranged that when the button of the spring is depressed the stud on the latter will be withdrawn from the slotted end of the sleeve and permit the removal of the latter from the rod; means for holding the sleeve in the position to which it is slitted until forcibly rearranged; a ferrule affixed on the lower end of the sleeve and including a cup-shaped portion adapted to be set over the rib-tips when arranged together at the base of the handle; and a handle affixed on said sleeve.

2. In an umbrella, the combination of a rod the upper end of which is slitted longitudinally so as to be compressible; said slitted upper-end having a depression formed in it; a sleeve slidably mounted on said slitted rod-end and provided with a protrusion on the interior adapted to be seated in said depression of the rod; the inner end of said sleeve being provided with a longitudinal slot, a spring inserted in the rod and provided with a stud projecting through said slot of the sleeve, and said spring also being made with a button projecting through an orifice therefor provided in the rod, and the parts being so arranged that when the button of the spring is depressed the stud on the latter will be withdrawn from the slotted end of the sleeve and permit the removal of the latter from the rod; means for holding the sleeve in the position to which it is slitted until forcibly rearranged; a ferrule affixed on the lower end of the sleeve and including a cup-shaped portion adapted to be set over the rib-tips when arranged together at the base of the handle; and a handle affixed on said sleeve.



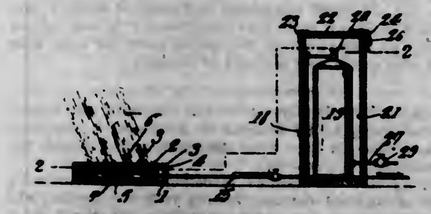
3. In an umbrella, the combination of a rod the upper end of which is slitted longitudinally so as to be compressible; the extremities of said slitted portions being rounded and said slitted end also having a depression formed in it; a sleeve slidably mounted on said slitted rod-end and provided with a protrusion on the interior adapted to be seated in said depression of the rod; the inner end of said sleeve being provided with a longitudinal slot, a spring inserted in the rod and provided with a stud projecting through said slot of the sleeve, and said spring also being made with a button projecting through an orifice therefor provided in the rod, and the parts being so arranged that when the button of the spring is depressed the stud on the latter will be withdrawn from the slotted end of the sleeve and permit the removal of the latter from the rod; a ferrule affixed on the lower end of the sleeve and including a cup-shaped portion adapted to be set over the rib-tips when arranged together at the base of the handle; and a handle affixed on said sleeve.

4. An umbrella handle having a socket tube inserted therein, a tip retainer mounted on said socket tube, a sliding tube telescoping within said socket tube and adapted to be rigidly mounted on an umbrella stick; said sliding tube being split and flared at its inner end to yieldingly engage said socket tube, and means to limit the relative sliding movement of said socket tube and said sliding tube.

5. An umbrella handle having a socket tube inserted therein, a tip retainer at the outer extremity of said socket tube, a sliding tube telescoping within said socket tube having its inner end split and provided with means to engage said socket tube, the said socket tube having slots and the said sliding tube having a pin mounted in the slots to limit the relative sliding movement of the two tubes.

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1,042,418. DEVICE FOR UTILIZING SOLAR HEAT. ALEXANDER H. EVANS, Freeport, Ill. Filed Sept. 13, 1910. Serial No. 581,789. (Cl. 126—271.)

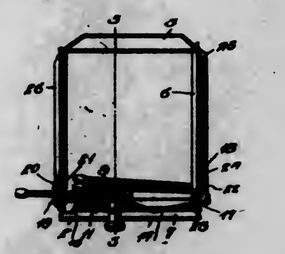


1. A solar heater, embracing an air-tight incasement having a heat-conducting closure, a receptacle including opposed spaced-apart corrugated metal members, whose edges are provided with strips arranged upon the upper and lower surfaces of said plates, lateral tubular members having longitudinal slots, within which slots are brazed said strips, plates secured to, and forming closures for the ends of said tubular members, supply and delivery pipes connected to said tubular members, and a tank, said delivery pipe also connecting with said tank, at its upper end.

2. A solar heater, including an air-tight incasement, a heat-conducting closure for said incasement, said incasement comprising opposed corrugated metal members, having alternate contacting and spaced apart surfaces, adapted to form numerous tubes, said contacting surfaces being in the median line of the incasement, lateral tubular members having longitudinal slots, said corrugated tube-forming members having communication with said lateral tubular members through the slots of the latter, filling-in members between said corrugated members and the opposed edges or walls of said slots, and end-plate closures for said lateral tubular members, an incased storage tank, pipe connection between one of said slotted lateral tubular members and said storage tank, and circulation pipes for said storage tank and the other slotted lateral tubular member.

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1,042,419. MATCH-BOX. FREDERICK HARRISON FARRAR, Sr., Tolo, Oreg. Filed May 11, 1912. Serial No. 696,708. (Cl. 206—27.)



1. A match box of the character described, including a casing provided with a magazine, the bottom of which is spaced from the bottom of the casing and is formed with a longitudinal slot, a rod secured within the casing in the space below the bottom of the magazine, an ejector formed with an opening by which it is slidingly mounted on said rod, said ejector being provided with a finger projecting up through and movable in said slot, a finger piece secured to the ejector and embodying shanks which embrace said rod and assist in guiding the ejector thereon, a spring secured to the outside of the casing at one end thereof and normally lying close to said end, and links pivotally connecting said spring with the ejector, the casing being formed with a discharge orifice in line with the finger of the ejector and with an opening through which said links move.

2. A match box of the character described, including a casing provided with a storage magazine and formed with a discharge orifice communicating with said magazine and with an opening in line with said orifice at the opposite side of the casing, a lug yieldingly held in said opening, and an ejector movable in the casing and provided with an ejecting finger movable in line with the orifice and lug and adapted to engage the latter, for the purpose specified.

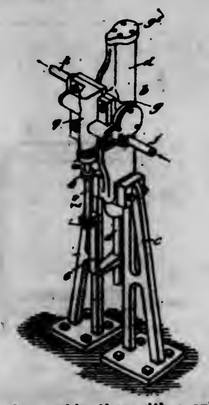
3. A match box of the character described, including a casing provided with a storage magazine and formed with a discharge orifice communicating with said magazine and with an opening in line with said orifice at the opposite side of the casing, a lug, a spring secured to the casing and normally holding said lug projected into said opening, and an ejector movable in the casing and provided with a finger movable in the magazine in line with the orifice and lug and adapted at the rear limit of the movement of the ejector to engage and force said lug outwardly, for the purpose specified.

4. A match box of the character described, including a casing provided with a main magazine having a discharge opening, an ejecting device therefor, and an auxiliary magazine hingedly connected in the casing along side of the main magazine, the said magazines having open mouths located at the point of hinged connection between the auxiliary magazine and the casing, for the purpose specified.

5. A match box of the character described, including a casing provided with a storage magazine and formed with a discharge orifice communicating with said magazine, an ejector movable in the casing and provided with an ejecting finger movable in line with said discharge orifice, and a lug yieldingly supported in the casing in line with said finger and engageable by the latter in the rearward movement of the ejector, for the purpose specified.

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1,042,420. HYDRAULIC MOTOR. JOHN HYNERTY FIRE, Montreal, Quebec, Canada. Filed June 5, 1911. Serial No. 631,887. (Cl. 138—2.)



In a fluid motor the combination with a cylinder, a piston rod and a piston fixed thereto, a motive fluid supply for reciprocating the piston rod, and an exhaust,—of a chamber situated at the side and between the ends of the cylinder and closed at its ends, the supply and exhaust opening thereinto at opposite sides, a pair of conduits longitudinally placed relatively to the cylinder and leading from the ends of the latter to the said chamber, a hollow plunger slidable in the chamber and having an aperture therein communicating with the supply, slots in the plunger adapted to alternately bring the said conduits into communication with the interior of the latter, and a T-groove upon the exterior of the plunger in communication with the exhaust and adapted to alternately register with the said conduits, a valve casing parallel with and separated from the cylinder by the plunger chamber, a conduit leading from the supply to the center of the valve casing, passages leading from the ends of the plunger casing and opening into the valve casing on opposite sides of the centrally placed conduit, a valve stem, a pair of valve disks carried by the valve stem, an arm operatively connecting the valve stem to the piston rod for the purpose of alternately bringing the said passages into communication with the said central conduit, and passages from the ends of the valve casing to the exhaust.

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1,042,421. ADJUSTABLE CURTAIN-BRACKET. GEORGE C. FORSTROM, Grand Rapids, Mich. Filed June 29, 1911. Serial No. 636,967. (Cl. 156—24.)

1. An adjustable curtain bracket, comprising a channel bar having recesses in the edges of the flanges, the middle of the bar being extended beyond the flanges at the ends and bent to form feet adapted to support the bar spaced apart from a window casing, a plate adapted to slide on the bar, an arm attached to the plate and adapted to support the journal of a curtain roller, and a link pivotally attached to the plate and embracing the bar and also adapted to engage the recesses and support the plate and arm.

2. An adjustable curtain bracket, comprising a channel bar having recesses in the edge of the flanges, means for attaching the ends of the bar to a support and spaced apart therefrom, formed of extensions of the middle of the bar bent opposite the ends of the flanges and thence outward, a plate slidable on the bar and having a cylindrical upper end, a link pivoted in said end and slidable on the bar and also adapted to engage the recesses and support the plate, and side extensions on the lower end of the plate embracing the bar and bent inward to engage the edges of the flanges, and also slidable thereon.



3. An adjustable curtain bracket, comprising a bar having recesses in its rear side, means for attaching the bar to a support and spaced apart therefrom, a plate slidable on the front side of the bar, a link pivoted to the upper end of the plate slidable on the bar and adapted to engage the recesses and adjustably support the lower end of the plate, extensions on the plate embracing the bar and bent inward behind the same and an arm attached to the plate adapted to support the journal of a curtain roller.

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1,042,422. GERMICIDE AND INSECTICIDE. GUSTAV FRITSCHE, Strasbowitz, near Schönbrunn, Austria-Hungary, assignor to The Roessler & Hasslacher Chemical Company, New York, N. Y., a Corporation of New York. Filed June 28, 1907. Serial No. 381,215. (Cl. 167—3.)

1. An antiseptic comprising skimmed milk previously heated to the boiling point and cooled and formalin.

2. An antiseptic comprising ten part of skimmed milk previously heated to the boiling point and cooled and one part of formalin.

3. An antiseptic comprising slightly condensed skimmed milk, previously heated to the boiling point and maintained at the boiling point for some time and then cooled, and formalin.

4. An antiseptic comprising ten parts of slightly condensed skimmed milk, previously heated to the boiling point and maintained at the boiling point for some time and then cooled, and one part of formalin.

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1,042,423. ENVELOP-MACHINE. JOSEPH FROEHLICH, New York, N. Y., assignor to Ferdinand L. Schmidt, New York, N. Y. Filed Mar. 16, 1912. Serial No. 684,094. (Cl. 93—67.)

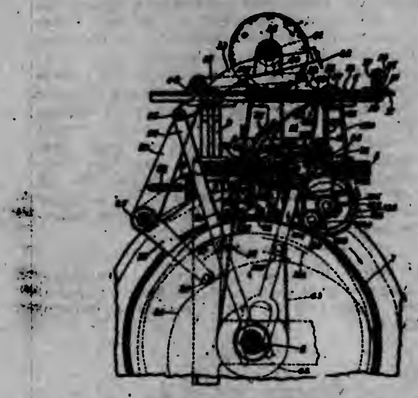
1. An envelop machine including in combination, a pair of rotating coacting folding rolls for forming the main transverse fold and for delivering the folded blank to the side folding means, a reciprocating blade for delivering said blank on a predetermined transverse line to said rolls, means for delivering a blank between said rolls and said blade; such side folding means consisting of a folding box having opposite side walls, a door actuated to enter said box and in coaction with the side walls of said box to fold upwardly the side flaps of the blank and to deliver the blank onto the folding box bottom, opposite side folders for folding the side flaps down onto the body of the envelop and an ejector actuated for delivering the envelop from said bottom to the discharge rolls.

2. An envelop machine including in combination, a pair of rotating coacting folding rolls for forming the main transverse fold and for delivering the folded blank to the side folding means, a reciprocating blade for delivering said blank on a predetermined transverse line to said rolls, means for delivering a blank between said rolls and said blade; such side folding means consisting of a folding box having opposite side walls, a door actuated to enter said box and in coaction with the side walls of said box to fold upwardly the side flaps of the blank and to deliver the blank onto the folding box bottom, opposite side folders for folding the side flaps down onto the body of the envelop, a pair of discharge rolls adjacent to said box, a pivotally mounted ejector and means for actuating said ejector for delivering the envelop from said bottom to the discharge rolls.



3. An envelop machine including in combination, a pair of rotating coacting folding rolls for forming the main transverse fold and for delivering the folded blank to the side folding means, a reciprocating blade for delivering said blank on a predetermined transverse line to said rolls, means for delivering a blank between said rolls and said blade; such side folding means consisting of a folding box having opposite side walls, a door actuated to enter said box and in coaction with the side walls of said box to fold upwardly the side flaps of the blank and to deliver the blank onto the folding box bottom, a retaining finger for holding the folded blank against the folding box bottom, opposite side folders for folding the side flaps down onto the body of the envelop, a pair of discharge rolls adjacent to said box, a pivotally mounted ejector and means for actuating said ejector for delivering the envelop from said bottom to the discharge rolls.

4. An envelop machine including in combination, a pair of rotating coacting folding rolls for forming the main transverse fold and for delivering the folded blank to the side folding means, a reciprocating blade for delivering said blank on a predetermined transverse line to said rolls, means for delivering a blank between said rolls and said blade; such side folding means consisting of a folding box having opposite side walls located for folding the opposite side folds of the blank, a door pivotally mounted at its lower edge and actuated to swing into said box and in coaction with the side walls of said box to fold up the side flaps of the blank and for delivering said blank onto the folding box bottom, opposite side folders for folding the side flaps down onto the body of the envelop and means for ejecting the envelop.

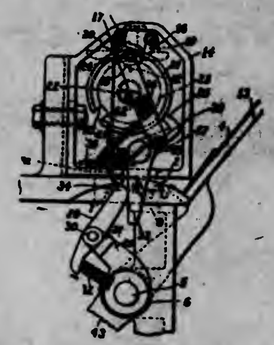


5. An envelop machine including in combination, a pair of rotating coacting folding rolls for forming the main transverse fold and for delivering the folded blank to the side folding means, a reciprocating blade for delivering said blank on a predetermined transverse line to said rolls, means for delivering a blank between said rolls and said blade; said side folding means consisting of a folding box having opposite side walls located for folding the opposite side folds of the blank, a door pivotally mounted at its lower edge and actuated to swing into said box and in coaction with the side walls of said box to fold up the side flaps of the blank and for delivering said blank onto the folding box bottom, a retaining finger pivotally mounted opposite the axis of said door, means for actuating said finger for holding the folded blank against the folding box bottom, said front door having an opening therethrough for the passage of the retaining finger, opposite side folders for folding the side flaps down onto the body of the envelop and means for ejecting the envelop.

[Claims 6 to 19 not printed in the Gazette.]

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1,042,424. COUNTING MECHANISM. JOSEPH FROEHLICH, New York, N. Y., assignor to Ferdinand L. Schmidt, New York, N. Y. Filed July 16, 1912. Serial No. 708,588. (Cl. 93—93.)



1. A counting mechanism for envelops and the like including in combination, a rotatable member having a plurality of radial arms adapted for incremental rotation by successive engagement of said arms by passing envelops respectively, means for moving envelops successively into engagement with said arms respectively, stop means for the rotatable member and means operatively connected with the means for moving the envelops for liberating said stop means.

2. A counting mechanism for envelops and the like including in combination, a rotatable member having a plurality of radial arms adapted for incremental rotation by successive engagement of said arms by passing envelops respectively, means for moving envelops successively into engagement with said arms respectively, a ratchet fixed to said rotatable member, a stop pawl for engagement with said ratchet, and means operatively connected with the means for moving the envelops for disengaging said stop pawl.

3. A counting mechanism for envelops and the like including in combination, a rotatable member having a plurality of radial arms adapted for incremental rotation by successive engagement of said arms by passing envelops respectively, means for moving envelops successively into engagement with said arms respectively, a ratchet fixed to said rotatable member, said ratchet having teeth equal in number to the number of the radial arms of the rotatable member, a stop pawl for engagement with said ratchet, said pawl being mounted for limited movement in the direction of movement of the engaging teeth of said ratchet, a detent pawl for engagement with said ratchet, and means operatively connected with the means for moving the envelops for disengaging said stop pawl.

4. A counting mechanism for envelops and the like including in combination, a rotatable member having a plurality of radial arms adapted for incremental rotation by successive engagement of said arms by passing envelops respectively, means for moving envelops successively into engagement with said arms respectively, a ratchet fixed to said rotatable member, a stop pawl for engagement with said ratchet, means operatively connected with the

means for moving the envelope for disengaging said stop pawl, and means governed by the completion of a predetermined number of incremental rotative movements of said rotatable member for indicating said completion.

5. A counting mechanism for envelops and the like including in combination, a rotatable member having a plurality of radial arms adapted for incremental rotation by successive engagement of said arms by passing envelops respectively, means for moving envelops successively into engagement with said arms respectively, a ratchet fixed to said rotatable member, said ratchet having teeth equal in number to the number of the radial arms of the rotatable member, a stop pawl for engagement with said ratchet, said stop pawl being mounted for limited movement in the direction of movement of the engaging tooth of said ratchet, means operatively connected with the means for moving the envelops for disengaging said stop pawl, and means governed by the completion of a predetermined number of incremental rotative movements of said rotatable member for indicating said completion.

[Claims 6 to 10 not printed in the Gazette.]

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1,042,425. MEANS FOR SETTING WELL-STRAINERS. ROBERT MILLER GALBRAITH, Pine Bluff, Ark., assignor of one-half to Adolphus Prothro, Dermott, Ark. Filed July 16, 1912. Serial No. 709,745. (Cl. 166—8.)



1. A means for setting well strainers comprising a carrying means for the strainer having a telescopic section, a swage block on said carrying means in position to engage the upper end of the strainer when in place to expand it against a well casing, and means on the strainer carrying means for engaging the swage block to force it into contact with the strainer.

2. A means for setting well strainers in well casings with the strainer provided with a check valve at the lower end and an expansible collar at the upper end, comprising a pipe section having left hand threads at one end adapted to screw into the check valve structure, the other end of the pipe being formed into a laterally expanded head, another pipe receiving the first named pipe in telescoping relation thereto, the second named pipe and the head of the first named pipe having a spline and groove connection for constraining the two pipes to rotate together, a third pipe connected to the second pipe and having collars at both ends, and a taper block on and slidable along the third pipe between the collars to be engaged by the latter, said taper block being shaped to expand the expansible collar at the upper end of the well strainer into engagement with the interior of the well casing.

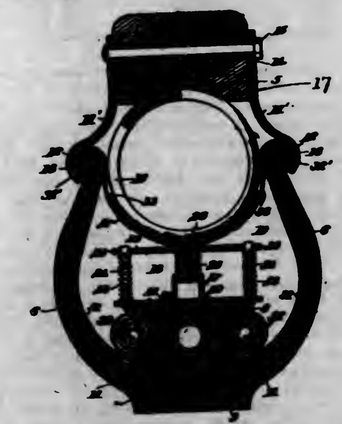
3. A means for attaching well strainers to the lower ends of installed well casings, comprising a tubular carrier for the strainer provided with a check valve attached to the lower end of the strainer with the tubular support in readily removable relation to the check valve, said check valve terminating in a nozzle for the production of a water jet beyond the lower end of the strainer when at the lower end of the casing, and means on the strainer support for expanding the upper end of the strainer against the inner wall of the lower end of the casing.

4. A means for attaching well strainers to the lower ends of installed well casings comprising a tubular carrier for the strainer provided with a check valve attached to the lower end of the strainer with the tubular support in readily removable relation to the check valve, said check valve terminating in a nozzle for the production of a water jet beyond the lower end of the strainer when at the lower end of the casing, and block on the strainer support for swaging the upper end of the strainer against the inner wall of the lower end of the casing, the carrier being provided with a telescoping portion between the swage block and the check valve and with engaging means for the swage block in spaced relation one to the other and on opposite sides of the swage block.

5. A means for attaching well strainers to well casings after the installation of the casing, comprising a carrier for the strainer provided with a swage block in position to expand the upper end of the installed strainer against the inner wall of the lower portion of the casing, said carrier having a telescoping portion for permitting longitudinal movement of the carrier with respect to the strainer, and with means for engaging the swage block for delivering blows thereagainst to effect the expansion of the strainer.

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1,042,426. TIRE. WILLIAM FRANCIS GAUL, Jersey City, N. J., assignor of one-half to H. H. Polley, Philadelphia, Pa. Filed July 31, 1911. Serial No. 641,670. (Cl. 152—8.)




1. A cushion tire for wheels comprising a rim, a continuous spiral spring around the periphery of said rim, a rubber tread portion having annular grooves therein, a plurality of flat springs having a coil at one end seated in said annular grooves and a curved arm at the other end engaging said spiral spring, and resilient supporting means interposed between said tread portion and said spiral spring.

2. A cushion tire for wheels comprising a rim, a continuous spiral spring around the periphery of said rim, a tread portion having annular grooves therein, curved side walls extending upwardly from said tread portion provided with flanges, spaced leaf springs having a coiled inner end adapted to seat in said annular grooves and a hook-shaped outer end adapted to engage said flanges, said springs being doubled back upon themselves to form an arm for supporting said spiral spring, and means for securing said rim to said tread portion.

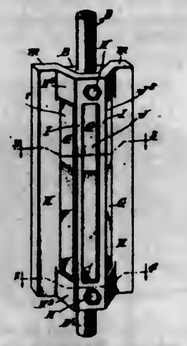
3. A cushion tire for wheels comprising a rim, means for supporting said rim including a continuous spiral spring, a plurality of hinged sections extending around the outer periphery of said spiral spring, said sections comprising a bottom plate having posts thereon, a top plate slidably mounted on said posts, resilient means for normally forcing said plates apart, concave segments secured to said top plate, a tread portion having annular grooves and flanged side walls, leaf springs seated in said grooves at one end and having the other end thereof hook-shaped to conform to the contour of said flanges, and said hook-shaped end being provided with an extension adapted to engage beneath said segments and said spiral spring.

4. A cushion tire for wheels comprising a rim, a resilient supporting member around the periphery of said rim, a tread portion having grooves, a plurality of hinged sections around the inner periphery of said tread portion and interposed between said rim supporting member and said tread, said sections comprising top and bottom plates, resilient means normally holding said plates in spaced relation, resilient means having one end seated in the grooves in said tread and a curved extension at the other end adapted to bear against and support said resilient supporting member.



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1,042,427. WATER-GAGE. CARL F. GERLINGER, Dallas, Oreg. Filed June 7, 1912. Serial No. 702,217. (Cl. 72—54.)



1. A water-gage, comprising a main frame having a back part, top and bottom portions formed integrally with nipples for pipe connections and with seats for the glass front of the gage, a glass front arranged between the top and bottom portions of the main frame and inclosing said seats, and a front frame covering the side portions of the main frame and the top and bottom portions thereof and which is provided with front and side observation openings.

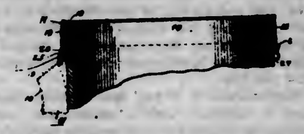
2. A water-gage, comprising a main frame formed with top and bottom portions and with vertical grooves in its front face, a glass arranged between the top and bottom portions of the frame, seats on the main frame covered by the glass, packing interposed between the seats and the glass and arranged in the grooves of the back frame, and a front frame attached to the main frame and having front and side observation openings.

3. A water-gage, comprising a back frame formed with top and bottom portions and with seats for the glass of smaller area, a glass interposed between the top and bottom portions of the frame and covering said seats, packing interposed between the glass and the seats and the vertical edges of the glass and the back frame, a front frame covering the exposed parts of the back frame and having front and side observation openings, and means for securely fastening the front frame to the back frame.

4. A water-gage, comprising a back frame formed integrally with top and bottom portions having integrally formed nipples and integrally formed seats for the glass front, a glass front interposed between the top and bottom portions of the frame and covering said seats thus forming a water chamber, packing interposed between the seats, the back frame and the glass, a front frame covering the glass and the main frame having front and side observation openings, and packing interposed between the front frame, the glass and the back frame.

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1,042,428. RECEPTACLE-COVER. HARVEY A. GIBBS, Genoa Junction, Wis. Filed Jan. 22, 1912. Serial No. 672,545. (Cl. 217—76.)

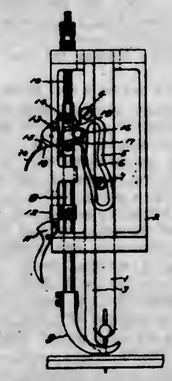


1. In combination, a receptacle, a flexible cover for said receptacle comprising a top part and sides, a U-shaped strap for receiving and secured to the side of the cover, an eye swiveled to said strap, and a staple secured to said receptacle and receiving said eye.

2. A flexible cover for receptacles, comprising a top part having the contour of the receptacle to be covered, a band secured to the top part at its periphery and extending at an angle therefrom to engage with the sides of the receptacle, a metallic U-shaped strap receiving the band between its limbs and secured thereto, the bend of the U-strap being expanded to form a compartment, a head within said compartment, a link having a stem extending through an opening in the bend of said strap, said head being secured to the end of said stem whereby said link has swivel engagement with said strap, said link being adapted to receive the fastening member on the receptacle, and means at the ends of said band for enabling said ends to be secured to the receptacle.

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1,042,429. ADJUSTABLE PRESSER-FOOT FOR SEWING-MACHINES. LYMAN D. GREEN, Dayton, Ohio, assignor to The Davis Sewing Machine Company, Dayton, Ohio, a Corporation of Ohio. Filed May 4, 1911. Serial No. 625,109. (Cl. 112—18.)



1. The combination in a top feed sewing machine, of a swinging needle-bar, a swinging feed-bar, a presser-bar, means coöperatively connecting these bars with each other, and means carried by the presser-bar for altering this connecting means in such manner that the amount of movement imparted to the presser-bar by the movement of the feed-bar can be varied without stopping the operation of the machine.

2. The combination in a sewing machine, of a needle-bar and feed-bar operatively connected together, a presser bar, and means adjustable without stopping the machine, connecting the presser-bar with the means which operatively connects the needle-bar and feed-bar.

3. The combination in a sewing machine, of an oscillating and reciprocating needle-bar, a feed-bar, a tumbler pivotally carried by the feed-bar and oscillated by the movements of the needle-bar, a presser-bar, and an adjustable connection carried by the presser-bar and engaging said tumbler whereby the amount of movement of the presser-bar given by the tumbler may be varied without stopping the machine.

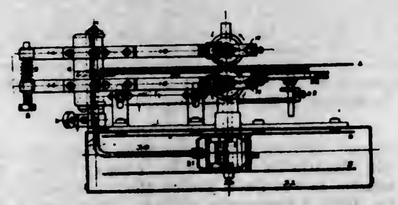
4. The combination in a sewing machine, of a needle-bar, a feed bar, a tumbler carried by the feed-bar and oscillated by the movement of the needle-bar, a presser-bar, means connecting the presser-bar with the tumbler, and means for adjusting said connecting means whereby the movements of the presser-bar can be altered without stopping the machine.

5. The combination in a top feed sewing machine, of a needle-bar, a feed-bar, and a presser-bar, connecting means whereby said feed-bar and presser-bar are reciprocated by the movements of the needle-bar, and means for changing said connecting means, whereby the amount of reciprocation of the presser-bar and feed-bar may be altered without stopping the machine.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,430. MACHINE FOR WINDING MOVING-PICTURE FILMS AND OTHER MATERIAL. HORACE W. GRIGGS, Milwaukee, Wis. Filed Jan. 26, 1912. Serial No. 673,510. (Cl. 242—55.)



1. In a film winding reel, a friction gear for driving said reel, a contact roller for the film, said gear and roller being adjustable with respect to each other, a guide bar for holding said gear tangent to the roll, and an adjustable spring for holding the gear in driving position.

2. In a film winding device, a reel shaft, a disk attached thereto, movable friction gears on each side of said disk supported by arms pivoted on a power shaft, a lever attached to the power shaft by a divided contact arm, and carrying rollers for engagement with the film winding upon said reel, clamping means for adjusting said lever relatively to the friction gears, radial guide bars for the gear arms, and an adjusting screw and spring for regulating the pressure of the gears against the disk.

3. In a winding apparatus and tension equaliser for kinematograph films, a winding shaft, a disk attached thereto, friction gears for said disk, a power transmission pulley and shaft for the gears, radial guide arms for the gears, and a contact arm for the winding film angularly adjustable on said pulley shaft whereby tension of film may be varied.

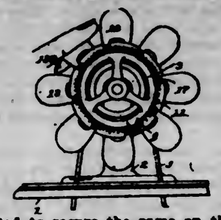
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1,042,431. FAN ATTACHMENT FOR MACHINES. THEODORE G. GRIGGS, Springfield, N. J. Filed Dec. 2, 1911. Serial No. 663,532. (Cl. 230—9.)

1. A fan comprising a body adapted to be rotated at a high speed, and exposed unguarded flexible radial blades attached to said body and adapted to be deflected to prevent injury to an object thrust into the path thereof.

2. A fan attachment having a flexible annular body adapted to be attached to the rim of a rotatable wheel and flexible blades attached to said body extending radially from their points of attachment and adapted to induce an air current.

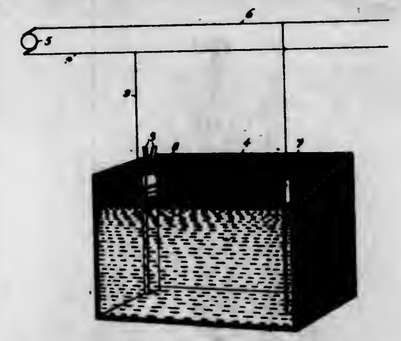
3. A fan attachment for a sewing machine hand-wheel, comprising a flexible band adapted to go over the rim of the hand-wheel, draw-strings mounted at the edges of said



band and adapted to secure the same on the hand-wheel, and blades attached to said band for inducing an air current.

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1,042,432. ELECTRIC HEATING DEVICE AND PROCESS OF CONSTRUCTING THE SAME. WILLIAM S. HADAWAY, Jr., East Orange, N. J., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 25, 1909. Serial No. 479,978. (Cl. 219—73.)



1. The process of constructing an electric resistance or heater which consists in coating an insulated resistance element with conducting material and electrolytically producing a deposit of heat-conducting material thereon.

2. The process of constructing an electric resistance or heater which consists in embedding a resistance ribbon in an insulating sheath, covering the insulation with metal foil and electrolytically producing a deposit of heat-conducting material on the outer surface of the covering.

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1,042,433. ELECTRICALLY-HEATED LAUNDRY-ROLL. WILLIAM S. HADAWAY, Jr., East Orange, N. J., assignor to Westinghouse Electric and Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 1, 1911. Serial No. 611,693. (Cl. 219—37.)



1. An electrically heated roll comprising an outer shell, an inner shell of relatively thin and yielding material,



a body of powdered material disposed in said inner shell, and a plurality of heater units interposed longitudinally between said outer and inner shells.

2. An electrically heated roll comprising an outer shell, an inner shell of relatively thin and yielding material, and a plurality of heater units interposed longitudinally between said outer and inner shells.

3. An electrically heated roll comprising an outer shell, a corrugated inner shell of yielding material, and a plurality of removable heater units compressed within the space between said outer and inner shells.

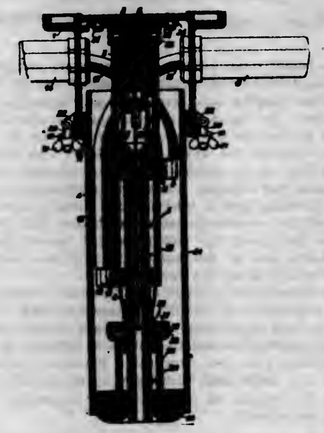
4. An electrically heated device comprising an outer cylinder, a corrugated concentric inner cylinder of relatively thin material, a body of yielding heat-retaining material contained in said inner cylinder, and a plurality of separately removable sheathed heater units secured under pressure between said outer and inner cylinders.

5. An electrically heated device comprising an outer shell, a concentric inner shell of relatively thin and flexible material, a body of yielding heat-retaining material contained within said inner shell, and a plurality of incased heater units interposed longitudinally between said shells and maintained under pressure.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,434. INCLOSED FUSE. FORD W. HARRIS, Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 5, 1907. Serial No. 396,043. (Cl. 175—273.)



1. A protective device comprising an insulating tube having internal resilient contact members and an open end, a tubular casing for said insulating tube, a fuse-containing tube located in and supported by said casing and projecting into said insulating tube and having an open outer end that projects beyond the open end of the contact-containing tube, contact sleeves on the outer surface of the fuse-containing tube to engage said resilient contact members, and a fusible conducting strip located within the inner tube and connecting the contact sleeves together.

2. A protective device comprising a tube, a supporting socket to which said tube is secured, resilient contact members located one at the outer extremity of the tube and one at an intermediate point within the tube, an inclosing casing attached to the supporting socket, a block which seals the outer end of the casing, and an insulating tube which projects inwardly from the center of the block, contact members on the outside of the inner tube that are adapted to engage the contact members on the inside of the first named tube, and a fusible conductor located within the inner tube and connecting the contact members thereof.

3. A protective device comprising a supporting frame, an insulating tube secured within, and projecting from said frame, a plug in the inner end of the tube, resilient contact members secured one at the outer extremity of the tube and one at an intermediate point within the tube, conducting leads connected to the contact members, and a removable inner tube having contact members near its extremities which engage the resilient contact members, and a fusible conductor located within the inner tube and electrically connected to the contact members.

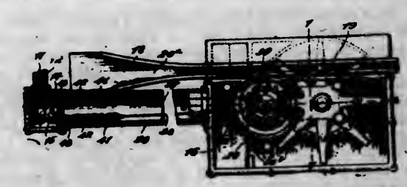
4. A protective device comprising a supporting frame, an insulating tube secured within, and projecting from said frame, a plug in the inner end of the tube, resilient contact members secured one at the outer extremity of the tube and one at an intermediate point within the tube, conducting leads connected to the contact members, a removable inner tube having contact members near its extremities to engage the resilient contact members, a fusible conductor located within the inner tube and electrically connected to the contact members, a screw-threaded flange upon the contact member at the outer end of the inner tube, a cylindrical casing which surrounds the tubes and is attached to the supporting frame, and a screw-threaded socket which engages the flange.

5. A protective device for electric circuits comprising two separable insulating tubes disposed the one within the other, a tubular casing for said tubes, and a fusible conductor disposed within the inner tube, said inner tube being rigidly supported by the casing and having an open outer end to carry away the gas formed when said conductor is ruptured by the passage of electric current therethrough.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,435. SWITCH-OPERATING MECHANISM. THOMAS E. HESTER, St. Louis, Mo., assignor of one-half to F. W. Risque, St. Louis, Mo. Filed Feb. 17, 1912. Serial No. 678,392. (Cl. 104—24.)



1. The combination with a movable switch-point, of a member mounted to rotate freely in either direction, means connected to said member and adapted to be rotated freely in either direction by parts carried by a car for operating said member, a bell crank, a connection from said bell crank to the movable switch-point and connections from points on opposite sides of the fulcrumed point of said bell crank to diametrically opposite points on the rotatable member.

2. The combination with a movable switch-point, of a rotatable member, means coöperating with said rotatable member for imparting movement thereto, which means is adapted to be engaged by parts carried by a car, a switch rod connected to the movable switch-point, a pair of connecting members attached to the rotatable member at diametrically opposite points, and a fulcrumed member connecting the opposite ends of said connections with the switch rod.

3. A movable switch-point operating mechanism comprising a member adapted to be engaged by parts carried by a car which member is mounted to rotate freely in either direction, a second rotatable member operatively connected to the first mentioned rotatable member which second mentioned member is mounted to rotate freely in either direction, a switch rod connected to the movable switch-point to be actuated, a bell crank to which the switch rod is pivotally connected and operating connections between said bell crank and the second mentioned rotatable member.

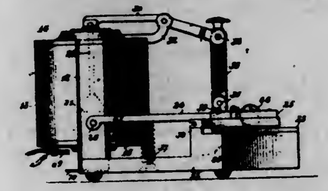
4. A movable switch-point operating mechanism comprising a member mounted to rotate freely in either direction and adapted to be engaged by parts carried by a car, a second rotatable member operatively connected to the first mentioned rotatable member which second member is mounted to rotate freely in either direction, a switch rod connected to the movable switch-point to be actuated, a bell crank to which the switch rod is pivotally connected, operating connections between said bell crank and the second mentioned rotatable member, and means for yieldingly locking the second mentioned rotatable member after movement.

5. In a switch-throwing mechanism, a member adapted to be rotated, a rod connected to the switch-point to be operated, a bell crank to which the switch rod is pivotally connected, a pair of operating connections attached to the bell crank on opposite sides of the fulcrumed point thereof, and the opposite ends of which connections are attached to the rotatable member at diametrically opposite points.

[Claims 6 to 9 not printed in the Gazette.]

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1,042,436. ELECTRICALLY-OPERATED COUPON-CUTTING MACHINE. GARRET A. HOBART, Paterson, N. J. Filed May 22, 1912. Serial No. 699,020. (Cl. 164—47.)



1. In a device of the class described, a suitable frame; a knife supported by said frame; a knife carrier, one end of which is pivotally supported from said frame and the other end of which carries a knife adapted to cooperate with said first mentioned knife; a reciprocating plunger; an oscillating lever the middle portion of which is pivotally supported from said frame, one end of said lever being operatively connected with said plunger and the other end of which lever is operatively connected with said knife carrier; and a solenoid for operating said plunger.

2. In a device of the class described, a suitable frame; a knife right angular in form supported by said frame; a reciprocating knife carrier; means for guiding said knife carrier in its movements; a knife carried by said carrier and similar in form to said first mentioned knife and adapted to coöperate therewith; a reciprocating plunger; a solenoid for operating said plunger; and means whereby said knife carrier is operated by said plunger.

3. In a device of the class described, a suitable frame; a knife supported by said frame; a knife carrier in the form of a bifurcated frame, the two arms of which are pivotally secured to said first mentioned frame; a knife carried by said carrier and adapted to coöperate with said first mentioned knife; a pivotally supported lever; a reciprocating plunger operatively connected with one end of said lever; a link the ends of which are pivotally connected respectively with the other end of said lever and with said knife carrier; and a solenoid for operating said plunger.

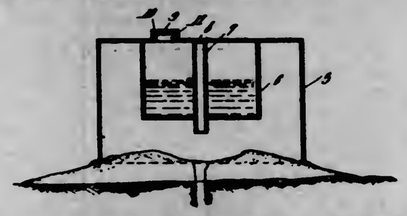
4. In a device of the class described, a suitable frame; a knife supported by said frame; a reciprocating knife carrier; means for guiding said knife carrier in its movements; a knife carried by said carrier and adapted to coöperate with said first mentioned knife; a reciprocating plunger; a solenoid for operating said plunger; means whereby said knife carrier is operatively connected with said plunger; means dependent for its operation upon movement of said plunger for interrupting the action of said solenoid at the end of the movement of said knife carrier in one direction; and means for returning said knife carrier to its initial position.

5. In a device of the class described, a suitable frame; a knife supported by said frame; a reciprocating knife carrier; means for guiding said knife carrier in its movements; a knife carried by said carrier and adapted to cooperate with said first mentioned knife; a reciprocating plunger; a solenoid for operating said plunger; a normally open circuit in which said solenoid is included; a manually operable switch for closing said circuit; means dependent for its operation upon movement of said plunger for operating said switch to open said circuit at the end of the movement of said knife carrier in one direction; and means for returning said knife carrier to its original position.

[Claims 6 to 22 not printed in the Gazette.]

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1,042,437. INSECT AND ANIMAL EXTERMINATOR. JAMES JOSEPH HOOPER, Mathis, Tex., assignor of one-half to Joseph T. Mahoney, Mathis, Tex. Filed Dec. 21, 1911. Serial No. 667,127. (Cl. 43—5.)

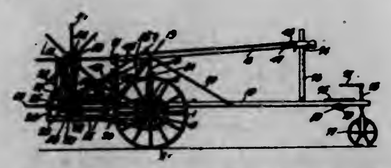


1. An insect and animal exterminator, comprising a cylindrical hood, a cylindrical receptacle of smaller diameter and shorter than the hood secured to and depending concentrically from the top of the hood, adapted to contain a volatile fluid to give off noxious gas, and forming an annular chamber between the sides of the hood and receptacle, the hood having an opening in the top thereof communicating with the chamber within the receptacle, a closure for the opening, and a tube passing axially through the bottom of the receptacle with the lower end depending below the bottom of the receptacle and terminating short of the lower end of the hood, the said tube serving to convey the gas from the receptacle.

2. An insect and animal exterminator, comprising a hood, a receptacle of smaller dimensions than the hood secured to and depending concentrically from the top of the hood, adapted to contain carbon bi-sulfid so as to give off a noxious gas, and forming a chamber between the sides of the hood and receptacle, and a tube passing through the bottom of the receptacle to convey the gas from the receptacle.

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1,042,438. HEADER. JOSEPH W. HOOVER, Winfield, Kans. Filed Apr. 28, 1912. Serial No. 692,624. (Cl. 56—100.)



1. In a header, the combination with a wheel supported axle, and a structure carried thereby, of a beam extending loosely through said structure and above the axle, a lever fulcrumed on the structure, a steering wheel at the rear end of the beam, cutting and conveying mechanism supported by the front end of the beam, a connection between the lever and the front end portion of the beam, a yielding connection between said portion of the beam and the structure, and coöperating means upon the beam and lever for locking said lever against angular adjustment relative to the beam.

2. In a header, the combination with a wheel supported axle, and a structure upstanding from the axle, of a beam extending loosely through the structure, a steering wheel at the rear end of the beam, a conveyer carried by the front end of the beam and extending transversely thereof, cutting mechanism movable transversely of the beam and in front of the conveyer, means for transmitting motion from one of the supporting wheels to the cutting and conveyer mechanism, an adjusting lever fulcrumed on the structure, a connection between said lever and the front end portion of the beam, and coöperating means upon the beam and lever for locking said lever against movement relative to the beam.

3. A header including a wheel supported axle, a structure upstanding therefrom, a beam extending loosely through the structure, a steering wheel at the rear end of the beam, transversely movable cutting means at the front end of the beam, a frame pivotally connected to the axle and extending forwardly therefrom, pivotal connections between said frame and the front end of the beam, an adjusting lever fulcrumed on said structure, a link connection between said lever and the front end portion of the beam, and coöperating means upon the lever and beam for locking said lever against movement relative to the beam.

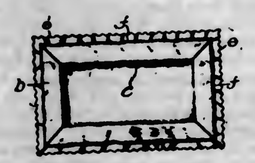
4. A header including a wheel supported axle, a structure upstanding therefrom, a beam extending loosely through the structure, a steering wheel at the rear end of the beam, cutting mechanism at the front end of the beam, a frame pivotally mounted on the axle and extending forwardly therefrom, a pivotal connection between the frame and the front end of the beam, a lever fulcrumed on said structure, a connection between the lever and the front end portion of the beam, coöperating means upon the beam and lever for locking said lever against movement relative to the beam, and means for transmitting motion from one of the supporting wheels to the cutting mechanism irrespective of the adjustment of the beam relative to the lever.

5. In a header the combination with a wheel supported axle, and a structure upstanding therefrom, of a beam extending loosely through the structure, a frame constituting a connection between the front end of the beam and the axle, a steering wheel at the rear end of the beam, cutting mechanism at the front end of the beam, an adjusting lever fulcrumed on said structure, a connection between the lever and the front portion of the beam, and coöperating means upon the beam and lever for locking the lever against movement relative to the beam.

[Claims 6 to 8 not printed in the Gazette.]

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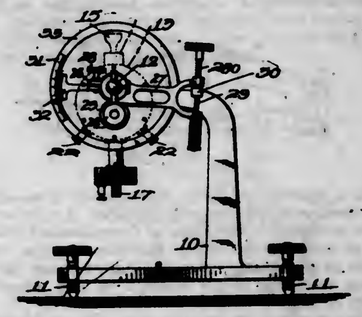
1,042,439. DAY PILLOW-CASE. CHARLES L. HOSKEN, Wilmette, Ill. Filed May 23, 1910. Serial No. 562,818. (Cl. 5—15.)



A day pillow case comprising a front, and closed ends and sides adapted to conform to the contour of the pillow, and a frill upon said front, the line of juncture of the frill and the front being spaced from the edges of the ends and sides of the case, and said case having an enlarged unobstructed opening in the back through which the pillow may be introduced or withdrawn, for the purposes set forth.



1,042,440. ELECTROSTATIC VOLTMETER. JOHN C. HUBBARD, Worcester, Mass. Filed Oct. 18, 1911. Serial No. 654,444. (Cl. 171—95.)



1. In an electrostatic-voltmeter, the combination of an indicator adapted to be charged and to be moved, a pair of terminals adapted to be connected with a constant source of electricity to keep them at a constant potential difference for influencing the indicator to move it, a casing for supporting the terminals and indicator, and means whereby said casing can be moved to bring the indicator when charged back to the position it assumed when not charged.

2. In a device of the character described, the combination with a movable casing, of a support thereon, an indicator on the support adapted to be charged and to be moved thereby, a pair of terminals carried by the casing on opposite side of the indicator for connection with the opposite poles of a constant source of electricity to keep them at a constant potential difference, and means whereby the casing can be moved for the purpose of restoring the indicator to its uncharged position by the aid of an independent force while the indicator and terminals are charged.

3. In a device of the character described, the combination of a casing having a support thereon, a freely movable indicator carried by said support, a pair of terminals insulated from each other and mounted on said casing in position to influence the indicator when charged to cause the indicator to move, and means whereby said casing can be rotated on an axis for the purpose of bringing the indicator back to its uncharged position by the aid of gravity when charged.

4. In a device of the character described, the combination with a support, of a shaft supported thereon and capable of being turned by hand, a casing fixed to the shaft, an indicator in the casing, means for electrically influencing the indicator, an adjustable frame connected with said support and mounted at one end of said shaft, and means for fixing said frame to the shaft, whereby the shaft can be turned by the adjustment of the frame.

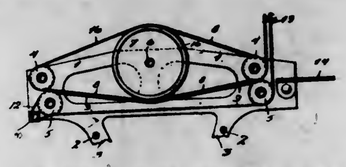
5. In a device of the character described, the combination with a support, of a shaft rotatably supported thereon, a casing fixed to the shaft, an indicator in the casing, means for electrically influencing the indicator, an adjustable frame connected with said support and mounted at one end of said shaft, means for fixing said frame to the shaft, whereby the adjustment of the frame will rotate the shaft, a disk fixed on said shaft concentric therewith, and having a scale thereon for showing the amount of adjustment, and a microscope carried by said shaft beyond said frame by which the position of the indicator can be read.

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1,042,441. DRYING-MACHINE FOR PRINTED SHEETS. IRA D. HURLBUT, Prairie du Chien, Wis. Filed Sept. 18, 1911. Serial No. 649,188. (Cl. 36—12.)

1. In a machine for drying sheets, pairs of superposed feed rollers, a cylinder or drum mounted intermediate of the pairs of rollers, the lower portion of the cylinder or drum being below the plane between the rollers, tapes

or bands engaging the upper of each pair of rollers and the cylinder or drum, and other tapes or bands engaging the lower rollers of each pair and passing under the cylinder or drum.



2. In a machine for drying sheets, pairs of superposed feed rollers, said rollers having a portion of their lengths reduced in diameter, a cylinder or drum mounted intermediate of the pairs of rollers, the lower portion of the cylinder or drum being below the plane between the rollers, and conveying means mounted on said rollers and cylinder or drum.

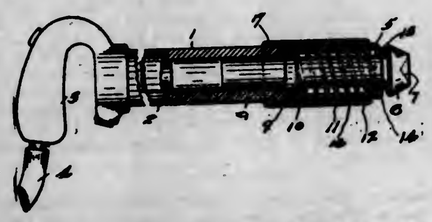
3. In a machine for drying sheets, pairs of superposed feed rollers, said rollers having a portion of their lengths reduced in diameter and their wider portions circumferentially corrugated, a cylinder or drum intermediate of the pairs of rollers and in alinement with the corrugated portions thereof, the lower portion of the cylinder or drum being below the plane between the rollers, tapes or bands engaging said cylinder or drum and the corrugated portions of the upper of each pair of rollers, and other tapes or bands engaging the lower of each pair of rollers and passing under the cylinder or drum.

4. A machine for drying sheets comprising a frame, rollers journaled in pairs at opposite ends of the frame, a shaft journaled intermediate of the ends of the frame, a cylinder or drum mounted on said shaft, the lower portion of said cylinder or drum being below the plane between the pairs of rollers, an endless conveyer, a tray to receive the sheets from the conveyer, and a roller rectangular in cross section positioned at the delivery end of the conveyer and adapted to agitate the sheets and insure delivery into the tray aforesaid.

5. A machine for drying sheets comprising a frame, rollers journaled in pairs at opposite ends of the frame, each of said rollers having a portion of its length reduced in diameter and its wider portion circumferentially corrugated, a shaft journaled intermediate of the ends of the frame, a cylinder or drum mounted on said shaft, the lower portion of said cylinder or drum being below the plane between the pairs of rollers, tapes or bands engaging said cylinder or drum and the corrugated portion of the rollers, a heater arranged intermediate of the reduced portions thereof, a tray at the delivery end of the machine, and a roller rectangular in cross-section at the delivery end of the machine.

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1,042,442. FLUID-PRESSURE-ACTUATED HAMMER. NICKLAUS W. ISELI, Milo, Ohio. Filed Jan. 29, 1912. Serial No. 673,991. (Cl. 78—44.5.)

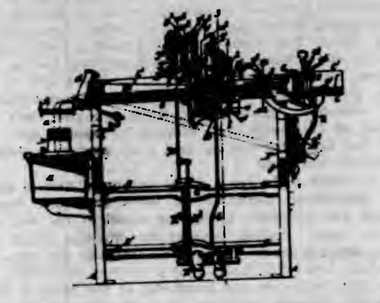


1. The combination, with a motive fluid actuated device as described comprising a tube, of a headed tool and a shank in said tube and a collar adapted to rest against the end of said tube, a spring surrounding a portion of said tool shank and bearing against said collar, a sectional housing formed with end flanges inclosing and retaining said spring, and a casing connecting said housing with said tube.

2. The combination in a motive fluid actuated device including a tube having a threaded end, of a headed tool having a shank in said tube and a collar adapted to bear against the tube end, a spring surrounding a portion of the tool shank and bearing against said collar, a sectional housing having exterior screw threads and formed with end flanges inclosing and retaining said spring, and an interiorly threaded casing screwed onto said sectional housing and threaded tube end.

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1,042,443. TABLET-BINDING MACHINE. WALTER L. JACOBIE, Glens Falls, N. Y., assignor to Charles W. Jacobie, Glens Falls, N. Y. Filed Dec. 8, 1909. Serial No. 532,063. (Cl. 11—2.)



1. A tablet binding machine comprising a pressing roller having a flat side which is grooved to produce edges on the roller for engaging with a binding strip on the edge of a tablet, means for holding a tablet in engagement with said roller and means for guiding the tablet to said roller.

2. A tablet binding machine comprising a pressing roller having a flat face which is provided with grooves equally inclined at a considerable angle to the radii drawn to their outer ends and forming edges for engaging with a binding strip on the edge of a tablet, means for holding a tablet in engagement with said roller, and means for guiding a tablet to said roller.

3. A tablet binding machine comprising a pair of rotatable pressing rollers having flat sides which are arranged in opposition and which are adapted to engage with opposite sides of a binding strip on the edge of a table the axes of said rollers being arranged at less than a right angle relatively to the path of said strip and tablet and the rollers engaging only on one side of their axes with said strip and tablet.

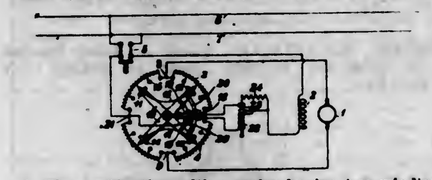
4. A machine of the character described comprising a pair of rotatable pressing rollers having flat sides which are arranged in opposition and which are adapted to engage with opposite sides of a binding strip on a pad of sheets and yielding means whereby the operator may move said rollers away from the strip and pad and which automatically move the same toward the strip and pad.

5. A machine of the character described comprising a pair of rotatable pressing rollers having flat sides which are arranged in opposition and which are adapted to engage with opposite sides of a binding strip on a pad of sheets and yielding means whereby the operator may move said rollers away from the strip and pad and which automatically move the same toward the strip and pad comprising supports movable transversely relatively to the line of movement of said strip and pad and carrying said rollers, springs operating to move said supports in the direction for engaging the rollers with said strip and pad, rock levers engaging with said supports, means for causing said levers to move in unison in opposite directions, a trip lever having a latch engaging with one of said rock levers, and a treadle connected with said trip lever.

[Claims 6 to 8 not printed in the Gazette.]



1,042,444. CONTROLLER. HENRY D. JAMES, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 2, 1910. Serial No. 546,857. (Cl. 172—179.)



1. The combination with a motor having two windings, of a controller therefor comprising two parallel-connected resistances between intermediate points of which one of the motor windings is connected and in series with which the other motor winding is connected, means for regulating the difference of potential between the terminals of the winding that is connected to intermediate points of the resistances, and means for reducing the current in the other winding when the drop of potential attains a predetermined value.

2. The combination with a motor having an armature and a field magnet winding, of a controller therefor comprising two parallel-connected resistances between intermediate points of which the motor armature is connected and in series with which the motor field magnet winding is connected, means for regulating the difference of potential between the armature terminals, and means for reducing the current in the field magnet winding when there is substantially no drop of potential between the armature terminals.

3. The combination with a motor having two windings, of a controller therefor comprising two parallel-connected resistances between intermediate points of which one of the motor windings is connected and in series with which the other motor winding is connected, means for regulating the difference of potential between the terminals of the winding that is connected to intermediate points of the resistances, and means for reducing the current in the circuit of the other winding to a minimum value when the drop of potential is substantially zero.

4. The combination with a motor having an armature and a field magnet winding, of a controller therefor comprising two parallel-connected resistances between intermediate points of which the motor armature is connected and in series with which the motor field magnet winding is connected, means for regulating the difference of potential between the armature terminals, and means for interrupting the circuit of the field magnet winding when there is substantially no drop of potential between the armature terminals.

5. The combination with a motor having an armature and a field magnet winding, of a controller therefor comprising two parallel-connected resistances between intermediate points of which the motor armature is connected and in series with which the motor field magnet winding is connected, a movable member for regulating the effective values of the said resistances, and means for reducing the current in the field magnet winding when the said member occupies a predetermined position.

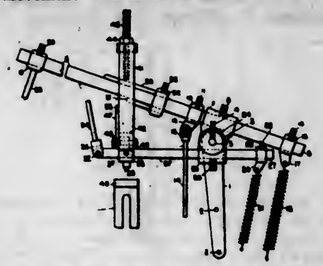
[Claims 6 to 9 not printed in the Gazette.]

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1,042,445. SAFETY-GUARD FOR STAMPING AND OTHER PRESSES. JAMES MELVIN JONES, Hamilton, Ontario, Canada. Filed June 21, 1912. Serial No. 705,110. (Cl. 164—167.)

1. In a safety guard of the character described, the combination with a guard carrying member, of a latch releasing member, said guard carrying member having a lost motion connection with the latch releasing member, but engaging and acting against said latch releasing member, at its limit of movement in both directions.

2. In a press guard of the character described, the combination with a guard carrying member, of a latch releasing member, means for actuating said guard carrying member in one direction and manually operable means for actuating the guard carrying member in the opposite direction, said guard carrying member having a limited independent movement with relation to the latch releasing member, but engaging and acting upon said latch releasing member at the limit of such independent movement in both directions.



3. In a press guard of the character described, the combination with a guard carrying member, of a latch releasing member, a manually operable member for moving the guard carrying member to protective position, spring means resisting such movement of the guard carrying member to protective position, and a latch releasing member, said guard carrying member having a limited lost motion engagement with the latch releasing member, but engaging and acting upon said latch releasing member at each of its limits of movement.

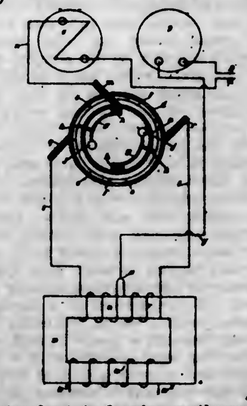
4. In a device of the character described, the combination with a guard carrying member, of a latch releasing member and a yoke carried by the latch releasing member through which the guard carrying member passes, said guard carrying member acting upon the latch releasing member at each of its limits of movement.

5. In a device of the character described, the combination with a guard carrying member, of a latch releasing member and a yoke carried by the latch releasing member through which the guard carrying member passes, said guard carrying member acting upon the latch releasing member at each of its limits of movement, and spring means tending to move the guard carrying lever out of protective position.

[Claims 6 to 16 not printed in the Gazette.]

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1,042,446. APPARATUS FOR TRANSFORMING CONTINUOUS CURRENTS INTO ALTERNATING CURRENTS. EDWARD LIONEL JOSEPH, London, England. Filed Nov. 24, 1911. Serial No. 662,178. (Cl. 171—253.)

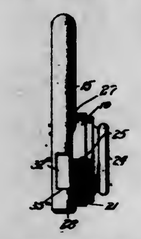


In apparatus for transforming continuous currents into intermittent currents, a motor driven commutator made

up of a slip ring section and a segmental section, insulated from one another, and speed controlled means automatically actuated to electrically connect the two commutator sections.

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1,042,447. LOCK. JOHN JUNKUNC, Chicago, Ill. Filed May 9, 1910, Serial No. 560,343. Renewed Mar. 23, 1912. Serial No. 685,846. (Cl. 70—112.)



1. In a lock, the combination of a locking member having a groove therein, a locking ring engaging said groove and thereby preventing release of the locking member, and a locking disk engaging a recess in the locking member and having means for rotating said locking ring, the locking ring being provided with a recess for allowing disengagement of the locking member therefrom and the disk being provided with a shouldered recess on its face for allowing a predetermined release of said locking member, rotation of said disk in opposite directions thereby serving to bring the recesses in the locking ring and the locking disk into register with the locking member and allowing the release of said member, substantially as described.

2. In a lock, the combination of a locking staple, a locking ring having a recess therein, said ring thereby allowing the release of said staple when moved to a predetermined position, and a locking disk engaging a recess in said locking staple, said disk being provided with a shouldered recess adapted to be brought into register with said locking staple and to permit its release for a predetermined distance, said locking staple having a lateral recess continuous with the recess engaged by said locking disk, thereby permitting rotation of the locking staple after it has been brought to release position, substantially as described.

3. In a lock, the combination of a casing, a locking staple operating in said casing, a locking ring carried by the casing and engaging both arms of the staple, said locking ring being provided with a plurality of recesses adapted to be brought into register with said arms, and a locking disk carried by said casing and having means for engaging said locking ring, said disk engaging a recess in said locking staple, and being provided with a shouldered recess adapted to be brought into register with one of said arms, which has a lateral recess continuous with the recess engaged by said disk, thereby permitting rotation of said locking staple after it is moved to its released position, substantially as described.

4. In a lock, the combination of a casing, a locking member operating in said casing, a locking ring carried by the casing and engaging said locking member, said locking ring being provided with a recess adapted to be brought into register with said locking member, and a locking disk also engaging said locking member, said disk having a recess therein adapted to be brought into register with said locking member, said disk forming a portion of the face of said lock, substantially as described.

5. In a lock, the combination of a casing, a locking member operating in said casing, a locking ring carried by the casing and engaging a groove in said locking member, said locking ring being provided with a recess adapted to be brought into register with said locking member, and a locking disk engaging a recessed portion of said locking member, said disk having a recess therein adapted to be brought into register with said locking member and having means for rotating said locking ring, said locking disk forming a portion of the face of said lock, substantially as described.

[Claim 6 not printed in the Gazette.]

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1,042,448. RECEPTACLE. FRANK A. KANE, Minooka, Pa. Filed Nov. 28, 1910. Serial No. 594,624. (Cl. 221—60.)



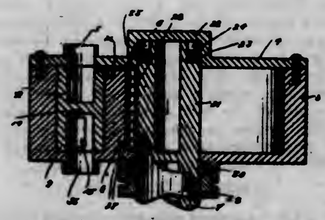
1. A closure for receptacles having in combination, an inner member, an outer member comprising an encompassing portion in operative engagement with said inner member, and a member-actuating portion extending outwardly from the encompassing portion and into operative relation with the outer surface of the sides of the receptacle and occupying a plane different from that of the encompassing portion, the members being provided with openings adapted to be brought into and out of register, and means for holding the members in rotative operative relation.

2. A closure for receptacles having in combination, an inner member provided with an opening; a conical extension on its lower portion adapted to be joined to a receptacle; an outer member provided with an opening encompassing said inner member and adapted to rotate thereon; means for securing the members permanently in rotative relation; means for limiting the rotation of the members; and an actuating extension carried by the outer member and extended at an angle therefrom into proximate relation with the outer surface of the sides of the receptacle.

3. A receptacle in combination with a closure therefor, comprising an inner member, an outer member comprising an encompassing portion in operative engagement with said inner member, a member-actuating portion extending from the encompassing portion into operative relation with the outer surface of the sides of the receptacle, the members being provided with openings adapted to be brought into and out of register, and means for rotatively holding the members in operative relation.

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1,042,449. WATER-MOTOR. STEWART S. KELCHNER, Easton, Pa. Filed Dec. 31, 1909. Serial No. 535,837. (Cl. 138—1.)



1. In a motor, a casing having inlet and outlet ports, a shaft having a piston working in the casing, a rotary valve in the casing, a housing for the valve within said casing, said valve having ports for the inlet of pressure fluid into the casing on opposite sides of the piston and outlet ports for the exhaust of pressure fluid on opposite sides of the piston, and means on the piston for operating the valve.

2. In a motor, a casing, a shaft working therein, a piston on the shaft, an operating arm extending on either side of the piston, a valve housing in the casing, a rotary valve in the housing having inlet ports on its upper end and outlet ports on its lower end, said inlet ports being divided from the outlet ports by a partition in said valve, said casing being provided with inlet ports adapted to register with either one of the inlet valve ports and with outlet ports adapted to register with either one of the outlet valve ports, said valve being also formed with recesses for the reception of the arm on the piston, and means for holding the valve in an operative position.

3. In a motor, a casing having inlet and outlet ports, a valve having a partition disposed between the inlet and the outlet ports of the casing, said valve having inlet ports on its upper end and outlet ports on its lower end, said ports being arranged oppositely to each other, said valve being also formed with recesses oppositely arranged therein, a housing in the casing for said valve having ports adapted to register with the inlet and outlet valve ports, a shaft working in the casing having a bearing against the valve housing water tight, a piston on the shaft having an arm the ends of which are adapted to engage with either of the recesses of the valve, and means carried by the valve adapted to hold the same in operative position in the housing.

4. In a motor, a casing, a shaft, a piston thereon, a fluid pressed packing therefor, a rotary valve within said casing, a housing for said valve within said casing, means on said piston for operating said valve, said valve having ports for the inlet of pressure fluid.

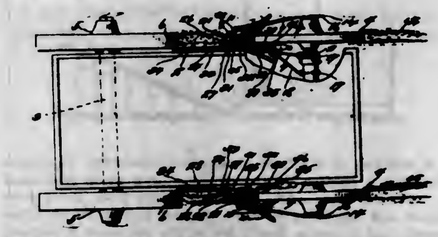
5. In a motor, a casing, a shaft, a piston thereon, a fluid pressed packing therefor, a rotary valve within said casing, a housing for said valve within said casing, means on said piston for operating said valve, said valve having ports for the inlet of pressure fluid, on opposite sides of said piston.

[Claims 6 to 9 not printed in the Gazette.]



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1,042,450. ROAD-SCRAPER. ELISHA R. KEAR, Erin, Tenn. Filed July 29, 1911. Serial No. 641,292. (Cl. 37—7.)



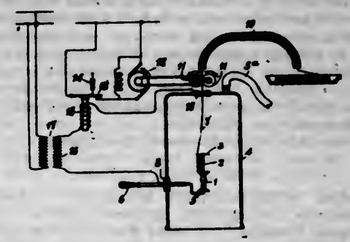
In combination, a frame having an axle, wheels journaled on the spindles thereof, scraper frames suspended pivotally from the axle and the spindles, each scraper frame comprising rearwardly and downwardly partially converging bars having a transversely disposed bar integrally connecting them, the rearwardly and downwardly partially converging bars having triangular members connected thereto and extending downwardly, and scraper shoes, one secured to the lower apex of each member, these shoes being arranged angularly with relation to one another, and correspondingly like mechanisms on each side of the first frame for individually and independently raising and lowering each of the scraper frames.

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1,042,451. APPARATUS FOR MANUFACTURNG INCANDESCENT LAMPS. ARTHUR S. KNIGHT, Newark, N. J., assignor to Westinghouse Lamp Company, a Corporation of Pennsylvania. Filed Nov. 3, 1909. Serial No. 526,046. (Cl. 176—4.)

1. Apparatus for applying an incandescent lamp filament to a mounting therefor comprising an adjustable holder for the mounting, and means opposing feeding of the filament toward the mounting.

2. Apparatus for applying an incandescent lamp filament to a mounting therefor comprising an adjustable holder for the mounting, means opposing feeding of the filament toward the mounting and means for rendering said opposing means ineffective upon breakage of the filament.



3. Apparatus for applying an incandescent lamp filament to a mounting therefor comprising an adjustable holder for the mounting, an electrical circuit including said holder, mounting and a portion of the filament, means opposing feeding of the filament toward the mounting, and means for rendering said opposing means ineffective upon interruption of said circuit.

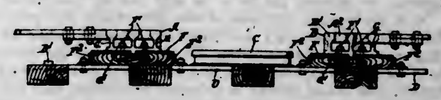
4. Apparatus for applying an incandescent lamp filament to a mounting therefor comprising an adjustable holder for the mounting, a roll engaging the filament and opposing feeding thereof toward the mounting, driving means for the roll, an electrical circuit including the holder, the mounting and a portion of the filament, and means for rendering the said driving means ineffective upon interruption of the said circuit.

5. Apparatus for applying an incandescent lamp filament to a mounting therefor comprising an adjustable holder for the mounting, means adapted to oppose feeding of the filament toward the mounting, actuating means for the said opposing means, an electrical circuit including the said holder, the mounting and a portion of the filament, an electro-magnet winding also included in the said circuit, and a switch governed by the said electro-magnet winding and adapted to render the said actuating means ineffective upon interruption of the said circuit.

[Claims 6 to 10 not printed in the Gazette.]

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1,042,452. RACK-RAIL. NILS DAVID LEVIN, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 17, 1906. Serial No. 348,351. (Cl. 238—19.)



1. A rack rail cut away so as to provide a gap for a track rail and means associated with the portions of the rack separated by the gap for preventing relative movement thereof to maintain the correct pitch relation between the teeth thereof.

2. A rack rail comprising two ends separated by a space to provide a gap through which a track rail may pass, a rigid connection between said ends below said track rail, and means for bringing the sprocket wheel into proper alinement.

3. A rack rail comprising two ends separated by a space to provide a gap through which a track rail may pass, a rigid connection between said ends below said track rail, the teeth of the rack at the ends being elongated and gradually decreasing in length, the connecting pieces between the teeth being provided with beveled faces, the outer beveled face on one side of a given tooth being in line with the inner beveled face on the other side of said tooth.

4. A rack rail comprising two ends separated by a space to provide a gap through which a track rail may pass, a rigid connection between said ends below said track rail, the teeth of the rack at the ends being elongated and grad-

ually decreasing in length, the connecting pieces between the teeth being provided with beveled faces, the outer beveled face on one side of a given tooth being in line with the inner beveled face on the other side of said tooth, and means for insulating said ends from said connecting piece.

5. A rack rail provided with two ends separated by a space to provide a gap through which a track rail passes, means for rigidly connecting the ends of the rack rail together to maintain the correct pitch relation between the teeth thereof, the spaces between the teeth of said ends arranged so as to be self-cleaning.

[Claims 6 to 11 not printed in the Gazette.]

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1,042,453. PERFORATING-MACHINE. CHARLES L. LILLEBERG, Chicago, Ill., assignor to William Herbert Johnson, Chicago, Ill. Filed Mar. 31, 1909, Serial No. 486,917. Renewed May 31, 1911. Serial No. 630,457. (Cl. 164—66.)



1. A perforating machine of the class which has means for cutting tongues in a sheet, which machine includes means for removing the tongues from the sheet, and means located in coöperative relation with the aforesaid means and acting mechanically upon the tongues to present the same to the aforesaid means.

2. A perforating machine of the class which has means for cutting tongues in a sheet, which machine includes cutting mechanism for removing the tongues from the sheet, and means located in coöperative relation with said cutting mechanism and acting mechanically upon the tongues to present the same to said cutting mechanism.

3. A perforating machine of the class which has means for cutting tongues in a sheet, which machine includes cutting mechanism for removing the tongues from the sheet, said cutting mechanism including stationary and revolving knives, and means located in coöperative relation with said cutting mechanism and acting mechanically upon the tongues to present the same to said cutting mechanism.

4. A perforating machine of the class which has means for cutting tongues in a sheet, which machine includes cutting mechanism for removing the tongues from the sheet, said cutting mechanism including stationary and revolving knives, and means located in coöperative relation with said cutting mechanism and acting mechanically upon the tongues to present the same to said cutting mechanism, the stationary knife of said cutting mechanism having a directing surface at its cutting edge serving to guide the tongues between the stationary and rotating knives.

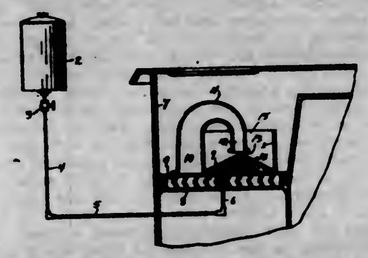
5. A perforating machine of the class which has means for cutting tongues in a sheet, which machine includes means for removing the tongues from the sheet, and a ridge-bar located in coöperative relation with the aforesaid means and acting mechanically upon the tongues to present the same to the aforesaid means.

[Claims 6 to 14 not printed in the Gazette.]

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1,042,454. OIL-BURNER. HERMAN LUDWICK, Milwaukee, Wis. Filed May 18, 1912. Serial No. 696,818. (Cl. 158—91.)

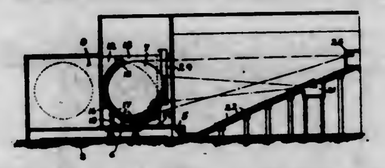
1. An integrally formed cast metal oil burner comprising a solid conical bottom, vertical walls inclosing said bottom, an oil duct formed in the metal comprising said bottom, communicating up through the bottom and terminating at its apex, an air duct having its inlet end on the same plane with said bottom and extending from thence upwardly and terminating centrally above the discharge end of the oil duct at the apex of said conical bottom, and means for connecting said oil duct with an oil reservoir.



2. An integrally formed cast iron oil burner comprising a solid conical bottom, vertical walls inclosing said bottom, an oil inlet formed in the metal comprising said bottom communicating up through the bottom and terminating at its apex, an air duct having its inlet end on the same plane with said bottom and extending from thence upwardly and terminating centrally above the discharge end of the oil duct formed in the apex of said conical bottom, said bottom and integrally formed air duct being adapted to rest upon the upper surface of the grate of a combustion chamber, whereby air is led to said burner through such supporting grate, and means for connecting said oil duct with an oil reservoir.

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1,042,455. METHOD OF TEACHING GEOGRAPHY. MARSDEN MANSON, San Francisco, Cal. Filed Jan. 5, 1912. Serial No. 669,673. (Cl. 35—12.)



A method of teaching geography, consisting in photographing a portion of the exterior of a globe fashioned to represent the earth, preparing slides from the photograph and depicting thereon subject matter to be illustrated, and exposing the slides to the action of a projecting apparatus so as to project the image of the matter depicted upon said slides upon the portion of the globe from which the slides were prepared.

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1,042,456. GLOBE. MARSDEN MANSON, San Francisco, Cal. Filed Feb. 10, 1912. Serial No. 676,786. (Cl. 35—5.)

1. A globe comprising an axial shaft, semicircular members attached to said shaft and spaced apart from each other circumferentially and spherical surface segments lying between the adjacent members.

2. A globe consisting of a spherical frame composed of members arranged in circles at right angles to each other and spaced apart from each other forming a plurality of spherical quadrangles, and a surface segment arranged in each quadrangle.

3. A globe consisting of an axial shaft, semicircular meridian members attached at their ends to said shaft and spaced apart circumferentially of the globe on the line of the equator, a plurality of short members arranged transversely of said semicircular members and forming parallels of latitude, and a plurality of surface segments arranged in the spaces between the members.

4. A globe consisting of an axial shaft, plates secured to the shaft adjacent the ends, semicircular members attached to said plates at their opposite ends and forming meridians, spacing members for said semicircular members arranged at right angles thereto forming spherical quadrangles and a plurality of separately formed surface sections arranged in said quadrangles and secured to said members.



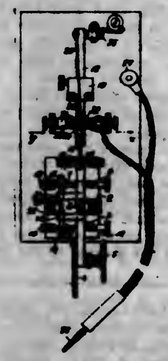


5. In a globe, a spherical frame formed of a plurality of spherical quadrangles and a plurality of surface segments arranged in said quadrangles, said segments being formed of a frame having a covering of plastic material arranged thereon.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,457. ELECTRIC TELEGRAPHIC APPARATUS. HORACE G. MARTIN, East Rutherford, N. J. Filed July 1, 1911. Serial No. 636,536. (Cl. 178—68.)



1. In an electric telegraphic apparatus, the combination of an operator's key, a free vibrator whose movements are controlled by said key, a spring directly connecting said key and vibrator and on which the latter oscillates, and a circuit controller operating with said vibrator for making both the dots and the dashes of a telegraphic message.

2. In an electric telegraphic apparatus, the combination of an operator's key, a free vibrator controlled by said key, a spring directly connecting said key and vibrator and on which the latter oscillates, and means controlled by the movements of said vibrator for making and breaking an electric circuit and for producing both the dots and the dashes of a telegraphic message.

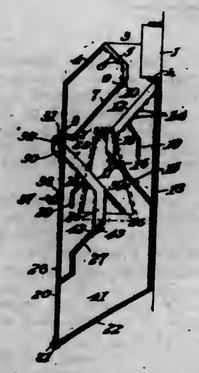
3. In an electric telegraphic apparatus, the combination of an operator's key, a free vibrator whose movements are controlled by said key, a spring forming a direct connection between said key and vibrator and on which the latter oscillates, and a circuit controller operated by said vibrator for making the dots of a telegraphic message when said key is moved in one direction and for making the dashes of said message when said key is moved in the other direction.

4. In an electric telegraphic apparatus, the combination of an operator's key movable in two directions, a free vibrator, whose movements are controlled by said key, a spring forming a direct connection between said key and vibrator and on which the latter oscillates, and two springs carried by said key for returning the same to its normal position and so arranged that the tension of one spring is increased while the tension of the other is unaffected, and vice versa, according as said key is moved in one direction or the other.

5. In a telegraphic transmitter, in combination, a free vibrator adapted to make and break an electrical circuit for producing both the dots and dashes of a telegraphic message, a key-lever for controlling the operation of said vibrator and a spring forming a direct connection between said key-lever and vibrator and on which said vibrator oscillates.

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1,042,458. MAIL-RECEPTACLE. GEORGE B. MCALLISTER, Baltimore, Md., assignor to McAllister Street Car Mail Box Company, a Corporation of the District of Columbia. Filed June 17, 1910, Serial No. 567,429. Renewed Mar. 8, 1912. Serial No. 682,519. (Cl. 232—17.)



1. A mail-box, comprising a receptacle for mail articles, a hopper to receive the articles, a tortuous channel connecting said hopper and said receptacle comprising a plurality of inclined guides, and projections overhanging the upper ends of said guides, to prevent mail articles from impinging in the angle at the upper ends of said guides.

2. A mail-box, comprising a receptacle for mail articles, a hopper to receive the articles, and a tortuous channel connecting said hopper and said receptacle having a plurality of angularly arranged guides, each of said guides comprising a series of parallel beveled bars having their lower ends bent to provide an enlarged clearance between the successive guides, the axis of each bar being in a vertical plane.

3. A mail-box, comprising a receptacle for mail articles, a hopper to receive the articles, a tortuous channel connecting said hopper and said receptacle having a plurality of angularly arranged guides, each of said guides comprising a series of parallel beveled bars having their lower ends bent to provide an enlarged clearance between

successive guides, and a plurality of straight transverse bars secured to the inner sides of said beveled bars.

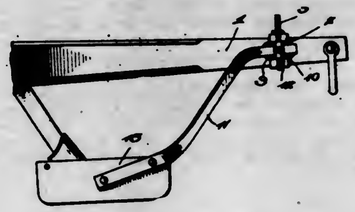
4. A mail-box, comprising a receptacle for mail articles, and a hopper to receive the articles, said hopper having an outwardly flaring mouth and the front and back walls thereof comprising a series of parallel beveled bars the axis of each bar being in a vertical plane.

5. A mail-box, comprising a receptacle for mail articles, and a hopper to receive the articles, said hopper having an outwardly flaring mouth and the front and back walls thereof being provided with a series of parallel beveled bars having their axes arranged in vertical planes, said bars upon the front side being inclined and having their lower ends bent to provide an enlarged clearance between said front and back walls.

[Claims 6 to 10 not printed in the Gazette.]

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1,042,459. FENDER. WILLIAM T. MCDONALD, Portersdale, Ga. Filed Apr. 6, 1912. Serial No. 688,982. (Cl. 97—13.)



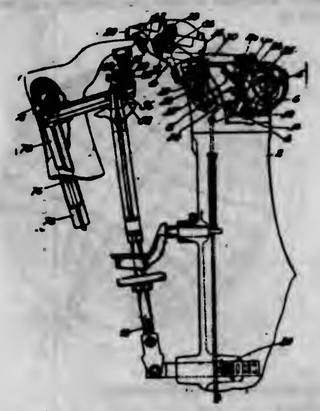
1. In a device of the character described, the combination of an inverted U-shaped clamping member secured to the beam, a thumb screw arranged in one side of said member, a clamping plate secured to the inner end of said screw, spurs on said plate to engage with the plow beam, a rearwardly-projecting arm secured to the other side of said member, and a fender plate secured to the rear end of said arm.

2. In a device of the character described, the combination of a U-shaped member secured to the plow beam, said member having an elongated slot formed in one side thereof, a bolt in said slot, a securing plate mounted on said bolt, having elongated openings in each end thereof, a rearwardly-projecting arm, having its forward end passed through said openings and disposed beneath the intermediate portion of the plate, and a fender plate secured to the rear end of said arm.

3. In a device of the character described, the combination of a U-shaped clamping member, a thumb screw arranged in one side of said member, a clamping plate movably secured to the inner end of said screw, a spur on said plate adapted to engage with the plow beam, the other side of said clamping member being concavo-convex in form, a threaded lug formed integral on the outer side thereof, a rearwardly projecting arm mounted on said lug, and a nut threaded on the lug to hold said arm securely in place.

4. In a device of the character described, the combination of a U-shaped clamping member, a bolt movably disposed in one side thereof, a clamping plate movably secured to the inner end of said bolt, a coil spring mounted on the bolt and arranged between the clamping plate and the side of the clamping member to hold said plate into engagement with the plow beam, the other side of said clamping member being concavo-convex in form and having an elongated slot movably mounted in said slot, a rearwardly projecting arm mounted on said bolt and arranged between the head of the bolt and the side of the clamping member, a nut threaded on the inner end of said bolt, and a coil spring mounted on said bolt and arranged between the nut and the side of the clamping member to hold said arm securely in place.

1,042,460. WORK-SUPPORT. RONALD F. MCFEELY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 26, 1909. Serial No. 509,684. (Cl. 12—127.)



1. A machine of the class described, having, in combination, a support for the heel end of a last, and a forepart support comprising a pad arranged to swing about an axis parallel with the plane of the shoe bottom, and also to slide in a curved path about a center located substantially in the plane of the shoe bottom.

2. A machine of the class described, having, in combination, a forepart support and a heel support comprising a post arranged within a yoke to permit the leg portion of a boot to extend between the post and the sides of the yoke, and an adjustable connection between the upper ends of the yoke and the forepart support.

3. In a last support, a forked jack post, hangers carried on the ends of the fork, side plates mounted to slide on said hangers, a toe rest support connecting said side plates, a yoke sliding upon said side plates, and a last spindle supported on the bight of the yoke.

4. In a last support a forked jack post, hangers on said forked jack, plates mounted to slide on said hangers, a toe rest support on said plates, a U-shaped member mounted for movement upon said plates and a last spindle connected to the loop of the U-shaped member.

5. In a last support, a toe rest, means for adjusting the rest vertically, means for permitting adjustment of the rest about an axis extending transversely of the longitudinal axis of the last, means for permitting adjustment of the rest upon an arc struck substantially from a point in the plane of the last bottom, a spindle and means for adjusting the spindle toward and from the toe rest.

[Claims 6 to 16 not printed in the Gazette.]

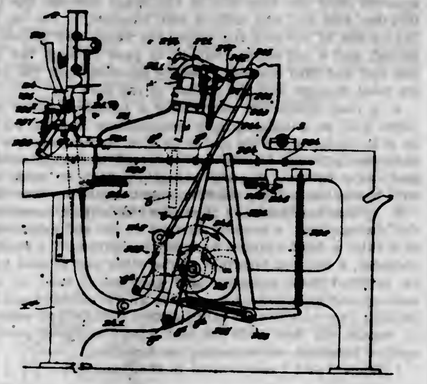
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1,042,461. SHIPPER-LOCKING MEANS FOR LOOMS. CARELL W. MEGGINSON, Danville, Va., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Mar. 6, 1911. Serial No. 612,446. (Cl. 139—85.)

1. In a loom provided with weaving devices, a replenishing instrumentality, including a change-shaft intermittingly rotated to effect the operation of such instrumentality, and means, including a shipper, to arrest the operation of the weaving devices when the change-shaft is called into action, in combination, automatic means governed by said change-shaft to lock the shipper in stopping position during the operation of the replenishing instrumentality.

2. In a loom provided with weaving and filling-replenishing instrumentalities either of which is inactive when the other is in action, a shipper movable to stopping position to bring said replenishing instrumentality into action, and means to move said shipper automatically to running position when replenishment is completed, in combination, means to lock said shipper automatically when moved to stopping position and to unlock the shipper when the action of the replenishing instrumentality is completed.





3. In a loom provided with weaving and filling replenishing instrumentalities either of which is inactive when the other is in action, a shipper movable to stopping position to bring said replenishing instrumentality into action, and means, including a shiftable rod, operatively connected with the shipper, to move the shipper automatically to running position when replenishment is completed, in combination, means to coöperate automatically with said rod only during the operation of the replenishing instrumentality and by such coöperation prevent starting movement of such rod and the shipper, whereby the shipper cannot be moved to running position during such period.

4. In a loom having weaving and filling-replenishing instrumentalities either of which is inactive when the other is in action, and provided with means, including a shipper, to suspend the operation of the weaving instrumentality and set up the operation of the replenishing instrumentality when the shipper is moved to stopping position, in combination, a restarting rod operatively connected with the shipper, means to move said rod to throw the shipper automatically into running position when replenishment is completed, a stop-collar on the rod, and means including a locking lever, to move said lever into operative engagement with the stop-collar when the replenishing instrumentality is in action and to maintain such engagement until replenishment is completed, to thereby prevent movement of the shipper to running position during such period.

5. In a loom provided with a filling-replenishing instrumentality, means, including a shipper, to set such instrumentality into action when the shipper is moved to stopping position, and devices to move the shipper automatically to running position when the replenishing action is completed, in combination, means to lock said shipper automatically and hold it from movement to running position during the replenishing action and to unlock the shipper and thereby permit movement thereof to running position only when replenishment is completed.

[Claims 6 to 10 not printed in the Gazette.]

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1,042,462. RAIL-FASTENING MEANS. ALVUS H. MOFFET, Larned, Kans. Filed May 25, 1912. Serial No. 699,697. (Cl. 238—4.)

1. The combination with a tie and a rail thereon, a tie-embracing rail fastening means, and a rotatable tie plate that detachably engages behind the fastening means to hold them in operative relation.

2. The combination with a tie and a rail thereon, of diagonally disposed hooks engaging on the opposite base flanges of the rail and having shank portions on opposite sides of the tie, and a rotatable tie plate that detachably engages behind the hooks to hold them in operative relation.



3. The combination with a tie and a rail thereon, of diagonally disposed means engaging opposite sides of the rail and opposite sides of the tie, and a rotary tie plate interposed between the tie and rail and having portions engaging said means.

4. The combination with a tie and a rail thereon, of diagonally disposed hooks engaging over the opposite base flanges of the rail and having shank portions on opposite sides of the tie, and a rotary tie plate interposed between the rail and tie and having outstanding portions engaging the rear sides of said hooks.

5. The combination with a tie and a rail thereon, of tie-embracing rail fastening means, and a tie plate engaging the fastening means to hold them in operative relation, said plate also having means directly adjacent to the fastening means for engaging opposite sides of the rail.

[Claims 6 to 11 not printed in the Gazette.]

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1,042,463. PRESSED OR MOLDED RIBBED GLASSWARE. OTIS A. MYGATT, New York, N. Y. Filed July 1, 1909. Serial No. 505,435. (Cl. 240—106.)



1. A glass body having a series of tapering ribs thereon, said ribs being relatively larger and nearer one another at points nearest the axis of the glass body and smaller and farther apart at points more remote from the axis.

2. A hollow glass body of larger diameter at one end than at the other, said body having thereon ribs arranged approximately in the planes of the axis of the body, said ribs decreasing in dimensions from the smaller portion of the body toward the larger portion thereof.

3. A flaring hollow glass body having thereon tapering ribs arranged with their larger portions adjacent to the smaller end of the body.

4. A flaring hollow glass body having thereon a plurality of tapering ribs, the ribs being arranged with their larger ends toward the smaller portion of the body and their smaller ends extending toward the larger portion of the body.

5. A hollow glass body of divergent shape having thereon a plurality of ribs arranged with their bases adjacent to the smaller portion of the body, said ribs decreasing in size toward the larger portion of the body, and other ribs arranged intermediate the ribs first mentioned, said other ribs having their larger portions toward the smaller part of the body and extending toward the other portion of the body.

[Claims 6 to 17 not printed in the Gazette.]

1,042,464. MATCH. JOHN R. NOLAN, New York, N. Y., assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 6, 1912. Serial No. 681,944. (Cl. 52—5.)



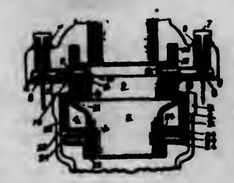
1. As a new article of manufacture, a friction match having its stick provided with a substantially continuous series of adjacent peripheral grooves which present a multiplicity of thin burning edges extending lengthwise of the stick.

2. As a new article of manufacture, a friction match having its stick provided throughout its periphery, from end to end, with a substantially continuous series of adjacent grooves which present a multiplicity of thin burning edges extending lengthwise of the stick.

3. As a new article of manufacture, a friction match having its stick provided with a substantially continuous series of adjacent peripheral grooves which present a multiplicity of thin burning edges extending lengthwise of the stick, and having its head composition firmly embedded in one end of said grooves.

4. As a new article of manufacture, a friction match having a substantially continuous series of longitudinal grooves arranged in close relation to each other and shaped similarly to the inclined interdental spaces of a circular saw as shown and described, so as to present a multiplicity of burning edges, said match having its igniting head composition firmly embedded in one end of said grooves.

1,042,465. FLOOR CONNECTION FOR SANITARY PLUMBING-FIXTURES. BEN OAKES, Detroit, Mich. Filed July 25, 1910. Serial No. 573,696. (Cl. 137—94.)



1. A floor connection for plumbing fixtures having in combination a member provided with circumferential corrugations whereby it is made flexible, a packing support, a packing surface 22 of smaller diameter than the packing support, an internal conductor member secured to the corrugated member and provided with an expanded receiving end adapted to engage a nipple and also provided with a flange perforated with bolt holes, substantially as described.

2. A floor connection for plumbing fixtures, having in combination a corrugated member and means for connecting the same by packed joint to a soil pipe, an internal conductor member provided with a receiving end and a floor flange surrounding said receiving end, a nipple adapted to be secured to the fixture provided with a groove whereby it is made flexible and provided with means for engaging with said internal conductor member of said flexible joint, substantially as described.

3. The combination of a flexible joint member, having a perforated flange adapted to rest upon the floor, a plumbing fixture having a bolt hole, a hollow bolt adapted to be inserted from the floor side of the flange through the perforation and the bolt hole, a nut adapted to run on the fixture end of the bolt and secure the flange and fixture together, and a lag screw adapted to pass through the hollow bolt and into the floor, thereby securing both the flexible joint member and the fixture to the floor.

4. A floor connection comprising a tubular member provided with an annular groove intermediate its ends whereby it is rendered flexible and with a collar intermediate its ends and external to said tube adapted to engage with a seat, said tubular member being provided at each end with means for holding packing, substantially as described.

5. A floor connection, a tube provided with circumferential corrugations, a packing surface at one end external to said tube, a bead adapted to form the bottom of a packing chamber, a reduced terminal at the other end of said tube, an internal tube engaging said corrugated tube at said reduced end provided with a flange at the opposite end extending over and beyond said packing surface and adapted to engage the floor between said flange and said packing surface terminal, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,042,466. TRAVELING ELECTRIC WELDING APPARATUS. JOSEPH A. OSBORN, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Mar. 18, 1911. Serial No. 615,401. (Cl. 219—4.)



1. In an electric welding apparatus, a runway, a transformer suspended from and being adapted to be moved along said runway, a tool flexibly carried by the secondary circuit cables, and means carried by said tool for controlling the flow of current through said transformer.

2. In an electric welding apparatus, a runway, a transformer suspended from and being adapted to be moved along said runway, a tool flexibly carried by the secondary circuit cables, a pair of trolley wires, and means movable with said transformer adapted to take current from said trolley wires and to conduct said current through said transformer.

3. In an electric welding apparatus, a runway, a transformer supported from and being adapted to be moved along said runway, a tool supported from said transformer, a pair of trolley wires, means movable with said transformer adapted to take current from said trolley wires for said transformer, and means carried by said tool for controlling the flow of said current through said transformer.

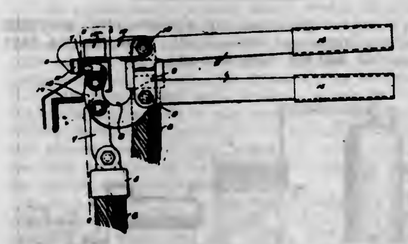
4. In an electric welding apparatus, a runway, a transformer supported from and being adapted to be moved along said runway, a tool supported from said transformer, a pair of trolley wires, means movable with said transformer adapted to take current from said trolley wires for said transformer, and means carried by said tool for controlling the flow of current through said transformer.

5. In an electric welding apparatus, a runway, a carriage movable along said runway, a transformer suspended from said carriage, a tool flexibly carried by the secondary circuit cables, and means for adjusting said transformer and tool relative to said carriage.

[Claims 6 to 11 not printed in the Gazette.]



1,042,467. ELECTRIC WELDING-TONGS. JOSEPH A. OSBORN, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Mar. 18, 1911. Serial No. 615,402. (Cl. 219—4.)



1. In a welding tool, a lever connected with an electrical terminal at one end and provided with a handle at the opposite end, an angular lever having one of its legs pivoted to the first lever intermediate the length thereof and provided with a handle on the other leg, an extension member pivoted to the apex of the angular lever and connected with an electrical terminal.

2. In a welding tool, a lever provided with a welding jaw and connected with an electrical terminal at one end and provided with a handle at the opposite end, an angular lever having one of its legs pivoted to the first lever intermediate the length thereof and provided with a handle on the other leg, an extension member pivoted to the apex of the angular lever and connected with an electrical terminal.

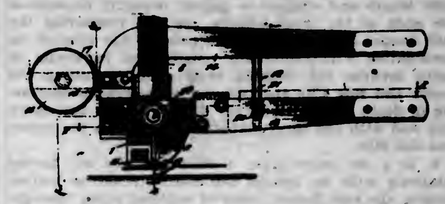
3. In an electric welding tool, a pair of pivotally connected operating handles, an insulated member fixed to one of said handles upon one side of said pivot, a portion formed upon said other handle disposed to project radially from said pivot, and an extension member connected to the outer end of said radial portion adapted to be moved into and out of operative relation with said insulated member.

4. In a welding tool, a lever connected with an electrical terminal at one end and provided with a handle at the opposite end, an angular lever having one of its legs pivoted to the first lever intermediate the length thereof and provided with a handle on the other leg, an extension member pivoted to the apex of the angular lever and provided with a welding jaw and connected with an electrical terminal.

5. In an electric welding tool, a pair of pivotally connected operating handles, an insulated member fixed to one of said handles upon one side of said pivot, a depression formed in said last mentioned handle intermediate said insulated member and said pivot adapted to accommodate a portion of the article to be welded, a removable member carried by said other handle adapted to coöperate with said insulated member, and electrical connections with said removable member and with said insulated member whereby an electric current may be passed from one of said members to the other through the work to be welded.

[Claims 6 to 10 not printed in the Gazette.]

1,042,468. ELECTRIC WELDING-TONGS. JOSEPH A. OSBORN, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Mar. 18, 1911. Serial No. 615,403. (Cl. 219—4.)



1. In an electric welding tool, a pair of insulated jaws, means connecting said jaws and means engaging said connecting means adapted to serve as terminals for the attachment of conductors.

2. In an electric welding tool, a pair of insulated jaws, means connecting said jaws and means engaging the opposite ends of said connecting means adapted to serve as terminals for the attachment of conductors.

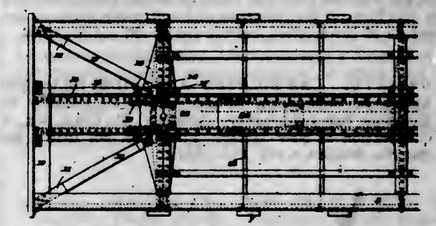
3. In an electric welding tool, a pair of insulated jaws, means connecting said jaws and means engaging said connecting means adapted to serve as terminals for the attachment of conductors, conductors engaging said terminals; said conductors serving as supports for said tool.

4. In an electric welding tool, a pair of insulated jaws, means engaging each of said jaws adapted to serve as terminals for the attachment of conductors, conductors engaging said terminals, said conductors serving as supports for said tool.

5. An electric welding tool comprising a pair of insulated members, a pivot support for said members, a handle projecting on one side of said support and connected to one of the electric terminals and a handle projecting on both sides of said support and connected to one of the electric terminals and a counterbalancing weight carried by said last mentioned handle.

[Claims 6 to 15 not printed in the Gazette.]

1,042,469. CAR-UNDERFRAME. ALLEN R. OSTRANDER, Ridgewood, N. J., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed May 21, 1910. Serial No. 562,705. (Cl. 105—76.)



1. In a car underframe, composite side sills having relatively wide top flanges and relatively narrow bottom flanges, the said flanges being of uniform width throughout their length and adapted to project inwardly to embrace the ends of the cross bearers, the web connecting the said flanges increasing in depth between the bolsters, in combination with center sill construction and with an end cover plate connected with the center and side sills.

2. In a car underframe, composite side sills having relatively wide top flanges and relatively narrow bottom flanges, the said flanges being of uniform width throughout their length and adapted to project inwardly to embrace the ends of the cross bearers, the web connecting the said flanges increasing in depth between the bolsters, in combination with center sill construction increasing

in depth between the bolsters and with end cover plates connected with the said center sills and said side sills.

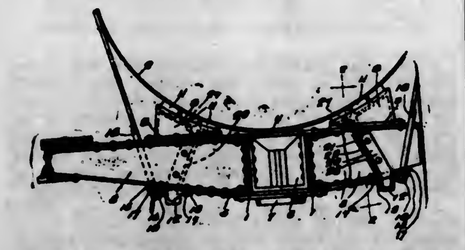
3. In a car underframe, composite side sills having relatively wide top flanges and relatively narrow bottom flanges the said flanges being of uniform width throughout their length and adapted to project inwardly to embrace the ends of the cross bearers, the web connecting the said flanges increasing in depth between the bolsters, in combination with center sill construction increasing in depth between the bolsters, cross members uniting the center and side sills and comprising diaphragms increasing in depth from the side sill construction to the center sills and with end cover plates connected with the center and side sills.

4. In a car underframe, a composite side sill having relatively wide top flanges and relatively narrow bottom flanges, the said flanges being of uniform width throughout their length and adapted to project inwardly to embrace the ends of the cross bearers, the web connecting the said flanges increasing in depth between the bolsters, in combination with center sill construction having outwardly extending flanges, the web connecting the said flanges increasing in depth between the bolsters, cross bearers adapted to be embraced between the inwardly projecting flanges of the side sills and the outwardly extending flanges of the center sill construction, the web of said cross bearers increasing in depth from the side sills to the center sill construction, end frame cover plates connected with the center sill construction and the side sills and diagonal braces extending from the juncture of the side sills and end cover plate to the juncture of the bolsters and the center sill construction.

5. In a car underframe, a composite side sill having relatively wide top flanges and relatively narrow bottom flanges, the said flanges being of uniform width throughout their length and adapted to project inwardly to embrace the ends of the cross bearers, the web connecting the said flanges increasing in depth between the bolsters, in combination with center sill construction having outwardly extending flanges, the web connecting the said flanges increasing in depth between the bolsters, an inwardly extending flange on the center sills, cross bearers adapted to be embraced between the inwardly projecting flanges of the side sills and the outwardly extending flanges of the center sill construction, the web of said cross bearers increasing in depth from the side sills to the center sill construction, a series of cross ties uniting said center sill construction and the cross bearers, an end frame cover plate connected with the center sill construction and the side sills and diagonal braces extending from the juncture of the side sills and end cover plate to the juncture of the bolsters and the center sill construction.

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1,042,470. CAR-BOLSTER AND SIDE BEARING. ALLEN E. OSTRANDER, Ridgewood, N. J., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Dec. 30, 1910. Serial No. 600,014. (Cl. 105—264.)



1. In a car bolster, a vertical member, a bottom plate and a perforated side bearing member extending in one casting below said plate and above said plate and adapted to serve as an anchor for a tie rod projected therethrough from above.

2. In a car bolster, a vertical member, a bottom plate and a side bearing member having a perforated extension and extending in a single member above and below said plate and connected with said vertical member and adapted to serve as an anchor for a tie rod projected therethrough from above.

3. In a car bolster, vertical members, a bottom plate and side bearing members extending above and below said bottom plate and extending between and being secured to said vertical members.

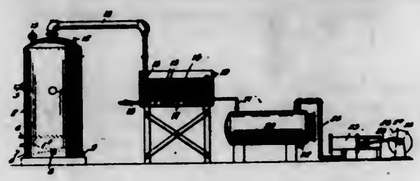
4. A car bolster comprising vertical members and combined braces and side bearing members riveted to said vertical members and extending therebetween and therebelow.

5. In a car bolster, diaphragms, top cover plate and oblique brace members connected to said diaphragms terminating in side bearings.

[Claims 6 to 21 not printed in the Gazette.]

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1,042,471. PROCESS OF RENOVATING BUTTER. JOHAN D. OUDSTHYN, Chicago, Ill. Filed Nov. 24, 1911. Serial No. 662,117. (Cl. 99—13.)



1. The process of renovating rancid butter or oil consisting in passing a blast of steam through the melted butter or oil while confined in a chamber free from air and from which the steam is being exhausted continuously while the blast is in operation.

2. The process of renovating rancid butter or oils, which consists in passing a blast of steam through the material while confined in a chamber having the vapor pressure therein at less than normal or atmospheric pressure whereby the boiling point of the butter or oils is maintained below normal.

3. The process of renovating rancid butter or oil, which consists in passing a blast of steam through the butter or oil while in a liquid state, and while confined in a chamber having the vapor pressure therein kept continuously at less than normal or atmospheric pressure whereby the boiling point of the butter or oils is maintained below normal.

4. The process of renovating rancid butter which consists in passing a blast of steam through the butter or oil while in a liquid state and while confined in a chamber, condensing the steam after the same has passed through the liquid butter or oil and exhausting the vapors from the chamber.

5. The process of renovating rancid butter or oil which consists in simultaneously passing a blast of steam through the butter or oil while in a melted condition and while confined in a chamber free from air, and exhausting the vapors from the chamber.

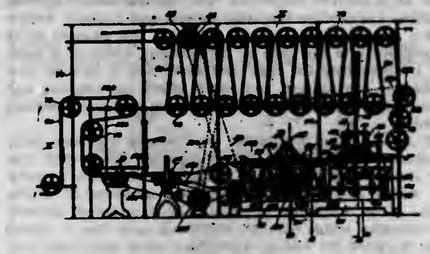
[Claims 6 to 8 not printed in the Gazette.]

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1,042,472. MACHINE FOR MAKING MATCH-BOOKS. MICHAEL PARDON, Barberton, and THOMAS A. PALMER, Akron, Ohio, assignors to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 9, 1907. Serial No. 401,475. (Cl. 93—7.)

1. In a machine for making match books, the combination with a traveling carrier having cover receiving and retaining portions, of mechanism for folding the ends of cover blanks to extend substantially parallel to their body portions and for inserting the folded blanks into the carrier with their folded ends forward, and means for feeding match cards having headed splints to the carrier and placing them in their respective covers parallel to the body portions of the latter and with the heads of the splints extending rearward.





2. In a machine for making match books, the combination with a traveling carrier having cover receiving and retaining portions, of mechanism for folding the ends of cover blanks to extend substantially parallel to their body portions and for inserting the folded blanks into the carrier with their folded ends forward, means for feeding the blanks successively to said mechanism, and means for feeding match cards having headed splints to the carrier and placing them in their respective covers parallel to the body portions of the latter and with the heads of the splints extending rearward.

3. In a machine for making match books, the combination with a carrier having cover receiving and retaining portions, of mechanism for folding the ends of cover blanks to extend substantially parallel to their body portions and for inserting the folded blanks into the carrier with their folded ends in forward position and projecting beyond the outer side of the carrier, and means for feeding match cards having headed splints to the carrier and placing them in their respective covers parallel to the body portions of the latter and with the heads of the splints extending rearward.

4. In a machine for making match books, the combination with a traveling carrier having cover receiving and retaining portions, of mechanism for folding the ends of cover blanks to extend substantially parallel to their body portions and for inserting the folded blanks into the carrier with their folded ends in forward position and projecting beyond the outer side of the carrier, means for feeding the blanks successively to said mechanism, and means for feeding match cards having headed splints to the carrier and placing them in their respective covers parallel to the body portions of the latter and with the heads of the splints extending rearward.

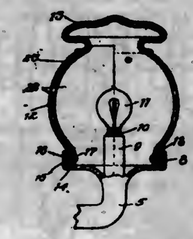
5. In a machine for making match books, the combination with a traveling carrier having cover receiving and retaining portions, of a magazine for cover blanks, means for feeding the blanks successively therefrom, mechanism to receive the successive blanks, bend or fold one end thereof to extend substantially parallel to the body portions of the blanks, and advance the folded end into the carrier, and means for feeding match cards having headed splints to the carrier and placing them in their respective covers parallel to the body portions of the latter and with the heads of the splints extending rearward.

[Claims 6 to 59 not printed in the Gazette.]

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1,042,473. AUTOMOBILE-LAMP. FRANK C. PARSCHE, Chicago, Ill., assignor to F. X. Parsche & Son Company, Chicago, Ill., a Corporation of Illinois. Filed July 18, 1910. Serial No. 572,420. (Cl. 240—11.)

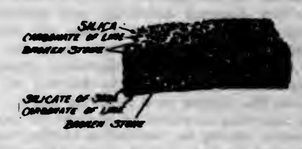
In combination, a substantially spherical integral globe open only at the bottom, reflecting material applied directly upon the inside of the rear half of said globe, the outside of the rear half of said globe being covered with opaque material and the front half being transparent, a support upon which the bottom of said globe is secured, a standard secured to said support and extending into said globe, an incandescent electric lamp socket carried by said standard, and an incandescent electric lamp located at the center of said globe and screwed in said socket,



the rays from the lamp being thus adapted to strike said reflecting material directly and immediately and being reflected through the transparent front of said globe.

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1,042,474. ROAD-MAKING AND BINDING MATERIALS THEREFOR. EDWARD ALFRED PATTERSON, Port Arthur, Ontario, Canada. Filed Jan. 9, 1912. Serial No. 670,341. (Cl. 94—1.)




1. A substance for use in road making, comprising essentially carbonate of lime and an alkaline silicate mixed in such proportions as to form when wet and exposed to the action of carbon dioxid and dried a hard insoluble and durable binder composed of silica and carbonate of lime.

2. A substance for use in road making, comprising essentially carbonate of lime and sodium silicate in a dry form (easily soluble in hot or cold water without having an excess of alkali) mixed in suitable proportions to form when wet and exposed to the action of carbon dioxid in the open air a hard, insoluble and durable binder consisting of silica and carbonate of lime.

3. The process of forming a binding agent for roads, which consists in mixing together in suitable proportions sodium silicate and carbonate of lime and subjecting them while wet to the action of carbon dioxid in the open air to produce soluble sodium carbonate and a hard insoluble and durable binding agent consisting of silica and carbonate of lime.

4. A road, consisting of a road metal, an alkaline silicate and carbonate of lime in the interior and carbonate of lime and silica on the surface.

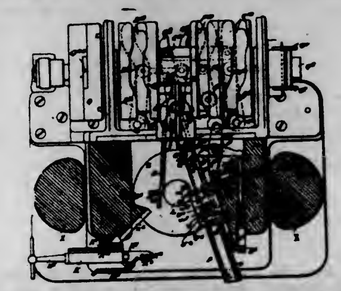
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1,042,475. MATRIX STAMPING OR PUNCHING MACHINE. FRANK HINMAN PIERPONT, Horley, England, assignor to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed Apr. 22, 1910. Serial No. 557,020. (Cl. 198—5.)

1. In a punching or stamping machine for type matrices or like bodies the combination with opposed reciprocating plungers or punches and an automatically operated carrier adapted to receive and transfer blanks and stamped bodies between holders or galleys and a die, of automatically actuated pushers on the carrier for delivering a stamped body from the carrier to a receiving galley and a blank from the carrier to the die and an automatically actuated pusher for delivering a blank to the carrier.

2. In a punching or stamping machine for type matrices or like bodies the combination with opposed reciprocating punches or plungers, of a carrier having separate seats for a blank and a finished matrix and automatically op-

erated pushers mounted on the carrier to eject a blank from the carrier to the die and from the carrier to the receiving galley.



3. In a punching or stamping machine for type matrices or like bodies the combination with an oscillating carrier, of a wiper movable with the carrier to hold the matrix therein and relative to the carrier to detect or remove an obstruction, or to operate a stopping or clutch-opening mechanism.

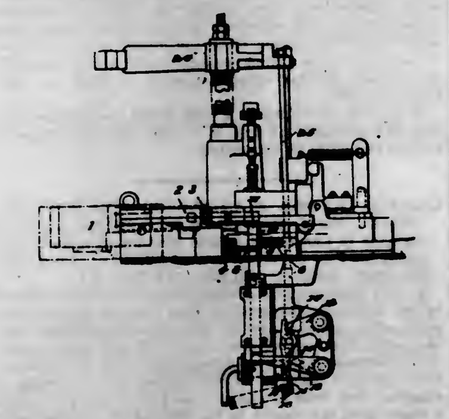
4. In a punching or stamping machine for type matrices or like bodies, the combination with an oscillating carrier and parallelly disposed delivering and receiving galleys, of an automatically operated pusher for delivering or controlling the delivery of a blank from the delivering galley to the carrier and an automatically operated pusher on the carrier for controlling the delivery of a punched matrix from the carrier to a receiving galley.

5. In a punching or stamping machine for type matrices or like bodies, having an oscillating carrier, the combination with pushers E G and H of an automatically operated spring-controlled rod for engaging the pusher H, and a lever for operating the pushers G and H substantially as described.

[Claims 6 to 30 not printed in the Gazette.]

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1,042,476. SPACING MECHANISM FOR TYPE CASTING AND COMPOSING MACHINES. FRANK HINMAN PIERPONT, Horley, England, assignor to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed Apr. 14, 1911. Serial No. 621,137. (Cl. 101—200.)



1. In a pattern controlled type casting and composing machine furnished with normal and justification mold adjusting mechanism, the combination with a supplemental mold adjusting mechanism, of a member reciprocating once for each type cast, and a member controlled by signals immediately associated with and forming part of the character signals for coupling the supplementary mold adjusting mechanism with the reciprocating member substantially as described.

2. In a pattern controlled type casting and composing machine the combination with normal and transfer wedges and a step or distance piece arranged and adapted to be transposed into the path of the transfer wedge of a member reciprocating for each cast made and a member controlled by the pattern and which effect the coupling and uncoupling of the distance piece and the reciprocating member.

3. In a pattern controlled type casting and composing machine adapted for the production of spaced out type the combination with mold adjusting mechanism a transfer wedge and a limiting abutment therefor of a distance piece which is automatically interposed between the transfer wedge and the abutment each time a spaced type is called for and is withdrawn after each cast, substantially as described.

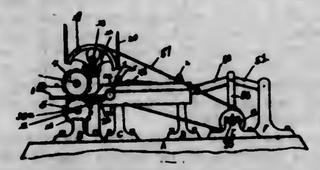
4. In a pattern controlled type casting and composing machine adapted for the production of spaced-out type provided with normal mold adjusting mechanism including a transfer wedge, the combination with a distance piece and a slide or carrier attached to a member reciprocating once for each type cast, of pattern controlled mechanism operating to couple the distance piece with the slide when a spaced type is called for and to uncouple them after casting, substantially as described.

5. In a pattern controlled type casting and composing machine adapted for the production of spaced-out type provided with normal and justification mold adjusting mechanism including a transfer wedge for the normal adjusting devices, the combination with a distance piece of a carrier reciprocating or moving each time a type is cast, a pawl on the carrier and a motor controlled by signals accompanying each spaced type signal in the pattern to couple and then uncouple the distance piece and the carrier, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

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1,042,477. ARMORING DEVICE. CHARLES T. PRATT, Frankfort, N. Y. Filed Dec. 6, 1909. Serial No. 531,478. (Cl. 113—35.)



1. In a device of the character described, the combination with a die having spiral grooves therein of a hammer reciprocally mounted and playing against the coils fed into the said die, substantially as described.

2. In a machine of the character described, the combination with a die for winding a metallic ribbon in spiral form with edges overlapping and of a given diameter, of a reciprocating hammer actuated by mechanism whereby to compress in diameter one edge of the coil of said ribbon, while being wound, substantially as described.

3. In a device of the character described, the combination in a die having a spiral groove for the winding of a ribbon, of a hammer mounted to reciprocate against the ribbon as it is being wound and with a vertical play for the striking head of the hammer, and means for restoring the head to its normal position, substantially as described.

4. In a device of the character described, the combination in a die having a spiral groove for the coiling of the ribbon with overlapping edges, of a hammer mounted to reciprocate against the ribbon while being wound, the die being cut to allow vertical play of the striking head of the hammer, substantially as described.

5. In a device of the character described, a die cut interiorly in spiral form whereby to guide a ribbon and through said die, and reciprocating mechanism whereby to reduce in diameter one edge of said ribbon, substantially as described.

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1,042,478. RIM. ALBERT D. REID, West Chester, Pa. Filed May 22, 1912. Serial No. 698,885. (Cl. 152—21.)



1. The combination with a fixed ring having an annular recess at one side, a removable ring constructed to fit said recess, screws projected through said movable ring and screwed into the fixed ring, said movable ring having notches therein, pins in the fixed ring entering said notches and guiding the movable ring into place, said fixed ring at one edge beveled inwardly from its outer to its inner edge, said removable ring beveled inwardly from its outer to its inner edge, and a rim held between said beveled portions of the rings, substantially as described.

2. The combination with a fixed ring having an annular recess at one side, a removable ring constructed to fit said recess, screws projected through said movable ring and screwed into the fixed ring, said movable ring having notches therein, pins in the fixed ring entering said notches and guiding the movable ring into place, said fixed ring at one edge beveled inwardly from its outer to its inner edge, said removable ring beveled inwardly from its outer to its inner edge, a rim held between said beveled portions of the rings, said rim having beveled enlargements on its inner face engaging the beveled surface of the rings and clamped between them, substantially as described.

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1,042,479. RIM. ALBERT D. REID, West Chester, Pa. Original application filed May 22, 1912, Serial No. 698,885. Divided and this application filed July 20, 1912. Serial No. 710,580. (Cl. 152—21.)

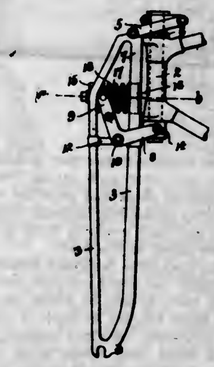


1. A rim comprising two complete ring sections, each ring section at its outer edge bowed outwardly forming a clencher rim, the outwardly bowed portion of one section recessed to receive the other section, pins secured to the ring section in its recessed portion, and the other section of said rim having L-shaped slots at its edge receiving said pins, one of said sections having a recess therein, and a cam connected to the other section and positioned in the last-mentioned recess, whereby the turning movement of the cam causes the sections to move longitudinally relative to each other, substantially as described.

2. A rim comprising two complete ring sections, one section overlapping the other section, one of said sections having L-shaped slots at its edge, and the other of said sections having pins to interlock in said slots, one of said ring sections having a recess in its edge, a rotary cam fixed to the other rim section and positioned in said recess, and said cam having an angular enlargement thereon, substantially as described.

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1,042,480. SPRING-FORK FOR CYCLES AND MOTOR-CYCLES. SAMUEL ROBINSON RIDGWAY, Birmingham, England. Filed Jan. 5, 1912. Serial No. 669,891. (Cl. 208—97.)



1. A spring fork for motorcycles and the like, comprising a steering head, a pair of fork members, said members being pivotally connected to said steering head at both ends thereof, a resilient medium adapted to act along a line approximately at right angles to the steering head, and means for compressing said resilient medium upon relative movement between said fork members and said steering head.

2. A spring fork for motorcycles and the like comprising a steering head, a pair of fork members, means whereby the said fork members are pivotally connected with one end of said head, a pair of levers pivoted to said members and to the other end of said head, and a resilient medium located between the free ends of said levers and the fork and adapted to be compressed in a direction approximately at right angles to said head; substantially as set forth.

3. A spring fork for motorcycles and the like comprising a steering head, a pair of fork members, a pair of links pivoted to said members and to one end of said head, a pair of levers pivoted to said members one arm of each lever being jointed to the other end of said head while the other arm is arranged so that its free end moves in a direction approximately at right angles to the steering head, and a resilient medium located between said free ends of the levers and the fork, substantially as set forth.

4. A spring fork for motorcycles and the like comprising a steering head adapted to be rotatably mounted in the frame of the motorcycle, a pair of fork members rigidly secured together, a pair of links pivotally secured to the said members and to the upper end of said head, a pair of bell crank levers pivoted to said fork members and each having one arm pivotally secured to the lower end of said head and the other arms arranged so that their ends move in a direction at right angles to the steering head, an abutment carried by said fork members, and a spring buffer located between said ends and the abutment; substantially as set forth.

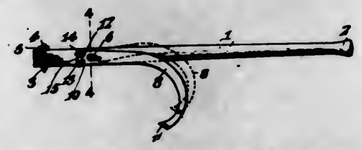
5. A spring fork for motorcycles and the like comprising a steering head, a pair of fork members of girder formation and rigidly joined together at their upper ends and at an intermediate point in their lengths, a pair of links pivotally secured to the upper end of said head and

to the fork members, a pair of bell crank levers pivoted to said fork members and each having one arm pivotally secured to the lower end of said head and their other arms turned upwardly so that their ends move in a direction at right angles to the steering head, an abutment carried by said ends, a corresponding abutment carried by said fork, and a compound spiral spring buffer arranged between said abutments with its axis at right angles to the said steering head; substantially as set forth.

[Claim 6 not printed in the Gazette.]

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1,042,481. ICE-EDGER. OLIVER W. ROBINS, Cedar Rapids, Iowa. Filed Dec. 15, 1911. Serial No. 666,028. (Cl. 57—107.)



1. A device of the character described including a lever, a hook pivoted to the lever and having its shank extended beyond its pivotal point and provided with an end notch, and a fixed stop projecting laterally from the lever and extending into the said notch to form a stop to delimit the arc of movement of the hook.

2. A device of the character described including a lever consisting of a straight bar and having at one end a fixed laterally projecting spur, a pair of hooks pivoted to the bar upon opposite sides thereof in rear of the spur and having forwardly extending terminal engaging points to coöperate with the same, said hooks being arranged in spaced relation for independent movement, and stops to delimit the arc of movement of the hooks.

3. In a device of the character described, a lever having at one end a lateral spur, a pair of hooks pivoted to the lever upon opposite sides in spaced relation for independent movement, the shanks of the hooks extended beyond their pivotal point and provided with end notches, and a stud projecting laterally from the lever within the notch to form stops to delimit the arc of movement of the hooks.

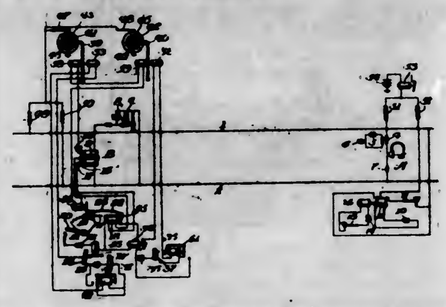
4. In a device of the character described, a lever having at one end a laterally projecting spur, a pair of hooks pivoted to the lever upon opposite sides in spaced relation for concentric but independent movement in planes parallel to each other and to the plane of the spur, the shanks of the hooks extended beyond the pivotal point and provided with end notches, and a stud projecting laterally from the lever within the notch of each shank to limit the movement of the hooks within an arc of substantially fifteen degrees.

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1,042,482. SIGNALING SYSTEM. HARRY O. RUGH, Sandwich, Ill., assignor to Sandwich Electric Company, Sandwich, Ill., a Corporation of Illinois. Filed Feb. 15, 1909. Serial No. 478,087. (Cl. 177—348.)

1. A signaling system consisting of a central station and sub-stations, a selective signal-receiving device at each sub-station, switching devices at the central station for selecting the same, a signal-sending device at each sub-station, a signal-receiving device at the central station responsive to indications from the sub-station signal-sending devices, automatic means associated with the sub-station signal-receiving device to start, when actuated, the sub-station signal-sending device and devices controlled at the central station for stopping the operation of the substation signal-sending device without disturbing established line connections between said stations.

2. A signaling system consisting of a central station and sub-stations, a selective signal-receiving device at each sub-station, switching devices at the central station for selecting the same, a signal sending device at each sub-station, a signal-receiving device at the central station responsive to indications from the sub-station signal sending devices, automatic means associated with the sub-station signal-receiving device to start, when actuated, the sub-station signal-sending device, and devices controlled at the central station for stopping, irrespective of the operation of the sub-station signal, the operation of said sub-station signal-sending device.



3. A signaling system consisting of a central station and sub-stations, a selective signal-controlling device at each sub-station, a plurality of signal-operating devices under the control thereof, switching devices at the central station for selecting said signal-controlling devices and also selecting the signal-operating devices associated therewith, a signal-sending device at each sub-station for each signal-operating device, a signal-receiving device at the central station for receiving the indications of said sub-station signal-sending devices, and automatic means whereby the operation of a signal-operating device starts in operation its associated signal-sending device.

4. A signaling system consisting of a central station and sub-stations, a selective signal-controlling device at each sub-station, a plurality of signal-operating devices under the control thereof, switching devices at the central station for selecting said signal-controlling devices and also selecting the signal-operating devices associated therewith, a signal-sending device at each sub-station for each signal-operating device, a signal-receiving device at the central station for receiving the indications of said sub-station signal-sending devices, automatic means whereby the operation of a signal-operating device starts in operation its associated signal-sending device, and devices controlled at the central station for stopping, irrespective of the operation of the sub-station signal-operating devices, the operation of said sub-station signal-sending devices.

5. A signaling system consisting of a central station and sub-stations, a selective signal-receiving device at each sub-station, switching devices at the central station for selecting same, a signal-sending device at each sub-station, local means for continuously operating said device when started, a signal receiving device at the central station responsive to indications from the sub-station signal sending devices, automatic means associated with the sub-station signal-receiving device to start, when actuated, the sub-station signal-sending device and devices controlled at the central station for stopping the operation of the substation signal-sending device.

[Claims 6 to 14 not printed in the Gazette.]

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1,042,483. BOND-SPRING FOR RAIL-JOINTS. WILLIAM M. RUSH, Greensburg, Pa., assignor of one-half to Dallas M. Smith, Armbrust, Pa. Filed June 25, 1912. Serial No. 705,806. (Cl. 173—289.)

1. An electric rail bond consisting of a spring adapted to be driven into the space between the fish plate and the rail of a rail joint and having opposite contacts for engaging the inner face of the fish plate and the rail to conduct the current from the rail through the fish plate.

2. An electric rail bond consisting of a spring provided at the end with tapered lugs or spurs presenting front beveled faces to enable the spring to be driven between a fish plate and a rail for conducting the current from the rail through the fish plate, said lugs forming laterally disposed contact points and providing shoulders, whereby they are retained in place between the fish plate and the rail.



3. An electric rail bond consisting of an approximately U-shaped spring adapted to be arranged between a fish plate and the web of a rail in spaced relation with the end thereof for conducting the current from the rail through the fish plate.

4. An electric rail bond consisting of a spring composed of two sides and adapted to be arranged between a fish plate and the web of a rail, said sides being provided with laterally projecting lugs or spurs forming contact points.

5. An electric rail bond consisting of a spring composed of two sides and adapted to be arranged between a fish plate and the web of a rail, said sides being provided at their front ends with tapered lugs or spurs extending laterally from the sides of the spring.

[Claim 6 not printed in the Gazette.]

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1,042,484. NUT-LOCK. WILLIAM M. SANDERS, Cincinnati, Ohio. Filed Apr. 15, 1912. Serial No. 690,690. (Cl. 151—2.)

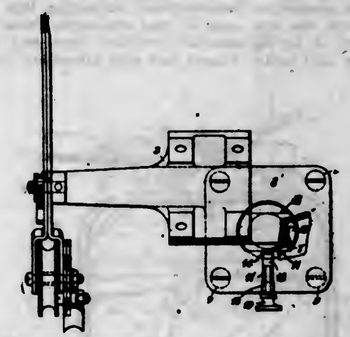


In a device of the character described, a bolt, a nut having slots in the sides thereof extending transversely across its angular corners, a washer against which said nut is adapted to bear, wings pivoted at the sides of said washer adapted to engage said nut and each having an aperture extending transversely therethrough in a plane corresponding to said slots and a wire passing through said apertures and resting in said slots whereby said wire is provided with a smooth engaging and holding surface with said nut, and having its ends tightly secured together, substantially as shown and for the purposes specified.

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1,042,485. SUPPORTING MEANS FOR ELECTRIC MOTORS. HAROLD M. SCHEIBE, Wilkinsburg, Pa., assignor, by mesne assignments, to Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 10, 1908. Serial No. 410,249. (Cl. 248—20.)

1. The combination with a member provided with a recess having a constricted open end, and a pin operatively mounted in the said member and adapted to project into said recess, of an adjustable member adapted to fit into the said recess and comprising a main portion conforming substantially in shape to the constricted open end, and a neck of no greater radius than the shortest radius of said open end, the main portion of the said adjustable member being provided with recesses for the reception of the said pin.



2. The combination with a member provided with a recess having a constricted open end, of an adjustable member adapted to fit into the said recess and comprising a main portion conforming substantially in shape to the constricted opening and a neck of no greater radius than the shorter radius of the constricted opening, means for preventing rotative movement of the said adjustable member in either direction from one predetermined position, and means for permitting rotative movement thereof in one direction only from another predetermined position, when seated in said recess.

3. The combination with a member provided with a recess having a barrier across a portion of its open end, of an adjustable member having a projection which is adapted to fit into the said recess and comprises a main portion having substantially the shape of the open end of said recess, and a cylindrical neck of no greater radius than the shortest distance from the center of the recess to the edge of the barrier, means for preventing relative rotative movement of the said members in either direction from one predetermined position, and means for permitting such movement in one direction only from another predetermined position, when seated in said recess.

4. The combination with a member having a recess the main portion of which is cylindrical and the remaining portion of which is constricted by a segmental barrier at one side, of another member having a projection the main portion of which conforms in shape to the constricted portion of the said recess and the remaining portion of which is of no greater radius than the shortest radius of the constricted portion of the said recess, means for preventing relative rotative movement of the said members in either direction from one predetermined position, means for permitting such movement and in one direction only from another predetermined position, when seated in said recess.

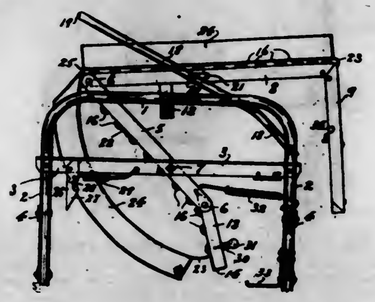
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1,042,486. FOLDING COUCH OR BED. JACOB SCHWARTZMAN, Brooklyn, N. Y., assignor to United States Cabinet Bed Co., a Corporation of New York. Filed Feb. 21, 1912. Serial No. 679,069. (Cl. 5—46.)

1. In a folding couch, a pair of fixed end-frames, a rotary frame having a lateral pivoted-section connected upon said fixed end-frames, an upper extendible frame-section pivotally connected with one end of said rotary frame, lever-members fulcrumed upon said end-frames and pivotally connected with said extendible frame-section, means for supporting said extendible frame-section when unfolded, and a spring-mattress stretched upon and supported by said rotary frame and said extendible frame-section.

2. In a folding couch, a pair of fixed end-frames, rotary frames having lateral pivoted sections connected upon

said fixed end-frames, stops secured upon each of said rotary frames adapted to engage with portions of said end-frames to limit the rotary movement of said rotary frames, upper extendible frame-sections pivotally connected with one end of each rotary frame, lever-members fulcrumed upon said end-frames and pivotally connected with said extendible frame-sections, supporting legs connected with the free ends of said extendible frame-sections, and a spring-mattress stretched upon and supported by said rotary frames and said extendible frame-sections.



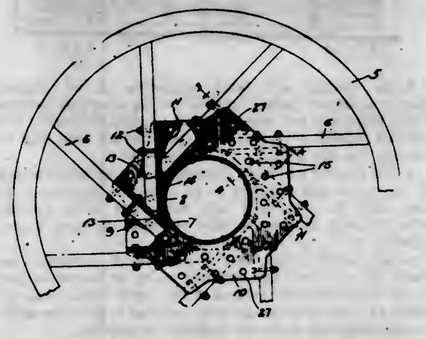
3. In a folding couch, a pair of fixed end-frames, rotary frames having lateral pivoted sections mounted upon said end-frames, stops secured upon each rotary frame adapted to engage with portions of said end-frames to limit the rotary movement of said rotary frames, headed studs connected with said lateral pivoted sections of said rotary frames, a latch-mechanism yieldably mounted upon each end-frame adapted to engage said headed studs to support said lateral pivoted section of said rotary frames in unfolded position, upper extendible frame-sections pivotally connected with one end of each rotary frame, lever-members fulcrumed upon said end-frames and pivotally connected with said extendible frame-sections, means for supporting said extendible frame-sections when unfolded, and a spring-mattress stretched upon and supported by said rotary frames and said extendible frame-sections.

4. In a folding couch, a pair of fixed end-frames, rotary frames having lateral pivoted sections mounted upon said end-frames, stops secured upon each rotary frame adapted to engage with portions of said end-frames to limit the rotary movement of said rotary frames, coil-springs connected between one of the ends of each rotary frame and an end-frame, headed studs connected with said lateral pivoted sections of said rotary frames, a latch-mechanism yieldably mounted upon each end-frame adapted to engage said headed-studs to support said lateral pivoted sections of said rotary frames in unfolded position, upper extendible frame-sections pivotally connected with one end of each rotary frame, lever-members fulcrumed upon said end-frames and pivotally connected with said extendible frame-sections, supporting legs connected with the face ends of said extendible frame-sections, and a spring-mattress stretched upon and supported by said rotary frames and said extendible frame-sections.

5. In a folding couch, a pair of fixed end-frames, rotary frames having lateral pivoted sections mounted upon said end-frames, stops secured upon each rotary frame adapted to engage with portions of said end-frames to limit the rotary movement of said rotary frames, coil-springs connected between one of the ends of each rotary frame and an end-frame, headed studs connected with said lateral pivoted sections of said rotary frames, a latch-mechanism yieldably mounted upon each end-frame adapted to engage said headed studs to support said lateral pivoted sections of said rotary frames in unfolded position, upper extendible frame-sections pivotally connected with one end of each rotary frame, lever-members fulcrumed upon said end-frames and pivotally connected with said extendible frame-sections, supporting legs connected with the free ends of said extendible frame-sections, a spring-mattress stretched upon and supported by said rotary frames and said extendible frame-sections, and foot-pieces connected with said end-frames for bracing the same when operating the movable parts of the couch.

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1,042,487. WHEEL. CHARLES W. SHELBY and CHARLES S. ROSA, Hollywood, Cal. Filed Jan. 2, 1912. Serial No. 668,887. (Cl. 242—117.)



1. A wheel construction comprising a hollow shaft having a flange near one end, securing means carried by said flange for securing a rope, a rope forming lagging and secured to said flange, a wheel mounted upon said shaft and having a hub formed with apertured flanges, the apertures therein being opposite the spokes of the wheel, spokes mounted between said flanges and in alinement with the apertures thereof, the said spokes affording means to which the rope of the lagging may be nailed for securing it, the nails being passed through said apertures, a rim carried by said spokes, and means for securing the hub to the said shaft.

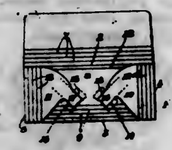
2. A wheel construction comprising a shaft, a hub adapted to be mounted thereon having flanges extending outwardly from its ends, partitions being provided in tangential arrangement between the said flanges, spoke receiving seats being formed between said partitions and the hub upon one side, a bolt accommodating recess being formed upon the other side, of each partition, bolts adapted to be inserted in said recesses for securing the hub to the said shaft, spokes inserted between said hub flanges and having means for securing them to the partitions between said flanges, a rim carried by said spokes, the said flanges having apertures formed therein opposite the edges of said spokes to receive fastening means for the lagging rope, coiled lagging rope wound upon the shaft and secured by fastener means passed through the said apertures, and means carried by the said shaft for further securing the said rope.

3. A wheel construction comprising a shaft having a flange projecting therefrom, a wheel proper mounted on the shaft, a hub for said wheel having securing means thereon for fastening the spokes of the wheel thereto, the said hub having spoke engaging flanges with apertures therein, lagging rope wound upon said shaft and secured at one end to said securing flange, the other end of said rope being coiled upon the flange of said hub and secured to the spokes of the wheel, and longitudinally arranged lagging secured to said wound lagging.

4. A wheel construction for well boring apparatus, comprising a metallic shaft, a wheel proper mounted thereon having a metallic hub, lagging for cushioning line cables that are to be wound upon said shaft, comprising an inner winding of rope, a clamp for holding one end thereof to the said shaft, the other end being nailed to the said wheel, and a series of longitudinally extending lagging ropes nailed to the said wound rope and forming a supporting surface for the line cable to be wound thereon.



1,042,488. REVERSIBLE AND EXPANDING ENVELOP. MORTON J. SHAFFER, New York, N. Y. Filed Sept. 20, 1909. Serial No. 518,515. (Cl. 229—66.)



1. In a device of the class described, a main retaining wall and a bottom flap and end flaps all integral with said wall, said end flaps being provided with integral tongues, said bottom flap being provided with two straight diagonal slits at each end thereof for engagement with said tongues so that the end flaps are arranged to be maintained in constant interlocking and sliding engagement with the bottom flap, said tongues being provided with recesses 16', 17', projecting inwardly toward the ends of said tongues to prevent the tongues from becoming disengaged, and said end and bottom flaps being creased so as to be bent on various lines as the device is expanded.

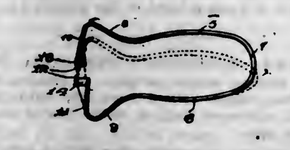
2. In a device of the class described, a main retaining wall and a bottom flap and end flaps all integral with said wall, said end flaps being provided with integral tongues, said bottom flap being provided with two straight diagonal slits at each end thereof for engagement with said tongues so that the end flaps are arranged to be maintained in constant interlocking and sliding engagement with the bottom flaps, and said end and bottom flaps being creased so as to be bent on various lines as the device is expanded.

3. In a device of the class described, a main retaining wall, a bottom flap and end flaps, and means for providing a sliding connection between the bottom flap and each end flap, said means comprising two substantially straight diagonal slits in one, and means in the other for engagement in said slits, so that the end flap is maintained in constant interlocking and sliding engagement with the bottom flap; said end and bottom flaps being creased so as to be bent on various lines as the device is expanded.

4. In a device of the class described a main retaining wall, a bottom flap and end flaps, and means for providing a slidable connection between the bottom flap and each end flap, said means comprising a tongue on one, and two substantially straight diagonal slits in the other for engagement with the tongue so that the end flap is maintained in constant interlocking and sliding engagement with the bottom flap, and said end and bottom flaps being creased so as to be bent on various lines as the device is expanded.

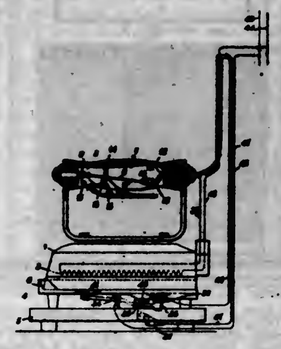
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1,042,489. APPLE-CORER. WILBUR S. SHULER, Delta, Ohio. Filed Aug. 1, 1911. Serial No. 641,750. (Cl. 146—6.)



As a new article of manufacture an apple corer formed from a blank of sheet metal comprising a relatively narrow central portion and enlarged end portions, said blank being bent intermediate its length to form the spaced arms extending substantially parallel, the enlarged ends of the blank being bent apart and having their outer end portions bent toward each other to form the cutting portions, and the cutting portions being bowed outwardly in cross section to permit them to readily cut the core portion from the segment of apple and provided with beveled overlapping cutting edges.

1,042,490. SAFETY DEVICE FOR ELECTRIC-HEATED SAD-IRONS. CHARLES B. SKINNER, Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 11, 1909. Serial No. 471,696. (Cl. 219—23.)



1. The combination with an electrically heated sad iron, a supply circuit therefor and a supporting stand, of means for completing the supply circuit only when the sad iron is deposited on the stand or when its handle is gripped by the operator in any other location.

2. The combination with a manually operated electrically heated device having an operating handle, a supporting stand for the device and a supply circuit, of switching devices in the operating handle and in the stand which cooperate to complete the circuit when the device is deposited on the stand and the handle released and to interrupt the circuit when the device is deposited elsewhere and the handle released.

3. The combination with an electrically heated sad iron, a supply circuit therefor, and a supporting stand, of electric switching devices in the handle of the iron and in the stand, said devices being respectively dependent for their manipulation upon the grip of the operator upon the handle of the iron and the weight of the iron upon the stand.

4. The combination with an electrically heated sad iron having a resistance element and an operating handle, a supply circuit and a supporting stand, of double throw switching devices tending to occupy predetermined positions and respectively located in the operating handle of the iron and in the stand and respectively manipulated by the grip of the operator and by the weight of the iron on the stand.

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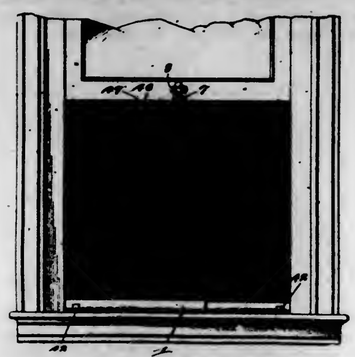
1,042,491. ADJUSTABLE FLY-SCREEN AND SHADE. ANTHONY P. SMITH, Brooklyn, N. Y. Filed Jan. 27, 1912. Serial No. 673,763. (Cl. 156—39.)

1. A device of the character described, including a roller, a screen mounted thereon and constructed in separate strips adapted to overlap at their inner edges, a bar arranged for attachment to a window, and longitudinally extending wires secured to said bar, the ends of the strips at their inner edges being lapped upon said wires for the purpose specified.

2. A device of the class described, including a telescopic casing adapted to be secured to a window frame, an extensible roller mounted in said casing, a shade and screen secured to said roller and constructed in separate strips, and means for connecting one edge of said screen to a window, said means embodying a bar, wires secured to said bar and extending longitudinally thereof, the strips being movably connected to said wires, and a device carried by said bar for detachable connection to said window.

3. A device of the character described, including a roller, a screen mounted thereon and constructed in separate strips adapted to overlap at their inner edges, a bar arranged for attachment to a window, and longitudinally extending wires secured to said bar, the ends of the

stripe at their inner edges being looped upon said wires and at their outer edges encircling said bar.

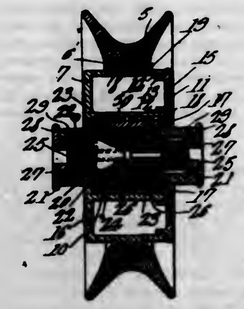


4. A device of the character described, including a roller, a screen constructed in separate stripe secured to one end of said roller, a bar arranged for attachment to a window and formed with longitudinal grooves, and wires connected to said bar and extending along the grooves, the strips at one end being looped at their outer edges over the bar and being looped at their inner edges over the wires, as and for the purposes set forth.

5. A device of the character described, including a roller, a laterally extensible screen mounted thereon, and a bar to which one end of the screen is connected, the bar being arranged for attachment to a window and formed at each end with a longitudinal opening, expansion springs mounted in said openings, and stems mounted in said openings and engaging said springs, the stems being provided at their outer ends with blocks for the purposes specified.

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1,042,492. TROLLEY-WHEEL. CHARLEY E. SMITH, Sherman, Tex. Filed Apr. 17, 1911. Serial No. 621,527. (Cl. 64—7.)

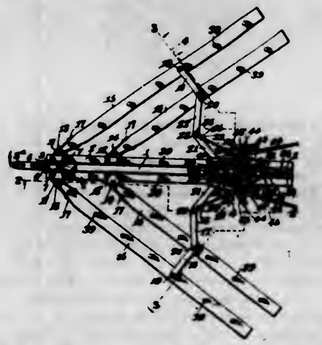


In a trolley-wheel, a tubular axle passing through the hub thereof and having elongated openings therein within the hub, wear-compensating and contact blocks disposed in said openings and having complementary semi-conical grooves in their ends, conical spreaders engaged in the grooves, caps engaged on the ends of the axle, and having flanges of larger diameter than the axle to retain the hub on the axle and coil springs compressibly disposed between the caps and spreaders to force the blocks radially.

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1,042,493. HARROW. DAVID C. SMITH, Bee Branch, Ark. Filed May 17, 1912. Serial No. 698,049. (Cl. 55—135.)

1. A harrow comprising a main central beam, longitudinal beams located at opposite sides of and hinged to the central beam and arranged to swing upwardly and downwardly, a transverse lever carried by the central beam and fulcrumed intermediate of its ends to form opposite arms, means for connecting the arms of the transverse lever with the longitudinal beams, and means for operating the transverse lever for raising and lowering either of the said longitudinal beams.



2. A harrow including a main longitudinal beam tapered downwardly toward its lower edge and presenting inclined side faces, longitudinal beams hinged at their upper edges to the upper edges of the main beam and having inclined inner side faces, and side beams connected with and carried by the hinged longitudinal beams, the said inclined faces permitting the side beams to drop below a horizontal position.

3. A harrow including a central portion, laterally adjustable side beams pivotally connected with the central portion, angularly related links arranged in pairs and pivotally connected with the side beams and the central portion of the harrow and provided at their adjacent ends with vertical pivots, sleeves mounted on the latter and provided with ears, an operating lever pivotally mounted at the central portion of the harrow, and connections extending from the lever to the ears of the said sleeves.

4. A harrow including hinged longitudinal beams arranged to swing upwardly and downwardly, laterally adjustable side beams pivotally connected with the hinged longitudinal beams, arms extending laterally from the hinged beams and forming stops for limiting the inward movement of the side beams, and operating means connected with the arms for raising the said beams.

5. A harrow including a central main beam, longitudinal beams arranged in substantially the same horizontal plane as the central main beam, hinges arranged at the upper edges of the central and longitudinal beams and connecting the same, harrow teeth carried by the central and longitudinal beams, and operating mechanism for raising and lowering the longitudinal beams.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,494. ANTISEPTIC NEST-EGG. WALTER E. SMITH, Boston, Mass., assignor to Charles C. Rogers, Winchester, Mass. Filed Sept. 19, 1910. Serial No. 582,588. Renewed Sept. 3, 1912. Serial No. 718,396. (Cl. 119—46.)

1. In a nest egg, the combination with a body having an insecticide-receiving chamber, of insecticide in the form of a powder partially filling said chamber, and a plurality of open-ended tubular members extending radially through the walls of the body and into the chamber a sufficient distance so that those on the under side of the egg will pass through and terminate at their inner ends above the mass of insecticide whereby as the egg is rolled or moved the insecticide powder is stirred up and agitated by the tubular members thereby forming a dust which escapes through said members.

2. In a nest egg, the combination with a body having an interior chamber, of apertured partitions extending across the body and dividing its interior into insecticide-receiving and distributing chambers, and means within the insecticide-receiving chamber to cause the insecticide there-

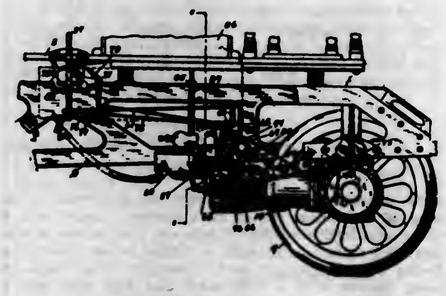




in to be stirred up and agitated when the egg is rolled, said body having apertures leading to the distributing chamber.

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1,042,495. MOTOR-CAR. CHARLES B. STEBBINS and WILLIAM S. HOVEY, Three Rivers, Mich., assignors to Sheffield Car Company, Three Rivers, Mich. Filed Dec. 6, 1911. Serial No. 664,255. (Cl. 123—99.)



1. The combination of an engine, a throttle therefor, a compression relief valve for said engine, an ignition means for said engine, a control lever provided with a latch, a coacting insulated segment, said control lever and segment constituting switch members for said ignition means, a rock shaft having a pair of arms thereon, an arm on said throttle, a link connecting said arm to one of the arms on said rock shaft, a link connected to the other of said rock shaft arms and slidably associated with said control lever, a spring arranged on said link to engage said lever, said link being provided with a rest for said spring, a second rock shaft having an arm thereon adapted to coact on said compression relief valve, a relief valve actuating lever, an arm on said second rock shaft, and a link connecting said arm to said relief valve actuating lever, said control lever being provided with an arm adapted to engage said relief valve actuating lever to actuate the same when said control lever is shifted to completely close the throttle and open the circuit.

2. The combination of an engine, a throttle therefor, a compression relief valve for said engine, an ignition means for said engine, a control lever constituting a switch member for said ignition means, a rock shaft having a pair of arms thereon, an arm on said throttle, a link connecting said arm to one of the arms on said rock shaft, a link connected to the other of said rock shaft arms and slidably associated with said control lever, a spring arranged on said link to engage said lever, said link being provided with a rest for said spring, a second rock shaft having an arm thereon adapted to act on said compression relief valve, a relief valve actuating lever, an arm on said second rock shaft, and a link connecting said arm to said relief valve actuating lever, said control lever being provided with an arm adapted to engage said relief valve actuating lever to actuate the same when said control lever is shifted to completely close the throttle and open the circuit.

3. The combination of an engine, a throttle therefor, a compression relief valve for said engine, a control lever, a rock shaft having a pair of arms thereon, an arm on said throttle, a link connecting said arm to one of the arms on said rock shaft, a link connected to the other of said rock shaft arms and slidably associated with said control lever, a spring arranged on said link to engage said lever, said link being provided with a rest for said spring, a second rock shaft having an arm thereon adapted to act on said compression relief valve, a relief valve actuating lever, an arm on said second rock shaft, and a link connecting said arm to said relief valve actuating lever, said control lever being provided with an arm adapted to engage said relief valve actuating lever to actuate the same when said control lever is shifted to completely close the throttle.

4. The combination of an engine, a throttle therefor, a compression relief valve for said engine, an ignition means for said engine, a control lever arranged as a circuit switch member, connections for said control lever to said throttle comprising a link slidably associated with said control lever, a spring arranged on said link to engage said lever, said link being provided with a rest for said spring, and a relief valve actuating lever, said control lever being adapted to engage said relief valve actuating lever to actuate the same when said control lever is shifted to completely close the throttle and open the circuit.

5. The combination of an engine, a throttle therefor, a compression relief valve for said engine, a control lever, connections for said control lever to said throttle comprising a link slidably associated with said control lever, a spring arranged on said link to engage said lever, said link being provided with a rest for said spring, and a relief valve actuating lever, said control lever being adapted to engage said relief valve actuating lever to actuate the same when said control lever is shifted to completely close the throttle.

[Claims 6 to 20 not printed in the Gazette.]

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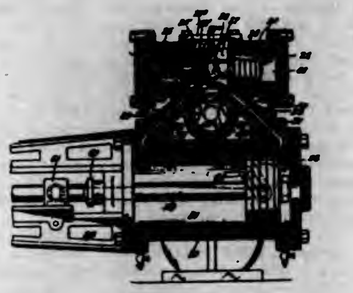
1,042,496. PIN. HERBERT L. STEINER, Providence, R. I. Filed Oct. 23, 1911. Serial No. 656,118. (Cl. 24—162.)



1. A pin comprising a back plate, an ornamental front plate secured to said back plate, the latter plate being provided with a bearing member struck outward therefrom forming a socket, the end walls of said socket being provided with openings, a pin-tongue mounted to slide endwise through said socket openings, and a spring having a body portion supported between the front and back plates and retained in position by the union of said plates and having one portion extending into said socket to engage and yieldingly retain said pin-tongue in position by friction.

2. A pin comprising a back plate, an ornamental front plate secured to said back plate, the latter plate being provided with a bearing member struck outward therefrom forming a socket having its inner portion open to the space between said plates, the end walls of said socket being provided with openings, a pin-tongue mounted to slide endwise through said socket openings, the body of said pin-tongue being provided with an annular groove a short distance in from its head end, and a spring having its engaging end projecting into the socket and adapted to engage said groove in the pin to yieldingly retain the pin in its closed position, the body of said spring being supported in position by the inner face of the front plate.

1,042,497. STEAM-PUMP. LEON K. STEVENS, New York, N. Y., assignor to M. T. Davidson Company, a Corporation of New York. Filed Mar. 29, 1912. Serial No. 687,053. (Cl. 136—10.)



1. A steam pump comprising an exhaust passage, a removable ring abutting said passage and fitting therewith, said ring having ports therein, a rotary valve having ports adapted to register alternately with said ports in said ring, and means for rotating said valve to alternately open and close communication between said ports, substantially as set forth.

2. A steam pump comprising a removable ring having ports therein, a rotary valve comprising two segments placed together to form a circular periphery and fitted to rotate in said ring, said segments being provided with exhaust ports which are adapted to register alternately with said ports in said ring, and means for rotating said valve to alternately open and close said ports.

3. A steam pump comprising a removable ring having ports therein, a rotary valve consisting of two segments placed together to form a circular periphery and fitted to rotate in said ring, said segments being provided with exhaust ports which are adapted to register alternately with said ports in said ring, and means for rotating said valve intermittently to alternately open and close said ports.

4. A steam pump comprising a removable ring having ports therein, a rotary valve consisting of two segments placed together to form a circular periphery and fitted to rotate in said ring, both of which are provided with exhaust ports which are adapted to register alternately with said ports in said ring, means for balancing the steam pressure on each side of said valve, and means for rotating said valve to alternately open and close said ports.

5. A steam pump comprising a removable ring and having ports therein, a rotary valve consisting of two segments placed together to form a circular periphery and fitted to rotate in said ring, said segments being provided with ports adapted to register alternately with said ports in said ring, means for forcing said segments in contact with the inner surface of said ring, and means for rotating said valve to alternately open and close said ports.

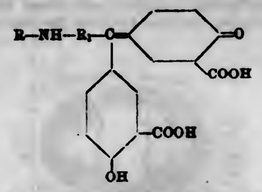
[Claims 6 to 17 not printed in the Gazette.]

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1,042,498. DYESTUFF OF THE TRIPHENYLMETHANE SERIES AND PROCESS OF MAKING SAME. AUGUST STOCK and FRIEDRICH HEIM, Höchst-on-the-Main, Germany, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Aug. 24, 1910. Serial No. 578,649. (Cl. 8—1.)

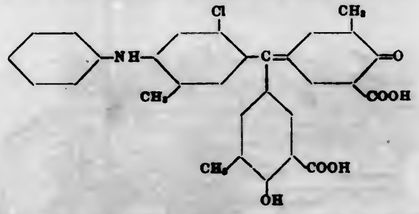
1. The process of making violet to blue dyestuffs of the triphenylmethane series, capable of being subsequently chromed, which consists in condensing a substitution-product of a para-halogenbenzaldehyde and ortho-oxy-arylcarboxylic acid, oxidising the product thus obtained, and finally heating the product of the reaction with an aromatic base.

2. As new products, the dyestuffs of the formula:



wherein "R" stands for an aryl residue and "$R_1$" for a substituted aryl residue, and wherein hydrogen atoms of the other benzene nuclei and the hydrogen atom at the nitrogen atom may be substituted; which dyestuffs are, after being dried and pulverised in the form of their sodium salts, dark powders, soluble with a violet color in diluted caustic soda lye, also soluble in concentrated sulfuric acid with a reddish-yellow color, and dyeing wool in an acid bath violet-gray tints which on being treated with a bichromate and acid turn into bright-violet to blue tints of great fastness to milling.

3. As a new product, the dyestuff of the formula:



which dyestuff is, after being dried and pulverised in the form of its sodium salt, a dark powder, soluble with a violet color in diluted caustic soda lye, also soluble in concentrated sulfuric acid with a reddish-yellow color, and dyeing wool in an acid bath violet-gray tints which on being treated with a bichromate and acid turn into a bright blue tint of great fastness to milling.

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1,042,499. COW-POKE. NATHAN P. SWANN, Fletcher, Okla. Filed Apr. 25, 1911. Serial No. 623,239. (Cl. 119—142.)

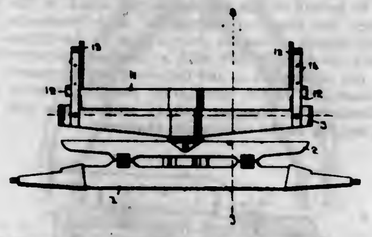


A device of the character described, comprising a rigid nose loop, a rigid face plate secured by its lower end to the forward side of said nose loop, a rigid transverse member secured to said face plate intermediate its ends, the ends of said transverse member being curved rearwardly to engage against the sides of the head of the animal, braces connecting the ends of said transverse member with the rear portion of the sides of the nose loop, a resilient head plate carried by the central portion of said transverse member and adapted to engage with the head of the animal and between the horns thereof, said head plate being provided at its rear edge with a ring, and flexible straps each secured by one end to the rear portion of the nose loop and provided at the other end with means for engaging with the rear edge of the head plate, said means consisting of a snap hook adjustably secured to the free ends of said flexible straps and adapted to engage with the ring of the head plate.



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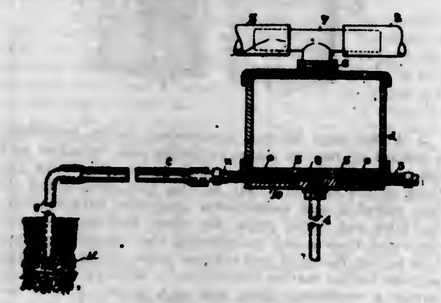
1,042,500. BOLSTER-SPRING. CARLOS L. THOMPSON, Marshall, Wis. Filed June 7, 1912. Serial No. 702,215. (Cl. 21—102.)



A device of the character described comprising a hollow bolster, a cap disposed above said bolster, springs interposed between said bolster and said cap, looped guide bars carried by said bolster, side standards carried by said cap, and rollers carried by said looped guide bars and adapted for engagement with said side standards.

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1,042,501. TREE AND PLANT IRRIGATION. HIRAM F. THOMPSON, Lexington, Ohio. Filed Sept. 1, 1911. Serial No. 647,266. (Cl. 137—60.)



1. In tree and plant irrigation, a water distributing receptacle having in its bottom a horizontal threaded outlet, a series of perforations entering said outlet and a central hole communicating with said outlet, and discharge pipes adjustably engaged in said outlet and said hole respectively.

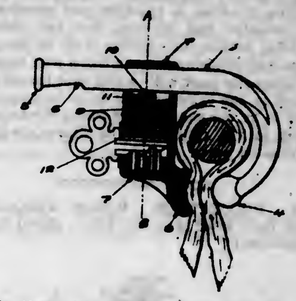
2. In tree and plant irrigation, a distributing receptacle having radially disposed threaded outlets in its bottom and distributing pipes screwed into the respective outlets and having nipple shaped extremities, said bottom having a row of perforations for each outlet controlled by the respective pipes, said bottom also having a central vertical hole, a threaded pipe in said hole, and a duct from one of said threaded outlets to said hole to supply water thereto.

3. A fluid receptacle for irrigation provided with supply connections at its top, and a central vertical hole and a plurality of horizontally disposed bores in its bottom, said bottom having a plurality of perforations entering the said bores from within the receptacle to admit water thereto, in combination with pipes adjustable in said bores, respectively, flexible hose on the outer ends of said pipes, substantially elbow shaped discharge pipes for the water on the outer ends of said hose each adapted to have one end inserted in the soil, and a discharge pipe in said central hole in fluid connection with one of said horizontally disposed bores.

4. In tree and plant irrigation, a distributing receptacle having radially disposed outlets in its bottom provided with openings into the receptacle to receive a supply of water, and distributing pipes projecting into said outlets and constructed to control the flow of water into the same from the receptacle, said receptacle having a centrally and vertically disposed duct in the bottom thereof in supply relations with one of said radially disposed outlets.

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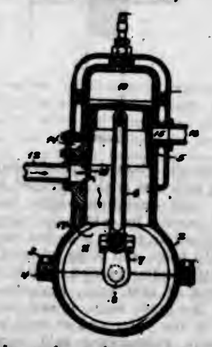
1,042,502. LOCKING DEVICE FOR SECURING AUTOMOBILE-ROBES, OVERCOATS, AND THE LIKE. JOSEPH S. THOMPSON, Mill Valley, Cal. Filed May 21, 1912. Serial No. 698,777. (Cl. 70—17.)



In combination with a sliding arm, having a curved ball shaped end, a locking chamber, embracing said arm, and with a cup shaped extension to form a clamp, acting in conjunction with said arm and also embracing a lock, consisting of a roller, wedge and releasing barrel for locking said arm.

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1,042,503. INTERNAL-COMBUSTION ENGINE. FREDERICK A. THURSTON, Lynn, Mass. Filed Sept. 29, 1908. Serial No. 455,354. (Cl. 123—78.)



1. A two-stroke cycle engine comprising a single cylinder, a crank case connected to the cylinder and a piston reciprocating in each cylinder separating the interior thereof into a combustion chamber and a receiving chamber, the cylinder having in one of its side walls an exhaust port arranged to be opened when the piston is at the crank end of its stroke, an inlet port arranged to be opened when the piston is at the head end of the stroke, and a transfer passage cast in the wall of the cylinder wholly in the opposite side from the exhaust port, communicating with the crank case in a single opening, branching so as to pass around the inlet port and opening into a port in the cylinder wall which is uncovered so as to communicate with the combustion chamber when the piston is at the crank end of its stroke.

2. A two-cycle internal combustion engine comprising a single cylinder and a piston arranged to reciprocate therein and to divide its interior into a combustion chamber and a receiving chamber; the cylinder being formed with an exhaust port in one side wall, with two admission ports in the opposite side wall, one of which admission ports is below the other and is arranged to admit a combustible mixture to the receiving chamber when the piston is at the head end of the stroke, and with a divided passage formed wholly in the cylinder wall at the side opposite to the exhaust port, surrounding the lower admission port and opening into the outer admission port and into the receiving chamber.

3. A two-cycle internal combustion engine comprising a single cylinder having a combustion chamber, a receiving chamber, and a piston separating said chambers from each other, and having an admission port opening into the receiving chamber, a transfer port opening from the receiving chamber and dividing into two branches contained wholly within the cylinder wall at one side of an axial plane and inclosing the admission port between them, a second admission port with which said branches join and so arranged in the cylinder wall as to be uncovered when the piston is at the end of its working stroke, and an exhaust port in the cylinder walls diametrically opposite to the admission ports.

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1,042,504. PROJECTILE. ROBERT ALEXANDER TUTE, Atlanta, Ga. Filed Aug. 22, 1911. Serial No. 645,452. (Cl. 102—29.)

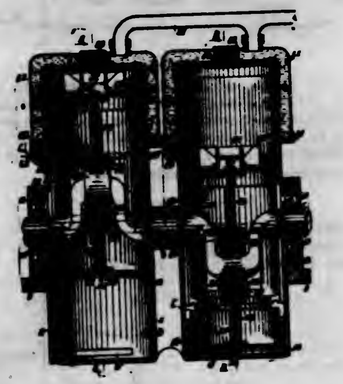


A projectile of the class described comprising a body, said body being provided with a reduced portion intermediate its ends, and extending nearly the entire length thereof, a head carried by said body being provided with a rearwardly extending collar, a socket carried by the forward end of said body, and being adapted to receive said collar, an auxiliary collar carried by said head and fitting upon the outside of said body, explosive material positioned between the inner walls of said collar and in said socket formed in the outer end of said body, and means for automatically discharging said explosive material as soon as said head comes in contact with an object.

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1,042,505. INTERNAL-COMBUSTION ENGINE. WILLARD IRVING TWOMBLY, New York, N. Y., assignor to Twombly Motors Company, New York, N. Y., a Corporation of New York. Filed Oct. 5, 1910. Serial No. 585,369. (Cl. 123—74.)

1. A two cycle internal combustion engine, comprising a piston cylinder consisting of a pair of axially alined and separably connected heads having a mating connection to form a cylinder with a continuous bore, each of the heads having laterally projecting flanges whereby they are secured together, a piston to work in the bore of both of said heads, said piston separating the cylinder into two chambers having no communication with each other from the interior, one chamber constituting a combustion chamber having fuel-inlet and exhaust ports, and the other constituting a fuel-pumping and compression chamber having valved fuel-inlet and outlet ports; a crank shaft passing transversely through said cylinder and piston and having a crank and yoke connection with the latter, and journaled in the connecting flanges of the cylinder sections, that portion of the cylinder sections in which the crank shaft revolves having no communication with the heads when the piston is in the cylinder; and said cylinder and piston provided with oppositely-disposed openings to permit of the passage of the crank of the shaft through its orbit of movement; and removable outwardly-bulging covers for the openings in the cylinder, one of said covers provided with a chamber communicating with the outlet-port in the fuel-compressing chamber and the inlet-port of the combustion chamber, serving as a fuel-compressing chamber and to conduct the fuel from the pumping to the combustion chamber.



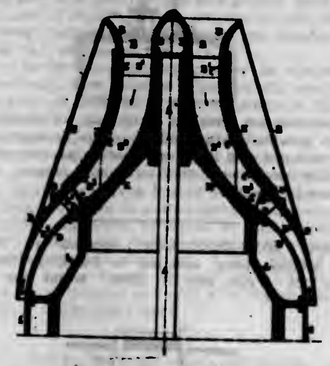
2. A two cycle internal combustion engine, comprising a number of vertical piston cylinders, said cylinders each consisting of axially separable sections, the lower sections of the cylinders cast *en bloc* and constituting the fuel pumping and compressing chambers having valved fuel-inlet and outlet ports, the other sections releasably connected thereto and constituting the combustion chambers having fuel-inlet and exhaust ports, the said cylinder sections having mating connections to form cylinders each having a continuous bore, and each of the cylinder sections having laterally projecting flanges whereby they are secured together; a piston for each cylinder, said pistons separating the combustion chambers and fuel-pumping chambers of the cylinders so that they will have no communication with each other from the interior thereof; a crank shaft passing transversely through the cylinders and pistons and having a crank and yoke connection with the pistons, said shaft journaled in the connecting flanges of the cylinder sections; and means exterior of the cylinders and communicating with the outlet ports of the fuel-compressing chambers and the inlet ports of the combustion chambers to conduct fuel to the latter chambers.

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1,042,506. PROPELLER. CHARLES EMILE JULES DE VALLAT, Paris, France. Filed Mar. 15, 1912. Serial No. 683,922. (Cl. 115—116.)

1. In a propeller, a rotating member having an annular space containing the blades and traversed by the fluid in which the propeller works, said space comprising three zones, an inlet zone in which the blades are inclined in the direction of rotation, a middle zone in which the blades are substantially at right-angles to the direction of rotation, and an outlet zone in which the blades are curved backward from the direction of rotation, the walls of the annulus having a curvature adapted to guide the fluid oppositely to the direction of propulsion.





2. In a propeller, a rotating member having an annular space containing the blades and traversed by the fluid in which the propeller works, said space comprising an inlet zone in which the blades are inclined in the direction of rotation and the walls of the annulus having a curvature adapted to guide the fluid oppositely to the direction of propulsion; a fixed inlet distributer in front of the rotating member and adapted to give the desired direction to the fluid streams impinging on this latter; and an outlet diffuser arranged behind the rotating member and adapted to guide the fluid discharged therefrom in a direction parallel to that of the propulsion.

3. In a propeller, a rotating member having an annular space containing the blades and traversed by the fluid in which the propeller works, said space comprising three zones, an inlet zone in which the blades are inclined in the direction of rotation, a middle zone in which the blades are substantially at right angles to the direction of rotation, and an outlet zone in which the blades are curved backward from the direction of rotation, the walls of the annulus having a curvature adapted to guide the fluid oppositely to the direction of propulsion, a fixed inlet distributer in front of the rotating member and adapted to give the desired direction to the fluid streams impinging on this latter; and an outlet diffuser arranged behind the rotating member and adapted to guide the fluid discharged therefrom in a direction parallel to that of the propulsion.

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1,042,507. DRILL-CHUCK. HENRY E. VAN NESS, Elmira, N. Y. Filed Dec. 15, 1910. Serial No. 597,476. (Cl. 29—115.)

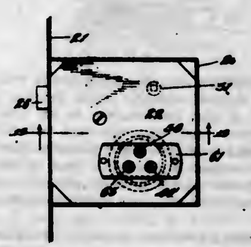


1. A chuck comprising a shell, a cylindrical block upon which the shell is revolubly mounted with an anti-friction end thrust bearing between the shell and block at their outward ends, jaws slidably mounted in longitudinal slots provided therefor in the walls of a hollow frusto-conical end portion of the shell which projects beyond said block, a disk having a radial interlocking and sliding engagement with the inward ends of the jaws, a screw-threaded stem of smaller diameter on the disk which screws into the inward end of the block and enters a bore of larger diameter therein, and a shank fitted into said bore with due allowance for the travel of the stem within the bore.

2. A chuck comprising a shell, a cylindrical block inserted therein and engaging a shoulder on the shell at its inward end, the outward end of the block being reduced in diameter to form an annular raceway between the block and shell, a plurality of rollers in said raceway, a cap piece secured to the shell to close said raceway, jaws slidably mounted in longitudinal slots provided therefor in the walls of a hollow frusto-conical end portion of the shell which projects beyond the block, a disk having radial interlocking and sliding engagement with the inward ends of the jaws at right angles to its axis, a screw-threaded stem of smaller diameter on the disk which screws into the inward end of the block and enters a bore of larger diameter therein, said bore extending to the outward end of the block and being tapered outwardly, and a shank fitted to said tapered bore and having a bore in its inward end to receive the stem.

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1,042,508. LOCK. NIKOLAUS WAING, New York, N. Y. Filed Feb. 18, 1911. Serial No. 608,215. (Cl. 70—29.)



1. The combination with a reciprocatory latch, of a spring for holding this normally advanced, a slide movable in a path parallel with the movement of the latch, a finger carried by the slide, a recess in the latch for engaging the finger, the finger extending beyond the latch, a detent for engaging the finger for preventing forward movement of the latch beyond its normal position, a dead-bolt, a pin carried by the dead-bolt and located in position for interposition in the path of retractive movement of the finger when the bolt is fully shot.

2. The combination with a lock casing provided with front and back plates and an intermediate partition, of a bolt and actuating mechanism therefor mounted between one plate and the partition, and a latch mounted between the other plate and the partition.

3. The combination with a lock casing, of a spring latch and a dead bolt located therein, an actuator-lever for each of these provided with a body portion having a key seat and mounted for rotation in the casing, a rigid partition between the said levers, and a rotatable plate mounted on the casing and having a key guide in the plate located in position to register with the respective key guides in the lever bodies.

4. The combination with a lock casing, of a spring latch and a dead bolt located therein, an actuator-lever for each of these provided with a body portion having a key seat and mounted for rotation in the casing, the key seats being located adjacent one to the other, and a rigid partition between the said levers.

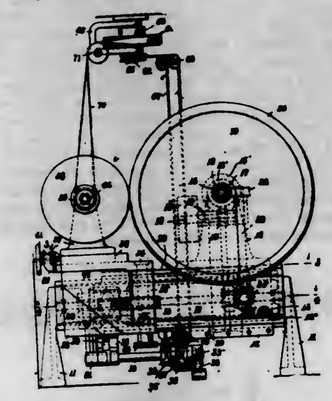
5. The combination with a lock casing, of a spring latch and a dead bolt located therein, an actuator-lever for

each of these provided with a hub portion having a hub seat and mounted for rotation in the casing, and the hub seats being located adjacent one to the other.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,509. STOVE-RIM-POLISHING MACHINE. GEORGE L. WALLACE and WALTER VAN PATTEN STRONG, Bridgeport, Conn., assignors to Morris W. Seymour, trustee. Filed Mar. 12, 1910. Serial No. 548,825. (Cl. 51—4.)



1. In a polishing machine for annular work, the combination of a driven rotatable work holding chuck adjustable axially of and transversely to its axis of rotation, a power driven resiliently mounted polishing wheel adjustable to and from the work holding chuck and having a swinging motion around the face of the work, said swinging motion being derived directly and positively from the rotation of the work holding chuck, substantially as shown.

2. In a surface polishing machine for annular work, the combination of a driven rotatable work holding chuck, a yieldingly mounted power driven rotatable polishing wheel adjustable to and from the work and controlled to swing over the surface of the work, substantially as shown.

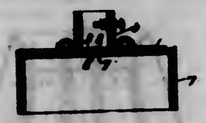
3. In a surface polishing machine for annular work, the combination of a driven rotatable work holding chuck, a driven rotatable polishing wheel resiliently mounted and arranged to swing around an axis coincident with the center of the generating curve of the polished surface, and driving pulleys mounted in a frame swinging on a center coincident with the axis of the polishing wheel substantially as shown.

4. In a polishing machine for annular work, the combination of a driven rotatable work holding chuck, a power driven polishing wheel having a positively controlled swing motion over the work derived positively and directly from the rotation of the work holding chuck, and means for automatically disconnecting the driving mechanism between the work holding chuck and the swinging polishing wheel when the latter is withdrawn from working contact with the work in the chuck.

5. In a polishing machine of the class described, the combination of a chuck for carrying a stove rim and means for rotating the same, a slide with means for moving the same toward and from the chuck, a bracket pivoted to the slide and adapted to be swung circularly therefrom, a polishing wheel mounted upon the bracket with means for operating the same and adapted to be moved with the bracket to operate circularly across the face of the rim.

[Claims 6 to 15 not printed in the Gazette.]

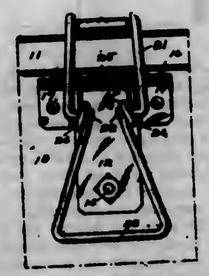
1,042,510. ELECTRIC-BOX CONNECTION. FREDERICK H. WANN, Brooklyn, N. Y. Filed Nov. 2, 1910. Serial No. 590,892. (Cl. 247—7.)



In combination with an outlet box, an opening therethrough provided with a ledge, a metallic member adapted to rest upon said ledge and another member adapted to fit snugly behind said first mentioned member to retain the same in position.

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1,042,511. BOX-FASTENER. EDWARD L. WATROUS, Des Moines, Iowa, assignor to David B. Gann, Chicago, Ill. Filed May 3, 1909. Serial No. 493,580. (Cl. 70—3.)



1. An improved fastener comprising a member designed to be connected to a movable part, said member consisting of a plate having a loop therein, a link formed of a single piece of spring wire with its central portion pivoted to said loop, and its sides curved and its ends projected toward each other, and a handle member pivoted to said ends and having an extension projected beyond the point where the link is connected to the handle, in a direction away from the handle, and a member designed to be connected to a stationary part and having a head designed to be engaged by the extension on the handle.

2. An improved fastener comprising a member designed to be connected to a movable part and consisting of a link, means for pivotally connecting it to the movable part, and a handle member formed complete of a single piece of wire and having its central portion formed into a handle and also having loops formed in its sides designed to be pivotally connected with said link, and having its ends extended beyond the loops away from the handle, and then toward each other, and a keeper designed to be secured to a stationary part and having a head to be engaged by the extension end of the handle member.

3. An improved fastener comprising a member designed to be connected to a movable part and consisting of a link, means for pivotally connecting it to the movable part, and a handle member formed complete of a single piece of wire and having its central portion formed into a handle and also having loops formed in its sides, designed to be pivotally connected with said link and having its ends extended beyond the loops away from the handle, and then toward each other, the sides of the handle between the loops and the handle end being curved, and a keeper designed to be secured to a stationary part and having a head to be engaged by the extension end of the handle member.

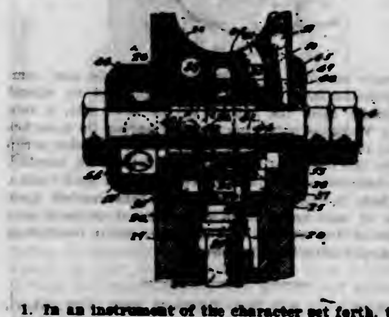
4. In a latch, a member designed to be secured to a stationary part, said member being formed complete of a single piece of sheet metal and comprising a flat body portion, a part extended at an acute angle relative to the body portion, a transverse head extended substantially at right angles to the said flat portion, and having its outer portion curved in a direction toward the said flat body portion, and a latch member designed to be connected to a moving part and comprising a link pivoted to the moving part, and a handle member pivoted to the link, the latter being designed to co-act with the member to be connected to a stationary part.

5. In a latch, a member designed to be secured to a stationary part, said member being formed complete of a single piece of sheet metal and comprising a flat body portion, a part extended at an acute angle relative to the body portion, a transverse head extended substantially at right angles to the said flat portion, and having its outer portion curved in a direction toward the said flat body portion, and lugs formed at the end portions of said head and extended in a direction toward the said flat body portion and being arranged in substantially the same plane, and a latch member designed to be connected to a moving part and comprising a link pivoted to the moving part, and a handle member pivoted to the link, the latter being designed to co-act with the member to be connected to a stationary part.



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1,042,512. MOTIVE-FLUID-OPERATED TOOL. DANIEL SHAW WAUGH, Denver, Colo., assignor to The Denver Rock Drill & Machinery Co., Denver, Colo., a Corporation of Colorado. Filed June 5, 1911. Serial No. 631,403. (Cl. 121—30.)



1. In an instrument of the character set forth, the combination with a motor, of means for supplying motive fluid thereto, a fluid operated valve for controlling the motive fluid supply, said valve having a motive fluid passageway therethrough, a chest containing the valve, a closure for the chest having a port in communication with the passageway, and fastening means for the closure passing through the motive fluid passage in the valve and of less cross sectional area than the same.

2. In an instrument of the character set forth, the combination with a motor, of means for supplying motive fluid thereto, a fluid operated valve for controlling the motive fluid supply, said valve having an exhaust passageway longitudinally therethrough, a chest containing the valve, a detachable closure for one end of the chest having an exhaust port communicating with the outer atmosphere, and also in communication with the longitudinal passageway, and a fastening bolt for the closure passing through the exhaust passage in the valve and of less cross sectional area than the same.

3. In an instrument of the character set forth, the combination with a motor, of means for supplying motive fluid thereto, a reciprocating fluid operated valve for controlling the motive fluid supply, said valve having an exhaust passage extending longitudinally therethrough, an open-ended chest containing the valve, detachable closures for the end of the chest, one of said closures having an inwardly extending nipple that enters the exhaust passage when the valve is in one position, the other closure having an internal chamber in communication with the exhaust passage and communicating with the outer atmosphere, and a holding bolt passing through the closures and longitudinally through the exhaust passage of the valve, said bolt being of less cross sectional area than the passage to permit the exhaust to pass therethrough.

4. In an instrument of the character set forth, the combination with a motor, of a valve chest having an internal chamber and a plurality of internal grooves, means for supplying motive fluid to one of the grooves, the other grooves having communication with the motor, a valve sleeve fitted in the chamber and having ports communicating with the grooves, a fluid operated reciprocatory valve mounted in the sleeve and controlling the ports, said valve having an open-ended exhaust passage therethrough, closures for the ends of the chest holding the sleeve in place, one of said closures controlling the exhaust passage, the other having exhaust ports communicating with said passageway, and a holding bolt passing longitudinally through the exhaust passage and engaged with the closures to maintain the same in position, said bolt being of less cross sectional area than the exhaust passageway, to permit the free flow of fluid therethrough.

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1,042,513. TONE-MODIFYING DEVICE FOR AUTOMATIC VIOLINS. JOSEPH WAUTERS, North Tonawanda, N. Y., assignor to The Rudolph Wurlitzer Manufacturing Company, North Tonawanda, N. Y., a Corporation of New York. Filed July 13, 1911. Serial No. 638,342. (Cl. 84—222.)



1. In an instrument of the character set forth, a string, means for bowing said string to produce a tone, a tappet independent of and operable simultaneously with said bowing means to deliver a series of blows upon said string while it is being bowed, to modify such tone, a pneumatic, and electric means controlled thereby for actuating said tappet.

2. In an instrument of the character set forth, a string, a bridge over which said string is stretched, means for bowing said string to produce a tone, a tappet independent of and operable simultaneously with said bowing means to modify such tone, said tappet being located between said bridge and bowing means, a pneumatic, and electrical devices controlled thereby for actuating the tappet.

3. In a device of the character described, a board, a violin mounted thereon, means for vibrating the strings of the violin, electromagnets, armatures therefor, tappets carried by the armatures for contact with the strings, and pneumatics and connections between the pneumatics and the said magnets for controlling the energization of the magnets by the pneumatics whereby upon movement of the pneumatics said tappets deliver a succession of rapid blows upon the strings while the latter are being actuated by the vibrating device.

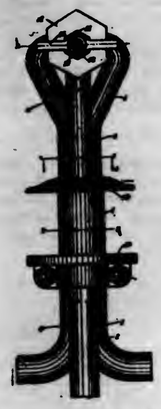
4. A board, a violin mounted thereon, a bowing device for the strings of said violin, a platform adjacent said strings, electromagnets carried by said platform, armatures for said magnets, tappets carried by the armatures, pneumatics, and connections between the pneumatics and the said magnets for controlling the energization of the magnets by the pneumatics whereby upon movement of the pneumatics said tappets impart a series of rapid blows to the strings while the latter are being operated upon the bowing device.

5. A board, a violin mounted thereon, a bowing device for the strings of said violin, a platform adjacent said strings, electromagnets carried by said platform, armatures for said magnets, tappets carried by the armatures,

pneumatics, connections between the pneumatics and the said magnets for controlling the energization of the magnets by the pneumatics whereby upon movement of the pneumatics said tappets impart a series of rapid blows to the strings while the latter are being operated upon by the bowing device, tubes extended through said board upon opposite sides of the violin and supporting said platform, and wires to said magnets passed through said tubes.

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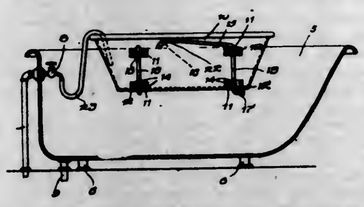
1,042,514. BEER-FAUCET. CHARLES H. WEATHERS, Sacramento, Cal. Filed Feb. 2, 1912. Serial No. 675,000. (Cl. 137—26.)



In a device of the character described a casting comprising three pipes, said pipes diverging at their outer and inner ends and being provided with a casing at their outer ends into which they open at different points, a tapered plug mounted in said casing and provided with a transverse port adapted to be brought into register with any one of the said pipes as said plug is turned, said plug being provided with a central vertical port communicating with said transverse port, a nipple leading from said casing and communicating with said vertical port, an upwardly projecting stem on said plug, a cap mounted around said stem and screwed onto said casing, a washer interposed between said cap and said plug, a threaded sleeve disposed around said stem and adapted to screw through said cap and impinge against said washer and a handle member disposed on the upper end of said stem, as described.

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1,042,515. INFANT'S BATH-TUB. LYNN A. WILLIAMS, Evanston, Ill. Filed Jan. 14, 1910. Serial No. 538,072. (Cl. 4—27.)



1. In combination, an inherently rigid tub, keepers mounted on each side of said tub, brackets mounted in said keepers, each bracket having a laterally extending part at the upper end thereof, a laterally oppositely extending part at the lower end thereof, and latch means for holding said brackets so that the laterally extending portions may be positively held either parallel with the sides of the tub or at right angles thereto.

2. In combination, a tub, and collapsible brackets therefor, said brackets being arranged to occupy two positions, one laterally extending and the other close to the tub, said brackets being disposed substantially between the upper and lower bounding planes of said tub.

3. In combination, an inherently rigid tub, and a laterally extending bracket secured to each side of said tub near each end thereof, the brackets on one side being longer than those on the other.

4. In combination, an inherently rigid tub, and a laterally extending bracket pivotally mounted upon each side of said tub near each end thereof, the brackets on one side being longer than those on the other.

5. In combination, a tub, and collapsible brackets therefor, said brackets being arranged to occupy two positions, one laterally extending and the other close to the tub, the brackets on one side of said tub being longer than those on the other.

[Claims 6 to 8 not printed in the Gazette.]

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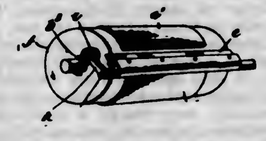
1,042,516. DEVICE TO PREVENT SLIPPING. WILLIAM S. WILLIAMS, Jr., Jersey City, N. J. Filed Jan. 30, 1912. Serial No. 674,222. (Cl. 36—62.)



A creeper adapted to be applied to a shoe and comprising substantially parallel chains adapted to extend longitudinally upon the bottom of the shoe sole, a substantially Y-shaped attaching member having its branches connected to the rear ends of said chains, an ankle strap carried by the shank of said Y-shaped attaching member, a cross chain connecting the forward ends of said chains, substantially L-shaped attaching members carried upon the ends of said cross chain and adapted to hook over the edges of the shoe sole, and a toe strap connecting said L-shaped attaching members.

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1,042,517. CLEANING DEVICE FOR INTAGLIO-PLATES. HENRY A. WISE WOOD, New York, N. Y., assignor, by mesne assignments, to Wood & Nathan Company, New York, N. Y., a Corporation of New York. Filed Feb. 25, 1907, Serial No. 359,116. Renewed Mar. 7, 1912. Serial No. 682,085. (Cl. 101—104.)



1. The combination with a cleaning device for intaglio printing surfaces, of means located at opposite ends of said printing surfaces engaging the cleaning device when it comes to the edge of the printing surfaces for preventing the cleaning device from snapping off the edges of the printing surfaces.

2. The combination with an intaglio printing member, of a cleaning device, and means on said printing member for holding the cleaning device substantially at the height of the printing surface while passing a gap therein.

3. The combination with an intaglio printing cylinder having a slit or gap, of a cleaning device, and means located in position to engage the operative edge of the cleaning device while passing the gap for holding the same substantially at the height of the printing surface while passing the gap therein.



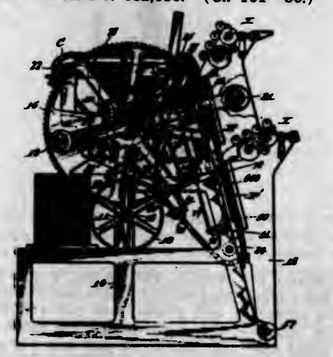
4. The combination with an intaglio printing plate, of a cleaning device, and a stop for said device located adjacent to the plate and movable therewith for limiting the motion of the cleaning device in one direction, toward the plate.

5. The combination with a printing cylinder having intaglio printing surfaces thereon separated by a gap, a cleaning blade, and means on said cylinder adjacent to said gap for holding the blade out of the gap when passing over it.

[Claim 6 not printed in the Gazette.]

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1,042,518. PRINTING-PRESS AND SHEET-MANIPULATING MECHANISM THEREFOR. HENRY A. WISE WOOD, New York, N. Y., assignor to The Wood & Nathan Company, New York, N. Y., a Corporation of New York. Filed Jan. 22, 1906, Serial No. 297,327. Renewed Mar. 7, 1912. Serial No. 682,086. (Cl. 101—36.)



1. In a platen printing machine, the combination with two platens and coöperating printing mechanism, of a sheet manipulating mechanism comprising a carrier, a series of gripper mechanisms arranged in the carrier, means for intermittently advancing the carrier to feed the sheets up over the platens so that each sheet will be printed in connection with each platen, and means whereby the parts may be so adjusted that the carrier may be advanced one or two movements between each printing operation.

2. A platen printing press comprising two platens and coöperating printing mechanism, a carrier for conducting the sheets through the same, and means whereby the parts may be adjusted so that the carrier may be advanced one or two movements between each printing operation as desired, each movement being equivalent to the distance between the centers of the platens, whereby each sheet or each alternate sheet, as desired, may be printed on each platen.

3. The combination of a platen printing machine having two platens and two sets of coöperating printing mechanisms, a carrier for conducting the sheets successively through the mechanisms, means for intermittently advancing the carrier to carry the sheets successively over the platens, means for imparting a movement to the carrier substantially equal to a sheet's length, and means whereby one or two of such movements will be imparted to the carrier between successive printing operations.

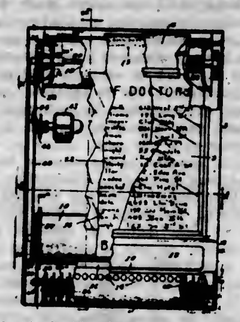
4. In a platen printing machine, the combination of two platens and two sets of printing mechanisms, a carrier for conducting sheets therethrough, pitmen and rotating crank-wheels for reciprocating the printing mechanism, a shaft for actuating the carrier, and a change gear connection for the operating shaft, whereby the same may be turned at different speeds relatively to the rotation of the crank-wheels.

5. The combination of a platen printing machine having two platens and two sets of printing mechanisms, a carrier for conducting sheets therethrough, a ratchet mechanism for intermittently advancing the carrier, crank-wheels, and pitmen for reciprocating the printing mechanism, means for actuating the ratchet mechanism, and change gear connections for actuating the ratchet mechanism a different number of times relatively to the printing operations.

[Claims 6 to 9 not printed in the Gazette.]

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1,042,519. MECHANICAL DIRECTORY AND ADVERTISING DEVICE. WILLIAM A. WOTHERSPOON, Los Angeles, Cal., assignor to The Automatic Directory Company, a Corporation of Arizona. Filed May 29, 1911. Serial No. 630,200. (Cl. 40—53.)



1. A mechanical directory, comprising a case, two drums journaled therein, a curtain winding on said drums, said case being provided with means for exposing a part of said curtain, a motive device adapted and arranged to operate said drums to wind said curtain in either direction, a series of manually controlled devices, each constructed and arranged to set the motive device in operation to wind the curtain in one direction on operation of any one of said controlling devices, and to arrest the movement of the curtain after a determinate amount of rotation of the drums, such determinate amount of rotation differing for the different controlling devices, means for restoring the manually controlled devices to normal position, and means responsive to such restoring movement of the manually controlled devices to cause the said motive device to wind the curtain in reverse direction and restore the curtain to normal position.

2. In a mechanical directory, a case, two drums journaled therein, a curtain winding on said drums and provided with directory information, said case being provided with means for exposing a portion of said curtain, a motor connected to rotate said drums, a series of manually controlled devices each constructed and arranged to set the motor in operation and to arrest the movement of the motor after a determinate amount of rotation of the drums, such determinate amount of rotation differing for the different controlling devices, means for restoring the manually controlled devices to normal position, and means responsive to such restoring movement of the manually controlled devices to set the motor in operation, to wind the curtain in a reverse direction and to restore the curtain to normal position.

3. In a mechanical directory, a case, two drums journaled therein, a curtain winding on said drums and provided with directory information, said case being provided with means for exposing a portion of said curtain, an electric motor connected to rotate said drums, energizing connections for said electric motor, a switch in said energizing connections for connecting the motor in circuit to rotate so as to wind the curtain in forward or reverse directions, a series of push buttons, and controlling means for said switch comprising devices operated by each of the push buttons to move the switch to position for winding the drum forward, said controlling means also comprising devices operated by one of the drums to move the switch to open position after the curtain has been wound to a definite extent, and said con-

trolling means also comprising devices operated by the movement of the operated push button to normal position to move the switch to position for winding the curtain in the reverse direction.

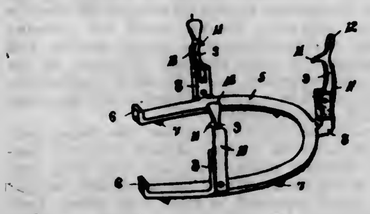
4. In a mechanical directory, the combination with the directory curtain, means for supporting and winding said curtain, an electric motor connected to drive said curtain supporting and winding means, a switch and energizing connections for the motor for operating the motor in forward and reverse directions, a switch shaft connected to operate said switch, a shaft operated by the curtain supporting and winding means, a series of disks on said last named shaft provided with recesses of different length, a member operated by each of said recessed disks and rotatably mounted on the switch shaft, said member being provided with a projection adapted to engage in the recess of the corresponding disk and said member being provided with a pawl, a series of push buttons, a member connected to be operated by each of said push buttons and rotatably mounted on the switch shaft and provided with pawl means for engaging the aforesaid member on said switch shaft, and a member secured to the switch shaft for engaging with the pawl means on each of the aforesaid members operated by the recessed disks.

5. In a mechanical directory, a controlling device comprising, in combination with curtain winding means and a motor for driving the same, a switch for controlling the movement of said motor in forward and reverse directions, a plurality of sets of controlling means, each set comprising a manually operated push button, means for restoring the push buttons to normal position, a member connected to the push button to be operated thereby to a definite angle, an operated member provided with a projection, pawl means for causing forward movement of said operated member under the operative movement of the first named member under the action of the push button, means for releasing said pawl means at the end of the operative stroke of the push button, each set of controlling means also comprising a member connected to be operated correspondently with the movement of the curtain and provided with means for engaging the aforesaid projection on the operated member in the same set to restore said operated member to normal position, and a switch actuating member connected to operate the switch and provided with means engaging with the aforesaid operated member to move the switch to position for forward movement of the motor on movement of the push button and to move the switch to position for opening the motor circuit on return movement of the said operated member.

[Claim 6 not printed in the Gazette.]

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1,042,520. DETACHABLE SHOE-HEEL PLATE. ANDREW YOUNIS, Stamford, Conn. Filed Jan. 29, 1912. Serial No. 674,974. (Cl. 36—62.)



1. A detachable shoe heel plate comprising a plate to engage the under edge portion of the heel and having its forward edge disposed upwardly to engage the forward side of the heel and provided with a series of spikes on the under side, a series of upwardly disposed guide posts formed on the plate to engage the outer sides of a heel, pawls pivotally connected in said posts and having extended points to engage the seam of the heel of a shoe, and bearing outwardly disposed finger ends, and springs secured to said posts to normally engage and force the said pawls inwardly for engagement with the said shoe.

2. A detachable shoe heel plate comprising a circular form of plate to engage the under edge portions of a heel, said plate having its two forward ends disposed upwardly to engage the forward side of the heel and provided with a series of spikes on the under side, and having a series of upwardly disposed guide posts to engage the opposite sides and rear of a heel, pawls pivotally connected in said posts and having an inwardly extended point to engage the seam of the heel of the shoe, and outwardly disposed finger ends, and springs to normally force the said pawls inward for engagement with the said shoe.

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1,042,521. HANGER FOR CURTAINS OR THE LIKE. ALEKSANDER ANDRUSKEWICS, Pullman, Ill. Filed Jan. 22, 1912. Serial No. 672,529. (Cl. 156—19.)



1. A hanger for curtains, etc., having a pole provided with a non-circular longitudinal groove and a non-circular pinch-rod occupying said groove, said pole and rod being relatively rotatable, the proportions of the pinch-rod and groove being such that when the pole and rod are relatively rotated, they will pinch the goods between them.

2. A hanger for curtains, etc., having a pole provided with a non-circular longitudinal groove and a non-circular pinch-rod occupying said groove, said pole and pinch-rod being relatively rotatable and the minimum diameter of the rod being less than the width of the groove, whereby the rod and goods may be inserted in the groove laterally and whereby when the pole and rod are relatively rotated, they pinch the goods between them.

3. A hanger for curtains, etc., having a pole provided with a non-circular longitudinal groove and a pinch-rod of elliptical shape in cross-section occupying said groove, the minimum diameter of the rod being less than the width of the opening of the groove whereby the rod may be inserted in the groove laterally and whereby when the pole and rod are rotated relatively to each other, they pinch the goods between them.

4. A hanger for curtains, etc., having a pole provided with a longitudinal groove the sides of which converge, and a non-circular pinch-rod occupying said groove whereby the goods interposed between the pinch-rod and walls of the groove are pinched by the relative movement of the pinch-rod and pole in the proper direction.

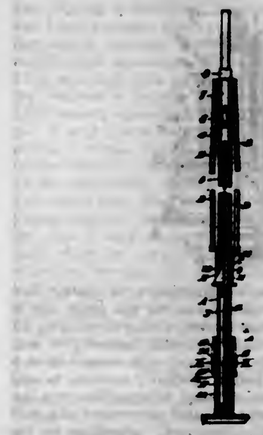
5. A hanger for curtains, etc., having a pole provided with an under-cut, longitudinal groove, and a pinch-rod of non-circular shape in cross-section occupying said groove, said pole and pinch-rod being rotatable relatively to each other, whereby when so rotated they will pinch the goods between them.

[Claim 6 not printed in the Gazette.]

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1,042,522. FOLDING UMBRELLA. JOSEPH ARAGALL, San Francisco, Cal., assignor of one-half to Joseph H. Moran and one-half to Thomas Slatter, San Francisco, Cal. Filed Mar. 11, 1912. Serial No. 682,803. (Cl. 135—46.)

1. In an umbrella, the combination with a tubular umbrella-rod open at both ends and a bar slidably mounted within the rod, of a sleeve slidably mounted on the exterior of the rod, said sleeve being provided with hooked spring members, and a handle-carrying tube into which the lower end of the rod extends, said tube being formed with an annular groove with which said hooked spring members are engageable.



2. In an umbrella, the combination with a tubular umbrella-rod open at both ends and a bar slidably mounted within the rod, of a sleeve slidably mounted on the exterior of the rod, said sleeve being provided with hooked spring members, a handle-carrying tube into which the lower end of the rod extends, said tube being formed with an annular groove with which said hooked spring members are engageable, and means for locking said hooked spring members in engagement with the tube.

3. In an umbrella, the combination with a tubular umbrella-rod open at both ends and a bar slidably mounted within the rod, of a sleeve slidably mounted on the exterior of the rod, said sleeve being provided with hooked spring members, a handle-carrying tube into which the lower end of the rod extends, said tube being formed with an annular groove with which said hooked spring members are engageable, and means for locking said hooked spring members in engagement with the tube comprising a second sleeve slidably mounted on the first named sleeve, said sleeve being attached to the slidable rod.

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1,042,524. METAL WINDOW-SASH. WILLIAM BAILEY and WILLIAM DECUS BAILEY, Springfield, Ohio. Filed Apr. 17, 1911. Serial No. 621,782. (Cl. 189—78.)



1. A window sash comprising a sash bar having a web and a flange, rigidly attached supports extending at intervals from said web to support a pane of glass out of contact with the flange, and means for holding said pane against said supports and spaced from said web.

2. In a window sash, a main sash, with the sash bars having supports to locate the glass against extending into the glass openings, and the horse shoe shaped springs lying in beside the edge of the glass, with one end bent out and holding the glass down and the other end pressing against said sash bar, to hold the glass against the supports.

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1,042,525. SHOCK-REGISTER FOR AUTOMOBILES. CONDE A. BENOIST, St. Louis, Mo. Filed Oct. 10, 1911. Serial No. 653,940. (Cl. 235—61.)



1. In combination with a wheeled rigid support and a frame yieldingly mounted on said support, a registering instrument secured to said frame, and means interposed between said instrument and said rigid support for the operation of said instrument, a portion of said last mentioned means being flexible to permit of lateral movements of the frame and instrument relative to the rigid support.

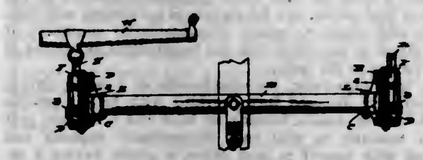
2. In a shock register for automobiles, a casing, a registering instrument carried by said casing, an operating lever for said instrument positioned within said casing, a plunger, arranged for movement in said casing, for the operation of said lever, and a flexible connection between said plunger and the axle of the automobile.

3. In a shock register for automobiles, a casing, a registering instrument carried by said casing, an operating lever for said instrument positioned within said casing, a plunger, arranged for movement in said casing, for the operation of said lever, a flexible connection between said plunger and the axle of the automobile, and a flexible covering for the flexible connection.

4. In combination with a supporting element and an element yieldingly supported thereby, a registering device secured to one of said elements, and a connection between the registering device and the other element, said connection being of such nature as to effect an operation of the registering device upon relative vertical movements of said elements and permit of longitudinal or lateral relative movements of said elements without effecting an operation of the registering device.

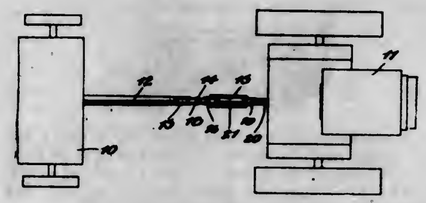
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1,042,527. DRAFT DEVICE. HIRAM BARBER, Chicago, Ill. Filed Mar. 11, 1912. Serial No. 683,129. (Cl. 21—78.)



In draft devices, a retaining collar attached to the ends of the evener and provided with expanded projections, a rectangular bracket riveted to said collar, and the outer leg of which is adapted as a slide and which is provided with two free ends which pass between the sides of the evener and the adjoining walls of said bracket and are secured to the said evener, a rod which traverses the said bracket longitudinally, a coiled spring loosely strung upon said rod, a head reciprocating upon said rod and slide and contacting with the rear end of said spring and adapted to actuate the same and a clevis straddling said bracket and movably attached to said head, substantially as described.

1,042,526. TONGUE AND POLE FOR THRESHING-MACHINES. GEORGE W. BORDELEAU, Buffalo, N. D. Filed Feb. 3, 1912. Serial No. 675,136. (Cl. 21—114.)



A coupling pole for threshing machines, comprising a pole proper, a strap secured to the outer end of the pole, a supplemental pole, straps on one end of said supplemental pole, the straps of the first-mentioned pole being pivotally connected to the straps of the second-mentioned pole, each of said poles being formed with longitudinally extending grooves, a sleeve mounted on the supplemental pole having a longitudinally arranged interior rib disposed in said groove, said sleeve being adapted for movement toward and away from the first-mentioned pole, whereby the supplemental pole is capable of pivotal movement on the first-mentioned pole or being held rigidly thereto.

1,042,527. RAILWAY FREIGHT-CAR. EBEN MOODY BOYNTON, West Newbury, Mass. Filed Apr. 8, 1909, Serial No. 488,630. Renewed Mar. 22, 1912. Serial No. 685,415. (Cl. 105—185.)



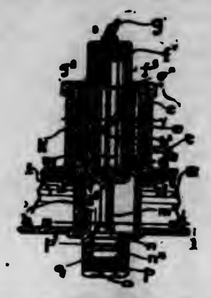
1. A car for transporting merchandise such as a mass of loose particles, comprising a closed compartment having openings in the top and bottom walls, rotatable caps for the top openings, interlocking means on the top wall and on said caps for seaming the caps in closing position, sliding strips each having a series of openings adapted to cover and uncover the openings in said bottom wall, and means for moving said slides.

2. A railway freight car comprising wheels, and a body having a floor consisting of horizontal and transversely inclined portions dividing the lower space into longitudinal troughs, said bottom wall having discharge openings, and sliding covers for said openings.

3. A monorail freight car comprising wheels, and a body having a floor consisting of horizontal marginal portions and transversely inclined portions extending upwardly toward each other between said marginal portions, said wheels being arranged in the space between said inclined portions, and sliding strips extending longitudinally in engagement with said marginal portions, said strips and horizontal portions having openings arranged to be covered and uncovered by longitudinal movement of the strips.

1,042,528. CARBURETER. CLEMENT BROWN, Birmingham, England. Filed Nov. 25, 1910. Serial No. 594,115. (Cl. 48—155.1.)

1. In a carbureter, the combination of a casing having a vertically disposed bore, means forming an inlet port, and a mixture outlet port open laterally to said bore diametrically opposite and alined with respect to each other, a piston having a recessed bottom, vertically movable in said bore and adapted to control the said inlet and outlet ports simultaneously, according to the position of the lower margin of said piston with respect to the openings of said ports, and a nozzle disposed to deliver hydrocarbon to the said recessed portion of said piston whereby the air, inflowing through said casing, follows a sinuous path from said inlet port under the lower edge of said piston adjacent thereto, over said nozzle and again under the edge of said piston adjacent said outlet port.



2. In a carbureter, the combination of a casing having a vertically disposed bore, a cap for the upper end of said bore having an aperture therein, means forming an air inlet port and mixture outlet port open laterally to said bore diametrically opposite and alined with respect to each other, a cylindrical shell piston vertically movable in said bore, having a diaphragm disposed intermediate the upper and lower margins and adapted to control the said inlet and outlet ports simultaneously according to the position of the lower margin of said piston with respect to the openings of said ports, a compression spring interposed between said cap and said diaphragm, a nozzle disposed to deliver hydrocarbon to said recessed portion of said piston whereby the air in flowing through said casing follows a sinuous path from said inlet port under the lower margin of said piston adjacent thereto, over said nozzle and again under the edge of said piston adjacent said outlet port, and means operatively connected with said piston and extending through the said aperture in the cap to actuate the piston against action of said spring.

3. In a carbureter, the combination of a casing having a vertically disposed bore provided with helical grooves open thereto, means forming an air inlet port and mixture outlet port open laterally to said bore diametrically opposite and alined with respect to each other, a piston having a recessed bottom movable longitudinally within said bore, provided with keying portions fitting into said helical grooves, whereby the said piston rotates in its longitudinal movement within said bore, said piston being adapted to control the said inlet and outlet ports simultaneously according to the position of the lower margin of said piston with respect to the openings of said ports, a nozzle disposed to deliver hydrocarbon to said recessed portion of said piston, a rotatable valve for controlling said nozzle, a stem for said valve disposed concentric to the axis of said piston, and keying means connecting said stem with said piston to impart circumferential movement of the piston to said stem, but not longitudinal movement of the former to the latter.

4. In a carbureter, the combination of a casing having a vertically disposed bore provided with helical grooves open thereto, means forming an inlet and a mixture port open laterally to said bore diametrically opposite and alined with respect to each other, a piston having a recessed bottom movable longitudinally within said bore, provided with keying portions fitting into said helical grooves, whereby said piston rotates in its longitudinal movement within said bore, said piston being adapted to control the said inlet and outlet ports simultaneously according to the position of the lower margin of said piston with respect to the openings of said ports, a nozzle disposed to deliver hydrocarbon to the said recessed portion of said piston, a rotatable valve for controlling said nozzle, and means operatively connecting said piston and valve to impart circumferential movement but not longitudinal movement of the former to the latter.



5. In a carbureter, the combination of a casing having a vertically disposed bore provided with helical grooves open thereto, means forming an air inlet port, and a mixture outlet port open laterally to said bore diametrically opposite and alined with respect to each other, a cylindrical shell piston, longitudinally movable within said bore, having a diaphragm disposed intermediate its upper and lower margins, and having keying portions fitting into the helical grooves, whereby said piston rotates in its longitudinal movement within said bore, said diaphragm being provided with keying apertures, and said piston being adapted to control the said inlet and outlet ports simultaneously according to the position of the lower margin of said piston with respect to the openings of said ports, a nozzle disposed to deliver hydrocarbon to the recess formed in said piston below said diaphragm, whereby the air flowing through said casing follows a sinuous path from said inlet port under the lower edge of said piston adjacent thereto, over said nozzle and again under the edge of said piston adjacent said outlet port, a rotatable valve for controlling said nozzle, and keying means extending through the said apertures in said diaphragm and operatively connected with said valve to impart circumferential movement of said piston to said valve, but not longitudinal movement of the former to the latter.

[Claim 6 not printed in the Gazette.]

1,042,529. ROPE-CLAMP. WILLIAM CAMPBELL, Brooklyn, N. Y. Filed Oct. 19, 1911. Serial No. 655,514. (Cl. 24—134.)



1. A rope clamp comprising in combination, an outer member consisting of a pair of spaced rings disposed in registration and connected by a longitudinally disposed bearing, and an inner cylindrical member detachably mounted for rotation within the rings of the outer member and formed with a transverse groove which in one position of the inner member is adapted to co-act with the longitudinal bar of the outer members to form a rope clamp.

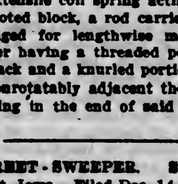
2. A rope clamp comprising in combination, an outer member formed from a single casting consisting of a pair of spaced flat rings disposed in registration, a longitudinally disposed bar connecting said rings and having a flat inner face, a radially extending bridge element projecting outwardly from and connecting said rings and disposed in spaced relation to the bar, said bridge being centrally formed on its underface with a concaved cut away portion, and an inner cylindrical member detachably mounted for rotation within the rings of the outer member and formed with a transverse groove which in one position of the inner member is adapted to co-act with the longitudinal bar of the outer member to form a rope clamp.

1,042,530. ATTACHMENT FOR THE BOTTOMS OF HAND-BAGS. MINA CAMPS, Seattle, Wash. Filed Jan. 8, 1912. Serial No. 670,107. (Cl. 150—31.)

1. An attachment for the bottoms of handbags embodying a pair of hinged plates spring-pressed to have their lower faces swing toward each other, and having inwardly projecting teeth on the lower faces for engaging the bottom of the handbag.

2. An attachment for the bottoms of handbags embodying a pair of hinged plates spring-pressed to have their lower faces swing toward each other, and having inwardly projecting serrated tongues struck downwardly therefrom to retain the attachment in position.

3. An attachment for the bottoms of handbags embodying a pair of plates having alined butts, a pintle passing through the butts, and a coiled wire spring on the pintle and having its extremities bearing against the plates so as to tend to swing their lower faces toward each other, the plates having portions to strike each other for limiting the swing of the plates relative to each other when opened.



4. An attachment for the bottoms of handbags embodying a pair of plates having alining butts, the butts being interrupted at intermediate points, a pintle passing through the butts, coiled wire springs on the pintles between the spaced butts and having their extremities bearing against the plates so as to tend to swing their lower faces toward each other, the plates having inwardly projecting serrated tongues struck downwardly therefrom adjacent the springs, the said tongues being adapted to engage the bottom of a handbag.

1,042,531. WRENCH. ARTHUR CARP, St. Louis, Mo. Filed June 17, 1912. Serial No. 704,112. (Cl. 81—167.)



1. In a wrench, the combination with a hollow handle, a jaw fixed to said handle, a sliding jaw having a rack arranged for movement in said handle, a spring for moving said sliding jaw in one direction, a pivoted block acted upon by said spring, a rod carried by said block, a screw carried by said rod and arranged to engage the rack of the sliding jaw, means for manually turning said screw, and a fixed bearing for the end of said rod opposite the end supported in said pivoted block, substantially as shown and for the purposes stated.

2. In a wrench, the combination with a tubular, metallic handle, a jaw fixed in said handle, a sliding jaw having a rack arranged for movement in said handle, a pivoted block, an extensile coil spring acting on said sliding jaw and said pivoted block, a rod carried by said pivoted block and arranged for lengthwise movements relative thereto, a member having a threaded portion for engagement with said rack and a knurled portion for its manipulation secured nonrotatably adjacent the end of said rod, and a fixed bearing in the end of said fixed jaw for the end of said rod.

1,042,532. STREET-SWEEPER. SYDNEY S. CASE, Mount Pleasant, Iowa. Filed Dec. 14, 1911. Serial No. 665,695. (Cl. 15—17.)

1. In a device of the character described, the combination of a wheeled receptacle, a wheel supported housing movable with respect to the receptacle, a rotary brush within said housing, rollers secured to the rear of said housing and arranged on each side thereof, guides formed on the forward end of said receptacle in which said rollers are adapted to operate and means for raising said housing and dumping the contents thereof into the receptacle.

2. In a device of the character described, the combination with a wheeled receptacle, of a wheeled supported housing movable in a vertical plane with respect to the

receptacle, having a longitudinal opening formed on the lower side thereof, a rotary brush within said housing to sweep the dust and dirt into said housing through said opening, means for raising the housing and dumping the contents into the receptacle, and a door hinged to the rear of said housing for swinging movement and adapted to open when the housing is raised to dump the contents.



3. In a device of the character described, the combination of a wheeled receptacle, a wheel supported housing movable with respect to the receptacle, a rotary brush within said housing, substantially horizontally arranged loops secured to the top of said housing, a U-shaped bar having its intermediate portion disposed within said loops and its ends pivotally secured to the sides of the receptacle and a lever formed on one side of said bar to raise the housing and dump the contents into the receptacle.

4. In a device of the character described, the combination of a wheeled receptacle, a wheel supported housing movable with respect to the receptacle, a rotary brush within said housing, loops secured to the top of said housing, a bar pivotally secured to the receptacle and movably engaging with the loops, a handle lever carried by the bar whereby the housing may be raised to dump the contents thereof into the receptacle.

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1,042,583. METHOD OF ELECTROPLATING. LEO DAFT, Rutherford, N. J., assignor to Electro-Chemical Rubber & Manufacturing Company, a Corporation of New Jersey. Original application filed Jan. 28, 1911, Serial No. 605,170. Divided and this application filed Feb. 17, 1912. Serial No. 678,363. (Cl. 204—2.)

1. The method of electroplating from an electrolyte formed of a plurality of metals in solution, one of which is antimony, which consists in varying the potential of the current employed to vary the percentage of antimony deposited with respect to the other metals.

2. The method of electroplating from an electrolyte formed of a plurality of metals in solution, two of which are antimony and zinc, which consists in varying the potential of the current employed to vary the percentage of antimony and zinc deposited with respect to the other metals.

3. The method of electroplating from an anode of an alloy of plurality of metals, one of which is antimony, which consists in varying the potential of the current employed to vary the percentage of antimony deposited with respect to the other metals.

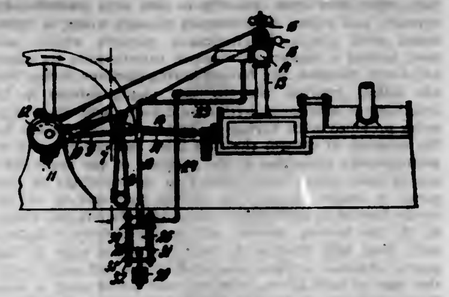
4. The method of electroplating from an anode of an alloy of a plurality of metals, two of which are antimony and zinc, which consists in varying the potential of the current employed to vary the percentage of antimony and zinc deposited with respect to the other metals.

5. The method of electroplating from an electrolyte formed of a plurality of metals in solution, which consists in using an anode of an alloy of metals, one of which is antimony and varying the antimony content of the anode to vary the antimony content of the metal deposited.

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1,042,584. GOVERNING VALVE-GEAR FOR FLUID-PRESSURE MOTORS. CLARENCE A. DAWLEY, Plainfield, N. J. Filed July 26, 1906. Serial No. 327,941. (Cl. 121—97.)

1. In an engine, the combination with variable cut-off valve gear, and throttling governing means, of cutoff-changing means, actuated by differences in pressure on opposite sides of said throttling means, for adjusting the point of cutoff.



2. In an engine, the combination with variable cutoff valve gear, and throttling governing means, of fluid-pressure-actuated means, connected to oppose sides of said throttling means and arranged to be actuated by differences in pressure on opposite sides thereof, and connected to said valve gear to adjust the point of cutoff.

3. In an engine, the combination with variable cutoff valve gear, and throttling governing means, of cutoff-changing means, actuated by differences in pressure on opposite sides of said throttling means, for adjusting the point of cutoff, and loaded to cause partial closing of said throttling means at loads below maximum.

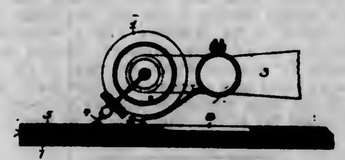
4. In an engine, the combination with variable cutoff valve gear, and throttling governing means, of cutoff-changing means, actuated by differences in pressure on opposite sides of said throttling means, for adjusting the point of cutoff, and having loading means to cause partial closing of said throttling means at loads below maximum, comprising means which increases the load as cutoff grows earlier.

5. In an engine, the combination with variable cutoff valve gear, and throttling governing means, of cutoff-changing means, actuated by differences in pressure on opposite sides of said throttling means, for adjusting the point of cutoff, and having loading means to cause partial closing of said throttling means at loads below maximum, comprising a spring which increases the load as cutoff grows earlier.

[Claims 6 to 22 not printed in the Gazette.]

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1,042,585. AUTOMATIC RECORD-STOPPING DEVICE FOR TALKING-MACHINES. BRECKEN DE LAN, Philadelphia, Pa. Filed Dec. 6, 1911. Serial No. 664,226. (Cl. 181—3.)



1. The combination of the record-carrying turntable of a talking machine, and the sound-box carrying arm, with a record disk having an opening therein at the end of the record, and a hook for engaging with the advancing wall of said opening and arresting the further rotation of the record.

2. The combination of the record-carrying turntable of a talking machine, and the sound-box carrying arm, with a record disk having an opening therein at the end of the record, and a hook for engaging with the advancing wall of said opening and arresting the further rotation of the record, the hook being inturned and the advancing wall of the opening in the record being undercut.



3. The combination of the baize covered record-carrying turntable of a talking machine, and the stylus-carrying sound-box, with a record disk having an opening therein at the end of the record, a hook for engaging with the advancing wall of said opening and arresting the further rotation of the record, and means for preventing contact of the stylus and hook with the baize-covering of the turntable when said stylus and hook enter the opening in the record disk.

4. The combination of the record-carrying turntable of a talking machine and the stylus-carrying sound-box, with a record disk having an opening therein at the end of the record, and a hook for engaging with the advancing wall of said opening and arresting the further rotation of the record, said hook bearing such relation to the stylus that it will be supported in position above the top of the record while the stylus is in engagement with the record groove.

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1,042,586. FIRE-EXTINGUISHER. SAMUEL DORAIS, Chicago, Ill., assignor to Evans, Almirall & Company, trustee, New York, N. Y. Filed May 27, 1909. Serial No. 498,008. (Cl. 169—5.)



1. A closure for a sprinkler head of the type described, comprising a suitable cap adapted for closing the discharge opening in said head, toggle members adapted to be inserted end for end and in fixed position between said cap and a rigid part of said head, lever arms on said toggle members and a strut adapted to be inserted between said lever arms, the relation being such that said strut will be subjected to compression, the points of engagement of said strut with said lever arms, respectively, being at different distances from the pivot of said toggle members, said strut comprising overlapping strut members soldered together, the overlapping end of one of said strut members bearing against a shoulder on the other strut member, the radial distance of said shoulder from the pivot of said toggle members being intermediate the radial distances of the points of engagement of the ends of said strut with the lever arms on said toggle members, respectively, from the pivot of said toggle members, substantially as described.

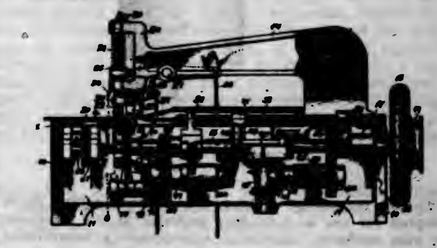
2. A closure for a sprinkler head of the type described, comprising a cap adapted for closing the discharge opening in said head, toggle members adapted to be inserted end for end in fixed position between said cap and a rigid part of said head, lever arms on said toggle members, a bent or bowed strut adapted to be inserted between said lever arms, the relation being such that said strut will be subjected to compression, the points of engagement of said strut with said lever arms, respectively, being at different distances from the pivot of said toggle members, said strut comprising overlapping strut members soldered together, the overlapping end of one of said strut members bearing against a shoulder on the other strut member, the radial distance of said shoulder from the pivot of said toggle members being intermediate the radial distances of the points of engagement of the opposite ends of said strut with the lever arms on said toggle members, respectively, from the pivot of said toggle members, substantially as described.

3. A closure for a sprinkler head of the type described, comprising a suitable cap adapted for closing the discharge hole or opening in said head, toggle members adapted to be inserted end for end in fixed position between said cap and a rigid part of said head, lever arms on said toggle members and a strut adapted to be inserted between said lever arms, the points of engagement of said strut with said lever arms being at different distances from said toggle members, said strut comprising overlapping strut members soldered together, the overlapping end of one of said strut members bearing against a shoulder on the other strut member, said shoulder being disposed between the points of engagement of the ends of said strut with said lever arms, substantially as described.

4. A closure for a sprinkler head of the type described, comprising a suitable cap adapted for closing the discharge hole or opening in said head, toggle members adapted to be inserted end for end in fixed position between said cap and a rigid part of the head, lever arms on said toggle members projecting therefrom in a direction opposite to the direction of flexure of the toggle members and a bent or bowed strut adapted to be inserted between said lever arms, the points of engagement of the ends of said strut with said lever arms, respectively, being at different distances from said toggle members, said strut comprising overlapping strut members soldered together, the overlapping end of one of said strut members bearing against a shoulder on the other strut member, substantially as described.

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1,042,587. SEWING-MACHINE. ELLIS DRAKE, Stoughton, Mass. Filed Jan. 21, 1911. Serial No. 603,886. (Cl. 112—24.)



1. A sewing machine comprising stitch-forming mechanism including a needle, a work clamp formed to engage and hold relatively wide and narrow layers of work material, said clamp including a movable member and having means for holding the narrow layer against lateral displacement by the stitch forming mechanism, and means for alternately imparting to said movable clamp member a feeding movement first in one plane and then in another plane to cause the needle to alternately penetrate the wide and narrow layers.

2. A sewing machine comprising stitch-forming mechanism including a needle mounted to reciprocate in a horizontal path, a work plate having a slot, means for fixing a portion of the work through said slot, a bar below said slot, means for holding said bar periodically in either one of a plurality of planes, feed dogs carried by said bar, and means for imparting a feeding movement to said bar while in each of said planes.

3. A sewing machine comprising stitch-forming mechanism including a needle mounted to reciprocate in a horizontal path, a work plate having a slot, means for fixing a portion of the work through said slot, a feed bar below said slot, and means for alternately imparting to said bar a feeding movement first in one plane and then in another plane.

4. A sewing machine comprising stitch-forming mechanism including a needle mounted to reciprocate in a horizontal path, a work plate having a slot, means for fixing a portion of the work through said slot, a feed bar below said slot, a movable support to which said feed bar is pivotally connected at one end, two cams of different height, connections whereby said cams raise the feed bar to different planes controlled by said cams, and means for imparting a feeding movement to said bar while in each of said planes.

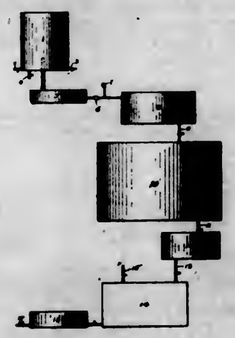
5. A sewing machine comprising stitch-forming mechanism including a needle mounted to reciprocate in a hori-

sontal path, a work plate having a slot, means for fixing a portion of the work through said slot, a feed bar below said slot, a swinging support to which said feed bar is pivotally connected at one end, means for swinging said support to impart feed movement to said bar, and cam-controlled mechanism independent of the swinging means for varying the elevation of the plane of reciprocation of said bar, the operations of the said swinging means and cam-controlled mechanism alternating to impart to said bar a feeding movement first in one plane and then in another plane.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,538. CONCENTRATION OF WASTE SULFITE LIQUOR. CARLETON ELLIS, Montclair, N. J., assignor to Ellis-Foster Company, a Corporation of New Jersey. Filed Nov. 30, 1910. Serial No. 594,881. (Cl. 134—1.)



1. The process of making concentrated sulfite liquor adapted for use as a binding material in the treatment of road surfaces, comprising approximately neutralising waste sulfite liquor containing the diffusible constituents thereof, fermenting said liquor, and concentrating it to a heavy bodied syrupy condition.

2. The process of making concentrated sulfite liquor adapted for use as a binding material in the treatment of road surfaces, comprising approximately neutralising crude waste sulfite liquor containing the diffusible constituents thereof, aerating the said liquor, fermenting the same to remove a substantial proportion of the sugary constituents thereof, and concentrating the treated liquor to a specific gravity of approximately 30° B4.

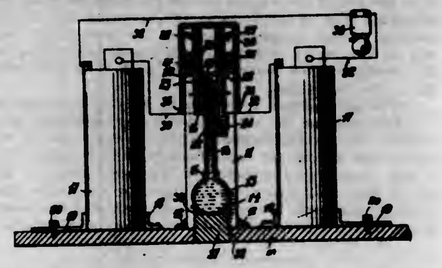
3. The process of making concentrated sulfite liquor, adapted for use as a binding material in the treatment of road surfaces, comprising approximately neutralising waste sulfite liquor containing the diffusible constituents thereof, removing the sludge of neutralisation, fermentating said liquor, separating volatile bodies therefrom and concentrating the residue to a heavy bodied syrupy liquid.

4. The process of making concentrated sulfite liquor of reduced saccharine content, for use as a binding material in the treatment of road surfaces, comprising approximately neutralising dilute waste sulfite liquor containing the diffusible constituents thereof, freeing the treated liquor from solid matter, treating the liquor with yeast under conditions suitable for fermenting, allowing the liquor to ferment whereby the saccharine matter contained therein is converted into alcohol, separating volatile bodies from the liquor, and concentrating the residue to a heavy bodied syrupy liquid.

5. The process of making concentrated sulfite liquor, adapted for use as a binding material in the treatment of road surfaces, comprising approximately neutralising waste sulfite liquor containing the diffusible constituents thereof, fermenting said liquor under suitable fermenting condition, and concentrating the treated liquor to a heavy-bodied syrupy liquid under reduced atmospheric pressure.

[Claims 6 to 8 not printed in the Gazette.]

1,042,539. TEMPERATURE-ALARM. WILLIAM C. ELSASSER, Grand Rapids, Mich. Filed Aug. 29, 1911. Serial No. 646,574. (Cl. 177—302.)



1. In a temperature alarm, a vertical upright, a vessel supported by said upright and adapted to contain an expansible fluid, a movable contact member operated thereby, said upright being provided with a pair of vertical slots spaced apart in parallel relation, contact plugs adjustable vertically in said slots, an electrical circuit, an alarm device in the circuit, said plugs forming terminals of said electric circuit, said contact member being adapted to engage with said adjustable contact plugs to close the circuit therethrough and guide rods carried by the upright and beneath which said movable contact member operates.

2. In an alarm device, a base, an upright mounted thereon, means for holding said upright upon the base, said base having a threaded opening beneath the upright, batteries mounted upon the base, a reservoir having an upwardly extending neck portion of reduced diameter, said reservoir and neck portion being adapted to contain a fluid for contraction and expansion, a series of rings retaining said reservoir and neck portion in position, a plunger movable in the upper portion of the neck and carrying a contact member in the form of a cross arm, graduations arranged adjacent the lower end of the plunger and adjacent each end of the cross arm, guiding means for the plunger, contact members capable of adjustment toward and away from the cross arm, an electrical circuit including an alarm device and a source of electrical energy adapted to be closed through the movable cross arm and adjustable members and a heat conducting ping threaded in the opening in the base in contact with the reservoir.

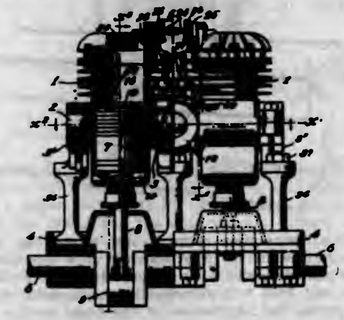
3. In an alarm device, a base, an upright mounted thereon, means for holding said upright upon the base, batteries mounted upon the base, a reservoir having an upwardly extending neck portion of reduced diameter, said reservoir and neck portion being adapted to contain a fluid for contraction and expansion, a series of rings retaining said reservoir and neck portion in position, a plunger movable in the upper portion of the neck and carrying a contact member in the form of a cross arm, graduations arranged adjacent the lower end of the plunger and adjacent each end of the cross arm, means to prevent lateral movement of the plunger and cross arm, contact members capable of adjustment above and below the cross arm and an electrical circuit including an alarm device and a source of electrical energy adapted to be closed through the movable cross arm and adjustable members.

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1,042,540. REVERSIBLE INTERNAL-COMBUSTION ENGINE. ORVILLE H. EWENS, Los Angeles, Cal., assignor of one-half to Paul H. Blades, Los Angeles, Cal. Filed Aug. 29, 1906. Serial No. 332,546. (Cl. 123—42.)

1. In a reversible internal combustion engine, three pillow blocks in a row and forming two cylinder spaces, two pairs of trunnions supported by said pillow blocks, a cylinder carried by each pair of trunnions one in each cylinder space, pistons in the cylinders, a crank shaft, piston rods connecting the pistons to the crank shaft, the inner ends of the cylinders forming compression chambers and the outer ends of the cylinders forming working chambers; a tubular extension upon the center pillow block, a carbureter, a pipe connecting the carbureter to the tubular extension, said tubular extension communicating with the compression chambers, and there being ports leading from the compression chambers into the working chambers, said ports being located substantially at the longitudinal centers of the cylinders and controlled by the pistons.





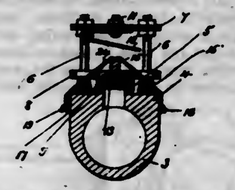
2. In a reversible internal combustion engine, three pillow blocks in a row and forming two cylinder spaces, two pairs of trunnions supported by said pillow blocks, a cylinder carried by each pair of trunnions one in each cylinder space, pistons in the cylinders, a crank shaft, piston rods connecting the pistons to the crank shaft, the inner ends of the cylinders forming compression chambers and the outer ends of the cylinders forming working chambers; a tubular extension upon the center pillow block, a carbureter, a pipe connecting the carbureter to the tubular extension, said tubular extension communicating with the compression chambers, and there being ports leading from the compression chambers into the working chambers, said ports being located substantially at the longitudinal centers of the cylinders and controlled by the pistons, and said pistons controlling the passages from the carbureter; so that when the fuel is passing to the working chambers under compression the passages to the carbureter are closed.

3. In a reversible internal combustion engine, three pillow blocks in a row and forming two cylinder spaces, two pairs of trunnions supported by said pillow blocks, a cylinder carried by each pair of trunnions one in each cylinder space, pistons in the cylinders, a crank shaft, piston rods connecting the pistons to the crank shaft; the inner ends of the cylinders forming compression chambers and the outer ends of the cylinders forming working chambers; a tubular extension upon the center pillow block, a carbureter, a pipe connecting the carbureter to the tubular extension, said tubular extension communicating with the compression chambers, and there being ports leading from the compression chambers into the working chambers, said ports being located substantially at the longitudinal centers of the cylinders and controlled by the pistons; contact pins in the working chambers, a reversing arm, and contact levers adjustably mounted and engaging the contact pins and the reversing arm; so that by moving the adjustable contact levers by said reversing arm to a position back of the vertical center line of the trunnion the engine may be reversed.

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1,042,541. FIRE-EXTINGUISHER. GEORGE J. FINNEGAN, Lockport, N. Y. Filed Mar. 16, 1912. Serial No. 684,254. (Cl. 169—5.)

1. In a fire extinguisher, the combination, with a pipe section provided with a nozzle, of guide bars secured to the pipe section, a plate slidable on the guide bars and provided with a valve for closing the nozzle, springs arranged between the said plate and pipe section for opening the valve, and a strip of fusible metal strained over the said plate and having its ends secured to the respective sides of the pipe section and normally holding the valve closed.

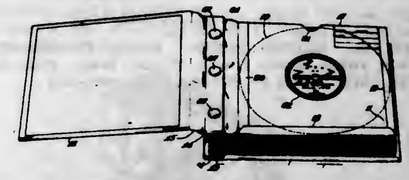


2. In a fire extinguisher, the combination, with a pipe section provided with a nozzle, of guide bars secured to the pipe section, a plate slidable on the guide bars and provided with a valve for closing the nozzle, springs arranged between the said plate and pipe section for opening the valve, a strip of fusible metal secured to one side of the pipe section at one end and extending over the said plate, a lever pivoted to the other side of the pipe section and operatively connected to the other end of the said strip, and a fastening device for securing the said lever after the valve has been closed.

3. In a fire extinguisher, the combination, with a pipe section provided with a nozzle, of guide bars secured to the pipe section, a plate slidable on the guide bars and provided with a valve for closing the nozzle, springs arranged between the said plate and pipe section for opening the valve, a stationary plate of insulating material secured to the guide bars above the slidable plate, a contact spring for the valve plate secured to the stationary plate, and a strip of fusible metal strained over the valve plate and having its ends secured to the respective sides of the pipe section and normally holding the valve closed.

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1,042,542. MAGAZINE FOR DISK RECORDS. THEODORE D. FOSTER, Cambridge, Mass. Filed Feb. 20, 1911. Serial No. 609,560. (Cl. 129—20.)



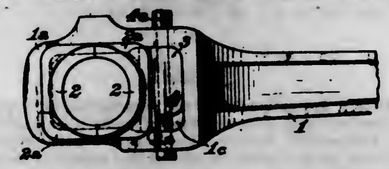
A container consisting of a sheet of suitable material such as strong paper, binding strips, and a stiff guard, said sheet having a fold or crease whereby two opposite edges are brought together, two of said binding strips connecting the two pairs of edges of the sheet which extend from the line of the fold to said edges which are brought together, one of said two binding strips being flexible and extending laterally from the sheet in the form of a loop, and said stiff guard being narrower than the loop and arranged in the bight thereof so as to leave a flexible web between it and the adjacent edges of the sheet, and a third binding strip inclosing said fold and being secured to the container to reinforce said fold.

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1,042,543. CONNECTING-ROD FOR ENGINES. JAMES R. FOULDES, Schenectady, N. Y. Filed Mar. 22, 1912. Serial No. 685,405. (Cl. 74—17.)

1. The combination, with an engine connecting rod having a longitudinal crank pin brass opening formed in its head and an adjoining wedge space of greater depth, of a pair of symmetrical crank pin half brasses fitting in said opening and having symmetrical end flanges extending entirely around their bearing surfaces, and means, located in the wedge space, for adjusting said half brasses.

2. The combination, with an engine connecting rod having a longitudinal crank pin brass opening formed in its head and an adjoining wedge space of greater depth, of crank pin half brasses fitting in said opening and having semi-cylindrical bearing surfaces and end flanges extending entirely around their bearing surfaces and engaging the sides of the head to prevent lateral movement, and an adjusting wedge fitting in the wedge space and transmitting pressure to the adjacent half brasses.

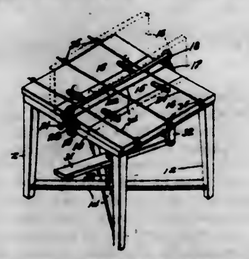


3. The combination, with an engine connecting rod having a longitudinal crank pin brass opening formed in its head and an adjoining wedge space of greater depth, of crank pin half brasses fitting in said opening and having semi-cylindrical bearing surfaces and end flanges extending entirely around their bearing surfaces and engaging the sides of the head to prevent lateral movement, an adjusting wedge fitting in the wedge space, an auxiliary wedge interposed between the adjusting wedge and the adjacent half brass, and between the end flanges of said half brass, and means for moving and locking the adjusting wedge.

4. The combination, with an engine connecting rod having a longitudinal crank pin brass opening formed in its head and an adjoining wedge space of greater depth, of crank pin half brasses fitting in said opening and having semi-cylindrical bearing surfaces and end flanges extending entirely around their bearing surfaces and engaging the sides of the head to prevent lateral movement, an adjusting wedge fitting in the wedge space, an auxiliary wedge extending throughout the depth of the wedge space, between the adjusting wedge and the adjacent half brass and between the end flanges of said half brass, and means for moving and locking the adjusting wedge.

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1,042,544. BALING-PRESS. JOSEPH C. FULKERSON and THELO GLENN WHITE, Marion, Iowa. Filed Jan. 26, 1912. Serial No. 673,575. (Cl. 100—31.)



1. In a baling press, a supporting frame, a table comprising a stationary leaf member and two hinged leaf members, a rod removably-mounted above the stationary member, and treadle-operated mechanism for moving the hinged members to a position at right angles to the stationary member.

2. In a baling press, the combination with a suitable supporting frame, and a bundling table carried thereby and comprising a stationary member and two hinged members, an operating treadle, a cross-head carried thereby, a pair of levers pivoted to the frame and having their outer ends engaging said hinged members, and means carried by the cross-head for operating said levers as the cross-head is moved by the treadle.

3. In a bag baling press, a table for receiving the bags to be bundled, and comprising a stationary member and two hinged members, treadle mechanism for operating the hinged members to move them at right angles to the stationary member, and a rod arranged above the stationary member and around which the bags are bundled as the hinged members are operated.

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1,042,545. RAIL CONSTRUCTION. CHARLES W. GAMWELL, Raleigh, N. C. Filed Dec. 26, 1911. Serial No. 667,744. (Cl. 239—16.)

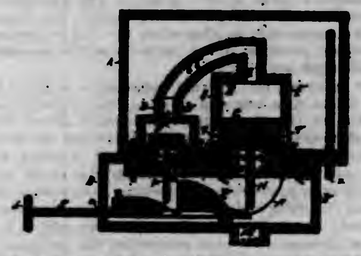


1. The combination with a rail having an angular groove formed in the head thereof, of a separate tread section provided with a rib adapted to be forced into the groove and bent into interlocking engagement with the same during the application of the tread section to the rail.

2. A rail having the head thereof formed with a plurality of longitudinally extending angular grooves, the separate tread sections adapted to be attached to the head of the rail, said tread sections having longitudinally extending ribs adapted to be inserted in the grooves when the head section is applied to the tread section of the rail, said ribs being bent at an angle by pressure to force the same into interlocking engagement with the grooves.

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1,042,546. REGULATED AUTOMATIC-CLOSING VALVE. JOHN LINCOLN GIBB, South Bend, Ind. Filed Oct. 11, 1911. Serial No. 654,187. (Cl. 4—5.)



1. In a device of the class described, a flush valve comprising an apertured main valve casing, containing a gravity actuated main valve tightly fitting in said casing, said valve being provided with a depending valve stem, a relief valve casing on substantially the same level as the lower portion of said main valve casing, a relief valve in the relief valve casing and having a depending stem, and a guide therefor, a vent conduit connected to the auxiliary valve casing and the upper portion of the main valve casing, a housing below said valves receiving the lower portion of said valve stems and an operating means for said valves adapted to engage the valve stems for raising the valves, the auxiliary valve stem being provided with a rule joint, thereby permitting the return of the operating means to its normal position.

2. A valve having a depending valve stem, a guide for said stem, said stem being provided with a rule joint, permitting a portion of said stem to swing in one direction, a reciprocating lifting means having a cam supported in position to contact with said stem, to lift said valve when moved in one direction and swing the pivoted portion on the return movement of said lifting means.



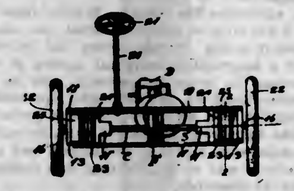
1,042,547. REGULATED AUTOMATIC-CLOSING VALVE. JOHN LINCOLN GIBB, South Bend, Ind. Filed Dec. 28, 1911. Serial No. 668,832. (Cl. 4—5.)



A duplex valve comprising an apertured casing inclosing a main valve and an auxiliary valve, said main valve having a gasket secured to its upper portion and forming between the casing and the main valve a packing means, the inner portion of said gasket forming a pliable seat for the auxiliary valve, said auxiliary valve having an apertured stem extending through the main valve and having a stop for engaging said main valve.

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1,042,548. SHIELD FOR TRANSMISSION-GEARING OF AUTOMOBILES. ALBERT A. GLENN, Fall Creek, Wis. Filed Feb. 3, 1912. Serial No. 675,289. (Cl. 21—90.)



In a motor vehicle, the combination of a frame, an axle journaled upon the frame, a knuckle pivotally mounted upon the frame at each end of the axle, a wheel rotatably mounted on each knuckle, connections between each wheel and the axle whereby the rotation of the latter will rotate the former, spring controlled rollers mounted upon the frame at each end of and on opposite sides of the axle respectively, flexible shields mounted to wind upon and unwind from said rollers respectively, and having their free ends connected to opposite sides of the adjacent knuckle whereby said shields will inclose said connections and permit free swinging of the knuckle.

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1,042,549. FOUNTAIN-SYRINGE. SAMUEL B. GOFF, Camden, N. J. Filed Jan. 19, 1912. Serial No. 672,140. (Cl. 128—47.)

1. A fountain syringe comprising a ring of hollow flexible material adapted to be positioned around the neck and supported upon the shoulders of the user, said ring constituting a supply tank, an outlet pipe communicating with said ring, bands around said ring, and cords secured to said bands whereby when a downward pull is had upon said cords, the pressure on the water in the ring is increased, substantially as described.

2. A fountain syringe comprising a ring of hollow flexible material adapted to be positioned around the neck and supported upon the shoulders of the user, said ring constituting a supply tank, an inlet to said ring, a cap normally closing said inlet, an outlet pipe communicating with said ring, a valve in said pipe, bands around said ring, and cords secured to said bands, whereby when a downward pull is had upon said cords, the pressure on the water in the ring is increased, substantially as described.

3. In a device of the character described, the combination with a bar adapted to be supported on a water closet seat, of a double nozzle holder supported on the bar and having two openings therethrough, a ring tank adapted to be positioned around the neck and supported on the shoulders of the user, outlet pipes communicating with said ring tank and opposite sides thereof, nozzles on the ends of said pipes projecting upwardly into the holder, and valves in said pipes, substantially as described.



4. In a device of the character described, the combination with a bar adapted to be supported on a water closet seat, of a double nozzle holder supported on the bar and having two openings therethrough, a ring tank adapted to be positioned around the neck and supported on the shoulders of the user, outlet pipes communicating with said ring tank and opposite sides thereof, nozzles on the ends of said pipes projecting upwardly into the holder, and valves in said pipes, pressure bulbs in said pipes, straps around the neck tank, and cords secured to said straps, substantially as described.

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1,042,550. MILK-BOTTLE LOCK. MOSES GRAHAM, Philadelphia, Pa. Filed Apr. 20, 1912. Serial No. 692,048. (Cl. 282—42.)



1. A device of the character described, comprising a base plate, a casing mounted to turn on the base plate, a fixed arm on the casing, a pivoted arm supported by the casing, a flange on the plate, and a shoulder on the pivoted arm adapted to be positioned over the flange and limit the movement of the pivoted arm when in locking position, substantially as described.

2. A device of the character described, comprising a base plate, a casing mounted to turn on the base plate, a fixed arm on the casing, a pivoted arm supported by the casing, means within the casing controlling the pivotal movement of the pivoted arm, and a pivoted pawl carried by the casing and constructed to lock with the plate holding the casing against rotary movement in one direction, substantially as described.

3. A device of the character described, comprising a base plate, a casing mounted to turn on the base plate, a fixed arm on the casing, a pivoted arm supported by the casing, a flange on the plate, a shoulder on the pivoted arm adapted to be positioned over the flange and limit the movement of the pivoted arm when in locking position,

and a pivoted pawl carried by the casing and constructed to lock with the plate holding the casing against rotary movement in one direction, substantially as described.

4. A device of the character described, comprising a base plate, a circular flange on the base plate, a central journal on the base plate, a casing mounted to turn on the journal and having its edges confined within the flange, a fixed arm on the casing, a pivoted arm on the casing, and means holding the pivoted arm against movement when the casing is in locking position, substantially as described.

5. A device of the character described, comprising a base plate, a circular flange on the base plate, a central journal on the base plate, a casing mounted to turn on the journal and having its edges confined within the flange, a fixed arm on the casing, a pivoted arm on the casing, a curved flange on the base plate, and a shoulder on the pivoted arm adapted to be positioned over said flange and limit the movement of the pivotal arm when the casing is in locking position, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,551. RECOIL MECHANISM. ERNEST GRAY, Ogden, Utah. Filed May 6, 1912. Serial No. 695,426. (Cl. 42—4.)



1. In a small arm, the recoil mechanism comprising a barrel, a cylinder fixed thereto, a recoil spring and a magazine rigidly fixed with respect to the stock and constituting a piston within the cylinder.

2. In a small arm, the combination of a barrel, a recoil spring, a cylinder secured to the barrel, a fixed magazine within the cylinder and constituting a piston therein, and an adjustable escape port in the cylinder.

3. In fire-arms, the combination of a fixed magazine, a cap therefor constituting a piston, a reciprocating barrel, a recoil spring, a cylinder secured to the barrel and co-operating with the piston, a recoil check space being formed within the cylinder forward of the piston, and a return check space being formed within the cylinder to the rear of the piston.

4. In fire-arms, the combination of a fixed magazine, a cap therefor constituting a piston, a reciprocating barrel, a recoil spring, a cylinder secured to the barrel and co-operating with the piston, a recoil check space being formed within the cylinder forward of the piston, a return check space being formed within the cylinder to the rear of the piston, and adjustable means for regulating the escape of air from said recoil space.

5. In fire-arms, the combination of a magazine, a barrel, a recoil spring, a cylinder secured to the barrel, and a removable magazine cap constituting a piston for the cylinder.

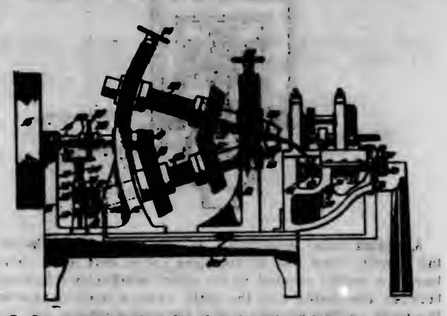
[Claim 6 not printed in the Gazette.]

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1,042,552. METHOD OF AND APPARATUS FOR FORMING FLEXIBLE TUBES. NOAH S. HARTER, Waukegan, Ill. Filed Oct. 20, 1910. Serial No. 588,207. (Cl. 80—1.)

1. In an apparatus for forming flexible tubes or conduits from a flat strip or ribbon of metal, the combination of means for reducing the thickness of a longitudinal marginal portion of the strip thereby curving the latter transversely with the thinner edge outermost, means for severing the strip to provide blanks, means for spirally coiling the strip of metal, and operating means to actuate said reducing, severing and coiling means, substantially as described.

2. In an apparatus for forming flexible tubes or conduits from a flat strip or ribbon of metal, the combination of means for reducing the thickness of a longitudinal marginal portion of the strip thereby curving the latter transversely with the thinner edge outermost, means for cutting the strip to provide a series of connected blanks, means for spirally coiling such strip of blanks, and operating means to actuate said reducing, severing, and coiling means, substantially as described.



3. In an apparatus for forming flexible tubes or conduits from a flat strip or ribbon of metal, the combination of rolling means for reducing the thickness of a longitudinal marginal portion of the strip thereby curving the latter transversely with the thinner edge outermost, means for cutting the strip to provide a series of connected blanks, means for spirally coiling such strip of connected blanks with the coils overlapping, and operating means to actuate said rolling, cutting, and coiling means, substantially as described.

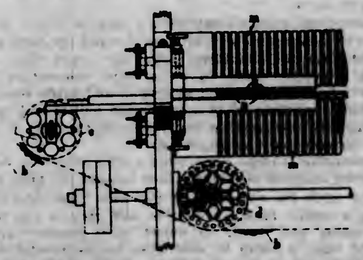
4. In an apparatus for forming flexible tubes or conduits from a flat strip or ribbon of metal, the combination of continuously-acting, rolling means for reducing the thickness of a longitudinal marginal portion of the strip thereby curving the latter transversely with the thinner edge of greater diameter, intermittently operated cutting means acting on said strip to provide a series of connected blanks therefrom, means for spirally coiling such strips or blanks with the coils overlapped, and operating means to actuate said rolling, cutting, and coiling means, substantially as described.

5. An apparatus for forming flexible tubes from a flat strip of metal, comprising in combination rolling means for reducing the thickness of a portion of the strip, intermittently operated cutting means acting on said strip to provide a series of connected blanks therefrom, means for spirally coiling said strips or blanks, actuating means for said rolling, cutting and coiling means, the actuating means for said intermittently operated cutting means including an electrically operated clutch, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

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1,042,553. MACHINE FOR CUTTING CHENILLE. GUSTAV HEDRICH, Barmen, Germany. Filed Sept. 12, 1911. Serial No. 648,919. (Cl. 164—35.)



1. Chenille cutting mechanism comprising an endless conveyer, independent knives mounted on said conveyer, and slotted mandrels through which said knives pass when in motion, substantially as set forth.



2. Chenille cutting mechanism comprising an endless conveyer, independent holders on said conveyer, independent knives mounted on said holders, guides for said holders and slotted mandrels through which said knives pass when in motion, substantially as set forth.

3. Chenille cutting mechanism comprising an endless conveyer, independent knife holders on said conveyer, independent knives mounted on said holders, guides for said holders, slotted mandrels through which said knives pass when in motion, and alternately upper and lower supports between the mandrels substantially as set forth.

4. Chenille cutting mechanism embodying means for opening up or spreading apart the weft portions of the chenille fabric, means affording alternately raised and depressed binding points for the fabric, and a cutter adapted to travel in a line alternately above and below the warp binding threads, whereby the weft threads are cut and pressed upward and downward by the action of the twist of the binding warp threads.

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1,042,554. CORED CARBON ELECTRODE FOR ARC-LAMPS. ROGER R. HEANEY, Freeland, Pa., assignor of one-half to George D. Kugler, Freeland, Pa. Filed Jan. 27, 1911. Serial No. 605,072. (Cl. 176—121.)



1. A carbon electrode for arc lamps having a core of relatively soft carbon and a groove or opening extending longitudinally of said carbon and also having a narrow strip of the relatively hard carbon located between the bottom of the said groove or opening and the said core.

2. A carbon electrode for arc lamps having a core of relatively soft material and also having a groove extending longitudinally of said carbon, the bottom of which groove is located a distance from said core so as to leave a strip of relatively hard carbon between the bottom of said groove and said core.

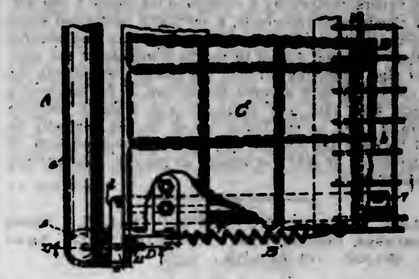
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1,042,555. JOINT FOR BED-FRAMES. AARON HILL, near Los Angeles, Cal., assignor of one-fourth to Raymond Ives Blakesley, Los Angeles, Cal. Filed Mar. 7, 1912. Serial No. 682,004. (Cl. 5—55.)

1. An improved joint for bed frames and the like, comprising two portions respectively upon bed frame members and relatively adjustable transversely thereof, one of said portions comprising a wedge and the other of said portions having an open-ended socket receiving and fitting the wedge.

2. An improved joint for bed frames and the like, comprising two portions respectively upon bed frame members, one of said portions comprising a wedge and the other of said portions having an open-ended socket receiving and fitting the wedge; said joint projecting in entirety laterally clear of the member with which the wedge is connected.

3. An improved joint for bed frames and the like, comprising two portions respectively upon bed frame members, one of said portions comprising a wedge and the other of said portions having an open-ended socket receiving and fitting the wedge; the portion having the socket being provided with a bolt or the like crossing the socket and the wedge having a cut-out portion enlarged with respect to the bolt and whereby the wedge straddles the bolt.



4. An improved joint for bed frames and the like, comprising two portions respectively upon bed frame members, one of said portions comprising a wedge and the other of said portions having an open-ended socket receiving and fitting the wedge; the portion having the socket being provided with a bolt or the like crossing the socket and the wedge having a cut-out portion enlarged with respect to the bolt and whereby the wedge straddles the bolt; and a nut upon the bolt and bearing against the portion having the socket.

5. A joint for bed frames and the like, comprising two portions one of which fits within the other, and means for varying such fit under spring tension irrespective of the width of either member.

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1,042,556. NEBULIZER. JAMES J. HOLLAND, Philadelphia, Pa., and WILLIAM DISCHNA, Toledo, Ohio. Filed Nov. 20, 1911. Serial No. 661,235. (Cl. 128—2.)



1. A nebulizer for converting liquids into light and heavy vapors, comprising a receptacle for liquid, a closure for said receptacle, a vertically positioned vapor conducting tube projecting into said receptacle and secured in said closure, an ejector adapted to discharge spray in a direction of the open lower end of said tube, a table, and means supported by said closure for moving said table into and out of the path of said spray and maintaining said table at all times at right angles to the path of said spray, said table moving means being operable from without the closure, substantially as described.

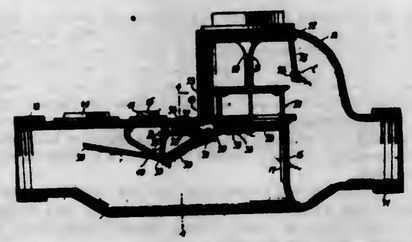
2. A nebulizer for converting liquids into light and heavy vapors, comprising a receptacle for liquid, a cap closing said receptacle, a vertically positioned vapor conducting tube projecting through said cap and secured therein, an ejector located below the lower end of the tube, an air pipe projecting through the cap and supporting the said ejector, a table located between the ejector and the

lower end of the tube, and means supported in the cap and operated from outside the cap to move the table into and out of the path of the spray and for moving the same toward or from the ejector, substantially as described.

3. A nebuliser for converting liquids into light and heavy vapors, comprising a receptacle for liquid, a cap normally closing said receptacle, a vertically positioned vapor conducting tube projecting through said cap and secured therein, an ejector located below the lower end of the tube, an air pipe projecting through the cap and supporting the said ejector, a tube secured in the cap, a rod projecting through said tube and rotatably and slidably movable therein, a table on the lower end of the rod normally located between the ejector and the tube, and an arm on the upper end of said rod outside of the cap, substantially as described.

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1,042,557. AUTOMATIC CUT-OFF VALVE. PETER KARAMBIS, Douglas, Ariz. Filed May 8, 1912. Serial No. 695,933. (Cl. 67—115.)



1. In an automatic fluid cut off, a casing provided with fluid inlet and outlet openings, a gravity seated valve normally closing the passage through the casing, a movable support for holding said valve in open position, a hinged valve mounted in said casing and adapted to be moved to open position by a predetermined pressure of fluid passing through the casing and to automatically move to closed position when there is a predetermined reduction of pressure in the fluid passing through the casing, and connections between said movable support and said hinged valve whereby the movement of said hinged valve to open and closed position will move said support to supporting and non-supporting position respectively with respect to said first named valve.

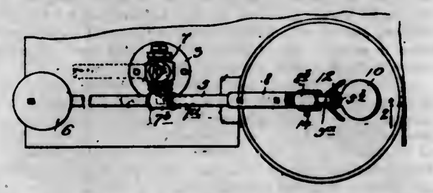
2. In an automatic fluid cut off, a casing provided with fluid inlet and outlet openings, a gravity seated valve normally closing the passage through the casing, a movable support for holding said valve in open position, a hinged valve mounted in said casing and adapted to be moved to open position by a predetermined pressure of fluid passing through the casing and to automatically move to closed position when there is a predetermined reduction of pressure in the fluid passing through the casing, an arm fixed on said hinged valve and operatively engaging said movable support whereby the movement of said hinged valve to open and closed positions will move said support to supporting and non-supporting position respectively with respect to said first named valve.

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1,042,558. MACHINE FOR TESTING CONTAINERS. MORRIS KARP, Passaic, N. J., assignor to Passaic Metal Ware Company, Passaic, N. J., a Corporation of New Jersey. Filed Apr. 2, 1912. Serial No. 688,020. (Cl. 73—51.)

1. The combination of a tubular support provided with an air outlet, means connected with said support to clamp a container against said outlet, and simultaneously depress the support and container and a valve connected with said support to permit the flow of air therethrough to the container when in one position and prevent the flow of air therethrough when in another position.

2. The combination of a hollow pivoted support provided with a head having an air outlet, means connected with said support to clamp a container against said outlet, a valve to communicate with said hollow support to control the flow of air through said support as the latter rocks, an operating member, and means connecting said member with said clamping means to simultaneously operate the latter and depress said support thereby.



3. The combination of a valve having a rocking stem, a pipe connected with said stem to receive compressed fluid therefrom and provided with a head having an outlet, container clamping means carried by said pipe to clamp a container against said head, and means for operating said clamping means and rocking said pipe simultaneously.

4. The combination of a pipe having a head provided with an air outlet, means to control the flow of air through said pipe, a rest for a container movably carried by said pipe to clamp the container against said head, and means to raise said rest toward said head and simultaneously rock the same and the pipe downwardly.

5. The combination of a valve having a stem, a pipe connected with said stem, a head connected with said pipe and having an air outlet, a guide carried by said pipe, a rod carried by said guide, said rod having means for holding a container against said head, a lever carried by said pipe and operatively connected with said rod, and means to operate said lever to raise the container against the head and depress the same.

[Claims 6 to 9 not printed in the Gazette.]

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1,042,559. PRUNING IMPLEMENT. JOHN C. KEARNS, Lewistown, Pa. Filed Feb. 15, 1912. Serial No. 677,741. (Cl. 30—11.)



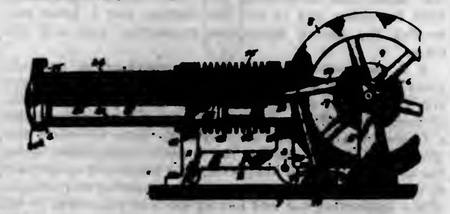
1. In a pruning implement, the combination with a handle, and a fixed saw blade whose heel end is offset out of alinement with its body and secured to said handle and is notched alongside the latter; of a movable saw blade having an oblique projection at its heel end overlying the heel of the fixed saw and pivoted to said handle, the extremity of said projection being provided with a knife edge adapted to move across said notch when the movable blade is swung on its pivot, means for limiting the movements of said blade in either direction, and means for swinging it from the lower end of the handle.



2. In a pruning implement, the combination with a handle, a blade secured to the upper end thereof, a bolt through said handle, and a swinging blade having an oblique projection at its heel end pivoted to said handle alongside the fixed blade and in such position that said bolt checks the movements of the swinging blade in either direction; of a bracket carried by the handle and having two notches in its upper edge and one notch in its lower edge, a slotted link connected at one end to the projection on the movable blade and with its slotted portion sliding over said bracket, an expansive spring coiled around said link and resting at one end in the two notches of the bracket and at the other end against said blade, and means for swinging the latter against the tension of the spring.

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1,042,560. AIR AND GAS ENGINE. LOUIS KESSLER, Chicago, Ill. Filed Feb. 11, 1911. Serial No. 607,917. (Cl. 60—17.)



1. In a hot air engine having a cylinder, a tight fitting piston mounted therein, a loose fitting displacing piston also mounted therein, an inlet port in said cylinder, a valve casing connected therewith, a gas generator connected with said casing, and an atmospheric port also connected with said casing whereby gas and atmospheric air are drawn into said cylinder.

2. In a hot air engine having a cylinder, a tight fitting piston mounted therein, a loose fitting displacing piston also mounted therein, an inlet port in said cylinder, a valve casing connected therewith, a gas generator connected with said casing, an atmospheric port also connected with said casing, an independent outlet port, a valve for controlling same, and means for mechanically operating said last mentioned valve.

3. A motor comprising a cylinder, a tight fitting piston mounted therein, a loose fitting piston also mounted therein, means for synchronizing the movement of said pistons, a gas generator, and means for admitting a mixture of gases to said cylinder.

4. A motor comprising a cylinder, a tight fitting piston mounted therein, a loose fitting piston also mounted therein, the said cylinder having different bores at different portions of the path of reciprocation of said last mentioned piston, means for synchronizing the movement of said pistons, a gas generator, and means for admitting a mixture of gases to said cylinder.

5. A motor comprising a cylinder, a tight fitting piston mounted therein, a loose fitting piston also mounted therein, means for synchronizing the movement of said pistons, means for heating one end of said cylinder, a gas generator, and means for admitting a mixture of gases to said cylinder.

[Claims 6 to 11 not printed in the Gazette.]

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1,042,561. SPEED-RECORDING DEVICE. WILLIAM W. KING, Huntsburg, Ohio. Filed Oct. 25, 1906. Serial No. 340,471. (Cl. 73—123.)

1. In combination, in a speed indicator for a wheeled vehicle, oppositely facing gears having a common axis and designed to rotate in opposite directions, clock mechanism operatively connected with one of said face gears, the other being a loose gear, a ratchet wheel on the loose face gear, a pinion between said face gears adapted to engage with both of them, a support for said pinion having a hub and rotatable on the axis of said face gears, a segmental pinion on said hub, an inclosing case for said mechanism, having a distance scale thereon, a gear adapted to engage with said segmental pinion, an indicater finger and shaft therefor, the movements of said segmental pinion being communicated to the said finger through said gear and shaft, an arm having a slot and adapted to vibrate once with each revolution of a vehicle wheel, means for giving said vibratory movement to said arm, a lever loose on the axis of the said ratchet wheel, and a pawl thereon, a link connecting the said lever and said vibrating arm, whereby the movements of said loose face gear correspond with the movements of said vehicle wheel, a pivoted strip connecting said finger supporting gear, and said link, and a pivot connecting said link and vibrating arm, said pivot being adjustable longitudinally and automatically in the slot in said arm, substantially as described.



2. In a speed indicator controlled by a vehicle wheel, a pair of face gears upon a common axis, and adapted to rotate independently of each other, means for rotating one of said gears at a regular predetermined rate, an idler between said gears, and adapted to engage with them both simultaneously, a bearing for said idler provided with a hub upon the axis of said face gears, said hub having a segmental gear, an indicator finger, a shaft and gear support therefor, the movements of which are controlled by said segmental gear, a lever and pawl and a ratchet wheel therefor, said ratchet wheel mounted upon the other face gear, a vibrating slotted arm the movements of which are controlled by said vehicle wheel, a link connecting said pawl, lever and vibrating arm and longitudinally adjustable in said arm and a pivoted piece connecting said finger supporting gear with said link, whereby the position of said link in said vibrating arm is affected by the movements of said segmental gear and finger supporting gear, and means controlled by the movements of a vehicle wheel for vibrating said vibrating arm once in each revolution of said wheel.

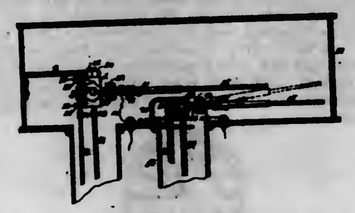
3. In a speed indicator for a vehicle having an axle and wheel and hub rotatable therewith, in combination with clock mechanism having a fixed speed, a face gear and shaft, a loose and opposed face gear, a fixed bearing pin therefor in said frame, an idler arranged to engage with both of said face gears, a ratchet wheel upon the said loose gear, a pawl and lever device therefor, a vibrating arm the movements of which are controlled by said axle whereby the said arm is given a periodical movement, an indicator finger operatively connected with said idler, connecting mechanism between said idler and finger, said idler being arranged to change position when the relative speed of the face gear changes, but to rotate in one position when their speeds are equal, and automatic mechanism controlled by the movements of said idler, whereby the throw of said lever and pawl are automatically adjusted to rotate said ratchet wheel and loose gear at the speed of the fixed speed gear as the position of the idler is changed whereby the finger will remain quiet in any changed position when the speed of the vehicle becomes constant, and means by which the movements of the vibrating arm are controlled by said axle.

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1,042,562. INDICATING AND PROTECTING DEVICE. DAVID R. KNAPP, Philadelphia, Pa. Filed Dec. 20, 1906. Serial No. 469,896. (Cl. 116—31.)

1. A system to indicate interference of guns for turrets, comprising in combination with the gun turrets and

guns and the controlling means therefor, a plurality of revoluble member designating turrets, revoluble elongated members designing guns, and proportioned to the dimensions thereof, mounted thereon, and each of the said members operatively connected respectively with the turret and gun controlling means so as to move in synchronism with the respective turret and gun motions, said indicating members occupying the same relative position as their respective turrets and guns.



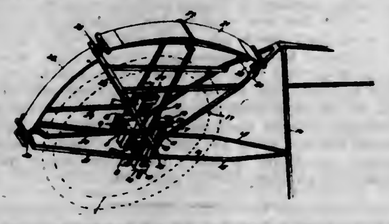
2. A system to indicate interference of guns, gun-fire and guns for turrets, comprising in combination with the gun turrets and guns and the controlling means therefor a plurality of revoluble members designating turrets, revoluble elongated members designating guns, and proportioned to the dimensions thereof, plus a predetermined length representing gun-fire, mounted thereon, and each of the said members operatively connected respectively with the turret and gun controlling means so as to move in synchronism with the respective turret and gun motions, said indicating members occupying the same relative position as their respective turrets and guns.

3. A system to indicate interference of guns for turrets, comprising in combination with the turret turning gear and the gun elevating gearing a casing, a plurality of members pivoted therein and adapted to revolve in a horizontal plane, said members operatively connected to the respective turret-turning gear, members representing respective guns pivotally connected to the aforesaid members and adapted to move in a plane at right angles to the aforesaid plane, and each of said members operatively connected to the respective gun-elevating gearing, and moving in synchronism therewith, said members also occupying the same relative position as their respective turrets and guns.

4. In a gun and gun-fire interference indicator for a plurality of turrets, in combination with the gun controlling means, movable members, representing guns, proportional to the dimensions of the guns and spaced apart in proportion to the distance between the vertical and horizontal centers thereof, and each provided with a predetermined elongated portion representing gun-fire, and means operatively connecting said members to their respective gun motions.

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1,042,563. SPRING-FRAME FOR MOTOR-CYCLES. FRANK T. KOHEN, Tampa, Kans. Filed Mar. 16, 1911. Serial No. 614,867. (Cl. 280—9..)



1. In a motor-cycle, the combination with a wheel and its axle, of a pair of brackets connected with the ends of the axle and each having a pair of spaced arms, a guide rod connecting the arms, a frame including a fork, the sides of which terminate in blocks slidably mounted upon the guide rods, a U-shaped supporting rod having its lower ends respectively secured to the blocks, a leaf spring connected centrally to the bight of the supporting rod and having one end connected to the fork of the frame, and a second U-shaped supporting rod connected at its bight with the other end of the spring and at its ends to the said block.

2. In a motor-cycle, the combination with a wheel and its axle, of a pair of brackets connected with the ends of the axle and each having a pair of spaced arms, a guide rod connecting the arms, a frame including a fork, the sides of which terminate in blocks slidably mounted upon the guide rods, a U-shaped supporting rod having its lower ends respectively secured to the blocks, a clip secured to the fork of the frame, a bail connected to the clip, a leaf spring centrally secured to the bight of the supporting rod and having one end connected to said bail, a second U-shaped supporting rod having its ends connected to the blocks, a bail secured to the bight of the last mentioned supporting rod and having engagement with the other end of the leaf spring, and a brace connecting the second mentioned supporting rod with the frame.

3. A motor-cycle comprising in combination, an axle, yokes centrally secured on either end of the axle, said yokes including spaced upper and lower perforated projections, bolts disposed in the openings of the projections, a frame including fork members, the sides of which terminate in blocks adapted for slidable engagement along the bolts, a U-shaped supporting rod connected at its ends to the yokes, a leaf spring centrally connected to the bight of the supporting rod and having one end connected to the frame, and a second U-shaped supporting rod pivotally connected at its ends to the blocks and connected at its bight to the outer end of the leaf spring.

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1,042,564. PROCESS FOR PRESERVING WOODEN ARTICLES BURIED IN THE EARTH. NANDOR KOLÁR and WILHELM JANCSÓ, Budapest, Austria-Hungary. Filed Dec. 26, 1911. Serial No. 667,802. (Cl. 99—12.)

1. A method for preserving timber buried in the earth, consisting in mixing or impregnating the layer of earth adjoining the portions of the wooden articles in the earth, with a preservative which can not be washed away by water.

2. A method for preserving timber buried in the earth, consisting in mixing or impregnating the layer of earth adjoining the portions of the woden articles in the earth to a depth of substantially 700 mm. and to a minimum thickness of substantially 200 mm. with a preservative which cannot be washed away by water.

3. A method for preserving timber buried in the earth, consisting in removing the earth surrounding the timber, mixing or impregnating said removed earth with a preservative substantially insoluble in water and replacing the impregnated earth around the timber.

4. A method for preserving timber buried in the earth, consisting in removing the earth to a depth of substantially 700 mm. and to a minimum thickness of substantially 200 mm. surrounding the timber, mixing or impregnating said removed earth with a preservative substantially insoluble in water and filling back the impregnated earth around the timber.

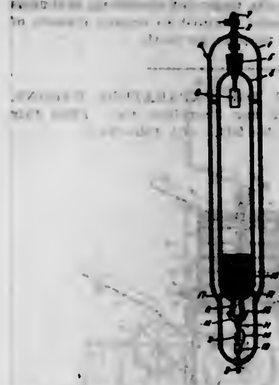
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1,042,565. VAPOR ELECTRIC DEVICE. FRANK A. KRONER, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Aug. 12, 1911. Serial No. 643,659. (Cl. 176—50.)

1. A vaper electric device comprising a double walled envelop, electrodes therefor, and a metallic tubular leading-in conductor for one of said electrodes sealed into the inner and outer envelops.

2. A vapor electric device comprising a glass envelop and an inner quarts envelop; a tubular member sealed into both envelops, having respectively the same coefficient of expansion as glass and quarts, said members being joined to form a continuous tube for the evacuation of the inner envelop.





3. A vapor electric device comprising a glass envelop and an inner quarts envelop, tubular members sealed into both envelops, said members being joined metallically, and an electrode in the inner envelop, in electrical contact with said tubular member.

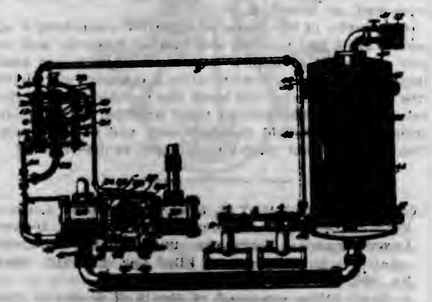
4. A vapor electric device comprising a glass envelop and an inner quarts envelop, a nickel-iron tube sealed into said quarts envelop and a platinum tube sealed into the glass envelop and entering a recess in the nickel-iron tube so as to afford a continuous passage into the quarts tube whereby it may be evacuated.

5. An evacuated envelop, having a plurality of walls consisting respectively of materials having differing coefficients of expansion, and a tubular member sealed therein, consisting of sections joined together, each section having substantially the same coefficient of expansion as the material into which it is sealed.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,566. GAS-PRODUCER. CHARLES A. KUENZEL, Buena Vista, Colo., assignor to The Kuenzel Gas Producer & Smelter Construction Co., a Corporation of Washington. Filed Nov. 29, 1911. Serial No. 663,047. (Cl. 48—147.)



1. In an apparatus of the character stated, means for intermittently feeding oil in small quantities, means for admitting air to mix with such oil, a high-efficiency compressor for compressing such mixed air and oil, and a conduit for such compressed mixture consisting of a plurality of small diameter pipes, the transmission capacity of such pipes being substantially equal to the delivery capacity of such compressor, whereby the initial pressure of the compressed mixture is maintained.

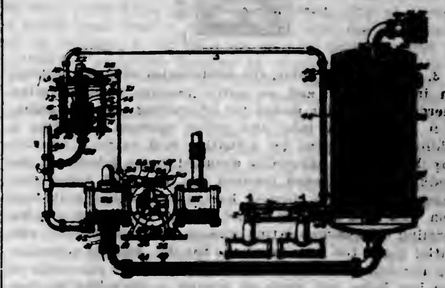
2. In an apparatus of the character stated, means for intermittently feeding oil in small quantities, means for admitting air to mix with such oil, a high-efficiency compressor for compressing such mixed air and oil, a gas-container composed of a plurality of small diameter pipes, and a conduit connected to said compressor and container and consisting of a plurality of small diameter pipes, the transmission capacity of such pipes being substantially equal to the delivery capacity of such compressor, whereby the initial pressure of the compressed mixture is maintained.

3. In an apparatus of the character stated, means for intermittently feeding oil in small quantities means for admitting air to such oil, means for compressing such mixed air and oil, a gas-container composed of a plurality of small-diameter pipes and a checker-work of blocks at its discharge end, and a conduit connected to said compressing means and container and consisting of a plurality of small-diameter pipes.

4. In an apparatus of the character stated, an oil receptacle having means for supplying it with oil, a valve in the outlet of such receptacle, an air-compressor, a pipe from the outlet of said oil-receptacle, an air-intake pipe for said air-compressor and having said oil-pipe connected to it, connecting means between said air-compressor and the valve in the oil-receptacle for intermittently actuating said valve, and a conduit connected to the discharge of the air-compressor and consisting of a plurality of small-diameter pipes.

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1,042,567. PROCESS FOR PRODUCING COMBUSTIBLE GAS. CHARLES A. KUENZEL, Buena Vista, Colo., assignor to The Kuenzel Gas Producer & Smelter Construction Co., a Corporation of Washington. Filed Nov. 29, 1911. Serial No. 663,048. (Cl. 48—219.)



The process of producing a combustible gas, which consists in feeding proportionately small quantities of liquid oil into proportionately large quantities of air, vaporizing the oil by compressing such mixed oil and air, and maintaining substantially the initial pressure upon such mixture until it is consumed without further addition of air.

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1,042,568. FLUSHING-VALVE. SAMUEL C. LAIDLEY, Chicago, Ill. Filed Apr. 4, 1911. Serial No. 618,851. (Cl. 137—93.)

1. In a flushing valve, the combination of a main casing, an inlet passage and an outlet passage communicating therewith, valvular means for controlling the communication between the inlet and outlet passages, including a sliding valve, means for actuating said valve, a circular box-like member adjustably mounted in the interior of the casing and interposed between the inlet and outlet passages, said box-like member having an opening in its bottom wall kept normally closed by said valve, said opening forming the communicating passage between the inlet and outlet ports, the location of the box-like member determining the degree of movement of the valve, the side walls of the box being cut away to provide a plate-like member adapted to overlie and govern the size of the outlet passage, said governing member being moved to different positions by an adjusting movement of the box-like member, substantially as described.

2. In a flushing valve, the combination of a main casing, an inlet passage and an outlet passage communicating

therewith, valvular means for controlling the communication between the inlet and outlet passages, including a sliding valve, means for actuating said valve, a circular box-like member adjustably mounted in the interior of the casing and interposed between the inlet and outlet passages, said box-like member having an opening in its bottom wall kept normally closed by said valve, said opening forming the communicating passage between the inlet and outlet ports, the location of the box-like member determining the degree of movement of the valve, the side walls of the box being cut away to provide a plate-like member adapted to overlie and govern the size of the outlet passage, said governing member being moved to different positions by an adjusting movement of the box-like member, and means for locking the said box-like member against movement within the casing, substantially as described.



3. In a flushing valve, the combination of a main casing, an inlet passage and an outlet passage communicating therewith, valvular means for controlling the communication between the inlet and outlet passages, including a sliding valve, means for actuating said valve, a circular box-like member adjustably mounted in the interior of the casing and interposed between the inlet and outlet passages, said box-like member having an opening in its bottom wall kept normally closed by said valve, said opening forming the communicating passage between the inlet and outlet ports, the location of the box-like member determining the degree of movement of the valve, the side walls of the box being cut away to provide a plate-like member adapted to overlie and govern the size of the outlet passage, said governing member being moved to different positions by an adjusting movement of the box-like member, a cap for the casing, and locking members depending from the cap and engaging with the box-like member to prevent movement thereof, substantially as described.

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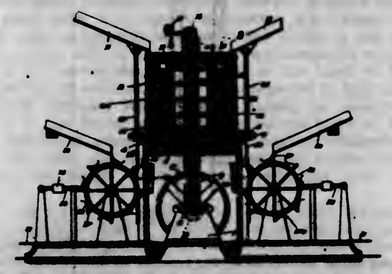
1,042,569. NUT-LOCK. HOWARD W. LANG, Litchfield, Nebr. Filed July 15, 1912. Serial No. 709,545. (Cl. 151—35.)



A nut lock, in combination with a bolt, of a nut having a recess formed in its upper surface, said recess opening into the bolt opening of the nut, the side walls of said recess being formed with under-cut shoulders, a post rising from the recess and having its upper end on a plane with the upper surface of the nut, a pawl formed from a single length of resilient metal and consisting of coils adapted to encircle the post, the side arms of said pawl being adapted to bear against the under-cut shoulders, said arms being provided with blades adapted to engage threads of the bolt, as and for the purpose set forth.

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1,042,570. MACHINE FOR SEPARATING RAISINS. GOTTHOLD L. LANGER, San Francisco, Cal. Filed July 23, 1908. Serial No. 444,941. (Cl. 130—32.)



1. In a device of the character set forth a drum, said drum being provided with a hollow chamber at its upper end, a member located at the lower end of said drum and being provided with a hollow chamber, a sizing means disposed within said drum intermediate said hollow chamber and said member, and a supply and discharge means for said drum as set forth.

2. A device of the character set forth comprising a support, a vertical rod thereon, a drum mounted on said rod, a plurality of screens in said drum, said drum being provided with a hollow chamber at its upper end, a member at the lower end of said drum provided with a hollow chamber, means admitting heat to both of said chambers and means for imparting a reciprocatory motion to said drum as described.

3. A device of the character described comprising a support, a drum mounted on said support, a separating means in said drum, a rocking arm on the top of said drum, means for operating said rocking arm to impart to said drum a horizontal reciprocatory movement, eccentrics attached to said support and means for operating said eccentrics to impart to said drum a vertical reciprocatory movement, as described.

4. A device of the character described comprising a support, a basin like member held upward from the said support and provided with a hollow chamber, means admitting heat to said hollow chamber, a plurality of radiating ribs in the bottom of said basin like member forming channels, said basin like member being provided with discharge outlets to which said channels lead, and a sizing means, disposed upon said basin like member, as described.

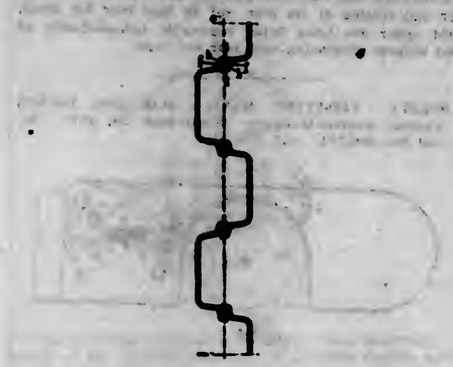
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1,042,571. SHEET-METAL PILING. TRYGGVE LARSSEN, Bismark, Germany, assignor to The Firm of Deutsch-Luxemburgische Bergwerks- und Hütten-Aktiengesellschaft, Bochum, Germany. Filed Apr. 15, 1912. Serial No. 690,888. (Cl. 61—53.)

1. Sheet piling composed of sheets of U-shaped cross-section, facing alternately in opposite directions and provided at each junction with an integral interlocking S-shaped flange, the web of said flange having an integral hooked projection adapted to interlock with a flange abutting against said web.

2. Sheet piling composed of sheets of U-shaped cross-section facing alternately in opposite directions and provided at each junction with an integral S-shaped flange, each sheet having symmetrical S-shaped flanges and hooked projections at the junction.

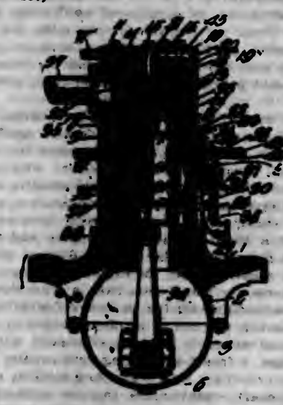
3. Sheet piling composed of sheets of U-shaped cross-section facing alternately in opposite directions and provided at each junction with an integral S-shaped flange and a hook, said flanges and hooks adapted to intermesh and form an interlocking joint at the junction.



4. Sheet piling composed of sheets of U-shaped cross-section, facing alternately in opposite directions and provided at each junction with an integral S-shaped flange, the web of said flange having a hooked projection, said flanges having beat extensions adapted to intermesh with said hooked projection forming an interlocking joint.

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1,042,572. EXPLOSIVE-ENGINE. ALFRED LEE, Bellingham, Wash. Filed Oct. 24, 1911. Serial No. 656,330. (Cl. 123—60.)



1. An explosive engine, having a communicating cylinder and crank case, said crank case being sealed and providing an air chamber, the lower portion of the cylinder adjacent the crank case being enlarged and having a plurality of ports therethrough in communication with the outside, a scavenging piston disposed for reciprocation within the cylinder and acting as a valve to control the ports thereof, the up-stroke of said piston drawing air through said ports to be compressed within the chamber of the crank case upon the down-stroke thereof, said scavenging piston being provided with a plurality of ports near the upper and lower ends thereof, a crank shaft operably connected to said scavenging piston, a motor piston mounted for reciprocation within the scavenging piston and disposed to control the lower openings therethrough and when at its lowest point of movement to uncover the same to permit the projection of compressed air from the crank case chamber within the chamber formed in the scavenging piston to act as a scavenging medium therefor, the other perforations of the scavenging piston forming exhaust outlets, a valve controlled intake manifold connected to the cylinder and actuated upon the down-stroke of the scavenging piston to intake the explosive charge, a valve controlled inlet disposed at the upper end of the cylinder for admitting the charge within the scavenging piston upon the up-stroke of the scavenging piston.

2. An explosive engine, having a communicating cylinder and crank case, said crank case being sealed and providing an air chamber, the lower portion of the cylinder adjacent the crank case being enlarged and having a plurality of ports therethrough in communication with the outside, a scavenging piston disposed for reciprocation within the cylinder and acting as a valve to control the ports thereof, the upstroke of said piston drawing air through the said ports to be compressed within the chamber of the crank case upon the down-stroke thereof, said scavenging piston being provided with a plurality of ports near the upper and lower ends thereof, a crank shaft operably connected to said scavenging piston, a motor piston mounted for reciprocation within the scavenging piston and disposed to control the lower openings therethrough and when at its lowest point of movement to uncover the same to permit the projection of compressed air from the crank case chamber within the chamber formed in the scavenging piston to act as a scavenging medium therefor, the other perforations of the scavenging piston forming exhaust outlets, a valve controlled intake manifold connected to the cylinder and actuated upon the down-stroke of the scavenging piston to intake the explosive charge, a valve controlled inlet disposed at the upper end of the cylinder for admitting the charge within the scavenging piston upon the up-stroke of the scavenging piston.

3. An explosive engine, having a cylinder the lower end of the bore of which is enlarged, the wall of said cylinder at such point being provided with a plurality of ports, a sealed crank case in communication with the lower end of the cylinder, a cap upon the cylinder provided with a cylindrical projection forming an annular exhaust chamber therearound within the cylinder, an open ended piston having a reduced upper end mounted to fit slidably upon the cylindrical projection of the cap and having an enlarged lower end forming a piston to reciprocate in the enlarged bore of the cylinder and to control the ports thereof, said open ended piston having ports in its wall at the junction of the reduced upper and enlarged lower ends thereof to admit air from the crank case into the lower end of the explosive chamber, a manifold leading from the exhaust chamber at the upper end of the cylinder, a valve controlled explosive charge intake in communication with the upper end of the enlarged bore of the cylinder, a valve controlled inlet in the cap to admit the explosive charge at the upper end of the hollow piston, a motor piston mounted for reciprocation within the outer piston, a crank shaft, a piston rod connected to the hollow piston and the crank shaft whereby the motor piston imparts rotation to the crank shaft, and a plurality of piston rods connected to the hollow piston for imparting to said hollow piston a simultaneous reciprocation with the motor piston.

4. An explosive engine, having a cylinder the lower end of the bore of which is enlarged, the wall of said cylinder at such point being provided with a plurality of ports, a sealed crank case in communication with the lower end of the cylinder, a cap upon the cylinder provided with a cylindrical projection forming an annular exhaust chamber therearound within the cylinder, an open ended piston having a reduced upper end mounted to fit slidably upon the cylindrical projection of the cap and having an enlarged lower end forming a piston to reciprocate in the enlarged bore of the cylinder and to control the ports thereof, said open ended piston having ports in its wall at the junction of the reduced upper and enlarged lower ends thereof to admit air from the crank case into the lower end of the explosive chamber, a manifold leading from the exhaust chamber at the upper end of the cylinder, a valve controlled explosive charge intake in communication with the upper end of the enlarged bore of the cylinder, a valve controlled inlet in the cap to admit the explosive charge at the upper end of the hollow piston, a motor piston mounted for reciprocation within the outer piston, a crank shaft, a piston rod connected to the

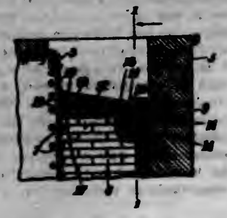
motor piston and the crank shaft whereby the motor piston imparts rotation to the crank shaft, and a plurality of piston rods connected to the hollow piston for imparting to said hollow piston a simultaneous reciprocation with the motor piston, the distance traveled by the hollow piston being substantially one-half of the distance traveled by the motor piston.

5. An explosive engine, having a cylinder the lower end of the bore of which is enlarged, the wall of said cylinder at such point being provided with a plurality of ports, a sealed crank case in communication with the lower end of the cylinder, a cap upon the cylinder provided with a cylindrical projection forming an annular exhaust chamber thereabout within the cylinder, an open ended piston having a reduced upper end mounted to fit slidably upon the cylindrical projection of the cap and having an enlarged lower end forming a piston to reciprocate in the enlarged bore of the cylinder and to control the ports thereof, a manifold leading from the exhaust chamber at the upper end of the cylinder, a valve controlled explosive charge intake in communication with the upper end of the enlarged bore of the cylinder, a valve controlled inlet in the cap to admit the explosive charge at the upper end of the hollow piston, a motor piston mounted for reciprocation within the outer piston, a crank shaft, a piston rod connected to the motor piston and the crank shaft whereby the motor piston imparts rotation to the crank shaft, and a plurality of piston rods connected to the hollow piston for imparting to said hollow piston a simultaneous reciprocation with the motor piston, the said hollow piston being provided with two series of ports through the walls thereof, one series near the upper end and the other near the lower end, whereby air is admitted to the lower end of the hollow piston and controlled by the motor piston to form a scavenging air current therewithin simultaneously with the bringing of the exhaust openings of the hollow piston into play.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,573. BOILER-FURNACE. WILLIAM LEMB, New York, N. Y., assignor to John Lemb and Son, Incorporated, Brooklyn, N. Y., a Corporation of New York. Filed Feb. 9, 1912. Serial No. 676,630. (Cl. 110—99.)



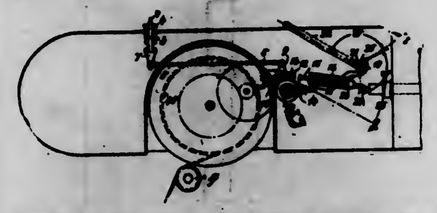
1. A combustion chamber arch including in combination, a pair of opposite side walls, a pair of cross supports supported from said side walls, a rear fire brick having a groove therein adapted to span said rear cross support and be supported thereby, said groove having an undercut portion to interlock with said support, and an upper fire brick supported at its forward end by said front cross support and at its rearward end by said rear fire brick.

2. A combustion chamber arch including in combination, a pair of opposite side walls, a pair of ventilated cross supports supported from said side walls, a rear fire-brick having a groove therein adapted to span said rear cross support and be supported thereby, said groove having an undercut portion to interlock with said support and an upper fire-brick adapted at its forward end to span said front cross support and to be supported thereby and at its rearward end to rest upon said rear fire-brick.

3. A combustion chamber arch including in combination, a pair of opposite side walls, a front cross member and a rear cross member supported from said side walls, a rear fire brick having a groove therein adapted to span said rear cross member and be supported thereby, said groove having an undercut portion to interlock with said rear cross member, and an upper fire brick supported at its forward end and surrounding said front cross member and resting at its rear end on said rear fire brick, said upper fire brick being removable independently of and without displacing said rear fire brick.

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1,042,574. FLOATING MINE. ALEXANDER LEHNET, Vienna, Austria-Hungary. Filed Mar. 28, 1912. Serial No. 686,734. (Cl. 102—8.)



1. In a floating mine, an explosive charge, percussion caps thereon, percussion mechanism normally in alinement with said percussion caps, a pivotal axis about which said percussion mechanism is capable of oscillating, and means operatable from the exterior of the mine for oscillating said percussion mechanism to bring the same out of alinement with said percussion caps.

2. In a floating mine, an explosive charge, percussion caps thereon, percussion mechanism normally in alinement with said percussion caps, a spring tending to cause said percussion mechanism to effect percussion, arresting means for holding said percussion mechanism against the action of said spring, a pivotal axis about which said percussion mechanism is capable of oscillating, and means operatable from the exterior of the mine for oscillating said percussion mechanism to bring the same out of alinement with said percussion caps, and for simultaneously releasing said percussion mechanism from said arresting means.

3. In a floating mine, an explosive charge, percussion caps thereon, a transverse bar, a forked member embracing said bar, percussion needles carried by said forked member and normally held in alinement with said percussion caps, a frame supporting said needles in position, springs intermediate said frame and needles, a transverse rotatable shaft, crank arms thereon connected to said frame and a lever exterior of the mine and mounted on said shaft for rotating the same to depress said frame.

4. In a floating mine, an explosive charge, percussion caps thereon, a transverse bar, a cam-shaped forked member embracing said bar, a cam coöperating with said forked member, percussion needles carried by said forked member and normally held in alinement with said percussion caps, a frame supporting said needles in position, springs intermediate said frame and needles, a transverse rotatable shaft, crank arms thereon connected to said frame, and a lever exterior of the mine mounted on said shaft for rotating the same to depress said frame, and simultaneously withdraw said forked member from coöperation with said cam.

5. In a floating mine, an explosive charge, percussion caps thereon, a transverse bar, a cam-shaped forked member embracing said bar, a cam coöperating with said forked member, percussion needles carried by said forked member, and normally held in alinement with said percussion caps, a frame supporting said needles in position, springs intermediate said frame and needles, a transverse rotatable shaft, crank arms thereon connected to said frame, a lever exterior of the mine and mounted on said shaft for rotating the same to depress said frame and simultaneously withdraw said forked member from coöperation with said cam, and means for independently operating said cam from the exterior of the mine to withdraw it from coöperation with said forked member.

[Claims 6 to 8 not printed in the Gazette.]



1,042,575. VENTILATOR. WILLIAM J. LIEBKNECHT, Stapleton, N. Y. Filed Jan. 3, 1911. Serial No. 600,694. (Cl. 98—4.)



1. In a ventilating apparatus of the class described, a casing or flue, a transverse support mounted therein and provided with a vertically adjustable catch block, a vertically movable member mounted in connection with said support and extending above and below, the same and provided at its upper end with a hood, automatic means for moving said movable member vertically, and a locking arm pivoted at the upper end of said member and extending downwardly below said support, said arm being provided with teeth in a vertical alinement and adapted to engage said catch block.

2. In a ventilating apparatus of the class described, a casing or flue, a transverse support mounted therein and provided with a vertically adjustable catch block, a vertically movable member mounted in connection with said support and extending above and below the same and provided at its upper end with a hood, and a locking arm pivoted at the upper end of said member and extending downwardly below said support, said arm being provided with a vertical series of teeth adapted to engage said catch block, means for automatically forcing said movable member upwardly and holding it in raised position, said means and said movable member being joined by devices including a fusible means securing two of said connecting devices together.

3. In a ventilating apparatus of the class described, a flue or casing, a support having an opening through the same secured transversely therein, a vertically movable member mounted in connection with and to be guided by said support, said movable member consisting of two parallel parts one on each side of said support, a hood connected with the upper end of said member, a locking arm pivoted to the upper end of said member and extending downwardly through said support provided on one side with a vertical series of teeth, and a vertically adjustable catch block mounted within the opening in said support and adapted to engage said teeth.

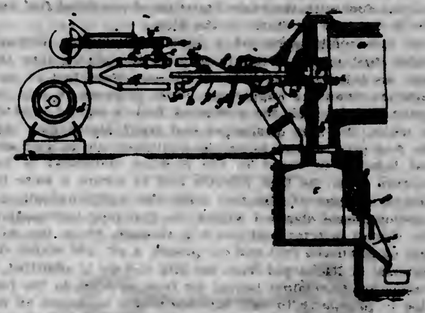
4. In a ventilating apparatus of the class described, a casing or flue, a transverse support having an opening therethrough secured therein, a vertically movable member mounted in connection with and to be guided by said support and extending above and below the same, said movable member being provided at its upper end with a hood, automatic devices normally tending to force said member and hood upwardly and hold them in a raised position, a locking arm provided with a vertical series of teeth and extending through said support, a catch block to be engaged by the teeth of the locking arm, and a screw in the opening in said support to adjust the said catch block vertically.

5. In a ventilating apparatus of the class described, a casing or flue, a transverse support secured therein, a vertically movable member consisting of two parallel parts on each side of said support and extending above and below the same and provided at its upper end with a hood, automatic devices normally operating to force said member and hood upwardly and hold them in a predetermined position, said automatic devices being connected with each part of said movable part, each of said connections including fusible joinings, the fusion of which permits said member and hood to drop and close said casing or flue, said vertically movable member and said support being also provided with an adjustable catch block and a locking arm having a vertical series of teeth to engage said catch block whereby the said member and hood may be adjusted and held in any desired position, and the melting of the fusible part will permit these parts to drop to their lowest position.

[Claim 6 not printed in the Gazette.]

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1,042,576. BURNER FOR ROTARY KILNS, &c. POUL T. LEHMANN, New York, N. Y., assignor to F. L. Smidth & Co., New York, N. Y., a Corporation of New Jersey. Filed Aug. 20, 1910. Serial No. 578,218. (Cl. 110—105.)



1. The combination of a kiln, a fuel pipe of relatively restricted area through which fuel mixed with air and without combustion may be introduced into the kiln, an injector, means to supply powdered fuel to said injector, means to supply air under pressure to said injector to mix with the powdered fuel, a second injector to which the first discharges and itself discharging into the fuel pipe, means to supply additional air under pressure to said second injector to assist in the forward movement of the mixture from the first injector and to secure a more intimate mixture of the fuel with the additional air, an injector nozzle disposed within the fuel pipe intermediate the second injector and the kiln through which the mixture of powdered fuel and air passes, a pit in which the material is discharged from the kiln and air is admitted and a connection independent of said pit connection to conduct heated air from said pit to the fuel pipe in proximity to said injector nozzle to secure an intimate and heated mixture of the powdered fuel and air before the same enters the kiln.

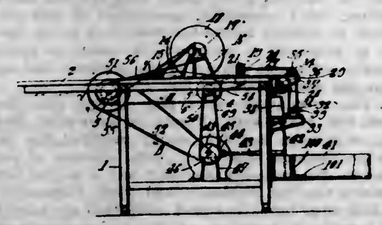
2. The combination of a kiln, a fuel pipe through which fuel mixed with air may be introduced into the kiln, an injector, means to supply powdered fuel to said injector, means to supply air under pressure to said injector to mix with the powdered fuel, a second injector to which the first discharges and itself discharging into the fuel pipe, means to supply additional air to said second injector to assist in the forward movement of the mixture from the first injector and to secure a more intimate mixture of the fuel with the additional air, an injector nozzle disposed within the fuel pipe intermediate the second injector and the kiln through which the mixture of powdered fuel and air passes, a pit into which the material is discharged from the kiln and air is admitted, a connection to conduct heated air from said pit to the fuel pipe in proximity to said injector nozzle to secure an intimate and heated mixture of the powdered fuel and air before the same enters the kiln and means located beyond said injector nozzle and adjacent to the kiln to introduce an auxiliary fluid under pressure to regulate the flame in the kiln.

3. The combination of a kiln, a fuel pipe through which fuel mixed with air may be introduced into the kiln, an injector, means to supply powdered fuel to said injector, means to supply air under pressure to said injector to mix with the powdered fuel, a second injector to which the first discharges and itself discharging into the fuel pipe, means to supply additional air to said second injector to assist in the forward movement of the mixture from the first injector and to secure a more intimate mixture of the fuel with the additional air, an injector nozzle disposed within the fuel pipe intermediate the second injector and the kiln through which the mixture of powdered fuel and air passes, a pit into which the material is discharged from the kiln and air is admitted, a connection to conduct heated air from said pit to the fuel pipe in proximity to said injector nozzle to secure an intimate and heated mixture of the powdered fuel and air before the same enters the kiln and means located beyond said injector nozzle and adjacent to the kiln to introduce a gaseous fuel into the fuel pipe to mix the gaseous fuel with the heated mixture of powdered fuel and air to regulate the flame in the kiln.

4. The combination of a kiln, a fuel pipe through which fuel mixed with air may be introduced into the kiln, an injector, means to supply powdered fuel to said injector, means to supply air under pressure to said injector to mix with the powdered fuel, a second injector to which the first discharges and itself discharging into the fuel pipe, means to supply additional air to said second injector to assist in the forward movement of the mixture from the first injector and to secure a more intimate mixture of the fuel with the additional air, an injector nozzle disposed within the fuel pipe intermediate the second injector and the kiln through which the mixture of powdered fuel and air passes, a pit into which the material is discharged from the kiln and air is admitted, a connection to conduct heated air from said pit to the fuel pipe in proximity to said injector nozzle to secure an intimate and heated mixture of the powdered fuel and air before the same enters the kiln, means located beyond said injector nozzle and adjacent to the kiln to introduce an aeriform fluid under pressure to regulate the flame in the kiln, means to introduce producer gas into the fuel pipe beyond said last named means and means to supply heated air from the pit to the fuel pipe to support the combustion of said producer gas.

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1,042,577. WRAPPER-FOLDING MACHINE. SYLVESTER GRANT LIPSCOMB, Louisville, Ky., assignor to Jacob M. Jones, Elizabethtown, Ky. Filed May 23, 1911. Serial No. 628,960. (Cl. 93—1.)



1. In a device of the class described, a table; superposed shafts supported for rotation adjacent the upper face of the table; means for connecting the shafts; cooperating rollers upon the shafts; a conveyer belt operable by one shaft and carried antifrictionally over the edge of the table, part of the lower run of the belt lying above the table; folding mechanism; and means for passing the material through the folding mechanism and for delivering the material between the rollers and between the lower run of the belt and the table.

2. In a device of the class described, a table; a hopper located at one end of the table; a primary shaft journaled for rotation below the table and above the hopper; superposed secondary shafts journaled for rotation adjacent the top of the table; cooperating rollers upon the secondary shafts; primary and secondary pulleys journaled adjacent the edge of the table; a belt engaged with the primary shaft and with one of the secondary shafts, the belt having its upper and lower runs carried over the primary and secondary pulleys, respectively; an upright guide located below the secondary pulley; radial spacers upon the primary shaft, located in the vicinity of the guide and above the hopper; folding mechanism; and means for advancing the material to the folding mechanism, and for delivering the material between the rollers, and between the lower run of the belt and the upper face of the table, whereby the material will be advanced by the belt, over the secondary pulley and along the guide, into the hopper, the spacers constituting means for moving the material in the hopper, out of the way of material traversing the guide.

3. In a device of the class described, a table; superposed shafts supported for rotation adjacent the upper face of the table; intermeshing pinions upon the shafts; rollers upon the shafts; a conveyer belt operable by the roller of one of said shafts, the conveyer belt being carried anti-frictionally over one edge of the table; spaced shafts journaled for rotation adjacent the table; a second belt conveyer operable by the said shafts; means for operatively connecting one of said last mentioned shafts with one of the first mentioned shafts; folding means through which the second conveyer advances the material, to deliver the same between the rollers and beneath the first mentioned belt conveyer; a shaft supported for rotation below the table and receiving that portion of the first mentioned belt conveyer which is extended below the table; and means operable by the last mentioned shaft for moving the material after the same has passed from the first mentioned belt conveyer.

4. In a device of the class described, a table; folding mechanism thereon; means for advancing the material through the folding mechanism; a belt consisting of a horizontally disposed segment adapted to receive the material after it is folded, and a vertically disposed segment; an upright member disposed adjacent the vertical segment of the belt, and constituting a guide for the material; a hopper at the base of the guide member and constituting a support for one end of the belt; and radial spacers rotatable with said shaft, and operating in close proximity to the hopper.

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1,042,578. DEVICE FOR TURNING CRANK-PINS. EMANUEL W. LOUDEN, Southfork, Pa. Filed Aug. 7, 1911. Serial No. 642,736. (Cl. 82—9.)



In a turning machine, a casing, a gear ring operating in said casing, a sleeve movable within the gear ring, an angularly disposed tool support carried by the sleeve, the said tool support having a channel, a tool having a rib adapted to engage the walls of said channel, means for moving the tool longitudinally of the sleeve, and means for operating the gear ring.

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1,042,579. SEWER-PIPE CONSTRUCTION. WALTER LUCAS, Victoria, British Columbia, Canada. Filed Dec. 5, 1911. Serial No. 664,056. (Cl. 137—5.)

1. A sewer pipe composed of sections each section forming a segment of the cross section of the pipe and the edges of transverse and longitudinal joints being lapped one with the other, the lap of the bottom segment projecting on each side outside that of the adjacent side segment, the lap of the upper side segment projecting outside that of the lower side segment and the top or keying segment having plain radial faces.

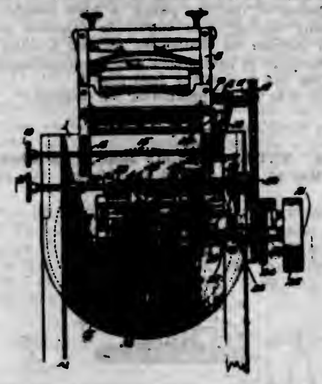


2. A sewer pipe composed of sections each consisting of an inner and an outer shell, the shells of each section excepting the key section being longitudinally overlapped, the shells of a section being each of the same length, some of said sections having their shells laterally overlapped, all being arranged that when said sections are assembled in pipe form the adjacent sections will be laterally and, excepting the key section, longitudinally overlapped at their joints, substantially as specified.

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1,042,580. GEARING. CHARLES J. MARTH, St. Louis, Mo. Filed Dec. 14, 1911. Serial No. 665,622. (Cl. 74—50.)



1. A gearing comprising a shaft, a gear wheel on said shaft, a second shaft, two gear wheels loosely mounted on said second shaft and in constant mesh with said first-named gear wheel on opposite sides of its axis, a clutch operable to lock said two gear wheels, one at a time, on said second shaft, means for rotating said second shaft, a third shaft parallel with said second shaft, means for driving said third shaft from said second shaft, and means operated by said third shaft to release said clutch, substantially as specified.

2. A gearing comprising a shaft, a gear wheel on said shaft, a second shaft, two gear wheels loosely mounted on said second shaft and in constant mesh with said first-named gear wheel on opposite sides of its axis, a clutch operable to lock said two gear wheels, one at a time, on said second shaft, means for rotating said second shaft, a third shaft parallel with said second shaft, means for rotating said third shaft from said second shaft, means operated by said third shaft to release said clutch, and means separate from said third shaft for holding said clutch in its different adjustments, substantially as specified.

3. A gearing comprising a shaft, a gear wheel on said shaft, a second shaft, two gear wheels loosely mounted on said second shaft and in constant mesh with said first-named gear wheel on opposite sides of its axis, a clutch operable to lock said two gear wheels, one at a time, to said second shaft, a lever for moving said clutch from one to the other of said two gear wheels, a third shaft, means operated by said second shaft for rotating said third shaft, a device controlled by said third shaft for moving said lever, and means engaging with said lever to hold said clutch in engagement with said gear wheels, substantially as specified.

4. A gearing comprising a shaft, a gear wheel on said shaft, a second shaft, two gear wheels loosely mounted on said second shaft and in constant mesh with said first-named gear wheel on opposite sides of its axis, a clutch operable to lock said two gear wheels, one at a time, on said second shaft, a lever for moving said clutch from one to the other of said two gear wheels, a third shaft, gearing entraining said third shaft with said second shaft to rotate said third shaft, a device attached to said third shaft for moving said lever and thereby said clutch, a support, and means carried by said support to hold said lever and clutch in their different adjustments, substantially as specified.

5. A gearing comprising a shaft, a gear wheel on said shaft, two loosely mounted gear wheels in constant mesh with said first-named gear wheel on opposite sides of its axis, a shaft for rotating said two gears, a clutch adjustable to enable said second-named shaft to rotate said two gears one at a time, a lever for moving said clutch from one to the other of said two gear wheels, a cam-shaft, cams on said shaft, and means for operating said cam-shaft and thereby said cams effectively to cause said lever to move said clutch from one to the other of said two gear wheels, substantially as specified.

[Claims 6 to 11 not printed in the Gazette.]

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1,042,581. SHEET-PILING. GEORGE WILLIAM MCFARLANE, Paris, Ontario, Canada. Filed June 15, 1912. Serial No. 703,865. (Cl. 61—52.)



1. A rolled metal pile having a corrugated web, and divided terminal edges, the edges at one side of said web forming a hollow diamond shaped male member and those at the opposite side a hollow diamond shaped female member said members being designed to slidably interlock with the corresponding parts of piles of similar construction.

2. In rolled sheet metal piling, the combination of similar sections, each section being rolled integral, and comprising a longitudinally corrugated web, having divided terminal edges, the divided edges on one side of the web extending diagonally away from the web for a portion of their length, then approaching each other to form a hollow diamond shaped male member, and the divided edges at the other side extending diagonally away from the web for a portion of their length then approaching each other to form a hollow diamond shaped female member, adapted to receive the male member of an adjacent section and slidably interlock therewith.

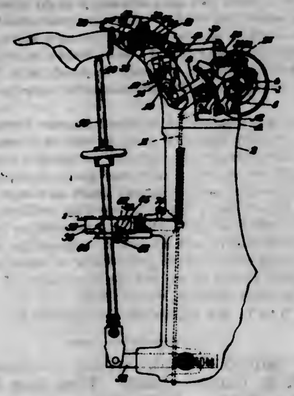
3. In rolled sheet metal piling, the combination of a plurality of similar sections, each comprising a longitudinally corrugated web, having divided terminal edges, the divided edges on one side of the web forming a hollow diamond shaped male member, and those on the other side a hollow diamond shaped female member adapted to receive the male member of an adjacent section and allow of a certain amount of rotation therein whereby a wall being constructed by the interlocking of said sections might be deflected from a straight line.

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1,042,582. SHOE-FORMING MACHINE. RONALD FRANCIS MCFARLEY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Continuation of application Serial No. 509,634, filed July 20, 1909. This application filed Oct. 16, 1909. Serial No. 523,072. (Cl. 12—51.)

1. A machine of the class described, having, in combination, a beater arranged to engage the bottom of a shoe

and means for reciprocating that beater, a beater arranged to engage the sides of the shoe adjacent to the portion being treated by the bottom beater, an actuator for the side beater, said side beater and its actuator being normally held out of operative connection and being arranged to permit operative connection to be established by laterally directed pressure of the shoe, the parts being so arranged that the operation of the side beater may be discontinued at will without interrupting the reciprocation of the bottom beater.



2. A machine of the class described, having, in combination, a bottom beater, an actuator therefor, a treadle connection for starting and variably controlling the operation of the bottom beater, a side beater, an actuator therefor, and provision for independently controlling the actuation of the side beater while the machine is running.

3. A machine of the class described, having, in combination, a beater arranged to operate upon the bottom of a shoe, a beater arranged to operate on the side of the shoe, and actuating means for said two beaters, said machine having provision by which either beater can be started and stopped while the other beater continues in operation.

4. A machine of the class described, having, in combination, a reciprocating bottom beater, a reciprocating side beater, and means adapted for actuating said beaters, said machine having provision for separately controlling the operation of the bottom and side beaters including means for permitting the actuation of the side beater to be controlled by the position of the shoe.

5. A machine of the class described, having, in combination with suitable actuating means, means for treating the bottom of a shoe and a beater for treating the side of the shoe adjacent to its edge and arranged to have a component of movement toward the last bottom as the beater is advanced toward the side of the last, said side beater being constructed and arranged to be rendered operative or inoperative by changing the position of the shoe.

[Claims 6 to 32 not printed in the Gazette.]

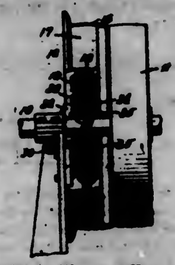
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1,042,583. BELT-PULLEY. FRANK E. MEIGS, Burlington, Vt. Filed June 6, 1911. Serial No. 631,572. (Cl. 64—21.)

1. In combination with a pulley, a rocking bearing around which said pulley rotates and with which it rocks, and fixed pivotal supports for said bearing within the perimeter of the pulley in line with each other and perpendicular to the axial line of the pulley.

2. In combination with a pulley, a bearing supporting said pulley and around which it is adapted to rotate, and a fixed member within said bearing on which the latter and the pulley are adapted to rock about an axis perpendicular to the axis of the pulley.

3. In combination with a pulley, a rocking bearing on which said pulley is mounted to rotate, fixed pivots on which said bearing rocks disposed in line with each other perpendicular to the axis of the pulley, and within the perimeter of said rocking bearing.



4. In combination with a pulley, a rocking bearing around which said pulley is adapted to rotate, a fixed member within said rocking bearing, and pivots projecting from opposite sides of said member on which the bearing may rock, said pivots being within the perimeter of the bearing and perpendicular to its axis.

5. The combination with a fixed pulley, of an idle pulley adjacent said fixed pulley, a rocking bearing on which said idle pulley is adapted to rotate wholly within the perimeter of the idle pulley, a fixed member within the rocking bearing, and oppositely disposed pivots on the fixed member on which the rocking bearing is supported, the axes of said pivots being perpendicular to and intersecting the axis of the fixed pulley.

[Claims 6 to 13 not printed in the Gazette.]

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1,042,584. NUT-LOCK. JOHN MORAN, Philadelphia, Pa. Filed May 14, 1912. Serial No. 697,119. (Cl. 151—13.)



1. A nut lock comprising a washer constructed to be held against rotary movement on a bolt, said washer having a recess extending inwardly from its periphery and having an enlarged inner end, a key in said recess comprising a strip of metal bent between its ends forming an enlargement and parallel legs, said enlargement located in the enlarged inner end of the recess and said legs projecting beyond the periphery of the washer, and adapted to be bent into locked engagement with a nut, substantially as described.

2. A nut lock comprising a washer constructed to be held against rotary movement on a bolt, said washer having a recess extending inwardly from its periphery and having an enlarged inner end, a key in said recess comprising a strip of metal bent between its ends forming an enlargement and parallel legs, said enlargement located in the enlarged inner end of the recess and said legs projecting beyond the periphery of the washer, a nut, a circular enlargement on the inner end of the nut adapted to be positioned against the washer, and a circular series of teeth on said enlargement between which one of said key legs are adapted to be positioned, substantially as described.

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1,042,585. REVERSING MECHANISM. WILLIAM MONK, Newark, N. J. Filed Mar. 10, 1910. Serial No. 548,414. (Cl. 74—89.)

1. A reversing gearing comprising a drive shaft and a driven shaft, with a bracket formed into a receptacle on its end, gears in the receptacle, the gears being in line on opposite sides of the receptacle to receive the ends of the drive shaft and driven shaft respectively, a split ring on the abutting ends of the two shafts, a solid collar surrounding the split ring, a screw passing through the solid collar and bearing on the split ring, a bearing on the receptacle at right angles to the shafts, a sliding shaft in the last mentioned bearing, a miter gear on the end of the sliding shaft, and a screw passing through the right angled bearing to lock the shaft in its adjusted positions.





2. A reversing gearing comprising a drive shaft and a driven shaft, with a bracket formed into a receptacle on its end, gears in the receptacle, the gears being in line on opposite sides of the receptacle to receive the ends of the drive shaft and driven shaft respectively, a split ring on the abutting ends of the two shafts, a solid collar surrounding the split ring, a screw passing through the solid collar and bearing on the split ring, a bearing on the receptacle at right angles to the shafts, a sliding shaft in the last mentioned bearing, a miter gear on the end of the sliding shaft, a screw passing through the right angled bearing to lock the shaft in its adjusted positions, and a cover on the receptacle for forming a casing for the reversing mechanism.

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1,042,586. PROCESS OF PRODUCING COATED-METAL OBJECTS. JOHN F. MONNOT, Paris, France, assignor to Duplex Metals Company, New York, N. Y., a Corporation of New York. Filed Dec. 20, 1910, Serial No. 598,820. Renewed Sept. 10, 1912. Serial No. 719,648. (Cl. 22—204.)



1. The process of producing compound metal objects which comprises film coating the object to be coated by submerging same momentarily in a bath of supermolten coating metal having a covering of molten protective material, withdrawing said object from such bath with an adhering coating of such protecting material thereabround, and introducing such object so protected into a mold containing molten coating metal at a temperature high enough to melt the protective coating on such film-coated object, and permitting such molten metal to solidify on the film coating.

2. The process of producing compound metal objects which comprises film coating the object to be coated by submerging same momentarily in a bath of supermolten coating metal having a covering of molten protective material, withdrawing said object from such bath with an adhering coating of such protecting material thereabround, and introducing such object so protected into a mold containing molten coating metal and a superatmost layer of protective material of a temperature high enough to melt the protective coating on such film-coated object, and permitting such molten metal to solidify on the film coating.

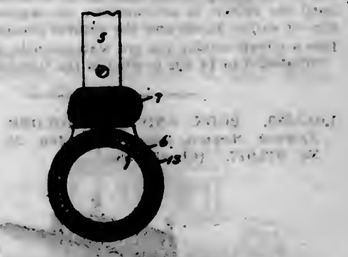
3. The process of producing compound metal objects which comprises film coating an object to be coated by submerging same in a bath of supermolten coating metal, withdrawing said object from said bath under conditions precluding oxidation, applying to its end a protecter of larger diameter and immersing said object with such protector thereon in molten metal contained within a suitable mold and by means of such protector preventing solvent action of such molten metal on the end of the object to be coated and erosion of sides of the object by such molten metal.

4. The process of producing compound bodies of unlike metal welded together, which comprises heating the object to be coated in a bath of molten relatively neutral material, and thereby avoiding contamination of the surface of such object, removing said object from such bath and immersing same in a bath of supermolten unlike metal, and thereby forming a film coating thereof on the surface of said object, and then causing a body of molten coating metal of substantial thickness to solidify on such film coated surface.

5. The process of producing compound bodies of unlike metals welded together, which comprises heating the object to be coated in a bath of molten relatively neutral material, and thereby avoiding contamination of the surface of such object, removing said object from such bath and immersing same in a bath of supermolten unlike metal and thereby forming a film coating thereof on the surface of said object, and then removing the film coated object from such bath and immersing same in a mold containing molten coating metal and permitting such coating metal to solidify against its film-coated surface.

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1,042,587. VACUUM-TUBE LIGHTING. DANIEL MCFARLAN MOORE, Newark, N. J., assignor to General Electric Company, a Corporation of New York. Filed Feb. 26, 1907. Serial No. 359,445. (Cl. 176—126.)



1. In a fixture for sectional vacuum tube lamps, a supporting sleeve of metal adapted to sustain the abutted ends of the sections of glass tubing in juxtaposition within it, means for making a seal at the tube joint within said sleeve, a supporting tube, an insulating block sustaining the sleeve, means for fastening the sleeve to the block and means for fastening the block to the supporting tube.

2. A combined fixture and seal for vacuum tube lamps having sections of glass tubing arranged end to end, comprising a supporting sleeve and bumps for sustaining the tube at the meeting of the sections, a sealing sleeve formed with a compressible off-set adapted to lie between the abutting edges of said sections and means on said sleeve for forcing said sections together.

3. In a fixture for a vacuum tube lamp having sections of glass tubing arranged end to end, a sleeve surrounding and sustaining the junction of the tubes and of larger internal diameter than the outer diameter of the tubes themselves, compression rings upon the ends of said sleeve, sealing washers engaged by said rings and located in the ends of the sleeves, cementing material filling the space between the sleeves and the tubes and a tube 11 applied over the tube at the joint between the tube sections and lying partially between their abutting ends as and for the purpose described.

4. In a fixture for vacuum tube lighting, the combination of a supporting tube, a block of insulation having a vertical counterbank, a tube-supporting ring, a fastening screw for securing the ring to the lower side of the block and a clamping screw passing through the side of the supporting tube and into said block to clamp it in said tube.

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1,042,568. FERTILIZER AND PROCESS OF MAKING SAME. Spencer B. Newberry and Harvey N. Barrett, Baybridge, Ohio. Filed Dec. 5, 1910. Serial No. 595,573. (Cl. 71—7.)

1. The process of making fertilizer by heating an intimate pulverized mixture of natural phosphate with from five to twenty-four per cent. of alkali metal sulfate, in an oxidizing atmosphere, at a temperature of 2500° F. to 2800° F., until the alkali metal sulfate is substantially decomposed with liberation of sulfur dioxid and oxygen, and the natural phosphate is rendered substantially citrate-soluble.

2. The process of making fertilizer by heating natural phosphate with a small percentage of alkali-metal sulfate, until the sulfate is substantially decomposed with evolution of sulfur dioxid and the natural phosphate changed to citrate-soluble form.

3. The process of making fertilizer by calcining phosphate with a small percentage of alkali-metal sulfate, at nearly white heat until the sulfate is substantially decomposed with evolution of sulfur dioxid and the natural phosphate changed to citrate-soluble form.

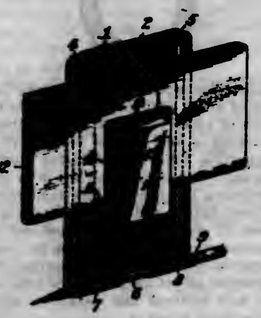
4. The process of making fertilizer by calcining natural phosphate with a small percentage of alkali-metal sulfate at nearly white heat in an oxidizing atmosphere until the sulfate is substantially decomposed with evolution of sulfur dioxid and the natural phosphate changed to citrate-soluble form.

5. The process of making fertilizer by calcining natural phosphate of lime with a small percentage of alkali-metal sulfate at nearly white heat in an oxidizing atmosphere until the sulfate is substantially decomposed with evolution of sulfur dioxid and the natural phosphate converted into a citrate-soluble but not water-soluble phosphate.

[Claims 6 to 14 not printed in the Gazette.]

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1,042,589. BOOK AND PAD HOLDER. George W. Newton, Newton, Iowa. Filed Jan. 24, 1912. Serial No. 673,077. (Cl. 45—58.)



1. A standard comprising a sheet metal base, said base having its lower end curled up into a ledge which stiffens said base and is adapted for use as a pencil receptacle, and a tongue integral with said base and bent outward to form a shoulder on which a book may be carried and bent upward to form a platform on which a pad may be supported, and a pair of ears struck from said platform and located at either side thereof, said ears being adapted for engagement with the cardboard back of a paper pad.

2. A standard comprising a sheet metal base, said base having its lower end curled up into a stiffening ledge wherein a pencil may be placed, and a tongue integral with said base and bent outward and shaped to form a shoulder on which a book may be supported, said tongue being bent upward to yieldingly engage the side of said book and to form a platform for the support of a scratch-pad, and swages at the sides of said platform serviceable as retaining walls for said pad, said swages extending from said platform across said shoulder to the flat back of the standard.

3. A standard comprising a flat sheet metal base with longitudinal swages, said base having its lower end curled up into a ledge which stiffens said base and which is cut away near the middle to form a pencil receptacle, and a tongue integral with said base and bent outward to form a shoulder on which a book may be carried, said tongue being bent upward to form a platform adapted to yieldingly engage said book and serviceable as a platform on which a pad may be supported, a pair of ears stuck up from said platform and located at either side thereof, said ears being adapted for engagement with the cardboard back of a paper pad, and swages along the sides of said tongue and serviceable as retaining walls for said pad, said swages also serving as stiffening means for said tongue to insure yielding pressure against the book when the latter is supported between said tongue and said base.

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1,042,590. CLING-PEACH-PITTING MACHINE. Elijah Nyswonger, Hanford, Cal. Filed Oct. 26, 1911. Serial No. 656,566. (Cl. 146—3.)



1. In a fruit pitting machine, the combination of a positioning blade adapted to have fruit placed thereon, a reciprocating frame movable toward and away from the positioning blade, a blade upon the reciprocating frame adapted to coöperate with the positioning blade to split the fruit into halves, pitting knives movably mounted upon the reciprocating frame on opposite sides of the blade, means for advancing the pitting knives into the fruit independently of the blade after the blade has reached the limit of its movement, and means for directing the movement of the pitting knives whereby they penetrate the fruit on opposite sides of the pit and are brought together under the pit.

2. In a fruit pitting machine, the combination of a positioning blade adapted to have fruit placed thereon, a reciprocating frame movable toward and away from the positioning blade, a blade upon the reciprocating frame adapted to coöperate with the positioning blade to split the fruit into halves, pitting knives movably mounted upon the reciprocating frame on opposite sides of the blade, means for advancing the pitting knives into the fruit independently of the blade after the reciprocating frame has reached the limit of its movement and come to rest, and cam means for directing the movement of the pitting knives whereby they penetrate the fruit on opposite sides of the pit and are brought together under the pit.

3. In a fruit pitting machine, the combination of a notched positioning blade adapted to have fruit placed thereon with the pit thereof in the notch, a reciprocating frame movable toward and away from the positioning blade, a notched blade upon the reciprocating frame adapted to coöperate with the positioning blade to split the fruit into halves, the notches of the two blades forming a clearance space for the pit of the fruit, pitting knives movably mounted on the reciprocating frame on opposite sides of the frame, means for advancing the pitting knives into the fruit independently of the blade, and cam means for directing the movement of the pitting knives whereby they travel around the pit in a curved path.

4. In a fruit pitting machine, the combination of a fruit supporting element, a reciprocating frame adapted to be moved toward and away from the fruit supporting element, a pair of coöperating pitting knives movably mounted upon the frame, a slide mounted upon the reciprocating frame, an operative connection between the slide and the pitting knives, means for operating the slide and the reciprocating frame, the slide moving independently of the frame after the frame reaches the limit of its movement, and cam means for directing the movement of the pitting knives and causing them to enter the fruit on opposite sides of the pit and travel in a curved path around the pit.

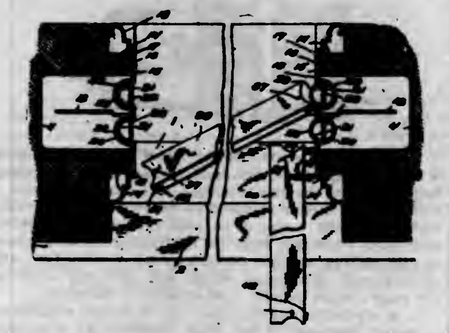
5. In a fruit pitting machine, the combination of a fruit supporting element, a reciprocating frame movable toward and away from the fruit supporting element, coöperating blades upon the fruit supporting element and reciprocating frame for splitting the fruit into halves, a pair of pitting knives movably mounted upon the reciprocating frame, means for operating the reciprocating frame and advancing the pitting knives into the fruit, and cam means for directing the movement of the pitting knives and causing them to enter the fruit on opposite sides of the pit and travel around the pit in a curved path.

[Claims 6 to 13 not printed in the Gazette.]



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1,042,591. SASH-MOUNTING. Charles K. Olberg, Philadelphia, Pa. Filed Dec. 15, 1911. Serial No. 665,933. (Cl. 189—66.)



1. In combination, a sash having grooved stiles, and sash guides having rotary mounting normally engaging and fitting in the grooves of the sash and adapted to be turned completely out of the grooves in the stiles to release the sash, substantially as described.

2. In combination, a window frame, sash guides having rotary mounting in the frame, said guides each consisting of more than half of a cylinder and having flat portions, and sash having curved grooves in their stiles normally engaging the said guides, substantially as described.

3. In combination, a window frame, sash guides having rotary mounting in the frame said guides each consisting of more than half of a cylinder and having flat portions, and sash having curved grooves in their stiles normally engaging the said guides, said guides constructed to be turned to present their flat sides to the sash and release the sash, substantially as described.

4. In combination, a sash having grooved stiles, and sash guides having rotary mounting normally engaging in the grooves of the sash and adapted to be turned to release the sash, separable hinge members on the sash and the frame adjacent the edges of the sash, substantially as described.

5. In combination, a window frame, sash guides having rotary mounting in the frame, said guides having flat portions, and sash having curved grooves in their stiles normally engaging the said guides, separable hinge members on the sash and the frame adjacent the edges of the sash, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

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1,042,592. RESILIENT TIRE. Jackson M. O'Rear, Birmingham, Ala. Filed Oct. 27, 1910. Serial No. 589,376. (Cl. 152—6.)

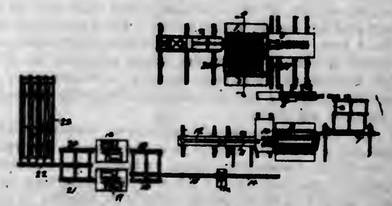


1. A tubular spring for resilient tires formed of spring wire bent to have large convolutions alternating with small convolutions, in combination with a base upon which portions of both large and small convolutions rest free of fixed connection therewith and means to contract the smaller convolutions and simultaneously expand the larger convolutions, substantially as described.

2. A resilient tire comprising in combination a ring support, a series of springs mounted on said support and comprising alternate large and small convolutions, a sectional ring resting upon the tops of the smaller convolutions, means to contract said ring and said smaller convolutions, and an outer casing surrounding the support and spring convolutions, substantially as described.

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1,042,593. MANUFACTURE OF TUBING. Peter Patterson, Pittsburgh, Pa. Filed Sept. 15, 1911. Serial No. 649,465. (Cl. 78—92.)



1. The method of forming tubing, consisting in alternately charging plates into two heating furnaces located side by side, heating the plates in one furnace when kept closed while drawing the plates from the other furnace and heating them into skelp, charging the heated heat skelp from both heating furnaces into one welding furnace, raising the skelp therein to a welding heat and welding the same into tubing, and subjecting the welded tubing to prolonged cross-roll finishing at a slow forward feed.

2. The method of making tubing, consisting in alternately charging plates into two heating furnaces located side by side, heating the plates in one furnace when kept closed while drawing the plates from the other furnace and heating them into skelp, charging the heated heat skelp from both heating furnaces into one welding furnace, raising the skelp therein to a welding heat and welding the same into tubing.

3. The herein described method of making tubing, consisting in raising the skelp to a welding heat and welding

the same into tubing, and subjecting the welded tubing to prolonged cross-roll finishing at slow forward feed until brought below a scaling heat.

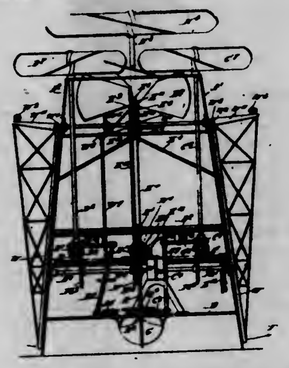
4. The herein described method of making tubing, consisting in raising the skelp to a welding heat, and welding the same into tubing, sizing the tubing and subjecting the welded and sized tubing to prolonged cross-roll finishing at slow forward feed until brought below a scaling heat.

5. The herein described method of making tubing, consisting in raising the skelp to a welding heat and welding the same into tubing, sizing the tubing and subjecting the welded and sized tubing to prolonged cross roll finishing and so holding it in true cylindrical shape until set.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,594. FLYING-MACHINE. WILLIAM H. PEARSON, Boston, Mass. Filed Nov. 22, 1909. Serial No. 529,490. (Cl. 244—25.)



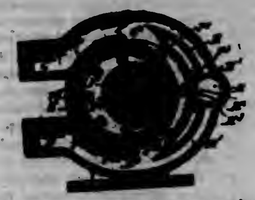
1. In a flying machine of this class, an ascending mechanism comprising a pair of vertically acting propellers located above the center of gravity of the machine and rotating in opposite directions, a third propeller mounted to rotate axially of the machine above said pair of propellers and having its wings set at a less angle than those of the latter, a lateral driving propeller adjustable as to its plane of action, descending wings swinging on a normally horisontal axis and opening automatically, and means for directing the machine, substantially as and for the purpose set forth.

2. In flying machines of this class, vertically acting propellers, a laterally acting propeller, means for guiding the machine, descending wings swinging on a normally horisontal axis, and means whereby the axis may be adjusted to any desired angle with the horison whereby the said wings may be used for checking the descent of the machine or to cause it to soar, substantially as and for the purpose set forth.

3. In a flying machine of this class an ascending mechanism comprising vertically acting propellers, a laterally propelling mechanism, a guiding rudder; wings automatically opening to prevent the abrupt descent of the machine, means for adjusting said wings to cause them to assume any desired angle to the horison, and guiding and staying buffers for said wings, substantially as and for the purpose set forth.

4. In a flying machine of this class, an ascending mechanism comprising vertically acting propellers, a lateral driving propeller adjustable as to its plane of action, a guiding rudder, descending wings swinging on a normally horisontal axis and opening anotmatically, means for adjusting the angularity of the axis whereby the wings may be used for checking the abrupt descent of the machine or to cause it to soar, buffers on said wings, and guiding means coöperating with said buffers, substantially as and for the purpose set forth.

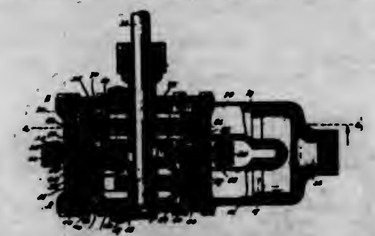
1,042,595. ROTARY MOTOR. WILLIAM H. PEARSON, Boston, Mass. Filed Feb. 7, 1910. Serial No. 542,560. (Cl. 138—3.)



A rotary liquid motor, comprising a casing having inlet and exhaust ports, a rotary piston, a release port located between the inlet and exhaust ports and communicating with the piston chamber, by-passes in communication with said inlet and exhaust ports, and a hollow cylindrical valve having ports, whereby said release port can be placed in communication with either of said by-passes.

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1,042,596. DUPLEX REVERSIBLE ROTARY LIQUID-MOTOR. WILLIAM H. PEARSON, Swampscott, Mass. Filed June 7, 1911. Serial No. 631,859. (Cl. 138—3.)



1. A reversible duplex rotary liquid motor, comprising a casing composed of two units separated by a parting wall and each having induction and eduction ports, a rotary piston-carrier mounted to rotate within each unit, pistons slidably mounted on said carriers, two sets of adjustable stationary cams for controlling the movements of said pistons, one cam of each set being carried by said parting wall, and means within said wall for adjusting the cams carried thereby, substantially as described.

2. A reversible duplex rotary liquid motor, comprising a casing composed of two units separated by a parting wall, and each having induction and eduction ports, a rotary piston-carrier mounted to rotate within each unit, pistons slidably mounted on said carriers, the pistons of one unit being offset with respect to the pistons of the other unit, and means for controlling the movements of said pistons comprising a pair of cams adjustably mounted on the outer end walls of said casing, a pair of cams mounted on the parting wall, and means within the parting wall for adjusting the cams mounted thereon, substantially as described.

3. A reversible duplex rotary liquid motor, comprising a casing composed of two units separated by a parting wall and each having induction and eduction ports, a rotary piston-carrier mounted to rotate in each unit, pistons slidably mounted on said carriers, two sets of adjustable cams for controlling the movements of said pistons, one cam of each set being mounted on said parting wall, and screws within said parting wall for adjusting the cams on said wall, substantially as described.

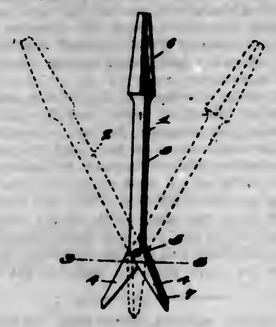
4. A reversible duplex rotary liquid motor, comprising a casing composed of two units separated by a parting wall, a rotary piston-carrier mounted to rotate in each unit, pistons slidably mounted on said carriers, a cam adjustably mounted on each outer end wall of the casing, a pair of cams mounted on opposite sides of said parting wall, one of said cams being provided with a swiveled eye-bolt, and the other having a laterally projecting lug, and screws movable within said parting wall and coöperating with said eye-bolt and lug for adjusting said cams, substantially as described.

5. A reversible duplex rotary liquid motor, comprising a casing, a rotary piston-carrier mounted to rotate in said casing and provided with radial grooves, pistons slidably mounted in said grooves, cams adjustably mounted on the walls of said casing, means in one of the walls for adjusting the cam carried by said wall, a separate, independent follower slidably mounted in each groove and adapted to engage the inner opposing face of the corresponding piston, and a pair of cam rolls rotatably mounted on each follower and adapted to coöperate with said cams to control the movements of said pistons, substantially as described.



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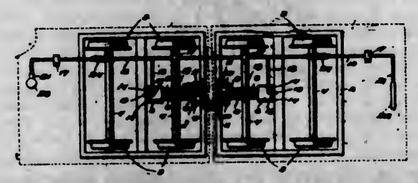
1,042,597. DRILL. JOHN A. PRASS, Gypsum, Kans. Filed Apr. 20, 1912. Serial No. 692,065. (Cl. 77—58.)



In a tool of the class described, the combination of a sectional shank, a cutting blade formed on one end of each of said sections and at an angle thereto, a head portion formed on the other end of each of said sections and adapted to form an angular head when the sections are in a closed position, said sections being pivotally secured together at the intersection of the shank and cutting blades.

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1,042,598. BRAKE. GEORGE T. PFLAUMER, Philadelphia, Pa. Filed Nov. 18, 1911. Serial No. 660,971. (Cl. 188—5.)



1. The combination with a car truck, wheels supporting the truck, and axles connecting the wheels, of a cylinder mounted on the truck open at both ends and having transversely positioned guides at one end, a piston in the cylinder, means operated by one of the axles for reciprocating the piston, and a sliding gate valve in the guides of said cylinder controlling the passage of air therethrough, substantially as described.

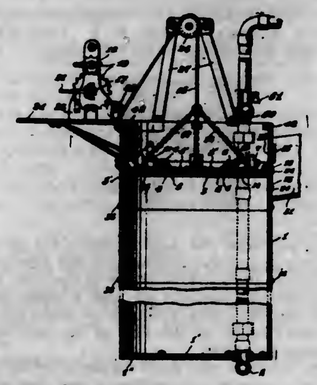
2. The combination with a car truck, wheels supporting the truck, and axles connecting the wheels, of a cylinder mounted on the truck open at both ends and having transversely positioned guides at one end, a piston in the cylinder, means operated by one of the axles for reciprocating the piston, a sliding gate valve in the guides of said cylinder controlling the passage of air therethrough, a car body supported on the truck, and means on said car body for moving said valve, substantially as described.

3. The combination with a car, trucks supporting the car, wheels supporting the trucks, and axles connecting the wheels, of twin cylinders fixed to the trucks open at both ends and having transversely positioned guides at one end, pistons in said twin cylinders, gears on the axles, crank shafts, pinions on the crank shafts meshing with the gears on the axle, pistons in said cylinders, pitmen connecting the pistons and crank arms of said shafts, gate valves common to the twin cylinders and mounted to move vertically in the guides of said cylinders, and means on the car for simultaneously moving said gates, substantially as described.

4. The combination with a car, trucks supporting the car, wheels supporting the trucks, and axles connecting the wheels, of twin cylinders fixed to the trucks, pistons in said twin cylinders, gears on the axles, crank shafts, pinions on the crank shafts meshing with the gears on the axle, pistons in said cylinders, pitmen connecting the pistons and crank arms of said shafts, gate valves common to the twin cylinders and mounted to move vertically in the ends of said cylinders, a shaft extending longitudinally of the car, crank arms on said shaft, fingers on said crank arms, said gates having slots therein to receive said fingers, springs holding said shaft in normal position, other laterally projecting crank arms on said shaft, and a plunger adapted to be positioned through either of the platforms of the car and engage either of said last-mentioned crank arms, substantially as described.

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1,042,599. WATER ELEVATING AND IMPELLING APPARATUS. ALBERT V. PFLAUMM, Tonasket, Wash. Filed Jan. 31, 1912. Serial No. 674,567. (Cl. 103—80.)



1. In apparatus of the character described, a vertically disposed water chamber provided in its upper end portion with an inlet for the water, a water delivery means connected with the lower end portion of said chamber, a weight plunger in said chamber, said plunger being formed with a port, a pivoted valve on said plunger for closing the said port thereof, means for normally locking said valve in closed position, means for elevating said plunger, and means for releasing said valve locking means connected with said last named means for operation thereby.

2. In apparatus of the character described, a vertically disposed water chamber provided in its upper end portion with an inlet for the water, a water delivery means connected with the lower end portion of said chamber, a weight plunger in said chamber, said plunger being formed with a port, a pivoted valve on said plunger for closing the said port thereof, means for normally locking said valve in closed position, a flexible connection for limiting opening movement of said valve, and means for elevating said plunger connected with said valve to open the same prior to imparting lifting movement to said plunger.

3. In apparatus of the character described, a vertically disposed water chamber provided in its upper end portion with an inlet for the water, a water delivery means connected with the lower end portion of said chamber, a weight plunger in said chamber, said plunger being formed with a port, a pivoted valve on said plunger for closing the said port thereof, means for normally locking said valve in closed position, a flexible connection for limiting opening movement of said valve, and means for elevating said plunger connected with said valve, said valve locking means connected with said last named means for releasing movement thereby.

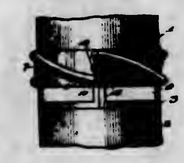
4. In apparatus of the character described, a vertically disposed water chamber, a water delivery means connected with the lower end portion of said chamber, a weight plunger in said chamber provided with a port, a pivoted valve on said plunger for closing the said port thereof, an arm secured to said valve, a weight on said arm, means for limiting opening movement of said valve, and means for elevating said plunger connected with said arm for opening said valve.

5. In apparatus of the character described, a vertically disposed water chamber open for reception of water through its upper end portion, a weight plunger in said chamber provided with a port to permit of the water passing beneath the plunger, a fluid delivery means connected with the lower end portion of said chamber, a valve controlling the port of said plunger, means for holding said valve closed during lowering movement of said plunger, means for elevating said plunger, and means actuated by said last named means for opening said valve.

[Claims 6 to 11 not printed in the Gazette.]

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1,042,600. VENTILATOR AND DRAFT-REGULATOR. WILLIAM P. RANDALL, Le Roy, N. Y. Filed May 11, 1910. Serial No. 560,575. (Cl. 126—293.)



1. A room ventilator and draft regulator for the smoke pipe of heating apparatus comprising a ring member having provision for the entrance of air to the pipe, a ring valve for controlling the said air, and a guide between the member and the valve arranged to cause the valve to move longitudinally of the axis of the ring member when the valve is rotated.

2. A room ventilator and draft regulator for the smoke pipe of heating apparatus comprising a ring member having provision for the entrance of air to the pipe, a ring valve for controlling the entrance of air, a helical guide on one of said parts, and a device for coöperation with the guide so that when the valve is rotated it will be moved longitudinally of the ring member.

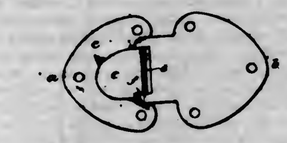
3. The combination with a ring member having provision for admitting air to the pipe, of a ring valve surrounding the openings and formed of two sections, each of which is provided with outwardly extending lugs and resilient means connecting said lugs.

4. The combination with a ring member provided with an opening and having provision on opposite sides of the opening for connecting with two pipe sections and a ring valve movable on the ring member in the direction of the axis of the latter to control the size of the opening.

5. The combination with a ring member having an opening and provision on opposite sides of the opening for connecting with two pipe sections, a ring valve and helically formed guides on one of said parts causing the valve to move in the direction of the axis of the ring member to control the size of the opening when said valve is rotated.

[Claims 6 and 7 not printed in the Gazette.]

1,042,602. FASTENING. GUSTAVE C. RASCH, Burlington, Wis. Filed Jan. 15, 1909. Serial No. 472,420. (Cl. 24—226.)

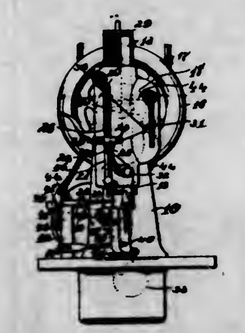


1. In a fastening, the combination of two members, one having a transverse slot and the other a hook with a notch in one edge around the bend, the width of the hook-shank and the length of the slot being parallel with each other, the shank of the hook around the bend along the whole length of the notch being of approximately the same width as the length of the slot and the nose of the hook projecting laterally beyond the neck on one side only and being of greater width adjacent and outside the notch and of somewhat less length outside the notch than the length of said slot.

2. In a fastening, the combination of two sheet metal members formed integrally with laterally extended attachment plates, one member having a transverse slot adjacent to one edge which is bent slightly inward and the other member a hook with a notch in one edge around the bend, the width of the hook-shank and the length of the slot being parallel with each other, the shank of the hook being of about the same width as the length of the slot into which it fits and the nose being rounded and of greater width adjacent and outside the notch and of less length outside the notch than the length of the slot.

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1,042,602. STOP MECHANISM FOR SEWING-MACHINES. JOHN WM. ROBERTS and ARTHUR P. BRAWSTER, Passaic, N. J. Filed Dec. 26, 1911. Serial No. 667,579. (Cl. 112—29.)



1. The combination of a sewing machine having means for disconnecting it from its source of power, with a finger adapted to slide and capable of transverse movement, the finger having a thread guide thereon, a tripping arm operated from the needle bar of the machine and arranged to engage the end of the finger when it is in its normal position, and means in the path of the finger, said means when engaged by the finger acting to operate the disconnecting means, the tension on the thread when the needle bar descends causing the thread to pull the finger from the path of the tripping arm.

2. The combination of a sewing-machine having a clutch thereon, with a tripping arm on the needle bar, a finger arranged to slide in the machine, a sleeve in which the finger is mounted, said sleeve being movable transversely to move the finger from the path of the tripping arm, a thread guide on the sleeve, and a clutch-operating mechanism in the path of the finger, the tension on the thread when the needle bar descends acting to move the sleeve and its finger from the path of the tripping arm.

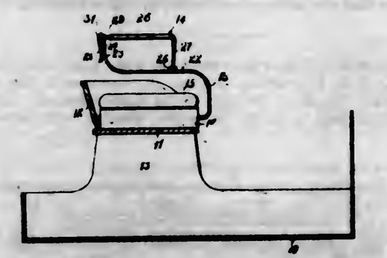
3. The combination of a sewing-machine having a clutch thereon, a tripping arm on the needle bar of the machine, the sleeve mounted to swing on the machine frame, a sliding finger in the sleeve, a spring for operating the finger in one direction, the finger being in the path of the tripping arm when in its normal position, a spring acting to hold the sleeve in its normal position, a thread guide on the sleeve, means for holding the clutch in its position to operate the machine, and means operated by the finger for tripping the clutch to permit it to be released, the tension on the thread when the needle bar descends acting to swing the sleeve to move the finger from the path of the tripping arm.

4. The combination of a sewing-machine having a clutch thereon, a tripping arm on the needle bar of the machine, a sleeve mounted to swing on the machine frame, a sliding finger in the sleeve, a spring for operating the finger in one direction, the finger being in the path of the tripping arm when in its normal position, a spring acting to hold the sleeve in its normal position, a thread guide on the sleeve, means for holding the clutch in its position to operate the machine, means operated by the finger for tripping the clutch to permit it to be released, the tension on the thread when the needle bar descends acting to swing the sleeve to move the finger from the path of the tripping arm, and means for resetting the clutch-tripping mechanism to connect the clutch.

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1,042,603. REMOVABLE BUGGY-SEAT. MARY ROCKWELL, Blue Rapids, Kans. Filed Sept. 11, 1911. Serial No. 648,642. (Cl. 21—42.)



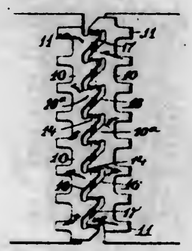
The combination in a device such as described of a buggy seat, a guide secured to the intermediate portion thereof and extending transversely thereof, a plate slidably located within said guide, means for preventing the displacement of the plate from the guide, a vertical standard formed upon the forward end of said plate in advance of the seat, said standard being off-set at its upper end to over-lie the seat, the rear extremity of the off-set portion of the standard being extended upwardly and terminating in a pair of spring clips, said clips being spaced apart, a link pivoted to the off-set portion of the standard adjacent the standard, a frame hinged to the said link, said frame being bent at its rear side to produce a pair of arms for engagement with the said spring clips, and a supplementary seat secured to the said frame.

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1,042,604. BELT-FASTENER. WILLIAM A. ROOS, Newark, N. J. Filed Mar. 30, 1910. Serial No. 552,254. (Cl. 24—33.)

1. A belt fastener comprising two sheet-metal members, the members each having obliquely arranged necks on their abutting edges, the necks of each member being substantially parallel and formed on the end into a perforated ear, the ears being bent down to provide spaces for the reception of the necks of the opposite member, the ears of the opposed members having their flat faces abutting, and a pivotal pin having heads against the outside ears, the heads and the abutting ears holding the members against transverse movement.

2. A strip for a belt fastener having means for securing it to a belt and having one edge provided with necks obliquely arranged and substantially parallel, the necks



being provided on their ends with ears adapted to be bent down and provide a space between its neck and the one next adjacent so as to receive the neck and ear of an opposed strip, the ears having perforations which are in line when the ears are bent.

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1,042,605. MANUFACTURE OF HYPOPHOSPHORIC ACID AND OF ITS SALTS. ARTHUR ROSENHEIM, Berlin, Germany. Filed June 21, 1911. Serial No. 634,408. (Cl. 204—9.)

1. Process of manufacturing hypophosphoric acids and its salts comprising electrolytically oxidising metalphosphid anodes.

2. Process of manufacturing hypophosphoric acids and its salts comprising electrolytically oxidising metalphosphid anodes in opposition to cathodes containing the metal of the phosphid anodes.

3. Process of manufacturing hypophosphoric acids and its salts comprising electrolytically oxidising metalphosphid anodes in a weakly acid electrolyte at a voltage from 3 to 10 volts.

4. Process of manufacturing hypophosphoric acids and its salts comprising electrolytically oxidising metalphosphid anodes in a weakly acid electrolyte at a voltage from 3 to 10 volts in opposition to cathodes containing the metal of the phosphid anodes.

5. Process of manufacturing hypophosphoric acids and its salts comprising electrolytically oxidising metalphosphid anodes in a well conducting weakly acid electrolyte substantially free from acids with strongly oxidising effects.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,606. CARBURETER. HARRIS C. ROTH, Chicago, Ill. Filed Jan. 26, 1912. Serial No. 673,564. (Cl. 48—155.1.)

1. In a carbureter, in combination, a carbureting chamber, an oil reservoir located therein and provided with a plurality of upwardly extending orifices for the ejection of oil, deflector plates arranged above said reservoir, a constant level cup, a conduit connecting the cup and reservoir, said conduit terminating in the reservoir in a constricted, valve-controlled, conical-shaped opening, and an oil valve for controlling said opening, substantially as described.

2. In a carbureter, in combination, a carbureting chamber, an oil reservoir located therein and provided with a plurality of upwardly extending orifices for the ejection of oil, deflector plates arranged above said reservoir, a constant level cup, a conduit connecting the cup and reservoir, said conduit terminating in the reservoir in a constricted, valve-controlled conical-shaped opening, an oil valve comprising a vertically arranged stem and a horizontally arranged valve adjusting lever, the contacting ends thereof being formed with correspondingly tapered heads,

and a spring for normally holding the vertically arranged stem in open position, substantially as described.

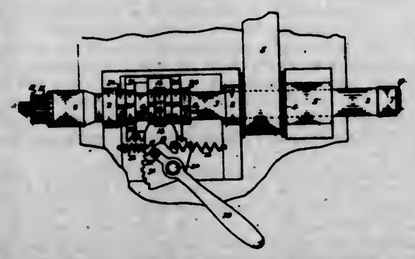


3. In a carbureter, in combination, a body formed with parallel sides and provided at its upper end with a mixture discharge port and at its lower end with an air inlet, two oppositely disposed coacting plates within said body, said plates being hinged at their lower ends, curved inwardly intermediate of their length to form a contracted air passageway, and terminating at their upper ends adjacent the mixture discharge port, an oil inlet located in the carbureting chamber between the inwardly curved portions of said plates, a vertically movable damper valve arranged to control the opening of the air inlet, a spring operating to hold said valve in an open position, and means for controlling the movement of the hinged plates and the damper valve, substantially as described.

4. In a carbureter, in combination, a carbureter chamber, a mixture valve, an oil reservoir located in said carbureter chamber and provided with upwardly extending orifices for the ejection of oil, an oil valve controlling the admission of oil to said reservoir, said oil valve comprising a vertically arranged stem and a horisontally arranged adjusting lever, the contacting ends thereof being formed with correspondingly tapered heads, a spring for normally holding the vertical stem in open position, a fixed bushing forming a support for the transversely arranged valve adjusting lever, a cap secured by lock-nut to the transverse lever and having a threaded connection with said fixed bushing whereby rotation of said lever will effect longitudinal movement thereof, and means actuated in conjunction with said mixing valve for imparting rocking movement to the transversely arranged adjustable lever, substantially as described.

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1,042,607. EDGE TRIMMER AND BURNISHER FOR SHOE-SOLES. JAMES W. SCHNEIDER, Tacoma, Wash. Filed Feb. 19, 1912. Serial No. 678,613. (Cl. 12—92.)



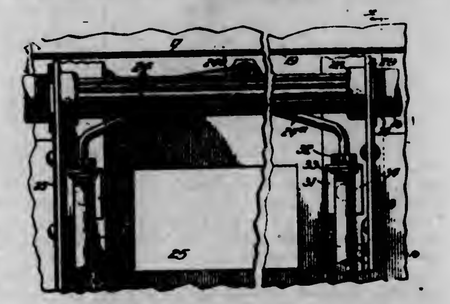
1. In a shoe-sole-edge finishing machine, the combination with a frame; of a rotating carrier mounted therein, and having a tool-cup at one end thereof; a tool-shaft rotated by said carrier and axially movable relatively thereto, and carrying a tool on the end thereof adapted to extend outward from the cup in said carrier; and means for axially shifting said tool-shaft whereby the extent that the tool projects from the cup is adjusted.

2. In a shoe-sole-edge finishing machine, the combination with a frame; of a rotating carrier mounted therein, and having a tool-cup at one end thereof; a hollow tool-shaft rotated by said carrier and axially movable relatively thereto, and carrying a tool in the end thereof adapted to extend outward from the cup in said carrier; a central tool-shaft mounted within said hollow tool-shaft and rotating therewith but axially movable relatively thereto and carrying a tool at the end thereof adapted to extend outward from the end of said tool on said hollow shaft or to be withdrawn therefrom; and means engaging both of said tool shafts and acting thereon whereby the extent that the tool on the hollow tool-shaft projects beyond the cup, and the extent that the tool in the central shaft projects beyond the first tool, may be adjusted.

3. In a shoe-sole-edge finishing machine, the combination with a frame; of a rotating carrier mounted therein and comprising a hollow shaft with a longitudinal slot therethrough and a tool-cup at one end thereof; a tool-shaft mounted within said carrier; a pin secured in said tool-shaft and passing through the slot in the carrier whereby the tool-shaft is rotated by the carrier but is axially movable relatively thereto; a tool mounted on the end of said tool-shaft and adapted to extend outward from the tool-cup on the carrier; a collar loosely mounted on said carrier and secured to said pin; an axially movable, nonrotative, collar on each side of said loose collar whereby said loose collar may be shifted on said carrier; and a pivoted lever mounted on the frame and engaging said nonrotative collar to move it axially whereby the extent that the tool projects from the cup is adjusted.

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1,042,608. ELECTRIC WIRING FOR RAILWAY-CARS. MAX M. SCHNEIDER, Chicago, Ill., assignor to The Pullman Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 2, 1910. Serial No. 580,224. (Cl. 247—4.)



1. In a railway car, the combination of a car frame having a roof therefor, an integral portion of said car frame being formed to afford protection for an electric conductor passing therethrough, and a conduit opening into said protecting portion of the car and extending along the exterior of said car below the eaves, substantially as described.

2. In a car, the combination of a plurality of hollow pier posts, a conduit extending between the sides of said pier posts and communicating with the inside of the same, and an electric conductor passing through said conduit and said pier posts and protected thereby, substantially as described.

3. In a railway car, the combination of a plurality of hollow pier posts, a conduit extending between the sides of adjacent pier posts and communicating with the interiors thereof, and an electric conductor passing through said pier posts and said conduit and protected thereby, substantially as described.



4. In a railway car, the combination of a plurality of hollow pier posts, a conduit extending between adjacent pier posts and communicating with the interiors thereof, said conduit being located on the exterior of the car below the eaves, and an electric conductor extending through said pier posts and said conduit and protected thereby, substantially as described.

5. In a railway car, the combination of a pier post having a cover plate therefor, said pier post having its inner side formed by the inner plate of the car, a conduit attached to said pier post and communicating with the interior of the same, said conduit being located on the exterior of the car and below the eaves, and an electric conductor passing through said conduit and said pier post and protected thereby, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,609. DEVICE TO FACILITATE THE REGULATION OF WATCHES. PETER SCHOLL, Chicago, Ill. Filed Dec. 7, 1911. Serial No. 664,991. (Cl. 73—51.)



1. In an appliance for facilitating watch regulation, the combination of means of support, a standard watch movement and a watch movement to be tested supported thereby, exaggerator hands associated with the second arbors of said respective movements and a dial having suitable markings to coöperate with both said hands in common.

2. Means for effecting regulation comparisons between a standard watch movement and a watch movement to be tested, comprising a frame, a carrier mounted in said frame for relative adjustment, a standard watch movement and a watch movement to be tested mounted in said carrier, exaggerator hands associated with the second arbors of the two watch movements, a suitable graduated dial, and means for positioning the two watch movements in the carrier with their exaggerator hands in operative association with the common dial.

3. In a device of the character described, the combination of a suitably graduated dial, a standard watch movement and a watch movement to be tested, means for supporting said two watch movements in reversed relation to each other at opposite ends of the dial, and exaggerator hands associated with the second-hand arbors of said two watch movements, whereby said exaggerator hands may sweep over the common dial in like direction of travel with respect to the dial.

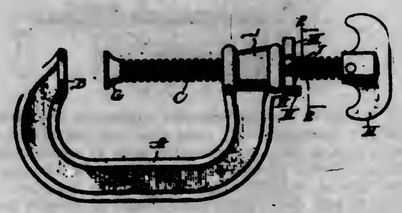
4. In a device of the character described, a casing, platforms at opposite ends of said casing in non-aliming planes, two watch movements, means to secure said two watch movements on said respective platforms in reverse relation to each other for presentation of their second arbors to the space between the planes of said platforms, exaggerator hands associated respectively with the second arbors of said watch movements, and a suitably marked dial longitudinally between said platforms over which said hands move in common in the same direction with reference to the dial.

5. In a device of the character described, the combination of a frame, a casing pivoted for rotative adjustment to different positions in the frame, slotted platforms in opposite ends of said casing, two watch movements, clamping means on said platforms to hold said two watch movements respectively thereon with their second arbors aliming with the slots in said platforms, exaggerator hands associated with the second arbors of the two movements, and a common dial for said hands.

[Claim 6 not printed in the Gazette.]

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1,042,610. CLAMP. FARRS A. SCHULS, Chicago, Ill. Filed Mar. 20, 1911. Serial No. 615,764. (Cl. 144—206.)

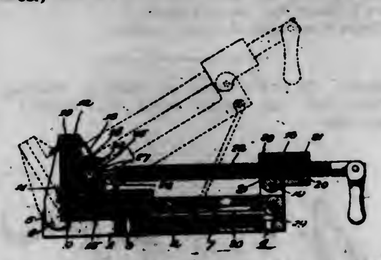


1. In a clamp of the class described, the combination with a member carrying the rigid jaw, a screw-shaft carrying the movable jaw, and means permitting the engagement and disengagement of said screw-shaft with said member comprising threads disposed at opposite sides and ends of the wall of an opening in said member through which said screw-shaft passes and in which it is adapted to be rocked on an axis perpendicular to its longitudinal axis to throw its threads into and out of engagement with said threads of said opening, of a manually operable member pivotally mounted on the rigid member contiguous to a threaded side of the opening and adapted to engage said screw-shaft at a point diametrically opposite said threaded side to maintain the same in engagement with the latter.

2. In a clamp of the class described, the combination with a member carrying the rigid jaw, a screw-shaft carrying the movable jaw, and means permitting the engagement and disengagement of said screw-shaft with said member comprising threads disposed at opposite sides and ends of the wall of an opening in said member through which said screw-shaft passes and in which it is adapted to be rocked on an axis perpendicular to its longitudinal axis to throw its threads into and out of engagement with said threads of said opening, of a manually operable member pivotally mounted on the rigid member contiguous to a threaded side of the opening and adapted to frictionally engage said screw-shaft at a point diametrically opposite said threaded side to maintain the same in engagement with the latter, said shaft adapted when turned in a direction to advance the jaws toward each other to maintain said manually operable member in engagement therewith, and adapted when turned in the reverse direction to release said member from engagement therewith.

3. In a clamp of the class described, the combination with a member carrying the rigid jaw, a screw-shaft carrying the movable jaw, and means permitting engaging and disengaging said screw-shaft with said member comprising threads disposed at opposite sides and ends of the wall of an opening in said member through which said screw-shaft passes and in which it is adapted to be rocked on an axis perpendicular to its longitudinal axis to throw its threads into and out of engagement with said threads, of a substantially U-shaped member of spring metal pivotally secured at the free end of one arm to said first-named member adjacent the threaded portion of one end of the opening for the passage of said screw-shaft, the other arm thereof being curved on an arc having the said pivot as an axis, the radius of curvature being less than the distance from said pivot to the farthest radially removed point in the periphery of the screw-shaft, said arm being adapted to exert a yielding pressure on said screw-shaft to hold the same in engagement with said threads of said first-named member.

1,042,611. **TILTING VISE.** PIETRO A. SCIROCCO, Chicago, Ill. Filed Aug. 17, 1911. Serial No. 644,584. (Cl. 90—61.)



1. A vise of the kind specified comprising two members pivotally connected with each other and adjustable relatively to each other to dispose the same at various relative angles, a flange on one of said members constituting the fixed jaw of the vise, a member movable in guides relatively to said flange and constituting the movable jaw of the vise, a sleeve pivotally mounted upon the said flanged member and provided with a longitudinal opening equipped with threads at opposite sides and ends thereof, said opening enlarged at its ends opposite each of said threaded portions, and a screw-shaft passing through said sleeve and engaged at one end with said movable jaw, said shaft adapted to engage the threads of said sleeve when the latter is turned to one limit of its pivotal movement and being freely longitudinally movable therein when the said sleeve is turned to the other limit of its pivotal movement.

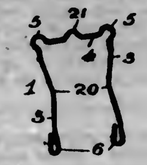
2. A vise comprising a member equipped with an integral flange constituting a fixed jaw, a traveling jaw, guiding means for governing the movements of said traveling jaw relatively to said fixed jaw, a sleeve pivotally secured at one of its ends to the end portion of said member opposite to the fixed jaw, there being a central opening in said sleeve, threads at opposite sides and ends of said sleeve within said opening, the latter laterally enlarged opposite said threaded portions, and a screw-shaft passing through said sleeve and having pivotal connection with said traveling jaw at one end, said sleeve adapted to be turned on its pivot by lateral movement of the screw shaft in a plane perpendicular to the axis of said pivot to throw the threads of said sleeve into and out of engagement with the threads of said shaft.

3. A vise comprising a member equipped with an integral flange constituting a fixed jaw, a traveling jaw, guiding means for governing the movements of said traveling jaw relatively to said fixed jaw, a sleeve pivotally secured at one of its ends to the end portion of said member opposite to the fixed jaw, there being a central opening in said sleeve, threads at opposite sides and ends of said sleeve within said opening, the latter laterally enlarged opposite said threaded portions, a screw-shaft passing through said sleeve, a spherical head on one end of said shaft, there being a pocket in said traveling jaw adapted to receive said head and provided with a longitudinal slot for the passage of the shank of said head, a screw-plug adapted to engage in the open end portion of said pocket to retain said spherical head therein, said sleeve adapted to be turned on its pivot by lateral movement of the screw shaft in a plane perpendicular to the axis of said pivot to throw the threads of said sleeve into and out of engagement with the threads of said shaft.

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1,042,612. **WIRE FABRIC.** JACOB SCHWARTZMAN, Brooklyn, N. Y. Filed Nov. 27, 1911. Serial No. 662,580. (Cl. 245—5.)

1. A wire-fabric for bed-springs and the like, comprising a multiplicity of wire units arranged in rows, each unit consisting of side-members and a laterally extending end-member, said side-members being formed with inwardly extending angular portions arranged and constructed to provide spring-like action or resiliency of said side-members and lateral stretch of the fabric, and the end-member of each unit being formed with an angular portion arranged and constructed to provide spring-like action or resiliency of said end-member and longitudinal stretch of the fabric, means connected with said units for connecting the same, and reinforcing units also of wire extending along the longitudinal marginal edges of the wire fabric, the side-members of the units in each longitudinally extending end-row of said fabric being connected with said reinforcing units.



2. A wire-fabric for bed-springs and the like, comprising a multiplicity of wire units arranged in rows, each unit consisting of side-members and a laterally extending end-member, said side-members being formed with inwardly extending angular portions arranged and controlled to provide spring-like action or resiliency of said side-members and lateral stretch of the fabric, and the end-member of each unit being formed with an angular portion arranged and constructed to provide spring-like action or resiliency of said end-member and longitudinal stretch of the fabric, and loop-shaped portions at the junctions of said side-members and said end-member, said loop-shaped portions forming eyes, the loop-shaped portions of the adjoining units being hooked over each other so that the side-members of the adjoining units overlap at points near said eyes.

3. A wire-fabric for bed-springs and the like, comprising a multiplicity of wire units arranged in rows, each unit consisting of side-members and a laterally extending end-member, said side-members being formed with inwardly extending angular portions arranged and constructed to provide spring-like action or resiliency of said side-members and lateral stretch of the fabric, and the end-member of each unit being formed with an angular portion arranged and constructed to provide spring-like action or resiliency of said end-member and longitudinal stretch of the fabric, and loop-shaped portions at the junctions of said side-members and said end-member, said loop-shaped portions forming eyes, the loop-shaped portions of the adjoining units being hooked over each other so that the side-members of the adjoining units overlap at points near said eyes, and reinforcing units also of wire extending along the longitudinal marginal edges of the wire fabric, the side-members of the units in each longitudinally extending end-row of said fabric being connected with said reinforcing units.

4. A wire-fabric for bed-springs and the like, comprising a multiplicity of wire units arranged in rows, each unit consisting of side-members and a laterally extending end-member, said side-members being formed with inwardly extending angular portions arranged and constructed to provide spring-like action or resiliency of said side-members, and means connected with said units for connecting the same, and narrow reinforcing units also of wire extending along the longitudinal marginal edges of the wire, each reinforcing unit comprising a pair of side-members, a short end-member, and loop-shaped portions at the junctions of said side-members and said end-member, said side-members being formed with angular portions arranged and constructed to provide spring-like action or resiliency of said side-members, the side-members of the units in each longitudinally extending end-row of said fabric being connected with said reinforcing units, substantially as and for the purposes set forth.

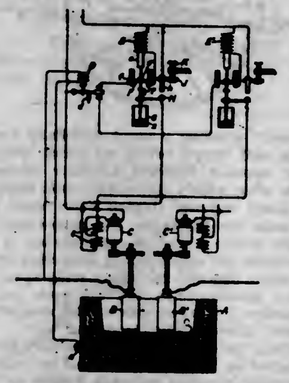
5. A wire-fabric for bed-springs and the like, comprising a multiplicity of wire units arranged in rows, each unit consisting of side-members and a laterally extending end-member, said side-members being formed with inwardly extending angular portions arranged and constructed to provide spring-like action or resiliency of said side-members and lateral stretch of the fabric, and the end-member of each unit being formed with an angular portion arranged and constructed to provide spring-like action or resiliency of said end-member and longitudinal stretch of the fabric, and loop-shaped portions at the junctions of said side-members and said end-member, said loop-shaped portions forming eyes, the loop-shaped portions of the adjoining units being hooked over each other so that the side-members of the adjoining units overlap at points near said eyes, and narrow reinforcing units also of wire extending along the longitudinal marginal edges of the wire, each reinforcing unit comprising a pair of side-members, a short end-member, and loop-shaped portions at the junctions of said side-members and said end-member, said side-members being formed with angular portions arranged and constructed to provide spring-like action or resiliency of said side-members, the side-members of the units in each longitudinally extending end-row of said fabric being connected with said reinforcing units, substantially as and for the purposes set forth.

[Claims 6 and 7 not printed in the Gazette.]



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1,042,613. **ELECTRIC FURNACE.** JOHN A. SEEDS, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Dec. 2, 1909. Serial No. 531,604. (Cl. 204—64.)



1. In combination with a movable arc electrode, an electric motor for moving the electrode, means for controlling said motor responsive to variations in the arc, a magnet controlled by said means, a contact operatively connected to the plunger of said magnet in circuit with said motor, a contact in circuit with the magnet winding connected to the plunger of said magnet through a lost motion connection, and means for retarding the movement of said plunger.

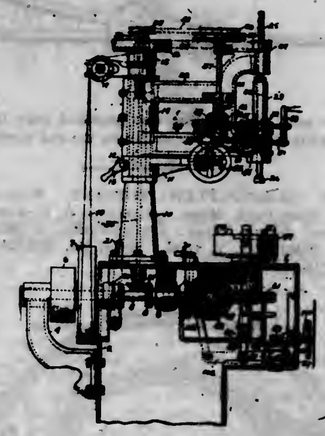
2. The combination of an electric motor, means for controlling said motor, a circuit-closing magnet having a plunger provided with a lost motion device, a switch operatively connected to said plunger and in circuit with the motor, a contact in circuit with the magnet winding operatively connected to the lost motion device whereby the magnet circuit is automatically opened and the motor deenergized for predetermined intervals.

3. The combination of an electric motor, means for controlling said motor, a switching magnet controlled by said means, a switch in circuit with said motor, operatively attached to the plunger of said magnet, one of the contacts of said switch yielding so as to prolong the time of contact, a contact in circuit with the magnet winding whereby its circuit is automatically opened by the movement of its plunger, and means for retarding the motion of the plunger.

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1,042,614. **VALVE GRINDING AND FITTING MACHINE.** SAMPSON S. SHUMAN and WILLIAM R. WEST, Wilmington, N. C. Filed Feb. 21, 1911. Serial No. 609,697. (Cl. 51—4.)

1. The combination with a plurality of chucks having their axes of rotation parallel and means for rotating them, of a tool carrying head provided with a tool carrying spindle arranged to rotate on an axis parallel with the axes of the chucks, the tool carrying head being movable to bring the tool carrying spindle into operative relation with either chuck.



2. The combination with a chuck and means for rotating it, of a tool carrying head provided with a tool carrying spindle arranged to rotate on an axis parallel with that of the chuck, the tool carrying head being movable to bring the tool carrying spindle into and out of operative relation with the chuck, and a reciprocating member extending into the chuck adapted to effect an operation upon the article held in the chuck.

3. The combination with a plurality of chucks having their axes of rotation parallel and means for rotating them, of a tool carrying head provided with a tool carrying spindle arranged to rotate on an axis parallel with the axes of the chucks, the tool carrying head being mounted to swing on an axis parallel with and equidistant from the axes of the chucks to bring the tool carrying spindle into operative relation with either of the chucks.

4. The combination with a plurality of chucks having their axes of rotation parallel, of a tool carrying head provided with a tool carrying spindle arranged to rotate on an axis parallel with the axes of the chucks, the tool carrying head being movable to bring the tool carrying spindle into operative relation with either of the chucks, a reciprocating member extending into each chuck adapted to effect an operation on the article carried by the chuck.

5. The combination with a chuck adapted to hold a hollow article, means for rotating the chuck, a tool carrying head provided with a tool carrying spindle mounted to be movable into and out of position to effect an operation on the cylinder held by the chuck, and a reciprocating member extending into the chuck provided with means for securing a piston stem thereto.

[Claims 6 to 19 not printed in the Gazette.]

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1,042,615. **OVERHEAD TROLLEY-SWITCH AND CROSSOVER.** WILLIAM M. SIMPSON, Chicago, Ill., assignor to Railway Materials Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 30, 1909. Serial No. 515,802. (Cl. 191—11.)

1. An overhead trolley switch or crossover, comprising two end members separated from each other and each provided with integral runners, and an intermediate member detachably connected with said end members and provided with integral points registering with the runners on the end members.

2. An overhead trolley switch or crossover, comprising two end members separated from each other and each pro-

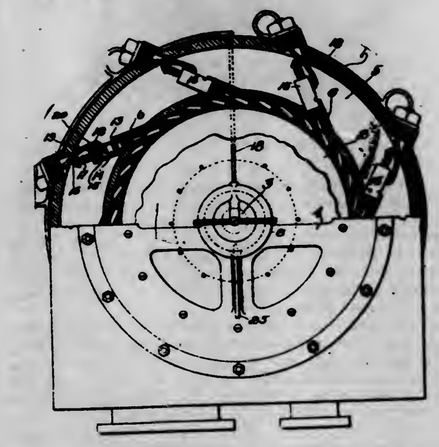
vided with integral runners, a back member connecting the end members, and a point member detachably con-



nected to said back member and provided with integral points registering with the runners on the end members.

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1,042,616. ELASTIC-FLUID TURBINE. WILLIAM E. SNOW, Hyde Park, Mass., assignor to B. F. Sturtevant Company, Boston, Mass., a Corporation of Massachusetts. Filed Mar. 7, 1906. Serial No. 304,625. (Cl. 121—118.)



1. An elastic fluid turbine, having, in combination, a wheel, a pump actuated thereby, a nozzle, a fluid pressure controlled plunger valve therefor, a cylinder within which the valve fits, and connections between the pump and the cylinder through which the fluid acted on by the pump is directed against the back of the valve to operate it in accordance with the speed of the wheel, substantially as described.

2. An elastic fluid turbine, having, in combination, a wheel, a pump actuated thereby, a nozzle, a fluid pressure controlled plunger valve therefor, a cylinder within which the valve fits, and connections between the pump and the cylinder through which the fluid acted upon by the pump is directed against the back of the valve to operate it, substantially as described.

3. An elastic fluid turbine having, in combination, a wheel, a pump actuated thereby, a plurality of nozzles, governing valves for the nozzles, fluid-pressure-actuated means connected with the pump for closing the valves, and springs connected with the valves and adjusted to different degrees of strength so as to permit the valves to close successively as the speed of the wheel increases, substantially as described.

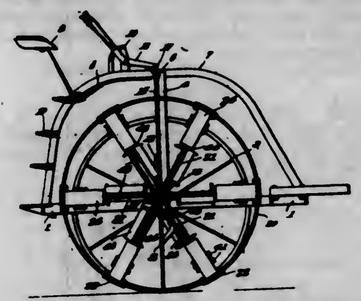
4. An elastic fluid turbine, having, in combination, a wheel, a centrifugal pump actuated thereby, a nozzle, a fluid pressure controlled plunger valve therefor, a cylinder within which the valve fits, and connections between the pump and governing valve cylinder for directing the fluid acted upon by the pump against the back of the valve to operate it in accordance with the speed of the wheel, substantially as described.

5. An elastic fluid turbine, having, in combination, a wheel, a centrifugal pump actuated thereby, a nozzle, a cylinder communicating with the nozzle, a plunger valve fitting within the cylinder for governing the flow of steam through the nozzle, a conduit leading from the pump to the cylinder back of the valve, and a spring for normally holding the valve open, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,617. PLANTER. HENRY F. SPAULDING, Canastota, S. D. Filed Apr. 6, 1912. Serial No. 688,947. (Cl. 111—26.)



1. A planter including a wheel, a radially disposed casing therein, said casing having an outlet opening at its outer end, opposed members pivotally connected and mounted to slide within the casing, said members being normally closed together at their outer ends, means for directing seeds into the casing and thence into the space between the members, and means operated by the rotation of the wheel for automatically projecting the members from the casing and into the soil, moving apart the lower ends of the members to deposit the seeds into the soil, closing together the lower ends of the members, and retracting said members into the casing.

2. A planter including a wheel, a radially disposed casing therein having an outlet opening at its outer end, pivotally connected members normally housed in the casing and closed together at their outer ends, means operated by the rotation of the wheel for shifting the members from the casing and into the soil and retracting them into the casing, and means completely housed in the casing for automatically moving apart the outer ends of the members while in the soil and closing them together during the retraction of the members into the casing.

3. A planter including a wheel supported structure, planting wheels interposed therebetween and mounted for rotation, markers connecting the peripheral portions of the planting wheels, a radially disposed casing within each planting wheel, opposed pivotally connected members constituting planting heads normally housed within the casings, a seed box adapted to discharge into each casing and thence into the space between the members constituting the head within the casing, coöperating means upon the seed boxes and upon the wheel supported structure for successively opening the seed boxes to discharge seeds therefrom, and coöperating means upon the wheel supported structure and the respective members of each planting head, for acting upon the members in one casing to simultaneously project the members from the casing and into the soil, move said members apart at their lower ends, and retract the members from the soil and into the casing.

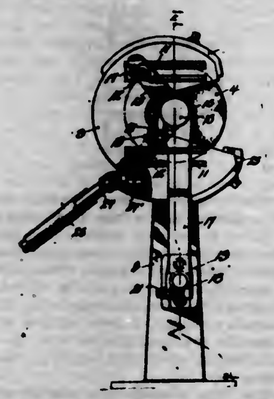
4. In a planter, a casing, a guide block secured therein and having downwardly converging channels increasing in depth toward their inner ends, a tongue spacing the lower ends of the channels, there being passages between the block and the adjacent walls of the casing, planting heads including pivotally connected downwardly converging members forming a seed receiving pocket, yielding means for holding said members normally spread apart, and means movable with the members along the passages to hold the members closed together, mechanism for shifting said holding means downwardly within the passages and beyond the ends thereof to allow the opening of the planting head, and means for automatically returning the said holding means to their initial positions within the passages by way of the channels.

5. A planter including a casing, a planting head mounted to slide therein and made up of pivotally connected members having downwardly converging bottom portions, wings extending from the members, guide blocks interposed between the wings and having upwardly diverging channels, there being a spacing projection between the lower ends of the channels, said blocks being spaced from the walls of the casing to form side passages, yielding projections upon the wings and normally extending into the passages, means for shifting said projections downwardly within the passages beyond the lower ends thereof, means for automatically shifting the projections toward each other and against the spacing means to open the members of the planting head, and means for automatically returning the planting head to its elevated and closed position by shifting the yielding projections upwardly within the channels and into the upper ends of the passages.

[Claim 6 not printed in the Gazette.]

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1,042,618. GRINDING-WHEEL GUARD. WILLIAM STOUB, Milwaukee, Wis. Filed Dec. 11, 1911. Serial No. 665,100. (Cl. 51—7.)



1. The combination of a support, a post having a split foot engaging the support, a spider having the hub thereof engaging a split head of the post, a grinding wheel guard-hood attached to the spider, and means for clamping said post on said support and spider-hub.

2. The combination of a support, a post having a split-foot engaging the support, a spider having the hub thereof engaging a split head of the post, a grinding-wheel guard-hood adjustably secured to the spider, and means for clamping said post on said support and spider-hub.

3. The combination of a grinding-wheel guard-hood provided with side guides, bolts having their heads engaging said guides, a spider having arms thereof engaged by the bolts, nuts on said bolts in opposition to the spider-arms, a post with which a hub of the spider is engaged, and a support to which the post is secured.

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1,042,619. SPARK-PLUG. ROBERT A. STRAWAHAN, Toledo, Ohio. Filed Feb. 1, 1912. Serial No. 674,780. (Cl. 123—169.)

1. A spark-plug having its shell provided longitudinally thereof with a charge introducing passage, a nipple attached to the shell with its bore in communication with said passage and having a priming hole in a side thereof, and a valve threaded into said nipple for seating in the bore thereof to close the same and having a part inclosing the outer end portion of the nipple and movable with the valve to cover the priming hole therein when the valve is seated.

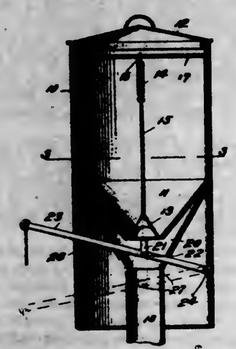


2. A spark-plug having its shell provided in the side thereof, without its point of entrance into a cylinder opening, with a socket and having a passage leading from said socket longitudinally through the shell wall and opening without the inner end thereof, a nipple threaded into said socket with its bore in communication with said passage and having a priming hole through a side thereof, a valve threaded into said nipple for seating therein to close its bore and having its head forming a cap for incasing the outer end portion of the nipple and covering said hole when the valve is seated.

3. The combination with the shell of a spark-plug having a priming passage therethrough, of a nipple threaded into said passage and having a priming hole through a side wall thereof, and a valve threaded into said nipple for closing the bore thereof inside the point of entrance of said hole thereto, said valve having a fixedly attached cap loosely incasing the outer end portion of the nipple and covering said hole when the valve is seated and having an opening adapted to be moved into register with said priming hole when the valve is turned from seating position.

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1,042,620. DELIVERY-MACHINE. WILLIAM SUTCLIFFE and GEORGE B. STILLMAN, Deerfield, Ohio. Filed Feb. 14, 1912. Serial No. 677,576. (Cl. 211—9.)



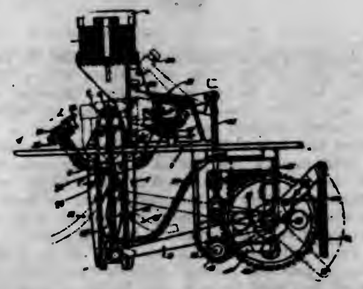
1. In a device of the character described, the combination with a casing having an inclined false bottom arranged substantially intermediate its ends, of a conduit having a substantially funnel shaped upper portion arranged adjacent said false bottom, a chamber intermediate the lower end of said false bottom and the upper end of said conduit, and means for admitting measured quantities of articles from said casing into said intermediate chamber.

2. In a device of the character described, the combination with a casing having a removable cover, of a false bottom in said casing said false bottom being an inverted frustum of a cone and having a constricted opening at its

apex, a cone shaped plunger with means whereby the base of said plunger is normally drawn against the apex of said false bottom, a conduit having its upper portion formed substantially as a funnel inclined in the same direction as the inclination of the false bottom, a chamber formed between the opening in said false bottom and the upper end of said conduit, and a lever for depressing said plunger and admitting articles from the casing through the opening into said intermediate chamber.

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1,042,621. CIGAR-BANDING MACHINE. FRANKLIN E. TERRILL, Lakewood, and JOHN P. DOWD, Cleveland, Ohio. Filed May 20, 1911. Serial No. 628,507. (Cl. 131—61.)



1. A banding machine comprising means for selecting a band, means for moistening or pasting the inner surface of one of the ends of said band, means for folding said band around a cigar and means for pasting the free ends of the band together at their inner surfaces.

2. A banding machine comprising means for selecting a band, means for moistening or pasting the inner surface of one of the ends of said band, means for folding said band around a cigar and means for pasting the free ends of said band together at their inner surfaces, with means for trimming said free ends substantially as set forth.

3. A machine for banding cigars or the like comprising a magazine or hopper for holding the bands, a suction device for selecting and carrying a band from the magazine or hopper, first to a moistening or pasting device, next to a form, and means for engaging the band so as to wrap or infold it around an article and paste the free ends of said band together, and a cutter co-acting with said folding and pasting device adapted to shear or trim the free ends of the band, substantially as set forth.

4. In a machine of the type set forth a combination with a band feeding device, a form or rest and means for supplying paste or moisture to a band, of oppositely disposed and operating folders located in juxtaposition to said form or rest and having cutters secured to and co-operating with them.

5. In a machine of the type set forth the combination with a band feeding device, a form or rest and means for supplying a paste or moisture to a band, of oppositely disposed and operating folders located in juxtaposition to said form or rest, said folders having resilient jaws and having cutters secured to and coöperating with them.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,622. NON-REFILLABLE BOTTLE. CLARENCE ELMER TUCKER and HOWARD PAYNE TUCKER, Cherrydale, Va.; said Clarence E. Tucker assignor to said Howard P. Tucker. Filed Nov. 23, 1911. Serial No. 661,915. (Cl. 215—66.)

The combination with a bottle, a cylindrical neck thereon, and an internal annular enlargement in the neck forming a passage for liquid, of a plug secured in the end of the neck and having a passage therethrough, a tubular extension on the inner end of said plug forming a part of said passage, a cylindrical valve in said neck having a recess in its end, appreciably larger than the restricted end of the plug, longitudinal enlargements on the valve spacing it from the bottle neck and guiding its longi-



tudinal movement, and said plug made with an integral shoulder at one side only, engaged by the end of the valve and limiting the movement of the valve when the bottle is inverted, said shoulder terminating short of the lower end of the extension, substantially as described.

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1,042,628. ELECTRIC FLASH-LIGHT. JOSEPH F. WAGNER, South Bend, Ind., assignor to Arnold-Wagner Electric Co., South Bend, Ind., a Corporation of Indiana. Filed Sept. 1, 1911. Serial No. 647,257. (Cl. 240—2.)



1. An electric lamp comprising a casing embodying a body portion, a facing plate, a rear plate, means for connecting the plates to the body portion, said body portion having a lamp chamber, binding posts secured to the rear plate with their inner ends forming contact members, a lamp socket secured to the rear plate by one of said binding posts and projecting into the lamp chamber, a lamp mounted in said socket, a contact member secured to the lamp socket and movable into engagement with the inner end of one of said binding posts, and means for shifting said contact member.

2. An electric lamp comprising a casing embodying a body portion, a facing plate, a rear plate, means for connecting the plates to the body portion, said body portion having a lamp chamber, a lamp secured in said chamber, a push button mounted to slide in said body portion, binding posts secured to the rear plate with their inner ends forming contact members, and a contact member secured to the lamp and movable into engagement with the inner end of one of said binding posts to complete the circuit.

3. An electric lamp comprising a body portion having a lamp chamber formed therein, a facing plate, a rear plate, means for detachably securing said plates to the body portion, binding posts secured to the rear plate, a lamp socket secured to the rear plate by one of said binding posts, a contact member secured to said socket, a lamp mounted in said socket, means unconnected with said contact member for moving the same into contact with the inner end of one of said binding posts to close the circuit, whereby all current conducting parts are mounted upon and removable with the back plate.

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1,042,634. RECTAL DYNAMO. JAMES B. WAGGONER, Los Angeles, Cal. Filed May 20, 1912. Serial No. 698,001. (Cl. 174—69.)

In a rectal dynamo, a cylindrical body of insulating material, having at each end a removable member, a metal



ring at each end of said body, a longitudinal metal rod through said body, and a pin through each metal ring,



contacting with the longitudinal rod, whereby electrical connection is formed between said metallic rings.

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1,042,636. LOOSE-LEAF BINDER. RICHARD M. WATSON, Detroit, Mich., assignor to The Blackwell, Wielandy Book & Stationery Company, St. Louis, Mo., a Corporation. Filed Oct. 18, 1911. Serial No. 655,255. (Cl. 129—24.)



1. A loose leaf binder, having in combination, a base plate provided with corrugations, a pair of half rings slidably connected with said base plate and arranged together to form a toggle joint and a member projectable into any one of the recesses formed by the corrugations by the half rings closing and lifted out of the recesses by the half rings opening, substantially as described.

2. A loose leaf binder, having in combination, a base plate provided with turned over sides to form channels, a plate held within said channels by said over-turned sides of the base plate, the said plate having a pair of bearings running its entire length and a pair of half rings having their base portions bent at right angles to the upright ring portions, the said base portions being rotatably journaled in said bearings and extending beyond the opposite ends of the bearings and bent in toward each other to contact with each other and form a toggle joint, substantially as described.

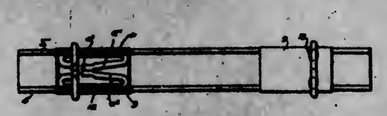
3. A loose leaf binder, having in combination a base plate provided with turned over sides forming channels, a plate B slidably held in said channels by said turned over sides of the base plate, a plate C slidably held in said channels by said turned over sides of the base plate, the plate C being provided with bearings and being flexible to provide spring action, a pair of half rings journaled in said bearings and meeting at their base portions to form a toggle joint and means operated by the closing of said half rings for fixing said slidable plates with respect to the base plate, substantially as described.

4. A loose leaf binder, having in combination, a base plate provided with corrugations, a pair of half rings slidably connected with said base plate and arranged with respect to each other to form a toggle joint and a lug attached to one of the half rings and projectable into any one of the recesses of the corrugated base plate by the closing of said half rings and drawn away from the corrugations by the opening of the half rings, substantially as described.

5. A loose leaf binder, having in combination, a base plate provided with turned over sides forming channels and provided with corrugations located between said channels, a plate B slidably held in said channels by said turned over sides of the base plate, a plate C slidably held in said channels by said turned over sides of the base plate, the plate C being provided with bearings and being flexible to provide spring action, a pair of half rings journaled in said bearings and meeting at their base portions to form a toggle joint and a lug attached to one of the half rings and projectable into any one of the recesses formed by the corrugations of the base plate by closing of the half rings and capable of being withdrawn from the said corrugations by the opening of said half rings.

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1,042,638. CLASPING DEVICE FOR LOOSE-LEAF BINDERS. RICHARD M. WATSON, Detroit, Mich., assignor to The Blackwell, Wielandy Book & Stationery Company, St. Louis, Mo., a Corporation. Filed Dec. 23, 1911. Serial No. 667,452. (Cl. 129—24.)



1. A clasping device for loose leaf binders, having in combination, a binder plate and a clasping unit slidable therealong, the clasping parts being located near the end of the unit, and the unit being reversible to give greater scope of spacing and approach of a number of units on the binder plate, substantially as described.

2. A clasping device for loose leaf binders, having in combination, a binder plate, said a reversible clasping unit comprising a pair of wires having half ring portions and portions placed under tension, and a slidable sheathing slidable along the binder plate and housing the portions under tension, the half ring portions protruding from the sheathing eccentrically and the ends of the sheathing being reversible, substantially as described.

3. A clasping device for loose leaf binders, having in combination, a binder plate having turned over edges forming channels at each side, a pair of half rings having base portions rotatably journaled in said channels, each base portion doubling back upon itself, the doubling portions of the two half rings being adapted to engage each other and adapted, when the half rings close, to compress together forcing the other parts of the base portions into frictional engagement with the turned over edges of the binder plate and also affording spring action to keep the half rings in closed relation, substantially as described.

4. A clasping device for loose leaf binders, having in combination, a binder plate and a clasping unit slidable therealong and comprising a pair of wires forming half rings and having base portions that are compressed together and against the binder plate, when the half rings are closed, and thereby afford both spring action to keep the half rings closed and friction with the binder plate to keep the unit in any given position of adjustment along the binder plate, substantially as described.

5. A clasping device for loose leaf binders, having in combination, a binder plate with turned over edges to form channels at each side and a clasping unit comprising a sheathing engaging over and slidably on said turned over portions of the binder plate as guides, and a pair of wires inclosed in said sheathing forming half rings and having base portions that are compressed together and against the said turned over edges of the binder plate, when the half rings are closed, thereby, affording both spring action to keep the half rings closed and friction with the binder plate to keep the unit in any given position of adjustment along the binder plate, substantially as described.

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1,042,637. GREASE-GUN. WILLIAM U. WATSON, Chicago, Ill. Filed Apr. 22, 1912. Serial No. 692,420. (Cl. 221—47.)

1. In a device of the class described, in combination, a cylinder having an opening at the lower end, a piston in the cylinder, a piston rod having a duct therein communicating at one end with the inside of the cylinder above the piston and at the other end with the atmosphere, and a valve for controlling the outer end of said duct.

2. In a device of the class described, in combination, a cylinder having an opening at the lower end, a piston having a peripheral groove the bottom of which is in communication with the space above the piston, an expansible packing ring in said groove, a hollow piston rod having a port communicating with the inside of the cylinder at a point above the piston, said rod projecting

through the end of the cylinder, the cylinder being otherwise closed above the piston, and a valve for controllably releasing the air from said piston rod.



3. In a grease gun, in combination, a cylinder, a piston therein, a hollow piston rod projecting through the end of the cylinder and having a port communicating with the inside of the cylinder at a point above the piston, and means for controllably introducing compressed air and other gases into the cylinder through the piston rod.

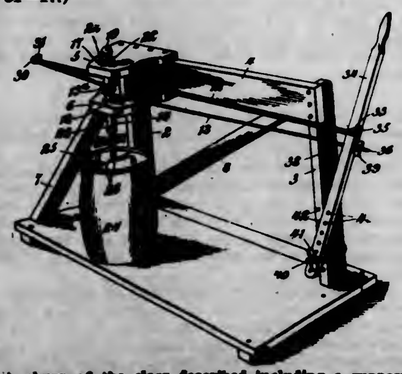
4. In a grease gun, in combination, a cylinder closed at the top, a piston therein, a hollow piston rod projecting through the end of the cylinder and having a port communicating with the inside of the cylinder at a point above the piston, a handle for operating the piston rod, and a valve in convenient position for manipulation by the hand of the operator when his hand is in position upon the handle, said valve being adapted to control the escape of air from the inside of the piston rod.

5. In a grease gun, in combination, a cylinder closed at the top, a piston therein, a hollow piston rod projecting through the upper end of the cylinder and having a port communicating with the inside of the cylinder at a point above the piston, a handle for operating the piston, said handle containing a duct which communicates with the inside of the rod, and a valve in the handle for permitting and preventing, controllably, the escape of air from the upper end of the cylinder.

[Claims 6 and 7 not printed in the Gazette.]

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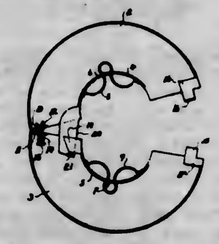
1,042,628. CHURN. CHARLES S. WAYBRIGHT, Staunton, Va. Filed June 29, 1912. Serial No. 706,711. (Cl. 31—17.)



A churn of the class described including a supporting frame provided with spaced upper and lower horizontal bearing arms having vertically aligned bearing openings, a vertical shaft having a longitudinal bore and arranged in the bearing openings and adapted to be raised and lowered, said shaft being also provided at its upper end with a combined head and handle having an outwardly extending supporting flange arranged at the upper face of the upper horizontal bearing arm, a reciprocatory rod or bow guided in the frame, a cord spirally wound around the vertical shaft and connected with the rod or bow, an operating lever for reciprocating the rod or bow, a dasher having a stem extending into the lower end of the vertical shaft, and a fastening device adjustably and detachably securing the stem of the dasher in the bore of the vertical shaft, the latter having a limited vertical movement to permit the stem of the dasher to be removed from the bore of the shaft without detaching the cord.

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1,042,629. FLOOR AND CEILING PLATE. FRANK N. WELLS and ALBERT R. WELLS, Southington, Conn., assignors to The Beaton & Corbin Mfg. Co., Southington, Conn., a Corporation. Filed July 29, 1912. Serial No. 712,043. (Cl. 126—317.)



1. The herein described floor and ceiling plate comprising two members struck up from sheet metal, and both formed at one side with inwardly extending fingers, a pin connecting said fingers, a spring around said pin and bearing against one of the fingers, the opposite edges of the plate formed one with a latch and the other with a catch for engagement thereby.

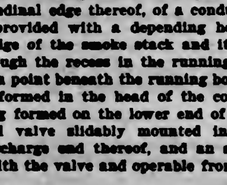
2. The herein described floor and ceiling plate comprising two members struck up from sheet metal, and both formed at one side with inwardly extending fingers, a pin connecting said fingers, a spring around said pin and bearing against one of the fingers, the opposite edges of the plate formed one with a latch and the other with a catch for engagement thereby, one of said plates formed with a stop and the other with an arm extending between said stop and the plate from which it projects, said arm formed at its outer end with a lug adapted to engage with said stop.

3. The herein described floor and ceiling plate comprising two semi-circular members struck up from sheet metal, said plates forming a semi-circular opening, integral flanges extending inward from said opening, said flanges formed with notches, springs engaging with said notches, said plates formed at one side with inwardly extending fingers, a spring pin yieldingly connecting said fingers, the opposite sides of the plates formed one with an inwardly extending integral latch, and the other with an inwardly extending integral catch, one of the plates also formed with an integral stop and the other with an integral arm provided at its outer end with a lug adapted to engage with said stop.

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1,042,630. FISH-HOOK RELEASER. SHERMAN WETMORE, Columbia, Cal. Filed June 1, 1912. Serial No. 701,061. (Cl. 43—7.)

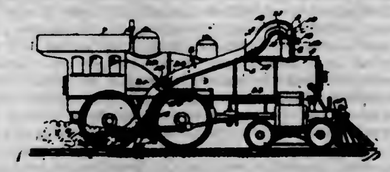
1. A fish hook releaser comprising a split tubular body, the edges of said body being spaced apart, a circumferentially projecting lug formed on one of said edges and extending directly across the space between the edges and terminating short of the opposite edge, a gripping member comprising a gripping plate adapted to swing within said tubular body and being formed with an outwardly projecting lever arm, said arm being equal in thickness to the length of the lug and having a circular opening adjacent its inner end to receive said lug, and means connected with the free end of the lever arm for actuating the same.



2. A fish hook releaser comprising an obliquely truncated hollow cylindrical body, said body being split for its entire length along the line of its shortest element and having its lateral edges spaced from each other, a circumferentially extending lug formed on one of said lateral edges and terminating short of the other, said lug extending directly across the space between the lateral edges, a gripping member comprising a circular gripping plate formed with a radially extending lever arm formed with a circular opening adjacent its inner edge for the reception of said lug, the lever arm being equal in thickness to the length of the lug thereby providing an opening between said lever and one of the lateral edges of the cylindrical body through which a line may be passed, and means connected with the free end of the lever arm for the purpose of actuating the same to cause the circular gripping plate to bind against an object passing through the cylindrical body.

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1,042,631. SMOKE AND CINDER CONDUCTOR FOR LOCOMOTIVES. SOLOMON WHEELER, Cripple Creek, Colo. Filed Dec. 27, 1911. Serial No. 668,175. (Cl. 110—145.)



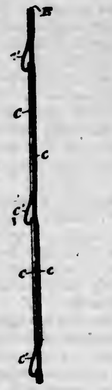
1. The combination with a locomotive including a smoke stack and running board, there being a recess formed in the running board and opening through the outer longitudinal edge thereof, of a conductor having its upper end provided with a depending head fitting over the upper edge of the smoke stack and its lower end extending through the recess in the running board and discharging at a point beneath the running board, there being an opening formed in the head of the conductor and an attaching lug formed on the lower end of said conductor, a perforated valve slidably mounted in the conductor near the discharge end thereof, and an actuating device connected with the valve and operable from the cab of the locomotive.

2. The combination with a locomotive including a smoke stack, of a conductor having its upper end curved downwardly to provide a head adapted to fit over the upper edge of the smoke stack, there being an opening formed in the head, and the material between said opening and the lower end of the head being severed and extended laterally to form attaching ears, the intermediate portion of the conductor being flattened and adapted to rest on the surface of the boiler, and the lower end thereof extended downwardly and rearwardly and provided with a discharge orifice, a perforated valve mounted in the conductor, and an actuating device operatively connected with said valve.

3. The combination with a locomotive, including a smoke stack and running board, the latter being provided with a seating recess opening through the outer longitudinal edge thereof, of a conductor having its upper end provided with a split head fitting over the top of the smoke stack and its lower end extended through the seating recess to a point below the running board, there being an opening formed in the head above the top of the smoke stack, and an attaching lug formed on the conductor near the discharge end thereof, guides arranged within the conductor, a perforated valve slidably mounted within the guides, and an actuating device operatively connected with said valve.

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1,042,632. ELASTIC FABRIC OR WEBBING. CHARLES J. WHITE, New Britain, Conn., assignor to C. J. White Manufacturing Company, New Britain, Conn., a Corporation of Connecticut. Original application filed Jan. 18, 1910, Serial No. 537,831. Divided and this application filed Apr. 20, 1910. Serial No. 556,577. (Cl. 139—70.)



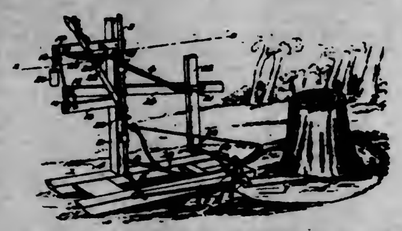
1. As a new article of manufacture, a length of elastic webbing, including a core of rubber and a covering of woven threads, and a non-elastic branch portion adjacent a portion of said webbing formed by some of said threads.

2. As a new article of manufacture, a strip of elastic webbing comprising an elastic core, and a yielding covering of woven thread, and a loop of non-elastic fabric separated from the elastic portion of the webbing and formed of some of the threads employed for covering the elastic core.

3. As a new article of manufacture, a strip of elastic webbing comprising an elastic core and a yielding covering of woven thread, and a loop of non-elastic fabric separated from the elastic portion of the webbing and formed of some of the threads employed for covering the elastic core, said loop being of greater length than the length of elastic webbing between the ends of said loop.

4. An elastic webbing consisting of a flat strip having a main section and a section prolonged therefrom and continuous therewith, in both of which there are elastic strands throughout the length, the first section having a greater number of warp threads therein than the adjacent section and an integral section formed therewith and adjacent to the section having the least number of warp threads and which section is non-elastic and is formed from part of the warp threads of the first section with additional weft threads.

1,042,623. SAW. CHARLES C. WOOD, Caldwell, Idaho, assignor of one-half to May Sellers Meier, Caldwell, Idaho. Filed May 28, 1911. Serial No. 628,901. (Cl. 143—64.)



1. In a sawing machine, a support, a rock-shaft mounted for vertical adjustment upon the support, means operable to rock the shaft, an arm projecting from the shaft, a swinging support, a saw-blade having a shank pivoted to the arm, and a slide mounted upon the support and supporting the blade-shank.

2. In a sawing machine, a rock-shaft, means operable to rock the shaft, an arm projecting from the shaft, a swinging support supported by the rock-shaft, a saw-blade having a shank pivoted to the arm, a slide mounted upon the support and supporting the blade-shank, and a lever operable to vertically adjust the shaft.

3. In a sawing machine, a rock-shaft, means operable to rock the shaft, an arm projecting from the shaft, a swinging support, a saw-blade having a shank pivoted to the arm, a slide mounted upon the support and supporting the blade shank, a manually operable lever, a support for the lever, a pulley upon the support, and flexible connection between the lever and rock-shaft trained over the said pulley.

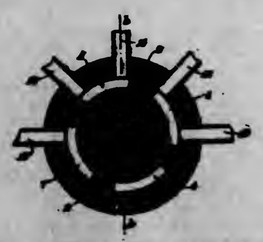
4. In a sawing machine, a support, a rock-shaft mounted thereon, means operable to rock the shaft, an arm projecting from the shaft, a swinging support mounted upon the shaft, the shaft and the support thereon being vertically adjustable, a saw-blade having a shank pivoted to the arm, and a slide mounted upon the support and supporting the blade-shank.

5. In a sawing machine, a support, a rock-shaft mounted for vertical adjustment upon the support, means operable to rock the shaft, an arm projecting from the shaft, a saw-blade having a shank pivoted to the arm, an arm mounted for swinging movement, a bar supported by the arm, and connection between the lower end of the bar and the shank of the saw-blade, the shank and the bar being vertically adjustable.

[Claim 6 not printed in the Gazette.]

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1,042,634. VALVE MECHANISM FOR MOTORS. FREDERICK L. WOOD, Meriden, Conn., assignor to Aeolian Company, New York, N. Y., a Corporation of Connecticut. Filed Mar. 14, 1912. Serial No. 683,675. (Cl. 138—2.)

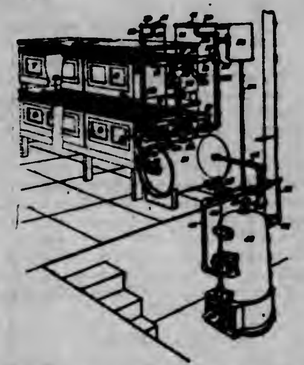


1. In a valve mechanism for motor devices the combination with a disk and means for rotating the same axially, said disk having a series of segmental grooves in its periphery, of a casing closely surrounding the disk, two opposite inlet ports in the casing, an exhaust port between the inlet ports, and outlet ports midway between each inlet port and the exhaust port, the distance between any two adjacent ports being no greater than the length of a groove in the periphery of the disk, substantially as set forth.

2. In a valve mechanism for motors, the combination with a disk, and means for rotating the same, said disk being provided with grooves in its periphery, said grooves extending substantially in the direction of the circumference of the disk, of a casing surrounding the disk, and a series of ports formed in the casing and adapted to be connected at intervals one with the other by the grooves in the disk, substantially as set forth.

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1,042,635. HEATING SYSTEM FOR INCUBATORS. CHARLES E. ADAIR, Buffalo, N. Y., assignor to Cyphers Incubator Company, Buffalo, N. Y., a Corporation of New York. Filed Jan. 11, 1911. Serial No. 602,194. (Cl. 237—23.)



In combination with a series of incubators, a heating-system therefor comprising a water-heater; a hot-water reservoir of substantial capacity; inlet- and outlet-connections between the reservoir and the heater whereby a heating-circuit is established through the reservoir and the heater; radiating means for heating the incubators; inlet- and outlet-connections between said means and the reservoir, and independent of the connections between the reservoir and the heater, whereby a radiating-circuit is established through the radiating means entirely independent of the heating-circuit; thermostatic means for controlling the flow of water through the radiating-circuit, said means being subject to the temperature of the incubators and adapted to maintain a predetermined temperature in the incubators; and thermostatic means for controlling the fire in the heater, said means being subject to the temperature of the water in the heating-circuit and adapted to maintain, in said circuit, a predetermined temperature higher than that of the incubators.

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1,042,636. BOAT. ADOLPH H. APEL, Ventnor, N. J. Filed Apr. 15, 1912. Serial No. 690,701. (Cl. 114—66.5.)



1. A boat hull having the bottom parts of the sides curved downward and then upward toward the stern and forming bilges constituting the lowest parts of the bottom for the greater and rear portion of the boat and also curved upward at the bow portion to a point above the normal water line, and in which the keel of the bow portion is extended downward below the level of the bilge lines of the sides and terminates at or near amidship, and that portion of the bottom from amidship extending rearwardly, approximately to the stern, is arranged as a single groove of relatively shallow depth and gradually decreasing transverse curvature with its highest portion above the level of the bilge lines of the sides and approximating the level of the bilge lines at the stern.

2. A boat hull having the bottom parts of the sides forming bilges constituting the lowest parts of the bottom for the greater and rear portion of the boat and curved upward at the bow portion to a point above the normal water line, and in which the keel of the bow portion is extended downward below the level of the bilge lines of the sides to a distance in advance of amidship and above the level of the bilge lines aft of amidship for a short distance only and the bottom surface rearward of the keel near amidship and extending approximately to the stern is arranged above the level of the bilge lines of the sides and upwardly curved transversely so as to provide a longitudinal bottom channel whose highest part is central from the bilges and the curvature decreasing toward the stern.

3. In a boat hull having the sides extending downward and forming bilges at their lowest part, which bilges are lowest rearward from a point somewhat in advance of the amidship section and are highest at the bow portion, and in which the bottom of the bow portion between the bilges and extending rearward to approximately the amidship section is grooved on each side of the keel, the said grooves forming oppositely arranged spiral channels gradually turned from an oblique outward direction at the extreme bow portion to a substantially horizontal downward direction and substantially terminating at or adjacent to the amidship section, and in which further the under surface of the bottom from the amidship section rearwardly toward the stern has a longitudinal portion having a single transverse curvature which is higher than the level of the bilges from amidship rearward and which curved bottom is extended transversely downward to said bilges at each side to form a single confining channel or groove for the greater portion of the length of the bottom of the boat for the air and water over which the boat travels.

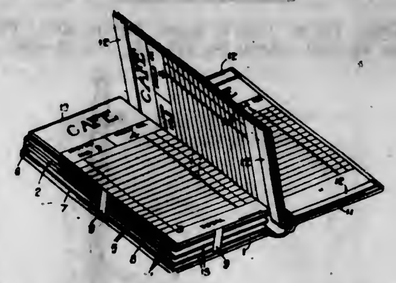
4. In a boat hull, the sides extending downward and forming bilges at their lowest parts, which bilges extend well below the level of the bottom and keel from a point somewhat in advance of the amidship section and extending rearwardly at this lower depth toward the stern and said bilges also extending forward from amidship toward the bow and high above the keel, and in which the lower part of the bow portion between the bilges and extending rearwardly to approximately the amidship section is grooved on each side of the keel, the said grooves forming oppositely arranged spiral channels gradually turned from an oblique outward direction at the extreme bow portion to a substantially downward direction at or adjacent to the amidship section, and in which further the surfaces of said grooves are blended into each other at or in advance of the amidship portion to form from that point rearwardly one continuous longitudinal downwardly directed grooved bottom portion extending transversely from bilge to bilge and rearwardly toward the transom for the greater length of the hull and with a gradually less transverse curvature as the transom is approached so that it approximates a substantially flat surface at the transom.

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1,042,637. SALES-BOOK. EDWARD KIRBY BOYLE, Elmira, N. Y., assignor to American Sales Book Company, Limited, Toronto, Canada, a Corporation of Canada. Filed Nov. 22, 1911. Serial No. 661,707. (Cl. 11—22.)

1. In a manifolding sales book, in combination, a pad having a continuously folded web, and means directly connected with a side edge thereof adapted to prevent the pad from becoming unfolded yet permit the leaves to be detached without mutilation.

2. In a manifolding sales book, in combination, a holder adapted to retain a pad of detachable leaves, a double face flap connected with said holder, and retaining means on both sides of said flap and directly connected therewith adapted to receive and hold the edges of the leaves when detached, whereby further entries may be made upon the detached leaves when desired.



3. In a manifolding sales book, in combination, a pad having a continuously folded web, and means binding the edges of the leaves of said pad to each other at a plurality of places adapted to prevent said pad from becoming unfolded yet permit the leaves to be detached without mutilation.

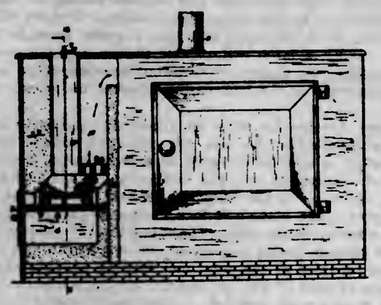
4. In a manifolding sales book, in combination, a pad having a plurality of sets of original and duplicate leaves, manifolding means connected with each set, and a relatively narrow strip pasted to the edges of said leaves for holding the same in normally adjacent position.

5. In a manifolding sales book, in combination, a pad having a continuously folded web forming a plurality of sets of original and duplicate leaves, the back of each original leaf being carbonized, means directly connected with said pad adapted to be inserted between the adjacent sets to prevent the transaction being recorded on a lower set, and means directly connected with the side edges of said pad adapted to prevent the pad from becoming unfolded.

[Claims 6 to 15 not printed in the Gazette.]

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1,042,638. STOVE. LOUIS F. BERGET and NELSON V. STEARNS, San Francisco, Cal. Filed Jan. 29, 1912. Serial No. 674,136. (Cl. 158—91.)

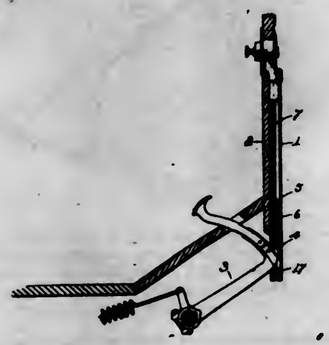


1. In a stove a fire-box, a tray over said fire box having an opening, a burner-plate positioned above said opening and out of contact with the tray, and being provided on its upper surface with corrugations and a flange projecting upwardly from its outer edge, a shaft opening downwardly over the burner plate, a pipe for oil and a pipe for water emptying into said shaft, and supports sustaining the burner-plate above said fire box.

2. In a stove a fire-box, a tray over said fire-box having an opening, a burner-plate positioned above said opening and out of contact with the tray over said fire-box, and having its outer upper surface provided with corrugations and a flange projecting upwardly from its edge; a shaft opening downwardly over the burner-plate, and a pipe for oil having an elbow and a pipe for water having

an elbow emptying into the shaft, the elbow of the pipe for oil opening into the outer portion of the elbow of the pipe for water.

1,042,639. LOCK. CARL E. BERDE, Detroit, Mich. Filed June 28, 1911. Serial No. 635,773. (Cl. 21—90.)



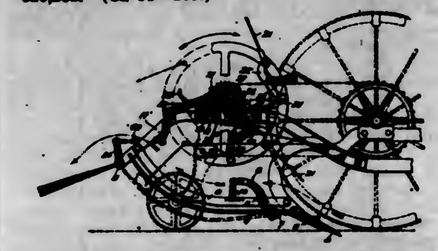
1. The combination with an automobile chassis, and a member oscillatory thereon for throwing transmission mechanism in and out of gear, of a lock mechanism casing on the chassis, a guard plate engaging the lock casing and securing it to the chassis, a lock holding the guard plate and casing in engaged relation, a tubular casing lying in the plane of oscillation of the member with one end secured in an opening in the lock casing and having an opening entered by said oscillatory member when the latter is in throwout position, a latch reciprocable in the tubular casing adapted to engage and hold the oscillatory member in throwout position and a lock mechanism in the lock casing operatively connected to the latch.

2. The combination with an automobile chassis and a member oscillatory thereon for throwing transmission mechanism in and out of gear, of a lock casing, a guard plate securing the lock casing to the chassis, a lock holding the guard plate and lock casing in engaged relation, a hollow casing secured at one end to the chassis by the lock casing with the other end portion having an opening adapted to be entered by the oscillatory member when the latter is in throwout position, a guide block in the hollow casing, a latch reciprocable therein adapted to engage and lock the member in throwout position, and a locking mechanism in the lock casing adapted to operate the latch.

3. The combination with an automobile chassis and a member oscillatory thereon for throwing transmission mechanism in and out of gear, of a lock casing, a guard plate screwthreaded into the lock casing and adapted to secure the latter to the chassis, a lock in the plate adapted to secure the plate and lock casing in engagement, a shield member in the plate concealing the key hole of the lock, a tubular casing secured at one end in the lock casing and provided at the other end with an opening adapted to be entered by the oscillatory member when the latter is in throwout position, a latch reciprocable in the tubular casing, and lock mechanism in the lock casing adapted to operate the latch.

4. The combination with an automobile chassis and a member oscillatory thereon for throwing transmission mechanism in and out of gear, of a permutation lock casing on the chassis provided with a depending hollow boss, a guard plate engaging the lock casing and securing it to the chassis, a key lock holding the guard plate and casing in engaged relation, a tubular casing secured at one end in the hollow boss and provided with an opening entered by the oscillatory member when the latter is in throw out position, a latch reciprocable in the tubular casing adapted to engage and hold the oscillatory member in throw out position and a permutation lock mechanism in the lock casing having a bolt linked to the latch.

1,042,640. POTATO-HARVESTER. JAMES P. BRENNAN, Columbus, Wis. Filed Apr. 11, 1911. Serial No. 620,282. (Cl. 55—109.)



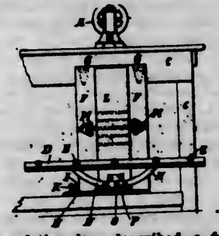
1. In a potato harvester of the type specified, the combination with side bars of the machine, of hangers pivotally connected to the side bars and having segmental slots therein concentric with the hanger-pivots, guides in connection with said side bars engaging the slots of the hangers, and a reel having a shaft thereof supported in said hangers.

2. In a potato harvester of the type specified, the combination with side bars of the machine, of hangers pivotally connected to the side bars and having segmental slots therein concentric with the hanger-pivots, guides in connection with said side bars engaging the slots of the hangers, tension springs in connection with arms of said hangers, and a reel having a shaft thereof supported in the aforesaid hangers.

3. In a potato harvester of the type specified, the combination with side bars of the machine, of hangers pivotally connected to the side bars and having segmental slots therein concentric with the hanger-pivots, guides in connection with said side bars engaging the slots of the hangers, a reel having a shaft thereof supported in said hangers, and a screen comprising a series of yielding tines under the reel.

4. In a potato-harvester of the type specified, the combination of a yielding reel, and a screen comprising a series of yielding tines under the reel.

1,042,641. MACHINE FOR SEWING UPHOLSTERED OR TUFTED PADS OR CUSHIONS. GEORGE B. BRINK, South Lyon, Mich., assignor to Tufting Machine Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 20, 1909. Serial No. 529,088. (Cl. 45—75.)



1. In a device of the class described, a frame having a sewing machine head, a leaf pivoted upon the frame below the head, a table or shelf mounted in substantially horizontal position on the leaf to support a pad or cushion with its edge at the needle of the machine, and means to tilt the table longitudinally on the leaf to incline the pad.

2. In a device of the class described, a frame having a sewing machine head, a leaf pivoted upon the frame below the head, a table or shelf mounted in substantially horizontal position on the leaf to support a pad or cushion with its edge at the needle of the machine, means to tilt the table longitudinally on the leaf to incline the pad, and means to hold the leaf laterally away from the base.

3. In a device of the class described, a frame having a sewing machine head, a leaf pivoted on the frame below the head and provided with a section adjustable longitudinally thereof, a table or shelf pivoted on the adjustable section of the leaf to support a pad or cushion with its edge at the needle of the machine, means to hold the table in adjusted position on said section, and means to adjust the inclination of the leaf on the frame.

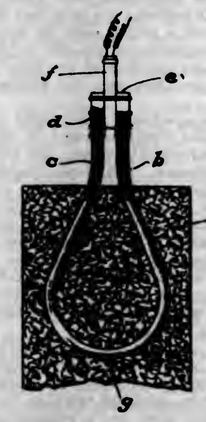


1,042,642. UPHOLSTERING-MACHINE. GEORGE B. BRINK, South Lyon, Mich., assignor to Tufting Machine Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 20, 1909. Serial No. 529,089. (Cl. 155—48.)



In a device of the class described, a mold-board having button-holders and removable rails, a follower having openings corresponding to the button-holders, a removable skeleton frame corresponding to the shape of the pad or cushion and adapted to carry the cushion backing to be inserted between the follower and the cushion filling-material, lateral arms on the board carrying vertical pins located outside the rails, and lateral wings on the follower having openings to receive the pins.

1,042,643. METHOD FOR THE DETONATION OF EXPLOSIVES. HEINRICH BRUNSWIG, Steglitz, near Berlin, Germany, assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Aug. 9, 1911. Serial No. 643,076. (Cl. 102—5.)

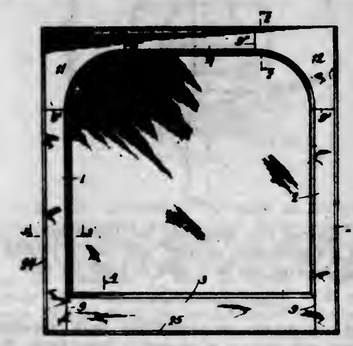


The improvement in the method of detonating explosives by means of a detonating fuse, which consists in detonating the fuse from two places in such a manner that the two detonation waves running toward each other meet at the surface or inside of the explosive to be detonated.

1,042,644. METALLIC FRAME. EDWARD G. BUDD, Philadelphia, Pa., assignor, by mesne assignments, to Hale and Kilburn Company, Philadelphia, Pa., a Corporation of Delaware. Filed Nov. 13, 1908. Serial No. 462,866. (Cl. 189—76.)

1. A frame consisting of sheet-metal frame-members and corner-pieces secured together, each of said corner-pieces consisting of two sheet-metal plates flanged at their edges and having said flanges secured together, said plates being so shaped as to form rounded corners at the inner edges thereof, substantially as set forth.

2. A frame consisting of sheet-metal frame-members and corner-pieces secured together, each of said corner-pieces consisting of two sheet-metal plates flanged at their outer edges and having said flanges secured together, one of said plates being provided with a flange at its inner edge and the other a fold inclosing said flange and said plates being shaped to provide rounded corners at the inner edges thereof, substantially as set forth.



3. A frame consisting of frame-members and corner-pieces secured together each of said frame-members being formed of a single strip of sheet-metal pressed to a rectangular cross-section and having the lateral edges thereof secured together by means of a flange at one edge and a fold at the other inclosing said flange, and said corner-pieces each consisting of two sheet-metal plates flanged at their outer edges and having said edges secured together, one of said plates being provided with a flange at its inner edge and the other a fold inclosing said flange and said plates being shaped to provide rounded corners at the inner edges thereof, substantially as set forth.

4. A frame consisting of frame-members each formed of a single strip of sheet-metal bent to a rectangular cross-section and having the lateral edges thereof secured together, and sheet-metal corner-pieces of rectangular cross-section and of the same thickness as said members, each of said members and pieces having an inwardly extending flange thereon, and the edges of the sheet-metal of said members at the ends thereof abutting the corresponding end edges of said pieces and being welded directly thereto, substantially as set forth.

5. A window sash comprising end and side rails of tubing, and tubular sheet metal corner pieces formed without transverse or miter joints, the ends of said corner pieces abutting the adjacent ends of said end and side rails and united thereto to form continuations thereof.

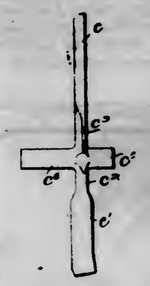
[Claim 6 not printed in the Gazette.]

1,042,645. METHOD OF MAKING FLIERS. CHARLES T. BURLIN, Whitinsville, Mass., assignor to Whitin Machine Works, a Corporation of Massachusetts. Filed July 13, 1911. Serial No. 638,295. (Cl. 29—170.)

1. The method of forming a flier, which consists in forming from a blank a long body provided with an integral substantially circular disk at a point near the center thereof, then working said blank by drop forging to form a second shape having cylindrical ends and an integral transverse cylindrical member near the center, drop forging this latter blank to reduce the thickness of one cylindrical end and to form wings thereon, thus providing a substantially flat member on one end and flattening the shank on the other end near the transverse member, and finally forging this blank and drawing it out to form the flier.

2. The method of forming a flier which consists in forming from a blank a long substantially cylindrical body, forming thereon an integral transverse substantially cylindrical member near the center, drop forging this blank to reduce the thickness of one end of the long

body to form opposite wings thereon to provide a substantially flat member on one side of the transverse cylindrical member and flattening the shank of the other end near the transverse member, and finally forging this blank and drawing out both ends to form the flier.



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1,042,646. ROLLER SUSPENSION FOR DRAWERS. CHARLES UNDERWOOD CARPENTER, New York, N. Y., assignor to Fire-Proof Furniture and Construction Company, Hamilton, Ohio. Filed Nov. 20, 1909. Serial No. 529,047. (Cl. 45—77.)



In a device of the character described, a casing, a drawer, an extensible member adapted to support the drawer from the casing, and one or more rollers adapted to coöperate with the rear of the extensible member to prevent it from tilting, the rear end of the extensible member being reduced in width by approximately the width of the said rollers.

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1,042,647. PRODUCT FOR MAKING BREAD, CAKE, AND LIKE FOODS. WILLIAM EDWARD CASTLE, Chicago, Ill. Filed Jan. 20, 1912. Serial No. 672,867. (Cl. 99—10.)

1. As a new article of manufacture, a prepared compound, ready for moistening, kneading and baking in the making of bread, cake and analogous farinaceous foods, comprising flour, pulverized dry yeast and a yeast stimulant or food in substantially the relative proportions described.

2. As a new article of manufacture, a prepared compound, ready for moistening, kneading and baking into bread, cake and analogous farinaceous foods, comprising a cereal flour, pulverized yeast and a yeast food or stimulant, all said ingredients being dry and compounded in approximately the relative proportions described.

3. As a new article of manufacture, a prepared compound, ready for moistening, kneading and baking into bread, cake and analogous farinaceous foods, composed of flour, shortening, pulverized yeast and a yeast food or stimulant, thoroughly dried and united in a uniform compound in substantially the relative proportions described.

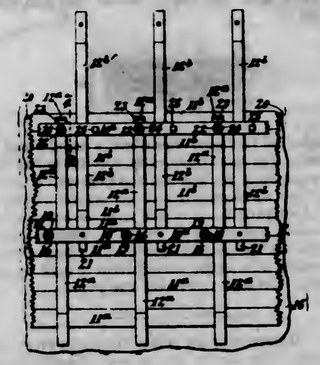
4. As a new article of manufacture, a prepared compound comprising the dried product of milk and eggs, pulverized dry yeast and flour in substantially the relative proportions described and for the purposes set forth.

5. As a new article of manufacture, a prepared compound composed of dry shortening, the dried product of milk and eggs, pulverized dry yeast and flour in substantially the proportions described and for the purposes set forth.

[Claims 6 to 10 not printed in the Gazette.]

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1,042,648. MOLD-FORM FOR CONCRETE-WALL CONSTRUCTION. ALEXANDER P. CRARY, New York, N. Y. Filed Oct. 9, 1909. Serial No. 521,922. (Cl. 25—131.)



1. A mold for concrete wall construction comprising two substantially similar forms arranged to vertically interlock and to be successively raised one above the other as the work progresses, each form comprising a mold-face, uprights carrying the mold-face and projecting above the same, and a waling piece on the outer side of the uprights, the uprights of the two forms overlapping side by side and the uprights of the lower form extending between the mold-face and the waling piece of the upper form.

2. A mold for concrete wall construction comprising two substantially similar forms arranged to vertically interlock and to be successively raised one above the other as the work progresses, each form comprising a mold-face, uprights carrying the mold-face and projecting above the same, a waling piece on the outer side of the uprights, the uprights of the two forms overlapping side by side and the uprights of the lower form extending between the mold-face and the waling piece of the upper form, and tying and adjusting means between the uprights of the lower form and the waling piece of the upper form arranged to adjust the relative distance between the two and to tie the two together.

3. A mold for concrete wall construction comprising anchors entering but not extending through the wall, a form supported by the anchors and comprising lagging forming a mold-face, uprights carrying the lagging and projecting above the same, and a substantially horizontal waling piece at the outer sides of the uprights substantially medially of their length, and a second form similar to the first supported on the first and braced wholly by the upwardly projecting portions of the uprights of the first, the uprights of the two forms overlapping side by side and the uprights of the lower form extending between the lagging and waling piece of the upper form.

4. A mold for concrete wall construction comprising a form having uprights, a substantially horizontal waling piece connecting together the uprights at their outer sides substantially medially of their length, and lagging carried by the inner sides of the uprights with its upper edge in proximity to the waling piece; and a second form like the first, one form being placed above the other so that the lagging of the two forms produces vertically continuous mold faces and the upper ends of the uprights of the lower form being received between the waling piece and the lagging of the upper form, the uprights of the two forms overlapping side by side.

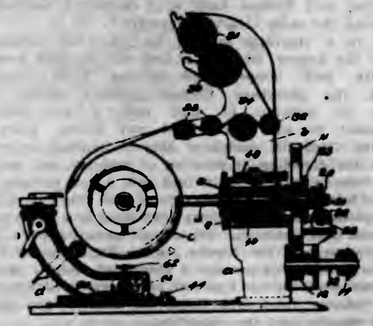


5. A mold for concrete wall construction comprising two substantially similar forms arranged to vertically interlock and to be successively raised one above the other as the work progresses, each form comprising a mold-face, uprights carrying the mold-face and projecting above the same, a waling piece on the outer side of the uprights, the uprights of the two forms overlapping side by side and the uprights of the lower form extending between the mold-face and the waling piece of the upper form, and fillers spacing the mold-face and the uprights.

[Claims 6 to 11 not printed in the Gazette.]

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1,042,649. TIRE-MAKING MACHINE. LESTER D. CROSBY, Hartford, Conn. Filed Feb. 11, 1911. Serial No. 607,972. (Cl. 154—10.)



1. In a machine of the character described, the combination with a base and a roll carrying head, of a core supported from said base, a variable speed gearing, a driving connection between said gearing and said core whereby the latter may be rotated on its own axis at varying speeds and in opposite directions, means for moving said core bodily about a horizontal axis and means for holding said core in any desired position of adjustment.

2. In a machine of the character described, the combination with a frame of a core supported on said frame and adapted for bodily movement about a horizontal axis in order to adjust it in different positions, means for holding said core in any desired position of adjustment and change speed gearing and driving connection between said gearing and said core whereby said core may be rotated on its own axis in any desired position of adjustment.

3. In a machine of the character described, a machine frame, a shaft rotatably mounted therein, a bracket carried by said shaft, a core carried by said bracket and rotatably mounted on its own axis, means carried by said bracket for rotating said core and change speed gearing, driving connection between said change speed gearing and said means, and means for rotating said shaft and the parts carried thereby.

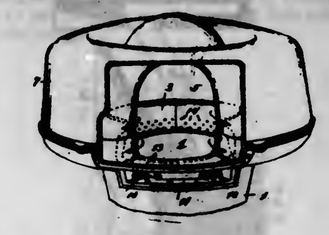
4. In a machine of the character described, a main frame and core carried thereby, mechanical means for driving said core at varying speeds and in opposite directions, means for moving said core bodily about a horizontal axis and a pivotally mounted tool carrying arm adapted for movement into and out of operative relation with respect to said core.

5. In a machine of the character described, a main frame and core carried thereby, mechanical means for driving said core at varying speeds and in opposite directions, means for moving said core bodily about a horizontal axis, a pivotally mounted tool carrying arm adapted for movement into and out of operative relation with respect to said core, and a reciprocating stock rack adapted for movement into and out of operative position with respect to said core.

[Claims 6 to 20 not printed in the Gazette.]

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1,042,650. WARM-AIR FURNACE. JESSE V. DARNEY, Detroit, Mich., assignor to The Michigan Stove Company, Detroit, Mich., a Corporation of Michigan. Filed Dec. 4, 1911. Serial No. 663,677. (Cl. 126—112.)



1. A fire pot, an annular air space at the top of the fire pot, a perforated wall through which communication is established between said air space and the fire pot, a fuel feed passage communicating with the fire pot between the terminals of said air space, a flue for the products of combustion communicating with said feed passage, and air ducts communicating at their inner ends with the terminals of said air space and open to atmosphere at their outer ends, said ducts being disposed below and adjacent the bottom of said feed passage whereby the fire travel from the fire pot through said passage to said flue shall be over said air ducts.

2. In a furnace, a fire pot, a feed opening communicating with said fire pot, a curved perforated ring located at the top of the fire pot and forming an annular air space which communicates with the top of the fire pot through the perforations therein, said ring having outwardly bent terminals which contact the wall of the combustion chamber on each side of the point of communication of said feed opening with said fire pot and close the terminals of said annular air space, a flue for the products of combustion communicating with said feed opening on opposite sides thereof, and air ducts communicating at their inner ends with the terminals of said annular air space respectively, and open at their outer ends to atmosphere, said ducts lying below and adjacent the bottom of said feed opening whereby the travel of the products of combustion from the combustion chamber to said flue shall be over said air ducts.

3. In a furnace, a combustion chamber, a fire pot having a channel in its upper edge, a laterally curved perforated ring seated at its lower edge in said channel and at its upper edge contacting the wall of the combustion chamber to form an annular air space, the terminals of said ring being bent into contact with the wall of the combustion chamber to close the ends of said air space, a feed opening communicating with the fire pot between the terminals of said ring, a flue for the products of combustion communicating with the feed opening on opposite sides thereof, and air ducts whose upper walls are formed by the bottom of the feed opening communicating at their inner ends with the terminals of said air space respectively, and open at their outer ends to atmosphere, whereby the path of travel of the products of combustion to said flue through said feed opening shall be over said air ducts.

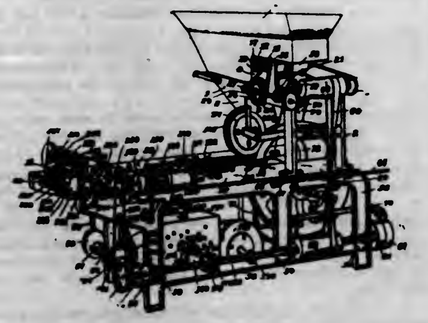
4. A fire pot, an annular air space at the top of the fire pot having spaced terminals, means for effecting communication between the fire pot and said air space, a horizontal feed passage communicating with the fire pot between the terminals of said air space, a flue for the products of combustion communicating with said passage, and air ducts communicating at their inner ends with the terminals of said air space respectively, and open at their outer ends to atmosphere, said ducts being disposed adjacent the bottom of the feed passage whereby the travel of the products of combustion from the fire pot through said passage to said flue shall be over said ducts.

1,042,651. DISK PLOW. JOHN H. DAVIS, Oakland, and JOHN W. MORGAN, Elmhurst, Cal. Filed Mar. 28, 1912. Serial No. 686,863. (Cl. 97—40.)



In a disk plow in combination, a disk, an arbor attached to said disk and adapted to form a journal for the disk, a conoidal bushing forming a journal bearing for said arbor, said bushing being formed of a substantially smooth exterior surface the axis of which is eccentric with reference to the axis of the bearing for said arbor, a support adapted to form a seat in which said bushing is rotatively mounted for the purpose of adjustment, and a set screw passing through said support and adapted to contact with said bushing to clamp the same in a direction substantially coincident with the direction of pressure when said disk is in normal operation.

1,042,652. CIGARETTE-MAKING MACHINE. CANAAN DE CARON, Montreal, Quebec, Canada. Filed Sept. 11, 1908. Serial No. 452,566. (Cl. 131—43.)



1. In a cigarette making machine, a main hopper, a rotating feed member suitably journaled and within said hopper and having means projecting from the periphery thereof for grasping tobacco, a rotating member journaled adjacent to the aforesaid member and having means projecting from its periphery for engaging and leveling the tobacco on said feed member, a rotating member journaled adjacent to the aforesaid members and having means projecting from the periphery thereof for clearing away the surplus tobacco from said members, a rotary brush journaled adjacent to said main rotating member and in rotation sweeping the tobacco therefrom, a supplementary hopper, a channel member receiving said tobacco from said supplementary hopper, and means for forming the cigarette.

2. In a cigarette making machine, the combination with the hopper, of a main feed roll, having picks projecting from the periphery thereof in the direction of rotation, and journaled within said hopper, a roll journaled adjacent to said main feed roll having picks projecting from the periphery thereof inclined rearwardly from the direction of rotation and effecting a drag on the tobacco of said main feed roll, a supplementary roll having radially projecting picks therefrom and engaging the surplus tobacco to the front of said drag roll and driving it back to the feed passage in the hopper, a channeled member receiving the tobacco from the main feed roller, and means for transporting said tobacco from said channeled member and forming the same into the cigarette.

3. In a cigarette making machine, the combination with the hopper, of a main feed roll suitably journaled within said hopper and having picks projecting from the periphery thereof inclined in the direction of rotation of said roll, a roll journaled adjacent to said main feed roll having picks projecting from the periphery thereof inclined rearwardly from the direction of rotation of said roll and engaging the tobacco on said main feed roll, a roll suitably journaled in said hopper in advance of said drag roll and having picks extending radially therefrom and engaging the tobacco and sweeping the surplus quantity back to the feed passage of the hopper, means for agitating the tobacco in said feed passage, a channeled member receiving the tobacco from said feed roll, and means for transporting the tobacco from said channeled member and forming said tobacco into the cigarette.

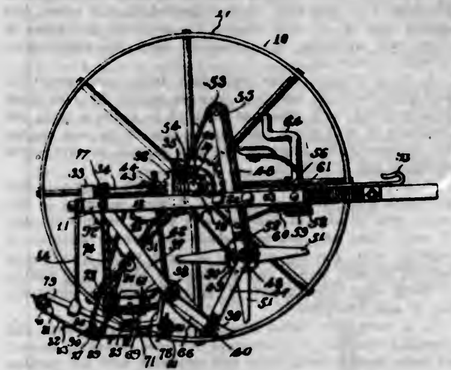
4. In a cigarette making machine, the combination with the hopper, of a plurality of rolls suitably journaled and rotating within said hopper, a toothed shaker plate slidably arranged on the inclined side of said hopper and engaging tobacco therewithin having a pivotally held link secured thereto and a spring extending from said link and secured to the hopper side, a crank lever pivotally supported from said hopper side and pivotally secured to the other end of said link, a connecting rod at one end pivotally secured to the other section of said crank lever, a disk rotated with one of said rolls and having a pin from the side face thereof secured to the other end of said connecting rod, a channeled member receiving the tobacco from said feed roll, and means for transporting the tobacco from said channeled member and forming said tobacco into the cigarette.

5. In a cigarette making machine, the combination with the hopper, of a main feed roll having shaft extensions therefrom projecting through the sides of said hopper, sprocket wheels mounted on said shaft extensions, a drag roller journaled adjacent to said main feed roll, having shaft extensions therefrom extending through the sides of said hopper, a sprocket wheel mounted on the drag roll shaft, a sprocket chain connecting said main and drag rolls, a bristle roll journaled in the sides of said hopper and having a shaft extension therefrom, a sprocket wheel mounted on a shaft extension from said bristle roll, a driven shaft suitably journaled, a sprocket wheel suitably mounted on said driven shaft, a sprocket chain around said sprocket wheel on the driven shaft and extending over the sprocket wheel on the bristle roll shaft and around the sprocket wheels on said main and supplementary roll shafts, a worm formed on said driving shaft, a shaft journaled in bearings set at right angles to the bearings for said driving shaft, a worm wheel coacting with said worm, a pinion mounted on the latter shaft, a gear mounted on the shaft extension from said main feed roll coacting with said pinion, a channeled member receiving the tobacco from said feed roll, and means for transporting the tobacco from said channeled member and forming said tobacco into the cigarette.

[Claims 6 to 28 not printed in the Gazette.]



1,042,653. STONE-GATHERING MACHINE. CARL N. DEHLINGER, Wausau, Wis. Filed Dec. 11, 1911. Serial No. 665,048. (Cl. 55—17.)



1. The combination with a wheeled frame, of a plurality of guide fingers, a main conveyer located adjacent said guide fingers, a plurality of picker fingers located for coöperation with the guide fingers, supplemental conveyers located adjacent the guide fingers and leading to the main conveyer and means for adjusting said fingers.

2. The combination with a wheeled frame, of a plurality of guide fingers, supported transversely of the frame, a shaft, picker fingers supported by the shaft and movable between the guide fingers, supplemental conveyers mounted in the rear of the guide fingers, and a main conveyer extending between the first mentioned conveyers.

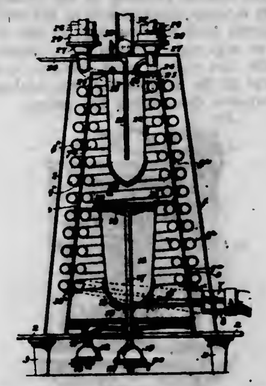
3. The combination in a device such as described, of a wheeled frame, a rod supported therebelow, guide fingers carried by the rod, a shaft journaled adjacent said rod, picker fingers carried by the shaft for coöperation with the guide fingers, a pair of supplemental conveyers journaled parallel with the rod adjacent the guide fingers, a main conveyer extending from the guide fingers between the supplemental conveyers, means for adjusting the fingers, means for operating said picker fingers, and means for operating the conveyers.

4. The combination in a device such as described of a frame, an axle journaled in said frame, wheels carried by the axle and supporting the frame, a rod supported below the frame, guide fingers carried by the rod, a shaft adjustably supported below the frame, means for adjusting said shaft, picker fingers carried by the shaft and operating between the said guide fingers, conveyers journaled adjacent the picker fingers, a conveyer extending from the guide fingers between the first named conveyers, means for operating the picker fingers and means for operating the conveyers.

5. The combination in a stone gatherer of a frame, an axle journaled in said frame, wheels carried by the axle and supporting the frame, means for keying said wheels to said axle, a rod supported below the frame, guide fingers supported by said rod, channeled plates supported by the rod parallel thereto, conveyers passing through said plates, a channeled plate supported by the rod and frame and extending at right angles to the rod, a conveyer passing through said channeled plate, a shaft journaled within said frame parallel to the rod, picker fingers carried by the shaft and extending between the guide fingers, means for operatively connecting the shaft and the conveyers to the axle and means for adjusting said fingers.

1,042,654. HOT-AIR FURNACE. MYRON DICKSON, Martinsville, Ind. Filed Aug. 22, 1911. Serial No. 645,351. (Cl. 126—116.)

1. In an apparatus of the character described, the combination of an outer casing, the wall of which tapers inwardly toward its upper end, a water receptacle within said casing spaced from the sides thereof, an air receptacle also in the casing closed throughout and spaced vertically from the first mentioned receptacle, a heating element interposed between the receptacles, an air pipe arranged in a series of coils surrounding both receptacles and extending substantially from top to bottom of the casing, an inlet conduit connecting with said pipe, and a fan in the conduit.



2. In an apparatus of the character described, a casing, an air receptacle therein having closed walls, a heater arranged below said receptacle, coils within the casing surrounding said receptacle, an air inlet for the coils and receptacle, a water receptacle arranged above the air receptacle and having communication with the coils, and a heater positioned between said receptacles.

3. In an apparatus of the character described, a casing, an air receptacle therein having closed walls, a heater arranged below said receptacle, coils within the casing surrounding said receptacle, an air inlet for the coils and receptacle, a water receptacle arranged above the air receptacle, a pipe establishing communication between said water receptacle and the coils, and a burner positioned on the top of the air receptacle and beneath the water receptacle.

4. In an apparatus of the character described, the combination of an outer casing inclined upward and inward, a receptacle within the casing constituting a chamber closed throughout, said receptacle being spaced from the side walls of the casing, a heater arranged below said receptacle, coils within the casing surrounding said receptacle, said coils forming an air conduit, an air inlet for the coils and said receptacle, and an auxiliary casing within the first mentioned casing and extending between said coils, said auxiliary casing being substantially similar in outline to the outer casing and having a plurality of closely associated openings.

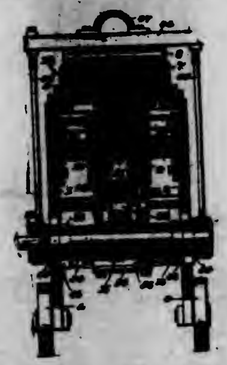
5. In an apparatus of the character described, the combination of an outer casing inclined upward and inward, a receptacle within the casing constituting a chamber closed throughout, said receptacle being spaced from the side walls of the casing, a heater arranged below said receptacle, coils within the casing surrounding said receptacle, said coils forming an air conduit, an air inlet for the coils and said receptacle, an auxiliary casing within the first mentioned casing and extending between said coils, said auxiliary casing also inclining inwardly toward its upper end and having a plurality of closely associated openings, and supports on the auxiliary casing for said coils.

[Claims 6 to 10 not printed in the Gazette.]

1,042,655. BRICK-PRESS. WILLIAM ENOS DOLE and JOHN ADDISON DOLE, Oak Hill, Ohio. Filed July 18, 1910. Serial No. 572,531. (Cl. 25—38.)

1. In a brick press the combination of a supporting frame; a mold carried thereby; a cover plate and a plun-

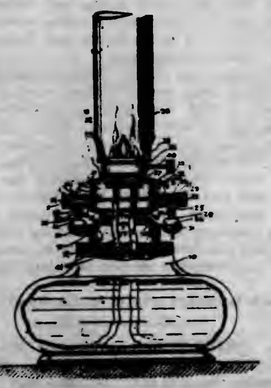
ger both coacting with the mold; draw rods connected at one end to the cover plate and provided at the other end with bearings; fulcrum bearing guides carried by the frame; fulcrum bearings guided in said guides; and an actuating lever coacting with the plunger to operate the same, said lever comprising a main lever arm member, a fulcrum pin removably clamped therein and tapered at its ends, bushings forced into close frictional engagement with said tapered portions of the fulcrum pin and turning in the fulcrum bearings and in the draw rod bearings, and tapered keys passing through the fulcrum pin and serving to urge the bushings into frictional engagement therewith, the various parts being so arranged that by the removal of the tapered keys the bushings may be withdrawn without dismantling the press.



2. In a brick press the combination of a supporting frame; a mold carried thereby; a cover plate and a plunger both coacting with the mold; draw rods connected at one end to the cover plate and provided at the other end with bearings; fulcrum bearing guides carried by the frame; fulcrum bearings guided in said guides; and an actuating lever coacting with the plunger to operate the same, said lever comprising a main lever arm member, a fulcrum pin mounted therein and tapered at its ends, bushings forced into close frictional engagement with said tapered portions of the fulcrum and turning in the fulcrum bearings and in the draw rod bearings, and means carried by the fulcrum pin and adapted to urge the bushings into such frictional engagement with the fulcrum pin.

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1,042,656. SAFETY-CHAMBER FOR LAMPS. JOHN V. DOWN, Petersburg, Va. Filed Dec. 11, 1911. Serial No. 665,031. (Cl. 67—86.)



1. A receptacle, tubes leading from said receptacle and provided with openings, sleeves carried by said tubes and pivotally mounted means for rotating said sleeves to close said openings upon the overturning of said receptacle.

2. A receptacle, tubes leading from said receptacle and provided with openings, sleeves carried by said tubes, and means carried by said sleeves for rotating the same to close said openings automatically upon the overturning of said receptacle.

3. A receptacle, tubes extending from said receptacle and provided with openings, sleeves carried by said tubes and provided with openings adapted to register with the openings in said tubes, and means carried by said sleeves for automatically rotating the said sleeves to bring said openings out of registry.

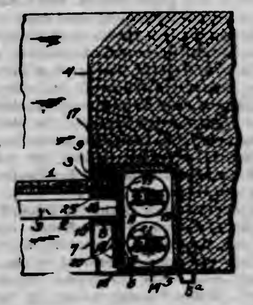
4. A receptacle, tubes leading from said receptacle and provided with air inlet openings, a ping mounted in the outer ends of each of said tubes, a sleeve carried by each of said tubes and provided with an opening adapted to register with the air opening in said tubes, and means carried by said sleeve and adapted to rotate said sleeves to bring said opening out of registry upon the overturning of said receptacle.

5. A receptacle, tubes leading from said receptacle and provided with air inlet openings, a sleeve rotatably mounted upon each of said tubes and provided with an opening adapted to register with the openings formed in said sleeve, pivot ears extending from said sleeve, and a weight pivotally mounted upon said pivot ears.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,657. WINDOW CONSTRUCTION. WILLIAM DULLEA, Englewood, N. J. Filed Apr. 30, 1910. Serial No. 558,536. (Cl. 189—72.)



1. The window construction comprising fireproof weight boxes, a cover plate provided with an outer guide removably secured to each weight box, a center plate provided with a center guide adjustably mounted on said cover plate and an inner plate having a fireproof inner guide secured to said center plate, a fireproof casing strip extending around the window opening, the inner edges of the projecting portions of said weight box, guides and casing being substantially flush.

2. The window construction comprising fireproof weight boxes, a cover plate, center plate and inner plate provided with guides removably mounted on each weight box, a fireproof casing strip extending around the window opening, the inner edges of the projecting portions of said weight box, guides and casing being substantially flush.

3. The window construction comprising a fireproof wall provided with a window opening and with side recesses adjacent the inner side of said opening, fireproof weight boxes mounted in said recesses, a cover plate, a center plate and an inner plate having fireproof guides removably secured to each weight box, glass slidingly mounted in said window and having its edges recessed into said wall and mounted between said guides and protected on the outside by the projecting edges of said wall and on the inside by said fireproof guides.



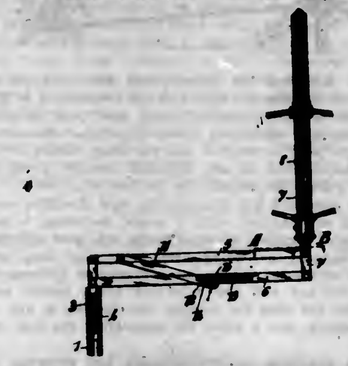
4. The window construction comprising a fireproof wall provided with a window opening and with side recesses, fireproof weight boxes mounted in said recesses, guides removably secured to said weight boxes, fireproof glass having a greater width than said window opening and having edges located between said guides and protected on the outside by the projecting edges of said wall and on the inside by said fireproof guides.

5. The window construction comprising a fireproof masonry wall provided with a window opening and with side recesses, guides mounted in said recesses, fireproof glass of greater width than said window opening and having edges slidingly mounted between said guides and protected on one side by the projecting portions of said wall and on the other side by said guides.

[Claims 6 to 13 not printed in the Gazette.]

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1,042,658. UMBRELLA-ROD. CARL DÜNNENBERGER and BERTA HERZELS, Zürich, Switzerland. Filed Apr. 1, 1912. Serial No. 687,655. (Cl. 135—46.)



1. In an umbrella-rod an opening in a part of the rod, an articulated parallelogram adapted when folded to be inserted in the said opening, a link pivoted to one member of said parallelogram, a slot provided in the opposite member of said parallelogram, a pin secured to said link and guided in said slot, and a spring acting on said pin.

2. In an umbrella-rod an opening in a part of the rod, an articulated parallelogram adapted when folded to be inserted in the said opening, a link pivoted to one member of said parallelogram, a slot provided in the opposite member of said parallelogram, a pin secured to said link and guided in said slot, a notch provided at one end of the slot, and a spring holding said pin in said notch in the position of the umbrella ready for use.

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1,042,659. DRIVING DEVICE FOR THE SPINDLES OF SPINNING-MACHINES. IGNAZ ETRICH, Oberaltstadt, near Trautenau, Austria-Hungary. Filed Jan. 14, 1910. Serial No. 538,098. (Cl. 118—24.)

1. In a spinning apparatus, the combination with a revolubly mounted spindle member provided with a flexible drive, of means for independently adjusting the tension of said flexible drive in cooperation with said spindle member, such means including an arm adapted to swing from a fixed center, to and from said spindle member, a set screw for actuating said arm to an adjusted position, a second arm pivoted to the free end of said first mentioned arm, a pulley carried by said second mentioned arm and adapted to receive said flexible drive, the plane of movement of said second mentioned arm being substantially in the line of tension of said drive, and means for actuating said second mentioned lever for positioning said pulley relative to the direction of tension of the said drive.

2. In a spinning apparatus, the combination with a revolubly mounted spindle member, provided with a flexible drive, of means for independently adjusting the tension of said flexible drive, in cooperation with said spindle member, such means including a pulley about which said flexible drive is trained, a device movable to and from said spindle member in the line of tension of said drive, a support for said pulley pivotally carried by said device, and manually operable means for actuating said support to rigidly position said pulley relative to the direction of tension of said drive.



3. In a spinning apparatus, the combination with a revolubly mounted spindle member provided with a flexible drive, of mechanism movable toward or from said spindle member at the opposite side thereof from the source of power of the flexible drive, manually operable means for actuating and rigidly retaining the mechanism against tension of said flexible member, and a pulley carried by said mechanism about which the flexible drive is trained, substantially as and for the purpose set forth.

4. In a spinning apparatus, the combination with a revolubly mounted spindle member provided with a flexible drive, of mechanism movable toward or from said spindle member at the opposite side thereof from the source of power of the flexible drive, manually operable means for actuating and rigidly retaining said mechanism against tension of said flexible member, a support carried by said mechanism, a pulley carried by said support, the latter being movable to position said pulley for rotation in various planes with respect to the direction of tension of said drive, and manually operable mechanism for actuating and rigidly retaining said support in an adjusted position with respect to said first mentioned mechanism, substantially as and for the purpose set forth.

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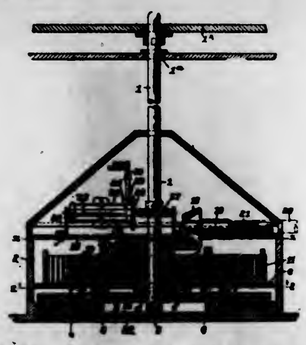
1,042,660. MOTOR FOR PHONOGRAPHS AND OTHER PURPOSES. JAMES M. EVANS, Westport, Conn. Filed Mar. 3, 1911, Serial No. 612,115. Renewed Mar. 13, 1912. Serial No. 683,609. (Cl. 185—37.)

1. In power mechanism of the class described, a casing, a vertical transmitting shaft therein, a pinion on the shaft, gears meshing with the pinion at substantially diametrically opposite points thereof, pinions turning with the gears, a rack fixed in the casing with which the pinions engage, a rotary carrier for the gears and pinions turning about the vertical shaft, means for turning the carrier, substantially as described.

2. In power mechanism of the class described, a casing, a vertical transmitting shaft therein, a pinion on the shaft, gears meshing with the pinion at substantially diametrically opposite points thereof, pinions turning with the gears, a rack fixed in the casing with which the pinions engage, a rotary carrier for the gears and pinions turning about the vertical shaft, means for turning the carrier, said means for turning the carrier consisting of a spring surrounding the shaft, substantially as described.

3. In combination the vertical shaft having a stepped bearing at its lower end, a horizontal plate at the upper

end of the shaft to rotate therewith, a bearing for the upper end of the shaft, a pinion at the lower end of the shaft, gears meshing with the pinion at diametrically opposite points thereof, pinions fixed axially of the gears, a rack engaging the pinions and fixed to the casing, a tubular hanger through which the shaft freely passes, a carrier for the gears and their pinions, said carrier being supported by said hanger to turn about the shaft, a spring surrounding the hanger and having driving connection with the carrier, and means for winding the spring, substantially as described.



4. In combination the vertical shaft having a stepped bearing at its lower end, a horizontal plate at the upper end of the shaft to rotate therewith, a bearing for the upper end of the shaft, a pinion at the lower end of the shaft, gears meshing with the pinion at diametrically opposite points thereof, pinions fixed axially of the gears, a rack engaging the pinions and fixed to the casing, a tubular hanger through which the shaft freely passes, a carrier for the gears and their pinions, said carrier being supported by said hanger to turn about the shaft, a spring surrounding the hanger and having driving connection with the carrier, and means for winding the spring, said winding means including a gear wheel turnable about the tubular hanger and connected with the spring, substantially as described.

5. In combination in apparatus of the class described, a vertical shaft, a casing in the lower part of which the shaft has a bearing, driving mechanism at the lower part of said casing adapted to be submerged in oil, said driving mechanism comprising a spring concentric with the shaft, a carrier operated by the spring, and gearing between the carrier and the shaft, said gearing including gears mounted on the carrier substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

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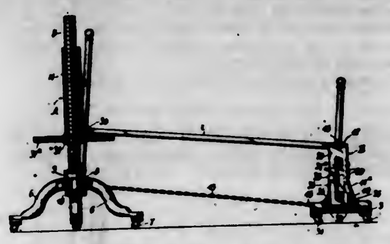
1,042,661. WAGON-BOX. JOHN H. FIELDS, Davidson, Okla., assignor of one-half to Newman S. Holder, Davidson, Okla. Filed Oct. 26, 1910. Serial No. 589,166. (Cl. 21—74.)



A wagon box comprising a body, a plurality of superimposed hingedly connected side sections carried by said body, sectional end gates for said body, extension boards hingedly connected to the uppermost sections of said end gates, removable brackets for supporting the uppermost side sections when swung outwardly with respect to said body, and sliding bolts carried by said uppermost side sections and adapted to act as bearings for said extension boards, said uppermost side and end gate sections and said extension boards forming a continuous surface.

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1,042,662. COMBINED BED ELEVATING AND TRANSPORTING APPARATUS. GEORGE FILLION, Sr., Lake Linden, Mich. Filed Mar. 26, 1912. Serial No. 686,400. (Cl. 57—15.)



1. In a combined bed transporting and elevating apparatus, the combination with a truck including a post, of an element movably mounted along said post including opposed laterally extending arms, adjustable connections between the head of the bed and the arms, means for retaining the element in any adjusted position along the post, and a truck for supporting the foot of a bed.

2. In a combined bed transporting and elevating apparatus, the combination with a truck including a post, of an element movably mounted along said post including opposed laterally extending arms, extension arms connected to said arms, adjustable connections between the head of the bed and the extension arms, means associated with the post for holding the element in any adjusted position, and a truck for supporting the foot of a bed.

3. In a combined bed transporting and elevating apparatus, the combination with a truck including a threaded post, of a sleeve slidably mounted along said post, opposed arms extending laterally from the sleeve, means for connecting the arms to the head of a bed, a nut engageable with the post below the sleeve for adjusting the position of the sleeve along the post, and a truck for supporting the foot of a bed.

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1,042,663. BUTTON-HOLDER. JOHN L. FRESHEL, Chicago, Ill., assignor to Tufting Machine Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 28, 1911. Serial No. 646,483. (Cl. 155—43.)



1. A button-support for tufting-machines comprising a hollow body, a block movable therein and having a button-seat, retaining means normally out of position and movable into position to engage a button head, and a spring carried by the block between the retaining means and block to move the former toward the latter to space the retaining means a predetermined distance above the button-seat.

2. A button-support for tufting-machines, consisting of an external sleeve, a reciprocating block therein adapted to support the button, a button-retaining device operated by the movement of said block in said sleeve to retain the button-shank in a perpendicular position or to release it, and a spring between the block and retaining device to normally space the latter above the former at a predetermined distance.

3. A button-support for tufting-machines, consisting of an external sleeve, a reciprocating block fitted therein, a clamp operated by the inward movement of said block to clamp the head of a button to said block, and adapted to release said button-head when moved outwardly, and means expanding between the clamp and block to move the clamp into the sleeve lengthwise of the block.

4. A button-support for tufting-machines, consisting of an external sleeve, a sliding block adapted to move in said sleeve, said block being adapted to support a button at its upper end, laterally-movable clamps operated by the movement of said block in said sleeve for clamping and releasing the button-head, and a spring reacting between the clamp and block to move the clamp into the sleeve lengthwise of the block.

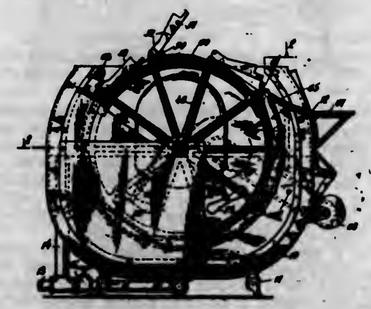
5. The combination of an external sleeve, a block adapted to slide therein, said block being adapted to support a button at its upper end, a clamp carried by said block, said clamp being arranged normally to project outward beyond the inner edge of said sleeve and to be moved inward by the inward movement of said block to engage said button, means for limiting the movement of said block, and a spring mounted in the lower portion of the block acting on the clamp to draw the latter into the sleeve to vary the space between the clamp and block.

[Claims 6 to 9 not printed in the Gazette.]



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1,042,664. DISH-WASHING MACHINE. CHARLES F. FROTHINGHAM, New York, N. Y. Filed Feb. 19, 1912. Serial No. 678,587. (Cl. 141—8.)



1. In a dish washing machine: a suitable tank to contain water; a carrier, and means to move the same through said tank; suitable dish retaining means supported by said carrier to bring a dish into a predetermined washing position with its flat side presented for washing; means to periodically open said dish retaining means, and means to close the same for a predetermined period of the movement of said carrier; and a screw propeller within said tank and between which and the tank the said carrier is adapted to pass to present the dish to the stream of water directed thereto by the said propeller.

2. In a dish washing machine: a suitable tank to contain water; a rotatable carrier mounted to rotate in said tank, and means to rotate the same; suitable dish retaining means supported by said carrier; means to periodically open the said dish retaining means, and means to close the same for a predetermined period of the rotation of said carrier; two propellers with diverging axes of rotation, said propellers being directed toward the portion of said carrier within the tank to direct the water within said tank toward the dishes brought into position by the rotating carrier; and means to drive said propellers.

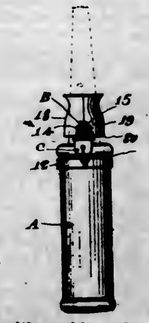
3. In a dish washing machine: a suitable tank to contain water; a casing projecting into said tank, and suitable driving mechanism therein; a carrier, and means to move the same through said tank; suitable dish retaining means supported by said carrier to bring a dish into a predetermined washing position with its flat side presented for washing; means to periodically open said dish retaining means, and means to close the same for a predetermined period of the movement of said carrier; a driving shaft extending through said inwardly projecting casing into said tank; and a screw propeller mounted upon said driving shaft and between which and the tank the said carrier is adapted to pass to present the dish to the stream of water directed thereto by the said propeller.

4. In a dish washing machine: a suitable tank to retain water; a casing projecting into said tank, and suitable driving mechanism therein; a rotatable carrier mounted to rotate in said tank, and about the said inwardly projecting casing, and means to rotate the same; suitable dish retaining means supported by said carrier; means to periodically open said dish retaining means, and means to close the same for a predetermined period of the rotation of said carrier; driving shafts extending through said inwardly projecting casing; and propellers mounted upon said driving shafts and within said tank to direct the water within said tank toward the dishes brought into position by the rotating carrier.

5. In a dish washing machine: a suitable tank to retain water; a casing projecting into said tank and suitable driving mechanism therein; a rotatable carrier mounted to rotate in said tank and about said inwardly projecting casing, and means to rotate the same; suitable dish retaining means supported by said carrier; means to periodically open said dish retaining means, and means to close the same for a predetermined period of the rotation of said carrier; two diverging driving shafts extending through said inwardly projecting casing; and propellers mounted upon said driving shafts and within said tank to direct the water within said tank toward the dishes brought into position by the rotating carrier.

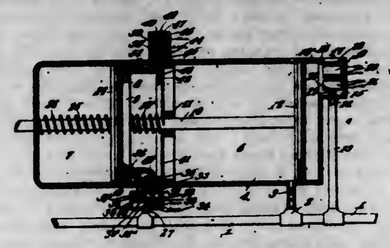
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1,042,665. WHIP-LOCK. WILLIAM GLADUE, Bertha, N. D. Filed May 8, 1912. Serial No. 696,006. (Cl. 21—130.)



The combination with a whip socket, of a collar mounted on the socket adjacent the open end of the latter, an arm on said collar extending longitudinally of the socket, and having its free end disposed outwardly of the open end of the socket, coöperating clamping arms hinged to the free end of said first named arm and movable transversely of the socket into and out of clamping relation to a whip disposed within the socket, a hasp member comprising a stem having one end hinged to the collar and its other end terminating in a V-shaped portion movable into embracing relation to the free ends of the clamping arms to wedge said arms toward each other and hold same in clamping relation to a whip, and means for locking said V-shaped portion in embracing relation to said clamping arms.

**1,042,666. AIR-BRAKE.** Frank Gow, Camden, N. J. Filed June 26, 1911. Serial No. 635,236. (Cl. 188—4.)



1. The combination with a brake cylinder and auxiliary reservoir, of a train pipe communicating with the auxiliary reservoir, a piston controlled valve for controlling the admission of air from the auxiliary reservoir to the brake cylinder, an emergency chamber in communication with the auxiliary reservoir to equalise the pressure upon the piston, and electrically controlled valves in said emergency chamber for controlling the admission of air to the emergency chamber and the exhaustion thereof to permit the operation of the piston controlled valve.

2. The combination with an air brake system carried by a train, of means controlled thereby, comprising a brake cylinder and an auxiliary reservoir, said auxiliary reservoir being in communication with the train pipe of the air brake system, a piston controlled valve mounted within the auxiliary reservoir, for controlling the admission of air to the brake cylinder, an emergency chamber in communication with the auxiliary reservoir to equalise the pressure upon the piston, and electrically controlled valves in said emergency chamber for controlling the admission of air to the emergency chamber and the exhaustion thereof to permit the operation of the piston controlled valve.

3. The combination with an air brake system, having a series of combined auxiliary reservoirs and brake cylinders throughout its length, and a train pipe connected thereto, of an electrical control for the respective auxiliary reservoirs and brake cylinders, comprising electrically operated means to prevent the automatic application of the brakes upon the forward end of the train after an accidental separation of the train, and means at the forward end of the train controllable manually by the engineer for applying the brakes upon the forward end of the train.

4. The combination with an electrically controlled air brake system, of a combined auxiliary reservoir and brake cylinder, a valve for controlling the admission of air to the brake cylinder, a non-return application check valve conduit leading to the auxiliary reservoir from the train pipe in the air brake system, a normally open conduit leading from the reservoir, a casing in communication therewith, valves mounted therein and interposed between the train pipe of the air brake system and the auxiliary reservoir, and a conduit leading from said casing and the air brake cylinder to control the air brake without affecting the main valve of the auxiliary reservoir.

5. The combination with an electrically controlled air brake system, of a combined auxiliary reservoir and brake cylinder, a valve for controlling the admission of air to the brake cylinder, a non-return application check valve conduit leading to the auxiliary reservoir from the train pipe of the air brake system, a normally open conduit leading from the reservoir, a casing in communication therewith, valves mounted therein and interposed between the train pipe of the air brake system and the auxiliary reservoir, a conduit connecting said casing and the air brake cylinder to control the air brake without affecting the main valve of the auxiliary reservoir, and an electrically controlled release and check valve for controlling the conduit leading from the auxiliary reservoir to said casing.

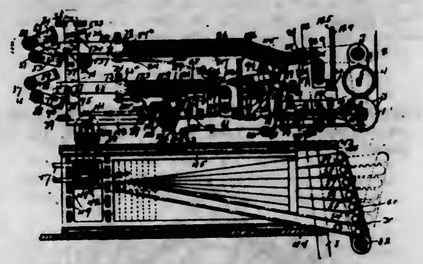
[Claims 6 to 16 not printed in the Gazette.]

**1,042,667. CHAIN-COUPLING DEVICE.** Mallie J. Gormley, Thunder, Idaho. Filed Jan. 18, 1912. Serial No. 671,134. (Cl. 59—94.)



In combination, a pair of coöperating hooks, one being jews' harp shaped and having a key hole shaped opening and provided with an offset hook, the other hook being elongated and having a key hole shaped opening, one wall of which being cut away, to permit the jews' harp shaped hook to be received therein, the elongated hook having an elongated slot in which one of the links of a chain may be arranged, the elongated slot being shaped to conform substantially to the contour of the key hole shaped opening, and a chain having one of its links arranged in the key hole shaped opening of the jews' harp shaped hook.

**1,042,668. JACQUARD.** Joseph A. Grosselli, New York, N. Y. Filed July 11, 1911. Serial No. 638,012. (Cl. 112—7.)



1. In a jacquard for embroidering machines, embodying operating mechanism, tambour frame operating mechanism adapted to be operated by said operating mechanism, a plurality of series of selecting devices, needles for operating the selecting devices, jacquard card mechanism adapted to operate a jacquard card to select a needle for action and means for causing said needles to operate said series of selecting devices alternately.

2. In a jacquard for embroidering machines embodying operating mechanism, tambour frame operating mechanism adapted to be operated by said operating mechanism, a plurality of series of selecting devices, needles for operating the selecting devices, jacquard card mechanism adapted to operate a jacquard card to select a needle for action, and means for causing said needles to operate said series of selecting devices alternately, and said series of selecting devices being adapted to automately effect the operation of the tambour frame operating mechanism by the said operating mechanism.

3. In a jacquard embodying means for producing movements of different extents, tambour frame positioning mechanism operated thereby and a plurality of sets of devices for controlling the operation of said tambour frame mechanism by the device for producing movements of different extents, the elements of each of said sets being adapted to perform the same functions, means for causing said sets to operate alternately and means for operating said controlling devices.

4. A jacquard embodying means for producing movements of different extents, means adapted to effect various combinations of the movements of said means for producing movements of different extent, tambour frame positioning mechanism operated by said combining means, a plurality of sets of devices for controlling the operation of said combining devices, the elements of each of said sets being adapted to perform the same functions, means for causing said sets to operate alternately and means for operating said controlling devices.

5. In a jacquard embodying means for producing movements of different extents, mechanism operated thereby adapted to operate an embroidering machine tambour frame, a plurality of sets of devices for controlling the operation of said tambour frame operating mechanism by the means for producing movements of different extents, the elements of each of said sets being adapted to perform the same functions, means for operating said controlling devices, and means for causing said sets of controlling devices to be operated alternately by their operating means.

[Claims 6 to 25 not printed in the Gazette.]



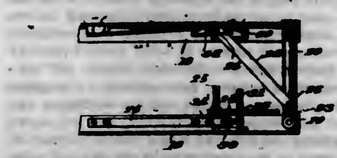
**1,042,669. NON-REFILLABLE BOTTLE.** Joseph Harry Gauvin, Baltimore, Md., assignor of one-half to Francis Norris, Jr., Raspeburg, Md. Filed Nov. 4, 1911. Serial No. 658,563. (Cl. 215—69.)



1. In combination with a sleeve to be fixed within the hollow neck, a sliding valve member having a closed top with a portion thereof to rest on the sleeve to form a closure, and with a lateral opening in the wall below the said closed top, said closed top being of substantially elliptical form, with its major axis in line with the lateral openings to provide a portion to guard said lateral openings, and a ball valve within the sliding valve member to close an opening at the lower end thereof, substantially as described.

2. In combination in a non-refillable bottle stopper, a sleeve to fit within the bottle neck, a hollow sliding valve member of cylindrical form fitted to slide through the sleeve having a closed top with lateral openings below said closed top, and with a lower valve seat, a ball within the hollow cylindrical sliding valve member and carried thereby, guides for the ball carried on the inside of the sliding valve member with spaces between the said guides, said guides terminating in stops, substantially in the plane of the lower edges of the lateral openings, substantially as described.

**1,042,670. FOLDING WALL-BED.** Harvey H. Hall, Golden, Colo., assignor to The Ideal Disappearing Wall Bed Company, a Corporation of Colorado. Filed Apr. 1, 1911. Serial No. 618,433. (Cl. 5—37.)



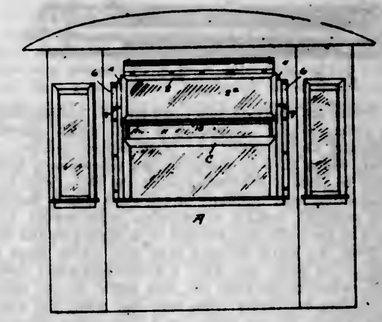
1. A bed comprising a frame, inverted U-shaped legs pivotally mounted at each end of said frame, braces carrying a cross-bar carried by said legs, pockets carried by said frame to receive said cross-bar, and spring members carrying blocks for closing said pockets.

2. A bed comprising a frame having pivotally mounted legs, braces carried by said legs, cross-bars carried by said braces, spring members engaging said cross-bars, and means for operating said spring members.

3. A bed comprising a frame having pivotally mounted legs at its ends, pockets arranged on the side rails of said frame, pivotally mounted braces carried by said legs, cross-bars carried by said braces adapted to fit within said pockets, spring members for closing said pockets, and lever operated rods carrying arms for throwing said spring members out of alinement with said pockets.

4. A bed comprising a frame having pockets adjacent each end, legs pivotally mounted in said frame, braces carried by said legs, rods carried by said braces adapted to extend into said pockets, spring members carried by the rails of said bed having blocks at their free ends for closing said pockets, plates carried by said blocks, and hand operated rods carrying arms for engaging said plates.

**1,042,671. STORM-WINDOW FOR STREET-CARS, LOCOMOTIVE-CABS, AND THE LIKE.** William M. Hallbauer, St. Louis, Mo., assignor of one-half to Edward D. Holthaus, St. Louis, Mo. Filed Jan. 22, 1912. Serial No. 672,580. (Cl. 20—40.5.)



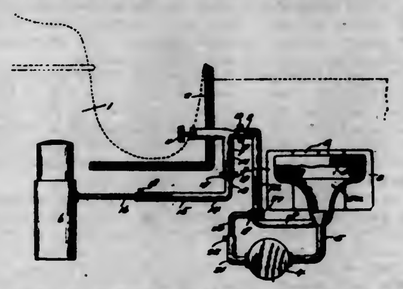
1. In a storm window, a hood frame having end plates with inwardly extending flanges, notched projections on said end plates, and a sash frame having pins or lugs on its ends, said sash frame being adapted to seat on the flanges aforesaid and the pins or lugs to engage said notched projections.

2. In a storm window, a hood frame having a front plate and end plates with inwardly extending flanges, notched projections on said end plates, projections on said front plate, a sash frame adapted to seat on said flanges and under the projections on the front plate, pins or lugs on the ends of said sash frame and adapted to engage the notched projections on the end plates, and springs secured to the front plate and adapted to engage the sash frame to hold said pins or lugs in engagement with the notched projections aforesaid.

**1,042,672. STARTING DEVICE FOR AUTO-ENGINES.** Alvin F. Harrison, Topeka, Kans. Filed Feb. 9, 1912. Serial No. 676,545. (Cl. 123—180.)

In a starting device, a multiple of engine cylinders, a carbureter, a connection between the carbureter and the cylinders, that portion of the connection which connects the cylinders being enlarged and constituting a reservoir for temporary storage of already formed gas, the reservoir having lateral extension pipe through which the already formed gas from any source is adapted to be fed, a pipe connection between the lateral extension and the carbureter, and a valve located at the junction of this last

named pipe and the lateral extension whereby the gas may be directed into the reservoir by way of the lateral



extension and independently of the carbureter, or through the carbureter by way of the last named pipe.

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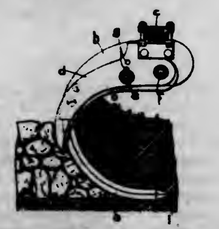
1,042,673. DEVICE FOR APPLYING TOILET POWDER. CHARLES H. HEIL, Cleveland, Ohio. Filed Jan. 18, 1912. Serial No. 671,785. (Cl. 132—28.)



In a device for applying toilet-powder, the combination, with a roller, a case comprising a shell which extends longitudinally of the roller and is concentric relative to the roller, which shell is enough larger transversely than the roller to form a chamber around the roller and has a slot extending longitudinally of the shell, and a flexible sheet of material capable of carrying toilet-powder and connected to the roller and adapted to be wound on and unwound from the roller through said slot, which sheet is provided at its outer end with a thumb-and-finger piece arranged centrally between the side edges of the sheet and projecting outwardly from said slot when the sheet has been wound on the roller, of a dust-guard mounted on and extending longitudinally of the aforesaid shell, which dust-guard has a slot extending longitudinally of the dust-guard and is shiftable circumferentially of said shell to bring its slot into or out of registry with the aforesaid slot in said shell, said dust-guard having an outwardly bulging portion which forms a recess which extends circumferentially of said shell and is arranged to receive the aforesaid thumb-and-finger piece.

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1,042,674. TOOTH FOR CULTIVATORS, HARROWS, AND THE LIKE. XAVER HELMBACHER, Feldbach, near Waldighofen, Germany. Filed June 1, 1912. Serial No. 700,987. (Cl. 97—11.)

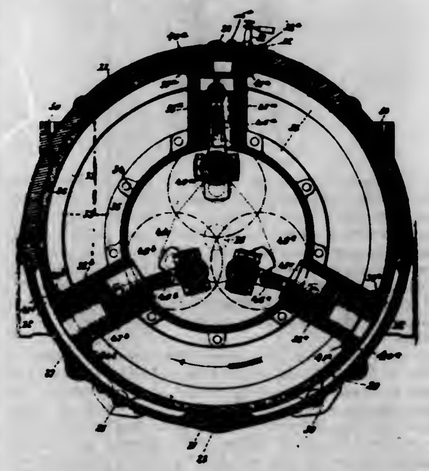


1. An agricultural implement with yielding polygonal teeth, the points of which lie parallel to the surface of the ground, characterized by the feature that each tooth is supported at its upper end by a supporting piece the shape of which is adapted to the form of the tooth and which serves for holding a knife blade adjustable in correspondence with the depth of the setting of the tooth, the said knife having its cutting edge directed downward and backward, for the purpose of pressing and cutting up the portion of earth detached by the point of the tooth parallel to the surface of the ground and directed by the tooth upward, between the tooth and the cutter, in like manner to the action of a shears.

2. An agricultural implement with yielding polygonal teeth, the points of which lie parallel to the surface of the ground, characterized by the feature that each of its teeth, curved to the extent of a quarter-circle, is supported at its upper end by a supporting piece the shape of which is adapted to the curve of the tooth and which serves for holding a knife blade adjustable in correspondence with the depth of the setting of the tooth, the said knife having its cutting edge directed downward and backward, for the purpose of pressing and cutting up the portion of earth detached by the point of the tooth parallel to the surface of the ground and directed by the tooth upward, between the tooth and the cutter, in like manner to the action of a shears.

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1,042,675. ROTARY EXPLOSIVE-MOTOR. MAXIMILIAN J. HELMES, East Orange, N. J., assignor of one-half to William D. Sargent, West Orange, N. J. Filed Apr. 9, 1908. Serial No. 425,999. (Cl. 123—44.)



1. A rotary explosive motor comprising a stationary casing having inlet and outlet ports therein, a revoluble annular member mounted to rotate in said casing, a gear secured to said stationary casing, a main shaft comprising two sections secured to said revoluble member and supported at their ends in said casing, a plurality of radial cylinders in said revoluble member, pistons and rods adapted to work therein, a plurality of shafts mounted in said revoluble member intermediate said main shaft sections, gears fixed on said shafts and meshing with said stationary gear, and cranks on said shafts connected to the piston rods in said cylinders for rotating said revoluble member and causing said pistons to move inward and outward twice in their respective cylinders during one revolution of said revoluble member, substantially as specified.

2. A rotary explosive motor comprising a stationary casing having inlet and outlet ports therein, and circumferential channels communicating with said ports, bearings secured to said casing at its opposite sides, an annular member arranged in said casing and adapted to rotate therein, a plurality of radial cylinders in said annular member, pistons and rods arranged to work in said cylinders, a gear case secured to said stationary casing, an internal gear fixed within said gear case, a shaft mounted in one of said bearings, a disk secured to the inner end of said shaft, a plurality of shafts disposed in said gear case, having their outer ends mounted in said annular member, and their rear ends mounted in the disk fixed at the inner end of said last-mentioned shaft, gears fixed thereon in mesh with said internal gear, and cranks at the forward ends of said shafts pivotally connected to the inner ends of said piston rods, substantially as specified.

3. A motor comprising a stationary casing having a circular opening therein, circumferential channels in said casing around said opening, an annular disk revolubly mounted in said casing, a plurality of cylinders in said disk, pistons and rods adapted to work in said cylinders, a gear case secured to said casing, concentric with said annular disk, an internal gear fixed therein, bearings provided at the opposite ends of said casing, shaft sections mounted in said bearings, bearings provided upon the inner ends of said shaft sections, a plurality of shafts carried by said disk and mounted in said bearings, cranks on said shafts connected to said piston rods, and gears fixed upon said shafts meshing with said internal gear, substantially as specified.

4. A motor comprising a stationary casing having a circular opening therein, circumferential intake and exhaust channels in said circular casing, an annular disk revolubly mounted in said circular opening, a plurality of cylinders arranged radially in said annular disk, pistons and rods in said cylinders, bearings provided in said annular disk, a plurality of crank-shafts arranged in said bearings connected to said rods, and having their ends projecting out of said annular disk, a gear case secured to said casing and concentric with said annular disk, an internal gear fixed in said case, bearings provided at the opposite ends of said stationary casing, shaft sections mounted in said bearings, plates secured to the inner ends of said shaft sections, bearings on said plates adapted to support the ends of the crank shafts arranged in said annular disk, and gears fixed on said crank shafts meshing with said internal gear, substantially as specified.

5. A motor comprising a stationary casing having a circular opening therein, circumferential intake and exhaust channels in said circular casing, an annular disk revolubly mounted in said circular opening, a plurality of cylinders arranged radially in said annular disk, packing arranged about the outer ends of said cylinders intermediate the outer surface of said annular disk and the inner surface of said circular casing, pistons and rods in said cylinders, cover plates secured centrally to said annular disk at the opposite sides thereof, bearings in said cover plates, a plurality of crank shafts revolubly mounted in said bearings and connected to said rods, said crank shafts having their ends projecting out of said bearings, a gear case secured to said casing and concentric with said annular disk, an internal gear fixed in said case, bearings provided at the opposite ends of said stationary casing, shaft sections mounted in said bearings, heads arranged upon the inner ends of said shaft sections, plates secured to said heads, a plurality of bearings arranged upon said plates registering with the bearings in the cover plates on said annular disk and receiving the ends of said crank shafts, and gears fixed upon said crank shafts meshing with said internal gear, substantially as specified.

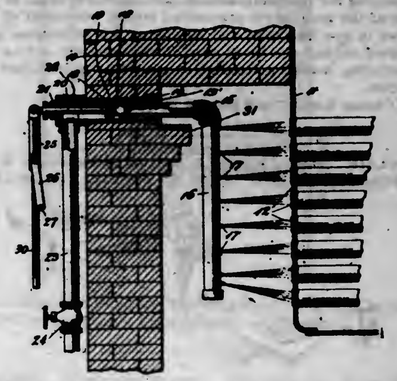
[Claims 6 to 9 not printed in the Gazette.]

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1,042,676. BLOWER FOR BOILERS. HARRY A. HIGGINS, Detroit, Mich., assignor to Diamond Power Specialty Co., Detroit, Mich. Filed July 5, 1911. Serial No. 636,931. (Cl. 122—891.)

1. The combination with a steam supply pipe, of a steam-tube rotatable and longitudinally movable in said pipe, a distributer pipe radially extending from said tube, and a linkage comprising an oscillatory lever having a fulcrum-connection with and for controlling said tube to swing the distributer pipe and also to move the same with said tube into projected or retracted position.

2. The combination with a steam supply pipe, of a steam-tube rotatable and longitudinally movable in said pipe, a distributer pipe radially extending from said tube, a yoke carried by said tube, a rod attached to the yoke and extending through said tube, and a linkage comprising an oscillatory lever having a fulcrum-connection with and for controlling said yoke to swing the distributer pipe and also to move the same with said tube into projected or retracted position.



3. The combination with a supply-pipe, and a stationary casing connected therewith, of a steam pipe extending from said casing, a tube journaled therein, a distributer pipe extending radially from said tube, a rod connected with said tube, and an oscillatory lever connected with said rod and having a fulcrum connection with said casing for reciprocating and rotating said rod.

4. The combination with a supply pipe, and a stationary casing connected therewith, of a steam pipe extending from said casing, a tube journaled therein, a distributer pipe extending radially from said tube, a rod connected with said tube, an oscillatory lever connected with said rod, and a fulcrum link connecting said lever and casing.

5. The combination with a supply pipe, and a stationary casing connected therewith, of a steam pipe extending from said casing, a tube journaled therein, a distributer pipe extending radially from said tube, a rod connected with said tube, and an oscillatory lever connected with said rod, a link pivoted on the lever and having a pin adjustably mounted on said casing for varying the position of the lever.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,677. INSULATING-CLEAT. ROBERT D. HILTT, Carey, Ohio, assignor of one-half to Ira N. Zeis, Carey, Ohio. Filed Apr. 5, 1912. Serial No. 688,700. (Cl. 173—312.)



1. In an insulating cleat, L-shaped sections comprising long arms and end arms disposed transversely thereto and adapted to abut the ends of said long arms.

2. In an insulating cleat, sections of general L-formation comprising body portions adapted to extend in parallelism, and transverse end pieces abutting the ends of said body portions.

3. In an insulating cleat, sections of L-formation disposed in interfitting relation, transverse bevels on the ends of said body portions, and transverse grooves at the point of juncture of the legs of said L-shaped portions, said bevels and grooves serving to retain the wires therebetween.

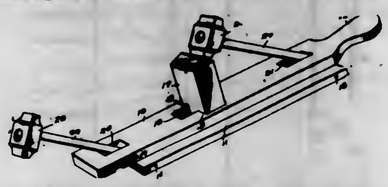
4. In an insulating cleat, superposed sections having a plurality of transverse grooves therein, and depending lug formations protruding beyond the inner face of the adjacent section for preventing lateral movement of the wires away from each other.

5. In an insulating cleat, superposed sections having transverse grooves therein, each of said sections being apertured for fastening screws, said apertures being to one side of the grooves for preventing lateral movement of the wires in one direction, and depending lug formations protruding beyond the inner face of the adjacent section for preventing lateral movement of the wires in the other direction.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,678. TOY. JOSEPH L. HOWSE, Bridgewater, S. D. Filed Apr. 20, 1912. Serial No. 692,192. (Cl. 46—46.)



1. A mechanical toy comprising an upper and a lower member slidably engaging face to face and provided with registering slots near the ends, said upper member being further supplied with an intermediate slot, a standard connected to said lower member and extending through the intermediate slot, and holding the upper and lower members slidably in superimposed relations, and arms pivoted in the terminal slots of the lower member and extending through the terminal slots of the upper member and provided respectively with hammers at their outer ends, whereby when the upper member is moved longitudinally of the lower member, the arms will be caused to swing alternately upon their pivots and cause the hammers to alternately engage upon the standard.

2. A mechanical toy comprising an upper and a lower member slidably engaging face to face, said upper member being provided with slots near the ends and with an intermediate slot, a standard connected to said lower member and extending through the intermediate slot, and arms pivoted to the lower member and extending through the terminal slots of the upper member and provided respectively with hammers at their outer ends, whereby when the upper member is moved longitudinally of the lower member, the arms will be caused to swing alternately upon their pivots and cause the hammers to alternately engage upon the standard.

3. A mechanical toy comprising an upper and a lower member slidably disposed in superimposed relations, said upper member having slots spaced apart, a standard extending from said lower member, means for maintaining said upper and lower member slidably in superimposed relations, and arms having hammers at one end and extending through said slots and pivoted in the lower member.

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1,042,679. HALOGENIZED INDIGO COMPOUNDS AND PROCESS OF MAKING SUCH BODIES. HENRY STALAY ARTHUR HOLT, Ludwigshafen-on-the-Rhine, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Aug. 22, 1910. Serial No. 578,377. (Cl. 8—1.)

1. The process of producing halogenized indigo coloring matter by treating an indigo coloring matter with a halogenising agent in the absence of a salt which combines with halogen hydrid and in the presence of an organic acid capable of yielding a salt with halogenized dehydro-indigo, and then reducing the halogenized dehydro-indigo coloring matter into the corresponding halogenized indigo coloring matter.

2. In the production of halogenized indigo coloring matter the process which consists in treating a dehydro-indigo salt which is free from sulfur with a halogenizing agent in the absence of a salt which neutralizes halogen hydrid.

3. In the production of halogenized indigo coloring matter the process which consists in treating an indigo coloring matter with a halogenizing agent gives rise to halogen in the absence of a salt which combines with halogen hydrid and in the presence of an organic acid capable of yielding a salt with halogenized dehydroindigo.

4. In the production of halogenized indigo coloring matter the process which consists in treating a dehydro-indigo salt which is free from sulfur with a halogenizing agent in the absence of a salt which neutralizes halogen hydrid and then reducing the halogenized dehydroindigo coloring matter into the corresponding halogenized indigo coloring matter.

5. In the production of halogenized indigo coloring matter the process which consists in treating indigo with a halogenizing agent in the absence of a salt which combines with halogen hydrid and in the presence of an organic acid capable of yielding a salt with halogenized dehydro-indigo.

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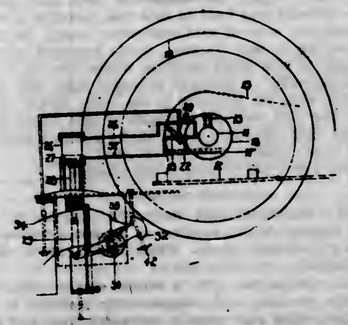
1,042,680. MILK-JAR OPENER. LUCY BROWN INGHAM, Wilkes-Barre, Pa. Filed Feb. 12, 1912. Serial No. 677,004. (Cl. 65—46.)



A stopper extractor comprising a shank, a plate on said shank, said plate increasing in width toward its outer end terminating in a pair of tongues, a prong extending downwardly and forwardly from said plate between said tongues and a second prong extending downwardly from said plate to the rear of the first said prong, substantially as described.

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1,042,681. WATER-WHEEL SAFETY-STOP. CHARLES A. JACKSON, New York, N. Y., assignor of one-half to The Pelton Water Wheel Company, San Francisco, Cal., a Corporation of California. Filed Jan. 12, 1912. Serial No. 670,750. (Cl. 188—18.)



1. A water-wheel safety-stop comprising a deflector, means for moving the same to a predetermined point in the path of the stream on arrival of the wheel at a predetermined speed, and means for retaining said deflector at said predetermined point during a subsequent reduced speed of the wheel.



2. A water-wheel safety-stop comprising a deflector, means for moving the same to entire-stream deflecting point on arrival of the wheel at a predetermined speed, and means for retaining said deflector at said point until the wheel ceases rotation.

3. A water-wheel safety-stop, comprising a deflector, means for moving the same to less than driving point in the path of the stream on arrival of the wheel at a predetermined speed, and means for retaining said deflector at less than driving point until the wheel ceases rotation.

4. A water-wheel safety-stop comprising a deflector, a speed-controlled device carried by the wheel, means controlled by said device for moving the deflector to less than driving point in the path of the stream on arrival of the wheel at a predetermined speed, and means for retaining said deflector at less than driving point until the wheel ceases rotation.

5. The combination of a safety stop deflector, a shaft fixed thereto, a governor-deflector and a shaft fixed thereto, the safety-stop deflector oscillating on the governor-deflector shaft and the governor-deflector oscillating on the safety-stop deflector-shaft.

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1,042,682. TOY CYCLE. OKEY J. JACKSON, Canfield, W. Va. Filed Apr. 17, 1912. Serial No. 691,368. (Cl. 208—42.)



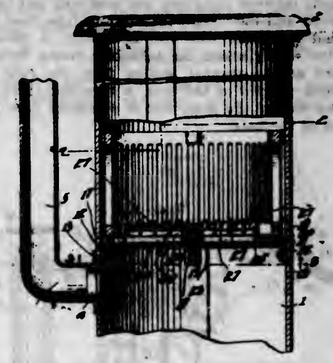
1. In combination, a bicycle frame including the usual wheels and propelling mechanism, the frame having a substantially vertical post, a forward tubular member having a hinged connecting member with the frame, an animal's body having two substantially parallel bores, one to receive the post, and the other to receive the tubular member, and a connecting tube for drawing the post and the tubular member toward one another, and a steering rod mounted in the tubular member and terminating at its lower end in forks and at its upper end in handle bars.

2. In combination, a bicycle frame having bicycle wheels and propelling mechanism, the frame having a substantially vertical post, a forward tubular member having a hingedly connecting member with the frame, a body having two substantially parallel bores and provided with a cut-away portion adjoining the bores, one bore adapted to receive the post, while the other receives the forward tubular member, a connecting tube arranged in the cutaway portion and adjustably connecting the tubular member and the post, a steering rod journaled in the forward tubular member and terminating at its lower end in forks to receive the front bicycle wheel, handle bars mounted on the upper end of the steering rod, and a saddle including saddle bags mounted on the upper end of the post.

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1,042,683. STOVE-GRATE. DAVE JOHNSON, Lemonville, Mo. Filed July 1, 1911. Serial No. 636,822. (Cl. 126—170.)

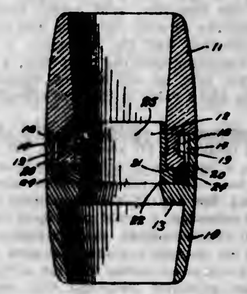
A grate comprising a supporting bar adapted to be mounted in a stove, a supporting ring carried by said bar adjacent its outer ends, a disk pivotally mounted at the center of said bar, arms radiating from said disk to a point adjacent said ring, toothed bands mounted upon said arms, spacing blocks mounted upon said arms between



said bands, side walls mounted upon said ring, and means carried by said bands for oscillating said grate.

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1,042,684. HOSE-COUPLING. CHARLES E. JUDKINS, Columbia River, Wash., assignor of one-half to Caesar Masini, Coeur d'Alene, Idaho. Filed Dec. 4, 1911. Serial No. 663,821. (Cl. 137—28.)



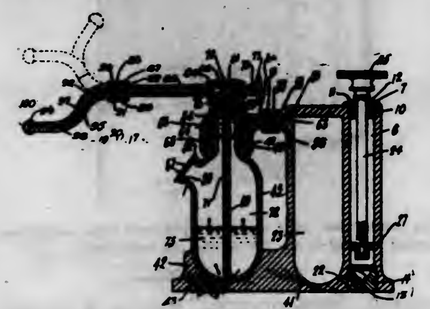
A hose coupling comprising a pair of tubular members, an annular stop wall within one of said members, pairs of parallel ribs positively arranged in one end of said member so as to form an inclined space between the ribs of each pair, said member having diametrically opposite longitudinal grooves arranged between the ends of said ribs, a second coupling member having a reduced extension formed with ribs, said ribs being tapered in a direction circumferentially of the coupling member to form shoulders adapted for insertion between the ends of the first-named ribs and engagement in the spaces between said first-named ribs, a removable intermediate member having means for engagement with the second-named coupling member, said intermediate member having oppositely disposed ribs tapering in a direction opposite to that of the first-named tapered ribs, to form shoulders for engagement with the shoulders of the ribs of the second-named coupling member, and centrally arranged and radially projecting lugs on the ribs of the intermediate member, for engagement in the grooves of the first-named coupling member.

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1,042,685. ATOMIZER. GEORGE J. KELLEY, Attleboro, Mass. Filed Mar. 8, 1911, Serial No. 613,184. Renewed Mar. 9, 1912. Serial No. 682,754. (Cl. 128—2.)

1. In an atomizer, the combination of a casing, an air pump in the casing, a compressed air reservoir in the

casing adjacent the pump, a liquid receptacle in the casing adjacent the reservoir, said casing being provided with air channels between the pump and reservoir and between the reservoir and the receptacle, a liquid tube fixed in the casing and extending into the receptacle, a transverse bore in the casing above the tube, the casing being provided with an air channel leading from the tube to an intermediate portion of the bore, a threaded valve working in one end of the bore, and a discharge tube in the other end of the bore.



2. In an atomiser, the combination of a casing, an air pump in the casing, a compressed air reservoir in the casing adjacent the pump, a liquid receptacle in the casing adjacent the reservoir, said casing being provided with air connections between the pump and reservoir and between the reservoir and the receptacle, a liquid tube in the casing extending into the receptacle, a bore in the casing above the tube, an air channel leading from the tube to the bore and a valve in the bore extending into the air channel.

3. In an atomiser, the combination with the casing of a pump in the casing, an air reservior in the casing adjacent the pump, a liquid receptacle resting upon the casing adjacent the reservoir, a removable extension upon the casing engaging the top of the receptacle, a discharge pipe upon the extension, a liquid pipe upon the extension extending into the receptacle, said extension being provided with an air channel extending between the pipes, a valve in the extension extending into the air channel, and a curved nossle pivotally connected with the discharge tube comprising swiveled sections.

4. In an atomiser, the combination with the casing, of a pump in the casing, an air reservoir in the casing adjacent the pump, a liquid receptacle resting upon the casing and provided with a threaded upper portion, a removable extension provided with threads engaging the threads of the receptacle, a lateral projection upon the extension provided with threads, a projection upon the casing adjacent the reservoir provided with a shoulder, a union provided with threads engaging the threads upon the first projection, a flange upon the union engaging the shoulder upon the second projections, both projections being provided with registering air channels leading from the receptacle to the reservoir, a liquid tube in the reservoir fixed in the extension a discharge tube in the extension, an air passage leading from the liquid tube to the discharge tube, a valve seat in the passage, and a threaded valve mounted in the extension and controlling the last mentioned air passage.

5. In an atomiser, the combination with the casing, of a pump in the casing, an air reservoir in the casing adjacent the pump, a liquid receptacle resting upon the casing adjacent the reservoir, a removable extension upon the casing engaging the receptacle, a liquid pipe upon the extension extending into the receptacle, said extension being provided with an air channel leading from the tube through the extension, and a valve in the extension entering the air channel.

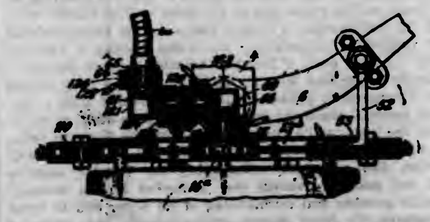
[Claim 6 not printed in the Gazette.]

**1,042,668. COMBINED PLAYER PIANO AND ORGAN.** GEORGE B. KELLY, Jamaica Plain, Mass. Filed Oct. 6, 1911. Serial No. 653,160. (Cl. 84—196.)



The combination with a casing, of an organ therein, constructed to be operated by air under pressure greater than atmospheric pressure, pneumatic means for playing the organ including air inlet valves, a pneumatic player piano in said casing constructed to be operated by air of less tension than atmospheric air, a tracker board having three rows of tracker ducts, tube connections from one row of tracker ducts to the piano playing mechanism, a movable member for establishing and interrupting the tube connection between said row of tracker ducts and the player piano mechanism, tube connections extending from said movable member to air inlet valves of the organ mechanism, which said tube connections may be brought in communication with the tube connections extending from the said movable member to the pneumatics of the piano player, and means controlled from a row of ducts in the tracker board for operating the previously mentioned air inlet valve of the organ mechanism.

**1,042,687. DRIVING MECHANISM FOR SPEED OR DISTANCE INDICATORS.** WILLIAM F. KENDALL, New York, N. Y., assignor to Recometre Company of America, New York, N. Y., a Corporation of New York. Filed Nov. 30, 1909. Serial No. 530,561. (Cl. 235—96.)



1. In mechanism for transmitting motion from a vehicle wheel, a gear adapted to be secured to a wheel, an annular shoulder projecting laterally from said gear, an annular casing surrounding said gear and forming a running bearing with said shoulder about the entire periphery thereof, and a pinion supported by said casing in mesh with said gear.

2. In mechanism for transmitting motion from a vehicle wheel, a gear adapted to be secured to a wheel, a casing inclosing said gear, said casing comprising two segments divided along a diameter, means for fastening said segments together, and means for preventing the unauthorized separation of said segments.

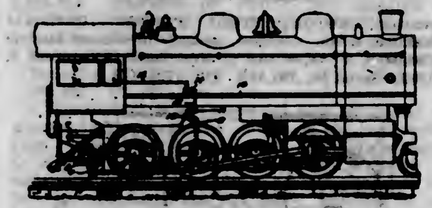


3. In mechanism for transmitting motion from a vehicle wheel, a gear adapted to be secured to a wheel, a pinion meshing with said gear, a shaft secured to said pinion, a box in which said shaft rotates, said shaft having a gear on its free end, an elbow having one end swiveled on said box, a box having one end mounted in the other end of said elbow, a shaft journaled in said second-named box, a gear on said shaft engaging with the gear on the free end of the first-named shaft, a gear on the other end of said second-named shaft, an elbow mounted on the free end of said second-named box, a third box mounted in said elbow, a shaft journaled in said box, and a gear on the end of said shaft, engaging with the second-named gear on said second-named shaft.

4. In mechanism for transmitting motion from a vehicle wheel, a gear adapted to be secured to said wheel, and a two-part annular casing split along a diameter inclosing said gear, said casing being formed to prevent the detachment of said gear from said wheel without separating the parts thereof.

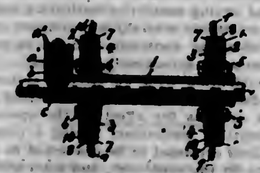
5. In mechanism for transmitting motion from a vehicle wheel, a gear adapted to be secured to a wheel, and a casing inclosing said gear, said casing comprising two separable parts, and means for securing said parts together, said means including a link secured to one of said parts, a pin for connecting said link to the other of said parts, and a seal for preventing the removal of said pin.

**1,042,668. APPARATUS FOR SCALDING GRASS.** WILLIAM C. KNY, Knoxville, Tenn. Filed Nov. 25, 1911. Serial No. 662,504. (Cl. 104—58.)



The combination with a locomotive having a boiler provided with a blow-off cock, of a transverse discharge pipe suspended upon the locomotive in rear of the wheels thereof and projecting laterally beyond the planes of the wheels, said pipe having a longitudinal series of jet openings in its bottom and having its laterally projecting end portions upturned and provided with series of jet openings to extend the spread of the spray, closures in the extremities of said upturned portions, a connection between said discharge pipe and the blow-off cock, and means for operating said blow-off cock.

**1,042,689. VEHICLE-WHEEL.** JOSEPH T. KOHN, Oneida, N. Y. Filed Dec. 2, 1910. Serial No. 595,215. (Cl. 21—69.)



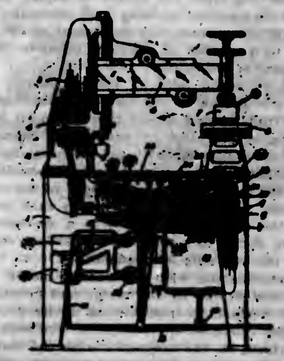
A vehicle wheel comprising a hub including a body, a pair of integral terminal annular heads of greater diameter than the body and each having its periphery constituting a bearing surface, oppositely arranged end clamps of greater diameter than the heads and provided with annular flanges projecting toward each other over and spaced from said bearing surfaces, said flanges having perforations therethrough, spokes extending through said perforations and having their inner headed ends engaging with said bearing surfaces, a rim secured to the outer ends of the spokes, and means for connecting the clamps and heads together.

**1,042,690. MATCH-SAFE.** FRANK KOYAMA, Westchester, N. Y. Filed June 16, 1912. Serial No. 703,966. (Cl. 206—22.)



A match safe comprising a top box-shaped part and a bottom cylindrical casing placed in communication by means of a narrow throat between said parts, and toward which the front and back walls of the top part converge, a rotary member placed in the bottom cylindrical casing and provided with a groove adapted to receive a match discharged through said throat, said cylindrical casing being also provided in the front thereof with a longitudinal slot with which said groove is adapted to register and which is shorter than the matches used, said rotary member being also provided centrally thereof and transversely of said groove with a thumb and finger recess and said cylindrical casing being also provided centrally of the front thereof and transversely of said slot with a thumb and finger recess, and said rotary member being provided with a projection which extends through the thumb and finger recess in the cylindrical casing, and by means of which said rotary member may be rotated in both directions.

**1,042,691. ELECTROMAGNET CONTROLLING DEVICE.** HABOUTIUN K. KOUYOUMJIAN, St. Louis, Mo. Original application filed Jan. 20, 1910, Serial No. 543,630. Divided and this application filed Jan. 18, 1911. Serial No. 603,388. (Cl. 175—21.)



1. In a device of the character described, the combination of a lever having an armature attached, an electromagnet coöperating with said lever, and weights acting in combined sequence upon said lever to cause a quick separation of the armature and magnet when the current in the magnet is cut down.

2. In a device of the character described, the combination of a lever having an armature attached, an electromagnet coöperating with said armature, means acting

upon said lever to control the position thereof and simultaneously to regulate independent of the position of said lever the current passing through the electro-magnet.

2. In a device of the character described, the combination of a lever having an armature attached, an electro-magnet cooperating with said armature, a rheostat in circuit with said electro-magnet constituting means for controlling the position of the lever, and means operating upon the rheostat independently of the lever to control the current through the electro-magnet.

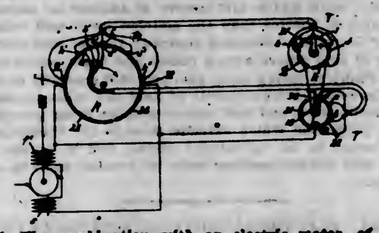
4. In a device of the character described, the combination of a magnet having a coil wound thereon, an armature having a coil wound thereon, and a rheostat placed in series with the coil on the magnet and in parallel with the coil on the armature.

5. In a device of the character described, the combination of a main magnet, a movable armature containing a high resistance winding, means for introducing resistance into the circuit which includes the main magnet, whereby the high resistance winding becomes effective, and means for cutting out the resistance in the main magnet circuit, whereby the high resistance winding becomes ineffective and said armature is attracted to the main magnet.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,692. MOTOR-CONTROL SYSTEM. CHRISTIAN KRÄMER, Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed June 3, 1912. Serial No. 701,118. (Cl. 172—179.)



1. The combination with an electric motor, of a controller therefor driven by the motor, a transmitting device, a plurality of conductors connecting said controller with the transmitting device, a plurality of conductors supplying current from the source of supply to the controller, and connections whereby said controller is moved by the motor in response to a movement of the transmitting device to a number of positions equal to the product of the two sets of conductors.

2. The combination with an electric motor, of a controller therefor driven by the motor having a plurality of contacts, a transmitting device provided with corresponding contacts, a plurality of conductors connecting the contacts on the controller with the corresponding contacts on the transmitting device, a plurality of conductors supplying current from a source of supply to the contacts on the controller, and connections whereby said controller is moved by the motor in response to a movement of the transmitting device to a number of positions equal to the product of the two sets of conductors.

3. The combination with an electric motor, of a controller therefor driven by the motor and provided with a plurality of contacts, a transmitting device provided with corresponding contacts, a plurality of conductors connecting the contacts on the controller with the corresponding contacts on the transmitting device, a plurality of conductors connecting the controller with a source of supply, a switch for shifting from one supply conductor to another, and connections whereby the controller is moved throughout the range of its contacts in response to corresponding movement of the transmitting device when one supply conductor is in circuit and repeats the operation when another supply conductor is in circuit.

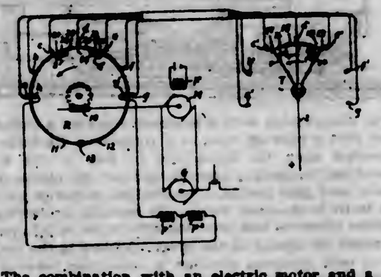
4. The combination with an electric motor, of a controller therefor driven by the motor and provided with a plurality of contacts, a transmitting device provided with corresponding contacts, a plurality of conductors connecting said controller with the transmitting device, a plurality of conductors supplying current from the source of supply to the controller, and connections whereby said controller is moved by the motor in response to a movement of the transmitting device to a number of positions equal to the product of the two sets of conductors, a switch for shifting the connection of the source of supply from one conductor to another, mechanical connections between the switch and said device whereby the latter is moved over a number of contacts while the former is being moved to its next contact, and connections whereby the controller is moved to a number of positions equal to the product of the said sets of conductors in response to corresponding movements of the transmitting device.

5. The combination with an electric motor and a controller therefor driven by the motor having a plurality of contacts, a transmitting device comprising a main contact device having contacts corresponding with those on the controller, and an auxiliary contact device mechanically connected therewith so that the former moves throughout its entire range of movement while the latter is moving to the next contact, a plurality of conductors connecting the contacts on the controller with corresponding contacts on the main contact device, a plurality of conductors supplying current from the auxiliary contact device to the contacts on the controller, and connections whereby the controller is moved throughout its range of contacts in response to a corresponding movement of the main contact device in position of the auxiliary contact device.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,693. MOTOR-CONTROL SYSTEM. CHRISTIAN KRÄMER, Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed June 3, 1912. Serial No. 701,119. (Cl. 172—179.)



1. The combination with an electric motor and a controller therefor driven by the motor, of a transmitting device provided with contacts constituting main positions, connections whereby a movement of the transmitting device to any one of said main positions causes the motor to drive the controller to a corresponding position, resistances associated with both the transmitting device and the controller connected to effect the operation of the motor and having contacts constituting auxiliary positions, and connections whereby a movement of the transmitting device to an auxiliary position causes the controller to assume a corresponding position.

2. The combination with an electric motor, of a controller therefor driven by the motor having a plurality of resistance sections for affecting the operation of the motor, transmitting mechanism having a plurality of resistance sections arranged to be connected in circuit with the resistance on the controller, and connections whereby a movement of the transmitting mechanism affects the resistance associated therewith to cause a corresponding movement of the controller which movement in turn affects the resistance associated with the controller to stop the motor.

3. The combination with an electric motor, of a generator for supplying current thereto having differential field windings, a resistance for each field winding, a controller for said resistance driven by the motor and arranged to vary one resistance without varying the other when moved in each direction, transmitting mechanism including a variable resistance, and connections whereby a movement of the transmitting mechanism varies the field of the generator to drive the motor until the controller is moved correspondingly to energize the differential fields equally and oppositely and stop the motor.

4. The combination with an electric motor, of a generator for supplying current thereto having differential field windings, a resistance connected with said field windings, a controller therefor driven by the motor, transmitting mechanism including a resistance controlling member, and connections whereby a movement of the transmitting mechanism causes the resistance associated therewith to be inserted in the field windings of the generator and energize the same unequally to drive the motor until the control member is moved a corresponding step to energize the field windings equally and oppositely to stop the motor.

5. The combination with a dynamo electric machine having differential field windings, a resistance controlling member driven thereby and connected with said field windings, a resistance varying transmitting mechanism, and connections whereby a movement of the transmitting mechanism causes field excitation of the dynamo electric machine for driving the controlling member through a corresponding movement which energizes the differential field windings equally and oppositely and stops the movement of the controlling member.

[Claims 6 to 9 not printed in the Gazette.]

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1,042,694. METHOD OF PRODUCING ALLOYS OR COMPOUNDS OF TITANIUM AND COPPER. ISADOR LADOFF, Cleveland, Ohio, assignor, by mesne assignments, of thirty one-hundredths to Walter D. Edmonds, Boonville, N. Y. Filed Feb. 27, 1912. Serial No. 680,327. (Cl. 75—1.)

1. The method of producing an alloy of copper and titanium which comprises subjecting the coassembled oxids of copper and titanium, in a reducing atmosphere, to temperature below the melting point of copper but sufficiently high to inaugurate, and maintaining such temperature sufficiently long to insure, reduction of said oxids.

2. The method of producing an alloy of copper and titanium which comprises heating coassembled oxid of copper and oxid of titanium, in a reducing atmosphere, sufficiently long, and at temperature sufficiently high, to reduce said oxids without melting the resulting metals.

3. The method of producing an alloy of copper and titanium which comprises heating coassembled oxid of copper and oxid of titanium, together with carbon, sufficiently long, and at temperature sufficiently high, to reduce said oxids without melting the resulting metals.

4. The metallurgical method which comprises bringing oxid of copper and oxid of titanium into presence of a reducing agent and subjecting them to temperatures below the melting points of said metals but sufficiently high to insure reduction of the oxid of copper by said agent.

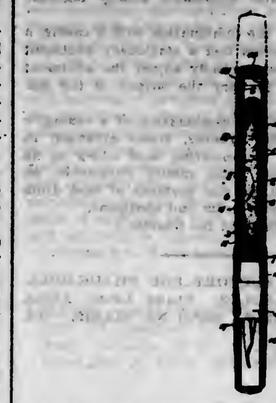
5. The metallurgical method which comprises bringing oxid of copper and oxid of titanium into presence of carbon monoxid and subjecting them to temperatures below the melting points of said metals but sufficiently high to insure reduction of the oxid of copper by said carbon monoxid.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,695. FOUNTAIN-PEN. JAMES W. LAUGHLIN, Detroit, Mich., assignor to Catherine H. Laughlin, Detroit, Mich. Filed Apr. 29, 1912. Serial No. 692,095. (Cl. 120—46.)

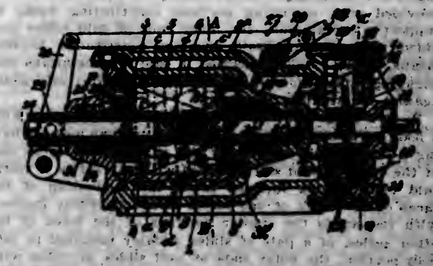
1. In a fountain pen, the combination with a metal tube having a finger opening, a feed shell section on said tube, a pen section, and a collapsible reservoir within said metal tube, of a cap on one end of said metal tube, the forward edge of said cap forming a shoulder on the tube, a movable shell section on said tube, a portion of said movable shell section having greater internal diameter than the remaining portion whereby a shoulder is formed to said movable shell section to engage the shoulder formed by said cap and prevent the removal of said movable shell section from the metal tube.



2. In a fountain pen, the combination with a metal tube having a finger opening, a shell section fixed to the metal tube, a pen section on said shell section, and a collapsible reservoir within the metal tube, of a cap on one end of said metal tube and provided with an elongated slot, a presser-bar within said tube and guided at its upper end by the elongated slot in the cap on the tube, a link connecting the forward portion of said presser-bar with the tube, and a sliding shell section mounted on the tube and provided interiorly with a shoulder to engage the cap on the metal tube and prevent removal of said sliding shell section from the latter.

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1,042,696. FLUID TRANSMISSION. JOSEPH LESER, Charlottenburg, Germany, assignor to Internationale Rotations-Maschinen-Gesellschaft M. B. H., Berlin, Germany. Filed May 4, 1910. Serial No. 559,258. (Cl. 138—3.)



1. In a rotary machine, the combination of a casing, a rotary drum having radial grooves, slides arranged in said grooves, means for reciprocating said slides, a non-rotatable abutment in said casing and projecting into the working space between the casing wall and drum, said abutment and drum being adjustable to vary the effective size of the working space and thereby the quantity of fluid delivered by the machine.

2. In a rotary machine, the combination of a casing, a rotor having radial grooves, slides axially movable in said grooves, means for reciprocating said slides, a substantially abutment in said casing and projecting into the working space between rotor and casing and adjustable as to depth of its projection into the casing, to vary the effective size of the working chamber.

3. In a rotary machine, the combination of a casing, a rotary drum having radial grooves, slides arranged in said grooves, means for reciprocating said slides in an axial direction, an abutment in said casing projecting into the working space between the casing wall and the end face of the drum, means for axially adjusting said abutment, said drum being also adjustable axially together with said abutment.

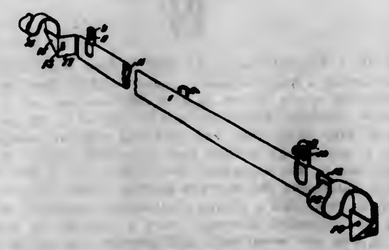
4. In a rotary machine, the combination with a casing, a radially grooved rotor therein and a stationary abutment therein; of means to simultaneously adjust the abutment and rotor in the casing to vary the output of the machine.

5. In a rotary machine, the combination of a casing, a rotary drum having radial grooves, slides arranged in said grooves, means for reciprocating said slides in an axial direction, said drum being axially adjustable, an abutment in contact with the end surfaces of said drum and means for adjusting said drum and abutment.

[Claims 6 to 19 not printed in the Gazette.]

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1,042,697. COMBINED SUPPORT FOR SHADE-ROLLERS AND CURTAIN-POLES. CLARK LEIBY, Akron, Ohio. Filed Feb. 5, 1912. Serial No. 675,619. (Cl. 156—23.)



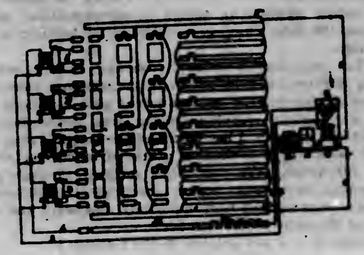
1. In a shade and curtain-bracket, the combination with a body portion comprising a flattened tubular member having a longitudinal opening or slot in its rear face, one of the edges of said slot provided with a plurality of notches, of a pair of slides adapted to be slidably received in said body portion, the outer ends of said slides provided with abruptly-bent portions, said portions provided with bearings for a shade-roller, said abruptly-bent portions further provided with extending portions constituting hooks to support a curtain-pole, the inner ends of said slides provided with openings, said openings constituting holding means, spring catches mounted in said holding-means and engaging in said notches for adjustably holding said slides against longitudinal movement.

2. In a shade and curtain-bracket, the combination with a body-portion comprising a flattened tubular member having a longitudinal opening or slot in one of its faces, one of the edges of said slot provided with two series of teeth, said teeth having inclined faces, the inclination of the faces of the teeth of one series being oppositely inclined with respect to the similar portions of the teeth of the other series, of a pair of slides slidably mounted in said body-portion, the outer ends of said slides provided with abruptly-bent portions, said portions provided with bearings for a shade-roller, said abruptly-bent portions further provided with hooks to support a curtain-pole, the inner ends of said slides provided with spring catches, the spring catches on one slide adapted to engage the notches between the teeth of one series and the spring catches on the other slide adapted to engage the notches between the teeth of the other series, said catches serving to hold said slides against longitudinal movement.

3. In a shade and curtain-bracket, the combination with a body-portion comprising a flattened tubular member having a longitudinal opening or slot in one of its faces, one of the edges of said slot provided with a plurality of notches, of a pair of slides slidably mounted in said body-portion, the outer ends of said slides provided with bent portions to provide bearings for a shade-roller, said bent portions further provided with hooks to support a curtain pole, the inner end of one of said slides provided with means for locking it against longitudinal movement, the other slide provided at its inner end with a spring catch adapted to engage said notches for adjustably holding said latter slide against longitudinal movement.

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1,042,698. ELECTRICALLY-PROPELLED VEHICLE. HARRY WARD LEONARD, Bronxville, N. Y. Original application filed Mar. 2, 1903, Serial No. 145,698. Renewed May 29, 1906, Serial No. 485,119. Divided and this application filed Apr. 13, 1906. Serial No. 426,628. (Cl. 172—179.)



1. The combination of a plurality of electromotive force supplying devices, a plurality of electromotive force receiving devices, and means for connecting said supplying devices in series and in parallel with each other and for connecting said receiving devices in series and in parallel with each other and for varying the electromotive force supplied by one of said supplying devices independently of that of the other.

2. The combination of a plurality of windings each adapted to supply a variable electromotive force produced by magnetic induction, a plurality of motor windings acting on a common load, and means for connecting said first named windings in series and in parallel to supply energy to said motor windings, for varying the electromotive force of one of said first named windings independently of that of the other and for connecting said motor windings in series and in parallel.

3. The combination of a plurality of motor windings, a plurality of variable voltage devices for supplying energy thereto, each of said devices comprising an electromotive force producing winding revolving in a magnetic field, and means for connecting said devices in series and in parallel, for varying the electromotive force of one of said devices independently of that of the other and for connecting said motor windings in series and in parallel.

4. The combination of a plurality of motor windings working on a common load, a plurality of sources of electromotive force, and means for supplying energy to each of said motor windings from each of said sources, and for varying the electromotive force of one of said sources independently of that of the other.

5. The combination of a plurality of dynamo electric machines, each of said machines having a separately excited field winding, a source of energy for exciting said field windings, and means for independently varying the current in each of said field windings and for reversing the current in one of said windings with reference to another of said windings.

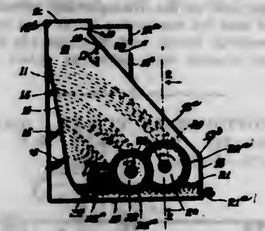
[Claims 6 to 41 not printed in the Gazette.]

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1,042,699. ETCHING-MACHINE. HOWARD SPENCER LEVY, Philadelphia, Pa. Filed Sept. 20, 1911. Serial No. 650,407. (Cl. 41—9.)

1. In an etching machine, the combination with a receptacle to contain the etching fluid, of a plurality of means in said receptacle differing in size from each other for projecting the etching fluid to different heights against the object to be etched.





2. In an etching machine, the combination with a receptacle to contain the etching fluid, of a plurality of revoluble means in said receptacle differing in size from each other for projecting the etching fluid to different heights against the object to be etched.

3. In an etching machine, the combination with a receptacle to contain the etching fluid, of a plurality of different sized mechanical sprayers in said receptacle for projecting the etching fluid to different heights against the object to be etched.

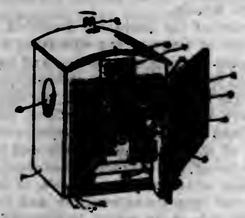
4. In an etching machine, the combination with a receptacle to contain the etching fluid, of different sized revoluble disks in said receptacle for projecting the etching fluid to different heights against the object to be etched.

5. In an etching machine, the combination with a receptacle to contain the etching fluid, of a plurality of series of disks in said receptacle, the disks of one series being of different diameter from the disks of the other series, said disks being adapted to project the etching fluid to different heights against the object to be etched.

[Claims 6 to 25 not printed in the Gazette.]

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1,042,700. SIGNAL-BOX. ALBION D. T. LIBBY, Elyria, Ohio, assignor to Dean Electric Company, Elyria, Ohio, a Corporation of Ohio. Original application filed Aug. 28, 1909, Serial No. 515,044. Divided and this application filed May 7, 1910. Serial No. 559,900. (Cl. 179—5.)



1. In a police signal box, the combination of an outer wall having an opening therein, a partition hinged to said box at points intermediate the vertical edges of the partition, dividing the interior of the box into compartments and having an opening therein registering with the opening in the outer wall, a luminous signal in the interior compartment adapted to initiate light rays which pass through the registering openings to the outside and electrical signaling apparatus mounted within said box.

2. In a police signal box, the combination of an outer wall having an opening therein, a partition hinged to said box at points intermediate the vertical edges of the partition, dividing the interior of the box into two compartments and having an opening therein registering with the opening in the outer wall, a lamp mounted in one compartment, which when lighted is visible through the registering openings to the exterior of the box and electrical signaling apparatus mounted in the other compartment.

3. In a police signal box, the combination of a set of walls for said box, a partition in said box pivoted intermediate its edges to swing upon the axis parallel to such edges dividing said box into compartments and electrical signaling apparatus mounted upon said partition.

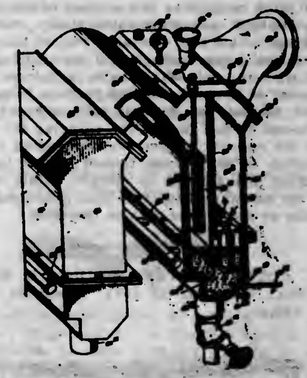
4. In a police signal box, the combination of a set of walls, a door for said box, an apparatus carrying partition pivoted in said box, to swing upon an axis intermediate the edges of said partition, and apparatus upon said partition, said partition adapted to swing outward through said door when the same is opened to expose the apparatus upon the rear surface of said partition.

5. In a police signal box, the combination of a set of walls, one of which has an opening therein, a cover for said opening, a partition mounted in said box, and dividing the interior thereof into compartments, electrical signaling apparatus mounted on both sides of said partition, said partition mounted to swing upon an axis intermediate its ends and adapted to swing outward through said opening when the cover is removed, the apparatus mounted upon the front of the partition, clearing the walls of said box so that the apparatus upon the rear of said partition is exposed to the exterior of the box.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,701. AMALGAMATOR. ROYER LUCKENBACH, Colwyn, Pa., assignor to Penn Mining & Reduction Company, Camden, N. J., a Corporation of New Jersey. Filed May 22, 1912. Serial No. 698,896. (Cl. 83—87.)



1. An amalgamtor arranged to contain an amalgam or mercury, a partition depending below the amalgam or mercury level, said amalgamator having feed and outlet elongated compartments, the feed-chamber being provided with a bottom having a plurality of parallel rows of downwardly flaring feed-tubes depending below the amalgam or mercury level, with their lower ends covering substantially the area of the feed section to provide a widely diffused subdivided distribution of pulp, in said amalgam or mercury.

2. An amalgamator transversely elongated and arranged to contain an amalgam or mercury, a partition depending from the top to below the amalgam or mercury level and sub-dividing the amalgamator into narrow feed and outlet compartments elongated transversely of the amalgamator, the feed chamber being provided with a bottom having a plurality of parallel rows of downwardly flaring feed tubes depending below said mercury level with their lower ends covering substantially the area of the feed section to provide a widely diffused sub-divided distribution of pulp, in said amalgam or mercury.

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1,042,702. RAIL-JOINT. HARVEY B. MADDOX, Magee, Miss. Filed June 10, 1912. Serial No. 702,836. (Cl. 238—8.)

1. In a rail joint, comprising two sections having enlarged ends, one of the said sections provided with a reduced extension provided with openings, the other said

3. In a rotary machine, the combination of a casing, a rotary drum having radial grooves, slides arranged in said grooves, means for reciprocating said slides in an axial direction, an abutment in said casing projecting into the working space between the casing wall and the end face of the drum, means for axially adjusting said abutment, said drum being also adjustable axially together with said abutment.

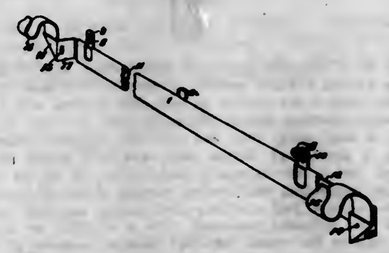
4. In a rotary machine, the combination with a casing, a radially grooved rotor therein and a stationary abutment therein; of means to simultaneously adjust the abutment and rotor in the casing to vary the output of the machine.

5. In a rotary machine, the combination of a casing, a rotary drum having radial grooves, slides arranged in said grooves, means for reciprocating said slides in an axial direction, said drum being axially adjustable, an abutment in contact with the end surfaces of said drum and means for adjusting said drum and abutment.

[Claims 6 to 19 not printed in the Gazette.]

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1,042,697. COMBINED SUPPORT FOR SHADE-ROLLERS AND CURTAIN-POLES. CLARK LIBBY, Akron, Ohio. Filed Feb. 5, 1912. Serial No. 675,619. (Cl. 156—23.)



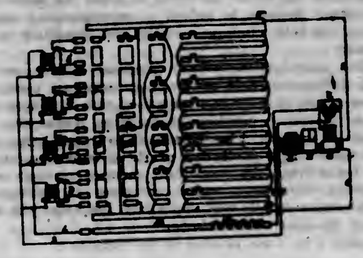
1. In a shade and curtain-bracket, the combination with a body portion comprising a flattened tubular member having a longitudinal opening or slot in its rear face, one of the edges of said slot provided with a plurality of notches, of a pair of slides adapted to be slidably received in said body portion, the outer ends of said slides provided with abruptly-bent portions, said portions provided with bearings for a shade-roller, said abruptly-bent portions further provided with extending portions constituting hooks to support a curtain-pole, the inner ends of said slides provided with openings, said openings constituting holding means, spring catches mounted in said holding-means and engaging in said notches for adjustably holding said slides against longitudinal movement.

2. In a shade and curtain-bracket, the combination with a body-portion comprising a flattened tubular member having a longitudinal opening or slot in one of its faces, one of the edges of said slot provided with two series of teeth, said teeth having inclined faces, the inclination of the faces of the teeth of one series being oppositely inclined with respect to the similar portions of the teeth of the other series, of a pair of slides slidably mounted in said body-portion, the outer ends of said slides provided with abruptly-bent portions, said portions provided with bearings for a shade-roller, said abruptly-bent portions further provided with hooks to support a curtain-pole, the inner ends of said slides provided with spring catches, the spring catches on one slide adapted to engage the notches between the teeth of one series and the spring catches on the other slide adapted to engage the notches between the teeth of the other series, said catches serving to hold said slides against longitudinal movement.

3. In a shade and curtain-bracket, the combination with a body-portion comprising a flattened tubular member having a longitudinal opening or slot in one of its faces, one of the edges of said slot provided with a plurality of notches, of a pair of slides slidably mounted in said body-portion, the outer ends of said slides provided with bent portions to provide bearings for a shade-roller, said bent portions further provided with hooks to support a curtain-pole, the inner ends of one of said slides provided with means for locking it against longitudinal movement, the other slide provided at its inner end with a spring catch adapted to engage said notches for adjustably holding said latter slide against longitudinal movement.

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1,042,698. ELECTRICALLY-PROPELLED VEHICLE. HARRY WARD LEONARD, Bronxville, N. Y. Original application filed Mar. 2, 1903, Serial No. 145,686. Renewed May 26, 1908, Serial No. 435,119. Divided and this application filed Apr. 18, 1908. Serial No. 426,633. (Cl. 172—179.)



1. The combination of a plurality of electromotive force supplying devices, a plurality of electromotive force receiving devices, and means for connecting said supplying devices in series and in parallel with each other and for connecting said receiving devices in series and in parallel with each other and for varying the electromotive force supplied by one of said supplying devices independently of that of the other.

2. The combination of a plurality of windings each adapted to supply a variable electromotive force produced by magnetic induction, a plurality of motor windings acting on a common load, and means for connecting said first named windings in series and in parallel to supply energy to said motor windings, for varying the electromotive force of one of said first named windings independently of that of the other and for connecting said motor windings in series and in parallel.

3. The combination of a plurality of motor windings, a plurality of variable voltage devices for supplying energy thereto, each of said devices comprising an electromotive force producing winding revolving in a magnetic field, and means for connecting said devices in series and in parallel, for varying the electromotive force of one of said devices independently of that of the other and for connecting said motor windings in series and in parallel.

4. The combination of a plurality of motor windings working on a common load, a plurality of sources of electromotive force, and means for supplying energy to each of said motor windings from each of said sources, and for varying the electromotive force of one of said sources independently of that of the other.

5. The combination of a plurality of dynamo electric machines, each of said machines having a separately excited field winding, a source of energy for exciting said field windings, and means for independently varying the current in each of said field windings and for reversing the current in one of said windings with reference to another of said windings.

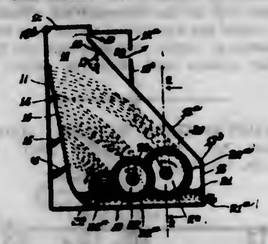
[Claims 6 to 41 not printed in the Gazette.]

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1,042,699. ETCHING-MACHINE. EDWARD SMITH LEVY, Philadelphia, Pa. Filed Sept. 20, 1911. Serial No. 650,407. (Cl. 41—9.)

1. In an etching machine, the combination with a receptacle to contain the etching fluid, of a plurality of means in said receptacle differing in size from each other for projecting the etching fluid to different heights against the object to be etched.





2. In an etching machine, the combination with a receptacle to contain the etching fluid, of a plurality of revoluble means in said receptacle differing in size from each other for projecting the etching fluid to different heights against the object to be etched.

3. In an etching machine, the combination with a receptacle to contain the etching fluid, of a plurality of different sized mechanical sprayers in said receptacle for projecting the etching fluid to different heights against the object to be etched.

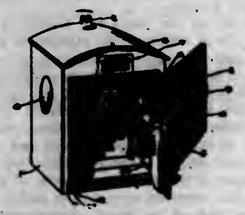
4. In an etching machine, the combination with a receptacle to contain the etching fluid, of different sized revoluble disks in said receptacle for projecting the etching fluid to different heights against the object to be etched.

5. In an etching machine, the combination with a receptacle to contain the etching fluid, of a plurality of series of disks in said receptacle, the disks of one series being of different diameter from the disks of the other series, said disks being adapted to project the etching fluid to different heights against the object to be etched.

[Claims 6 to 23 not printed in the Gazette.]

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1,042,700. SIGNAL-BOX. ALBION D. T. LIBBY, Elyria, Ohio, assignor to Dean Electric Company, Elyria, Ohio, a Corporation of Ohio. Original application filed Aug. 28, 1909, Serial No. 515,044. Divided and this application filed May 7, 1910. Serial No. 559,900. (Cl. 179—5.)



1. In a police signal box, the combination of an outer wall having an opening therein, a partition hinged to said box at points intermediate the vertical edges of the partition, dividing the interior of the box into compartments and having an opening therein registering with the opening in the outer wall, a luminous signal in the interior compartment adapted to initiate light rays which pass through the registering openings to the outside and electrical signaling apparatus mounted within said box.

2. In a police signal box, the combination of an outer wall having an opening therein, a partition hinged to said box at points intermediate the vertical edges of the partition, dividing the interior of the box into two compartments and having an opening therein registering with the opening in the outer wall, a lamp mounted in one compartment, which when lighted is visible through the registering openings to the exterior of the box and electrical signaling apparatus mounted in the other compartment.

3. In a police signal box, the combination of a set of walls for said box, a partition in said box pivoted intermediate its edges to swing upon the axis parallel to such edges dividing said box into compartments and electrical signaling apparatus mounted upon said partition.

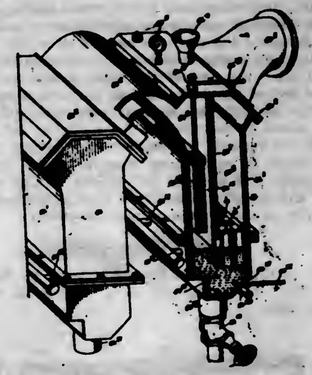
4. In a police signal box, the combination of a set of walls, a door for said box, an apparatus carrying partition pivoted in said box, to swing upon an axis intermediate the edges of said partition, and apparatus upon said partition, said partition adapted to swing outward through said door when the same is opened to expose the apparatus upon the rear surface of said partition.

5. In a police signal box, the combination of a set of walls, one of which has an opening therein, a cover for said opening, a partition mounted in said box, and dividing the interior thereof into compartments, electrical signaling apparatus mounted on both sides of said partition, said partition mounted to swing upon an axis intermediate its ends and adapted to swing outward through said opening when the cover is removed, the apparatus mounted upon the front of the partition, clearing the walls of said box so that the apparatus upon the rear of said partition is exposed to the exterior of the box.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,701. AMALGAMATOR. ROYCE LUCKENBACH, Colwyn, Pa., assignor to Penn Mining & Reduction Company, Camden, N. J., a Corporation of New Jersey. Filed May 22, 1912. Serial No. 698,896. (Cl. 23—67.)



1. An amalgamtor arranged to contain an amalgam or mercury, a partition depending below the amalgam or mercury level, said amalgamator having feed and outlet elongated compartments, the feed-chamber being provided with a bottom having a plurality of parallel rows of downwardly flaring feed-tubes depending below the amalgam or mercury level, with their lower ends covering substantially the area of the feed section to provide a widely diffused subdivided distribution of pulp, in said amalgam or mercury.

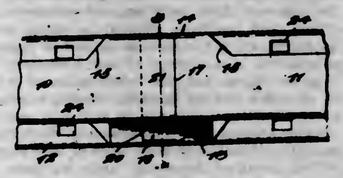
2. An amalgamator transversely elongated and arranged to contain an amalgam or mercury, a partition depending from the top to below the amalgam or mercury level and sub-dividing the amalgamator into narrow feed and outlet compartments elongated transversely of the amalgamator, the feed chamber being provided with a bottom having a plurality of parallel rows of downwardly flaring feed tubes depending below said mercury level with their lower ends covering substantially the area of the feed section to provide a widely diffused sub-divided distribution of pulp, in said amalgam or mercury.

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1,042,702. RAIL-JOINT. HARVEY B. MADDOX, Magee, Miss. Filed June 10, 1912. Serial No. 702,886. (Cl. 238—8.)

1. In a rail joint, comprising two sections having enlarged ends, one of the said sections provided with a reduced extension provided with openings, the other said

section having a recess formed therein for receiving said reduced extension, arms extending from the said section having a recess formed therein and adapted to extend within said openings formed in the other said section, substantially as described.

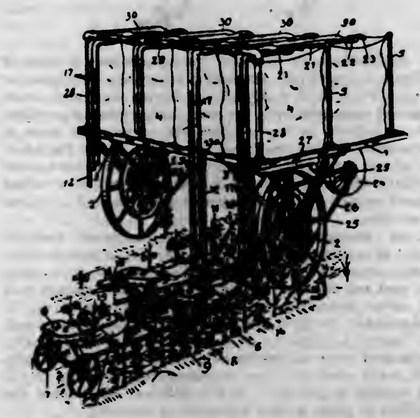


2. A rail joint comprising two sections having enlarged ends, one of the said enlarged ends having recesses formed in the upper and lower faces thereof, flanges extending from the other said enlarged end and adapted to rest within said recesses, the said enlarged portion provided with the recesses having a pair of longitudinally extending openings formed therein, in the medial portion thereof and on each side of the web of the rail, the opposite said section having a pair of spaced parallel arms extending from the medial portion thereof and adapted to extend within said openings formed in the opposite section substantially as described.

3. A rail joint, comprising two sections having enlarged ends, said enlarged ends being substantially co-extensive with the flange of the rail, the inner wall of the said enlarged extension being inclined and terminating at its upper end with the ball of the rails, a reduced portion formed on one of the said enlarged portions being of the same width thereof, the opposite said enlarged section having a recess formed therein for receiving the reduced portion of the opposite section, arms extending from the medial portion of said recess formed in the last mentioned section and adapted to operate within openings formed in the medial portion of the first mentioned section substantially as and for the purpose described.

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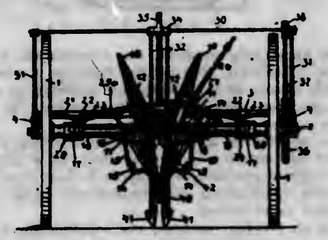
1,042,703. COTTON-HARVESTER. JOHN B. MARSHEL, Dallas, Tex. Filed May 23, 1911. Serial No. 628,972. (Cl. 21—65.)



In a cotton harvester, the combination with a vehicle provided with cotton receiving receptacles, and wheeled trailing trucks provided with suitable seats for pickers, of a relatively small receptacle carried just in front of each of said seats, a hinged closure for each of said small receptacles opening inwardly and being normally held seated by a spring, a pipe communicating with each small receptacle and having a discharge outlet above one of said cotton receiving receptacles, a downwardly inclined deflector overhanging the discharge outlet of each pipe, a blower fan mounted beneath the vehicle and adapted to be driven from one of the transporting wheels, the discharge pipe of said fan connecting to the first named pipes near their discharge outlet, and directing the blast of air from said fan toward said discharge outlet at a high velocity.

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1,042,704. COTTON-STALK PULLER. JOHN B. MARSHEL, Dallas, Tex. Filed June 27, 1911. Serial No. 635,611. (Cl. 55—66.)



1. In a device of the character described, the combination with a pair of transporting wheels, of an axle having said wheels loose upon its extremities, and having journals formed at each side of its center, intersecting at an angle, a pair of wheels mounted upon said journals having their rims in contact at their lowest portions, and means for communicating rotation to said contiguous wheels from the transporting wheels.

2. In a device of the character described, the combination with a pair of transporting wheels, of an axle having said wheels loose upon its extremities, and having journals formed at each side of its center, intersecting at an angle, a pair of wheels mounted upon said journals having their rims in contact at their lowest portions, means for communicating rotation to the said contiguous wheels from the transporting wheels, and means carried at the front of the wheeled frame adapted to guide the stalks between the contiguous wheels.

3. In a device of the character described, the combination with a pair of transporting wheels, of an axle having said wheels loose upon its extremities, and having journals formed at each side of its center, intersecting at an angle, a pair of wheels mounted upon said journals having their rims in contact at their lowest portions, and a plurality of swinging links establishing a communication of rotation between each of the contiguous wheels and the axle.

4. In a device of the character described, the combination with a pair of transporting wheels, of an axle having said wheels loose upon its extremities, and having journals formed at each side of its center, intersecting at an angle, a pair of wheels mounted upon said journals having their rims in contact at their lowest portions, a plurality of swinging links establishing a communication of rotation between each of the contiguous wheels and the axle, and means carried at the front of the wheeled frame adapted to guide the stalks between the contiguous wheels.

5. In a device of the character described, the combination with a pair of transporting wheels, of an axle having said wheels loose upon its extremities, and having journals formed at each side of its center intersecting at an angle, a pair of wheels mounted upon said journals having their rims in contact at their lowest portions, means for communicating rotation to said contiguous wheels from the transporting wheels, a shaft transversely mounted above the contiguous wheels, a frame rigidly mounted upon said shaft having members projecting between the wheels, means for communicating rotation to the transverse shaft from one of the transporting wheels, and means carried at the front of said frame adapted to guide the stalks between the contiguous wheels.



1,042,705. BOTTLE ATTACHMENT. RALPH MCCONNELL, Barton Heights, Va., assignor of one-half to George B. Hutchings, Richmond, Va. Filed Apr. 22, 1912. Serial No. 692,416. (Cl. 221—76.)



1. An attachment for bottles for the purpose described, comprising a head having a passage leading through the same, and a second passage therein closed at its upper end and having a lateral delivery spout communicating with said passage below the upper end thereof, a vertically moving gravity valve in said second passage normally resting across the delivery spout, and liftable by the passage of fluid into the upper end of said second passage, a delivery tube depending from said second passage, and means for forcing air into the first passage, substantially as described.

2. An attachment for bottles for the purpose described, comprising a head having a passage leading through the same, and a second passage therein closed at its upper end and having a lateral delivery spout, a vertically moving gravity valve in said second passage, and a packing ring or gasket in the lower portion of said second passage serving as a seat for said gravity valve, a delivery tube having its upper end held by said packing ring or gasket, and air forcing means for forcing the air through the first named passage, substantially as described.

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1,042,706. PERFORATED NOTE-SHEET FOR MUSICAL INSTRUMENTS. GILBERT N. MCMILLAN, Shelburne, N. H. Filed July 24, 1911. Serial No. 640,060. (Cl. 84—162.)



1. A note sheet for musical instruments having a reinforcing piece of substantially uniform thickness which is secured to the extremity of the sheet and extends from edge to edge thereof and which is adapted to be wound upon the driving spool and to engage with the flanges of said spool to center the sheet on the spool, said reinforcing piece being of a length longitudinally of the note sheet throughout the width of the note sheet to form a layer of uniform thickness extending substantially once around the driving spool and substantially from end to end thereof, substantially as set forth.

2. A note sheet for musical instruments having a V-shaped reinforcing piece of substantially uniform thickness which is secured to the extremity of the sheet and is adapted to be wound around the driving spool, and which has parallel inner and outer edges, said reinforcing piece being of a length longitudinally of the note sheet throughout the width of the note sheet to form a layer of uniform thickness extending around the driving spool and substantially from end to end thereof, substantially as set forth.

3. A note sheet for musical instruments having a reinforcing piece of substantially uniform thickness which is secured to the extremity of the sheet and extends from edge to edge thereof and which is adapted to be wound upon the driving spool, said reinforcing piece being of a length and shape adapted to wind around said spool, with its inner and outer edges substantially meeting on parallel lines, to form a layer of substantially uniform thickness around the spool, substantially as set forth.

4. A note sheet for musical instruments having a reinforcing piece of substantially uniform thickness which is secured to the extremity of the sheet and extends from edge to edge thereof and which is adapted to be wound upon the driving spool, said reinforcing piece being of a length longitudinally of the note sheet to substantially surround the spool and having diverging portions which extend from the middle of the note sheet to the side edges thereof to distribute the pull on the note sheet throughout the width of the sheet, substantially as set forth.

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1,042,707. BOOK. CHARLES W. MEARS, Cleveland, Ohio. Filed Oct. 17, 1911. Serial No. 655,178. (Cl. 11—17.)



1. In a book the combination of a plurality of leaves each having a hinge adjacent to the back thereof, and a permanent binding therefor including a plurality of metallic fastening devices extending through the back portions of said leaves from side to side thereof and at the rear of said hinges, said devices being of greater length than the aggregate thickness of said leaves.

2. In a book, the combination of a plurality of leaves each having a hinge adjacent to the back thereof, and a permanent binding including a plurality of metallic fastening devices extending through the back portions of said leaves from side to side thereof at the rear of said hinges and loosely connecting said leaves.

3. In a book, the combination of a plurality of leaves each having a hinge or bending line adjacent to the back thereof, and a permanent binding therefor including means extending through the back portions of said leaves, between the hinges and back edge thereof, and loosely connecting the same.

4. In a book, the combination of a plurality of leaves each having a bending line or hinge spaced from the back edge thereof, the distance of the bending lines or hinges from the back increasing progressively from the sides toward the center of the book, and a permanent binding including wires extending through the back portions of said leaves between the hinges and back edges thereof and loosely connecting the same.

5. In a book, the combination of a plurality of leaves each having a bending line or hinge spaced from the back edge thereof, the distance of the bending lines or hinges from the back increasing progressively from the sides toward the center of the book, and metallic staples extending through the back portions of the leaves, between the

hinges and the back edges of said leaves, said staples having their ends bent and being of greater length than the thickness of the book formed by said leaves.

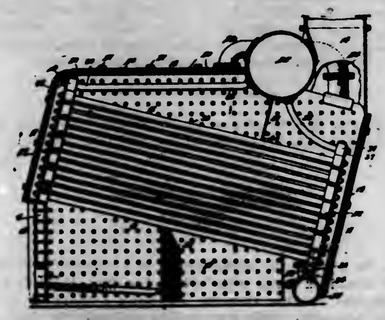
[Claims 6 and 7 not printed in the Gazette.]

1,042,708. HAND-GRIP FOR SCYTHES. MICHAEL MILEY, Sheffield township, Warren county, Pa. Filed Sept. 25, 1911. Serial No. 651,155. (Cl. 56—27.)



A hand grip for scythes comprising in combination, a threaded bolt having a handle-receiving eye formed at one end, a bushing slidably mounted on the bolt, said bushing including a head having its face formed with a pair of diametrically opposed pairs of recesses, the recesses of one pair being disposed at right angles to the other pair for respectively receiving the handle and eye, and a nut engageable with the bolt and bearing against the bushing for drawing said eye and bushing against the handle.

1,042,709. WATER-TUBE BOILER. JOHN J. MOONEY, New York, N. Y. Filed Mar. 7, 1910. Serial No. 547,648. (Cl. 122—294.)

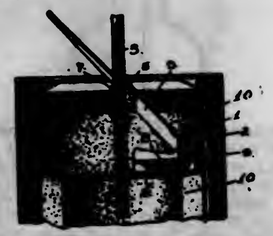


1. In a water-tube boiler, an inclosing casing whose sides are of separated plates connected by stay-bolts and form within them adequate water-chambers, a steam-drum, pipe-sections at opposite sides of each end of said drum connecting the same with the chambers formed between the plates of said sides, a mud-drum connected at its ends with said chambers in said sides, a bank of water-tubes in individual vertical sections having headers at their front and rear ends, individual pipes connecting the upper ends of the respective headers with said steam-drum and pipes connecting the lower ends of the rear headers with said mud-drum; substantially as set forth.

2. In a water-tube boiler, an inclosing casing whose sides are of separated plates connected by stay-bolts and form within them adequate water-chambers, a transverse steam-drum mounted on said sides, separable pipe-sections constituting nozzles at the front and rear of said steam-drum connecting the same with the chambers formed between the plates of said sides, a mud-drum connected at its ends with said chambers in said sides, a bank of water-tubes in individual vertical sections having headers at their front and rear ends, individual pipes connecting the upper ends of the respective headers with said steam-drum, and individual pipes connecting the lower ends of the rear headers with said mud-drum; substantially as set forth.

3. In a water-tube boiler, an inclosing casing whose sides and lower front portion are of separated plates connected by stay-bolts and form within them adequate water-chambers, a series of nipples connecting the ends of the front water chamber with the front ends of the side water chambers, a transverse steam-drum mounted on said sides, separable pipe-sections constituting nozzles at the front and rear of said steam-drum connecting the same with the chambers formed between the plates of said sides, a mud-drum connected at its ends with said chambers in said sides, a bank of water-tubes in individual vertical sections having headers at their front and rear ends, individual pipes connecting the upper ends of the respective headers with said steam-drum, and individual pipes connecting the lower ends of the rear headers with said mud-drum; substantially as set forth.

1,042,710. SCRAPER FOR SUGAR-CENTRIFUGALS. RALPH H. MOORE, Spreckels, Cal., assignor to Spreckels Sugar Company, San Francisco, Cal., a Corporation of California. Filed Mar. 20, 1911. Serial No. 615,773. (Cl. 127—3.)

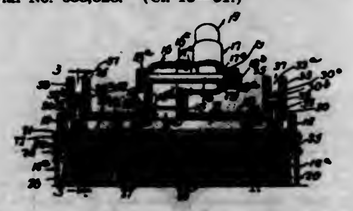


1. A scraper for centrifugal machines, the same comprising a handle, a scraper blade carried at one end arranged at an angle thereto, and a bearing guide shield secured to and depending from the said handle intermediate the ends thereof, for detachable engagement with a rotary drive shaft.

2. A scraper for centrifugal machines, the same comprising a handle, a shoe casting carried at one end thereof, a scraper blade detachably secured to said casting, and a bearing guide shield secured to and depending from the handle intermediate the ends thereof for detachable engagement with a rotary drive shaft.

3. A scraper for centrifugal machines, the same comprising a handle, a shoe casting of curved form secured to one end thereof to project beyond and at each side of the handle, a cutting blade detachably mounted at the outer edge of said shoe, and a bearing guide shield secured to and depending from the lever arm intermediate the ends thereof for detachable engagement with a rotary drive shaft.

1,042,711. VACUUM CLEANING DEVICE. ALBERT E. MOORHEAD, Chicago, Ill., assignor, by mesne assignments, to American Rotary Valve Company, Chicago, Ill., a Corporation of Illinois. Filed June 15, 1911. Serial No. 633,328. (Cl. 15—51.)



1. A tool for use with vacuum cleaning systems comprising a head containing an elongated inlet chamber having side and end walls and a top wall, means providing a passage opening into said head adapted for the supply of water thereto and for the exhaust of air therefrom, a brush member located in said inlet chamber, a plurality



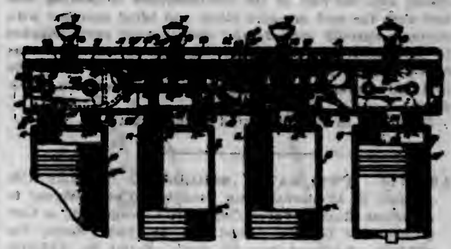
of flexible tubes carried by said brush member having their lower ends substantially in the contact plane of said brush member and their upper ends opening into said inlet chamber above said brush member, the vertical walls of said chamber being provided with a yielding flange forming a downward extension thereof to inclose the space about said brush member and having its lower edge adapted for engagement against the surface to be cleaned, said brush member and said flange being capable of relative vertical movement, and means for producing relative vertical movement between said brush member and said flange to raise or lower the contact surface of said brush member relatively to the lower edge of said flange.

2. A tool for use with vacuum cleaning systems comprising a head containing an elongated inlet chamber having side and end walls and a top wall, means providing a passage opening into said head adapted for the supply of water thereto and for the exhaust of air therefrom, a brush member vertically movable in said inlet chamber, a plurality of flexible tubes carried by said brush member having their lower ends substantially in the contact plane of said brush member and their upper ends opening into said inlet chamber, the vertical walls of said chamber being provided with a yielding flange forming a downward extension thereof to inclose the space about said brush member and having its lower edge adapted for engagement against the surface to be cleaned when said brush member is in raised position, suspension members threaded into said brush member and projecting at their upper ends through apertures in the top wall of said inlet chamber, cams supported on said head and to which the upper ends of said suspension members are pivotally connected, removable slotted straps adapted for holding said cams in place, and operating arms connected to said cams and projecting through the slots of said straps.

3. A tool for use with vacuum cleaning systems comprising a head containing an elongated inlet chamber having side and end walls and a top wall, means providing a passage opening into said head adapted for the supply of water thereto and for the exhaust of air therefrom, a brush member vertically movable in said inlet chamber, a plurality of flexible tubes carried by said brush member having their lower ends substantially in the contact plane of said brush member and their upper ends opening into said inlet chamber, the vertical walls of said chamber being provided with a yielding flange forming a downward extension thereof to inclose the space about said brush member and having its lower edge adapted for engagement against the surface to be cleaned when said brush member is in raised position, suspension members threaded into said brush member and projecting at their upper ends through apertures in the top wall of said inlet chamber, cams supported on said head and to which the upper ends of said suspension members are pivotally connected, removable slotted straps adapted for holding said cams in place, operating arms connected to said cams and projecting through the slots of said straps, and a ball member connecting said arms and adapted for operating them in unison.

4. A tool for use with vacuum cleaning systems comprising a head containing an elongated inlet chamber having side and end walls and a top wall, means providing a passage opening into said head adapted for the supply of water thereto and for the exhaust of air therefrom, a brush member vertically movable in said inlet chamber, a plurality of flexible tubes carried by said brush member having their lower ends substantially in the contact plane of said brush member and their upper ends opening into said inlet chamber, the vertical walls of said chamber being provided with a yielding flange forming a downward extension thereof to inclose the space about said brush member and having its lower edge adapted for engagement against the surface to be cleaned when said brush member is in raised position, means for supporting said brush member in said chamber, said means including members adapted for vertical adjustment of said brush member, and means operable from the outside of said head for raising and lowering said brush member.

1,042,712. ROTARY VALVE FOR ENGINES AND THE LIKE. ALBERT E. MOORHEAD, Chicago, Ill., assignor, by mesne assignments, to American Rotary Valve Company, Chicago, Ill., a Corporation of Illinois. Filed July 28, 1911. Serial No. 640,966. (Cl. 123—190.)



1. The combination of a cylinder, a valve casing provided with a port in communication with the cylinder and with inlet and exhaust passages, a rotative valve plug having bearing in said casing, said valve plug comprising semi-cylindric shells, one constituting an inlet member and the other an exhaust member, and each provided in its cylindric wall with a port adapted to register with the cylinder port, said inlet and exhaust shells being provided with openings for communication with the inlet and exhaust passages of the valve casing, and means applied to yieldingly force apart the said valve shell members.

2. The combination of a cylinder, a valve casing provided with a port in communication with the cylinder and with inlet and exhaust passages, a rotative valve plug having bearing in said casing, said valve plug comprising semi-cylindric shells, one constituting an inlet member and the other an exhaust member, and each provided in its cylindric wall with a port adapted to register with the cylinder port, said inlet and exhaust shells being provided with openings for communication with the inlet and exhaust passages of the valve casing, and an expansion spring adapted for forcing said shells apart.

3. The combination of a cylinder, a valve casing provided with inlet and exhaust passages and with a port in communication with said cylinder, a rotative valve plug having bearing in said casing, said valve plug comprising semi-cylindric shells, one constituting an inlet member and the other an exhaust member, and each provided in its cylindric wall with a port adapted to register with the cylinder port, and said shells being open, one at one end and the other at the opposite end, of the valve plug, and the open ends of the inlet and outlet shells being adapted for communication with the inlet and exhaust passages of the valve casing, and means applied to yieldingly force apart the said valve shell members.

4. The combination of a cylinder, a valve casing provided with inlet and exhaust passages and with a port in communication with the cylinder, a movable block forming a part of the wall of the valve casing and containing said cylinder port, said block having a part providing an area exposed to the interior of the cylinder, a rotative valve plug having bearing in said casing, said valve plugs comprising semi-cylindric shells, one constituting an inlet member and the other an exhaust member, and each provided in its cylindric wall with a port adapted to register with the cylinder port; said inlet and outlet shells being provided with openings for communication with the inlet and exhaust passages of the valve casing, and means acting to yieldingly force apart said valve shell members.

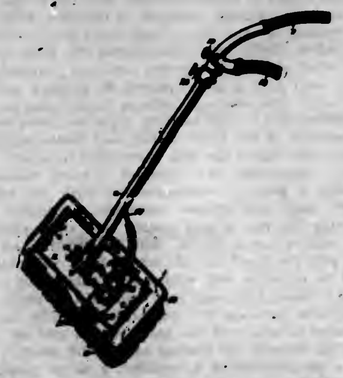
5. In combination with a cylinder, a valve casing provided with a cylindric valve chamber and with inlet and exhaust passages, a rotative cylindric valve plug having bearing in said valve chamber, a movable block provided with a port connecting the interior of the cylinder with the valve chamber; one end of said block having an area exposed to the interior of the cylinder and the opposite end of said block being wider than the diameter of the

valve plug and provided with a recess, semi-circular in cross-section, forming a bearing surface adapted for contact with one-half of the circumference of the valve plug; the said valve plug having one-half of its cylindric surface in bearing contact with the inner surface of the valve casing and one-half of its circumference in bearing contact with the said movable block, and being provided with circumferentially spaced inlet and exhaust ports adapted to coact with said port in the movable block, and means acting to give continuous endwise, reciprocatory motion to said valve plug, simultaneously with its rotative movement.

[Claims 6 to 19 not printed in the Gazette.]

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1,042,713. PNEUMATIC SCRUBBING APPLIANCE. ALBERT E. MOORHEAD, San Francisco, Cal., assignor to American Rotary Valve Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 28, 1908. Serial No. 459,950. Renewed July 28, 1911. Serial No. 640,970. (Cl. 15—51.)



1. In an apparatus of the character described, a casing provided with an inlet chamber and with a water chamber having openings adapted for the passage of water therefrom, a hollow handle connected to said casing and constituting a conduit opening into said inlet chamber, means connecting said hollow handle with a device for producing a vacuum therein, scrubbing devices carried by said casing, flexible tubes carried by said casing, said tubes opening at their upper ends into said inlet chamber, and having their lower ends substantially in the contact plane of said scrubbing devices, means for supplying water to the water chamber of said casing, and independent means carried by said handle for controlling said water supply and for controlling the vacuum produced in said inlet chamber.

2. In an apparatus of the character described, a casing provided with an inlet chamber and with water passages located at the lateral edges of said inlet chamber, said water passages being provided with openings for the discharge of water, a hollow handle connected to said casing, and constituting a conduit opening into said inlet chamber, means connecting said hollow handle with a device for producing a vacuum therein, scrubbing devices carried by said casing, flexible tubes carried by said casing and having their lower ends substantially in the contact plane of said scrubbing devices, means for supplying water to said water passages, and independent means carried by said handle for controlling said water supply and for controlling the vacuum produced in said inlet chamber.

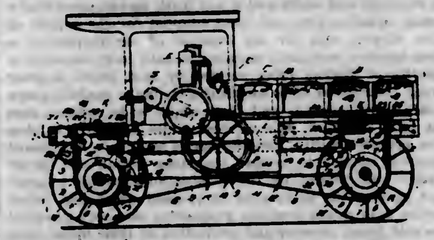
3. In an apparatus of the character described, a casing, scrubbing devices secured thereto, said casing being provided with a water chamber having openings for the discharge of water therefrom, means for supplying water to said water conduits, a hollow handle, a movable connection between said hollow handle and casing, and flexible tubes carried by said casing, depending to a depth approximating that of the bottom of the scrubbing devices, said casing having a suction conduit connected with said tubes whereby the scrubbing water may be drawn up through said tubes, substantially as described.

4. In an apparatus of the character described, a hollow casing, scrubbing devices secured thereto, said casing being formed with a water conduit and a passage therefrom for discharging the water upon the floor, a tube connected to said casing for supplying water to said conduit, a handle, flexible tubes carried by said casing and depending to a depth approximating that of the bottom of the scrubbing devices, said casing having a suction conduit connected with said flexible tubes whereby the scrubbing water may be drawn up through said flexible tubes and a movable connection between said handle and casing.

5. In an appliance of the character described, the combination of a box-like casing section open at the bottom and closed at the sides and ends, a brush back detachably secured in said casing, and forming the bottom thereof, flexible tubes having their upper ends secured in said back, and extending to substantially the same depth as the brush bristles, said casing being in communication with the upper ends of said flexible tubes, and formed with a conduit leading therefrom, a union connected to said conduit, a handle connected to said union, a valve in said handle, said casing having a water conduit and longitudinal passages connected to said water conduit, and having openings leading downward from said passages, and adapted to discharge the water upon the floor, a tube connected with said water conduit, and a valve in said tube, substantially as described.

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1,042,714. DRIVING MECHANISM FOR TRACTION-ENGINES. WALTER B. MORTON, Portsmouth, Ohio, assignor to Samuel F. Dunkle, trustee, Harrisburg, Pa. Filed Oct. 10, 1911. Serial No. 653,915. (Cl. 21—114.)



1. In a motor vehicle, the combination with the framework mounted on wheels, a housing inclosing one axle and pivoted beneath the framework, and a driving sprocket carried by said framework between the axles; of a driven sprocket within said housing, a drive chain connecting said sprockets, a guide pulley for each stretch of said chain, and swinging hangers for said pulleys adjustably mounted within said housing.

2. In a motor vehicle, the combination with the framework having a king bolt, a housing pivotally mounted thereon and having slots, brackets within said housing respectively opposite said slots, an axle carried by the housing, and a driven sprocket thereon located below said brackets and within the housing; of a driving sprocket carried by said framework, a drive chain connecting said sprockets, a guide pulley for each stretch of said chain, and swinging hangers for said pulleys respectively connected with said brackets.

3. In a motor vehicle, the combination with the framework including a transverse plate, a king bolt therethrough, a housing having a top plate resting under said transverse plate and pivotally mounted on said bolt, a two-part axle carried by said housing, and a differential connecting the parts thereof and including a driven sprocket; of a driving sprocket beneath said framework, a chain connecting said sprockets, a guide pulley for each stretch of said chain, and swinging hangers for said pulleys mounted within said housing.



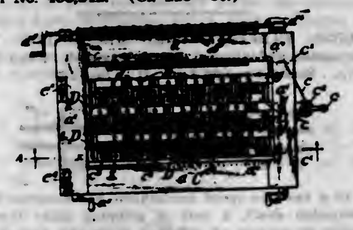
4. In a motor vehicle, the combination with the framework, two axles pivotally mounted beneath it, a short-turning gear connecting said axles, a driven sprocket on each axle, and a driving sprocket mounted on the framework between them; of drive chains leading from said driving sprocket to the two driven sprockets, housings inclosing the latter, two guide pulleys within each housing one for each stretch of chain, and swinging hangers for said pulleys adjustably mounted within said housings.

5. In a motor vehicle, the combination with the framework, housings pivoted beneath its ends, the axles carried by said housings, a driven sprocket on each axle inclosed by the housing, and a driving sprocket mounted on the framework between said axles; of a casing inclosing said driving sprocket, a transverse guide loop beneath said casing, a short-turning gear connecting said axles and consisting of crossed rods passing through said loop, brace rods connecting this loop with the lowest points of said housings, drive chains leading from said driving sprocket to the two driven sprockets, and guide pulleys within each housing one for each stretch of said chain.

[Claim 6 not printed in the Gazette.]

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1,042,715. MACHINE FOR SHIRRING CLOTH AND OTHER MATERIALS. ALBERT F. MAOCK, Chicago, Ill., assignor to Tufting Machine Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 29, 1908. Serial No. 455,242. (Cl. 223—40.)



1. In a device for shirring fabrics, a frame, a series of gatherers arranged in parallel longitudinal and transverse rows, certain of the gatherers adapted to be moved longitudinally and others longitudinally and transversely to produce a puckering or pulling of the fabric, and means for moving certain of the gatherers transversely to adjacent ones.

2. In a device for shirring fabrics, a frame, a series of gatherers arranged in parallel longitudinal and transverse rows, certain of the gatherers adapted to be moved longitudinally and others transversely to produce a puckering or pulling of the fabric, and means for moving certain of the gatherers parallel with adjacent ones.

3. In a device of the class described, a frame, a series of gathering-bars arranged at intervals in predetermined expanded relation on the frame and adapted to be laterally moved to contracted relation, a series of gatherers arranged in predetermined expanded relation longitudinally on the bars and adapted to be moved on the bars to contracted relation.

4. In a device of the class described, a frame, a series of slotted gathering-bars movably mounted in the frame to contract their relation, and a series of gatherers movably mounted in the slots of the bars to contract their relation along the bars.

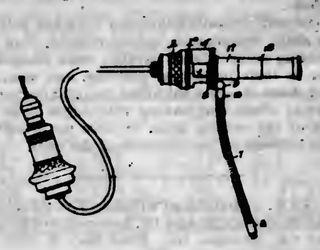
5. In a device of the class described, a frame having ways, a series of gathering-bars movably mounted in the ways to contract their relation, and a series of gatherers movably mounted on the bars to contract their relation along the bars.

[Claims 6 to 14 not printed in the Gazette.]

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1,042,716. LIGHT CONCENTRATOR AND PROJECTOR. CHARLES G. MYERS, Cleveland, Ohio. Filed Jan. 7, 1910. Serial No. 537,667. (Cl. 240—41.)

1. A light concentrator and projector, comprising a source of illumination, an open lamp housing provided with an adjustable shield, an adjustably mounted flexible holder therefor, and projecting tubes having telescoping open ends and each provided with a lens at the opposite end, one of said tubes having its lens end connected to said open lamp housing.



2. A light concentrator and projector, comprising a source of illumination, a main body portion provided with a projecting tube, a flexible adjusting and supporting holder, and oppositely disposed lens-tubes having telescoping open ends, one of said tubes being slidably mounted in said projecting tube and provided with a lens in close proximity to said source of illumination.

3. A light concentrator and projector, comprising a source of illumination, a main body portion provided with a projecting tube, a flexible holder for adjusting and holding said main body portion, a projecting tube having one end slidably mounted in said first mentioned projecting tube and provided with a lens, and a third projecting tube slidably mounted in said second tube and provided at its front end with an objective-lens.

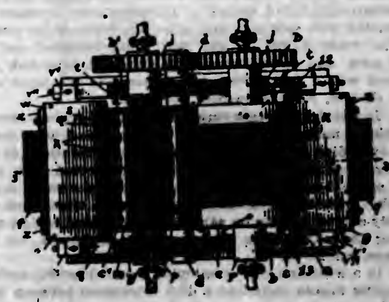
4. A light concentrator and projector, comprising a source of illumination, an open lamp body therefor, an adjustably mounted holder, an adjustable shield on said lamp body, and projecting tubes each provided with a double-convex lens at one end and having their open ends telescoping, one of said tubes having its lens ends slidably and adjustably connected to said open lamp body.

5. A light-concentrator and projector, comprising a source of illumination, a ventilated projecting tube detachably connected to said source of illumination and provided with a projecting shield above and a lens in front of the latter, an adjustably mounted supporting holder, and a second tube having one end slidably mounted in said first mentioned projecting tube and provided at its front with an objective lens.

[Claims 6 to 10 not printed in the Gazette.]

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1,042,717. ROLL REDUCING-MACHINE FOR CEREALS. THOMAS C. NIXON, Chicago, Ill. Filed Mar. 18, 1911. Serial No. 615,842. (Cl. 83—12.)



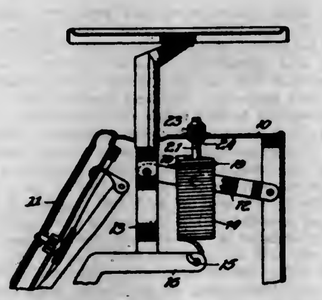
1. In composite reducing rolls, rotative shafts and alternate thin larger cylinder-edged cutting disks and smaller disks, mounted on said shafts, means for compressing the

disks solidly together on their respective shafts, and means for forcing the rotative rolls together to press the edges of the cutting disks against the edges of the smaller disks to thus upset the edges of the smaller disks against the sides of said larger disks and to finish the sides of the larger disks.

2. A circumferentially-channeled reducing roll, consisting of a shaft, compression collars thereon, thin cylinder-edged cutting disks having parallel sides swaged to even thickness in their peripheral portions, and smaller cylinder-edged disks of equal thickness to and alternating with said cutting disks and having thin edges upset against the sides of the cutting disks to close up interstices and finish the bottoms of the channels of the rolls.

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1,042,718. COILED-SPRING-ATTACHING MEANS. HARLEY A. OGLE, Chicago, Ill., assignor to The American Cutlery Co., Chicago, Ill. Filed May 6, 1912. Serial No. 695,355. (Cl. 73—46.)



1. In a weighing-scale employing a coiled-spring, spring-attaching means comprising a disk interposed between convolutions of the spring, a threaded stem operatively connected with said disk and extending through the casing of the scale, a nut on the protruding threaded end of said stem, and lugs on said disk, extending at an angle thereto and located within said spring and adjacent to the inner surface thereof, for the purpose set forth.

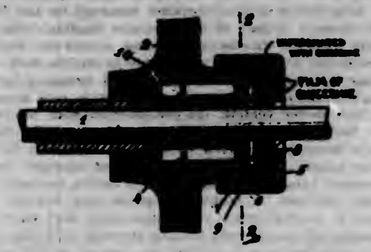
2. In a weighing-scale employing a coiled-spring, spring attaching means comprising a disk provided with laterally-extending lugs interposed between convolutions of the spring, a threaded stem operatively connected with said disk and extending through the casing of the scale, a nut on the protruding threaded end of said stem, and lugs on said disk and extending at an angle thereto and located within said spring and adjacent to the inner surface thereof, for the purpose set forth.

3. In a weighing-scale employing a coiled-spring, spring-attaching means comprising a disk interposed between convolutions of the spring, a threaded stem operatively connected with said disk and extending through the casing of the scale, a nut on the protruding threaded end of said stem, and upwardly-extending lugs on said disk and located within said spring and adjacent to the inner surface thereof, for the purpose set forth.

4. In a weighing-scale employing a coiled-spring, spring-attaching means comprising a disk provided with laterally extending lugs interposed between convolutions of the spring, a threaded stem operatively connected with said disk and extending through the casing of the scale, a nut on the protruding threaded end of said stem, and upwardly-extending lugs on said disk and located within said spring and adjacent to the inner surface thereof, for the purpose set forth.

5. In a weighing-scale employing a coiled-spring, spring-attaching means including a disk interposed between convolutions of the spring, provided with laterally-extending lugs graduated in height above the body of the disk and interposed between convolutions of the spring, and means for preventing the spring from shifting on said disk.

1,042,719. LUBRICANT-RETAINER. HAROLD C. PRAHL, Schenectady, N. Y. Filed Apr. 20, 1910. Serial No. 556,621. (Cl. 64—24.)



The combination of a rotary shaft, a relatively stationary bearing therefor adapted to have lubricating oil supplied thereto, and an absorbent glycerin-carrying annulus encircling the shaft and extending in close proximity to the bearing, said annulus being impregnated with glycerin to prevent passage of the lubricating oil therethrough and said glycerin forming films between the annulus and the shaft and bearing to prevent escape of the lubricating oil along the surfaces of the shaft and bearing, substantially as set forth.

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1,042,720. VARIABLE-SPEED MECHANISM. GEORGE RICHARDS, Sydenham, London, England. Filed May 13, 1912. Serial No. 696,940. (Cl. 74—26.)



1. In a variable speed mechanism, the combination of a transmission shaft, a pair of gripping disks thereon, a plurality of springs of different strengths engaging said gripping disks at different distances from the center of the latter, said springs decreasing in strength as their distance from the disks' centers increases, a drive disk engaging between said gripping disks, a driven disk engaging between said gripping disks, and means for varying the extent of such engagement between said several disks.

2. In a variable speed mechanism, the combination of a transmission shaft, a pair of gripping disks thereon, a plurality of springs of different strengths engaging said gripping disks at different distances from the center of the latter for yieldingly maintaining said disks in engagement, said springs decreasing in strength as their distance from the disks' centers increases, a drive disk extending between said gripping disks, a driven disk extending between said gripping disks, and means for shifting said transmission shaft relative to said drive and driven disks.

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1,042,721. GAGE. WILLIAM F. SHOAR, New York, N. Y. Filed Apr. 26, 1911. Serial No. 623,417. (Cl. 73—149.)



1. In a gage of the character described, the combination of a circular casing, a cover for the same having an opening protected by a glass or celluloid covering, a bearing block inserted within said casing and projecting in a radial direction within the same, said bearing block being provided with a slot, a measuring pin projecting into said slot, a pointer, a toothed rocker and a pinion engaging said toothed rocker for operating said pointer by an inward movement of the said measuring pin, substantially as shown and described.

2. In a gage of the character described, the combination of a circular casing and a cover therefor, a measuring pin located partly within and partly without the gage, a pointer, means embodying a rocker for transmitting movement of the measuring pin to the pointer, and locking means normally out of engagement with said rocker for preventing movement of the rocker and pointer.

3. In a gage of the character described, the combination of a circular casing and a cover therefor, a bearing block in said casing and projecting in a radial direction within the same, said bearing block being provided with a slot, a measuring pin projecting into said slot, a pointer, a toothed rocker, a locking pin provided with means for keeping said pin out of normal engagement with said rocker, and a pinion engaging said toothed rocker for operating said pointer by an inward movement of the said measuring pin, substantially as shown and described.

4. In a gage of the character described, the combination of a circular casing and a cover therefor, a bearing block in said casing and projecting in a radial direction within the same, said bearing block being provided with a slot, a measuring pin projecting into said slot, a pointer, a toothed rocker provided with a spring for keeping said rocker in its normal position, a manually-operated locking pin adapted to abut said toothed rocker for preventing said rocker from oscillating, and a pinion engaging said toothed rocker for operating said pointer by an inward movement of said measuring pin when said locking pin is released, substantially as shown and described.

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1,042,722. ANTISKIDDING DEVICE. TURNER W. SIMMONS, Bridgeport, Conn., assignor of one-sixth to William C. Bowers, Bridgeport, Conn. Filed Nov. 24, 1911. Serial No. 662,146. (Cl. 152—14.)



1. In an anti-skidding device the combination with suitable supporting means, of side links having eyes in each end and having a central enlargement intermediate of the said eyes and a spherical rubber covering on the central enlargement of said link.

2. In an anti-skidding device the combination with suitable supporting means, of side links with eyes disposed at an angle to each other and having a central enlargement at the apex of the angle, and a spherical rubber covering on the central enlargement of said link.

3. In a tire anti-skidding device, the combination with suitable supporting means, of attached links having two eye portions, a flexible ball covering arranged intermediate of the said eyes, and means for holding said ball covered links against the side tread portion of a tire.

4. In an anti-skidding device, the combination of a pair of side links having flexible balls formed thereon to engage the opposite side tread portions of a tire, means for supporting said links upon the tire, and means extending across the tread of the tire for connecting the two said links.

5. In an anti-skidding device the combination of flexible round rubber balls arranged adjacent to the two side tread portions of a tire, and means for supporting the balls in position.

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1,042,723. PROCESS OF MAKING NITROGEN COMPOUNDS INCLUDING NITRIDS AND AMMONIA. ALF SINDING-LARSEN, Christiania, Norway, assignor of one-half to Storm, Bull & Co., Christiania, Norway. Filed Mar. 26, 1910. Serial No. 551,680. (Cl. 204—64.)



1. The process of producing nitrogen compounds, consisting in vaporising a mineral or rock and subjecting the vapors to the action of reducing gases or vapors in the presence of nitrogen.

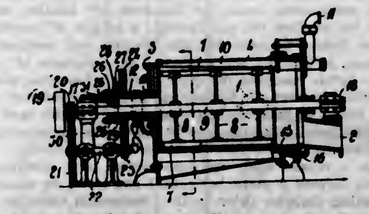
2. The process of producing nitrogen compounds, consisting in vaporising a mineral or rock and subjecting the vapors to the action of reducing gases or vapors in the presence of nitrogen, treating the obtained products with water to lixiviate the content of such substances which are soluble or decomposable in water, neutralising the obtained solution, and treating the solution to recover ingredients.

3. The process of producing nitrogen compounds, which comprises vaporising a mineral or rock, subjecting said vapors simultaneously to the action of nitrogen and reducing gases and separating the solid and liquid constituents of the products thus formed, and then successively separating the acid and alkaline gaseous constituents.

4. The process of producing nitrogen compounds, which comprises vaporising a mineral or rock, subjecting said vapors to the simultaneous action of nitrogen and a reducing gas, separating the solid, liquid and part of the gaseous products resulting from the reaction, adding a reducing agent and nitrogen to the remaining gaseous products, and returning them for action on said vapors.

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1,042,724. SORTER FOR PAPER-PULP AND THE LIKE. JOHN MAGNUS LARSSON SPANGENBERG, Forshaga, Sweden. Filed Mar. 20, 1912. Serial No. 685,127. (Cl. 92—36.)



1. In an apparatus of the class described a receptacle, a perforated drum, rotatably arranged in the same, stirring devices arranged within said drum near the walls of the same, means for rotating said drum and means for rotating the stirring devices, said stirring devices consisting of longitudinal vanes supported by a shaft rotatably arranged within said drum.

2. In an apparatus of the class described a receptacle, a perforated drum, rotatably arranged in the same, stirring devices arranged within said drum near the walls of the same, means for rotating said drum and means for rotating the stirring devices, said stirring devices consisting of longitudinal vanes supported by a shaft rotatably arranged within said drum, said shaft being eccentrically located in relation to the axis of the drum.

8. In an apparatus of the class described a receptacle, a perforated drum, rotatably arranged in the same, stirring devices arranged within said drum near the walls of the same, said stirring devices consisting of longitudinal vanes supported by a shaft rotatably arranged within said drum, means for rotating said shaft and gearings by which said shaft and said drum are thus connected with each other so that the drum will be rotated when said shaft is rotated.

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1,042,725. TUNNEL-KILN. EDGAR ROUSE SUTCLIFFE, Leigh, England. Filed June 15, 1911. Serial No. 633,245. (Cl. 25—142.)



1. The combination, in a tunnel kiln, of a combustion chamber having a main horizontal gas inlet with an enlarged combustion zone, and an auxiliary gas inlet directed toward the air supply for the main gas inlet, substantially as and for the purpose set forth.

2. A tunnel kiln having a combustion chamber of large volume in proportion to the volume occupied by the goods, an air preheating chamber enlarged to the same or a greater extent than the combustion chamber throughout the whole of its length, a section of kiln between the combustion and preheating chambers restricted in cross sectional area nearly to the space occupied by the goods, horizontal gas inlets to the combustion chamber where it joins the restricted section, means for conveying bricks through said combustion chamber and delivering the same at one end of the tunnel, and means for admitting air into said preheating chamber and the restricted section being such that the speed of the draft through the restricted area projects it a considerable distance into the combustion chamber before becoming mixed with the entering gas, and being such that the passage of air through the preheating chamber takes place slowly, substantially as described.

3. In a tunnel kiln, the combination of a combustion chamber having a main horizontal gas inlet, with an enlarged air heating chamber just prior to the combustion chamber, deflectors for directing the air current on to the hot bricks, and an auxiliary gas inlet and baffle walls for further heating the air for combustion, substantially as described herein.

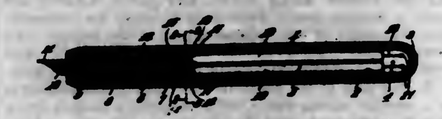
4. The combination, in a tunnel kiln, of a combustion chamber having a main horizontal gas inlet with an enlarged combustion zone, an enlarged air heating zone, means for heating the air therein, a length of tunnel of reduced height between the air heating and combustion chambers, a top flue for removing the products of combustion before reaching the drying zone, a base flue, means for delivering fresh air to the base flue at the delivery end of the kiln, and flues for delivering the air in the base flue to the preliminary drying zone of the kiln, all substantially as and for the purpose set forth.

5. In a tunnel kiln, the combination of a combustion chamber having a main horizontal gas inlet, an enlarged air heating chamber prior to the combustion chamber, deflectors therein, an auxiliary horizontal gas inlet and baffle walls opening into the air heating chamber, a top fresh air supply flue to the air heating chamber, a base flue, a top discharge flue prior to the drying zone, a delivery flue from the base flue to the drying zone, a discharge flue from the latter, and a fan delivering air into the top fresh air supply flue and to the base flue at the delivery end of the tunnel, all substantially as described herein.

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1,042,726. COMBINATION FOUNTAIN-PEN. F. L. TOLLES, East Toledo, Ohio. Filed June 30, 1911. Serial No. 636,171. (Cl. (120—42.)

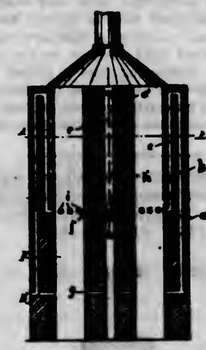
In a fountain pen, a barrel; a partition extending longitudinally of the barrel; a compressible reservoir upon each side of the partition; separate means connected with the rear ends of the reservoirs for manipulating the reservoirs individually; a member resting against one end of the partition and having openings communicating with the reservoirs; and an ink-applying element rotatable in the barrel and having an opening alinable with each of the



openings in said member; the partition constituting a reinforcement for the barrel and serving to prevent a distortion of one of the reservoirs when the manipulating means of the other reservoir is operated, the partition engaging the reservoirs to prevent the said member from rotating when the ink-applying element is rotated.

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1,042,727. CEMENT-FURNACE. HEINRICH TRACHSLER, Zürich, Switzerland. Filed May 23, 1910. Serial No. 562,918. (Cl. 22—3.)



1. A cement furnace comprising in combination, a jacketing wall forming a furnace pit of arc shaped transverse section and having a longitudinally extending air channel formed therein substantially concentric to the said pit and adapted to deliver air radially thereinto.

2. A cement furnace comprising in combination, a jacketing wall forming a furnace pit of arc shaped transverse section and having a longitudinally extending air channel formed therein substantially concentric to the said pit and adapted to deliver air radially thereinto, and means actionable from the exterior side of said jacketing wall and passing transversely therethrough adjacent the air channel for controlling the same.

3. A cement furnace comprising in combination, a jacketing wall forming a furnace pit of arc shaped transverse section, said jacketing wall having an air chamber formed therein surrounding said pit above and open to the calcining zone of the furnace pit, said chamber receiving air adjacent its upper end, and a longitudinally extending air channel formed substantially concentric to the said pit and adapted to deliver air radially thereinto.

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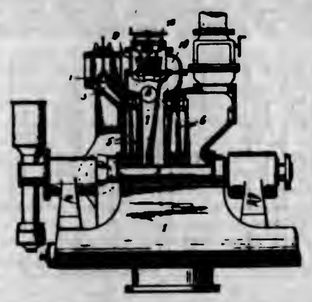
1,042,728. FILE. ALEXIS VERNAZ, Geneva, Switzerland. Filed Aug. 18, 1910. Serial No. 577,020. (Cl. 29—78.)



A file formed of welded strips of hard and relatively softer metals, the surface of the former having stamped cutting teeth and the adjacent surfaces of the metals having interfitting indentations, substantially as described.



1,042,729. COMBINED STEAM-ENGINE AND HEATER. AXEL B. WALLEM, Cynwyd, Pa., assignor to Harrison Safety Boiler Works, Philadelphia, Pa., a Copartnership. Filed Dec. 30, 1911. Serial No. 668,590. (Cl. 121—118.)



1. The combination of a multi-stage turbine, a chamber receiving steam from a high-pressure stage thereof, an outlet from said chamber to a heater, a passageway from said chamber to a low-pressure stage of the turbine, a valve controlling said passageway urged toward the open position by steam in said chamber, a member connected to said valve for closing the same, having one side thereof exposed to atmospheric pressure and the other side subjected to the pressure within said passageway, and a second means independent of and additional to said member for urging said valve toward the closed position, substantially as described.

2. The combination of a multi-stage turbine, a chamber receiving steam from a high-pressure stage thereof, an outlet from said chamber to a heater, a passageway from said chamber to a low-pressure stage of the turbine, a valve controlling said passageway urged toward the open position by steam in said chamber, means for causing atmospheric pressure to urge said valve toward the closed position, a spring pressing the valve toward the closed position and means for regulating the tension of said spring from the exterior of the valve, substantially as set forth.

3. The combination of a multi-stage turbine, a chamber receiving steam from a high-pressure stage thereof, an outlet from said chamber to a heater, a passageway from said chamber to a low-pressure stage of the turbine, a valve controling said passageway having a plurality of balanced independently-movable valve-members therein urged toward the open position by steam in said chamber, means for causing atmospheric pressure to urge the valve-members toward the closed position, a spring for each of said valve-members pressing the latter toward its seat, a pressure-plate engaging all of said springs, and means for moving the pressure-plate from the exterior of the valve to regulate the tension of all of said springs, substantially as set forth.

4. The combination of a multi-stage turbine, a chamber receiving steam from a high-pressure stage thereof, an outlet from said chamber to a heater, a passageway from said chamber to a low-pressure stage of the turbine, a valve-member controlling said passageway urged toward the open position by steam in said chamber, a spring pressing said valve toward its seat and an auxiliary valve-member connected to said valve-member and subjected to atmospheric pressure on one side thereof, substantially as set forth.

5. The combination of a multi-stage turbine, a chamber receiving steam from a high-pressure stage thereof, an outlet from said chamber to a heater, a passageway from said chamber to a low-pressure stage of the turbine, a valve-member controlling said passageway urged toward the open position by steam in said chamber, a spring pressing said valve-member toward its seat, an auxiliary valve-member connected to said valve-member and subjected to atmospheric pressure on one side thereof, and means for effecting a seal of said auxiliary valve-member, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,730. OBSERVATION DEVICE. FRANK W. WALQUIST, Buffalo, N. Y., assignor to Edward Zahm, Buffalo, N. Y. Filed July 22, 1911. Serial No. 639,901. (Cl. 137—82.)

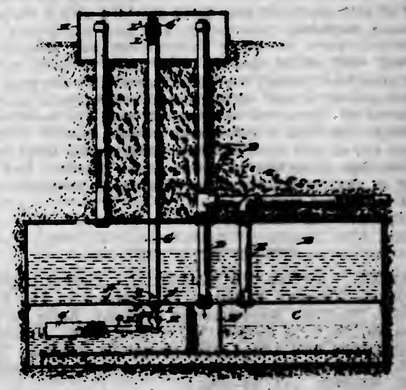


1. An observation device comprising a holder having two sections each of which has inner and outer rings and longitudinal bars connecting said inner and outer rings, said inner rings being connected and each of the outer rings being provided on its inner side with an annular rabbet, a cylindrical sight glass arranged at its opposite ends in said rabbets, packing rings surrounding said glass within said rabbets, and annular glands each engaging one of said packing rings and connected with the adjacent outer ring.

2. An observation device comprising a holder having two sections each of which has inner and outer rings and longitudinal bars connecting said inner and outer rings, said inner rings being connected by a screw joint and each of the outer rings being provided on its inner side with an annular rabbet the bore of which is screw threaded, a cylindrical sight glass arranged at its opposite ends in said rabbets, packing rings surrounding said glass within said rabbets, and annular glands each engaging one of said packing rings and connected with the adjacent outer ring.

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1,042,731. CARBURETER. HERMAN WALTHER, Davenport, Iowa. Filed Sept. 29, 1911. Serial No. 651,977. (Cl. 137—68.)



1. In a device of the character described, a liquid storage chamber, a chamber adapted to receive liquid therefrom, a pipe depending from the storage chamber into the receiving chamber, a valve controlling the passage of fluid from the storage chamber into said pipe, a cup-shaped member embracing the lower end of said pipe, a connection between said cup-shaped member and said valve, a float lever pivotally supported in said receiving chamber and

having one end pivotally connected to said cup-shaped member, and a float connected to the other end of said lever.

2. In a device of the character described, a liquid storage chamber, a chamber adapted to receive liquid therefrom, a pipe depending from the storage chamber into the receiving chamber, a valve seat adjacent the upper end of said pipe, a vertically movable valve adapted to cooperate with said valve seat, a cup-shaped member underlying the lower end of said pipe, the side wall of said cup-shaped member being spaced from the side wall of the pipe, a rigid connection between said valve and said cup-shaped member, and a float in said receiving chamber pivotally connected to said cup-shaped member.

3. In a device of the character described, a tank provided with a partition dividing the tank into an upper storage chamber and a lower chamber, a pipe open at its lower end depending from said partition into the lower chamber, a valve controlling the admission of fluid from the storage chamber to said pipe, a cup-shaped member underlying the lower end of said pipe, a rigid connection between said cup-shaped member and said valve, a bracket extending from the pipe depending in the lower chamber, a float lever fulcrumed on said bracket, and a connection between said float lever and said cup-shaped member.

4. In a device of the character described, a storage chamber, a chamber adapted to receive liquid from the storage chamber, a pipe depending from the storage chamber into the receiving chamber, a valve seat adjacent the upper end of said pipe, a valve for controlling the passage of fluid from the storage chamber to the carbureting chamber, adapted to coöperate with said valve seat, a cup-shaped member embracing the lower end of the pipe depending in the receiving chamber and provided with a threaded socket in its interior, a valve rod extending from the valve and having a threaded lower end adapted to adjustably engage the threaded socket in the cup-shaped member, means extending without the storage chamber for rotating said valve rod to adjust said valve relatively to said cup-shaped member, and a float in said receiving chamber operatively connected to said cup-shaped member.

5. In a device of the character described, a storage chamber, a chamber positioned beneath said storage chamber and adapted to receive liquid therefrom, a pipe depending from the storage chamber into the receiving chamber, the lower end of said pipe being provided with a plurality of serrations therein, a plug overlying the upper end of said pipe, said plug being provided with a central opening extending therethrough and with a plurality of restricted ports extending therethrough and positioned around said central opening, a vertically movable valve rod extending through the central opening in the plug, a valve carried by said valve rod and adapted upon movement of the valve rod to open and close the restricted ports in the plug, a cup-shaped member secured to the lower end of said valve rod and embracing the lower end of the pipe depending in the receiving chamber, and a float in the receiving chamber operatively connected to said cup-shaped member.

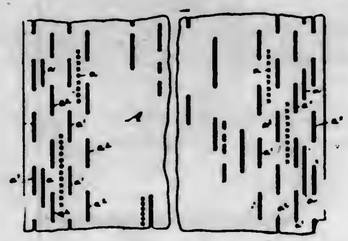
[Claims 6 and 7 not printed in the Gazette.]

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1,042,732. AUTOMATIC MUSICAL INSTRUMENT. JOSEPH WAUTERS, Scranton, Pa., assignor to The Rudolph Wurlitzer Manufacturing Company, North Tonawanda, N. Y., a Corporation of New York. Original application filed Aug. 1, 1908, Serial No. 446,397. Divided and this application filed Apr. 15, 1911. Serial No. 621,202. (Cl. 84—162.)

1. In an automatic instrument player, a tracker-board, a music-sheet therefor having two separated adjacent series of perforations therein for actuating the same player mechanism, the perforations of one series alternated with and overlapping those of the other, both of said series arranged to co-act with means carried by said tracker-board for inducing continuous operation of said player mechanism.

2. In an automatic instrument player, a tracker-board, a music-sheet therefor having two separated adjacent series of perforations therein for actuating a single player mechanism, the perforations being relatively short, with those of one series staggered relatively to those of the other, and connections from each of two points on said tracker-board corresponding to said two series of perforations, for actuating said player mechanism.



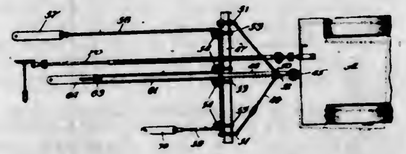
3. In an automatic instrument player, a tracker-board having apertures therein, a music-sheet therefor having two separated adjacent series of perforations therein for actuating a single player mechanism, two of said apertures matching said two series of perforations, a tube from each of said two apertures, a T joining said tubes, and a single tube leading from said T to such player mechanism.

4. The music-sheet described having two separated adjacent series of perforations therein for actuating a single player mechanism, the perforations of one series staggered relatively to and overlapping those of the other series, and adapted to serve with a tracker-board having two apertures matching said two series, both of said apertures arranged to operate such single player mechanism.

5. The music-sheet described having two separated adjacent series of perforations therein for actuating a single player mechanism, the perforations of one series staggered relatively to those of the other series, one or more rows of music perforations in the space between said two series, the perforations of said series adapted to serve with a tracker-board having two apertures matching the perforations of said series, both of said apertures arranged to operate such single player mechanism.

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1,042,733. DRAFT DEVICE FOR WHEELED GANG-PLOWS. NICHOLAS WEILER, Canton, Ill., assignor of one-half to B. L. Shrader, Plainville, Tex. Original application filed Feb. 8, 1911, Serial No. 607,312. Divided and this application filed May 19, 1911. Serial No. 628,336. (Cl. 97—7.)



1. The combination with a wheeled gang plow and an engine for pulling the same, of a draft connection between the engine and plow embracing a flexible draft device connected at its ends to the plow frame, and an equalizing bar connected to the engine between the engine and plow provided with sheaves about which said flexible draft device is trained.

2. The combination with a wheeled gang plow comprising a plurality of sections arranged one in rear of the other with respect to the line of draft and an engine for pulling the same, of an equalizing draft connection between the engine and plow comprising a flexible draft device, as a flexible member attached at its ends to the end sections of the plow frame, an equalizing bar connected to the engine between the same and plow and sheaves carried by the bar through which said flexible draft device is trained.

3. The combination with a wheeled gang plow having an equalizing bar and an engine for pulling the same, of a draft link pivotally connected to the equalizing bar centrally of the latter and connected to the engine, a chain attached to the ends of the equalizing bar and trained about a sheave carried by said link, and having means for locking it to the link, a flexible draft device and other sheaves carried by the equalizing bar about which the intermediate part of said flexible draft device is trained.

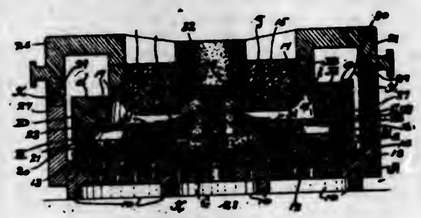
4. The combination with a wheeled gang plow comprising a plurality of sections arranged one in rear of the other with respect to the line of draft and an engine for pulling the same, of an equalizing draft connection between the engine and plow comprising a flexible draft device attached at its ends to the end sections of the plow frame, a sheave on an intermediate section of the plow frame, an equalizing bar connected to the engine between the same and the plow, and sheaves carried by the equalizing bar, one at each end thereof and others between the ends of said bar, said flexible draft device being trained between its ends about the sheave on the plow frame and the sheaves of the equalizing bar.

5. A gang plow comprising a frame and plows supported thereby with a set of draft regulating and supporting elements, and pulling means for the plow, of a draft device consisting of a single cable or chain and an equalizing bar connected with the frame in a manner to maintain the plow in a line of draft regardless of a slight change of direction of the pulling means.

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1,042,734. MOLD FOR MAKING METAL CASTINGS. THOMAS D. WEST, Cleveland, Ohio. Filed May 20, 1912. Serial No. 698,459. (Cl. 22—104.)



1. In a mold for making metal castings, a lower mold-part or drag instrumental in forming the bottom of the molten-metal-receiving chamber of the mold, an upper mold-part or cope instrumental in forming the top wall of said chamber, and an intermediate mold-section participating in the formation between the cope and the drag of said chamber, said intermediate mold-section being capable of being moved upwardly independently of the top wall of said chamber and independently of the drag while the casting formed in the mold is within the mold, and the cope being removable upwardly independently of said intermediate mold-section.

2. In a mold for making metal castings, a drag, a cope instrumental in forming the top wall of said chamber, and a chilling section participating in the formation between the cope and the drag of said chamber, said chilling section being capable of being moved upwardly independently of the top wall of said chamber and independently of the drag upon a lateral and outward expansion by heat of said chilling section, and the cope being removable independently of said chilling section.

3. In a mold for making metal castings, a drag, a cope arranged above and spaced from the drag to form a chamber between the drag and the cope, and a chilling section participating in the formation between the cope and the drag of said chamber, said chilling section being normally overlapped by the cope and capable of being removed from the casting upon the lateral and outward expansion by heat of said chilling section, and the cope being free to be lifted independently of said chilling section and the drag.

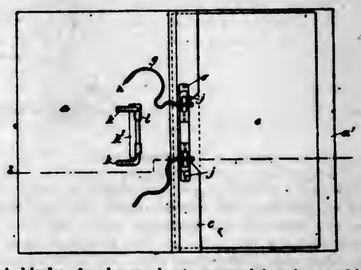
4. In a mold for making metal castings, a drag; a cope arranged above and spaced from the drag to form a chamber between the drag and the cope, and an intermediate mold-part participating in the formation between the cope and the drag of said chamber and comprising two superimposed sections forming different portions respectively of the surrounding wall of said chamber and capable of being relatively separated vertically and independently of the cope and the drag and arranged when relatively separated to afford access, between the relatively separated sections, to the casting formed in the mold, said sections being also liftable together from over the drag.

5. In a mold for making metal castings, a drag; a cope arranged above and spaced from the drag to form a chamber between the drag and the cope, and a central mold-part participating in the formation between the cope and the drag of said chamber, the upper portion of the central mold-part comprising a chilling section movable upwardly independently of the lower portion of the central mold-part upon the lateral and outward expansion by heat of said chilling section, and both of said portions of said central mold-part being liftable together from over the drag.

[Claims 6 to 21 not printed in the Gazette.]

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1,042,735. BINDER FOR LOOSE SHEETS. ROBERT HENRY WHITEHEAD, Whitley Bay, England. Filed Sept. 7, 1911. Serial No. 648,069. (Cl. 129—41.)



1. A binder for loose sheets comprising in combination two covers and a back member connecting same in book form, a flexible binding cord in operative connection with one of said covers, tags terminating the ends of said cord, a cord fastening device in operative connection with the other of said covers, sockets hinged to the inside of said last mentioned cover to receive said tags, and a spring adapted to hold said sockets in different angular positions, substantially as described.

2. A binder for loose sheets comprising in combination two covers and a back member connecting same in book form, a flexible binding cord of circular cross-section in operative connection with one of said covers, tags of circular cross-section terminating the ends of said binding cord, a cord-fastening device in operative connection with the other of said covers, sockets of circular cross-section hinged to the inside of said last mentioned cover to receive said tags, and a spring adapted to hold said sockets in different angular positions, substantially as described.

3. A binder for loose sheets comprising in combination two covers and a back member connecting same in book form, spaced stubs between said covers, a flexible binding cord attached to one of said stubs, tags terminating the ends of said cord, a cord fastening device attached to the other of said stubs, sockets hinged to the inside of one of said covers to receive tags, and a spring adapted to hold said sockets in different angular positions, substantially as described.

4. A binder for loose sheets comprising in combination two covers and a back member connecting same in book form, spaced stubs between said covers, a flexible binding

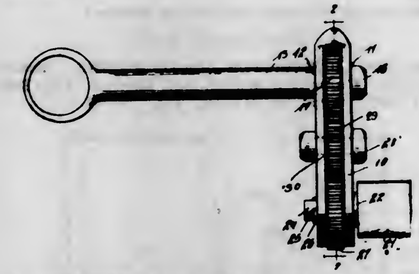
cord of circular cross-section attached to one of said stubs, tags of circular cross-section terminating the ends of said binding cord, a cord fastening device attached to the other of said stubs, sockets of circular cross-section hinged to the inside of one of said covers to receive said tags, and a spring adapted to hold said sockets in different angular positions, substantially as described.

5. A binder for loose sheets comprising in combination two covers and a back member connecting same in book form, a flexible binding cord in operative connection with one of said covers, tags terminating the ends of said cord, a cord fastening device in operative connection with the other of said covers, comprising a spring clip having a longitudinally curved and raised base plate provided with a depression for reception of said binding cord, and a resilient cover plate perforated opposite said depression, and sockets hinged to the inside of said last mentioned cover to receive the tag aforesaid, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,736. WRENCH. BENJAMIN C. WILDMO, Berner, Minn. Filed June 7, 1910. Serial No. 565,475. (Cl. 81—57.)



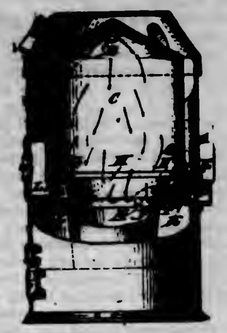
A wrench comprising a U-shaped plate, a nut receiving socket provided with a longitudinally extending stem rotatably mounted in the arms of the U-shaped plate, a gear mounted on said stem for rotation therewith and disposed between the arms of the U-shaped plate, an idler gear journaled between the arms of the U-shaped plate and meshing with said first named gear, the arms of said U-shaped plate being provided with aligning circular apertures of equal diameters, a handle provided with a squared terminal having its longitudinal edges flattened to form bearing surfaces whereby the squared terminals may be inserted in the openings in the arms of the plate from either side of the latter so as to position the handle on the same side of the frame as said nut receiving socket or on the opposite side of said frame, and a gear disposed between the arms of said U-shaped plate having a squared aperture through which the squared terminal of the handle projects, said last named gear meshing with the idler gear.

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1,042,737. GAS AND SMOKE BURNING FURNACE OR STOVE. ALFRED WILLIAMS, Philadelphia, Pa. Filed Jan. 3, 1912. Serial No. 669,185. (Cl. 126—112.)

1. In a furnace, combustion chamber having an air inlet at its top, a fire pot having a horizontal wall extending inwardly from the upper portion thereof, a substantially vertical wall depending from the inner edge of said horizontal wall to form an annular passage within the fire pot, and a smoke outlet for said passage on the outer wall thereof, the bottom of said passage opening into the fire pot.

2. A furnace comprising a combustion-chamber having an air-inlet at its top, a fire-pot below such chamber, and a passage intermediate of said chamber and fire-pot and formed with closed ends at the sides of the feeding opening of the furnace and with a smoke-outlet at a diametrically opposite point, said passage having an opening in its under side communicating with the fire-pot and having the greatest cross-sectional area at said closed ends and reducing toward the smoke-outlet.



3. In a furnace, a combustion chamber having an air-inlet at its top, a fire-pot having a horizontal wall extending inwardly from the upper portion thereof, a substantially vertical wall depending from the inner edge of said horizontal wall to form an annular passage within the upper portion of the fire-pot and formed with a smoke-outlet, the bottom of said annular passage opening into the fire pot and a member intermediate of the fire-pot and the bottom of said depending wall adapted to support the latter without materially obstructing said passage.

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1,042,738. GRAVER. JEREMIAH JUDSON WILSON, Dunsmuir, Cal. Filed Dec. 6, 1910. Serial No. 595,962. (Cl. 150—1.)



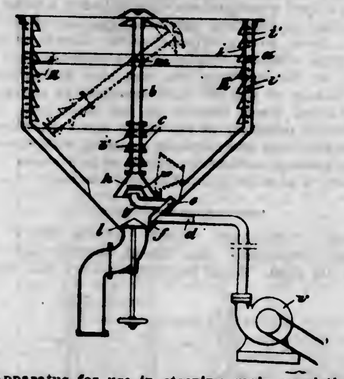
1. An engraver's tool comprising an ordinary engraver's handle having a socket, a shank removably inserted in a socket in the handle, and having a tapered socket in its outer end angular in cross section, and a removable graver point having a correspondingly tapered end adapted to be inserted in the socket in the shank.

2. An engraver's tool comprising an ordinary engraver's tool handle having a socket; a smooth shank having one end fitted to the socket in the handle and having an angular tapered tool holding socket in its outer end, and a transverse hole intersecting the lower end of such tool holding socket; and a removable graver point having a corresponding angular tapered end adapted to be inserted in the tool holding socket in the shank, substantially as described.

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1,042,739. APPARATUS FOR STEEPING GRAIN. OSWALD WINDS, Lutzschena-Leipzig, Germany. Filed Apr. 4, 1910. Serial No. 553,285. (Cl. 195—21.)

1. In an apparatus for steeping grain, a closed-bottom tank, a ventilating pipe arranged in the same and provided at its bottom with a conical enlargement open at the bottom and with perforations along its intermediate portions, and fenders or cap-shaped projections extending over the said perforations, in combination with an air-feeding or exhausting hood fitting loosely in the said conical enlargement and provided with a slot opening into the enlargement and means for feeding or exhausting air to or from said hood.

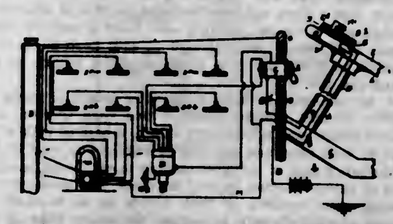


2. Apparatus for use in steeping grain consisting in a tank having a closed-bottom and adapted to contain water and grain, means for withdrawing and renewing said water periodically, means comprising hollow bodies, provided with perforations through which the products of oxidation together with the moisture are withdrawn from the grain after each discharge of the water, roof shaped projections or fenders on said hollow bodies extending over the perforations and insuring a loose arrangement of the grain and means for introducing air to dry the grain.

3. Apparatus for use in steeping grain consisting in a tank adapted to contain water and grain, means for withdrawing and renewing said water periodically, means comprising a hollow body having a conical end open at the bottom through which the products of oxidation together with the moisture are withdrawn in upward and downward direction from the grain, a conical hood with a slot therein fitting loosely in the conical end of said hollow body and means for introducing compressed air into said hood whereby said air passes between the hood and said conical end.

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1,042,740. IGNITING SYSTEM FOR THE ENGINES OF AUTOMOBILES. JAMES G. WINSOR, Detroit, Mich. Filed Aug. 7, 1911. Serial No. 642,591. (Cl. 123—148.)



1. In an igniting system for automobiles, an independent magneto circuit, an independent battery circuit, a switch having a tongue 9, a contact point on one side of said tongue, a contact point on the other side of said tongue, said tongue when in contact with one of said points being out of contact with the other of said points, said switch being interposed in the battery circuit so that when said tongue is in contact with one of said points said circuit is complete, and means whereby the contact of said tongue with the other of said points short circuits the magneto circuit.



2. In an ignition system for automobiles, an independent magneto circuit, an independent battery circuit, a switch having a tongue 9, a contact point on one side of said tongue, said tongue when in contact with one of said points being out of contact with the other of said points, a contact point on the other side of said tongue, said switch being interposed in the battery circuit so that when said tongue is in contact with one of said points said circuit is complete, and means whereby the contact of said tongue with the other of said points short circuits the magneto circuit, said switch being located within reach of the hand of the driver when in his normal driving position.

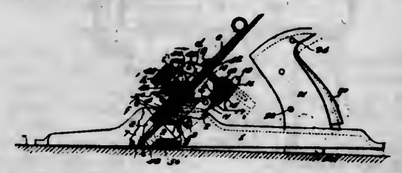
3. In a circuit adjuster, a tongue 9, a contact piece 11 thereon, a contact point 14 upon one side of said contact piece, two contact points 12 and 13 upon the other side of said contact piece, and means for moving said contact piece out of contact with the point 14 and into contact with the points 12 and 13, substantially as and for the purpose described.

4. In a circuit adjuster, a contact piece 11, a contact point 14 upon one side of said contact piece, contact points 12 and 13 upon the other side of said contact piece, an ignition circuit, means for moving said contact piece into contact with the point 14 or with the points 13 and 13, a circuit which is complete at one extreme of the travel of the contact piece 11, and a second circuit, a conductor in electrical connection with said second circuit, and means whereby said conductor is connected to the ground at the other extreme of the travel of said contact piece.

5. The combination of the resilient tongue 9 carrying a contact piece 11 at its end, a contact point 14 extending over said contact piece, the tongue 9 being adapted to carry said contact piece into contact with the point 14 by its resiliance, contact points 12 and 13 below said contact piece, so located that when said tongue is pressed downward, said contact piece shall form a connection between the points 12 and 13, the point 13 being grounded, the point 12 being connected to the magneto circuit, and the point 14 and tongue 9 being so connected that when they are in contact, they shall form a part of a complete battery circuit.

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1,042,741. BENCH-PLANE. HARVEY M. WOOD, Los Angeles, Cal. Filed Nov. 8, 1907. Serial No. 401,841. (Cl. 145—11.)



1. The combination of a shoe, a frog detachably secured thereto, a yoke on said frog, a recessed clamping cap extending through said yoke, the recess in said cap being arranged to accommodate said yoke, a bit comprising a blade and shaving-breaker interposed between said frog and cap, a bolster fulcrumed on said frog, a dog pivotally mounted in said bolster, a head on said dog, and means on said dog for causing said bolster and head to bear against said bit to clamp the same in position.

2. The combination of a shoe, a frog secured thereto, a yoke on said frog, a recessed clamping cap extending through said yoke, the recess in said cap being arranged to receive said yoke, a bit comprising a blade and shaving-breaker interposed between said frog and cap, a bolster fulcrumed on said frog, a dog pivotally mounted on said bolster, a head on said dog, a slotted lever pivotally attached to said dog, said lever being arranged to be operated to cause said dog and said bolster to bear against said bit and to hold said dog in position.

3. The combination of a shoe, a frog detachably secured thereto, a yoke on said frog, a recessed clamping-cap extending through said yoke, the recess in said cap being

arranged to accommodate said yoke, a lug on said cap to limit the movement of the same, a bit comprising a blade and shaving-breaker interposed between said frog and cap, a bolster pivotally secured to said frog and arranged to press said bit and cap toward the yoke, a dog on said bolster, a head on said dog, a lever loosely connected with said dog and arranged to bring the head of said dog in contact with the rear of said bit, and means for adjusting said bit comprising a lever pivoted to the cap, a screw fixed to such lever, a grooved thumb-nut, a bell-crank-lever pivoted on said first-named lever and arranged with one end in engagement with said thumb-nut, and the other end operably connected with said bit whereby by the operation of said thumb-nut the bit may be moved up and down.

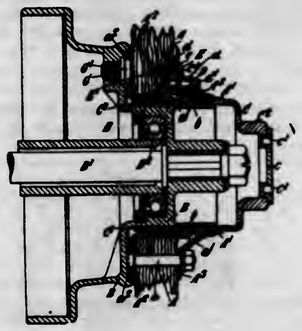
4. The combination of a shoe, a frog detachably secured thereto, a yoke on said frog, a recessed cap extending through said yoke, a lug on said cap to limit the movement thereof, a bit comprising a blade and shaving-breaker interposed between said frog and cap, and locking means pivotally connected with said frog and arranged to bear at two points against the rear of said bit to lock the same in position.

5. The combination of a shoe, a frog detachably secured thereto, a clamping yoke on said frog, a cap extending through said yoke and provided with a lug for limiting the movement thereof, a bit beneath said cap, a bolster pivotally attached to said frog, means pivotally connected to said bolster and coöperating therewith to clamp said bit in place, and means for adjustably securing said bit in position.

[Claims 6 to 13 not printed in the Gazette.]

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1,042,742. ROAD-WHEEL OF VEHICLES. WALTER WRIGHT, Coventry, England. Filed Oct. 15, 1909. Serial No. 522,834. (Cl. 21—69.)



1. In a road wheel structure for vehicles, a wheel body, a main hub, and a sleeve having external and internal screw threads arranged to engage with corresponding screw threads on the wheel body and the main hub respectively, so that the rotation of said sleeve on said main hub causes the wheel body to move axially on the main hub.

2. In a road wheel structure for vehicles, a wheel body, a main hub, and a sleeve having external screw threads of considerable pitch arranged to engage with corresponding screw threads on the wheel body, and also having internal screw threads of smaller pitch arranged to engage with corresponding screw threads on the main hub.

3. In a road wheel structure for vehicles, a wheel body, a main hub, and a hub cap having external screw threads of considerable pitch arranged to engage with corresponding screw threads on the wheel body, and also having internal screw threads of smaller pitch arranged to engage with corresponding threads on the main hub.

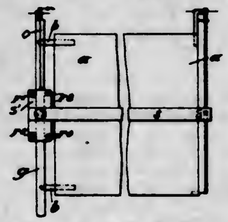
4. In a road wheel structure for vehicles, a wheel body, a main hub, an auxiliary hub forming a part of the wheel body, a sleeve having external screw threads of considerable pitch arranged to engage with corresponding screw threads on the auxiliary hub, and also having internal screw threads of smaller pitch arranged to engage with corresponding screw threads on the main hub, a flange on the auxiliary hub, driving studs fixed in the main hub and engaging in holes formed in said flange, and a conical head to one of said driving studs engaging in a corresponding hole in the wheel body.

5. In a road wheel structure for vehicles, a wheel body, a main hub, an auxiliary hub forming a part of the wheel body, a sleeve having external screw threads of considerable pitch arranged to engage with corresponding screw threads on the auxiliary hub, and also having internal screw threads of smaller pitch arranged to engage with corresponding screw threads on the main hub, ratchet teeth on the periphery of the sleeve and a pawl movable on the wheel body and normally engaging with the ratchet teeth to prevent accidental rotation of said sleeve.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,743. T-SQUARE WITH GUIDE-HEAD. EMIL WURST, Dübendorf, near Zürich, Switzerland. Filed Sept. 10, 1909. Serial No. 517,063. (Cl. 33—15.)



1. In combination with a drawing board, a guide bar rigidly secured thereto adjacent one edge thereof, a T-square having a head adapted to engage said bar, a rod spaced apart from said bar and extending substantially parallel therewith, a pulley mounted at one end of said bar, a cord passing over said pulley and attached at one end to the head of the T-square, and a counter-weight attached to the other end of said cord and slidably mounted on said rod, said counter-weight serving to balance the weight of the T-square when the board is in an inclined or vertical position.

2. In combination with a drawing board, a T-square adapted to slide thereover, such T-square comprising a head and shank, a bracket carried by said head and said shank being pivoted to said bracket so as to swing in a plane at right angles to said board.

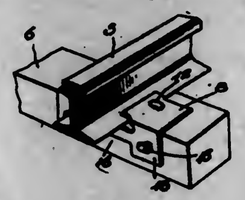
3. In combination with a drawing board, a T-square comprising head and shank, a guide bar secured to said board, and rollers mounted on said head and adapted to engage said guide bar whereby said head is movable thereon, said shank being pivoted to said head so as to be capable of swinging in a plane at right angles to said board and bar.

4. In combination with a drawing board, a guide bar rigidly secured thereto adjacent one edge thereof, a T-square comprising a head and shank, a pair of rollers carried by said head and adapted to engage one edge of said guide bar, a pair of brackets pivoted to said head, a second pair of rollers carried by said brackets, and means for adjusting said brackets on their pivots so as to cause the rollers carried thereby to engage the other edge of said guide bar.

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1,042,744. RAIL-FASTENER. PETER E. YEAGER, Reading, Pa. Filed Apr. 25, 1912. Serial No. 693,220. (Cl. 238—4.)

1. A rail fastener consisting of an angular metal plate adapted to be secured upon one side and the top of the rail supporting tie, the horizontal flange of said plate having opposed lips to engage on the base flange of the rail and the vertical flange of the plate between said lips having its upper edge obliquely inclined to permit of the engagement of said lips upon the flange of the rail at any point in its length.

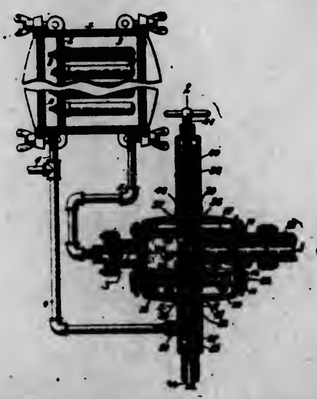


2. A rail fastener comprising an angular plate for engagement upon one side and the top of a rail supporting tie, the intermediate portion of the horizontal flange of said plate being cut away to accommodate the rail, said flange having opposed lips to engage upon the opposite edges of the rail flange, the upper edge of the vertical flange of said plate having a recess extending downwardly and outwardly beneath one of the lips to accommodate the rail flange whereby said lips may be directly engaged upon the opposite edges of the rail base at any point in the length thereof.

3. A rail fastener comprising an angular plate to engage upon one side and the top of the rail supporting tie, the horizontal flange of said plate being centrally cut away to receive the base of the rail and provided with opposed lips to engage upon the opposite edges of the rail base, the vertical flange of said rail at its upper edge and between said lips being obliquely inclined, said inclined edge extending beyond one of the lips to provide a recess for the accommodation of the base flange whereby said lips may be engaged upon the edges of the flange at any point in the length of the rail, the flanges of said plate having spike receiving openings whereby the same may be spiked to the tire.

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1,042,745. PRESSURE-REGULATOR. EDWARD ZAHM, Buffalo, N. Y. Filed Dec. 28, 1911. Serial No. 668,330. (Cl. 50—23.)



1. A regulator comprising a receiving chamber having a fluid inlet and an outlet, a diaphragm exposed to the pressure of the fluid in said chamber, a regulating chamber independent of said receiving chamber adapted to receive fluid discharged from the outlet of the receiving chamber, a diaphragm exposed to the pressure of the fluid in the regulating chamber, and a valve for controlling the admission of fluid through said inlet connected with said diaphragms, the space between said diaphragms leading to the outer atmosphere.

2. A regulator comprising a receiving chamber having a fluid inlet and an outlet, a diaphragm exposed to the pressure of the fluid in said chamber, a regulating chamber independent of said receiving chamber adapted to receive fluid discharged from the outlet of the receiving chamber, a diaphragm exposed to the pressure of the fluid in the regulating chamber, and a valve for controlling the admission of fluid through said inlet connected with said diaphragm, the outer sides of said diaphragms opposite to the inner liquid pressure sides thereof being exposed to the outer atmosphere.

3. A regulator comprising a receiving chamber having a fluid inlet and an outlet, a diaphragm exposed to the pressure of the fluid in said chamber, a regulating chamber independent of said receiving chamber adapted to receive fluid discharged from the outlet of the receiving chamber, a diaphragm exposed to the pressure of the fluid in the regulating chamber, a valve connected with said diaphragms and adapted to be moved for closing said inlet by the pressure of the fluid in said regulating chamber, and a spring operating to move said valve in the direction for opening said inlet the outer sides of said diaphragms opposite to the inner liquid pressure sides thereof being exposed to the outer atmosphere.

4. A regulator comprising a receiving chamber having a fluid inlet and an outlet, a diaphragm exposed to the pressure of the fluid in said chamber, a regulating chamber independent of said receiving chamber adapted to receive fluid discharged from the outlet of the receiving chamber, a diaphragm exposed to the pressure of the fluid in the regulating chamber, a valve connected with said diaphragms and adapted to be moved for closing said inlet by the pressure of the fluid in said regulating chamber, a spring operating to move said valve in the direction for opening said inlet, and a leak chamber interposed between said receiving and regulating chambers and communicating with the external atmosphere.

5. A regulator comprising a receiving chamber having a fluid inlet and an outlet, balancing diaphragms arranged within said receiving chamber on opposite sides of said inlet and outlet and exposed to the pressure of the fluid within the receiving chamber, a regulating chamber independent of said receiving chamber adapted to receive fluid discharged from the outlet of the receiving chamber, a diaphragm exposed to the pressure of the fluid in the regulating chamber, and a valve connected with said balancing and regulating diaphragms and controlling said fluid inlet of the receiving chamber.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,746. METHOD OF TREATING LIME-NITROGEN. ADOLF PAULINUS ZAMORE, Månsbo, and OSCAR FREDRIK CARLSON, Ljunga Verk, Sweden, assignors to said Carlson. Filed Aug. 6, 1912. Serial No. 713,648. (Cl. 71—9.)

1. The herein described method of treating lime nitrogen which consists in adding to the same 15–50 per cent. by weight of diluted nitric acid containing 8–25 per cent. of $HNO_3$, substantially as described and for the purpose set forth.

2. The herein described method of treating lime nitrogen which consists in adding to the same 15–50 per cent. by weight of a diluted nitric acid containing 8–25 per cent. of $HNO_3$ and cooling the mass during the treatment, substantially as described and for the purpose set forth.

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1,042,747. BINDING-POST. ALFRED A. EINSLAN, Boston, Mass., assignor to United Electric Apparatus Company, Boston, Mass., a Corporation of Massachusetts. Original application filed Sept. 14, 1908, Serial No. 452,849. Divided and this application filed Dec. 28, 1909. Serial No. 535,432. (Cl. 173—289.)

1. A binding-post consisting of a shouldered post of insulating material having a center-hole through it, the reduced portion of which projects through a hole in its support, a tubular post of insulating material adapted to fit on the reduced portion of the shouldered post, a bolt extended through the shouldered post having means thereon for engaging both posts and holding them in clamping

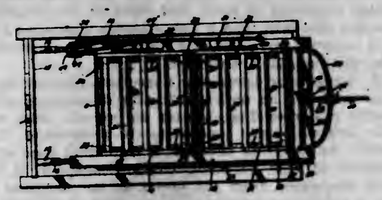
engagement with the support, and having screw-threaded portions at both ends projecting beyond the post-engaging means, and wire-engaging nuts arranged on both of said screw-threaded portions, whereby the post is entirely insulated from its support and the circuit-wires attached thereto without disturbing its securing means, and means to connect said bolt with the shouldered post, and means to connect said shouldered post with the support whereby said post and bolt are held from turning, substantially as described.



2. A binding-post consisting of a post of insulating material having a center-hole through it and a socket at one side of said center-hole, a bolt extended through said center-hole having a head provided with a pin adapted to enter the socket in the post and wire-engaging nuts arranged on said bolt, substantially as described.

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1,042,748. HAY-LOADER. WILLIAM ALLEN, Burlington Junction, Mo. Filed Feb. 8, 1912. Serial No. 676,330. (Cl. 214—2.)



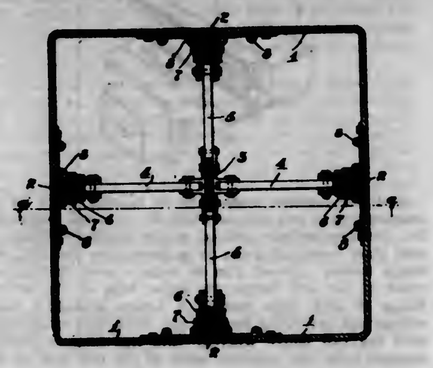
1. A machine of the character described, comprising an expansible frame adapted to be positioned over a hay rack, a plurality of conveyers carried by said frame in position to receive the hay as it comes from the loader, means for actuating said conveyers to pass the hay forwardly, and means for raising said conveyers into inoperative position.

2. A machine of the class described, comprising an expansible frame adapted to be detachably secured to a hay rack, a plurality of shafts journaled in said frame, a conveyer member carried by each of said shafts and having a conveyer belt adapted to be actuated by the rotation of said shafts, sprocket wheels carried by said shafts, an additional shaft journaled in said frame, a sprocket wheel carried by said additional shaft, a sprocket chain coacting with the sprockets of the first mentioned shafts and with the sprocket of the additional shaft, means for actuating said additional shaft, and means for swinging said conveyers out of operative position.

3. A machine of the character described, comprising an expansible frame adapted for attachment to a hay rack, a plurality of conveyer members mounted in said frame, a shaft journaled in said frame and provided with a bevel gear, a yoke swingingly mounted on said shaft, a second shaft journaled in said yoke and provided with a bevel gear meshing with the bevel gear of the first shaft, and means for swinging said conveyers out of operative position.

4. A machine of the character described, comprising a frame adapted for attachment to a hay rack, a plurality of conveyers carried by said frame, means for actuating said conveyers and means for swinging said conveyers into inoperative position, said means consisting of bell crank levers carried by the frame, one arm of each of said levers engaging in a slot formed in one of the conveyers, the other arms of said levers being operatively connected to hand levers.

1,042,749. COLLAPSIBLE CORE FOR MOLDING OR CASTING. GREGORIUS ARTSBERGH, New York, N. Y. Filed Nov. 12, 1909. Serial No. 527,717. (Cl. 22—213.)



1. In a core, a plurality of retractable forming plates, a plurality of filler pieces disposed between them, operating members having a pivoted connection with said filler pieces and a lost motion connection with said plates and adapted when thrust out to expand the core and insert the filler pieces and when pulled in to withdraw the filler pieces and contract the core, substantially as described.

2. In a core, a plurality of retractable forming plates, a plurality of filler pieces disposed between them, operating members having a pivoted connection with said filler pieces, and hinges connected at one end to the forming plates and at the other end to the filler pieces, substantially as described.

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1,042,750. LAMP-POST. LOUIS C. BADER, Chicago, Ill., assignor of one-half to Martin J. Detmer, Chicago, Ill. Filed Jan. 31, 1912. Serial No. 674,569. (Cl. 240—54.)



The combination of a hollow lamp post; a locked door for the lower portion thereof; a burner on top of said post; a vertical pipe in said post and leading from said burner to the lower portion thereof; a combustible-gas tank having a discharge pipe detachably coupled to said vertical pipe; a valve in said discharge pipe; a supply pipe connected with said discharge pipe between said valve and said tank; and a valve in said supply pipe, substantially as described.



1,042,751. BEVERAGE-SHAKER. WILLIAM C. BARNES, New York, N. Y., assignor to S. Shuman & Company, Brooklyn, N. Y., a Copartnership. Filed Mar. 1, 1912. Serial No. 680,975. (Cl. 31—62.)



1. A beverage shaker having a cover and a rotatable cap, each having an opening which may be brought in coincidence by relative rotary movement of said cap and cover.

2. A beverage shaker having a cover, a rotatable cap therefor, pouring openings which are brought into coincidence by relative movement of the cap and cover, and air vents which are simultaneously brought in coincidence by such rotary movement.

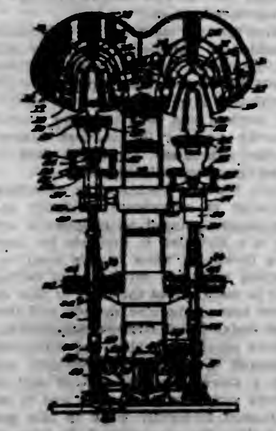
3. A beverage shaker comprising a cover, a rotatable cap therefor, pouring openings which may be brought in coincidence by a relative rotary movement of the cap and cover, and a limiting stop for defining the position of the parts when the openings are in coincidence.

4. A beverage shaker having a cover, a rotatable cap thereon, a pouring opening in the cover, a pouring opening in the cap, and a spout on the cap, adjacent to the pouring opening therein, the said cap being rotatably mounted on the cover so that the two openings may be brought into coincidence by a relative rotary movement of the cap and cover.

5. A beverage shaker having a cover and a cylindrical neck thereon, a pouring opening in the neck, a stop on the neck, a cover rotatably mounted on the neck, said cover having a pouring opening adapted to be brought into coincidence with the opening in the neck, and a notch adapted to engage with the stop, the length of the notch being such that it will limit the rotary movement of the cap and will allow the cap so that the two pouring openings will be in coincidence.

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1,042,752. CUFF-PRESS. WILLIAM BARTHOLOMEW, Chicago, Ill., assignor to Troy Laundry Machinery Company, Limited, Chicago, Ill., a Corporation of New York. Filed Mar. 1, 1911. Serial No. 611,712. (Cl. 68—9.)



1. In a cuff press, a standard, a pressing head thereon, an oscillating and reciprocating member having a sliding and a pivotal connection thereon, a goods support pivotally mounted on the upper end of said member, a yoke carried by the standard surrounding said member, a block carried by said member slidably mounted in said yoke, and a treadle for operating said member.

2. In a cuff press, a standard, a pressing head thereon, an oscillating reciprocating member having a sliding and pivotal connection with said standard, a goods support pivotally mounted thereon and capable of maintaining parallelism with said head, a treadle for operating said member, and a guide for the pivotal movement of said member.

3. In a cuff press, a standard, a pressing head thereon, an oscillating reciprocating member pivotally and slidably mounted, a goods support pivotally mounted on said member, a treadle for operating said member, a guide, and a block carried by said member to travel in said guide.

4. In a cuff press, a standard provided with a pressing head, an oscillating reciprocating pressing rod, a goods support pivoted at the upper end thereof, a sleeve surrounding said rod and pivotally mounted upon said standard, and means for reciprocating said rod.

5. In a cuff press, a standard provided with a pressing head, an oscillating reciprocating pressing rod, a goods support pivoted at the upper end thereof, a sleeve surrounding said rod and pivotally mounted upon said standard, and a pivoted treadle having a yielding connection with said rod.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,753. BLANKET-FASTENER. DELBERT E. EASTON, Racine, Wis., assignor to Gustave C. Rasch, Burlington, Wis. Filed Apr. 12, 1906. Serial No. 311,276. (Cl. 24—225.)

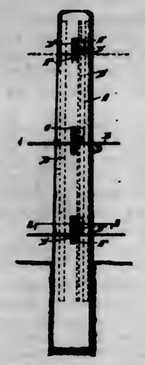


1. A fastener for blankets and the like, comprising a member having an elongated transverse slot or opening and a member provided with a hook having a nose of greater width and less length than the length of said slot or opening and a shank or base approximately equal in width to the length of said slot or opening and coacting with the walls of said slot to prevent disengagement of the two members until one member is brought into position at an angle to the plane of the other and then turned sidewise in relation to the other.

2. In a fastening, the combination of two members, one having a transverse slot and the other a hook with a notch in one edge around the bend, the shank of the hook being of approximately the same width as the length of the slot and the nose of the hook being of greater width adjacent and outside the notch and of somewhat less length outside the notch than the length of said slot.

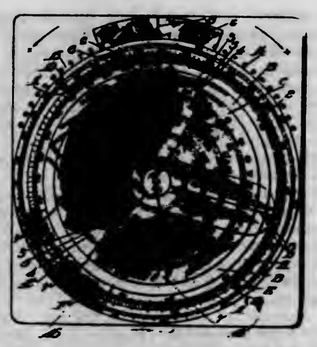
3. A fastener for blankets and the like, comprising a member having a projection extending from one side thereof, said projection provided with a slot, the said slot being of limited width, and another member having a hook projecting from one side thereof and adapted to engage the slot, the lower portion of said hook projecting upwardly for a slight distance to form a base of a length to fill the length of the slot, and the said hook turned outwardly in a substantially horizontal plane and terminating in an enlarged end or head, whose ends extend beyond the ends of the slot, the horizontal portion of the hook just back of the enlarged end or head having its side edges provided, respectively, with oppositely disposed recesses, the distances from the outer edge of each recess to the extremity of the opposite end of the enlarged head being less than the length of said slot of the slotted projection, and the limited width of the slot being such as to permit only a comparatively limited longitudinal movement of the hook and slotted projection with respect to each other.

1,042,754. FENCE-POST. ROBERT B. F. BARTON, Fairmount, Ind. Filed Oct. 27, 1909. Serial No. 524,838. (Cl. 39—105.)



A concrete fence post, a vertical member embedded therein, said post being provided with angled recesses extending from the rear of said bar to the front face of the post, and being also provided with recesses immediately below the first mentioned recesses, and fastening members having angled end portions, each of said members resting in one of the first mentioned recesses, one of its angled ends adapted to engage said bar, and the other angled end being adapted to engage one of the second mentioned recesses, as and for the purpose set forth.

1,042,755. CALCULATOR. FRANKLIN S. BECKETT, Berkeley, Cal. Filed Sept. 6, 1910. Serial No. 580,774. (Cl. 214—2.)

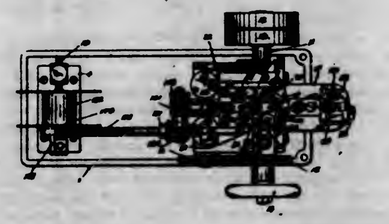


1. A calculator having in combination a pair of superposed disks, the upper one of less diameter than the lower, and a central axis common to both, the lower disk being revoluble and having two concentric logarithms, one progressing in one direction and the other in the opposite direction, the upper disk being stationary and provided with an annular logarithmic scale, and a decimal indicator in conjunction with the lowermost of said disks.

2. A calculator having in combination a pair of superposed disks, the upper of less diameter than the lower, and a central axis common to both, the lower disk being revoluble and having two concentric, logarithmic scales, one progressing in one direction and the other in the opposite direction, the upper disk being stationary and provided with a logarithmic scale, a radial sight line movable over the scales on the disks, oppositely extending scales arranged in mathematical progression, and a decimal indicator in conjunction with the lowermost of said disks, said decimal indicator including a radial sight line movable right and left over said oppositely extending scales.

3. A calculator comprising in combination a suitable base and a vertical stud extending therefrom, a series of superposed, movable and fixed disk members concentric with the stud, washers fitting the stud and in the plane of the movable disks and about which the movable disks turn, said washers being slightly thicker than the movable disks and operative to hold the fixed disks clamp-fashion in stationary position.

1,042,756. MACHINE FOR MAKING WIRE GARMENT-STAYS. MARCUS M. BEEMAN and JOHN F. KITCHEN, Meadville, Pa., assignors to The Spirella Company, Meadville, Pa., a Corporation of Pennsylvania. Filed Apr. 15, 1910. Serial No. 555,668. (Cl. 140—91.)



1. In a wire bending machine, the combination of pin carriers mounted to reciprocate vertically and oscillate longitudinally, cams arranged to alternately reciprocate said carriers and oscillate the same horizontally, oscillating fingers arranged to move across the faces of said carriers and bend the wire around the pins on said carriers and thereby retract the carriers, and mechanism for alternately oscillating said fingers.

2. In a wire bending machine, the combination of pin carriers mounted to reciprocate vertically and oscillate horizontally, cams arranged to alternately reciprocate said carriers and oscillate the same forwardly and being formed to permit recession of said carriers when in full elevated position, benders arranged to move across the faces of said carriers and bend the wire around the pins thereon and thereby pushing the carriers backwardly, and mechanism for alternately operating said benders.

3. In a wire bending machine, the combination of pin carriers mounted to reciprocate vertically and oscillate horizontally, a presser foot above said carriers and arranged to have the wire clamped against the same by said carriers, oscillating fingers arranged to move across the end of said carriers and bend the wire around the pins thereon, thereby pushing the carriers backwardly, and mechanism for alternately oscillating said fingers and alternately reciprocating said carriers.

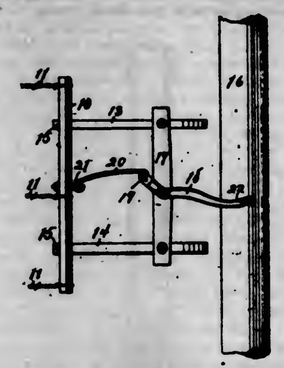
4. In a wire bending machine, the combination of pin carriers mounted to reciprocate vertically and oscillate horizontally, cams arranged to reciprocate said carriers and moving in a direction to oscillate the upper ends of said carriers forwardly when in idle position, a presser foot coöperating with said carriers, and oscillating benders arranged to move across the faces of said carriers and bend the wire around the pins thereon and thereby pushing the upper ends of said carriers backwardly.

5. In a wire bending machine, the combination of pin carriers mounted to reciprocate vertically and oscillate horizontally, a single cam for each of said carriers arranged to both reciprocate the same and to oscillate the upper end thereof forwardly when in idle position, and means for bending the wire around the pins on said carriers alternately and thereby pushing their upper ends rearwardly.

[Claims 6 to 25 not printed in the Gazette.]



1,042,757. WIRE-GATE FASTENER. WILLIAM T. BIRD, Sheffield, Iowa, assignor of one-half to J. S. Wartnaby, Sheffield, Iowa. Filed Dec. 7, 1911. Serial No. 664,482. (Cl. 20—101.)



1. A wire-gate fastener, comprising hooks, a stay bar connecting said hooks, a stretcher slidingly mounted on said hooks, a lever fulcrumed on said stay bar, a rod connecting said lever and stretcher, and means for securing gate elements to said stretcher.

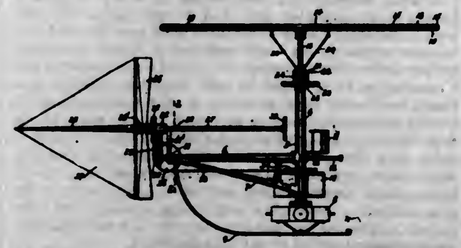
2. A wire-gate fastener, comprising a stretcher formed with slots, means for securing gate elements to said stretcher, hooks slidingly mounted in said slots, a stay bar on said hooks, a lever fulcrumed on said stay bar, and a draw rod pivotally connecting one end of said lever to said stretcher.

3. A wire-gate fastener, comprising a stretcher formed with slots, means for securing gate elements to said stretcher, hooks slidingly mounted in said slots, a stay bar on said hooks, a lever fulcrumed on said stay bar, and a draw rod pivotally connecting one end of said lever to said stetcher, adjacent end portions of said lever and draw rod being curved concentrically.

4. A wire-gate fastener, comprising a stretcher formed with slots, means for securing gate elements to said stretcher, hooks slidingly mounted in said slots, pins mounted in extremities of said hooks, a stay bar on said hooks, a lever fulcrumed on said stay bar, and a draw rod pivotally connecting one end of said lever to said stretcher.

5. A wire-gate fastener, comprising a stretcher formed with slots, means for securing gate elements to said stretcher, hooks slidingly mounted in said slots, pins mounted in extremities of said hooks, a stay bar on said hooks, a lever fulcrumed on said stay bar, and a draw rod pivotally connecting one end of said lever to said stretcher, adjacent end portions of said lever and draw rod being curved concentrically.

1,042,758. AEROPLANE. JOSEPH B. BISSELL, Pittsburgh, Pa. Filed Jan. 26, 1910. Serial No. 540,252. (Cl. 244—19.)



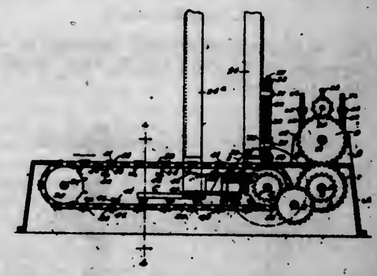
1. In an aeroplane the combination of a main frame, an extensible auxiliary frame pivoted to the main frame, a propeller rotatable in said auxiliary frame, a shaft rotatable in the main frame, means for imparting rotary movement to the said propeller on rotation of the shaft in the main frame and means for effecting a variation in the extension of the said extensible frame to accomplish a variation in the relative speeds of the said propeller and the said shaft in the main frame, substantially as described.

2. In an aeroplane the combination of a main frame, a spring-actuated extensible auxiliary frame pivoted to said main frame, a propeller rotatably carried in said extensible auxiliary frame, a shaft rotatable in said main frame, a pulley on the hub of said propeller, a pulley on said shaft rotatable in the main frame, a belt engaging both of said pulleys and means for diminishing the degree of extension of the said extensible frame against the spring tension, substantially as described.

3. In an aeroplane, the combination of a main frame, an auxiliary frame pivoted to the main frame, a propeller rotatable in the said auxiliary frame, means for rotating said propeller, and a directing rod extending through an axial opening in the hub of said propeller, substantially as described.

4. In an aeroplane the combination of a main frame, an auxiliary frame pivoted to the main frame, a propeller rotatable in said auxiliary frame and provided with an axial opening through its hub, a directing rod extending through the axial opening in said propeller hub, and a stability wing carried by said directing rod and extended in a plane, substantially at right angles to the general plane of rotation of said propeller, substantially as described.

1,042,759. MARKING OR CANCELING MACHINE. WARREN L. BOWLUS, Springfield, Ill. Filed Feb. 13, 1911. Serial No. 608,268. (Cl. 101—81.)



1. In a device of the character described, the combination with an endless feeding belt, of means from which articles to be fed are supplied to said belt, of a series of devices on the belt for engaging the articles in succession and feeding the same forward in overlapped or shingle-fashion, a pair of rollers for receiving the articles from the feeding belt, and a series of impression members on one of said rollers, said members being spaced proportionately with the feeding devices on the belt, whereby each of the articles receives an impression.

2. In a device of the character described, the combination with an endless feeding belt and means for driving the same, of a magazine for articles, a plurality of series of needles arranged on said feeding belt to engage the articles in the magazine and feed them therefrom, means for causing the successive series of needles to engage the successive articles in the magazine, the said series of needles being so spaced on the belt as to cause the articles to be fed in overlapped or shingle-fashion, a pair of canceling rollers between which the articles are fed by said belt and means on one of said rollers for marking each article passing the same.

3. In a device of the character described, the combination with an endless feeding belt and means for driving the same, of a magazine for articles, a plurality of series of needles arranged on said feeding belt to engage the

articles in the magazine and feed them thereafrom, means for causing the successive series of needles to engage successive articles in the magazine, the said series of needles being so spaced on the belt as to cause the articles to be fed in overlapped or shingle-fashion, a pair of cleaning rollers between which the articles are fed by said belt, means on one of said rollers for marking each article passing the same, and an inking device for the said roller.

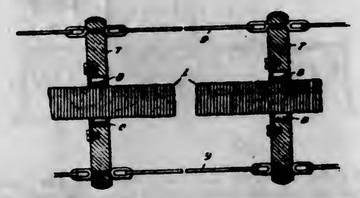
4. In a device of the character described, the combination with a magazine for containing articles to be fed, of an endless traveling belt, means for driving said belt, a plurality of series of needles carried by said belt, means for retracting said needles and for then projecting the same against the articles in the magazine whereby the needles are caused to penetrate the articles, a pair of rollers for receiving the articles from the belt, and a series of impression members on one of said rollers, said members being spaced on the surface of the roller proportionately with the spacing of the series of needles on the belt, whereby each article that is fed through the rollers receives an impression.

5. In a device of the character described, the combination with a magazine for containing articles to be fed, of an endless traveling belt, means for driving said belt, a plurality of series of needles carried by said belt, said needles being inclined in the direction that the articles are to be fed, means for retracting said needles and for then projecting the same against the articles in the magazine whereby the needles are caused to penetrate the articles, a pair of rollers for receiving the articles from the belt, a series of impression members on one of said rollers, said members being spaced on the surface of the roller proportionately with the spacing of the series of needles on the belt, whereby each article that is fed through the rollers receives an impression, and means for inking the impression members.

[Claims 6 to 12 not printed in the Gazette.]

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1,042,760. FLEXIBLE SHAFTING. STEPHEN D. BRADLEY, Syracuse, N. Y. Filed Aug. 20, 1910. Serial No. 578,101. (Cl. 64—30.)



In combination, a stand, a solid shaft journaled on the stand, a flexible shaft connected with said solid shaft, a plurality of bearing blocks having openings to receive the flexible shaft, said bearing blocks being formed with recesses near said openings, friction rollers disposed in said recesses and adapted to engage said flexible shaft, plates holding said friction rollers in said recesses, said bearing blocks being spaced from each other, and links holding said bearing blocks in spaced relation and constituting with said bearing blocks a protecting frame for said flexible shaft, said shaft carrying a pulley on its free end and said frame constituted by said links and said bearing blocks being held to the stand against rotation on said flexible shaft.

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1,042,761. EMERY-WHEEL DRESSER. FRANCIS C. BRANDENBURG, Piqua, Ohio. Filed Apr. 29, 1911. Serial No. 624,220. (Cl. 125—19.)

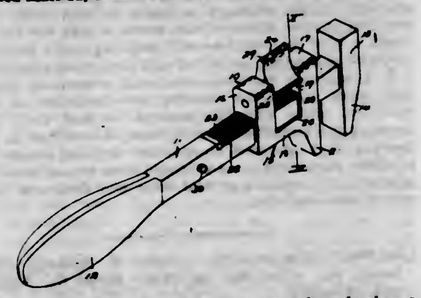
1. In a device of the class described, a head having branching arms at one side and reduced at the other side, said arms having shaft bearings in their outer portions and diverging oil ducts piercing the arms and leading at their ends respectively into the shaft bearings and through the reduced portion of the head, a shaft adapted to carry a cutting member and engaging in said bearings, and a tubular handle engaging over the reduced portion of the head and forming a chamber for a lubricant and communicating with the ducts.



2. In a device of the class described, a head having branching arms at one side and reduced at the other side, said arms having shaft bearings in their outer portions and diverging oil ducts piercing the arms and leading at their ends respectively into the shaft bearings and through the reduced portion of the head, and said reduced head portion having a transverse aperture between the ducts, a tubular handle engaging over the reduced portion of the head and forming a chamber for a lubricant and communicating with the ducts, said handle having transversely alined apertures registering with the aperture of the head, and a pin extending through said alining apertures.

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1,042,762. WRENCH. ELROY B. BARNE, New York, N. Y. Filed Mar. 31, 1911. Serial No. 618,183. (Cl. 81—137.)



1. In a wrench, the combination of a bar, having a head and an extended jaw, and a rack upon said bar; with a mating jaw slidably mounted upon said bar, said sliding jaw having an extended head, and a bridge connecting with a similar head, bearings in said heads for a pawl, and a rocking pawl mounted in said bearings between said heads, said pawl being mounted in said bearings between said heads independently of said head on said bar, and the said bar, and having at its outer side a flange adapted to serve as a lever, and on one side a segmental eccentric cam, provided with a rack comprising a series of teeth, graduated in depth, adapted to form a locking grip, to engage said rack on said bar, and on the opposite side a flat surface to provide for releasing the grip by a rocking movement substantially as shown and described.

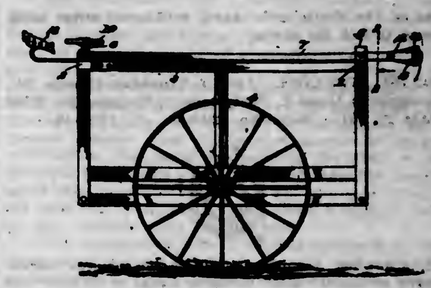
2. In a wrench, the combination, with a rectangular bar, having a head and an opposing extended jaw, and a rack of transverse teeth on the outer surface of said rectangular bar, comprising a removable plate of a bridge connecting two heads having rectangular journals to admit the said rectangular bar, one of said heads having an extended jaw integrally formed therewith, adapted to engage the jaw on said rectangular bar as a mating jaw, said integral bridge and heads and mating jaw being slidably mounted on said rectangular bar, and said heads having bearings therein adapted to admit a shaft rigidly mounted therein, said shaft having a rocking pawl rotatably mounted thereon, and a rocking pawl, rotatably mounted on said shaft between said heads having an extended central blade, or flange, adapted to serve as a lever, and on one side a segmental eccentric cam having a rack comprising transverse teeth of graduated depth, being of the full depth of teeth in the rack on said rectangular bar at the outer extreme, or longer radius of said eccentric and decreasing to nothing at the shorter radius thereof or the central portion of said pawl, said teeth being adapted to engage the rack on said rectangular bar, and a flat surface on the opposite side of said rocking pawl, to provide for disengaging the said pawl by a rocking movement of said pawl, substantially as shown and described.

3. In an adjustable wrench, having a rectangular bar, a head, and an extended jaw and a rack on the outer surface of said bar; said rack comprising a removable plate of tempered metal having transverse teeth thereon; with a slidably mounted adjustable part, comprising a mating jaw adapted to engage the said jaw on said rectangular bar, integrally formed with an opposing extended head, and a bridge on the inner side of said rectangular bar, integrally formed with said mating jaw and opposing head, connecting with a corresponding extended head integrally formed therewith, said extended heads being journaled to provide means for mounting said integrally formed part slidably upon said rectangular bar, said extended heads being opposed to the extended jaw on said sliding member, and being provided with bearings adapted to rigidly engage a bearing shaft for a pawl, and a rocking pawl reciprocally mounted on a shaft, rigidly mounted in said bearings in said heads and between said heads, said pawl having an outwardly extended longitudinal blade or flange, adapted to serve as a lever, and a segmental eccentric cam on one side thereof, with a rack thereon comprising graduated teeth varying in depth from the maximum depth of the teeth on the rack on said rectangular bar at the outer extreme of the eccentric, to a minimum depth, or to nothing, at the central portion of said pawl, a flat plane surface on the opposite side of said pawl, at substantially a right angle to a chord of said segmental eccentric cam, to provide means whereby the said pawl may be disengaged from said rack on said rectangular bar, by a rocking movement of said pawl, said rectangular bar having a lug to limit the longitudinal movement of said slidably mounted member, and said sliding member and said bearings for said pawl in said heads thereof being opposed to said extended jaws, and independent of the head on said rectangular bar and the head thereof, substantially as shown and described.

4. In a wrench, having a rectangular shank or bar, and a head and an extended jaw opposed to said head, the combination, of a rack on said rectangular bar, comprising a removable tempered plate having transverse parallel teeth, in a horizontal plane on the back surface of said bar; with a sliding bridge journaled upon said rectangular bar by means of rectangular bearings or bores through upwardly extended heads, integrally formed therewith, and extending above said rack on the back or upper surface of said rectangular bar, to provide bearings for a suitable pawl, said having opposed to said extended journaled heads, an extended jaw adapted to mate with the said jaw on the head of said rectangular bar, said extended heads having bores to admit and rigidly retain a bearing shaft for a rocking pawl, whereby a suitable bearing is provided a pawl independent of said head on said rectangular bar, and a rocking pawl mounted rotatably upon a bearing shaft, rigidly carried in said heads whereby said pawl and sliding support therefor may be moved independently of said rectangular bar, and said head thereof, said pawl having a longitudinal flange extending the whole length of said pawl between said bearings, adapted to serve as a lever, and a segmental eccentric cam having a series of transverse teeth forming a rack adapted to engage said rack on said rectangular bar, said teeth being graduated from the depth of the teeth on the rack on said bar at the outer extreme of said segmental eccentric cam, to nothing at the central part of said pawl and a flat plane adapted to disengage said pawl, on the opposite side of said pawl, when said plane is brought into engagement with said bar, by the rocking movement of said pawl, substantially as shown and described.

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1,042,763. TONGUE. HARTLEY BROWN, Fort Worth, Tex. Original application filed Aug. 10, 1911, Serial No. 643,330. Divided and this application filed Nov. 28, 1911. Serial No. 662,502. (Cl. 21—36.)



1. In combination with a frame, a yoke mounted thereon, a shaft journaled thereon, a sleeve pivoted upon the shaft and passing through the yoke, pulleys journaled within the sleeve under the yoke, a drum mounted upon the shaft, and a cable trained around the pulleys and the drum and at its end portions passing out through the sleeve and secured to the opposite ends of the yoke.

2. In combination with a frame, a yoke mounted thereon, a shaft journaled thereon, a hand wheel mounted at the upper end of the shaft, a sleeve pivoted upon the shaft and passing through the yoke, pulleys journaled in the sleeve, a drum located upon the shaft within the sleeve, and a cable trained around the pulleys and the drum and passing out through the opposite sides of the sleeve and secured at its ends to the opposite ends of the yoke.

3. In combination with a frame, a yoke mounted upon the forward portion thereof, a shaft journaled upon the rear portion thereof in a vertical plane approximately midway between the ends of the yoke, a sleeve pivoted upon the shaft and passing through the yoke, a tongue section adjustably mounted in the sleeve, a drum mounted upon the shaft within the sleeve, pulleys journaled within the sleeve under the yoke, and a cable trained around the pullays and the drum and passing through the opposite sides of the sleeve and secured at its ends to the opposite ends of the yoke.

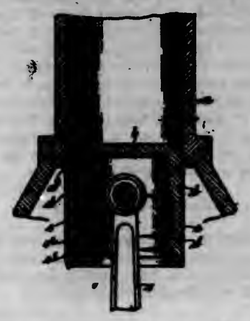
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1,042,764. TOOL FOR INSERTING PISTON-RINGS. LEWIS J. BROWN, Brooklyn, N. Y. Filed Sept. 23, 1911. Serial No. 650,952. (Cl. 29—84.)

1. A tool for inserting piston rings comprising a short elastic metal band slit longitudinally, two metal strips thereon each adjoining the slot and having beveled off end portions so as to be even with the end portions of the elastic metal band, means being provided for locking the device when applied.

2. A tool for inserting piston rings comprising a short elastic metal band slit longitudinally, two relatively heavy

metal strips thereon each adjoining the slot and having beveled off end portions so as to be even with the end por-



tions of the elastic metal band, said metal strips being formed to lock the strips.

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1,042,765. NUT-LOCK. LEON J. CAMPBELL, Chicago, Ill., assignor to James T. Healy, trustee, Chicago, Ill. Filed May 27, 1911. Serial No. 629,945. (Cl. 151—15.)



1. A nut lock, comprising a nut having integral, concentrically arranged washer retaining means at its outer end adapted to be turned inwardly against the washer, and a split washer adapted to be held in said retaining means and to be forced into gripping engagement with a bolt when the retaining means are turned inwardly against the washer.

2. A nut lock, comprising a nut having a washer seat formed in one end, and a split washer adapted to be contained in said seat, the margins of said seat being adapted to be turned inwardly against the washer and to spring the washer into gripping engagement with a bolt.

3. A nut lock, comprising a nut having a cup at its outer end and adapted to receive a washer therein, and a split resilient washer adapted to be carried in said cup, the margins of said cup being adapted to be forced inwardly against the washer to spring the washer into gripping engagement with a bolt.

4. A nut lock, comprising a nut having a washer seat in its outer end and adapted to have its margins bent inwardly against the washer, and a split washer having a notch in one side thereof and adapted to be sprung by said margins into gripping engagement with a bolt.

5. A nut lock, comprising a nut having a washer seat at its outer end adapted to contain a washer, and a split washer in said seat having a V shaped inner edge, the margins of said seat being adapted to be turned inwardly against the washer and to spring the washer into gripping engagement with a bolt.

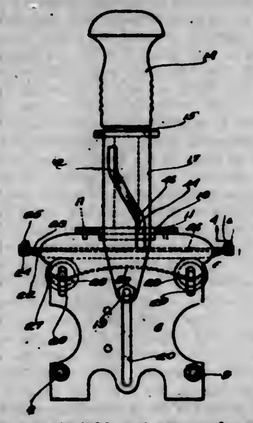
[Claim 6 not printed in the Gazette.]

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1,042,766. AUTOMATIC INKING-STAMP. GUY CARLETON, Camden, Me. Filed Jan. 16, 1912. Serial No. 671,422. (Cl. 101—70.)

1. In an automatic inking stamp, a plunger, a printing block operatively connected with said plunger, a movable inking pad, means for securing said pad against movement except in a straight path lateral to the path of the plunger, and means for automatically bringing different portions of the surface of said pad in contact with the face of said block by the movement of said plunger.

2. In an automatic inking stamp, a plunger, a printing block operatively connected with said plunger, a movable inking pad, means for securing said pad against movement except in a straight path at right angles to the path of the plunger, and means for automatically bringing different portions of the surface of said pad in contact with the face of said block by the movement of said plunger.



3. In an automatic inking stamp, a plunger, a printing block operatively connected to said plunger, an inking pad, guides for said pad securing the same against movement in any direction except in a straight path lateral to the path of the plunger, and means for automatically bringing different portions of the surface of said pad in contact with the face of said block by the movement of said plunger.

4. In an automatic inking stamp, a plunger, a printing block operatively connected with said plunger, a movable inking pad, a stationary way for said pad located at right angles to the path of said plunger and limiting the movement of said pad solely to its path in said way, a ratchet and pawl connected with said pad and arranged to move the same in said way, a cam carried by said plunger and operatively connected with said ratchet, and means for bringing the face of said block in contact with said pad by the movement of the plunger.

5. In an automatic inking pad, a main frame, a plunger mounted on said frame, a printing block operatively connected with said plunger, a movable inking pad having a groove therein, a way for said pad, a stud engaging with said groove and affixed to a ratchet mounted upon said main frame, means for automatically imparting movement to said ratchet, and thereby causing said pad to move in said way, and means for bringing the face of said block in contact with said pad by the movement of said plunger.

[Claims 6 to 8 not printed in the Gazette.]

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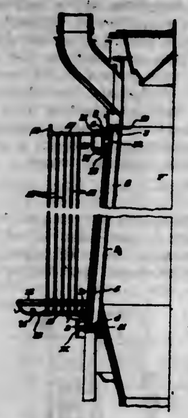
1,042,767. BLAST-FURNACE-COOLING DEVICE. FRANK D. CARNEY, Steelton, Pa. Filed June 15, 1912. Serial No. 703,909. (Cl. 123—6.)

1. A blast furnace cooling stave, comprising a trough-shaped member, a channel member united to the trough-shaped member between its sides, and plates connected to the channel and trough-shaped members and means to cause a circulation of water through the stave.

2. A blast furnace cooling stave, comprising a trough-shaped member, a member extending across the trough, end members closing the ends of the chambers formed by the two members, and means to produce a circulation of cooling water through the stave.

3. A blast furnace cooling device comprising a hollow stave and a circulating and radiating system connected to the stave to cause circulation through the system and stave.

4. A blast furnace cooling device, comprising a hollow stave, a circulating and radiating pipe system connected to the stave and having an overflow above the stave, and means to inject water into the lower part of said system to assist the circulation of water in the system and stave.

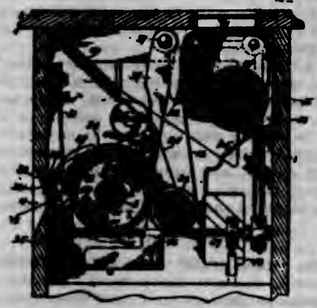


5. A blast furnace cooling device, comprising a hollow stave, a water circulating and radiating pipe system connected to the stave, valves to disconnect the system from its stave, and a water spraying pipe connected to the system arranged to deliver a water spray to the outer surface of the stave near its top.

[Claims 6 to 9 not printed in the Gazette.]

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1,042,768. VENDING-MACHINE. SARA L. W. COE and HENRIETTA T. WHEDON, New York, N. Y. Filed Mar. 9, 1911. Serial No. 613,341. (Cl. 211—88.)

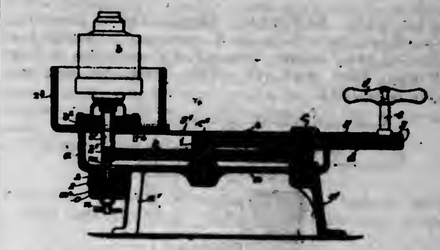


1. In a vending machine, the combination with a feed drum provided with peripheral projections to engage a stamp strip, a disk at one end of said drum, devices connecting said drum and disk and permitting rotary adjustment of the same with relation to each other, means for directing a stamp strip over said drum, actuating means for the drum, coöperating with said disk, and trip devices for releasing the actuating means.

2. In a stamp vending machine, the combination with a feed-drum, a disk secured thereto and pins projecting from said disk, of a shaft, an arm on said shaft for operating it in one direction, a bar secured to said shaft, a pawl pivoted to said bar and having an arm to engage the pins on said disk, a spring fixed at one end and connected at its other end to another arm of said bar, whereby said spring will be placed under tension when the shaft is turned by means of the operating arm, and tripping devices for releasing the feed drum and the spring-actuated devices.



1,042,769. GEARING. THOMAS COLLINS and LOUIS H. HARTMANN, Bainbridge, N. Y., assignors to American Separator Company, Bainbridge, N. Y., a Corporation of New York. Filed Nov. 6, 1909. Serial No. 526,965. (Cl. 74—7.)



1. The combination with a suitable standard or body frame structure, and a pinion and spur gear connected to turn together and forming part of the power mechanism, of a spur gear meshing with said pinion and in the same plane, a support for said spur gear and a handle device operatively secured to said spur gear and radially positioned so as to be approximately over the peripheral teeth thereof to be grasped by the hand for its rotation, and a circular annulus guard and support member of integral construction and means for securing the same to the aforesaid body frame or standard, whereby the annulus guard extends around the teeth of the spur gear covering the same and the support member forms a support therefor also covering other exposed parts.

2. The combination with a suitable standard or body frame structure, and a pinion and spur gear connected to turn together and forming part of the power mechanism, of a spur gear meshing with said pinion and in the same plane, a support for said spur gear, a revoluble centrally pivoted handle device operatively secured to said spur gear and radially positioned so as to be approximately over the peripheral teeth thereof to be grasped by the hand for its rotation, and a circular annulus guard and support member of integral construction and means for securing the same to the aforesaid body frame or standard, whereby the annulus guard extends around the teeth of the spur gear covering the same, and the support member forms a support therefor also covering other exposed parts.

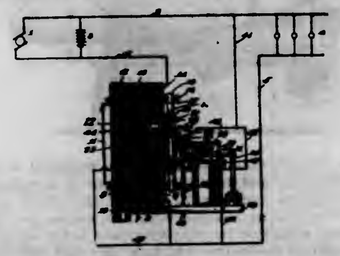
3. The combination with a suitable standard or body frame structure, and a pinion and a spur gear connected to turn together and forming part of the power mechanism, of a spur gear meshing with said pinion and in the same plane, a support for said spur gear and a handle device to be grasped by both hands, removable from its support and operatively secured to said spur gear and radially positioned so as to be approximately over the peripheral teeth thereof to be grasped by the hands for its rotation, and a circular annulus guard and support member of integral construction and means for securing the same to the aforesaid body frame or support, whereby the annulus guard extends around the teeth of the spur gear covering the same and the support member forms a support therefor also covering other exposed parts.

4. A device for imparting rotary movement at high speed, comprising a low body frame, means for supporting the same in a horizontal position, a device to be rotated at high speed, means for supporting and a pinion for actuating the same, a spur gear and pinion connected together and a stud of the body frame upon which the same are mounted in a horizontal position with the teeth of the spur gear in mesh with the first aforesaid pinion, another stud connected with said body frame in a higher plane, a spur gear mounted on said stud and meshing with the pinion connected with the first spur gear, and a stud and handle centrally pivoted thereto and operatively connected with the latter spur gear for imparting power and rotation thereto, and a circular annulus guard en-

tending over the teeth of the latter spur gear and a cover preferably formed integral with said guard and extending over other exposed parts to cover and protect the same, and the cover member secured to the body frame.

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1,042,770. ELECTRIC REGULATION. JOHN L. CREVELING, New York, N. Y., assignor to Safety Car Heating and Lighting Company, a Corporation of New Jersey. Filed Sept. 16, 1910. Serial No. 582,283. (Cl. 171—229.)



1. Means for regulating an electric circuit comprehending a regulating element, electromagnetic means for controlling the same, electromagnetic means for governing said controlling means, comprehending means whereby increase in current in the last named electromagnetic means causes a decrease in current in the first named electromagnetic means, said means being affected by the first named electromagnetic means.

2. Means for regulating an electric circuit comprehending a resistance varying means, electro-magnetic means tending to decrease the resistance thereof, electro-magnetic means tending to reduce the effect of the first-named electro-magnetic means, and affected by the action of the first named electro-magnetic means.

3. Means for regulating an electric circuit comprehending a resistance varying element in said circuit; electro-magnetic means tending to reduce the resistance thereof and electro-magnetic means for controlling the first-named electro-magnetic means and affected by the action thereof.

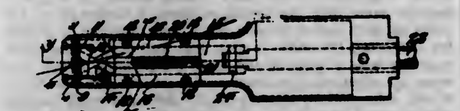
4. Means for regulating an electric circuit comprehending resistance varying means, electro-magnetic means for reducing the resistance thereof, a carbon pile in series with said electro-magnetic means and affected by the action thereof and electro-magnetic means for varying the resistance of said carbon pile.

5. Means for regulating an electric circuit comprehending a resistance varying element, electro-magnetic means tending to reduce the resistance thereof, means for varying the current in said electro-magnetic means affected by the operation thereof and electro-magnetic means for varying the effect of the last-mentioned means.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,771. CLENCHING DEVICE FOR STAPLING-MACHINES. JOHN S. DOBBINS, Camden, N. J., assignor to The New Jersey Wire Stitching Machine Company, Camden, N. J., a Corporation of New Jersey. Filed Apr. 22, 1912. Serial No. 692,286. (Cl. 1—7.)

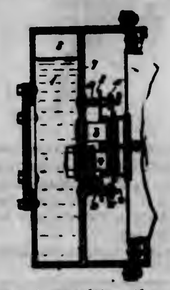


1. In a staple clenching device, a supporting bracket having a transversely disposed opening therein to receive a staple, a pair of oppositely disposed clenching jaws mounted within said opening and respectively pivoted adjacent the ends thereof, a bar mounted for sliding movement on said bracket and having diverging cam slots therein, a lug on each jaw coacting with one of said cam slots, and means to operate said bar at a predetermined time.

2. In a staple clenching device, a supporting bracket having a transversely disposed opening therein adapted to receive a staple, a pair of oppositely disposed clenching jaws mounted within said opening and respectively pivoted adjacent the ends thereof, a bar mounted for sliding movement on said bracket and having diverging cam slots therein, a lug on each jaw coacting with one of said cam slots, means to operate said bar at a predetermined time, and a spring connecting said bar with a fixed part whereby said bar has a quick return movement.

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1,042,772. CARBON-GRAIN CELLS OF TELEPHONE-TRANSMITTERS. CARL EMIL EDWER, Stockholm, and JOHAN GUNNAR HOLMSTRÖM, Saltsjö-Storängen, Sweden. Filed Nov. 2, 1910. Serial No. 590,335. (Cl. 179—122.)

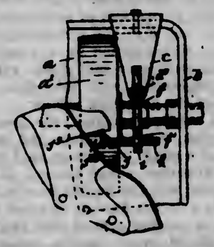


1. In a telephone transmitter the combination of a plurality of stationary electrodes, each forming the bottom of the transmitter cells respectively, a diaphragm common to the cells, a disk supported in a yielding manner and provided with openings through which the electrodes extend, and inclosing walls for the cells, bearing against the said disk in a slidable manner, substantially as described and for the purpose set forth.

2. In a telephone transmitter the combination of a plurality of stationary electrodes, each forming the bottom of the transmitter cells respectively, a diaphragm common to the cells and carrying a number of electrodes, closing the cells, a disk supported by adjustable yielding means and provided with openings, through which the electrodes extend, and inclosing walls for the cells, bearing against the said disk in a slidable manner, substantially as described and for the purpose set forth.

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1,042,773. HEEL-REST FOR SCOURING-MACHINES. FORREST L. ELLISON, Exeter, N. H., assignor, by direct and mesne assignments, to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 20, 1911. Serial No. 615,672. (Cl. 51—17.)

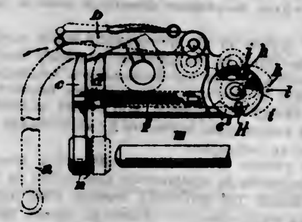


1. In a heel-scouring machine having a scouring-wheel provided with a peripheral abrading-face, a support at one side of said wheel, a heel-rest mounted on said support and having a shank-engaging portion extending to a point at a distance from the edge of said face opposite to said support corresponding to the thickness of the sole of the shoe, said portion having a heel-supporting face on its upper side and a shank-engaging edge extending from its end transversely of and obliquely from said abrading-face, and being recessed beneath said supporting face from said edge as and for the purpose set forth.

2. In a heel-scouring machine having a scouring-wheel provided with a peripheral abrading-face, a support at one side of said wheel, a heel-rest mounted on said support having a heel-supporting face on its upper side, extending transversely of said abrading-face adjacent thereto and terminated in an obliquely disposed shank-engaging edge opposite said support, said supporting-face at the rear end of said shank-engaging edge terminating at a distance from the adjacent edge of said abrading-face corresponding to the thickness of the heel-seat of the shoe to provide a guard, and said supporting-face being inclined upwardly from said engaging edge and the under side of said rest being cut away from said engaging-edge, substantially as and for the purpose described.

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1,042,774. WEFT-REPLENISHING LOOM. BERNHARD ELMENDORP and JOHANNES GABLER, Isselhorst, Germany. Filed Feb. 1, 1912. Serial No. 674,780. (Cl. 139—85.)



1. In an automatic loom, a weft cutter comprising a plurality of notched disks, means for pivotally supporting the said disks, means whereby when the supply of weft is automatically renewed the disks are rocked to bring their notches into coincidence until they form a groove adapted to receive the thread end, and means whereby the disks are again rocked relatively to each other so that the weft is cut off by the intersection of the various notches.

2. In an automatic loom, a weft cutter comprising sets of disks provided with notches, means upon which the said disks are pivoted co-axially, means whereby the various sets of disks are rocked relatively to each other to bring their notches into coincidence to form a common groove for the weft, and means whereby the said disks are again rocked relatively to each other to sever the weft when the supply of the latter is renewed.

3. In an automatic loom, a weft cutter comprising a plurality of disks provided with notches, a reciprocating member upon which the disks are pivoted, stationary means for engaging with some of the disks, stationary means for engaging with the other disks independently of the aforesaid disk-engaging means, and means for actuating the reciprocating member whereby the disks are turned in opposite directions first to bring the notches of the disks into coincidence for receiving the weft and then to cause the said notches to again intersect for the purpose of severing the weft.

4. In an automatic loom the combination of a weft fork, and a weft cutter comprising a plurality of notched disks, a support upon which the said disks are pivotally mounted, means for rocking the disks to bring their notches into coincidence the said rocking means being brought into operation by the weft fork, and means for further rocking the disks to cause their notches to intersect and thereby cut off the weft.

5. In an automatic loom the combination with a weft fork, a slay, and a temple, of a weft cutter comprising a





plurality of disks provided with notches, a sliding member upon which the disks are pivotally mounted, pins upon the temple each engaging with slots in some of the disks, means tending to move forward the reciprocating member, a latch normally preventing the said forward movement of the reciprocating member, means adapted to be actuated by the temple for releasing the said latch whereupon the reciprocating member pushes forward the disks and causes them to rock until their notches coincide to form a common groove adapted to receive the weft, and means actuated by the slay for moving back the said reciprocating member to its initial position whereby the disks are again rocked to sever the weft.

[Claims 6 to 8 not printed in the Gazette.]

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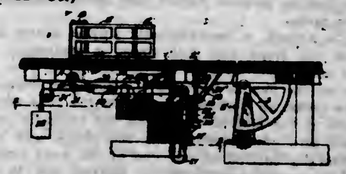
1,042,775. VALVE. NORMAN EMERSON, Detroit, Mich. Filed Sept. 25, 1911. Serial No. 651,080. (Cl. 4—5.)



In a valve, in combination with a plurally apertured shell, a valve seat arranged about one of the apertures therein and coaxially with respect to the shell, a loosely fitting plunger member engaging within said shell, and adapted to rest upon said valve seat to accomplish the closure of the adjacent aperture, a stem slidably engaging in said shell past a laterally located aperture therein, and adapted to engage said plunger to hold it on its seat against a flow of water approaching it from beneath, said stem being otherwise unconnected with said plunger, a ball-float actuated lever whereby said stem is raised and lowered, and a refilling pipe connected with the laterally located aperture in the shell, into which water is adapted to flow after having lifted said plunger from its seat and having risen thereabove in the shell, substantially as described.

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1,042,776. SAFETY-GATE FOR BASCULE-BRIDGES. CASPER FAUST, Oshkosh, Wis. Original application filed Mar. 5, 1912, Serial No. 681,774. Divided and this application filed May 7, 1912. Serial No. 695,655. (Cl. 14—56.)



1. In a lift bridge member having a heel end abutment, trunnions for the member supported thereby, and a toe abutment for the bridge adapted to be aligned with the toe of the bridge; the combination of pairs of vertically disposed posts journaled in the toe abutment and extending therethrough, cranks carried by the posts of each pair, links connecting the cranks, lower crank arms carried by one post of each pair, a weight-controlled plunger mounted upon the abutment, links connecting the plunger with the lower crank-arms of the posts, a vertical track supported by the toe abutment, a block slidably mounted in the track, a cable secured to said abutment, the cable be-

ing in loop connection with the plunger and secured to the block, and a leg carried at the toe end of said bridge for engagement with said block.

2. In a lift bridge having a toe end and its abutment; the combination of a bracket secured to the toe end of the bridge member, a leg mounted in the bracket, a vertical track supported by the abutment, a block slidably mounted in the track engageable with the leg, pairs of guide-rollers, a plunger mounted between said pairs of guide-rollers, a pulley carried by the plunger, a guide-sheave mounted upon the upper end of the track, a cable connected to the block and passed over the guide-sheave and plunger pulley, said cable being looped thereabout and connected to the abutment, means for limiting upward movement of the slidable block, a yoke carried by the plunger, pairs of vertically disposed parallel posts journaled in the aforesaid abutment and extending therethrough, cranks secured to the upper end of each pair of posts, a link connecting each pair of cranks, cranks carried at the lower end of the posts of each pair, links connecting the cranks and plunger yoke, and a weighted cable in connection with the plunger whereby the same is moved in one direction to close the gates incidental to lift of the toe end of the bridge.

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1,042,777. WRENCH. PEDRO FERNANDES, Victoria, Tex. Filed May 1, 1912. Serial No. 694,342. (Cl. 81—57.)

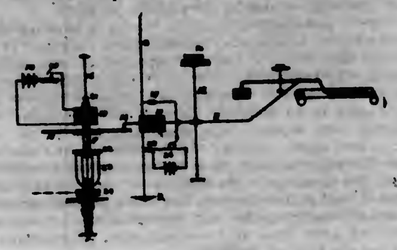


1. In a wrench, a shank having racks on the front and rear edges thereof, a stationary outer jaw, a slidable inner jaw, a rocking locking member having teeth for engagement with the racks, and a cam lever on one end of the locking member for engagement with the slidable jaw, whereby said slidable jaw is forced against the work and the locking member rocked into positive engagement with the racks.

2. In a wrench, a longitudinally slotted shank having racks on the front and rear edges, a stationary outer jaw, an inner jaw slidable on the shank, a yoke plate slidable on the shank, teeth on the yoke for engagement with the racks, an S-shaped spring on the yoke engaging the walls of the slot of the shank for normally canting the yoke into engagement with the racks, and a cam lever pivotally carried on one end of the yoke plate and adapted for engagement with the slidable jaw to simultaneously force said jaw against the work and rock the yoke into locking engagement with the shank.

3. In a wrench, a shank having racks on the front and rear edges thereof, a stationary outer jaw, a slidable inner jaw, a rocking locking member having teeth for engagement with the racks, and a cam lever on one end of the locking member for engagement with the slidable jaw, whereby said slidable jaw is forced against the work and the locking member rocked into positive engagement with the racks, and resilient means between the inner jaw and the locking member for withdrawing said inner jaw from the work when the cam lever is released.

1,042,778. RECEIVER FOR ELECTROMAGNETIC WAVES. REGINALD A. FESSENDEN, Washington, D. C., assignor to The National Electric Signaling Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Mar. 22, 1906. Serial No. 307,538. (Cl. 250—22.)



1. In a system of electro-magnetic wave telegraphy a receiver including in combination conducting bodies and means for developing a frictional stress between said bodies together with means for utilizing the change in the amount of such stress in response to received electro-magnetic waves, to produce directly a sensible indication or effect.

2. In a system of electro-magnetic wave telegraphy a receiver including in combination relatively moving conducting bodies, means for developing a tractional stress between said bodies, means for causing received electro-magnetic energy to act upon said bodies to change such stress and means made operative by said change of stress to produce an indication.

3. In a system of electro-magnetic wave telegraphy a receiver including in combination two bodies in frictional relation, means for relatively moving them and means for causing electro-magnetic waves to change the amount of friction.

4. In a system of electro-magnetic wave telegraphy a receiver comprising two parts having continuous relative movement, means for causing electro-magnetic waves to produce during their receipt a change in the relation of said parts and means whereby such changed relation operates directly to produce an indication.

5. A receiver for electromagnetic wave energy comprising two relatively movable elements having a condition of traction between them, means operated by the received electromagnetic waves to produce a change in said condition of traction contemporaneous with the duration of the received waves, and means for indicating changes of position of the members consequent upon said change of tractional stress.

[Claims 6 to 9 not printed in the Gazette.]

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1,042,779. WINDMILL. DAVID A. FLANIGAN, Springville, Utah, assignor to Utah Aerial Navigation and Power Company, Springville, Utah. Filed May 16, 1911. Serial No. 627,826. (Cl. 170—1.)

1. In a windmill, a platform comprising a plate having shaft bearings near opposite ends and formed near one end with a broadened portion, a casting having an opening receiving said broadened portion and formed at one end with a plate, fastenings for said broadened portion, a vane rigidly connected with said last-named plate, the other end of said casting being formed with pintles, a pivoted blade having ears, and a hinge pin passed through said pintles and ears.

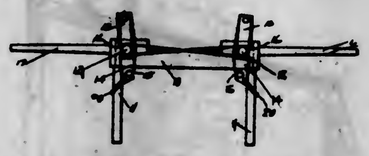
2. In a windmill, a platform comprising a plate having shaft bearings near opposite ends and formed near one end with a broadened portion, a casting having an opening receiving said broadened portion and formed at one end with a plate, fastenings for said broadened portion, a vane rigidly connected with said last-named plate, the other end of said casting being formed with pintles, a pivoted blade having ears, said vane and blade being formed with lugs and a coiled spring having its ends connected with said lugs.





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1,042,780. MECHANISM FOR DRAWING PATTERNS FROM MOLDS. BENJAMIN D. FULLER, JAMES R. REILLY, and THOMAS A. REILLY, Cleveland, Ohio, assignors to The Osborn Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 27, 1911. Serial No. 605,023. (Cl. 22—47.)



1. In a device of the character described, the combination with a pattern plate; a member adapted to be supported above said plate and provided with guides adapted to slidably hold said plate; rotatable shafts mounted at opposite sides of said member; and means operable by said shafts for drawing said plate along said guides.

2. In a device of the character described, the combination of a pattern plate; a member supported above said plate and provided with guides adapted to slidably hold said plate; rotatable shafts mounted at opposite sides of said member; cranks secured to the respective shafts; and links secured to the respective cranks and adapted to detachably engage said plate.

3. In a device of the character described, the combination of a pattern plate provided with horizontal projections; a member supported above said plate and provided with guides adapted to slidably hold said plate; rotatable shafts mounted at opposite sides of said member; cranks secured to the respective shafts; and links pivoted to the respective cranks and adapted to detachably engage said projections.

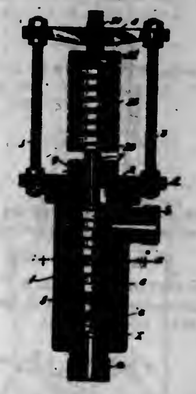
4. In a device of the character described, the combination of a pattern plate provided with laterally extending projections; a member supported above said plate and provided with guides adapted to slidably hold said plate; rotatable shafts mounted at opposite sides of said member; cranks secured to the respective shafts; and links pivoted to the respective cranks and adapted to detachably engage said projections, said links being provided with notches adapted to engage said shafts when the links are in raised position.

5. In a device of the character described, the combination with a pattern plate; a member adapted to be supported above said plate and provided with guides adapted to slidably hold said plate; rotatable shafts mounted at opposite sides of said member; means operable by said shafts for drawing said plate along said guides; and means for correlating rotation of said shafts.

[Claims 6 to 11 not printed in the Gazette.]

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1,042,781. EMULSIFYING APPARATUS. ABA B. GARDINER, Jr., Cockeysville, and RICHARD M. SHAFFER, Baltimore, Md. Filed Mar. 29, 1912. Serial No. 687,601. (Cl. 99—2.)



1. In an emulsifying apparatus, a shell having a conical inner surface and provided with an inlet and an outlet nozzle, combined with a plug having a similar conical outer surface and an acute annular edge, adapted to fit the inner surface of the shell, and serve as means to close communication between the two nozzles, and an appliance to yieldingly hold the plug with its acute annular edge in contact with the shell, substantially as specified.

2. In an emulsifying apparatus, a shell having a conical inner surface, and provided with an inlet and an outlet nozzle, combined with a plug having a conical outer surface adapted to closely fit the inner surface of the shell, and provided with annular grooves, and means to yieldingly hold the projections of the plug produced by the said grooves in contact with the inner surface of the shell, substantially as specified.

3. In an emulsifying apparatus, a shell having a conical inner surface and provided with an inlet and an outlet nozzle, combined with a conical plug having annular grooves therein, adapted to closely fit the inner surface of the shell, and a spring which acts on the plug to hold the projections of the plug produced by the said grooves yieldingly in contact with the inner surface of the shell, substantially as specified.

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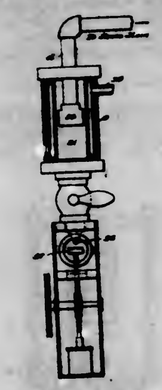
1,042,782. METHOD FOR DETERMINING THE CHARACTERISTICS OF VAPOR. THOMAS M. GARDNER, Urbana, Ill. Filed Oct. 13, 1906, Serial No. 338,731. Renewed Feb. 15, 1912. Serial No. 677,862. (Cl. 73—184.)

1. A method for determining vapor characteristics comprising the separation of the entrained liquid from part of the vapor; discharging the rest of the vapor in the form of a jet; and measuring the momentum of the jet the discharge being controlled by the liquid separated.

2. A method for determining vapor characteristics comprising the separation of the entrained liquid from part of the vapor; reducing the rest of the vapor to a constant pressure and discharging it in the form of a jet, said discharge being controlled by the liquid separated; and measuring the momentum of the jet.

3. A method for determining vapor characteristics com-

priming the separation of the entrained liquid from its vapor and causing the vapor to impinge upon a suitable



measuring device, such impinging of the vapor being controlled by the entrained liquid separated.

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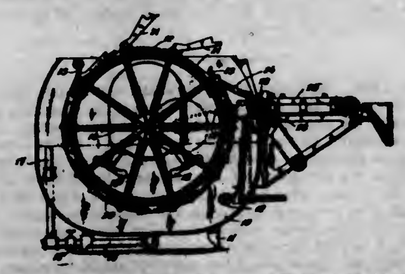
1,042,783. ADVERTISING DEVICE. JOSEPH GÖNCZY, Budapest, Austria-Hungary. Filed Jan. 18, 1911. Serial No. 603,304. (Cl. 40—182.)



In an advertising device, the combination with a casing divided into a plurality of compartments, of a source of light arranged in each compartment, two light transmitting plates forming the front walls of said casing and being arranged at an angle to each other, said plates being divided into a number of sections corresponding to that of the number of compartments of said casing and bearing advertising matter, and two mirror sections arranged outside of said casing and secured to opposite front edges of said casing at an angle to their respective light transmitting plates, whereby all advertising matter appearing upon said light transmitting plates is reflected by said mirror sections, substantially as and for the purpose specified.

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1,042,784. DISH-WASHING MACHINE. HARRY T. GOSE, Rutherford, N. J., assignor to Charles F. Frothingham, New York, N. Y. Filed Mar. 11, 1912. Serial No. 682,966. (Cl. 141—9.)



1. In a dish washing machine: a suitable tank to contain water; means to supply the same thereto; a carrier, and means to move the same through said tank; suitable dish retaining means supported by said carrier; a spraying device embracing a portion of said carrier above the water in said tank; and means to supply water to said spraying device.

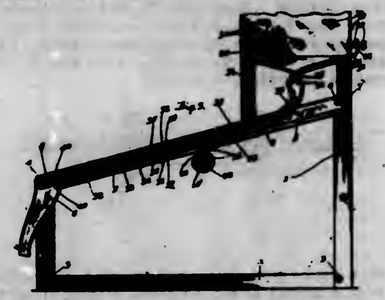
2. In a dish washing machine: a suitable tank to contain water; means to supply the same thereto; a carrier, and means to move the same through said tank; suitable dish retaining means supported by said carrier; a spraying device comprising a perforated U-shape pipe embracing a portion of said carrier above the water in said tank; and means to supply water to said spraying device.

3. In a dish washing machine: a suitable tank to contain water; means to supply the same thereto; a carrier, and means to move the same through said tank; suitable dish retaining means supported by said carrier; a spraying device embracing a portion of said carrier above the water in said tank; and means to periodically supply water to said spraying device.

4. In a dish washing machine: a suitable tank to contain water; means to supply the same thereto; a carrier, and means to move the same through said tank; suitable dish retaining means supported by said carrier; a spraying device comprising a perforated U-shape pipe embracing a portion of said carrier above the water in said tank; a valve device controlling the supply of water to said U-shape pipe; and a cam timed to the rotation of said carrier and adapted to periodically actuate said valve device to supply water to the U-shape pipe.

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1,042,785. PILL AND TABLET COUNTING MACHINE. CHARLES GOULDING, Chicago, Ill. Filed Sept. 20, 1911. Serial No. 650,426. (Cl. 73—126.)



1. In a machine of the class described, a frame, a downwardly inclined chute mounted to oscillate in said frame, means for oscillating said chute at intervals, a stop arranged substantially midway of said chute, a second stop arranged at the discharge end of said chute, said stops being adapted to be rendered operative alternately by the oscillations of the chute, substantially as described.

2. In a machine of the class described, a frame having a hopper mounted thereon at one end thereof, an oscillatory chute inclined downwardly from the delivery orifice of said hopper, means disposed under said chute for oscillating the same at intervals, a stop arranged substantially midway of said chute, a second stop arranged at the discharge end of said chute, said stops being adapted to be rendered operative alternately by the oscillations of the chute, and means for regulating the size of the orifice of said hopper, substantially as described.

3. In a machine of the class described, an elevated hopper, an oscillatory chute the receiving end of which is disposed under the discharge orifice of said hopper, means arranged under said chute for oscillating the same at intervals, a stop arranged substantially midway of said chute and adapted to be operative therein at intervals, and a second stop arranged adjacent the delivery end of said chute and adapted to be operative when said first mentioned stop is inoperative, said stops being alternately rendered operative and inoperative by the oscillations of the chute, substantially as described.

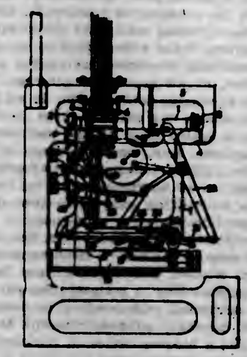
4. In a machine of the class described, an elevated hopper having a discharge orifice at the lower end thereof, a chute the receiving end of which is disposed under said orifice of said hopper, said chute being pivoted intermediate the ends thereof, a cam disposed under said chute and adapted to oscillate the same, a stop adapted to project into said chute at intervals, and a second stop provided at the delivery end of said chute and adapted to be operative during the time that said first mentioned stop is inoperative, said stops being alternately rendered operative and inoperative by the oscillations of the chute, substantially as described.

5. In a machine of the class described, a frame having an elevated hopper mounted thereon at one end thereof, a variable discharge orifice provided at the lower end of said hopper, an oscillatory inclined chute the receiving end of which is disposed under said discharge orifice, a rotatable cam arranged under said chute in the vicinity of the fulcrum thereof and adapted to oscillate the same at intervals, there being a transverse slot provided adjacent to the center of said chute, a stop adapted to project through said slot in said chute and to be rendered operative therein at intervals, and a second stop arranged at the discharge end of said chute and adapted to be rendered operative during the time that said first mentioned stop is inoperative, the operativeness of said stops being controlled by said cam, said stops being alternately rendered operative and inoperative by the oscillations of the chute, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

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1,042,786. MACHINE FOR PRINTING UPON WARPS. OTTO HALLENSTEBEN, Hanau, Germany, assignor to New Carpet and Textiles Syndicate Limited, London, England. Filed May 3, 1912. Serial No. 695,967. (Cl. 101—27.)



1. Mechanism for printing upon the warps comprising a frame, means for moving said frame in the longitudinal direction of the warps, printing mechanisms mounted in said frame, each of said printing mechanisms consisting of a color duct, printing rollers, means for transferring the color from the duct to the printing rollers, and means for rotating the printing rollers, means for bringing the separate printing mechanisms into and out of operation and means for putting all the printing mechanisms out of operation simultaneously.

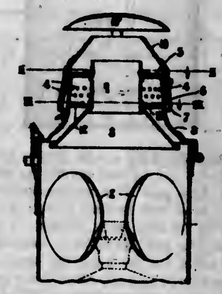
2. Mechanism for printing upon warps comprising a slidable frame, a coloring roller carried by the frame, means for moving the frame, means on the frame for operating the coloring roller, an arm secured to the frame, coloring rollers carried by the arm, a coloring duct for supplying coloring matter to the rollers, and means for bringing the printing mechanism into and out of operation.

3. Mechanism for printing upon warps comprising supporting rails, a frame slidable on the rails, means for moving the frame, a coloring roller carried by the frame, an operating wheel associated with the coloring roller, a rack for operating said wheel, means for forming a connection between the operating wheel and coloring roller, a coloring duct associated with the frame, an arm carried by the frame, said arm extending into the duct, coloring rollers carried by the arm, and means for bringing the printing mechanism into and out of operation.

4. Mechanism for printing upon warps comprising a main frame, a printing carriage movable on said frame, an oscillatory lever carried by the frame, a coloring duct under the frame, an auxiliary frame, coloring rolls carried by the auxiliary frame, a pawl adapted to engage the auxiliary frame, means connected to the lever for operating the pawl and auxiliary frame, and a roller for disengaging the pawl and auxiliary frame.

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1,042,787. SIGNAL-LAMP. ALEXANDER H. HANDLAN, Jr., St. Louis, Mo. Filed May 29, 1911. Serial No. 630,080. (Cl. 240—51.)



1. In a signal lamp, a burner chamber, a ventilator shell above said burner chamber provided with air inlet openings in its wall and a slotted spacing member within its upper end, a flue within and spaced away from said shell providing a passageway between the air inlet openings and the top of the shell, and a collar provided with inwardly extending peripheral slots and surrounding said flue and located between the air inlet openings and the burner chamber.

2. In a signal lamp, a burner chamber, a ventilator shell above said burner chamber provided with air inlet openings in its wall, a flue within and spaced away from said shell, a slotted spacing member surrounding said flue and located in the ventilator shell between the air inlet openings and the top of said shell and a collar provided with inwardly extending peripheral slots and surrounding said flue and located between the air inlet openings and the burner chamber, said slotted spacing member and collar providing passageways for ascending and descending air currents.

3. In a signal lamp, a burner chamber, a ventilator shell above said burner chamber provided with air inlet openings in its wall, a flue within and spaced away from said shell, a slotted spacing member surrounding said flue and located in the ventilator shell between the air inlet openings and the top of said shell, a collar provided with inwardly extending peripheral slots and surrounding said flue and located between the air inlet openings and the burner chamber, said slotted spacing member and collar providing passageways for ascending and descending air currents and a wind break ring surrounding the ventilator shell and air inlet openings.

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1,042,788. SILO. IRVING G. HART, Waverly, N. Y. Filed Mar. 14, 1912. Serial No. 683,758. (Cl. 20—1.6.)

1. The combination with a silo, a plurality of vertically sliding doors having battens fitting within the doorway of the silo, and two sets of rungs, of a pair of brackets secured to the battens of each door for hanging one set of the rungs and having a slot in the inner face thereof, brackets secured to the door jambs for hanging the other set of

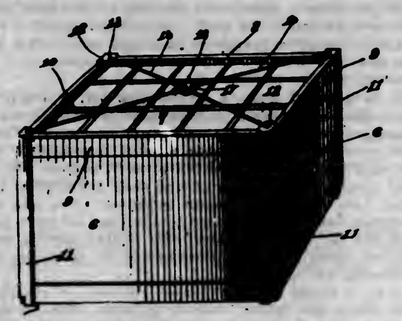
rungs in the same vertical plane with the said door-rungs, a pair of locking bars carried by the doors and between the doors and the door-rungs and slidable through the bracket-slots, a cam-head pivoted to the doors, cam-faces on the head for simultaneously sliding the bars outwardly, and a hand lever projecting from the head and separating the cams.



2. The combination with a silo, and a plurality of vertically sliding doors having battens fitting within the doorway of the silo, of a pair of rung brackets secured to the battens of each door and having a slot in the inner face thereof, a pair of locking bars carried by the doors and slidable through the bracket-slots, a cam-head pivoted to the doors, cam-faces on the head for simultaneously sliding the bars outwardly, and a hand-lever projecting from the head and separating the cams.

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1,042,789. BOX. GEORGE W. HARTLEY, Detroit, Mich. Filed July 11, 1912. Serial No. 708,850. (Cl. 217—12.)



1. A box comprising side walls, top and bottom pieces provided with grooves around the edges thereof, in which grooves the top and bottom edges of the side walls fit when the box is set up, corner pieces connecting the top and bottom pieces, and means to attach the corner pieces to said top and bottom pieces.

2. A box comprising side walls, top and bottom pieces having grooves around the edges thereof and detachable corner pieces, one end of each corner piece being provided with a hook engaging the said bottom, and fastening devices connecting the opposite ends of the corner pieces, to hold the same in place when the box is set up.

3. A collapsible box comprising side walls, top and bottom pieces having grooves and inwardly extending flanges around the edges thereof, in which grooves the upper and lower edges of the side walls fit, detachable corner pieces, and means to fasten the corner pieces to the top and bottom pieces, said flanges being of sufficient depth to inclose the side walls and corner pieces between the top and bottom pieces when the box is collapsed.

4. A collapsible box comprising side walls, top and bottom pieces having grooves around the edges thereof in which the upper and lower edges of the side walls fit, and corner pieces adapted to fit the vertical corners of the box when it is set up, each of said corner pieces having hooks at one end to engage under the bottom piece, and means to detachably connect the opposite ends of the corner pieces on the exterior of the top piece.

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1,042,790. TELEPHONE-METER. RALPH B. HEAD, Denver, Colo. Filed Feb. 23, 1911. Serial No. 610,206. (Cl. 235—92.)



1. In an electrically controlled meter, the combination with the counter, of an automatic actuator therefor, a push-button independent of the actuator for advancing said actuator to set it in operative position, a spring for returning the push-button alone to initial position, a pawl carried by the push-button for engagement with the actuator, and means for putting the pawl out of operation until the actuator returns to initial position.

2. In an electrically controlled meter, the combination with the counter, of an automatic actuator therefor, a push-button for advancing said actuator to set it in operative position, a spring for returning the push-button to initial position, a spring pawl on the push-button in position to engage the actuator to advance it, and a slotted guiding plate for throwing said pawl out of operative position on the return of the push-button to initial position.

3. In an electrically controlled meter, the combination with the counter, of an automatic actuator therefor, a push-button for advancing said actuator to set it in operative position, a spring for returning the push-button to initial position, a spring pawl on the push-button in position to engage the actuator to advance it, a slotted guiding plate for putting said pawl out of operative position, and means moved by the actuator on its return to initial position for setting said plate into position for restoring the pawl to operative condition.

4. In an electrically controlled meter, the combination with polarized electro-magnets, a circuit-controller therefor at a distant station, a tilting armature for actuation by said magnets, a counter, a reciprocating carriage carrying a pin for actuating said counter, manual means for advancing said carriage, automatic means for returning said carriage, and a holding device on the carriage for engaging the tilting armature.

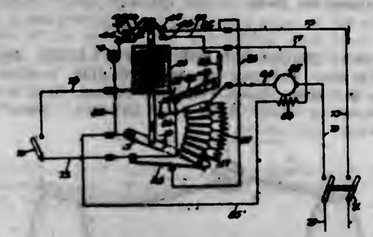
5. In an electrically controlled meter, the combination with polarized electro-magnets, a circuit controller therefor at a distant station, a tilting armature for actuation by said magnets, a counter, a reciprocating carriage, manual means for advancing said carriage, automatic means for returning said carriage, a spring arm hinged to said carriage, a pin carried by the free end of said arm for actuating said counter, a roller on the free end of said arm and adapted to engage with said armature for holding the carriage in advanced position.

[Claim 6 not printed in the Gazette.]

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1,042,791. STARTING DEVICE. CLARK T. HENDERSON, Milwaukee, Wis., assignor to The Cutler-Hammer Manufacturing Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Mar. 14, 1907, Serial No. 362,296. Renewed Oct. 22, 1910. Serial No. 588,527. (Cl. 172—302.)

1. In a starting device for electric motors, the combination with a resistance, of a member for controlling said resistance, a main switch, an electro-magnet common to said main switch and resistance controlling member, for operating the same, a switch for controlling the circuit of said magnet, closed only when all the resistance is in the motor circuit, and a second switch for controlling the circuit of said magnet closed only when the main switch is closed.



2. In a starting device for electric motors, the combination with a resistance, of a resistance controlling member, a main switch, an electro-magnet common to said main switch and resistance controlling member, for operating the same, a switch controlling the circuit of said magnet, closed only when all the resistance is in circuit and a shunt circuit around said switch arranged to be closed only when the main switch is closed.

3. In a starting device for electric motors, the combination with a resistance, of a controlling member therefor, a main switch, an electromagnet winding for actuating said switch, a switch in circuit with said winding tending to stand in open position and adapted to be closed by said controlling member while in a predetermined position, a shunt circuit around said last mentioned switch, including a resistance, and a switch movable with said main switch for controlling said shunt circuit.

4. In a starting device for electric motors, the combination with a resistance, of a resistance controlling member, a main switch, an electro-magnet common to said resistance controlling member and main switch for operating the same, a switch controlling the circuit through said magnet, a second switch arranged to close an operating circuit for said magnet when the main switch is closed, and upon the opening of said first mentioned switch, said first mentioned switch being arranged to render said electro-magnet inoperative to close the main switch except when all the resistance is in the motor circuit.

5. In a motor starter, the combination with a resistance, of a resistance varying element, a main switch, a single electro-responsive winding for operating said main switch and resistance varying element, and means for preventing the energization of said winding, unless all of the resistance is in the motor circuit, said main switch being free to open irrespective of the position of said element.

[Claims 6 to 12 not printed in the Gazette.]

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1,042,792. RESERVOIR AND CHANNEL CLEANER, SILT-CONSERVER, AND LEVEE-PROTECTOR. JOSEPH J. HENDERSON, San Diego county, Cal. Filed Apr. 22, 1912. Serial No. 692,265. (Cl. 61—9.)



1. A conduit laid under the bed of a running stream or tide-water, in combination with submerged sand and silt traps discharged into it, with wing dams in connection therewith, substantially as described in the foregoing specification.

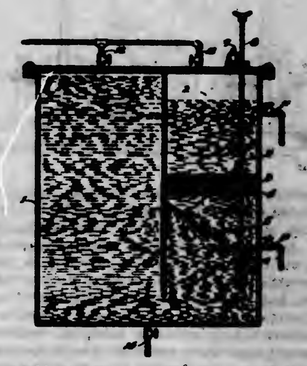
2. In a device of the class described, a submerged conduit combined with a plurality of silt traps and means in connection with said traps for collecting said silt.

3. In a device of the class described, the combination of a submerged pipe, a valve therein, a sand trap in connection therewith, a plurality of sediment traps in connection with said pipe, and means in connection with said traps for collecting said sediment.

4. In a device of the class described, a submerged conduit combined with a plurality of open silt traps connecting with the sides thereof, adapted for collecting the silt.

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1,042,793. FILTER. EDWARD HIXON and HOWY S. PARKER, Chicago, Ill. Filed Apr. 19, 1912. Serial No. 691,782. (Cl. 210—5.)



1. The combination with a tank, of a filtering compartment, having its lower end communicating with the lower portion of said tank; a filtering barrier arranged in said compartment; a valve controlling communication between the lower portion of said compartment and said tank; discharges for said compartment arranged above and below said barrier; a valve in the discharge below said barrier and means for supplying liquid to the upper portions of said tank and said compartment, substantially as described.

2. The combination with a tank, of a filtering compartment having its lower end communicating with the lower portion of said tank; a filtering barrier arranged in said compartment; a valve controlling the communication between the lower portion of said compartment and said tank; valved discharges for said compartment arranged above and below said barrier; and means for supplying liquid to the upper portions of said tank and said compartment, substantially as described.

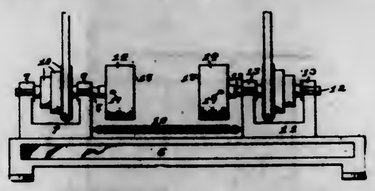
3. The combination with a tank, of a filtering compartment having its lower end communicating with the lower portion of said tank; a filtering barrier arranged in said compartment; a valve controlling the communication between the lower portion of said compartment and said tank; valved discharges for said compartment arranged above and below said barrier; and means for supplying liquid to the upper portions of said tank and said compartment, the bottom of said compartment being sloped toward said lower discharge, substantially as described.

4. The combination with a tank, of a filtering compartment having its lower end communicating with the lower portion of said tank; a filtering barrier arranged in said compartment; a valve controlling the communication between the lower portion of said compartment and said tank; a push rod controlling said valve; a latching mechanism for locking said push rod in adjusted positions; valved discharges for said compartment arranged above and below said barrier; and means for supplying liquid to the upper portions of said tank and said compartment, substantially as described.

5. The combination with a tank, of a filtering compartment having its lower end communicating with the lower portion of said tank; a filtering barrier arranged in said compartment; a valve controlling the communication between the lower portion of said compartment and said tank; a push rod controlling said valve; a latching mechanism for locking said push rod in adjusted positions; valved discharges for said compartment arranged above and below said barrier; and means for supplying liquid to the upper portions of said tank and said compartment, the bottom of said compartment being sloped toward said lower discharge, substantially as described.

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1,042,794. MACHINE FOR GRINDING BALLS. JOSEPH G. IRWIN, Oklahoma, Okla. Filed Dec. 19, 1911. Serial No. 666,643. (Cl. 51—4.)

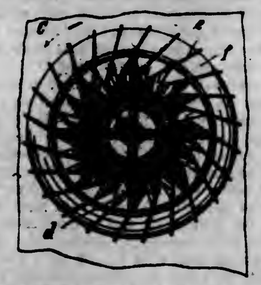


1. A spherical-body grinding machine, comprising suitably mounted oppositely rotatable shafts, means for supporting the same, dies carried thereby and having hemispherical depressions, said dies being perforated radially to allow the discharge of excess material in the dies as the stock-surface and the die-surfaces automatically come in contact, and means to automatically continuously urge the stock-surface and the die surface to complete contact.

2. A spherical-body grinding machine, comprising suitably mounted oppositely rotatable shafts, means for supporting the same, dies carried thereby and having hemispherical depressions, said dies being perforated radially to allow the excess material in the dies to be discharged as the stock-surfaces and the die-surfaces automatically come into contact, means carried by the dies for cutting the surfaces of the sphere, and means to automatically continuously urge the stock-surface and the die-surfaces to complete contact.

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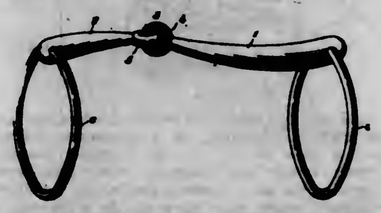
1,042,795. APPARATUS ARRANGED ON LOCOMOTIVES AND OTHER POWER-PROPELLED VEHICLES FOR UTILIZING THE RESISTANCE OF THE AIR. JULIUS JAENSCH, Breslau, Germany. Filed Nov. 6, 1911. Serial No. 658,840. (Cl. 170—3.)



A device for utilizing the resistance of the air in connection with locomotives and other quick traveling power driven vehicles by means of a wind turbine which is actuated by the air which acts as a resistance, comprising in combination a baffle plate for the air curved backward and fixed in front of the vehicle, a turbine revolubly mounted in front of said baffle plate, the vanes of said turbine composed of two parts, the inner radial part which is inclined with regard to the baffle plate so that it is acted upon and revolved by the air current and the outer part which stands perpendicular to the baffle plate but obliquely to the inner part so that it is acted upon by the air current laterally directed by said curved baffle plate, and means for connecting the wind wheel with a dynamo, substantially as described and shown and for the purpose set forth.

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1,042,796. BRIDLE-BIT FOR SIDE-PULLERS. HENRY H. JAMES, Winnipeg, Manitoba, Canada, assignor to The Sell Horse Goods Company, Canton, Ohio, a Corporation of Ohio. Filed Dec. 15, 1911. Serial No. 666,025. (Cl. 54—8.)



1. A bridle-bit for side-pullers, having a single mouth piece formed entirely of two bars arranged end to end, one of the said bars being longer than the other, said bars hingedly connected to each other at their inner ends and provided with rein attaching means at their outer ends.

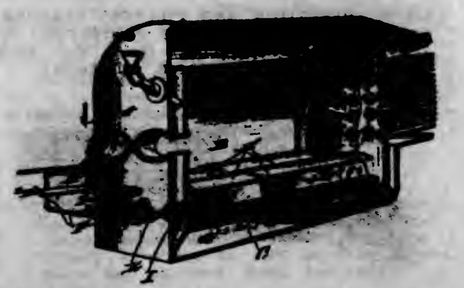
2. A bridle-bit for side-pullers, having a single mouth-piece formed of two bars arranged end to end, one of said bars having a general curvature in one direction and the other bar having a general curvature in the opposite direction, said bars hingedly connected to each other at their inner ends and provided with rein attaching means at their outer ends.

3. A bridle-bit for side-pullers, provided with a single mouth-piece formed of two bars arranged end to end, one of said bars being longer than the other, said bars hingedly connected to each other, the long bar curved in one direction and the short bar curved in the opposite direction.

4. A bridle-bit for side-pullers, provided with a single mouth-piece formed of a long, curved bar tapered from its outer to its inner end and a short, curved bar tapered from its outer to its inner end, the curvature of said short bar being opposite from the curvature of said long bar and said bars arranged end to end and hingedly connected to each other at their inner ends.

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1,042,797. OIL-BURNING APPARATUS FOR LOCOMOTIVES. ARTHUR J. JONES, Washington, D. C., assignor of one-half to Frederick W. Pratt, Washington, D. C. Filed July 5, 1911, Serial No. 637,005. Renewed Sept. 21, 1912. Serial No. 721,724. (Cl. 158—4.)



1. An oil burner for locomotives comprising a series of V-shaped troughs with their outer ends closed and their inner ends adapted to slide one within the other, injector

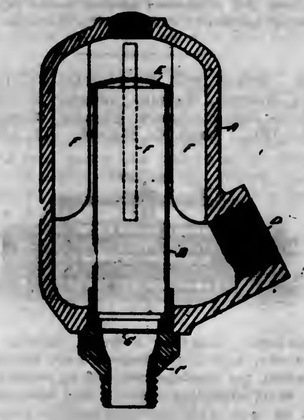


nozzles extending through holes in the end of the furnace and adapted to introduce oil and steam into the troughs, the latter adapted to direct the atomized oil the entire length of the fire box.

2. An oil burner for locomotive furnaces having a series of V-shaped troughs, flattened upon their lower edges and designed to rest upon the furnace grate, concaved deflecting plates projecting over the upper edges of the adjacent walls of the troughs and overlapping each other, yokes having curved shank portions held against the concaved surfaces of said deflecting members and each yoke terminating in a flattened end adapted to engage the upper edges of the adjacent walls of the troughs, as set forth.

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1,042,798. GAS-LAMP. JAMES KEITH and GEORGE KEITH, London, England. Filed June 5, 1912. Serial No. 701,826. (Cl. 67—94.)



1. In an inverted incandescent gas lamp, in combination, a heater for heating a mixture of gas and air, a nozzle connected to the lower end of said heater, said heater having a lateral inlet for the cold mixture located adjacent the lower end and directed toward the nozzle and a guide within the heater for causing the mixture to pass upwardly in contact with the walls of the heater, from the lower extremity to the upper extremity of the guide, and thence downwardly to the nozzle.

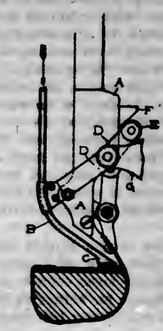
2. In an inverted incandescent gas lamp, the combination with a heater for a mixture of gas and air, of a nozzle connected to the lower end of said heater, said heater having a lateral opening directed toward the nozzle and located toward the lower end of the heater, a tube within the heater affording between its walls and the internal walls of the heater an annular passage up which the mixture passes before passing down the tube, and a layer of gauze covering the upper end of said tube.

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1,042,799. LASTING-MACHINE. PAUL ALBERT MAX KIENER, Leipsig, Germany. Filed Nov. 2, 1911. Serial No. 658,103. (Cl. 12—7.)

1. In a machine for joining the uppers of shoes to the inner sole, a frame, grippers mounted thereon, a lever pivotally connected to said frame, a conduit for supplying glutinous substance or a solvent of same to the place where the work is done mounted on one end portion of said lever, and means at the second free end portion of said lever and on the grippers for actuating same and thereby the conduit.

2. In a machine for joining the uppers of shoes to the inner sole, a frame, grippers mounted thereon, a lever pivotally connected to said frame, a conduit for supplying glutinous substance or a solvent of same to the place where the work is done mounted on one end portion of said lever, a nose on said grippers adjoining the second end portion of the lever, and means on said second free end portion of the same for actuating said lever and conduit to impart an ascending and descending motion.

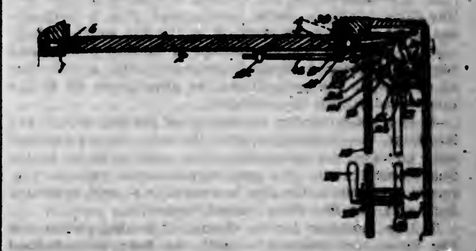


3. In a machine for joining the uppers of shoes to the inner sole, a frame, grippers mounted thereon, a lever pivotally connected to said frame, a conduit for supplying glutinous substance or a solvent of same to the place where the work is done mounted on one end portion of said lever, a nose on said grippers adjoining the second end portion of the lever, means on said second free end portion of the same for actuating said lever and conduit to impart an ascending and descending motion, so arranged that the grippers actuate the conduit for supplying glutinous substance or a solvent of same before the uppers are stretched.

4. In a machine for joining the uppers of shoes to the inner sole, a frame, grippers mounted thereon, a nose on the stock of said grippers, a lever pivotally connected to the frame adjoining said nose, a conduit for supplying glutinous substance or a solvent of same to the place where the work is done mounted on one end portion of said lever, and a roll mounted on the second free end portion of the same and resting against the projecting nose of the grippers and adapted to be operated automatically by the movement of said grippers.

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1,042,800. DOOR-OPENER. JACOB H. KITCHEN and WENZEL STILLER, San Francisco, Cal., assignors to Akard Door Opener Company, San Francisco, Cal., a Corporation of California. Filed Apr. 17, 1912. Serial No. 691,275. (Cl. 89—36.)



1. The combination with a hinged door having a latch engageable with a jamb, of a lever adapted to release the latch, a latch operating lever connected to said latch

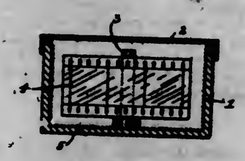
releasing lever, and means for actuating the latch operating lever, said means comprising a bell-crank and means connecting the same to the door, a rock-arm adjacent the bell-crank and movable relative thereto, and a toggle-link connection between one of the arms of the bell-crank and said rock-arm, the joint of said toggle-link connection being disposed adjacent the latch-operating lever whereby the latter is actuated to initially release the latch and the bell-crank is subsequently operated to open the door.

2. The combination with a hinged door having a latch engageable with a jamb, of a lever adapted to release the latch, a latch operating lever connected to said latch releasing lever, and means for actuating the latch-operated lever, said means comprising a bell-crank and means connecting the same to the door, a spring actuated rock-arm adjacent the bell-crank and movable relative thereto, and a toggle-link connection between one of the arms of the bell-crank and said rock-arm, the joint of said toggle-link connection being disposed adjacent the latch operating lever whereby the latter is actuated to initially release the latch, and the bell-crank is subsequently operated to open the door.

3. The combination with a hinged door having a latch engageable with a jamb, of a lever adapted to release the latch, a latch operating lever connected to said latch releasing lever, and means for actuating the latch operating lever, said means comprising a bell-crank and means connecting the same to the door, a rock-arm adjacent the bell-crank, and a toggle-link connection between one of the arms of the bell-crank and said rock-arm, the joint of said toggle-link connection being disposed adjacent the latch-operating lever whereby the latter is actuated to initially release the latch and the bell-crank is subsequently operated to open the door, said bell-crank having one arm provided with a curved slot, and said rock-arm having a stud operable in said slot whereby the lever has a movement relative to the bell-crank.

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1,042,801. PROTECTING KINEMATOGRAPHIC FILMS. Isidor Kitsee, Philadelphia, Pa. Filed Oct. 28, 1909. Serial No. 525,057. (Cl. 206—59.)



1. A container for the storage of moving picture and like films lined with an agent for neutralizing gases given off by the film stored therein.

2. A container for the storage of moving picture and like films having a lining impregnated with a neutralizing agent for the gases given off by the film stored therein.

3. A container for the storage of moving picture and like films having a lining impregnated with a carbonate of ammonium for neutralizing the gases given off by the film stored within the container.

4. In a container for the storage of moving picture and like films, the combination with the body thereof provided with an agent for neutralizing the gases given off by the film stored therein, of a support associated with the container to maintain the film in proximity to said neutralizing agent, but free from contact therewith.

5. In a container for the storage of moving picture and like films, the combination with the body thereof lined with an agent for neutralizing the gases given off by the film stored therein, of a support associated with the container to maintain the film in proximity to said neutralizing agent, but free from contact therewith.

1,042,802. FORM AND REINFORCEMENT FOR CONCRETE CASINGS. Frederick A. Koester, San Francisco, Cal. Filed Dec. 21, 1911. Serial No. 667,096. (Cl. 72—76.)



A reinforcement for concrete casings consisting of an inner shell, perforated tongues fixed thereto and extending inwardly toward the outer casing, rods extending through said tongues, and extensions secured to the inner tongues and forming spacers in contact with the outer shell.

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1,042,803. PRESS FOR FILTERING FLUIDS. Paul Krassa, Gästrow, Germany, assignor to The Firm of Chemische Fabrik Gästrow, Gästrow, Germany. Filed Oct. 14, 1911. Serial No. 654,698. (Cl. 210—13.)



A filter-press comprising a frame, movable filter elements therein, said filter elements each having a transverse opening, the openings arranged to register with each other, a shaft extending through said openings, stirrers mounted on said shaft and arranged to rotate between the surfaces of said filter elements, said stirrers being of smaller dimensions than said openings whereby the shaft and stirring devices can be withdrawn from the press through said openings, and means for rotating said shaft.

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1,042,804. FOUNTAIN-PEN. James W. Laughlin, Detroit, Mich., assignor to Catherine H. Laughlin, Detroit, Mich. Filed Feb. 8, 1912. Serial No. 676,892. (Cl. 120—46.)



1. In a fountain pen, the combination with a tube having a finger opening in its wall, and a collapsible reservoir within said tube, of a pressure bar bearing against the flexible reservoir within the tube and extending past the finger opening in the latter, and a single link located within the tube and pivotally connected at one end to the pressure bar and pivotally attached at its other end to the tube forwardly of its connection with the pressure bar and forwardly of the finger opening in the tube.

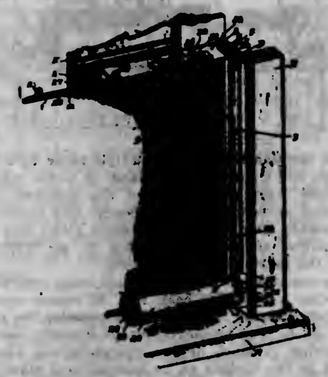
2. In a fountain pen, the combination with a tube having a transverse slot in its rear end and a collapsible ink reservoir within said tube, of a pressure bar within said tube and bearing against the reservoir, said pressure bar projecting through the slot in the end of the tube and guided in both its lateral and longitudinal movements by the walls of said slot, and a link pivoted at one end to the tube and at the other end to the pressure bar at a fixed point on the latter.

3. In a fountain pen, the combination with a tube having a finger opening in its wall, and a collapsible ink reservoir within said tube, of a pressure bar within said tube and bearing against said reservoir, and a link pivotally attached at one end to the tube forwardly of said opening in the latter, the other end of said link being pivotally attached to the pressure bar at a fixed point on the latter.

4. In a fountain pen, the combination with a tube having a finger opening in its wall, and a collapsible reservoir in said tube, of a pressure bar in said tube adapted to bear against the reservoir, said pressure bar having an up-turned forward end which normally engages the inner wall of said tube, and a link pivoted at its forward end to the tube forwardly of the opening therein and having pivotal connection with the pressure bar at a fixed point between the ends of the latter.

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1,042,805. ROLLER WINDOW-SCREEN. Albert K. Lovell, New Haven, Conn. Filed Dec. 29, 1911. Serial No. 668,564. (Cl. 156—39.)



1. In roller window screens, the combination of a flexible screen, having one end secured to the window sash, guideways upon the casing for receiving and guiding the edge of the screen, and rotatable toothed pinions mounted upon the guideways and intermeshing with the edges of the screen to retain them in place in the guideways in the movement of the screen along the ways.

2. In roller window screens the combination of a spring actuated drum mounted on the window casing, a screen fastened at one end to the drum and at the other to the window sash, guide ways upon the casings for retaining and guiding the edges of the screen in its movement along the guideways, and rotatable toothed pinions pivotally mounted upon the guide ways intermeshing with the edges of the screen in its movement along the guide ways.

3. In roller window screens, the combination of a flexible screen, having one end secured to the window sash, winding mechanism carrying the other end of the screen, guideways each comprising a pair of separate strips mounted upon the window casing and forming an intervening slot for the reception of the edge of the screen, and rotatable toothed pinions pivotally mounted within the guideway intermeshing with the edges of the screen to hold them in guideways as the screen is raised or lowered.

4. In roller screen apparatus the combination of a drum, a screen attached to the drum, a spring for revolving the drum in the direction for winding the screen upon it, a housing secured to the window casing for supporting the drum, means for locking the screen to the window sash, guide ways connected with the casings for engaging and guiding the edges of the screen, and rotatable toothed pinions placed along and pivotally mounted upon the guide ways for intermeshing with the edges of the screen in its movement along the guide ways.

5. In roller screen apparatus the combination of a drum, a screen attached to the drum and to the window sash, a spring for revolving the drum in the direction for winding the screen upon it, a housing incasing the drum, compression sockets comprising a stationary half secured to the window casings and a movable half hinged to the stationary part, and guide ways each comprising a pair of separate strips, connected with the casings for engaging and guiding the edges of the screen.

[Claims 6 to 12 not printed in the Gazette.]

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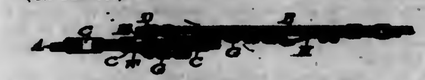
1,042,806. SNARE STRAINER AND MUFFLER. William F. Ludwig, Chicago, Ill. Filed Sept. 18, 1909. Serial No. 518,411. (Cl. 84—127.)



1. The combination with a drum shell and the drum heads, of a set of snares, means for securing one end of the set of snares to the drum shell, a clamping member secured to the other end of the snares, a tension rod adapted to lie alongside the exterior of the drum shell and having a threaded engagement with said clamping member, means for engaging one end of said tension rod for permitting swinging and longitudinal movement thereof, a fulcrum post secured directly to the drum shell, a link pivotally connected at one end to said fulcrum post and at its other end to said tension rod, the pivotal connection of said link with said tension rod normally lying between the drum shell and that plane of the pivotal connection of said link and the fulcrum post lying parallel with said drum shell, to hold the snares under tension.

2. The combination with a drum shell and the drum heads, of a set of snares, means for securing one end of said set of snares to the drum shell, a clamping member secured to the other end of said snares, a tension rod having a threaded engagement with said clamping member, means for engaging one end of said tension rod to permit swinging and longitudinal movement thereof, a fulcrum post secured to the drum shell, a link pivotally connected at one end to said fulcrum post and at its other end to said tension rod, the pivotal connection of said link with said tension rod normally lying between the drum shell and that plane of the pivotal connection of said link and the fulcrum post lying parallel with said drum shell, to hold the snares under tension, and tripping means for swinging said tension member to shift the pivotal connection of the link therewith away from the drum shell and outside of the pivotal connection of the link with the fulcrum post, said means comprising a lever pivoted to said fulcrum post intermediate the tension member and the drum shell.

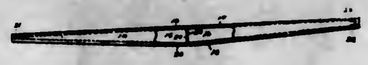
1,042,807. HORSE-BLANKET. WALDEN M. LUMAN, Bala, Pa. Filed Mar. 19, 1912. Serial No. 684,868. (Cl. 54—79.)



1. A blanket having overlapping end members, one of said members having a plurality of alined openings therein, an elbow on the other member having a limb adapted to enter one of said openings and engage with the wall thereof, a flexible piece adapted to extend from the end of said limb through another of said openings to the contiguous member, and the last named member having means thereon for the connection of said flexible piece therewith.

2. A blanket of the character stated having front and rear members one overlapping the other, the front member of which is provided with a series of alined openings therein, a rigid elbow, one limb of which is connected with the rear member, the other limb being provided with an eye which is adapted to pass through one of said openings, a flexible piece connected at one end with said eye on the exterior of the front member arranged to pass through an adjacent opening in the latter, and means on the rear member for the connection therewith of the other end of said flexible piece.

1,042,808. STRUT. AUGUSTUS FREDERICK WATSON MACMANUS, Pine Bluff, Ark. Filed Feb. 15, 1912. Serial No. 677,700. (Cl. 244—31.)



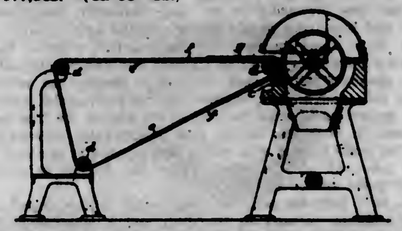
1. A strut or rod for a flying machine construction, comprising a plurality of wooden strips having their inner faces glued together and provided with sets of longitudinally extending grooves which converge toward their outer ends, reinforcing wires disposed within such grooves, transverse elements extending into the material of the strips near the ends thereof and engaged by the reinforcing wires, and a spacer disposed between the wires midway the ends thereof for forming with the reinforcing wires a truss-structure.

2. A strut or rod for a flying machine construction, comprising a plurality of wooden strips cemented together, a reinforcing wire extending longitudinally through the strut, and transverse anchor-pins extending through the end portions of said strips to connect and reinforce them transversely and having attachments with the ends of the reinforcing wire, said reinforcing wire by virtue of its secure attachments with the anchor-pins serving to prevent the bending of the strut as said reinforcing wire is incapable of being perceptibly stretched.

3. A strut or rod for a flying machine construction, comprising a plurality of wooden strips cemented together, strands of reinforcing wire extending longitudinally through the strut and being spaced and converging toward their outer ends, and transverse anchor pins extending through the end portions of said strips to connect and reinforce them transversally and having attachments with the ends of the strands of reinforcing wire, said strands of reinforcing wire by virtue of their secure attachments with the anchor-pins serving to prevent the bending of the strut as said strands of wire are incapable of being perceptibly stretched.

4. In a strut or rod for a flying machine construction, a plurality of wooden strips having their inner adjacent faces glued together, a transverse securing pin extending through end portions of the strips, two spaced transverse securing pins extending through opposite end portions of said strips, and a reinforcing wire disposed between the strips, extending about the securing pin and having its free ends attached to said securing pins.

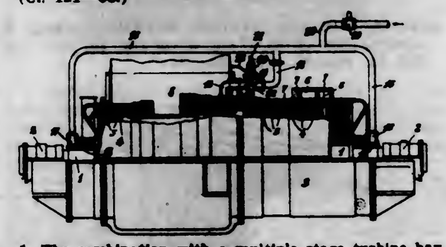
1,042,809. PROCESS OF PRODUCING PATTERNS ON HAIR-COVERED SKINS. PAUL MEBERL, Bühlau, near Rötha, Germany. Filed Feb. 14, 1912. Serial No. 677,542. (Cl. 38—12.)



1. The process of producing patterns on hair-covered skin which consists in dyeing the tips of the hairs, depressing the hairs on selected portions of the skin, and shearing off the dyed tips of the undepressed hairs.

2. The process of producing patterns on hair-covered skin which consists in dyeing the tips of the hairs, depressing the hairs on selected portions of the skin by means of covers fastened to the skin, and shearing off the tips of the undepressed hairs by means of a shearing machine.

1,042,810. GLAND PIPING SYSTEM. JOHN F. METTAN, Philadelphia, Pa., assignor to The Wm. Cramp & Sons Ship & Engine Building Company, a Corporation of Pennsylvania. Filed Feb. 15, 1909. Serial No. 478,057. (Cl. 121—58.)



1. The combination with a multiple stage turbine having a high and a low pressure gland, of means connecting said glands whereby to equalise the pressure on said glands, and automatic means whereby any excess equalising pressure from the high pressure gland and over a predetermined amount is admitted to an intermediate stage of the turbine to supply power.

2. The combination with a multiple stage reversing turbine having a gland at each end, of means connecting said glands whereby to at all times equalise the pressure on said glands, and automatic means whereby any excess of equalising pressure over a predetermined amount is admitted to the turbine at an intermediate stage having a corresponding pressure to supply power.

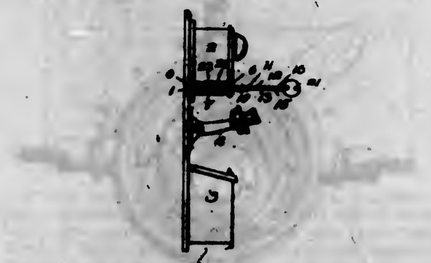
3. The combination with a turbine having a gland at each end, of means for automatically maintaining pressure at all times on said glands, and means whereby any excess of leakage pressure is admitted to the turbine to perform work.

4. The combination with a turbine having a plurality of glands, of a by-pass around the turbine connecting said glands, means for maintaining a predetermined leakage pressure on said glands, means whereby excess of pressure is automatically admitted to the turbine to perform work, and means for admitting auxiliary pressure when the turbine is at rest.

5. The combination with a multi-stage turbine having a gland at each end normally subject to unequal pressures, and a by-pass around the turbine connecting said glands, of means controlling a source of steam for maintaining a predetermined pressure in said by-pass independently of the amount of leakage into said by-pass from the gland subject to the greater pressure, a passage between said by-pass and one of the intermediate stages of the turbine having a pressure less than the predetermined by-pass pressure, and a valve in said passage subject to the pressure of said by-pass on one side and on the other to a pressure equal to said predetermined pressure, said valve opening to admit excess pressure from the by-pass to said intermediate stage.



1,042,811. TELEPHONE-RECEIVER HOLDER. WILLIAM D. MILLER, Butler, Pa. Filed May 4, 1912. Serial No. 695,157. (Cl. 179—150.)



1. In a telephone receiver holder, the combination with a receiver and a telephone box, of a casing secured to said box, a tube slidably mounted in said casing, a rod mounted in and capable of being shifted longitudinally of said tube, means for rotating the rod when the latter is moved longitudinally of the tube, a receiver support loosely connected to the outer end of said rod and adapted to support said receiver, and means actuated by a movement of said tube within said casing for controlling the circuit in connection with said receiver.

2. In a telephone receiver holder, the combination with a receiver, of a casing supported in proximity thereto, a tube slidably mounted in said casing, a rod mounted in and slidably longitudinal of said tube, means for rotating the rod during a longitudinal movement thereof, a receiver support carried by the outer end of said rod and adapted to support said receiver, and means including a switch member actuated by a movement of said tube within said casing for controlling the circuit in said receiver.

3. A telephone receiver holder embodying a cylindrical casing, a tube slidably mounted in said casing, a receiver supporting rod mounted in and shiftably longitudinal of said tube, means for rotating the rod during the longitudinal movement thereof, and means including a horizontal member actuated by a movement of said tube in said casing and adapted to control the talking circuit of a telephone.

1,042,812. SWITCH-OPERATING MECHANISM. NELSON B. MITCHELL and JOHN W. TAGGART, Sr., Indianapolis, Ind., assignors of one-fourth to Ulrich G. Redelmann, Indianapolis, Ind. Filed May 31, 1911. Serial No. 630,302. (Cl. 104—24.)



1. Switch-operating mechanism including a box having two guides, a bar or rod slidingly mounted in the two guides and extending beyond the box, a collar secured to the bar or rod and having a pivot thereon, an operating-rod slidingly guided in the box at right-angles to the bar or rod, a jaw fixedly mounted on the operating-rod and having a pivot thereon, and a bell-crank pivotally supported in the box and having slotted arms, the slot in one arm receiving one of the pivots and the slot in the remaining arm receiving the remaining one of the pivots.

2. Switch-operating mechanism including a movable switch-rod, a fixedly supported guide rail, a plurality of push-bars slidingly supported to move toward or from the guide rail, the push-bars having uncovered and free projecting ends presented toward the rail, an operating-rod connected with the switch-rod and the plurality of push-bars, a plurality of guides supporting and guiding the operating-rod intermediately of the push-bars, a wedge movable between the guide rail and the ends of the push-bars, and an inclined guide for elevating the wedge above the plane of the switch-rod.

3. Switch-operating mechanism including two inclosing-boxes spaced apart, two brackets secured to the two inclosing-boxes respectively and projecting beyond one side thereof to form portions of a horizontal guide bar, a horizontal bar supported between and in connection with the two brackets to form a portion of the guide bar and having an upright flange extending from one to the other of the inclosing-boxes, a movably supported switch-rod, a horizontal guide bar connected with one of the brackets and extending toward the switch-rod and also upwardly to a plane above the switch-rod, a rail supporting the two brackets and the horizontal guide bars, two push-bars movably supported in the two inclosing boxes respectively, and an operating-rod connected with the switch-rod and the two push-bars.

4. Switch-operating mechanism including a plurality of boxes arranged in a row, tubes fixedly connecting the boxes together, a switch-rod movably mounted in one of the boxes, a plurality of push-bars movably mounted in the remaining boxes respectively, a connecting rod extending through the tubes and into all the boxes, the connecting rods being incased in and guided by the tubes and a plurality of bell-cranks pivotally mounted in the boxes respectively and operatively connected with the connecting rod, one of the bell-cranks being operatively connected with the switch-rod and the remaining bell-cranks operatively connected with the push-bars respectively.

5. Switch-operating mechanism including a rail, a movably supported switch-rod, two push-bars movably supported opposite one side of and extending toward the rail at a distance therefrom, two bell-cranks pivotally supported horizontally adjacent to the push-bars respectively, one arm of one of the bell-cranks being operatively connected to one of the push-bars, one arm of the remaining bell-crank being operatively connected to the remaining one of the push-bars, a connecting-rod operatively connected with the remaining arms of the two bell-cranks and also with the switch-rod, and a wedge suitably supported by a car on the rail and movable into sliding contact with the rail and the adjacent ends of the push-bars, said wedge being supported at its narrow end and having beveled under edges.

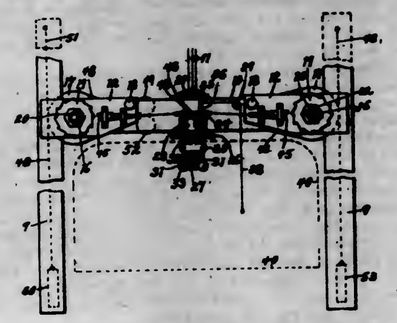
[Claims 6 to 11 not printed in the Gazette.]

1,042,818. ELEVATOR SAFETY DEVICE. CARL E. MORTENSON, Moline, Ill. Filed May 16, 1912. Serial No. 697,817. (Cl. 187—90.)

1. A device of the kind described comprising vertical guides; a beam extending between said guides; a car supported by said beam; clamping jaws on said beam adapted to clamp said vertical guides; locks engaging said jaws to limit their openings; shafts passed through said jaws and journaled in the end portions of said beam; a pulley secured on one end of each of said shafts; threads on the other end of each of said shafts; ratchet wheels threaded on the threaded ends of said shafts; means for rotating said pulleys, shafts and ratchet wheels; and means for arresting the rotation of said ratchet wheels, substantially as described.

2. A device of the kind described comprising vertical guides; a beam extending between said guides; a car supported by said beam; clamping jaws on said beam

adapted to clamp said vertical guides; locks engaging said jaws to limit their openings; shafts passed through said jaws and journaled in the end portions of said beam; a pulley secured on one end of each of said shafts; threads on the other end of each of said shafts; ratchet wheels threaded on the threaded ends of said shafts; means for rotating said pulleys, shafts and ratchet wheels; spring actuated pawls on said beam adapted to arrest the rotation of said ratchet wheels; locks for locking said pawls out of engagement with said ratchet wheels; and means for unlocking said pawls, substantially as described.



3. A device of the kind described comprising vertical guides; a beam extending between said guides; a car supported by said beam; clamping jaws on said beam adapted to clamp said vertical guides; locks engaging said jaws to limit their openings; shafts passed through said jaws and journaled in the end portions of said beam; a pulley secured on one end of each of said shafts; threads on the other end of each of said shafts; ratchet wheels threaded on the threaded ends of said shafts; a tensioned cable secured near the top of each of said vertical guides, passed downwardly and around one of said pulleys, across to and around the other of said pulleys and near the bottom of said other vertical guide; and means for arresting the rotation of said ratchet wheels, substantially as described.

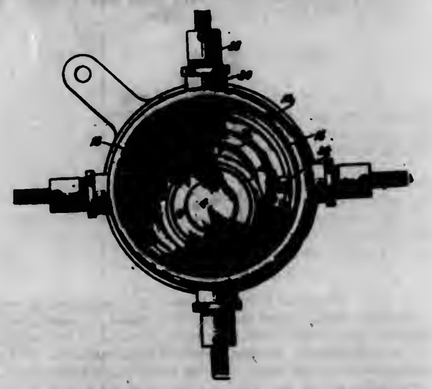
4. A device of the kind described comprising vertical guides; a beam extending between said guides; a car supported by said beam; clamping jaws on said beam adapted to clamp said vertical guides; locks engaging said jaws to limit their openings; shafts passed through said jaws and journaled in the end portions of said beam, each of said shafts being provided with threads on one of its ends; a pulley secured on the other end of each of said shafts; ratchet wheels threaded on the threaded ends of said shafts; a tensioned cable secured near the top of each of said vertical guides, passed downwardly and around one of said pulleys, across to and around the other of said pulleys and to near the bottom of said other vertical guide; spring actuated pawls on said beam adapted to arrest the rotation of said ratchet wheels; locks for locking said pawls out of engagement with said ratchet wheels; and means for manually unlocking said locks, substantially as described.

5. A device of the kind described comprising vertical guides; a beam extending between said vertical guides; a car supported by said beam; clamping jaws on said beam and adapted to clamp said vertical guides; locks limiting the openings of said jaws; shafts passed through said jaws and journaled in the end portions of said beam, each shaft being provided with threads on one of its ends; a pulley secured on the other end of each of said shafts; ratchet wheels threaded on the threaded ends of said shafts; a tensioned cable secured near the top of each of said vertical guides, passed downwardly and around one of said pulleys, across to and around the other of said pulleys and downwardly to near the lower end of the other of said vertical guides; spring actuated pawls on said beam to cooperate with said ratchet wheels; locks locking said pawls out of engagement with said ratchets; and manually operative means for unlocking said locks, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,814. CIRCUIT-BREAKER FOR ELECTRIC IGNITION DEVICES. ARTHUR R. MOSLER, New York, N. Y., assignor to A. R. Mosler & Co., New York, N. Y., a Corporation of New York. Filed Jan. 15, 1906. Serial No. 296,230. (Cl. 123—167.)



1. A circuit breaker comprising a rotary shaft having an eccentrically arranged stud projecting from the end of the shaft and provided with a circumferential groove, a rotary contact mounted on the stud and provided with an internal groove, an annular row of balls interposed between the rotary contact and stud and located in the said grooves for positioning the rotary contact on said stud, a casing, and a longitudinally sliding spring-actuated contact carried thereby in position to be directly engaged by the rotary contact.

2. A circuit breaker comprising a casing, a contact carried thereby, a rotary shaft having a stud eccentrically arranged thereon provided with a circumferential groove, a rotary contact mounted on the said stud and provided with an internal groove, a row of balls located between the contact and stud in said grooves for positioning the rotary contact with respect to the contact carried by the casing, the said shaft having a circumferential groove and the said casing having an internal groove, and a plurality of rows of balls interposed between the shaft and casing, one of said rows of balls being located in the grooves in the shaft and casing for properly positioning the casing on the shaft.

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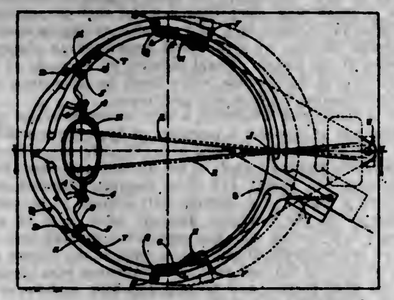
1,042,815. MODEL OF THE HUMAN EYE. JESSE J. MYERS, East Lansing, Mich. Filed Dec. 27, 1909. Serial No. 534,202. (Cl. 35—16.)

1. In a mechanical illustrator of the eye, a support, a pair of oppositely disposed members movably mounted on said support and representing the anterior portion of the choroid coat of the eye, a flexible hoop positioned between said members, and means for simultaneously adjusting said pair of members longitudinally and flexing said hoop.

2. In a mechanical illustrator of the eye, a support, a pair of oppositely disposed curved members movably mounted on said support with the adjacent ends thereof spaced apart, a flexible hoop positioned between said members and in rear of the opening between the adjacent ends thereof, and connections between the opposite portions of said flexible hoop and said members.

3. In a mechanical illustrator of the eye, a support, a pair of oppositely disposed curved members movably mounted on said support with the adjacent ends thereof spaced apart, a flexible hoop positioned between said members and in rear of the opening between the adjacent ends thereof, connections between the opposite portions of said flexible hoop and said members, and means for longitudinally adjusting said members to vary the space between the ends thereof.





4. In a mechanical illustrator of the eye, a support, a pair of oppositely disposed curved members slidably mounted on said support with the adjacent ends thereof separated, a flexible hoop positioned between the oppositely disposed curved members and in rear of the opening between the ends thereof, a link connection between each of said curved members and one end of said hoop, yieldable means normally holding said oppositely disposed curve members against movement, and means for simultaneously adjusting said oppositely disposed curved members longitudinally.

5. In a mechanical illustrator of the eye, a support, a substantially semi-circular member rigidly secured to said support and representing the anterior portion of the choroid coat of the eye, a pair of oppositely disposed curved members slidably secured to said support for endwise movement, and positioned within said semi-circular member, the adjacent ends of said oppositely disposed curved members being separated, a flexible hoop positioned between said oppositely curved members and in rear of the opening between the ends thereof, means for adjusting said oppositely curved members longitudinally, and means for simultaneously changing the contour of said flexible hoop.

[Claims 6 to 12 not printed in the Gazette.]

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1,042,816. TIME-CONTROLLED BAG-PUNCHING MACHINE. ANTHONY L. NEVELS, Hartford, Conn., assignor, by mesne assignments, to The Nevels Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed July 20, 1906. Serial No. 328,288. (Cl. 161—1.)

1. In a bag punching machine, a bag normally located in an inoperative position, an actuator connected therewith and having an arm controlling lever to be connected with said arm, means for holding said actuator in position to permit operation of the machine, a time device, and an indicating device, connections between the controlling levers and indicating device for locking the latter, and connections between the time device and holder for releasing said actuator.

2. In a bag punching machine, a bag normally located in an inoperative position, an actuator connected therewith and having an arm, controlling levers to be connected with said arm on the interposition of a proper member, connections between the controlling levers and actuator for locking the latter against movement, a holder for said actuator, time mechanism connected with said holder, and connections between said time mechanism and holder for operating the latter to release the actuator.

3. In a bag punching machine, a bag suspended from a flexible support, segments arranged to receive the blows of the bag, an indicator connected with each of said segments, a main operating lever connected with the bag support, a lock for said indicator, controlling levers arranged to be connected with the main operating lever on the interposition of a proper member, said levers being connected with said lock, a holder for said main operating lever, a time operated device, and connections between said time operated device and holder for moving the latter to release the main operating lever.



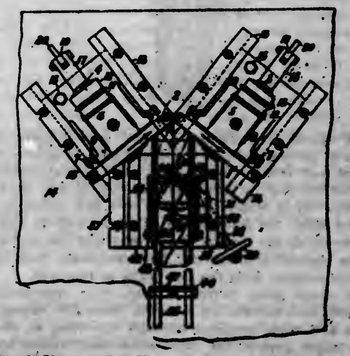
4. In a bag punching machine, a bag suspended from a flexible support, segments arranged to receive the blows of the bag, an indicator connected with each of said segments, a main operating lever connected with the bag support, a lock for said indicator, controlling levers arranged to be connected with the main operating lever on the interposition of a proper member, said levers being connected with said lock, a holder for said main operating lever, a time operated device, and connections between said time operated device and holder for moving the latter to release the main operating lever.

5. In a bag punching machine, a bag suspended from a flexible support, a circle formed of segments to receive the blows of the bag, a pivoted main operating lever connected with the bag support, an indicator connected with each of said segments, a holder for said operating lever, a time device, and connections between the time device and holder and between the indicating device and holder for moving the latter to release the lever.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,817. GRINDING OR ABRADING MACHINE. HENRY WALTERS NEWMAN, Mill Hill, England. Filed Mar. 25, 1910. Serial No. 551,426. (Cl. 51—7.)



1. A grinding or abrading machine comprising two revoluble abrading bodies each with a planary grinding face;

bearings supporting said bodies in positions in which diametral lines upon respective grinding faces contain an angle equal to the angle contained by the cutting edges of the tool to be ground and in positions in which the planes containing respective grinding faces have relative angularity corresponding with the angle of backing off of said cutting edges; and driving means for revolving said bodies.

2. A grinding or abrading machine comprising two revoluble bodies; oscillatory bearings supporting said bodies in positions in which diametral lines upon respective bodies contain an angle equal to the angle contained by the cutting edges of the tool to be ground; driving means for revolving said bodies; and means operative to oscillate said bearings simultaneously with the operation of said driving means in order to vary the relative angularity of the planes containing the grinding faces of said bodies.

3. A grinding or abrading machine comprising a revoluble abrading body; an oscillatory bearing therefor; pivots supporting said bearing the axis of said pivots being parallel with the line of contact between the edge to be ground and the grinding face of said abrading body; driving means for revolving said body; and means adapted to oscillate said bearing about said pivots and thereby to rock said body simultaneously with the driving thereof.

4. A grinding or abrading machine comprising two revoluble abrading bodies; a tool support; oscillatory bearings mounted upon axes parallel respectively with the planes of the respective grinding faces and with the respective edges of the tool to be ground when said tool is on said support; driving means for revolving said bodies; and gear operatively connected with said bearings and adapted to simultaneously and reversely oscillate said bearings and thereby to reversely rock said bodies simultaneously with the driving thereof.

5. A grinding or abrading machine comprising two revoluble abrading bodies each having a planary grinding face; bearings supporting said bodies with their peripheries in contact or close proximity at one point and with diametral lines upon the said grinding faces of the respective bodies passing through such point inclosing an angle approximately equal to the angle contained by the cutting edges of the tool to be ground; and driving means for revolving said bodies.

[Claims 6 to 15 not printed in the Gazette.]

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1,042,816. SPARK-PLUG. Albert J. Parcheim, Lancaster, Pa., assignor of one-half to William F. Lebeaiter and one-half to John J. Thompson, Lancaster, Pa. Filed Jan. 25, 1910, Serial No. 543,645. Renewed Sept. 18, 1911. Serial No. 649,819. (Cl. 123—169.)



1. A spark plug, having a metal cage constituting an electrode, an electrode at the upper part of said cage, and a metal ball within the cage between said electrodes and constituting part of the sparking circuit, the interior of said cage being larger than said ball and affording unobstructed space for free movement of the ball up and down so as to touch the bottom of the cage and the electrode at the top thereof and also for free movement from side to side into contact with the side walls of the cage.

2. A spark plug, having a metal cage constituting an electrode and having an opening centrally through the bottom and other openings through the sides, an electrode at the upper part of the cage, above said bottom opening, and a freely movable metal ball in said cage constituting a movable electrode.

3. A spark plug, having a metal chamber constituting an electrode and having an opening through the wall thereof, an electrode projecting into said chamber and insulated therefrom, and a freely movable metal ball in said cage constituting a movable electrode, said ball resting normally in said opening but too large to pass therethrough.

4. A spark plug, comprising a metal shell presenting a chamber in its lower part, said chamber having an opening centrally through its bottom and presenting an electrode surface at the margin of said opening, an electrode at the upper part of the chamber, and a freely movable metal ball in said chamber between said electrodes.

5. A spark plug comprising a body portion provided with a terminal at one end, a plurality of fingers connected to the body portion and provided with inwardly directed outer ends which terminate short of one another and which form terminals, the fingers and their inwardly directed ends forming a cage, and a metallic ball adapted to be seated normally on the inwardly directed outer ends of said fingers and having vibratory movement in said cage between the inwardly directed outer ends of the fingers and the terminal of the body portion and between said terminal of the body portion and the fingers above said inwardly directed ends of the fingers.

[Claim 6 not printed in the Gazette.]

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1,042,819. METHOD OF PRODUCING FINISHED TEMPERED GEAR. Clark W. Parkin, Springfield, Mass. Filed Mar. 4, 1912. Serial No. 681,681. (Cl. 29—159.)

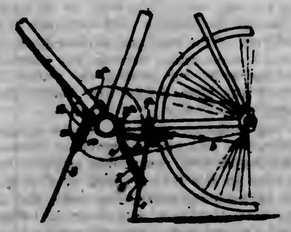
1. The herein described method of producing gear wheels, which consists in first forming a blank; second, cutting the teeth thereon to finish depth, but of dimensions in excess of finish dimensions; third, tempering the gear while in this condition; and lastly, reducing the teeth to final form and dimensions by a cutting as distinguished from a grinding operation.

2. The method of producing finished gears which consists in the following steps; first, producing a gear blank in any usual way; second, boring the same to within a few thousandths of an inch of finish size; third, cutting the teeth to full depth but of a thickness approximately twenty one-thousandths (0.020) of an inch greater than finish thickness on the working face or at the pitch line; fourth, tempering the blank; fifth, grinding the hole to finish diameter; sixth, cutting the gear teeth to finish dimensions.

3. The method of producing true and accurate toothed gearing, which consists in tempering the gear blank prior to reducing the same to finish dimensions; and bringing said gear to finish dimensions by a finishing cut performed after such tempering.

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1,042,820. VELOCIPEDE-STAND. Kurt Possio, Glauchau, Germany. Filed May 10, 1912. Serial No. 696,454. (Cl. 208—79.)



1. A velocipede support comprising a bracket, a supporting leg pivoted to said bracket, a second bracket, a strut pivoted to said second bracket and having a hooked end, said brackets being adapted to connect said leg and strut respectively to a velocipede frame so that when said leg is in a substantially vertical position the hooked end of said strut can be engaged with said leg, and a key operated tumbler pivoted to said strut and adapted to lock said strut in engagement with said leg.

2. A velocipede support comprising a bracket, a leg pivoted to said bracket and having a notch, an abutment fixed to said leg, a second bracket, a strut pivoted to said second bracket and having a hooked end, said brackets being adapted to connect said leg and strut respectively to a velocipede frame so that when said leg is in a substantially vertical position the hooked end of said strut can be engaged with said abutment, and a key operated tumbler pivoted to said strut and adapted to enter said notch and lock said strut in engagement with said abutment.

3. A velocipede support comprising a bracket, a leg pivoted to said bracket and having a notch, an abutment adjustably fixable to said leg, a second bracket, a strut pivoted to said second bracket and having a hooked end, said brackets being adapted to connect said leg and strut respectively to a velocipede frame so that when said leg is in a substantially vertical position the hooked end of said strut can be engaged with said abutment, and a key operated tumbler pivoted to said strut and adapted to enter said notch and lock said strut in engagement with said abutment.

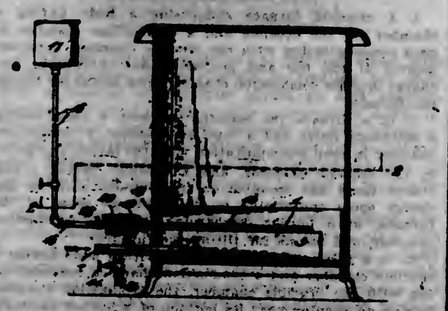
4. A velocipede support comprising a bracket, a leg pivoted to said bracket, a spring connecting said leg to said bracket, a second bracket, a strut pivoted to said second bracket and having a hooked end, a spring connecting said strut to said second bracket, said brackets being adapted to connect said leg and strut respectively to a velocipede frame so that when said leg is in a substantially vertical position the hooked end of said strut can be engaged with said leg, and a key operated tumbler pivoted to said strut and adapted to lock said strut in engagement with said leg.

5. A velocipede support comprising a bracket, a supporting leg pivoted to said bracket, a second bracket, a strut pivoted to said second bracket and having a hooked end, said brackets being adapted to connect said leg and strut respectively to a velocipede frame so that when said leg is in a substantially vertical position the hooked end of said strut can be engaged with said leg, a key operated tumbler pivoted to said strut and adapted to lock said strut in engagement with said leg, a third bracket, a supporting leg pivoted to said third bracket, said third bracket being adapted to connect the second mentioned leg to a velocipede frame so that said leg can be swung to and from its operative position, and means for locking said second mentioned leg alternatively in and out of its operative position.

[Claim 6 not printed in the Gazette.]

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1,042,821. HYDROCARBON-BURNER. Gilbert Pontbriand, West Warren, Mass. Filed Feb. 8, 1912. Serial No. 676,812. (Cl. 158—82.)



1. In a burner of the character described, a hollow body having formed in its upper side a plurality of burner openings, air conducting passages arranged through said body, a fuel mixing chamber connected with said body, a steam supply pipe connected with said mixing chamber, a gas generating coil arranged on said body, an oil supply pipe connected with said coil and an atomizer connected with said oil supply pipe.

2. In a burner of the character described, a hollow body having a bottom plate having on its edges upwardly extending flanges, a top plate secured to said flanged edges of the bottom plate and spaced a suitable distance above the latter to form a fuel receiving chamber, said upper plate having therein a plurality of burner openings, air conducting tubes arranged through the said body and having their upper and lower ends secured respectively in said upper and lower plates of the body, a fuel mixing chamber connected with the fuel receiving chamber of the body, a steam supply pipe connected with said mixing chamber, a valved drain pipe connected with said steam supply pipe whereby the water of condensation is drained from the steam before entering said mixing chamber, a main gas generating coil arranged on said body, a gas conducting pipe to connect one end of said coil with said mixing chamber, an oil supply pipe connected with the opposite end of said coil, an auxiliary gas generating coil having its ends connected with said oil supply pipe, a valve arranged in said oil supply pipe between the connecting ends of the coil whereby the flow of oil through the pipe is cut off and turned through the coil, and a valve arranged in the inlet end of the coil to close the latter when the valve in the oil supply pipe has been opened.

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1,042,822. APPARATUS FOR LAYING CONCRETE COURSES. Herbert Leslie Ransome, New York, N. Y. Filed Nov. 14, 1908. Serial No. 462,543. (Cl. 94—5.)



1. The combination of a mold for laying continuous concrete courses, means mounted thereon for forming a herf in the course adapted to be filled with a finer grade material and means also mounted on the mold for forming a narrower herf in such finer grade material.

2. In a machine for dividing concrete courses, the combination with a traveling frame adapted to move over the course, of means thereon and traveling therewith for forming a herf in the concrete course adapted to be filled with a finer grade material and means on the frame rearward of the first named means for forming a narrower herf in such finer grade material.

3. The combination of a mold for laying continuous concrete courses, means thereon for forming a herf in the course, means for filling such herf with a finer grade material, and means following the means first named for forming a narrower herf in such finer grade material.

4. In an apparatus for forming concrete courses, the combination with a traveling frame of means thereon for forming a herf in a concrete course, means also on the frame to fill the herf with a finer grade material and means on the frame following the first named means to form a narrower herf in such finer grade material.

5. The combination of a mold having a top molding surface and downwardly extending side molding surfaces, the mold adapted to form continuous concrete courses and to advance progressively with the formation thereof, means on the mold for forming a herf in the course adapted to be filled with a finer grade of material and means on the mold behind the first named means to form a narrower herf in such finer grade material.

[Claims 6 to 24 not printed in the Gazette.]

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1,042,823. FRUIT CORING AND CUTTING DEVICE. Levi B. Seaman, Pittsburgh, Pa. Filed Mar. 25, 1912. Serial No. 687,897. (Cl. 146—3.)

1. A device of the type described comprising a handle shank having the lower end thereof reduced and spirally wound to provide a spiral cutting blade, a tubular auger

by the upper end of said shank, an arm slidably mounted in said shank, and a flexible cutting blade carried by said arm, said spiral cutting blade being formed to permit the device to be inserted into the fruit without turning the handle and thereby positioning the cutting elements to provide simultaneous cutting by both elements when the handle is rotated.

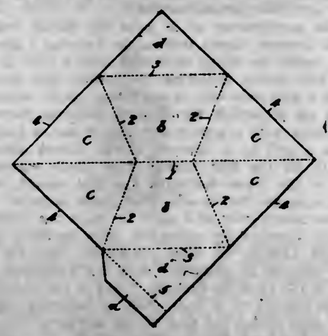


2. A device of the type described comprising a shank, a spiral cutting blade carried thereby, a handle carried by said shank, and an arm slidably mounted in said shank, and a flexible cutting blade carried by the outer end of said arm, said spiral cutting blade being formed to permit the device to be inserted into the fruit without turning the handle and thereby positioning the cutting elements to provide simultaneous cutting by both elements when the handle is rotated.

3. A device of the type described comprising a shank made of a single piece of metal, said shank having the lower end thereof reduced and spirally wound to provide a spiral cutting blade, lateral oppositely disposed cutting blades carried by the lower end of said spiral cutting blade, an arm adjustably held by said shank, and a flexible cutting blade carried by the outer end of the said arm, said spiral cutting blade being formed to permit the device to be inserted into the fruit without turning the handle and thereby positioning the cutting elements to provide simultaneous cutting by both elements when the handle is rotated.

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**1,042,824. PAPER DRINKING-CUP.** RALPH R. RICHARDSON, Chicago, Ill., assignor to Chicago Carton Company, Chicago, Ill., a Corporation. Filed Oct. 23, 1911. Serial No. 656,121. (Cl. 229—1.)



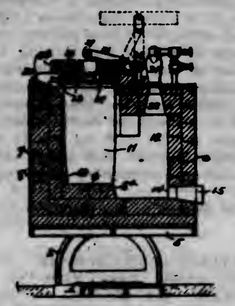
1. A flat, expansible drinking cup formed of a substantially square paper blank and comprising two sides directly connected at the bottom edge of the cup along the central portion of a diagonal fold that extends between opposite corners of the blank, inwardly folded double flaps integral with and connecting said sides, the sections of said double flaps being connected along the end portions of said diagonal fold, and a downwardly folded flap integral with one of said side portions and having an interlocking extension turned under the folded edge of one of said double flaps, substantially as described.

2. A flat, expansible drinking cup formed of a substantially square paper blank and comprising two sides directly connected at the bottom edge of the cup along the central portion of a diagonal fold that extends between opposite corners of the blank, inwardly folded double flaps integral with and connecting said sides, the sections of said double flaps being connected along the end portions of said diagonal fold and having their free edges parallel with the bottom edge of the cup, and two triangular flaps integral with and folded downwardly over said side portions to form the top edge of the cup, one of said downwardly folded flaps having an interlocking extension turned under the folded edge of one of said double flaps, substantially as described.

3. A flat, expansible drinking cup formed of a substantially square paper blank and comprising two sides directly connected at the bottom edge of the cup along the central portion of a diagonal fold that extends between opposite corners of the blank, said sides being connected at the opposite edges of the cup by double flaps inwardly folded against the face of one of said sides with one of said double flaps overlapping the other, the sections of said double flaps being connected along the end portions of said diagonal fold and having their upper free edges parallel to the bottom edge of the cup and coincident with the upper edge thereof, and two diagonal flaps integral with and folded downwardly over said sides, one of said flaps overlying said double flaps and having an interlocking extension turned under the folded edge of the outer double flap, substantially as described.

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**1,042,825. CRUCIBLE-FURNACE.** WALTER S. ROCKWELL, Jersey City, N. J., assignor to W. S. Rockwell Company, New York, N. Y. Filed July 14, 1908. Serial No. 443,432. (Cl. 75—186.)



1. A crucible furnace comprising a body having a chamber for the crucible and a combustion chamber in open communication with the crucible chamber, a burner located at the top and projecting downwardly to discharge into the combustion chamber, and means for tilting the furnace.

2. In a furnace the combination with a body having a discharge spout and a crucible chamber, a combustion chamber in open communication with the latter, a pedestal in the crucible chamber, and a crucible having a discharge spout and mounted on the pedestal with its discharge spout conforming to the discharge spout of the furnace, of a burner discharging into the combustion chamber, and means for tilting the furnace.

3. In a furnace, the combination with a body having a crucible chamber and a combustion chamber communicating with the crucible chamber, the combustion chamber having an opening near its bottom, of a burner discharging into the combustion chamber and means for tilting the furnace.

4. In a furnace, the combination with a body having a discharge spout, a crucible chamber and a combustion chamber communicating with the crucible chamber, a crucible located within the crucible chamber and terminating with its upper edge approximately in line with the discharge spout of the body, and a cover for the opening in the body of the furnace over the crucible, of a burner, discharging into the combustion chamber and means for tilting the furnace.

5. In a furnace, the combination with a body having a crucible chamber and a communicating combustion chamber, of a burner discharging into the top of the combustion chamber, and an opening through the side of the latter adjacent to the bottom thereof.

[Claims 6 and 7 not printed in the Gazette.]

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**1,042,826. IRONING-BOARD CABINET.** WILHELM SCHONGOLD, Holyoke, Mass. Filed July 26, 1911. Serial No. 640,668. (Cl. 69—16.)



An ironing board cabinet comprising a cabinet member proper, a foldable ironing board, a door at one side of the same, a shelf hinged to the upper edge of the cabinet and supported by the door when open, a strip within said member, lazy tongs pivoted thereto and spaced back from the front edge of the cabinet, a support for said foldable ironing-board which is pivotally connected to the lazy tongs and designed to move outward with said tongs and constituting a part of the cabinet member, a bar secured to the cabinet to receive a hook member on the ironing board when the board is extended and rests upon the support at its outer end and the cabinet at its inner end, said cabinet having a space at its rear side to receive the board when folded and not in use.

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**1,042,827. PROCESS FOR OBTAINING METAL PRINTING-PLATES WITH SILVER-SALT GELATIN EMULSION.** PETRAS SCHUMACHER, Frankfort-on-the-Main, Germany, assignor to Corporation of Klimsch & Co., Frankfort-on-the-Main, Germany. Filed Dec. 17, 1910. Serial No. 597,922. (Cl. 101—204.)



1. The process of making metal printing plates with gelatin emulsion which consists in treating the plate with a solution of substance giving an acid reaction, thereby providing the plate with a protective easily removable layer, applying the emulsion to said layer, exposing and developing the picture, removing the unhardened portions with warm water, applying fat inks or varnishes to the plate and removing the rest of the gelatin film.

2. The process of making metal printing plates with gelatin emulsion which consists in treating the plate with a solution of substance giving an acid reaction, thereby providing the plate with a protective easily removable layer, applying the emulsion to said layer, exposing and developing the design, removing the unhardened portions with warm water, removing from the printing portion the protective layer of the exposed and developed plate by the action of acid substances, applying fat inks or varnishes to the plate and removing the rest of the gelatin film.



**1,042,828. CLEANER DEVICE.** STANISLAW SALEK, Lorain, Ohio. Filed May 27, 1912. Serial No. 699,928. (Cl. 15—12.)

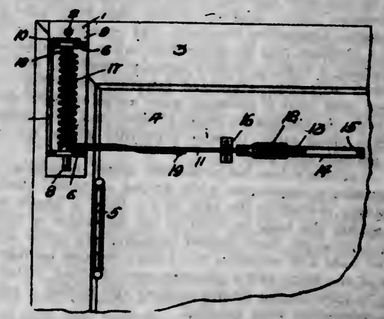


1. A cleaner head comprising a hollow casing having an angular bottom with a slot adjacent one edge thereof, a strip of flexible material fitting against said bottom and extending at one side across said slot, and having edges projecting at opposite sides of the casing, and a block clamped against the outer side of said strip, to hold the same against the bottom of the casing, said block being cut away at the edge under said slot whereby the adjacent edge of the strip may be bent back to open said slot.

2. A cleaner head comprising a hollow casing having a slot along one edge of the bottom thereof, flexible strips extending across said bottom, and projecting respectively at opposite sides of the casing, one edge of one strip projecting in fixed relation to the casing to form a scrubber and the opposite strip extending across the slot and adapted to bend and open the slot, and means to clamp the strips to the bottom of the casing.

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**1,042,829. DOOR-CLOSING DEVICE.** JOHN SHEFFER, Schenectady, N. Y. Filed Jan. 12, 1912. Serial No. 670,966. (Cl. 16—66.)

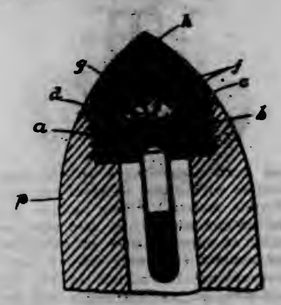


A door closing device comprising a plate adapted to be secured to a door frame and provided with an upper and a lower outwardly extending apertured bearing, a shaft revolubly mounted in said bearing, a ratchet wheel carried by the upper end of said shaft above said upper bearing, a pawl pivoted to said upper bearing and adapted to engage said ratchet wheel to prevent rotation of the shaft in one direction, an arm loosely mounted upon said shaft and supported upon the upper face of said lower bearing, a yoke projecting from the free end of said arm, an anti-frictional wheel journaled within said yoke, a stirrup adapted to be carried by a door and pivoted to said arm for maintaining it parallel with the door, a channel-shaped rail bar to be secured to the door and constituting a track for said roller, and a spring mounted

ing said shaft having the upper end dovetailed thereto and the lower end extending upon the upper and lower faces of and secured to the lower face of said arm.

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1,042,830. PRESSURE-FUSE FOR PROJECTILES, MINES, TORPEDOES, &c. ERNST SOKOLOWSKI, Hamburg, Germany, assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Oct. 3, 1911. Serial No. 652,479. (Cl. 102—39.)




1. A pressure fuse for projectiles, mines, torpedoes, etc., comprising a body, a fulminate carried thereby, a priming member overlying said fulminate and provided with pins extending toward said fulminate, a holding piece screwed into said body and confining the primer member in the stated position, and a pressure piece in front of the central part of said primer member having a rupturable connection with said holding piece.

2. A pressure fuse for projectiles, mines, torpedoes, etc., comprising a cup-shaped body having an outer thread and an inner thread, a fulminate carried centrally in the base of the body, a primer member composed of a rim, inwardly extending arms, and hook-shaped pins, a holding ring having an outer thread engaging the inner thread of the body and confining the primer member against the base of the body and said arms over the fulminate, and a pressure piece inserted within the ring having a rupturable connection therewith and engaging said pins.

3. A pressure fuse for projectiles, mines, torpedoes, etc., comprising a body; a primer member consisting of a rim, inwardly extending arms and inwardly extending hook-shaped pins, and a pressure piece normally held within the body in position in front of said pins, but adapted, under a given force, to move forwardly within the body and actuate said pins.

4. A pressure fuse for projectiles, mines, torpedoes, etc., comprising a cup-shaped body having an inner thread, a fulminate carried in the base of the body, a primer member within the body in front of the fulminate, a holding ring having an outer thread engaging the inner thread of the body and confining the primer member against the base of the body, and a pressure piece inserted within the ring in front of the primer member and having a rupturable connection with the ring.

5. A pressure fuse for projectiles, mines, torpedoes, etc., comprising a primer member carrying a series of hook-shaped pins, a body adapted to carry a fulminate, means to hold the primer member in position to cause the points of said pins to extend in front of said fulminate, and means adapted upon impact to force said pins into said fulminate.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,894. FLEXIBLE STAY-BOLT FOR BOILERS. BENJAMIN H. D. STAFFORD, Pittsburgh, Pa., assignor to Flannery Bolt Company, Pittsburgh, Pa. Filed Dec. 13, 1911. Serial No. 665,506. (Cl. 85—1.5.)

1. A stay bolt structure comprising a bolt having a head, a sleeve or bushing having an internal seat for the



head of the bolt, a soft metal cap forming a closure for the sleeve or bushing, and a nut for locking the cap to the bushing.



2. A stay bolt structure comprising a bolt having a head, a sleeve or bushing having an internal seat for said head, a soft metal cap seated on the outer end of the bushing and forming a closure for the latter and a nut engaging said cap and sleeve or bushing for locking the cap in place.

3. A stay bolt structure comprising a bolt having a head, a sleeve or bushing having an internal seat for said head, a soft metal cap having a base flange or rim adapted to rest on the outer end of the bushing and a nut screwed onto the sleeve or bushing and provided with a lip overlapping the base flange or rim of the cap.

4. A stay bolt structure comprising a bolt having a head, a sleeve or bushing having an internal seat for said head, a soft metal cap resting on the outer end of the sleeve or bushing and forming a closure for the latter, and a nut screwed onto the sleeve or bushing and provided with a lip overlapping the outer edge of the cap, and with an annular shoulder forming an abutment for the edge of the cap to limit the expansion of the latter.

5. A stay bolt structure comprising a bolt having a head, a sleeve or bushing having an internal seat for said head, a soft metal cap concave on its inner side and provided with a base flange or rim resting on the outer end of the sleeve or bushing and forming a closure for the latter, and a nut screwed to the sleeve or bushing and having an annular lip overlapping the base flange or rim of the cap.

[Claim 6 not printed in the Gazette.]

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1,042,832. FLEXIBLE STAY-BOLT FOR BOILERS. BENJAMIN H. D. STAFFORD, Pittsburgh, Pa., assignor to Flannery Bolt Company, Pittsburgh, Pa. Filed Dec. 13, 1911. Serial No. 665,505. (Cl. 85—1.5.)



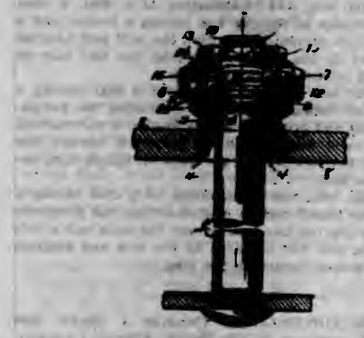
1. A stay bolt structure comprising a bolt having a head, a sleeve or bushing having an internal seat for said head, and also provided with an inverted V-shaped upper end, a soft metal cap seated on said inverted V-shaped end, and a nut screwed to the sleeve or bushing and provided with an annular lip resting on the rim of the cap, and with an annular rib adapted to form an abutment for the rim of the cap.

2. A stay bolt structure comprising a bolt having a head, a sleeve or bushing having an internal seat for said head, a soft metal cap having a centrally located external angular boss, the said cap being mounted on said sleeve or bushing and forming a closure for same, and a nut for locking the cap to the bushing.

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1,042,833. STAY-BOLT FOR BOILERS. BENJAMIN H. D. STAFFORD, Pittsburgh, Pa., assignor to Flannery Bolt Company, Pittsburgh, Pa. Filed Dec. 13, 1911. Serial No. 665,506. (Cl. 85—1.5.)



1. A stay bolt structure comprising a bolt having a head, a sleeve or bushing having an internal seat for said head and also provided with an annular seat or bearing, and with an annular shoulder at the outer edge of said seat, a cap resting on said seat and supported laterally by said shoulder, and a nut having external threads engaging internal threads on the upper end of the sleeve or bushing and provided with an internal shoulder which bears against the top surface of the rim of the cap.

2. A stay bolt structure comprising a bolt having a head, a sleeve or bushing having an internal seat for said head, and also provided with an annular shoulder at the outer edge of said seat, a soft metal cap having a V-shaped lower end resting on said seat and sustained laterally by said shoulder, and a nut having external threads engaging internal threads on the upper end of the sleeve or bushing and provided with an internal shoulder which bears against the top surface of the rim of the cap, the said nut overhanging the rim of said cap.

3. A stay bolt structure comprising a bolt having a head the bearing surface of which is concave and the part thereof above its bearings surface convex, a sleeve or bushing having a convex seat on which the concave surface of the bolt head rests, a removable cap resting on a seat on the bushing and forming a closure for the latter, and a nut screwed to said bushing and bearing against the top of said cap.

4. A stay bolt structure comprising a bolt having a head, a sleeve or bushing having an internal seat for said head, the sides of said sleeve below the seat being convex, and a cap or closure for said sleeve or bushing.

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1,042,834. SAP-SPOUT. CHARLES C. SMALL, New York, N. Y. Filed Apr. 18, 1912. Serial No. 691,603. (Cl. 47—11.)

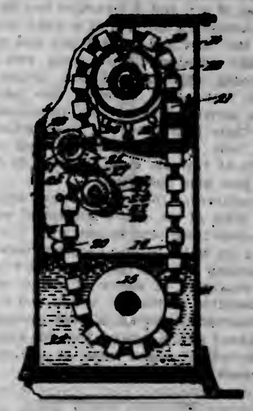
A sap spout, comprising a head, a sap trough provided with a transverse partition forming in conjunction with a cap orifice in said head a trap for the sap, and a pivoted lip on said head overlying said partition and



trap and undercut at its sides to receive a basket supporting bail.

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1,042,895. FEEDER FOR CARBURETERS. ALBERT AARON STEWARD, Rutland, Vt. Filed May 28, 1910. Serial No. 563,906. Renewed Apr. 3, 1912. Serial No. 688,198. (Cl. 198—6.)



1. In a feeder for carbureters, an elevating carrier provided with buckets, a receptacle to receive liquid discharged from said buckets, and manually adjustable means for tipping said buckets before they reach said receptacle.

2. In a feeder for carbureters, an elevating carrier provided with buckets, a receptacle to receive liquid discharged from said buckets, and a pivoted lever mounted to tip said buckets before they reach said receptacle.

3. In a feeder for carbureters, an elevating carrier provided with buckets, a receptacle to receive liquid discharged from said buckets, and a pivoted lever having a circular contact face to tip said buckets before they reach said receptacle.

4. In a feeder for carbureters, an elevating carrier provided with buckets, a receptacle to receive liquid discharged from said buckets, and a pivoted lever extended in opposite directions from its pivot to engage opposite sides of said carrier.

5. In a feeder for carbureters, an elevating carrier provided with buckets, a receptacle to receive liquid discharged from said buckets, a pivoted lever having a contact face to engage said carrier to tip said buckets, a retaining lever upon the shaft of said pivoted lever, and provided with a latch, and a fixed sector cooperating with said latch.

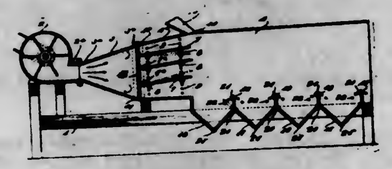
[Claims 6 to 12 not printed in the Gazette.]

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1,042,896. SEPARATOR. FRITZ OSCAR SWANSTROM, Seattle, Wash. Filed Mar. 11, 1912. Serial No. 682,861. (Cl. 55—54.)

1. In a dry separator, the combination with means for producing a blast of air; of a trunk wherein said blast is in the direction of the blast of air, the side walls having two upright series of holes and the top wall having a feed opening, a series of partitions disposed one above the

other within the trunk, and rods removably mounted in certain pairs of said openings for adjustably supporting the front and rear ends of each partition independently of each other and of the other partitions.



2. In a separator, the combination with means for producing a blast of air, and a separator box having a series of chambers across its bottom; of a trunk connecting said means with the inlet end of said box and its side walls having upright openings between the two and its top wall an opening adjacent said box, means for feeding through the last-named opening the material to be separated, a series of transverse partitions adjustably mounted at their front and rear ends within the trunk between its side openings and its feed opening, and screen panels of variable mesh adapted to be removably inserted in said side openings.

3. In a separator, the combination with means for producing a blast of air, and a horizontal separator box; of a trunk connecting said means with the inlet end of said box and its walls having openings between the two, means for feeding through the top of the trunk the material to be separated, a series of transverse partitions adjustably mounted within the trunk, and a panel adapted to be removably inserted in said openings and comprising a frame and a screen therein which is of fine mesh at one end, of coarse mesh at the other end, and of medium mesh between said ends.

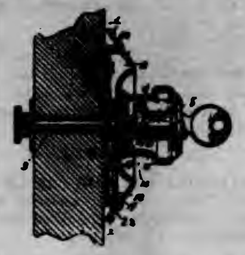
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1,042,837. AUTOMATIC CARTRIDGE-MAGAZINE FOR FIREARMS. EDMOND TATARSZ, Budapest, Austria-Hungary, assignor of one-half to Johan von Benko de Arkosi, Debrecsen, Austria-Hungary. Filed Feb. 9, 1911. Serial No. 607,646. (Cl. 42—7.)



An improved automatic cartridge magazine for self-loading fire-arms, comprising in combination a cartridge tube, straight at the upper end, which is connected with the breech of the gun and wound in spirals at the lower end, a cover for said lower end of the cartridge tube having a curved guide slot, a spring-influenced axle revolubly mounted at the center of the lower part of the cartridge tube, a guide piece fixed at one end of said axle, a sleeve in said guide piece, a pusher rod telescopically mounted in said sleeve, a roller in the upper end of said pusher rod bearing against the last cartridge of the magazine, an indicator fixed at the outer end of said pusher rod engaging with said guide slot of the cover, substantially as described and shown and for the purpose set forth.

1,042,838. DIAL-LOCK. WARREN H. TAYLOR, Stamford, Conn., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Filed May 1, 1912. Serial No. 694,537. (Cl. 70—56.)



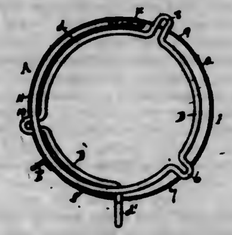
1. In a dial lock, the combination of a dial, a ring embracing the edge of the dial and having a keeper, and a key lock and bolt carried by the dial, the said bolt adapted to be actuated by the key lock whereby the dial may be locked to and released from the ring.

2. In a dial lock, the combination of a dial having a hollow knob or thumb turn, a ring embracing the periphery of the dial and provided with a keeper, a bolt carried by the dial and adapted to be projected toward the keeper and a key lock within the knob or thumb turn for actuating the bolt.

3. In a dial lock, the combination of a dial having a hollow knob or thumb turn, a ring encircling the periphery of the dial, a pin tumbler lock within the knob and a bolt carried by the dial and actuated by the lock and adapted to engage a keeper formed in the ring.

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1,042,839. SHADE-HOLDER. CHARLES A. TERRY, New York, N. Y., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed June 20, 1911. Serial No. 634,216. (Cl. 240—115.)



A shade holder, comprising a collar and a spring coil within the latter, normally contracted to elastically hold the shade, the coil having over-lapping ends, one such end being secured to the collar, with a handle at the other free end, by the aid of which the coil may be expanded from its normal position.

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1,042,840. APPARATUS FOR CLEANING, COOLING, AND WASHING GASES. HANS EM. THEISSEN, Munich, Germany. Filed Jan. 6, 1912. Serial No. 669,826. (Cl. 48—141.)

1. A device of the character described, embodying therein a supporting disk, a plurality of paddle blades attached to said disk, said paddle blades having openings therein adjacent the point of attachment to said disk, and washing surfaces adjacent said blades.

2. A device of the character described, embodying therein a supporting disk, a plurality of paddle blades attached to said disk, said paddle blades having openings therein adjacent the point of attachment to said disk, the openings in successive blades being offset relatively to each other, and washing surfaces adjacent said blades.



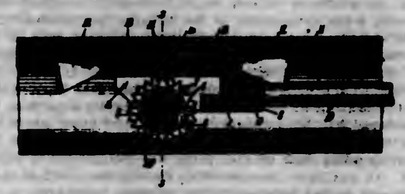
3. A device of the character described, embodying therein a casing having its inner walls formed as washing surfaces, a supporting disk and a plurality of paddle blades carried thereby, said blades being curved at their ends attached to the disk and having their opposite ends turned to extend in a direction substantially parallel to said supporting disk, a separate conduit in said casing for receiving solid particles and fluid from the ends of said blades which are turned substantially parallel to the disk, and means for revolving said disk and blades.



4. A device of the character described, embodying therein a supporting disk, a plurality of paddle blades on said disk, each said paddle blade having openings therein adjacent its point of attachment to said disk and having its outer end extended and reduced as compared to the body of the blade, a gas escape conduit into which the extended ends of the blades project, a casing for laterally inclosing said blades, and means for revolving said blades.

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1,042,841. TUBE-SCRAPER. MARTIN J. THORSEN, Weehawken, N. J. Filed Dec. 8, 1911. Serial No. 664,563. (Cl. 88—64.)



1. A tube scraper comprising a body portion, a blade secured thereto, the edge portion of one end of the blade being curved whereby it may engage the inside of a pipe or similar body, the other end of the blade being adapted for engagement with the inside of the pipe at a distance from the portion engaged by the said edge portion, together with a plurality of revoluble serrated wheels carried by the body member and positioned intermediate the said blade and bearing member and on the opposite side of the body portion whereby, when the device is inserted in a pipe or tube, the deposits therein may be removed and crushed.

2. A tube scraper comprising a body member, a blade carried thereby adjacent one side thereof, the edge portion of one end of the blade being curved whereby it may engage the inside of the tube or pipe, the other end of the blade forming a bearing adapted for engagement with the inside of the tube or pipe, together with a plurality of rotatable wheels carried by the body member positioned intermediate the ends of the said blade and adapted for engagement with the pipe longitudinally thereof when the device is positioned within the pipe or tube, and means carried by the body member having a handle attached thereto.

3. A tube scraper comprising a body member, a blade at one side thereof, the edge portion of one end of the blade beyond the body member being curved whereby it may engage the inside of a tube, the other end of the blade being adapted for engagement with the inside of the tube at a distance from the place of engagement by the said curved end portion, a shaft extending transversely of the body member and carried thereby, a wheel mounted on the said shaft whereby, the wheel being on the opposite side of the body member and intermediate the ends thereof when the device is inserted within a tube and moved longitudinally thereof, the said blade will remove the deposit from the inside thereof, the longitudinal travel of the wheel crushing the said deposit, thereby preventing obstruction of the tube.

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1,042,842. TOOL-HOLDER. CHARLES TILGNER, Ogden, Ill. Filed Nov. 22, 1911. Serial No. 661,762. (Cl. 145—71.)



1. In a tool holder including a shank, a head mounted to swing on the shank, a ratchet on the head and revoluble thereon in a plane at right angles to the pivotal connection of the head with the said shank, means for retaining the said head in longitudinal alinement with the shank, a casing on the shank, and a reversible dog movable in the said casing and projecting exteriorly therefrom to engage the said ratchet when the said head is swung at right angles to the longitudinal plane of the said shank.

2. In a tool holder including a shank, a head mounted to swing on the shank, a ratchet on the said head and revoluble in a plane at right angles to the pivotal connection of the head with the said shank, means for retaining the head in longitudinal alinement with the shank, a slotted casing on the said shank, a dog movable in the said casing, a handle for the dog and extending through the slot in the said casing, and a spring in the casing and engaging the dog to retain the same in engagement with the said ratchet when the said head is swung at an angle to the said shank.

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1,042,843. DEVICE FOR CARRYING KEYS. FRANCISCO ANTONIO TOCA, Lake Charles, La. Filed Apr. 19, 1911. Serial No. 622,050. (Cl. 24—84.)



A holding device for attachment to garments, comprising a single strip of resilient material, bent near the middle and folded flat upon itself to form a resilient gripping tongue, also bent at the termination of said tongue into two divergent arms, one of said arms being bent to form a U-shaped loop, and the other arm projecting into and engaging the free end of said U-shaped loop, thus forming a snap hook, substantially as and for the purpose described.

1,042,844. REFRACTORY MATERIAL. FRANK J. TONE, Niagara Falls, N. Y., assignor to The Carborundum Company, Niagara Falls, N. Y., a Corporation of Pennsylvania. Filed Apr. 26, 1905. Serial No. 257,310. (Cl. 106—10.)

1. A plastic refractory furnace lining, including silicon carbid, fire clay and silicate of soda, the silicon carbid constituting not less than fifty per cent. of the lining, and the silicate of soda constituting not more than fifteen per cent. of the lining the mixture forming a self sustaining refractory compound; substantially as described.

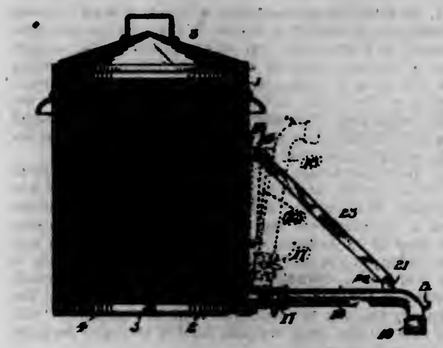
2. A plastic refractory furnace lining, including carborundum as the major portion thereof, a bond which is relatively more effective at a relatively high temperature, and another bond which is most effective at a relatively low temperature, the latter bond being present in a proportion of not over fifteen per cent. of the lining the mixture forming a self sustaining refractory compound; substantially as described.

3. A plastic refractory furnace lining, including carborundum as the major portion thereof, a bond which is most effective at a relatively high temperature, and another bond consisting of silicate of soda comprising not over fifteen per cent. of the lining the mixture forming a self-sustaining refractory compound; substantially as described.

4. As a new composition of matter, a self-sustaining plastic refractory furnace lining material, composed of eighty parts carborundum, ten parts fire clay, and ten parts silicate of soda; substantially as described.

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1,042,845. RENDERING VESSEL. STEVE TOTH and JOHN VECSEI, Windber, Pa. Filed July 3, 1912. Serial No. 707,612. (Cl. 87—13.)



A rendering vessel comprising a body portion having an outlet near its bottom, a foraminous member arranged within the receptacle at the inner end of the outlet, a pair of laterally extending spaced staples integral with the periphery of said receptacle below said outlet, a plate secured to the periphery of the receptacle above the outlet, the periphery of said receptacle provided with a groove surrounding the outer end of the outlet, a collar hinged to said plate and having a depending hasp adapted to extend between said staples, said collar engaging in said groove, means extending through the staples for maintaining the hasp in position, a valved spout connected to said collar, and links pivotally connected to the receptacle and to said spout.

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1,042,846. STEAM-ACTUATED EXHAUST-VALVE. ERNEST TURNER, Dadeville, Ala. Filed Nov. 30, 1910. Serial No. 594,897. (Cl. 121—117.)

1. An auxiliary exhaust valve for engine cylinders comprising a casing having a live steam port and an exhaust steam port at each end connected to corresponding ends of the engine cylinder respectively through openings in the cylinder heads and walls of the cylinder, and a reciprocating valve in said casing operated automatically by the live steam from the working side of the cylinder piston for opening the exhaust port communicating with the opposite side of the cylinder piston and holding it open after the main exhaust is closed.



2. An auxiliary exhaust valve for engine cylinders comprising a casing having a live steam port and an exhaust port at each end communicating with corresponding ends of the engine cylinder respectively through openings in the cylinder heads and walls of the cylinder, and a double piston reciprocating valve in said casing operated automatically at the beginning of each cylinder piston stroke by live steam from the working side of said piston for opening the exhaust port on the exhaust side of the same piston and holding it open after the main exhaust is closed and until the stroke is about completed.

3. An auxiliary exhaust valve for engine cylinders comprising a casing fastened to the cylinder, a double reciprocating valve in said casing adapted to alternately open and close an exhaust port near each end of said cylinder, and a separate live steam port connecting each end of the cylinder to the corresponding end of the casing, whereby live steam may enter the casing from the cylinder and operate the valve.

4. An auxiliary exhaust valve for engine cylinders comprising a casing fastened to the cylinder, ports connecting said cylinder and casing near their adjacent ends, a reciprocating valve adapted to alternately open said ports for the passage of exhaust steam from the cylinder, the piston in the cylinder adapted to close said ports prior to the seating of the valve, whereby said piston may be cushioned by the unescaped exhaust, and other ports for conveying live steam from the ends of the cylinder to the corresponding ends of the casing for operating said valve.

5. An auxiliary exhaust valve for engine cylinders comprising a casing fastened to the cylinder, registering ports in the cylinder and casing near their respective ends, a double piston valve adapted to alternately open said ports for the passage of exhaust steam into said casing, spaced pairs of bushes in the ends of said casing within which said valves slide, the spaces between said pairs of bushes registering with the ports in the casing, and a separate live steam port opening into each end of the casing.

[Claim 6 not printed in the Gazette.]

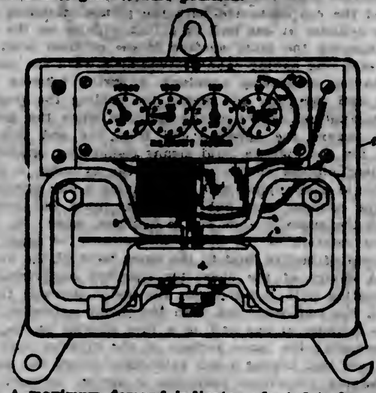
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1,042,847. ELECTRIC METER. MATHIAS B. TURNER, Cleveland Heights, Ohio. Filed Apr. 6, 1909. Serial No. 488,968. (Cl. 171—94.)

1. The combination, with a meter having a dial plate and a gear train in the rear of said dial plate, a maximum indicator comprising a shaft extending through said dial plate, a pointer carried by the forward end of said shaft, a rotatable gear mounted in the rear of said dial plate, driving connections between said gear and said shaft whereby said shaft will be rotated when said gear revolves in a forward direction and will be left stationary when said gear rotates reversedly, a gear operated by the meter train and adapted to rotate said first gear in a forward direction, means for separating said gears at predetermined time-intervals, and means operative during such separation to set said first gear to zero position.

2. The combination with a meter having a dial plate and a gear train in the rear of said dial plate, of a maximum demand indicator comprising a shaft extending through said dial plate, a maximum demand pointer secured to the forward end of said shaft, a turning member at the rear end of said shaft, a gear mounted beyond the inner end of said shaft and normally having its axis substantially coincident therewith, means rotatable with said gear and adapted to engage said turning member when the indicating pointer is at zero position, a second gear connected with the meter train and adapted to rotate said first gear in a forward direction, said turning member and said means being so arranged as to rotate said shaft forwardly when said gear is rotated forwardly, means for separating said gears at predetermined time intervals, and means operative during such separation to set said first gear to zero position.





3. A maximum demand indicator adapted to be applied to existing electric meters, said indicator comprising, in combination, a shaft carrying an indicating device at its forward end, a gear adapted to drive said shaft when rotated in a forward direction and to become operatively disconnected from said shaft when driven in the reverse direction, a current driven gear adapted to rotate said first gear in a forward direction, means for separating said gears at predetermined time intervals, means operative during such separation to set said first gear to zero position, and means operative from the outside of the meter casing for moving both said indicating device and said first gear to zero position.

4. A maximum demand indicator adapted to be applied to existing electric meters, said indicator comprising, in combination, a shaft carrying an indicating device at its forward end, a gear having means tending to retain it at zero position and to engage said shaft when the indicating device carried thereby is at zero position, and to drive said shaft when driven forward from zero position but to release said shaft when driven reversely, a current driven gear adapted to rotate said first gear in a forward direction, means for separating said gears at predetermined time intervals to allow said shaft engaging gear to return to zero position, and means operative from the outside of the meter casing for moving both said indicating device and said shaft engaging gear to zero position.

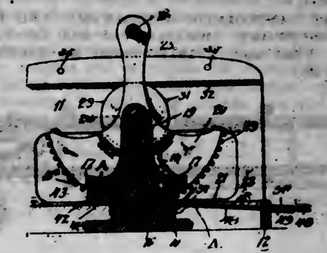
5. In an electric meter, in combination, a shaft having an indicating device, a driving arm carried by said shaft, a current driven gear, a gear provided with means for engaging said driving arm and rotating said shaft in one direction, and adapted to mesh with said current driven gear, means for shifting said second gear out of engagement with said current driven gear at predetermined time intervals, and means operative during such separation to set said second gear to zero position.

[Claims 6 to 20 not printed in the Gazette.]

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1,042,848. MACHINE FOR PRINTING PROOFS. ROBERT O. VANDERCOOK, Fruitvale, Cal. Filed Feb. 6, 1909. Serial No. 476,894. (Cl. 101—41.)

1. In a printing press comprising a horizontal type-bed, a frame therefor embracing vertical side plates, supporting rails at the sides of the type-bed, a rocking, segmental impression-member located between said side plates, rockers rigid with the impression member supported on said rails, the said side plates being provided with downwardly facing bearing surfaces parallel to said rails and located in a plane at a vertical distance from the axis of oscillation of said impression-member less than the radius of said impression-member, and the impression-member being provided with parts arranged for rolling engagement with said downwardly facing bearing surfaces, said impression-member being provided with upwardly extending arms connected by a cross member to afford a handle to rock the impression member.



2. A printing press comprising a horizontal type bed, a frame therefor embracing vertical side plates, supporting rails at the sides of the type bed, a rocking, segmental impression-member located between said side plates, rockers rigid with said impression-member and concentric therewith supported on said rails, the said side plates being provided with downwardly facing bearing surfaces parallel with said rails and located in a plane at a vertical distance from the axis of oscillation of said impression member less than the radius of said impression-member, and the impression-member being provided with parts arranged for rolling engagement with said downwardly facing bearing surfaces, said impression-member being provided with upwardly extending arms connected by a cross member to afford a handle to rock the impression member.

3. A printing press comprising a horizontal type-bed, a frame therefor embracing vertical side plates, supporting rails at the sides of the type-bed, a rocking, segmental impression-member located between said side plates, rockers rigid with the impression member supported on said rails, the said side plates being provided with downwardly facing bearing surfaces parallel to said rails and located in a plane at a vertical distance from the axis of oscillation of said impression-member less than the radius of said impression-member, and the impression-member being provided with parts arranged for rolling engagement with said downwardly facing bearing surfaces, and stops extending inwardly from said side plates to limit the rocking movement of the impression member.

4. A printing press comprising a horizontal type bed, a frame therefor embracing vertical side plates, parallel supporting rails at the sides of the type bed, a rocking, segmental impression member located between said side plates, rockers rigid with the impression member supported on said rails, the said side plates being provided with downwardly facing bearing surfaces parallel with said rails, and the impression member being provided with parts arranged for engagement with said bearing surfaces, and stops extending inwardly from the ends of said side plates near their upper margins to limit the rocking movement of the impression member, said frame being open at its ends and the said stops being removable to permit the impression member and its rockers to be removed from and inserted between the side plates at the ends of said frame.

5. In a printing press comprising a horizontal type-bed, a frame therefor embracing vertical side plates, supporting rails at the sides of the type-bed, a rocking, segmental impression-member located between said side plates, rockers rigid with the impression-member and supported on

the said rails, said rockers and said rails being provided with intermeshing teeth, the said side plates being provided with downwardly facing bearing surfaces parallel with said rails and located in a plane at a vertical distance from the axis of oscillation of said impression member less than the radius of said impression-member, laterally and oppositely extending studs carried by the impression-member, and rolls mounted on the studs adapted to have rolling engagement with said downwardly facing bearing surfaces.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,849. AUTOMATIC STEAM-FEED AND PISTON-ROD SUPPORT. WILLIAM VAN DER LEAST, Leona, Wis. Filed Mar. 1, 1911. Serial No. 611,624. (Cl. 121—45.)



1. A device of the character specified, comprising in combination with the cylinder, the piston movable therein, and the rod connected with the piston extending out of the cylinder at one end, of a ring slidable on the rod and engaging the inner surface of the cylinder with its edge, said ring having a hub extending toward the piston and having transverse openings, a spring between the piston and the ring, and means for holding the ring at the longitudinal center of the cylinder when the piston moves toward the opposite end from the end through which the rod extends, said means comprising oppositely extending nipples, at the longitudinal center of the cylinder and communicating therewith, a head movable in each nipple and having a hub extending radially into the cylinder, the inner end of each hub being beveled in opposite directions, the nipples being reduced near their inner ends to form a shoulder for engagement by the head to limit the inward movement of the hubs, guides for the heads, and means for preventing rotation of the heads, means comprising pipes for admitting the motive fluid to the outer ends of the nipples and openings through the hubs, the outer faces of the heads being of greater area than the inner faces to cause the motive fluid to normally press the heads inwardly.

2. A device of the character specified, comprising in combination with the cylinder, the piston movable therein, and the rod connected with the piston extending out of the cylinder at one end, of a ring slidable on the rod and engaging the inner surface of the cylinder with its edge, said ring having a hub extending toward the piston and having transverse openings, a spring between the piston and the ring, and means for holding the ring at the longitudinal center of the cylinder when the piston moves toward the opposite end from the end through which the rod extends, said means comprising oppositely extending nipples, at the longitudinal center of the cylinder and communicating therewith, a head, movable in each nipple and having a hub extending into the cylinder, the inner end of each hub being beveled in opposite directions, the nipples being reduced near their inner ends to form a shoulder for engagement by the head to limit the inward movement of the hubs, guides for the heads, means for preventing rotation of the heads, and means for admitting the motive fluid to both faces of each head.

3. A device of the character specified, comprising in combination with the cylinder, the piston movable therein, and the rod connected with the piston extending out of the cylinder at one end, of a ring slidable on the rod and engaging the inner surface of the cylinder with its edge, said ring having a hub extending toward the piston and having transverse openings, a spring between the piston and the ring, and means for holding the ring at the longitudinal center of the cylinder when the piston moves toward the opposite end from the end through which the rod extends, said means comprising oppositely extending nipples at the center of the cylinder, a head movable in each nipple, each head having a hub extending into the cylinder, said hub having its inner end beveled toward the opposite ends of the cylinder, means for limiting the inward movement of the heads, means for preventing rotation of the heads, and means for supplying an excess of motive fluid to the outer faces of the heads.

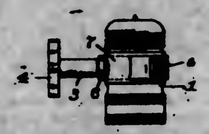
4. A device of the character specified, comprising in combination with the cylinder, the piston movable therein, and the rod connected with the piston extending out of the cylinder at one end, of a ring slidable on the rod and engaging the inner surface of the cylinder with its edge, said ring having a hub extending toward the piston and having transverse openings, a spring between the piston and the ring, and means for holding the ring at the longitudinal center of the cylinder when the piston moves toward the opposite end from the end through which the rod extends, said means comprising oppositely extending nipples at the center of the cylinder, a head movable in each nipple, each head having a hub extending into the cylinder, said hub having its inner end beveled toward the opposite ends of the cylinder, means for preventing rotation of the heads, and means for supplying an excess of motive fluid to the outer faces of the heads.

5. A device of the character specified comprising in combination with the cylinder, the piston movable therein and the rod connected with the piston extending out of the cylinder at one end, of a ring slidable on the rod and engaging the inner surface of the cylinder with its edge, said ring having a hub extending toward the piston and having transverse openings, a spring between the piston and the ring, and means for holding the ring at the longitudinal center of the cylinder when the piston moves toward the opposite end from the end through which the rod extends, said means comprising oppositely extending nipples at the center of the cylinder, a head movable in each nipple, each head having a hub extending into the cylinder, said hub having its inner end beveled toward the opposite ends of the cylinder, and means for supplying an excess of motive fluid to the outer faces of the heads.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,850. GAS-REGULATING VALVE. ARTHUR A. VOCK, Marysville, Ohio, assignor to The Standing Stamping Company, Marysville, Ohio, Incorporated. Filed Dec. 4, 1911. Serial No. 663,682. (Cl. 137—4.)



In combination in a gas regulating valve, a casing, a spindle extending through the casing to connect with the valve member therein, and a resilient clip for holding the spindle in place, formed of flat metal, having one bifurcated end fitting into an annular groove on said spindle, and having the other end frictionally embracing the surface of said casing and terminating at a point more than half way around said casing, said being supported on said casing solely by clamping itself thereon, substantially as described.

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1,042,851. ASH-RECEIVER AND HOLDER. GEORGE VONNEGE, Chicago, Ill. Filed Dec. 21, 1911. Serial No. 667,696. (Cl. 131—51.)

1. A device of the kind described comprising a receptacle provided with a perforated top, two sides and one end depended from said top and a bottom portion carrying one end and removably secured thereto; and two resilient short side portions carried by said bottom portion for frictionally maintaining said bottom portion in normal position, substantially as described.





2. A device of the kind described comprising a receptacle provided with a perforated top, two sides and one end depended from said top and a bottom portion carrying one end and removably secured thereto; two resilient short side portions carried by said bottom portion for frictionally maintaining said bottom portion in normal position; and means in said bottom portion to facilitate manually removing said bottom portion, substantially as described.

3. A device of the kind described comprising a receptacle provided with a perforated top, two sides and one end depended from said top and a bottom portion carrying one end and removably secured thereto; two resilient short side portions carried by said bottom portion for frictionally maintaining said bottom portion in normal position; and a bifurcated upstanding member provided with match striking surfaces carried on said perforated top, substantially as described.

4. A device of the kind described comprising a receptacle provided with a perforated top, two sides and one end depended from said top and a bottom portion carrying one end and removably secured thereto; two resilient short side portions carried by said bottom portion for frictionally maintaining said bottom portion in normal position; a bifurcated upstanding member provided with match striking surfaces carried on said perforated top; and lateral projections on said bifurcated upstanding members to facilitate manually lifting the device, substantially as described.

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1,042,852. CONDUIT-JOINT. GEORGE B. VON BODEN, San Francisco, Cal. Filed Apr. 27, 1912. Serial No. 693,758. (Cl. 137—34.)

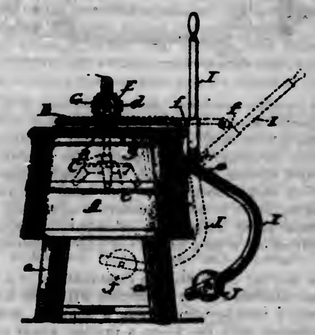


1. In a conduit coupling, the combination of a pipe having an end with an external shoulder back of the extremity thereof, said pipe having the exterior tapering from the shoulder to the extremity; a coupling member of elbow-form having an enlarged end provided with a tapering bore forming a socket for the tapering pipe-end, said coupling member having an annular chamber on its inside at the base of and connecting with the socket, and disposed adjacent the inner end of the tapered pipe-end; a cap screwed upon the outer end of the coupling member, said cap being bored to fit over said pipe and to inclose said shoulder; and a spring surrounding said pipe, said cap being chambered to receive the spring, and said spring being confined between said shoulder and an end wall of the cap.

2. In a conduit coupling, the combination of pipe sections each having an end with an external shoulder back of the extremity thereof, each of said pipe sections having the exterior tapering continuously from the shoulder to the extremity; a coupling member of double elbow form having each end enlarged and provided with a tapering bore forming a socket for the corresponding end of a pipe section, said coupling member having each end provided with an annular chamber on its inside at the base of and connecting with the tapering bore, and disposed adjacent the inner end thereof, caps screwed upon the outer ends of the coupling member, said caps being bored to fit over the pipe sections and to inclose the shoulders thereof; and a spring surrounding each pipe section, said caps being chambered to receive the springs, and said springs being confined between said shoulders and an end wall of the cap.

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1,042,853. MECHANICAL MOVEMENT FOR WASHING-MACHINES. WILLIAM H. VOSS, Davenport, Iowa. Filed Mar. 14, 1908. Serial No. 421,247. (Cl. 74—59.)



1. A mechanical movement for washing machines comprising a vertically disposed rotary reciprocal shaft, a lever movable in a plane parallel to said shaft and having its lower end curved in the direction of its movement, a weight connected to its lower pendulous end, and means actuated by said lever in the same plane therewith for transmitting motion therefrom to said rotary reciprocal shaft.

2. A mechanical movement for washing machines comprising a vertically disposed rotary reciprocal shaft, a lever movable in a plane parallel to said shaft and having its lower end curved in the direction of its movement, a weight attached to its lower pendulous end, and means actuated by said lever in the same plane therewith for transmitting motion therefrom to said rotary reciprocal shaft.

3. A mechanical movement for washing machines comprising a vertically disposed rotary reciprocal shaft, a lever movable in a plane parallel to said shaft and having its lower end curved in the direction of its movement, a weight adjustable longitudinally on its lower pendulous end, and means actuated by said lever in the same plane therewith for transmitting motion therefrom to said rotary reciprocal shaft.

4. A mechanical movement for washing machines comprising a vertical rotary reciprocal shaft, mechanism for actuating the same including a vertically disposed lever fulcrumed medium its ends and connected to said shaft, the plane of movement of said lever being parallel to the axis of said shaft, and having its lower end curved in the direction of its movement, and a weight conveniently connected to the lower end of the same.

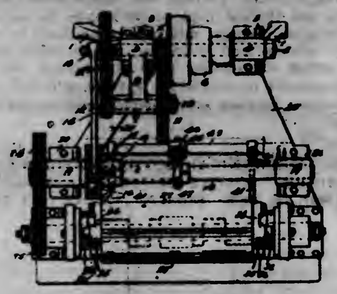
5. A mechanical movement for washing machines comprising a rotary reciprocal driven shaft, a rotary reciprocal drive shaft arranged at right angles thereto, means

operatively connecting said shafts, a spur-wheel on said drive-shaft, a lever disposed in the same general direction as said driven shaft and fulcrumed medially its ends, a weight on the lower pendulous end of said lever, a reciprocal rack-bar pivotally connected to and actuated by said lever and extending toward said rotary reciprocal shaft and engaging said spur-wheel.

[Claims 6 to 14 not printed in the Gazette.]

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1,042,864. CASTING-MACHINE. JOHN WARLSTROM and SIMON HAUNSPERGER, Alton, Ill. Filed Apr. 22, 1911. Serial No. 622,790. (Cl. 22—75.)



1. In a casting machine, the combination of a frame, a driving mechanism, a step-by-step mechanism operated by the driving mechanism, a sectional mold operated by said step-by-step mechanism and means for simultaneously opening and closing the molds, said means comprising a plurality of cams mounted on the mold carrying shaft and engaging pairs of rollers mounted at the top and bottom of said mold, said pairs of rollers engaging other rollers carried by a pair of curved plates secured to said mold.

2. In a casting machine, the combination of a frame, a driving mechanism, a lever connected with said mechanism and having a step-by-step action, a shaft, a disk on the shaft connected with the lever, a ratchet wheel and pawls operated by the part rotation of the disk, and a sectional mold having mold cavities on opposite sides operated by the ratchet wheel and pawls.

3. A casting machine, consisting of a frame, a feed hopper, a driving mechanism, a step-by-step mechanism operated by the driving mechanism and a sectional mold having cavities on opposite sides adapted to be alternately brought under the hopper, a hollow shaft carrying the mold sections, abutments on said sections and cams for engaging the abutments to open and close the mold sections.

4. A casting machine, consisting of a frame, a feed hopper, a sectional mold having cavities on opposite sides adapted to be alternately brought under the hopper, a hollow shaft carrying the mold sections, abutments on said sections, and cams for engaging the abutments to open and close the mold sections.

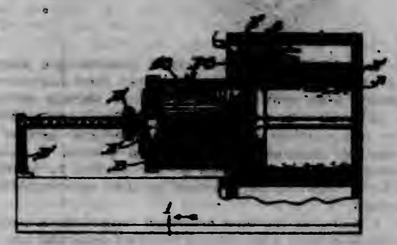
5. In a casting machine, the combination with a frame, a driving shaft, a driven shaft, and a mold-carrying shaft, of a sectional mold mounted upon said shaft, and means including cams mounted on the mold-carrying shaft, plates having rollers and mounted upon one of the mold sections, and stop devices against which the rollers may contact whereby the simultaneous opening and closing of the mold sections may be accomplished.

[Claims 6 to 10 not printed in the Gazette.]

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1,042,865. INTERFERENCE-PREVENTER FOR WIRELESS-TELEGRAPH CIRCUITS. WILLIAM L. WALKER, Boston, Mass. Filed Jan. 27, 1910. Serial No. 540,216. (Cl. 178—122.)

1. In a transformer for resonant circuits, an inductance coil comprising a series of inductance sections, a main lead connected with the first of said sections, groups of contact members, corresponding in number to the inductance sections, each group comprising two pairs of contacts, the first pair of each group normally out of contact, one of said first pair connected with a main lead, the other to a terminal of an inductance section, the second pair of each group normally in contact, one of said second pair connected to the inductance section terminal to which a member of the first pair is connected, the other of said second pair connected with a terminal of the inductance section next in series, and means to reverse the connection relations between the pairs of contact members in any group, so as to connect the pair which is normally out of contact, and separate the pair which is normally in contact.



2. In a transformer for resonant circuits, an inductance coil comprising a series of inductance sections, a main lead connected by sliding turn-to-turn contact with the first of said sections, groups of contact members, corresponding in number to the inductance sections, each group comprising two pairs of contacts, the first pair of each group normally out of contact, one of said first pair connected with a main lead, the other to a terminal of an inductance section, the second pair of each group normally in contact, one of said second pair connected to the inductance section terminal to which a member of the first pair is connected, the other of said second pair connected with a terminal of the inductance section next in series, and means to reverse the connection relations between the pairs of contact members in any group, so as to connect the pair which is normally out of contact and separate the pair which is normally in contact.

3. In a transformer for resonant circuits, an inductance coil comprising a series of inductance sections, a main lead connected with the first of said sections, groups of contact members, corresponding in number to the inductance sections, each group comprising two pairs of contacts, the first pair of each group normally out of contact, one of said first pair connected with a main lead the other to a terminal of an inductance section, the second pair of each group normally in contact, one of said second pair connected to the inductance section terminal to which a member of the first pair is connected, the other of said second pair connected with a terminal of the inductance section next in series, means to reverse the connection relations between the pairs of contact members in any group, so as to connect the pair which is normally out of contact, and separate the pair which is normally in contact, in combination with a complementary inductance coil which comprises a series of inductance sections, whereof the first is connected at one end to a main lead, a series of pairs of insulated contact points, terminals of adjacent inductance sections connected respectively with the contact points of each pair, a contact point connected with the final terminal of the last inductance section in the series, a second main lead, and means to connect the inductance sections, through the contact points by serial addition or subtraction.

4. In a transformer for resonant circuits, an inductance coil comprising a series of inductance sections, a main lead connected by sliding turn-to-turn contact with the first of said sections, groups of contact members, corresponding in number to the inductance sections, each group comprising two pairs of contacts, the first pair of each group nor-



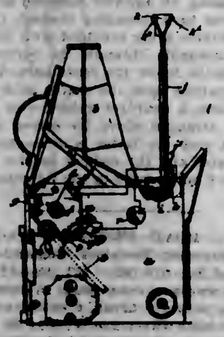
mally out of contact, one of said first pair connected with a main lead, the other to a terminal of an inductance section, the second pair of each group normally in contact, one of said second pair connected to the inductance section terminal to which a member of the first pair is connected, the other of said second pair connected with a terminal of the inductance section next in series, means to reverse the connection relations between the pairs of contact members in any group, so as to connect the pair which is normally out of contact, and separate the pair which is normally in contact, in combination with a complementary inductance coil which comprises a series of inductance sections, whereof the first is connected at one end to a main lead, a series of pairs of insulated contact points, terminals of adjacent inductance sections connected respectively with the contact points of each pair, a contact point connected with the final terminal of the last inductance section in the series, a second main lead, and means to connect the inductance sections, through the contact points by serial addition or subtraction.

5. In a transformer for resonant circuits, an inductance coil comprising a series of inductance sections, a main lead connected with the first of said sections, groups of contact members, corresponding in number to the inductance sections, each group comprising two pairs of contacts, the first pair of each group normally out of contact, one of said first pair connected with a main lead the other to a terminal of an inductance section, the second pair of each group normally in contact, one of said second pair connected to the inductance section terminal to which a member of the first pair is connected, the other of said second pair connected with a terminal of the inductance section next in series, means to reverse the connection relations between the pairs of contact members in any group, so as to connect the pair which is normally out of contact, and separate the pair which is normally in contact, in combination with a complementary inductance coil which comprises a series of inductance sections, whereof the first is connected at one end to a main lead, a series of pairs of insulated contact points, terminals of adjacent inductance sections connected respectively with the contact points of each pair, a contact point connected with the final terminal of the last inductance section in the series, a second main lead, and means to connect the inductance sections, through the contact points by serial addition or subtraction, the mutually complementary inductance coils being relatively axially movable.

[Claims 6 to 10 not printed in the Gazette.]

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1,042,866. FLASH-LIGHT APPARATUS FOR CAMERAS. ANSEL E. WALLACE, Evansville, Ind. Filed Feb. 6, 1912. Serial No. 675,814. (Cl. 67—31.)



1. A flash-light apparatus for cameras, embodying therein a flash pan, a shutter trip mechanism and an electrical circuit including therein electrical terminals carried by said flash pan, an oscillatory lever adapted to actuate said trip mechanism, and an electrical contact adjacent to said lever and adapted to be engaged thereby, whereby said lever, when actuated, will engage said contact and close said circuit, and actuate said shutter trip mechanism.

2. A flash-light apparatus for cameras, embodying therein a flash pan, a shutter trip mechanism, an electrical circuit including therein electrical terminals carried by said flash pan, an oscillatory lever adapted to actuate said trip mechanism, and an electrical contact adjacent to said lever and adapted to be engaged thereby, whereby said lever, when actuated, will engage said contact and close said circuit, and actuate said shutter trip mechanism and means whereby said contact may be adjusted relatively to said lever.

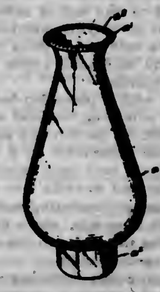
3. A flash-light apparatus for cameras, embodying therein a flash pan, a shutter trip mechanism, an electrical circuit including therein electrical terminals carried by said flash pan, an oscillatory lever adapted to actuate said trip mechanism, and a yielding electrical contact adjacent to said lever and adapted to be engaged thereby, whereby said lever, when actuated, will engage said contact and close said circuit, and actuate said shutter trip mechanism and means whereby said contact may be adjusted relatively to said lever.

4. A flash-light apparatus for cameras, embodying therein a flash pan, a shutter trip mechanism, an electrical circuit including therein electrical terminals carried by said flash pan, an oscillatory lever adapted to actuate said trip mechanism, and an electrical contact adjacent to said lever and adapted to be engaged thereby, whereby said lever, when actuated, will engage said contact and close said circuit, and actuate said shutter trip mechanism, and a supplemental make and break mechanism arranged in said circuit.

[Claims 6 to 14 not printed in the Gazette.]

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1,042,867. METHOD OF PRODUCING LAMP-CHIMNEYS. WILLIAM JACOB WAMBAUGH, Morgantown, W. Va. Filed July 12, 1911. Serial No. 638,212. (Cl. 49—84.)



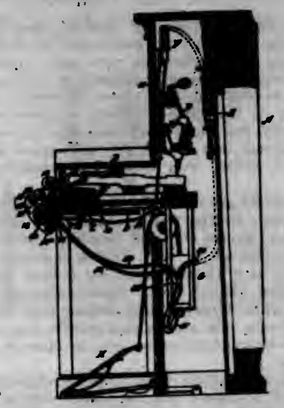
1. The method of producing glass lamp chimneys having ornamental tops which consist in molding the chimney with a flange surrounding its top, and extending inward and upward with relation to the body portion of the chimney, and of substantially the same thickness as the body portion, and thereafter heating and bending said flange downward and inward.

2. The method of producing glass lamp chimneys having ornamental tops which consists in molding the chimney with a flange surrounding its top, and extending inward and upward with relation to the body portion of the chimney, and of substantially the same thickness as the

body portion, and thereafter heating and bending said flange downward and inward, and simultaneously indenting the same.

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1,042,858. MUSIC-ROLL HOLDER FOR AUTOMATIC PIANOS? CHRISTOPHER P. WREN, London, England, and JOHN STOBBELL STOKES, Moorestown, N. J., assignors to Stokes & Smith Company, Summerdale, Pa., a Corporation of Pennsylvania. Filed June 30, 1911. Serial No. 636,290. (Cl. 84—161.)



1. In combination with a piano key-bed, a music sheet roll holder including a take-up roll and a rotatable music spool bearing, mounted on the key-bed and adapted to be moved from a folded position thereunder to a playing position forward thereof, a motor mounted directly on each side of said roll holder and movable with it, and manually operative means on the roll holder for simultaneously coupling both motors to the take-up roll or to the rotatable music spool bearing for driving them at different speeds.

2. In combination with a piano key-bed, a music sheet roll holder including a take-up roll and a rotatable music spool bearing, mounted on the key-bed and adapted to be moved from an inoperative position thereunder to a playing position forward thereof, a two-part motor each part fixedly attached to one end of said roll holder and movable into and out of playing position therewith, and means interconnecting said motor parts to cause them to operate in unison and optionally rotate the take-up roll and the music spool bearing.

3. In combination with a piano key-bed, a music sheet roll holder including a take-up roll and a rotatable music spool bearing, mounted on the key-bed and adapted to be moved from a position thereunder to a position forward thereof, a two-part motor each part fixedly attached to an end of said roll holder and movable into an out-of-playing position therewith, means connecting said motor parts to cause them to operate in unison, and a finger lever on the roll holder for coupling the motor to the take-up roll or to the rotatable music spool bearing.

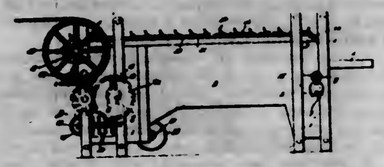
4. A music-sheet roll holder including a take-up roll and means for carrying and rotating a music-spool, in combination with a pneumatic motor fixedly mounted on the roll holder for rotating either the takeup roll or the music-spool carrier, an automatic regulating valve, and a manually operated valve for varying the amount of exhaust actuating the motor through said regulating valve when rotating the take-up roll and for giving the motor full pressure around said regulating valve when rotating the music spool.

5. A music-sheet roll-holder including a take-up roll and means for carrying and rotating a music spool, in combination with a pneumatic motor fixedly mounted on the roll-holder, a single manually operated valve, and two sources of exhaust governed by said valve, one of which exhausts controls the pressure and volume of air actuating the motor to vary its speed when rotating the take-up roll, the other exhaust permitting full pressure to act on the motor when rotating the music spool to give it greater speed than the take-up roll when rewinding the music sheet.

[Claims 6 to 14 not printed in the Gazette.]

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1,042,859. MACHINE FOR CLEANING AND STEMMING PEANUTS. THOMAS J. WHITTOMB, Dendron, Va., assignor to Tidewater Peanut Harvester Corporation, Dendron, Va., a Corporation of Virginia. Filed Sept. 19, 1911, Serial No. 650,140. Renewed July 19, 1912. Serial No. 710,486. (Cl. 130—30.)



1. In a machine of the character described, a screen, a reciprocatory agitator having teeth adapted to be projected through the slots in the screen, and an endless beater adapted to carry material over the screen and including flights provided with resilient arms having terminal teeth at an angle to said arms.

2. In a machine of the character described, a casing, a screen extending lengthwise through the casing, a reciprocatory agitator having teeth adapted to be projected upwardly through the slots in the screen, and an endless beater arranged to carry material over the surface of the screen.

3. In a machine of the character described, a casing, a screen extending longitudinally therethrough, a reciprocatory agitator supported below the screen and having teeth adapted to be projected upwardly through the slots in the screen to obstruct material passing over said screen, and an endless beater adapted to carry material over the surface of the screen.

4. In a machine of the character described, a beating device comprising endless chains, flights connecting said chains at intervals, and a plurality of spaced resilient arms extending from each flight beyond the following flight and having terminal teeth disposed at an angle to said arms.

5. In a machine of the character described, a casing having vertical slots, a screen extending longitudinally through the casing, an agitator disposed below the screen and having cross bars extending through the slots in the casing, said agitator being provided with teeth adapted to be projected upwardly through the screen, shafts supported for rotation below the cross bars, disks upon said cross bars, eccentrics upon the shafts, said eccentrics supporting the disks, a conveyer guided over the shafts, an endless beater arranged above the screen and adapted to carry material over the latter, and means for operating the endless beater and the endless carrier.

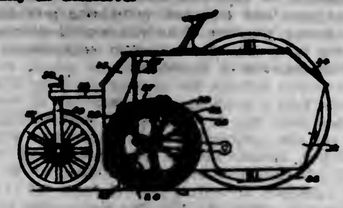
[Claims 6 to 8 not printed in the Gazette.]

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1,042,860. ROAD-SWEEPING MACHINE. JOHN THOMAS WHITTOM, Tavistock, England. Filed Apr. 4, 1911. Serial No. 618,792. (Cl. 15—17.)

1. A street sweeper, comprising in combination, supporting wheels, a rotary brush, a casing mounted on said wheels and having a sweepings receiver in the rear of the brush and an opening for receiving the sweepings disposed above the upper and front portions of the brush, a flap hinged to the casing and forming the rear wall of said opening, a guard hinged to the casing and extending downwardly in advance of the brush, arms pivoted on the casing and connected with the shaft of the brush, springs carried by the casing and yieldingly supporting the brush, and devices connecting the yieldingly supported brush with the hinged flap and guard to maintain the same in predetermined relation with respect to the brush, substantially as described.



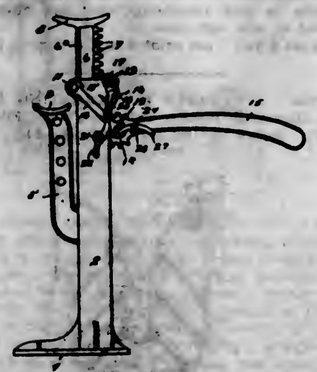


2. A street sweeper comprising in combination, supporting wheels, an adjustable rotary brush, a casing having a sweepings receiver mounted on said wheels and provided with an opening for receiving the sweepings, a flap hinged to the casing and forming one wall portion of said opening, a guard hinged to the casing adjacent the brush and street surface, and devices maintaining the guard and flap in predetermined relation with respect to the brush irrespective of the position of adjustment of said brush, substantially as described.

3. A street sweeper comprising in combination, supporting wheels, a casing supported on said wheels and having a sweepings receiver provided with an opening for receiving the sweepings, a brush for delivering to said opening, springs carried by the casing for yieldably supporting said brush, a flap hinged to said casing and forming one wall portion of said opening, a guard hinged to said casing adjacent the brush and street surface, and devices maintaining the guard and flap in predetermined relation with respect to the brush irrespective to the position of said brush, substantially as described.

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1,042,861. QUICK-ACTION JACK. LE ROY WILLOUR, Ashland, Ohio, assignor to The Ashland Manufacturing Company, Ashland, Ohio, a Corporation of Ohio. Filed Jan. 31, 1912. Serial No. 674,472. (Cl. 87—102.)



1. In a jack of the character described, a standard, a rack-bar having slidable engagement therewith, a swinging holding pawl engaging the teeth of the rack-bar, a shifting lever pivoted between its ends with said standard and having suitable connection with the holding pawl, a pinion to engage the rack-bar and movable into and out of engagement therewith, a hand lever connected with the pinion to turn the same, and an actuating finger connected with the hand lever and adapted to engage the shifting lever above its pivot point to swing the same so that the holding pawl will be moved into engagement with the rack-bar.

2. In a jack of the character described, a standard, a rack-bar slidably engaging the same, a holding pawl engaging the teeth of the rack-bar, a shifting lever pivotally connected between its ends with said standard, suitable connecting means between the shifting lever and holding pawl, a pinion disposed near the rack-bar to be moved into and out of engagement with the teeth of said rack-bar, a hand lever connected with the pinion to turn the same, and an actuating finger adjustably connected with the hand lever to be moved to one position so that it will engage the shifting lever below its pivot point upon the downward movement of the hand lever and to another position so that it will engage said shifting lever above its pivot point when said hand lever is moved upwardly.

3. In a jack of the character described, a standard, a rack-bar slidably engaging the same, a holding element to engage the teeth of the rack-bar, a relatively non-resilient movable shifting element having suitable connection with the holding element, a pinion disposed near the rack-bar, means whereby said pinion may be moved into and out of engagement with the teeth of the rack-bar, a handle connected with the pinion to turn the same, and an actuating element adjustably connected with the handle to be moved to one position so that it will engage the shifting element to move the same in one direction upon the downward movement of the handle and to another position so that it will engage a different portion of the shifting element to move the same in a reverse direction upon the upward movement of said handle.

4. In a jack of the character described, a standard, a rack-bar slidably engaging the same, a holding element movable into and out of engagement with the teeth of the rack-bar, a pivoted shifting lever having connection with the holding element, a pinion tooth or teeth disposed near the rack-bar, means whereby said pinion tooth or teeth may be moved into and out of engagement with teeth of the rack-bar, means to move the pinion tooth or teeth, and an adjustable actuating element movable with the pinion tooth or teeth and adapted to assume a position to engage the shifting lever below its pivot point upon the movement of said pinion tooth or teeth in one direction and to be adjusted to assume another position so that it will engage the shifting lever above its pivot point upon the movement of the pinion tooth or teeth in a reverse direction.

5. In a jack of the character described, a standard, a rack-bar slidably engaging the same, a holding pawl to engage the teeth of the rack-bar, a swinging shifting lever having suitable connection with the holding pawl, a hand lever provided near one end with a pinion like member to coöperate with the rack-bar, a movable support for said pinion-like member whereby said pinion-like member may be moved into and out of engagement with the teeth of the rack-bar, and a double ended actuating finger adjustably connected between its ends with the hand lever so that one end of said actuating finger may be brought into engagement with the shifting lever below its pivot point and the opposite end of the same into engagement with the shifting lever above its pivot point.

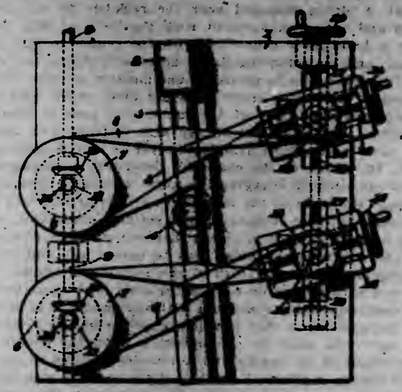
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1,042,862. TUBE-WINDING MACHINE. WYLIE T. WILSON, Philadelphia, Pa., and ALDEN E. STARR, New York, N. Y., assignors to Single Service Package Corporation of America, New York, N. Y., a Corporation of New Jersey. Filed Nov. 22, 1910, Serial No. 593,305. Renewed Mar. 9, 1912. Serial No. 682,758. (Cl. 93—36.)

1. In a tube winding machine the combination of a base; a pulley fixed to said base; a shaft and connection for transmitting power to said pulley; a mandrel provided with a rigid extension pivotally secured to said base; a winding belt passing around said mandrel and pulley; an adjustable pulley around which said belt also passes; and means for adjusting said last named pulley longitudinally of said mandrel, substantially as described.

2. In a tube winding machine the combination of a base; a pulley fixed to said base; a shaft and connections for transmitting power to said pulley; a mandrel carried by said base; pivotal means for fixedly securing said

mandrel to said base; a winding belt passing around said mandrel said pulley; an adjustable pulley around which said belt also passes; and means for adjusting said last named pulley longitudinally of said mandrel, substantially as described.



3. In a tube winding machine the combination of a base; a pulley fixed to said base; a shaft and connections for transmitting power to said pulley; a mandrel having a rigid extension pivotally secured to said base; a winding belt passing around said mandrel and pulley; an adjustable pulley around which said belt also passes; means for tightening said belt; means to support said mandrel outside of said belt; and means for adjusting said last named pulley longitudinally of said mandrel, substantially as described.

4. In a tube winding machine the combination of a base; a plurality of pulleys fixed to said base; a shaft and connections for transmitting power to said pulleys; a mandrel pivotally fixed to said base; belt tightening pulleys carried by said base; means to adjust said tightening pulleys to and from said mandrel; means to adjust said pulleys longitudinally of said mandrel; belts passing around each of said pulleys and said mandrel; and a support outside of said belts for said mandrel, substantially as described.

5. In a tube winding machine the combination of a mandrel head; an extension rigid with said head; a mandrel rigid with said head and extending substantially parallel with said extension; a supporting base; a pair of belts passing around said mandrel; and pivoting means located between said belts and substantially at the longitudinal center of said base for fixing said extension and mandrel to said base, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

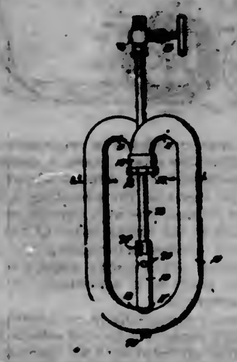
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1,042,863. LAMP. BENJAMIN A. WILTSHOOS, Newport, Ind. Filed June 7, 1912. Serial No. 702,296. (Cl. 67—50.)

1. A lamp comprising a substantially U-shaped burner tube having its ends bent in opposite directions to the vertical plane of said tube to provide overhanging portions, burner tips carried by the free ends of said tubes, a mixing chamber carried by said tube in parallel relation to the limbs thereof, and a vaporizing tube connected to said mixing chamber.

2. A lamp comprising a substantially U-shaped burner tube having its ends bent in opposite directions to the vertical plane of said tube to provide overhanging portions, burner tips carried by the free ends of said tube, a mixing chamber carried by said tube in parallel relation to the limbs thereof, a vaporizing tube connected to said mixing chamber, and a supporting plate carried by said burner tube adjacent the free ends thereof and adapted to engage said vaporizing tube.

3. A lamp comprising a substantially U-shaped burner tube, burner tips carried by the free ends of said tube, a mixing chamber extending from the lower end of said tube in parallel relation to the limbs thereof, a vaporizing tube connected to said mixing chamber and in alinement therewith, and a supporting plate carried by said burner tube adjacent the free ends thereof and adapted to engage said vaporizing tube, said plate being provided with a recess having a portion of its wall beveled whereby said vaporizing tube will be retained in engagement therewith when the same is in position.



4. A lamp comprising a substantially U-shaped burner tube, burner tips carried by the free ends of said tube, a mixing chamber carried by said tube, a vaporizing tube connected to said mixing chamber, and a supporting plate carried by said burner tube and adapted to engage said vaporizing tube, said plate being provided with a recess having a portion of its wall beveled for retaining said vaporizing tube in engagement therewith when the latter is in position.

5. A lamp comprising a substantially U-shaped burner tube, burner tips carried by the free ends of said tube, a vertically arranged mixing chamber extending from the lower end of said tube in parallel relation to the limbs thereof, a vaporizing tube connected to said mixing chamber in alinement therewith, a split tube mounted longitudinally in said vaporizing tube, and filtering means mounted in said split tube.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,864. APPARATUS FOR TREATING AIR. WALTER HAMMATON WIRTH, Baltimore, Md. Filed May 2, 1912. Serial No. 694,747. (Cl. 98—44.)



1. In an apparatus for treating air, an air inlet flue, a filter connected thereto, a series of air moistening and filtering screens obliquely arranged in said filter, fluid discharge pipes arranged in said filter between said screens and in different planes, and means in said filter for removing the surplus moisture from the air after it is washed.

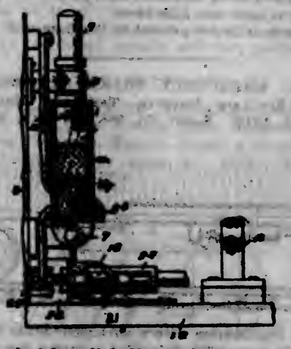
2. In an apparatus for treating air, an air inlet flue, a filter connected with said flue and composed of laterally spaced chambers connected at one end, screens arranged in said chambers, and a fluid supply pipe arranged between said chambers and having a plurality of longitudinally spaced branches extending into one of said chambers between the screens thereof, said branches being of different lengths and discharging at different points on said screens, said filter having a fluid outlet arranged in the connecting chamber between said chambers.

3. An air filter and washer comprising a U-shaped member having mounting flanges at its opposite ends, a plurality of air moistening and filtering screens arranged obliquely in one member of said filter, a fluid supply pipe arranged between the members of said filter and having laterally extending branches projecting into one member of the filter between the screens thereof, said branches being of different lengths increasing gradually from the outer to the inner branch, perforated discharge tubes at the free ends of said branches, and means arranged in the other end of said filter for removing surplus moisture from the air after it is washed.

4. An air filter and washer comprising a substantially U-shaped member having means for connection with a flue, a plurality of longitudinally spaced obliquely arranged screens disposed in each member of said filter, a fluid supply pipe arranged between the members of the filter and having a plurality of longitudinally spaced laterally extending branches extending into one member of the filter between the screens thereof and provided with perforated discharge tubes at their free ends, said branches increasing in length from one end of the member to the other, said filter having an outlet formed in the outer wall of the connecting portion thereof.

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1,042,865. FLAME-PROOF SWITCH. WILLIAM E. YOUMANS, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Feb. 26, 1910. Serial No. 546,171. (Cl. 175—329.)



1. In an electric switch, the combination with a swinging part for effecting the opening and closing of the circuit through the switch, of connector fingers at the switch, terminal sockets fitted to said fingers and provided with exterior collars, said movable part of the switch being provided with lugs for engaging said collars to prevent separation of the connectors when the switch is in its circuit-closing position, means for holding said movable part of the switch in circuit-closing position, and springs for throwing said movable part into circuit-breaking position upon its release from said holding means, thereby insuring the breaking of the circuit by the switch before the connectors can be separated.

2. In an electric switch, the combination of a movably mounted flame proof casing, conductor wires leading to the interior of the casing, an automatically acting circuit making and breaking device inside of the casing, connection between the said conductor wires being broken when the casing is in one position and established when the casing is in another position, a stationary conductor terminal to which one of the said conductor wires is connected, a movable conductor terminal adapted to engage the stationary conductor terminal, and a lug on the said casing for holding the movable terminal in engagement with the stationary terminal when the casing is in position to cause connection to be established between the conductor wires.

3. In an electric switch, the combination of a movably mounted casing, electrical contacts within the casing and separated from each other, conductor wires connected respectively with the said contacts, mercury within the casing serving to electrically connect the contacts when the casing is in one position, the contacts being normally insulated from each other, a stationary conductor terminal connected with one of the said conductor wires, a movable conductor terminal adapted to engage the said stationary terminal, and a lug on the casing adapted to engage the movable terminal to lock it in engagement with the stationary terminal when the casing is in position to cause the mercury to establish connection between the contacts.

4. In an electric switch, the combination of a pivotally mounted element, two conductor wires, circuit making and breaking means serving to make electrical connection between the wires when the element is in one position and to break the connection when the element is in another position, a stationary terminal connected with one of the wires and extending in a direction parallel with the said element when the latter is in the position in which electrical connection is established between the wires, and a movable conductor terminal adapted to telescopically engage the stationary terminal and having a part in position to be engaged by the pivotally mounted element to hold the terminals in engagement with each other when the said element is in position for the establishment of the electrical connection.

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1,042,866. MEANS FOR ADJUSTING THE LEGS OF COMPASSES. LUDWIG EWERS, Pforzen-Steinach, Germany. Filed Oct. 28, 1911. Serial No. 657,845. (Cl. 33—21.)



1. In a compass the combination of the pivoted legs, a yoke pivoted to the legs, said yoke having an extension formed with a slot, arms pivoted to the legs, a threaded pivot connecting the two arms and passing through the slot in the extension, and an adjusting nut engaging the threaded pivot to lock the arms and the legs in set position.

2. In a compass, the combination of the pivoted legs, a yoke pivoted to the legs, said yoke having an off-set extension formed at its free end with an open end slot, an arm pivoted to each leg, a screw connecting the ends of the two arms and passing through the open slot, and a nut engaging the screw to bind the arms in set position against the extension.

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1,042,867. TIME-CLOCK. WILLIAM J. BARNES and JACOB C. SWARTHOUT, Valley City, N. D. Filed Mar. 1, 1911. Serial No. 611,869. (Cl. 98—17.)



1. In an alarm clock, the combination with a twelve hour alarm mechanism, of an alarm controlling mechanism comprising a swinging member mounted to move

into and out of the path of the striker of the alarm mechanism, a catch device carried by said member and means coöperative with the alarm mechanism and adapted to be engaged by said catch device and manually operated means for adjusting the position of the said member whereby the alarm mechanism will either move the same once or twice for retracting it from the path of the striker of the alarm mechanism.

2. In an alarm clock, the combination with a twelve hour alarm mechanism, of an alarm controlling mechanism comprising a swinging member mounted to move into and out of the path of the striker of the alarm mechanism, a catch device carried by said member and means coöperative with the alarm mechanism and adapted to be engaged by said catch device, manually operated means for adjusting the position of the said member whereby the alarm mechanism will either move the same once or twice for retracting it from the path of the striker of the alarm mechanism, and means for locking the said alarm controlling mechanism against action and disengaged from the alarm mechanism.

3. In an alarm clock, the combination with a twelve hour alarm mechanism by which the alarm is set and released at a predetermined time, of alarm controlling mechanism comprising a step by step movable means adapted to be thrown into position for preventing the sounding of the alarm, means coöperative with the alarm mechanism for engagement with said step by step movable means for shifting the same to permit the sounding of the alarm, and means acting upon the first named means to shift the same into position whereby it may be moved a single or two steps by the second named means.

4. In an alarm clock, the combination with a twelve hour alarm mechanism by which the alarm is set and released at a predetermined time, of alarm controlling mechanism comprising a step by step movable means adapted to be thrown into position for preventing the sounding of the alarm, means coöperative with the alarm mechanism for engagement with said step by step movable means for shifting the same to permit the sounding of the alarm, means acting upon the first named means to shift the same into position whereby it may be moved a single or two steps by the second named means, and means for locking said first named means against movement.

5. In an alarm clock, the combination with a twelve hour alarm mechanism having a striker arm, of a swinging pawl pivotally mounted in the clock and movable into and out of the path of the striker arm, a locking dog pivoted to said pawl, means coöperative with the alarm mechanism for engagement with the dog whereby the said pawl may be automatically shifted out of the path of the striker arm, and means for setting the said pawl whereby it may be moved by said first named means for releasing the striker arm once in either twelve or twenty-four hours.

[Claim 6 not printed in the Gazette.]

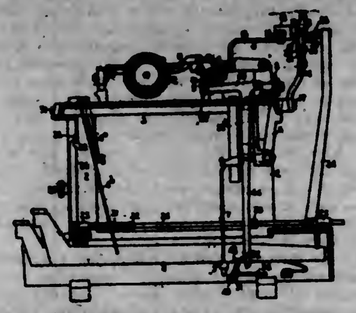
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1,042,868. TYPE-WRITING MACHINE. WALTER J. BARROW, New York, N. Y., assignor to Union Typewriter Company, Jersey City, N. J., a Corporation of New Jersey. Filed July 27, 1909. Serial No. 509,796. (Cl. 197—178.)

1. In a typewriting machine, the combination with the type-keys, and tabulating mechanism including a movable stop-guide, of automatic key-locking means operative on the type-keys during a tabulating movement of the carriage, the stop-guide being operative on a part of the key-locking means to release the type-keys.

2. In a typewriting machine, the combination with the type-keys, and tabulating mechanism including a movable stop-guide, of automatic key-locking means operative on the type-keys during a tabulating movement of the carriage, the key-locking means including interlocking devices, and the stop-guide being operative on one of these devices to disengage it from the other.

3. In a typewriting machine, the combination with the type-keys, and tabulating mechanism including a movable stop-guide, of automatic key-locking means operative on the type-keys during a tabulating movement of the carriage, the key-locking means including a catch and a co-acting latch and the stop-guide being connected with said latch.



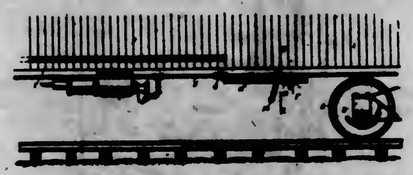
4. In a typewriting machine, the combination with the type-keys, and tabulating mechanism including a movable stop-guide, of automatic key-locking means operative on the type-keys during a tabulating movement of the carriage, the key-locking means including a catch, and a latch mounted on a fixed support and movable into engagement with the catch, and the stop-guide being connected with said latch.

5. In a typewriting machine, the combination with the type-keys, and tabulating mechanism including separately movable denominational stops and a movable stop-guide, of automatic key-locking means operative on the type-keys during a tabulating movement of the carriage, the stop-guide being movable by the carriage and each of said stops and being operative on a part of the key-locking means to release the type-keys.

[Claims 6 to 20 not printed in the Gazette.]

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1,042,869. EMERGENCY-BRAKE-SETTING DEVICE. HUGH SINCLAIR BRATTIE, Tuxtepec, Mexico. Filed June 21, 1910. Serial No. 568,132. (Cl. 188—2.)



1. The combination with a pneumatic brake system having a train pipe, of a valve for reducing the pressure in said train pipe, an arm for operating said valve, means for normally holding said arm stationary, and means actuated by an abnormal jar for overcoming said first-mentioned means and operating said arm.

2. The combination with a brake system, of a valve for controlling the pressure in said system, an arm for operating said valve, a spring adapted to hold said arm stationary under normal jars, and means for actuating said arm to escape said spring when said arm is subjected to abnormal jars.

3. The combination with a brake system having a train pipe, of a valve for controlling the pressure in said train pipe, an arm for operating said valve, a bracket, a projection on said bracket adapted to engage said arm, means for coöperating with said projection, adapted to support said arm, and a weight on said arm adapted to be operated by an abnormal jar to force said arm by said projection and said means.

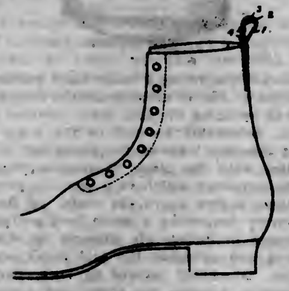
4. The combination with a brake system having a train pipe, of a valve for controlling the pressure in said pipe, an arm operating by gravity for moving said valve to open position, and means for holding the arm in position to hold the valve in closed position and from which means the arm is adapted to be disengaged by an abnormal jar.

5. The combination with a brake system having a train pipe of a valve for controlling the pressure in said pipe, an arm operating by gravity for moving said valve to open position, means for holding the arm in position to hold the valve in closed position and from which means the arm is adapted to be disengaged by an abnormal jar, and means for locking the arm in the position to which it moves when disengaged from its holding means.

[Claims 6 to 8 not printed in the Gazette.]

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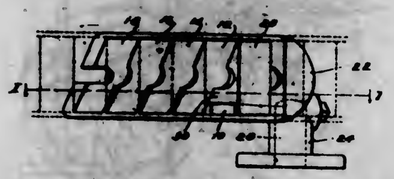
1,042,870. BACK-STRAP FOR SHOES. CHAUNCY M. BENNINGHAUS, Govans, Md. Filed Apr. 10, 1911. Serial No. 619,988. (Cl. 36—54.)



The combination with a shoe, of a back strap comprising a flexible loop secured to the upper of said shoe, and a metal loop secured to the inner surface of said loop and having its inner lower end projecting down to the top of the shoe and its upper end curved, whereby the said loop will be held in an upright and open position.

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1,042,871. ELASTIC-FLUID TURBINE. OLIVER D. H. BENTLEY, Hyde Park, Boston, Mass., assignor to B. F. Sturtevant Company, Boston, Mass., a Corporation of Massachusetts. Filed June 24, 1912. Serial No. 705,356. (Cl. 121—56.)



1. An elastic-fluid turbine having, in combination, a rotor having reversing buckets, and a stator comprising an expanding nozzle for delivering the elastic-fluid at high velocity to the rotor buckets, and two reversing chambers for receiving the fluid from the rotor buckets and re-directing it to the same set of rotor buckets, said reversing chambers having their receiving ends in proximity and their discharge ends separated and located forward and back of the nozzle respectively, substantially as described.

2. An elastic-fluid turbine having, in combination, a rotor having reversing buckets, and a stator comprising a plurality of reversing chambers for receiving the elastic-fluid from the rotor buckets and re-directing it to the same set of rotor buckets, and an expanding nozzle with its orifice located between the discharge ends of two adjacent reversing chambers, substantially as described.

3. An elastic-fluid turbine having, in combination, a rotor having reversing buckets, and a reversing chamber and nozzle segment comprising an expanding nozzle, a supplemental reversing chamber behind the nozzle opening and a reversing chamber in advance of the nozzle opening, the receiving ends of said chambers lying next adjacent to each other and the discharge ends of said chambers located at the edge of the segment, the nozzle opening being located between the discharge ends of the chambers, substantially as described.

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1,042,872. GAS-BURNER. WILLIAM NEWTON BOYD, Jr., New York, N. Y. Filed June 9, 1909. Serial No. 501,010. (Cl. 158—99.)



1. A gas burner comprising a vertically disposed gas delivery tube, branches extending therefrom in opposite directions, an annular burner tube concentric with said gas delivery tube, and in communication with said branches, an annular block of refractory material, encircling said gas delivery tube and provided with openings, the annular block being disposed within the vertical projection of the annular burner tube, another annular block of refractory material and encircling said first-mentioned block and the annular burner tube, the second-mentioned annular block being spaced from the first-mentioned block and being provided with openings, said second-mentioned block having greater height than said first-mentioned block and extending above and below the same, and a metal casing encircling both of said annular blocks.

2. A gas burner comprising a vertical gas delivery tube, branches extending therefrom, an annular burner tube concentric to said gas delivery tube and connected with said branches, an annular member of refractory material encircling said gas delivery tube and substantially coextensive with and within the vertical projection of said annular burner tube, said block of refractory material being in close proximity to the said burner tube, another block of refractory material encircling said first mentioned block and said burner tube, and spaced from the first-mentioned block, said second-mentioned block of refractory material being provided with openings, and a metallic casing encircling said second-mentioned block and provided with openings in registry with the openings in said second-mentioned block.

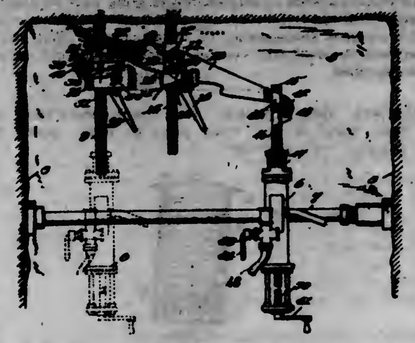
3. A gas burner comprising a vertically-disposed gas delivery tube, branches extending therefrom, an annular burner tube connected with and supported by the branches, an annular block of refractory material encircling said gas delivery tube and provided with openings, the annular block of refractory material being supported by the branches, and being disposed within the vertical projection of the annular burner tube, a securing plate connecting the annular block of refractory material with the gas delivery pipe, and another annular block of refractory material encircling said first-mentioned block and the annular burner tube, the second annular block being spaced from the first-mentioned block, and being provided with openings, the said second-mentioned block having a greater height than the first-mentioned block and extending above and below the same.

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1,042,873. DRILL-EXTRACTOR. BENJAMIN F. BUTTS, Masuma, Nev. Filed Mar. 5, 1912. Serial No. 681,788. (Cl. 125—10.)

The combination with a power drill having a detachable bit, of a bit extractor comprising a fulcrum bar having a looped end, means stationarily supporting said fulcrum bar but permitting rocking thereof, a head pivotally connected with the looped end of the fulcrum bar, a centrally

perforated turning member carried by the head and through which is passed the said bit, and a cam lever



pivotally connected within the turning member and engageable with the bit for locking the same therein.

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1,042,874. FOOT-REST. EPHRAIM M. BISHOP, Kingston, N. Y. Filed July 10, 1912. Serial No. 706,634. (Cl. 155—9.)

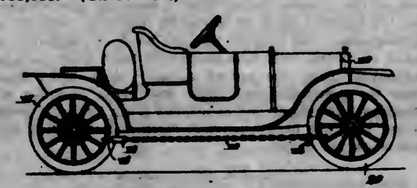


1. In a device of the class described, the combination with a shelf, of means for attaching the same to a supporting member, a collar encircling the said shelf and freely movable thereon, and an adjusting bar having connection with the said collar for adjusting the shelf relatively to the supporting member.

2. In a device of the class described, the combination with a plurality of hangers having hooks formed in the upper ends thereof, of a shelf, pins extended from the shelf and having pivotal connection with the said hangers, a collar mounted to loosely encircle the reduced portion of the shelf and provided with an opening, an apertured adjusting bar mounted to slide on the said collar and passing through the opening therein, and a spring-actuated pin mounted on the collar to normally pass through one of the openings in the said adjusting bar and lock the adjusting bar to the said collar.

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1,042,875. LOCK FOR VEHICLES. EPHRAIM M. BISHOP, Kingston, N. Y. Filed July 10, 1912. Serial No. 706,638. (Cl. 70—30.)



As a new article of manufacture, a casing provided with a slot, a spring-like member having rigid connection with the casing, a locking head on the free end of the spring-like member and adapted to be inserted through the slot therein, the said spring-like member being adapted to encircle the wheel of a vehicle, and a chain having connection with the casing and adapted for connection with another wheel of the said vehicle.

1,042,876. CONVERTER. ADOLPHUS F. GRIMAUX, Rockwood, Detroit, Mich. Filed July 26, 1910. Serial No. 573,694. (Cl. 75—2.)

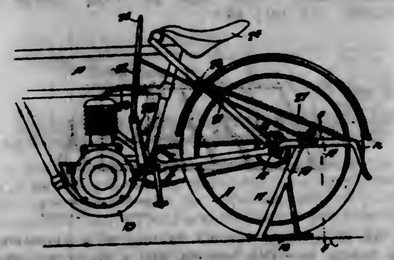


1. A converter comprising a lower lined portion having twyers arranged to deliver air through the side, means for supporting and swinging the said lower portion; an upper lined portion detachably secured to the lower portion, the plane of juncture between the upper and lower portion coinciding with the plane of greatest wear of the lining of the converter which in a one ton converter is about seventeen inches above the center of the twyers.

2. A converter comprising a lower lined portion having twyers arranged to deliver air through its side, means for supporting and swinging the said lower portion, an upper portion, detachably secured to lower portion, the plane of juncture between the upper and lower portion coinciding with the plane of greatest wear of the lining of the converter, which in a one ton converter is about seventeen inches above the center of the twyers, means whereby the upper portion may be gripped to be removed, and trunnions secured to the upper portion whereby the same may be suitably mounted after being detached and removed from the lower portion.

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1,042,877. VEHICLE-SUPPORT. ARTHUR H. BLAIR and JOHN W. BLAIR, Visalia, Cal. Filed Mar. 22, 1912. Serial No. 686,406. (Cl. 208—78.)



1. In a vehicle support, the combination with a frame for pivotal connection with the frame of the vehicle, of a supporting member mounted to swing on the frame and movable therewith, heads formed on the supporting member to engage the said frame and limit the swinging movement of the supporting member relative to the frame, an operating lever mounted to swing on the frame of the vehicle, and a rod pivotally connected to the said operating lever and to the said frame for moving the said supporting member into supporting or non-supporting position.

2. In a vehicle support, the combination with a frame for pivotal connection with the frame of the vehicle, of a supporting member mounted to swing on the frame and movable therewith, heads formed on the supporting member to engage the said frame and limit the swinging movement of the supporting member relative to the



frame, an operating lever mounted to swing on the frame of the vehicle, a rod pivotally connected to the said operating lever and to the said frame for moving the said supporting member into supporting or non-supporting position, and a spring connected to the said frame and to the frame of the vehicle for moving the supporting member into that non-supporting position when the supporting member is removed from contact with the ground.

3. In a vehicle support, the combination with a U-shaped frame having offset ears adapted for pivotal connection with the vehicle, a supporting member mounted to swing on the said frame, an operating lever mounted to swing on the frame of the vehicle, and a rod connecting the said frame with the said operating lever for moving the said supporting member into supporting or non-supporting position when the said operating lever is actuated.

4. In a vehicle support, the combination with a frame mounted to swing on the vehicle, of a supporting member mounted on the frame to swing therewith, and means for connection with the frame for moving the said supporting member into supporting or non-supporting position.

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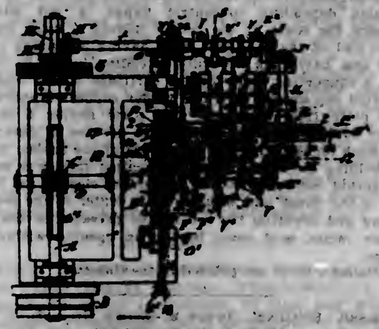
1,042,878. COMPOSITION OF ABRASIVE MATTER. AUGUST F. BLOUIN, Springfield township, Delaware county, Pa., assignor to Abrasive Material Company, Philadelphia, Pa. Filed July 20, 1912. Serial No. 710,732. (Cl. 204—64.)

1. As a new composition of abrasive material, a crystalline product containing essentially aluminum oxid, silicon, boron, chromium, and carbon.

2. As a new composition of abrasive material, a crystalline product containing approximately 92.25% of aluminum oxid, 2.93% of silicon, 2.45% of boron, .12% of chromium, and 1.39% of carbon.

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1,042,879. NEEDLE-MAKING MACHINE. PAUL BONIN, Paris, France. Filed Jan. 28, 1908. Serial No. 412,980. (Cl. 163—1.)



1. A machine of the character described having channeling means, eye piercing means, and severing means, mechanisms adapted for alternate operation, one of said mechanisms being capable of operation to feed a metal strip in position to be operated upon by said channeling, eye piercing, and severing means, and the other mechanism being capable of operation to actuate said channeling, eye piercing, and severing means, point forming means, and a device having means for engagement with the severed needles, and capable of movement to carry said needles in engagement with said point forming means.

2. A machine of the character described having channeling means, eye piercing means, and severing means, mechanisms adapted for alternate operation, one of said mechanisms being capable of operation to feed a metal strip in position to be operated upon by said channeling, eye piercing, and severing means, and the other mechanism being capable of operation to actuate said channeling, eye piercing, and severing means, point forming means, and a device engageable with the severed needles and capable of movement to carry said needles in engagement with said point forming means, and to deposit said needles in said receptacle.

3. A machine of the character described having channeling means, eye piercing means, and severing means, mechanisms adapted for alternate operation, one of said mechanisms being capable of operation to feed a metal strip in position to be operated upon by said channeling, eye piercing, and severing means, and the other mechanism being capable of operation to actuate said channeling, eye piercing, and severing means, point forming means, a receptacle for the finished needles, and a device engageable with the severed needles, and capable of operation to carry said needles in engagement with said point grinding means, and to deposit said needles in said receptacle.

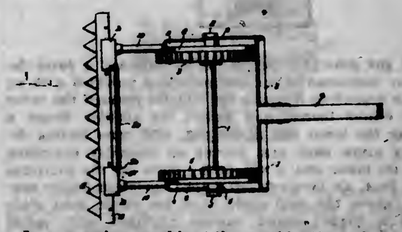
4. A machine of the character described having channeling means, eye piercing means, and severing means, mechanisms adapted for alternate operation, one of said mechanisms being capable of operation to feed a metal strip in position to be operated upon by said channeling, eye piercing, and severing means, and the other mechanism being capable of operation to actuate said channeling, eye piercing, and severing means, point forming means, a receptacle for the finished needles, and a device engageable with the severed needles, and capable of operation to carry said needles in engagement with said point forming means, and to deposit said needles in said receptacle.

5. A machine of the character described having eye piercing means, severing means including cutting members capable of cutting engagement with a metal wire or strip to sever the same into lengths and provided with die surfaces adapted for molding contact with said wire or strip to mold the head of the needle during severing of such wire or strip, and feeding means operable to present a metal wire or strip first to the eye piercing means and afterward to the severing means.

[Claims 6 to 38 not printed in the Gazette.]

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1,042,880. LAWN-MOWER. JAMES W. BOWMAN, Manhattan, Kans. Filed Aug. 28, 1911. Serial No. 645,502. (Cl. 56—19.)



In a mowing machine, the combination of a cutting mechanism, a housing supporting the cutting mechanism, an axle, arms connecting the axle with the housing, each of the arms consisting of a frame and a sleeve, the latter making screw-thread connection with the frame and with the aforesaid housing, gear wheels mounted in line with the axle, traction wheels loose upon the axle, a ratchet connection between each of the traction wheels and the gear wheels, shafts mounted in said arms, a gear connection between each of the shafts and each of the said gear wheels, two sickle bars arranged to operate in opposition, and connecting means between the shafts and the sickle bars.

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1,042,881. OUTLET-BOX HANGER. LESLIE C. BOWER, Kansas City, Mo. Filed May 24, 1912. Serial No. 699,498. (Cl. 248—3.)

1. An outlet box hanger comprising a body formed to provide a segmental strip and a split circular fitting

strip, wings integral with said segmental strip and projecting laterally therefrom, attaching flanges on said wings and at right angles thereto, and fastening flanges integral with the adjacent ends of said holding strip adapted to receive a securing element.

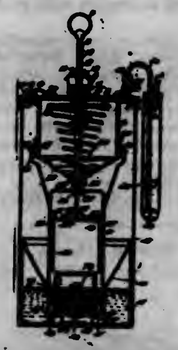


2. An outlet box hanger comprising a body formed to provide a segmental strip and a split circular holding strip, attaching flanges on said segmental strip, and fastening flanges on said holding strip.

3. An outlet box hanger comprising a body formed to provide a segmental strip and a split circular holding strip and designed to be arranged in a plane co-axial with that of the outlet box, attaching flanges on said wings, and fastening flanges on said holding strip, said holding strip being constructed of resilient material and designed to embrace a pipe to support the outlet box.

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1,042,882. GAS-GENERATOR. RICHARD CLINTON BRADLEY, Shreveport, La. Filed Feb. 3, 1912. Serial No. 675,168. (Cl. 48—4.)



1. A gas generator comprising a container, a cover detachably connected to the container and provided with an annular depending flange, a rod slidable through the cover at the center thereof and within the annular flange, a cross on the lower end of the rod, said cross having depending arms, each arm having an inwardly extending lug at its lower end, a supporting plate for the cartridge on the lugs, an inverted cup-shaped cartridge holder supported above the said plate from the cover, said plate having a convex upper surface provided with radial grooves, a gasket on the plate for engaging the lower edge of the holder, a spring pressing the rod downwardly, a latch for locking the rod with the supporting plate against the lower end of the holder, the said holder and the cover for the container each having a vent opening in its top, a yielding cover for each opening, a service pipe connected to the cover of the container, and a flexible closure between the rod and the lower end of the annular flange.

2. A gas generator comprising a container, a cover detachably connected to the container, a rod slidable through the cover at the center thereof, a cross on the lower end of the rod, said cross having depending arms, each arm having an inwardly extending lug at its lower end, a supporting plate for the cartridge on the lugs, an inverted cup-shaped cartridge holder supported above the said plate from the cover, said plate having a convex upper surface provided with radial grooves, a gasket on the plate for engaging the lower edge of the holder, a spring pressing the rod downward, a latch for locking the rod with the supporting plate against the lower end of the holder, the said holder and the cover for the container each having a vent opening in its top, a yielding cover for each opening, a service pipe connected to the cover of the container, a rod slidable through the cover at the center thereof, a cross on the lower end of the rod, said cross having depending arms, each arm having an inwardly extending lug at its lower end, a supporting plate for the cartridge on the lugs, an inverted cup-shaped cartridge holder supported above the said plate from the cover, said plate having a convex upper surface provided with radial grooves, a gasket on the plate for engaging the lower edge of the holder, means for holding the supporting plate against the lower end of the carbid holder, a flexible diaphragm closing the lower end of the flange and secured at its center to the rod for lifting and lowering the rod as the pressure in the container varies, said cover having an opening within the flange.

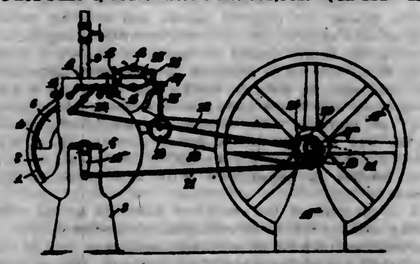
4. A gas generator comprising a container, a cover detachably connected to the container, and provided with an annular depending concentric flange, a rod slidable through the cover at the center thereof, a cross on the lower end of the rod, said cross having depending arms, each arm having an inwardly extending lug at its lower end, a supporting plate for the cartridge on the lugs, an inverted cup-shaped cartridge holder supported above the said plate from the cover, said plate having a convex upper surface provided with radial grooves, a gasket on the plate for engaging the lower edge of the holder, a spring pressing the rod downwardly, a latch for locking the rod with the supporting plate against the lower end of the holder, the said holder and the cover for the container each having a vent opening in its top, a yielding cover for each opening, a service pipe connected to the cover of the container, a flexible diaphragm closing the lower end of the flange and secured at its center to the rod for lifting and lowering the rod as the pressure in the container varies, said cover having an opening within the flange.

5. A gas generator comprising a container, a cover detachably connected to the container, and provided with an annular depending concentric flange, a rod slidable through the cover at the center thereof, a cross on the lower end of the rod, said cross having depending arms, each arm having an inwardly extending lug at its lower end, a supporting plate for the cartridge on the lugs, an inverted cup-shaped cartridge holder supported above the said plate from the cover, said plate having a convex upper surface provided with radial grooves, a gasket on the plate for engaging the lower edge of the holder, means for holding the supporting plate against the lower end of the carbid holder, a flexible diaphragm closing the lower end of the flange and secured at its center to the rod for lifting and lowering the rod as the pressure in the container varies, said cover having an opening within the flange.

[Claims 6 to 16 not printed in the Gazette.]

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1,042,883. ENGINE. JUNEY M. BROWN, Greensboro, N. C. Filed June 4, 1912. Serial No. 701,561. (Cl. 121—43.)



1. In an engine of the class described comprising a circular casing having an abutment in one side, the said abutment being provided with a steam inlet port and with branch ports leading to opposite ends of the abutment, an oscillating valve arranged in the angle between the said ports, exhaust pipes respectively communicating with the branch ports and provided with valves, connections between the exhaust valves and the first-mentioned valve to cause said exhaust valves to be operated by and with the first-mentioned valve, means to operate the first-mentioned valve, and an oscillating piston mounted concentrically in the casing and having shoulders respectively on opposite ends of the abutment, the said oscillating piston having a portion of reduced diameter between the said shoulders and against the periphery of which the said abutment bears and whereby a steam space is formed between the reduced portion of the piston and the corresponding portion of the casing and at opposite ends of the abutment.

2. In an engine of the class described comprising a circular casing having an abutment in one side, the said abutment being provided with a steam inlet port and with branch ports leading to opposite ends of the abutment, an oscillating valve arranged in the angle between the said ports, exhaust pipes respectively communicating with the branch ports and provided with valves, connections between the exhaust valves and the first-mentioned valve to cause said exhaust valves to be operated by and with the first-mentioned valve, means to operate the first-mentioned valve, and an oscillating piston mounted concentrically in the casing and having shoulders respectively on opposite ends of the abutment, the said oscillating piston having a portion of reduced diameter between the said shoulders and against the periphery of which the said abutment bears and whereby a steam space is formed between the reduced portion of the piston and the corresponding portion of the casing and at opposite ends of the abutment, the said engine being further provided with a throttle valve, and a governor mechanism connected to the throttle valve.



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1,042,884. TIRE-FILLER. WARREN B. BUCKLEY, Washington, D. C., assignor to Air-Base Tire Filler Company, a Corporation of Delaware. Filed Apr. 11, 1912. Serial No. 690,209. (Cl. 106—33.)

1. The process herein described for producing a filler for automobile tire which consists in first mixing together the highly refined vegetable oil, known in the trade as "Argo cooking oil", and the "flowers of sulfur" in substantially the proportions named; then subjecting the mixture to about three hundred and twenty degrees Fahrenheit for a period of about fifty minutes and finally, about two or three minutes before completion of the heating, adding the stated quantity of comminuted cork.

2. A new compound for automobile tire filler consisting of highly refined vegetable oil, known as Argo cooking oil, flowers of sulfur and comminuted cork in the proportions and subjected to the treatment hereinbefore set forth.

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1,042,885. PROCESS OF WELDING. EDWARD G. BUDD and JAMES HARVEY GRAVELL, Philadelphia, Pa., assignors, by mesne assignments, to Hale and Kilburn Company, Philadelphia, Pa., a Corporation of Delaware. Filed May 3, 1910. Serial No. 559,073. (Cl. 219—10.)



1. The process of welding which consists in assembling two sheet-metal plates on opposite sides of a metallic strip of channel section, placing a metallic bar within said strip, carrying a welding current to and from the outer sides of said plates at points thereon opposite said strip and then withdrawing said bar, substantially as set forth.

2. The process of welding which consists in providing raised portions at intervals in opposite flanges of a sheet-metal strip of channel section, assembling sheet-metal plates on opposite sides of said strip in contact with said raised portions, placing a metallic bar within said strip, carrying a welding current to and from the outer sides of said plates at points thereon opposite the raised portions on said strip and then withdrawing said bar, substantially as set forth.

3. The process of welding which consists in assembling two sheet-metal plates on opposite sides of a sheet-metal strip of channel section, pressing contacts into engagement with said plates on opposite sides of said strip, passing a welding current from one of said contacts to the other, and sustaining said strip while it is subjected to pressure by said contacts, substantially as set forth.

4. The process of welding which consists in providing raised portions at intervals in opposite flanges of a sheet-metal strip of channel section, assembling sheet-metal plates on opposite sides of said strip in contact with said raised portions, pressing contacts into engagement with said plates on opposite sides of said strip at the points of said raised portions, passing a welding current from one of said contacts to the other and sustaining said strip while it is subjected to pressure by said contacts, substantially as set forth.

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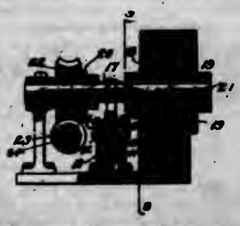
1,042,886. MARCEL WAVER. JOHN W. BUICKEROOD, Boundbrook, N. J. Filed Mar. 30, 1912. Serial No. 687,312. (Cl. 132—18.)



The herein described Marcel waver comprising a tubular body portion and a flat spring, said spring having one end bent upon itself and adapted to frictionally engage with the opposite sides of the inner wall of said body portion near one end thereof and thence extending outwardly through said end of the body portion and thence bent over and toward the opposite end of the body portion.

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1,042,887. CLUTCH FOR ENGINE-STARTERS. CHARLES BURTON and RIO GARDNER, New York, N. Y. Filed Aug. 10, 1911. Serial No. 643,812. (Cl. 192—8.)



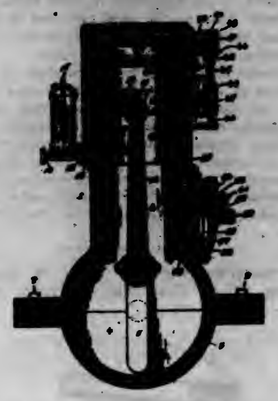
In combination, a shaft, a wheel on the shaft, a clutch member carried by the shaft and adapted to engage the wheel to operably connect the latter to the shaft, a stationary member, a toggle lever connected at one end to the stationary member and at the opposite end to the clutch member for moving the latter into and out of engagement with the wheel, a cylinder, a piston operable in the cylinder, a piston rod, a spring carried by the piston, an adjustably mounted plate to regulate the tension of the spring, means connecting the piston rod to the toggle lever, and means for operating the piston.

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1,042,888. HYDROCARBON-ENGINE. ALPHONSE BUTSCH, St. Lucia, British West Indies. Filed Oct. 28, 1910. Serial No. 589,783. (Cl. 123—196.)

1. In a device of the class described, the combination with a cylinder, a vacuum producing piston mounted therein and a crank case closed to the atmosphere, said piston and cylinder provided with ports adapted to register when the vacuum produced by the piston is at its

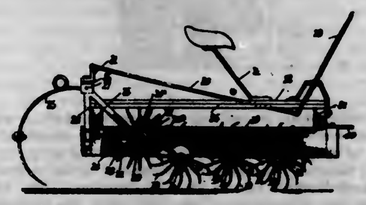
highest point, of an oiler communicating with the port in the cylinder, a feeding tube communicating with the port in the piston, said tube adapted to conduct oil into the cylinder when the ports are brought into registration and the vacuum in the cylinder sucks the oil therethrough, and means carried by said piston and its rod adapted to receive the oil from the feeding tube and convey it to the desired bearings.



2. In a device of the class described, the combination with a cylinder, a vacuum producing piston mounted therein and a crank case closed to the atmosphere, said piston and cylinder provided with ports adapted to register when the vacuum produced by the piston is at its highest point, of an oiler communicating with the port in the cylinder, a feeding tube communicating with the port in the piston, said tube adapted to conduct oil into the cylinder when the ports are brought into registration and the vacuum in the cylinder sucks the oil therethrough, means carried by said piston and its rod adapted to receive the oil from the feeding tube and convey it to the desired bearings, and means whereby the flow of the oil may be regulated.

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1,042,889. ROLLER-HARROW. JOHN E. CARLSON and GEORGE J. NASON, Bakersfield, Cal. Filed Apr. 23, 1912. Serial No. 692,575. (Cl. 55—11.)



1. A roller harrow comprising a harrow roller having curved teeth, and a clearing roller in the rear of the harrow roller and provided with straight teeth, the clearing roller having means for adjusting it relative to the surface of the ground and relatively to the harrow roller.

2. A roller harrow comprising a frame, a series of harrow rollers having curved teeth, the teeth of the rollers overlapping, said harrow rollers having their rolling surfaces below the frame to contact with the ground as the harrow teeth embed themselves in the ground, and a clearing roller behind the rearmost harrow roller, the clearing roller being provided with straight teeth and being mounted in the frame at a higher point than the harrow roller so that the clearing roller does not roll on the ground.

1,042,890. SPEED-GAGE. LOUIS A. GEISMAR, Beverly, Mass. Filed June 18, 1909. Serial No. 502,935. (Cl. 73—132.)



1. A speed gage, having, in combination, a fixed member, a movable member arranged to be rotated and to be moved along the axis of rotation, one of said members being provided with a series of graduations to indicate a given range of speeds, and the other of said members being provided with means to indicate the particular graduation corresponding to the speed attained by the object the speed of which is to be indicated, means actuated by the object for exerting a rotative force on the movable member, means for moving said member along the axis of rotation when said member is rotated, and a closed spiral spring having one end secured in fixed position and the other end attached to the movable member, said spring acting in opposition to said rotative force to cause the movable member to be rotated and to be moved along the axis of rotation as the speed of the object varies to cause said members to indicate the speed attained, substantially as described.

2. A speed gage, having, in combination, a fixed member, a movable member comprising an open-ended cylinder, said movable member being arranged to be rotated and to be moved along the axis of rotation, one of said members being provided with a series of graduations to indicate a given range of speeds and the other of said members being provided with means to indicate the particular graduation corresponding to the speed attained by the object the speed of which is to be indicated, means actuated by the object for exerting a rotative force upon the movable member, means for moving said member along the axis of rotation when said member is rotated, and a closed conical spiral spring having one end secured in fixed position and its other end secured within the open end of the cylinder, said spring acting in opposition to said rotative force to cause the movable member to be rotated and to be moved along the axis of rotation as the speed of the object varies to cause said members to indicate the speed attained, substantially as described.

3. A speed gage, having, in combination, a rotatable member, a fixed member, one of said members being provided with a series of graduations to indicate a given range of speeds, and the other of said members being provided with means to indicate the particular graduation corresponding to the speed attained by the object the speed of which is to be indicated, means actuated by the object for exerting a rotative force upon the rotatable member, and a spiral spring provided with a plurality of holes for a portion of its length acting on said rotatable member in opposition to said rotative force to cause the rotatable member to rotate as the speed of the object varies to cause said members to indicate the speed attained, substantially as described.

4. A speed gage, having, in combination, a rotatable member, a fixed member, one of said members being provided with a series of graduations to indicate a given range of speeds, and the other of said members being provided with means to indicate the particular graduation corresponding to the speed attained by the object the speed of which is to be indicated, means actuated by the object for exerting a rotative force upon the rotatable member, and a closed spiral spring provided with a plurality of holes in the outer convolutions thereof acting on said rotatable member in opposition to said rotative force to cause the rotatable member to rotate as the speed of the object varies to cause said members to indicate the speed attained, substantially as described.

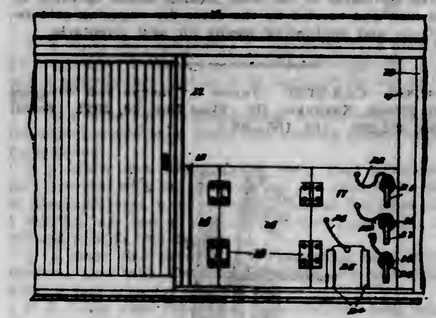
5. A speed gage, having, in combination, an indicator arranged to be rotated and to be moved along the axis of rotation, and provided with a series of helically arranged graduations, an index, a given range of speeds, a fixed indicator to indicate the particular graduation corresponding to the speed attained by the object the speed of which is to be indicated, means actuated by the object for exerting a rotative force on the movable indicator, means for moving said indicator along the axis of rotation when said indicator is rotated, and a closed conical spiral spring acting on the movable indicator in opposition to said rotative force to cause the indicator to rotate and to move along the axis of rotation as the speed of the object varies to bring each graduation opposite the fixed indicator as the object attains the speed indicated by the graduation, substantially as described.

(Claims 6 to 18 not printed in the Gazette.)



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1,042,891. DOOR FOR GRAIN-CARS. THOMAS C. CHAMBERS, Mangum, Okla. Filed Dec. 2, 1911. Serial No. 663,696. (Cl. 20—20.)



1. The combination of a car provided with a door opening, a door composed of sections hingedly connected together, means for hingedly connecting the sectional door at one side only, of the door opening, means whereby the opposite side of the sectional door may be fastened to the opposite side of the door frame opening, the section of the door adjacent the hinged connection with the door frame opening being narrower than the remaining sections with the remaining sections being of substantially the same width and hingedly connected so that the outermost of said remaining sections may be swung outwardly on the adjacent section and the said latter sections swung on the narrower section and, whereby the door may be swung from one side only of the door frame opening either inwardly of the car or outwardly along the outside of the car and occupy small space on the outside of the car.

2. The combination of a car provided with a door opening, door jambs secured to opposite sides of the door opening, a door which is composed of three sections, two of which are substantially the same width and hingedly connected together, the remaining section being comparatively narrow and hingedly connected at one side of the door opening adjacent one of said jambs and also hingedly connected to the innermost of said other two sections, the outermost one of said two sections having openings along its outer edge, elements secured adjacent the jamb opposite the one to which said narrow door section is hinged for projection through said openings, means carried by the outermost of said two sections for engagement with said elements to lock the door, the hinged connection between said two sections permitting the outermost section to be swung upon the innermost of said two sections with the hinged-connection between the innermost of said two sections and with the narrow section permitting the door to be swung back outwardly of the car along the outer side of the latter with the hinged connection between said narrow section and the door frame opening permitting swinging movement of the door inwardly of the car.

1,042,892. RELEASABLE-FLUKE ANCHOR. GEORGE S. CHAMPLIN, Pawtucket, R. I. Filed May 17, 1912. Serial No. 698,018. (Cl. 114—208.)



1. A folding anchor comprising a shank having an enlarged head at one end thereof, the inner surface of said head being provided with a plurality of lugs, a plate detachably secured to said lugs, said head and plate being provided with alined elongated slots, flukes pivotally mounted between said head and plate on opposite sides of said slots, and a locking block slidably mounted in said slots and adapted to engage said flukes for retaining the same in extended position.

2. A folding anchor comprising a shank having an enlarged head at one end thereof, the inner surface of said head being provided with a plurality of lugs, a plate detachably secured to said lugs, said head and plate being provided with alined elongated slots, flukes pivotally mounted between said head and plate on opposite sides of said slots, a locking block slidably mounted in said slots and adapted to to engage said flukes for retaining the same in extended positon, and laterally extending wings carried by said block and adapted to engage said slots for guiding said block.

3. A folding anchor comprising a shank having an enlarged head at one end thereof, the inner surface of said head being provided with a plurality of lugs, a plate detachably secured to said lugs, said head and plate being provided with alined elongated slots, flukes pivotally mounted between said head and plate on opposite sides of said slots, a locking block slidably mounted in said slots and adapted to engage said flukes for retaining the same in extended position, laterally extending wings carried by said block and adapted to engage said slots for guiding said block, and an operating rod connected to said block for sliding the latter back and forth.

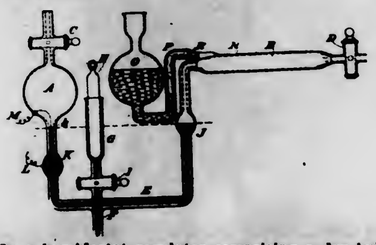
4. A folding anchor comprising a shank having an enlarged head at one end thereof, the inner surface of said head being provided with a plurality of lugs, a plate detachably secured to said lugs, said head and plate being provided with alined elongated slots, flukes pivotally mounted between said head and plate on opposite sides of said slots, a locking block slidably mounted in said slots and adapted to engage said flukes for retaining the same in extended position, laterally extending wings carried by said block and adapted to engage said slots for guiding said block, an operating rod connected to said block for sliding the latter back and forth, and a housing for said rod secured to the outer surface of said head in alinement with the slot therein.

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1,042,893. HUMIDOSTAT-REGULATOR. WILLIAM M. CLARK, Washington, D. C. Filed Sept. 13, 1913. Serial No. 720,009. (Dedicated to the public.) (Cl. 98—33.)

1. In a humidostat regulator, comprising a dry bulb and a cylindrical bulb incased in muslin, said bulbs pro-

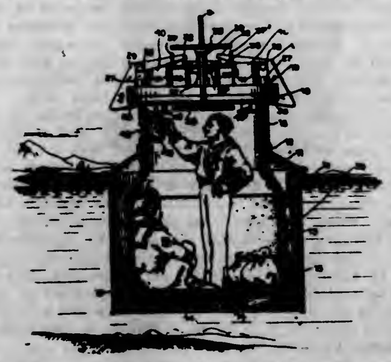
vided with stopcocks, a U-shaped capillary tube containing mercury, said tube connecting and supporting said bulbs, a T-joint having connection with said capillary tube at its base, said T-joint supporting a cup and plunger for adjusting the height of the mercury in said tube, said T-joint provided with a stopcock for intercepting communication between the capillary tube and said cup and plunger, a reservoir containing water and having an integral pipe, a cotton wick secured to said muslin cover and entering said pipe, said cotton wick absorbing moisture therefrom and transmitting such moisture to said muslin cover for cooling said cylindrical tube, substantially as specified.



2. In a humidostat regulator comprising a dry bulb, a cylindrical bulb incased in muslin and a capillary tube containing mercury, said bulbs provided with stopcocks and said tube having dual integral upwardly extending arms, said arms having connection with said bulbs, thereby affording means of communication from one to the other, a T-joint having connection with said tube at its base and supporting a cup and plunger for adjusting the rise of the mercury in said tube, said T-joint provided with a stopcock for intercepting communication between said cup and plunger and said tube, a reservoir containing water and having an integral pipe, a cotton wick secured to said muslin cover and entering said pipe and absorbing moisture therefrom, said wick transmitting moisture to said muslin cover for wetting said cylindrical tube, bulbs formed in said arms for holding mercury, and platinum wires sealed in one of said arms as a means for forming electrical connection with the mercury in said tube, substantially as specified.

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1,042,891. LIFE-PRESERVER. ARNER D. CRULL and LEONARD SPANGLER, Indianapolis, Ind., assignors to Leonard Spangler and Roscoe Miller, Indianapolis, Ind. Filed Oct. 12, 1911. Serial No. 654,302. (Cl. 9—4.)



1. A life saving device comprising a buoyant receptacle provided with a neck, an outstanding flanged seat externally surrounding said neck, a gasket in said seat, a cover hinged to said neck, locking levers pivotally connected to said cover and having lips for engaging said seat, a shaft extending through said cover, a hand wheel carried by the inner end of said shaft, means on said shaft and movable by rotating said shaft to engage the locking levers with or disengage the same from said seat, and ventilating means carried by said cover.

2. A life saving device comprising a buoyant receptacle, a cover hinged thereto and provided with openings, ventilating castings carried by said cover and arranged over said openings, said castings being provided with openings, valves rotated in said castings and provided with ports adapted to be aligned with the openings in said castings, hollow stems for said valves communicating with the ports therein and extending through the openings of the cover into said receptacle, and means for locking the cover to the receptacle.

3. A life saving apparatus comprising a buoyant receptacle, a cover hinged thereto and provided with a threaded central opening, a threaded shaft engaging said opening, means carried by the outer end of said shaft for rotating the same, means carried by the inner end of the shaft for rotating the same, a disk having a threaded opening engaging the exterior portion of said shaft, bars carried by the cover and slidably engaged by said disk to prevent rotary movement of the disk, locking means operated by said disk and carried by the cover for engaging said receptacle, and ventilating means for said receptacle.

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1,042,895. CAR-STEP. FRANK L. DREENS and WILLIAM H. HOGAN, Kankakee, Ill. Filed Nov. 25, 1911. Serial No. 662,262. (Cl. 105—86.)



1. In combination with a car, of a step hinged to the platform of the car and normally tending to gravitate to its operative position, said step being provided with an arm extending inwardly under the car platform, a push rod pivotally connected to the inner end of said arm extending upwardly through the car platform, and means for automatically locking said push rod at the lower extremity of its movement.

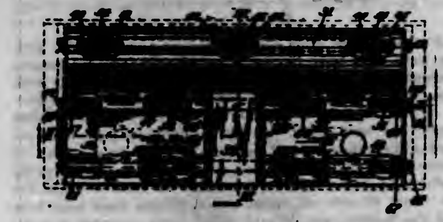
2. In combination with a car, of a step hinged to the platform of the car and normally tending to gravitate to its operative position, said step being provided with an arm extending inwardly under the car platform, a push rod pivotally connected to the inner end of said arm extending upwardly through the car platform, and means for automatically locking said push rod at the lower extremity of its movement, said locking means consisting of a notch formed in the bar at its upper end, a lock plate on the platform adapted to engage in said notch, and a spring normally forcing the lifting rod into engagement with said lock plate.

3. In combination with a car, the platform of the car being provided with a hole adjacent to the entrance, a lock plate fastened to the floor of the car and provided with a hole registering with the hole in the platform, and a spring confined in the hole in said lock plate, of a step hinged to the platform and normally tending to gravitate to its operative position, an arm attached to said step, extending in under the platform, and a push rod pivotally connected to the inner end of said arm and extending upwardly through the holes in the platform and the lock plate, said spring normally pressing against one edge of said push rod and forcing its opposite edge into continuous engagement with the edge of the lock plate, and said push rod being provided with a notch at its upper end for engagement with the edge of the lock plate when the said rod is pushed down, the spring serving to automatically bring about this engagement.



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1,042,896. BRAKE-SHOE. FRANK T. DICKINSON, Chicago, Ill. Filed Nov. 2, 1908. Serial No. 460,586. (Cl. 188—82.)



1. A brake shoe comprising a reinforcing back provided with depressed loops, a rod extending through the loops, and a wearing face cast so as to surround the rod in the loops.

2. In a brake shoe in combination, a reinforcing back, a rod engaging said back, and a cast wearing surface engaging said rod.

3. A brake shoe comprising a sheet steel reinforcing back provided with an attaching lug and with a plurality of depressed loops, a rod extending through the loops, and a wearing face cast so that the cast metal surrounds the rod and extends into the loops.

4. A brake shoe comprising a reinforcing back, a clip engaging said back, a rod engaging said clip and a cast wearing face engaging said rod.

5. A brake shoe comprising a reinforcing back, apertures in said back to receive the connecting clip, a connecting clip engaging said apertures, a rod engaging said connecting clip, and a cast body engaging said rod.

[Claims 6 to 9 not printed in the Gazette.]

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1,042,897. CONNECTING DEVICE FOR ELECTRIC CONDUCTORS. ROBERT R. DUNLOP, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Feb. 23, 1910, Serial No. 545,282. Renewed Mar. 25, 1912. Serial No. 686,139. (Cl. 175—292.)



1. In a connecting device for electric conductors, the combination of a hollow flame proof cylinder, a fuse within the cylinder, terminals at the ends of the cylinder connected to the fuse, a conductor connected to each terminal, one of said conductors being removably connected, and means whereby the said removably connected conductor may be connected or disconnected without the communication of sparks or flames to the external atmosphere, substantially as set forth.

2. In a connecting device for electric conductors, the combination of a hollow flame proof cylinder, a fuse within the cylinder, terminals at the ends of the cylinder connected to the ends of the fuse, a conductor connected to one terminal, a second conductor adapted to be removably connected to the other terminal, and a flame proof socket inclosing said removably connected conductor and adapted to fit over and telescopically engage the cylinder with a gas and flame proof fit, substantially as set forth.

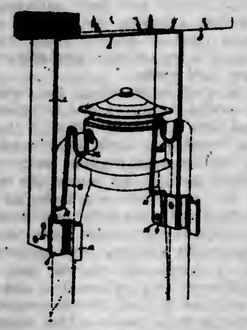
3. In a connecting device for electric conductors, the combination of a tubular casing closed at one end, a conductor terminal in said casing near the closed end, a piston adapted to enter the open end of the casing with a gas and flame proof fit, a fuse inclosed within said piston, a conductor connected to one end of said fuse, and a terminal connected to the other end of the fuse and adapted to engage the terminal within the casing after the piston has entered the casing sufficiently to close the end thereof, substantially as set forth.

4. The combination of a flame proof machine casing having an aperture, a hollow cylinder of insulating material mounted in said aperture and entirely closing it, a fuse within said cylinder, plugs closing the ends of said cylinder and connected to the fuse, and conductors one within the casing and one without the casing connected to said plugs, substantially as set forth.

5. In a connecting device for electric conductors, the combination of a tubular casing open at one end, and closed at the other, a conductor terminal in said casing near the closed end, a piston adapted to enter the casing with a good working fit, and a conductor terminal connected to said piston and adapted to engage the terminal within the casing, substantially as set forth.

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1,042,898. LANTERN-HOLDER. WALTER W. EASTMAN, Hill, N. H. Filed Aug. 8, 1912. Serial No. 714,080. (Cl. 240—57.)



1. A lantern support comprising a substantially inverted U-shaped spring frame provided with clips for embracing the side bars of the lantern, and spring arms extending obliquely from said side bars having U-shaped portions to receive the horizontal tubular portions of the lantern frame.

2. A lantern holder comprising a substantially inverted U-shaped spring frame adapted to be secured to a vehicle body, clips riveted to the ends of the side bars of said frame having substantially semi-circular portions to embrace the side bars of the lantern frame, and spring arms extending upwardly obliquely from said side bars having U-shaped portions in substantially vertical alinement with the semi-circular portions of the clip adapted to receive and embrace the horizontal bars of the lantern for yieldingly supporting the lantern within the U-shaped frame.

3. A lantern support comprising an inverted U-shaped spring frame, clips secured to the ends of the arms of said frame and extending outwardly therefrom, having substantially semi-circular portions to receive the vertical bars of the lantern frame, said clips being provided with crimped portions, spring arms secured within the crimped portions of said clips offset and extending upwardly and obliquely therefrom, said arms terminating in U-shaped portions in vertical alinement with the semi-circular portions of the clips and adapted to embrace the horizontal bars of the lantern frame.

1,042,899. OILER. RICHARD HENRY EVANS, Blendal, British Columbia, Canada. Filed May 17, 1912. Serial No. 698,007. (Cl. 221—45.)



1. In an oiler such as described, the combination of a tubular body portion having an end contracted to form a nozzle provided with a delivery orifice; a stopper for said nozzle, shaped to conform to the interior of said nozzle; an operating rod for said stopper, said rod extending through said body portion and beyond the end thereof; a closure head for the end of said body portion opposite that forming the nozzle; means for admitting air through said head to said body, said means being operable by said rod; a locking bar for said rod, to reciprocate the same; and an undercut rim formed on said body to engage said bar, to hold said stopper in position to close or open said nozzle.

2. In an oiler such as described, the combination of a tubular body portion having an end contracted to form a nozzle provided with a delivery orifice; a stopper for said nozzle, shaped to conform to the interior of said nozzle; an operating rod for said stopper, said rod extending through said body portion and beyond the end thereof; a closure head for the end of said body portion opposite that forming the nozzle; means for admitting air through said head to said body, said means being operable by said rod; a locking bar for said rod; an undercut rim formed on said body to engage said bar to hold said stopper in position to close or open said nozzle; and a stop collar mounted on said rod to limit the movement thereof.

3. In an oiler such as described, the combination of a tubular body portion having a nozzle-shaped end provided with a delivery orifice; a stopper shaped to conform with the inner shape of said nozzle; a closure cap for the end of said body portion opposite said nozzle; a connecting rod rigidly secured to said stopper extended through guide perforations in said cap, said rod being provided with a channel having an opening within said body portion and an opening adapted for extension beyond said cap; an expansion packing disposed in said cap to surround said rod, to close the passage between said cap and said rod; and a double-extension undercut rim for said cap adapted to receive thereunder said handle when said stopper is in closed position in said nozzle, one end of said channel formed in said rod being, in this position, within and closed by said cap.

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1,042,900. CAR-WHEEL SLIDE-SHOE. JAMES R. FLEMING, Scranton, Pa. Filed Mar. 8, 1912. Serial No. 682,388. (Cl. 104—49.)

1. A car wheel slide shoe, having an elongated flat sliding body, said body having a rearwardly-extended tongue shaped to form an incline; an incline portion raised from said body, from adjacent the median portion thereof and extended toward the forward end of said body; and a guide flange for said body, rigidly secured thereto and extended therefrom to rest against the side of the head of a track rail, said flange being narrowed from the carrying position of a car wheel rearwardly, to form a guide for the flange of said car wheel, when riding upon said shoe.

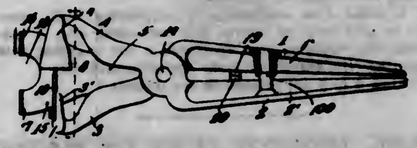


2. A car wheel slide shoe, having an elongated flat sliding body, said body having a rearwardly-extended tongue shaped to form an incline; an incline portion raised from said body, from adjacent the median line thereof and extended toward the forward end of said body; and a guide flange for said body, rigidly secured thereto and extended therefrom to rest against the side of the head of a track rail, said flange being narrowed from the carrying position of a car wheel rearwardly, to form a guide for the flange of said car wheel, when riding upon said shoe and the forward end of said flange being enlarged to a dimension substantially that of a car wheel and upwardly curved in simulation of a car-wheel flange.

3. A slide shoe of the character mentioned, having an elongated body portion adapted to rest upon the head of a track rail, said body portion having on one side a flange to rest against the inner side of a track rail, said flange and body portion being tapered toward the rear of the shoe to form guide members for disposing the wheel in proper riding position on the shoe.

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1,042,901. RINGING AND DOCKING INSTRUMENT. GEORGE W. FLETCHER, Meeden, Ill. Filed July 11, 1912. Serial No. 708,900. (Cl. 128—27.)



1. A pair of cutting pliers having a tail guide and gage pivoted to the pivot of the jaws for swinging movement into and out of operative position relatively to the cutting end of the pliers, the portion of the guide disposed to aline with the cutting ends of the pliers being provided with an open slot to permit the tail to be guided therein from one side for presentation to the cutting end of the pliers.

2. A pair of cutting pliers, having a tail guide and gage pivoted to the pivot of the jaws for swinging movement into and out of operative position relatively to the cutting end of the pliers, the portion of the guide disposed to aline with the cutting ends of the pliers being provided with an open slot to permit of the tail to be guided therein from one side for presentation to the cutting end of the pliers, the cutting end of the pliers being provided with an offset portion to permit of the tail extending upon the outer face of the jaws at the opposite side to the pivotal point of the tail guide and gage.

3. An instrument of the class described, comprising a pair of pliers having bowed jaws, a removable anvil carried by one jaw, a cutting blade carried by the other jaw and in co-active relation with the anvil, an arm pivotally connected at one side of the jaws to the pivot of the jaws, and a forked terminal bent at right angles to the arm and of greater length than the jaws, said forked terminal providing a tail guide and gage.

4. An instrument of the character described, comprising a pair of pliers having tail severing jaws, an arm pivotally connected to the pivot of the jaws at one side of the jaws, and a pair of spaced terminals carried by the arm and bent at right angles thereto, said arm being longer than the jaws to present the opposed terminals exterior of the cutting edges thereof.

5. An instrument of the character described, comprising a pair of pliers having tail-severing jaws in a cutting edge and the other of which are duly pivoted to the jaws and in curving upon the pivot of the jaws at its pivotal point, and a forked arm at right angles to the arm, the space between the forked ends providing an open slot for the insertion of the tail to be guided and to hold the skin thereof toward the body of the animal during the severance of the tail to provide a surplus of skin to cover the stub end at the point of severance.

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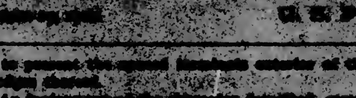
1,042,902. INSULATOR. BENJAMIN N. POWER, Anaheim, Cal. Filed Dec. 21, 1911. Serial No. 667,661. (Cl. 173—316.)



The combination with a support, of an insulator, having a threaded flange, a sleeve having threads formed thereon, a flange formed in the bottom thereof, a disk having a central perforation, said disk being adapted to rest upon the flange, a screw passing through the perforations of the disk and in engagement with the support for firmly holding the sleeve upon the support, said threaded flange being adapted for detachable connection with said sleeve.

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1,042,903. METAL DOOR. LEWIS G. FOWLER and HARRY V. TREMAIN, Blairstown, Mo. Filed Sept. 20, 1911. Serial No. 650,263. (Cl. 189—46.)



1. A grain door for cars composed of a sheet of metal folded upon itself at spaced intervals to form a plurality of vertical reinforcing ribs on one face thereof, a truss-rod arranged transversely of the ribs near the top and near the bottom of the door, the ends of the rod being bent laterally, and the door having openings through which the ends when entered, parts engaging said ends on the opposite side of the door from the rod, said ribs gradually decreasing in height from the center toward the sides thereof, said plates secured to rounded of the ribs, each plate having an opening for the truss rod.

2. A grain door for cars composed of sheet metal provided on one face with a plurality of integral inwardly extending reinforcing ribs, the ribs at the center of the door being of greater width than those at the sides, and a truss rod supported by the ribs and engaging the ends of the door.

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1,042,904. COMBINED DRUM AND CYMBAL BEATER. FRANK L. FRANCE, Wichita, Kans. Filed Apr. 15, 1912. Serial No. 690,750. (Cl. 84—38.)

1. A device of the class described comprising a base, a hollow post rising from said base, a pivoted jaw on the post and cooperative with the said base for clamping engagement with the hoop of a drum, a fork formed on said post, a rocking member pivoted in said fork, a beater stick adjustably connected in said member and having a resilient striker head, a foot pedal pivotally connected with said base, connection between the pedal and said member, resilient means fixed in said post and connected with the said member for maintaining the same, a cymbal beater adjustably connected with said stick and adapted to be swung from operative to inoperative position, and means for holding the cymbal beater in operative or inoperative position.

2. A device of the class described comprising a base, a hollow post rising from said base, a pivoted jaw on the post and cooperative with the said base for clamping engagement with the hoop of a drum, a fork formed on said post, a rocking member pivoted in said fork, a beater stick adjustably connected in said member and having a resilient striker head, a foot pedal pivotally connected with said base, connection between the pedal and said member, resilient means fixed in said post and connected with the said member for maintaining the same, a cymbal beater adjustably connected with said stick and adapted to be swung from operative to inoperative position, and means for holding the cymbal beater in operative or inoperative position, said means for holding the cymbal beater in operative position comprising a spring fixed in said post and engaging said member for maintaining the same.



2. A device of the class described comprising a base, a hollow post rising from said base, a pivoted jaw on the post and cooperative with the said base for clamping engagement with the hoop of a drum, a fork formed on said post, a rocking member pivoted in said fork, a beater stick adjustably connected in said member and having a resilient striker head, a foot pedal pivotally connected with said base, connection between the pedal and said member, resilient means fixed in said post and connected with the said member for maintaining the same, a cymbal beater adjustably connected with said stick and adapted to be swung from operative to inoperative position, and means for holding the cymbal beater in operative or inoperative position, said means for holding the cymbal beater in operative position comprising a spring fixed in said post and engaging said member for maintaining the same.

3. A device of the class described comprising a base, a hollow post rising from said base, a pivoted jaw on the post and cooperative with the said base for clamping engagement with the hoop of a drum, a fork formed on said post, a rocking member pivoted in said fork, a beater stick adjustably connected in said member and having a resilient striker head, a foot pedal pivotally connected with said base, connection between the pedal and said member, resilient means fixed in said post and connected with the said member for maintaining the same, a cymbal beater adjustably connected with said stick and adapted to be swung from operative to inoperative position, and means for holding the cymbal beater in operative or inoperative position, said means for holding the cymbal beater in operative position comprising a spring fixed in said post and engaging said member for maintaining the same, and means for limiting the outward movement of the beater in one direction.

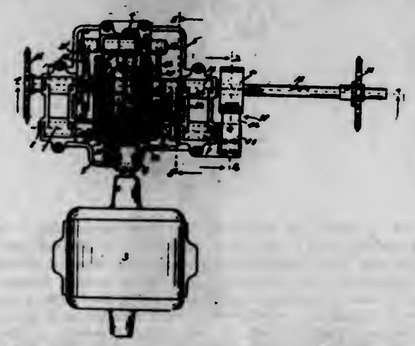
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1,042,905. MECHANISM FOR GIVING INTERMITTENT ROTATION TO A SHAFT. WALTER H. GASKILL, Los Angeles, Cal., assignor, by mesne assignments, to Hazard Long Investment Company, Los Angeles, Cal., a Corporation of California. Filed Feb. 19, 1912. Serial No. 678,128. (Cl. 74—7.)

1. In combination of the class specified, the combination of a shaft, a spur wheel and a cam both loosely mounted on said shaft, means for continuously rotating said spur wheel and said cam, a dog pivotally mounted on said spur wheel, an arm fast on the said shaft, said arm having a portion adapted to coact with the cam and operative by the cam to control engagement of said dog with said pawl.

2. In combination of the class specified, the combination of a shaft, a spur wheel and a cam both loosely mounted on said shaft, means for continuously rotating said spur wheel and said cam, a dog pivotally mounted on said spur wheel, an arm fast on the said shaft, said arm having a portion adapted to coact with the cam and operative by the cam to control engagement of said dog with said pawl, [illegible]

wheel and the cam, the dog pivotally mounted on the spur wheel, an arm fast on the said shaft, and a device including an arm operated by said cam and connected with an arm adapted to coact with said dog to control engagement of said dog with said arm fast on the said shaft.



3. In mechanism of the class specified, the combination of a shaft, a spur wheel and a cam both loosely mounted on said shaft, means for continuously rotating said spur wheel and said cam, an arm fast on the said shaft, a dog mounted on said spur wheel and adapted to engage with said arm, and a device operatively connected with said cam and adapted to coact with the dog to control the engagement of said dog with said arm.

4. In mechanism of the class specified, the combination of a shaft, a wheel and a cam both loosely mounted on said shaft, means for continuously rotating the wheel, speed reducing gearing connected between the wheel and the cam, an arm fast on the said shaft, a spring-pressed dog pivotally mounted on the wheel and adapted to engage with said arm, and a device operatively connected with the cam and adapted to coact with the dog to control the engagement of said dog with the arm.

5. In mechanism of the class specified, the combination of a shaft, a wheel and a cam both loosely mounted on said shaft, means for continuously rotating said wheel and said cam, an arm fast on the said shaft, a spring-pressed dog pivotally mounted on said wheel and adapted to engage with said arm, and means to control the engagement of said dog with said arm, said means including a shaft, an arm fast on the last shaft and adapted to bear against said cam, and an arm fast on the last shaft and adapted to engage with said dog.

[Claim 6 not printed in the Gazette.]

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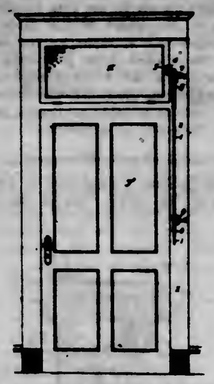
1,042,906. TRANSOM-LIFTER. JOHN H. GARTNER, Pocatello, Idaho. Filed May 11, 1912. Serial No. 696,623. (Cl. 16—28.)

1. The combination with a hinged transom and a vertically adjustable rod, of a plate spring connecting them, a fixed guide for the spring, the same having a curved face and provided with means for holding the spring to said face, as described.

2. The combination with a hinged transom and a vertically slidable rod, of a spring connecting them, and a guide arranged intermediately of the transom and rod and consisting of a bracket having a curved face and integral loops for holding the spring to the face, as described.

3. In a transom lifter, the guide for a spring forming part of said lifter, the same consisting of a bracket having a curved face provided with means for holding the spring in its sliding movement, the bracket being also provided at the upper end with rearward projections adapted to be secured to a door casing, substantially as described.

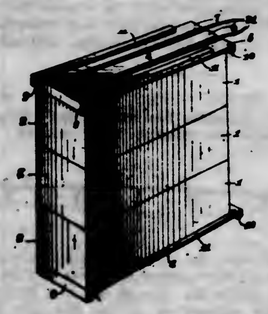
4. The combination with a transom rack-rod, a pinion engaging it, and a casing inclosing them, of a polygonal shaft whereon the pinion is mounted, a knob having a hollow shank whose polygonal socket receives the shaft, the inner end of the same having its bearing in the casing, a spiral spring arranged in the hollow shank and bearing



against the knob and shaft, and a locking disk having outwardly projecting pins which normally engage the casing when the spring is expanded the hollow shank being slidable in the casing and on the shaft, as described.

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1,042,907. BEEHIVE. JAMES A. GERHART, Wilmington, Del. Filed Mar. 5, 1912. Serial No. 681,693. (Cl. 6—2.)



1. In a bee-hive, in combination, two or more rectangular cases of the same dimensions open at the top and bottom and adapted to be stacked one on the other, metallic rails carried in slots or kerfs midway between the tops and bottoms of the ends of said cases, a frame for comb, and stops carried by the end pieces of said frames adapted to rest upon said metallic rails.

2. In a bee-hive, in combination, a case rectangular in plan and open at the top and bottom, a metallic rail carried in a slot or kerf midway between the top and bottom of the ends of said case, a frame for comb consisting of end pieces, a two part top rail for carrying the upper edge of the comb foundation, and a bottom rail, said top and bottom rails being narrower than said end pieces, a U shaped wire carried by said end pieces the ends of which are adapted to rest upon said metallic rail, and partitions, furnished at their ends with notches, adapted to engage said metallic rail, for separating said frames.

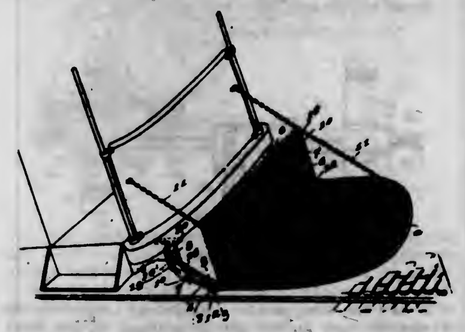
3. An interchangeable top or bottom for bee-hives, consisting of a board one end of which enters a groove in a transverse strip, the under side of the other end of said board being secured to a transverse strip and the top of said board being at its sides furnished with longitudinal strips, the tops of said latter strips and of said grooved strip being in the same plane.



4. An interchangeable top or bottom for bee-hives consisting of several tongued and grooved boards disposed lengthwise of the hive and furnished upon their upper sides with grooves parallel and adjacent to their meeting edges, a grooved transverse strip carried by the rear end of said boards, a transverse strip secured to the under side of the front end of said boards, and longitudinally disposed strips secured to the top of said structure, at its sides, the tops of said latter strips and of said grooved end strip being all in the same plane.

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1,042,908. CAR-FENDER. JAMES GENTLESS, Philadelphia, Pa. Filed Sept. 6, 1911. Serial No. 647,888. (Cl. 105—282.)



1. In combination with a hanger support and a fender movably connected thereto, of a laterally extended keeper connected to the hanger support, a hasp connected to the fender and adapted to engage the keeper and means disposed in superposed relation to said keeper for locking the hasp to the keeper.

2. In combination with the hanger support and a fender movably connected thereto, of a laterally extended keeper connected to the hanger support, a hasp connected to the fender and adapted to engage the keeper and means pivoted to said hanger support and disposed in superposed relation to said keeper for locking the hasp to the keeper.

3. In combination with a hanger support and a fender movably connected thereto, of a laterally extended keeper connected to the hanger support, a hasp connected to the fender and adapted to engage the keeper and a latch pivotally secured to said hanger support for locking the hasp to the keeper.

4. In combination with a hanger support and a fender movably connected thereto, of a laterally extended keeper connected to the hanger support and a hasp having its lower end recessed and connected to the fender, the said recessed end being adapted to engage the keeper and a latch pivotally secured to said hanger support and in superposed relation to said keeper for locking the said recessed end of the hasp to the keeper.

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1,042,909. DEVICE FOR MILK-BOTTLES. KATHARINE GRAHAM, Baltimore, Md. Filed Jan. 24, 1912. Serial No. 673,095. (Cl. 31—35.)

1. In combination with a milk bottle, of a frusto-conical cap, said cap having its lower extremity provided with an outwardly bulging portion, said bulging portion adapted to resiliently engage with the mouth of the bottle, the cap being provided with an outlet spout, the cap being further provided with a continuous pocket, a washer within the pocket and a reciprocatory rod passing through the cap and within the bottle and adapted to be engaged by the washer.

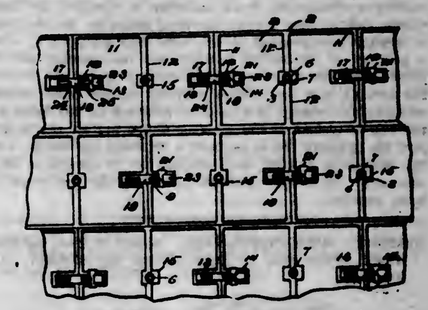
2. In combination with a milk bottle, of a cap resiliently connected with the top of the bottle, said cap being provided with an outlet spout, a washer within the cap, a reciprocatory member passing through the cap and within the bottle, and adapted to be contacted by the washer, the said reciprocatory member comprising an upper and



a lower section and a tubing of elastic material connecting the upper and the lower sections, substantially as and for the purpose set forth.

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1,042,910. CONCRETE-FORM. CLAUDE H. HAGA, Alexandria, Va., assignor, by mesne assignments, to Interstate Realty & Construction Company, Alexandria, Va., a Corporation of Virginia. Filed May 19, 1911. Serial No. 628,150. (Cl. 25—131.)



1. A mold for walls comprising a plurality of plates formed with a smooth inner surface and an outer surface reinforced by border ribs and a transverse central rib, each of said plates being formed with an aperture extending therethrough at the central point of said central rib, clamping means for holding said plates together, and a tie bolt extending through said apertures for tying each pair of plates together centrally, said reinforcing ribs distributing the strain over the entire plate.

2. A mold for walls comprising a plurality of interlocking plates, each of said plates being formed with a lug at each end, each of said lugs having a beveled face arranged on the opposite side to the edge of the plate, a clamping plate fitting over the lugs on adjacent plates, said clamping plate being formed with a pair of apertures and a hook at one end, the aperture at the end opposite said hook being beveled for coacting with one of said lugs, and a wedge fitting between one of said lugs and said hook for drawing said lugs toward each other and clamping said plates together.

3. A mold for walls comprising a plurality of plates including corner plates formed with projections having beveled faces, one of said projections extending laterally from the plate with which it is connected, and the other

of said projections extending longitudinally of the plate with which it is connected, whereby the beveled projections are on substantially the same plane, a clamping plate formed with an aperture for accommodating both of said projections, said clamping plate being formed with a hook shaped end co-acting with the beveled portion of the projection extending longitudinally of said plate, and a wedge fitting between said hook shaped end and the beveled portion of said last mentioned projection for drawing together and locking said plates.

4. A mold for walls comprising a plurality of plates including corner plates, a plurality of interlocking lugs extending from said corner plates, each of said lugs being formed with a beveled face, a locking plate fitting over said lugs and arranged so that one of the lugs engages the locking plate near one end and the other end of the locking plate projects to a point adjacent the other of said lugs, and a beveled wedge engaging said locking plate and the beveled face of said last mentioned lug for drawing said lugs toward each other and for clamping said plates in a closed position.

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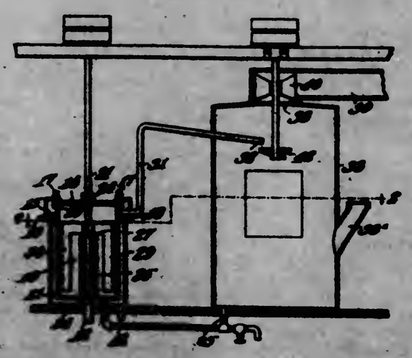
1,042,911. HAME-HOOK. Parmort M. Hardy, Aurora, N. C. Filed Dec. 28, 1910. Serial No. 599,748. (Cl. 54—30.)



A hame and trace connector comprising a hook member having a channeled head adapted to receive the hame staple and having a tug receiving notch in its rear end, a locking jaw pivoted to the head and adapted to cover a portion of the notch, a finger on the locking jaw extending beyond the end of the notch, a spring for holding the locking jaw into closed position on the hook member whereby the staple is locked in position in the head and the tug is locked in the hook, a finger lug on the locking jaw for opening the same, and a limiting lug on the locking jaw, said locking jaw adapted to be opened so as to disengage the staple without removing the tug from the hook member.

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1,042,912. MILK-CONDENSER. Soren P. Hay, Spokane, Wash. Filed Feb. 1, 1912. Serial No. 674,635. (Cl. 127—9.)

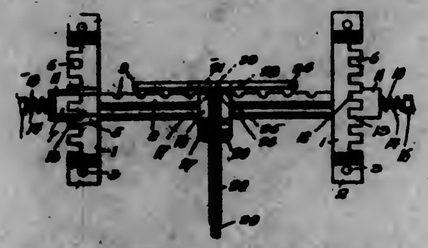


1. A milk condenser comprising a receiving tank, a milk receptacle, means for heating the milk in said receptacle, a connection between said tank and said receptacle, means for spraying the milk in a heated state within said tank, and means for returning the milk to said milk receptacle.

2. A milk condenser comprising a milk receptacle, an agitator arranged in said receptacle, a tank, a connection between the upper portion of said milk receptacle and said tank, said agitator moving the milk alternately within said receptacle through said connection, a shaft disposed vertically within said tank, a receptacle mounted on said shaft, and receiving the milk supplied to said tank, said tank being formed with an opening through which said shaft projects, a pipe registering with said opening and a fan mounted on said shaft, said fan causing the moisture from the milk supplied to said tank, to pass through said pipe.

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1,042,913. DROP-SEAT FOR LOCOMOTIVE-CABS. James Hitsch, New Castle, Pa. Filed Mar. 22, 1913. Serial No. 755,823. (Cl. 155—22.)



1. In a drop seat, parallel slotted racks, a supporting bar having the ends thereof slidably mounted in said racks, spring pressed locking members carried by the ends of said bar for locking said bar relatively to said racks, a strap adjustably mounted upon said supporting bar, a seat having the rear edge thereof pivotally connected to said strap, and a telescopic pivoted leg carried by the forward edge of said seat.

2. A drop seat for the cabs of locomotives, comprising slotted brackets, a supporting bar having the ends thereof extending through said brackets and adjustably connected thereto, a strap adjustably mounted upon said supporting bar, a seat having the rear edge thereof pivotally connected to said strap, and a telescopic leg pivotally supported by said seat.

3. A drop seat for locomotive cabs, comprising slotted brackets, a supporting bar having the ends thereof extending through said brackets, spring pressed locking members arranged upon the ends of said bar for engaging said brackets and locking said bar relatively to said brackets, a strap adjustably mounted upon said supporting bar, a seat having the rear edge thereof pivotally connected to said strap, and a leg pivotally supported upon the forward edge of said seat.

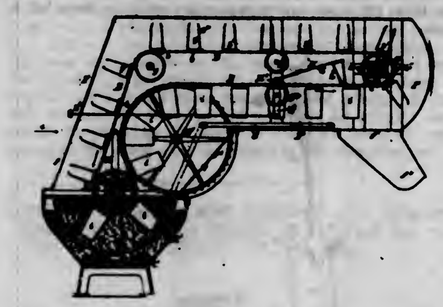
4. A drop seat for locomotive cabs comprising parallel slotted racks, a notched supporting bar having the ends thereof extending through said racks, spring pressed locking members movably arranged upon the ends of said bars for engaging said racks, a strap movably mounted upon said supporting bar, a notch member carried by said strap for engaging in one of the notches of said bar, a seat having the rear edge thereof pivotally connected to said strap, and a telescopic leg pivotally connected to the forward edge of said seat.

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1,042,914. MACHINE FOR COATING ARTICLES WITH PARAFFIN OR OTHER COATING MATERIAL. Henry E. Hess, Philadelphia, Pa., assignor to The American Paper Bottle Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 28, 1908. Serial No. 450,276. (Cl. 91—48.)

1. The combination in a machine for coating the interior and exterior of bottles and other articles, of a kettle, an endless belt having a foot wheel above the kettle and a head wheel some distance from the kettle, a guide wheel around which the belt passes as it leaves the foot wheel, fixed carriers on the belt arranged substantially at right angles to the longitudinal line of the belt, the guide wheel extending over a portion of the foot wheel so that the bottles will enter the liquid in a substantially horizontal position and as they are removed from the liquid they will be tipped a sufficient distance, due to the position of the guide wheel, to allow them to drain.





2. The combination in a machine for coating the interior and exterior of bottles and other articles, of a kettle, an endless belt having a foot wheel directly above the kettle, a head wheel some distance from the kettle, guide wheels for directing the belt in a substantially vertical path, fixed carriers on the belt for holding the bottles to be dipped in a position substantially at right angles to the run of the belt, the guide wheel for the return run of the belt extending over a portion of the foot wheel so that as the bottles leave the liquid in the bottle they will be inclined to allow a given quantity of the liquid to drain from the interior, after which they will assume a horizontal position as they are carried by the belt to the head wheel so as to allow the remaining liquid to settle in the bottom of the bottle to form a seal.

3. The combination in a machine for coating bottles or other articles with paraffin or like material, of a bottle, means for heating said bottle, a conveyer, a foot wheel directly above the bottle around which the conveyer passes, a head wheel at one side of the bottle some distance from the foot wheel, a small guide wheel for the forward run of the conveyer and a large guide wheel for the return run of the conveyer, said conveyer being made up of two chains spaced apart with a series of cross bars extending from one chain to the other, a series of carriers mounted on each cross bar and arranged so as to hold the bottle or other article substantially at right angles to the longitudinal line of the conveyer, a casing inclosing the horizontal portion of the conveyer, the small guide wheel being set back of a vertical line drawn from the foot wheel so that the bottles will be fed into the liquid and so that the liquid will gradually flow into the bottle, the large guide wheel overhanging the foot wheel so that the bottles will be slightly tilted to allow them to drip before assuming a vertical position, the remainder of the liquid in the bottle forming a seal in the bottom of the bottle as it accumulates while traveling in a horizontal position, with means for discharging the bottle from the carrier at the end of the return run of the conveyer.

4. The combination, in a machine for coating the interior and exterior of bottles and other articles, of a bottle, an endless belt having a foot wheel above the bottle and a head wheel some distance from the bottle, a guide wheel around which the belt passes as it leaves the foot wheel, fixed carriers on the belt arranged substantially at right angles to the longitudinal line of the belt, the guide wheel extending over a portion of the foot wheel so that the bottles will enter the liquid and as they are removed from the liquid will be tipped a sufficient distance, due to the position of the guide wheel, to allow them to drain.



1,042,915. PROCESS FOR MANUFACTURING OILS SOLUBLE IN WATER. Leon Hirschsohn, Halensee, near Berlin, Germany, assignor to Firm of Chemische Fabrik Westend, Charlottenburg, near Berlin, Germany. Filed Mar. 30, 1912. Serial No. 687,452. (Cl. 196—30.)

1. A process for manufacturing oils emulsifiable with water, comprising heating a hydrocarbon with oxidizing mineral acids containing fuming sulfuric acid to a high temperature in such quantities that for a given weight of oil, not less than two and one-half per cent. by weight of sulfur trioxid in fuming sulfuric acid is employed, and continuing with such heating until, after settling, products of the reaction separate in two layers, an upper layer emulsifiable with water, and a lower layer, and recovering the upper layer.

2. A process for manufacturing oils emulsifiable with water comprising heating a hydrocarbon with not less than one-half its weight of fuming sulfuric acid to a high temperature in such quantities that for a given weight of oil not less than two and one-half per cent. by weight of sulfur trioxid in fuming sulfuric acid is employed, and continuing the heating until reaction products separate after settling, into an upper layer emulsifiable with water, and a lower layer, removing the lower layer, and treating the upper layer with an alkali.

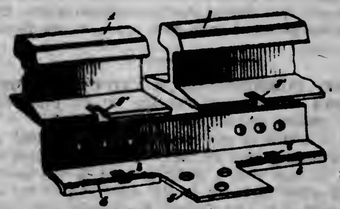
3. A process for manufacturing oils emulsifiable with water comprising heating a hydrocarbon with about double its weight of fuming sulfuric acid for a considerable time to a temperature of about 100° to 130° centigrade, allowing the reaction products to settle and separate into two layers, the upper layer forming the emulsifiable oil, and a lower layer.

4. A process for manufacturing oils emulsifiable with water comprising heating a hydrocarbon with not less than one-half its weight of a sulfur-containing mineral acid to a high temperature, and continuing the heating until reaction products separate after settling, into an upper layer which will form an emulsion with water, and a lower layer, removing said lower layer, and treating the upper layer with a neutralising substance.

5. A process for manufacturing oils emulsifiable with water comprising heating a hydrocarbon with not less than one-half its weight of a sulfur-containing mineral acid to a high temperature, and continuing the heating until reaction products separate after settling into an upper layer which will form an emulsion with water and a lower layer, and recovering the upper layer.

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1,042,916. RAILROAD-TIE AND FASTENING. Wingford H. Hornsby, Milltown, Ga., assignor of one-half to Oren Gatchell, Tifton, Ga. Filed Nov. 15, 1911. Serial No. 660,506. (Cl. 239—9.)



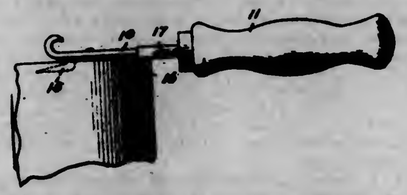
In combination with the meeting ends of a pair of railway rails, each of said rails having their base flanges grooved, angular plates for the rails, each of said plates being slitted to provide downwardly extending resilient tongues, the said tongues adapted to engage within the grooves of the rails, and means for sustaining the plates upon the rails and upon the ties for the rails.

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1,042,917. CAN-OPENER. John D. Houck, Chicago, Ill. Filed Sept. 7, 1911. Serial No. 648,239. (Cl. 30—3.)

A can opener comprising a hollow handle, a slotted disk fitted to the chambered end thereof, an open-ended

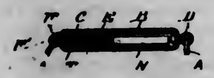
shell mounted within the handle, a stationary sleeve bearing against said disk and having an extended portion passing through said disk and shell and provided with an angled end engaging over the inner end of the shell, a cutting blade having a shank portion passing



through the sleeve and angled at its inner end and engaging over the inner end of the sleeve and against said disk, a member passing through said sleeve and shell and holding said cutting blade within the sleeve, and a puncture hook projecting from said member, as set forth.

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1,042,918. KEY-HOLDING CHAIN. JOHN D. HOUCK, Chicago, Ill. Filed Jan. 22, 1912. Serial No. 672,674. (Cl. 59—97.)



1. A key chain comprising two separable barrel sections, an eye swiveled to one of said sections, a chain fastened to said eye, a screw mounted in the other section and adapted to engage integral threads upon the section to which the eye is swiveled, a hook fastened to said screw and passing through a slot in the other section and adapted to be attached to one end of the chain, and a spring interposed between the inner end of the screw and the adjacent inner end of the section through which said hook passes, as set forth.

2. A key chain comprising two separable barrel sections, one having a perforation in the end in which an eye is swiveled, the other provided with a slot in its end, a chain fastened to said eye, a screw having interior threaded connection with the section to which the eye is swiveled, a hook having a shank portion fixed to said screw and extending through said slot and adapted to be attached to the other end of said chain, a coiled spring mounted upon the shank portion of the hook and adapted to hold the hook in said slot, the marginal edges of which are designed to prevent the hook from rotating independent of the slotted barrel section when the two sections are detached from each other, as set forth.

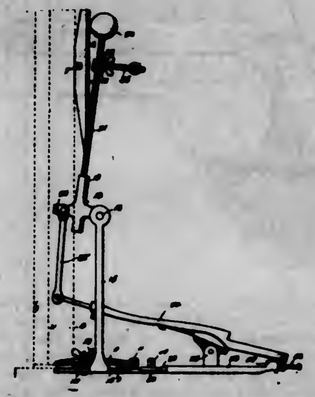
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1,042,919. COMBINED DRUM AND CYMBAL BEATER. WILLIAM H. HUGHES, Trenton, N. J. Filed Nov. 29, 1911. Serial No. 663,009. (Cl. 84—10.)

1. In a device of the class described, a pedal support having a guide groove centrally therein, a bearing slidably engaged in said slot, a pedal pivoted in the bearing, an adjusted screw threaded in the outer end of the support and connected to said bearing for adjusting it longitudinally on said support, a standard having a base, means adjustably connecting said base to the support and beating mechanism mounted on the standard and engaged with the pedal.

2. In a device of the class described, a pedal support having a guide groove centrally therein, a bearing slidably engaged in said slot, a pedal pivoted in the bearing, an adjusting screw threaded in the outer end of the support and connected to said bearing for adjusting it longitudinally on said support, a standard having a base, means adjustably connecting said base to the support and beating mechanism pivotally connected to said standard, and an extension bar adjustably mounted on the pedal and pivotally connected with said mechanism.

3. In a device of the class described, a pedal support having a guide groove centrally therein, a bearing slidably engaged in said slot, a pedal pivoted in the bearing, an adjusted screw threaded in the outer end of the support and connected to said bearing for adjusting it longitudinally on said support, a standard having a base, means adjustably connecting said base to the support and beating mechanism pivotally connected to said standard, an extension bar adjustably mounted on the pedal and pivotally connected with said mechanism, and means on the base for clamping engagement with the hoop of a drum.



4. In a device of the class described, a pedal support having a guide groove centrally therein, a bearing slidably engaged in said slot, a pedal pivoted in the bearing, an adjusted screw threaded in the outer end of the support and connected to said bearing for adjusting it longitudinally on said support, a standard having a base, means adjustably connecting said base to the support and beating mechanism pivotally connected to said standard, an extension bar adjustably mounted on the pedal and pivotally connected with said mechanism, means on the base for clamping engagement with the hoop of a drum, an adjustable cymbal sounding device carried by the beating mechanism, and means for holding the cymbal sounding device in operative or in operative position.

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1,042,920. THERMOTIC SWITCH. GUY F. HUMPHREYS, Devils Lake, N. D., assignor to C. E. Burgess, Devils Lake, N. D. Filed Mar. 8, 1912. Serial No. 682,367. (Cl. 177—128.)



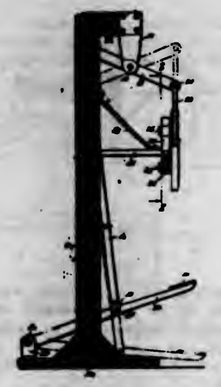
1. A thermotic switch of the class described comprising a reservoir provided with a mercury chamber and an enlarged portion above said chamber, a plug disposed in said enlarged portion and provided with an orifice communicating with the mercury chamber, a screw cap carried by the reservoir and engaging said plug to hold the same in place, an insulating tube passing through said screw cap and clamped thereby against the plug, a contact rod supported by said tube and having a contact point adjacent to the orifice in the plug, and circuit wires electrically connected with said rod and with the reservoir.



2. A thermotic switch of the class described comprising a reservoir provided with a mercury chamber and an enlarged internal portion above said chamber forming an annular shoulder, a plug received in the upper portion of the reservoir and seated against said shoulder at one end, a cap screwed into the upper end of the reservoir and abutting with said plug to hold the same in place, said cap having an opening, the inner end of which is enlarged, an insulating tube passing through the cap and formed with a flange received by the enlarged portion of the opening in the cap and abutting also with the plug, a contact rod passing through the tube and having a contact point at its inner end adjacent to said orifice, a clamping nut applied to the inner portion of said rod and located at the inner end of the insulating tube, a binding nut screwed upon the outer end portion of the rod, and circuit wires one of which is electrically connected to the reservoir and the other of which is connected to the contact rod by means of the clamping nut.

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1,042,921. MACHINE FOR BENDING LUG-STRAPS. GEORGE FRANKS IVEY, Hickory, N. C. Filed Feb. 17, 1911. Serial No. 609,111. (Cl. 144—254.)

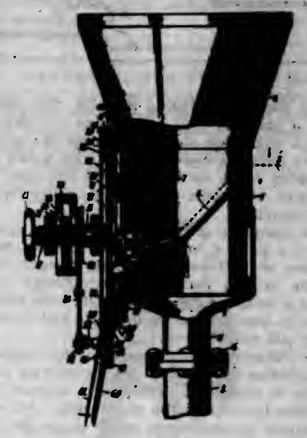


In a machine for bending lug straps, the combination of a standing frame; a pattern block pivotally mounted on said frame to extend above the pivot connection therewith; a forming plate having an elongated rod for hanging the same; a plurality of bending studs extending from the face of said plate to encompass said pattern block when moved thereto; and a power mechanism, embodying a series of levers, pivotally connected with said hanging rod to move the forming plate from a position where the studs thereon are below the lower end of said pattern block to a position adjacent the upper end of said block, the lower position of said plate being such as to permit the studs to support the inbent strap, said plate and rod being adapted to swing away from said pattern block to receive said strap.

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1,042,922. CAP-FEEDING MECHANISM. ARON JOHNSON, New York, N. Y. Filed Feb. 17, 1912. Serial No. 678,175. (Cl. 113—114.)

1. The combination of a receptacle adapted to contain a plurality of caps, the front of the receptacle being open, a plurality of peripheral shoulders adjacent the opening, the distances between the shoulders being substantially equal to the diameter of the caps, an outlet communicating with the receptacle adjacent the bottom thereof, the upper ends of the side walls of the outlet being adjacent the lower ends of some of the shoulders, a member rotatably mounted in position adjacent the front of the receptacle, the member being provided with a plurality of resiliently mounted plugs, the paths of travel of some of the plugs being intermediate some of the said shoulders whereby the plugs may engage some of the caps when they are positioned intermediate some of the shoulders, thereby moving them, other caps being permitted to come adjacent the outlet and enter therein, together with a revoluble serrated wheel adjacent the top of the outlet for engagement with some of the caps in order to bring them adjacent the top of the outlet, there being suitable means whereby this wheel may be driven.



2. The combination of a receptacle adapted to contain a plurality of caps, an outlet connected to the receptacle, means for feeding the cap successively to the outlet, together with a wheel adjacent the outlet for engagement with the caps whereby they are guided to the outlet.

3. The combination of a receptacle adapted to contain a plurality of caps, the receptacle being provided with an outlet, the caps being adapted to be entered successively into the outlet, means for feeding the caps to the outlet, together with a serrated revoluble wheel adjacent the outlet for engagement with the caps whereby they are guided into position.

4. The combination of a receptacle adapted to contain a plurality of caps, peripheral guiding means carried by the receptacle, revoluble means for moving the caps about the said peripheral guiding means, an outlet connected to the receptacle, together with a revoluble serrated wheel adjacent the outlet for engagement with the caps whereby they may be successively fed to the outlet.

5. The combination of a receptacle adapted to contain a plurality of caps, a chute leading from the receptacle, peripheral guiding means carried by the receptacle, said guiding means comprising shoulders, whereby the proper positioning of a cap within the chute is determined, and a revoluble serrated wheel adjacent the outlet and adapted to engage caps adjacent one of the shoulders, whereby such caps may be kept in motion on their way to the chute.

[Claims 6 and 7 not printed in the Gazette.]

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1,042,923. OINTMENT-MACHINE. WILLIAM O. KAISER, Burlington, Iowa. Filed May 16, 1912. Serial No. 697,728. (Cl. 83—12.)

1. In an ointment grinding machine, the combination of a pair of grinding rolls and means for rotating said rolls; with a pair of guard pieces adapted to be entered between the upper sides of the rolls, and adjustable supports to which said guard pieces are attached, whereby said guard pieces may be supported in position between the rolls or moved away from such position.

2. In an ointment grinding machine, the combination with a pair of grinding rolls, of an adjustable scraper engaging one of the rolls, said scraper being concaved on its scraping edge, for the purpose described.



3. In an ointment grinding machine, the combination of a pair of grinding rolls, and means for rotating said rolls and an adjustable scraper engaging one of the rolls, said scraper having a concave edge; with a pair of guard pieces adapted to be entered between the upper side of the rolls and adjustable supports to which said guard pieces are attached.

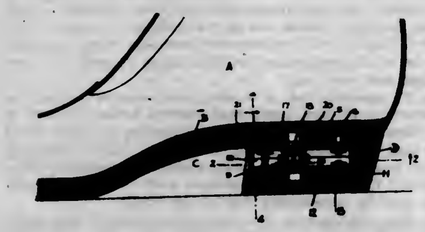
4. In an ointment grinding machine, the combination of a frame, a pair of rolls journaled therein, means for pressing one of said rolls yieldingly toward the other, gearing for driving said rolls at different peripheral speeds, and a scraper engaging one roll; with guard pieces adapted to be placed between the rolls and pivoted arms supporting said guard pieces.

5. In an ointment grinding machine, the combination of a pair of grinding rolls, and means for rotating said rolls; with a pair of adjustable guard pieces adapted to be entered between the upper sides of the rolls, and adjustable swinging levers to which said guard pieces are attached, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,924. REMOVABLE HEEL. LOUSER KALINA, New York, N. Y. Filed May 7, 1912. Serial No. 695,636. (Cl. 36—42.)



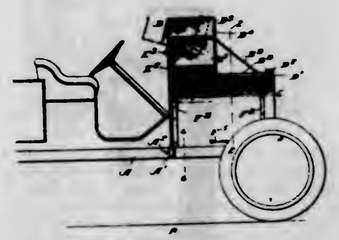
1. The combination of an out-sole having a plate at the heel portion thereof, a heel having a recess in the top thereof and open at the front of the heel, a plate disposed in said recess and attached to said heel, said out-sole and heel-plates having threaded openings adapted to aline vertically when the heel is in position, a screw having right and left-hand threaded portions for respective engagement in the plate openings and having a central nut disposed within the said heel recess and accessible through the front open end thereof.

2. The combination of an out-sole having a plate disposed flatwise against its lower surface at the heel portion thereof, and securely connected thereto, a heel having a recess in the top thereof which is open to the front of the heel, a plate disposed in said heel recess and rigidly connected flatwise upon the base thereof whereby to assume a position parallel with the out-sole plate when the heel is disposed in position against the out-sole, said out-sole and heel-plates having substantially central threaded openings in vertical alinement, a screw having respectively right and left-hand threaded portions engaging the threaded openings of the said out-sole and heel-plates and provided with a central nut disposed within the heel recess and accessible through the front open end thereof, and a plate hinged to the front edge of the said out-sole plate and extending downwardly at right angles thereto for the purpose of normally closing the said open end of said heel recess.

3. The combination of an out-sole having a plate at the heel portion thereof, and heel having a recess in the top thereof open to the front of the heel, a plate disposed in said recess and attached to said heel, means for connecting the said out-sole and heel-plates at a substantially central point, and bolts connecting said plate to said out-sole, certain of which bolts have extending shanks outstanding on opposite sides of said connecting means, said heel and its plate having recessed portions into which said extended shanks project whereby to prevent displacement of the heel with respect to the out-sole.

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1,042,925. WIND-SHIELD FOR AUTOMOBILES. JOHN L. KENNEDY, Washington, D. C. Filed Oct. 6, 1910. Serial No. 585,710. (Cl. 21—81.)



1. The combination with a V-shaped wind shield, of two wings hinged to the upper margins of the lateral walls of said shield, respectively, to swing downward against said walls and upward into their planes to increase the shield's height, and means for locking the wings in raised position.

2. The combination with an automobile having a hood and a fixed portion in front of the hood, of a V-shaped wind shield independent of the hood, above the same, hinged to swing about a rear horizontal axis, and provided with a rigid arm extending forward to said portion, and means for detachably locking said arm to said portion.

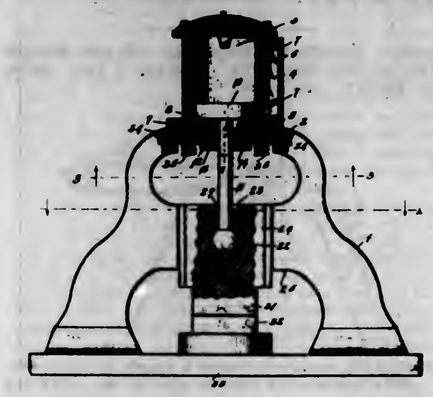
3. The combination with an automobile having a laterally openable hood, of a V-shaped transparent shield located above the rear portion of the hood, hinged at its rear end to swing upwardly and provided with a rigid arm extending forwardly beyond the movable portion of the hood, means carried by the hood for locking the latter against rotation, and means for detachably fixing the front end of said arm.

4. The combination with an automobile, of two removable, shield supporting rods extending upward from the sides, respectively, of the vehicle, members in sliding engagement with the upper portions of the rods, respectively, a wind shield pivoted to said members to swing about a horisontal axis and itself provided with means for engaging and disengaging said rods at a distance from said axis as said members are lowered and raised, and means for preventing said members from sliding.

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1,042,926. PACKING. JOHN KERCHNER and JOHN STUGER, Pittsburgh, Pa. Filed Mar. 18, 1912. Serial No. 683,496. (Cl. 121—109.)

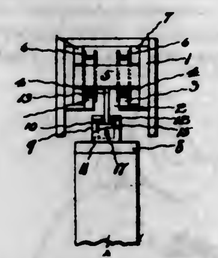
In a hammer, a cylinder, a base carried by said cylinder, sectional packing rings arranged in said base, a piston rod slidably mounted in said packing rings, a head carried by said piston rod, a guide having a socket adapted to receive said head, a sectional locking ring mounted



in the socket of said guide upon said head, and pins arranged transversely of said guide and adapted to retain said locking ring therein, substantially as described.

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1,042,927. DOOR-HANGER. JOSEPH G. KING, Hendersonville, N. C. Filed Nov. 2, 1911. Serial No. 658,126. (Cl. 16—90.)



In a door-hanger, a track casing having a longitudinal slot in its bottom, a rectangular truck-frame movably mounted in said casing and having carrying wheels journaled thereon and traveling in said casing, and strips secured in said casing and engaging the upper side of said truck-frame for preventing upward movement thereof, substantially as shown and described.

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1,042,928. MEANS FOR PACKING FRESH PINEAPPLES. HENRY B. KOPP, New Haven, Conn. Filed July 13, 1912. Serial No. 709,231. (Cl. 206—46.)

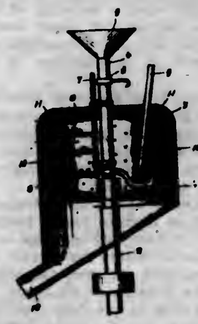


1. In means for packing fresh ripe pineapples, the combination of a carton having a bottom, sides and open top, a cup containing sealing material within the carton and secured to the bottom to receive the pineapple stem whereby air is excluded from the pineapple and the butt is supported out of contact with the sides of the carton, and resilient packing members between the crown of the pineapple and the carton walls.

2. In means for packing fresh ripe pineapples, the combination of a carton having a bottom, sides and open top, means within the carton adjacent said bottom to receive the pineapple stem whereby the pineapple butt is supported out of contact with said bottom and prevented from impinging against the sides of the carton, and a series of hollow triangular pyramidal packing members between the crown of the pineapple and the carton walls, substantially as set forth.

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1,042,929. APPARATUS FOR TREATING GRANULAR MATERIALS. ALFRED A. LANAUX, Beaumont, Tex., assignor of one-eighth to Percy H. Brown, New Orleans, La., and Bismarck A. Steinhagen, and three-eighths to William P. H. McFaddin, Beaumont, Tex. Filed Dec. 19, 1911. Serial No. 666,770. (Cl. 83—82.)



1. A machine of the character described comprising a centrifuge, means for feeding granular material to the centrifuge, means to cause the grain to travel over the walls of the centrifuge in a stream of even thickness, and means for subjecting the grain therein to an abrasive blast.

2. A machine of the character described comprising a rotating bowl, means for feeding grain thereto, means to cause the grain to travel over the walls of the centrifuge in a stream of even thickness, means for subjecting the grain therein to an abrasive blast, and means for upsetting the grains within the bowl.

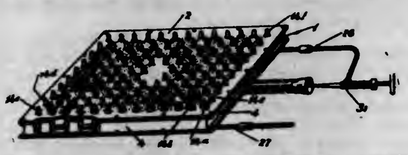
3. A machine of the character described comprising a perforated bowl, means for feeding a quantity of grain to the bowl, means for regulating the amount of grain fed to the bowl, means to cause the grain to travel over the walls of the centrifuge in a stream of even thickness, means for subjecting the grain in the bowl to an abrasive blast, and means for causing all sides of the grain to be presented to the blast.

4. A machine of the character described comprising a grain feeding device, means to receive the grain from the feeding device and to cause it to travel in a rotary path and across the rotary path, means to cause the grain to travel over the walls of the centrifuge in a stream of even thickness, means for subjecting the grain to an abrasive blast, and means to upset or turn over the grain in its travel whereby all sides of the same will be subjected to the blast.

5. A machine of the character described comprising a rotating bowl, means for feeding the grain thereto, including a valve, means for subjecting the grain therein to an abrasive blast, means for upsetting the grain within the bowl, and means to regulate the speed of the grain in its travel in accordance with the feeding means.

[Claim 6 not printed in the Gazette.]

1,042,930. OIL-BURNER. EUGENIA LANFREDI, New York, N. Y. Filed June 24, 1911. Serial No. 635,214. (Cl. 158—80.)



1. In an apparatus of the class described, in combination with means for vaporising hydrocarbon fuel, a hollow box-like frame in which the same is mounted having an inlet and provided with a plurality of outlets on top, through which may pass the combustible vapors, and a plurality of heat storing members projecting above and below the top of said frame; for the purposes as set forth.

2. In an apparatus of the class described, in combination with means for vaporising hydrocarbon fuel, a hollow box-like frame in which the same is mounted having an inlet and provided with a plurality of small outlets on top, and with a plurality of larger openings, and parts projecting through said larger openings, adapted to store the heat produced by the ignition of the combustible vapors.

3. In an apparatus of the class described, in combination with means for vaporising hydrocarbon fuel, a hollow box-like frame having an inlet, and provided with a plurality of outlets on top, and a plurality of heat storing members integral with said vaporising means projecting from the top of said frame.

4. In an apparatus of the class described, in combination with a hollow box-like frame having an inlet and provided with a plurality of openings on top, a vaporising element mounted within said frame, and solid metallic parts integral with the same projecting through said openings; for the purposes as set forth.

5. In an apparatus of the class described, in combination with a hollow box-like frame having an inlet and provided with a plurality of small outlets on top and with a plurality of larger openings, a vaporising element mounted within said frame, and solid metallic parts integral with the same projecting through said larger openings leaving a narrow clearance all around, through which may pass the combustible vapors fed to said frame.

[Claims 6 to 14 not printed in the Gazette.]

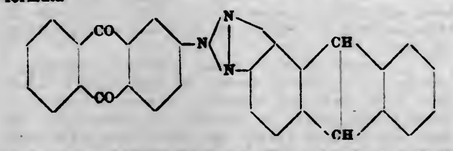
1,042,931. VAT DYESTUFFS OF THE ANTHRACENE SERIES AND PROCESS OF MAKING SAME. AUGUST LEOPOLD LASKA, ARTHUR ZITSCHER, and ERNST JULIUS RATH, Offenbach-on-the-Main, Germany, assignors to The Corporation of Chemische Fabrik Griesheim-Elektron, Frankfort-on-the-Main, Germany. Filed May 14, 1912. Serial No. 697,186. (Cl. 8—1.)

1. The process of manufacturing vat dyestuffs of the anthracene series consisting in acting with oxidising agents upon azo dyestuffs of the general formula:

$$A-\overset{(\beta)}{N}=\overset{(\alpha)}{N}-\overset{(\beta)}{R}.NH_2$$

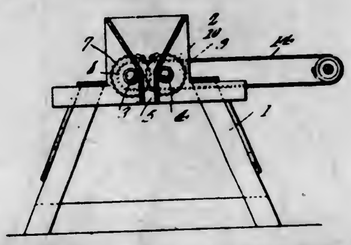
wherein A means an anthraquinone radical and R an anthracene radical.

2. As a new article of manufacture a vat dyestuff obtained by oxidation of the azo dyestuff from $\beta$-diazoanthraquinone and $\beta$-aminoanthracene indicated by the formula



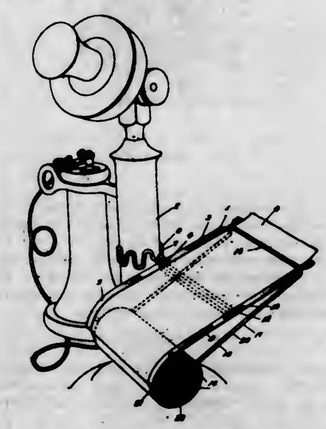
which dyestuff dissolves in concentrated sulfuric acid to a brown solution, in hot nitrobenzene to a yellow solution and yields with alkaline hydrosulfite solution a deep-brown vat from which cotton is dyed brown-black shades, which by oxidation and treatment with a hot soap solution become yellow of very good fastness.

1,042,932. SHREDDING-MACHINE. CHARLES STOKELY LEONARD, New Orleans, La. Filed Dec. 1, 1911. Serial No. 663,277. (Cl. 83—6.)



A shredding machine including a hopper having an outlet, shafts journaled at opposite sides of the outlet and overhung by the hopper, a gang of spaced saws upon each shaft and extending through the slots in the adjacent side of the hopper, the saws of one gang projecting between the peripheral portions of the saws of the other gang, means for rotating the two gangs of saws in opposite directions, the saws of one gang being revolvable at a higher speed than the saws of the other gang, the teeth of the low speed saws being faced backwardly for supporting material engaged by the teeth of the high speed saws.

1,042,933. TELEPHONE ATTACHMENT. DORRENCE WILLIAM LEPPERT, New York, N. Y. Filed May 5, 1911. Serial No. 625,142. (Cl. 11—22.)



1. The combination with a suitable platen, a holder connected thereto and to the under side thereof, the holder comprising a bar extending transversely of the platen and above it, reaches connected to the bar, each of the reaches comprising a loop, means positioned in the loops for rotatably holding a roll of paper, the paper passing over the top of the platen and beneath the bar, the weight of the paper and the holder maintaining the said bar in contact with the top side of the paper on the platen.

2. The combination with a platen of a holder pivotally mounted on one end and adjacent the under side thereof and freely engaging the said platen at its opposite end and upper side, the said holder being provided with means for supporting paper holding means adjacent one end of the said platen and beneath the same, the paper extending up over the platen and beneath a portion of the holder whereby it is positioned on the platen.

3. The combination with a platen having a convex end and loops adjacent the said end, of a holder having one end of each side thereof pivotally engaging in the said loops, the other end of the holder comprising a cross-bar, the said cross-bar lying adjacent the opposite end of the platen and above the same, the holder being provided with means for supporting paper holding means beneath the platen, the said paper passing over the platen and beneath the said cross-bar, the weight of the roll of paper maintaining the cross bar in engagement with the paper on the platen.

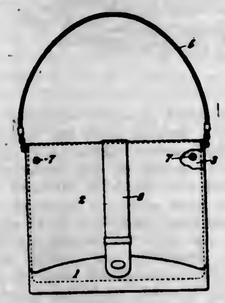
4. The combination of a suitable platen having a portion removed at each side thereof adjacent one end in order to form notches, with a holder comprising a cross bar and sides, one end of each side being pivotally engaged with the platen, the cross bar lying on top of the platen, opposite portions of the holder engaging in the said notches, the holder being provided with means for supporting paper holding means, whereby the weight of the paper when supported by the holder will maintain the cross bar closely adjacent the top of the platen.

5. The combination of a suitable platen having a convex lower end and a serrated upper end, opposite side portions of the platen being cut away adjacent the upper end thereby forming notches, loops carried by the platen adjacent the convex end, a holder comprising an intermediate cross-bar and angularly-disposed reaches, one end of each reach being engaged in the said loops, an intermediate portion of each reach providing a bearing for holding a suitable reel of paper, the said cross-bar lying on top of the platen with a portion of each reach adjacent the cross bar engaging in the said notches whereby the holder is maintained in position on the platen with the cross bar in engagement with the paper passing thereover.

[Claim 6 not printed in the Gazette.]



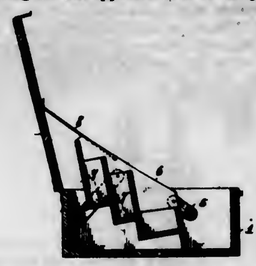
1,042,934. HAND-BAG. ISADORE JOSEPH LEVY, New York, N. Y. Filed Aug. 20, 1912. Serial No. 715,962. (Cl. 150—34.)



A hand bag provided with a detachable fitted pad removably secured within the body of the bag, said pad having a handle strap fastened on one edge thereof, which serves as a handle for withdrawing the pad from the bag, and also as a handle for carrying the bag when the pad is inclosed therein, substantially as described.

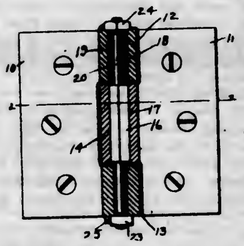
1,042,935. COMBINED SHIPPING-CASE AND DISPLAY-CABINET. JESSE LINES, Sabetha, Kans. Filed Jan. 19, 1912. Serial No. 672,046. (Cl. 206—45.)

A device of the class described comprising a box having a hinged lid, a package carrier mounted therein, links pivotally connecting the sides of the package carrier at one end to the box, flexible members connecting the same end of the package carrier with the lid, and short links pivotally connecting all the opposite ends of the package carrier



to the box, said latter links adapted to be thrown off center when the package carrier is raised by the lid.

1,042,936. HINGE. JAMES LOUGHREN, Cranston, R. I. Filed June 15, 1912. Serial No. 703,834. (Cl. 16—110.)



1. A hinge comprising a pair of leaves having knuckles adapted to conjointly form a barrel provided with a longitudinal bore, a pivot pintle extending through said bore, means for preventing rotation of said pintle in the knuckles of one leaf, and locked nuts for frictionally controlling its rotation in the knuckles of the other leaf.

2. A hinge comprising a pair of leaves having knuckles adapted to conjointly form a barrel provided with a longitudinal bore, a pivot pintle extending through said bore, means for preventing rotation of said pintle in the knuckles of one leaf, nuts on the ends of said pintle for frictionally controlling its rotation in the knuckles of the other leaf, and means for locking said nuts in position to maintain the desired degree of friction.

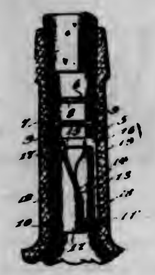
3. A hinge comprising a pair of leaves having knuckles adapted to conjointly form a barrel provided with a longitudinal bore, a pivot pintle extending through said bore, a portion of said pintle being square to loosely fit into a corresponding portion in the bore of the knuckle of one leaf, a nut on each end of said pintle for frictionally controlling its rotation in the knuckles of the other leaf, and means for locking said nuts in position to maintain the desired degree of friction.

1,042,937. NON-REFILLABLE BOTTLE. EMIEL MADISON, Mariner Harbor, N. Y. Filed Apr. 13, 1912. Serial No. 690,507. (Cl. 215—61.)

1. The combination with the neck of a bottle, of a valve casing in said neck and comprising a base adapted to be seated therein, a hollow member rising from said base and arranged to one side of the center thereof and spaced from the wall of said neck, said member being provided with an elongated opening, an extension projecting from the outer end of said member and transversely of the neck of said bottle, and a valve hinged to said extension and adapted to close said opening.

2. The combination with the neck of a bottle, of a valve casing in said neck and comprising a base adapted to be seated therein, a hollow member rising from said base and arranged to one side of the center thereof and spaced from

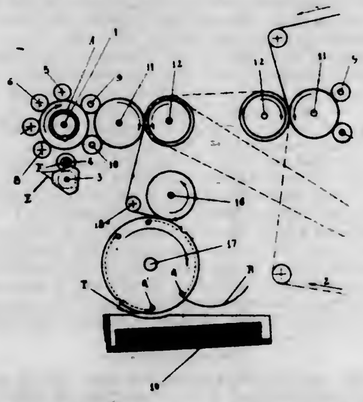
the wall of said neck, said member being provided with an elongated opening, an extension projecting from the outer end of said member and transversely of the neck of said bottle, a valve hinged to said extension and adapted to close said opening, and means carried by said extension and engaging said valve for normally retaining the same in a closing position.



3. The combination with the neck of a bottle, of a valve casing in said neck and comprising a base adapted to be seated therein, a hollow member rising from said base and arranged to one side of the center thereof and spaced from the wall of said neck, said member being provided with an elongated opening, an extension projecting from the outer end of said member and transversely of the neck of said bottle, a valve hinged to said extension and adapted to close said opening, means carried by said extension and engaging said valve for normally retaining the same in a closing position, and a brace arm connected to the free end of said extension and extending longitudinally of said member for limiting the opening movement of said valve.

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1,042,938. CUTTING MECHANISM FOR PRINTING-PRESSES. PAUL MARTIN, Roubaix, France. Filed Aug. 16, 1910. Serial No. 577,427. (Cl. 164—67.)



In a cylindrical printing press, a cutting cylinder, a saw blade mounted thereon, a delivery cylinder having grooves for receiving said saw blade, projections in front of said grooves for carrying around the cut paper, and plates mounted coaxially with the delivery cylinder for making the contact with the cutting cylinder, rotatable spindles carried between the end plates and mounted in bearings therein and lying in grooves in said delivery cylinder, a plurality of arms connected to said spindles and lying in grooves in the delivery cylinder, a lever fixed on one end of each spindle, a roller mounted on the free end of each said lever, stops on the frame of the press adapted to engage said rollers, and springs fixed at one of their ends to said levers and at their other ends to the end plates.

1,042,939. SUSPENDERS. SIDNEY MARTIN, Chelsea, Mass. Filed Oct. 12, 1911. Serial No. 654,260. (Cl. 241—10.)



A button tab formed of a tubular web, the outer end of said web having its edges turned in and stitched together with barred stitching, a strap inserted into the inner end of the tubular web and secured thereto with barred stitching, and a button hole formed by cutting through both plies of said tubular web and stitched around with barred stitching for preventing any rough places appearing upon the suspenders which would be likely to rub upon the wearer's body.

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1,042,940. MUSTACHE-GUARD. JOHN H. MCCONNELL, Winslow, Ind. Filed Jan. 25, 1912. Serial No. 673,429. (Cl. 132—8.)



In a mustache guard, a pair of comb like mustache engaging members, a pair of comb like clamping members hingedly connected to said mustache engaging members and adapted to be swung up into engagement with the mustache whereby the latter is clamped between said members and the inner mustache engaging members, said clamping members being adapted to move outwardly while being swung up into operative position thereby smoothing the hairs of the mustache, and springs secured to said mustache engaging members and adapted to engage the clamping members whereby the latter are yieldingly held in operative or inoperative position.

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1,042,941. CUSHION-TIRE. WILLIAM D. MCCORMACK, Nashville, Tenn. Filed Jan. 22, 1912. Serial No. 672,944. (Cl. 152—5.)

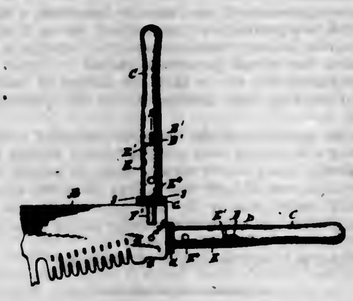
In a cushion tire, the combination of a casing or shoe divided circumferentially and having the adjacent walls of the divided portion relatively wide and disposed in vertical and parallel relation; said casing having a plurality of inward and radially disposed ribs formed integral with the body thereof; and a filler member or core located and closely fitting within said casing and adapted to sustain the same; said core having a central and a plurality of annular recesses formed therein to provide air cushioning chambers, said plurality of recesses located adjacent the core periphery and having each a constricted and annular opening adapted to receive said ribs with tight frictional engagement; and said core having a relatively deep and inwardly disposed portion fitting between and having tight frictional engagement with the adjacent walls of the divided portion of said casing, substantially as described.





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1,042,942. TOOL-HANDLE. ARCHIE MCDERMID, El Paso, Tex. Filed Sept. 4, 1909. Serial No. 516,180. (Cl. 145—112.)



1. A tool handle, comprising a handle hollow at one end and provided with opposite slots in its sides, a nut in the handle and provided with wings extending into the slots of the handle, the wings of the nut being longer than the slots, a ferrule on the handle and having one end notched to receive the wings of the said nut and provided with an annular groove at its other end, a bearing provided with flanges fitting in the groove of the sleeve and having an opening in its end and a recess adjacent said opening, and a screw rod screwing in the nut and having a flattened end projecting through the opening of the bearing, said flattened end being provided with a lug for engaging the tool.

2. A handle for saws, comprising a handle hollow at one end and provided with opposite slots in its sides at the end, a nut in the handle and provided with wings, extending into the slots, the wings of the nut being longer than the said slots, a ferrule on the handle, and having one end notched to receive the wings of the nut, a bearing mounted to turn on the lower end of the ferrule and having an opening in its end and a recess adjacent said opening and a screw rod screwing in the nut, and having a flattened portion projecting through the opening of the bearing and provided adjacent to the end thereof with a lug for engaging a saw.

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1,042,943. CUSHIONED HORSESHOE. GEORGE EWING MCKINNON, Little Falls, N. J. Filed Mar. 4, 1911. Serial No. 612,304. (Cl. 168—18.)

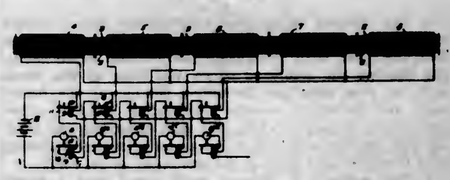
A tread for cushioning horseshoes, comprising a lower section made of resilient material, and an upper section comprising alternate layers of resilient material and reinforcing material, and a cap for the top of the upper layer, said cap consisting of reinforcing material and extending downward over the sides of the upper section, and



attached along its lower edges to the top of the lower section to hold the two sections together.

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1,042,944. SIGNAL SYSTEM. CHARLES B. MCLEER and JOSEPH F. MCLEER, Brooklyn, N. Y., assignors to Electric Carrier Company, Wilmington, Del., a Corporation of Delaware. Filed Jan. 26, 1912. Serial No. 673,540. (Cl. 246—22.)



1. The combination with an electric railway system having a fixed motor member along the right of way, of a signal system, including windings respectively mounted in inductive relation to said fixed motor members; and signal apparatus connected to be actuated by current induced in said windings upon the passage of a car adjacent the motor member.

2. The combination with an electric railway system having a fixed motor member including current conductors along the right of way, of a signal system including a series of windings placed at intervals along the right of way in inductive relation to said conductors of the motor member; with a signaling apparatus in circuit with the windings of the signal system.

3. The combination with an electric railway system having along its right of way a motor member consisting of a core, and current conductors thereon; of a series of windings mounted at intervals along the right of way in inductive relation to the current conductors of the motor member; with current actuated apparatus in circuit with each of said windings including means for indicating flow of current in any of the windings.

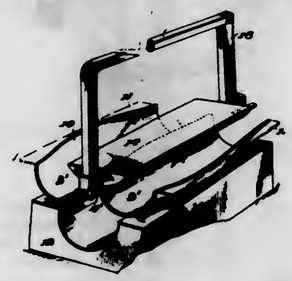
4. The combination with an electric railway system, including along its right of way a laminated core having a substantially continuous, closed circuit current mounted therein of a series of windings mounted at intervals upon said core in inductive relation to the closed circuit conductor thereon; and signal mechanism operatively connected to said series of windings.

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1,042,945. METHOD OF SHAPING SHEET METAL INTO BILGED BARREL-SHELLS. GEORGE EUGENE MITTINGER, Jr., New Castle, Pa. Filed Mar. 9, 1912. Serial No. 682,831. (Cl. 113—51.)

1. The method of shaping sheet metal into a bilged barrel shell, which consists in forming an initial blank from a metal sheet with two parallel bilged bends and an intermediate parallel reverse bend with gradually increasing amount of metal at its center, and then upsetting and shaping the reverse bend into a curve and bilge corresponding with the curve and bilge of said parallel bends.

2. The method of shaping sheet metal into a bilged barrel shell, which consists in forming an initial blank from the sheet with two parallel bilged bends and an intermediate parallel reverse bend gradually widening from its ends to its center, and then upsetting and shaping said reverse bend into a curve and bilge corresponding with the curve and bilge of said parallel bends.



3. The method of shaping sheet metal into a bilged barrel shell, which consists in forming an initial blank from the sheet, with two parallel curved and bilged bends, and shaping the combined curve and bilge of the bends with an area equal to the major portion of the barrel shell, and forming a reverse intermediate bend of minor area of the completed shell, and then upsetting and shaping this reverse bend into a curve and bilge corresponding with the curve and bilge of the completed barrel shell.

4. The method of shaping sheet metal into a bilged barrel shell, which consists in forming an initial blank from a sheet, with parallel curved and bilged bends, forming the bottom and outer sides of the bends with a curve and bilge corresponding with the curve and bilge of the completed barrel shell, and forming a reverse bend between said parallel bends and of such shape as to throw the inner sides of said recesses out of said barrel curve and bilge, and then upsetting and shaping said reverse bend and the inner sides of said parallel recesses into a curve and bilge corresponding to the curve and bilge of the outer sides of said parallel bends.

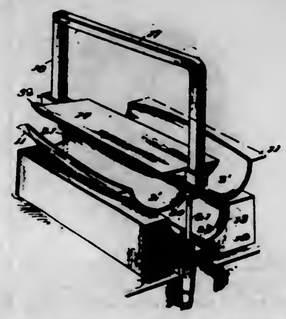
5. The method of shaping a sheet of metal into a bilged barrel shell, which consists in forming an initial blank with two parallel bends having their bottoms and outer sides of a curve and bilge corresponding with the curve and bilge of the completed barrel shell, and an intermediate reverse bend having its top in a plane below the plane of the outer edges of said parallel bends, and then forcing said reverse bend into a mold recess having a curve and bilge corresponding with the curve and bilge of the outer sides of said parallel bends to bring the outer edges of the parallel bends together and upset and shape the reverse bend into a curve and bilge corresponding to the curve and bilge of the outer sides of said parallel bends.

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1,042,946. APPARATUS FOR MAKING METAL BILGED BARREL-SHELLS. GEORGE EUGENE MITTINGER, Jr., New Castle, Pa. Filed Mar. 9, 1912. Serial No. 682,832. (Cl. 113—49.)

1. In mechanism for making bilged barrel shells, the combination with means for forming a sheet metal blank having two parallel approximately semi-circular bends having bilged portions between their ends and a central longitudinal projection widened from its ends to its center, of means for upsetting the said projection and shaping it into a bilge corresponding with the bilge of said parallel bends.

2. An apparatus for forming initial blanks for bilged barrel shells, comprising a female die having parallel curved die recesses having their bottoms and outer sides curved and bilged to correspond with the curve and bilge of the barrel shell and a central projection, to form an initial blank adapted to have its central inverse bend upset and bilged to correspond to the bilge of the completed barrel shell.



3. In an apparatus of the character described, a female die having a recess with a central bilged portion forming a relatively small curved end, one of said dies having projected receding fold distributers at its ends for the purpose described.

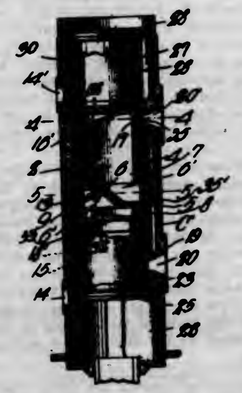
4. In an apparatus of the character described, a female die having two parallel die recesses each having a central bilged portion forming relatively small curved ends, a male die having two bilged projections shaped to co-act with the said female die, one of said dies having at each end projected receding fold distributers for the purpose described.

5. In an apparatus of the character described, a female die having a die recess with a bilged central portion forming relatively small curved ends, a male die shaped to co-act therewith, one of said dies having projected receding metal fold distributers at its ends, said distributers having a shape corresponding to the shape of the ends of the mold recess with which they co-act.

[Claims 6 to 11 not printed in the Gazette.]

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1,042,947. EXPLOSIVE-ENGINE. HARRY W. MOORE, Nebraska City, Nebr., assignor to Ralph A. Duff, Nebraska City, Nebr. Filed Dec. 6, 1911. Serial No. 664,256. (Cl. 123—57.)



1. An explosive engine, having an outer cylinder, an inner cylinder of lesser length and diameter disposed therein in fixed relation thereto, said inner cylinder being divided centrally into oppositely disposed explosive chambers, each of which is provided with intake and exhaust ports, a piston in each cylinder, a carbureted air supplying piston in each extended end of the outer cylinder, and a sleeve connected at each end to one main piston



and a carbureted air supplying piston, said sleeve having ports and disposed to act as an exhaust and intake valve for the respective chambers and to hold the pistons for simultaneous movement.

2. An explosive engine, having an outer cylinder, an inner cylinder of lesser length and diameter disposed therein in fixed relation thereto, said inner cylinder being divided centrally into oppositely disposed explosive chambers each of which is provided with intake and exhaust ports, a piston in each cylinder, a carbureted air supplying piston in each extended end of the outer cylinder, a sleeve connected at each end to one main piston and a carbureted air supplying piston, said sleeve having ports and mounted to act as an exhaust and intake valve for the respective chambers and to hold the pistons for simultaneous movement, the ends of the main cylinder beyond the ends of the inner cylinder being provided with carbureted air supply ports to supply the carbureted air to the respective carbureted air supplying pistons and against and around the respective ends of the sleeve.

3. An explosive engine, having an outer cylinder, an inner cylinder of lesser length and diameter disposed therein in fixed relation thereto, said inner cylinder being divided centrally into oppositely disposed explosive chambers each of which is provided with intake and exhaust ports, a piston in each cylinder, a carbureted air supplying piston in each extended end of the outer cylinder, a sleeve connected at each end to one main piston and a carbureted air supply piston, said sleeve having ports and mounted to act as an exhaust and intake valve for the respective chambers and to hold the pistons for simultaneous movement, the ends of the main cylinder beyond the ends of the inner cylinder being provided with carbureted air supply ports to supply carbureted air to the respective carbureted air supplying pistons and against and around the respective ends of the sleeve, the said carbureted air supplying pistons being disposed to supply carbureted air to the opposite explosive chamber.

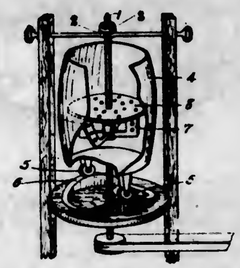
4. An explosive engine, having an outer cylinder, an inner cylinder of lesser diameter and length disposed therein and providing a concentric space thereabout the full length thereof and enlarged chambers beyond the ends thereof, said inner cylinder being divided centrally into oppositely disposed explosive chambers each of which is provided with its respective intake and exhaust ports, two diametrically disposed spark plug carrying couplings mounted in the outer cylinder and connected to the inner cylinder one upon each side of the division of the inner cylinder for holding the inner cylinder relatively to the outer cylinder, a sleeve of greater length than the inner cylinder mounted in the concentric space therearound for sliding movement, the same being provided with intake and exhaust ports at its respective ends adapted to be placed into registration with the respective intake and exhaust ports of the inner cylinder, and an explosive propelled piston and a carbureted air supplying piston connected to the respective ends of said sleeve and slidable within the respective chambers of the inner cylinder and at the extreme ends of the outer cylinder.

5. An explosive engine, having an outer cylinder, an inner cylinder of lesser diameter and length disposed therein and providing a concentric space thereabout the full length thereof, and an enlarged chamber beyond each end thereof, said inner cylinder being divided centrally into oppositely disposed explosive chambers each of which is provided with its respective intake and exhaust ports, two diametrically disposed spark plug carrying couplings mounted in the outer cylinder and connected to the inner cylinder one upon each side of the division of the inner cylinder for holding the inner cylinder relatively to the outer cylinder, a sleeve of greater length than the inner cylinder mounted in the concentric space thereabout for sliding movement, the same being provided with intake and exhaust ports at its respective ends adapted to be placed in registration with the respective intake and exhaust ports of the inner cylinder, an explosive propelled piston and a carbureted air supplying piston connected to the respective ends of the said sleeve and slidable within the respective chambers of the inner cylinder and at the extreme ends of the outer cylinder, said sleeve being provided with diametrically disposed elongated slots to fit slidably upon the spark plug couplings and prevent turning of said sleeve, said outer cylinder being provided with vertically disposed channels in communication with the respective chambers beyond the ends of the inner cylinder and with the opposite explosive chambers of the said inner cylinder whereby the carbureted air is supplied to the respective explosive chambers.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,948. AUTOMATIC LOCKING DEVICE. JULES LOUIS MORISONS, Anvers, Belgium. Filed Mar. 27, 1909. Serial No. 486,235. (Cl. 24—243.)



1. An automatic locking device comprising a stationary vertical shaft of triangular section, two separate stationary jaws engaging with said shaft, and a ring adapted to engage simultaneously with the shaft and the two jaws, said ring by its weight producing the necessary pressure to insure engagement between the shaft and the jaws.

2. An automatic locking device comprising a stationary vertical shaft of triangular section, two separate stationary jaws, each having a conical outer surface and each engaging with an apex of the section of said shaft and a ring having a conical hole, said ring being adapted to engage simultaneously with the third apex of the section of the shaft and the two jaws, and by its weight producing the necessary pressure to insure engagement between the shaft and the jaws.

3. An automatic locking device comprising a stationary vertical shaft, a ledge between the jaws projecting from said shaft, two separate stationary jaws said jaws engaging with the shaft, and a ring adapted to engage simultaneously with the ledge and the two jaws, the said ring by its weight producing the necessary pressure to insure engagement between the shaft and the jaws.

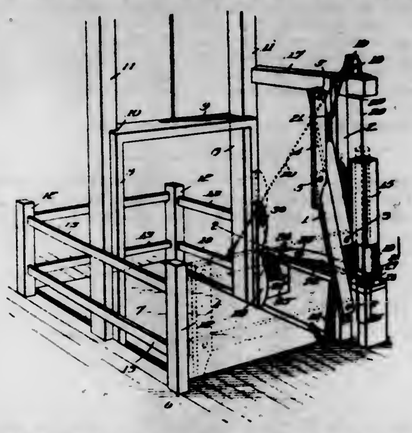
4. An automatic locking device comprising a stationary vertical shaft, a ledge projecting longitudinally from said shaft, two separate stationary jaws, said jaws engaging with the shaft, each jaw having a conical outer surface, and a ring having a conical hole said ring being adapted to engage simultaneously with the ledge and the two jaws, and by its weight producing the necessary pressure to insure engagement between the shaft and the jaws.

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1,042,949. ELEVATOR-GATE-CLOSING DEVICE. EDWARD L. MURRAY, Council Bluffs, Iowa. Filed Dec. 12, 1911. Serial No. 665,215. (Cl. 187—51.)

The combination with the elevator cage and the shaft, of a gate at each floor, each gate comprising parallel longitudinal bars hinged to the shaft at one end, a post pivotally connecting the other ends of the bars, a spring arranged between the lowermost bar and the floor for holding the gate closed, a well arranged adjacent to the hinged end of the gate, a weight in the well a pulley above the well, a cord connected at one end to the gate at the end remote from the hinged connection of the gate and at the other end to the weight and passing over the pulley, latch mechanism for engaging above the weight to hold

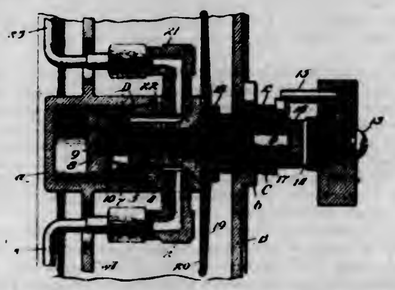
the gate open, a spring pressing the latch into position to engage the weight, and a double cam on the cage for



engaging the latch to open the same, said cam having a portion on each side of the latch when the gate is at the floor.

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1,042,950. AUTOMATIC REGULATING-SWITCH. THEODORE NAGEL, Chicago, Ill. Filed Feb. 6, 1911. Serial No. 606,951. (Cl. 50—23.)



1. In a gasolene lighting system, a supply pipe consisting of a plurality of sections, and means for automatically controlling the flow of the fluid through the same comprising a suitable chamber having intake and outlet passages connecting it to the adjacent ends of said sections, a vibratory spindle, a bellows-diaphragm actuated by the pressure of the fluid from said chamber, to one side of which said spindle is connected, and a needle-valve in the intake passage of said chamber having a laterally extending L-shaped arm for guiding the movement thereof, the movement of which toward its seat is controlled by the movement of said spindle.

2. In a gasolene lighting system, a supply pipe consisting of a plurality of sections, and means for automatically controlling the flow of the fluid through the same, comprising a suitable chamber, a head closing the outer end thereof having an intake-passage and a discharge-passage connecting said chamber with adjacent ends of the sections of said supply pipe, a needle-valve controlling the opening of the intake-passage into said chamber, a bellows-diaphragm secured to the outer end of said head, actuated by the pressure of the fluid from said chamber, adjustable means for limiting the movement of the diaphragm, an arbor secured to the outer flexible side of said diaphragm, and a rotatable spindle having threaded engagement with said arbor, and a cap on the inner end of said spindle adapted to engage said needle-valve.

3. In a gasolene lighting system, a means for controlling the flow of gasolene comprising a supply pipe, a suitable chamber connecting sections of said supply pipe, a valve controlling the intake of the same, a head closing one end of said chamber having a suitable opening therethrough, a bellows-diaphragm secured to the outer end of said head actuated by the pressure of the liquid in said chamber, adjustable means for limiting the movement of the diaphragm and, a threaded-spindle traversing said opening in said head and engaging the arbor of the outer member of said diaphragm, and adapted to move said valve toward its seat.

4. In a gasolene lighting system a means for controlling the flow of gasolene comprising a supply pipe, a suitable chamber connecting sections of said supply pipe, a valve controlling the intake of the same, a head closing one end of said chamber having a suitable opening therethrough, a bellows-diaphragm secured to the outer end of said head actuated by the pressure of the liquid in said chamber, adjustable means for limiting the movement of the diaphragm and, a threaded-spindle traversing said opening in said head and engaging the arbor of the outer member of said diaphragm, and a cap on the inner end of said spindle adapted to move said valve toward its seat.

5. A wall-switch for gasolene lighting system comprising a wall-plate having a barrel made integral therewith, a case mounted upon said plate having an opening in the outer closed side thereof, the center of which alines with the axis of said barrel, a supply pipe a head closing the outer end of said barrel having passages therein connecting sections of said supply pipe to the inner chamber of said barrel, a valve controlling the discharge of the intake-pipe into said chamber, a vibratory rotatable spindle extending from said chamber out through a suitable opening in said head and out through the opening in the outer end of the case, and a switch-button removably secured to the outer end of said spindle having a series of radial grooves in the inner face of its central boss, and provided with means for limiting the rotation thereof, and a transverse pin in said spindle engaging said grooves.

[Claims 6 to 10 not printed in the Gazette.]

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1,042,951. ROTARY ENGINE. JENS NIELSEN, Cedar Falls, Iowa. Filed Aug. 18, 1911. Serial No. 644,839. (Cl. 121—51.)



1. A rotary machine comprising a casing, a rotor journaled therein and having spaced vanes located at its side, said casing having inlet and outlet ports the inner ends of which extend around the ends and the peripheral sides of the vanes.

2. A rotary machine comprising a casing, a rotor journaled therein and carrying at its side spaced vanes, and a wheel journaled in the casing, within the set of vanes and having peripheral teeth adapted to receive the vanes between them, said casing having inlet and outlet ports and also having a head disposed alongside said wheel and containing recesses extending to said ports and equipped with an auxiliary abutment that separates said recesses and is opposed to the side of the toothed portion of the wheel.

3. A rotary machine comprising a casing, a rotor journaled therein and having at its side a series of spaced vanes, said casing having inlet and exhaust ports, a wheel journaled in the casing and having peripheral teeth, the sides of which are concave and which taper from their roots to their apices.

4. A rotary machine comprising a casing, having inlet and exhaust ports, a rotor journaled therein and having at its side spaced vanes, the openings between which extend to the face of the rotor, said vanes having arcuate sides, the curvature of the sides of one vane being coincident with the curvature of the sides of other vanes in the series.

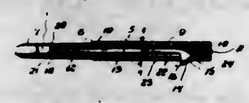
5. A rotary machine comprising a casing, having inlet and exhaust ports, a rotor journaled therein and having at its side a series of spaced vanes, said casing including a detachable head and an annular groove three cornered in cross section, and a packing interposed between said head and the said casing and located in said groove.

[Claims 6 to 17 not printed in the Gazette.]



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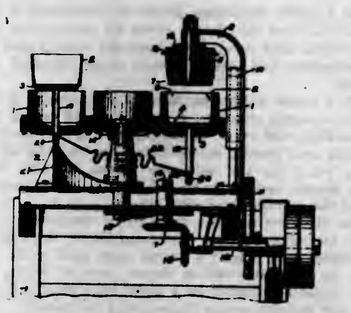
1,042,952. CORK-EXTRACTOR. HENRY NIES, Mount Rainier, Md., assignor of one-half to John B. Ryon, Washington, D. C. Filed Feb. 6, 1912. Serial No. 675,699. (Cl. 65—46.)



A cork extractor comprising a shell provided with an opening adjacent one end thereof, a core of substantially the same length as said shell reciprocatingly movable therein, said core provided with a channel, a cork extracting hook pivoted to the inner end of said core, said hook adapted to lie within the said channel when in a retracted position, the free end thereof adapted to engage the outer end of said slot in the shell when said core is pulled outwardly from the shell for guiding said hook to ejected position.

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1,042,953. MACHINE FOR MAKING PAPER VESSELS. LIONEL NORMAN, Boston, Mass., assignor, by mesne assignments, to Pure Food Package Company, Boston, Mass., a Corporation of Massachusetts. Filed May 9, 1910, Serial No. 560,213. Renewed Feb. 27, 1912. Serial No. 680,163. (Cl. 93—36.)

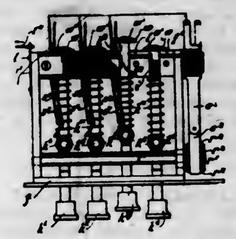


1. A machine for making paper vessels which comprise inner and outer walls, an inserted flanged bottom and a sealed air chamber between the walls, having, in combination, a holder to receive the outer wall and inserted flanged bottom of the vessel, and a coöperating plunger exerting pressure at the upper and lower edges of the inner and outer walls to seal the walls at their upper and lower edges while leaving an air chamber between these points.

2. A machine for making paper vessels which comprise inner and outer walls, an inserted flanged bottom and a sealed air chamber between the walls, having, in combination, a holder tapering inwardly from the top toward the bottom to receive the outer wall and inserted bottom of the vessel, and a coöperating tapering plunger exerting pressure at the upper and lower edges of the inner and outer walls to seal the walls at their upper and lower edges while leaving an air chamber between these points.

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1,042,954. SELECTIVE RINGING-KEY. CHARLES H. NORTH, Cleveland, Ohio, assignor to The North Electric Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 4, 1907. Serial No. 371,892. (Cl. 179—177.)



1. In a selective-ringing key, the combination with a plurality of ringing-current controlling-keys, of an extended lug associated with each, a rotatable member common to each key and engaging said lugs, a rotary actuated part carried by the rotatable member, and a controlled or master key associated with said actuating member and adapted to be operated upon each actuation of any selective key, substantially as set forth.

2. In a selective-ringing key, the combination with a plurality of longitudinally movable plungers each equipped with an extended lug, of sets of switch springs respectively associated with and adapted to be actuated thereby, a rotatable toothed member independently actuated by the lug upon any of said plungers, a rotary actuating member associated therewith, and a master key equipped with switch springs adapted to be actuated in common with each of the selective plungers, substantially as set forth.

3. In a selective-ringing key, the combination with a plurality of longitudinally movable plungers, of sets of switch springs respectively associated with and adapted to be actuated thereby, a rotatable member independently actuated by each of said plungers, a rotary actuating member associated therewith, a master key equipped with switch springs adapted to be actuated in common with each of the selective plungers, restoring springs individual to said plungers, resilient stops positioned respectively upon said plungers opposite the springs, and locking and releasing means for retaining in partially depressed position any one of said plungers, substantially as set forth.

4. In a selective-ringing key, the combination with a plurality of paired switch contacts and means for individually actuating them into electrical engagement; one contact of each pair being respectively connected with a source of signaling current, a contact in an associated master key connected with each of the other contacts of said pairs, a second contact in the master key connected with the sources of signaling current, paired contacts in said master key, adapted to be actuated into engagement with the aforesaid contacts, and means for effecting such actuation upon the closure of circuit between any of the signaling current contacts, substantially as set forth.

5. In a selective-ringing key, the combination with a plurality of paired switch contacts and means for individually actuating them into electrical engagement; one contact of each pair being respectively connected with a source of signaling current, a contact in an associated master key connected with each of the other contacts of said pairs, a second contact in the master key connected with the sources of signaling current, paired contacts in said master key, adapted to be actuated into engagement with the aforesaid contacts, paired coacting contacts in the master key normally in electrical engagement therewith and adapted to control the continuity of a cord circuit, and means for effecting the actuation of the first

pair of contacts out of engagement with the latter, and into engagement with the contacts governing the signaling currents, substantially as set forth.

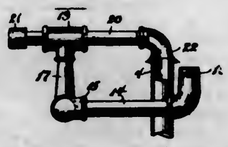
[Claims 6 to 8 not printed in the Gazette.]

1,042,955. RAIL-SPIKE. GEORGE H. NUERNBERGER, Welga, Ill. Filed Mar. 19, 1912. Serial No. 684,919. (Cl. 85—28.)



A spike comprising a shank having a head at one end, the said head being extended forwardly from the side of the shank so as to present a relatively broad lip, the sides of the head being extended laterally from the opposite sides of the shank, and an integral anchoring member formed upon the shank and disposed below the plane of the head and having a horizontally disposed contacting surface having a length transverse the spike greater than the similar dimension of the head and provided with sides which are curved upward in the direction of the lateral sides of the head, the anchoring member at the juncture of the horizontally disposed contacting surface and the curved sides presenting vertical edges of material thickness whereby to provide an anchoring member in rear of the spike having a dimension transverse the spike exceeding the similar dimension of the head, and a material thickness to provide an effective resisting element.

1,042,956. GLASS-DRAWING APPARATUS. TRAVIS OAKES and DANIEL RESSLER, Mount Vernon, Ohio, assignors to Pittsburgh Plate Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Dec. 19, 1908. Serial No. 468,314. (Cl. 49—17.1.)



1. In glass drawing apparatus, the combination with a bait having a hollow handle, of a member for supplying air to the handle mounted for vertical and lateral oscillation and provided with an end having a cam engagement with the end of the hollow handle so arranged that the movement of the handle laterally without tilting secures release of the said end from the said member.

2. In glass drawing apparatus, the combination with a bait having a hollow handle, of a member for supplying air to the handle mounted for lateral and vertical oscillation and having an outlet adapted to make detachable cam engagement with the end of the hollow handle, whereby a lateral movement of the handle automatically disengages it from the said member.

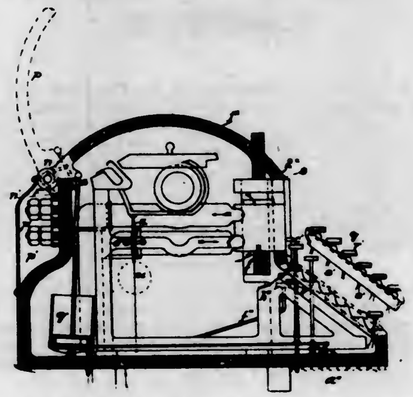
3. In glass drawing apparatus, the combination with the bait having a hollow handle, of an air connecting means comprising a support mounted for universal movement, and a pipe slidably mounted in the support and provided with an outlet adapted to make detachable engagement with the end of the hollow handle.

4. In glass drawing apparatus, the combination with the bait having a hollow handle, with its end beveled, of a laterally extending pipe for supplying air to the handle pivoted at one end for vertical oscillation and having a downwardly opening outlet portion at its other end formed to fit the beveled end of the handle, whereby the handle and connection may be automatically disengaged by a relative lateral movement while the handle is maintained in a vertical position.

5. In glass drawing apparatus, the combination with the bait having a hollow handle, with its end rounded, of a laterally extending pipe for supplying air to the handle mounted for universal movement and having an outlet portion formed to fit the rounded end of the handle, whereby the handle and connection may be automatically disengaged by a relative lateral movement while the handle is maintained in a vertical position.

[Claims 6 to 8 not printed in the Gazette.]

1,042,957. NOISELESS CASE FOR NOISY MACHINES. JOSEPH FRANCIS O'BYRNE, Jarbridge, Nev. Filed Mar. 15, 1911. Serial No. 614,673. (Cl. 197—180.)



1. In a sound deadening device for machines, a casing having a vacuum chamber, a cover for said casing, means for unlocking said cover, and means for closing said cover, said unlocking and closing means being operated by air pressure.

2. In a sound deadening device for machines, a casing having a vacuum chamber, a cover for said casing, means for unlocking said cover, means for closing said cover, said unlocking and closing means being operated by air pressure, a valve for the unlocking means, a valve for the closing means, and means on the outside of the casing for causing the movement of said valves.

3. An air tight case for typewriters comprising a lower totally inclosing portion with continuous vertical walls terminating in a plane; a gasket upon said walls, in the plane; an adjustable spring hinged cover of strong transparent material bounded by a metal edge terminating in a plane and vacuum means for securing the cover.

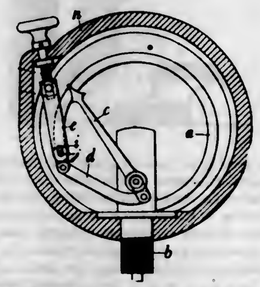
4. A totally inclosing operative case for typewriters having a complete keyboard corresponding to an inclosed typewriter keyboard, and said keys having attached rubber cushions for imparting motion to the inclosed typewriter keys; a "case release" key operating an opening device; a "case lock" key operating a closing device; a "carriage shift" key operating a carriage shift device; and a platen turning knob without the case having means for turning the typewriter platen within.

5. In a sound deadening device for typewriters, a casing having a vacuum chamber, a cover for said casing, an auxiliary keyboard disposed on the exterior of said casing, the stems of said keys passing into said casing, means for preventing the escape of air from said casing around the stems, a platen turning knob, a shaft therefor arranged to pass through the casing and having a connection with the platen shaft of the typewriter, and means for preventing the passage of air around said knob shaft.

[Claims 6 to 9 not printed in the Gazette.]



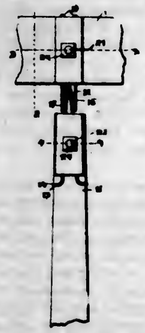
1,042,958. PRESSURE-GAGE. JOHN OKILL, Rock Ferry, England. Filed May 8, 1911. Serial No. 625,773. (Cl. 73—109.)



1. In pressure gages, the combination with an inclosing case and means for imparting movement to an index, of a nut and screw connected to the case, a link situated between the nut and screw and the said means, connections at the ends of the link to the nut and said means respectively, and a slot in the link at one of said connections, substantially as described.

2. In pressure gages, the combination with a Bourdon tube, an index connected thereto, and an inclosing case, of a pair of slotted links, a pin and slot device connecting the links to the free end of the tube, a nut attached to the links, and a screw engaging said nut, said screw being mounted on the case and provided with an operating portion projecting outside the case, substantially as described.

1,042,959. SPRING CONNECTING MEMBER FOR FAN-BLADES. OLE E. ORSTAD, Park River, N. D. Filed Oct. 13, 1911. Serial No. 654,484. (Cl. 230—33.)



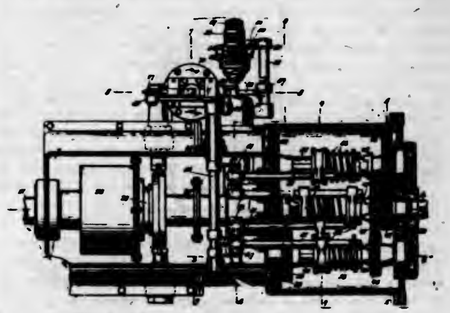
1. A fan consisting, in combination, of an arm and a blade, of a connecting member attached to said arm and blade and formed from a single strand of wire bent to engage the arm and the blade and means for preventing its displacement from the arm and the blade.

2. A fan consisting, in combination, of an arm and a blade, of a connecting member formed from a strand of wire bent to produce a loop surrounding the arm and extensions engaging the blade, and means for preventing the displacement of the loop from the arm and the extensions from the blade.

3. A fan consisting, in combination, of an arm and a blade, of a spring connecting member formed from a strand of wire bent to produce a loop, extensions formed upon the opposite ends of the loop and bent to produce a plurality of convolutions, parallel extensions formed at the ends of the convolutions for engagement with the blade and means for preventing the displacement of the extensions from the arm and the blade.

4. A fan consisting, in combination, of an arm and a blade, of a spring connecting member comprising a strand of wire bent to produce a loop surrounding said arm, converging extensions formed upon the loop, said strand being bent at the terminals of the converged extensions to produce a plurality of convolutions, parallel extensions formed by bending a strand at the ends of the convolutions to engage one side of the blade, said parallel extensions being offset to engage one edge of the blade, plates engaging the arm and the blade and provided with grooves to receive the extensions of the strand, and retaining bolts passing through said arm, blade and plates between said strand as and for the purposes set forth.

1,042,960. TRANSMISSION-GEARING. CLARK W. PARKER, Springfield, Mass., assignor to Parker Transmission and Appliance Company, Springfield Mass., a Corporation of Massachusetts. Filed Jan. 30, 1911. Serial No. 605,380. (Cl. 74—59.)



1. Mechanism of the class described comprising an engine clutch and operating means therefor, transmission gearing, means for controlling the same to produce changes in the driving relation thereof, retarding means for controlling the application of the engine clutch, and means operated by the controlling means for the gearing for freeing the clutch of the retarding means when the gearing is in one of its operative or driving positions, substantially as and for the purpose described.

2. Mechanism of the class described comprising an engine clutch, and operating means therefor, transmission gearing and means for controlling the same to produce changes in the driving relation thereof, interlocking means between the operating means for the engine clutch and the controlling means for the transmission gearing, retarding means for controlling the application of the engine clutch, and means for freeing the clutch from the action of the retarding means after the gearing has been operated out of its neutral position, substantially as and for the purpose specified.

3. Mechanism of the class described, comprising an engine clutch, and operating means therefor, transmission gearing, and means for controlling the same to produce changes in the driving relation thereof, said latter means comprising spring pressed engaging parts capable of yielding during the operation of the controlling means into operative position and thus delaying the operative connection of the gearing with the engine clutch, interlocking means between the operating means for the engine clutch and the controlling means for the gearing, and means for retarding the application of the engine clutch until the spring pressed parts of the controlling means have assumed their operative position, substantially as and for the purpose set forth.

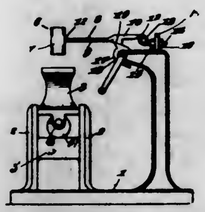
4. Mechanism of the class described comprising an engine clutch and operating means therefor, transmission gearing and means for controlling the same to produce changes in the driving relation thereof, and retarding means timed to the required movements of the transmission gearing parts, in a driving relation change, to prevent the full and complete application of the engine clutch until the transmission gearing parts have completed their movements in such driving relation change.

5. Mechanism of the class described comprising an engine clutch and operating means therefor, transmission gearing and means for controlling the same to produce changes in the driving relation thereof, and a liquid check retarding means timed to the required movements of the transmission gearing parts in a driving relation change, to prevent the full and complete application of the engine clutch until the transmission gearing parts have completed their movements in such driving relation change.

[Claims 6 to 15 not printed in the Gazette.]

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1,042,961. TRIP-HAMMER. EDWARD M. PATTEN, Yuma, Colo. Filed Sept. 16, 1911. Serial No. 649,676. (Cl. 78—26.)



In apparatus of the character described, a frame, an anvil, a lug rising from the frame and disposed above the plane of the anvil, a hammer disposed above the anvil, a helve for the hammer provided at one end with a coiled portion for rendering the hammer yieldable, the said coiled portion having one of its convolutions extended through the lug and detachably secured thereto, and means on the frame for moving the hammer.

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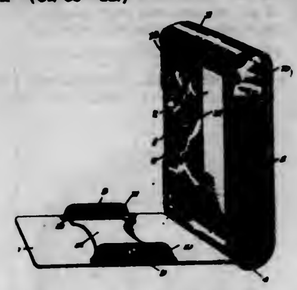
1,042,962. NUT-LOCK. BENJAMIN GILBERT PATTERSON, Oklahoma, Okla., assignor of one-fourth to Jacob Daniel Oliger, Dallas, Tex., and one-fourth to Thomas Brown Simms and one-tenth to James Daniel Deu Pree, Oklahoma, Okla. Filed Mar. 15, 1912. Serial No. 683,933. (Cl. 151—25.)



1. The combination of a triangular dog with a threaded bolt and a nut applied thereto and having a lengthwise slot which receives said dog, the bottom of the slot having an obtuse angle on whose apex the dog rests and is adapted to rock laterally, as described.

2. The combination with a screw bolt and a nut having a radial lengthwise slot whose bottom is formed as an obtuse angle, one side of the angular bottom being deeper than the other, of a dog having in cross section the form of a scalene triangle and its inner acute angle being arranged to engage in the deeper side of the angular slot bottom as described.

1,042,963. FOLDING CAMERA-CASE. SIGURD H. PETTERSON, Mayhell, Colo. Filed June 28, 1911. Serial No. 635,744. (Cl. 95—11.)



1. A new article of manufacture comprising a case for folding cameras, the sides of the said case being of double thickness and each of the sides being partially removed whereby a recess is formed, the front of the said case being movable relatively to the other parts thereof, the said front being provided on its inner surface with flaps adapted to be contained within the said recesses, and means for holding the said flaps within the recesses, thereby holding the case in closed position.

2. As a new article of manufacture, a carrying case for folding cameras having one side thereof movable relatively to the adjacent sides, the outside of each of the said last named sides being provided with recesses, fastening devices in the recesses, a plurality of flaps carried on the inside of the said movable side of the case, each of the flaps adapted to be seated within the recesses, and buttons carried by each of the flaps for coöperation with the said fastening devices carried by each of the sides, whereby the said case may be held in closed position.

3. A carrying case for folding cameras having one side thereof suitably supported whereby it may be opened, the outside of each of the opposite side portions of the case being provided with recesses, a clasp carried by the inside of each of the said side portions and adjacent the said recesses, a plurality of flaps suitably secured to the inside of the said first side of the case, the said flaps being adapted to engage in the said recesses, buttons carried by each of the flaps for coöperation with the aforesaid clasps, the said casing being provided with an opening whereby the film winding means of the camera is made available, a flap carried on the outside of the said case and adapted to cover the said opening, the said flap being secured to the case, a ring adapted to be engaged with the carrying strap also secured adjacent the said flap whereby, when the case is carried, the carrying strap will pass adjacent the upper end of the said flap whereby it may be held in closed position.

4. A carrying case for cameras having an opening in one side thereof whereby the key for winding the film is made accessible, a flap secured to that side of the case and adapted to cover the opening, together with means for attaching a strap to the case, the strap passing adjacent the flap whereby the flap is held in close proximity to the opening.

5. A carrying case for cameras provided with a number of openings whereby the key for winding the film and the button for operating the camera are available, a flap carried by the case adjacent the opening through which the film winding means is accessible, the flap being secured along one edge portion; together with means for carrying the case, the said means engaging the case and extending therefrom closely adjacent the flap, whereby the flap is maintained in position to cover the said opening.

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1,042,964. CHURN ATTACHMENT. SAMUEL J. PRATHER, Clifton, Tenn. Filed Mar. 16, 1912. Serial No. 684,206. (Cl. 31—37.)

1. In combination with a churn comprising a plunger having a handle adapted to be reciprocated, and of a vibratory member coöperating with said handle and adapted to be vibrated by movement thereof, said member being free to vibrate throughout the reciprocatory movement of the plunger.





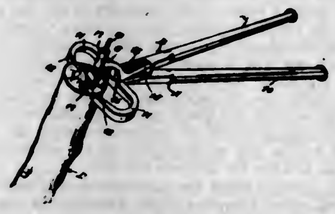
2. In combination with a churn comprising a cover having an opening therethrough, a plunger rod mounted in the churn and passing through the opening in said cover, of a vibratory member consisting of a series of coils, the inner terminal of said member forming a spring attaching ring for positioning said member on the rod aforesaid, the member aforesaid being adapted to be freely vibrated by reciprocation of the plunger rod.

3. In combination with a churn comprising a plunger adapted to be reciprocated therein, of a free vibratory member coöperating with said plunger and adapted to be vibrated by operation of the latter, and a covering adapted to be supported by said member when the plunger is at rest.

4. The combination with a churn comprising a plunger, of a loosely suspended vibratory member, the inner terminal of which forms a spring attaching ring adapted to frictionally hold said member on the plunger and permit of vertical adjustment of said member on the plunger aforesaid.

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1,042,965. GRAFTING-TOOL. CORYDON A. PRIEST, West Farmington, Me. Filed June 26, 1912. Serial No. 706,086. (Cl. 47—6.)



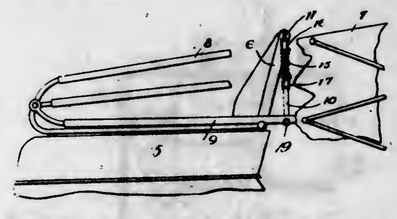
1. A grafting tool comprising a pair of pivotally connected members forming handles and coöperating jaws, and a chisel element slidably mounted upon said pivoted members for movement in a plane at right angles to the plane of movement of the jaws.

2. A grafting tool comprising a pair of pivotally connected members forming handles and coöperating jaws, said jaws being adapted to engage the sides of the tree branch at diametrically opposite points respectively and sever the bark thereof longitudinally a predetermined distance, a chisel element slidably mounted upon said pivoted members for movement in a plane at right angles to the plane of movement of the jaws, whereby the operation of said chisel element will split the branch in the plane of the severed portions of the bark, and means permitting removal of the pivoted members from engagement with the branch independent of the chisel element.

3. A grafting tool comprising a pair of pivotally connected members forming handles and coöperating jaws, a bracket adjustably secured to said pivoted members by the pivotal connection of the latter, said bracket including a tubular portion having its bore disposed at right angles to the plane of movement of the jaws, and a chisel element slidably mounted in said tubular portion.

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1,042,966. VEHICLE TOP-REST. BRAXTON C. RANKIN, Nettleton, Miss. Filed Aug. 5, 1910. Serial No. 575,964. (Cl. 21—61.)



In a device of the class described, the combination with a bar having its ends provided with depending hooks, said bar being secured upon the top edge of a vehicle seat and extending longitudinally thereof; of top supporting devices, extending rearwardly of said seat, each of said devices comprising a single length of wire coiled to provide a tension spring intermediate its ends, each of said ends being bent to provide substantially U-shaped loops, the free ends of said loops being secured to the outer convolutions of the coil and at opposite ends thereof; one of said loops being adapted to detachably engage one of the hooks of said bar whereby the device may be readily removed when not in use, and a hook formed at one end to provide a loop engaging eye for loosely engaging the other U-shaped loop of said device, the other free end of said hook being formed to provide a bill for the reception of the top of a vehicle.

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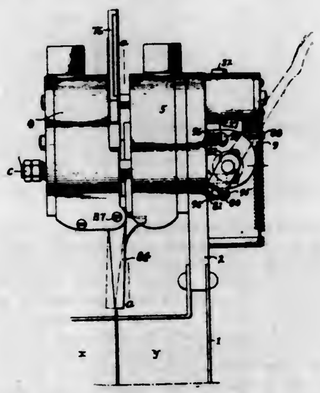
1,042,967. SHAVING-BRUSH. JOHN E. REIS, Tampa, Fla. Filed Mar. 29, 1912. Serial No. 687,128. (Cl. 15—50.)



A shaving brush, comprising a handle having a longitudinally extending passage and provided with a tube disposed in line with the passage and extending from one end of the handle, a nozzle also disposed in line with the passage, bristles secured to the handle and embracing said nozzle, a cap closing one end of the said tube, a member swiveled to the cap and provided with a screw extending into the tube of said handle, a follower operating in said passage and having a threaded connection with the screw, whereby an adjustment of the latter in one direction the follower will be fed toward the nozzle, a valve slidably mounted in the handle and disposed between one end of the passage, and an adjacent portion of the nozzle and

provided with a passage adapted to aline with the nozzle, and means for normally holding the valve in a cut-off position.

1,042,968. COIN-SELECTOR. GEORGE CRAWFORD REITH, Philadelphia, Pa., assignor to Edward F. Henson, trustee, Philadelphia, Pa. Filed Mar. 11, 1911. Serial No. 613,722. (Cl. 194—97.)



1. In a coin selector the combination of a movable member; a locking element normally preventing movement of said member; with a plurality of coin engaging elements connected to control the movement of said locking member to a releasing position.

2. In a coin selector the combination of a movable member; a plurality of locking elements normally preventing movement of said member; with a plurality of coin engaging elements coacting with said locking elements; and means for causing one of said coin engaging elements to lock the other in a predetermined position.

3. The combination in a coin selector of coin directing means including a movable member; a locking element normally preventing movement of said member; two coin engaging elements for controlling the actuation of said locking element; and means for operatively connecting said coin engaging elements.

4. The combination in a coin selector of coin directing means including a movable member; a locking element for said member; a plurality of coin engaging elements controlling the operation of said locking element; and a locking device connecting said coin engaging elements whereby one of said elements is capable of preventing movement of the other under predetermined conditions.

5. The combination in a coin selector of coin directing means including a movable member; a locking element for said member; a plurality of coin engaging elements for controlling the operation of said locking element; and means normally locking one of said coin engaging elements from operative movement until the other element has been moved to a predetermined extent.

[Claims 6 to 38 not printed in the Gazette.]

1,042,969. SAFETY SIGNAL-SWITCH STAND. RALPH K. REX, Cleveland, Ohio. Filed Mar. 22, 1912. Serial No. 685,503. (Cl. 246—41.)

1. In a switch stand, the combination of a switch stand, a switch point actuating shaft journaled in the switch stand, an actuating lever pivotally connected to the upper portion of the switch point actuating shaft, links pivoted to the actuating lever at points above the pivotal points of said lever, a sliding head located above the switch shaft and the tops or upper ends of the links pivotally connected to said head, a signal shaft adapted to support a signal, said signal shaft journaled in the switch actuating shaft and means for rotating the signal shaft by the downward movement of the head, substantially as and for the purpose specified.



2. In a switch stand, the combination of a switch stand, a switch point actuating shaft journaled in the switch stand, an actuating lever pivotally connected to the upper portion of the switch point actuating shaft, links pivoted to the actuating lever at points above the pivotal points of said lever, a sliding head located above the switch shaft and the tops or upper ends of the links pivotally connected to said head, a signal shaft adapted to support a signal, said signal shaft journaled in the switch actuating shaft, means for rotating the signal shaft by the downward movement of the head, and means for locking the signal shaft against rotation, substantially as and for the purpose specified.

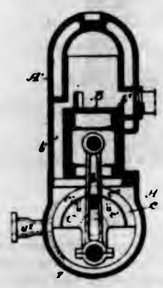
3. In a switch stand, the combination of a switch stand, a switch point actuating shaft journaled in the switch stand, an actuating lever pivotally connected to the upper portion of the switch actuating shaft, links pivoted to the actuating lever, a sliding head, said links pivoted to said sliding head, a signal shaft journaled in the top or upper end of the switch actuating shaft, a sleeve slidably mounted upon the signal shaft, said sleeve provided at its top or upper end with a cross head and recessed flange, and at its bottom or lower end with slots, pins fixed to the signal shaft, one of said pins adapted for engagement with the slots at the lower end of the sliding sleeve and the other pin adapted for engagement with the recesses located at the top or upper end of the sleeve, substantially as and for the purpose specified.

4. In a switch stand, the combination of a switch stand, a switch point actuating shaft journaled in the switch stand, an actuating lever pivotally connected to the upper portion of the switch actuating shaft, links pivoted to the actuating lever, a sliding head, said links pivoted to said sliding head, a signal shaft journaled in the top or upper end of the switch actuating shaft, a sleeve slidably mounted upon the signal shaft, said sleeve provided at its top or upper end with a cross head and recessed flange, and at its bottom or lower end with slots, pins fixed to the signal shaft, one of said pins adapted for engagement with the slots at the lower end of the sliding sleeve and the other pin adapted for engagement with the recesses located at the top or upper end of the sleeve, and cam-slots located in the head adapted to rock the target shaft, substantially as and for the purpose specified.

5. In a switch stand, the combination of a switch stand, a switch point actuating shaft journaled in the switch stand, an actuating lever pivotally connected to the upper end of the switch lever actuating shaft, a signal shaft journaled at its bottom or lower end in the top or upper end of the switch point actuating shaft, a sliding head and a sliding sleeve located upon the signal shaft, links pivotally connected to the actuating lever and the sliding head respectively, pins connected to the signal shaft, slots and recesses located at the top and bottom ends of the sliding sleeve, said pins adapted for engagement with the slots and recesses, cam-slots located in the sliding head adapted to rock the signal head, a spring adapted to be compressed by the rocking movement of the switch point actuating shaft and means for compressing the spring, substantially as and for the purpose specified.



1,042,970. INTERNAL-COMBUSTION ENGINE. WILLIAM H. RICHMAN, Philadelphia, Pa. Filed Aug. 25, 1908. Serial No. 450,131. (Cl. 123—73.)



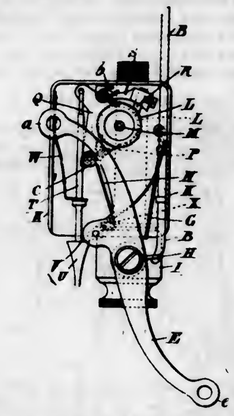
1. The combination in an internal combustion engine of a crank case having a cylindrical interior provided with a port opening into its cylindrical surface; a cylinder; a piston therein; a shaft having a crank in said crank case; means for connecting the crank and the piston; a valve structure carried by the shaft so as to extend in a line substantially 180 degrees distant from the line of the crank; with a substantially semiannular shoe mounted on and structurally independent of said structure in position to movably coöperate with the cylindrical surface of the crank case to control the flow of fluid through the port; there being a conduit for conducting fluid from the crank case to the engine cylinder; with springs between the valve structure and said shoe.

2. The combination in an internal combustion engine, of a crank case having a substantially cylindrical surface provided with a port; a cylinder; a piston in said cylinder; a shaft having a crank in the crank case; a rod connecting the crank with the piston; a valve structure on the shaft; and a circularly curved strip forming a shoe movably mounted on the valve structure in position to coöperate with the port in the cylindrical surface of the crank case to control the flow of fluid therethrough; there being means for conducting fluid from the crank case to the engine cylinder.

3. The combination in an internal combustion engine of a crank case having a cylindrical portion provided with a port; a crank shaft passing through said case; a crank on said shaft; a semi-cylindrical structure mounted adjacent to the crank and extended from the shaft in a line substantially 180° from the line of said crank; a substantially semi-annular shoe movably mounted on said structure in position to coöperate with the crank case port to control the flow of fluid therethrough; an engine cylinder; a piston therein; and a rod connecting the piston with the crank.

1,042,971. GAS-IGNITING APPARATUS. HELIODOR PAUL ROSTIN, Tottenham, England. Filed June 29, 1912. Serial No. 706,787. (Cl. 67—20.)

1. Gas igniting apparatus consisting of a casing, a toothed wheel, a frame pivoted on the axis of the toothed wheel and carrying a pawl engaging the toothed wheel, a rod jointed to the frame and carrying an enlarged piece on the end, a spring controlling the frame and a spring controlling the rod, a spring controlled arm carrying a piece of mineral or alloy which when acted upon by the toothed wheel produces sparks, in combination with a plug or cock (positioned in the gas burner pipe) and having a by pass passage leading from the ordinary passage to a by passage in the plug casing, a spring controlled arm on said plug, a nose piece on the arm for engaging with the enlarged piece on the end of the rod, all being arranged and operated substantially as described with reference to the annexed drawings.



2. In a friction gas igniter, a by pass tube and a gas burner, a gas plug having passages for communication with said tube and said burner and movable first to a position wherein said passages are in communication with said tube and burner respectively and thereafter to a position wherein the by pass tube is cut off but the communication of the burner is maintained, a lever for turning said plug, a toothed and roughened wheel, a spark producing body for engagement thereby, a movable frame having a pawl to engage said wheel, a spring for moving said frame in a direction whereby the pawl engages the teeth of the wheel and rotates the latter, means for moving the frame in the opposite direction, comprising a rod depending from the frame and having an enlargement at its lower end and a nose provided on said lever for engagement against said enlargement, and a spring for producing a slight backward movement of said lever immediately upon its release after an operative movement thereof whereby the passage of gas through the by pass tube is interrupted.

1,042,972. PART FOR WIGS AND THE LIKE. MENDEL R. RONSHKOWSKY, New York, N. Y. Filed Mar. 6, 1912. Serial No. 681,930. (Cl. 132—23.)



1. In a part for wigs and the like, a plurality of base threads, and a plurality of bunches of hair woven between said threads and extending in opposite directions, each of said bunches of hair extending to a central point over said threads before being interwoven, whereby a clear line of parting is presented without disclosing any of said threads to view.

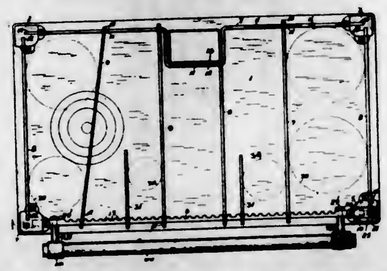
2. In a part for wigs, four parallel threads, a bunch of hair woven therethrough by having the weaving extend over two of the threads, under the next one, and around the last one and back over the third thread and under the second thread and from thence over the first thread where-

by the bunch of hair extends to one side of said threads, and a second bunch of hair interwoven in a similar manner to the first mentioned bunch of hair but extending in an opposite direction and on the opposite side of said threads.

8. In a part for wigs, a body portion formed of bunches of hair, and a plurality of threads for holding said hair in position, each alternate bunch of hair being interwoven with said threads and extending upon opposite sides of the threads, and a separating thread looped over the same face of each bunch of hair for locking the same in position and for indicating distinctly the line of parting.

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1,042,973. STOVE. LOUIS EUGAARD, San Bruno, Cal., assignor of one-half to Ernst A. Bohm, San Bruno, Cal. Filed Oct. 26, 1911. Serial No. 656,986. (Cl. 126—24.)



1. In combination with a stove a frame consisting of a plurality of vertical posts, one of said posts being secured at each of the corners of said stove, transverse bars extending between and supported by the upper portions of said posts; a bar having a plurality of apertures extending through its sides, and extending longitudinally between and supported by the posts on one side of said stove, and a bar having a plurality of vertical grooves in one of its sides extending longitudinally between and supported by the posts on the opposite side of said stove, and a plurality of interchangeable bars having ends provided with tongues movably penetrating said apertures and having in proximity to their opposite ends downwardly opening vertical slots movably engaging said grooves.

2. In combination with a stove a frame consisting of a plurality of vertical posts, one of said posts being secured at each of the corners of said stove, transverse bars extending between and supported by the upper portions of said posts, a bar having a plurality of apertures extending through its sides, and extending longitudinally between and supported by the posts on one side of said stove, a bar having a plurality of vertical grooves in one of its sides extending longitudinally between and supported by the posts on the opposite side of said stove, and a plurality of interchangeable bars having ends provided with tongues movably penetrating said apertures and having in proximity to their opposite ends downwardly opening vertical slots movably engaging said grooves, and a plurality of interchangeable bars having in proximity to one of their ends downwardly opening vertical slots slidably engaging said grooves.

3. In combination with a stove a frame consisting of a plurality of vertical posts, one of said posts being secured at each of the corners of said stove thereto, transverse bars extending between and supported by the upper portions of said posts, and bars running longitudinally with said stove and supported by the upper portions of said posts, and bars between said transverse bar and removably supported by said bars running longitudinally.

4. In a stove, in combination, a post projecting upwardly at one of the front corners of the stove and having a vertical recess extending downwardly from the upper end of said post, a slideway in the upper end above said recess and extending longitudinally with the stove and a slot extending downwardly from said slideway and opening inwardly in alinement with said slideway, a spring-pressed plunger in said recess, a slide in said slideway having an opening, said opening being penetrable by said plunger, and a bar having an end seatable in said slot.

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1,042,974. WINDOW. JOHN F. RUTH, St. Louis, Mo. Filed Jan. 30, 1911. Serial No. 605,481. (Cl. 189—64.)



1. In a window, a sash having grooves to receive the marginal portions of panes of glass, one of said grooves having a width greater than the other grooves, so that panes of glass, the combined widths of which are approximately equal to the distances between two of the members of the sash and the depths of their grooves, may be introduced in said grooves.

2. In a window, a sash having grooves to receive the marginal portions of panes of glass, one of said grooves having a width greater than the other grooves, so that panes of glass, the combined widths of which are approximately equal to the distances between two of the members of the sash and the depths of their grooves, may be introduced in said grooves, and means for securing the margins of the panes not secured in said grooves.

3. In a window, a sash, all of the members of which are grooved in their inner margins, three of the members having grooves of the same dimensions, the fourth member having a groove of greater transverse dimension than the three grooves, a two-part mullion, and means for securing the parts of the mullion together.

4. In a window, a sash, three of the members of which have grooves of the same dimensions, the fourth member having a groove of greater width and depth than the three grooves, a two-part mullion, and means for securing the parts of the mullion together.

5. In a window, a sash, two of the opposing members of which have grooves of approximately the same dimensions, the third member having a groove of approximately the same dimensions as the first mentioned grooves, and the fourth member having a groove of greater width and depth than the other grooves, a mullion, and a removable filler for securing glass in the groove of greatest width.

[Claim 6 not printed in the Gazette.]

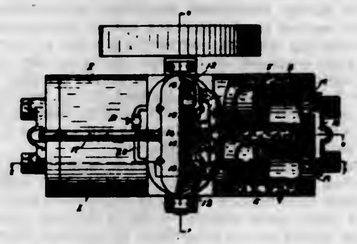
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1,042,975. INTERNAL-COMBUSTION ENGINE. JOHN M. SAILER, Janesville, Wis., assignor of one-half to William Musser, Iowa City, Iowa. Filed May 10, 1910. Serial No. 560,403. (Cl. 123—56.)

1. The combination of a plurality of engine cylinders arranged in synchronously charging and exhausting sets; a charging cylinder for each set of engine cylinders; pistons for said engine and charging cylinders; a common crank shaft to which said pistons are connected; a carbureter; inlet chambers for said charging cylinders connected to said carbureter; a common discharge chamber for said charging cylinders; a valve-controlled by-pass connection for said charging cylinders; and delivery connections from said charging chamber to said engine cylinders comprising headers on said cylinders, and inlet valves for said cylinders opening into said headers.



2. The combination of a plurality of engine cylinders arranged in synchronously charging and exhausting sets; a charging cylinder for each set of engine cylinders; pistons for said engine and charging cylinders; a common crank shaft to which said pistons are connected; a carbureter; inlet chambers for said charging cylinders connected to said carbureter; a common discharge chamber for said charging cylinders; and delivery connections from said charging chamber to said engine cylinders comprising headers on said cylinders, and inlet valves for said cylinders opening into said headers.



3. The combination of a plurality of engine cylinders arranged in synchronously charging and exhausting sets; a charging cylinder for each set of engine cylinders; pistons for said engine and charging cylinders; a common crank shaft to which said pistons are connected; a common discharge chamber for said charging cylinders; a valve-controlled by-pass connection for said charging cylinders; and delivery connections from said charging chamber to said engine cylinders comprising headers on said cylinders, and inlet valves for said cylinders opening into said headers.

4. The combination of a plurality of engine cylinders arranged in synchronously charging and exhausting sets; a charging cylinder for each set of engine cylinders; pistons for said engine and charging cylinders; a common crank shaft to which said pistons are connected; a common discharge chamber for said charging cylinders; and delivery connections from said charging chamber to said engine cylinders comprising headers on said cylinders, and inlet valves for said cylinders opening into said headers.

5. The combination of a plurality of engine cylinders arranged in synchronously charging and exhausting sets; a charging cylinder for each set of engine cylinders; delivery connections from said charging cylinders to said engine cylinders; pistons for said engine and charging cylinders; and a common crank shaft to which said pistons are connected, all coacting for the purpose specified.

[Claims 6 to 11 not printed in the Gazette.]

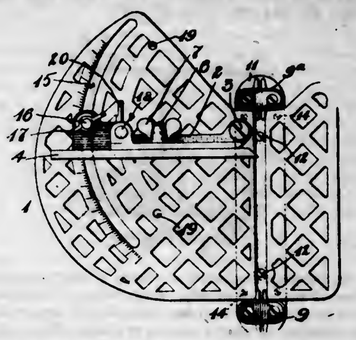
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1,042,976. MITER-BOX. ALBERT F. SCHADE, New Britain, Conn., assignor to The Stanley Rule & Level Company, New Britain, Conn., a Corporation of Connecticut. Filed June 6, 1912. Serial No. 701,958. (Cl. 143—90.)

1. In a device of the character described, in combination, a stationary work table, a saw guiding frame mounted thereon and extending transversely thereof and adapted to guide a saw along a line of definite transverse cut, and means for laterally adjusting one end of said frame independently of the other end relative to said table, to adjust the angle of transverse saw-cut and a work positioning guide mounted on said base adjacent said saw guiding frame.

2. In a device of the character described, in combination, a stationary work table, a frame secured to the under side and extending transversely thereof, saw guides carried by and extending from said frame and adapted to guide a saw along a line of definite transverse cut, means for effecting vertical adjustment of one end of said frame independently of the other end relative to said table, and a work positioning guide mounted on said base adjacent said saw guides.

3. In a device of the character described, in combination, a stationary work table, a frame secured to the under side and extending transversely thereof, saw guiding means carried at the ends of said frame and adapted to guide a saw along a line of definite transverse cut, means for effecting lateral and vertical adjustment of one end of said frame independent of the other end relative to said table, and a work positioning guide mounted on said base adjacent said saw guiding frame.



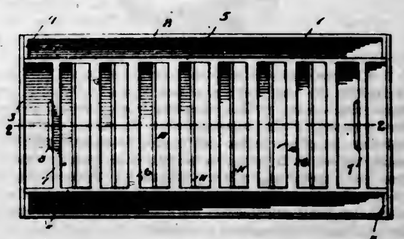
4. In a device of the character described, in combination, a stationary work table, a saw guiding frame carried thereby comprising a supporting bar extending transversely of and beneath said table and secured thereto, standards supported by said bar adjacent each end thereof extending above said table, and saw-guides slidably mounted on said standards; a work guide mounted on said table; and means coöperating with said bar and table adapted to permit lateral adjustment of one end of said bar and its associated parts independent of the other end relative to said stationary table and to fixedly maintain said parts in their adjusted position.

5. In a device of the character described, in combination, a stationary work table; a saw-guiding frame carried thereby comprising a supporting bar secured to and extending transversely of and beneath said stationary table, standards supported by said bar adjacent each end thereof extending above said table, saw-guides slidably mounted on said standards, a work guide mounted on said table; means coöperating with said bar and table adapted to permit lateral adjustment of one end of said bar and its associated parts independent of the other end relative to said table and adapted to clamp said parts in such laterally adjusted position; and means whereby one end of said bar may be moved vertically independent of the other end relative to said table and may be fixedly held in vertically adjusted position.

[Claims 6 to 10 not printed in the Gazette.]

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1,042,977. BOOT-CLEANER. PHILIPP SCHNEIDER, St. Charles, Mo. Filed Mar. 25, 1911. Serial No. 616,838. (Cl. 15—2.)

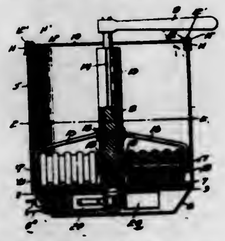


A boot cleaner comprising a pan having parallel side walls and parallel end walls, the side walls having their

ends bent inwardly and engaged against the inner sides of said end walls to form spacing elements, and a scraping grate removably mounted in the pan, and including parallel sides which are disposed inwardly of said spacing elements to be held thereby in spaced relation to the parallel walls of the pan.

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1,042,978. WASHING DEVICE. CARL SCHULTZ and SAMUEL SCHEER, Richmond, Va. Filed Aug. 15, 1911. Serial No. 644,086. (Cl. 68—24.)

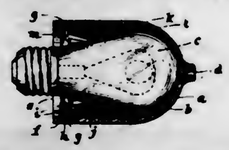


1. In combination with a vessel, a shaft journaled in the vessel and formed with a plurality of longitudinally extending guideways opening through the upper end thereof, a plurality of shafts having H-shaped inner ends slidably interlocking with the guideways and removable through the upper ends thereof, hangers for said shafts and having inner ends slidably interlocking with said guideways and removable through the upper ends thereof, and compressing rollers carried by said shafts and adapted to be moved around said first shaft.

2. A washing device comprising a vessel having a conical lower end, a perforated bottom located in said vessel and bearing against the conical lower end thereof and spaced by said conical lower end from the bottom of said vessel, a shaft having its lower end journaled in said bottom and formed with a plurality of longitudinal guideways, shafts having H-shaped inner ends independently slidable in the guideways and movable over the perforated bottom with said shaft, hangers having depending outer ends supporting the outer ends of the shafts and H-shaped inner ends interlocking with the guideways, fluted rollers mounted on said second shafts and adapted to contact with said perforated bottom and be moved by said shaft over said bottom, and a top forming a bearing for said shaft.

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1,042,979. TRANSPARENT HOOD FOR ELECTRIC LAMPS. GUSTAV A. SEESSLE, Wheaton, Ill., assignor to Reynolds Electric Flasher Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 16, 1912. Serial No. 720,462. (Cl. 240—111.)



1. The combination with an electric lamp bulb, of a hood encircling the periphery and one end of the bulb, and a supporting spring device comprising an annular body portion secured to the inner side of the hood near the peripheral rim of the latter and having integral spring fingers connected at their outer ends with said annular body portion and extending inward therefrom toward the axial center of the hood and toward the inclosed end of the bulb and in yielding engagement with the periphery of the bulb, for yieldingly supporting the hood.

2. The combination with an electric lamp bulb, of a hood encircling the periphery and one end of the bulb and provided with an inner annular groove in its inner surface, and a supporting spring device comprising an annular main body portion extending into said groove, and provided with a series of integral spring fingers connected at their outer ends with said annular body portion, and extending inward therefrom toward the axial center of the hood and toward the inclosed end of the bulb, and having their inner ends in yielding engagement with the periphery of the bulb.

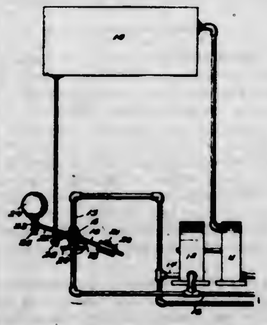
3. The combination with an electric lamp bulb, of a hood encircling the periphery of the bulb and having an end portion encircling the tip end of the bulb and provided with an opening in said end for admitting air, and supporting spring mechanism comprising an annular body portion secured to the hood and out of engagement with and encircling the bulb, and having a series of spring fingers, each connected at its outer end with said annular body portion and extending inward toward the axial center of the hood and toward the inclosed end of the bulb, the inner ends of said spring fingers being in yielding engagement with the periphery of the bulb and adapted to yieldingly support the hood upon the bulb.

4. The combination with an electric lamp bulb, of a hood encircling the periphery and one end of the bulb and having a concave inner surface portion in engagement with an adjacent convex outer surface portion of the bulb, and a supporting spring device comprising an annular main body portion secured to the hood and encircling and out of engagement with the bulb, and comprising a series of spring fingers integral with said annular body portion and extending inward therefrom toward the axial center of the hood and toward the inclosed end of the bulb and in yielding engagement with the bulb.

5. The combination with an electric lamp bulb, of a hood encircling the periphery and one end of the bulb and having a concave inner surface portion in engagement with an adjacent convex outer surface portion of the bulb, and provided with a space between the hood and the portion of the bulb having the largest diameter, a supporting spring device comprising an annular main body portion secured to the hood and encircling and out of engagement with the bulb, and a series of spring fingers integral with said annular body portion and extending inward therefrom toward the axial center of the hood and toward the inclosed end of the bulb and in yielding engagement with the bulb, whereby the hood is held yieldingly in engagement with the convex end surface portion of the bulb, and the bulb is enabled to freely expand and contract within the hood.

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1,042,980. PRESSURE-REGULATOR. HARVEY E. SHAWVER, Lewistown, Ill. Filed Sept. 3, 1908. Serial No. 451,604. Renewed May 23, 1912. Serial No. 699,284. (Cl. 103—87.)



1. The combination with a tank, a pump discharging into the tank, a fluid motor for operating the pump, of a pressure regulator, said regulator comprising a bypass communicating with the motor and provided with a valve, a stem upon the valve having a hollow member and a weighted extension, a globe shaped hollow member connected to the hollow member of the stem and provided with a valve, and an outlet pipe connected with the tank and communicating with the hollow member of the stem.

2. In combination with a tank, a pump connected with the tank, and a fluid motor for the pump, of a bypass connected with the inlet pipe of the motor, a valve upon the bypass, a stem upon the valve having a hollow member and a weighted extension, a globe shaped hollow member connected with the hollow member of the stem, a drain valve for the globe shaped hollow member, means for adjusting the weighted extension of the valve stem, and a communication between the tank and the hollow member of the stem, substantially as described.



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1,042,981. STONE-CUTTER'S INSTRUMENT. GEORGE W. SHEERS, Rockford, Ill. Filed Feb. 8, 1912. Serial No. 676,280. (Cl. 73—187.)

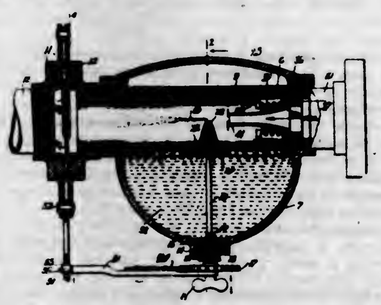


1. A device of the class described comprising a straight edge; a guide rib on said straight edge; a cylindrical block slidable on said rib; a bevel angle member slotted to fit over said block and bent downwardly to form an abutment adapted to fit against said straight edge to position said member at right angles to said edge; and a binding nut carried by said block and adapted to secure said bevel angle member in adjusted positions, substantially as described.

2. A device of the class described comprising a straight edge; a dove-tail guide rib on said straight edge; a cylindrical block slidable on said rib and provided with a threaded stud; a bevel angle member slotted to fit over said block and bent downwardly to form an abutment adapted to fit against said straight edge to position said member at right angles to said edge; and a binding nut carried by said stud and adapted to secure said bevel angle member in adjusted positions, substantially as described.

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1,042,982. CARBURETER. LEONARD SLIGER, Indianapolis, Ind. Filed May 31, 1911. Serial No. 630,337. (Cl. 48—155.2.)



1. In a carbureter, the combination of a hydro-carbon chamber, an atomizing chamber having generally the form of a tube and extending diametrically across said hydro-carbon chamber, a throttle, a nozzle extending from said hydro-carbon chamber into said atomizing chamber, a mechanism coacting with said throttle and with said nozzle for maintaining a relation between the quantity of hydro-carbon flowing from said nozzle and the quantity of explosive mixture flowing through said throttle, and means for normally admitting and confining a current of air to the proximate center of said atomizing chamber and past the mouth of said nozzle, said means being automatically adjustable to vary the supply of air in accordance with the volume of explosive mixture flowing through said throttle.

2. In a carbureter, the combination of a hydro-carbon chamber, an atomizing chamber having generally the form of a tube and extending across said hydro-carbon chamber, a heating chamber disposed adjacent to said hydro-carbon chamber and said atomizing chamber, a nozzle extending from said hydro-carbon chamber into said atomizing chamber, a throttle, a mechanism coacting with said throttle and including means to vary the flow of hydro-carbon through said nozzle, a movable air funnel within said atomizing tube, a member within said tube and against which the base of said funnel is normally adapted to seat in order to cause the current of air delivered past the nozzle to be confined to the proximate center of the atomizing tube, and means for holding said air funnel against its seat, adapted to permit of its movement away from the seat in order to vary the amount of air admitted when suction, caused by the outflow of mixture through the throttle, increases.

3. In a carbureter, the combination of an atomizing chamber, an air inlet for supplying air thereinto, a valve for controlling the flow of liquid hydrocarbon into said atomizing chamber, said valve having a movable needle, a toothed wheel secured upon said needle, a lever having connection with said needle and movable relatively to said wheel, a member carried by said lever and normally engaging said wheel, said member being detachable from said wheel to enable said wheel and the needle to be independently adjusted, a throttle, and mechanism connected with said throttle and with said lever for the purpose of maintaining the throttle and lever in a predetermined rocking relation.

4. In a carbureter, the combination of a hydro-carbon chamber having generally a hemispherical form, a heating chamber disposed adjacent to said hydro-carbon chamber, an atomizing chamber having the form of a tube and extending in the general direction of its length between said hydro-carbon chamber and said heating chamber, a nozzle extending from said hydro-carbon chamber and transversely into said atomizing chamber, and automatically adjustable means for admitting variable quantities of air into said atomizing chamber and for causing said air to form a stream flowing axially of the chamber and past said nozzle in order to atomize the hydro-carbon from the latter into said atomizing chamber.

5. In a carbureter, the combination of an atomizing chamber having generally a tubular form, a nozzle extending radially into said atomizing chamber for the purpose of discharging hydro-carbon liquid thereinto, a valve seat mounted within said atomizing chamber and having its axis substantially in alinement with the end of said nozzle, a valve having generally a tubular form and detachably engaging said valve seat, and a spring for normally forcing the same against its seat.

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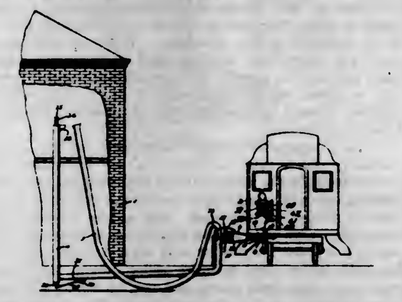
1,042,983. MEANS FOR THE INTERCHANGE OF MESSAGES BETWEEN A STATION AND A MOVING CAR. OLIVER H. SMITH, Slateford, Pa., and JOSIAH L. SMITH, Southern Pines, N. C. Filed Aug. 6, 1912. Serial No. 713,593. (Cl. 105—231.)

1. Apparatus for the interchange of matter between a station and a car, the same comprising receiving and delivery tubes leading from the station to a point near the track, a holder at the outer end of the delivery tube for receiving a container inclosing the matter to be delivered to the car, and means upon the car to deliver a container into the receiving tube and to take up the container held in position for delivery by the before mentioned holder.

2. Apparatus for the interchange of matter between a station and a moving car, the same comprising a receiving and a delivery tube leading from the station to a point near the track, a holder at the outer end of the delivery tube to receive the container passing therethrough, and a combined catcher and deliverer mounted upon the car to

deliver a container therefrom to the receiving tube and to take up the container from the holder of the delivery tube.

3. Apparatus for the interchange of matter between a station and a moving car, the same comprising a receiving and a delivery tube leading from the station to a point near the track, a holder at the outer end of the delivery tube for receiving a container passing therethrough, a spreader arranged near and opposite the outer ends of the two tubes, and a combined catcher and deliverer mounted upon the car and comprising two jaws for receiving the container between them, said jaws being separated by the spreader to release the container which is delivered to the receiving tube and said jaws closing upon the container held in place for delivery by the beforementioned holder after clearing the spreader.



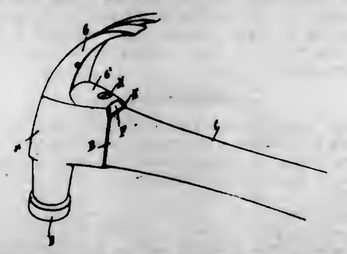
4. In apparatus for the interchange of matter between a station and a moving car, a delivery tube having a bend near its outer terminal for retarding the speed of the container passing therethrough, and a holder at the outer end of such tube to receive the container passing therethrough.

5. In apparatus for the interchange of matter between a station and a moving car, the combination of a delivery tube adapted to have a container passing therethrough, and a holder at the end of the delivery tube to receive the container, said holder comprising a pivoted member having a portion forming a stop which is adapted to extend across the path of the tube to arrest the delivery of a container during the time that a container is gripped between the members of the holder.

[Claims 6 to 12 not printed in the Gazette.]

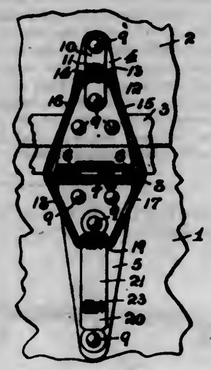
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1,042,984. COMBINATION-TOOL. JOSEPH STAUDER, Mount Vernon, N. Y. Filed Dec. 16, 1911. Serial No. 666,174. (Cl. 145—3.)



A combination tool, comprising a handle, a head disposed upon one end of the handle and having, on one side, a dovetailed groove extending in the direction of the length of the handle, and further provided with an opening which extends through the base of said groove at a point adjacent the inner end of the head, an interchangeable tool member having a dovetailed tongue on its base, and provided with an opening through said base, and a fastening member extending through said openings of the tool member and the head and into the material of the handle.

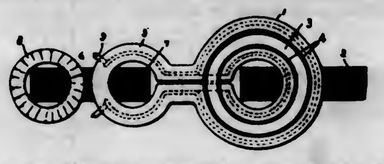
1,042,985. STAY-HINGE. PETER J. STREUBEL, Newark, N. J. Filed Jan. 21, 1911. Serial No. 603,862. (Cl. 16—104.)




A stay-hinge for trunks, boxes and the like, comprising a pair of hinged sections, a tongue struck up out of one of said hinge-sections, a bearing-portion connected with said tongue, a frame-like stay pivotally mounted at one end in said bearing-portion, a tongue struck up out of the other hinge-section, said last-mentioned tongue having bent parts so as to form a guide, said frame-like stay having a bar-like member slidably disposed in said guide, and one of said bent portions of said last-mentioned tongue forming a stop with which said bar-like member is adapted to be brought in engagement for limiting the sliding movement of said frame-like stay and retaining said hinge-sections in their open relation.

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1,042,986. INDUCTION-FURNACE. CHARLES P. STEINMETZ, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed July 26, 1911. Serial No. 640,627. (Cl. 204—64.)



1. In an induction furnace, the combination of a magnetic core, a low resistance winding on said core adapted to act as a charge-containing furnace chamber, and an insulating lining for said chamber.

2. In an induction furnace, the combination of a step-down transformer, the low voltage secondary being extended to form a single turn primary for a second transformation and adapted to support a charge to constitute a secondary circuit with respect thereto, and means for insulating said charge from the primary.

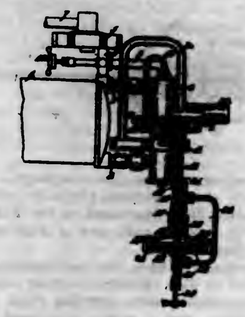
3. In an induction furnace, the combination of a magnetic core, a metallic crucible surrounding the same constituting a primary winding and adapted to contain a charge constituting the secondary winding, and means for supplying to said primary winding a variable current of low voltage and high amperage.

4. In an induction furnace, the combination of a magnetic core, means for supporting a charge constituting a winding on said core, and a single turn primary winding of low resistance located in close inductive relation to said charge.

5. In an induction furnace, the combination of a single turn primary, consisting of a metallic crucible adapted to contain a furnace charge, and means for insulating said charge from the crucible.



1,042,987. HYDROCARBON-GENERATOR. JOSEPH STUBBMAN, Covington, Ky., assignor to The Incandescent Light & Stove Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Apr. 18, 1910. Serial No. 556,039. (Cl. 158—58.)



1. In a device of the class described, a generator, a service system supplied therefrom, a vapor generating sub-burner having a fuel inlet member, a vapor conduit communicating with the generator, a needle valve therein adjacent to said fuel inlet member adapted to deliver vapor and entrain air into said fuel inlet member for supplying fuel to the sub-burner, and a generator pressure actuated device connected to the needle valve, whereby the withdrawal of varying quantities of fuel for service automatically adjusts the needle valve to control the quantity and quality of the fuel mixture supplied to the sub-burner.

2. In a device of the class described, a generator, a service system supplied therefrom, a sub-burner having a fuel inlet member, a vapor conduit communicating with the generator, a diaphragm pressure actuated device, a needle valve adjacent the fuel inlet of the sub-burner, the stem of said valve engaging one side of the diaphragm and controlling the outlet of said vapor conduit, to deliver vapor and entrain air into the fuel inlet for supplying the sub-burner, and a fluid conduit affording communication between the other side of said diaphragm and the generator, whereby the withdrawal of varying quantities of fuel for service automatically adjusts the needle valve to control the quantity and the quality of the fuel mixture supplied to the sub-burner.

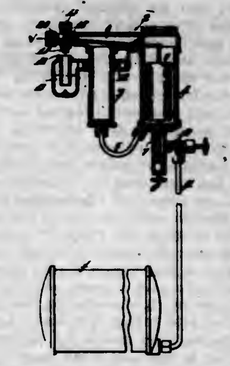
3. In a device of the class described, a generator and liquid hydro-carbon tank connected at the top and bottom, a sub-burner for the generator having a fuel inlet member, a vapor conduit communicating with the generator, a needle valve therein arranged adjacent the inlet member for delivering vapor and entraining air into said inlet for supplying fuel to the sub-burner, a pressure actuated device operatively arranged in connection with said vapor conduit and connected to said needle for moving the same, a second vapor conduit communicating with the generator and having a needle valve therein, and a fuel service conduit adjacent said needle valve for receiving mixed vapor and air, whereby the size of the sub-burner flame, as well as the volume of vapor and quality of the fuel mixture supplied to the sub-burner are automatically controlled and proportionately regulated by the withdrawal of varying quantities of fuel for service, which determines the vapor pressure in the tank and generator.

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1,042,988. HYDROCARBON-VAPOR-GENERATOR CONTROL. JOSEPH STUBBMAN, Covington, Ky., assignor to The Incandescent Light & Stove Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Apr. 18, 1910. Serial No. 556,040. (Cl. 158—58.)

1. In a device of the class described, a generator, a sub-burner, a mixer connected to the sub-burner, a valve communicating with the generator for entraining air and vapor into the mixer, and float actuated means for operating said valve, and means to prevent said valve from closing entirely.

2. A hydro-carbon vapor generating apparatus comprising two chambers communicating at the top and bottom, means for supplying liquid hydro-carbon thereto, a sub-burner, a valve communicating with the upper portion of said chambers and adapted to control the supply of vapor to the sub-burner, a float in one of said chambers, and a lever operatively connected to said valve and float.



3. In a device of the class described, two chambers communicating at the top and bottom, a sub-burner for one of said chambers, a float in the other chamber, a valve communicating with one of said chambers for controlling the supply of vapor to the sub-burner, and means operatively connecting said float and valve.

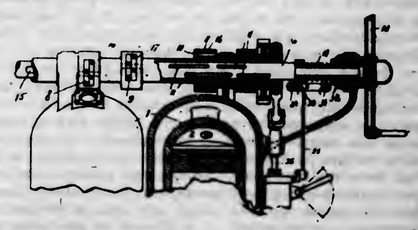
4. In a device of the class described, two chambers communicating at the top and bottom, a sub-burner for one of said chambers, a float in the other chamber, a valve communicating with one of said chambers for controlling the supply of vapor to the sub-burner, means operatively connecting said float and valve, and a hydro-carbon reservoir communicating with the lower portion of said chambers.

5. In a device of the class described, two chambers communicating at the top and bottom, a sub-burner for one chamber, a float in the other chamber, a needle valve communicating with one of said chambers for controlling the supply of vapor to the sub-burner, means connecting said float and needle valve for simultaneously moving them in the same direction, a hydrocarbon tank communicating with said chambers, and means for adjustably supporting the float, whereby a minimum flame may be maintained at the sub-burner when the service burners are shut off.

[Claims 6 to 10 not printed in the Gazette.]

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1,042,989. REVERSING-GEAR FOR MULTIPLE-CYLINDER COMBUSTION-ENGINES. JOSEPH VOLLMER, Berlin, Germany. Filed Feb. 21, 1911. Serial No. 609,877. (Cl. 123—41.)



1. Reversing gear for multiple cylinder combustion engines consisting of a hollow cam shaft, recesses in said cam shaft, in said recesses cams pivoted so as to swivel

in a plane at right angles to the axis of the cam shaft, in said hollow cam shaft a cam controlling rod axially displaceable, means for preventing the rotation of said rod in the cam shaft, said cam controlling rod having axial thrust cams adapted to operate said swiveling cams and projecting them from their recesses in the cam shaft into the range of the valve lever rollers and returning them into said recesses.

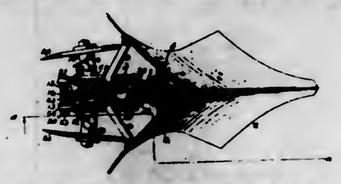
2. Reversing gear for multiple cylinder combustion engines consisting of a hollow cam shaft, recesses in said cam shaft, in said recesses cams pivoted so as to swivel in a plane at right angles to the axis of the cam shaft, in said hollow cam shaft a cam controlling rod axially displaceable, means for preventing the rotation of said rod in the cam shaft, said cam controlling rod having axial thrust cams adapted to operate said swiveling cams and projecting them from their recesses in the cam shaft into the range of the valve lever rollers and returning them into said recesses, the ahead and the respective astern cam being formed in one piece and representing a twin cam and operated together by said rod, one of the two cams being turned into the range of the valve lever roller.

3. Reversing gear for multiple cylinder combustion engines, consisting of hollow cam shafts, recesses in each of said cam shafts, in said recesses cams pivoted so as to swivel in a plane at right angles to the axis of the cam shaft, in each of said hollow cam shafts a cam controlling rod axially displaceable, means for preventing the rotation of said rod in the cam shaft, each of said cam controlling rods having axial thrust cams adapted to operate said swiveling cams and projecting them from their recesses in the cam shaft into the range of the valve lever rollers and returning them into said recesses, the ahead and the respective astern cam being formed in one piece and representing a twin cam and operated together by said rod, one of the two cams being turned into the range of the valve lever roller, the cam shafts of a four cycle engine being coupled so as to be independent of each other with regard to their axial displacement.

4. Reversing gear for multiple cylinder combustion engines consisting of a hollow cam shaft, recesses in said cam shaft, in said recesses cams pivoted so as to swivel in a plane at right angles to the axis of the cam shaft, in said hollow cam shaft a cam controlling rod axially displaceable, means for preventing the rotation of said rod in the cam shaft, said cam controlling rod having axial thrust cams adapted to operate said swiveling cams and projecting them from their recesses in the cam shaft into the range of the valve lever rollers and returning them into said recesses, the ahead and the respective astern cam being formed in one piece and representing a twin cam and operated together by said rod, one of the two cams being turned into the range of the valve lever roller, the two controlling rods of a four cycle engine, moving in two cam shafts, axially displaced by rotatable screw sockets, a gear coupling between said screw sockets, a hand wheel on one socket operating this socket and by the gear coupling also the other socket, an index arrangement indicating the respective positions of the rod.

5. Reversing gear for multiple cylinder combustion engines consisting of a hollow cam shaft, recesses in said cam shaft, in said recesses cams pivoted so as to swivel in a plane at right angles to the axis of the cam shaft, in said hollow cam shaft a cam controlling rod axially displaceable, means for preventing the rotation of said rod in the cam shaft, said cam controlling rod having axial thrust cams adapted to operate said swiveling cams and projecting them from their recesses in the cam shaft into the range of the valve lever rollers and returning them into said recesses, said axial thrust cam gears having a certain play, adapted to delay the admission of the fuel from the fuel pump into the fuel intake valve until the intake cam has been moved into the range of its respective rollers for the ahead and astern motions respectively, and to entirely shut off such supply during the compressed air periods for either ahead or astern motions, the rest and idle run of the engine and means for controlling the fuel supply.

1,042,990. SEEDING-MACHINE. LEWIS E. WATERMAN, Rockford, Ill., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Apr. 11, 1911. Serial No. 620,422. (Cl. 111—6.)



1. In a seeding machine, the combination with a support, of a pair of disk carriers pivotally mounted on the support, covering disks journaled on the disk carriers, on a substantially upright axis, and a yielding connection between the disk carriers.

2. In a seeding machine, the combination with a support, of a pair of disk carriers pivotally mounted on the support on a common axis, covering disks journaled on the disk carriers, and a spring interposed between the disk carriers and bearing against the same.

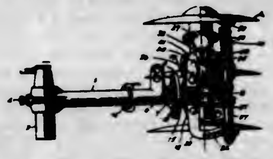
3. In a seeding machine, the combination with a support, of a pair of pivotally connected disk carriers, covering disks journaled on the carriers, and a spring interposed between and bearing against the carriers to urge the same apart.

4. In a seeding machine, the combination with a support, of a pair of swinging disk carriers, a pivot for the carriers on which they have a sliding up and down movement, a spring on the pivot bearing against the carriers, and disks mounted on the carriers.

5. In a seeding machine, the combination with a support, of a pair of swinging disk carriers, a pivot for the carriers on which they have a sliding up and down movement, a spring on the pivot bearing against the carriers to urge them downwardly, a spring interposed between the disk carriers to urge the same apart, and disks mounted on the carriers.

[Claims 6 and 7 not printed in the Gazette.]

1,042,991. DISK CULTIVATOR. LEWIS E. WATERMAN, Rockford, Ill., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Dec. 19, 1911. Serial No. 666,860. (Cl. 97—87.)



1. In a device of the character set forth, the combination with a beam, of a bracket comprising angularly disposed arms, one of which extends longitudinally of the beam, clamping means carried thereby and surrounding the beam, the other arm being journaled on the rear end of the beam, and a disk gang mounted on the bracket.

2. In a device of the character set forth, the combination with a beam, of a bracket comprising angularly disposed arms, one of which extends longitudinally of the beam and is connected at its front end thereto, the other being journaled on the rear end of the beam, means mounted on the latter arm for holding the bracket against turning and in different adjusted positions, and a disk gang mounted on the bracket.

3. In a device of the character set forth, the combination with a beam having an upstanding segment, of a bracket journaled on the beam and having connections therewith on opposite sides of the segment, holding means carried by the bracket and engaging the segment for securing said bracket in different adjusted positions, and a disk gang mounted on the bracket.

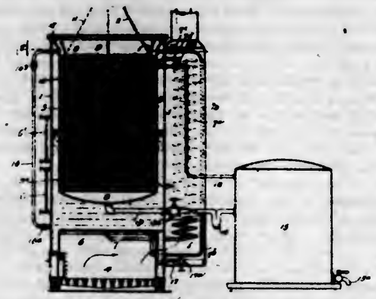
4. In a device of the character set forth, the combination with a beam having an upstanding segment at its rear end, of a bracket comprising angularly disposed arms, one of which extends longitudinally of the beam, clamping means carried by said arm and surrounding said beam on one side of the segment, the other arm being journaled on the beam on the opposite side of the segment, a holding bolt mounted on the latter arm and adjustably engaging the segment, said bracket furthermore having a substantially vertical journal sleeve, and a disk gang having a pivot element journaled on the sleeve.

5. In a device of the character set forth, the combination with a bracket, of means for mounting the bracket on a beam, said bracket having a substantially vertical journal bearing, a disk carrier including a pivot element journaled in the bracket bearing, arms extending from the pivot element above and below said bearing, and a connection between the arms at one side of the pivot element, means for securing the carrier in different positions, and disks journaled on the carrier.

[Claims 6 and 7 not printed in the Gazette.]



1,042,992. PROCESS OF TREATING THE CANDELILLA-PLANT FOR THE RECOVERY OF WAX. WINFIELD S. WATSON, Memphis, Tenn. Filed July 22, 1911. Serial No. 639,963. (Cl. 87—19.)



1. The herein described process of recovering wax from the candelilla plant, which consists in subjecting the plants to a dry heat of approximately 300° F., whereby the moisture in the plant is changed into steam for expelling the wax, subsequently passing dry steam of a greater temperature downwardly through the mass of plants for mechanically carrying downwardly portions of the wax adhering to the plants, and subsequently passing a stream of hot water downwardly through the plants for washing off any remaining portions of the wax.

2. The herein described process of recovering wax from the candelilla plant, which consists in subjecting the plants to a dry heat, whereby the moisture in the plant is changed into steam for expelling the wax, subsequently passing dry steam of a greater temperature downwardly through the mass of plants for mechanically carrying down portions of the wax adhering to the plants, and subsequently passing a stream of hot water downwardly through the plants for washing off any remaining portions of the wax.

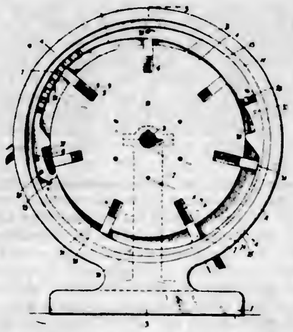
1,042,993. RAIL CHAIR AND FASTENER. HENRY HARRY WIGGINS, Pittsburgh, Pa. Filed Mar. 1, 1912. Serial No. 680,872. (Cl. 238—6.)

1. In a rail chair, the combination with rails, of an oblong plate adapted to support rails, said plate having dove-tail tapering grooves formed therein with one of said grooves tapering in an opposite direction from the other of said grooves, the walls of said grooves having oppositely disposed seats formed therein, fasteners having dove-tail tapering tongues adapted to engage in the grooves of said plate, the tongues of said fasteners being cut away, locking bars arranged in the seats of said plate and extending transversely of the cut away portions of the tongues of said fasteners, and spikes coöperating with said fasteners in retaining said rails upon said plate.



2. In a rail chair, the combination with parallel rails, of an oblong plate adapted to support rails, said plate having dove-tail tapering grooves formed therein with one of said grooves tapering in an opposite direction from the other of said grooves, the walls of said grooves having oppositely disposed seats formed therein, fasteners having dove-tail tapering tongues adapted to engage in the grooves of said plate, the tongues of said fasteners being cut away, locking bars arranged in the seats of said plate and extending transversely of the cut away portions of the tongues of said fasteners, spikes coöperating with said fasteners in retaining said rails upon said plate, bracing members arranged between said rails, and a tapering dove-tail tongue carried by one of said members and engaging in the other of said members.

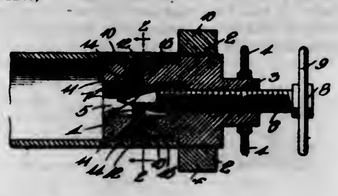
1,042,994. ROTARY ENGINE. JAMES G. WILSON, Coalwood, W. Va., assignor of one-third to Carl P. Mahaffey, Premier, W. Va. Filed May 8, 1912. Serial No. 695,959. (Cl. 121—74.)



1. The combination with a ring-like stator having the interior wall thereof formed with cam surfaces and notches in the edges of said walls, of an inlet port and an outlet port for the stator, cam rings formed of sections corresponding to the cam surfaces of the stator, and having projections fitting in the grooves in the interior wall of said stator, a rotor turning within the stator, and comprising a hub portion and side members carried thereby, and pistons sliding in grooves formed in the rotor.

2. In a rotary engine the combination of a ring-like stator having an interior wall with eccentric cam-like surfaces, a rotor within the stator and steam spaces formed between the rotor and the stator, said stator having an inlet port leading to one of said steam spaces, an outlet leading from the other steam spaces, and a channel connecting the two steam spaces, interlocking packing rings corresponding in shape to the cam surfaces of the stator and arranged at the sides of said surfaces, transversely disposed packing plates formed of sections, springs normally tensioned in the packing plates, and spring pressed pistons slidably mounted in radial grooves in the rotor.

1,042,995. DIE-STARTER. JOHN J. YOUNG, Denver, Colo. Filed Apr. 27, 1910. Serial No. 557,894. (Cl. 10—127.)



1. In a die starter, a body portion having a part adapted to enter a pipe to be threaded, while one part of the body portion extends beyond said pipe and is threaded to receive a die, the threaded part of the body portion being of the same diameter as the pipe to be threaded, and means mounted on and carried by the body portion for locking the latter against turning in the pipe during the performance of the thread-starting function.

2. A plug having a portion adapted to enter a pipe and an enlarged threaded portion extending beyond the pipe-entering portion, adapted to receive a die, the die-holding portion being of the same diameter as the outside diameter of the pipe to be threaded, a stem threaded in the plug, and means carried by the plug and arranged to be actuated by the stem for locking the plug within the pipe.

3. In a die starter, a body portion adapted to be engaged with the end of a pipe to be threaded, fastening pins arranged in said body portion, means to project said pins into operative engagement with the pipe to hold the starter in position thereon and a threaded die receiving portion formed on said starter whereby a die is fed into operative engagement with a pipe to cut the threads thereon.

4. In a die starter a body portion adapted to be engaged with a pipe to be threaded, fastening pins arranged in said body portion, an expanding screw adapted to force said pins outwardly and into engagement with the inner surface of the pipe whereby the starter is held in engagement therewith, means to limit the movement of said pins and an enlarged threaded die receiving portion whereby the die may be fed forward into operative engagement with the outer surface of a pipe for the purpose of cutting threads thereon.

5. A thread-starter for pipe, comprising a plug adapted to extend into the end of said pipe, a threaded stem arranged to be screwed in and out of said plug a short distance, cam dogs mounted on the end of said plug that extends into the pipe, and arranged to be actuated by said stem to cause said dogs to engage and to grip the inner surface of said pipe, a threaded collar portion on the outer end of said plug of substantially the same diameter as the outside diameter end of said pipe, and arranged to bear against the end of said pipe and arranged to receive a die adapted to cut a thread on said pipe.

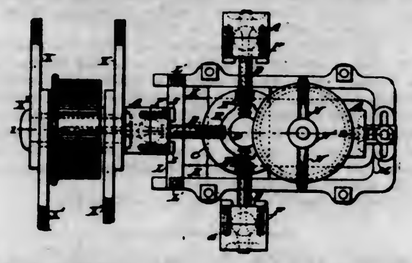
[Claims 6 to 10 not printed in the Gazette.]

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1,042,996. CHAIN-LUBRICATING DEVICE. JOSEPH M. BARRETT, Fostoria, Ohio. Filed Jan. 26, 1911. Serial No. 604,922. (Cl. 184—15.)

1. In combination with a moving chain having a chain pin formed with a longitudinal opening therein having radial outlets, a lubricating device comprising a reciprocating support, a lubricant reservoir mounted thereon, a member mounted thereon having a passageway therethrough permitting communication between said reservoir and said opening in said chain pin and adapted to be engaged by said chain pin to move said support away from said chain, means for forcing the lubricant out through said passageway into said chain pin during said movement of said support, and means for returning said support to its normal position.

2. In combination with a moving chain having a chain pin formed with a longitudinal opening therein communicating with the pin bearing, a lubricating device comprising a supporting member, a lubricant reservoir mounted thereon, a member mounted upon said supporting member and having a passageway therethrough communicating with said reservoir and with the interior of said chain pin and adapted to be engaged by said moving chain pin, whereby said lubricating device is moved away from said chain, means for forcing the lubricant into said chain pin during said movement, and means for returning said lubricating device to normal position.



3. In combination with a moving chain having a chain pin formed with a longitudinal opening therein communicating with the bearing of said pin, a lubricating device comprising a supporting member mounted for reciprocation, a lubricant reservoir carried thereon, a member mounted upon said supporting member and having a passageway therethrough communicating with said reservoir and with the interior of said chain pin and adapted to be engaged by said chain pin whereby said lubricating device is given a movement away from said chain, a plunger member positioned to force the lubricant through said passageway into said chain pin during said movement of the lubricating device, and means for returning the lubricating device to its normal position.

4. In combination with a moving chain having a chain pin formed with a longitudinal opening therein communicating with the bearing of said pin, a lubricating device comprising a supporting member mounted for reciprocation, a reservoir carried thereon, a member mounted upon said supporting member and having a passageway therethrough communicating with said reservoir and with the interior of said chain pin and adapted to be engaged by said chain pin, whereby the lubricating device is given a movement away from said chain, an adjustable plunger member positioned to force the lubricant through said passageway into said chain pin during said movement of the lubricating device, and means for returning the lubricating device to its normal position.

5. A chain lubricating device comprising a central supporting member having a passageway therethrough mounted for reciprocation and adapted to be moved in one direction by engagement with a moving chain, means for moving said central supporting member in the opposite direction, hollow arms mounted radially on said central supporting member, a lubricant reservoir mounted on said supporting member and having communication through said passageway with said hollow arms, and means for forcing the lubricant into the chain during the reciprocating movement of said central supporting member.

[Claims 6 to 14 not printed in the Gazette.]

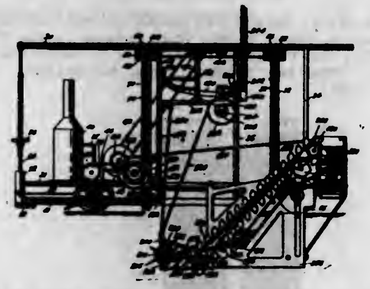
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1,042,997. MACHINE FOR DIGGING TRENCHES. SALUSTE BELANGER, Salem, Mass. Filed Nov. 15, 1911. Serial No. 660,493. (Cl. 37—11.)

1. A trench digging machine, having in combination, a slidably mounted frame provided with a series of spikes at its lower end, a pivotally supported frame having spikes depending therefrom, and means for intermittently raising said frames.

2. A trench digging machine, comprising a shaft, a pair of bevel gears on said shaft, a frame, a shaft journaled in said frame and provided with a pair of bevel gears, a spiked cylinder mounted on said last mentioned shaft, a pair of shafts each provided with a bevel gear on each end thereof meshing with one of the gears of the two previously mentioned shafts, and means for intermittently raising and lowering said cylinder.





3. A trench digging machine, comprising a driving shaft, a pair of oppositely inclined conveyers driven from said shaft, a rotary pick, a pair of shafts connected to rotate the pick, connections between said pair of shafts and said driving shaft, and a conveyer arranged to convey the material loosened by said pick and deliver said material to said inclined conveyers.

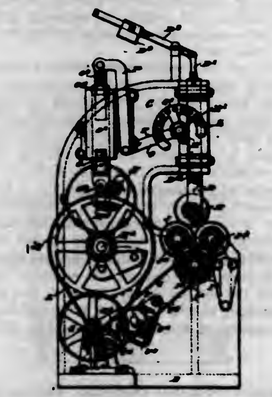
4. A trench digging machine, comprising a slidably mounted pick, a pivotally supported pick, a spiral, and means for rotating said spiral to raise said picks, said picks being arranged to fall by gravity when freed from said spiral.

5. A trench digging machine, comprising a slidably mounted pick, a frame provided with spikes, a rotary pick carried by said frame, and means for raising said picks.

[Claim 6 not printed in the Gazette.]

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1,042,998. PIPE-CUTTING MACHINE. LAWRENCE R. BLACKMORE, McKeesport, Pa. Filed Feb. 4, 1911. Serial No. 606,586. (Cl. 164—60.)



1. In a machine, substantially as described, the combination of a framing, a pair of bed rollers for supporting the work to be operated on, means for driving these rollers whereby to turn the said work, a cutting disk opposing the said rollers, a slide carrying said disk and having a toothed rack, counterbalancing devices for lifting or readjusting said slide, a shaft having a pinion or gear meshing with the rack of the slide, a segment secured to said shaft, a rocker, means securing said segment adjustably to the rocker whereby the rocker may be secured in any desired relation to the pinion or gear, a link connected at one end with the rocker, an operating slide to which said link is connected, a roller at the lower end of said slide, a cam operating upon said roller to elevate the slide, and means for operating the cam, substantially as set forth.

2. In a machine, substantially as described, the combination of a framing, a pair of bed rollers for supporting the work to be operated on, means for driving these rollers whereby to turn the said work, a cutting disk opposing the said rollers, a slide carrying said disk and having a toothed rack, counterbalancing devices for lifting or readjusting said slide, a shaft having a pinion or gear meshing with the rack of the slide, a segment secured to said shaft, a rocker, means securing said segment adjustably to the rocker whereby the rocker may be secured in any desired relation to the pinion or gear and means for operating the rocker, substantially as set forth.

3. In a machine, substantially as described, the combination of a framing, shafts journaled in the framing and projecting at their opposite ends beyond the same, said shafts being spaced apart, rollers opposite each other on their respective ends of the said shafts, and grooved circumferentially, coöperating rollers on the opposite ends of said shafts, means for turning the said shafts, a cutting disk arranged opposite the grooved rollers, a slide carrying said cutting disk and means for operating the slide, substantially as set forth.

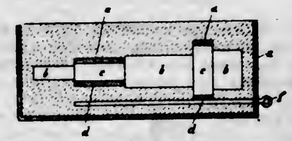
4. The combination in a machine, substantially as described, of a main frame, a drive shaft, a master shaft geared with the drive shaft, supporting rollers for the work to be operated on, a cutter opposite said rollers, a slide carrying said cutter, gearing on one side of the main frame between the master shaft and the supporting rollers, a cam for operating the cutter shaft and gearing between the master shaft and said cam and on the opposite side of the main frame from the said first gearing, substantially as set forth.

5. The combination, substantially as herein described, of a cutter, a pinion or gear for moving the cutter in the operative stroke of the latter, means for operating the pinion or gear to a determined extent, and means for adjusting the pinion or gear circumferentially with respect to its operating means whereby the cutter may be operated to the determined extent and the limits of its movement may be varied substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

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1,042,999. PROCESS OF HARDENING STEEL POOR IN CARBON. CARL BURIAN, Berlin, Germany, assignor to Offene Handelsgesellschaft Gebrüder Schubert, Berlin, Germany. Filed Mar. 7, 1912. Serial No. 682,108. (Cl. 148—40.)



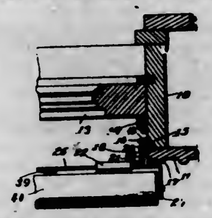
The hereindescribed process of hardening steel bodies poor in carbon at predetermined places only, which consists in packing the steel body provided at one or more predetermined places to be hardened with a hardening mass in pure burned silicious sand, and in subsequently highly heating the packed steel body.

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1,043,000. WINDOW-SHADE HANGER. WILLIAM B. CASWELL, Newport, R. I., assignor of one-half to Annie E. Caswell, Newport, R. I. Filed Apr. 28, 1911. Serial No. 623,918. (Cl. 156—23.)

1. In a curtain fixture a strip adapted to be attached to a window and provided with a laterally directed guide rib upon one edge and with the other edge folded over to form a guard rib, a bracket comprising a body having a guide flange at one edge for engaging the guide rib of the strip and with an intermediate offset for engaging over the

guard rib and spacing the body of the bracket from the strip whereby the heads of the holding devices of the strip are not engaged by the bracket in its movements, and a shade roller support adjustably movable upon the bracket.



2. In a curtain fixture a strip adapted to be attached to a window, a bracket slidable upon said strip and having a lateral projection with the edges turned over to form inwardly directed guide ribs, the outer portion of said projection being curved outwardly between the guide ribs and the rear left without the curvature and merging into the curved portion to form a straight entrance portion to the space between the guide ribs, and a shade roller support including a resilient plate initially uncurved and adapted to be forced between the guide ribs at the straight or entrance end and bearing against the outwardly curved portion of the bracket and curved outwardly by contact with the curved portion of the bracket to frictionally support the same.

3. In a curtain fixture a bracket having a lateral projection with the edges of the projection directed inwardly to form outwardly extending guide ribs, the outer portion of said projection being curved outwardly between the guide ribs and the rear portion left uncurved to form a straight entrance to the space between the guide ribs, and a shade roller support including a resilient plate initially uncurved and adapted to be inserted into the straight portion of the socket and forced into engagement with the curved portion of the same and thereby correspondingly curved and held in position by friction.

4. In a curtain fixture, a bracket having a lateral projection with outwardly extending guide ribs at its edges, said projection being curved outwardly between the guide ribs, and a shade roller support including a resilient plate initially uncurved and engaging between the guide ribs and bearing against the outwardly curving portion of the bracket projection and frictionally supported thereby, said plate having a tongue at its free end directed outwardly for yieldingly engaging against the shade roller, and assisting in maintaining the shade support in position.

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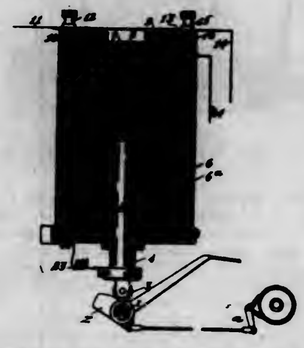
1,043,001. EMERGENCY MEANS FOR ELECTRICAL DISTRIBUTION SYSTEMS. JOHN H. CROSIER, Philadelphia, Pa. Filed Apr. 12, 1911. Serial No. 620,579. (Cl. 175—282.)



In combination, a main-switch and an auxiliary-switch having a movable contact-member and a plunger provided with a recess, said main-switch having a contact-arm adapted to engage contacts in circuit with said auxiliary-switch and to engage the recess of said plunger, substantially as and for the purposes set forth.

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1,043,002. BRAKE-ACTUATED MOTOR CONTROL. HENRY P. DODGE, Toledo, Ohio, assignor to The Ohio Electric Car Company, Toledo, Ohio, a Corporation of Ohio. Filed Dec. 1, 1911. Serial No. 663,209. (Cl. 172—179.)



1. In a device of the described character, a motor circuit, devices which control the motor circuit, a control circuit carrying a current which actuates said controlling devices, a controller in said control circuit, means for mechanically opening said control circuit and means governed solely by the controller for closing said control circuit.

2. In a device of the described character, a motor circuit, an electric motor therein; a brake-mechanism; a control circuit which includes devices for governing the motor circuit, a controller electrically connected with said governing devices, a make-and-break device, a switch, an electromagnet, and an armature; devices controlled by the movement of the brake-mechanism for opening said make-and-break device— to open said motor circuit—and for simultaneously actuating said switch to energize said magnet, whereby the make-and-break device is held open independently of the brake-mechanism.

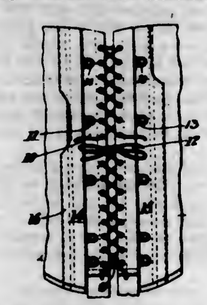
3. In a device of the described character, a motor circuit, a control circuit, means governed by the control circuit for controlling the motor circuit, a controller electrically connected with said governing means, mechanically actuated devices which open but do not close the control circuit, and means governed by the controller for closing the control circuit independently of circuit opening devices.

4. In a device of the described character, a brake-mechanism, a solenoid magnet, a plunger, means actuated by the movement of the brake-mechanism for lifting the plunger in the solenoid, a motor-controlling circuit, in said circuit a make-and-break device which is opened by said movement of the plunger, and connections whereby the opening of said circuit shunts the circuit through the solenoid to attract the plunger to and hold the make-and-break device open independently of the movement of the brake-mechanism.

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1,043,003. FRONT-LACED CORSET. VICTOR A. FABGRE, New York, N. Y., assignor of one-half to Kaspar G. Faegre, New York, N. Y. Filed Mar. 2, 1911. Serial No. 615,993. (Cl. 2—74.)

1. An attachment for corsets having usual complemental separable fastenings at the front opening, comprising a pair of corset stays having fastenings on their most remote edges adapted to be readily engaged with and disengaged from said complemental separable fastening members at the opposite edges of the front opening of the corset, and means to permanently and adjustably connect said stays to one another, the whole constituting an attachment to be readily applied to the corset for increasing the size thereof and rendering the corset adjustable in front, and adapted to be readily removed from the corset to permit the use of the corset with its usual complemental fastenings without such attachment.

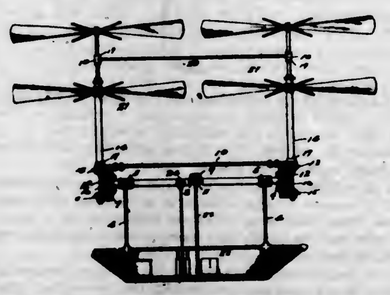


2. A front lacing member for corsets having usual complemental fastenings at the front opening, comprising eyeleted strips, a pair of stays connected with the eyeleted strips, attaching members on said stays adapted to be readily engaged with and disengaged from the said complemental separable fastening members on opposite edges of the front opening of the corset, and lacings engaging the eyeleted strips and permanently and adjustably connecting said stays, said lacing member being adapted to be readily applied to the complemental separable fastenings of the corset to increase the size thereof, and to be readily removed therefrom to permit the use of the corset with its attached complemental fastenings without the attachment.

3. A front laced attachment for corsets, comprising a pair of stays having fastening devices on their outer edges, eyeleted strips connected to the inner edges of the stays, lacings permanently and adjustably connecting said eyeleted strips and their attached stays, and a pair of independent stays having complemental corset fastenings adapted to be affixed to a corset and to detachably cooperate with the stays on the attachment, whereby the corset may be converted into a front-laced garment and its size increased, and the attachment removed to permit the corset to be used without the attachment.

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1,043,004. AIRSHIP. DAVID ALMA FLANIGAN, Springville, Utah, assignor to Utah Aerial Navigation and Power Company, Springville, Utah. Filed Feb. 14, 1911. Serial No. 608,624. (Cl. 244—19.)



1. In power transmission mechanism, the combination with the basket, rudder and supports, of a shaft mounted therein, and carrying gear wheels upon its outer ends meshing with gear wheels secured at diametrically opposite points, respectively, upon tubular shafts having journaled therein solid shafts, the said pairs of shafts being adapted to be either revolved in opposite directions by the main shaft or to revolve the main shaft in a constant direction, said pairs of shafts being connected at their upper and lower extremities, respectively, by a pair of brace rods secured thereto, blades secured upon said pairs of shafts, and means for adjusting the angle of the pairs of shafts with respect to the body of the machine, said means comprising a rock arm having one end fastened to a sleeve mounted on the main shaft and having pivotally secured to its other end a link, said link being pivoted to an operating lever also pivotally secured to a bracket carried by the base of the body, said bracket being provided with a segment adapted to be engaged by said lever to lock same in adjusted position.

2. In an air ship, the combination with the body, rudder and supports, of a main shaft rotatably journaled in a sleeve carried by said supports, means for rotating said shaft, gears secured upon the outer extremities of said shaft and meshing with gears secured upon the lower ends of pairs of tubular and solid shafts, said tubular shafts having solid shafts journaled therein and having blades mounted upon their upper ends whereby a lifting impact is given the machine, brace rods connecting said tubular shafts at their upper and lower portions and forming a frame of substantially rectangular form, the said pairs of shafts being adapted to be either revolved in opposite directions by the main shaft or to revolve the main shaft in a constant direction, and means for adjusting the angle of the pairs of shafts with respect to the body of the machine.

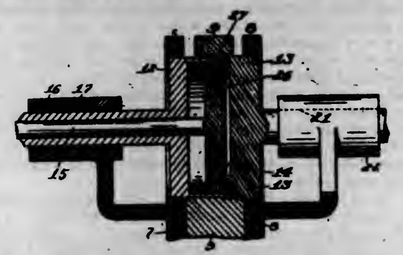
3. In an airship, the combination with the car body and rudder, of a plurality of braces rising therefrom, a sleeve supported by the braces, said sleeve having an enlarged slotted central portion and a drive shaft, brackets secured upon each end of the sleeve, a brace bar connecting said brackets, a sprocket wheel journaled in the enlarged portion of the sleeve, a gear mounted at each end of the shaft, a pair of tubular shafts supported by the brackets and brace bar at right angles to the drive shaft, gears carried thereby meshing with the gears on the drive shaft, solid shafts journaled in the tubular shafts, gears carried by said solid shafts meshing with said drive shaft gears, loose sleeves carried at the upper ends of the solid shafts, a brace rod connecting the two shafts and forming with the lower brace rod a substantially rectangular frame, vanes upon the upper ends of each of the tubular and solid shafts, driving means connected to the sprocket wheel on the sleeve, and means for controlling the ascent and descent of the airship, said means comprising a rock arm mounted upon the sleeve, a link pivotally secured to its outer end, an operating lever pivoted to the other end of the link, a bracket to which the lever is pivoted and a segmental rack carried thereby and adapted to be engaged by a dog upon the lever, the arrangement of the drive and driven shafts being such that the tubular and solid shafts are revolved in opposite directions or that the drive shaft may be revolved by the driven shafts when desired.

4. In an airship, the combination with a basket, of supports rising therefrom, bearings carried by said supports, a sleeve journaled therein, a horizontally disposed shaft in said sleeve, brackets secured to said sleeves, a connecting brace rod for said brackets, a bevel gear mounted on each end of said shaft, vertical shafts rising from said brackets, bevel gears carried thereby meshing with said gears on the horizontal shaft, a brace rod connecting the upper ends of said vertical shafts, blades secured upon said vertical shafts, and means for adjusting the angle of said shafts with respect to the body of the airship.

5. In an airship, the combination with a basket, of supports rising therefrom, a horizontally disposed shaft journaled thereon, gear wheels carried by said shaft, pairs of tubular and solid shafts arranged adjacent said horizontal shaft, gear wheels carried by said tubular and solid shafts meshing with said gears on the horizontal shaft, horizontal brace rods connecting the upper and lower extremities of the vertical shafts, blades carried by said shafts, and means for adjusting the angle of said shafts with respect to the body of the machine.

[Claims 6 and 7 not printed in the Gazette.]

**1,043,005. CAN-HEAD-LINING MACHINE.** JAMES ALFRED GRAY, San Francisco, Cal. Filed Mar. 22, 1911. Serial No. 616,272. (Cl. 113—80.)

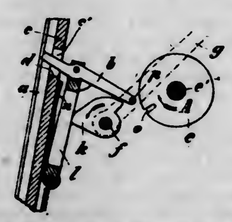


1. A can head lining machine comprising a carrier having a plurality of circular openings therein, each of two diameters forming an interior shoulder or seat for the can head, a plunger for seating a can head against the said shoulder, a plunger of annular form for forcing a lining into the can head while seated against the shoulder, and a disk within the annular plunger for forcing the can head with its lining from its seat when the first plunger recedes, substantially as described.

2. A can head lining machine comprising a carrier having a plurality of circular openings therein, each of two diameters forming an anterior shoulder or seat for the can head, a plunger for seating the can head against the said shoulder, an opposing plunger of annular form for forcing the lining into the can head while seated against the shoulder, a disk within the annular plunger for forcing the can head with its lining from its seat when the first plunger recedes, pockets in the carrier registering with the circular openings therein and one on each side of each circular opening, and means for feeding the linings and can heads to the said pockets to be forced therefrom into the circular openings, substantially as described.

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**1,043,006. COIN-HANDLING APPARATUS.** GEORG FRANZ EDUARD HENNING, Bergedorf, near Hamburg, Germany. Filed Aug. 4, 1910. Serial No. 575,403. (Cl. 133—8.)



1. In a coin-handling apparatus, a series of coin chutes in combination with locking means adapted to hold coins in the chutes, and to be brought into locking position by a coin, and controllers adapted to be locked in position predetermined by said locking means and thereby cause the locking means to release the coin when the controllers are moved to an extent corresponding to the amount of coins passing the chutes.

2. In a coin-handling apparatus, a series of coin chutes in combination with levers adapted to project into the chutes, and rotatable disks adapted to be locked in position by said levers, each disk being provided with a number of perforations into which the levers are adapted to engage when the disks are rotated to an angle corresponding to the amount of coins passing the chutes.

3. In a coin-handling apparatus, a series of coin chutes in combination with levers adapted to project into the chutes, a movable carrier for the levers, rotatable controllers adapted to be locked in position by said levers when the carrier is moved toward the controllers and when the latter are rotated to an angle corresponding to the amount of coins passing the chutes.

4. In a coin-handling apparatus, a series of coin chutes in combination with levers adapted to project into the chutes with one end and provided with a stud at the other end, a movable carrier for the levers, rotatable disks corresponding in number with the chutes and levers and adapted to be locked in position by the disks, each disk provided with perforations into which the studs of the levers are adapted to engage when the carrier is moved toward the disks and when the latter are rotated to an angle corresponding to the amount of coins passing the chutes.

5. In a coin-handling apparatus, a series of coin chutes in combination with levers adapted to project into the chutes, a movable carrier for the levers, a cam engaging the carrier, a spring pressing the carrier against the cam, and rotatable disks provided with perforations near the rim adapted to be engaged by the levers to lock the disks in position.

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**1,043,007. PROCESS FOR OBTAINING THE INNER SECRETIONS OF THE THYROID GLANDS AND OTHER ORGANS IN A PURE STATE.** ERNST HORNNICKEL, Dresden, Germany. Filed Dec. 13, 1907. Serial No. 406,292. (Cl. 167—7.)

A process for obtaining physiologically pure solutions of the inner secretions of organs according to which extracts of these organs in physiologic salt solution which contain a mixture of the colloids of the cellular, blood and secretion albumins are treated with means acting by catalysis and surface reaction only but not in producing chemical compounds with such albumins, by which treatment the typical colloids alone are caused to coagulate whereupon they are separated from the inner secretions which remain in solution.

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**1,043,008. PRODUCTION OF LIGHT.** SAMUEL O. HOFFMAN, San Francisco, Cal. Filed July 17, 1911. Serial No. 638,911. (Cl. 240—1.)



1. A method of producing light from an incandescent source, which consists in separating the luminous radiation from the infra-red radiation, allowing the luminous radiation to radiate freely and directing the infra-red radiation back to the source.

2. A method of producing light from an incandescent body or source, which consists in separating the luminous waves from the non-luminous, allowing the luminous waves to radiate freely and using the non-luminous waves regeneratively.

3. A method of producing light from an incandescent source, which consists in selecting the luminous radiation and directing the non-luminous radiation back to the incandescent source.

4. A method of producing light from an incandescent source, which consists in selecting the luminous radiation, directing the non-luminous radiation back to the incandescent source, and allowing the luminous to radiate freely.

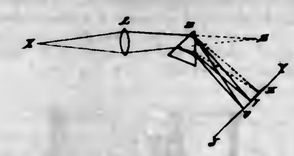


5. The method of producing light, which consists in separating part of the luminous radiation from an incandescent source and reflecting the non-luminous radiation together with a certain amount of red rays back to the incandescent source and transmuting the same to produce a white light.

[Claims 6 to 14 not printed in the Gazette.]

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**1,043,009. PRODUCTION OF LIGHT.** SAMUEL O. HOFFMAN, San Francisco, Cal. Filed Nov. 3, 1911. Serial No. 658,359. (Cl. 240—1.)



1. The method of producing light from an incandescent source, which consists in forming a spectrum of the radiation from the source directing the rays of infra-red portion of the spectrum back to the source, using such portion of the radiation regeneratively and allowing the rays of the luminous portion of the spectrum to radiate freely.

2. The method of producing radiation of desired wave length from a source emitting radiation of various wave lengths, which consists in forming a spectrum of the radiation from the source allowing the rays of that portion of the spectrum of desired wave length to radiate freely, and directing the radiation from the remainder of the spectrum back to the source, and using said radiation regeneratively.

3. The method of producing light from an incandescent source, which consists in forming a spectrum of the radiation from the source directing the rays of the non-luminous portion of the spectrum back to the source, using such portion of the radiation regeneratively, and allowing the rays of the luminous portion of the spectrum to radiate freely.

4. The method of producing luminous radiation from an incandescent source which consists of forming a spectrum of the radiation from the source, allowing the luminous portion of the spectrum to radiate freely for illuminative purposes and converting the non-luminous, longer wave length portion of the spectrum into luminous radiation which is allowed to radiate freely for illuminative purposes.

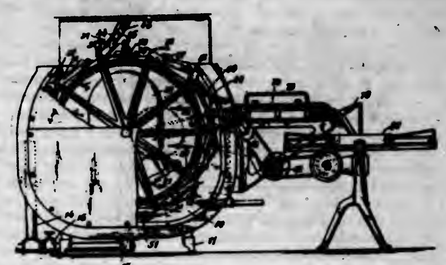
5. The method of producing luminous radiation of desired wave length from an incandescent source emitting waves of various lengths, which consists in forming a spectrum of the radiation from an incandescent source, allowing the portion of the spectrum representing the radiation of the desired wave length to radiate freely, and converting that portion of the spectrum representing the radiation of longer wave length into radiation of desired wave length, and then allowing it to radiate freely in conjunction with the initial freely radiating waves.

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**1,043,010. DISH-WASHING MACHINE.** WILLIAM T. HOOFNAGLE, Glen Ridge, N. J., assignor to Charles F. Frothingham, New York, N. Y. Filed Mar. 25, 1912. Serial No. 685,982. (Cl. 141—9.)

1. In a dish washing machine: a suitable tank to contain water; a carrier, and means to move the same through said tank; suitable dish retaining means supported by said carrier; an opening cam, and a closing cam; and means carried by said dish retaining means adapted to engage said opening and said closing cams to respectively open and close the said dish retaining means.

2. In a dish washing machine: a suitable tank to contain water; a carrier, and means to move the same through said tank; dish retaining means including a dish supporting frame, and a cover pivotally connected thereto; an opening cam, and a closing cam; and a cam roller carried by said pivoted cover adapted to engage said opening cam and said closing cam to respectively open and close the said dish retaining means.



3. In a dish washing machine: a suitable tank to contain water; a carrier, and means to move the same through said tank; dish retaining means including a dish supporting frame, and a cover pivotally connected thereto; an opening cam, and closing cam; and a cam roller carried by said pivoted cover at one end thereof, and a supplementary cam roller carried by said pivoted cover at the other end thereof, the said cam roller being adapted to engage the said opening and closing cams and the said supplementary roller the said closing cam.

4. In a dish washing machine: a suitable tank to contain water; a carrier, and means to move the same through said tank; dish retaining means including a dish supporting frame, and a cover pivotally connected thereto; an opening cam and a closing cam secured to said tank; a closing roller secured to said tank; and a cam roller carried by said pivoted cover at one end thereof, and a supplementary cam roller carried by said pivoted cover at the other end thereof, the said cam roller being adapted to engage the said opening and closing cams and the said supplementary roller the said closing cam, and the said cover being further provided with an upper cam surface adapted to engage with said closing roller.

5. In a dish washing machine: a suitable tank to contain water; a carrier, and means to move the same through said tank; suitable dish retaining means supported by said carrier and including a dish supporting frame, a rigid frame pivotally connected thereto, and a flexible dish retaining top supported by said rigid frame; an opening cam, and a closing cam; and means carried by said dish retaining means adapted to engage said opening and said closing cams to respectively open and close the said dish retaining means.

[Claims 6 to 10 not printed in the Gazette.]

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**1,043,011. DRYING APPARATUS.** WILLIAM T. HOOFNAGLE, Glen Ridge, N. J., assignor to Charles F. Frothingham, New York, N. Y. Original application filed Mar. 18, 1912, Serial No. 684,540. Divided and this application filed Apr. 15, 1912. Serial No. 690,800. (Cl. 34—12.)

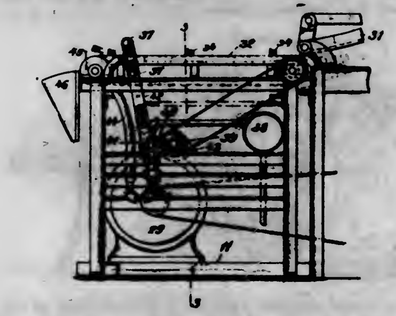
1. Drying apparatus, comprising: means to simultaneously direct air to both sides of an article to be dried; and means to periodically supply air under pressure to said air directing means.

2. Drying apparatus, comprising: a perforated U-shape pipe; a valve device controlling the supply of air to the said U-shape pipe; and a cam adapted to periodically actuate said valve device to supply air to the said U-shape pipe.

3. Drying apparatus, comprising: a suitable table; means to move the articles to be dried over said table; a perforated U-shape pipe embracing a portion of said table; a valve device controlling the supply of air to said U-shape pipe; and a cam timed to the movement of the articles over said table and adapted to periodically actuate said valve device to supply air to the said U-shape pipe.

4. Drying apparatus, comprising: means to direct air to an article to be dried; means to periodically supply air

under pressure to said air directing means; and means to oscillate said air directing means.

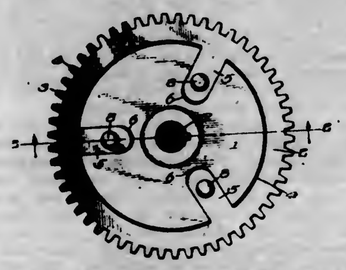


5. Drying apparatus, comprising: a suitable table; means to move the articles to be dried over said table; means to direct air toward an article when it arrives at a particular portion of the table; and means to move said air directing means over the article in a direction counter to the movement of the said article and to then return the said air directing means.

[Claims 6 to 10 not printed in the Gazette.]

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1,043,012. GEAR. HARRISON L. HUDSON, Chicago, Ill., assignor of one-half to William H. Luthardt, Chicago, Ill. Continuation of application Serial No. 617,958, filed Mar. 30, 1911. This application filed July 20, 1911. Serial No. 639,560. (Cl. 74—28.)



1. A gear including spaced apart toothed and body members; a body of sound deadening material between said members and permitting movement between said members; and a guide structure having complemental portions that are provided upon said members, and which guide structure serves to define relative movement between said members transversely of the axis of rotation; the toothed member of the gear being of ring like formation and sufficiently flexible to permit it to be moved with respect to the body member of the gear at the part where unusual load is encountered and being sufficiently resilient to permit it to resume its proper shape when the undue load is removed.

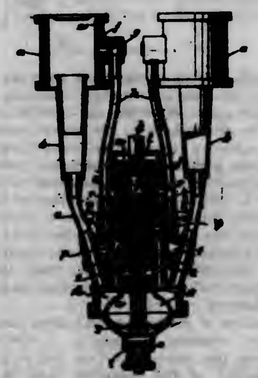
2. A gear including spaced apart toothed and body members; and a guide structure having complemental portions that are provided upon said members, and which guide structure serves to define relative movement between said members transversely of the axis of rotation, the toothed member of the gear being of ring like formation and sufficiently flexible to permit it to be moved with respect to the body member of the gear at the part where unusual load is encountered and being sufficiently resilient to permit it to resume its proper shape when the undue load is removed.

3. A gear including spaced apart toothed and body portions that are relatively movable transversely of the axis of rotation; a body of sound deadening material between said portions and permitting movement between said portions; and a guide structure having complemental portions that are provided upon said gear portions, and which guide structure serves to define the relative movement between said gear portions transversely of the axis of rotation.

4. A gear including spaced apart toothed and body portions that are relatively movable transversely of the axis of rotation; and a guide structure having complemental portions that are provided upon said gear portions, and which guide structure serves to define the relative movement between said gear portions transversely of the axis of rotation.

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1,043,013. METHOD OF MECHANICALLY MILKING. JOHN L. HULBERT, Poughkeepsie, N. Y., assignor to The De Laval Separator Company, a Corporation of New Jersey. Original application filed June 30, 1911, Serial No. 636,144. Divided and this application filed Sept. 6, 1911. Serial No. 647,885. (Cl. 31—100.)



1. The improved method of mechanically milking, which consists in constantly subjecting the discharge portion of the teat to a suction with the source of which it is in constant communication, and independent of the suction and automatically creating pulsations in said suction on the teat.

2. The improved method of mechanically milking, which consists in subjecting the discharge portion of the teat constantly to a suction and causing the milk to tend to vary the intensity of said suction inversely proportionate to the volume of its flow.

3. The improved method of mechanically milking, which consists in subjecting the discharge portion of the teat constantly to a suction, causing the milk to tend to vary the intensity of said suction inversely proportionate to the volume of its flow, and intermittently subjecting the teat, above the discharge, to pressure.

4. The improved method of mechanically milking, which consists in constantly subjecting the discharge portion of the teat to a suction with the source of which it is in constant communication, and, independent of the suction, and automatically, admitting pressure to cause or tend to cause pulsations.

5. The improved method of mechanically milking, which consists in constantly subjecting the discharge portion of the teat to a suction with the source of which it is in constant communication and, independent of the suction, intermittently admitting pressure to cause or tend to cause pulsations.

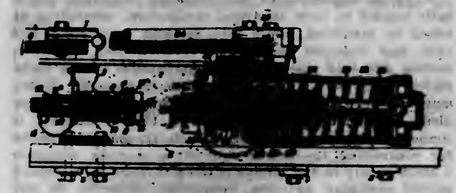
[Claims 6 to 21 not printed in the Gazette.]

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1,043,014. CIRCUIT-CONTROLLING APPARATUS. RAY P. JACKSON, Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 8, 1904. Serial No. 227,746. (Cl. 175—366.)

1. In a circuit-breaker, a pair of main contact terminals, a pair of auxiliary contact terminals, a fluid-pressure-actuated piston having a piston rod upon which one member of each of said pairs of terminals is mounted, a spring for separating the terminals, and means for directing a blast of air through one of the auxiliary contact terminals and against the other when the circuit is being broken.





2. In a circuit-breaker, a pair of main contact terminals, a pair of auxiliary contact terminals, one of which is convex and the other concave, a fluid-pressure-actuated piston, a piston rod upon which one member of each of said pairs of terminals is mounted, a spring for separating the terminals, and means for directing a blast of air through one of the auxiliary contact terminals and against the other while the piston is between its extreme positions.

3. In a circuit-breaker, a pair of main contact terminals, a pair of auxiliary contact terminals, a piston having a piston rod which is provided with a recess in one side and carries one member of each of said pairs of terminals, a cylinder, a valve chamber, a valve located therein and a valve-lifting device that rests in the recess in the piston rod when the circuit-breaker is closed.

4. In a circuit-breaker, a fluid-pressure cylinder, a piston having a piston rod, main and auxiliary contact terminals carried by said piston rod, main and auxiliary stationary contact terminals adapted to be engaged by the piston rod terminals, resilient means tending to maintain the terminals out of engagement, and a spring that is compressed by the auxiliary stationary terminals when the breaker is closed.

5. In a circuit-breaker, the combination with a normally-seated valve, of a movable member having one or more recesses and a contact terminal and being located adjacent to said valve, and a valve-actuating device that is movable into and out of said recess or recesses as said member is moved.

[Claims 6 to 50 not printed in the Gazette.]

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1,043,015. VIOLIN. GEORGE JACOB JUNKINS, Mount Vernon, Ill. Filed Sept. 26, 1911. Serial No. 651,339. (Cl. 84—44.)



1. A stringed musical instrument of the class described, comprising a hollow body provided with an apertured top and approximately parallel sides, vibratory bars attached to the inner faces of the said sides, one of the said bars being long and the other short and both extending through the openings in the top of the said body, a bridge having connection with the upper ends of the said vibratory bars and strings supported by the bridge.

2. A stringed musical instrument of the class described, comprising a hollow body provided with an apertured top and approximately parallel sides, blocks attached to the inner faces of the said sides, a block attached to the under side of the top of the said body, a short and a long vibratory bar, the long bar being secured at its lower end to the lower portion of one of the sides of the body and to the block on the said side, and the said short bar being pivoted on the block on the other side and on the said block on the top of the body, the upper ends of the said bars extending through openings in the top of the body, a bridge having connection with the upper ends of the said vibratory bars the strings supported by the bridge.

3. A stringed musical instrument of the class described, comprising a hollow body provided with an apertured top and approximately parallel sides, blocks attached to the inner faces of the said sides, a block attached to the under side of the top of said body, a short and a long vibratory bar, the long bar being secured at its lower end to the lower portion of one of the sides of the body and to the block on the said side, and the said short bar being pivoted on the block on the other side and on the said block on the top of the body, the upper ends of the said bars extending through openings in the top of the body, strings, and a bridge over which pass the strings and having its legs seated on the upper ends of the said vibratory bars.

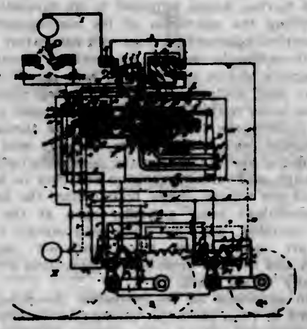
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1,043,016. DYEING OF COTTON OR LINEN CLOTH WITH VAT-COLORS. ADOLF KERTESS, Mainkur, Germany, assignor to Cassella Color Company, a Corporation of New York. Filed Jan. 18, 1912. Serial No. 671,107. (Cl. 8—5.)

The process of dyeing vat dyes in heavy and tightly woven cotton and linen consisting in the following steps: the fabric is first dyed in a bath containing sodium sulfid and then dyed again in the same bath to which hydrosulfite has been added substantially as described.

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1,043,017. ELECTRICALLY-ACTUATED AUTOMATIC TRAIN-STOPPING MECHANISM. ALEXANDER S. LITTLETON, Erie, Pa. Filed Jan. 27, 1909. Serial No. 474,446. (Cl. 246—20.)



1. In a device of the character described, track rails bonded to form electrical conductors, conductors divided by insulated joints into sections paralleling said rails, in combination with a train-motor, a generator, a power shut-off mechanism, an electromagnetic device for controlling said power shut-off mechanism, circuit-changing switches, contactors normally in contact with said divided conductors, said contactors being operatively connected with the circuit-changing switches, each of said conductors having means adjacent to its insulated joints for controlling the operation of its corresponding contactor, electrical connections from said generator around said electro-magnetic device and through said circuit-changing switches to said contactors and wheels of the train-motor, said connections being normally closed at the circuit-changing switches, connections from said generator through said electro-magnetic device through said circuit changing switches to said contactors and train-motor wheels, said

last mentioned connections being normally open at the circuit changing switches, whereby when one of said circuit changing switches is operated the first mentioned connections are opened, and the last mentioned connections are closed, substantially as set forth.

2. In an apparatus of the character described track rails bonded to form electrical conductors, conductors divided into blocks by insulated joints paralleling said rails, in combination with a train-motor, a generator, a power shut-off and brake-setting mechanism, an electro-magnetic device for controlling said power shut-off and brake-setting mechanism, circuit changing switches, contactors normally in contact with said divided conductors said contactors being operatively connected with the circuit changing switches, each of said conductors having means adjacent to its insulated joints for controlling the operation of its corresponding contactor, electrical connections from said generator around said electro-magnetic device and through said circuit changing switches to said contactors and train-motor wheels, said connections being normally closed at the circuit-changing switches, connections from said generator through said electro-magnetic device through said circuit-changing switches to said contactors and the wheels of the train-motor, said last mentioned connections being normally open at the circuit-changing switches, whereby when one of said circuit-changing switches is operated the first mentioned connections are opened and the last mentioned connections are closed, substantially as set forth.

3. In an apparatus of the character described track rails bonded to form electrical conductors, conductors divided by insulated joints into sections paralleling said track-rails, resistant connections between the track-rails and said insulated conductor sections, in combination with a train-motor, two or more electric generators, an electromagnetic switch adapted to automatically cut out an exhausted or defective generator and cut-in a good one, a power shut-off mechanism, an electromagnetic device for controlling said power shut-off mechanism, circuit-changing switches, contactors normally in contact with said divided conductors said contactors being operatively connected with the circuit-changing switches, each of said conductors having means adjacent to its insulated joints for controlling the operation of its corresponding contactor, electrical connections from said generators through said electro-magnetic switch mechanism, around said electro-magnetic device and through said circuit-changing switches to said contactors and train-motor wheels, said connections being normally closed at the circuit changing switches, connections from said generators through said electro-magnetic switch mechanism, through said electro-magnetic device for controlling the power shut-off mechanism, through said circuit-changing switches to said contactors and the wheels of the train-motor, the last mentioned connections being normally open at the circuit-changing switches, whereby when said circuit changing switches are operated, the first mentioned connections are opened and the last mentioned connections are closed, substantially as set forth.

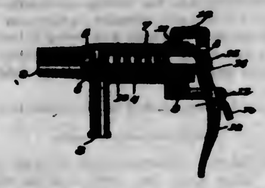
4. In an apparatus of the character described, track-rails bonded to form electrical conductors, conductors divided by insulated joints into sections paralleling said rails and resistant connections between said track-rails and conductor sections, in combination with a train-motor, a generator, a signal mechanism, a power shut-off mechanism, an electro-magnetic device for controlling said power shut-off mechanism, circuit-changing switches, contactors normally in contact with the divided conductors, said contactors being operatively connected with the circuit-changing switches, each of said conductors having means adjacent to its insulated joints for controlling the operation of its corresponding contactor, electrical connections from said generator around said electro-magnetic device and through said signal mechanism and through said circuit-changing switches to said contactors and the wheels of the train-motor, said connections being normally closed at the circuit-changing switches, connections from said generator, through said signal mechanism through said electro-magnetic device through said circuit-changing switches to said contactors and wheels of the train-motor, said last mentioned connections being normally open at the circuit-changing switches, whereby when said circuit-changing switches are operated the first mentioned connections are opened and the second mentioned connections are closed, substantially as set forth.

5. In an apparatus of the character described, track-rails bonded to form electrical conductors, conductors divided by insulated joints into sections paralleling said rails and resistant connections between each conductor section and said track-rails, in combination with a train-motor, a generator, a power shut-off mechanism, an electro-magnetic device for controlling said power shut-off mechanism, a magnet, a switch controlled thereby adapted to connect said generator with said electro-magnetic device for controlling the power shut-off mechanism whenever a break occurs in any circuit passing through said magnet, circuit changing switches, contactors normally in contact with the divided conductors, said contactors being operatively connected with the circuit changing switches, each of said conductors having means adjacent to its insulated joints for controlling the operation of its corresponding contactor, electrical connections from said generator through said magnet, around said electro-magnetic device and through said circuit-changing switches to said contactors and the wheels of the train-motor, said connections being normally closed at the circuit-changing switches, connections from said generator through said magnet through said electro-magnetic device through said circuit-changing switches to said contactors and the wheels of the train-motor, said last mentioned connections being normally open at the circuit changing switches, whereby when said circuit-changing switches are operated, the first mentioned connections are opened and the last mentioned connections are closed, substantially as set forth.

[Claims 6 to 14 not printed in the Gazette.]

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1,043,018. FAUCET. ROBERT JAMES LONG, Fullerton, La. Filed July 25, 1911. Serial No. 640,454. (Cl. 137—4.)



1. In combination with a faucet comprising a casing having inlet and outlet ports, a longitudinal sliding valve for closing said ports, a stem extending from said valve and an enlarged portion formed on the end of said casing, a nut mounted in said enlarged portion, said stem adapted to slide through said nut, a coil spring mounted between said valve and said nut for normally holding said valve in a closed position, a lug extending from said enlarged portion, a lever, a link connecting said lever with said lug, said lever having an elongated slot formed therein to receive the end of the said stem, lugs formed on each side of said stem and adapted to slide in diagonally extending slots formed on each side of said lever, an apertured lug extending from said enlarged portion and extending into a second elongated recess formed in said handle and a lock adapted to be inserted in the aperture formed in said lug for holding said lever in a closed position, substantially as and for the purpose set forth.

2. In combination with a faucet comprising a casing having a longitudinal spring pressed valve mounted therein, an enlarged portion formed on the end of said casing, a lever connected to said enlarged portion by means of a link, a stem connected to said valve and extending from the front end of said faucet, the said lever having a vertically extending elongated slot formed therein to receive the end of said stem, lugs formed on each side of said stem and adapted to slide in diagonally extending slots formed on each side of said handle and which communicate with said elongated slot, a lug extending from the lower end of said enlarged portion and adapted to extend into a second vertically extending elongated slot formed in said handle and a pad lock adapted to be inserted in an opening formed in said lug for holding the said lever in a locked position, substantially as and for the purpose set forth.



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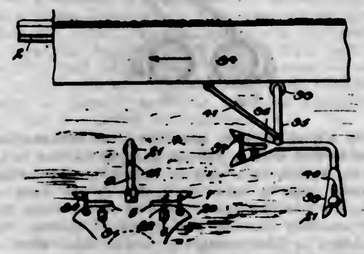
1,043,019. CORN-GRADER. DANIEL F. LUSE, Center Hall, Pa. Filed July 22, 1911. Serial No. 639,942. (Cl. 130—19.)



In a corn grader the combination with a frame, a grading screen arranged in said frame and forming the bottom thereof, and a transversely disposed bowed tensioning rod rotatably mounted in the longitudinal walls of said frame adjacent to their edges adapted to bear upon the screen when rotated, one end of said rod extending beyond the frame wall and being disposed at an angle to provide a handle whereby said rod may be turned.

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1,043,020. MAIL-BAG-HANDLING APPARATUS. OTTO C. LUTHER, Rugby, N. D. Filed Aug. 10, 1912. Serial No. 714,462. (Cl. 105—221.)



1. In a mail catching and delivering apparatus, the combination with a stationary post, a plate revolubly mounted on the upper end thereof, said plate being provided with flaring mouths terminating in slots in opposite ends of said plate, means to lock said plate in predetermined positions on the post, a hook carried by said plate and projecting therefrom, said hook being provided with a movable and a stationary arm adapted to form a pair of jaws to retain a member therebetween, and means to yieldingly retain said jaws in their closed positions; of means carried on a movable object to remove the member carried by the arms on said hook and simultaneously deliver a member into one of the mouths formed on said plate.

2. In a mail bag delivering and catching apparatus, the combination with a stationary supporting post, a plate revolubly mounted on the upper end thereof, said plate being provided with flaring mouths terminating in slots in opposite ends thereof, means to yieldingly retain said plate in predetermined positions on the post, a hook carried on said plate and projecting therefrom, said hook being provided with a stationary and a movable arm adapted to form a pair of jaw members, spring means between said arms to normally retain said jaw members in their closed positions, whereby the latter may securely retain a member therebetween and means whereby a member may be locked within the slots at the termination of said mouths; of means carried on the movable object to remove the member carried between the jaws on said hook and simultaneously deliver an additional member into one of the mouths formed on said plate.

3. In a device of the class described, a stationary post, a plate revolubly mounted on the upper end thereof, said plate being provided with mouths terminating in slots in opposite ends of the same, means to yieldingly lock said plate in predetermined positions on the post, pivoted locking pawls carried on said plates and adapted to be disposed across said mouths, additional means to limit the outward swinging movement of said pawls, yielding means to limit the opposite movement of said pawls, and means projected from said plate to suspend a member therefrom.

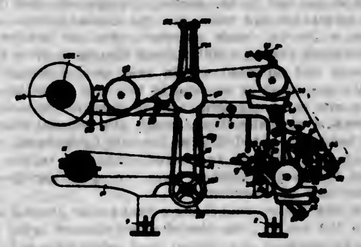
4. In a device of the class described, the combination with a stationary post, a plate revolubly mounted on the upper end thereof, said plate being provided with mouths in opposite ends of the same, means to yieldingly lock said plate in predetermined positions on the post, and a hook member projected from the plate, said member being provided with yielding jaws adapted to retain a member therebetween; of an arm carried on a movable object and provided with a pair of forks at the outer end thereof, one of said forks being adapted to carry a member therein to deliver the same to one of the mouths of the aforesaid plate, and the other of said forks being adapted to receive therein the member carried between the jaws of the aforesaid hook on said plate.

5. In a mail catching and delivering apparatus, a bar provided with a spherical head at one end thereof, a coil spring encircling said bar at the lower end of the same, a sleeve-like housing inclosing said spring and slidably arranged on said bar, means to engage an object on said sleeve-like housing, and additional means to limit the movement of said housing on the bar.

[Claim 6 not printed in the Gazette.]

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1,043,021. COATING-MACHINE. CHARLES W. MAYER, Rochester, N. Y., assignor to Katherine B. Mayer. Filed Nov. 24, 1911. Serial No. 662,218. (Cl. 91—51.)



1. A machine for coating paper, comprising means for feeding paper under tension, means for coating the paper as it is fed, an equalising device adjacent said coating means arranged to receive the paper therefrom before it touches another object, and a roll for relieving and smoothing the paper, arranged to receive the paper web directly from the equalising device, said roll being arranged adjacent said equalising device.

2. A machine for coating paper, comprising a coating roll, means for feeding a web of paper thereover, an equaliser arranged adjacent said roll and receiving the paper directly therefrom, and a smoothing roll receiving the paper directly from the equaliser and arranged to cooperate with the coating roll to press the paper against the equaliser.

3. A machine for coating paper, comprising a coating roll, means for feeding a web of paper against the same, an equaliser bar arranged adjacent said coating roll to receive the paper directly therefrom, and a smoothing roll at the front of the machine over which the paper is looped, arranged adjacent said equaliser bar.

4. A paper coating machine, comprising a coating roll, means for feeding the paper thereagainst, an equaliser

arranged adjacent said roll receiving the paper directly therefrom, a smoothing roll arranged adjacent said equalizer receiving the paper directly therefrom, and means for heating or cooling said smoothing roll at will.

5. A paper coating machine, comprising a coating roll, means for feeding a paper web against the same, and an equalizer mounted adjacent said roll presenting a curved face of small radius to the paper, and a support for said equalizer having provision for heating the same, the parts being arranged with provision for feeding the paper under tension directly from the coating roll to said equalizer.

[Claims 6 to 63 not printed in the Gazette.]

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1,043,022. BOB-SLED BRAKE. SAMUEL B. MCINTIRE, Houston, Minn. Filed Mar. 27, 1912. Serial No. 686,587. (Cl. 21—46.)



1. A sled brake, comprising a brake shoe cast of one integral piece of metal and pivoted at one end to the runner, the opposite end thereof being bifurcated to embrace the runner and projecting below the tread thereof, said shoe having longitudinal horisontal and vertical extending slots formed therein, a bell crank lever fulcrumed on the sled bolster, one end thereof operating within the said vertically extending slot, a pin extending laterally therefrom and operating in said horisontal slot and a lever connecting the opposite end of said bell crank substantially as described.

2. A sled brake comprising a brake shoe pivotally connected at one end to the runner, the opposite end thereof being bifurcated and embracing the medial portion of the runner, a journal block mounted upon the bolster, said journal block having a slot formed therein, a lever having its lower end mounted within said slot, a second lever slidably connected at one end to the said brake shoe and its opposite end being bifurcated to embrace the said journal block, a pin extending through said journal block and being loosely mounted therein, the said levers being rigidly connected to said pin and a rod connected to the upper end of the first mentioned lever for operating the shoe, substantially as described.

3. A sled brake, comprising a brake shoe pivoted at one end to the runner, the opposite end thereof being bifurcated to embrace the runner and projecting below the tread thereof, a bearing block mounted upon the bolster, a lever pivotally mounted within said bearing block, a second lever connected at one end to the first mentioned lever, the opposite end of said lever being reduced and adapted to extend within a vertical extending slot formed in said shoe, means for slidably connecting said second mentioned lever with said shoe, the sides of the second mentioned lever being provided with diagonal cut-away portions forming a stop for the shoe when in a raised position, substantially as described.

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1,043,023. TROLLEY. WILLIAM T. MILLER, Winston Salem, N. C. Filed Jan. 17, 1912. Serial No. 671,572. (Cl. 190—39.)

1. A trolley head having obliquely disposed passages substantially at right angles to one another, a bifurcated shank supported for oscillation in one of said apertures and having a yoke connected with and extending at right angles to the fork thereof, a trolley wheel supported for rotation upon the fork of the shank, and a flexible operating member connected with the yoke and guided through the other aperture of the trolley head; the oblique passages being oppositely inclined to an approximately equal extent with reference to a horizontal plane when the trolley wheel is in engagement with a feed wire.



2. A trolley head having obliquely disposed passages at substantially right angles to one another, one of said passages terminating at the rear end of the head, a wheel carrying shank supported for oscillation in the other aperture, a member extending from the wheel carrying shank substantially at right angles thereto, and an operating cord connected with said member and guided through the first mentioned aperture which terminates at the rear of the trolley head; said wheel carrying shank being maintained in an inclined position with reference to a feed wire engaged by the wheel.

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1,043,024. PNEUMATIC CLEANSING IMPLEMENT FOR REMOVING DUST. ALBERT B. MOOSEHEAD, San Francisco, Cal., assignor to American Rotary Valve Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 4, 1906. Serial No. 329,978. (Cl. 15—60.)



1. In a dust removing implement, the combination of a casing formed with a passage adapted to lead to air exhausting apparatus, a pair of rollers in said casing having their ends in close contiguity to the ends of the casing, to form an inlet way for dust leading to said air exhausting passage, and strips of flexible material maintained in close contiguity to the outer sides of the rollers, said rollers projecting from the bottom of the casing to sustain and guide the same, substantially as described.

2. In a dust removing implement, the combination of a casing formed with a passage adapted to lead to air exhausting apparatus, a pair of rollers in said casing having their ends in close contiguity to the ends of the casing, to form an inlet way for dust leading to said air exhausting passage, said rollers projecting from the bottom of the casing to sustain and guide the same, bearings for said rollers in the ends of the casing, and means for adjusting said bearings to or from the central longitudinal plane through the casing, substantially as described.

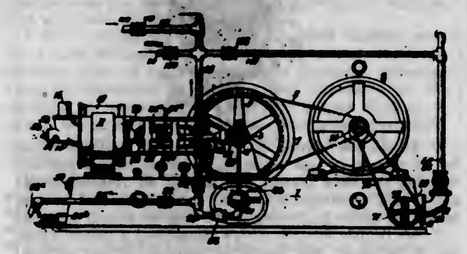
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1,043,025. PNEUMATIC CLEANSING APPARATUS. ALBERT B. MOOSEHEAD, Chicago, Ill., assignor to American Rotary Valve Company, Chicago, Ill., a Corporation of Illinois. Original application filed Oct. 20, 1908, Serial No. 458,945. Divided and this application filed Nov. 24, 1911. Serial No. 662,060. (Cl. 230—32.)

1. In a pneumatic cleansing apparatus, the combination of a receiver, an exhaust pump connected with the receiver, an air return pipe connected with the inlet passage of the receiver, a delivery pipe, and a pipe supplying compressed air from a separate source of supply connected with said delivery pipe and provided with a valve, whereby the apparatus is adapted for operating both air pressure and vacuum operated cleansing appliances.



2. In a pneumatic cleansing apparatus, the combination of a receiver, a convertible air exhaust and compression pump connected by a passage with the receiver, return and air delivery pipes connected with the receiver and a pipe supplying air under pressure from a separate source of air supply connected with the air delivery pipe, and valves controlling said pipes, whereby the apparatus may be employed to operate either separately or simultaneously, vacuum and air-pressure cleansing devices.



3. In a pneumatic cleansing apparatus, the combination of a receiver, an exhaust pump connected with the receiver, an air return pipe connected with the inlet passage of the receiver, a delivery pipe, and a pipe supplying water under pressure, connected with said delivery pipe, whereby the apparatus is adapted for operating vacuum operated cleansing appliances, or water may be supplied for scrubbing.

4. In a pneumatic cleansing apparatus, the combination of a receiver, a convertible air exhaust and compression pump, connected by a passage with the receiver, delivery and return pipes connected with the receiver, a pipe supplying water to said delivery pipe, and valves controlling said pipes, whereby the apparatus may be used for operating either pressure operating cleansing appliances or vacuum operating cleansing appliances, or water may be supplied for scrubbing.

5. In a pneumatic cleansing apparatus, the combination of a receiver, a convertible air exhaust and compression pump connected with the said receiver, a return pipe connected with the inlet of said receiver, means for supplying water to said receiver, a liquid pump having its inlet passage connected with the receiver, a delivery pipe leading from the discharge passage of said liquid pump, means for actuating said air and liquid pumps, an air pipe connected with said delivery pipe and communicating with the receiver, and valves in said delivery and air pipes, whereby liquid may be supplied through said delivery pipe at the same time that air is exhausted from the return pipe, or air under pressure may be supplied through said delivery pipe.

[Claims 6 to 8 not printed in the Gazette.]

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1,043,026. SHOCK-COMPRESSOR. CHARLIE E. MORRISON, Sheldon, Ill. Filed June 12, 1912. Serial No. 703,175. (Cl. 100—31.)

1. A shock compressor comprising, in combination, a thrust-pin; a base plate in which said thrust-pin is rotatably and slidably mounted; a spool fixed to said thrust-pin and adapted to be moved into engagement with said base plate; means on the contacting surfaces of said spool and base plate whereby said plate, when engaged by said spool, is adapted to prevent retrograde rotation of said spool; and a compressing-rope having its ends connected with said spool, said rope being adapted, when drawn to compress the shock, to move said spool into engagement with said base plate, substantially as described.

2. A shock compressor comprising, in combination, a thrust-pin; a base plate in which said thrust-pin is rotatably and slidably mounted; a spool fixed to said thrust-pin and adapted to be moved into engagement with said base plate; clutch teeth on the contacting surfaces of said spool and base plate whereby said plate, when engaged by said spool, is adapted to prevent retrograde rotation of said spool; and a compressing-rope having its ends connected with said spool, said rope being adapted, when drawn to compress the shock, to move said spool into engagement with said base plate, substantially as described.



3. A shock compressor comprising, in combination, a thrust-pin adapted to pierce the shock to be compressed; a handle at one end of said thrust-pin for manually rotating the same; a base plate in which said thrust-pin is rotatably and slidably mounted; a spool fixed to said thrust-pin and adapted to be moved into engagement with said base plate; means on the contacting surfaces of said spool and base plate whereby said plate, when engaged by said spool, is adapted to prevent retrograde rotation of said spool; and a compressing-rope having its end connected with said spool, said rope being adapted, when drawn to compress the shock, to move said spool into engagement with said base plate, substantially as described.

4. A shock compressor comprising, in combination, a thrust-pin; a base plate in which said thrust-pin is rotatably and slidably mounted; means on said base plate adapted for engagement with the shock engaged to lock said base plate against relative rotation; a spool fixed to said thrust-pin and adapted to be moved into engagement with said base plate; clutch teeth on the contacting surfaces of said spool and base plate whereby said plate, when engaged by said spool, is adapted to prevent retrograde rotation of said spool; and a compressing-rope having its ends connected with said spool, said rope being adapted, when drawn to compress the shock, to automatically move said spool into engagement with said base plate, substantially as described.

5. A shock compressor comprising, in combination, a thrust-pin adapted to pierce the shock to be compressed; a base plate in which said thrust-pin is rotatably and slidably mounted; diametric outwardly projecting pins on said base plate adapted to pierce the shock engaged to lock said plate against relative rotation; a spool fixed to said thrust-pin and adapted to be moved into engagement with said base plate; clutch teeth on the contacting surfaces of said spool and base plate whereby said plate, when engaged by said spool, is adapted to prevent retrograde rotation of said spool; and a compressing-rope having its ends connected with said spool, said rope being adapted, when drawn to compress the shock, to automatically move said spool into engagement with said base plate, substantially as described.

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1,043,027. EXTENSIBLE HAT-PIN. WILLIAM R. NEWMAN, Brooklyn, N. Y., assignor of one-half to Edward H. Clark, New York, N. Y. Filed July 28, 1911. Serial No. 641,186. (Cl. 24—150.)

A hat pin comprising two telescopic parts, the outer of said parts being provided with internal protuberances, and the inner part having spiral grooves engaging said pro-

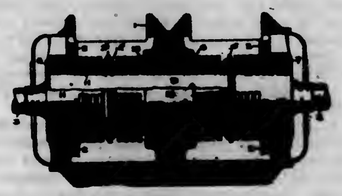
tuberances and terminating a short distance from its inner extremity forming a shoulder, whereby one of said pro-



tuberances will engage said shoulder to prevent said inner part from being entirely extended from said outer part.

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1,043,028. DYNAMO-ELECTRIC MACHINE. JAKOB E. NOBOGRATH, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Apr. 21, 1910. Serial No. 556,656. (Cl. 171—212.)



1. In a dynamo electric machine, a unipolar field structure, an armature body rotatably mounted in said field comprising two conducting portions insulated from one another, one of which is reduced in diameter for a part of its length and the other is in the form of a shell fitting over said part reduced in diameter, collector rings on both of said portions of the armature body near the end thereof, the outside diameters of both portions on which the collector rings are located, being substantially the same.

2. In a dynamo electric machine, a unipolar field structure, an armature body comprising a cylindrical conducting portion reduced in diameter for a part of its length, a conducting shell fitting over said part reduced in diameter and insulated therefrom, and a sleeve also fitting over said part reduced in diameter but in electrical contact therewith.

3. In a dynamo electric machine, a unipolar field structure, an armature body comprising a cylindrical conducting portion reduced in diameter for part of its length, a conducting shell fitting over said part reduced in diameter, and a sleeve also fitting over said part reduced in diameter and in electrical contact therewith, said shell being separated from said portion and said sleeve by radial nonmagnetic gaps.

4. In a dynamo electric machine, a unipolar field structure, an armature body comprising a cylindrical conducting portion reduced in diameter for part of its length, a conducting shell fitting over said part reduced in diameter and a sleeve also fitting over said part reduced in diameter and in electrical contact therewith, said sleeve and shell having their abutting ends enlarged, said shell being separated from said portion and said sleeve by radial nonmagnetic gaps.

1,043,029. ELECTRIC HEATING UNIT. LEON F. PARKHURST, Binghamton, N. Y., assignor to Diamond Electric Company, Binghamton, N. Y., a Corporation of New York. Filed Feb. 15, 1911, Serial No. 608,669. Renewed Sept. 13, 1912. Serial No. 720,278. (Cl. 219—32.)



1. An electric heating device comprising a hollow cylinder of refractory and insulating material having perforations at the ends thereof and having an internal spiral groove and a resistance element arranged in said groove, having terminals projecting to the exterior of said cylinder.

2. An electric heating device comprising a hollow cylinder of refractory and insulating material having perforations at the ends thereof and having a plurality of internal spirally arranged grooves and a separate resistance element arranged in each of said grooves, having terminals projecting to the exterior of said cylinder.

3. An electric heating device comprising a hollow cylinder of refractory and insulating material having a spirally arranged internal groove and a perforated end, and a resistance element arranged in said groove having terminals projecting to the exterior of said cylinder.

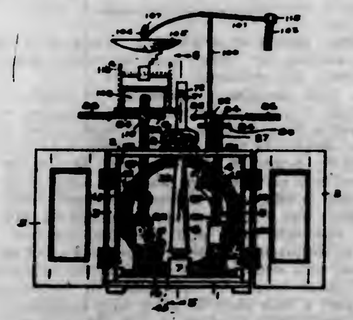
4. An electric heating device comprising a cylinder of refractory and insulating material, having a spirally arranged internal groove, a resistance element mounted in said groove, and having terminals projecting to the exterior of said cylinder, and perforated caps mounted upon either end of said cylinder and inclosing said element.

5. An electric heating device comprising a hollow cylinder of refractory and insulating material having perforations at the ends thereof and having an internal spirally arranged groove, a resistance element arranged in said groove, and having terminals projecting through the walls of said cylinder, and a connector for each of said terminals comprising a conductor band extending around the periphery of said cylinder to which said terminals are attached.

[Claims 6 to 13 not printed in the Gazette.]

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1,043,030. STATIC ELECTRIC MACHINE. THEODORUS H. PATEE, Indianapolis, Ind.; Martha J. Patee, administratrix of said Theodorus H. Patee, deceased, assignor to said Martha J. Patee, individually. Filed Jan. 31, 1908. Serial No. 413,618. (Cl. 171—23.)



1. The combination with a static electric machine, having a case for inclosing the generator plates and other working parts of the machine, of a pair of vertical and parallel electrodes, a revolubie apparatus between said electrodes carrying display devices, and means for collecting the generated electric current and for transmitting it through said electrodes to the said display devices.

2. The combination with a static electric machine, having a case for inclosing the generator plates and other working parts of the machine, of a pair of vertical electrodes above the case, means for changing their distance from each other, and a revolving apparatus also above the case between the vertical electrodes operating in conjunction with said electrodes.

3. The combination with a static electric machine, having a case for inclosing the generator plates and other working parts of the machine, of a standard extending above the machine, a revolving axle supported by the standard, a revolving plate carrying display devices attached to and actuated by the axle, and means for collecting the electric current and for transmitting it to the revolving apparatus.

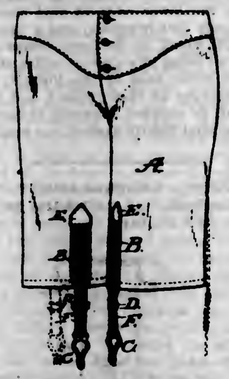
4. A machine for generating static electricity, a standard extending above the machine, an axle supported upon suitable bearings by said standard, means for revolving said axle, Geisler tubes, means for mounting said tubes on said axle for electrical display and conductors adjacent the path of the rotating tubes to transmit electricity thereto as the tubes pass the conductors.

5. In a machine for generating and utilising static electricity, a metal bar, a brush holder, a stationary electric-plate having an inductor with means for conducting the induced electricity to the periphery of the plate and from thence to a section of the brush holder, said section being rigidly and electrically connected with said metal bar which bar has electrical connection around the periphery of the plate with said inductor, approximately right angled members on said metal bar, said brush-holder held by said right angled members, and a brush in each holder in position to act inductively upon the inductor which faces the brush from opposite sides of said plate.

[Claims 6 to 15 not printed in the Gazette.]

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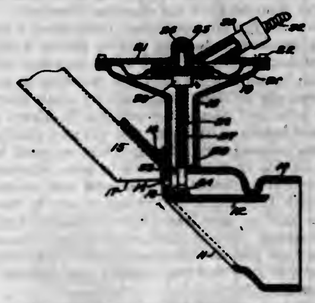
1,043,031. NETHERGARMENT. BERTHOLD L. RICH, Washington, D. C. Filed Mar. 4, 1912. Serial No. 681,283. (Cl. 2—122.)



As an article of manufacture, a nethergarment having a loose fabric tab of substantial length permanently attached to it, said tab being composed of tubular knitted fabric having one portion loosely knitted to give inherent elasticity to the tab in the direction of its length, and having a second portion of reduced width and closely knitted and folded upon itself, a bone supporting member carried by the folded closely-knitted portion of the tab, and a member also carried by the closely-knitted portion of the tab for adjusting the length of the folded portion of the same.



1,043,032. AUTOMOBILE-HORN. JOHN J. RICHARDS, Jr., Brookline, Mass., assignor to William S. Daniels and Archie W. Campbell, Boston, Mass. Filed Aug. 17, 1911. Serial No. 644,614. (Cl. 116—59.)



1. A device of the kind described, comprising a sounding chamber, a gas conduit leading thereto, having a relatively small aperture for horn sounding and a separate relatively free exhaust opening, a gate pivoted to swing in one position to direct gas through the relatively small aperture to sound the horn, and to another position to divert the gas through said separate relatively free exhaust opening, said parts being arranged for said gate to exercise said controlling action by a swing through materially less than a right angle, and fluid pressure operating means connected to said gate near the axis thereof by a link having a substantially right line movement, said gate with its operating connections having similar opposed areas exposed to like gas pressure when in horn sounding position, so as to be substantially balanced.

2. A device of the kind described, comprising a sounding chamber, a gas conduit leading thereto having a relatively small aperture for horn sounding and a separate relatively free exhaust opening, and a pivoted gate arranged to direct gas through said relatively small aperture to sound the horn in one position, and to divert the gas through said relatively free separate exhaust in another position, said parts being arranged for said gate to exercise said controlling action by a swing through materially less than a right angle, said gate having operating conections with fluid pressure controlling means, said connections operating with a substantially right line movement and having provision exerting a yielding force capable of being overcome by said fluid pressure controlling means to keep the gate normally in horn mute position, and said gate with its operating connections having similar opposed areas exposed to like gaseous pressure when in horn sounding position.

3. A device of the kind described, comprising a sounding chamber, a gas conduit leading thereto, having a relatively small aperture for horn sounding and a separate relatively free exhaust opening, a pivoted gate arranged to form a part of the walls of said conduit, and to direct gas to the sounding chamber and divert it therefrom in two limiting positions respectively, said gate having operating mechanism consisting of a diaphragm with fluid pressure controlling connections, a link connected to said gate near its axis and engaged for substantially right line movement by said diaphragm, said operating mechanism and gate being arranged to present similar opposing areas to the operating gaseous pressure when in horn sounding position so that a relatively small fluid pressure impulse may control the same.

4. A device of the kind described, comprising a sounding chamber, a gas conduit leading thereto having a relatively small aperture for horn sounding and a separate relatively free exhaust opening, a pivoted gate arranged to form a part of the walls of said conduit, and to direct gas to the sounding chamber and divert it therefrom in two limiting positions respectively, said gate having substantially equal areas exposed to pressure at each side of its pivot, a diaphragm having fluid pressure controlling means connected

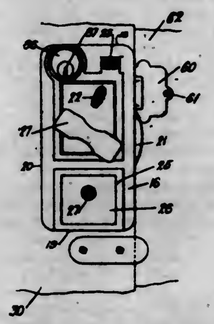
to said gate, such connection consisting in a link having substantially right line movement and pivoted near the axis of the gate and means exerting a yielding force capable of being overcome by said fluid pressure controlling means for normally holding the gate in horn mute position with the gas diverted from the sounding chamber.

5. A device of the kind described, comprising a sounding chamber, a gas conduit leading thereto having a relatively small aperture for horn sounding and a separate relatively free exhaust opening, a gate pivoted to swing in one position to direct gas through said relatively small aperture to sound the horn and to another position to divert the gas through said separate relatively free exhaust opening, said gate having substantially similar areas exposed to pressure on each side of its pivot when in horn sounding position, and operating means for said gate, said conduit having relatively thin portions extending out in the direction of the gate to meet and fit its peripheral edges in a limiting position thereof and coöperating therewith to control the fluid pressure passage whereby relatively small surfaces of the gate and the conduit are opposed as the gate is closed.

[Claims 6 to 9 not printed in the Gazette.]

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1,043,033. COIN-CONTROLLED LOCKING MECHANISM. FRANK J. ROWSE, Pawtucket, R. I. Filed June 12, 1911. Serial No. 632,716. (Cl. 194—83.)



1. In a device of the character described, the combination with a casing, of an outer operating handle located upon the side of said casing, an inner operating handle located upon the opposite side of said casing, a bolt, positive connections between said bolt and said inner handle, coin controlled operating mechanism between said bolt and the outer handle, means for preventing the return of the outer handle to a coin receiving position after it has been once actuated, said last named means being controlled by said inner handle.

2. In a coin controlled apparatus, the combination with an operating shaft, of disks carried thereby, coin supporting members mounted upon said disks, a cam plate loosely mounted upon said shaft, a coin guiding and holding member pivotally connected to said plate and coöperating with the coin supporting members of the disks, a bearing member fixed to one of said disks and engaging the underside of the coin guiding and holding member, and yielding means normally tending to draw said coin guiding and holding member toward said bearing member.

3. In a coin controlled apparatus, the combination with an operating shaft, of disks carried thereby, a pin carried by one of said disks which is eccentrically related to said shaft, coin supporting members mounted upon said disks, a cam plate loosely mounted upon said shaft, and a coin guiding and holding member pivotally connected to said plate and coöperating with the coin supporting members of the disks and bearing upon said pin.

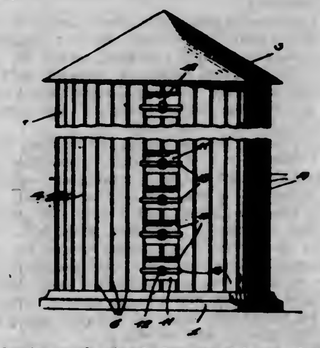
4. In a coin controlled apparatus, the combination with an operating shaft, of disks carried thereby, a pin carried by one of said disks which is eccentrically related to said shaft, coin supporting members mounted upon said disks, a cam plate loosely mounted upon said shaft, a coin guiding and holding member pivotally connected to said plate and coöperating with the coin supporting members of the disks and bearing upon said pin, and means for forcing said coin guiding and holding member against said pin.

5. In a coin controlled apparatus, the combination with an oscillatory operating shaft, of a pair of opposed coin supporting members carried by said shaft, a plate loosely mounted upon said shaft, a coin holding and supporting member adapted to coact with a coin held by said supporting members to lock said plate to said shaft, and means for releasing said coin at a predetermined point in the travel of said shaft.

[Claims 6 to 23 not printed in the Gazette.]

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1,043,034. SILO. NICHOLAS J. SCHLACHTER, Gettysburg, S. D. Filed June 15, 1912. Serial No. 703,900. (Cl. 20—1.4.)



A silo having a circular body comprising a plurality of vertical timbers, rectangular in cross section and arranged radially with respect to the longitudinal center of the body, the inner lateral edges contacting whereby a continuous interior wall is formed, the upper ends of said timbers being inclined downwardly and outwardly, a conical roof supported upon said downwardly and outwardly inclined timbers, the lower ends of said timbers being inclined downwardly and inwardly, and a base formed with a circular wall which is inclined downwardly and inwardly, said wall being of a greater width than the length of the inclined lower ends of the timbers, whereby said timbers will, because of their weight and the weight of the conical roof, be crowded inwardly to cause their inner lateral edges to bind tightly against one another.

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1,043,035. UNION UNDERGARMENT. EDWARD J. SCHRIMP, New York, N. Y. Filed May 28, 1912. Serial No. 700,196. (Cl. 2—144.)



1. The herein described method of cutting the halves for union suits which consists in dividing a tube of fabric into two halves by an elongated cut, consisting of two short cuts extending into the tube from opposite sides less than half the width of the tube and being at the ends of the leg portions, said cuts being spaced from each other substantially the length of the legs and from the end of the tube substantially the distance from the crotch to the shoulder, and of an inclined, irregular cut connecting the ends of the short cuts and being slightly curved at each of its ends adjacent to the short cut to form on one side the ankle portion of one half and on the other side the thigh portion of the other half, and between said curves being substantially straight and inclined for the calf and knee portions of the respective halves and then slitting the tube from the irregular cut to the end through one thickness.

2. The herein described method of cutting the halves for union suits which consists in dividing a tube of fabric into a plurality of half garment sections by elongated cuts, consisting of transverse cuts spaced from each other substantially the length of the legs and from the end of the tube substantially the distance from the crotch to the shoulder, and connected by inclined cuts simultaneously to form enlarged and diminished portions of adjoining legs, longitudinal cuts through both folds for the shoulder portion and cutting at least through one thickness from the shoulder cuts to the transverse cuts for the posterior opening.

3. The herein described method of making a single integral flap, closed crotch, union suit which consists in cutting from a tube of fabric half suits, by two straight short cuts being the ends of the legs and spaced the length of the leg apart, uniting the inner ends of said short cuts by an elongated irregular cut to form the ankle, calf and thigh portions of the legs of the two halves, slitting from the end of the irregular cut through one thickness to form a flap, cutting away the end of the flap for the shoulder, providing for use with one of said halves a similar half but without the flap, seaming together the two sides of each leg portion, sewing together the upper portions of the back edges of two halves to form a short back seam above the flap, providing corresponding securing means on the long edges opposite the flap edge to close the front opening when the garment is worn, sewing the shoulders, sewing the lower edge of the flap to the crotch seams with an intermediate point on said edge secured to the body at the lower end of the front opening, providing a small triangular gusset and securing it between the upper leg portion and the body portion of the side opposite the flap with the gusset ribs extending substantially across and at an angle to the ribs of the body portion and of the leg portion.

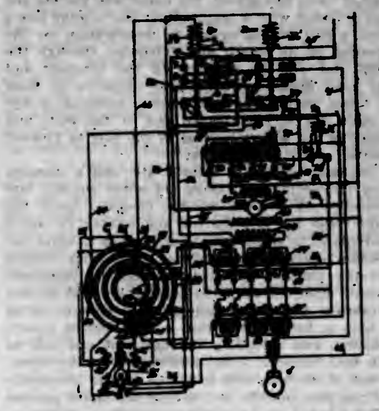
4. The herein described method of cutting union suits from tubular knit fabric without waste which consists in severing the tube by an elongated cut consisting of short straight cuts substantially at a right angle to the tube axis, and of an irregular cut joining the inner ends of said cuts and forming the ankle, calf and thigh portion of the two halves, slitting through one fold from the elongated cut to form the flap, cutting a small piece from the upper end of the flaps to reduce the shoulder portion, uniting the two halves and inserting the small pieces between the upper ends to form shoulder pieces.

5. The herein described method of forming union suits from tubular knit fabric without waste, which consists in severing the tube by an elongated cut consisting of transverse cuts and an irregular cut joining the inner ends of said cuts and forming the ankle, calf and thigh portions of the two halves, slitting through one fold from the elongated cut to form a rear flap, cutting a piece from the upper ends of the flaps to reduce the shoulder portion, uniting the two halves, inserting parts of said piece between the upper garment ends with the wales arranged transversely and securing a strip of said piece around the neck with the wale arranged longitudinally of said strip.

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1,043,036. CONTROLLING SYSTEM FOR ELECTRIC HOISTS. FRANK I. SMITH, Pittsburgh, Pa., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Apr. 5, 1911. Serial No. 619,061. (Cl. 172—152.)

1. In a furnace hoisting apparatus, the combination with a load carrying device, of means for reducing the speed of said device at predetermined points in its travel, and means for controlling said speed reductions independently of each other.



2. In a furnace hoisting apparatus, the combination with a load carrying device, of automatic means for reducing the speed of said device at predetermined points in its travel, and means for controlling said speed reductions independently of each other.

3. In a furnace hoisting apparatus, the combination with a motor and load carrying device, of means controlled by said motor for reducing the speed of said device at predetermined point in its travel, and means for controlling said speed reductions independently of each other.

4. In a furnace hoisting apparatus, the combination with a motor and load carrying device, of means independent of each other for automatically effecting a reduction in the speed of the motor and means for varying the action of said speed reducing means.

5. In a furnace hoisting apparatus, the combination with a motor, of a load carrying device operatively connected therewith, independent means for effecting a reduction in the speed of the motor, and means operated by the motor for controlling the operation of said speed reducing means.

[Claims 6 to 22 not printed in the Gazette.]

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1,043,037. SIDE BEARING FOR RAILWAY-CARS. GEORGE PENNIE SNEAD, Pine Bluff, Ark. Filed July 27, 1912. Serial No. 711,832. (Cl. 105—115.)



1. The combination with a lower side bearing element to be attached to a truck-bolster and having a horizontal upper surface, of an upper longitudinally adjustable wedge-shaped side bearing element to be mounted upon a transom which has its lower surface tapered outwardly and having a longitudinal slot formed therethrough, a bolt passing through the slot and through an opening in the transom, a nut carried by the bolt, and means to prevent the accidental rotation of the nut.

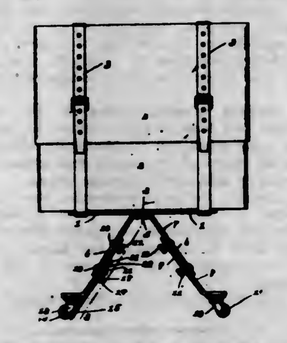
2. The combination with a truck-bolster and a transom coöperating therewith, of a block rigidly mounted upon the truck-bolster near the end thereof, a wedge-shaped

upper side bearing element provided upon its longitudinal edges with flanges to receive therebetween the transom, the transom and the upper side bearing element having their engaging faces corrugated, the upper side bearing element being provided with a longitudinal slot leading into a large recess, a bolt formed square in cross-section for the greater portion of its length and extending through the longitudinal slot and an opening in the transom and having its head disposed within said recess to be flush with the lower surface of the bearing element, a nut mounted upon the screw-threaded end of the bolt, and means engaging the square portion of the bolt to prevent the accidental rotation of the nut.

8 The combination with a truck-bolster and a transom coöperating therewith and having its lower surface tapered outwardly, of a block rigidly mounted upon the truck-bolster near the end thereof and having its upper surface horisontal, a wedge-shaped upper side bearing element provided upon its longitudinal edges with flanges to receive the transom therebetween and be longitudinally movably mounted upon the tapered lowered surface of said transom, said upper side bearing element being provided with a longitudinal slot, a bolt formed square in cross-section and extending through said slot and an opening in said transom, a nut mounted upon the screw-threaded end of the bolt, and means to engage the square portion of the bolt and the nut to hold the latter against accidental rotation.

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1,043,038. LUGGAGE-TRUCK. ABRAHAM ALEXANDER, Troy, N. Y. Filed Oct. 2, 1911. Serial No. 652,277. (Cl. 21—65.)



1. In a luggage-truck, and in combination, a platform; straps whereby articles of different sizes can be secured upon said platform; extensible legs for supporting said platform; and casters upon the outer ends of the respective extensible legs.

2. In a luggage-truck, and in combination, a platform; means for securing articles of different sizes upon said platform; a pair of arms extending downward from said platform provided with a plurality of bolt-apertures; extension-leg members provided with bolt-apertures; bolt-connections between each of the extension-leg members, and one of said arms adapted to lock the parts together, with the leg more or less extended; and a caster upon the outer end of each extension-leg member.

3. In a luggage-truck, and in combination, a platform; straps whereby articles of different sizes can be secured upon said platform; extensible legs for supporting said platform; casters upon the outer ends of the respective extensible legs; and a folding-foot mounted upon the extensible member of one of said legs adapted when said foot is extended to support the truck and its load in upright position.

4. In a luggage-truck, and in combination, an extensible leg for the truck; a roller upon the outer end of an extensible member of said leg; a folding-foot formed of wire having offset portions adapted to bear upon the extensible member when the foot is extended, having its ends adapted to bear upon said extensible member, and having spring-coils; a pivot-pin mounted upon said extensible member and embraced by said spring-coils; and locking-mechanism mounted upon said extensible member adapted to engage and hold said foot in folded position.

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1,043,039. ACETYLENE-CANDLE. RALPH R. ARNOLD, Cripple Creek, Colo. Filed Aug. 7, 1911. Serial No. 642,668. (Cl. 48—4.)



An acetylene candle comprising a cylindrical tubular body having a partition intermediate its ends dividing the body into an upper water chamber and a lower chamber to receive a carbid cartridge, a tube depending from said partition and constituting a water passage, a filter arranged immediately below the said partition, a guard depending from said partition through the filter and having its lower portion projected across the axis of the water passage and spaced from the lower end thereof, a needle extending through the said water passage and having its stem extended through the upper end of the body, a stopper on the said stem adapted to rest upon the partition and close the water passage, a closure for the upper end of the body, a plug adjustably mounted in the said closure and fitting around and supporting the stem, a spring arranged between the end of the said plug and a stop on the stem, a gas-conveying tube leading upwardly from the partition to and into the closure for the upper end of the body, and a burner carried by said closure and disposed immediately adjacent the upper end of the said gas-conducting tube.

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1,043,040. PULSATOR FOR MILKING-MACHINES. ANDERS LASSEN BERTHELSEN, Brædstrup, Denmark, assignor to F. A. Henningsen, Butte, Mont. Filed Feb. 19, 1912. Serial No. 678,065. (Cl. 31—90.)

1. In a milking machine, the combination with an inelastic casing, of an elastic casing mounted therein forming an annular chamber between said casings, a milkway adapted to connect the interior of the elastic casing with a vacuum reservoir, means for alternately connecting the annular chamber with the milkway and the atmosphere, whereby suction and atmospheric action are alternately communicated to the annular chamber, and means operated by the suction for operating said last-named means.

2. In a milking machine, the combination with an inelastic casing, of an elastic casing mounted therein forming an annular chamber between said casing, an apertured base for said casings communicating therewith, a milkway through said base extending to the interior of the elastic casing and adapted to connect the same with a vacuum reservoir, an air turbine mounted in the base and adapted to be operated by the air suction therethrough, a rotary valve mounted in a passage through said base, and connections between said valve and said air turbine whereby the former is caused to be rotated to successively open and close communication between the milkway and the annular chamber between the casings and between said chamber and the atmosphere, for the purpose set forth.

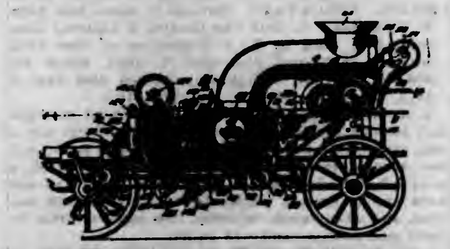




3. In a milking machine, the combination with an inelastic casing, of an elastic casing mounted therein forming an annular chamber between said casings, an apertured base for said casings communicating therewith, a milkway through said base adapted to connect the interior of the elastic casing with a vacuum reservoir, a series of shafts mounted in the base, apertures in the base through which air is drawn, an air-turbine, and a flywheel mounted upon one of the shafts, means for communicating motion from said first-named shaft to the other shafts of the series, one of said shafts extending through the upper portion of the base and bored through a portion of its length, a valved connection between the interior of the base and the milkway whereby the suction through said milkway causes air entering the base to actuate the turbine carrying shaft and through the gear connections the remaining shafts, whereby the bored shaft is caused in its revolutions to successively open and close communication between the milkway and the annular chamber between the casing and between said chamber and the atmosphere, for the purpose set forth.

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1,043,041. SELF-BALING MACHINE. ROY B. BRYAN, La Fayette, Ind. Filed Jan. 17, 1912. Serial No. 671,602. (Cl. 100—20.)



1. In a baling press, a baling chamber, a plunger mounted therein, means for continuously reciprocating said plunger, and means controlled by the pressure of the plunger upon the bale being formed to automatically discharge the bale from the baling chamber.

2. In a baling press, a baling chamber, a plunger mounted therein, means for continuously reciprocating said plunger, automatic means controlled by the pressure of the plunger upon the bale being formed for holding the bale in formed position and for moving the same out of the baling chamber, and means for automatically returning said bale moving means to normal position.

3. In a baling press, a baling chamber, a plunger mounted therein, means to continuously reciprocate the plunger, a pivoted bale abutment actuated by the pressure on the bale, and means controlled by said abutment for automatically moving the bale out of the baling chamber.

4. In a baling press, a baling chamber, a plunger mounted therein, means to continuously reciprocate the plunger, means for moving the bale to discharging position out of the baling chamber, means for normally holding said moving means in inoperative position, means for automatically throwing said moving means into operative position.

5. In a baling press, a baling chamber, a plunger mounted therein, means for continuously reciprocating the plunger and bale abutment, means for moving said abutment to bale discharging position, a bale moving mechanism, means for normally holding the abutment and bale moving mechanism in idle position, and means for rendering said holding means inoperative.

[Claims 6 to 12 not printed in the Gazette.]

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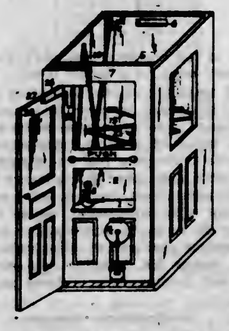
1,043,042. METHOD OF PRODUCING EXPLOSIVES CONTAINING NITRO DERIVATIVES OF COMMON RESIN. OSCAR BIDDER CARLSON, Månsbo, Avesta, Sweden, assignor to Oscar Fredrik Carlson, Stockholm, Sweden. Original application filed Feb. 12, 1910, Serial No. 543,534. Divided and this application filed July 31, 1912. Serial No. 712,462. (Cl. 52—8.)

1. The method of producing combustibles for explosives comprising heating a mixture of a nitro derivative of common resin and an organic nitro compound to a temperature of at least 40° C. for a time of at least a number of hours, substantially as described.

2. The method of producing explosives consisting in heating a mixture of a nitro derivative of common resin and an organic nitro compound to a temperature of at least 40° C. for a time of at least a number of hours and adding a solid oxidizing salt, substantially as described.

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1,043,043. TELEPHONE-BOOTH. WILLIAM DOUGLAS CARTER, Quincy, Ill. Filed Apr. 16, 1910. Serial No. 555,879. (Cl. 20—3.5.)



1. In a telephone booth provided with a ventilating window or opening and an entrance door, a fan door or movable partition mounted therein and adapted to be moved across substantially the whole area of said booth so as to expel and entrain air from and into said booth, and mechanism for operating same.

2. In a telephone booth provided with a ventilating window or opening and an entrance door, a fan door or movable partition mounted therein and adapted to be moved across substantially the whole area of said booth so as to expel and entrain air from and into said booth, and mechanism for actuating same by means of the movement of said entrance door.

3. In a telephone booth provided with a ventilating window or opening and an entrance door, a fan door or movable partition mounted therein and adapted to be moved across substantially the whole area of said booth so as to expel and entrain air from and into said booth, and mechanism for operating same automatically.

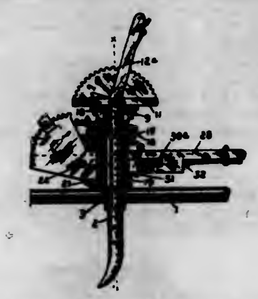
4. In a telephone booth provided with a ventilating window or opening and an entrance door, a fan door or movable partition mounted therein and adapted to be moved across substantially the whole area of said booth so as to expel and entrain air from and into said booth, a spring operating on both sides of a dead-center so as to propel said fan door or movable partition in different directions depending upon the position occupied by said fan door or movable partition with relation to the position of dead center of said spring.

5. In a telephone booth provided with an entrance door and a ventilating window or opening, a stopper for opening and closing said ventilating window or opening, a fan door or movable partition mounted therein and adapted to be moved across substantially the whole area of said booth so as to expel and entrain air from and into said booth, and mechanism for operating said fan door or movable partition.

[Claims 6 to 12 not printed in the Gazette.]

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1,043,044. CULTIVATOR ATTACHMENT. WILLIAM V. CROUCH and MCELVY S. CROUCH, Arlington, Tex., assignors of one-third to H. G. Martin, Arlington, Tex. Filed Dec. 12, 1911. Serial No. 665,298. (Cl. 97—20.)



In a device of the character described, the combination with a cultivator beam, of a socket member pivotally supported by said beam, the pivotal axis being horizontal and transverse of the beam, a plow foot mounted in said socket and adapted to be adjusted as to its position within the socket, a series of vertical corrugations being provided at one side of the plow foot and a rack of transverse teeth at the other side, pivoted quadrants engaging said rack and said corrugations, grooves, being provided in the socket to permit this engagement, means by which said quadrants may be manually subjected to partial rotation and held in various positions of adjustment, and a manually operated means for swinging said socket about its pivotal axis and holding it in various positions of adjustment.

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1,043,045. WINDOW. OLIVER M. EDWARDS, Syracuse, N. Y. Filed Jan. 11, 1911. Serial No. 602,087. (Cl. 20—52.4.)

1. The combination with a window frame, a window sash movable in the frame, and means for moving the sash in the frame, of a member for connecting the sash and said moving means and for holding the sash, said member comprising a pivot or hinge pin, arms rising from the hinge pin, one arm being located at one end thereof and the hinge pin projecting beyond the other arm, the arms being spaced apart, and a rigid bar connecting the free ends of the arms, one of the arms having means for engaging the frame and holding the sash, and the other arm being provided with a projecting stud arranged at a right angle to the general plane of the member, for connection with the sash moving means, and a bearing for said member secured to the window sash, the bearing engaging the portion of the hinge pin between the arms and the projecting end portion thereof, substantially as and for the purpose described.



2. The combination with a window frame, a sash movable in the frame, and means for moving the sash in the frame, of a member for connecting the sash to the sash moving means and for engaging the frame for holding the sash, said member comprising a hinge pin, arms rising from the hinge pin at points spaced apart, one arm being located at the end of the hinge pin and overhanging the edge of the sash and the hinge pin projecting laterally beyond the other arm, the last-mentioned arm being provided with a stud extending from its free end in a direction at an angle to the general plane of said member, for engaging the sash moving means, and a bar connecting the free ends of said arms for rigidly connecting the same, and bearing means for said member comprising a part engaging the portion of the pivot pin between the arms and the laterally extending end portion of such pin, substantially as and for the purpose specified.

3. The combination with a window frame, a sash movable in the frame, and means for moving the sash in the frame, of a member for connecting the sash to the sash moving means and for engaging the frame for holding the sash, said member comprising a hinge pin, arms rising from the hinge pin at points spaced apart, one arm being located at the end of the hinge pin and overhanging the edge of the sash and the hinge pin projecting laterally beyond the other arm, the last-mentioned arm being provided with a stud extending from its free end in a direction at an angle to the general plane of said member for engaging the sash moving means, and a bar connecting the free ends of said arms for rigidly connecting the same, the overhanging arm being provided with a recess extending at a right angle to the axis of the hinge pin, an antifriction member located in the recess, and bearing means for said member comprising a part engaging the portion of the pivot pin between the arms and the laterally extending end portion of such pin, substantially as and for the purpose set forth.

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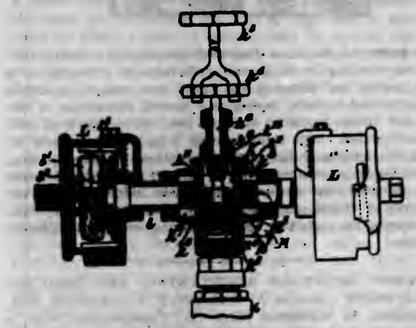
1,043,046. STEAM-TRAP. EDWARD E. GOLD, New York, N. Y., assignor to Gold Car Heating & Lighting Company, New York, N. Y., a Corporation of New York. Original application filed Nov. 7, 1911, Serial No. 658,985. Divided and this application filed Jan. 3, 1912. Serial No. 669,270. (Cl. 236—10.)

1. A valve having a plurality of separated passages, each passage adapted to connect to a return pipe and a trap, said valve having a common outlet, and ports, each port adapted to connect a passage with said outlet, a valve adapted when seated to close said outlet and said ports and to prevent communication between said passages, and when raised to permit free communication between said passages and said outlet.

2. A valve having partitions forming a plurality of separated peripheral passages therein, each passage adapted to connect to a return pipe and a trap, the inner wall of said passages providing a centrally disposed bore which is adapted to communicate with a common outlet, said interior wall being provided with ports each port adapted to connect a passage with said bore, a valve located in said bore adapted when seated to close said outlet and said ports and prevent communication between said passages, and when raised to open said ports and said outlet.

3. A valve body having a plurality of separated passages therein each terminating in an open end, an interior wall having a central bore, said wall provided with ports, each port adapted to connect a passage with said bore and also with an outlet adapted to communicate with said bore, a valve proper adapted when seated to close said outlet and said ports and when open to establish communication between said passages and said outlet.





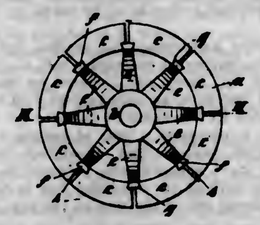
4. A valve body having partitions forming a plurality of passages therein adapted to be disconnected each terminating in an open end, and also having a central bore, a gravity trap connected with each passage, said valve provided with a port adapted to connect each passage with said bore, and also with an outlet adapted to communicate with said bore, a valve proper adapted when seated to close said outlet, and said ports, and when open to establish communication between said passages and said outlet.

5. A valve body having a plurality of passages therein each terminating in an open end, and also having a central bore, a trap connected to one end of each of said passages and thermostatically operated means controlled by the temperature in said trap for closing same, said valve provided with a port adapted to connect each passage with said bore, and also with an outlet adapted to communicate with said bore, a valve proper adapted when seated to close said outlet, and said ports, and when open to establish communication between said passages and said outlet.

[Claims 6 to 11 not printed in the Gazette.]

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1,043,047. ROTOR FOR ELECTRIC MACHINES. RUDOLF GOLDSCHMIDT, Darmstadt, Germany. Filed June 4, 1912. Serial No. 701,662. (Cl. 171—208.)



1. In a ring armature for electric machines, a hub, a plurality of spokes radiating therefrom, a plurality of segments, each of said segments being secured at its ends to the ends of a pair of adjoining spokes and being separated from the adjacent segments by transverse gaps that extend outwardly from the spokes, whereby the strain due to centrifugal action is separately transmitted from each segment to said adjoining spokes.

2. In a ring armature for electric machines, a hub, a plurality of spokes radiating therefrom and having dovetailed heads, a plurality of segments having undercut recesses at both ends, the opposed recesses of each pair of adjoining segments being engaged by a common spoke-head, while the width of said head exceeds the combined depths of said recesses, so as to form a transverse gap between the segments that extends outwardly from the spoke-head, whereby the strain due to centrifugal action is separately transmitted from each segment to the two adjoining spokes.

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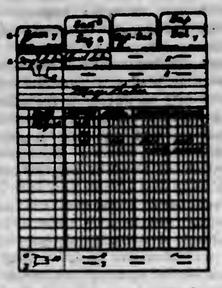
1,043,048. SANITARY LINING FOR REFRIGERATORS AND CLOSETS. AUGUSTUS E. GROCHAU, Eau Claire, Wis. Original application filed Apr. 13, 1911, Serial No. 620,802. Divided and this application filed Mar. 4, 1912. Serial No. 681,453. (Cl. 62—10.)



In a lining for refrigerators or other receptacles, a wall of sheet metal folded intermediate of its upper and lower edges to form an inwardly directed lip having an inclined lower face, the opposite ends of said lip being folded back against the body portion of said wall so as to close the ends of the channels formed by the angle between the upper and lower faces of said lip.

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1,043,049. INDEX, RECORD, AND FILING CARD. MAX HERMANN, Santa Rosa, Cal. Filed July 24, 1912. Serial No. 711,289. (Cl. 129—16.)



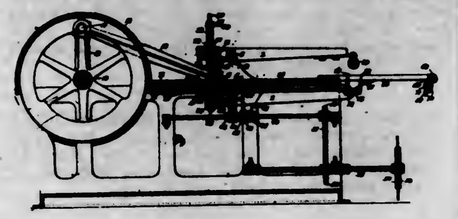
1. A sheet of the character described and a tag attachment therefor, consisting of a long narrow strip of sheet material formed at its ends with means for respectively engaging opposite marginal portions of the sheet to oppose removal therefrom.

2. A sheet of the character described and a tag attachment therefor, consisting of a long narrow strip of sheet material formed at its ends with means for respectively engaging opposite marginal portions of the sheet to oppose removal therefrom, said tag attachment being sufficiently long to project at one end beyond one of said marginal portions to furnish a tag.

3. In combination with a sheet of the character described, a tag attachment consisting of a long narrow strip of sheet material cut at each end thereof to furnish means for respectively engaging opposite marginal portions of the sheet to oppose removal of the tag attachment therefrom.

4. In combination, a sheet of the character described, and a tag attachment consisting of a long narrow strip of sheet material, opposite marginal portions of the sheet, and the ends of the tag attachment, being cut to form parts respectively co-engaging each other to secure the attachment to the sheet, and the tag attachment extending sufficiently at one end beyond the cut formed therein to form a tag projecting beyond the corresponding margin of the sheet.

1,043,050. LEATHER-STAKING MACHINE. ALFRED C. LAYMAN, Wilmington, Del. Filed Mar. 11, 1911. Serial No. 613,602. (Cl. 149—20.)



1. In a leather staking machine, the combination of a pivotally mounted arm, a swinging support for said arm, a threaded sleeve suitably supported for rotative movement, means for moving said sleeve, and a nut on said sleeve operatively connected with said swinging support whereby movement of said threaded sleeve will effect longitudinal movement of the arm.

2. In a leather staking machine, the combination of an arm carrying staking elements, a swinging support in which said arm is pivotally mounted, a threaded sleeve, a rotatable support for the same, a nut on said sleeve operatively connected to said swinging support, and means for rotating said threaded sleeve to move said nut and effect longitudinal movement of the arm.

3. In a leather staking machine, the combination of a pivotally mounted arm, a swinging support for said arm, a threaded sleeve, a shaft carrying said sleeve, means for moving said shaft, and a nut on said sleeve in operative engagement with said swinging support whereby movement of said threaded sleeve will effect longitudinal movement of the arm.

4. In a leather staking machine, the combination of an arm carrying staking blades, a swinging support in which said arm is pivotally mounted, a threaded sleeve, a rotatable shaft carrying the same, a nut on said sleeve pivotally connected to said swinging support, and means for rotating said shaft whereby movement is imparted to said threaded sleeve to effect longitudinal movement of the arm.

5. In a leather staking machine, the combination of a frame, a cross-head reciprocable therein, means for moving said cross-head, a swinging support carried by said cross-head, an arm pivotally hung on said swinging support, a threaded sleeve suitably supported, means for rotating said sleeve, and a nut on said sleeve in operative engagement with said swinging support whereby movement of said threaded sleeve will effect longitudinal movement of the arm.

[Claims 6 to 12 not printed in the Gazette.]

1,043,051. METHOD OF PROTECTING FLOATING BODIES AGAINST ADHERING OF MUSSELS. ERIK LIEBRICH, Berlin, Germany. Filed Aug. 8, 1912. Serial No. 714,037. (Cl. 91—68.)

1. The method of protecting floating bodies against adhesion of mussels and other aquatic animals, consisting in coating the same with an antirust paint and then with a paint capable of reacting with water to set free alkaline lyes or solutions.

2. The method of protecting floating bodies against adhesion of mussels and other aquatic animals, consisting in coating the same with an antirust paint and then with a paint containing amids of alkalis.

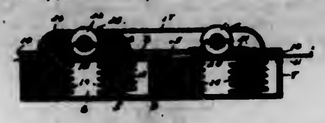
3. An article provided with an exterior coating containing a compound capable of reacting with water to set free an alkali.

4. An article provided with an exterior coating containing an amid setting free alkali in the presence of water.

5. An article provided with an exterior coating containing sodamid setting free alkali in the presence of water.

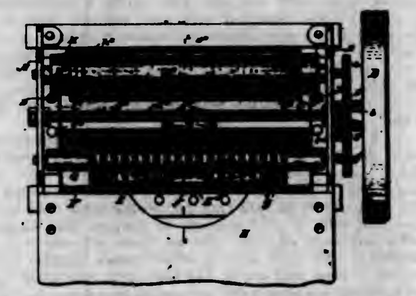
[Claims 6 and 7 not printed in the Gazette.]

1,043,052. TICKET-HOLDER. EINAR OTTEN, Winnipeg, Manitoba, Canada. Filed Apr. 5, 1912. Serial No. 688,712. (Cl. 206—40.)



A device of the class described comprising a casing having an opening in each end wall thereof, a partition in said casing for dividing the same into compartments, a hood carried by said casing and spaced therefrom, a corrugated roller mounted in said hood above each of said compartments, said rollers being adapted to project beyond the hood and into said casing, and a spring pressed ticket holding plate mounted in each of said compartments and adapted for normal engagement with said rollers, whereby a ticket may be ejected from each of the compartments through the opening in the end wall adjacent thereto.

1,043,053. ENVELOP MOISTENING AND SEALING MACHINE. LESLIE A. WAKEFIELD, Trempealeau, Wis., assignor to Wakefield Sales Co., Trempealeau, Wis., a Corporation of Wisconsin. Filed Nov. 15, 1911. Serial No. 660,464. (Cl. 120—6.)



1. An envelop moistening and sealing machine comprising a pair of moistening and feeding rolls constructed to receive an envelop flap-first and moisten the gummed portion, a pair of sealing-rolls parallel with the moistening rolls and located near enough thereto to receive the flap-edge of an envelop directly therefrom, and light spring-fingers between the two pairs of rolls in the path of the extended envelop flap to turn the same and then be forced back by the oncoming envelop in its travel to the sealing rolls.

2. An envelop moistening and sealing machine comprising a spring supported moistening roll, a water trough in which said roll turns and mounted on the roll supports to yield therewith, an upper driven feed roll to hold the envelop with its flap extended down to the moistening roll and feed it rearward, a pair of sealing rolls to receive the envelop, flap-edge first, direct from the moistening roll, and light spring-fingers between the two sets of rolls in the path of the oncoming flap to first turn it and then be moved out of the way by the flap edge of the envelop.

3. An envelop moistening and sealing machine comprising a frame, spring supported bars at opposite ends of the frame, a water trough mounted on the front portions of the bars, a moistening roll mounted on said bars and turning in the trough, a driven feed roll mounted in the frame above the moistening roll, a lower sealing roll mounted on the rear ends of said yielding bars, an upper sealing roll driven at the same speed and in the same direction as said feed roll, means for rotating the said driven rolls; the feed rolls being spaced from the moistening roll to receive an envelop, flap-edge first, directly therefrom and a yielding flap turner extending into the path of the extended flap to bend it and then yield to the passage of the envelop.

4. An envelop moistening and sealing machine comprising a moistening roll formed of end driving rings or disks and a moistening plate diverging rearwardly from its forward middle portion in opposite directions toward its end where it is secured to said driving rings or disks, a water trough in which said roll turns, a driven feed roll over the moistener roll and divided into a series of rings or disks, a pair of sealing rolls in rear of the first named rolls and spaced therefrom a distance to receive the flap-edge of an envelop directly therefrom, means for driving the upper sealing roll and a yielding flap turning device between the two pairs of rolls and extending into the path of the envelop flap to first bend it and then yield to the passage of the envelop.

5. An envelop moistening and sealing machine comprising a yielding moistening roll formed of end rings or disks and a moistening plate diverging rearwardly in opposite directions from its forward middle portion to its ends where it is secured to said rings or disks; said plate having its surface formed with minute water receiving grooves, a water trough in which the roll revolves, a scraper on the trough engaging said roll to remove surplus water, a driven feed roll comprising a series of rings or disks, a pair of sealing rolls adapted to receive the flap edge of an envelop directly from the first named rolls, and a yielding flap-bender intermediate the two pairs of rolls and extending into the path of the envelop flap to bend it and then yield to the passage of the envelop.

[Claim 6 not printed in the Gazette.]

1,043,054. MOLDING SOCKET AND PLUG. GEORGE BROOKS, New York, N. Y., assignor of one-half to Carl Bomeisler, New York, N. Y. Filed June 11, 1910. Serial No. 566,361. (Cl. 173—329.)



1. The combination of a molding comprising two separated sections, with a socket member disposed intermediate the separate ends of said molding sections, a detachable plug adapted to be fitted into said socket member, and means on said molding sections adapted to inclose said plug and positively secure the same in position within said socket member, substantially as specified.

2. The combination of a molding comprising two separated sections, with a socket member disposed intermediate the separated ends of said molding sections, a detachable plug adapted to be fitted into said socket member, a housing secured to said molding sections, and means arranged upon said housing and cooperating therewith to inclose said plug and positively secure the same in position within said socket member, substantially as specified.

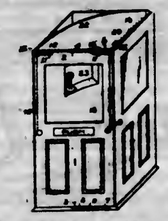
3. The combination of a molding comprising two separated sections, with a socket member corresponding in cross-sectional area with said molding, fitted intermediate the separated ends thereof, a detachable plug adapted to be fitted into said socket member, a housing for said socket member and plug, and covering means on said housing adapted to maintain said plug in position within said socket member, substantially as specified.

4. The combination of a molding comprising two separated sections, with a socket member disposed intermediate the separated ends of said molding sections, and conformed thereto a detachable plug adapted to be fitted into said socket member, a housing secured to the ends of said separated molding sections and provided with an opening, and cover plates movably arranged upon said housing adapted to maintain said plug in position within said socket member, substantially as specified.

5. The combination of a molding comprising two separated sections, with a socket member disposed intermediate the same, a detachable plug adapted to fit entirely within said socket member, a housing secured to the ends of said separated molding sections and provided with an opening to admit said detachable plug, and cover plates arranged upon said housing adapted to cover the opening therein and maintain said plug in position within said socket member, substantially as specified.

[Claims 6 to 8 not printed in the Gazette.]

1,043,055. TELEPHONE-BOOTH. WILLIAM DOUGLAS CARTER, Quincy, Ill. Filed Oct. 18, 1910. Serial No. 587,756. (Cl. 20—35.)



1. In a telephone booth provided with a telephone, a door adapted to be moved through substantially the whole area of said booth so as to expel and entrain air from and into said booth, and contrived so as to be the means of closing the doorway of said booth.

2. In a telephone booth provided with a telephone, a door adapted to be moved through substantially the whole area of said booth so as to expel and entrain air from and into said booth, and to be the means of closing the doorway of said booth, and mechanism for actuating the same to return it to a closed position when opened.

3. In a telephone booth provided with a telephone, a door adapted to be moved through substantially the whole area of said booth so as to expel and entrain air from and into said booth; said door being so hinged that part of said door extends to each side of its center of oscillation, so that part of said door on one side of said axis of oscillation will swing in the opposite direction to that part of said door on the other side of said axis of oscillation; said door likewise being contrived to close the doorway of said booth, substantially as set forth.

4. In a telephone booth provided with a telephone, a revolving door so adapted as to be moved through substantially the whole area of said booth so as to expel and entrain air from and into said booth, and being so contrived as to close the opening of said booth.

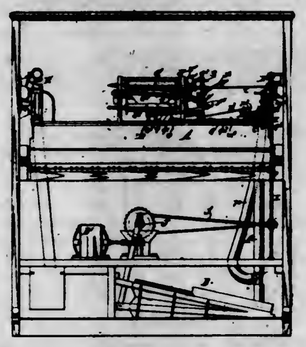
5. In a telephone booth provided with a telephone, a door so adapted as to be moved through substantially the whole area of said booth so as to expel and entrain air from and into said booth; and to provide automatically an opening for the egress of air from said booth; and to be the means of closing the doorway of said booth, substantially as set forth.

[Claims 6 to 15 not printed in the Gazette.]

1,043,056. AUTOMATIC MUSICAL INSTRUMENT. FRANK L. MCCORMICK and AUGUST DE KLEIST, North Tonawanda, N. Y., assignors to The Rudolph Wurlitzer Manufacturing Company, North Tonawanda, N. Y., a Corporation of New York. Filed May 6, 1910. Serial No. 559,822. (Cl. 84—106.)

1. In an instrument of the character described, the combination of take-up and music rolls, driving and rewind wheels for alternately rotating said rolls, an oscillating shaft carrying wheels arranged to engage with said driving and rewind wheels, respectively, a constantly-actuated member, and means for oscillating said shaft including a part movable into and out of the path of said member.

2. In an instrument of the character described, the combination of take-up and music rolls, driving and rewind wheels for alternately rotating said rolls, an oscillating shaft carrying wheels arranged to engage with said driving and rewind wheels, respectively, a constantly actuated member, and means for oscillating said shaft including a part movable into and out of the path of said member and a pneumatic for moving said part into the path of said member.



3. In an instrument of the character described, the combination of take-up and music rolls, driving and rewind wheels for alternately rotating said rolls, an oscillating shaft carrying wheels arranged to engage with said driving and rewind wheels, respectively, a constantly-actuated member, a shifting lever connected with said shaft, and a trip-bar acting upon said lever and movable into and out of the path of said member.

4. In an instrument of the character described, the combination of take-up and music rolls, driving and rewind wheels for alternately rotating said rolls, an oscillating shaft carrying wheels arranged to engage with said driving and rewind wheels, respectively, a shifting lever connected with said shaft, a rotary cam, a trip-bar attached to said lever and movable into and out of the path of said cam, a spring tending to withdraw the trip-bar from the cam, and a pneumatic for moving said bar into the path of the cam.

5. In an instrument of the character described, the combination of take-up and music rolls, driving and rewind wheels for alternately rotating said rolls, and oscillating shaft carrying wheels arranged to engage with said driving and rewind wheels, respectively, shifting means for the oscillating shaft, means for locking said shifting means, and releasing means for said locking means controlled by the take-up roll.

[Claims 6 to 20 not printed in the Gazette.]

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1,043,057. POLE-CAP FOR VEHICLES. AUGUST MOHRN, Naples, S. D. Filed Dec. 26, 1911. Serial No. 667,943. (Cl. 21—92.)



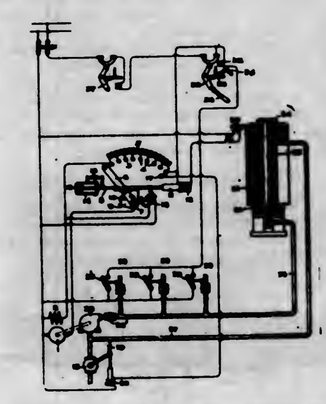
1. The combination with the pole of a vehicle, of a cap secured on same and having a crutch-shaped front end, and rearward thereof an upward lug, a neck-yoke adapted to have its rear side loosely engaged in said crutch, two links secured to the neck-yoke, a ring secured in the links and adapted to encircle the pole cap and engage the rear side of the lug and hold the neck-yoke in said position.

2. The combination with the pole of a vehicle, of a cap secured thereon and having a crutch-shaped front end and rearward thereof an upward lug, and rearward thereof a downward lug, a neck-yoke having near its middle two links and a ring secured in the links, said ring being adapted to engage the rear shoulder of the upward lug when the yoke is in the crutch, and to engage the front side of the downward lug when the yoke is used upon the upper side of the cap, whereby the same device is capable of being used for neck yokes having rings of different sizes.

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# REISSUES.

13,483. MOTOR-CONTROL SYSTEM. KENNETH F. KINGWELL, Rugby, England, assignor to General Electric Company, a Corporation of New York. Filed Sept. 25, 1912. Serial No. 722,372. Original No. 1,022,029, dated Apr. 2, 1912, Serial No. 536,290. (Cl. 172—288.)



1. The combination with an electric motor and a pump driven thereby, of an automatic starter for said motor, an electromagnetically operated valve for controlling the supply of fluid, an accumulator for storing fluid, a circuit breaker for opening the motor circuit, means for automatically tripping the circuit breaker when the fluid in said accumulator reaches a predetermined point and for automatically operating the valve when it reaches a second predetermined point, and means for preventing the operation of the circuit breaker while the supply of fluid is being consumed.

2. The combination with an electric motor and a pump driven thereby, of an accumulator for storing fluid, a valve controlling the consumption of fluid from said accumulator, a circuit breaker arranged to be automatically opened when the fluid in said accumulator reaches a predetermined point and connections whereby the automatic opening of said circuit breaker is prevented while the valve is closed.

3. The combination with an electric motor and a pump driven thereby, of an accumulator for storing fluid, a plurality of valves controlling the consumption of fluid from said accumulator, a circuit breaker arranged to be automatically opened when the fluid in said accumulator reaches a predetermined point and connections whereby the automatic opening of said circuit breaker is prevented while any one of said valves has closed.

4. The combination with an electric motor and a pump driven thereby, of an accumulator for storing fluid, a circuit breaker arranged to be automatically opened when the fluid in the accumulator reaches a predetermined point, and means for preventing the operation of the circuit breaker at said point while the stored fluid is being consumed.



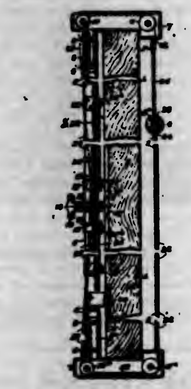
5. The combination with an electric motor and a pump driven thereby, of an accumulator for storing fluid, an automatic starter for said motor arranged to be operated when the fluid in the accumulator reaches a predetermined point, a circuit breaker arranged to be automatically opened when the fluid in the accumulator reaches a second predetermined point, and means for preventing the operation of the circuit breaker while the stored fluid is being consumed.

6. The combination with an electric motor and a pump driven thereby, of an accumulator for storing fluid, a circuit breaker arranged to be automatically operated when the fluid in said accumulator reaches a predetermined point in the accumulator, a plurality of switches arranged in parallel, and connections whereby the automatic opening of said circuit breaker is prevented when any one of said switches is closed.

7. The combination with an electric motor and a pump driven thereby, of an accumulator for storing fluid, a circuit breaker arranged to be automatically operated when the fluid in said accumulator reaches a predetermined point in said accumulator, a plurality of switches, and connections whereby the automatic opening of said circuit breaker is prevented when any one of said switches is operated.

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13,484. BULLETIN-BOARD. GEORGE HENRY PARKER, Stamford, Conn., assignor, by mesne assignments, to Mabel C. Baker, Stamford, Conn. Filed Jan. 24, 1912. Serial No. 673,267. Original No. 962,164, dated June 21, 1910, Serial No. 488,862. (Cl. 235—1.)



1. In a ball bulletin board, the combination of a field representation at the front of the board, a field representation at the rear of the board, an indicator adapted to move to any part of the front field representation, a cord connected to the indicator, an element adapted to move to any part of the rear field representation and having associated means directly engaging the cord for differentially moving the element and indicator, and a movable carrying frame upon which said element is mounted for bodily movement.

2. In an apparatus of the character described, the combination of a board having at the front thereof a representation, an indicator to move thereover, a lengthwise movable flexible member connected to the indicator, a movable operating device arranged at a point removed from said representation, means associated with the movable operating device and flexible member for moving the indicator in the same direction as the movable device at a different speed, and a movable frame constituting a guide upon which the device is mounted for back and forth movement.

3. In an apparatus of the character described, the combination of a board having a field representation, a frame, and an actuating element carried thereby arranged at the rear of the field, an indicator to move over the field surface, a cord connected to the indicator and extending beyond the field to the rear thereof and connected directly to said frame, and said element being movable on the frame and engaging said cord intermediate its ends whereby to move the indicator a different distance relative to the element and at the same time.

4. In an apparatus of the character described, the combination of a field representation, an indicator, a flexible support for the indicator, a movable actuating means at the rear of the field for moving said flexible support, associated means whereby the indicator moves an increased distance over the field relative to said means, and a movable guide or runway upon which said actuating means is mounted for back and forth movement.

5. In an apparatus of the character described, the combination of a field representation, an indicator, a flexible support for the indicator extending in one direction beyond the bounds of the field, an auxiliary flexible support for the indicator extending in an opposite direction beyond the bounds of the field, supporting means to which the ends of the flexible supports are connected, bodily movable actuating means at the rear of the field for engaging said flexible supports intermediate their ends to impart movement thereto, and associated mechanism whereby the indicator moves an increased distance over the field relative to said means.

6. In an apparatus of the character described, the combination of a field representation, a supporting member positioned at a point removed from the field, an indicator adapted to play over the field, an actuating device for the indicator connected to said support and mounted to move bodily on said support, and means whereby a relatively short movement of the actuating device will result in an increased movement of the indicator.

7. In an apparatus of the character described, a field representation, an indicator to move thereover, a runway positioned at a point beyond the bounds of the field, a shoe mounted on said runway, and connections between the shoe and indicator whereby a short movement of the shoe will result in an extended movement of the indicator.

8. In an apparatus of the character described, a movable indicator, a board over which the indicator passes, a movable guide, a device mounted to move on said guide, and means whereby a movement of the device on the guide a given distance will result in a movement of the indicator a different distance.

9. In an apparatus of the character described, the combination of a board having thereon a field representation, an elongated guide, a device mounted on the guide for movement, a guide surface for the device, an indicator to play over the field representation, and connections between the device and indicator whereby a relatively short movement of the device will result in an increased movement of the indicator.

10. In an apparatus of the character described, the combination of a field representation, a movable supporting frame, an indicator to move over the field representation, an actuating device mounted to move back and forth on said frame, and means whereby the device and indicator move at different speeds.

11. In an apparatus of the character described, the combination of a field representation, a swinging supporting frame, an indicator to move over the field representation, an actuating device mounted to move back and forth on said frame, and means whereby the device and indicator move at different speeds.

12. In an apparatus of the character described, the combination of a field representation, an indicator to play thereover, a lengthwise movable support for the indicator, an operating device for moving said support arranged at a point removed from the bounds of the field, associated instrumentalities whereby the operating device and indicator move in the same direction different distances at the same time, a guide surface for the operating device, and a movable carrying frame for the operating device.

13. In an apparatus of the character described, the combination of an indicating surface, an indicator adapted to play over the said surface, a support, a flexible mem-

ber connected at one end to said support and at its opposite end to the indicator, and an operating device engaging said flexible member intermediate its ends.

14. In an apparatus of the character described, the combination of a field representation, an indicator adapted to play over the surface of the same, a support, a flexible member connected at one end to said support and at its opposite end to the indicator, an operating device engaging said flexible member intermediate its ends, and an auxiliary field representation constituting a guide surface for said operating device.

15. In an apparatus of the character described, the combination of a field representation, of a guide surface, an indicator adapted to play over the field representation, an operating shoe adapted to play over the guide surface, a support, a cord connected at one end to said support and at its opposite end to the indicator, and an antifriction bearing on the shoe adapted to be engaged by the cord whereby the indicator is operated by the movement of the shoe.

16. In an apparatus of the character described, the combination of a field representation, a suitable support to the rear of the field, an indicator adapted to play over the field surface, a device movable relative to the support, a flexible member connected at one end to the support and at its opposite end to the indicator, and guiding means for said flexible member mounted on the device and support respectively, and acting through said flexible member to move the indicator an increased distance relative to the device.

17. In an apparatus of the character described, the combination of a field representation, of an indicator adapted to play thereover, a support, a cord connecting with the indicator at one end and secured to said support at its opposite end, and means movable on said support engaging the cord intermediate its ends for moving the indicator relative to said field.

18. In an apparatus of the character described, a field representation, a pivoted supporting member, an indicator adapted to play over the field representation, a flexible member secured to the supporting member adjacent one end and connected to the indicator, and means movable relative to the support and engaging said flexible supporting member intermediate its ends for moving the indicator an increased distance relative to said means.

19. In an apparatus of the character described, the combination of a field representation, of an auxiliary field representation, a suitable support adjacent the auxiliary field representation, an indicator adapted to play over the main field representation, a shoe movable on the support adapted to play over the auxiliary representation, a flexible member adjustably connected to said support adjacent one end and connected to the indicator adjacent its opposite end, and an operative connection between said cord and shoe whereby as the shoe operates over the auxiliary field the indicator will operate over the main field.

20. In an apparatus of the character described, the combination of a field representation, an indicator to move thereover, a flexible member connected to the indicator and projecting in one direction beyond the bound of the representation, an auxiliary flexible member connected to the indicator and projecting in an opposite direction beyond the bounds of the representation, supporting means to which said ends of the flexible members are connected, a bodily movable operating member operatively connected to both flexible members at a point intermediate the ends of said members for moving the indicator a different distance relative to the operating member, and a guide surface for the operating member.

21. In an apparatus of the character described, a field representation, an indicator to move thereover, a support connected at one end to the indicator and projecting in one direction beyond the bounds of the field, an auxiliary support connected to the indicator and projecting in an opposite direction beyond the bounds of the field, and a bodily movable member having associated means engaging said supports for moving the indicator in the same direction as the movable member different distances during the same time.

22. In an apparatus of the character described, the combination of a field representation, an indicator adapted to play thereover, and an operating device for the indicator including oppositely disposed body parts, a tubular member between said body parts, arms connecting respectively with said tubular member and body parts, a shoe carried by the tubular member, and a guide surface for the shoe.

23. In an apparatus of the character described, the combination of a field representation, an indicator adapted to play thereover, an operating shoe slidably mounted at the rear of the field, rollers on the shoe, a support, cords secured at one end to said support and passing around said rollers whereby the same is operated by the shoe, and a connection between the cords and indicator.

24. In an apparatus of the character described, the combination of a field representation, a support, an indicator adapted to play over the field surface, a shoe movable relative to the support, a flexible member connected at one end to the support and at its opposite end to the indicator, and guide pulleys for said flexible member mounted on the shoe and support respectively.

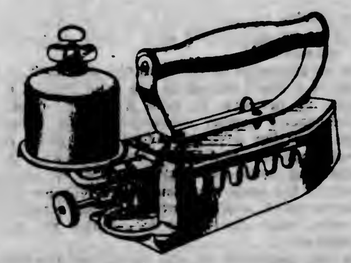
25. In an apparatus of the character described, the combination with a board member, an indicator adapted to be moved across the face thereof, a carrier for the indicator comprising a frame located at the rear of the board, a movable actuating device on the carrier frame, pulleys on the said actuating device, pulleys on the carrier frame, and flexible means to which the indicator is connected passing around said pulleys on the actuating device and over the pulleys on the frame.

26. In an apparatus of the class described, the combination with a board member, of a movable frame member, an actuating device slidable longitudinally on the frame member, an indicator arranged at the front of the board, and means interposed between the indicator and the frame and associated with said actuating device whereby upon the movement of the actuating device the indicator is moved a distance greater than the distance of the movement of the actuating device.

27. In an apparatus of the class described the combination with a board member having guide grooves, of a movable frame member, an actuating device slidable longitudinally on the frame member, an indicator arranged at the front of the member, and means interposed between the indicator and the frame and associated with said actuating device whereby upon the movement of the actuating device the indicator is moved a distance greater than the distance of the movement of the actuating device, and a movable shoe carried by the actuating device adapted to engage the guide grooves.

# DESIGNS.

43,185. GASOLENE-HEATED BAD-IRON. HENRY H. BARLOW, Chicago, Ill. Filed May 8, 1912. Serial No. 695,996. Term of patent 7 years.



The ornamental design for a gasolene heated sad iron, as shown.

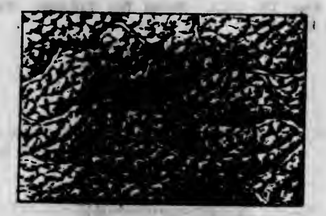


43,186. BURIAL-CASKET HANDLE-PLATE. CHARLES BLANCH, Newport, Ky., assignor to The Crane & Breed Manufacturing Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Apr. 21, 1911. Serial No. 622,630. Term of patent 7 years.



The ornamental design for a burial-casket handle-plate, as shown and described.

43,187. PLATE-GLASS. EDWARD FERGUSON CHANCE, Sandford St. Martin, England, assignor to Chance Brothers and Co. Limited, Glass Works, near Birmingham, England. Filed July 25, 1910. Serial No. 573,015. Term of patent 14 years.



The ornamental design for plate glass as shown.

43,188. FRAME OR STAND FOR ANESTHETIC-ADMINISTERING APPARATUS. ALBERT CHARLES CLARK, Chicago, Ill., assignor to A. C. Clark & Company, Chicago, Ill., a Corporation of Illinois. Filed July 1, 1912. Serial No. 707,111. Term of patent 14 years.



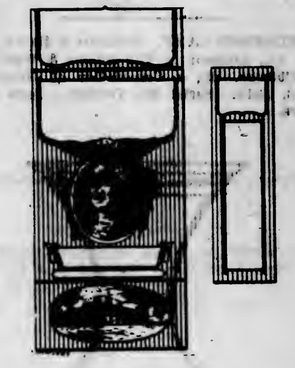
The ornamental design for the frame or stand for an anesthetic apparatus, as shown.

43,189. CONDIMENT-HOLDER. GEORGE S. CLEMENS, Trenton, N. J. Filed July 31, 1912. Serial No. 712,866. Term of patent 7 years.



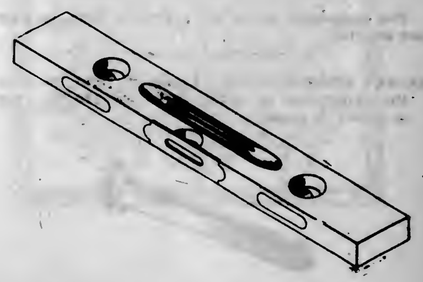
The ornamental design for a condiment holder, as shown and described.

43,190. CARTON. ROBERT CROSBY, New York, N. Y., assignor to William H. Owen, New York, N. Y. Filed Nov. 20, 1911. Serial No. 661,897. Term of patent 14 years.



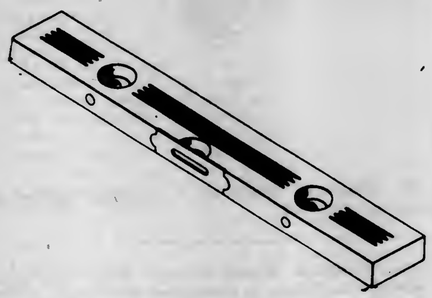
The ornamental design of a carton, as shown.

43,191. LEVEL. WILLIAM DISTON, Philadelphia, Pa., assignor to Henry Diston & Sons, Incorporated, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 17, 1912. Serial No. 704,239. Term of patent 14 years.



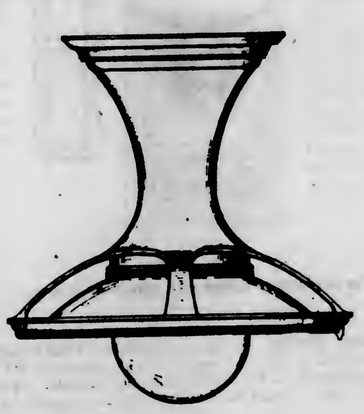
The ornamental design for a level, as shown.

43,192. LEVEL. WILLIAM DISSTON, Philadelphia, Pa., assignor to Henry Disston & Sons, Incorporated, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 17, 1912. Serial No. 704,240. Term of patent 14 years.



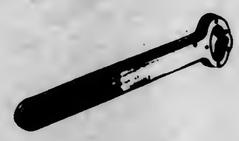
The ornamental design for a level, as shown.

43,193. PENDENT LAMP. WILLIAM S. HAMM, Hubbard, Woods, Ill., assignor to The Adams & Westlake Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 23, 1912. Serial No. 716,751. Term of patent 14 years.



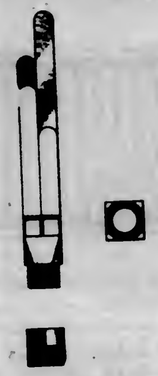
The ornamental design for a pendent lamp, as shown and described.

43,194. KNIFE-HANDLE. LESLIE P. HUEY, St. Louis, Mo. Filed July 18, 1912. Serial No. 710,261. Term of patent 14 years.



The ornamental design for a knife handle, as shown.

43,195. AUTOMOBILE-HORN. GULIAN V. P. LANSING, Chicago, Ill., assignor to Aermore Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed July 29, 1912. Serial No. 712,200. Term of patent 7 years.



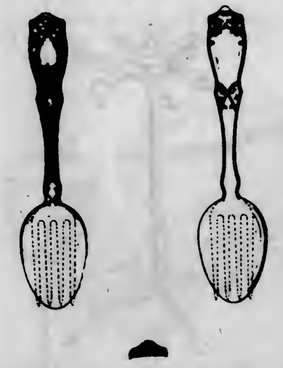
The ornamental design for an automobile horn, as shown and described.

43,196. GAS-STOVE. LOUIS LEBOVITZ, Pittsburgh, Pa. Filed Aug. 16, 1912. Serial No. 715,528. Term of patent 14 years.



The ornamental design for a gas stove, as shown.

43,197. SPOON, FORK, OR SIMILAR ARTICLE. ERNST H. LOHRMANN, Providence, R. I., assignor to The Williams Brothers Manufacturing Company, Glastonbury, Conn., a Corporation of Connecticut. Filed June 25, 1912. Serial No. 705,879. Term of patent 7 years.



The ornamental design for a spoon, fork or similar article, as shown.



43,198. TELEPHONIC TRANSMITTING-STATION. EDGAR LOWE, HOWELL WILLIAM HAFF, and WALLACE PFAU ANDRICK, Jamaica, N. Y., assignors to Kelley Monroe Turner, Jamaica, N. Y. Filed Mar. 6, 1911. Serial No. 612,712. Term of patent 14 years.



The ornamental design for a telephonic transmitting station as shown and described.

43,199. INCLOSURE FOR CIRCUIT-CONTROLLERS. RAY H. MANSON, Elyria, Ohio, assignor to The Dean Electric Company, Elyria, Ohio, a Corporation of Ohio. Filed June 7, 1912. Serial No. 702,376. Term of patent 7 years.



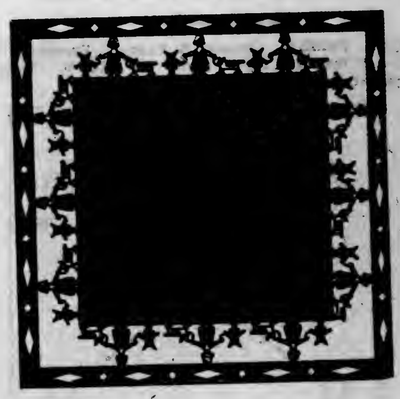
The ornamental design for an inclosure for circuit controllers as shown.

43,200. IMITATION PAPER PARASOL. ISIDORE MARKS, Boston, Mass. Filed Aug. 9, 1912. Serial No. 714,817. Term of patent 3½ years.



The ornamental design for an imitation paper-parasol, as shown.

43,201. HANDKERCHIEF. EDITH M. MINER, Colville, Wash. Filed Sept. 3, 1912. Serial No. 718,423. Term of patent 3½ years.



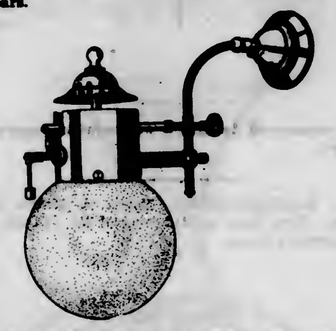
The ornamental design for a handkerchief, as shown.

43,202. DOLL. EDITH M. MINER, Colville, Wash. Filed Sept. 3, 1912. Serial No. 718,426. Term of patent 3½ years.



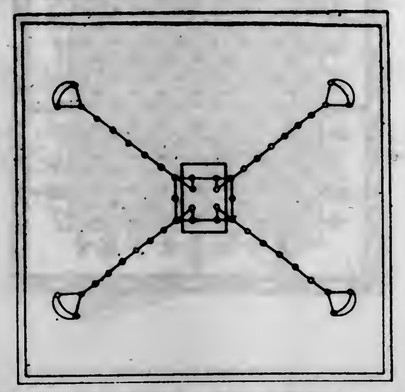
The ornamental design for a doll as shown.

43,203. LAMP. JAMES H. PHINNEY, Chicago, Ill. Filed Sept. 4, 1912. Serial No. 718,581. Term of patent 3½ years.



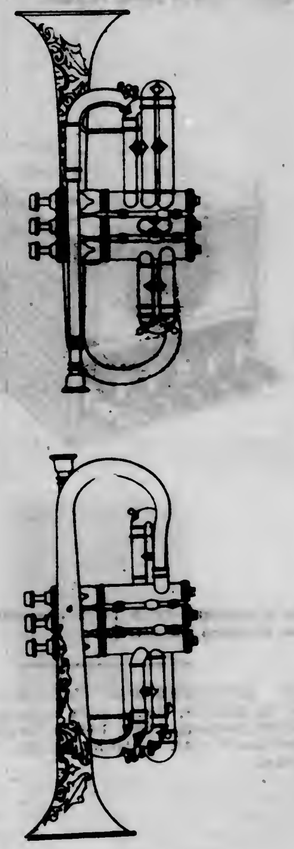
The ornamental design for a lamp, as shown.

43,204. PUZZLE. CHARLES H. RANDALL, Evansville, Ind. Filed June 12, 1911. Serial No. 632,960. Term of patent 3½ years.

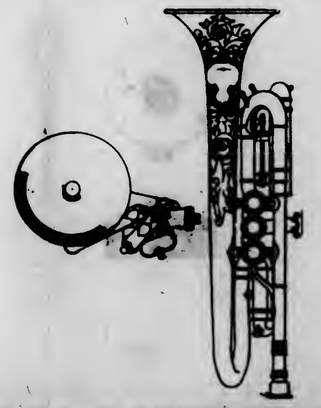


The ornamental design for a puzzle, as shown.

43,205. CORNET. FRANCIS A. REINHOLDT, Cleveland, Ohio. Filed Aug. 22, 1912. Serial No. 716,841. Term of patent 14 years.







The ornamental design for a cornet, as shown.



43,206. VASE. ANDREW J. SANFORD, Newark, Ohio, assignor to A. H. Heisey & Co., Newark, Ohio, a Copartnership. Filed July 18, 1912. Serial No. 709,294. Term of patent 14 years.



The ornamental design for a vase, as shown.

43,207. BADGE. LOUIS B. SOMMESEN, New Orleans, La., assignor to United Ancient Order of Druids, New Orleans, La. Filed Aug. 9, 1912. Serial No. 714,811. Term of patent 14 years.



The ornamental design for a badge, as shown.

43,208. BABY-SPOON. EVA C. STUVER, Tacoma, Wash. Filed Feb. 5, 1912. Serial No. 675,677. Term of patent 14 years.



The ornamental design for a baby spoon, as shown.

# TRADE-MARKS

## PUBLISHED OCTOBER 29, 1912.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 28,962. (CLASS 37. PAPER AND STATIONERY.) AMERICAN WRITING PAPER COMPANY, Holyoke, Mass. Filed July 22, 1907.

SIOUX

*Particular description of goods.*—Writing and Printing Paper.
*Claims use* since 1895.

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Ser. No. 41,324. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BEECH-NUT PACKING COMPANY, Canajoharie, N. Y. Filed Mar. 22, 1909.
The annular band being red.




*Particular description of goods.*—Cured Ham, Bacon, Beef, Codfish and Herring; Sausage, Camembert Cheese, Pimento-Cheese, Roquefort-Type Cheese; Peanut-Butter; Canned Beans; Canned Bacon and Beans, Canned Beans with Tomato Sauce, Canned Bacon and Beans with Tomato Sauce, Canned Beans and Selected Pork; Malt Vinegar, Cider Vinegar; Olive-Oil; Gelatin; Tomato Catsup; Prepared Mustard; Strawberries, Raspberries, and Cherries Preserved in Syrup; Grape, Quince, Fig, Peach, Blackberry, Raspberry, Strawberry, Cherry, and Plum Jams; Blackberry, Pineapple, Huckleberry, Cherry, and Ginger-Pear Preserves; Cranberry Sauce; Olives; Orange, Grape-Fruit, Rhubarb, and Lime-Fruit Marmalades; Spiced Plums; Preserved Persian and Fard Dates and Figs; Quince, Apple, Black-Currant, Grape, Crabapple, and Red-Currant Jellies; Peppermint, Lime, Wintergreen, Clove, Cinnamon, Lemon, Hoarhound, and Anise Cut Candies; Wintergreen, Mint, and Vanilla Cream Candies; and Chewing-Gum.
*Claims use* since the latter part of the year 1899.

Ser. No. 55,033. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) EDWARD G. LESSENSKY, Chicago, Ill. Filed Mar. 13, 1911.

EMAREX

*Particular description of goods.*—Blown-Oil Asphalts, Commonly Called in the Trade "Mineral Rubber."
*Claims use* since Feb. 13, 1911.

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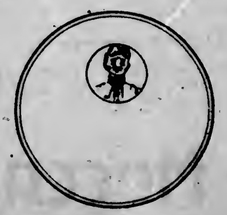
Ser. No. 55,536. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE ATKINS CO., New York, N. Y. Filed Apr. 5, 1911.




*Particular description of goods.*—Metal Cleaning and Polishing Compounds.
*Claims use* since Dec. 15, 1910.

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Ser. No. 55,760. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CARRIE THALIA HUTCHINSON, South Brooksville, Me. Filed Apr. 14, 1911.



The picture being that of the applicant.
*Particular description of goods.*—Remedy for Skin Diseases.
*Claims use* since Dec. 8, 1910.

Ser. No. 57,099. (CLASS 11. INKS AND INKING MATERIALS.) CHARLES P. GAITHER, New York, N. Y. Filed June 16, 1911.

SOLINK

*Particular description of goods.*—Writing and Drawing Inks for Use in Pens.
*Claims use* since May 15, 1911.

Ser. No. 57,481. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) J. C. DOWD & Co., New York, N. Y. Filed July 1, 1911. Under ten-year proviso.

"Shoroyd"

*Particular description of goods.*—Manicure Sets Comprising Buffers, Cuticle-Scissors, Nail-Scissors, Nail-Files, Cuticle-Knives, and Corn-Knives.
*Claims use* since December, 1883.

Ser. No. 57,762. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) SAMUEL GREENLEES, London, England, and Glasgow and Campbeltown, Scotland. Filed July 21, 1911.

"Old Parr"

*Particular description of goods.*—Scotch Whisky.
*Claims use* since about August, 1909.

Ser. No. 58,086. (CLASS 17. TOBACCO PRODUCTS.) KENTUCKY FARMERS TOBACCO Co., Hickman, Ky. Filed Aug. 8, 1911.



*Particular description of goods.*—Smoking and Chewing Tobacco.
*Claims use* since July 1, 1911.

Ser. No. 58,298. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MALBURMIN IMPORTING Co., New York, N. Y. Filed Aug. 21, 1911.

MOCCA

*Particular description of goods.*—Eatable Cake-Chocolate.
*Claims use* since January, 1911.

Ser. No. 58,956. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) BRASS GOODS M'F'G Co., New York, N. Y. Filed Sept. 30, 1911.

I-C
FILTRATE

Disclaiming, however, the word "Filtrate."
*Particular description of goods.*—Granular Filtering Material Composed of Quartz and Charcoal.
*Claims use* since July, 1911.

Ser. No. 59,020. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) FOREIGN ELECTRICAL SUPPLY Co., New York, N. Y. Filed Oct. 6, 1911.

STELLAR

*Particular description of goods.*—Electrical Lamps, Fans, Motors, Clusters, Sockets, Brackets, and Current-Transformers.
*Claims use* since Sept. 15, 1911.

Ser. No. 59,125. (CLASS 39. CLOTHING.) JOHN M. GIVEN, INC., Pittsburgh, Pa.; New York, N. Y., and Chicago, Ill. Filed Oct. 12, 1911.

WINGED FOOT



*Particular description of goods.*—Hosiery.
*Claims use* since Aug. 31, 1910.

Ser. No. 59,544. (CLASS 15. OILS AND GREASES.) ROSS D. ACKERMAN, Auburn, N. Y. Filed Nov. 4, 1911.

Monafil

*Particular description of goods.*—Engraver's Wax.
*Claims use* since Mar. 1, 1910.

Ser. No. 59,624. (CLASS 39. CLOTHING.) ELY & WALKER DRY GOODS Co., St. Louis, Mo. Filed Nov. 9, 1911.

Red Ball

The head of the boiler of the engine being in red.
*Particular description of goods.*—Overalls.
*Claims use* since about Sept. 15, 1911.



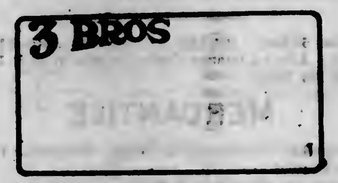


Ser. No. 59,931. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE COLLINS COMPANY, Collinsville, Conn. Filed Nov. 25, 1911.

EBONITE

*Particular description of goods.*—Axes, Hatchets, Adzes, Bush-Hooks, Machetes, Saws, Chisels, Knives, Swords, Sickles, Mattocks, Pickaxes, Shovels, Spades, Crowbars, Picks, Hoes, Mill-Picks, Sledges, Hammers, Wedges, Wrenches, Augers, Boring-Bits, Earth and Rock Drills, Cavadores, Barretones, Tarpalas, Palas, Tercados, Jincolas, Barras, Lansas, Lancitas, Arpones, Cleavers, and Bayonets.
*Claims use* since June, 1901.

Ser. No. 60,705. (CLASS 17. TOBACCO PRODUCTS.) PRINCE BROS. Co., Philadelphia, Pa. Filed Jan. 9, 1912.




*Particular description of goods.*—Cigars.
*Claims use* since February, 1893.

Ser. No. 61,062. (CLASS 37. PAPER AND STATIONERY.) GRAHAM PAPER COMPANY, St. Louis, Mo. Filed Jan. 26, 1912.

Shellbark

*Particular description of goods.*—Wrapping-Paper, Wall-Paper, Paper Box-Covering, Paper Trunk-Lining, Paper Window-Dressing, Paper Mill-Wrappers for Newspaper-Rolls.
*Claims use* since Sept. 18, 1911.

Ser. No. 61,608. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) W. A. GAITHS & COMPANY, Frankfort, Ky. Filed Feb. 19, 1912. Under ten-year proviso.




*Particular description of goods.*—Whisky.
*Claims use* since August, 1903.

Ser. No. 61,664. (CLASS 17. TOBACCO PRODUCTS.) M. A. LA FORD AND Co., Detroit, Mich. Filed Feb. 21, 1912.

ADILLAQUA

*Particular description of goods.*—Cigars, Cigarettes, Cheroots, Stogies, and Chewing and Smoking Tobacco.
*Claims use* since Nov. 16, 1911.

Ser. No. 61,677. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) WALTER P. LINDLAR, West Lafayette, Ind. Filed Feb. 23, 1912.

RADAX

*Particular description of goods.*—A Cloth Used in Cleaning and Polishing Cut Glass, Jewelry, and Precious-Metal Ware.
*Claims use* since Jan. 1, 1912.

Ser. No. 61,893. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE RELIANCE PAINT Co., Brooklyn, N. Y. Filed Mar. 2, 1912.

RELPACO

*Particular description of goods.*—Non-Corrosive Paints.
*Claims use* since November, 1910.

Ser. No. 62,041. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SILVERBERG IMPORT Co., New York, N. Y. Filed Mar. 8, 1912.

SILVER

*Particular description of goods.*—Hair-Nets.
*Claims use* since June 15, 1910.

Ser. No. 62,191. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE RATH PACKING COMPANY, Waterloo, Iowa. Filed Mar. 15, 1912. Under ten-year proviso.

BLACK HAWK

*Particular description of goods.*—Bacon, Hams, Skinned Hams, and Sugar-Cured Hams.
*Claims use* since on or about Feb. 1, 1902.

Ser. No. 62,345. (CLASS 39. CLOTHING.) JOHN HECTOR GRAHAM, New York, N. Y. Filed Mar. 18, 1912. Under ten-year proviso.

"KORK-TRED"

*Particular description of goods.*—Heels for Boots, Shoes, and Rubbers Comprised of Rubber Compounds and Cork Inserts.
*Claims use* since Jan. 1, 1894.

Ser. No. 62,315. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE AMERICAN "RADIO-THOR 'X'" COMPANY, Chicago, Ill. Filed Mar. 21, 1912.

*Particular description of goods.*—Tablets Used for Medicinal Purposes and to be Administered in the Anemias, Glandular Obstructions, Lymphatic Engorgements, Carcinoma, Catarrhal Conditions, Diabetes, Gastric Atony, Gastric Ulcerations, and Rheumatism.
*Claims use* since July 28, 1911.

Ser. No. 62,395. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) ILLINOIS TUNNEL COMPANY, Chicago, Ill. Filed Mar. 25, 1912.




*Particular description of goods.*—Slugs for Coin-Controlled Apparatus.
*Claims use* since Feb. 19, 1912.

Ser. No. 62,855. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DEODOROLEIN COMPANY, Boston and South Boston, Mass. Filed Apr. 12, 1912.

DEODOROLEIN

*Particular description of goods.*—Salves, Hair-Tonic, and Tooth-Soap.
*Claims use* since on or about Apr. 2, 1912.

Ser. No. 63,487. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARGARET MENGIS, New York, N. Y. Filed May 11, 1912.

SELTO

*Particular description of goods.*—Salts for Bathing and Gargling Solutions.
*Claims use* since Mar. 1, 1911.

Ser. No. 63,758. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHRISTOPHER PFEFFERMANN, San Francisco, Cal. Filed May 23, 1912.

PURE
P
BREAD

No claim being made to the words "Pure Bread."
*Particular description of goods.*—Bread.
*Claims use* since June 10, 1911.

Ser. No. 63,882. (CLASS 37. PAPER AND STATIONERY. AIKIN-LAMBERT COMPANY, New York, N. Y. Filed May 29, 1912.

MERCANTILE

*Particular description of goods.*—Fountain-Pens and Parts Thereof.
*Claims use* since July 1, 1895.

Ser. No. 63,942. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ASTORIA & PUGET SOUND CANNING CO., Bellingham, Wash. Filed June 3, 1912.

SILVER TIP

*Particular description of goods.*—Canned Salmon.
*Claims use* since 1900.

Ser. No. 63,972. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM H. CAMPBELL, Baltimore, Md. Filed June 4, 1912.

AERI FORM

*Particular description of goods.*—An Insecticide, Germicide, and Disinfectant.
*Claims use* since June, 1908.

Ser. No. 63,982. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) OTTO BERGMEYER, Dayton, Ky. Filed June 5, 1912.

OTTO

No claim being made for the word "Otto."
*Particular description of goods.*—Headache-Powders.
*Claims use* since February, 1912.





Ser. No. 63,966. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE IDUN WAFER COMPANY, INC., New York, N. Y. Filed June 5, 1912.

IDUN

*Particular description of goods.*—Edible Wafers.
*Claims use* since Apr. 15, 1912.

Ser. No. 64,029. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) FRANK M. GRAY, Chicago, Ill. Filed June 6, 1912. Under ten-year proviso.

FRANK GRAY & CO.

*Particular description of goods.*—Live Poultry and Game.
*Claims use* since 1856.

Ser. No. 64,044. (CLASS 17. TOBACCO PRODUCTS.) NESTOR GIANACLIS COMPANY, Portland, Me., and Boston, Mass. Filed June 7, 1912.

RAS-ELTIN

*Particular description of goods.*—Cigarettes.
*Claims use* since May 1, 1912.

Ser. No. 64,053. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE AMERICAN MILLS COMPANY OF NEW YORK, New York, N. Y. Filed June 8, 1912.

Reelastic

*Particular description of goods.*—Elastic Webbing.
*Claims use* since May 1, 1912.

Ser. No. 64,066. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WALTER W. ZIMMER, Dayton, Ohio. Filed June 8, 1912.



*Particular description of goods.*—Tooth-Paste.
*Claims use* since about May 1, 1912.

Ser. No. 64,091. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CARLISLE PACKING CO., Seattle, Wash. Filed June 10, 1912.

FRIDAY

*Particular description of goods.*—Canned Salmon.
*Claims use* since August, 1898.

Ser. No. 64,092. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CARLISLE PACKING CO., Seattle, Wash. Filed June 10, 1912.

CARRIER

*Particular description of goods.*—Canned Salmon.
*Claims use* since 1902.

Ser. No. 64,093. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CARLISLE PACKING CO., Seattle, Wash. Filed June 10, 1912.

EVERGREEN

*Particular description of goods.*—Canned Salmon.
*Claims use* since September, 1897.

Ser. No. 64,128. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE BISHOP-BABCOCK-BECKER COMPANY, Cleveland, Ohio. Filed June 11, 1912.

VACUSTAT

*Particular description of goods.*—Metallic Valves.
*Claims use* since about May 22, 1912.

Ser. No. 64,208. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SUSAN C. GENTRY, Memphis, Tenn. Filed June 15, 1912.

AUNT PATSY'S POULTRY FEED

THE EGG PRODUCER

No claim being made to the words "Poultry Feed, The Egg Producer."
*Particular description of goods.*—Poultry Feed.
*Claims use* since August, 1909.

Ser. No. 64,227. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE J. A. POZZONI PHARMACAL CO., Chicago, Ill. Filed June 17, 1912. Under ten-year proviso.

POZZONI'S ROSE ROUGE

*Particular description of goods.*—Rouge.
*Claims use* since Feb. 20, 1895.

Ser. No. 64,228. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE J. A. POZZONI PHARMACAL CO., Chicago, Ill. Filed June 17, 1912.

POLVERE DI RISO

*Particular description of goods.*—Medicated Complexion-Powder.
*Claims use* since Feb. 20, 1895.

Ser. No. 64,363. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) FRANK W. TROUNCE, Buffalo, N. Y. Filed June 25, 1912.



No claim being made for the words "The Easy Pruner."
*Particular description of goods.*—Pruning-Knives.
*Claims use* since May 15, 1912.

Ser. No. 64,398. (CLASS 15. OILS AND GREASES.) SOCIETE ANONYME DE LA STEARINERIE H. BOLLINCKX EN LIQUIDATION, Brussels, Belgium. Filed June 26, 1912.



*Particular description of goods.*—Candles, Stearin, Olein.
*Claims use* since July, 1903.

Ser. No. 64,417. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) S. B. FOOT & Co., Red Wing, Minn. Filed June 26, 1912.

TROUT BROOK

*Particular description of goods.*—Side-Leathers.
*Claims use* since Jan. 1, 1909.

Ser. No. 64,429. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BADISCHE ANILIN- & SODA-FABRIK, Ludwigshafen-on-Rhine, Germany. Filed June 27, 1912.

Neradol

*Particular description of goods.*—Leather-Preservatives, Finishing and Tanning Agents Comprising Substances for the Treatment of Hides with or without the Addition of other Tanning Agents for the Preparation of Leather.
*Claims use* since May 22, 1912.

Ser. No. 64,464. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE AVERY SCALE CO., North Milwaukee, Wis. Filed June 28, 1912.

PROTECTOR

*Particular description of goods.*—Scales.
*Claims use* since Nov. 15, 1911.

Ser. No. 64,554. (CLASS 42. THREAD AND YARN.) AMERICAN TEXTILOSE COMPANY, Newburyport and Boston, Mass. Filed July 3, 1912.

Textilose

*Particular description of goods.*—Fleece-Faced Paper Thread.
*Claims use* since June 28, 1912.

Ser. No. 64,568. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GIUSTINO SALLUSTO & Co., New York, N. Y. Filed July 8, 1912.

VIROGENO

*Particular description of goods.*—A Tonic for the Blood and Nervous System.
*Claims use* since Jan. 15, 1910.

Ser. No. 64,682. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE SYLVESTER COMPANY, Connellsville, Pa. Filed July 11, 1912.

SYLAT

*Particular description of goods.*—Hand-Operated Ratchet-and-Lever Timber-Pulling Devices.
*Claims use* since June 25, 1910.

Ser. No. 64,706. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) HAMILTON-BEACH MFG. CO., Racine, Wis. Filed July 13, 1912.

NEW-LIFE

*Particular description of goods.*—Massage-Vibrators.
*Claims use* since December, 1911.





Ser. No. 64,761. (CLASS 17. TOBACCO PRODUCTS.) STAMATIS D. STAMATOPOULOS, New York, N. Y. Filed July 16, 1912.

HERMES

*Particular description of goods.*—Cigars and Cigarettes.
*Claims use* since May 1, 1910.

Ser. No. 64,762. (CLASS 17. TOBACCO PRODUCTS.) STAMATIS D. STAMATOPOULOS, New York, N. Y. Filed July 16, 1912.

AIDA

*Particular description of goods.*—Cigars and Cigarettes.
*Claims use* since May 1, 1910.

Ser. No. 64,784. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) FRANKLIN KNITTING MILLS, New York, N. Y. Filed July 17, 1912.

FRANKLIN KNITTING MILLS NEW YORK

No claim being made herein to the words "New York."
*Particular description of goods.*—Neckties.
*Claims use* since June 15, 1909.

Ser. No. 64,789. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THOMAS MARTINDALE & Co., Philadelphia, Pa. Filed July 17, 1912.

Royal Olvules

No claim being made to the representation of a box of capsules.
*Particular description of goods.*—Olive-Oil Capsules.
*Claims use* since about May 13, 1912.

Ser. No. 64,823. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SEACOAST CANNING CO., Eastport, Me. Filed July 20, 1912.

ARAB



*Particular description of goods.*—Canned Sardines.
*Claims use* since Dec. 15, 1910.

Ser. No. 64,838. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) JEROME L. CONNOR, Pittsburgh, Pa. Filed July 20, 1912.

THE CENTURY POLISHING

CLOTH

The words "Polishing Cloth" being disclaimed.
*Particular description of goods.*—A Polishing-Cloth.
*Claims use* since July 1, 1912.

Ser. No. 64,920. (CLASS 39. CLOTHING.) ROSENTHAL & STARK, New York, N. Y. Filed July 25, 1912.




Exclusive right to that portion of the mark, the representation of the moccasin being disclaimed.

*Particular description of goods.*—Soft-Leather Shoes and Slippers.

*Claims use* since May 1, 1912.

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Ser. No. 64,988. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM H. BEERS, Mamaroneck, N. Y. Filed July 29, 1912.

Beers' MAL-EEZ-YEW

The name "Beers" being part of the facsimile signature of William H. Beers, the applicant.

*Particular description of goods.*—Medicinal Preparations in the Treatment of Malaria.

*Claims use* since July 22, 1912.

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Ser. No. 65,000. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SEVEN SUTHERLAND SISTERS, CORP., New York, N. Y. Filed July 30, 1912. Under ten-year proviso.

Seven Sutherland Sisters



The portraits shown being those of the seven Sutherland sisters—viz., Grace, Mary, Sarah, and Dora Sutherland and Isabelle Sutherland Castlemaine Swaine, living, and Victoria Sutherland Craw and Naomi Sutherland Bailey, deceased.

*Particular description of goods.*—A Hair-Tonic, a Hair and Scalp Cleaner, a Colorant, a Face-Cream, and a Face-Powder.

*Claims use* since September, 1884.

Ser. No. 65,040. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) TYRRELL'S HYGIENIC INSTITUTE, New York, N. Y. Filed Aug. 1, 1912.

J·B·L·



The picture shown being a portrait of Chas. A. Tyrrell, M. D., and the signature being a facsimile of the signature of said Chas. A. Tyrrell.

*Particular description of goods.*—An Antiseptic Tonic.

*Claims use* since 1895.

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Ser. No. 65,082. (Class 39. CLOTHING.) E. M. TOWNSEND & Co., New York, N. Y. Filed Aug. 2, 1912.



*Particular description of goods.*—Hosiery.

*Claims use* since Aug. 1, 1911.

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Ser. No. 65,101. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) JOSEPH ROSENBLATT, Providence, R. I. Filed Aug. 5, 1912.

Galdter

*Particular description of goods.*—Eyeglasses and Spectacle and Eyeglass Mountings, Frames, Ends, Bridges, Straps, Springs, Eyes, Studs, Handles, Guards, Finger-Grips, Nuts, Temples, Screws, and Fronts.

*Claims use* since July 1, 1912.





Ser. No. 65,103. (CLASS 37. PAPER AND STATIONERY.) ALBERT M. EATON, Waltham, Mass. Filed Aug. 5, 1912.



No claim being made to the words "Twine, Paper, Paper Bags."

*Particular description of goods.*—Writing and Printing Paper, Wrapping-Paper, Toilet-Papers, Paper Napkins, and Paper for Making Paper Bags and Boxes.

*Claims use* since July 1, 1912.

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Ser. No. 65,109. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) U-NO-IRON-RUST COMPANY, Chicago, Ill. Filed Aug. 5, 1912.

U—NO

*Particular description of goods.*—A Liquid Chemical for Removing Iron-Rust Stains.

*Claims use* since June 14, 1912.

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Ser. No. 65,120. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) S. FALLINI, Novinger, Mo. Filed Aug. 6, 1912.



The portrait being that of the proprietor.

*Particular description of goods.*—Germicides and Toothache Remedies.

*Claims use* since July 31, 1912.

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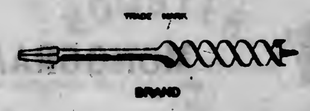
Ser. No. 65,127. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ISAAC OPPENHEIMER, New York, N. Y. Filed Aug. 6, 1912.

RAP-REM

*Particular description of goods.*—Remedy for Alcoholism.

*Claims use* since July 26, 1912.

Ser. No. 65,140. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM STRIEWIG, York Haven, Pa. Filed Aug. 7, 1912.




*Particular description of goods.*—A Compound Used as a Preventive for San Jose Scale, Borers, and Chestnut-Blight.

*Claims use* since about Mar. 1, 1912.

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Ser. No. 65,141. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ANDREAS SAXLEHNER, Budapest, Hungary. Filed Aug. 7, 1912.




*Particular description of goods.*—A Laxative Preparation in the Form of a Pill.

*Claims use* since Apr. 16, 1912.

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Ser. No. 65,172. (CLASS 39. CLOTHING.) FOOT, SCHULZE & Co., St. Paul, Minn. Filed Aug. 9, 1912. Under ten-year proviso.

Columbia

*Particular description of goods.*—Leather Boots and Shoes.

*Claims use* since Jan. 1, 1890.

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Ser. No. 65,179. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILLIAM HILLS, Jr., New York, N. Y. Filed Aug. 10, 1912.

PARTHENON



*Particular description of goods.*—Currants.

*Claims use* since July 15, 1905.

Ser. No. 65,181. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILLIAM HILLS, Jr., New York, N. Y. Filed Aug. 10, 1912.

W MONOGRAM

*Particular description of goods.*—Dates.
*Claims use* since July 15, 1910.

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Ser. No. 65,182. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HENRY DISSTON & SONS, INCORPORATED, Philadelphia, Pa. Filed Aug. 10, 1912.



*Particular description of goods.*—Saws, Saw-Handles, Inserted Saw-Teeth, Inserted-Saw-Teeth Holders, Saw-Mandrels, Saw-Gummers, Saw-Gummer Cutters, Saw-Gummer Grinders, Saw-Swages, Saw-Shapers, Saw-Sets, Saw-Filing Clamps, Saw-Filing-Clamp Guides, Saw-Sharpeners, Saw-Punches, Saw-Frames, Sawbucks, Saw-Rods, Saw-Screws, Saw-Tools, Handsaw-Shears, Wrenches, Files, Rasps, Trowels, Cane-Knives, Corn-Knives, Hedge-Knives, Machetes, Machine-Knives, Circular Knives, Pruning-Hooks, Fusion-Disks, Post-Hole Diggers, Screw-Drivers, Doctor-Blades, Gin-Roller Blades, Currier-Blades, and Cabinet-Scrapers.
*Claims use* since 1862.

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Ser. No. 65,217. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AMERICAN TABLET CO., New York, N. Y. Filed Aug. 12, 1912.

PASTILLAS
ATCOGEN

The word "Pastillas" being disclaimed.
*Particular description of goods.*—A Purgative Remedy for Constipation, Pimples, Acne, Urticaria, Scrofula, Skin Troubles, and Rheumatism.
*Claims use* since April, 1911.

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Ser. No. 65,246. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) UNIVERSAL FILM MANUFACTURING COMPANY, New York, N. Y. Filed Aug. 13, 1912.

BISON

*Particular description of goods.*—Moving-Picture Negative and Positive Films.
*Claims use* since May 21, 1909.

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Ser. No. 65,269. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AUTOGENIE GUM & CHOCOLATE COMPANY, New York, N. Y. Filed Aug. 15, 1912.

BLOOD
BERRY

*Particular description of goods.*—Chewing-Gum.
*Claims use* since Sept. 26, 1900.

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Ser. No. 65,288. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) UNIVERSAL FILM MANUFACTURING CO., New York, N. Y. Filed Aug. 15, 1912.



"101" BISON "101"

*Particular description of goods.*—Moving-Picture Negative and Positive Films.
*Claims use* since Feb. 28, 1912.

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Ser. No. 65,297. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) REVERE RUBBER COMPANY, Providence, R. I., and Chelsea, Mass. Filed Aug. 16, 1912.

SHOWER

*Particular description of goods.*—Rubber Hose.
*Claims use* since Feb. 28, 1911.

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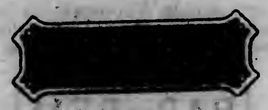
Ser. No. 65,298. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WALLACE & CO., New York and Brooklyn, N. Y. Filed Aug. 16, 1912.

SYMBOL

*Particular description of goods.*—Candies and Chocolates.
*Claims use* since July 1, 1912.

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Ser. No. 65,304. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) LANDERS, FRARY & CLARK, New Britain, Conn. Filed Aug. 17, 1912.



*Particular description of goods.*—Electrically-Heated Chafing-Dishes, Coffee-Percolators, Coffee-Machines, Tea-Ball Teapots, Samovars, Stoves, Toasters, and Sad-Irons, Shaving-Mugs, and Hot-Water Heaters.
*Claims use* since May, 1912.





Ser. No. 65,306. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WALLACE & CO., New York and Brooklyn, N. Y. Filed Aug. 17, 1912.

ECSTASY

*Particular description of goods.*—Candies and Chocolates.
*Claims use* since before the year 1890.

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Ser. No. 65,309. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WALLACE & CO., New York and Brooklyn, N. Y. Filed Aug. 17, 1912. Under ten-year proviso.

Dulcet

*Particular description of goods.*—Candies and Chocolates.
*Claims use* since before the year 1890.

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Ser. No. 65,313. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) ILLINOIS MALLEABLE IRON CO., Chicago, Ill. Filed Aug. 17, 1912.

M

*Particular description of goods.*—Couplings, Elbows, T's, Crosses, Y-Bends, Return-Bends, Caps, Lock-Nuts, Waste-Nuts, Chandelier-Hooks, Wall-Plates, Rod-Couplings, Bushings, Crossovers, Extension-Pieces, Unions, Railing-Fittings, Branch T's, Plunges, Traps, Hook-Plates, Expansion-Plates, Beam-Hooks, Pipe-Hangers, Floor-Sleeves, Pipe-Saddles, Stop-Cock Boxes, Gas-Drip Boxes, Street-Manhole Frames and Covers, and Catch-Basin Covers and Rings.
*Claims use* since about Jan. 1, 1909.

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Ser. No. 65,323. (CLASS 17. TOBACCO PRODUCTS.) THE UNITED STATES TOBACCO CO., Richmond, Va. Filed Aug. 17, 1912.



Which consists of the profile of the head of a man smoking a pipe, with an enlarged shadow appearing back of the same.
*Particular description of goods.*—Smoking-Tobacco.
*Claims use* since Aug. 2, 1912.

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Ser. No. 65,343. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WARD-YOUNG MFG. CO., Buckhannon, W. Va. Filed Aug. 19, 1912.

BOOSTER

*Particular description of goods.*—Peanuts.
*Claims use* since May 15, 1909.

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Ser. No. 65,350. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE HUDSON & GRAM CO. INC., Portland, Oreg. Filed Aug. 20, 1912.

OTTER

*Particular description of goods.*—Clams and Oysters.
*Claims use* since June, 1906.

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Ser. No. 65,367. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) PALMER BROTHERS, Cos Cob, Conn. Filed Aug. 21, 1912.




No claim being made to the word "Palmer."
*Particular description of goods.*—Gasoline-Engines.
*Claims use* since Jan. 1, 1907.

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Ser. No. 65,387. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KENTUCKY REFINING COMPANY, Louisville, Ky. Filed Aug. 23, 1912.



*Particular description of goods.*—Cotton-Seed Oil.
*Claims use* since about January, 1912.

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Ser. No. 65,390. (CLASS 39. CLOTHING.) CARSON, PIRIE, SCOTT & CO., Chicago, Ill. Filed Aug. 23, 1912.

MAGNET

*Particular description of goods.*—Children's Petticoats, Rompers, and Dresses.
*Claims use* since about Mar. 1, 1912.

Ser. No. 65,406. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) NATIONAL CARBON COMPANY, Cleveland, Ohio. Filed Aug. 24, 1912.

SEABOARD



*Particular description of goods.*—Dry Cells.
*Claims use* since Feb. 9, 1912.

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Ser. No. 65,413. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ENOS J. AUBRY, Toledo, Ohio. Filed Aug. 24, 1912.

SMILE

*Particular description of goods.*—Ice-Cream Cones.
*Claims use* since Feb. 1, 1909.

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Ser. No. 65,422. (CLASS 17. TOBACCO PRODUCTS.) ANGELO MERLINO, Seattle, Wash. Filed Aug. 26, 1912.

Musolino

*Particular description of goods.*—Cigars.
*Claims use* since 1907.

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Ser. No. 65,468. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) MOORE & MUNGER, New York, N. Y. Filed Aug. 28, 1912.

OSTERODA

*Particular description of goods.*—Crude Clay for the Manufacture of Crucibles and Pots Used by Manufacturers of Glass.
*Claims use* since Aug. 1, 1912.

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Ser. No. 65,586. (CLASS 37. PAPER AND STATIONERY.) JOHN WEBB, Jr., Lexington, Ky. Filed Sept. 5, 1912.



"Webb's Loose Leaf" and "Leaf Record" being disclaimed.
*Particular description of goods.*—A Loose-Leaf Record.
*Claims use* since about July 5, 1912.

Ser. No. 65,597. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ARTHUR CHEMICAL CO., New Haven, Conn. Filed Sept. 6, 1912.

KISMET

*Particular description of goods.*—Sachet, Cleansing-Cream and Toilet Powder.
*Claims use* since Dec. 11, 1911.

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Ser. No. 65,631. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE IMPERIAL MERCHANDISE CO., Perry, Ohio. Filed Sept. 9, 1912.




White letters being shown on a black background.
*Particular description of goods.*—Fruit-Jar Rings.
*Claims use* since Jan. 1, 1912.

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Ser. No. 65,683. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) CHICAGO FLEXIBLE SHAFT COMPANY, Chicago, Ill. Filed Sept. 11, 1912.

THE PRINCESS

*Particular description of goods.*—Electric Flat-Irons.
*Claims use* since Jan. 30, 1912.

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Ser. No. 65,691. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) PEDRO DOMECQ, Jeres de la Frontera, Spain. Filed Sept. 11, 1912. Under ten-year proviso.

Pedro Domecq

*Particular description of goods.*—Brandies.
*Claims use* since Nov. 24, 1898.

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Ser. No. 65,696. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) AMERICAN MANGANESE BRONZE COMPANY, New York, N. Y. Filed Sept. 12, 1912.

TENSILITE

*Particular description of goods.*—Bronze Alloy.
*Claims use* since about January, 1912.





Ser. No. 65,713. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) PRINTOGRAPH SALES COMPANY, La Crosse, Wis. Filed Sept. 12, 1912.

PRINTOGRAPH

*Particular description of goods.*—Printing-Machines.
*Claims use* since Dec. 10, 1907.

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Ser. No. 65,714. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) MAGNETIC PIGMENT COMPANY, New York, N. Y. Filed Sept. 12, 1912.

MAGNETOL

*Particular description of goods.*—Pigment for Paints.
*Claims use* since May, 1912.

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Ser. No. 65,735. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) STANDARD VARNISH WORKS, New York, Elm Park, Port Richmond, and Staten Island, N. Y. Filed Sept. 13, 1912.

STANVAR

*Particular description of goods.*—Enamels, Ready-Mixed Paints, Varnishes, and Varnish-Removers.
*Claims use* since June 1, 1912.

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Ser. No. 65,762. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) U. S. SLICING MACHINE COMPANY, Chicago, Ill. Filed Sept. 16, 1912.



Being a circular ring.
*Particular description of goods.*—Meat-Slicing Machines and Meat-Slicers.
*Claims use* since February, 1912.

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Ser. No. 65,767. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) LOUISVILLE VARNISH CO., Louisville, Ky. Filed Sept. 16, 1912.

"Louvarco"

*Particular description of goods.*—Wood-Stains.
*Claims use* since Aug. 3, 1912.

Ser. No. 65,800. (CLASS 15. OILS AND GREASES.) JOHN C. COCHRAN, New York, N. Y. Filed Sept. 16, 1912.

LONG DISTANCE

*Particular description of goods.*—Lubricating-Oil.
*Claims use* since Aug. 12, 1912.

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Ser. No. 65,801. (CLASS 17. TOBACCO PRODUCTS.) WALTER E. OLSEN & COMPANY, Manila, Philippine Islands, and New York, N. Y. Filed Sept. 16, 1912.

LA FLOR DE RIZAL



The picture shown being that of Jose Rizal, deceased.
*Particular description of goods.*—Cigars.
*Claims use* since July, 1905.

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Ser. No. 65,802. (CLASS 17. TOBACCO PRODUCTS.) WALTER E. OLSEN & COMPANY, Manila, Philippine Islands, and New York, N. Y. Filed Sept. 16, 1912.

"FIGHTING BOB"



The picture shown being that of Admiral Robley D. Evans, deceased.
*Particular description of goods.*—Cigars.
*Claims use* since Oct. 2, 1908.

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Ser. No. 65,818. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE WYOMING SHOVEL WORKS, Wyoming, Pa. Filed Sept. 16, 1912.




*Particular description of goods.*—Shovels.
*Claims use* since Sept. 6, 1912.

Ser. No. 65,822. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) B. F. STURTEVANT COMPANY, Boston, Mass. Filed Sept. 17, 1912. Under ten-year proviso.

Sturtevant

*Particular description of goods.*—Electric Motors, Dynamos, and Generating Sets and Parts Thereof.
*Claims use* since Oct. 1, 1873.

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Ser. No. 65,825. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) RICHARD HUDNUT, New York, N. Y. Filed Sept. 17, 1912. Under ten-year proviso.

HUDNUT

*Particular description of goods.*—Soda-Water.
*Claims use* since 1889.

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Ser. No. 65,867. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE TOLEDO PLOW COMPANY, Toledo, Ohio. Filed Sept. 19, 1912. Under ten-year proviso.

BURCH

*Particular description of goods.*—Plows.
*Claims use* since 1873.

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Ser. No. 65,892. (CLASS 15. OILS AND GREASES.) THE IRONSIDES COMPANY, Columbus, Ohio. Filed Sept. 20, 1912.



*Particular description of goods.*—Lubricating-Oils, Lubricating-Greases, and Lubricating Compounds.
*Claims use* since January, 1899.

Ser. No. 65,906. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE GRAY TELEPHONE PAY STATION COMPANY, Hartford, Conn. Filed Sept. 21, 1912. Under ten-year proviso.

GRAY

*Particular description of goods.*—Telephone Pay-Stations.
*Claims use* since August, 1889.

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Ser. No. 65,959. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) GENERAL ELECTRIC COMPANY, Schenectady, N. Y. Filed Sept. 24, 1912.

ELUX

The same consisting of the word "ELUX."
*Particular description of goods.*—Electric Lamps.
*Claims use* since about May 6, 1912.

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Ser. No. 65,960. (CLASS 23. MEASURING AND SCIENTIFIC APPLIANCES.) HENRY DISSTON & SONS, INCORPORATED, Philadelphia, Pa. Filed Sept. 24, 1912.



*Particular description of goods.*—Squares, Bevels, Levels, Combined Plumbs and Levels, Marking-Gages, Mortise-Gages, Wire-Gages, Miter-Rods, and Speed-Indicators.
*Claims use* since 1863.

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Ser. No. 66,124. (CLASS 42. THREAD AND YARN.) AMERICAN TEXTILOSE COMPANY, Newburyport and Boston, Mass. Filed Oct. 3, 1912.




*Particular description of goods.*—Paper-Thread.
*Claims use* since Aug. 29, 1912.





# TRADE-MARKS

## REGISTERED OCTOBER 29, 1912.

88,821. CANNED SALMON. ALASKA FISH CO., Seattle, Wash.
Filed June 24, 1912. Serial No. 64,856. PUBLISHED AUGUST 13, 1912.

88,822. SMOOTH-DESIGNED WHITE OR COLORED FOILS OF ALUMINIUM OR ITS ALLOYS. ALUMINIUM G. M. B. H., Tuningen, Baden, Germany.
Filed April 1, 1912. Serial No. 62,586. PUBLISHED AUGUST 27, 1912.

88,823. BEEF-BROTH PREPARATIONS. AMERICAN KITCHEN PRODUCTS COMPANY, New York, N. Y.
Filed July 15, 1911. Serial No. 57,641. PUBLISHED AUGUST 20, 1912.

88,824. MEDICATED ANTISEPTIC SOLUBLE TOILET POWDERS. AMERICAN AMMONE COMPANY, Buffalo and New York, N. Y.
Filed December 1, 1911. Serial No. 60,082. PUBLISHED AUGUST 27, 1912.

88,825. CORN AND BUNION PLASTERS. ASEPTIC PRODUCTS COMPANY, Long Island City, N. Y.
Filed April 10, 1912. Serial No. 63,321. PUBLISHED AUGUST 27, 1912.

88,826. CANNED SALMON. ASTORIA & PUGET SOUND CANNING CO., Bellingham, Wash.
Filed June 3, 1912. Serial No. 63,941. PUBLISHED JULY 30, 1912.

88,827. CERTAIN NAMED FOODS. C. W. ANTRIM & SONS, Richmond, Va.
Filed September 7, 1911. Serial No. 58,560. PUBLISHED AUGUST 20, 1912.

88,828. BRAIDS, SHOE-LACES, GALLOONS, AND CORSET-LACES. BARTHELS MFG. CO., New York N. Y.
Filed July 20, 1912. Serial No. 64,353. PUBLISHED AUGUST 20, 1912.

88,829. DISINFECTING MEANS FOR MOUTH AND THROAT. BAUER & CIE., Berlin, Germany.
Filed October 30, 1911. Serial No. 59,488. PUBLISHED AUGUST 20, 1912.

88,830. CERTAIN NAMED FOODS. BERDAN & COMPANY, Toledo, Ohio.
Filed June 2, 1910. Serial No. 50,056. PUBLISHED MARCH 14, 1911.

88,831. EGG-BEATERS. BERNDORF METAL WORKS ARTHUR KRUPP, Berndorf, Austria-Hungary.
Filed May 27, 1911. Serial No. 56,642. PUBLISHED JUNE 18, 1912.

88,832. SOUTH AMERICAN TEA, (ILEX PARAGUAYENSIS.) BERNDT & CO., Baltimore, Md.
Filed May 29, 1912. Serial No. 63,330. PUBLISHED JULY 30, 1912.

88,833. CANDY FIGS. BISHOP & COMPANY, Los Angeles, Cal.
Filed June 28, 1912. Serial No. 64,468. PUBLISHED AUGUST 20, 1912.

88,834. CANDY. BLANKE-WENNEKER CANDY CO., St. Louis, Mo.
Filed April 22, 1912. Serial No. 63,089. PUBLISHED AUGUST 13, 1912.

88,835. FACIAL CREAMS, ROUGE, FACE-POWDER, AND NAIL-POLISH. BORDEAUX CHEMICAL WORKS, New York, N. Y.
Filed March 30, 1912. Serial No. 62,643. PUBLISHED AUGUST 27, 1912.

88,836. STRAW, CHIP, AND JUTE WRAPPING-PAPER AND BOX-BOARD. JUSTIN D. BOWERSOCK, Lawrence, Kans.
Filed June 6, 1911. Serial No. 56,857. PUBLISHED JULY 23, 1912.

88,837. SALAD-OIL CONSISTING OF REFINED COTTON-SEED OIL. FISCHER BROTHERS, Seattle, Wash.
Filed January 18, 1909. Serial No. 29,962. PUBLISHED AUGUST 13, 1912.

88,838. SUPPOSITORIES. BROUDE AND TAYLOR, New York, N. Y.
Filed April 23, 1912. Serial No. 63,081. PUBLISHED AUGUST 27, 1912.

88,839. EGG-WHITE PREPARATION IN POWDERED FORM. THE CABELL COMPANY, Baltimore, Md.
Filed May 11, 1912. Serial No. 63,477. PUBLISHED AUGUST 13, 1912.

88,840. EGGS. CALIFORNIA CENTRAL CREAMERIES, San Francisco, Cal.
Filed June 27, 1912. Serial No. 64,442. PUBLISHED AUGUST 20, 1912.

88,841. LEATHER SHOES, SLIPPERS, AND SANDALS. CARRUTHERS JONES SHOE CO., Memphis, Tenn.
Filed June 8, 1911. Serial No. 56,892. PUBLISHED OCTOBER 24, 1911.

88,842. HAMS, BACON, AND LARD. CARSTENS PACKING COMPANY, Tacoma and Seattle, Wash.
Filed July 6, 1911. Serial No. 57,504. PUBLISHED APRIL 16, 1912.

88,843. WHEELS FOR CERTAIN NAMED VEHICLES. CENTRIFUGAL POWER WHEEL COMPANY, Decatur, Ill.
Filed January 18, 1912. Serial No. 60,896. PUBLISHED AUGUST 27, 1912.

88,844. CANDIES. L. J. CHRISTOPHER, Los Angeles, Cal.
Filed May 14, 1912. Serial No. 63,584. PUBLISHED JULY 30, 1912.

88,845. ORANGES, LEMONS, GRAPE-FRUIT, TANGERINES, AND LIMES. THE CITRA FRUIT COMPANY, Citra, Fla.
Filed June 26, 1912. Serial No. 64,388. PUBLISHED AUGUST 13, 1912.

88,846. ORANGES, LEMONS, GRAPE-FRUIT, TANGERINES, AND LIMES. THE CITRA FRUIT COMPANY, Citra, Fla.
Filed June 26, 1912. Serial No. 64,391. PUBLISHED AUGUST 13, 1912.

88,847. ORANGES, LEMONS, GRAPE-FRUIT, TANGERINES, AND LIMES. THE COCOANUT GROVE CITRUS GROWER'S ASSOCIATION, Cocoanut Grove, Fla.
Filed July 17, 1911. Serial No. 57,659. PUBLISHED AUGUST 29, 1911.

88,848. CANNED FRUITS, CANNED VEGETABLES, FRUIT JAMS, AND FRUIT JELLIES. CODE PORTWOOD CANNING CO., Fruitvale, Oakland, Cal.
Filed June 26, 1912. Serial No. 64,401. PUBLISHED AUGUST 20, 1912.

88,849. HAIR-TONIC. FRANK G. CONWAY, New York, N. Y.
Filed November 13, 1911. Serial No. 59,708. PUBLISHED AUGUST, 20, 1912.

88,850. MONTHLY MAGAZINES. THE COMMERCIAL VEHICLE, INC., New York, N. Y.
Filed May 23, 1912. Serial No. 63,343. PUBLISHED AUGUST 27, 1912.

88,851. CANOPY-BEDS. CO-RAN BED COMPANY, Oakland, Cal.
Filed July 10, 1912. Serial No. 64,649. PUBLISHED AUGUST 27, 1912.

88,852. SHOES MADE OF LEATHER. CRAWFORD & BOWDLE, Lima, Ohio.
Filed April 19, 1912. Serial No. 63,008. PUBLISHED JULY 16, 1912.

88,853. CANDY. DAVIDSON BROTHERS COMPANY, Des Moines, Iowa.
Filed July 3, 1911. Serial No. 57,464. PUBLISHED AUGUST 20, 1912.

88,854. PREPARED FOOD FOR INFANTS AND INVALIDS. GUERIN DELANGRENIER, Paris, France.
Filed January 4, 1912. Serial No. 60,602. PUBLISHED AUGUST 13, 1912.

88,855. READY-MIXED DECORATIVE AND PRESERVATIVE PAINTS. DENNY, HILBORN & ROSENBACH, Philadelphia, Pa.
Filed July 23, 1912. Serial No. 64,882. PUBLISHED AUGUST 27, 1912.

88,856. CHOCOLATE CANDY. DILLING & COMPANY, Indianapolis, Ind.
Filed December 15, 1911. Serial No. 60,247. PUBLISHED JULY 30, 1912.

88,857. LAUNDRY STARCH. ALBERT DOBER, Leavenworth, Kans.
Filed January 22, 1912. Serial No. 60,972. PUBLISHED AUGUST 27, 1912.

88,858. WHEAT-FLOUR. DULUTH-SUPERIOR MILLING COMPANY, Duluth, Minn.
Filed June 30, 1911. Serial No. 57,425. PUBLISHED FEBRUARY 6, 1912.

88,859. CERTAIN FRAMES, NOT INCLUDING PRECIOUS METAL, FOR MIRRORS AND PICTURES. J. C. DOWD & Co., New York, N. Y.
Filed July 1, 1911. Serial No. 57,429. PUBLISHED AUGUST 20, 1912.

88,860. REMEDY FOR CATARRH. THOMAS R. EDWARDS, Chanute, Kans.
Filed June 18, 1910. Serial No. 50,422. PUBLISHED AUGUST 20, 1912.

88,861. CANNED VEGETABLES AND FRUITS. EGYPT CANNING COMPANY, Egypt, N. Y.
Filed May 27, 1912. Serial No. 63,834. PUBLISHED JULY 30, 1912.

88,862. REMEDY FOR CERTAIN NAMED DISEASES. FARBWERKE VORM. MEISTER LUCIUS & BRÜNING, Höchst-on-the-Main, Germany.
Filed May 22, 1912. Serial No. 63,727. PUBLISHED AUGUST 20, 1912.

88,863. WHEAT-FLOUR. FISHER FLOURING MILLS COMPANY, Seattle, Wash.
Filed May 21, 1912. Serial No. 63,705. PUBLISHED JULY 30, 1912.

88,864. TEA AND IMITATION TEA. OWEN S. FITZ GERALD, Philadelphia, Pa.
Filed May 17, 1912. Serial No. 63,608. PUBLISHED AUGUST 13, 1912.

88,865. WHEAT-FLOUR. THE FOLTZ GROCERY & BAKING COMPANY, Cincinnati, Ohio.
Filed March 25, 1912. Serial No. 62,397. PUBLISHED AUGUST 20, 1912.

88,866. SODA-ASH. FRY BROS. & COMPANY, Cincinnati, Ohio.
Filed April 11, 1912. Serial No. 62,834. PUBLISHED AUGUST 20, 1912.

88,867. CANDIES. GALLANIS BROS., Chicago, Ill.
Filed May 27, 1912. Serial No. 63,818. PUBLISHED JULY 30, 1912.

88,868. SPORTING-SHOES. GOLDEN SPORTING SHOE CO., Brockton, Mass.
Filed June 14, 1912. Serial No. 64,199. PUBLISHED AUGUST 27, 1912.

88,869. FRESH AND GREEN FRUITS. THE GRAND JUNCTION FRUIT GROWERS' ASSOCIATION, Grand Junction, Colo.
Filed June 24, 1912. Serial No. 64,351. PUBLISHED AUGUST 20, 1912.

88,870. LEATHER SHOES. J. G. GRIBB & SONS, Philadelphia, Pa.
Filed July 10, 1912. Serial No. 64,647. PUBLISHED AUGUST 27, 1912.

88,871. WRITING AND DRAWING INK. CHARLES HABUSSER, Albany, N. Y.
Filed May 7, 1912. Serial No. 63,389. PUBLISHED AUGUST 27, 1912.

88,872. RHEUMATIC AND KIDNEY REMEDY. ALLEN E. HANNY, Albion, Ind.
Filed March 7, 1912. Serial No. 62,008. PUBLISHED AUGUST 20, 1912.

88,873. SAPONACEOUS POWDER FOR THE HAIR. HARDING & SONS, Sutton, England.
Filed May 14, 1912. Serial No. 63,528. PUBLISHED AUGUST 27, 1912.

88,874. WHEAT-FLOUR. THE HARTER MILLING CO., Toledo and Fostoria, Ohio.
Filed June 26, 1912. Serial No. 64,385. PUBLISHED AUGUST 13, 1912.

88,875. PERFUMES, TOILET WATERS, SACHET-POWDER, FACE-POWDER, AND TALCUM POWDER. CHARLES HEDDEN INCORPORATED, New York, N. Y.
Filed May 25, 1912. Serial No. 63,805. PUBLISHED AUGUST 27, 1912.

88,876. FACIAL CREAM. CALVIN B. HEIKES, Oakland, Cal.
Filed May 1, 1912. Serial No. 63,248. PUBLISHED AUGUST 27, 1912.

88,877. PERFUMES, TOILET WATERS, AND TALCUM POWDERS. RICHARD HUDNUT, New York, N. Y.
Filed February 15, 1912. Serial No. 61,481. PUBLISHED AUGUST 27, 1912.

88,878. PERFUMES AND SACHET-POWDER. RICHARD HUDNUT, New York, N. Y.
Filed February 15, 1912. Serial No. 61,492. PUBLISHED AUGUST 27, 1912.

88,879. CERTAIN NAMED TOILET PREPARATIONS. RICHARD HUDNUT, New York, N. Y.
Filed February 15, 1912. Serial No. 61,472. PUBLISHED AUGUST 20, 1912.

88,880. CERTAIN NAMED TOILET PREPARATIONS. RICHARD HUDNUT, New York, N. Y.
Filed February 15, 1912. Serial No. 61,475. PUBLISHED AUGUST 20, 1912.

88,881. PERFUMES, SACHET-POWDER, TOILET WATER, FACE-POWDER, AND BATH-POWDER. RICHARD HUDNUT, New York, N. Y.
Filed February 15, 1912. Serial No. 61,483. PUBLISHED AUGUST 20, 1912.

88,882. PERFUMES, SACHET-POWDER, FACE-POWDER, AND TOOTH-POWDER. RICHARD HUDNUT, New York, N. Y.
Filed February 15, 1912. Serial No. 61,490. PUBLISHED AUGUST 20, 1912.

88,883. CERTAIN NAMED TOILET PREPARATIONS. RICHARD HUDNUT, New York, N. Y.
Filed February 23, 1912. Serial No. 61,668. PUBLISHED AUGUST 27, 1912.

88,884. HAM, BACON, AND PURE LARD. THE HULL & DILLON PKG. CO., Pittsburg, Kans.
Filed April 4, 1910. Serial No. 48,829. PUBLISHED AUGUST 20, 1912.

88,885. ANTISEPTIC LIQUID PREPARATIONS FOR TREATMENT OF THE MOUTH, THROAT, OR NOSE. GEO. J. HURWITT, New York, N. Y.
Filed May 18, 1912. Serial No. 63,627. PUBLISHED AUGUST 27, 1912.



88,886. GINGER-ALE, SARSAPARILLA, AND LEMON-SODA. THE HYGEIA DISTILLED WATER COMPANY, New York, N. Y.
Filed July 19, 1912. Serial No. 64,821. PUBLISHED AUGUST 27, 1912.

88,887. WASHABLE NAPKINS. HYGIENIC FIBRE COMPANY, New York, N. Y.
Filed April 16, 1912. Serial No. 62,928. PUBLISHED AUGUST 27, 1912.

88,888. BABY-DIAPER AND BIRD'S-EYE NAPKINS. HYGIENIC FIBRE COMPANY, New York, N. Y.
Filed April 16, 1912. Serial No. 62,922. PUBLISHED AUGUST 20, 1912.

88,889. LUBRICATING-OILS, LUBRICATING-GREASES, AND LUBRICATING COMPOUNDS. THE IRONSIDES COMPANY, Columbus, Ohio.
Filed March 2, 1912. Serial No. 61,871. PUBLISHED JULY 2, 1912.

88,890. LUBRICATING-OILS, LUBRICATING-GREASES, AND LUBRICATING COMPOUNDS. THE IRONSIDES COMPANY, Columbus, Ohio.
Filed March 2, 1912. Serial No. 61,872. PUBLISHED JULY 2, 1912.

88,891. COFFEE. JOHNSON-ALLEN COFFEE CO., St. Louis, Mo.
Filed October 20, 1911. Serial No. 59,248. PUBLISHED JULY 30, 1912.

88,892. SODA CRYSTALS. J. T. KENNY & COMPANY, St. Paul, Minn.
Filed May 4, 1912. Serial No. 63,347. PUBLISHED AUGUST 27, 1912.

88,893. CERTAIN NAMED MACHINERY AND TOOLS. KEYSTONE DRILLER COMPANY, Beaver Falls, Pa.
Filed March 22, 1912. Serial No. 62,355. PUBLISHED AUGUST 27, 1912.

88,894. REMEDY FOR DISEASES OF THE SKIN. KNOLL & Co., Ludwighafen-on-the-Rhine, Germany.
Filed January 26, 1912. Serial No. 61,045. PUBLISHED JUNE 25, 1912.

88,895. CHEMICAL COMPOUND FOR PURIFYING WATER. KOCH BROTHERS, Zanesville, Ohio.
Filed April 23, 1912. Serial No. 63,073. PUBLISHED AUGUST 20, 1912.

88,896. REMEDY FOR DIABETES. ERVIN LEDERER, Budapest, Austria-Hungary.
Filed December 26, 1911. Serial No. 60,462. PUBLISHED AUGUST 27, 1912.

88,897. FACE-CREAM, FACE-POWDER, SHAMPOOING PREPARATIONS, AND HAIR-TONIC. EMMA LOUISE LEIPCHILD, Los Angeles, Cal.
Filed June 19, 1911. Serial No. 57,158. PUBLISHED FEBRUARY 27, 1912.

88,898. MEN'S NECKTIES. LEVY & MARCUS, New York, N. Y.
Filed June 8, 1912. Serial No. 64,056. PUBLISHED AUGUST 27, 1912.

88,899. SARDINES IN OIL. SALM. LEVY JR. & CA., Lisbon, Portugal.
Filed February 28, 1911. Serial No. 54,764. PUBLISHED AUGUST 20, 1912.

88,900. DRESS-SHIRTS AND LADIES' WAISTS. LIVINGSTON & LIEBERMAN, New York, N. Y.
Filed July 3, 1912. Serial No. 64,559. PUBLISHED AUGUST 20, 1912.

88,901. BUTTER. LUTEY BROS., Butte, Mont.
Filed June 21, 1912. Serial No. 64,303. PUBLISHED AUGUST 13, 1912.

88,902. CHURNS. LENA R. LYNOTT, Louisiana, Mo.
Filed May 10, 1912. Serial No. 63,448. PUBLISHED AUGUST 27, 1912.

88,903. WIRE ROPE. MACOMBER & WHYTE ROPE COMPANY, Chicago, Ill.
Filed July 5, 1912. Serial No. 64,509. PUBLISHED AUGUST 27, 1912.

88,904. COOKED HAMS. ERNEST MARTENS, Brooklyn, N. Y.
Filed December 22, 1911. Serial No. 60,461. PUBLISHED JULY 30, 1912.

88,905. CERTAIN CANNED FOODS. MCCOAD-KISTLER MER. CO., Topeka, Kans.
Filed April 1, 1912. Serial No. 62,593. PUBLISHED JULY 30, 1912.

88,906. WHEAT-FLOUR. MEDINA MILLING & ELEVATOR CO., Medina, N. D.
Filed June 22, 1912. Serial No. 64,330. PUBLISHED AUGUST 13, 1912.

88,907. REMEDY FOR CERTAIN NAMED DISEASES. MANINE MEDICINE COMPANY, St. Louis, Mo.
Filed October 18, 1911. Serial No. 59,145. PUBLISHED APRIL 23, 1912.

88,908. CERTAIN NAMED FOODS. J. H. MERRILL CO., Ottumwa, Iowa.
Filed March 5, 1908. Serial No. 33,175. PUBLISHED JANUARY 16, 1912.

88,909. CERTAIN NAMED FOODS. J. H. MERRILL CO., Ottumwa, Iowa.
Filed March 5, 1908. Serial No. 33,176. PUBLISHED MAY 28, 1912.

88,910. ENAMELS, READY-MIXED PAINTS, AND VARNISHES. HENRY RUDOLPH MEYER, New York, N. Y.
Filed July 24, 1912. Serial No. 64,895. PUBLISHED AUGUST 27, 1912.

88,911. ENVELOP-SEALING MACHINES. MIHALOVITCH BROTHERS, Cincinnati, Ohio.
Filed May 8, 1912. Serial No. 63,282. PUBLISHED AUGUST 27, 1912.

88,912. FIRELESS COOKERS. MIKA-COOKER COMPANY, Saginaw, Mich.
Filed July 21, 1911. Serial No. 57,768. PUBLISHED AUGUST 20, 1912.

88,913. CANDY. CHARLES N. MILLER, Boston, Mass.
Filed June 20, 1912. Serial No. 64,293. PUBLISHED AUGUST 13, 1912.

88,914. CANDY. THE MIRROR, New York, N. Y.
Filed April 24, 1912. Serial No. 63,082. PUBLISHED AUGUST 20, 1912.

88,915. OVERALLS AND OVERALL-JACKETS. JOSEPH N. MONTGOMERY, Rockymount, Va.
Filed May 4, 1912. Serial No. 63,351. PUBLISHED JULY 16, 1912.

88,916. REMEDIES FOR CERTAIN DISEASES. MONTICELLO DRUG CO., Jacksonville, Fla.
Filed April 5, 1912. Serial No. 62,661. PUBLISHED AUGUST 27, 1912.

88,917. ORANGES, GRAPE-FRUIT, TANGERINES, AND LEMONS. MOSELEY & MCNIEL, Gotha, Fla.
Filed November 27, 1911. Serial No. 59,956. PUBLISHED AUGUST 13, 1912.

88,918. LIQUID ANTISEPTIC SOLUTIONS. THE MU-COL COMPANY, Buffalo, N. Y.
Filed June 4, 1912. Serial No. 63,963. PUBLISHED AUGUST 27, 1912.

88,919. CERTAIN NAMED TOILET GOODS. KOSABURO NAKAYAMA, Osaka, Japan.
Filed October 17, 1910. Serial No. 52,293. PUBLISHED AUGUST 27, 1912.

88,920. CANNED FRUITS AND CANNED VEGETABLES. NALLEY GROCERY CO., Austin, Tex.
Filed September 14, 1911. Serial No. 58,667. PUBLISHED AUGUST 20, 1912.

88,921. GLOVES. NAPA GLOVE CO., Napa, Cal.
Filed March 19, 1912. Serial No. 62,277. PUBLISHED AUGUST 27, 1912.

88,922. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed June 11, 1912. Serial No. 64,118. PUBLISHED AUGUST 6, 1912.

88,923. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed June 11, 1912. Serial No. 64,117. PUBLISHED AUGUST 6, 1912.

88,924. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed June 11, 1912. Serial No. 64,116. PUBLISHED AUGUST 6, 1912.

88,925. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed July 1, 1912. Serial No. 64,490. PUBLISHED AUGUST 20, 1912.

88,926. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed July 1, 1912. Serial No. 64,491. PUBLISHED AUGUST 20, 1912.

88,927. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed July 1, 1912. Serial No. 64,493. PUBLISHED AUGUST 20, 1912.

88,928. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed July 1, 1912. Serial No. 64,494. PUBLISHED AUGUST 20, 1912.

88,929. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed July 1, 1912. Serial No. 64,495. PUBLISHED AUGUST 20, 1912.

88,930. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed July 1, 1912. Serial No. 64,497. PUBLISHED AUGUST 20, 1912.

88,931. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed July 1, 1912. Serial No. 64,498. PUBLISHED AUGUST 20, 1912.

88,932. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed July 1, 1912. Serial No. 64,499. PUBLISHED AUGUST 20, 1912.

88,933. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed July 3, 1912. Serial No. 64,570. PUBLISHED AUGUST 20, 1912.

88,934. COFFEE. NATIONAL GROCER COMPANY, Detroit, Mich.
Filed January 18, 1912. Serial No. 60,891. PUBLISHED MARCH 19, 1912.

88,935. STICK-LICORICE, LICORICE CHEWING-GUM, AND LICORICE WAFERS. NATIONAL LICORICE COMPANY, Brooklyn, N. Y.
Filed June 26, 1912. Serial No. 64,391. PUBLISHED AUGUST 13, 1912.

88,936. CERTAIN NAMED ARTICLES OF CLOTHING. NELSON & LANDSBERG, New York, N. Y.
Filed July 8, 1912. Serial No. 64,558. PUBLISHED AUGUST 27, 1912.

88,937. CANDY. NOVELTY CANDY COMPANY, New York, N. Y.
Filed May 16, 1912. Serial No. 63,547. PUBLISHED AUGUST 13, 1912.

88,938. CERTAIN NAMED SCIENTIFIC APPLIANCES. OPTISCHE ANSTALT C. P. GOERZ AKTIENGESELLSCHAFT, Friedenau, near Berlin, Germany.
Filed January 10, 1906. Serial No. 32,170. PUBLISHED AUGUST 27, 1912.

88,939. ROLLED OATS, FLAKED WHEAT, AND GRANULATED WHEAT. PACIFIC CEREAL ASSOCIATION, San Francisco, Cal.
Filed April 29, 1911. Serial No. 56,068. PUBLISHED MARCH 5, 1912.

88,940. STOMACH-BITTERS. POND'S BITTERS CO., Chicago, Ill.
Filed May 10, 1912. Serial No. 63,452. PUBLISHED AUGUST 27, 1912.

88,941. MAGAZINES. CHESMORE H. PACKARD, Brooklyn and New York, N. Y.
Filed July 5, 1912. Serial No. 64,562. PUBLISHED AUGUST 27, 1912.

88,942. SAW-CASE AND TOOL-CARRIER MANUFACTURED FROM CANVAS AND LEATHER. BENJAMIN F. PADRICK, Portland, Oreg.
Filed January 25, 1912. Serial No. 61,009. PUBLISHED AUGUST 27, 1912.

88,943. BATHING-SUITS. PELTON & PELTON, Chicago, Ill.
Filed July 15, 1912. Serial No. 64,744. PUBLISHED AUGUST 27, 1912.

88,944. CANDY-COATED OR SWEETENED CEREALS. PEORIA CONFECTIONERY COMPANY, Peoria, Ill.
Filed June 21, 1912. Serial No. 64,319. PUBLISHED AUGUST 20, 1912.

88,945. CRACKERS AND BISCUITS. PERFECTION BISCUIT COMPANY, Fort Wayne, Ind.
Filed June 28, 1912. Serial No. 64,457. PUBLISHED AUGUST 20, 1912.

88,946. COUCHES. PERETO-COUCH CO., St. Louis, Mo.
Filed June 22, 1912. Serial No. 64,326. PUBLISHED AUGUST 27, 1912.

88,947. PERIODICALS. THE PRISCILLA PUBLISHING CO., Boston, Mass.
Filed July 19, 1911. Serial No. 57,720. PUBLISHED AUGUST 27, 1912.

88,948. WHEAT-FLOUR. THE PORTLAND FLOURING MILLS COMPANY, Portland, Oreg.
Filed June 13, 1912. Serial No. 64,170. PUBLISHED AUGUST 6, 1912.

88,949. SALAD-RELISH. THE PROVIDENT COMPANY, Providence, R. I.
Filed May 31, 1912. Serial No. 63,887. PUBLISHED AUGUST 20, 1912.

88,950. ANTISEPTIC SHAVING-CREAM. WILLIAM P. QUENTELL, New York, N. Y.
Filed April 22, 1912. Serial No. 63,668. PUBLISHED AUGUST 20, 1912.

88,951. BOOKS AND PACKAGES OF CERTAIN NAMED METAL OR METALLIC LEAF. FRED W. RAUSKOLB, Boston, Mass.
Filed June 12, 1911. Serial No. 56,994. PUBLISHED JANUARY 23, 1912.

88,952. BOOTS AND SHOES MADE IN WHOLE OR IN PART OF LEATHER. RICE & HUTCHINS, INCORPORATED, Portland, Me., and Boston, Mass.
Filed January 12, 1912. Serial No. 60,770. PUBLISHED AUGUST 27, 1912.

88,953. APERIENTS. J. D. RIEDEL ACTIEN GESELLSCHAFT, Berlin, Germany.
Filed May 22, 1912. Serial No. 63,712. PUBLISHED AUGUST 27, 1912.

88,954. CERTAIN NAMED FOODS. THOMAS ROBERTS & Co., Philadelphia, Pa.
Filed June 28, 1912. Serial No. 64,389. PUBLISHED AUGUST 13, 1912.

88,955. CIGARS, CIGARETTES, SMOKING-TOBACCO, CHEWING-TOBACCO, AND SNUFF. ROSS & BRAND, INC., New York, N. Y.
Filed December 8, 1911. Serial No. 60,128. PUBLISHED APRIL 9, 1912.

88,956. KARLSBAD-WATER BISCUITS. ROMAN UHL NACHFOLGER JOSEF M. BRESNIG, Vienna, Austria-Hungary.
Filed July 29, 1910. Serial No. 51,189. PUBLISHED AUGUST 13, 1912.

88,957. HOSIERY. CHARLES BROADWAY ROUSS, New York, N. Y.
Filed June 12, 1912. Serial No. 64,158. PUBLISHED AUGUST 27, 1912.

88,958. MACARONI, VERMICELLI, AND SPAGHETTI. SAN ANTONIO MACARONI FACTORY, San Antonio, Tex.
Filed February 2, 1911. Serial No. 54,326. PUBLISHED JUNE 27, 1912.



88,959. CIGARS. SANCHEZ & HAYA Co., Tampa, Fla.
Filed May 29, 1905. Serial No. 6,911. PUBLISHED MARCH 12, 1912.

88,960. MACARONI. THE SAVARESE MACARONI CO., Brooklyn, N. Y.
Filed April 29, 1911. Serial No. 56,054. PUBLISHED FEBRUARY 6, 1912.

88,961. ALIMENTARY PASTE. THE SAVARESE MACARONI CO., Brooklyn, N. Y.
Filed June 8, 1912. Serial No. 64,071. PUBLISHED AUGUST 6, 1912.

88,962. RAZORS, SCISSORS, POCKET-SCISSORS, POCKET-KNIVES. PETER LUDWIG SCHMIDT, Elberfeld, Germany.
Filed February 8, 1912. Serial No. 61,366. PUBLISHED APRIL 30, 1912.

88,963. CIGARS. SCHNEEBERG & COMPANY, New York, N. Y.
Filed February 18, 1910. Serial No. 47,906. PUBLISHED OCTOBER 31, 1911.

88,964. CERTAIN NAMED ARTICLES OF STATIONERY. J. G. SHAW BLANK BOOK COMPANY, New York, N. Y.
Filed July 31, 1906. Serial No. 36,407. PUBLISHED APRIL 5, 1910.

88,965. FALSE HAIR IN CERTAIN NAMED FORMS. A. SIMONSON, New York, N. Y.
Filed June 14, 1912. Serial No. 64,186. PUBLISHED AUGUST 20, 1912.

88,966. VIOLINS. SIMSON & FENY, (INC.), New York, N. Y.
Filed May 10, 1912. Serial No. 63,456. PUBLISHED AUGUST 27, 1912.

88,967. BUTTON-FASTENERS. SAMUEL L. SNEIERSON, Boston, Mass.
Filed June 10, 1912. Serial No. 64,067. PUBLISHED AUGUST 20, 1912.

88,968. CERTAIN CHEMICALS AND PHARMACEUTICAL PREPARATIONS. THE SOLVAY PROCESS COMPANY, Solvay, N. Y.
Filed December 22, 1910. Serial No. 53,422. PUBLISHED MARCH 12, 1912.

88,969. SULFATE OF AMMONIA USED FOR FERTILIZERS. SOUTH METROPOLITAN GAS COMPANY, London, England.
Filed August 4, 1911. Serial No. 58,030. PUBLISHED AUGUST 27, 1912.

88,970. BLENDED COFFEE. ST. LOUIS COFFEE & SPICE MILLS, St. Louis, Mo.
Filed May 21, 1912. Serial No. 63,677. PUBLISHED AUGUST 20, 1912.

88,971. CANNED SUGAR-CORN. HARRY P. STRAUGHN, Aberdeen, Md.
Filed October 12, 1911. Serial No. 59,123. PUBLISHED APRIL 9, 1912.

88,972. WOMEN'S SHOES MADE OF LEATHER, FABRIC, AND LEATHER AND FABRIC. JAMES G. TAVARES, East Oakland, Cal., and Mexico, Mexico.
Filed June 5, 1912. Serial No. 63,985. PUBLISHED AUGUST 27, 1912.

88,973. BOOTS AND SHOES MADE OF LEATHER. THAYER, MCNEIL & HODGKINS, Boston, Mass.
Filed May 13, 1912. Serial No. 63,509. PUBLISHED AUGUST 20, 1912.

88,974. [WITHDRAWN.]

88,975. STOCK FEED. TIOGA MILL & ELEVATOR CO., near Waverly, N. Y.
Filed June 26, 1912. Serial No. 64,387. PUBLISHED AUGUST 13, 1912.

88,976. LETTER-COPYING CLOTHS CUT READY FOR USE IN THE COPYING-PRESS. TOWER MANUFACTURING & NOVELTY CO., New York, N. Y.
Filed February 6, 1912. Serial No. 61,295. PUBLISHED JUNE 4, 1912.

88,977. MEN'S, WOMEN'S, AND CHILDREN'S HOSIERY. E. M. TOWNSEND & Co., New York, N. Y.
Filed May 25, 1912. Serial No. 63,841. PUBLISHED AUGUST 27, 1912.

88,978. PROTECTORS INSERTED IN HEELS AND SOLES OF BOOTS AND SHOES. UNITED SHOE MACHINERY COMPANY, Paterson, N. J., and Boston, Mass.
Filed December 11, 1911. Serial No. 60,179. PUBLISHED AUGUST 27, 1912.

88,979. CANDY. THE UPJOHN COMPANY, Kalamazoo, Mich.
Filed May 31, 1912. Serial No. 63,889. PUBLISHED JULY 30, 1912.

88,980. COTTON AND WOOLEN KNITTED UNDERWEAR. UTAH KNITTING CO., Ogden, Utah.
Filed July 3, 1912. Serial No. 64,571. PUBLISHED AUGUST 20, 1912.

88,981. COTTON YARNS. UTICA STEAM AND MOHAWK VALLEY COTTON MILLS, Utica, N. Y.
Filed July 22, 1912. Serial No. 64,871. PUBLISHED AUGUST 27, 1912.

88,982. COTTON YARNS. UTICA STEAM AND MOHAWK VALLEY COTTON MILLS, Utica, N. Y.
Filed July 22, 1912. Serial No. 64,870. PUBLISHED AUGUST 27, 1912.

88,983. ELECTRIC BATTERIES. VAN ANTWERP'S DRUG CORPORATION INC., Mobile, Ala.
Filed July 27, 1912. Serial No. 64,969. PUBLISHED AUGUST 27, 1912.

88,984. SWEATER-COATS, HOODS, AND MUFFLERS. VISOR KNITTING COMPANY, Niagara Falls, N. Y.
Filed July 10, 1912. Serial No. 64,662. PUBLISHED AUGUST 27, 1912.

88,985. OVERALLS, TROUSERS, AND JUMPERS. WEILER MANUFACTURING CO., Corsicana, Tex.
Filed June 12, 1912. Serial No. 64,145. PUBLISHED AUGUST 27, 1912.

88,986. GENERAL TONIC. THE WILCOX CO., Providence, R. I.
Filed March 21, 1912. Serial No. 62,320. PUBLISHED JULY 16, 1912.

88,987. CERTAIN NAMED TOOLS. J. H. WILLIAMS & Co., New York, N. Y.
Filed April 5, 1912. Serial No. 62,667. PUBLISHED AUGUST 27, 1912.

88,988. SODA-WATER DRINK. JAMES P. WILLIAMS, Brooklyn, N. Y.
Filed June 19, 1912. Serial No. 64,277. PUBLISHED AUGUST 27, 1912.

88,989. PEANUT-CANDY. HARRIS WOODSON CO., INC., Lynchburg, Va.
Filed February 26, 1912. Serial No. 61,743. PUBLISHED AUGUST 20, 1912.

88,990. PERFUMERY. ALFRED WRIGHT PERFUMER INC., Philadelphia, Pa.
Filed April 22, 1912. Serial No. 63,065. PUBLISHED AUGUST 20, 1912.

# LABELS

## REGISTERED OCTOBER 29, 1912.

16,613.—*Title:* "MOTHERS ONLY HOPE." (For a Remedy for Croup.) ANTHONY WINCHESTER BROWN, Schenectady, N. Y. Filed June 20, 1912.

16,614.—*Title:* "SUM-MO." (For Coffee and Chicory.) COLUMBIA COFFEE MILLS, LTD., New Orleans, La. Filed September 21, 1912.

16,615.—*Title:* "THE DAVIES DOLLS." (For Dolls.) AUGUSTUS DAVIES, Pasadena, Cal. Filed August 31, 1912.

16,616.—*Title:* "DEXTEROSE." (For Foods for Infants and Invalids.) DEXTEROSE FOOD CO., Richmond, Va. Filed April 13, 1912.

16,617.—*Title:* "STUTTS' EAS-IT." (For a Remedy for Headaches.) THE EAS-IT CHEMICAL CO., Florence, Ala. Filed August 14, 1912.

16,618.—*Title:* "THE MIRROR-DE-LUXE." (For Mirrors.) EDWIN EWING, Clinton, Iowa. Filed September 26, 1912.

16,619.—*Title:* "TITE-SEAL." (For Rubber Cements.) HASKIN-BROWN COMPANY, Boston, Mass. Filed October 7, 1912.

16,620.—*Title:* "BEN FEZ." (For Cigars.) A. C. HENSCHEL & Co., Chicago, Ill. Filed September 23, 1912.

16,621.—*Title:* "OJEN." (For Ojen.) HIJOS DE QUIRICO LOPEZ, Malaga, Spain. Filed June 11, 1912.

16,622.—*Title:* "CHOOSE INDIVIDUAL CHEWS." (For Chewing-Tobacco.) INTERNATIONAL INVESTMENT CORPORATION, Norfolk, Va. Filed September 19, 1912.

16,623.—*Title:* "KEISER HANDKERCHIEFS THE BOY'S COMPANION." (For Handkerchiefs.) JAMES R. KEISER INC., New York, N. Y. Filed September 20, 1912.

16,624.—*Title:* "KEISER HANDKERCHIEFS THE LITTLE HOUSEKEEPER." (For Handkerchiefs.) JAMES R. KEISER INC., New York, N. Y. Filed September 20, 1912.

16,625.—*Title:* "MELLAMALT." (For Confections.) MALT FOOD PRODUCTS CO. OF OSWEGO, N. Y., Oswego, N. Y. Filed September 23, 1912.

16,626.—*Title:* "SAL VEGETAS RX." (For a Saline and Vegetable Cathartic Compound.) THE PHARMACAL PRODUCTS COMPANY, East Newark, N. J. Filed September 3, 1912.

16,627.—*Title:* "SPOTLESS CLEANSER." (For Scouring-Powder.) THE REYNOLDS CORPORATION, Bristol, Tenn. Filed August 1, 1912.

16,628.—*Title:* "FRATERNITY BRAND SWEET POTATOES." (For Sweet Potatoes.) SOUTHERN PRODUCTS COMPANY, Seminary, Miss. Filed August 16, 1912.

16,629.—*Title:* "LA FLOR DE CARITAN." (For Cigars.) E. A. & OTTO WEBER, Manila, Philippine Islands. Filed September 5, 1912.

16,630.—*Title:* "BLUNTS." (For Cigars.) THOMAS G. THOMPSON, New York, N. Y. Filed October 9, 1912.

# PRINTS

## REGISTERED OCTOBER 29, 1912.

3,123.—*Title:* "HIRSCHMAN'S NEVER STRETCH 'TURKISH TUFTED' COTTON FELT MATTRESS." (For Mattresses.) THE J. C. HIRSCHMAN CO., Indianapolis, Ind. Filed August 16, 1912.

3,124.—*Title:* "THE CIGAR THAT PUT THE O. K. IN SMOKE." (For Cigars.) THE JERSEY CITY PRINTING COMPANY, Jersey City, N. J. Filed October 12, 1912.

3,125.—*Title:* "TREFFER BUTTONS." (For Buttons.) HENRY H. TREFFER, Davenport, Iowa. Filed September 25, 1912.



# DECISIONS

OF THE

# COMMISSIONER OF PATENTS

AND OF

# UNITED STATES COURTS IN PATENT CASES.

## COMMISSIONER'S DECISIONS.

PATERSON *v.* HAY.

*Decided July 2, 1913.*

TRADE-MARKS—USE OF MARK ON A FEW SAMPLES—INSUFFICIENT TO ESTABLISH TRADE-MARK RIGHT.

Where it appeared that the only use made by an applicant for the registration of a mark for a liquid binding agent for roads, etc., had been upon a small number of gallon cans of the solution which were shipped as samples, *Held* that this use is not such that any trade-mark right can be based thereupon.

APPEAL from Examiner of Interferences.

TRADE-MARK FOR LIQUID ADHESIVE EMPLOYED AS A BINDING AGENT FOR ROADS, ETC.

*Messrs. Baldwin & Wight* for Paterson.

*Mr. Woodhull Hay* for Hay.

MOORE, *Commissioner:*

This is an appeal by Hay, the applicant, from a decision of the Examiner of Interferences sustaining the opposition filed by Paterson to the registration by Hay of the word "Rocmac" as a trade-mark for a liquid adhesive binding agent for roads, pavements, etc., and adjudging that Hay is not entitled to the registration for which he has made application.

The Examiner of Interferences found that Paterson had shown such an interest in the trade-mark that he would be damaged by its registration by another and that the applicant had made no such use of the mark as would entitle him to registration of the same.

It is to be noted that Paterson's right to register the mark is not in issue, but only the right of Hay to register the same.

The testimony in a large part relates to alleged contractual relations between Thomas A. Hay, the applicant, his brother, James Hay, Paterson, the opposer, and one Norman Fisher in the exploitation of a road-making solution to be used in making roads in accordance with Patent No. 808,339, issued to one Butterfield, and in the exploitation of this patent. It is not thought necessary to review this testimony in full. It is sufficient to say that it establishes that some time in the early part of 1910 negotiations were entered into between these parties, or at least between Paterson and the two Hays, as the result of which James Hay provided facilities for making the solution at his woodworking factory at Woodstock, Ontario, and that in the summer and fall of 1910 experimental roads were constructed at Woodstock, Niagara Falls, and Port Arthur, in the Province of Ontario, Canada, and at Coldwater, near Rochester, N. Y.

Hay, the applicant, claims that the four parties above named were to share in the profits arising from the exploitation of this road-making solution; that not until October, 1910, was it decided to call the solution "Rocmac," and that it was agreed that he, being a citizen of the United States, was to apply for the trade-mark for the benefit of all the parties. It appears, however, that the New York State Department of Highways had in May, 1910, agreed to build an experimental section of road at Coldwater under the direction of Paterson and one Heathcote, whom Paterson had brought over from England. The solution for this road was made at the plant of James Hay and shipped to Coldwater in barrels, the first shipment being made in June, 1910, and the second in July of that year. No charge was made for the first shipment; but the Department of Highways paid Paterson for the second shipment.

According to Paterson's testimony the barrels at Coldwater were branded with the word "Rocmac." His testimony on this point is corroborated by that of Giles, who was the timekeeper at Coldwater, and Taccone, who was the foreman of the laborers. Each of these witnesses testifies that the barrels containing the solution were marked with the word "Rocmac" in a manner similar to that shown on the barrel-head introduced in evidence as "Paterson's Exhibit No. 10." James Hay testifies that the barrels were not stenciled with the word "Rocmac" when shipped from Woodstock, and the testimony of Thomas A. Hay is to the same effect. Thomas A. Hay testifies that he examined the road at Coldwater during its construction and that the barrels which were lying on the side of the road were not branded with the word "Rocmac." His testimony is weakened, however, by his admission on cross-examination that on his second visit to Coldwater he examined the barrels only in a careless manner. Paterson further testifies that he is engaged in the manufacture of the liquid solution at a plant at Tonawanda, N. Y., and his testimony on this point is corroborated by that of Keefer.

According to the testimony of the applicant himself he made no use of the trade-mark except on certain samples thereof, which were shipped by him to New York in October, 1910. These samples consisted of gallon cans of the solution, of which about twenty were shipped. It is obvious that a gallon of this solution would be of no use in road-building, and, as pointed out by the Examiner of Interferences, the applicant's testimony shows that the shipment of these samples was mainly, if not entirely, for the purpose of laying a basis for the filing of the application.

It is to be noted that while the application alleges use not only upon a road-making solution, but upon concrete road-beds, pavements, sidewalks, and the like, and states that the trade-mark is applied to the goods by affixing to the container a printed label upon which the trade-mark is shown and by affixing to the road-beds, pavements, etc., plates bearing the trade-mark, applicant admits in his testimony that no road-beds or pavements were ever made and that the trade-mark was never used by him except, as stated above, by placing labels on the sample cans.

It is not necessary to decide whether Paterson has established a use of the mark prior to the shipment of the sample cans by the applicant. He has, as held by the Examiner of Interferences, established such an interest in the mark as would justify the conclusion that he would be damaged by its registration by the applicant. The use which the applicant is shown to have made of the mark is in my opinion not such that any trade-mark right can be based thereon. The opposition was therefore properly sustained.

The decision of the Examiner of Interferences is affirmed, and it is held that Thomas A. Hay is not entitled to the registration for which he has made application.

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## Ex parte Paine.

*Decided July 31, 1912.*

Application — Prosecution — Entry of Amendment After Final Rejection.

The rule provides that after a final rejection new claims may be considered if they present the rejected claims in better form for appeal or upon a verified showing of good and sufficient reasons why such claims were not earlier presented; but it is within the discretion of the Examiner to enter after final rejection an amendment containing claims which in his opinion are patentable.

On petition.

Dutton.

*Mr. George C. Paine pro se.*

Moore, *Commissioner:*

This is a petition from the action of the Primary Examiner finally rejecting certain claims and refusing to enter certain amendments thereafter.

The petition in part asks that the Examiner be instructed that certain structures are not anticipations of the claims. This question is one which will not be considered on petition, since it relates to the propriety of the Examiner's action in refusing the claims and is a matter which, under the statutes and rules of practice, must be considered by the Examiners-in-Chief in the first instance.

The petition asks also that the Examiner be instructed on certain points of patent law and that he be instructed to consider certain decisions cited. No instructions by the Examiner along this line are deemed necessary, since the Examiner is very well aware, as he states in his answer, of the questions of law raised and that he should consider the decisions cited. The applicability of these decisions to the present case is, however, a matter of merits to be considered by the Examiners-in-Chief in connection with the question of the patentability of the claims should appeal be taken. The only points raised that can be considered on this petition are whether the final rejection was premature and the propriety of the action of the Examiner in refusing to enter certain amendments filed thereafter.

An examination of the record shows that the final rejection was properly entered after the claims had been presented a second time for consideration. There have been numerous actions in this case. It may be stated that the fact that the Examiner did not answer in detail every argument presented by the applicant nor discuss every decision cited by him is no ground for applicant's concluding that the Examiner had paid no attention to his arguments.

Rule 66 provides that after a final rejection amendments will be entered only for the purpose of presenting the claims rejected in better form for appeal, or, if the amendments touch the merits of the application, only upon a verified showing of good and sufficient reasons why these claims were not earlier presented. The reason given by the applicant for not earlier presenting claim 8 was clearly insufficient, and the Examiner was acting within the rule in refusing to enter the amendment. It was within the discretion of the Examiner to enter an amendment containing a patentable claim even after final rejection, which was the action taken by the Examiner with reference to claim 2. Such action was obviously to applicant's advantage, and he has no ground to complain thereof.

If the claims which applicant has sought to have entered after the final rejection are, in the opinion of the Examiner, unpatentable over the references cited, it would seem that such claims might be admitted for the purpose of appeal, if applicant so desires.

The petition is denied.

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## Steinberger v. Hewlett.

*Decided August 6, 1912.*

1. Interference—Testimony—Presumption from Failure to Call Witness.

Where in a case involving the question of originality an inventor fails to take the stand who is available as a witness upon the facts in his favor, it may there be, are reasonably certain his knowledge, the legal presumption follows that his testimony would be unfavorable to his case.





2. Same—Patents.

Evidence reviewed and *held* to, in the absence of any testimony on behalf of H. to establish that he was not an original inventor, but derived his knowledge of the invention in issue from S. through a third party and priority awarded to S.

Appeal from Examiners-in-Chief.

Insulator.

*Mr. Charles H. Wilson* for Steinberger.

*Mr. Albert G. Davis* for Hewlett.

Billings, *First Assistant Commissioner:*

This is an appeal by Steinberger from a decision of the Examiners-in-Chief affirming the decision of the Examiner of Interferences awarding priority of invention to Hewlett as to the following issue:

1. A disk strain insulator, comprising suspension members, a mass of insulating material partially enveloping the same, and a disk portion provided centrally with a disk integral therewith and lying substantially in the general equatorial plane of said mass, and further provided with flanges extending in opposite directions from said equatorial plane.

2. A disk strain insulator, comprising suspension members, a mass of insulating material partially enveloping the same and having a disk portion, said disk portion being provided with annular collars extending in opposite directions and in the general direction of said suspension members.

3. A disk strain insulator, comprising strain members, a body of insulating material partially enveloping the same and having a comparatively large disk, said disk being provided with collars integral therewith and extending in opposite directions.

The invention relates to disk strain-insulators for electric conductors designed to mechanically secure and at the same time electrically insulate two connecting parts. It was desired to construct these insulators so as to prevent creepage of current over the surface thereof, not only in dry weather, but in wet weather as well, and this was accomplished by the construction claimed.

In dry weather the irregularities in the surface of the sides of the disk provide against surface leakage by making additional surface without increasing the diameter of the disk, while in rainy weather the same irregularities collect and dispose of the water and prevent the formation of a film of water on the sides thereof, which film if present would cause a more or less perfect electrical connection between the parts intended to be insulated from each other.

The record shows that Steinberger filed his application, Serial No. 411,812, on January 20, 1908, and that this application matured into a patent on November 17, 1908, No. 904,976.

Hewlett, the senior party, filed his application April 20, 1907, Serial No. 369,245.

In view of the fact that the two applications were pending contemporaneously Steinberger gains no benefit in this proceeding by reason of the fact that his patent has been granted.

The junior party, Steinberger, took testimony in support of his case. The senior party, Hewlett, took no testimony, electing to rest his case upon his filing date. Viewing the respective cases presented merely as those of two independent inventors each working in ignorance of the other, it is very clear that Steinberger would fail, for the reason that, admitting the dates of conception to be established by him, he did not actually reduce his invention to practice and there is nothing in his record to show diligence on his part from a date prior to Hewlett's filing date of April 20, 1907, to January 20, 1908, the date upon which he (Steinberger) filed his application.

The issue of originality, however, has been raised in this case. It is contended by Steinberger that he disclosed the invention to one Buck by means of a letter and sketch forwarded to Buck on or about October 7, 1905, and that the records of this Office, which have been placed in evidence, raise the presumption that Buck disclosed the invention to Hewlett and that Hewlett, therefore, is not the original inventor, and that this presumption must control here for the reason that Hewlett has elected to present no testimony to show facts to the contrary in support of his case.

The record shows that a joint application was filed disclosing and claiming the invention of this issue on February 15, 1906, by Buck, above referred to, and Hewlett, the senior party in this proceeding, which application was assigned to the General Electric Company and was prosecuted in its behalf until November 16, 1908, when the Office entered a rejection therein. No further prosecution was had, and therefore it became abandoned under section 4894, Revised Statutes, on and after November 17, 1909. Hewlett also filed on April 20, 1907, his sole application involved in this interference, which is also assigned to the General Electric Company. Counsel for Hewlett contend that the only presumption arising out of this condition is that Hewlett and Buck came to the conclusion, either upon the advice of counsel or otherwise, that they were not the joint inventors of the invention defined in the issue, but that Hewlett was the sole inventor thereof and cite decisions in support of this contention.

If Buck and Hewlett were the only ones concerned, this contention would have much force, but when another party, as Steinberger, claims prior inventorship from a date prior to any date of which Hewlett can be entitled, and if he is successful in establishing the fact that he disclosed the invention to Buck, then under the conditions above enumerated, in view of the fact that Hewlett has not seen fit to offer any testimony to establish the fact that he is the inventor, there is no other conclusion possible than that Hewlett derived the invention from Steinberger through Buck.

It remains, therefore, to consider whether the disclosure which it is admitted by Hewlett was made to Buck by Steinberger on or about October, 1905, was a disclosure of the invention of this issue.

It appears from the record that at that time Steinberger was president and general manager of the Electrose Manufacturing Company in Brooklyn, N. Y., and that the business of this company, among other things, was to construct devices which are generally of the class to which this invention belongs, and that for about ten years he has been engaged in the manufacture of insulators for currents of high tension made out of special material called "electrose."

Buck is a consulting engineer and was employed

According to the testimony of the applicant himself he made no use of the trade-mark except on certain samples thereof, which were shipped by him to New York in October, 1910. These samples consisted of gallon cans of the solution, of which about twenty were shipped. It is obvious that a gallon of this solution would be of no use in road-building, and, as pointed out by the Examiner of Interferences, the applicant's testimony shows that the shipment of these samples was mainly, if not entirely, for the purpose of laying a basis for the filing of the application.

It is to be noted that while the application alleges use not only upon a road-making solution, but upon concrete road-beds, pavements, sidewalks, and the like, and states that the trade-mark is applied to the goods by affixing to the container a printed label upon which the trade-mark is shown and by affixing to the road-beds, pavements, etc., plates bearing the trade-mark, applicant admits in his testimony that no road-beds or pavements were ever made and that the trade-mark was never used by him except, as stated above, by placing labels on the sample cans.

It is not necessary to decide whether Paterson has established a use of the mark prior to the shipment of the sample cans by the applicant. He has, as held by the Examiner of Interferences, established such an interest in the mark as would justify the conclusion that he would be damaged by its registration by the applicant. The use which the applicant is shown to have made of the mark is in my opinion not such that any trade-mark right can be based thereon. The opposition was therefore properly sustained.

The decision of the Examiner of Interferences is affirmed, and it is held that Thomas A. Hay is not entitled to the registration for which he has made application.

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## EX PARTE PAINE.

*Decided July 16, 1912.*

APPLICATION — PROSECUTION — ENTRY OF AMENDMENT AFTER FINAL REJECTION.

The rule provides that after a final rejection new claims may be considered if they present the rejected claims in better form for appeal or upon a verified showing of good and sufficient reasons why such claims were not earlier presented; but it is within the discretion of the Examiner to enter after final rejection an amendment containing claims which in his opinion are patentable.

ON PETITION.

BUTTON.

*Mr. George C. Paine pro se.*

MOORE, *Commissioner:*

This is a petition from the action of the Primary Examiner finally rejecting certain claims and refusing to enter certain amendments thereafter.

The petition in part asks that the Examiner be instructed that certain structures are not anticipations of the claims. This question is one which will not be considered on petition, since it relates to the propriety of the Examiner's action in refusing the claims and is a matter which, under the statutes and rules of practice, must be considered by the Examiners-in-Chief in the first instance.

The petition asks also that the Examiner be instructed on certain points of patent law and that he be instructed to consider certain decisions cited. No instructions to the Examiner along this line are deemed necessary, since the Examiner is very well aware, as he states in his answer, of the questions of law raised and that he should consider the decisions cited. The applicability of these decisions to the present case is, however, a matter of merits to be considered by the Examiners-in-Chief in connection with the question of the patentability of the claims should appeal be taken. The only points raised that can be considered on this petition are whether the final rejection was premature and the propriety of the action of the Examiner in refusing to enter certain amendments filed thereafter.

An examination of the record shows that the final rejection was properly entered after the claims had been presented a second time for consideration. There have been numerous actions in this case. It may be stated that the fact that the Examiner did not answer in detail every argument presented by the applicant nor discuss every decision cited by him is no ground for applicant's concluding that the Examiner had paid no attention to his arguments.

Rule 68 provides that after a final rejection amendments will be entered only for the purpose of presenting the claims rejected in better form for appeal, or, if the amendments touch the merits of the application, only upon a verified showing of good and sufficient reasons why these claims were not earlier presented. The reason given by the applicant for not earlier presenting claim 8 was clearly insufficient, and the Examiner was acting within the rule in refusing to enter the amendment. It was within the discretion of the Examiner to enter an amendment containing a patentable claim even after final rejection, which was the action taken by the Examiner with reference to claim 2. Such action was obviously to applicant's advantage, and he has no ground to complain thereof.

If the claims which applicant has sought to have entered after the final rejection are, in the opinion of the Examiner, unpatentable over the references cited, it would seem that such claims might be admitted for the purpose of appeal, if applicant so desires.

The petition is denied.

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## STEINBERGER v. HEWLETT.

*Decided August 6, 1912.*

1. INTERFERENCE—TESTIMONY—PRESUMPTION FROM FAILURE TO CALL WITNESS.

Where in a case involving the question of originality an inventor fails to take the stand who is available as a witness when the facts in his favor, if any there be, are peculiarly within his knowledge, the legal presumption follows that his testimony would be unfavorable to his case.





2. SAME—PRIORITY.

Evidence reviewed and *Held* in the absence of any testimony on behalf of H. to establish that he was not an original inventor, but derived his knowledge of the invention in issue from S. through a third party and priority awarded to S.

APPEAL from Examiners-in-Chief.

INSULATOR.

*Mr. Charles H. Wilson* for Steinberger.

*Mr. Albert G. Davis* for Hewlett.

BILLINGS, *First Assistant Commissioner:*

This is an appeal by Steinberger from a decision of the Examiners-in-Chief affirming the decision of the Examiner of Interferences awarding priority of invention to Hewlett as to the following issue:

1. A disk strain insulator, comprising suspension members, a mass of insulating material partially enveloping the same, said mass being provided centrally with a disk integral therewith and lying substantially in the general equatorial plane of said mass, and further provided with flanges extending in opposite directions from said equatorial plane.

2. A disk strain insulator, comprising suspension members, a mass of insulating material partially enveloping the same and having a disk portion, said disk portion being provided with annular collars extending in opposite directions and in the general direction of said suspension members.

3. A disk strain insulator, comprising strain members, a body of insulating material partially enveloping the same and having a comparatively large disk, said disk being provided with collars integral therewith and extending in opposite directions.

The invention relates to disk strain-insulators for electric conductors designed to mechanically secure and at the same time electrically insulate two connecting parts. It was desired to construct these insulators so as to prevent creepage of current over the surface thereof, not only in dry weather, but in wet weather as well, and this was accomplished by the construction claimed.

In dry weather the irregularities in the surface of the sides of the disk provide against surface leakage by making additional surface without increasing the diameter of the disk, while in rainy weather the same irregularities collect and dispose of the water and prevent the formation of a film of water on the sides thereof, which film if present would cause a more or less perfect electrical connection between the parts intended to be insulated from each other.

The record shows that Steinberger filed his application, Serial No. 411,812, on January 20, 1908, and that this application matured into a patent on November 17, 1908, No. 904,370.

Hewlett, the senior party, filed his application April 20, 1907, Serial No. 369,245.

In view of the fact that the two applications were pending contemporaneously Steinberger gains no benefit in this proceeding by reason of the fact that his patent has been granted.

The junior party, Steinberger, took testimony in support of his case. The senior party, Hewlett, took no testimony, electing to rest his case upon his filing date. Viewing the respective cases presented merely as those of two independent inventors each working in ignorance of the other, it is very clear that Steinberger would fail, for the reason that, admitting an earlier conception to be established by him, he did not actually reduce his invention to practice and there is nothing in his record to show diligence on his part from a date just prior to Hewlett's filing date of April 20, 1907, to January 20, 1908, the date upon which he (Steinberger) filed his application.

The issue of originality, however, has been raised in this case. It is contended by Steinberger that he disclosed the invention to one Buck by means of a letter and sketch forwarded to Buck on or about October 7, 1905, and that the records of this Office, which have been placed in evidence, raise the presumption that Buck disclosed the invention to Hewlett and that Hewlett, therefore, is not the original inventor, and that this presumption must control here for the reason that Hewlett has elected to present no testimony to show facts to the contrary in support of his case.

The record shows that a joint application was filed disclosing and claiming the invention of this issue on February 15, 1906, by Buck, above referred to, and Hewlett, the senior party in this proceeding, which application was assigned to the General Electric Company and was prosecuted in its behalf until November 16, 1908, when the Office entered a rejection therein. No further prosecution was had, and therefore it became abandoned under section 4894, Revised Statutes, on and after November 17, 1909. Hewlett also filed on April 20, 1907, his sole application involved in this interference, which is also assigned to the General Electric Company. Counsel for Hewlett contend that the only presumption arising out of this condition is that Hewlett and Buck came to the conclusion, either upon the advice of counsel or otherwise, that they were not the joint inventors of the invention defined in the issue, but that Hewlett was the sole inventor thereof and cite decisions in support of this contention.

If Buck and Hewlett were the only ones concerned, this contention would have much force, but when another party, as Steinberger, claims prior inventorship from a date prior to any date of which Hewlett can be entitled, and if he is successful in establishing the fact that he disclosed the invention to Buck, then under the conditions above enumerated, in view of the fact that Hewlett has not seen fit to offer any testimony to establish the fact that he is the inventor, there is no other conclusion possible than that Hewlett derived the invention from Steinberger through Buck.

It remains, therefore, to consider whether the disclosure which it is admitted by Hewlett was made to Buck by Steinberger on or about October, 1905, was a disclosure of the invention of this issue.

It appears from the record that at that time Steinberger was president and general manager of the Electrose Manufacturing Company in Brooklyn, N. Y., and that the business of this company, among other things, was to construct devices which are generally of the class to which this invention belongs, and that for about ten years he has been engaged in the manufacture of insulators for currents of high tension made out of special material called "electrose."

Buck is a consulting engineer and was connected

at that time with the Niagara Falls Power Co. at Niagara Falls, N. Y.

On September 28, 1905, Buck wrote to Steinberger asking him to make some disk insulators of "electrose" in accordance with a sketch inclosed therein. In a letter of October 4, 1905, Buck stated that he wished this disk insulator to stand strains of at least 5,000 volts and that the diameter of the disk should be fourteen inches. On October 7, 1905, Steinberger wrote to Buck inclosing some sketches, and in this letter reference was made to sketch No. 2. With respect to this sketch Steinberger said:

On the inclosed sketch marked 2, please note that we have indicated the surface of the disk as being corrugated. Our object for corrugating the planes of the disk is to provide additional surface, without increasing the diameter of the disk, thereby providing for surface leakage, and enabling you to impress a greater voltage than you could on a disk with plain surfaces.

He also stated that the object of the thick central portion—

is to strengthen the disk as much as possible toward the central portion where the strain will be heaviest.

In the same letter Steinberger said:

In sketch No. 2 we have embodied our new suggestions regarding the modifications of the surface of the disk, the tapering form of the disk, also a modified form of the hub portion of the disk.

Steinberger then closes his letter with assurances of his "very best endeavors to submit samples" at the earliest possible time.

It is contended in behalf of Hewlett that this disclosure is not that of the issue of the interference, which calls for a disk strain-insulator, defined in count 1 as—

provided with *flanges* extending in opposite directions,

in count 2 as—

provided with annular *collars* extending in opposite directions,

and in count 3 as—

provided with *collars* integral therewith and extending in opposite directions,

for the reason, it is argued, that the corrugations disclosed in Steinberger's sketch No. 2 and described in his letter are not the flanges of count 1 nor the collars of counts 2 and 3, the one (the corrugations) not being able to perform all the functions and give the results in actual use of the other, (the flanges or collars.)

Hewlett argues that the invention of the issue is primarily to guide the rain-water in the spaces between the flanges or collars so as not to destroy or impair the insulating qualities of the device and that this is the most essential feature of the invention, and that the idea of providing annular corrugations on the plane of the disk, as stated by Steinberger in his letter to Buck, to give—

additional surface without increasing the diameter of the disk thereby providing for surface leakage—

was but secondary in the results to be obtained from the use of the invention.

It is to be noted that the size of the disk which Buck desired Steinberger to make for him is specified as fourteen (14) inches in diameter. Therefore it is not a violent presumption that the relative measurements of the device shown in sketch No. 2 were to be proportionately increased.

While there are no specific statements to be found in the letters from Steinberger to Buck which intimate that the device shown in sketch No. 2 was constructed to divert the water during storms, so as not to impair the insulating qualities of the device, yet, if the construction of the device as disclosed by Steinberger to Buck is capable of performing this function, it was not necessary under the law for Steinberger to state it in order to be adjudged the inventor thereof.

The Examiners-in-Chief in considering the question whether or not the "corrugations" as specified in Steinberger's letter could be properly defined as "flanges" or "collars" referred to Steinberger's earlier patent, which has been introduced in evidence, No. 913,439, granted February 23, 1909, on an application filed November 27, 1905. This filing date, it is to be noted, is one month and twenty days after the date of the letter containing Steinberger's disclosure to Buck and much earlier than any date which can be awarded to Hewlett. This patent is for a specific device and discloses corrugated disks and sleeves for an insulator of a specifically different type from that of the issue.

In the specification of this patent Steinberger states:

My invention relates to insulators and supports therefor, my more particular object being to produce a structure in which I seek to attain the following advantages, to wit:

(8) To provide the disks with corrugations of various kinds for the purpose of providing increased surface for surface leakage.

This is the object stated in Steinberger's letter of October 7, 1905, to Buck, and—

(4) To facilitate the draining of moisture in certain directions so as to render the moisture harmless.

At lines 102, etc., in the specification—

By virtue of the annular concentric corrugations $15^b$, $16^c$, $17^b$, the path of the surface leakage is greatly lengthened, and comparatively dry spaces are shown between the outer edges of the disks and the body portions thereof.

In this patent there is believed to be a clear disclosure of the idea and means for providing dry spaces, so that the insulation will not be impaired or totally destroyed, and this disclosure was filed in the Patent Office on November 27, 1905, several months before any date to which Hewlett could be entitled in view of the record presented and less than two months after Steinberger's disclosure to Buck. It further shows clearly that Steinberger was aware at that time of the utility of that idea—namely, of collecting and diverting the rain-water, so as to cause the disk insulator to be as dry as possible at all times.

In view of the fact that Steinberger clearly disclosed to Buck in October, 1905, a disk insulator which he described as being corrugated and which he stated was capable of performing two of the results which it was desired to realize from the use of the invention, and that the invention as disclosed by Steinberger to Buck was capable of accomplishing the other result, though not specified in the letter, but which the record shows that Steinberger stated but one month and three weeks afterward could be accomplished by the use of similar structures, it is held that the invention of the issue was disclosed by Steinberger to Buck in October, 1905.





In view of this disclosure and of the record presented—viz., the filing of a joint application by Buck and Hewlett, followed by a sole application of Hewlett, both disclosing the invention of the issue—there is no other conclusion possible than that Hewlett derived this invention from Steinberger through Buck, and this conclusion is all the more justified by reason of the fact that Hewlett did not testify or present any record in his own behalf to establish that he was, in fact, the inventor of the issue.

Where in a case involving the question of originality an inventor fails to take the stand who is available as a witness when the facts in his favor, if any there be, are peculiarly within his knowledge, the legal presumption follows that his testimony would be unfavorable to his case.

The invention of this issue, as in other cases, is a thing and not words, and in the light of the record the refinements of language should not control and the words "corrugations," "flanges," and "collars" as used in this case are held to be synonymous.

It is held that Steinberger is the original inventor of the issue, and the decision of the Examiners-in-Chief is reversed.

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HOLLEN *v.* KELLY.

*Decided September 21, 1912.*

INTERFERENCE—MOTION TO DISSOLVE—TRANSMISSION.

A motion to dissolve alleging that the opposing party has no right to make the claims *Held* properly refused transmission where it appears that the real point urged is that the applicant has shifted from one species of invention to another.

APPEAL on motion.

VALVE.

*Messrs. Burton & Burton* for Hollen.

*Messrs. Dyrenforth, Lee, Chrittton & Wiles* for Kelly.

TENNANT, *Assistant Commissioner:*

This is an appeal by Hollen from the decision of the Examiner of Interferences refusing to transmit a motion for dissolution, based upon the allegation that Kelly has no right to make the claims.

As stated by the Examiner of Interferences, an examination of the motion shows that the real point urged by Hollen is that Kelly has shifted from one species of invention to another. The Examiner of Interferences held this to be an *ex parte* question not material to the question of priority of invention and refused to transmit the motion.

It is urged in behalf of Hollen that Kelly's application included several species of invention, that he had elected one of these species differing from that covered by the issue of the interference, and that he could not therefore be allowed claims in this application covering the species set forth in the issue herein.

This contention is not well founded. Rule 122 provides for motions to dissolve an interference when there has been such informality in the declaration of an interference as will preclude a proper determination of the question of priority and also which deny the right of one of the applicants to make a claim. The present motion, while alleging that Kelly has no right to make the claim in this particular application, does not deny that the claim is readable upon the structure as shown in Kelly's application as originally filed. The allegation is, in fact, an assertion that the declaration of the interference was irregular. It is well settled that the grounds urged by Hollen for dissolution of this interference do not constitute such irregularity as will preclude a proper determination of priority.

In the case of *Atherton and Happ* v. *Cheney* (111 O. G., 1040) it was held that the inclusion in the issue of an interference of claims covering two different species of an invention did not constitute such irregularity as would preclude a proper determination of priority. Rulings of a somewhat similar character were made in the case of *Hoefer, Hoefer, and Hoefer* v. *Barnes*, (108 O. G., 560,) *Myers* v. *Brown*, (112 O. G., 2093,) and *Meden* v. *Curtis*, (117 O. G., 1795,) The reasons which are set forth in these cases are equally applicable to the present case.

The decision of the Examiner of Interferences is accordingly affirmed.

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## ADJUDICATED PATENTS.

(U. S. C. C. A.) The Gale patent, No. 685,828, for a rubbing and polishing machine, claims 1 and 3 *Held* valid and infringed. *Moore Carving Mach. Co.* v. *Clemons Mach. Co.*, 198 Fed. Rep., 90.

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(U. S. C. C. A.) The Sundh patent, No. 738,564, for an electric controller, *Held* void on the ground that the patentee was not the original and first inventor of the device patented. *Sundh Electric Co.* v. *Interborough Rapid Transit Co.*, 198 Fed. Rep., 94.

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(U. S. C. C. A.) The Yarnell patent, No. 743,606, for a polishing-machine, *Held* valid and infringed. *Moore Carving Mach. Co.* v. *Clemons Mach. Co.*, 198 Fed. Rep., 90.

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(U. S. D. C.) The Lindquist patents, Nos. 744,778 and 764,608, for alternating-current electromagnets, *Held* infringed. *Sundh Electric Co.* v. *General Electric Co.*, 198 Fed. Rep., 116.

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(U. S. D. C.) The Burrowes patent, No. 766,988, for a folding table, *Held* not infringed. *Burrowes* v. *Ferguson Bros. Mfg. Co.*, 198 Fed. Rep., 136.

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(U. S. C. C. A.) The Ottofy patent, No. 795,669, for a street-flushing machine, *Held* valid and infringed. *American Street Flushing Co.* v. *D. Connolly Boiler Co.*, 198 Fed. Rep., 99.

(U. S. D. C.) The Thropp patent, No. 822,861, for apparatus for manufacturing wheel-tires for automobiles, claims 1 and 2 *Held* invalid. *De Laski & Thropp Circular Woven Tire Co.* v. *Fisk Rubber Co.*, 198 Fed. Rep., 125.

(U. S. D. C.) The Carbone patent, No. 975,985, for an arc-lamp, *Held* valid, but not infringed. *Loraine Development Co.* v. *General Electric Co.*, 198 Fed. Rep., 100.

(U. S. D. C.) The Turner patent, No. 985,119, for steel-skeleton concrete construction, *Held* not infringed. *Turner* v. *Moore*, 198 Fed. Rep., 124.

## Changes in Classification.

(ORDER No. 3,611.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., October 23, 1912.*

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In Division XXXIX, class 137, Water Distribution, establish subclass—

Tanks—
Automatic—
105. Siphon,

the patents therein being taken mainly from class 4, Baths and Closets, subclass 5, Closet-cisterns; class 137, Water Distribution, subclass 20, Siphons; class 182, Sewerage, subclass 8, Flush-tank siphons hereinafter abolished, and class 210, Water Purification, subclass 18, Filters, Systems.

In Division XLIII, class 182, Sewerage, abolish subclass—

8. Flush-tank siphons,

most of the patents formerly therein having been placed in class 137, Water Distribution, subclass 105, Tanks, Automatic, Siphon, hereinbefore established.

EDWARD B. MOORE,
*Commissioner.*

## Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., October 22, 1912.*

*Whitman Brothers, their assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of The Southern Cotton Oil Company, 15 Exchange Place, Jersey City, N. J., for registration of a trade-mark and trade-mark registration No. 17,968, registered June 2, 1896, to Whitman Brothers, of 302 Produce Exchange Building, New York, N. Y., and the notice of such declaration sent by registered mail to said Whitman Brothers at the said address having been returned by the Post-Office Department undeliverable, notice is hereby given that unless the said Whitman Brothers, their assigns or legal representatives, shall within thirty days from the date of first publication of this order enter an appearance therein the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., October 22, 1912.*

*Shaw Brothers, their assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Hargreaves Merc. Co., corner Eighth and O streets, Lincoln, Nebr., for registration of a trade-mark and trade-mark registered September 18, 1894, No. 29,282, to Shaw Brothers, Birmingham, England, and a notice of such declaration sent by registered mail to said Shaw Brothers at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Shaw Brothers, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., October 22, 1912.*

*Lievre, Fricke & Co., their assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Goldberg, Bowen & Co., Sutter street, above Kearny, San Francisco, Cal., for registration of a trade-mark and trade-mark registered October 21, 1890, No. 14,800, to Lievre, Fricke & Co., 707–709 Sansome street, San Francisco, Cal., and a notice of such declaration sent by registered mail to the said Lievre, Fricke & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Lievre, Fricke & Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., October 22, 1912.*

*Patrick Lynch & Co., their assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of The Co-Operative League, 42 East Houston street, New York, N. Y., for registration of a trade-mark and trade-mark registered October 6, 1896, No. 12,622, to Patrick Lynch & Co., 1721 South street, Philadelphia, Pa., and a notice of such declaration sent by registered mail to said Patrick Lynch & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Patrick Lynch & Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., October 17, 1912.*

*Meriam & Morgan Paraffine Co., its assigns or legal representatives, take notice:*

An interference having been declared by this Office between The Paragon Refining Co., Front street, Toledo, Ohio, for registration of a trade-mark and trade-mark registered May 19, 1896, No. 12,256, to the Meriam & Morgan Paraffine Co., of Cleveland, Ohio, and the registry return receipt for the notice of interference sent to the Meriam & Morgan Paraffine Co. having been signed by one who is apparently a stranger to the record, notice is hereby given that unless said Meriam & Morgan Paraffine Co., its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., October 21, 1912.*

*Southern Coffee Company, its assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Layton Pure Food Company, of 106 West Broadway, East St. Louis, Ill., for registration of a trade-mark and trade-mark registered August 15, 1905, No. 39,054, to said Southern Coffee Company, of Louisville, Ky., and a notice of such declaration sent by registered mail to the said Southern Coffee Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Southern Coffee Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*



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# DIGEST

OF THE

# DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

OCTOBER, 1912.

## ABANDONMENT OF APPLICATION.

See Prosecution of Applications, 1.

## ACCESS TO ABANDONED APPLICATIONS.

CONTINUATION—SUBSTITUTE.

Where an application upon which a patent was granted is filed as the continuation of or substitute for another application, access to the earlier application will be granted upon request.

[*In re* Henry W. Peabody & Co., 804.

## ACCESS TO PENDING APPLICATIONS.

DIVISION—CERTIFICATE OF COURT.

Where an application upon which a patent was granted is a division of an earlier application, access to the latter will be granted only upon a showing of interest or, where a suit has been brought upon the patent, upon the filing of a certificate of the judge before whom the suit is pending that the earlier application will be relevant and material evidence.

[*In re* Henry W. Peabody & Co., 804.

## ACTION BY THE EXAMINER.

See Applications, 2, 3; Construction of Claims, 4, 5; Prosecution of Applications, 2, 4, 5, 6, 7, 8.

## AFFIDAVITS UNDER RULE 78.

See Prosecution of Applications, 5, 6.

## ALLEGATIONS.

See Invention; Motion to Dissolve Interference, 2.

## AMENDMENTS.

See Applications, 2; Claims, 2; Prosecution of Applications, 1, 7, 9.

## APPEAL FROM THE EXAMINER OF INTERFERENCES.

See Trade-Marks, 2.

## APPEAL TO THE EXAMINERS-IN-CHIEF.

See Claims, 2.

## APPLICATIONS.

See Access to Abandoned Applications; Access to Pending Applications; Claims; Prosecution of Applications; Reissue.

1. DISCLOSURE.

A petition stating that the attorneys filed an informal application and then asking that the Examiner instruct them in what way to make it formal denied, since it is obvious that the invention for which a patent is sought must be disclosed by the applicant and not by the Examiner. [*Ex parte* Thompson, 781.

2. DRAWINGS.

The action of the Examiner in requiring the illustration of the drawings to be limited to a single sheet *Held* proper. [*Ex parte* Hilliker, 1035.

3. SUBSTITUTE SPECIFICATION.

A second substitute specification *Held* properly refused admission where the amendments were not of such a character as to be difficult of entry or to cause confusion in the reading of the original specification when amended. [Id.

## ARGUMENTS.

See Prosecution of Applications, 5, 6, 7.

## ASSIGNEES.

See Assignments; Prosecution of Applications, 3.

## ASSIGNMENTS.

CONFLICTING—DISPUTES NOT SETTLED BY THE OFFICE.

The Patent Office will not undertake to settle disputes among conflicting assignees, but will leave the parties to their remedy in the courts. [*Ex parte* Partridge, 781.

## ATTORNEYS.

See Applications, 1; Certificate of Correction; Prosecution of Applications, 1.

## CERTIFICATE OF CORRECTION.

PATENTS—CONFLICTING ASSIGNMENTS.

Where during the pendency of an application apparently conflicting assignments were filed and, before the payment of the final fee, the attention of the attorneys was called thereto, but no attempt was made to correct the same and the patent issued to the inventor, *Held* that a certificate of correction setting forth the alleged proper ownership will not be granted.

[*In re* Jacobson, 221.

## CERTIFICATE OF COURT.

See Access to Pending Applications.

## CLAIMS.

See Construction of Claims; Priority of Invention, 2; Prosecution of Applications.

1. COMBINATION—GROUND OF REJECTION.

Where a combination of elements is old, claims to that combination should not be allowed, whether they state the elements of the combination broadly or specifically, unless the specific form of the elements themselves enter into the combination to produce a new result. [*Ex parte* Baker, 806.

2. NEW MATTER—QUESTION OF REVIEWABLE BY EXAMINERS-IN-CHIEF.

Whether the claims in an application as amended cover new matter is a question reviewable in the first instance by the Examiners-in-Chief. [*Ex parte* Thompson, 781.

## COMBINATION.

See Claims, 1.

CONFLICTING ASSIGNMENTS.

See Assignments; Certificate of Correction.

CONSTRUCTION OF CLAIMS.

1. PATENTABILITY—FORCE-FEED LUBRICATOR.
Where the prior art shows a force-feed lubricator the spray-pipe of which communicates with the cross-head pin of an engine, a claim differentiating therefrom only in specifying that the spray-pipe communicates with the expansion-chamber of the engine-cylinder *Held* unpatentable. [*Ex parte* Horton and Keen, 217.

2. SAME—SAME.
Certain claims for a force-feed lubricator *Held* patentable over the prior art. [Id.

3. SAME—BASE FOR PRINTING-PLATES.
Claims for a base for printing-plates consisting of blocks of wood having the grain vertical *Held* patentable over the prior art. [*Ex parte* Hoge and Rieb, 503.

4. INAPT LANGUAGE—MATTER OF FORM.
Where the Examiner rejected claims for an ice-making machine in which there is a plurality of upright molds, in which the ice is to be formed, and surrounding jackets, between which and the molds a freezing and thawing medium is introduced, on the ground that the expression in these claims "freezing and thawing means" would imply the freezing or thawing medium, as well as the jacket itself, *Held* that since the Examiner's objection relates to the meaning of language used to describe an undisputed structure it should not have been made the basis of a rejection, and the question in issue is reviewable on petition. [*Ex parte* Williams, 503.

5. SUFFICIENTLY ACCURATE—CHANGE IN FORM NOT INSISTED UPON.
The expression "freezing and thawing means" used in referring to a jacket surrounding an upright mold in which ice is to be formed and between which and the mold a freezing or thawing mixture is introduced *Held* sufficiently accurate to permit its retention, if the applicant insists thereon, although the Examiner was right in suggesting the substitution therefor of the words "means for applying the freezing or thawing medium thereto." [Id.

CONTINUOUS APPLICATIONS.

See Access to Abandoned Applications.

DELAY IN PROSECUTING APPLICATIONS.

See Prosecution of Applications, 1.

DESCRIPTIVE TERMS.

See Trade-Marks, 6.

DILIGENCE.

See Priority of Invention, 1.

DISCLOSURE OF INVENTION.

See Applications, 1; Priority of Invention, 2.

DISCRETION OF THE EXAMINER.

See Prosecution of Applications, 9.

DIVISIONAL APPLICATION.

See Access to Pending Applications.

DRAWINGS.

See Applications, 2; Trade-Marks, 7.

EARLIER APPLICATIONS.

See Access to Abandoned Applications; Access to Pending Applications.

ELEMENTS.

See Claims.

EVIDENCE.

See Access to Pending Applications; Priority of Invention.

FINAL HEARING.

See Prosecution of Applications, 9; Trade-Marks, 2, 3.

FINAL REJECTION OF CLAIMS.

See Prosecution of Applications, 2, 3, 4, 5, 6, 7, 8.

FIRST AND ORIGINAL INVENTOR.

See Interference; Priority of Invention, 3.

FORMAL OBJECTIONS.

See Construction of Claims, 4, 5; Prosecution of Applications, 8.

GOODS OF SAME DESCRIPTIVE PROPERTIES.

See Trade-Marks, 1, 4, 7, 9, 10, 11.

INFORMAL APPLICATION.

See Applications, 1.

INTERFERENCE.

See Certificate of Correction; Construction of Claims, 1, 2, 3; Motion to Dissolve Interference; Priority of Invention.

TESTIMONY—PRESUMPTION FROM FAILURE TO CALL WITNESS.
Where in a case involving the question of originality an inventor fails to take the stand who is available as a witness when the facts in his favor, if any there be, are peculiarly within his knowledge, the legal presumption follows that his testimony would be unfavorable to his case. [Steinberger *v.* Hewlett, 1306.

INVENTION.

PATENTABILITY—BILLIARD-COUNTERS—SUBSTITUTION OF METAL FOR WOOD.
The substitution of sheet metal for wood in billiard-counters *Held* not to have required invention, the advantages alleged for the metal counters being due to the well-known properties of sheet metal. [*Ex parte* Hobbs, 217.

LIMIT OF TIME.

See Prosecution of Applications, 1, 6.

MOTION TO DISSOLVE INTERFERENCE.

1. TRANSMISSION.
Where in an interference involving two parties no motion to dissolve was made on the ground that the issue is not patentable, *Held* that a motion to dissolve on this ground filed after the addition of a third party to the interference was properly refused transmission. [Onderdonk *v.* Ronthe *v.* Moffatt, 507.

2. CONSENT OF PARTIES NOT CONCLUSIVE.
Where both of the parties to an interference are applicants, *Held* that the fact that each of them moved to dissolve the interference on the ground that the issue is not patentable does not warrant the dissolution of the same if the Examiner is of the opinion that the issue is patentable. [Tomlinson *v.* Kiely, 784.

3. TRANSMISSION.
A motion to dissolve alleging that the opposing party has no right to make the claims *Held* properly refused transmission where it appears that the real point urged is that the applicant has shifted from one species of invention to another. [Hollen *v.* Kelly, 1311.

MOTION TO SUPPRESS TESTIMONY.

See Trade-Marks, 2, 3.

NEW CLAIMS.

See Prosecution of Applications, 9.



NEW MATTER.

See Claims, 2; Prosecution of Applications, 7; Reissue.

NEW RESULTS.

See Claims, 1.

OPPOSITION TO REGISTRATION.

See Trade-Marks, 2, 12.

OPTION.

See Prosecution of Applications, 3.

PATENTABILITY.

See Construction of Claims, 1, 2, 3; Invention; Motion to Dissolve Interference, 1, 3; Prosecution of Applications, 2, 4, 7, 9.

PETITION TO THE COMMISSIONER OF PATENTS.

See Applications, 1; Construction of Claims, 4.

PRESUMPTION.

See Interference.

PRIORITY OF INVENTION.

1. AWARD—EVIDENCE.
Evidence considered and *Held* to establish that Lindmark introduced the invention into this country prior to the earliest date claimed by de Ferranti and was reasonably diligent in filing his application and that priority was therefore properly awarded him. [De Ferranti *v.* Lindmark, 782.

2. SAME—SAME—RIGHT TO MAKE THE CLAIM.
Record considered and *Held* to show that the claims in issue define a process not disclosed in the specification of D. and that priority was therefore properly awarded W. [Wood *v.* Duncan, 1033.

3. SAME—SAME.
Evidence reviewed and *Held* in the absence of any testimony on behalf of H. to establish that he was not an original inventor, but derived his knowledge of the invention in issue from S. through a third party and priority awarded to S. [Steinberger *v.* Hewlett, 1306.

PROSECUTION OF APPLICATIONS.

1. POSTPONEMENT.
The statements of a foreign attorney that he was under the impression that the case was being prosecuted by his associate, who had been instructed to keep the application pending, *Held* insufficient to establish that the delay in the prosecution of the case was unavoidable, no showing being made why the associate attorney did not reply to the Office letter and no excuse being given for the delay in filing the petition after the foreign attorney learned that an amendment had not been filed within the year. [*Ex parte* Hanna and Hanna, 218.

2. EXPLANATION OF REFERENCES.
Where a clear issue as to the patentability of the claims has been reached between the applicant and the Examiner and it is evident from the record that the applicant understands the application of the references to the claims, *Held* that the final rejection was not premature and no further explanation of the references is necessary. [*Ex parte* Kelley, 220.

3. OWNER OF AN OPTION TO PURCHASE NOT RECOGNIZED.
While the assignee of the entire interest may be permitted to prosecute an application to the exclusion of the inventor, this Office cannot recognize a party having only an option to purchase. [*In re* Newman, 220.

4. FINAL REJECTION.
A final rejection should not be given upon the second official action unless an unmistakable issue is reached between the applicant and the Examiner as to the patentability of the invention claimed. [*Ex parte* Bass, 506.

5. SAME.
Where, in response to an action holding certain affidavits filed under Rule 75 insufficient and rejecting the claims upon a reference cited for the first time, applicant filed an argument against the holding that the affidavits was insufficient and stated that the action was not intended to be a response to the rejection on the references, but that he wished to know whether it would be necessary to overcome both references cited, *Held* that the Examiner should not have finally rejected the claims. [*Ex parte* Hamby, 1031.

6. SAME.
Where, in response to an action holding certain affidavits insufficient to overcome a reference cited and rejecting the claims on a new reference, applicant filed an argument that the affidavit was sufficient and requested further information whether it was necessary for him to overcome one or both references, *Held* that the Examiner should have informed the applicant that this was an incomplete response to the prior rejection or should have complied with the request for reconsideration of the holding that the affidavits were insufficient and reminded the applicant that his year for action ran from the date of the preceding Office letter. [Id.

7. SAME.
Where after a second rejection of the claims on the same references applicant amended by inserting what the Examiner held to be new matter and the claims were rejected on that ground the applicant canceled the new matter, but made no argument that the claims were patentable over the references cited, *Held* that they were properly finally rejected on the references of record. [*Ex parte* Webster, 1032.

8. SAME.
It is well settled that a final rejection may be in order, notwithstanding the fact that the applicant has failed to respond to objections of a formal character made by the Examiner. [*Ex parte* Labofish, 1032.

9. ENTRY OF AMENDMENT AFTER FINAL REJECTION.
The rule provides that after a final rejection new claims may be considered if they present the rejected claims in better form for appeal or upon a verified showing of good and sufficient reasons why such claims were not earlier presented; but it is within the discretion of the Examiner to enter after final rejection an amendment containing claims which in his opinion are patentable. [*Ex parte* Paine, 1308.

REFERENCES.

See Prosecution of Applications, 2, 5, 6.

REGISTRABILITY.

See Trade-Marks, 1, 6, 8, 10, 12.

REISSUE.

NEW MATTER.
Certain matter inserted in the specification of a reissue application *Held* to constitute new matter and its cancelation properly required. [*Ex parte* Taylor, 1031.

REJECTION OF CLAIMS.

See Claims, 1; Construction of Claims, 4; Prosecution of Applications, 5, 6.

RESPONSIVE ACTION BY THE APPLICANT.

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RIGHT TO MAKE CLAIMS.

See Motion to Dissolve Interference, 3; Priority of Invention, 2.

RIGHT TO MARK.

See Trade-Marks, 12.

SIMILARITY OF MARKS.

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SPECIFICATIONS.

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SUBSTITUTION OF MATERIAL.

See Invention.

TERMINOLOGY.

See Construction of Claims, 4, 5.

## TESTIMONY.

See Interference; Priority of Invention; Trade-Marks, 2.

## TRADE-MARKS.

1. SIMILARITY—"KITCHEN QUEEN," "QUEEN," "QUEEN QUALITY."
Where a prior registration showed in the drawing the words "Queen Quality" and in the specification the latter word was disclaimed, *Held* that registration of a mark consisting of the words "Kitchen Queen" as applied to the same class of goods was properly refused, since a mark consisting of the word "Queen" or of the words "Queen Quality" is so similar to a mark consisting of the words "Kitchen Queen" that their simultaneous use would be likely to cause confusion in the mind of the public.
[Fischer & Co. *v.* John Blanl's Sons Company *v.* The Columbia Rice Packing Co., Ltd., 219.

2. OPPOSITION—TESTIMONY—MOTION TO SUPPRESS.
It is well settled that no appeal lies from the decision of the Examiner of Interferences denying a motion to suppress testimony or postponing a consideration of such a motion to final hearing.
[Read & Cornrick *v.* Waterbury Chemical Company, 219.

3. SAME—SAME—SAME—REFUSAL TO ANSWER QUESTIONS.
Where a witness refuses to answer questions and no application is made to the district court for an order compelling him to answer them, a decision on the question of suppressing the testimony will be postponed to final hearing. [Id.

4. GOODS OF THE SAME DESCRIPTIVE PROPERTIES—"SYRUP FOR FLAVORING BEVERAGES," "GINGER-ALE, SARSAPARILLA, AND LEMON-SODA."
A concentrated syrup for flavoring beverages *Held* to constitute goods of the same descriptive properties as ginger-ale, sarsaparilla, lemon-soda, and club-soda. [*Ex parte* Allgeover, 505.

5. SIMILARITY—"REX-O-TONE" AND "REX."
The marks "Rex" and "Rex-O-Tone" bear such a resemblance to each other as would be likely to confuse purchasers if the two marks were concurrently used upon goods of the same descriptive properties. [Id.

6. DESCRIPTIVE—"TUNGSTEEL" FOR RAZORS AND POCKET-KNIVES.
The mark "Tungsteel" as applied to razors and pocket-knives *Held* not registrable, since it would clearly indicate that the plates were made of tungsten steel.
[*Ex parte* Shumate Razor Company, 506.

7. GOODS OF THE SAME DESCRIPTIVE PROPERTIES—"LAUNDRY SOAP," "SOAP," AND "SAPONIFIED SHAMPOO PREPARATIONS."
Soap and saponified shampoo preparations *Held* to constitute goods of the same descriptive properties as laundry soap.
[*Ex parte* Goodrich Drug Co., 783.

8. SIMILARITY—"VELVET" AND "VELVETINA."
The marks "Velvet" and "Velvetina" *Held* to be so similar that their use upon goods of the same descriptive properties would be likely to cause confusion in the mind of the public and deceive purchasers. [Id.

9. GOODS OF THE SAME DESCRIPTIVE PROPERTIES—"BUTTER" AND "ARTIFICIAL BUTTER."
Butter and artificial butter or "oleomargarin" *Held* goods of the same descriptive properties within the meaning of the trade-mark law.
[*Ex parte* The Utrecht Export Cy. Griendt Brothers, Ltd., 784.

10. SIMILARITY.
A mark consisting of the representation of a horse grazing *Held* properly refused registration in view of a registered mark consisting of the word "Pony" and the representation of the head of a pony or horse applied to goods of the same descriptive properties. [Id.

11. SAME—"E Co." AND "E. J. Co."
A mark consisting of the letters "E Co.," the last two letters being placed between the extended upper and lower arms of the first, *Held* so similar to a mark consisting of the letters "E. J. Co." that their simultaneous use upon goods of the same descriptive properties would be likely to cause confusion.
[*Ex parte* Elliott Jewelry Co., 1035.

12. USE OF ON A FEW SAMPLES—INSUFFICIENT TO ESTABLISH RIGHT.
Where it appeared that the only use made by an applicant for the registration of a mark for a liquid binding agent for roads, etc., had been upon a small number of gallon cans of the solution which were shipped as samples, *Held* that this use is not such that any trade-mark right can be based thereupon.
[Paterson *v.* Hay, 1307.

## TRANSMISSION OF MOTIONS.

See Motion to Dissolve Interference.

## WITNESSES.

See Interference; Trade-Marks, 3.

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# ALPHABETICAL LIST OF PATENTEES

TO WHOM

## PATENTS WERE ISSUED DURING THE MONTH OF OCTOBER, 1912.

[Abbreviations: "Gaz."—Official Gazette.]

A. Kimball Company. (See Brewington, Henry S., assignor.)
A. Schrader's Sons. (See Vahle, Ernest, assignor.)
A. G. Spalding & Bros. Manf'g. Co. (See Reach, Milton B., assignor.)
A. J. Lindemann & Hoverson Co. (See Lindemann, Albert J., assignor.)
A. R. Mosler & Co. (See Mosler, Arthur R., assignor.)
Aalborg, Christian, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Fan-motor oscillator. No. 1,039,662; Oct. 1; Gaz. vol. 183; p. 3.
Aborn, George P., Boston, Mass., assignor to The Blake & Knowles Steam Pump Works, New York, N. Y. Air compressor and pump. No. 1,041,939; Oct. 22; Gaz. vol. 183; p. 869.
Abrams, Charles, Suffern, N. Y. Wrench. No. 1,040,835; Oct. 8; Gaz. vol. 183; p. 426.
Abrasive Material Company. (See Blouin, August F., assignor.)
Ackley, Albert N., Ithaca, N. Y. Puzzle. No. 1,040,091; Oct. 1; Gaz. vol. 183; p. 140.
Actien Gesellschaft für Anilin Fabrikation. (See Canton, Max, assignor.)
Adair, Charles E., assignor to Cyphers Incubator Company, Buffalo, N. Y. Heating system for incubators. No. 1,042,635; Oct. 29; Gaz. vol. 183; p. 1132.
Adams, Arthur A. (See Stebbins and Adams.)
Adams, Arthur H., Oak Park, Ill., assignor to The Blake & Johnson Company, Waterbury, Conn. Thread-rolling machine. No. 1,040,485; Oct. 8; Gaz. vol. 183; p. 303.
Adams, Arthur J., assignor to Fulton Manufacturing Company, Chicago, Ill. Go-cart or perambulator. No. 1,040,601; Oct. 8; Gaz. vol. 183; p. 346.
Adams, Arthur J., assignor to Fulton Manufacturing Company, Chicago, Ill. Go-cart or perambulator. No. 1,040,602; Oct. 8; Gaz. vol. 183; p. 346.
Adams, Austin C., Lebanon, Ohio. Automatic safety-hook. No. 1,041,899; Oct. 15; Gaz. vol. 183; p. 649.
Adams-Bagnall Electric Company, The. (See Stowe, Bernard A., assignor.)
Adams, Clement J., *et al.* (See Tilton, John W., assignor.)
Adams, Daniel A., Parinos, Pa. Sign-post. No. 1,041,224; Oct. 15; Gaz. vol. 183; p. 500.
Adams, Hari T. (See White, Robert M., assignor.)
Adams, Frank R., Bromborough, England. Machine for seaming and folding the edges of sheet metal for and in the manufacture of boxes, canisters, and the like. No. 1,040,836; Oct. 8; Gaz. vol. 183; p. 426.
Adams, William C., assignor of one-third to T. H. Davis and R. P. Fuller, Upland, Cal. Wrench. No. 1,040,092; Oct. 1; Gaz. vol. 183; p. 140.
Addicks, Lawrence, Chroma, N. J. Making brass. No. 1,041,940; Oct. 22; Gaz. vol. 183; p. 869.
Addis, Joshua V. (See Gustafsson, Hilmer A., assignor.)
Aden, Joseph, Danville, Va. Lubricating attachment for axles and shafts. No. 1,041,941; Oct. 22; Gaz. vol. 183; p. 869.
Adkins, James Jr., St. Louis, Mo. Expansion-joint. No. 1,040,083; Oct. 1; Gaz. vol. 183; p. 141.
Adney, Elizabeth J., Kansas City, Mo. Clothes-basket. No. 1,040,837; Oct. 8; Gaz. vol. 183; p. 426.
Adriance, Benjamin, and A. Callesen, Brooklyn, N. Y.; said Callesen assignor to said Adriance. Bottle-capping machine. (Reissue.) No. 13,468; Oct. 1; Gaz. vol. 183; p. 195.
Adriance, Benjamin, and A. Callesen, Brooklyn, N. Y.; said Callesen assignor to said Adriance. Bottle-capping machine. No. 1,042,508; Oct. 22; Gaz. vol. 183; p. 910.
Adt, Leo F., Albany, N. Y. Eyeglasses. No. 1,040,094; Oct. 1; Gaz. vol. 183; p. 141.
Adt, Leo F., Albany, N. Y. Eyeglasses. No. 1,040,095; Oct. 1; Gaz. vol. 183; p. 141.
Adt, Leo F., Albany, N. Y. Eyeglasses. No. 1,040,096; Oct. 1; Gaz. vol. 183; p. 142.
Adt, Leo F., Albany, N. Y. Nose-guard. No. 1,040,097; Oct. 1; Gaz. vol. 183; p. 142.
Adt, Leo F., Albany, N. Y. Eyeglass-mounting. No. 1,040,098; Oct. 1; Gaz. vol. 183; p. 142.
Adt, Leo F., Albany, N. Y. Eyeglass-mounting. No. 1,040,099; Oct. 1; Gaz. vol. 183; p. 143.
Adt, Leo F., Albany, N. Y. Eyeglass-mounting. No. 1,040,100; Oct. 1; Gaz. vol. 183; p. 143.
Adt, Leo F., Albany, N. Y. Eyeglass-mounting. No. 1,040,101; Oct. 1; Gaz. vol. 183; p. 144.
Adt, Leo F., Albany, N. Y. Eyeglasses. No. 1,040,102; Oct. 1; Gaz. vol. 183; p. 144.
Adt, Leo F., Albany, N. Y. Eyeglasses. No. 1,040,103; Oct. 1; Gaz. vol. 183; p. 144.
Adt, Leo F., Albany, N. Y. Eyeglasses. No. 1,040,104; Oct. 1; Gaz. vol. 183; p. 145.
Adt, Leo F., Albany, N. Y. Eyeglasses. No. 1,040,105; Oct. 1; Gaz. vol. 183; p. 145.
Adt, Leo F., Albany, N. Y. Eyeglass-mounting. No. 1,042,876; Oct. 29; Gaz. vol. 183; p. 1030.
Aeolian Company. (See Wood, Frederick L., assignor.)
Aiken, Edward L. (See Aylsworth and Aiken.)
Aimé, Luis, and J. Stenger, Jersey City, N. J. Leg-rest for rocking-chairs. No. 1,040,106; Oct. 1; Gaz. vol. 183; p. 145.
Air-Esse Tire Filler Company. (See Buckley, Warren B., assignor.)
Akard Door Opener Company. (See Kitchen and Stiller, assignors.)
Akes, Charles Y., assignor to M. J. Tubbs and M. J. Bailey, Custer, S. D. Ice-sawing machine. No. 1,041,717; Oct. 22; Gaz. vol. 183; p. 789.
Aktiebolaget Bofors-Gullspång. (See Olsson, Emil, assignor.)
Aktiebolaget Ethyl. (See Ekström, Per G., assignor.)
Aktiebolaget Gasaccumulator. (See Dalén, Gustaf, assignor.)
Aktiebolaget Ljungstroms Angturbin. (See Ljungström, Birger, assignor.)
Albert, Frans H., Lodi, Cal. Turbine-airship. No. 1,041,942; Oct. 22; Gaz. vol. 183; p. 869.
Albert, Joseph V. (See Albert, Vétal and J. V.)
Albert, Vétal and J. V., Caribou, Me. Vegetable-grinding machine. No. 1,042,184; Oct. 22; Gaz. vol. 183; p. 944.
Albertus, Carl R., Chicago, Ill., assignor, by mesne assignments, to American Electric Company. Electric bell or ringer. No. 1,041,948; Oct. 22; Gaz. vol. 183; p. 870.
Alden, Lucy, Saginaw, Mich. Catamenial garment. No. 1,041,225; Oct. 15; Gaz. vol. 183; p. 500.
Alder, Charles H., *et al.* (See Lee, Isaac B., assignor.)
Aldrich, Chas. H. (See Dodson, Joseph H., assignor.)
Aldworth, Edward J., assignor to Waddell Manufacturing Company, Grand Rapids, Mich. Casket-handle. No. 1,041,944; Oct. 22; Gaz. vol. 183; p. 870.
Alexander, Abraham, Troy, N. Y. Luggage-truck. No. 1,043,038; Oct. 29; Gaz. vol. 183; p. 1272.
Alexander, Charles L., Charlotte, N. C. Plastic-metal compound. No. 1,040,888; Oct. 8; Gaz. vol. 183; p. 427.
Alexander, Charles L., Charlotte, N. C. Plastic metal. No. 1,040,972; Oct. 8; Gaz. vol. 183; p. 472.
Alexander, Jesse, assignor of one-half to H. Bidwell, New York, N. Y. Type-writer carriage-feed. No. 1,041,555; Oct. 15; Gaz. vol. 183; p. 700.
Alexander, Jesse, assignor of one-half to H. Bidwell, New York, N. Y. Type-writer action. No. 1,041,556; Oct. 15; Gaz. vol. 183; p. 700.
Alexander, Jesse, New York, assignor of one-half to S. C. Halstead, Brooklyn, N. Y. Type-writer carriage-feed. No. 1,041,557; Oct. 15; Gaz. vol. 183; p. 700.
Alexander, Jesse, New York, assignor of one-half to S. C. Halstead, Brooklyn, N. Y. Type-writer action. No. 1,041,558; Oct. 15; Gaz. vol. 183; p. 701.
Alexander, Jesse, assignor of one-half to W. H. Keating, New York, N. Y. Type-writing-machine ribbon feeding and operating mechanism. No. 1,041,559; Oct. 15; Gaz. vol. 183; p. 701.
Alexander, Jesse, assignor of one-half to W. H. Keating, New York, N. Y. Type-writer action. No. 1,041,560; Oct. 15; Gaz. vol. 183; p. 701.
Alexander, Lewis. (See Matthews, Charles H., assignor.)
Alexander, Wesley. (See Garrard, Fred G., assignor.)

Alexanderson, Ernst F. W., Schenectady, N. Y., assignor to General Electric Company. Method of and apparatus for relaying high-frequency currents. No. 1,042,069; Oct. 22; Gas. vol. 183; p. 910.

Allan, Joseph W., Omaha, Nebr. Combination syringe case and supporter. No. 1,039,877; Oct. 1; Gas. vol. 183; p. 70.

Allen, Albert J., New York, N. Y. Connecting-terminal. No. 1,040,107; Oct. 1; Gas. vol. 183; p. 146.

Allen-Bradley Company. (See Dusinberre, George B., assignor.)

Allen, Edward B., Bridgeport, Conn., assignor to The Singer Manufacturing Company. Stitched buttonhole. No. 1,040,839; Oct. 8; Gas. vol. 183; p. 427.

Allen, Edward B., Bridgeport, Conn., assignor to The Singer Manufacturing Company. Stitched buttonhole. No. 1,040,840; Oct. 8; Gas. vol. 183; p. 427.

Allen, Ernest E., Portland, Oreg. Bottle-stopper. No. 1,041,561; Oct. 15; Gas. vol. 183; p. 702.

Allen, Joseph H., Sedalia, Mo. Stovepipe attachment. No. 1,042,185; Oct. 22; Gas. vol. 183; p. 948.

Allen, William, Burlington Junction, Mo. Hay-loader. No. 1,042,748; Oct. 29; Gas. vol. 183; p. 1172.

Allen, William H., Cleveland, Ohio. Desiccating. No. 1,040,486; Oct. 8; Gas. vol. 183; p. 303.

Allis-Chalmers Company. (See Bent, Irving J., assignor.)

Alma Manufacturing Company of Baltimore City. (See Greenebaum, Abraham H., assignor.)

Alperin, Bernard A., New York, N. Y. Tire-lock for automobiles. No. 1,042,377; Oct. 29; Gas. vol. 183; p. 1039.

Alpp, Peter H., New York, N. Y. Hat-pin protector. No. 1,040,841; Oct. 8; Gas. vol. 183; p. 427.

Altermatt, John F., South Bend, Ind. Combined table and ironing-board. No. 1,040,255; Oct. 8; Gas. vol. 183; p. 225.

Altman, Anton S., Anselm, N. D. Spring bed-bottom. No. 1,040,108; Oct. 1; Gas. vol. 183; p. 146.

Amborn, George, Chapinville, Conn., assignor to J. H. Williams & Co., Brooklyn, N. Y. Chain pipe-vise or the like. No. 1,040,608; Oct. 8; Gas. vol. 183; p. 347.

Ambruster, Cornelius, Chicago, Ill. Circuit-breaker. No. 1,042,186; Oct. 22; Gas. vol. 183; p. 949.

American Can Company. (See Forry, Charles E., assignor.)

American Can Company. (See Johnson, Axel, assignor.)

American Can Company. (See Kannenberg, Baldwin H., assignor.)

American Car and Foundry Company. (See Barrows, Donald S., assignor.)

American Car and Foundry Company. (See Ellis, Robert G., assignor.)

American Car and Foundry Company. (See Osborn, Joseph A., assignor.)

American Car and Foundry Company. (See Ostrander, Allen E., assignor.)

American Car Sprinkler Co. (See Perry, Edward C., assignor.)

American Creosoting Company. (See Moore, Robert H., assignor.)

American Cutlery Co., The. (See Ogle, Harley A., assignor.)

American Electric Company. (See Albertus, Carl R., assignor.)

American Electric Company. (See Clausen, Henry P., assignor.)

American Gas Machine Company. (See Nelson, Hans Z., assignor.)

American Gasaccumulator Company. (See Dalén, Gustaf, assignor.)

American Gasaccumulator Company. (See Dalén and Eskilson, assignors.)

American Lithographic Company. (See Carter, Willis M., assignor.)

American Moving Picture Machine Company. (See Uebelmesser, Charles R., assignor.)

American Multigraph Company, The. (See Trundle, George T., assignor.)

American Paper Bottle Company, The. (See Heyl, Henry R., assignor.)

American Pneumatic Service Company. (See Fordyce, Edmond A., assignor.)

American Railway Signal Company. (See Grunow, William, Jr., assignor.)

American Rotary Valve Company. (See Moorhead, Albert E., assignor.)

American Sales Book Company. (See Bottle, Edward K., assignor.)

American Seeding Machine Company, The. (See Packham, Frank R., assignor.)

American Separator Company. (See Hollins and Hartmann, assignors.)

American Silk & Cotton Skeins Printing Company. (See Paglishue, Richard, assignor.)

American Steel Tire Company. (See Butler, Clifford L., assignor.)

American Steel and Wire Company of New Jersey. (See Harter, Noah S., assignor.)

American Telephone and Telegraph Company. (See Molina, Edward C., assignor.)

American 3-Way Prism Co. (See Paschall, Charles H., assignor.)

American Tire Company. (See Dees, Mark A., assignor.)

Ames, Richard, Brighton, England. Machine for cleaning, drying, heating, and mixing tarred macadam. No. 1,041,226; Oct. 15; Gas. vol. 183; p. 591.

Amet, Edward H., Redondo Beach, Cal. Theatrical appliance. No. 1,040,109; Oct. 1; Gas. vol. 183; p. 146.

Andersen, Anders C. and L. S., Copenhagen, Denmark. System of transmitting images to a distance. No. 1,040,110; Oct 1; Gas. vol. 183; p. 147.

Andersen, Laurits S. (See Andersen, Anders C. and L. S.)

Andersen, Marie, New York, N. Y. Skirt-marker. No. 1,041,400; Oct. 15; Gas. vol. 183; p. 650.

Andersen, William K., New York, N. Y. Carbureter. No. 1,041,708; Oct. 15; Gas. vol. 183; p. 751.

Anderson, Albert G. J. (See Orgaard, Carl, assignor.)

Anderson, Alfred, assignor to Schumann Piano Company, Rockford, Ill. Foot-treadle for piano-players. No. 1,042,306; Oct. 22; Gas. vol. 183; p. 988.

Anderson, Andrew J. (See Anderson, Gustavus W. and A. J.)

Anderson, Edwin A. (See Thoeming and Anderson.)

Anderson, Elias B., Rock Falls, Ill. Animal-trap. No. 1,039,878; Oct. 1; Gas. vol. 183; p. 70.

Anderson, Gustavus W. and A. J., Galesburg, Ill. Combined shade-roller holder and curtain-pole bracket. No. 1,040,487; Oct. 8; Gas. vol. 183; p. 304.

Anderson, Harold B. (See Winton and Anderson.)

Anderson, Henning G., Barney, N. D. Plow. No. 1,041,227; Oct. 15; Gas. vol. 183; p. 591.

Anderson, John T., assignor to Davenport Machine & Foundry Co., Davenport, Iowa. Rotary press. No. 1,040,842; Oct. 8; Gas. vol. 183; p. 427.

Anderson, Pahr, Cambridge, Mass., assignor to Dover Stamping & Manufacturing Company, Portland, Me. Valve-seat. No. 1,041,945; Oct. 22; Gas. vol. 183; p. 870.

Anderson, William, assignor of one-third to T. S. Holland, Parkland, Wash. Turbine. No. 1,041,562; Oct. 15; Gas. vol. 183; p. 702.

Andersson, Frans O., Stockholm, Sweden. Hollow brick. No. 1,041,401; Oct. 15; Gas. vol. 183; p. 650.

Andrae, Ernst H., Dallas, Tex. Stabiliser for flying-machines. No. 1,040,843; Oct. 8; Gas. vol. 183; p. 428.

Andrejkovits, Vincent, Wallingford, Conn. Curtain-fixture. No. 1,041,563; Oct. 15; Gas. vol. 183; p. 702.

Andrews, Claude Y. (See Batchelor, Fredrick, assignor.)

Andrews, George E., Santa Rosa, Cal. Center-bearing for railway-cars. No. 1,041,946; Oct. 22; Gas. vol. 183; p. 870.

Andruskewics, Aleksander, Pullman, Ill. Hanger for curtains or the like. No. 1,042,521; Oct. 29; Gas. vol. 183; p. 1092.

Angell, Edwin E., Somerville, Mass. Elevator-lock. No. 1,041,228; Oct. 15; Gas. vol. 183; p. 591.

Angle, Edward H., New London, Conn., and J. L. Young, New Rochelle, N. Y.; said Young assignor to said Angle. Dental tooth-regulating appliance. No. 1,039,683; Oct. 1; Gas. vol. 183; p. 3.

Annand, Robert C., South Shields, England. Associating mechanism for web printing and folding machinery. No. 1,040,256; Oct. 8; Gas. vol. 183; p. 225.

Ansco Company. (See Bornmann, Carl, assignor.)

Ansi, Ambrose B., Trinidad, Colo. Shock-absorber for motor-cycles. No. 1,039,684; Oct. 1; Gas. vol. 183; p. 3.

Apel, Adolph E., Ventnor, N. J. Boat. No. 1,042,636; Oct. 29; Gas. vol. 183; p. 1132.

Apple, Vincent G., Dayton, Ohio. Power-transmission device. No. 1,039,685; Oct. 1; Gas. vol. 183; p. 4.

Apple, Vincent G., Dayton, Ohio. Power-transmission gearing. No. 1,040,604; Oct. 8; Gas. vol. 183; p. 347.

Aragall, Joseph, assignor of one-half to J. H. Moran and one-half to T. Slatter, San Francisco, Cal. Folding umbrella. No. 1,042,522; Oct. 29; Gas. vol. 183; p. 1092.

Arak, Jozsef. (See Krisst, János, assignor.)

Archambeau, Charles L., assignor of one-half to D. Cossens and W. D. Williamson, Geyserville, Cal. Plowing mechanism. No. 1,040,488; Oct. 8; Gas. vol. 183; p. 304.

Archer, Hugh J., Chicago, Ill. Telegraphic relay. No. 1,041,718; Oct. 22; Gas. vol. 183; p. 789.

Ard, Reid, Sumter, S. C. Advertising-display mechanism. No. 1,040,988; Oct. 15; Gas. vol. 183; p. 511.

Arkosi, Johan V. de. (See Tatarek, Edmond, assignor.)

Armour, William A., assignor to Seth Thomas Clock Company, Thomaston, Conn. Alarm-resetting means for clocks. No. 1,040,111; Oct. 1; Gas. vol. 183; p. 147.

Armstrong, Edward, Brooklyn, N. Y. Composition of matter. No. 1,041,229; Oct. 15; Gas. vol. 183; p. 592.

Armstrong, James T., London, and J. Mordan, Hugheaden, England. Solidification of hydrocarbon oils. No. 1,041,564; Oct. 15; Gas. vol. 183; p. 703.

Armstrong, John A., Glinockie, Westcombe Park, England. Variable-speed gearing. No. 1,039,879; Oct. 1; Gas. vol. 183; p. 70.

Armstrong, Martin B., London, Ohio. Guard-deflector for radiators. No. 1,042,378; Oct. 29; Gas. vol. 183; p. 1039.

Armstrong, Walter J. (See Liggett and Armstrong.)

Arndt, Franklin E., Galion, Ohio, assignor to The Galion Iron Works Company. Road-machine. No. 1,039,686; Oct. 1; Gas. vol. 183; p. 4.

Arnold, Frederick T., U. S. Army. Mixing-machine. No. 1,041,947; Oct. 22; Gas. vol. 183; p. 870.

Arnold, Ralph R., Cripple Creek, Colo. Acetylene-candle. No. 1,043,039; Oct. 29; Gas. vol. 183; p. 1272.





Arnold-Wagner Electric Co. (See Wagner, Joseph F., assignor.)

Art Screen Table Company, The. (See Horner, William C., assignor.)

Art Stove Company, The. (See Coda, Christopher F., assignor.)

Arthur, Walter, Schenectady, N. Y., assignor to General Electric Company. Intumescent material and making the same. No. 1,041,565; Oct. 15; Gas. vol. 183; p. 703.

Ashcroft, Edgar A., London, England. Production of cyanamids and cyanids of the alkali metals. No. 1,041,566; Oct. 15; Gas. vol. 183; p. 703.

Asher, Herman, New York, N. Y. Combined eyeglass-case and screw-driver. No. 1,041,402; Oct. 15; Gas. vol. 183; p. 650.

Ashford, John, and S. Leggett, Amritsar, India. Pneumatic weir-shutter. No. 1,040,112; Oct. 1; Gas. vol. 183; p. 148.

Ashland Manufacturing Company, The. (See Willour, Le Roy, assignor.)

Ashley, Frank M., New York, N. Y. Inkstand. No. 1,040,605; Oct. 8; Gas. vol. 183; p. 348.

Ashton, James, Kilnahue Rectory, Gory, Ireland. Detachable and divisible rim for motor-cars and other vehicles. No. 1,041,567; Oct. 15; Gas. vol. 183; p. 703.

Atexicafe S. A. (See Pury, Hermann de, assignor.)

Atha, Louis M., Newark, and E. H. Mumford, Plainfield, N. J. Jolt ramming-machine. No. 1,040,989; Oct. 15; Gas. vol. 183; p. 511.

Atlantic National Bank. (See Stebbins and Adams, assignors.)

Atterbury, Grosvenor, New York, N. Y. Collapsible core for molding or casting. No. 1,042,749; Oct. 29; Gas. vol. 183; p. 1172.

Augenbraun, Peter F., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Brake-lever lock. No. 1,040,844; Oct. 8; Gas. vol. 183; p. 428.

Austin, David E., Nevada, Mo. Metallic cross-tie. No. 1,040,113; Oct. 1; Gas. vol. 183; p. 148.

Auth, George H. (See Auth, John A., assignor.)

Auth, John A., Colonial, assignor of one-half to G. H. Auth, Pittsburgh, Pa. Welding soft-metal to hard-metal bodies. No. 1,040,606; Oct. 8; Gas. vol. 183; p. 348.

Automatic Arms Company, The. (See Lissak, Ormond M., assignor.)

Automatic Arms Company, The. (See McClean, Samuel N., assignor.)

Automatic Directory Company, The. (See Wotherspoon, William A., assignor.)

Autoplate Company of America, The. (See Wood, Henry A. W., assignor.)

Avary, James C., Atlanta, Ga. Cultivator. No. 1,040,990; Oct. 15; Gas. vol. 183; p. 511.

Avery, Charles D., Cheyenne, Wyo. Sanitary drinking-fountain. No. 1,039,880; Oct. 1; Gas. vol. 183; p. 70.

Avram, Mois H., New York, N. Y. Powder-box. No. 1,040,991; Oct. 15; Gas. vol. 183; p. 512.

Aylsworth, Jonas W., East Orange, and E. L. Aiken, Orange, assignors, by mesne assignments, to Thomas A. Edison, Incorporated, West Orange, N. J. Phonograph-record-molding apparatus. No. 1,041,948; Oct. 22; Gas. vol. 183; p. 871.

B. F. Sturtevant Company. (See Bentley, Oliver D. H., assignor.)

B. F. Sturtevant Company. (See Snow, William E., assignor.)

Babb, Edwin, Akron, Ohio. Apparatus for handling clay pipes. No. 1,042,307; Oct. 22; Gas. vol. 183; p. 989.

Babcock, Irwin H., assignor of one-half to L. A. Coon, De Ruyter, N. Y. Pneumatic cushioned wheel. No. 1,040,114; Oct. 1; Gas. vol. 183; p. 148.

Babcock & Wilcox Company, The. (See Safberg, Bror F., assignor.)

Baber, Joseph L., Wyndal, W. Va. Counter paper-cutter. No. 1,040,845; Oct. 8; Gas. vol. 183; p. 428.

Babst, Joseph C. (See Fisch and Babst.)

Backes, Mathias, Peterburg, Ind. Adjustable means for detachably connecting a post to a base. No. 1,042,187; Oct. 22; Gas. vol. 183; p. 949.

Bacon, Gilbert and M. L., Antigo, Wis. Rail-joint chair. No. 1,041,403; Oct. 15; Gas. vol. 183; p. 650.

Bacon, Milton L. (See Bacon, Gilbert and M. L.)

Bacsardi, Stephen, Passaic, assignor of one-fourth to M. Lottman, Clifton, N. J. Register for pay-as-you-enter cars. No. 1,040,115; Oct. 1; Gas. vol. 183; p. 149.

Bade, Franz, Peine, Germany. Diamond drill. No. 1,041,568; Oct. 15; Gas. vol. 183; p. 704.

Bade, Franz, Peine, Germany. Percussion-tool machine. No. 1,041,569; Oct. 15; Gas. vol. 183; p. 704.

Badeau, Charles C., Swissvale, Pa., assignor to Roller-Smith Company, New York, N. Y. Switch or circuit-opener for high-potential circuits. No. 1,041,570; Oct. 15; Gas. vol. 183; p. 704.

Bader, Gustav A., Rochester, N. Y. Eyeglass-mounting. No. 1,040,607; Oct. 8; Gas. vol. 183; p. 348.

Bader, Louis C., assignor of one-half to M. J. Detmer, Chicago, Ill. Lamp-post. No. 1,042,750; Oct. 29; Gas. vol. 183; p. 1172.

Badische Anilin & Soda Fabrik. (See Holt, Henry S. A., assignor.)

Baier, George W., Cicero Park, Ill. Automatic fountain. No. 1,042,379; Oct. 29; Gas. vol. 183; p. 1040.

Bailey, Charles A., Cromwell, Conn. Tape-pistol. No. 1,041,719; Oct. 22; Gas. vol. 183; p. 789.

Bailey, John W., assignor of one-half to C. J. Yates, Seattle, Wash. Frame for mirrors and the like. No. 1,039,881; Oct. 1; Gas. vol. 183; p. 71.

Bailey, Merritt J., et al. (See Akes, Charles Y., assignor.)

Bair, Clarence L., San Francisco, Cal. Vehicle-top. No. 1,041,571; Oct. 15; Gas. vol. 183; p. 704.

Baird Corn Husker Co. (See Baird, William S., assignor.)

Baird, William S., Urbana, Ill., assignor to Baird Corn Husker Co. Corn-harvesting machine. No. 1,042,371; Oct. 22; Gas. vol. 183; p. 1010.

Baker, Alvin W. (See Rumsey, James W., assignor.)

Baker, Charles L., assignor of one-half to T. T. Logan, St. Joseph, Mo. Adjustable nozzle-tip. No. 1,042,070; Oct. 22; Gas. vol. 183; p. 911.

Baker, Charles R., Abilene, Kans. Coop. No. 1,040,489; Oct. 8; Gas. vol. 183; p. 304.

Baker, Frank L., Oriskany, N. Y. Hay-fork. No. 1,041,572; Oct. 15; Gas. vol. 183; p. 705.

Baker, George W., New York, N. Y. Shoe. No. 1,041,404; Oct. 15; Gas. vol. 183; p. 651.

Baker, Horace G., Harlan, Iowa. Airship. No. 1,040,608; Oct. 8; Gas. vol. 183; p. 349.

Baker Iron Works. (See Pennypacker, Edward J., assignor.)

Baker, Mabel C. (See Parker, George H., assignor.) (Reissue.)

Baker, Max H., Oshkosh, Wis. Loose-leaf binder. No. 1,040,992; Oct. 15; Gas. vol. 183; p. 512.

Baker, Raymond W., assignor to Parker-Clark Electric Company, Newark, N. J. Electrically-heated flat-iron. No. 1,039,882; Oct. 1; Gas. vol. 183; p. 71.

Baker, Raymond W., New York, N. Y., assignor to Parker-Clark Electric Company, Newark, N. J. Apparatus for the manufacture of incandescent lamp filaments and heaters. No. 1,040,116; Oct. 1; Gas. vol. 183; p. 149.

Baker, Thomas, Marysville, Wash. Window-screen. No. 1,042,380; Oct. 29; Gas. vol. 183; p. 1040.

Baker, William H., Bridgeport, Conn. Dam and hydraulic-power transmitter. No. 1,042,381; Oct. 29; Gas. vol. 183; p. 1040.

Bakke, George A., Stanley, N. D. Driving-pulley. No. 1,040,993; Oct. 15; Gas. vol. 183; p. 512.

Baldassarre, Federico. (See Gesualdo and Baldassarre.)

Ball, Henry P., Pittsfield, Mass., assignor to General Electric Company. Automatic flat-iron. No. 1,041,720; Oct. 22; Gas. vol. 183; p. 790.

Ball, Walter, Boston, Mass., assignor of one-half to J. F. Cooley, New York, N. Y. Rotary engine. No. 1,041,721; Oct. 22; Gas. vol. 183; p. 790.

Ballamy, John F. (See Middleton, Keefer and Ballamy.)

Ballard, William V. (See Sweet and Ballard.)

Bally, Jean, Grenoble, France. Steam-boiler working as an electric transformer. No. 1,040,994; Oct. 15; Gas. vol. 183; p. 512.

Bals, Charles A., Chicago, Ill., assignor to Corwin Telephone Manufacturing Company. Telephony. No. 1,040,635; Oct. 8; Gas. vol. 183; p. 361.

Bals, Charles A., Chicago, Ill., assignor to Corwin Telephone Manufacturing Company. Telephony. No. 1,040,636; Oct. 8; Gas. vol. 183; p. 361.

Bancroft, John S., and M. C. Indahl, assignors to Lanston Monotype Machine Company, Philadelphia, Pa. Control mechanism for type casting and composing machines. No. 1,042,382; Oct. 29; Gas. vol. 183; p. 1041.

Bandemer, Charles W., Chicago, Ill. Brick-clamp. No. 1,041,949; Oct. 22; Gas. vol. 183; p. 871.

Banfield, Edwin F. (See Bavier and Banfield.)

Banish, William J., and J. C. Swarthout, Valley City, N. D. Time-clock. No. 1,042,867; Oct. 29; Gas. vol. 183; p. 1213.

Bannerman, George, et al. (See Callicott, John, assignor.)

Barber Car Company. (See Barber, Edward A., assignor.)

Barber, Edward A., assignor to Barber Car Company, York, Pa. Fluid-pressure brake for railway-cars. No. 1,040,846; Oct. 8; Gas. vol. 183; p. 429.

Barber, Franklin L., and E. W. Webb, assignors to Standard Car Truck Company, Chicago, Ill. Car-truck. No. 1,039,883; Oct. 1; Gas. vol. 183; p. 72.

Barber, Hiram, Chicago, Ill. Draft device. No. 1,042,523; Oct. 29; Gas. vol. 183; p. 1093.

Bard, Charles H., Mount Vernon, N. Y. Adjustable telephone-instrument-locking device. No. 1,042,188; Oct. 22; Gas. vol. 183; p. 949.

Barham, Thomas M., et al. (See Tatum, Franklin M., assignor.)

Baring-Gould, William D., Minneapolis, Minn. Advertising-card. No. 1,041,573; Oct. 15; Gas. vol. 183; p. 705.

Barlon, Christian O., San Francisco, Cal. Pressure-controlled means for hydrocarbon-burners. No. 1,040,978; Oct. 8; Gas. vol. 183; p. 472.

Barker, Walter G., New York, assignor to S. Sternau & Company, Brooklyn, N. Y. Beverage-shaker. No. 1,042,751; Oct. 29; Gas. vol. 183; p. 1173.

Barnard, Walter E., Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y. Typewriting machine. No. 1,041,722; Oct. 22; Gas. vol. 183; p. 791.

Barnard, Walter E., Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y. Typewriting machine. No. 1,041,723; Oct. 22; Gas. vol. 183; p. 791.

Barnett, Carl P. (See Eubank and Barnett.)
Barr, Frederic, New York, N. Y. Interlocking tubular construction. No. 1,040,267; Oct. 8; Gaz. vol. 183; p. 226.
Barr, Frederic, New York, N. Y. Locking device for lamp-socket shells. No. 1,042,583; Oct. 29; Gaz. vol. 183; p. 1041.
Barr, John H., Kansas City, Mo. Cylinder printing-press. (Reissue.) No. 13,469; Oct. 1; Gaz. vol. 183; p. 196.
Barrett, Harvey N. (See Newberry and Barrett.)
Barrett, John G., et al. (See Richardson, William A., assignor.)
Barrett, Joseph M., Fostoria, Ohio. Chain-lubricating device. No. 1,042,906; Oct. 29; Gaz. vol. 183; p. 1256.
Barrett, Thomas J., Bordentown, N. J. Road composition and making the same. No. 1,039,884; Oct. 1; Gaz. vol. 183; p. 72.
Barrett, William W. (See Hughes, Albert M., assignor.)
Barron, Walter J., New York, N. Y., assignor to Union Typewriter Company, Jersey City, N. J. Type-writing machine. No. 1,042,866; Oct. 29; Gaz. vol. 183; p. 1214.
Barrows, Donald S., Paterson, N. J., assignor to American Car and Foundry Company, St. Louis, Mo. Door-operating device. No. 1,042,284; Oct. 29; Gaz. vol. 183; p. 1042.
Barry, Richard P., and J. W. Murphy, Brooklyn, N. Y. Safety stop device. No. 1,039,687; Oct. 1; Gaz. vol. 183; p. 4.
Barstow, George E. (See Rietzel and Barstow.)
Bartels, Dierichs & Co., Gesellschaft mit beschränkter Haftung. (See Helsrichter, Ferdinand, assignor.)
Barter, Frank, Fitchburg, Mass. Tool holder and ejector. No. 1,040,258; Oct. 8; Gaz. vol. 183; p. 226.
Bartholomew, William, assignor to Troy Laundry Machinery Company, Limited, Chicago, Ill. Cuff-press. 1,042,752; Oct. 29; Gaz. vol. 183; p. 1173.
Bartob, Orville D., Philadelphia, Pa. Hobby-horse. No. 1,042,306; Oct. 22; Gaz. vol. 183; p. 989.
Barton, Delbert E., Racine, assignor to G. H. Rasch, Burlington, Wis. Blanket-fastener. No. 1,042,753; Oct. 29; Gaz. vol. 183; p. 1173.
Barton, Robert B. F., Fairmount, Ind. Fence-post. No. 1,042,754; Oct. 29; Gaz. vol. 183; p. 1174.
Baruch, Samuel, New York, N. Y. Box-seal. No. 1,041,724; Oct. 22; Gaz. vol. 183; p. 792.
Bassler, Kurt, Berlin, Germany, assignor to General Electric Company. Machine for making sheet insulation. No. 1,040,905; Oct. 15; Gaz. vol. 183; p. 513.
Bastian, William B., Chicago, Ill., assignor to W. B. Bastian Mfg. Co., Pierre, S. D. Gas-burner. No. 1,040,986; Oct. 8; Gaz. vol. 183; p. 477.
Batchelor, Fredrick, Peru, Ind., assignor of three-fourths to C. Y. Andrews. Fly-trap. No. 1,042,310; Oct. 22; Gaz. vol. 183; p. 990.
Bates, Albert J., Chicago, Ill. Railway-tie. No. 1,042,071; Oct. 22; Gaz. vol. 183; p. 911.
Bates, Albert J., Chicago, Ill. Railway-tie fastening. No. 1,042,809; Oct. 22; Gaz. vol. 183; p. 989.
Bates, Edward T., Washington, D. C. Surface-covering. No. 1,040,117; Oct. 1; Gaz. vol. 183; p. 150.
Batt, Jesse W., Maricopa, Cal. Perforation-cleaner for oil-well pipes. No. 1,040,118; Oct. 1; Gaz. vol. 183; p. 150.
Bauer, Aleck, assignor to Bauer & Black, Chicago, Ill. Dental floss-package. No. 1,040,490; Oct. 8; Gaz. vol. 183; p. 305.
Bauer & Black. (See Bauer, Aleck, assignor.)
Bauman, William V., Minneapolis, Minn. Attachment for cash-registers. No. 1,041,405; Oct. 15; Gaz. vol. 183; p. 651.
Baumann, Carl A., Jefferson, Wis. Sampler for vacuum-pans. No. 1,041,725; Oct. 22; Gaz. vol. 183; p. 792.
Bauroth, Leonhard, Toledo, Ohio, assignor to C. H. Wacker, Chicago, Ill. Forming metallic barrel-bodies. No. 1,039,885; Oct. 1; Gaz. vol. 183; p. 72.
Bauroth, Leonhard, Toledo, Ohio, assignor to C. H. Wacker, Chicago, Ill. Machine for forming barrels. No. 1,039,886; Oct. 1; Gaz. vol. 183; p. 72.
Bauroth, Leonhard, Toledo, Ohio, assignor to C. H. Wacker, Chicago, Ill. Machinery for forming barrels. No. 1,039,887; Oct. 1; Gaz. vol. 183; p. 73.
Bauroth, Leonhard, Toledo, Ohio, assignor to C. H. Wacker, Chicago, Ill. Apparatus for forming metallic barrel-bodies. No. 1,041,406; Oct. 15; Gaz. vol. 183; p. 652.
Bavier, Charles S., and E. F. Banfield, New York, N. Y. Fabric packing. No. 1,040,259; Oct. 8; Gaz. vol. 183; p. 226.
Baxeres de Alzugaray, José, assignor, by mesne assignments, to Midland Ores and Patents Company, New York, N. Y. Extracting metals from ores. No. 1,041,407; Oct. 15; Gaz. vol. 183; p. 652.
Baxter, Charles O. (See Carter, William C., assignor.)
Baxter, William E., Louisville, Ky. Cooking apparatus. No. 1,040,119; Oct. 1; Gaz. vol. 183; p. 150.
Bayer, Jacob V., Owosso, Mich. Holdback for thills. No. 1,040,847; Oct. 8; Gaz. vol. 183; p. 429.
Bayer, Lee, Williamsville, Ill. Capstan or windlass. No. 1,040,120; Oct. 1; Gaz. vol. 183; p. 151.
Bayley, William D. (See Bayley, William and W. D.)
Bayley, William and W. D., Springfield, Ohio. Metal window-sash. No. 1,042,534; Oct. 29; Gaz. vol. 183; p. 1093.
Beall, John, Decatur, Ill. Mill for grinding grains. No. 1,041,950; Oct. 22; Gaz. vol. 183; p. 871.
Bear, William L., Williamsport, Pa., assignor of one-third to J. S. Spear and one-third to G. P. Fryling. Mortuary casket. No. 1,040,121; Oct. 1; Gaz. vol. 183; p. 151.
Beard, Wallace C., St. Louis, Mo. Chord-chart for piano-keyboards. No. 1,041,230; Oct. 15; Gaz. vol. 183; p. 592.
Beaton & Curtin Mfg. Co., The. (See Wells, Frank N. and A. R., assignors.)
Beaton, Malcolm S., J. Mason, and J. H. Wilson, Germiston, Transvaal. Automatic lubricating apparatus. No. 1,040,491; Oct. 8; Gaz. vol. 183; p. 305.
Beattie, Hugh S., Tamaulipas, Mexico. Emergency-brake-setting device. No. 1,042,869; Oct. 29; Gaz. vol. 183; p. 1214.
Beatty, William H., assignor to C. R. Wald, Birmingham, Ala. Lubricator. No. 1,040,122; Oct. 1; Gaz. vol. 183; p. 151.
Beaudenon, Didier, St. Ouen-sur-Seine, France. Automatic switch. No. 1,041,951; Oct. 22; Gaz. vol. 183; p. 871.
Beazley, Joseph O., assignor to The Brush Mop Wringer Manufacturing Company, Baltimore, Md. Wringing device. No. 1,042,072; Oct. 22; Gaz. vol. 183; p. 911.
Beck, August B., Cranford, N. J., assignor to M. W. Schloss, New York, N. Y. Supporter for articles of apparel. No. 1,041,408; Oct. 15; Gaz. vol. 183; p. 652.
Beck, Charles W., Rockville Center, N. Y. Gas-engine priming-cup. No. 1,040,906; Oct. 15; Gaz. vol. 183; p. 513.
Beck, Harold E., Chicago, Ill. Oscillator. No. 1,040,123; Oct. 1; Gaz. vol. 183; p. 152.
Becker, George. New York, N. Y. Garment-cuff. No. 1,039,888; Oct. 1; Gaz. vol. 183; p. 73.
Becker, Henry C., Fort Riley, Kans. Non-refillable bottle. No. 1,040,848; Oct. 8; Gaz. vol. 183; p. 429.
Becker, Ludwig, Glasgow, Scotland. Sextant and the like. No. 1,041,575; Oct. 15; Gaz. vol. 183; p. 706.
Beckett, Franklin S., Berkeley, Cal. Calculator. No. 1,042,755; Oct. 29; Gaz. vol. 183; p. 1174.
Beduhn, August J., Oshkosh, Wis. Saw-swage. No. 1,040,907; Oct. 15; Gaz. vol. 183; p. 514.
Beduwé, Frans, Liege, Belgium. Appliance for raising solid bodies. No. 1,042,189; Oct. 22; Gaz. vol. 183; p. 950.
Beeler, Samuel E., assignor to Frick Company, Waynesboro, Pa. Engine-valve gear. No. 1,040,247; Oct. 1; Gaz. vol. 183; p. 198.
Beeman, Marcus M., and J. F. Kitchen, assignors to The Spirella Company, Mendville, Pa. Machine for making wire garment-stays. No. 1,042,756; Oct. 29; Gaz. vol. 183; p. 1174.
Beemer, George S., Meeker, Colo. Trap-setting implement. No. 1,040,908; Oct. 15; Gaz. vol. 183; p. 514.
Behr, Bernhard, Dresden, Germany. Means for the transmission of tens in Thomas calculating-machines. No. 1,041,231; Oct. 15; Gaz. vol. 183; p. 592.
Behr, Bernhard, Dresden, Germany. Calculating-machine with printing device. No. 1,041,576; Oct. 15; Gaz. vol. 183; p. 706.
Behrendt, Barnim L., Newark, N. J. Knockdown box. No. 1,040,402; Oct. 8; Gaz. vol. 183; p. 305.
Behrens, Paul, Tacoma, Wash. Flying-machine. No. 1,042,811; Oct. 22; Gaz. vol. 183; p. 990.
Beitzel, David J. (See Watkins, Arthur G., assignor.)
Bekkevar, Olaf M., Port Townsend, Wash. Umbrella-carrier. No. 1,041,577; Oct. 15; Gaz. vol. 183; p. 706.
Belanger, Saluste, Salem, Mass. Machine for digging trenches. No. 1,042,997; Oct. 29; Gaz. vol. 183; p. 1256.
Belford, Oscar, Golconda, Ill. Self-dumping mining-tub. No. 1,039,688; Oct. 1; Gaz. vol. 183; p. 5.
Bell, Albert C., assignor to Hardings Brothers, Chicago, Ill. Signaling system. No. 1,042,385; Oct. 29; Gaz. vol. 183; p. 1042.
Bell, Arthur, Jersey City, N. J. Cut-off for box-covering machines. No. 1,041,409; Oct. 15; Gaz. vol. 183; p. 652.
Bell, Britton. (See Wright and Bell.)
Bell, Harmon. (See Loftus, Thomas J., assignor.)
Bell, Henry W., et al. (See Curtis, Oliver W., assignor.)
Bell, John A., G. R. Wilton, and G. P. Griffith, Los Angeles, Cal. Paving. No. 1,041,578; Oct. 15; Gaz. vol. 183; p. 707.
Bellingham Brass Manufacturing Company. (See Charrion, Frank B., assignor.)
Bellon, Georges A. P., Vincennes, France. Torch. No. 1,041,579; Oct. 15; Gaz. vol. 183; p. 707.
Beltzer, Lewis H., Hennessey, Okla. Cultivator. No. 1,040,909; Oct. 15; Gaz. vol. 183; p. 514.
Beltzer, Lewis H., Hennessey, Okla. Check-row seed-planter. No. 1,041,000; Oct. 15; Gaz. vol. 183; p. 514.
Benda, Ludwig, Frankfort-on-the-Main, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. 2,5-diaminobenzene-arsinic acid. No. 1,040,260; Oct. 8; Gaz. vol. 183; p. 227.
Benét, Laurence V., and H. A. Mercié, Paris, France. Cartridge-case extractor. No. 1,041,410; Oct. 15; Gaz. vol. 183; p. 653.
Benham, Elijah B., New London, Conn., assignor to Hydrocarbon Converter Company, New York, N. Y. Method of and apparatus for converting liquid hydrocarbons into gas or vapor. No. 1,040,124; Oct. 1; Gaz. vol. 183; p. 152.





Benjamin, Bert R. (See Dangel and Benjamin.)
Benjamin, Bert R., Oak Park, Ill., assignor to International Harvester Company, Motor attachment for harvesters. No. 1,041,869; Oct. 22; Gaz. vol. 183; p. 872.
Bennett, Dwight W., Somerton, assignor of one-third to B. Van Sant, Southampton, Pa. Expansion-bolt. No. 1,041,363; Oct. 22; Gaz. vol. 183; p. 872.
Bennett, John W. (See Spofford, Jonas, and Bennett.)
Bennett, Robert J., Moline, Ill. Automatic playing attachment for musical instruments. No. 1,040,261; Oct. 8; Gaz. vol. 183; p. 227.
Bennett, Thomas A., Newton, Hyde, England. Vehicle-fender. No. 1,041,726; Oct. 22; Gaz. vol. 183; p. 793.
Benninghaus, Chauncy M., Govans, Md. Back-strap for shoes. No. 1,042,870; Oct. 29; Gaz. vol. 183; p. 1215.
Benoist, Condé A., St. Louis, Mo. Shock-register for automobiles. No. 1,042,526; Oct. 29; Gaz. vol. 183; p. 1093.
Benson, Charles T., assignor to The Nye Tool and Machine Works, Chicago, Ill. Die-stock. No. 1,042,073; Oct. 22; Gaz. vol. 183; p. 912.
Benson, William F., Brockton, Mass. Dustless coal-ash sifter. No. 1,041,001; Oct. 15; Gaz. vol. 183; p. 515.
Benster, Olin W., Toledo, Ohio. Wire straightening, crimping, and cutting machine. No. 1,040,493; Oct. 8; Gaz. vol. 183; p. 306.
Bent, Irving J., Chicago, Ill., assignor to Allis-Chalmers Company, Milwaukee, Wis. Packing for reciprocating rods. No. 1,040,494; Oct. 8; Gaz. vol. 183; p. 306.
Bentley, Lewllyn. (See Smith, William M., assignor.)
Bentley, Oliver D. H., assignor to B. F. Sturtevant Company, Boston, Mass. Elastic-fluid turbine. No. 1,042,871; Oct. 29; Gaz. vol. 183; p. 1215.
Bercha, Joseph, Beatrice, Nebr. Comb-cleaning device. No. 1,040,849; Oct. 8; Gaz. vol. 183; p. 429.
Berend, Ludwig, Wiesbaden, Germany. Preparing condensates from casein, phenols, and formic aldehyde and the product obtained thereby. No. 1,040,850; Oct. 8; Gaz. vol. 183; p. 430.
Berg, Wilhelm, Erlaastegen, Germany. Discus. No. 1,040,851; Oct. 8; Gaz. vol. 183; p. 430.
Bergener, Charles, assignor to C. T. Ham Manufacturing Company, Rochester, N. Y. Tubular lantern. No. 1,041,411; Oct. 15; Gaz. vol. 183; p. 653.
Berner, Guido, assignor to The Hamilton Manufacturing Company, Two Rivers, Wis. Paper-cutting machine. No. 1,040,262; Oct. 8; Gaz. vol. 183; p. 227.
Bergh, Justus C., Hendrum, Minn. Plow attachment. No. 1,042,356; Oct. 29; Gaz. vol. 183; p. 1042.
Bergh, Ole O., St. Paul, Minn. Adjustable mirror-holder. No. 1,041,002; Oct. 15; Gaz. vol. 183; p. 515.
Bergman, Amos C., New York, N. Y. Practice-clavier. No. 1,040,852; Oct. 8; Gaz. vol. 183; p. 430.
Bergold, J. M. (See Bergold, Wilbur W., assignor.)
Bergold, Wilbur W., assignor of one-half to J. M. Bergold, Canton, Ohio. Mixer for gaseous fuel. No. 1,040,853; Oct. 8; Gaz. vol. 183; p. 430.
Bernard, Phillip, Jefferson, S. D. Hog-waterer. No. 1,041,412; Oct. 15; Gaz. vol. 183; p. 654.
Berneck, Rudolf M. von. (See Moest and Berneck.)
Berry, Harry C., assignor to The Rapid Transit Navigation Company, Los Angeles, Cal. Screw-cylinder boat. No. 1,041,252; Oct. 15; Gaz. vol. 183; p. 592.
Berry, Phillip A., Coahoma, Tex. Wire-stretcher. No. 1,041,727; Oct. 22; Gaz. vol. 183; p. 793.
Berthelsen, Anders L., Braasdtrup, Denmark, assignor to F. A. Henningsen, Butte, Mont. Pulsator for milking-machines. No. 1,043,040; Oct. 29; Gaz. vol. 183; p. 1272.
Bertig, Charles F., Winsted, Conn. Means for preventing theft of current from electric meters. No. 1,041,728; Oct. 22; Gaz. vol. 183; p. 794.
Besser, Herman, Alpena, Mich. Corn-husker. No. 1,040,854; Oct. 8; Gaz. vol. 183; p. 431.
Best, Charles E., Canton, Ohio. Explosive-engine-cranking device. No. 1,040,495; Oct. 8; Gaz. vol. 183; p. 306.
Best, William N., Sr., New York, N. Y. Gas-burner. No. 1,042,872; Oct. 29; Gaz. vol. 183; p. 1215.
Betham, William E., Chicago, Ill. Edge-protector for tied boxes. No. 1,041,413; Oct. 15; Gaz. vol. 183; p. 654.
Betts, Benjamin F., Masuma, Nev. Drill-extractor. No. 1,042,873; Oct. 29; Gaz. vol. 183; p. 1215.
Betts, Charles L., assignor to R. E. Diets Company, New York, N. Y. Lamp. No. 1,041,414; Oct. 15; Gaz. vol. 183; p. 654.
Betts, Lewis F., New York, assignor to A. A. Low, Horseshoe, M. J. Wohl, and H. Hertzberg, Brooklyn, N. Y., trustees. Oven. No. 1,040,855; Oct. 8; Gaz. vol. 183; p. 431.
Betts, Solomon C., Maumee, Ohio, and A. Boucher, Scottville, Mich. Coupling device. No. 1,041,415; Oct. 15; Gaz. vol. 183; p. 655.
Bevan, William R., Belvedere, and D. T. Morley, Welling, England. Nut-lock. No. 1,040,909; Oct. 8; Gaz. vol. 183; p. 849.
Bayer, Herman R., Birmingham, Ala. Condenser. No. 1,041,964; Oct. 22; Gaz. vol. 183; p. 873.
Bianchi, Elia, Milan, Italy. Apparatus for constructing hollow cement monolithic or blocks. No. 1,040,856; Oct. 8; Gaz. vol. 183; p. 431.
Bickel, John F., Racine, Wis. Bolster-spring. No. 1,042,312; Oct. 22; Gaz. vol. 183; p. 990.
Bichel, Samuel W., Newtown, Ohio. Attachment for potato-planters. No. 1,041,580; Oct. 15; Gaz. vol. 183; p. 707.
Bickford, William H., Washington, Iowa. Loop-the-loop pleasure-railway. No. 1,040,125; Oct. 1; Gaz. vol. 183; p. 153.
Bidwell, Hudson. (See Alexander, Jesse, assignor.)
Bienutta, Hans, G. Fischbach, and C. Zigahn, Lyck, Germany. Heat-insulated cooker. No. 1,041,581; Oct. 15; Gaz. vol. 183; p. 707.
Bier, Leo E., Corvallis, Oreg. Adjustable rest for beds. No. 1,041,955; Oct. 22; Gaz. vol. 183; p. 873.
Bigelow, Merle E., Milford Center, Ohio. Wrench. No. 1,041,956; Oct. 22; Gaz. vol. 183; p. 873.
Bigney, Sidney O., Attleboro, Mass. Bracelet. No. 1,041,729; Oct. 22; Gaz. vol. 183; p. 794.
Bilbro, Isaac F., Wetumpka, Ala. Combined rake and pitchfork. No. 1,041,416; Oct. 15; Gaz. vol. 183; p. 655.
Binder, Benjamin F., and R. O. Deuker, Julesburg, Colo. Beet-topper. No. 1,041,008; Oct. 15; Gaz. vol. 183; p. 515.
Binger, William H., assignor of one-half to W. H. Burnett, San Francisco, Cal. Cutter-holder. No. 1,042,190; Oct. 22; Gaz. vol. 183; p. 950.
Bingham, Cy J., Johns Day, Oreg. Folding plow. No. 1,040,263; Oct. 8; Gaz. vol. 183; p. 227.
Bingham, Moses C. (See Debley, Edward F., assignor.)
Binkley, Frank C., Sycamore, Ill. Hand-torch. No. 1,040,857; Oct. 8; Gaz. vol. 183; p. 431.
Binns, Arthur E., South Windham, Conn. Suction apparatus for paper-machines, &c. No. 1,040,126; Oct. 1; Gaz. vol. 183; p. 153.
Bird, William T., assignor of one-half to J. S. Wartnaby, Sheffield, Iowa. Wire-gate fastener. No. 1,042,767; Oct. 29; Gaz. vol. 183; p. 1175.
Bishop, Ephraim M., Kingston, N. Y. Foot-rest. No. 1,042,874; Oct. 29; Gaz. vol. 183; p. 1216.
Bishop, Ephraim M., Kingston, N. Y. Lock for vehicles. No. 1,042,875; Oct. 29; Gaz. vol. 183; p. 1216.
Bissell Carpet Sweeper Co. (See Mason and Shanahan, assignors.)
Bissell, Joseph E., Pittsburgh, Pa. Aeroplane. No. 1,042,758; Oct. 29; Gaz. vol. 183; p. 1175.
Bitters, Henry. (See Herron and Bitters.)
Bixler, William D., assignor of one-half to W. Schmidt, Fort Worth, Tex. Egg-tester. No. 1,042,191; Oct. 22; Gaz. vol. 183; p. 950.
Black, Ferdinand, assignor of thirty one-hundredths to O. Lerch, New Orleans, La. Non-refillable bottle. No. 1,040,858; Oct. 8; Gaz. vol. 183; p. 432.
Blackburn, Jasper, Kirkwood, Mo. Earth-anchor. No. 1,041,283; Oct. 15; Gaz. vol. 183; p. 592.
Blackford, Godwin L., et al. (See Upshaw, Lucius L., assignor.)
Blackmore, Lawrence R., McKeesport, Pa. Pipe-cutting machine. No. 1,042,998; Oct. 29; Gaz. vol. 183; p. 1257.
Blackstone Stocking Company. (See Gagné and Shaw, assignors.)
Blackwell, Wielandy Book & Stationery Company. (See Watson, Richard M., assignor.)
Blackwood, Alexander F. S., Detroit, Mich. Converter. No. 1,042,876; Oct. 29; Gaz. vol. 183; p. 1216.
Blades, Paul H. (See Ensign, Orville H., assignor.)
Blair, Athol E. and J. W., Visalia, Cal. Vehicle-support. No. 1,042,877; Oct. 29; Gaz. vol. 183; p. 1216.
Blair, John W. (See Blair, Athol E. and J. W.)
Blair, Robert S., New Rochelle, assignor to International Time Recording Company of New York, Endicott, N. Y. Workman's time-recorder. No. 1,040,859; Oct. 8; Gaz. vol. 183; p. 432.
Blake & Johnson Company, The. (See Adams, Arthur H., assignor.)
Blake & Knowles Steam Pump Works, The. (See Aborn, George P., assignor.)
Blaker, William D., Indianapolis, Ind. Portable pencil-holder. No. 1,040,860; Oct. 8; Gaz. vol. 183; p. 432.
Blakeslee, George S., Chicago, Ill. Potato-peeling machine. No. 1,039,689; Oct. 1; Gaz. vol. 183; p. 5.
Blakeslee, Raymond I. (See Hill, Aaron, assignor.)
Bland, John P., Clapham, England. Apparatus for preparing stereotype-matrices. No. 1,040,861; Oct. 8; Gaz. vol. 183; p. 432.
Blasius, Oscar. (See Wuest, Philip, Jr., assignor.)
Blaxter, George H., Beaver, Pa. Overload control for metal rolls. No. 1,040,862; Oct. 8; Gaz. vol. 183; p. 432.
Blaxter, George H., assignor to Pittsburg Seamless Tube Company, Beaver Falls, Pa. Automatic adjustment for reelers. No. 1,040,862; Oct. 8; Gaz. vol. 183; p. 432.
Bliss, William L., assignor, by mesne assignments, to The United States Light and Heating Company, New York, N. Y. System of electrical distribution. No. 1,040,496; Oct. 8; Gaz. vol. 183; p. 307.
Blood, Charles W. H., Winthrop, assignor to S. A. Woods Machine Company, Boston, Mass. Automatic feeding-table. No. 1,041,284; Oct. 15; Gaz. vol. 183; p. 593.
Blouin, August F., Springfield township, Delaware county, assignor to Abrasive Material Company, Philadelphia, Pa. Composition of abrasive matter. No. 1,042,877; Oct. 29; Gaz. vol. 183; p. 1217.
Boardman, Ralph H., New Britain, Conn. Piano-playing device. No. 1,041,004; Oct. 15; Gaz. vol. 183; p. 516.

Bocorselski, Frank E., Richmond, Va. Tap and reamer. No. 1,040,610; Oct. 8; Gas. vol. 183; p. 349.

Boden, George B. von, San Francisco, Cal. Conduit-joint. No. 1,042,852; Oct. 29; Gas. vol. 183; p. 1207.

Bodkin, John A., New York, N. Y. Guard-rail clamp. No. 1,040,611; Oct. 8; Gas. vol. 183; p. 349.

Bohin, Paul, Paris, France. Needle-making machine. No. 1,042,879; Oct. 29; Gas. vol. 183; p. 1217.

Bohlig, Martin, St. Paul, Minn. Soap-dispenser. No. 1,041,417; Oct. 15; Gas. vol. 183; p. 655.

Bohm, Ernst A. (See Rugnard, Louis, assignor.)

Boliot, Theophile V. L., Clermont-Ferrand, France. Portable scaffold. No. 1,042,192; Oct. 22; Gas. vol. 183; p. 961.

Bolen, Cyrus O., Upham, N. D. Trip device for harvesting-machines. No. 1,039,690; Oct. 1; Gas. vol. 183; p. 6.

Bolte, Edward F., Chicago, Ill., assignor of one-half to T. H. Bolte, Kearney, Nebr. Concrete-mixer. No. 1,041,005; Oct. 15; Gas. vol. 183; p. 516.

Bolte, Theodore H. (See Bolte, Edward F., assignor.)

Bolton, John H., St. Louis, Mo. Toy. No. 1,041,582; Oct. 15; Gas. vol. 183; p. 708.

Bomeisler, Carl. (See Brooke, George, assignor.)

Bond Foundry & Machine Company. (See Bowen, James, assignor.)

Bonesteel, Horace S., Green Bay, Wis. Water-gage. No. 1,040,127; Oct. 1; Gas. vol. 183; p. 153.

Bonham, James W., Manhattan, Kans. Lawn-mower. No. 1,042,880; Oct. 29; Gas. vol. 183; p. 1217.

Bonnette, Perry B., Chicago, Ill. Cattle-stanchion. No. 1,040,864; Oct. 8; Gas. vol. 183; p. 434.

Bono, Michelangelo, New York, N. Y. Suspenders. No. 1,040,128; Oct. 1; Gas. vol. 183; p. 153.

Bonsness, Edward, Martell, Wis. Sleve-adjuster for sleve-shoes. No. 1,040,129; Oct. 1; Gas. vol. 183; p. 154.

Bordeleau, George W., Buffalo, N. D. Tongue and pole for threshing-machines. No. 1,042,526; Oct. 29; Gas. vol. 183; p. 1094.

Borden, Charles H., Hartford, Conn. Removable necktie-shaper. No. 1,041,418; Oct. 15; Gas. vol. 183; p. 655.

Borden Company, The. (See Howe, Alfred F., assignor.)

Borden, Howard W., Swarthmore, Pa. Bending-machine. No. 1,041,419; Oct. 15; Gas. vol. 183; p. 656.

Borger, Erastus, Kunkletown, Pa. Railway-tie. No. 1,040,264; Oct. 8; Gas. vol. 183; p. 228.

Bornemann, Karl, Aix-la-Chapelle, assignor to Chemische Fabrik Coswig-Anhalt, G. m. b. H., Coswig-Anhalt, Germany. Obtaining porous and fairly-pure barium oxid from barium carbonate. No. 1,041,583; Oct. 15; Gas. vol. 183; p. 708.

Bornmann, Carl, assignor to Ansco Company, Binghamton, N. Y. Pin-journal for photographic cameras. No. 1,040,130; Oct. 1; Gas. vol. 183; p. 154.

Bornstein, Jennie L., Dayton, Ohio. Sanitary support. No. 1,041,420; Oct. 15; Gas. vol. 183; p. 656.

Borton, Christina P., administratrix. (See Borton, Stockton.)

Borton, Stockton, Providence, R. I., assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y. Sewing-machine. No. 1,041,574; Oct. 15; Gas. vol. 183; p. 705.

Borton, Stockton, deceased; C. P. Borton, Warwick, R. I., administratrix, assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y. Sewing-machine. No. 1,041,584; Oct. 15; Gas. vol. 183; p. 708.

Borton, Stockton, deceased; C. P. Borton, Warwick, R. I., administratrix, assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y. Sewing-machine. No. 1,041,585; Oct. 15; Gas. vol. 183; p. 709.

Borton, Stockton, deceased; C. P. Borton, Warwick, R. I., administratrix, assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y. Sewing-machine. No. 1,041,586; Oct. 15; Gas. vol. 183; p. 709.

Borszykowski, Benno, Charlottenburg, Germany. Producing dyed cellulose ester. No. 1,041,587; Oct. 15; Gas. vol. 183; p. 709.

Bosler, Benjamin E., Johnstown, Pa. Method of punching. No. 1,040,265; Oct. 8; Gas. vol. 183; p. 228.

Bosler, Benjamin E., Johnstown, Pa. Punch. No. 1,040,497; Oct. 8; Gas. vol. 183; p. 308.

Boss, John G., Denver, Colo. Non-skidding tire. No. 1,040,865; Oct. 8; Gas. vol. 183; p. 434.

Both, Tonjes A. C., New York, N. Y., assignor, by mesne assignments, to The Zee Socket and Mfg. Co., Boston, Mass. Electric-light socket. No. 1,040,131; Oct. 1; Gas. vol. 183; p. 154.

Both, Tonjes A. C., New York, N. Y., assignor, by mesne assignments, to The Zee Socket and Mfg. Co., Boston, Mass. Mechanical movement and electric-light socket. No. 1,040,132; Oct. 1; Gas. vol. 183; p. 154.

Bottle, Edward K., assignor to The Carter-Crume Company, Niagara Falls, N. Y. Manifolding sales-book. No. 1,040,498; Oct. 8; Gas. vol. 183; p. 308.

Bottle, Edward K., Elmira, N. Y., assignor to American Sales Book Company, Limited, Toronto, Canada. Sales-book. No. 1,042,637; Oct. 29; Gas. vol. 183; p. 1133.

Bottum, George L., Chicago, Ill. Pressure controlling and relief valve for hot-water-circulating systems. No. 1,042,387; Oct. 29; Gas. vol. 183; p. 1043.

Boucher, Amos. (See Betts and Boucher.)

Bounimovitsch, Towy J., Wilna, Russia. Winding mechanism for spring-motors. No. 1,040,271; Oct. 8; Gas. vol. 183; p. 250.

Bourne, Clifford N., Syracuse, N. Y. Making a liquid beverage. No. 1,042,074; Oct. 22; Gas. vol. 183; p. 912.

Bousiog, William H. (See Lister, Levi H., assignor.)

Bowen, Ernest W., London, England. Valve for internal-combustion engines. No. 1,040,612; Oct. 8; Gas. vol. 183; p. 350.

Bowen, George B., Warkworth, Ontario, Canada. Rotary valve for multiple-cylinder engines. No. 1,041,957; Oct. 22; Gas. vol. 183; p. 873.

Bowen, George W., Auburn, N. Y. Cap for grease and lubricant cups. No. 1,040,266; Oct. 8; Gas. vol. 183; p. 228.

Bowen, James, assignor to Bond Foundry & Machine Company, Manheim, Pa. Friction-clutch. No. 1,040,866; Oct. 8; Gas. vol. 183; p. 434.

Bowen, Leslie G., Kansas City, Mo. Outlet-box hanger. No. 1,042,881; Oct. 29; Gas. vol. 183; p. 1217.

Bowers, Albert J., Worcester, Mass. Making multifocal lenses. No. 1,041,235; Oct. 15; Gas. vol. 183; p. 593.

Bowers, William C. (See Simmons, Turner W., assignor.)

Bowles, Edward J. (See Metz and Bowles.)

Bowling, Lilian, Fairview, Okla. Go-cart handle. No. 1,042,193; Oct. 22; Gas. vol. 183; p. 961.

Bowlus, Warren L., Springfield, Ill. Marking or canceling machine. No. 1,042,759; Oct. 29; Gas. vol. 183; p. 1175.

Bown, David E., Pittsburgh, Pa. Fuse-plug. No. 1,042,388; Oct. 29; Gas. vol. 183; p. 1043.

Boyce, Arthur E., Monterey, Cal. Brick-kiln. No. 1,041,006; Oct. 15; Gas. vol. 183; p. 516.

Boyler, Emanuel J., New Haven, Conn., assignor to The Geist Manufacturing Company. Sewing-machine ruffler. No. 1,041,730; Oct. 22; Gas. vol. 183; p. 794.

Boynton, Eben M., West Newbury, Mass. Railway freight-car. No. 1,042,527; Oct. 29; Gas. vol. 183; p. 1094.

Bracht, Joseph von. (See Miller, George G., assignor.)

Bracy, Edward L., Scotland Neck, N. C. Machinery for packing cigarettes and other articles. No. 1,041,007; Oct. 15; Gas. vol. 183; p. 516.

Bradbury, Clifford C., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill. Telephone system. No. 1,042,389; Oct. 29; Gas. vol. 183; p. 1043.

Bradbury, Emma, administratrix. (See Bradbury, William F.)

Bradbury, William F., deceased, Kansas City, Mo.; E. Bradbury, administratrix. Ore-separator. No. 1,042,194; Oct. 22; Gas. vol. 183; p. 961.

Bradford, Clinton E., Augusta, Wis. Milk-pail. No. 1,040,613; Oct. 8; Gas. vol. 183; p. 350.

Bradley, Charles S., assignor to E. B. Wilson, New York, N. Y. Ozonifying. No. 1,041,421; Oct. 15; Gas. vol. 183; p. 656.

Bradley, Frederick A., Providence, R. I. Non-refillable bottle. No. 1,042,195; Oct. 22; Gas. vol. 183; p. 962.

Bradley, James A., assignor of one-half to H. C. Digby, Pittsburgh, Pa. Driving mechanism for portable drills or similar tools. No. 1,040,867; Oct. 8; Gas. vol. 183; p. 435.

Bradley, Richard, *et al.* (See Foss, Walter O., assignor.)

Bradley, Richard C., Shreveport, La. Gas-generator. No. 1,042,882; Oct. 29; Gas. vol. 183; p. 1218.

Bradley, Stephen D., Syracuse, N. Y. Flexible shafting. No. 1,042,760; Oct. 29; Gas. vol. 183; p. 1176.

Bradley, William J., Troy, assignor to The Rail Joint Company, New York, N. Y. Shaping rail-joint bars. No. 1,040,614; Oct. 8; Gas. vol. 183; p. 350.

Bradley, William J., Troy, assignor to The Rail Joint Company, New York, N. Y. Continuous heating-furnace. No. 1,040,868; Oct. 8; Gas. vol. 183; p. 435.

Brady, John M., *et al.* (See Humphrey, John D., assignor.)

Braemer, William G. R., Camden, N. J., assignor to Warren Webster & Company. Air-purifying apparatus. No. 1,040,499; Oct. 8; Gas. vol. 183; p. 308.

Bragg, William. (See Taylor and Hutchins, assignors.)

Bragstad, Joseph W., Canton, S. D. Concrete-block-molding machine. No. 1,041,731; Oct. 22; Gas. vol. 183; p. 794.

Brand, George P., New York, N. Y. Tracking device. No. 1,040,869; Oct. 8; Gas. vol. 183; p. 435.

Brand, Leonard F., and F. C. Gladeck, Philadelphia, Pa. Metallic packing and shipping case. No. 1,040,870; Oct. 8; Gas. vol. 183; p. 436.

Brandenburg, Francis C., Piqua, Ohio. Emery-wheel dresser. No. 1,042,761; Oct. 29; Gas. vol. 183; p. 1176.

Brandt, Henriette, New Brighton, N. Y. Folding bed. No. 1,042,075; Oct. 22; Gas. vol. 183; p. 912.

Brassington, Abraham. (See Keller, Brassington, and Kostenbauder.)

Brassington, Charles. (See Keller, Brassington, and Kostenbauder.)

Braun, Henry W., Lemoyne, Pa. Chock for railway rolling-stock. No. 1,041,256; Oct. 15; Gas. vol. 183; p. 594.

Breakefield, Charley. (See Patt, Charles, assignor.)

Brecht, Louis F., and N. V. Stamey, San Francisco, Cal. Stove. No. 1,042,638; Oct. 29; Gas. vol. 183; p. 1133.

Brede, Carle E., Detroit, Mich. Lock. No. 1,042,639; Oct. 29; Gas. vol. 183; p. 1134.

Brehman, Orson D., San Francisco, Cal. Roundabout. No. 1,041,006; Oct. 15; Gas. vol. 183; p. 517.

Brelle, Frank, Ferndale, Cal. Fruit-jar. No. 1,042,390; Oct. 29; Gas. vol. 183; p. 1044.

Brennan, James P., Columbus, Wis. Potato-harvester. No. 1,042,640; Oct. 29; Gas. vol. 183; p. 1134.





Bressmer, Fred A., and J. Shelhammer, Macon county, Ill. Draft-evener. No. 1,040,871; Oct. 8; Gas. vol. 183; p. 436.

Bretch, Edward, St. Louis, Mo. Electric motor. No. 1,041,009; Oct. 15; Gas. vol. 183; p. 518.

Breuer, Armand B., Budapest, Austria-Hungary. Fuel-admission valve for internal-combustion engines. No. 1,042,076; Oct. 22; Gas. vol. 183; p. 913.

Brew, Thomas C. (See Rossiter and Brew.)

Brewington, Henry S., Baltimore, Md., assignor to A. Kimball Company, New York, N. Y. Pin-ticket. No. 1,041,588; Oct. 15; Gas. vol. 183; p. 709.

Brewster, Arthur P. (See Roberts and Brewster.)

Brewster, Guy O., Dover, N. J. Protector for use in boxing. No. 1,040,207; Oct. 8; Gas. vol. 183; p. 228.

Brianne, Leclen, Paris, France. Apparatus for actuating flying-machines. No. 1,039,889; Oct. 1; Gas. vol. 183; p. 78.

Brieds, Otto, Bemrath, Germany, assignor to E. Winter, Pittsburgh, Pa. Manufacture of tubes. (Reissue.) No. 13,473; Oct. 8; Gas. vol. 183; p. 478.

Briggs, Stephen H. (See Salt, William A., assignor.)

Brigham, O. S. (See Crawford, Clay, assignor.)

Bright Envelope Company. (See Novick, Abraham, assignor.)

Bright, Graham, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Locomotive-frame. No. 1,039,691; Oct. 1; Gas. vol. 183; p. 6.

Brilea, Benjamin E., Le Roy, Kans. Oil-burner. No. 1,041,732; Oct. 22; Gas. vol. 183; p. 795.

Brink, Elroy E., New York, N. Y. Wrench. No. 1,042,762; Oct. 29; Gas. vol. 183; p. 1176.

Brink, George E., South Lyon, Mich., assignor to Tufting Machine Supply Company, Chicago, Ill. Machine for sewing upholstered or tufted pads or cushions. No. 1,042,641; Oct. 29; Gas. vol. 183; p. 1134.

Brink, George E., South Lyon, Mich., assignor to Tufting Machine Supply Company, Chicago, Ill. Upholstering-machine. No. 1,042,642; Oct. 29; Gas. vol. 183; p. 1135.

Brink, John T., and E. Nordstrom, Topeka, Kans. Loose-leaf binder. No. 1,042,313; Oct. 22; Gas. vol. 183; p. 990.

Brinton, Walter, and O. E. Brown, Wilmington, Del. Railway-track construction. No. 1,040,133; Oct. 1; Gas. vol. 183; p. 155.

Brion, Harry O., Gates, N. Y. Safety device for pockets. No. 1,042,314; Oct. 22; Gas. vol. 183; p. 991.

Brock, Richard E., Monessen, assignor to Pittsburgh Steel Products Co., Pittsburgh, Pa. Rolling tubing. No. 1,040,134; Oct. 1; Gas. vol. 183; p. 155.

Broemme, Eduard, St. Petersburg, Russia, and R. Steinau, Nuremberg, Germany. Recovering zinc from galvanized-iron articles. No. 1,042,315; Oct. 22; Gas. vol. 183; p. 991.

Brooke, George, assignor of one-half to C. Bomeisler, New York, N. Y. Molding socket and plug. No. 1,043,054; Oct. 29; Gas. vol. 183; p. 1277.

Brooks, Asa P., Regina, Saskatchewan, Canada, and C. N. Galland, assignors to Multi-Color Attachment Company, Minneapolis, Minn. Color-printing attachment for printing-presses. No. 1,040,268; Oct. 8; Gas. vol. 183; p. 229.

Brooks, Guy H., Daphne, Ala. Tuning device. No. 1,041,422; Oct. 15; Gas. vol. 183; p. 656.

Brooks, Lewis M. (See Shaw, Milbridge G., assignor.)

Brooks, Robert A., Chicago, Ill. Surface discharge apparatus for tanks. No. 1,040,872; Oct. 8; Gas. vol. 183; p. 436.

Brooks, William S., San Diego, Cal. Non-reusable bottle. No. 1,040,500; Oct. 8; Gas. vol. 183; p. 309.

Browalski, Frank. (See Loewer, John C., assignor.)

Brower, Abraham T. H., Chicago, Ill. Printing-press. No. 1,040,501; Oct. 8; Gas. vol. 183; p. 309.

Brown, Alexander A., Rutherglen, Scotland. Incandescent-mantle box. No. 1,041,733; Oct. 22; Gas. vol. 183; p. 796.

Brown, Bartley, Fort Worth, Tex. Tongue. No. 1,042,763; Oct. 29; Gas. vol. 183; p. 1177.

Brown, Clement, Birmingham, England. Carbureter. No. 1,042,077; Oct. 22; Gas. vol. 183; p. 913.

Brown, Clement, Birmingham, England. Carbureter. No. 1,043,528; Oct. 29; Gas. vol. 183; p. 1004.

Brown, George W., Leipsdale, Pa. Rotary engine. No. 1,040,135; Oct. 1; Gas. vol. 183; p. 155.

Brown, Harry M., Brooklyn, N. Y., assignor to R. A. Canfield, Providence, R. I. Stoppering or seal-applying machine. No. 1,040,615; Oct. 8; Gas. vol. 183; p. 351.

Brown, James G., Elkhart, Ind. Track-support. No. 1,041,423; Oct. 15; Gas. vol. 183; p. 656.

Brown, Juney M., Greensboro, N. C. Engine. No. 1,042,883; Oct. 29; Gas. vol. 183; p. 1218.

Brown, Leonard L., Clifton Forge, Va., and J. F. Smith, Roanoke, W. Va. Automatic air-retainer. No. 1,040,873; Oct. 8; Gas. vol. 183; p. 437.

Brown, Lewis J., Brooklyn, N. Y. Tool for inserting piston-rings. No. 1,042,764; Oct. 29; Gas. vol. 183; p. 1177.

Brown, Nat E., Grand Haven, Mich. Gyroplane. No. 1,040,136; Oct. 1; Gas. vol. 183; p. 156.

Brown, Norman S., Wigan, England. Lift or hoist. No. 1,040,874; Oct. 8; Gas. vol. 183; p. 437.

Brown, Owen F. (See Brinton and Brown.)

Brown, Percy H., *et al.* (See Lanaux, Alfred A., assignor.)

Brown, Robert S., assignor to The New Britain Machine Company, New Britain, Conn. Gearing. No. 1,040,502; Oct. 8; Gas. vol. 183; p. 310.

Brown, Stewart, Chicago, Ill. Pressure-reducer. No. 1,042,076; Oct. 22; Gas. vol. 183; p. 914.

Brown, William P., Minneapolis, Minn. Shotgun-shell. No. 1,040,503; Oct. 8; Gas. vol. 183; p. 310.

Brown & Williams. (See Gray, David E., assignor.)

Brownell, George L., Worcester, Mass. Clutch. No. 1,041,010; Oct. 15; Gas. vol. 183; p. 518.

Browning, Earl H., Nottingham, Ohio. Machine for cutting bevel-gears. No. 1,040,137; Oct. 1; Gas. vol. 183; p. 157.

Bruckheimer, Samuel. (See Marx, Charles O., assignor.)

Bruno Works, The. (See Bültzingslöwen, Bruno von, assignor.)

Brunswig, Heinrich, Steglitz, near Berlin, Germany, assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Method for the detonation of explosives. No. 1,042,643; Oct. 29; Gas. vol. 183; p. 1135.

Brunton, David W., Denver, Colo. Transit. No. 1,042,079; Oct. 22; Gas. vol. 183; p. 914.

Brush, Alanson P., Flint, Mich. Selective mechanism for shifting gears. No. 1,041,734; Oct. 22; Gas. vol. 183; p. 796.

Brush, Alanson P., Flint, Mich. System of splash lubrication. No. 1,041,735; Oct. 22; Gas. vol. 183; p. 796.

Brush Mop Wringer Manufacturing Company, The. (See Beasley, Joseph O., assignor.)

Bryan, Joseph D., Oklahoma, Okla. Scrubbing-brush. No. 1,041,011; Oct. 15; Gas. vol. 183; p. 518.

Bryan, Roy B., La Fayette, Ind. Self-baling machine. No. 1,043,041; Oct. 29; Gas. vol. 183; p. 1273.

Bryant Electric Company, The. (See Terry, Charles A., assignor.)

Bryning, Percy L., Brookline, assignor to Bryning Shelf Company, Boston, Mass. Rack or shelf. No. 1,040,269; Oct. 8; Gas. vol. 183; p. 229.

Bryning, Percy L., Brookline, assignor to Bryning Shelf Company, Boston, Mass. Sectional shelving. No. 1,040,270; Oct. 8; Gas. vol. 183; p. 230.

Bryning Shelf Company. (See Bryning, Percy L., assignor.)

Buboltz, Walter W., Massena, Iowa. Attachment for cultivators. No. 1,039,890; Oct. 1; Gas. vol. 183; p. 74.

Buchanan, William R., Carrsville, Ky. Combined bevel and square. No. 1,039,891; Oct. 1; Gas. vol. 183; p. 74.

Buchmann, Heinrich, Mannhaven, N. D. Steam-engine. No. 1,042,196; Oct. 22; Gas. vol. 183; p. 962.

Buck, Herman J., Minneapolis, assignor to Mathews Gravity Carrier Company, St. Paul, Minn. Carrier. No. 1,041,424; Oct. 15; Gas. vol. 183; p. 657.

Buck, Joseph E., Spring Bay, Ontario, Canada. Knife. No. 1,040,138; Oct. 1; Gas. vol. 183; p. 157.

Buckau, Ernst W., New York, N. Y. Golf-ball mold. No. 1,041,958; Oct. 22; Gas. vol. 183; p. 874.

Buckham, George T. (See Dawson and Buckham.)

Buckley, Warren B., Washington, D. C., assignor to Air-Ease Tire Filler Company. Tire-filler. No. 1,042,884; Oct. 29; Gas. vol. 183; p. 1219.

Buckner, Neptune, *et al.* (See Christopher, Calvin F., assignor.)

Buckow, Oscar A. V., Newark, N. J. Combination pipe and tobacco case. No. 1,039,892; Oct. 1; Gas. vol. 183; p. 75.

Buda Foundry & Manufacturing Company. (See Klein and Penrose, assignors.)

Budd, Edward G., assignor, by mesne assignments, to Hale and Kilburn Company, Philadelphia, Pa. Metallic frame. No. 1,042,644; Oct. 29; Gas. vol. 183; p. 1135.

Budd, Edward G., and J. H. Gravell, assignors, by mesne assignments, to Hale and Kilburn Company, Philadelphia, Pa. Welding. No. 1,042,885; Oct. 29; Gas. vol. 183; p. 1219.

Buddle, George T., assignor of one-half to E. B. Ward, Chicago, Ill. Washing-machine. No. 1,042,891; Oct. 29; Gas. vol. 183; p. 1044.

Budlong, Wilbur F., Berea, Ohio. Valve. No. 1,041,287; Oct. 15; Gas. vol. 183; p. 594.

Buell, Delilah H., Bridgeport, Conn. Hose-supporting clasp. No. 1,040,139; Oct. 1; Gas. vol. 183; p. 157.

Buettner, John, Chicago, Ill. Heating appliance. No. 1,040,140; Oct. 1; Gas. vol. 183; p. 158.

Buffalo Air Brake Co. (See Webster and Lacy, assignors.)

Buffalo Foundry and Machine Company. (See Miles, Henry D., assignor.)

Buffalo Pitts Company. (See Vraalstad, Edward J., assignor.)

Buffinger, Lewis A., New York, N. Y., and D. Robertson, Boonton, N. J. Combined seat and stiffener. No. 1,039,892; Oct. 1; Gas. vol. 183; p. 6.

Bugnon, Achille, Paris, France. Distributing-valve operating and reversing mechanism for motors worked by expansible motive fluids. No. 1,039,893; Oct. 1; Gas. vol. 183; p. 75.

Buickerood, John W., Boundbrook, N. J. Marcel waver. No. 1,042,886; Oct. 29; Gas. vol. 183; p. 1219.

Bültzingslöwen, Bruno von, assignor to The Bruno Works, New York, N. Y. Machine for bending the cross-heads and eyes of wire bale-ties. No. 1,039,894; Oct. 1; Gas. vol. 183; p. 75.

Bundy, Henry C., assignor of two-thirds to F. Morrison and E. Phenomenault, Watertown, N. Y. Door opening and closing device. No. 1,040,804; Oct. 8; Gas. vol. 183; p. 319.

Bunnell, Charles E., et al. (See Fess, Walter O., assignor.)

Burgess, C. E. (See Humphreys, Guy F., assignor.)

Burgess, John J. and S. P., Rock Island, Ill. Box for warm-air registers. No. 1,041,425; Oct. 15; Gas. vol. 183; p. 657.

Burgess, Samuel P. (See Burgess, John J. and S. P.)

Burhorn, Edwin, Hoboken, N. J. Cooling-tower. No. 1,040,875; Oct. 8; Gas. vol. 183; p. 438.

Burian, Carl, assignor to Offene Handelsgesellschaft Gebrüder Schubert, Berlin, Germany. Hardening steel poor in carbon. No. 1,042,900; Oct. 29; Gas. vol. 183; p. 1257.

Burt, William H., assignor to Corrugated Bar Company, St. Louis, Mo. Concrete floor construction. No. 1,039,896; Oct. 1; Gas. vol. 183; p. 76.

Burke, John F., Philadelphia, Pa. Bathing-suit. No. 1,041,012; Oct. 15; Gas. vol. 183; p. 518.

Burke, William J., New York, N. Y. Toy theatrical device. No. 1,040,616; Oct. 8; Gas. vol. 183; p. 351.

Burkhardt, Martin L., assignor of one-half to J. P. McCabe, Minneapolis, Minn. Ice-cream cutter. No. 1,042,060; Oct. 22; Gas. vol. 183; p. 914.

Burlin, Charles T., Whitinsville, Mass., assignor to Whitin Machine Works. Making fibers. No. 1,042,645; Oct. 29; Gas. vol. 183; p. 1125.

Burlingame, George L., and P. P. Menard, Chicago, Ill. Safety-valve. No. 1,039,698; Oct. 1; Gas. vol. 183; p. 6.

Burnett, William H. (See Binger, William H., assignor.)

Burnham, George A., Saugus, assignor to S. B. Condit, Jr., Boston, Mass. Selective time-limit-controlling device for electric switches. No. 1,041,716; Oct. 15; Gas. vol. 183; p. 754.

Burt Machine Company. (See Wild, Frederick W., Jr., assignor.)

Burton, Charles, and R. Gardner, New York, N. Y. Clutch for engine-starters. No. 1,042,887; Oct. 29; Gas. vol. 183; p. 1219.

Burton, Elisha L., assignor of one-half to W. R. Davis, Thealka, Ky. Drilling-machine. No. 1,041,013; Oct. 15; Gas. vol. 183; p. 519.

Burton, Frank F., East Haven, assignor to Winchester Repeating Arms Co., New Haven, Conn. Rear sight for firearms. No. 1,039,896; Oct. 1; Gas. vol. 183; p. 76.

Burton, John C., Hay Springs, Nebr. Printer's collapsible stationery-drying frame. No. 1,039,694; Oct. 1; Gas. vol. 183; p. 7.

Busbey, Charles O., Chicago, Ill. Machine for cutting old ties into engine-wood. No. 1,041,014; Oct. 15; Gas. vol. 183; p. 519.

Bush, Charles F., Erie, Pa. Machine for marking stamps. No. 1,040,817; Oct. 8; Gas. vol. 183; p. 351.

Buskirk, Frederick, New York, N. Y. Burglar-proof door-fastener. No. 1,040,506; Oct. 8; Gas. vol. 183; p. 311.

Butler, Clifford L., Chicago, Ill., assignor to American Steel Tire Company, Milwaukee, Wis. Automobile-tire. No. 1,042,392; Oct. 29; Gas. vol. 183; p. 1044.

Butler, Herbert, Detroit, Mich. Holder for reaming-tools. No. 1,041,018; Oct. 15; Gas. vol. 183; p. 520.

Butsch, Alphonse, St. Lucia, British West Indies. Hydrocarbon-engine. No. 1,042,888; Oct. 29; Gas. vol. 183; p. 1219.

Butts, Daniel G., assignor of one-half to J. D. Tschopik, New Orleans, La. Device for holding and delivering small articles, such as pins, paper-clips, &c. No. 1,041,016; Oct. 15; Gas. vol. 183; p. 520.

Buxton, John H., Baltimore, Md. Gold-ore-grinding mill. No. 1,040,876; Oct. 8; Gas. vol. 183; p. 438.

Byrne, Charles, Pompton Lakes, N. J. Tire-repairing case. No. 1,040,878; Oct. 8; Gas. vol. 183; p. 438.

Byrne, Charles, Pompton Lakes, N. J., assignor of one-half to G. W. Drew, Florida, N. Y. Tire-repairing case. No. 1,040,877; Oct. 8; Gas. vol. 183; p. 438.

Byron, James A., Fort Worth, Tex. Paper-binder. No. 1,040,506; Oct. 8; Gas. vol. 183; p. 311.

C. De Witt Lukens Surgical Manufacturing Company. (See Lukens, Clarence D., assignor.)

C. J. White Manufacturing Company. (See White, Charles J., assignor.)

C. T. Ham Manufacturing Company. (See Bergener, Charles, assignor.)

C. W. Raymond Company, The. (See Vater, George C. F., assignor.)

Cagley, Harry R., Bloomfield, Nebr. Mail-box. No. 1,039,696; Oct. 1; Gas. vol. 183; p. 7.

Cain, Joseph A. (See McWilliams, James M., assignor.)

Calder, Lewis, assignor of one-fourth to H. Freedman, Chicago, Ill. Ash-sifter. No. 1,041,017; Oct. 15; Gas. vol. 183; p. 520.

Caldwell, Fred S., Oklahoma, Okla. Railway-tie. No. 1,041,736; Oct. 22; Gas. vol. 183; p. 796.

Calkins, Fred D., et al. (See Hennessy, Clarence A., assignor.)

Callan, John G., Nahant, Mass., assignor to General Electric Company. Combined step and guide bearing. No. 1,041,429; Oct. 15; Gas. vol. 183; p. 657.

Calleson, Amos. (See Adriance and Calleson.)

Calleson, Amos. (See Adriance and Calleson.) (Reissue.)

Callicott, John, assignor of one-half to A. T. Howes and one-half to G. Bannerman, Bradford, Ontario, Canada. Steam and hot-water furnace. No. 1,041,787; Oct. 22; Gas. vol. 183; p. 797.

Calvin, William A., Manhattan, Kans. Cultivator. No. 1,040,573; Oct. 8; Gas. vol. 183; p. 439.

Cameron, Gayter M., Rochester, N. Y. Door-operating mechanism. No. 1,040,980; Oct. 8; Gas. vol. 183; p. 439.

Cameron, James. (See Thompson and Cameron.)

Camp, Thomas R., Milwaukee, Wis. Joint for receptacles. No. 1,042,063; Oct. 22; Gas. vol. 183; p. 916.

Campana, Guiseppe, New York, N. Y. Railway switching apparatus. No. 1,042,197; Oct. 22; Gas. vol. 183; p. 963.

Campbell, Albert D. (See White, Ira B., assignor.)

Campbell, Alphonso S., Medford, Mass. Battery case or cabinet. No. 1,041,016; Oct. 15; Gas. vol. 183; p. 520.

Campbell, Archie W., et al. (See Richards, John J., Jr., assignor.)

Campbell, Argyle, assignor to Enterprise Railway Equipment Company, Chicago, Ill. Dump or drop-bottom car. No. 1,040,615; Oct. 8; Gas. vol. 183; p. 352.

Campbell, Leon J., assignor to J. T. Healy, trustee, Chicago, Ill. Nut-lock. No. 1,042,765; Oct. 29; Gas. vol. 183; p. 1178.

Campbell, William, Brooklyn, N. Y. Rope-clamp. No. 1,042,529; Oct. 29; Gas. vol. 183; p. 1095.

Campe, Mina, Seattle, Wash. Attachment for the bottoms of hand-bags. No. 1,042,880; Oct. 29; Gas. vol. 183; p. 1096.

Campion, Harry C., Jr. (See Wyatt and Campion.)

Canfield, Richard A. (See Brown, Harry M., assignor.)

Canfield, Roy H., Los Angeles, Cal. Float-valve. No. 1,040,141; Oct. 1; Gas. vol. 183; p. 155.

Cannock, Francis E. (See Porter, Edwin S., assignor.)

Cantor, Max, Berlin-Friedenau, assignor to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Red disazo dye. No. 1,042,196; Oct. 22; Gas. vol. 183; p. 963.

Cantrall, Forest L., Ivy, Cal. Speed-indicator. No. 1,042,316; Oct. 22; Gas. vol. 183; p. 991.

Cantwell, Herbert H. (See Redifer and Cantwell.)

Canty, Joseph, Concord, N. H. Balancing mechanism for aeroplanes. No. 1,042,062; Oct. 22; Gas. vol. 183; p. 915.

Capitol Auto Lock Company. (See Cleveland, Grover H., assignee.)

Capp, John H., Wilmette, Ill. Separator. No. 1,041,589; Oct. 15; Gas. vol. 183; p. 710.

Caraway, Parlin H., Wetappo, Fla. Lubricator. No. 1,040,142; Oct. 1; Gas. vol. 183; p. 155.

Carborundum Company, The. (See Tone, Frank J., assignor.)

Cardell, Charles O. L., Pearl River, N. Y. Non-metallic bearing. No. 1,041,427; Oct. 15; Gas. vol. 183; p. 658.

Carhart, Herbert A., assignor to The Smith Premier Typewriter Company, Syracuse, N. Y. Type-writing machine. No. 1,040,272; Oct. 8; Gas. vol. 183; p. 221.

Carleton, Guy, Camden, Me. Automatic inking-stamp. No. 1,042,768; Oct. 29; Gas. vol. 183; p. 1178.

Carlson, Ellis G., Trenton, N. J., assignor to The Carlson-Wenstrom Manufacturing Co., Inc., Dover, Del. Igniting device. No. 1,040,143; Oct. 1; Gas. vol. 183; p. 159.

Carlson, John E., and G. J. Nason, Bakersfield, Cal. Roller-harrow. No. 1,042,839; Oct. 29; Gas. vol. 183; p. 1220.

Carlson, Oscar B., Månsbo, Avesta, assignor to O. F. Carlson, Stockholm, Sweden. Producing explosives containing nitro derivatives of common resin. No. 1,043,042; Oct. 29; Gas. vol. 183; p. 1273.

Carlson, Oscar F. (See Carlson, Oscar B., assignor.)

Carlson, Oscar F. (See Ramsore and Carlson.)

Carlson-Wenstrom Manufacturing Co., The. (See Carlson, Ellis G., assignor.)

Carmichael, Hugh A., West Lorne, Ontario, Canada. Resilient tire for vehicles. No. 1,039,897; Oct. 1; Gas. vol. 183; p. 76.

Carmody, Walter R. (See Hyle and Carmody.)

Carney, Frank D., Steelton, Pa. Blast-furnace-cooling device. No. 1,042,767; Oct. 29; Gas. vol. 183; p. 1178.

Carnochan, John W., assignor of one-half to H. Walters and one-half to F. H. Damon, Rochester, N. Y. Fruit-peeling machine. No. 1,040,507; Oct. 8; Gas. vol. 183; p. 311.

Carp, Arthur, St. Louis, Mo. Wrench. No. 1,042,881; Oct. 29; Gas. vol. 183; p. 1096.

Carpenter, Charles U., New York, N. Y., assignor to Fire-Proof Furniture and Construction Company, Hamilton, Ohio. Roller suspension for drawers. No. 1,042,646; Oct. 29; Gas. vol. 183; p. 1126.

Carpenter, Levi, Jr., et al. (See Curtis, Oliver W., assignor.)

Carr Fastener Company. (See Carr, Fred S., assignor.)

Carr, Fred S., Brookline, assignor to Carr Fastener Company, Boston, Mass. Fastener for rugs, carpets, &c. No. 1,041,229; Oct. 15; Gas. vol. 183; p. 504.

Carr Manufacturing Company. (See Davis, Archibald C., assignor.)

Carr, Selby C., Muskogee, Okla. Safety-step for steam-engines. No. 1,041,229; Oct. 15; Gas. vol. 183; p. 504.

Carringer, Volney A. (See Kunley, Samuel D., assignor.)

Carroll, Harry L., Gassaway, W. Va. Wire-clamp. No. 1,042,199; Oct. 22; Gas. vol. 183; p. 963.

Carroll, Joseph F., et al. (See Day, Herman T., assignor.)

Carson, Charles, and R. B. Timmerman, Chicago, Ill. Safety device for elevators. No. 1,041,019; Oct. 15; Gas. vol. 183; p. 521.

Carstens, Charles, assignor of one-half to H. Fleming, Davenport, Iowa. Hoisting apparatus. No. 1,041,020; Oct. 15; Gas. vol. 183; p. 521.

Carter-Crume Company, The. (See Bottle, Edward K., assignor.)

Carter, Edward G., New York, N. Y. Game apparatus. No. 1,040,144; Oct. 1; Gas. vol. 183; p. 159.

Carter, William C., St. Louis, Mo. Carburetor. No. 1,040,619; Oct. 8; Gas. vol. 183; p. 352.

Carter, William C., assignor of one-half to C. O. Baxter, St. Louis, Mo. Internal-combustion engine. No. 1,040,508; Oct. 8; Gas. vol. 183; p. 312.

Carter, William D., Quincy, Ill. Telephone-booth. No. 1,043,043; Oct. 29; Gas. vol. 183; p. 1273.

Carter, William D., Quincy, Ill. Telephone-booth. No. 1,043,055; Oct. 29; Gas. vol. 183; p. 1277.

Carter, Willis M., assignor to American Lithographic Company, New York, N. Y. Collapsible display device. No. 1,041,738; Oct. 22; Gas. vol. 183; p. 797.

Carvin, Harrison T. (See Olsen, Ole, assignor.)

Case, Benjamin F., Mitchell, Ind. Firearm. No. 1,040,881; Oct. 8; Gas. vol. 167; p. 440.

Case, Jules A., Salida, Colo. Siphon-filter. No. 1,042,317; Oct. 22; Gas. vol. 183; p. 992.

Case, Sanford D., Rock Hill, N. Y. Music-leaf turner. No. 1,039,698; Oct. 1; Gas. vol. 183; p. 7.

Case, Sydney S., Mount Pleasant, Iowa. Street-sweeper. No. 1,042,532; Oct. 29; Gas. vol. 183; p. 1095.

Cass Tunnel & Engineering Company. (See Rogers, Lobbens H., assignor.)

Casey, Edward J., Springfield, Mass. Sheet-feeding apparatus. No. 1,040,882; Oct. 8; Gas. vol. 183; p. 440.

Cassrain, Louis A., Beverly, Mass. Speed-gage. No. 1,042,890; Oct. 29; Gas. vol. 183; p. 1220.

Cassrain, Louis A., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Gage. No. 1,040,273; Oct. 8; Gas. vol. 183; p. 231.

Cassella Color Company. (See Kertess, Adolf, assignor.)

Casserleigh, John H., assignor of one-eighth to D. Wandel, Denver, Colo. Horseshoe. No. 1,041,960; Oct. 22; Gas. vol. 183; p. 874.

Castle, Clyde A., Oldham, S. D. Circuit-closer. No. 1,040,888; Oct. 8; Gas. vol. 183; p. 441.

Castle, William E., Chicago, Ill. Product for making bread, cake, and like foods. No. 1,042,647; Oct. 29; Gas. vol. 183; p. 1130.

Caswell, Annie B. (See Caswell, William B., assignor.)

Caswell, William B., assignor of one-half to A. E. Caswell, Newport, R. I. Window-shade hanger. No. 1,043,000; Oct. 29; Gas. vol. 183; p. 1257.

Caughman, George H., Ketchikan, Alaska. Packing-machine. No. 1,042,900; Oct. 22; Gas. vol. 183; p. 963.

Cavenee, William W., Greenfield, Mo. Corn-planter. No. 1,041,021; Oct. 15; Gas. vol. 183; p. 521.

Celluloid Company, The. (See Lindsay, William G., assignor.)

Chace, John E., South Attleboro, Mass. Braiding-machine carrier. No. 1,041,560; Oct. 15; Gas. vol. 183; p. 710.

Chamberlain, John W., Bismarck, N. D. Combination-tool. No. 1,042,518; Oct. 22; Gas. vol. 183; p. 992.

Chamberlain, Orville T. (See Signor, Alfred J., assignor.)

Chambers Brothers Company. (See King, Howard K., assignor.)

Chambers, David F., assignor to The Star Ball Retainer Company, Lancaster, Pa. Manufacturing ball-retainers. No. 1,040,274; Oct. 8; Gas. vol. 183; p. 231.

Chambers, John E., Shelbyville, Ind. Cooker. No. 1,041,022; Oct. 15; Gas. vol. 183; p. 522.

Chambers, Thomas C., Mangum, Okla. Door for grain-cars. No. 1,042,837; Oct. 29; Gas. vol. 183; p. 1221.

Champion Metal Weather Strip and Parting Bead Company. (See Gifford, Harry E., assignor.)

Champlin, George E., Pawtucket, R. I. Detachable fluke anchor. No. 1,042,892; Oct. 29; Gas. vol. 183; p. 1221.

Chandler, Daniel L., Ayer, Mass. Holder for bristles of brushes. No. 1,042,843; Oct. 29; Gas. vol. 183; p. 1045.

Chandler, Edwin N., Brockton, assignor to Simplex Electric Heating Company, Boston, Mass. Shoe-branding machine. No. 1,042,519; Oct. 22; Gas. vol. 183; p. 992.

Chandler, Willard E., Branchville, S. C. Straight-air brake attachment for automatic systems. No. 1,042,083; Oct. 22; Gas. vol. 183; p. 918.

Channell, Charles A., Chicago, Ill. Mop. No. 1,041,023; Oct. 15; Gas. vol. 183; p. 522.

Chapman, Arthur W., Birmingham, England. Shock-absorber for road-vehicles. No. 1,042,320; Oct. 22; Gas. vol. 183; p. 992.

Chappell, Arthur M., Chicago, Ill. Surfacing-machine. No. 1,041,340; Oct. 15; Gas. vol. 183; p. 590.

Charbonneau, Arthur A. and L. A., Montreal, Quebec, Canada. Portable fire-extinguisher. No. 1,041,024; Oct. 15; Gas. vol. 183; p. 522.

Charbonneau, Léo A. (See Charbonneau, Arthur A. and L. A.)

Charles Bond Company. (See Grundy, John R., assignor.)

Charles, Clyde C., Huntington, Kans. Automatic spark-advancer. No. 1,040,884; Oct. 8; Gas. vol. 183; p. 441.

Charlesworth Wing Company, The. (See Davis, James A., assignor.)

Charrette, Frank B., South Bellingham, assignor to Bellingham Brass Manufacturing Company, Bellingham, Wash. Float-valve. No. 1,041,025; Oct. 15; Gas. vol. 183; p. 523.

Cheeseman, James E., South Orange, N. J., assignor to Empire Duplex Gin Company, New York, N. Y. Apparatus for treating lint. No. 1,042,894; Oct. 29; Gas. vol. 183; p. 1045.

Cheeseman, James E., South Orange, N. J., assignor to Empire Duplex Gin Company, New York, N. Y. Apparatus for treating lint. No. 1,042,895; Oct. 29; Gas. vol. 183; p. 1046.

Cheeseman, James E., South Orange, N. J., assignor to Empire Duplex Gin Company, New York, N. Y. Lint-flue. No. 1,042,896; Oct. 29; Gas. vol. 183; p. 1046.

Chemical Products Company. (See Mork, Harry S., assignor.)

Chemische Fabrik Coswig-Anhalt, G. m. b. H. (See Bornemann, Karl, assignor.)

Chemische Fabrik Griesheim-Elektron. (See Lasha, Zitscher, and Kunert, assignors.)

Chemische Fabrik Griesheim-Elektron. (See Lasha, Zitscher, and Rath, assignors.)

Chemische Fabrik Griesheim Elektron et al. (See Weber, Oskar H. and K., assignors.)

Chemische Fabrik Güstrow. (See Krause, Paul, assignor.)

Chemische Fabrik Westend. (See Hirschberg, Leon, assignor.)

Chesky, Stanley, Flinton, Pa. Ice-velocipede. No. 1,041,591; Oct. 15; Gas. vol. 183; p. 710.

Chicago Carton Company. (See Richardson, Ralph E., assignor.)

Chicago Lubricator Company, The. (See Edwards, Frank W., assignor.) (Reissue.)

Chicago Pneumatic Tool Company. (See Mackie and Doyle, assignors.)

Chicago Railway Equipment Company. (See Zieman, Henry, Jr., assignor.)

Childs, Wallace S., Protection, assignor of one-half to H. E. Richardson, Eden, N. Y. Milk-can or the like. No. 1,042,064; Oct. 22; Gas. vol. 183; p. 916.

Chipley, William G., Atlanta, Ga. Cross-tie. No. 1,040,145; Oct. 1; Gas. vol. 183; p. 159.

Chipley, William G., Atlanta, Ga. Cross-tie. No. 1,040,146; Oct. 1; Gas. vol. 183; p. 160.

Chipley, William G., New Orleans, La. Tire. No. 1,041,739; Oct. 22; Gas. vol. 183; p. 797.

Chrane, Theodore F., Gravette, Ark. Tire-tightener. No. 1,041,026; Oct. 15; Gas. vol. 183; p. 523.

Christenson, George, Nevada, Mo., assignor to H. W. Johns-Manville Company, Dic. No. 1,041,960; Oct. 22; Gas. vol. 183; p. 874.

Christiansson, Hans P., assignor of one-half to A. J. Hanford, Oakland, Cal. Alarm-bell. No. 1,040,974; Oct. 8; Gas. vol. 183; p. 472.

Christie, Edward J. C. (See Maxwell and Christie.)

Christine, John M., Braddock, Pa. Attachment for operating devices by reciprocating movements. No. 1,041,428; Oct. 15; Gas. vol. 183; p. 658.

Christopher, Calvin F., Asheville, N. C. Computing-scale. No. 1,042,321; Oct. 22; Gas. vol. 183; p. 993.

Christopher, Calvin F., assignor of one-half to W. M. Jones and one-half to N. Buckner, Asheville, N. C. Metallic clothes-line. No. 1,041,027; Oct. 15; Gas. vol. 183; p. 523.

Chubbuck, Aaron F., Grand Rapids, Mich. Internal-combustion engine. No. 1,042,322; Oct. 22; Gas. vol. 183; p. 993.

Church, Charles F., Brooklyn, N. Y. Holding device. No. 1,041,028; Oct. 15; Gas. vol. 183; p. 523.

Church, William G., Hartford, Conn. Tool-holder. No. 1,041,592; Oct. 15; Gas. vol. 183; p. 711.

Churchill, William, assignor to Corning Glass Works, Corning, N. Y. Lantern-globe. No. 1,041,740; Oct. 22; Gas. vol. 183; p. 798.

Churgay, Louis A., Buffalo, N. Y., assignor to Sears, Roebuck and Co., Chicago, Ill. School furniture. No. 1,042,897; Oct. 29; Gas. vol. 183; p. 1046.

Cieutat, Charles J., New Orleans, La. Stave-column. No. 1,041,741; Oct. 22; Gas. vol. 183; p. 798.

Cinalli, Domenick, Philadelphia, Pa. Combination chair and couch. No. 1,041,961; Oct. 22; Gas. vol. 183; p. 875.

Clapp, Harold W., Berkeley, and B. C. Edgar, San Francisco, Cal. Convertible-tread wheel. No. 1,039,898; Oct. 1; Gas. vol. 183; p. 77.

Clark, Alexander, Govan, and J. J. Ferguson, Glasgow, Scotland. Means for use in heating, pumping, and circulating water and other fluids. No. 1,041,429; Oct. 15; Gas. vol. 183; p. 659.

Clark, Burton B. and W. A., New Haven, Conn. Mail-bag catcher and deliverer. No. 1,041,962; Oct. 22; Gas. vol. 183; p. 875.

Clark, Edward H. (See Newman, William R., assignor.)

Clark, Elisha W., St. Petersburg, Fla. Door-check. No. 1,041,480; Oct. 15; Gas. vol. 183; p. 660.

Clark, Harold H., Pittsburgh, Pa. Centrifugal humidifier. No. 1,040,885; Oct. 8; Gas. vol. 183; p. 441.

Clark, Howard W., Davison, Mich. Clover-bruncher. No. 1,041,963; Oct. 22; Gas. vol. 183; p. 875.

Clark, John T., Provo, Utah. Railway-tie and fastener. No. 1,041,964; Oct. 22; Gas. vol. 183; p. 876.
Clark, Laurence A. (See Harris, Moses A., assignor.)
Clark, Walter A. (See Clark, Burton B. and W. A.)
Clark, Walter G., New York, N. Y. Insulator-clamp. No. 1,040,620; Oct. 8; Gas. vol. 183; p. 353.
Clark, Walter G., New York, N. Y. Suspension insulator-clamp. No. 1,040,976; Oct. 8; Gas. vol. 183; p. 473.
Clark, William M., Washington, D. C. Humidostat-regulator No. 1,042,893; Oct. 29; Gas. vol. 183; p. 1221.
Clark, Willis J., New Orleans, La. Record-file. No. 1,041,893; Oct. 15; Gas. vol. 183; p. 711.
Clarkson, Alfred. (See Clarkson, Alfred R., assignor.)
Clarkson, Alfred R., Birmingham, Ala., assignor to A. Clarkson, Fall River, Mass. Nozzle. No. 1,042,323; Oct. 22; Gas. vol. 183; p. 994.
Clarkson, Michael, Chicago, Ill. Fire-hydrant catch-basin. No. 1,040,621; Oct. 8; Gas. vol. 183; p. 353.
Claude, Georges, assignor to L'Air Liquide, Société Anonyme pour l'Etude et l'Exploitation des Procédés Georges Claude, Paris, France. Recovery of volatile liquids. No. 1,040,886; Oct. 8; Gas. vol. 183; p. 442.
Claudin, John L., assignor, by mesne assignments, to Interlocking Fence Company, Morton, Ill. Wire-fence machine. No. 1,041,742; Oct. 22; Gas. vol. 183; p. 798.
Claudon, August E., Denver, Colo. Circuit-make-and-break device. No. 1,041,594; Oct. 15; Gas. vol. 183; p. 711.
Clausen, Henry P., Chicago, Ill., assignor, by mesne assignments, to American Electric Company. Party-line telephone system. No. 1,041,965; Oct. 22; Gas. vol. 183; p. 876.
Clawson, Leonard E., San Francisco, Cal. Chimney. No. 1,042,085; Oct. 22; Gas. vol. 183; p. 916.
Clay, William J., Cotton Valley, La. Reel-operated hydrant. No. 1,041,743; Oct. 22; Gas. vol. 183; p. 798.
Clemens, Charles M., Jr., Eyota, Minn. Onion-topper. No. 1,041,595; Oct. 15; Gas. vol. 183; p. 711.
Clements, Walter E. Erdington, England. Flexible or spring grip-developer. No. 1,041,431; Oct. 15; Gas. vol. 183; p. 659.
Clements, William H., Nutley, N. J. Display-contsiner. No. 1,042,086; Oct. 22; Gas. vol. 183; p. 917.
Cleveland, Charles E., Fond du Lac, Wis. Sawmill. No. 1,040,622; Oct. 8; Gas. vol. 183; p. 353.
Cleveland, Grover E., assignor to Capitol Auto Lock Company, Detroit, Mich. Safety-lock. No. 1,040,509; Oct. 8; Gas. vol. 183; p. 312.
Cleveland Railway Supply Company, The. (See Newhall, Walter S., assignor.)
Cleveland Welding & Mfg. Co., The. (See Heinsohn, Edwards, and Klaus, assignors.)
Cliff, Chester W., and H. T. Maze, Anderson, Ind. Steam-generator. No. 1,040,510; Oct. 8; Gas. vol. 183; p. 315.
Clifford, John, assignor to L. Wolff Manufacturing Company, Chicago, Ill. Waste or soil pipe connection for water-closets. No. 1,042,087; Oct. 22; Gas. vol. 183; p. 917.
Climie, William, Bo'ness, Scotland. Gas-producer. No. 1,040,148; Oct. 1; Gas. vol. 183; p. 160.
Cline, Albert R., assignor of one-half to W. C. Swartley, Philadelphia, Pa. Railway-rail. No. 1,042,201; Oct. 22; Gas. vol. 183; p. 954.
Clisby, Roy E., Wellington, Ohio. Electrically-heated sad-iron. No. 1,041,241; Oct. 15; Gas. vol. 183; p. 596.
Coates, Emma F., Chattanooga, Tenn. Holder for ticket or check books. No. 1,042,324; Oct. 22; Gas. vol. 183; p. 994.
Coats, Henry B., Veedersburg, Ind. Automobile-wheel. No. 1,040,511; Oct. 8; Gas. vol. 183; p. 315.
Coats, Henry B., Veedersburg, Ind. Spring-wheel. No. 1,040,512; Oct. 8; Gas. vol. 183; p. 313.
Cobb, Henry Z., Chelsea, Mass. Machine for coating bose. No. 1,039,607; Oct. 1; Gas. vol. 183; p. 8.
Cochran-Bly Company. (See Dow, Roy B., assignor.)
Coda, Christopher F., assignor to The Art Stove Company, Detroit, Mich. Expansion-joint for integrally-cast structures. No. 1,040,623; Oct. 8; Gas. vol. 183; p. 354.
Coe, Sara L. W., and H. T. Werden, New York, N. Y. Vending-machine. No. 1,042,768; Oct. 29; Gas. vol. 183; p. 1179.
Coffield Motor Washer Co., The. (See Coffield, Peter T., assignor.)
Coffield, Peter T., assignor to The Coffield Motor Washer Co., Dayton, Ohio. Water-motor. No. 1,041,242; Oct. 15; Gas. vol. 183; p. 596.
Coffman, Jacob H., Philadelphia, Pa. Door stop and holder. No. 1,040,887; Oct. 8; Gas. vol. 183; p. 442.
Coggin, Frank F., Matawan, N. J., assignor to The Economy Car Heating Company, New York, N. Y. Apparatus for diverting exhaust-steam. No. 1,042,398; Oct. 29; Gas. vol. 183; p. 1047.
Cohen, Jacob N., Providence, R. I. Ventilator. No. 1,042,399; Oct. 29; Gas. vol. 183; p. 1047.
Cohen, Simon, Hartford, Conn. Ash-sifter. No. 1,041,243; Oct. 15; Gas. vol. 183; p. 596.
Colbath, William H., Natick, Mass. Edge-protector for the soles of boots and shoes. No. 1,041,029; Oct. 15; Gas. vol. 183; p. 524.
Cole, Edward S., New York, N. Y. Mechanism for use in connection with flowing streams. No. 1,041,432; Oct. 15; Gas. vol. 183; p. 660.
Cole, Ernest E., Chicago, Ill. Envelop. No. 1,039,899; Oct. 1; Gas. vol. 183; p. 77.
Cole, Frederick W., Newton, Mass., assignor to Gamewell Fire-Alarm Telegraph Company, New York, N. Y. Electric signaling device. No. 1,040,149; Oct. 1; Gas. vol. 183; p. 160.
Cole, John C., assignor to Fisk Rubber Company, Chicopee Falls, Mass. Demountable rim. No. 1,040,276; Oct. 8; Gas. vol. 183; p. 232.
Cole, Robert C., West Hartford, assignor to The Johns-Pratt Company, Hartford, Conn. Indicator for inclosed fuses. No. 1,040,150; Oct. 1; Gas. vol. 183; p. 161.
Cole, Robert C., assignor to The Johns-Pratt Company, Hartford, Conn. Open-link-fuse carrier. No. 1,040,151; Oct. 1; Gas. vol. 183; p. 161.
Cole, Stanton W., London, England. Wort-regulator for mash-tuns. No. 1,041,433; Oct. 15; Gas. vol. 183; p. 660.
Coleman, Allan J., Pittsburgh, Pa. Force and suction pump. No. 1,040,276; Oct. 8; Gas. vol. 183; p. 232.
Coll, Frank B., Tornado, W. Va. Folding umbrella. No. 1,042,088; Oct. 22; Gas. vol. 183; p. 917.
Collar, Adeairam J., Trefa, Cal. Faucet. No. 1,040,624; Oct. 8; Gas. vol. 183; p. 354.
Collier, Guy B., Kinderhook, N. Y. Internal-combustion motor. No. 1,040,277; Oct. 8; Gas. vol. 183; p. 232.
Collins, John A., Verona, Pa., assignor to Pittsburg Screw & Bolt Company, Bolt-trimming machine. No. 1,042,090; Oct. 22; Gas. vol. 183; p. 918.
Collins, John W., Brooklyn, N. Y. Pasting device. No. 1,042,325; Oct. 22; Gas. vol. 183; p. 995.
Collins, Kittie. (See Kohler, Joseph, assignor.)
Collins, Roy A., Gerster, Mo. Automatic baling-machine. No. 1,040,278; Oct. 8; Gas. vol. 183; p. 233.
Collins, Thomas, and L. H. Hartmann, assignors to American Separator Company, Bainbridge, N. Y. Gearing. No. 1,042,769; Oct. 29; Gas. vol. 183; p. 1179.
Collis, Henry J., Taunton, Mass. Fob-strap. No. 1,039,900; Oct. 1; Gas. vol. 183; p. 77.
Collis, Henry J., Taunton, Mass. Ankle support and protector. No. 1,040,279; Oct. 8; Gas. vol. 183; p. 233.
Colonial Fast Color Tipping Company. (See Gallison, Ernest A., assignor.)
Colonial Trust Company, The, trustee. (See Crist and Wells, assignors.)
Colson, Henry H., Everett, Mass. Grease-gun. No. 1,040,513; Oct. 8; Gas. vol. 183; p. 314.
Columbia Motor Car Company, The. (See Fiske, Henry G., assignor.)
Columbia Nut and Bolt Company. (See Meredith-Jones, Hubert, assignor.)
Comfort, Edward W., Chicago, Ill. Thermostatic regulating device. No. 1,040,625; Oct. 8; Gas. vol. 183; p. 355.
Commercial Savings Bank & Trust Company, The, trustee. (See Stimpson, Walter F., assignor.)
Company "Gebr. Koerting Aktiengesellschaft." (See Dietrich and Milliea, assignors.)
Comrie, Alonzo B., Penn Yan, N. Y. Spreader. No. 1,040,888; Oct. 8; Gas. vol. 183; p. 442.
Concannon, Charles M., Richmond, Cal. Cigar-box. No. 1,040,152; Oct. 1; Gas. vol. 183; p. 162.
Concealed Door Check Company. (See Nordqvist, Per E., assignor.)
Condit, S. B., Jr. (See Burnham, George A., assignor.)
Confectioners and Bakers Supply Co. (See Dickson, George F., assignor.)
Conlan, David, Jr. (See Jensen, Conlan, and Dyer.)
Conlan, Elisabeth. (See Jensen, Conlan, and Dyer, assignors.)
Connor, James H., Nashville, Tenn. Manufacturing available phosphoric acid. No. 1,042,400; Oct. 29; Gas. vol. 183; p. 1048.
Connor, James H., Nashville, Tenn. Manufacturing available phosphoric acid. No. 1,042,401; Oct. 29; Gas. vol. 183; p. 1048.
Connor, James H., Nashville, Tenn. Manufacturing available phosphoric acid. No. 1,042,402; Oct. 29; Gas. vol. 183; p. 1048.
Conrad, William H., Williamstown, Ky. Hasp-lock. No. 1,040,889; Oct. 8; Gas. vol. 183; p. 443.
Conrader, Rudolph, Erie, Pa. Pump. No. 1,041,596; Oct. 15; Gas. vol. 183; p. 712.
Consolidated Rubber Tire Company. (See Miller, Stephen S., assignor.)
Constantinescu, Vasile, Nelson, British Columbia, Canada. Combined calipers and protractor. No. 1,039,901; Oct. 1; Gas. vol. 183; p. 78.
Conti, Anthony S., Chicago, Ill. Pneumatic track-sander. No. 1,041,744; Oct. 22; Gas. vol. 183; p. 799.
Converse, Atherton D., Winchendon, Mass. Collapsible shoo-fly rocker. No. 1,039,698; Oct. 1; Gas. vol. 183; p. 8.
Converse, Atherton D., Winchendon, Mass. Rocking-horse. No. 1,039,699; Oct. 1; Gas. vol. 183; p. 9.
Conway, David B., Fort Dodge, Iowa. Egg-tester. No. 1,040,626; Oct. 8; Gas. vol. 183; p. 355.
Cook, Albert E., Odebolt, Iowa. Motor-plow. No. 1,040,890; Oct. 8; Gas. vol. 183; p. 443.
Cook, Hugh B., Brunswick, Ga. Name-holder. No. 1,039,902; Oct. 1; Gas. vol. 183; p. 78.
Cook Railway Signal Company, The. (See Cook, William J., assignor.)



Cook, William J., assignor to The Cook Railway Signal Company, Denver, Colo. Circuit-make-and-break device for railway signaling systems. No. 1,041,966; Oct. 22; Gas. vol. 183; p. 877.
Cooke, Joseph B., et al. (See Lake, Franklin W., assignor.)
Cookingham, Herman V., Rensselaer, and G. O. Price, Albany, N. Y. Sliding-door lock. No. 1,042,326; Oct. 22; Gas. vol. 183; p. 995.
Cooley, Fred W., Minneapolis, Minn. Suspender-fastener. No. 1,041,424; Oct. 15; Gas. vol. 183; p. 660.
Cooley, John F. (See Ball, Walter, assignor.)
Cooley, William H., Brockport, N. Y. Loose-leaf binder and leaf therefor. No. 1,040,514; Oct. 8; Gas. vol. 183; p. 314.
Cooling, Arthur E., Sterling, Ill. Gearing for washing-machines. No. 1,040,627; Oct. 8; Gas. vol. 183; p. 355.
Coon, Eugene C. and T. R., Portland, Oreg. Tree-support. No. 1,040,891; Oct. 8; Gas. vol. 183; p. 443.
Coon, Lyman A. (See Babcock, Irwin H., assignor.)
Coon, Thomas R. (See Coon, Eugene C., and T. R.)
Cooper, William C., Springfield, Ill. Brake for vehicles. No. 1,040,515; Oct. 8; Gas. vol. 183; p. 315.
Cogueugniot, Gustave H., Los Angeles, assignor to M. L. Rice, San Francisco, Cal. Copying apparatus. No. 1,040,976; Oct. 8; Gas. vol. 183; p. 473.
Corbin, Paul R. C., assignor to Société Universelle d'Explosifs (Anciennement: Bergès, Corbin & Cie.), Paris, France. Manufacture of explosives. No. 1,041,745; Oct. 22; Gas. vol. 183; p. 799.
Corey, Daniel W., assignor to Union Special Sewing Machine Co., Chicago, Ill. Device for controlling the upper threads of sewing-machines. No. 1,041,597; Oct. 15; Gas. vol. 183; p. 712.
Cori, Robert M., assignor to The Mechanical Process Manufacturing Company, Toledo, Ohio. Glassware-forming mechanism. No. 1,040,280; Oct. 8; Gas. vol. 183; p. 234.
Cormack, George, assignor to Independent Harvester Company, Piano, Ill. Muffler. No. 1,040,628; Oct. 8; Gas. vol. 183; p. 356.
Cornelius, Louis A., Grand Rapids, Mich. Float-valve for tanks. No. 1,041,746; Oct. 22; Gas. vol. 183; p. 800.
Cornell, Charles G., Jr. (See Grimm, Paul H., assignor.)
Cornell, Evan W., Adrian, Mich. Sad-iron. No. 1,040,281; Oct. 8; Gas. vol. 183; p. 234.
Cornfield, Saul. (See McClintock, Charles D., assignor.)
Corning Glass Works. (See Churchill, William, assignor.)
Corporation of Dellwik-Fleischer Wassergas Gesellschaft m. b. H., The. (See Dolezalek, Eugen, assignor.)
Corrington, Aldon R. (See Frambach and Corrington.)
Corrugated Bar Company. (See Burk, William H., assignor.)
Corwin, Elmer R., assignor to Corwin Telephone Manufacturing Company, Chicago, Ill. Telephone system. No. 1,040,629; Oct. 8; Gas. vol. 183; p. 356.
Corwin, Elmer R., assignor to Corwin Telephone Manufacturing Company, Chicago, Ill. Telephone system. No. 1,040,630; Oct. 8; Gas. vol. 183; p. 357.
Corwin, Elmer R., assignor to Corwin Telephone Manufacturing Company, Chicago, Ill. Busy-test for telephone systems. No. 1,040,631; Oct. 8; Gas. vol. 183; p. 358.
Corwin, Elmer R., assignor to Corwin Telephone Manufacturing Company, Chicago, Ill. Telephone system. No. 1,040,632; Oct. 8; Gas. vol. 183; p. 358.
Corwin, Elmer R., assignor to Corwin Telephone Manufacturing Company, Chicago, Ill. Telephone system. No. 1,040,633; Oct. 8; Gas. vol. 183; p. 359.
Corwin, Elmer R., assignor to Corwin Telephone Manufacturing Company, Chicago, Ill. Telephone-exchange system. No. 1,040,634; Oct. 8; Gas. vol. 183; p. 360.
Corwin Telephone Manufacturing Company. (See Bals, Charles A., assignor.)
Corwin Telephone Manufacturing Company. (See Corwin, Elmer R., assignor.)
Corwin Telephone Manufacturing Company. (See Royal, Roscoe, assignor.)
Cosmovici, Georges C., Bucharest, Roumania. Axle-box for railway-cars. No. 1,040,633; Oct. 8; Gas. vol. 183; p. 362.
Costanzo, Joseph J., Alexandria, Egypt. Life-saving garment for aviators. No. 1,042,327; Oct. 22; Gas. vol. 183; p. 996.
Costello, John F., San Francisco, Cal. Mop-holder. No. 1,042,202; Oct. 22; Gas. vol. 183; p. 954.
Cottrell, George R., Anglesea, N. J. Gas and air mixing motor. No. 1,042,403; Oct. 29; Gas. vol. 183; p. 1049.
Coutant, Jay G., Watervliet, N. Y. Pliers for clamping clips. No. 1,042,404; Oct. 29; Gas. vol. 183; p. 1049.
Covell, Harry M., assignor to Ludgerwood Manufacturing Company, New York, N. Y. Rope-winding engine. No. 1,042,090; Oct. 22; Gas. vol. 183; p. 918.
Cowdrey, Charles F., et al. (See Farnum, William C., assignor.)
Cowdrey, Henry R., et al. (See Farnum, William C., assignor.)
Cowles, Alfred H., Sewaren, N. J. Clay-sieving machine. No. 1,040,639; Oct. 8; Gas. vol. 183; p. 362.
Cowles, Alfred H., Sewaren, N. J., assignor to The Electric Smelting & Aluminum Company. Protecting tunnel-furnaces from injurious gases. No. 1,040,892; Oct. 8; Gas. vol. 183; p. 444.
Cowles, Alfred H., Sewaren, N. J., assignor to The Electric Smelting & Aluminum Co. Charge mixture for forming alkali-silico-aluminate and hydrochloric acid. No. 1,040,893; Oct. 8; Gas. vol. 183; p. 444.
Cowles, Alfred H., assignor to The Electric Smelting and Aluminum Company, Sewaren, N. J. Forming a charge mixture for producing hydrochloric acid and alkali-silico-aluminate. No. 1,040,894; Oct. 8; Gas. vol. 183; p. 444.
Cowles, Alfred H., assignor to The Electric Smelting & Aluminum Company, Sewaren, N. J. Channel-furnace. No. 1,040,895; Oct. 8; Gas. vol. 183; p. 444.
Cowles, Alfred H., assignor to The Electric Smelting and Aluminum Company, Sewaren, N. J. Producing hydrochloric acid and alkali-silico-aluminates. No. 1,040,977; Oct. 8; Gas. vol. 183; p. 474.
Cowles, Alfred H., assignor to The Electric Smelting and Aluminum Company, Sewaren, N. J. Tunnel-furnace. No. 1,040,978; Oct. 8; Gas. vol. 183; p. 474.
Cowles, Alfred H., assignor to The Electric Smelting and Aluminum Company, Lockport, N. Y. Manufacturing sodic-silico aluminate and hydrochloric acid. No. 1,041,598; Oct. 15; Gas. vol. 183; p. 713.
Cowles, Alfred H., Sewaren, N. J., and A. Kayser, deceased, (G. Kayser, administratrix,) assignors to Electric Smelting and Aluminum Company, Lockport, N. Y. Manufacturing sodic-silico aluminate and hydrochloric acid. No. 1,041,599; Oct. 15; Gas. vol. 183; p. 713.
Cox, Bishop A., Fayetteville, Ark. Foot-gear. No. 1,040,896; Oct. 8; Gas. vol. 183; p. 445.
Cox, Bradford, Plainview, Tex. Traction-engine. No. 1,042,405; Oct. 29; Gas. vol. 183; p. 1049.
Cox, Edith L., London, Ontario, Canada. Music-leaf turner. No. 1,041,600; Oct. 15; Gas. vol. 183; p. 713.
Cox, James W., Wilmette, assignor to Pacific Flush Tank Company, Chicago, Ill. Alternating siphon. No. 1,040,640; Oct. 8; Gas. vol. 183; p. 363.
Coyle, James, Tremont, Pa. Nut-lock. No. 1,040,516; Oct. 8; Gas. vol. 183; p. 315.
Coyle, Mark F., Corry, Pa. Vacuum-creating apparatus. No. 1,040,641; Oct. 8; Gas. vol. 183; p. 363.
Cossena, Davenport, et al. (See Archambeau, Charles L., assignor.)
Craft, Edward B., and A. F. Dixon, assignors to Western Electric Company, Chicago, Ill. Coin-collector. No. 1,041,030; Oct. 15; Gas. vol. 183; p. 524.
Craig, Charley J., Lathrop, Mo. Resilient wheel. No. 1,041,244; Oct. 15; Gas. vol. 183; p. 597.
Craig, Harry L., Wilmington, Del. Piling-box. No. 1,041,031; Oct. 15; Gas. vol. 183; p. 525.
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Craig, William P., et al. (See Roy, Henry F., assignor.)
Crandall, Cornelia A. (See De Grof and Crandall.)
Crane, Raymond E., Cameron, W. Va. Sanitary fixture. No. 1,039,903; Oct. 1; Gas. vol. 183; p. 79.
Crary, Alexander P., New York, N. Y. Mold-form for concrete-wall construction. No. 1,042,648; Oct. 29; Gas. vol. 183; p. 1136.
Crary, Calvin D., Minneapolis, Minn. Metal-drawing forge. No. 1,040,282; Oct. 8; Gas. vol. 183; p. 235.
Crawford, Clay, assignor to O. S. Brigham, Toledo, Ohio. Casting molten metal in molds. No. 1,040,517; Oct. 8; Gas. vol. 183; p. 315.
Crawford, George C., Bartlesville, Okla. Glass-blowing machine. No. 1,039,700; Oct. 1; Gas. vol. 183; p. 8.
Crenshaw, Walter W., Rockhill, S. C. Automatic stop-motion to attach to a cotton-card. No. 1,041,032; Oct. 15; Gas. vol. 183; p. 525.
Crevaling, John L., New York, N. Y., assignor to Safety Car Heating and Lighting Company. Electric regulation. No. 1,042,770; Oct. 29; Gas. vol. 183; p. 1180.
Crider, Orin W. (See Roe, Jackson M., assignor.)
Crist, George W., Oskaloosa, Iowa. Ice-cream container. No. 1,041,033; Oct. 15; Gas. vol. 183; p. 525.
Crist, Mark B., Pittsburgh, and M. R. Wells, Wilkinsburg, assignors, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa. Ignition apparatus for internal-combustion engines. No. 1,040,518; Oct. 8; Gas. vol. 183; p. 315.
Crompton & Knowles Loom Works. (See Morell, Alfred F., assignor.)
Crompton & Knowles Loom Works. (See Ryon, Eppa H., assignor.)
Cronk, William, Montour Falls, N. Y. Wrench. No. 1,041,967; Oct. 22; Gas. vol. 183; p. 877.
Crook, Thomas J., Wichita, Kans. Hydrocarbon-oil burner. No. 1,042,328; Oct. 22; Gas. vol. 183; p. 996.
Crooker, Edwin E., Los Angeles, Cal. Clothes-pounder. No. 1,039,701; Oct. 1; Gas. vol. 183; p. 9.
Crosby, Lester D., Hartford, Conn. Tire-making machine. No. 1,042,649; Oct. 29; Gas. vol. 183; p. 1137.
Crosier, John H., Philadelphia, Pa. Emergency means for electrical distribution systems. No. 1,042,091; Oct. 29; Gas. vol. 183; p. 1258.
Cross, Anson K., Winthrop, Mass. Drawing-tablet. No. 1,041,435; Oct. 15; Gas. vol. 183; p. 661.
Cross, Frank L., Detroit, Mich. Valve. No. 1,039,904; Oct. 1; Gas. vol. 183; p. 79.
Cross, Frank L., Wollaston, Mass., assignor to Cross Paper Feeder Company. Sheet-feeding machine. No. 1,041,747; Oct. 22; Gas. vol. 183; p. 800.
Cross Paper Feeder Company. (See Cross, Frank L., assignor.)
Crossley, James S., Solvay, and V. R. Despard, Syracuse, assignors to Pass & Seymour, Inc., Solvay, N. Y. Sign-receptacle. No. 1,042,466; Oct. 29; Gas. vol. 183; p. 1063.
Crothers, Noble B., Chicago, Ill. Internal-combustion engine. No. 1,040,188; Oct. 1; Gas. vol. 183; p. 163.
Crouch, McIlvy S. (See Crouch, William V. and M. S.)

Crouch, William V. and M. S., assignors of one-third to H. G. Martin, Arlington, Tex. Cultivator attachment. No. 1,043,044; Oct. 29; Gas. vol. 183; p. 1274.

Crouse, John L., Pittsburgh, and H. E. Hagenbuch, Edgewood Park, Pa., assignors to Westinghouse Electric and Manufacturing Company. Treating piston-packing. No. 1,039,702; Oct. 1; Gas. vol. 183; p. 10.

Crull, Abner D., and L. Spangler, assignors to L. Spangler and R. Miller, Indianapolis, Ind. Lily-preserver. No. 1,042,894; Oct. 29; Gas. vol. 183; p. 1222.

Crum, Emanuel L., Decatur, Ill. Gasoline-filter. No. 1,040,283; Oct. 8; Gas. vol. 183; p. 285.

Cruver Manufacturing Company. (See Kristofek, Frank J., assignor.)

Cryer, Honor F., De Ridder, La. Cuspidor. No. 1,040,154; Oct. 1; Gas. vol. 183; p. 162.

Csontos, Joseph, Galveston, Tex. Fan attachment for rocking-chairs. No. 1,040,155; Oct. 1; Gas. vol. 183; p. 162.

Culotta, Frank, Ingram, Pa. Bottle-stopper. No. 1,042,091; Oct. 22; Gas. vol. 183; p. 918.

Culver, Frederick S., Taunton, Mass. Spinning-machine. No. 1,039,905; Oct. 1; Gas. vol. 183; p. 79.

Culver, Frederick S., Taunton, Mass. Spooling or winding machine. No. 1,039,906; Oct. 1; Gas. vol. 183; p. 79.

Cummings, Robert A., Beaver, Pa. Reinforced-concrete pile, column, or pole. No. 1,041,084; Oct. 15; Gas. vol. 183; p. 525.

Cummings, Robert A., Beaver, Pa. Corrugated concrete pile. No. 1,041,085; Oct. 15; Gas. vol. 183; p. 526.

Cummins, Patrick H., Amsterdam, N. Y. Side framing for sleighs. No. 1,040,897; Oct. 8; Gas. vol. 183; p. 445.

Cunningham, George F., Knoxville borough, Pa. Mechanic's tool. No. 1,040,284; Oct. 8; Gas. vol. 183; p. 286.

Cunningham, Luther, Morgan Hill, Cal. Clod-pulverizer. No. 1,041,086; Oct. 15; Gas. vol. 183; p. 526.

Cunningham, Patrick E., and R. Reid, Chidlows Well, Western Australia, assignors of one-half to V. M. Fitz Hugh, Kerkinin, Australia. Spark-arrester. No. 1,041,436; Oct. 15; Gas. vol. 183; p. 661.

Cunningham, William, New York, N. Y. Window-sash lock. No. 1,040,156; Oct. 1; Gas. vol. 183; p. 163.

Curtin, Peter A., Buffalo, N. Y. Oil-drip. No. 1,040,898; Oct. 8; Gas. vol. 183; p. 445.

Curtis, James F., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Gear-case for dynamo-electric machines. No. 1,039,703; Oct. 1; Gas. vol. 183; p. 10.

Curtis, Oliver W., assignor of one-third to L. Carpenter, Jr., and one-third to H. W. Bell, Watertown, N. Y. Internal-combustion engine. No. 1,039,704; Oct. 1; Gas. vol. 183; p. 10.

Curtis, Walter L., Worcester, Mass., assignor to De Long Hook and Eye Company, Philadelphia, Pa. Hook-feeding mechanism. No. 1,042,407; Oct. 29; Gas. vol. 183; p. 1050.

Custer, Edgar A., assignor to The Custer Sandless Casting Company, Philadelphia, Pa. Casting steel. No. 1,042,092; Oct. 22; Gas. vol. 183; p. 919.

Custer Sandless Casting Company, The. (See Custer, Edgar A., assignor.)

Cutler-Hammer Manufacturing Company, The. (See Henderson, Clark T., assignor.)

Cutler-Hammer Mfg. Co., The. (See Tatum, Lewis L., assignor.)

Cutter Electrical and Manufacturing Company, The. (See Wyatt and Campion, assignors.)

Cyphers Incubator Company. (See Adair, Charles E., assignor.)

Daft, Leo, Rutherford, N. J., assignor to Electro-Chemical Rubber & Manufacturing Company. Electroplating. No. 1,042,533; Oct. 29; Gas. vol. 183; p. 1096.

Daggett, William R., assignor of one-half to E. B. Stewart, Seattle, Wash. Trolley-guard. No. 1,041,437; Oct. 15; Gas. vol. 183; p. 661.

Dahl, Knut M., assignor to Union Iron Works Co., San Francisco, Cal. Fuel-oil strainer. No. 1,042,203; Oct. 22; Gas. vol. 183; p. 954.

Dahlquist, Ernest N. O., Chicago, Ill. Bending-tool. No. 1,041,537; Oct. 15; Gas. vol. 183; p. 536.

Dahman, Richard, Chicago, Ill. Self-cleaning nozzle. No. 1,040,809; Oct. 8; Gas. vol. 183; p. 446.

Dailey, Jesse V., assignor to The Michigan Stove Company, Detroit, Mich. Warm-air furnace. No. 1,042,660; Oct. 29; Gas. vol. 183; p. 1137.

Dainty, Joseph A. (See Gehrig, William F., assignor.)

Dalén, Gustaf, assignor to Aktiebolaget Gasaccumulator, Stockholm, Sweden. Device for lighting and extinguishing gas-flames from a distant point. No. 1,041,068; Oct. 15; Gas. vol. 183; p. 527.

Dalén, Gustaf, Stockholm, Sweden, assignor to American Gasaccumulator Company, Philadelphia, Pa. Automatic valve. No. 1,041,748; Oct. 22; Gas. vol. 183; p. 900.

Dalén, Gustaf, and R. A. Ekblom, Stockholm, Sweden, assignors, by mesne assignments, to American Gasaccumulator Company. Lantern. No. 1,041,428; Oct. 15; Gas. vol. 183; p. 662.

Dalton, John T., and J. C. Danaher, Baltimore, Md. Knotter. No. 1,041,089; Oct. 15; Gas. vol. 183; p. 527.

Dalton, Van Broadus, Cincinnati, Ohio. Dental pivot-crown remover. No. 1,041,601; Oct. 15; Gas. vol. 183; p. 714.

Dalton, William, Schenectady, N. Y. Wheel for vehicles. No. 1,040,157; Oct. 1; Gas. vol. 183; p. 163.

Dalton, William A., Patten, Me. Fertilizer-distributing attachment. No. 1,040,642; Oct. 8; Gas. vol. 183; p. 363.

Daly, William O., Mobile, Ala. Turpentine-apron. No. 1,040,909; Oct. 8; Gas. vol. 183; p. 446.

Damon, Frederick H., et al. (See Carmechan, John W., assignor.)

Danaher, John C. (See Dalton and Danaher.)

Dangel, John, Chicago, and B. R. Benjamin, Oak Park, Ill., assignors to International Harvester Company. Butt-adjuster for grain-binders. No. 1,041,965; Oct. 22; Gas. vol. 183; p. 879.

Daniels, Vincent J., New York, N. Y. Door or window lock. No. 1,042,229; Oct. 22; Gas. vol. 183; p. 966.

Daniels, William S., et al. (See Richards, John J., Jr., assignor.)

Danley, Samuel T. (See Sampson and Danley.)

Danner, Frank, St. Louis, Mo. Lock. No. 1,041,749; Oct. 22; Gas. vol. 183; p. 901.

Darker, Alfred H., Blackheath, England. Secondary battery. No. 1,039,907; Oct. 1; Gas. vol. 183; p. 80.

Darley, John W., Jr., Baltimore, Md., assignor to H. A. Hogel, New York, N. Y. Well-pumping apparatus. No. 1,042,204; Oct. 22; Gas. vol. 183; p. 965.

Darley, John W., Jr., Baltimore, Md., assignor to H. A. Hogel, New York, N. Y. Well-pumping apparatus. No. 1,042,230; Oct. 22; Gas. vol. 183; p. 964.

Darling, James D., Philadelphia, Pa. Manufacture of chewing-gum. No. 1,040,285; Oct. 8; Gas. vol. 183; p. 286.

Darlington, Philip J., Pittsburgh, Pa. Rotary motor. No. 1,041,040; Oct. 15; Gas. vol. 183; p. 523.

Darnley, Richard E., Huddersfield, England. Apparatus for inflating rotating tires. No. 1,040,643; Oct. 8; Gas. vol. 183; p. 364.

Davenport Machine & Foundry Co. (See Anderson, John T., assignor.)

Davenport, Walton C., Norwich, Conn. Breakdown gun. No. 1,040,644; Oct. 8; Gas. vol. 183; p. 364.

Davey, Henry, Conaways, Ewell, England. Sluice and flood-gate. No. 1,040,158; Oct. 1; Gas. vol. 183; p. 163.

Davey, Henry, Conaways, Ewell, England. Weir and flood-gate. No. 1,040,159; Oct. 1; Gas. vol. 183; p. 164.

Davidson, Virgil H. (See Lile and Davidson.)

Davis, Albert R., Oneida, N. Y. Rail-brace. No. 1,041,968; Oct. 22; Gas. vol. 183; p. 878.

Davis, Alice U., El Paso, Tex. Paper-guide. No. 1,040,901; Oct. 8; Gas. vol. 183; p. 446.

Davis, Archibald C., Omaha, Nebr., assignor to Carr Manufacturing Company, Kansas City, Mo. Dispensing-can. No. 1,040,519; Oct. 8; Gas. vol. 183; p. 316.

Davis, Charles C., Philadelphia, Pa. Flanging-machine. No. 1,040,160; Oct. 1; Gas. vol. 183; p. 164.

Davis, Charles H., Petersburg, Va. Coupon certificate of deposit. No. 1,041,041; Oct. 15; Gas. vol. 183; p. 523.

Davis, George H., assignor of one-third to H. W. Varner, Searcy, Ark. Railway cattle-guard. No. 1,041,970; Oct. 22; Gas. vol. 183; p. 878.

Davis, George S., assignor to Parker Wire Goods Company, Worcester, Mass. Nozzle-holder. No. 1,040,645; Oct. 8; Gas. vol. 183; p. 365.

Davis, James A., assignor, by mesne assignments, to The Charles Wing Company, Amesbury, Mass. Upholstery-spring-attaching device. No. 1,039,908; Oct. 1; Gas. vol. 183; p. 80.

Davis, John H., Oakland, and J. W. Morgan, Elmhurst, Cal. Disk plow. No. 1,042,651; Oct. 29; Gas. vol. 183; p. 1135.

Davis, Joseph B. (See Smith, Thomas R., assignor.)

Davis, Lewis K., New York, N. Y. Building construction. No. 1,041,245; Oct. 15; Gas. vol. 183; p. 597.

Davis, Luckey C., Tryptitra, Miss. Safety whip-holder. No. 1,040,646; Oct. 8; Gas. vol. 183; p. 365.

Davis, Oscar, Stewart, Ohio. Automatic brake. No. 1,040,520; Oct. 8; Gas. vol. 183; p. 316.

Davis Sewing Machine Company, The. (See Green, Lyman D., assignor.)

Davis, Thomas H., et al. (See Adams, William C., assignor.)

Davis, W. L., et al. (See Tatum, Franklin M., assignor.)

Davis, William E. (See Burton, Elisha L., assignor.)

Davis, William R., and R. U. Wright, Deport, Tex. Oil-burner. No. 1,041,246; Oct. 15; Gas. vol. 183; p. 606.

Daveck, Clarence W., assignor to Detroit Steel Products Company, Detroit, Mich. Metallic window-frame. No. 1,040,285; Oct. 8; Gas. vol. 183; p. 286.

Dawley, Clarence A., Plainfield, N. J. Governing valve-gear for fluid-pressure motors. No. 1,042,554; Oct. 29; Gas. vol. 183; p. 1096.

Dawson, Arthur T., and G. T. Buckham, Westminster, London, England, assignors, by mesne assignments, to Vickers, Limited. Sighting apparatus for ordnance. No. 1,040,161; Oct. 1; Gas. vol. 183; p. 164.

Dawson, Arthur T., and G. T. Buckham, Westminster, London, England, assignors, by mesne assignments, to Vickers, Limited. Sighting apparatus for ordnance. No. 1,040,162; Oct. 1; Gas. vol. 183; p. 165.

Dawson, Arthur T., Westminster, London, and J. Horne, Barrow-in-Furness, assignors to Vickers Limited, Westminster, England. Elevating mechanism of heavy ordnance. No. 1,041,247; Oct. 15; Gas. vol. 183; p. 606.

Dawson, Arthur T., Westminster, London, and J. Horne, Barrow-in-Furness, assignors to Vickers Limited, Westminster, England. Heavy ordnance. No. 1,041,248; Oct. 15; Gas. vol. 183; p. 596.

Dawson, Arthur T., Westminster, London, and J. Horne, Barrow-in-Furness, assignors to Vickers Limited, Westminster, England. Heavy ordnance. No. 1,041,249; Oct. 15; Gas. vol. 183; p. 596.

Dawson, Arthur T., Westminster, London, and J. Horne, Barrow-in-Furness, assignors to Vickers Limited, Westminster, England. Heavy ordnance. No. 1,041,250; Oct. 15; Gas. vol. 183; p. 596.

Dawson, Arthur T., Westminster, and J. Horne, Barrow-in-Furness, assignors to Vickers Limited, Westminster, London, England. Heavy ordnance. No. 1,041,602; Oct. 15; Gas. vol. 183; p. 714.

Day, Edgar K., Wheeling, W. Va. Eaves-trough hanger. No. 1,041,750; Oct. 22; Gas. vol. 183; p. 901.

Day, James, San Francisco, Cal. Combustion-engine. No. 1,039,705; Oct. 1; Gas. vol. 183; p. 11.

Day, John M., Seattle, Wash. Device for opening, holding, preserving, and using canned milk and other canned fluids. No. 1,041,971; Oct. 22; Gas. vol. 183; p. 879.

Dayton Engineering Laboratories Co., The. (See Kettering, Charles F., assignor.)

De Casen, Canaan, Montreal, Quebec, Canada. Cigarette-making machine. No. 1,042,652; Oct. 29; Gas. vol. 183; p. 1128.

De Clairmont, Adolfo, Toledo, Ohio. Device for cleaning explosive-engine cylinders. No. 1,040,147; Oct. 1; Gas. vol. 183; p. 160.

De Forest, Lee, New York, N. Y. System of duplex wireless transmission. No. 1,042,205; Oct. 22; Gas. vol. 183; p. 955.

De Fremet, Oscar C., Cincinnati, Ohio. Brine-cooler. No. 1,041,973; Oct. 22; Gas. vol. 183; p. 879.

De Graf, Admiral N., and C. A. Crandall, Pine River, Wis. Draft attachment. No. 1,040,163; Oct. 1; Gas. vol. 183; p. 165.

De Haven, Jonathan C., assignor of one-half to R. J. Heaney, Carnegie, Pa. Curtain-pole. No. 1,042,008; Oct. 22; Gas. vol. 183; p. 912.

De Kleist, August. (See McCormick and De Kleist.)

De Kleist, August, North Tonawanda, N. Y. Pneumatic action for musical instruments. No. 1,041,487; Oct. 15; Gas. vol. 183; p. 672.

De la Rue, Ernest, London, England. Sound-box for talking-machines and other acoustical instruments. No. 1,040,648; Oct. 8; Gas. vol. 183; p. 365.

De Lan, Richie, Philadelphia, Pa. Automatic record-stopping device for talking-machines. No. 1,042,535; Oct. 29; Gas. vol. 183; p. 1060.

De Laney, John C., Watertown, Mass. Woodworking machinery. No. 1,042,231; Oct. 22; Gas. vol. 183; p. 967.

De Laval Separator Company, The. (See Hulbert, John L., assignor.)

De Lima, Guy B., Syracuse, N. Y. Stopping coffee or tea. No. 1,041,322; Oct. 22; Gas. vol. 183; p. 823.

De Long Hook and Eye Company. (See Curtis, Walter L., assignor.)

De Long, John S., Osborn, Ohio. Crate. No. 1,041,751; Oct. 22; Gas. vol. 183; p. 902.

De Lukacsevics, Charles, West Nutley, N. J. Siphon-head. No. 1,040,226; Oct. 1; Gas. vol. 183; p. 165.

De Mond, Herman L., Philadelphia, Pa. Comb. No. 1,040,167; Oct. 1; Gas. vol. 183; p. 166.

De Pinary, James. (See Tiffany, Edward D., assignor.)

De Saulles, Charles A. H., Gas, Kans., assignor to New Jersey Zinc Company, New York, N. Y. Zinc retort-furnace. No. 1,041,577; Oct. 22; Gas. vol. 183; p. 891.

De Vilbiss, Allen, Toledo, Ohio. Bone-forceps or the like. No. 1,040,522; Oct. 8; Gas. vol. 183; p. 317.

De Voe, Albert H., Elizabeth, N. J., assignor to The Singer Manufacturing Company. Presser-foot. No. 1,041,251; Oct. 15; Gas. vol. 183; p. 609.

De Witt, Richard C., Sutter, Cal. Traction-engine. No. 1,040,650; Oct. 8; Gas. vol. 183; p. 366.

De Witt, William C., Chicago, Ill. Window-guard. No. 1,041,753; Oct. 22; Gas. vol. 183; p. 902.

De Wright, Richard, Allegan, Mich. Egg-carrier. No. 1,041,443; Oct. 15; Gas. vol. 183; p. 663.

Deakin, James H., Marion, Ind., and H. Schnelbach, Charleroi, assignors to Matheth-Evans Glass Company, Pittsburgh, Pa. Glassware-finishing machine. No. 1,040,902; Oct. 8; Gas. vol. 183; p. 447.

Dean Electric Company. (See Libby, Albion D. T., assignor.)

Dean, Irwin A., assignor of one-half to F. N. C. Jerauld, Niagara Falls, N. Y. Window-locking device. No. 1,041,042; Oct. 15; Gas. vol. 183; p. 523.

Dearborn, Franklin J., Oakland, Cal. Belt conveyer. No. 1,041,439; Oct. 15; Gas. vol. 183; p. 662.

Dearborn, Franklin J., Oakland, Cal. Excavating-machine. No. 1,041,603; Oct. 15; Gas. vol. 183; p. 714.

Dearborn, Richard J., Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company. Dynamo-electric machine. No. 1,042,466; Oct. 29; Gas. vol. 183; p. 1051.

Debby, Edward P., London, assignor to M. C. Bingham, Portland, Oreg. Automatic cut-off for gas-burners. No. 1,041,972; Oct. 22; Gas. vol. 183; p. 879.

Debebach, Henry E., Cincinnati, Ohio. Evaporating-pan for drying of almond-meal from malt liquors. No. 1,040,287; Oct. 8; Gas. vol. 183; p. 286.

Decker, Harry E., Houston, Tex. Boring-tool. No. 1,039,909; Oct. 1; Gas. vol. 183; p. 80.

Decker, William L., Mollendo, Peru. Stay-bolt and means for securing the same in place. No. 1,041,440; Oct. 15; Gas. vol. 183; p. 662.

Dees, Mark A., Pascagoula, Miss., assignor to American Tire Company, St. Louis, Mo. Pneumatic tire. No. 1,040,647; Oct. 8; Gas. vol. 183; p. 365.

Defiance Machine Works. (See Ensign, George A., assignor.)

Defiance Machine Works. (See Root, Frank T., assignor.)

Degenhardt, John J., Elkville, Ill. Pin and flower holder. No. 1,039,910; Oct. 1; Gas. vol. 183; p. 80.

Dehlinger, Carl N., Wausau, Wis. Stone-gathering machine. No. 1,042,653; Oct. 29; Gas. vol. 183; p. 1129.

Dehnst, Julius. (See Seidenschaur and Dehnst.)

Dehnst, Julius, Halensee, near Berlin, Germany. Preparing an oil suitable for impregnating porous bodies. No. 1,041,604; Oct. 15; Gas. vol. 183; p. 714.

Delinger, John, Ulm, Wurttemberg, Germany. Ice-breaker. No. 1,041,605; Oct. 15; Gas. vol. 183; p. 715.

Deister Concentrator Company, The. (See Deister, Emil, assignor.)

Deister, Emil, assignor to The Deister Concentrator Company, Fort Wayne, Ind. Ore-concentrator. No. 1,040,288; Oct. 8; Gas. vol. 183; p. 286.

Deister, Emil and W. F., Fort Wayne, Ind. Concentrating-table. No. 1,040,164; Oct. 1; Gas. vol. 183; p. 165.

Deister, Emil and W. F., Fort Wayne, Ind. Concentrating-table. No. 1,040,165; Oct. 1; Gas. vol. 183; p. 165.

Deister, William F. (See Deister, Emil and W. F.)

Dekle, John H., Register, Ga. Cultivator. No. 1,041,043; Oct. 15; Gas. vol. 183; p. 529.

Delano, Charles G., Taunton, Mass. Overshoe for horses. No. 1,040,166; Oct. 1; Gas. vol. 183; p. 166.

Delbrück, Konrad. (See Hofmann, Delbrück, and Meisenburg.)

Delehant, John J., Chicago, Ill. Support for tools. No. 1,040,903; Oct. 8; Gas. vol. 183; p. 447.

Dellue, Irving A., Denver, Colo. Game apparatus. No. 1,040,521; Oct. 8; Gas. vol. 183; p. 316.

Dell, John, St. Louis, Mo., and G. H. Miles, Babylon, N. Y.; said Niles assignor to said Dell. Combined dip-regulator and tar-seal. No. 1,041,044; Oct. 15; Gas. vol. 183; p. 529.

Dellwik, Carl, London, England. Method of and apparatus for agglomerating fine ores, metalliferous residues, &c. No. 1,039,706; Oct. 1; Gas. vol. 183; p. 11.

Delorme, Louis A., et al. (See Lord, Peter, assignor.)

Dembowsky, Emil, Metuchen, N. J. Engine. No. 1,041,606; Oct. 15; Gas. vol. 183; p. 715.

Demmler, Henry L., Kewanee, Ill. Automatic valve mechanism for bumping-machines. No. 1,042,094; Oct. 22; Gas. vol. 183; p. 919.

Demmler, John, Grove City, Pa. Transmission-gearing. No. 1,040,649; Oct. 8; Gas. vol. 183; p. 366.

Dempster, John T. H., Schenectady, N. Y., assignor to General Electric Company. Arc-light electrode and making the same. No. 1,041,752; Oct. 22; Gas. vol. 183; p. 902.

Dempster Mill Manufacturing Company. (See Hoag and Thomas, assignors.)

Denmead, John W., Akron, Ohio, assignor to The Diamond Match Company, Chicago, Ill. Clutch. No. 1,042,469; Oct. 29; Gas. vol. 183; p. 1051.

Denne, Mark T., Rushden, Northampton, England. Machine or apparatus for forming screw-threads on wire by rolling. No. 1,039,707; Oct. 1; Gas. vol. 183; p. 12.

Dennis, Samuel K., Chicago, Ill., assignor to International Harvester Company. Manure-spreader. No. 1,041,974; Oct. 22; Gas. vol. 183; p. 879.

Dennis, Samuel K., Chicago, Ill., assignor to International Harvester Company. Cultivator-tooth. No. 1,041,975; Oct. 22; Gas. vol. 183; p. 880.

Dennis, Samuel K., and A. Holsey, Chicago, Ill., assignors to International Harvester Company. Fertilizer attachment for corn-planters. No. 1,041,976; Oct. 22; Gas. vol. 183; p. 880.

Dennison, Wilburn N., Merchantville, N. J., assignor to Victor Talking Machine Company. Speed-regulator for sound recording and reproducing machines. No. 1,040,822; Oct. 8; Gas. vol. 183; p. 317.

Denny, Roscoe, Eagle Pass, Tex. Clothes-hook. No. 1,041,441; Oct. 15; Gas. vol. 183; p. 663.

Denquer, Frank A., New York, N. Y. Physician's table. No. 1,039,706; Oct. 1; Gas. vol. 183; p. 12.

Denver Rock Drill & Machinery Co., The. (See Waugh, Daniel S., assignor.)

Denzer, Frank L., and W. H. Hodge, Kankakee, Ill. Car-step. No. 1,042,805; Oct. 29; Gas. vol. 183; p. 1222.

Despard, Victor R. (See Crossley and Despard.)

Detmer, Martin J. (See Bader, Louis C., assignor.)

Detroit Steel Products Company. (See Daveck, Clarence W., assignor.)

Deu Pree, James D., et al. (See Patterson, Benjamin G., assignor.)

Deulen, Ralph O. (See Binder and Deulen.)

Deutsch-Luxemburgische Bergwerks- und Hutten-Aktiengesellschaft. (See Lurmann, Tryggve, assignor.)

Devine, Robert F., Erie, Pa. Forging apparatus. No. 1,041,442; Oct. 15; Gas. vol. 183; p. 663.

Dexter Folder Company. (See Dexter and Garner, assignors.)

Dexter, Talbot C., and V. Garner, assignors to Dexter Folder Company, Pearl River, N. Y. Sheet-registering mechanism for paper-feeding machines. No. 1,040,168; Oct. 1; Gaz. vol. 183; p. 166.

Diamond Electric Company. (See Parkhurst, Leon F., assignor.)

Diamond Match Company, The. (See Denmead, John W., assignor.)

Diamond Match Company, The. (See Nolan, John R., assignor.)

Diamond Match Company, The. (See Paridon and Palmer, assignors.)

Diamond Power Specialty Co. (See Higgins, Harry A., assignor.)

Diamond Power Specialty Company. (See Standish, Edward K., assignor.)

Dickerson, Oliver H., Duluth, Minn. Ore-bin door. No. 1,041,444; Oct. 15; Gaz. vol. 183; p. 663.

Dickinson, David E., Blissfield, Mich. Baling-press. No. 1,040,169; Oct. 1; Gaz. vol. 183; p. 167.

Dickinson, Frank T., Chicago, Ill. Brake-shoe. No. 1,042,896; Oct. 29; Gaz. vol. 183; p. 1223.

Dickson, George F., assignor to Confectioners and Bakers Supply Co., Chicago, Ill. Can-washing machine. No. 1,040,248; Oct. 1; Gaz. vol. 183; p. 195.

Dickson, Myron, Martinsville, Ind. Hot-air furnace. No. 1,042,604; Oct. 29; Gaz. vol. 183; p. 1139.

Diefendorf, Edward G., assignor to Erie Stamping & Mfg. Co., Erie, Pa. Pipe-wrench. No. 1,041,978; Oct. 22; Gaz. vol. 183; p. 881.

Diffenbach, Otto, *et al.* (See Weber, Oskar H. and K., assignors.)

Diehl, George H., Jr. (See Nyboer, Arend R., assignor.)

Diemer, William, assignor to Gendron Wheel Company, Toledo, Ohio. Invalid's chair. No. 1,039,709; Oct. 1; Gaz. vol. 183; p. 12.

Dietrich, Paul, and W. Millies, Linden, near Hanover, assignors to Company "Gebr. Koerting Aktiengesellschaft," Körtingsdorf, near Hanover, Germany. Injector. No. 1,042,095; Oct. 22; Gaz. vol. 183; p. 920.

Dietrich, William, Chicago, Ill. Ink-distributing roller for printing-presses. No. 1,040,170; Oct. 1; Gaz. vol. 183; p. 167.

Digby, Henry C. (See Bradley, James A., assignor.)

Dikeman, Charles S., Norwalk, Conn. Cabinet and floor scraper. No. 1,041,979; Oct. 22; Gaz. vol. 183; p. 881.

Dikeman, Edmund B., Chicago, Ill. Harrow. No. 1,040,524; Oct. 8; Gaz. vol. 183; p. 318.

Discher, William. (See Holland and Discher.)

Dishman, Charles H., Henderson, Ky. Combined excavating and levee-building machine. No. 1,040,525; Oct. 8; Gaz. vol. 183; p. 318.

Distefano, Samuel C., Baltimore, Md. Trolley-guard. No. 1,040,904; Oct. 8; Gaz. vol. 183; p. 447.

Ditchfield, Frank, Montreal, Quebec, Canada. Car-door-operating mechanism. No. 1,041,045; Oct. 15; Gaz. vol. 183; p. 529.

Dittrich, Julius, London, England. Head or stopper of siphons and the like. No. 1,041,445; Oct. 15; Gaz. vol. 183; p. 664.

Divan, Floyd S., Newark, Ohio. Stovepipe and collar holder. No. 1,040,171; Oct. 1; Gaz. vol. 183; p. 168.

Dixon, Amos F. (See Craft and Dixon.)

Dixon, Amos F., New York, N. Y., assignor to Western Electric Company, Chicago, Ill. Coin-collector. No. 1,040,526; Oct. 8; Gaz. vol. 183; p. 318.

Dixon, Samuel J., Littleton, N. C. Extensible window-screen. No. 1,039,911; Oct. 1; Gaz. vol. 183; p. 81.

Dobbins, John S., assignor to The New Jersey Wire Stitching Machine Company, Camden, N. J. Clenching device for stapling-machines. No. 1,042,771; Oct. 29; Gaz. vol. 183; p. 1180.

Doble, Abner, assignor to H. A. Doble, Brookline, Mass. Electric preheater for pilot-burners. No. 1,040,289; Oct. 8; Gaz. vol. 183; p. 237.

Doble, Helen A. (See Doble, Abner, assignor.)

Doble, William H., assignor to Pneumatic Scale Corporation, Limited, Quincy, Mass. Carton. No. 1,040,651; Oct. 8; Gaz. vol. 183; p. 366.

Dock, Frederick W., Wilmington, N. C. Turpentine-box. No. 1,040,527; Oct. 8; Gaz. vol. 183; p. 319.

Dock, Herman, Westerly, R. I., assignor, by mesne assignments, to A. A. Whitman, New York, N. Y. Carburetor. No. 1,040,528; Oct. 8; Gaz. vol. 183; p. 319.

Dodge, Henry P., assignor to The Ohio Electric Car Company, Toledo, Ohio. Brake-actuated motor control. No. 1,043,002; Oct. 29; Gaz. vol. 183; p. 1258.

Dodson, Joseph H., assignor to C. H. Aldrich, Chicago, Ill. Fluid-clutch. No. 1,042,410; Oct. 29; Gaz. vol. 183; p. 1051.

Doherty, John M., Munson, Alberta, Canada. Scrubbing-machine. No. 1,040,172; Oct. 1; Gaz. vol. 183; p. 168.

Dole, John A. (See Dole, William E. and J. A.)

Dole, William E. and J. A., Oak Hill, Ohio. Brick-press. No. 1,042,655; Oct. 29; Gaz. vol. 183; p. 1139.

Dolensky, Eugen, assignor to The Corporation of Dellwik-Fleischer Wassergas Gesellschaft m. b. H., Frankfort-on-the-Main, Germany. Welding apparatus. No. 1,042,411; Oct. 29; Gaz. vol. 183; p. 1052.

Dollings, Raymond L., Wyoming, Ohio. Article of food and producing same. No. 1,039,912; Oct. 1; Gaz. vol. 183; p. 81.

Dolph, Otto W., assignor to The O. Armleder Company, Cincinnati, Ohio. Sliding-door hanger. No. 1,041,446; Oct. 15; Gaz. vol. 183; p. 664.

Dombach, Johann G. F., Amsterdam, Netherlands. Treatment of grain. No. 1,040,290; Oct. 8; Gaz. vol. 183; p. 237.

Donahue, Joseph F. (See Hammond and Donahue.)

Donavin, George B. (See Parsons, Charles J., assignor.)

Doolittle, Elbridge C. (See Maltby and Doolittle.)

Doolittle, Lewis J., New York, N. Y. Automatic feeding device for soap-machines. No. 1,041,754; Oct. 22; Gaz. vol. 183; p. 803.

Dorais, Samuel, Chicago, Ill., assignor to Evans, Almirall & Company, trustee, New York, N. Y. Fire-extinguisher. No. 1,042,536; Oct. 29; Gaz. vol. 183; p. 1097.

Dorey, William A., Newark, Ohio, assignor to Holophane Glass Company, New York, N. Y. Illuminating appliance. No. 1,042,412; Oct. 29; Gaz. vol. 183; p. 1052.

Dorfel, George, Oakland, Cal. Resilient wheel. No. 1,040,173; Oct. 1; Gaz. vol. 183; p. 168.

Dorn, Hans, Suhl, Germany. Automatic-loading firearm. No. 1,041,046; Oct. 15; Gaz. vol. 183; p. 530.

Dorrance, David W., Koler, Oreg. Artificial hand. No. 1,042,413; Oct. 29; Gaz. vol. 183; p. 1053.

Doty, Edwin A., Albany, N. Y. Nut-lock. No. 1,039,710; Oct. 1; Gaz. vol. 183; p. 18.

Double Spring Shuttle Company, The. (See Lacroix, Joseph, assignor.)

Dougan, Robert C., Millersburg, Ohio. Cultivator. No. 1,041,447; Oct. 15; Gaz. vol. 183; p. 664.

Dougherty, Charles J., Philadelphia, Pa. Split gear. No. 1,041,448; Oct. 15; Gaz. vol. 183; p. 665.

Dougherty, James W., McKeesport, Pa. Activity-recorder. No. 1,041,252; Oct. 15; Gaz. vol. 183; p. 600.

Douglas, Edwin R., Abington, assignor to The Hero Manufacturing Company, Philadelphia, Pa. Collapsible drinking vessel. No. 1,040,652; Oct. 8; Gaz. vol. 183; p. 367.

Douglas, Theodore, Scarboro, N. Y. Railway-car-connecting platform. No. 1,040,529; Oct. 8; Gaz. vol. 183; p. 320.

Douglas, William H., Belleville, N. J., assignor to Healey & Co., New York, N. Y. Electric driving-gear for motor-vehicles. No. 1,041,449; Oct. 15; Gaz. vol. 183; p. 665.

Douglass, Roy, Pierceville, Kans. Knockdown crate. No. 1,041,755; Oct. 22; Gaz. vol. 183; p. 803.

Dover Stamping & Manufacturing Company. (See Anderson, Pahr, assignor.)

Dow, Roy B., assignor to Cochran-Bly Company, Rochester, N. Y. Saw forming and sharpening machine. No. 1,040,905; Oct. 8; Gaz. vol. 183; p. 448.

Dowd, James, and P. T. Goggin, Whitman, Mass. Ash-sifter. No. 1,040,291; Oct. 8; Gaz. vol. 183; p. 238.

Dowd, John P. (See Terrill and Dowd.)

Down, John V., Petersburg, Va. Safety-chamber for lamps. No. 1,042,656; Oct. 29; Gaz. vol. 183; p. 1140.

Downey, Richard F., assignor to Sanitary Service Company, Milwaukee, Wis. Sanitary soap and towel dispenser. No. 1,041,710; Oct. 15; Gaz. vol. 183; p. 752.

Doyle, Percival F. (See Mackie and Doyle.)

Dozier, James H., assignor of one-half to D. A. Lawson, St. Petersburg, Fla. Belt-fastener. No. 1,042,206; Oct. 22; Gaz. vol. 183; p. 956.

Drake, Arthur J., and J. M. Hewitt, assignors to The Saver Clutch Company Limited, Manchester, England. Gearing. No. 1,041,047; Oct. 15; Gaz. vol. 183; p. 530.

Drake, Ellis, Stoughton, Mass. Sewing-machine. No. 1,042,537; Oct. 29; Gaz. vol. 183; p. 1097.

Draper Company. (See Megginson, Cabell W., assignor.)

Draper Company. (See Owen, Herbert W., assignor.)

Draper Company. (See Rainville, Victor, assignor.)

Dremel, Albert J., Racine, Wis. Rotary cultivator. No. 1,041,980; Oct. 22; Gaz. vol. 183; p. 881.

Drew, George W. (See Byrne, Charles, assignor.)

Drew, Theodore, Basom, N. Y. Horseshoe. No. 1,041,450; Oct. 15; Gaz. vol. 183; p. 666.

Drugmand, L. A., *et al.* (See Griffin, John, assignor.)

Drummond Atmospheric Pump Company. (See Drummond, William H., assignor.)

Drummond, William H., assignor to Drummond Atmospheric Pump Company, Denver, Colo. Apparatus for producing power. No. 1,041,253; Oct. 15; Gaz. vol. 183; p. 600.

Du Brul, Napoleon, Cincinnati, Ohio. Continuous cigarette-machine. No. 1,040,653; Oct. 8; Gaz. vol. 183; p. 367.

Dudley, Sumner A., Taunton, Mass. Shuttle. No. 1,041,007; Oct. 15; Gaz. vol. 183; p. 715.

Duell, William S., assignor to Klauder-Weldon Dyeing Machine Company, Amsterdam, N. Y. Dyeing-machine. No. 1,040,654; Oct. 8; Gaz. vol. 183; p. 367.

Duerrenberger, Frederick, Paterson, N. J. Loom. No. 1,041,254; Oct. 15; Gaz. vol. 183; p. 601.

Duff Manufacturing Company. (See Osiund, Charles H., assignor.)

Duff, Ralph A. (See Moore, Harry W., assignor.)

Duffin, George S., Hoopeston, Ill. Draft-equaliser. No. 1,040,174; Oct. 1; Gaz. vol. 183; p. 169.

Dulkowski, John, Philadelphia, Pa. Feed-bag. No. 1,040,655; Oct. 8; Gaz. vol. 183; p. 368.

Dulles, William, Englewood, N. J. Window construction. No. 1,042,657; Oct. 29; Gaz. vol. 183; p. 1140.

Duncan, Irvin B., Macco, Ky. Combined shaft-support and thill-coupling. No. 1,039,711; Oct. 1; Gaz. vol. 183; p. 18.

Duncan, William W., New York, N. Y. Detachable fastener. No. 1,041,981; Oct. 22; Gaz. vol. 183; p. 882.





Dundon, Patrick F., San Francisco, Cal. Combined charging-hopper and trap-door therefor. No. 1,040,906; Oct. 8; Gaz. vol. 183; p. 448.

Dunfee, John C., assignor to The Van Dorn & Dutton Company, Cleveland, Ohio. Electric switch. No. 1,042,414; Oct. 29; Gaz. vol. 183; p. 1053.

Dunham, Frank S., and J. W. Greenough, Red Lodge, Mont. Truck-bolster. No. 1,042,207; Oct. 22; Gaz. vol. 183; p. 956.

Dunkle, Samuel F., trustee. (See Morton, Walter S., assignor.)

Dunleavy, James F., Newton, Mass. Support for furniture-drawers. No. 1,040,907; Oct. 8; Gaz. vol. 183; p. 448.

Dunlop, Robert R., Columbus, Ohio, assignor to The Jeffrey Manufacturing Company. Connecting device for electric conductors. No. 1,042,897; Oct. 29; Gaz. vol. 183; p. 1223.

Dunn, Thomas W., Oil City, Pa. Spring-mounting. No. 1,041,255; Oct. 15; Gaz. vol. 183; p. 601.

Dünnenberger, Carl, and B. Heierle, Zürich, Switzerland. Umbrella-rod. No. 1,042,658; Oct. 29; Gaz. vol. 183; p. 1141.

Dunton, George E., New York, N. Y. Composition of matter for use in removing grease, &c., from the molds used in the art of electrotyping. No. 1,040,908; Oct. 8; Gaz. vol. 183; p. 449.

Duplan Silk Company. (See Geier, Ernst K., assignor.)

Duplex Metals Company. (See Monnot, John F., assignor.)

Durand, Nelson C. (See Seeley and Durand.)

Durno, John H., Rochester, N. Y. Priming mechanism for explosive-engines. No. 1,042,415; Oct. 29; Gaz. vol. 183; p. 1054.

Dusinberre, George R., Cleveland, Ohio, assignor, by mesne assignments, to Allen-Bradley Company, Milwaukee, Wis. Current-controller. No. 1,041,982; Oct. 22; Gaz. vol. 183; p. 882.

Dutton, Arthur L. (See O'Gorman, John, assignor.)

Dyer, Leonard H. (See Jensen, Conlan, and Dyer.)

Dyer, Leonard H. (See Loewenstein and Dyer.)

Dyson, Harry. (See Gaunt and Dyson.)

E. Ingraham Co., The. (See Simmons, Charles B., assignor.)

E. C. Atkins & Company. (See Long, William B., assignor.)

E. I. du Pont de Nemours Powder Company. (See Brunswig, Heinrich, assignor.)

E. I. du Pont de Nemours Powder Company. (See Heyer, Friedrich C., assignor.)

E. I. du Pont de Nemours Powder Company. (See Leisel, Albert, assignor.)

E. I. du Pont de Nemours Powder Company. (See Sokolowski, Ernst, assignor.)

E. I. du Pont de Nemours Powder Company. (See Wagener, Gustav, assignor.)

Eagle Lock Co. (See Wood, David W., assignor.)

Earhart, William S., Denver, Colo. Adjustable fixture-stud for electric-conduit outlet-boxes. No. 1,040,175; Oct. 1; Gaz. vol. 183; p. 169.

Eason, James. (See Beaton, Eason, and Wilson.)

East Jersey Pipe Company, The. (See Parmelee, Charles L., assignor.)

Eastman, Walter W., Hill, N. H. Lantern-holder. No. 1,042,898; Oct. 29; Gaz. vol. 183; p. 1223.

Easton, Frank B., New York, N. Y. Screen-bed. No. 1,040,909; Oct. 8; Gaz. vol. 183; p. 449.

Eastwood, Arthur C., assignor to The Electric Controller and Manufacturing Company, Cleveland, Ohio. Electric controller. No. 1,040,292; Oct. 8; Gaz. vol. 183; p. 238.

Eaton, Charles W., Chicago, Ill. Concrete-supplying apparatus. No. 1,040,656; Oct. 8; Gaz. vol. 183; p. 368.

Eaton, John. (See Murphy and Eaton.)

Eaton, William S., Sag Harbor, N. Y. Engraving-machine. No. 1,039,712; Oct. 1; Gaz. vol. 183; p. 14.

Eaton, William S., Sag Harbor, N. Y. Etching-machine. No. 1,039,713; Oct. 1; Gaz. vol. 183; p. 14.

Eaton, William S., Sag Harbor, N. Y. Engraving and similar machine. No. 1,039,714; Oct. 1; Gaz. vol. 183; p. 15.

Ebeary, William H., Buffalo, N. Y. Wearing-apparel. No. 1,041,711; Oct. 15; Gaz. vol. 183; p. 752.

Economy Car Heating Company, The. (See Coggin, Frank F., assignor.)

Edeleanu, Lazar, Ploesti, Roumania. Drying agent for gases. No. 1,041,006; Oct. 15; Gaz. vol. 183; p. 715.

Edenfeldt, Carl, assignor of one-third to V. R. Nims and one-third to Y. R. Woodward, Seattle, Wash. Change-delivering device. No. 1,039,913; Oct. 1; Gaz. vol. 183; p. 81.

Edgar, Blanchard C. (See Clapp and Edgar.)

Edgecomb, Henry E. (See Cronse and Edgecomb.)

Edison, Thomas A. (See Aylesworth and Aiken, assignors.)

Edison, Thomas A. (See Pierman, Alexander N., assignor.)

Edison, Thomas A. (See Seeley and Durand, assignors.)

Edison, Thomas A. (See Weber, Peter, assignor.)

Edison, Thomas A., Llewellyn Park, Orange, N. J. Conveyer. No. 1,041,756; Oct. 22; Gaz. vol. 183; p. 804.

Edison, Thomas A., Llewellyn Park, assignor to Thomas A. Edison, Incorporated, West Orange, N. J. Phonograph-stylus. No. 1,041,983; Oct. 22; Gaz. vol. 183; p. 883.

Edmonds, Walter D. (See Ladoff, Isador, assignor.)

Edward Lloyd Limited. (See Hutchison, Robert G., assignor.)

Edwards, Frank W., Logansport, Ind., assignor to The Chicago Lubricator Company, Chicago, Ill. Sight-feed for lubricators. (Reissue.) No. 13,474; Oct. 8; Gaz. vol. 183; p. 478.

Edwards, George F., assignor of one-half to M. D. Tilson, Texarkana, Tex. Relief-valve gear. No. 1,039,914; Oct. 1; Gaz. vol. 183; p. 81.

Edwards, Oliver M., Syracuse, N. Y. Window. No. 1,043,045; Oct. 29; Gaz. vol. 183; p. 1274.

Edwards, Victor E., assignor to Morgan Construction Company, Worcester, Mass. Rolling-mill. No. 1,040,293; Oct. 8; Gaz. vol. 183; p. 239.

Edwards, Victor E., assignor to Morgan Construction Company, Worcester, Mass. Rolling-mill. No. 1,041,757; Oct. 22; Gaz. vol. 183; p. 804.

Edwards, William C., Jr., Kansas City, Mo. Fireproof structure. No. 1,041,048; Oct. 15; Gaz. vol. 183; p. 530.

Edwards, William R. (See Heinsohn, Edwards, and Klaus.)

Eggers, Ernest, San Bernardino, Cal. Planing-machine. No. 1,041,984; Oct. 22; Gaz. vol. 183; p. 883.

Egli, Arnold, assignor to Vogtlandische Maschinenfabrik (vormals J. C. & H. Dietrich) A. G., Plauen, Germany. Device for finishing stereotype printing-plates. No. 1,042,208; Oct. 22; Gaz. vol. 183; p. 956.

Egner, Carl E., Stockholm, and J. G. Holmström, Saltsjö-Storängen, Sweden. Carbon-grain cells of telephone-transmitters. No. 1,042,772; Oct. 29; Gaz. vol. 183; p. 1180.

Eichele, Charles L., Pittsburgh, Pa. Duster for vacuum-cleaners. No. 1,040,176; Oct. 1; Gaz. vol. 183; p. 169.

Eichhorn, Jacob C., assignor to The Victor Jar Company, Detroit, Mich. Closure for vessels. No. 1,042,209; Oct. 22; Gaz. vol. 183; p. 957.

Einstein, Samuel M. (See Forsell, Frans E., assignor.)

Eisenhower, William H., Reading, Pa. Reversing mechanism. No. 1,041,985; Oct. 22; Gaz. vol. 183; p. 883.

Ekström, Per G., Harnäs, assignor to Aktiebolaget Ethyl, Falun, Sweden. Manufacturing alcohol from sulfite liquor. No. 1,042,332; Oct. 22; Gaz. vol. 183; p. 907.

Eldred, Howard M., Milwaukee, Wis. Electrical signaling system. No. 1,042,096; Oct. 22; Gaz. vol. 183; p. 920.

Electric Bank Protection Company. (See Williams and Huhn, assignors.)

Electric Carrier Company. (See McLeer, Charles B. and J. F., assignors.)

Electric Controller and Manufacturing Company, The. (See Eastwood, Arthur C., assignor.)

Electric Goods Manufacturing Company. (See Lincoln, Edwin S.)

Electric Railway Improvement Company, The. (See Herrick, Albert B., assignor.)

Electric Renovator Manufacturing Company. (See Harker, Charles E., assignor.)

Electric Smelting and Aluminum Company, The. (See Cowles, Alfred H., assignor.)

Electric Smelting and Aluminum Company. (See Cowles and Kayser, assignors.)

Electro-Chemical Rubber & Manufacturing Company. (See Daft, Leo, assignor.)

Elkin, Charles, New York, N. Y. Pipe-protector. No. 1,041,256; Oct. 15; Gaz. vol. 183; p. 602.

Elliott-Fisher Company. (See Foothorap, Harry A., assignor.)

Elliott, George S., Mobile, Ala. Corn-cutter. No. 1,041,049; Oct. 15; Gaz. vol. 183; p. 531.

Elliott, Mary E., Maxwell, Iowa. Cabinet. No. 1,041,986; Oct. 22; Gaz. vol. 183; p. 884.

Elliott, W. S. (See Faber, Frank M., assignor.)

Ellis, Carleton, Montclair, N. J. Hydrogenation. No. 1,040,531; Oct. 8; Gaz. vol. 183; p. 320.

Ellis, Carleton, Montclair, N. J. Hydrogenating oily material. No. 1,040,532; Oct. 8; Gaz. vol. 183; p. 321.

Ellis, Carleton, Montclair, N. J., assignor to Ellis-Foster Company. Concentration of waste sulfite liquor. No. 1,042,538; Oct. 29; Gaz. vol. 183; p. 1098.

Ellis, Carleton, Larchmont, N. Y., assignor to Ellis-Foster Company. Making soap powders. No. 1,040,535; Oct. 8; Gaz. vol. 183; p. 320.

Ellis, Charles H., Boston, Mass. Ball-cock. No. 1,041,257; Oct. 15; Gaz. vol. 183; p. 602.

Ellis, Edward, Minneapolis, Minn. Collapsible folding bucket. No. 1,041,758; Oct. 22; Gaz. vol. 183; p. 804.

Ellis-Foster Company. (See Ellis, Carleton, assignor.)

Ellis, George V., New York, N. Y. Apparatus for disposing of oil-laden drainage. No. 1,041,050; Oct. 15; Gaz. vol. 183; p. 531.

Ellis, James H., Milwaukee, and A. J. Hoffman, Wauwatosa, Wis. Diaphragm. No. 1,040,294; Oct. 8; Gaz. vol. 183; p. 239.

Ellis, Mark S., U. S. Navy. Self-scoring target. No. 1,041,258; Oct. 15; Gaz. vol. 183; p. 602.

Ellis, Mark S., U. S. Navy. Contact-making shuttle for self-scoring targets. No. 1,041,259; Oct. 15; Gaz. vol. 183; p. 603.

Ellis, Robert G., assignor to American Car and Foundry Company, St. Louis, Mo. Stop-casting for tandem-spring draft-rigging. No. 1,042,416; Oct. 29; Gaz. vol. 183; p. 1054.

Ellison, Forrest L., Exeter, N. H., assignor to United Shoe Machinery Company, Paterson, N. J. Heel-rest for scouring-machines. No. 1,042,773; Oct. 29; Gaz. vol. 183; p. 1199.

Ellison, Thomas J., Terrill, Ky. Animal-trap. No. 1,040,667; Oct. 8; Gaz. vol. 183; p. 369.

Elmendorf, Bernhard, and J. Gabler, Isselhorst, Germany. Weft-replenishing loom. No. 1,042,774; Oct. 29; Gaz. vol. 183; p. 1181.

Eloecer, William C., Grand Rapids, Mich. Temperature-alarm. No. 1,042,539; Oct. 29; Gaz. vol. 183; p. 1096.

Elsas, Edward J., Kansas City, Mo. Aeroplane. No. 1,041,759; Oct. 22; Gaz. vol. 183; p. 805.

Emerson-Brantingham Company. (See Waterman, Lewis E., assignor.)

Emery, Albert H., Stamford, Conn. Fulcrum for scales. No. 1,041,609; Oct. 15; Gaz. vol. 183; p. 716.

Emery, Louis, New York, N. Y. Fly-trap. No. 1,040,296; Oct. 8; Gaz. vol. 183; p. 289.

Emma Lang Investment Company. (See Gamble, Walter H., assignor.)

Empire Duplex Gin Company. (See Cheesman, James E., assignor.)

Endemann, Hubert, Vienna, Austria-Hungary. Type-bar pivot. No. 1,040,656; Oct. 8; Gaz. vol. 183; p. 369.

Engberg, Ephraim O., Salt Lake City, Utah, assignor to J. B. Patton, Kent, Ohio. Tacking device. No. 1,041,987; Oct. 22; Gaz. vol. 183; p. 884.

Engel, Frank, Buffalo, assignor, by mesne assignments, to The United States Light & Heating Company, New York, N. Y. Machine for pasting storage-battery grids. No. 1,039,715; Oct. 1; Gaz. vol. 183; p. 15.

Engel, Frank, Buffalo, assignor, by mesne assignments, to The United States Light & Heating Company, New York, N. Y. Casting-machine. No. 1,041,051; Oct. 15; Gaz. vol. 183; p. 532.

Englebright, William F., Nevada City, Cal. Miner's-inch weir. No. 1,042,097; Oct. 22; Gaz. vol. 183; p. 921.

English, John C., Camden, N. J., assignor to Victor Talking Machine Company. Talking-machine. No. 1,042,098; Oct. 22; Gaz. vol. 183; p. 921.

English & Merrick Co. (See Williams, Gordon, assignor.)

English, Norman, Detroit, Mich. Valve. No. 1,042,775; Oct. 29; Gaz. vol. 183; p. 1181.

Engstrom, Arthur A., Springfield, Mass. Safety device for cranking automobiles. No. 1,040,296; Oct. 8; Gaz. vol. 183; p. 289.

Ensign, George A., assignor to Defiance Machine Works, Defiance, Ohio. Assembling-machine. No. 1,040,910; Oct. 8; Gaz. vol. 183; p. 449.

Ensign, Orville H., assignor of one-half to P. H. Blades, Los Angeles, Cal. Reversible internal-combustion engine. No. 1,042,540; Oct. 29; Gaz. vol. 183; p. 1096.

Enterprise Railway Equipment Company. (See Campbell, Argyle, assignor.)

Erber, Josef. (See Wagner and Erber.)

Erickson, Anton, assignor of one-half to W. M. Jackson, Portland, Oreg. Adjustable rib-tip-holding umbrella-handle. No. 1,042,417; Oct. 29; Gaz. vol. 183; p. 1054.

Erickson, August C., Tecumseh, Nebr., and L. D. Fletcher, Yates City, Ill. Turn-table. No. 1,040,911; Oct. 8; Gaz. vol. 183; p. 450.

Erickson, Frederic W., assignor to Lord Manufacturing Company, New York, N. Y. Coupling for pipes or conduits. No. 1,041,260; Oct. 15; Gaz. vol. 183; p. 603.

Erie Stamping & Mfg. Co. (See Diefendorf, Edward G., assignor.)

Escherich, Francis H., Washington, D. C. Nursing-bottle holder. No. 1,040,659; Oct. 8; Gaz. vol. 183; p. 370.

Eskilson, Sven A. (See Dalén and Eskilson.)

Esnault-Pelterie, Robert, Billancourt, France. Aeroplane. No. 1,040,533; Oct. 8; Gaz. vol. 183; p. 321.

Estelle, Axel T. K., Stockholm, Sweden. Anode for use by electrolysis of alkaline-salt solutions. No. 1,041,261; Oct. 15; Gaz. vol. 183; p. 603.

Esten, William F., Pawtucket, assignor of one-half to E. H. Howard, Providence, R. I. Tripping mechanism for elevator-well gates. No. 1,041,760; Oct. 22; Gaz. vol. 183; p. 805.

Estey, Ernest J., Kerman, and A. W. Rhodes, Fresno, Cal. Root-separator. No. 1,041,052; Oct. 15; Gaz. vol. 183; p. 532.

Etmian, John M., Mapleton, N. D. Apparatus for handling wagon-bodies. No. 1,040,177; Oct. 1; Gaz. vol. 183; p. 169.

Etrich, Ignaz, Oberalstadt, near Trautenau, Austria-Hungary. Driving device for the spindles of spinning-machines. No. 1,042,659; Oct. 29; Gaz. vol. 183; p. 1141.

Eubank, Judson C., and C. P. Barnett, Kansas City, Mo. Vehicle-wheel. No. 1,040,178; Oct. 1; Gaz. vol. 183; p. 170.

Eubank, Samuel F., Columbia, assignor of one-third to W. R. Lyon, Campbellsville, Ky. Pump-driving gear. No. 1,040,912; Oct. 8; Gaz. vol. 183; p. 450.

Evans, Alexander H., Freeport, Ill. Device for utilizing solar heat. No. 1,042,418; Oct. 29; Gaz. vol. 183; p. 1055.

Evans, Almirall & Company. (See Dorais, Samuel, assignor.)

Evans, Anna B., Cheswold, Del. Coffee-strainer. No. 1,040,179; Oct. 1; Gaz. vol. 183; p. 170.

Evans, James M., Westport, Conn. Motor for phonographs and other purposes. No. 1,042,660; Oct. 29; Gaz. vol. 183; p. 1141.

Evans, Morgan J., Milwaukee, Wis. Door-hanger and track. No. 1,041,053; Oct. 15; Gaz. vol. 183; p. 532.

Evans, Richard E., Riondel, British Columbia, Canada. Oiler. No. 1,042,990; Oct. 29; Gaz. vol. 183; p. 1234.

Evans, William W., Salt Lake City, Utah. Means for feeding air to furnaces. No. 1,041,761; Oct. 22; Gaz. vol. 183; p. 805.

Everett, Arthur D., Garden City, Tex. Pipe-clamp. No. 1,041,762; Oct. 22; Gaz. vol. 183; p. 805.

Ewing, George K., and C. R. Farley, Barlington, Ohio. Mechanical starter for automobiles. No. 1,041,864; Oct. 15; Gaz. vol. 183; p. 532.

Excel Manufacturing Company. (See Stort, Frederick W., assignor.)

F. E. Kohler Company, The. (See Kohler, Frederick E., assignor.)

F. H. Smith Manufacturing Company. (See Sansoman, David C., assignor.)

F. L. Smith & Co. (See Lindhard, Povl T., assignor.)

F. N. Burt Company, The. (See Holly, Carles, assignor.)

F. W. Webb Manufacturing Company. (See Thorndike, Herbert W., assignor.)

F. X. Parsche & Son Company. (See Parsche, Frank C., assignor.)

Faber, Frank M., assignor to W. S. Elliott, Pittsburgh, Pa. Manufacture of turbine-wheels. No. 1,039,915; Oct. 1; Gaz. vol. 183; p. 82.

Fabian, George, Bootle, England. Fire-helmet. No. 1,041,610; Oct. 15; Gaz. vol. 183; p. 716.

Faegre, Kaspar G. (See Faegre, Victor A., assignor.)

Faegre, Victor A., assignor of one-half to K. G. Faegre, New York, N. Y. Front-laced corset. No. 1,042,008; Oct. 29; Gaz. vol. 183; p. 1258.

Fahey, E. H. (See Gaul, William F., assignor.)

Fair, William B. (See Head, John L., assignor.)

Fairfield, Albert B. (See Schrey, Robert W., assignor.)

Falkin, Bruno, and E. Walters, Cleveland, Ohio. Locking faucet. No. 1,040,913; Oct. 8; Gaz. vol. 183; p. 451.

Falkenhagen, John. (See Knutson, Peder M., assignor.)

Farbenfabriken vorm. Friedr. Bayer & Co. (See Heerlein, Heinrich, assignor.) (Reissue.)

Farbenfabriken vorm. Friedr. Bayer & Co. (See Hofmann, Delbrück, and Meisenburg, assignors.)

Farbenfabriken vorm. Friedr. Bayer & Co. (See Weindel, Anton, assignor.)

Farbwerke vorm. Meister Lucius & Brüning. (See Benda, Ludwig, assignor.)

Farbwerke vorm. Meister Lucius & Brüning. (See Meest and Berneck, assignors.)

Farbwerke vorm. Meister Lucius & Brüning. (See Müller and Lutter, assignors.)

Farbwerke vorm. Meister Lucius & Brüning. (See Stock and Heim, assignors.)

Farbwerke vorm. Meister Lucius & Brüning. (See Wagner and Erber, assignors.)

Farco, Arthur H., Newark, N. J. Railway-signal. No. 1,041,988; Oct. 22; Gaz. vol. 183; p. 884.

Farkas, Karl, assignor of one-half to G. V. Williams, New York, N. Y. Plastic mass for metallic filaments. No. 1,041,262; Oct. 15; Gaz. vol. 183; p. 604.

Farley, Colby R. (See Ewing and Farley.)

Farmer, John P., Portland, Oreg. Household gas-filter. No. 1,040,914; Oct. 8; Gaz. vol. 183; p. 451.

Farnham, George W., assignor to Lowell Machine Shop, Lowell, Mass. Spindle-support for spinning, twisting, and like machines. No. 1,040,297; Oct. 8; Gaz. vol. 183; p. 240.

Farnum, William C., assignor of one-half to H. B. and C. F. Cowdrey, Fitchburg, Mass. Log-handling device. No. 1,041,763; Oct. 22; Gaz. vol. 183; p. 806.

Farquhar, William C. (See Shiek, Dearell D., assignor.)

Farr, Eugene M., Orsdell, N. J., assignor to M. J. Phillips, Charlotte Hall, Md. Skirt-measurer. No. 1,041,611; Oct. 15; Gaz. vol. 183; p. 716.

Farrar, Frederick H., Sr., Tolo, Oreg. Match-box. No. 1,042,419; Oct. 29; Gaz. vol. 183; p. 1055.

Farrell, John J., Ardmore, Pa. Lock-nut. No. 1,039,916; Oct. 1; Gaz. vol. 183; p. 82.

Farrow, Willard M., Jr., Washington, D. C. Pin-spotting mechanism. No. 1,041,058; Oct. 15; Gaz. vol. 183; p. 533.

Farwell, Edward, Weymouth, England. Making bread. No. 1,040,660; Oct. 8; Gaz. vol. 183; p. 370.

Faust, Casper, Oshkosh, Wis. Safety-gate for bascule-bridges. No. 1,042,776; Oct. 29; Gaz. vol. 183; p. 1181.

Favre, Emile G., Earlville, Ill. Vehicle-brake. No. 1,041,656; Oct. 15; Gaz. vol. 183; p. 532.

Fay Machine Tool Company. (See Schaum, Otto W., assignor.)

Federal Cement Tile Company. (See Freund, Ignatz H., assignor.)

Fee, John R., Montreal, Quebec, Canada. Hydraulic motor. No. 1,042,420; Oct. 29; Gaz. vol. 183; p. 1055.

Fegley, Thomas J., and G. O. Leopold, assignors to North Bros. Mfg Co., Philadelphia, Pa. Means for attaching blades of tools to handles. No. 1,041,451; Oct. 15; Gaz. vol. 183; p. 603.

Feibel, Jacob, New York, N. Y., assignor, by mesne assignments, to Union Typewriter Company, Jersey City, N. J. Type-writing machine. No. 1,040,998; Oct. 8; Gaz. vol. 183; p. 540.

Fell, Harriet J., White Plains, N. Y. Cooking apparatus. No. 1,040,916; Oct. 8; Gaz. vol. 183; p. 452.

Feller, George H., Beach City, Ohio. Aeroplane. No. 1,039,710; Oct. 1; Gaz. vol. 183; p. 16.





Fellmeth, Jacob W. (See King and Fellmeth.)

Fennessy, Edward H., et al. (See Hall, William, assignor.)

Fennessy, Frank R., et al. (See Hall, William, assignor.)

Fergus Falls Rotary Ice Plow Co. (See Finch and Babst, assignors.)

Ferguson, George A., and A. Marshall, Condon, Oreg. Automatic water-lift. No. 1,041,452; Oct. 15; Gaz. vol. 183; p. 603.

Ferguson, J. A. (See White, George P., assignor.)

Ferguson, John J. (See Clark and Ferguson.)

Fernandez, Pedro, Victoria, Tex. Wrench. No. 1,042,777; Oct. 29; Gaz. vol. 183; p. 1182.

Ferris, Elmer C., Elizabeth, N. J. Automatic punching apparatus. No. 1,042,210; Oct. 22; Gaz. vol. 183; p. 957.

Fessenden, Reginald A., Brant Rock, Mass., assignor to National Electric Signaling Company, Pittsburgh, Pa. High-frequency electrical conductor. No. 1,039,717; Oct. 1; Gaz. vol. 183; p. 16.

Fessenden, Reginald A., Washington, D. C., assignor to The National Electric Signaling Company, Pittsburgh, Pa. Receiver for electromagnetic waves. No. 1,042,778; Oct. 29; Gaz. vol. 183; p. 1182.

Fetzer, Louis W., Findlay, Ohio. Well pulling, cleaning, and drilling machine. No. 1,041,453; Oct. 15; Gaz. vol. 183; p. 667.

Fewell, Cicero A., Glenwood, Ark. Cattle-guard. No. 1,039,917; Oct. 1; Gaz. vol. 183; p. 82.

Fields, John H., assignor of one-half to N. B. Holder, Davidson, Okla. Wagon-box. No. 1,042,661; Oct. 29; Gaz. vol. 183; p. 1142.

Fillion, George, Sr., Lake Linden, Mich. Combined bed elevating and transporting apparatus. No. 1,042,662; Oct. 29; Gaz. vol. 183; p. 1142.

Finch, James H., Jr., Dorchester, Mass. Trolley-wheel retainer. No. 1,039,918; Oct. 1; Gaz. vol. 183; p. 83.

Finch, John S., Bridgeport, Conn., assignor to The Singer Manufacturing Company. Feeding mechanism for sewing-machines. No. 1,042,338; Oct. 22; Gaz. vol. 183; p. 997.

Finlayson, Alexander W., Detroit, Mich., assignor of one-half to T. Schunk, Toledo, Ohio, and one-fourth to R. C. Sturgeon, Ojibwa, Canada. Gas water-heater. No. 1,039,919; Oct. 1; Gaz. vol. 183; p. 83.

Finley, Walter A., assignor of one-fourth to F. Helmick, Fairmont, W. Va. Rebound-check. No. 1,040,917; Oct. 8; Gaz. vol. 183; p. 452.

Finnegan, George J., Lockport, N. Y. Fire-extinguisher. No. 1,042,541; Oct. 29; Gaz. vol. 183; p. 1096.

Fire-Proof Furniture and Construction Company. (See Carpenter, Charles U., assignor.)

Firestone, Samuel. (See Schrader, Morris, assignor.)

Fisch, James H., and J. C. Babst, assignors to Fergus Falls Rotary Ice Plow Co., Fergus Falls, Minn. Ice-cutting machine. No. 1,039,718; Oct. 1; Gaz. vol. 183; p. 16.

Fischbach, Gustav. (See Bleinutta, Fischbach, and Zigaha.)

Fischer, Charles W., Sparks, Nebr. Shoe-lace buckle or lock. No. 1,040,918; Oct. 8; Gaz. vol. 183; p. 452.

Fischer, Louis G., Harrisburg, Pa. Pneumatic-hammer device. No. 1,041,057; Oct. 15; Gaz. vol. 183; p. 534.

Fish, Squire J., Jackson, Mich. Egg-testing machine. No. 1,040,919; Oct. 8; Gaz. vol. 183; p. 453.

Fisher, Charles W., South Bend, Ind. Valance for buggies. No. 1,040,180; Oct. 1; Gaz. vol. 183; p. 170.

Fisher, Emanuel, Jr., assignor of one-half to F. S. Peck, Providence, R. I. Engine. No. 1,041,764; Oct. 22; Gaz. vol. 183; p. 806.

Fisher, Henry L., Cincinnati, Ohio. Piano-lamp. No. 1,042,009; Oct. 22; Gaz. vol. 183; p. 921.

Fisher, Milan H. (See Tarbell, Frank L., assignor.)

Fisk Rubber Company. (See Cole, John C., assignor.)

Fiske, Henry G., New York, N. Y., assignor, by mesne assignments, to The Columbia Motor Car Company, Hartford, Conn. Tire. No. 1,040,920; Oct. 8; Gaz. vol. 183; p. 453.

Fitz, Cephas V., Charlotte, N. C. Internal-combustion engine. No. 1,040,209; Oct. 8; Gaz. vol. 183; p. 240.

Fitts, James L. (See Morgan and Fitts.)

Fitz Hugh, Valentine M. (See Cunningham and Reid, assignors.)

Fitzgerald, Anna T., Worcester, Mass. Folding hat-box. No. 1,040,300; Oct. 8; Gaz. vol. 183; p. 241.

Flanigan, David A., assignor to Utah Aerial Navigation and Power Company, Springville, Utah. Windmill. No. 1,042,779; Oct. 29; Gaz. vol. 183; p. 1182.

Flanigan, David A., assignor to Utah Aerial Navigation and Power Company, Springville, Utah. Airship. No. 1,043,094; Oct. 29; Gaz. vol. 183; p. 1259.

Flannery Bolt Company. (See Stafford, Benjamin B. D., assignor.)

Fleischer, Emil, Dresden-Altstadt, Germany. Making hot gasoline-gas. No. 1,041,063; Oct. 15; Gaz. vol. 183; p. 534.

Fleming, George R., Yates Center, Kans. Corn-planter. No. 1,042,230; Oct. 22; Gaz. vol. 183; p. 998.

Fleming, Herman. (See Canstens, Charles, assignor.)

Fleming, James E., Scranton, Pa. Car-wheel slide-shoe. No. 1,042,290; Oct. 29; Gaz. vol. 183; p. 1234.

Fleming, John A., St. Louis, Mo. Paint-guard for bat-pins. No. 1,040,921; Oct. 8; Gaz. vol. 183; p. 454.

Fletcher, George W., Meadow, Ill. Ringing and docking instrument. No. 1,042,901; Oct. 29; Gaz. vol. 183; p. 1224.

Fletcher, John T., Boscawen, N. H. Pail-rest. No. 1,040,249; Oct. 1; Gaz. vol. 183; p. 183.

Fletcher, Lauren D. (See Erickson and Fletcher.)

Flora, Ellsworth E., assignor to Simplex Metal Bound Box Company, Chicago, Ill. Wire-bound box. No. 1,042,189; Oct. 22; Gaz. vol. 183; p. 922.

Flynn, Michael, Minneapolis, Minn. Thresher-cleaner. No. 1,040,301; Oct. 8; Gaz. vol. 183; p. 241.

Foertsch, George C., Grand Rapids, Mich. Adjustable curtain-bracket. No. 1,042,421; Oct. 29; Gaz. vol. 183; p. 1056.

Foothorap, Harry A., assignor to Elliott-Fisher Company, Harrisburg, Pa. Ribbon mechanism for type-writers. No. 1,039,920; Oct. 1; Gaz. vol. 183; p. 83.

Fordyce, Edmond A., assignor, by mesne assignments, to American Pneumatic Service Company, Boston, Mass. Pneumatic-despatch-tube apparatus. No. 1,040,302; Oct. 8; Gaz. vol. 183; p. 242.

Forrester, Peter C., Tacoma, Wash. Match-machine. No. 1,041,989; Oct. 22; Gaz. vol. 183; p. 885.

Forry, Charles E., Oakland, assignor, by mesne assignments, to American Can Company, San Francisco, Cal. Double-seaming machine. No. 1,042,211; Oct. 22; Gaz. vol. 183; p. 957.

Fors, Oscar A., Chicago, Ill. Color-chart. No. 1,041,765; Oct. 22; Gaz. vol. 183; p. 807.

Forsell, Franz E., assignor to S. M. Einstein, Attleboro, Mass. Bracelet. No. 1,039,719; Oct. 1; Gaz. vol. 183; p. 17.

Forslund, Hugo W., assignor to J. W. Reedy Elevator Manufacturing Co., Chicago, Ill. Limit-switch for elevators or hoisting machinery. No. 1,042,212; Oct. 22; Gaz. vol. 183; p. 958.

Forter Miller Engineering Company. (See Merium, Frederic, assignor.)

Foss, Charles A., Chicago, Ill. Candle-holder. No. 1,039,921; Oct. 1; Gaz. vol. 183; p. 83.

Foss, Walter O., assignor to C. E. Bunnell and R. Bradley, Branford, Conn. Driving mechanism. No. 1,042,101; Oct. 22; Gaz. vol. 183; p. 922.

Foster, Theodore D., Cambridge, Mass. Magazine for disk records. No. 1,042,542; Oct. 29; Gaz. vol. 183; p. 1099.

Fotheringham, Carleton K., and A. R. Laing, Montreal, Quebec, Canada. Advertising device. No. 1,040,584; Oct. 8; Gaz. vol. 183; p. 322.

Foulder, James R., Schenectady, N. Y. Connecting-rod for engines. No. 1,042,543; Oct. 29; Gaz. vol. 183; p. 1099.

Fountain, George W., and S. H. Hook, Cameron, Mo. Device for fastening shades to rollers. No. 1,040,922; Oct. 8; Gaz. vol. 183; p. 454.

Four In One Manufacturing Co. (See Handy, Burt A., assignor.)

Fournier, Louis E., Boston, Mass. Door-hanger. No. 1,039,720; Oct. 1; Gaz. vol. 183; p. 17.

Fouts, Jeremiah N., Anaheim, Cal. Insulator. No. 1,042,902; Oct. 29; Gaz. vol. 183; p. 1226.

Fowler, Lewis G., and H. V. Thomas, Blairstown, Mo. Metal door. No. 1,042,903; Oct. 29; Gaz. vol. 183; p. 1225.

Fox, A. R., et al. (See Tatum, Franklin M., assignor.)

Fox, John H., Berea, Ohio. Educational device. No. 1,041,059; Oct. 15; Gaz. vol. 183; p. 534.

Frakes, John W., Chicago, Ill. Theatrical apparatus. No. 1,040,303; Oct. 8; Gaz. vol. 183; p. 242.

Frambach, Mathew J., and A. R. Corrington, assignors of one-half to W. F. Schildt, Hartley, Iowa. Sanitary closet. No. 1,041,268; Oct. 15; Gaz. vol. 183; p. 604.

Francis, George B., and B. H. Smith, assignors to Westinghouse, Church, Kerr & Company, New York, N. Y. Motor-truck. No. 1,042,338; Oct. 22; Gaz. vol. 183; p. 998.

Francis, George B., and B. H. Smith, assignors to Westinghouse, Church, Kerr & Company, New York, N. Y. Roller-platform. No. 1,042,550; Oct. 29; Gaz. vol. 183; p. 999.

Francisco, Arthur A., et al. (See Francisco, Charles E., assignor.)

Francisco, Charles E., assignor of five-sixths to J. F., W. E., J. W., A. A., and C. M. Francisco, Woodston, Kans. Guard device for railway-crossings. No. 1,042,102; Oct. 22; Gaz. vol. 183; p. 922.

Francisco, Clara M., et al. (See Francisco, Charles E., assignor.)

Francisco, John, et al. (See Francisco, Charles E., assignor.)

Francisco, John W., et al. (See Francisco, Charles E., assignor.)

Francisco, William E., et al. (See Francisco, Charles E., assignor.)

Franey, John, et al. (See Thebaud, John E., assignee.)

Frank, Constantin H., and C. Herman, New York, N. Y. Hat-pin guard and retainer. No. 1,041,766; Oct. 22; Gaz. vol. 183; p. 807.

Frank, Edward, San Francisco, Cal. Orange-knife. No. 1,041,767; Oct. 22; Gaz. vol. 183; p. 808.

Frank, Leroy R., Bangor, Me. Garment-hanger. No. 1,040,184; Oct. 1; Gaz. vol. 183; p. 170.

Frank, Michael B., assignor of one-half to L. Herman, Sheboygan, Wis. Safety-gate for bridges and railway-crossings. No. 1,041,464; Oct. 15; Gaz. vol. 183; p. 667.

Frank Mossberg Company. (See Mossberg, Frank, assignor.)

Fränkel, Eugen, Beuthen, Upper Silesia, Germany. Flushing apparatus. No. 1,041,512; Oct. 15; Gaz. vol. 183; p. 717.

Frankofsky, John Z., Johnstown, Pa. Tool for dressing emery-wheels. No. 1,041,768; Oct. 22; Gaz. vol. 183; p. 806.

Fraser, Andrew. (See Riedinger, Eugene B., assignor.)

Fraser, Floyd L., Wichita, Kans. Combined drum and cymbal beater. No. 1,042,904; Oct. 29; Gaz. vol. 183; p. 1225.

Fraser, John A., Benton Harbor, Mich. Electroplating appliance. No. 1,040,923; Oct. 8; Gaz. vol. 183; p. 454.

Frederick, Emil R., Shelby, Mich. Potato-planter. No. 1,041,613; Oct. 15; Gaz. vol. 183; p. 717.

Freehle, Thomas M., Rochester, assignor of one-half to R. M. Kaufmann, Pittsburgh, Pa. Switch-locking mechanism. No. 1,042,108; Oct. 22; Gaz. vol. 183; p. 923.

Freedman, Harry. (See Calder, Lewis, assignor.)

Freeman, William B. (See McElroy and Freeman.)

Freer, Fred, *et al.* (See Ivor, Barry, assignor.)

French, Andrew G., Nelson, British Columbia, Canada. Treatment of refractory zinc-lead ores. No. 1,041,060; Oct. 15; Gaz. vol. 183; p. 535.

Fresbel, John L., assignor to Tufting Machine Supply Company, Chicago, Ill. Button-holder. No. 1,042,663; Oct. 29; Gaz. vol. 183; p. 1142.

Freud, Maurice, Berlin, Germany. Supporting-arm for display-cases. No. 1,041,264; Oct. 15; Gaz. vol. 183; p. 604.

Freund, Ignatz H., assignor to Federal Cement Tile Company, Chicago, Ill. Cement slab or tile with light-pane. No. 1,041,900; Oct. 22; Gaz. vol. 183; p. 885.

Frick Company. (See Beeler, Samuel E., assignor.)

Fried. Krupp Aktiengesellschaft. (See Klästner, Alfred, assignor.)

Fried. Krupp Aktiengesellschaft. (See Korrodi, Heinrich, assignor.)

Fried. Krupp Aktiengesellschaft. (See Wieser, Karl, assignor.)

Friedrick, Ernest, U. S. Navy. Projectile. No. 1,040,924; Oct. 8; Gaz. vol. 183; p. 454.

Frisch, August, Zürich, Switzerland. Indicating mechanism. No. 1,041,061; Oct. 15; Gaz. vol. 183; p. 535.

Friske, Albert, and E. J. Score, Colfax, N. D. Ironing-board cabinet. No. 1,040,182; Oct. 1; Gaz. vol. 183; p. 171.

Fritsche, Gustav, Strasbowitz, near Schönbrunn, Austria-Hungary, assignor to The Roessler & Hasslacher Chemical Company, New York, N. Y. Germicide and insecticide. No. 1,042,422; Oct. 29; Gaz. vol. 183; p. 1056.

Froehlich, Joseph, assignor to F. L. Schmidt, New York, N. Y. Envelop-machine. No. 1,042,423; Oct. 29; Gaz. vol. 183; p. 1056.

Froehlich, Joseph, assignor to F. L. Schmidt, New York, N. Y. Counting mechanism. No. 1,042,424; Oct. 29; Gaz. vol. 183; p. 1057.

Frommann, Franklin A., Detroit, Mich. Wheel. No. 1,040,925; Oct. 8; Gaz. vol. 183; p. 455.

Fremmer, Rudolf, Budapest, Austria-Hungary. Self-loading pistol of the kind having sliding barrels. No. 1,039,922; Oct. 1; Gaz. vol. 183; p. 84.

Frost, Horatio T., Vivian, S. D. Mold. No. 1,041,991; Oct. 22; Gaz. vol. 183; p. 885.

Frothingham, Charles F. (See Goss, Harry T., assignor.)

Frothingham, Charles F. (See Hoofnagle, William T., assignor.)

Frothingham, Charles F., New York, N. Y. Dish-washing machine. No. 1,042,664; Oct. 29; Gaz. vol. 183; p. 1143.

Fryling, George P., *et al.* (See Bear, William L., assignor.)

Fuchs, Leonhard, Rochester, N. Y. Mechanical movement. No. 1,041,265; Oct. 15; Gaz. vol. 183; p. 604.

Fulkerson, Joseph C., and T. G. White, Marion, Iowa. Baling-press. No. 1,042,544; Oct. 29; Gaz. vol. 183; p. 1100.

Fuller, Benjamin D., J. E. and T. A. Reilly, assignors to The Osborn Manufacturing Company, Cleveland, Ohio. Mechanism for drawing patterns from molds. No. 1,042,780; Oct. 29; Gaz. vol. 183; p. 1183.

Fuller, Carl T., Schenectady, N. Y., assignor to General Electric Company. Apparatus for grinding and sorting powders. No. 1,041,769; Oct. 22; Gaz. vol. 183; p. 806.

Fuller, Elijah P., *et al.* (See Adams, William C., assignor.)

Fuller, James W., Jr., Catasauqua, Pa. Pulveriser-mill. No. 1,039,721; Oct. 1; Gaz. vol. 183; p. 17.

Fullman, James M. G., Pittsburgh, Pa. Knock-out closure in wall-boxes. No. 1,039,722; Oct. 1; Gaz. vol. 183; p. 18.

Fulsom, Charles H., Memphis, Tenn., assignor of one-half to J. W. Todd, New Orleans, La. Device for cooking cotton-seed or linseed meats. No. 1,041,455; Oct. 15; Gaz. vol. 183; p. 668.

Fulton Manufacturing Company. (See Adams, Arthur J., assignor.)

Funk, Edgar M., assignor to Liberty Cartridge Co., Mount Carmel, Conn. Primer for cartridges. No. 1,040,250; Oct. 1; Gaz. vol. 183; p. 193.

Funk, Richard W., Weehawken, N. J. Temporary locking-piece for transversely-split vehicle-wheel rims. No. 1,041,062; Oct. 15; Gaz. vol. 183; p. 536.

Furnace Patent Company, The. (See Wedge, Utley, assignor.)

Gabler, Johannes. (See Elmendorf and Gabler.)

Gaebler, Max H. (See Schultz, Emil W., assignor.)

Gage, Charles M., Jr., East Pepperell, Mass. Paper drinking-cup. No. 1,039,723; Oct. 1; Gaz. vol. 183; p. 18.

Gagné, Augustin, Central Falls, and J. W. Shaw, Pawtucket, R. I., assignors to Blackstone Stocking Company. Circular-knitting machine. No. 1,040,183; Oct. 1; Gaz. vol. 183; p. 171.

Galbraith, Robert M., Pine Bluff, assignor of one-half to A. Prothro, Dermott, Ark. Means for setting well-strainers. No. 1,042,425; Oct. 29; Gaz. vol. 183; p. 1058.

Gale, Albert O., and E. J. Iverson, Seattle, Wash. Coupling. No. 1,041,712; Oct. 15; Gaz. vol. 183; p. 752.

Gallon Iron Works Company, The. (See Arndt, Franklin E., assignor.)

Gallagher, John, Madison, Wis. Excavator. No. 1,040,304; Oct. 8; Gaz. vol. 183; p. 243.

Gallagher, Joseph D., Glen Ridge, N. J. Stair-carpet fastener. No. 1,040,661; Oct. 8; Gaz. vol. 183; p. 370.

Gallaher, James T., Knobnoster, Mo. Automatic mileage registering and auditing apparatus. No. 1,039,724; Oct. 1; Gaz. vol. 183; p. 18.

Galland, Charles N. (See Brooks and Galland.)

Gallison, Ernest A., Everett, assignor to Colonial Fast Color Tipping Company, Boston, Mass. Making tipped lacings. No. 1,040,862; Oct. 8; Gaz. vol. 183; p. 370.

Galloway, Frank, Leamington, England. Window-fastener. No. 1,041,713; Oct. 15; Gaz. vol. 183; p. 753.

Galusha, Albert L. (See Whaley and Galusha.)

Gamble, Frederick O., assignor to The Packard Company, Fort Wayne, Ind. Action-controller for automatic pianos. No. 1,041,063; Oct. 15; Gaz. vol. 183; p. 536.

Gamble, Walter H., assignor, by mesne assignments, to Emma Lang Investment Company, Los Angeles, Cal. Mechanism for giving intermittent rotation to a shaft. No. 1,042,905; Oct. 29; Gaz. vol. 183; p. 1225.

Gamewell Fire-Alarm Telegraph Company. (See Cole, Frederick W., assignor.)

Gamwell, Charles W., Raleigh, N. C. Rail construction. No. 1,042,545; Oct. 29; Gaz. vol. 183; p. 1100.

Ganey, Thomas L., East St. Louis, Ill. Fluid-gage. No. 1,039,923; Oct. 1; Gaz. vol. 183; p. 84.

Gann, David B. (See Watrous, Edward L., assignor.)

Gard, John W., Kokomo, Ind. Cistern. No. 1,039,924; Oct. 1; Gaz. vol. 183; p. 84.

Gard, Samuel M., Springfield, Ill. Pump-operating device. No. 1,040,305; Oct. 8; Gaz. vol. 183; p. 243.

Gardiner, Asa B., Jr., Cockeysville, and R. M. Shaffer, Baltimore, Md. Emulsifying apparatus. No. 1,042,781; Oct. 29; Gaz. vol. 183; p. 1183.

Gardiner, Hubert, *et al.* (See Hall, William, assignor.)

Gardner, Omar N., Jamestown, N. Y. Crane and derrick. No. 1,041,266; Oct. 15; Gaz. vol. 183; p. 605.

Gardner, Rio. (See Burton and Gardner.)

Gardner, Thomas M., Urbana, Ill. Determining the characteristics of vapor. No. 1,042,782; Oct. 29; Gaz. vol. 183; p. 1183.

Gardner, William J. (See Ingram, Atkin M., assignor.)

Garl, Manlous, Akron, Ohio. Hot-water-heater valve. No. 1,040,306; Oct. 8; Gaz. vol. 183; p. 244.

Garner, Vernon. (See Dexter and Garner.)

Garrard, Fred G., assignor of one-half to W. Alexander, Banner county, Nebr. Vent for well-tubes. No. 1,041,770; Oct. 22; Gaz. vol. 183; p. 806.

Gartner, John H., Pocatello, Idaho. Transom-lifter. No. 1,042,906; Oct. 29; Gaz. vol. 183; p. 1226.

Gatchell, Oren. (See Hornsby, Winsford H., assignor.)

Gathmann, Emil, assignor to Gathmann Engineering Company, New York, N. Y. Method of and means for stripping ingots. No. 1,039,725; Oct. 1; Gaz. vol. 183; p. 19.

Gathmann Engineering Company. (See Gathmann, Emil, assignor.)

Gáti, Béla, Budapest, Austria-Hungary. Alternating-current-measuring device. No. 1,039,925; Oct. 1; Gaz. vol. 183; p. 84.

Gaul, William F., Jersey City, N. J., assignor of one-half to E. H. Fahey, Philadelphia, Pa. Tire. No. 1,042,426; Oct. 29; Gaz. vol. 183; p. 1056.

Gaunt, Joseph S., Manchester, and H. Dyson, Hedderfield, England. Bearing for supporting the fibre and wheeves on the bobbin-tubes of spinning and doubling machines. No. 1,039,726; Oct. 1; Gaz. vol. 183; p. 19.

Gay, Herman T., assignor of one-half to J. G. Hochrein and one-fourth to J. F. Carroll, Baltimore, Md. Electric clock. No. 1,041,771; Oct. 22; Gaz. vol. 183; p. 809.

Gazzolo, John D., *et al.* (See Ivor, Barry, assignor.)

Gazzolo, Samuel D., assignor of one-half to A. M. Sisson, Joliet, Ill. Folding paper box. No. 1,041,982; Oct. 22; Gaz. vol. 183; p. 886.

Gebhart, Henry, Dayton, Ohio. Fare-box. No. 1,041,614; Oct. 15; Gaz. vol. 183; p. 717.

Gebhart, James A., Wilmington, Del. Beehive. No. 1,042,907; Oct. 29; Gaz. vol. 183; p. 1226.





Geer, Harry E., Johnstown, Pa. Rolling-mill coupling-spindle. No. 1,041,772; Oct. 22; Gaz. vol. 183; p. 810.

Geer, Harry E., Johnstown, Pa. Rolling-mill spindle-coupling. No. 1,041,773; Oct. 22; Gaz. vol. 183; p. 810.

Gehricke, Otto, Leipsig-Lindenau, Germany. Gearing. No. 1,041,615; Oct. 15; Gaz. vol. 183; p. 718.

Gehrig, William F., assignor to J. A. Dalaty, Newark, N. J. Repeating cap-pistol. No. 1,041,267; Oct. 15; Gaz. vol. 183; p. 605.

Geier, Ernst K., assignor to Duplan Silk Company, Hazleton, Pa. Loom for weaving gauze. No. 1,040,184; Oct. 1; Gaz. vol. 183; p. 172.

Geist, Charles A., Oklahoma, Okla. Ratchet-wrench. No. 1,041,064; Oct. 15; Gaz. vol. 183; p. 536.

Gendron Wheel Company. (See Diemer, William, assignor.)

General Electric Company. (See Alexanderson, Ernst F. W., assignor.)

General Electric Company. (See Arthur, Walter, assignor.)

General Electric Company. (See Ball, Henry P., assignor.)

General Electric Company. (See Bassler, Kurt, assignor.)

General Electric Company. (See Callan, John C., assignor.)

General Electric Company. (See Dempster, John T. H., assignor.)

General Electric Company. (See Fuller, Carl T., assignor.)

General Electric Company. (See Hansen, Charles A., assignor.)

General Electric Company. (See Hardman, William H., assignor.)

General Electric Company. (See Hayden, Joseph L., assignor.)

General Electric Company. (See Hitchcock, Frederick S., assignor.)

General Electric Company. (See Howell, John W., assignor.)

General Electric Company. (See Johnson, Werner, assignor.)

General Electric Company. (See Kieser, Walter, assignor.)

General Electric Company. (See Kingwell, Kenneth F., assignor.) (Reissue.)

General Electric Company. (See Krämer, Christian, assignor.)

General Electric Company. (See Krause, Otto, assignor.)

General Electric Company. (See Kroner, Frank A., assignor.)

General Electric Company. (See Lemp, Hermann, assignor.)

General Electric Company. (See Loewenstein and Dyer, assignors.)

General Electric Company. (See McLain, Robert H., assignor.)

General Electric Company. (See Moore, Daniel M., assignor.)

General Electric Company. (See Moss, Sanford A., assignor.)

General Electric Company. (See Murphy and Eaton, assignors.)

General Electric Company. (See Noeggerath, Jakob E., assignor.)

General Electric Company. (See Nowell, Thomas W., assignor.)

General Electric Company. (See Peek, Frank W., Jr., assignor.)

General Electric Company. (See Potter, William B., assignor.)

General Electric Company. (See Rice, Richard H., assignor.)

General Electric Company. (See Rice and Moss, assignors.)

General Electric Company. (See Samuelson, Frederick, assignor.)

General Electric Company. (See Seede, John A., assignor.)

General Electric Company. (See Steinmetz, Charles P., assignor.)

General Electric Company. (See Thomson, Elihu, assignor.)

General Electric Company. (See Troger, Richard, assignor.)

General Electric Company. (See Wagner, Paul, assignor.)

General Electric Company. (See Weintraub and Latour, assignors.)

General Fire Extinguisher Company. (See Hammond, Wilberforce B., assignor.)

General Manifold and Printing Company, The. (See Lewis, Edward E., assignor.)

Gentless, James, Philadelphia, Pa. Car-fender. No. 1,042,908; Oct. 29; Gaz. vol. 183; p. 1227.

George Mail Device Company. (See George, Marion N., assignor.)

George, Marion N., Irondale, assignor to George Mail Device Company, Inc., Birmingham, Ala. Mail-bag-receiving apparatus. No. 1,040,307; Oct. 8; Gaz. vol. 183; p. 244.

Gerahty, James D., and J. E. Hager, New York, N. Y. Bottle-stopper. No. 1,041,774; Oct. 22; Gaz. vol. 183; p. 810.

Gerlinger, Carl F., Dallas, Oreg. Water-gage. No. 1,041,417; Oct. 29; Gaz. vol. 183; p. 1069.

Gerstberger, Johann, Lódz, Russia. Thread-brake for first-combing machines. No. 1,040,185; Oct. 1; Gaz. vol. 183; p. 172.

Geruldsen, Hjalmar, New York, N. Y. Lantern. No. 1,041,065; Oct. 15; Gaz. vol. 183; p. 537.

Gesualdo, Joseph, and F. Baldassarre, Newark, N. J. Safety-alarm. No. 1,041,456; Oct. 15; Gaz. vol. 183; p. 668.

Gibbs, Charles, and J. Sokolov, assignors to Underwood Typewriter Company, New York, N. Y. Stencilling-machine. No. 1,041,775; Oct. 22; Gaz. vol. 183; p. 811.

Gibbs, Harvey A., Genoa Junction, Wis. Receptacle-cover. No. 1,042,428; Oct. 29; Gaz. vol. 183; p. 1059.

Gibbs, Henry, assignor to W. D. Allen Manufacturing Company, Chicago, Ill. Hose-band. No. 1,040,926; Oct. 8; Gaz. vol. 183; p. 455.

Gibson, Lemuel E., Des Moines, Iowa. Fastening device for picture-frames. No. 1,041,776; Oct. 22; Gaz. vol. 183; p. 811.

Gifford, Harry E., assignor to Champion Metal Weather Strip and Parting Bead Company, Boston, Mass. Adjustable window-shade fixture. No. 1,042,213; Oct. 22; Gaz. vol. 183; p. 968.

Gilbert, Thomas J. (See Woods and Gilbert.)

Gilles, Georges, Fribourg, Switzerland. Electric safety device for the flowing out of excess voltage. No. 1,040,927; Oct. 8; Gaz. vol. 183; p. 455.

Gill, Stanislaw J., Hammond, Ind. Shade-curtain fixture. No. 1,040,186; Oct. 1; Gaz. vol. 183; p. 172.

Gilmartin, Michael W., Lake Denmark, N. J., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Grapple. No. 1,039,727; Oct. 1; Gaz. vol. 183; p. 19.

Gilmore, John M., Chicago, Ill. Dental apparatus. No. 1,039,728; Oct. 1; Gaz. vol. 183; p. 20.

Ginaca, Henry G., Honolulu, Hawaii. Automatic fruit corer and slicer. No. 1,039,926; Oct. 1; Gaz. vol. 183; p. 85.

Giriot, Joseph, Laeken, Brussels, Belgium. Machine for forging circular pieces. No. 1,040,979; Oct. 8; Gaz. vol. 183; p. 474.

Gish, John L., South Bend, Ind. Regulated automatic-closing valve. No. 1,042,546; Oct. 29; Gaz. vol. 183; p. 1100.

Gish, John L., South Bend, Ind. Regulated automatic-closing valve. No. 1,042,547; Oct. 29; Gaz. vol. 183; p. 1101.

Gisholt Machine Company. (See Miller, William L., assignor.)

Gladeck, Frederick C. (See Brand and Gladeck.)

Gladue, William, Bertha, N. D. Whip-lock. No. 1,042,665; Oct. 29; Gaz. vol. 183; p. 1143.

Glenz, Albert A., Fall Creek, Wis. Shield for transmission-gearing of automobiles. No. 1,042,548; Oct. 29; Gaz. vol. 183; p. 1101.

Glines, Robert C., and H. A. Stier, Orcutt, Cal. Tubing or casing spear. No. 1,041,268; Oct. 15; Gaz. vol. 183; p. 606.

Godin, Eusebe, assignor to T. J. Wilber, Harrisville, N. Y. Spring-block set for saws. No. 1,040,928; Oct. 8; Gaz. vol. 183; p. 456.

Godley, George F., Philadelphia, Pa. Dust-guard. No. 1,040,808; Oct. 8; Gaz. vol. 183; p. 244.

Goehler, Max, Vancouver, British Columbia, Canada. Portable power-operated saw. No. 1,041,777; Oct. 22; Gaz. vol. 183; p. 811.

Goff, Frank, Camden, N. J. Air-brake. No. 1,042,666; Oct. 29; Gaz. vol. 183; p. 1144.

Goff, Samuel B., Camden, N. J. Fountain-syringe. No. 1,042,549; Oct. 29; Gaz. vol. 183; p. 1101.

Goggin, Patrick T. (See Dowd and Goggin.)

Gohmann, Arthur, assignor to Stettiner Chamotte-Fabrik Actien-Gesellschaft vorm. Didier, Stettin, Germany. Regenerative coke-oven. No. 1,041,457; Oct. 15; Gaz. vol. 183; p. 668.

Gold Car Heating & Lighting Company. (See Gold, Edward E., assignor.)

Gold Car Heating & Lighting Company. (See Smith, Franklin H., assignor.)

Gold, Edward E., assignor to Gold Car Heating & Lighting Company, New York, N. Y. Wind-operated ventilator. No. 1,041,616; Oct. 15; Gaz. vol. 183; p. 718.

Gold, Edward E., assignor to Gold Car Heating & Lighting Company, New York, N. Y. Thermostat. No. 1,042,104; Oct. 22; Gaz. vol. 183; p. 923.

Gold, Edward E., assignor to Gold Car Heating & Lighting Company, New York, N. Y. Steam-trap. No. 1,043,046; Oct. 29; Gaz. vol. 183; p. 1274.

Goldberg, Samuel. (See Ingram, Horace G., assignor.)

Golden, Irving B., Toledo, Ohio. Dough retainer or trough. No. 1,040,929; Oct. 8; Gaz. vol. 183; p. 456.

Goldschmidt Detinning Company. (See Spitz, Gustav, assignor.)

Goldschmidt, Rudolf, Darmstadt, Germany. Rotor for electric machines. No. 1,043,047; Oct. 29; Gaz. vol. 183; p. 1275.

Gönczy, Joseph, Budapest, Austria-Hungary. Advertising device. No. 1,042,783; Oct. 29; Gaz. vol. 183; p. 1184.

Goodhue, James H., St. Charles, Ill. Corn-husking machine. No. 1,040,663; Oct. 8; Gaz. vol. 183; p. 370.

Goodhugh, Thomas, Brockley, London, England. Artificial tooth. No. 1,042,105; Oct. 22; Gaz. vol. 183; p. 924.

Goodman Manufacturing Company. (See Nevin, Nils D., assignor.)

Goodness, Frank A., Newport News, Va. Pin. No. 1,041,903; Oct. 22; Gaz. vol. 183; p. 886.

Goodrich, Charles E., Daggett, Cal. Means for recovering dust and other materials. No. 1,041,617; Oct. 15; Gaz. vol. 183; p. 718.

Goodrich, Clarence L., assignor to Pratt & Whitney Company, Hartford, Conn. Attachment for turret-lathes. No. 1,041,994; Oct. 22; Gaz. vol. 183; p. 886.

Goodwin & Kintz Company, The. (See Goodwin, Winslow, assignor.)

Goodwin, Winslow, assignor of one-half to The Goodwin & Kintz Company, Winsted, Conn. Electric-light fixture or electrolier. No. 1,041,458; Oct. 15; Gaz. vol. 183; p. 669.

Goodwin, Winslow, assignor of one-half to The Goodwin & Kintz Company, Winsted, Conn. Electric-light fixture or electrolier. No. 1,041,459; Oct. 15; Gaz. vol. 183; p. 669.

Goosens, Henry, Columbia, Ill. Side-track draft attachment for vehicles. No. 1,040,930; Oct. 8; Gaz. vol. 183; p. 456.

Goosey, Charles A., Woonsocket, R. I. Box. No. 1,040,931; Oct. 8; Gaz. vol. 183; p. 456.

Gordon, Aaron. (See Maurer and Gordon.)

Gordon, David D., Chicago, Ill. Switching device. No. 1,040,309; Oct. 8; Gaz. vol. 183; p. 245.

Gordon, David D., Chicago, Ill. Connecting device. No. 1,041,066; Oct. 15; Gaz. vol. 183; p. 537.

Gordon, Omer A. (See Witter and Gordon.)

Gorin, Fred P., Chicago, Ill. Calendar. No. 1,042,337; Oct. 22; Gaz. vol. 183; p. 900.

Gorrell, Hiram V. and J. B., Kendallville, Ind. Heat-radiator. No. 1,039,927; Oct. 1; Gaz. vol. 183; p. 85.

Gorrell, John B. (See Gorrell, Hiram V. and J. B.)

Goss, Harry T., Rutherford, N. J., assignor to C. F. Frothingham, New York, N. Y. Dish-washing machine. No. 1,042,784; Oct. 29; Gaz. vol. 183; p. 1184.

Gottlieb, Jacob, New York, N. Y. Condiment-holder. No. 1,039,729; Oct. 1; Gaz. vol. 183; p. 20.

Gottschalk, Anna, Berlin, Germany. Hose-supporter. No. 1,041,618; Oct. 15; Gaz. vol. 183; p. 719.

Gould Coupler Company. (See Richards, Willard F., assignor.)

Goulding, Charles, Chicago, Ill. Pill and tablet counting machine. No. 1,042,785; Oct. 29; Gaz. vol. 183; p. 1184.

Goulds Manufacturing Company, The. (See Smith, Sidney S., assignor.)

Goyette, Frederick W., San Francisco, Cal. Airship. No. 1,042,338; Oct. 22; Gaz. vol. 183; p. 1000.

Grace, Henry S., San Francisco, Cal. Vehicle-wheel. No. 1,042,214; Oct. 22; Gaz. vol. 183; p. 959.

Graf, Richard, New York, assignor of two-thirds to W. E. Savage, one-ninth to A. Mackay, one-ninth to R. G. Mackay, Brooklyn, and one-nineteenth to B. C. Wickes, Auburn, N. Y. Rotary fluid-power device. No. 1,042,215; Oct. 22; Gaz. vol. 183; p. 959.

Graham, Cargill, Kansas City, Kans. Washing-machine. No. 1,041,067; Oct. 15; Gaz. vol. 183; p. 537.

Graham, Katharine, Baltimore, Md. Device for milk-bottles. No. 1,042,909; Oct. 29; Gaz. vol. 183; p. 1227.

Graham, Moses, Philadelphia, Pa. Milk-bottle lock. No. 1,042,550; Oct. 29; Gaz. vol. 183; p. 1101.

Graham, William S., assignor to The Warner Brothers Company, Bridgeport, Conn. Buckle. No. 1,040,187; Oct. 1; Gaz. vol. 183; p. 172.

Graham, Willie, New Orleans, La. Conveyer. No. 1,039,730; Oct. 1; Gaz. vol. 183; p. 20.

Grant, Horace E., Pittsburgh, Pa. Liquid-storage system. No. 1,042,106; Oct. 22; Gaz. vol. 183; p. 924.

Grant, Horace E., Pittsburgh, Pa. Liquid-storage system. No. 1,042,107; Oct. 22; Gaz. vol. 183; p. 924.

Grant, Horace E., Pittsburgh, Pa. Liquid-supply system. No. 1,042,216; Oct. 22; Gaz. vol. 183; p. 960.

Grant, Joseph and Joseph, Jr., Los Angeles, Cal. Apparatus for raising sunken vessels. No. 1,041,995; Oct. 22; Gaz. vol. 183; p. 887.

Gratreau, Georges, assignor to Société du Tissage Velox, Paris, France. Multiple loom. No. 1,042,339; Oct. 22; Gaz. vol. 183; p. 1000.

Graul, Albert F., Newark, N. J. Hat-pin fastener. No. 1,042,108; Oct. 22; Gaz. vol. 183; p. 925.

Gravell, James H. (See Budd and Gravell.)

Gravell, James H., assignor to Hale and Kilburn Company, Philadelphia, Pa. Welding apparatus. No. 1,041,778; Oct. 22; Gaz. vol. 183; p. 812.

Graves, Richmond L. (See Selden and Graves.)

Gray, Alfred, New York, N. Y. Sign. No. 1,040,932; Oct. 8; Gaz. vol. 183; p. 457.

Gray, David E., Hinsdale, assignor to Brown & Williams, Chicago, Ill. Automatic winding-machine. No. 1,040,188; Oct. 1; Gaz. vol. 183; p. 173.

Gray, Ernest, Ogden, Utah. Recoil mechanism. No. 1,042,551; Oct. 29; Gaz. vol. 183; p. 1102.

Gray, James A., San Francisco, Cal. Can-head-lining machine. No. 1,043,006; Oct. 29; Gaz. vol. 183; p. 1200.

Gray, Sylvester B., Chickasha, Okla. Climbing device for roof-workers. No. 1,039,928; Oct. 1; Gaz. vol. 183; p. 86.

Graybill, George, York, Pa. Spring attachment for vehicles. No. 1,041,460; Oct. 15; Gaz. vol. 183; p. 669.

Green, Alexandre M., New York, N. Y. Bust and shoulder form. No. 1,041,461; Oct. 15; Gaz. vol. 183; p. 670.

Green, Alexandre M., New York, N. Y. Garment. No. 1,041,462; Oct. 15; Gaz. vol. 183; p. 670.

Greenleaf, Frederick A., assignor of one-third to W. A. Lane, Barre, Vt. Stone-cutting lathe. No. 1,042,217; Oct. 22; Gaz. vol. 183; p. 960.

Greeley, Mallie J., Thunder, Idaho. Chain-coupling device. No. 1,043,007; Oct. 29; Gaz. vol. 183; p. 1144.

Green, Henry, Hartford, Conn. X-ray tube. No. 1,042,109; Oct. 22; Gaz. vol. 183; p. 925.

Green, Lyman D., assignor to The Davis Sewing Machine Company, Dayton, Ohio. Adjustable presser-foot for sewing-machines. No. 1,042,429; Oct. 29; Gaz. vol. 183; p. 1059.

Greenebaum, Abraham H., assignor to Alma Manufacturing Company of Baltimore City, Baltimore, Md. Snap-fastener socket and top. No. 1,041,619; Oct. 15; Gaz. vol. 183; p. 719.

Greenhalgh, Charles W., Lowell, Wash. Grapple. No. 1,041,035; Oct. 15; Gaz. vol. 183; p. 538.

Greenlaw Manufacturing Company, The. (See Greenlaw, Warren A., assignor.)

Greenlaw, Warren A., Melrose Highlands, assignor to The Greenlaw Manufacturing Company, Boston, Mass. Coupling for train-pipes. No. 1,039,731; Oct. 1; Gaz. vol. 183; p. 21.

Greenlund, Arthur H., assignor to Jamestown Lounge Company, Jamestown, N. Y. Chair-frame. No. 1,040,933; Oct. 8; Gaz. vol. 183; p. 457.

Greenough, John W. (See Dunham and Greenough.)

Greenpoint Metallic Bed Company. (See Holden, George, assignor.)

Greer, Thomas D., Norton, Kans. Stabilizator. No. 1,041,620; Oct. 15; Gaz. vol. 183; p. 719.

Grégoire, Félix, St. Jean Baptiste, Manitoba, Canada. Combination autoboat and aeroplane. No. 1,041,779; Oct. 22; Gaz. vol. 183; p. 812.

Gregory, Arthur, Wytheville, Va. Casing for electric fans. No. 1,040,934; Oct. 8; Gaz. vol. 183; p. 457.

Greist Manufacturing Company, The. (See Beyer, Emanuel J., assignor.)

Grether, Ernst. (See Preiswerk and Grether.)

Grenier, Bruno, Kreuzlingen, Switzerland. Embroidering-machine. No. 1,039,929; Oct. 1; Gaz. vol. 183; p. 86.

Griffin, Gerald G., New York, N. Y. Apparatus for making confetti. No. 1,040,935; Oct. 8; Gaz. vol. 183; p. 458.

Griffin, John, assignor of one-tenth to L. A. Drugmand, Tyro, and one-tenth to G. M. Weaver, Imperial, Pa. Trap. No. 1,041,463; Oct. 15; Gaz. vol. 183; p. 670.

Griffin, Mortimer N., Rome, Ga. Box for water-meters. No. 1,042,218; Oct. 22; Gaz. vol. 183; p. 960.

Griffith, Benjamin M., and W. T. McCullough, Pittsburgh, Pa. Churn. No. 1,040,664; Oct. 8; Gaz. vol. 183; p. 371.

Griffith, George P. (See Bell, Wilton, and Griffith.)

Griggs, Horace W., Milwaukee, Wis. Machine for winding moving-picture films and other material. No. 1,042,430; Oct. 29; Gaz. vol. 183; p. 1060.

Griggs, Theodore G., Springfield, N. J. Fan attachment for machines. No. 1,042,431; Oct. 29; Gaz. vol. 183; p. 1060.

Grimes, Thomas J., York, Ala. Combined cultivator and fertilizer-distributer. No. 1,040,936; Oct. 8; Gaz. vol. 183; p. 458.

Grimm, Paul H., Glen Cove, N. Y., assignor to C. G. Cornell, Jr., Greenwich, Conn. Attaching a collar to the end of a pipe. No. 1,039,930; Oct. 1; Gaz. vol. 183; p. 86.

Grimshaw, Frank B. (See Walters, Alexander L., assignor.)

Grinnell, Harold D., Pittsfield, Mass. Combination gas-burner and electric gas-igniter. No. 1,040,937; Oct. 8; Gaz. vol. 183; p. 458.

Grisham, Mattie, Athens, Tex. Spittoon. No. 1,041,621; Oct. 15; Gaz. vol. 183; p. 720.

Grochau, Augustus H., Eau Claire, Wis. Sanitary lining for refrigerators and closets. No. 1,043,043; Oct. 29; Gaz. vol. 183; p. 1275.

Groebli, Joseph A., New York, N. Y. Bead-sewing machine. No. 1,041,780; Oct. 22; Gaz. vol. 183; p. 812.

Groebli, Joseph A., New York, N. Y. Jacquard. No. 1,042,668; Oct. 29; Gaz. vol. 183; p. 1144.

Groebli, Joseph A., assignor, by mesne assignments, to A. H. Kurpheedt, New York, N. Y. Protective device for embroidering-machines. No. 1,040,938; Oct. 8; Gaz. vol. 183; p. 459.

Grönwall, Ragnar A. A., A. B. Lindblad, and O. Stålhane, Ludvika, Sweden. Electric furnace. No. 1,039,782; Oct. 1; Gaz. vol. 183; p. 21.

Grosscup, Lewis S., Salem, N. J. Lifting-jack. No. 1,040,939; Oct. 8; Gaz. vol. 183; p. 459.

Grubb, Henry F., Lorain, Ohio. Automatic speed control for motor-vehicles. No. 1,040,189; Oct. 1; Gaz. vol. 183; p. 173.

Grundy, John R., assignor to Charles Bond Company, Philadelphia, Pa. Making set-screws. No. 1,042,219; Oct. 22; Gaz. vol. 183; p. 960.

Grunow, William, Jr., Waterbury, Conn., assignor to American Railway Signal Company, Railway signaling. No. 1,040,940; Oct. 8; Gaz. vol. 183; p. 460.

Grunow, William, Jr., Waterbury, Conn., assignor to American Railway Signal Company. Circuit-closing device or switch for use in connection with electric or other railways. No. 1,040,941; Oct. 8; Gaz. vol. 183; p. 460.





Grüter, Reinhold, and H. Pohl, Charlottenburg, Germany. Manufacture of a stable preparation from hydrogen peroxid and urea. No. 1,040,665; Oct. 8; Gaz. vol. 183; p. 371.

Gruver, Joseph H., Baltimore, assignor of one-half to F. Norris, Jr., Ramsburg, Md. Non-refillable bottle. No. 1,042,669; Oct. 29; Gaz. vol. 183; p. 1145.

Guba, Ludwig, Dejwitz, near Prague, Austria-Hungary. Means for securing railway-rails. No. 1,039,931; Oct. 1; Gaz. vol. 183; p. 87.

Guilfoyle, James D., Titusville, Fla. Level. No. 1,041,622; Oct. 15; Gaz. vol. 183; p. 720.

Gundlach-Manhattan Optical Company. (See Miller, Charles, assignor.)

Gunn, Robert W. (See Thompson, Kellett, and Gunn.)

Gunther, Jacob, Bergisch Gladbach, near Cologne, Germany. Fuel-pump for combustion-engines of the injection type. No. 1,040,666; Oct. 8; Gaz. vol. 183; p. 371.

Gunther-Wright Machine Company. (See Rounds, Birdix, assignor.)

Gustafsson, Hilmer A., Suva, assignor of one-half to J. V. Addis, Nausori P. O., Rewa River, Fiji Islands. Door check and holder. No. 1,042,340; Oct. 22; Gaz. vol. 183; p. 1001.

Guthrie, Charles R., St. Louis, Mo. Consolidated tariff-index. No. 1,041,623; Oct. 15; Gaz. vol. 183; p. 720.

Guyer, Hans, Zürich, Switzerland. Blading for turbines. No. 1,041,269; Oct. 15; Gaz. vol. 183; p. 606.

Gyni, Alfred, Zürich, Switzerland. Dental articulator. No. 1,041,270; Oct. 15; Gaz. vol. 183; p. 606.

H. Mueller Manufacturing Company. (See Mueller, Fred B., assignor.)

H. Mueller Manufacturing Company. (See Mueller, Philip and H., assignors.)

H. W. Johns-Manville Company. (See Christenson, George, assignor.)

Haas, August, Graysville, Pa. Interlocking-block structure. No. 1,040,190; Oct. 1; Gaz. vol. 183; p. 173.

Haase, Herman. (See Hasel and Haase.)

Hacker, David, New York, N. Y. Flying-machine. No. 1,041,781; Oct. 22; Gaz. vol. 183; p. 813.

Hadaway, William S., Jr., East Orange, N. J., assignor to Westinghouse Electric and Manufacturing Company. Electric heating device and constructing the same. No. 1,042,432; Oct. 29; Gaz. vol. 183; p. 1060.

Hadaway, William S., Jr., East Orange, N. J., assignor to Westinghouse Electric and Manufacturing Company. Electrically-heated laundry-roll. No. 1,042,433; Oct. 29; Gaz. vol. 183; p. 1060.

Haff, Maximilian M. (See Wilson and Haff.)

Haga, Claude H., assignee, by mesne assignments, to Interstate Realty & Construction Company, Alexandria, Va. Concrete-form. No. 1,042,910; Oct. 29; Gaz. vol. 183; p. 1227.

Hagen, Michael B., Paul Smiths, N. Y. Rail-anchor. No. 1,041,996; Oct. 22; Gaz. vol. 183; p. 887.

Hager, John S. (See Gormley and Hager.)

Halasz, John H., New York, N. Y. Phonograph. No. 1,043,119; Oct. 29; Gaz. vol. 183; p. 925.

Halbleib, Edward A., assignor to Northeast Electric Company, Rochester, N. Y. Electric motor or generator. No. 1,041,782; Oct. 22; Gaz. vol. 183; p. 814.

Hale, Harry H., Columbus, Ohio. Coupling for pipes. No. 1,040,191; Oct. 1; Gaz. vol. 183; p. 174.

Hale and Kilburn Company. (See Budd, Edward G., assignor.)

Hale and Kilburn Company. (See Budd and Gravell, assignors.)

Hale and Kilburn Company. (See Gravell, James H., assignor.)

Hale and Kilburn Company. (See Kilburn, John E., assignor.)

Hale, William M., Charleston, S. C. Digging-machine. No. 1,039,932; Oct. 1; Gaz. vol. 183; p. 87.

Hall, Bicknell, Taunton, assignor to Rotary Ring Spinning Company, Boston, Mass. Holder for spinning-rings. No. 1,040,555; Oct. 8; Gaz. vol. 183; p. 322.

Hall, Charles T., Buffalo, N. Y. Card-shuffler. No. 1,041,271; Oct. 15; Gaz. vol. 183; p. 607.

Hall, George F., Providence, R. I. Cravat holder and former. No. 1,042,220; Oct. 22; Gaz. vol. 183; p. 960.

Hall, Harvey H., Golden, Colo., assignor to The Ideal Disappearing Wall Bed Company, Folding wall-bed. No. 1,042,670; Oct. 29; Gaz. vol. 183; p. 1145.

Hall, James M., Sulphur Springs, Tex. Battery-connector. No. 1,041,464; Oct. 15; Gaz. vol. 183; p. 671.

Hall, Mattie A. (See Hall, William H., assignor.)

Hall, William, assignor to H. Gardiner, New York, N. Y., F. E. Fennessy, Brookline, Mass., and E. H. Fennessy, Meriden, Conn. Machine for wrapping pamphlets and similar articles. No. 1,041,009; Oct. 15; Gaz. vol. 183; p. 538.

Hall, William H., assignor to M. A. Hall, Cicero, Ill. Tetrarian clock. No. 1,040,310; Oct. 8; Gaz. vol. 183; p. 246.

Hall, William R., Warner, N. H. Book and bundle rack for bicycles. No. 1,040,192; Oct. 1; Gaz. vol. 183; p. 174.

Hallbauer, William M., assignor of one-half to R. D. Holtham, St. Louis, Mo. Screen-window for street-cars, locomotive-cabs, and the like. No. 1,042,671; Oct. 29; Gaz. vol. 183; p. 1146.

Hallmeister, Otto, Hansa, Germany, assignor to New Carpet and Textiles Syndicate Limited, London, England. Machine for printing yarns or warps. No. 1,042,786; Oct. 29; Gaz. vol. 183; p. 1184.

Haller, Stephen. (See Sarason and Haller.)

Halliday, E. C., et al. (See Humphrey, John D., assignor.)

Halloran, James D., New York, N. Y. Air-supply device for firemen. No. 1,040,311; Oct. 8; Gaz. vol. 183; p. 246.

Hallwood, Henry S., Columbus, Ohio. Pendulum computing-scale. No. 1,041,997; Oct. 22; Gaz. vol. 183; p. 887.

Halstead, Stephen C. (See Alexander, Jesse, assignor.)

Halstead, Thomas J., Dallas, Tex. Burglar-alarm. No. 1,040,312; Oct. 8; Gaz. vol. 183; p. 246.

Hamacher, Jonathan D., Hiawatha, Kans. Corn-harvester. No. 1,041,070; Oct. 15; Gaz. vol. 183; p. 539.

Hamberger, George J., Newark, N. J. Fire-extinguisher. No. 1,039,933; Oct. 1; Gaz. vol. 183; p. 87.

Hamblin, George N. (See Hamblin, Stephen M. and G. N.)

Hamblin, Stephen M. and G. N., Canton, assignors to E. L. Toomey, Stoughton, Mass. Means for facilitating the removal of covers of cans and boxes. No. 1,039,934; Oct. 1; Gaz. vol. 183; p. 88.

Hambly, John F., Oleander, Cal. Envelop-moistener. No. 1,040,667; Oct. 8; Gaz. vol. 183; p. 372.

Hamilton, James W., Chicago, Ill. Collapsible suit-hanger. No. 1,040,668; Oct. 8; Gaz. vol. 183; p. 372.

Hamilton, James W., Chicago, Ill. Collapsible coat-hanger. No. 1,040,942; Oct. 8; Gaz. vol. 183; p. 461.

Hamilton Manufacturing Company, The. (See Berger, Guido, assignor.)

Hammond, David G., Whitinsville, Mass. Folding sled. No. 1,040,193; Oct. 1; Gaz. vol. 183; p. 174.

Hammond, James B., assignor to The Hammond Typewriter Co., New York, N. Y. Tabulator for typewriters. No. 1,041,671; Oct. 15; Gaz. vol. 183; p. 539.

Hammond, John W., Taunton, and J. F. Donahue, Boston, assignors to Mead Morrison Mfg. Co., Cambridge, Mass. Hoisting apparatus. No. 1,039,783; Oct. 1; Gaz. vol. 183; p. 21.

Hammond Typewriter Co., The. (See Hammond, James B., assignor.)

Hammond, Wilberforce B., Boston, Mass., assignor to General Fire Extinguisher Company, New York, N. Y. Valve-regulating mechanism. No. 1,041,272; Oct. 15; Gaz. vol. 183; p. 607.

Hammond, Wilberforce B., Boston, Mass., assignor to General Fire Extinguisher Company, New York, N. Y. Valve-regulating mechanism. No. 1,041,273; Oct. 15; Gaz. vol. 183; p. 608.

Hancock, Henry, Baraboo, Wis. Tamping-machine. No. 1,040,194; Oct. 1; Gaz. vol. 183; p. 175.

Handel, Philip J., Meriden, Conn. Light-fixture. No. 1,040,943; Oct. 8; Gaz. vol. 183; p. 461.

Handlan, Alexander H., Jr., St. Louis, Mo. Signal-lamp. No. 1,042,787; Oct. 29; Gaz. vol. 183; p. 1185.

Handy, Burt A., South Bend, Ind., assignor, by mesne assignments, to Four in One Manufacturing Co., Extension step-ladder. No. 1,040,313; Oct. 8; Gaz. vol. 183; p. 246.

Haney, Edwin H., assignor of one-fourth to A. McCormick and H. Jacoby, Stockton, Cal. Automobile-pump. No. 1,040,980; Oct. 8; Gaz. vol. 183; p. 475.

Hanford, A. J. (See Christianson, Hans P., assignor.)

Hannon, John M., Springfield, Mass. Machine for making sand molds. No. 1,041,274; Oct. 15; Gaz. vol. 183; p. 608.

Hannover, Harald I., Copenhagen, Denmark. Producing so-called porous metals. No. 1,042,111; Oct. 22; Gaz. vol. 183; p. 925.

Hannum, Helen L., et al., administrators. (See Hannum, Ralph C. and H. A.)

Hannum, Henry A. (See Hannum, Ralph C. and H. A.)

Hannum, Ralph C., Syracuse, and H. A. Hannum, deceased, Casenovia, N. Y.; H. L. Hannum and L. B. Tillotson, administrators. Emergency-exit-door lock. No. 1,039,734; Oct. 1; Gaz. vol. 183; p. 22.

Hansen, Charles A., Schenectady, N. Y., assignor to General Electric Company. Production of alloys. No. 1,041,972; Oct. 15; Gaz. vol. 183; p. 540.

Hansen, Charles W., Marathon, Fla. Railway construction. No. 1,042,221; Oct. 22; Gaz. vol. 183; p. 961.

Hansen, Christian P. (See Hansens, Emil S. and C. P.)

Hansen, Ebbe J., Harlan, Iowa. Velocipede. No. 1,040,669; Oct. 8; Gaz. vol. 183; p. 372.

Hansen, Emil S. and C. P., Bella Vista, Cal. Post-driver. No. 1,041,073; Oct. 15; Gaz. vol. 183; p. 540.

Hansen, Harold E., assignor to Standard Fibre Company, Somerville, Mass. Collapsible mandrel. No. 1,040,526; Oct. 8; Gaz. vol. 183; p. 322.

Hansen, John M., Pittsburgh, Pa. Dies for forging railway-axles. No. 1,041,998; Oct. 22; Gaz. vol. 183; p. 887.

Hansen, John M., Pittsburgh, Pa. Manufacture of railway-axles. No. 1,041,999; Oct. 22; Gaz. vol. 183; p. 888.

Hansen, Karl H., Pittsburgh, Pa., assignor to Orenstein-Arthur Koppel Co. Car-dumping mechanism. No. 1,040,670; Oct. 8; Gaz. vol. 183; p. 372.

Hanson, Benet M. W., assignor to Pratt & Whitney Company, Hartford, Conn. Work-carrying means. No. 1,042,060; Oct. 22; Gaz. vol. 183; p. 892.

Hanson, Benet M. W., and E. Henriksen, assignors to Pratt & Whitney Company, Hartford, Conn. Turret indexing and locking mechanism. No. 1,042,061; Oct. 22; Gaz. vol. 183; p. 892.

Hanson, Charles V., Fall City, Wash. Vehicle loading appliance. No. 1,039,935; Oct. 1; Gas. vol. 183; p. 86.
Hardie, Robert W., Yonkers, N. Y. Scarf-pin guard. No. 1,039,936; Oct. 1; Gas. vol. 183; p. 88.
Hardin, Neal, Miles City, Mont. Band-brake. No. 1,039,957; Oct. 1; Gas. vol. 183; p. 89.
Harding, Thomas, San Jose, Cal. Violin-bridge. No. 1,041,465; Oct. 15; Gas. vol. 183; p. 671.
Harding, William T., Raleigh, N. C. Casting apparatus. No. 1,040,314; Oct. 8; Gas. vol. 183; p. 247.
Hardinge Brothers. (See Bell, Albert C., assignor.)
Hardinge Conical Mill Company. (See Hardinge, Harry W., assignor.)
Hardinge, Harry W., assignor to Hardinge Conical Mill Company, New York, N. Y. Apparatus for grinding ores and other materials. No. 1,041,783; Oct. 22; Gas. vol. 183; p. 814.
Hardman, William H., Schenectady, N. Y., assignor to General Electric Company. Graphite brush. No. 1,040,315; Oct. 8; Gas. vol. 183; p. 247.
Hardy, Parrott M., Aurora, N. C. Hame-hook. No. 1,042,911; Oct. 29; Gas. vol. 183; p. 1228.
Harker, Charles E., Parnassus, assignor to Electric Renovator Manufacturing Company, Pittsburgh, Pa. Suction cleaning-tool. No. 1,041,466; Oct. 15; Gas. vol. 183; p. 671.
Harkrider, R. E., *et al.* (See Tatum, Franklin M., assignor.)
Harrington, Charles A., Elko, Nev. Adjustable rigging-plate. No. 1,040,316; Oct. 8; Gas. vol. 183; p. 247.
Harrington, David, Eagle Lake, Tex. Flash-lamp. No. 1,042,841; Oct. 22; Gas. vol. 183; p. 1001.
Harrington, Francis B., *et al.* (See Williams, Hiram C., assignor.)
Harrington, Francis B. (See Williams and Payne, assignors.)
Harris Automatic Press Company, The. (See Johnston, Robert T., assignor.)
Harris Automatic Press Company, The. (See Smith, Walter H., assignor.)
Harris, Ford W., Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company. Inclosed fuse. No. 1,042,434; Oct. 29; Gas. vol. 183; p. 1061.
Harris, John R., Chartiers township, Allegheny county, Pa. Split insulator. No. 1,042,872; Oct. 22; Gas. vol. 183; p. 1010.
Harris, Moses A., assignor of one-half to L. A. Clark, Westfield, N. J. Clutch-coupling. No. 1,040,317; Oct. 8; Gas. vol. 183; p. 248.
Harris, Robert H., Boston, assignor to The Turner Tanning Machinery Company, Peabody, Mass. Roll for leather-working machines. No. 1,041,074; Oct. 15; Gas. vol. 183; p. 540.
Harris, William F., Lakeman, Mo. Adjustable stovepipe-joint. No. 1,041,467; Oct. 15; Gas. vol. 183; p. 671.
Harris, William L., Petersburg, Va. Peanut-planter. No. 1,041,275; Oct. 15; Gas. vol. 183; p. 606.
Harrison, Alvin F., Topeka, Kans. Starting device for auto-engines. No. 1,042,672; Oct. 29; Gas. vol. 183; p. 1145.
Harrison Safety Boiler Works. (See Wallem, Axel B., assignor.)
Harsh, Samuel E., Wabash, Ind. Checkrein-spring. No. 1,040,195; Oct. 1; Gas. vol. 183; p. 175.
Hart, Benjamin F., Jr., Hoboken, N. J. Tray for cooling-towers. No. 1,040,318; Oct. 8; Gas. vol. 183; p. 248.
Hart, Charles A., Findlay, Ohio. Lifting-jack. No. 1,042,222; Oct. 22; Gas. vol. 183; p. 961.
Hart, George P., and S. W. Parsons, assignors to The Stanley Works, New Britain, Conn. Handle. No. 1,040,944; Oct. 8; Gas. vol. 183; p. 461.
Hart, Irving S., Waverly, N. Y. Silo. No. 1,042,788; Oct. 29; Gas. vol. 183; p. 1185.
Hart Manufacturing Company, The. (See Leppert, Henry E., assignor.)
Hart, Ray E., Battle Creek, Mich. Shock-absorber for vehicles. No. 1,041,276; Oct. 15; Gas. vol. 183; p. 609.
Hart, Thomas F., Lynn, Mass. Snipping-machine. No. 1,040,671; Oct. 8; Gas. vol. 183; p. 373.
Harter, James R. (See Slover and Harter.)
Harter, Noah S., Waukegan, Ill. Method of and apparatus for forming flexible tubes. No. 1,042,552; Oct. 29; Gas. vol. 183; p. 1102.
Harter, Noah S., Waukegan, Ill., assignor to American Steel and Wire Company of New Jersey, Hoboken, N. J. Mechanism for coiling and cutting wire springs. No. 1,040,196; Oct. 1; Gas. vol. 183; p. 175.
Hartford, John D., *et al.* (See Ivor, Barry, assignor.)
Hartig, Arthur E., Chicago, Ill. Registering physical-exercising machine. No. 1,040,672; Oct. 8; Gas. vol. 183; p. 374.
Hartley, George W., Detroit, Mich. Box. No. 1,042,789; Oct. 29; Gas. vol. 183; p. 1186.
Hartley, James, Philadelphia, Pa. Alarm. No. 1,040,197; Oct. 1; Gas. vol. 183; p. 176.
Hartman, Charles, Chadwick, Ill. Belt-tension regulator for ice-cutting machines. No. 1,040,198; Oct. 1; Gas. vol. 183; p. 176.
Hartman, Rudolph B., Milwaukee, Wis. Apparatus for bending metal rods. No. 1,042,112; Oct. 22; Gas. vol. 183; p. 926.
Hartmann and Braun, Aktiengesellschaft. (See Keller, Wilhelm, assignor.)
Hartmann, Louis H. (See Collins and Hartmann.)
Hartshorn, Edmund F., Newark, assignor to Stewart Hartshorn Company, East Newark, N. J. Spear for spring shade-rollers. No. 1,039,938; Oct. 1; Gas. vol. 183; p. 89.
Hartshorn, Edmund F., Newark, assignor to Stewart Hartshorn Company, East Newark, N. J. Spear for spring shade-rollers. No. 1,039,939; Oct. 1; Gas. vol. 183; p. 89.
Hartung, Max, Berlin, Germany. Making artificial stone. No. 1,042,113; Oct. 22; Gas. vol. 183; p. 926.
Harwood, Asa J., assignor to The Richmond Underwear Company, Richmond, Ind. Union undergarment. No. 1,040,319; Oct. 8; Gas. vol. 183; p. 248.
Haunsperger, Simon. (See Wahlstrom and Haunsperger.)
Haupt, Ernst, Naumburg-on-the-Saale, Germany. Toothpick-making machine. No. 1,041,076; Oct. 15; Gas. vol. 183; p. 540.
Hauseman, Ward B., Philadelphia, Pa. Moving-picture machine. No. 1,041,784; Oct. 22; Gas. vol. 183; p. 815.
Havard, Oliver D., Scranton, Pa. Device for measuring granular material. No. 1,040,537; Oct. 8; Gas. vol. 183; p. 323.
Haverhill Shoe Machine Company. (See Pettengill, George M., assignor.)
Hawk, Franklin A., Central Point, Oreg. Metallic clothes-pin. No. 1,041,785; Oct. 22; Gas. vol. 183; p. 815.
Hawk, Hale R., Greenville, Miss. Delinting apparatus. No. 1,041,468; Oct. 15; Gas. vol. 183; p. 672.
Hawkins-Masters, Arthur, London, Ontario, Canada. Wheel for vehicles. No. 1,039,772; Oct. 1; Gas. vol. 183; p. 35.
Hawley, Joel E., Kansas City, Mo. Music-lyre. No. 1,041,277; Oct. 15; Gas. vol. 183; p. 609.
Hay, Soren P., Spokane, Wash. Milk-condenser. No. 1,042,812; Oct. 29; Gas. vol. 183; p. 1228.
Hayden, Joseph L. R., Schenectady, N. Y., assignor to General Electric Company. Vapor-rectifier and manufacture of same. No. 1,041,076; Oct. 15; Gas. vol. 183; p. 541.
Hayes, Arthur W., and C. D. Stevens, San Antonio, Tex., assignors, by mesne assignments, to said C. D. Stevens, Chicago, Ill. Collector's receipting-recorder. No. 1,041,624; Oct. 15; Gas. vol. 183; p. 721.
Haymaker, F. B. (See McQuaid, William W., assignor.)
Haymen, Arthur H. (See Haymen, Herman and A. H.)
Haymen, Herman and A. H., Sheboygan, Wis. Dough weighing and dividing machine. No. 1,041,278; Oct. 15; Gas. vol. 183; p. 610.
Hasel, Ernest C., and H. Haase, Atchison, Kans. Folding crate. No. 1,041,786; Oct. 22; Gas. vol. 183; p. 815.
Head, John L., assignor of one-fourth to W. B. Fair, Habana, Cuba. Agricultural implement. No. 1,041,077; Oct. 15; Gas. vol. 183; p. 541.
Head, Ralph B., Denver, Colo. Telephone-meter. No. 1,042,790; Oct. 29; Gas. vol. 183; p. 1186.
Heagney, John W., Melrose, Iowa. Spring-wheel. No. 1,040,945; Oct. 8; Gas. vol. 183; p. 462.
Healey & Co. (See Douglas, William H., assignor.)
Healy, James T., trustee. (See Campbell, Leon J., assignor.)
Hearn, John L., Corral, Idaho. Curtain-stretcher. No. 1,042,342; Oct. 22; Gas. vol. 183; p. 1001.
Hearns, William, Washington, D. C. Device for removing and inserting taps and plugs in water-mains. No. 1,040,538; Oct. 8; Gas. vol. 183; p. 323.
Hebert, Joseph A. H., *et al.* (See Lord, Peter, assignor.)
Hebert, Paul, Benrath, Germany. Rail-tie. No. 1,042,343; Oct. 22; Gas. vol. 183; p. 1001.
Hedrich, Gustav, Barmen, Germany. Machine for cutting chenille. No. 1,042,553; Oct. 29; Gas. vol. 183; p. 1102.
Hedrick, Clarence C., Kansas City, Kans. Finger-cuff. No. 1,042,344; Oct. 22; Gas. vol. 183; p. 1002.
Heerwagen Company. (See Schwertner, Joseph, assignor.)
Heeter, Thomas E., assignor of one-half to F. W. Risque, St. Louis, Mo. Switch-operating mechanism. No. 1,042,435; Oct. 29; Gas. vol. 183; p. 1061.
Heierle, Berta. (See Dünnenberger and Heierle.)
Heil, Charles E., Cleveland, Ohio. Device for applying toilet powder. No. 1,042,673; Oct. 29; Gas. vol. 183; p. 1146.
Heim, Friedrich. (See Stock and Heim.)
Heinsohn, Edwin L., W. R. Edwards, and F. R. Klaus, assignors to The Cleveland Welding & Mfg. Co., Cleveland, Ohio. Machine for rolling annular plates. No. 1,041,279; Oct. 15; Gas. vol. 183; p. 610.
Heitsch, Johann, New Castle, Pa. Drop-seat for locomotive-cabs. No. 1,042,913; Oct. 29; Gas. vol. 183; p. 1228.
Helken, Emil W. H., New York, N. Y. Egg-beater or the like. No. 1,039,735; Oct. 1; Gas. vol. 183; p. 22.
Helland, Tom R. (See Anderson, William, assignor.)
Heller, Sigmund, Chicago, Ill. Photograph-holder. No. 1,040,320; Oct. 8; Gas. vol. 183; p. 248.
Helmbacher, Xaver, Feldbach, near Waldighofen, Germany. Tooth for cultivators, harrows, and the like. No. 1,042,674; Oct. 29; Gas. vol. 183; p. 1146.
Helmer, Meichert F., Denver, Colo. Railway. No. 1,041,078; Oct. 15; Gas. vol. 183; p. 541.
Helmes, Maximilian J., East Orange, assignor of one-half to W. D. Sargent, West Orange, N. J. Rotary explosive-motor. No. 1,042,675; Oct. 29; Gas. vol. 183; p. 1146.
Helmick, Frederic. (See Finley, Walter A., assignor.)



Helstrom, John, Morristown, N. J. Wrench. No. 1,040,673; Oct. 8; Gas. vol. 183; p. 374.
Hemming, Emile, Passaic, assignor to Hemming Manufacturing Company, Garfield, N. J. Making insulating materials. No. 1,039,940; Oct. 1; Gas. vol. 183; p. 89.
Hemming Manufacturing Company. (See Hemming, Emile, assignor.)
Henderson, Clark T., assignor to The Cutler-Hammer Manufacturing Company, Milwaukee, Wis. Starting device. No. 1,042,791; Oct. 29; Gas. vol. 183; p. 1186.
Henderson, George A., Charleston, W. Va. Fibrous composition and making the same. No. 1,040,321; Oct. 8; Gas. vol. 183; p. 248.
Henderson, Henry, Halsted, Minn. Shock-loader. No. 1,040,539; Oct. 8; Gas. vol. 183; p. 324.
Henderson, Joseph J., San Diego county, Cal. Reservoir and channel cleaner, silt-conserver, and levee-protector. No. 1,042,792; Oct. 29; Gas. vol. 183; p. 1187.
Henderson, William P., Asheville, N. C. Clothes-line. No. 1,042,845; Oct. 22; Gas. vol. 183; p. 1002.
Hendricks, Frank, Los Angeles, Cal. Reversible casing-wrench. No. 1,040,540; Oct. 8; Gas. vol. 183; p. 324.
Henger, C. W. (See Hershovitz, Max, assignor.)
Henle, Leo, New York, N. Y. Day and night glass. No. 1,042,846; Oct. 22; Gas. vol. 183; p. 1002.
Heaneuse, Clarence A., Berkeley, assignor of two-thirds to A. C. Johnson and F. D. Calkins, Sunnyvale, Cal. Traction apparatus. No. 1,041,280; Oct. 15; Gas. vol. 183; p. 611.
Henney, Bernard J. (See De Haven, Jonathan C., assignor.)
Henning, Georg F. E., Bergadorf, near Hamburg, Germany. Coin-handling apparatus. No. 1,043,006; Oct. 29; Gas. vol. 183; p. 1260.
Henningsen, F. A. (See Berthelsen, Anders L., assignor.)
Henriksen, Emanuel. (See Hanson and Henriksen.)
Henry, James M., Pittsburgh, Pa. Can-making machinery. No. 1,041,787; Oct. 22; Gas. vol. 183; p. 816.
Henry, John W., Crawfordsville, Ind. Mail-box. No. 1,041,788; Oct. 22; Gas. vol. 183; p. 816.
Henson, Edward F., trustee. (See Reith, George C., assignor.)
Herb, Frederick. (See Kinney, Daniel R., assignor.)
Herbst, Roger R., assignor of one-half to G. D. Kugler, Freeland, Pa. Core of carbon electrode for arc-lamps. No. 1,042,554; Oct. 29; Gas. vol. 183; p. 1103.
Herman, Christopher. (See Frank and Herman.)
Herman, Joseph F., Washington, D. C. Overshoe for horses. No. 1,039,736; Oct. 1; Gas. vol. 183; p. 23.
Herman, Louis. (See Frank, Michael E., assignor.)
Hermann, Max, Santa Rosa, Cal. Index, record, and filing card. No. 1,043,049; Oct. 29; Gas. vol. 183; p. 1275.
Hero Manufacturing Company, The. (See Douglas, Edwin R., assignor.)
Herrick, Albert B., Ridgewood, N. J., assignor to The Electric Railway Improvement Company, Cleveland, Ohio. Making homogeneous mechanical junctures. No. 1,041,281; Oct. 15; Gas. vol. 183; p. 611.
Herring, Charles M., Fort Worth, Tex. Razor-stropper. No. 1,041,789; Oct. 22; Gas. vol. 183; p. 816.
Herriot, Frederick R., Shelton, Conn. Muffler. No. 1,042,847; Oct. 22; Gas. vol. 183; p. 1002.
Herrmann, Arthur, Leipsic, Germany. Electrolytic cleansing. No. 1,041,790; Oct. 22; Gas. vol. 183; p. 817.
Herron, John, and H. Bittorf, Marquette, Mich. Journal-box. No. 1,040,322; Oct. 8; Gas. vol. 183; p. 249.
Hershberger, Irwin S., Johnstown, Pa. Headlight for street-cars, automobiles, and other vehicles. No. 1,040,674; Oct. 8; Gas. vol. 183; p. 374.
Herskovitz, Max, Chicago, Ill., assignor of one-half to C. W. Henger, Watertown, Conn. Electric attachment-plug. No. 1,042,848; Oct. 22; Gas. vol. 183; p. 1002.
Hertenstein, Chauncey A., and W. F. Probst, Chillicothe, Ohio. Indicating device for cans. No. 1,040,675; Oct. 8; Gas. vol. 183; p. 375.
Hertzberg, Harry, *et al.*, trustees. (See Betts, Lewis F., assignor.)
Hertzberg, Harry, *et al.*, trustees. (See Low, Abbot A., assignor.)
Herz, Ludwig, Nuremberg, Germany, assignor to Papeterie de la Seine, Nanterre-sur-Seine, France. Apparatus for treating waste vegetable and textile fiber for the manufacture of paper. No. 1,039,941; Oct. 1; Gas. vol. 183; p. 89.
Herz, Ludwig, Nuremberg, Germany, assignor to Papeterie de la Seine, Nanterre-sur-Seine, France. Treating vegetable and textile fiber, waste paper, wood-waste, and the like for conversion into paper material. No. 1,041,791; Oct. 22; Gas. vol. 183; p. 817.
Heseman, Louis P., Irvington, Ill. Combined horse-hitch. No. 1,041,469; Oct. 15; Gas. vol. 183; p. 672.
Hess Flume Company. (See Hess, George L., assignor.)
Hess, George L., assignor to Hess Flume Company, Denver, Colo. Metallic apron intake and outlet. No. 1,041,625; Oct. 15; Gas. vol. 183; p. 721.
Hess, George L., assignor to Hess Flume Company, Denver, Colo. Head-gate. No. 1,041,626; Oct. 15; Gas. vol. 183; p. 722.
Hester, Henry B., Galesburg, Ill. Litter-carrier. No. 1,039,737; Oct. 1; Gas. vol. 183; p. 23.
Hetrick, Jehbert G. (See Hoover and Hetrick.)
Heuser, Hermann, Chicago, Ill. Malting. No. 1,041,282; Oct. 15; Gas. vol. 183; p. 612.
Hewitt, James M. (See Drake and Hewitt.)
Heybach, Frederick J., assignor to The Unit Weighing and Packing System (Incorporated), Baltimore, Md. Packer. No. 1,040,946; Oct. 8; Gas. vol. 183; p. 462.
Heyer, Friedrich C., Schlebusch-Manfort, Germany, assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Purifying monochlorhydrin. No. 1,040,323; Oct. 8; Gas. vol. 183; p. 249.
Heyl, Henry R., assignor to The American Paper Bottle Company, Philadelphia, Pa. Machine for coating articles with paraffin or other coating material. No. 1,042,914; Oct. 29; Gas. vol. 183; p. 1228.
Heylman, Edward M., assignor to The Janesville Machine Company, Janesville, Wis. Drive mechanism for planters. No. 1,040,676; Oct. 8; Gas. vol. 183; p. 375.
Heynau, Hans, Nuremberg, Germany. Rotating disk for metal-dividing machines. No. 1,039,738; Oct. 1; Gas. vol. 183; p. 23.
Hibberd, Charles E., Westminster, London, England. Gas-meter. No. 1,039,942; Oct. 1; Gas. vol. 183; p. 90.
Hibner, De Los E., assignor to The Vulcan Soot Cleaner Company of Pittsburg, Pa., Dubois, Pa. Boiler-flue-cleaner system. No. 1,041,079; Oct. 15; Gas. vol. 183; p. 541.
Hibner, De Los E., and F. W. Limaker, assignors to The Vulcan Soot Cleaner Company of Pittsburg, Pa., Dubois, Pa. Boiler-flue-cleaner system. No. 1,041,080; Oct. 15; Gas. vol. 183; p. 542.
Hickerson, Elmer E., McComb, Ohio. Combined gas generator and burner. No. 1,041,283; Oct. 15; Gas. vol. 183; p. 612.
Higdon, Howard S., Jay, Fla. Gate-latch. No. 1,040,677; Oct. 8; Gas. vol. 183; p. 376.
Higgins, Harry A., assignor to Diamond Power Specialty Co., Detroit, Mich. Blower for boilers. No. 1,042,676; Oct. 29; Gas. vol. 183; p. 1147.
High, Carl F., New Washington, Ohio. Exhaust-motor. No. 1,040,199; Oct. 1; Gas. vol. 183; p. 177.
Hill, Aaron, assignor of one-fourth to R. I. Blakeslee, Los Angeles, Cal. Joint for bed-frames. No. 1,042,555; Oct. 29; Gas. vol. 183; p. 1103.
Hill, John W., Providence, R. I. Floating tool or tool-holder. No. 1,041,792; Oct. 22; Gas. vol. 183; p. 817.
Hill, Leslie L., Los Angeles, Cal. Airship life-preserver. No. 1,042,849; Oct. 22; Gas. vol. 183; p. 1003.
Hill, William B., Tucumcari, N. Mex. Hose-supporter. No. 1,042,223; Oct. 22; Gas. vol. 183; p. 962.
Hiller, John A., Cincinnati, Ohio, assignor to National Water Main Cleaning Company, New York, N. Y. Device for measuring the flow of water. No. 1,041,470; Oct. 15; Gas. vol. 183; p. 672.
Hillman, Edward J., Lookout Mountain, Tenn. Fastener for mail and other bags. No. 1,040,324; Oct. 8; Gas. vol. 183; p. 250.
Hilton, Hugh R., Port Allegany, Pa. Wheel-hoe. No. 1,040,325; Oct. 8; Gas. vol. 183; p. 250.
Hilty, Robert D., assignor of one-half to I. N. Zeis, Carey, Ohio. Insulating-cleat. No. 1,042,677; Oct. 29; Gas. vol. 183; p. 1147.
Himes, Edwin O., Albion, Ind. Motor-cycle. No. 1,039,943; Oct. 1; Gas. vol. 183; p. 90.
Hinckley, Howard, Washington, D. C. Cup or hole-rim for golf-links. No. 1,041,081; Oct. 15; Gas. vol. 183; p. 542.
Hine, Thomas W., Eureka, Cal. Logging system. No. 1,040,678; Oct. 8; Gas. vol. 183; p. 376.
Hines, Eugene, *et al.* (See Watkins, William F., assignor.)
Hipwell, John B., Philadelphia, Pa. Incandescent mantle. No. 1,040,254; Oct. 1; Gas. vol. 183; p. 195.
Hird, Harold P., Norwood Green, near Halifax, England. Plant for the continuous distillation of coal-tar, mineral oils, and the like. No. 1,041,082; Oct. 15; Gas. vol. 183; p. 542.
Hirschberg, Leon, Halensee, near Berlin, assignor to Firm of Chemische Fabrik Westend, Charlottenburg, near Berlin, Germany. Manufacturing oils soluble in water. No. 1,042,915; Oct. 29; Gas. vol. 183; p. 1229.
Hitchcock, Frederick S., Lynn, Mass., assignor to General Electric Company. Self-aligning bearing. No. 1,042,114; Oct. 22; Gas. vol. 183; p. 926.
Hite, Abraham W. (See Hite, John L., assignor.)
Hite, John L., assignor of one-half to A. W. Hite, Huntington, W. Va. Clamp. No. 1,042,224; Oct. 22; Gas. vol. 183; p. 962.
Hixon, Edward, and E. S. Parker, Chicago, Ill., Filter. No. 1,042,793; Oct. 29; Gas. vol. 183; p. 1187.
Hoadley, Joseph H., New York, N. Y., and W. H. Knight, Portsmouth, R. I. Mining coal and other minerals. No. 1,040,679; Oct. 8; Gas. vol. 183; p. 376.
Hoag, John F., and W. Thomas, assignors to Dempster Mill Manufacturing Company, Beatrice, Nebr. Sheet shaping and bending machine. No. 1,041,471; Oct. 15; Gas. vol. 183; p. 673.
Hoag, John F., and W. Thomas, assignors to Dempster Mill Manufacturing Company, Beatrice, Nebr. Sheet-metal tank. No. 1,041,472; Oct. 15; Gas. vol. 183; p. 673.
Hobart, Garret A., Paterson, N. J. Electrically-operated coupon-cutting machine. No. 1,042,435; Oct. 29; Gas. vol. 183; p. 1062.
Hobbs, James J., assignor of one-half to J. T. Mahoney, Mathis, Tex. Insect and animal exterminator. No. 1,042,437; Oct. 29; Gas. vol. 183; p. 1062.

Hobbs, Samuel T., Ty Ty, Ga. Clevis. No. 1,040,326; Oct. 8; Gaz. vol. 183; p. 280.
Hochrein, Joseph G., et al. (See Gay, Herman T., assignor.)
Hodge, William H. (See Deems and Hodge.)
Hodson, James E., Indianapolis, Ind. Washing-machine. No. 1,041,793; Oct. 22; Gaz. vol. 183; p. 818.
Hoefer, George, et al. (See Tilton, John W., assignor.)
Hoennicke, Ernst, Dresden, Germany. Obtaining the inner secretions of the thyroid glands and other organs in a pure state. No. 1,043,007; Oct. 29; Gaz. vol. 183; p. 1260.
Hoerlein, Heinrich, Vohwinkel, near Elberfeld, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Phenylethylbarbituric acid. (Heilmus.) No. 13,477; Oct. 15; Gaz. vol. 183; p. 754.
Hofer, Joseph L., Bridgewater, S. D. Toy. No. 1,042,678; Oct. 29; Gaz. vol. 183; p. 1148.
Hoffman, Albert J. (See Ellis and Hoffman.)
Hoffman Heater Company. (See Oehlke, Frederick H., assignor.)
Hoffman, Samuel O., San Francisco, Cal. Production of light. No. 1,043,008; Oct. 29; Gaz. vol. 183; p. 1260.
Hoffman, Samuel O., San Francisco, Cal. Production of light. No. 1,042,600; Oct. 29; Gaz. vol. 183; p. 1261.
Hofmann, August R., St. Louis, Mo. Feeding apparatus. No. 1,042,115; Oct. 22; Gaz. vol. 183; p. 926.
Hofner, John M., Buffalo, N. Y. Return-envelop. No. 1,040,200; Oct. 1; Gaz. vol. 183; p. 178.
Hofmann, Fritz, K. Delbrück, and K. Meisenburg, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Producing pinacones. No. 1,039,730; Oct. 1; Gaz. vol. 183; p. 24.
Hofmann, Fritz, K. Delbrück, Elberfeld, and K. Meisenburg, Leverkusen, near Cologne, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Producing pinacones. No. 1,039,740; Oct. 1; Gaz. vol. 183; p. 24.
Hofmann, Fritz, K. Delbrück, Elberfeld, and K. Meisenburg, Leverkusen, near Cologne, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Preventing caoutchouc substances from getting sticky and resinous. No. 1,039,741; Oct. 1; Gaz. vol. 183; p. 24.
Hogan, Philip, Brooklyn, N. Y. Terminal-box. No. 1,041,473; Oct. 15; Gaz. vol. 183; p. 674.
Hogel, Hascal A. (See Darley, John W., Jr., assignor.)
Hogel, Hascal A., Boston, Mass. Pumping apparatus. No. 1,042,225; Oct. 22; Gaz. vol. 183; p. 962.
Hogel, Hascal A., Boston, Mass. Pumping apparatus. No. 1,042,226; Oct. 22; Gaz. vol. 183; p. 962.
Hogel, Hascal A., Boston, Mass. Compressed-air water-elevator. No. 1,042,227; Oct. 22; Gaz. vol. 183; p. 963.
Hogg, William. (See Thorpe, Gertrude, assignor.)
Hohl, George I., Newark, N. J., assignor to Newark Wrapping Machine Co. Wrapping-machine. No. 1,040,201; Oct. 1; Gaz. vol. 183; p. 178.
Hohlfeld, Herman J., Philadelphia, Pa. Hammock-cradle. No. 1,039,944; Oct. 1; Gaz. vol. 183; p. 91.
Höhn, Karl, Schaffhausen, Switzerland. Coupling for non-closable circuit-breakers. No. 1,040,541; Oct. 8; Gaz. vol. 183; p. 324.
Holbrook, Thomas C., Brownsville, Tenn. Bicycle-alarm. No. 1,041,474; Oct. 15; Gaz. vol. 183; p. 674.
Holcomb, Charles F., Bridgeport, Conn. Stopple for drain-pipes. No. 1,042,002; Oct. 22; Gaz. vol. 183; p. 889.
Holden, Burtren A. (See Jantzen, Niels, assignor.)
Holden, George, Flushing, assignor to Greenpoint Metallic Bed Company, Brooklyn, N. Y. Tubular bedstead and other frame. No. 1,041,284; Oct. 15; Gaz. vol. 183; p. 612.
Holder, Newman S. (See Fields, John H., assignor.)
Holder, William H., Rockford, Ill. Tea and coffee pot strainer. No. 1,039,742; Oct. 1; Gaz. vol. 183; p. 24.
Holland, Henry, Cleveland, Ohio. Trolley-wheel. No. 1,040,686; Oct. 8; Gaz. vol. 183; p. 377.
Holland, James J., Philadelphia, Pa., and W. Discher, Toledo, Ohio. Nebulizer. No. 1,042,586; Oct. 29; Gaz. vol. 183; p. 1108.
Holliday, Edgar P. (See Holliday, Read and E. P.)
Holliday, Edgar P. and R., New York, N. Y. Change-speed gearing. No. 1,039,743; Oct. 1; Gaz. vol. 183; p. 24.
Holliday, John S., Wilkinsburg, assignor to The Union Switch & Signal Company, Swissvale, Pa. Railway signaling. No. 1,039,744; Oct. 1; Gaz. vol. 183; p. 25.
Holliday, Read. (See Holliday, Edgar P. and R.)
Holliday, Read and E. P., New York, N. Y. Change-speed gearing. No. 1,039,745; Oct. 1; Gaz. vol. 183; p. 25.
Hollis, Miles S., New York, N. Y. Stop-cock. No. 1,040,327; Oct. 8; Gaz. vol. 183; p. 280.
Holly, Carlos, Lockport, assignor to The F. N. Burt Company, Limited, Buffalo, N. Y. Machine for forming paper blanks. No. 1,040,667; Oct. 8; Gaz. vol. 183; p. 478.
Holly, Carlos, Lockport, assignor to The F. N. Burt Company, Limited, Buffalo, N. Y. Making boxes. No. 1,041,285; Oct. 15; Gaz. vol. 183; p. 613.
Holly, Carlos, Lockport, assignor, by mesne assignments, to F. N. Burt Company, Limited, Buffalo, N. Y. Box. No. 1,041,475; Oct. 15; Gaz. vol. 183; p. 674.
Holman, Nicholas, Chicago, Ill. Mixing-machine. No. 1,040,328; Oct. 8; Gaz. vol. 183; p. 281.
Holman, Nicholas, Chicago, Ill. Furnace for cooking and mixing candy. No. 1,040,661; Oct. 8; Gaz. vol. 183; p. 477.
Holmes, Lewis W., and C. V. Trautman, Madera, Ind. Controlling attachment for heating-lamps. No. 1,041,063; Oct. 15; Gaz. vol. 183; p. 542.
Holmström, Johan G. (See Egnér and Holmström.)
Holophane Glass Company. (See Dorey, William A., assignor.)
Holsey, Arthur. (See Dennis and Holsey.)
Holt, Benjamin, Albion, N. Y. Animal-trap. No. 1,040,329; Oct. 8; Gaz. vol. 183; p. 281.
Holt, Henry S. A., assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Disazo-colored indigo compounds and making such bodies. No. 1,042,679; Oct. 29; Gaz. vol. 183; p. 1148.
Holtfrerich, Hubert A., Dodge City, Kans. End-gate. No. 1,041,794; Oct. 22; Gaz. vol. 183; p. 818.
Holtham, Edward D. (See Hallbauer, William M., assignor.)
Holtz, Mack, Chicago, Ill. Broom-brace. No. 1,041,084; Oct. 15; Gaz. vol. 183; p. 543.
Holzrichter, Ferdinand, assignor to Bartels, Dierichs & Co., Gesellschaft mit beschrankter Haftung, Barmen, Germany. Lace-making machine. No. 1,042,003; Oct. 22; Gaz. vol. 183; p. 890.
Homold, Gottlieb, Stuttgart, Germany. Contact-breaker for electrical ignition apparatus for internal-combustion engines. No. 1,041,476; Oct. 15; Gaz. vol. 183; p. 675.
Homold, Gottlieb, Stuttgart, Germany. Electrical ignition apparatus for internal-combustion engines. No. 1,041,477; Oct. 15; Gaz. vol. 183; p. 675.
Hoofnagle, William T., Glen Ridge, N. J., assignor to C. F. Frothingham, New York, N. Y. Dish-washing machine. No. 1,042,010; Oct. 29; Gaz. vol. 183; p. 1261.
Hoofnagle, William T., Glen Ridge, N. J., assignor to C. F. Frothingham, New York, N. Y. Drying apparatus. No. 1,043,011; Oct. 29; Gaz. vol. 183; p. 1261.
Hook, Samuel H. (See Fountain and Hook.)
Hoover, Charles A., Fair Oaks, and J. G. Hetrick, Ambridge, Pa. Wrench. No. 1,041,627; Oct. 15; Gaz. vol. 183; p. 722.
Hoover, Joseph W., Winfield, Kans. Header. No. 1,042,488; Oct. 29; Gaz. vol. 183; p. 1062.
Hora, Charles, Melbourne, assignor to Machen & Mayer Electrical Manufacturing Company, Philadelphia, Pa. Plug-switch. No. 1,042,228; Oct. 22; Gaz. vol. 183; p. 964.
Hornbeck, Richard B., Richmond, Cal. Street or station indicator. No. 1,039,746; Oct. 1; Gaz. vol. 183; p. 26.
Horne, James. (See Dawson and Horne.)
Horne, Philip B., Denver, Colo. Type-writer attachment. No. 1,042,778; Oct. 22; Gaz. vol. 183; p. 1011.
Horner, William C., Indianapolis, Ind., assignor to The Art Screen Table Company, New York, N. Y. Folding table. No. 1,040,330; Oct. 8; Gaz. vol. 183; p. 281.
Hornsby, Winsford H., Milltown, assignor of one-half to O. Gatchell, Tifton, Ga. Railway-tie and fastening. No. 1,042,916; Oct. 29; Gaz. vol. 183; p. 1229.
Horstmann, Charles, Oswego, Oreg. Insect-trap. No. 1,042,360; Oct. 22; Gaz. vol. 183; p. 1003.
Horton, Bryson D., Detroit, Mich. Detachably mounting a fuse formed with terminals or contacts of knife-blade type. No. 1,040,331; Oct. 8; Gaz. vol. 183; p. 282.
Hosford, Charles L., Wilmette, Ill. Day pillow-case. No. 1,042,459; Oct. 29; Gaz. vol. 183; p. 1062.
Hoskins, Horace, Eolia, Mo. Broom-handle. No. 1,041,296; Oct. 15; Gaz. vol. 183; p. 613.
Hoskins, William, Chicago, Ill. Uniting by cementation. No. 1,041,287; Oct. 15; Gaz. vol. 183; p. 613.
Hostettler, John A., Hartford, Conn. Clothes-pin. No. 1,040,542; Oct. 8; Gaz. vol. 183; p. 325.
Houck, John D., Chicago, Ill. Can-opener. No. 1,042,917; Oct. 29; Gaz. vol. 183; p. 1229.
Houck, John D., Chicago, Ill. Key-holding chain. No. 1,042,918; Oct. 29; Gaz. vol. 183; p. 1230.
Houf, Maggie C., et al. (See Lee, Isaac E., assignor.)
Housebolder, Frank, Guthrie, Okla. Dish-washing machine. No. 1,041,085; Oct. 15; Gaz. vol. 183; p. 544.
Hovey, William S. (See Stebbins and Hovey.)
Hovland, August, St. Paul, Minn. Steering mechanism for tractors. No. 1,041,660; Oct. 15; Gaz. vol. 183; p. 644.
Howard, Alfred H. (See Stackpole, Charles F., assignor.)
Howard, Clarence H. (See Schaffer, Morse B., assignee.)
Howard, Elisha H. (See Bacon, William E., assignor.)
Howard, Thomas W., Birmingham, Ala. Fluid-dispensing apparatus. No. 1,040,332; Oct. 8; Gaz. vol. 183; p. 282.
Howard, William H., Chicago, Ill. Saddle attachment. No. 1,041,067; Oct. 15; Gaz. vol. 183; p. 544.
Howe, Alfred P., Nutley, N. J., assignor to The Borden Company, Warren, Ohio. Pipe-cutter. No. 1,040,303; Oct. 1; Gaz. vol. 183; p. 179.
Howe, Fred M. and M. D., Wellsboro, Pa. Hame-fastener. No. 1,039,945; Oct. 1; Gaz. vol. 183; p. 91.
Howe, Maurice D. (See Howe, Fred M. and M. D.)
Howell, John W., Newark, N. J., assignor to General Electric Company. Filament-support. No. 1,040,333; Oct. 8; Gaz. vol. 183; p. 282.
Howes, Andrew T., et al. (See Callicott, John, assignor.)
Howland Bag and Paper Company. (See Smith, Charles F., assignor.)
Howland, Thomas, Maclay, Queensland, Australia. Rubber valve for pumps and the like. No. 1,040,334; Oct. 8; Gaz. vol. 183; p. 283.





Howse, John, et al. (See Korns, James, assignor.)
Hoyt, Frederick J., Redlands, Cal. Amalgamator. No. 1,042,229; Oct. 22; Gaz. vol. 183; p. 964.
Hubbard, Elmer, Gibbon, N. Y. Combined traction stone-crusher and road-roller. No. 1,042,230; Oct. 22; Gaz. vol. 183; p. 965.
Hubbard, John C., Worcester, Mass. Electrostatic voltmeter. No. 1,042,440; Oct. 29; Gaz. vol. 183; p. 1063.
Huber, Frederick K., Hamlin, Tex. Stalk-cutter attachment for sulky-plows. No. 1,041,288; Oct. 15; Gaz. vol. 183; p. 614.
Hubert, Conrad, New York, N. Y. Gas-lighter. No. 1,041,795; Oct. 22; Gaz. vol. 183; p. 819.
Huberty, Lewis, Canton, Ohio. Churn-dasher. No. 1,040,682; Oct. 8; Gaz. vol. 183; p. 377.
Huckaby, Grabel B. U., Houston, Tex. Roll for cotton-gins and machines for burring wool. No. 1,039,946; Oct. 1; Gaz. vol. 183; p. 91.
Hudson, David W., Green Bay, Wis. Deep-well-pumping apparatus. No. 1,041,796; Oct. 22; Gaz. vol. 183; p. 819.
Hudson, Harrison L., assignor of one-half to W. H. Luthardt, Chicago, Ill. Gear. No. 1,043,012; Oct. 29; Gaz. vol. 183; p. 1262.
Hughes, Albert M., assignor of one-half to W. W. Barrett, Sedalia, Mo. Fruit-picker. No. 1,040,947; Oct. 8; Gaz. vol. 183; p. 462.
Hughes, William E., Glenwood Springs, Colo. Centrifugal pump. No. 1,040,543; Oct. 8; Gaz. vol. 183; p. 325.
Hughes, William H., Trenton, N. J. Combined drum and cymbal beater. No. 1,042,919; Oct. 29; Gaz. vol. 183; p. 1230.
Hugheon, George M., et al. (See Willett, Robert A., assignor.)
Huguenin, Albert, Zürich, Switzerland. Device for governing the speed of water-turbines. No. 1,041,289; Oct. 15; Gaz. vol. 183; p. 614.
Huhn, Hermann. (See Williams and Huhn.)
Hulbert, John L., Poughkeepsie, N. Y., assignor to The De Laval Separator Company. Mechanically milking. No. 1,043,013; Oct. 29; Gaz. vol. 183; p. 1262.
Hultquist, Charles A., Los Angeles, Cal. Rock-drill. No. 1,040,944; Oct. 8; Gaz. vol. 183; p. 325.
Hummell, Sidney H., Cranbrook, British Columbia, Canada. Traction-wheel. No. 1,039,747; Oct. 1; Gaz. vol. 183; p. 26.
Humphrey, John D., Waterbury, assignor of one-half to J. M. Brady, New Britain, and E. C. Halliday, Hartford, Conn. Door-closer. No. 1,040,668; Oct. 8; Gaz. vol. 183; p. 378.
Humphreys, Guy F., assignor to C. B. Burgess, Devils Lake, N. D. Thermotic switch. No. 1,042,920; Oct. 29; Gaz. vol. 183; p. 1230.
Humphris Engineering Syndicate Limited, The. (See Humphris, Frank, assignor.)
Humphris, Frank, Barton Peveril, Eastleigh, England. Toothed gearing. No. 1,040,665; Oct. 8; Gaz. vol. 183; p. 378.
Humphris, Frank, Barton Peveril, Eastleigh, assignor to The Humphris Engineering Syndicate Limited, London, England. Apparatus for making toothed gearing. No. 1,040,664; Oct. 8; Gaz. vol. 183; p. 378.
Hunn, Sandford W., Coldwater, Kans. Punch. No. 1,039,947; Oct. 1; Gaz. vol. 183; p. 91.
Hunsicker, Allan D. and B. A., Shawnee, Okla. Steam-boiler gage No. 1,041,628; Oct. 15; Gaz. vol. 183; p. 722.
Hunsicker Bertram A. (See Hunsicker, Allan D. and B. A.)
Hunt, Frederick G., Elora, Ontario, Canada. Disk harrow. No. 1,041,797; Oct. 22; Gaz. vol. 183; p. 819.
Hunt, Horace S., Jackson, Mich. Conduit. No. 1,041,290; Oct. 15; Gaz. vol. 183; p. 614.
Hunt, Wilfred, Hillhead, Glasgow, Scotland. Exhauster or compressor for gases, also applicable as an ejector-condenser. No. 1,040,961; Oct. 8; Gaz. vol. 183; p. 475.
Hunter, James F., Sioux Rapids, Iowa. Fender. No. 1,040,335; Oct. 8; Gaz. vol. 183; p. 283.
Hunter, Randolph M., Philadelphia, Pa., assignor to Patterson-Allen Engineering Company. Pipe-flanging machine. No. 1,039,948; Oct. 1; Gaz. vol. 183; p. 92.
Hunter, Randolph M., Philadelphia, Pa., assignor to Warren Webster & Company. Mist-producing nozzle. No. 1,041,798; Oct. 22; Gaz. vol. 183; p. 820.
Huribut, Ira D., Prairie du Chien, Wis. Drying-machine for printed sheets. No. 1,042,441; Oct. 29; Gaz. vol. 183; p. 1062.
Hurd, William, Troy, N. Y. Yarn-stripper. No. 1,041,068; Oct. 15; Gaz. vol. 183; p. 545.
Hutchings, George B. (See McConnell, Ralph, assignor.)
Hutchings, Theo E., Hilo, Cal. Power-transmitting mechanism. No. 1,040,336; Oct. 8; Gaz. vol. 183; p. 283.
Hutchins, Stryker L. (See Taylor and Hutchins.)
Hutchinson, George W., Walton, Waikato, New Zealand. Lever. No. 1,040,337; Oct. 8; Gaz. vol. 186; p. 284.
Hutchison, Robert G., assignor of one-half to Edward Lloyd Limited, Sittingbourne, England. Paper and like machinery. No. 1,040,338; Oct. 8; Gaz. vol. 183; p. 284.
Hyde, George A., Lonsdale, R. I. Gas-governor. No. 1,043,545; Oct. 6; Gaz. vol. 183; p. 825.
Hydrocarbon Converter Company. (See Benham, Elijah B., assignor.)
Hyle, Jacob A., and W. R. Carmody, Chicago, Ill. Railway-tie and rail-fastening. No. 1,039,748; Oct. 1; Gaz. vol. 183; p. 26.
Ideal Disappearing Wall Bed Company, The. (See Hall, Harvey H., assignor.)
Ihlder, John D., New York, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Elevator control. No. 1,040,646; Oct. 8; Gaz. vol. 183; p. 326.
Ihlder, John D., New York, N. Y., and W. D. Lutz, Allendale, assignors to Otis Elevator Company, Jersey City, N. J. Motor-controlling apparatus. No. 1,040,335; Oct. 8; Gaz. vol. 183; p. 284.
Illinois Vending Company. (See Leda, Rudolph C., assignor.)
Incandescent Light & Stove Company, The. (See Stebbens, Joseph, assignor.)
Indahl, Maurits C. (See Bancroft and Indahl.)
Independent Harvester Company. (See Cormack, George, assignor.)
Ingerham, Alphonso C., Greenville, Mich. Wrench. No. 1,040,982; Oct. 8; Gaz. vol. 183; p. 475.
Ingham, Lucy B., Wilkes-Barre, Pa. Milk-jar opener. No. 1,042,680; Oct. 29; Gaz. vol. 183; p. 1148.
Inglish, Daniel M., Goodwin, Okla. Animal-poke. No. 1,043,118; Oct. 22; Gaz. vol. 183; p. 926.
Ingram, Attlin M., assignor of one-half to W. J. Gardner, Montgomery, Ala. Check-valve. No. 1,039,749; Oct. 1; Gaz. vol. 183; p. 27.
Ingram, Horace G., Juniata, assignor of one-half to S. Goldberg, Altoona, Pa. Cherry-seeder. No. 1,039,750; Oct 1; Gaz. vol. 183; p. 27.
Ingram, Horace G., Juniata, assignor of one-half to S. Goldberg, Altoona, Pa. Screw-driver. No. 1,039,751; Oct. 1; Gaz. vol. 183; p. 27.
Interlocking Fence Company. (See Claudin, John L., assignor.)
International Acheson Graphite Company. (See Williamson, Arthur M., assignor.)
International Harvester Company. (See Benjamin, Bert R., assignor.)
International Harvester Company. (See Dangel and Benjamin, assignors.)
International Harvester Company. (See Dennis, Samuel K., assignor.)
International Harvester Company. (See Dennis and Holsey, assignors.)
International Packing Machine Company. (See Ley, Frank W., assignor.)
International Poultry Sales Company. (See Thomson, Thomas N., assignor.)
International Time Recording Company of New York. (See Blair, Robert S., assignor.)
Internationale Rotations-Maschinen-Gesellschaft M. B. H. (See Lehne, Joseph, assignor.)
Internationale Wasserstoff Aktiengesellschaft. (See Lane, Howard, assignor.)
Interstate Realty & Construction Company. (See Hage, Claude H., assignor.)
Inventors Development Co. (See Manley, Thalia, and Smith, assignors.)
Irwin, Joseph G., Oklahoma, Okla. Machine for grinding balls. No. 1,042,794; Oct. 29; Gaz. vol. 183; p. 1183.
Iseli, Nicklaus W., Mile, Ohio. Fluid-pressure-actuated hammer. No. 1,042,442; Oct. 29; Gaz. vol. 183; p. 1064.
Itnweire, Gustave, et al. (See Lord, Peter, assignor.)
Iverson, Eldor J. (See Gale and Iverson.)
Ivey, George F., Hickory, N. C. Machine for beading hat-straps. No. 1,042,921; Oct. 29; Gaz. vol. 183; p. 1231.
Ivor, Barry, assignor of one-sixth to J. D. Gamble, one-sixth to H. Q. Turner, one-sixth to J. D. Hartford, one-sixth to F. Freer, and one-sixth to H. R. McPherson, Chicago, Ill. Carburetor. No. 1,042,004; Oct. 22; Gaz. vol. 183; p. 889.
J. Geo. Leyner Engineering Works Company, The. (See Leyner, John G., assignor.)
J. Stevens Arms & Tool Company. (See Lewis, George S., assignor.)
J. H. Ledew Company, The. (See Lockwood, Frederick J., assignor.)
J. H. Williams & Co. (See Amborn, George, assignor.)
J. W. Reedy Elevator Manufacturing Co. (See Forstland, Hugo W., assignor.)
Jackson, Charles A., New York, N. Y., assignor of one-half to The Pelton Water Wheel Company, San Francisco, Cal. Water-wheel safety-stop. No. 1,042,681; Oct. 29; Gaz. vol. 183; p. 1149.
Jackson, Otey J., Canfield, W. Va. Toy cycle. No. 1,042,682; Oct. 29; Gaz. vol. 183; p. 1149.
Jackson, Ray P., Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company. Circuit-controlling apparatus. No. 1,043,014; Oct. 29; Gaz. vol. 183; p. 1262.
Jackson, Simeon S., assignor, by mesne assignments, to The Stafford Company, Readville, Mass. Loom. No. 1,040,202; Oct. 1; Gaz. vol. 183; p. 179.
Jackson, Simeon S., assignor to The Stafford Company, Readville, Mass. Pick-finder device for looms. No. 1,040,647; Oct. 8; Gaz. vol. 183; p. 326.
Jackson, Simeon S., assignor to The Stafford Company, Readville, Mass. Pick-finder device for looms. No. 1,041,069; Oct. 15; Gaz. vol. 186; p. 543.
Jackson, Thomas, London, assignor to himself, and A. Ramsay, Carshalton, England. Intermittent gas-light. No. 1,042,117; Oct. 22; Gaz. vol. 183; p. 927.

Jackson, Walter M. (See Erickson, Anton, assignor.)
Jacobie, Charles W. (See Jacobie, Walter L., assignor.)
Jacobie, Walter L., assignor to C. W. Jacobie, Glens Falls, N. Y. Tablet-binding machine. No. 1,042,443; Oct. 29; Gaz. vol. 183; p. 1064.
Jacobsen, Jacob. (See Larson and Jacobsen.)
Jacobsen, Jacob F. (See Milligan and Jacobsen.)
Jacoby, Harry, *et al.* (See Haney, Edwin H., assignor.)
Jacquet, Louis P. C. J., Neuilly-sur-Seine, France. Shock-absorber. No. 1,040,945; Oct. 8; Gaz. vol. 183; p. 463.
Jaeger, Bertha. (See Jaeger, Carl and B.)
Jaeger, Carl and B., Los Angeles, Cal. Primary cell. No. 1,039,949; Oct. 1; Gaz. vol. 183; p. 92.
Jaensch, Julius, Breslau, Germany. Apparatus arranged on locomotives and other power-propelled vehicles for utilizing the resistance of the air. No. 1,042,795; Oct. 29; Gaz. vol. 183; p. 1183.
Jagenberg, Emil, Duesseldorf, Germany. Bottle-capping machine. No. 1,042,231; Oct. 22; Gaz. vol. 183; p. 965.
James, Henry D., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, Controller. No. 1,042,444; Oct. 29; Gaz. vol. 183; p. 1065.
James, Henry H., Winnipeg, Manitoba, Canada, assignor to The Sell Horse Goods Company, Canton, Ohio. Bridle-bit for side-pullers. No. 1,042,796; Oct. 29; Gaz. vol. 183; p. 1185.
Jamestown Lounge Company. (See Greenlund, Arthur H., assignor.)
Jancsó, Wilhelm. (See Kolár and Jancsó.)
Janesville Machine Company, The. (See Heylman, Edward M., assignor.)
Jantzen, Niels, assignor of one-half to B. A. Holden, Victoria, British Columbia, Canada. Log-haul shoe. No. 1,040,949; Oct. 8; Gaz. vol. 183; p. 463.
Jaquet, Charles, assignor to Schneider, Jaquet & Cie., G. m. b. H., Königshofen, Strasburg, Germany. Treating grain, pulse, and the like. No. 1,041,629; Oct. 15; Gaz. vol. 183; p. 723.
Jarrell, O. L., *et al.* (See Townsend, Charles E., assignor.)
Jas. H. Matthews & Co. (See Matthews, James H., assignor.)
Jaschke, August, Tomahawk, Wis. Hat-pin-point protector. No. 1,041,291; Oct. 15; Gaz. vol. 183; p. 615.
Jasome, Marie, Paris, France. Aeroplane. No. 1,041,630; Oct. 15; Gaz. vol. 183; p. 723.
Jaubert, George F., Paris, France. Preparation of hydrogen by autocombustion. No. 1,040,204; Oct. 1; Gaz. vol. 183; p. 179.
Jeavons, William E., Cleveland, Ohio. Burner-supply connection. No. 1,039,950; Oct. 1; Gaz. vol. 183; p. 93.
Jefferson Glass Company. (See Schnelbach, Harry A., assignor.)
Jefferson, Mano, Hartford, Conn. Attachment for bath-tubs. No. 1,040,686; Oct. 8; Gaz. vol. 183; p. 379.
Jeffrey Manufacturing Company, The. (See Dunlop, Robert R., assignor.)
Jeffrey Manufacturing Company, The. (See Liggett and Armstrong, assignors.)
Jeffrey Manufacturing Company, The. (See Sessions, Frank L., assignor.)
Jeffrey Manufacturing Company, The. (See Youmans, William R., assignor.)
Jenkins, Amanda A. (See Jenkins, Charles and A. A.)
Jenkins, Charles and A. A., Philadelphia, Pa. Life-boat. No. 1,040,340; Oct. 8. Gaz. vol. 183; p. 255.
Jenkins, Edwin C., Beloit, Wis. Railway-tie. No. 1,040,205; Oct. 1; Gaz. vol. 183; p. 180.
Jensen, Frederick, Aldene, N. J., D. Conlan, Jr., New York, N. Y., and L. H. Dyer, Greenwich, Conn., assignors to E. Conlan, Brooklyn, N. Y. Supporting device. No. 1,040,341; Oct. 8; Gaz. vol. 183; p. 255.
Jensen, Julius N., Lincoln, Nebr. Stanchion. No. 1,040,950; Oct. 8; Gaz. vol. 183; p. 463.
Jerauld, Frederick N. C. (See Dean, Irwin A., assignor.)
Job, Jacob B., Cleveland, Ohio. Door-clamp. No. 1,042,232; Oct. 22; Gaz. vol. 183; p. 965.
John Lemb and Son. (See Lemb, William, assignor.)
Johns-Pratt Company, The. (See Cole, Robert C., assignor.)
Johnson, Alfred C., *et al.* (See Henneuse, Clarence A., assignor.)
Johnson, Allen V. (See Krimer, Lonzo D., assignor.)
Johnson, Andrew N., Centerville, Tenn. Reversible car-replacer. No. 1,040,206; Oct. 1; Gaz. vol. 183; p. 180.
Johnson, Aron, New York, N. Y. Cap-feeding mechanism. No. 1,042,922; Oct. 29; Gaz. vol. 183; p. 1231.
Johnson, Axel, San Francisco, Cal., assignor to American Can Company. Combined can-body flanging and double-seaming machine. No. 1,040,951; Oct. 8; Gaz. vol. 183; p. 464.
Johnson, Axel, Oakland, Cal., assignor to American Can Company. Can-head-seaming mechanism. No. 1,040,952; Oct. 8; Gaz. vol. 183; p. 464.
Johnson, Axel, Oakland, Cal., assignor to American Can Company. Can-end-flanging mechanism. No. 1,040,953; Oct. 8; Gaz. vol. 183; p. 464.
Johnson, Carl J., De Kalb, Ill. Jar-closure. No. 1,040,207; Oct. 1; Gaz. vol. 183; p. 180.
Johnson, Dade, Lemonville, Mo. Stove-grate. No. 1,042,683; Oct. 29; Gaz. vol. 183; p. 1149.
Johnson, Edward E., St. Paul, Minn. Well-screen. No. 1,040,342; Oct. 8; Gaz. vol. 183; p. 255.
Johnson, Eldridge R., Philadelphia, Pa., assignor to Victor Talking Machine Company. Sound-box for talking-machines. No. 1,041,760; Oct. 23; Gaz. vol. 183; p. 320.
Johnson, George S., assignor of forty-nine one-hundredths to J. P. Roots, Washington, D. C. Power-transmitting mechanism. No. 1,042,008; Oct. 22; Gaz. vol. 183; p. 890.
Johnson, John A., Portland, Oreg. Grinding-gage. No. 1,040,837; Oct. 8; Gaz. vol. 183; p. 379.
Johnson, Justus, Bethlehem, Pa. Attachment for milling-machines. No. 1,040,954; Oct. 8; Gaz. vol. 183; p. 463.
Johnson, Lee C., Spokane, Wash. Device for sharpening knives. No. 1,041,621; Oct. 15; Gaz. vol. 183; p. 724.
Johnson, Lewis H., Bemus, Minn. Suspender attachment. No. 1,040,685; Oct. 8; Gaz. vol. 183; p. 465.
Johnson, Nels, South Stillwater, Minn. Fire-escape. No. 1,041,660; Oct. 15; Gaz. vol. 183; p. 545.
Johnson, Oscar, Chicago, Ill. Air-brake apparatus. No. 1,041,091; Oct. 15; Gaz. vol. 183; p. 546.
Johnson, Theodore, Chicago, Ill. Bond for beams formed of plastic material. No. 1,039,951; Oct. 1; Gaz. vol. 183; p. 93.
Johnson, Werner, Lynn, Mass., assignor to General Electric Company. Combined throttle and emergency valve. No. 1,041,478; Oct. 15; Gaz. vol. 183; p. 675.
Johnson, William H. (See Lilleberg, Charles L., assignor.)
Johnston, Robert T., Scotch Plains, N. J., assignor to The Harris Automatic Press Company, Niles, Ohio. Bed-and-cylinder machine. No. 1,040,208; Oct. 1; Gaz. vol. 183; p. 180.
Johnston, Rollin B., Manchester, N. H. Shut-off-valve-handle signal and lock-spring. No. 1,040,843; Oct. 8; Gaz. vol. 183; p. 256.
Johnstone, Marion, New York, N. Y. Convertible hood, cape, and veil. No. 1,042,851; Oct. 22; Gaz. vol. 183; p. 1003.
Jonas, Frederick W. (See Spofford and Jonas.)
Jonas, Frederick W. (See Spofford, Jonas, and Bennett.)
Jones, Amanda T., Junction City, Kans. Method and apparatus for burning fuel-oil. No. 1,039,752; Oct. 1; Gaz. vol. 183; p. 28.
Jones, Arthur J., assignor of one-half to F. W. Pratt, Washington, D. C. Oil-burning apparatus for locomotives. No. 1,042,797; Oct. 29; Gaz. vol. 183; p. 1183.
Jones, George R., Longbeach, Cal. Music-leaf turner. No. 1,040,209; Oct. 1; Gaz. vol. 183; p. 181.
Jones, Jacob M. (See Lipscomb, Sylvester G., assignor.)
Jones, James H., and E. Lippert, Cincinnati, Ohio. Cork-extractor. No. 1,040,956; Oct. 8; Gaz. vol. 183; p. 466.
Jones, James M., Hamilton, Ontario, Canada. Safety-guard for foot or screw presses. No. 1,041,092; Oct. 15; Gaz. vol. 183; p. 546.
Jones, James M., Hamilton, Ontario, Canada. Safety-guard for stamping and other presses. No. 1,042,445; Oct. 29; Gaz. vol. 183; p. 1065.
Jones, Joseph W., New York, N. Y. Combined clock and indicating device. No. 1,040,344; Oct. 8; Gaz. vol. 183; p. 256.
Jones, Joseph W., New York, N. Y. Combined road-map and odometer. No. 1,040,345; Oct. 8; Gaz. vol. 183; p. 256.
Jones, William H., Chicago, Ill. Heating system. No. 1,040,548; Oct. 8; Gaz. vol. 183; p. 327.
Jones, William H., Chicago, Ill. Heater. No. 1,040,688; Oct. 8; Gaz. vol. 183; p. 379.
Jones, William M., *et al.* (See Christopher, Calvin F., assignor.)
Jorgeson, Frederick C. Chicago, Ill. Show-case. No. 1,042,118; Oct. 22; Gaz. vol. 183; p. 927.
Joseph, Edward L., London, England. Apparatus for transforming continuous currents into alternating currents. No. 1,042,446; Oct. 29; Gaz. vol. 183; p. 1065.
Judkins, Charles E., Columbia River, Wash., assignor of one-half to C. Madsi, Coeur d'Alene, Idaho. Hose-coupling. No. 1,042,684; Oct. 29; Gaz. vol. 183; p. 1149.
Juengst, Charles A., Croton Falls, N. Y. Signature-gathering machine. No. 1,040,689; Oct. 8; Gaz. vol. 183; p. 380.
Jungjohann, Frank, Davenport, Iowa. Means for adjusting clutch-inserts. No. 1,041,093; Oct. 15; Gaz. vol. 183; p. 546.
Junker, George J., Mount Vernon, Ill. Violin. No. 1,043,015; Oct. 29; Gaz. vol. 183; p. 1263.
Junkunc, John, Chicago, Ill. Lock. No. 1,042,447; Oct. 29; Gaz. vol. 183; p. 1066.
Jurack, Charles, Milwaukee, Wis. Snap-flask for molding. No. 1,041,292; Oct. 15; Gaz. vol. 183; p. 615.
Kadow, August, assignor to The Westlake Machine Company, Toledo, Ohio. Cut-off device. No. 1,040,346; Oct. 8; Gaz. vol. 183; p. 256.
Kahne, Bertha L., and A. L. Roberts, Ashland, Ky. Car-coupling. No. 1,040,690; Oct. 8; Gaz. vol. 183; p. 380.
Kaiser, William, Wilkes-Barre, Pa. Combined seat-dresser and cutter-holder. No. 1,041,479; Oct. 15; Gaz. vol. 183; p. 676.
Kaiser, William O., Burlington, Iowa. Ointment-machine. No. 1,042,923; Oct. 29; Gaz. vol. 183; p. 1231.
Kaley, Elmer B., assignor of one-half to W. H. Thomas, Indianapolis, Ind. Carburetor. No. 1,041,480; Oct. 15; Gaz. vol. 183; p. 676.
Kaley, Elmer B., assignor of one-half to W. H. Thomas, Indianapolis, Ind. Carburetor. No. 1,041,481; Oct. 15; Gaz. vol. 183; p. 676.
Kalina, Loeser, New York, N. Y. Removable heel. No. 1,042,924; Oct. 29; Gaz. vol. 183; p. 1232.
Kallvoda, Josef J., Chicago, Ill. Locking device for folding doors. No. 1,039,943; Oct. 1; Gaz. vol. 183; p. 93.
Kallvoda, Josef J., Chicago, Ill. Locking device for folding doors. No. 1,039,955; Oct. 1; Gaz. vol. 183; p. 94.
Kallajian, Lazarus K., Boston, Mass. Coaster-brake. No. 1,042,006; Oct. 22; Gaz. vol. 183; p. 890.
Kampfe Bros. (See Kampfe, Otto, assignor.)
Kampfe, Otto, New York, N. Y., assignor to Kampfe Bros. Safety-razor. No. 1,040,847; Oct. 8; Gaz. vol. 183; p. 257.
Kane, Frank A., Minooka, Pa. Receptacle. No. 1,042,448; Oct. 29; Gaz. vol. 183; p. 1066.
Kane, Thomas H., Youngstown, Ohio, assignor to Truscon Concrete Steel Company, Detroit, Mich. Forming ribbed lath. No. 1,039,954; Oct. 1; Gaz. vol. 183; p. 94.
Kannenberg, Baldwin H., Maywood, Ill., assignor to American Can Company, New York, N. Y. Closure for hermetically-sealed food-preserving cans. No. 1,039,753; Oct. 1; Gaz. vol. 183; p. 28.
Kantrowitz, Bernard A., New York, N. Y. Filter. No. 1,042,233; Oct. 22; Gaz. vol. 183; p. 965.
Karamess, Peter, Douglas, Ariz. Automatic cut-off valve. No. 1,042,587; Oct. 29; Gaz. vol. 183; p. 1104.
Karp, Morris, assignor to Passaic Metal Ware Company, Passaic, N. J. Machine for testing containers. No. 1,042,558; Oct. 29; Gaz. vol. 183; p. 1104.
Kästner, Alfred, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Loading device for portable guns. No. 1,040,210; Oct. 1; Gaz. vol. 183; p. 181.
Kaufmann, Raymond M. (See Freeble, Thomas M., assignor.)
Kavanagh, James A., New York, N. Y. Food-package. No. 1,042,119; Oct. 22; Gaz. vol. 183; p. 927.
Kayser, Adolf. (See Cowles and Kayser.)
Kayser, Grace, administratrix. (See Cowles and Kayser.)
Kearns, John C., Lewistown, Pa. Pruning implement. No. 1,042,580; Oct. 29; Gaz. vol. 183; p. 1104.
Keary, William J., Schenectady, N. Y. Fastener. No. 1,040,957; Oct. 8; Gaz. vol. 183; p. 466.
Keating, William H. (See Alexander, Jesse, assignee.)
Keck, William M., Coalinga, Cal. Underreamer. No. 1,040,848; Oct. 8; Gaz. vol. 183; p. 257.
Keefe, Joseph. Boston, assignor to J. H. Parker, Saugus, Mass. Outlet-box. No. 1,039,955; Oct. 1; Gaz. vol. 183; p. 94.
Keefer, Robert M. (See Middleton, Keefer, and Ballamy.)
Keeran, Charles E., Bloomington, Ill. Jar-seal. No. 1,040,211; Oct. 1; Gaz. vol. 183; p. 182.
Keilholtz, Pierre O., and F. B. Ricketts, Baltimore, Md. Voltage compensating and regulating means. No. 1,041,482; Oct. 15; Gaz. vol. 183; p. 677.
Keith, George. (See Keith, James and G.)
Keith, James and G., London, England. Gas-lamp. No. 1,042,798; Oct. 29; Gaz. vol. 183; p. 1189.
Kelchner, Stewart S., Easton, Pa. Water-motor. No. 1,042,449; Oct. 29; Gaz. vol. 183; p. 1066.
Keller, George W., C. and A. Brasmington, and H. D. Kostenbauder, Aristes, Pa. Coal-washing jig. No. 1,041,800; Oct. 22; Gaz. vol. 183; p. 820.
Keller, Wilhelm, assignor to Hartmann and Braun, Aktiengesellschaft, Frankfort-on-the-Main, Germany. Manufacturing electrical-instrument coils. No. 1,041,293; Oct. 15; Gaz. vol. 183; p. 615.
Kellett, Thomas N. (See Thompson, Kellett, and Gunn.)
Kelley Electric Machine Company. (See Kelley, George L., assignor.)
Kelley, George J., Attleboro, Mass. Atomizer. No. 1,042,685; Oct. 29; Gaz. vol. 183; p. 1149.
Kelley, George L., assignor, by mesne assignments, to Kelley Electric Machine Company, Buffalo, N. Y. Guide device for woodworking or routing machines. No. 1,042,120; Oct. 22; Gaz. vol. 183; p. 927.
Kelley, John W., assignor of one-half to D. R. Miller and W. Panscher, Chicago, Ill. Guard-rail. No. 1,041,094; Oct. 15; Gaz. vol. 183; p. 547.
Kellogg, James L., New York, N. Y. Surprise and alarm device. No. 1,041,095; Oct. 15; Gaz. vol. 183; p. 547.
Kellogg Switchboard and Supply Company. (See Bradbury, Clifford C., assignor.)
Kelly, George B., Jamaica Plain, Mass. Combined player piano and organ. No. 1,042,686; Oct. 29; Gaz. vol. 183; p. 1150.
Kelly, John F., Pittsfield, Mass. Circuit-controlling apparatus. No. 1,041,294; Oct. 15; Gaz. vol. 183; p. 615.
Kelly, Michael, Buffalo, N. Y. Steam-boiler. No. 1,041,295; Oct. 15; Gaz. vol. 183; p. 615.
Kelly, Thomas J., Denver, Colo. Tire-lock. No. 1,041,632; Oct. 15; Gaz. vol. 183; p. 724.
Kelly, William, Detroit, Mich. Transmission-gear. No. 1,039,956; Oct. 1; Gaz. vol. 183; p. 95.
Kelly, William, Lowell, Mass. Mixer for internal-combustion engines. No. 1,041,096; Oct. 15; Gaz. vol. 183; p. 548.
Kelly, William H., Los Angeles, Cal. Purification of metals. No. 1,041,801; Oct. 22; Gaz. vol. 183; p. 821.
Kempton, Wallace E., Coquille, Oreg. Logging-chain hook. No. 1,039,957; Oct. 1; Gaz. vol. 183; p. 95.
Kendall, George H., New York, N. Y. Plate-printing machine. No. 1,040,691; Oct. 8; Gaz. vol. 183; p. 381.
Kendall, William F., assignor to Recometre Company of America, New York, N. Y. Driving mechanism for speed or distance indicators. No. 1,042,687; Oct. 29; Gaz. vol. 183; p. 1150.
Kennedy, Edmond M., *et al.* (See Richardson, William A., assignor.)
Kennedy, Charles L., Winnipeg, Canada. Combined vehicle-hub and shock-absorber. No. 1,041,097; Oct. 15; Gaz. vol. 183; p. 548.
Kennedy, John L., Washington, D. C. Wind-shield for automobiles. No. 1,042,926; Oct. 29; Gaz. vol. 183; p. 1232.
Kennedy, Samuel H., Tunnel Hill, Ga. Gearing. No. 1,041,483; Oct. 15; Gaz. vol. 183; p. 677.
Kenney, Irving B., Wadena, Minn. Dental gold-cap crown remover. No. 1,041,098; Oct. 15; Gaz. vol. 183; p. 548.
Kentucky Tobacco Product Company, The. (See Mayborne, Robert G., assignor.)
Kerchner, John, and J. Stugner, Pittsburgh, Pa. Packing. No. 1,042,926; Oct. 29; Gaz. vol. 183; p. 1232.
Kern, Albert, Aachen, Germany. Hand-card. No. 1,042,234; Oct. 22; Gaz. vol. 183; p. 966.
Kern, Hayden A., Dayton, Ohio. Composition to facilitate the tapping of aluminum or the like. No. 1,041,484; Oct. 15; Gaz. vol. 183; p. 677.
Kerns, James, assignor of three-fourths to J. Howse and one-fourth to N. Talmon, Wayne, Mich. Carburetor. No. 1,041,099; Oct. 15; Gaz. vol. 183; p. 548.
Kerr, Duncan M., Palisade, Nebr. Supporting-clip. No. 1,041,296; Oct. 15; Gaz. vol. 183; p. 616.
Kerr, Elijah R., Erin, Tenn. Road-scraper. No. 1,042,450; Oct. 29; Gaz. vol. 183; p. 1067.
Kerrigan, John J., Philadelphia, Pa. Boiler-tube crimper. No. 1,042,121; Oct. 22; Gaz. vol. 183; p. 928.
Kersteter, Charles W., Chicago, Ill. Main valve for dry-pipe automatic fire-extinguishing systems. No. 1,041,633; Oct. 15; Gaz. vol. 183; p. 724.
Kertess, Adolf, Maimkur, Germany, assignor to Cassella Color Company. Dyeing of cotton or linen cloth with vat-colors. No. 1,043,016; Oct. 29; Gaz. vol. 183; p. 1263.
Keschansky, Daniel J. (See Zean, Jacob, assignor.)
Kessler, Abraham. (See Spits and Kessler.)
Kessler, Louis, Chicago, Ill. Air and gas engine. No. 1,042,560; Oct. 29; Gaz. vol. 183; p. 1105.
Ketterer, Percival C., New York, N. Y. Horseshoe. No. 1,040,958; Oct. 8; Gaz. vol. 183; p. 466.
Kettering, Charles F., Dayton, Ohio. Recording-key. No. 1,041,502; Oct. 22; Gaz. vol. 183; p. 821.
Kettering, Charles F., Dayton, Ohio, assignor to The Dayton Engineering Laboratories Co. Ignition system. No. 1,040,349; Oct. 8; Gaz. vol. 183; p. 257.
Key, William C., Knoxville, Tenn. Apparatus for scalding grass. No. 1,042,688; Oct 29; Gaz. vol. 183; p. 1151.
Key, William W., Fayetteville, Ark. Revolver. No. 1,042,007; Oct. 22; Gaz. vol. 183; p. 890.
Keys, Joseph F., Gypsum, Kans. Apparatus for producing fluid-pressure. No. 1,040,350; Oct. 8; Gaz. vol. 183; p. 258.
Keystone Furnace Construction Company. (See Knox, Luther L., assignor.)
Keystone Watch Case Company, The. (See Nutting, Granville, assignor.)
Kich, Julian, Lyndora, Pa. Material for treating copper. No. 1,041,297; Oct. 15; Gaz. vol. 183; p. 616.
Kiefer, Karl, Cincinnati, Ohio. Making alcohol. No. 1,041,298; Oct. 15; Gaz. vol. 183; p. 616.
Kiener, Paul A. M., Leipsig, Germany. Lasting-machine. No. 1,042,709; Oct. 29; Gaz. vol. 183; p. 1189.
Kieser, Walter, Charlottenburg, Germany, assignor to General Electric Company. Leakage-reducing device. No. 1,041,485; Oct. 15; Gaz. vol. 183; p. 677.
Kilburn, John E., assignor, by means assignments, to Hale and Kilburn Company, Philadelphia, Pa. Window-lock. No. 1,041,803; Oct. 22; Gaz. vol. 183; p. 821.
Kilgore, Joseph D., assignor to L. E. Rott, Homestead, Pa. Toy pistol. No. 1,041,804; Oct. 22; Gaz. vol. 183; p. 822.
Kilpatrick, Robert L., Hempstead, assignor of one-fourth to W. C. Rollins and one-fourth to C. H. Waller, Prairie View, Tex. Plow. No. 1,039,754; Oct. 1; Gaz. vol. 183; p. 28.
Kimball, Frank J., Los Angeles, Cal. Air-lift. No. 1,039,958; Oct. 1; Gaz. vol. 183; p. 95.
Kimes, Hugh W., assignor to The Valle and Kimes Company, Dayton, Ohio. Automatic pressure-regulator. No. 1,042,008; Oct. 22; Gaz. vol. 183; p. 891.
King, Alvin L. (See Rouse and King.)
King, Charles B., and C. B. Weston, assignors to The Marion Steam Shovel Company, Marion, Ohio. Operating mechanism for friction-clutches. No. 1,039,755; Oct. 1; Gaz. vol. 183; p. 29.
King, Charles B., and J. W. Fellmeth, assignors to The Marion Steam Shovel Company, Marion, Ohio. Gold-saving table. No. 1,041,486; Oct. 15; Gaz. vol. 183; p. 676.
King, George H., assignor to King Measuring Device Company, Anderson, Ind. Measuring-machine for rolled material. No. 1,040,351; Oct. 8; Gaz. vol. 183; p. 258.
King, Howard K., Philadelphia, Pa., assignor to Chambers Brothers Company. Brick-pressing machine. No. 1,041,805; Oct. 22; Gaz. vol. 183; p. 822.

King, Howard K., Philadelphia, Pa., assignor to Chambers Brothers Company. Folding-machine. No. 1,041,806; Oct. 22; Gas. vol. 183; p. 822.

King, Howard K., Philadelphia, Pa., assignor to Chambers Brothers Company. Sheet-feeding machine. No. 1,041,807; Oct. 22; Gas. vol. 183; p. 823.

King, Howard K., Philadelphia, Pa., assignor to Chambers Brothers Company. Packing mechanism. No. 1,041,808; Oct. 22; Gas. vol. 183; p. 823.

King, Joseph G., Hendersonville, N. C. Door-hanger. No. 1,042,927; Oct. 29; Gas. vol. 183; p. 1233.

King, Marmaduke, Fingerboard, Ontario, Canada. Clover-huller. No. 1,041,809; Oct. 22; Gas. vol. 183; p. 824.

King, Mary H. (See Wells, Horace L., assignor.)

King Measuring Device Company. (See King, George H., assignor.)

King, Peter H. (See Rapp and King.)

King, William W., Huntsburg, Ohio. Speed-recording device. No. 1,042,561; Oct. 29; Gas. vol. 183; p. 1105.

King, Willis L., Phenix, R. I. Vacuum-producer. No. 1,041,634; Oct. 15; Gas. vol. 183; p. 725.

Kingwell, Kenneth F., Rugby, England, assignor to General Electric Company. Motor-control system. (Reissue.) No. 13,483; Oct. 29; Gas. vol. 183; p. 1278.

Kinney, Daniel R., Greeley, assignor of one-fourth to F. Herb, Denver, Colo. Grasshopper-exterminator. No. 1,040,549; Oct. 8; Gas. vol. 183; p. 327.

Kiralfy, Imre, South Kensington, London, England. Amusement device. No. 1,041,299; Oct. 15; Gas. vol. 183; p. 616.

Kirby, John, Douglas, Ariz. Trolley-wire switch or frog. No. 1,040,212; Oct. 1; Gas. vol. 183; p. 182.

Kirkpatrick, William A., and C. E. Poorman, Abbyville, Kans. Dispensing-container. No. 1,039,756; Oct. 1; Gas. vol. 183; p. 29.

Kitchen, Jacob H., and W. Stiller, assignors to Akard Door Opener Company, San Francisco, Cal. Door-opener. No. 1,042,800; Oct. 29; Gas. vol. 183; p. 1189.

Kitchen, John F. (See Beeman and Kitchen.)

Kitchen, Joseph M. W., East Orange, N. J. Gas-making apparatus. No. 1,039,550; Oct. 1; Gas. vol. 183; p. 96.

Kitchen, Joseph M. W., East Orange, N. J. Method and means for utilizing fuel-wastes and generating power. No. 1,041,810; Oct. 22; Gas. vol. 183; p. 824.

Kitchenette Company, The. (See Peraw and Rogers, assignors.)

Kitsee, Isidor, Philadelphia, Pa. Phonography. No. 1,040,213; Oct. 1; Gas. vol. 183; p. 182.

Kitsee, Isidor, Philadelphia, Pa. Protecting kinematographic films. No. 1,042,801; Oct. 29; Gas. vol. 183; p. 1190.

Kitton, John C., Elgin, Ill. Compressor. No. 1,039,757; Oct. 1; Gas. vol. 183; p. 30.

Kjellman, Rudolf H., assignor to Nya Aktiebolaget Stockholms Vapenfabrik, Stockholm, Sweden. Automatic firearm. No. 1,040,692; Oct. 8; Gas. vol. 183; p. 381.

Klaren, Mathias, Lawton, Okla. Dough-raising cabinet. No. 1,042,235; Oct. 22; Gas. vol. 183; p. 906.

Klauder-Weldon Dyeing Machine Company. (See Duell, William S., assignor.)

Klaus, Frederick R. (See Heinsohn, Edwards, and Klaus.)

Kleiheuer, Henry G., Akron, Iowa. Draft-equalizer. No. 1,040,352; Oct. 8; Gas. vol. 183; p. 258.

Klein, Fred J., New York, N. Y. Pencil and pen clip. No. 1,039,758; Oct. 1; Gas. vol. 183; p. 30.

Klein, Henry C., Sr., and E. E. Penrose, Loransport, Ind., assignors to Buda Foundry & Manufacturing Company, Chicago, Ill. Lifting-jack. No. 1,039,960; Oct. 1; Gas. vol. 183; p. 96.

Klein, Louis, Strassburg, Germany. Decaffeinating coffee-beans. No. 1,039,961; Oct. 1; Gas. vol. 183; p. 96.

Klein, Peter, Erie, Pa. Hotel-record-card system. No. 1,040,550; Oct. 8; Gas. vol. 183; p. 327.

Klein, William E., Chicago, Ill. Door-alarm. No. 1,041,811; Oct. 22; Gas. vol. 183; p. 825.

Kley, Cornelius A., Greensburg, Pa. Horseshoe. No. 1,040,353; Oct. 8; Gas. vol. 183; p. 259.

Kliegl, John H., New York, N. Y. Cable-clamp. No. 1,041,800; Oct. 15; Gas. vol. 183; p. 617.

Klimsch & Co. (See Schumacher, Peter, assignor.)

Klocko, John M., South Chicago, Ill. Fire-escape. No. 1,040,354; Oct. 8; Gas. vol. 183; p. 259.

Klolber, Josef, Oregon City, Oreg. Making patterns for the manufacture of paper containing water-marks of various designs. No. 1,041,301; Oct. 15; Gas. vol. 183; p. 617.

Klotz, Alfred, Munich, Germany. Hot-air bath. No. 1,039,962; Oct. 1; Gas. vol. 183; p. 97.

Knapp, David R., Philadelphia, Pa. Indicating and protecting device. No. 1,042,562; Oct. 29; Gas. vol. 183; p. 1105.

Kneale, William T. (See Van Ness and Kneale.)

Knell, Edward, deceased, Carthage, Mo.; S. L. Knell, executrix. Burial apparatus. No. 1,041,812; Oct. 22; Gas. vol. 183; p. 825.

Knell, Susan L., executrix. (See Knell, Edward.)

Kneppler, Charles M., New York, N. Y. Sheet-feeding mechanism for printing-presses. No. 1,041,302; Oct. 15; Gas. vol. 183; p. 617.

Knight, Arthur S., Newark, N. J., assignor to Westinghouse Lamp Company. Apparatus for manufacturing incandescent lamps. No. 1,042,451; Oct. 29; Gas. vol. 183; p. 1067.

Knight, Jonathan L., Fond du Lac, Wis. Mesmaine-chair. No. 1,039,759; Oct. 1; Gas. vol. 183; p. 30.

Knight, Walter H. (See Headley and Knight.)

Knopf, Frank C., Toledo, Ohio. Attachment for moving-picture machines. No. 1,041,518; Oct. 22; Gas. vol. 183; p. 825.

Knott, Levi, Altoona, Pa. Metallic weather-strip. No. 1,040,355; Oct. 8; Gas. vol. 183; p. 259.

Knott, Louis E., assignor to L. E. Knott Apparatus Company, Boston, Mass. Apparatus for determining the amount of carbon dioxid in the air. No. 1,040,356; Oct. 8; Gas. vol. 183; p. 260.

Knowles, Edward R., New York, N. Y. Tubular incandescent lamp. No. 1,041,100; Oct. 15; Gas. vol. 183; p. 540.

Knox, Luther L., Avalon, assignor to Keystone Furnace Construction Company, Pittsburgh, Pa. Regenerative reversing-furnace. No. 1,041,814; Oct. 22; Gas. vol. 183; p. 825.

Knudsen, Hans, London, England. Internal-combustion engine. No. 1,041,303; Oct. 15; Gas. vol. 183; p. 618.

Knutson, Peder M., Clifford, assignor of one-half to J. Falkenhagen, Galesburg, N. D. Tractor-hitch for drills and drags. No. 1,041,815; Oct. 22; Gas. vol. 183; p. 826.

Kobey, Stephan, Chicago, Ill. Book-holder. No. 1,041,101; Oct. 15; Gas. vol. 183; p. 540.

Kocourek, Henry, assignor to Stewart & Clark Manufacturing Company, Chicago, Ill. Magnetic speedometer. No. 1,042,122; Oct. 22; Gas. vol. 183; p. 928.

Koechlin, Albert G., Basel, Switzerland, assignor to Spinnerei & Weberei Steinen Actien-Gesellschaft, Steinen, Baden, Germany. Automatic bobbin-exchanging device for looms. No. 1,041,304; Oct. 15; Gas. vol. 183; p. 618.

Koehn, Frank T., Tampa, Kans. Spring-frame for motor-cycles. No. 1,042,563; Oct. 29; Gas. vol. 183; p. 1106.

Koen, Joseph T., Oneida, N. Y. Vehicle-wheel. No. 1,042,689; Oct. 29; Gas. vol. 183; p. 1151.

Koetitz, Frederick A., San Francisco, Cal. Form and reinforcement for concrete casings. No. 1,042,802; Oct. 29; Gas. vol. 183; p. 1190.

Kohler, Frederick E., assignor to The F. E. Kohler Company, Canton, Ohio. Snow-shovel. No. 1,042,352; Oct. 22; Gas. vol. 183; p. 1004.

Kohler, John, New York, N. Y. Bedstead. No. 1,040,693; Oct. 8; Gas. vol. 183; p. 381.

Kohler, Joseph, assignor of one-half to K. Collins, Chicago, Ill. Spring-wheel. No. 1,040,694; Oct. 8; Gas. vol. 183; p. 381.

Kohn, Koby, Lincoln, Nebr. Container. No. 1,041,635; Oct. 15; Gas. vol. 183; p. 725.

Koiw, Julius, Port Arthur, Tex. Air-craft propeller. No. 1,040,695; Oct. 8; Gas. vol. 183; p. 382.

Koken, Edward H., Akron, Ohio. Vehicle tire and rim. No. 1,039,760; Oct. 1; Gas. vol. 183; p. 31.

Kolár, Nandor, and W. Jancsó, Budapest, Austria-Hungary. Preserving wooden articles buried in the earth. No. 1,042,564; Oct. 29; Gas. vol. 183; p. 1106.

Kolb, Edward W., Westmount, Quebec, Canada. Car-window screen. No. 1,042,123; Oct. 22; Gas. vol. 183; p. 928.

Komarek, Gustav, St. Louis, Mo. Car-truck. No. 1,042,124; Oct. 22; Gas. vol. 183; p. 929.

Kopald, Victor H., Brooklyn, N. Y. Bottle-stopper. No. 1,041,816; Oct. 22; Gas. vol. 183; p. 826.

Kopf, Henry B., New Haven, Conn. Means for packing fresh pineapples. No. 1,042,928; Oct. 29; Gas. vol. 183; p. 1233.

Kops, Daniel, New York, N. Y. Hose-supporter for apparel-corsets. No. 1,042,125; Oct. 22; Gas. vol. 183; p. 929.

Kops, Daniel, New York, N. Y. Apparel-corset. No. 1,042,126; Oct. 22; Gas. vol. 183; p. 930.

Korotkiewitsch, Iwan von, Warsaw, Russia. Automatic signaling and checking apparatus for railway-signals. No. 1,042,226; Oct. 22; Gas. vol. 183; p. 966.

Korrodi, Heinrich, Bern, Kirchenfeld, Switzerland, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Gun-sighting device. No. 1,041,102; Oct. 15; Gas. vol. 183; p. 550.

Kostenbader, Harry D. (See Keller, Brassington, and Kostenbader.)

Kotkovsky, Benjamen, Paris, France. Variable safety-lock with controlling device. No. 1,040,696; Oct. 8; Gas. vol. 183; p. 382.

Kotraba, Frank, Westchester, N. Y. Match-safe. No. 1,042,690; Oct. 29; Gas. vol. 183; p. 1151.

Kouffman, Wolf, Paterson, N. J. Bottle or jar closure. No. 1,042,227; Oct. 22; Gas. vol. 183; p. 966.

Kouyoumjian, Haroutiun K., St. Louis, Mo. Electromagnet controlling device. No. 1,042,691; Oct. 29; Gas. vol. 183; p. 1151.

Kraft, William, Detroit, Mich. Latch and lock. No. 1,041,305; Oct. 15; Gas. vol. 183; p. 619.

Krakau, Harry T., assignor to The National Malleable Castings Company, Cleveland, Ohio. Car-coupling. No. 1,040,551; Oct. 8; Gas. vol. 183; p. 328.

Krämer, Christian, Berlin, Germany, assignor to General Electric Company. Power-transmission system. No. 1,041,306; Oct. 15; Gas. vol. 183; p. 550.

Krämer, Christian, Berlin, Germany, assignor to General Electric Company. Motor-control system. No. 1,042,693; Oct. 29; Gas. vol. 183; p. 1152.





Krans, Peter, La Junta, Colo. Combination square and miter-marker. No. 1,040,214; Oct. 1; Gas. vol. 183; p. 182.

Krarup, Marius C., Brooklyn, N. Y. Power-transmission mechanism. No. 1,039,963; Oct. 1; Gas. vol. 183; p. 97.

Krase, Herman C., Chicago, Ill. Lock for bascule-bridges. No. 1,042,228; Oct. 22; Gas. vol. 183; p. 967.

Krassa, Paul, assignor to Chemische Fabrik Gustrow, Gustrow, Germany. Press for filtering fluids. No. 1,042,803; Oct. 29; Gas. vol. 183; p. 1190.

Krauch, Flora E., Indianapolis, Ind. Garment-support. No. 1,041,104; Oct. 15; Gas. vol. 183; p. 550.

Kraus, Rudolf, New York, N. Y. Hand-comb. No. 1,040,357; Oct. 8; Gas. vol. 183; p. 260.

Kraus, Willibald, Selby, S. D. Stove. No. 1,041,306; Oct. 15; Gas. vol. 183; p. 619.

Krause, Francis A., Hingham, Mass. Car-coupling. No. 1,041,488; Oct. 15; Gas. vol. 183; p. 678.

Krause, Otto, Berlin, Germany, assignor, by mesne assignments, to General Electric Company. Metallic-filament lamp. No. 1,041,817; Oct. 22; Gas. vol. 183; p. 826.

Krauth, Albert, assignor to Krauth & Benninghofen, Hamilton, Ohio. Autographic register. No. 1,042,000; Oct. 22; Gas. vol. 183; p. 891.

Krauth & Benninghofen. (See Krauth, Albert, assignor.)

Kricke, Charles, Beardstown, Ill. Holder for ink-wells. No. 1,042,353; Oct. 22; Gas. vol. 183; p. 1004.

Kriner, Loose D., assignor of one-half to A. V. Johnson, Alliance, Ohio. Nut-lock. No. 1,040,215; Oct. 1; Gas. vol. 183; p. 183.

Kristofek, Frank J., assignor to Cruver Manufacturing Company, Chicago, Ill. Bill-file. No. 1,041,818; Oct. 22; Gas. vol. 183; p. 827.

Kriszt, János, Budapest, assignor to J. Arak, Kispest, Austria-Hungary. Charcoal flat-iron. No. 1,040,216; Oct. 1; Gas. vol. 183; p. 183.

Kroese, John W., Burlingame, Cal. Sanding-machine. No. 1,042,354; Oct. 22; Gas. vol. 183; p. 1004.

Krone, Heinrich, Münder, Germany. Drop-bottle. No. 1,041,105; Oct. 15; Gas. vol. 183; p. 551.

Kroner, Frank A., Lynn, Mass., assignor to General Electric Company. Vapor electric device. No. 1,042,565; Oct. 29; Gas. vol. 183; p. 1106.

Kronthal, Louis. (See Minhof and Kronthal.)

Krotz, Alvaro S., assignor to Sears, Roebuck & Company, Chicago, Ill. Automobile. No. 1,040,697; Oct. 8; Gas. vol. 183; p. 382.

Krug, Louis. (See Weis and Krug.)

Kruger, Charles M., Hannibal, Mo. Vapor-generator. No. 1,042,355; Oct. 22; Gas. vol. 183; p. 1005.

Kruse, John, St. Louis, Mo. Alarm-clock. No. 1,041,307; Oct. 15; Gas. vol. 183; p. 619.

Kuensel, Charles A., Buena Vista, Colo., assignor to The Kuensel Gas Producer & Smelter Construction Co. Gas-producer. No. 1,042,566; Oct. 29; Gas. vol. 183; p. 1107.

Kuensel, Charles A., Buena Vista, Colo., assignor to The Kuensel Gas Producer & Smelter Construction Co. Producing combustible gas. No. 1,042,567; Oct. 29; Gas. vol. 183; p. 1107.

Kuensel Gas Producer & Smelter Construction Co., The. (See Kuensel, Charles A., assignor.)

Kuinders, Ferdinand C., Seattle, Wash. Tooth-brush. No. 1,040,980; Oct. 8; Gas. vol. 183; p. 466.

Kugler, George D. (See Herbst, Roger R., assignor.)

Kühne, Martin, Brooklyn, N. Y. Metal lath. No. 1,042,127; Oct. 22; Gas. vol. 183; p. 930.

Kunert, Felix. (See Laska, Zitscher, and Kunert.)

Kunkey, Samuel D., assignor to V. A. Carringer, Caldwell, Idaho. Crude-oil burner. No. 1,040,217; Oct. 1; Gas. vol. 183; p. 183.

Kurahoedt, Alphonse H. (See Grosbli, Joseph A., assignor.)

Kutyla, Joseph, McDonald, Pa. Semaphore-signal. No. 1,042,128; Oct. 22; Gas. vol. 183; p. 930.

Kyyny, August, Monessen, Pa. Attachment for foot-power-operating machines. No. 1,040,698; Oct. 8; Gas. vol. 183; p. 382.

L. Wolff Manufacturing Company. (See Clifford, John, assignee.)

L. E. Knott Apparatus Company. (See Knott, Louis E., assignee.)

L'Air Liquide, Société Anonyme pour l'Etude et l'Exploitation des Procédés Georges Claude. (See Claude, Georges, assignee.)

La Fave, Joseph H., Dodsonee, Ohio. Bilge-barrel. No. 1,040,358; Oct. 8; Gas. vol. 183; p. 260.

La Fevre, Walter H., Baltimore, Md. Cue-tip holder. No. 1,040,362; Oct. 8; Gas. vol. 183; p. 262.

Lacroix, Joseph, Fall River, assignor to The Double Spring Shuttle Company, New Bedford, Mass. Hand-threading shuttle. No. 1,040,964; Oct. 1; Gas. vol. 183; p. 96.

Lacy, Edward A. (See Webster and Lacy.)

Lacy, James L. (See Webster and Lacy.)

Ladoff, Isador, Cleveland, Ohio, assignor, by mesne assignments, of thirty one-hundredths to W. D. Edmonds, Boonville, N. Y. Alloy and producing the same. No. 1,040,699; Oct. 8; Gas. vol. 183; p. 383.

Ladoff, Isador, Cleveland, Ohio, assignor, by mesne assignments, of thirty one-hundredths to W. D. Edmonds, Boonville, N. Y. Producing alloys or compounds of titanium and copper. No. 1,042,694; Oct. 29; Gas. vol. 183; p. 1153.

Lague, George E., North Attleboro, Mass. Auxiliary burner for gas-stoves. No. 1,040,552; Oct. 8; Gas. vol. 183; p. 328.

Laidley, Samuel C., Chicago, Ill. Flushing-valve. No. 1,042,568; Oct. 29; Gas. vol. 183; p. 1107.

Laing, Archie R. (See Fotheringham and Laing.)

Lake, Christopher J., Bridgeport, Conn. Aeroboat. No. 1,041,489; Oct. 15; Gas. vol. 183; p. 679.

Lake, Franklin W., assignor of one-third to J. B. Cooke and one-third to R. N. F. McFarlane, Kingston, Ontario, Canada. Engine. No. 1,040,700; Oct. 8; Gas. vol. 183; p. 383.

Laker, John W. E., Victoria, British Columbia, Canada. Piano-hammer. No. 1,041,490; Oct. 15; Gas. vol. 183; p. 679.

Lamarque, Luis, Habana, Cuba. Attachment for typewriters. No. 1,041,491; Oct. 15; Gas. vol. 183; p. 679.

Lamorreaux, Charles, Charleston, W. Va. Valve. No. 1,041,636; Oct. 15; Gas. vol. 183; p. 726.

Lamort, Marcel, Vitry-le-François, France. Means for controlling the strainer-drums of paper-making machines. No. 1,040,553; Oct. 8; Gas. vol. 183; p. 328.

Lamoureux, Arthur A., Manchester, N. H. Device for extracting sinews from flesh. No. 1,041,308; Oct. 15; Gas. vol. 183; p. 619.

Lanaux, Alfred A., Beaumont, Tex., assignor of one-eighth to P. H. Brown, New Orleans, La., and E. A. Steinhagen, and three-eighths to W. P. H. McFaddin, Beaumont, Tex. Apparatus for treating granular materials. No. 1,042,929; Oct. 29; Gas. vol. 183; p. 1233.

Landers, Frary and Clark. (See Walker, George, assignor.)

Landers, Frary & Clark. (See Warner, Alonzo A., assignor.)

Lane, Howard, Birmingham, England, assignor to Internationale Wasserstoff Aktiengesellschaft, Frankfort-on-the-Main, Germany. Purifying crude gas. No. 1,040,218; Oct. 1; Gas. vol. 183; p. 183.

Lane, Phil E., Urbana, Iowa. End-gate fastener. No. 1,041,819; Oct. 22; Gas. vol. 183; p. 827.

Lane, Willias A. (See Grearson, Frederick A., assignor.)

Lanfredi, Eugenia, New York, N. Y. Oil-burner. No. 1,042,930; Oct. 29; Gas. vol. 183; p. 1234.

Lang, Charles R., Cathcart, Glasgow, Scotland. Control of steam-turbine-driven boiler-feed pumps. No. 1,041,492; Oct. 15; Gas. vol. 183; p. 680.

Lang, Charles R., Los Angeles, Cal. Order-taking and receipt-delivering device. No. 1,042,010; Oct. 22; Gas. vol. 183; p. 891.

Lang, Howard W., Litchfield, Nebr. Nut-lock. No. 1,042,569; Oct. 29; Gas. vol. 183; p. 1106.

Langer, Gotthold L., San Francisco, Cal. Machine for separating raisins. No. 1,042,570; Oct. 29; Gas. vol. 183; p. 1106.

Langlais, Zachée, Montreal, Quebec, Canada. Fountain-brush. No. 1,039,965; Oct. 1; Gas. vol. 183; p. 98.

Lankford, John L., Essex, Mo. Cattle-guard. No. 1,041,493; Oct. 15; Gas. vol. 183; p. 680.

Lanston Monotype Machine Company. (See Bancroft and Indahl, assignors.)

Lanston Monotype Machine Company. (See Pierpont, Frank H., assignor.)

Larsen, Ivert, Chicago, Ill. Counting-machine. No. 1,039,761; Oct. 1; Gas. vol. 183; p. 31.

Larsen, Ludwig L., Chicago, Ill. Grain-door for cars. No. 1,039,966; Oct. 1; Gas. vol. 183; p. 98.

Larson, Adolph, and J. Jacobsen, Rockford, Ill. Machine for inserting tape-bushings in piano-actions. No. 1,041,820; Oct. 22; Gas. vol. 183; p. 827.

Larssen, Tryggve, Bremen, assignor to The Firm of Deutsch-Luxemburgische Bergwerks- und Hütten-Aktiengesellschaft, Bochum, Germany. Sheet-metal piling. No. 1,042,571; Oct. 29; Gas. vol. 183; p. 1168.

Laska, August L., A. Zitscher, and F. Kunert, Offenbach-on-the-Main, assignors to Chemische Fabrik Griesheim-Elektron, Frankfort-on-the-Main, Germany. Diazo dyes and making them. No. 1,042,356; Oct. 22; Gas. vol. 183; p. 1005.

Laska, August L., A. Zitscher, and E. J. Rath, Offenbach-on-the-Main, assignors to Chemische Fabrik Griesheim-Elektron, Frankfort-on-the-Main, Germany. Vat dyestuff of the anthracene series and making same. No. 1,042,931; Oct. 29; Gas. vol. 183; p. 1234.

Latimer, James A., Youngstown, Ohio. Electric controller. No. 1,040,359; Oct. 8; Gas. vol. 183; p. 261.

Latour, Marius C. A. (See Weintraub and Latour.)

Laughlin, Catherine H. (See Laughlin, James W., assignor.)

Laughlin, James W., assignor to C. H. Laughlin, Detroit, Mich. Fountain-pen. No. 1,042,695; Oct. 29; Gas. vol. 183; p. 1153.

Laughlin, James W., assignor to C. H. Laughlin, Detroit, Mich. Fountain-pen. No. 1,042,804; Oct. 29; Gas. vol. 183; p. 1190.

Laun, Emil E. (See Thorun, Ernst F., assignee.)

Lavanway, William W., and G. A. Nenno, San Francisco, Cal. Disappearing bed and housing therefor. No. 1,039,967; Oct. 1; Gas. vol. 183; p. 98.

Lawrence, Edwin F. (See Lawrence, John H., assignor.)

Lawrence, John H., assignor of one-half to R. F. Lawrence, Sterling, Ill. Door-hanger track. No. 1,040,960; Oct. 8; Gas. vol. 183; p. 467.

Lawrence, Warren L., Eureka, Ill. Mausoleum. No. 1,041,637; Oct. 15; Gas. vol. 183; p. 726.

Lawson, Algernon S., Fossil, Ala. Metallic tie and rail-clamp. No. 1,041,106; Oct. 15; Gas. vol. 183; p. 551.

Lawson, Daniel A. (See Doxier, James H., assignor.)

Layman, Alfred C., Wilmington, Del. Leather-staking machine. No. 1,043,060; Oct. 29; Gas. vol. 183; p. 1276.

Lebsetter, William F., *et al.* (See Parchem, Albert J., assignor.)

Ledoux, John W., Swarthmore, Pa. Indicator. No. 1,041,107; Oct. 15; Gas. vol. 183; p. 551.

Lee, Alfred, Bellingham, Wash. Explosive-engine. No. 1,042,572; Oct. 29; Gas. vol. 183; p. 1109.

Lee, David C., St. Louis, Mo., assignor of one-half to H. M. Lee, Tacoma, Wash. Automatic printer for paper-rolls. No. 1,041,494; Oct. 15; Gas. vol. 183; p. 680.

Lee, Frederick J., Wichita, Kans. Door-holder. No. 1,040,360; Oct. 8; Gas. vol. 183; p. 261.

Lee, George H., Omaha, Nebr. Heating system for incubators. No. 1,040,701; Oct. 8; Gas. vol. 183; p. 384.

Lee, George H., Omaha, Nebr. Toy boomerang. No. 1,040,702; Oct. 8; Gas. vol. 183; p. 384.

Lee, Herbert M. (See Lee, David C., assignor.)

Lee, Isaac E., assignor of one-half to M. C. Houff and one-half to C. H. Alder, Dayton, Va. Cheese-cutter. No. 1,041,638; Oct. 15; Gas. vol. 183; p. 726.

Leech, Charles M., Lima, Ohio. Combined fly-wheel and transmission-gearing. No. 1,039,968; Oct. 1; Gas. vol. 183; p. 99.

Leek, John H., Brooklyn, N. Y. Tool for removing packing and other material. No. 1,040,361; Oct. 8; Gas. vol. 183; p. 261.

Leftwich, Clifford C., Council, Va. Coaling device. No. 1,040,703; Oct. 8; Gas. vol. 183; p. 384.

Leggett, Stephen. (See Ashford and Leggett.)

Lehman, George R., New York, N. Y. Non-refillable bottle. No. 1,039,969; Oct. 1; Gas. vol. 183; p. 100.

Lehmann, Ernst P., Brandenburg-on-the-Havel, Germany. Suspending toys. No. 1,041,639; Oct. 15; Gas. vol. 183; p. 727.

Lehmann, Firm of Ernst P. (See Sadtler, Wilhelm, assignor.)

Lehne, Joseph, Charlottenburg, assignor to Internationale Rotations-Maschinen-Gesellschaft m. b. H., Berlin, Germany. Fluid transmission. No. 1,042,696; Oct. 29; Gas. vol. 183; p. 1153.

Leiby, Clark, Akron, Ohio. Combined support for shade-rollers and curtain-poles. No. 1,042,697; Oct. 29; Gas. vol. 183; p. 1154.

Leigh, Lewis L., Bristol, Conn. Surface-indicator. No. 1,040,219; Oct. 1; Gas. vol. 183; p. 183.

Leisel, Albert, Newark, N. J., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Machine for doubling fabrics. No. 1,042,129; Oct. 22; Gas. vol. 183; p. 930.

Leitner, Henry, Maybury, Woking, England. Automatic electric regulator. No. 1,040,704; Oct. 8; Gas. vol. 183; p. 385.

Lemb, William, New York, assignor to John Lemb and Son, Incorporated, Brooklyn, N. Y. Boiler-furnace. No. 1,042,573; Oct. 29; Gas. vol. 183; p. 1110.

Lemp, Hermann, Lynn, Mass., assignor to General Electric Company. Supplying fuel and water to boilers. No. 1,041,640; Oct. 15; Gas. vol. 183; p. 727.

Lennon, William, Manitou, Colo. Trough or open flume. No. 1,042,239; Oct. 22; Gas. vol. 183; p. 967.

Lens, Rudolph O., Chicago, Ill., assignor to Illinois Vending Company. Coin-controlled vending-machine. No. 1,039,970; Oct. 1; Gas. vol. 183; p. 100.

Leonard, Charles S., New Orleans, La. Shredding-machine. No. 1,042,932; Oct. 29; Gas. vol. 183; p. 1234.

Leonard, Fred R. (See Leonard, William J. and F. R.)

Leonard, Harry W., Bronxville, N. Y. Electric controlling device. No. 1,042,180; Oct. 22; Gas. vol. 183; p. 931.

Leonard, Harry W., Bronxville, N. Y. Electrically-propelled vehicles. No. 1,042,696; Oct. 29; Gas. vol. 183; p. 1154.

Leonard, William J. and F. R., Chester, Nebr. Theater-chair. No. 1,041,108; Oct. 15; Gas. vol. 183; p. 552.

Leopold, George O. (See Fegley and Leopold.)

Leppert, Dorrence W., New York, N. Y. Telephone attachment. No. 1,042,933; Oct. 29; Gas. vol. 183; p. 1234.

Leppert, Henry E., New Britain, assignor to The Hart Manufacturing Company, Hartford, Conn. Interlocking mechanism. No. 1,040,705; Oct. 8; Gas. vol. 183; p. 385.

Lerch, Otto. (See Black, Ferdinand, assignor.)

Lernet, Alexander, Vienna, Austria-Hungary. Floating mine. No. 1,042,574; Oct. 29; Gas. vol. 183; p. 1110.

Leutheuser, Fred W., Chicago, Ill. Steam, air, and water trap valve. No. 1,042,011; Oct. 22; Gas. vol. 183; p. 902.

Leutheuser, Fred W., Chicago, Ill. Air-valve for radiators. No. 1,042,012; Oct. 22; Gas. vol. 183; p. 902.

Leutze, Trevor C., Merion, Pa. Hair-pin. No. 1,039,762; Oct. 1; Gas. vol. 183; p. 31.

Lev, Frank W., assignor to International Packing Machine Company, New York, N. Y. Packaging-machine. No. 1,042,018; Oct. 22; Gas. vol. 183; p. 893.

Levin, Isaac, New York, N. Y. Garment-form. No. 1,039,763; Oct. 1; Gas. vol. 183; p. 32.

Levin, Isaac, New York, N. Y. Collapsible garment-form. No. 1,039,764; Oct. 1; Gas. vol. 183; p. 32.

Levin, Nils D., assignor to Goodman Manufacturing Company, Chicago, Ill. Rack-rail. No. 1,042,452; Oct. 29; Gas. vol. 183; p. 1067.

Levy, Howard S., Philadelphia, Pa. Etching-machine. No. 1,042,699; Oct. 29; Gas. vol. 183; p. 1154.

Levy, Isadore J., New York, N. Y. Hand-bag. No. 1,042,934; Oct. 29; Gas. vol. 183; p. 1235.

Lewis, Corrie C., Portland, Me. Hub-wrench. No. 1,039,765; Oct. 1; Gas. vol. 183; p. 32.

Lewis, David T., Amherst, Nova Scotia, Canada. Emergency-rudder. No. 1,040,363; Oct. 8; Gas. vol. 183; p. 262.

Lewis, Edward Z., Chicago, Ill., assignor to The General Manifold and Printing Company, Franklin, Pa. Manifold-folding salesman's check. No. 1,039,766; Oct. 1; Gas. vol. 183; p. 33.

Lewis, George R., assignor to J. Stevens Arms & Tool Company, Chicopee Falls, Mass. Magazine-gun. No. 1,041,109; Oct. 15; Gas. vol. 183; p. 552.

Lewis, Goodrich Q., Wheaton, assignor to W. H. Miner, Chicago, Ill. Draft-rigging for railway-cars. No. 1,041,110; Oct. 15; Gas. vol. 183; p. 552.

Lewis, John D., Harrisburg, Pa. Cross-head for locomotives. No. 1,040,220; Oct. 1; Gas. vol. 183; p. 184.

Leyner, John G., Denver, Colo. Air-controlling valve for rock-drilling engines. No. 1,039,972; Oct. 1; Gas. vol. 183; p. 100.

Leyner, John G., Denver, Colo. Fluid-operated drill-steel-gripping vise for drill-bit-sharpening machines. No. 1,040,221; Oct. 1; Gas. vol. 183; p. 184.

Leyner, John G., Denver, assignor to The J. Geo. Leyner Engineering Works Company, Littleton, Colo. Down-hole handle-supported rock-mill. No. 1,039,971; Oct. 1; Gas. vol. 183; p. 100.

Libby, Albion D. T., assignor to Dean Electric Company, Elyria, Ohio. Signal-box. No. 1,042,700; Oct. 29; Gas. vol. 183; p. 1155.

Libby, George H., and H. L. Turney, Portland, Oreg. Air-brake mechanism for logging-trains. No. 1,040,222; Oct. 1; Gas. vol. 183; p. 184.

Liberty Cartridge Co. (See Funk, Edgar M., assignor.)

Lichtenstein, Solomon K. (See Liepenard, George, assignor.)

Liddon, Benjamin F., Corinth, Miss. Vehicle-jack. No. 1,040,223; Oct. 1; Gas. vol. 183; p. 185.

Lidgerwood Manufacturing Company. (See Covell, Harry N., assignor.)

Liebreich, Erik, Berlin, Germany. Protecting floating bodies against adhering of mussels. No. 1,043,051; Oct. 29; Gas. vol. 183; p. 1276.

Liggett, William K., and W. J. Armstrong, Columbus, Ohio, assignors to The Jeffrey Manufacturing Company. Pulverizer. No. 1,041,495; Oct. 15; Gas. vol. 183; p. 681.

Light, William D., Dunkirk, N. Y. Combined display and shipping case. No. 1,041,496; Oct. 15; Gas. vol. 183; p. 681.

Lile, Zenas R., and V. H. Davidson, Corbin, Kans. Corn-topping mechanism. No. 1,041,821; Oct. 22; Gas. vol. 183; p. 823.

Lilleberg, Charles L., assignor to W. H. Johnson, Chicago, Ill. Perforating-machine. No. 1,042,453; Oct. 29; Gas. vol. 183; p. 1068.

Lillick, Frederick T., Hamilton, Mont. Fruit-cutter. No. 1,042,240; Oct. 22; Gas. vol. 183; p. 967.

Linaker, Frederick W. (See Hibner and Linaker.)

Lincoln, Edwin S., Brookline, Mass., assignor to Electric Goods Manufacturing Company. Unispark ignition system. No. 1,039,973; Oct. 1; Gas. vol. 183; p. 101.

Lincoln, Edwin S., Brookline, Mass., assignor to Electric Goods Manufacturing Company. Combined ignition and working system. No. 1,039,974; Oct. 1; Gas. vol. 183; p. 102.

Lincoln, Paul M., Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company. System of electrical distribution. No. 1,039,767; Oct. 1; Gas. vol. 183; p. 33.

Lindberg, Charles A., Bradford, Pa. Trolley. No. 1,039,975; Oct. 1; Gas. vol. 183; p. 102.

Lindblad, Axel R. (See Grönwall, Lindblad, and Stiltsema.)

Lindeman, Max, Owego, assignor of one-fourth to L. A. Van Frank, New York, N. Y. Tip-printing press. No. 1,042,014; Oct. 22; Gas. vol. 183; p. 898.

Lindemann, Albert J., assignor to P. J. Lindemann & Heverson Co., Milwaukee, Wis. Oil-stove burner. No. 1,041,111; Oct. 15; Gas. vol. 183; p. 553.

Lindemeyer, William J., Stapleton, N. Y. Ventilator. No. 1,042,575; Oct. 29; Gas. vol. 183; p. 1111.

Lindhard, Per T., assigner to F. L. Smidth & Co., New York, N. Y. Burner for rotary kilns, &c. No. 1,042,576; Oct. 29; Gas. vol. 183; p. 1111.

Lindley, Lowell F., Chicago, Ill. Weatherproof covering. No. 1,040,704; Oct. 8; Gas. vol. 183; p. 385.

Lindquist, David L., Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Brake-magnet protective and demagnetizing device. No. 1,041,641; Oct. 15; Gas. vol. 183; p. 727.



Lindquist, David L., Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Brake apparatus. No. 1,041,642; Oct. 15; Gas. vol. 183; p. 728.

Lindsay, Leroy J., Seymour, Iowa. Marker for corn-planters. No. 1,040,864; Oct. 8; Gas. vol. 183; p. 263.

Lindsay, William G., assignor to The Celluloid Company, New York, N. Y. Solvent for acetyl cellulose. No. 1,041,112; Oct. 15; Gas. vol. 183; p. 555.

Lindsay, William G., Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y. Making acetyl cellulose plastics and solvents thereof. No. 1,041,113; Oct. 15; Gas. vol. 183; p. 553.

Lindsay, William G., Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y. Solvent of acetyl cellulose. No. 1,041,114; Oct. 15; Gas. vol. 183; p. 553.

Lindsay, William G., Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y. Compound of acetyl cellulose and making such compound. No. 1,041,115; Oct. 15; Gas. vol. 183; p. 554.

Lindsay, William G., Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y. Converting acetyl cellulose. No. 1,041,116; Oct. 15; Gas. vol. 183; p. 554.

Lindsay, William G., Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y. Making acetyl-cellulose plastic compounds. No. 1,014,117; Oct. 15; Gas. vol. 183; p. 554.

Lindsay, William G., Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y. Making acetyl-cellulose plastic compounds. No. 1,041,118; Oct. 15; Gas. vol. 183; p. 554.

Lines, Jesse, Sabetha, Kans. Display-cabinet. No. 1,041,497; Oct. 15; Gas. vol. 183; p. 681.

Lines, Jesse, Sabetha, Kans. Combined shipping-case and display-cabinet. No. 1,042,935; Oct. 29; Gas. vol. 183; p. 1235.

Liney, Percy L., Gunnersbury, England. Tin, canister, and similar receptacle. No. 1,040,707; Oct. 8; Gas. vol. 183; p. 385.

Link, Vincent, assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich. Centrifugal governor. No. 1,041,643; Oct. 15; Gas. vol. 183; p. 728.

Linon, Ivan, Ensival, Belgium. Prevention of double threads and intertwining in spinning-frames. No. 1,040,224; Oct. 1; Gas. vol. 183; p. 185.

Lippert, Edward. (See Jones and Lippert.)

Lipscomb, Sylvester G., Louisville, assignor to J. M. Jones, Elizabethtown, Ky. Wrapper-folding machine. No. 1,042,577; Oct. 29; Gas. vol. 183; p. 1112.

Liepenard, George, assignor to S. K. Lichtenstein, trustee, New York, N. Y. Cotton-harvester. No. 1,041,800; Oct. 15; Gas. vol. 183; p. 820.

Lisnak, Ormond M., Cleveland, Ohio, assignor, by mesne assignments, to The Automatic Arms Company. Latch for rotary magazines. No. 1,042,241; Oct. 22; Gas. vol. 183; p. 968.

List, Paul G., Tübingen, and G. Schmidt, assignors to I. Simon & Dürkheim, Offenbach-on-the-Main, Germany. Hydrocarbon soap and making same. No. 1,040,708; Oct. 8; Gas. vol. 183; p. 385.

Lister, Levi H., Bay St. Louis, assignor of one-half to W. H. Bousloy, Gulfport, Miss. Refrigerating apparatus. No. 1,042,015; Oct. 22; Gas. vol. 183; p. 898.

Little, Arthur E., Stockton, Cal. Portable steam or hot-water radiator. No. 1,039,976; Oct. 1; Gas. vol. 183; p. 102.

Little, William A., Cressona, Pa. Folding umbrella. No. 1,039,977; Oct. 1; Gas. vol. 183; p. 103.

Littleton, Alexander S., Erie, Pa. Electrically-actuated automatic train-stopping mechanism. No. 1,043,017; Oct. 29; Gas. vol. 183; p. 1263.

Lively, Robert H., assignor of one-half to A. W. Schooley, Okarche, Okla. Rail-joint. No. 1,041,823; Oct. 22; Gas. vol. 183; p. 823.

Livingston, Richard, Los Angeles, Cal. Tire traction device. No. 1,042,010; Oct. 22; Gas. vol. 183; p. 894.

Livtschak, Josef, St. Petersburg, Russia. Rifle-trying device. No. 1,042,857; Oct. 22; Gas. vol. 183; p. 1005.

Ljungström, Birger, assignor to Aktiebolaget Ljungstroms Angturbin, Stockholm, Sweden. Manufacturing vanerings for gas or steam turbines. No. 1,042,858; Oct. 22; Gas. vol. 183; p. 1005.

Lock, Otto, Philadelphia, Pa. Dish-washer. No. 1,042,242; Oct. 22; Gas. vol. 183; p. 968.

Locke, Sylvanus D., Bridgeport, Conn. Metal-straightening machine. No. 1,042,181; Oct. 22; Gas. vol. 183; p. 931.

Locklin, George C., Hammond, Ind. Bed-spring. No. 1,041,810; Oct. 15; Gas. vol. 183; p. 630.

Lockwood, Frederick J., Newark, N. J., assignor to The J. H. Ladew Company. Self-dumping paddle-wheel. No. 1,041,119; Oct. 15; Gas. vol. 183; p. 554.

Loeb, Adam, Portland, Oreg. Food-preserving chest. No. 1,041,120; Oct. 15; Gas. vol. 183; p. 555.

Loewenstein, Louis C., Lynn, Mass., and L. H. Dyer, Greenwich, Conn., assignors to General Electric Company. Elastic-fluid turbine. No. 1,041,121; Oct. 15; Gas. vol. 183; p. 555.

Loewenstein, Louis C., Lynn, Mass., and L. H. Dyer, Greenwich, Conn., assignors to General Electric Company. Elastic-fluid turbine. No. 1,041,714; Oct. 15; Gas. vol. 183; p. 753.

Loewer, John C., assignor of one-half to F. Browalski, Worden, Ill. Railway-tie. No. 1,041,498; Oct. 15; Gas. vol. 183; p. 682.

Loftus, Thomas J., Castella, assignor of one-half to H. Bell, Oakland, Cal. Cooling means for gasolene-engines. No. 1,040,709; Oct. 8; Gas. vol. 183; p. 386.

Logan, Thomas T. (See Baker, Charles L., assignor.)

Lohmann & Co., H. J. (See Lohmann, Herman J., assignor.)

Lohmann, Herman J., Jersey City, N. J., assignor to H. J. Lohmann & Co. Permeating protective for iron and steel articles. No. 1,039,978; Oct. 1; Gas. vol. 183; p. 103.

London, James A. (See London, Robert J. and J. A.)

London, Robert J. and J. A., Glen Allen, Mo. Photographic apparatus. No. 1,041,122; Oct. 15; Gas. vol. 183; p. 556.

Long, Albert R., Los Angeles, Cal. Carburetor. No. 1,042,017; Oct. 22; Gas. vol. 183; p. 894.

Long, George S., Lodi, Cal. Cushion butt-plate for fire-arms. No. 1,042,132; Oct. 22; Gas. vol. 183; p. 932.

Long, James C., Goldthwaite, Tex. Stenographer's desk. No. 1,039,979; Oct. 1; Gas. vol. 183; p. 103.

Long, Max F., Evanston, Wyo. Photographic-printing device. No. 1,040,710; Oct. 8; Gas. vol. 183; p. 386.

Long, Robert J., Fullerton, La. Faucet. No. 1,043,018; Oct. 29; Gas. vol. 183; p. 1264.

Long, William E., Lake Providence, La., assignor to H. C. Atkins & Company, Indianapolis, Ind. Cutter for ricefields. No. 1,042,243; Oct. 22; Gas. vol. 183; p. 968.

Longden, Elmer E., Toledo, Ohio. Hair-cutting gage. No. 1,040,711; Oct. 8; Gas. vol. 183; p. 387.

Lord Manufacturing Company. (See Erickson, Frederic W., assignor.)

Lord, Peter, assignor of one fourth to J. A. H. Hebert, one-eighth to G. Itsweire, and one-eighth to L. A. Delorme, Montreal, Quebec, Canada. Valve. No. 1,041,123; Oct. 15; Gas. vol. 183; p. 555.

Loring, Benjamin C., assignor to J. Tillinghast, Providence, R. I. Track-sanding device. No. 1,040,554; Oct. 8; Gas. vol. 183; p. 329.

Los Angeles Trolley Catcher Company, The. (See Ricketts, James R., assignor.)

Loser, William, Portland, Oreg. Ball-valve for flushing-tanks. No. 1,041,824; Oct. 22; Gas. vol. 183; p. 823.

Lottman, Max. (See Bacsardi, Stephen, assignor.)

Lotz, Samuel, Harrisburg, Pa. Rat-trap. No. 1,040,961; Oct. 8; Gas. vol. 183; p. 467.

Louder, Emanuel W., Southfork, Pa. Device for turning crank-pins. No. 1,042,578; Oct. 29; Gas. vol. 183; p. 1112.

Loughrey, James, Cranston, R. I. Hinge. No. 1,042,936; Oct. 29; Gas. vol. 183; p. 1235.

Lounsbery, Henry R., Jr., Katonah, N. Y. Lawn-mower. No. 1,041,124; Oct. 15; Gas. vol. 183; p. 556.

Lovekin, Luther D., assignor to Schuitz and Koerting Company, Philadelphia, Pa. Oil-burning provision for boiler-furnaces. No. 1,039,768; Oct. 1; Gas. vol. 183; p. 34.

Lovell, Albert K., New Haven, Conn. Roller window-screen. No. 1,042,805; Oct. 29; Gas. vol. 183; p. 1191.

Low, Abbot A., *et al.*, trustees. (See Betts, Lewis F., assignor.)

Low, Abbot A., *et al.*, trustees. (See Low, Abbot A., assignor.)

Low, Abbot A., assignor to A. A. Low, Horseshoe, M. J. Wohl and H. Hertzberg, Brooklyn, N. Y., trustees. Mesh heater. No. 1,039,769; Oct. 1; Gas. vol. 183; p. 34.

Low, Charles J., Chelan, Wash. Propeller. No. 1,041,825; Oct. 22; Gas. vol. 183; p. 829.

Lowe, Thomas, Garfield, Wash. Grease-cup. No. 1,039,980; Oct. 1; Gas. vol. 183; p. 103.

Lowell Machine Shop. (See Farnham, George W., assignor.)

Lucas, Walter, Victoria, British Columbia, Canada. Sewer-pipe construction. No. 1,042,579; Oct. 29; Gas. vol. 183; p. 1112.

Luckenbach, Boyer, Colwyn, Pa., assignor to Penn Mining & Reduction Company, Camden, N. J. Amalgamator. No. 1,042,701; Oct. 29; Gas. vol. 183; p. 1155.

Ludwick, Herman, Milwaukee, Wis. Oil-burner. No. 1,042,454; Oct. 29; Gas. vol. 183; p. 1068.

Ludwig, William F., Chicago, Ill. Sauce-strainer and mutter. No. 1,042,806; Oct. 29; Gas. vol. 183; p. 1191.

Luke, Kate, New York, N. Y. Corset. No. 1,041,811; Oct. 15; Gas. vol. 183; p. 630.

Lukens, Clarence D., assignor to C. De Witt Lukens Surgical Manufacturing Company, St. Louis, Mo. Receptacle. No. 1,039,981; Oct. 1; Gas. vol. 183; p. 103.

Luse, Daniel F., Center Hall, Pa. Corn-grader. No. 1,043,019; Oct. 29; Gas. vol. 183; p. 1265.

Lutenegger, Albert, Sacramento, Cal. Valve for gas-lighting systems for automobiles. No. 1,040,712; Oct. 8; Gas. vol. 183; p. 387.

Luthardt, William H. (See Hudson, Harrison L., assignor.)

Luther, August. (See Müller and Luther.)

Luther, Otto C., Rugby, N. D. Mail-bag-handling apparatus. No. 1,043,020; Oct. 29; Gas. vol. 183; p. 1265.

Lutz, William D. (See Ihlder and Lutz.)

Lyman, Walter M., Bala, Pa. Horse-blanket. No. 1,042,807; Oct. 29; Gas. vol. 183; p. 1192.

Lynch, Gus. (See Sanders, Marion, assignor.)

Lynch, Thomas, Jefferson, Iowa. Hitching-strap. No. 1,041,644; Oct. 15; Gas. vol. 183; p. 729.

Lyon, W. E. (See Eubank, Samuel F., assignor.)

M. T. Davidson Company. (See Stevens, Leon K., assignor.)
Mahr, Phil S. (See Massey, Robert F., assignor.)
MacDowney, Silas C., Chicago, Ill. Joint connection. No. 1,041,648; Oct. 15; Gaz. vol. 183; p. 729.
MacKenzie, John, Watervliet, N. Y. Coal-lock. No. 1,040,718; Oct. 8; Gaz. vol. 183; p. 267.
MacNaughton, Luther D., Eagle Grove, Iowa. Envelop. No. 1,041,837; Oct. 22; Gaz. vol. 183; p. 890.
Macbeth-Evans Glass Company. (See Deakin and Schnelbach, assignors.)
Macbeth-Evans Glass Company. (See Young, Lorin W., assignor.)
Macdonald, Angus K. (See Seaborn and Macdonald.)
Macdonald, James M. (See Macdonald, John N., assignor.)
Macdonald, John N., Hartford, assignor to J. M. Macdonald, Wethersfield, Conn. Chain-repair tool. No. 1,041,826; Oct. 22; Gaz. vol. 183; p. 890.
Machen & Mayer Electrical Manufacturing Company. (See Horn, Charles, assignor.)
Maciara, Frank, Vulcan, Mich. Shoe-support. No. 1,041,499; Oct. 15; Gaz. vol. 183; p. 682.
Mackay, Alfred, et al. (See Graf, Richard, assignor.)
Mackay, E. Gordon, et al. (See Graf, Richard, assignor.)
Mackie, Edwin M., Chicago, Ill., and F. F. Doyle, Frankfin, Pa., assignors to Chicago Pneumatic Tool Company, Chicago, Ill. Rock-drill. No. 1,042,360; Oct. 22; Gaz. vol. 183; p. 1006.
Macklin, Are L., Bryant, Ind. Alarm. No. 1,042,244; Oct. 22; Gaz. vol. 183; p. 968.
Macmanus, Augustus F. W., Pine Bluff, Ark. Strut. No. 1,042,808; Oct. 29; Gaz. vol. 183; p. 1192.
Macomber, Walter G., Los Angeles, Cal. Rotary engine. No. 1,042,018; Oct. 22; Gaz. vol. 183; p. 894.
Maddox, Harvey B., Magee, Miss. Rail-joint. No. 1,042,702; Oct. 29; Gaz. vol. 183; p. 1155.
Madison, Emiel, Mariner Harbor, N. Y. Non-refillable bottle. No. 1,042,937; Oct. 29; Gaz. vol. 183; p. 1235.
Madison, Hans P., Fort Smith, Ark. Screw-plate. No. 1,040,865; Oct. 8; Gaz. vol. 183; p. 263.
Madsen, Nils, Westville, N. J. Mowing-machine. No. 1,041,312; Oct. 15; Gaz. vol. 183; p. 621.
Magee, John W., Norfield, Miss. Harrow. No. 1,041,318; Oct. 15; Gaz. vol. 183; p. 621.
Magnuson, Axel, New York, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Electric motor mechanism for operating elevator-safeties. No. 1,040,555; Oct. 8; Gaz. vol. 183; p. 329.
Magnuson, Nels, assignor to The Packard Company, Fort Wayne, Ind. Pneumatic actuating unit. No. 1,041,125; Oct. 15; Gaz. vol. 183; p. 567.
Maguire, Joseph T., Washington, D. C. Dial and pointer for price-computing scales. No. 1,042,360; Oct. 22; Gaz. vol. 183; p. 1006.
Mahaffey, Carl. (See Wilson, James G., assignor.)
Mahaffey, Newton, W., Stockton, Cal. Hydrocarbon-burner. No. 1,041,828; Oct. 22; Gaz. vol. 183; p. 890.
Mahlstedt, John F., Los Angeles, Cal. Printing-machine. No. 1,041,314; Oct. 15; Gaz. vol. 183; p. 621.
Mahoney, Jeremiah L. (See Murray, James A., assignor.)
Mahoney, Joseph T. (See Hobbs, James J., assignor.)
Malachowiski, Hermann. (See Rühling, Waldemar, assignor.)
Malerich, Joseph. (See Martin and Scheller, assignors.)
Maley, Fred W., Bakersfield, Cal. Absorbent comb. No. 1,039,982; Oct. 1; Gaz. vol. 183; p. 104.
Mallory, William B., Hermosa, S. D. Spring wheel-tire. No. 1,041,829; Oct. 22; Gaz. vol. 183; p. 891.
Malmquist, Adolph, assignor to Perfect Vacuum Can Co., Chicago, Ill. Machine for sealing cans. No. 1,039,770; Oct. 1; Gaz. vol. 183; p. 34.
Malone, Charles W., Detroit, Mich. Non-refillable bottle. No. 1,040,714; Oct. 8; Gaz. vol. 183; p. 327.
Maltby, Arthur L., and E. C. Doolittle, Wallingford, Conn., assignors of three-fourths to said Maltby and one-fourth to said Doolittle. Machine for surfacing wood floors. No. 1,039,963; Oct. 1; Gaz. vol. 183; p. 104.
Manley, John C., J. Thulin, and P. J. Smith, assignors to Inventors Development Co., Chicago, Ill. Lamp-locking device. No. 1,040,366; Oct. 8; Gaz. vol. 183; p. 263.
Manley, John C., J. Thulin, and P. J. Smith, assignors to Inventors Development Co., Chicago, Ill. Lamp-locking device. No. 1,040,367; Oct. 8; Gaz. vol. 183; p. 263.
Mann, Harry, Brooklyn, N. Y., assignor of one-fourth to C. Thoma, Jr., and one-fourth to W. Thoma, Carlstadt, N. J. Centering device. No. 1,040,715; Oct. 8; Gaz. vol. 183; p. 388.
Manrodt, Henry, Brooklyn, N. Y. Rotary motor. No. 1,040,716; Oct. 8; Gaz. vol. 183; p. 388.
Mansfield, Isaac N., Soddy, Tenn. Cotton-chopper. No. 1,042,561; Oct. 22; Gaz. vol. 183; p. 1006.
Manson, Marsden, San Francisco, Cal. Teaching geography. No. 1,042,455; Oct. 29; Gaz. vol. 183; p. 1068.
Manson, Marsden, San Francisco, Cal. Globe. No. 1,042,456; Oct. 29; Gaz. vol. 183; p. 1068.
Manufacturers Can Company, The. (See Milligan and Jacobsen, assignors.)
Marcus, Solomon, Philadelphia, Pa. Adjustable piano and piano-player seat. No. 1,042,245; Oct. 22; Gaz. vol. 183; p. 968.
Marino, Pascal Lorion, England. Superficial metallination of silicious earthen. No. 1,041,126; Oct. 15; Gaz. vol. 183; p. 567.
Marion Steam Shovel Company, The. (See King and Sellmeth, assignors.)
Marion Steam Shovel Company, The. (See King and Weston, assignors.)
Markley, Richard, Norristown, Pa. Drinking-bowl for animals. No. 1,042,240; Oct. 22; Gaz. vol. 183; p. 968.
Marks, John, Traverse, Manitoba, Canada. Memorandum-book. No. 1,041,506; Oct. 15; Gaz. vol. 183; p. 682.
Marr, Alexander W., Hamilton, Ohio, assignor of one-half to McAllister Street Car Mail Box Company. Mail-receptacle. No. 1,041,127; Oct. 15; Gaz. vol. 183; p. 567.
Marsden, Hart W., Philadelphia, Pa. Apparatus for cleaning oil-wells. No. 1,041,501; Oct. 15; Gaz. vol. 183; p. 682.
Marsh-Capron Manufacturing Company. (See Mosby, Alfred D., assignor.)
Marshall, Alexander. (See Ferguson and Marshall.)
Marshall, Edward C. and E. Lynn, assignors to Novelty Selling Company, Boston, Mass. Edge and bottom protector for shoes. No. 1,041,830; Oct. 22; Gaz. vol. 183; p. 891.
Marshall, Ernest. (See Marshall, Edward C. and E.)
Marshall, Frank L., Boston, Mass. Combined dental spreadum and saliva-ejector. No. 1,042,133; Oct. 22; Gaz. vol. 183; p. 982.
Marshel, John B., Dallas, Tex. Cotton-harvester. No. 1,042,703; Oct. 29; Gaz. vol. 183; p. 1154.
Marshel, John E., Dallas, Tex. Cotton-stalk puller. No. 1,042,704; Oct. 29; Gaz. vol. 183; p. 1154.
Martin, Charles J., St. Louis, Mo. Gearing. No. 1,042,560; Oct. 29; Gaz. vol. 183; p. 111X.
Martin, George W., Channing, Tex. Nut-lock. No. 1,041,831; Oct. 22; Gaz. vol. 183; p. 831.
Martin, George W., Channing, Tex. Nut-lock. No. 1,041,832; Oct. 22; Gaz. vol. 183; p. 832.
Martin, H. G. (See Crouch, William V. and M. S., assignors.)
Martin, Horace G., East Rutherford, N. J. Electric telegraphic apparatus. No. 1,042,457; Oct. 29; Gaz. vol. 183; p. 1060.
Martin, John O., and H. W. Scheller, assignors of one-third to J. Malerich, Lincoln, Ill. Brake mechanism. No. 1,039,771; Oct. 1; Gaz. vol. 183; p. 35.
Martin, John S., et al. (See Rosen, Simon L., assignor.)
Martin, Paul Ecobatz, France. Cutting mechanism for printing-presses. No. 1,042,938; Oct. 29; Gaz. vol. 183; p. 1236.
Martin, Sidney, Chelsea, Mass. Suspenders. No. 1,042,939; Oct. 29; Gaz. vol. 183; p. 1236.
Martin, Wallace B., assignor of one-half to W. C. Stanton, St. Paul, Minn. Emery-wheel guard. No. 1,041,128; Oct. 15; Gaz. vol. 183; p. 568.
Martineau, William C., Albany, N. Y. Game apparatus. No. 1,040,717; Oct. 8; Gaz. vol. 183; p. 329.
Marx, Charles O., Brooklyn, assignor of one-half to S. Bruckheimer, New York, N. Y. Door-hanger. No. 1,041,833; Oct. 22; Gaz. vol. 183; p. 832.
Marx, Leon L., assignor of one-half to A. A. Swayze, Monroe, La. Protective covering for tooth-brushes. No. 1,041,315; Oct. 15; Gaz. vol. 183; p. 622.
Masini, Cæsar. (See Judkins, Charles E., assignor.)
Maskrey, George W., Willow River, Minn. Load-carrier. No. 1,040,227; Oct. 1; Gaz. vol. 183; p. 105.
Mason, Charles F., Neenah, Wis. Valve. No. 1,041,316; Oct. 15; Gaz. vol. 183; p. 622.
Mason, Francis C., and J. W. Shanahan, assignors to Bissell Carpet Sweeper Co., Grand Rapids, Mich. Carpet-sweeper. No. 1,042,134; Oct. 22; Gaz. vol. 183; p. 982.
Massey, Robert F., assignor of one-half to P. S. Mahr, Trussville, Ala. Car-brake. No. 1,040,368; Oct. 8; Gaz. vol. 183; p. 264.
Massohn, Richard, and K. T. Sandrecski, Hamburg, Germany. Rotary engine. No. 1,041,646; Oct. 15; Gaz. vol. 183; p. 729.
Mathew, George, Southsea, Eng. Combined shirt and blouse grip. No. 1,040,228; Oct. 1; Gaz. vol. 183; p. 105.
Mathews Gravity Carrier Company. (See Buck, Herman J., assignor.)
Matthews, Charles H., assignor of one-half to L. Alexander, Clinton, Ill. Knockdown shipping-crate. No. 1,040,369; Oct. 8; Gaz. vol. 183; p. 264.
Matthews, Edgar L., Peoria, Ill. Fly-trap. No. 1,039,964; Oct. 1; Gaz. vol. 183; p. 104.
Matthews, James H., assignor to Jas. H. Matthews & Co., Pittsburgh, Pa. Holder for changeable type-blocks. No. 1,041,647; Oct. 15; Gaz. vol. 183; p. 730.
Mattingly, Albertus B., New York, N. Y. Ice-manufacturing apparatus. No. 1,041,317; Oct. 15; Gaz. vol. 183; p. 622.
Mauersberger, Karl W., Chemnitz, Germany. Apparatus for manufacturing plastic articles, reliefs, hollow bodies, and the like of pulp. No. 1,041,129; Oct. 15; Gaz. vol. 183; p. 568.
Maurer, Rupprecht, and A. Gardan, Killingly, Conn. Non-refillable bottle. No. 1,042,247; Oct. 22; Gaz. vol. 183; p. 968.
Mauser, Paul, Oberndorf-on-the-Neckar, Germany. Small-arm. No. 1,040,718; Oct. 8; Gaz. vol. 183; p. 329.
Mauser, Paul, Oberndorf-on-the-Neckar, Germany. Firing mechanism for recoil-loading pieces with fixed barrels. No. 1,041,648; Oct. 15; Gaz. vol. 183; p. 730.
Maxwell, Edward J., et al. (See Willett, Robert A., assignor.)



Maxwell, Marshall P., Brooklyn, N. Y. Post. No. 1,042,362; Oct. 22; Gaz. vol. 183; p. 1006.
Maxwell, William G., Edinburgh, and H. J. C. Christie, Leith, Scotland. Manufacture of textile belting. No. 1,041,130; Oct. 15; Gaz. vol. 183; p. 568.
May, Julius A., Genoa, Ill. Game. No. 1,041,834; Oct. 22; Gaz. vol. 183; p. 890.
Mayer, Charles W., Rochester, N. Y., assignor to K. B. Mayer, Coating-machine. No. 1,042,021; Oct. 29; Gaz. vol. 183; p. 1068.
Mayer, Katherine B. (See Mayer, Charles W., assignor.)
Mayo, Harry T. (See Cliff and Mayo.)
McAllister, George B., Baltimore, Md., assignor to McAllister Street Car Mail Box Company. Mail-receptacle. No. 1,042,459; Oct. 29; Gaz. vol. 183; p. 1060.
McAllister Street Car Mail Box Company. (See McAllister, George B., assignor.)
McBride, Robert H., Mullen, Mass. Monoplane. No. 1,041,131; Oct. 15; Gaz. vol. 183; p. 569.
McCabe, James P. (See Burkhardt, Martin L., assignor.)
McCarthy, Louis, Boston, Mass. Insulating-joint. No. 1,042,019; Oct. 22; Gaz. vol. 183; p. 895.
McCarthy, William R., Seattle, Wash. Liquid-fuel burner. No. 1,041,649; Oct. 15; Gaz. vol. 183; p. 731.
McCarty, Willis A., Doniphan, Mo. Folding table. No. 1,042,020; Oct. 22; Gaz. vol. 183; p. 895.
McClean, Samuel M., Cleveland, Ohio, assignor, by mesne assignments, to The Automatic Arms Company. Automatic machine-gun. No. 1,042,135; Oct. 29; Gaz. vol. 183; p. 982.
McClean, Samuel M., Cleveland, Ohio, assignor, by mesne assignments, to The Automatic Arms Company. Breech-loading and discharge-actuated firearm. No. 1,042,363; Oct. 22; Gaz. vol. 183; p. 1007.
McClintock, Charles D., assignor of fifty-eight one-hundredths to S. Cornfield, Oakland, Cal. Power-transmission mechanism. No. 1,041,132; Oct. 15; Gaz. vol. 183; p. 569.
McClure, Joseph A., Emporia, Kans. Stamp. No. 1,040,719; Oct 8; Gaz. vol. 183; p. 329.
McComb, Willie R., San Francisco, Cal. Process and apparatus for harvesting cotton. No. 1,041,650; Oct. 15; Gaz. vol. 183; p. 731.
McConnell, John H., Winslow, Ind. Mustache-guard. No. 1,042,040; Oct. 29; Gaz. vol. 183; p. 1236.
McConnell, Ralph, Barton Heights, assignor of one-half to G. B. Hutchings, Richmond, Va. Bottle attachment. No. 1,042,708; Oct. 29; Gaz. vol. 183; p. 1157.
McConnell, Samuel W., Tippecanoe, Ohio. Railway-tie and fastener. No. 1,041,133; Oct. 15; Gaz. vol. 183; p. 569.
McCord, D. W. (See Mieko, Joseph, assignor.)
McCormack, William D., Nashville, Tenn. Cushion-tire. No. 1,042,041; Oct. 29; Gaz. vol. 183; p. 1236.
McCormick, Andrew, et al. (See Haney, Edwin H., assignor.)
McCormick, Frank L., and A. De Kleist, assignors to The Rudolph Wurlitzer Manufacturing Company, North Tonawanda, N. Y. Automatic musical instrument. No. 1,042,026; Oct. 29; Gaz. vol. 183; p. 1277.
McCormick-Romme Company. (See Romme, William S., assignor.)
McCulloch, John, Loutock-Graham, England. Railway-sleeper. No. 1,041,134; Oct. 15; Gaz. vol. 183; p. 569.
McCullough, William T. (See Griffith and McCullough.)
McCune, William H., Monrovia, Cal. Freight-handling system. No. 1,040,229; Oct. 1; Gaz. vol. 183; p. 105.
McDermid, Archie, El Paso, Tex. Tool-handle. No. 1,042,042; Oct. 29; Gaz. vol. 183; p. 1237.
McDonald, William T., Porterdale, Ga. Fender. No. 1,042,459; Oct. 29; Gaz. vol. 183; p. 1070.
McDorman, Paul, assignor to The National Laundry Machinery Company, Dayton, Ohio. Washing-machine. No. 1,040,370; Oct. 8; Gaz. vol. 183; p. 264.
McDuffey, William, Chicago, Ill. Vehicle-fender. No. 1,041,318; Oct. 15; Gaz. vol. 183; p. 623.
McElroy, Jackson A., and W. B. Freeman, Hattiesburg, Miss. Combined rail-joint and nut-lock. No. 1,040,730; Oct. 8; Gaz. vol. 183; p. 330.
McFadden, William P. H., et al. (See Lanaux, Alfred A., assignor.)
McFarlane, George W., Paris, Ontario, Canada. Sheet-piling. No. 1,042,361; Oct. 29; Gaz. vol. 183; p. 1113.
McFarlane, Robert N. F., et al. (See Lake, Franklin W., assignor.)
McFeely, Ronald F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Work-support. No. 1,042,460; Oct. 29; Gaz. vol. 183; p. 1070.
McFeely, Ronald F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Shoe-forming machine. No. 1,042,893; Oct. 29; Gaz. vol. 183; p. 1113.
McGandy, George W., Marshall, Minn. Tile-setter. No. 1,040,721; Oct. 8; Gaz. vol. 183; p. 330.
McGarry, John A., Chicago, Ill. Lumber-truck. No. 1,041,319; Oct. 15; Gaz. vol. 183; p. 624.
McGowan, William H., Croatan, N. C. Surveying instrument. No. 1,042,943; Oct. 29; Gaz. vol. 183; p. 960.
McIlvenna, Milcosky, Leadore, Tex. Hair-waver. No. 1,041,651; Oct. 15; Gaz. vol. 183; p. 731.
McIlvey, William A., Gettysburg, S. D. Land-roller. No. 1,040,722; Oct. 8; Gaz. vol. 183; p. 330.
McIntire, Samuel R., Houston, Miss. Bob-sled brake. No. 1,042,022; Oct. 29; Gaz. vol. 183; p. 1068.
McIntyre, Frank, New York, assignor to C. J. Tagliabue, Brooklyn, N. Y. Casing for clinical thermometers. No. 1,041,135; Oct. 15; Gaz. vol. 183; p. 569.
McIntyre, John J., Hartford, Conn. Spark-plug. No. 1,041,836; Oct. 22; Gaz. vol. 183; p. 843.
McIntyre, Loren W., Portland, Oreg. Tool for marking cement pavements. No. 1,041,320; Oct. 15; Gaz. vol. 183; p. 624.
McKeone, Lawrence P., New York, N. Y. Aerocraft. No. 1,041,136; Oct. 15; Gaz. vol. 183; p. 861.
McKibben, Robert E., Lock Haven, Pa. Shoe. No. 1,040,220; Oct. 1; Gaz. vol. 183; p. 105.
McKillop, Samuel W., Cleveland, Ohio. Tube-top. No. 1,039,965; Oct. 1; Gaz. vol. 183; p. 104.
McKim, Marie A., Cambridge, Mass. Garment-confining attachment for trunks. No. 1,041,836; Oct. 22; Gaz. vol. 183; p. 833.
McKinnon, George E., Little Falls, N. J. Cushioned horseshoe. No. 1,042,043; Oct. 29; Gaz. vol. 183; p. 1237.
McLain, Robert H., Schenectady, N. Y., assignor to General Electric Company. Motor-control system. No. 1,041,137; Oct. 15; Gaz. vol. 183; p. 561.
McLarn, Ernest S., East Orange, N. J., assignor to Western Electric Company, New York, N. Y. Telephone-switchboard. No. 1,039,778; Oct. 1; Gaz. vol. 183; p. 35.
McLaughlin, Frank. (See White and McLaughlin.)
McLean, Gregory D., Newtown, Mo. Railway-tie. No. 1,040,371; Oct. 8; Gaz. vol. 183; p. 265.
McLees, Charles B. and J. F., Brooklyn, N. Y., assignors to Electric Carrier Company, Wilmington, Del. Signal system. No. 1,042,944; Oct. 29; Gaz. vol. 183; p. 1237.
McLees, Joseph F. (See McLees, Charles B. and J. F.)
McMichael, James G., Chicago, Ill. Rail-joint. No. 1,042,021; Oct. 22; Gaz. vol. 183; p. 895.
McMillan, Gilbert N., Shelburne, N. H. Perforated note-sheet for musical instruments. No. 1,042,706; Oct. 29; Gaz. vol. 183; p. 1157.
McMullen, George B. (See McMullen, George W. and G. B.)
McMullen, George B., Chicago, Ill., assignor, by mesne assignments, to Z. G. Simmons, Kenosha, Wis., A. W. Preston, Swampscott, and B. W. Palmer, Boston, Mass., trustees. Sugar-producing product. No. 1,040,557; Oct. 8; Gaz. vol. 183; p. 330.
McMullen, George B., Chicago, Ill., assignor, by mesne assignments, to Z. G. Simmons, Kenosha, Wis., A. W. Preston, Swampscott, and B. W. Palmer, Boston, Mass., trustees. Sugar-producing product. No. 1,040,558; Oct. 8; Gaz. vol. 183; p. 330.
McMullen, George B., Chicago, Ill., assignor, by mesne assignments, to Z. G. Simmons, Kenosha, Wis., A. W. Preston, Swampscott, and B. W. Palmer, Boston, Mass., trustees. Separating sugar-cane into its two chief structural parts. No. 1,040,559; Oct. 8; Gaz. vol. 183; p. 330.
McMullen, George B., Chicago, Ill., assignor, by mesne assignments, to Z. G. Simmons, Kenosha, Wis., A. W. Preston, Swampscott, and B. W. Palmer, Boston, Mass., trustees. Separating sugar-cane into its two chief structural parts. No. 1,040,560; Oct. 8; Gaz. vol. 183; p. 330.
McMullen, George W., Chicago, Ill. Drying and apparatus therefor. No. 1,040,556; Oct. 8; Gaz. vol. 183; p. 330.
McMullen, George W., Picton, Ontario, Canada, assignor, by mesne assignments, to Z. G. Simmons, Kenosha, Wis., A. W. Preston, Swampscott, and B. W. Palmer, Boston, Mass., trustees. Sugar-making product. No. 1,040,561; Oct. 8; Gaz. vol. 183; p. 331.
McMullen, George W. and G. B., Picton, Ontario, Canada, assignors, by mesne assignments, to Z. G. Simmons, Kenosha, Wis., A. W. Preston, Swampscott, and B. W. Palmer, Boston, Mass., trustees. Making sugar and by-products from sugar-cane. No. 1,040,560; Oct. 8; Gaz. vol. 183; p. 331.
McPherson, Herbert R., et al. (See Ivor, Barry, assignor.)
McQuaid, William W., Petroleum, assignor of one-half to F. R. Haymaker, Clarksburg, W. Va. Rail-joint. No. 1,041,502; Oct. 15; Gaz. vol. 183; p. 682.
McWhorter, Alfred D. (See Tutwiler and McWhorter.)
McWilliams, James M., assignor of one-half to J. A. Cain, Leesville, La. Pump. No. 1,040,231; Oct. 1; Gaz. vol. 183; p. 106.
Mead Morrison Mfg. Co. (See Hammond and Donahue, assignors.)
Mears, Charles W., Cleveland, Ohio. Book. No. 1,042,707; Oct. 29; Gaz. vol. 183; p. 1157.
Mears Ear Phone Company, The. (See Schneider, Eugene W., assignor.)
Meccra, Josef, Washington, D. C. Keyed zither. No. 1,040,232; Oct. 1; Gaz. vol. 183; p. 107.
Mechanical Process Manufacturing Company. (See Cool, Robert M., assignor.)
Megginson, Cabell W., Danville, Va., assignor to Draper Company, Hopedale, Mass. Shipper-locking means for looms. No. 1,042,461; Oct. 29; Gaz. vol. 183; p. 1070.
Meier, August J., Longtown, Mo. Saw-carriage. No. 1,040,233; Oct. 1; Gaz. vol. 183; p. 107.
Meier, May R. (See Wood, Charles C., assignor.)
Meigs, Frank E., Burlington, Vt. Belt-pulley. No. 1,042,583; Oct. 29; Gaz. vol. 183; p. 1114.
Meisenberg, Kurt. (See Hofmann, Dolbrick, and Meisenberg.)
Melander, August W., San Francisco, Cal. Lubricating projectile. No. 1,039,774; Oct. 1; Gaz. vol. 183; p. 35.
Mellen, Frank, New York, N. Y. Shoe-jack. No. 1,042,264; Oct. 22; Gaz. vol. 183; p. 1007.
Menard, Philip P. (See Burlingame and Menard.)

Mensing, Henry A., Rochester, N. Y. Calculator. No. 1,039,775; Oct. 1; Gaz. vol. 183; p. 36.

Mercié, Henri A. (See Benoit and Mercié.)

Meredith-Jones, Hubert, New York, N. Y., assignor to Columbia Nut and Bolt Company, Incorporated, Bridgeport, Conn. Shaft driving and releasing mechanism. No. 1,040,563; Oct. 8; Gaz. vol. 183; p. 331.

Meredith, Z. Albert, Marion, Ohio. Cornet. No. 1,040,872; Oct. 8; Gaz. vol. 183; p. 366.

Mergenthaler Linotype Company. (See Rädiger and Muehleisen, assignors.)

Merlan, Frederic, assignor to Forter Miller Engineering Company, Pittsburgh, Pa. Gas-producer. No. 1,040,723; Oct. 8; Gaz. vol. 183; p. 390.

Merkel, Paul, Böhlen, near Rötha, Germany. Producing patterns on hair-covered skins. No. 1,042,800; Oct. 29; Gaz. vol. 183; p. 1192.

Merrill, Arthur H., Hartford, Conn. Compound tool. No. 1,040,564; Oct. 8; Gaz. vol. 183; p. 332.

Merritt, Arthur A., Worcester, Mass., assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y. Sewing-machine. No. 1,041,652; Oct. 15; Gaz. vol. 183; p. 732.

Merritt, Arthur A., Worcester, Mass., assignor to Willcox & Gibbs Sewing Machine Co., New York, N. Y. Sewing-machine. No. 1,041,653; Oct. 15; Gaz. vol. 183; p. 732.

Merritt, Arthur A., Worcester, Mass., assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y. Needle-bar-driving connection. No. 1,041,654; Oct. 15; Gaz. vol. 183; p. 733.

Merritt, Arthur A., Worcester, Mass., assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y. Thread-guide. No. 1,041,655; Oct. 15; Gaz. vol. 183; p. 733.

Merritt, Arthur A., Worcester, Mass., assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y. Thread-guide. No. 1,041,656; Oct. 15; Gaz. vol. 183; p. 734.

Merritt, Arthur A., Worcester, Mass., assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y. Driving connection for sewing-machines. No. 1,041,657; Oct. 15; Gaz. vol. 183; p. 734.

Merritt, Arthur A., Worcester, Mass., assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y. Feeding mechanism for sewing-machines. No. 1,041,658; Oct. 15; Gaz. vol. 183; p. 734.

Merritt, Arthur A., Worcester, Mass., assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y. Rotary take-up. No. 1,041,715; Oct. 15; Gaz. vol. 183; p. 753.

Merritt, Carl, assignor to Rudgear-Merle & Co., San Francisco, Cal. Invisible hinge-joint for wall-beds. No. 1,039,986; Oct. 1; Gaz. vol. 183; p. 105.

Merry, Benjamin P., Stryker, Ohio. Animal-muzzle. No. 1,042,022; Oct. 22; Gaz. vol. 183; p. 896.

Mershon, Claude R., and W. H. Redner, Kansas City, Mo. Spring-axle for cycles. No. 1,042,136; Oct. 22; Gaz. vol. 183; p. 923.

Mershon, Edward C., Saginaw, assignor to Wm. B. Mershon & Co., Carrollton, Mich. Saw-set. No. 1,041,231; Oct. 15; Gaz. vol. 183; p. 624.

Metropolitan Sewing Machine Company. (See Weis and Krug, assignors.)

Metten, John F., Philadelphia, Pa., assignor to The Wm. Cramp & Sons Ship & Engine Building Company. Gland piping system. No. 1,042,810; Oct. 29; Gaz. vol. 183; p. 1192.

Metz, Herman, and H. J. Bowles, Clinton, Ill. Sheet-metal-beading machine. No. 1,039,776; Oct. 1; Gaz. vol. 183; p. 37.

Mewborne, Robert G., Louisville, Ky., assignor to The Kentucky Tobacco Product Company. Tobacco-drying and nicotin-extracting process. No. 1,039,987; Oct. 1; Gaz. vol. 183; p. 105.

Meyer, Fanny J. (See Schoddé, George W., assignor.)

Meyer, John J., Yonkers, N. Y. Siphon-valve for flushing-tanks. No. 1,042,365; Oct. 22; Gaz. vol. 183; p. 1007.

Meyrowitz, Simon, New York, N. Y. Refuse-receptacle. No. 1,040,565; Oct. 8; Gaz. vol. 183; p. 332.

Michaelsen, Charles O., Omaha, Nebr. Ore-screen. No. 1,040,251; Oct. 1; Gaz. vol. 183; p. 194.

Michelsen, Waldemar, Jatibonico, Cuba. Centrifugal machine. No. 1,040,373; Oct. 8; Gaz. vol. 183; p. 265.

Michigan Stove Company, The. (See Dailey, James V., assignor.)

Mickelson, Carl P., Mason, Mich. Portable refrigerating-case. No. 1,042,249; Oct. 22; Gaz. vol. 183; p. 970.

Middleton, David J., Kingston, E. M. Keefer, Edwardsville, and J. F. Ballamy, Larksville, Pa. Coal-separator. No. 1,040,374; Oct. 8; Gaz. vol. 183; p. 266.

Midland Ores and Patent Company. (See Barrera de Aisugaray, José, assignor.)

Miehle Printing Press and Manufacturing Company. (See Miehle, Robert, assignor.)

Miehle, Robert, assignor to Miehle Printing Press and Manufacturing Company, Chicago, Ill. Multicolor-printing press. No. 1,039,777; Oct. 1; Gaz. vol. 183; p. 57.

Miles, Frank P., Chicago, Ill., assignor to The Pioral System Ventilator Co. Heating and ventilating apparatus. No. 1,041,322; Oct. 15; Gaz. vol. 183; p. 634.

Migbell, Norman E., Marshalltown, Iowa. Surgical appliance. No. 1,041,188; Oct. 15; Gaz. vol. 183; p. 561.

Mighton, I. Elmer, *et al.* (See Thebaud, John H., assignor.)

Migliavacca, Sarc, Bremerton, Wash. Chain-grip fastener. No. 1,039,778; Oct. 1; Gaz. vol. 183; p. 36.

Mikz, Ambrose, Ganado, Tex. Tractor. No. 1,041,837; Oct. 22; Gaz. vol. 183; p. 824.

Milek, Frederick W., Sturgis, S. D. Metal-working machine. No. 1,041,333; Oct. 22; Gaz. vol. 183; p. 834.

Miles, Henry D., assignor to Buffalo Foundry and Machine Company, Buffalo, N. Y. Heating and mixing apparatus. No. 1,039,779; Oct. 1; Gaz. vol. 183; p. 36.

Miles, John B., Philadelphia, Pa. Apparatus for removing moisture from air. No. 1,041,323; Oct. 15; Gaz. vol. 183; p. 626.

Miley, Michael, Sheffield township, Warren county, Pa. Hand-grip for scythes. No. 1,042,706; Oct. 29; Gaz. vol. 183; p. 1158.

Miller, Carl H., Cleveland, Ohio. Burner for kitchen-ranges. No. 1,040,875; Oct. 8; Gaz. vol. 183; p. 366.

Miller, Carl H., Cleveland, Ohio. Valve for gas-ranges. No. 1,040,876; Oct. 8; Gaz. vol. 183; p. 366.

Miller, Charles, assignor to Gundlach-Manhattan Optical Company, Rochester, N. Y. Clamping device for lens-holders. No. 1,042,023; Oct. 22; Gaz. vol. 183; p. 897.

Miller, David E., *et al.* (See Kelley, John W., assignor.)

Miller, George F., Kansas City, Mo. Chalk-holder. No. 1,040,724; Oct. 8; Gaz. vol. 183; p. 391.

Miller, George G., Lebanon, assignor to J. Von Bracht, Reading, Pa. Gun-barrel cleaner. No. 1,041,830; Oct. 22; Gaz. vol. 183; p. 834.

Miller, Henry C., Milwaukee, Wis. Loose-leaf binder. No. 1,040,877; Oct. 8; Gaz. vol. 183; p. 267.

Miller, James F., Goldsboro, N. C. Sweet-potato-vine clipper. No. 1,040,224; Oct. 1; Gaz. vol. 183; p. 187.

Miller, Robert E., Bethlehem, Pa. Sled. No. 1,041,324; Oct. 15; Gaz. vol. 183; p. 625.

Miller, Roscoe, *et al.* (See Crull and Spangler, assignors.)

Miller, Samuel, Chicago, Ill. Dump-wagon. No. 1,040,725; Oct. 8; Gaz. vol. 183; p. 391.

Miller, Stephen S., Akron, Ohio, assignor to Consolidated Rubber Tire Company, New York, N. Y. Antiskid device for block-tires. No. 1,041,189; Oct. 15; Gaz. vol. 183; p. 562.

Miller, William D., Butler, Pa. Telephone-receiver holder. No. 1,042,811; Oct. 29; Gaz. vol. 183; p. 1193.

Miller, William R., Palisade, Nev. Rail-brace and tie-rod. No. 1,042,024; Oct. 22; Gaz. vol. 183; p. 897.

Miller, William L., assignor to Gisholt Machine Company, Madison, Wis. Electric signaling system. No. 1,040,878; Oct. 8; Gaz. vol. 183; p. 367.

Miller, William P., Freeport, N. Y. Grease-gun. No. 1,041,840; Oct. 22; Gaz. vol. 183; p. 834.

Miller, William T., Winston Salem, N. C. Trolley. No. 1,043,028; Oct. 29; Gaz. vol. 183; p. 1206.

Millies, Wilhelm. (See Dietrich and Millies.)

Milligan, Stephen W., Elizabeth, and J. F. Jacobsen, assignors to The Manufacturers Can Company, Newark, N. J. Sealing device for cans, &c. No. 1,040,726; Oct. 8; Gaz. vol. 183; p. 391.

Millimer, James M., New Hope, Ala. Muzzle. No. 1,041,841; Oct. 22; Gaz. vol. 183; p. 835.

Mills, Charles, assignor, by mesne assignments, to Sacco-Pettee Company, Newton, Mass. Coiler-tube. No. 1,040,566; Oct. 8; Gaz. vol. 183; p. 333.

Mills, Edgar C., Manchester, England. Furnace for steam-boilers. No. 1,041,325; Oct. 15; Gaz. vol. 183; p. 625.

Mimms, Mamie L., Selma, Ala. Device for attaching shades to shade-rollers. No. 1,041,140; Oct. 15; Gaz. vol. 183; p. 562.

Miner, William H. (See Lewis, Goodrich Q., assignor.)

Miner, William H. (See O'Connor, John F., assignor.)

Miners Electric Safety Lamp Manfg. Co., The. (See Thompson, Alva E., assignor.)

Miners Electric Safety Lamp Manfg. Co., The. (See Thompson and Cameron, assignors.)

Minkoff, Charles L., and L. Kronthal, New York, N. Y. Cap. No. 1,040,727; Oct. 8; Gaz. vol. 183; p. 391.

Minko, Joseph, assignor to D. W. McCord, New York, N. Y. Making rail-joints. No. 1,041,503; Oct. 15; Gaz. vol. 183; p. 688.

Mitchell, Nelson E., and J. W. Taggart, Sr., assignors of one-fourth to U. G. Redelmann, Indianapolis, Ind. Switch-operating mechanism. No. 1,042,813; Oct. 29; Gaz. vol. 183; p. 1193.

Mittinger, George R. Jr., New Castle, Pa. Shaping sheet metal into lipped barrel-shells. No. 1,042,945; Oct. 29; Gaz. vol. 183; p. 1237.

Mittinger, George R., Jr., New Castle, Pa. Apparatus for making metal lipped barrel-shells. No. 1,042,946; Oct. 29; Gaz. vol. 183; p. 1238.

Miyamoto, Mohachi, San Francisco, Cal. Chimney-cleaner. No. 1,040,728; Oct. 8; Gaz. vol. 183; p. 392.

Model Bottling Machinery Company, The. (See Wagner, Edward, assignor.)

Moenck, Herman M., assignor of one-half to G. B. Streit, Detroit, Mich. Butter-dish. No. 1,041,659; Oct. 15; Gaz. vol. 183; p. 735.

Moest, Martin, and R. M. von Bernegk, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Treating nitric acid by electrolysis. No. 1,040,879; Oct. 8; Gaz. vol. 183; p. 367.

Moffet, Alvus H., Larned, Kans. Rail-fastening means. No. 1,042,462; Oct. 29; Gaz. vol. 183; p. 1071.

Mohan, John, Philadelphia, Pa. Nut-lock. No. 1,042,584; Oct. 29; Gaz. vol. 183; p. 1114.





Moldenhauer, Frank O. (See Roth and Moldenhauer.)

Moldenhauer, Wilhelm, *et al.* (See Weber, Oskar H. and K., assignors.)

Molina, Edward C., East Orange, N. J., assignor to American Telephone and Telegraph Company. Controlling apparatus. No. 1,039,983; Oct. 1; Gaz. vol. 183; p. 105.

Monell, Ira P., Boulder, Colo. Ore-concentrator or slimer. No. 1,041,842; Oct. 22; Gaz. vol. 183; p. 835.

Monk, William, Newark, N. J. Reversing mechanism. No. 1,042,585; Oct. 29; Gaz. vol. 183; p. 1114.

Monnot, John F., Paris, France, assignor to Duplex Metals Company, New York, N. Y. Producing coated metal objects. No. 1,042,583; Oct. 29; Gaz. vol. 183; p. 1115.

Monroe, Orville V., Los Angeles, Cal. Pen-wiper. No. 1,041,326; Oct. 15; Gaz. vol. 183; p. 626.

Moon, William B., Sandusky, Ohio. Total-adding weighing-scale. No. 1,040,380; Oct. 8; Gaz. vol. 183; p. 267.

Mooney, John J., New York, N. Y. Water-tube boiler. No. 1,042,709; Oct. 29; Gaz. vol. 183; p. 1158.

Moore, Charles E., Danvers, Mass. Shock-absorbing device. No. 1,041,843; Oct. 22; Gaz. vol. 183; p. 835.

Moore, Daniel M., Newark, N. J., assignor to General Electric Company, Vacuum-tube lighting. No. 1,042,587; Oct. 29; Gaz. vol. 183; p. 1115.

Moore, George, Pittsburgh, Pa. Wrench. No. 1,040,729; Oct. 8; Gaz. vol. 183; p. 392.

Moore, Harry W., assignor to R. A. Duff, Nebraska City, Nebr. Explosive-engine. No. 1,042,947; Oct. 29; Gaz. vol. 183; p. 1238.

Moore, Herbert L. G., Richmond Hill, N. Y., assignor of one-half to himself, and one-half to H. A. Vreeland, North Paterson, N. J. Grease-proof paper vessel. No. 1,041,504; Oct. 15; Gaz vol. 183; p. 684.

Moore, James, Boston, Mass., assignor to The Vulcan Soot Cleaner Company of Pittsburg, Pa., Dubois, Pa. Boiler-flue-cleaner system. No. 1,041,141; Oct. 15; Gaz. vol. 183; p. 562.

Moore, Mahlon, Roseville, Ill. Wire-fence-reeling device. No. 1,041,142; Oct. 15; Gaz. vol. 183; p. 562.

Moore, Orlando C., Morrow, Ohio. Flow-motor. No. 1,042,366; Oct. 22; Gaz. vol. 183; p. 1006.

Moore, Ralph H., Sprockels, assignor to Sprockels Sugar Company, San Francisco, Cal. Scraper for sugar-centrifugals. No. 1,042,710; Oct. 29; Gaz. vol. 183; p. 1158.

Moore, Robert H., assignor to American Creosoting Company, Chicago, Ill. Valve or cover for tanks. No. 1,040,730; Oct. 8; Gaz. vol. 183; p. 392.

Moore, Thomas L., New York, N. Y. Paving-joint. No. 1,040,731; Oct. 8; Gaz. vol. 183; p. 392.

Moore, William E., Pittsburgh, Pa. Gin-saw. No. 1,042,250; Oct. 22; Gaz. vol. 183; p. 970.

Moorhead, Albert E., assignor, by mesne assignments, to American Rotary Valve Company, Chicago, Ill. Vacuum-cleaning device. No. 1,042,711; Oct. 29; Gaz. vol. 183; p. 1158.

Moorhead, Albert E., assignor, by mesne assignments, to American Rotary Valve Company, Chicago, Ill. Rotary valve for engines and the like. No. 1,042,712; Oct. 29; Gaz. vol. 183; p. 1159.

Moorhead, Albert E., San Francisco, Cal., assignor to American Rotary Valve Company, Chicago, Ill. Pneumatic scrubbing appliance. No. 1,042,713; Oct. 29; Gaz. vol. 183; p. 1160.

Moorhead, Albert E., San Francisco, Cal., assignor to American Rotary Valve Company, Chicago, Ill. Pneumatic cleansing implement for removing dust. No. 1,043,024; Oct. 29; Gaz. vol. 183; p. 1206.

Moorhead, Albert E., assignor to American Rotary Valve Company, Chicago, Ill. Pneumatic cleansing apparatus. No. 1,043,025; Oct. 29; Gaz. vol. 183; p. 1206.

Moran, Joseph H., *et al.* (See Arugall, Joseph, assignor.)

Mordan, James. (See Armstrong and Mordan.)

Morell, Alfred F., Worcester, Mass., assignor to Crompton & Knowles Loom Works. Weft-replenishing loom. No. 1,041,544; Oct. 22; Gaz. vol. 183; p. 836.

Moren, August, Maplen, R. D. Pole-cap for vehicles. No. 1,043,057; Oct. 29; Gaz. vol. 183; p. 1278.

Morgan Construction Company. (See Edwards, Victor E., assignor.)

Morgan, Franklyn J., Chicago, Ill. Automobile body and seats. No. 1,039,780; Oct. 1; Gaz. vol. 183; p. 38.

Morgan, James J., Chicago, Ill. Coffee-pot. No. 1,041,143; Oct. 15; Gaz. vol. 183; p. 562.

Morgan, John W. (See Davis and Morgan.)

Morgan, Nels, Funk, Nebr. Cap-securing means for grease-cups. No. 1,039,781; Oct. 1; Gaz. vol. 183; p. 38.

Morgan, William W., Philadelphia, Pa., and J. L. Fitts, Merchantville, N. J., assignors to Warren Webster & Company. Water and air relief valve for steam-heating systems. No. 1,041,144; Oct. 15, Gaz. vol. 183; p. 563.

Morieaux, Jules L., Anvers, Belgium. Automatic locking device. No. 1,042,948; Oct. 29; Gaz. vol. 183; p. 1239.

Moritz, Joseph, Dresden, Germany. Transom-lifter. No. 1,040,732; Oct. 8; Gaz. vol. 183; p. 392.

Mork, Harry S., assignor to Chemical Products Company, Boston, Mass. Cellulose ester. No. 1,039,782; Oct. 1; Gaz. vol. 183; p. 39.

Morley, Daniel T. (See Bevan and Morley.)

Morley, Joseph D., Utica, N. Y., assignor, by mesne assignments, to Scott & Williams, Incorporated, Camden, N. J. Tension mechanism for knitting-machines. No. 1,039,989; Oct. 1; Gaz. vol. 183; p. 106.

Morley, Joseph D., Utica, N. Y., assignor, by mesne assignments, to Scott & Williams, Incorporated, Camden, N. J. Rib-knitting machine. No. 1,039,990; Oct. 1; Gaz. vol. 183; p. 106.

Morrell, Edward S., Philadelphia, Pa. Panel-board construction. No. 1,040,881; Oct. 8; Gaz. vol. 183; p. 366.

Morrison, Charlie E., Sheldon, Ill. Shock-compressor. No. 1,042,026; Oct. 29; Gaz. vol. 183; p. 1207.

Morrison, Fred, *et al.* (See Bundy, Henry C., assignor.)

Morrison, Lewis E., assignor to Mineral and M. Plant, Newark, N. J. Inking mechanism. No. 1,040,783; Oct. 8; Gaz. vol. 183; p. 366.

Morse, Harry W., and L. W. Sargent, Cambridge, Mass. Treating feldspar. No. 1,041,327; Oct. 15; Gaz. vol. 183; p. 626.

Mortensen, Carl S., Moline, Ill. Elevator safety device. No. 1,042,813; Oct. 29; Gaz. vol. 183; p. 1193.

Morton, Walter S., Portsmouth, Ohio. Driving-chain. No. 1,039,991; Oct. 1; Gaz. vol. 183; p. 106.

Morton, Walter S., Portsmouth, Ohio, assignor to H. F. Dunkle, trustee, Harrisburg, Pa. Driving mechanism for traction-engines. No. 1,042,714; Oct. 29; Gaz. vol. 183; p. 1159.

Mosby, Alfred D., assignor to Marsh-Capron Manufacturing Company, Chicago, Ill. Machine for bending T-section rails. No. 1,040,382; Oct. 8; Gaz. vol. 183; p. 268.

Mosler, Arthur R., assignor to A. R. Mosler & Co., New York, N. Y. Circuit-breaker for electric-ignition devices. No. 1,042,814; Oct. 29; Gaz. vol. 183; p. 1194.

Mosmann, John, Newark, N. J. Automatic fire-alarm. No. 1,042,025; Oct. 22; Gaz. vol. 183; p. 897.

Moss, George A., Plymouth, Pa. Coal-boring bit. No. 1,040,883; Oct. 8; Gaz. vol. 183; p. 269.

Moss, George A., assignor to M. L. Moss, San Francisco, Cal. Gage for scribing work. No. 1,041,145; Oct. 15; Gaz. vol. 183; p. 563.

Moss, Mary L. (See Moss, George A., assignor.)

Moss, Sanford A. (See Rice and Moss.)

Moss, Sanford A., Lynn, Mass., assignor to General Electric Company. Centrifugal compressor. No. 1,041,506; Oct. 15; Gaz. vol. 183; p. 684.

Mossberg, Frank, Attleboro, Mass., assignor to Frank Mossberg Company. Braider-spool. No. 1,040,884; Oct. 8; Gaz. vol. 183; p. 269.

Mote, Joe E. (See Thomas, William, assignor.)

Mounts, Edison J., Krum, Tex. Safety-brake for elevators. No. 1,040,734; Oct. 8; Gaz. vol. 183; p. 393.

Mowat, Oliver M. (See Saunders and Mowat.)

Moyle, Edward. (See Moyle, Edward H., assignor.)

Moyle, Edward H., Los Angeles, assignor to H. Moyle, Grass Valley, Cal. Supporting and lifting and adjusting device for stamp-mills. No. 1,040,285; Oct. 1; Gaz. vol. 183; p. 188.

Moxingo, William H., Hurdland, Mo. Saw gummer and swager. No. 1,040,385; Oct. 8; Gaz. vol. 183; p. 268.

Mrock, Albert F., assignor to Tufting Machine Supply Company, Chicago, Ill. Machine for shirring cloth and other materials. No. 1,042,715; Oct. 29; Gaz. vol. 183; p. 1161.

Muehleisen, Carl. (See Rädiger and Muehleisen.)

Mueller, Adolph, *et al.*, executors. (See Mueller, Philip and H.)

Mueller, Fred B., assignor to H. Mueller Manufacturing Company, Decatur, Ill. Flexible connection for gas-meters. No. 1,042,251; Oct. 22; Gaz. vol. 183; p. 970.

Mueller, Henry. (See Mueller, Philip and H.)

Mueller, Ora B., *et al.*, executors. (See Mueller, Philip and H.)

Mueller, Philip, and H. Mueller, deceased; O. B. and A. Mueller, executors, assignors to H. Mueller Manufacturing Company, Decatur, Ill. Cock-hole cover. No. 1,040,735; Oct. 8; Gaz. vol. 183; p. 394.

Müller, Alfred F., Philadelphia, Pa. Carousel. No. 1,040,736; Oct. 8; Gaz. vol. 183; p. 394.

Müller, Carl O., Höchst-on-the-Main, and A. Luther, Mosbon-the-Main, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Dyestuff. No. 1,041,146; Oct. 15; Gaz. vol. 183; p. 564.

Müller, Fritz, Cologne, Germany. Dirigible headlight. No. 1,042,137; Oct. 22; Gaz. vol. 183; p. 923.

Muller, John D., New York, N. Y. Motor-boat. No. 1,041,328; Oct. 15; Gaz. vol. 183; p. 626.

Multi-Color Attachment Company. (See Brooks and Galland, assignors.)

Mumford, Edgar H. (See Atha and Mumford.)

Muncaster, Walter J., Cumberland, Md. Shafting machinery. No. 1,039,992; Oct. 1; Gaz. vol. 183; p. 107.

Murphy, Edwin J., and J. Eaton, Schenectady, N. Y., assignors to General Electric Company. Motor-control system. No. 1,041,845; Oct. 22; Gaz. vol. 183; p. 836.

Murphy, John T., New York, N. Y. Attachment for baby-carriages. No. 1,039,993; Oct. 1; Gaz. vol. 183; p. 107.

Murphy, John W. (See Barry and Murphy.)

Murphy Wall Bed Company. (See Murphy, William L., assignor.)

Murphy, William L., San Francisco, Cal., assignor to Murphy Wall Bed Company, Hinge. No. 1,041,147; Oct. 15; Gaz. vol. 183; p. 564.

Murray, Edward L., Council Bluffs, Iowa. Elevator-gate-closing device. No. 1,042,949; Oct. 29; Gaz. vol. 183; p. 1239.

Murray, James A., assignor of one-half to J. L. Mahoney, New Haven, Conn. Apparatus for producing rubber bulbs for atomizers, syringes, &c. No. 1,040,737; Oct. 8; Gaz. vol. 183; p. 395.

Murray, Thomas E., New York, N. Y. Electric cut-out. No. 1,041,846; Oct. 22; Gaz. vol. 183; p. 836.

Murray, Thomas R., New York, N. Y. Electric cut-out. No. 1,041,847; Oct. 22; Gaz. vol. 183; p. 837.
Musser, William. (See Sailer, John M., assignor.)
Mussy, William H., New York, N. Y., assignor to National Cash Register Company, Dayton, Ohio. Adding-machine. No. 1,039,785; Oct. 1; Gaz. vol. 183; p. 39.
Myers, Charles G., Cleveland, Ohio. Light concentrator and projector. No. 1,042,716; Oct. 29; Gaz. vol. 183; p. 1161.
Myers, Charles H., Buffalo, N. Y. Fence-post. No. 1,041,848; Oct. 22; Gaz. vol. 183; p. 837.
Myers, Charles H., Buffalo, N. Y. Motor-boat. No. 1,041,849; Oct. 22; Gaz. vol. 183; p. 837.
Myers, Hubert A., Goshen, Ind. Hoisting device. No. 1,040,586; Oct. 8; Gaz. vol. 183; p. 270.
Myers, James J., East Lansing, Mich. Model of the human eye. No. 1,042,815; Oct. 29; Gaz. vol. 183; p. 1194.
Myers, Josiah M., Davenport, Iowa. Chiropractic table. No. 1,042,252; Oct. 22; Gaz. vol. 183; p. 971.
Mygatt, Otis A., New York, N. Y. Glass structure. No. 1,041,829; Oct. 15; Gaz. vol. 183; p. 627.
Mygatt, Otis A., New York, N. Y. Pressed or molded ribbed glassware. No. 1,042,443; Oct. 29; Gaz. vol. 183; p. 1071.
Nadorff, Henry, Louisville, Ky. Bung and bushing therefor. No. 1,039,994; Oct. 1; Gaz. vol. 183; p. 108.
Nagel, Theodore, Chicago, Ill. Automatic regulating-switch. No. 1,042,950; Oct. 29; Gaz. vol. 183; p. 1240.
Nall, Fred M., Port Henry, N. Y. Fowl-fumigator. No. 1,040,387; Oct. 8; Gaz. vol. 183; p. 270.
Narragansett Machine Company. (See Thornley, Albert J., assignor.)
Nason, George J. (See Carlson and Nason.)
Nathan, Edwin B., New York, N.Y. Tire-casing. No. 1,042,026; Oct. 22; Gaz. vol. 183; p. 897.
National Cash Register Company. (See Mussy, William H., assignor.)
National Chemical Company. (See Quinn, Wilber W., assignor.)
National Electric Signaling Company, The. (See Fessenden, Reginald A., assignor.)
National Enameling and Stamping Company. (See Schwartzburg, Edward H., assignor.)
National Laundry Machinery Company, The. (See McDorman, Paul, assignor.)
National Lead Company. (See Worrall, George H., assignor.)
National Malleable Castings Company, The. (See Krakau, Harry T., assignor.)
National Scale Company. (See Ohnsman, John H., assignor.)
National Tube Company. (See Saunders and Mowat, assignors.)
National Water Main Cleaning Company. (See Hiller, John A., assignor.)
Naylor, Howard H. (See Steffy and Naylor.)
Neahr, Jacob E., New York, N. Y. Match-receptacle. No. 1,040,236; Oct. 1; Gaz. vol. 183; p. 188.
Neale, Frank, Hood River, Oreg. Cable suspension transportation system. No. 1,041,506; Oct. 15; Gaz. vol. 183; p. 684.
Nelson, August, Westcliffe, Colo. Spring-swingletree. No. 1,039,784; Oct. 1; Gaz. vol. 183; p. 39.
Nelson, Axel A., Washington, D. C. Tire-tool. No. 1,041,660; Oct. 15; Gaz. vol. 183; p. 735.
Nelson, Charles, New York, assignor to S. Sternau & Company, Brooklyn, N. Y. Coffee-machine. No. 1,041,850; Oct. 22; Gaz. vol. 183; p. 838.
Nelson, Dorothy, Seattle, Wash. Hat-weight. No. 1,041,330; Oct. 15; Gaz. vol. 183; p. 627.
Nelson, Emil A., assignor to Rotary Valve Motor Company, Detroit, Mich. Valve. No. 1,040,738; Oct. 8; Gaz. vol. 183; p. 395.
Nelson, Hans Z., assignor to American Gas Machine Company, Albert Lea, Minn. Vaporizing and superheating incandescent lamp. No. 1,040,388; Oct. 8; Gaz. vol. 183; p. 271.
Nelson, Herman, Gothenburg, Nebr. Strainer for milk-cans. No. 1,041,331; Oct. 15; Gaz. vol. 183; p. 627.
Nelson, Milford A., Fowler, Colo. Clevis. (Reissue.) No. 13,470; Oct. 1; Gaz. vol. 183; p. 200.
Nenno, George A. (See Lavanway and Nenno.)
Nestor, French, Elkins, W. Va. Cooking utensil. No. 1,041,332; Oct. 15; Gaz. vol. 183; p. 627.
Neubel, Carl, Rising City, Nebr. Knockdown box. No. 1,041,333; Oct. 15; Gaz. vol. 183; p. 627.
Neubert, Amalia H., Chicago, Ill. Cover for ironing-boards. No. 1,042,138; Oct. 22; Gaz. vol. 183; p. 933.
Nevels, Anthony L., assignor, by mesne assignments, to The Nevels Manufacturing Company, Hartford, Conn. Time-controlled bag-punching machine. No. 1,042,816; Oct. 29; Gaz. vol. 183; p. 1195.
Nevels Manufacturing Company, The. (See Nevels, Anthony L., assignor.)
Nevill, David J., Denver, Colo. Stirrer or conveyer. No. 1,039,785; Oct. 1; Gaz. vol. 183; p. 39.
Nevin, Roy C., Berkeley, Cal. Electric signaling device. No. 1,040,389; Oct. 8; Gaz. vol. 183; p. 271.
New Britain Machine Company, The. (See Brown, Robert S., assignor.)
New Carpet and Textiles Syndicate Limited. (See Hallensleben, Otto, assignor.)
New Jersey Foundry and Machine Company. (See Pauli, Carl, assignor.)
New Jersey Wire Stitching Machine Company, The. (See Dobbins, John S., assignor.)
New Jersey Zinc Company. (See De Saulles, Charles A. H., assignor.)
Newark Wrapping Machine Co. (See Hohl, George L., assignor.)
Newberry, Spencer B., and H. M. Barrett, Baybridge, Ohio. Fertilizer and making same. No. 1,042,588; Oct. 29; Gaz. vol. 183; p. 1118.
Newell, Thomas J., Wilkinsburg, Pa. Forming safe-frames. No. 1,040,567; Oct. 8; Gaz. vol. 183; p. 333.
Newhall, Walter S., assignor to The Cleveland Railway Supply Company, Cleveland, Ohio. Rail-fastening device. No. 1,040,568; Oct. 8; Gaz. vol. 183; p. 333.
Newhall, Walter S., assignor to The Cleveland Railway Supply Company, Cleveland, Ohio. Guard-rail fastener. No. 1,041,854; Oct. 15; Gaz. vol. 183; p. 628.
Newman, Alvin E., Chicago, Ill. Cue-chalker. No. 1,041,148; Oct. 15; Gaz. vol. 183; p. 564.
Newman, Harry J., Miami, Tex. Combined rail joint and chair. No. 1,042,027; Oct. 22; Gaz. vol. 183; p. 896.
Newman, Henry W., Mill Hill, England. Grinding or abrading machine. No. 1,042,817; Oct. 29; Gaz. vol. 183; p. 1195.
Newman, William R., Brooklyn, assignor of one-half to E. H. Clark, New York, N. Y. Extensible hat-pin. No. 1,043,027; Oct. 29; Gaz. vol. 183; p. 1297.
Newton, George W., Newton, Iowa. Book and pad holder. No. 1,042,580; Oct. 29; Gaz. vol. 183; p. 1116.
Newton, Henry G. (See North, Charles H., assignor.)
Nichols, Charles W., Rahway, N. J. Advertising device. No. 1,041,149; Oct. 15; Gaz. vol. 183; p. 564.
Nielsen, Jens, Cedar Falls, Iowa. Rotary engine. No. 1,042,961; Oct. 29; Gaz. vol. 183; p. 1240.
Niemann, William L., Mount Olive, Ill. Breeder. No. 1,041,551; Oct. 22; Gaz. vol. 183; p. 838.
Niemann, William L., Mount Olive, Ill. Hover. No. 1,041,552; Oct. 22; Gaz. vol. 183; p. 838.
Nies, Henry, Mount Rainier, Md., assignor of one-half to J. B. Ryan, Washington, D. C. Cork-extractor. No. 1,042,962; Oct. 29; Gaz. vol. 183; p. 1241.
Niles, Glenn H. (See Dell and Niles.)
Niles, Harry F., assignor of one-half to T. A. Schlick, Chicago, Ill. Garment-supporter. No. 1,039,995; Oct. 1; Gaz. vol. 183; p. 108.
Nilson, Nils, Worcester, Mass. Double-neck bottle. No. 1,040,290; Oct. 8; Gaz. vol. 183; p. 272.
Nilsson, Jöns L., Kristianstad, Sweden. Refrigerating device. No. 1,040,739; Oct. 8; Gaz. vol. 183; p. 395.
Nilsson, Wilhelm B., Stockholm, Sweden. Sharpening apparatus for knives, scissors, and the like. No. 1,042,255; Oct. 22; Gaz. vol. 183; p. 971.
Nims, Vivian E., et al. (See Edenfeldt, Carl, assignor.)
Niswonger, Dorman D., Dayton, Ohio. Wrapping-twine holder. No. 1,040,740; Oct. 8; Gaz. vol. 183; p. 396.
Nixon, Thomas C., Chicago, Ill. Roll-reducing machine for cereals. No. 1,042,717; Oct. 29; Gaz. vol. 183; p. 1161.
Noack, Carl, Charlottenburg, assignor to Siemens & Halske, A. G., Berlin, Germany. Signaling means for fire-alarms. No. 1,039,996; Oct. 1; Gaz. vol. 183; p. 108.
Noeggerath, Jakob E., Schenectady, N. Y., assignor to General Electric Company. Dynamo-electric machine. No. 1,043,028; Oct. 29; Gaz. vol. 183; p. 1268.
Noel, Joseph A., Logansport, Ind. Vending-machine. No. 1,042,254; Oct. 22; Gaz. vol. 183; p. 971.
Nolan, John E., New York, N. Y., assignor to The Diamond Match Company, Chicago, Ill. Match. No. 1,042,464; Oct. 29; Gaz. vol. 183; p. 1072.
Nordqvist, Per E., Chicago, Ill., assignor to Concealed Door Check Company, Santa Barbara, Cal. Door-check. No. 1,041,853; Oct. 22; Gaz. vol. 183; p. 839.
Nordqvist, Per E., Chicago, Ill., assignor to Concealed Door Check Company, Santa Barbara, Cal. Door check and closer. No. 1,041,854; Oct. 22; Gaz. vol. 183; p. 839.
Nordqvist, Per E., Chicago, Ill., assignor to Concealed Door Check Company, Santa Barbara, Cal. Valve mechanism for door-checks. No. 1,041,855; Oct. 22; Gaz. vol. 183; p. 839.
Nordqvist, Per E., Chicago, Ill., assignor to Concealed Door Check Company, Santa Barbara, Cal. Door-check mechanism. No. 1,041,856; Oct. 22; Gaz. vol. 183; p. 839.
Nordqvist, Per E., Chicago, Ill., assignor to Concealed Door Check Company, Santa Barbara, Cal. Concealed door-check. No. 1,041,857; Oct. 22; Gaz. vol. 183; p. 840.
Nordstrom, Edward. (See Brink and Nordstrom.)
Norman, Lionel, assignor, by mesne assignments, to Pure Food Package Company, Boston, Mass. Machine for making paper vessels. No. 1,042,958; Oct. 29; Gaz. vol. 183; p. 1241.
Normoyle, Daniel J., Philadelphia, Pa. Tap-wrench. No. 1,041,858; Oct. 22; Gaz. vol. 183; p. 840.
Norris, Francis, Jr. (See Gruver, Joseph H., assignor.)
Norris, H. E., et al. (See Tatum, Franklin M., assignor.)
Norris, John T., et al. (See Tatum, Franklin M., assignor.)
North Bros. M'f'g Co. (See Fogley and Loepold, assignors.)
North, Charles H., assignor to The North Electric Company, Cleveland, Ohio. Selective ringing-key. No. 1,042,964; Oct. 29; Gaz. vol. 183; p. 1241.





North, Charles R., Hartford, assignor of one-half to H. G. Newton, New Haven, Conn. Milling-machine. No. 1,040,983; Oct. 8; Gaz. vol. 183; p. 476.
North Electric Company, The. (See North, Charles H., assignor.)
Northeast Electric Company. (See Halbleib, Edward A., assignor.)
Norton, Bertram, Stourbridge, England. Conveyer. No. 1,041,507; Oct. 15; Gaz. vol. 183; p. 685.
Norwalk Lock Company. (See Rose, Edward, assignor.)
Norwitz Selling Company. (See Marshall, Edward C. and E., assignors.)
Novick, Abraham, Brooklyn, N. Y., assignor, by mesne assignments, to Bright Envelope Company. Envelop-machine. No. 1,039,786; Oct. 1; Gaz. vol. 183; p. 40.
Novotny, John N., Badger, Minn. Neck-yoke safety attachment. No. 1,041,150; Oct. 15; Gaz. vol. 183; p. 565.
Nowak, Adolf A. K., Bous-on-the-Saar, Germany. Brake device for rolling-mills. No. 1,041,661; Oct. 15; Gaz. vol. 183; p. 735.
Nowell, Thomas W., Schenectady, N. Y., assignor to General Electric Company. Motor-controlling device. No. 1,041,859; Oct. 22; Gaz. vol. 183; p. 840.
Noyes, Edward P., Winchester, Mass. Vacuum fuel-feeder and carburetor. No. 1,041,862; Oct. 15; Gaz. vol. 183; p. 736.
Noyes, La Verne W., Chicago, Ill. Flange-forming machine. No. 1,040,891; Oct. 8; Gaz. vol. 183; p. 272.
Nunamacher, William H., Newark, N. J. Ball-joint. No. 1,039,997; Oct. 1; Gaz. vol. 183; p. 109.
Nurnberger, George H., Welga, Ill. Rail-spike. No. 1,042,565; Oct. 29; Gaz. vol. 183; p. 1242.
Nutting, Granville, Jersey City, N. J., assignor to The Keystone Watch Case Company, Philadelphia, Pa. Watch-movement. No. 1,041,535; Oct. 15; Gaz. vol. 183; p. 628.
Nya Aktiebolaget Stockholms Vapenfabrik. (See Kjellman, Rudolf H., assignor.)
Nyboer, Arend E., Edam, Netherlands, assignor to G. H. Diehl, Jr., New York, N. Y. Apparatus for stowing and launching ships' boats. No. 1,040,741; Oct. 8; Gaz. vol. 183; p. 396.
Nye Tool and Machine Works, The. (See Benson, Charles T., assignor.)
Nyland, Hanna B., Stambaugh, Mich. Curtain-pole. No. 1,039,787; Oct. 1; Gaz. vol. 183; p. 40.
Nyswonger, Elijah, Hanford, Cal. Cling-peach-pitting machine. No. 1,042,590; Oct. 29; Gaz. vol. 183; p. 1116.
O. Armleder Company, The. (See Dolph, Otto W., assignor.)
O'Bryan, Gory, Louisville, Ky. Spring-motor. No. 1,040,742; Oct. 8; Gaz. vol. 183; p. 396.
O'Byrne, Joseph F., Jarbidge, Nev. Noiseless case for noisy machines. No. 1,042,967; Oct. 29; Gaz. vol. 183; p. 1242.
O'Conera, William, New Castle, Pa. Oiling apparatus for journals. No. 1,041,152; Oct. 15; Gaz. vol. 183; p. 566.
O'Connor, James, New York, N. Y. Music-sheet-guiding device. No. 1,041,860; Oct. 22; Gaz. vol. 183; p. 841.
O'Connor, James, New York, N. Y. Tempo-regulator. No. 1,041,861; Oct. 22; Gaz. vol. 183; p. 841.
O'Connor, John F., assignor to W. H. Miner, Chicago, Ill. Friction draft-rigging for railway-cars. No. 1,041,862; Oct. 22; Gaz. vol. 183; p. 842.
O'Gorman, John, assignor of forty-five one-hundredths to A. L. Dutton, San Luis Obispo, Cal. Railway road-bed. No. 1,042,253; Oct. 22; Gaz. vol. 183; p. 972.
O'Hara, William T., assignor of one-third to H. S. Schopf, Spokane, Wash. Mail catching and delivering device. No. 1,042,256; Oct. 22; Gaz. vol. 183; p. 972.
O'Neil, Charles. (See Saunders and O'Neil.)
O'Rear, Jackson M., Birmingham, Ala. Resilient tire. No. 1,042,592; Oct. 29; Gaz. vol. 183; p. 1117.
Oakes, Ben, Detroit, Mich. Floor connection for sanitary plumbing-fixtures. No. 1,042,465; Oct. 29; Gaz. vol. 183; p. 1072.
Oakes, Travis, and D. Ressler, Mount Vernon, Ohio, assignors to Pittsburgh Plate Glass Company, Pittsburgh, Pa. Glass-drawing apparatus. No. 1,042,956; Oct. 29; Gaz. vol. 183; p. 1242.
Oaks, William A. C., Reading, Pa. Apple-paring machine. No. 1,039,998; Oct. 1; Gaz. vol. 183; p. 109.
Oberge, Ethel A. (See Oberge, George F., assignor.)
Oberge, George F., assignor, by mesne assignments, to E. A. Oberge, Haverford, Pa. Rotary pump. No. 1,041,151; Oct. 15; Gaz. vol. 183; p. 565.
Oehlke, Frederick H., assignor to Hoffman Heater Company, Lorain, Ohio. Gas-burner. No. 1,041,863; Oct. 22; Gaz. vol. 183; p. 842.
Offene Handelsgesellschaft Gebrüder Schubert. (See Burian, Carl, assignor.)
Offutt, John W., Ellwood City, assignor to The Shelby Steel Tube Company, Pittsburgh, Pa. Making seamless tubes. No. 1,040,549; Oct. 8; Gaz. vol. 183; p. 334.
Ogg, James, Pahala, Hawaii. Bag-turning machine. No. 1,042,567; Oct. 22; Gaz. vol. 183; p. 1006.
Ogle, Harley A., assignor to The American Cutlery Co., Chicago, Ill. Coiled-spring-attaching means. No. 1,042,718; Oct. 29; Gaz. vol. 183; p. 1162.
Ogle, Thomas S., and R. F. Polansky, Lyons, Tex. Kitchen-sink. No. 1,040,392; Oct. 8; Gaz. vol. 183; p. 272.
Ohio Electric Car Company, The. (See Dodge, Henry P., assignor.)
Ohlhaver, Peter D. H., Sande, Germany. Maintaining the vitality of dried yeast. No. 1,039,999; Oct. 1; Gaz. vol. 183; p. 109.
Ohnsman, John H., Beaver Falls, Pa., assignor to National Scale Company, Chicopee Falls, Mass. Automatic computing and weighing scale. No. 1,040,000; Oct. 1; Gaz. vol. 183; p. 109.
Okill, John, Rock Ferry, England. Pressure-gage. No. 1,042,968; Oct. 29; Gaz. vol. 183; p. 1242.
Olberg, Charles E., Philadelphia, Pa. Sash-mounting. No. 1,042,591; Oct. 29; Gaz. vol. 183; p. 1117.
Oliger, Jacob D., et al. (See Patterson, Benjamin G., assignor.)
Olive, William H., Menominee, Mich. Gate. No. 1,041,663; Oct. 15; Gaz. vol. 183; p. 736.
Oliver, Abe L., San Francisco, Cal. Butter-cutter. No. 1,042,257; Oct. 22; Gaz. vol. 183; p. 972.
Olsen, John, Watertown, N. Y. Pulp-screen. No. 1,040,743; Oct. 8; Gaz. vol. 183; p. 397.
Olsen, Ole, Oakland, assignor of one-half to H. T. Carvis, Alameda, Cal. Pneumatic pressure-gage. No. 1,041,236; Oct. 15; Gaz. vol. 183; p. 628.
Olsen, Petter M., Brooklyn, N. Y. Device for plumbing and leveling. No. 1,040,744; Oct. 8; Gaz. vol. 183; p. 397.
Olson, Alex H., Chicago, Ill. Tool for making angular bends in metal. No. 1,040,745; Oct. 8; Gaz. vol. 183; p. 397.
Olson, August, Philadelphia, Pa., assignor to United Shoe Machinery Company, Paterson, N. J. Impression or imitation stitch machine. No. 1,040,393; Oct. 8; Gaz. vol. 183; p. 273.
Olson, Martin, Minneapolis, Minn. Pocket-book-securing device. No. 1,041,664; Oct. 15; Gaz. vol. 183; p. 736.
Olson, Swinea, Amboy, Minn. Veterinary instrument. No. 1,040,394; Oct. 8; Gaz. vol. 183; p. 273.
Olsson, Emil, assignor to Aktiebolaget Bofors-Gullspång, Bofors, Sweden. Breech-loading mechanism for artillery-guns. No. 1,040,001; Oct. 1; Gaz. vol. 183; p. 110.
Onderdonk, Lansing, New York, N. Y., assignor to The Union Special Sewing Machine Company, Chicago, Ill. Feeding mechanism for blindstitch-machines. No. 1,042,258; Oct. 22; Gaz. vol. 183; p. 973.
Orenstein-Arthur Koppel Co. (See Hansen, Karl H., assignor.)
Orgaard, Carl, Wheelock, assignor of one-fifth to A. G. J. Anderson, Tioga, N. D. Shocking-machine. No. 1,040,002; Oct. 1; Gaz. vol. 183; p. 110.
Orstad, Ole E., Park River, N. D. Spring connecting member for fan-blades. No. 1,042,969; Oct. 29; Gaz. vol. 183; p. 1243.
Osborn, Henry P., Bayonne, N. J. Artificial tooth and making the same. No. 1,040,671; Oct. 8; Gaz. vol. 183; p. 334.
Osborn, Joseph A., assignor to American Car and Foundry Company, St. Louis, Mo. Traveling electric welding apparatus. No. 1,042,466; Oct. 29; Gaz. vol. 183; p. 1072.
Osborn, Joseph A., assignor to American Car and Foundry Company, St. Louis, Mo. Electric welding-tongs. No. 1,042,467; Oct. 29; Gaz. vol. 183; p. 1073.
Osborn, Joseph A., assignor to American Car and Foundry Company, St. Louis, Mo. Electric welding-tongs. No. 1,042,468; Oct. 29; Gaz. vol. 183; p. 1073.
Osborn Manufacturing Company, The. (See Fuller and Reilly, assignors.)
Osborne, Heman, Springfield, Mass. Transom-lifter. No. 1,040,570; Oct. 8; Gaz. vol. 183; p. 334.
Oslund, Charles H., Worcester, Mass., assignor to Duff Manufacturing Company, Pittsburgh, Pa. Collapsible drill. No. 1,040,395; Oct. 8; Gaz. vol. 183; p. 274.
Osterholm, William C., Chicago, Ill. Disk-beveling machine. No. 1,042,259; Oct. 22; Gaz. vol. 183; p. 973.
Ostrander, Allen E., Ridgewood, N. J. Door-operating device. No. 1,041,864; Oct. 22; Gaz. vol. 183; p. 842.
Ostrander, Allen E., Ridgewood, N. J., assignor to American Car and Foundry Company, St. Louis, Mo. Car-underframe. No. 1,042,469; Oct. 29; Gaz. vol. 183; p. 1073.
Ostrander, Allen E., Ridgewood, N. J., assignor to American Car and Foundry Company, St. Louis, Mo. Car-bolster and side bearing. No. 1,042,470; Oct. 29; Gaz. vol. 183; p. 1074.
Ostrander, Sheridan. (See Strong and Ostrander.)
Ostrog, Harry, et al. (See Rosen, Simon L., assignor.)
Otis Elevator Company. (See Ihlder, John D., assignor.)
Otis Elevator Company. (See Ihlder and Lutz, assignors.)
Otis Elevator Company. (See Lindquist, David L., assignor.)
Otis Elevator Company. (See Magnuson, Axel, assignor.)
Otis Elevator Company. (See Pratt, Charles E., assignor.)
Otis Elevator Company. (See Smith, Frank I., assignor.)
Otter, Elmar, Winnipeg, Manitoba, Canada. Tube-holder. No. 1,043,058; Oct. 29; Gaz. vol. 183; p. 1276.
Otterson, Oscar, Butler, Pa. Railway-car construction. No. 1,040,572; Oct. 8; Gaz. vol. 183; p. 335.
Oudsteyn, Johan D., Chicago, Ill. Renovating butter. No. 1,042,471; Oct. 29; Gaz. vol. 183; p. 1074.
Owen, Herbert W., Dover, N. H., assignor to Draper Company, Hopedale, Mass. Spinning-frame. No. 1,041,865; Oct. 15; Gaz. vol. 183; p. 737.

Paal, Alexander, Osnabrück, Germany. Apparatus for baling paper and the like cuttings. No. 1,040,396; Oct. 8; Gaz. vol. 183; p. 274.
Pacific Flush Tank Company. (See Cox, James W., assignor.)
Packard Company, The. (See Gamble, Frederick O., assignor.)
Packard Company, The. (See Magnuson, Nels, assignor.)
Packard Motor Car Company. (See Link, Vincent, assignor.)
Packer, Marion E., Rockwell City, Iowa. Metallic tie and rail-chair. No. 1,041,837; Oct. 15; Gaz. vol. 183; p. 629.
Packham, Frank E., assignor to The American Seeding Machine Company, Springfield, Ohio. Seeding-machine. No. 1,039,785; Oct. 1; Gaz. vol. 183; p. 40.
Packscher, Arthur, Berlin, Germany. Iron frame for windows. No. 1,040,746; Oct. 8; Gaz. vol. 183; p. 397.
Pacsynski, Joseph A., Chicago, Ill. Piano-footstool. No. 1,040,397; Oct. 8; Gaz. vol. 183; p. 274.
Page, Albert A., assignor to Sargent & Company, New Haven, Conn. Tongue-and-groove plane. No. 1,042,139; Oct. 22; Gaz. vol. 183; p. 934.
Page, Arthur, Huddersfield, England. Trousers. No. 1,040,747; Oct. 8; Gaz. vol. 183; p. 398.
Page, John W., Quitman, Ark. Railway signaling device. No. 1,042,028; Oct. 22; Gaz. vol. 183; p. 898.
Page, Marshall H., San Francisco, Cal. Check-perforator. No. 1,039,789; Oct. 1; Gaz. vol. 183; p. 41.
Pagliabue, Richard, assignor to American Silk & Cotton Skeins Printing Company, Paterson, N. J. Silk-printing machine. No. 1,042,029; Oct. 22; Gaz. vol. 183; p. 898.
Palmenberg, Emil T., New York, N. Y. Garment-form. No. 1,042,260; Oct. 22; Gaz. vol. 183; p. 974.
Palmer, Bradley W., *et al.*, trustees. (See McMullen, George B., assignor.)
Palmer, Bradley W., *et al.*, trustees. (See McMullen, George W. and G. B., assignors.)
Palmer, Bradley W., *et al.*, trustees. (See Roberts, John H., assignor.)
Palmer, Granville E., Brookline, Mass. Locking device. No. 1,040,573; Oct. 8; Gaz. vol. 183; p. 335.
Palmer, John M., Chicago Heights, assignor to Universal Tool Company, Chicago, Ill. Tool-holding appliance. No. 1,041,153; Oct. 15; Gaz. vol. 183; p. 506.
Palmer, Thomas A. (See Paridon and Palmer.)
Palmer, Walter E., Cicero, Ill., assignor to Union Typewriter Company, Jersey City, N. J. Type-writing machine. (Reissue.) No. 13,478; Oct. 15; Gaz. vol. 183; p. 754.
Palmgren, Carl A., Chicago, Ill. Drill and chuck. No. 1,041,338; Oct. 15; Gaz. vol. 183; p. 629.
Palous, Léon, Berlin, Germany. Two-cycle explosion-motor. No. 1,041,154; Oct. 15; Gaz. vol. 183; p. 567.
Panscher, William, *et al.* (See Kelley, John W., assignor.)
Papeterie de la Seine. (See Herz, Ludwig, assignor.)
Parchem, Albert J., assignor of one-half to W. F. Lobsetter and one-half to J. J. Thompson, Lancaster, Pa. Spark-plug. No. 1,042,818; Oct. 29; Gaz. vol. 183; p. 1196.
Paridon, Michael, Barberton, and T. A. Palmer, Akron, Ohio, assignors to The Diamond Match Company, Chicago, Ill. Machine for making match-books. No. 1,042,472; Oct. 29; Gaz. vol. 183; p. 1074.
Park, William N., Corning, N. Y. Controlling means for combustion-engines. No. 1,041,339; Oct. 15; Gaz. vol. 183; p. 629.
Parker, Benjamin F., assignor to The Pittsburgh Seamless Tube Company, Beaver Falls, Pa. Beeling device. No. 1,040,748; Oct. 8; Gaz. vol. 183; p. 398.
Parker-Clark Electric Company. (See Baker, Raymond W., assignor.)
Parker, Clark W., Springfield, Mass. Producing finished tempered gear. No. 1,042,819; Oct. 29; Gaz. vol. 183; p. 1196.
Parker, Clark W., assignor to Parker Transmission and Appliance Company, Springfield, Mass. Transmission-gearing. No. 1,042,960; Oct. 29; Gaz. vol. 183; p. 1243.
Parker, Edwy S. (See Hixon and Parker.)
Parker, George H., assignor, by mesne assignments, to M. C. Baker, Stamford, Conn. Bulletin-board. (Reissue.) No. 13,484; Oct. 29; Gaz. vol. 183; p. 1279.
Parker, John H. (See Keefe, Joseph, assignor.)
Parker Transmission and Appliance Company. (See Parker, Clark W., assignor.)
Parker Wire Goods Company. (See Davis, George S., assignor.)
Parkhurst, Leon F., assignor to Diamond Electric Company, Binghamton, N. Y. Electric heating unit. No. 1,043,029; Oct. 29; Gaz. vol. 183; p. 1265.
Parks, Miner R., Roseburg, Oreg. Type-setting device. No. 1,042,368; Oct. 22; Gaz. vol. 183; p. 1006.
Parmelee, Charles L., Orange, N. J., assignor to The East Jersey Pipe Company, New York, N. Y. Machine for upsetting metal plates. No. 1,040,398; Oct. 8; Gaz. vol. 183; p. 274.
Parsche, Frank C., assignor to F. X. Parsche & Son Company, Chicago, Ill. Automobile-lamp. No. 1,042,473; Oct. 29; Gaz. vol. 183; p. 1075.
Parsons, Charles J., Linworth, assignor to G. B. Donavin, Columbus, Ohio. Latch structure. No. 1,042,080; Oct. 22; Gaz. vol. 183; p. 899.
Parsons, Stuart W. (See Hart and Parsons.)
Parsons, Winslow R., Chicago, Ill. Window-shade fixture. No. 1,040,399; Oct. 8; Gaz. vol. 183; p. 275.
Paschall, Charles H., Chicago, Ill., assignor to American 3-Way Prism Co., Philadelphia, Pa. Vault-light construction. No. 1,039,790; Oct. 1; Gaz. vol. 183; p. 41.
Paschen, Max, Köthen, Germany. Double-knife box for beet-root-slicing machines. No. 1,040,065; Oct. 1; Gaz. vol. 183; p. 111.
Paschen, Max, Köthen, Germany. Apparatus for heating beet-slices. No. 1,042,261; Oct. 22; Gaz. vol. 183; p. 974.
Pass & Seymour. (See Crossley and Deppard, assignors.)
Passaic Metal Ware Company. (See Karp, Morris, assignor.)
Pates, Martha J. (See Pates, Theodorus H., assignor.)
Pates, Martha J., administratrix. (See Pates, Theodorus H.)
Pates, Theodorus H., deceased, Indianapolis, Ind.; M. J. Pates, administratrix, assignor to said M. J. Pates, individually. Static electric machine. No. 1,043,030; Oct. 29; Gaz. vol. 183; p. 1268.
Paterson, Edward A., Port Arthur, Ontario, Canada. Road-making and binding materials therefor. No. 1,042,474; Oct. 29; Gaz. vol. 183; p. 1075.
Patt, Charles, assignor of one-half to C. Breakefield, Centralia, Ill. Lock. No. 1,042,031; Oct. 22; Gaz. vol. 183; p. 899.
Patten, Edward M., Yuma, Colo. Trip-hammer. No. 1,042,061; Oct. 29; Gaz. vol. 183; p. 1244.
Patterson-Allen Engineering Company. (See Hunter, Rudolph M., assignor.)
Patterson, Benjamin G., Oklahoma, Okla., assignor of one-fourth to J. D. Oliger, Dallas, Tex., one-fourth to T. B. Simms, and one-tenth to J. D. Deu Pree, Oklahoma, Okla. Nut-lock. No. 1,042,962; Oct. 29; Gaz. vol. 183; p. 1244.
Patterson, John F., St. Louis, Mo. Receptacle. No. 1,040,574; Oct. 8; Gaz. vol. 183; p. 336.
Patterson, Leo J. (See Scott and Patterson.)
Patterson, Peter, Pittsburgh, Pa. Manufacture of tubing. No. 1,042,593; Oct. 29; Gaz. vol. 183; p. 1117.
Pattison, Clarence A. (See Roby and Pattison.)
Pattison, Elias J., Galien, Mich. Ironing-table. No. 1,039,791; Oct. 1; Gaz. vol. 183; p. 41.
Patton, John R. (See Engberg, Ephraim O., assignor.)
Patton, John G., Philadelphia, Pa. Envelop and advertising device. No. 1,040,004; Oct. 1; Gaz. vol. 183; p. 111.
Paull, Carl, Roselle Park, N. J., assignor to New Jersey Foundry and Machine Company. Trolley. No. 1,041,155; Oct. 15; Gaz. vol. 183; p. 567.
Payne, Ernest E. M., Aglesbury, assignor of one-half to W. H. Staynes, J. H. Smith, and W. H. Sturges, Leicester, England. Production of leather. No. 1,040,400; Oct. 8; Gaz. vol. 183; p. 275.
Payne, George V., Chicago, Ill. Ascertaining the location of leaks in underground fluid-pressure pipes. No. 1,041,150; Oct. 15; Gaz. vol. 183; p. 567.
Payne, Stephen R., *et al.* (See Williams, Hiram C., assignor.)
Payne, Stephen R. (See Williams and Payne.)
Payne, William R., Sherlock, Wash. Egg marker and dater. No. 1,039,792; Oct. 1; Gaz. vol. 183; p. 41.
Pearson, John, Chicago, Ill. Car-roof. (Reissue.) No. 13,471; Oct. 1; Gaz. vol. 183; p. 200.
Pearson, Robert B., Duluth, Minn. Door mechanism for ore-pockets or similar receptacles. No. 1,040,237; Oct. 1; Gaz. vol. 183; p. 189.
Pearson, William E., Boston, Mass. Flying-machine. No. 1,042,594; Oct. 29; Gaz. vol. 183; p. 1118.
Pearson, William E., Boston, Mass. Rotary motor. No. 1,042,595; Oct. 29; Gaz. vol. 183; p. 1118.
Pearson, William E., Swampscott, Mass. Duplex reversible rotary liquid-motor. No. 1,042,596; Oct. 29; Gaz. vol. 183; p. 1118.
Pease, Harold C., Schenectady, N. Y. Lubricant-retainer. No. 1,042,719; Oct. 29; Gaz. vol. 183; p. 1162.
Pease, John A., Gypsum, Kans. Drill. No. 1,042,597; Oct. 29; Gaz. vol. 183; p. 1119.
Peck, Frederick S. (See Fisher, Emanuel, Jr., assignor.)
Pederson, Christian H., Eau Claire, Wis. Fountain-brush. No. 1,042,032; Oct. 22; Gaz. vol. 183; p. 899.
Peek, Frank W., Jr., Schenectady, N. Y., assignor to General Electric Company. Apparatus for producing a gaseous reaction. No. 1,041,340; Oct. 15; Gaz. vol. 183; p. 630.
Pelletier, Frank D., Kansas City, Mo. Costumer or clothes-rack. No. 1,042,262; Oct. 22; Gaz. vol. 183; p. 974.
Pelton Water Wheel Company, The. (See Jackson, Charles A., assignor.)
Penn Mining & Reduction Company. (See Luckenbach, Royer, assignor.)
Pennypacker, Edward J., assignor to Baker Iron Works, Los Angeles, Cal. Well-casing machine. No. 1,040,582; Oct. 1; Gaz. vol. 183; p. 194.
Pearose, Edward R. (See Klein and Pearose.)
Perez, John. (See Pinkett, Robert, assignor.)
Peplinski, Julius W., assignor to Security Savings and Trust Co., trustee, Erie, Pa. Cut-off device for fluid-fuel burners. No. 1,039,793; Oct. 1; Gaz. vol. 183; p. 42.
Perew, Louis P., North Tonawanda, and U. J. Rogers, Tonawanda, assignors to The Kitchenette Company, Buffalo, N. Y. Dish-washing machine. No. 1,039,794; Oct. 1; Gaz. vol. 183; p. 42.



Perfect Vacuum Can Co. (See Malmquist, Adolph, assignor.)
Perham, Charles F., Lowell, Mass. Winding-machine. No. 1,041,157; Oct. 15; Gaz. vol. 183; p. 568.
Perkins, Augustus T., Chicago, Ill. Bucket conveyer. No. 1,040,005; Oct. 1; Gaz. vol. 183; p. 111.
Perrin, John A., Fargo, Okla. Incubator beater-tank. No. 1,041,806; Oct. 15; Gaz. vol. 183; p. 685.
Perry, Edward C., assignor to American Car Sprinkler Co., Worcester, Mass. Car-sprinkler tank. No. 1,040,401; Oct. 8; Gaz. vol. 183; p. 275.
Petersen, William, Lyons, Iowa. Door-latch. No. 1,042,140; Oct. 22; Gaz. vol. 183; p. 934.
Peterson, Erick H., assignor to Sartorial Pattern Company of Philadelphia, Philadelphia, Pa. Cloth-cutting machine. No. 1,041,841; Oct. 15; Gaz. vol. 183; p. 630.
Peterson, Sigfred, Lost Springs, Kans. Plow. No. 1,041,666; Oct. 15; Gaz. vol. 183; p. 737.
Peterson, Sigurd H., Maybell, Colo. Folding camera-case. No. 1,042,963; Oct. 29; Gaz. vol. 183; p. 1244.
Petri, George S., Nashville, Tenn. Card-holder. No. 1,040,749; Oct. 8; Gaz. vol. 183; p. 398.
Petrie, James J., Palisades, Colo. Water-distributer. No. 1,041,509; Oct. 15; Gaz. vol. 183; p. 685.
Pettengill, George M., Haverhill, Mass., assignor to Haverhill Shoe Machinery Company. Heel-nailing machine. No. 1,042,574; Oct. 22; Gaz. vol. 183; p. 1011.
Petter, Adolph J., Los Angeles, Cal. Bathing apparatus. No. 1,040,235; Oct. 1; Gaz. vol. 183; p. 189.
Pettibone, Hawley, New Rochelle, and B. von Sholly, Flushing, N. Y. Manufacturing nitrogen compounds. No. 1,042,141; Oct. 22; Gaz. vol. 183; p. 934.
Peuckert, Hugo, Oederan, Germany. Web-cutting mechanism. No. 1,040,006; Oct. 1; Gaz. vol. 183; p. 111.
Pfau, Charles, Cincinnati, assignor to The Pfau Manufacturing Company, Norwood, Ohio. Combined connecting-brace, shield, and buffer-holder for water-closet seats. No. 1,041,342; Oct. 15; Gaz. vol. 183; p. 630.
Pfau Manufacturing Company, The. (See Pfau, Charles, assignor.)
Pfenninger, John J., St. Louis, Mo. Machine for dividing dough and the like. No. 1,039,795; Oct. 1; Gaz. vol. 183; p. 43.
Pfaumer, George T., Philadelphia, Pa. Brake. No. 1,042,598; Oct. 29; Gaz. vol. 183; p. 1119.
Pfaumm, Albert V., Tonasket, Wash. Water elevating and impelling apparatus. No. 1,042,599; Oct. 29; Gaz. vol. 183; p. 1119.
Pfunder, Emil L., Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,042,033; Oct. 22; Gaz. vol. 183; p. 900.
Philipp, Herbert, Perth Amboy, N. J., assignor to The Roessler & Hasslacher Chemical Co., New York, N. Y. Generating gas. No. 1,041,865; Oct. 22; Gaz. vol. 183; p. 843.
Phillips, Mary J. (See Farr, Eugene M., assignor.)
Phillips, Samuel L., Denver, Colo. Street-sign. No. 1,041,866; Oct. 22; Gaz. vol. 183; p. 843.
Phin, John A., Toronto, Ontario, Canada. Counter-vender. No. 1,039,796; Oct. 1; Gaz. vol. 183; p. 42.
Phoenix Glass Company. (See Webr, George F., assignor.)
Picken, Edward, Willow City, N. D. Grain-shocking device. No. 1,040,007; Oct. 1; Gaz. vol. 183; p. 112.
Pickens, Valentine H., Florala, Ala. Stump-burner. No. 1,040,402; Oct. 8; Gaz. vol. 183; p. 275.
Pickering, Ruben L., Falling Spring, W. Va. Folding crate. No. 1,040,403; Oct. 8; Gaz. vol. 183; p. 276.
Pieper, Alphonse F. (See Pieper, Oscar H. and A. F.)
Pieper, Alphonse F., Rochester, N. Y. Extensible bracket. No. 1,040,575; Oct. 8; Gaz. vol. 183; p. 336.
Pieper, Henri, Liége, Belgium. Driving of rail and like vehicles. No. 1,041,667; Oct. 22; Gaz. vol. 183; p. 844.
Pieper, Oscar H. and A. F., Rochester, N. Y. Dental engine. No. 1,040,576; Oct. 8; Gaz. vol. 183; p. 337.
Pieper, Oscar H. and A. F., Rochester, N. Y. Dental engine. No. 1,040,577; Oct. 8; Gaz. vol. 183; p. 337.
Pierce, George L., Brooklyn, N. Y. Cleat for athletic shoes. No. 1,041,667; Oct. 15; Gaz. vol. 183; p. 737.
Pierman, Alexander N., Newark, assignor, by mesne assignments, to Thomas A. Edison, Incorporated, West Orange, N. J. Sound-reproducing apparatus. No. 1,042,034; Oct. 22; Gaz. vol. 183; p. 900.
Pierpont, Frank H., Horley, England, assignor to Lanston Monotype Machine Company, Philadelphia, Pa. Matrix stamping or punching machine. No. 1,042,475; Oct. 29; Gaz. vol. 183; p. 1075.
Pierpont, Frank H., Horley, England, assignor to Lanston Monotype Machine Company, Philadelphia, Pa. Spacing mechanism for type casting and composing machines. No. 1,042,479; Oct. 29; Gaz. vol. 183; p. 1076.
Pierson, Roy N., Minneapolis, Minn. Lock. No. 1,042,263; Oct. 22; Gaz. vol. 183; p. 974.
Pike, Arthur E., Longbeach, Cal. Reflector. No. 1,040,008; Oct. 1; Gaz. vol. 183; p. 112.
Pils, Carl, Liesing, near Vienna, Austria-Hungary. Producing fast brown reasins on vegetable fibers. No. 1,041,510; Oct. 15; Gaz. vol. 183; p. 685.
Pinkett, Robert, assignor of one-third to J. Pena, Philadelphia, Pa. Automatic drill. No. 1,041,343; Oct. 15; Gaz. vol. 183; p. 631.
Pissoaesault, Ernst, *et al.* (See Bundy, Henry C., assignor.)
Pittsburg Screw & Bolt Company. (See Collins, John A., assignor.)
Pittsburg Seamless Tube Company. (See Blaxter, George H., assignor.)
Pittsburgh Plate Glass Company. (See Oakes and Rosslar, assignors.)
Pittsburgh Seamless Tube Company, The. (See Parker, Benjamin F., assignor.)
Pittsburgh Steel Products Co. (See Brock, Richard H., assignor.)
Plant, Thomas G., Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Laying and leveling machine. No. 1,041,668; Oct. 15; Gaz. vol. 183; p. 737.
Plum, Matthias. (See Morrison, Lewis E., assignor.)
Plummer, Henry G., Honolulu, Hawaii. Apparatus for drilling in rough water. No. 1,041,158; Oct. 15; Gaz. vol. 183; p. 568.
Plural System ventilator Co., The. (See Mies, Frank P., assignor.)
Pneumatic Scale Corporation. (See Doble, William H., assignor.)
Pohjanen, Augusti, Astoria, Oreg. Combined can-top holder and marker. No. 1,039,797; Oct. 1; Gaz. vol. 183; p. 43.
Pohl, Heinrich. (See Grüter and Pohl.)
Pohl, Wilhelm, Dittersbach-Gruessau, Germany, assignor to G. Werner, Philadelphia, Pa. Grate mechanism and clearing means therefor. No. 1,041,344; Oct. 15; Gaz. vol. 183; p. 631.
Pohlig, Edgar, Philadelphia, Pa. Base-ball-game board. No. 1,042,142; Oct. 22; Gaz. vol. 183; p. 935.
Poindexter, William E., Sedalia, Mo. Pile-truss. No. 1,040,404; Oct. 8; Gaz. vol. 183; p. 276.
Polansky, Robert F. (See Ogie and Polansky.)
Pomeroy, George W., Logansport, Ind. Mail-bag catcher and deliverer. No. 1,039,798; Oct. 1; Gaz. vol. 183; p. 43.
Pontbriand, Gilbert, West Warren, Mass. Hydrocarbon-burner. No. 1,042,821; Oct. 29; Gaz. vol. 183; p. 1197.
Pool, Morris W., New York, N. Y., assignor, by mesne assignments, to Union Typewriter Company, Jersey City, N. J. Type-writing machine. No. 1,040,405; Oct. 8; Gaz. vol. 183; p. 276.
Pool, Morris W., New York, N. Y., assignor, by mesne assignments, to Union Typewriter Company, Jersey City, N. J. Type-writing machine. No. 1,040,406; Oct. 8; Gaz. vol. 183; p. 277.
Poorman, Charles E. (See Kirkpatrick and Poorman.)
Pope, Marion J., Boswell, Okla. Hair-holder. No. 1,040,750; Oct. 8; Gaz. vol. 183; p. 398.
Porter, Edwin S., assignor of one-half to F. B. Cannock, New York, N. Y. Kinetoscope. No. 1,041,345; Oct. 15; Gaz. vol. 183; p. 631.
Porter, Edwin S., assignor of one-half to F. B. Cannock, New York, N. Y. Lens-adjuster. No. 1,041,346; Oct. 15; Gaz. vol. 183; p. 632.
Porsig, Kurt, Glauchau, Germany. Velocipede-stand. No. 1,042,820; Oct. 29; Gaz. vol. 183; p. 1196.
Potdevin, Adolph, assignor to Potdevin Machine Company, Brooklyn, N. Y. Machine for applying pasts to labels, &c. No. 1,040,009; Oct. 1; Gaz. vol. 183; p. 112.
Potdevin Machine Company. (See Potdevin, Adolph, assignor.)
Potter, Charles F., Woodhaven, N. Y. Double-walled enamel-lined container. No. 1,041,847; Oct. 15; Gaz. vol. 183; p. 632.
Potter, James C., Providence, R. I. Turret-slide-operating mechanism for automatic turret-lathes. No. 1,040,751; Oct. 8; Gaz. vol. 183; p. 399.
Potter, Joseph L., Indianapolis, Ind. Hoisting and conveying apparatus. No. 1,042,264; Oct. 22; Gaz. vol. 183; p. 975.
Potter, William B., Schenectady, N. Y., assignor to General Electric Company. Alternating-current-motor control. No. 1,041,868; Oct. 22; Gaz. vol. 183; p. 844.
Potvin, Eddie J., Moosup, Conn. Drawing-board. No. 1,040,010; Oct. 1; Gaz. vol. 183; p. 113.
Poyner, Edward I., Cassopolis, Mich. Silo. No. 1,041,189; Oct. 15; Gaz. vol. 183; p. 569.
Prahl, William. (See Seehafer and Prahl.)
Prater, Samuel J., Clifton, Tenn. Churn attachment. No. 1,042,964; Oct. 29; Gaz. vol. 183; p. 1244.
Prator, Ernest P., Leeper, Mo. Door-check. No. 1,041,860; Oct. 22; Gaz. vol. 183; p. 845.
Pratt, Charles R., Montclair, assignor to Otis Elevator Company, Jersey City, N. J. Quick-acting safety device. No. 1,040,578; Oct. 8; Gaz. vol. 183; p. 337.
Pratt, Charles T., Frankfort, N. Y. Armoring device. No. 1,042,477; Oct. 29; Gaz. vol. 183; p. 1076.
Pratt, Frederick W. (See Jones, Arthur J., assignor.)
Pratt & Whitney Company. (See Goodrich, Clarence L., assignor.)
Pratt & Whitney Company. (See Hanson, Bengt M. W., assignor.)
Pratt & Whitney Company. (See Hanson and Henriksen, assignors.)
Preiswerk, Ernst, and H. Grether, assignors to Society of Chemical Industry in Basle, Basel, Switzerland. Allyl derivative of barbituric acid and making same. No. 1,042,295; Oct. 22; Gaz. vol. 183; p. 975.
Preston, Andrew W., *et al.*, trustees. (See McMullen, George B., assignor.)
Preston, Andrew W., *et al.*, trustees. (See McMullen, George W. and G. B., assignors.)

Preston, Andrew W., *et al.*, trustees. (See Roberts, John H., assignor.)
Preston, Leonard K., Topeka, Kans. Tilting gate. No. 1,040,752; Oct. 8; Gaz. vol. 183; p. 399.
Price, George O. (See Cockingham and Price.)
Priebe, Herman C., Blue Island, Ill. Car-door. No. 1,040,011; Oct. 1; Gaz. vol. 183; p. 113.
Priest, Corydon A., West Farmington, Me. Grafting-tool. No. 1,042,905; Oct. 29; Gaz. vol. 183; p. 1248.
Priestley, Charles M. E., assignor to Société Vedovelli, Priestley et Compagnie, Paris, France. Suspension-chain for high-pressure electric transmission-lines. No. 1,039,799; Oct. 1; Gaz. vol. 183; p. 44.
Prieseler, Myron W., and R. W. Rusterholz, Chicago, Ill. Heat-insulated bucket. No. 1,041,660; Oct. 15; Gaz. vol. 183; p. 738.
Probst, William F. (See Hertenstein and Probst.)
Proctor, Francis M., Garfield, Ga. Pea-planter. No. 1,040,753; Oct. 8; Gaz. vol. 183; p. 399.
Prosser, Frederick J., Cleveland, Ohio. Combined chair and rail-joint. No. 1,042,266; Oct. 22; Gaz. vol. 183; p. 975.
Prothro, Adolphus. (See Galbraith, Robert M., assignor.)
Prowett, James, Philadelphia, Pa. Bottle seal or closure. No. 1,042,267; Oct. 22; Gaz. vol. 183; p. 976.
Pullman Company, The. (See Schneider, Max M., assignor.)
Pure Food Package Company. (See Norman, Lionel, assignor.)
Pure Food Process Company, The. (See Schmitt, Edward D., assignor.)
Pury, Hermann de, Neuchâtel, assignor to Atoxicafe S. A., Clarens, Montreux, Switzerland. Removing the toxic constituents from coffee. No. 1,041,160; Oct. 15; Gaz vol. 183; p. 569.
Pushee, George D., Weston, Mass. Brush. No. 1,040,407; Oct. 8; Gaz. vol. 183; p. 277.
Putnam, Salmon W., 3d, Fitchburg, Mass. Metal-turning lathe. No. 1,042,268; Oct. 22; Gaz. vol. 183; p. 976.
Putnam, Salmon W., 3d, Fitchburg, Mass. Tail-stock-clamping means. No. 1,042,269; Oct. 22; Gaz. vol. 183; p. 1009.
Pyles, James B., Moore, Mont. Draft-equaliser. No. 1,042,269; Oct. 22; Gaz. vol. 183; p. 976.
Pysher, Lincoln, Grove, Okla. Vegetable-slicer. No. 1,039,800; Oct. 1; Gaz. vol. 183; p. 44.
Pyzel, Daniel, Balik Papan, Borneo, Dutch East India. Sweating crude paraffin-wax or like mixtures (compositions) of substances which melt at different temperatures. No. 1,040,408; Oct. 8; Gaz. vol. 183; p. 277.
Quigley, Wirt S., Rockaway Park, N. Y. Furnace. No. 1,039,801; Oct. 1; Gaz. vol. 183; p. 44.
Quinn, Wilbur W., Goshen, Ind., assignor of one-half to National Chemical Company, Syracuse, N. Y. Laundry conveyer-drop. No. 1,041,870; Oct. 22; Gaz. vol. 183; p. 845.
R. Hoe and Co. (See Roesen, Oscar, assignor.)
R. E. Dietz Company. (See Betts, Charles L., assignor.)
Raabe, Frederick H., New York, N. Y. Adjustable spring-bearer. No. 1,040,012; Oct. 1; Gaz. vol. 183; p. 113.
Rabbitt, James A., Yokohama, Japan. Talking-machine. No. 1,041,871; Oct. 22; Gaz. vol. 183; p. 845.
Rail Joint Company, The. (See Bradley, William J., assignor.)
Railway Materials Company. (See Simpson, William M., assignor.)
Rainville, Victor, Lawrence, assignor, by mesne assignments, to Draper Company, Hopedale, Mass. Feeler-motion for looms. No. 1,040,409; Oct. 8; Gaz. vol. 183; p. 278.
Rajala, Emil J., Redridge, Mich. Comb-cleaning device. No. 1,042,270; Oct. 22; Gaz. vol. 183; p. 977.
Ramsay, Allan. (See Jackson, Thomas, assignor.)
Randall, William P., Le Roy, N. Y. Ventilator and draft-regulator. No. 1,042,600; Oct. 29; Gaz. vol. 183; p. 1120.
Randel, Frank L., Brooklyn, N. Y. Preserving food. No. 1,039,802; Oct. 1; Gaz. vol. 183; p. 45.
Randolph, Jeptha B., Omaha, Nebr. Ink-well. No. 1,040,754; Oct. 8; Gaz. vol. 183; p. 400.
Raney, Estelle C., Columbus, Ohio. Automatic circuit-breaker. No. 1,041,161; Oct. 15; Gaz. vol. 183; p. 569.
Rankeillor, Alexander, Saco, Me., assignor, by mesne assignments, to Saco-Pettee Company, Newton, Mass. Shaft-bushing. No. 1,040,879; Oct. 8; Gaz. vol. 183; p. 338.
Rankin, Braxton C., Nettleton, Miss. Vehicle top-rest. No. 1,042,966; Oct. 29; Gaz. vol. 183; p. 1245.
Ransome, Ernest L., New York, N. Y. Apparatus for laying concrete courses. No. 1,042,822; Oct. 29; Gaz. vol. 183; p. 1197.
Rapid Transit Navigation Company, The. (See Berry, Harry C., assignor.)
Rapp, Peter G., and P. H. King, Chicago, Ill. Spring-wheel. No. 1,040,755; Oct. 8; Gaz. vol. 183; p. 400.
Rarey, William E., Burlington, Wash. Square. No. 1,040,239; Oct. 1; Gaz. vol. 183; p. 189.
Rasch, Gustave C., Burlington, Wis. Fastening. No. 1,042,601; Oct. 29; Gaz. vol. 183; p. 1120.
Rasch, Gustave E. (See Barton, Delbert H., assignor.)
Rastetter, William C., Fort Wayne, Ind. Steering-wheel rim. No. 1,040,015; Oct. 1; Gaz. vol. 183; p. 114.
Rath, Ernst J. (See Lasta, Fitscher, and Rath.)
Rauch, Harry E. (See Rauch, Henry and H. E.)
Rauch, Henry and H. E., Mount Vernon, N. Y. Apparatus for removing pitch from casks and the like. No. 1,040,410; Oct. 8; Gaz. vol. 183; p. 278.
Ray, Albert D., Cleveland, Ohio. Resilient vehicle-wheel. No. 1,042,685; Oct. 22; Gaz. vol. 183; p. 900.
Ray, Thomas P. (See Ray, William J., assignor.)
Ray, William J., Louisville, Ky., assignor of one-half to T. P. Ray, Kenilworth, Ill. Plastering-machine. No. 1,040,883; Oct. 1; Gaz. vol. 183; p. 189.
Raymond, Joseph A. H., Montreal, Quebec, Canada. Moving platform for theaters. No. 1,040,411; Oct. 8; Gaz. vol. 183; p. 278.
Reach, Milton B., Chicopee, Mass., assignor to A. G. Spalding & Bros. Manf'g Co. Giant-stride. No. 1,042,271; Oct. 22; Gaz. vol. 183; p. 977.
Read, Balfour, Bedford, England. Internal-combustion engine. No. 1,041,162; Oct. 15; Gaz. vol. 183; p. 569.
Reber, John G., deceased; O. S. Reber, administratrix, assignor to The Sefton Manufacturing Company, Chicago, Ill. Folding box. No. 1,040,964; Oct. 8; Gaz. vol. 183; p. 476.
Reber, Olive S., administratrix. (See Reber, John G.)
Recometre Company of America. (See Kendall, William F., assignor.)
Redditt, J. D., *et al.* (See Tatum, Franklin M., assignor.)
Redelmann, Ulrich G. (See Mitchell and Taggart, assignors.)
Redifer, Charles J., Kings Bridge, and H. H. Cantwell, Croton-on-Hudson, N. Y. Railway-tie. No. 1,041,670; Oct. 15; Gaz. vol. 183; p. 738.
Redner, Webster E. (See Merahon and Redner.)
Reece Shoe Machinery Company, The. (See Schoenky, August R., assignor.)
Reed, Charles. (See Snyder and Reed.)
Reed, Frank, and W. Rickardson, Falk, Cal. Recorder or indicator. No. 1,040,240; Oct. 1; Gaz. vol. 183; p. 190.
Reeser, Charles S., Windber, Pa. Curtain-fixture. No. 1,041,671; Oct. 15; Gaz. vol. 183; p. 739.
Reeves, James W., Burnsville, Miss. Ox-bow. No. 1,040,756; Oct. 8; Gaz. vol. 183; p. 401.
Regenstein, Joseph, Atlanta, Ga. Folding box. No. 1,041,872; Oct. 22; Gaz. vol. 183; p. 846.
Reichert, Auguste, Geneva, Switzerland. Boiler for cooking apparatus. No. 1,042,143; Oct. 22; Gaz. vol. 183; p. 938.
Reichl, Caspar, Milwaukee, Wis. Light-reflector for automobile-lamps. No. 1,040,412; Oct. 8; Gaz. vol. 183; p. 279.
Reid, Albert D., West Chester, Pa. Rim. No. 1,042,478; Oct. 29; Gaz. vol. 183; p. 1077.
Reid, Albert D., West Chester, Pa. Rim. No. 1,042,479; Oct. 29; Gaz. vol. 183; p. 1077.
Reid, Reginald. (See Cunningham and Reid.)
Reilly, James E. (See Fuller and Reilly.)
Reilly, Joseph J., Newark, N. J. Washtub. No. 1,039,803; Oct. 1; Gaz. vol. 183; p. 45.
Reilly, Thomas A. (See Fuller and Reilly.)
Reis, John E., Tampa, Fla. Shaving-brush. No. 1,042,967; Oct. 29; Gaz. vol. 183; p. 1245.
Reith, George C., assignor to E. F. Henson, trustee, Philadelphia, Pa. Coin-selector. No. 1,042,968; Oct. 29; Gaz. vol. 183; p. 1246.
Renard, Jorje, London, England. Knapsack and carrier therefor. No. 1,040,413; Oct. 8; Gaz. vol. 183; p. 279.
Renfrew, William, Brookline, Mass. Hand knot-tier. No. 1,041,163; Oct. 15; Gaz. vol. 183; p. 570.
Reser, Harry B., Raynesford, Mont. Car-seal. No. 1,041,672; Oct. 15; Gaz. vol. 183; p. 739.
Ressler, Daniel. (See Oakes and Ressler.)
Rettig, George P., Richmond, Ind. Carburetor. No. 1,040,414; Oct. 8; Gaz. vol. 183; p. 279.
Reversible Gas-Engine Company. (See Robinson, Edward P., assignor.)
Reversible Gas-Engine Company, The. (See Whaley, William B. S., assignor.)
Reversible Gas-Engine Company, The. (See Whaley and Galusha, assignors.)
Reversible Gas-Engine Company. (See Whaley and Robinson, assignors.)
Rex, Ralph K., Cleveland, Ohio. Safety signal-switch stand. No. 1,042,969; Oct. 29; Gaz. vol. 183; p. 1246.
Reynolds Electric Flasher Manufacturing Company. (See Seesale, Gustav A., assignor.)
Reynolds, Frank, Winston, Mont. Pail. No. 1,042,272; Oct. 22; Gaz. vol. 183; p. 977.
Reynolds, Harold H., Hamburg, Conn. Wick-trimmer for lamp-burners. No. 1,040,757; Oct. 8; Gaz. vol. 183; p. 401.
Reynolds, Samuel W., West Toledo, Ohio. Safety map-hook. No. 1,040,415; Oct. 8; Gaz. vol. 183; p. 280.
Rheinische Metallwaaren- und Maschinenfabrik. (See Voller, Karl, assignor.)
Rheinische Metallwaaren- und Maschinenfabrik. (See Wiedstruck, Franz, assignor.)
Rhoads, Charles S., Jr. (See Rugh and Rhoads.)
Rhoads, Errett S., and V. Ross, Kansas City, Mo. Store-front construction. No. 1,040,416; Oct. 8; Gaz. vol. 183; p. 280.
Rhodes, Arthur W. (See Estey and Rhodes.)
Rhodes, Bert O., Kalamazoo, Mich. Universal joint. No. 1,040,417; Oct. 8; Gaz. vol. 183; p. 280.
Rhodes, Ellen M., Derry, Pa. Hook and eye. No. 1,040,758; Oct. 8; Gaz. vol. 183; p. 401.





Rhoden, Wilbur H., Gloversville, N. Y. Garbage-receptacle. No. 1,040,014; Oct. 1; Gaz. vol. 183; p. 114.
Rica, Martin L. (See Cogneugniot, Gustave H., assignor.)
Rice, Richard H., Lynn, Mass., assignor to General Electric Company. Combined step and guide bearing for turbines. No. 1,041,513; Oct. 15; Gaz. vol. 183; p. 686.
Rice, Richard H., Swampscott, Mass., assignor to General Electric Company. Governing mechanism for turbines. No. 1,041,512; Oct. 15; Gaz. vol. 183; p. 686.
Rice, Richard H., and S. A. Moss, Lynn, Mass., assignors to General Electric Company. Centrifugal compressor and pump. No. 1,041,511; Oct. 15; Gaz. vol. 183; p. 685.
Rich, Berthold L., Washington, D. C. Nethergarment. No. 1,043,031; Oct. 29; Gaz. vol. 183; p. 1269.
Richard, Camille. (See Rose and Richard.)
Richard, Levi B., Pittsburgh, Pa. Fruit coring and cutting device. No. 1,042,823; Oct. 29; Gaz. vol. 183; p. 1197.
Richards, George, Sydenham, London, England. Variable-speed mechanism. No. 1,042,720; Oct. 29; Gaz. vol. 183; p. 1162.
Richards, John J., Jr., Brookline, assignor to W. S. Daniels and A. W. Campbell, Boston, Mass. Automobile-horn. No. 1,043,032; Oct. 29; Gaz. vol. 183; p. 1269.
Richards, Matthew H., New Castle, Pa. Apparatus for grinding and polishing rolls. No. 1,040,759; Oct. 8; Gaz. vol. 183; p. 401.
Richards, Willard F., Depew, assignor to Gould Coupler Company, New York, N. Y. Car-coupling. No. 1,041,548; Oct. 15; Gaz. vol. 183; p. 633.
Richardson, Ernest, Beaver Falls, Pa. Knockdown lining for ovens, refrigerators, and similar articles. No. 1,041,164; Oct. 15; Gaz. vol. 183; p. 570.
Richardson, Harry E. (See Childs, Wallace S., assignor.)
Richardson, Ralph R., assignor to Chicago Carton Company, Chicago, Ill. Paper drinking-cup. No. 1,042,824; Oct. 29; Gaz. vol. 183; p. 1198.
Richardson, William A., assignor of one-half to J. G. Barrett and one-half to E. M. Kennealy, Chicago, Ill. Electric-lamp socket. No. 1,041,873; Oct. 22; Gaz. vol. 183; p. 846.
Richart, George B., Indianapolis, Ind. Valve. No. 1,039,804; Oct. 1; Gaz. vol. 183; p. 46.
Richman, William H., Philadelphia, Pa. Internal-combustion engine. No. 1,042,970; Oct. 29; Gaz. vol. 183; p. 1247.
Richmond Underwear Company, The. (See Harwood, Asa J., assignor.)
Rickardson, Werner. (See Reed and Rickardson.)
Rickert, August A. (See Royer and Rickert.)
Ricketts, Forrest B. (See Keilholtz and Ricketts.)
Ricketts, James R., assignor to The Los Angeles Trolley Catcher Company, Los Angeles, Cal. Trolley-retriever. No. 1,041,340; Oct. 15; Gaz. vol. 183; p. 635.
Ricks, Wallace, Santa Ana, Cal. Machine-tool. No. 1,041,874; Oct. 22; Gaz. vol. 183; p. 846.
Rider, William E., Mansfield, Mass. Grate. No. 1,042,036; Oct. 22; Gaz. vol. 183; p. 901.
Ridgway, Samuel R., Birmingham, England. Spring-fork for cycles and motor-cycles. No. 1,042,480; Oct. 29; Gaz. vol. 183; p. 1077.
Riedinger, Eugene E., assignor of one-half to A. Fraser, London, England. Pneumatic tire for vehicle-wheels. No. 1,041,350; Oct. 15; Gaz. vol. 183; p. 633.
Rietzel, Adolph F., Lynn, Mass., assignor, by mesne assignments, to Thomson Electric Welding Company. Joining metals. No. 1,040,416; Oct. 8; Gaz. vol. 183; p. 281.
Rietzel, Adolph F., assignor, by mesne assignments, to Thomson Electric Welding Company, Lynn, Mass. Construction of sheet-metal utensils. No. 1,041,851; Oct. 15; Gaz. vol. 183; p. 684.
Rietzel, Adolph F., and G. E. Barstow, assignors to Thomson Electric Welding Company, Lynn, Mass. Electric chain-welding machine. No. 1,040,760; Oct. 8; Gaz. vol. 183; p. 402.
Rietzel, Adolph F., Charlestown, R. I., and G. E. Barstow, assignors, by mesne assignments, to Thomson Electric Welding Company, Lynn, Mass. Electric metal-working apparatus. No. 1,041,673; Oct. 15; Gaz. vol. 183; p. 739.
Rightmire, John E., Los Angeles, Cal. Surfacing-machine. No. 1,040,419; Oct. 8; Gaz. vol. 183; p. 281.
Riley, Hugh H., Memphis, Tenn. Rotatable pump-valve. No. 1,041,165; Oct. 15; Gaz. vol. 183; p. 571.
Riley, James W., Pittsburgh, Pa. Window-lock. No. 1,040,015; Oct. 1; Gaz. vol. 183; p. 114.
Rimailho, Emile, Neuilly-sur-Seine, France. Resilient tire. No. 1,039,805; Oct. 1; Gaz. vol. 183; p. 46.
Risque, F. W. (See Hester, Thomas E., assignor.)
Rives, George H., Brooklyn, N. Y. Device for facilitating the counting of notes, dealing of cards, &c. No. 1,040,761; Oct. 8; Gaz. vol. 183; p. 402.
Robbins, Ashton B., Ceiba, Spanish Honduras. Banana pack-saddle. No. 1,040,016; Oct. 1; Gaz. vol. 183; p. 114.
Robbins, Henry W., Arlington, Tex. Seed-planter. No. 1,039,806; Oct. 1; Gaz. vol. 183; p. 46.
Robertson, William A., Jeffersonville, Ind. Liquid-heating receptacle. No. 1,042,144; Oct. 22; Gaz. vol. 183; p. 935.
Robert N. Bennett Company, The. (See Russ and Stuart, assignors.)
Roberts, Augusta L. (See Kahne and Roberts.)
Roberts, John H., Chicago, Ill., assignor, by mesne assignments, to Z. G. Simmons, Kenosha, Wis., A. W. Preston, Swampscott, and B. W. Palmer, Boston, Mass., trustees. Treating sugar-cane. No. 1,040,563; Oct. 8; Gaz. vol. 183; p. 351.
Roberts, John W., Asotin, Wash. Sliding block. No. 1,039,807; Oct. 1; Gaz. vol. 183; p. 47.
Roberts, John W., and A. P. Brewster, Passaic, N. J. Step mechanism for sewing-machines. No. 1,042,602; Oct. 29; Gaz. vol. 183; p. 1120.
Robertson, David. (See Bumnger and Robertson.)
Robertson, James G., St. Louis, Mo. Attachment for numbering devices. No. 1,041,674; Oct. 15; Gaz. vol. 183; p. 740.
Robins, Oliver W., Cedar Rapids, Iowa. Ice-edger. No. 1,042,481; Oct. 29; Gaz. vol. 183; p. 1078.
Robinson, Ebenezer. (See Tucker, George E., assignor.)
Robinson, Edward P. (See Whaley and Robinson.)
Robinson, Edward P., Malden, Mass., assignor to Reversible Gas-Engine Company. Throttle-controlling device for internal-combustion engines. No. 1,040,017; Oct. 1; Gaz. vol. 183; p. 115.
Robinson, Edward P., Malden, Mass., assignor to Reversible Gas-Engine Company. Internal-combustion engine. No. 1,040,018; Oct. 1; Gaz. vol. 183; p. 115.
Robinson, Harry E., Zanesville, Ohio. Combined reamer and threader. No. 1,041,675; Oct. 15; Gaz. vol. 183; p. 740.
Robinson, Robert P. (See Tuttle and Robinson.)
Robinson, William C., Pittsburgh, Pa. Fitting for electric conduits. (Reissue.) No. 13,475; Oct. 8; Gaz. vol. 183; p. 479.
Roby, Luther E., and C. A. Pattison, Peoria, Ill. Grain-drill. No. 1,041,166; Oct. 15; Gaz. vol. 183; p. 571.
Rocke, John, Meadows, Ill. Gearing. No. 1,041,562; Oct. 15; Gaz. vol. 183; p. 634.
Rockwell, Mary, Blue Rapids, Kans. Removable buggy-seat. No. 1,042,603; Oct. 29; Gaz. vol. 183; p. 1121.
Rockwell, Walter S., Jersey City, N. J., assignor to W. S. Rockwell Company, New York, N. Y. Crucible-furnace. No. 1,042,825; Oct. 29; Gaz. vol. 183; p. 1198.
Rodehaver, Isaac H., East Auburn, assignor of one-half to J. Toman, Sutter Creek, Cal. Gun. No. 1,042,145; Oct. 22; Gaz. vol. 183; p. 936.
Rodgers, William J., Beeville, Tex. Reversible plow. No. 1,039,808; Oct. 1; Gaz. vol. 183; p. 47.
Rödiger, Wilhelm, Dresden-Blasewitz, and C. Muehleisen, Berlin, Germany, assignors to Mergenthaler Linotype Company. Typographical composing-machine. No. 1,041,676; Oct. 15; Gaz. vol. 183; p. 740.
Rodrigues, Manuel R., New York, N. Y. Protective covering for attachment-plugs. No. 1,040,762; Oct. 8; Gaz. vol. 183; p. 403.
Roe, Jackson M., assignor of one-half to O. W. Crider, Sunnyside, Wash. Portable stove. No. 1,042,273; Oct. 22; Gaz. vol. 183; p. 977.
Roesen, Oscar, assignor, by mesne assignments, to R. Hoe and Co., New York, N. Y. Offset mechanism for printing-machines. No. 1,041,675; Oct. 22; Gaz. vol. 183; p. 847.
Roessler & Hasslacher Chemical Company, The. (See Fritzsche, Gustav, assignor.)
Roessler & Hasslacher Chemical Co., The. (See Philipp, Herbert, assignor.)
Rofkar, William C., Port Clinton, Ohio. Fruit grading and sizing machine. No. 1,042,037; Oct. 22; Gaz. vol. 183; p. 901.
Rogers, Charles C. (See Smith, Walter E., assignor.)
Rogers, Clarence T., New York, N. Y. Door check and spring. No. 1,042,274; Oct. 22; Gaz. vol. 183; p. 977.
Rogers, Edward E., Four Oaks, England. Bearer for puppies and kittens. No. 1,041,167; Oct. 15; Gaz. vol. 183; p. 571.
Rogers, James E., Beloit, Kans. Electric alarm attachment for journal-bearings. No. 1,041,514; Oct. 15; Gaz. vol. 183; p. 687.
Rogers, Joseph W., Woodbury, N. J. Automatic signalling mechanism. No. 1,041,168; Oct. 15; Gaz. vol. 183; p. 572.
Rogers, Lebbeus H., New York, N. Y., assignor to Casa Tunnel & Engineering Company. Tunneling-machine. No. 1,039,809; Oct. 1; Gaz. vol. 183; p. 47.
Rogers, Ulysses J. (See Perew and Rogers.)
Rolando, François. (See Rolando, Paul and F.)
Rolando, Paul and F., Paris, France. Changing-speed-transmission device. No. 1,040,763; Oct. 8; Gaz. vol. 183; p. 403.
Roller-Smith Company. (See Badeau, Charles C., assignor.)
Rollins, W. C. *et al.* (See Kilpatrick, Robert L., assignee.)
Romme, William S., New York, N. Y., assignor to McCormick-Romme Company, Chicago, Ill. Flying-machine. No. 1,041,876; Oct. 22; Gaz. vol. 183; p. 847.
Ronshkowsky, Mendel R., New York, N. Y. Part for wigs and the like. No. 1,042,972; Oct. 29; Gaz. vol. 183; p. 1247.
Roop, William D., Marion, Ind. Receptacle for chewing-gum. No. 1,040,420; Oct. 8; Gaz. vol. 183; p. 282.
Roos, Emil, Manistee, Mich. Gate for graphophones. No. 1,042,275; Oct. 22; Gaz. vol. 183; p. 978.
Roos, William A., Newark, N. J. Belt-fastener. No. 1,042,604; Oct. 29; Gaz. vol. 183; p. 1121.
Root, Frank T., York, Pa., assignor to Defiance Machine Works, Defiance, Ohio. Bending-machine. No. 1,042,276; Oct. 22; Gaz. vol. 183; p. 978.

Roots, James P. (See Johnson, George S., assignor.)
Rosche, Joseph W., Minneapolis, Minn. Fluid-clutch. No. 1,041,169; Oct. 15; Gaz. vol. 183; p. 572.
Rose, Edward, Mamaroneck, N. Y., assignor to Norwalk Lock Company, South Norwalk, Conn. Rim night-latch. No. 1,040,764; Oct. 8; Gaz. vol. 183; p. 406.
Rose, Edward R., Swissvale, Pa., assignor to Westinghouse Electric and Manufacturing Company. Cut-out for electric heating devices. No. 1,039,810; Oct. 1; Gaz. vol. 183; p. 48.
Rose, George D., Manchester, England. Building up a resilient tread or tire. No. 1,040,765; Oct. 8; Gaz. vol. 183; p. 404.
Rose, Joseph F. E., and C. Richard, Montreal, Quebec, Canada; said Richard assignor to said Rose. Car-fender. No. 1,042,277; Oct. 22; Gaz. vol. 183; p. 979.
Rose, Nicholas, New Rochelle, N. Y. Unloading-barge. No. 1,040,421; Oct. 8; Gaz. vol. 183; p. 282.
Roseboom, Harrison M., Westford, N. Y. Crate. No. 1,040,580; Oct. 8; Gaz. vol. 183; p. 338.
Roseland, Carl A., Rockford, Ill. Dough mixer or kneader. No. 1,042,278; Oct. 22; Gaz. vol. 183; p. 979.
Rosen, Simon L., Newport, R. I., assignor of one-fourth to J. S. Martin and one-fourth to H. Ostroff, Peabody, Mass. Heel and sole nail. No. 1,042,279; Oct. 22; Gaz. vol. 183; p. 979.
Rosenheim, Arthur, Berlin, Germany. Manufacture of hypophosphoric acid and of its salts. No. 1,042,606; Oct. 29; Gaz. vol. 183; p. 1121.
Rosewater, Frank, New York, N. Y. Game-counter. No. 1,039,811; Oct. 1; Gaz. vol. 183; p. 48.
Ross, Charles S. (See Seeley and Ross.)
Ross, Justus J., Fairmont, W. Va. Brake mechanism. No. 1,042,038; Oct. 22; Gaz. vol. 183; p. 901.
Ross, Samuel J., Moulton, Idaho. Hand-baggage. No. 1,041,170; Oct. 15; Gaz. vol. 183; p. 573.
Ross, Vernon. (See Rhoads and Ross.)
Rossiter, Ernest, Port Edwards, Wis. Producing sulfur dioxid. No. 1,039,812; Oct. 1; Gaz. vol. 183; p. 48.
Rossiter, Lindley M., and T. C. Brew, Olathe, Colo. Combined scrubber and mop. No. 1,041,171; Oct. 15; Gaz. vol. 183; p. 573.
Rostin, Heliodor P., Tottenham, England. Gas-igniting apparatus. No. 1,042,971; Oct. 29; Gaz. vol. 183; p. 1247.
Rotary Rug Spinning Company. (See Hall, Bicknell, assignor.)
Rotary Valve Motor Company. (See Nelson, Emil A., assignor.)
Roth, Charles C., Indianapolis, Ind. Compound valve and starter. No. 1,040,766; Oct. 8; Gaz. vol. 183; p. 404.
Roth, Harris C., Chicago, Ill. Carburetor. No. 1,042,606; Oct. 29; Gaz. vol. 183; p. 1121.
Roth, Walter A., and F. O. Moldenhauer, Chicago, Ill. Wiper for windows and the like. No. 1,041,172; Oct. 15; Gaz. vol. 183; p. 573.
Rott, Louis E. (See Kilgore, Joseph D., assignor.)
Rouchleau, Louis J., Arlington, Cal. Parachute. No. 1,040,241; Oct. 1; Gaz. vol. 183; p. 190.
Rounds, Erdix, assignor of one-half to Gunther-Wright Machine Company, Owensboro, Ky. Gearing. No. 1,041,877; Oct. 22; Gaz. vol. 183; p. 847.
Rourke, James A., Savannah, Ga. Ball-joint for pipes. No. 1,041,515; Oct. 15; Gaz. vol. 183; p. 687.
Rouse, John W., and A. L. King, Perry, Kans. Tonga. No. 1,041,353; Oct. 15; Gaz. vol. 183; p. 634.
Rowe, Addison W., Philadelphia, Pa. Tire for automobiles, vehicles, or the like. No. 1,040,581; Oct. 8; Gaz. vol. 183; p. 330.
Rowse, Frank J., Pawtucket, R. I. Coin-controlled locking mechanism. No. 1,043,033; Oct. 29; Gaz. vol. 183; p. 1270.
Roy, Henry F., Arlington, assignor of one-third to W. P. Craig and one-third to P. G. Craig, Handley, Tex. Corn and cotton planter. No. 1,040,962; Oct. 8; Gaz. vol. 183; p. 467.
Royal, James A., Strathcona, Alberta, Canada. Ballast-injecting apparatus. No. 1,041,878; Oct. 22; Gaz. vol. 183; p. 848.
Royal, Roscoe, assignor to Corwin Telephone Manufacturing Company, Chicago, Ill. Telephone-transmitter. No. 1,040,637; Oct. 8; Gaz. vol. 183; p. 361.
Royer, Charles E., and A. A. Rickert, Erie, Pa. Fruit and vegetable slicer. No. 1,040,582; Oct. 8; Gaz. vol. 183; p. 339.
Rubin, Harry, New York, N. Y. Gas-lamp. No. 1,040,019; Oct. 1; Gaz. vol. 183; p. 116.
Rude, Lester, Doland, S. D. Velocipede. No. 1,039,813; Oct. 1; Gaz. vol. 183; p. 48.
Rudgear-Merle & Co. (See Merritt, Carl, assignor.)
Rudolph Wurlitzer Manufacturing Company, The. (See McCormick and De Kleist, assignors.)
Rudolph Wurlitzer Manufacturing Company, The. (See Wauters, Joseph, assignor.)
Rudy, Andrew, Bauman, Ind. Permutation-padlock. No. 1,041,516; Oct. 15; Gaz. vol. 183; p. 687.
Ruebel, Ernst, St. Louis, Mo. Wall construction for kilns and the like. No. 1,040,422; Oct. 8; Gaz. vol. 183; p. 282.
Rufner, Gaston, New York, N. Y. Apparatus for heating automobiles. No. 1,041,879; Oct. 22; Gaz. vol. 183; p. 848.
Rugaard, Louis, assignor of one-half to E. A. Bohm, San Bruno, Cal. Stove. No. 1,042,973; Oct. 29; Gaz. vol. 183; p. 1248.
Ruggles, Harry A., St. Joseph, Mich. Bed-spring. No. 1,040,767; Oct. 8; Gaz. vol. 183; p. 404.
Rugh, Harry O., assignor to Sandwich Electric Company, Sandwich, Ill. Signaling system. No. 1,043,482; Oct. 29; Gaz. vol. 183; p. 1078.
Rugh, Harry O., and C. S. Rhoads, Jr., assignors to Sandwich Electric Company, Sandwich, Ill. Selective signaling. No. 1,041,584; Oct. 15; Gaz. vol. 183; p. 635.
Rühling, Waldemar, assignor to H. Malachowski, Berlin, Germany. Electric-arc lamp. No. 1,042,375; Oct. 22; Gaz. vol. 183; p. 1011.
Rumsey, James W., Chicago, Ill., assignor of one-half to A. W. Baker, Oakland, Cal. Door hanger and track construction. No. 1,041,580; Oct. 22; Gaz. vol. 183; p. 849.
Rumsey, James W., Chicago, Ill., assignor of one-half to A. W. Baker, Oakland, Cal. Car-door. No. 1,041,581; Oct. 22; Gaz. vol. 183; p. 849.
Rush, William M., Greensburg, assignor of one-half to D. M. Smith, Armbrust, Pa. Bond-spring for rail-joints. No. 1,042,483; Oct. 29; Gaz. vol. 183; p. 1075.
Russ, John B., Shelton, and H. J. Stuart, Ansonia, assignors to The Robert N. Bassett Company, Derby, Conn. Button tab-end. No. 1,042,146; Oct. 22; Gaz. vol. 183; p. 936.
Russell, Clinton W., Detroit, Mich. Logging apparatus. No. 1,040,423; Oct. 8; Gaz. vol. 183; p. 282.
Russell, Irving S. (See Ward and Russell.)
Rusterholz, Rudolf W. (See Priester and Rusterholz.)
Ruth, John F., St. Louis, Mo. Window. No. 1,042,974; Oct. 29; Gaz. vol. 183; p. 1248.
Ryan, John J., Houston, Tex. Duplex water-gage. No. 1,040,020; Oct. 1; Gaz. vol. 183; p. 116.
Ryans, Charles L., Covington, Ky. Flagstaff. No. 1,041,173; Oct. 15; Gaz. vol. 183; p. 573.
Ryon, Eppa H., Worcester, Mass., assignor to Crompton & Knowles Loom Works. Spool-holder and tension device for winding-machines. No. 1,040,766; Oct. 8; Gaz. vol. 183; p. 404.
Ryon, Eppa H., Waltham, Mass., assignor to Crompton & Knowles Loom Works. Locking device for filling-detectors of weft-replenishing looms. No. 1,040,985; Oct. 8; Gaz. vol. 183; p. 477.
Ryon, Eppa H., Waltham, Mass., assignor to Crompton & Knowles Loom Works. Filling-thread-cutting mechanism for weft-replenishing looms. No. 1,041,582; Oct. 22; Gaz. vol. 183; p. 849.
Ryon, John E. (See Nies, Henry, assignor.)
S. A. Woods Machine Company. (See Blood, Charles W. H., assignor.)
S. E. Smythe Company, The. (See Smythe, Horace E., assignor.)
Saalfeld, Gunter von, Seattle, Wash. Electric sign. No. 1,041,174; Oct. 15; Gaz. vol. 183; p. 574.
Sacavem, Victor E., New York, N. Y. Toy whistle. No. 1,039,814; Oct. 1; Gaz. vol. 183; p. 49.
Sackett, August J., Baltimore, Md. Pulverizing-mill. No. 1,040,769; Oct. 8; Gaz. vol. 183; p. 405.
Sacks, Harry M., Brooklyn, N. Y. Nose-clip for eyeglasses. No. 1,040,770; Oct. 8; Gaz. vol. 183; p. 405.
Saco-Pettee Company. (See Mills, Charles, assignor.)
Saco-Pettee Company. (See Rankeillor, Alexander, assignor.)
Sadtler, Wilhelm, Homburg-vor-der-Höhe, assignor to Firm of E. P. Lehmann, Brandenburg-on-the-Havel, Germany. Toy. No. 1,041,677; Oct. 15; Gaz. vol. 183; p. 741.
Safberg, Bror F., Barberton, Ohio, assignor to The Babcock & Wilcox Company, Bayonne, N. J. Header for water-tube boilers. No. 1,039,815; Oct. 1; Gaz. vol. 183; p. 49.
Safety Car Heating and Lighting Company. (See Creveling, John L., assignor.)
Safety Car Heating & Lighting Company, The. (See Schepmoes, Lindsley, assignor.)
Safety Car Heating & Lighting Company. (See Towne, Joseph M., assignor.)
Sailer, John M., Janesville, Wis., assignor of one-half to W. Musser, Iowa City, Iowa. Internal-combustion engine. No. 1,042,975; Oct. 29; Gaz. vol. 183; p. 1248.
Salimer, Joseph J., Clinton, Iowa. Gage for setting cutter-head knives. No. 1,042,280; Oct. 22; Gaz. vol. 183; p. 980.
Salomon, Joseph, Chicago, Ill. Wire-chair. No. 1,041,355; Oct. 15; Gaz. vol. 183; p. 635.
Salt, William A., assignor of one-half to S. H. Briggs, Providence, R. I. Dental plugger. No. 1,040,424; Oct. 8; Gaz. vol. 183; p. 283.
Samaia, Dino D., Vicenza, Italy. Chain and roller gearing for awnings and the like. No. 1,041,883; Oct. 22; Gaz. vol. 183; p. 850.
Sammons, Thomas A., Dayton, Ohio. Liquid-rule. No. 1,039,816; Oct. 1; Gaz. vol. 183; p. 49.
Sammons, Walter H., Philadelphia, Pa. Rear indicator for vehicles. No. 1,040,771; Oct. 8; Gaz. vol. 183; p. 405.
Sampson, Robert V., and S. T. Danley, Denver, Colo. Fastening device. No. 1,042,281; Oct. 22; Gaz. vol. 183; p. 980.
Sampson, Samuel J., Manning, N. D. Vehicle-brake. No. 1,041,356; Oct. 15; Gaz. vol. 183; p. 635.
Samuel, Leopold S., Newark, N. J. Teapee. No. 1,040,425; Oct. 8; Gaz. vol. 183; p. 283.
Samuels, Gustave A., Bellingham, Wash. Combined bedstead and table. No. 1,039,817; Oct. 1; Gaz. vol. 183; p. 49.





Samuelson, Frederick, Rugby, England, assignor to General Electric Company. Elastic-fluid turbine. No. 1,042,147; Oct. 22; Gaz. vol. 183; p. 936.
Sanborn, Eliot, and A. K. Macdonald, Portland, Me. Dish-cleaner. No. 1,040,621; Oct. 1; Gaz. vol. 183; p. 117.
Sanders, James M., et al. (See Tatum, Franklin M., assignor.)
Sanders, Louis, Cravens, La. Spring-wheel. No. 1,040,426; Oct. 8; Gaz. vol. 183; p. 283.
Sanders, Marion, assignor of one-half to G. Lynch, Poplar Bluff, Mo. Steam-pipe shield. No. 1,039,818; Oct. 1; Gaz. vol. 183; p. 50.
Sanders, William M., Cincinnati, Ohio. Nut-lock. No. 1,042,484; Oct. 29; Gaz. vol. 183; p. 1079.
Sanderson, Harold W. Chiswick, England. Apparatus for use in the production of printed and embossed wallpapers and the like. No. 1,041,970; Oct. 15; Gaz. vol. 183; p. 741.
Sandreuter, Karl T. (See Maenaha and Sandreuter.)
Sands Limited. (See Stanley, George H., assignor.)
Sandwich Electric Company. (See Rugh, Harry O., assignor.)
Sandwich Electric Company. (See Rugh and Rhoads, assignors.)
Sanford, William R., New York, N. Y., assignor to Ventilating Shade Fixture Co. Window-shade bracket. No. 1,042,148; Oct. 22; Gaz. vol. 183; p. 937.
Sanitary Service Company. (See Downey, Richard F., assignor.)
Sarason, Leopold, Hirschgarten, and S. Haller, Grünau, Germany; said Haller assignor to said Sarason. Producing effervescent baths. No. 1,041,887; Oct. 15; Gaz. vol. 183; p. 635.
Sare, Storm S., Abilene, Kans. Oil-burner. No. 1,041,517; Oct. 15; Gaz. vol. 183; p. 688.
Sargent & Company. (See Page, Albert A., assignor.)
Sargent & Company. (See Sparks, William R. and C. F., assignors.)
Sargent, Everett L., Patten, Me. Canoe attachment. No. 1,041,979; Oct. 15; Gaz. vol. 183; p. 741.
Sargent, Leonard W. (See Morse and Sargent.)
Sargent, William D. (See Holmes, Maximilian J., assignor.)
Sarkisian, Arakoel H., Bridgewater, Mass. Cigarette-making machine. No. 1,040,772; Oct. 8; Gaz. vol. 183; p. 406.
Sartorial Pattern Company of Philadelphia. (See Peterson, Erick H., assignor.)
Sassaman, David C., River Forest, assignor to F. H. Smith Manufacturing Company, Chicago, Ill. Spot-setting machine. No. 1,041,884; Oct. 22; Gaz. vol. 183; p. 850.
Saunders, Arthur W., and C. O'Neil, Lowell, Mass. Loom-shuttle. No. 1,042,282; Oct. 22; Gaz. vol. 183; p. 981.
Saunders, Augustus M., and O. M. Mewat, McKeesport, assignors to National Tube Company, Pittsburgh, Pa. Thread-cutting machine. No. 1,040,583; Oct. 8; Gaz. vol. 183; p. 340.
Saunders, David R., Columbus, Miss. Car-heater. No. 1,039,819; Oct. 1; Gaz. vol. 183; p. 50.
Sauter, Alfred B., and H. R. Wehner, Chicago, Ill. Window-cleaning device. No. 1,042,283; Oct. 22; Gaz. vol. 183; p. 981.
Savage, Richard J., and C. B. Schultz, Chicago, Ill. Candy-making machine. No. 1,040,427; Oct. 8; Gaz. vol. 183; p. 284.
Savage, Walter R., et al. (See Graf, Richard, assignor.)
Saver Clutch Company Limited, The. (See Drake and Hewitt, assignors.)
Savoy, Edward, Chappell Hill, Tex. Mold for making well-curbing. No. 1,041,888; Oct. 15; Gaz. vol. 183; p. 636.
Sawyer, Frederic B., Malden, Mass. Twine-reel. No. 1,039,820; Oct. 1; Gaz. vol. 183; p. 51.
Saylor, John R., Pottstown, Pa. Device for cutting screw-threads. No. 1,040,022; Oct. 1; Gaz. vol. 183; p. 117.
Scanlan, James, Adell, Wis. Self-closing oven-door. No. 1,041,178; Oct. 15; Gaz. vol. 183; p. 574.
Schaaf, John T., Washington, D. C. Type-writer and other key-controlled machine. No. 1,044,594; Oct. 8; Gaz. vol. 183; p. 340.
Schaaf, John T., Washington, D. C. Type-writing and other key-actuated machine. No. 1,040,586; Oct. 8; Gaz. vol. 183; p. 340.
Schade, Albert F., assignor to The Stanley Rule & Level Company, New Britain, Conn. Miter-box. No. 1,042,976; Oct. 29; Gaz. vol. 183; p. 1249.
Schaeffer, August, Frankfort-on-the-Main, Germany. Air-douche. No. 1,040,773; Oct. 8; Gaz. vol. 183; p. 406.
Schäfer, Mandel, Czernowitz, Austria-Hungary. Folding box. No. 1,040,943; Oct. 1; Gaz. vol. 183; p. 190.
Schaffer, Morse R., assignor of one-half to C. H. Howard, St. Louis, Mo. Brake-gage for railway-cars. No. 1,039,821; Oct. 1; Gaz. vol. 183; p. 51.
Schamel, James T., Philadelphia, Pa. Micrometer gaging-block. No. 1,040,774; Oct. 8; Gaz. vol. 183; p. 406.
Schanzenbach, Chapman, Norfolk, Va. Mosquitoes. No. 1,040,775; Oct. 8; Gaz. vol. 183; p. 407.
Schaum, Otto W., assignor to Fay Machine Tool Company, Philadelphia, Pa. Lathe. No. 1,042,140; Oct. 22; Gaz. vol. 183; p. 937.
Scheer, Samuel. (See Schultz and Scheer.)
Scheer, Samuel, Richmond, Va. Clock-frame. No. 1,040,628; Oct. 1; Gaz. vol. 183; p. 117.
Scheibe, Harold M., Wilkinsburg, assignor, by mesne assignments, to Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa. Supporting means for electric motors. No. 1,042,486; Oct. 29; Gaz. vol. 183; p. 1079.
Scheible, Albert, Chicago, Ill. Supporting mechanism. No. 1,042,139; Oct. 22; Gaz. vol. 183; p. 937.
Scheil, Friedrich, Jersey City, N. J. Ring-finishing machine. No. 1,040,624; Oct. 1; Gaz. vol. 183; p. 117.
Schelter, Henry W. (See Martin and Schelter.)
Schenk, Bertha, Pittsburgh, Pa. Curtain-stretcher. No. 1,042,284; Oct. 22; Gaz. vol. 183; p. 981.
Schepmoes, Lindsley, Hasbrouck Heights, N. J., assignor to The Safety Car Heating & Lighting Company. Lighting-fixture. No. 1,039,822; Oct. 1; Gaz. vol. 183; p. 51.
Scherzer, Albert H., Chicago, Ill. Bascule-bridge. No. 1,041,885; Oct. 22; Gaz. vol. 183; p. 851.
Schichtmeyer, Firm of Ernst. (See Waldmann, Julius, assignor.)
Schildt, W. F. (See Frambach and Corrington, assignors.)
Schilowsky, Peter, Kostroma, Russia. Monotrack-vehicle. No. 1,041,880; Oct. 15; Gaz. vol. 183; p. 742.
Schimmel, Franz, Nancy, France. Machine for casting and composing type. No. 1,042,285; Oct. 22; Gaz. vol. 183; p. 981.
Schimming, Georg, Berlin, Germany. Working process for internal-combustion engines. No. 1,039,823; Oct. 1; Gaz. vol. 183; p. 52.
Schitakowsky, Moritz, Duesseldorf, Germany. Bending pipes. No. 1,041,176; Oct. 15; Gaz. vol. 183; p. 574.
Schlachter, Nicholas J., Gettysburg, S. D. File. No. 1,043,034; Oct. 29; Gaz. vol. 183; p. 1270.
Schlesinger, Georg, Berlin-Wilmersdorf, Germany. Sheet-handling mechanism. No. 1,040,025; Oct. 1; Gaz. vol. 183; p. 118.
Schlick, Thomas A. (See Niles, Harry F., assignor.)
Schloss, Joseph W., New York, N. Y. Collar-supporter. No. 1,040,026; Oct. 1; Gaz. vol. 183; p. 118.
Schloss, Meyer W. (See Beck, August B., assignor.)
Schlund, Jacob B., Keansewick, Wash. Dental disk-guide. No. 1,042,039; Oct. 22; Gaz. vol. 183; p. 901.
Schmid, Alfred, Zürich, Switzerland. Alloy of copper and zinc. No. 1,040,027; Oct. 1; Gaz. vol. 183; p. 118.
Schmidt, Ferdinand L. (See Froehlich, Joseph, assignor.)
Schmidt, Georg. (See List and Schmidt.)
Schmidt, Josef, Villingen, Germany. Cuckoo-clock. No. 1,041,177; Oct. 15; Gaz. vol. 183; p. 575.
Schmidt, William. (See Bitzer, William D., assignor.)
Schmitt, Edward D., assignor to The Pure Food Process Company, Baltimore, Md. Preserving food products. No. 1,041,518; Oct. 15; Gaz. vol. 183; p. 688.
Schneider, Eugène, Le Creuzot, France. Regulating device for hydraulic transmission. No. 1,040,430; Oct. 8; Gaz. vol. 183; p. 285.
Schneider, Eugene W., New York, N. Y. Device for aiding the hearing. No. 1,040,429; Oct. 8; Gaz. vol. 183; p. 284.
Schneider, Eugene W., assignor to The Mears Ear Phone Company, New York, N. Y. Device for aiding the hearing. No. 1,040,428; Oct. 8; Gaz. vol. 183; p. 284.
Schneider, James W., Tacoma, Wash. Edge trimmer and burnisher for shoe-soles. No. 1,042,607; Oct. 29; Gaz. vol. 183; p. 1122.
Schneider, Jaquet & Cie., G. m. b. H. (See Jaquet, Charles, assignor.)
Schneider, Max M., assignor to The Pullman Company, Chicago, Ill. Electric wiring for railway-cars. No. 1,042,606; Oct. 29; Gaz. vol. 183; p. 1122.
Schneider, Paul, Webster Groves, Mo. Cushion-tire. No. 1,040,431; Oct. 8; Gaz. vol. 183; p. 285.
Schneider, Philipp, St. Charles, Mo. Boot-cleaner. No. 1,042,977; Oct. 29; Gaz. vol. 183; p. 1249.
Schnelbach, Harry A., Crafton, Pa., assignor to Jeffreys Glass Company, Follansbee, W. Va. Shade or globe for lamps. No. 1,041,886; Oct. 22; Gaz. vol. 183; p. 851.
Schnelbach, Henry. (See Deakin and Schnelbach.)
Schnicke, Robert, Wilkinsburg, Pa. Valve mechanism. No. 1,042,151; Oct. 22; Gaz. vol. 183; p. 938.
Schodde, George W., assignor to F. J. Meyer, New York, N. Y. Area-compool. No. 1,041,887; Oct. 22; Gaz. vol. 183; p. 851.
Schoen, Charles T., Media, Pa. Resilient tire. No. 1,040,432; Oct. 8; Gaz. vol. 183; p. 285.
Schorsky, August E., Somerville, assignor to The Reece Shoe Machinery Company, Boston, Mass. Beveling machine. No. 1,040,433; Oct. 8; Gaz. vol. 183; p. 285.
Schoenthaler, Edward F., Long Branch, N. J. Safety drawbridge attachment. No. 1,041,889; Oct. 15; Gaz. vol. 183; p. 636.
Scholl, Peter, Chicago, Ill. Device to facilitate the regulation of watches. No. 1,042,609; Oct. 29; Gaz. vol. 183; p. 1123.
Schongold, Wilhelm, Holycke, Mass. Ironing-board cabinet. No. 1,042,286; Oct. 29; Gaz. vol. 183; p. 1123.
Schooley, Amzey W. (See Lively, Robert E., assignor.)
Schoolfield, Joseph F., Greensboro, N. C. Fountain shaving-brush. No. 1,040,776; Oct. 8; Gaz. vol. 183; p. 407.
Schopf, Henry S. (See O'Hara, William T., assignor.)
Schoop, Conrad L. (See Schoop, Laurence O., assignor.)
Schoop, Laurence O., assignor of one-half to C. L. Schoop, St. Louis, Mo. Aerial-vehicle stabilizer. No. 1,040,434; Oct. 8; Gaz. vol. 183; p. 285.

Schorr, Paul C., St. Paul, Minn. Outlet-box bushing. No. 1,041,888; Oct. 22; Gas. vol. 183; p. 862.
Schrader, Morris, assignor of three-fourths to S. Firestone, McKeesport, Pa. Lamp-extinguisher. No. 1,040,777; Oct. 8; Gas. vol. 183; p. 407.
Schreck, Adolph, Phoenix, Ariz. Poultry-fountain. No. 1,042,040; Oct. 22; Gas. vol. 183; p. 901.
Schreiber, Ernst G., Hammond, Ind. Vehicle-truck. No. 1,040,435; Oct. 8; Gas. vol. 183; p. 286.
Schremp, Edward J., New York, N. Y. Union undergarment. No. 1,034,035; Oct. 29; Gas. vol. 183; p. 1270.
Schrey, Robert W., assignor of one-half to A. S. Fairfield, Philadelphia, Pa. Loom. No. 1,040,778; Oct. 8; Gas. vol. 183; p. 407.
Schroeder, Anton, Belleville, Ill. Furnace. No. 1,041,889; Oct. 22; Gas. vol. 183; p. 852.
Schroeder, John W., Freeman, S. D. Fastening for wagon end-gates. No. 1,040,779; Oct. 8; Gas. vol. 183; p. 406.
Schubert, Frederick, Sellersville, Pa. Case for pages and the like. No. 1,040,780; Oct. 8; Gas. vol. 183; p. 408.
Schultz, Carl, and S. Scheer, Richmond, Va. Washing device. No. 1,042,978; Oct. 29; Gas. vol. 183; p. 1250.
Schultz, Charles E. (See Savage and Schultz.)
Schultz, Emil W., assignor of one-half to M. H. Gaebler, Watertown, Wis. Extension-table. No. 1,040,028; Oct. 1; Gas. vol. 183; p. 118.
Schulz, Fritz A., Chicago, Ill. Clamp. No. 1,042,610; Oct. 29; Gas. vol. 183; p. 1123.
Schulz, Fritz A., Chicago, Ill. Tilting vise. No. 1,042,611; Oct. 29; Gas. vol. 183; p. 1124.
Schumacher, George, Vancouver, British Columbia, Canada. Protecting wood in salt water. No. 1,039,824; Oct. 1; Gas. vol. 183; p. 52.
Schumacher, Lloyd E., Perrysville, Ohio. Index. No. 1,041,178; Oct. 15; Gas. vol. 183; p. 575.
Schumacher, Peter, assignor to Corporation of Klimsch & Co., Frankfort-on-the-Main, Germany. Obtaining metal printing-plates with silver-salt gelatin emulsion. No. 1,042,827; Oct. 29; Gas. vol. 183; p. 1199.
Schumann Piano Company. (See Anderson, Alfred, assignor.)
Schunk, Theobald, *et al.* (See Finlayson, Alexander W., assignor.)
Schutte and Koerting Company. (See Lovekin, Luther D., assignor.)
Schwander, Jacob N., Cincinnati, Ohio. Shoe. No. 1,040,781; Oct. 8; Gas. vol. 183; p. 406.
Schwartz, Charles M. B., New York, N. Y. Transfer-ticket. No. 1,040,248; Oct. 1; Gas. vol. 183; p. 191.
Schwartzburg, Edward H., Milwaukee, Wis., assignor to National Enameling and Stamping Company, Baltimore, Md. Insect-destroyer. No. 1,039,825; Oct. 1; Gas. vol. 183; p. 52.
Schwartzburg, Edward H., Milwaukee, Wis., assignor to National Enameling and Stamping Company. Grain-sprouter. No. 1,039,826; Oct. 1; Gas. vol. 183; p. 52.
Schwartzman, Jacub, Brooklyn, N. Y., assignor to United States Cabinet Bed Co. Folding couch or bed. No. 1,042,486; Oct. 29; Gas. vol. 183; p. 1079.
Schwartzman, Jacub, Brooklyn, N. Y. Wire fabric. No. 1,042,612; Oct. 29; Gas. vol. 183; p. 1124.
Schwed, Samuel, New York, N. Y. Gas-pipe coupling. No. 1,042,370; Oct. 22; Gas. vol. 183; p. 1010.
Schwertner, Joseph, New York, N. Y., assignor to Heerwagen Company. Automatic playing instrument. No. 1,041,179; Oct. 15; Gas. vol. 183; p. 575.
Score, Erik J. (See Friske and Score.)
Scott, David J., *et al.*, executors. (See Scott, Walter.)
Scott, David J., *et al.*, executors. (See Weseman, Alonso W., assignor.)
Scott, Harry T., Los Angeles, Cal. Phonograph-reproducer. No. 1,040,032; Oct. 1; Gas. vol. 183; p. 121.
Scott, Harry T., Los Angeles, Cal. Phonograph-mandrel. No. 1,040,033; Oct. 1; Gas. vol. 183; p. 121.
Scott, Harry T., and L. J. Patterson, Los Angeles, Cal.; said Patterson assignor to said Scott. Automatic phonograph. No. 1,040,029; Oct. 1; Gas. vol. 183; p. 119.
Scott, Harry T., and L. J. Patterson, Los Angeles, Cal.; said Patterson assignor to said Scott. Reproducer for phonographs. No. 1,040,030; Oct. 1; Gas. vol. 183; p. 119.
Scott, Harry T., and L. J. Patterson, Los Angeles, Cal.; said Patterson assignor to said Scott. Automatic phonograph. No. 1,040,031; Oct. 1; Gas. vol. 183; p. 120.
Scott, Harry T., and L. J. Patterson, Los Angeles, Cal.; said Patterson assignor to said Scott. Automatic phonograph. No. 1,040,034; Oct. 1; Gas. vol. 183; p. 121.
Scott, Isabella, *et al.*, executors. (See Scott, Walter.)
Scott, Isabella, *et al.*, executors. (See Weseman, Alonso W., assignor.)
Scott, Robert, London, England. Apparatus particularly suitable for treating oil-seed and the like. No. 1,040,782; Oct. 8; Gas. vol. 183; p. 408.
Scott, Robert W., Boston, Mass., assignor to Scott & Williams, Incorporated, Camden, N. J. Shaped seamless hosiery and knitting same. No. 1,042,152; Oct. 22; Gas. vol. 183; p. 868.
Scott, Walter, deceased, Plainfield, N. J.; I. and D. J. Scott, executors. Multicouple multirevolution printing-machine. No. 1,040,783; Oct. 8; Gas. vol. 183; p. 408.
Scott & Williams. (See Morley, Joseph D., assignor.)
Scott & Williams. (See Scott, Robert W., assignor.)
Scovill Manufacturing Company. (See Warner, Frank E., assignor.)
Scrimshaw, Walter J., Chicago, Ill. Trolley catcher and replacer. No. 1,042,158; Oct. 22; Gas. vol. 183; p. 868.
Scudder, John L., South Omaha, Nebr. Signal device for cars. No. 1,041,880; Oct. 22; Gas. vol. 183; p. 853.
Seale, Jefferson W., Mineral Wells, Tex. Oven. No. 1,040,784; Oct. 8; Gas. vol. 183; p. 409.
Seaman, Louis F., Buffalo, N. Y. Bottle-stopper. No. 1,041,150; Oct. 15; Gas. vol. 183; p. 576.
Sears, Roebuck and Co. (See Cluergay, Louis A., assignor.)
Sears, Roebuck & Company. (See Kretz, Alvaro S., assignor.)
Seaver, August, Montague, Mich. Aeroplane. No. 1,040,785; Oct. 8; Gas. vol. 183; p. 410.
Seay, William W., Cincinnati, Ohio. Refrigeration. No. 1,042,041; Oct. 22; Gas. vol. 183; p. 902.
Sectional Threshing Cylinder Co. (See Shaw, Orpheus C., assignor.) (Reissue.)
Security Savings and Trust Co., trustee. (See Puplinski, Julius W., assignor.)
Seede, John A., Schenectady, N. Y., assignor to General Electric Company. Electric furnace. No. 1,042,613; Oct. 29; Gas. vol. 183; p. 1125.
Seehafer, Fred, and W. Prahl, Marshfield, Wis. Hay-press. No. 1,040,786; Oct. 8; Gas. vol. 183; p. 410.
Seeley, Abner M., and N. C. Durand, Newark, assignors, by mesne assignments, to Thomas A. Edison, Incorporated, West Orange, N. J. Carton. No. 1,042,042; Oct. 22; Gas. vol. 183; p. 902.
Seeley, Charles W., and C. S. Ross, Hollywood, Cal. Wheel. No. 1,042,487; Oct. 29; Gas. vol. 183; p. 1060.
Seely, Herbert W., Seligman, Ariz. Automobile-jack. No. 1,042,154; Oct. 22; Gas. vol. 183; p. 939.
Seemle, Gustav A., Wheaton, assignor to Reynolds Electric Flasher Manufacturing Company, Chicago, Ill. Transparent hood for electric lamps. No. 1,042,979; Oct. 29; Gas. vol. 183; p. 1250.
Seeton, J. H. (See Trousdale, Robert A., assignor.)
Sefton Manufacturing Company, The. (See Reber, John G., assignor.)
Sehl, William, Prescott, Ariz. Feed-bag. No. 1,042,155; Oct. 22; Gas. vol. 183; p. 939.
Seibak, Arthur C., San Francisco, Cal. Motor-wheel for cycles. No. 1,041,519; Oct. 15; Gas. vol. 183; p. 689.
Seibert, August, Harvey, Ill. Resilient wheel. No. 1,040,436; Oct. 8; Gas. vol. 183; p. 287.
Seidenschnur, Friedrich, Charlottenburg, and J. Dehnst, Halensee, near Berlin, Germany. Composition of matter and preserving and fireproofing wood. No. 1,041,681; Oct. 15; Gas. vol. 183; p. 742.
Seidenschnur, Friedrich, Charlottenburg, and J. Dehnst, Halensee, near Berlin, Germany. Compositions of matter and preserving and fireproofing wood. No. 1,041,682; Oct. 15; Gas. vol. 183; p. 742.
Seigle, William R., Nashua, N. H. Machine for winding paper tubes. No. 1,040,437; Oct. 8; Gas. vol. 183; p. 287.
Seigle, William R., Nashua, N. H. Constructing wound paper tubes. No. 1,040,438; Oct. 8; Gas. vol. 183; p. 287.
Seitz, Otto H., Green Bay, Wis. Checkrein-support. No. 1,040,787; Oct. 8; Gas. vol. 183; p. 411.
Selden, Metellus D., and R. L. Graves, Memphis, Tenn. Automatic electric speed-regulator. No. 1,040,586; Oct. 8; Gas. vol. 183; p. 341.
Sell Horse Goods Company, The. (See James, Henry H., assignor.)
Sellers, James H., Cottonwood, Ala. Fertilizer-distributer. No. 1,042,286; Oct. 22; Gas. vol. 183; p. 982.
Selwa, Stanislaw, Lorain, Ohio. Cleaner device. No. 1,042,829; Oct. 29; Gas. vol. 183; p. 1199.
Semon, William H., Cleveland, Ohio. Nut-lock. No. 1,040,788; Oct. 8; Gas. vol. 183; p. 411.
Serpek, Ottokar, assignor to Societe Generale des Nitrures, Paris, France. Manufacture of ammonia by means of aluminium nitrid. No. 1,040,439; Oct. 8; Gas. vol. 183; p. 288.
Sessions, Frank L., Columbus, Ohio, assignor, by mesne assignments, to The Jeffrey Manufacturing Company. Breaker for electric circuits. No. 1,040,440; Oct. 8; Gas. vol. 183; p. 288.
Sessions, William J., Desoto, Ga. Combined saddle and back-band. No. 1,040,035; Oct. 1; Gas. vol. 183; p. 122.
Seth Thomas Clock Company. (See Armour, William A., assignor.)
Seybold, Charles, Dayton, Ohio. Safety-lock for paper-cutting machines. No. 1,040,441; Oct. 8; Gas. vol. 183; p. 288.
Seymour, Morris W., trustee. (See Wallace and Staiger, assignors.)
Shadiofski, Anthony, Plymouth, Pa. Automatic motor-vehicle brake. No. 1,040,244; Oct. 1; Gas. vol. 183; p. 191.
Shaeffer, Absalom D., Kittanning, Pa. Trap. No. 1,041,520; Oct. 15; Gas. vol. 183; p. 689.
Shaeffer, Harry B., Altoona, Pa. Producing photographic backgrounds. No. 1,040,036; Oct. 1; Gas. vol. 183; p. 122.
Shaffer, Alfred W. (See Shaffer, Lewis and A. W.)
Shaffer, Lewis and A. W., Duryea, Pa. Miner's combination tamping-tool, &c. No. 1,040,037; Oct. 1; Gas. vol. 183; p. 122.
Shaffer, Lewis D., Point borough, Pa. Line-carrier. No. 1,041,685; Oct. 15; Gas. vol. 183; p. 742.



Shaffer, Morton J., New York, N. Y. Reversible and expanding envelop. No. 1,042,486; Oct. 29; Gas. vol. 183; p. 1061.
Shaffer, Richard M. (See Gardiner and Shaffer.)
Shafer, William T., Evanston, Wyo. Cleaner. No. 1,040,038; Oct. 1; Gas. vol. 183; p. 123.
Shaffert, Henry, East Pittsburgh, Pa. Trolley. No. 1,040,789; Oct. 8; Gas. vol. 183; p. 411.
Shanahan, John W. (See Mason and Shanahan.)
Shannon, Earl D., Alpena, Mich. Heater for steering devices for motor-driven vehicles. No. 1,042,156; Oct. 22; Gas. vol. 183; p. 940.
Shannon, William T., Cincinnati, Ohio. Metal culvert. No. 1,040,442; Oct. 8; Gas. vol. 183; p. 289.
Shapro, Benjamin F., San Francisco, Cal. Connection for water distribution. No. 1,040,039; Oct. 1; Gas. vol. 183; p. 123.
Sharp, Frank P., Oakland, Cal. Appliance for tapping water-mains. No. 1,039,827; Oct. 1; Gas. vol. 183; p. 53.
Sharp, Joseph W., Jr., Philadelphia, Pa. Closet and seat. No. 1,041,181; Oct. 15; Gas. vol. 183; p. 576.
Shaw, Elbridge G., assignor to L. M. Brooks, Worcester, Mass. Violin. No. 1,042,287; Oct. 22; Gas. vol. 183; p. 862.
Shaw, John W. (See Gagné and Shaw.)
Shaw, Orpheus C., assignor to Sectional Threshing Cylinder Co., Spokane, Wash. Threshing-machine cylinder. (Reissue.) No. 13,479; Oct. 15; Gas. vol. 183; p. 756.
Shawver, Harvey E., Lewistown, Ill. Pressure-regulator. No. 1,042,980; Oct. 29; Gas. vol. 183; p. 1250.
Shay, Herman C., Hamilton City, Cal. Cultivator and beet-digger. No. 1,041,684; Oct. 15; Gas. vol. 183; p. 742.
Sheffer, John, Schenectady, N. Y. Door-closing device. No. 1,042,829; Oct. 29; Gas. vol. 183; p. 1199.
Sheffey, John A., Columbus, Ohio. Structure for forming concrete surfaces. No. 1,042,043; Oct. 22; Gas. vol. 183; p. 903.
Sheffield Car Company. (See Stebbins and Hovey, assignors.)
Shelby Steel Tube Company, The. (See Offutt, John W., assignor.)
Shelhammer, James. (See Bressmer and Shelhammer.)
Shephard, William A., Waukesha, Wis. Locking attachment for faucets. No. 1,040,040; Oct. 1; Gas. vol. 183; p. 123.
Sherer, George W., Rockford, Ill. Stone-cutter's instrument. No. 1,042,981; Oct. 29; Gas. vol. 183; p. 1251.
Sherland, Mark E., assignor of one-half to E. B. Williams, McGehee, Ark. Leak-stopper. No. 1,041,891; Oct. 22; Gas. vol. 183; p. 853.
Sherman, George B., Danbury, Conn. Hat-wire connector. No. 1,040,790; Oct. 8; Gas. vol. 183; p. 412.
Shierk, Dearell D., assignor of one-half to W. C. Farquhar, Rockford, Ill. Buffer construction. No. 1,042,044; Oct. 22; Gas. vol. 183; p. 903.
Shields, Sanford S., and W. E. Wine, Wilmington, N. C. Valve grinding and fitting machine. No. 1,042,614; Oct. 29; Gas. vol. 183; p. 1125.
Shiman, David, New York, N. Y. Gem-setting. No. 1,040,791; Oct. 8; Gas. vol. 183; p. 412.
Shoenberg, Milton H., assignor, by mesne assignments, to The Thermo Electric Company, San Francisco, Cal. Electrical water-heater. (Reissue.) No. 13,480; Oct. 15; Gas. vol. 183; p. 756.
Sholly, Benjamin von. (See Pettibone and Sholly.)
Shore, William F., New York, N. Y. Gage. No. 1,042,721; Oct. 29; Gas. vol. 183; p. 1162.
Shorter, William A., Princeton, W. Va. Car-coupling. No. 1,042,288; Oct. 22; Gas. vol. 183; p. 982.
Shrader, B. L. (See Weller, Nicholas, assignor.)
Shuler, Wilbur S., Delta, Ohio. Apple-corer. No. 1,042,489; Oct. 29; Gas. vol. 183; p. 1061.
Shumaker, Charles J., Tupelo, Miss. Tire-protector. No. 1,042,157; Oct. 22; Gas. vol. 183; p. 940.
Siebert, Carl T., East Pittsburgh, Pa. Receptacle. No. 1,040,792; Oct. 8; Gas. vol. 183; p. 412.
Siegel, Abraham O., New York, N. Y. Electric illuminated-sign apparatus. No. 1,039,828; Oct. 1; Gas. vol. 183; p. 53.
Sieling, Frank I., assignor to The Standard Roller Bearing Company, Philadelphia, Pa. Gaging-machine. No. 1,041,892; Oct. 22; Gas. vol. 183; p. 853.
Siemens & Halske, A. G. (See Noack, Carl, assignee.)
Sievert, Paul T., Dresden, Germany. Manufacturing glass plates. No. 1,039,829; Oct. 1; Gas. vol. 183; p. 53.
Signor, Alfred J., Elkhart, Ind. Means for transmitting power. No. 1,040,443; Oct. 8; Gas. vol. 183; p. 289.
Silberrad, Oswald, Buckhurst Hill, England. Chlorate explosive. No. 1,040,793; Oct. 8; Gas. vol. 183; p. 412.
Silberrad, Oswald, Buckhurst Hill, England. Perchlorate explosive. No. 1,040,794; Oct. 8; Gas. vol. 183; p. 413.
Silver, Samuel T., Calhoun, Ga. Nut-lock. No. 1,042,158; Oct. 22; Gas. vol. 183; p. 940.
Silverman, Morris J., Kansas City, Mo. Stud-protector. No. 1,040,444; Oct. 8; Gas. vol. 183; p. 289.
Simmons, Charles B., assignor to The E. Ingraham Co., Bristol, Conn. Clock-case. No. 1,042,159; Oct. 22; Gas. vol. 183; p. 940.
Simmons, Turner W., assignor of one-sixteenth to W. C. Bowers, Bridgeport, Conn. Antiskidding device. No. 1,042,722; Oct. 29; Gas. vol. 183; p. 1163.
Simmons, Zalmon G., *et al.*, trustees. (See McMullen, George B., assignor.)
Simmons, Zalmon G., *et al.*, trustees. (See McMullen, George W., and G. B., assignors.)
Simmons, Zalmon G., *et al.*, trustees. (See Roberts, John H., assignor.)
Simms, Thomas B., *et al.* (See Patterson, Benjamin G., assignor.)
Simon & Dürrheim, I. (See List and Schmidt, assignees.)
Simons, Frank E., Los Angeles, Cal. Elevator-gate. No. 1,042,160; Oct. 22; Gas. vol. 183; p. 941.
Simons, Jacob P., Herrick, S. D. Lamp-extinguisher. No. 1,040,445; Oct. 8; Gas. vol. 183; p. 289.
Simplex Electric Heating Company. (See Chandler, Edwin N., assignor.)
Simplex Metal Bound Box Company. (See Flora, Ellsworth E., assignor.)
Simplicity Shade Adjuster Company. (See Smith, Alva B., assignor.)
Simpson, John T., Newark, N. J. Door and window structure. No. 1,039,830; Oct. 1; Gas. vol. 183; p. 54.
Simpson, Joseph, Denver, Colo. Combined door and window stop and alarm. No. 1,041,685; Oct. 15; Gas. vol. 183; p. 743.
Simpson, William D., Columbia, S. C. Cushion-tired wheel. No. 1,041,182; Oct. 15; Gas. vol. 183; p. 576.
Simpson, William M., assignor to Railway Materials Company, Chicago, Ill. Overhead trolley-switch and crossover. No. 1,042,615; Oct. 29; Gas. vol. 183; p. 1125.
Sinding-Larsen, Alf, assignor of one-half to Storm, Bull & Co., Christiania, Norway. Making nitrogen compounds including nitrids and ammonia. No. 1,042,723; Oct. 29; Gas. vol. 183; p. 1163.
Singer Manufacturing Company, The. (See Allen, Edward R., assignor.)
Singer Manufacturing Company, The. (See De Voe, Albert H., assignor.)
Singer Manufacturing Company, The. (See Finch, John S., assignor.)
Single Service Package Corporation of America. (See Wilson and Starr, assignors.)
Sisson, Anna M. (See Gazzolo, Samuel D., assignor.)
Sisson, James G., Athol, Mass. Work-clamp. No. 1,039,831; Oct. 1; Gas. vol. 183; p. 54.
Skeffington, Arthur, London, England. Invalid-bed. No. 1,040,795; Oct. 8; Gas. vol. 183; p. 413.
Skidmore, Charles, Homer, assignor to F. A. Wood, Dakota City, Nebr. Lifting-jack. No. 1,042,161; Oct. 22; Gas. vol. 183; p. 941.
Skinner, Charles E., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Safety device for electric-heater sad-irons. No. 1,042,490; Oct. 29; Gas. vol. 183; p. 1061.
Slack, Charles E., Galesburg, Ill. Headlight for cars. No. 1,041,183; Oct. 15; Gas. vol. 183; p. 577.
Sladden, Sidney C., New York, N. Y. Telephone-receiver holder. No. 1,040,796; Oct. 8; Gas. vol. 183; p. 413.
Slater, William B., Washington, D. C. Apparatus for stenciling designs on surfaces. No. 1,040,797; Oct. 8; Gas. vol. 183; p. 413.
Slatter, Thomas, *et al.* (See Aragall, Joseph, assignor.)
Sliger, Leonard, Indianapolis, Ind. Carbureter. No. 1,042,962; Oct. 29; Gas. vol. 183; p. 1251.
Slomski, August, Hoxie, Kans. Listed-furrow packer. No. 1,040,041; Oct. 1; Gas. vol. 183; p. 124.
Slonowski, Frank, Mariana, Pa. Trolley. No. 1,042,162; Oct. 22; Gas. vol. 183; p. 941.
Slonowski, Frank, Mariana, Pa. Switch-throwing device. No. 1,042,163; Oct. 22; Gas. vol. 183; p. 942.
Slotkovitz, Edward H. (See Slotkovitz, Max and E. H.)
Slotkovitz, Max and E. H., Chicago, Ill. Waist. No. 1,042,045; Oct. 22; Gas. vol. 183; p. 903.
Slover, Marion F., and J. R. Harter, Canyon, Tex. Baling-press. No. 1,041,521; Oct. 15; Gas. vol. 183; p. 690.
Smallbone, Harry E., Wilmette, assignor to Smallbone Manufacturing Company, Chicago, Ill. Sharpener. No. 1,041,360; Oct. 15; Gas. vol. 183; p. 636.
Smallbone Manufacturing Company. (See Smallbone, Harry E., assignor.)
Smith, Alva B., assignor to Simplicity Shade Adjuster Company, Memphis, Tenn. Shade-support. No. 1,040,798; Oct. 8; Gas. vol. 183; p. 414.
Smith, Anthony P., Brooklyn, N. Y. Adjustable fly-screen and shade. No. 1,042,491; Oct. 29; Gas. vol. 183; p. 1061.
Smith, Arthur W., New York, N. Y., assignor, by mesne assignments, to Union Typewriter Company, Jersey City, N. J. Type-writing machine. No. 1,040,042; Oct. 1; Gas. vol. 183; p. 124.
Smith, Bronson H. (See Francis and Smith.)
Smith, Charles F., Bridgeport, Conn., assignor to Howland Bag and Paper Company, Dexter, N. Y. Making paper bags. No. 1,041,361; Oct. 15; Gas. vol. 183; p. 637.
Smith, Charley R., Sherman, Tex. Trolley-wheel. No. 1,042,492; Oct. 29; Gas. vol. 183; p. 1062.
Smith, Chester L., *et al.* (See Smith, George H., assignor.)
Smith, Dallas M. (See Rush, William M., assignor.)
Smith, David C., Bee Branch, Ark. Harrow. No. 1,042,493; Oct. 29; Gas. vol. 183; p. 1062.
Smith, Eugene H. H. (See Smith, Henry V., assignee.)
Smith, Frank L., Pittsburgh, Pa., assignor to Otis Elevator Company, Jersey City, N. J. Controlling system for electric hoists. No. 1,042,036; Oct. 29; Gas. vol. 183; p. 1271.

Smith, Franklin H., Yonkers, assignor, by mesne assignments, to Gold Car Heating & Lighting Company, New York, N. Y. Electric heater. No. 1,040,043; Oct. 1; Gas. vol. 183; p. 124.

Smith, George H., assignor of one-third to C. L. Smith and one-third to R. C. Smith, Dayton, Ohio. Block-signal system. No. 1,041,686; Oct. 15; Gas. vol. 183; p. 743.

Smith, Henry V., assignor of one-half to R. H. H. Smith, Bridgeport, Conn. Alcohol-burner. No. 1,041,893; Oct. 22; Gas. vol. 183; p. 853.

Smith, James, Reliance, S. D. Weed-cutter. No. 1,041,522; Oct. 15; Gas. vol. 183; p. 690.

Smith, James, San Francisco, Cal. Carpenter's gage. No. 1,041,687; Oct. 15; Gas. vol. 183; p. 744.

Smith, John C., Detroit, Mich. Threading-tool. No. 1,041,362; Oct. 15; Gas. vol. 183; p. 637.

Smith, John F. (See Brown and Smith.)

Smith, John H., *et al.* (See Payne, Ernest E. M., assignor.)

Smith, John P., Sequin, Tex. Folding crate. No. 1,042,164; Oct. 22; Gas. vol. 183; p. 942.

Smith, Joseph W., Middletown, Ohio. Manicure-kit. No. 1,040,446; Oct. 8; Gas. vol. 183; p. 290.

Smith, Josiah L. (See Smith, Oliver H. and J. L.)

Smith, O. Douglas, *et al.* (See Tessmer, Herman G., assignor.)

Smith, Oliver H., Slateford, Pa., and J. L. Smith, Southern Pines, N. C. Means for the interchange of messages between a station and a moving car. No. 1,042,983; Oct. 29; Gas. vol. 183; p. 1251.

Smith, Ollie F., Dallas, Tex. Hydrant. No. 1,040,447; Oct. 8; Gas. vol. 183; p. 290.

Smith, Peter J. (See Manley, Thulin, and Smith.)

Smith Premier Typewriter Company. (See Carhart, Herbert A., assignor.)

Smith, Robert C., *et al.* (See Smith, George H., assignor.)

Smith, Sidney S., assignor to The Goulds Manufacturing Company, Seneca Falls, N. Y. Double-acting compact power-pump. No. 1,039,832; Oct. 1; Gas. vol. 183; p. 54.

Smith, Thomas N., Portsmouth, Va. Sand-drier. No. 1,041,523; Oct. 15; Gas. vol. 183; p. 690.

Smith, Thomas R., assignor of one-half to J. E. Davis, Davis Station, S. C. Gearing. No. 1,040,799; Oct. 8; Gas. vol. 183; p. 414.

Smith, Walter E., Boston, assignor to C. C. Rogers, Winchester, Mass. Antiseptic nest-egg. No. 1,042,494; Oct. 29; Gas. vol. 183; p. 1062.

Smith, Walter H., assignor to The Harris Automatic Press Company, Niles, Ohio. Printing-press. No. 1,040,448; Oct. 8; Gas. vol. 183; p. 290.

Smith & Wesson. (See Wesson, Joseph H., assignor.)

Smith, William M., assignor of one-half to L. Bentley, Bastrop, La. Mail-bag catching and delivering apparatus. No. 1,041,688; Oct. 15; Gas. vol. 183; p. 744.

Smith, William M., assignor of one-half to L. Bentley, Bastrop, La. Mail-bag catching and delivering apparatus. No. 1,041,688; Oct. 15; Gas. vol. 183; p. 744.

Smith, William P., Locust Grove, Va. Safety attachment for boilers. No. 1,040,800; Oct. 8; Gas. vol. 183; p. 414.

Smith, William W., Ensley, Ala. Furnace slag-pocket. No. 1,042,046; Oct. 22; Gas. vol. 183; p. 903.

Smouse, George E. (See Snyder and Torney, assignors.)

Smythe, Horace E., assignor to The S. R. Smythe Company, Pittsburgh, Pa. Metallurgical furnace. No. 1,042,047; Oct. 22; Gas. vol. 183; p. 904.

Snead, George P., Pine Bluff, Ark. Side bearing for railway-cars. No. 1,043,037; Oct. 29; Gas. vol. 183; p. 1271.

Snow, William E., Hyde Park, assignor to B. F. Sturtevant Company, Boston, Mass. Elastic-fluid turbine. No. 1,042,616; Oct. 29; Gas. vol. 183; p. 1126.

Snyder, Balfour C., Brooklyn, N. Y., and J. H. Torney, assignors of one-third to G. E. Smouse, Washington, D. C. Breech mechanism for guns. No. 1,042,048; Oct. 22; Gas. vol. 183; p. 904.

Synder, Frederick T., Oak Park, Ill. Electrode-holder. No. 1,041,889; Oct. 15; Gas. vol. 183; p. 744.

Snyder, Henry C., and C. Reed, Minneola, Kans. Grease-gun. No. 1,041,524; Oct. 15; Gas. vol. 183; p. 691.

Snyder, Henry E., Elmira, N. Y. Skirt-marker. No. 1,040,449; Oct. 8; Gas. vol. 183; p. 291.

Snyder, John W., Michigan City, Ind. Inhaling-mask. No. 1,040,801; Oct. 8; Gas. vol. 183; p. 415.

Snyder, Perry E., Hickville, Ohio. Berry-box. No. 1,041,690; Oct. 15; Gas vol. 183; p. 745.

Snyder, Wilbur A., Montoursville, Pa. Coin or ticket holder. No. 1,039,833; Oct. 1; Gas. vol. 183; p. 55.

Société du Tissage Velox. (See Gratreau, Georges, assignor.)

Societe Generale des Nitrures. (See Serpek, Ottokar, assignor.)

Société Universelle d'Explosifs (Anciennement: Bergès, Corbin & Cie.). (See Corbin, Paul E. C., assignor.)

Société Vedovelli, Priestley et Compagnie. (See Priestley, Charles M. E., assignor.)

Society of Chemical Industry in Basle. (See Preiswerk and Grether, assignors.)

Soistmann, Adolph G., Camden, N. J. Straining-hook. No. 1,039,834; Oct. 1; Gas. vol. 183; p. 55.

Sokolov, Jacob. (See Gibbs and Sokolov.)

Sokolowski, Ernst, Hamburg, Germany, assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Detonator for hand-grenades. No. 1,041,894; Oct. 22; Gas. vol. 183; p. 854.

Sokolowski, Ernst, Hamburg, Germany, assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Pressure-fuse for projectiles, mines, torpedoes, &c. No. 1,042,330; Oct. 29; Gas. vol. 183; p. 1200.

Sörensen, Einar F., Stockholm, Sweden. Measuring device. No. 1,040,044; Oct. 1; Gas. vol. 183; p. 125.

Soniers, John, McKees Rocks, Pa. Wrench. No. 1,040,802; Oct. 8; Gas. vol. 183; p. 415.

Souther, John I., Westmont, Pa. Treatment of flue-dust. No. 1,041,363; Oct. 15; Gas. vol. 183; p. 638.

Spahn, George J., Baltimore, Md. Die for making bottle-caps. No. 1,041,601; Oct. 15; Gas. vol. 183; p. 745.

Spangenberg, John M. L., Forshaga, Sweden. Sorter for paper-pulp and the like. No. 1,042,724; Oct. 29; Gas. vol. 183; p. 1162.

Spangler, Leonard. (See Crull and Spangler.)

Spangler, Leonard, *et al.* (See Crull and Spangler, assignors.)

Sparks, Oliver F. (See Sparks, William E. and O. F.)

Sparks, William E. and O. F., assignors to Sargent & Company, New Haven, Conn. Lock. No. 1,040,245; Oct. 1; Gas. vol. 183; p. 192.

Spaulding, Henry F., Canastota, S. D. Planter. No. 1,042,617; Oct. 29; Gas. vol. 183; p. 1126.

Speer, John S., *et al.* (See Bear, William L., assignor.)

Spinnerei & Weberei Steinen Actien-Gesellschaft. (See Koechlin, Albert G., assignor.)

Spirella Company, The. (See Beeman and Kitchen, assignors.)

Spirella Company, The. (See Welsh, James M., assignor.)

Spiro, Charles, New York, N. Y. Ribbon-spool mechanism for type-writers. No. 1,041,184; Oct. 15; Gas. vol. 183; p. 577.

Spitz, Alexander H., and A. Kessler, Chicago, Ill. Boot and shoe. No. 1,041,155; Oct. 15; Gas. vol. 183; p. 577.

Spitz, Gustav, Brünn, Austria-Hungary, assignor to Goldschmidt Detinning Company, New York, N. Y. Purifying alkali stannates. No. 1,041,895; Oct. 22; Gas. vol. 183; p. 854.

Spitzenberg, Marion E., trustee. (See Spitzenberg, Philip, assignor.)

Spitzenberg, Philip, New York, assignor to M. E. Spitzenberg, trustee, Brooklyn, N. Y. Siphon-filler. No. 1,041,864; Oct. 15; Gas. vol. 183; p. 638.

Spofford, Christopher S., and F. W. Jonas, assignors to Sturgis Steel Go-Cart Company, Sturgis, Mich. Wheel-attaching device. No. 1,040,803; Oct. 8; Gas. vol. 183; p. 414.

Spofford, Christopher S., F. W. Jonas, and J. W. Bennett, assignors to Sturgis Steel Go-Cart Co., Sturgis, Mich. Child's carriage. No. 1,041,186; Oct. 15; Gas. vol. 183; p. 577.

Spotz, Chester A., York, Pa. Meat-slicing machine. No. 1,042,165; Oct. 22; Gas. vol. 183; p. 942.

Spray, Charles H., Indianapolis, Ind. Saw-clamp. No. 1,042,049; Oct. 22; Gas. vol. 183; p. 904.

Spreckels Sugar Company. (See Moore, Ralph H., assignor.)

Squier, George A., Cleveland, Ohio. Clamp for eyeglasses. No. 1,040,045; Oct. 1; Gas. vol. 183; p. 125.

Stachpole, Charles F., Lynn, assignor of one-half to A. H. Howard, Boston, Mass. Burnishing-machine. No. 1,041,692; Oct. 15; Gas. vol. 183; p. 745.

Stafford, Benjamin E. D., assignor to Flannery Bolt Company, Pittsburgh, Pa. Flexible stay-bolt for boilers. No. 1,042,831; Oct. 29; Gas. vol. 183; p. 1200.

Stafford, Benjamin E. D., assignor to Flannery Bolt Company, Pittsburgh, Pa. Flexible stay-bolt for boilers. No. 1,042,832; Oct. 29; Gas. vol. 183; p. 1200.

Stafford, Benjamin E. D., assignor to Flannery Bolt Company, Pittsburgh, Pa. Stay-bolt for boilers. No. 1,042,833; Oct. 29; Gas. vol. 183; p. 1201.

Stafford Company, The. (See Jackson, Simeon S., assignor.)

Staines, Frank, London, England. Device for washing crockery and the like. No. 1,040,450; Oct. 8; Gas. vol. 183; p. 291.

Stålhane, Otto. (See Grönwall, Lindblad, and Stålhane.)

Stallman, Frank O., San Francisco, Cal. Combined automatic cut-off switch and lamp-socket. No. 1,039,835; Oct. 1; Gas. vol. 183; p. 55.

Stambaugh, William B., Woodsboro, Md. Culvert. No. 1,040,046; Oct. 1; Gas. vol. 183; p. 125.

Stamey, Nelson V. (See Brecht and Stamey.)

Standard Car Truck Company. (See Barber and Webb, assignors.)

Standard Fibre Company. (See Hansen, Harold E., assignor.)

Standard Optical Company, The. (See Van Tassel, John R., assignor.)

Standard Roller Bearing Company, The. (See Sieling, Frank L., assignor.)

Standing Stamping Company, The. (See Vock, Arthur A., assignor.)

Standish, Edward K., assignor to Diamond Power Specialty Company, Detroit, Mich. Steam-separator. No. 1,039,836; Oct. 1; Gas. vol. 183; p. 56.

Stanley, George H., assignor to Sands Limited, Johannesburg, Transvaal. Apparatus for classifying or grading crushed ore and the like. No. 1,040,804; Oct. 8; Gas. vol. 183; p. 416.

Stanley Rule & Level Company, The. (See Schade, Albert F., assignor.)

Stanley Works, The. (See Hart and Parsons, assignors.)

Stanton, Walter C. (See Martin, Wallace B., assignor.)





Staples, Albert F., Buffalo, N. Y. Account-register. No. 1,040,805; Oct. 8; Gas. vol. 183; p. 416.

Star Ball Retainer Company, The. (See Chambers, David F., assignor.)

Star, Richard U. S. Navy. Ammunition-hoist. No. 1,040,047; Oct. 1; Gas. vol. 183; p. 125.

Starke, Eric A., Berkeley, Cal. Apparatus for saving gas and oil from producing-wells. No. 1,040,806; Oct. 8; Gas. vol. 183; p. 417.

Starkey, William E. (See Vradenburgh, David G., assignor.)

Starr, Alden B. (See Wilson and Starr.)

Stassart, Joseph D., Portland, Oreg. Pencil-sharpener. No. 1,040,048; Oct. 1; Gas. vol. 183; p. 126.

Stauder, Joseph, Mount Vernon, N. Y. Combination-tool. No. 1,042,984; Oct. 29; Gas. vol. 183; p. 1252.

Staynes, William H., *et al.* (See Payne, Ernest E. M., assignor.)

Stebbins, Charles B., and W. S. Hovey, assignors to Sheffield Car Company, Three Rivers, Mich. Motor-car. No. 1,024,495; Oct. 29; Gas. vol. 183; p. 1083.

Stebbins, Henry A., Malden, and A. A. Adams, Brookline, Mass., assignors, by mesne assignments, to Atlantic National Bank, Providence, R. I. Target-practice apparatus. No. 1,041,365; Oct. 15; Gas. vol. 183; p. 638.

Stecher, Charles, Chicago, Ill. Wire-ball-forming machine. No. 1,039,837; Oct. 1; Gas. vol. 183; p. 56.

Steele, William J., Sterling, Kans. Plow attachment. No. 1,040,049; Oct. 1; Gas. vol. 183; p. 126.

Steffy, Simon K., Harrisburg, and H. H. Naylor, Marietta, Pa. Duplex air-compressor. No. 1,041,993; Oct. 15; Gas. vol. 183; p. 746.

Steiger, Peter J., Newark, N. J. Stay-hinge. No. 1,042,985; Oct. 29; Gas. vol. 183; p. 1252.

Steiger, Walter V. (See Wallace and Steiger.)

Steinau, Rudolf. (See Breesame and Steinau.)

Steinberger, Louis, New York, N. Y. High-potential insulator. No. 1,040,050; Oct. 1; Gas. vol. 183; p. 126.

Steinberger, Samuel T., Peoria, Ill. Motor-cycle stand. No. 1,039,838; Oct. 1; Gas. vol. 183; p. 57.

Steiner, Herbert L., Providence, R. I. Pin. No. 1,042,496; Oct. 29; Gas. vol. 183; p. 1063.

Steinert, Paul, Dresden, Germany. Roundabout. No. 1,041,187; Oct. 15; Gas. vol. 183; p. 578.

Steinhagen, Bismarck A., *et al.* (See Lanaux, Alfred A., assignor.)

Steinkrüger, née Engelskirchen, Maria. (See Wolff, Albert, assignor.)

Steinmetz, Charles P., Schenectady, N. Y., assignor to General Electric Company. Induction-furnace. No. 1,042,988; Oct. 29; Gas. vol. 183; p. 1252.

Stelle, Charles C., New York, N. Y. Sap-spout. No. 1,042,834; Oct. 29; Gas. vol. 183; p. 1201.

Stenger, John. (See Aimé and Stenger.)

Stephens, Mariah E. (See Stephens, Walter C., assignor.)

Stephens, Walter C., assignor to M. E. Stephens, Aplin, N. D. Automatic guiding device. No. 1,041,866; Oct. 15; Gas. vol. 183; p. 639.

Stephenson, William, Madison, Wis. Oar-lock. No. 1,042,280; Oct. 22; Gas. vol. 183; p. 983.

Sterling Bronze Company. (See Wagner, Charles, assignor.)

Sternau & Company, S. (See Barker, Walter G., assignor.)

Sternau & Company, S. (See Nelson, Charles, assignor.)

Stettiner Chamotte-Fabrik Actien-Gesellschaft vorm. Didier. (See Gohmann, Arthur, assignor.)

Stevens, Clarence D. (See Hayes and Stevens.)

Stevens, Leon K., New York, N. Y., assignor to M. T. Davidson Company. Steam-pump. No. 1,042,497; Oct. 29; Gas. vol. 183; p. 1064.

Stevenson, Charles H., assignor to Winchester Repeating Arms Co., New Haven, Conn. Paper-shell cartridge. No. 1,039,839; Oct. 1; Gas. vol. 183; p. 57.

Steward, Alden A., Rutland, Vt. Feeder for carbureters. No. 1,042,835; Oct. 29; Gas. vol. 183; p. 1201.

Stewart & Clark Manufacturing Company. (See Kocourek, Henry, assignor.)

Stewart, Edward B. (See Daggett, William R., assignor.)

Stewart Hartshorn Company. (See Hartshorn, Edmund F., assignor.)

Stewart, John G., Vandergrift, Pa. Tire-chain. No. 1,042,166; Oct. 22; Gas. vol. 183; p. 943.

Stewart, William R., Kansas City, Kans. Steam-generator. No. 1,041,188; Oct. 15; Gas. vol. 183; p. 578.

Stichter, Joseph L., Oswego, N. Y. Cover for collapsible tubes. No. 1,042,060; Oct. 22; Gas. vol. 183; p. 905.

Stieler, Martin, Chicago, Ill. Chimney-mold. No. 1,041,867; Oct. 15; Gas. vol. 183; p. 639.

Stier, Henry A. (See Glines and Stier.)

Stiles, Archibald, Obar, N. Mex. Broom-holder. No. 1,041,189; Oct. 15; Gas. vol. 183; p. 578.

Stiles, George A., Somerville, Mass. Collar-fastener. No. 1,041,868; Oct. 15; Gas. vol. 183; p. 639.

Stiller, Wenzel. (See Kitchen and Stiller.)

Stillman, George B. (See Sutcliffe and Stillman.)

Stillwell, Joseph E., West Orange, N. J. Malted whey. No. 1,041,995; Oct. 22; Gas. vol. 183; p. 854.

Stimpson, Walter F., Detroit, Mich., assignor, by mesne assignments, to The Commercial Savings Bank & Trust Company, trustee, Toledo, Ohio. Scale. No. 1,041,869; Oct. 15; Gas. vol. 183; p. 640.

Stinson, Spencer A., Blairstown, N. J. Reducing-valve. No. 1,040,807; Oct. 8; Gas. vol. 183; p. 417.

Stock, August, and F. Heim, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Dyestuff of the triphenylmethane series and making same. No. 1,042,498; Oct. 29; Gas. vol. 183; p. 1084.

Stockton, Marvin. (See Stockton, Thomas R. and M.)

Stockton, Thomas R. and M., Dyer, Tenn. Portable camp-stove, including washing boiler or kettle. No. 1,040,451; Oct. 8; Gas. vol. 183; p. 292.

Stokes, John S. (See Webb and Stokes.)

Stokes & Smith Company. (See Webb and Stokes, assignors.)

Stone, Albert H., Boston, Mass. Depilatory and making it. No. 1,041,897; Oct. 22; Gas. vol. 183; p. 854.

Stone, William, Milwaukee, Wis. Grinding-wheel guard. No. 1,042,018; Oct. 29; Gas. vol. 183; p. 1127.

Stork, Frederick W., assignor, by mesne assignments, to Excel Manufacturing Company, Boston, Mass. Machine for cutting cloth, leather, and similar materials. No. 1,040,537; Oct. 8; Gas. vol. 183; p. 341.

Stork, William, San Diego, Cal. Rotary brush. No. 1,040,808; Oct. 8; Gas. vol. 183; p. 418.

Storm, Bull & Co. (See Binding-Larsen, Alf., assignor.)

Stowe, Bernard A., assignor to The Adams-Bagnall Electric Company, Cleveland, Ohio. Support for electric translating devices. No. 1,040,452; Oct. 8; Gas. vol. 183; p. 292.

Strahan, Robert S., Brooklyn, N. Y. Muffler. No. 1,041,190; Oct. 15; Gas. vol. 183; p. 579.

Strahl, Frank J., Danville, Ill. Drum attachment. No. 1,040,809; Oct. 8; Gas. vol. 183; p. 418.

Stranahan, Robert A., Toledo, Ohio. Spark-plug. No. 1,042,619; Oct. 29; Gas. vol. 183; p. 1127.

Strandt, Gustav, Milwaukee, Wis. Bottle-capper. No. 1,040,453; Oct. 8; Gas. vol. 183; p. 293.

Strasser, John J., Chicago, Ill. Sand-blast machine. No. 1,039,840; Oct. 1; Gas. vol. 183; p. 56.

Streit, George B. (See Moench, Herman M., assignor.)

Strohmenger, Arthur P., Westminster, London, England. Electric deposition of metals. No. 1,041,525; Oct. 15; Gas. vol. 183; p. 691.

Stromberg, Frits O., Seattle, Wash. Separator. No. 1,042,836; Oct. 29; Gas. vol. 183; p. 1201.

Stromeyer, Julius, Philadelphia, Pa. Power-transmitting device. No. 1,040,585; Oct. 8; Gas. vol. 183; p. 342.

Strong, Harry J., and S. Ostrander, Chicago, Ill.; said Ostrander assignor to said Strong. Piano-lock. No. 1,040,963; Oct. 8; Gas. vol. 183; p. 467.

Strong, Willard L., La Center, Wash. Music-leaf turner. No. 1,040,454; Oct. 8; Gas. vol. 183; p. 293.

Stuart, Henry J. (See Ross and Stuart.)

Stuart, Kenneth E., Philadelphia, Pa. Motor suspension. No. 1,040,810; Oct. 8; Gas. vol. 183; p. 418.

Stuart, Kenneth E., Philadelphia, Pa. Tunnel. No. 1,040,811; Oct. 8; Gas. vol. 183; p. 418.

Stubbers, Joseph, Covington, Ky., assignor to The Incandescent Light & Stove Company, Cincinnati, Ohio. Hydrocarbon-generator. No. 1,042,987; Oct. 29; Gas. vol. 183; p. 1253.

Stubbers, Joseph, Covington, Ky., assignor to The Incandescent Light & Stove Company, Cincinnati, Ohio. Hydrocarbon-vapor-generator control. No. 1,042,988; Oct. 29; Gas. vol. 183; p. 1253.

Stugner, John. (See Kerchner and Stugner.)

Stump, Jonathan W., Ontario, Cal. Field-mower. No. 1,042,167; Oct. 22; Gas. vol. 183; p. 943.

Stumpf, Emil, Waterloo, Ill. Shocking-machine. No. 1,041,898; Oct. 22; Gas. vol. 183; p. 854.

Stumpf, Johann, Berlin, Germany. Steam-engine. No. 1,042,051; Oct. 22; Gas. vol. 183; p. 905.

Stumpf, Johann, Berlin, Germany. Steam-engine. No. 1,042,168; Oct. 22; Gas. vol. 183; p. 943.

Stupian, Charles, Buffalo, N. Y. Blacking-box or the like. No. 1,041,694; Oct. 15; Gas. vol. 183; p. 746.

Sturgeon, Robert C., *et al.* (See Finlayson, Alexander W., assignor.)

Sturges, Walter H., *et al.* (See Payne, Ernest E. M., assignor.)

Sturgis Steel Go-Cart Company. (See Spofford and Jonas, assignors.)

Sturgis Steel Go-Cart Co. (See Spofford, Jonas, and Bennett, assignors.)

Sturgiss, Wilbur R., Arcadia, Kans. Hoeing-machine. No. 1,040,589; Oct. 8; Gas. vol. 183; p. 342.

Sturtevant, Julius. (See Weinstein and Sturtevant.)

Stütting, Heinrich, Witten, Germany. Tube-rolling mill. No. 1,040,812; Oct. 8; Gas. vol. 183; p. 419.

Suhl, Herbert P., Fortuna, Mo. Traction-engine for cultivators. No. 1,041,191; Oct. 15; Gas. vol. 183; p. 579.

Sulsbach, Henry L., Sioux City, Iowa. Match-safe. No. 1,041,695; Oct. 15; Gas. vol. 183; p. 746.

Summerscales, Samuel H., Winnipeg, Manitoba, Canada. Metallic wheel. No. 1,042,290; Oct. 22; Gas. vol. 183; p. 983.

Summerville, William D., Brookville, Pa. Type-writer key. No. 1,041,696; Oct. 15; Gas. vol. 183; p. 746.

Surgeoner, Hugh, Westfield, Mass. Fan. No. 1,042,169; Oct. 22; Gas. vol. 183; p. 944.

Suss, Herman M., Fall River, Mass. Core-filling compound for pneumatic tires and making the same. No. 1,041,526; Oct. 15; Gas. vol. 183; p. 691.

Sutcliffe, Edgar R., Leigh, England. Tunnel-kiln. No. 1,042,725; Oct. 29; Gas. vol. 183; p. 1164.

Sutcliffe, William, and G. B. Stillman, Deerfield, Ohio. Delivery-machine. No. 1,042,620; Oct. 29; Gaz. vol. 183; p. 1127.

Suzuki, Tomburo, Tokyo, Japan. Drying apparatus. No. 1,039,841; Oct. 1; Gaz. vol. 183; p. 58.

Swann, Nathan P., Fletcher, Okla. Cow-poke. No. 1,042,499; Oct. 29; Gaz. vol. 183; p. 1064.

Swanstrom, Martin R., Chicago, Ill. Pneumatic pump. No. 1,039,842; Oct. 1; Gaz. vol. 183; p. 58.

Swarthout, Jacob C. (See Hemken and Swarthout.)

Swartley, Wilmer C. (See Cline, Albert R., assignor.)

Swayze, August A. (See Marz, Leon L., assignor.)

Sweet, Charles E., Worcester, and W. V. Ballard, Millbury, Mass. Heddle-binder. No. 1,042,052; Oct. 22; Gaz. vol. 183; p. 906.

Swensingson, Louis, and W. H. Woodward, Salem, Ohio. Valve. No. 1,041,697; Oct. 15; Gaz. vol. 183; p. 746.

Swihart, Harvey R., Indianapolis, Ind. Ticket-holder. No. 1,040,051; Oct. 1; Gaz. vol. 183; p. 127.

Symons, Wilson R., Chicago, Ill. Draft-rigging for cars. No. 1,040,052; Oct. 1; Gaz. vol. 183; p. 127.

Syracuse, Fortunatus F., New York, N. Y. Combination non-refillable bottle and drinking-cup. No. 1,039,843; Oct. 1; Gaz. vol. 183; p. 59.

Tabor, Albert R., Providence, R. I., assignor to Willcox & Gibbs Sewing Machine Co., New York, N. Y. Looper mechanism for sewing-machines. No. 1,041,696; Oct. 15; Gaz. vol. 183; p. 747.

Taft, Ray B., Hingham, Mass. Implement-holder. No. 1,040,053; Oct. 1; Gaz. vol. 183; p. 127.

Taggart, John W., Sr. (See Mitchell and Taggart.)

Taggart, William W., Canton, Ohio. Quilting and stretching frame. No. 1,042,170; Oct. 22; Gaz. vol. 183; p. 944.

Tagliabue, Charles J. (See McIntyre, Frank, assignor.)

Taitt, George R. (See Vogel and Taitt.)

Takács, Steve, Newark, Ohio. Wrench. No. 1,042,083; Oct. 22; Gaz. vol. 183; p. 906.

Takahashi, Kakuji, San Francisco, Cal. Fastener for brooches and the like. No. 1,042,291; Oct. 22; Gaz. vol. 183; p. 968.

Talansier, Marie J., Paris, France. Apparatus for fixation of liquids. No. 1,042,171; Oct. 22; Gaz. vol. 183; p. 944.

Talmon, Nettie, *et al.* (See Kerns, James, assignor.)

Tangeman, Eldo J., Keystone, Iowa. Carpet-cleaner. No. 1,042,054; Oct. 22; Gaz. vol. 183; p. 906.

Tarbell, Frank L., assignor of one-half to M. H. Fisher, Chicago, Ill. Ice-cream-cone dispenser. No. 1,041,192; Oct. 15; Gaz. vol. 183; p. 579.

Tatarek, Edmond, Budapest, assignor of one-half to Johan von Benko de Arkosd, Debrecsen, Austria-Hungary. Automatic cartridge-magazine for firearms. No. 1,042,837; Oct. 29; Gaz. vol. 183; p. 1202.

Tate, Joseph H., Richmond, Va. Smoke-consumer. No. 1,041,890; Oct. 22; Gaz. vol. 183; p. 855.

Tatlow, Richard H., Jr., Denver, Colo. Match-safe. No. 1,041,370; Oct. 15; Gaz. vol. 183; p. 640.

Tatum, Franklin M., Nacogdoches, assignor of one-sixth to J. T. Norris, one-sixth to H. E. Norris, eight thirty-sixths to D. B. Woods, one-eighteenth to J. M. Sanders, two twenty-fourths to W. I. Davis, one twenty-fourth to J. D. Redditt, one twenty-fourth to R. E. Harkrider, Center, Tex., one-eighteenth to T. M. Barham, Kansas City, Mo., and one-sixth to A. R. Fox, Center, Tex. Roller-bearing. No. 1,041,900; Oct. 22; Gaz. vol. 183; p. 855.

Tatum, Lewis L., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric-switch contact. No. 1,040,455; Oct. 8; Gaz. vol. 183; p. 293.

Taupert, Robert J., Las Vegas, N. Mex. Link-button. No. 1,041,371; Oct. 15; Gaz. vol. 183; p. 640.

Tauscher, John, Ellis, Kans. Poke. No. 1,041,372; Oct. 15; Gaz. vol. 183; p. 640.

Taylor, Arthur M., Keuka Park, N. Y., assignor to The Taylor Basket and Machine Company, Erie, Pa. Basket-nailing machine. No. 1,040,456; Oct. 8; Gaz. vol. 183; p. 294.

Taylor, Arthur M., Keuka Park, N. Y., assignor to The Taylor Basket and Machine Company, Erie, Pa. Basket-making machine. No. 1,040,457; Oct. 8; Gaz. vol. 183; p. 294.

Taylor, Arthur M., Keuka Park, N. Y., assignor to The Taylor Basket & Machine Company, Erie, Pa. Basket-making machine. No. 1,040,590; Oct. 8; Gaz. vol. 183; p. 342.

Taylor Basket and Machine Company, The. (See Taylor, Arthur M., assignor.)

Taylor, Henry, and S. L. Hutchins; said Hutchins assignor to W. Bragg, Peoria, Ill., and said Taylor assignor of one-half of his right to said Bragg. Coupling. No. 1,040,964; Oct. 8; Gaz. vol. 183; p. 467.

Taylor, Isora. (See Taylor, James H. and I.)

Taylor, James H. and I., Philadelphia, Pa. Collar-supporter. No. 1,040,458; Oct. 8; Gaz. vol. 183; p. 294.

Taylor, Marion, Soudan, Va. Operating mechanism for car-doors. No. 1,041,901; Oct. 22; Gaz. vol. 183; p. 855.

Taylor, Russell H., New York, N. Y. Bottle-capping machine. No. 1,041,527; Oct. 15; Gaz. vol. 183; p. 691.

Taylor, Warren H., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Dial-lock. No. 1,042,824; Oct. 29; Gaz. vol. 183; p. 1202.

Taylor, William F., Tacoma, Wash. Regenerative furnace. No. 1,040,459; Oct. 8; Gaz. vol. 183; p. 295.

Taylor, William F., Tacoma, Wash. Flame-arrester for regenerative melting-furnaces. No. 1,040,460; Oct. 8; Gaz. vol. 183; p. 295.

Temple, Willard M., Mason City, Iowa. Apparatus for printing in colors. No. 1,041,193; Oct. 15; Gaz. vol. 183; p. 580.

Tenney, Fred H. (See Van Rensselaer and Tenney.)

Terrien, Otto, Manistique, Mich. Nut-lock. No. 1,041,194; Oct. 15; Gaz. vol. 183; p. 580.

Terrill, Franklin E., Lakewood, and J. F. Dowd, Cleveland, Ohio. Cigar-banding machine. No. 1,042,621; Oct. 29; Gaz. vol. 183; p. 1132.

Terry, Charles A., New York, N. Y., assignor to The Bryant Electric Company, Bridgeport, Conn. Shade-holder. No. 1,042,820; Oct. 29; Gaz. vol. 183; p. 1202.

Tessmer, Herman G., assignor of three-tenths to O. D. Smith and three-tenths to C. G. Weathers, Pittsburg, Kans. Safety device for elevators. No. 1,042,172; Oct. 22; Gaz. vol. 183; p. 945.

Thetsend, John E., assignor of one-third to J. Franey and one-third to I. E. Highton, Buffalo, N. Y. Variable-speed-transmission device. No. 1,041,578; Oct. 15; Gaz. vol. 183; p. 641.

Theisen, Hans H., Munich, Germany. Apparatus for cleaning, cooling, and washing gases. No. 1,042,940; Oct. 29; Gaz. vol. 183; p. 1203.

Theisen, Joseph, Grand Rapids, Mich. Vacuum-cleaner. No. 1,042,065; Oct. 22; Gaz. vol. 183; p. 906.

Therien, George W., and O. R. Keil, St. Anne, Ill. Combined display, measuring, and cutting device. No. 1,040,054; Oct. 1; Gaz. vol. 183; p. 128.

Thermo Electric Company, The. (See Shoenberg, Milton H., assignor.)

Thoeming, Benjamin H. (See Thoeming and Andersen.)

Thoeming, Louis C. and B. H. and R. A. Andersen, Newcastle, Wyo. Dirigible headlight. No. 1,041,985; Oct. 22; Gaz. vol. 183; p. 856.

Thoma, Charles, Jr., *et al.* (See Mann, Harry, assignor.)

Thoma, Walter, *et al.* (See Mann, Harry, assignor.)

Thoman, George C. Llecard, England. Apparatus for taking kinematographic (or other) photographs and projecting same. No. 1,040,591; Oct. 8; Gaz. vol. 183; p. 343.

Thomas, Harold A., Terre Haute, Ind. Computing device. No. 1,040,592; Oct. 8; Gaz. vol. 183; p. 343.

Thomas, Harry V. (See Fowler and Thomas.)

Thomas, Thompson F., Indianapolis, Ind. Knockdown combination minnow-trap and lantern. No. 1,041,195; Oct. 15; Gaz. vol. 183; p. 580.

Thomas, William. (See Heag and Thomas.)

Thomas, William, assignor of one-half to J. B. Metz, Springfield, Mo. Combined hammer and nail-set. No. 1,041,908; Oct. 22; Gaz. vol. 183; p. 856.

Thomas, William H. (See Kaley, Elmer R., assignor.)

Thompson, Alva E., Hastings, assignor to The Misaco Electric Safety Lamp Manfg. Co., Trinidad, Colo. Battery. No. 1,040,055; Oct. 1; Gaz. vol. 183; p. 128.

Thompson, Alva E., and J. Cameron, Hastings, assignors to The Misaco Electric Safety Lamp Manfg. Co., Trinidad, Colo. Lamp. No. 1,040,056; Oct. 1; Gaz. vol. 183; p. 128.

Thompson, Anna L. M., Philadelphia, Pa. Screen. No. 1,040,818; Oct. 8; Gaz. vol. 183; p. 419.

Thompson, Carlos L., Marshall, Wis. Bolster-spring. No. 1,042,500; Oct. 29; Gaz. vol. 183; p. 1065.

Thompson, Hiram F., Lexington, Ohio. Tree and plant irrigation. No. 1,042,501; Oct. 29; Gaz. vol. 183; p. 1065.

Thompson, John, New York, N. Y. Theatrical aquatic apparatus. No. 1,041,874; Oct. 15; Gaz. vol. 183; p. 641.

Thompson, John J., *et al.* (See Parchem, Albert J., assignor.)

Thompson, John S., Chicago, Ill. Printer's tie-up. No. 1,042,292; Oct. 22; Gaz. vol. 183; p. 968.

Thompson, Joseph S., Mill Valley, Cal. Locking device for securing automobile-robes, overcoats &c. No. 1,042,502; Oct. 29; Gaz. vol. 183; p. 1065.

Thompson, Robert H., Jr., Portland, Oreg. Bottle faucet or tap. No. 1,041,609; Oct. 15; Gaz. vol. 183; p. 748.

Thompson, William P. (See Weaver, Grover, assignor.)

Thompson, Willsie A. S., T. N. Kellett, and R. W. Gunn, Los Angeles, Cal. Pump. No. 1,041,375; Oct. 15; Gaz. vol. 183; p. 642.

Thomson Electric Welding Company. (See Bietzel, Adolph F., assignor.)

Thomson Electric Welding Company. (See Bietzel and Barstow, assignors.)

Thomson, Elihu, Swampscott, Mass., assignor to General Electric Company. Arc-lamp. No. 1,041,197; Oct. 15; Gaz. vol. 183; p. 581.

Thomson, Thomas N., Scranton, Pa., assignor to International Poultry Sales Company, Brown Mills, N. J. Incubator. No. 1,039,844; Oct. 1; Gaz. vol. 183; p. 59.

Thoren, Ernst F., St. Louis, assignor of one-half to H. E. Laun, Clayton, Mo. Belt-polishing machine. No. 1,039,845; Oct. 1; Gaz. vol. 183; p. 60.

Thorndike, Herbert W., assignor to F. W. Webb Manufacturing Company, Boston, Mass. Floor connection. No. 1,039,846; Oct. 1; Gaz. vol. 183; p. 60.

Thornhill, William A., Gibson, Okla. Shoulder-pad. No. 1,041,196; Oct. 15; Gaz. vol. 183; p. 581.

Thornley, Albert J., assignor to Narragansett Machine Company, Pawtucket, R. I. Gymnasium apparatus. No. 1,041,701; Oct. 15; Gaz. vol. 183; p. 748.

Thorpe, Gertrude, assignor of one-half to W. Hoag, Philadelphia, Pa. Head-covering. No. 1,040,461; Oct. 8; Gaz. vol. 183; p. 295.

Thorsen, Martin J., Weehawken, N. J. Tube-scraper. No. 1,042,841; Oct. 29; Gaz. vol. 183; p. 1203.

Thortvedt, Levi, Glyndon, Minn. Loader. No. 1,039,847; Oct. 1; Gaz. vol. 183; p. 60.

Threm, Heinrich, assignor to Vereinigte Chininfabriken Zimmer & Co., Gesellschaft mit beschränkter Haftung, Frankfort-on-the-Main, Germany. Manufacture of esters of the hydrocinchona alkaloids. No. 1,041,528; Oct. 15; Gaz. vol. 183; p. 692.

Thruman, Charles F., Pasadena, Cal. Detachable suspension-hook for painters. No. 1,040,462; Oct. 8; Gaz. vol. 183; p. 295.

Thulin, John. (See Manley, Thulin, and Smith.)

Thurston, Fredrick A., Lynn, Mass. Internal-combustion engine. No. 1,042,503; Oct. 29; Gaz. vol. 183; p. 1065.

Tidewater Peanut Harvester Corporation. (See Whitmore, Thomas J., assignor.)

Tiemann, Fritz, Berlin, Germany. Apparatus for compressing precipitates in settling vessels. No. 1,042,293; Oct. 22; Gaz. vol. 183; p. 984.

Tiffany, Edward D., assignor of one-half to J. De Planty, Albion, N. Y. Clam-opener. No. 1,041,198; Oct. 15; Gaz. vol. 183; p. 581.

Tighe, James F., Philadelphia, Pa. Elevator safety-clutch. No. 1,041,904; Oct. 22; Gaz. vol. 183; p. 856.

Tillinghast, James. (See Loring, Benjamin C., assignor.)

Tillotson, Leslie B., *et al.*, administrators. (See Hannum, Ralph C. and H. A.)

Tilson, Martin D. (See Edwards, George F., assignor.)

Tilsner, Charles, Oglesby, Ill. Tool-holder. No. 1,042,842; Oct. 29; Gaz. vol. 183; p. 1203.

Tilton, John W., assignor of one-half to G. Hoefer, C. J. Adams, and N. W. Young, Atlantic City, N. J. Shock-absorbing hub for vehicle-wheels. No. 1,041,702; Oct. 15; Gaz. vol. 183; p. 749.

Timmerman, Ernest B. (See Carson and Timmerman.)

Tirrill, Jacob P., St. Louis, Mo. Sample-book. No. 1,041,703; Oct. 15; Gaz. vol. 183; p. 749.

Tobias, Francis H., New York, N. Y. Light-dimmer. No. 1,040,813; Oct. 8; Gaz. vol. 183; p. 419.

Tobin, Patric H., *et al.* (See Upshaw, Lucius L., assignor.)

Tocci, Francesco A., Lake Charles, La. Device for carrying keys. No. 1,042,843; Oct. 29; Gaz. vol. 183; p. 1203.

Tod, James S., Rock Island, Ill. Watering-trough. No. 1,042,056; Oct. 22; Gaz. vol. 183; p. 906.

Todd, John W. (See Fulson, Charles H., assignor.)

Toepfer, Charles, Milwaukee, Wis. Fishing-tackle. No. 1,041,376; Oct. 15; Gaz. vol. 183; p. 642.

Tokheim, John J., Cedar Rapids, Iowa. Rotary pump. No. 1,040,057; Oct. 1; Gaz. vol. 183; p. 128.

Tokheim, John J., assignor to The Tokheim Mfg. Company, Cedar Rapids, Iowa. Naphtha storing and pumping system. No. 1,040,463; Oct. 8; Gaz. vol. 183; p. 296.

Tokheim Mfg. Company, The. (See Tokheim, John J., assignor.)

Tolles, F. I., East Toledo, Ohio. Combination fountain-pen. No. 1,042,726; Oct. 29; Gaz. vol. 183; p. 1164.

Toman, James. (See Rodehaver, Isaac H., assignor.)

Tomlin, Francis H., Haddonfield, N. J. Toy. No. 1,040,058; Oct. 1; Gaz. vol. 183; p. 129.

Tone, Frank J., assignor to The Carborundum Company, Niagara Falls, N. Y. Refractory material. No. 1,042,844; Oct. 29; Gaz. vol. 183; p. 1204.

Tonz, George F., Chicago, Ill. Water-closet connection. No. 1,041,905; Oct. 22; Gaz. vol. 183; p. 857.

Tong, William W., Clarksville, Cal. Swinging gate. No. 1,041,906; Oct. 22; Gaz. vol. 183; p. 857.

Toomey, Eugene L. (See Hamblin, Stephen M. and G. N., assignors.)

Torluemke, Herman, St. Louis, Mo. Toy. No. 1,042,294; Oct. 22; Gaz. vol. 183; p. 984.

Torney, John H. (See Snyder and Torney.)

Toth, Steve, and J. Vecsei, Windber, Pa. Rendering vessel. No. 1,042,845; Oct. 29; Gaz. vol. 183; p. 1204.

Tower, Andrew J., Meadota, Ill. Soil-pulverising machine. No. 1,041,199; Oct. 15; Gaz. vol. 183; p. 582.

Towne, Joseph M., East Orange, N. J., assignor to Safety Car Heating & Lighting Company. Coupling-gasket. No. 1,041,907; Oct. 22; Gaz. vol. 183; p. 857.

Townsend, Charles E., assignor to said Townsend and O. L. Jarrell, trustees, Billings, Mont. Wrench. No. 1,040,464; Oct. 8; Gaz. vol. 183; p. 296.

Townsend, Nelson Y., Dresden, N. Y. Collapsible bed. No. 1,040,815; Oct. 8; Gaz. vol. 183; p. 419.

Trachsler, Heinrich, Zürich, Switzerland. Cement-furnace. No. 1,042,727; Oct. 29; Gaz. vol. 183; p. 1164.

Trautman, Cornelius V. (See Holmes and Trautman.)

Trautman, Ira F., New York, N. Y. Making cores for automobile-tires. No. 1,041,577; Oct. 15; Gaz. vol. 183; p. 642.

Travis, Walter J., Yonkers, N. Y. Dough mixing and kneading machine. No. 1,041,908; Oct. 22; Gaz. vol. 183; p. 857.







Trayler, Bruce W., New York, N. Y., assignor to Traylor Engineering and Manufacturing Co. Mechanism for relative reciprocation of rotary members. No. 1,040,465; Oct. 8; Gaz. vol. 183; p. 297.

Traylor Engineering and Manufacturing Co. (See Trayler, Bruce W., assignor.)

Trench, Harry G., Springfield, Mass. Shackle for vehicle-springs. No. 1,042,175; Oct. 22; Gaz. vol. 183; p. 945.

Trent, Lamartine C., Los Angeles, Cal. Clamshot. No. 1,041,909; Oct. 22; Gaz. vol. 183; p. 858.

Trent, Lamartine C., Los Angeles, Cal. Filtering apparatus. No. 1,042,296; Oct. 22; Gaz. vol. 183; p. 968.

Trilling, Hugo, Sheboygan, Wis. Christmas-tree holder. No. 1,040,593; Oct. 8; Gaz. vol. 183; p. 343.

Trinks, Franz, Brunswick, Germany. Calculating-machine. No. 1,040,060; Oct. 1; Gaz. vol. 183; p. 130.

Triplett, Hugh L., Fort Wayne, Ind. Automatic road-map for automobiles. No. 1,039,848; Oct. 1; Gaz. vol. 183; p. 60.

Troger, Richard, Charlottenburg, Germany, assignor to General Electric Company. Means for regulating centrifugal compressors. No. 1,041,529; Oct. 15; Gaz. vol. 183; p. 692.

Trousdale, Robert A., assignor of one-half to J. H. Sexton, Tyler, Tex. Beam and shank attachment. No. 1,041,550; Oct. 15; Gaz. vol. 183; p. 692.

Troy Laundry Machinery Company. (See Bartholomew, William, assignor.)

Trudel, Francois X. O., Montreal, Quebec, Canada. Food product and obtaining the same. No. 1,039,849; Oct. 1; Gaz. vol. 183; p. 61.

Trundle, George F., assignor to The American Multigraph Company, Cleveland, Ohio. Clutch. No. 1,040,466; Oct. 8; Gaz. vol. 183; p. 297.

Trussed Concrete Steel Company. (See Kahn, Thomas H., assignor.)

Tschopik, Julius D. (See Butta, Daniel G., assignor.)

Tubbs, Mary J., *et al.* (See Akes, Charles Y., assignor.)

Tucker, Clarence E. and H. P., Cherrydale, Va.; said Clarence E. Tucker assignor to said H. P. Tucker. Non-refillable bottle. No. 1,042,622; Oct. 29; Gaz. vol. 183; p. 1128.

Tucker, George E., assignor of one-half to E. Robinson, Springwater, N. Y. Scraper attachment. No. 1,040,816; Oct. 8; Gaz. vol. 183; p. 420.

Tucker, Harvey A., *et al.* (See Watkins, William F., assignor.)

Tucker, Howard P. (See Tucker, Clarence E. and H. P.)

Tufting Machine Supply Company. (See Brink, George B., assignor.)

Tufting Machine Supply Company. (See Frosbel, John L., assignor.)

Tufting Machine Supply Company. (See Mrock, Albert F., assignor.)

Tully, Arthur M., Woodville, Fla. Spring-wheel. No. 1,041,910; Oct. 22; Gaz. vol. 183; p. 858.

Turnbull, Nicholas K., Manchester, England. Machine for remaking wire-drawing dies. No. 1,041,200; Oct. 15; Gaz. vol. 183; p. 582.

Turner, Charles L., Wilmington, Mass. Butt-seaming machine. No. 1,041,201; Oct. 15; Gaz. vol. 183; p. 582.

Turner, Ernest, Dadeville, Ala. Steam-actuated exhaust-valve. No. 1,042,846; Oct. 29; Gaz. vol. 183; p. 1204.

Turner, Harry O., *et al.* (See Ivor, Barry, assignor.)

Turner, Henry H., Rochester, N. Y. Trap. No. 1,041,911; Oct. 22; Gaz. vol. 183; p. 858.

Turner, Mathias E., Cleveland Heights, Ohio. Electric meter. No. 1,042,847; Oct. 29; Gaz. vol. 183; p. 1204.

Turner Tanning Machinery Company, The. (See Harris, Robert H., assignor.)

Turney, Harry L. (See Libby and Turney.)

Tute, Robert A., Atlanta, Ga. Projectile. No. 1,042,504; Oct. 29; Gaz. vol. 183; p. 1066.

Tuttle, Joseph B., and R. P. Robinson, Asheville, N. C. Clothes-line. No. 1,040,467; Oct. 8; Gaz. vol. 183; p. 297.

Tutwiler, Thomas H., and A. D. McWhorter, Memphis, Tenn. Door-operating mechanism. No. 1,040,817; Oct. 8; Gaz. vol. 183; p. 420.

Tweeddale, Jean, New York, N. Y. Strainer for nursing-bottles. No. 1,041,378; Oct. 15; Gaz. vol. 183; p. 642.

Twombly Motors Company. (See Twombly, Willard L., assignor.)

Twombly, Willard L., assignor to Twombly Motors Company, New York, N. Y. Internal-combustion engine. No. 1,042,505; Oct. 29; Gaz. vol. 183; p. 1066.

Tyminski, Josef, Chicopee, Mass. Folding umbrella. No. 1,042,174; Oct. 22; Gaz. vol. 183; p. 945.

Tyson, James E., Reading, Pa. Marine propeller. No. 1,041,912; Oct. 22; Gaz. vol. 183; p. 859.

Tyson, James E., Reading, Pa. Aerial propeller. No. 1,041,913; Oct. 22; Gaz. vol. 183; p. 859.

Uebelmesser, Charles E., assignor to American Moving Picture Machine Company, New York, N. Y. Automatic shutter for moving-picture machines. No. 1,040,468; Oct. 8; Gaz. vol. 183; p. 297.

Ullitz, Urulia, New York, N. Y. Hat-box. No. 1,040,960; Oct. 1; Gaz. vol. 183; p. 130.

Underwood Typewriter Company. (See Barnard, Walter E., assignor.)

Underwood Typewriter Company. (See Gibbs and Sebulev, assignors.)

Underwood Typewriter Company. (See Pfander, Emil L., assignor.)
Union Iron Works Co. (See Dahl, Knut M., assignor.)
Union Special Sewing Machine Co. (See Corey, Daniel W., assignor.)
Union Special Sewing Machine Company. (See Onderdonk, Lansing, assignee.)
Union Switch & Signal Company, The. (See Holliday, John S., assignor.)
Union Typewriter Company. (See Barron, Walter J., assignor.)
Union Typewriter Company. (See Feibel, Jacob, assignor.)
Union Typewriter Company. (See Palmer, Walter E., assignor.) (Reissue.)
Union Typewriter Company. (See Pool, Morris W., assignor.)
Union Typewriter Company. (See Smith, Arthur W., assignor.)
Union Typewriter Company. (See Woodward, Oscar, assignor.)
Unit Weighing and Packing System, The. (See Heybach, Frederick J., assignor.)
United Electric Apparatus Company. (See Ziegler, Alfred A., assignor.)
United Shoe Machinery Company. (See Casgrain, Louis A., assignor.)
United Shoe Machinery Company. (See Ellison, Forrest L., assignor.)
United Shoe Machinery Company. (See McFeely, Ronald F., assignor.)
United Shoe Machinery Company. (See Olson, August, assignor.)
United Shoe Machinery Company. (See Plant, Thomas G., assignor.)
United States Cabinet Bed Co. (See Schwartzman, Jacub, assignor.)
United States Light and Heating Company, The. (See Bliss, William L., assignor.)
United States Light & Heating Company. (See Engel, Frank, assignor.)
Universal Tool Company. (See Palmer, John M., assignor.)
Upshaw, Lucius L., assignor of one-fifth to G. L. Blackford and one-fifth to P. H. Tobin, Denison, Tex. Cotton-harvester. No. 1,041,202; Oct. 15; Gaz. vol. 183; p. 583.
Urbasch, Ottokar, Vienna, Austria-Hungary. Making bodies for sulfuring casks and the like. No. 1,042,067; Oct. 22; Gaz. vol. 183; p. 907.
Utah Aerial Navigation and Power Company. (See Flanigan, David A., assignor.)
Vahle, Ernest, West Hoboken, N. J., assignor, by mesne assignments, to A. A. Schrader's Sons, Incorporated, New York, N. Y. Turret-lathe. No. 1,041,203; Oct. 15; Gaz. vol. 183; p. 583.
Valle and Kimes Company, The. (See Kimes, Hugh W., assignor.)
Vallat, Charles E. J. de, Paris, France. Propeller. No. 1,042,506; Oct. 29; Gaz. vol. 183; p. 1086.
Van Aken, John C., Ridgway, Pa., assignor to Van Aken Manufacturing Company. Sled. No. 1,040,061; Oct. 1; Gaz. vol. 183; p. 130.
Van Aken Manufacturing Company. (See Van Aken, John C., assignor.)
Van Altena, Henry, New Brunswick, N. J. Chromatrope. No. 1,041,380; Oct. 15; Gaz. vol. 183; p. 643.
Van der Least, William, Laona, Wis. Automatic steam-feed and piston-rod support. No. 1,042,849; Oct. 29; Gaz. vol. 183; p. 1206.
Van Dorn & Dutton Company, The. (See Dunfee, John C., assignor.)
Van Fleet, Walter N., Bocaton, N. J. Sectional heater-base. No. 1,040,469; Oct. 8; Gaz. vol. 183; p. 298.
Van Hook, Kate, Hiawatha, Kans. Massage apparatus. No. 1,042,059; Oct. 22; Gaz. vol. 183; p. 907.
Van Ness, Henry E., Elmira, N. Y. Drill-chuck. No. 1,042,507; Oct. 29; Gaz. vol. 183; p. 1067.
Van Ness, Henry E., and W. T. Kneale, Elmira, N. Y. Coaster-brake. No. 1,041,914; Oct. 22; Gaz. vol. 183; p. 860.
Van Nostrand, William, Dalton, N. Y. Grinding-machine. No. 1,040,470; Oct. 8; Gaz. vol. 183; p. 298.
Van Praag, Leonidas A. (See Lindeman, Max, assignor.)
Van Rensselaer, Allen, and F. H. Tenney, Spokane, Wash. Elapse-time computer and century-calendar machine. No. 1,041,294; Oct. 15; Gaz. vol. 183; p. 584.
Van Santa, Benjamin. (See Bennett, Dwight W., assignor.)
Van Smith, Charles, Kansas City, Mo. Vehicle wheel-tire. No. 1,040,471; Oct. 8; Gaz. vol. 183; p. 298.
Van Tassel, John E., assignor to The Standard Optical Company, Geneva, N. Y. Eyeglasses. No. 1,040,062; Oct. 1; Gaz. vol. 183; p. 130.
Van Valkenburg, Levi D., Holyoke, Mass. Filter. No. 1,041,916; Oct. 22; Gaz. vol. 183; p. 860.
Van Vliet, John J., Chicago, Ill. Hat-pin guard. No. 1,041,381; Oct. 15; Gaz. vol. 183; p. 643.
Vandercook, Robert O., Fruitvale, Cal. Machine for printing proofs. No. 1,042,848; Oct. 29; Gaz. vol. 183; p. 1205.
Varney, Henry W. (See Davis, George H., assignor.)
Vater, George C. F., assignor to The C. W. Raymond Company, Dayton, Ohio. Sectional kiln. No. 1,041,879; Oct. 15; Gaz. vol. 183; p. 643.
Vessel, John. (See Toth and Vessel.)
Vennum, George C., St. Louis, Mo. Vacuum-recorder. No. 1,041,383; Oct. 15; Gaz. vol. 183; p. 642.
Ventilating Shade Fixture Co. (See Sanford, William R., assignor.)
Vereinigte Chininfabriken Zimmer & Co., Gesellschaft mit beschränkter Haftung. (See Thron, Heinrich, assignor.)
Vernaz, Alexis, Geneva, Switzerland. File. No. 1,042,728; Oct. 29; Gaz. vol. 183; p. 1164.
Vickers, Limited. (See Dawson and Buckham, assignors.)
Vickers Limited. (See Dawson and Horne, assignors.)
Victor Jar Company, The. (See Eichorn, Jacob C., assignor.)
Victor Talking Machine Company. (See Deanison, Wilburn N., assignor.)
Victor Talking Machine Company. (See English, John C., assignor.)
Victor Talking Machine Company. (See Johnson, Eldridge R., assignor.)
Vinness, Carl Bo Mekinock, N. D. Pipe-wrench. No. 1,042,175; Oct. 22; Gaz. vol. 183; p. 946.
Vock, Arthur A., assignor to The Standing Stamping Company, Marysville, Ohio. Gas-regulating valve. No. 1,042,550; Oct. 29; Gaz. vol. 183; p. 1206.
Voegeli, George, Chicago, Ill. Ash-receiver and holder. No. 1,042,551; Oct. 29; Gaz. vol. 183; p. 1206.
Vogel, Otto, Wilmersdorf, Germany. Electric furnace. No. 1,040,316; Oct. 8; Gaz. vol. 183; p. 420.
Vogel, Charles H., and G. R. Taitt, Vancouver, British Columbia, Canada. Aerial tramway. No. 1,041,916; Oct. 22; Gaz. vol. 183; p. 861.
Vortlandische Maschinen-Fabrik (vormals J. C. & H. Dietrich) A. G. (See Egli, Arnold, assignor.)
Voight, Henry G., New Britain, Conn. Combined floor check and hinge. No. 1,040,965; Oct. 8; Gaz. vol. 183; p. 468.
Voight, Henry G., New Britain, Conn. Lock. No. 1,040,966; Oct. 8; Gaz. vol. 183; p. 468.
Voight, Henry G., New Britain, Conn. Lock for sliding doors. No. 1,040,967; Oct. 8; Gaz. vol. 183; p. 469.
Voight, Henry G., New Britain, Conn. Spring door-hinge. No. 1,040,968; Oct. 8; Gaz. vol. 183; p. 469.
Voight, Henry G., New Britain, Conn. Door-controlling means. No. 1,040,969; Oct. 8; Gaz. vol. 183; p. 470.
Voight, Henry G., New Britain, Conn. Door controlling and locking means. No. 1,040,970; Oct. 8; Gaz. vol. 183; p. 471.
Voight, Henry G., New Britain, Conn. Lock for sliding doors. No. 1,041,704; Oct. 15; Gaz. vol. 183; p. 749.
Voight, Henry G., New Britain, Conn. Door-controlling means. No. 1,041,705; Oct. 15; Gaz. vol. 183; p. 750.
Voight, Henry G., New Britain, Conn. Door-controlling means. No. 1,041,706; Oct. 15; Gaz. vol. 183; p. 750.
Voight, Henry G., New Britain, Conn. Window-lock. No. 1,042,296; Oct. 22; Gaz. vol. 183; p. 965.
Voight, Henry G., New Britain, Conn. Combined self-adjusting night-latch and lock. No. 1,042,297; Oct. 22; Gaz. vol. 183; p. 965.
Voland, George G. (See Voland, Gottfried and G. G.)
Voland, Gottfried and G. G., New Rochelle, N. Y. Balance. No. 1,041,383; Oct. 15; Gaz. vol. 183; p. 644.
Void, Lars H., Westville, N. J., assignor to William Sellers & Company, Incorporated, Philadelphia, Pa. Multiple punch. (Reissue.) No. 13,472; Oct. 1; Gaz. vol. 183; p. 201.
Völler, Karl, Duesseldorf, Germany. Artillery-projectile. No. 1,042,176; Oct. 22; Gaz. vol. 183; p. 946.
Völler, Karl, Duesseldorf, assignor to Rheinische Metallwaaren- und Maschinenfabrik. Duesseldorf-Derendorf, Germany. Artillery-projectile. No. 1,039,850; Oct. 1; Gaz. vol. 183; p. 61.
Völler, Karl, Duesseldorf, assignor to Rheinische Metallwaaren- und Maschinenfabrik. Duesseldorf-Derendorf, Germany. Gun-mounting. No. 1,041,384; Oct. 15; Gaz. vol. 183; p. 644.
Vollmer, Joseph, Berlin, Germany. Reversing-gear for multiple-cylinder combustion-engines. No. 1,042,969; Oct. 29; Gaz. vol. 183; p. 1253.
Voss, William H., Davenport, Iowa. Mechanical movement for washing-machines. No. 1,042,553; Oct. 29; Gaz. vol. 183; p. 1207.
Vraalstad, Edward J., assignor of one-half to Buffalo Pitts Company, Buffalo, N. Y. Feeder for threshing-machines. No. 1,041,305; Oct. 15; Gaz. vol. 183; p. 584.
Vredenburgh, David G., assignor of one-half to W. E. Starkey, Matteawan, N. Y. Non-refillable bottle. No. 1,041,206; Oct. 15; Gaz. vol. 183; p. 584.
Vredenburg, Peter B., Mechanicsville, N. Y. Hammer. No. 1,042,177; Oct. 22; Gaz. vol. 183; p. 946.
Vreeland, Henry A. (See Moore, Herbert L. G., assignor.)
Vulcan Soot Cleaner Company of Pittsburg, Pa., The. (See Hibner, De Lee R., assignor.)
Vulcan Soot Cleaner Company of Pittsburg, Pa., The. (See Hibner and Linaker, assignors.)
Vulcan Soot Cleaner Company of Pittsburg, Pa., The. (See Moore, James, assignor.)
W. B. Bastian Mfg. Co. (See Bastian, William B., assignor.)
W. D. Allen Manufacturing Company. (See Gibbs, Henry, assignor.)
W. G. Wilson Company. (See Wilson, Wylie G., assignor.)
W. S. Rockwell Company. (See Rockwell, Walter S., assignor.)



Wachowiak, Jakob, Detroit, Mich. Nut-cracking device. No. 1,041,531; Oct. 15; Gaz. vol. 183; p. 693.
Wacker, Charles H. (See Bauroth, Leonhard, assignor.)
Waddell Manufacturing Company. (See Aldworth, Edward J., assignor.)
Waddington, Florence, Baltimore, Md. Cut toy figure. No. 1,041,917; Oct. 22; Gaz. vol. 183; p. 861.
Wade, Charles T., Annapolis, Md. Gas-engine. No. 1,040,472; Oct. 8; Gaz. vol. 183; p. 298.
Waerness, Henry T., Chicago, Ill. Safety side pocket. No. 1,040,819; Oct. 8; Gaz. vol. 183; p. 421.
Wagener, Gustav, Schlebusch-Manfort, Germany, assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Method and apparatus for the carrying out of gas reactions by means of an electric arc. No. 1,039,851; Oct. 1; Gaz. vol. 183; p. 61.
Wagener, Gustav, Schlebusch-Manfort, Germany, assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Method of and apparatus for carrying out gas reactions by the use of an electric arc. No. 1,039,852; Oct. 1; Gaz. vol. 183; p. 62.
Wagner, Charles, Brooklyn, N. Y., assignor to Sterling Bronze Company. Junction-box cover. No. 1,041,918; Oct. 22; Gaz. vol. 183; p. 861.
Wagner, Edward, assignor to The Model Bottling Machinery Company, St. Louis, Mo. Bottle-cleaner. No. 1,041,582; Oct. 15; Gaz. vol. 183; p. 693.
Wagner, Emanuel, New York, N. Y. Combined settler and filter. No. 1,041,533; Oct. 15; Gaz. vol. 183; p. 693.
Wagner, Herman, and J. Erber, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Dyestuffs and making same. No. 1,041,919; Oct. 22; Gaz. vol. 183; p. 862.
Wagner, Joseph F., assignor to Arnold-Wagner Electric Co., South Bend, Ind. Electric flash-light. No. 1,042,623; Oct. 29; Gaz. vol. 183; p. 1128.
Wagner, Paul, Charlottenburg, Germany, assignor to General Electric Company. Divided packing-ring for rotating shafts. No. 1,041,534; Oct. 15; Gaz. vol. 183; p. 694.
Wagoner, James B., Los Angeles, Cal. Rectal dynamo. No. 1,042,624; Oct. 29; Gaz. vol. 183; p. 1128.
Wahlstrom, John, and S. Haussperger, Alton, Ill. Casting-machine. No. 1,042,854; Oct. 29; Gaz. vol. 183; p. 1206.
Waid, Calvin R. (See Beatty, William H., assignor.)
Waid, Calvin R., Birmingham, Ala. Furnace. No. 1,042,059; Oct. 22; Gaz. vol. 183; p. 907.
Waing, Nicholaus, New York, N. Y. Lock. No. 1,042,508; Oct. 29; Gaz. vol. 183; p. 1067.
Waitt, Benjamin, guardian. (See Waitt, George W.)
Waitt, George W., B. Waitt, guardian, Camden, N. J. Wrench. No. 1,041,707; Oct. 15; Gaz. vol. 183; p. 751.
Wakefield, Leslie A., assignor to Wakefield Sales Co., Trempealeau, Wis. Envelop moistening and sealing machine. No. 1,043,063; Oct. 29; Gaz. vol. 183; p. 1276.
Wakefield Sales Co. (See Wakefield, Leslie A., assignor.)
Waldmann, Julius, Berlin, assignor to The Firm of E. Schichtmeyer, Charlottenburg, Germany. Sliding support for lanterns. No. 1,041,207; Oct. 15; Gaz. vol. 183; p. 585.
Walker, Alvin G., Pacific Junction, Iowa. Tire. No. 1,042,178; Oct. 22; Gaz. vol. 183; p. 946.
Walker, George, assignor to Landers, Frary & Clark, New Britain, Conn. Spring-scale. No. 1,041,208; Oct. 15; Gaz. vol. 183; p. 585.
Walker, John P., Rolla, Mo. Making precipitated barium sulfate. No. 1,040,564; Oct. 8; Gaz. vol. 183; p. 344.
Walker, William L., Boston, Mass. Interference-preventer for wireless-telegraph circuits. No. 1,042,855; Oct. 29; Gaz. vol. 183; p. 1206.
Wall, Enos A., Salt Lake City, Utah. Adjustable gear-wheel. No. 1,040,063; Oct. 1; Gaz. vol. 183; p. 131.
Wallace, Ansel E., Evansville, Ind. Flash-light apparatus for cameras. No. 1,042,856; Oct. 29; Gaz. vol. 183; p. 1206.
Wallace, Francis C., Drummond, Md. Pumsie. No. 1,041,535; Oct. 15; Gaz. vol. 183; p. 694.
Wallace, George L., and W. V. Steiger, Bridgeport, Conn., assignors to W. W. Seymour, trustee. Stove-rim-polishing machine. No. 1,042,509; Oct. 29; Gaz. vol. 183; p. 1068.
Wallace, George W., Santa Cruz, Cal. Game apparatus. No. 1,040,064; Oct. 1; Gaz. vol. 183; p. 131.
Wallen, Axel E., Crawford, assignor to Harrison Safety Boiler Works, Philadelphia, Pa. Combined steam-engine and heater. No. 1,042,720; Oct. 29; Gaz. vol. 183; p. 1165.
Waller, C. H., et al. (See Kilpatrick, Robert L., assignor.)
Walquist, Frank W., assignor to E. Kahm, Buffalo, N. Y. Observation device. No. 1,042,730; Oct. 29; Gaz. vol. 183; p. 1165.
Walrath, Edward, La Fargeville, N. Y. Adjustable horse-collar. No. 1,040,820; Oct. 8; Gaz. vol. 183; p. 421.
Waltrs, Alexander L., assignor of one-half to F. B. Grimshaw, Los Angeles, Cal. Shock-absorber for motor-cycles and the like. No. 1,042,060; Oct. 22; Gaz. vol. 183; p. 908.
Walters, Edward. (See Falke and Walters.)
Walters, Harry, et al. (See Carnochan, John W., assignor.)
Walther, Herman, Davenport, Iowa. Carburetor. No. 1,042,731; Oct. 29; Gaz. vol. 183; p. 1165.
Wambaugh, William J., Morgantown, W. Va. Producing lamp-chimneys. No. 1,042,857; Oct. 29; Gaz. vol. 183; p. 1206.
Wandel, David. (See Casserleigh, John H., assignor.)
Waniger, Julius T., St. Louis, Mo. Alarm attachment for drip-pans. No. 1,041,385; Oct. 15; Gaz. vol. 183; p. 644.
Ward, Albert P., and I. B. Russell, Springfield, Mass. Gumming-machine. No. 1,042,286; Oct. 22; Gaz. vol. 183; p. 896.
Ward, Daniel O., Oak Park, Ill. Locking-nut. No. 1,041,920; Oct. 22; Gaz. vol. 183; p. 862.
Ward, Edward E. (See Buddle, George T., assignor.)
Ward, Frederick H., Brooklyn, N. Y. Electric-box connection. No. 1,042,510; Oct. 29; Gaz. vol. 183; p. 1068.
Ward, Leonard G., Demopolis, Ala. Grave-digger. No. 1,041,921; Oct. 22; Gaz. vol. 183; p. 862.
Ware Grain Binder Attachment Co. (See Ware, Joseph L., assignor.)
Ware, Joseph L., St. Paul, assignor to Ware Grain Binder Attachment Co., Minneapolis, Minn. Binder-head for harvesters. No. 1,039,853; Oct. 1; Gaz. vol. 183; p. 62.
Ware, Thomas C., Tishomingo, Okla. Hinge structure for seal-holders and the like. No. 1,040,821; Oct. 8; Gaz. vol. 183; p. 421.
Warner, Alonzo A., assignor to Landers, Frary & Clark, New Britain, Conn. Electrically-heated utensil. No. 1,040,595; Oct. 8; Gaz. vol. 183; p. 344.
Warner Brothers Co. (See Warner, De Ver H., assignor.)
Warner Brothers Company, The. (See Graham, William S., assignor.)
Warner, De Ver H., assignor to Warner Brothers Co., Bridgeport, Conn. Buckle. No. 1,041,536; Oct. 15; Gaz. vol. 183; p. 645.
Warner, Frank E., assignor to Scovill Manufacturing Company, Waterbury, Conn. Bachelor-button. No. 1,040,065; Oct. 1; Gaz. vol. 183; p. 131.
Warren Webster & Company. (See Braemer, William G. R., assignor.)
Warren Webster & Company. (See Hunter, Rudolph M., assignor.)
Warren Webster & Company. (See Morgan and Fitts, assignors.)
Warthon, Carl H., Lincoln, Nebr. Shoe-stretcher. No. 1,040,473; Oct. 8; Gaz. vol. 183; p. 299.
Wartnaby, J. S. (See Bird, William T., assignor.)
Warwick, Harold L., Fort Worth, Tex. Telephone-call recorder. No. 1,041,536; Oct. 15; Gaz. vol. 183; p. 694.
Washburn, James M., Chicago, Ill. Holder for cards, pictures, and the like. No. 1,040,066; Oct. 1; Gaz. vol. 183; p. 132.
Washburn, James M., Chicago, Ill. Holder for cards, pictures, and the like. No. 1,040,067; Oct. 1; Gaz. vol. 183; p. 132.
Waterbury Mfg. Co. (See Welton, Harry C., assignor.)
Waterman, Lewis E., assignor to Emerson-Brantingham Company, Rockford, Ill. Seeding-machine. No. 1,042,990; Oct. 29; Gaz. vol. 183; p. 1254.
Waterman, Lewis E., assignor to Emerson-Brantingham Company, Rockford, Ill. Disk cultivator. No. 1,042,991; Oct. 29; Gaz. vol. 183; p. 1254.
Waterman, Raymond, Minneapolis, Minn. Grading-machine. No. 1,041,387; Oct. 15; Gaz. vol. 183; p. 643.
Waterworth, Charles E., Las Cascades, Canal Zone. Boat-davit. No. 1,040,822; Oct. 8; Gaz. vol. 183; p. 422.
Watkins, Arthur G., assignor of one-fourth to D. J. Beitzel, Mechanicsburg, Pa. Shade or curtain fixture. No. 1,041,537; Oct. 15; Gaz. vol. 183; p. 695.
Watkins, William F., assignor of one-eighth to H. Hines and one-fourth to H. A. Tucker, Butte, Mont. Amusement device. No. 1,041,538; Oct. 15; Gaz. vol. 183; p. 695.
Watrous, Earl G., Chicago, Ill. Water-closet. No. 1,040,474; Oct. 8; Gaz. vol. 183; p. 299.
Watrous, Earl G., Chicago, Ill. Supporting device for water-closets. No. 1,040,823; Oct. 8; Gaz. vol. 183; p. 422.
Watrous, Edward L., Des Moines, Iowa, assignor to D. B. Gann, Chicago, Ill. Handle. No. 1,040,586; Oct. 8; Gaz. vol. 183; p. 344.
Watrous, Edward L., Des Moines, Iowa, assignor to D. B. Gann, Chicago, Ill. Box-fastener. No. 1,042,511; Oct. 29; Gaz. vol. 183; p. 1068.
Watson, David L. (See Watson, John C., assignor.)
Watson, John C., assignor of one-half to D. L. Watson, Terre Haute, Ind. Relief-valve. No. 1,040,068; Oct. 1; Gaz. vol. 183; p. 132.
Watson, Richard M., Detroit, Mich., assignor to The Blackwell, Wielandy Book & Stationery Company, St. Louis, Mo. Loose-leaf binder. No. 1,042,625; Oct. 29; Gaz. vol. 183; p. 1129.
Watson, Richard M., Detroit, Mich., assignor to The Blackwell, Wielandy Book & Stationery Company, St. Louis, Mo. Clasping device for loose-leaf binders. No. 1,042,626; Oct. 29; Gaz. vol. 183; p. 1129.
Watson, William U., Chicago, Ill. Grease-gun. No. 1,042,627; Oct. 29; Gaz. vol. 183; p. 1129.
Watson, Winfield S., Memphis, Tenn. Treating the candelilla-plant for the recovery of wax. No. 1,042,903; Oct. 29; Gaz. vol. 183; p. 1253.
Waugh, Daniel S., assignor to The Denver Rock Drill & Machinery Co., Denver, Colo. Motive-fluid-operated tool. No. 1,042,512; Oct. 29; Gaz. vol. 183; p. 1068.

Wauters, Joseph, assignor to The Rudolph Wurlitzer Manufacturing Company, North Tonawanda, N. Y. Tone-modifying device for automatic violins. No. 1,042,513; Oct. 29; Gas. vol. 183; p. 1089.

Wauters, Joseph, Scranton, Pa., assignor to The Rudolph Wurlitzer Manufacturing Company, North Tonawanda, N. Y. Automatic musical instrument. No. 1,042,732; Oct. 29; Gas. vol. 183; p. 1166.

Way, Howard E., Easton, Pa. Electric-light display system. No. 1,040,475; Oct. 8; Gas. vol. 183; p. 299.

Waybright, Charles S., Staunton, Va. Churn. No. 1,042,628; Oct. 29; Gas. vol. 183; p. 1130.

Wear, Frank F., San Francisco, Cal. Coffee refiner and grader. No. 1,039,854; Oct. 1; Gas. vol. 183; p. 63.

Weatherhead, Charles, Bradford, England. Apparatus for spinning yarn. No. 1,041,539; Oct. 15; Gas. vol. 183; p. 696.

Weathers, Charles E., Sacramento, Cal. Beer-faucet. No. 1,042,514; Oct. 29; Gas. vol. 183; p. 1090.

Weathers, Claude G., *et al.* (See Teesmer, Herman G., assignor.)

Weaver, George M., *et al.* (See Griffin, John, assignor.)

Weaver, Grover, assignor of one-half to W. P. Thompson, Rochelle, La. Box-lifter. No. 1,040,824; Oct. 8; Gas. vol. 183; p. 422.

Weaver, Henry M., Mansfield, Ohio. Lavatory. No. 1,039,855; Oct. 1; Gas. vol. 183; p. 63.

Webb, Christopher F., London, England, and J. S. Stokes, Moorestown, N. J., assignors to Stokes & Smith Company, Summerdale, Pa. Music-roll holder for automatic pianos. No. 1,042,858; Oct. 29; Gas. vol. 183; p. 1210.

Webb, Edwin W. (See Barber and Webb.)

Webb, William B., Paducah, Ky. Attachment for dry and water closets. No. 1,042,091; Oct. 22; Gas. vol. 183; p. 908.

Weber, Karl. (See Weber, Oskar H. and K.)

Weber, Oskar H. and K., Griesheim, assignors to Corporation of Chemische Fabrik Griesheim Elektron, Frankfort-on-the-Main, O. Dieffenbach and W. Moldenhauer, Darmstadt, Germany. Process and furnace for producing gas reactions. No. 1,042,179; Oct. 22; Gas. vol. 183; p. 947.

Weber, Peter, Orange, assignor, by mesne assignments, to Thomas A. Edison, Incorporated, West Orange, N. J. Phonograph. No. 1,041,922; Oct. 22; Gas. vol. 183; p. 862.

Webster, Charles H., Thomaston, Me. Foot-rest for shovels, spades, &c. No. 1,042,180; Oct. 22; Gas. vol. 183; p. 947.

Webster, Edgar P., Bridgeport, Conn. Pencil-sharpening machine. No. 1,040,069; Oct. 1; Gas. vol. 183; p. 133.

Webster, Willis C., J. I. Lacy, Dubois, and E. A. Lacy, Galeton, Pa., assignors to Buffalo Air Brake Co., Buffalo, N. Y. Triple valve. No. 1,040,070; Oct. 1; Gas. vol. 183; p. 134.

Wedge, Utley, Ardmore, assignor to The Furnace Patent Company, Philadelphia, Pa. Metallurgical furnace. No. 1,040,071; Oct. 1; Gas. vol. 183; p. 134.

Wedgworth, John K., Cuba, Ala. Adjustable cultivator. No. 1,039,856; Oct. 1; Gas. vol. 183; p. 63.

Weed, David W., assignor to Eagle Lock Co., Terryville, Conn. Night-latch. No. 1,042,062; Oct. 22; Gas. vol. 183; p. 908.

Weeks, Frank A., Plainfield, N. J. Memorandum-pad calendar. No. 1,041,923; Oct. 22; Gas. vol. 183; p. 863.

Wegmann, Heinrich, Bochum, Germany. Safety-lock. No. 1,041,388; Oct. 15; Gas. vol. 183; p. 645.

Wehner, Herman E. (See Sauter and Wehner.)

Wehr, George F., Rochester, assignor to Phoenix Glass Company, Pittsburgh, Pa. Lamp. No. 1,040,072; Oct. 1; Gas. vol. 183; p. 135.

Wehrenberg, William H., West Salem, Wis. Oil or grease gun. No. 1,040,476; Oct. 8; Gas. vol. 183; p. 300.

Weidman, Benjamin T., Ellsworth, Kans. Pool and billiard cue. No. 1,042,299; Oct. 22; Gas. vol. 183; p. 986.

Weidman, U. Grant, Knightstown, Ind. Spring-wheel. No. 1,039,857; Oct. 1; Gas. vol. 183; p. 63.

Weigel, Arnold A., assignor to E. S. Woods, Chicago, Ill. Antifriction-bearing. No. 1,041,209; Oct. 15; Gas. vol. 183; p. 585.

Weikel, Roy B., Milton, Pa. Toy. No. 1,040,073; Oct. 1; Gas. vol. 183; p. 135.

Weil, Victor, Chicago, Ill. Insole. No. 1,040,597; Oct. 8; Gas. vol. 183; p. 344.

Weiler, Nicholas, Canton, Ill., assignor of one-half to B. L. Shrader, Plainville, Tex. Draft device for wheeled gang-plows. No. 1,042,733; Oct. 29; Gas. vol. 183; p. 1166.

Weindel, Anton, Leverkusen, near Cologne, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Producing condensation products from phenols with formic aldehyde. No. 1,039,858; Oct. 1; Gas. vol. 183; p. 64.

Weindel, Anton, Leverkusen, near Cologne, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Producing condensation products from phenols with formic aldehyde. No. 1,039,859; Oct. 1; Gas. vol. 183; p. 64.

Weintraub, Eschiel, Schenectady, N. Y., and M. C. A. Latour, Paris, France, assignors to General Electric Company. Amplifying current variations. No. 1,041,210; Oct. 15; Gas. vol. 183; p. 586.

Weinzierl, Joseph T., and J. Startuvant, New Kensington, Pa. Safety starting-crank for explosive-engines. No. 1,040,506; Oct. 8; Gas. vol. 183; p. 345.

Wellrich, Clarence A., Canton, Ohio. Sheet-metal tile. No. 1,041,924; Oct. 22; Gas. vol. 183; p. 863.

Weis, John P., and L. Krug, assignors to Metropolitan Sewing Machine Company, Nyack, N. Y. Folder for sewing-machines. No. 1,040,835; Oct. 8; Gas. vol. 183; p. 423.

Weiscopf, Leopold, New York, N. Y. Cleaning and sterilizing machine. No. 1,040,477; Oct. 8; Gas. vol. 183; p. 300.

Weisbaun, Moritz, Berlin, Germany. Splitting whalebone by hand. No. 1,039,860; Oct. 1; Gas. vol. 183; p. 64.

Weiss, Fritz, Pforzheim, Germany. Making cup-shaped articles. No. 1,042,300; Oct. 22; Gas. vol. 183; p. 896.

Weiss, Michael M., Detroit, Mich. Cushion-tire for vehicle-wheels. No. 1,040,074; Oct. 1; Gas. vol. 183; p. 135.

Welch, James A., Taunton, Mass. Wire tack. No. 1,042,301; Oct. 22; Gas. vol. 183; p. 987.

Wells, Albert R. (See Wells, Frank N. and A. R.)

Wells, Frank N. and A. R., assignors to The Beaton & Corbin Mfg. Co., Southington, Conn. Floor and ceiling plate. No. 1,042,629; Oct. 29; Gas. vol. 183; p. 1130.

Wells, Horace L., New Haven, Conn., assignor of two-thirds to M. H. King, East Orange, N. J. Making nickel salts and recovering the acid used. No. 1,039,861; Oct. 1; Gas. vol. 183; p. 64.

Wells, Merritt R. (See Crist and Wells.)

Welsh, James M., assignor to The Spirella Company, Mendville, Pa. Front-clasp for corsets. No. 1,041,925; Oct. 22; Gas. vol. 183; p. 864.

Welton, Harry C., assignor to Waterbury Mfg. Co., Waterbury, Conn. Powder-box. No. 1,039,862; Oct. 1; Gas. vol. 183; p. 65.

Wendorf, William, Chicago, Ill. Tailor's measuring device. No. 1,042,063; Oct. 22; Gas. vol. 183; p. 908.

Werden, Henrietta T. (See Coe and Werden.)

Werner, Gustave. (See Pohl, Wilhelm, assignor.)

Werner, Josef, Munich, Germany. Pencil-case. No. 1,041,926; Oct. 22; Gas. vol. 183; p. 864.

Wessman, Alonzo W., assignor to W. Scott, deceased, Plainfield, N. J.; I. and D. J. Scott, executors. Transmission mechanism. No. 1,041,927; Oct. 22; Gas. vol. 183; p. 865.

Wesson, James H., Atalla, Ala. Gin-saw file. No. 1,041,211; Oct. 15; Gas. vol. 183; p. 586.

Wesson, Joseph H., assignor to Smith & Wesson, Springfield, Mass. Firearm. No. 1,041,928; Oct. 22; Gas. vol. 183; p. 865.

West, Oscar H., Gary, Ind. Trolley-switch mechanism. No. 1,041,929; Oct. 22; Gas. vol. 183; p. 865.

West, Thomas D., Cleveland, Ohio. Mold for making metal castings. No. 1,042,734; Oct. 29; Gas. vol. 183; p. 1167.

West, Walter L., Hooker, Okla. Letter-holder. No. 1,041,930; Oct. 22; Gas. vol. 183; p. 866.

Westerlund, John V., San Francisco, Cal. Form for concrete. No. 1,040,075; Oct. 1; Gas. vol. 183; p. 135.

Western Electric Company. (See Craft and Dixon, assignors.)

Western Electric Company. (See Dixon, Amos F., assignor.)

Western Electric Company. (See McLarn, Ernest S., assignor.)

Westinghouse, Church, Kerr & Company. (See Francis and Smith, assignors.)

Westinghouse Electric and Manufacturing Company. (See Aalborg, Christian, assignor.)

Westinghouse Electric and Manufacturing Company. (See Bright, Graham, assignor.)

Westinghouse Electric and Manufacturing Company. (See Crouse and Edgecomb, assignors.)

Westinghouse Electric and Manufacturing Company. (See Curtis, James F., assignor.)

Westinghouse Electric and Manufacturing Company. (See Dearborn, Richard J., assignor.)

Westinghouse Electric and Manufacturing Company. (See Hadaway, William S., Jr., assignor.)

Westinghouse Electric & Manufacturing Company. (See Harris, Ford W., assignor.)

Westinghouse Electric & Manufacturing Company. (See Jackson, Ray P., assignor.)

Westinghouse Electric and Manufacturing Company. (See James, Henry D., assignor.)

Westinghouse Electric & Manufacturing Company. (See Lincoln, Paul M., assignor.)

Westinghouse Electric and Manufacturing Company. (See Rose, Edward E., assignor.)

Westinghouse Electric & Manufacturing Company. (See Scheibe, Harold M., assignor.)

Westinghouse Electric & Manufacturing Company. (See Skinner, Charles E., assignor.)

Westinghouse Lamp Company. (See Knight, Arthur S., assignor.)

Westlake Machine Company, The. (See Kadow, August, assignor.)

Westmoreland, Yancy M., Greensboro, N. C. Automatic fire-alarm. No. 1,039,863; Oct. 1; Gas. vol. 183; p. 65.

Weston, Clarence B. (See King and Weston.)

Westphal, Henry M., Manitowoc, Wis. Safety shaper-head. No. 1,041,931; Oct. 22; Gas. vol. 183; p. 865.

Wetmore, Sherman, Columbia, Cal. Fish-hook releaser. No. 1,042,630; Oct. 29; Gas. vol. 183; p. 1130.





Whaley, William B. S., Boston, Mass., assignor, by mesne assignments, to The Reversible Gas-Engine Company, Portland, Me. Starting device for internal-combustion engines. No. 1,039,864; Oct. 1; Gas. vol. 183; p. 65.

Whaley, William B. S., and A. L. Galusha, Boston, Mass., assignors, by mesne assignments, to The Reversible Gas-Engine Company, Portland, Me. Internal-combustion engine. No. 1,039,865; Oct. 1; Gas. vol. 183; p. 66.

Whaley, William B. S., Newton, and E. P. Robinson, Malden, Mass., assignors to Reversible Gas-Engine Company. Internal-combustion engine. No. 1,039,866; Oct. 1; Gas. vol. 183; p. 66.

Whaley, William B. S., Newton, and E. P. Robinson, Malden, Mass., assignors to Reversible Gas-Engine Company. Ignition-timer. No. 1,039,867; Oct. 1; Gas. vol. 183; p. 67.

Wheeler, John, Cripple Creek, Colo. Opening device for furnace-doors. No. 1,041,212; Oct. 15; Gas. vol. 183; p. 586.

Wheeler, Solomon, Cripple Creek, Colo. Smoke and cinder conductor for locomotives. No. 1,042,631; Oct. 29; Gas. vol. 183; p. 1131.

White, Charles A., and F. McLaughlin, London, Ontario, Canada. Resilient hub for wheels. No. 1,040,599; Oct. 8; Gas. vol. 183; p. 345.

White, Charles J., assignor to C. J. White Manufacturing Company, New Britain, Conn. Elastic fabric or webbing. No. 1,042,632; Oct. 29; Gas. vol. 183; p. 1131.

White, George P., Wallace, Idaho, assignor to J. A. Ferguson, Denver, Colo. Spring filler or cut-off for use in connection with molding machinery. No. 1,041,540; Oct. 15; Gas. vol. 183; p. 696.

White, Ira B., assignor of one-half to A. D. Campbell, Peoria, Ill. Mixing device. No. 1,040,826; Oct. 8; Gas. vol. 183; p. 423.

White, Richard T., Richmond, Va. Internal-combustion engine. No. 1,042,181; Oct. 22; Gas. vol. 183; p. 947.

White, Robert M., assignor of one-half to E. T. Adams, Portsmouth, Ohio. Dumping-wagon. No. 1,042,302; Oct. 22; Gas. vol. 183; p. 987.

White, Thelo G. (See Fulkerson and White.)

White, William A., New York, N. Y. Liquid-fuel atomizer. No. 1,040,827; Oct. 8; Gas. vol. 183; p. 424.

Whitehead, Robert H., Whitley Bay, England. Binder for loose sheets. No. 1,042,735; Oct. 29; Gas. vol. 183; p. 1167.

Whitin Machine Works. (See Burlin, Charles T., assignor.)

Whiting, Paul, Kingman, Kans. Combined vending and weighing machine. No. 1,040,077; Oct. 1; Gas. vol. 183; p. 136.

Whitlock, Ira S. (See Whitlock, Leaman and I. S.)

Whitlock, Leaman and I. S., Ephratah, N. Y. Transmission-gearing. No. 1,041,541; Oct. 15; Gas. vol. 183; p. 696.

Whitman, Alfred A. (See Dock, Herman, assignor.)

Whitmore, Thomas J., assignor to Tidewater Peanut Harvester Corporation, Dendron, Va. Machine for cleaning and stemming peanuts. No. 1,042,859; Oct. 29; Gas. vol. 183; p. 1210.

Whitney, Fremont L., Merrill, Wis. Foldable table-leg. No. 1,039,868; Oct. 1; Gas. vol. 183; p. 67.

Whittome, John T., Tavistock, England. Road-sweeping machine. No. 1,042,860; Oct. 29; Gas. vol. 183; p. 1210.

Wickes, Benjamin C., *et al.* (See Graf, Richard, assignor.)

Widen, August H., Beverly, Mass. Marking-gage. No. 1,040,078; Oct. 1; Gas. vol. 183; p. 136.

Widmayer, Newton B., Yonkers, N. Y. Link-belt conveyer. No. 1,040,828; Oct. 8; Gas. vol. 183; p. 424.

Wiederhoidt, Ernest F., St. Louis, Mo. Concrete wall construction. No. 1,041,389; Oct. 15; Gas. vol. 183; p. 645.

Wiedstruck, Franz, Königgrätz, Austria-Hungary, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany. Gun having a recoiling barrel. No. 1,039,869; Oct. 1; Gas. vol. 183; p. 67.

Wiese, John D., Manson, Iowa. Automatic door-guide. No. 1,040,829; Oct. 8; Gas. vol. 183; p. 424.

Wieser, Karl, Bredeney, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Burning fuse for projectiles. No. 1,039,870; Oct. 1; Gas. vol. 183; p. 68.

Wiggins, Henry H., Pittsburgh, Pa. Rail chair and fastener. No. 1,042,993; Oct. 29; Gas. vol. 183; p. 1255.

Wilber, Thomas J. (See Godin, Eusebe, assignor.)

Wild, Frederick W., Jr., Baltimore, Md., assignor to Burt Machine Company. Labeling-machine. No. 1,041,390; Oct. 15; Gas. vol. 183; p. 646.

Wild, Frederick W., Jr., Baltimore, Md., assignor to Burt Machine Company. Labeling-machine. No. 1,041,542; Oct. 15; Gas. vol. 183; p. 696.

Wild, Frederick W., Jr., Baltimore, Md., assignor to Burt Machine Company. Labeling-machine. No. 1,041,543; Oct. 15; Gas. vol. 183; p. 697.

Wildmo, Benjamin C., Berger, Minn. Wrench. No. 1,042,736; Oct. 29; Gas. vol. 183; p. 1168.

Wilhelm, Eugen, New York, N. Y. Coloring wood. No. 1,042,182; Oct. 22; Gas. vol. 183; p. 948.

Wilhelm, Lane, *et al.* (See Wilhelm, Oliver P., assignor.)

Wilhelm, Oliver P., assignor to himself, L. and S. Wilhelm, Michigan City, Ind. Air-brake coupling. No. 1,041,391; Oct. 15; Gas. vol. 183; p. 646.

Wilhelm, Santford, *et al.* (See Wilhelm, Oliver P., assignor.)

Will, Joseph P., Jersey City, N. J. Suspension device for automobiles. No. 1,040,079; Oct. 1; Gas. vol. 183; p. 136.

Willard, James R., Iaeger, W. Va. Seat. No. 1,041,218; Oct. 15; Gas. vol. 183; p. 586.

Willcox & Gibbs Sewing Machine Co. (See Tabor, Albert B., assignor.)

Willcox & Gibbs Sewing Machine Company. (See Borton, Stockton, assignor.)

Willcox & Gibbs Sewing Machine Company. (See Merritt, Arthur A., assignor.)

Willett, Robert A., Warren, Ohio, assignor of one-half to E. J. Marwell and one-half to G. M. Hughson, Los Angeles, Cal. Tire-protector. No. 1,040,246; Oct. 1; Gas. vol. 183; p. 192.

William Sellers & Company. (See Vold, Lars H., assignor.) (Reissue.)

Williams, Alfred, Philadelphia, Pa. Gas and smoke burning furnace or stove. No. 1,042,737; Oct. 29; Gas. vol. 183; p. 1168.

Williams, Annie E., Gleichen, Alberta, Canada. Skirt-elevator. No. 1,039,871; Oct. 1; Gas. vol. 183; p. 68.

Williams, Charles I., Utica, N. Y. Headlight. No. 1,041,392; Oct. 15; Gas. vol. 183; p. 647.

Williams, Curles T., Trenton, N. J. Safety automobile-crank. No. 1,042,303; Oct. 22; Gas. vol. 183; p. 987.

Williams, Elliott, Kansas City, Mo. Spring winding and controlling mechanism. No. 1,042,064; Oct. 22; Gas. vol. 183; p. 909.

Williams, Emrys T., Akron, Ohio. Apparatus for manufacturing rubber tires, &c. No. 1,041,544; Oct. 15; Gas. vol. 183; p. 697.

Williams, Ensley E. (See Sherland, Mark E., assignor.)

Williams, Gordon, assignor to The English & Mersick Co., New Haven, Conn. Electric lamp and supporting bracket therefor. No. 1,040,080; Oct. 1; Gas. vol. 183; p. 137.

Williams, Guy V. (See Farkas, Karl, assignor.)

Williams, Hiram C., Utica, assignor of one-third to F. B. Harrington, Albany, and one-third to S. R. Payne, Syracuse, N. Y. Electrical bonding device. No. 1,041,394; Oct. 15; Gas. vol. 183; p. 647.

Williams, Hiram C., Utica, assignor of one-third to F. B. Harrington, Albany, and one-third to S. R. Payne, Syracuse, N. Y. Electrical bonding device. No. 1,042,304; Oct. 22; Gas. vol. 183; p. 988.

Williams, Hiram C., Utica, and S. R. Payne, Syracuse, assignors of one-third to F. B. Harrington, Albany, N. Y. Audible signal. No. 1,041,393; Oct. 15; Gas. vol. 183; p. 647.

Williams, John P., and H. Huhn, New York, N. Y., assignors to Electric Bank Protection Company. Electro-thermostatic lining for vaults, safes, &c. No. 1,041,395; Oct. 15; Gas. vol. 183; p. 648.

Williams, Louis, Denver, Colo. Coin-controlled locking-hook. No. 1,039,872; Oct. 1; Gas. vol. 183; p. 68.

Williams, Lynn A., Evanston, Ill. Infant's bath-tub. No. 1,042,515; Oct. 29; Gas. vol. 183; p. 1090.

Williams, Wade W., Providence, R. I. Cuff-pin. No. 1,041,932; Oct. 22; Gas. vol. 183; p. 866.

Williams, William S., Jr., Jersey City, N. J. Device to prevent slipping. No. 1,042,516; Oct. 29; Gas. vol. 183; p. 1090.

Williamson, Arthur M., assignor to International Acheson Graphite Company, Niagara Falls, N. Y. Sectional electrode. No. 1,040,830; Oct. 8; Gas. vol. 183; p. 425.

Williamson, Samuel S., Philadelphia, Pa. Secondary mouthpiece for telephone-transmitters. No. 1,041,545; Oct. 15; Gas. vol. 183; p. 697.

Williamson, William D., *et al.* (See Archambeau, Charles L., assignor.)

Willmott, Francis J., Highfield, Evesham, England. Case for spectacles and eyeglasses. No. 1,041,214; Oct. 15; Gas. vol. 183; p. 587.

Willmott, Francis J., Evesham, England. Case for spectacles, eyeglasses, and other articles. No. 1,041,933; Oct. 22; Gas. vol. 183; p. 867.

Willoughby, Alford P., Olney, Tex. Rail-clamping plate-fastener. No. 1,041,546; Oct. 15; Gas. vol. 183; p. 697.

Willour, Le Roy, assignor to The Ashland Manufacturing Company, Ashland, Ohio. Quick-action jack. No. 1,042,861; Oct. 29; Gas. vol. 183; p. 1211.

Willson, Thomas L., and M. M. Haff, Ottawa, Ontario, Canada; said Haff assignor to said Willson. Drying monocalcic phosphate and the like. No. 1,040,081; Oct. 1; Gas. vol. 183; p. 137.

Wilson, Frank J., Albuquerque, N. Mex. Pickling compound. No. 1,039,873; Oct. 1; Gas. vol. 183; p. 68.

Wilson, James G., Coal Wood, assignor of one-third to C. P. Mahaffey, Premier, W. Va. Rotary engine. No. 1,042,994; Oct. 29; Gas. vol. 183; p. 1255.

Wilson, Jeremiah J., Dunsmuir, Cal. Graver. No. 1,042,738; Oct. 29; Gas. vol. 183; p. 1168.

Wilson, John H. (See Beaton, Eason, and Wilson.)

Wilson, Loran J., Jonesville, Va. Trap. No. 1,040,478; Oct. 8; Gas. vol. 183; p. 300.

Wilson, Richard B. (See Bradley, Charles S., assignor.)

Wilson, Thomas N., Spokane, Wash. Combined saw-set and swage. No. 1,041,547; Oct. 15; Gas. vol. 183; p. 698.

Wilson, William G., West Brighton, N. Y. Track construction. No. 1,040,082; Oct. 1; Gas. vol. 183; p. 137.

Wilson, Wylie G., Elizabeth, assignor to W. G. Wilson Company, Montclair, N. J. Conveying and discharging apparatus. No. 1,041,548; Oct. 15; Gaz. vol. 183; p. 698.

Wilson, Wylie T., Philadelphia, Pa., and A. B. Starr, assignors to Single Service Package Corporation of America, New York, N. Y. Tube-winding machine. No. 1,042,862; Oct. 29; Gaz. vol. 183; p. 1211.

Wiltermood, Benjamin A., Newport, Ind. Lamp. No. 1,042,868; Oct. 29; Gaz. vol. 183; p. 1212.

Wilton, George R. (See Bell, Wilton, and Griffith.)

Winchester Repeating Arms Co. (See Burton, Frank F., assignor.)

Winchester Repeating Arms Co. (See Stevenson, Charles H., assignor.)

Winde, Oswald, Lutzschena-Leipzig, Germany. Apparatus for steeping grain. No. 1,042,730; Oct. 29; Gaz. vol. 183; p. 1168.

Wine Railway Appliance Company, The. (See Wine, William E., assignor.)

Wine, William E. (See Shields and Wine.)

Wine, William E., Wilmington, N. C., assignor to The Wine Railway Appliance Company. Ladder. No. 1,040,063; Oct. 1; Gaz. vol. 183; p. 123.

Wine, William E., Wilmington, N. C., assignor to The Wine Railway Appliance Company. Ventilating-shutter. No. 1,040,064; Oct. 1; Gaz. vol. 183; p. 123.

Winkley, Erastus E., Lynn, Mass. Automatic sole-machine. No. 1,041,215; Oct. 15; Gaz. vol. 183; p. 587.

Winks, Walter H., Baltimore, Md. Apparatus for treating air. No. 1,042,864; Oct. 29; Gaz. vol. 183; p. 1212.

Winsor, James G., Detroit, Mich. Igniting system for the engines of automobiles. No. 1,042,740; Oct. 29; Gaz. vol. 183; p. 1169.

Winter, Emil. (See Briede, Otto, assignor.) (Reissue.)

Winton, Alexander, Cleveland, Ohio. Controlling mechanism. No. 1,040,479; Oct. 8; Gaz. vol. 183; p. 301.

Winton, Alexander, and H. B. Anderson, assignors to The Winton Motor Carriage Company, Cleveland, Ohio. Robe-rail for automobiles. No. 1,041,549; Oct. 15; Gaz. vol. 183; p. 698.

Winton Motor Carriage Company, The. (See Winton and Anderson, assignors.)

Wirt, Charles, Philadelphia, Pa., assignor, by mesne assignments, to Wirt Electric Specialty Company. Insulating-joint. No. 1,040,971; Oct. 8; Gaz. vol. 183; p. 471.

Wirt Electric Specialty Company. (See Wirt, Charles, assignor.)

Witherill, Roy A., Birmingham, Ala. Forming-machine. No. 1,041,550; Oct. 15; Gaz. vol. 183; p. 698.

Witter, Alfred S., and O. A. Gordon, Waterville, Wash.; said Gordon assignor to said Witter. Photograph-printing machine. No. 1,039,874; Oct. 1; Gaz. vol. 183; p. 60.

Witthoefft, Charles H., assignor to Witthoefft Collapsible Concrete Forms Company, St. Louis, Mo. Apparatus for molding concrete staircases. No. 1,041,561; Oct. 15; Gaz. vol. 183; p. 699.

Witthoefft Collapsible Concrete Forms Company. (See Witthoefft, Charles H., assignor.)

Wm. B. Mershon & Co. (See Mershon, Edward C., assignor.)

Wm. Cramp & Sons Ship & Engine Building Company, The. (See Metten, John F., assignor.)

Wohl, Maurice J., *et al.*, trustees. (See Betts, Lewis F., assignor.)

Wohl, Maurice, J., *et al.*, trustees. (See Low, Abbot A., assignor.)

Wojciechowski, Valentine, Brockton, Mass. Flying-machine. No. 1,040,600; Oct. 8; Gaz. vol. 183; p. 346.

Wokoun, Frank, New York, N. Y. Package-display apparatus. No. 1,041,552; Oct. 15; Gaz. vol. 183; p. 699.

Woldan, Paul F., Brooklyn, N. Y. Gas-heater. No. 1,041,553; Oct. 15; Gaz. vol. 183; p. 699.

Wolf, Augustus, Chambersburg, Pa. Grain-treating machine. No. 1,040,085; Oct. 1; Gaz. vol. 183; p. 138.

Wolf, Augustus, Chambersburg, Pa. Grain-cleaning machine. No. 1,040,086; Oct. 1; Gaz. vol. 183; p. 139.

Wolf, Daniel C., Philadelphia, Pa. Button. No. 1,040,831; Oct. 8; Gaz. vol. 183; p. 425.

Wolff, Albert, Cologne, assignor to M. Steinkrüger, *née* Engelskirchen, Cologne-Bickendorf, Germany. Preparation of formic esters. No. 1,039,875; Oct. 1; Gaz. vol. 183; p. 60.

Wolkow, Isaac L., Louisville, Ky. Twisting-machine. No. 1,039,876; Oct. 1; Gaz. vol. 183; p. 60.

Wood, Charles C., assignor of one-half to M. S. Meier, Culdesac, Idaho. Saw. No. 1,042,633; Oct. 29; Gaz. vol. 183; p. 1132.

Wood, David W., Brazil, Ind. Coin-controlled lock. No. 1,041,596; Oct. 15; Gaz. vol. 183; p. 648.

Wood, David W., Brazil, Ind. Safety-razor. No. 1,041,597; Oct. 15; Gaz. vol. 183; p. 649.

Wood, F. A. (See Bridgmore, Charles, assignor.)

Wood, Frederick L., Meriden, Conn., assignor to Aeolian Company, New York, N. Y. Valve mechanism for motors. No. 1,042,634; Oct. 29; Gaz. vol. 183; p. 1132.

Wood, Harvey M., Los Angeles, Cal. Bench-plane. No. 1,042,741; Oct. 29; Gaz. vol. 183; p. 1169.

Wood, Henry A. W., New York, N. Y., assignor, by mesne assignments, to The Autoplate Company of America, Jersey City, N. J. Sheet-delivery mechanism. No. 1,040,480; Oct. 8; Gaz. vol. 183; p. 301.

Wood, Henry A. W., assignor, by mesne assignments, to Wood & Nathan Company, New York, N. Y. Intaglio and relief printing device. No. 1,041,994; Oct. 22; Gaz. vol. 183; p. 907.

Wood, Henry A. W., assignor, by mesne assignments, to Wood & Nathan Company, New York, N. Y. Cleaning device for intaglio-plates. No. 1,042,517; Oct. 29; Gaz. vol. 183; p. 1060.

Wood, Henry A. W., assignor to The Wood & Nathan Company, New York, N. Y. Printing-press and sheet-manipulating mechanism therefor. No. 1,042,518; Oct. 29; Gaz. vol. 183; p. 1061.

Wood, Joseph, Everett, Mass. Handsaw. No. 1,040,832; Oct. 8; Gaz. vol. 183; p. 425.

Wood & Nathan Company. (See Wood, Henry A. W., assignor.)

Woodbridge, Joseph L., Philadelphia, Pa. Polarized relay. No. 1,042,128; Oct. 22; Gaz. vol. 183; p. 948.

Woodcock, Willard J., Brooklyn, N. Y. Automobile-tire. No. 1,042,965; Oct. 22; Gaz. vol. 183; p. 909.

Woods, David R., *et al.* (See Tatum, Franklin M., assignor.)

Woods, Edwin S. (See Weigel, Arnold A., assignor.)

Woods, Michael, Carlton, and T. J. Gilbert, Brunswick, Victoria, Australia. Rail-dressing machine. No. 1,040,833; Oct. 8; Gaz. vol. 183; p. 425.

Woods, Pinkney P., Hot Springs, Ark. Automatic elastic check-valve for pneumatic tires. No. 1,041,216; Oct. 15; Gaz. vol. 183; p. 587.

Woodward, Oscar, Montclair, assignor to Union Typewriter Company, Jersey City, N. J. Type-writing machine. No. 1,041,217; Oct. 15; Gaz. vol. 183; p. 588.

Woodward, Virgil R., *et al.* (See Rönnfeldt, Carl, assignor.)

Woodward, William H. (See Swearingen and Woodward.)

Woolley, Edward, Woonsocket, R. I. Thread-clearing device. No. 1,040,067; Oct. 1; Gaz. vol. 183; p. 120.

Worcester, Albert, New York, N. Y. Piecing-machine for paper-box blanks. No. 1,041,554; Oct. 15; Gaz. vol. 183; p. 699.

Worrall, George H., Kirkwood, assignor to National Lead Company, St. Louis, Mo. Rotary screen. No. 1,041,935; Oct. 22; Gaz. vol. 183; p. 867.

Worthington, Charles C., Dunnfield, N. J. Steam-generator. No. 1,040,481; Oct. 8; Gaz. vol. 183; p. 302.

Worthington Company, The. (See Worthington, George C., assignor.)

Worthington, George C., assignor to The Worthington Company, Elyria, Ohio. Propelling and brake mechanism for polycycles. No. 1,041,936; Oct. 22; Gaz. vol. 183; p. 868.

Wotherspoon, William A., Los Angeles, Cal., assignor to The Automatic Directory Company. Mechanical directory and advertising device. No. 1,042,519; Oct. 29; Gaz. vol. 183; p. 1061.

Wright, Charles J., and R. Bell, Kelowna, British Columbia, Canada. Boiler-tube scraper. No. 1,040,088; Oct. 1; Gaz. vol. 183; p. 139.

Wright, Chauncey M., Philadelphia, Pa. Wind-shield for vehicles. No. 1,042,206; Oct. 22; Gaz. vol. 183; p. 968.

Wright, Robert U. (See Davis and Wright.)

Wright, Walter, Coventry, England. Road-wheel of vehicles. No. 1,042,742; Oct. 29; Gaz. vol. 183; p. 1170.

Wuest, Emil, Dübendorf, near Zürich, Switzerland. T-square with guide-head. No. 1,042,743; Oct. 29; Gaz. vol. 183; p. 1170.

Wuest, Philip, Jr., Woodbury, N. J., assignor to O. Blasius, Philadelphia, Pa. Device for centering music-rolls in musical instruments. No. 1,041,218; Oct. 15; Gaz. vol. 183; p. 588.

Wuest, Philip, Jr., Woodbury, N. J., assignor to O. Blasius, Philadelphia, Pa. Valve mechanism for piano-players. No. 1,041,219; Oct. 15; Gaz. vol. 183; p. 588.

Wurdack, William, St. Louis, Mo. Electric meter and panel-board cabinet. No. 1,041,396; Oct. 15; Gaz. vol. 183; p. 649.

Wyatt, James E., Yantis, Tex. Culinary implement. No. 1,041,221; Oct. 15; Gaz. vol. 183; p. 589.

Wyatt, James H., and H. C. Campion, Jr., assignors to The Cutter Electrical and Manufacturing Company, Philadelphia, Pa. Outlet-box construction. No. 1,041,220; Oct. 15; Gaz. vol. 183; p. 588.

Wyche, Daniel W., Marquez, Tex. Insulator-bracket. No. 1,041,937; Oct. 22; Gaz. vol. 183; p. 868.

Yale & Towne Manufacturing Company, The. (See Ausembraum, Peter F., assignor.)

Yale & Towne Manufacturing Company, The. (See Gilmartin, Michael W., assignor.)

Yale & Towne Manufacturing Company, The. (See Taylor, Warren H., assignor.)

Yates, Charles J. (See Bailey, John W., assignor.)

Yeager, Peter R., Reading, Pa. Rail-fastener. No. 1,042,744; Oct. 29; Gaz. vol. 183; p. 1170.

Yeumans, Eugene, Collegeport, Tex. Automatic stabilizer for aeroplanes. No. 1,040,089; Oct. 1; Gaz. vol. 183; p. 140.

Youhas, Andrew, Stamford, Conn. Detachable shoe-heel plate. No. 1,042,530; Oct. 29; Gaz. vol. 183; p. 1062.

Youmans, William R., Columbus, Ohio, assignor to The Jeffrey Manufacturing Company. Flame-proof switch. No. 1,042,585; Oct. 29; Gaz. vol. 183; p. 1213.

Young, J. Lowe. (See Angle and Young.)

Young, John J., Denver, Colo. Die-starter. No. 1,042,995; Oct. 29; Gaz. vol. 183; p. 1256.





Young, Lorin W., assignor to Macbeth-Evans Glass Company, Pittsburgh, Pa. Art-glassware. No. 1,041,938; Oct. 22; Gaz. vol. 183; p. 869.

Young, Nicholas W., *et al.* (See Tilton, John W., assignor.)

Zahm, Edward. (See Walquist, Frank W., assignor.)

Zahm, Edward, Buffalo, N. Y. Pressure-regulator. No. 1,042,745; Oct. 29; Gaz. vol. 183; p. 1171.

Zahm, Edward, assignor to Zahm Manufacturing Company, Buffalo, N. Y. Filter. No. 1,040,090; Oct. 1; Gaz. vol. 183; p. 140.

Zahm Manufacturing Company. (See Zahm, Edward, assignor.)

Zahn, Robert, Plauen, Germany. Jacquard embroidery-machine. No. 1,040,834; Oct. 8; Gaz. vol. 183; p. 426.

Zamore, Adolf P., Mänsbo, and O. F. Carlson, Ljungs Verk, Sweden, assignors to said Carlson. Treating lime-nitrogen. No. 1,042,746; Oct. 29; Gaz. vol. 183; p. 1171.

Zeo Socket and Mfg. Co., The. (See Both, Tonjes A. C., assignor.)

Zeis, Ira N. (See Hilty, Robert D., assignor.)

Zell, Erland, Gottenborg, Sweden. Rail, especially a tram-rail. No. 1,040,483; Oct. 8; Gaz. vol. 183; p. 302.

Ziegler, Alfred A., assignor to United Electric Apparatus Company, Boston, Mass. Binding-post. No. 1,042,747; Oct. 29; Gaz. vol. 183; p. 1171.

Ziemer, Henry, Jr., assignor to Chicago Railway Equipment Company, Chicago, Ill. Brake-beam. No. 1,041,222; Oct. 15; Gaz. vol. 183; p. 589.

Zigaha, Carl. (See Bienutta, Fischbach, and Zigaha.)

Zirkle, Walter I., Middletown, Ind. Buggy-top. No. 1,040,483; Oct. 8; Gaz. vol. 183; p. 302.

Zitscher, Arthur. (See Laska, Zitscher, and Kunert.)

Zitscher, Arthur. (See Laska, Zitscher, and Rath.)

Zoll, Oliver R. (See Therien and Zoll.)

Zsan, Jacob, Mount Vernon, assignor to D. J. Keschansky, New Rochelle, N. Y. Tool-holder. No. 1,040,484; Oct. 8; Gaz. vol. 183; p. 302.

Zsinko, Steven, Los Angeles, Cal. Single-track railway. No. 1,042,066; Oct. 22; Gaz. vol. 183; p. 909.

Zsinko, Steven, Los Angeles, Cal. Bridge for single-track railways. No. 1,042,067; Oct. 22; Gaz. vol. 183; p. 910.

Zuk, Joseph M., New Britain, Conn. Spring check-hinge. No. 1,041,223; Oct. 15; Gaz. vol. 183; p. 590.

Zum Felde, Henry, New York, N. Y. Newspaper-holder frame. No. 1,040,915; Oct. 8; Gaz. vol. 183; p. 451.

Zwang, Ludwig, Pfronten-Steinach, Germany. Means for adjusting the legs of compasses. No. 1,042,866; Oct. 29; Gaz. vol. 183; p. 1213.

Zyliewicz, Nicefor, Chicago, Ill. Candle-holder. (Reissue.) No. 13,481; Oct. 15; Gaz. vol. 183; p. 757.

Zyliewicz, Nicefor, Chicago, Ill. Candle-holder. (Reissue.) No. 13,482; Oct. 15; Gaz. vol. 183; p. 758.

# ALPHABETICAL LIST OF PATENTEES OF DESIGNS.


A. C. Clark & Company. (See Clark, Albert C., assignor.)
A. H. Heisey & Co. (See Sanford, Andrew J., assignor.)
Adams & Westlake Company, The. (See Hamm, William S., assignor.)
Aermore Manufacturing Company. (See Lansing, Gulian V. P., assignor.)
Andersen, Lauritz W., assignor to The Plume & Atwood Manufacturing Company, Waterbury, Conn. Canopy. No. 43,131; Oct. 15; Gaz. vol. 183; p. 758.
Andersen, Lauritz W., assignor to The Plume & Atwood Manufacturing Company, Waterbury, Conn. Dome-holder. No. 43,132; Oct. 15; Gaz. vol. 183; p. 758.
Andersen, Lauritz W., assignor to The Plume & Atwood Manufacturing Company, Waterbury, Conn. Socket-cover. No. 43,133; Oct. 15; Gaz. vol. 183; p. 758.
Andrews, Horace W., Portland, Oreg. Motor-chair. No. 43,077; Oct. 1; Gaz. vol. 183; p. 202.
Andrick, Wallace P. (See Lowe, Haff, and Andrick.)
Baird, Roswell C., Cumberland, Wis. Badge, emblem, or similar article. No. 43,100; Oct. 8; Gaz. vol. 183; p. 480.
Ball, George W., Boise, Idaho. Badge, charm, or similar article. No. 43,175; Oct. 22; Gaz. vol. 183; p. 1011.
Bandlow, Henry E., Chicago, Ill. Gasolene-heated sad-iron. No. 43,185; Oct. 29; Gaz. vol. 183; p. 1280.
Barthel, Georg A., Chicago, Ill. Basket. No. 43,101; Oct. 8; Gaz. vol. 183; p. 480.
Bertram, William L. (See Stellwagen, Carter, and Bertram.)
Bettendorf, Joseph W., administrator. (See Bettendorf, William P.)
Bettendorf, William P., deceased; J. W. Bettendorf, administrator, Bettendorf, Iowa. Railway-car body. No. 43,078; Oct. 1; Gaz. vol. 183; p. 202.
Bleach, Charles, Newport, Ky., assignor to The Crane & Breed Manufacturing Company, Cincinnati, Ohio. Burial-casket handle-plate. No. 43,186; Oct. 29; Gaz. vol. 183; p. 1281.
Booth, Kraft, assignor to Gillinder & Sons, Inc., Philadelphia, Pa. Artificial-light shade. No. 43,079; Oct. 1; Gaz. vol. 183; p. 202.
Brandt Cashier Company. (See Brandt, Edward J., assignor.)
Brandt, Edward J., Watertown, Wis., assignor to Brandt Cashier Company, Chicago, Ill. Casing for coin-delivering machines. No. 43,134; Oct. 15; Gaz. vol. 183; p. 759.
Brush, Alanson P., Flint, Mich. Automobile-body. No. 43,135; Oct. 15; Gaz. vol. 183; p. 759.
Carbery, Norman A., Chicago, Ill. Statuette. Nos. 43,102–3; Oct. 8; Gaz. vol. 183; p. 480.
Carter, George B. (See Stellwagen, Carter, and Bertram.)
Cary, James G., Jackson, Tenn. Combination pocket-tool. No. 43,104; Oct. 8; Gaz. vol. 183; p. 480.
Chance Brothers and Co. Limited. (See Chance, Edward F., assignor.)
Chance, Edward F., Sandford St. Martin, assignor to Chance Brothers and Co. Limited, Glass Works, near Birmingham, England. Plate-glass. No. 43,187; Oct. 29; Gaz. vol. 183; p. 1281.
Clark, Albert C., assignor to A. C. Clark & Company, Chicago, Ill. Frame or stand for anesthetic-administering apparatus. No. 43,188; Oct. 29; Gaz. vol. 183; p. 1281.
Clemmer, George B., Trenton, N. J. Condiment-holder. No. 43,189; Oct. 29; Gaz. vol. 183; p. 1281.
Crane & Breed Manufacturing Company, The. (See Bleach, Charles, assignor.)
Crossett, Robert, assignor to W. H. Owen, New York, N. Y. Carton. No. 43,190; Oct. 29; Gaz. vol. 183; p. 1281.
Curley, Terence F., New York, N. Y. Handle. No. 43,136; Oct. 15; Gaz. vol. 183; p. 759.
De Ajuria, Isabella T., Glen Ridge, N. J. Back. No. 43,080; Oct. 1; Gaz. vol. 183; p. 203.
Dean Electric Company, The. (See Manson, Ray H., assignor.)
Diston, William, assignor to Henry Disston & Sons, Incorporated, Philadelphia, Pa. Level. Nos. 43,191–2; Oct. 29; Gaz. vol. 183; pp. 1281–2.
E. R. Thomas Motor Car Company. (See Sugden, John L., assignor.)
Edison, Thomas A. (See Rubino, Joseph, assignor.)
Edmunds & Jones Mfg. Co., The. (See Godley, Charles E., assignor.)
Eichhorn, Jacob C., assignor to The Victor Jar Company, Detroit, Mich. Jar or receptacle. No. 43,137; Oct. 15; Gaz. vol. 183; p. 759.
Farrell, James W., Norwood, Ohio. Back for toilet mirrors, brushes, or similar articles. Nos. 43,138–9; Oct. 15; Gaz. vol. 183; pp. 759–60.
Fay, Fred W., Wellsville, N. Y. Combined shade and curtain-pole holder. No. 43,140; Oct. 15; Gaz. vol. 183; p. 760.
Frank Tilt Ornamental Iron Works Company. (See Wight, Thomas, assignor.)
Freeman, Richard J., assignor to Pioneer Suspender Company, Overbrook, Pa. Garter. No. 43,105; Oct. 8; Gaz. vol. 183; p. 481.
Foster Stove Company, The. (See Stellwagen, Carter, and Bertram, assignors.)
Frank & Lambert. (See Loomis, Harry T., assignor.)
Gehrke, Frederick W., West Collingswood, N. J., assignor to The Horn and Brannen Manufacturing Company, Philadelphia, Pa. Ornamental shell for gas and electric light fixtures. No. 43,141; Oct. 15; Gaz. vol. 183; p. 760.
Gillinder & Sons. (See Booth, Kraft, assignor.)
Godley, Charles E., assignor to The Edmunds & Jones Mfg. Co., Detroit, Mich. Lamp. No. 43,142; Oct. 15; Gaz. vol. 183; p. 760.
Great Western Manufacturing Co. (See Loan, Edward J., assignor.)
Haff, Howell W. (See Lowe, Haff, and Andrick.)
Hamm, William S., Hubbard Woods, assignor to The Adams & Westlake Company, Chicago, Ill. Pendent lamp. No. 43,193; Oct. 29; Gaz. vol. 183; p. 1282.
Hawthorne, Ellsworth A., Bridgeport, Conn. Lamp. Nos. 43,143–4; Oct. 15; Gaz. vol. 183; p. 760.
Hay, Peter D., Detroit, Mich. Trap. No. 43,145; Oct. 15; Gaz. vol. 183; p. 761.
Heisey & Co., A. H. (See Sanford, Andrew J., assignor.)
Henry Disston & Sons. (See Diston, William, assignor.)
Hoffmann, Edward C., Scribner, Nebr. Reinforced bottle. No. 43,106; Oct. 8; Gaz. vol. 183; p. 481.
Hoppmann, Frederick W., Ottumwa, Iowa. Portable confessional. No. 43,176; Oct. 22; Gaz. vol. 183; p. 1012.
Horn and Brannen Manufacturing Company, The. (See Gehrke, Frederick W., assignor.)
Huey, Leslie P., St. Louis, Mo. Knife-handle. No. 43,194; Oct. 29; Gaz. vol. 183; p. 1282.
J. Pouyat Company, The. (See Ziegler, Charles H., assignor.)
Jones, Almon O., Battle Creek, Mich. Wall-register. No. 43,146; Oct. 15; Gaz. vol. 183; p. 761.
Jones, Homer A. (See Steffens and Jones.)
Kaufmann, Marie H., Plattsmouth, Nebr. Nurse's pin. No. 43,107; Oct. 8; Gaz. vol. 183; p. 481.
Kent, Arthur A., Philadelphia, Pa. Automobile-horn. No. 43,177; Oct. 22; Gaz. vol. 183; p. 1012.
Kirby, James B., Cleveland, Ohio. Casing for pneumatic cleaners. No. 43,147; Oct. 15; Gaz. vol. 183; p. 761.
Landers, Frary & Clark. (See Walker, George, assignor.)
Lansing, Gulian V. P., assignor to Aermore Manufacturing Company, Chicago, Ill. Automobile-horn. No. 43,081; Oct. 1; Gaz. vol. 183; p. 203.
Lansing, Gulian V. P., assignor to Aermore Manufacturing Company Chicago, Ill. Automobile-horn. No. 43,195; Oct. 29; Gaz. vol. 183; p. 1282.
Lebovitz, Louis, Pittsburgh, Pa. Gas-stove. No. 43,196; Oct. 29; Gaz. vol. 183; p. 1282.
Leslie, James W., Chelsea, assignor to Leslie Manufacturing Company, Canton, Mass. Blade for safety-razors. No. 43,082; Oct. 1; Gaz. vol. 183; p. 203.
Leslie Manufacturing Company. (See Leslie, James W., assignor.)
Lloyd Manufacturing Company, The. (See Lloyd, Marshall B., assignor.)
Lloyd, Marshall B., assignor to The Lloyd Manufacturing Company, Menominee, Mich. Collapsible front hood for go-carts. No. 43,148; Oct. 15; Gaz. vol. 183; p. 761.
Lloyd, Marshall B., assignor to The Lloyd Manufacturing Company, Menominee, Mich. Collapsible go-cart-frame arm-rest. No. 43,149; Oct. 15; Gaz. vol. 183; p. 761.
Lohrmann, Ernst H., Providence, R. I., assignor to The Williams Brothers Manufacturing Company, Glastonbury, Conn. Spoon, fork, or similar article. No. 43,197; Oct. 29; Gaz. vol. 183; p. 1282.
Loomis, Harry T., assignor to Frank & Lambert, Inc., New York, N. Y. Textile fabric. No. 43,178; Oct. 22; Gaz. vol. 183; p. 1012.
Loan, Edward J., assignor to Great Western Manufacturing Co., Laporte, Ind. Bicycle-frame. No. 43,083; Oct. 1; Gaz. vol. 183; p. 203.
Lowe, Edgar, H. W. Haff, and W. P. Andrick, assignors to K. M. Turner, Jamaica, N. Y. Telephonic transmitting-station. No. 43,198; Oct. 29; Gaz. vol. 183; p. 1283.
Mahn, Godfrey S., Philadelphia, Pa. Cigar-protector. Nos. 43,150–1; Oct. 15; Gaz. vol. 183; pp. 761–2.

Manson, Ray H., assignor to The Dean Electric Company, Elyria, Ohio. Inclosure for circuit-controllers. No. 43,199; Oct. 29; Gaz. vol. 183; p. 1283.
Marks, Isidore, Boston, Mass. Imitation paper parasol. No. 43,200; Oct. 29; Gaz. vol. 183; p. 1283.
Miner, Edith M., Colville, Wash. Handkerchief. No. 43,201; Oct. 29; Gaz. vol. 183; p. 1283.
Miner, Edith M., Colville, Wash. Doll. No. 43,202; Oct. 29; Gaz. vol. 183; p. 1284.
Mitchell, George E., Haverhill, Mass. Chair-arm. No. 43,152; Oct. 15; Gaz. vol. 183; p. 762.
Moore, John A., Wheeling, W. Va. Mattock. No. 43,153; Oct. 15; Gaz. vol. 183; p. 762.
Nelson, Charles. (See Sternau and Nelson.)
Nelson, Charles. (See Strassburger and Nelson.)
Numan, Charles H., New York, N. Y. Combined pen rack and tray. Nos. 43,154–5; Oct. 15; Gaz. vol. 183; p. 762.
Osborne, Charles, assignor to Whiting Manufacturing Company, New York, N. Y. Handle for spoons, forks, or similar articles. No. 43,156; Oct. 15; Gaz. vol. 183; p. 763.
Owen, William H. (See Crossett, Robert, assignor.)
Parrott, Mary J. and S., Hotchkiss, Colo. Shoe ornament. No. 43,157; Oct. 15; Gaz. vol. 183; p. 763.
Parrott, Samuel. (See Parrott, Mary J. and S.)
Parslow, George H., Chilliwack, British Columbia, Canada. Poison-bottle. No. 43,179; Oct. 22; Gaz. vol. 183; p. 1012.
Phinney, James E., Chicago, Ill. Lamp. No. 43,203; Oct. 29; Gaz. vol. 183; p. 1284.
Pioneer Suspender Company. (See Freeman, Richard J., assignor.)
Plume & Atwood Manufacturing Company, The. (See Andersen, Laurits W., assignor.)
Purple, Mayo S., East Hampton, Conn. Signaling-horn. No. 43,158; Oct. 15; Gaz. vol. 183; p. 763.
Randall, Charles E., Evansville, Ind. Puzzle. No. 43,204; Oct. 29; Gaz. vol. 183; p. 1284.
Rees, Leo, London, England, assignor to Monroe M. Schwarzschild, New York, N. Y. Doll-head. No. 43,159; Oct. 15; Gaz. vol. 183; p. 763.
Reynolds, Foster A., Cleveland, Ohio. Corset. No. 43,205; Oct. 29; Gaz. vol. 183; p. 1284.
Rountree, William, New York, N. Y. Binnacle. No. 43,084; Oct. 1; Gaz. vol. 183; p. 203.
Rubino, Joseph, Corona, N. Y., assignor to Thomas A. Edison, Incorporated, West Orange, N. J. Cabinet. Nos. 43,160–3; Oct. 15; Gaz. vol. 183; pp. 763–4.
Russell, China, Columbus, Ohio. Newspaper-stand. No. 43,164; Oct. 15; Gaz. vol. 183; p. 764.
Safety Car Heating & Lighting Co., The. (See Schepmoes, Lindsley, assignor.)
Sanford, Andrew J., assignor to A. H. Heisey & Co., Newark, Ohio. Straw jar. No. 43,106; Oct. 8; Gaz. vol. 183; p. 481.
Sanford, Andrew J., assignor to A. H. Heisey & Co., Newark, Ohio. Domino-sugar tray. No. 43,109; Oct. 8; Gaz. vol. 183; p. 481.
Sanford, Andrew J., assignor to A. H. Heisey & Co., Newark, Ohio. Vase. No. 43,206; Oct. 29; Gaz. vol. 183; p. 1285.
Schepmoes, Lindsley, Hasbrouck Heights, N. J., assignor to The Safety Car Heating & Lighting Co., New York, N. Y. Lamp-fixture. No. 43,110; Oct. 8; Gaz. vol. 183; p. 481.
Schepmoes, Lindsley, Hasbrouck Heights, N. J., assignor to The Safety Car Heating & Lighting Co., New York, N. Y. Candelabrum. No. 43,111; Oct. 8; Gaz. vol. 183; p. 482.
Schepmoes, Lindsley, Hasbrouck Heights, N. J., assignor to The Safety Car Heating & Lighting Co., New York, N. Y. Berth-light fixture. No. 43,112; Oct. 8; Gaz. vol. 183; p. 482.
Schepmoes, Lindsley, Hasbrouck Heights, N. J., assignor to The Safety Car Heating & Lighting Co., New York, N. Y. Berth-lamp fixture. No. 43,113; Oct. 8; Gaz. vol. 183; p 482.
Schepmoes, Lindsley, Hasbrouck Heights, N. J., assignor to The Safety Car Heating & Lighting Co., New York, N. Y. Pendant-fixture. Nos. 43,114–16; Oct. 8; Gaz. vol. 183; pp. 482–3.
Schepmoes, Lindsley, Hasbrouck Heights, N. J., assignor to The Safety Car Heating & Lighting Co., New York, N. Y. Bracket-lamp fixture. No. 43,117; Oct. 8; Gaz. vol. 183; p. 483.
Schepmoes, Lindsley, Hasbrouck Heights, N. J., assignor to The Safety Car Heating & Lighting Co., New York, N. Y. Deck-lamp fixture. Nos. 43,118–20; Oct. 8; Gaz. vol. 183; pp. 483–4.
Schepmoes, Lindsley, Hasbrouck Heights, N. J., assignor to The Safety Car Heating & Lighting Co., New York, N. Y. Lamp-bowl. No. 43,121; Oct. 8; Gaz. vol. 183; p. 484.
Schepmoes, Lindsley, Hasbrouck Heights, N. J., assignor to The Safety Car Heating & Lighting Co., New York, N. Y. Deck-lamp fixture. Nos. 43,165–6; Oct. 15; Gaz. vol. 183; p. 764.
Schoner, Jacob H., New York, N. Y. Military hair-brush. Nos. 43,160–1; Oct. 22; Gaz. vol. 183; pp. 1012–13.
Schoner, Jacob H., New York, N. Y. Toilet-brush. No. 43,162; Oct. 22; Gaz. vol. 183; p. 1013.
Schwarzschild, Monroe M. (See Rees, Leo, assignor.)
Sill Stove Works. (See Will, Blanca, assignor.)
Sorensen, Louis B., assignor to United Ancient Order of Druids, New Orleans, La. Badge. No. 43,167; Oct. 15; Gaz. vol. 183; p. 764.
Sorensen, Louis B., assignor to United Ancient Order of Druids, New Orleans, La. Badge. No. 43,207; Oct. 29; Gaz. vol. 183; p. 1285.
Steffens, Emil, Jr., and H. A. Jones, Rutherford, N. J. Label-blank. No. 43,168; Oct. 15; Gaz. vol. 183; p. 765.
Stellwagen, Stephen A., Minneapolis, Minn., G. B. Carter and W. L. Bertram, Detroit, Mich., assignors to The Foster Stove Company, Ironton, Ohio. Stove. No. 43,155; Oct. 22; Gaz. vol. 183; p. 1013.
Sternau & Company, S. (See Sternau and Nelson, assignors.)
Sternau & Company, S. (See Strassburger and Nelson, assignors.)
Sternau, Sigmund, and C. Nelson, New York, assignors to S. Sternau & Company, Brooklyn, N. Y. Kettle and stand. No. 43,122; Oct. 8; Gaz. vol. 183; p. 484.
Strassburger, Lionel, and C. Nelson, New York, assignors to S. Sternau & Company, Brooklyn, N. Y. Crumb-scraper. Nos. 43,123–5; Oct. 8; Gaz. vol. 183; p. 485.
Stover, Eva C., Tacoma, Wash. Baby-spoon. No. 43,208; Oct. 29; Gaz. vol. 183; p. 1285.
Sugden, John L., assignor to E. R. Thomas Motor Car Company, Buffalo, N. Y. Cap for wheel-hubs. No. 43,085; Oct. 1; Gaz. vol. 183; p. 203.
Taussig, Maurice, Chicago, Ill. Leg for store furniture. No. 43,169; Oct. 15; Gaz. vol. 183; p. 765.
Turner, Kelley M. (See Lowe, Haff, and Andrick, assignors.)
United Ancient Order of Druids. (See Sorensen, Louis B., assignor.)
Van Riper, Anthony B., Paterson, N. J. Banner. No. 43,170; Oct. 15; Gaz. vol. 183; p. 765.
Victor Jar Company. (See Eichhorn, Jacob C., assignor.)
Walker, George, assignor to Landers, Frary & Clark, New Britain, Conn. Display-stand. No. 43,171; Oct. 15; Gaz. vol. 183; p. 765.
Washman, Charles J., Terrell, Tex. Toilet-cabinet. No. 43,172; Oct. 15; Gaz. vol. 183; p. 765.
Watkins, Howard E., Summit, N. J. Shell for lighting-fixtures or similar articles. Nos. 43,086–9; Oct. 1; Gaz. vol. 183; p. 204.
Watkins, Howard E., Summit, N. J. Globe or similar article. Nos. 43,090–4; Oct. 1; Gaz. vol. 183; pp. 204–5.
Watkins, Howard E., Summit, N. J. Shell or similar article. No. 43,095; Oct. 1; Gaz. vol. 183; p. 205.
Watkins, Howard E., Summit, N. J. Shell for lighting-fixtures or similar articles. Nos. 43,096–7; Oct. 1; Gaz. vol. 183; p. 205.
Watkins, Howard E., Summit, N. J. Globe or similar article. No. 43,098; Oct. 1; Gaz. vol. 183; p. 206.
Watkins, Howard E., Summit, N. J. Shell for lighting-fixtures or similar articles. No. 43,099; Oct. 1; Gaz. vol. 183; p. 206.
Weeks, Frank A., Plainfield, N. J. Inkstand. Nos. 43,126–8; Oct. 8; Gaz. vol. 183; p. 485.
West, George E., Pittsburgh, Pa. Bottle. No. 43,173; Oct. 15; Gaz. vol. 183; p. 766.
White, Robert A., Maplewood, N. J. Brush. No. 43,174; Oct. 15; Gaz. vol. 183; p. 766.
Whiting Manufacturing Company. (See Osborne, Charles, assignor.)
Wight, Thomas, assignor to Frank Tilk Ornamental Iron Works Company, Kansas City, Mo. Lamp-post. No. 43,129; Oct. 8; Gaz. vol. 183; p. 486.
Will, Blanca, assignor to Sill Stove Works, Rochester, N. Y. Stove. No. 43,184; Oct. 22; Gaz. vol. 183; p. 1013.
Williams Brothers Manufacturing Company, The. (See Lohrmann, Ernst H., assignor.)
Ziegler, Charles E., Altwasser, Germany, assignor to The J. Powyat Company, New York, N. Y. Covered dish or similar article. No. 43,130; Oct. 8; Gaz. vol. 183; p. 486.

# ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

A. M. Nettleton Company, Syracuse, N. Y. Leather shoes for men and youths. No. 88,778; Oct. 22; Gaz. vol. 183; p. 1028.
A. J. Hague & Co. Inc., New York, N. Y. Hair-nets. No. 88,743; Oct. 22; Gaz. vol. 183; p. 1027.
Aeolian Company, Meriden, Conn.; Garwood, N. J., and New York, N. Y. Perforated music-rolls. No. 88,653; Oct. 15; Gaz. vol. 183; p. 777.
Aeolian Company, Meriden, Conn.; Garwood, N. J., and New York, N. Y. Pianos, &c., operated in connection with phonographs. No. 88,654; Oct. 15; Gaz. vol. 183; p. 777.
Alaska Fish Co., Seattle, Wash. Canned salmon. No. 88,821; Oct. 29; Gaz. vol. 183; p. 1301.
Albert Trostel & Sons Company, Milwaukee, Wis. Leather in the piece. Nos. 88,601–2; Oct. 1; Gaz. vol. 183; p. 214.
Ale-Ting Service, Chicago, Ill. Pictures, illustrations, stories, &c., published serially. No. 88,655; Oct. 15; Gaz. vol. 183; p. 777.
Alfred Wright Perfumer Inc., Philadelphia, Pa. Perfumery. No. 88,900; Oct. 29; Gaz. vol. 183; p. 1306.
Alpine Pharmacal Co., The, Cleveland, Ohio. Laxative preparations. No. 88,609; Oct. 8; Gaz. vol. 183; p. 499.
Aluminium G. m. b. H., Teningen, Baden, Germany. Foils of aluminium or its alloys. No. 88,822; Oct. 29; Gaz. vol. 183; p. 1301.
Amalgatype Machine Company, New York, N. Y. Cast-metal type, lines of type, and matrices. No. 88,656; Oct. 15; Gaz. vol. 183; p. 777.
American Agricultural Chemical Company, New York, N. Y. Fertilizers. No. 88,687; Oct. 15; Gaz. vol. 183; p. 777.
American Ammono Company, Buffalo and New York, N. Y. Medicated soluble toilet powders. No. 88,824; Oct. 29; Gaz. vol. 183; p. 1301.
American Infusion Steel Process Co., New York, N. Y. Chemical composition for hardening low-carbon steel. No. 88,546; Oct. 1; Gaz. vol. 183; p. 213.
American Kitchen Products Company, New York, N. Y. Beef-broth preparations. No. 88,823; Oct. 29; Gaz. vol. 183; p. 1301.
American Ozone Company, Niagara Falls, N. Y. Ozonising apparatus. No. 88,725; Oct. 22; Gaz. vol. 183; p. 1027.
American Radiator Company, East Orange, N. J.; Chicago, Ill.; New York, N. Y.; Philadelphia, Pa.; Boston, Mass.; London, England; Paris, France, and Berlin, Germany. Radiators. No. 88,658; Oct. 15; Gaz. vol. 183; p. 777.
Antrim & Sons, C. W., Richmond, Va. Certain named foods. No. 88,827; Oct. 29; Gaz. vol. 183; p. 1301.
Armour and Company, Chicago, Ill. Cleaning preparation. No. 88,547; Oct. 1; Gaz. vol. 183; p. 213.
Aseptic Products Company, Long Island City, N. Y. Corn and bunion plasters. No. 88,826; Oct. 29; Gaz. vol. 183; p. 1301.
Astoria & Puget Sound Canning Co., Bellingham, Wash. Canned salmon. No. 88,826; Oct. 29; Gaz. vol. 183; p. 1301.
Austin Reed, Limited, London, England. Collars. No. 88,788; Oct. 22; Gaz. vol. 183; p. 1029.
Auto Strop Safety Razor Co., New York, N. Y. Brushes. No. 88,726; Oct. 22; Gaz. vol. 183; p. 1027.
B. Altman & Co., New York, N. Y. Corsets. Nos. 88,721–3; Oct. 22; Gaz. vol. 183; p. 1027.
B. Altman & Co., New York, N. Y. Gloves. No. 88,724; Oct. 22; Gaz. vol. 183; p. 1027.
Barrett Manufacturing Company, New York, N. Y. Roofing felts and papers. No. 88,659; Oct. 15; Gaz. vol. 183; p. 777.
Barthels Mfg. Co., New York, N. Y. Braids, galloons, shoe and corset laces. No. 88,828; Oct. 29; Gaz. vol. 183; p. 1301.
Barta, Nicholas B., Chicago, Ill. Ointment. No. 88,611; Oct. 8; Gaz. vol. 183; p. 499.
Bauer & Cie., Berlin, Germany. Disinfecting means for mouth and throat. No. 88,829; Oct. 29; Gaz. vol. 183; p. 1301.
Beaird, Wm. F., Salt Lake City, Utah. Corn and bunion remedy. No. 88,612; Oct. 8; Gaz. vol. 183; p. 499.
Berdan & Company, Toledo, Ohio. Certain named foods. No. 88,830; Oct. 29; Gaz. vol. 183; p. 1301.
Berndorf Metal Works Arthur Krupp, Berndorf, Austria-Hungary. Egg-beaters. No. 88,831; Oct. 29; Gaz. vol. 183; p. 1301.
Berndt & Co., Baltimore, Md. South American tea. No. 88,832; Oct. 29; Gaz. vol. 183; p. 1301.
Best, Richard, New York, N. Y. Lead-pencils and copying-pencils. No. 88,660; Oct. 15; Gaz. vol. 183; p. 777.
Bishop & Company, Los Angeles, Cal. Candy figs. No. 88,833; Oct. 29; Gaz. vol. 183; p. 1301.
Alaska-Wenaeker Candy Co., St. Louis, Mo. Candy. No. 88,834; Oct. 29; Gaz. vol. 183; p. 1301.
Bockar, John J., New York, N. Y. Remedy for diseases of the stomach, &c. No. 88,661; Oct. 15; Gaz. vol. 183; p. 777.
Bon Ami Company, New York, N. Y. Scouring-soap. No. 88,543; Oct. 1; Gaz. vol. 183; p. 213.
Bordeaux Chemical Works, New York, N. Y. Facial creams, rouge, &c. No. 88,835; Oct. 29; Gaz. vol. 183; p. 1301.
Bowersock, Justin D., Lawrence, Kans. Wrapping-paper and box-board. No. 88,836; Oct. 29; Gaz. vol. 183; p. 1301.
Bowker Chemical Company, New York, N. Y. Fertilizers. No. 88,662; Oct. 15; Gaz. vol. 183; p. 777.
Brampton Brothers Limited, Birmingham, England. Nuts and bolts, metal washers, and driving-chains. No. 88,730; Oct. 22; Gaz. vol. 183; p. 1027.
Branicki, Joseph W., Newark, N. J. Foot-powder. No. 88,663; Oct. 15; Gaz. vol. 183; p. 777.
Brooks and Taylor, New York, N. Y. Suppositories. No. 88,838; Oct. 29; Gaz. vol. 183; p. 1301.
Brown Manufacturing Co., Greenville, Texas. Remedy for dyspepsia. No. 88,549; Oct. 1; Gaz. vol. 183; p. 213.
Burnam, James F., Huntsville, Ala. Remedy for chills and malaria and as a general tonic. No. 88,550; Oct. 1; Gaz. vol. 183; p. 213.
Cabell Company, The, Baltimore, Md. Egg-white preparation. No. 88,839; Oct. 29; Gaz. vol. 183; p. 1301.
California Central Creameries, San Francisco, Cal. Butter. No. 88,840; Oct. 29; Gaz. vol. 183; p. 1301.
Campbell Company, Inc. The, Boston, Mass. Cooking-oil. No. 88,731; Oct. 22; Gaz. vol. 183; p. 1027.
Carruthers James Shoe Co., Memphis, Tenn. Leather shoes, slippers, and sandals. No. 88,841; Oct. 29; Gaz. vol. 183; p. 1301.
Carson, Pirie, Scott & Co., Chicago, Ill. Handkerchiefs. No. 88,732; Oct. 22; Gaz. vol. 183; p. 1027.
Carstens Packing Company, Tacoma and Seattle, Wash. Hams, bacon, and lard. No. 88,842; Oct. 29; Gaz. vol. 183; p. 1301.
Carter, Charles, New Brunswick, N. J. Blood-purifier and a remedy for certain diseases. No. 88,551; Oct. 1; Gaz. vol. 183; p. 213.
Cash, Laurence E., New York, N. Y., and Chicago, Ill. Antiseptics and germicides. No. 88,664; Oct. 15; Gaz. vol. 183; p. 777.
Central Drug Co., Detroit, Mich. Lotions for chapped hands or lips, &c. No. 88,614; Oct. 8; Gaz. vol. 183; p. 499.
Centrifugal Power Wheel Company, Decatur, Ill. Wheels. No. 88,843; Oct. 29; Gaz. vol. 183; p. 1301.
Champion Stove Co., The, Cleveland, Ohio. Certain named heaters and stoves. No. 88,552; Oct. 1; Gaz. vol. 183; p. 213.
Charles Hedden Incorporated, New York, N. Y. Perfumes, toilet waters, sachet, face, and talcum powder. No. 88,875; Oct. 29; Gaz. vol. 183; p. 1302.
Chicago Architects' Business Association, Chicago, Ill. Building-contract documents. No. 88,665; Oct. 15; Gaz. vol. 183; p. 777.
Christopher, L. J., Los Angeles, Cal. Candies. No. 88,844; Oct. 29; Gaz. vol. 183; p. 1301.
Citra Fruit Company, The, Citra, Fla. Oranges, lemons, grape-fruit, tangerines, and limes. Nos. 88,845–6; Oct. 29; Gaz. vol. 183; p. 1301.
Clauberg & Co., F. A., New York, N. Y. Razors, razor-blades, shears, knives, &c. No. 88,615; Oct. 8; Gaz. vol. 183; p. 499.
Co-Ran Bed Company, Oakland, Cal. Canopy-beds. No. 88,851; Oct. 29; Gaz. vol. 183; p. 1302.
Cocoanut Grove Citrus Grower's Association, Cocoanut Grove, Fla. Oranges, lemons, grape-fruit, tangerines, and limes. No. 88,847; Oct. 29; Gaz. vol. 183; p. 1301.
Code Portwood Canning Co., Fruitvale, Oakland, Cal. Canned fruits and vegetables, fruit jams and jellies. No. 88,848; Oct. 29; Gaz. vol. 183; p. 1301.
Coes Wrench Company, Worcester, Mass. Wrenches. No. 88,616; Oct. 8; Gaz. vol. 183; p. 499.
Colcombet Fois & Co., St. Etienne, France. Velvet ribbons. Nos. 88,734–5; Oct. 22; Gaz. vol. 183; p. 1027.
Colgate & Co., New York, N. Y. Soaps and soap powders. No. 88,666; Oct. 15; Gaz. vol. 183; p. 777.
Colvin, Ronald B., Berlin, Pa. Anæsthetic. No. 88,667; Oct. 15; Gaz. vol. 183; p. 777.
Commercial Vehicle, Inc., The, New York, N. Y. Monthly magazines. No. 88,850; Oct. 29; Gaz. vol. 183; p. 1301.
Compagnie Fermière de L'Etablissement Thermal de Vichy, Paris, France. Natural mineral waters. No. 88,736; Oct. 22; Gaz. vol. 183; p. 1027.

Conway, Frank G., New York, N. Y. Hair-tonic. No. 88,489; Oct. 29; Gaz. vol. 183; p. 1301.
Cott-a-lap Company, The, New Haven, Conn., and Somerville, N. J. Specially-prepared size for certain uses. No. 88,737; Oct. 22; Gaz. vol. 183; p. 1027.
Coyle, Lander T., Ardmore, Okla. Remedies for hog and chicken cholera. No. 88,553; Oct. 1; Gaz. vol. 183; p. 213.
Crawford & Bowdle, Lima, Ohio. Leather shoes. No. 88,852; Oct. 29; Gaz. vol. 183; p. 1302.
Crown City Bottling & Syrup Co., Birmingham, Ala. Carbonated non-alcoholic beverages. No. 88,738; Oct. 22; Gaz. vol. 183; p. 1027.
Cushman, Allerton S., Washington, D. C. Oil-paints and pigments for oil-paints. No. 88,739; Oct. 22; Gaz. vol. 183; p. 1027.
Davidson Brothers Company, Des Moines, Iowa. Candy. No. 88,853; Oct. 29; Gaz. vol. 183; p. 1302.
De Vilbiss Manufacturing Company, The, Toledo, Ohio. Atomizers, nebulizers, and powder-blowers. No. 88,584; Oct. 1; Gaz. vol. 183; p. 213.
Deimel Linen Mesh System Company, San Francisco, Cal. Shirts, drawers, corset-covers, and corsets. No. 88,740; Oct. 22; Gaz. vol. 183; p. 1027.
Delangrenier, Guérin, Paris, France. Prepared food for infants and invalids. No. 88,854; Oct. 29; Gaz. vol. 183; p. 1302.
Delmarvia Manufacturing Company, Smyrna, Del. Fabric undershirts, drawers, union suits, &c. No. 88,741; Oct. 22; Gaz. vol. 183; p. 1027.
Denny, Hilborn & Rosenbach, Philadelphia, Pa. Paints. No. 88,855; Oct. 29; Gaz. vol. 183; p. 1302.
Dexter & Sons, C. H., Windsor Locks, Conn. Writing, printing, and tissue paper. Nos. 88,555–6; Oct. 1; Gaz. vol. 183; p. 213.
Diller Manufacturing Company, The, Bluffton, Ohio. Fireless cookers. No. 88,558; Oct. 1; Gaz. vol. 183; p. 213.
Dilling & Company, Indianapolis, Ind. Chocolate candy. No. 88,856; Oct. 29; Gaz. vol. 183; p. 1302.
Direct Supply Co., The, Martinsburg, W. Va., and New York, N. Y. Certain named articles of clothing. No. 88,742; Oct. 22; Gaz. vol. 183; p. 1027.
Doege, Albert, Leavenworth, Kans. Laundry starch. No. 88,857; Oct. 29; Gaz. vol. 183; p. 1302.
Dover Stamping and Manufacturing Company, Cambridge, Mass. Sieves for ash-barrels. No. 88,559; Oct. 1; Gaz. vol. 183; p. 213.
Dowd & Co., J. C., New York, N. Y. Hat and clothes brushes. No. 88,668; Oct. 15; Gaz. vol. 183; p. 777.
Dowd & Co., J. C., New York, N. Y. Certain frames, not including precious metal, for mirrors and pictures. No. 88,859; Oct. 29; Gaz. vol. 183; p. 1302.
Drolet, Mederic, Kankakee, Ill. Laundry washing-machines. No. 88,560; Oct. 1; Gaz. vol. 183; p. 213.
Duluth-Superior Milling Company, Duluth, Minn. Wheat-flour. No. 88,858; Oct. 29; Gaz. vol. 183; p. 1302.
E. Sutro and Son Company, Philadelphia, Pa. Hosiery. No. 88,802; Oct. 22; Gaz. vol. 183; p. 1029.
E. M. Dickinson Ltd., Sheffield, England. Certain named knives, weapons, shears, razors, scissors, and forks. No. 88,617; Oct. 8; Gaz. vol. 183; p. 499.
Economy Lubricating Co., Boston, Mass. Lubricating-grease. No. 88,561; Oct. 1; Gaz. vol. 183; p. 213.
Edlis Barbers Sup. Co., The, Pittsburgh, Pa. Razors. No. 88,618; Oct. 8; Gaz. vol. 183; p. 499.
Edwards, Thomas R., Chanute, Kans. Remedy for catarrh. No. 88,860; Oct. 29; Gaz. vol. 183; p. 1302.
Egypt Canning Company, Egypt, N. Y. Canned vegetables and fruits. No. 88,861; Oct. 29; Gaz. vol. 183; p. 1302.
Eloesser-Heynemann Co., San Francisco, Cal. Overalls. No. 88,743; Oct. 22; Gaz. vol. 183; p. 1027.
Enterprise Enamel Co., The, Bellaire, Ohio. Certain named enamel ware. No. 88,619; Oct. 8; Gaz. vol. 183; p. 499.
Eppstein, Milton L., Fort Worth, Tex. Wines. No. 88,744; Oct. 22; Gaz. vol. 183; p. 1027.
Ern & Co., Friedr., Weyer, near Solingen, Germany. Razors. No. 88,621; Oct. 8; Gaz. vol. 183; p. 499.
Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Antipyretic, antineuralgic, and sedative. Nos. 88,562–4; Oct. 1; Gaz. vol. 183; p. 213.
Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Remedy for certain named diseases. No. 88,862; Oct. 29; Gaz. vol. 183; p. 1302.
Fell Drug Co., Hornell, N. Y. Pile remedy. No. 88,565; Oct. 1; Gaz. vol. 183; p. 213.
Ferris, George A., Detroit, Mich. Monthly magazine. No. 88,669; Oct. 15; Gaz. vol. 183; p. 777.
Fischer Brothers, Seattle, Wash. Salad-oil. No. 88,837; Oct. 29; Gaz. vol. 183; p. 1301.
Fisher Flouring Mills Company, Seattle, Wash. Wheat-flour. No. 88,863; Oct. 29; Gaz. vol. 183; p. 1302.
Fitz Gerald, Owen S., Philadelphia, Pa. Tea and imitation tea. No. 88,864; Oct. 29; Gaz. vol. 183; p. 1302.
Florsheim Shoe Company, The, Chicago, Ill. Cloth and leather boots and shoes. No. 88,745; Oct. 22; Gaz. vol. 183; p. 1027.
Foley & Company, Chicago, Ill. Remedies for diseases of the kidney and bladder and rheumatism. No. 88,620; Oct. 8; Gaz. vol. 183; p. 499.
Foltz Grocery & Baking Company, The, Cincinnati, Ohio. Wheat-flour. No. 88,865; Oct. 29; Gaz. vol. 183; p. 1302.
Förster, Martha, Cunnersdorf, Germany. Remedy for gall-stones. No. 88,566; Oct. 1; Gaz. vol. 183; p. 213.
Fry Bros. & Company, Cincinnati, Ohio. Soda-ash. No. 88,866; Oct. 29; Gaz. vol. 183; p. 1302.
G. A. Stafford & Company, New York, N. Y. Zephyr gingham. No. 88,746; Oct. 22; Gaz. vol. 183; p. 1029.
Gallanis Bros., Chicago, Ill. Candies. No. 88,867; Oct. 29; Gaz. vol. 183; p. 1302.
Garner Print Works & Bleachery, West Haverstraw, Wappingers Falls, and New York, N. Y. Cotton fabrics in the piece. No. 88,747; Oct. 22; Gaz. vol. 183; p. 1027.
Garrett & Co., Norfolk, Va. Wine. Nos. 88,622–4; Oct. 8; Gaz. vol. 183; p. 499.
Garrett & Co., Norfolk, Va. Wine. No. 88,670; Oct. 15; Gaz. vol. 183; p. 777.
General Electric Company, Schenectady, N. Y. Electrical regulators. No. 88,625; Oct. 8; Gaz. vol. 183; p. 499.
Geo. H. Bowman Co., The, Cleveland, Ohio. Certain aluminum household and kitchen utensils. No. 88,613; Oct. 8; Gaz. vol. 183; p. 499.
Geo. W. Torrey Co., Boston, Mass. Mixed spirituous liquors. No. 88,807; Oct. 22; Gaz. vol. 183; p. 1029.
Geo. Zett Brewery, The, Syracuse, N. Y. Lager-beer. No. 88,820; Oct. 22; Gaz. vol. 183; p. 1029.
Glidea, Georgie C., Los Angeles, Cal. Salve. No. 88,671; Oct. 15; Gaz. vol. 183; p. 777.
Glenn, Joseph A., Philadelphia, Pa. Ointments. No. 88,672; Oct. 15; Gaz. vol. 183; p. 777.
Golden Sporting Shoe Co., Brockton, Mass. Sporting-shoes. No. 88,868; Oct. 29; Gaz. vol. 183; p. 1302.
Goodrich, W. Irving, Passaic, N. J. Stove-polish. No. 88,567; Oct. 1; Gaz. vol. 183; p. 213.
Gowan Medical Company, Dunham, N. C. Toilet and bath soap. No. 88,568; Oct. 1; Gaz. vol. 183; p. 213.
Grand Junction Fruit Growers' Association, The, Grand Junction, Colo. Fresh and green fruits. No. 88,869; Oct. 29; Gaz. vol. 183; p. 1302.
Grantorpets Tändsticksfabriks Aktiebolag, Westervik, Sweden. Matches. No. 88,746; Oct. 22; Gaz. vol. 183; p. 1027.
Greene, George W., Cullman, Ala. Remedy for cancer. No. 88,569; Oct. 1; Gaz. vol. 183; p. 213.
Gretschel, Joseph, Long Island City, N. Y. Compound of bitter herbs. No. 88,673; Oct. 15; Gaz. vol. 183; p. 777.
Grieb & Sons, J. G., Philadelphia, Pa. Leather shoes. No. 88,870; Oct. 29; Gaz. vol. 183; p. 1302.
Griggs, George A., Butte, Mont. Blank checks. No. 88,674; Oct. 15; Gaz. vol. 183; p. 777.
H. B. Claflin Company, The, New York, N. Y. Piece goods made from certain materials and mixtures thereof. No. 88,733; Oct. 22; Gaz. vol. 183; p. 1027.
Haenmer, Charles, Albany, N. Y. Writing and drawing ink. No. 88,871; Oct. 29; Gaz. vol. 183; p. 1302.
Hall, Lyman D., New York, N. Y. Magazine. No. 88,675; Oct. 15; Gaz. vol. 183; p. 777.
Haney, Allen E., Albion, Ind. Rheumatic and kidney remedy. No. 88,872; Oct. 29; Gaz. vol. 183; p. 1302.
Harding & Sons, Sutton, England. Saponaceous powder for the hair. No. 88,873; Oct. 29; Gaz. vol. 183; p. 1302.
Harris Woodson Co., Inc., Lynchburg, Va. Peanut-candy. No. 88,989; Oct. 29; Gaz. vol. 183; p. 1305.
Harrison, Paul, New York, N. Y. Certain named medicines. No. 88,570; Oct. 1; Gaz. vol. 183; p. 213.
Hart & Hegeman Manufacturing Company, Hartford, Conn. Certain electrical apparatus. No. 88,676; Oct. 15; Gaz. vol. 183; p. 777.
Harter Milling Co., The, Toledo and Fostoria, Ohio. Wheat-flour. No. 88,874; Oct. 29; Gaz. vol. 183; p. 1302.
Hausemann & Co., Philadelphia, Pa. Optical lenses. No. 88,626; Oct. 8; Gaz. vol. 183; p. 499.
Haynes Henson Shoe Company, Knoxville, Tenn. Leather boots and shoes. No. 88,749; Oct. 22; Gaz. vol. 183; p. 1027.
Heiser, Calvin B., Oakland, Cal. Facial cream. No. 88,876; Oct. 29; Gaz. vol. 183; p. 1302.
Henry K. Wampole and Company, Incorporated, Philadelphia, Pa. Cod-liver-extract preparations. No. 88,648; Oct. 8; Gaz. vol. 183; p. 500.
Higbey Co., L. M., The, Pasadena, Cal. Medicine for consumption. No. 88,571; Oct. 1; Gaz. vol. 183; p. 213.
Hildebrand & Keller, Ephrata, Pa. Roup and poultry condition-powders. No. 88,677; Oct. 15; Gaz. vol. 183; p. 777.
Hill & Loper Co., Inc., Danbury, Conn. Men's and boys' felt hats and caps. No. 88,750; Oct. 22; Gaz. vol. 183; p. 1028.
Hoag, Homer L., Rutland, Vt. Antiseptic and deodorant. No. 88,572; Oct. 1; Gaz. vol. 183; p. 213.
Hoffmann-La Roche Chemical Works, The, New York, N. Y. Disinfectant and germicide. No. 88,678; Oct. 15; Gaz. vol. 183; p. 777.
Hohorst, Henry, Jersey City, N. J. Adhesive liquid. No. 88,679; Oct. 15; Gaz. vol. 183; p. 777.
Hood Rubber Company, Boston, Mass. Rubber boots and shoes, overshoes, &c. Nos. 88,751–2; Oct. 22; Gaz. vol. 183; p. 1028.
Hoopeston Horse Nail Company, Hoopeston, Ill. Horse-nails. No. 88,573; Oct. 1; Gaz. vol. 183; p. 214.
Hudson, Joseph, Birmingham, England. Whistle-calls. No. 88,753; Oct. 22; Gaz. vol. 183; p. 1028.
Hull & Dilion Pkg. Co., The, Pittsburg, Kans. Ham, bacon, and pure lard. No. 88,884; Oct. 29; Gaz. vol. 183; p. 1302.



Hull, William M., Los Angeles, Cal. Remedy for dandruff. No. 88,627; Oct. 8; Gaz. vol. 183; p. 499.
Hurwitt, Geo. J., New York, N. Y. Antiseptic preparations for treatment of the mouth, throat, or nose. No. 88,885; Oct. 29; Gaz. vol. 183; p. 1302.
Hydroil Company, The, Franklin, Pa., assignor to The Hydroil Company, Lubricant. No. 88,754; Oct. 22; Gaz. vol. 183; p. 1028.
Hygeia Distilled Water Company, The, New York, N. Y. Ginger-ale, sarsaparilla, and lemon-soda. No. 88,886; Oct. 29; Gaz. vol. 183; p. 1303.
Hygienic Fibre Company, New York, N. Y. Washable napkins. No. 88,887; Oct. 29; Gaz. vol. 183; p. 1303.
Hygienic Fibre Company, New York, N. Y. Baby-diaper and birds-eye napkins. No. 88,888; Oct. 29; Gaz. vol. 183; p. 1303.
Hyman & Oppenheim, New York, N. Y. Hair-bangs. No. 88,755; Oct. 22; Gaz. vol. 183; p. 1028.
Imperial Rubber Co., New York, N. Y. Certain electrical supplies. No. 88,623; Oct. 8; Gaz. vol. 183; p. 499.
Independent Brewing Co., The, Seattle, Wash. Beer. No. 88,756; Oct. 22; Gaz. vol. 183; p. 1028.
International Shoe Company, St. Louis, Mo. Boots and shoes. No. 88,757; Oct. 22; Gaz. vol. 183; p. 1028.
Ironsides Company, The, Columbus, Ohio. Cable and rope fillers. Nos. 88,574–5; Oct. 1; Gaz. vol. 183; p. 214.
Ironsides Company, The, Columbus, Ohio. Lubricating oils and greases. Nos. 88,889–90; Oct. 29; Gaz. vol. 183; p. 1303.
J. D. Riedel Aktiengesellschaft, Berlin, Germany. Preparations for treating bronchial catarrhs. No. 88,630; Oct. 8; Gaz. vol. 183; p. 500.
J. D. Riedel Aktiengesellschaft, Berlin, Germany. Preparations for treating paralysis and nervous and mental diseases. No. 88,640; Oct. 8; Gaz. vol. 183; p. 500.
J. D. Riedel Actien Gesellschaft, Berlin, Germany. Aperients. No. 88,953; Oct. 29; Gaz. vol. 183; p. 1304.
J. G. Shaw Book Company, New York, N. Y. Certain named articles of stationery. No. 88,964; Oct. 29; Gaz. vol. 183; p. 1305.
J. H. Merrill Co., Ottumwa, Iowa. Certain named foods. Nos. 88,906–9; Oct. 29; Gaz. vol. 183; p. 1303.
J. H. Williams & Co., New York, N. Y. Certain named tools. No. 88,967; Oct. 29; Gaz. vol. 183; p. 1305.
J. T. Kenny & Company, St. Paul, Minn. Soda crystals. No. 88,892; Oct. 29; Gaz. vol. 183; p. 1303.
James H. Rhodes & Company, Chicago, Ill., and New York, N. Y. Chamois-skins. Nos. 88,589–90; Oct. 1; Gaz. vol. 183; p. 214.
James, William, Philippensburg, Pa. Medicinal tonic. No. 88,681; Oct. 15; Gaz. vol. 183; p. 778.
Johnson-Allen Coffee Co., St. Louis, Mo. Coffee. No. 88,891; Oct. 29; Gaz. vol. 183; p. 1303.
Joseph Bancroft & Sons Co., Wilmington, Del. Bookcloths. No. 88,727; Oct. 22; Gaz. vol. 183; p. 1027.
Joseph Bancroft & Sons Co., Wilmington, Del. Window-shade fabric. No. 88,728; Oct. 22; Gaz. vol. 183; p. 1027.
Joseph Barnett & Company, Riverside, Iowa. Lightning-rods and fixtures for same. No. 88,610; Oct. 8; Gaz. vol. 183; p. 499.
Joseph Black & Sons Company, New York, N. Y. Stockings. No. 88,729; Oct. 22; Gaz. vol. 183; p. 1027.
Joseph G. Dill, Inc., Richmond, Va. Tobacco, cigars, and cigarettes. No. 88,557; Oct. 1; Gaz. vol. 183; p. 213.
Keefer, William W., Lancaster, Pa. Root-beer, birch, sarsaparilla, soda, &c. No. 88,759; Oct. 22; Gaz. vol. 183; p. 1028.
Keystone Driller Company, Beaver Falls, Pa. Certain named machinery and tools. No. 88,893; Oct. 29; Gaz. vol. 183; p. 1303.
Kilbride, John J. W., New York, N. Y. Medicinal soaps. No. 88,576; Oct. 1; Gaz. vol. 183; p. 214.
Knoll & Co., Ludwigshafen-on-the-Rhine, Germany. Remedy for skin diseases. No. 88,894; Oct. 29; Gaz. vol. 183; p. 1303.
Koch Brothers, Zanesville, Ohio. Chemical compound for purifying water. No. 88,895; Oct. 29; Gaz. vol. 183; p. 1303.
Krefeld Steel Works Company, Krefeld, Germany, and New York, N. Y. Steel. No. 88,608; Oct. 1; Gaz. vol. 183; p. 215.
L. C. Kuhnert Jr. Co., Chicago, Ill. Internal-combustion engines. No. 88,760; Oct. 22; Gaz. vol. 183; p. 1028.
Lederer, Ervin, Budapest, Austria-Hungary. Remedy for diabetes. No. 88,896; Oct. 29; Gaz. vol. 183; p. 1303.
Lehmann, Ernst P., Brandenburg-on-the-Havel, Germany. Toys. No. 88,682; Oct. 15; Gaz. vol. 183; p. 778.
Leifchild, Emma L., Los Angeles, Cal. Face cream and powder, shampooing preparations, &c. No. 88,897; Oct. 29; Gaz. vol. 183; p. 1303.
Levi, Norman E., Detroit, Mich. Roach and vermin exterminators. No. 88,577; Oct. 1; Gaz. vol. 183; p. 214.
Levy Jr. & Co., Salm., Lisbon, Portugal. Sardines in oil. No. 88,899; Oct. 29; Gaz. vol. 183; p. 1303.
Levy, Larry, New York, N. Y. Trousers. No. 88,761; Oct. 22; Gaz. vol. 183; p. 1028.
Levy & Marcus, New York, N. Y. Men's neckties. No. 88,898; Oct. 29; Gaz. vol. 183; p. 1303.
Lewis & Locke, New York, N. Y. Gloves. No. 88,578; Oct. 1; Gaz. vol. 183; p. 214.
Lindeke, Warner & Sons, St. Paul, Minn. Knitted underwear. No. 88,762; Oct. 22; Gaz. vol. 183; p. 1028.
Livingston & Lieberman, New York, N. Y. Dress-shirts and ladies' waists. No. 88,900; Oct. 29; Gaz. vol. 183; p. 1303.
Lodwic Concentrator Company, Los Angeles, Cal. Concentrator and separating tables. No. 88,763; Oct. 22; Gaz. vol. 183; p. 1028.
Loewy & Co., Joseph, New York, N. Y. Shirts. No. 88,764; Oct. 22; Gaz. vol. 183; p. 1028.
Loyal Shirt Company, New York, N. Y. Dress, negligée, or work shirts. No. 88,765; Oct. 22; Gaz. vol. 183; p. 1028.
Lubin Manufacturing Company, Philadelphia, Pa. Kinetoscopic films. No. 88,629; Oct. 8; Gaz. vol. 183; p. 499.
Lunkenheimer Company, Cincinnati, Ohio. Certain named tools and parts of machinery. No. 88,683; Oct. 15; Gaz. vol. 183; p. 778.
Lutey Bros., Butte, Mont. Butter. No. 88,901; Oct. 29; Gaz. vol. 183; p. 1303.
Lynott, Lena R., Louisiana, Mo. Churns. No. 88,902; Oct. 29; Gaz. vol. 183; p. 1303.
M. & M. Manufacturing Company, Akron, Ohio. Inner-tube splicers. No. 88,579; Oct. 1; Gaz. vol. 183; p. 214.
Macomber & Whyte Rope Company, Chicago, Ill. Wire rope. No. 88,903; Oct. 29; Gaz. vol. 183; p. 1303.
Madame Irene, New York, N. Y. Corsets. No. 88,763; Oct. 22; Gaz. vol. 183; p. 1028.
Magnus & Lauer, San Francisco, Cal. Soda-water syrup. No. 88,766; Oct. 22; Gaz. vol. 183; p. 1028.
Manfield & Sons, Northampton, England. Leather boots, shoes, and slippers. No. 88,767; Oct. 22; Gaz. vol. 183; p. 1028.
Manine Medicine Company, St. Louis, Mo. Remedy for certain named diseases. No. 88,907; Oct. 29; Gaz. vol. 183; p. 1303.
Marion Steam Shovel Co., The, Marion, Ohio. Dredges and power-shovels. No. 88,630; Oct. 8; Gaz. vol. 183; p. 499.
Martens, Ernest, Brooklyn, N. Y. Cooked hams. No. 88,904; Oct. 29; Gaz. vol. 183; p. 1303.
Martin's Sons, E. J., Rockville, Conn. Certain named sporting goods. No. 88,684; Oct. 15; Gaz. vol. 183; p. 778.
Mazzone, Cosmo, Providence, R. I. Medicine for certain diseases. No. 88,631; Oct. 8; Gaz. vol. 183; p. 499.
McCord-Kieffer Mer. Co., Topeka, Kans. Certain canned foods. No. 88,905; Oct. 29; Gaz. vol. 183; p. 1303.
McKiernan-Terry Drill Company, New York, N. Y. Lifting-jacks. No. 88,632; Oct. 8; Gaz. vol. 183; p. 499.
Medina Milling & Elevator Co., Medina, N. D. Wheat-flour. No. 88,906; Oct. 29; Gaz. vol. 183; p. 1303.
Merta, Edward L., Fort Wayne, Ind. Cleaning compound. No. 88,685; Oct. 15; Gaz. vol. 183; p. 778.
Metropolitan Pharmacal Co., New York, N. Y. Remedy for malaria, ague, fevers, &c. No. 88,686; Oct. 15; Gaz. vol. 183; p. 778.
Mettmanner Britanniawarenfabrik W. Siebel, Mettmann, Germany. Spoons and forks of other than precious metal. No. 88,580; Oct. 1; Gaz. vol. 183; p. 214.
Meyer & Co., John H., New York, N. Y. Cotton duck in the piece. No. 88,768; Oct. 22; Gaz. vol. 183; p. 1028.
Meyer & Company, Jos., New York, N. Y. Yarn. No. 88,769; Oct. 22; Gaz. vol. 183; p. 1028.
Meyer, Henry R., New York, N. Y. Enamels, paints, and varnishes. No. 88,910; Oct. 29; Gaz. vol. 183; p. 1303.
Midland Motor Co., Moline, Ill. Automobiles. No. 88,771; Oct. 22; Gaz. vol. 183; p. 1028.
Mihalovitch Brothers, Cincinnati, Ohio. Envelop-sealing machines. No. 88,911; Oct. 29; Gaz. vol. 183; p. 1303.
Mika Cooker Company, Saginaw, Mich. Fireless cookers. No. 88,912; Oct. 29; Gaz. vol. 183; p. 1303.
Miller, Charles N., Boston, Mass. Candy. No. 88,913; Oct. 29; Gaz. vol. 183; p. 1303.
Modart Corset Company, Saginaw, Mich. Corsets and brassières. No. 88,772; Oct. 22; Gaz. vol. 183; p. 1028.
Montgomery, Joseph N., Rockymount, Va. Overalls and overall-jackets. No. 88,915; Oct. 29; Gaz. vol. 183; p. 1303.
Monticello Drug Co., Jacksonville, Fla. Remedies for certain diseases. No. 88,916; Oct. 29; Gaz. vol. 183; p. 1303.
Moorhead Knitting Company, Harrisburg, Pa. Hosiery, knit underwear, and sweaters. No. 88,775; Oct. 22; Gaz. vol. 183; p. 1028.
Morris & Company, Chicago, Ill. Mixed fertilizer. Nos. 88,687–96; Oct. 15; Gaz. vol. 183; p. 778.
Morris Fertilizer Co., Atlanta, Ga. Fertilizer. No. 88,776; Oct. 22; Gaz. vol. 183; p. 1028.
Moseley & McNiel, Gotha, Fla. Oranges, grape-fruit, tangerines, and lemons. No. 88,917; Oct. 29; Gaz. vol. 183; p. 1303.
Moskovitz, Samuel, New York, N. Y. Go-carts and baby-carriages. No. 88,770; Oct. 22; Gaz. vol. 183; p. 1028.
Motor Appliance Company of America, New York, N. Y. Carburetors. No. 88,697; Oct. 15; Gaz. vol. 183; p. 778.
Mu-Col Company, The, Buffalo, N. Y. Liquid antiseptic solutions. No. 88,918; Oct. 29; Gaz. vol. 183; p. 1303.
Multi-Speed Shutter Company, assignor to The Precision Machine Company, New York, N. Y. Moving-picture apparatus and supplies. No. 88,633; Oct. 8; Gaz. vol. 183; p. 499.
Nakayama, Kosaburo, Osaka, Japan. Certain named toilet goods. No. 88,919; Oct. 29; Gaz. vol. 183; p. 1303.
Nalley Grocery Co., Austin, Tex. Canned fruits and vegetables. No. 88,920; Oct. 29; Gaz. vol. 183; p. 1303.

Napa Glove Co., Napa, Cal. Gloves. No. 88,921; Oct. 29; Gaz. vol. 183; p. 1303.
Nathan Anklet Support Co., New York, N. Y. Arch and ankle supports and wrist-straps. No. 88,881; Oct. 1; Gaz. vol. 183; p. 214.
Nathan & Greer Co., New York, N. Y. Cotton piece goods. No. 88,777; Oct. 22; Gaz. vol. 183; p. 1028.
National Biscuit Company, Jersey City, N. J., and New York, N. Y. Biscuit. Nos. 88,922–38; Oct. 29; Gaz. vol. 183; pp. 1303–4.
National Carbon Company, Cleveland, Ohio. Dry cells. Nos. 88,634–7; Oct. 8; Gaz. vol. 183; p. 499.
National Grocer Company, Detroit, Mich. Coffee. No. 88,934; Oct. 29; Gaz. vol. 183; p. 1304.
National Licorice Company, Brooklyn, N. Y. Stick-licorice, licorice chewing-gum and wafers. No. 88,935; Oct. 29; Gaz. vol. 183; p. 1304.
National Papeterie Company, Springfield, Mass. Writing-paper and envelops. No. 88,882; Oct. 1; Gaz. vol. 183; p. 214.
Neely & Peacock, Chicago, Ill. Type-writer carbon-paper and ribbon. No. 88,553; Oct. 1; Gaz. vol. 183; p. 214.
Nelson & Landsberg, New York, N. Y. Certain named articles of clothing. No. 88,936; Oct. 29; Gaz. vol. 183; p. 1304.
Neptune Meter Company, Jersey City, N. J., and New York, N. Y. Water and other fluid meters and parts thereof. Nos. 88,779–80; Oct. 22; Gaz. vol. 183; p. 1028.
Newburgh Silk Company, Newburgh, N. Y. Silks and satins in the piece. No. 88,781; Oct. 22; Gaz. vol. 183; p. 1028.
Nicolaus, Georg L., Cleveland, Ohio. Pharmaceutical preparations for the treatment of rheumatism, &c. No. 88,698; Oct. 15; Gaz. vol. 183; p. 778.
Norman Company Inc., The, New York, N. Y. Cigars and cigarettes. No. 88,584; Oct. 1; Gaz. vol. 183; p. 214.
Novelty Candy Company, New York, N. Y. Candy. No. 88,937; Oct. 29; Gaz. vol. 183; p. 1304.
Olive Stove Works, Rochester, Pa. Certain kinds of heating and cooking stoves. No. 88,585; Oct. 1; Gaz. vol. 183; p. 214.
Oneida Regal Textile Co., Philadelphia, Pa. Hosiery. No. 88,782; Oct. 22; Gaz. vol. 183; p. 1028.
Opperud, Joseph, Madison, S. D. Traps. No. 88,586; Oct. 1; Gaz. vol. 183; p. 214.
Optische Anstalt C. P. Goerz Aktiengesellschaft, Friedenau, near Berlin, Germany. Certain named scientific appliances. No. 88,938; Oct. 29; Gaz. vol. 183; p. 1304.
P. E. Sharpless Company, Concordville and Philadelphia, Pa. Evaporated milk. No. 88,791; Oct. 22; Gaz. vol. 183; p. 1029.
Pacific Cereal Association, San Francisco, Cal. Rolled oats, flaked and granulated wheat. No. 88,939; Oct. 29; Gaz. vol. 183; p. 1304.
Packard, Chismore H., Brooklyn and New York, N. Y. Magazines. No. 88,941; Oct. 29; Gaz. vol. 183; p. 1304.
Padrick, Benjamin F., Portland, Oreg. Saw-case and tool-carrier. No. 88,942; Oct. 29; Gaz. vol. 183; p. 1304.
Parke, Davis & Co., Detroit, Mich. Vaccine. No. 88,699; Oct. 15; Gaz. vol. 183; p. 778.
Parker Brothers, Incorporated, Salem, Mass. Card games. No. 88,700; Oct. 15; Gaz. vol. 183; p. 778.
Parker, Stearns & Company, New York and Brooklyn, N. Y. Rubber bathing-caps. No. 88,783; Oct. 22; Gaz. vol. 183; p. 1028.
Parsons, Mary H., Providence, R. I. Water-bottles. No. 88,638; Oct. 8; Gaz. vol. 183; p. 500.
Pelton & Pelton, Chicago, Ill. Bathing-suits. No. 88,943; Oct. 29; Gaz. vol. 183; p. 1304.
Pemberton Company, Lawrence, Mass. Napped flannels in the piece. No. 88,784; Oct. 22; Gaz. vol. 183; p. 1028.
Peoria Confectionery Company, Peoria, Ill. Candy-coated or sweetened cereals. No. 88,944; Oct. 29; Gaz. vol. 183; p. 1304.
Perfection Biscuit Company, Fort Wayne, Ind. Crackers and biscuits. No. 88,945; Oct. 29; Gaz. vol. 183; p. 1304.
Philip Ruxton, Inc., New York, N. Y. Printing-inks. No. 88,704; Oct. 15; Gaz. vol. 183; p. 778.
Pioneer Porcelain Wash Tray Co., Perth Amboy, N. J. Wash and bath trays and bath-tubs. No. 88,587; Oct. 1; Gaz. vol. 183; p. 214.
Place, Henry D., Newark, Ohio. Bread. No. 88,785; Oct. 22; Gaz. vol. 183; p. 1028.
Poemmer, H. & J. J., Albany, N. Y. Trading-stamps. No. 88,786; Oct. 22; Gaz. vol. 183; p. 1029.
Pond's Bitters Co., Chicago, Ill. Stomach-bitters. No. 88,940; Oct. 29; Gaz. vol. 183; p. 1304.
Portland Flouring Mills Company, The, Portland, Oreg. Wheat-flour. No. 88,946; Oct. 29; Gaz. vol. 183; p. 1304.
Precision Machine Company, The. (See Multi-Speed Shutter Company, assignor.)
Presto-Couch Co., St. Louis, Mo. Couches. No. 88,946; Oct. 29; Gaz. vol. 183; p. 1304.
Prentz, Carl J., Toronto, Ontario, Canada. Cigars. No. 88,588; Oct. 1; Gaz. vol. 183; p. 214.
Priscilla Publishing Co., The, Boston, Mass. Periodicals. No. 88,947; Oct. 29; Gaz. vol. 183; p. 1304.
Providence Company, The, Providence, R. I. Salad-relish. No. 88,949; Oct. 29; Gaz. vol. 183; p. 1304.
Quentell, William P., New York, N. Y. Antiseptic shaving-cream. No. 88,950; Oct. 29; Gaz. vol. 183; p. 1304.
R B Manufacturing Company, New York, N. Y. Cloaks, outer suits, skirts, and dresses. No. 88,787; Oct. 22; Gaz. vol. 183; p. 1029.
Ramsdell, Fred W., Boston, Mass. Books and packages of certain named metal or metallic leaf. No. 88,951; Oct. 29; Gaz. vol. 183; p. 1304.
Remington Typewriter Company, Ilion and New York, N. Y. Type-writing machines. No. 88,701; Oct. 15; Gaz. vol. 183; p. 778.
Rice & Hutchins, Incorporated, Portland, Me., and Boston, Mass. Leather boots and shoes. No. 88,952; Oct. 29; Gaz. vol. 183; p. 1304.
Richard Hudnut, New York, N. Y. Perfumes, toilet waters, and talcum powders. No. 88,577; Oct. 29; Gaz. vol. 183; p. 1302.
Richard Hudnut, New York, N. Y. Perfumes and sachet-powder. No. 88,578; Oct. 29; Gaz. vol. 183; p. 1302.
Richard Hudnut, New York, N. Y. Certain named toilet preparations. Nos. 88,579–80; Oct. 29; Gaz. vol. 183; p. 1302.
Richard Hudnut, New York, N. Y. Perfumes, sachet, face, and bath powders. No. 88,581; Oct. 29; Gaz. vol. 183; p. 1302.
Richard Hudnut, New York, N. Y. Perfumes, sachet, face, and tooth powder. No. 88,582; Oct. 29; Gaz. vol. 183; p. 1302.
Richard Hudnut, New York, N. Y. Certain named toilet preparations. No. 88,583; Oct. 29; Gaz. vol. 183; p. 1302.
Riker & Co., J. J., New York, N. Y. Cravats. No. 88,789; Oct. 22; Gaz. vol. 183; p. 1029.
Roberts & Co., Thomas, Philadelphia, Pa. Certain named foods. No. 88,954; Oct. 29; Gaz. vol. 183; p. 1304.
Robin, Maurice, Paris, France. Pharmaceutical preparation for use in certain diseases. No. 88,592; Oct. 1; Gaz. vol. 183; p. 214.
Robinson Manufacturing Company, Muncy, Pa. Flour, feed, and cereal mills and grain-elevating machinery. No. 88,593; Oct. 1; Gaz. vol. 183; p. 214.
Rode & Brand, Inc., New York, N. Y. Cigars, cigarettes, tobacco, and snuff. No. 88,955; Oct. 29; Gaz. vol. 183; p. 1304.
Rogers, Arthur, Barnesville, Ohio. Granular or comminuted sweeping compounds. No. 88,591; Oct. 1; Gaz. vol. 183; p. 214.
Roman Uhl Nachfolger Josef M. Breunig, Vienna, Austria-Hungary. Karlsbad-water bio-salts. No. 88,956; Oct. 29; Gaz. vol. 183; p. 1304.
Rose Manufacturing Co., Philadelphia, Pa. Certain electrical supplies. No. 88,641; Oct. 8; Gaz. vol. 183; p. 500.
Rothschild, Meyers & Co., New York, N. Y. Aluminum kitchen-ware. No. 88,594; Oct. 1; Gaz. vol. 183; p. 214.
Rouss, Firm of Charles B., New York, N. Y. Hosiery. No. 88,957; Oct. 29; Gaz. vol. 183; p. 1304.
Rowe Ring-Point Company, Hartford, Conn. Hardening-powder and case-hardening compound. No. 88,702; Oct. 15; Gaz. vol. 183; p. 778.
Russmann Mfg. Co., Cincinnati, Ohio. Remedy for the blood and bowels. No. 88,703; Oct. 15; Gaz. vol. 183; p. 778.
San Antonio Macaroni Factory, San Antonio, Tex. Macaroni, vermicelli, and spaghetti. No. 88,958; Oct. 29; Gaz. vol. 183; p. 1304.
Sanchez & Haya, Tampa, Fla. Cigars. No. 88,959; Oct. 29; Gaz. vol. 183; p. 1305.
Sanderson Fertilizer & Chemical Co., New Haven, Conn. Fertilizers. No. 88,705; Oct. 15; Gaz. vol. 183; p. 778.
Sarrazin, Jules J., New Orleans, La. Tooth powders and pellets, gum-tonics, and mouth-washes. No. 88,595; Oct. 1; Gaz. vol. 183; p. 214.
Savarese Macaroni Co., The, Brooklyn, N. Y. Macaroni. No. 88,960; Oct. 29; Gaz. vol. 183; p. 1305.
Savarese Macaroni Co., The, Brooklyn, N. Y. Alimentary pasta. No. 88,961; Oct. 29; Gaz. vol. 183; p. 1305.
Schaedler, Joseph, Cleveland, Ohio. Ball-bearings. No. 88,706; Oct. 15; Gaz. vol. 183; p. 778.
Schmidt, Firm of Peter L., Hagenau, Germany. Razors, scissors, and pocket-knives. No. 88,962; Oct. 29; Gaz. vol. 183; p. 1305.
Scholtz Drug Company, Denver, Colo. Corn and bunion remedy. No. 88,707; Oct. 15; Gaz. vol. 183; p. 778.
Schutze, Frederick, London, England. Tents for spraying-bottles. No. 88,596; Oct. 1; Gaz. vol. 183; p. 214.
Searles Babbitt Co., New York, N. Y. Broadcloths. No. 88,790; Oct. 22; Gaz. vol. 183; p. 1029.
Seidenberg & Company, New York, N. Y. Cigars. No. 88,963; Oct. 29; Gaz. vol. 183; p. 1305.
Shaw and Co., F. A., Chicago, Ill. Cotton piece goods. No. 88,792; Oct. 22; Gaz. vol. 183; p. 1029.
Shaw, Clark & Hoover, Peru, Ind. Pasteboard cases of cards. No. 88,709; Oct. 15; Gaz. vol. 183; p. 778.
Shields, Francis P., Danville, Ill. Remedy for certain skin diseases. No. 88,597; Oct. 1; Gaz. vol. 183; p. 214.
Silicate Paint Company, J. B. Orr and Company, Limited, The, London, England. Water-paint. No. 88,965; Oct. 1; Gaz. vol. 183; p. 214.
Simonson, Firm of L., New York, N. Y. Fake hair in certain named forms. No. 88,710; Oct. 29; Gaz. vol. 183; p. 1305.
Simpson & Frey, (Inc.), New York, N. Y. Violins. No. 88,966; Oct. 29; Gaz. vol. 183; p. 1305.



Singer, Schaffer & Co., Chicago, Ill. Hair-nets. No. 88,793; Oct. 22; Gaz. vol. 183; p. 1029.
Snelerson, Samuel L., Boston, Mass. Button-fasteners. No. 88,967; Oct. 29; Gaz. vol. 183; p. 1305.
Solvay Process Company, The, Solvay, N. Y. Certain chemicals and pharmaceutical preparations. No. 88,968; Oct. 29; Gaz. vol. 183; p. 1305.
South Metropolitan Gas Company, London, England. Sulfate of ammonia used for fertilizers. No. 88,969; Oct. 29; Gaz. vol. 183; p. 1305.
Southern Mills Corporation, Oxford, Ala. Rope, rope yarns, twines, cords, &c. No. 88,794; Oct. 22; Gaz. vol. 183; p. 1029.
St. Louis Coffee & Spice Mills, St. Louis, Mo. Blended coffee. No. 88,970; Oct. 29; Gaz. vol. 183; p. 1305.
Standard Lubricant Co., New York, N. Y. Lubricating oil and grease. No. 88,796; Oct. 22; Gaz. vol. 183; p. 1029.
Standard Soap Company, The, West Berkeley, Cal. Toilet soap. No. 88,642; Oct. 8; Gaz. vol. 183; p. 500.
Standard Varnish Works, New York and Port Richmond, N. Y. Enamels, paints, varnishes, &c. No. 88,709; Oct. 15; Gaz. vol. 183; p. 778.
Star Rubber Co., Akron, Ohio. Rubber gloves and bath-caps. Nos. 88,797–9; Oct. 22; Gaz. vol. 183; p. 1029.
Steele, Anna A., Kansas City, Mo. Cake-mold. No. 88,599; Oct. 1; Gaz. vol. 183; p. 214.
Stollenwerck, Augustus G., Baltimore, Md. Medicine for certain diseases. No. 88,710; Oct. 15; Gaz. vol. 183; p. 778.
Stoessel & Company, Carl, Front Royal, Va. Hickory hammer and hatchet handles. No. 88,643; Oct. 8; Gaz. vol. 183; p. 500.
Strasbaugh, Harry P., Aberdeen, Md. Canned corn. No. 88,971; Oct. 29; Gaz. vol. 183; p. 1305.
Studebaker Corporation, South Bend, Ind. Certain named vehicles. No. 88,711; Oct. 15; Gaz. vol. 183; p. 778.
Suffern & Company, New York, N. Y. Cotton piece goods, &c. No. 88,800; Oct. 22; Gaz. vol. 183; p. 1029.
Summit City Soap Works, The, Fort Wayne, Ind. Soap and washing-powder. No. 88,801; Oct. 22; Gaz. vol. 183; p. 1029.
Sumter Telephone Manufacturing Co., The, Sumter, S. C. Certain electrical apparatus and supplies. No. 88,600; Oct. 1; Gaz. vol. 183; p. 214.
Talbot Company, Boston, Mass. Coats, trousers, and waistcoats. Nos. 88,803–4; Oct. 22; Gaz. vol. 183; p. 1029.
Tampa Hardware Co., Tampa, Fla. Certain named cutlery, &c. No. 88,806; Oct. 22; Gaz. vol. 183; p. 1029.
Tavares, James G., East Oakland, Cal., and Mexico, Mexico. Women's shoes. No. 88,972; Oct. 29; Gaz. vol. 183; p. 1305.
Texas Company, Houston and Port Arthur, Tex., and New York, N. Y. Lubricating-oil. No. 88,712; Oct. 15; Gaz. vol. 183; p. 778.
Texas Company, Houston and Port Arthur, Tex., and New York, N. Y. Kerosene. No. 88,713; Oct. 15; Gaz. vol. 183; p. 778.
Texas Company, Houston and Port Arthur, Tex., and New York, N. Y. Lubricating-oil. No. 88,714; Oct. 15; Gaz. vol. 183; p. 778.
Texas Company, Houston and Port Arthur, Tex., and New York, N. Y. Kerosene. No. 88,715; Oct. 15; Gaz. vol. 183; p. 778.
Texas Company, The, Houston and Port Arthur, Tex., and New York, N. Y. Kerosene. No. 88,806; Oct. 22; Gaz. vol. 183; p. 1029.
Thayer, McNeil & Hodgkins, Boston, Mass. Leather boots and shoes. No. 88,973; Oct. 29; Gaz. vol. 183; p. 1305.
The Mirror, New York, N. Y. Candy. No. 88,914; Oct. 29; Gaz. vol. 183; p. 1303.
Tioga Mill & Elevator Co., near Waverly, N. Y. Stock feed. No. 88,975; Oct. 29; Gaz. vol. 183; p. 1305.
Tower Manufacturing & Novelty Co., New York, N. Y. Letter-copying cloths. No. 88,976; Oct. 29; Gaz. vol. 183; p. 1305.
Towner & Co., Inc., Memphis, Tenn. Rubber boots. No. 88,808; Oct. 22; Gaz. vol. 183; p. 1029.
Townsend & Co., H. M., New York, N. Y. Hosiery. No. 88,977; Oct. 29; Gaz. vol. 183; p. 1305.
Tubbs, Lewis & Co., Wotton-under-Edge, England. Toilet-pins. No. 88,809; Oct. 22; Gaz. vol. 183; p. 1029.
United Injector Company, The, New York, N. Y. Ejectors. No. 88,644; Oct. 8; Gaz. vol. 183; p. 500.
United Shoe Machinery Company, Paterson, N. J., and Boston, Mass. Boot and shoe heel and sole protectors. No. 88,978; Oct. 29; Gaz. vol. 183; p. 1305.
United States Chrome Sole Co., Chicago, Ill. Leather soles. No. 88,810; Oct. 22; Gaz. vol. 183; p. 1029.
Upjohn Company, Kalamazoo, Mich. Candy. No. 88,979; Oct. 29; Gaz. vol. 183; p. 1305.
Utah Knitting Co., Ogden, Utah. Cotton and woolen knitted underwear. No. 88,980; Oct. 29; Gaz. vol. 183; p. 1305.
Utica Steam and Mohawk Valley Cotton Mills, Utica, N. Y. Cotton yarns. Nos. 88,981–2; Oct. 29; Gaz. vol. 183; p. 1305.
Valentine & Son, A. S., Philadelphia, Pa. Cigars. No. 88,645; Oct. 8; Gaz. vol. 183; p. 500.
Van Antwerp's Drug Corporation Inc., Mobile, Ala. Electric batteries. No. 88,983; Oct. 29; Gaz. vol. 183; p. 1305.
Vercherre & Co., Beaune, Cote d'Or, France. Burgundy. No. 88,720; Oct. 15; Gaz. vol. 183; p. 779.
Victoria Cream Co., The, Camden, N. J. Laxative pill. No. 88,646; Oct. 8; Gaz. vol. 183; p. 500.
Visor Knitting Company, Niagara Falls, N. Y. Sweater-coats, hoods, and mufflers. No. 88,984; Oct. 29; Gaz. vol. 183; p. 1305.
Wagar, William H., Ballston Spa, N. Y. Certain named waters. No. 88,811; Oct. 22; Gaz. vol. 183; p. 1029.
Walcaline Company Inc., New York, N. Y. Certain preparation for cleaning and restoring walls and wall-paper. No. 88,603; Oct. 1; Gaz. vol. 183; p. 214.
Walker-Henderson Art Co., Jewett, Tex. Chemical compounds for producing transparent pictures. No. 88,647; Oct. 8; Gaz. vol. 183; p. 500.
Warner Bros. Co., The, Bridgeport, Conn. Corsets. No. 88,812; Oct. 22; Gaz. vol. 183; p. 1029.
Warren Fruit Jar Co., Fairfield, Iowa. Glass fruit-jars. No. 88,716; Oct. 15; Gaz. vol. 183; p. 778.
Warsaw-Wilkinson Company, Warsaw, N. Y. Ensilage-cutters. No. 88,649; Oct. 8; Gaz. vol. 183; p. 500.
Weiler Manufacturing Co., Corsicana, Tex. Overalls, trousers, and jumpers. No. 88,985; Oct. 29; Gaz. vol. 183; p. 1305.
West Disinfecting Company, New York, N. Y. Germicide, bactericide, and insecticide. No. 88,717; Oct. 15; Gaz. vol. 183; p. 779.
West India Oil Company, Bayonne, N. J. Gasolene, benzin, naphtha, and refined oil. No. 88,607; Oct. 1; Gaz. vol. 183; p. 215.
Westerly Shirt Co., Westerly, R. I., and New York, N. Y. Shirts. Nos. 88,813–15; Oct. 22; Gaz. vol. 183; p. 1029.
Weyersberg Kirschbaum & Cie., Solingen, Germany. Hair-cutting machines. Nos. 88,650–1; Oct. 8; Gaz. vol. 183; p. 500.
Wheeler, George W., Birmingham, Ala. Syrup for a soda-fountain beverage. No. 88,718; Oct. 15; Gaz. vol. 183; p. 779.
White, Benjamin F., Rock Island, Ill. Ready-mixed paints. No. 88,816; Oct. 22; Gaz. vol. 183; p. 1029.
White's Sons, S. E., Norfolk, Va. Plows and certain named parts thereof. No. 88,817; Oct. 22; Gaz. vol. 183; p. 1029.
Wilcox Co., The, Providence, R. I. General tonic. No. 88,986; Oct. 29; Gaz. vol. 183; p. 1305.
Willett, Walter M., San Francisco, Cal. Toilet powder. No. 88,604; Oct. 1; Gaz. vol. 183; p. 214.
William B. Hough Company, Chicago, Ill. Certain construction materials. No. 88,680; Oct. 15; Gaz. vol. 183; p. 777.
William R. Warner and Company, Philadelphia, Pa. Antiseptic tablets. No. 88,605; Oct. 1; Gaz. vol. 183; p. 214.
William R. Warner and Company, Philadelphia, Pa. Alterative, diuretic, and antacid. No. 88,606; Oct. 1; Gaz. vol. 183; p. 214.
Williams, James P., Brooklyn, N. Y. Soda-water drink. No. 88,988; Oct. 29; Gaz. vol. 183; p. 1305.
Wilson Distilling Company, The, Jersey City, N. J. Whisky. No. 88,818; Oct. 22; Gaz. vol. 183; p. 1029.
Wm. R. Moore Dry Goods Co., Memphis, Tenn. Shirts. Nos. 88,773–4; Oct. 22; Gaz. vol. 183; p. 1028.
Woodlay & Teasdale, Leicester, England. Certain named clothing. No. 88,819; Oct. 22; Gaz. vol. 183; p. 1029.
Wright, Horace P., Springfield, Mass. Cigars. No. 88,719; Oct. 15; Gaz. vol. 183; p. 779.
Zing Sales Company, Pittsburgh, Pa. Remedy for corns, calli, and bunions. No. 88,652; Oct. 8; Gaz. vol. 183; p. 500.

# ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

American Lithographic Company, New York, N. Y. "Elegantes Quality Cigars." (For Cigars.) No. 16,567; Oct. 1; Gaz. vol. 183; p. 216.

American Lithographic Company, New York, N. Y. "Cigars of Quality Flor Fina." (For Cigars.) No. 16,568; Oct. 1; Gaz. vol. 183; p. 216.

American Lithographic Company, New York, N. Y. "Quality Cigars." (For Cigars.) No. 16,569; Oct. 1; Gaz. vol. 183; p. 216.

American Lithographic Company, New York, N. Y. "Superior Cigars." (For Cigars.) No. 16,570; Oct. 1; Gaz. vol. 183; p. 216.

Beals, Mary A., San Francisco, Cal. "'49 Camp' Gold Quartz." (For Gold Quartz.) No. 16,595; Oct. 8; Gaz. vol. 183; p. 501.

Brown, Anthony W., Schenectady, N. Y. "Mothers Only Hope." (For a Remedy for Croup.) No. 16,613; Oct. 29; Gaz. vol. 183; p. 1306.

Cardoe Remedy Company, Lawrence, Mass. "C R C." (For a Remedy for Rheumatic Pains.) No. 16,571; Oct. 1; Gaz. vol. 183; p. 216.

Cedar-Sweep Company, Incorporated, The, Los Angeles, Cal. "Cedar-Sweep." (For a Sweeping Compound.) No. 16,572; Oct. 1; Gaz. vol. 183; p. 216.

Columbia Coffee Mills, Ltd., New Orleans, La. "Summo." (For Coffee and Chicory.) No. 16,614; Oct. 29; Gaz. vol. 183; p. 1306.

Davies, Augustus, Pasadena, Cal. "The Davies Dolls." (For Dolls.) No. 16,615; Oct. 29; Gaz. vol. 183; p. 1306.

Dexterose Food Co., Richmond, Va. "Dexterose." (For Foods for Infants and Invalids.) No. 16,616; Oct. 29; Gaz. vol. 183; p. 1306.

Dixon Springs Hotel Company, Dixon Springs, Ill. "Na'-Mon-O'-Ma." (For Water.) No. 16,573; Oct. 1; Gaz. vol. 183; p. 216.

E. A. & Otto Weber, Manila, Philippine Islands. "La Flor De Asinga." (For Cigars.) No. 16,603; Oct. 8; Gaz. vol. 183; p. 501.

E. A. & Otto Weber, Manila, Philippine Islands. "La Flor de Lavinah." (For Cigars.) No. 16,604; Oct. 8; Gaz. vol. 183; p. 501.

Ease-It Chemical Co., The, Florence, Ala. "Stutts' Ease-It." (For a Remedy for Headaches.) No. 16,617; Oct. 29; Gaz. vol. 183; p. 1306.

Ewing, Edwin, Clinton, Iowa. "The Mirror-De-Luxe." (For Mirrors.) No. 16,618; Oct. 29; Gaz. vol. 183; p. 1306.

Frank & Lambert Inc., New York, N. Y. "Burial Garment Display Box." (For Burial-Garments.) No. 16,596; Oct. 8; Gaz. vol. 183; p. 501.

G. Reis & Bro., New York, N. Y. "Reis' Nuvo Foundations." (For Embroidery-Foundation Initials and other Foundations for Embroidery.) No. 16,586; Oct. 1; Gaz. vol. 183; p. 216.

G. Reis & Bro., New York, N. Y. "Reis' Tex Foundations." (For Embroidery-Foundation Initials and other Foundations for Embroidery.) No. 16,599; Oct. 8; Gaz. vol. 183; p. 501.

Goetz, Albert F., Baltimore, Md. "Krispy Krust." (For Bread-Sticks.) No. 16,605; Oct. 22; Gaz. vol. 183; p. 1030.

Gonzales, Eduardo, Tampa, Fla. "Lujoso." (For Cigars.) No. 16,606; Oct. 22; Gaz. vol. 183; p. 1030.

Gonsáles, Juan M., New Orleans, La. "El Mismo." (For Cigars.) No. 16,607; Oct. 22; Gaz. vol. 183; p. 1030.

H. Hackfeld & Co., Ltd., Honolulu, Hawaii. "Diamond Head." (For Canned Salmon.) No. 16,575; Oct. 1; Gaz. vol. 183; p. 216.

H. Hackfeld & Co., Ltd., Honolulu, Hawaii. "Kamehameha." (For Canned Salmon.) No. 16,576; Oct. 1; Gaz. vol. 183; p. 216.

Hardin Co., Thomas L., New Orleans, La. "Redsnapper Sauce." (For Sauce.) No. 16,597; Oct. 8; Gaz. vol. 183; p. 501.

Hasen-Brown Company, Boston, Mass. "Tite-Seal." (For Rubber Cements.) No. 16,619; Oct. 29; Gaz. vol. 183; p. 1306.

Henschel & Co., A. C., Chicago, Ill. "Ben Fez." (For Cigars.) No. 16,620; Oct. 29; Gaz. vol. 183; p. 1306.

Howel, C. J., Fort Worth, Tex. "Orange Julep." (For Non-Intoxicating Beverage.) No. 16,578; Oct. 1; Gaz. vol. 183; p. 216.

Hoyt, Fred W., Jr., The Weirs, N. H. "Laconia Spring Water." (For Spring-Water.) No. 16,579; Oct. 1; Gaz. vol. 183; p. 216.

Huyler's, New York, N. Y. "Peppermint Twist." (For Peppermint-Twist.) No. 16,580; Oct. 1; Gaz. vol. 183; p. 216.

International Investment Corporation, Norfolk, Va. "Choose Individual Chews." (For Chewing-Tobacco.) No. 16,622; Oct. 29; Gaz. vol. 183; p. 1306.

James R. Keiser Inc., New York, N. Y. "Keiser Handkerchiefs The Boy's Companion." (For Handkerchiefs.) No. 16,623; Oct. 29; Gaz. vol. 183; p. 1306.

James R. Keiser Inc., New York, N. Y. "Keiser Handkerchiefs The Little Housekeeper." (For Handkerchiefs.) No. 16,624; Oct. 29; Gaz. vol. 183; p. 1306.

John Hoberg Co., The, Green Bay, Wis. "The Old Mill Stream." (For Toilet-Paper.) No. 16,577; Oct. 1; Gaz. vol. 183; p. 216.

L. Frank & Son Company, Milwaukee, Wis. "Frank's Quality Sausage 'Made as only Frank knows how.'" (For Sausage.) No. 16,574; Oct. 1; Gaz. vol. 183; p. 216.

Lagman, Chas., Mobile, Ala. "Lagman's Panama Bouquet." (For Cigars.) No. 16,581; Oct. 1; Gaz. vol. 183; p. 216.

Lopez, Firm of Hijos de, Quirico, Malaga, Spain. "Ojen." (For Ojen.) No. 16,621; Oct. 29; Gaz. vol. 183; p. 1306.

Malt Food Products Co. of Oswego, N. Y., Oswego, N. Y. "Mellamalt." (For Confections.) No. 16,625; Oct. 29; Gaz. vol. 183; p. 1306.

Novotny, Frank, Bridgeport, Conn. "Ideal Smoke of Leisure." (For Cigars.) No. 16,598; Oct. 8; Gaz. vol. 183; p. 501.

Ohio Butterine Co., The, Cincinnati, Ohio. "Churngold." (For Oleomargarin.) No. 16,582; Oct. 1; Gaz. vol. 183; p. 216.

Peabody & Co., Henry W., New York, N. Y. "Havekan." (For Asparagus.) No. 16,583; Oct. 1; Gaz. vol. 183; p. 216.

Pharmacal Products Company, The, East Newark, N. J. "Sal Vegetas Rx." (For a Saline and Vegetable Cathartic Compound.) No. 16,626; Oct. 29; Gaz. vol. 183; p. 1306.

Ralston Purina Company, St. Louis, Mo. "Purina Chicken Chowder." (For Chicken Feed.) No. 16,584; Oct. 1; Gaz. vol. 183; p. 216.

Redelheim, Firm of J., New York, N. Y. "Redelheim's Passover Sugar." (For Sugar.) No. 16,585; Oct. 1; Gaz. vol. 183; p. 216.

Reynolds Corporation, The, Bristol, Tenn. "Spotless Cleanser." (For Scouring-Powder.) No. 16,627; Oct. 29; Gaz. vol. 183; p. 1306.

Rice, Henry E., Cameron, Mo. "Yankee Girl Polish." (For Polish for Metals, Glassware, &c.) No. 16,587; Oct. 1; Gaz. vol. 183; p. 216.

S. & S. Manufacturing Company, Akron, Ohio. "Cherry Smack." (For a Non-Alcoholic Flavoring for Drinks of Various Kinds.) No. 16,609; Oct. 22; Gaz. vol. 183; p. 1030.

Salsman, Samuel I., Baltimore, Md. "Be Your Own Dentist." (For Outfits for Home Dental Treatment.) No. 16,608; Oct. 22; Gaz. vol. 183; p. 1030.

Schmidt & Co., New York, N. Y. "Little Egypt." (For Cigars.) No. 16,588; Oct. 1; Gaz. vol. 183; p. 216.

Scott Paper Company, Philadelphia, Pa. "The Waldorf Towels." (For Towels.) No. 16,589; Oct. 1; Gaz. vol. 183; p. 216.

Scott Paper Company, Philadelphia, Pa. "ScotTissue Dydees." (For Paper Diapers.) No. 16,600; Oct. 8; Gaz. vol. 183; p. 501.

Société Anonyme Dubonnet, Paris, France. "Dubonnet Wine." (For Appetizing-Wine.) No. 16,610; Oct. 22; Gaz. vol. 183; p. 1030.

Southern Products Company, Seminary, Miss. "Fraternity Brand Sweet Potatoes." (For Sweet Potatoes.) No. 16,628; Oct. 29; Gaz. vol. 183; p. 1306.

Thompson, Thomas G., New York, N. Y. "Blunts." (For Cigars.) No. 16,630; Oct. 29; Gaz. vol. 183; p. 1306.

Tuite, F. J., New York, N. Y. "Anenda." (For Insect-Destroyer.) No. 16,590; Oct. 1; Gaz. vol. 183; p. 216.

Union Meat Company, North Portland, Oreg. "Columbia." (For Butter.) No. 16,611; Oct. 22; Gaz. vol. 183; p. 1030.

United Advertising Company, The, Cleveland, Ohio. "Kiddo Jack Kiddo Jill." (For Bread.) No. 16,591; Oct. 1; Gaz. vol. 183; p. 216.

Van Dyk & Co., New York, N. Y. "Van Dyk & Co." (For Fruit and Candy Flavors.) No. 16,612; Oct. 22; Gaz. vol. 183; p. 1030.

Vaughan Knitting Company, The, Pottstown, Pa. "12 Reasons Why Nuweave Hose Is The Best." (For Hosiery.) No. 16,601; Oct. 8; Gaz. vol. 183; p. 501.

Villas-Hanigan Cigar Co., Pierre, S. D. "Shriner." (For Cigars.) No. 16,602; Oct. 8; Gaz. vol. 183; p. 501.

Weber, E. A. & Otto, Manila, Philippine Islands. "La Flor de Caritan." (For Cigars.) No. 16,629; Oct. 29; Gaz. vol. 183; p. 1306.

Wiedmann-St. Louis Cigar Box Co., St. Louis, Mo. "Provana." (For Cigars.) No. 16,593; Oct. 1; Gaz. vol. 183; p. 216.

Woodcock & Son, John H., Hot Springs, Ark. "Southern Fibre Bath Necessities." (For Bath-Mitts and Bath-Straps.) No. 16,594; Oct. 1; Gaz. vol. 183; p. 216.

Youngstown Macaroni Co., The, Youngstown, Ohio. "Bersagliere Brand." (For Cotton-Seed Oil.) No. 16,592; Oct. 1; Gaz. vol. 183; p. 216.

## PRINTS.

Arnold, Wm. B., Eaton Rapids, Mich. "20th Century Calendar." (For Stay-Tongues for Shoes.) No. 3,112; Oct. 8; Gaz. vol. 183; p. 501.

Beatrice Creamery Co., Des Moines, Iowa, and Lincoln, Nebr. "Meadow Gold Butter—Sweet as the meadow—Pure as gold." (For Butter.) No. 3,099; Oct. 1; Gaz. vol. 183; p. 216.

Brown & Sehler Co., Grand Rapids, Mich. "Sunbeam Percheron Collars." (For Horse-Collars.) No. 3,113; Oct. 8; Gaz. vol. 183; p. 501.

Browning, Lehman S., Camden, N. J. "Funny Boys and Funny Girls." (For Funny Boys and Girls.) No. 3,114; Oct. 8; Gaz. vol. 183; p. 501.

Browning, Lehman S., Camden, N. J. "Funny Boys and Funny Girls." (For the Game of Funny Boys and Funny Girls.) No. 3,115; Oct. 8; Gaz. vol. 183; p. 501.

C. A. Edgarton Mfg. Co., The, Shirley, Mass. "Shirley President Suspender Calendar." (For Shirley President Suspenders.) No. 3,102; Oct. 1; Gaz. vol. 183; p. 216.

Cocoanut Specialty Co., The, Philadelphia, Pa. "Candy Goldilocks." (For Candy.) No. 3,118; Oct. 22; Gaz. vol. 183; p. 1030.

Cream of Wheat Co., Minneapolis, Minn. "That Settles It." (For Wheat Breakfast Food.) No. 3,100; Oct. 1; Gaz. vol. 183; p. 216.

Cream of Wheat Co., Minneapolis, Minn. "A Visit With The Chef." (For Wheat Breakfast Food.) No. 3,119; Oct. 22; Gaz. vol. 183; p. 1030.

Crossingham Knitting Mills, Inc., Germantown, Pa. "Dr. Spencer's Sanitary Knit Underwear." (For a Combination Suit of Underwear.) No. 3,101; Oct. 1; Gaz. vol. 183; p. 216.

Druggists' Co-Operative Association, Inc., Detroit, Mich. "Depend on Val Dona." (For Val Dona Prescriptions.) No. 3,120; Oct. 22; Gaz. vol. 183; p. 1030.

Druggists' Co-Operative Association, Inc., Detroit, Mich. "The Val Dona Girl." (For Val Dona Prescriptions.) No. 3,121; Oct. 22; Gaz. vol. 183; p. 1030.

Durham-Duplex Razor Company, New York, N. Y. "Durham-Duplex Safe Razors." (For Durham-Duplex Razors and Blades.) No. 3,102; Oct. 1; Gaz. vol. 183; p. 216.

J. C. Hirschman Co., The, Indianapolis, Ind. "Hirschman's Never Stretch 'Turkish Tufted' Cotton Felt Mattress." (For Mattresses.) No. 3,123; Oct. 29; Gaz. vol. 183; p. 1306.

Jersey City Printing Company, The, Jersey City, N. J. "The Cigar that put the O. K. in smoke." (For Cigars.) No. 3,124; Oct. 29; Gaz. vol. 183; p. 1306.

Miner, W. H., Chazy, N. Y. "Delicious Sausage, Heart's Delight Farm." (For Sausages.) No. 3,104; Oct. 1; Gaz. vol. 183; p. 216.

New York and London Drug Co., New York, N. Y. "Nylo Chocolates." (For Nylo Chocolates.) No. 3,105; Oct. 1; Gaz. vol. 183; p. 216.

Nunziato Son & Co., L., San Francisco, Cal. "Vesuvio." (For Alimentary Pastes.) No. 3,106; Oct. 1; Gaz. vol. 183; p. 216.

Pennsylvania Sugar Company, Philadelphia, Pa. "Pennsylvania Sugar Co's. extra fine Quaker brand granulated Sugar." (For Sugar.) No. 3,107; Oct. 1; Gaz. vol. 183; p. 216.

Revere Rubber Company, Providence, R. I., and Chelsea, Mass. "Spring Step Rubber Heels." (For Rubber Heels.) No. 3,116; Oct. 8; Gaz. vol. 183; p. 501.

Star Knitting Co., La Crosse, Wis. "Sweaterette." (For Knit Search.) No. 3,108; Oct. 1; Gaz. vol. 183; p. 216.

Stewart, Richard F., New York, N. Y. "The Progressive Idea." (For Butter Printing and Wrapping Machines.) No. 3,122; Oct. 22; Gaz. vol. 183; p. 1030.

Treffer, Henry H., Davenport, Iowa. "Treffer Buttons." (For Buttons.) No. 3,125; Oct. 29; Gaz. vol. 183; p. 1306.

Uncle Sam's Macaroni Co., The, Tecumseh, Mich. "Mac an' Roni." (For Macaroni.) No. 3,109; Oct. 1; Gaz. vol. 183; p. 216.

United Drug Co., Boston, Mass. "Harmony Rose Glycerine Soap." (For Soap.) No. 3,110; Oct. 1; Gaz. vol. 183; p. 216.

United Drug Company, Boston, Mass. "Symphony Lawn Writing Paper." (For Writing-Paper.) No. 3,117; Oct. 8; Gaz. vol. 183; p. 501.

Vasa Company, The, Henderson, Ky. "Vas-O! For That Soreness." (For Vas-O.) No. 3,111; Oct. 1; Gaz. vol. 183; p. 216.

## DISCLAIMERS.

Fellner, Christian, Frankfort-on-the-Main, Germany; disclaimer filed by assignee, The Atlas Portland Cement Company. Manufacture of cement. No. 687,524; disclaimer filed Sept. 25, 1912; Gaz. vol. 183; p. 222.

Schmidt, Franz, and Albert Grundmann, Berlin, Germany; disclaimer filed by assignee, Charles Fisher. Flexible shaft. No. 969,060; disclaimer filed Sept. 26, 1912; Gaz. vol. 183; p. 222.



# ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

## PATENTS WERE ISSUED DURING THE MONTH OF OCTOBER, 1912.

[Abbreviations: "Gaz."—Official Gazette.]

Abrasive matter, Composition of. A. F. Blouin. No. 1,042,978; Oct. 29; Gaz. vol. 183; p. 1217.

Absorbent comb. P. W. Maley. No. 1,039,962; Oct. 1; Gaz. vol. 183; p. 104.

Account-register. A. F. Staples. No. 1,040,805; Oct. 8; Gaz. vol. 183; p. 416.

Acid and alkali-silico-aluminate, Forming a charge mixture for producing hydrochloric. A. H. Cowles. No. 1,040,894; Oct. 8; Gaz. vol. 183; p. 444.

Acid and alkali-silico-aluminates, Producing hydrochloric. A. H. Cowles. No. 1,040,977; Oct. 8; Gaz. vol. 183; p. 474.

Acid and its salts, Manufacture of hypophosphoric. A. Rosenheim. No. 1,042,606; Oct. 29; Gaz. vol. 183; p. 1121.

Acid and making same, Allyl derivative of barbituric. E. Preiswerk and E. Grether. No. 1,042,265; Oct. 22; Gaz. vol. 183; p. 975.

Acid by electrolysis, Treating nitric. M. Moest and R. M. von Berneck. No. 1,040,379; Oct. 8; Gaz. vol. 183; p. 267.

Acid, Charge mixture for forming alkali-silico-aluminate and hydrochloric. A. H. Cowles. No. 1,040,893; Oct. 8; Gaz. vol. 183; p. 444.

Acid, Manufacturing available phosphoric. J. H. Connor. No. 1,042,400; Oct. 29; Gaz. vol. 183; p. 1048.

Acid, Manufacturing available phosphoric. J. H. Connor. No. 1,043,401; Oct. 29; Gaz. vol. 183; p. 1048.

Acid, Manufacturing available phosphoric. J. H. Connor. No. 1,042,403; Oct. 29; Gaz. vol. 183; p. 1048.

Acid, Phenylethylbarbituric. H. Hoerlein. (Reissue.) No. 13,477; Oct. 15; Gaz. vol. 183; p. 754.

Acid, 2,5-dimethoxybenzene-arsinic. L. Benda. No. 1,040,260; Oct. 8; Gaz. vol. 183; p. 227.

Activity-recorder, J. W. Dougherty. No. 1,041,253; Oct. 15; Gaz. vol. 183; p. 800.

Adding-machine. W. H. Massy. No. 1,039,783; Oct. 1; Gaz. vol. 183; p. 39.

Advertising-card. W. D. Baring-Gould. No. 1,041,573; Oct. 15; Gaz. vol. 183; p. 705.

Advertising device. C. K. Fotheringham and A. R. Laing. No. 1,040,534; Oct. 8; Gaz. vol. 183; p. 322.

Advertising device. C. W. Nichols. No. 1,041,149; Oct. 15; Gaz. vol. 183; p. 664.

Advertising device. J. Quacny. No. 1,042,783; Oct. 29; Gaz. vol. 183; p. 1184.

Advertising display mechanism. R. Ard. No. 1,040,988; Oct. 15; Gaz. vol. 183; p. 511.

Aerial tramway. C. H. Vogel and G. R. Taitt. No. 1,041,916; Oct. 22; Gaz. vol. 183; p. 961.

Aerial-vehicle stabilizer. L. O. Bahopp. No. 1,040,484; Oct. 8; Gaz. vol. 183; p. 296.

Aeroboat. C. J. Lake. No. 1,041,489; Oct. 15; Gaz. vol. 183; p. 879.

Aerocraft. L. P. McKeone. No. 1,041,136; Oct. 15; Gaz. vol. 183; p. 661.

Aeroplane. G. H. Feller. No. 1,039,716; Oct. 1; Gaz. vol. 183; p. 16.

Aeroplane. R. Esnault-Pelterie. No. 1,040,533; Oct. 8; Gaz. vol. 183; p. 321.

Aeroplane. A. Reaver. No. 1,040,785; Oct. 8; Gaz. vol. 183; p. 416.

Aeroplane. M. Gasagne. No. 1,041,620; Oct. 15; Gaz. vol. 183; p. 724.

Aeroplane. E. J. Hiess. No. 1,041,759; Oct. 22; Gaz. vol. 183; p. 906.

Aeroplane. J. H. Bissell. No. 1,042,758; Oct. 29; Gaz. vol. 183; p. 1178.

Aeroplane balancing mechanism. J. Canty. No. 1,042,062; Oct. 22; Gaz. vol. 183; p. 915.

Aeroplanes, Automatic stabilizer for. H. Yeamans. No. 1,040,089; Oct. 1; Gaz. vol. 183; p. 140.

Agricultural implement. J. L. Hand. No. 1,041,077; Oct. 15; Gaz. vol. 183; p. 541.

Air and gas engine. L. Kessler. No. 1,042,860; Oct. 29; Gaz. vol. 183; p. 1196.

Air, Apparatus for determining the amount of carbon dioxid in the. L. H. Knott. No. 1,040,256; Oct. 8; Gaz. vol. 183; p. 260.

Air, Apparatus for removing moisture from. J. B. Miles. No. 1,041,323; Oct. 15; Gaz. vol. 183; p. 625.

Air-brake. F. Goff. No. 1,042,666; Oct. 29; Gaz. vol. 183; p. 1144.

Air-brake apparatus. O. Johnson. No. 1,041,091; Oct. 15; Gaz. vol. 183; p. 646.

Air brake attachment for automatic systems, Straight-. W. R. Chandler. No. 1,042,083; Oct. 22; Gaz. vol. 183; p. 916.

Air-brake coupling. O. P. Wilhelm. No. 1,041,391; Oct. 15; Gaz. vol. 183; p. 646.

Air-brake mechanism for logging-trains. G. H. Libby and H. L. Turney. No. 1,040,222; Oct. 1; Gaz. vol. 183; p. 184.

Air compressor and pump. G. P. Aborn. No. 1,041,839; Oct. 22; Gaz. vol. 183; p. 869.

Air-compressor, Duplex. S. K. Stefky and H. H. Nayler. No. 1,041,682; Oct. 15; Gaz. vol. 183; p. 746.

Air-craft propeller. J. Kolw. No. 1,040,695; Oct. 8; Gaz. vol. 183; p. 382.

Air-douche. A. Schaeffer. No. 1,040,778; Oct. 8; Gaz. vol. 183; p. 406.

Air-lift. F. J. Kimball. No. 1,039,958; Oct. 1; Gaz. vol. 183; p. 95.

Air-purifying apparatus. W. G. R. Breamer. No. 1,040,499; Oct. 8; Gaz. vol. 183; p. 308.

Air-retainer, Automatic. L. L. Brown and J. F. Smith. No. 1,040,873; Oct. 8; Gaz. vol. 183; p. 427.

Air-supply device for firemen. J. D. Halleran. No. 1,040,811; Oct. 8; Gaz. vol. 183; p. 246.

Air-treating apparatus. W. H. Winks. No. 1,042,864; Oct. 29; Gaz. vol. 183; p. 1212.

Airship. H. G. Baker. No. 1,040,608; Oct. 8; Gaz. vol. 183; p. 349.

Airship. F. W. Goyette. No. 1,042,338; Oct. 22; Gaz. vol. 183; p. 1000.

Airship. D. A. Flanigan. No. 1,043,004; Oct. 29; Gaz. vol. 183; p. 1259.

Airship, Turbine-. F. H. Albert. No. 1,041,942; Oct. 22; Gaz. vol. 183; p. 869.

Alarm: *See* Bicycle-alarm; Burglar-alarm; Door-alarm; Fire-alarm; Safety-alarm; Temperature-alarm.

Alarm. J. Hartley. No. 1,040,197; Oct. 1; Gaz. vol. 183; p. 176.

Alarm. A. L. Macklin. No. 1,042,244; Oct. 22; Gaz. vol. 183; p. 968.

Alcohol-burner. H. V. Smith. No. 1,041,883; Oct. 22; Gaz. vol. 183; p. 853.

Alcohol from sulfite liquor, Manufacturing. P. Ekstrom. No. 1,042,332; Oct. 22; Gaz. vol. 183; p. 997.

Alcohol, Making. K. Kiefer. No. 1,041,206; Oct. 15; Gaz. vol. 183; p. 616.

Alkali metals, Production of cyanamids and cyanids of the. E. A. Ashcroft. No. 1,041,566; Oct. 15; Gaz. vol. 183; p. 702.

Alkali stannates, Purifying. G. Spitz. No. 1,041,893; Oct. 22; Gaz. vol. 183; p. 864.

Alloy and producing the same. I. Ladoff. No. 1,040,690; Oct. 8; Gaz. vol. 183; p. 382.

Alloy of copper and zinc. A. Schmid. No. 1,040,027; Oct. 1; Gaz. vol. 183; p. 118.

Alloys or compounds of titanium and copper, Producing. I. Ladoff. No. 1,042,004; Oct. 29; Gaz. vol. 183; p. 1153.

Alloys, Production of. C. A. Hansen. No. 1,041,073; Oct. 15; Gaz. vol. 183; p. 540.

Aluminum or the like, Composition to facilitate the tapping of. H. A. Kern. No. 1,041,454; Oct. 15; Gaz. vol. 183; p. 677.

Amalgamator. F. J. Hoyt. No. 1,042,230; Oct. 22; Gaz. vol. 183; p. 994.

Amalgamator. R. Luckenbach. No. 1,042,701; Oct. 29; Gaz. vol. 183; p. 1155.

Ammonia manufacture by means of aluminium nitrid. O. Serpek. No. 1,040,630; Oct. 8; Gaz. vol. 183; p. 336.

Ammunition-hoist. R. Star. No. 1,040,047; Oct. 1; Gaz. vol. 183; p. 126.

Amusement device. I. Kinalty. No. 1,041,209; Oct. 15; Gaz. vol. 183; p. 616.

Amusement device. W. F. Watkins. No. 1,041,886; Oct. 15; Gaz. vol. 183; p. 866.

Anchor, Earth-. J. Blackburn. No. 1,041,233; Oct. 15; Gaz. vol. 183; p. 502.
Anchor, Releasable-fluke. G. E. Champlin. No. 1,042,892; Oct. 29; Gaz. vol. 183; p. 1221.
Animal-trap. E. B. Anderson. No. 1,039,878; Oct. 1; Gaz. vol. 183; p. 70.
Animal-trap. B. Holt. No. 1,040,329; Oct. 8; Gaz. vol. 183; p. 251.
Animal-trap. T. J. Ellison. No. 1,040,657; Oct. 8; Gaz. vol. 183; p. 339.
Ankle support and protector. H. J. Collis. No. 1,040,279; Oct. 8; Gaz. vol. 183; p. 233.
Anode for use by electrolysis of alkaline-salt solutions. A. T. K. Estelle. No. 1,041,261; Oct. 15; Gaz. vol. 183; p. 603.
Antiskidding device. T. W. Simmons. No. 1,042,722; Oct. 29; Gaz. vol. 183; p. 1163.
Apparel, Wearing-. W. H. Ebeary. No. 1,041,711; Oct. 15; Gaz. vol. 183; p. 752.
Armoring device. C. T. Pratt. No. 1,042,477; Oct. 29; Gaz. vol. 183; p. 1076.
Ash receiver and holder. G. Voegeli. No. 1,042,851; Oct. 29; Gaz. vol. 183; p. 1206.
Assembling-machine. G. A. Ensign. No. 1,040,910; Oct. 8; Gaz. vol. 183; p. 449.
Atomiser. G. J. Kelley. No. 1,042,685; Oct. 29; Gaz. vol. 183; p. 1149.
Atomiser, Liquid-fuel. W. A. White. No. 1,040,827; Oct. 8; Gaz. vol. 183; p. 424.
Audible signal. H. C. Williams and S. R. Payne. No. 1,041,903; Oct. 15; Gaz. vol. 183; p. 647.
Autoboat and aeroplane, Combination. F. Grégoire. No. 1,041,779; Oct. 22; Gaz. vol. 183; p. 812.
Autographic register. A. Krauth. No. 1,042,009; Oct. 22; Gaz. vol. 183; p. 891.
Automatic brake. O. Davis. No. 1,040,520; Oct. 8; Gaz. vol. 183; p. 316.
Automatic drill. R. Pinkett. No. 1,041,343; Oct. 15; Gaz. vol. 183; p. 631.
Automatic fountain. G. W. Baier. No. 1,042,579; Oct. 29; Gaz. vol. 183; p. 1040.
Automatic regulating-switch. T. Nagel. No. 1,042,950; Oct. 29; Gaz. vol. 183; p. 1240.
Automatic switch. D. Beaudenon. No. 1,041,951; Oct. 22; Gaz. vol. 183; p. 871.
Automobile. A. S. Krotz. No. 1,040,497; Oct. 8; Gaz. vol. 183; p. 382.
Automobile body and seat. F. J. Morgan. No. 1,039,780; Oct. 1; Gaz. vol. 183; p. 35.
Automobile-crank, Safety. C. T. Williams. No. 1,042,303; Oct. 22; Gaz. vol. 183; p. 967.
Automobile heating apparatus. G. Buffer. No. 1,041,879; Oct. 22; Gaz. vol. 183; p. 848.
Automobile-horn. J. J. Richards, Jr. No. 1,043,032; Oct. 29; Gaz. vol. 183; p. 1269.
Automobile-jack. H. W. Seely. No. 1,042,154; Oct. 22; Gaz. vol. 183; p. 930.
Automobile-robes, overcoats, &c., Locking device for securing. J. S. Thompson. No. 1,042,502; Oct. 29; Gaz. vol. 183; p. 1085.
Automobile shock-register. C. A. Benoist. No. 1,042,525; Oct. 29; Gaz. vol. 183; p. 1093.
Automobile-starter, Mechanical. G. K. Ewing and C. R. Farley. No. 1,041,054; Oct. 15; Gaz. vol. 183; p. 533.
Automobile suspension device. J. P. Will. No. 1,040,079; Oct. 1; Gaz. vol. 183; p. 136.
Automobile-wheel. H. B. Coats. No. 1,040,511; Oct. 8; Gaz. vol. 183; p. 313.
Automobile wind-shield. J. L. Kennedy. No. 1,042,925; Oct. 29; Gaz. vol. 183; p. 1232.
Automobiles, Robe-rail for. A. Winton and H. B. Anderson. No. 1,041,549; Oct. 15; Gaz. vol. 183; p. 498.
Automobiles, Safety cranking device for. A. A. Engstrom. No. 1,040,296; Oct. 8; Gaz. vol. 183; p. 230.
Automobiles, Shield for transmission-gearing of. A. A. Gleus. No. 1,042,548; Oct. 29; Gaz. vol. 183; p. 1101.
Auxiliary burner for gas-stoves. G. E. Lague. No. 1,040,552; Oct. 8; Gaz. vol. 183; p. 328.
Awnings and the like, Chain and roller gearing for. D. D. Samala. No. 1,041,883; Oct. 22; Gaz. vol. 183; p. 850.
Axle-box. Railway-car. G. C. Cosmovici. No. 1,040,633; Oct. 8; Gaz. vol. 183; p. 362.
Axle for cycles, Spring-. C. R. Mershon and W. E. Redner. No. 1,042,136; Oct. 22; Gaz. vol. 183; p. 933.
Axles and shafts, Lubricating. J. Aden. No. 1,041,941; Oct. 22; Gaz. vol. 183; p. 869.
Axles, Manufacture of railway-. J. M. Hansen. No. 1,041,999; Oct 22; Gaz. vol. 183; p. 888.
Bag: *See* Feed-bag; Hand-bag.
Bag-turning machine. J. Ogg. No. 1,042,367; Oct. 22; Gaz. vol. 183; p. 1008.
Bags, Attachment for the bottoms of hand-. M. Campo. No. 1,042,530; Oct. 29; Gaz. vol. 183; p. 1095.
Baggage, Hand-. S. J. Ross. No. 1,041,170; Oct. 15; Gaz. vol. 183; p. 573.
Balance. G. and G. G. Voland. No. 1,041,383; Oct. 15; Gaz. vol. 183; p. 644.
Bale-ties, Machine for bending the cross-heads and eyes of wire. B. von Blitzingslöwen. No. 1,039,594; Oct. 1; Gaz. vol. 183; p. 75.
Baling-machine, Automatic. R. A. Collins. No. 1,040,278; Oct. 8; Gaz. vol. 183; p. 233.
Baling machine, Self-. R. B. Bryan. No. 1,043,041; Oct. 29; Gaz. vol. 183; p. 1279.
Baling paper and the like cuttings, Apparatus for. A. Paal. No. 1,040,396; Oct. 8; Gaz. vol. 183; p. 274.
Baling-press. D. E. Dickinson. No. 1,040,169; Oct. 1; Gaz. vol. 183; p. 167.
Baling-press. M. F. Slover and J. R. Harter. No. 1,041,521; Oct. 15; Gaz. vol. 183; p. 600.
Baling-press. J. C. Fulkerson and T. G. White. No. 1,042,544; Oct. 29; Gaz. vol. 183; p. 1100.
Ball mold, Golf-. E. W. Buchan. No. 1,041,968; Oct. 22; Gaz. vol. 183; p. 874.
Ball-retainers, Manufacturing. D. F. Chambers. No. 1,040,274; Oct. 8; Gaz. vol. 183; p. 231.
Ballast-injecting apparatus. J. A. Royal. No. 1,041,878; Oct. 22; Gaz. vol. 183; p. 848.
Banana pack-saddle. A. E. Robbins. No. 1,040,016; Oct. 1; Gaz. vol. 183; p. 114.
Band-brake. N. Hardin. No. 1,039,937; Oct. 1; Gaz. vol. 183; p. 89.
Barge, Unloading-. N. Ross. No. 1,040,421; Oct. 8; Gaz. vol. 183; p. 282.
Barium oxid from barium carbonate, Obtaining porous and fairly-pure. K. Bornemann. No. 1,041,583; Oct. 15; Gaz. vol. 183; p. 708.
Barium sulfate, Making precipitated. J. P. Walker. No. 1,040,594; Oct. 8; Gaz. vol. 183; p. 344.
Barrel, Bilge-. J. H. La Fave. No. 1,040,258; Oct. 8; Gaz. vol. 183; p. 230.
Barrel-bodies, Apparatus for forming metallic. L. Bauroth. No. 1,041,406; Oct. 15; Gaz. vol. 183; p. 652.
Barrel-bodies, Forming metallic. L. Bauroth. No. 1,039,595; Oct. 1; Gaz. vol. 183; p. 72.
Barrel-forming machine. L. Bauroth. No. 1,039,596; Oct. 1; Gaz. vol. 183; p. 72.
Barrel-forming machinery. L. Bauroth. No. 1,039,597; Oct. 1; Gaz. vol. 183; p. 73.
Barrel-shells, Apparatus for making metal bilged. G. B. Nuttinger, Jr. No. 1,042,946; Oct. 29; Gaz. vol. 183; p. 1238.
Barrel-shells, Shaping sheet metal into bilged. G. B. Nuttinger, Jr. No. 1,042,945; Oct. 29; Gaz. vol. 183; p. 1237.
Basket, Clothes. E. J. Adney. No. 1,040,837; Oct. 8; Gaz. vol. 183; p. 426.
Basket-making machine. A. M. Taylor. No. 1,040,457; Oct. 8; Gaz. vol. 183; p. 294.
Basket-making machine. A. M. Taylor. No. 1,040,599; Oct. 8; Gaz. vol. 183; p. 342.
Basket-hailing machine. A. M. Taylor. No. 1,040,456; Oct. 8; Gaz. vol. 183; p. 294.
Bath: *See* Hot-air bath.
Bath-tub attachment. M. Jefferson. No. 1,040,686; Oct. 8; Gaz. vol. 183; p. 379.
Bath-tub, Infant's. L. A. Williams. No. 1,042,515; Oct. 29; Gaz. vol. 183; p. 1099.
Baths, Producing effervescent. L. Sarason and S. Haller. No. 1,041,357; Oct. 15; Gaz. vol. 183; p. 635.
Bathing apparatus. A. J. Petter. No. 1,040,238; Oct. 1; Gaz. vol. 183; p. 189.
Bathing-suit. J. F. Burke. No. 1,041,012; Oct. 15; Gaz. vol. 183; p. 517.
Battery: *See* Secondary battery.
Battery. A. E. Thompson. No. 1,040,655; Oct. 1; Gaz. vol. 183; p. 128.
Battery case or cabinet. A. S. Campbell. No. 1,041,013; Oct. 15; Gaz. vol. 183; p. 520.
Battery-connector. J. M. Hall. No. 1,041,464; Oct. 15; Gaz. vol. 183; p. 671.
Battery grids, Machine for pasting storage-. F. Engel. No. 1,039,715; Oct. 1; Gaz. vol. 183; p. 15.
Beam and shank attachment. R. A. Trousdale. No. 1,041,530; Oct. 15; Gaz. vol. 183; p. 602.
Beams formed of plastic material, Bond for. T. Johnson. No. 1,039,951; Oct. 1; Gaz. vol. 183; p. 93.
Bearing, Antifriction-. A. A. Weigel. No. 1,041,209; Oct. 15; Gaz. vol. 183; p. 586.
Bearing, Combined step and guide. J. G. Callan. No. 1,041,426; Oct. 15; Gaz. vol. 183; p. 657.
Bearing, Non-metallic. C. O. L. Cardell. No. 1,041,427; Oct. 15; Gaz. vol. 183; p. 658.
Bearing, Roller-. F. M. Tatum. No. 1,041,900; Oct. 22; Gaz. vol. 183; p. 855.
Bearing, Self-aligning. F. S. Hitchcock. No. 1,042,114; Oct. 22; Gaz. vol. 183; p. 926.
Bed-and-cylinder machine. R. T. Johnston. No. 1,040,266; Oct. 1; Gaz. vol. 183; p. 186.
Bed and housing therefor, Disappearing. W. W. Lavanway and G. A. Nenno. No. 1,039,867; Oct. 1; Gaz. vol. 183; p. 98.
Bed-bottom, Spring. A. S. Altman. No. 1,040,106; Oct. 1; Gaz. vol. 183; p. 146.
Bed, Collapsible. M. Y. Townsend. No. 1,040,315; Oct. 8; Gaz. vol. 183; p. 419.
Bed elevating and transporting apparatus, Combined. G. Fillion. No. 1,042,662; Oct. 29; Gaz. vol. 183; p. 1142.
Bed, Folding. H. Brandt. No. 1,042,075; Oct. 22; Gaz. vol. 183; p. 912.
Bed, Folding wall-. H. H. Hall. No. 1,042,670; Oct. 29; Gaz. vol. 183; p. 1145.
Bed-frame joint. A. Hill. No. 1,042,555; Oct. 29; Gaz. vol. 183; p. 1103.
Bed, Invalid-. A. Steffington. No. 1,040,795; Oct. 8; Gaz. vol. 183; p. 413.
Bed-rest, Adjustable. L. E. Bier. No. 1,041,965; Oct. 22; Gaz. vol. 183; p. 873.





Bed, Screen-. F. B. Easton. No. 1,040,909; Oct. 8; Gaz. vol. 183; p. 449.
Bed-spring. H. A. Ruggles. No. 1,040,767; Oct. 8; Gaz. vol. 183; p. 404.
Bed-spring. G. C. Locklin. No. 1,041,510; Oct. 15; Gaz. vol. 183; p. 620.
Bedstead. J. A. Kohler. No. 1,040,693; Oct. 8; Gaz. vol. 183; p. 381.
Bedstead and other frame, Tubular. G. Holden. No. 1,041,284; Oct. 15; Gaz. vol. 183; p. 612.
Bedstead and table, Combined. G. A. Samuels. No. 1,039,817; Oct. 1; Gaz. vol. 183; p. 49.
Beehive. J. A. Gebhart. No. 1,042,907; Oct. 29; Gaz. vol. 183; p. 1226.
Beet-slicer, Apparatus for heating. M. Paschen. No. 1,042,261; Oct. 22; Gaz. vol. 183; p. 974.
Beet-topper. B. F. Elsder and R. O. Doulon. No. 1,041,003; Oct. 15; Gaz. vol. 183; p. 516.
Bell, Alarm-. H. P. Christianson. No. 1,040,974; Oct. 8; Gaz. vol. 183; p. 472.
Bell or ringer, Electric. C. E. Albertus. No. 1,041,944; Oct. 22; Gaz. vol. 183; p. 870.
Belt-fastener. J. H. Dozier. No. 1,042,206; Oct. 22; Gaz. vol. 183; p. 956.
Belt-fastener. W. A. Ross. No. 1,042,604; Oct. 29; Gaz. vol. 183; p. 1121.
Belt-polishing machine. E. F. Thoren. No. 1,039,845; Oct. 1; Gaz. vol. 183; p. 60.
Belting, Manufacture of textile. W. G. Maxwell and E. J. C. Christie. No. 1,041,130; Oct. 15; Gaz. vol. 183; p. 558.
Bending-machine. H. W. Borden. No. 1,041,419; Oct. 15; Gaz. vol. 183; p. 656.
Bending-machine. F. T. Root. No. 1,042,276; Oct. 22; Gaz. vol. 183; p. 978.
Bending-tool. E. N. O. Dahlquist. No. 1,041,037; Oct. 15; Gaz. vol. 183; p. 526.
Berry-box. P. E. Snyder. No. 1,041,690; Oct. 15; Gaz. vol. 183; p. 745.
Bevel and square, Combined. W. R. Buchanan. No. 1,039,891; Oct. 1; Gaz. vol. 183; p. 74.
Beveling machine, Disk-. W. C. Osterholm. No. 1,042,259; Oct. 22; Gaz. vol. 183; p. 973.
Beverage, Making a liquid. C. N. Bourne. No. 1,042,074; Oct. 22; Gaz. vol. 183; p. 912.
Beverage-shaker. W. G. Barker. No. 1,042,751; Oct. 29; Gaz. vol. 183; p. 1173.
Bicycle-alarm. T. C. Holbrook. No. 1,041,474; Oct. 15; Gaz. vol. 183; p. 674.
Bicycles, Book and bundle rack for. W. R. Hall. No. 1,039,192; Oct. 1; Gaz. vol. 183; p. 174.
Binder and leaf therefor, Loose-leaf. W. H. Cooley. No. 1,040,514; Oct. 8; Gaz. vol. 183; p. 314.
Binder clasping device, Loose-leaf. R. M. Watson. No. 1,042,626; Oct. 29; Gaz. vol. 183; p. 1129.
Binder, Loose-leaf. H. C. Miller. No. 1,040,377; Oct. 8; Gaz. vol. 183; p. 267.
Binder, Loose-leaf. M. H. Baker. No. 1,040,992; Oct. 15; Gaz. vol. 183; p. 512.
Binder, Loose-leaf. J. T. Brink and E. Noedstrom. No. 1,042,513; Oct. 22; Gaz. vol. 183; p. 990.
Binder, Loose-leaf. R. M. Watson. No. 1,042,625; Oct. 29; Gaz. vol. 183; p. 1129.
Binder, Loose-sheet. R. H. Whitehead. No. 1,042,735; Oct. 29; Gaz. vol. 183; p. 1167.
Binder, Paper-. J. A. Byrne. No. 1,040,506; Oct. 8; Gaz. vol. 183; p. 311.
Binding machine, Tablet-. W. L. Jacobis. No. 1,042,443; Oct. 29; Gaz. vol. 183; p. 1064.
Binding-post. A. A. Ziegler. No. 1,042,747; Oct. 29; Gaz. vol. 183; p. 1171.
Bit: *See* Bridle-bit; Coal-boring bit.
Blacking-box or the like. C. Stupian. No. 1,041,694; Oct. 15; Gaz. vol. 183; p. 746.
Blanket-fastener. D. E. Barton. No. 1,042,753; Oct. 29; Gaz. vol. 183; p. 1173.
Block: *See* Micrometer sizing-block; Sliding block.
Block-signal system. G. H. Smith. No. 1,041,686; Oct. 15; Gaz. vol. 183; p. 743.
Blower for boilers. H. A. Higgins. No. 1,042,676; Oct. 29; Gaz. vol. 183; p. 1147.
Board: *See* Bulletin-board; Drawing-board; Game-board.
Boat. A. E. Apel. No. 1,042,636; Oct. 29; Gaz. vol. 183; p. 1132.
Boat, Life-. C. and A. A. Jenkins. No. 1,040,340; Oct. 8; Gaz. vol. 183; p. 256.
Boat, Motor-. J. D. Muller. No. 1,041,226; Oct. 15; Gaz. vol. 183; p. 626.
Boat, Motor-. C. H. Myers. No. 1,041,849; Oct. 22; Gaz. vol. 183; p. 837.
Boat, Screw-cylinder. H. C. Berry. No. 1,041,232; Oct. 15; Gaz. vol. 183; p. 502.
Boats, Apparatus for stowing and launching ships'. A. R. Nyboer. No. 1,040,741; Oct. 8; Gaz. vol. 183; p. 396.
Boiler: *See* Steam-boiler; Water-tube boiler.
Boiler construction. D. D. Shierk. No. 1,042,944; Oct. 22; Gaz. vol. 183; p. 983.
Boiler-flue-cleaner system. D. E. Hibner. No. 1,041,679; Oct. 15; Gaz. vol. 183; p. 541.
Boiler-flue-cleaner system. D. E. Hibner and P. W. Limbar. No. 1,041,680; Oct. 15; Gaz. vol. 183; p. 542.
Boiler-flue-cleaner system. J. Moore. No. 1,041,141; Oct. 15; Gaz. vol. 183; p. 562.
Boiler-furnace. W. Lamb. No. 1,042,573; Oct. 29; Gaz. vol. 183; p. 1110.
Boiler furnace, Steam-. E. C. Mills. No. 1,041,835; Oct. 15; Gaz. vol. 183; p. 625.
Boiler gage, Steam-. A. D. and B. A. Hunsicker. No. 1,041,628; Oct. 15; Gaz. vol. 183; p. 722.
Boiler header, Water-tube-. B. F. Safberg. No. 1,039,815; Oct. 1; Gaz. vol. 183; p. 49.
Boiler safety attachment. W. P. Smith. No. 1,040,890; Oct. 8; Gaz. vol. 183; p. 414.
Boiler stay-bolt. E. H. D. Stafford. No. 1,042,833; Oct. 29; Gaz. vol. 183; p. 1201.
Boiler stay-bolt, Flexible. E. H. D. Stafford. No. 1,042,831; Oct. 29; Gaz. vol. 183; p. 1200.
Boiler stay-bolt, Flexible. E. H. D. Stafford. No. 1,042,832; Oct. 29; Gaz. vol. 183; p. 1200.
Boiler-tube crimper. J. J. Kerrigan. No. 1,042,121; Oct. 22; Gaz. vol. 183; p. 928.
Boiler-tube scraper. C. J. Wright and E. Bell. No. 1,040,088; Oct. 1; Gaz. vol. 183; p. 139.
Boilers, Supplying fuel and water to. H. Lemp. No. 1,041,640; Oct. 15; Gaz. vol. 183; p. 727.
Bolster-spring. J. F. Bickel. No. 1,042,312; Oct. 22; Gaz. vol. 183; p. 990.
Bolster-spring. C. L. Thompson. No. 1,042,500; Oct. 29; Gaz. vol. 183; p. 1085.
Bolt: *See* Boiler stay-bolt; Expansion-bolt; Stay-bolt; Toggle-bolt.
Bolt-trimming machine. J. A. Collins. No. 1,042,089; Oct. 22; Gaz. vol. 183; p. 918.
Book. C. W. Mears. No. 1,042,707; Oct. 29; Gaz. vol. 183; p. 1157.
Book and pad holder. G. W. Newton. No. 1,042,569; Oct. 29; Gaz. vol. 183; p. 1116.
Book-holder. S. Kobsy. No. 1,041,101; Oct. 15; Gaz. vol. 183; p. 549.
Book, Manifolding sales-. E. K. Bottle. No. 1,040,493; Oct. 8; Gaz. vol. 183; p. 308.
Book, Memorandum-. J. Marks. No. 1,041,500; Oct. 15; Gaz. vol. 183; p. 682.
Book, Sales-. E. K. Bottle. No. 1,042,637; Oct. 29; Gaz. vol. 183; p. 1133.
Book, Sample-. J. P. Tirrill. No. 1,041,703; Oct. 15; Gaz. vol. 183; p. 749.
Boot and shoe. A. H. Spitz and A. Kessler. No. 1,041,165; Oct. 15; Gaz. vol. 183; p. 577.
Boot-cleaner. P. Schneider. No. 1,042,977; Oct. 29; Gaz. vol. 183; p. 1249.
Boring-tool. H. R. Decker. No. 1,039,909; Oct. 1; Gaz. vol. 183; p. 80.
Bottle and drinking-cup, Combination non-refillable. F. F. Syracuse. No. 1,039,843; Oct. 1; Gaz. vol. 183; p. 58.
Bottle attachment. E. McConnell. No. 1,042,705; Oct. 29; Gaz. vol. 183; p. 1157.
Bottle-cap-making die. G. J. Spahn. No. 1,041,691; Oct. 15; Gaz. vol. 183; p. 745.
Bottle-capper. G. Strandt. No. 1,040,453; Oct. 8; Gaz. vol. 183; p. 293.
Bottle-capping machine. B. Adriance and A. Callesen. (Reissue.) No. 13,468; Oct. 1; Gaz. vol. 183; p. 194.
Bottle-capping machine. R. E. Taylor. No. 1,041,537; Oct. 15; Gaz. vol. 183; p. 601.
Bottle-capping machine. B. Adriance and A. Callesen. No. 1,042,068; Oct. 22; Gaz. vol. 183; p. 910.
Bottle-capping machine. E. Jagenberg. No. 1,042,231; Oct. 22; Gaz. vol. 183; p. 965.
Bottle-cleaner, R. Wagner. No. 1,041,532; Oct. 15; Gaz. vol. 183; p. 693.
Bottle, Double-neck. N. Nilson. No. 1,040,390; Oct. 8; Gaz. vol. 183; p. 272.
Bottle, Drop-. H. Krone. No. 1,041,105; Oct. 15; Gaz. vol. 183; p. 551.
Bottle faucet or tap. E. H. Thompson, Jr. No. 1,041,699; Oct. 15; Gaz. vol. 183; p. 748.
Bottle holder, Nursing-. F. H. Escherich. No. 1,040,339; Oct. 8; Gaz. vol. 183; p. 270.
Bottle lock, Milk-. M. Graham. No. 1,042,550; Oct. 29; Gaz. vol. 183; p. 1101.
Bottle, Non-refillable. G. R. Lehman. No. 1,039,969; Oct. 1; Gaz. vol. 183; p. 100.
Bottle, Non-refillable. C. W. Malone. No. 1,040,714; Oct. 8; Gaz. vol. 183; p. 387.
Bottle, Non-refillable. H. C. Becker. No. 1,040,845; Oct. 8; Gaz. vol. 183; p. 429.
Bottle, Non-refillable. F. Black. No. 1,040,858; Oct. 8; Gaz. vol. 183; p. 432.
Bottle, Non-refillable. D. G. Vradenburgh. No. 1,041,266; Oct. 15; Gaz. vol. 183; p. 584.
Bottle, Non-refillable. F. A. Bradley. No. 1,042,185; Oct. 22; Gaz. vol. 183; p. 952.
Bottle, Non-refillable. E. Maurer and A. Gordon. No. 1,042,247; Oct. 22; Gaz. vol. 183; p. 959.
Bottle, Non-refillable. C. H. and H. P. Tucker. No. 1,042,622; Oct. 29; Gaz. vol. 183; p. 1128.
Bottle, Non-refillable. J. H. Gruver. No. 1,042,699; Oct. 29; Gaz. vol. 183; p. 1148.
Bottle, Non-refillable. E. Madison. No. 1,042,987; Oct. 29; Gaz. vol. 183; p. 1235.
Bottle, Non-reusable. W. S. Brooks. No. 1,040,560; Oct. 8; Gaz. vol. 183; p. 309.
Bottle or jar closure. W. Koufman. No. 1,042,287; Oct. 22; Gaz. vol. 183; p. 966.
Bottle-stopper. L. F. Seames. No. 1,041,180; Oct. 15; Gaz. vol. 183; p. 576.

Bottle-stopper. H. H. Allen. No. 1,041,561; Oct. 15; Gaz. vol. 183; p. 702.
Bottle-stopper. J. D. Gerahty and J. E. Hager. No. 1,041,774; Oct. 22; Gaz. vol. 183; p. 816.
Bottle-stopper. V. H. Kugald. No. 1,041,816; Oct. 22; Gaz. vol. 183; p. 830.
Bottle-stopper. F. Caletta. No. 1,042,091; Oct. 29; Gaz. vol. 183; p. 916.
Bottle strainer, Nursing. J. Tweeddale. No. 1,041,878; Oct. 15; Gaz. vol. 183; p. 842.
Bottles, Device for milk. K. Graham. No. 1,042,909; Oct. 29; Gaz. vol. 183; p. 1227.
Box: *See* Axle-box; Berry-box; Blacking-box; Cigar-box; Fare-box; Folding box; Hat-box; Incandescent-mantle box; Knockdown box; Mail-box; Match-box; Meter-box; Miter-box; Outlet-box; Paper box; Piling-box; Powder-box; Signal-box; Terminal box; Turpentine-box; Wagon-box; Wire-bound box.
Box. C. A. Goosay. No. 1,040,931; Oct. 8; Gaz. vol. 183; p. 456.
Box. C. Holly. No. 1,041,475; Oct. 15; Gaz. vol. 183; p. 674.
Box. G. W. Hartley. No. 1,042,789; Oct. 29; Gaz. vol. 183; p. 1186.
Box-covering-machine cut-off. A. Bell. No. 1,041,409; Oct. 15; Gaz. vol. 183; p. 652.
Box-fastener. E. L. Wetrous. No. 1,042,511; Oct. 29; Gaz. vol. 183; p. 1068.
Box-lifter. G. Weaver. No. 1,040,824; Oct. 8; Gaz. vol. 183; p. 422.
Boxes, Edge-protector for tied. W. R. Botham. No. 1,041,412; Oct. 15; Gaz. vol. 183; p. 654.
Boxes, Making. C. Holly. No. 1,041,286; Oct. 15; Gaz. vol. 183; p. 612.
Boxing, Protector for use in. G. O. Brewster. No. 1,040,267; Oct. 8; Gaz. vol. 183; p. 228.
Brace: *See* Broom-brace; Rail-brace.
Bracelet. F. E. Forsell. No. 1,039,719; Oct. 1; Gaz. vol. 183; p. 17.
Bracelet. S. O. Bigney. No. 1,041,729; Oct. 22; Gaz. vol. 183; p. 794.
Bracket: *See* Curtain-bracket; Extensible bracket; Insulator-bracket; Shade-bracket.
Braiding-machine carrier. J. E. Chace. No. 1,041,590; Oct. 15; Gaz. vol. 183; p. 710.
Brake: *See* Air-brake; Automatic brake; Band-brake; Car-brake; Car fluid-pressure brake; Coaster-brake; Elevator safety-brake; Sled-brake; Vehicle-brake.
Brake. G. T. Pfaumer. No. 1,042,596; Oct. 29; Gaz. vol. 183; p. 1119.
Brake apparatus. D. L. Lindquist. No. 1,041,642; Oct. 15; Gaz. vol. 183; p. 728.
Brake-beam. H. Zieman, Jr. No. 1,041,222; Oct. 15; Gaz. vol. 183; p. 589.
Brake-lever lock. P. F. Angenbraun. No. 1,040,944; Oct. 8; Gaz. vol. 183; p. 428.
Brake mechanism. J. O. Martin and H. W. Scheller. No. 1,039,771; Oct. 1; Gaz. vol. 183; p. 35.
Brake mechanism. J. J. Ross. No. 1,042,038; Oct. 22; Gaz. vol. 183; p. 901.
Brake-setting device, Emergency. H. S. Beattie. No. 1,042,869; Oct. 29; Gaz. vol. 183; p. 1214.
Brake-shoe. F. T. Dickinson. No. 1,042,896; Oct. 29; Gaz. vol. 183; p. 1222.
Brass, Making. L. Addicks. No. 1,041,940; Oct. 22; Gaz. vol. 183; p. 869.
Bread, cake, &c., Product for making. W. E. Castle. No. 1,042,647; Oct. 29; Gaz. vol. 183; p. 1136.
Bread, Making. E. Farwell. No. 1,040,660; Oct. 8; Gaz. vol. 183; p. 370.
Brick-clamp. C. W. Bandemer. No. 1,041,949; Oct. 22; Gaz. vol. 183; p. 871.
Brick, Hollow. F. O. Andersson. No. 1,041,401; Oct. 15; Gaz. vol. 183; p. 650.
Brick-kiln. A. E. Boyce. No. 1,041,006; Oct. 15; Gaz. vol. 183; p. 516.
Brick-press. W. E. and J. A. Dole. No. 1,042,655; Oct. 29; Gaz. vol. 183; p. 1139.
Brick-pressing machine. H. K. King. No. 1,041,805; Oct. 22; Gaz. vol. 183; p. 822.
Bridge attachment, Safety draw-. E. F. Schoenthaler. No. 1,041,359; Oct. 15; Gaz. vol. 183; p. 636.
Bridge, Bascule-. A. H. Scherzer. No. 1,041,988; Oct. 22; Gaz. vol. 183; p. 851.
Bridge for single-track railways. S. Zaniko. No. 1,042,067; Oct. 22; Gaz. vol. 183; p. 910.
Bridge lock, Bascule-. H. C. Kraze. No. 1,042,233; Oct 22; Gaz. vol. 183; p. 967.
Bridge safety-gate, Bascule-. C. Faust. No. 1,042,776; Oct. 29; Gaz. vol. 183; p. 1161.
Bridle-bit. H. H. James. No. 1,042,796; Oct. 29; Gaz. vol. 183; p. 1188.
Brine-cooler. O. C. De Fossat. No. 1,041,973; Oct. 22; Gaz. vol. 183; p. 879.
Brooches and the like, Fastener for. K. Takahashi. No. 1,042,291; Oct. 22; Gaz. vol. 183; p. 993.
Brooder. W. L. Klemann. No. 1,041,851; Oct. 22; Gaz. vol. 183; p. 838.
Broom-brace. M. Holtz. No. 1,041,864; Oct. 15; Gaz. vol. 183; p. 542.
Broom-handle. H. Hoskins. No. 1,041,226; Oct. 15; Gaz. vol. 183; p. 613.
Broom-holder. A. Stiles. No. 1,041,189; Oct. 15; Gaz. vol. 183; p. 575.
Brush. G. D. Pushee. No. 1,040,497; Oct. 8; Gaz. vol. 183; p. 277.
Brush, Bottle-. Holder for. D. L. Chandler. No. 1,042,266; Oct. 29; Gaz. vol. 183; p. 1043.
Brush, Fountain-. S. Langlais. No. 1,039,905; Oct. 1; Gaz. vol. 183; p. 98.
Brush, Fountain-. C. H. Pedersen. No. 1,042,082; Oct. 22; Gaz. vol. 183; p. 909.
Brush, Fountain-blacking. J. F. Schoolfield. No. 1,040,778; Oct. 8; Gaz. vol. 183; p. 407.
Brush, Graphite. W. H. Hardman. No. 1,040,815; Oct. 8; Gaz. vol. 183; p. 247.
Brush, Rotary. W. Scott. No. 1,040,808; Oct. 8; Gaz. vol. 183; p. 416.
Brush, Scrubbing. J. D. Bryan. No. 1,041,611; Oct. 15; Gaz. vol. 183; p. 617.
Brush, Shaving. J. B. Reis. No. 1,042,967; Oct. 29; Gaz. vol. 183; p. 1242.
Brush, Tooth. F. C. Knudsen. No. 1,040,939; Oct. 8; Gaz. vol. 183; p. 466.
Brushes, Protective covering for tooth-. L. L. Marx. No. 1,041,316; Oct. 15; Gaz. vol. 183; p. 622.
Bucket, Collapsible. H. Hill. No. 1,041,788; Oct. 22; Gaz. vol. 183; p. 804.
Bucket, Heat-insulated. M. W. Priester and R. W. Easterhole. No. 1,041,669; Oct. 15; Gaz. vol. 183; p. 736.
Buckle. W. E. Graham. No. 1,040,187; Oct. 1; Gaz. vol. 183; p. 172.
Buckle. D. H. Warner. No. 1,041,266; Oct. 15; Gaz. vol. 183; p. 645.
Buckle or lock, Shoe-lace. C. W. Fischer. No. 1,040,918; Oct. 8; Gaz. vol. 183; p. 453.
Buggy-seat, Removable. M. Rockwell. No. 1,042,668; Oct. 29; Gaz. vol. 183; p. 1121.
Buggy-top. W. J. Zirkle. No. 1,040,483; Oct. 8; Gaz. vol. 183; p. 302.
Buggy-valance. C. W. Fisher. No. 1,040,180; Oct. 1; Gaz. vol. 183; p. 170.
Building construction. L. K. Davis. No. 1,041,245; Oct. 15; Gaz. vol. 183; p. 597.
Bulletin-board. G. H. Parker. (Reissue.) No. 12,434; Oct. 29; Gaz. vol. 183; p. 1279.
Bung and bushing therefor. H. Nadorff. No. 1,039,994; Oct. 1; Gaz. vol. 183; p. 106.
Burglar-alarm. T. J. Halstead. No. 1,040,312; Oct. 8; Gaz. vol. 183; p. 246.
Burial apparatus. H. Knoll. No. 1,041,812; Oct. 22; Gaz. vol. 183; p. 826.
Burner: *See* Alcohol-burner; Auxiliary burner; Gas-burner; Hydrocarbon-burner; Liquid-fuel burner; Oil-burner; Mixing-burner; Stove-burner; Stump-burner.
Burner-supply connection. W. R. Jeavons. No. 1,039,950; Oct. 1; Gaz. vol. 183; p. 82.
Burners, Electric preheater for pilot-. A. Debbe. No. 1,040,238; Oct. 8; Gaz. vol. 183; p. 237.
Burners, Pressure-controlled means for hydrocarbon-. C. O. Barica. No. 1,040,973; Oct. 8; Gaz. vol. 183; p. 472.
Burnishing-machine. C. F. Stackpole. No. 1,041,662; Oct. 15; Gaz. vol. 183; p. 745.
Bushing, Outlet-box. P. C. Schorr. No. 1,041,888; Oct. 22; Gaz. vol. 183; p. 863.
Bushing, Shaft-. A. Rankelfiler. No. 1,040,879; Oct. 8; Gaz. vol. 183; p. 338.
Butter-cutter. A. L. Oliver. No. 1,042,257; Oct. 22; Gaz. vol. 183; p. 972.
Butter, Renovating. J. D. Oudsteyn. No. 1,042,471; Oct. 29; Gaz. vol. 183; p. 1074.
Button. D. C. Wolf. No. 1,040,831; Oct. 8; Gaz. vol. 183; p. 425.
Button, Bachelor-. F. R. Warner. No. 1,040,065; Oct. 1; Gaz. vol. 183; p. 131.
Button-holder. J. L. Frankel. No. 1,042,663; Oct. 29; Gaz. vol. 183; p. 1142.
Button, Link-. E. J. Taupert. No. 1,041,271; Oct. 15; Gaz. vol. 183; p. 640.
Button, Tailored. J. B. Ross and H. J. Stuart. No. 1,042,146; Oct. 22; Gaz. vol. 183; p. 936.
Buttonhole, Stitched. E. B. Allen. No. 1,040,839; Oct. 8; Gaz. vol. 183; p. 427.
Buttonhole, Stitched. E. B. Allen. No. 1,040,840; Oct. 8; Gaz. vol. 183; p. 427.
Cabinet. M. E. Millett. No. 1,041,986; Oct. 22; Gaz. vol. 183; p. 894.
Cabinet and floor scraper. C. S. Dikeman. No. 1,041,979; Oct. 22; Gaz. vol. 183; p. 881.
Cabinet, Electric-meter and panel-board. W. Wurdack. No. 1,041,896; Oct. 15; Gaz. vol. 183; p. 849.
Cable-clamp. J. H. Kliegl. No. 1,041,900; Oct. 15; Gaz. vol. 183; p. 617.
Calculating-machine. F. Trinks. No. 1,040,059; Oct. 1; Gaz. vol. 183; p. 130.
Calculating-machine with printing device. B. Behr. No. 1,041,576; Oct. 15; Gaz. vol. 183; p. 706.
Calculating-machines, Means for the transmission of tens in Thomas. B. Behr. No. 1,041,281; Oct. 15; Gaz. vol. 183; p. 592.
Calculator. H. A. Manning. No. 1,039,775; Oct. 1; Gaz. vol. 183; p. 36.
Calculator. F. S. Beckett. No. 1,042,755; Oct. 29; Gaz. vol. 183; p. 1174.
Calendar. F. P. Gorin. No. 1,042,237; Oct. 22; Gaz. vol. 183; p. 960.
Calendar, Advertising-pad. F. A. Weeks. No. 1,041,928; Oct. 22; Gaz. vol. 183; p. 863.





Calipers and protractor, Combined. V. Constantinescu. No. 1,039,901; Oct. 1; Gaz. vol. 183; p. 78.
Camera-case, Folding. R. H. Peterson. No. 1,042,963; Oct. 29; Gaz. vol. 183; p. 1241.
Camera, Pin-journal for photographic. C. Bornmann. No. 1,040,120; Oct. 1; Gaz. vol. 183; p. 154.
Can: *See* Dispensing-can; Milk-can.
Can and box covers, Means for facilitating the removal of. H. and G. H. Hamblin. No. 1,040,954; Oct. 1; Gaz. vol. 183; p. 93.
Can-body flanging and double-seaming machine, Combined. A. Johnson. No. 1,040,861; Oct. 8; Gaz. vol. 183; p. 464.
Can-end-flanging mechanism. A. Johnson. No. 1,040,863; Oct. 8; Gaz. vol. 183; p. 464.
Can-head-lining machine. J. A. Gray. No. 1,042,095; Oct. 29; Gaz. vol. 183; p. 1262.
Can-indicating device. C. A. Hartenstein and W. F. Probst. No. 1,040,675; Oct. 8; Gaz. vol. 183; p. 375.
Can-making machinery. J. M. Henry. No. 1,041,787; Oct. 22; Gaz. vol. 183; p. 814.
Can-opener. J. D. Meade. No. 1,042,917; Oct. 29; Gaz. vol. 183; p. 1230.
Can-top holder and mirror, Combined. A. Pehjasen. No. 1,040,797; Oct. 11; Gaz. vol. 183; p. 43.
Cane-working machine. G. F. Dickson. No. 1,040,248; Oct. 1; Gaz. vol. 183; p. 192.
Cane, Closure for hermetically-sealed food-preserving. B. H. Kannenberg. No. 1,039,753; Oct. 1; Gaz. vol. 183; p. 23.
Candle, Acetylene-. R. E. Arnold. No. 1,042,089; Oct. 29; Gaz. vol. 183; p. 1272.
Candle-holder. C. A. Penn. No. 1,039,921; Oct. 1; Gaz. vol. 183; p. 83.
Candle-holder. N. Spilkowics. (Reissue.) No. 12,431; Oct. 15; Gaz. vol. 183; p. 707.
Candle-holder. N. Spilkowics. (Reissue.) No. 12,432; Oct. 15; Gaz. vol. 183; p. 756.
Candy cooling and mixing furnace. N. Heiman. No. 1,040,681; Oct. 8; Gaz. vol. 183; p. 377.
Candy-making machine. R. J. Savage and C. R. Schultz. No. 1,040,427; Oct. 8; Gaz. vol. 183; p. 284.
Canned milk, &c., Device for opening, holding, preserving, and using. J. M. Day. No. 1,041,971; Oct. 22; Gaz. vol. 183; p. 879.
Canoe attachment. M. L. Sargent. No. 1,041,679; Oct. 15; Gaz. vol. 183; p. 741.
Caoutchouc substances from getting sticky and resinous, Preventing. F. Hofmann, K. Dalbrück, and K. Memmberg. No. 1,040,741; Oct. 1; Gaz. vol. 183; p. 24.
Cap. C. L. Minhoff and L. Kronthal. No. 1,040,727; Oct. 8; Gaz. vol. 183; p. 391.
Cap-feeding mechanism. A. Johnson. No. 1,042,922; Oct. 29; Gaz. vol. 183; p. 1231.
Capstan or windlass. L. Bayer. No. 1,040,120; Oct. 1; Gaz. vol. 183; p. 151.
Car-bolster and side bearing. A. H. Ostrander. No. 1,042,470; Oct. 29; Gaz. vol. 183; p. 1074.
Car-brake. R. F. Massey. No. 1,040,906; Oct. 8; Gaz. vol. 183; p. 200.
Car brake-gear, Railway-. M. B. Schaffer. No. 1,039,821; Oct. 1; Gaz. vol. 183; p. 51.
Car center-bearing, Railway-. G. H. Andrews. No. 1,041,940; Oct. 22; Gaz. vol. 183; p. 870.
Car-connecting platform, Railway-. T. Douglas. No. 1,040,529; Oct. 8; Gaz. vol. 183; p. 290.
Car construction, Railway-. O. Otterson. No. 1,040,572; Oct. 8; Gaz. vol. 183; p. 335.
Car-coupling. H. T. Krukau. No. 1,040,551; Oct. 8; Gaz. vol. 183; p. 328.
Car-coupling. R. L. Kahne and A. L. Roberts. No. 1,040,990; Oct. 8; Gaz. vol. 183; p. 490.
Car-coupling. W. F. Richards. No. 1,041,348; Oct. 15; Gaz. vol. 183; p. 633.
Car-coupling. F. A. Krause. No. 1,041,486; Oct. 15; Gaz. vol. 183; p. 675.
Car-coupling. W. A. Sherter. No. 1,042,288; Oct. 22; Gaz. vol. 183; p. 982.
Car-door. H. C. Priebe. No. 1,040,011; Oct. 1; Gaz. vol. 183; p. 113.
Car-door. J. W. Ramsey. No. 1,041,881; Oct. 22; Gaz. vol. 183; p. 849.
Car door, Grain-. T. C. Chambers. No. 1,042,891; Oct. 29; Gaz. vol. 183; p. 1221.
Car-door operating mechanism. F. Ditchfield. No. 1,041,045; Oct. 15; Gaz. vol. 183; p. 529.
Car-door-operating mechanism. M. Taylor. No. 1,041,901; Oct. 22; Gaz. vol. 183; p. 858.
Car draft-rigging. W. E. Symons. No. 1,040,052; Oct. 1; Gaz. vol. 183; p. 127.
Car draft-rigging, Railway-. G. G. Lewis. No. 1,041,110; Oct. 15; Gaz. vol. 183; p. 582.
Car, Dump or drop-bottom. A. Campbell. No. 1,040,518; Oct. 8; Gaz. vol. 183; p. 283.
Car-dumping mechanism. K. H. Hansen. No. 1,040,670; Oct. 8; Gaz. vol. 183; p. 372.
Car-fender. J. F. H. Rose and C. Richard. No. 1,042,277; Oct. 22; Gaz. vol. 183; p. 976.
Car-fender. J. Gentlon. No. 1,042,908; Oct. 29; Gaz. vol. 183; p. 1227.
Car fenders, Horse Railway-. H. A. Barber. No. 1,040,045; Oct. 8; Gaz. vol. 183; p. 429.
Car friction draft-rigging, Railway-. J. F. O'Connor. No. 1,041,662; Oct. 22; Gaz. vol. 183; p. 842.
Car grain-door. L. I. Larsen. No. 1,039,946; Oct. 1; Gaz. vol. 183; p. 96.
Car-heater. D. R. Saunders. No. 1,039,819; Oct. 1; Gaz. vol. 183; p. 50.
Car, Motor-. C. P. Stebbins and W. S. Hayes. No. 1,042,465; Oct. 29; Gaz. vol. 183; p. 1063.
Car, Railway freight. H. M. Paynter. No. 1,041,995; Oct. 22; Gaz. vol. 183; p. 1004.
Car-replacer, Reversible. A. N. Johnson. No. 1,041,201; Oct. 1; Gaz. vol. 183; p. 104.
Car-roof. J. Pearson. (Reissue.) No. 12,471; Oct. 8; Gaz. vol. 183; p. 300.
Car side bearings, Railway-. G. P. Smead. No. 1,042,097; Oct. 29; Gaz. vol. 183; p. 1271.
Car signal device. J. L. Saunier. No. 1,041,893; Oct. 22; Gaz. vol. 183; p. 862.
Car-step. F. L. Dezeen and W. H. Hodge. No. 1,042,659; Oct. 29; Gaz. vol. 183; p. 1222.
Car-underframe. A. R. Ostrander. No. 1,042,469; Oct. 29; Gaz. vol. 183; p. 1074.
Car-wheel slide-shoe. J. E. Fleming. No. 1,042,660; Oct. 29; Gaz. vol. 183; p. 1234.
Car-window screen. H. W. Kolb. No. 1,042,123; Oct. 22; Gaz. vol. 183; p. 928.
Cars and other vehicles, Detachable and divisible rim for motor-. J. Ashton. No. 1,041,567; Oct. 15; Gaz. vol. 183; p. 706.
Cars, Electric wiring for railway-. M. M. Schneider. No. 1,042,008; Oct. 29; Gaz. vol. 183; p. 1152.
Cars, Register for pay-as-you-enter. S. Bennett. No. 1,040,115; Oct. 1; Gaz. vol. 183; p. 146.
Carburetor. G. P. Bettig. No. 1,040,414; Oct. 8; Gaz. vol. 183; p. 279.
Carburetor. H. Dock. No. 1,040,528; Oct. 8; Gaz. vol. 183; p. 319.
Carburetor. W. C. Carter. No. 1,040,619; Oct. 8; Gaz. vol. 183; p. 353.
Carburetor. J. Kerns. No. 1,041,099; Oct. 15; Gaz. vol. 183; p. 648.
Carburetor. E. B. Kaley. No. 1,041,480; Oct. 15; Gaz. vol. 183; p. 676.
Carburetor. E. B. Kaley. No. 1,041,481; Oct. 15; Gaz. vol. 183; p. 676.
Carburetor. W. K. Anderson. No. 1,041,708; Oct. 15; Gaz. vol. 183; p. 751.
Carburetor. B. Ivor. No. 1,042,004; Oct. 22; Gaz. vol. 183; p. 880.
Carburetor. A. R. Long. No. 1,042,017; Oct. 22; Gaz. vol. 183; p. 894.
Carburetor. C. Brown. No. 1,042,077; Oct. 22; Gaz. vol. 183; p. 913.
Carburetor. C. Brown. No. 1,042,528; Oct. 29; Gaz. vol. 183; p. 1094.
Carburetor. H. C. Roth. No. 1,042,696; Oct. 29; Gaz. vol. 183; p. 1121.
Carburetor. H. Walther. No. 1,042,731; Oct. 29; Gaz. vol. 183; p. 1165.
Carburetor. L. Stiger. No. 1,042,963; Oct. 29; Gaz. vol. 183; p. 1251.
Carburetor-feeder. A. A. Steward. No. 1,042,835; Oct. 29; Gaz. vol. 183; p. 1201.
Card, Hand-. A. Kern. No. 1,042,234; Oct. 22; Gaz. vol. 183; p. 960.
Card-holder. G. S. Petri. No. 1,040,749; Oct. 8; Gaz. vol. 183; p. 396.
Card-shuffler. C. T. Hall. No. 1,041,271; Oct. 15; Gaz. vol. 183; p. 607.
Cards, pictures, &c., Holder for. J. M. Washburn. No. 1,040,066; Oct. 1; Gaz. vol. 183; p. 132.
Cards, pictures, &c., Holder for. J. M. Washburn. No. 1,040,067; Oct. 1; Gaz. vol. 183; p. 132.
Carousel. A. F. Müller. No. 1,040,736; Oct. 8; Gaz. vol. 183; p. 394.
Carpenter's gage. J. Smith. No. 1,041,637; Oct. 15; Gaz. vol. 183; p. 744.
Carpet-cleaner. E. J. Tangeman. No. 1,042,054; Oct. 22; Gaz. vol. 183; p. 906.
Carpet fastener, Stair-. J. D. Gallagher. No. 1,040,635; Oct. 8; Gaz. vol. 183; p. 370.
Carpet-stripper. F. C. Mosse and J. W. Shanahan. No. 1,042,184; Oct. 22; Gaz. vol. 183; p. 952.
Carriage attachment, Baby-. J. T. Murphy. No. 1,039,998; Oct. 1; Gaz. vol. 183; p. 107.
Carriage, Child's. C. S. Spofford, F. W. Jones, and J. W. Bennett. No. 1,041,186; Oct. 15; Gaz. vol. 183; p. 577.
Carrier: *See* Braiding-machine carrier; Egg-carrier; Fuse-carrier; Line-carrier; Litter-carrier; Lead-carrier; Umbrella-carrier.
Carrier. H. J. Buck. No. 1,041,424; Oct. 15; Gaz. vol. 183; p. 657.
Cartoa. W. H. Doble. No. 1,040,851; Oct. 8; Gaz. vol. 183; p. 396.
Cartoa. A. M. Seeley and N. C. Durand. No. 1,042,923; Oct. 22; Gaz. vol. 183; p. 902.
Cartridge-case extractor. L. V. Benoit and H. A. Benoit. No. 1,041,410; Oct. 15; Gaz. vol. 183; p. 652.
Cartridge, Paper-shell. C. H. Stevenson. No. 1,039,899; Oct. 1; Gaz. vol. 183; p. 97.
Cartridge-primer. E. M. Funk. No. 1,040,260; Oct. 1; Gaz. vol. 183; p. 189.
Case: *See* Battery-case; Camera-case; Cloth-case; Display and shipping case; Eyeglass-case; Gage and the like case; Packing and shipping case; Jewelry-case; Pillow-case; Rail-connecting-case; Shipping-case; Spectacle-case; Spectacle and eyeglass case; Syringe-case; Tire-repairing case.

Cash-register attachment. W. V. Bauman. No. 1,041,465; Oct. 15; Gaz. vol. 183; p. 651.
Casket-handle. E. J. Aldworth. No. 1,041,944; Oct. 23; Gaz. vol. 183; p. 870.
Casket, Mortuary. W. L. Bear. No. 1,040,121; Oct. 1; Gaz. vol. 183; p. 151.
Casks, &c., Making bodies for sulfuring. O. Urbasch. No. 1,042,057; Oct. 22; Gaz. vol. 183; p. 907.
Casting apparatus. W. T. Harding. No. 1,040,814; Oct. 8; Gaz. vol. 183; p. 247.
Casting-machine. F. Engel. No. 1,041,051; Oct. 15; Gaz. vol. 183; p. 532.
Casting-machine. J. Wahlstrom and S. Hasenpergor. No. 1,042,854; Oct. 29; Gaz. vol. 183; p. 1208.
Casting molten metal in molds. C. Crawford. No. 1,040,517; Oct. 8; Gaz. vol. 183; p. 315.
Casting steel. E. A. Custer. No. 1,042,002; Oct. 22; Gaz. vol. 183; p. 919.
Castings, Mold for making metal. T. D. West. No. 1,042,734; Oct. 29; Gaz. vol. 183; p. 1167.
Cattle-guard. C. A. Powell. No. 1,039,917; Oct. 1; Gaz. vol. 183; p. 82.
Cattle-guard. J. L. Lankford. No. 1,041,498; Oct. 15; Gaz. vol. 183; p. 680.
Cellulose and making such compound, Compound of acetyl. W. G. Lindsay. No. 1,041,116; Oct. 15; Gaz. vol. 183; p. 554.
Cellulose, Converting acetyl. W. G. Lindsay. No. 1,041,116; Oct. 15; Gaz. vol. 183; p. 554.
Cellulose ester. H. S. Mork. No. 1,039,782; Oct. 1; Gaz. vol. 183; p. 39.
Cellulose ester, Producing dyed. B. Borzykowski. No. 1,041,587; Oct. 15; Gaz. vol. 183; p. 709.
Cellulose plastic compounds, Making acetyl-. W. G. Lindsay. No. 1,041,117; Oct. 15; Gaz. vol. 183; p. 554.
Cellulose plastic compounds, Making acetyl-. W. G. Lindsay. No. 1,041,118; Oct. 15; Gaz. vol. 183; p. 554.
Cellulose plastics and solvents thereof, Making acetyl-. W. G. Lindsay. No. 1,041,113; Oct. 15; Gaz. vol. 183; p. 553.
Cellulose, Solvent for acetyl. W. G. Lindsay. No. 1,041,112; Oct. 15; Gaz. vol. 183; p. 553.
Cellulose, solvent of acetyl. W. G. Lindsay. No. 1,041,114; Oct. 15; Gaz. vol. 183; p. 553.
Cement-furnace. H. Trachsler. No. 1,042,727; Oct. 29; Gaz. vol. 183; p. 1164.
Cement monoliths or blocks, Apparatus for constructing hollow. E. Bianchi. No. 1,040,856; Oct. 8; Gaz. vol. 183; p. 431.
Cement slab or tile with light-pane. I. H. Freund. No. 1,041,990; Oct. 22; Gaz. vol. 183; p. 885.
Cementation, Uniting by. W. Hoskins. No. 1,041,287; Oct. 15; Gaz. vol. 183; p. 613.
Centering device. H. Mann. No. 1,040,715; Oct. 8; Gaz. vol. 183; p. 358.
Centrifugal machine. W. Michelsen. No. 1,040,878; Oct. 8; Gaz. vol. 183; p. 265.
Cereal roll-reducing machine. T. C. Nixon. No. 1,042,717; Oct. 29; Gaz. vol. 183; p. 1161.
Cesspool, Area-. G. W. Schodde. No. 1,041,887; Oct. 22; Gaz. vol. 183; p. 851.
Chain-coupling device. M. J. Greeley. No. 1,042,667; Oct. 29; Gaz. vol. 183; p. 1144.
Chain, Driving-. W. S. Morton. No. 1,039,991; Oct. 1; Gaz. vol. 183; p. 106.
Chain-grip fastener. S. Migliavacca. No. 1,039,778; Oct. 1; Gaz. vol. 183; p. 38.
Chain hook, Logging-. W. H. Kempton. No. 1,039,967; Oct. 1; Gaz. vol. 182; p. 95.
Chain, Key-holding. J. D. Houck. No. 1,042,918; Oct. 29; Gaz. vol. 183; p. 1230.
Chain-repair tool. J. N. Macdonald. No. 1,041,836; Oct. 22; Gaz. vol. 183; p. 880.
Chair: *See* Invalid's chair; Mezzanine-chair; Rail-chair; Rail-joint chair; Theater-chair; Wire chair.
Chair and couch, Combination. D. Cinalli. No. 1,041,961; Oct. 22; Gaz. vol. 183; p. 875.
Chair and rail-joint, Combined. F. J. Prosser. No. 1,042,266; Oct. 22; Gaz. vol. 183; p. 975.
Chair fan attachment. Rocking-. J. Cacotos. No. 1,040,155; Oct. 1; Gaz. vol. 183; p. 152.
Chair-frame. A. H. Greenlund. No. 1,040,963; Oct. 8; Gaz. vol. 183; p. 457.
Chair leg-rest, Rocking-. L. Aime and J. Stenger. No. 1,040,106; Oct. 1; Gaz. vol. 183; p. 145.
Chalk-holder. G. F. Miller. No. 1,040,724; Oct. 8; Gaz. vol. 183; p. 391.
Change-delivering device. C. Edenfeldt. No. 1,039,913; Oct. 1; Gaz. vol. 183; p. 81.
Channel-furnace. A. H. Cowles. No. 1,040,895; Oct. 8; Gaz. vol. 183; p. 444.
Chart, Color-. O. A. Fors. No. 1,041,765; Oct. 22; Gaz. vol. 183; p. 807.
Check, Manifolding salesman's. H. S. Lewis. No. 1,039,766; Oct. 1; Gaz. vol. 183; p. 32.
Check-perforator. M. H. Page. No. 1,039,789; Oct. 1; Gaz. vol. 183; p. 41.
Check, Rebound-. W. A. Finley. No. 1,040,917; Oct. 8; Gaz. vol. 183; p. 462.
Checkrein-spring. S. E. Harsh. No. 1,040,125; Oct. 1; Gaz. vol. 183; p. 178.
Checkrein-support. O. H. Seiltz. No. 1,040,787; Oct. 8; Gaz. vol. 183; p. 411.
Cheese-cutter. I. H. Lee. No. 1,041,638; Oct. 15; Gaz. vol. 183; p. 726.
Chenille-cutting machine. G. Hedrich. No. 1,042,858; Oct. 29; Gaz. vol. 183; p. 1102.
Cherry-cooler. H. G. Ingram. No. 1,039,790; Oct. 1; Gaz. vol. 183; p. 27.
Chest: *See* Food-preserving chest.
Chimney. L. B. Clowse. No. 1,042,695; Oct. 22; Gaz. vol. 183; p. 914.
Chimney-cleaner. M. Miyamoto. No. 1,040,726; Oct. 8; Gaz. vol. 183; p. 392.
Chimney-mold. W. Stisler. No. 1,041,868; Oct. 15; Gaz. vol. 183; p. 833.
Chiropractic table. J. M. Myers. No. 1,042,263; Oct. 22; Gaz. vol. 183; p. 971.
Chopper: *See* Cotton-chopper.
Christmas-tree holder. H. Trilling. No. 1,040,596; Oct. 8; Gaz. vol. 183; p. 343.
Chromatrope. H. Van Altena. No. 1,041,260; Oct. 15; Gaz. vol. 183; p. 642.
Chuck, Drill-. M. R. Van Nest. No. 1,042,507; Oct. 29; Gaz. vol. 183; p. 1097.
Chuck for railway rolling-stock. H. W. Braun. No. 1,041,236; Oct. 15; Gaz. vol. 183; p. 594.
Churn. R. M. Griffith and W. T. McCullough. No. 1,040,694; Oct. 8; Gaz. vol. 183; p. 371.
Churn. C. A. Waybright. No. 1,042,623; Oct. 29; Gaz. vol. 183; p. 1139.
Churn attachment. S. J. Prater. No. 1,042,964; Oct. 29; Gaz. vol. 183; p. 1244.
Churn-dasher. L. Huberty. No. 1,040,682; Oct. 8; Gaz. vol. 183; p. 377.
Cigar-banding machine. F. E. Terrill and J. P. Dowd. No. 1,042,621; Oct. 29; Gaz. vol. 183; p. 1128.
Cigar-box. C. M. Concannon. No. 1,040,152; Oct. 1; Gaz. vol. 183; p. 162.
Cigarette-machine, Continuous. N. Du Bral. No. 1,040,653; Oct. 8; Gaz. vol. 183; p. 367.
Cigarette-making machine. A. H. Sarkisian. No. 1,040,772; Oct. 8; Gaz. vol. 183; p. 405.
Cigarette-making machine. C. De Casen. No. 1,042,652; Oct. 29; Gaz. vol. 183; p. 1138.
Cigarettes and other articles, Machinery for packing. R. L. Beacy. No. 1,041,007; Oct. 15; Gaz. vol. 183; p. 619.
Circuit-breaker. C. Ambruster. No. 1,042,186; Oct. 22; Gaz. vol. 183; p. 949.
Circuit-breaker, Automatic. E. C. Raney. No. 1,041,161; Oct. 15; Gaz. vol. 183; p. 569.
Circuit-breaker for electric ignition devices. A. R. Meeker. No. 1,042,814; Oct. 29; Gaz. vol. 183; p. 1194.
Circuit-breakers, Coupling for non-closable. K. Hähn. No. 1,040,541; Oct. 8; Gaz. vol. 183; p. 334.
Circuit-closer. C. A. Castle. No. 1,040,883; Oct. 8; Gaz. vol. 183; p. 441.
Circuit-controlling apparatus. J. F. Kelly. No. 1,041,294; Oct. 15; Gaz. vol. 183; p. 615.
Circuit-controlling apparatus. R. P. Jackson. No. 1,040,911; Oct. 29; Gaz. vol. 183; p. 1262.
Circuit-make-and-break device. A. E. Claudon. No. 1,041,594; Oct. 15; Gaz. vol. 183; p. 711.
Cistern. J. W. Gard. No. 1,039,924; Oct. 1; Gaz. vol. 183; p. 84.
Clam-opener. E. D. Tiffany. No. 1,041,186; Oct. 15; Gaz. vol. 183; p. 581.
Clamp: *See* Brick-clamp; Cable-clamp; Door-clamp; Eye-glass-clamp; Insulation-clamp; Pipe-clamp; Rail-clamp; Rope-clamp; Saw-clamp; Wire-clamp; Work-clamp.
Clamp. J. L. Hite. No. 1,042,234; Oct. 22; Gaz. vol. 183; p. 963.
Clamp. F. A. Schulz. No. 1,042,610; Oct. 29; Gaz. vol. 183; p. 1123.
Clamp: *See* Chest-front clamp; Hose-supporting clasp.
Clamshiker. L. C. Treat. No. 1,041,906; Oct. 22; Gaz. vol. 183; p. 868.
Clavier, Practice-. A. C. Bergman. No. 1,040,852; Oct. 8; Gaz. vol. 183; p. 430.
Clay-cleving machine. A. H. Cowles. No. 1,040,630; Oct. 8; Gaz. vol. 183; p. 362.
Cleaner: *See* Boiler-flue cleaner; Boot-cleaner; Bottle-cleaner; Carpet-cleaner; Chimney-cleaner; Gun-barrel cleaner; Reservoir and channel cleaner; Vacuum-cleaner.
Cleaner. W. T. Shaffer. No. 1,040,033; Oct. 1; Gaz. vol. 183; p. 122.
Cleaner device. S. Selwa. No. 1,042,826; Oct. 29; Gaz. vol. 183; p. 1190.
Cleaner device, Vacuum-. C. L. Nichols. No. 1,040,176; Oct. 1; Gaz. vol. 183; p. 169.
Cleaning and scrubbing machine. L. Weisenpf. No. 1,040,477; Oct. 8; Gaz. vol. 183; p. 309.
Cleaning-tool, Suction-. C. H. Harker. No. 1,041,466; Oct. 15; Gaz. vol. 183; p. 671.
Clevis. M. A. Nelson. (Reissue.) No. 13,470; Oct. 1; Gaz. vol. 183; p. 230.
Clevis. S. T. Hobbs. No. 1,040,236; Oct. 8; Gaz. vol. 183; p. 203.
Clip: *See* Eyeglass nose-clip; Supporting-clip.
Clipper: *See* Vine-clipper.
Clock, Alarm-. J. Kraus. No. 1,041,267; Oct. 15; Gaz. vol. 183; p. 619.
Clock and indicating device, Combined. J. W. Jones. No. 1,040,946; Oct. 8; Gaz. vol. 183; p. 264.
Clock-case. C. B. Simmons. No. 1,042,160; Oct. 22; Gaz. vol. 183; p. 940.
Clock, Center-. J. Schmidt. No. 1,041,177; Oct. 15; Gaz. vol. 183; p. 573.
Clock, Electric. H. T. Gay. No. 1,041,771; Oct. 22; Gaz. vol. 183; p. 809.
Clock-frame. S. Schnur. No. 1,040,668; Oct. 1; Gaz. vol. 183; p. 117.
Clock, Tellurian. W. H. Hall. No. 1,040,810; Oct. 8; Gaz. vol. 183; p. 245.
Clock, Time-. W. Banish and J. C. Swarthout. No. 1,042,047; Oct. 29; Gaz. vol. 183; p. 1213.
Clocks, Alarm-resetting means for. W. A. Armour. No. 1,040,111; Oct. 1; Gaz. vol. 183; p. 147.
Closet: *See* Sanitary closet; Water-closet.
Closet and seat. J. W. Sharp, Jr. No. 1,041,181; Oct. 15; Gaz. vol. 183; p. 576.
Closet attachment, Dry and water. W. B. Webb. No. 1,042,061; Oct. 23; Gaz. vol. 183; p. 906.
Closure, Vessel-. J. C. Richbera. No. 1,042,200; Oct. 22; Gaz. vol. 183; p. 957.
Cloth-cutting machine. R. H. Peterson. No. 1,041,341; Oct. 15; Gaz. vol. 183; p. 630.
Clothes-hook. R. Denny. No. 1,041,441; Oct. 15; Gaz. vol. 183; p. 663.
Clothes-line. J. R. Tuttle and E. P. Robinson. No. 1,040,467; Oct. 8; Gaz. vol. 183; p. 297.
Clothes-line. W. F. Henderson. No. 1,042,845; Oct. 22; Gaz. vol. 183; p. 1002.
Clothes-line, Metallic. C. F. Christopher. No. 1,041,027; Oct. 15; Gaz. vol. 183; p. 623.
Clothes-pin. J. A. Hostettler. No. 1,040,542; Oct. 8; Gaz. vol. 183; p. 335.
Clothes-pin, Metallic. F. A. Hawk. No. 1,041,785; Oct. 22; Gaz. vol. 183; p. 815.
Clothes-pounder. E. E. Crocker. No. 1,039,701; Oct. 1; Gaz. vol. 183; p. 9.
Clover-huncher. H. W. Clark. No. 1,041,963; Oct. 22; Gaz. vol. 183; p. 875.
Clover-huller. M. King. No. 1,041,809; Oct. 22; Gaz. vol. 183; p. 824.
Clutch. G. T. Trundle. No. 1,040,466; Oct. 8; Gaz. vol. 183; p. 297.
Clutch. G. L. Brownell. No. 1,041,010; Oct. 15; Gaz. vol. 183; p. 617.
Clutch. J. W. Desmond. No. 1,042,409; Oct. 29; Gaz. vol. 183; p. 1051.
Clutch-coupling. M. A. Harris. No. 1,040,317; Oct. 8; Gaz. vol. 183; p. 248.
Clutch, Fluid-. J. W. Rosche. No. 1,041,169; Oct. 15; Gaz. vol. 183; p. 572.
Clutch, Fluid-. J. H. Dodson. No. 1,042,410; Oct. 29; Gaz. vol. 183; p. 1051.
Clutch for engine-starters. C. Burton and R. Gardner. No. 1,042,867; Oct. 29; Gaz. vol. 183; p. 1219.
Clutch, Friction-. J. Bowen. No. 1,040,966; Oct. 8; Gaz. vol. 183; p. 436.
Clutch-inserts, Means for adjusting. F. Jungjohann. No. 1,041,093; Oct. 15; Gaz. vol. 183; p. 546.
Clutch-operating mechanism, Friction-. C. B. King and C. R. Weston. No. 1,039,765; Oct. 1; Gaz. vol. 183; p. 29.
Coal-boring bit. G. A. Moss. No. 1,040,883; Oct. 8; Gaz. vol. 183; p. 269.
Coal-separater. D. J. Middleton, R. M. Keeler, and J. F. Ballamy. No. 1,040,274; Oct. 8; Gaz. vol. 183; p. 206.
Coal-washing jig. G. W. Keller, C. and A. Brassington, and H. D. Kostenbauder. No. 1,041,809; Oct. 22; Gaz. vol. 183; p. 826.
Coaling device. C. C. Leftwich. No. 1,040,703; Oct. 8; Gaz. vol. 183; p. 384.
Coaster-brake. H. E. Van Ness and W. T. Knoale. No. 1,041,914; Oct. 22; Gaz. vol. 183; p. 860.
Coaster-brake. L. S. Kallajian. No. 1,042,066; Oct. 22; Gaz. vol. 183; p. 890.
Coat-hanger, Collapsible. J. W. Hamilton. No. 1,040,942; Oct. 8; Gaz. vol. 183; p. 261.
Coating articles with paraffin or other coating material, Machine for. M. E. Lloyd. No. 1,042,914; Oct. 29; Gaz. vol. 183; p. 1223.
Coating-machine. C. W. Mayer. No. 1,042,621; Oct. 29; Gaz. vol. 183; p. 1126.
Cock, Ball-. C. H. Ellis. No. 1,041,267; Oct. 15; Gaz. vol. 183; p. 602.
Coal-hole cover. F. and H. Mueller. No. 1,040,735; Oct. 8; Gaz. vol. 183; p. 394.
Cock, Stop-. M. E. Hollis. No. 1,040,227; Oct. 8; Gaz. vol. 183; p. 250.
Coffee-berry, Decorticating. L. Klein. No. 1,039,961; Oct. 1; Gaz. vol. 183; p. 90.
Coffee-machine. C. Nelson. No. 1,041,850; Oct. 22; Gaz. vol. 183; p. 833.
Coffee or tea, Steeping. G. B. De Lima. No. 1,041,822; Oct. 22; Gaz. vol. 183; p. 826.
Coffee-pot. J. J. Mangan. No. 1,041,148; Oct. 15; Gaz. vol. 183; p. 563.
Coffee roaster and grader. F. E. Wear. No. 1,039,954; Oct. 1; Gaz. vol. 183; p. 66.
Coffee, Removing the testa membranes from. H. de Pury. No. 1,041,189; Oct. 15; Gaz. vol. 183; p. 582.
Collar-tube. C. Mills. No. 1,040,966; Oct. 8; Gaz. vol. 183; p. 392.
Coke-collector. A. F. Dixon. No. 1,040,536; Oct. 8; Gaz. vol. 183; p. 313.
Coke-collector. E. B. Croft and A. F. Dixon. No. 1,041,020; Oct. 15; Gaz. vol. 183; p. 594.
Coke-controlled lock. D. W. Wood. No. 1,041,206; Oct. 15; Gaz. vol. 183; p. 643.
Coin-handling apparatus. G. F. E. Henning. No. 1,042,006; Oct. 29; Gaz. vol. 183; p. 1200.
Coin or ticket holder. W. A. Snyder. No. 1,039,939; Oct. 1; Gaz. vol. 183; p. 55.
Coin-selector. G. C. Reith. No. 1,042,966; Oct. 29; Gaz. vol. 183; p. 1246.
Coke-oven, Recuperative. A. Gohmann. No. 1,041,497; Oct. 15; Gaz. vol. 183; p. 680.
Collapsible drill. C. H. Osland. No. 1,040,395; Oct. 8; Gaz. vol. 183; p. 278.
Collar, Adjustable horse-. E. Walrath. No. 1,040,889; Oct. 8; Gaz. vol. 183; p. 421.
Collar-fastener. G. A. Stiles. No. 1,041,866; Oct. 15; Gaz. vol. 183; p. 639.
Collar-supporter. J. W. Schlenz. No. 1,040,026; Oct. 1; Gaz. vol. 183; p. 118.
Collar-supporter. J. H. and I. Taylor. No. 1,040,486; Oct. 8; Gaz. vol. 183; p. 294.
Comb: *See* Absorbent comb; Hand-comb.
Comb. H. L. De Mond. No. 1,040,167; Oct. 1; Gaz. vol. 183; p. 166.
Comb-cleaning device. J. Bercha. No. 1,040,849; Oct. 8; Gaz. vol. 183; p. 429.
Comb-cleaning device. E. J. Bajala. No. 1,042,270; Oct. 22; Gaz. vol. 183; p. 977.
Coupling-machine thread-brake, First-. J. Gerstenger. No. 1,040,185; Oct. 1; Gaz. vol. 183; p. 172.
Combustion-engine. J. Day. No. 1,039,705; Oct. 1; Gaz. vol. 183; p. 11.
Compass-legs, Means for adjusting. L. Swang. No. 1,042,866; Oct. 29; Gaz. vol. 183; p. 1213.
Composing-machine, Typographical. W. Rädiger and C. Muehleisen. No. 1,041,676; Oct. 15; Gaz. vol. 183; p. 740.
Composition of matter. E. Armstrong. No. 1,041,229; Oct. 15; Gaz. vol. 183; p. 592.
Compressor. J. C. Kitton. No. 1,039,757; Oct. 1; Gaz. vol. 183; p. 30.
Compressor and pump, Centrifugal. R. H. Rice and S. A. Moss. No. 1,041,511; Oct. 15; Gaz. vol. 183; p. 685.
Compressor, Centrifugal. S. A. Moss. No. 1,041,505; Oct. 15; Gaz. vol. 183; p. 684.
Compressors, Means for regulating centrifugal. R. Treger. No. 1,041,529; Oct. 15; Gaz. vol. 183; p. 692.
Computing device. H. J. Thomas. No. 1,040,592; Oct. 8; Gaz. vol. 183; p. 343.
Concentrating-table. E. and W. F. Deister. No. 1,040,164; Oct. 1; Gaz. vol. 183; p. 165.
Concentrating-table. E. and W. F. Deister. No. 1,040,165; Oct. 1; Gaz. vol. 183; p. 165.
Concrete-block-molding machine. J. W. Bragstad. No. 1,041,731; Oct. 22; Gaz. vol. 183; p. 794.
Concrete casings, Form and reinforcement for. F. A. Kostitz. No. 1,042,807; Oct. 29; Gaz. vol. 183; p. 1190.
Concrete courses, Apparatus for laying. E. L. Ransome. No. 1,042,822; Oct. 29; Gaz. vol. 183; p. 1197.
Concrete floor construction. W. H. Burk. No. 1,039,895; Oct. 1; Gaz. vol. 183; p. 76.
Concrete-form. J. V. Westerlund. No. 1,040,075; Oct. 1; Gaz. vol. 183; p. 135.
Concrete-form. C. H. Hage. No. 1,042,910; Oct. 29; Gaz. vol. 183; p. 1227.
Concrete-mixer. R. F. Bolte. No. 1,041,006; Oct. 15; Gaz. vol. 183; p. 616.
Concrete pile, column, or pole, Reinforced-. R. A. Cummings. No. 1,041,034; Oct. 15; Gaz. vol. 183; p. 625.
Concrete pile, Corrugated. R. A. Cummings. No. 1,041,035; Oct. 15; Gaz. vol. 183; p. 626.
Concrete staircases, Apparatus for molding. C. H. Wiebooft. No. 1,041,551; Oct. 15; Gaz. vol. 183; p. 695.
Concrete-supplying apparatus. C. W. Eaton. No. 1,040,656; Oct. 8; Gaz. vol. 183; p. 368.
Concrete surfaces, Structure for forming. J. A. Bradley. No. 1,042,043; Oct. 22; Gaz. vol. 183; p. 903.
Concrete wall construction. E. F. Wiedenbeft. No. 1,041,589; Oct. 15; Gaz. vol. 183; p. 645.
Concrete wall construction, Mold-form for. A. P. Comey. No. 1,042,648; Oct. 29; Gaz. vol. 183; p. 1136.
Condensates from casein phenols and formic aldehyde and the product obtained thereby, Preparing. L. Lilienfeld. No. 1,040,850; Oct. 8; Gaz. vol. 183; p. 429.
Condenser. H. E. Beyer. No. 1,041,864; Oct. 22; Gaz. vol. 183; p. 872.
Condiment-holder. J. Gottlieb. No. 1,039,729; Oct. 1; Gaz. vol. 183; p. 20.
Conduit. H. S. Hunt. No. 1,041,290; Oct. 15; Gaz. vol. 183; p. 614.
Conduit-joint. G. B. Von Hoden. No. 1,042,838; Oct. 29; Gaz. vol. 183; p. 1207.
Confetti-making apparatus. G. G. Griffin. No. 1,040,695; Oct. 8; Gaz. vol. 183; p. 488.
Connecting device. D. D. Gordon. No. 1,041,038; Oct. 15; Gaz. vol. 183; p. 627.
Container. K. Kahn. No. 1,041,635; Oct. 15; Gaz. vol. 183; p. 725.
Container, Dispensing-. W. A. Kirkpatrick and C. S. Peerman. No. 1,040,786; Oct. 1; Gaz. vol. 183; p. 35.
Container, Double-walled enamel-lined. C. F. Rutter. No. 1,041,247; Oct. 15; Gaz. vol. 183; p. 602.
Container-coating machine. M. Harp. No. 1,042,626; Oct. 29; Gaz. vol. 183; p. 1134.
Contrailer. H. D. James. No. 1,042,444; Oct. 29; Gaz. vol. 183; p. 1065.
Controlling apparatus. E. C. Molina. No. 1,039,969; Oct. 1; Gaz. vol. 183; p. 103.

Controlling mechanism. A. Winton. No. 1,040,479; Oct. 8; Gaz. vol. 183; p. 201.
Converter. A. F. S. Blackwood. No. 1,042,670; Oct. 29; Gaz. vol. 183; p. 1216.
Convertible-tread wheel. H. W. Clapp and E. C. Edgar. No. 1,039,806; Oct. 1; Gaz. vol. 183; p. 77.
Conveyer. W. Graham. No. 1,039,730; Oct. 1; Gaz. vol. 183; p. 20.
Conveyer. B. Norton. No. 1,041,507; Oct. 15; Gaz. vol. 183; p. 665.
Conveyer. T. A. Edison. No. 1,041,756; Oct. 22; Gaz. vol. 183; p. 804.
Conveyer, Belt. F. J. Dearborn. No. 1,041,429; Oct. 15; Gaz. vol. 183; p. 662.
Conveyer, Bucket. A. T. Perkins. No. 1,040,005; Oct. 1; Gaz. vol. 183; p. 111.
Conveyer, Link-belt. N. B. Wildmayer. No. 1,040,828; Oct. 8; Gaz. vol. 183; p. 424.
Conveying and discharging apparatus. W. G. Wilson. No. 1,041,548; Oct. 15; Gaz. vol. 183; p. 666.
Cooker. J. E. Chambers. No. 1,041,022; Oct. 15; Gaz. vol. 183; p. 532.
Cooker. Heat-insulated. H. Bienutta, G. Fischbach, and C. Eigahn. No. 1,041,581; Oct. 15; Gaz. vol. 183; p. 707.
Cooking apparatus. W. B. Baxter. No. 1,040,119; Oct. 1; Gaz. vol. 183; p. 150.
Cooking apparatus. H. J. Fell. No. 1,040,916; Oct. 8; Gaz. vol. 183; p. 452.
Cooking-apparatus boiler. A. Reichert. No. 1,042,143; Oct. 22; Gaz. vol. 183; p. 985.
Cooking cotton-seed or linseed meats, Device for. C. H. Fulson. No. 1,041,455; Oct. 15; Gaz. vol. 183; p. 668.
Cooking utensil. F. Nestor. No. 1,041,332; Oct. 15; Gaz. vol. 183; p. 627.
Cooler: *See* Brine-cooler.
Cooling-tower. E. Burhorn. No. 1,040,875; Oct. 8; Gaz. vol. 183; p. 458.
Coop. C. E. Baker. No. 1,040,489; Oct. 8; Gaz. vol. 183; p. 304.
Copper, Material for treating. J. Kich. No. 1,041,297; Oct. 15; Gaz. vol. 183; p. 616.
Copying apparatus. G. H. Cegnengniot. No. 1,040,976; Oct. 8; Gaz. vol. 183; p. 473.
Core for molding or casting, Collapsible. G. Atterbury. No. 1,042,749; Oct. 29; Gaz. vol. 183; p. 1172.
Corer and steer, Automatic fruit. H. G. Gmaca. No. 1,039,926; Oct. 1; Gaz. vol. 183; p. 95.
Corer, Apple. W. S. Shuler. No. 1,042,489; Oct. 29; Gaz. vol. 183; p. 1061.
Coring and cutting device, Fruit. L. B. Richard. No. 1,042,823; Oct. 29; Gaz. vol. 183; p. 1197.
Cork-extractor. J. H. Jones and E. Lippert. No. 1,040,956; Oct. 8; Gaz. vol. 183; p. 466.
Cork-extractor. H. Nies. No. 1,042,952; Oct. 29; Gaz. vol. 183; p. 1241.
Corn-cutter. G. S. Elliott. No. 1,041,049; Oct. 15; Gaz. vol. 183; p. 581.
Corn-grader. D. F. Luse. No. 1,043,019; Oct. 29; Gaz. vol. 183; p. 1265.
Corn-husker. H. Besser. No. 1,040,854; Oct. 8; Gaz. vol. 183; p. 431.
Corn-husking machine. J. B. Goodhue. No. 1,040,663; Oct. 8; Gaz. vol. 183; p. 370.
Corn-topping mechanism. Z. E. Lile and V. H. Davidson. No. 1,041,321; Oct. 22; Gaz. vol. 183; p. 828.
Cornet. Z. A. Meredith. No. 1,040,372; Oct. 8; Gaz. vol. 183; p. 265.
Corset. K. Luke. No. 1,041,311; Oct. 15; Gaz. vol. 183; p. 620.
Corset, Apparel-. D. Kops. No. 1,042,126; Oct. 22; Gaz. vol. 183; p. 930.
Corset-front clasp. J. M. Welsh. No. 1,041,925; Oct. 22; Gaz. vol. 183; p. 864.
Corset, Front-laced. V. A. Faegre. No. 1,042,008; Oct. 29; Gaz. vol. 183; p. 1258.
Corset hose-supporter, Apparel-. D. Kops. No. 1,042,125; Oct. 22; Gaz. vol. 183; p. 929.
Costumer or clothes-rack. F. D. Pelletier. No. 1,042,262; Oct. 22; Gaz. vol. 183; p. 974.
Cotton-chopper. I. N. Mansfield. No. 1,042,861; Oct. 22; Gaz. vol. 183; p. 1006.
Cotton-gins and machines for burring wool, Roll for. G. E. U. Huckaby. No. 1,039,946; Oct. 1; Gaz. vol. 183; p. 91.
Cotton-stalk puller. J. B. Marshel. No. 1,042,704; Oct. 29; Gaz. vol. 183; p. 1156.
Couch or bed, Folding. J. Schwartzman. No. 1,042,486; Oct. 29; Gaz. vol. 183; p. 1079.
Counting-machine. I. Larsen. No. 1,039,761; Oct. 1; Gaz. vol. 183; p. 31.
Counting machine, Pill and tablet. C. Goulding. No. 1,042,785; Oct. 29; Gaz. vol. 183; p. 1184.
Counting mechanism. J. Froehlich. No. 1,042,424; Oct. 29; Gaz. vol. 183; p. 1067.
Counting of notes, dealing of cards, &c., Device for facilitating the. G. H. Rives. No. 1,040,761; Oct. 8; Gaz. vol. 183; p. 402.
Coupling: *See* Air-brake coupling; Car-coupling; Clutch-coupling; Hose-coupling; Pipe-coupling; Pipe or conduit coupling; Rolling-mill spindle-coupling.
Coupling. H. Taylor and S. L. Hutchins. No. 1,040,964; Oct. 8; Gaz. vol. 183; p. 467.
Coupling. A. O. Gale and E. J. Iverson. No. 1,041,712; Oct. 15; Gaz. vol. 183; p. 752.
Coupling device. S. C. Bates and A. Boucher. No. 1,041,418; Oct. 15; Gaz. vol. 183; p. 655.
Coupon envelopes or support. C. H. Davis. No. 1,041,041; Oct. 15; Gaz. vol. 183; p. 526.
Coupon-cutting machine, Electrically-operated. G. A. Hebert. No. 1,042,490; Oct. 29; Gaz. vol. 183; p. 1062.
Covering, Weatherproof. L. T. Lindley. No. 1,040,706; Oct. 8; Gaz. vol. 183; p. 338.
Crane and derrick. O. N. Gardner. No. 1,041,266; Oct. 15; Gaz. vol. 183; p. 606.
Crank-pin-turning device. H. W. Louder. No. 1,042,578; Oct. 29; Gaz. vol. 183; p. 1112.
Crate. H. M. Beesboom. No. 1,040,580; Oct. 8; Gaz. vol. 183; p. 338.
Crate. J. S. De Long. No. 1,041,751; Oct. 22; Gaz. vol. 183; p. 802.
Crate, Folding. R. L. Pickering. No. 1,040,406; Oct. 8; Gaz. vol. 183; p. 276.
Crate, Folding. H. C. Hazel and H. Haase. No. 1,041,786; Oct. 22; Gaz. vol. 183; p. 815.
Crate, Folding. J. P. Smith. No. 1,042,164; Oct. 22; Gaz. vol. 183; p. 942.
Crate, Knockdown. E. Douglass. No. 1,041,755; Oct. 22; Gaz. vol. 183; p. 803.
Crate, Knockdown shipping. C. H. Matthews. No. 1,040,360; Oct. 8; Gaz. vol. 183; p. 264.
Cravat holder and former. G. F. Hall. No. 1,042,220; Oct. 22; Gaz. vol. 183; p. 960.
Cross-tie. W. G. Chipley. No. 1,040,145; Oct. 1; Gaz. vol. 183; p. 159.
Cross-tie. W. G. Chipley. No. 1,040,146; Oct. 1; Gaz. vol. 183; p. 160.
Cross-tie, Metal. D. R. Austin. No. 1,040,118; Oct. 1; Gaz. vol. 183; p. 149.
Crucible-furnace. W. S. Rockwell. No. 1,042,836; Oct. 29; Gaz. vol. 183; p. 1196.
Crusher: *See* Stone-crusher.
Cue-chalker. A. E. Newman. No. 1,041,148; Oct. 15; Gaz. vol. 183; p. 594.
Cue-tip holder. W. H. La Fevre. No. 1,040,362; Oct. 8; Gaz. vol. 183; p. 262.
Cuff, Finger-. C. C. Hedrick. No. 1,042,344; Oct. 22; Gaz. vol. 183; p. 1002.
Cuff, Garment-. G. Becker. No. 1,039,888; Oct. 1; Gaz. vol. 183; p. 73.
Cuff-pin. W. W. Williams. No. 1,041,982; Oct. 22; Gaz. vol. 183; p. 866.
Cuff-press. W. Bartholomew. No. 1,042,752; Oct. 29; Gaz. vol. 183; p. 1173.
Culinary implement. J. H. Wyatt. No. 1,041,221; Oct. 15; Gaz. vol. 183; p. 580.
Cultivator. W. A. Calvin. No. 1,040,879; Oct. 8; Gaz. vol. 183; p. 439.
Cultivator. J. C. Avary. No. 1,040,990; Oct. 15; Gaz. vol. 183; p. 511.
Cultivator. L. H. Beltzer. No. 1,040,989; Oct. 15; Gaz. vol. 183; p. 514.
Cultivator. J. H. Dettle. No. 1,041,043; Oct. 15; Gaz. vol. 183; p. 529.
Cultivator. R. C. Dougan. No. 1,041,447; Oct. 15; Gaz. vol. 183; p. 654.
Cultivator, Adjustable. J. K. Wedgworth. No. 1,039,856; Oct. 1; Gaz. vol. 183; p. 62.
Cultivator and beet-digger. H. C. Shay. No. 1,041,684; Oct. 15; Gaz. vol. 183; p. 743.
Cultivator and fertilizer-distributer, Combined. T. J. Grimes. No. 1,040,996; Oct. 8; Gaz. vol. 183; p. 458.
Cultivator attachment. W. W. Bubelis. No. 1,039,890; Oct. 1; Gaz. vol. 183; p. 74.
Cultivator attachment. W. V. and M. S. Crouch. No. 1,043,044; Oct. 29; Gaz. vol. 183; p. 1274.
Cultivator, Disk. L. E. Waterman. No. 1,042,901; Oct. 29; Gaz. vol. 183; p. 1254.
Cultivator, Rotary. A. J. Dremel. No. 1,041,980; Oct. 22; Gaz. vol. 183; p. 881.
Cultivator-teeth. S. K. Dennis. No. 1,041,975; Oct. 22; Gaz. vol. 183; p. 880.
Cultivators, harrows, &c., Tooth for. X. Heimbacher. No. 1,042,674; Oct. 29; Gaz. vol. 183; p. 1146.
Culvert. W. R. Stambaugh. No. 1,040,048; Oct. 1; Gaz. vol. 183; p. 125.
Culvert, Metal. W. T. Shannon. No. 1,040,442; Oct. 8; Gaz. vol. 183; p. 289.
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Cup-shaped article, Making. F. Weiss. No. 1,042,800; Oct. 29; Gaz. vol. 183; p. 996.
Curbing mold. Wolf. E. Savoy. No. 1,041,389; Oct. 15; Gaz. vol. 183; p. 624.
Current-controller. G. B. Dusinberre. No. 1,041,982; Oct. 22; Gaz. vol. 183; p. 882.
Current variations, Amplifying. E. Weintraub and M. C. A. Latour. No. 1,041,310; Oct. 15; Gaz. vol. 183; p. 606.
Currents into alternating currents, Apparatus for transforming continuous. H. L. Joseph. No. 1,042,446; Oct. 29; Gaz. vol. 183; p. 1065.
Currents, Method of and apparatus for relaying high-frequency. E. F. W. Alexanderson. No. 1,042,069; Oct. 22; Gaz. vol. 183; p. 910.
Curtain-bracket, Adjustable. G. C. Feurtsch. No. 1,042,421; Oct. 29; Gaz. vol. 183; p. 1064.
Curtain-fixture. V. Anagnostovits. No. 1,041,568; Oct. 15; Gaz. vol. 183; p. 702.



Curtain-fixture. C. S. Besser. No. 1,041,671; Oct. 15; Gaz. vol. 183; p. 730.
Curtain fixture, Shade-. E. J. Gill. No. 1,040,126; Oct. 1; Gaz. vol. 183; p. 172.
Curtain or the like hanger. A. Andrzejkowicz. No. 1,042,521; Oct. 29; Gaz. vol. 183; p. 1092.
Curtain-pole. H. E. Nyland. No. 1,039,787; Oct. 1; Gaz. vol. 183; p. 40.
Curtain-pole. J. De Haven. No. 1,042,063; Oct. 22; Gaz. vol. 183; p. 919.
Curtain-stretcher. B. Schenk. No. 1,042,284; Oct. 22; Gaz. vol. 183; p. 981.
Curtain-stretcher. J. L. Hearn. No. 1,042,342; Oct. 22; Gaz. vol. 183; p. 1001.
Cushion-tired wheel. W. D. Simpson. No. 1,041,182; Oct. 15; Gaz. vol. 183; p. 576.
Cuspidor. H. F. Cryar. No. 1,040,154; Oct. 1; Gaz. vol. 183; p. 162.
Cut-off device. A. Radow. No. 1,040,246; Oct. 8; Gaz. vol. 183; p. 236.
Cut-off switch and lamp-socket, Combined automatic. F. O. Stallman. No. 1,039,835; Oct. 1; Gaz. vol. 183; p. 55.
Cutter: *See* Butter-cutter; Cheese-cutter; Corn-cutter; Fruit-cutter; Ice-cream cutter; Paper-cutter; Pipe-cutter; Rice-field cutter; Weed-cutter.
Cutter-head knives, Gage for setting. J. J. Selmer. No. 1,042,289; Oct. 22; Gaz. vol. 183; p. 980.
Cutter-holder. W. H. Singer. No. 1,042,190; Oct. 22; Gaz. vol. 183; p. 960.
Cutting-machine for cloth, leather, &c. F. W. Stork. No. 1,040,567; Oct. 8; Gaz. vol. 183; p. 341.
Cycle, Motor-. E. O. Himes. No. 1,039,943; Oct. 1; Gaz. vol. 183; p. 90.
Cycle shock-absorber, Motor-. A. E. Axni. No. 1,039,664; Oct. 1; Gaz. vol. 183; p. 2.
Cycle spring-frame, Motor-. F. T. Keehn. No. 1,042,563; Oct. 29; Gaz. vol. 183; p. 1106.
Cycle stand, Motor-. S. T. Steinberger. No. 1,039,838; Oct. 1; Gaz. vol. 183; p. 57.
Cycles and motor-cycles, Spring-fork for. S. R. Ridgway. No. 1,042,490; Oct. 29; Gaz. vol. 183; p. 1077.
Cycles and the like, Shock-absorber for motor-. A. L. Walters. No. 1,042,009; Oct. 22; Gaz. vol. 183; p. 906.
Dam and hydraulic-power transmitter. W. E. Baker. No. 1,042,881; Oct. 29; Gaz. vol. 183; p. 1040.
Davit, Boat-. C. E. Waterworth. No. 1,040,823; Oct. 8; Gaz. vol. 183; p. 422.
Day and night alarm. L. Henle. No. 1,042,246; Oct. 22; Gaz. vol. 183; p. 1002.
Delinting apparatus. H. H. Hawk. No. 1,041,466; Oct. 15; Gaz. vol. 183; p. 672.
Delivery-machine. W. Sutcliffe and G. R. Stillman. No. 1,042,620; Oct. 29; Gaz. vol. 183; p. 1127.
Dental apparatus. J. M. Gilmore. No. 1,039,728; Oct. 1; Gaz. vol. 183; p. 20.
Dental articulator. A. Gysi. No. 1,041,270; Oct. 15; Gaz. vol. 183; p. 611.
Dental disk-guide. J. B. Schlund. No. 1,042,089; Oct. 22; Gaz. vol. 183; p. 901.
Dental engine. O. H. and A. F. Pieper. No. 1,040,576; Oct. 8; Gaz. vol. 183; p. 337.
Dental engine. O. H. and A. F. Pieper. No. 1,040,577; Oct. 8; Gaz. vol. 183; p. 337.
Dental foam-package. A. Bauer. No. 1,040,490; Oct. 8; Gaz. vol. 183; p. 305.
Dental gold-cap-crown remover. I. B. Kenney. No. 1,041,096; Oct. 15; Gaz. vol. 183; p. 548.
Dental pivot-crown remover. V. B. Dalton. No. 1,041,601; Oct. 15; Gaz. vol. 183; p. 714.
Dental plunger. W. A. Salt. No. 1,040,424; Oct. 8; Gaz. vol. 183; p. 283.
Dental speculum and saliva-ejector, Combined. F. L. Marshall. No. 1,042,183; Oct. 22; Gaz. vol. 183; p. 932.
Dental tooth-regulating appliance. B. H. Angle and J. L. Young. No. 1,039,633; Oct. 1; Gaz. vol. 183; p. 2.
Dentistry and making it. A. H. Stone. No. 1,041,897; Oct. 22; Gaz. vol. 183; p. 854.
Desiccating. W. H. Allen. No. 1,040,486; Oct. 8; Gaz. vol. 183; p. 303.
Desk, Stenographer's. J. C. Long. No. 1,039,979; Oct. 1; Gaz. vol. 183; p. 108.
Detonator for hand-grenades. H. Schelowski. No. 1,041,894; Oct. 22; Gaz. vol. 183; p. 854.
Developer, Flexible or spring grip. W. H. Clements. No. 1,041,431; Oct. 15; Gaz. vol. 183; p. 659.
Dial-lock. W. H. Taylor. No. 1,042,838; Oct. 29; Gaz. vol. 183; p. 1202.
Diamond drill. F. Bade. No. 1,041,868; Oct. 15; Gaz. vol. 183; p. 704.
Diaphragm. J. H. Hitz and A. J. Hoffman. No. 1,040,204; Oct. 8; Gaz. vol. 183; p. 250.
Die: *See* Bottle-cap-making die.
Die. G. Christensen. No. 1,041,960; Oct. 22; Gaz. vol. 183; p. 874.
Die-starter. J. J. Young. No. 1,042,905; Oct. 29; Gaz. vol. 183; p. 1208.
Die-stock. C. T. Ransom. No. 1,042,073; Oct. 22; Gaz. vol. 183; p. 912.
Digging-machine. W. M. Hale. No. 1,039,932; Oct. 1; Gaz. vol. 183; p. 87.
Digging machine, Trench-. A. Belanger. No. 1,042,897; Oct. 29; Gaz. vol. 183; p. 1203.
Dip-regulator and tar-seal, Combined. J. Dull and G. H. Niles. No. 1,041,044; Oct. 15; Gaz. vol. 183; p. 529.
Directory and advertising device, Mechanical. W. A. Wotherspoon. No. 1,042,519; Oct. 29; Gaz. vol. 183; p. 1091.
Discus. W. Berg. No. 1,040,351; Oct. 8; Gaz. vol. 183; p. 430.
Dish, Butter-. H. M. Mosmeh. No. 1,041,089; Oct. 15; Gaz. vol. 183; p. 725.
Dish-cleaner. E. Sanborn and A. K. Macdonald. No. 1,040,631; Oct. 1; Gaz. vol. 183; p. 117.
Dish-washer. O. Lock. No. 1,042,242; Oct. 22; Gaz. vol. 183; p. 968.
Dish-washing machine. L. P. Perow and U. J. Rogers. No. 1,039,794; Oct. 1; Gaz. vol. 183; p. 42.
Dish-washing machine. F. Hoosenbidder. No. 1,041,085; Oct. 15; Gaz. vol. 183; p. 544.
Dish-washing machine. C. F. Frothingham. No. 1,042,664; Oct. 29; Gaz. vol. 183; p. 1148.
Dish-washing machine. H. T. Goss. No. 1,042,784; Oct. 29; Gaz. vol. 183; p. 1184.
Dish-washing machine. W. T. Heofnagle. No. 1,043,010; Oct. 29; Gaz. vol. 183; p. 1261.
Dispensing-can. A. C. Davis. No. 1,040,519; Oct. 8; Gaz. vol. 183; p. 316.
Display and shipping case, Combined. W. D. Light. No. 1,041,496; Oct. 15; Gaz. vol. 183; p. 681.
Display apparatus, Package-. F. Wolcott. No. 1,041,588; Oct. 15; Gaz. vol. 183; p. 699.
Display-cabinet. J. Linse. No. 1,041,497; Oct. 15; Gaz. vol. 183; p. 681.
Display-cases, Supporting-arm for. M. Freed. No. 1,041,264; Oct. 15; Gaz. vol. 183; p. 604.
Display-container. W. H. Clements. No. 1,042,666; Oct. 22; Gaz. vol. 183; p. 917.
Display device, Collapsible. W. M. Carter. No. 1,041,736; Oct. 22; Gaz. vol. 183; p. 797.
Display, measuring, and cutting device, Combined. G. W. Therien and O. R. Zoll. No. 1,040,054; Oct. 1; Gaz. vol. 183; p. 128.
Distillation of coal-tar, mineral oils, &c., Plant for the continuous. H. P. Hird. No. 1,041,062; Oct. 15; Gaz. vol. 183; p. 542.
Door-alarm. W. B. Klein. No. 1,041,811; Oct. 22; Gaz. vol. 183; p. 825.
Door and window stop and alarm, Combined. J. Simpson. No. 1,041,686; Oct. 15; Gaz. vol. 183; p. 743.
Door and window structure. J. T. Simpson. No. 1,039,850; Oct. 1; Gaz. vol. 183; p. 54.
Door-check. E. W. Clark. No. 1,041,430; Oct. 15; Gaz. vol. 183; p. 659.
Door-check. P. E. Nordqvist. No. 1,041,853; Oct. 22; Gaz. vol. 183; p. 839.
Door-check. E. P. Prator. No. 1,041,869; Oct. 22; Gaz. vol. 183; p. 845.
Door check and closer. P. E. Nordqvist. No. 1,041,854; Oct. 22; Gaz. vol. 183; p. 839.
Door check and holder. H. A. Gustafsson. No. 1,042,849; Oct. 22; Gaz. vol. 183; p. 1001.
Door check and spring. C. T. Rogers. No. 1,042,274; Oct. 22; Gaz. vol. 183; p. 977.
Door-check, Concealed. P. E. Nordqvist. No. 1,041,857; Oct. 22; Gaz. vol. 183; p. 840.
Door-check mechanism. P. E. Nordqvist. No. 1,041,856; Oct. 22; Gaz. vol. 183; p. 839.
Door-check valve mechanism. P. E. Nordqvist. No. 1,041,855; Oct. 22; Gaz. vol. 183; p. 839.
Door-closer. J. D. Humphrey. No. 1,040,663; Oct. 8; Gaz. vol. 183; p. 378.
Door-closing device. J. Shaffer. No. 1,042,539; Oct. 29; Gaz. vol. 183; p. 1190.
Door controlling and locking means. H. G. Voight. No. 1,040,970; Oct. 8; Gaz. vol. 183; p. 471.
Door-controlling means. H. G. Voight. No. 1,040,969; Oct. 8; Gaz. vol. 183; p. 470.
Door-controlling means. H. G. Voight. No. 1,041,705; Oct. 15; Gaz. vol. 183; p. 750.
Door-controlling means. H. G. Voight. No. 1,041,706; Oct. 15; Gaz. vol. 183; p. 750.
Door-fastener, Burglar-proof. F. Buskirk. No. 1,040,898; Oct. 8; Gaz. vol. 183; p. 311.
Door-guide, Automatic. J. D. Wiese. No. 1,040,830; Oct. 8; Gaz. vol. 183; p. 424.
Door-hanger. L. E. Fournier. No. 1,039,720; Oct. 1; Gaz. vol. 183; p. 17.
Door-hanger. C. O. Marx. No. 1,041,823; Oct. 22; Gaz. vol. 183; p. 832.
Door-hanger. J. G. King. No. 1,042,927; Oct. 29; Gaz. vol. 183; p. 1233.
Door hanger and track. M. J. Evans. No. 1,041,668; Oct. 15; Gaz. vol. 183; p. 733.
Door hanger and track construction. J. W. Ramsey. No. 1,041,830; Oct. 22; Gaz. vol. 183; p. 849.
Door hanger, Sliding-. O. W. Dolph. No. 1,041,446; Oct. 15; Gaz. vol. 183; p. 664.
Door-hanger track. J. H. Lawrence. No. 1,040,969; Oct. 8; Gaz. vol. 183; p. 467.
Door-holder. F. J. Lee. No. 1,040,869; Oct. 8; Gaz. vol. 183; p. 291.
Door lock, Emergency-exit. R. C. and H. A. Hanman. No. 1,039,734; Oct. 1; Gaz. vol. 183; p. 22.
Door lock, Sliding-. H. G. Voight. No. 1,040,967; Oct. 8; Gaz. vol. 183; p. 469.
Door lock, Sliding-. H. G. Voight. No. 1,041,704; Oct. 15; Gaz. vol. 183; p. 749.

Door lock, Sliding. H. V. Cookingham and G. O. Price. No. 1,042,326; Oct. 22; Gaz. vol. 183; p. 966.
Door-locking device, Folding. J. J. Kalivoda. No. 1,039,952; Oct. 1; Gaz. vol. 183; p. 92.
Door-locking device, Folding. J. J. Kalivoda. No. 1,039,953; Oct. 1; Gaz. vol. 183; p. 94.
Door, Metal. L. G. Fowler and H. V. Thomas. No. 1,042,903; Oct. 29; Gaz. vol. 183; p. 1225.
Door-opener. J. H. Kitchen and H. Stifler. No. 1,042,260; Oct. 29; Gaz. vol. 183; p. 1159.
Door opening and closing device. H. C. Bundy. No. 1,040,504; Oct. 8; Gaz. vol. 183; p. 310.
Door-operating device. A. E. Ostrander. No. 1,041,864; Oct. 22; Gaz. vol. 183; p. 942.
Door-operating device. D. S. Barrows. No. 1,042,284; Oct. 29; Gaz. vol. 183; p. 1042.
Door-operating mechanism. T. H. Tutwiler and A. D. McWhorter. No. 1,040,817; Oct. 8; Gaz. vol. 183; p. 420.
Door-operating mechanism. G. M. Cameron. No. 1,040,880; Oct. 8; Gaz. vol. 183; p. 459.
Door or window lock. V. J. Daniels. No. 1,042,329; Oct. 22; Gaz. vol. 183; p. 996.
Door stop and holder. J. H. Coffman. No. 1,040,887; Oct. 8; Gaz. vol. 183; p. 442.
Doubling machine, Fabric. A. Leisel. No. 1,042,129; Oct. 22; Gaz. vol. 183; p. 930.
Dough, &c., dividing machine. J. J. Pfenninger. No. 1,039,705; Oct. 1; Gaz. vol. 183; p. 48.
Dough mixer or kneader. C. A. Roseland. No. 1,042,278; Oct. 22; Gaz. vol. 183; p. 979.
Dough mixing and kneading machine. W. J. Travis. No. 1,041,908; Oct. 22; Gaz. vol. 183; p. 867.
Dough-raising cabinet. M. Klaren. No. 1,042,235; Oct. 22; Gaz. vol. 183; p. 966.
Dough retainer or trough. I. B. Golden. No. 1,040,929; Oct. 8; Gaz. vol. 183; p. 456.
Dough weighing and dividing machine. H. and A. H. Hayssen. No. 1,041,278; Oct. 15; Gaz. vol. 183; p. 610.
Draft attachment. A. N. De Groff and C. A. Crandall. No. 1,040,163; Oct. 1; Gaz. vol. 183; p. 165.
Draft device. H. Barber. No. 1,042,523; Oct. 29; Gaz. vol. 183; p. 1093.
Draft-equalizer. G. S. Duffin. No. 1,040,174; Oct. 1; Gaz. vol. 183; p. 169.
Draft-equalizer. H. G. Kleihauer. No. 1,040,852; Oct. 8; Gaz. vol. 183; p. 258.
Draft-equaliser. J. B. Pyles. No. 1,042,269; Oct. 22; Gaz. vol. 183; p. 976.
Draft-evener. F. A. Bressmer and J. Shelhammer. No. 1,040,871; Oct. 8; Gaz. vol. 183; p. 436.
Draft-rigging. Stop-casting for tandem-spring. R. G. Ellis. No. 1,042,416; Oct. 29; Gaz. vol. 183; p. 1054.
Drainage, Apparatus for disposing of oil-laden. G. V. Ellis. No. 1,041,050; Oct. 15; Gaz. vol. 183; p. 531.
Drawer roller suspension. C. U. Carpenter. No. 1,042,646; Oct. 29; Gaz. vol. 183; p. 1158.
Drawer support, Furniture-. J. F. Dunleavy. No. 1,040,907; Oct. 8; Gaz. vol. 183; p. 448.
Drawing-board. E. J. Potvin. No. 1,040,010; Oct. 1; Gaz. vol. 183; p. 113.
Drier: *See* Sand-drier.
Drying apparatus. W. T. Hoofnagle. No. 1,043,011; Oct. 29; Gaz. vol. 183; p. 1261.
Drying apparatus. T. Suzuki. No. 1,039,841; Oct. 1; Gaz. vol. 183; p. 58.
Drying process and apparatus. G. W. McMullen. No. 1,040,556; Oct. 8; Gaz. vol. 183; p. 330.
Drill: *See* Automatic drill; Collapsible drill; Diamond drill; Grain-drill; Rock-drill.
Drill. J. A. Pease. No. 1,042,597; Oct. 29; Gaz. vol. 183; p. 1119.
Drill and chuck. C. A. Palmgren. No. 1,041,338; Oct. 15; Gaz. vol. 183; p. 629.
Drill and drag tractor-hitch. P. M. Knutson. No. 1,041,815; Oct. 22; Gaz. vol. 183; p. 828.
Drill-extractor. B. F. Betts. No. 1,042,373; Oct. 29; Gaz. vol. 183; p. 1215.
Drills, &c., Driving mechanism for portable. J. A. Bradley. No. 1,040,867; Oct. 8; Gaz. vol. 183; p. 435.
Drilling in rough water, Apparatus for. H. G. Plummer. No. 1,041,158; Oct. 15; Gaz. vol. 183; p. 568.
Drilling-machine. E. L. Burton. No. 1,041,013; Oct. 15; Gaz. vol. 183; p. 519.
Drinking-bowl for animals. R. Markley. No. 1,042,246; Oct. 22; Gaz. vol. 183; p. 969.
Drinking-fountain, Sanitary. C. D. Avery. No. 1,039,880; Oct. 1; Gaz. vol. 183; p. 70.
Drinking vessel, Collapsible. E. R. Douglas. No. 1,040,652; Oct. 8; Gaz. vol. 183; p. 367.
Drip-pan alarm attachment. J. T. Waniger. No. 1,041,385; Oct. 15; Gaz. vol. 183; p. 644.
Driving mechanism. W. O. Fess. No. 1,042,101; Oct. 22; Gaz. vol. 183; p. 922.
Drum and cymbal beater, Combined. F. L. Fraser. No. 1,042,904; Oct. 29; Gaz. vol. 183; p. 1225.
Drum and cymbal beater, Combined. W. H. Hughes. No. 1,042,919; Oct. 29; Gaz. vol. 183; p. 1230.
Drum attachment. F. J. Strahl. No. 1,040,800; Oct. 8; Gaz. vol. 183; p. 418.
Dust and other materials, Means for recovering. C. H. Goodrich. No. 1,041,617; Oct. 15; Gaz. vol. 183; p. 718.
Dust-guard. G. F. Godley. No. 1,040,998; Oct. 8; Gaz. vol. 183; p. 244.
Dye, Red diazo. M. Caster. No. 1,042,186; Oct. 22; Gaz. vol. 183; p. 952.
Dyes and making them, Diazo-. A. L. Lesbe, A. Bitscher, and F. Kunert. No. 1,042,356; Oct. 22; Gaz. vol. 183; p. 1005.
Dyeing-machine. W. S. Duell. No. 1,040,854; Oct. 8; Gaz. vol. 183; p. 367.
Dyeing of cotton or linen cloth with vat-colors. A. Kertess. No. 1,041,616; Oct. 29; Gaz. vol. 183; p. 1265.
Dyestuff. C. O. Müller and A. Lather. No. 1,041,146; Oct. 15; Gaz. vol. 183; p. 564.
Dyestuff of the anthracene series and making same, Vat. A. L. Lesbe, A. Bitscher, and E. J. Rath. No. 1,042,861; Oct. 29; Gaz. vol. 183; p. 1234.
Dyestuff of the triphenylmethane series and making same, A. Stock and F. Heim. No. 1,042,496; Oct. 29; Gaz. vol. 183; p. 1064.
Dyestuffs and making same, H. Wagner and J. Erber. No. 1,041,919; Oct. 22; Gaz. vol. 183; p. 862.
Eaves-trough hanger. E. K. Day. No. 1,041,750; Oct. 22; Gaz. vol. 183; p. 801.
Educational device. J. H. Fox. No. 1,041,059; Oct. 15; Gaz. vol. 183; p. 534.
Egg, Antiseptic nest-. W. B. Smith. No. 1,042,494; Oct. 29; Gaz. vol. 183; p. 1062.
Egg-beater or the like. B. W. H. Helken. No. 1,039,735; Oct. 1; Gaz. vol. 183; p. 22.
Egg-carrier. R. De Wright. No. 1,041,448; Oct. 15; Gaz. vol. 183; p. 603.
Egg marker and dater. W. S. Payne. No. 1,039,792; Oct. 1; Gaz. vol. 183; p. 41.
Egg-tester. D. B. Conway. No. 1,040,626; Oct. 8; Gaz. vol. 183; p. 355.
Egg-tester. W. D. Bixler. No. 1,042,191; Oct. 22; Gaz. vol. 183; p. 950.
Egg-testing machine. S. J. Fish. No. 1,040,919; Oct. 8; Gaz. vol. 183; p. 453.
Elastic fabric or webbing. C. J. White. No. 1,042,632; Oct. 29; Gaz. vol. 183; p. 1181.
Electric attachment-plug. M. Hershovitz. No. 1,042,348; Oct. 22; Gaz. vol. 183; p. 1002.
Electric-box connection. T. H. Ward. No. 1,042,510; Oct. 29; Gaz. vol. 183; p. 1068.
Electric-circuit breaker. F. L. Sessions. No. 1,040,440; Oct. 8; Gaz. vol. 183; p. 283.
Electric conductors, Connecting device for. R. R. Dunlop. No. 1,042,897; Oct. 29; Gaz. vol. 183; p. 1222.
Electric-conduit fitting. W. C. Robinson. (Reissue.) No. 13,475; Oct. 8; Gaz. vol. 183; p. 479.
Electric-conduit outlet-boxes, Adjustable fixture-stud for. W. S. Earhart. No. 1,040,175; Oct. 1; Gaz. vol. 183; p. 169.
Electric controller. A. C. Eastwood. No. 1,040,292; Oct. 8; Gaz. vol. 183; p. 238.
Electric controller. J. A. Latimer. No. 1,040,859; Oct. 8; Gaz. vol. 183; p. 261.
Electric controlling device. H. W. Leonard. No. 1,042,130; Oct. 22; Gaz. vol. 183; p. 931.
Electric cut-out. T. E. Murray. No. 1,041,846; Oct. 22; Gaz. vol. 183; p. 836.
Electric cut-out. T. E. Murray. No. 1,041,847; Oct. 22; Gaz. vol. 183; p. 837.
Electric device, Vapor. F. A. Kroner. No. 1,042,565; Oct. 29; Gaz. vol. 183; p. 1106.
Electric furnace. E. A. A. Grönwall, A. R. Lindblad, and O. Stalhane. No. 1,039,732; Oct. 1; Gaz. vol. 183; p. 21.
Electric furnace. O. Vogel. No. 1,040,818; Oct. 8; Gaz. vol. 183; p. 420.
Electric furnace. J. A. Seede. No. 1,042,618; Oct. 29; Gaz. vol. 183; p. 1125.
Electric heater. F. H. Smith. No. 1,040,043; Oct. 1; Gaz. vol. 183; p. 124.
Electric heating devices, Cut-out for. E. R. Rose. No. 1,039,810; Oct. 1; Gaz. vol. 183; p. 48.
Electric heating unit. L. F. Parkhurst. No. 1,043,029; Oct. 29; Gaz. vol. 183; p. 1263.
Electric-light display system. H. E. Way. No. 1,040,475; Oct. 8; Gaz. vol. 183; p. 299.
Electric-light fixture or electrolier. W. Goodwin. No. 1,041,458; Oct. 15; Gaz. vol. 183; p. 600.
Electric-light fixture or electrolier. W. Goodwin. No. 1,041,459; Oct. 15; Gaz. vol. 183; p. 600.
Electric-light socket. T. A. C. Beth. No. 1,040,131; Oct. 1; Gaz. vol. 183; p. 154.
Electric machine, Dynamo-. R. J. Dearborn. No. 1,043,468; Oct. 29; Gaz. vol. 183; p. 1061.
Electric machine, Dynamo-. J. E. Neggerath. No. 1,043,028; Oct. 29; Gaz. vol. 183; p. 1263.
Electric-machine rotor. R. Goldschmidt. No. 1,043,047; Oct. 29; Gaz. vol. 183; p. 1275.
Electric machine, Static. T. H. Pates. No. 1,043,030; Oct. 29; Gaz. vol. 183; p. 1265.
Electric machines, Gear-case for dynamo-. J. P. Curtis. No. 1,039,708; Oct. 1; Gaz. vol. 183; p. 16.
Electric motor. M. E. Turner. No. 1,042,847; Oct. 29; Gaz. vol. 183; p. 1204.
Electric motors, Means for preventing theft of current from. C. F. Bartig. No. 1,041,736; Oct. 22; Gaz. vol. 183; p. 794.
Electric motor. R. Esotch. No. 1,041,009; Oct. 15; Gaz. vol. 183; p. 518.
Electric motor or generator. E. A. Hallbeth. No. 1,041,783; Oct. 22; Gaz. vol. 183; p. 814.
Electric regulation. J. L. Crowding. No. 1,042,770; Oct. 29; Gaz. vol. 183; p. 1130.





Electric regulator, Automatic. H. Latimer. No. 1,040,704; Oct. 8; Gaz. vol. 183; p. 385.
Electric safety device for the flowing out of excess voltage. G. Giles. No. 1,040,927; Oct. 8; Gaz. vol. 183; p. 455.
Electric switch. J. C. Dumfee. No. 1,042,414; Oct. 29; Gaz. vol. 183; p. 1053.
Electric-switch contact. L. L. Tatum. No. 1,040,455; Oct. 8; Gaz. vol. 183; p. 294.
Electric switches, Selective time-limit-controlling device for. G. A. Burnham. No. 1,041,716; Oct. 15; Gaz. vol. 183; p. 753.
Electric-translating device support. B. A. Stowe. No. 1,040,482; Oct. 8; Gaz. vol. 183; p. 292.
Electric transmission-lines, Suspension-chain for high-pressure. C. M. E. Priestley. No. 1,039,790; Oct. 1; Gaz. vol. 183; p. 44.
Electrical bonding device. H. C. Williams. No. 1,041,394; Oct. 15; Gaz. vol. 183; p. 647.
Electrical bonding device. H. C. Williams. No. 1,042,304; Oct. 22; Gaz. vol. 183; p. 983.
Electrical conductor, High-frequency. R. A. Fessenden. No. 1,039,717; Oct. 1; Gaz. vol. 183; p. 16.
Electrical distribution system. P. M. Lincoln. No. 1,039,767; Oct. 1; Gaz. vol. 183; p. 33.
Electrical distribution system. W. L. Bliss. No. 1,040,496; Oct. 8; Gaz. vol. 183; p. 307.
Electrical distribution systems, Emergency means for. J. H. Crosier. No. 1,043,001; Oct. 29; Gaz. vol. 183; p. 1258.
Electrical-instrument coils, Manufacturing. W. Keller. No. 1,041,292; Oct. 15; Gaz. vol. 183; p. 615.
Electrically-heated utensil. A. A. Warner. No. 1,040,595; Oct. 8; Gaz. vol. 183; p. 344.
Electrode and making the same, Arc-light. J. T. H. Dempster. No. 1,041,752; Oct. 22; Gaz. vol. 183; p. 802.
Electrode for arc-lamps, Cored carbon. R. R. Herbst. No. 1,042,554; Oct. 29; Gaz. vol. 183; p. 1102.
Electrode-holder. F. T. Snyder. No. 1,041,669; Oct. 15; Gaz. vol. 183; p. 744.
Electrode, Sectional. A. M. Williamson. No. 1,040,880; Oct. 8; Gaz. vol. 183; p. 425.
Electrolytic cleansing. A. Herrmann. No. 1,041,790; Oct. 22; Gaz. vol. 183; p. 817.
Electromagnet controlling device. H. K. Kouyoumjian. No 1,042,691; Oct. 29; Gaz. vol. 183; p. 1151.
Electromagnetic-wave receiver. R. A. Fessenden. No. 1,042,778; Oct. 29; Gaz. vol. 183; p. 1152.
Electroplating. L. Daft. No. 1,042,533; Oct. 29; Gaz. vol. 183; p. 1096.
Electroplating appliance. J. A. Fraser. No. 1,040,923; Oct. 8; Gaz. vol. 183; p. 454.
Electrotyping-molds, Composition of matter for removing grease from. G. E. Dunton. No. 1,040,908; Oct. 8; Gaz. vol. 183; p. 449.
Elevator: *See* Skirt-elevator; Water-elevator.
Elevator control. J. D. Ihlder. No. 1,040,546; Oct. 8; Gaz. vol. 183; p. 326.
Elevator-gate. F. E. Simons. No. 1,042,160; Oct. 22; Gaz. vol. 183; p. 941.
Elevator-gate-closing device. E. L. Murray. No. 1,042,949; Oct. 29; Gaz. vol. 183; p. 1239.
Elevator-lock. E. E. Angell. No. 1,041,228; Oct. 15; Gaz. vol. 183; p. 591.
Elevator-safeties, Electric-motor mechanism for operating. A. Magnuson. No. 1,040,555; Oct. 8; Gaz. vol. 183; p. 329.
Elevator safety-brake. E. J. Mounts. No. 1,040,734; Oct. 8; Gaz. vol. 183; p. 393.
Elevator safety-clutch. J. F. Tighe. No. 1,041,904; Oct. 22; Gaz. vol. 183; p. 856.
Elevator safety device. C. Carson and E. R. Timmerman. No. 1,041,019; Oct. 15; Gaz. vol. 183; p. 521.
Elevator safety device. H. G. Tussmer. No. 1,042,172; Oct. 22; Gaz. vol. 183; p. 945.
Elevator safety device. C. G. Mortensen. No. 1,042,813; Oct. 29; Gaz. vol. 183; p. 1193.
Elevator-well gates, Tripping mechanism for. W. E. Esten. No. 1,041,760; Oct. 22; Gaz. vol. 183; p. 805.
Elevators or hoisting machinery, Limit-switch for. H. W. Forslund. No. 1,042,212; Oct. 22; Gaz. vol. 183; p. 958.
Embroidering-machine. B. Greuter. No. 1,039,929; Oct. 1; Gaz. vol. 183; p. 86.
Embroidering-machine protective device. J. A. Groebli. No. 1,040,938; Oct. 8; Gaz. vol. 183; p. 450.
Embroidery-machine, Jacquard. R. Zaha. No. 1,040,834; Oct. 8; Gaz. vol. 183; p. 426.
Emery-wheel dresser. F. C. Brandenburg. No. 1,042,761; Oct. 29; Gaz. vol. 183; p. 1176.
Emery-wheel guard. W. H. Martin. No. 1,041,128; Oct. 15; Gaz. vol. 183; p. 623.
Emery-wheels, Tool for dressing. J. E. Frankofsky. No. 1,041,766; Oct. 22; Gaz. vol. 183; p. 806.
Emulsifying apparatus. A. B. Gardiner, Jr. and E. M. Shaffer. No. 1,042,731; Oct. 29; Gaz. vol. 183; p. 1183.
End-gate. E. A. Heitfrerich. No. 1,041,794; Oct. 22; Gaz. vol. 183; p. 813.
End-gate fastener. P. E. Lane. No. 1,041,819; Oct. 22; Gaz. vol. 183; p. 827.
End-gate fastening. Wagon-. J. W. Schroeder. No. 1,040,779; Oct. 8; Gaz. vol. 183; p. 408.
Engine: *See* Air and gas engine; Combustion-engine; Diesel engine; Explosive-engine; Gas-engine; Hydrocarbon-engine; Internal-combustion engine; Rotary engine; Steam-engine; Traction-engine; Winding-engine.
Engine. F. W. Lake. No. 1,040,709; Oct. 8; Gaz. vol. 183; p. 383.
Engine. E. Dembowsky. No. 1,041,608; Oct. 15; Gaz. vol. 183; p. 715.
Engine. E. Fisher, Jr. No. 1,041,764; Oct. 22; Gaz. vol. 183; p. 806.
Engine. J. M. Brown. No. 1,042,833; Oct. 29; Gaz. vol. 183; p. 1218.
Engine and heater, Combined steam-. A. R. Wallem. No. 1,042,729; Oct. 29; Gaz. vol. 183; p. 1163.
Engine-controlling means, Combustion-. W. N. Park. No. 1,041,839; Oct. 15; Gaz. vol. 183; p. 639.
Engine-cooling means, Gasoline-. T. J. Loftus. No. 1,040,709; Oct. 8; Gaz. vol. 183; p. 386.
Engine-cranking device, Explosive-. C. H. Best. No. 1,040,408; Oct. 8; Gaz. vol. 183; p. 306.
Engine cylinders, Device for cleaning explosive-. A. De Clairmont. No. 1,040,147; Oct. 1; Gaz. vol. 183; p. 160.
Engine-driving mechanism, Traction-. W. S. Morton. No. 1,042,714; Oct. 29; Gaz. vol. 183; p. 1160.
Engine priming-cup, Gas-. C. W. Beck. No. 1,040,986; Oct. 15; Gaz. vol. 183; p. 513.
Engine priming mechanism, Explosive-. J. H. Durso. No. 1,042,418; Oct. 29; Gaz. vol. 183; p. 1054.
Engine reversing-gear, Multiple-cylinder-combustion-. J. Vollmer. No. 1,042,959; Oct. 29; Gaz. vol. 183; p. 1253.
Engine safety starting-crank, Explosive-. J. T. Weinsieri and J. Sturtevant. No. 1,040,598; Oct. 8; Gaz. vol. 183; p. 345.
Engine-starting device, Auto-. A. F. Harrison. No. 1,042,672; Oct. 29; Gaz. vol. 183; p. 1145.
Engine-starting device, Internal-combustion-. W. B. S. Whaley. No. 1,039,864; Oct. 1; Gaz. vol. 183; p. 66.
Engines, Connecting-rod for. J. E. Foulder. No. 1,042,543; Oct. 29; Gaz. vol. 183; p. 1099.
Engines, Contact-breaker for electrical ignition apparatus for internal-combustion. G. Honold. No. 1,041,476; Oct. 15; Gaz. vol. 183; p. 675.
Engines, Electrical ignition apparatus for internal-combustion. G. Honold. No. 1,041,477; Oct. 15; Gaz. vol. 183; p. 675.
Engines, Igniting system for automobile-. J. G. Wimsey. No. 1,042,740; Oct. 29; Gaz. vol. 183; p. 1169.
Engines, Ignition apparatus for internal-combustion. M. B. Criat and M. R. Wells. No. 1,040,518; Oct. 8; Gaz. vol. 183; p. 315.
Engines, Mixer for internal-combustion. W. Kelly. No. 1,041,090; Oct. 15; Gaz. vol. 183; p. 548.
Engines, Safety-stop for steam-. S. C. Carr. No. 1,041,239; Oct. 15; Gaz. vol. 183; p. 594.
Engines, Throttle-controlling device for internal-combustion. E. P. Robinson. No. 1,040,017; Oct. 1; Gaz. vol. 183; p. 115.
Engines, Working process for internal-combustion. G. Schimming. No. 1,039,823; Oct. 1; Gaz. vol. 183; p. 52.
Engraving and similar machine. W. S. Eaton. No. 1,039,714; Oct. 1; Gaz. vol. 183; p. 15.
Engraving-machine. W. S. Eaton. No. 1,039,712; Oct. 1; Gaz. vol. 183; p. 14.
Envelop. E. E. Cole. No. 1,039,899; Oct. 1; Gaz. vol. 183; p. 77.
Envelop. L. D. MacNaughton. No. 1,041,827; Oct. 22; Gaz. vol. 183; p. 830.
Envelop and advertising device. J. G. Patton. No. 1,040,004; Oct. 1; Gaz. vol. 183; p. 111.
Envelop-machine. A. Novick. No. 1,039,786; Oct. 1; Gaz. vol. 183; p. 40.
Envelop-machine. J. Froehlich. No. 1,042,423; Oct. 29; Gaz. vol. 183; p. 1056.
Envelop, Return-. J. M. Hofner. No. 1,040,200; Oct. 1; Gaz. vol. 183; p. 178.
Envelop, Reversible and expanding. M. J. Shafer. No. 1,042,488; Oct. 29; Gaz. vol. 183; p. 1061.
Esters of the hydrocinchona alkaloids, Manufacture of. H. Thron. No. 1,041,526; Oct. 15; Gaz. vol. 183; p. 692.
Etching-machine. W. S. Eaton. No. 1,039,713; Oct. 1; Gaz. vol. 183; p. 14.
Etching-machine. H. S. Levy. No. 1,042,690; Oct. 29; Gaz. vol. 183; p. 1154.
Evaporating-pan for driving off alcohol from malt liquors. H. E. Deckebach. No. 1,040,287; Oct. 8; Gaz. vol. 183; p. 236.
Excavating and levee-building machine, Combined. C. H. Dishman. No. 1,040,525; Oct. 8; Gaz. vol. 183; p. 318.
Excavating-machine. F. J. Dearborn. No. 1,041,603; Oct. 15; Gaz. vol. 183; p. 714.
Excavator. J. Gallagher. No. 1,040,204; Oct. 8; Gaz. vol. 183; p. 243.
Exercising machine, Registering physical. A. H. Hartig. No. 1,040,672; Oct. 8; Gaz. vol. 183; p. 274.
Exhaust-motor. C. F. High. No. 1,040,199; Oct. 1; Gaz. vol. 183; p. 177.
Exhaust, Steam-actuated. E. Turner. No. 1,042,848; Oct. 29; Gaz. vol. 183; p. 1204.
Exhauster or compressor for gases, also applicable as an ejector-condenser. W. Hunt. No. 1,040,361; Oct. 8; Gaz. vol. 183; p. 275.
Expansion-bolt. D. W. Bennett. No. 1,041,868; Oct. 22; Gaz. vol. 183; p. 872.
Expansion-joint. J. Adams, Jr. No. 1,040,066; Oct. 1; Gaz. vol. 183; p. 141.

Expansion-joint for longitudinally-cast structures. C. F. Cobb. No. 1,040,623; Oct. 8; Gaz. vol. 183; p. 254.
Explosive-motor, Two-cycle. L. Falcon. No. 1,041,184; Oct. 15; Gaz. vol. 183; p. 567.
Explosive, Chlorate. O. Silberrad. No. 1,040,793; Oct. 8; Gaz. vol. 183; p. 412.
Explosive-engine. A. Lea. No. 1,042,572; Oct. 29; Gaz. vol. 183; p. 1109.
Explosive-engine. H. W. Moore. No. 1,042,947; Oct. 29; Gaz. vol. 183; p. 1268.
Explosive, Perchlorate. O. Silberrad. No. 1,040,794; Oct. 8; Gaz. vol. 183; p. 413.
Explosives containing nitro derivatives of common resin, Producing. O. E. Carlson. No. 1,043,042; Oct. 29; Gaz. vol. 183; p. 1273.
Explosives, Detonation of. H. Brunswig. No. 1,042,643; Oct. 29; Gaz. vol. 183; p. 1136.
Explosives, Manufacture of. P. E. C. Corbin. No. 1,041,745; Oct. 22; Gaz. vol. 183; p. 730.
Extensible bracket. A. F. Pieper. No. 1,040,575; Oct. 8; Gaz. vol. 183; p. 396.
Extension-table. E. W. Schultz. No. 1,040,026; Oct. 1; Gaz. vol. 183; p. 113.
Extractor: *See* Cork-extractor; Drill-extractor.
Eye-model. J. J. Myers. No. 1,042,815; Oct. 29; Gaz. vol. 183; p. 1194.
Eyeglass-case and screw-driver, Combined. H. Asher. No. 1,041,402; Oct. 15; Gaz. vol. 183; p. 650.
Eyeglass-clamp. G. A. Squier. No. 1,040,945; Oct. 1; Gaz. vol. 183; p. 125.
Eyeglass-mounting. L. F. Adt. No. 1,040,096; Oct. 1; Gaz. vol. 183; p. 142.
Eyeglass-mounting. L. F. Adt. No. 1,040,099; Oct. 1; Gaz. vol. 183; p. 143.
Eyeglass-mounting. L. F. Adt. No. 1,040,100; Oct. 1; Gaz. vol. 183; p. 143.
Eyeglass-mounting. L. F. Adt. No. 1,040,101; Oct. 1; Gaz. vol. 183; p. 144.
Eyeglass-mounting. G. A. Bader. No. 1,040,607; Oct. 8; Gaz. vol. 183; p. 243.
Eyeglass-mounting. L. F. Adt. No. 1,042,876; Oct. 29; Gaz. vol. 183; p. 1039.
Eyeglass nose-clip. H. M. Sachs. No. 1,040,770; Oct. 8; Gaz. vol. 183; p. 405.
Eyeglasses. J. E. Van Tassel. No. 1,040,062; Oct. 1; Gaz. vol. 183; p. 130.
Eyeglasses. L. F. Adt. No. 1,040,094; Oct. 1; Gaz. vol. 183; p. 141.
Eyeglasses. L. F. Adt. No. 1,040,095; Oct. 1; Gaz. vol. 183; p. 141.
Eyeglasses. L. F. Adt. No. 1,040,096; Oct. 1; Gaz. vol. 183; p. 142.
Eyeglasses. L. F. Adt. No. 1,040,102; Oct. 1; Gaz. vol. 183; p. 144.
Eyeglasses. L. F. Adt. No. 1,040,103; Oct. 1; Gaz. vol. 183; p. 144.
Eyeglasses. L. F. Adt. No. 1,040,104; Oct. 1; Gaz. vol. 183; p. 145.
Eyeglasses. L. F. Adt. No. 1,040,105; Oct. 1; Gaz. vol. 183; p. 145.
Fabric: *See* Elastic fabric; Wire fabric.
Fan. H. Surgeoner. No. 1,042,169; Oct. 22; Gaz. vol. 183; p. 944.
Fan attachment for machines. T. G. Griggs. No. 1,042,431; Oct. 29; Gaz. vol. 183; p. 1060.
Fan-blade spring connecting member. O. B. Orstad. No. 1,042,959; Oct. 29; Gaz. vol. 183; p. 1242.
Fan casing, Electric. A. Gregory. No. 1,040,934; Oct. 8; Gaz. vol. 183; p. 457.
Fan-motor oscillator. C. Aalborg. No. 1,039,632; Oct. 1; Gaz. vol. 183; p. 8.
Fare-box. H. Gebhart. No. 1,041,614; Oct. 15; Gaz. vol. 183; p. 717.
Fastener. W. J. Keary. No. 1,040,957; Oct. 8; Gaz. vol. 183; p. 466.
Fastener, Detachable. W. W. Duncan. No. 1,041,961; Oct. 22; Gaz. vol. 183; p. 882.
Fastener socket and top, Snap-. A. H. Grauenbaum. No. 1,041,619; Oct. 15; Gaz. vol. 183; p. 719.
Fastening. G. C. Rasch. No. 1,042,601; Oct. 29; Gaz. vol. 183; p. 1120.
Fastening device. R. V. Sampson and S. T. Danley. No. 1,042,281; Oct. 22; Gaz. vol. 183; p. 980.
Faucet. A. J. Collar. No. 1,040,624; Oct. 8; Gaz. vol. 183; p. 254.
Faucet. R. J. Long. No. 1,043,018; Oct. 29; Gaz. vol. 183; p. 1264.
Faucet, Beer-. C. H. Weathers. No. 1,042,514; Oct. 29; Gaz. vol. 183; p. 1090.
Faucet, Locking. B. Falbe and H. Walters. No. 1,040,918; Oct. 8; Gaz. vol. 183; p. 451.
Faucet-locking attachment. W. A. Shephard. No. 1,040,040; Oct. 1; Gaz. vol. 183; p. 122.
Feed-bag. J. Dulkowski. No. 1,040,655; Oct. 8; Gaz. vol. 183; p. 260.
Feed-bag. W. Sehl. No. 1,042,155; Oct. 22; Gaz. vol. 183; p. 939.
Feeding apparatus. A. R. Hoffmann. No. 1,042,115; Oct. 22; Gaz. vol. 183; p. 926.
Feeding-table, Automatic. C. W. H. Blood. No. 1,041,224; Oct. 15; Gaz. vol. 183; p. 603.
Feldspar, Treating. H. W. Morse and L. W. Sargent. No. 1,041,527; Oct. 15; Gaz. vol. 183; p. 636.
Fence machine, Wire-. J. L. Claudin. No. 1,041,742; Oct. 22; Gaz. vol. 183; p. 796.
Fence-post. C. H. Myers. No. 1,041,846; Oct. 22; Gaz. vol. 183; p. 837.
Fence-post. R. E. F. Barton. No. 1,042,754; Oct. 29; Gaz. vol. 183; p. 1174.
Fence-sealing device, Wire. M. Moore. No. 1,041,142; Oct. 15; Gaz. vol. 183; p. 562.
Fender: *See* Car-fender; Vehicle-fender.
Fender. J. F. Hunter. No. 1,040,235; Oct. 8; Gaz. vol. 183; p. 102.
Fender. W. T. McDonald. No. 1,042,489; Oct. 29; Gaz. vol. 183; p. 1070.
Fertilizer and making same. S. B. Newberry and H. N. Barrett. No. 1,042,566; Oct. 29; Gaz. vol. 183; p. 1116.
Fertilizer-distributer. J. H. Sellers. No. 1,042,286; Oct. 22; Gaz. vol. 183; p. 982.
Fertilizer-distributing attachment. W. A. Dalton. No. 1,040,643; Oct. 8; Gaz. vol. 183; p. 262.
Fibers, Purifying dust brown resinous gum vegetable. C. Piles. No. 1,041,511; Oct. 15; Gaz. vol. 183; p. 635.
Fibrous compositions and making the same. O. A. Henderson. No. 1,040,221; Oct. 8; Gaz. vol. 183; p. 240.
Filament-support. J. W. Howell. No. 1,040,238; Oct. 8; Gaz. vol. 183; p. 262.
Filaments and heaters, Apparatus for the manufacture of incandescent lamp. R. W. Baker. No. 1,040,116; Oct. 1; Gaz. vol. 183; p. 149.
Filaments, Plastic mass for metallic. K. Furtas. No. 1,041,326; Oct. 15; Gaz. vol. 183; p. 604.
File. A. Varnes. No. 1,042,728; Oct. 29; Gaz. vol. 183; p. 1164.
File, Bill-. F. J. Kristofek. No. 1,041,813; Oct. 22; Gaz. vol. 183; p. 837.
File, Gin-saw. J. H. Wesson. No. 1,041,211; Oct. 15; Gaz. vol. 183; p. 586.
File, Record-. W. J. Clark. No. 1,041,563; Oct. 15; Gaz. vol. 183; p. 711.
Filter. E. Sahm. No. 1,040,090; Oct. 1; Gaz. vol. 183; p. 140.
Filter. L. D. Van Valkenburg. No. 1,041,915; Oct. 22; Gaz. vol. 183; p. 860.
Filter. R. A. Kantrowitz. No. 1,042,223; Oct. 22; Gaz. vol. 183; p. 966.
Filter. E. Mizen and E. S. Parker. No. 1,042,793; Oct. 29; Gaz. vol. 183; p. 1167.
Filter, Gasoline-. R. L. Crum. No. 1,040,363; Oct. 8; Gaz. vol. 183; p. 235.
Filter, Household gas-. J. P. Farmer. No. 1,040,914; Oct. 8; Gaz. vol. 183; p. 451.
Filter, Siphon-. J. A. Case. No. 1,042,817; Oct. 22; Gaz. vol. 183; p. 902.
Filtering apparatus. L. C. Trent. No. 1,042,206; Oct. 22; Gaz. vol. 183; p. 966.
Filtering press, Fluid-. F. Krauss. No. 1,042,808; Oct. 29; Gaz. vol. 183; p. 1190.
Fire-alarm, Automatic. Y. M. Westmoreland. No. 1,039,962; Oct. 1; Gaz. vol. 183; p. 66.
Fire-alarm, Automatic. J. Mosmann. No. 1,042,635; Oct. 22; Gaz. vol. 183; p. 897.
Fire-alarm signaling means. C. Noack. No. 1,039,996; Oct. 1; Gaz. vol. 183; p. 106.
Fire-escape. J. M. Klecka. No. 1,040,254; Oct. 8; Gaz. vol. 183; p. 259.
Fire-escape. N. Johnson. No. 1,041,089; Oct. 15; Gaz. vol. 183; p. 561.
Fire-extinguisher. G. J. Hamberger. No. 1,039,923; Oct. 1; Gaz. vol. 183; p. 87.
Fire-extinguisher. S. Dorsin. No. 1,042,586; Oct. 29; Gaz. vol. 183; p. 1097.
Fire-extinguisher. G. J. Finnegan. No. 1,042,541; Oct. 29; Gaz. vol. 183; p. 1090.
Fire-extinguisher, Portable. A. A. and L. A. Charbonneau. No. 1,041,894; Oct. 15; Gaz. vol. 183; p. 852.
Fire-extinguishing system. Main valve for dry-pipe automatic. C. W. Leicester. No. 1,041,663; Oct. 15; Gaz. vol. 183; p. 734.
Fire-helmet. G. Fabian. No. 1,041,610; Oct. 15; Gaz. vol. 183; p. 718.
Fire-hydrant catch-basin. M. Charlson. No. 1,040,231; Oct. 8; Gaz. vol. 183; p. 253.
Firearm. R. F. Case. No. 1,040,881; Oct. 8; Gaz. vol. 183; p. 440.
Firearm. J. H. Wesson. No. 1,041,209; Oct. 22; Gaz. vol. 183; p. 926.
Firearm, Automatic. R. H. Kjellman. No. 1,040,892; Oct. 8; Gaz. vol. 183; p. 441.
Firearm, Automatic-loading. H. Dorn. No. 1,041,046; Oct. 15; Gaz. vol. 183; p. 558.
Firearm, Breech-bolting and discharge-actuated. S. N. McClean. No. 1,042,903; Oct. 22; Gaz. vol. 183; p. 1007.
Firearms, Automatic cartridge-magazine for. B. Tatarek. No. 1,042,527; Oct. 29; Gaz. vol. 183; p. 1202.
Firearms, Cushion butt-plate for. G. B. Long. No. 1,042,182; Oct. 22; Gaz. vol. 183; p. 962.
Firearms, Rear sight for. F. F. Burton. No. 1,039,896; Oct. 1; Gaz. vol. 183; p. 76.
Fireproof structure. W. C. Edwards, Jr. No. 1,041,848; Oct. 15; Gaz. vol. 183; p. 598.
Fish-hook reinforcer. S. Wetmore. No. 1,042,630; Oct. 29; Gaz. vol. 183; p. 1130.
Fishing-tackle. C. Tengler. No. 1,041,570; Oct. 15; Gaz. vol. 183; p. 642.





Flagstaff. C. L. Ryam. No. 1,041,178; Oct. 15; Gaz. vol. 183; p. 573.
Flame-proof curtain. W. R. Yeamans. No. 1,042,695; Oct. 29; Gaz. vol. 183; p. 1213.
Flange-forming machine. L. W. Meyer. No. 1,040,901; Oct. 8; Gaz. vol. 183; p. 272.
Flanging-machine. C. C. Davis. No. 1,040,109; Oct. 1; Gaz. vol. 183; p. 134.
Flash-light apparatus for cameras. A. R. Wallace. No. 1,042,856; Oct. 29; Gaz. vol. 183; p. 1205.
Flash-light, Electric. J. F. Wagner. No. 1,042,622; Oct. 29; Gaz. vol. 183; p. 1123.
Float: *See* Snap-float.
Flat-iron, Automatic. H. P. Ball. No. 1,041,720; Oct. 22; Gaz. vol. 183; p. 796.
Flat-iron, Charcoal. J. Krisat. No. 1,040,216; Oct. 1; Gaz. vol. 183; p. 102.
Flat-iron, Electrically-heated. E. W. Baker. No. 1,039,882; Oct. 1; Gaz. vol. 183; p. 71.
Flies, Making. C. T. Burin. No. 1,042,645; Oct. 29; Gaz. vol. 183; p. 1134.
Floating bodies against adhering of mussels, Protecting. H. Ulbricht. No. 1,043,051; Oct. 29; Gaz. vol. 183; p. 1276.
Floor and ceiling plate. F. N. and A. R. Wells. No. 1,042,629; Oct. 29; Gaz. vol. 183; p. 1130.
Floor check and hinge, Combined. H. G. Voight. No. 1,040,965; Oct. 8; Gaz. vol. 183; p. 463.
Floor connection. H. W. Thorndike. No. 1,039,846; Oct. 1; Gaz. vol. 183; p. 60.
Floor-surfacing machine, Wood-. A. I. Maltby and R. S. Doolittle. No. 1,039,993; Oct. 1; Gaz. vol. 183; p. 104.
Flow-gauge. O. C. Moore. No. 1,042,560; Oct. 29; Gaz. vol. 183; p. 1008.
Flue-dust, Treatment of. J. I. Souther. No. 1,041,863; Oct. 15; Gaz. vol. 183; p. 638.
Fluid-dispensing apparatus. T. W. Howard. No. 1,040,823; Oct. 8; Gaz. vol. 183; p. 232.
Fluid-fuel burners, Cut-off device for. J. W. Peplinski. No. 1,039,793; Oct. 1; Gaz. vol. 183; p. 42.
Fluid-gage. T. L. Gasey. No. 1,039,923; Oct. 1; Gaz. vol. 183; p. 84.
Fluid-pressure, Apparatus for producing. J. F. Keys. No. 1,040,260; Oct. 8; Gaz. vol. 183; p. 263.
Fluid transmission. J. Lahne. No. 1,042,696; Oct. 29; Gaz. vol. 183; p. 1183.
Flushing apparatus. E. Frinkel. No. 1,041,612; Oct. 15; Gaz. vol. 183; p. 717.
Fly-screen and shade, Adjustable. A. P. Smith. No. 1,042,491; Oct. 29; Gaz. vol. 183; p. 1061.
Fly-trap. E. L. Mathews. No. 1,039,984; Oct. 1; Gaz. vol. 183; p. 104.
Fly-trap. L. Emery. No. 1,040,295; Oct. 8; Gaz. vol. 183; p. 229.
Fly-trap. F. Batchelor. No. 1,042,310; Oct. 22; Gaz. vol. 183; p. 980.
Fly-wheel and transmission-gearing, Combined. C. M. Leach. No. 1,039,968; Oct. 1; Gaz. vol. 183; p. 99.
Flying-machine. V. Wroblewski. No. 1,040,690; Oct. 8; Gaz. vol. 183; p. 246.
Flying-machine. D. Hacker. No. 1,041,781; Oct. 22; Gaz. vol. 183; p. 813.
Flying-machine. W. S. Bonnar. No. 1,041,876; Oct. 22; Gaz. vol. 183; p. 847.
Flying-machine. F. Behrens. No. 1,042,211; Oct. 22; Gaz. vol. 183; p. 964.
Flying-machine. W. B. Pearson. No. 1,042,894; Oct. 29; Gaz. vol. 183; p. 1113.
Flying-machine-actuating apparatus. L. Brianne. No. 1,039,939; Oct. 1; Gaz. vol. 183; p. 73.
Flying-machine exhibiter. E. M. Andrea. No. 1,040,843; Oct. 8; Gaz. vol. 183; p. 432.
Foot-strap. H. J. Cullis. No. 1,039,900; Oct. 1; Gaz. vol. 183; p. 77.
Folding box. M. Schiffer. No. 1,040,942; Oct. 1; Gaz. vol. 183; p. 130.
Folding box. J. G. Reber. No. 1,040,964; Oct. 8; Gaz. vol. 183; p. 470.
Folding box. J. Regenstein. No. 1,041,872; Oct. 22; Gaz. vol. 183; p. 842.
Folding-machine. H. K. King. No. 1,041,896; Oct. 22; Gaz. vol. 183; p. 852.
Folding table. W. C. Horner. No. 1,040,220; Oct. 8; Gaz. vol. 183; p. 251.
Folding table. W. A. McCarty. No. 1,042,020; Oct. 22; Gaz. vol. 183; p. 956.
Food and packing-case corner, Article of. R. L. Dollings. No. 1,042,512; Oct. 1; Gaz. vol. 183; p. 61.
Food-preserving object. A. Lock. No. 1,041,120; Oct. 15; Gaz. vol. 183; p. 580.
Food product and obtaining the same, F. X. O. Trudel. No. 1,039,849; Oct. 1; Gaz. vol. 183; p. 61.
Foot-gear. E. A. Cox. No. 1,040,826; Oct. 8; Gaz. vol. 183; p. 443.
Foot-power-operating machine attachment. A. Kyvsy. No. 1,040,696; Oct. 8; Gaz. vol. 183; p. 248.
Foot-rest. E. M. Stamp. No. 1,041,874; Oct. 29; Gaz. vol. 183; p. 1216.
Foot-stool, Piano. J. A. Pacyniski. No. 1,040,897; Oct. 8; Gaz. vol. 183; p. 276.
Forceps or the like, Bone-. A. De Villiers. No. 1,040,823; Oct. 8; Gaz. vol. 183; p. 217.
Forge, Metal-drawing. C. D. Crary. No. 1,040,962; Oct. 8; Gaz. vol. 183; p. 269.
Forging apparatus. S. P. Devine. No. 1,041,442; Oct. 15; Gaz. vol. 183; p. 662.
Forging circular pieces, Machine for. J. Girbet. No. 1,040,979; Oct. 8; Gaz. vol. 183; p. 474.
Forging railway-axles, Dies for. J. M. Hansen. No. 1,041,908; Oct. 22; Gaz. vol. 183; p. 857.
Fork: *See* Hay-fork.
Form, Bust and shoulder. A. M. Green. No. 1,041,461; Oct. 15; Gaz. vol. 183; p. 670.
Form, Collapsible garment. I. Levin. No. 1,039,764; Oct. 1; Gaz. vol. 183; p. 52.
Form, Garment-. I. Levin. No. 1,039,763; Oct. 1; Gaz. vol. 183; p. 52.
Form, Garment-. E. T. Palmenberg. No. 1,042,260; Oct. 22; Gaz. vol. 183; p. 974.
Formic esters, Preparation of. A. Wolf. No. 1,039,875; Oct. 1; Gaz. vol. 183; p. 69.
Forming-machine. E. A. Witherill. No. 1,041,550; Oct. 15; Gaz. vol. 183; p. 626.
Fountain: *See* Automatic fountain; Drinking-fountain; Poultry-fountain.
Frame: *See* Bedstead and other frame; Chair-frame; Clock-frame; Cycle spring-frame; Locomotive-frame; Metallic frame; Mirror and like frame; Quilting and stretching frame; Sleigh side frame; Spinning-frame; Stationery-drying frame; Window-frame.
Freight-handling system. W. H. McCune. No. 1,040,229; Oct. 1; Gaz. vol. 183; p. 186.
Fruit-cutter. F. T. Lillick. No. 1,042,240; Oct. 22; Gaz. vol. 183; p. 967.
Fruit grading and sizing machine. W. C. Rofkar. No. 1,042,087; Oct. 22; Gaz. vol. 183; p. 901.
Fruit-jar. P. Brelle. No. 1,042,390; Oct. 29; Gaz. vol. 183; p. 1044.
Fruit-picker. A. M. Hughes. No. 1,040,947; Oct. 8; Gaz. vol. 183; p. 462.
Fuel-feeder and carbureter, Vacuum. E. P. Noyes. No. 1,041,062; Oct. 15; Gaz. vol. 183; p. 736.
Fuel-wastes and generating power, Method and means for utilizing. J. M. W. Kitchen. No. 1,041,810; Oct. 22; Gaz. vol. 183; p. 824.
Fumigator, Fowl-. F. M. Nail. No. 1,040,887; Oct. 8; Gaz. vol. 183; p. 270.
Furnace: *See* Boiler-furnace; Cement-furnace; Channel-furnace; Crucible-furnace; Electric furnace; Gas and smoke burning furnace; Heating-furnace; Hot-air furnace; Metallurgical furnace; Regenerative furnace; Regenerative reversing-furnace; Steam and hot-water furnace; Warm-air furnace; Zinc retort-furnace.
Furnace. W. S. Quigley. No. 1,039,801; Oct. 1; Gaz. vol. 183; p. 44.
Furnace. A. Schroeder. No. 1,041,889; Oct. 22; Gaz. vol. 183; p. 852.
Furnace. C. R. Wald. No. 1,042,059; Oct. 22; Gaz. vol. 183; p. 907.
Furnace-cooling device, Blast-. F. D. Carney. No. 1,042,767; Oct. 29; Gaz. vol. 183; p. 1178.
Furnace-door-opening device. J. Wheeler. No. 1,041,218; Oct. 15; Gaz. vol. 183; p. 586.
Furnace oil-burning provision, Boiler-. L. D. Lovekin. No. 1,039,766; Oct. 1; Gaz. vol. 183; p. 54.
Furnace slag-pocket. W. W. Smith. No. 1,042,966; Oct. 22; Gaz. vol. 183; p. 903.
Furnaces from injurious gases, Protecting transit. A. H. Cowles. No. 1,040,892; Oct. 8; Gaz. vol. 183; p. 441.
Furnaces, Fume-arrester for regenerative melting. W. F. Taylor. No. 1,040,460; Oct. 8; Gaz. vol. 183; p. 348.
Furnaces, Means for feeding air to. W. W. Evans. No. 1,041,761; Oct. 22; Gaz. vol. 183; p. 805.
Furniture, School. L. A. Chargay. No. 1,042,207; Oct. 29; Gaz. vol. 183; p. 1046.
Furrow packer, Listed-. A. Shemski. No. 1,040,351; Oct. 1; Gaz. vol. 183; p. 124.
Fuse carrier, Open-link-. R. C. Cole. No. 1,040,354; Oct. 1; Gaz. vol. 183; p. 161.
Fuse for projectiles, Burning. K. Wieser. No. 1,039,879; Oct. 1; Gaz. vol. 183; p. 68.
Fuse for projectiles, mines, torpedoes &c., Progress. B. Sokolowski. No. 1,042,880; Oct. 29; Gaz. vol. 183; p. 1200.
Fuse formed with terminals or contacts of knife-blade type, Detachably mounting a. R. D. Horton. No. 1,040,342; Oct. 8; Gaz. vol. 183; p. 252.
Fuse, Inclosed. F. W. Harris. No. 1,042,434; Oct. 29; Gaz. vol. 183; p. 1061.
Fuse indicator, Inclosed-. R. C. Cole. No. 1,040,357; Oct. 1; Gaz. vol. 183; p. 161.
Fuse-plug. D. E. Bown. No. 1,042,338; Oct. 29; Gaz. vol. 183; p. 1043.
Gage: *See* Boiler-gage; Carpenter's gage; Fluid-gage; Grinding-gage; Hair-cutting gage; Marking-gage; Pressure-gage; Scribing-work gage; Speed-gage; Water-gage.
Gage. L. A. Casgrain. No. 1,040,978; Oct. 8; Gaz. vol. 183; p. 521.
Gage. W. F. Shore. No. 1,042,721; Oct. 29; Gaz. vol. 183; p. 1162.
Gage and the like case. F. Schubert. No. 1,040,780; Oct. 8; Gaz. vol. 183; p. 408.
Gaging-machine. F. I. Sieling. No. 1,041,892; Oct. 22; Gaz. vol. 183; p. 851.
Game. J. A. May. No. 1,041,934; Oct. 22; Gaz. vol. 183; p. 823.
Game apparatus. G. W. Wallace. No. 1,040,964; Oct. 1; Gaz. vol. 183; p. 131.

Game apparatus. E. G. Carter. No. 1,040,144; Oct. 1; Gaz. vol. 183; p. 159.

Game apparatus. L. A. Deline. No. 1,040,521; Oct. 8; Gaz. vol. 183; p. 316.

Game apparatus. W. C. Martineau. No. 1,040,717; Oct. 8; Gaz. vol. 183; p. 389.

Game board, Base-ball. E. Pohlig. No. 1,042,142; Oct. 22; Gaz. vol. 183; p. 935.

Game-counter. F. Roosewater. No. 1,039,811; Oct. 1; Gaz. vol. 183; p. 48.

Garbage-receptacle. W. H. Rhodes. No. 1,040,014; Oct. 1; Gaz. vol. 183; p. 114.

Garment. A. M. Green. No. 1,041,462; Oct. 15; Gaz. vol. 183; p. 670.

Garment, Catamenial. L. Alden. No. 1,041,225; Oct. 15; Gaz. vol. 183; p. 590.

Garment-hanger. L. R. Frank. No. 1,040,181; Oct. 1; Gaz. vol. 183; p. 170.

Garment-stays, Machine for making wire. M. M. Beeman and J. F. Kitchen. No. 1,042,756; Oct. 29; Gaz. vol. 183; p. 1174.

Garment-support. F. H. Krauch. No. 1,041,104; Oct. 15; Gaz. vol. 183; p. 550.

Garment-supporter. H. F. Niles. No. 1,039,995; Oct. 1; Gaz. vol. 183; p. 106.

Gas and air mixing meter. G. R. Cottrell. No. 1,042,403; Oct. 29; Gaz. vol. 183; p. 1049.

Gas and smoke burning furnace or stove. A. Williams. No. 1,042,737; Oct. 29; Gaz. vol. 183; p. 1166.

Gas-burner. W. B. Bastian. No. 1,040,666; Oct. 8; Gaz. vol. 183; p. 477.

Gas-burner. F. H. Oehlke. No. 1,041,863; Oct. 22; Gaz. vol. 183; p. 842.

Gas-burner. W. N. Best, Sr. No. 1,042,872; Oct. 29; Gaz. vol. 183; p. 1215.

Gas-burner and electric gas-igniter, Combination. H. D. Grinnell. No. 1,040,937; Oct. 8; Gaz. vol. 183; p. 488.

Gas-burners, Automatic cut-off for. E. F. Debley. No. 1,041,972; Oct. 22; Gaz. vol. 183; p. 879.

Gas cleaning, cooling, and washing apparatus. H. E. Theisen. No. 1,042,840; Oct. 29; Gaz. vol. 183; p. 1202.

Gas-engine. C. T. Wade. No. 1,040,472; Oct. 8; Gaz. vol. 183; p. 296.

Gas-flames from a distant point, Device for lighting and extinguishing. G. Dalén. No. 1,041,068; Oct. 15; Gaz. vol. 183; p. 527.

Gas, Generating. H. Philipp. No. 1,041,865; Oct. 22; Gaz. vol. 183; p. 843.

Gas-generator. E. C. Bradley. No. 1,042,882; Oct. 29; Gaz. vol. 183; p. 1218.

Gas generator and burner, Combined. E. E. Hickerson. No. 1,041,283; Oct. 15; Gaz. vol. 183; p. 612.

Gas-governor. G. A. Hyde. No. 1,040,545; Oct. 8; Gaz. vol. 183; p. 325.

Gas-heater. P. F. Woldan. No. 1,041,553; Oct. 15; Gaz. vol. 183; p. 609.

Gas-igniting apparatus. H. P. Rostin. No. 1,042,971; Oct. 29; Gaz. vol. 183; p. 1247.

Gas-light, Intermittent. T. Jackson. No. 1,042,117; Oct. 22; Gaz. vol. 183; p. 927.

Gas-lighter. C. Hubert. No. 1,041,795; Oct. 22; Gaz. vol. 183; p. 819.

Gas-making apparatus. J. M. W. Kitchen. No. 1,039,959; Oct. 1; Gaz. vol. 183; p. 96.

Gas, Making hot producer-. E. Fleischer. No. 1,041,058; Oct. 15; Gaz. vol. 183; p. 534.

Gas-meter. C. E. Hibberd. No. 1,039,942; Oct. 1; Gaz. vol. 183; p. 90.

Gas-meters, Flexible connection for. F. B. Mueller. No. 1,042,251; Oct. 22; Gaz. vol. 183; p. 970.

Gas-producer. W. Climie. No. 1,040,148; Oct. 1; Gaz. vol. 183; p. 160.

Gas-prodncer. F. Merian. No. 1,040,723; Oct. 8; Gaz. vol. 183; p. 390.

Gas-producer. C. A. Kuensel. No. 1,042,568; Oct. 29; Gaz. vol. 183; p. 1107.

Gas, Producing combustible. C. A. Kuensel. No. 1,042,567; Oct. 29; Gaz. vol. 183; p. 1107.

Gas, Purifying crude. H. Lane. No. 1,040,218; Oct. 1; Gaz. vol. 183; p. 183.

Gas reactions by means of an electric arc, Method and apparatus for the carrying out of. G. Wagener. No. 1,039,851; Oct. 1; Gaz. vol. 183; p. 61.

Gas reactions by the use of an electric arc, Method of and apparatus for carrying out. G. Wagener. No. 1,039,852; Oct. 1; Gaz. vol. 183; p. 62.

Gas reactions, Process and furnace for producing. O. H. and K. Weber. No. 1,042,179; Oct. 22; Gaz. vol. 183; p. 947.

Gases, Drying agent for. L. Edeleanu. No. 1,041,608; Oct. 15; Gaz. vol. 183; p. 715.

Gaseous-fuel mixer. W. W. Bergold. No. 1,040,353; Oct. 8; Gaz. vol. 183; p. 430.

Gaseous reaction, Apparatus for producing a. F. W. Peek, Jr. No. 1,041,340; Oct. 15; Gaz. vol. 183; p. 630.

Gasket, Coupling-. J. M. Towne. No. 1,041,907; Oct. 22; Gaz. vol. 183; p. 857.

Gate: *See* Bridge safety-gate; Elevator-gate; End-gate; Graphophone-gate; Head-gate; Safety-gate; Sluice and flood gate; Swinging gate; Tilting gate; Weir and flood gate.

Gate. W. H. Olive. No. 1,041,663; Oct. 15; Gaz. vol. 183; p. 736.

Gate fastener, Wire-. W. T. Bird. No. 1,042,797; Oct. 29; Gaz. vol. 183; p. 1175.

Gear. E. L. Hudson. No. 1,042,012; Oct. 29; Gaz. vol. 183; p. 1262.

Gear-cutting machine, Bevel. H. H. Browning. No. 1,040,187; Oct. 1; Gaz. vol. 183; p. 157.

Gear, Freewheeling flushed compound. C. W. Parker. No. 1,042,819; Oct. 29; Gaz. vol. 183; p. 1196.

Gear, Split. C. J. Dougherty. No. 1,041,448; Oct. 15; Gaz. vol. 183; p. 666.

Gear, Transmission. W. Kelly. No. 1,039,986; Oct. 1; Gaz. vol. 183; p. 96.

Gear-wheel, Adjustable. H. A. Wall. No. 1,040,663; Oct. 1; Gaz. vol. 183; p. 131.

Gears, Selective mechanism for shifting. A. P. Brush. No. 1,041,734; Oct. 22; Gaz. vol. 183; p. 794.

Gearing. R. S. Brown. No. 1,040,502; Oct. 8; Gaz. vol. 183; p. 310.

Gearing. T. R. Smith. No. 1,040,799; Oct. 8; Gaz. vol. 183; p. 414.

Gearing. A. J. Drake and J. M. Hewitt. No. 1,041,047; Oct. 15; Gaz. vol. 183; p. 530.

Gearing. J. Roche. No. 1,041,352; Oct. 15; Gaz. vol. 183; p. 634.

Gearing. S. H. Kennedy. No. 1,041,433; Oct. 15; Gaz. vol. 183; p. 677.

Gearing. O. Gehrickе. No. 1,041,615; Oct. 15; Gaz. vol. 183; p. 718.

Gearing. H. Rosado. No. 1,041,877; Oct. 22; Gaz. vol. 183; p. 847.

Gearing. C. J. Marth. No. 1,042,550; Oct. 29; Gaz. vol. 183; p. 1112.

Gearing. T. Collins and L. H. Hartmann. No. 1,042,709; Oct. 29; Gaz. vol. 183; p. 1179.

Gearing, Apparatus for making toothed. F. Humphris. No. 1,040,654; Oct. 8; Gaz. vol. 183; p. 378.

Gearing, Change-speed. E. P. and R. Holliday. No. 1,038,743; Oct. 1; Gaz. vol. 183; p. 24.

Gearing, Change-speed. R. and E. P. Holliday. No. 1,038,745; Oct. 1; Gaz. vol. 183; p. 25.

Gearing, Power-transmission. V. G. Apple. No. 1,040,694; Oct. 8; Gaz. vol. 183; p. 347.

Gearing, Toothed. F. Humphris. No. 1,040,655; Oct. 8; Gaz. vol. 183; p. 378.

Gearing, Transmission-. J. Demmler. No. 1,040,649; Oct. 8; Gaz. vol. 183; p. 368.

Gearing, Transmission-. L. and I. S. Whitlock. No. 1,041,541; Oct. 15; Gaz. vol. 183; p. 696.

Gearing, Transmission-. C. W. Parker. No. 1,042,980; Oct. 29; Gaz. vol. 183; p. 1243.

Gearing, Variable-speed. J. A. Armstrong. No. 1,038,879; Oct. 1; Gaz. vol. 183; p. 70.

Gem-setting. D. Shinian. No. 1,040,791; Oct. 8; Gaz. vol. 183; p. 412.

Generator: *See* Gas-generator; Hydrocarbon-generator; Steam-generator; Vapor-generator.

Germicide and insecticide. G. Fritsche. No. 1,042,422; Oct. 29; Gaz. vol. 183; p. 1056.

Giant-stride. M. R. Roach. No. 1,042,271; Oct. 22; Gaz. vol. 183; p. 977.

Gin-saw. W. R. Moore. No. 1,042,260; Oct. 22; Gaz. vol. 183; p. 976.

Glass: *See* Day and night glass.

Glass-blowing machine. G. C. Crawford. No. 1,038,700; Oct. 1; Gaz. vol. 183; p. 9.

Glass-drawing apparatus. T. Oakes and D. Rossiter. No. 1,042,553; Oct. 29; Gaz. vol. 183; p. 1242.

Glass-plates, Manufacturing. P. T. Sievert. No. 1,038,839; Oct. 1; Gaz. vol. 183; p. 53.

Glass structure. O. A. Mygatt. No. 1,041,339; Oct. 15; Gaz. vol. 183; p. 627.

Glassware, Art-. L. W. Young. No. 1,041,338; Oct. 22; Gaz. vol. 183; p. 809.

Glassware-finishing machine. J. H. Deakin and H. Schnelbach. No. 1,040,902; Oct. 8; Gaz. vol. 183; p. 447.

Glassware-forming mechanism. R. M. Corl. No. 1,040,280; Oct. 8; Gaz. vol. 183; p. 284.

Glassware, Pressed or molded ribbed. O. A. Mygatt. No. 1,042,463; Oct. 29; Gaz. vol. 183; p. 1071.

Globe. M. Manson. No. 1,042,450; Oct. 29; Gaz. vol. 183; p. 1068.

Go-cart handle. L. Bowling. No. 1,042,198; Oct. 22; Gaz. vol. 183; p. 951.

Go-cart or perambulator. A. J. Adams. No. 1,040,691; Oct. 8; Gaz. vol. 183; p. 346.

Go-cart or perambulator. A. J. Adams. No. 1,040,692; Oct. 8; Gaz. vol. 183; p. 346.

Gold-ore-grinding mill. J. H. Burton. No. 1,040,876; Oct. 8; Gaz. vol. 183; p. 433.

Gold-saving table. C. B. King and J. W. Fellmeth. No. 1,041,488; Oct. 15; Gaz. vol. 183; p. 678.

Golf-links, Cup or hole-rim for. H. Hinckley. No. 1,041,061; Oct. 15; Gaz. vol. 183; p. 542.

Governor, Centrifugal. V. Link. No. 1,041,648; Oct. 15; Gaz. vol. 183; p. 728.

Grading-machine. E. Waterman. No. 1,041,837; Oct. 15; Gaz. vol. 183; p. 645.

Grafting-tool. C. A. Priest. No. 1,042,965; Oct. 29; Gaz. vol. 183; p. 1245.

Grain-binder knot-adjuster. J. Dangel and E. R. Bapleman. No. 1,041,068; Oct. 22; Gaz. vol. 183; p. 878.

Grain-cleaning machine. A. Wolf. No. 1,040,065; Oct. 1; Gaz. vol. 183; p. 129.

Grain-drill. L. H. Roby and C. A. Pattison. No. 1,041,169; Oct. 15; Gaz. vol. 183; p. 571.





Grain, pulse, and the like, Treating. C. Jaquet. No. 1,041,329; Oct. 15; Gaz. vol. 183; p. 724.

Grain-sheeking device. E. Pielsen. No. 1,040,007; Oct. 1; Gaz. vol. 183; p. 112.

Grain-sprouter. B. M. Schwartzberg. No. 1,039,628; Oct. 1; Gaz. vol. 183; p. 52.

Grain-sprouting apparatus. O. Wilson. No. 1,042,739; Oct. 29; Gaz. vol. 183; p. 1162.

Grain-treating machine. A. Wolf. No. 1,040,065; Oct. 1; Gaz. vol. 183; p. 129.

Grain, Treatment of. J. G. F. Dornbach. No. 1,040,290; Oct. 8; Gaz. vol. 183; p. 327.

Granular materials, Apparatus for treating. A. A. Lanaux. No. 1,042,329; Oct. 29; Gaz. vol. 183; p. 1223.

Graphophone-gate. E. Rose. No. 1,042,275; Oct. 22; Gaz. vol. 183; p. 978.

Grapple. M. W. Gilmartin. No. 1,039,727; Oct. 1; Gaz. vol. 183; p. 19.

Grapple. C. W. Gessenhaigh. No. 1,041,068; Oct. 15; Gaz. vol. 183; p. 533.

Grass-scalding apparatus. W. C. Kay. No. 1,042,063; Oct. 29; Gaz. vol. 183; p. 1151.

Grasshopper-exterminator. D. R. Kinney. No. 1,040,549; Oct. 8; Gaz. vol. 183; p. 327.

Grate. W. E. Rider. No. 1,042,036; Oct. 22; Gaz. vol. 183; p. 991.

Grate mechanism and clearing means therefor. W. Pohl. No. 1,041,244; Oct. 15; Gaz. vol. 183; p. 631.

Grave-filler. L. G. Ward. No. 1,041,821; Oct. 22; Gaz. vol. 183; p. 832.

Graver. J. J. Wilson. No. 1,042,758; Oct. 29; Gaz. vol. 183; p. 1168.

Grease and lubricant cups, Cap for. G. E. Bowen. No. 1,040,268; Oct. 8; Gaz. vol. 183; p. 228.

Grease-cup. T. Lowe. No. 1,039,960; Oct. 1; Gaz. vol. 183; p. 103.

Grease-cup cap-securing means. N. Morgan. No. 1,039,781; Oct. 1; Gaz. vol. 183; p. 34.

Grease-gun. H. H. Colson. No. 1,040,513; Oct. 8; Gaz. vol. 183; p. 314.

Grease-gun. H. C. Snyder and C. Reed. No. 1,041,524; Oct. 15; Gaz. vol. 183; p. 691.

Grease-gun. W. P. Miller. No. 1,041,840; Oct. 22; Gaz. vol. 183; p. 834.

Grease-gun. W. U. Watson. No. 1,042,627; Oct. 29; Gaz. vol. 183; p. 1129.

Grinding and polishing rolls, Apparatus for. M. H. Richards. No. 1,040,756; Oct. 8; Gaz. vol. 183; p. 401.

Grinding-gage. J. A. Johnson. No. 1,040,687; Oct. 8; Gaz. vol. 183; p. 379.

Grinding-machine. W. Van Nostrand. No. 1,040,470; Oct. 8; Gaz. vol. 183; p. 296.

Grinding machine, Ball. J. G. Irwin. No. 1,042,794; Oct. 29; Gaz. vol. 183; p. 1183.

Grinding mill, Grain-. J. Beall. No. 1,041,950; Oct. 22; Gaz. vol. 183; p. 871.

Grinding or abrading machine. H. W. Newman. No. 1,042,317; Oct. 29; Gaz. vol. 183; p. 1195.

Grinding ores and other materials, Apparatus for. H. W. Hardinge. No. 1,041,788; Oct. 22; Gaz. vol. 183; p. 814.

Grinding-wheel guard. W. Stone. No. 1,042,613; Oct. 29; Gaz. vol. 183; p. 1127.

Guiding device, Automatic. W. C. Stephens. No. 1,041,366; Oct. 15; Gaz. vol. 183; p. 639.

Gum, Manufacture of chewing-. J. D. Darling. No. 1,040,285; Oct. 8; Gaz. vol. 183; p. 226.

Gum receptacle, Chewing-. W. D. Hoop. No. 1,040,420; Oct. 8; Gaz. vol. 183; p. 288.

Gumming-machine. A. P. Ward and I. S. Russell. No. 1,042,298; Oct. 22; Gaz. vol. 183; p. 986.

Gun. I. H. Seddeshaver. No. 1,042,145; Oct. 22; Gaz. vol. 183; p. 930.

Gun, Automatic machine-. S. N. McClean. No. 1,042,135; Oct. 22; Gaz. vol. 183; p. 932.

Gun-barrel cleaner. G. G. Miller. No. 1,041,889; Oct. 22; Gaz. vol. 183; p. 834.

Gun, Breakdown. W. C. Davenport. No. 1,040,644; Oct. 8; Gaz. vol. 183; p. 364.

Gun breech-loading mechanism, Artillery-. H. Olsson. No. 1,040,001; Oct. 1; Gaz. vol. 183; p. 110.

Gun having a recoiling barrel, F. Wiedetruck. No. 1,039,899; Oct. 1; Gaz. vol. 183; p. 97.

Gun-loading device, Portable. A. Kastner. No. 1,040,210; Oct. 1; Gaz. vol. 183; p. 161.

Gun, Magazine-. G. S. Lewis. No. 1,041,109; Oct. 15; Gaz. vol. 183; p. 552.

Gun-mounting. K. Veller. No. 1,041,884; Oct. 15; Gaz. vol. 183; p. 644.

Gun-sighting device. H. Kerrott. No. 1,041,192; Oct. 15; Gaz. vol. 183; p. 550.

Guns, Breech mechanism for. B. C. Snyder. No. 1,042,045; Oct. 22; Gaz. vol. 183; p. 904.

Gymnastics apparatus. A. J. Thornley. No. 1,041,701; Oct. 15; Gaz. vol. 183; p. 748.

Gyroplane. N. E. Brown. No. 1,040,139; Oct. 1; Gaz. vol. 183; p. 156.

Hair-cutting gage. E. E. Longden. No. 1,040,711; Oct. 8; Gaz. vol. 183; p. 387.

Hair-holder. M. J. Pope. No. 1,040,750; Oct. 8; Gaz. vol. 183; p. 396.

Hair-pin. T. C. Loutzs. No. 1,039,763; Oct. 1; Gaz. vol. 183; p. 31.

Hair-waver. M. McIlvenna. No. 1,041,651; Oct. 15; Gaz. vol. 183; p. 731.

Hame-fastener. F. M. and M. D. Howe. No. 1,039,945; Oct. 1; Gaz. vol. 183; p. 91.

Hame-hook. P. M. Hardy. No. 1,042,911; Oct. 29; Gaz. vol. 183; p. 1228.

Hammer. P. R. Vredenburg. No. 1,042,177; Oct. 22; Gaz. vol. 183; p. 946.

Hammer and nail-set, Combined. W. Thomas. No. 1,041,906; Oct. 22; Gaz. vol. 183; p. 856.

Hammer device, Pneumatic. L. G. Fischer. No. 1,041,027; Oct. 15; Gaz. vol. 183; p. 524.

Hammer, Fluid-pressure-actuated. N. W. Isell. No. 1,042,442; Oct. 29; Gaz. vol. 183; p. 1054.

Hammer, Trip-. E. M. Patton. No. 1,042,891; Oct. 29; Gaz. vol. 183; p. 1244.

Hammock-cradle. H. L. Hohlfeld. No. 1,039,944; Oct. 1; Gaz. vol. 183; p. 91.

Hand, Artificial. D. W. Derrance. No. 1,042,418; Oct. 29; Gaz. vol. 183; p. 1053.

Hand-bag. I. J. Levy. No. 1,042,934; Oct. 29; Gaz. vol. 183; p. 1235.

Hand-comb. E. Kraus. No. 1,040,357; Oct. 8; Gaz. vol. 183; p. 260.

Handle: *See* Broom-handle; Casket-handle; Go-cart handle; Tool-handle; Umbrella-handle; Valve-handle.

Handle. E. L. Watrous. No. 1,040,597; Oct. 8; Gaz. vol. 183; p. 344.

Handle. G. P. Hart and S. W. Parsons. No. 1,040,944; Oct. 8; Gaz. vol. 183; p. 461.

Handsaw. J. Wood. No. 1,040,832; Oct. 8; Gaz. vol. 183; p. 423.

Hanger: *See* Coat-hanger; Curtain or the like hanger; Door-hanger; Eaves-trough hanger; Garment-hanger; Outlet-box hanger; Shade-hanger; Suit-hanger.

Harrow. E. B. Dikeman. No. 1,040,524; Oct. 8; Gaz. vol. 183; p. 318.

Harrow. J. W. Magee. No. 1,041,818; Oct. 15; Gaz. vol. 183; p. 621.

Harrow. D. C. Smith. No. 1,042,488; Oct. 29; Gaz. vol. 183; p. 1062.

Harrow, Disk. F. G. Hunt. No. 1,041,797; Oct. 22; Gaz. vol. 183; p. 810.

Harrow, Roller-. J. E. Carlson and G. J. Nason. No. 1,042,889; Oct. 29; Gaz. vol. 183; p. 1220.

Harvester, Corn-. J. N. D. Hamacher. No. 1,041,979; Oct. 15; Gaz. vol. 183; p. 539.

Harvester, Cotton-. L. L. Upshaw. No. 1,041,302; Oct. 15; Gaz. vol. 183; p. 583.

Harvester, Cotton-. G. Liepmann. No. 1,041,300; Oct. 15; Gaz. vol. 183; p. 620.

Harvester, Cotton-. J. B. Marshel. No. 1,042,708; Oct. 29; Gaz. vol. 183; p. 1156.

Harvester motor attachment. B. R. Benjamin. No. 1,041,952; Oct. 22; Gaz. vol. 183; p. 872.

Harvester, Potato-. J. P. Brennan. No. 1,042,040; Oct. 29; Gaz. vol. 183; p. 1184.

Harvesters, Binder-head for. J. L. Ware. No. 1,039,953; Oct. 1; Gaz. vol. 183; p. 62.

Harvesting machine, Corn-. W. S. Baird. No. 1,042,371; Oct. 22; Gaz. vol. 183; p. 1010.

Harvesting-machine trip device. C. O. Bolen. No. 1,039,690; Oct. 1; Gaz. vol. 183; p. 6.

Harvesting process and apparatus, Cotton-. W. E. McComb. No. 1,041,650; Oct. 15; Gaz. vol. 183; p. 731.

Hasp-lock. W. H. Conrad. No. 1,040,880; Oct. 8; Gaz. vol. 183; p. 443.

Hat-box. U. Ullitz. No. 1,040,060; Oct. 1; Gaz. vol. 183; p. 130.

Hat-box, Folding. A. T. Fitzgerald. No. 1,040,309; Oct. 8; Gaz. vol. 183; p. 241.

Hat-pin, Extensible. W. E. Newman. No. 1,042,027; Oct. 29; Gaz. vol. 183; p. 1207.

Hat-pin fastener. A. F. Grassi. No. 1,042,168; Oct. 22; Gaz. vol. 183; p. 925.

Hat-pin guard. J. J. Van Vliet. No. 1,041,831; Oct. 15; Gaz. vol. 183; p. 643.

Hat-pin guard and retainer. C. H. Frank and C. Herman. No. 1,041,766; Oct. 22; Gaz. vol. 183; p. 807.

Hat-pin-point guard. J. A. Fleming. No. 1,040,931; Oct. 8; Gaz. vol. 183; p. 454.

Hat-pin-point protector. A. Jaschke. No. 1,041,291; Gaz. 15; Gaz. vol. 183; p. 615.

Hat-pin protector. P. H. Alpp. No. 1,040,841; Oct. 8; Gaz. vol. 183; p. 427.

Hat-weight. D. Nelson. No. 1,041,330; Oct. 15; Gaz. vol. 183; p. 627.

Hat-wire connector. G. E. Sherman. No. 1,040,799; Oct. 8; Gaz. vol. 183; p. 412.

Hay-fork. F. L. Baker. No. 1,041,572; Oct. 15; Gaz. vol. 183; p. 705.

Hay-loader. W. Allen. No. 1,042,748; Oct. 29; Gaz. vol. 183; p. 1172.

Hay-press. F. Seebafer and W. Prahl. No. 1,040,766; Oct. 8; Gaz. vol. 183; p. 410.

Head-covering. G. Thorpe. No. 1,040,461; Oct. 8; Gaz. vol. 183; p. 295.

Head-gate. G. L. Hess. No. 1,041,826; Oct. 15; Gaz. vol. 183; p. 722.

Header. J. W. Hoover. No. 1,042,436; Oct. 29; Gaz. vol. 183; p. 1062.

Headlight. C. I. Williams. No. 1,041,926; Oct. 15; Gaz. vol. 183; p. 647.

Headlight, Dirigible. L. C. and B. H. Theoming and H. A. Anderson. No. 1,041,962; Oct. 22; Gaz. vol. 183; p. 886.

Headlight, Dirigible. F. Müller. No. 1,042,187; Oct. 22; Gaz. vol. 183; p. 983.
Headlight for cars. C. B. Slack. No. 1,041,128; Oct. 15; Gaz. vol. 183; p. 577.
Headlight for street-cars, automobiles, &c. I. S. Hershberger. No. 1,040,674; Oct. 8; Gaz. vol. 183; p. 374.
Hearing, Device for aiding the. E. W. Schneider. No. 1,040,428; Oct. 8; Gaz. vol. 183; p. 284.
Hearing, Device for aiding the. E. W. Schneider. No. 1,040,429; Oct. 8; Gaz. vol. 183; p. 284.
Heater: *See* Car-heater; Electric heater; Gas-heater; Mesh heater; Water-heater.
Heater. W. H. Jones. No. 1,040,668; Oct. 8; Gaz. vol. 183; p. 379.
Heater-base, Sectional. W. N. Van Vleet. No. 1,040,469; Oct. 8; Gaz. vol. 183; p. 296.
Heating and mixing apparatus. H. D. Miles. No. 1,039,779; Oct. 1; Gaz. vol. 183; p. 33.
Heating and ventilating apparatus. F. P. Mies. No. 1,041,822; Oct. 15; Gaz. vol. 183; p. 624.
Heating appliance. J. Buettner. No. 1,040,140; Oct. 1; Gaz. vol. 183; p. 158.
Heating device and constructing the same, Electric. W. S. Hadaway, Jr. No. 1,042,452; Oct. 29; Gaz. vol. 185, p. 1060.
Heating-furnace, Continuous. W. J. Bradley. No. 1,040,868; Oct. 8; Gaz. vol. 183; p. 426.
Heating receptacle, Liquid-. W. A. Roberson. No. 1,042,144; Oct. 22; Gaz. vol. 183; p. 935.
Heating system. W. H. Jones. No. 1,040,548; Oct. 8; Gaz. vol. 183; p. 327.
Heddle-binder. C. R. Sweet and W. V. Ballard. No. 1,042,052; Oct. 22; Gaz. vol. 183; p. 905.
Heel and sole nail. S. L. Rosen. No. 1,042,279; Oct. 22; Gaz. vol. 183; p. 979.
Heel-nailing machine. G. M. Pettengill. No. 1,042,374; Oct. 22; Gaz. vol. 183; p. 1011.
Heel plate, Detachable shoe-. A. Youhás. No. 1,042,520; Oct. 29; Gaz. vol. 183; p. 1092.
Heel, Removable. L. Kalina. No. 1,042,924; Oct. 29; Gaz. vol. 183; p. 1232.
Hinge. W. L. Murphy. No. 1,041,147; Oct. 15; Gaz. vol. 183; p. 564.
Hinge. J. Loughren. No. 1,042,936; Oct. 29; Gaz. vol. 183; p. 1235.
Hinge-joint for wall-beds, Invisible. C. Merritt. No. 1,039,986; Oct. 1; Gaz. vol. 183; p. 105.
Hinge, Spring check-. J. M. Zuk. No. 1,041,223; Oct. 15; Gaz. vol. 183; p. 590.
Hinge, Spring door-. H. G. Voight. No. 1,040,968; Oct. 8; Gaz. vol. 183; p. 439.
Hinge, Stay-. P. J. Steiger. No. 1,042,985; Oct. 29; Gaz. vol. 183; p. 1252.
Hinge structure for seal-holders and the like. T. C. Ware. No. 1,040,821; Oct. 8; Gaz. vol. 183; p. 421.
Hitch, Combined horse-. L. P. Heseman. No. 1,041,469; Oct. 15; Gaz. vol. 183; p. 672.
Hitching-strap. T. Lynch. No. 1,041,644; Oct. 15; Gaz. vol. 183; p. 729.
Hobby-horse, Self-propelled. O. D. Bartow. No. 1,042,308; Oct. 22; Gaz. vol. 183; p. 969.
Hoe, Wheel-. H. E. Hilton. No. 1,040,325; Oct. 8; Gaz. vol. 183; p. 250.
Hoeing-machine. W. R. Sturgiss. No. 1,040,589; Oct. 8; Gaz. vol. 183; p. 342.
Hoist controlling system, Electric-. F. L. Smith. No. 1,043,036; Oct. 29; Gaz. vol. 183; p. 1271.
Hoisting and conveying apparatus. J. L. Potter. No. 1,042,264; Oct. 22; Gaz. vol. 183; p. 975.
Hoisting apparatus. J. W. Hammond and J. F. Donahue. No. 1,039,733; Oct. 1; Gaz. vol. 183; p. 21.
Hoisting apparatus. C. Carstens. No. 1,041,020; Oct. 15; Gaz. vol. 183; p. 521.
Hoisting device. H. A. Myers. No. 1,040,286; Oct. 8; Gaz. vol. 183; p. 270.
Holdback, Thill-. J. V. Bayer. No. 1,040,847; Oct. 8; Gaz. vol. 183; p. 429.
Holding device. C. F. Church. No. 1,041,028; Oct. 15; Gaz. vol. 183; p. 523.
Hood, cape, and veil, Convertible. M. Johnstone. No. 1,042,851; Oct. 22; Gaz. vol. 183; p. 1003.
Hook: *See* Chain-hook; Clothes-hook; Hame-hook; Locking-hook; Safety-hook; Snap-hook; Straining-hook.
Hook and eye. E. M. Rhodes. No. 1,040,758; Oct. 8; Gaz. vol. 183; p. 401.
Hook-feeding mechanism. W. L. Curtis. No. 1,042,407; Oct. 29; Gaz. vol. 183; p. 1050.
Hopper and trap-door therefor, Combined charging-. P. F. Dundon. No. 1,040,906; Oct. 8; Gaz. vol. 183; p. 448.
Horse-blanket. W. M. Lyman. No. 1,042,907; Oct. 29; Gaz. vol. 183; p. 1192.
Horse-overshoe. J. F. Herman. No. 1,039,736; Oct. 1; Gaz. vol. 183; p. 23.
Horse-overshoe. C. G. Deiano. No. 1,040,169; Oct. 1; Gaz. vol. 183; p. 166.
Horseshoe. C. A. Kley. No. 1,040,353; Oct. 8; Gaz. vol. 183; p. 269.
Horseshoe. P. C. Ketterer. No. 1,040,956; Oct. 8; Gaz. vol. 183; p. 466.
Horseshoe. T. Drew. No. 1,041,459; Oct. 15; Gaz. vol. 183; p. 666.
Horseshoe. J. H. Cassleigh. No. 1,041,989; Oct. 22; Gaz. vol. 183; p. 874.
Horseshoe, Cushioned. G. B. McKinnon. No. 1,042,943; Oct. 29; Gaz. vol. 183; p. 1237.
Hose-band. E. Gibbs. No. 1,040,980; Oct. 8; Gaz. vol. 183; p. 448.
Hose-coiling machine. H. S. Cobb. No. 1,039,697; Oct. 1; Gaz. vol. 183; p. 8.
Hose-coupling. C. M. Jenkins. No. 1,042,094; Oct. 29; Gaz. vol. 183; p. 1148.
Hose-supporter. A. Gottschalk. No. 1,041,619; Oct. 15; Gaz. vol. 183; p. 719.
Hose-supporter. W. B. Hill. No. 1,042,226; Oct. 22; Gaz. vol. 183; p. 962.
Hose-supporting clasp. D. H. Buell. No. 1,040,129; Oct. 1; Gaz. vol. 183; p. 157.
Hosiery and knitting same, Shaped seamless. R. W. Scott. No. 1,042,155; Oct. 22; Gaz. vol. 183; p. 951.
Hot-air bath. A. Klotz. No. 1,039,963; Oct. 1; Gaz. vol. 183; p. 97.
Hot-air furnace. M. Dickson. No. 1,042,654; Oct. 29; Gaz. vol. 183; p. 1139.
Hover. W. L. Niemann. No. 1,041,982; Oct. 22; Gaz. vol. 183; p. 836.
Hub and shock-absorber, Combined vehicle-. C. L. Kennedy. No. 1,041,977; Oct. 15; Gaz. vol. 183; p. 846.
Hub for vehicle-wheels, Shock-absorbing. J. W. Tilton. No. 1,041,702; Oct. 15; Gaz. vol. 183; p. 749.
Hub for wheels, Resilient. C. A. White and F. McLaughlin. No. 1,040,589; Oct. 8; Gaz. vol. 183; p. 343.
Hub-wrench. C. C. Lewis. No. 1,039,705; Oct. 1; Gaz. vol. 183; p. 52.
Huller: *See* Clover-huller.
Humidifier, Centrifugal. H. H. Clark. No. 1,040,885; Oct. 8; Gaz. vol. 183; p. 441.
Humidostat-regulator. W. M. Clark. No. 1,042,883; Oct. 29; Gaz. vol. 183; p. 1221.
Hydrant. O. F. Smith. No. 1,040,447; Oct. 8; Gaz. vol. 183; p. 290.
Hydrant, Keel-operated. W. J. Clay. No. 1,041,743; Oct. 22; Gaz. vol. 183; p. 798.
Hydraulic motor. J. R. Fee. No. 1,042,429; Oct. 29; Gaz. vol. 183; p. 1058.
Hydraulic transmission, Regulating device for. H. Schneider. No. 1,040,430; Oct. 8; Gaz. vol. 183; p. 285.
Hydrocarbon-burner. N. W. Mahaffey. No. 1,041,826; Oct. 22; Gaz. vol. 183; p. 830.
Hydrocarbon-burner, G. Pontteriant. No. 1,042,821; Oct. 29; Gaz. vol. 183; p. 1197.
Hydrocarbon-engine. A. Butsch. No. 1,042,886; Oct. 29; Gaz. vol. 183; p. 1219.
Hydrocarbon-generator. J. Stubbers. No. 1,042,987; Oct. 29; Gaz. vol. 183; p. 1253.
Hydrocarbon-vapor-generator control. J. Stubbers. No. 1,042,988; Oct. 29; Gaz. vol. 183; p. 1253.
Hydrocarbons into gas or vapor, Method of and apparatus for converting liquid. E. R. Benham. No. 1,040,124; Oct. 1; Gaz. vol. 183; p. 153.
Hydrogen by autocombustion, Preparation of. G. F. Jaubert. No. 1,040,204; Oct. 1; Gaz. vol. 183; p. 179.
Hydrogen peroxid and urea, Manufacture of a stable preparation from. H. Gritzner and H. Pohl. No. 1,040,998; Oct. 8; Gaz. vol. 183; p. 471.
Hydrogenating oily material. C. Ellis. No. 1,040,522; Oct. 8; Gaz. vol. 183; p. 321.
Hydrogenation. C. Ellis. No. 1,040,531; Oct. 8; Gaz. vol. 183; p. 320.
Ice-breaker. J. Dutzinger. No. 1,041,695; Oct. 15; Gaz. vol. 183; p. 715.
Ice-cream-cone dispenser. F. L. Tarbell. No. 1,041,122; Oct. 15; Gaz. vol. 183; p. 579.
Ice-cream container. G. W. Crist. No. 1,041,083; Oct. 15; Gaz. vol. 183; p. 528.
Ice-cream cutter. M. L. Burkhardt. No. 1,042,089; Oct. 22; Gaz. vol. 183; p. 914.
Ice-cutting machine. J. H. Finch and J. C. Balat. No. 1,039,718; Oct. 1; Gaz. vol. 183; p. 16.
Ice-cutting machines, Belt-tension regulator for. C. Hartman. No. 1,040,150; Oct. 1; Gaz. vol. 183; p. 176.
Ice-edger. O. W. Robins. No. 1,042,451; Oct. 29; Gaz. vol. 183; p. 1073.
Ice-manufacturing apparatus. A. B. Mattingly. No. 1,041,317; Oct. 15; Gaz. vol. 183; p. 622.
Ice-sawing machine. C. V. Aben. No. 1,041,717; Oct. 22; Gaz. vol. 183; p. 786.
Igniting device. E. C. Carlson. No. 1,040,143; Oct. 1; Gaz. vol. 183; p. 169.
Igniting system, Unispark. H. S. Lincoln. No. 1,039,973; Oct. 1; Gaz. vol. 183; p. 101.
Ignition and working system, Combined. H. S. Lincoln. No. 1,039,974; Oct. 1; Gaz. vol. 183; p. 102.
Ignition system. C. F. Kettering. No. 1,040,549; Oct. 8; Gaz. vol. 183; p. 257.
Ignition-timer. W. R. S. Whaley and E. P. Robinson. No. 1,039,947; Oct. 1; Gaz. vol. 183; p. 97.
Illuminating appliance. W. A. Davey. No. 1,042,413; Oct. 29; Gaz. vol. 183; p. 1049.
Impress to S. Chamson, System of transmitting. A. C. and L. S. Anderson. No. 1,040,110; Oct. 1; Gaz. vol. 183; p. 147.
Implement-holder. R. B. Taft. No. 1,040,853; Oct. 1; Gaz. vol. 183; p. 127.
Incandescent mantle. J. B. Hipwell. No. 1,039,934; Oct. 1; Gaz. vol. 183; p. 136.
Incandescent-mantle bar. A. A. Brown. No. 1,041,726; Oct. 22; Gaz. vol. 183; p. 786.
Incubator. T. W. Thomson. No. 1,039,944; Oct. 1; Gaz. vol. 183; p. 98.



Insulator-heater-tank. J. A. Perrin. No. 1,041,568; Oct. 15; Gaz. vol. 183; p. 698.
Insulator-heater-tank. G. H. Lee. No. 1,040,791; Oct. 8; Gaz. vol. 183; p. 394.
Insulator-heating system. C. H. Adair. No. 1,042,635; Oct. 29; Gaz. vol. 183; p. 1123.
Insulator, Line-. H. Schumacher. No. 1,041,178; Oct. 15; Gaz. vol. 183; p. 573.
Insulator, Consolidated terra-. C. B. Guthrie. No. 1,041,023; Oct. 15; Gaz. vol. 183; p. 726.
Insulator, record and filing card. M. Hermann. No. 1,042,049; Oct. 22; Gaz. vol. 183; p. 1275.
Insulating and protecting device. D. R. Knapp. No. 1,042,582; Oct. 29; Gaz. vol. 183; p. 1105.
Insulating mechanism. A. Frisch. No. 1,041,061; Oct. 15; Gaz. vol. 183; p. 638.
Indicator: *See* Fuse-indicator; Speed-indicator; Speed or distance indicator; Street or station indicator; Surface-indicator; Vehicle rear indicator.
Indicator. J. W. Ledoux. No. 1,041,107; Oct. 15; Gaz. vol. 183; p. 551.
Indigo compounds and making such bodies, Halogenized. A. Holt. No. 1,042,679; Oct. 29; Gaz. vol. 183; p. 1148.
Induction-furnace. C. P. Steinmetz. No. 1,042,966; Oct. 29; Gaz. vol. 183; p. 1262.
Ingots, Method of and means for stripping. E. Gathmann. No. 1,039,726; Oct. 1; Gaz. vol. 183; p. 19.
Injector. P. Dietrich and W. Millies. No. 1,042,005; Oct. 22; Gaz. vol. 183; p. 920.
Ink-well. J. R. Randolph. No. 1,040,754; Oct. 8; Gaz. vol. 183; p. 400.
Ink-well holder. C. Krickx. No. 1,042,863; Oct. 22; Gaz. vol. 183; p. 1004.
Inking mechanism. L. E. Morrison. No. 1,040,733; Oct. 8; Gaz. vol. 183; p. 393.
Inkstand. F. M. Ashley. No. 1,040,605; Oct. 8; Gaz. vol. 183; p. 348.
Insect and animal exterminator. J. J. Hobbs. No. 1,042,437; Oct. 29; Gaz. vol. 183; p. 1062.
Insect-destroyer. E. H. Schwartzburg. No. 1,039,835; Oct. 1; Gaz. vol. 183; p. 52.
Insect-trap. C. Horstmann. No. 1,042,550; Oct. 22; Gaz. vol. 183; p. 1003.
Insole. V. Weil. No. 1,040,697; Oct. 8; Gaz. vol. 183; p. 344.
Insulating-cleat. R. D. Hilty. No. 1,042,677; Oct. 29; Gaz. vol. 183; p. 1147.
Insulating-joint. C. Wirt. No. 1,040,971; Oct. 8; Gaz. vol. 183; p. 471.
Insulating-joint. L. McCarthy. No. 1,042,019; Oct. 22; Gaz. vol. 183; p. 895.
Insulating materials, Making. E. Hemming. No. 1,039,940; Oct. 1; Gaz. vol. 183; p. 99.
Insulation, Machine for making sheet. K. Rassler. No. 1,040,906; Oct. 15; Gaz. vol. 183; p. 513.
Insulator. J. N. Pouts. No. 1,042,902; Oct. 29; Gaz. vol. 183; p. 1235.
Insulator-bracket. D. W. Wyche. No. 1,041,937; Oct. 22; Gaz. vol. 183; p. 865.
Insulator-clamp. W. G. Clark. No. 1,040,630; Oct. 8; Gaz. vol. 183; p. 355.
Insulator-clamp, Suspension. W. G. Clark. No. 1,040,975; Oct. 8; Gaz. vol. 183; p. 472.
Insulator, High-potential. L. Steinberger. No. 1,040,050; Oct. 1; Gaz. vol. 183; p. 126.
Insulator, Split. J. R. Harris. No. 1,042,572; Oct. 22; Gaz. vol. 183; p. 1010.
Intaglio-plate-cleaning device. H. A. W. Wood. No. 1,042,517; Oct. 29; Gaz. vol. 183; p. 1090.
Interlocking-block structure. A. Haas. No. 1,040,190; Oct. 1; Gaz. vol. 183; p. 173.
Interlocking mechanism. H. B. Leppert. No. 1,040,705; Oct. 8; Gaz. vol. 183; p. 395.
Interlocking tubular construction. F. Barr. No. 1,040,697; Oct. 8; Gaz. vol. 183; p. 224.
Internal-combustion engine. O. W. Curtis. No. 1,039,704; Oct. 1; Gaz. vol. 183; p. 16.
Internal-combustion engine. W. R. S. Whaley and A. L. Galusha. No. 1,039,955; Oct. 1; Gaz. vol. 183; p. 66.
Internal-combustion engine. W. R. S. Whaley and E. P. Robinson. No. 1,039,956; Oct. 1; Gaz. vol. 183; p. 66.
Internal-combustion engine. E. P. Robinson. No. 1,040,018; Oct. 1; Gaz. vol. 183; p. 116.
Internal-combustion engine. N. E. Crothers. No. 1,040,183; Oct. 1; Gaz. vol. 183; p. 162.
Internal-combustion engine. C. V. Pitz. No. 1,040,290; Oct. 8; Gaz. vol. 183; p. 240.
Internal-combustion engine. W. C. Carter. No. 1,040,506; Oct. 8; Gaz. vol. 183; p. 312.
Internal-combustion engine. E. Read. No. 1,041,163; Oct. 15; Gaz. vol. 183; p. 566.
Internal-combustion engine. H. Knudsen. No. 1,041,366; Oct. 15; Gaz. vol. 183; p. 618.
Internal-combustion engine. E. T. White. No. 1,042,181; Oct. 22; Gaz. vol. 183; p. 947.
Internal-combustion engine. F. Chadwick. No. 1,042,322; Oct. 22; Gaz. vol. 183; p. 963.
Internal-combustion engine. F. A. Thornton. No. 1,042,503; Oct. 29; Gaz. vol. 183; p. 1083.
Internal-combustion engine. W. L. Township. No. 1,042,505; Oct. 29; Gaz. vol. 183; p. 1083.
Internal-combustion engine. W. H. Richman. No. 1,042,970; Oct. 29; Gaz. vol. 183; p. 1247.
Internal-combustion engine. J. M. Sutter. No. 1,042,975; Oct. 29; Gaz. vol. 183; p. 1249.
Internal-combustion engine. O. H. Rumpp. No. 1,042,980; Oct. 29; Gaz. vol. 183; p. 1252.
Internal-combustion motor. G. P. Collier. No. 1,040,247; Oct. 8; Gaz. vol. 183; p. 232.
Intumescent material and making the same. W. Artmer. No. 1,041,846; Oct. 15; Gaz. vol. 183; p. 703.
Invalid's chair. W. Diemer. No. 1,039,765; Oct. 1; Gaz. vol. 183; p. 12.
Iron: *See* Flat-iron; Rod-iron.
Iron and steel articles, Forming protective for. H. J. Lohmann. No. 1,039,978; Oct. 1; Gaz. vol. 183; p. 103.
Ironing-board cabinet. A. Fricke and H. J. Soave. No. 1,040,152; Oct. 1; Gaz. vol. 183; p. 171.
Ironing-board cabinet. W. Schongold. No. 1,042,996; Oct. 29; Gaz. vol. 183; p. 1190.
Ironing-board cover. A. H. Neubert. No. 1,042,139; Oct. 22; Gaz. vol. 183; p. 935.
Ironing-table. E. J. Patton. No. 1,039,791; Oct. 1; Gaz. vol. 183; p. 41.
Irrigation, Tree and plant. H. F. Thompson. No. 1,042,501; Oct. 29; Gaz. vol. 183; p. 1083.
Jack: *See* Lifting-jack; Quick-action jack; Shoe-jack; Vehicle-jack.
Jacquard. J. A. Groebli. No. 1,042,666; Oct. 29; Gaz. vol. 183; p. 1144.
Jar: *See* Fruit-jar.
Jar-closure. C. J. Johnson. No. 1,040,207; Oct. 1; Gaz. vol. 183; p. 180.
Jar opener, Milk-. L. R. Ingham. No. 1,042,869; Oct. 29; Gaz. vol. 183; p. 1146.
Joint: *See* Bed-frame joint; Conduit-joint; Expansion-joint; Hinge-joint; Insulating-joint; Paving-joint; Pipe ball-joint; Rail-joint; Receptacle-joint; Stovepipe-joint; Universal joint.
Joint connection. S. C. MacDowney. No. 1,041,645; Oct. 15; Gaz. vol. 183; p. 729.
Journal-bearings, Electric alarm attachment for. J. H. Rogers. No. 1,041,514; Oct. 15; Gaz. vol. 183; p. 667.
Journal-box. J. Herron and H. Bittern. No. 1,040,223; Oct. 8; Gaz. vol. 183; p. 249.
Junction-box cover. C. Wagner. No. 1,041,918; Oct. 22; Gaz. vol. 183; p. 861.
Key: *See* Recording-key; Ringing-key; Type-writer key.
Key-carrying device. F. A. Toca. No. 1,042,543; Oct. 29; Gaz. vol. 183; p. 1203.
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Kilns, &c., Burner for rotary. P. T. Lindhard. No. 1,042,578; Oct. 29; Gaz. vol. 183; p. 1111.
Kilns, &c., Wall construction for. H. Bachal. No. 1,040,422; Oct. 8; Gaz. vol. 183; p. 283.
Kinematographic films, Protecting. I. Kitsee. No. 1,042,601; Oct. 29; Gaz. vol. 183; p. 1190.
Kinetoscope. E. S. Porter. No. 1,041,245; Oct. 15; Gaz. vol. 183; p. 631.
Knapsack and carrier therefor. J. Renard. No. 1,040,413; Oct. 8; Gaz. vol. 183; p. 279.
Knife: *See* Orange-knife.
Knife. J. E. Buck. No. 1,040,138; Oct. 1; Gaz. vol. 183; p. 157.
Knitting machine, Circular-. A. Gagné and J. W. Shaw. No. 1,040,185; Oct. 1; Gaz. vol. 183; p. 171.
Knitting machine, Rib-. J. D. Morley. No. 1,039,990; Oct. 1; Gaz. vol. 183; p. 106.
Knitting-machine tension mechanism. J. D. Morley. No. 1,039,989; Oct. 1; Gaz. vol. 183; p. 105.
Knockdown box. B. L. Behrendt. No. 1,040,468; Oct. 8; Gaz. vol. 183; p. 305.
Knockdown box. C. Neubel. No. 1,041,533; Oct. 15; Gaz. vol. 183; p. 637.
Knot-tier. J. T. Dalton and J. C. Danaher. No. 1,041,669; Oct. 15; Gaz. vol. 183; p. 827.
Knot-tier, Hand. W. Renfrew. No. 1,041,163; Oct. 15; Gaz. vol. 183; p. 570.
Labeling-machine. F. W. Wild, Jr. No. 1,041,899; Oct. 15; Gaz. vol. 183; p. 646.
Labeling-machine. F. W. Wild, Jr. No. 1,041,542; Oct. 15; Gaz. vol. 183; p. 696.
Labeling-machine. F. W. Wild, Jr. No. 1,041,543; Oct. 15; Gaz. vol. 183; p. 697.
Lace-making machine. F. Holsichter. No. 1,042,993; Oct. 29; Gaz. vol. 183; p. 1220.
Lacings, Making tipped. E. A. Gallisay. No. 1,040,982; Oct. 8; Gaz. vol. 183; p. 370.
Ladder. W. E. Wine. No. 1,040,083; Oct. 1; Gaz. vol. 183; p. 138.
Ladder, Extension step-. B. A. Handy. No. 1,040,313; Oct. 8; Gaz. vol. 183; p. 243.
Lamp. A. B. Thompson and J. Cameron. No. 1,039,695; Oct. 1; Gaz. vol. 183; p. 128.
Lamp. G. F. Wehr. No. 1,040,072; Oct. 1; Gaz. vol. 183; p. 135.
Lamp. C. L. Betts. No. 1,041,414; Oct. 15; Gaz. vol. 183; p. 654.
Lamp. E. A. Wittermood. No. 1,042,868; Oct. 29; Gaz. vol. 183; p. 1212.
Lamp and supporting-bracket therefor, Electric. C. Williams. No. 1,040,260; Oct. 1; Gaz. vol. 183; p. 187.
Lamp, Arc-. E. Thomson. No. 1,041,197; Oct. 15; Gaz. vol. 183; p. 581.
Lamp, Automobile-. F. C. Parsons. No. 1,042,473; Oct. 29; Gaz. vol. 183; p. 1078.
Lamp-chimney, Fastening. W. J. Wantzough. No. 1,042,587; Oct. 29; Gaz. vol. 183; p. 1205.

Lamp-controlling attachment, Heating-. L. W. Heimer and C. V. Trautman. No. 1,041,663; Oct. 15; Gas. vol. 183; p. 843.
Lamp, Electric-arc. W. Rühling. No. 1,042,575; Oct. 22; Gas. vol. 183; p. 1011.
Lamp-extinguisher. J. P. Simons. No. 1,040,445; Oct. 8; Gas. vol. 183; p. 289.
Lamp-extinguisher. M. Schrader. No. 1,040,777; Oct. 8; Gas. vol. 183; p. 407.
Lamp, Flash-. D. Harrington. No. 1,042,241; Oct. 22; Gas. vol. 183; p. 1001.
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Lamp-locking device. J. C. Manley, J. Thulin, and P. J. Smith. No. 1,040,366; Oct. 8; Gas. vol. 183; p. 263.
Lamp-locking device. J. C. Manley, J. Thulin, and P. J. Smith. No. 1,040,367; Oct. 8; Gas. vol. 183; p. 263.
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Lamp socket, Electric-. W. A. Richardson. No. 1,041,873; Oct. 22; Gas. vol. 183; p. 846.
Lamp-socket locking device. F. Barr. No. 1,042,383; Oct. 29; Gas. vol. 183; p. 1041.
Lamp, Tubular incandescent. H. R. Knowles. No. 1,041,100; Oct. 15; Gas. vol. 183; p. 540.
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Lamps, Transparent hood for electric. G. A. Seeuls. No. 1,042,979; Oct. 29; Gas. vol. 183; p. 1250.
Land-roller. W. A. McIlvoy. No. 1,040,722; Oct. 8; Gas. vol. 183; p. 390.
Lantern. H. Geruldsen. No. 1,041,065; Oct. 15; Gas. vol. 183; p. 537.
Lantern. G. Dalén and S. A. Eskilson. No. 1,041,426; Oct. 15; Gas. vol. 183; p. 662.
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Lantern-holder. W. W. Eastman. No. 1,042,896; Oct. 29; Gas. vol. 183; p. 1228.
Lantern, Tubular. C. Bergener. No. 1,041,411; Oct. 15; Gas. vol. 183; p. 653.
Lanterns, Sliding support for. J. Waldmann. No. 1,041,207; Oct. 15; Gas. vol. 183; p. 585.
Lasting-machine. P. A. M. Kiener. No. 1,042,799; Oct. 29; Gas. vol. 183; p. 1189.
Latch and lock. W. Kraft. No. 1,041,305; Oct. 15; Gas. vol. 183; p. 619.
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Latch structure. C. J. Parsons. No. 1,042,080; Oct. 22; Gas. vol. 183; p. 909.
Lath, Forming ribbed. T. H. Kane. No. 1,039,954; Oct. 1; Gas. vol. 183; p. 94.
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Lathe. O. W. Schaum. No. 1,042,149; Oct. 22; Gas. vol. 183; p. 937.
Lathe attachment, Turret-. C. L. Goodrich. No. 1,041,994; Oct. 22; Gas. vol. 183; p. 898.
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Lathe, Stone-cutting. F. A. Grearson. No. 1,042,217; Oct. 22; Gas. vol. 183; p. 980.
Lathe, Turret-. E. Vahle. No. 1,041,203; Oct. 15; Gas. vol. 183; p. 585.
Lathes, Turret-slide-operating mechanism for automatic turret-. J. C. Potter. No. 1,040,751; Oct. 8; Gas. vol. 183; p. 399.
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Laundry-roll, Electrically-heated. W. S. Hadaway, Jr. No. 1,042,433; Oct. 29; Gas. vol. 183; p. 1060.
Lavatory. H. M. Weaver. No. 1,039,995; Oct. 1; Gas. vol. 183; p. 63.
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Leakage-reducing device. W. Kieser. No. 1,041,685; Oct. 15; Gas. vol. 183; p. 677.
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Level. J. D. Gulfoyle. No. 1,041,622; Oct. 15; Gas. vol. 183; p. 720.
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Life-preserver, Airship. L. L. Hill. No. 1,042,849; Oct. 29; Gas. vol. 183; p. 1069.
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Lifting-jack. C. Skidmore. No. 1,042,161; Oct. 22; Gas. vol. 183; p. 941.
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Light concentrator and projector. C. G. Myers. No. 1,042,716; Oct. 29; Gas. vol. 183; p. 1161.
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Line-carrier. L. D. Shafer. No. 1,041,683; Oct. 15; Gas. vol. 183; p. 742.
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Lint-treating apparatus. J. H. Cheesman. No. 1,042,305; Oct. 29; Gas. vol. 183; p. 1046.
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Liquid-storage system. H. B. Grant. No. 1,042,107; Oct. 22; Gas. vol. 183; p. 924.
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Malting. H. Houser. No. 1,041,282; Oct. 15; Gas. vol. 183; p. 612.
Mandrel, Collapsible. H. B. Hansen. No. 1,040,589; Oct. 8; Gas. vol. 183; p. 322.
Manhole-fit. J. W. Smith. No. 1,040,446; Oct. 8; Gas. vol. 183; p. 290.
Manure-spreader. S. K. Dennis. No. 1,042,974; Oct. 29; Gas. vol. 183; p. 879.
Map and odometer, Combined road-. J. W. Jones. No. 1,040,345; Oct. 8; Gas. vol. 183; p. 256.
Map for automobiles, Automatic road-. H. L. Triplett. No. 1,039,848; Oct. 1; Gas. vol. 183; p. 60.
Marcel waver. J. W. Buckbrood. No. 1,042,886; Oct. 29; Gas. vol. 183; p. 1219.
Marking-gage. A. H. Widen. No. 1,040,978; Oct. 1; Gas. vol. 183; p. 136.
Marking or canceling machine. W. L. Bowlen. No. 1,042,759; Oct. 29; Gas. vol. 183; p. 1176.
Mask, Inhaling-. J. W. Snyder. No. 1,040,801; Oct. 8; Gas. vol. 183; p. 415.
Massage apparatus. K. Van Hook. No. 1,042,658; Oct. 22; Gas. vol. 183; p. 907.
Match. J. R. Nolan. No. 1,042,464; Oct. 29; Gas. vol. 183; p. 1072.
Match-books, Machine for making. M. Parsden and T. A. Palmer. No. 1,042,472; Oct. 29; Gas. vol. 183; p. 1074.
Match-box. F. H. Farrar, Sr. No. 1,042,419; Oct. 29; Gas. vol. 183; p. 1055.
Match-machine. P. C. Forrester. No. 1,041,969; Oct. 22; Gas. vol. 183; p. 885.
Match-receptacle. J. E. Neahr. No. 1,040,226; Oct. 1; Gas. vol. 183; p. 188.
Match-safe. E. H. Tatlow, Jr. No. 1,041,570; Oct. 15; Gas. vol. 183; p. 640.
Match-safe. H. L. Bulsbach. No. 1,041,695; Oct. 15; Gas. vol. 183; p. 746.
Match-safe. F. Kotrabe. No. 1,042,690; Oct. 29; Gas. vol. 183; p. 1151.
Mausoleum. W. L. Lawrence. No. 1,041,637; Oct. 15; Gas. vol. 183; p. 726.
Measurer, Skirt-. E. M. Farr. No. 1,041,611; Oct. 15; Gas. vol. 183; p. 716.
Measuring device. E. F. Sörensen. No. 1,040,044; Oct. 1; Gas. vol. 183; p. 125.
Measuring device, Alternating-current-. B. Gáti. No. 1,039,925; Oct. 1; Gas. vol. 183; p. 84.
Measuring device, Tailor's. W. Wendorf. No. 1,042,963; Oct. 22; Gas. vol. 183; p. 908.
Measuring granular material, Device for. O. D. Haverd. No. 1,040,537; Oct. 8; Gas. vol. 183; p. 323.
Measuring-machine for rolled material. G. H. King. No. 1,040,351; Oct. 8; Gas. vol. 183; p. 256.
Measuring the flow of water, Device for. J. A. Hiller. No. 1,041,470; Oct. 15; Gas. vol. 183; p. 672.
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Mechanical movement. L. Fuchs. No. 1,041,583; Oct. 15; Gas. vol. 183; p. 604.
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Mesh heater. A. A. Low. No. 1,039,769; Oct. 1; Gas. vol. 183; p. 34.
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Metal-dividing machines, Rotating disk for. H. Heymon. No. 1,039,738; Oct. 1; Gas. vol. 183; p. 23.
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Metal plates, Machine for upsetting. C. L. Parmalee. No. 1,040,396; Oct. 8; Gas. vol. 183; p. 274.
Metal-rod-bending apparatus. E. B. Hartman. No. 1,042,112; Oct. 22; Gas. vol. 183; p. 926.
Metal-straightening machine. S. D. Locke. No. 1,042,121; Oct. 22; Gas. vol. 183; p. 931.
Metal, Tool for making angular bends in. A. H. Cloos. No. 1,040,745; Oct. 8; Gas. vol. 183; p. 397.
Metal-working apparatus, Electric. A. F. Rietzel and G. E. Barstow. No. 1,041,673; Oct. 15; Gas. vol. 183; p. 739.
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Metals from ores, Extracting. J. Escreres de Alsugaray. No. 1,041,407; Oct. 15; Gas. vol. 183; p. 652.
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Metals, Producing porous. H. I. Hannover. No. 1,042,114; Oct. 22; Gas. vol. 183; p. 925.
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Metallic tie and rail-chair. M. B. Packer. No. 1,041,296; Oct. 15; Gas. vol. 183; p. 629.
Metallic tie and rail-clamp. A. S. Lawson. No. 1,041,168; Oct. 15; Gas. vol. 183; p. 551.
Metallic wheel. S. H. Summervealen. No. 1,042,289; Oct. 22; Gas. vol. 183; p. 963.
Metallization of siliceous articles, Superficial. P. Marino. No. 1,041,126; Oct. 15; Gas. vol. 183; p. 587.

Metallurgical furnace. U. Wedge. No. 1,040,071; Oct. 1; Gaz. vol. 183; p. 134.
Metallurgical furnace. H. R. Smythe. No. 1,042,047; Oct. 22; Gaz. vol. 183; p. 904.
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Meter box, Water-. M. N. Griffin. No. 1,042,218; Oct. 22; Gaz. vol. 183; p. 943.
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Micrometer mixing-block. J. T. Schamel. No. 1,040,774; Oct. 8; Gaz. vol. 183; p. 402.
Mileage registering and auditing apparatus, Automatic. J. T. Gallaher. No. 1,039,724; Oct. 1; Gaz. vol. 183; p. 18.
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Milk-condenser. S. P. Hay. No. 1,042,912; Oct. 29; Gaz. vol. 183; p. 1232.
Milking-machine pulsator. A. L. Berthelsen. No. 1,041,040; Oct. 29; Gaz. vol. 183; p. 1272.
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Milling-machine. C. R. North. No. 1,040,963; Oct. 8; Gaz. vol. 183; p. 478.
Milling-machine attachment. J. Johnson. No. 1,040,954; Oct. 8; Gaz. vol. 183; p. 466.
Mine, Floating. A. Lernet. No. 1,042,574; Oct. 29; Gaz. vol. 183; p. 1110.
Miner's combination tamping-tool, &c. L. and A. W. Shafer. No. 1,040,067; Oct. 1; Gaz. vol. 183; p. 132.
Miner's-inch weir. W. F. Eaglesright. No. 1,042,097; Oct. 22; Gaz. vol. 183; p. 921.
Mining coal, &c. J. H. Headley and W. H. Knight. No. 1,040,679; Oct. 8; Gaz. vol. 183; p. 376.
Mining-tub, Self-dumping. O. Belford. No. 1,039,688; Oct. 1; Gaz. vol. 183; p. 5.
Minnow-trap and lantern, Knockdown combination. T. F. Thomas. No. 1,041,195; Oct. 15; Gaz. vol. 183; p. 590.
Mirror and the like frame. J. W. Bailey. No. 1,040,881; Oct. 1; Gaz. vol. 183; p. 71.
Mirror-holder, Adjustable. O. O. Bergh. No. 1,041,002; Oct. 15; Gaz. vol. 183; p. 515.
Miter-box. A. F. Schade. No. 1,042,976; Oct. 29; Gaz. vol. 183; p. 1249.
Mixer: *See* Concrete-mixer; Dough-mixer; Gaseous-fuel mixer.
Mixing device. I. B. White. No. 1,040,836; Oct. 8; Gaz. vol. 183; p. 423.
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Mixing-machine. F. T. Arnold. No. 1,041,947; Oct. 22; Gaz. vol. 183; p. 870.
Moistener, Envelop-. J. F. Hambly. No. 1,040,667; Oct. 8; Gaz. vol. 183; p. 372.
Moistening and sealing machine, Envelop. L. A. Wakefield. No. 1,043,053; Oct. 29; Gaz. vol. 183; p. 1276.
Mold: *See* Ball-mold; Chimney-mold; Curbing-mold; Laundry-mold.
Mold. H. T. Frost. No. 1,041,991; Oct. 22; Gaz. vol. 183; p. 882.
Molds, Mechanism for drawing patterns from. R. D. Fuller, J. R. and T. A. Reilly. No. 1,042,780; Oct. 29; Gaz. vol. 183; p. 1163.
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Molding socket and ping. G. Brooks. No. 1,043,054; Oct. 29; Gaz. vol. 183; p. 1277.
Monochlorhydrin, Purifying. F. C. Heyer. No. 1,040,223; Oct. 8; Gaz. vol. 183; p. 249.
Monoplane. R. E. McBride. No. 1,041,131; Oct. 15; Gaz. vol. 183; p. 559.
Mop. C. A. Channell. No. 1,041,023; Oct. 15; Gaz. vol. 183; p. 522.
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Motor: *See* Electric motor; Exhaust-motor; Explosion-motor; Explosive-motor; Flow-motor; Hydraulic motor; Internal-combustion motor; Rotary motor; Spring-motor; Water-motor.
Motor control, Alternating-current-. W. R. Potter. No. 1,041,868; Oct. 22; Gaz. vol. 183; p. 844.
Motor control, Brake-actuated. H. P. Dodge. No. 1,043,002; Oct. 29; Gaz. vol. 183; p. 1268.
Motor-control system. R. H. McLain. No. 1,041,127; Oct. 15; Gaz. vol. 183; p. 561.
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Motor-control system. C. Krämer. No. 1,042,692; Oct. 29; Gaz. vol. 183; p. 1152.
Motor-control system. C. Krämer. No. 1,042,693; Oct. 29; Gaz. vol. 183; p. 1152.
Motor-control system. K. F. Kingwell. (Reissue.) No. 13,483; Oct. 29; Gaz. vol. 183; p. 1278.
Motor-controlling apparatus. J. D. Ilsley and W. D. Lutz. No. 1,040,559; Oct. 8; Gaz. vol. 183; p. 254.
Motor-controlling device. T. W. Howell. No. 1,041,889; Oct. 22; Gaz. vol. 183; p. 840.
Motor for phonographs and other purposes. J. M. Evans. No. 1,042,880; Oct. 29; Gaz. vol. 183; p. 1141.
Motor-supporting means, Electric. E. M. Schelin. No. 1,042,435; Oct. 29; Gaz. vol. 183; p. 1078.
Motor-suspension. E. H. Stuart. No. 1,040,810; Oct. 8; Gaz. vol. 183; p. 418.
Motor-wheel for cycles. A. C. Schmit. No. 1,041,510; Oct. 15; Gaz. vol. 183; p. 688.
Motor-wheel, Spoke for. T. J. Rzeminkowski. No. 1,040,771; Oct. 8; Gaz. vol. 183; p. 399.
Motors, Electric. J. W. Stump. No. 1,042,107; Oct. 22; Gaz. vol. 183; p. 949.
Mower, Lawn-. R. B. Lounsbery, Jr. No. 1,041,124; Oct. 15; Gaz. vol. 183; p. 556.
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Moving-machine. N. Madsen. No. 1,041,312; Oct. 15; Gaz. vol. 183; p. 621.
Muffler. G. Cormack. No. 1,040,626; Oct. 8; Gaz. vol. 183; p. 354.
Muffler. E. S. Strahan. No. 1,041,190; Oct. 15; Gaz. vol. 183; p. 579.
Muffler. P. Herriet. No. 1,042,247; Oct. 22; Gaz. vol. 183; p. 1002.
Music-leaf turner. S. D. Case. No. 1,039,690; Oct. 1; Gaz. vol. 183; p. 7.
Music-leaf turner. G. H. Jones. No. 1,040,209; Oct. 1; Gaz. vol. 183; p. 181.
Music-leaf turner. W. L. Strong. No. 1,040,454; Oct. 8; Gaz. vol. 183; p. 293.
Music-leaf turner. E. I. Cox. No. 1,041,060; Oct. 15; Gaz. vol. 183; p. 713.
Music-lyre. J. H. Hawley. No. 1,041,277; Oct. 15; Gaz. vol. 183; p. 609.
Music-sheet-guiding device. J. O'Connor. No. 1,041,899; Oct. 22; Gaz. vol. 183; p. 841.
Musical instrument, Automatic. J. Wauters. No. 1,043,723; Oct. 29; Gaz. vol. 183; p. 1161.
Musical instrument, Automatic. F. L. McCormick and A. De Kleist. No. 1,042,066; Oct. 29; Gaz. vol. 183; p. 1217.
Musical instruments, Automatic playing attachment for. R. H. Bennett. No. 1,040,261; Oct. 8; Gaz. vol. 183; p. 227.
Musical instruments, Device for centering music-rolls in. P. Wuest, Jr. No. 1,041,218; Oct. 15; Gaz. vol. 183; p. 583.
Musical instruments, Perforated note-sheet for. G. N. McMillan. No. 1,042,706; Oct. 29; Gaz. vol. 183; p. 1157.
Musical instruments, Pneumatic action for. A. De Kleist. No. 1,041,427; Oct. 15; Gaz. vol. 183; p. 673.
Mustache-guard. J. H. McConnell. No. 1,042,940; Oct. 29; Gaz. vol. 183; p. 1236.
Muzzle. J. M. Millner. No. 1,041,841; Oct. 22; Gaz. vol. 183; p. 835.
Mussels, Animal-. B. P. Merry. No. 1,042,022; Oct. 22; Gaz. vol. 183; p. 896.
Nail: *See* Heel and sole nail.
Name-holder. H. B. Cook. No. 1,039,902; Oct. 1; Gaz. vol. 183; p. 78.
Naphtha storing and pumping system. J. J. Tolbotha. No. 1,040,462; Oct. 8; Gaz. vol. 183; p. 296.
Nebulizer. J. J. Holland and W. Discher. No. 1,042,556; Oct. 29; Gaz. vol. 183; p. 1103.
Necktie-shaper, Removable. C. H. Borden. No. 1,041,418; Oct. 15; Gaz. vol. 183; p. 685.
Needle-bar-driving connection. A. A. Merritt. No. 1,041,654; Oct. 15; Gaz. vol. 183; p. 733.
Needle-making machine. P. Babin. No. 1,042,879; Oct. 29; Gaz. vol. 183; p. 1217.
Nether garment. B. L. Rich. No. 1,042,631; Oct. 29; Gaz. vol. 183; p. 1200.
Newspaper-holder frame. H. Zum Felde. No. 1,040,915; Oct. 8; Gaz. vol. 183; p. 461.
Nickel salts and recovering the acid used, Making. H. L. Wells. No. 1,039,861; Oct. 1; Gaz. vol. 183; p. 64.
Nitrogen compounds, Including nitride and ammonia, Making. A. Minding-Larsen. No. 1,042,723; Oct. 29; Gaz. vol. 183; p. 1163.
Nitrogen compounds, Manufacturing. H. Pettibone and B. von Skelly. No. 1,042,141; Oct. 22; Gaz. vol. 183; p. 934.
Nitrogen, Treating lime-. A. P. Sannore and O. F. Carlson. No. 1,042,746; Oct. 29; Gaz. vol. 183; p. 1171.
Nose-guard. L. F. Adt. No. 1,040,097; Oct. 1; Gaz. vol. 183; p. 142.
Nozzle. A. R. Clarkson. No. 1,042,823; Oct. 22; Gaz. vol. 183; p. 994.
Nozzle-holder. G. B. Davis. No. 1,040,845; Oct. 8; Gaz. vol. 183; p. 399.
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Nozzle, Sand-cleaning. R. Dahmann. No. 1,040,690; Oct. 8; Gaz. vol. 183; p. 446.
Nozzle-tip, Adjustable. C. L. Baker. No. 1,042,070; Oct. 22; Gaz. vol. 183; p. 911.
Numbering-device attachment. J. G. Robertson. No. 1,041,674; Oct. 15; Gaz. vol. 183; p. 740.
Nut-cracking device. J. Washowich. No. 1,041,581; Oct. 15; Gaz. vol. 183; p. 692.
Nut-lock. H. A. Doty. No. 1,039,710; Oct. 1; Gaz. vol. 183; p. 12.
Nut-lock. J. D. Ertner. No. 1,040,215; Oct. 1; Gaz. vol. 183; p. 182.
Nut-lock. J. Coyle. No. 1,040,519; Oct. 8; Gaz. vol. 183; p. 318.





Nut-lock. W. R. Bevan and D. T. Morley. No. 1,040,609; Oct. 8; Gaz. vol. 183; p. 349.
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Oil-seed and the like, Apparatus particularly suitable for treating. E. Scott. No. 1,040,782; Oct. 8; Gaz. vol. 183; p. 403.
Oil suitable for impregnating porous bodies, Preparing an. J. Debast. No. 1,041,804; Oct. 15; Gaz. vol. 183; p. 714.
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Oiler. E. H. Evans. No. 1,042,599; Oct. 29; Gaz. vol. 183; p. 1224.
Oiling apparatus for journals. W. O'Connors. No. 1,041,152; Oct. 15; Gaz. vol. 183; p. 566.
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Order-taking and receipt-delivering device. C. R. Lang. No. 1,042,010; Oct. 22; Gaz. vol. 183; p. 891.
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Ore concentrator or stirrer. I. P. Mcnell. No. 1,041,842; Oct. 22; Gaz. vol. 183; p. 836.
Ore-pockets or similar receptacles, Door mechanism for. R. R. Pearson. No. 1,040,237; Oct. 1; Gaz. vol. 183; p. 183.
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Ores, metalliferous residues, &c., Method of and apparatus for agglomerating fine. C. Dellwik. No. 1,039,766; Oct. 1; Gaz. vol. 183; p. 11.
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Ovens, refrigerators, and similar articles, Knockdown lining for. E. Richardson. No. 1,041,164; Oct. 15; Gaz. vol. 183; p. 570.
Overload control for metal rolls. G. H. Blanton. No. 1,040,863; Oct. 8; Gaz. vol. 183; p. 424.
Ox-bow. J. W. Reeves. No. 1,040,764; Oct. 8; Gaz. vol. 183; p. 401.
Oxonifying. C. S. Bradley. No. 1,041,421; Oct. 15; Gaz. vol. 183; p. 656.
Oxoniser. H. E. Beck. No. 1,040,123; Oct. 1; Gaz. vol. 183; p. 152.
Package, Food-. J. A. Kavanagh. No. 1,042,119; Oct. 22; Gaz. vol. 183; p. 927.
Packaging-machine. F. W. Lev. No. 1,042,013; Oct. 22; Gaz. vol. 183; p. 906.
Packer. F. J. Heybach. No. 1,040,946; Oct. 8; Gaz. vol. 183; p. 462.
Packing. J. Kerchner and J. Stugner. No. 1,042,926; Oct. 29; Gaz. vol. 183; p. 1232.
Packing and other material, Tool for removing. J. H. Lesk. No. 1,040,861; Oct. 8; Gaz. vol. 183; p. 361.
Packing and shipping case, Metallic. L. F. Brand and F. C. Gladeck. No. 1,040,870; Oct. 8; Gaz. vol. 183; p. 426.
Packing, Fabric. C. S. Bavier and E. F. Bamfield. No. 1,040,259; Oct. 8; Gaz. vol. 183; p. 226.
Packing for reciprocating rods. I. J. Bent. No. 1,040,494; Oct. 8; Gaz. vol. 183; p. 306.
Packing-machine. G. H. Caughran. No. 1,042,200; Oct. 22; Gaz. vol. 183; p. 958.
Packing mechanism. H. K. King. No. 1,041,866; Oct. 22; Gaz. vol. 183; p. 823.
Packing-ring for rotating shafts, Divided. P. Wagner. No. 1,041,534; Oct. 15; Gaz. vol. 183; p. 694.
Packing, Treating piston-. J. L. Crouse and H. R. Edgecomb. No. 1,039,702; Oct. 1; Gaz. vol. 183; p. 10.
Pad: *See* Shoulder-pad.
Paddle-wheel, Self-dumping. F. J. Lockwood. No. 1,041,119; Oct. 15; Gaz. vol. 183; p. 554.
Padlock, Permutation-. A. Rudy. No. 1,041,516; Oct. 15; Gaz. vol. 183; p. 687.
Pail. F. Reynolds. No. 1,042,272; Oct. 22; Gaz. vol. 183; p. 977.
Pail, Milk-. C. E. Bradford. No. 1,040,613; Oct. 8; Gaz. vol. 183; p. 350.
Pail-rest. J. T. Fletcher. No. 1,040,249; Oct. 1; Gaz. vol. 183; p. 193.
Painter's detachable suspension-hook. C. F. Thrunson. No. 1,040,462; Oct. 8; Gaz. vol. 183; p. 296.
Pan: *See* Evaporating-pan.
Panel-board construction. E. S. Morrell. No. 1,040,881; Oct. 8; Gaz. vol. 183; p. 268.
Paper and like machinery. R. G. Hutchison. No. 1,040,538; Oct. 8; Gaz. vol. 183; p. 254.
Paper, Apparatus for treating waste vegetable and textile fiber for the manufacture of. L. Hara. No. 1,039,941; Oct. 1; Gaz. vol. 183; p. 99.
Paper, &c., Apparatus for use in the production of printed and embossed wall-. H. W. Sanderson. No. 1,041,673; Oct. 15; Gaz. vol. 183; p. 741.
Paper bags, Making. C. F. Smith. No. 1,041,861; Oct. 15; Gaz. vol. 183; p. 637.
Paper-blank-forming machine. C. Holly. No. 1,040,267; Oct. 8; Gaz. vol. 183; p. 478.
Paper-box blanks, Piecing machine for. A. Worcester. No. 1,041,554; Oct. 15; Gaz. vol. 183; p. 699.
Paper box, Folding. S. D. Gamsie. No. 1,041,962; Oct. 22; Gaz. vol. 183; p. 886.
Paper containing water-marks of various designs, Making patterns for the manufacture of. J. Kiother. No. 1,041,301; Oct. 15; Gaz. vol. 183; p. 617.
Paper-cutter, Counter. J. L. Baber. No. 1,040,245; Oct. 8; Gaz. vol. 183; p. 428.
Paper-cutting machine. G. Berger. No. 1,040,262; Oct. 8; Gaz. vol. 183; p. 227.
Paper-cutting-machine safety-lock. C. Seybold. No. 1,040,441; Oct. 8; Gaz. vol. 183; p. 286.
Paper drinking-cup. C. M. Gage, Jr. No. 1,039,723; Oct. 1; Gaz. vol. 183; p. 13.
Paper drinking-cup. E. K. Richardson. No. 1,042,284; Oct. 29; Gaz. vol. 183; p. 1196.
Paper-feeding machine, Sheet-registering mechanism for. T. C. Dexter and V. Garner. No. 1,040,168; Oct. 1; Gaz. vol. 183; p. 166.
Paper-guide. A. U. Davis. No. 1,040,901; Oct. 8; Gaz. vol. 183; p. 446.
Paper-machines, &c., Suction apparatus for. A. M. Binns. No. 1,040,136; Oct. 1; Gaz. vol. 183; p. 153.

Paper-making machines, Means for controlling the strainer-drums of. M. Lamort. No. 1,040,553; Oct. 8; Gaz. vol. 183; p. 228.

Paper material, Treating vegetable and textile fiber, waste paper, wood-waste and the like for conversion into. L. Herz. No. 1,041,701; Oct. 22; Gaz. vol. 183; p. 917.

Paper-pulp, &c. mortar, J. M. L. Baumgenberg. No. 1,042,724; Oct. 29; Gaz. vol. 183; p. 1163.

Paper-tube winding machine. W. R. Seigle. No. 1,040,437; Oct. 8; Gaz. vol. 183; p. 287.

Paper tubes, Constructing wound. W. R. Seigle. No. 1,040,436; Oct. 8; Gaz. vol. 183; p. 287.

Paper vessel, Grease-proof. H. L. G. Moore. No. 1,041,504; Oct. 15; Gaz. vol. 183; p. 684.

Paper vessels, Machine for making. L. Norman. No. 1,042,953; Oct. 29; Gaz. vol. 183; p. 1241.

Parachute. L. J. Bouchleau. No. 1,040,241; Oct. 1; Gaz. vol. 183; p. 190.

Paring machine, Apple-. W. A. C. Oaks. No. 1,039,998; Oct. 1; Gaz. vol. 183; p. 109.

Paste to labels, &c., Machine for applying. A. Potdevin. No. 1,040,009; Oct. 1; Gaz. vol. 183; p. 112.

Pasting device. J. W. Collins. No. 1,042,325; Oct. 22; Gaz. vol. 183; p. 996.

Pavements, Tool for marking cement. L. W. McIntyre. No. 1,041,320; Oct. 15; Gaz. vol. 183; p. 624.

Paving. J. A. Bell, G. R. Wilton, and G. P. Griffith. No. 1,041,578; Oct. 15; Gaz. vol. 183; p. 707.

Paving-joint. T. L. Moore. No. 1,040,731; Oct. 8; Gaz. vol. 183; p. 392.

Peanut cleaning and stemming machine. T. J. Whitmore No. 1,042,869; Oct. 29; Gaz. vol. 183; p. 1210.

Peeling machine, Fruit-. J. W. Carmochan. No. 1,040,507; Oct. 8; Gaz. vol. 183; p. 311.

Peeling machine, Potato-. G. S. Blakeslee. No. 1,039,669; Oct. 1; Gaz. vol. 183; p. 5.

Pen, Combination fountain-. F. I. Tolles. No. 1,042,726. Oct. 29; Gaz. vol. 183; p. 1164.

Pen, Fountain-. J. W. Laughlin. No. 1,042,695; Oct 29; Gaz. vol. 183; p. 1153.

Pen, Fountain-. J. W. Laughlin. No. 1,042,804; Oct. 29; Gaz. vol. 183; p. 1190.

Pen-wiper. O. V. Monroe. No. 1,041,226; Oct. 15; Gaz. vol. 183; p. 626.

Pencil and pen clip. F. J. Klein. No. 1,039,758; Oct. 1; Gaz. vol. 183; p. 30.

Pencil-case. J. Werner. No. 1,041,926; Oct. 22; Gaz. vol. 183; p. 864.

Pencil-holder, Portable. W. D. Blakar. No. 1,040,860; Oct. 8; Gaz. vol. 183; p. 432.

Pencil-sharpener. J. D. Stassart. No. 1,040,048; Oct. 1; Gaz. vol. 183; p. 126.

Pencil-sharpening machine. E. P. Webster. No. 1,040,069; Oct. 1; Gaz. vol. 183; p. 133.

Percussion-tool machine. F. Bade. No. 1,041,569; Oct. 15; Gaz. vol. 183; p. 704.

Perforating-machine. C. L. Lilleberg. No. 1,042,453; Oct. 29; Gaz. vol. 183; p. 1066.

Phenols with formic aldehyde, Producing condensation products from. A. Weindel. No. 1,039,558; Oct. 1; Gaz. vol. 183; p. 64.

Phenols with formic aldehyde, Producing condensation products from. A. Weindel. No. 1,039,559; Oct. 1; Gaz. vol. 183; p. 64.

Phonograph. P. Weber. No. 1,041,922; Oct. 22; Gaz. vol. 183; p. 862.

Phonograph. J. H. J. Haines. No. 1,042,110; Oct. 22; Gaz. vol. 183; p. 925.

Phonograph, Automatic. H. T. Scott and L. J. Patterson. No. 1,040,029; Oct. 1; Gaz. vol. 183; p. 119.

Phonograph, Automatic. H. T. Scott and L. J. Patterson. No. 1,040,031; Oct. 1; Gaz. vol. 183; p. 120.

Phonograph, Automatic. H. T. Scott and L. J. Patterson. No. 1,040,034; Oct. 1; Gaz. vol. 183; p. 121.

Phonograph-mandrel. H. T. Scott. No. 1,040,033; Oct. 1; Gaz. vol. 183; p. 121.

Phonograph-record-molding apparatus. J. W. Aylsworth and E. L. Aiken. No. 1,041,948; Oct. 22; Gaz. vol. 183; p. 871.

Phonograph-reproducer. H. T. Scott and L. J. Patterson. No. 1,040,030; Oct. 1; Gaz. vol. 183; p. 119.

Phonograph-reproducer. H. T. Scott. No. 1,040,032; Oct. 1; Gaz. vol. 183; p. 121.

Phonograph-stylus. T. A. Edison. No. 1,041,963; Oct. 22; Gaz. vol. 183; p. 883.

Phonography. I. Kitsee. No. 1,040,213; Oct. 1; Gaz. vol. 183; p. 182.

Phosphate and the like, Drying monocalcic. T. L. Willson and M. M. Haff. No. 1,040,061; Oct. 1; Gaz. vol. 183; p. 137.

Photograph-holder. S. Heller. No. 1,040,220; Oct. 8; Gaz. vol. 183; p. 248.

Photograph-printing machine. A. S. Witter and O. A. Gordon. No. 1,039,574; Oct. 1; Gaz. vol. 183; p. 60.

Photographs and projecting same, Apparatus for taking kinematographic (or other). G. C. Thomas. No. 1,040,891; Oct. 8; Gaz. vol. 183; p. 343.

Photographic apparatus. R. J. and J. A. Loudon. No. 1,041,122; Oct. 15; Gaz. vol. 183; p. 555.

Photographic backgrounds, Producing. H. P. Sheaffer. No. 1,040,036; Oct. 1; Gaz. vol. 183; p. 122.

Photographic-printing device. M. F. Long. No. 1,040,710; Oct. 8; Gaz. vol. 183; p. 366.

Physician's table. F. A. Denquer. No. 1,039,768; Oct. 1; Gaz. vol. 183; p. 12.

Piano action-controller, Automatic-. F. O. Gamble. No. 1,041,063; Oct. 15; Gaz. vol. 183; p. 582.

Piano-actions, Machine for inserting tape-bushings in. A. Larsen and J. Jacobsen. No. 1,041,220; Oct. 22; Gaz. vol. 183; p. 827.

Piano and organ, Combined player. G. E. Kelly. No. 1,042,068; Oct. 29; Gaz. vol. 183; p. 1150.

Piano and piano-player seat, Adjustable. S. Marcus. No. 1,042,245; Oct. 22; Gaz. vol. 183; p. 969.

Piano-hammer. J. W. E. Laker. No. 1,041,490; Oct. 15; Gaz. vol. 183; p. 679.

Piano-keyboards, Chord-chart for. W. C. Beard. No. 1,041,220; Oct. 15; Gaz. vol. 183; p. 862.

Piano-lock. H. J. Strong and S. Ostrander. No. 1,040,963; Oct. 8; Gaz. vol. 183; p. 46

Piano music-roll holder, Automatic-. C. F. Webb and J. R. Stokes. No. 1,042,868; Oct. 29; Gaz. vol. 183; p. 1210.

Piano-players, Foot-treadle for. A. Andersen. No. 1,042,306; Oct. 22; Gaz. vol. 183; p. 993.

Piano-players, Valve mechanism for. P. Wuest, Jr. No. 1,041,219; Oct. 15; Gaz. vol. 183; p. 862.

Piano-playing device. R. H. Beardman. No. 1,041,004; Oct. 15; Gaz. vol. 183; p. 516.

Picker: *See* Fruit-picker.

Pickling compound. F. J. Wilson. No. 1,039,873; Oct. 1; Gaz. vol. 183; p. 68.

Picture film and other material, Machine for winding moving-. H. W. Griggs. No. 1,042,430; Oct. 29; Gaz. vol. 183; p. 1060.

Picture-frame-fastening device. L. R. Gibson. No. 1,041,776; Oct. 22; Gaz. vol. 183; p. 811.

Picture-machine attachment, Moving-. F. C. Knopf. No. 1,041,813; Oct. 22; Gaz. vol. 183; p. 825.

Picture machine, Moving-. W. H. Hausman. No. 1,041,784; Oct. 22; Gaz. vol. 183; p. 816.

Picture machines, Automatic shutter for moving-. C. R. Uebelmesser. No. 1,040,468; Oct. 8; Gaz. vol. 183; p. 297.

Pile-truss. W. E. Poindexter. No. 1,040,404; Oct. 8; Gaz. vol. 183; p. 276.

Piling-box. H. L. Craig. No. 1,041,081; Oct. 15; Gaz. vol. 183; p. 525.

Piling, Sheet-. G. W. McFarlane. No. 1,042,561; Oct. 29; Gaz. vol. 183; p. 113.

Piling, Sheet-metal. T. Larssen. No. 1,042,571; Oct. 29; Gaz. vol. 183; p. 1104.

Pillow-case, Day. C. L. Hosken. No. 1,042,429; Oct. 29; Gaz. vol. 183; p. 1063.

Pin: *See* Clothes-pin; Cuff-pin; Hat-pin.

Pin. F. A. Goodhess. No. 1,041,905; Oct. 22; Gaz. vol. 183; p. 856.

Pin. H. L. Steiner. No. 1,042,496; Oct. 29; Gaz. vol. 183; p. 1063.

Pin and flower holder. J. J. Degenhardt. No. 1,039,910; Oct. 1; Gaz. vol. 183; p. 80.

Pin-spotting mechanism. W. M. Farrow, Jr. No. 1,041,055; Oct. 15; Gaz. vol. 183; p. 533.

Pins, paper-clips, &c., Device for holding and delivering small articles, such as. D. G. Butts. No. 1,041,016; Oct. 15; Gaz. vol. 183; p. 520.

Pinacones, Producing. F. Hofmann, K. Delbrück, and K. Meisenburg. No. 1,039,739; Oct. 1; Gaz. vol. 183; p. 24.

Pinacones, Producing. F. Hofmann, K. Delbrück, and K. Meisenburg. No. 1,039,740; Oct. 1; Gaz. vol. 183; p. 24.

Pineapples, Means for packing fresh. H. H. Kopf. No. 1,042,923; Oct. 29; Gaz. vol. 183; p. 1233.

Pipe and tobacco case, Combination. O. A. v. Buchow. No. 1,039,802; Oct. 1; Gaz. vol. 183; p. 75.

Pipe, Attaching a collar to the end of a. P. H. Grimm. No. 1,039,980; Oct. 1; Gaz. vol. 183; p. 86.

Pipe ball-joint. J. A. Rourke. No. 1,041,515; Oct. 15; Gaz. vol. 183; p. 667.

Pipe-clamp. A. D. Everett. No. 1,041,762; Oct. 22; Gaz. vol. 183; p. 806.

Pipe-coupling. H. H. Hale. No. 1,040,191; Oct. 1; Gaz. vol. 183; p. 174.

Pipe coupling, Gas-. S. Schwed. No. 1,042,870; Oct. 22; Gaz. vol. 183; p. 1010.

Pipe coupling, Train-. W. A. Greenlaw. No. 1,039,731; Oct. 1; Gaz. vol. 183; p. 21.

Pipe-cutter. A. F. Howe. No. 1,040,202; Oct. 1; Gaz. vol. 183; p. 179.

Pipe-cutting machine. L. R. Blackmore. No. 1,042,906; Oct. 29; Gaz. vol. 183; p. 1237.

Pipe-flanging machine. E. M. Hunter. No. 1,039,948; Oct. 1; Gaz. vol. 183; p. 92.

Pipe-handling apparatus, Clay-. H. Babb. No. 1,042,307; Oct. 22; Gaz. vol. 183; p. 989.

Pipe or conduit coupling. F. W. Erickson. No. 1,041,260; Oct. 15; Gaz. vol. 183; p. 603.

Pipe-protector. C. Ellis. No. 1,041,256; Oct. 15; Gaz. vol. 183; p. 602.

Pipe shield, Steam-. M. Sanders. No. 1,039,818; Oct. 1; Gaz. vol. 183; p. 50.

Pipe stopper, Drain-. C. F. Holcomb. No. 1,042,002; Oct. 22; Gaz. vol. 183; p. 889.

Pipe-wrench. E. G. Dieckmann. No. 1,041,978; Oct. 22; Gaz. vol. 183; p. 861.

Pipe-wrench. C. B. Vinson. No. 1,042,175; Oct. 22; Gaz. vol. 183; p. 946.

Pipes, Ascertaining the location of leaks in underground fluid-pressure. O. V. Payne. No. 1,041,126; Oct. 15; Gaz. vol. 183; p. 567.

Pipes, Bending. M. Schittkowsky. No. 1,041,176; Oct. 15; Gaz. vol. 183; p. 574.





Pipes, Perforation-cleaner for oil-well. J. W. Batt. No. 1,040,118; Oct. 1; Gaz. vol. 183; p. 154.

Piping system, Gland. J. P. Morton. No. 1,042,810; Oct. 29; Gaz. vol. 183; p. 1192.

Pistol of the kind having sliding barrels, Self-loading. R. Frommer. No. 1,039,922; Oct. 1; Gaz. vol. 183; p. 84.

Pistol, Repeating cap-. W. P. Gehrig. No. 1,041,167; Oct 15; Gaz. vol. 183; p. 605.

Pistol, Tape-. C. A. Bailey. No. 1,041,719; Oct. 22; Gaz. vol. 183; p. 788.

Pistols with fixed barrels, Firing mechanism for recoil-loading. P. Mauser. No. 1,041,648; Oct. 15; Gaz. vol. 183; p. 730.

Piston-rings, Tool for inserting. L. J. Brown. No. 1,042,764; Oct. 29; Gaz. vol. 183; p. 1177.

Pitch from casks and the like, Apparatus for removing. H. and H. E. Rauch. No. 1,040,410; Oct. 8; Gaz. vol. 183; p. 276.

Pitting machine, Chag-peach-. H. Nyswonger. No. 1,042,500; Oct. 29; Gaz. vol. 183; p. 1116.

Plane, Bench-. H. M. Wood. No. 1,042,741; Oct. 29; Gaz. vol. 183; p. 1169.

Plane, Tongue-and-groove. A. A. Page. No. 1,042,139; Oct. 22; Gaz. vol. 183; p. 934.

Planing-machine. E. Eggers. No. 1,041,884; Oct. 22; Gaz. vol. 183; p. 883.

Planter. H. F. Spaulding. No. 1,042,617; Oct. 29; Gaz. vol. 183; p. 1126.

Planter attachment, Potato-. S. W. Bickel. No. 1,041,580; Oct. 15; Gaz. vol. 183; p. 707.

Planter, Check-row seed-. L. H. Beltzer. No. 1,041,000; Oct. 15; Gaz. vol. 183; p. 514.

Planter, Corn-. W. W. Cavenee. No. 1,041,021; Oct. 15; Gaz. vol. 183; p. 521.

Planter, Corn-. G. E. Fleming. No. 1,042,284; Oct. 22; Gaz. vol. 183; p. 990.

Planter, Corn and cotton. H. F. Roy. No. 1,040,962; Oct. 8; Gaz. vol. 183; p. 467.

Planter drive mechanism. E. M. Heylman. No. 1,040,676; Oct. 8; Gaz. vol. 183; p. 375.

Planter fertilizer attachment, Corn-. S. K. Dennis and A. Holsey. No. 1,041,976; Oct. 22; Gaz. vol. 183; p. 890.

Planter marker, Corn-. L. J. Lindsay. No. 1,040,364; Oct. 8; Gaz. vol. 183; p. 263.

Planter, Pea-. F. M. Proctor. No. 1,040,753; Oct. 8; Gaz. vol. 183; p. 399.

Planter, Peanut-. W. L. Harris. No. 1,041,275; Oct. 15; Gaz. vol. 183; p. 606.

Planter, Potato-. E. R. Frederick. No. 1,041,613; Oct. 15; Gaz. vol. 183; p. 717.

Planter, Seed-. H. W. Robbins. No. 1,039,906; Oct. 1; Gaz. vol. 183; p. 46.

Plastering-machine. W. J. Ray. No. 1,040,253; Oct. 1; Gaz. vol. 183; p. 196.

Plastic articles, relievos, hollow bodies, and the like, of pulp, Apparatus for manufacturing. K. W. Mauersberger. No. 1,041,129; Oct. 15; Gaz. vol. 183; p. 558.

Platform, Roller-. O. B. Francis and B. H. Smith. No. 1,042,236; Oct. 22; Gaz. vol. 183; p. 969.

Playing instrument, Automatic. J. Schwertner. No. 1,041,179; Oct. 15; Gaz. vol. 183; p. 575.

Pliers for clamping clips. J. G. Coutant. No. 1,042,404; Oct. 29; Gaz. vol. 183; p. 1049.

Plow. R. L. Kilpatrick. No. 1,039,754; Oct. 1; Gaz. vol. 183; p. 28.

Plow. H. C. Anderson. No. 1,041,227; Oct. 15; Gaz. vol. 183; p. 591.

Plow. B. Peterson. No. 1,041,666; Oct. 15; Gaz. vol. 183; p. 737.

Plow attachment. W. J. Steele. No. 1,040,049; Oct. 1; Gaz. vol. 183; p. 126.

Plow attachment. J. C. Bergh. No. 1,042,286; Oct. 29; Gaz. vol. 183; p. 1042.

Plow, Disk. J. H. Davis and J. W. Morgan. No. 1,042,651; Oct. 29; Gaz. vol. 183; p. 1138.

Plow, Folding. C. J. Bingham. No. 1,040,263; Oct. 8; Gaz. vol. 183; p. 227.

Plow, Motor-. A. E. Cook. No. 1,040,880; Oct. 8; Gaz. vol. 183; p. 443.

Plow, Reversible. W. J. Rodgers. No. 1,039,908; Oct. 1; Gaz. vol. 183; p. 47.

Plows, Draft device for wheeled gang-. N. Weller. No. 1,042,733; Oct. 29; Gaz. vol. 183; p. 1166.

Plows, Stalk-cutter attachment for sulky-. P. K. Huber. No. 1,041,268; Oct. 15; Gaz. vol. 183; p. 614.

Plowing mechanism. C. L. Archambeau. No. 1,040,488; Oct. 8; Gaz. vol. 183; p. 304.

Plug-switch. C. Horn. No. 1,042,230; Oct. 22; Gaz. vol. 183; p. 964.

Plugs, Protective covering for attachment-. M. R. Rodrigues. No. 1,040,762; Oct. 8; Gaz. vol. 183; p. 403.

Plumbing and leveling device. P. M. Olson. No. 1,040,744; Oct. 8; Gaz. vol. 183; p. 397.

Plumbing-fixtures, Floor connection for sanitary. B. Oakes. No. 1,042,468; Oct. 29; Gaz. vol. 183; p. 1072.

Pneumatic actuating unit. N. Magnussen. No. 1,041,125; Oct. 15; Gaz. vol. 183; p. 567.

Pneumatic cleansing apparatus. A. E. Moorhead. No. 1,042,635; Oct. 29; Gaz. vol. 183; p. 1208.

Pneumatic-cushioned wheel. I. H. Babcock. No. 1,040,114; Oct. 1; Gaz. vol. 183; p. 154.

Pneumatic-despatch-tube apparatus. H. A. Barbyn. No. 1,040,302; Oct. 8; Gaz. vol. 183; p. 242.

Pocket-book securing device. M. Olsen. No. 1,041,696; Oct. 15; Gaz. vol. 183; p. 738.

Pocket safety device. H. O. Brion. No. 1,042,346; Oct. 22; Gaz. vol. 183; p. 991.

Pocket, Safety side. H. T. Waterson. No. 1,040,330; Oct. 8; Gaz. vol. 183; p. 421.

Pole. J. Tauscher. No. 1,041,872; Oct. 15; Gaz. vol. 183; p. 640.

Pole, Animal-. D. M. Ingliss. No. 1,042,116; Oct. 22; Gaz. vol. 183; p. 926.

Pole, Cow-. N. F. Swann. No. 1,042,489; Oct. 29; Gaz. vol. 183; p. 1064.

Pole-cap for vehicles. A. Moren. No. 1,042,657; Oct. 29; Gaz. vol 183; p. 1278.

Polycycle propelling and brake mechanism. G. C. Worthington. No. 1,041,936; Oct. 22; Gaz. vol. 183; p. 867.

Pool and billiard cue. B. T. Weidman. No. 1,042,350; Oct. 22; Gaz. vol. 183; p. 986.

Post: *See* Binding-post; Fence-post; Lamp-post; Signpost.

Post. M. P. Maxwell. No. 1,042,862; Oct. 22; Gaz. vol. 183; p. 1006.

Post-driver. E. S. and C. P. Hansen. No. 1,041,678; Oct. 15; Gaz. vol. 183; p. 540.

Post to a base, Adjustable means for detachably connecting a. M. Backes. No. 1,042,187; Oct. 22; Gaz. vol. 183; p. 949.

Pot: *See* Coffee-pot.

Poultry-fountain. A. Schreck. No. 1,042,040; Oct. 22; Gaz. vol. 183; p. 901.

Powder-applying device, Toilet-. C. H. Hall. No. 1,042,673; Oct. 29; Gaz. vol. 183; p. 1146.

Powder-box. H. C. Welton. No. 1,039,862; Oct. 1; Gaz. vol. 183; p. 65.

Powder-box. M. H. Avram. No. 1,040,091; Oct. 15; Gaz. vol. 183; p. 512.

Powder grinding and sorting apparatus. C. T. Fuller. No. 1,041,769; Oct. 22; Gaz. vol. 183; p. 808.

Power device, Rotary fluid-. R. Graf. No. 1,042,215; Oct. 22; Gaz. vol. 183; p. 980.

Power-producing apparatus. W. H. Drummond. No. 1,041,253; Oct. 15; Gaz. vol. 183; p. 600.

Power-transmission device. V. G. Apple. No. 1,039,695; Oct. 1; Gaz. vol. 183; p. 4.

Power-transmission mechanism. M. C. Krarup. No. 1,039,963; Oct. 1; Gaz. vol. 183; p. 97.

Power-transmission mechanism. C. D. McClintock. No. 1,041,152; Oct. 15; Gaz. vol. 183; p. 559.

Power-transmission system. C. Krämer. No. 1,041,192; Oct. 15; Gaz. vol. 183; p. 560.

Power-transmitting device. J. Stromeyer. No. 1,040,898; Oct. 8; Gaz. vol. 183; p. 342.

Power-transmitting means. A. J. Signor. No. 1,040,449; Oct. 8; Gaz. vol. 183; p. 289.

Power-transmitting mechanism. T. S. Hutchings. No. 1,040,336; Oct. 8; Gaz. vol. 183; p. 253.

Power-transmitting mechanism. G. S. Johnson. No. 1,042,005; Oct. 22; Gaz. vol. 183; p. 890.

Precipitates in settling vessels, Apparatus for compressing. F. Tiemann. No. 1,042,293; Oct. 22; Gaz. vol. 183; p. 984.

Preserving food. F. L. Randel. No. 1,039,868; Oct. 1; Gaz. vol. 183; p. 45.

Preserving food products. E. D. Schmitt. No. 1,041,818; Oct. 15; Gaz. vol. 183; p. 653.

Press: *See* Baling-press; Brick-press; Cuff-press; Printing-press; Hay-press; Printing-press; Rotary press.

Presses, Safety-guard for foot or screw. J. M. Jones. No. 1,041,092; Oct. 15; Gaz. vol. 183; p. 546.

Presses, Safety-guard for stamping and other. J. M. Jones. No. 1,042,445; Oct. 29; Gaz. vol. 183; p. 1061.

Presser-foot. A. H. De Voe. No. 1,041,251; Oct. 15; Gaz. vol. 183; p. 599.

Pressure-gage. J. Okill. No. 1,042,868; Oct. 29; Gaz. vol. 183; p. 1243.

Pressure-gage, Pneumatic. O. Olsen. No. 1,041,698; Oct. 15; Gaz. vol. 183; p. 628.

Pressure-reducer. S. Brown. No. 1,042,978; Oct. 29; Gaz. vol. 183; p. 914.

Pressure-regulator. E. Rahm. No. 1,042,745; Oct. 29; Gaz. vol. 183; p. 1171.

Pressure-regulator. H. B. Shawver. No. 1,042,889; Oct. 29; Gaz. vol. 183; p. 1250.

Pressure-regulator, Automatic. H. W. Kinsey. No. 1,042,005; Oct. 22; Gaz. vol. 183; p. 891.

Primary cell. C. and B. Jaeger. No. 1,039,940; Oct. 1; Gaz. vol. 183; p. 92.

Printed sheets, Drying-machine for. I. D. Herbst. No. 1,042,441; Oct. 29; Gaz. vol. 183; p. 1063.

Printer for paper-rolls, Automatic. D. C. Lee. No. 1,041,494; Oct. 15; Gaz. vol. 183; p. 680.

Printer's tie-up. J. S. Thompson. No. 1,042,382; Oct. 22; Gaz. vol. 183; p. 983.

Printing and folding machinery, Associating mechanism for Web. E. C. Ansand. No. 1,040,264; Oct. 8; Gaz. vol. 183; p. 223.

Printing device, Intaglio and relief. H. A. W. Wood. No. 1,041,934; Oct. 22; Gaz. vol. 183; p. 867.

Printing in colors, Apparatus for. W. H. Temple. No. 1,041,193; Oct. 15; Gaz. vol. 183; p. 560.

Printing-machine. J. F. Mehlstedt. No. 1,041,814; Oct. 15; Gaz. vol. 183; p. 691.
Printing-machine, Multicomple multirevolution. W. Scott. No. 1,040,783; Oct. 8; Gaz. vol. 183; p. 409.
Printing machine, Plate-. G. H. Kendall. No. 1,040,691; Oct. 8; Gaz. vol. 183; p. 381.
Printing machine, Proof-. R. O. Vandercook. No. 1,042,848; Oct. 29; Gaz. vol. 183; p. 1205.
Printing machine, Silk-. R. Pagliabue. No. 1,042,029; Oct. 22; Gaz. vol. 183; p. 898.
Printing-machines, Offset mechanism for. O. Roesen. No. 1,041,875; Oct. 22; Gaz. vol. 183; p. 847.
Printing-plates, Device for finishing stereotype. A. Egli. No. 1,042,208; Oct. 22; Gaz. vol. 183; p. 964.
Printing-plates with silver-salt gelatin emulsion, Obtaining metal. P. Schumacher. No. 1,042,827; Oct. 29; Gaz. vol. 183; p. 1190.
Printing-press. W. H. Smith. No. 1,040,448; Oct. 8; Gaz. vol. 183; p. 290.
Printing-press. A. T. H. Brower. No. 1,040,501; Oct. 8; Gaz. vol. 183; p. 309.
Printing-press and sheet-manipulating mechanism therefor. H. A. W. Wood. No. 1,042,818; Oct. 29; Gaz. vol. 183; p. 1091.
Printing-press color-printing attachment. A. P. Brooks and C. N. Galland. No. 1,040,268; Oct. 8; Gaz. vol. 183; p. 229.
Printing-press cutting mechanism. P. Martin. No. 1,042,986; Oct. 29; Gaz. vol. 183; p. 1226.
Printing-press, Cylinder. J. H. Barr. (Reissue.) No. 13,469; Oct. 1; Gaz. vol. 183; p. 196.
Printing-press ink-distributing roller. W. Dietrich. No. 1,040,170; Oct. 1; Gaz. vol. 183; p. 167.
Printing press, Multicolor-. R. Miehle. No. 1,039,777; Oct. 1; Gaz. vol. 183; p. 87.
Printing-press sheet-feeding mechanism. C. M. Knoppler. No. 1,041,302; Oct. 15; Gaz. vol. 183; p. 617.
Printing press, Tip-. M. Lindeman. No. 1,042,014; Oct. 22; Gaz. vol. 183; p. 893.
Printing upon warps, Machine for. O. Hallensleben. No. 1,042,786; Oct. 29; Gaz. vol. 183; p. 1185.
Projectile. E. Friedrich. No. 1,040,924; Oct. 8; Gaz. vol. 183; p. 454.
Projectile. E. A. Tute. No. 1,042,504; Oct. 29; Gaz. vol. 183; p. 1086.
Projectile, Artillery-. K. Veller. No. 1,039,850; Oct. 1; Gaz. vol. 183; p. 61.
Projectile, Artillery-. K. Völler. No. 1,042,170; Oct. 22; Gaz. vol. 183; p. 946.
Projectile, Lubricating-. A. W. Melander. No. 1,039,774; Oct. 1; Gaz. vol. 183; p. 36.
Propeller. C. J. Low. No. 1,041,525; Oct. 22; Gaz. vol. 183; p. 829.
Propeller. C. E. J. de Vallat. No. 1,042,506; Oct. 29; Gaz. vol. 183; p. 1086.
Propeller, Aerial. J. E. Tyson. No. 1,041,913; Oct. 22; Gaz. vol. 183; p. 859.
Propeller, Marine. J. E. Tyson. No. 1,041,912; Oct. 22; Gaz. vol. 183; p. 859.
Pruning implement. J. C. Kearns. No. 1,042,559; Oct. 29; Gaz. vol. 183; p. 1104.
Puller: *See* Cotton-stalk puller.
Pulley, Belt-. F. H. Meigs. No. 1,042,583; Oct. 29; Gaz. vol. 183; p. 1114.
Pulley, Driving-. G. A. Bakke. No. 1,040,993; Oct. 15; Gaz. vol. 183; p. 512.
Pulp-screen. J. Olsen. No. 1,040,743; Oct. 8; Gaz. vol. 183; p. 397.
Pulverizer. W. K. Liggett and W. J. Armstrong. No. 1,041,496; Oct. 15; Gaz. vol. 183; p. 631.
Pulverizer, Clod-. L. Cunningham. No. 1,041,036; Oct. 15; Gaz. vol. 183; p. 526.
Pulverizer-mill. J. W. Fuller, Jr. No. 1,039,721; Oct. 1; Gaz. vol. 183; p. 17.
Pulverizing machine, Soil-. A. J. Tower. No. 1,041,190; Oct. 15; Gaz. vol. 183; p. 582.
Pulverizing-mill. A. J. Beckett. No. 1,040,769; Oct. 8; Gaz. vol. 183; p. 406.
Pump. J. M. McWilliams. No. 1,040,231; Oct. 1; Gaz. vol. 183; p. 186.
Pump. W. A. S. Thompson, T. N. Kellett, and R. W. Gunn. No. 1,041,375; Oct. 15; Gaz. vol. 183; p. 642.
Pump. R. Conrader. No. 1,041,806; Oct. 15; Gaz. vol. 183; p. 712.
Pump, Automobile-. H. H. Haney. No. 1,040,980; Oct. 8; Gaz. vol. 183; p. 475.
Pump, Centrifugal. W. H. Hughes. No. 1,040,548; Oct. 8; Gaz. vol. 183; p. 326.
Pump, Double-acting compact power-. S. S. Smith. No. 1,039,833; Oct. 1; Gaz. vol. 183; p. 54.
Pump driving-gear. S. F. Eubank. No. 1,040,912; Oct. 8; Gaz. vol. 183; p. 450.
Pump for combustion-engines of the injection type, Fuel-. J. Gunther. No. 1,040,696; Oct. 8; Gaz. vol. 183; p. 371.
Pump, Force and suction. A. J. Coleman. No. 1,040,276; Oct. 8; Gaz. vol. 183; p. 282.
Pump-operating device. S. M. Gard. No. 1,040,905; Oct. 8; Gaz. vol. 183; p. 443.
Pump, Pneumatic. M. S. Swanstrom. No. 1,039,942; Oct. 1; Gaz. vol. 183; p. 58.
Pump, Rotary. J. J. Tokheim. No. 1,040,697; Oct. 1; Gaz. vol. 183; p. 132.
Pump, Rotary. G. P. Oberga. No. 1,041,151; Oct. 15; Gaz. vol. 183; p. 569.
Pump, Steam-. L. K. Stevens. No. 1,042,497; Oct. 29; Gaz. vol. 183; p. 1061.
Pumps and stop valve, Rubber valve for. T. Howland. No. 1,040,551; Oct. 8; Gaz. vol. 183; p. 329.
Pumping apparatus. H. A. Hogel. No. 1,042,225; Oct. 22; Gaz. vol. 183; p. 962.
Pumping apparatus. H. A. Hogel. No. 1,042,226; Oct. 22; Gaz. vol. 183; p. 962.
Pumping apparatus, Deep-well-. D. W. Hudson. No. 1,041,795; Oct. 22; Gaz. vol. 183; p. 818.
Pumping apparatus, Well-. J. W. Darley, Jr. No. 1,042,204; Oct. 22; Gaz. vol. 183; p. 955.
Pumping apparatus, Well-. J. W. Darley, Jr. No. 1,042,220; Oct. 22; Gaz. vol. 183; p. 964.
Punch. S. W. Hims. No. 1,039,947; Oct. 1; Gaz. vol. 183; p. 91.
Punch. B. H. Besler. No. 1,040,497; Oct. 8; Gaz. vol. 183; p. 308.
Punch, Multiple. L. H. Veld. (Reissue.) No. 12,472; Oct. 1; Gaz. vol. 183; p. 201.
Punching apparatus, Automatic. H. C. Furris. No. 1,042,210; Oct. 22; Gaz. vol. 183; p. 957.
Punching machine, Time-controlled key-. A. L. Novels. No. 1,042,516; Oct. 29; Gaz. vol. 183; p. 1105.
Punching, Method of. B. H. Besler. No. 1,040,295; Oct. 8; Gaz. vol. 183; p. 223.
Puzzle. A. N. Ashley. No. 1,040,091; Oct. 1; Gaz. vol. 183; p. 140.
Puzzle. F. C. Wallace. No. 1,041,535; Oct. 15; Gaz. vol. 183; p. 694.
Quick-action jack. L. Willour. No. 1,042,861; Oct. 29; Gaz. vol. 183; p. 1211.
Quilting and stretching frame. W. W. Taggart. No. 1,042,170; Oct. 22; Gaz. vol. 183; p. 944.
Rack: *See* Customer or clothes-rack.
Rack or shelf. F. L. Bryning. No. 1,040,269; Oct. 8; Gaz. vol. 183; p. 229.
Radiator, Heat-. H. V. and J. B. Gerrell. No. 1,039,927; Oct. 1; Gaz. vol. 183; p. 86.
Radiator, Portable steam or hot-water. A. R. Little. No. 1,039,976; Oct. 1; Gaz. vol. 183; p. 102.
Radiators, Guard-deflector for. M. B. Armstrong. No. 1,042,578; Oct. 29; Gaz. vol. 183; p. 1098.
Rail-anchor. M. B. Hagan. No. 1,041,966; Oct. 22; Gaz. vol. 183; p. 907.
Rail-brace. A. R. Davis. No. 1,041,969; Oct. 22; Gaz. vol. 183; p. 878.
Rail-brace and tie-rod. W. H. Miller. No. 1,042,024; Oct. 22; Gaz. vol. 183; p. 897.
Rail-chair and fastener. H. H. Wiggins. No. 1,042,983; Oct. 29; Gaz. vol. 183; p. 1224.
Rail clamp, Guard-. J. A. Bodkin. No. 1,040,611; Oct. 8; Gaz. vol. 183; p. 349.
Rail-clamping-plate fastener. A. P. Willoughby. No. 1,041,849; Oct. 15; Gaz. vol. 183; p. 697.
Rail connection. C. W. Gamwell. No. 1,042,545; Oct. 29; Gaz. vol. 183; p. 1100.
Rail-dressing machine. M. Woods and T. J. Gilbert. No. 1,040,282; Oct. 8; Gaz. vol. 183; p. 435.
Rail, especially tram-rail. H. Zell. No. 1,040,483; Oct. 8; Gaz. vol. 183; p. 302.
Rail-fastener. P. H. Yonger. No. 1,042,744; Oct. 29; Gaz. vol. 183; p. 1170.
Rail fastener, Guard-. W. S. Newhall. No. 1,041,234; Oct. 15; Gaz. vol. 183; p. 632.
Rail-fastening device. W. S. Newhall. No. 1,040,568; Oct. 8; Gaz. vol. 183; p. 333.
Rail-fastening machine. A. E. Moffat. No. 1,042,462; Oct. 29; Gaz. vol. 183; p. 1071.
Rail, Guard-. J. W. Holley. No. 1,041,894; Oct. 15; Gaz. vol. 183; p. 647.
Rail-joint. W. H. Nunamacher. No. 1,039,897; Oct. 1; Gaz. vol. 183; p. 109.
Rail-joint. W. W. McQuaid. No. 1,041,503; Oct. 15; Gaz. vol. 183; p. 622.
Rail-joint. R. H. Lively. No. 1,041,838; Oct. 22; Gaz. vol. 183; p. 838.
Rail-joint. J. G. McMichael. No. 1,042,021; Oct. 22; Gaz. vol. 183; p. 896.
Rail-joint. E. B. Maddox. No. 1,042,702; Oct. 29; Gaz. vol. 183; p. 1153.
Rail joint and chair, Combined. H. J. Newman. No. 1,042,027; Oct. 22; Gaz. vol. 183; p. 896.
Rail-joint and nut-lock, Combined. J. A. McElroy and W. B. Freeman. No. 1,040,720; Oct. 8; Gaz. vol. 183; p. 385.
Rail-joint bars, Shaping. W. J. Bradley. No. 1,040,614; Oct. 8; Gaz. vol. 183; p. 350.
Rail-joint chair. G. and M. L. Bacon. No. 1,041,468; Oct. 15; Gaz. vol. 183; p. 620.
Rail-joints, Bond-spring for. W. M. Rush. No. 1,042,488; Oct. 29; Gaz. vol. 183; p. 1073.
Rail-joints, Making. J. Minke. No. 1,041,506; Oct. 15; Gaz. vol. 183; p. 622.
Rail, Rack-. H. D. Levin. No. 1,042,482; Oct. 29; Gaz. vol. 183; p. 1069.
Rail-splice. G. E. Nurnberger. No. 1,042,565; Oct. 29; Gaz. vol. 183; p. 1243.
Rail-tie. P. Hebert. No. 1,042,843; Oct. 22; Gaz. vol. 183; p. 1021.
Rails, Machine for bending T-section. A. D. Mosby. No. 1,040,822; Oct. 8; Gaz. vol. 183; p. 366.
Railway. M. P. Heimer. No. 1,041,078; Oct. 15; Gaz. vol. 183; p. 541.
Railway cattle-guard. G. M. Davis. No. 1,041,970; Oct. 22; Gaz. vol. 183; p. 878.
Railway connection. C. W. Hansen. No. 1,042,221; Oct. 22; Gaz. vol. 183; p. 961.
Railway-crossing guard device. C. B. Francisco. No. 1,042,102; Oct. 22; Gaz. vol. 183; p. 922.
Railway, Loop-the-loop pleasure-. W. H. Stickford. No. 1,040,128; Oct. 1; Gaz. vol. 183; p. 153.
Railway-rail. A. R. Cline. No. 1,042,901; Oct. 22; Gaz. vol. 183; p. 964.
Railway-rails, Means for securing. L. Guba. No. 1,039,931; Oct. 1; Gaz. vol. 183; p. 87.
Railway road-bed. J. O'Gorman. No. 1,042,255; Oct. 22; Gaz. vol. 183; p. 972.
Railway-signal. A. E. Dago. No. 1,041,886; Oct. 22; Gaz. vol. 183; p. 894.
Railway-signals, Automatic signaling and checking apparatus for. J. von Kreutlewitsch. No. 1,042,206; Oct. 22; Gaz. vol. 183; p. 960.
Railway signaling. J. S. Holliday. No. 1,039,744; Oct. 1; Gaz. vol. 183; p. 36.
Railway signaling. W. Grunow, Jr. No. 1,040,940; Oct. 8; Gaz. vol. 183; p. 466.
Railway signaling device. J. W. Page. No. 1,042,028; Oct. 22; Gaz. vol. 183; p. 896.
Railway signaling system, Circuit-make-and-break device for. W. J. Clegg. No. 1,041,966; Oct. 22; Gaz. vol. 183; p. 877.
Railway, Single-track. S. Eniskn. No. 1,042,068; Oct. 22; Gaz. vol. 183; p. 909.
Railway-sleeper. J. McCulloch. No. 1,041,124; Oct. 15; Gaz. vol. 183; p. 580.
Railway switching apparatus. G. Campana. No. 1,042,197; Oct. 22; Gaz. vol. 183; p. 953.
Railway-tie. E. C. Jenkins. No. 1,040,205; Oct. 1; Gaz. vol. 183; p. 190.
Railway-tie. E. Berger. No. 1,040,264; Oct. 8; Gaz. vol. 183; p. 226.
Railway-tie. G. D. McLean. No. 1,040,371; Oct. 8; Gaz. vol. 183; p. 262.
Railway-tie. J. C. Leever. No. 1,041,496; Oct. 15; Gaz. vol. 183; p. 622.
Railway-tie. C. J. Bodtker and H. H. Cantwell. No. 1,041,670; Oct. 15; Gaz. vol. 183; p. 708.
Railway-tie. F. G. Caldwell. No. 1,041,736; Oct. 22; Gaz. vol. 183; p. 784.
Railway-tie. A. J. Eaton. No. 1,042,071; Oct. 22; Gaz. vol. 183; p. 911.
Railway-tie and fastener. S. W. McConnell. No. 1,041,123; Oct. 15; Gaz. vol. 183; p. 580.
Railway-tie and fastener. J. T. Clark. No. 1,041,964; Oct. 22; Gaz. vol. 183; p. 876.
Railway-tie and fastening. W. H. Hornsby. No. 1,042,016; Oct. 29; Gaz. vol. 183; p. 1235.
Railway-tie and rail-fastening. J. A. Hyle and W. R. Carmody. No. 1,039,743; Oct. 1; Gaz. vol. 183; p. 36.
Railway-tie fastening. A. J. Eaton. No. 1,042,509; Oct. 22; Gaz. vol. 183; p. 948.
Railway-track construction. W. Brinton and O. R. Brown. No. 1,040,132; Oct. 1; Gaz. vol. 183; p. 153.
Railways, Circuit-closing device or system for use in connection with electric or other. W. Grunow, Jr. No. 1,040,941; Oct. 8; Gaz. vol. 183; p. 466.
Raising-supporting machine. [illegible] Lanigan. No. 1,042,570; Oct. 29; Gaz. vol. 183; p. 1107.
Rake and pitchfork. [illegible] I. P. Bilbro. No. 1,041,416; Oct. 15; [illegible] H. M. Mumford. No. 1,040,039; Oct. 15; Gaz. vol. 183; p. 511.
Range burner. Kitchener. C. B. Minter. No. 1,040,278; Oct. 8; Gaz. vol. 183; p. 283.
Rat-trap. S. Lotz. No. 1,040,441; Oct. 8; Gaz. vol. 183; p. 297.
Ratchet-wrench. C. A. Geist. No. 1,041,054; Oct. 15; Gaz. vol. 183; p. 536.
Razor, Safety-. C. Kampfe. No. 1,040,947; Oct. 8; Gaz. vol. 183; p. 287.
Razor, Safety-. D. W. Wood. No. 1,041,297; Oct. 15; Gaz. vol. 183; p. 649.
Razor-stropper. C. M. Herring. No. 1,041,759; Oct. 22; Gaz. vol. 183; p. 816.
Reamer and threader, Combined. H. B. Robinson. No. 1,041,675; Oct. 15; Gaz. vol. 183; p. 709.
Reaper for poppies and kittens. H. B. Rogers. No. 1,041,167; Oct. 15; Gaz. vol. 183; p. 571.
Receipting-recorder, Collector's. A. W. Hayes and C. D. Stevens. No. 1,041,284; Oct. 15; Gaz. vol. 183; p. 721.
Receptacle. C. D. Lahman. No. 1,039,921; Oct. 1; Gaz. vol. 183; p. 108.
Receptacle. J. F. Patterson. No. 1,040,274; Oct. 8; Gaz. vol. 183; p. 280.
Receptacle. C. F. Hebert. No. 1,040,792; Oct. 8; Gaz. vol. 183; p. 412.
Receptacle. W. A. Kane. No. 1,042,448; Oct. 29; Gaz. vol. 183; p. 1069.
Receptacle-cover. H. A. Gibbs. No. 1,042,426; Oct. 29; Gaz. vol. 183; p. 1060.
Receptacle-joint. T. H. Camp. No. 1,042,661; Oct. 22; Gaz. vol. 183; p. 915.
Reciprocating movements, Attachment for operating devices by. J. M. Christian. No. 1,041,425; Oct. 15; Gaz. vol. 183; p. 611.
Record mechanism. E. Gray. No. 1,042,551; Oct. 29; Gaz. vol. 183; p. 1102.
Record-card system, Hotel-. P. Klein. No. 1,040,559; Oct. 8; Gaz. vol. 183; p. 327.
Records, Magazine for disc. T. D. Foster. No. 1,042,542; Oct. 29; Gaz. vol. 183; p. 1099.
Recorder: *See* Activity-recorder; Receipting-recorder; Telephone-call recorder; Time-recorder; Vacuum-recorder.
Recorder or indicator. F. Reed and W. Richardson. No. 1,040,240; Oct. 1; Gaz. vol. 183; p. 190.
Recording-key. C. F. Kottering. No. 1,041,892; Oct. 22; Gaz. vol. 183; p. 891.
Rectal dynamo. E. B. Wagoner. No. 1,042,634; Oct. 29; Gaz. vol. 183; p. 1128.
Reel: *See* Twine-reel.
Reelers, Automatic adjustment for. G. H. Baxter. No. 1,040,562; Oct. 8; Gaz. vol. 183; p. 433.
Reeling device. B. F. Parker. No. 1,040,748; Oct. 8; Gaz. vol. 183; p. 398.
Reflector. A. E. Pike. No. 1,040,008; Oct. 1; Gaz. vol. 183; p. 112.
Reflector, Automobile-lamp light-. C. Reichl. No. 1,040,412; Oct. 8; Gaz. vol. 183; p. 270.
Refractory material. F. J. Tone. No. 1,042,844; Oct. 29; Gaz. vol. 183; p. 1204.
Refrigerating apparatus. L. H. Lister. No. 1,042,015; Oct. 22; Gaz. vol. 183; p. 893.
Refrigerating-case, Portable. C. P. Michelsen. No. 1,042,940; Oct. 22; Gaz. vol. 183; p. 970.
Refrigerating device. J. L. Nilsson. No. 1,040,739; Oct. 8; Gaz. vol. 183; p. 395.
Refrigeration. W. W. Seay. No. 1,042,041; Oct. 22; Gaz. vol. 183; p. 902.
Refrigerators and closets, Sanitary lining for. A. P. Grochau. No. 1,042,043; Oct. 29; Gaz. vol. 183; p. 1276.
Refuse-receptacle. S. Meyrowitz. No. 1,040,565; Oct. 8; Gaz. vol. 183; p. 352.
Regenerative furnace. W. F. Taylor. No. 1,040,459; Oct. 8; Gaz. vol. 183; p. 295.
Regenerative reversing-furnace. L. L. Knox. No. 1,041,814; Oct. 22; Gaz. vol. 183; p. 835.
Register: *See* Account-register; Autogrannic register; Automobile shock-register.
Register, Box for warm-air. J. J. and S. P. Burgess. No. 1,041,488; Oct. 15; Gaz. vol. 183; p. 627.
Regulator: *See* Dip-regulator; Electric regulator; Humidostat-regulator; Pressure-regulator; Speed-regulator; Temperature-regulator; Wort-regulator.
Relay, Polarized. J. L. Woodbridge. No. 1,042,182; Oct. 22; Gaz. vol. 183; p. 948.
Rendering vessel. S. Toth and J. Vecsei. No. 1,042,865; Oct. 29; Gaz. vol. 183; p. 1204.
Reservoir and channel cleaner, silt-conservor and levee-protector. J. J. Henderson. No. 1,042,752; Oct. 29; Gaz. vol. 183; p. 1157.
Resilient wheel. G. Dorfiel. No. 1,040,178; Oct. 1; Gaz. vol. 183; p. 168.
Resilient wheel. A. Seibert. No. 1,040,426; Oct. 8; Gaz. vol. 183; p. 287.
Resilient wheel. C. J. Craig. No. 1,041,244; Oct. 15; Gaz. vol. 183; p. 597.
Reversible casing-wrench. F. Hendricks. No. 1,040,540; Oct. 8; Gaz. vol. 183; p. 324.
Reversing mechanism. W. H. Eisenhower. No. 1,041,926; Oct. 22; Gaz. vol. 183; p. 883.
Reversing mechanism. W. Meek. No. 1,042,586; Oct. 29; Gaz. vol. 183; p. 1114.
Revolver. W. W. Kay. No. 1,042,697; Oct. 22; Gaz. vol. 183; p. 990.
Rice-field cutter. W. H. Long. No. 1,042,243; Oct. 22; Gaz. vol. 183; p. 968.
Rifle-trying device. J. Livtschak. No. 1,042,287; Oct. 22; Gaz. vol. 183; p. 1005.
Ripping-plate, Adjustable. C. A. Harrington. No. 1,040,316; Oct. 8; Gaz. vol. 183; p. 247.
Rim. A. D. Reid. No. 1,042,478; Oct. 29; Gaz. vol. 183; p. 1077.
Rim. A. D. Reid. No. 1,042,479; Oct. 29; Gaz. vol. 183; p. 1077.
Rim, Demountable. J. C. Cole. No. 1,040,275; Oct. 8; Gaz. vol. 183; p. 282.
Ring: *See* Packing-ring.
Ringing and docking instrument. G. W. Fletcher. No. 1,042,901; Oct. 29; Gaz. vol. 183; p. 1134.
Ringing-key, Selective. C. H. North. No. 1,042,844; Oct. 29; Gaz. vol. 183; p. 1341.
Road composition and making the same. T. J. Hamoth. No. 1,039,534; Oct. 1; Gaz. vol. 183; p. 72.
Road-machine. F. R. Arndt. No. 1,039,486; Oct. 1; Gaz. vol. 183; p. 4.
Road-making and binding materials therefor. H. A. [illegible] orgen. No. 1,042,474; Oct. 29; Gaz. vol. 183; p. 1077.
Road-sweeping machine. J. T. Whittemore. No. 1,042,[illegible]; Oct. 29; Gaz. vol. 183; p. 1210.
Rock-drill. C. A. Hultquist. No. 1,040,544; Oct. 8; Gaz. vol. 183; p. 325.
Rock-drill. B. M. Mackie and P. F. Doyle. No. 1,040,[illegible]; Oct. 22; Gaz. vol. 183; p. 1060.
Rock-drill, Down-hole handle-supported. J. G. Logan. No. 1,039,971; Oct. 1; Gaz. vol. 183; p. 100.
Rocker, Collapsible disc-fly. A. D. Converse. No. 1,039,698; Oct. 1; Gaz. vol. 183; p. 9.
Rocking-horse. A. D. Converse. No. 1,039,699; Oct. 1; Gaz. vol. 183; p. 9.
Rod: *See* Umbrella-rod.

Roller: *See* Land-roller.
Rolling annular plates, Machine for. E. I. Holmsaha, W. E. Edwards, and F. E. Klaus. No. 1,041,270; Oct. 15; Gaz. vol. 183; p. 610.
Rolling-mill. V. E. Edwards. No. 1,040,293; Oct. 8; Gaz. vol. 183; p. 289.
Rolling-mill. V. E. Edwards. No. 1,041,787; Oct. 22; Gaz. vol. 183; p. 804.
Rolling-mill brake device. A. A. K. Nowak. No. 1,041,661; Oct. 15; Gaz. vol. 183; p. 735.
Rolling-mill coupling-spindle. H. R. Geer. No. 1,041,772; Oct. 22; Gaz. vol. 183; p. 810.
Rolling-mill spindle-coupling. H. R. Geer. No. 1,041,773; Oct. 22; Gaz. vol. 183; p. 810.
Rolling mill, Tube-. H. Stelting. No. 1,040,812; Oct. 8; Gaz. vol. 183; p. 419.
Rolling tubing. R. E. Brock. No. 1,040,134; Oct. 1; Gaz. vol. 183; p. 155.
Roof-worker's climbing device. S. B. Gray. No. 1,039,928; Oct. 1; Gaz. vol. 183; p. 56.
Root-separator. E. J. Estey and A. W. Rhodes. No. 1,041,052; Oct. 15; Gaz. vol. 183; p. 532.
Rope-clamp. W. Campbell. No. 1,041,529; Oct. 29; Gaz. vol. 183; p. 1095.
Rotary engine. G. W. Brown. No. 1,040,185; Oct. 1; Gaz. vol. 183; p. 155.
Rotary engine. R. Masooba and K. T. Sandreczki. No. 1,041,646; Oct. 15; Gaz. vol. 183; p. 729.
Rotary engine. W. Ball. No. 1,041,721; Oct. 22; Gaz. vol. 183; p. 790.
Rotary engine. W. G. Macomber. No. 1,042,018; Oct. 22; Gaz. vol. 183; p. 894.
Rotary engine. J. Nielsen. No. 1,042,951; Oct. 29; Gaz. vol. 183; p. 1240.
Rotary engine. J. G. Wilson. No. 1,042,994; Oct. 29; Gaz. vol. 183; p. 1255.
Rotary explosive-motor. M. J. Helmes. No. 1,042,675; Oct. 29; Gaz. vol. 183; p. 1146.
Rotary liquid-motor, Duplex reversible. W. B. Pearson. No. 1,042,696; Oct. 29; Gaz. vol. 183; p. 1118.
Rotary members, Mechanism for relative reciprocation of. B. W. Traylor. No. 1,040,466; Oct. 8; Gaz. vol. 183; p. 297.
Rotary motor. H. Manrodt. No. 1,040,716; Oct. 8; Gaz. vol. 183; p. 388.
Rotary motor. P. J. Darlington. No. 1,041,040; Oct. 15; Gaz. vol. 183; p. 528.
Rotary motor. W. E. Pearson. No. 1,042,695; Oct. 29; Gaz. vol. 183; p. 1118.
Rotary press. J. T. Anderson. No. 1,040,842; Oct. 8; Gaz. vol. 183; p. 427.
Rotary screen. G. H. Worrall. No. 1,041,935; Oct. 22; Gaz. vol. 183; p. 867.
Roundabout. O. D. Brehman. No. 1,041,008; Oct. 15; Gaz. vol. 183; p. 517.
Roundabout. P. Steinert. No. 1,041,187; Oct. 15; Gaz. vol. 183; p. 578.
Rounding-machine. A. R. Schoenky. No. 1,040,433; Oct. 8; Gaz. vol. 183; p. 285.
Rubber bulbs for atomizers, syringes, &c., Apparatus for producing. J. A. Murray. No. 1,040,737; Oct. 8; Gaz. vol. 183; p. 395.
Rudder, Emergency-. D. T. Lewis. No. 1,040,363; Oct. 8; Gaz. vol. 183; p. 262.
Rug-finishing machine. F. Schell. No. 1,040,024; Oct. 1; Gaz. vol. 183; p. 177.
Rugs, carpets, &c., Fastener for. F. S. Carr. No. 1,041,228; Oct. 15; Gaz. vol. 183; p. 594.
Rule, Liquid-. T. A. Sammons. No. 1,039,816; Oct. 1; Gaz. vol. 183; p. 49.
Sad-iron. E. W. Cornell. No. 1,040,281; Oct. 8; Gaz. vol. 183; p. 234.
Sad-iron, Electrically-heated. R. E. Clibby. No. 1,041,241; Oct. 15; Gaz. vol. 183; p. 596.
Sad-irons, Safety device for electric-heater. C. E. Skinner. No. 1,042,490; Oct. 29; Gaz. vol. 183; p. 1061.
Saddle and back-band, Combined. W. J. Sessions. No. 1,040,033; Oct. 1; Gaz. vol. 183; p. 122.
Saddle attachment. W. H. Howard. No. 1,041,067; Oct. 15; Gaz. vol. 183; p. 544.
Safe-frames, Forming. T. B. Newell. No. 1,040,567; Oct. 8; Gaz. vol. 183; p. 333.
Safe-lock, Ring-and-bolt. A. W. Marr. No. 1,041,127; Oct. 15; Gaz. vol. 183; p. 557.
Safety-alarm. J. Gascaldo and F. Baldassarre. No. 1,041,456; Oct. 15; Gaz. vol. 183; p. 668.
Safety device, Quick-acting. C. E. Pratt. No. 1,040,578; Oct. 8; Gaz. vol. 183; p. 337.
Safety-gate for bridges and railway-crossings. M. E. Frank. No. 1,041,454; Oct. 15; Gaz. vol. 183; p. 667.
Safety-hook, Automatic. A. C. Adams. No. 1,041,899; Oct. 15; Gaz. vol. 183; p. 649.
Safety-lock. G. E. Cleveland. No. 1,040,509; Oct. 8; Gaz. vol. 183; p. 312.
Safety-lock. H. Wegmann. No. 1,041,388; Oct. 15; Gaz. vol. 183; p. 645.
Safety-lock with controlling device, Variable. B. Kotkovsky. No. 1,040,699; Oct. 8; Gaz. vol. 183; p. 382.
Sand-blast machine. J. J. Strasser. No. 1,039,949; Oct. 1; Gaz. vol. 183; p. 58.
Sand-drier. T. N. Smith. No. 1,041,533; Oct. 15; Gaz. vol. 183; p. 600.
Sand-mold-making machine. J. M. Hannon. No. 1,041,274; Oct. 15; Gaz. vol. 183; p. 606.
Sanding-machine. J. W. Krouse. No. 1,042,554; Oct. 22; Gaz. vol. 183; p. 1004.
Sanitary closet. H. J. Frambach and A. E. Carrington. No. 1,041,263; Oct. 15; Gaz. vol. 183; p. 594.
Sanitary fixture. E. B. Crane. No. 1,039,989; Oct. 1; Gaz. vol. 183; p. 79.
Sap-spout. C. C. Stolle. No. 1,042,884; Oct. 29; Gaz. vol. 183; p. 1301.
Sash lock, Window-. W. Cunningham. No. 1,040,155; Oct. 1; Gaz. vol. 183; p. 163.
Sash, Metal window-. W. and W. D. Bayley. No. 1,042,524; Oct. 29; Gaz. vol. 183; p. 1062.
Sash-mounting. C. K. Oberg. No. 1,042,561; Oct. 29; Gaz. vol. 183; p. 1117.
Saw. C. C. Wood. No. 1,042,633; Oct. 29; Gaz. vol. 183; p. 1132.
Saw-carriage. A. J. Meier. No. 1,040,223; Oct. 1; Gaz. vol. 183; p. 187.
Saw-clamp. C. H. Spray. No. 1,042,040; Oct. 22; Gaz. vol. 183; p. 894.
Saw forming and sharpening machine. R. R. Dow. No. 1,040,905; Oct. 8; Gaz. vol. 183; p. 448.
Saw gummer and swager. W. H. Mesinger. No. 1,040,285; Oct. 8; Gaz. vol. 183; p. 236.
Saw, Portable power-operated. M. Goehler. No. 1,041,777; Oct. 22; Gaz. vol. 183; p. 811.
Saw-set. H. C. Marshon. No. 1,041,321; Oct. 15; Gaz. vol. 183; p. 604.
Saw set and swage, Combined. T. N. Wilson. No. 1,041,547; Oct. 15; Gaz. vol. 183; p. 608.
Saw-swage. A. J. Beduhn. No. 1,040,997; Oct. 15; Gaz. vol. 183; p. 514.
Saws, Spring-block set for. R. Godin. No. 1,040,926; Oct. 8; Gaz. vol. 183; p. 456.
Sawmill. C. E. Cleveland. No. 1,040,622; Oct. 8; Gaz. vol. 183; p. 353.
Scaffold, Portable. T. V. L. Buffet. No. 1,042,182; Oct. 22; Gaz. vol. 183; p. 951.
Scale. W. F. Simpson. No. 1,041,869; Oct. 15; Gaz. vol. 183; p. 640.
Scale, Automatic computing and weighing. J. H. Ohnsman. No. 1,040,060; Oct. 1; Gaz. vol. 183; p. 109.
Scale, Computing-. C. F. Christopher. No. 1,042,321; Oct. 22; Gaz. vol. 183; p. 993.
Scale, Pendulum computing-. H. S. Hallwood. No. 1,041,997; Oct. 22; Gaz. vol. 183; p. 887.
Scale, Spring-. G. Walter. No. 1,041,206; Oct. 15; Gaz. vol. 183; p. 585.
Scale, Total-adding weighing-. W. R. Moon. No. 1,040,350; Oct. 8; Gaz. vol. 183; p. 267.
Scales, Dial and pointer for price-computing. J. T. Maguire. No. 1,042,260; Oct. 22; Gaz. vol. 183; p. 1006.
Scales, Fulcrum for. A. H. Emery. No. 1,041,009; Oct. 15; Gaz. vol. 183; p. 716.
Scarf-pin guard. R. W. Hardie. No. 1,039,986; Oct. 1; Gaz. vol. 183; p. 88.
Scouring-machine heel-rest. F. L. Hilton. No. 1,042,773; Oct. 29; Gaz. vol. 183; p. 1180.
Scraper attachment. G. E. Tucker. No. 1,040,810; Oct. 8; Gaz. vol. 183; p. 420.
Scraper, Road-. R. E. Kerr. No. 1,042,480; Oct. 29; Gaz. vol. 183; p. 1067.
Screen: *See* Car-window screen; Fly-screen; Ore-screen; Pulp-screen; Rotary screen; Well-screen; Window-screen.
Screen. A. L. M. Thompson. No. 1,040,813; Oct. 8; Gaz. vol. 183; p. 419.
Screw-driver. H. G. Ingram. No. 1,039,751; Oct. 1; Gaz. vol. 183; p. 27.
Screw-plate. H. P. Madison. No. 1,040,265; Oct. 8; Gaz. vol. 183; p. 263.
Screw-thread-cutting device. J. R. Sayler. No. 1,040,622; Oct. 1; Gaz. vol. 183; p. 117.
Screw-threads on wire by rolling, Machine and apparatus for forming. M. T. Denne. No. 1,039,707; Oct. 1; Gaz. vol. 183; p. 12.
Screws, Making set-. J. R. Grundy. No. 1,042,219; Oct. 22; Gaz. vol. 183; p. 960.
Scribing-work gage. G. A. Mois. No. 1,041,145; Oct. 15; Gaz. vol. 183; p. 562.
Scrubber and mop, Combined. L. M. Rossiter and T. C. Brew. No. 1,041,171; Oct. 15; Gaz. vol. 183; p. 573.
Scrubbing appliance, Pneumatic. A. E. Moorhead. No. 1,042,713; Oct. 29; Gaz. vol. 183; p. 1160.
Scrubbing-machine. J. M. Doherty. No. 1,040,172; Oct. 1; Gaz. vol. 183; p. 163.
Scythe hand-grip. M. Milby. No. 1,042,706; Oct. 29; Gaz. vol. 183; p. 1158.
Seal, Box-. G. Baruch. No. 1,041,724; Oct. 22; Gaz. vol. 183; p. 792.
Seal, Car-. H. E. Esser. No. 1,041,672; Oct. 15; Gaz. vol. 183; p. 730.
Seal, Jar-. C. E. Keenan. No. 1,040,211; Oct. 1; Gaz. vol. 183; p. 182.
Seal-lock. J. MacKenzie. No. 1,040,718; Oct. 8; Gaz. vol. 183; p. 389.
Seal or closure, Bottle. J. Prowett. No. 1,042,267; Oct. 22; Gaz. vol. 183; p. 996.
Sealing device for cans, &c. S. W. Milligan and J. F. Jacobsen. No. 1,040,726; Oct. 8; Gaz. vol. 183; p. 391.
Sealing machine, Can-. A. Malmquist. No. 1,039,770; Oct. 1; Gaz. vol. 183; p. 34.
Seaming and folding machine for the manufacture of boxes, canisters, &c., Sheet-metal. F. E. Adams. No. 1,040,625; Oct. 8; Gaz. vol. 183; p. 356.



Seaming machine, Can-. C. L. Turner. No. 1,041,261; Oct. 15; Gaz. vol. 183; p. 594.
Seaming-machine, Can-. A. E. Perry. No. 1,042,211; Oct. 22; Gaz. vol. 183; p. 991.
Seaming mechanism, Double. A. Johnson. No. 1,040,240; Oct. 8; Gaz. vol. 183; p. 224.
Seat: *See* Buggy-seat; Locomotive-cab drop-seat; Valve-seat.
Seat. J. R. Willard. No. 1,041,823; Oct. 15; Gaz. vol. 183; p. 694.
Seat and stiffener, Combined. L. A. Bettinger and D. Robertson. No. 1,040,837; Oct. 1; Gaz. vol. 183; p. 6.
Seat-dresser and cement-holder, Combined. W. Kaiser. No. 1,041,478; Oct. 15; Gaz. vol. 183; p. 676.
Secondary battery. A. H. Barker. No. 1,039,997; Oct. 1; Gaz. vol. 183; p. 88.
Sectional bin. C. C. F. Vidal. No. 1,041,879; Oct. 15; Gaz. vol. 183; p. 644.
Seeding-machine. P. H. Peckham. No. 1,039,705; Oct. 1; Gaz. vol. 183; p. 46.
Seeding-machine. L. R. Waterhouse. No. 1,042,980; Oct. 29; Gaz. vol. 183; p. 1251.
Semaphore-signal. J. Botyis. No. 1,042,126; Oct. 22; Gaz. vol. 183; p. 980.
Separator: *See* Coal-separator; Grain-separator; Ore-separator; Sand-separator; Slime-separator.
Separator. J. E. Cash. No. 1,041,525; Oct. 15; Gaz. vol. 183; p. 719.
Separator. F. C. Rosenberg. No. 1,042,208; Oct. 29; Gaz. vol. 183; p. 1200.
Settler and mixer, Combined. H. Wagner. No. 1,041,838; Oct. 15; Gaz. vol. 183; p. 694.
Sewer-pipe construction. W. Lucas. No. 1,042,579; Oct. 29; Gaz. vol. 183; p. 1113.
Sewing-machine. S. Berlyn. No. 1,041,836; Oct. 15; Gaz. vol. 183; p. 703.
Sewing-machine. S. Berlyn. No. 1,041,866; Oct. 15; Gaz. vol. 183; p. 703.
Sewing-machine. S. Berlyn. No. 1,041,868; Oct. 15; Gaz. vol. 183; p. 703.
Sewing-machine. S. Berlyn. No. 1,041,869; Oct. 15; Gaz. vol. 183; p. 703.
Sewing-machine. A. J. Merritt. No. 1,041,852; Oct. 15; Gaz. vol. 183; p. 703.
Sewing-machine. A. J. Merritt. No. 1,041,853; Oct. 15; Gaz. vol. 183; p. 703.
Sewing-machine. E. Ervin. No. 1,042,527; Oct. 29; Gaz. vol. 183; p. 1097.
Sewing-machine, Adjustable presser-foot. L. D. Green. No. 1,042,429; Oct. 29; Gaz. vol. 183; p. 1063.
Sewing machine, Book. J. A. Grenell. No. 1,041,780; Oct. 22; Gaz. vol. 183; p. 812.
Sewing-machine driving connection. A. J. Merritt. No. 1,041,857; Oct. 15; Gaz. vol. 183; p. 704.
Sewing-machine feeding mechanism. A. J. Merritt. No. 1,041,855; Oct. 15; Gaz. vol. 183; p. 704.
Sewing-machine feeding mechanism. J. F. Pinch. No. 1,042,238; Oct. 22; Gaz. vol. 183; p. 997.
Sewing-machine folder. J. F. Web and L. Krug. No. 1,040,836; Oct. 8; Gaz. vol. 183; p. 424.
Sewing-machine looper mechanism. A. B. Tuber. No. 1,041,856; Oct. 15; Gaz. vol. 183; p. 747.
Sewing-machine ruffler. E. J. Sayler. No. 1,041,720; Oct. 22; Gaz. vol. 183; p. 790.
Sewing-machine stop mechanism. J. W. Roberts and A. P. Brewster. No. 1,042,512; Oct. 29; Gaz. vol. 183; p. 1159.
Sewing-machines, Device for controlling the upper threads of. D. W. Casey. No. 1,041,887; Oct. 15; Gaz. vol. 183; p. 712.
Sewing upholstered or tufted pads or cushions, Machine for. G. H. Brink. No. 1,042,641; Oct. 29; Gaz. vol. 183; p. 1134.
Sextant and the like, L. Becker. No. 1,041,575; Oct. 15; Gaz. vol. 183; p. 703.
Shade bracket, Window-. W. B. Sanford. No. 1,042,148; Oct. 22; Gaz. vol. 183; p. 957.
Shade fixture, Adjustable window-. H. H. Gifford. No. 1,042,218; Oct. 22; Gaz. vol. 183; p. 968.
Shade fixture, Window-. W. E. Parsons. No. 1,040,899; Oct. 8; Gaz. vol. 183; p. 373.
Shade hanger, Window-. W. B. Caswell. No. 1,042,009; Oct. 22; Gaz. vol. 183; p. 1237.
Shade-holder, C. [illegible]. No. 1,042,289; Oct. 29; Gaz. vol. 183; p. [illegible].
Shade or curtain fixture. A. G. Watkins. No. 1,041,537; Oct. 15; Gaz. vol. 183; p. 603.
Shade-roller for spring-actuated window-shades, Combined. G. W. and A. F. Anderson. No. 1,040,457; Oct. 8; Gaz. vol. 183; p. 327.
Shade-roller spring, Spring. E. F. Hartshorn. No. 1,041,462; Oct. 15; Gaz. vol. 183; p. 667.
Shade-roller spring fastener. E. F. Hartshorn. No. 1,039,892; Oct. 1; Gaz. vol. 183; p. 69.
Shade-roller and window-curtain, Combined support for. C. Lefler. No. 1,041,[illegible]; Oct. 15; Gaz. vol. 183; p. 1154.
Shade-supporter. A. B. Stokes. No. 1,040,786; Oct. 8; Gaz. vol. 183; p. 414.
Shading or paper, Device for fastening. G. W. Fountain and S. H. Hunt. No. 1,039,953; Oct. 8; Gaz. vol. 183; p. 406.
Shaft or axle-bearing, Device for attaching. E. L. Wisner. No. 1,041,149; Oct. 15; Gaz. vol. 183; p. 567.
Shaft driving and reversing mechanism. H. [illegible] Jones. No. 1,040,122; Oct. 8; Gaz. vol. 183; p. [illegible].
Shaft, Mechanism for reversing motion of. W. E. Gamble. No. 1,040,845; Oct. 8; Gaz. vol. 183; p. 428.
Shaft-support and shaft-coupling, Combined. No. 1,039,711; Oct. 1; Gaz. vol. 183; p. [illegible].
Shafting, Flexible. H. D. Bradley. No. 1,040,[illegible]; Oct. 29; Gaz. vol. 183; p. 1178.
Shafting machinery. W. J. [illegible]. No. [illegible]; Oct. 1; Gaz. vol. 183; p. 107.
Shaper-head, Safety. H. M. Wemphof. No. [illegible]; Oct. 22; Gaz. vol. 183; p. 880.
Sharpener. E. H. Smallman. No. 1,041,[illegible]; Gaz. vol. 183; p. 694.
Sharpening apparatus for knives, scissors, &c. No. 1,041,[illegible]; Oct. 22; Gaz. vol. 183; p. 1018.
Sharpening device, Knife-. L. C. Johnson. No. [illegible]; Oct. 15; Gaz. vol. 183; p. 734.
Sharpening-machine grinding-wheel. Pocket-. No. 1,040,321; Oct. 8; Gaz. vol. 183; p. 315.
Sheet-delivery mechanism. H. A. Wentz. No. [illegible]; Oct. 8; Gaz. vol. 183; p. 391.
Sheet-feeding apparatus. R. J. Casey. No. 1,041,[illegible]; Gaz. vol. 183; p. 642.
Sheet-feeding machine. W. L. Crum. No. 1,041,[illegible]; Oct. 22; Gaz. vol. 183; p. 808.
Sheet-feeding machine. H. K. King. No. 1,041,[illegible]; Oct. 22; Gaz. vol. 183; p. 822.
Sheet-hanging mechanism. G. [illegible]. No. 1,040,[illegible]; Oct. 1; Gaz. vol. 183; p. 118.
Sheet-metal-bending machine. H. Metz and H. [illegible]. No. 1,039,776; Oct. 1; Gaz. vol. 183; p. 57.
Sheet-metal tank. J. F. Hoag and [illegible]. Thomas. No. 1,041,672; Oct. 15; Gaz. vol. 183; p. 672.
Sheet-metal utensils, Construction of. A. J. [illegible]. No. 1,041,251; Oct. 15; Gaz. vol. 183; p. 591.
Sheet shaping and bending machine. J. F. [illegible]. Thomas. No. 1,041,471; Oct. 15; Gaz. vol. 183; p. [illegible].
Shell, Shotgun-. W. P. Brown. No. 1,042,[illegible]; Gaz. vol. 183; p. 918.
Shelving, Sectional. P. L. Bryning. No. 1,040,[illegible]; Oct. 8; Gaz. vol. 183; p. 299.
Shipping-case and display-cabinet, Combined. J. [illegible]. No. 1,042,[illegible]; Oct. 29; Gaz. vol. 183; p. 1222.
Shirring machine, Cloth, &c. A. F. [illegible]. No. 1,042,715; Oct. 29; Gaz. vol. 183; p. 1161.
Shock-absorber. L. P. C. J. Jeanjean. No. 1,040,[illegible]; Oct. 8; Gaz. vol. 183; p. 438.
Shock-absorbing device. C. S. Moore. No. 1,041,[illegible]; Oct. 22; Gaz. vol. 183; p. 858.
Shock-compressor. C. H. Morrison. No. 1,040,[illegible]; Oct. 29; Gaz. vol. 183; p. 1207.
Shock-loader. H. Henderson. No. 1,040,[illegible]; Oct. 8; Gaz. vol. 183; p. 314.
Shocking-machine. C. Orgaard. No. 1,040,[illegible]; Oct. 1; Gaz. vol. 183; p. 110.
Shocking-machine. E. Stumpf. No. 1,041,[illegible]; Oct. 22; Gaz. vol. 183; p. 864.
Shoe. H. H. McKibben. No. 1,040,220; Oct. 1; Gaz. vol. 183; p. 182.
Shoe. J. N. Schwander. No. 1,040,731; Oct. 8; Gaz. vol. 183; p. 393.
Shoe. C. W. Baker. No. 1,041,404; Oct. 15; Gaz. vol. 183; p. 651.
Shoe back-strap. C. M. Bennighaus. No. 1,040,[illegible]; Oct. 29; Gaz. vol. 183; p. 1218.
Shoe-branding machine. R. N. Chandler. No. 1,040,[illegible]; Oct. 22; Gaz. vol. 183; p. 982.
Shoe edge and bottom protector. R. C. and E. Mansfield. No. 1,041,870; Oct. 22; Gaz. vol. 183; p. 851.
Shoe-forming machine. R. F. McFeely. No. 1,040,[illegible]; Oct. 29; Gaz. vol. 183; p. 1113.
Shoe-jack. P. Mellon. No. 1,042,264; Oct. 22; Gaz. vol. 183; p. 1007.
Shoe-stretcher. C. H. Warthen. No. 1,040,[illegible]; Oct. 8; Gaz. vol. 183; p. 299.
Shoe-support. F. Maciara. No. 1,041,[illegible]; Oct. [illegible]; Gaz. vol. 183; p. 682.
Shoes, Cleat for shoeing. G. L. Flores. No. 1,040,[illegible]; Oct. 15; Gaz. vol. 183; p. 737.
Shoulder-pad. W. A. Thornhill. No. 1,041,[illegible]; Oct. [illegible]; Gaz. vol. 183; p. 661.
Shovel: *See* Snow-shovel.
Shovels, Device for fastening the rivet-rest for. C. H. Webster. No. 1,042,[illegible]; Oct. 22; Gaz. vol. 183; p. 947.
Show-case. F. C. Ferguson. No. 1,042,[illegible]; Oct. [illegible]; Gaz. vol. 183; p. 1227.
Shredding-machine. C. S. Leonard. No. 1,040,[illegible]; Oct. 29; Gaz. vol. 183; p. 1254.
Shuttle, Vamplifter-. W. H. Wise. No. 1,040,[illegible]; Oct. 1; Gaz. vol. 183; p. 191.
Shuttle. S. A. Dudley. No. 1,041,[illegible]; Oct. [illegible]; Gaz. vol. 183; p. 718.
Shuttle, Hand-threading. J. Lennie. No. 1,040,[illegible]; Oct. ; Gaz. vol. 183; p. 88.
Sign-holder for show-cards. R. Sommers. No. 1,040,[illegible]; Oct. 1; Gaz. vol. 183; p. 154.
Signal, Auto-. J. Dowd and P. J. Cassidy. No. 1,040,[illegible]; Oct. 8; Gaz. vol. 183; p. 248.
Signal, Auto-. L. Calder. No. 1,041,[illegible]; Oct. [illegible]; Gaz. vol. 183; p. 636.
Signal, Auto-. L. Cohen. No. 1,042,[illegible]; Oct. 29; Gaz. vol. 183; p. 1230.

Sifter, Dustless coal-ash. W. F. Benson. No. 1,041,601; Oct. 15; Gaz. vol. 183; p. 815.
Sign. A. Gray. No. 1,040,962; Oct. 8; Gaz. vol. 183; p. 497.
Sign apparatus, Electric illuminated. A. O. Siegel. No. 1,040,328; Oct. 1; Gaz. vol. 183; p. 82.
Sign, Electric. G. von Smitzold. No. 1,041,174; Oct. 15; Gaz. vol. 183; p. 574.
Sign-post. D. A. Adams. No. 1,041,224; Oct. 15; Gaz. vol. 183; p. 590.
Sign-receptacle. J. S. Crossley and V. R. Despard. No. 1,042,406; Oct. 29; Gaz. vol. 183; p. 1060.
Sign, Street-. E. L. Phillips. No. 1,041,260; Oct. 22; Gaz. vol. 183; p. 843.
Signal: *See* Audible signal; Railway-signal; Semaphore-signal.
Signal-box. A. D. T. Libby. No. 1,042,760; Oct. 29; Gaz. vol. 183; p. 1155.
Signal-switch stand. Safety. R. K. Rex. No. 1,042,980; Oct. 29; Gaz. vol. 183; p. 1240.
Signal system. C. B. and J. F. McLeer. No. 1,042,944; Oct. 29; Gaz. vol. 183; p. 1237.
Signaling device, Electric. F. W. Cole. No. 1,040,149; Oct. 1; Gaz. vol. 183; p. 160.
Signaling device, Electric. R. C. Nevin. No. 1,040,889; Oct. 8; Gaz. vol. 183; p. 271.
Signaling mechanism, Automatic. J. W. Rogers. No. 1,041,168; Oct. 15; Gaz. vol. 183; p. 572.
Signaling, Selective. H. O. Bagh and C. S. Rheads, Jr. No. 1,041,254; Oct. 15; Gaz. vol. 183; p. 625.
Signaling system. A. C. Bell. No. 1,042,336; Oct. 29; Gaz. vol. 183; p. 1042.
Signaling system. H. O. Bagh. No. 1,042,482; Oct. 29; Gaz. vol. 183; p. 1078.
Signaling system, Electric. W. L. Miller. No. 1,040,378; Oct. 8; Gaz. vol. 183; p. 267.
Signaling system, Electrical. H. M. Eldred. No. 1,042,096; Oct. 22; Gaz. vol. 183; p. 920.
Signature-gathering machine. C. A. Juengst. No. 1,040,889; Oct. 8; Gaz. vol. 183; p. 280.
Silo. E. I. Poyser. No. 1,041,150; Oct. 15; Gaz. vol. 183; p. 569.
Silo. I. S. Hart. No. 1,042,768; Oct. 29; Gaz. vol. 183; p. 1155.
Silo. N. J. Schlachter. No. 1,043,034; Oct. 29; Gaz. vol. 183; p. 1270.
Sinews from flesh, Device for extracting. A. A. Lamoureux. No. 1,041,906; Oct. 15; Gaz. vol. 183; p. 619.
Sink, Kitchen-. T. S. Ogle and R. F. Polensky. No. 1,040,892; Oct. 8; Gaz. vol. 183; p. 272.
Siphon, Alternating. J. W. Cox. No. 1,040,640; Oct. 8; Gaz. vol. 183; p. 263.
Siphon-filler. P. Spitzenberg. No. 1,041,264; Oct. 15; Gaz. vol. 183; p. 603.
Siphon-head. C. De Lukacsevica. No. 1,040,220; Oct. 1; Gaz. vol. 183; p. 155.
Siphons and the like, Head or stopper of. J. Dittrich. No. 1,041,445; Oct. 15; Gaz. vol. 183; p. 604.
Skins, Producing patterns on hair-covered. P. Merkel. No. 1,042,909; Oct. 29; Gaz. vol. 183; p. 1192.
Skirt and blouse grip, Combined. G. Mathew. No. 1,040,228; Oct. 1; Gaz. vol. 183; p. 156.
Skirt-elevator. A. E. Williams. No. 1,039,871; Oct. 1; Gaz. vol. 183; p. 68.
Skirt-marker. H. E. Snyder. No. 1,040,449; Oct. 8; Gaz. vol. 183; p. 201.
Skirt-marker. M. Anderson. No. 1,041,409; Oct. 15; Gaz. vol. 183; p. 649.
Sled. J. C. Van Aken. No. 1,040,061; Oct. 1; Gaz. vol. 183; p. 130.
Sled. E. E. Miller. No. 1,041,234; Oct. 15; Gaz. vol. 183; p. 625.
Sled brake, Bob-. S. B. McIntire. No. 1,042,622; Oct. 29; Gaz. vol. 183; p. 1266.
Sled, Folding. D. G. Hammond. No. 1,040,196; Oct. 1; Gaz. vol. 183; p. 174.
Sleigh side frame. P. H. Cummins. No. 1,040,897; Oct. 8; Gaz. vol. 183; p. 445.
Slicer, Fruit and vegetable. C. E. Royer and A. A. Rickert. No. 1,040,823; Oct. 8; Gaz. vol. 183; p. 329.
Slicer, Vegetable-. L. Pyshor. No. 1,039,890; Oct. 1; Gaz. vol. 183; p. 44.
Slicing machine, Meat-. C. A. Spotz. No. 1,042,165; Oct. 22; Gaz. vol. 183; p. 942.
Slicing machines, Double-knife box for beet-root-. M. Paschen. No. 1,040,003; Oct. 1; Gaz. vol. 183; p. 111.
Sliding block. J. W. Roberts. No. 1,039,897; Oct. 1; Gaz. vol. 183; p. 47.
Slipping, Device to prevent. W. S. Williams, Jr. No. 1,042,816; Oct. 29; Gaz. vol. 183; p. 1090.
Sluice and flood gate. H. Davey. No. 1,040,188; Oct. 1; Gaz. vol. 183; p. 163.
Smelt-oven. P. Mauser. No. 1,040,718; Oct. 8; Gaz. vol. 183; p. 389.
Smoke and cinder conductor for locomotives. S. Wheeler. No. 1,042,681; Oct. 29; Gaz. vol. 183; p. 1121.
Smoke-consumer. J. H. Tate. No. 1,041,889; Oct. 22; Gaz. vol. 183; p. 883.
Smoke-flue for melting. C. Jurack. No. 1,041,288; Oct. 15; Gaz. vol. 183; p. 618.
Snap-hook, Safety. H. W. Reynolds. No. 1,040,415; Oct. 8; Gaz. vol. 183; p. 290.
Snare strainer and muffler. W. F. Ludwig. No. 1,042,980; Oct. 29; Gaz. vol. 183; p. 1191.
Snipping-machine. T. F. Hart. No. 1,040,971; Oct. 8; Gaz. vol. 183; p. 502.
Snow-shovel. P. H. Kohler. No. 1,042,328; Oct. 29; Gaz. vol. 183; p. 1004.
Soap and washing cups, Protecting. P. G. Hat and G. Hannig. No. 1,040,705; Oct. 8; Gaz. vol. 183; p. 388.
Soap and towel dispenser, Sanitary. E. F. Downey. No. 1,041,710; Oct. 15; Gaz. vol. 183; p. 752.
Soap-dispenser. M. Bubig. No. 1,041,417; Oct. 15; Gaz. vol. 183; p. 602.
Soap-dispenser and bottle-feeding device for. L. J. Doolittle. No. 1,041,754; Oct. 22; Gaz. vol. 183; p. 866.
Soap powders, Machine for filling. C. Ellis. No. 1,040,580; Oct. 8; Gaz. vol. 183; p. 324.
Sodic-ethoxy phenylate and hydrochloric acid, Manufacturing. A. R. Cowles. No. 1,041,806; Oct. 15; Gaz. vol. 183; p. 713.
Sodic-ethoxy phenylate and hydrochloric acid, Manufacturing. A. R. Cowles and A. Kayser. No. 1,041,809; Oct. 15; Gaz. vol. 183; p. 713.
Solar heat, Device for utilizing. A. H. Evans. No. 1,042,418; Oct. 29; Gaz. vol. 183; p. 1061.
Sole edge trimmer and burnisher, Shoe-. J. W. Schneider. No. 1,042,697; Oct. 29; Gaz. vol. 183; p. 1132.
Sole-machine, Automatic. H. B. Winkley. No. 1,041,215; Oct. 15; Gaz. vol. 183; p. 597.
Soles of boots and shoes, Edge-protector for the. W. H. Colbath. No. 1,041,029; Oct. 15; Gaz. vol. 183; p. 534.
Solid bodies, Appliance for raising. F. Bedwell. No. 1,042,189; Oct. 22; Gaz. vol. 183; p. 990.
Sound recording and reproducing machine, Speed-regulator for. F. Dumdum. No. 1,040,822; Oct. 8; Gaz. vol. 183; p. 317.
Sound-reproducer, Phonographic. A. N. Fleeman. No. 1,042,034; Oct. 22; Gaz. vol. 183; p. 990.
Spark-advancer, Automatic. C. C. Charles. No. 1,040,884; Oct. 8; Gaz. vol. 183; p. 441.
Spark-arrester. P. R. Cunningham and R. Reid. No. 1,041,430; Oct. 15; Gaz. vol. 183; p. 661.
Spark-plug. J. J. McIntyre. No. 1,041,235; Oct. 22; Gaz. vol. 183; p. 833.
Spark-plug. R. A. Strassban. No. 1,042,619; Oct. 29; Gaz. vol. 183; p. 1127.
Spark-plug. A. J. Parchem. No. 1,042,818; Oct. 29; Gaz. vol. 183; p. 1198.
Spectacle and eyeglass case. F. J. Willmott. No. 1,041,214; Oct. 15; Gaz. vol. 183; p. 597.
Spectacle, eyeglass, &c., case. F. J. Willmott. No. 1,041,833; Oct. 22; Gaz. vol. 183; p. 897.
Speed-gage. L. A. Cagnin. No. 1,042,990; Oct. 29; Gaz. vol. 183; p. 1232.
Speed-indicator. F. L. Cantrall. No. 1,042,816; Oct. 22; Gaz. vol. 183; p. 991.
Speed mechanism, Variable. G. Richards. No. 1,042,730; Oct. 29; Gaz. vol. 183; p. 1162.
Speed or distance indicator, Driving mechanism for. W. F. Kendall. No. 1,042,637; Oct. 29; Gaz. vol. 183; p. 1150.
Speed-recording device. W. W. King. No. 1,042,861; Oct. 29; Gaz. vol. 183; p. 1105.
Speed-regulator, Automatic electric. M. D. Seldon and R. L. Greves. No. 1,040,586; Oct. 8; Gaz. vol. 183; p. 241.
Speed transmission device, Changing. P. and F. Belando. No. 1,040,763; Oct. 8; Gaz. vol. 183; p. 402.
Speed transmission device, Variable. J. B. Thebaud. No. 1,041,573; Oct. 15; Gaz. vol. 183; p. 641.
Speedometer, Magnetic. H. Roccardi. No. 1,042,122; Oct. 22; Gaz. vol. 183; p. 949.
Spindle: *See* Roller-gearing; Spring-spindle.
Spinning and doubling machines, Bearing for supporting the flyer and whorves on the bolster-bars of. J. E. Gaunt and H. Dyson. No. 1,039,736; Oct. 1; Gaz. vol. 183; p. 15.
Spinning apparatus, Yarn-. C. Weatherhead. No. 1,041,139; Oct. 15; Gaz. vol. 183; p. 565.
Spinning-frame. H. W. Owen. No. 1,041,885; Oct. 15; Gaz. vol. 183; p. 737.
Spinning-frames, Prevention of double threads and interlacing in. I. Lisen. No. 1,041,324; Oct. 1; Gaz. vol. 183; p. 158.
Spinning-machine. F. S. Culver. No. 1,039,995; Oct. 1; Gaz. vol. 183; p. 79.
Spool-carrier and thread-driving device. I. Ehrich. No. 1,042,538; Oct. 29; Gaz. vol. 183; p. 1145.
Spring-starting fastening. S. Hall. No. 1,040,185; Oct. 8; Gaz. vol. 183; p. 302.
Springs, Lubricating and like machines. Spindle-support for. G. W. Parnham. No. 1,040,297; Oct. 8; Gaz. vol. 183; p. 240.
Spritsail, M. Graham. No. 1,041,621; Oct. 15; Gaz. vol. 183; p. 778.
Spud, Hand-. P. Mossberg. No. 1,040,224; Oct. 8; Gaz. vol. 183; p. 240.
Sprinkling or watering machine, F. S. Culver. No. 1,039,996; Oct. 1; Gaz. vol. 183; p. 79.
Spur-collector mechanism. P. C. Hamilton. No. 1,041,824; Oct. 22; Gaz. vol. 183; p. 896.
Squeezer. A. B. Cousins. No. 1,040,498; Oct. 8; Gaz. vol. 183; p. 342.
Starting: *See* Automobile-starting; Engine-starting; Clutch-starting.
Starting-device, Automatic. C. Cover, M. A. Cole. No. 1,042,715; Oct. 29; Gaz. vol. 183; p. 1159.
Steam-boiler, Submerged. F. H. Rollin. No. 1,042,012; Oct. 1; Gaz. vol. 183; p. 118.





Spring-motor. G. O'Bryan. No. 1,040,742; Oct. 8; Gaz. vol. 183; p. 396.
Spring-mountings. T. W. Dunn. No. 1,041,295; Oct. 15; Gaz. vol. 183; p. 601.
Spring-wheel. U. G. Waldman. No. 1,039,887; Oct. 1; Gaz. vol. 183; p. 62.
Spring-wheel. L. Sanders. No. 1,040,426; Oct. 8; Gaz. vol. 183; p. 283.
Spring-wheel. H. B. Cobb. No. 1,040,512; Oct. 8; Gaz. vol. 183; p. 343.
Spring-wheel. J. Kohler. No. 1,040,694; Oct. 8; Gaz. vol. 183; p. 361.
Spring-wheel. F. G. Rapp and P. H. King. No. 1,040,755; Oct. 8; Gaz. vol. 183; p. 400.
Spring-wheel. J. W. Hungsay. No. 1,040,945; Oct. 8; Gaz. vol. 183; p. 483.
Spring-wheel. A. M. Tully. No. 1,041,910; Oct. 22; Gaz. vol. 183; p. 883.
Spring winding and controlling mechanism. B. Williams. No. 1,042,044; Oct. 22; Gaz. vol. 183; p. 909.
Sprinkler tank, Car-. R. C. Perry. No. 1,040,401; Oct. 8; Gaz. vol. 183; p. 276.
Square. W. E. Harey. No. 1,040,239; Oct. 1; Gaz. vol. 183; p. 180.
Square and miter-marker, Combination. P. Krans. No. 1,040,214; Oct. 1; Gaz. vol. 183; p. 182.
Square with guide-head, V-. R. Wenst. No. 1,042,748; Oct. 29; Gaz. vol. 183; p. 1170.
Stabilizator. T. D. Grue. No. 1,041,620; Oct. 15; Gaz. vol. 183; p. 715.
Stamp. J. A. McClure. No. 1,040,719; Oct. 8; Gaz. vol. 183; p. 389.
Stamp, Automatic inking-. G. Carleton. No. 1,042,766; Oct. 29; Gaz. vol. 183; p. 1178.
Stamp-marking machine. C. F. Bunk. No. 1,040,617; Oct. 8; Gaz. vol. 183; p. 351.
Stamp-mills, Supporting and lifting and adjusting device for. E. H. Moyle. No. 1,040,226; Oct. 1; Gaz. vol. 183; p. 155.
Stamping or punching machine, Matrix. F. H. Pierpont. No. 1,042,475; Oct. 29; Gaz. vol. 183; p. 1075.
Stanchion. J. N. Jensen. No. 1,040,960; Oct. 8; Gaz. vol. 183; p. 493.
Stanchion, Cattle-. P. R. Bonnetta. No. 1,040,864; Oct. 8; Gaz. vol. 183; p. 434.
Stand: *See* Cycle-stand; Signal switch-stand; Velocipede-stand.
Stapling-machine clinching device. J. S. Dobbins. No. 1,042,771; Oct. 29; Gaz. vol. 183; p. 1180.
Starting device. C. T. Henderson. No. 1,042,791; Oct. 29; Gaz. vol. 183; p. 1186.
Station and a moving car, Means for the interchange of messages between a. O. H. and J. L. Smith. No. 1,042,563; Oct. 29; Gaz. vol. 183; p. 1231.
Stationery-drying frame, Printer's collapsible. J. C. Burton. No. 1,039,694; Oct. 1; Gaz. vol. 183; p. 7.
Stave-columns. C. J. Chestat. No. 1,041,741; Oct. 22; Gaz. vol. 183; p. 704.
Stay-bolt and means for securing the same in place. W. L. Decker. No. 1,041,449; Oct. 15; Gaz. vol. 183; p. 605.
Steam-boiler working as an electric transformer. J. Bally. No. 1,040,904; Oct. 15; Gaz. vol. 183; p. 512.
Steam-engine. J. Stumpf. No. 1,042,051; Oct. 22; Gaz. vol. 183; p. 905.
Steam-engine. J. Stumpf. No. 1,042,163; Oct. 22; Gaz. vol. 183; p. 942.
Steam-engine. M. Beckmann. No. 1,042,196; Oct. 22; Gaz. vol. 183; p. 962.
Steam-feed and piston-rod support, Automatic. W. Van der Locet. No. 1,042,949; Oct. 29; Gaz. vol. 183; p. 1234.
Steam-generator. C. C. Worthington. No. 1,040,481; Oct. 8; Gaz. vol. 183; p. 346.
Steam-generator. C. W. Case and E. T. Mase. No. 1,040,810; Oct. 8; Gaz. vol. 183; p. 412.
Steam-generator. W. H. Stewart. No. 1,041,186; Oct. 15; Gaz. vol. 183; p. 578.
Steam-generator. R. K. Sneeden. No. 1,039,826; Oct. 1; Gaz. vol. 183; p. 58.
Steam-trap. R. S. Gold. No. 1,040,040; Oct. 29; Gaz. vol. 183; p. 1274.
Steel, Process in casting. Hardening. C. Becker. No. 1,040,[illegible]; Oct. 29; Gaz. vol. 183; p. 1257.
Steering device on compass Apparatus for. W. B. Sharp. No. 1,040,647; Oct. 8; Gaz. vol. 183; p. 413.
Stereotyping. C. Cline and J. Johnson. No. 1,041,718; Oct. 22; Gaz. vol. 183; p. 812.
Stereotyping, Electrotype, Stereotype, or the like, process of. J. P. Elliott. No. 1,040,021; Oct. 8; Gaz. vol. 183; p. 284.
Stirrup or support. D. J. Boyle. No. 1,039,726; Oct. 1; Gaz. vol. 183; p. 58.
Stitching machines, Device for starting. A. Olsen. No. 1,041,[illegible]; Oct. 15; Gaz. vol. 183; p. 570.
Stitch mechanism for sewing-machines, Loop-. L. Ouriel. No. 1,041,[illegible]; Oct. 22; Gaz. vol. 183; p. 872.
Stone-cutter, Compressed-air. H. Hulbert. No. 1,041,[illegible]; Oct. 22; Gaz. vol. 183; p. 908.
Stone-cutter's instrument. G. W. Sherer. No. 1,042,[illegible]; Oct. 29; Gaz. vol. 183; p. 1251.
Stone-quarrying machine. C. M. Spellinger. No. 1,042,[illegible]; Oct. 29; Gaz. vol. 183; p. 1120.
Stones, Making artificial. M. Hartung. No. 1,042,115; Oct. 22; Gaz. vol. 183; p. 928.
Stop device, Safety. R. P. Barry and J. W. Murphy. No. 1,039,697; Oct. 1; Gaz. vol. 183; p. 4.
Stop-motion to attach to a cotton-card, Automatic. W. W. Crossley. No. 1,041,942; Oct. 15; Gaz. vol. 183; p. 626.
Stopper: *See* Bottle-stopper; Leak-stopper.
Stoppering or seal-applying machine. E. M. Brown. No. 1,040,615; Oct. 8; Gaz. vol. 183; p. 351.
Store-front construction. E. S. Rhoads and V. Rose. No. 1,040,416; Oct. 8; Gaz. vol. 183; p. 288.
Stove. W. Kraus. No. 1,041,906; Oct. 15; Gaz. vol. 183; p. 619.
Stove. L. F. Bruehl and N. V. Stanley. No. 1,042,[illegible]; Oct. 29; Gaz. vol. 183; p. 1132.
Stove. L. Engnard. No. 1,042,973; Oct. 29; Gaz. vol. 183; p. 1245.
Stove burner, Oil-. A. J. Lindemann. No. 1,041,111; Oct. 15; Gaz. vol. 183; p. 562.
Stove-grate. D. Johnson. No. 1,042,695; Oct. 29; Gaz. vol. 183; p. 1140.
Stove, including washing boiler or kettle, Portable camp-. T. E. and M. Stockton. No. 1,040,451; Oct. 8; Gaz. vol. 183; p. 302.
Stove, Portable. J. M. Rae. No. 1,042,272; Oct. 22; Gaz. vol. 183; p. 977.
Stove-rim-polishing machine. G. L. Wallace and W. W. Steiger. No. 1,042,509; Oct. 29; Gaz. vol. 183; p. 1086.
Stovepipe and collar holder. F. S. Divan. No. 1,040,173; Oct. 1; Gaz. vol. 183; p. 166.
Stovepipe attachment. J. H. Allen. No. 1,042,185; Oct. 22; Gaz. vol. 183; p. 948.
Stovepipe-joint, Adjustable. W. F. Harris. No. 1,041,697; Oct. 15; Gaz. vol. 183; p. 671.
Strainer, Coffee-. A. B. Evans. No. 1,040,179; Oct. 1; Gaz. vol. 183; p. 170.
Strainer for milk-cans. H. Nelson. No. 1,041,831; Oct. 15; Gaz. vol. 183; p. 627.
Strainer, Fuel-oil. E. M. Dahl. No. 1,042,208; Oct. 22; Gaz. vol. 183; p. 954.
Strainer, Tea and coffee pot. W. H. Holder. No. 1,039,742; Oct. 1; Gaz. vol. 183; p. 24.
Straining-hook. A. G. Solstmann. No. 1,039,894; Oct. 1; Gaz. vol. 183; p. 58.
Strap: *See* Fob-strap; Hitching-strap; Shoe back-strap.
Straps, Machine for bending leg-. G. F. Frey. No. 1,042,921; Oct. 29; Gaz. vol. 183; p. 1231.
Stream, Mechanism for use in connection with flowing. E. S. Cole. No. 1,041,452; Oct. 15; Gaz. vol. 183; p. 609.
Street or station indicator. R. R. Hornbeck. No. 1,039,748; Oct. 1; Gaz. vol. 183; p. 26.
Street-sweeper. A. S. Case. No. 1,042,552; Oct. 29; Gaz. vol. 183; p. 1066.
Strut. A. F. W. Macmanus. No. 1,042,898; Oct. 29; Gaz. vol. 183; p. 1192.
Stud-protector. M. J. Silverman. No. 1,040,444; Oct. 8; Gaz. vol. 183; p. 289.
Stump-burner. V. H. Pickens. No. 1,404,482; Oct. 8; Gaz. vol. 183; p. 278.
Sugar and by-products from sugar-cane, Making. G. W. and G. B. McMullen. No. 1,040,560; Oct. 8; Gaz. vol. 183; p. 331.
Sugar-cane into its two chief structural parts, Separating. G. B. McMullen. No. 1,040,559; Oct. 8; Gaz. vol. 183; p. 330.
Sugar-cane, Treating. J. H. Roberts. No. 1,040,698; Oct. 8; Gaz. vol. 183; p. 331.
Sugar-centrifugal separator. R. H. Moore. No. 1,042,710; Oct. 29; Gaz. vol. 183; p. 1156.
Sugar-making product. G. W. McMullen. No. 1,040,561; Oct. 8; Gaz. vol. 183; p. 331.
Sugar-producing product. G. B. McMullen. No. 1,040,557; Oct. 8; Gaz. vol. 183; p. 330.
Sugar-producing product. G. B. McMullen. No. 1,040,558; Oct. 8; Gaz. vol. 183; p. 330.
Sugar-shaper, Collapsible. J. W. Hamilton. No. 1,040,698; Oct. 8; Gaz. vol. 183; p. 372.
Sulfate liquor, Concentration of waste. C. Ellis. No. 1,042,[illegible]; Oct. 29; Gaz. vol. 183; p. 1092.
Sulfur-liquid Proportioner. R. Beaudoir. No. 1,039,813; Oct. 1; Gaz. vol. 183; p. 51.
Support, Sanitary. J. L. Bernstein. No. 1,041,420; Oct. 15; Gaz. vol. 183; p. 605.
Supporter for articles of apparel. A. E. Beck. No. 1,041,[illegible]; Oct. 15; Gaz. vol. 183; p. 627.
Supporter, D. H. Kerr. No. 1,041,[illegible]; Oct. 15; Gaz. vol. 183; p. 618.
Supporting device. F. Bonnet, D. Cousins, Jr., and J. M. Tyrer. No. 1,040,241; Oct. 8; Gaz. vol. 183; p. 303.
Suspension mechanism. A. Schaible. No. 1,041,[illegible]; Oct. 22; Gaz. vol. 183; p. 907.
Switch-operating device. R. S. Sloan. No. 1,042,127; Oct. 22; Gaz. vol. 183; p. 1000.
Switch-operating device. L. L. Leigh. No. 1,042,[illegible]; Oct. 29; Gaz. vol. 183; p. 1252.
Switch-operating device. J. S. Blackmire. No. 1,040,[illegible]; Oct. 8; Gaz. vol. 183; p. 351.
Switch-operating device. L. S. Cheyney. No. 1,041,[illegible]; Oct. 15; Gaz. vol. 183; p. 591.

Surgical appliance. M. B. Mighell. No. 1,041,186; Oct. 15; Gaz. vol. 133; p. 581.
Surprise and alarm device. J. L. Kittage. No. 1,041,605; Oct. 15; Gaz. vol. 133; p. 647.
Surveying instrument. W. H. McGovern. No. 1,042,248; Oct. 22; Gaz. vol. 133; p. 899.
Suspender attachment. L. R. Johnson. No. 1,040,958; Oct. 8; Gaz. vol. 133; p. 483.
Suspender-fastener. F. G. Conley. No. 1,041,494; Oct. 15; Gaz. vol. 133; p. 630.
Suspenders. M. Rosa. No. 1,040,128; Oct. 1; Gaz. vol. 133; p. 185.
Suspension. S. Martin. No. 1,042,289; Oct. 29; Gaz. vol. 133; p. 1236.
Swinging gate. W. W. Tung. No. 1,041,666; Oct. 22; Gaz. vol. 133; p. 867.
Swingletree, Spring. A. Nelson. No. 1,039,784; Oct. 1; Gaz. vol. 133; p. 39.
Switch: *See* Automatic switch; Automatic regulating-switch; Cut-off switch; Electric switch; Flame-proof switch; Ring-switch; Thermostic switch; Trolley-switch; Trolley-wire switch.
Switch-locking mechanism. T. M. Frothie. No. 1,042,168; Oct. 22; Gaz. vol. 133; p. 928.
Switch-operating mechanism. T. H. Hester. No. 1,042,435; Oct. 29; Gaz. vol. 133; p. 1061.
Switch-operating mechanism. N. B. Mitchell and J. W. Taggart, Sr. No. 1,042,512; Oct. 29; Gaz. vol. 133; p. 1102.
Switch or circuit-opener for high-potential circuits. C. C. Bedell. No. 1,041,570; Oct. 15; Gaz. vol. 133; p. 794.
Switch-throwing device. F. Hemenway. No. 1,043,163; Oct. 22; Gaz. vol. 133; p. 942.
Switching device. D. D. Gordon. No. 1,040,300; Oct. 8; Gaz. vol. 133; p. 245.
Syringe case and supporter. Combination. J. W. Allan. No. 1,039,577; Oct. 1; Gaz. vol. 133; p. 70.
Syringe, Fountain. S. B. Gee. No. 1,042,549; Oct. 29; Gaz. vol. 133; p. 1101.
Table: *See* Chiropractic table; Concentrating-table; Extension-table; Feeding-table; Folding table; Gold-saving table; Inseting-table; Physician's table; Turn-table.
Table and ironing-board, Combined. J. T. Abermeit. No. 1,040,255; Oct. 8; Gaz. vol. 133; p. 220.
Table-leg, Foldable. F. L. Whitney. No. 1,039,967; Oct. 1; Gaz. vol. 133; p. 67.
Tablet, Drawing. A. K. Cross. No. 1,041,485; Oct. 15; Gaz. vol. 133; p. 581.
Tacking device. H. O. Engberg. No. 1,041,987; Oct. 22; Gaz. vol. 133; p. 804.
Tail-stock-clamping means. S. W. Putnam, 2d. No. 1,042,969; Oct. 29; Gaz. vol. 133; p. 1089.
Tailor-ag, Basting. A. L. Merritt. No. 1,041,715; Oct. 15; Gaz. vol. 133; p. 753.
Talking-machine. J. A. Rabbitt. No. 1,041,871; Oct. 22; Gaz. vol. 133; p. 849.
Talking-machine. J. C. English. No. 1,042,098; Oct. 22; Gaz. vol. 133; p. 921.
Talking-machine sound-box. E. E. Johnson. No. 1,041,769; Oct. 22; Gaz. vol. 133; p. 820.
Talking-machines, Automatic record-changing device for. R. De Lan. No. 1,042,585; Oct. 29; Gaz. vol. 133; p. 1066.
Talking-machines, &c., Sound-box for. E. De la Rue. No. 1,040,648; Oct. 8; Gaz. vol. 133; p. 362.
Tamping-machine. H. Hancock. No. 1,040,194; Oct. 1; Gaz. vol. 133; p. 173.
Tank: *See* Incubator heater-tank; Sheet-metal tank; Sprinkler-tank.
Tank-surface-discharge apparatus. R. A. Brooks. No. 1,040,572; Oct. 8; Gaz. vol. 133; p. 424.
Tap and reamer. F. E. Boczowski. No. 1,040,610; Oct. 8; Gaz. vol. 133; p. 240.
Tap-wrench. D. J. Mermoyts. No. 1,041,883; Oct. 22; Gaz. vol. 133; p. 840.
Tape and plugs in water-mains, Device for removing and inserting. W. Hearns. No. 1,040,538; Oct. 8; Gaz. vol. 133; p. 328.
Tapping water-mains, Appliance for. F. P. Sharp. No. 1,039,837; Oct. 1; Gaz. vol. 133; p. 51.
Target-practice apparatus. H. A. Bostock and A. A. Adams. No. 1,041,868; Oct. 15; Gaz. vol. 133; p. 659.
Target, Self-scoring. M. B. Ellis. No. 1,041,208; Oct. 15; Gaz. vol. 133; p. 602.
Targets, Contact-making shuttle for self-scoring. M. B. Ellis. No. 1,041,209; Oct. 15; Gaz. vol. 133; p. 602.
Teaching geography. M. Hansen. No. 1,042,155; Oct. 29; Gaz. vol. 133; p. 1063.
Telegraph circuits, Interference-preventer for wireless. W. H. Walker. No. 1,042,856; Oct. 29; Gaz. vol. 133; p. 1206.
Telegraphic apparatus, Electric. H. G. Martin. No. 1,042,457; Oct. 29; Gaz. vol. 133; p. 1093.
Telegraphic relay. H. J. Archer. No. 1,041,718; Oct. 22; Gaz. vol. 133; p. 760.
Telephone attachment. D. W. Leggett. No. 1,042,982; Oct. 29; Gaz. vol. 133; p. 1234.
Telephone-booth. W. D. Carter. No. 1,043,042; Oct. 29; Gaz. vol. 133; p. 1273.
Telephone-booth. W. D. Carter. No. 1,043,695; Oct. 29; Gaz. vol. 133; p. 1277.
Telephone-call recorder. H. L. Warwick. No. 1,041,536; Oct. 15; Gaz. vol. 133; p. 604.
Telephone-exchange system. H. B. Corwin. No. 1,040,634; Oct. 8; Gaz. vol. 133; p. 360.
Telephone-exchange switching device. Automatic. C. E. Hard. No. 1,042,196; Oct. 22; Gaz. vol. 133; p. 918.
Telephone-exchange system. E. E. Hand. No. 1,043,160; Oct. 29; Gaz. vol. 133; p. 1158.
Telephone-exchange system. C. C. Sheldon. No. 1,040,706; Oct. 8; Gaz. vol. 133; p. 311.
Telephone-exchange system. W. D. Miller. No. 1,042,511; Oct. 29; Gaz. vol. 133; p. 1102.
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Telephone-exchange system. H. B. Corwin. No. 1,040,630; Oct. 8; Gaz. vol. 133; p. 358.
Telephone-exchange system. H. B. Corwin. No. 1,040,632; Oct. 8; Gaz. vol. 133; p. 357.
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Telephone system. C. C. Bradbury. No. 1,042,339; Oct. 29; Gaz. vol. 133; p. 1049.
Telephone-system duplex-circuit. H. B. Corwin. No. 1,040,631; Oct. 8; Gaz. vol. 133; p. 358.
Telephone system, Party-line. H. P. Clausen. No. 1,041,966; Oct. 22; Gaz. vol. 133; p. 876.
Telephone-transmitter. E. Royal. No. 1,040,637; Oct. 8; Gaz. vol. 133; p. 361.
Telephone-transmitter, Carbon-grain cells of. C. E. Hinds and J. G. Richardson. No. 1,042,772; Oct. 29; Gaz. vol. 133; p. 1139.
Telephone-transmitters, Secondary mouthpiece for. S. S. Wilkinson. No. 1,041,845; Oct. 15; Gaz. vol. 133; p. 657.
Telescope. C. A. Bain. No. 1,040,635; Oct. 8; Gaz. vol. 133; p. 361.
Telescope. A. A. Bain. No. 1,040,636; Oct. 8; Gaz. vol. 133; p. 361.
Telescope-support. W. C. Hanson. No. 1,042,339; Oct. 29; Gaz. vol. 133; p. 1049.
Tenon-machine. J. O'Connor. No. 1,041,881; Oct. 22; Gaz. vol. 133; p. 841.
Terminal box. P. Hagan. No. 1,041,473; Oct. 15; Gaz. vol. 133; p. 574.
Terminal, Connecting. A. J. Allen. No. 1,040,167; Oct. 1; Gaz. vol. 133; p. 144.
Theater-chair. W. J. and F. R. Leonard. No. 1,041,106; Oct. 15; Gaz. vol. 133; p. 552.
Theater moving platform. J. A. H. Raymond. No. 1,040,611; Oct. 8; Gaz. vol. 133; p. 378.
Theatrical apparatus. J. W. Fraber. No. 1,040,366; Oct. 8; Gaz. vol. 133; p. 242.
Theatrical appliance. R. H. Ansot. No. 1,040,169; Oct. 1; Gaz. vol. 133; p. 144.
Theatrical scenic apparatus. J. Thompson. No. 1,041,874; Oct. 15; Gaz. vol. 133; p. 651.
Thermometer casing. Clinical. F. McIntyre. No. 1,041,132; Oct. 15; Gaz. vol. 133; p. 560.
Thermostat. E. H. Gold. No. 1,042,164; Oct. 22; Gaz. vol. 133; p. 922.
Thermostatic regulating device. H. W. Comfort. No. 1,040,629; Oct. 8; Gaz. vol. 133; p. 355.
Thermostic switch. G. F. Humphreys. No. 1,042,220; Oct. 22; Gaz. vol. 133; p. 1230.
Thread-clearing device. E. Woolley. No. 1,040,657; Oct. 1; Gaz. vol. 133; p. 139.
Thread-cutting machine. A. M. Saunders and O. M. Mowat. No. 1,040,823; Oct. 8; Gaz. vol. 133; p. 340.
Thread-guide. A. A. Merritt. No. 1,041,085; Oct. 15; Gaz. vol. 133; p. 722.
Thread-guide. A. A. Merritt. No. 1,041,086; Oct. 15; Gaz. vol. 133; p. 724.
Thread-cutting machine. A. H. Adams. No. 1,040,455; Oct. 8; Gaz. vol. 133; p. 302.
Threading-tool. J. C. Smith. No. 1,041,922; Oct. 15; Gaz. vol. 133; p. 667.
Thresher-cleaner. M. Flynn. No. 1,040,301; Oct. 8; Gaz. vol. 133; p. 241.
Threshing-machine cylinder. O. C. Shaw. (Reissue.) No. 12,429; Oct. 15; Gaz. vol. 133; p. 756.
Threshing-machine feeder. R. J. Vranisford. No. 1,041,305; Oct. 15; Gaz. vol. 133; p. 594.
Thrumming-machine tassel and pole. G. W. Bendelsen. No. 1,042,536; Oct. 29; Gaz. vol. 133; p. 1094.
Thyroid glands and other organs in a pure state, Obtaining the inner secretions of the. M. Hanssaldas. No. 1,043,097; Oct. 29; Gaz. vol. 133; p. 1200.
Ticket-holder. H. H. Burhart. No. 1,040,661; Oct. 1; Gaz. vol. 133; p. 737.
Ticket-holder. H. Otter. No. 1,042,923; Oct. 29; Gaz. vol. 133; p. 1219.
Ticket or check-book holder. R. B. Caston. No. 1,042,234; Oct. 22; Gaz. vol. 133; p. 1231.
Ticket, Pay. H. S. Brewington. No. 1,041,933; Oct. 15; Gaz. vol. 133; p. 703.
Ticket, Transfer. C. H. R. Schwartz. No. 1,040,243; Oct. 1; Gaz. vol. 133; p. 191.
Tie: *See* Car-tie; Metallic tie; Rail-tie; Railway-tie.
Tie-bar compressing machine for cutting out C. O. Bunney. No. 1,041,614; Oct. 15; Gaz. vol. 133; p. 618.
Tie-cutter. H. W. Hedenig. No. 1,040,721; Oct. 8; Gaz. vol. 133; p. 314.
Tie-plate. C. A. Hedrick. No. 1,041,924; Oct. 22; Gaz. vol. 133; p. 668.
Tie-plate. E. Peterson. No. 1,040,783; Oct. 8; Gaz. vol. 133; p. 332.





Time computer and message-delivering machine. Electric. A. Von Tavaszery and F. Bauer. No. 1,041,854; Oct. 22; Gaz. vol. 133; p. 844.
Time-recorder, Watchman's. A. B. Green. No. 1,040,899; Oct. 8; Gaz. vol. 133; p. 431.
Tin, emblem, &c., for. P. L. Lamy. No. 1,040,702; Oct. 8; Gaz. vol. 133; p. 309.
Tire. H. G. Fisher. No. 1,042,020; Oct. 8; Gaz. vol. 133; p. 483.
Tire. W. G. Chipley. No. 1,041,559; Oct. 22; Gaz. vol. 133; p. 797.
Tire. A. C. Wallace. No. 1,042,175; Oct. 22; Gaz. vol. 133; p. 944.
Tire. F. Gaut. No. 1,042,450; Oct. 29; Gaz. vol. 133; p. 1061.
Tire and rim, Vehicle. E. H. Nelson. No. 1,039,796; Oct. 1; Gaz. vol. 133; p. 41.
Tire, Automobile. W. J. Woodcock. No. 1,042,625; Oct. 22; Gaz. vol. 133; p. 1008.
Tire, Automobile. C. L. Butler. No. 1,043,206; Oct. 29; Gaz. vol. 133; p. 1041.
Tire-casing. E. J. Nathan. No. 1,042,636; Oct. 22; Gaz. vol. 133; p. 1007.
Tire-chain. J. C. Stewart. No. 1,042,166; Oct. 22; Gaz. vol. 133; p. 942.
Tire-case-fitting compound and making the same. H. M. Dunn. No. 1,041,597; Oct. 15; Gaz. vol. 133; p. 671.
Tire-casing, Sectional. J. F. Trautman. No. 1,041,377; Oct. 15; Gaz. vol. 133; p. 542.
Tire, Cushion. L. Schaeffer. No. 1,040,251; Oct. 8; Gaz. vol. 133; p. 220.
Tire, Cushion. W. D. McCormack. No. 1,042,241; Oct. 29; Gaz. vol. 133; p. 1156.
Tire-filler. W. R. Buckley. No. 1,042,234; Oct. 29; Gaz. vol. 133; p. 1134.
Tire, Inflatable. [illegible] A. W. Bowe. No. 1,041,231; Oct. 15; Gaz. vol. 133; p. 599.
Tire, Inflatable. [illegible] H. M. Wehn. No. 1,040,974; Oct. 1; Gaz. vol. 133; p. 126.
Tire for vehicle-wheels, Resilient. H. R. Hidinger. No. 1,041,820; Oct. 15; Gaz. vol. 133; p. 651.
Tire for vehicles, Resilient. F. A. Carmichael. No. 1,042,547; Oct. [illegible]; Gaz. vol. 133; p. 78.
Tire-holding appliance, Detachable. E. E. Darsley. No. 1,040,843; Oct. 8; Gaz. vol. 133; p. 364.
Tire-lock. A. J. Eddy, No. 1,041,582; Oct. 15; Gaz. vol. 133; p. 750.
Tire-lock, Automobile. H. A. Ahearn. No. 1,042,577; Oct. 29; Gaz. vol. 133; p. 1089.
Tire-making machine. L. D. Crosby. No. 1,042,669; Oct. 29; Gaz. vol. 133; p. 1127.
Tire, Non-skidding. J. G. Ream. No. 1,040,866; Oct. 8; Gaz. vol. 133; p. 404.
Tire, Pneumatic. M. A. Dent. No. 1,040,647; Oct. 8; Gaz. vol. 133; p. 354.
Tire-protector. E. A. Willett. No. 1,040,248; Oct. 1; Gaz. vol. 133; p. 192.
Tire-protector. J. Zimmerman. No. 1,043,157; Oct. 22; Gaz. vol. 133; p. 949.
Tire-protector. C. Syrne. No. 1,040,577; Oct. 8; Gaz. vol. 133; p. 422.
Tire-repairing case. C. Syrne. No. 1,040,578; Oct. 8; Gaz. vol. 133; p. 422.
Tire, Resilient. E. Simolins. No. 1,039,805; Oct. 1; Gaz. vol. 133; p. 44.
Tire, Resilient. C. W. Schoen. No. 1,040,422; Oct. 8; Gaz. vol. 133; p. 288.
Tire, Resilient. J. M. O'Hear. No. 1,042,892; Oct. 29; Gaz. vol. 133; p. 1117.
Tire, Spring wheel. W. B. Mallory. No. 1,041,889; Oct. 22; Gaz. vol. 133; p. 851.
Tire-tightener. T. P. Cannon. No. 1,041,026; Oct. 15; Gaz. vol. 133; p. 538.
Tire-tool. A. J. Hanson. No. 1,041,669; Oct. 15; Gaz. vol. 133; p. 722.
Tire-treating device. R. Livingston. No. 1,042,019; Oct. 22; Gaz. vol. 133; p. 954.
Tire, Vehicle-wheel. C. Van Smith. No. 1,040,471; Oct. 8; Gaz. vol. 133; p. 292.
Tires, Automatic device for blocks of. S. S. Miller. No. 1,041,139; Oct. 15; Gaz. vol. 133; p. 562.
Tires, &c., Apparatus for manufacturing rubber. R. T. Williams. No. 1,041,544; Oct. 15; Gaz. vol. 133; p. 627.
Tires, Automatic check-valve for pneumatic. F. P. Wood. No. 1,042,218; Oct. 29; Gaz. vol. 133; p. 1131.
Tobacco-drying and smoking apparatus. E. C. Mewborne. No. 1,041,817; Oct. 1; Gaz. vol. 133; p. 126.
Tongs. J. W. Bragg and A. L. King. No. 1,041,343; Oct. 15; Gaz. vol. 133; p. 594.
Tongs. [illegible] J. A. Osborn. No. 1,042,497; Oct. [illegible]; Gaz. vol. 133; p. 1078.
Tongs. [illegible] J. A. Osborn. No. 1,042,498; Oct. [illegible]; Gaz. vol. 133; p. 1078.
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Tool. Adjustable. J. W. Clapperton. No. 1,040,218; Oct. 22; Gaz. vol. 133; p. 1231.
Tool, Combination. J. Mahler. No. 1,040,554; Oct. 29; Gaz. vol. 133; p. 1234.
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Tool-holder. A. L. Hoffman. No. 1,040,[illegible]; Oct. 29; Gaz. vol. 133; p. 1049.
Tool-holder. J. Rose. No. 1,039,484; Oct. 8; Gaz. vol. 133; p. 292.
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Tool-support. J. J. [illegible]. No. 1,[illegible]; Oct. 8; Gaz. vol. 133; p. 477.
Tools to handles, Device for attaching. [illegible] Pegley and C. O. Leopold. No. 1,[illegible]; Oct. 1; Gaz. vol. 133; p. [illegible].
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Tooth, Artificial. F. Spratlings. No. 1,[illegible]; Oct. 1; Gaz. vol. 133; p. [illegible].
Toothpick-making machine. H. Hoops. No. 1,[illegible]; Oct. 15; Gaz. vol. 133; p. 549.
Torch. O. A. Bolton. No. 1,041,[illegible]; Oct. [illegible]; Gaz. vol. 133; p. 707.
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Toy. H. E. Weitzel. No. 1,040,[illegible]; Oct. 1; Gaz. vol. 133; p. 132.
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Toy. W. Sadtler. No. 1,041,077; Oct. 15; Gaz. vol. 133; p. 741.
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Toy. J. F. Hofer. No. 1,042,[illegible]; Oct. 29; Gaz. vol. 133; p. 1141.
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Traction-gauge for cultivators. H. P. [illegible]. No. 1,041,101; Oct. 15; Gaz. vol. 133; p. 572.
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Tractor. A. Miller. No. 1,041,537; Oct. 22; Gaz. vol. 133; p. 804.
Tractor-driving mechanism. A. Hovland. No. 1,041,[illegible]; Oct. 15; Gaz. vol. 133; p. 644.
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Trample. D. W. Brunton. No. 1,041,[illegible]; Oct. 22; Gaz. vol. 133; p. 874.
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Transom-lifter. H. Osborne. No. 1,040,[illegible]; Oct. [illegible]; Gaz. vol. 133; p. 324.
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Trolley. C. A. Lansberg. No. 1,039,978; Oct. 1; Gaz. vol. 183; p. 102.
Trolley. H. Shaffert. No. 1,040,739; Oct. 8; Gaz. vol. 183; p. 411.
Trolley. C. Pratt. No. 1,041,185; Oct. 15; Gaz. vol. 183; p. 597.
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Trolley catcher and replacer. W. J. Scrimshaw. No. 1,042,153; Oct. 22; Gaz. vol. 183; p. 862.
Trolley-guard. S. C. Distefano. No. 1,040,804; Oct. 8; Gaz. vol. 183; p. 447.
Trolley-guard. W. R. Daggett. No. 1,041,437; Oct. 15; Gaz. vol. 183; p. 631.
Trolley-retriever. J. R. Richetts. No. 1,041,249; Oct. 15; Gaz. vol. 183; p. 623.
Trolley-switch and crossover, Overhead. W. M. Simpson. No. 1,042,615; Oct. 29; Gaz. vol. 183; p. 1123.
Trolley-switch mechanism. O. H. West. No. 1,041,929; Oct. 22; Gaz. vol. 183; p. 805.
Trolley-wheel. H. Holland. No. 1,040,880; Oct. 8; Gaz. vol. 183; p. 377.
Trolley-wheel. C. E. Smith. No. 1,042,492; Oct. 29; Gaz. vol. 183; p. 1062.
Trolley-wheel retainer. J. H. Finch, Jr. No. 1,039,918; Oct. 1; Gaz. vol. 183; p. 83.
Trolley-wire switch or frog. J. Kirby. No. 1,040,212; Oct. 1; Gaz. vol. 183; p. 182.
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Trough or open flume. W. Lennon. No. 1,042,239; Oct. 22; Gaz. vol. 183; p. 967.
Trousers. A. Page. No. 1,040,747; Oct. 8; Gaz. vol. 183; p. 398.
Truck-bolster. F. S. Dunham and J. W. Greenough. No. 1,042,207; Oct. 22; Gaz. vol. 183; p. 956.
Truck, Car. F. L. Barber and E. W. Webb. No. 1,039,855; Oct. 1; Gaz. vol. 183; p. 72.
Truck, Car. G. Komarek. No. 1,042,124; Oct. 22; Gaz. vol. 183; p. 929.
Truck, Logging. A. Alexander. No. 1,043,633; Oct. 29; Gaz. vol. 183; p. 1272.
Truck, Lumber. J. A. McGarry. No. 1,041,319; Oct. 15; Gaz. vol. 183; p. 624.
Truck, Motor. G. B. Francis and B. H. Smith. No. 1,042,375; Oct. 22; Gaz. vol. 183; p. 996.
Truck, Vehicle. H. G. Schreiber. No. 1,040,425; Oct. 8; Gaz. vol. 183; p. 286.
Trunks, Garment-emptying attachment for. M. A. McKim. No. 1,041,836; Oct. 22; Gaz. vol. 183; p. 833.
Tub: *See* Bath-tub; Mixing-tub; Washtub.
Tube: *See* Collar-tube; X-ray tube.
Tube cover. Collapsible. J. L. Stichter. No. 1,042,050; Oct. 22; Gaz. vol. 183; p. 905.
Tube-scraper. H. J. Thorsen. No. 1,042,841; Oct. 29; Gaz. vol. 183; p. 1202.
Tube-top, S. W. McKillop. No. 1,039,963; Oct. 1; Gaz. vol. 183; p. 104.
Tube-winding machine. W. T. Wilson and A. R. Starr. No. 1,042,561; Oct. 29; Gaz. vol. 183; p. 1211.
Tubes, Making seamless. J. W. Offutt. No. 1,040,569; Oct. 8; Gaz. vol. 183; p. 324.
Tubes, Manufacture of. O. Briede. (Reissue.) No. 13,473; Oct. 8; Gaz. vol. 183; p. 475.
Tubes, Method of and apparatus for forming Sanitie. N. R. Harter. No. 1,042,562; Oct. 29; Gaz. vol. 183; p. 1102.
Tubing, Manufacture of. P. Patterson. No. 1,042,593; Oct. 29; Gaz. vol. 183; p. 1117.
Tubing or casing spear. E. C. Glines and H. A. Stier. No. 1,041,268; Oct. 15; Gaz. vol. 183; p. 602.
Tuning device. G. B. Brooks. No. 1,041,423; Oct. 15; Gaz. vol. 183; p. 626.
Tunnel. E. E. Stuart. No. 1,040,811; Oct. 8; Gaz. vol. 183; p. 418.
Tunnel-furnace. A. H. Cowles. No. 1,040,976; Oct. 8; Gaz. vol. 183; p. 474.
Tunnel-kiln. E. E. Sutcliffe. No. 1,042,725; Oct. 29; Gaz. vol. 183; p. 1164.
Tunneling-machine. L. E. Rogers. No. 1,039,939; Oct. 1; Gaz. vol. 183; p. 47.
Turbine. W. Anderson. No. 1,041,863; Oct. 15; Gaz. vol. 183; p. 702.
Turbine-blading. H. Guyer. No. 1,041,909; Oct. 15; Gaz. vol. 183; p. 696.
Turbine-driven hollow-faced pumps, Control of steam-. C. E. Lang. No. 1,041,498; Oct. 15; Gaz. vol. 183; p. 636.
Turbine, Rotary-fluid. J. C. Loewenstein and L. H. Dyer. No. 1,041,121; Oct. 15; Gaz. vol. 183; p. 584.
Turbine, Rotary-fluid. S. J. Loewenstein and L. H. Dyer. No. 1,041,120; Oct. 15; Gaz. vol. 183; p. 584.
Turbine, Steam-. F. Rasmussen. No. 1,040,147; Oct. 1; Gaz. vol. 182; p. 992.
Turbine, Steam-. W. B. Snow. No. 1,042,626; Oct. 29; Gaz. vol. 183; p. 1123.
Turbine, Steam-and. C. D. H. Bentley. No. 1,042,571; Oct. 29; Gaz. vol. 183; p. 1102.
Turbine, Steam-and. P. H. Rice. No. 1,041,513; Oct. 15; Gaz. vol. 183; p. 636.
Turbines, Cylinder and guide bearing for. E. H. Lake. No. 1,041,512; Oct. 15; Gaz. vol. 183; p. 636.
Turbines, Device for preventing the need of water-. A. Rasmussen. No. 1,041,859; Oct. 15; Gaz. vol. 183; p. 634.
Turbines, Manufacturing vane-rings for gas or steam. E. Lysaught. No. 1,042,268; Oct. 22; Gaz. vol. 183; p. 1000.
Turn-table. A. C. Brisbane and L. D. Fletcher. No. 1,041,511; Oct. 8; Gaz. vol. 183; p. 450.
Turpentine-cups. W. O. Daly. No. 1,040,980; Oct. 8; Gaz. vol. 183; p. 440.
Turpentine-box. F. W. Dock. No. 1,040,527; Oct. 8; Gaz. vol. 183; p. 319.
Turret indexing and locking mechanism. E. M. W. Hansen and E. Ingerhman. No. 1,042,691; Oct. 22; Gaz. vol. 183; p. 880.
Twine holder, Wrapping. D. D. Hinsenger. No. 1,040,740; Oct. 8; Gaz. vol. 183; p. 398.
Twine-reel. F. R. Sawyer. No. 1,039,930; Oct. 1; Gaz. vol. 183; p. 51.
Twisting-machine. I. L. Wolfsey. No. 1,039,976; Oct. 1; Gaz. vol. 183; p. 69.
Type-bar pivot. R. Endemann. No. 1,040,068; Oct. 8; Gaz. vol. 183; p. 309.
Type-blocks, Holder for changeable. J. H. Matthews. No. 1,041,047; Oct. 15; Gaz. vol. 183; p. 730.
Type casting and composing machine. F. Schimmel. No. 1,042,230; Oct. 22; Gaz. vol. 183; p. 961.
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Type casting and composing machines, Spacing mechanism for. F. H. Pierpont. No. 1,042,476; Oct. 29; Gaz. vol. 183; p. 1076.
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Type-writer action. J. Alexander. No. 1,041,580; Oct. 15; Gaz. vol. 183; p. 700.
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Type-writer and other key-controlled machine. J. T. Scheaff. No. 1,040,584; Oct. 8; Gaz. vol. 183; p. 340.
Type-writer attachment. L. Lamarque. No. 1,041,491; Oct. 15; Gaz. vol. 183; p. 670.
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Type-writer carriage-feed. J. Alexander. No. 1,041,585; Oct. 15; Gaz. vol. 183; p. 700.
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Type-writer key. W. D. Sommerville. No. 1,041,696; Oct. 15; Gaz. vol. 183; p. 748.
Type-writer ribbon mechanism. H. A. Featherup. No. 1,039,920; Oct. 1; Gaz. vol. 183; p. 83.
Type-writing ribbon-spool mechanism. C. Spiro. No. 1,041,154; Oct. 15; Gaz. vol. 183; p. 577.
Type-writer tabulator. J. B. Hammond. No. 1,041,071; Oct. 15; Gaz. vol. 183; p. 530.
Type-writing and other key-actuated machine. J. T. Scheaff. No. 1,040,583; Oct. 8; Gaz. vol. 183; p. 340.
Type-writing machine. A. W. Smith. No. 1,040,042; Oct. 1; Gaz. vol. 183; p. 124.
Type-writing machine. H. A. Carhart. No. 1,040,272; Oct. 8; Gaz. vol. 183; p. 231.
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Type-writing machine. M. W. Pool. No. 1,040,465; Oct. 8; Gaz. vol. 183; p. 276.
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Umbrella-carrier. O. M. Robbeyer. No. 1,041,577; Oct. 15; Gaz. vol. 183; p. 700.
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Umbrella, Folding. J. Arnold. No. 1,042,885; Oct. 29; Gaz. vol. 183; p. 1182.
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Undergarment. J. Bergenstein and M. Kanzin. No. 1,042,290; Oct. 22; Gaz. vol. 183; p. 1141.
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Upholstering-machine. G. B. Brisk. No. 1,042,643; Oct. 29; Gaz. vol. 183; p. 1153.
Upholstery-spring-assembling device. J. A. Davis. No. 1,039,946; Oct. 1; Gaz. vol. 183; p. 88.
Vacuum-cleaner. J. Thelen. No. 1,042,055; Oct. 22; Gaz. vol. 183; p. 906.
Vacuum cleaning device. A. R. Moorhead. No. 1,042,711; Oct. 29; Gaz. vol. 183; p. 1162.
Vacuum-creating apparatus. M. F. Coyle. No. 1,040,641; Oct. 8; Gaz. vol. 183; p. 363.
Vacuum-gas engine. C. A. Emmana. No. 1,041,726; Oct. 22; Gaz. vol. 183; p. 792.
Vacuum-producer. W. L. King. No. 1,041,634; Oct. 15; Gaz. vol. 183; p. 725.
Vacuum-receiver. G. C. Venzum. No. 1,041,263; Oct. 15; Gaz. vol. 183; p. 613.
Valve. G. B. Richert. No. 1,039,934; Oct. 1; Gaz. vol. 183; p. 49.
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Valve. L. Pennington and W. H. Woodward. No. 1,041,427; Oct. 15; Gaz. vol. 183; p. 746.
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Valve and starter, Compound. C. C. Roth. No. 1,040,706; Oct. 8; Gaz. vol. 183; p. 404.
Valve, Automatic. S. Dulda. No. 1,041,748; Oct. 22; Gaz. vol. 183; p. 809.
Valve, Automatic cut-off. P. Karnasos. No. 1,042,587; Oct. 29; Gaz. vol. 183; p. 1104.
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Valve for compressed-air motors. A. E. Moorhead. No. 1,042,712; Oct. 29; Gaz. vol. 183; p. 1162.
Valve for feeding-boxes, Ball. W. Lauer. No. 1,041,624; Oct. 22; Gaz. vol. 183; p. 820.
Valve for feeding-boxes, Slide. J. J. Meyer. No. 1,042,295; Oct. 22; Gaz. vol. 183; p. 1047.
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Valve for gas-ranges. C. E. Miller. No. 1,040,976; Oct. 8; Gaz. vol. 183; p. 398.
Valve for hot-water-circulating systems, Pressure controlling and relief. G. L. Sutton. No. 1,042,827; Oct. 29; Gaz. vol. 183; p. 1043.
Valve for internal-combustion engines, Fuel-admission. A. R. Breese. No. 1,042,870; Oct. 22; Gaz. vol. 183; p. 912.
Valve for multiple-cylinder engines, Rotary. G. R. Bowen. No. 1,041,867; Oct. 22; Gaz. vol. 183; p. 672.
Valve for radiators, Air-. F. W. Leytheuser. No. 1,042,012; Oct. 22; Gaz. vol. 183; p. 902.
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Valve for steam-heating systems, Water and air relief. W. W. Morgan and J. L. Pitts. No. 1,041,144; Oct. 15; Gaz. vol. 183; p. 583.
Valve for tanks, Float-. L. A. Cornelius. No. 1,041,746; Oct. 22; Gaz. vol. 183; p. 809.
Valve, Gas-regulating. A. C. Yost. No. 1,042,879; Oct. 29; Gaz. vol. 183; p. 1044.
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Valve-gear for compressor motors, Governing. C. A. Dawley. No. 1,042,554; Oct. 29; Gaz. vol. 183; p. 1094.
Valve gear, Reing. C. F. Silvestis. No. 1,039,914; Oct. 1; Gaz. vol. 183; p. 91.
Valve grinding and fitting machine. S. H. Shields and W. R. Wise. No. 1,042,514; Oct. 29; Gaz. vol. 183; p. 1126.
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Valve, Hydrostatic relief. J. Gaul. No. 1,042,[illegible]; Oct. 8; Gaz. vol. 183; p. 344.
Valve, Intermittent-motion. B. W. Barnes. No. 1,040,811; Oct. 8; Gaz. vol. 183; p. 344.
Valve mechanism. H. Hamilton. No. 1,042,183; Gaz. vol. 183; p. 952.
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Valve operating and reversing mechanism for engine worked by compressible motive fluids, Distributing. A. Rugman. No. 1,039,[illegible]; Oct. 1; Gaz. vol. 183; p. 51.
Valve or cover for trains. R. H. Moore. No. 1,040,[illegible]; Oct. 8; Gaz. vol. 183; p. 392.
Valve, Reducing-. A. A. Schnell. No. 1,040,807; Oct. 8; Gaz. vol. 183; p. 417.
Valve, Reversing and automatic-closing. J. L. Gish. No. 1,042,[illegible]; Oct. 29; Gaz. vol. 183; p. 1164.
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Valve-regulating mechanism. W. H. Hammond. No. 1,041,272; Oct. 15; Gaz. vol. 183; p. 607.
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Valve, Rotatable pump-. H. H. Riley. No. 1,041,185; Oct. 15; Gaz. vol. 183; p. 571.
Valve, Safety. G. L. Berningame and P. P. Monnet. No. 1,039,896; Oct. 1; Gaz. vol. 183; p. 6.
Valve-seat. F. Anderson. No. 1,041,945; Oct. 22; Gaz. vol. 183; p. 870.
Valve, Steam, air, and water trap. F. W. Leytheuser. No. 1,042,011; Oct. 22; Gaz. vol. 183; p. 902.
Valve, Triple. W. C. Webster, J. I. and H. A. Lacy. No. 1,040,070; Oct. 1; Gaz. vol. 183; p. 124.
Vapor, Instrument for the characteristics of. T. M. Gardner. No. 1,042,782; Oct. 29; Gaz. vol. 183; p. 1158.
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Vapor-rectifier and manufacture of same. J. L. B. Hayden. No. 1,041,076; Oct. 15; Gaz. vol. 183; p. 541.
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Vaults, safes, &c., Electrothermostatic lining for. J. P. Williams and H. Huhn. No. 1,041,365; Oct. 15; Gaz. vol. 183; p. 643.
Vegetable-grinding machine. V. and J. V. Albert. No. 1,042,184; Oct. 22; Gaz. vol. 183; p. 943.
Vehicle automatic speed control, Motor-. H. F. Gruss. No. 1,040,169; Oct. 1; Gaz. vol. 183; p. 173.
Vehicle-brake. W. C. Cooper. No. 1,040,515; Oct. 8; Gaz. vol. 183; p. 315.
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Vehicle brake, Automatic motor-. A. Shadlefski. No. 1,040,244; Oct. 1; Gaz. vol. 183; p. 191.
Vehicle, Electrically-propelled. H. W. Leonard. No. 1,042,[illegible]; Oct. 29; Gaz. vol. 183; p. 1164.
Vehicle-fender. W. McDuffey. No. 1,041,318; Oct. 15; Gaz. vol. 183; p. 623.
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Vehicle-jack. E. F. Liddon. No. 1,040,228; Oct. 1; Gaz. vol. 183; p. 186.
Vehicle-lock. E. M. Bishop. No. 1,042,875; Oct. 29; Gaz. vol. 183; p. 1216.
Vehicle, Monotrack-. P. Schilowsky. No. 1,041,629; Oct. 15; Gaz. vol. 183; p. 762.
Vehicle rear indicator. W. H. Sammons. No. 1,040,771; Oct. 8; Gaz. vol. 183; p. 406.
Vehicle road-wheel. W. Wright. No. 1,042,743; Oct. 29; Gaz. vol. 183; p. 1170.
Vehicle shock-absorber. R. H. Hart. No. 1,041,276; Oct. 15; Gaz. vol. 183; p. 609.
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Vehicle top-rail. R. C. Rankin. No. 1,042,969; Oct. 29; Gaz. vol. 183; p. 1245.
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Vehicle wheel-shaft. C. M. Wright. No. 1,042,896; Oct. 29; Gaz. vol. 183; p. 1[illegible].

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Vehicle, Elastic connection for, H. Bramble. No. 1,041,497; Oct. 15; Gen. vol. 133; p. 634.

Vehicle, Electric car-starting and speed-regulating apparatus for, E. D. Bentley. No. 1,041,507; Oct. 15; Gen. vol. 133; p. 640.

Vehicle, Fifth-wheel-draft attachment for, H. Goodman. No. 1,040,940; Oct. 8; Gen. vol. 133; p. 479.

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Vendor, Coupon, J. A. Fiske. No. 1,040,709; Oct. 1; Gen. vol. 133; p. 44.

Vending and locking machine, Combined, F. Whiting. No. 1,040,977; Oct. 1; Gen. vol. 133; p. 71.

Vending-machine, J. A. Neal. No. 1,042,254; Oct. 22; Gen. vol. 133; p. 971.

Vending-machine, R. L. W. Cox and H. T. Worden. No. 1,042,769; Oct. 29; Gen. vol. 133; p. 1170.

Vending-machine, Coin-controlled, F. O. Lenz. No. 1,039,970; Oct. 1; Gen. vol. 133; p. 100.

Ventilator: *See* Wind-operated ventilator.

Ventilator, J. M. Cohen. No. 1,042,338; Oct. 29; Gen. vol. 133; p. 1047.

Ventilator, W. J. Lindemeyer. No. 1,042,575; Oct. 29; Gen. vol. 133; p. 1111.

Ventilator and draft-regulator, W. P. Randall. No. 1,042,630; Oct. 29; Gen. vol. 133; p. 1126.

Vessel-raising apparatus, Sunken, J. and J. Grant, Jr. No. 1,041,868; Oct. 22; Gen. vol. 133; p. 897.

Veterinary instrument, A. Olsen. No. 1,040,954; Oct. 8; Gen. vol. 133; p. 373.

Vise clipper, Sweet-potato, J. F. Miller. No. 1,040,284; Oct. 1; Gen. vol. 133; p. 167.

Violin, R. G. Shaw. No. 1,042,227; Oct. 22; Gen. vol. 133; p. 962.

Violin, G. J. Junker. No. 1,042,015; Oct. 29; Gen. vol. 133; p. 1068.

Violin-bridge, T. Harding. No. 1,041,465; Oct. 15; Gen. vol. 133; p. 671.

Violin, Tuning-fly-wheel device for automatic, J. Western. No. 1,042,518; Oct. 29; Gen. vol. 133; p. 1084.

Vise, &c., Combination pipe, O. Amborn. No. 1,040,906; Oct. 8; Gen. vol. 133; p. 347.

Vise, Tilting, P. A. Schulz. No. 1,042,511; Oct. 29; Gen. vol. 133; p. 1134.

Voltage compensating and regulating means, P. O. Kellogg and F. B. Silsbee. No. 1,041,485; Oct. 15; Gen. vol. 133; p. 677.

Voltmeter, Electrostatic, J. C. Hubbard. No. 1,042,449; Oct. 29; Gen. vol. 133; p. 1018.

Wagon-body-handling appliance, J. M. Stanton. No. 1,040,177; Oct. 1; Gen. vol. 133; p. 109.

Wagon-box, J. H. Fields. No. 1,041,621; Oct. 29; Gen. vol. 133; p. 1142.

Wagon, Dump, S. Miller. No. 1,040,735; Oct. 8; Gen. vol. 133; p. 361.

Wagon, Dumping, R. M. White. No. 1,042,262; Oct. 22; Gen. vol. 133; p. 967.

Waist, M. and S. M. Bothwick. No. 1,042,045; Oct. 22; Gen. vol. 133; p. 962.

Wall-boxes, Expansion closure in, J. M. C. Fuhman. No. 1,039,723; Oct. 1; Gen. vol. 133; p. 12.

Warm-air furnace, J. V. Duling. No. 1,042,660; Oct. 29; Gen. vol. 133; p. 1157.

Washer: *See* Dish-washer.

Washing machine, &c., Device for, F. Steinen. No. 1,040,420; Oct. 8; Gen. vol. 133; p. 341.

Washing machine, C. Bahnsen and H. Scheer. No. 1,042,342; Oct. 29; Gen. vol. 133; p. 1048.

Washing-machine, P. McGuerman. No. 1,042,370; Oct. 8; Gen. vol. 133; p. 264.

Washing-machine, C. Graham. No. 1,041,837; Oct. 15; Gen. vol. 133; p. 837.

Washing-machine, J. H. Hodson. No. 1,041,790; Oct. 22; Gen. vol. 133; p. 816.

Washing-machine, G. T. Reddie. No. 1,042,251; Oct. 29; Gen. vol. 133; p. 1041.

Washing-machine gearing, A. H. Cretting. No. 1,040,827; Oct. 8; Gen. vol. 133; p. 326.

Washing-machine mechanical movement, W. B. Wear. No. 1,042,553; Oct. 29; Gen. vol. 133; p. 1087.

Washtub, J. J. Reilly. No. 1,040,950; Oct. 1; Gen. vol. 133; p. 46.

Watch-movement, G. Potting. No. 1,041,559; Oct. 15; Gen. vol. 133; p. 716.

Watches, Device for indicating the apparatus of, E. Schell. No. 1,042,097; Oct. 29; Gen. vol. 133; p. 1044.

Water and sand-gate, H. Davey. No. 1,040,159; Oct. 1; Gen. vol. 133; p. 104.

Water-closet, Pneumatic, J. Ashford and S. Leggett. No. 1,040,111; Oct. 1; Gen. vol. 133; p. 148.

Water-closet, G. Redd and J. H. Gearvell. No. 1,042,585; Oct. 29; Gen. vol. 133; p. 1219.

Water-closet apparatus, J. H. Gearvell. No. 1,041,778; Oct. 22; Gen. vol. 133; p. 812.

Water-closet apparatus, R. Delaunay. No. 1,042,411; Oct. 29; Gen. vol. 133; p. 1093.

Water-closet apparatus, Reversible electric, J. A. Osborn. No. 1,042,250; Oct. 29; Gen. vol. 133; p. 1073.

Water-closet machine, Electric chain, A. F. Maxwell and C. H. Stephens. No. 1,040,709; Oct. 8; Gen. vol. 133; p. 342.

Water-closet machine, Motor, F. W. Elliot. No. 1,041,595; Oct. 15; Gen. vol. 133; p. 684.

Water-closet, Material to line sewage joints in. J. A. Auth. No. 1,040,951; Oct. 8; Gen. vol. 133; p. 371.

Water-closet operator, H. J. Honeyman. No. 1,040,552; Oct. 1; Gen. vol. 133; p. 124.

Water-closet operating device, J. W. Sheridan. No. 1,041,[illegible]; Oct. 15; Gen. vol. 133; p. 684.

Water-closet, Means for setting R. M. Galbraith. No. 1,041,[illegible]; Oct. 15; Gen. vol. 133; p. 684.

Water-closet, W. C. Gemmell. No. 1,041,770; Oct. 22; Gen. vol. 133; p. 809.

Water-closet, Spring-operated cut-off for, Sterne. No. 1,042,[illegible]; Oct. 29; Gen. vol. 133; p. 1044.

Water-closet, Spring-operating mechanism for, L. W. Potter. No. 1,041,[illegible]; Oct. 15; Gen. vol. 133; p. 684.

Water-closet, W. Stevenson. No. 1,041,[illegible]; Oct. 8; Gen. vol. 133; p. 347

# ALPHABETICAL LIST OF DESIGNS.


Anesthetic-administering apparatus, Frame or stand for. A. C. Clark. No. 43,135; Oct. 29; Gaz. vol. 183; p. 1281.
Automobile-body. A. P. Brush. No. 43,125; Oct. 15; Gaz. vol. 183; p. 760.
Automobile-horn. G. V. P. Lansing. No. 43,061; Oct. 1; Gaz. vol. 183; p. 202.
Automobile-horn. A. A. Kent. No. 43,177; Oct. 22; Gaz. vol. 183; p. 1013.
Automobile-horn. G. V. P. Lansing. No. 43,195; Oct. 29; Gaz. vol. 183; p. 1282.
Badge. L. E. Sorensen. No. 43,197; Oct. 15; Gaz. vol. 183; p. 764.
Badge. L. E. Sorensen. No. 43,207; Oct. 29; Gaz. vol. 183; p. 1283.
Badge, charm, or similar article. G. W. Ball. No. 43,175; Oct. 22; Gaz. vol. 183; p. 1011.
Badge, cushion, or similar article. R. C. Baird. No. 43,160; Oct. 8; Gaz. vol. 183; p. 490.
Basket. A. B. Van Riper. No. 43,170; Oct. 15; Gaz. vol. 183; p. 765.
Basket. G. A. Barthel. No. 43,101; Oct. 8; Gaz. vol. 183; p. 490.
Bicycle-frame. E. J. Lees. No. 43,083; Oct. 1; Gaz. vol. 183; p. 203.
Binnacle. W. Rountree. No. 43,094; Oct. 1; Gaz. vol. 183; p. 206.
Bottle. G. E. West. No. 43,178; Oct. 15; Gaz. vol. 183; p. 766.
Bottle Fuser. G. H. Farnlow. No. 43,179; Oct. 22; Gaz. vol. 183; p. 1012.
Brush. R. A. White. No. 43,174; Oct. 15; Gaz. vol. 183; p. 764.
Brush, Military hair. J. H. Scherer. Nos. 43,180–1; Oct. 22; Gaz. vol. 183; pp. 1012–13.
Brush, Toilet. J. H. Scherer. No. 43,182; Oct. 22; Gaz. vol. 183; p. 1013.
Cabinet. J. Rubina. Nos. 43,160–3; Oct. 15; Gaz. vol. 183; pp. 763–4.
Cabinet, Toilet. C. J. Washman. No. 43,172; Oct. 15; Gaz. vol. 183; p. 765.
Candelabrum. L. Schepmoes. No. 43,111; Oct. 8; Gaz. vol. 183; p. 482.
Canopy. L. W. Anderson. No. 43,131; Oct. 15; Gaz. vol. 183; p. 760.
Car body, Railway. W. P. Bettendorf. No. 43,076; Oct. 1; Gaz. vol. 183; p. 202.
Carton. E. Crescet. No. 43,190; Oct. 29; Gaz. vol. 183; p. 1281.
Casket handle-plate, Burial. C. Blesch. No. 43,186; Oct. 29; Gaz. vol. 183; p. 1281.
Chair-arm. G. E. Mitchell. No. 43,152; Oct. 15; Gaz. vol. 183; p. 762.
Chair, Motor. H. W. Andrews. No. 43,077; Oct. 1; Gaz. vol. 183; p. 202.
Cigar-protector. G. B. Mahn. Nos. 43,150–1; Oct. 15; Gaz. vol. 183; pp. 761–2.
Circuit-controller Contacts. E. H. Manson. No. 43,199; Oct. 29; Gaz. vol. 183; p. 1283.
Cleaner casing, Pneumatic. J. B. Kirby. No. 43,147; Oct. 15; Gaz. vol. 183; p. 761.
Coin-deliverer-operating casing. H. J. Brandt. No. 43,124; Oct. 15; Gaz. vol. 183; p. 759.
Condiment-holder. C. E. Clemmer. No. 43,189; Oct. 29; Gaz. vol. 183; p. 1281.
Confectionery, Portable. P. W. Hoppmann. No. 43,176; Oct. 22; Gaz. vol. 183; p. 1012.
Corset. F. A. Reynolds. No. 43,206; Oct. 29; Gaz. vol. 183; p. 1284.
Crumb-scraper. L. Strassburger and C. Nelson. Nos. 43,128–9; Oct. 8; Gaz. vol. 183; p. 485.
Dish or similar article, Covered. C. H. Ziegler. No. 43,159; Oct. 8; Gaz. vol. 183; p. 488.
Display-stand. G. Walker. No. 43,171; Oct. 15; Gaz. vol. 183; p. 765.
Doll. H. M. Miner. No. 43,208; Oct. 29; Gaz. vol. 183; p. 1284.
Doll-head. L. Rees. No. 43,150; Oct. 15; Gaz. vol. 183; p. 762.
Dress-holder. L. W. Anderson. No. 43,133; Oct. 15; Gaz. vol. 183; p. 760.
Fabric, Textile. H. T. Loomis. No. 43,173; Oct. 22; Gaz. vol. 183; p. 1012.
Furniture leg, Sleeve. M. Tanzig. No. 43,169; Oct. 15; Gaz. vol. 183; p. 763.
Garter. B. J. Freeman. No. 43,135; Oct. 8; Gaz. vol. 183; p. 491.
Gas and electric light fixture, Ornamental shell for. F. W. Gehrke. No. 43,141; Oct. 15; Gaz. vol. 183; p. 760.
Glass, Plate. E. F. Chance. No. 43,187; Oct. 29; Gaz. vol. 183; p. 1281.
Globe or similar article. H. B. Watkins. Nos. 43,095–6; Oct. 1; Gaz. vol. 183; pp. 204–5.
Globe or similar article. H. B. Watkins. No. 43,097; Oct. 1; Gaz. vol. 183; p. 206.
Go-cart-frame arm-rest, Collapsible. M. B. Lloyd. No. 43,140; Oct. 15; Gaz. vol. 183; p. 761.
Go-carts, Collapsible front head for. M. B. Lloyd. No. 43,143; Oct. 15; Gaz. vol. 183; p. 761.
Handkerchief. E. M. Miner. No. 43,201; Oct. 29; Gaz. vol. 183; p. 1283.
Handle. T. F. Curley. No. 43,196; Oct. 15; Gaz. vol. 183; p. 759.
Horn, Signaling. M. S. Purple. No. 43,158; Oct. 15; Gaz. vol. 183; p. 763.
Hub cap, Wheel. J. L. Sagers. No. 43,085; Oct. 1; Gaz. vol. 183; p. 203.
Inkstand. F. A. Weeks. Nos. 43,126–8; Oct. 8; Gaz. vol. 183; p. 485.
Jar or receptacle. J. C. Eichhorn. No. 43,137; Oct. 22; Gaz. vol. 183; p. 759.
Kettle and stand. S. Sternau and C. Nelson. No. 43,123; Oct. 8; Gaz. vol. 183; p. 484.
Kettle, Reinforced. E. C. Hoffmann. No. 43,166; Oct. 8; Gaz. vol. 183; p. 481.
Knife-handle. L. P. Huey. No. 43,194; Oct. 29; Gaz. vol. 183; p. 1282.
Label-blank. E. Steffens, Jr., and H. A. Jensen. No. 43,106; Oct. 15; Gaz. vol. 183; p. 765.
Lamp. C. E. Sedley. No. 43,142; Oct. 15; Gaz. vol. 183; p. 760.
Lamp. H. A. Hawthorne. Nos. 43,143–4; Oct. 15; Gaz. vol. 183; p. 760.
Lamp. J. M. Phinney. No. 43,203; Oct. 29; Gaz. vol. 183; p. 1284.
Lamp-bowl. L. Schepmoes. No. 43,121; Oct. 8; Gaz. vol. 183; p. 484.
Lamp-fixture. L. Schepmoes. No. 43,110; Oct. 8; Gaz. vol. 183; p. 481.
Lamp fixture, Berth. L. Schepmoes. No. 43,113; Oct. 8; Gaz. vol. 183; p. 482.
Lamp fixture, Bracket. L. Schepmoes. No. 43,117; Oct. 8; Gaz. vol. 183; p. 483.
Lamp fixture, Deck. L. Schepmoes. Nos. 43,118–20; Oct. 8; Gaz. vol. 183; pp. 483–4.
Lamp fixture, Deck. L. Schepmoes. Nos. 43,165–6; Oct. 15; Gaz. vol. 183; p. 764.
Lamp, Pendent. W. S. Hamm. No. 43,193; Oct. 29; Gaz. vol. 183; p. 1282.
Lamp-post. T. Wight. No. 43,129; Oct. 8; Gaz. vol. 183; p. 486.
Level. W. Disston. Nos. 43,191–2; Oct. 29; Gaz. vol. 183; pp. 1281–2.
Light fixture, Berth. L. Schepmoes. No. 43,112; Oct. 8; Gaz. vol. 183; p. 482.
Light shade, Artificial. K. Booth. No. 43,079; Oct. 1; Gaz. vol. 183; p. 202.
Lighting-fixtures or similar articles, Shell for. H. B. Watkins. Nos. 43,093–6; Oct. 1; Gaz. vol. 183; p. 204.
Lighting-fixtures or similar articles, Shell for. H. B. Watkins. Nos. 43,096–7; Oct. 1; Gaz. vol. 183; p. 205.
Lighting-fixtures or similar articles, Shell for. H. B. Watkins. No. 43,099; Oct. 1; Gaz. vol. 183; p. 206.
Mattock. J. A. Moore. No. 43,153; Oct. 15; Gaz. vol. 183; p. 762.
Mirrors, brushes, or similar articles, Back for toilet. J. W. Farrell. Nos. 43,188–9; Oct. 15; Gaz. vol. 183; pp. 759–60.
Newspaper-stand. C. Russell. No. 43,164; Oct. 15; Gaz. vol. 183; p. 764.
Paper pattern, Imitation. I. Marin. No. 43,209; Oct. 29; Gaz. vol. 183; p. 1283.
Pen rack and tray. C. H. Numan. Nos. 43,154–5; Oct. 15; Gaz. vol. 183; p. 762.
Pendant-fixture. L. Schepmoes. Nos. 43,114–16; Oct. 8; Gaz. vol. 183; pp. 482–3.
Pin, Nurse's. M. R. Kaufmann. No. 43,167; Oct. 8; Gaz. vol. 183; p. 481.
Pencils. C. E. Randall. No. 43,204; Oct. 29; Gaz. vol. 183; p. 1284.
Rack. J. T. De Ajuria. No. 43,089; Oct. 1; Gaz. vol. 183; p. 205.
Razor blade, Safety. J. W. Leslie. No. 43,092; Oct. 1; Gaz. vol. 183; p. 205.
Seal-type, Gaseous-heated. H. E. Bandlow. No. 43,125; Oct. 15; Gaz. vol. 183; p. 1283.
Shade and curtain-pole holder, Combined. F. W. Fay. No. 43,149; Oct. 15; Gaz. vol. 183; p. 760.
Shell or similar article. H. B. Watkins. No. 43,098; Oct. 1; Gaz. vol. 183; p. 206.

Shoe ornament. M. J. and S. Parrott. No. 43,127; Oct. 15; Gen. vol. 128; p. 763.
Socket-saver. L. W. Anderson. No. 43,123; Oct. 15; Gen. vol. 128; p. 762.
Spoon, Baby. R. C. Shaver. No. 43,202; Oct. 29; Gen. vol. 128; p. 1346.
Spoon, fork, or similar article. H. H. Lehrmann. No. 43,197; Oct. 29; Gen. vol. 128; p. 1345.
Spoons, forks, or similar articles, Handle for. C. Odierna. No. 43,150; Oct. 15; Gen. vol. 128; p. 768.
Statuette. M. A. Carbary. Nos. 43,165-9; Oct. 8; Gen. vol. 128; p. 629.
Stove. S. A. Shellenberger, C. B. Carter, and W. L. Bertram. No. 43,162; Oct. 22; Gen. vol. 128; p. 1013.
Stove, R. Will. No. 43,184; Oct. 22; Gen. vol. 128; p. 1012.
Stove, Gas. L. Lebovits. No. 43,196; Oct. 29; Gen. vol. 128; p. 1345.
Telephonic transmitting-station. E. Lewis, H. W. Hall, and W. Kendrick. No. 43,190; Oct. 29; Gen. vol. 128; p. 1344.
Tool, Combination pocket. J. O. Cary. No. 43,164; Oct. 8; Gen. vol. 128; p. 630.
Trap. P. D. Hay. No. 43,145; Oct. 15; Gen. vol. 128; p. 767.
Tray, Dumb-waiter. A. J. Sanford. No. 43,169; Oct. 8; Gen. vol. 128; p. 631.
Vase. A. J. Sanford. No. 43,200; Oct. 29; Gen. vol. 128; p. 1346.
Wall-supplies. A. O. Jones. No. 43,166; Oct. 15; Gen. vol. 128; p. 761.



Adjusting Hooks. H. Stillman. No. 38,879; Oct. 15; Gen. vol. 128; p. 777.
Ale, compounds, and beverages made therefrom. The Hygeia Distilled Water Company. No. 38,887; Oct. 29; Gen. vol. 128; p. 1360.
Alterative, Remedy and. William R. Warner and Company. No. 38,880; Oct. 1; Gen. vol. 128; p. 214.
Aluminum household and kitchen utensils, Certain. The Geo. H. Bowman Co. No. 38,908; Oct. 8; Gen. vol. 128; p. 638.
Ammonia and for fertilizing, Sulphate of. South Metropolitan Gas Company. No. 38,895; Oct. 29; Gen. vol. 128; p. 1360.
Anesthetic. T. R. Cutting. No. 38,897; Oct. 29; Gen. vol. 128; p. 777.
Antipyretic antineuralgic and analgesic, Preparations constituting a. Meister, Lucius & Brüning. Nos. 38,892-4; Oct. 8; Gen. vol. 128; p. 638.
Antiseptic and deodorant. H. L. Hoag. No. 38,878; Oct. 1; Gen. vol. 128; p. 214.
Antiseptic mouth, Gums, or dental preparations. S. J. Milworth. No. 38,881; Oct. 1; Gen. vol. 128; p. 1360.
Antiseptic ointment. [illegible] Company. No. 38,875; Oct. 1; Gen. vol. 128; p. 214.
Antiseptics and [illegible]. E. Cook. No. 38,886; Oct. 22; Gen. vol. 128; p. 777.
Apricots. J. D. Hoag & Sons Incorporated. No. 38,909; Oct. 29; Gen. vol. 128; p. 1361.
Arch and ankle supports for [illegible]. Nathan Arnheim Support Co. No. 38,891; Oct. 1; Gen. vol. 128; p. 214.
Atomizers, nebulizers, and powder-blowers. The De Vilbiss Manufacturing Company. No. 38,884; Oct. 1; Gen. vol. 128; p. 215.
Automobiles. Midland Motor Co. No. 38,771; Oct. 22; Gen. vol. 128; p. 1020.
Bathing-suits. Felting & Pajton. No. 38,949; Oct. 29; Gen. vol. 128; p. 1362.
Bearings, Ball. J. Sensabaugh. No. 38,766; Oct. 15; Gen. vol. 128; p. 776.
Beer, Ginger. Co-Ban-Ton Company. No. 38,896; Oct. 29; Gen. vol. 128; p. 1360.
Beef-juice preparations. American Kitchen Products Company. No. 38,922; Oct. 29; Gen. vol. 128; p. 1361.
Beer. The Refrigerant Brewing Co. No. 38,756; Oct. 22; Gen. vol. 128; p. 1020.
Beer, black, nonintoxicating. Jos. Rank. W. W. Keeler. No. 38,738; Oct. 15; Gen. vol. 128; p. 1020.
Beer, Lager. The Gem Ale Brewery. No. 38,930; Oct. 22; Gen. vol. 128; p. 1020.
Beverages, Effervescent aperient carbonated non-alcoholic. Crown Cork Fastening & Stamp Co. No. 38,735; Oct. 22; Gen. vol. 128; p. 1020.
Biscuit. National Biscuit Company. Nos. 38,925-29; Oct. 29; Gen. vol. 128; p. 1362.
Bitters, Kardiac-nervine. Kansas Vial Proprietary Assn. H. Perkins. No. 38,886; Oct. 22; Gen. vol. 128; p. 1020.
Bitters, Compound of herbs. J. Gottschal. No. 38,872; Oct. 15; Gen. Vol. 128; p. 777.
Bitters, Stomach. Peruvian Bitters Co. No. 38,940; Oct. 29; Gen. vol. 128; p. 1362.
Blast-valve for [illegible]. C. Carter. No. 38,[illegible]; Oct. 1; Gen. Vol. 128; p. 215.
Bookbinders' [illegible]. Rand Co. No. 38,737; Oct. 22; Gen. vol. 128; p. 1020.
Boots and [illegible] of [illegible] metal or metallic wire. W. Bowden. No. 38,[illegible]; Oct. 29; Gen. vol. 128; p. 1362.
Boot and shoe [illegible]. United Shoe Machinery Company. No. 38,[illegible]; Oct. 29; Gen. vol. 128; p. 1362.
Boots and shoes, Cork and [illegible]. Bowden Wire Company. No. 38,[illegible]; Oct. 29; Gen. vol. 128; p. 1362.
Boots and shoes, [illegible] for. The Consolidated Rubber Co. No. [illegible]; Oct. 1; Gen. vol. 128; p. 1020.
Boots and shoes, [illegible] for. A. Anderson. No. 38,[illegible]; Oct. 22; Gen. vol. 128; p. 1020.
Boots and shoes, [illegible] for. Bullock & Anderson. No. [illegible]; Oct. 1; Gen. vol. 128; p. 1020.
Boots and shoes, [illegible] for. [illegible]

Cleaning preparation. Armour & Company. No. 88,547; Oct. 1; Gaz. vol. 183; p. 213.
Cloaks, outer suits, skirts, and dresses. The R B Manufacturing Company. No. 88,787; Oct. 22; Gaz. vol. 183; p. 1029.
Clothing, Certain named. Wooding & Teasdale. No. 88,819; Oct. 22; Gaz. vol. 183; p. 1030.
Clothing, Certain named articles of. The Direct Supply Co. No. 88,742; Oct. 22; Gaz. vol. 183; p. 1027.
Clothing, Certain named articles of. Nelson & Landsberg. No. 88,986; Oct. 29; Gaz. vol. 183; p. 1304.
Coats, trousers, and waistcoats. Talbot Company. No. 88,803; Oct. 22; Gaz. vol. 183; p. 1030.
Coats, vests, and pantaloons. Talbot Company. No. 88,804; Oct. 22; Gaz. vol. 183; p. 1029.
Cod-liver-extract preparations. Henry K. Wampole and Company. No. 88,945; Oct. 8; Gaz. vol. 183; p. 500.
Coffee. Johnson-Allen Coffee Co. No. 88,891; Oct. 29; Gaz. vol. 183; p. 1303.
Coffee. National Grocer Company. No. 88,864; Oct. 29; Gaz. vol. 183; p. 1304.
Coffee, Blended. St. Louis Coffee & Spice Mills. No. 88,970; Oct. 29; Gaz. vol. 183; p. 1305.
Collars. Austin Reed, Limited. No. 88,788; Oct. 22; Gaz. vol. 183; p. 1029.
Concentrator and separating tables. Ludwig Concentrator Company. No. 88,763; Oct. 22; Gaz. vol. 183; p. 1028.
Construction materials, Certain. William B. Hough Company. No. 88,680; Oct. 15; Gaz. vol. 183; p. 777.
Cookers, Fireless. The Diller Manufacturing Company. No. 88,558; Oct. 1; Gaz. vol. 183; p. 213.
Cookers, Fireless. Milks Cooker Company. No. 88,912; Oct. 29; Gaz. vol. 183; p. 1303.
Copying cloths, Letter-. Tower Manufacturing & Novelty Co. No. 88,976; Oct. 29; Gaz. vol. 183; p. 1305.
Cora and benion plaster. Aseptic Products Company. No. 88,825; Oct. 29; Gaz. vol. 183; p. 1301.
Corsets. B. Altman & Co. Nos. 88,721-3; Oct. 22; Gaz. vol. 183; p. 1027.
Corsets. Madame Irene. No. 88,758; Oct. 22; Gaz. vol. 183; p. 1028.
Corsets. The Warner Bros. Co. No. 88,812; Oct. 22; Gaz. vol. 183; p. 1029.
Corsets and brassières. Modart Corset Company. No. 88,772; Oct. 22; Gaz. vol. 183; p. 1028.
Cotton duck in the piece. J. H. Meyer & Co. No. 88,766; Oct. 22; Gaz. vol. 183; p. 1028.
Cotton fabrics in the piece. Garner Print Works & Bleachery. No. 88,747; Oct. 22; Gaz. vol. 183; p. 1027.
Cotton piece goods. Nathan & Greer Co. No. 88,777; Oct. 22; Gaz. vol. 183; p. 1028.
Cotton piece goods. T. A. Shaw and Co. No. 88,792; Oct. 22; Gaz. vol. 183; p. 1029.
Cotton piece goods, sheetings, shirtings, and drills. Suffern & Company. No. 88,860; Oct. 22; Gaz. vol. 183; p. 1029.
Couches. Presto-Couch Co. No. 88,946; Oct. 29; Gaz. vol. 183; p. 1304.
Crackers and biscuits. Perfection Biscuit Company. No. 88,945; Oct. 29; Gaz. vol. 183; p. 1304.
Cravats. J. J. Ritzer & Co. No. 88,789; Oct. 22; Gaz. vol. 183; p. 1029.
Cream and powder, shampooing preparations, &c., Face. E. L. Leifchild. No. 88,897; Oct. 29; Gaz. vol. 183; p. 1305.
Cream, Antiseptic shaving-. W. P. Quentell. No. 88,960; Oct. 29; Gaz. vol. 183; p. 1304.
Cream, Facial. C. B. Heiser. No. 88,876; Oct. 29; Gaz. vol. 183; p. 1302.
Creams, rouge, &c., Facial. Bordeaux Chemical Works. No. 88,825; Oct. 29; Gaz. vol. 183; p. 1301.
Cutlery, machinery, tools, and parts thereof, Certain named. Tampa Hardware Co. No. 88,808; Oct. 22; Gaz. vol. 183; p. 1029.
Disinfectant and germicide. The Hoffmann-La Roche Chemical Works. No. 88,678; Oct. 15; Gaz. vol. 183; p. 777.
Disinfecting means for mouth and throat. Bauer & Cie. No. 88,929; Oct. 29; Gaz. vol. 183; p. 1301.
Dredges and power-shovels. The Marion Steam Shovel Co. No. 88,630; Oct. 8; Gaz. vol. 183; p. 499.
Dry cells. National Carbon Company. Nos. 88,634-7; Oct. 8; Gaz. vol. 183; p. 499.
Egg-beaters. Berndorf Metal Works Arthur Krupp. No. 88,831; Oct. 29; Gaz. vol. 183; p. 1301.
Egg-white preparation. The Caholl Company. No. 88,880; Oct. 29; Gaz. vol. 183; p. 1301.
Eggs. California Central Creameries. No. 88,940; Oct. 29; Gaz. vol. 183; p. 1301.
Ejectors. The United Injector Company. No. 88,644; Oct. 8; Gaz. vol. 183; p. 500.
Electric batteries. Van Antwerp's Drug Corporation. No. 88,883; Oct. 29; Gaz. vol. 183; p. 1305.
Electrical apparatus and supplies, Certain. The Sumter Telephone Manufacturing Co. No. 88,660; Oct. 1; Gaz. vol. 183; p. 214.
Electrical apparatus, Certain. The Hart & Hegeman Manufacturing Company. No. 88,676; Oct. 15; Gaz. vol. 183; p. 777.
Electrical regulators. General Electric Company. No. 88,625; Oct. 8; Gaz. vol. 183; p. 499.
Electrical supplies, Certain. Rose Manufacturing Co. No. 88,641; Oct. 8; Gaz. vol. 183; p. 500.
Electrical tapes, paints, and varnishes, &c. Imperial Rubber Co. No. 88,628; Oct. 8; Gaz. vol. 183; p. 499.
Enamel ware, Certain named. The Enterprise Enamel Co. No. 88,619; Oct. 8; Gaz. vol. 183; p. 499.
Enamels, paints, and varnishes. H. E. Meyer. No. 88,916; Oct. 29; Gaz. vol. 183; p. 1303.
Enamels, paints, varnishes, &c. Standard Varnish Works. No. 88,709; Oct. 15; Gaz. vol. 183; p. 778.
Engines, internal-combustion. L. C. Hubbert Jr. Co. No. 88,766; Oct. 22; Gaz. vol. 183; p. 1028.
Envelopes, cuffers. Warnow-Whitmore Company. No. 88,910; Oct. 8; Gaz. vol. 183; p. 502.
Envelope-sealing machines. Mikelovitch Brothers. No. 88,911; Oct. 29; Gaz. vol. 183; p. 1302.
Feed, Stock. Thum Mills & Elevator Co. No. 88,975; Oct. 29; Gaz. vol. 183; p. 1305.
Fertilizer. Morris Fertilizer Co. No. 88,776; Oct. 22; Gaz. vol. 183; p. 1028.
Fertilizers, Mixed. Morris & Company. Nos. 88,667-96; Oct. 15; Gaz. vol. 183; p. 778.
Fertilizers. American Agricultural Chemical Company. No. 88,667; Oct. 15; Gaz. vol. 183; p. 777.
Fertilizers. Bowker Chemical Company. No. 88,662; Oct. 15; Gaz. vol. 183; p. 777.
Fertilizers. Sanderson Fertilizer & Chemical Co. No. 88,705; Oct. 15; Gaz. vol. 183; p. 778.
Films, Kinetoscopic. Lubin Manufacturing Company. No. 88,629; Oct. 8; Gaz. vol. 183; p. 499.
Fissanin in the piece, Mapped. Pemberton Company. No. 88,784; Oct. 22; Gaz. vol. 183; p. 1028.
Flour, Wheat-. Duluth-Superior Milling Company. No. 88,856; Oct. 29; Gaz. vol. 183; p. 1302.
Flour, Wheat-. Fisher Flouring Mills Company. No. 88,863; Oct. 29; Gaz. vol. 183; p. 1302.
Flour, Wheat-. The Folts Grocery & Baking Company. No. 88,888; Oct. 29; Gaz. vol. 183; p. 1302.
Flour, Wheat-. The Harter Milling Co. No. 88,874; Oct. 29; Gaz. vol. 183; p. 1302.
Flour, Wheat-. Modoc Milling & Elevator Co. No. 88,905; Oct. 29; Gaz. vol. 183; p. 1303.
Flour, Wheat-. The Portland Flouring Mills Company. No. 88,948; Oct. 29; Gaz. vol. 183; p. 1304.
Foils of aluminium or its alloys. Aluminium G. m. b. H. No. 88,822; Oct. 29; Gaz. vol. 183; p. 1301.
Food, Certain named. J. H. Merrill Co. Nos. 88,908-9; Oct. 29; Gaz. vol. 183; p. 1303.
Food for infants and invalids, Prepared. G. Delangrenier. No. 88,854; Oct. 29; Gaz. vol. 183; p. 1302.
Foods, Certain named. C. W. Austrin & Sons. No. 88,827; Oct. 29; Gaz. vol. 183; p. 1301.
Foods, Certain named. Berdan & Company. No. 88,869; Oct. 29; Gaz. vol. 183; p. 1301.
Foods, Certain named. T. Roberts & Co. No. 88,984; Oct. 29; Gaz. vol. 183; p. 1304.
Fruit-jars, Glass. Warren Fruit Jar Co. No. 88,716; Oct. 15; Gaz. vol. 183; p. 778.
Fruits, Fresh and green. The Grand Junction Fruit Growers' Association. No. 88,989; Oct. 29; Gaz. vol. 183; p. 1302.
Game of cards, Parlor. C. G. Shaw. No. 88,706; Oct. 15; Gaz. vol. 183; p. 778.
Games, Card. Parker Brothers. No. 88,700; Oct. 15; Gaz. vol. 183; p. 778.
Gasolene, benzin, naphtha, and refined oil, West India Oil Company. No. 88,807; Oct. 1; Gaz. vol. 183; p. 213.
Germicide, bactericide, and insecticide. West Disinfecting Company. No. 88,717; Oct. 15; Gaz. vol. 183; p. 779.
Gingham, Zephyr. G. A. Stafford & Company. No. 88,795; Oct. 22; Gaz. vol. 183; p. 1028.
Gloves. Lewis & Locke. No. 88,878; Oct. 1; Gaz. vol. 183; p. 214.
Gloves. B. Altman & Co. No. 88,724; Oct. 22; Gaz. vol. 183; p. 1027.
Gloves. Nape Glove Co. No. 88,821; Oct. 29; Gaz. vol. 183; p. 1303.
Go-carts and baby-carriages. S. Mosbowitz. No. 88,770; Oct. 22; Gaz. vol. 183; p. 1028.
Grease, Lubricating. Economy Lubricating Co. No. 88,561; Oct. 1; Gaz. vol. 183; p. 213.
Hair-bazars. Hyman & Oppenheim. No. 88,755; Oct. 22; Gaz. vol. 183; p. 1028.
Hair-cutting machines. Weyersberg Kirchhaum & Cie. Nos. 88,650-1; Oct. 8; Gaz. vol. 183; p. 500.
Hair in certain named forms, False. A. Simonsen. No. 88,893; Oct. 29; Gaz. vol. 183; p. 1303.
Hair-nets. A. J. Magee & Co. No. 88,746; Oct. 22; Gaz. vol. 183; p. 1027.
Hair-nets. Singer, Schaffer & Co. No. 88,788; Oct. 22; Gaz. vol. 183; p. 1029.
Hair-powder, Shampooing. Harding & Sons. No. 88,873; Oct. 29; Gaz. vol. 183; p. 1302.
Hair-tonic. F. G. Conway. No. 88,849; Oct. 29; Gaz. vol. 183; p. 1301.
Ham, bacon, and pure lard. The Hall & Dilles Pkg. Co. No. 88,835; Oct. 29; Gaz. vol. 183; p. 1302.
Hams, bacon, and lard. Carstens Packing Company. No. 88,842; Oct. 29; Gaz. vol. 183; p. 1301.
Hams, Cooked. H. Markman. No. 88,894; Oct. 29; Gaz. vol. 183; p. 1302.
Hammer and hatchet handles, Hickory. C. Stossel & Company. No. 88,643; Oct. 8; Gaz. vol. 183; p. 500.
Handkerchiefs. Carson, Pirie, Scott & Co. No. 88,783; Oct. 22; Gaz. vol. 183; p. 1027.



Hats and caps, Men's and boys' felt. Hill & Lopez Co. No. 88,730; Oct. 22; Gaz. vol. 183; p. 1028.
Heating and cooking stoves, Certain named. Champion Stove Co. No. 88,892; Oct. 1; Gaz. vol. 183; p. 213.
Horse-collars. Independent Harness Mail Company. No. 88,573; Oct. 1; Gaz. vol. 183; p. 214.
Hosiery. Gordon Hosiery Knitting Co. No. 88,732; Oct. 22; Gaz. vol. 183; p. 1028.
Hosiery. H. Sulzer and Son Company. No. 88,882; Oct. 22; Gaz. vol. 183; p. 1029.
Hosiery. C. B. Bennett. No. 88,837; Oct. 29; Gaz. vol. 183; p. 1304.
Hosiery. R. M. Townsend & Co. No. 88,977; Oct. 29; Gaz. vol. 183; p. 1305.
Hosiery, knit underwears, and sweaters, Mercerized Knitting Company. No. 88,775; Oct. 22; Gaz. vol. 183; p. 1029.
Ink, Writing and drawing. C. Hausmann. No. 88,571; Oct. 29; Gaz. vol. 1307; p. 1305.
Inks, Printing. Fuchs Aniline, Inc. No. 88,706; Oct. 15; Gaz. vol. 183; p. 778.
Kerosene. The Texas Company. No. 88,713; Oct. 15; Gaz. vol. 183; p. 779.
Kerosene. The Texas Company. No. 88,715; Oct. 15; Gaz. vol. 183; p. 779.
Kerosene. The Texas Company. No. 88,906; Oct. 22; Gaz. vol. 183; p. 1029.
Kitchen-ware, Aluminium. Rothschild, Meyers & Co. No. 88,884; Oct. 1; Gaz. vol. 183; p. 214.
Knitted underwear. Lindsay, Wagner & Sons. No. 88,762; Oct. 22; Gaz. vol. 183; p. 1028.
Knitted underwear, Cotton and woolen. Utah Knitting Co. No. 88,960; Oct. 29; Gaz. vol. 183; p. 1305.
Knives, weapons, shears, razors, scissors, and forks, Certain named. R. M. Dickinson Ltd. No. 88,617; Oct. 8; Gaz. vol. 183; p. 499.
Laxative preparations. The Alpine Pharmacal Co. No. 88,608; Oct. 8; Gaz. vol. 183; p. 499.
Leather in the piece. Albert Trostel & Sons Company. Nos. 88,891-2; Oct. 1; Gaz. vol. 183; p. 214.
Lenses, Optical. Hausmann & Co. No. 88,650; Oct. 8; Gaz. vol. 183; p. 499.
Licorice, Mexican chewing-gum and wafers, Stick-. National Licorice Company. No. 88,985; Oct. 29; Gaz. vol. 183; p. 1304.
Lifting-jacks. McKiernan-Terry Drill Company. No. 88,633; Oct. 8; Gaz. vol. 183; p. 499.
Lightning-rods and fixtures for same. Joseph Barnett & Company. No. 88,610; Oct. 8; Gaz. vol. 183; p. 499.
Liquors, Mixed spirituous. Geo. W. Torrey Co. No. 88,907; Oct. 22; Gaz. vol. 183; p. 1029.
Lotions for chapped hands or lips, &c. Central Drug Co. No. 88,614; Oct. 8; Gaz. vol. 183; p. 499.
Lubricant. The Hydrail Company. No. 88,754; Oct. 22; Gaz. vol. 183; p. 1028.
Macaroni. The Severance Macaroni Co. No. 88,960; Oct. 29; Gaz. vol. 183; p. 1304.
Macaroni, vermicelli, and spaghetti. San Antonio Macaroni Factory. No. 88,965; Oct. 29; Gaz. vol. 183; p. 1304.
Machinery and tools, Certain named. Keystone Driller Company. No. 88,566; Oct. 29; Gaz. vol. 183; p. 1305.
Magnetos. Jay D. Hall. No. 88,675; Oct. 15; Gaz. vol. 183; p. 777.
Magnetos, Monthly. G. A. Ferris. No. 88,669; Oct. 15; Gaz. vol. 183; p. 777.
Magnetos. C. E. Packard. No. 88,941; Oct. 29; Gaz. vol. 183; p. 1304.
Magnetos, Monthly. The Commercial Vehicle, Inc. No. 88,850; Oct. 29; Gaz. vol. 183; p. 1301.
Matches. Svenska Tändsticksfabriker Aktiebolag. No. 84,740; Oct. 22; Gaz. vol. 183; p. 1027.
Medicated condition-powders, Roup and poultry. Hildebrand & Keller. No. 88,677; Oct. 15; Gaz. vol. 183; p. 777.
Medicinal soaps. J. J. W. Kilbride. No. 88,576; Oct. 1; Gaz. vol. 183; p. 214.
Medicinal teals. W. E. James. No. 88,681; Oct. 15; Gaz. vol. 183; p. 778.
Medicine. A. G. Spaldingwerk. No. 88,710; Oct. 15; Gaz. vol. 183; p. 778.
Medicine for consumption. The L. M. Higbey Co. No. 88,871; Oct. 1; Gaz. vol. 183; p. 213.
Medicine for rheumatism, eczema, psoriasis, &c. C. Marsac. No. 88,621; Oct. 8; Gaz. vol. 183; p. 499.
Medicines, Certain named. P. Harrison. No. 88,570; Oct. 1; Gaz. vol. 183; p. 213.
Motors and parts thereof, Water and other fluid. Neptune Meter Company. Nos. 88,778-80; Oct. 22; Gaz. vol. 183; p. 1028.
Milk, Evaporated. P. M. Sharples Company. No. 88,791; Oct. 22; Gaz. vol. 183; p. 1029.
Mills and grain-elevating machinery, Flour, feed, and cereal. Robinson Manufacturing Company. No. 88,885; Oct. 1; Gaz. vol. 183; p. 214.
Mirror and picture frames. J. C. Lloyd & Co. No. 88,899; Oct. 29; Gaz. vol. 183; p. 1302.
Music-rolls, Perforated. Aeolian Company. No. 88,653; Oct. 15; Gaz. vol. 183; p. 777.
Napkins, Paper-. Sayer and Scrope. Hygienic Fibre Company. No. 88,881; Oct. 29; Gaz. vol. 183; p. 1303.
Napkins, Wadding. Hygienic Fibre Company. No. 88,887; Oct. 29; Gaz. vol. 183; p. 1303.
Necktles, Men's. Levy & Marcus. No. 88,926; Oct. 29; Gaz. vol. 183; p. 1303.
Nuts and bolts, metal washers, &c. Hampden Rolling Mill Co. No. 88,739; Oct. 22; Gaz. vol. 183; p. 1027.
Oil and grease, Lubricating. The Standard Lubricant Co. No. 88,795; Oct. 22; Gaz. vol. 183; p. 1028.
Oil, Cooking. The Cumming Company. No. 88,735; Oct. 22; Gaz. vol. 183; p. 1027.
Oil, Lubricating. The Texas Company. No. 88,714; Oct. 15; Gaz. vol. 183; p. 778.
Oil, Lubricating. The Texas Company. No. 88,716; Oct. 15; Gaz. vol. 183; p. 779.
Oil, Mineral. Pioneer Brothers. No. 88,667; Oct. 15; Gaz. vol. 183; p. 1301.
Oils, greases, and compounds, Lubricating. The Texas Company. Nos. 88,538-60; Oct. 29; Gaz. vol. 183; p. 1304.
Ointment. N. B. Barta. No. 88,611; Oct. 8; Gaz. vol. 183; p. 499.
Ointments. J. A. Glenn. No. 88,672; Oct. 15; Gaz. vol. 183; p. 777.
Oranges, grape-fruit, tangerines, and [illegible] & McNiel. No. 88,917; Oct. 29; Gaz. vol. 183; p. 1303.
Oranges, lemons, grape-fruit, tangerines, and [illegible] Citrus Fruit Company. Nos. 88,565-7; Oct. 29; Gaz. vol. 183; p. 1301.
Overalls. Bloomer-Heymanns Co. No. 88,742; Oct. 22; Gaz. vol. 183; p. 1027.
Overalls and overall-jackets. J. M. Montgomery. No. 88,915; Oct. 29; Gaz. vol. 183; p. 1303.
Overalls, trousers, and jumpers. Weiler Manufacturing Co. No. 88,965; Oct. 29; Gaz. vol. 183; p. 1304.
Ozonizing apparatus. American Ozone Company. No. 88,735; Oct. 22; Gaz. vol. 183; p. 1027.
Paint, Water-. The Silicate Paint Company J. B. [illegible] and Company. No. 88,566; Oct. 1; Gaz. vol. [illegible] p. 214.
Paints. Denny, Hilborn & Rosenbach. No. 88,886; Oct. 29; Gaz. vol. 183; p. 1302.
Paints and pigments, Oil-. A. E. Customs. No. 88,[illegible] Oct. 22; Gaz. vol. 183; p. 1027.
Paints, Ready-mixed. R. P. White. No. 88,816; Oct. [illegible] Gaz. vol. 183; p. 1029.
Paper and beaverboard, Straw, chip, and jute wrapping. J. D. Bowersock. No. 88,536; Oct. 29; Gaz. vol. [illegible] p. 1301.
Paper and envelops, Writing-. National Papeterie Company. No. 88,582; Oct. 1; Gaz. vol. 183; p. 214.
Paper, Writing, printing, and tissue. C. H. Barton. Nos. 88,566-6; Oct. 1; Gaz. vol. 183; p. 213.
Paralysis and nervous and mental diseases, Preparations for treating. J. D. Riedel Aktiengesellschaft. No. 88,640; Oct. 8; Gaz. vol. 183; p. 500.
Pasta, Alimentary. The Severance Macaroni Co. No. 88,961; Oct. 29; Gaz. vol. 183; p. 1305.
Pencils and copying-pencils, Lead-. E. Best. No. 88,[illegible] Oct. 15; Gaz. vol. 183; p. 777.
Perfumery. Alfred Wright Perfumer Inc. No. 88,[illegible] Oct. 29; Gaz. vol. 183; p. 1305.
Perfumes and sachet-powders. Richard Hudnut. No. 88,878; Oct. 29; Gaz. vol. 183; p. 1302.
Perfumes, sachet-powder, face-powder, &c. Richard Hudnut. No. 88,662; Oct. 29; Gaz. vol. 183; p. 1302.
Perfumes, sachet-powder, toilet waters, &c. Richard Hudnut. No. 88,661; Oct. 29; Gaz. vol. 183; p. 1302.
Perfumes, toilet waters, &c. Richard Hudnut. No. 88,677; Oct. 29; Gaz. vol. 183; p. 1302.
Perfumes, toilet waters, sachet, face, and talcum powder. Charles Holden Incorporated. No. 88,575; Oct. 29; Gaz. vol. 183; p. 1302.
Periodicals. Priscilla Publishing Co. No. 88,947; Oct. 29; Gaz. vol. 183; p. 1304.
Pharmaceutical preparation for use in certain diseases. M. Rohin. No. 88,592; Oct. 1; Gaz. vol. 183; p. 214.
Pharmaceutical preparations. G. L. Nicholas. No. 88,690; Oct. 15; Gaz. vol. 183; p. 778.
Pianos, &c., operated in connection with phonographs. Aeolian Company. No. 88,664; Oct. 15; Gaz. vol. 183; p. 777.
Picture apparatus and supplies, Moving-. Mutoscope and Biograph Company. No. 88,633; Oct. 8; Gaz. vol. 183; p. 499.
Pictures, Illustrations, stories, &c., published in Ale-Ting Service. No. 88,653; Oct. 15; Gaz. vol. 183; p. 777.
Piece goods of certain materials and mixtures thereof. The H. B. Claflin Company. No. 88,763; Oct. 22; Gaz. vol. 183; p. 1027.
Pill, Laxative. The Victoria Cream Co. No. 88,645; Oct. 8; Gaz. vol. 183; p. 500.
Pins, Toilet. Tubes, Lewis & Co. No. 88,909; Oct. 29; Gaz. vol. 183; p. 1303.
Plows and certain named parts thereof, S. E. Wiard & Sons. No. 88,917; Oct. 29; Gaz. vol. 183; p. 1303.
Powder and anti-hardening compound, Blasting. The Keystone Ring-Point Company. No. 88,705; Oct. 15; Gaz. vol. 183; p. 778.
Powder, Perfumed. J. W. Bramlett. No. 88,685; Oct. 15; Gaz. vol. 183; p. 777.
Powder, Toilet. W. M. Willett. No. 88,694; Oct. 4; Gaz. vol. 183; p. 214.
Powders and pellets, gum-tonics, and mouth-washes, Tooth. J. Sarrazin. No. 88,598; Oct. 1; Gaz. vol. 183; p. 214.
Powders, Medicated, soluble, &c., toilet. American Hygienic Company. No. 88,594; Oct. 29; Gaz. vol. 183; p. 1301.

Radiators. American Radiator Company. No. 88,658; Oct. 15; Gaz. vol. 183; p. 777.
Razors. The Rodgers Hudson Mfg. Co. No. 88,616; Oct. 8; Gaz. vol. 183; p. 468.
Razors. Wm. Rice & Co. No. 88,621; Oct. 8; Gaz. vol. 183; p. 469.
Razors, razor-blades, shaves, &c. F. A. Ginsberg & Co. No. 88,615; Oct. 8; Gaz. vol. 183; p. 468.
Reamers, cutters, and bits. P. L. Schmidt. No. 88,582; Oct. 29; Gaz. vol. 183; p. 1302.
Remedies for certain diseases. Metropolis Drug Co. No. 88,916; Oct. 29; Gaz. vol. 183; p. 1302.
Remedies for diseases of the kidney and bladder and rheumatism. Foley & Company. No. 88,659; Oct. 8; Gaz. vol. 183; p. 469.
Remedies for hog cholera and chicken cholera. L. T. Coyle. No. 88,553; Oct. 1; Gaz. vol. 183; p. 212.
Remedy for cancer. G. W. Green. No. 88,609; Oct. 1; Gaz. vol. 183; p. 212.
Remedy for catarrh. T. B. Edwards. No. 88,599; Oct. 29; Gaz. vol. 183; p. 1303.
Remedy for certain animal diseases. Farbenwerke vorm. Meister Lucius & Brüning. No. 88,668; Oct. 29; Gaz. vol. 183; p. 1302.
Remedy for certain named diseases. Manley Medicine Company. No. 88,627; Oct. 29; Gaz. vol. 183; p. 1303.
Remedy for certain skin diseases. P. B. Shields. No. 88,597; Oct. 1; Gaz. vol. 183; p. 214.
Remedy for chills and malaria and as a general tonic. J. F. Burnam. No. 88,550; Oct. 1; Gaz. vol. 183; p. 212.
Remedy for corns and bunions. W. F. Beaird. No. 88,612; Oct. 8; Gaz. vol. 183; p. 469.
Remedy for corns and bunions. The Schultz Drug Company. No. 88,707; Oct. 15; Gaz. vol. 183; p. 778.
Remedy for corns, colds, and bruises. Star Sales Company. No. 88,662; Oct. 8; Gaz. vol. 183; p. 469.
Remedy for dandruff. W. N. Hull. No. 88,627; Oct. 8; Gaz. vol. 183; p. 469.
Remedy for diabetes. H. Lätzerer. No. 88,896; Oct. 29; Gaz. vol. 183; p. 1302.
Remedy for diseases of the stomach, &c. J. J. Bochar. No. 88,661; Oct. 15; Gaz. vol. 183; p. 777.
Remedy for dyspepsia. Brown Manufacturing Co. No. 88,549; Oct. 1; Gaz. vol. 183; p. 212.
Remedy for gall-stones. M. Förster. No. 88,566; Oct. 1; Gaz. vol. 183; p. 212.
Remedy for malaria, ague, fevers, &c. Metropolitan Pharmacal Co. No. 88,660; Oct. 15; Gaz. vol. 183; p. 778.
Remedy for piles. Bell Drug Co. No. 88,586; Oct. 1; Gaz. vol. 183; p. 213.
Remedy for skin diseases. Knoll & Co. No. 88,894; Oct. 29; Gaz. vol. 183; p. 1303.
Remedy for the blood and bowels. Bussmann Mfg. Co. No. 88,703; Oct. 15; Gaz. vol. 183; p. 778.
Remedy, Rheumatic and kidney. A. H. Haney. No. 88,872; Oct. 29; Gaz. vol. 183; p. 1302.
Ribbons, Velvet. Calcombet Fels & Co. Nos. 88,734-5; Oct. 22; Gaz. vol. 183; p. 1027.
Roach and vermin exterminators. M. R. Levi. No. 88,577; Oct. 1; Gaz. vol. 183; p. 214.
Rolled oats, flaked and granulated wheat. Pacific Cereal Association. No. 88,920; Oct. 29; Gaz. vol. 183; p. 1304.
Roofing felts and papers. Barrett Manufacturing Company. No. 88,650; Oct. 15; Gaz. vol. 183; p. 777.
Rope, yarns, twines, &c. Southern Mills Corporation. No. 88,794; Oct. 22; Gaz. vol. 183; p. 1028.
Rubber bathing-caps. Parker, Stearns & Company. No. 88,783; Oct. 22; Gaz. vol. 183; p. 1028.
Rubber boots. Towner & Co. No. 88,806; Oct. 22; Gaz. vol. 183; p. 1029.
Rubber boots and shoes, overshoes, &c. Hood Rubber Company. Nos. 88,781-2; Oct. 22; Gaz. vol. 183; p. 1028.
Rubber gloves and caps. The Star Rubber Co. Nos. 88,797-9; Oct. 22; Gaz. vol. 183; p. 1029.
Salad-relish. The Provident Company. No. 88,949; Oct. 29; Gaz. vol. 183; p. 1304.
Salve. G. C. Gildea. No. 88,671; Oct. 15; Gaz. vol. 183; p. 777.
Sardines in oil. Salm, Levy Jr. & Co. No. 88,880; Oct. 29; Gaz. vol. 183; p. 1303.
Saw-case and tool-carrier. R. F. Padrick. No. 88,949; Oct. 29; Gaz. vol. 183; p. 1304.
Scientific appliances. Certain named. Optische Anstalt C. P. Goerz Aktiengesellschaft. No. 88,928; Oct. 29; Gaz. vol. 183; p. 1304.
Shade fabric, Window. Joseph Bancroft & Sons Co. No. 88,728; Oct. 22; Gaz. vol. 183; p. 1027.
Shirts. J. Leavy & Co. No. 88,764; Oct. 22; Gaz. vol. 183; p. 1028.
Shirts. Loyal Shirt Company. No. 88,765; Oct. 22; Gaz. vol. 183; p. 1028.
Shirts. Wm. R. Moore Dry Goods Co. Nos. 88,773-4; Oct. 22; Gaz. vol. 183; p. 1028.
Shirts. Westerly Shirt Co. Nos. 88,812-13; Oct. 22; Gaz. vol. 183; p. 1029.
Shirts and ladies' waists, Dress. Livingston & Lieberman. No. 88,900; Oct. 29; Gaz. vol. 183; p. 1303.
Shirts, drawers, corset-covers, and corsets. Imperial Linen Mask System Company. No. 88,746; Oct. 22; Gaz. vol. 183; p. 1027.
Shoes, Leather. A. E. Nettleton Company. No. 88,778; Oct. 22; Gaz. vol. 183; p. 1028.
Shoes, Leather. Commercial Shoe Co. No. 88,642; Oct. 8; Gaz. vol. 183; p. 469.
Shoes, Leather. Hamilton Shoe Co. No. 88,638; Oct. 8; Gaz. vol. 183; p. 469.
Shoes, Leather. Hyde & Goss. No. 88,670; Oct. 29; Gaz. vol. 183; p. 1302.
Shoes, Leather. Lewis Brothers Shoe Co. No. 88,[illegible]; Oct. 8; Gaz. vol. 183; p. 469.
Shoes, Leather. Queen Quality Shoe Co. No. 88,[illegible]; Oct. 29; Gaz. vol. 183; p. 1302.
Shoes, Leather. Rice, Stevens & Hoar Company. No. 88,[illegible]; Oct. 29; Gaz. vol. 183; p. 1302.
Shoes, Leather. Rice, Stevens and

# ALPHABETICAL LIST OF LABELS.

"Anenda." (For Insect-Destroyer.) F. J. Tuite. No. 16,590; Oct. 1; Gaz. vol. 183; p. 216.
"Be Your Own Dentist." (For Outfits for Home Dental Treatment.) S. I. Salzman. No. 16,606; Oct. 22; Gaz. vol. 183; p. 1030.
"Bon Fum." (For Cigars.) A. C. Henschel & Co. No. 16,629; Oct. 29; Gaz. vol. 183; p. 1306.
"Bersaglieri Brand." (For Cotton-Seed Oil.) The Youngstown Macaroni Co. No. 16,592; Oct. 1; Gaz. vol. 183; p. 216.
"Blunts." (For Cigars.) T. G. Thompson. No. 16,630; Oct. 29; Gaz. vol. 183; p. 1306.
"Burial Garment Display Box." (For Burial-Garments.) Frank & Lambert. No. 16,596; Oct. 8; Gaz. vol. 183; p. 501.
"C. R. C." (For Cigars.) Cardoz Remedy Company. No. 16,571; Oct. 1; Gaz. vol. 183; p. 216.
"Cedar Sweep." (For a Sweeping Compound.) The Cedar-Sweep Company. No. 16,572; Oct. 1; Gaz. vol. 183; p. 216.
"Cherry Smack." (For a Non-Alcoholic Flavoring for Drinks of Various Kinds.) S. & S. Manufacturing Company. No. 16,609; Oct. 22; Gaz. vol. 183; p. 1030.
"Chocor Individual Chews." (For Chewing-Tobacco.) International Investment Corporation. No. 16,622; Oct. 29; Gaz. vol. 183; p. 1306.
"Churngold." (For Oleomargarin.) The Ohio Butterine Co. No. 16,582; Oct. 1; Gaz. vol. 183; p. 216.
"Cigars of Quality Flor Fina." (For Cigars.) American Lithographic Company. No. 16,566; Oct. 1; Gaz. vol. 183; p. 216.
"Columbia." (For Butter.) Union Meat Company. No. 16,611; Oct. 22; Gaz. vol. 183; p. 1030.
"Dextrose." (For Foods for Infants and Invalids.) Dextrose Food Co. No. 16,616; Oct. 29; Gaz. vol. 183; p. 1306.
"Diamond Head." (For Canned Salmon.) H. Hackfeld & Co. No. 16,575; Oct. 1; Gaz. vol. 183; p. 216.
"Dubonnet Wine." (For Appetizing-Wine.) Société Anonyme Dubonnet. No. 16,610; Oct. 22; Gaz. vol. 183; p. 1030.
"El Mismo." (For Cigars.) J. M. Gonzalez. No. 16,607; Oct. 22; Gaz. vol. 183; p. 1030.
"Elegantes Quality Cigars." (For Cigars.) American Lithographic Company. No. 16,567; Oct. 1; Gaz. vol. 183; p. 216.
"'49 Camp' Gold Quartz." (For Gold Quartz.) M. A. Beals. No. 16,595; Oct. 8; Gaz. vol. 183; p. 501.
"Frank's Quality Sausage 'Made as only Frank knows how.'" (For Sausage.) L. Frank & Son Company. No. 16,574; Oct. 1; Gaz. vol. 183; p. 216.
"Fraternity Brand Sweet Potatoes." (For Sweet Potatoes.) Southern Products Company. No. 16,628; Oct. 29; Gaz. vol. 183; p. 1306.
"Havakan." (For Asparagus.) H. W. Peabody & Co. No. 16,583; Oct. 1; Gaz. vol. 183; p. 216.
"Ideal Smoke of Leisure." (For Cigars.) F. Novotny. No. 16,598; Oct. 8; Gaz. vol. 183; p. 501.
"Kamehameha." (For Canned Salmon.) H. Hackfeld & Co. No. 16,576; Oct. 1; Gaz. vol. 183; p. 216.
"Keiser Handkerchiefs The Boy's Companion." (For Handkerchiefs.) James R. Keiser Inc. No. 16,623; Oct. 29; Gaz. vol. 183; p. 1306.
"Keiser Handkerchiefs The Little Housekeeper." (For Handkerchiefs.) James R. Keiser Inc. No. 16,624; Oct. 29; Gaz. vol. 183; p. 1306.
"Kiddo Jack Kiddo Jill." (For Bread.) The United Advertising Company. No. 16,591; Oct. 1; Gaz. vol. 183; p. 216.
"Krispy Krust." (For Bread-Sticks.) A. F. Goetz. No. 16,605; Oct. 22; Gaz. vol. 183; p. 1030.
"La Flor De Anisos." (For Cigars.) E. A. & O. Weber. No. 16,600; Oct. 8; Gaz. vol. 183; p. 501.
"La Flor de Caritas." (For Cigars.) E. A. & Otto Weber. No. 16,629; Oct. 29; Gaz. vol. 183; p. 1306.
"La Flor de Lavisab." (For Cigars.) E. A. & O. Weber. No. 16,604; Oct. 8; Gaz. vol. 183; p. 501.
"Laconia Spring Water." (For Spring-Water.) F. W. Hoyt, Jr. No. 16,579; Oct. 1; Gaz. vol. 183; p. 216.
"Lagman's Panama Bouquet." (For Cigars.) C. Lagman. No. 16,581; Oct. 1; Gaz. vol. 183; p. 216.
"Little Egypt." (For Cigars.) Schmidt Co. No. 16,558; Oct. 1; Gaz. vol. 183; p. 216.
"Lujoso." (For Cigars.) E. Gonsales. No. 16,606; Oct. 22; Gaz. vol. 183; p. 1030.
"Mellamalt." (For Confections.) Malt Food Products Co. of Oswego, N. Y. No. 16,625; Oct. 29; Gaz. vol. 183; p. 1306.
"Mothers Only Hope." (For a Remedy for Croup.) A. W. Brown. No. 16,618; Oct. 29; Gaz. vol. 183; p. 1306.
"Na'-Mon-O'-Ma." (For Water.) Dixon Springs Hotel Company. No. 16,578; Oct. 1; Gaz. vol. 183; p. 216.
"Ojen." (For Ojen.) Hijos de Quirico Lopez. No. 16,621; Oct. 29; Gaz. vol. 183; p. 1306.
"Orange-Julep." (For Non-Intoxicating Beverage.) C. J. Howel. No. 16,576; Oct. 1; Gaz. vol. 183; p. 216.
"Peppermint Twist." (For Peppermint-Twist.) Hayler's. No. 16,580; Oct. 1; Gaz. vol. 183; p. 216.
"Provana." (For Cigars.) Wiedmann-St. Louis Cigar Box Co. No. 16,593; Oct. 1; Gaz. vol. 183; p. 216.
"Purina Chicken Chowder." (For Chicken Feed.) Ralston Purina Company. No. 16,584; Oct. 1; Gaz. vol. 183; p. 216.
"Quality Cigars." (For Cigars.) American Lithographic Company. No. 16,569; Oct. 1; Gaz. vol. 183; p. 216.
"Redelheim's Passover Sugar." (For Sugar.) J. Redelheim. No. 16,585; Oct. 1; Gaz. vol. 183; p. 216.
"Redsnapper Sauce." (For Sauce.) T. L. Hardin Co. No. 16,597; Oct. 8; Gaz. vol. 183; p. 501.
"Reis' Nuvo Foundations." (For Embroidery-Foundation Initials and other Foundations for Embroidery.) C. Reis & Bro. No. 16,588; Oct. 1; Gaz. vol. 183; p. 216.
"Reis' Tex Foundations." (For Embroidery-Foundation Initials and other Foundations for Embroidery.) C. Reis Bro. No. 16,599; Oct. 8; Gaz. vol. 183; p. 501.
"Sal Vegetus Rx." (For a Saline and Vegetable Cathartic Compound.) The Pharmacal Products Company. No. 16,626; Oct. 29; Gaz. vol. 183; p. 1306.
"ScotTissue Dydees." (For Paper Diapers.) Scott Paper Company. No. 16,600; Oct. 8; Gaz. vol. 183; p. 501.
"Shriner." (For Cigars.) Vilas-Hanigan Cigar Co. No. 16,602; Oct. 8; Gaz. vol. 183; p. 501.
"Southern Fibre Bath Necessities." (For Bath-Mitts and Bath-Straps.) J. H. Woodcock & Son. No. 16,594; Oct. 1; Gaz. vol. 183; p. 216.
"Spotless Cleanser." (For Scouring-Powder.) The Reynolds Corporation. No. 16,627; Oct. 29; Gaz. vol. 183; p. 1306.
"Stutts' Eas-It." (For a Remedy for Headaches.) The Eas-It Chemical Co. No. 16,617; Oct. 29; Gaz. vol. 183; p. 1306.
"Sun-ma." (For Coffee and Chicory.) Columbia Coffee Mills. No. 16,614; Oct. 29; Gaz. vol. 183; p. 1306.
"Superior Cigars." (For Cigars.) American Lithographic Company. No. 16,570; Oct. 1; Gaz. vol. 183; p. 216.
"The Davies India." (For India.) A. Davies. No. 16,615; Oct. 29; Gaz. vol. 183; p. 1306.
"The Mirror-Is-Lure." (For Mirrors.) K. Ewing. No. 16,613; Oct. 29; Gaz. vol. 183; p. 1306.
"The Old Mill Stream." (For Toilet-Paper.) The John Hoberg Co. No. 16,577; Oct. 1; Gaz. vol. 183; p. 216.
"The Waldorf Towels." (For Towels.) Scott Paper Company. No. 16,589; Oct. 1; Gaz. vol. 183; p. 216.
"Tite-Seal." (For Rubber Cements.) Hazen-Brown Company. No. 16,619; Oct. 29; Gaz. vol. 183; p. 1306.
"12 Reasons Why Nuwoave Hose Is The Best." (For Hosiery.) The Vaughan Knitting Company. No. 16,601; Oct. 8; Gaz. vol. 183; p. 501.
"Van Dyk & Co." (For Fruit and Candy Flavors.) Van Dyk & Co. No. 16,612; Oct. 22; Gaz. vol. 183; p. 1030.
"Yankee Girl Polish." (For Polish for Metals, Glassware, &c.) H. E. Rice. No. 16,587; Oct. 1; Gaz. vol. 183; p. 216.

# PRINTS.

"A Visit With The Chef." (For Wheat Breakfast Food.) Cream of Wheat Co. No. 3,119; Oct. 22; Gen. vol. 188; p. 1060.

"Candy Gobblers." (For Candy.) The Crescent Specialty Co. No. 3,113; Oct. 22; Gen. vol. 188; p. 1060.

"Delicious Sausage, Heart's Delight Form." (For Sausage.) W. H. Miner. No. 3,104; Oct. 1; Gen. vol. 188; p. 216.

"Depend on Val Dona Prescriptions." (For Val Dona Prescriptions.) Druggists' Co-Operative Association. No. 3,120; Oct. 22; Gen. vol. 188; p. 1060.

"Dr. Spencer's Stanfast Knit Underwear." (For a Combination Suit of Underwear.) Cunningham Knitting Mills. No. 3,101; Oct. 1; Gen. vol. 188; p. 216.

"Durham-Duplex Safe Razor." (For Durham-Duplex Razors and Blades.) Durham Duplex Razor Company. No. 3,102; Oct. 1; Gen. vol. 188; p. 216.

"Funny Boys and Funny Girls." (For Funny Boys and Girls.) L. H. Browning. No. 3,114; Oct. 8; Gen. vol. 188; p. 501.

"Funny Boys and Funny Girls." (For the Game of Funny Boys and Funny Girls.) L. H. Browning. No. 3,115; Oct. 8; Gen. vol. 188; p. 501.

"Harmony Soap, Odorless Soap." (For Soap.) United Drug Co. No. 3,110; Oct. 1; Gen. vol. 188; p. 216.

"Hirschman's Mayer Stretch 'Turkish Tufted Cotton Felt Mattress." (For Mattresses.) The J. C. Hirschman Co. No. 3,123; Oct. 29; Gen. vol. 188; p. 1060.

"Mac an' Reel." (For Macaroni.) The Uncle Sam's Macaroni Co. No. 3,109; Oct. 1; Gen. vol. 188; p. 216.

"Maidye-Gold Butter—Sweet as the meadow—Pure as gold." (For Butter.) Eastern Creamery Co. No. 3,099; Oct. 1; Gen. vol. 188; p. 216.

"Nyle Chocolates." (For Nyle Chocolates.) New York and London Drug Co. No. 3,105; Oct. 1; Gen. vol. 188; p. 216.

"Pennsylvania Sugar Co.'s Extra Fine Quaker Brand Granulated Sugar." (For Sugar.) Pennsylvania Sugar Company. No. 3,107; Oct. 1; Gen. vol. 188; p. 216.

"Shirley President Suspender Calendar." (For Shirley President Suspenders.) The C. A. Edgarton Mfg. Co. No. 3,108; Oct. 1; Gen. vol. 188; p. 216.

"Spring Step Rubber Heels." (For Rubber Heels.) Revere Rubber Company. No. 3,116; Oct. 8; Gen. vol. 188; p. 501.

"Stallion Puraheen Collars." (For Horse-Collars.) Brown & Bahler Co. No. 3,118; Oct. 8; Gen. vol. 188; p. 501.

"Sweetorette." (For Knit Scarfs.) Star Knitting Co. No. 3,103; Oct. 1; Gen. vol. 188; p. 216.

"Symphony Lawn Writing Paper." (For Writing-Paper.) United Drug Company. No. 3,117; Oct. 8; Gen. vol. 188; p. 501.

"That Spells It." (For Wheat Breakfast Food.) Cream of Wheat Co. No. 3,100; Oct. 1; Gen. vol. 188; p. 216.

"The Cigar that put the O. K. in smoke." (For Cigars.) The Jersey City Printing Company. No. 3,124; Oct. 29; Gen. vol. 188; p. 1060.

"The Progressive Idea." (For Butter Printing and Wrapping Machines.) H. F. Stewart. No. 3,122; Oct. 29; Gen. vol. 188; p. 1060.

"The Val Dona Girl." (For Val Dona Prescriptions.) Druggists' Co-Operative Association. No. 3,121; Oct. 22; Gen. vol. 188; p. 1060.

"Trefoz Boitana." (For Boitana.) E. H. Trefoz. No. 3,125; Oct. 29; Gen. vol. 188; p. 1060.

"20th Century Calendar." (For Slay-Tongues for Shoes.) W. R. Arnold. No. 3,112; Oct. 8; Gen. vol. 188; p. 501.

"Vac-O! For That Sensation." (For Vac-O.) The Vac Company. No. 3,111; Oct. 1; Gen. vol. 188; p. 216.

"Vesuvio." (For Alimentary Pastes.) L. Rossetto Son & Co. No. 3,106; Oct. 1; Gen. vol. 188; p. 216.

# DISCLAIMERS.

Cement, Manufacture of. C. Feltner. No. 687,524; date of patent Nov. 26, 1901; disclaimer filed Sept. 25, 1912; Gen. vol. 188; p. 222.

Shaft, Flexible. F. Schmidt and A. Grundmann. No. 960,606; date of patent Sept. 6, 1910; disclaimer filed Sept. 20, 1912; Gen. vol. 188; p. 222.

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